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ILLUSTRATIONS.

PAGE

Empyema and Bronchiectasis, Dr. Alexander James (Two Figures) 5
A Method for Anastomosing a severed Vas Deferens, Mr. J. Lynn Thomas (Two Figures) 14
Injuries and Effects of a Rifle Shot at Close Quarters, Mr. R. Ramsey (Three Figures) 16, 17
Horsedung in the Streets, Dr. Calantarients (Two Figures) ... 26
Brain Elevator and Retractor, Mr. D. Armour 26
Observations on the Pathogenesis of Gout, Dr. Chalmers Watson (Seven Figures) 69, 70
Portrait of Mr. J. Knowsley Thornton 109
Changes in the Spinal Cord in Diabetes Mellitus, Dr. R. T. Williamson (Three Figures) 122
A Somnoform Inhaler, Mr. H. E. G. Boyle 140
The Etiology of Carcinoma, Mr. Keith W. Monsarrat. Six Figures on Special Plate between ... ... 174 and 175
A Case of Rodent Ulcer treated with Radium, Mr. G. Sichel (Two Figures) 182, 183
The Leishman-Donovan Body and Tropical Splenomegaly, Sir Patrick Manson and Dr. G. C. Low (Fourteen Figures) ... 185
Suprapubic Prostatectomy, Sir T. Stoker (Three Figures) ... 229, 230, 231
Prostatic Enlargement and its Treatment by Freyer's Method, Mr. G. Barling (Fourteen Figures) 235, 236, 237
An Anatomical Criticism of the Procedure known as Total Prostatectomy, Mr. C. S. Wallace (Seventeen Figures) 239, 240, 241, 242, 243, 244
Notes on Myiasis, Captain F. S. Lelean 245
Detachment of Odontoid Process, Lieutenant L. B. Scott 247
The Convalescent Home at Osborne House (Three Figures) 255, 256, 257
Cirsoid Aneurysm of Forenead treated by Free Incision and Extirpation, Mr. Rushton Parker (Two Figures) 304, 305
The Royal Army Medical College (Four Figures) 314, 315
A Case of Vesicular Mole of Unusual Size, Mr. T. S. Jones 361
Portrait of Professor Kussmaul 375
A Case of Primary Quadruple Amputation, Dr. E. Harrison ... 430
An Indian "Snake-stone" 438
Mycosis Fungoides or Alibert's Disease, Dr. John Reid 482
Portrait of Dr. R. M. Murray 521
Recurrent Fever associated with Spirilla in the Blood in a Patient from Gibraltar, Sir Patrick Manson 538
The Humphry Museum, Cambridge 553
Plans of New Medical School Buildings at Cambridge ... 554, 555
Portrait of Sir Edward Sieveking 581
Extensive Carcinoma of the Oesophagus, Professor R. Saundby and Dr. J. T. Hewetson (Thirteen Figures) ... 589, 590, 591, 592, 593
Instrument for the Removal of Foreign Bodies from the Nose, Mr. A. Roberts 612
Splint for Transverse Fractures of the Patella, Major C. H. Johnston 612
A Portable Lamp for Laryngoscopic Purposes, Mr. E. C. Baber ... 612
Syringe, etc., for Treatment of Serious Effusions, Dr. James Barr ... 650
Apparatus for Treating Lung Disease with Thorium Nitrate, Dr. Gordon Sharp 654
Capsule Formation by Dipplococcus Pneumoniae in Culture, Dr. M. H. Gordon 659
An Ethyl Chloride Somnoform Inhaler, Mr. H. George 673
Uterine "Flag Mop," Mr. E. Solly 673
A New Uterine Forceps Applicator, Dr. P. J. Macnamara 674
Two Cases involving the Question of the Site of Impregnation, Mr. Harrison Cripps and Mr. Herbert Williamson (Two Figures) ... 713
A Pessary for Prolapsus Uteri, Mr. Derham-Reid 790
Royal Army Medical College (Mess and Officers Quarters). Block from the north-east 802
Portrait of Deputy Surgeon-General Cayley 811
Some Experiments on Enterica, Scarlet Fever, and Measles in the Chimpanzee, Dr. A. S. Grünbaum (Four Figures) ... 817, 818
The Life-History of Filaria Immitis Leidy, Mr. T. L. Bancroft (Two Figures) 822
Papilliferous Cyst from an Axillary Sudoriparous Gland, Mr. H. B. Robinson 832
Median Hare-lip, Mr. W. H. Lowman 892
Case of Strangulated Inguinal Hernia, Perforation of the Bowel, Resection of 7 in. of Gangrenous Gut, Recovery, Lieutenant-Colonel W. H. Burke 893
A Colour Test Appliance, Mr. P. Dunn 899
Self-Retaining Drainage Tube and Pilot for the Maxillary Antrum, Mr. L. McGavin 899

PAGE

Entropion Forceps, Mr. L. Stretton 899
The Hamidie Hospital for Children, Constantinople (Two Figures) ... 900
Portrait of Sir P. C. Smyly 925
Demonstration on Recent Electro-therapeutic Work, Dr. J. Macintyre (Eight Figures) 935, 936, 937, 938, 939, 940
Rodent Cancer treated with X Rays, Dr. G. G. Stopford Taylor (Four Figures) 946, 947
Inhaler for Administering Chloride of Ethyl and Somnoform alone or in Conjunction with Nitrous Oxide and Ether, Mr. G. W. Bampfylde Daniell 949
Intraspinal Cocainization, Dr. A. S. Gubb (Two Figures) ... 950, 951
A Case of Cystic Hygroma, Removal, Recovery, Lieutenant-Colonel J. Lewtas 951
An Aspirator and Insufflator, Dr. A. Rosenau 958
Plans of Queen Victoria Memorial Pavilions, Royal Alfred Hospital, Sydney (Two Figures) 959, 960
Portrait of Sir Henry Thompson, Bart. 991
The Examination of the Tissues of the Case of Sleeping Sickness in a European, Drs. G. C. Low and F. W. Mott (Eight Figures, on special plate) ... ... Between 1000 and 1001
Structural Links in Malignant Growths, Dr. F. Bushnell and Mr. F. Cavers (Two Figures) 1006
A Tonsillotome, Mr. L. McGavin 1024
An Instrument for rapidly Enlarging Opening in Skull, Mr. W. A. Lane 1024
Pile-suture Forceps, Mr. A. S. Barling 1024
A Head-rest for Post-nasal Operations, Dr. F. A. Nyulasy 1024
A Case of Strangulated Femoral Hernia, Mr. A. Clark 1062
An Operation for the Radical Cure of Hernia, Mr. J. H. Pringle (Four Figuree) 1063, 1064
The Infective Nature of Rheumatic Fever, Dr. F. J. Poynton ... 1119
Sterilized Surgical Swabs, Mr. J. Jackson Clarke 1142
The Galérie des Sources, Vichy 1143
Haematoma and Haematocele, Mr. A. Doran (Two Figures) 1181, 1182
Total Extirpation of the Prostate for Radical Cure of Enlargement of that Organ, Mr. P. J. Freyer (Four Figures) ... 1185, 1186
Total Prostatectomy, Mr. C. S. Wallace 1187
A Bed Punkah, Dr. W. Ewart 1200
Thorn Evaporating Wall for Producing Mother-lye at Nauheim ... 1203
Bath House and Pump Room at Schwalbach 1263
Arterial Sclerosis and Hypertonus in their Relation to Diet and to the Digestive System, Dr. W. Russell (Two Figures) 1298
Cancer of the Pancreas, Sir Lauder Brunton 1353
Notes of Experiments to Determine the Relative Efficiency of some Surgical Dressing Materials, Dr. A. N. McGregor and Mr. R. Ramsay (Two Figures) 1363
Further Observations on the Therapeutic Value of Radium and Thorium, Dr. J. M. H. MacLeod (Eight Figures) 1366, 1367, 1368 1369
Primary Quadruple Amputation, Recovery, Mr. J. T. Williams (Two Figures) 1371
A Set of Portable Retractors, Mr. B. Dyball 1374
Prevention and Treatment of Tuberculosis in Childhood.—Berck-sur-Mer, Hôpital Maritime, sea front, 1375; Berck-sur-Mer, patients in a verandah, 1376; Berck-sur-Mer, Hôpital Maritime, one of the dormitories, ib.; Sanatorium at St. Pol-sur-Mer, general view of pavilions, 1377; Sanatorium at St. Pol-sur-Mer, pavilion for young children, ib.; Sanatorium of Hendaye, the pavilions, 1379; L'Oeuvre des Enfants Tuberculeux d'Ormesson, garden front, ib.; Margate Royal Sea-bathing Hospital, patients in the verandah, 1381; Margate Royal Sea-bathing Hospital, view from one of the wards, ib.
Some Survivals of Mediaeval Medicine in East Anglia. Dr. C. B. Plowright (Fifteen Figures) 1397, 1398, 1399
A Case of Leukanaemia, with great hyperplasia of the spleen and prevertebral haemolymph glands, and with increase of connective tissue in the bone marrow Dr. Parkes Weber (Three Figures) 1417
The Surgical Treatment of Abdominal Aneurysm. Mr. R. C. B. Maunsell (Three Figures) 1423, 1424
A Bedside Spittoon. Dr. S. R. Williams (Two Figures) 1434
Kreuznach; the Elizabeth-Quelle and Park from the River ... 1435
The Harveian Oration on I-em-hotep, the Egyptian god of medicine, etc., Dr. R. Caton (Three Figures) 1473, 1475
A New Post-mortem Table, Dr. D. Lloyd Smith 1492
Ground Plan of the Brompton Hospital Sanatorium and Convalescent Home, Heatherside, Camberley 1496
Portrait of Sir David Palmer Ross 1519

INDEX TO VOLUME I FOR 1904.

A.

Abdomen, hydatid cysts in, 389; upper, the association of surgical lesions in, 1438
Abdominal cases, four, 1309
———— conditions, some deceptive and the question of operation, 361
———— diagnosis, discussion on pelvic lesions in relation to, 249
———— operations during pregnancy, 64
———— wall, spontaneous rupture of the, 892; hydatid cyst in the, 1427
Aberdare, contract medical practice at, 313
Ability, bulk and, 851
Abortion, constructive production of, 928; tubal, 1428
Abortionmongering, wholesale, in Florence, 1266
Abraham, P., the biographic puff, 1053
Abscess of the lung, three cases of, 8; intraperitoneal, due to pneumococcus, 128; subphrenic, 250; uterine, 308; of appendix in recto-vesical pouch, treatment of, 426, 639; cerebral, with unusual complications, 604; iliac, following gonorrhoea, 724; cerebral, following otitis media, operation, recovery, 836; hepatic, opening into the pleural cavity, 837; of liver, case of, 1487
Abscesses pointing in the epigastrium in spinal caries in a man aged 60, 192
Absorption of haemoglobin, 823
Abstainers and non-abstainers, the mortality experience of, 145, 155
Abyssinia, hypnotism in, 96
Académie de Médecine de Paris, insanitary state of council room of, 264; the action of a maritime climate in the treatment of phthisis, 633; the prophylaxis of malaria in Madagascar, 753; the extinction of infantile mortality in the commune of Villiers-le-Duc, ib.; administration of chloroform by Roth's apparatus, 861; tuberculosis in the French army, 1044; anaemia among miners, ib.; epithelioma of both breasts cured by castration, 1045; influence of the "nascent state" on drugs, 1338; breast feeding of infants of factory hands, 1339; lady reads paper at meeting of, 1507
———— des Sciences de Paris, the fall in the number of cases of malaria in Egypt by measures adopted by the Suez Canal Company, 753
Academy, Royal, of Medicine in Ireland, the secretaryship of, 914, 1038
———— Royal, of Medicine in Ireland, Section of Anatomy and Physiology, the pelvic fascia, 369; a confirmation of Pawlow, ib.; blood films, ib.
———— Royal, of Medicine in Ireland, Medical Section, milk, human and bovine, 729; myxoedema, 1372; radium in therapeutics, ib.
———— Royal, of Medicine in Ireland, Section of Obstetrics, meeting of, 785, 1080
———— Royal, of Medicine in Ireland, Section of Pathology, paraffin methods of embedding, 369; ringworm, ib.; exhibits, ib.; meeting of, 839, 1256
———— Royal, of Medicine in Ireland, Section of State Medicine, public health problems in Ireland, 548; physical and mental education, ib.; poisoning by cantharides, 1195; coal gas poisoning, ib.
———— Royal, of Medicine in Ireland, Section of Surgery, meeting of, 1256
Accident to Madrali, 346
Accidents to workmen, 389
"Accouchement forcé," forcible dilatation of the cervix in, 67, 228, 472; discussion of at the Glasgow Obstetrical and Gynaecological Society, 78
Accounts, partnership, 523
Achill Island, small-pox in, 630
Achondroplasia with spinal curvature, 549
Ackerley, A. R., when is a banana ripe? 1412
Acne, treatment of by inoculation of staphylococcus vaccine, 1075
Act, the Companies, dentists and, 976
—— the Dental of Jersey, 449
—— the Midwives, note as to fees under, 59; the application of Section E of, 107; correspondence on, 164, 221, 461; Irish midwives and, 209, 267, 332, 395, 569, 572, 976, 1100; medical fees under in midwives cases, 1040; memorandum on by Central Midwives Board, 1041; county councils and, 1163
—— the Public Health, amendments to, 638
—— Superannuation (1896) powers of guardians under, 1470
—— Vaccination (Scotland) answers to questions as to, 1470
—— the Workmen's Compensation, medical referees under, 52, 700, 1328; injuries to the eyes in relation to, 483; claim under, 642; examinations under, 760
Action, for wrongful dismissal in Scotland, 167; for burns from hot-water bottles, 282; for alleged negligence, 283
Actions, naval, the wounded in, 152, 910
Acton, a municipal crèche for, 815
Acts, Medical, prosecution under, 167
Adam, J., papilliferous cysts from sudoriparous glands, 1049
Adams, A. M., trypanosomiasis and morbus dormitivus, 889
Adaptation of the pancreas, 778
Aden, the plague at, 1434
Addison, C., the localization of abdominal viscera, 1196
Addison's disease. See Disease
Address, inaugural as Professor of Surgery at Cambridge University by Mr. Howard Marsh, 289; by Sir W. Taylor at the opening of session of the Royal Army Medical College, 291
Adelaide, the health of, 762
Adenoid growths, treatment of, 841
Adenoids and varicocele, 764
Adiposa dolorosa (Dercum's disease) in a male, 781
Adrenalin, in Addison's disease, 131; in pulmonary haemoptysis, 191, 365, 781; influence of on the nitrogenous metabolism of the bird, 549; in neurotic heart, 1009; post-partum haemorrhage treated by, 1254
———— chloride, paper on, 430; with chloretone in epistaxis, 489; haemophilia treated with, 1247; in haemorrhage, 1312
———— diagnosis, some suggestions in, 1312
Adulteration of honey, 232
Advertisement, of medical works in the lay press, 407; the penalties of, 621; of Mr. Alabone in newspapers, 1053; of ambulance lectures, 1228; friendly, 1267, 1466
Advertisements, trade, medical testimonials in, 55, 342, 467, 809; in the lay press, 55; trade, the medical profession and, 283, 583; a year's, 1085; illustrated, 1324; post-office censorship of, 1332; indecent, the United States Post-office department and, 1506
Advertising, medical, in former days, 206; medical, 223, 467, 1349, 1466; of quack nostrums, 621; by retail opticians, 1389; of health lectures, 1467
Advice, medical, in the lay press, 761
Ady, J. C., prosecution of, 167
Aesculin, note on, 172
Age, old, the prevention of, 1501
Agent for life insurance company, medical practitioner as, 872
Agreements, partnership, 1815
Ahlfeld, F., Lehrbuch der Gebertshilfe, rev., 196
Aid, municipal, for hospitals, 95
Air, of railway tubes, 450, 528; pure, admission of into serous cavities, 759, 808, 868, 923, 988, 1048
—— passages, rheumatic infection through the, 1314
Aitchison, C. U., tumour of left auricle, 1316
———— J., testing the eyesight of a nation, 1170, 1463
Aitken, R. Y., gastric ulcer, perforation twice in five months, 665
Aix-la-Chapelle, expenses of course at, 932
Alabone, E. W., advertisements of in newspapers, 1053
Albumen in urine, some tests for, 882
Albuminuria, postural, 5; the coagulation time of the blood in pregnant and puerperal women suffering from, 709; decapsulation of the kidney for the treatment of, 1011
Alcohol, the medical profession and, 50, 648; and the death-rate, 145, 155; review of book on, 251; the control of the traffic in, 915
Alcoholism, case of, followed by hyperpyrexia, coma, death, 133; "cures" for, 316, 324; in Ireland, 1457
Alderson, F. H., doctors in Parliament, 107, 339; the feeding of infants, 867
———— W. E., passage of a renal calculus through a lumbar sinus, 834
Aldred, W. A., case of severe and fatal haemoptysis in a child aged 3½ years, 1015
Alexander, G., three cases of erysipelas, 547
Algeria, malaria in, 88
Alibert's disease. See Mycosis fungoides
Alienism and inebriety, 1033
Alimentary canal, mechanism of, 1018
Allan, F. J., an old medical bill, 1176
—— J. W., transplantation of the pancreas in diabetes, a correction, 759
Allbutt, T. C., the Goverment Lunacy Bill, 1286
Allchin, W. H., A Manual of Medicine, rev., 842
Allingham, H. W., epigastric operation for drainage of pericardium, 106
Alpine climbers, medical appliances for, 340
Altitudes, high, changes in the blood in, 1097
Ambassador, a medical, 566
Ambidexterity, lectures on, 455
Ambulance challenge shield. See Shield
———— men, railway, competition of, 955
———— service, an efficient, for London, 327, 340, 386, 399, 505, 566, 580, 622, 677, 849, 1109, 1152, 1161, 1336, 1447
———— trophy, a volunteer, 583; the Scottish volunteer, 1038, 1218
America, United States of. See United States
Ammonia nitrogen, relation of to the total nitrogen in diabetes, 549
Ammonuria, note on, 1060
Amputation, quadruple, case of, recovery, 429; through hip-joint for hydatid of femur, 546; at hip-joint in osteo-myelitis, 1313; primary quadruple, recovery, 1371
Anaemia, splenica infantum, 368; malignant, 431; miners', 611, 1044; miners' and ankylostomiasis, 1272
Anaesthesia, a tooth in the trachea during, 940; by the rectum, 996
Anaesthetic, choice of a, 411
Anaesthetics, demonstration on, 19
Analgesic, a new ocular, dionine, 1009
Analyst, public qualifications of, 1175
Analysts, milk warranties and certificates of, 927
Anastomosing, a severed vas deferens, a method of, 13; intra-abdominal, 1236
Anastomosis of nerves in facial paralysis, 227
Anatomy, reviews of books on, 434, 896; of the prostate, 1372
Anders, J. W., Textbook of the Practice of Medicine, rev., 843

341167

Anderson, Mrs. E. G., the treatment of inebriety by drugs, 1169
——— R. W., pulmonary hydatid, 1311
Andrews, C. W., cancer and its origin, 402
——— Dr. E., obituary notice of, 403
——— H. R., a case of bilateral extrauterine pregnancy, 75
Anencephaly, the retina in, 1138
Aneurysm, racemose, of the brain, 77; cirsoid, of forehead, treated by free excision and extirpation, 304; thoracic, rupture of, 841; of descending aorta, 894; abdominal, the surgical treatment of, 1422
Aneurysms, multiple, 249; leaking, 303
Angers, H. B., ruptured duodenal ulcer, laparotomy, 1315
Angina pectoris, lumbago and, 640
Angioma, extensive cavernous, 1315
Animals, control of contagious diseases of, 386; thyroidectomized, 954; living, experiments on, 1400
Ankylosis of the jaws, 432
Ankylostoma infection, detection of, 1233
Ankylostomiasis, in miners, 214; treatment of, 545, 1014; in Porto Rico, 736; miners' anaemia and, 1272
Annual meeting. See Meeting
Annuals, reviews of, 25
Anthony, Captain, R. W,, case of old ectopic gestation, complicating normal pregnancy, pain, suicide, 15
Anthrax, immunization against, 264; order as to in Cheshire, 904; from horsehair, 956; discussion on at the Epidemiological Society, 1079; in Cheshire, 1088
Antidipso, a cure for alcoholism, 316
Antidote for rattle-snake bite, 1451
Antikamnia, poisoning by, 545
Antimony, chronic poisoning by, 433
Antipneumococcus serum. See Serum
Antipyrin and purpura, 325
Antirabic treatment in Havana, 6c3
Antiseptics in the navy, 528
Antistreptococcus serum. See Serum
Antitoxin and club patients, 346; diphtheria and, 566
Antivaccination in Parliament, 971
——— professors, rival, 508
Antivaccinists, the ethics of, 699, 927
Antivivisection in the United States, 1206
Aorta, elasticity of the, 1316
Apert, E., La Goutte et son Traitement, rev., 1432
Apes, inoculation of with syphilis, 852
Apoplexy, is atmospheric pressure a cause of? 835, 1311, 1352, 1464, 1516
Apothecaries' Society of London, pass lists, 344, 407, 525, 761, 931, 1055, 1469
Apparatus, sewage-testing, 409
Appeal, an, 60; to the cow, 346
Appendicitis, some practical points associated with, 297; strangulation by band simulating, 546; acute, 841; complicated by the presence of an ovarian cyst, 1077, 1287; and leucocytosis, 1137; acute, influence of early operation on the mortality and results of, 1138
Appendix vermiformis, treatment of abscess in recto-vesical pouch, 426, 639
Appleton, R., the trial of, 1033
Appliances medical, for Alpine climbers, 340
Appointments, club, how elections to are sometimes conducted, 197; Poor-law, salary of, 1108; Post-office in Highlands and Islands of Scotland, 1262; post-office medical, 1328, 1346, 1396; Poor-law medical, competition for, 1522
Archer, Mr. G., death of, 706
Argentina, the plague in, 513
Armies, different European, relative condition of, 1087
Armour, D., brain elevator and retractor, 26; breakage of a coin-catcher, gastrotomy, recovery, 893
Armstrong, H., digital deformities, 1370
——— H. G., the simultaneous incubation of two infective diseases, 580
——— W. B., clinical notes on the use of Bossi's delator, 717
Army, British, promotions and appointments in medical staff of, 110, 222, 583, 814, 993; promotions and appointments in medical reserve of, 110, 166, 341, 520, 697, 814, 993, 1051, 1112, 1171, 1226, 1408, 1465, 1518; the medical service of the, 381, 442, 445, 468, 511, 561, 929, 1503; dentists for the, 627; the estimates for, 641: the medical service of and Lord Esher's Committee, 791, 813; appointment of dental surgeons to the, 814; statement of the case of re-employed medical officers of in the South African war, 929; reforms in medical service of, ib.; vision of candidates for, 1060; temperance work in, 1153
——— a citizen, physical training for, 448
——— Council. See Council
——— French, Society of medical officers of, 510; tuberculosis in, 1044
——— the German, and the Hereros, 1094
——— Indian, promotions and appointments in the medical service of, 54, 111, 166, 223, 284, 341, 405, 520, 697, 760, 814. 871, 930, 1052, 1112, 1171, 1227, 1292, 1408; the medical service of and the monthly Army list, 54; successful candidates for medical service of, 284; books for examination for medical service of, 411; study leave, 697; the civil department of the medical service of, 861; the director-general of the medical service of, ib.; pay and prospects in the medical service of, 871, 1106, 1227; military employment in, 930; government restriction on medical fees, 1291; annual dinner of medical service of, 1464
Army, Japanese, the medical service, 507, 567; American nurses for, 678
——— Russian, antidysentery serum for, 1498
——— the United States, the medical department of, 697
Arnold-Foster, Mr., on "accepted professional opinion," 1092
Arranmore, sanitary state of, 393
Arsenic in beer, 643
Arterial sclerosis and hypertonus in their relation to diet and the digestive system, 1297
Arteries, calcareous changes in, 952: cut, first-aid treatment of, 1352
Arterio-sclerosis, discussion on at the Pathological Society of London, 432
Artery, middle meningeal, rupture of by contre-coup, 726; axillary, rupture of, 731
Arthritis, rheumatoid, eye symptoms of, 309; tuberculous, 1137
Arthur, G., facial paralysis following forceps delivery, 246
Ascites, treatment of, 19; due to pressure on the portal vein by enlarged spleen, 429
Ashby, H., a case of scurvy in an infant fed on municipal "humanized" sterilized milk, 479
Ashton-in-Makerfield, contract medical practice at, 254
Aspirator and insufflator, a, 958, 1201
Aspland, W. H. G., multiple vaginal septa, 74
Assam, kala-azar in, 151; charitable hospitals and dispensaries in, 374; sanitary report of, 751
Assessors, medical, in cases of physical injury, 990, 1048
Assistant, the bicycle of, 223; notice to be given by, 872; indoor, the work of, 1228
Assistants, and contracts not to practise, 283; responsibility of surgeon for, 1446 (1524)
Association, After-care, annual meeting of, 449
——— American Medical, annual meeting of, 1437, 1506; the oration in Medicine, 1437; address on State Medicine, ib.; the oration in Surgery, 1438
——— Anglo-American Medical of Berlin, organization and purposes of, 403
——— Asylum Workers', annual meeting of, 1214
——— British, for the Advancement of Science, programme of annual meeting of, 1035
——— British Dental, and British skulls, 60
——— British Laryngological, Rhinological, and Otological, meeting of, 309 (371)
ASSOCIATION, BRITISH MEDICAL, the local organization of, 51, 279; the Year Book of, 322; and medical unions, 399, 460; and the medical service of the army, 442, 445, 468, 511; and medical defence, 443, 513, 577. 755, 805, 863, 919, 988, 1110, 1169, 1223, 1287; notice as to grants by, for scientific research, 752, 804, 859; the Prince of Wales and, 795; notices of motion for representative meeting of, 984; the medico-political work of the, 1089
——— Royal Naval and Military Committee and the War Office Reconstitution Committee, 814, 1032
——— Scientific Grants Committee, reports to, 173, 473, 709, 778, 817, 819, 822, 1413
——— Aberdeen Branch, meeting of, 1455
——— Bath and Bristol Branch, tuberculosis, 505; double ovarian hydrocele, ib.; acute gastric dilatation, ib.; specimens, ib.; meeting of, 606, 1135; electrical treatment of lumbago, 840; parasite of aestivo-autumnal fever, ib.; cysts and other abnormalities arising from branchial clefts, ib.; incontinence of urine in children, ib.; sinus thrombosis, 1314; rheumatic infection through air passages, ib.; cardiac neuroses, ib.
——— Birmingham Branch, epilepsy following mastoiditis and cerebral abscess, 79; sarcoma of femur, ib.; enlarged prostate, ib.; suprapubic prostatectomy, 80; specimens, 80, 368; traumatic neurosis, 367; congenital deficiency of pigmentation in negroes, ib.; enlarged prostate, ib.; decapitation in impacted shoulder presentation, ib.; medico-legal aspect of injuries to the eye, ib.; sarcoma, ib.; hemiplegia, ib.; hydatid mole, ib.; joint disease, ib.; septicaemia, ib.; actinomycosis of face, 547; modern treatment of fibromyoma of the uterus, ib.; disinfection of the hands, ib.; apparatus for administration of creosote, 953; sections of prostate glands, ib.; typhoid fever, ib.; exhibits, ib.
ASSOCIATION, BRITISH MEDICAL, Birmingham Branch, Coventry Division, registration of births and deaths, 248; cases and specimens 248, 430; suppurative diseases of the ear, 430
——— Border Counties Branch, cases, 305
——— Edinburgh Branch, conjoint meeting of with other Scottish Branches, 453
——— Glasgow and West of Scotland Branch, annual meeting of, 1276
——— Gloucestershire Branch, meeting of, 606, 840; personal hygiene and prevention of disease, 1135
——— Grahamstown and Eastern Province Branch, malarial disease in South Africa, 894; modified horse sickness, ib.; aneurysm of ascending aorta, ib.; other communications, ib.
——— Hong Kong and China Branch, adrenalin chloride, 430; meeting of, 547; and Sir F. Treves, 854; fracture of fibula, 1488; caries of ischium, ib.; specimens, ib.; mixed infection in tuberculosis, ib.
——— Lancashire and Cheshire Branch, meeting of, 783, 1316
——— Lancashire and Cheshire Branch, South Manchester Division, on contract medical practice, 1396
——— Metropolitan Counties Branch, City Division, meeting of, 666, 1255; joint disease as encountered in medical practice, 1135
——— Metropolitan Counties Branch, St. Pancras Division, consumptives and sanatoria, 368; specimens, ib.; meeting of, 547, 1136
——— Metropolitan Counties Branch, Walthamstow Division, joint disease as encountered in medical practice, 1135; meeting of, 1255
——— North of England Branch, gumma of cord, 1314; the surgical treatment of tuberculosis, ib.; tuberculous knee, erasion, ib.; tuberculous knee, excision, 1315; tuberculous disease of spine, psoas abscess, radical operation, ib.; tuberculous disease of palmar bursa, ib.; ruptured duodenal ulcer, laparotomy, ib.; a case of post-operative myxoedema with tetany, ib.; extensive cavernous angioma, ib.; congenital dislocation of hip, ib.
——— North of England Branch, Tyneside Division, meeting of, 547
——— North Lancashire and South Westmorland Branch, hour-glass contraction of the uterus, 547; fatal poisoning by potassium bromide, ib.; three cases of erysipelas, ib.; Midwives Act, ib.: cases, ib.: specimens, ib.; visit to North Lonsdale Hospital, ib.
——— Oxford and Reading Branch, annual meeting of, 1136: election of president-elect, ib.; cases, ib.; morbid specimens, ib.; ectopic pregnancy, ib.
——— Perthshire Branch, cases, 894; appointment of joint secretary, ib.; presentation to Dr. Urquhart, 912
——— Southern Branch, Portsmouth Division, clinical meeting of, 953
——— South-Eastern Branch, Canterbury Division, meeting of, 1255
——— South-Eastern Branch, Chichester and Worthing Division, case, 18; therapeutics of lung diseases, ib.
——— South-Eastern Branch, Isle of Thanet Division, treatment of adenoid growths, 841; rupture of thoracic aneurysm, ib.; acute appendicitis, ib.; treatment of lupus, ib.
——— South-Eastern Branch, Sevenoaks Divlsion, infantile paralysis, 1315
——— South-Eastern of Ireland Branch, meeting of, 783
——— South Midland Branch, Northamptonshire Division, president's address, 19; the treatment of haemorrhoids, ib.; treatment of ascites, ib.; choroidal sarcoma, ib.
——— South Wales and Monmouthshire Branch, meeting of, 841
——— South Wales and Monmouthshire Branch, Cardiff Division, meeting of, 783
——— South Wales and Monmouthshire Branch, Monmouth Division, meeting of, 548
——— South-Western Branch, cases, 306, 953
——— Staffordshire Branch, patients, 18; appendicitis, 19; speci-

mens, ib.; gastro-jejunostomy for gastric ulcer, 1193; enterectomy, removal of uterine appendages, ib.; amputation of hip-joint, ib.; carcinoma of treatment, ib.; epithelioma of rectum, ib.; prostatectomy, ib.; suprapubic and perineal prostatectomy, 1194; cases, ib.; x-ray and high-frequency currents, ib.
ASSOCIATION, BRITISH MEDICAL, Sydney and New South Wales Branch, confirmation of minutes, 306; new members, ib.; communications, ib; resolutions, ib.; annual meeting and list of officers, 1340
——— Ulster Branch, meeting of, 306; rupture of the uterus, 1136; ruptured extrauterine pregnancy, ib.; lithotomy, ib.; operation for perforated typhoid ulcer, ib.; gastric ulcer, ib.
——— Yorkshire Branch, cases, 783; bacteriology in general practice. ib.; baths, 785; new members, ib.; dinner, ib.; specimens, 1255; gastric ulcer and high-frequency currents, ib.; Porro's operation, ib.
Association, British Medical Temperance, annual meeting of Belfast Branch of, 333; annual meeting of, 1324
——— Building By-laws Reform, report of, 705
——— of Certifying Factory Surgeons and the ventilation of factories and workshops, 21
——— Colonial Nursing, contributions to, 188
——— of Diplomates of the Royal Colleges of Physicians and Surgeons of Edinburgh, 1169
——— Dublin Sanitary, report of, 748
——— Garioch and Northern Medical, summer meeting of, 1158
——— Guy's Hospital Ladies', annual meeting of 1324
——— Home for Inebriates, report of committee of, 1158
——— International, for the Prevention of Tuberculosis, meeting of at Copenhagen, 1331
——— Invalid Children's Aid, conference of, 1213
——— Irish Medical, and the Irish Poor-law Medical Service, 209, 331, 392; a new branch of, 392; and the report of the Poor-law medical system in Ireland, 862; meeting of co, Meath Branch of, 1159; annual meeting of Belfast and District Branch of, 1335; annual meeting of, 1394, 1456; dinner of, 1456
——— Irish Medical Schools' and Graduates', meeting of on St. Patrick's Day, 742; and the Irish Poor-law Medical Service, 1334
——— Lad's Drill, annual meeting of, 1212
——— Medico-Psychological of Great Britain and Ireland (Northern and Midland Division), saline injections and mental disease, 955; general paralysis and workmen's compensation, ib.; annual meeting of Irish Division of, 1277
——— Metropolitan Provident Medical, and the prevention of consumption, 99
——— Metropolitan Street Ambulance, objects, etc., of, 340, 566; invitation to medical men to join, 505; motions to be submitted at meeting of, 1033; general meeting of, 1101; deputation of to the London County Council, 1161; subscriptions towards funds of, 1336
——— National, for the Prevention of Consumption and other Forms of Tuberculosis, meeting of Paisley Branch of, 98; meeting of Cork Branch of, 392; report of council of, 573; general meeting of, 691; report of Glasgow Branch of, 1157; annual meeting of Cork Branch of, 1510
——— National, for Promoting the Welfare of the Feeble-minded, meeting of Oxford Branch of, 386
——— Public house Trust, annual report of, 915
——— of Registered Medical Women, meeting of, 787, 1139
——— Royal Army Temperance, annual meeting of, 1153
——— Rural Housing and Sanitation, deputation of to President of Local Government Board, 564
——— Rural Midwives, conference of with county councils, etc, 284; annual meeting of, 1146
——— St. Andrew Ambulance, annual report of, 1509
——— Scottish, for the Medical Education of Women, report of, 736
——— Scottish Poor-law Medical Officers', annual meeting of, 275
——— Scottish Volunteer Medical Officers new trophy competition of, 1038
——— State Children's Aid, annual meeting of, 1498
——— of Teachers in the Secondary Schools of Scotland, meeting of, 330
Association for the Training and Supply of Midwives, offices and objects of, 83
——— Volunteer Medical, annual dinner of, 968
——— Western Counties Dairy Farmers', objects of, 646
Assumption of title, 990
Asthenopia, paper on, 308
Astley Cooper prize. See Prize
Asylum, Ballinasloe District, the medical superintendentship of, 914, 1039, 1160, 1394, 1457
——— Bangour, progress of building of, 800
——— Bristol Lunatic, report of, 1234
——— City of London Lunatic, report of, 1234
——— Cork District Lunatic, report of, 1394, 1510
——— Derry Lunatic, report of, 210
——— Earlswood, appeal for funds for, 1502, 1515
——— East Sussex County Lunatic, report of, 1234
——— Grahamstown, report of, 469
——— Hertfordshire County, report of, 701
——— Infant Orphan, Wanstead, the committee and medical staff of, 1344, 1390
——— Joint Counties, Carmarthen, report of, 469
——— the Kingseat, opening of, 1218
——— Middlesbrough, report of, 1234
——— Monaghan and Cavan, overcrowding in, 570
——— Richmond Lunatic, estimates for, 268
——— Royal, Edinburgh, report of, 568
——— Royal, Gartnavel, report of. 1234
——— Warneford, Oxford, annual report of, 520
Ataxia, Frenkel's treatment of, 875
Athletics by proxy, 1389
Atkey, O., the inquest on Mr. Whitaker Wright, 340
Atkins, J. B., National Physical Training, an Open Debate, rev., 1318
Atkinson, F. P., the stage of invasion of measles, 228
——— S. B., life, birth, and live-birth, 1149
Atmospheric pressure, is it a possible cause of cerebral haemorrhage? 835 1311, 1352, 1464, 1516
Atresia, vaginae, the perils of, 853
Atrophy, acute yellow of the liver, 892; primary optic, due to lead, 1429; optic, after post-partum haemorrhage, ib.
Atropine eye-drops, poisoning from, 189; treatment of inebriety by, 1006
Attendance, medical on soldiers on sick furlough, 111; on midwifery cases by Poor-law medical officers, 147. 204; on minors, liability for, 523; on servants, responsibility of master's agent for, 643; medical, powers of relieving officers in reference to granting orders of, 994, 1174; medical, on rural postmen in Scotland, 1172
Attendant, medical, position of in criminal cases, 1466
Atterbury, W., an efficient ambulance service for London, 580
Attfield, D. H., decoration of, 1442
——— J., Chemistry, General, Medical, and Pharmaceutical, rev., 312
Audistère, C., De la Dégénérescence Cancereuse de l'Ulcère de l'Estomac, rev., 494
Auricle, left, tumour of, 1316
Australasia, insanity in, 565
Australia, fees to medical witnesses in, 58; a medical man as delegate to the Commonwealth of, 288; prevention of consumption in, 573, 616; Dr. Dowie in, 859; the plague in, 1204
Austria, the medical profession in, 121
Automobiles for medical men, 142, 199, 288, 1505; regulations for, 872; in India, 996; and medicine, 1034
Axe, J. W., on milk epidemics and bovine mammitis, 619
Ayr, proposed consumptive sanatorium for the county of, 41

B.

Baber, E. C., a portable lamp for laryngoscopic purposes, 612
Babies, school, and measles, 909, 989; school, 1110
Babinski, treatment of incontinence of urine by lumbar puncture, 1166
Baby, expected, clothes for, 1471
Baccelli, G., resumes work as clinical teacher, 627
Bacilli of tubercle, method of demonstrating in the urine, 13; typhosis and coli communis, a rapid method of preparing Drigalski and Conrad's medium for the differentiation of, 190 (281); of plague, a new method for detecting in the blood, 544; of dysentery, 626
Bacillus, a new pathogenic (B. carnis), 193; enteritidis sporogenes, a method of isolating, ib; colon, from a case of emphysematous gangrene, 194; coli communis, action of blood serum from cases of acute mental disorder on, 826; of tubercle, strains of the, 847; dysinteriae, asylum dysentery in relation to, 1002; typhosus and B. coli coli communis, differentiation of by means of the photographic plate, 1004
Bacterial test of pollution, 469, 526
Bacteriological examination of water, value of, 207
——— inquiry into the sterilization of hands, 1364
Bacteriology in general practice, 783; of climatic bubo, 953; of so-called "sterilized" milk, 1122; of acute rheumatism, 1223
Badger, Mr. S. T., death of, 110
Bäumler, C. G. H., the early diagnosis of tuberculosis of the lungs, 769
Bagnall, report of small-pox hospital at, 872
Bailey, W., leprosy, 588
Bainbridge, F. A., on the adaptation of the pancreas, 778
Bakehouses, underground, 1233
Baker, Brigade-Surgeon J. B., death of, 468
Baking powder, the effects of, 836
Balconies as sanatoria, 105, 163, 400, 639
Baldness, quackery and, 205
Baldwin, F. A., thermometer for the tropics, 438
Balfour of Burleigh, Lord. See Lord
Ball, Sir C. B., appointed honorary surgeon to the King, 1217
——— Sir R., address of at Birmingham University, 1404
Ballachulish, the quarriers and their medical officer, 203, 526
Ballance, H. A., vaccination and politics, 216
Ballantyne, J. W., Bossi's dilator, 193; the obstetric satchel, a problem in asepsis, 1303
Ballingall, G. A., potassium bromide in influenza, 725
Banana, a, when is it ripe? 1271, 1412
Bancroft, T. L., some further observations on the life-history of filaria immitis Leidy, 822
Band, strangulation by simulating appendicitis, 546
Banks, Sir W., the modern surgery of the prostate, 307
Barbers, antiseptic, 43; and infection, 876
Barcelona, the climate of, 411
Bardswell, N. D., the economic value of the sanatorium treatment, 1016
Barker, A. E. J., the medical profession and trade advertisements, 283, 583
——— W. H., Mental Diseases, rev., 1199
Barling, A. S., pile-suture forceps, 1024
——— H. G., prostatic enlargement and its treatment by Freyer's method, 232; gastro-jejunostomy, 493; gastro-jejunostomy for pyloric stenosis, gastric ulcer, and some other non-malignant conditions, 1064
Barnard, H. L., pulsating exophthalmos, 77
Barnes, A. S., cerebral tumour, 250
Barnett, H. N., the medical profession and alcohol, 50; presentation to, 1013
Barr, J., the treatment of pneumonia, 457; the treatment of serous effusions, 649; improvements in dietetics of diabetics, 693; the introduction of pure air into serous cavities, 808, 923, 988, 1048
——— T., introductory address to Otological Society of the United Kingdom, 370
Barrack-room equipment, 1053
Barratt, J. O. W., the reaction of protoplasm in relation to chemiotaxis, 1413
Barrett, H., puerperal sepsis, 1049
Barristers, doctors *v.*, 228
Barrs, A. G., typhoid perforation, 194
Bartholow, Dr. R., obituary notice of, 1291
Barton, J. K., the pathogenesis of gout, 162; atmospheric pressure and apoplexy, 1311
——— W. M., A Thesaurus of Medical Words and Phrases, rev., 495
Baruch, S., The Principles and Practice of Hydrotherapy, rev., 1141
Bashford, E. F., the significance of the zoological distribution, the nature of the mitoses, and the transmissibility of cancer, 259, 269; graphic records of experiments on immunity, 683
Basin, a self-retaining ear-douche, 313
Bateman, A. G., doctors in Parliament, 339; fee for restoration to "Medical Register," 1168, 1346
Bath, radium in the waters of, 96, 586
Baths, medicated public. 287
Batten, F. E., complete ophthalmoplegia externa with blindness of acute onset, 249; lumbago, 279
Battle of the clubs at Oldbury, 40, 47
Battle, W. H., fracture of the spine without symptoms, 249; femoral hernia, 549
Baudry, S., Etude Médico-Légal sur les Traumatismes de l'Oeil et de ses Annexes, rev., 842
Baumann, E. P., the value of Hammerschlag's method in clinical estimations of the specific gravity of the blood, 473
Bavaria, homoeopathy in, 1382
Bazaar, the Mirus. 1394
Beadnell, Fleet Surgeon, C. M., a correction, 1291
Beale, P. T. B., Aids to Physiology, rev., 312

Bearer companies, book on training of, 587
Beatson, G. T., cancer and its origin, 51, 278
Beattie, Dr. G. W., death of, 1111
——— T., gumma of the cord, 1314
Beaumont, W. H., eye symptoms in rheumatoid arthritis, 309
Beckmann, H., Das Eindringen der Tuberkulose und ihre rationelle Behandlung, 671
Béclère, A., Les Rayons de Röntgen et le Diagnostic des Maladies Internes, rev., 1260
Bed punkah, a, 1200
Beddard, A. P., relation of ammonia nitrogen to the total nitrogen in diabetes, 549
Bedford, C. H., A Clinical Handbook of Urine Analysis, 1082 (1236)
Beer, arsenic in, 643
Beevor, Sir H., therapeutics of lung diseases, 18
Beggs, S. T., the management of the icebag in the treatment of pneumonia, 488
Behring, E., v., serumtherapeutics of tetanus, 796
——— Institute. See Institute
Belben, F., atmospheric pressure and apoplexy, 1464
Belfast, proposed consumptive sanatorium for the workhouse at, 42, 97, 268, 1217; the health of, 97. 393, 630, 914, 1160, 1394; consumption in, 97; the milk supply of, ib.; small-pox in, 268. 1511; the Board of Guardians of and the Local Government Board, 1100; sewage purification scheme for, 1277; visit of the Lord Lieutenant to, 1394
——— Lough, the foreshore nuisance in, 332
Belfrage, S. H., repetition of prescriptions containing dangerous drugs, 337
Belgium, infant mortality in, 752
Bell, J., a new method for determining plague bacilli in the blood, 544
———Dr. R. (Canada) decoration of, 526
———R. (Glasgow) cancer and its origin, 162, 460; the biological significance of malignant growths, 866
———W. B., swallowed foreign bodies, 1080
Belladonna poisoning, 1472
Bengal, report of sanitary commissioner of 526; veterinary administration in, 618
Benham, W. G., The Laws of Scientific Hand Reading, rev., 673
Bennecke, Operationsübungen an der Leiche, rev., 311
Bennett, N. G., degrees in dentistry, 759
———W. E., a case of syphilitic convulsions preceded by marked somnolence of long duration, 594
Benson, F. R., a self-supporting hospital, 1047
Bentley. C. A., Leishman-Donovan bodies in kala-azar, 861
Bequests, 30, 73, 136, 200, 210, 331, 450, 452, 470, 593, 1028, 1088, 1158, 1324, 1427, 1442
Béraneck's tuberculin, 194, 735
Berck-sur-Mer, the Maritime Hospital at, 1375; the Hôpital Rothschild at, 1376
Bergmann, E. v., Anleitende Vorlesungen für den Operations-Cursus an der Leiche, rev., 1319
Bergouignan, P., Le Traitement Renal des Cardiopathies Artérielles, rev., 80
Beri-beri, the urine in, 480; watercress in the treatment of, 564; acute or pernicious, case of, 835, 1427
Berlin, correspondence from, 103, 214, 860, 1221; the prevention and treatment of venereal diseases, 103; the Emperor and Empress Frederick Hospital, ib.; ankylostomiasis in miners, 214; popular lectures on tuberculosis, 214, 860; quackery in Germany, 214; disease notification and death registration, ib.; the Imperial family and revaccination, 860; tuberculosis in prisons, ib.; proposed experimental investigation of syphilis in Borneo, ib.; cremation, ib.; vacation courses in, 1176; Professor Lassar on radium, 1221; post-operative sanatoria, ib.; the Municipal Hospital, ib.; the Institution of School Medical Officers, 1222
Berlioz, note on, 152
Berridge, W. A., Holman testimonial fund, 862
Berry, Miss F., on the physical examination of 1,580 girls from elementary schools in London, 1248
——— J. B., treatment of lupus, 841
Bettencourt, A., La Maladie du Sommeil, rev. 1258
Beverley, M., life insurance examinations, 49, 161
Biais, Traité d'Analyse Chirurgie Quantitative, rev., 312
Bickersteth, R., intravesical separation of urine, 433
Bickham, W. S., A Textbook of Operative Surgery, rev., 311
Bicycle, the assistant's, 223
Biden, Fleet-Surgeon E. J., wounded in naval actions, 1060
Biernacki, J., intubation in laryngeal diphtheria, 1127
Biggs, H. M., the administrative control of tuberculosis, 626; address on State Medicine at the American Medical Association, 1437
Bilharzia haematobia in Persia, 725
Bill, an old medical, 1176
—— the Education (Scotland), leading article on, 1445
—— Medical Acts Amendment, an address on, 889; correspondence on, 1346
—— Lunacy Acts Amendment introduced in the House of Commons, 1214, 1279, 1280; leading article on, 1269; correspondence as to, 1286, 1344, 1406
—— Nurses Registration, introduced into the House of Commons, 503
—— the Revaccination, 1904, notes on, 447; manifesto in favour of, 790: the National Vaccination League and, 1036; petition in favour of, 1336
Billington, W., otitis media, 370; cerebral abscess following otitis media, operation, recovery, 836
Bingham, J. J., early pregnancy, 1472
Biological significance of malignant growth, 800, 866
Biology, reviews of books on, 81
Bird influence of adrenalin on the nitrogenous metabolism of the, 549
Bird, A. C., adrenalin in pulmonary haemoptysis, 191; an unusual dislocation of the clavicle, 1191
——— Major R., and the Ameer of Afghanistan, 1324
Birds, trypanosoma in, 789
Birmingham, correspondence from, 575, 692, 754, 805, 918, 1046, 1107, 1404; the Hospital for Sick Children, 575; the General Dispensary, ib.; death of Mr. Shirley Page, ib.; lectures by Sir Oliver Lodge, 575, 692; the General Hospital, 692; Birmingham District Nursing Society, ib.; health of Erdington, ib.; the Huxley lecture, 754; the Queen's Hospital, 754, 1404; the Moseley Hall Convalescent Home for Children, ib.; the Birmingham Medical Institute, 805; care of the feeble-minded, ib.; the Ear and Throat Hospital, ib.; National Trades Exhibition, ib.; a new lunatic asylum for, 918; care of the feeble-minded, ib.; judgement under the Workmen's Compensation Act, 1107; Midland Counties Asylum, Knowle, ib.; the Dudley Guest Hospital, ib.; resignation of Dr. Rickards, 1404
Birt, Lieutenant-Colonel C., lesion of post-central convolution without paralysis, 598
—— G., potatoes and glycosuria, 544
Birth, live, middle-ear test of, 348; treatment of depressed fracture of the skull caused during, 880
Birth-rate, in Germany, 391; the diminishing, and what is involved by it, 427; the diminishing, 578, 636, 694, 756, 807, 865, 1051; of New South Wales, 969; the relation between infantile mortality and, 1210
Births, multiple, hereditary tendency to 75; and deaths, registration of, 248
Bishop, E. S., accidental haemorrhage in pregnant women, 20; Essentials of Pelvic Diagnosis with Illustrative Cases, rev., 371; gall-bladder surgery, 607, 886; and Dr. Wackerhagen, 1236
Biss, H. E J., isolation hospitals, 517
Bissett-Snell, Deputy Surgeon-General W., death of, 583
Bitter cup, a 1114
Bladder, fetal, labour impeded by cyst of, 190; the use of oxygen gas in distending the for cystoscopy, 539; villous tumour of, suprapubic cystotomy, recovery, 782; ruptured, and diaphragmatic hernia, 1487
Blair, Dr. A., death of, 645
Blaker, P. S., haemophilia in a female child, 189
Blanchard, Professor, visits London School of Tropical Medicine, 41
Blanchet, on automobiles and medicine. 1034
Bland-Sutton, J., fibroids complicating pregnancy, 1430
Blau, post-mortem delivery in hospital and in private, 796
Bleeding in pneumonia, 365, 638
Blennerhassett, Sir R., Queen's College, Cork, 1168
Blindness attributed to methyl alcohol, 151
Blomfield, J. E., cancer and its origin, 106
Blondlot rays, the romance of the, 35; leading article on, 90; emission of by nerve centres, 150
Blood, the value of Hammerschlag's method in clinical estimations of the specific gravity of the, 473: recurrent fever associated with spirilla in the, in a patient from Gibraltar, 538; a new method for detecting plague bacilli in the, 544; coagulation time of the in pregnant and puerperal women suffering from albuminuria and eclampsia, 709: the glycogen reaction in, 880; changes in the at high altitudes, 1097
——— affinities, immunity and, 906
——— pressure instruments, 987, 1048, 1109, 1168
——— serum from cases of acute mental disorder, action of on the bacillus coli communis, 826
"B. N." Guide to Motor Cycling, rev., 437
Board of Agriculture, the, and epizootic laryngitis, 904
——— Central Midwives, meeting of, 47, 332, 572, 801, 1205, 1323; and Irish midwifery nurses, 209, 267, 332, 395, 569, 572, 976, 1100; memorandum of on Midwives Act, 1041; correspondence as to, 1341, 1406
——— Edinburgh District Lunacy, meeting of, 1038
——— Local Government, memorandum by Editor of BRITISH MEDICAL JOURNAL on reconstitution of, 27; deputation to President of, 504. 564; on the tenure of medical officers of health, 924; Lord Jersey's Committee and, 1446
——— Local Government for Ireland, report of on sewage contamination of shellfish, 497; and the Poor-law medical system in Ireland, 1099; and the Belfast Board of Guardians, 1100; the economies of, 1394
——— Metropolitan Asylums and the investigation of small-pox, 1093, 1206
——— Quarantine of Egypt, appointments of, 468
——— School, for London and the ophthalmic departments, 38
Bohemia, prevention of consumption in, 750
Boissard, a rare mode of poisoning by sublimate, 450
Boisseau, treatment of incontinence of urine by lumbar puncture, 116
Bombay, hospitals and dispensaries in, 374; sanitary report of, 618; report of health officer of, 702
Bone, histology of, 59
——— cyst. See Cyst
Bonesetter, the boom of the, 1505
Bonney, V., pyometra, 308
Books, inspection of after sale, 1292, 1467
Bootle, report on summer diarrhoea in, 456
Bordeaux, opening of nursing school at, 346
Bossi's dilator, paper on, 193; clinical notes on the use of, 717
Boswell, A., a large dose of cloral, 996
Bottles, hot-water, action for burns from, 282
Bouchard, Professor, presentation to, 515
Bowen, O., adrenalin in pulmonary haemoptysis, 781
Bowlby, A. A., pain, its importance in diagnosis and tendency to mislead, 194; the Infant Orphan Asylum, Wanstead, 1344
Box, C., the tendon reflexes in uraemia, 781
Box beds, 915
Boxer, E. A., haemoglobinuric fever, 1078
Boy, feeble-minded, institution for, 647
Boyce, R., the antimalaria campaign at Ismailia, 760
Boycott, A. E, the detection of ankylostoma infection, 1233; alleged illness of, 1498
Boyd, Mrs. S., fibroids complicated by pregnancy, 730
——— S., intraperitoneal abscess due to pneumococcus, 128
Boyle, H. E. G., a somnoform inhaler, 140
Bradford, quackery in, 1053
Bradford, J. R., "internal secretions" in disease and treatment, 727
Bradshaw, T. R., the pathogenesis of gout, 161
Brain, dermoid tumours of, 77; racemose aneurysm of, ib.; tumour of, 250, 307
——— elevator and retractor, 26
Braithwaite, P. F., twins, different sex, double amnion, common chorion, 952
Branch, C. W., treatment of ankylostomiasis, 545
Brand, A. T., cancer and its origin, 402
Brandy, what is it? 1330
Branfort, Colonel A. M., appointed president of the Medical Board, India Office, 40
Brazil, the plague in, 30, 513, 615
Breach of colliery contract, 342
Breast, hypertrophy of and pregnancy, 388; epithelioma of, cured by castration, 1045; hypertrophy of, 1175
——— feeding of infants of factory hands, 1339
Breathing in living beings, 623
Breslau's test, 227
Brewis, N. T., some renal cases, 492
Brice, Fleet Surgeon, notices of medical men in the lay press, 700
Bridgend, the water supply of, 207
Briggs, H. (Liverpool), accidental haemorrhage in pregnant women, 20; placenta praevia, 492
——— H. (Southport), death of, 1056
Bristol, correspondence from, 862, 1514; reports of the Royal Infirmary and General Hospital, ib.; the union infirmary at, 923; small-pox, 1514; diphtheria, ib.
British Columbia, a university for, 606; practice in, 1059
——— Empire, leprosy in, 116, 348
Broadbent, G. H., the local organization of the British Medical Association, 51, 279
——— Sir W. H., postural albuminuria, 5; on Sir E. Sieveking, 592
Bronchiectasis and empyema, 5
Bronchus, foreign body impacted in, 729
Bronner, A., gonorrhoeal conjunctivitis and hydrogen peroxide, 432
Brook, W. F., congenital hour-glass stomach, 1073

Brook, W. H. B., total paraplegia due to vertebral caries, 249; x rays in the diagnosis of pulmonary tuberculosis, 1194
Brookhouse, J. O., the sanatorium treatment of consumptives, 639
Brooksbank-James, C., asthenopia, 308
Brouardel, P., Les Intoxications, rev., 1489
Brown, Dr. A., death of, 705
——— Mrs. B., Recent Excavations in the Roman Forum, 1898-1904, rev., 611
——— C., Clinical lectures in 1749, 136
——— J. J. G., life insurance examinations, 107
——— Dr. N. M., death of, 1056
Bruce, A., high-frequency currents, 607
——— Colonel D., on sleeping sickness, 505
——— W., lumbago, 216; Poor-law medical relief in Scotland, 1108
Brunton, Sir L., on "internal secretion" in disease and treatment, 666; retirement of, 686; on Professor E. J. Marey, 1290; on cancer of the pancreas, 1353
Bryan, C. D., post-partum haemorrhage treated by adrenalin, 1254
Bubo, climatic, bacteriology of, 953
Buchanan, R. J. M., perforating gastric and duodenal ulcers, 492; pleural effusion, 1080
Buck, T. A., vasectomy for enlarged prostate, 246
Buda-Pesth, female hospital physician in, 14
Budin, on the feeding of infants, 440; breast-feeding of infants of factory hands, 1339
Buenos Aires, correspondence from, 214
Buist, R. C., gynaecology and the thyroid gland, 954
Bulk and ability, 851
Buller, blindness attributed to methyl alcohol, 151
Bullin, Mr. F., death, 1111
Burgess, A. H., case of pancreatatic cyst, laparotomy and drainage, 366
Burgoyne, Burbidges, and Co., a disclaimer, 288
Burial, premature, 386
Burke, W. H., case of strangulated inguinal hernia, perforation of the bowel, resection of 7 in. of gangrenous gut, recovery, 893
Burmah, hospitals and dispensaries in, 442; sanitary report of, 751
Burns, x-ray treatment of, 1296
Burns, W. C., rupture of the middle meningeal artery by contrecoup, 716
Bury, J. S., trauma in relation to disease of the nervous system, 997
Bushnell, F. G., doctors in Parliament, 339: the proposed Ministry of Health, 807; structural links in malignant growths, 1005; acute or pernicious beri-beri, 1427; the so-called "pancreatic reaction" in the urine, 1463
Bussorah, medical practice in, 1517
Buzzard, F., the science and art of medicine, 19; dermoid tumours of brain, 77
Byers, J. W., on glandular fever, 71 (172); portrait of, 630, 748
Byrne *v.* Thorne, 1408, 1446
——— J. S., the metric system of weights and measures, 1472
Bywater, H. H., iridectomy as a prophylactic measure in glaucoma, 489

C.

Caesarean section, case of, 18; vaginal, 193; in eclampsia, 1428
Caisson disease. See Disease
Calantarients, J. A., horsedung in the streets, 26
Calcareous changes in heart, diaphragm, and arteries in a patient 32 years of age, 952
Calculi, vesical, a series of 120 operations for, 1190; urinary, description of, 1236
Calculus, renal, x rays and, 136; renal, passage of through a lumbar sinus, 834, 1472
California, practice in, 1059
Calomel, commemoration of first injection of in syphilis, 1498
Cambridge, Duke of. See Duke
Cameron prize. See Prize
——— M., mesenteric cyst, 1429
Cammidge, P. J., the chemistry of the urine in diseases of the pancreas, 776, 868; bacteriology in general practice, 783; the so-called "pancreatic reaction" in the urine, 1462
Camp, a tuberculosis, at Pensacola, 210
Campagna. See Rome
Campbell, A. W., histological studies on cerebral localization, 326
——— C., cane sugar and beetroot sugar, 695; radium and tuberculous ulceration, 784
——— H. J., the causation of cancer, 670, 1004
——— R., tetanus following operation for radical cure of hernia, 132; influence of skin-grafting on the recurrence of morbid growths, 399; congenital hypertrophic stenosis of the pylorus, pyloroplasty, result, 1483
Canada, notes from, 43, 333, 631, 689.855, 1099, 1278, 1394, 1453; new and enlarged hospitals in, 43; colleges in, ib.; small-pox and typhoid fever in, ib.; the Quebec College of Physicians and Surgeons and British diplomas, 333; enteric fever at Montreal, ib.; aneurysm of abdominal aorta, ib.; radium, ib.; congress of French-speaking physicians, ib.; practice in, 348; prevention of consumption in, 616, 1265, 1497; conference on school hygiene, 631; public health department of Ontario, ib.; the death-rate of Ontario, ib.; International Congress of Tuberculosis, ib.; the National Sanatorium Association, ib.; Christian Scientists, ib.; McGill University, 632; Professor Halliburton, ib.; the Toronto Pathological Society, ib.; the Hamilton General Hospital, ib.; the Ontario Epileptic Hospital, ib.; testimonial to Professor Osler, 690; nursing fees, ib.; undesirable immigrants, ib.; the University of Manitoba, ib.; alcohol in proprietary medicines, ib.; the Canadian Medical Association, 690, 1278, 1395; lunatic and idiot asylums, Ontario, 855; institution for the feebleminded, ib.; the Ontario Anatomy Act, ib.; public health of Ontario, ib.; sanatoria for consumptives, ib.; professional interests in Ontario, ib.; radium-bearing minerals, ib.; school drill and fire rescues, ib.; the late Dr. Langster, 856; the cigarette habit in, 982; congress of French-speaking physicians, 1099; a medico-political association, ib.; decapsulation in Bright's disease, ib.; gonorrhoeal endocarditis, ib.; lung capacity and thoracic type, ib.; sanatorium in South Alberta, 1278; snow and lake water, ib.; leprosy, ib.; Imperial Service Order, ib.; Toronto University, ib.; the senile insane, ib.; kidney decapsulation, ib.; qualification by private Bill, 1394; Queen's University, Kingston, 1395; waterborne typhoid, ib.; tinned foods and "improved" milk, ib.; bacteriological diagnosis, ib.; sanatoria for consumptives, 1463; notification of tuberculosis in Ontario, ib.; anthrax, ib.; sewage disposal in Toronto, ib.; instruction in public health, ib.; municipal supply of diphtheria toxin, ib; comparative pathology, ib.; hospitals, refuges and orphanages of Ontario, ib.; notification of births, 1454
Canal, the Panama, prevention and treatment of sickness amongst workmen in, 496; sanitation of, 1449
Cancer. See Carcinoma
——— Research Fund. See Fund
Cane, L., a case of severe and fatal haemoptysis in a child aged 3½ years, 1015
Cant, W. E., the operation for trichiasis, 1138
Cantharides, poisoning by, 1195
Cantlie, J., bacteriology of climatic bubo, 953
Canvassing, personal, by medical practitioners, 208; systematic, the General Medical Council and, 1458
Cape Colonial Medical Service, promotions and appointments in, 111
——— Colony, the plague in, 30, 159, 275, 513, 615; the leper question in, 912
——— of Good Hope, correspondence from, 277; the South African Medical Congress, ib.
Capetown, the medical profession in, 107; the health of, 170
Cappelletti, L., La Neurastenia, rev., 789
Capsule, anterior, of the lens, non-perforating wounds of the, 1311
——— formation by diplococcus pneumoniae in culture, 659
Capillaries, dilated, treatment of, 348
Carbolic acid, turpentine as an antidote in poisoning by, 1024
Carcinoma, and its origin, 51, 105, 162, 218, 259, 269, 402, 460; note on the distribution of in the Freebridge Lynn Rural District, 72; Dr. Otto Schmidt's treatment of, 77, 299, 562, 572, 576; in Spain, 99; the parasitic theory of, 116; research as to in America, 153; the etiology of, 173, 193; of the colon and its treatment by colectomy, 175; in Ireland, an economical question, 228; x-ray treatment of 370; research as to in Portugal, 428; the distribution of, 471; M. Doyen's treatment of, 507; research on at Middlesex and Fulham Hospitals, 572; extensive, of the oesophagus, 589; cardiac dullness in cases of, 606; of the liver, broken ribs and, 642; the causation of, 670, 1004; recent mortality from in the Thames Valley, 825, 989; metastasis in, 851; rodent, treated by x rays, 946; of the oesophagus, gastrostomy, 954; reviews of books on, 955; perityphlitis simulating, 1018; research as to in Liverpool, 1145; research in, 1171; of rectum, 1193; recurrent, treated by x rays, 1194; spread of in Spalding, 1234; research as to at the Middlesex Hospital, 1271; diminished cardiac dullness in patients suffering from, 1346; of the pancreas, Sir L. Brunton on, 1353; primary, of the ovaries, 1430; war against, 1448
Cardiff, Sir W. Macewen at, 324
Caries, spinal, in a man aged 60, with abscesses pointing to the epigastrium, 192
Carles, J., Du Rôle des Leucocytes dans l'Absorption et l'Elimination des Substances Etrangères à l'Organisme, rev., 1260
Carlyon, E. L., rock drilling and miners' phthisis, 1211
Carnall, E., aërial convection of small-pox, 510
Carnegie, Mr., establishment of fund by for benefit of persons dependent on those losing life in heroic efforts to save life, 973
——— Institute. See Institute.
Carriages, railway, for tuberculous patients, 856
Carroll, J., the etiology of yellow fever, 265
Carter, E. C., lumbago, 217
——— F. B., a case of ruptured bladder and diaphragmatic hernia, 1487
——— R. B., on physiology in education, 754
——— W., malarial fever, 492
Carwardine, T., double ovarian hydrocele, 307; cysts and other abnormalities arising from branchial clefts, 840
Casalis, G. A., leprosy and fish eating, 15
Case, a, with a moral and a sequel, 866
Caskie, W. A., venesection in opium poisoning, 664
Cassell's Family Lawyer, rev., 1140
Cassie, A. W., observations on temperature, 664
Cassirer, R., Tabes und Psychose, rev., 734
Castlereagh rural district, health of, 689
Castration, a modified operation of, 127; epithelioma of both breasts cured by, 1045
Catalogue, International, of Scientific Literature, rev., 435, 1023
Cathcart, C. W., essential similarity of innocent and malignant tumours, 1300
Catheter, rubber, retention of after external urethrotomy, 604, 759
Catheters, sterilization of, 637
Caton, R., Em-hotep, the Egyptian god of medicine, Egyptian views as to the circulation, rest in incipient valvular disease, 1473, 1504
Cattle, C. H., bilateral neuritis of fifth and sixth cervical nerves, 595
Cautery, hot-air, 433
Caution, a, 1352
Cautley, E., the feeding of infants, 807, 922
Cavers, F., structural links in malignant growths, 1005
Cavities, serous, the admission of pure air into, 759, 808, 868, 923, 988, 1048
Cayley, Colonel H., death of, 736; obituary notice of, 811; the late, 870; the estate of, 945
Celli, A., Manuale dell 'Igienista, rev., 1140
Censures on medical men by coroner's juries, 36
Central Africa, natives of in the Transvaal, 796
Centrum ovale, cylindrical epithelioma in the, 1191
Cerebral. See Brain
Certificate, for workmen's compensation, 1053; of lunatic in workhouse, 1234; of insurance, liability for, 1292
Certificates, medical, by district medical officers, 58; for school children, 401, 462; of analysts and milk warranties, 927; medical, for non-attendance at school, 928; accident assurance, charges for, 1467; school in Scotland, 1518
Certification of lunatics in workhouses, 286
Cerumen, accumulation of, 875
Cervix uteri. See Uterus
Ceylon, sanitary report of, 751
Chailletia toxicaria. See Ratsbane
Chaldecott, J. H., repetition of prescriptions containing dangerous drugs, 337
Chamberlain, Mr., the health of, 1097
Chantemesse, Dr., appointed inspector-general of sanitation in France, 97, 515
Chapman, C. W., the medical profession and alcohol, 50
——— H. C., A Manual of Medical Jurisprudence, Insanity and Toxicology, rev., 1490
——— J. E., the economic value of the sanatorium treatment, 1016
Charges against a hospital staff, 1467
Charity administration, instruction in, 389
Charles, J., neuritis in coal miners, 131
Charlottenburg, museum of security at, 389
Chemiotaxis, the reaction of protoplasm in relation to, 1413
Chemistry, reviews of textbooks on, 312; of the urine in diseases of the pancreas, 776, 868
Chemists' premises, nameplate on, 523
Cheshire, anthrax in, 1088
Chest, common causes of error in examination of the, 1241
Chevers, M. J., case of adiposa dolorosa in a male, 781
Chiari, O., Die Krankheiten des Rachens, rev., 139
Chicago, instruction in charity administration at, 389; the spitting nuisance at, 563; diphtheria and antitoxin at, 566; the Pasteur Institute at, 601; medical inspection of schools in, 754, 1083; hydrophobia at, 1522
Chicken-pox, notification of, 790, 1088
Child, aged 2½ years, purulent pericarditis associated with empyema in a, 9; recently born, respiratory spasm followed by cessation of breathing in a, 124; female child, haemophilia in a, 189; microcephalic, case of, 348; a

warning sign of danger to the during labour, 715, 1014; aged 3½ years, severe and fatal haemoptysis in a, 1015; of 2 years, Jacksonian epilepsy in a, operation, complete relief, 1134; artificial eye for, 1352; emphysema in a, 1485
Childhood, the study of, 1205; the treatment and prevention of tuberculosis in, 1375, 1387, 1450
Children, school, defective vision in, 112; school, out of school, 220; speechless, the teaching of, 288; reviews of books on diseases of, 310; school, eyes and teeth of, 346; school, certificates for, 401, 462; defective education of, 409; school, vision of, 468; the protection of in Spain, 567; school, medical inspection of in Edinburgh, 688; defective and epileptic, 790; the care of in New South Wales, 850; school, medical examination of, 865; alleged to be mentally deficient, teaching of, 927; suckling of when suffering from intermittent fever, 932; poorly fed, etc., fresh air for in Pennsylvania, 983; feeble-minded, the future of, 1034; the occurrence of primary tuberculous infection in the intestinal tract in, 1126; primary intestinal tuberculosis in, perforation of ulcers, 1245; a new crusade by, 1266; school, reviews of books on medical inspection of, 1432
Chili, the plague in, 952, 1103
Chimpanzee, some experiments on enterica, scarlet fever, and measles in the, 817
China, the plague in, 513
Chinese medicines, some notes on, 1025
Chionanthus virginica, note on, 1 35
Chittenden, R. H., do we eat too much? 1153
Chloral, a large dose of, 996
Chloretone and adrenalin chloride in epistaxis, 489
Chloride of ethyl. See Ethyl chloride
Chlorodyne habit, treatment of, 932
Chloroform, administration of by Roth's apparatus, 861; death under, 963; use of in the preparation of vaccine, 1273
Chloroma, note on, 116
Choksy, N. H., The Treatment of Plague with Professor Lustig's Serum, rev., 1022
Cholera in Persia, 1154, 1451
Cholmeley, W. F., hydatid of femur, amputation through hip-joint, 546; gastro-jejunostomy for gastric ulcer, 1193; enterectomy, removal of uterine appendages, ib.; amputation at hip-joint, ib.
Choroid, tuberculosis of the, 309
Christian Science, the wonders of at Manchester, 1034, 1154; "Truth" on, 1095
Christy, C, human trypanosomiasis on the Congo, 186
Chromatin staining (deep) in malaria, 668
Church, A., Nervous and Mental Diseases, rev., 436
——— Sir W. S., the Oliver-Sharpey lecture, 1288
Ciechanowski, S, Anatomical Researches on the so-called "Prostatic Hypertrophy" and Allied Processes in the Bladder and Kidneys, rev., 1491
Cigarette habit, the, in Canada, 982
Cirrhosis, hepatic, reaction with perchloride of iron in the urine of grave cases of, 13, 339
City of London Directory, rev., 1430
Clark, A., the Army Council and military administration, 442; Dr. Otto Schmidt's treatment of cancer, 576; a case of strangulated femoral hernia, 1061
——— H., the late Deputy Surgeon-General Cayley, 870
Clarke, A. B., case of placenta praevia, 74
——— J. J., ankylosis of the jaw, 432; sterilized surgical swabs, 1142
——— J. M., cardiac neuroses, 1314
——— Dr. T., presentation to, 802
Clavicle, unusual dislocation of, 1191
Clay, T. W., puerperal sepsis, 637
Clayton-Greene, W. H., influence of early operation on the mortality and results of acute appendicitis, 1138
Cleland, J. B., the so-called "pancreatic reaction" in the urine, 1347
Clemow, F., The Geography of Diseases, rev., 24
Cleveland, A. J., life insurance examinations, 49, 161; case of congenital hypertrophic stenosis of pylorus, 1073
Clifford, H., case of Caesarean section, 18
Climacteric, defered, 60
Climates, a scheme for the comparison of, 1034
Climbers, Alpine, medical appliances for, 340
Clonmel spa, the waters of, 154
Clonskeagh, injunction against isolation hospital at, 332
Club appointments, how elections to are often conducted, 197
——— collectors, employment of, 407
——— Edinburgh Royal Infirmary Residents', annual meeting of, 1509
——— the Flannel Shirt, objects, etc. of, 790
——— patients, antitoxin and, 346; the manners of, 512
——— practice, note on, 406
Clutton, H. H., hydatid disease in the pelvis, 1430
Coagulation time of the blood in pregnant and puerperal women suffering from albuminuria and eclampsia, 709
Coal gas, poisoning by, 1195
—— miners, neuritis in, 131
Coats, J., A Manual of Pathology, rev., 436
Cobbe, Miss F. P., death of, 854
Cobbett, Colonel R. de la C., death of 926
Cocaine, operation for strangulated hernia under, 192
——— habit, the, in Washington, 4
Cocainization, intraspinal, 950
Coccydynia, treatment of, 288
Coffey, D. J., medicine in the modern university, 689
Cohen, E., Physical Chemistry for Physicians and Biologists, rev., 312
——— S. S., A System of Physiologic Therapeutics, rev., 1199
Coin-catcher, breakage of a, gastrotomy, recovery, 893
——— debaser and quack doctor, 1033
Colectomy, treatment of carcinoma of the colon by, 175
Coleridge, Hon. S., and Mr. F. E. Pirkis, 37, 93; a penitent's progress, 153
Colic, appendicular, 1426
Colitis, membranous, reviews of books on, 81; acute septic, due to milk poisoning, 302; muco-membranous, tetany associated with, 597
Colon, ascending, malignant disease of, 1134
College, Epsom, honours won by scholars from, 563; annual meeting of, 1323
——— of Medicine, Newcastle-upon-Tyne, new laboratories for, 1405
——— Owens, Manchester, the merging of, 397; the lectureship in laryngology at, 575; meeting of Court of Governors of, 700; post-graduate courses at, 1107, 1461; the Bill for passed, 1167; re-erection of Dr. Schunk's laboratory at, 1284
——— Queen's, Belfast, appeal for Government aid, 97, 393; and the Ulster Medical Society, 510; donation to, 630; lectureship in medical jurisprudence, 689; Dunville health lectures, ib.; annual dinner of, 749
——— Queen's, Cork, resolution of grand jury as to, 749; Sir R. Blennerhassett on, 1168
——— Queen's, Galway, visitation of, 209
——— Royal Army Medical, the work and purpose of, 291; description of, 314; mess and officers quarters block of, 802
——— Royal, of Physicians of Edinburgh, the Morison lectures at, 154, 266, 331; quarterly meeting of, 407, 1230
——— Royal of Physicians of Ireland, the president and the viceregal court, 392, 510, 569; admission to licences, 407, 1230
——— Royal of Physicians of London, donation to for establishing lecture on origin, etc., of bacilli, 329; comitia of, 343, 809 1114, 1230
——— Royal of Surgeons of Edinburgh, admission to licences, 407; Fellowship examination, 874; Bathgate memorial prize, ib.
——— Royal of Surgeons of England, pass lists, 56, 583; meeting of council of, 224, 463, 700, 994, 1231, 1468; Members of, and the title of "esquire," 411; a matter of ethics, 642; the council of, 795, 808, 854, 1035, 1213, 1231, 1274, 1332, 1451; country practitioners and the Fellowship of, 1059
——— Royal, of Surgeons in Ireland, the president of and the viceregal court, 392, 510, 569; annual charter, dinner of, 454; pass lists, 525, 809, 1294; prize list, 874; election of examiners, 1115; academic costume, 1294; annual meeting and election of officers, 1410; books for Fellowship examination of, 1412: Barker anatomical prize, 1469
——— of Science, Durham, extension of, 1405
——— Trinity, Dublin, pass lists, 56, 344, 407, 464, 1231, 1294, 1410, 1469; the new provost of, 747, 874; professorship of botany in, 748, 976
——— University, London, the professorship of hygiene at, 328; annual meeting of, 525
——— and Polyclinic, Medical Graduates', the work of, 626
Colleges of Physicians and Surgeons. See Conjoint Board
——— University, extra grant from Treasury to, 451, 972
Collet, L'Odorat et ses Troubles, rev., 435
Collett, J. W., Haemoglobinuric Fever, its Distribution and Etiology, rev, 1022
Collie, R. J., First Aid in Accidents, rev., 83; Schemes of Instruction in First Aid, etc., rev., ib.
Colliery contract, breach of, 342
Collins, A. W, hour-glass contraction of the uterus, 547
——— J. R., a bacteriological inquiry into the sterilization of hands, 1364
Colon, treatment of carcinoma of by colectomy, 175
Colour-test appliance, a 899
Commemoration, a mercurial, 1498
Commission, Mosely Educational, report of, 977
Commission, Royal, on the Militia and Volunteers, report of, 1326, 1348
——— Royal, on Sewage Disposal, report of, 376
——— Royal, on Tuberculosis, report of, 1326
——— the Viceregal, on Irish Poor-law Reform, meeting of, 42, 209
Committee on Antityphoid Inoculation, members of, 1274
——— French Consultative of Hygiene, the presidency of, 208
——— Inter-departmental, on the Model Course of Physical Exercises, report of, 1026
——— Lord Esher's, and the Army Medical Service, 791, 813; the Royal Naval and Military Committee and, 814, 1032.
——— Lord Jersey's, report of, 1446
——— of Military Hygiene, French formation of, 1442
——— Parliamentary Public Health meeting of, 741
——— the Physical Degeneration, meeting of, 208, 323, 526, 1036
——— War Office (Reconstitution). See Committee, Lord Esher's
Companies Act See Act
Company, another medical, 93
——— the Fishmongers, and the cooking of shellfish, 265
——— the Goldsmiths, and investigations into radium, 973
——— of Plumbers, the, and the registration of plumbers, 52
——— the Spectacle Makers, the diploma of, 686; and testing the eyesight of the nation, 926, 1050
——— law, 1096
——— practice, 908
Competition for Poor-law medical appointments, 1422
Complaint against an eye infirmary, 990
Condamin, pregnancy and dermoids of both ovaries, 971
Coneys, Mr. W. J., obituary notice of, 282
Conference on defective and epileptic children, 790; of delegates of charity organization societies, 1498
Confinements, 10,000 attended in the out-door department of the Leeds General Infirmary, 76
Conford, G. J., emphysema in children, 1485
Congo, sleeping sickness in the, 40 (97), 153, 1404; human trypanosomiasis on the, 186
Congress, Anatomical, at Toulouse, meeting of, 845
——— against Drink and Consumption, date and place of meeting of, 1206
——— of Experimental Psychology, date, place of meeting, etc., of, 586
——— French, of Alienists and Neurologists, date, place of meeting, etc., of, 723
——— French Anatomical, meeting of, 797
——— French, of Climatotherapy, date, place of meeting, etc, of, 170, 632
——— French, of Colonial Hygiene, date, place of meeting, etc., of, 736; programme of, 1088
——— German Balneological, date, place of meeting, etc., of, 16, 527
——— German, of Internal Medicine, date, place of meeting, etc., of, 14; discussions at, 566
——— German, Orthopaedic, date, place of meeting, etc., of, 310
——— International, of Dermatology, date, place of meeting, etc., of, 334, 670
——— International Home Relief, date, place of meeting, etc., of, 688, 969; meeting of at Edinburgh, 1393: inaugural meeting, 1440; president's opening address, ib.; sections, 1441, 1492, 1493; reception, 1493; closing general meeting, 1494; dinner, ib.
——— International Medical, sections, etc., at, 1281; new rules for membership of, 1332; constitution of National Committee of, ib.
——— International, of Military Surgeons, date, etc., of, 761
——— International, of Otology, date, place of meeting, etc., of, 114
——— International, of Ophthalmology, date, place of meeting, etc., of, 736
——— International, of Physical Culture, place of meeting and subjects of discussion at, 19
——— International, of Physiology, date and place of meeting of, 305, 1215
——— International, on School Hygiene, date, place of meeting, etc., of, 29; opening of, 846; conclusion of, 969
——— International (South America), date, place of meeting, etc, of, 214
——— International, of Tuberculosis, date, place of meeting, etc., of, 1382
——— for Repression of Quackery in France, 1151
——— Roentgen-ray, date, place of meeting, etc., of, 500
——— South African Medical, difficulties of attendance, 277; papers read, ib.

Congress, World's of Medicine, abandonment of, 153
Conjoint Board in England and the General Medical Council, 108, 165, 281, 464; pass lists, 1055, 1173
——— Board in Ireland, pass lists, 407, 931, 1055, 1231, 1410; the secretaryship of, 1394
——— Board in Scotland, pass lists, 344, 931, 1055, 1231
Conjunctivitis, gonorrhoeal, and hydrogen peroxide, 432
Connor, V. F., luxation of the jaw during sea-sickness, 1472
Connell, A., ruptured gastric ulcer, 1313
Conradi. See Drigalski
Conscience, a health, 94
Conservatism in medicine and surgery, the plea for, 852
Constantinople, the Hamidie Hospital for Children at, 900
Consultant, the disability of a, 1467.
Consultation, the relation of a practitioner to a patient whom he has seen in, 761
Consultations, between medical witnesses, 891; with homoeopaths, 1228, 1467
Consulting room and "office," 648
Consumption. See Tuberculosis
Consumptive poor. See Poor
Consumptives, horseflesh for, 328; sanatoria for, 518, 638, 695, 759; the treatment of, 876; "cured," outdoor employment for, 907; outdoor shelters for, 1060; special Pullman cars for, 1146; poor, the home treatment of, 1443
Contract medical practice, 197, 254, 313, 395, 512, 574, 615, 676, 802, 856, 1040, 1162, 1218, 1262, 1396, 1458, 1511; Mr. W. J. Galloway on, 324; a comparison of work and pay, 574; provident medical associations, an inquest, 615; rates for mixed club, 676; the attitude of Friendly Societies, 802, 856; a medical attendance society, 1040; a burial club, 1162; a joint medical scheme, ib.; the advantages of union, ib.; at Macclesfield, 1218, 1458; in the Highlands and Islands of Scotland, 1262; fees for operation, 1511; employment of canvassers, ib.
Contracts not to practise, assistants and, 283
Contrast, a, 565
Contrecoup, rupture of middle meningeal artery by, 726
Contributions, medical, to the lay press, 467
Convalescents, surgical, 678
Convection, aërial, of small-pox, 464, 516
Convolution, post-central, lesion of without paralysis, 598
Convulsions, syphilitic preceded by marked somnolence of long duration, 594; puerperal, a suggestion for the treatment of by spinal subarachnoid puncture, 1131
Cook, A. R., A Medical Vocabulary and Phrase-book in Luganda, rev., 495
Cooke, J. B., A Nurse's Handbook of Obstetrics, rev., 1199
——— M. A., a warning, 471
Cooking of shellfish, 265
Cooper, C. M., some suggestions in adrenalin diagnosis, 1312
——— P. R., accidental haemorrhage in pregnant women, 20; puerperal sepsis, 457
Co-operation, the Nurses', report of, 1028
Cootehill, insanitary state of infirmary at, 268, 570
Copeman, S. M., increase in vaccination, 1036; report of on epidemic of skin disease at Hendon Asylum, 1448
Copenhagen, meeting of International Association for the Prevention of Tuberculosis at, 1331
Coplans, M., etiology of scurvy, 730
Corby, Dr. H., appointed high sheriff of Cork, 409
Cord, spinal, changes in the in diabetes mellitus, 122; detachment of the odontoid process of the axis, without fracture of the atlas, continued life without symptoms of injury to the, 247; gumma of the, 1314
Cork, a consumptive sanatorium for, 154, 629, 975, 1038
Cornea, pannus and associated changes in the, 1138
Corner, A., inflammation of the lachrymal passages, 1014; non-perforating wounds of the anterior capsule of the lens, 1311; treatment of ophthalmia neonatorum, 1370
——— E. M., fracture of the spine without symptoms, 249; tuberculosis of the choroid, 432; pyopneumothorax due to phthisis, 549; the value of the imperfectly descended testis, the advisability of operation, and the value of the operations performed for its relief, 1306
Cornwall as a health resort, 911
Coroner, legal, decision of, 1172; a Dublin, 1217
Coroners and medical evidence, 321, 342, 448, 467, 914
Coronership, the, for East Middlesex, 96
Corps, Royal Army Medical, promotions and appointments in, 54, 110, 166, 223, 283, 341, 404, 468, 520, 583, 642, 697, 760, 871, 929, 993, 1051, 1112, 1171, 1226, 1291, 1349, 1408, 1465, 1518; retirement on pension after twenty years' service in, 54; passes in military law examination, 110; lost time at Netley, 111; precedence, ib.; changes of station, 222, 467, 1052, 1226, 1465; successful candidates for, 341; the "prior claim" to employment, 346, 405; Indian pay, 871; nursing regulations, 1465
Corps, Royal Army Medical (Militia), promotions and appointments in, 284, 341, 697, 1053, 1465
——— Royal Army Medical (Volunteers), promotions and appointments in, 111, 405, 697, 760, 872, 1053, 1171, 1227, 1292, 1466; the "Annual" of the Glasgow Companies of, 154; presentation of prizes to London companies of, 405; promotions and appointments in bearer companies of, 1171; annual inspection of Aberdeen companies of, 1509
Corrosive sublimate. See Sublimate
Corsica, malaria in, 170
Cotterill, J. M., a case of paraplegia of sixteen months' standing, laminectomy, recovery, 1078
Coudert, a rare form of poisoning by sublimate, 450
Cough, the paroxysmal of influenza, 288; hysterical, the treatment of, 587; and its significance, 1237
Council, the Army, and military medical administration, 442, 445, 468, 511; exclusion of Director-General from, 1292
——— General Medical. See Medical
County Council, London, report of medical officer of health of, 150, 253, 259; medical members of, 646; and the notification of chicken-pox, 790; the new education authority for London, 1328; the educational work of, 1450
——— Courts, new rules for, 990
——— of Washington, the climate of, 411
Court of Probate, medical evidence in, 1228
Coutts, J. A., purulent pericarditis associated with empyema in a child aged 2½ years, 9
Covenant, the restriction, 760
Cow, the appeal to the, 346
Cowie, J. M., intrauterine infection of the fetus in small-pox, 1485
Cowley, J. S., isolation hospitals, 162
Cows, dairy, tuberculosis in, 585; epidemic sore throat from suppurative mammitis in 831; an outbreak of sore throat coincident with a teat eruption in, 1393
Cox, A., the Association and medical defence, 755, 863, 1110
—— Deputy Inspector-General, H. T., osteomyelitis, amputation of the hip-joint, recovery with new bone growth, 1313
Craemer, F., Magenerweiterung, motorische, Insufficienz, und Atonie des Magens, rev., 22
Craig Colony prize. See Prize
Craven, Sir R. M., the will of, 102
Crawford, J. R., a case of pelvic peritonitis treated with antistreptococcus injections, 133
Crèche, a municipal, 815
Cree, Lieutenant-Colonel E. S., death of, 110
Cremation, the Manchester guardians and, 705; in Prussia, 860; in France, 1450
Crendiropoulo, M., note on haemosozic sera, 658; note on the anti-haemolytic (haemosozic) properties of normal urine, 1418
Creosote, apparatus for administering, 953
Cretin, mental condition of, 172
Cretinism, sporadic, 1426
Crichton, G., St. Bartholomew's and the out-patients, 52, 516; the metric system, 1051; the Medical Acts Amendment Bill, 1346
Crieff, proposed cottage hospital at, 1233
Crime, drink and, 93
Crimea, the army medical service in the, 620
Criminal cases, the position of the medical attendant in, 1466
Criminology, the study of, 752, 1142
Cripps, H., two cases involving the question of the site of impregnation, 711
Critchett, Sir A., elected honorary member of the Gesellschaft der Aerzte of Vienna, 1507
Crocker, J. H., medical inspection of schools, 850
Croft, E. O., inversion of the uterus, 669
Croom, Sir H., Caesarean section in eclampsia, 1428
Crosby, Mr. W., death of, 404
Croyden and Co., repetition of prescriptions containing dangerous drugs, 336
Crusade, a new children's, 1266
Cullen, T. S., Adeno-myome des Uterus, rev., 733
Cullingworth, C. J., hydatid disease in the pelvis, 1430
Cuneo, B., The Lymphatics, rev., 434
Cunning, J., Aids to Surgery, rev., 1319
Cunningham, D. J., Manual of Practical Anatomy, rev., 434
Cunynghame, Dr. R. J. B., obituary notice of, 52
Cup, a bitter, 1116
"Cure" for rheumatism, 1172
"Cures" for alcoholism, 316, 324
Currents, high-frequency. See Electricity
Cushing, H., extirpation of the Gasserian ganglion, 689
Cutaneous. See Skin
Cycle, the oestrous, in the sheep, 206
Cyst, fetal bladder, labour impeded by, 190; pancreatic, laparotomy, and drainage, 366; a uterine, 493; hydatid, in the ovary, 724; papilliferous, from an axillary sudoriparous gland, 832, 1049; bone, of the nose, 834; by ovarian, case of appendicitis complicated an the presence of, 1077, 1287; gangrenous ovarian, removal of uterine fibroid with, 1371; large ovarian, 1412; hydatid, in the abdominal wall, 1427; mesenteric, 1429
Cystoscopy, the use of oxygen gas in distending the bladder, 539; gaseous *versus* fluid media in, 694
Cystotomy, suprapubic, for villous tumour of bladder, 782
Cysts, hydatid, in abdomen and pelvis, 389; and other abnormalities arising from branchial clefts, 840
Cytology of malignant growths, 1196; books on, 1352

D.

Daggett, H. I., a case of malignant obstruction of oesophagus, gastrostomy, 1074
Dairy, a co-operative, 964
——— farm, a scientifically worked, 49
Dakhyl *v.* Labouchere, 698
Dalal, K. R., round worms simulating abdominal tumours, 835
Dallas, W. L., variation of the population of India compared with the variation of rainfall, 1891-1901, 1042
Dalton, N., malignant anaemia, 431
Danger to the child during labour, a warning sign of, 715, 1014
Daniel, F. E., a warning sign of danger to the child during labour, 715
Daniell, G. W. B., the administration of chloride of ethyl and somnoform, alone or in conjunction with nitrous oxide or ether, 949
Danysz, J., a microbe pathogenic to rats and its use in the destruction of these animals, 947, 972
Dapper, Sammlung klinischer Abhandlungen ueber Pathologie und Therapie der Stoffwechsel und Ernährungstörungen, rev., 81
Darker, G. F., hypodermic injection of quinine sulphate, 1486
Date, W. H., mesenteric embolism, 725
David, M. J., death of, 1521
Davidson, Dr. A., obituary notice of, 643; the late, 745
——— H. A. C., extreme hyperpyrexia, 129
——— J. M., radium bromide, some notes on cases in which it has been used, 181
Davies, H., a pessary for prolapsus uteri, 1201
——— L. G., life insurance examinations, 263
Davis, G. J., spontaneous rupture of spleen, 1077
Davison, A., Mammalian Anatomy, rev., 897
Davos, a new sanatorium at, 403
Dawbarn, R. H. M., The Treatment of Certain Malignant Growths by Excision of the External Carotids, rev., 956
Deanesly, E., the relative advantages of suprapubic and perineal prostatectomy, 1187, 1194; carcinoma of rectum, 1193; epithelioma of rectum, ib; prostatectomy, ib.; cases, ib.
Dearden, Mr. R. J., obituary notice of, 1470
Death, of patient before arrival, 167; from tuberculosis, primary seat of infection in 500 cases of, 584; under chloroform, 963; from acute tetanus, 1191
Death-rate, alcohol and the, 145, 155; from phthisis in England and Wales, 346
Deaths in the profession abroad, 166, 222, 341, 462, 706, 1111, 1291; and births, registration of, 248
De Boissière, R., hyperpyrexia in measles, 130
Debts, repudiation of by husband, 467
Decalogue, a hygienic, 563
Decapitation in impacted shoulder-presentation, 367
Decapsulation, renal, 607; of the kidney following experimental nephritis, 819; of the kidney for the treatment of albuminuria, 1011; in Bright's disease, 1099
Decoration of wards, 685
Dedication, the form of, 1053
Defence, medical, the British Medical Association and, 398, 443, 513, 577, 755, 805, 863, 918, 988, 1110, 1169, 1223, 1287; the London and Counties Medical Protection Society, and, 676; the Medical Defence Union and, 677; medical, in America, 1153
Deformities, congenital, 549; digital, 1370; hereditary, 1486
Degeneracy, physical, mental, and moral, 1205
"Degenerates," a short way with, 625; certain proposed sterilization of, 695, 808
Degeneration, physical, 37, 45, 86, 104, 140, 197, 272, 319, 401; national, milk and, 908; reviews of books on, 1317; and development, 1325; what is it? 1344; national, training and, 1389; physical, in Prussia, 1461; of mucus-secreting glands, 1524

Degrees in dentistry, 323, 516, 580 759; and diplomas. London, 921
De Langenhagen, M., Muco-membranous Enterocolitis, rev., 81
De Lisle, F., the destruction of rats on board ship, 695
Delivery by forceps, facial paralysis following, 246; post-mortem, in hospital and in private, 799
Dementia praecox and simulation, 1268
Demoor, J., the physiology of fatigue, 145
Denmark, honours conferred on Royal visit to, 1028
Dental Act. See Act
——— Section. See Section
Dentist, unqualified, in Scotland, prosecution of, 1409
Dentistry, degrees in, 323, 516, 580, 753: books on, 1059
Dentists, qualified medical practitioners as, 342, 407; for the army, 627; and the Companies Act, 976; female in Paris, 1262
Deputation to Registrar-General and President of Local Government Board, 504: to President of Local Government Board on rural housing, 564; to London County Council by Metropolitan Street Ambulance Association, 1161
Deputy, payment of, 1172
Dercum's disease. See Adiposa dolorosa
Derham-Reid, J., a pessary for prolapsus uteri, 790, 1434
Dermatology, reviews of books on, 609, 1491
Dermatitis, acute, produced by satin-wood irritation, 1484
Dermoids of both ovaries, pregnancy and, 971
Derry, destruction of tuberculous meat in, 570
De Schweinitz, Dr. E. A., death of, 761
——— G. E., Diseases of the Eye, rev., 842
Dessauer apparatus, the, 1176
Deterioration, physical. See Degeneration and Physique
Dettweiler, Dr. P., death of, 222
Development, physical, and infant feeding, 739; physical, of the London schoolboy, 829
Devonshire, the county council of and the Midwives Act, 1163
Diabene, note on, 708
Diabetes mellitus, changes in the spinal cord in, 122; relation of ammonia nitrogen to the total nitrogen in, 549: the rational treatment of, 587; transplantation of the pancreas in, 759
Diabetics, improvements in dietetics of, 537, 693
Diagnosis, a case for, 115, 227; adrenalin, some suggestions in, 1312; its theory and practice, 1437
Diaphragm, calcareous changes in, 952
Dick, J. S., the treatment of pneumonia, 105, 519
Dickson, D. E., the British Medical Association and medical unions, 399
Didymin in exophthalmic goître, 15
Diet, in phosphaturia, 115, 227; arterial sclerosis and hypertonus in relation to, 1297
Dietetics and the "elixir of life," 108; of diabetics, improvements in, 537, 693; reviews of books on, 1432
Differentiation, photographic, of B. typhosus and B. coli communis, 1004
Digestion of haemoglobin, 823
Digestive disorders, reviews of books on, 22
——— system, arterial sclerosis and hypertonus in relation to, 1297
Digits, supernumerary, 1254
Dilatation, forcible, of the cervix in "accouchement forcé," 67, 228, 472; acute gastric, 305
Dilator, Bossi's note on, 193; clinical notes on the use of, 717
Dimmock, A. F., the estimation of uric acid in the urine, 1018
Dinner, Welsh, medical, 1270
Dionine, a new ocular analgesic, 1009
Diphtheria, antitoxin as a prophylactic in, 43; and antitoxin in Chicago, 566; hemiplegia occurring during, 597; the prophylactic use of, 1018; laryngeal, intubation in, 1127; an epidemic of, 1192; disinfection after, 1411; protracted and recrudescent infection in, 1428
Diplococcus pneumoniae in culture, capsule formation by, 659
Diploma in tropical medicine at Cambridge, 343, 444, 463, 524, 577
Diplomas and degrees, London, 921
Diplomatist, a medical, 1497
Discharges, post-gonorrhoeal, 647
Disclaimer, a, and a protest, 523, 700; a, 1518
"Discretion" in the payment of medical witnesses, 795
Disease, sporozoa and, 563, 624, 684, 742, 797, 1093, 1153, 1213; prevention and early treatment of, 1018; treatment of by unqualified persons, 1293
——— Addison's adrenalin in, 131
——— caisson, note on, 1152; bridge construction and, 1405
——— Raynaud's, scleroderma associated with, 126
Diseases, contagious, of animals, control of, 386; tropical, study of in Liverpool, 505; two infectious, the simultaneous incubation of, 580; of the nervous system, alleged increase of, 598; contagious, prophylaxis of in Italian schools, 705
Disinfectants, bacteriological standardization of, 853
Disinfection after diphtheria, 1411
Dislocation, congenital, of the knee with talipes calcaneus, 190; reduction of immediately after the accident, 1133; unusual of the clavicle, 1191; congenital of hip, 1315
Dislocations, reduction of immediately after the accident, 664; of the hip, rival methods of treating, 846
Dismissal, wrongful, in Scotland, action for, 167
Dispensaries, Irish, work of locum tenens in, 995
Dispensary doctors. See Medical officers
——— service in Ireland, the report on, 963, 1040, 1158, 1327, 1334, 1347
——— system in Ireland, 1407
Dispensing, by doctors, prohibition of, 399, 446, 459; reviews of books on, 495
Distin, H., a note on "brachial neuralgia," 124
Distribution of cancer, 471
District, residence within, 346
Diver, E. W., the sanatorium treatment of consumptives, 638, 759
Dix, W. R., hereditary tendency to multiple births, 75
Dobson, A., a case of acute tetanus, death, 1191
Dock, G., diagnosis, its theory and practice, 1437
Doctor, the, in his social aspect, 38; "the" by Luke Fildes, warning as to piracy of, 60; the title of, 342, 467
Doctors in Parliament, 107, 220, 280, 339, 397, 461, 578, 638, 697; v. barristers and solicitors, 228; probibition of dispensing by, 399, 446, 459
Dodd, J. T., the causes of high infant mortality, 338
"Dodi" twig as a nucleus of a stone, 490
Donald, J. Q., treatment of inebriety by drugs, 1169
——— Dr. W., death of, 404
Donaldson, Dr. E., obituary notice of, 926
Donations, 73, 82, 209, 452, 593, 846, 1205, 1206, 1208, 1218, 1226, 1278, 1484
Doorplates on doctors' houses of call, 1172
Doran, A., pelvic lesions in relation to abdominal diagnosis, 249; the site of impregnation, pregnancy after double ovariotomy, 808; haematoma and haematocele, a study of two cases of early tubal pregnancy, 1180, 1195; elected honorary member of the Berlin Gesellschaft für Geburtshulfe und Gynakologie, 1206
Dorchester, report of medical officer of health of, 1233
Dorland, W. A. N., The Illustrated Medical Dictionary, rev., 495
D'Ornellas, Baron A. E., death of, 1521
Douglas, C., the coagulation time of the blood in pregnant and puerperal women suffering from albuminuria and eclampsia, 709
Dove, Mr. J. R. B., obituary notice of, 645
Dowie, Dr., in Australia, 859; leading article on, 1444
Doyen, M., the toxin treatment of cancer, 507; candidate for Chamber of Deputies, 1498
Dr. See Doctor
Drage, L., the Central Midwives Board, 1407
Drainage of pericardium, epigastric operation for, 106
——— tube, self-retaining, and pilot for the maxillary antrum, 899
Drake, Mr. E. C., death of, 54
Dresden, Mr. E., bequests of to hospitals, 450
Dressing materials, some surgical, experiments to determine the relative efficiency of, 1361
Drew, D., Thorne defence fund, 1462
Drigalski and Conradi, a rapid method of preparing the medium of for the differentiation of B. typhosus and B. coli communis, 190, 281
Drink and crime, 93
——— cures, drunkards and, 205
Drug rash. See Rash
Drugs, dangerous, repetition of prescriptions containing, 215, 278, 336, 412, 588, 708; pure, in America, 699: and licences in India, 702; the sale of in tabloid, 872; some old, a plea for, 922; treatment of inebriety by, 1032, 1168, 1222, 1345, 1408; influence of the "nascent state" on, 1338
Drunkards and drink cures, 205
Drury, H. C., on myxoedema, 1372
Drysdale, J. H., racemose aneurysm of the brain, 77; splenica infantum 368
Dublin, housing of the working classes in 41; compensation to medical men in, 510: the Hospital Sunday Fund of, 1159: hospital appointments at, 1304; a "rest for the dying" in, 1457: the hospitals of, ib.
Duckworth, Sir D., pneumococcal peritonitis, 134: the modern pursuit of novelties in medicine, 1354: on Sir D. P. Ross, 1520
Duclaux, M. E., death of, 1097, 1166
Dudfield, R., inhabited house duty, 932
Dudgeon, L. S., colon bacillus from a case of emphysematous gangrene, 194
Dudley, Lady, and district nursing in Ireland, 1150
Dufton, H. T., cancer and its origin, 105
Dugon, F., testing the eyesight of a nation, 1345
Duke of Cambridge, the, as a philanthropist, 741
Duke, A., forcible dilatation of the cervix in "accouchement forcé," 228
Dukes, C., treatment of ascites, 19
——— T. A., bleeding in pneumonia, 638
Dullness, cardiac in cases of cancer, 606; diminished cardiac in cancer patients, 1346
Dun, R. C., congenital hydronephrosis, 136
Dunbar, Professor, the serum of in hay fever, 1116, 1168
Duncan, Lieutenant-Colonel G., death of, 468
——— J. W., septate vagina, causing delay in labour, 74
Duncanson, J. G., the danger of suprarenal treatment in haemoptysis, 603
Dundee, lectures to teachers at, 736
Dunn, P., a colour-test appliance, 899
Du Pasquier, E., Les Troubles Gastriques dans la Tuberculose Pulmonaire Chronique, rev., 1082
Durham, H. E., the urine in beri-beri, 480
Durness, the medical officership of, 148
Dutch auction, an Irish, 849
Dutton, Dr. E. G., death of, 706
——— J. E., human trypanosomiasis on the Congo, 186
——— T., a sanitary milk supply, 163; sudden illness and accidents in the streets of London, 1109
Dux femina facti, 563
Duxhurst Industrial Farm Colony, the work, etc., of, 1028
Dyball, B., a case of tubal gestation, primary intraperitoneal rupture, operation, recovery, 718; a fatal case of secondary parotitis, 1012; a set of portable retractors, 1374
Dyer, I., leprosy from a sanitary standpoint, 387; leprosy in Russia, ib.; reported discovery of cure for leprosy by, 1154
Dysentery, the bacilli of, 626; bacillary, some experiments concerning, 663; asylum, in relato B. dysenteriae, 1002

E.

Eady, W. H., fire insurance and its deceptions 60
Ear, book on embryology of, 59: middle, live birth test of, 348; suppurative diseases of the, 430
—— douche basin, a self-retaining, 313
Earl of Rosebery, letter to on the London University Institute of Medical Sciences, 223
East Anglia, some survivals of mediaeval medicine in, 1397
Eastbourne, the spitting nuisance at, 617
Eat too much, do we? 1153
Eclampsia, puerperal, 16; primary, in a multipara, 74; puerperal, treatment of by a combined method, 718; puerperal, treatment of, 876; puerperal, treated by thyroid extract, 805; Caesarean section in, 1428; puerperal, twice in the same patient, 1486
Eden, T. W., hydatid disease in the pelvis, 1430
Edgar, J. C., The Practice of Obstetrics, rev., 732
Edgeworth, F. H., lumbago, 279; incontinence of urine in children, 840
Edinburgh, sudden deaths in, 98; small-pox in, 98, 331, 393, 568, 1101, 1394; proposed biological research institute in, 630; medical inspection of school children in, 688; the hospitals of, ib.; scarlet fever in, 747, 801, 915; annual report of the sanitary and markets department of, 1157; Sir H. Littlejohn's annual report, ib.
——— District Lunacy Board. See Board
Edinger, L., Vorlesungen ueber den Bau d. nervösen Zentral-organe des Menschen und der Tiere, rev., 1373
Edington, A., malarial disease in South Africa, 894; modified horse sickness, ib.
Editor of the BRITISH MEDICAL JOURNAL, memorandum by on the reconstitution of the Local Government Board, 27
Edmunds, A., regeneration of nerves, 1214
——— J., the Keeley Institute, 342
Education, preliminary general, of medical students, and the General Medical Council, 144, 280, 384; and medicine, 330; of defective children, 409; physical and mental, 548; in London, 576; physiology in, 751; medical, in America, 977; physical, in elementary schools, 1091; London medical, the future of, 1177, 1207; medical, a sidelight on, 1329
——— authority, the new, for London, 1328
——— Bill. See Bill
Edwards, P., figure weights, 674

Effusion, pleural, 1080
Effusions, serous, the treatment of, 649
Eggs, yolkless, 647
Egypt, the plague in, 615, 856; and the Soudan, report of Lord Cromer on, 901; visit of Professor Koch to, 1146, 1206
Einhorn, M., Diseases of the Stomach, rev., 23
Eisenrath, D. N., A Textbook of Clinical Anatomy, rev., 899
Elasticity of the aorta, 1316
Elder, J. M., acute intestinal obstruction caused by syphilitic ulceration in the ileum, 1068
Electricity, high-frequency currents of, 607; some typical examples of treatment by, 944; gastric ulcer and high-frequency currents of, 1255
Electro-magnet, the use of, 647
Electro-therapeusis, the future of, 39
Electro-therapeutic work, recent, demonstration by Dr. J. Macintyre on, 933
Electro-therapeutics, books on, 996
"Elixir of life," the, dietetics and, 108
Ellinger, F. K., personal hygiene and prevention of disease, 1135
Elliot-Blake, H., the Midwives Act, 164; London degrees and diplomas, 921
Ellis, Inspector-General H. M., appointed Director-General of the Medical Department of the Royal Navy, 1391, 1408
Emanuel, J. G., right hemianopia, 731
Embolism, mesenteric, 725
Emigrants, undesirable, the United States and, 1424
Emlyn, A., treatment of obstinate scabies, 875
Emperor, the German, and his doctors, 96
Emphysema, surgical, secondary to tuberculous pneumothorax, 783; in a child, 1485
Employers, liability of, 1467
Empyema and bronchiectasis, 5; in a child aged 2½ years, purulent pericarditis associated with, 9; in an infant of 4 months, simple incision, recovery, 17; double, 250
Encephalopathy, lead, case of, 888
England, public health administration in, 163; the necessity for improving the teaching of massage in, 1347; proposed visit of French medical men to, 1451
English, the evicted, 909
English, D., Wee Tim'rous Beasties, rev., 1260
Enterectomy, removal of uterine appendages, 1193
Epigastrium, abscesses pointing in in a case of spinal caries in a man aged 60, 192
Epilepsy, the mental condition in in relation to prognosis, 894; Jacksonian, in a child of 2 years, operation, complete relief, 1134
Epileptic case, an unusual, 126
——— fit, method of arresting, 1253, 1352
Epileptics, home for in Hampshire, 170; a colony for in Texas, 1088; institutions for, 1236
Epistaxis, adrenalin with chloretone in, 489
Epithelioma, of both breasts cured by castration, 1045; cylindrical, in centrum ovale, 1191; of rectum, 1193
Erysipelas, three cases of, 547
Erythema scarlatiniforme (influenzal), case of, 603, 952
Erythromelalgia and polycythaemia, 1017
Esdell, G. A., successful replacing of a severed finger, 131
Esperanto, the progress of, 1050; M. J. Clarétie and, 1401
Ether vapour, 1296, 1471
Ethics, a matter of, 642; of antivaccinists, 699, 927; medical, 1203
Ethyl chloride, inhaler for, 313; a simple method for the administration of, 428, 663; the administration of, 604, 1296; and somnoform, the administration of alone or in conjunction with nitrous oxide or ether, 949
Etiology of gout, 68, 161, 219; of carcinoma, 173, 193; of yellow fever, 265; of leprosy, 471; of scurvy, 730
Etiquette, medical, 55, 167, 343, 467, 583, 928, 1053, 1172, 1349, 1467
European, examination of the tissues of the case of sleeping sickness in a, 1000
Euthanasia, 1384
Evans, H. M., Jacksonian epilepsy in a child of 2 years, operation, complete relief, 1134
——— J., traumatic neurosis, 367; medico-legal aspects of injuries to the eye, 367
——— J. J., injuries to the eyes in relation to the Workmen's Compensation Act, 483
——— W. H., appendicular colic, 1426
Evans-Gordon, Major, the evicted English, 909
Evatt, Surgeon-General G., the Indian Medical Service and the monthly Army List, 54; doctors in Parliament, 578; the Army Council, 1292
Eve, F. C., a diphtheria epidemic, 1192
Evidence, medical, coroners and, 321, 342, 448, 467; medical, in Court of Probate, 1228
Ewart, W., a bed punkah, 1200
Ewing, J., Clinical Pathology of the Blood, rev., 1083
Examination, State, in the United States, 1436
Examinations under the Workmen's Compensation Act, 760
Excision, five consecutive cases of perforated gastric ulcer treated by, 421; of Gasserian ganglion, 954
Exercise, physical, in schools, 1026
Exophthalmos, pulsating, 77
Experiments on living animals, 1400
Extirpation of the Gasserian ganglion, 689
Eye, books on embryology of, 59; medico-legal aspects of injuries to the, 367; artificial, for child, 1352
—— testing, opticians and, 203, 342
Eyes, of school children, 346; injuries to the in relation to the Workmen's Compensation Act, 483
Eyesight of the nation, testing the, 926, 1050, 1109, 1170, 1287, 1345, 1463, 1517
Eyre, J. W. H., nutrose agar, 193; asylum, dysentery in relation to B. dysenteriae, 1002

F.

Fabre, an anaemia among miners, 1044
"Face treatment," 1349
Factories and workshops, ventilation of, 211
Factory Girls' Holiday Fund. See Fund
——— hands, breast feeding of infants of, 1339
Faculty, an international, 970
Faecal ball formation, causes of, 172
Fagge, C. H., atresia auris congenita, 371
——— F. T., lumbago, 279
Family, one, five successful hysterectomies for fibroid disease in, 357
——— record, a, 608
——— tree, a, 190
Famine foods. See Foods.
Far East, the war in the, 384
Farmer, J. B., cancer and its origin, 162, 278; the biological significance of malignant growths, 800; the cytology of malignant growths, 1156
Farquhar, J., sciatica and lumbago, 892
Farrar, J., forcible dilatation of the cervix uteri in "accouchement forcé," 472
——— R., the Life of Frederick William Farrar, sometime Dean of Canterbury, rev., 958
Fascia, the pelvic, 369.
Fatigue, the physiology of, 145, 279; mental, 1029
Faulds, A. G., the use of oxygen gas in distending the bladder for cystoscopy, 539
Fawcitt, J. W., fatal case of poisoning by potassium bromide, 547
Fedderson, on sciatica, 146
Federated Malay States, campaign against mosquitos in, 55
Fee, one, two insurance reports, 55; for attending patient confined by midwife, 928; for revaccination disapproved by auditor of union, 994; liability for, 1111; for restoration to "Medical Register," 1168, 1224, 1346; for "false pain" visit, 1236; midwifery, refusal of, 1294; consultation, in a doubtful case of small-pox, 1335, 1511; a question of, 1467; for accident, attendance on employé, 1518
Feeble-minded, the care of, 386
Feeding, of infants, 440, 580, 756, 807, 866, 922; in relation to the health of the young, 674; of infants, a formula for, 1201
Fees to medical witnesses in criminal prosecutions, 30, 33, 406, 1228, 1466; for insurance work, 40, 49, 95, 107, 161, 263, 337, 340, 640, 964; medical, 55; to medical witnesses in Australia, 58; delay in payment of, 223; for vaccination at Newark, 284; a question of, 342, 471; for notification of infectious disease in paupers and others, 526; for medical witnesses in civil cases, 700; the new scale of for medical witnesses, 741; to medical witnesses, discretion in the payment of, 795, 808, 863; for police calls, 928; assistants', 990; for examination under the Workmen's Compensation Act, 996; medical, in midwives cases under the Midwives Act, 1040; medical, at inquests, 1172; to assistant in full charges, 1228
Feet, the Japanese soldiers', 1150
Female. See Women
Femur, amputation through hip-joint for hydatid of, 546; spontaneous fracture of neck of, 1018
Fenn, S. B., the so-called "gold cure" of inebriety, 1008
Fenwick, B., state registration of nurses, 1049, 1168
——— E. H., The Value of Ureteric Meatoscopy in Obscure Diseases of the Kidney, rev., 609; treatment of urinary tuberculosis, 784
——— P. C., intestinal obstruction, due to paralysis of a loop of jejunum, 605
——— S., Student's Guide to Medical Diagnosis, rev., 25
Ferguson, Lady Helen M., the State registration of nurses, 987
——— R. B., Aids to the Mathematics of Hygiene, rev., 1140
Ferments, review of book on, 610
Ferraby, G. A., a case for diagnosis, 227
Ferriani, professional jealousy, 151
Fetus, intrauterine infection of in small-pox, 1485
Fever, aestivo-autumnal, parasite of, 840
——— continued, with Leishman-Donovan bodies, 1487
——— enteric, watercress and, 37, 57; tidal waters and endemicity of, 90, 151; exceptional case of, 191; perforation in, 194; oysters and, 271, 346, 585; drug rash complicating and simulating scarlet fever, 364; transmission of by flies, 566; in Hamburg, 785; in the chimpanzee, 817; intestinal obstruction after, 838; varieties of, 953; at Harbin, 964; prevalence of in Prussia from 1892 to 1901, 1197
——— glandular, Dr. J. W. Byers on, 71 (172); in Jamaica, 952
——— haemoglobinuric, case of, 247, 1078; the treatment of, 544
——— hay, treatment of by Dunbar's serum, 1116, 1168
——— intermittent, suckling of children when suffering from, 932
——— malarial, four cases of, 492
——— Mediterranean, formation of committee to investigate, 1387
——— recurrent, associated with spirilla in the blood in a patient from Gibraltar, 538
——— relapsing, morphology of the spirillum of, 1015
——— rheumatic, the staphylococcus aureus and, 77; the infective nature of, 1117; the bacteriology of, 1148; study of a case of, 1138
——— scarlet, drug rash complicating enteric fever and simulating, 364; duration of infectivity of, 469; at Portsmouth and isolation, 585; in Edinburgh, 747, 801, 915; in the chimpanzee, 817; return cases of, 1172; an obscure case of, 1370; observations on an epidemic of, 1420; protracted and recrudescent infection in, 1428
——— yellow, in Jamaica, 127; the etiology of, 265; in Texas, 1450
Fevers, cachexial, Leishman-Donovan bodies in, 1249
Fiolliott, Brigade Surgeon W., death of, 1465
Fibroid, uterine, with ovarian cyst, removal of, 1371
Fibroids complicated by pregnancy, 730; complicating pregnancy, 1430
Fibromyoma, of the round ligament, 308; a degenerating, 1195
Fibromyomata, malignant, complications of, 1196
Fiddian, A. P., the metric system in English medical practice, 921
Figure weights. See Weights
Filaria immitis Leidy, the life-history of, 822
Filariasis, note on Dr. Primrose's paper on, 72; cure of by removal of the adult worm, 461
Findlay, Dr. W., obituary notice of, 812
Finger, severed, successful replacing of, 131
Fingers, gangrene of, 1018
"Fingers and toes," books on, 59
Fink, Major G. H., the parasitic theory of cancer, 116; Cancer and Precancerous Changes, rev., 956
Finlay, D. W., the treatment of pneumonia, 206; pyoneumothorax, 1316
Finlayson, J., tuberculous disease and heredity in relation to life assurance, etc., 1207
Finsen, Dr. N. R., and the Nobel prize, 41; gets Cameron prize, 390
Fire insurance and its deceptions, 60
First aid, instruction of railway employés in, 1035; treatment of cut arteries, 1352
Firth, J. L., sinus thrombosis, 1314
——— Lieutenant-Colonel R. H., the bacilli of dysentery, 626; notes on some experiments concerning bacillary dysentery, 668
Fish eating, leprosy and, 15
—— theory of leprosy, 1448
Fisher, T., on tuberculosis, 305; an inquiry into the primary seat of infection in 500 cases of death from tuberculosis, 884
Fisk, E., rupture of thoracic aneurysm, 841
Fissure, the parieto occipital, 743
Fit, epileptic. See Epileptic
"Flag mop," a uterine, 673
Flannel Shirt Club. See Club
Flashman, F., the parieto-occipital fissures, 743
Flasks, sputum, disinfecting of, 348
Flax and linen, health of operatives in, 970
Fletcher, Mr. R. V., obituary notice of, 222
Flies, transmission of typhoid fever by, 566
Florence, wholesale abortionmongering in, 1266
Foa, C., changes in the blood at high altitudes, 1097
Food, pure, in America, 659: for the mind, 850
——— question, the, in health and disease, 1208
——— values, Professor Halliburton on, 680
Foods, famine, in India, 94

Football injuries, 853
Foot Guards, medical officers of, 871
Forceps, facial paralysis following delivery by, 246; axis traction; 338, 399; entropion, 899; pile-suture, 1024; overlooked, 1147
——— applicator, a new uterine, 674, 899
Forbes, D., intrauterine infection of the fetus in small-pox, 1485
Forehead, cirsoid aneurysm of treated by free incision and extirpation, 304
Foreign bodies, swallowed, 1080
——— body impacted in bronchus, 729; impacted for seven months in the oesophagus, 1074
Formalin and skin disease, 1448
Foster, A. E. M., "the biographic puff," 1111
Fothergill, E. R., repetition of prescriptions containing dangerous drugs, 336; proposed medical defence department, 577; the Association and medical defence, 919
——— W. E., accidental haemorrhage in pregnant women, 20; Manual of Midwifery, rev., 1198
Fowler, E. S. G., calcareous changes in heart, diaphragm, and arteries in a patient 32 years of age, 952
Fox, J. T., the mechanism of the alimentary canal, 1018
—— P. H., conviction of, 570
Foxwell, A., septicaemia, 367
Fracture, ununited of radius and ulna, 249; of the spine without symptoms, ib.; depression of skull, caused during birth, treatment of, 880; spontaneous, of neck of femur, 1018
Fractures, reviews of books on, 956; massage in, 996
Fraenkel, A., Spezielle Patho'ogie und Therapie der Lungenkrankheiten, rev., 789
France, the plague of rats in, 624; students at universities of, 846; spectacle prescribing in, 1107; congress for repression of quackery in, 1151; cremation in, 1450
Francis, E., a case of haemophilia treated with adrenalin chlorides, 1247
Frank, F., schools for midwives, 742
Franklin, Lieutenant G. D., exceptional case of enteric fever, 191
Franze, P. C., the Nauheim baths, 838; the Dessauer apparatus, 1176
Fraser, E., fictitious temperatures, 1060
——— H., a case oi hemiplegia occurring during whooping.cough and diphtheria, 597
——— N. S., antenatal rigor mortis, 1014
Free will, note on, 528
Freebridge Lynn Rural District, notes on the distribution of cancer in, 72
Freer, E. L., a matter of ethics, 642
French, H., leucocytosis and appendicitis, 1137
——— R., epidemic sorethroat from suppurative mammitis in cows, 831
Frenkel's treatment of ataxia, 875
Frey, H,, Alkohol and Muskelermüdung, rev., 251
Freyer, P. J., the method of treating prostatic enlargement, 232; total extirpation of the prostate for radical cure of enlargement of that organ, 1183
Fripp, Sir A., and the Imperial Yeomanry Hospitals, 441
Froussard, Muco-membranous Colitis, rev., 81; Le Traitement de la Constipation, rev., 139
Fruit culture in Great Britain, 36
Fuller, R. H,, decoration of, 736
Fullerton, A., a foreign body impacted for seven months in the oesophagus, 1074
——— R., respiratory spasm followed by cessation of breathing in a recently-born child, 124
Fund, British Medical Benevolent, annual meeting of subscribers to, 451, 506; meeting of committee of. 678, 1028
——— Cancer Research, investigations in the laboratories of, 259, 269; scientific report of, 1027; and quack remedies, 1093; in Liverpool, the work of, 1145
——— Factory Girls Holiday, the work of, 790
——— Holman Testimonial, subscriptions to, 862, 916, 983, 1040, 1103, 1160, 1218, 1265; note on, 1039
——— Hospital Saturday, meeting of Sanatorium Committee of, 99; annual report of, 1028
——— Hospital Sunday, report of council of, 904; meeting of council of, 1163; Mr. George Herring and, 1390; amount collected for, 1498
——— Irish Medical Benevolent, annual meeting of Belfast and Co. Antrim branch of, 1217
——— King Edward's Hospital for London. annual meeting of general council of, 614; Sir John Aird and, 1206
——— Royal National Pension for Nurses, report of, 964; annual meeting of, 1095
——— Royal Medical Benevolent Society, Ireland, annual meeting of, 1456
——— Thorne defence, subscriptions to, 1462, 1511
——— Trained Nurses' Annuity, object, etc., of, 586
Furunculosis, treatment of by inoculation of staphylococcus vaccine, 1075
Fysh, Mrs. M. N, treatment of puerperal eclampsia, 876

G.

Gadd, H. W., Drugs, their Production, Preparation, and Properties. rev., 844
Galabin, A. L., Diseases of Women, rev., 372
Gall bladder, surgery of the, 607, 886
Gallivan, T., pleuropagous twins, difficult labour, 74
Galloway, Mr. W. J., on contract practice, 324
Galton, F., inquiry by as to ability in families, 1028
——— J. H., Holman testimonial fund, 862
Gamgee, C. P., chronic pancreatitis, 493
Ganglion, Gasserian, extirpation of, 689; excision of, 954
Gangrene. emphysematous, colon bacillus from a case of, 194; of fingers, 1018
Garcia, M., appreciation of, 625
Garden, W. F., medical practice in Bussorah, 1517
Gardening for women, 94
Garner, Major C., decoration of, 677
Garratt, G. C., metabolism in the febrile state, 491
Garrington, Dr. A. M., obituary notice of, 926
Garrod, A. E., tumour of the liver, 249; a survey of the recorded cases of haematoporphyrinuria not due to sulphonal, 549
Garry, T. G., the intrusion of the layman into medical practice, 1108
Gas griller, a, 60
Gastric. See Stomach
Gastro-jejunostomy, the operation of, 493; for pyloric stenosis, gastric ulcer, and other non-malignant conditions, 1064; for gastric ulcer, 1193
Gastrotomy, in case of breakage of coin-catcher' recovery, 893
Gastrostomy, for carcinoma of oesophagus, 954; for malignant obstruction of oesophagus, 1074
Gateshead, small-pox and vaccination at, 1150
Geach, R. N., a mental case treated with ovarian extract, complete recovery, 130
Gemmell, J. E., the Central Midwives Board, 1406
General Medical Council. See Medical
Genth, Dr. C., death of, 706
Geoghegan, Dr. and Mrs., presentation to, 58
George, H., an ethyl-chloride somnoform inhaler, 673
German Emperor. See Emperor
Germany, leprosy in, 88; a Behring Institute for, 97; vaccination, isolation and small-pox in, 381; the birth-rate in, 391; tuberculosis in, 430; small-pox in, 508; prevention of consumption in, 750; the cost of vaccination in and the risks attending its use, 903; prevention of small-pox in, 1085; the vivisection question in, 1382; post-graduate clinical teaching in, 1450; club practice in, 1458
Gestation, old ectopic, complicating normal pregnancy pain, suicide, 15; unruptured tubal, 369; tubal, case of, 718, 730; ruptured tubal, after-history of, 1253; ectopic, early diagnosis, operation, recovery, 1485
Giantism, eunuchoid, 972
Gibraltar, recurrent fever associated with spirilla in the blood in a patient from, 538
Gilbert, E. G., lumbago and angina pectoris, 641
Giles, Lieutenant-Colonel G. M., A Revision of the Anophelinae, rev., 1022
—— P. B., prohibition of dispensing by doctors. 459; doctors in Parliament, 697
Gilles de la Tourette, Dr., death of, 1291
Gilliam, D. T., A Textbook of Practical Gynecology for Practitioners and Students, rev., 733
Gilmour, J. R, saline infections and mental disease, 955
Gilruth, J. A., immunization against anthrax, 264
Girls from elementary schools in London, physical examination of 1,580 of, 1248
Gladstone. R. J., bulk and ability, 851
Gland, axillary sudoriparous papilliferous cyst from an, 832, 1049
——— suprarenal. See Suprarenal
Glands, the lymphatic, in sleeping sickness, 1252; mucus-secreting, degeneration of, 1524
Glandular fever. See Fever
Glasgow, the prevention of consumption in, 41, 616, 630, 1218; the corporation of and the prevention of malaria, 41; small-pox in, 98; Hospital Sunday collections in, 210; the hospitals of, 688; sewage scheme for, 1393; the sanatorium for consumption at Bellefield, 1455; the inebriate reformatory at, ib.; annual report of sanitary department of, ib.; infants milk dépôt at, 1509
Glaucoma and glaucoma theories, 431; iridectomy in, 489
Glegg, W., lamp for rhino-laryngoscopy, 83
Glenny, W. C. W., a case of extreme hyperpyrexia, 129
Glioma, optic, 1429
"Glossina," transmission of sleeping sickness by, 696
Gloucestershire, prevention of consumption in, 1264
Glover, G. J., the whisky habit, 104
Glück, leprosy of the ovaries, 851
Glycogen reaction in blood, 880
Glycosuria, potatoes and, 544
Godin, P., Recherches Anthropométriques sur la Croissance des Diverses Parties du Corps, rev., 494
Godston, Mr. C., obituary notice of, 322
Goerbersdorp Sanatorium converted into a company, 306
Goître, exophthalmic, didyminin in, 15; exophthalmic, disseminated sclerosis and, 725
Gold Coast, sanitary improvement of the, 265
"Gold cure," the so-called, of inebriety, 1008
Golf, medico-legal, 1028
——— match at Oxford, notice as to, 1511; a medical, 1524
Gonorrhoea, iliac abscess following, 724
Gonorrhoeal matter, loss of virulence of, 587
Gonsalves, V. P., prospects of Indian medical practitioners, 876
Goodall, E., medical women in Sweden, 108; the action of the blood serum from cases of acute mental disorder on the bacillus coli communis, 826; the Government Lunacy Bill, 1344
——— E. W., intestinal obstruction after typhoid fever, 838
Gordon, H. M., capsule formation by diplococcus pneumoniae in culture, 659
——— Miss M. L., treatment of inebriety by drugs. 1345
——— W., preliminary general education of medical students and the General Medical Council, 144; doctors in Parliament, 220, 397; cardiac dullness in cases of cancer, 606
Gorgas, Colonel W. C., sanitation of the Panama Canal, 1449
Gosport, the water supply of, 1058
Gosse, W., miners and contract medical practice, 395; the Association and medical defence. 864
Gottschalk, uterine affection and constitutional disease, 388
Gould, Salisbury, v., 262, 281, 282, 466
——— A. P, Dr. Otho Schmidt's treatment of cancer, 576
——— G. M., Saunders' Year Book of Medicine and Surgery, rev., 1491
Gout, the pathogenesis of, 68, 161, 219; Dr. Laville's remedy for. 1236, 1296
Gouttes de lait et consultations de nourrissons. 1125
Gowers, Sir W. R., on lumbago, its lessons and analogues, 117, 459; Subjective Sensations of Sight and Sound, Abiotrophy, and other Lectures. rev., 789
Gowland, W. P., hydatid cyst in the abdominal wall, 1427
Grabham, M., the alleged transmissibility of the malaria parasite from mother to infant, 1312
Gradenigo, G., Die Hypertrophie der Rachentonsille, rev., 138
Graham, Dr. J., the Belfast Council and, 210
——— J. W. C., case of villous tumour of bladder, suprapubic cystotomy, recovery, 782
Grant, D., an inspiratory nasal irrigator, 734
——— Major A. E., obituary notice of, 340; death of, 468
——— H., the diminishing birth-rate, 578, 757
——— L, and the Ballachulish quarriers, 203, 526
Grants to university colleges, 451, 972
Gratuities, civil surgeons and, 1171
Gray, Lieutenant A. C. H., the lymphatic glands in sleeping sickness, 1252
——— Dr. G., memorial to, 42
——— H., influenza in the horse, 1273
Great Britain, fruit culture in, 36
Greathead, J. B. S., aneurysm of ascending aorta, 894
Green, A. B., use of chloroform in the preparation of vaccine, 1273
——— A. S., x rays in the diagnosis of pulmonary tuberculosis, 1194
——— E., the treatment of pneumonia, 104
Greenwood, Mrs. F. J., physical degeneration, 401
——— Dr. M., the Association and medical defence, 805, 1287
——— Mr. M., the anthropometry of the viscera, 970
Greer, W. J., consultations between medical witnesses, 891
Gregory, Miss A., district midwives, 703
Greig, Captain E. D. W., the lymphatic glands in sleeping sickness, 1252
Grey, H., primary eclampsia in a multipara, 74; remuneration of Poor-law district medical officers, 705
Griffith, W. S. A., Thorne defence fund, 1462
Griffiths, Dr. E. H., honorary fellowship for, 1522
Griller, a gas, 60
Grossmann, K., hot-air cautery, 433
Groves, E. W. H., acute gastric dilatation, 305
Grünbaum, A. S., some experiments on enter-

ica, scarlet fever, and measles in the chimpanzee, 817
Gruner, O. C., the so-called pancreatic reaction, 1516
Guardians, regulations as to public vaccinators' contracts with, 1470; powers of under Superannuation Act, 1896, ib.; and tuberculosis, 1507
Gubb, A. S., decoration of, 451; intraspinal cocainization, 950
Guiard, F. P., Revue Critique sur les Lois de la Formation des Sexes, rev., 252
Guild, the Manchester Medical and combination among medical men, 1103
Guinea-worm, the life span of the 73; some clinical features associated with, 189
Guiraud, Manuel Pratique d'Hygiene, rev., 672
Gulland, G. L., the glycogen reaction of the blood, 431, 880
Gumma of the cord, 1314
Guns, Mr. D. R., death of, 515
Guthrie, A. C., croupous pneumonia treated with antipneumonic serum recovery, 1253
Gynaecology, reviews of books on, 371, 1488; and the thyroid gland, 954

H.

Haddon, J., dieteties and the "elixir of life," 108; the physiology of fatigue, 279; lumbago, 400; ammonuria, 1060
Haematocele and haematoma, 1180, 1195
Haematoma and haematocele, 1180, 1195
Haematoporphynuria, not due to sulphonal, a survey of the recorded cases of, 549
Haematuria of unknown origin, 838
Haemoglobin, investigations as to in cases in chronic heart disease, 536; digestion and absorption of, 823
——— scale, 1472
Haemoglobinuric fever. See Fever
Haemophilia in a female child, 189; treated with adrenalin chloride, 1247
Haemoptysis, pulmonary, adrenalin in, 191, 365, 781; the danger of suprarenal treatment in, 603; treatment of at a sanatorium, 652; severe and fatal in a child aged 3½ years, 1015
Haemorrhage, accidental, in pregnant women, 20; pancreatic, case of, 489; cerebral, is atmospheric pressure a possible cause of? 835, 1311, 1352, 1464, 1516; twins, placenta praevia, and (?) concealed accidental, 835; pulmonary, suprarenalin in, 1246; post-partum, treated by adrenal, 1254; adrenalin chloride in, 1312; post-partum, optic atrophy after, 1429
Haemorrhoids, the treatment of, 19
Haemosozic sera. See Sera
Haines, Mr. R. W., obituary notice of, 870
——— W. S., a Textbook of Legal Medicine and Toxicology, rev., 1490
Hajèk, M., Pathologie und Therapie der entzundlichen Erkrankungen der Nebenholen der Nase, rev., 138
Haldane, J. S., miners' anaemia, 611; the cause and prevention of miners' phthisis, 1387
Hall, G. R., some grievances of the West African medical staff, 806
——— J. W., renal decapsulation, 607; experimental nephritis followed by decapsulation of the kidney, 819
——— W., the feeding of infants, 866
Hall-Edwards, J., the annual museum at the Oxford meeting, 1406
Halliburton, W. D., on food values, 680; digestion and absorption of haemoglobin, 823; regeneration of nerves, 1214
Hallux rigidus, note on, 724
Ham, C. E., the so-called "pancreatic reaction" in the urine, 1347
Hamburg, enteric fever in, 786
Hamidié Hospital. See Hospitals for Children
Hamilton, J., erythema scarlatiniforme (influenzal), 603; after-history of a ruptured tubal gestation, 1253
——— R., torsion of Fallopian tube, 895
Hammerschlag's method, the value of in clinical estimations of the specific gravity of the blood, 473
Hammersley, P. H. V., a new ligature, 552
Hammond, J. A. B., radium in a case of rodent ulcer, 946
Hampshire, home for epileptics in, 170
Handbooks for Volunteers, rev., 1142
Handfield-Jones, M., pelvic lesions in relation to abdominal diagnosis, 249; tubal gestation, 730
Hands, disinfection of, 547; sterilization of the, 1133; a bacteriological inquiry into the sterilization of, 1364
Hanna, W., trypanosoma in birds, 789
Hansell, H. F., Textbook of Diseases of the Eye, rev., 842
Hansemann, D. v., cancer and its origin, 218
Haran, Inspector-General T. J., death of, 926
Harbin, typhoid fever at, 964
Harbinson, G. C. R., scleroderma associated with Raynaud's disease and Addisonian pigmentation, 126; case of double ureter, 488 septate vagina, 1133
Hardesty, J., Neurological Technique, rev., 1141
Hardy, H. N., the Association and medical defence, 1110
Hare, F., Mechanism of the Paroxysmal Neuroses, rev., 734
Harelip, median, 892
Harman, N. B., knee-jerk phenomenon in interstitial keratitis, 471
Harris, C., treatment of inebriety by drugs, 1408
——— W., post-diphtherial bulbar paralysis, 249
——— Brigade-Surgeon W. H., death of, 520
Harrison, E., primary quadruple amputation, recovery, 429
Harrisson, D., excision of Gasserian ganglion, 954
Hart, D. B., hebotomy, 491; tubal abortion, 1428
Hartley, Dr. R., death of, 1057
Hartridge, The Refraction of the Eye, rev., 842
Harveian Festival, the Edinburgh, 1101, 1454
——— Oration. See Oration
Haslar. See Hospital, Royal Naval
Haughton, E., the ethics of antivaccinists, 699, 927
Haultain, F. W. N., the malignant complications of fibromyomata, 1196
Havana, antirabic treatment in, 603
Havemeyer, W, F., medical practice in Bussorah, 1517
Hawley, life insurance examinations, 640
Haworth, F. G., a case of jaundice, 116; the feeding of infants, 580, 756
Hawthorne, E. S., vaccination after small-pox, 1176
Hay fever. See Fever
Hayden, J. R., Venereal Diseases, rev., 251
Hayes, Dr. P. J., obituary notice of, 1290
Haymes, Capt. H. E., death of, 1051
Hazell's Annual for 1904, rev., 844
Headache, morning, 996, 1059
Head-rest for post-nasal operations, 1024
Health conscience, a 94
——— resort, an arctic, 565
——— resorts, reviews of books on, 898; notes on, 1143, 1203, 1263, 1435
Hearsey, H., the treatment of haemoglobinuric fever, 544
Heart, the inception of the rhythm of by the ventricle, 529; some haemoglobin investigations in cases of chronic disease of the, 536; review of book on, 551; the movements of the, 560, 637; suture of the, 736; calcareous changes in 952; neurotic, adrenalin in, 1009; and lungs, reviews of books on diseases of, 1319
——— symptoms, first manifestation of about the age of 40, 1370
Heatherside Sanatorium. See Sanatorium
Heaton, G., obstructive suppression of urine, 370; otitis media, 731
Hebotomy, note on, 491
Hedley, A. S., adrenalin in pulmonary haemoptysis, 365
Heidenhain, perils of atresia vaginae, 853
Heinz, R., Handbuch der experimentellen Pathologie und Pharmacologie, rev., 1083
Heitz, J., Les Nerfs du Coeur chez les Tabetiques, rev., 1140
Helferich, H., Atlas and Epitome of Traumatic Fractures and Dislocations, rev., 957
Hellier, J. B., 10,000 confinements attended in the outdoor maternity department of the Leeds General Infirmary, 76
Helme, T. A., a suggestion for the treatment of puerperal convulsions by spinal subarachnoid puncture, with notes of a case so treated, 1131
Hemianopia, right, case of, 731
Hemiplegia, brain from a case of, 367
Hendaye, the sanatorium for tuberculous children at, 1378
Henry, J. P., testing the eyesight of a nation, 1050
——— Phipps Institute. See Institute
Hepburn, M. L., atmospheric pressure and apoplexy, 1516
——— Dr. W. A., death of, 1111
Herbert, Major H., Practical Details of Cataract Extraction, rev., 842; pannus and associated corneal changes, 1138
Heredity, tuberculosis, and life assurance, 1209
Hereros, the German military forces and, 1094
Héricourt, J., the physician of the future, 502
Herman, G. E., operative and expectant treatment in ectopic pregnancy, 61; ventrifixation of the uterus, 867; the treatment of retroversion of the gravid uterus, 877
Hernia, tetanus following operation for radical cure of, 132; strangulated, operation for under cocaine, 192; femoral, 549; properitoneal, 600, 607; right duodenal, 605; strangulated inguinal, perforation of the bowel, resection of 7 in. of gangrenous gut, recovery, 893; strangulated femoral, a case of, 1061; an operation for the radical cure of, 1063; strangulated, case of, 1080; diaphragmatic, 1429; diaphragmatic in ruptured bladder, 1487
Heroin hydrochloride, a stable solution of, 1236
Heron, G. A., workmen and sanatoria, 983
Herpes zoster, recurrent, 781, 1191
Herring, Mr. G., and the Hospital Sunday Fund, 1390
——— H. T., the fallacy of prostatectomy, 397, 636
Herringham, W. P., St. Bartholomew's Hospital, 164; the glomerular lesions in diffuse (parenchymatous) nephritis, 1196; elasticity of the aorta, 1316; the Infant Orphan Asylum, Wanstead, 1344
Herschell, G., Manual of Intragastric Technique, rev., 23; Polyphase Currents in Electrotherapy, rev., 436
Herxheimer, G., experimental nephritis followed by decapsulation of the kidney, 819
Hewetson, J. T., extensive carcinoma of the oesophagus, with unusual nervous complications, 589
Hewlett, R. T., a method of isolating B. enteritidis sporogenes, 193: "internal secretions" in disease and treatment, 726; bacteriology of climatic bubo, 953
Hey, H. D., supernumerary digits, 1254
Hicks-Beach, Sir M., on company law, 1096
Higgens, C., A Manual of Ophthalmic Practice, rev., 842
Highet, J., public health administration in England, 163
Highlands and Islands of Scotland, medical officers in, 58; post-office medical appointments in, 1262
Hill, J., ascites due to pressure on the portal vein by enlarged spleen, 429
—— L. E., blood-pressure instruments, 1168
—— L. G., recurrent herpes zoster, 781
—— Brigade-Surgeon-Lieutenant-Colonel, P. E., extension of service of, 54
Hill-Climo, Lieutenant Colonel, cancer in Ireland, an economical question, 228
Hillier, A., the Prevention of Consumption, rev., 196
Hind, E. A., extrauterine pregnancy, 879
Hinshelwood, J., dionine, a new ocular analgesic, 1009
Hip, rival methods of treating dislocations of, 846; congenital dislocation of, 1315
Hip-joint, amputation through for hydatid of femur, 546; amputation at in osteo-myelitis, 1313
Hirzel S., Handatlas der Anatomie des Menschen rev., 435
His, Professor W., death of, 1152; obituary notice of, 1225
Histology, of bone, 59; reviews of books on, 1433
Hobbes, C. E., a warning sign of danger to the child during labour, 1014
Holidays, winter, 29, 165; district medical officers' 1294
Holland, C. T., x rays and renal calculus, 136; x rays and malignant disease, 784
——— Hon. S., the State registration of nurses, 920, 1110
Holleman, A. F., A Textbook of Organic Chemistry, rev., 789
Holman, Dr., testimonial to, 752, 862 (See also Fund); gets honorary fellowship of Medical Society of London, 912: Earlswood Asylum, 1515
Holmes, Mr. T., complimentary dinner to, 447
Holt, T. E., the Diseases of Infancy and Childhood, rev., 310
Home, Mary Wardell Convalescent, appeal for, 904
——— treatment of pulmonary tuberculosis 1357
——— Office, the scientific analysis of, 1507
Homes, Medical and Surgical Nursing, Limited, 39; convalescent, in London parks, 1092; foul convalescent, 1407, 1464, 1517
Homoeopaths, consultations with, 1228, 1467
Homoeopathy, Dr. C. S. Mack on, 565; statistics of, 797; in Bavaria, 1382
Honey, adulteration of, 232
Hong Kong, the plague in, 30, 513, 752, 962, 1103, 1107, 1204, 1336, 1434; correspondence from, 1107, 1284; bubonic plague at during the first seven months of the year 1903, 1284
Honours, New Year, 97; for medical officers of Colonial contingents in South Africa, 401
Hooker, C. P., atmospheric pressure and apoplexy, 1311
——— J. S., treatment of coccydynia, 288
Hooton, Captain A., a note on perineal lithotomy, 833
Hope, E. W., infant mortality and milk, 784
Hopgood, T. F., sarcoma of the scapula, operation, recovery, 837; ruptured gastric ulcer, operation, recovery, ib.
Horder, T. G., hospital reform, 50; doctors in Parliament, 461; the intrusion of the layman into medical practice, 1225
——— T. H., pyocyaneus pyaemia, 954
Horrocks, P., puerperal sepsis, 349; a degenerating fibromyoma, 1195
——— W. H., note on Porro's operation and a suggested modification, 360; two cases of Porro's operation, 1255
Horse, influenza in the, 1273
Horsedung in the streets, 26, 172

Horseflesh for consumptives, 328
Horsehair, anthrax from, 964
Horse hire, note on, 809
Horse sickness in Natal, 490; modified, 894
Horsley, Sir V., on "internal secretion" in disease and treatment, 666
Hospital administration, public control of, 31
——— Adelaide, Dublin, annual report of, 1510
——— Alexandra, for Hip Disease in Children, annual festival of, 1088
——— Bolingbroke, inquest at, 990
——— Cancer, Fulham, annual meeting of, 573
——— Chalmers, Edinburgh, extension of, 1455
——— Children's, Bradford, annual meeting of governors of, 470
——— for Children, the Hamidié, at Constantinople, the Sultan and, 900
——— Clapham Maternity, opening of "Frances" ward in, 409; annual meeting of, 930
——— for Consumption, Belfast, annual meeting of, 332
——— for Consumption, Brompton, convalescent home for, 1495
——— Dental, Birmingham, appeal for funds for, 918
——— for Diseases of the Chest, City of London, festival dinner of, 1206
——— for Diseases of the Skin, Blackfriars, report of, 1295
——— the Dufferin, at Rangoon, the work of, 626
——— Eye and Ear, Bradford, annual meeting of, 702
——— Guy's and the Southwark Board of Guardians, 263, 327; annual report of, 1053
——— High Wycombe and Earl of Beaconsfield Memorial, operating theatre for, 879
——— a hypnotic, 1146
——— for Incurables, Aberdeen, annual meeting of, 1458
——— Infants, London, the consulting physicianship of, 1261
——— isolation, payment for pauper patients in, 113
——— Johns Hopkins, Baltimore, loss by fire, 667
——— King's College, the removal of, 322, 646, 701, 846, 1151; annual court of corporation of, 586
——— the London, small-pox at, 744; Queen accepts presidency of, 912, 1332
——— Meath, Dublin, annual meeting of, 1039
——— the Middlesex, the "Archives" of, 384; treatment of cancer by Dr. Otto Schmidt's serum at, 562, 572, 576; annual court of governors of, 586; festival dinner of, 1096; cancer research at, 1271
——— National, for the Paralysed and Epileptic, appeal by, 505
——— Norfolk and Norwich, donations to by Duke of Norfolk to found ophthalmic department, 1206
——— Northampton, General, opening of two new wings of, 1382
——— Orthopaedic, of Ireland, annual report of, 332
——— private for out-patients, 342, 466
——— Queen Charlotte's Lying-in, report of Committee of, 520
——— reform. See Reform
——— Royal, Chelsea, the physicianship of, 1518
——— Royal Dental, London, annual meeting of governors of, 701
——— Royal London Ophthalmic, annual report of, 226; postponement of festival dinner of, 775
——— Royal Maternity, Edinburgh, the teaching of midwifery at, 1038
——— Royal Naval, Haslar, distribution of prizes at, 928; appointments at, 929
——— Royal Orthopaedic, vacates premises for rebuilding, 763
——— Royal Portsmouth, annual meeting of, 701
——— Royal Prince Alfred, Sydney, the Queen Victoria memorial pavilions at, 959
——— Royal Sea-bathing, Margate, description of, 1382; letter from secretary of, 1450
——— Royal for Sick Children, Aberdeen, annual report of, 915
——— Royal Southern, Liverpool, annual meeting of, 505
——— Royal Victoria, Belfast, donation to, 209; collection by Mrs. Pirrie for, 630; annual meeting of, 801; generous gift to by Right. Hon. W. J. Pirrie, ib.; the cost of, ib.; expenses of working, 1511
——— Royal Waterloo for Women and Children, opening of new out-patient department of, 963
——— St. Andrew's for Mental Diseases, Northampton, report of, 1234
——— St. Bartholomew's, the future of, 40, 97, 149, 164, 208, 220, 266, 273, 280, 627; out-patients at, 53, 516; the King and, 627, 1270, 1390, 1442, 1506; pamphlet on claims of to public support, 1028; the assistant physicianship at, 1155; date of laying foundation stone of, 1442
——— St. George's, Professor Marmorek at, 749; proposed removal of, 1497, 1500
Hospital, St. Luke's, New York, plans for, 1028
——— St. Thomas's, the Samaritan fund of, 701; regulations by Charity Commissioners as to future regulation of, 872; award of prizes at, 1055
——— Samaritan Free, Leap year festival of, 385, 462
——— a self-supporting, 918, 1047
——— ships See Ships
——— for Sick Children, Belfast, annual meeting of, 333
——— Sunday. See Fund.
——— the Tottenham, annual report of, 701
——— Victoria, for Children, completion of new wing of, 846
——— for Women, Birmingham and Midland, annual meeting of, 1046
——— for Women, New, report of, 701
——— for Women, Wolverhampton and District, annual meeting of subscribers to, 918
——— for Women and Children, Manchester Southern, report of, 1046
Hospitals, of London, out-patients at, 35, 44, (116); municipal aid for, 95; isolation, 107, 162, 403, 517, 640; rate aid for, 170; cubic space in, ib.; in the United States, 171; of London, a windfall for, 450; isolation, leading article on, 501; in New York, 1272
——— cottage, operations by poor-law medical officers in, 762
——— the Imperial Yeomanry and Sir A. Fripp, 441
Hour-glass stomach. See Stomach
House, cost of sanitary alterations in a, 343
——— duty on stables, 227
Household Cavalry, promotions and appointments in medical service of, 1112
Housing, of the working classes in Dublin, 41; rural, 564
Howard, H., Earlswood Asylum, 1515
Hoyle, J. C., raised scars after vaccination, 412
Hughes, S., bleeding in pneumonia, 365
——— Mr. T. H., obituary notice of, 869
Hulbert, H. H., Natural Physical Remedies in the Treatment of Disease, rev., 1261
Hull, C. C. P., Earlswood Asylum, 1515
Humphrys, A. A., the effects of baking powder, 836
Hungary, state medical appointment of women in, 1215
Hunter, W. (Hong Kong), the occurrence of primary tuberculous infection of the intestinal tract in children, 1126; mixed infection in tuberculosis, 1488
——— W. (London), myositis ossificans, 549
Huntley, E., strangulated femoral hernia, operation under cocaine, 192; malignant disease of ascending colon, 1134
Husband, repudiation of debts by, 467
Husband's Forensic Medicine, Toxicology and Public Health, rev., 1084
Hutchinson, J., the annual museum at the Oxford meeting, 1340
——— J., jun., epileptiform neuralgia of superior maxillary nerve, 729
Hutchison, Dr. W., death of, 404
Hydatid, of femur, amputation through hip-joint for, 546; pulmonary, 1311
——— disease in the pelvis, 1430
Hyderabad Assigned Districts, charitable dispensaries in the, 374; sanitary report of, 751
Hydrocele, double ovarian, 305
Hydrogen peroxide and gonorrhoeal conjunctivitis, 432
Hydronephrosis, congenital, 136; due to abnormalities in the ureters, 1010
Hydrophobia at Chicago, 1522
Hydrotherapeutics, reviews of books on, 1141
Hygeia, an insanitary temple of, 264
Hygiene, instruction in, 201, 212, 261, 907, 1041; reviews of books on, 1022; school, discussion on at Cardiff, 1046; personal, and the prevention of disease, 1135; books on, 1175; tropical, book on, ib.
Hygroma, cystic, removal, recovery, 951
Hyoscine in nervous disorders, 60
Hyperpyrexia, extreme, case of, 129, 130,; in measles, 130; in alcoholism, 133
Hypertonus and arterial sclerosis in relation to diet and the digestive system, 1297
Hypertrophy of the breast and pregnancy, 388
Hypnotic, a new (veronal) 538
Hypnotism, in Abyssinia; 96; books on, 411
Hyslop, T. B., progressive paralysis of the insane, 492
Hyslop-Thompson, H., tetany associated with muco-membranous colitis and phthisis, 597
Hysterectomies, five successful for fibroid disease in one family, 357
"Hyther," 1034

I.

Icebag, the management of the in the treatment of pneumonia, 488
Ileum, acute intestinal obstruction caused by syphilitic ulceration in the, 1068
I-em-hotep, the Egyptian god of medicine, 1473
Illegitimacy and infant mortality, 683
Illness, due to milk, report on an outbreak of, 602
Imbeciles in workhouses, 1233
Immunity, graphic records of experiments on, 683; and blood affinities, 906
Immunization against anthrax, 264
Impregnation, the site of, 711, 730, 743, 808
Ince, J., Elementary Dispensing Practice, rev., 496
Inception of the rhythm of the heart by the ventricle, 529
Income-tax, deductions from 115, 708, 1352; of assistants, 471; assessments to, ib.; partnerships and, 648; and life assurance, 1524
Incubation, simultaneous, of two infectious diseases, 580
——— period of mumps, 489
——— stage of small-pox, vaccination in the, 488
India, the plague in, 30, 159, 275, 513, 615, 752, 856; 962, 1103, 1204, 1336, 1434; famine foods in, 94 sanitary reports in, 442, 617, 702; drugs and licences in, 702; correspondence from, 861, 1106; prospects of medical practitioners, 876; automobiles in, 996; variation in population compared with variation in rainfall, 1891-1901, 1042; the anti-malarial campaign at Mian-Mir, 1106; plague inocalation in the Punjab, ib.; the station hospital system in, 1171; charge allowance for station hospitals in, 1408
Indians, American, insanity among, 304
Indigo dye worker, alleged poisoning in an, 487
Inebriety, the treatment of by atropine, 1006; the so-called "gold cure" of 1008; drug treatment of, 1032, 1168, 1222, 1345, 1408; alienism and, 1033
Infant, of 4 months, empyema in an, simple incision, recovery, 17; fed on municipal "humanized" sterilized milk, scurvy in an, 479; the alleged transmissibility of the malaria parasite from mother to, 1312
——— mortality. See Mortality
Infants, splenic anaemia of, 368; feeding of, 440, 580, 756, 807, 866, 922; physical development and the feeding of, 739; milk for, 703 (876); a formula for the feeding of, 1201; of factory hands, breast feeding of, 1339
Infection, the paths of in tuberculosis, 205; in acute rheumatism, 247; barbers and 876; in death from tuberculosis, seat of, 884; protracted and recrudescent in diphtheria and scarlet fever, 1428; intrauterine of the fetus in small-pox, 1485
Infections, pyogenic, serum and other inoculations in, 135
Infectious cases in a surgery, 113
Infectivity of scarlet fever, duration of, 469
Infirmary, an eye, complaint against, 990
——— Leeds, General, 10,000 confinements attended in the outdoor maternity department of, 76
——— North Charitable, Cork, an operating theatre for, 1217
——— North Staffordshire, opening of Nurses' Home in connexion with, 1442
——— Royal, Aberdeen, annual report of, 800; appointments at, 1456
——— Royal, Edinburgh, notes on, 41; annual meeting of, 98; age-limit of professors at, 98, 153, 210, 1101; changes in staff of, 702, 762; transfer of old buildings of to the University, 747; the last kitchen concert, ib.; appointment of gynaecologist, ib.
——— Royal, Glasgow, the reconstruction of, 331
——— Royal, Liverpool, enlargement of Medical Board of, 456; assistant gynaecological surgeon to, 1404
——— Royal, Manchester, annual grant to, 455; proposed ambulance service for, 795; Jewish ward and kitchen in, 1046; progress of, 1403; clearing site for, 1513
——— Royal, Newcastle-on-Tyne, the presidency of, 1217; new buildings for, 1405
Inflammation of the lachrymal passages, 1014
Influenza, the paroxysmal cough of, 288; potassium bromide in, 725; virulent at Philadelphia, 964; in the horse, 1273
Ingram, P. C. P., surgical emphysema secondary to tuberculous pneumothorax, 783
Inhabited house duty, note on, 816, 932
Inhaler, a somnoform, 140: an ethyl-chloride, 313; an ethyl-chloride somnoform, 673; an all-rubber Ormsby, for ether and ethyl cloride, 1492
Injection, hypodermic, of quinine sulphate, 1486
Injections, hypodermic, of solid mercury, 816
Injuries, football, 853
Injury, physical, medical assessors in, 990, 1048
Inman, F. W., the diminishing birth-rate, 630; the feeding of infants, 922
Inoculation, of apes with syphilis, 852; anti-typhoid, committee appointed to consider, 1274
Inoculations, serum and other, in pyogenic infections, 135; therapeutic, of staphylococcus vaccine, acne, furunculosis, and sycosis treated by, 1075

Inquest, the, on Mr. Whitaker Wright, 340; a Bolingbroke Hospital, 990
Insane, care of the in the Philippine Islands, 390; progressive paralysis of the, 492
Insanity, variation in its relation to, 266, 331; among American Indians, 304; in the United States, 385; the plea of, 406; in New York, 474; in Australasia, 565
Inspection of educational work in Poor-law schools, 762
Institute, a Behring, for Germany, 97
——— the Birmingham Consultative, raking over extinct ashes of, 1331
——— the Carnegie, meeting of Board of Trustees of, 96
——— the Henry Phipps lectures at, 205
——— the Keeley, Dr. J. Edmunds and, 342
——— the Lister, descriptive pamphlet of, 899
——— London University of Medical Sciences, contributions towards fund for raising, 92, 224; letter to Lord Rosebery as to, 223; donation by the King to, 504, 512
——— the Pasteur, at Kasauli, annual report of, 845; at Paris, the directorship of, 1451
——— Queen Victoria's Jubilee for Nurses, annual report of Scottish branch of, 41
——— the Sanitary, discussion on school hygiene at Cardiff, 1046; annual dinner of, 1097; congress of at Glasgow, 1101
——— Weidhaas Hygienic, the methods of, 167
Institution, Liverpool Medical, meeting of, 21, 839; congenital hydronephrosis, 136; x rays and renal calculus, ib.; clinical lectures in 1749, ib.; cerebral tumour, cerebral thrombosis, 307; the modern surgery of the prostate, ib.; officers of, 396; hot-air cautery, 433; chronic antimony poisoning, ib.; intravesical separation of the urine, ib.; puerperal septicaemia, ib.; the president's badge, 456; perforating gastric and duodenal ulcers, 492; the treatment of malarial fever, ib.; placenta praevia, ib.; history of its foundation and progress, 633; radium and tuberculous ulceration, 784; x rays and malignant disease, ib.; infant mortality and milk, ib.; carcinoma of the oesophagus, gastrostomy, 954; excision of Gasserian ganglion, ib.; the technique of aseptic surgery, ib.; strangulated hernia, 1080; swallowed foreign bodies, ib.; pleural effusion, ib.
——— Royal, lectures at, 736; annual meeting of, 1088; vice-presidents of, 1146
Insufflator and aspirator, a, 958, 1201
Interrupter, a new, 898
Intestinal tract in children, the occurrence of primary tuberculous infection of, 1126
Intestine, large, siphonage and hydraulic pressure in, 218; large, annular stricture of, 607; rupture of, 669; small, traumatic rupture of the, 832
Intubation in laryngeal diphtheria, 1127
Intussusception, two cases of, 1018
Inversion of the uterus, 669, 1191
Investigation of small-pox, 1093
Iodine, a non-toxic preparation of, 724
Ireland, notes from, 41, 97, 154, 209, 267, 332, 392, 454, 510, 569, 629, 689, 747, 801, 914, 975, 1038, 1099, 1158, 1217, 1277, 1334, 1456, 1510; the Poor-law medical service in, 42, 268, 510, 739; vital statistics of, 157; the Midwives Act and training institutions in, 209, 267, 332, 395, 569, 629, 976, 1100; cancer in, an economical question, 228; the viceregal court, 392, 510, 569; the university question in, 392, 908; removal of infectious cases in, 469; medical officers' substitutes, 510; public health problems in, 548; the legal and medical professions in, 578; the Poor-law medical system in, 807, 1499; the Irish Medical Association and the report on the Poor-law medical system in, 862; the report on the dispensary service in, 963, 1040, 1158, 1327, 1334, 1347; medical attendance on West Coast islands of, 976; superannuation of Poor-law medical officers in, 1032; the Local Government Board and the Poor-law medical system in, 1099; the West Coast islands of, 1100; Lady Dudley's scheme for district nursing in, 1150; the King in, 1159; tuberculosis in the south of, 1243; the dispensary system in, 1467; alcoholism in, 1457; Dr. J. O'Carroll on the Poor-law medical service in, 1477; Mr. R. Tobin on the strike in the Poor-law medical service in, 1480
Iridectomy in glaucoma, 489
Irrigation of wounds with chemical irritants, 1462 (1524)
Irrigator, an inspiratory nasal, 734
Irritants, chemical, irrigation of wounds with, 1462 (1524)
Irwin, S. T., tetanus following operation for radical cure of hernia, 132
Isdell, F., treatment of whooping-cough, 1412
Ismailia, the prevention of malaria at, 506, 684, 753, 760
Isolation, and scarlet fever at Portsmouth, 585; of 2,745 contagious cases at the Pasteur Hospital, 861
Italy, foreign medical practitioners in, 96; public health in, 346; the healing art in, 674; medical senators of, 678; prophylaxis of infectious diseases in schools of, 705
Ives, Mr. R., death of, 1470

J.

Jacobi, A., Therapeutics of Infancy and Childhood, rev., 310
——— E., Portfolio of Dermochromes, rev., 1491
——— Miss G. B., lumbago, 217; the necessity for improving the teaching of massage in England, 1347
Jalland, W. H., appendicitis and ovarian cyst, 1286
Jamaica, yellow fever in, 127; glandular fever in, 952
James, Alexander, empyema and bronchiectasis, 5
——— Arthur, the Metropolitan Street Ambulance Association, 340
——— Captain S. P., The Causation and Prevention of Malarial Fevers, rev., 1022
Jamieson, W. A., light treatment and cutaneous disease, 134
Janes, Miss Emily, The Englishwoman's Year Book and Directory, rev., 734
Japan, closing of a medical school in, 21; the military medical system of, 91; the plague in, 159, 513; the Red Cross Society in, 507, 567, 623, 682; the influence of medicine in the development of, 743
Japanese, the physique of the, 622; soldiers, the feet of, 1150
Jardine, R., "accouchement forcé," 78; Practical Textbook of Midwifery for Nurses, rev., 196; obstructed labour, 954
Jaundice, a case of, 116
Java, the climate of, 287
Jaw, ankylosis of the, 432; permanent closure of resulting from infantile paralysis, 1425; luxation of during sea-sickness, 1472
Jealousy, professional, 151
Jeanselme, E., Cours de Dermatologie Exotique, rev., 609
Jefferson, A., rupture of the middle meningeal artery by contrecoup, 726
Jejunum, intestinal obstruction due to paralysis of a loop of, 605; peptic ulcer of the, 894
Jellett, H., A Short Practice of Midwifery, rev., 196; A Short Practice of Gynecology, rev., 1489
Jenner, Mr. L. J., obituary notice of, 1470
Jepson, E., medical unions and the British Medical Association, 460
Jersey, the Dental Act of, 449
Jessop, W. H. H., proptosis, 308
Johannesburg, the plague in, 744, 745, 793, 798, 848; notification in, 854
Johnson, Miss A. N. V., appointed medical officer to West Norwoood schools, 170; the action of the blood serum from cases of acute mental disorder on the bacillus coli communis, 826
——— C., a case of acute traumatic tetanus, 782
——— R., translucent cystic swelling of root of nose, 249; multiple aneurysms, ib.
Johnston, Major C. A., leprosy in Travancore, 462; splint for transverse fracture of the patella, 612
Joint disease as encountered in medical practice, 1135
——— operations, mobility after, 1017
Jolly, Professor F., death of, 110
Jones, A. T., puerperal sepsis, 1288
——— E. H., choroidal sarcoma, 19
——— H. E., acute dermatitis produced by satinwood irritation, 1484
——— J. H., school babies, 1110
——— H. L., the intrusion of the layman into medical practice, 980
——— R. (Claybury), alienism and inebriety, 1033
——— R. (Liverpool), tuberculous arthritis, 1137
——— T. S., a case of vesicular mole of unusual size, 361
Jordan, A. C., veronal, a new hypnotic, 538
Joseph, Miss A. R., school children out of school, 220
"Journal of Tropical Medicine," award of prize essays given by, 410
Jubb, A., a case of acute or pernicious beri-beri, 835
——— G., congenital dislocation of the knee with talipes calcaneus, 190
Judd, W. R., a case of lead encephalopathy, 888
Juler, H. E., A Handbook of Ophthalmic Science and Practice, rev., 841
Juries, coroners', censures by medical men on, 36
Jury, a discreet, 1210
——— service, exemption of medical practitioners from, 1466

K.

Kahn, J. S., a formula for infant feeding, 1201
Kaiser. See Emperor, German
Kala-azar in Assam, 151; "Leishmania donovani" found in, 160, 861, 1249, 1251
Karamitsas, Dr. G., death of, 1291
Kasauli Institute. See Institute
Katrak, N. N., Materia Medica of India and their Therapeutics, rev., 843
Kaye, J. R., water supplies from the new red sandstone, 912
Kearton, R., Wild Nature's Ways, rev., 197
Keeley Institute. See Institute
Keen, W. W., A Textbook of Surgery for Practitioners and Students, rev., 957
Keith, S., cancer research, 1171
Kellock, T. H., foreign body impacted in bronchus, 729
Kelly, A. O. J., International Clinics, rev., 1319
——— Major M., local treatment of specific cutaneous ulcers, 1427
Kelsch, tuberculosis in the French army, 1044
Kelson, W. H., cicatrized external meatus, 371
Kemp, D. C., some clinical features associated with guinea-worm, 189
Kempe, G., case of pancreatic haemorrhage, 489
Kempster, Dr. W. H., obituary notice of, 110
Kennard, Dr. D., death of, 645
Kennedy, A. E., jun., perforative typhlitis, operation, recovery, 545
Kent, Mr. H. A., obituary notice of, 761
Kentucky, appointment of expert witnesses in, 964
Kenwood, H., abstract of a report upon a recent outbreak of illness due to milk, 602
Kephir and koumiss, 288
Keratitis, interstitial, the knee-jerk phenomenon in, 471
Kerr, J. M. M., forcible dilatation of the cervix in "accouchement forcé," 67; vaginal Caesarean section, 193; spontaneous rupture of the uterus, 1429
Key, M. A., preservation of rubber instruments, 932
Keyser, C. R., achondroplasia with spinal curvature, 549
Keyworth, Dr. J. W., obituary notice of, 404
Khory, R. K., Materia Medica of India and their Therapeutics, rev., 843
Kidd, L., on the Irish Poor-law medical service, 42
——— W., The Direction of the Hair in Animals and Man, rev., 1198
Kidney, reviews of books on disorders of the, 80; some cases of disease of, 492; decapsulation of, 607; decapsulation of following experimental nephritis, 819; decapsulation of for the treatment of albuminuria, 1011; "floating," case of in which nephrorraphy was successfully performed, 1415
——— "cough," 1486
Kids and rabbits, 1146
King, the gift of to the nation, 255; the visit of to Cambridge, 343, 446, 553, 559; the and medical education, 504, 512; visit of to Osborne House, 508; visit of to Portsmouth, 586; and St. Bartholomew's Hospital, 627, 1270, 1390, 1442, 1506; visits Finsen Light Institute, 913; on the physical development of children, 973
King, A., alcohol and the medical profession, 648
King's Lynn, meat case at, 409
Kirby, E. D., doctors in Parliament, 280
Kirker, Fleet-Surgeon G., the late, 55
Kirmisson, administration of chloroform by Roth's apparatus, 861
Kitchens, restaurant, 449
Klein, aërated preserved milk, 85; a new pathogenic bacillus (B. carnis), 193; bacterial test of pollution, 469
Knaggs, R. L., tranmatic rupture of the small intestine, 832
Knee, congenital dislocation of with talipes calcaneus, 190; osteo-arthritis of the, 1018
Knee-jerk phenomenon, the, in interstitial keratitis, 471
Knox, Captain E. B., raised scars after vaccination, 816
Koch, Professor R., the sixtieth birthday of, 58; visit of to Egypt, 1146, 1206; rumours as to abode of, 1332; returns to Berlin, 1507
Kocher, T., Textbook of Operative Surgery, rev., 957
Koplik, H., The Diseases of Infancy and Childhood, rev., 311
Korea, a medical ambassador to, 566; the Red Cross Society in, 915
Koumiss and kephir, 288
Kraepelin, Professor, leave of absence for, 318
Kreuznach as a health resort, 1435
Krohne, C. W., ether vapour, 1471
Kussmaul, Professor, the reminiscences of, 37
Kynsey, Sir W. R., obituary notice of, 221

L.

Labbé, H., La Médication Phosphorée, etc., rev., 1374
Laboratories, the Thompson-Yates and Johnston, Report of, rev., 1023
Laboratory, Glamorgan and Cardiff Borough, report of, 705; pathological, of the lunacy department in New South Wales, 762; the New York State Cancer, 1139
——— reports, the medical profession and, 1111
Labouchere, Dakhyl, *v*. 698
Labour, septate vagina, causing delay in, 74; difficult, pleuropagous twins, ib.; impeded by fetal bladder cyst, 190; a warning sign of danger to the child during, 715. 1014; obstructed, 954
Labyrinth, suppuration of, 371, 669
Lachrymal passages, inflammation of, 1014
Laffan, T., ventilation of operating theatres, 1059
Laing, E. A. R., a case of alcoholism followed by hyperpyrexia, coma, death, 133
Laminectomy in a case of paraplegia of sixteen months' standing, recovery, 1078
Lamp for rhino-laryngoscopy, 83; a portable, for laryngoscopic purposes, 612
Lancashire, the county council of and the Midwives Act, 1163
Land scurvy. See Scurvy
Lander, Mr. F. J., death of, 1056
Landerkin, Dr,, death of, 43
Lane, W. A., an instrument for rapidly enlarging opening in skull, 1024
Langerhans, R., Die traumatische Spätapoplexie, rev., 844
Language, an international, of medicine, 320
Laparotomy in spontaneous rupture of uterus, recovery, 365; and drainage in a case of pancreatic cyst, 366
Lapland, a health resort in, 565
Laquer, R., food for the mind, 850
Larking, A. E., the Association and medical defence, 920; salary of Poor-law appointments, 1108
Larymore, Mrs., an early African explorer, 971
Laryngoscope, the discoverer of, 625
Lassar, inoculation of apes with syphilis, 852; on radium, 1221
Latham, A., a sanatorium for postal employés, 691; Marmorek's tuberculous serum, 857
Laurence, S. M., case of poisoning by phenacetin and antikamnia, 545
Lavan, L. T., The Diseases of the Mouth and Throat, rev., 611
Laveran, the prophylaxis of malaria in Madagascar, 753; the Leishman-Donovan parasite, 911; on trypanosomiasis, 964
Laville's gout remedies, 1236, 1296
Law of negligence, the, 1330
Lawrence, Sir T., St. Bartholomew's Hospital, 220
Lawrie, J. M., five successful hysterectomies for fibroid disease in one family, 357
Layman, the intrusion of into medical practice, 980, 1090, 1108, 1225, 1293, 1349
Lazarus-Barlow, W. S., Dr. Otto Schmidt's treatment of cancer, 576; A Manual of General or Experimental Pathology, rev., 1259
Lea, A. W. W., uterine abscess, 308
Lead primary optic atrophy due to, 1429
——— encephalopathy, a case of, 888
Lead poisoning, and water supplies, 571; industrial, 969
LEADING ARTICLES:—Public control of hospital administration, 31; the medical degrees of the University of London, 32; medical witnesses' fees, 33; disappearing quarantine, 34; sanatoria in the prevention of consumption, 89; the Blondlot rays, 90; tidal waters and endemicity, ib.; the mortality experience of abstainers and non-abstainers, 145; the physiology of fatigue, ib.; sciatica, 146; instruction in hygiene and temperance, 201; the Professorship of Medicine at Oxford, 202; hospital ships in war time, 203; recent cancer research, 259; the vital statistics and sanitary administration of the metropolis, ib.; prostatectomy, 260; hygiene and temperance, 261; physical deterioration, 319; an international language of medicine, 320; coroners and medical witnesses, 321; the medical service of the army, 381, 445, 561; vaccination, isolation, and smallpox in Germany, 381; the action of radium rays on tissues, eggs, and animals, 382; the Association and medical defence, 443; a diploma in tropical medicine, 444; isolation hospitals, 501; the physician of the future, 502; scurvy and sterilized milk, 503; the King, Cambridge, and the Treasury, 559; the movements of the heart, 560; milk epidemics and bovine mammitis, 619; prescribing by the metric system, ib.; the army medical service in the Crimea, 620; the medical service of the navy, 679, 965, 1386; food values, 680; the "Supplement," 681; the Poor-law medical service in Ireland, 737, 1499; physical development and infant feeding, 739; Lord Esher's Committee and the Army Medical Service, 791; the physiology and pathology of the pancreas, 792; plague at Johannesburg, 793, 848; strains of the tubercle bacillus, 847; the London milk supply, 848; the prodromata of the psychoses, 905; immunity and blood affinities, 906; outdoor employment for "cured" consumptives, 907; small-pox and vagrancy, 967; rays, radium, and electricity, 968; the Poor-law medical service in Scotland, 1029; mental fatigue, ib; the National Antivaccination League, 1030; the medico-political work of the Association, 1089; the attitude of the medical profession towards the treatment of disease by unqualified persons, 1090; physical education in elementary schools, 1091; overlooked forceps, 1147; the bacteriology of rheumatic fever, 1148; life, birth, and live-birth, 1149; the future of London medical education, 1207; the food question in health and disease, 1208; heredity, tuberculosis, and life assurance, 1209; friendly advertisement, 1267; dementia praecox and simulation, 1268; the Government Lunacy Bill, 1269; deterioration and development, 1325; home defence and compulsory service, 1326; human and bovine tuberculosis, ib.; the Oxford meeting, 1383; euthanasia, 1384; the home treatment of poor consumptives, 1443; the prophet of the New Zion, 1444; the Education (Scotland) Bill, 1445; the future of St. George's Hospital, 1500; the prevention of old age, 1501; Earlswood Asylum, 1502
League, International Tuberculosis, date, etc., of meeting of, 437
——— the National Antivaccination, Dr. E. Haughton and, 699, 927; leading article on, 1030
——— National Sunday, donations to charities by, 904
——— the Workmens, Rotherhithe, and patent medicines, 204
Lecture, Richard Middlemore, post-graduate, 40; the Oliver Sharpey, 1288
Lectures, clinical in 1749, 136; the Hunterian by Mr. A. Bowlby, 194; at the Henry Phipps Institute, 205; on medical jurisprudence, 223, 283, 342, 406, 466, 642; the Morison at the Royal College of Physicians of Edinburgh, by Dr. J. Macpherson, 266, 331; the Lettsomian on aseptic surgery in theory and practice by Mr. C. B. Lockwood, 294, 422, 540; on anatomy, etc., books for 471; the Hunterian on the pathology and surgery of certain diseases of the pancreas, by Mr. A. W. Mayo Robson, 659. 719, 773; to teachers at Dundee, 736; the Ingleby, subject of 904; the Tilliman, subject of, 912
Le Dantec, F, Traité de Biologie, rev., 82
Le Double, A. F., Traité des Variations des Os du Crane de l'Homme, rev., 896
Lee, J. B. D, Obstetrics for Nurses, rev., 1374
Leedham-Green, C. A., double empyema, 250; subphrenic abscess, ib.; actinomycosis of face, 547; disinfection of the hands, ib.
Leeds, health of, 468; milk and mortality at, 736; meeting in aid of university for, 745; opening of public dispensary at, 1206
Lees, D. B, the treatment of pneumonia, 52, 519
Le Feuvre, W. P., infection in acute rheumatism, 247
Leitwich, R. W., on Syphonage and Hydraulic Pressure in the Large Intestine, rev., 139 (218); the air of railway tubes, 528
Legge, T. M., on anthrax, 1079
Leighton, G., British Lizards, rev., 1260
Leishman, Major W. B, notes on the nature of the parasitic bodies found in tropical splenomegaly, 303; deep chromatin staining in malaria, 668
Leishman-Donovan bodies found in kala-azar, 160, 861, 1251; and tropical splenomegaly, 183; in spleen juice, 911; found at Omdurman, 1049; in cachexial fevers, including kala-azar, 1249; in the Soudan, 1252; in continued fever, 1487
"Leishmania donovani." See Leishman-Donovan bodies
Leith, and consumption, 1509
Leitsch, Deputy Surgeon-General J., death of, 697
Lejars, F., Traité de Chirurgie d'Urgence, rev., 957
Lelain, Captain P. S., notes on myiasis, 245
Lemoine, G., Technique et Indications des Médications Usuelles, rev., 495
Lennox, D., lectures by to teachers at Dundee, 736
Lens, crystalline, removal of in high degrees of myopia, 486; anterior, non-perforating wounds of the anterior capsule of, 1311
Leon, G. A., atmospheric pressure and apoplexy, 1311
Leper question, the, in Cape Colony, 912
Leprosy, and fish-eating, 15; in Germany, 88; in the British Empire, 116, 348; scare as to in Nebraska, 254; in the United States, 387, 678; from a sanitary standpoint, 387; in Russia, ib.; in Travancere, 462; the etiology of, 471; information wanted as to, 588; research as to at Molokai, 686; in South America, 711, 717; of the ovaries, 851; reported cure for, 1154; fish theory of, 1448
Lesion of post-central convolution without paralysis, 598
Lesser, A., Stereoskopischer gerichtsartzlicher Atlas, rev., 1490
Letulle, La Pratique des Autopsies, rev., 437
Leucocytosis and appendicitis, 1137
Leukanaemia, a case of, 1416
Levy, A. G., the administration of ethyl chloride, 604
Lewers, A. H. N., A Practical Textbook of the Diseases of Women, rev., 373
Lewis, consumption in, 16
Lewis, L., called to the Bar, 374
——— W. H., an unusual epileptic case, 126
Lewtas, Lieutenant-Colonel J., cystic hygroma, removal, recovery, 951
Liability, employers', 1467
Liebault, Dr. A. A., death of, 706
Life, risks to in London, 1093, 1152, 1447; birth, and live-birth, 1149; on the West Coast of Africa, 1486
—— Guards, promotions and appointments in medical service of, 54, 110
—— insurance aspects of phthisis, 263
—— insurance examinations, 40, 49, 95, 107, 161, 263, 337, 400, 640
—— saving competition, 1236
—— span of the guinea worm, 73
Ligament, round, fibromyoma of, 308
Ligaments, broad, fifty consecutive intra-abdominal operations on, 354
Ligature, a new, 552
Light treatment and cutaneous disease, 134; instruction in, 348
Lincoln, epidemic of sore throat at, 57
Lindsay, J., diaphragmatic hernia, 1429
——— J. A., Lectures (Chiefly Clinical) on Diseases of the Lungs and the Heart, rev., 1319
Linen and flax, health of operatives in, 970
Links, structural, in malignant growths, 1005
Lipomatosis, diffuse, 249
Lister, T. D., the life insurance aspects of phthisis, 263
LITERARY NOTES, 48, 101, 158, 199, 258, 317, 379, 439, 513, 558, 614, 690, 1102, 1161, 1265, 1321, 1401, 1458, 1494; M. Anatole France on M. Combes, 48; Dr. J. Snowman on Jewish influence on medical science in the Middle Ages, ib.; Mark Twain on vivisection, ib.; Laveran and the discovery of the malarial parasite, ib.; Mr. E. Rhys on Dr. George Bird, 158; Herbert Spencer and medicine, ib.; Dr. R. J. Johnstone on "Goufin," 159; Mr. A. F. Stewart on the death of the fourth Earl of Atholl, 258; Mr. S. G. Shattock on Latin as an international scientific language, 317; R. L. Stevenson at Saranak Lake, 318; note on primitive trephining, 380; Dr. C. W. Saleeby on Herbert Spencer ib,; public press committees in the United States, 439; Dr. Hamilton on the duties of a regimental surgeon, ib.; electricity in the nineteenth century, ib.; the discovery of the stomach tube, 440; the love letters of Dorothy Osborne, 513; Dr. Judson Bury on the spleen, ib.; the "country doctor," 558; Hiawatha, a medical student, 615; Mr. G. Grazebrook on the birth of a family of 39 children from one father and mother, ib.; Herbert Spencer on vaccination, 1102; Mr. W. R. B. Prideaux on Nelson's death, ib,; experiment by John Hunter in natural history, ib.; Dr. Norman Moore on Rahere, 1161; letters, etc., of Dr. Robert Erskine, 1162; Professor Chalmers da Costa on Medical Paris during the reign of Louis Philippe, 1321; M. Jules Clarétie on Esperanto, 1401; Dr. D. Rorie on folk-medicine in Fifeshire, 1458; M. Jean Barrier on ancient therapeutics of animal origin, 1494; Professor Byers on sayings, proverbs, etc., of Ulster, ib.; Mr. W. A. Hovey on "deviates," 1495
Lithgow, J., treatment of puerperal eclampsia by a combined method, 718
Litholapaxy in a female, "dodi" twig as a nucleus of a stone, 490; perineal, note on, 833
Little, Mr, H. L, death of, 1520
Littlejohn, Sir H., annual report of on the city of Edinburgh 1157
Liver, tumour of the, 249; broken ribs and cancer of the, 642; acute yellow atrophy of the, 892; case of abscess of, 1487
Liverpool, correspondence from, 160, 276, 456, 633, 804, 1404; Hospital Sunday, 160; the Stanley Hospital, ib.; co-operation of clinical hospitals, ib.; preservatives in food, ib.; trypanosomiasis cases in, 276; annual meeting of the Royal Infirmary, ib.; proposed municipal grant to the University, ib.; recognition of the Ladies' Charity and Lying-in Hospital by the Midwives Board, ib.; the Chamber of Commerce at and the prevention of malaria, 385;

vote to University of, 456; study of tropical diseases in, 505; milk precautions at, 958; cancer research in, 1145; district nursing, 1404; the Consumption Hospital and Delamere Sanatorium, 1513; the isolation of measles and whooping-cough, 1514; Epileptic Home, Maghull, ib.; health report of Bootle, ib.
Livingston, J., the Midwives Act, 547
Llewellyn, T. L., empyema in an infant of 4 months, simple incision, recovery, 17
Lloyd, F. G., Diseases of the Appendix Vermiformis and their Treatment, rev., 1319
——— J., enlarged prostate, 367; apparatus for administering creosote, 953; sections of prostate glands, ib.
Lloyd-Roberts, J., the Public Health Act, 638
Localization, cerebral, histological studies on, 326; of abdominal viscera, 1196
Lockwood, C. B., aseptic surgery in theory and practice, 294, 422, 540; the health of, 1036
Lockyer, C., primary carcinoma of the ovaries, 1430
——— Sir N., education in London, 576
Locum tenens, remuneration of, 928; work of in Irish dispensaries, 995; an infirm, 1228
Loewenthal, N., Atlas zur vergleichenden Histologie de Wirbeltiere, rev., 1433
L'Oeuvre des Enfants Tuberculeux d'Ormesson, 1379
Löfquist, R., Zur Pathologie der Mucosa Corporis Uteri, rev., 733
Lomer, R., war against cancer, 1448
London, the consumptive poor of, 92, 393; the small-pox epidemic of 1902 in, 169; an efficient ambulance service for, 327, 340, 386, 399, 505, 566. 580, 622, 677, 849 1109, 1152, 1161, 1336, 1447; education in, 576; small-pox in, 790; the milk supply of, 848, 1522; recrudescence of small-pox in, 910; degrees and diplomas in, 921; risks to life in, 1093, 1152, 1447; the future of medical education for, 1177, 1207; physical examination of 1,580 girls in elementary schools of, 1246; the new education authority for, 1328
——— County Council. See County
——— Manual for 1904, rev., 844
——— University Institute. See Institute
Longden, Mr. D. C., obituary notice of, 282
Longevity, increased, in the United States, 58
Lorenz, Dr., and the penalties of advertisement, 621
Lovell, Sir F., the mission of, 208
Lorand, A., the rational treatment of diabetes, 587
Lord Balfour of Burleigh, opening address at the Fourth International Home Relief Congress at Edinburgh, 1440
Low, G. C., the Leishman-Donovan body and tropical splenomegaly, 183; examination of the tissues of the case of sleeping sickness in a European, 1000; the Leishman-Donovan body. 1251
Lowell, Dr. Ellen L., appointed chief bacteriologist to the Groves Pathological Laboratory, 271
Lowenthal, the relative sanitary condition of different European armies, 1087
Lowman, W. H., the etiology of leprosy, 471; median hare-lip, 892
Lowndes, F. W., fees to medical witnesses, 863; the address of, 932
Lucas, A., rupture of axillary artery, 731
Luke, T. D., Anaesthesia in Dental Surgery, rev., 611
Lumbago, its lessons and analogues, 117; treatment of, 216, 279, 400, 459; and angina pectoris, 640; electrical treatment of, 840; and sciatica, 892
Lunacy in Scotland, 1275
——— Acts Amendment Bill. See Bill
——— laws in Scotland, 523
——— legislation, 1215, 1269, 1279
——— reform, 156
Lunatics, magisterial action in reference to, 58, 169; in workhouses, certification of, 286; in workhouses, 1233
Lung, three cases of abscess of the, 8
Lungs, oedema of the and its importance as a mode of death, 1; therapeutics of diseases of, 18; two cases of disease of treated with the emanations of thorium nitrate, 654; the detection of early tubercle on the, 765; the early diagnosis of tuberculosis of the, 769; reviews of books on diseases of the, 787
Lunn, J. R., spinal caries in a man aged 60, with abscesses pointing in the epigastrium, 192; ununited fracture of radius and ulna, 249; tuberculosis of the choroid, 309
Lupton, A., on the Prussian vaccination law of 1835, 378, 517
Lupus, treatment of, 841
Luxation of the jaw during sea-sickness, 1472
Luxenburger, A., Experimentelle Studien ueber Rückensmarks-Verletzungen, rev., 844
Lyle, H., treatment of x-ray burns, 1296
—— W., the Irish dispensary system, 1407
Lymphangitis, epizootic, the Board of Agriculture and, 904

M.

MacAdam, Lieutenant-Colonel J. S., death of, 1051
MacAlister, D., a diploma in tropical medicine, 577
Macara, Dr., the case of, 148, 220, 223
Macartney, R., medical referees under the Workmen's Compensation Act, 52
McBride, C. A., the treatment of inebriety by atropine, 1006; treatment of inebriety by drugs, 1222
McCann, A. E., puerperal eclampsia twice in the same patient, 1486
McCardie, W. J., on anaesthetics. 19; an all-rubber Ormsby inhaler for ether and ethyl chloride, 1492
McCaw, J., congenital hypertrophic stenosis of the pylorus, pyloroplasty, result, 1483
Macclesfield, contract practice at, 1218, 1458
MaConaghey, J. C, a method of arresting an epileptic fit, 1253
MacConkey, A., the bacterial test of pollution, 526
Macdonald, D., suprarenalin in pulmonary haemorrhage, 1246
——— D. S., hereditary deformities, 1485
——— S., streptothrix infection, 431
Macdonogh, D., brachial neuralgia, 664: treatment of whooping-cough, 1471
MacEwan, D., four abdominal cases, 1309
Macewen, Sir W., at Cardiff, 324
McFarland, J., A Textbook upon the Pathogenic Bacteria, rev., 1083
Macfie, R. C., New Poems, rev., 1023
McGavin, L. self-retaining drainage tube and pilot for the maxillary antrum, 899; a tonsillotome, 1024
MacGregor, A. N., notes of experiments to determine the relative efficiency of some surgical dressing materials, 1361
——— Sir W., the teaching of sanitation in schools, 682
McIlroy, Miss A. Louise, some conditions of the Fallopian tubes, 370
McInnes, Hon. T. R, death of, 871
Macintyre, J., demonstration on recent electrotherapeutic work, with special reference to lupus, rodent ulcer, and malignant disease, 933
Mack, C. S., "Are we to have a united profession?" 565
Mackenzie, J., the inception of the rhythm of the heart by the ventricle as the cause of the continuous irregularity of the heart, 529; movements of the heart, 637; blood-pressure instruments, 987, 1109
——— W. L., The Medical Inspection of School Children, rev., 1432
Mackeown, Surgeon R. J., an obscure case of scarlet fever, 1370
Mackie, J. E., medical practice in Bussorah, 1517
Macknight, T. M., Food for the Tropics, rev., 611
Maclaren, R., on the operative treatment of uterine myomata, 65
McLean, W., the relation between infantile mortality and the birth-rate, 1210
MacLeod, J. M. H., further observations on the therapeutic value of radium and thorium, 1366
——— Dr. W., death of, 645
McNamara, J. the treatment of pneumonia, 218
——— P. J., a new uterine forceps applicator, 674, 899
Macphail, J., the etiology of varicocele, 1133
Macpherson, J., on variation, its relation to the origin of insanity and the allied neuroses, 266, 331
——— J., extreme hyperpyrexia, 130
——— Lieutenant-Colonel W. G., attached to Japanese Army, 736
MacRae, C.M., consumption in the Lewis, 16
McVail, J. C., isolation hospitals, 640
McVittie, R. B., physical and mental education, 548
McWeeney, E. J., paraffin method of embedding, 369; ringworm, ib.; sewage contamination of shellfish, 497; on ultra-microscopic disease germs, 569; poisoning by coal gas, 1195
MacWilliam, J. A., Aberdeen Anatomical and Anthropological Society, 462
Madagascar, the prophylasis of malaria in, 753
Madden, E. M., homoeopathic statistics, 797
Madrali, the accident to, 346
Madras, sanitary report of, 751
Magdeleine, the transmission of music by gesture under hypnotic influence, 1166
Magennis, E., the medical and legal professions in Ireland, 578; Eye Symptoms as Aids in Diagnosis, rev., 842
Magistrates, action of in reference to lunatics, 58, 169; medical, 526, 527, 617, 736, 904, 1028, 1324, 1442
Mair, W., bacteriology of so-called "sterilized" milk, 1122
Makins, G. H., the late Fleet Surgeon Kirker, R.N., 55
Malaria, the Glasgow corporation and the prevention of, 41; in Algeria, 83; in Corsica, 170; mosquitos and, a challenge, 265; the prevention of, 385; the prevention of at Ismailia, 505, 684, 753, 760; deep chromatin staining in, 668; the prophylaxis of in Madagascar, 753; the prevention of in the Roman Campagna, 799; nursing mothers and, 1352
Malaria parasite. See Parasite.
Malarial fever. See Fever
Male, hysterical paraplegia in the, 125; case of adiposis dolorosa in a, 781
Malignant disease, x rays and, 784; primary, of the pancreas, two cases of, 885; of ascending colon, 1134
——— growths, the biological significance of, 800, 866; structural links in, 1005; the cytology of, 1196
Malim, J. W., a case of land scurvy, 189
Malingering, articles on, 116
Malins, Dr. E., presentation to, 508
Mallannah, S., estimation of the specific gravity of urine, 191: haemoglobinuric fever, 247
Mammitis, bovine, and milk epidemics, 619, 756; suppurative, in cows, epidemic sore throat from 831
Man, aged 60, spinal caries with abscesses pointing in the epigastrium, 192
Manchester, correspondence from, 103, 214, 276, 335, 397, 455, 574, 634, 754, 917, 986, 1046, 1107, 1167, 1222, 1284, 1339, 1403, 1461, 1513; against spitting, 103; compulsory notification of phthisis, ib.; lectures on public health, 214; free dinners for poor school children, 215; memorial to Joule, ib.; hygiene in slums, 276; improvements in work of coroner, ib.; abandonment of proposal for compulsory notification of phthisis, 277; home for nurses, ib.; gratitude for benefit received at a hospital, ib.; the milk supply of and precautions for its purity, ib.; deaths from burning, 335; new agent for fireproofing flannelette, ib.; causes of enteric fever in South Africa, ib.; Aberdeen University Club dinner, 336; the "light" treatment of skin diseases, 397; feeding of poor children, 454; Joseph Priestley memorial, ib.; grant to Victoria University, 456; the Children's Hospital and its out-patient department, 574; Dr. Mott's lecture to medical men at Owens College on pathology of sleeping sickness, 575; report of the coroner, ib.; death of chairman of Infirmary Board, ib.; unwholesome condemned food, ib.; Victoria Dental Hospital, ib.; selection of architects and cost of new infirmary, 634; the spitting nuisance, 635; drunkenness in, ib.; finances of the Northern Hospital, ib.; the guardians of and cremation, 705; stray dogs in, 754; public health in 1903, 917; voluntary notification of consumption, ib.; extent of physical unfitness for army service, 986; provision for confirmed inebriates in Lancashire, ib,; education of deficient children, ib.; the wonders of Christian Science at, 1034, 1154; contributions to hospitals, 1107; report on unwholesome dwellings, ib.; tuberculosis and imported cattle, ib.; relative density of population in Manchester and London areas, 1167; new public health laboratory, ib.: city coroner, ib; the medical worthies of, 1201; auxiliary fund for Children's Hospital, 1222; Sunday Hospital Fund, ib., water filtration, ib.; Citizen's Association, ib.; the housing question in, ib; nature study for poor children, ib.; industrial oxygen, ib.; increase of rates and instruction in cookery, 1284; dirty school children, ib.; self-supporting convalescent homes, ib.; removal of St. Mary's Hospital, 1339: other changes in hospital distribution, ib.; citizens' life-saving classes, 1403; insanitary houses in Salford, ib.; greater Manchester, 1461; cost of epileptic homes, ib.; largest reservoir for water supply in the country, ib.; neglected children, 1513
Mann, Mr. C. F. G., death of, 1405
——— T. D., an efficient ambulauce service for London, 399; Physiology and Pathology of the Urine, rev., 1259
Manouvriez, A., miners' anaemia and ankylostomiasis, 1272
Manson, Sir P., note on Dr. Primrose's paper on filariasis, 72; the Leishman-Donovan body and tropical splenomegaly, 183; recurrent fever associated with spirilla in the blood in a patient from Gibraltar, 538; the diccase problem in the West Indies, 624; the Leishman-Donovan body, 1251
Mapleton, G. H., puerperal sepsis, 868
Marey, Professor E. J., death of, 1212; obituary notice of, 1289; Sir Lauder Brunton on, 1290
Maritime climate, action of in the treatment of phthisis. 633
Marmorek, the serum of in tuberculosis, 575, 749, 857
Marriage, H. J., tinnitus, 838
Marriott, E. D., the sanatorium for consumptives, 518, 695
Marsh, H., pneumococcal peritonitis, 134; inaugural address on the progress of surgery, 289
——— J. H., honorarium for, 1442

Marshal, R. D., medical practice in Bussorah, 1517
Marshall, C. F., distribution of cancer, 471
——— F. H., A,, the oestrous cycle in the sheep, 206
Marsh-Beadnell, Staff-Surgeon C., the prevenvention of bubonic plague, 1133
Martin, A J., Up-to-Date Tables, rev., 780
——— A. M,, extensive cavernous angioma, 1315 ; congenital dislocation of hip, 1315
——— L., the isolation of 2,745 contagious cases at the Pasteur Hospital, 861
Martindale, W. H., The Extra Pharmacopoeia of Martindale and Westcott, rev., 1198
Martineau, A. J., large ovarian cyst, 1412
Martley, F. C., poisoning by cantharides, 1195
Marvall, Dr. Alice M., death of, 507
Maryland. registration of trained nurses in, 1146
Mason, H. A., retention of rubber catheter after external urethrotomy, 604
Masonic benevolent institutions, votes for, 764
Massachusetts, the registration of nurses in, 673
Massage, in fractures, 996; the necessity for improving the teaching of in England, 1347
Masters, Dr. W. H., presentation to, 1189
Materia medica, reviews of books on, 495; and dispensing, reviews of books on, 843
Mathews, J. M., A Treatise on Diseases of the Rectum, Anus, and Sigmoid Flexure, rev., 494
Matrimony, medicine and, 1062, 1262
Matzenauer, R., Die Vererbung der] Syphilis, rev., 610
Maunsell, R. C. B., the surgical treatment of abdominal aneurysm, 1422
Mauritius, the plague in,, 30, 276, 513, 615, 752, 962, 1103, 1204. 1336, 1434
Maxwell, J. L., spontaneous rupture of the abdominal wall, 892
May, C. H., Manual of Diseases of the Eye, rev., 842
Mayer, A. G., the Anglo-American Medical Association of Berlin, 403
——— and Meltzer, Messrs., the gynaecological operating table of, 36, 140
Maylard, A. E., congenital narrowness of the pyloric orifice a cause of chronic gastric disease in an adult, 416
Mayne, W. B., antenatal rigor mortis, 1312
Mayo, W. J., the association of surgical lesions in the upper abdomen, 1438
Mayou, S., the retina in anencephaly, 1138 ; on microphthalmos, 1429
Mazzarelli, Dr. A., death of, 1088
Meads, W. E., a case of permanent closure of the jaw resulting from infantile paralysis, 1425
Measles, the invasion stage of, 128, 228; hyperpyrexia in, 130; school babies and, 909, 989; and workshops, 1255; notification of, 1410
Meat case at King's Lynn, 409
Mechano-therapeutics, 93, 161, 215
Medals, the wearing of, 284
Medical Acts Amendment Bill. See Bill
——— advisers, monarchs as, 95
——— company. See Company
——— Council, General, and the English Colleges, 108, 165, 231 ; and preliminary general education of medical students, 144, 280, 384; the finances of, 864, 1060; meeting of, 1270; president's address, 1280 ; notes on meeting of, 1333 ; and systematic canvassing, 1458; the powers of, 1462 ; the presidency of, 1507
——— defence. See Defence.
——— men, censures by coroners' juries on, 36; automobiles for, 142, 199, 288, 1505; the sweating of, 164, 281, 412, 460; notices of in the lay press, 523, 700 ; gratuitous services to, 760 : messages to, 910, 1407 ; incomes of in the United States, 1146 ; and policies, 1228 ; French, proposed visit of to England, 1451
——— officers, district, remuneration of, 507 : appointment of, 815 ; holidays of, 1294
——— officers in the Highlands and Islands of Scotland, 58
——— officers of health, the relations of to their professional colleagues, 113, 342 ; notification by, 113 ; duties of in regard to small-pox, 705 ; the tenure of office of, 757, 924
——— officers, Poor-law, attendance on midwifery cases by, 147, 204 ; Poor-law, in Ireland, substitutes for, 332 ; remuneration of, 705, 762 ; operations by in cottage hospitals, 762 ; remuneration of deputy of, 994 ; in Ireland, superannuation of, 1032
——— and Surgical Nursing Homes, Limited, 39
"Médecine (La) des Accidents du Travail," note on, 93
Medicine, to music from, 152 ; an international language of, 320 ; education and, 330 ; in the modern university, 639 ; the influence of in the development of Japan, 743 ; reviews of textbooks of, 842, 1432 ; plea for conservatism in, 852 ; Chinese, 960 ; tropical, reviews of books on, 1022 ; automobiles and, 1034 ; and matrimony, 1062, 1262 ; the modern pursuit of novelties in, 1354, 1515 ; mediaeval, some survivals of in East Anglia, 1397 ; forensic, reviews of books on, 1487
Medicines, patent, the Rotherhithe Workmen's League and, 204 ; at Belfast, 454 ; proprietary, 562 ; patent in Utah, 846 ; alteration in the incidence of stamp duty on, 908 ; Chinese, some notes on, 1025 ; patent, the composition of, 1206
Mediterranean fever. See Fever.
Meeting, the annual, at Oxford, 1383 : railway arrangements for, 1459, 1511 ; notices as to, 1507, 1511
Mehta, D. H., litholapaxy in a female, "dodi" twig as a nucleus of a stone, 490
Meldon, Mr. A., obituary notice of, 1110
Memorandum by Editor of BRITISH MEDICAL JOURNAL on the reconstitution of the Local Government Board, 27
Meningitis, cerebro-spinal, late development of head retraction, long illness, recovery, 1254
Mental case, a, treated with ovarian extract, complete recovery, 130
——— condition, the, in epilepsy in relation to prognosis, 894
——— disease, saline injections and, 955 ; reviews of books on, 1189
Mentone, the St. John's Home of Rest at, 66
Menzies, Dr. T., memorial to, 353
Mercier. C., proposed sterilization of certain degenerates, 808 ; the Government Lunacy Bill, 1344
Mercury, solid, hypodermic injections of, 816
Meredith, W. A., pregnancy after removal of both ovaries for dermoid tumour, 1362
Merthyr, the housing question at, 1405
Messages to medical men, 910, 1407
Messiter, M. A., the Association and Medical Defence, 805, 919
Metabolism in the febrile state, 491 : nitrogenous, of the bird, influence of adrenalin on, 549 ; human, experiments on, 1214
Metastasis in carcinoma, 851
Metcalfe, J., gastric ulcer and high-frequency currents, 1255
——— R., Essays and Notes on Hydrotherapeutics, rev., 1141
Metchnikoff, E., the prevention of syphilis, 506 ; the prevention of old age, 1501
Meteorology, practical, 263
Methyl alcohol, blindness attributed to, 151
Metric system, the, in the House of Lords, 506, 1212 ; prescribing by the, 619, 750, 866, 1051, 1472 ; in English medical practice, 921 ; a stepping-stone to the, 1516
Michigan, notification of pneumonia in, 705
Michon, Dr. L. A. J., death of, 1521
Microbe, a, pathogenic to rats, 947, 972 ; a new cancer, 1045
Middlemass, J., general paralysis and workmen's compensation, 955
Middlesex, the prevention of consumption in, 983
Midwife, a, and puerperal sepsis, 990
Midwifery, Poor-law, in Scotland, 58 ; training in, 83 ; attendance by Poor-law medical officers on cases of, 147, 204
Midwives, Irish, and the English Midwives Act, 209, 267, 332, 395, 569, 572 : the training of, 618 ; district, Miss A. Gregory's scheme for, 703 ; schools for, 742
——— Act. See Act
Miles, A., Manual of Surgery, rev., 956
Militia, billets for medical officers of, 167 ; promotions and appointments in medical service of, 1051 ; Channel Islands, promotions, etc., in medical service of, 930, 1053, 1227 ; report of Royal Commission on, 1326, 1348
Milk, sore throat and, 57 ; aërated preserved, 84 ; municipal "humanized" sterilized, case of scurvy in an infant fed on, 479 ; sterilized, scurvy and, 503 ; report on an outbreak of illness due to, 602 ; human and bovine, 729 ; and mortality, 736 ; for infants, 763 (876) ; and infant mortality, 784 ; and national degeneration, 908 ; analysts' certificates and the warranties of, 927 ; precautions as to at Liverpool, 958 ; so-called "sterilized" bacteriology of, 1122 ; pasteurized in Philadelphia, 1234
—— dépôt, a French provincial, 741
—— epidemics and bovine mammitis, 619, 756
—— poisoning, acute septic colitis due to, 302
—— supply, of Belfast, 97 ; sanitary authorities and the, 103 ; a sanitary, 163 ; of London, 848, 1522
Millfield Home, ready for patients, 736
Milligan, W., labyrinthine suppuration, 371
Millport, the marine biological station at, 1101
Milroy, J. A., Practical Physiological Chemistry, rev., 311
——— T. H., Practical Physiological Chemistry, rev., 311
Milton, J. P., some points in the treatment of haemoptysis at a sanatorium, 652
Minchin, E. A., sporozoa and disease, 563, 624, 684, 742, 797, 1093, 1153, 1213
Mind, food for the, 850
Miners, ankylostomiasis in, 214 ; and contract medical practice, 313, 395 ; anaemia in, 611, 1044 ; rock drilling and phthisis of, 1211 ; anaemia of and ankylostomiasis, 1272 ; prize for prevention of phthisis in, 1324 ; the causes and prevention of phthisis in, 1387
Ministry of Health, proposed, 807
Minors, liability for attendance on, 523
Missionaries, medical, and private practice, 55, 227
Mitchell, S. W., the rest treatment, 564
——— T. H., anaesthesia by the rectum, 996
Mobility after joint operations, 1017
Mohr, L., Diabetic and Non-Diabetic Auto-intoxications, rev., 436
Mole, vesicular, of unusual size, 361; hydatid, 367 ; fleshy, 493
Molokai, leprosy research at, 686
Monarchs as medical advisers, 95
Monsarrat, K., on the etiology of carcinoma, researches on the morphology of an organism associated with carcinoma mammae and on the etiological significance of the association, 173 ; strangulated hernia, 1080
Monster, double xiphopagus, 472
Montgomery, E. E., Practical Gynaecology, rev., 1489
Montreal, the spitting nuisance in, 14
Mooney, J., Some Mechanical Peculiarities of the Human Body, rev., 896
Moore, Dr. C. F., obituary notice of, 53
——— Sir J., public health problems in Ireland, 548
——— J. E. S., cancer and its origin, 162, 278 ; the cytology of malignant growths, 1196
——— M. M., registration of births and deaths, 248
——— R. M., alcohol and the death-rate, 145, 155
——— W., isolation hospitals, 107
Moral, a case with a, and a sequel, 866
Morbid growths, influence of skin grafting on the recurrence of, 399
Morbus dormitivus. See Sleeping Sickness
Morison, P. G., prohibition of dispensing by doctors, 459
——— R., the surgical treatment of tuberculosis, 1314
Morphology of the spirillum of relapsing fever, 1014
Morris, H., Dr. Otto Schmidt's treatment of cancer, 576
——— Dr. S. G., presentation to, 171
Morrison, D. W., obituary notice of, 221
——— J. T. J., congenital deficiency of pigmentation in negresses, 367
Morrow, P. A., Social Diseases and Marriage, rev., 1488
Mors nobilis, 507
Mortality, high, of infants, the causes of, 338 among American practitioners, 366; infant, illegitimacy and, 683 ; milk and, 736 ; of infants, in Belgium, 752 ; infant, milk and, 784 ; recent, from cancer in the Thames Valley, 825, 989 ; infantile, and the birth-rate, the relation between, 1210; infantile Dr. H. M. Richards on, 1331
Mortimer, W. G., Histoire de la Coca, rev., 1374
Morton, C. J., puerperal sepsis, 757
——— Mrs. E., death of, 1155
——— R., treatment by Roentgen and radium rays, 941
Moscow, a cancer hospital in, 421
Mosher, J. M., Electro-diagnosis, rev., 436
Mosquito, the extermination of the, 327 ; destructfon of in America, 1451
Mosquitos, campaign against in the Federated Malay States, 55 ; malaria and, a challenge, 265 ; crusade of children against in Texas, 1266
Mother, alleged transmissibility of the parasite of malaria to infant from, 1312
Mothers, nursing, and malaria, 1352
Mott, F. W., lecture by to medical men at Owens College on the pathology of sleeping sickness, 575 ; examination of the tissues of the case of sleeping sickness in a European, 1,000 ; regeneration of nerves, 1214
Moullin, C. M., the subsequent history of eighteen patients upon whom gastric operations had been performed, 419
Movements of the heart, 560, 637
Moynihan, B. G. A., hour-glass stomach, 248 ; two cases of hydronephrosis due to abnormalities in the ureters successfully treated by plastic operation, 1010 ; congenital hour-glass stomach, 1288
"Mr.." the use of in official announcements, 809
Mudge, G. P., A Classbook of Botany, rev., 82
Muir, J. C., intubation in laryngeal diphtheria, 1127
Mulrenan, Surgeon J., death of, 1227
Multipara, primary eclampsia in a, 74
Mumps, incubation period of, 489
Murchison, A., medical officers in the Highlands and Islands of Scotland, 58
Murphy, S., report of to London County Council, 150, 253, 259
Murray, C., some tests for albumen in the urine, 882
——— G., a case of post-operative myxoedema with tetany, 1315
——— J. A., the significance of the zoological distribution, the nature of the mitoses and the transmissibility of cancer, 259, 269

Murray R. M., axis-traction forceps, 338; death of, 451: obituary notice of, 521; the late, 688
Museum, of security at Charlottenburg, 289; the annual, at the Oxford meeting, 1340, 1406, 1447
Musgrave, Sir J., death of, 570
——— W, E., Trypanosoma and Trypanosomiasis, with Special Reference to the Philippine Islands, rev., 1023
Music, from medicine to, 152; the translation of by gesture under hypnotic influence, 1166
Muspratt, C. D., acute haemorrhagic pancreatitis, operation, recovery, 304
Muter, J., A Short Manual of Analytical Chemistry, rev., 312
Mycosis fungoides, case of, 482
Myers, Brigade-Surgeon-Lieutenant-Colonel A. B. R., nurses for passenger boats, 648
Myiasis, notes on, 245; the treatment of, 365
Myoma of the uterus, is it often a fatal disease? 461: case of, 895
Myomata, uterine, the operative treatment of, 65
Myopia, removal of the crystalline lens in high degrees of, 486
Myositis ossificans, case of, 549
Myrtle, A. S., adrenalin in neurotic heart, 1009
Myxoedema, post-operative, with tetany, 1315: paper on, 1372

N.

N rays. See Blondlot
Nameplate on chemist's premises, 523
Nario, F. L., La Méthode de Prokowrow dans le Traitement de la Syphilis, rev., 252
Narrowness, congenital, of pyloric orifice, a cause of chronic gastric disease in an adult, 416
"Nascent state," influence of on drugs, 1338
Nason, E. N., sarcoma, 367
Naso-pharynx, some general results of affections of the, 656
Natal, the health of the colony of, 264; horse-sickness in, 490; prevention of consumption in, 1265
Natural history, reviews of books on, 1198, 1260
Nauheim, the baths at, 838; as a health resort, 1203
Naval actions, treatment of wounded in, 152, 1060
Navy, Royal, appointments and promotions in 404, 467, 519, 591, 641, 697, 760, 814, 871, 929, 993, 1051, 1112, 1171, 1226, 1291, 1349, 1408, 1465, 1518; defects of the medical service of, 54, 520, 1112; promotions and appointments in the medical service of medical service of, 54, 110, 166, 222, 283, 341, the Volunteer Reserve of, 54, 283, 341, 404, 520, 929, 993, 1171, 1291; the department of the Medical Director-General of, 166: antiseptics in the, 528; the medical service of in the early part of the last century, 612; report on the health of the, 640; estimates for, for the year 1903, 641: leading articles on medical service of, 679, 965, 1386; medical officers of on the retired list, 697: promotions and appointments in the Volunteer medical service of, 929; voluntary retirement of surgeons in, 993; vision of candidates for, 1060; retired pay of medical officers of, 1292
——— United States, titles of surgeons in, 166
Neave, S., a razor sharpener, 140; Leishmania-donovani in the Soudan, 1252
Nebraska, leprosy scare in, 254
Needle, Reverdin's curved, in cleft palate, 1191
Neglect, an unfounded charge of, 927
Negligence, alleged, action for, 283; a charge of, 1227; the law of, 1330
Negresses, congenital deficiency of pigmentation in, 367
Nephritis, experimental, followed by decapsulation of the kidney, 819; diffuse (parenchymatous) the glomerular lesions in, 1196
Nephrorrhaphy, successful, in a case of "floating" kidney, 1415
Nerve, facial, chronic paralysis of, operation, recovery, 133; deep ulnar, paralysis of, 596; superior maxillary, epileptiform neuralgia of, 729
——— centres, emission of Blondlot rays by, 150
——— deafness, sympathetic, 207
Nerves, anastomosis of in facial paralysis, 227; fifth and sixth cervical, bilateral neuritis of, 595: regeneration of, 1214
Nervous disorders, hyoscine in, 60
——— system, alleged increase of disorders of the, 598; trauma in relation to disease of the, 997
Netley, lost time at, 111
Nettleship medal, establishment of, 451
Neuralgia, "brachial," note on, 124, 664; epileptiform of superior maxillary nerve, 729
Neuritis, in coal miners, 131; bilateral, of fifth and sixth cervical nerves, 595
Neurology, reviews of books on, 435, 734, 1140
Neuroses, cardiac, 1214
Neurosis, traumatic, 367
Nevitt, Dr. J. G., death of, 404
New Orleans, Pasteur Institute for, 102
——— South Wales, the care of children in, 850; the birth-rate of, 969
——— Year honours. See Honours
——— York, insanity in, 474; pneumonia in, 526; tuberculous children in, 750; professional secrecy in, 760; proposed abolition of office of coroner in, 964; hospitals in, 1272; post-office censorship of advertisements in, 1332
——— Zealand, practice in, 348; prevention of consumption in, 616; annual report of chief health officer of, 702
Newark, vaccination fees at, 284
Newcastle-upon-Tyne, correspondence from, 336, 515, 692, 1405; the housing question, 336: Lying-in-Hospital, ib.; Hospital for Diseases of Women, ib.; dinner of past and present students of the College of Medicine ib.; proposed laboratory extension of the College of Medicine, ib.; Royal Victoria Infirmary, ib.; North of England Edinburgh University Club, 515; North of England Glasgow University Club, 515, 692; dedication of a pulpit to the memory of the late T. A. Dodd, 693; death of Mr. J. D. Dixon, ib.; outbreak of glanders at a Northumbrian colliery, ib.; extension of infectious hospital at, 1405; sanatorium for, 1461
Newbiggin, T. D., the repetition of prescriptions containing dangerous drugs, 412
Newell, P., horsedung in the streets, 172
Newman, D, decapsulation of the kidney for the treatment of albuminuria, 1011; unique case of "floating kidney" in which nephrorrhaphy was successfully performed, 1415
——— G., Bacteriology of Milk, rev., 137
Newsholme, A, school babies and measles, 989; protracted and recrudescent infection in diphtheria and scarlet fever, 1428
Newton, P., carcinoma of the oesophagus, gastrostomy, 954
Nicholls, F. L., life insurance examinations, 161
Nicholson, Sir C., the will of, 58
——— O., thyroidectomized animals, 954
Nicol, B. A., treatment of adenoid growths, 841
Nitrogen, total, in diabetes, relation of ammonia nitrogen to the, 549
Niven, Dr. G., obituary notice of, 462
——— J., feeding in relation to the health of the young, 674
Noguchi, an antidote for rattle-snake bite, 1451
Non-abstainers and abstainers, the mortality experience of, 145, 155
Noorden, C. V., Sammlung klinischer Abhandlungen ueber Pathologie und Therapie des Stoffwechsel und Ernährungstörungen, rev., 81: Obesity, the Indications for Reduction Cures, rev., 897
Norris, Surgeon H. L, some notes on Chinese medicines, 1025
Norström, G., The Manual Treatment of Diseases of Women, rev., 373; La Migraine, Traitement par la Massage, rev., 734
Northcote, Lady R., The Book of Herbs, rev., 958
Northrupp, W. P., "O'Dwyer, the Man," 1504
Northumberland, sanatorium for, 1461
Norway, the control of the traffic in alcohol in, 915
Nose, translucent cystic swelling of root of, 249; instrument for removing foreign bodies from the, 612; some general results of affections of the, 656: bone cyst of the, 834
Notes on Books, 25, 83, 197, 313, 437, 496, 551, 611, 670, 734, 789, 844, 898, 957, 1023, 1084, 1141, 1200, 1320, 1433, 1491
Nothnagel, Professor, decoration of, 1324
Nothnagel's System of Medicine, rev., 788
Notification, by medical officers of health, 113; of disease in Philadelphia, 409: action of sanitary authority on receiving, ib.; of infectious diseases, 585; of pneumonia in America, 705, 940; of chicken-pox, 790, 1088: in Johannesburg, 854; of whooping-cough, 924; of measles, 1410
Nottingham, the small-pox hospital at, 464
Nottinghamshire, the county council of and the Midwives Act, 1163: prevention of consumption in, 1265
Nova et vetera, 375, 438, 612, 900, 960, 1025, 1085, 1201, 1397
Novelties in medicine, the modern pursuit of, 1314, 1515
Nucleus, value of, 1518
Nunn, Lieutenant-Colonel J. A., the preservation of rubber instruments, 932
Nurses, the State registration of, 148, 803, 858, 920, 976, 987, 1049, 1110, 1168 1212: trained for passenger ships, 148, 165, 648: registration of in America, 673; American, for the Japanese army, 678: conscript, 1028
——— Co-operation. See Co-operation
——— Registration Bill. See Bill
Nursing district, in Ireland, Lady Dudley's scheme for, 1150
——— home, responsibilities of a, 282
Nutrose agar, method of preparing, 193
Nuttall, G. H. F., on blood immunity and blood relationship, 906
Nyulasy, F. A., a head-rest for post-nasal operations, 1024

O.

Obesity, reviews of books on, 897
O'Brien, C. M, radium in therapeutics, 1372
Obstetric practice, students' outdoor, 867
Obstetrics, reviews of books on, 195, 732, 1198
Obstruction, intestinal, due to paralysis of a loop of jejunum, 605; acute intestinal, discussion on at the Medical Society of London, 669: intestinal, after typhoid fever, 838; acute intestinal, caused by syphilitic ulceration of the ileum, 1068; intestinal, some cases of successfully treated, 1069; malignant, of oesophagus, gastrostomy for, 1074
O'Carroll, J., on the Irish Poor-law medical service, 1477
Odell, Dr. W., presentation to, 790
Odontoid process of the axis, detachment of the without fracture of the atlas, continued life without symptoms of injury to the spinal cord, 247
"O'Dwyer, the Man," 1504
Oedema of the lungs and its importance as a mode of death, 1
Oesophagus, extensive carcinoma of the, 589; carcinoma of, gastrostomy, 954; foreign body impacted for seven months in the, 1074; malignant obstruction of, gastrotomy, ib.
Oestrous cycle. See Cycle
"Office," consulting room, the term, 648
Ogston, A., on education and medicine, 330
Oldbury, the battle of the clubs at, 40, 47, 451
Oldman, Dr. C. E., obituary notice of, 869
Oliver, G., blood-pressure instruments, 1048
O'Meara, T. J., alcoholism in Ireland, 1457
Omdurman, Leishman-Donovan bodies found at, 1049
O'Neill, Dr. W., death of, 1100
Onodi, A., Die Anatomie und Physiologie der Kehlkopfnerven, rev., 137
Openshaw, T. H., osteo-arthritis of the knee, 1018
Operation, the question of in some deceptive abdominal conditions, 361: an illegal, 809
Operations by Poor-law medical officers in cottage hospitals, 762
Operatives, flax and linen, health of, 970
Ophthalmia neonatorum, treatment of, 1370
Ophthalmic departments, the London School Board and, 38
Ophthalmology, reviews of books on, 841
Ophthalmoplegia externa, complete, with blindness of acute onset, 249
Opinion, accepted professional, 1092
Opium, venesection in poisoning by, 664
Oppenheimer, C., Die Fermente und ihre Wirkungen, rev., 610
Opticians and eye testing, 203, 342; retail, and advertising by, 1389
Orange River Colony, a medical ordinance for, 683, 702
Oration, the Harveian, by Dr. R. Caton, 1473, 1504
Order of St. John of Jerusalem, promotions, etc., in, 615
Orthopaedics, reviews of books on, 956
Osborne House, description of, 255; visit of King to, 508; opening of, 854
Osler, W., chronic cyanotic polycythaemia with enlarged spleen, 121
Osteo-arthritis of the knee, 1018
Osteo-arthropathy, hypertrophic pulmonary, 134
Osteo-myelitis, amputation at hip-joint, recovery, with new bone growth, 1313
O'Sullivan, the late Professor, memorial to, 1325
Otitis media, case of, 370, 731; cerebral abscess following, 836
Ott, A., Die chemische Pathologie der Tuberculose, rev., 437
——— O., A Textbook of Physiology ev 1433
Oudney, W., note on, 971
Out-patients, at London hospitals, 35, 44 (116); at St. Bartholomew's Hospital, 52; papers 55; private hospital for, 342
Ovarian extract, a mental case treated with, complete recovery, 130
Ovaries, fifty consecutive intra-abdominal operations on, 354; leprosy of, 851; both, dermoids of and pregnancy, 971; pregnancy after removal of both for dermoid tumour, 1360; primary carcinoma of, 1430
Ovariotomy, double, pregnancy after, 806; for epithelioma of breast, 1045
Ovaro-hysterectomy (Porro) twelve cases of, 359
Ovary, hydatid cyst in the, 724
Overall, G. W., A Non-Surgical Treatise on Diseases of the Prostate Gland and Adnexa, rev., 1491
Owen, D., the repetition of prescriptions, 708
——— D. C. L, resigns membership of Spectacle Makers' Company, 266

Owen, E., treatment of appendix-abscess in recto-vesical pouch, 426
———Sir I., oedema of the lungs and its importance as a mode of death, 1; the future of electro-therapeusis, 39; the detection of early tubercle in the lungs, 765; the future of London medical education, 1177, 1207
Oxford, the annual meeting at, 1383; railway arrangements for, 1459,1511; notices as to, 1511
Oxygen gas, the use of in distending the bladder for cystoscopy, 539; the administration of, 579
Oysters and typhoid fever, 271, 346, 585

P.

Pacific, a paradise of rest in, 1449
Page, W. S., spinal caries in a man aged 60, with abscesses pointing in the epigastrium, 192
Paget, S., myositis ossificans, 549
Pain, its importance in diagnosis and tendency to mislead, 194; abdominal, in acute rheumatism, 1120
Pain, A., medical defence, 398
Palate, cleft, Reverdin's curved needle in, 1191
"Pall Mall Gazette," the, on milk and national degeneration, 908
Palm, T. A., the admission of pure air into serous cavities, 759, 868, 989
Palmer, J. F., drunkards and drink cures, 205
——— Miss S., a case of hepatic abscess opening into the pleural cavity, 837
Panama, the sanitation of, 685
———Canal. See Canal
Panax ginseng, note on, 1235
Pancreas, review of book on, 24; disease of the, 431; the pathology and surgery of certain diseases of the, 659, 719, 773; transplantation of in diabetes, 709; the chemistry of the urine in diseases of the, 776, 868; on the adaptation of, 778; the physiology and pathology of the, 792; two cases of primary malignant disease of the, 885
"Pancreatic reaction," so-called, in the urine. 1347, 1462, 1516
Pancreatitis, acute haemorrhagic, operation, recovery, 304; chronic. 493
Pannus and associated corneal changes, 1138
Paradise of rest in the Pacific, a, 1449
Paraffin, method of embedding, 369
Paralysis, chronic, of the facial nerve, operation, recovery, 133; agitans, salivation in, 172; facial, anastomosis of nerves in, 227; facial, following forceps delivery, 246; post-diphtherial bulbar, 249; progressive, of the insane, 492; of deep ulnar nerve and functional powers, 596; lesion of post-central convolution without, 598; of a loop of jejunum, intestinal obstruction due to, 605; general, and workmen's compensation, 955; infantile, 1315; infantile, permanent closure of the jaw resulting from, 1425
Paraplegia, hysterical, in the male, 125; total, due to vertebral caries, 249; of sixteen months' standing laminectomy, recovery, 1078
Parasite, of malaria, alleged transmissibility of from mother to infant, 1312
Parasitic bodies, found in tropical splenomegaly. the value of, 303
——— theory of cancer, 116
Pardoe, J., complete prostatectomy, 518; the fallacy of prostatectomy, 867
Pare, Smith, *v.*, 1227
Paris, the inspectorship of general sanitation in, 97; female practitioners in, 194; horseflesh for consumptives in, 328; correspondence from, 514, 633, 753, 861, 1044, 1166, 1338; important decision on the isolation of tuberculous patients, 514: epidemic of typhoid fever, 633, 754, 861, 1166; the plan for the isolation of tuberculous patients in, 633; a new isolation hospital, ib.; the water supply of, 745; complimentary dinner to Professor Cornil, 754; opening of temperance restaurant at, 846; restoration of ancient medical school, 861; regulations as to prostitutes in, 904; a code of medical ethics, 1045; reconstruction of Cochin-Ricord and Pitié Hospitals, ib.; monument to Professor Tarnier, ib.; female dentists, in, 1262
Parker, G., electrical treatment of lumbago, 840
——— H. F., a simple method for the administration of ethyl chloride, 428
——— R., cirsoid aneurysm of forehead treated by free incision and extirpation, 304
——— W. R., foul convalescent homes, 1407
Parkinson, K., morbus cordis, 549
Parks, London, convalescent homes in, 1092
PARLIAMENT:—Doctors in, 107, 220, 339, 397, 461, 578, 638, 697, 1224; the opening of, 329; the Speech from the Throne, ib.; private members legislation, ib.; the deterioration of national physique, ib; the course of business, ib.; the ballot and private members' Bills, 390; Government Bills, ib.; the physical condition of children, 390, 799; the constitution of the Local Government Board, 391; the sanitary condition of the House of Commons, ib.; pure beer, ib.; the registration of nurses, ib.; street accidents and covered vehicles, ib.; factory inspection in the Potteries, ib.; the prospects of private members' Bills, 451; the record of cancer cases in Indian hospitals, ib.; reforms in Irish lunatic asylums, ib.; the sanitary condition of telegraph rooms, 452; the Sanitary Inspectors Examination Board, ib.; the cost of vaccination, ib.; lunacy and the use of immature spirits, ib.; the medical officers of the female prison, Limerick, ib.; the treatment of the blind in Ireland, ib.; the constitution of the Local Government Board, ib; the Nurses Registration Bill, 452, 509, 628; the new lady inspector in the Potteries, 452; lead poisoning, ib.; plague at Hong Kong, 509, 973; dental surgeons for the army, 509; dispensary medical officers in Ireland, ib.; sewage in the Thames, ib; vivisection and inspection, ib.; vivisection, 509, 746; the medical lessons of the war, 509; overcrowding in Poor-law schools, ib.; the sanitary administration of the army, 567; medical officers of health and milk supply, ib.; losses during the war, ib.; the Sale of Butter Bill, ib.; the Pharmacy Bill, ib.; the Police and Sanitary Committee, ib.; the Poor-law Superannuation (Ireland) Bill, 567, 974; the sale of poisons, 567; the Vaccination Prosecutions Bill, 568; the course of business in, ib.; a Parliamentary committee, 627; War Office reconstitution and army sanitation, ib.; the medical services and study leave, ib.; the Royal Commission on Tuberculosis, 628, 686; vaccination, 628; small-pox at Greenock, ib.; glycerinated calf lymph for Scotland, ib.; obstacles to enlistment, ib.; dispensing at the Portsmouth lunatic asylum, ib.; enteric fever and inoculation, ib.; the Board of Lunacy, ib.; the Pharmacy Act and its amendment, ib.; tuberculosis and milk supply, ib.; the Local Government (Scotland) Act Amendment Bill, ib.; the Departmental Committee on Physical Degeneration, 687; plague in India and inoculation, ib.; fees of public vaccinators, ib.; milk epidemics, ib.; the payment of a locum tenens in Fermanagh, ib.; Royal Commission on Feeble-minded and Imbeciles, ib.; miners' phthisis in the Transvaal, 687, 1216; fees for medical witnesses, ib.; plague in the Transvaal, 745; plague in India, 745, 913; the sale of poisons, 746; the payment of locum tenens, ib.; anthrax, ib.; glanders, ib.; rabies and quarantine, ib.; uncertified deaths in Scotland, ib.; expenditure on the sanitation of the house, ib.; Meath Hospital, Dublin, 746, 1156; the plague in Johannesburg, 798; exemptions from vaccination, ib.; vaccination in Scotland, 799; death certification in England and Wales, ib.; experiments on animals, ib.; the treatment of blacks and whites at Johannesburg, ib,; the Woking and Finchley sore-throat epidemics, ib.; the Easter recess, ib.; reassembling of, 913; the physical condition of children, ib.; vaccination mortality, ib.; vaccination Bills, ib.; vivisection of dogs, ib.; doctor and magistrate, ib.; the Osborne Convalescent Home, ib.; antivaccination in, 971; underfed school children, 973; rats and the plague in Capetown, ib.; plague in South Africa, ib.; inoculation for plague in Johannesburg, ib.; the Tuberculosis (Animals) Compensation Bill, ib,; the Weights and Measures Bill, 974: the evasion of the Factory Acts, ib.; the Licensing Bill, ib.; calf lymph for Scotland, ib.; the budget, 974, 1037; the Revaccination Bill, 974, 1036. 1098, 1156, 1507; the Aliens Bill, 1036; rabies and imported dogs, ib.; experiments on dogs, 1037; fees of medical witnesses in Scotland, ib.; the Prevention of Corruption Bill, ib.; Poor-law guardians as public vaccinators, ib.; Poor-law children boarded out, ib.; corporal punishment in Poor-law cottage homes, ib.; the treatment of epileptics, ib.; the Public Health Acts Amendments Bill, ib.; the Irish Poor-law medical service, 1097; the sanitation of the House of Commons, 1098; small-pox in East London, ib.; the cost of vaccination at Belmullet, ib.; State registration of nurses ib.; Poor-law nursing, 1098, 1216; army nurses, 1098; rats on shipboard and the plague, ib;, the death-rate in South African mines, 1155; the Royal Army Medical College, ib.; vivisection, ib.; the plague and Chinese labourers, 1156; punishment of children, ib.; St. Bartholomew's Hospital Bill, 1156, 1508; the Scotch estimates, 1156; Ballinasloe Lunatic Asylum, ib; Nurses Registration Bills, ib.; the Lunacy Commission, 1215; a violation of the Lunacy Act, ib.; county medical officer of health, ib.; arsenical poisoning and pure beer, 1216; the Chinese labourers and medical inspection, ib.; vivisection and its results, ib.; uncertified deaths, in Ross-shire, ib.; the death-rate in the Transvaal mines, ib.; the pollution of the Thames, ib.; the sanitary condition of Derrygonnelly, ib.; business after Whitsuntide, ib.; the medical profession in, 1224; the adjournment for Whitsuntide, 1274; vivisection and the Royal College of Physicians, ib.; the health of the Hampshire Regiment at Aden, ib.; the Poor-law Officers Superannuation (Scotland) Bill, ib.; Bills sent down from the Lords, ib.; after the recess, 1333; tuberculosis in animals, ib.; antitoxin and the Lister Institute, ib.; the Shop Hours' Bill, ib.; the Local Government Board vote, 1391; the registration of nurses, 1392; antityphoid inoculation, ib.; nursing at military stations, ib.; the army medical vote, ib.; Poor-law relief in Scotland, ib.; the water supply of Scotch schools, ib.; the business of the week, 1451; infant mortality and medical relief, ib.; nursing in workhouses, 1452; ringworm and ophthalmia among Poor-law children, ib.; alcohol as a cause of insanity, ib.; phosphorus necrosis, ib.; the Registrar-General and the supply of information to the press, 1452, 1508; the use of humanized vaccine lymph in Scotland, 1452; epidemic sore throat in Glasgow, ib.; the mortality in South African mines, 1508; beri-beri and the coolies, ib.; cholera in Persia, ib.; the distribution of Poor-law children, ib.; out-relief for children, ib.
Parotitis, secondary, a fatal case of, 1012
Parry, L. A., the feeding of infants, 757
Parsons, C. T., and professional secrecy, 448
——— J. H., congenital anterior staphyloma, 433; The Ocular Circulation, rev., 841
Partnership, purchase of, 1228
——— accounts, 523
——— agreements, 1518
——— introduction, a, 55, 1467
Pasteur, W., Dr. Otto Schmidt's treatment of cancer, 576; foreign body impacted in bronchus, 729
——— Institute. See Institute
Pasteurism in Philadelphia, 1146
Patent medicines. See Medicines
Paterson, A. W., labour impeded by fetal bladder cyst, 190
——— J. V., glaucoma and glaucoma theories, 431
——— W. C., vaccination in the incubation stage of small-pox, 488
Pathogenesis. See Etiology
Pathology, geographical, review of book on, 24; reviews of books on, 436, 1083, 1259; of a European case of sleeping sickness, 1000; at the Victoria University of Manchester, 1391, 1403
Patient, death of, before arrival, 167; the position of a medical practitioner in legal proceedings concerning his, 583, 700; whom he has seen in consultation, relation of a practitioner to, 761
Patmore, T., deep ulnar nerve paralysis and facial powers, 596
Paton, D. N., influence of adrenalin on the nitrogenous metabolism of the bird, 549
Paul, F. T., the technique of aseptic surgery, 954
Pawlow, a confirmation of, 369
Payment for pauper patients in an isolation hospital, 113
Payne, H., Hadden's Pocket Vocabulary of Medical Terms, rev., 495
Peabody, J. E., Studies in Physiology, Anatomy, and Hygiene, rev., 312
Pearse, Mr. G. E. L., obituary notice of, 222
Pearson. S. V., abdominal pain in acute rheumatism. 1120
Peculiar People, schism among, 409
Pelvis, hydatid cysts in, 389; hydatid disease in the, 1430
Pembrey, M. S., remarks upon temperature, 475
Penitent's progress, the, 153
Pennsylvania, fresh air for poorly-fed children in, 983
Penny, E., incubation period of mumps, 489
——— J., a public danger from sanatorium inmates, 52
Pensacola, a tuberculosis camp at, 210
Perceval, T., hyoscine in nervous disorders, 60
Perchloride of iron, reaction with in the urine of grave cases of hepatic cirrhosis, 13, 339
Percival, G. H., treatment of haemorrhoids, 19
Perforation in typhoid fever, 194
Pericarditis, purulent, associated with empyema in a child aged 2½ years, 9
Pericardium, epigastric operation for drainage of, 106
Peritonitis, pelvic, treated with antistreptococcus injections, 133; pneumococcal, 134, 1254
Perityphlitis simulating cancer, 1018
Perkins, G. S., treatment of dilated capillaries, 348
Pershing, H. T., The Diagnosis of Nervous and Mental Diseases, rev., 1141

Persia, bilharzia in, 725; cholera in, 1154, 1451
Peru, the plague in, 962, 1451
Pessary, a, for prolapsus uteri, 790, 1201, 1434
Peterson, E., A Textbook of Legal Medicine and Toxicology, rev., 1490
——— F., Nervous and Mental Diseases, rev., 436
Peypers, Dr. H. F. A., death of, 523
Pharmacology, review of book on, 1083
Phenacetin, poisoning by, 545
Phenology of the year 1903, 736
Philadelphia, notification of disease in, 409; medical inspection of schools in, 683; virulent influenza at, 964; Pasteurism in, 1146; pasteurized milk in, 1234
Philip, R. W., the organization of the home treatment of pulmonary tuberculosis, 1357
Philippine Islands, care of the insane in, 390; the plague in, 615; public health in the, 1028
Philips's Anatomical Model of the Female Human Body, rev., 196
Phillips, C. D. J., Materia Medica, Pharmacology and Therapeutics, rev., 1373
——— G. A., life insurance examinations, 263; the General Medical Council and systematic canvassing, 1458
——— H. C., puerperal sepsis, 636
——— S., disease of the pancreas, 431
Phoenix collieries, the surgeoncy of, 342
Phosphaturia, diet in, 115, 227
Photographic plate, differentiation of B. typhosus and B. coli communis by means of the, 1004
Physical degeneration. See Physique
——— exercise. See Exercise
——— remedies, reviews of books on, 1260
Physician of the future, the, 502
Physiology of fatigue, 145, 279; reviews of books on, 311, 1433; in education, 754
Physique, degeneration in, 37, 45, 86, 104, 140, 197, 272, 319, 401; national, and an idea, 448; of the Japanese, 622
Picqué, eunuchoid giantism, 972
Picric acid test, the, 1175
Pierce, R. W. C., milk epidemics and bovine mammitis, 756
Pigmentation, Addisonian in scleroderma, 126; congenital deficiency of in negresses, 367; facial, 1352
Pilewort ointment and suppository, 14
Pinard, the extinction of infantile mortality in the Commune of Villiers-le-Duc, 753
Pincus, L, Atmokausis und Zestokausis, rev., 372
Pirkis, Mr. F. E., the Hon. S. Coleridge and, 37, 93
Pistor, M., prevalence of enteric fever in Prussia from 1892 to 1901, 1197
Pitt, G. N., a case of general pneumococcal infection, acute pleurisy, lobar pneumonia, pericarditis, endocarditis, peritonitis, and colitis, with delirium, fatal in less than four days, 665
Pittock, G. M., Flora of Thanet, rev., 496
Placenta praevia, case of, 74, 492; twins, (?) concealed accidental haemorrhage, 835
Plague, prevalence of, 30, 159, 275, 513, 615, 744, 752, 856, 962, 1103, 1204, 1336, 1434; bubonic, the prevention of, 1133
Plants, medicinal, in America, 684
Playfair, Dr. D. T., obituary notice of, 403
Plea of insanity, the, 406
Pleural cavity, hepatic abscess opening into, 837
Plicque, A. F., La Cure de la Tuberkulose dans les Sanatoriums Français, rev., 671
Plönies, W., Die Reizungen des Nervus Sympathicus und Vagus beim Ulcus Ventriculi mit besonderer Berücksichtung ih er Bedeutung für Diagnose und Therapie, rev., 495
Plowright, C. B., notes on the distribution of cancer in the Freebridge Lynn Rural District, 72; some survivals of mediaeval medicine in East Anglia, 1397
Plug, a, for antral perforations, 1434
Plumbers, the registration of, 52, 1233; examination of, 1058
Plummer, H. B. W., the use of the electromagnet, 647
Pneumococcal infection, general, case of, 665
Pneumococcus, intraperitoneal abscess due to, 128
Pneumonia, the treatment of, 52, 104, 163, 206, 218, 411, 519, 696; bleeding in, 365, 638; the management of the icebag in the treatment of, 488; in New York, 526; treated with antipneumococcus serum, 663; notification of in America, 705, 940; cases of, 1014; croupous, treated with antipneumococcus serum, recovery, 1253
Pneumothorax, tuberculous, surgical emphysema secondary to, 783
Pogson, B., isolation hospitals, 403
Poirier, P., The Lymphatics, rev., 434
Poisoning, from atropine eyedrops, 189; chronic, by antimony, 433; alleged, in an indigo dye worker, 487; by phenacetin and antikamnia, 545; by opium, venesection in, 664; by carbolic acid, turpentine in, 1024; by cantharides, 1195; by coal gas, ib.; by the fruit of ratsbane, 1314; by belladonna, 1472
Poley, A. P., A Guide to the Housing Acts, rev., 672
Politics, vaccination and, 216; medical men and, 1228
Pollard, B., carcinoma of the colon and its treatment by colectomy, 175
Pollock, R., puerperal sepsis, 758
Pollution of tidal waters, 376; bacterial test of, 469, 526
Polson, Dr. R., presentation to, 254
Polycythaemia, chronic cyanotic, with enlarged spleen, 121; chronic, with enlarged spleen, probably a disease of the bone marrow, 729; and erythromelalgia, 1017
Poor, the consumptive of London, 92, 393
Poor-law medical appointments, competition for, 1522
——— medical relief. See Relief
——— medical service, the, in Ireland, 42, 268, 510, 739, 807, 1099, 1499; in Scotland, 148, 220, 223, 1029, 1390, 1515; in Ireland, Dr. J. O'Carroll on, 1477; in Ireland, Mr. R. F. Tobin on the strike in, 1480
Poplar, measles and workshops in, 1255
Porro's operation, note on and a suggested modification, 360; two cases of, 1255
Port of London, the health of, 1144
Porter, A. E., the prophylactic use of diphtheria antitoxin, 1018
Porto Rico, ankylostomiasis in, 736
Portsmouth, scarlet fever and isolation at, 585; visit of the King to, 586
Portugal, cancer research in, 429; prevention of consumption in, 617
Postmen, rural, in Scotland, medical attendance on, 1172
Post Office, proposed sanatorium for employés of, 691; medical appointments of in Highlands and Islands of Scotland, 1262; medical appointments in, 1328, 1346
Potassium bromide, fatal case of poisoning by, 547; in influenza, 725
Potatoes and glycosuria, 544
Powell, A., the life-span of the guinea-worm, 73; morphology of the spirillum of relapsing fever, 1014
——— A. F. M., medical defence, 398
Power, D'A, notes on an ineffectual treatment of cancer, being a record of three cases injected with Dr. Otto Schmidt's serum, 299
Poynton, F. J., the staphylococcus aureus and rheumatic fever, 77; the infective nature of rheumatic fever, 1117; study of a case of rheumatic fever, 1138
Practice, in America, 115; medical, by foreigners in Spain, 328; in Canada and New Zealand, 348; in the United States, 388; company, 908; English medical, the metric system in, 921; medical, the intrusion of the layman into, 980, 1090, 1108, 1225, 1293, 1349; medical, in Bussorah, 1517; unqualified, 1518
Practice, purchasing a, 283, 760; value of share of, 872; inspection of books after sale of, 1292, 1467; value of, 1409; subsequent, sale and, 1467
Practitioner, may he offer his services gratuitously to a public body? 108; the medical, the position of in legal proceedings concerning his patient, 583, 700; the relation of to a patient whom he has seen in consultation, 761; medical, as agent for life insurance company, 872
Practitioners, foreign medical, in Italy, 96; medical, personal canvassing by, 108; female, in Paris, 194; qualified, as dentists, 342, 407; American, mortality among, 366; the relation of to advertising electro-magnetic institutions, 700; Indian medical, prospects of, 876; medical, exemption of from jury service, 1466
Pregnancy, normal, complicated by old ectopic gestation, pain, suicide, 15; ectopic, operative and expectant treatment in, 61; abdominal operations during, 64; plural, triplets, presenting some unusual features, 75; bilateral, extrauterine, case of, ib.; treatment of syphilis during, 288; in a fixed uterus, 308; hypertrophy of the breast and, 388; fibroids complicated by, 730; with deficient tubes and ovaries, 743; after double ovariotomy, 808; extrauterine, case of, 879; and dermoids of both ovaries, 971; syphilis and, 1351; after removal of both ovaries for dermoid tumour, 1360; complicating pregnancy, 1430; early, 1472
Prepuce, adherent, reflex disturbances associated with, 596
Prescribing by the metric system, 619, 750, 866, 1051
Prescriptions, illegible, 152, 982; containing dangerous drugs, the repetition of, 215, 278, 336, 412, 588, 708
Presentation, suboccipital, 75
Press, lay, medical contributions to, 467, 1349; notices of medical men in, 523, 700; medical advice in, 761
Preston, C. H., Handbook of Surgical Anatomy, rev., 435
Primrose, Dr., note on the paper of on filariasis, 72; the cure of filariasis by the removal of the adult worm, 461; decapsulation of the kidney in Bright's disease, 1099
Prince d'Arenberg on malaria in Egypt and the Suez Canal Company, 753
——— of Wales, the, and the Association, 795
Princess Christian opens medical and surgical home near Windsor, 586
Pringle, H., a confirmation of Pawlow, 369
——— J. H., an operation for the radical cure of hernia, 1063
Prize, the Nobel, Dr. Finsen and, 41; the Craig Colony, particulars as to, 58, 690; T. Henry Green, particulars as to, 112; the Rinecker, award of, 153; the Cameron, award of, 390; the Vallauri, award of, 575; Sir William Taylor, particulars as to, 871; the Astley Cooper, particulars as to, 1015; Parkes memorial, particulars as to, 1053; the Nobel, Major R. Ross's essay for, 1388
——— essays on tropical medicine, award to, 410
Prizes, international Red Cross, 678
Prodromata of the psychoses, 907
Profession, the medical, and alcohol, 50, 648; the medical, in Capetown, 107; the medical, in Austria, 121; the medical, and trade advertisements, 283, 583; the medical, and the South African Colonization Society, 508; the medical, the attitude of towards the treatment of disease by unqualified persons, 1090; the medical and laboratory reports, 1111; the medical in Parliament, 1224
Professional conduct, 406
Professions, the medical and legal in Ireland, 578
Prognosis, the mental condition in epilepsy in relation to, 894
Proprietary remedies. See Medicines, patent
Proptosis, paper on, 308
Prostate, Freyer's method for the treatment of enlargement of, 232; enlarged, vasectomy for, 246; the modern surgery of the, 307; enlarged, 367; total extirpation of the, 398; the, and prostatectomy, 728; total extirpation of for radical cure of enlargement of that organ, 1183; the anatomy of the, 1372; reviews of books on hypertrophy of, 1491
Prostatectomy, suprapubic, Sir T. Stoker on, 229, (399); total, an anatomical criticism of the procedure known as, 239; leading article on, 260; the fallacy of, 397, 636, 867; complete, 518; the prostate and, 728; total, 1187; suprapubic and perineal, the relative advantages of, 1187, 1194; case of, 1193; suprapubic, in a man aged 84 years, 1427
Prostates, sections of, 953
Prostatorrhoea, note on, 1472
Proteid dietary, effects of, 1136
Protest, a, and a disclaimer, 523, 700
Protoplasm, the reaction of in relation to chemiotaxis, 1413
Protozoa, the literature of, 623
Proxy, athletics by, 1389
Prussia, the vaccination law of 1835 in, 378, 517; prevalence of enteric fever in from 1892 to 1901, 1197
Pryor, W. R., Gynaecology, a Textbook for Students and a Guide to Practitioners, rev., 373
Prytherch, Mr. H., death of, 1057
Psychoses, prodromata of the, 905
PUBLIC HEALTH: Health of English, Scotch and Irish towns, 57, 112, 225, 286, 345, 408, 468, 525, 584, 646, 703, 762, 814, 872, 924, 993, 1057, 1112, 1174, 1232, 1293, 1350, 1410, 1469, 1522; vital statistics of London, 225, 1057; vital statistics of England and Wales, 261, 284; English urban mortality, 284, 703, 1112; the Registrar-General's quarterly return, 344, 1293; in Italy, 346; epidemic mortality in London, 408, 1231; vital statistics of metropolitan boroughs, 584; reviews of books on, 672, 1140; population of the United Kingdom, 1469
——— Health Act. See Act
——— health administration in England, 163
Public-house Trust. See Association
Puff, the biographic, 1053, 1111
Pullman cars, special, for consumptives, 1146
Punctures, spinal subarachnoid, a suggestion for the treatment of puerperal convulsions by, 1131; lumbar, treatment of incontinence of urine by, 1166
Punjab, the, sanitary report of, 617
Punkah, a bed, 1200
Purchas, F. A. G., glandular fever in Jamaica, 952
Purchase of remaining share, 467
Purchasing a practice, 283, 760
Purpura, antipyrin and, 325
Purslow, C. E., decapitation in impacted shoulder presentation, 367; a uterine cyst, 493; fleshy mole, ib.; students' outdoor obstetric practice, 867
Pyaemia, lateral sinus, cases of, 827; pyocyaneus, 954
Pylorus, congenital narrowness of orifice of causing chronic gastric disease in an adult, 416; congenital hypertrophic stenosis of, 1073; congenital hypertrophic stenosis of the, pyloroplasty, result, 1483
Pyloroplasty for stenosis of pylorus, 1483
Pyometra, case of, 308
Pyopneumothorax, due to phthisis, 549; case of, 1316

Q.

Quack doctor, coin debaser and, 1033
——— nostrums, the advertising of, 621
——— remedies, the Cancer Research Fund and, 1093
Quackery, and baldness, 205; in Germany, 214; in Bradford, 1053; congress for repression of in France, 1151
Quarantine, disappearing, 34; after whooping-cough, 469
——————— Board. See Board
Queen, the visit of to Cambridge, 343, 446, 553, 559; donation by to King's College Hospital removal fund, 846; becomes president of the London Hospital, 912, 1332; visits Finsen's Light Institute, 913
——— Victoria Jubilee Institute. See Institute
Queensland, report of health commissioner of, 113; notes from, 211; reduction of Government subsidies to hospitals in, ib.; voluntary subscriptions to hospitals in, ib.; the new Dental Act in, ib.; infectious diseases in, ib.; plague in, 796, 1434
Quinine sulphate, hypodermic injection of, 1486

R.

Rabbits, kids and, 1146
Radio-activity and mineral waters, 797
Radium, in the Bath waters, 96, 580; action of the rays on tissues, eggs, and animals, 382; a gift of, 393; use of, 587; and tuberculous ulceration, 784; treatment by rays of, 941; in a case of rodent ulcer, 946; the Goldsmiths' Company and investigations as to, 973; Professor Lassar on, 1221; Professor Rutherford on, 1270; observations on the therapeutic value of, 1366; in therapeutics, 1372
——————— bromide, notes on some cases in which it has been tried, 181; a case of rodent ulcer treated with, 182
Rae, W., as bone-setter, 1505
Railway arrangements for the Oxford meeting, 1459
——— carriages. See Carriages
——— employés, instruction of in first aid, 1035
——— tubes. See Tubes
Rainfall, of 1903, 150
Râles, early detection of in phthisis, 1370
Ramsden, W., the powers of the General Medical Council, 1462
Ramsey, R., injuries and effects of a rifle shot at close quarters, 16; notes of experiments to determine the relative efficiency of some surgical dressing materials, 1361
Randall, M., spontaneous rupture of uterus, laparotomy, recovery, 365
Ransford, T. D., case of appendicitis complicated by the presence of an ovarian cyst, 1077
Rasch, C., Hudens Sygdomme og deres Behandling, rev., 609
Rash, drug, complicating enteric fever and simulating scarlet fever, 364; drug, note on, 528
Rats, the plague of, 624; ribbons and, 685; destruction of on board ship, 695; a microbe pathogenic to, 947, 972
Ratsbane, poisoning by fruit of, 1314
Rattle-snake bite, antidote for, 1451
Raven, H. M., adrenalin in Addison's disease, 131
Raw, N., puerperal septicaemia, 433; primary intestinal tuberculosis in children, perforation of ulcers, 1245
Raynaud's disease. See Disease
Rayner, H., the Government Lunacy Bill, 1406
Rays, radium and electricity, 968
Razor sharpener, a, 140
Record, a family, 608
"Recovery hospital," scheme for, 678
Rectum, anaesthesia by the, 996; carcinoma of, 1193; epithelioma of, ib.
Recurrent fever. See Fever
Red Cross Society. See Society
Redmond, C. S., adrenalin chloride cum chloretone in epistaxis, 489
Reduction of dislocation immediately after the accident, 1133
Reed, C. A. L., A Textbook of Gynecology, rev., 1489
Referees, medical under the Workmen's Compensation Act, 52, 700, 1328
Reflex disturbances associated with adherent prepuce, 596
Reform, hospital, 50
Refraction, books on, 1063
Regeneration of nerves, 1214
Regimental system, exit the, 911
Registration, of plumbers, 52, 1233; State of nurses, 148, 803, 858, 920, 976, 987, 1049, 1110, 1168, 1212; of births and deaths, 248; of nurses in America, 673
Reid, J. (Bandon), mycosis fungoides or Alibert's disease, 482
——— J. (Southfields), chloroma, 116; pneumonia, 1014
——— J. Derham. See Derham-Reid
Reincke, enteric fever in Hamburg, 785
Relief, Poor-law medical, in Scotland, 1224, 1464
Relieving officers, powers of in reference to the granting of orders for medical attendance, 994, 1174
Removal of infectious cases in Ireland, 460
Remuneration of district medical officers, 507; of Poor-law medical officers, 705, 762; of Poor-law medical officers' deputy, 994
Renal. See Kidney
Renaud, Dr. F., death of, 745; obituary notice of, 810
Rendall, P., pneumonia treated by antipneumococcus serum, 663
Rendle, C. E. R., a case of perforating gastric (or duodenal) ulcer, 579
Renner, W., poisoning by the fruit of the chailletia toxicaria (ratsbane), 1314
Renton, J. C., chronic paralysis of the facial nerve, operation, recovery, 133; Reverdin's curved needle in cleft palate, 1191
Rentoul, R. R., doctors *v.* barristers and solicitors, 228; raised scars after vaccination, 304; a short way with "degenerates," 625; the term "office" consulting room, 648; proposed sterilization of certain degenerates, 695, 868, 1109
Report, on aërated preserved milk, 84; of the medical officer of health of the London County Council, 150, 253, 259; of the Royal Commission on Sewage Disposal, 376; of Local Government Board for Ireland on sewage contamination of shellfish, 497; on the health of the navy, 640; of Lord Cromer on Egypt and the Soudan, 901; annual of the Inspector-General of Recruiting, 913; on the dispensary service in Ireland, 963, 1040, 1217, 1347; of the Mosely Educational Commission, 977; of the Inter-Departmental Committee on the Model Course of Physical Exercises, 1026, 1524; of Dr. Bruce Low on small pox in Germany, 1085; in the general conditions affecting the health of the Port of London, 1144; of the General Board of Commissioners in Lunacy for Scotland, 1275; annual of the Registrar-General for Scotland, ib.; of the Royal Commission on the Militia and Volunteers, 1325, 1348; of the Royal Commission on Tuberculosis, 1326; of inspector on experiments in living animals, 1400; of Lord Jersey's Committee, 1446
Reporter, the, in the sick room, 1388
Reports, Scientific on the Investigations of the Cancer Research Fund, 1027; and Transactions, rev., 1141, 1423
Reprints of medical papers, 1293
Residence, within district, 346
Respiratory spasm followed by cessation of breathing in a recently born child, 124
Rest, treatment, the, 564; in valvular disease, 1473
Restaurants, the kitchens of, 449
Restriction covenant, the, 760
Retina, the, in anencephaly, 1138
Retractors, a set of portable, 1374
Retroversion of gravid uterus, treatment of, 877
Retzius, Professor M. G., gets honorary degree at Cambridge, 1350
Revaccination, the German Imperial family and, 860
——————— Bill. See Bill
Reverdin's curved needle in a cleft palate, 1191
Reynaud, G., Hygiène Coloniale, rev., 313
Reynès, epithelioma of both breasts cured by castration, 1045
Reynolds, E. S., a family record, 608; disseminated sclerosis and exophthalmic goitre, 725
——— L. W., case of villous tumour of bladder, suprapubic cystotomy, recovery, 782
Rheumatic fever. See Fever
——————— infection through the air passages, 1314
Rheumatism, acute, infection in, 247; chronic, the causes and treatment of, 477; chronic, treatment of, 764; acute, abdominal pain in, 1120; a "cure" for, 1172; acute, the bacteriology of, 1223
Rhodes, J. M., the Midwives Act, 221; alleged increase of diseases of the nervous system, 598; the diminishing birth-rate, 694
Ribbons, rats and, 685
Ribs, broken, and cancer of the liver, 642
Richards, H. M., on infantile mortality, 1321
——————— Mr. J. P., obituary notice of, 870
Rickards, Dr. E., resigns physicianship of General Hospital, Birmingham, 1389, 1404
Richmond, proposed medical inspection of schools at, 850
Rideal, A. H., national physique and an idea, 446
——— S., Disinfection and the Preservation of Food, rev., 672
Rifle shot at close quarters, injuries and effects of, 16
Rigby, H. M., pulsating exophthalmos, 77
Rigden, Mr. G., obituary notice of, 868
Rigor mortis, antenatal, 1014, 1312
Ringworm, sections of hairs of, 369
Risks to life in London, 1093, 1152, 1447
Roberts, A., instrument for removing foreign bodies from the nose, 612
——— D. L., case of Caesarean section, 18
——— G. L., didymin in exophthalmic goître, 15
——— L., chronic antimony poisoning, 433
Robertson, D. A., dinner to, 331
——— ——— Dr. J., dinner to, 410
——————— G. D., acute yellow atrophy of the liver, 892
——————— W., bacteriology of so-called "sterilized" milk, 1122
——————— W. G. A., Contributions to the Physiology of Digestion and to Dietetics, rev., 22
Robin, A., the action of a maritime climate in the treatment of pulmonary phthisis, 633; Les Maladies de l'Estomac, rev., 1258; influence of the "nascent state" on the properties of drugs, 1338
Robinson, Beverley, the plea for conservatism in medicine and surgery, 852
——————— Byron, Arteria Uterina Ovarica, rev., 372
——————— E. L., ectopic gestation, early diagnosis, operation, recovery, 1485
——————— Mr. H., obituary notice of, 341
——————— H. B., properitoneal hernia, 600; papilliferous cyst from an axillary sudoriparous gland, 832
——————— Lieutenant-Colonel T., treatment of obstinate scabies, 227
Robson, A. W. M., the Hunterian lectures on the pathology and surgery of the pancreas, 659, 719, 773; peptic ulcer of the jejunum, 894; Diseases of the Gall Bladder and Bile Ducts, including Gall Stones, rev., 1318
Roche, H., Anleitende Vorlesungen für den Operations-Cursus am der Leiche, rev., 1319
Rock drilling and miners' phthisis, 1211
Rodgers, Inspector-General M., death of, 1465
Rodrigo, W. P., the fish theory of leprosy, 1448
Roentgen rays, the, and renal calculus, 136; treatment of cancer by, 370; a burn by, 392, 454; apparatus for, 411; information as to work with, 597; and malignant disease, 784; in the treatment of tinea, 868; treatment by, 941; some typical examples of treatment by, 944; rodent cancer treated with, 946; in the diagnosis of pulmonary tuberculosis, 1104, 1288; recurrent carcinoma treated by, ib.; treatment of burns by, 1296
Roethlisberger, P., On Sulphur Baths, rev., 1145
Roger, G. H., Introduction à l'Étude de la Médecine, rev., 843
Rogers, B. M. H., the Regius Professorship at Oxford, 160
——— Mr. F. C., obituary notice of, 1226
——— Major L., note on the occurrence of Leishman-Donovan bodies in "cachexial fevers" including kala-azar, 1249
Rolleston, H. D., on "internal secretion" in disease and treatment, 667
Rollett, Dr. A., obituary notice of, 522
Rome, the prevention of malaria in the Campagna of, 799
Rooney, Dr. J. G., death of, 645
Roper H., intussusception, 1018
Rosa, A. D., An Atlas of Human Anatomy, rev., 896
Roscoe, Sir H., the jubilee of, 1035
Rosebery, Lord. See Earl
Rosenau, A., an aspirator and insufflator, 958, 1201
Rosenbach, O., Energetik und Medicin, rev., 1142
Rosenlau, W., De inflammatoriska Tubaraffectionernas patoliska Anatomi, rev., 733
Rosenthal, C., Die Zunge und ihre Begleit-Erscheinungen bei Krankheiten, rev., 252
——————— Dr. I., obituary notice of, 645 (976)
Ross, A. B., treatment of a case of depressed fracture of the skull caused during birth, 880
——— Sir D. P., obituary notice of, 1519
——— J., determination of sex, 472
——— Major R., "Leishmania-donovani" found in kala-azar, 160, Leishman-Donovan bodies found at Omdurman, 1049; the essay of for the Nobel prize, 1388
Roth, Major E., delegate to the Australian commonwealth, 388
Routh, A., pregnancy in a fixed uterus, 508
Routier, hypertrophy of the breast and pregnancy, 388
Roux, the prevention of syphilis, 506
Rowland, F. M., life insurance examinations, 337
Rowlands, R. P., purulent pericarditis associated with empyema in a child aged 2½ years, 9
Rubber instruments, preservation of, 932
Ruffer, A., note on haemosozic sera, 658; note on the anti-haemolytic (haemosozic) properties of normal urine, 1418

Rugg, Dr. G. P., presentation to, 286
Rumpf, Th., Herz- und Kreislaufaufstörungen, rev., 1320
Rupture, spontaneous, of uterus, laparotomy, recovery, 365; of intestine, 669; of the middle meningeal artery by contrecoup, 726; of axillary artery, 731; traumatic, of the small intestine, 832; spontaneous, of the abdominal wall, 892; spontaneous, of the spleen, 1077; spontaneous, of uterus, 1429
Rush, Benjamin, monument to, 1332
Rushton, W., degrees in dentistry, 580
Russell, W., arterial sclerosis and hypertonus in their relation to diet and the digestive system, 1297
Russia, the military medical system of, 91; leprosy in, 387; the Red Cross Society in, 623; 846
Rutherford, Professor, on radium and radioactivity, 1270

S.

Sabouraud, R., Maladies du Cuir Chevelu, rev., 1491
Sachs, H., Die Haemolysine und ihre Bedeutung fuer die Immunitaetslehre, rev., 83
St. Aubyn-Farrer, C., the Association of Diplomates of the Royal Colleges of Physicians and Surgeons of Edinburgh, 1169
St. Louis, abandonment of proposed World's Medical Congress at, 153
St. Patrick's Day, celebration of by Irish Medical Schools' and Graduates' Association, 742
St. Pol-sur-Mer, the milk dépôt at, 741; the sanatorium at, 1377
Salaman, R. N., examination of a case treated by Dr. Otto Schmidt's method, 77
Salary of Poor-law appointments, 1108
Sale, inspection of books after, 1297, 1467; and subsequent practice, 1467
Saleeby, C. W., a disclaimer, 1518
Salford, formation of "Amalgamated Society of Registered Midwives" at, 963; insanitary houses in, 1403
Salicylic acid, the United States Food Commission and, 170
Salies de Bearns, note on, 411
Saline injections and mental disease, 955
Salisbury *v.* Gould, 262, 281, 282, 466
Salivation in paralysis agitans, 172; susceptibility to, 411
Salmon, Dr., death of, 267
Sambon, L. W., on sleeping sickness, 78, 250; the transmission of sleeping sickness by the genus "Glossina," 696
Samways, D. W., the administration of oxygen, 579; the introduction of pure air into serous cavities, 923; erythema scarlatiniforme, 952
Sanatoria, a public danger from inmates of, 52, 104; in the prevention of consumption, 89; balconies at, 105, 163, 400, 639; consumption and, 368; for consumptives, 518, 638, 695, 759; for workmen, 856, 983; the economic value of the treatment in, 1016
Sanatorium, the earliest American, 103; Queen Alexandra, at Davos, 403; treatment of haemoptysis at a, 652; proposed for postal employés, 691; National for Consumption, Bournemouth, annual meeting of, 1213; for Newcastle and Northumberland, 1461; Heatherside, and convalescent home, opening of, 1495
Sanders, T. W., Roses and their Cultivation, rev., 611
Sanderson, Deputy Surgeon-General A., death of, 1349
Sandwith, Dr. F.M., joins staff of London School of Tropical Medicine, 1495
Sanitary alterations in a house, cost of, 343
——— authorities and the milk supply, 103; action of on receiving notification, 409
——— inspection of schools, 345
——— inspectors, results of examinations for, 391, 1280
Sanitation, the teaching of in schools, 682; of Panama, 685; of Vera Cruz, 735; of the Panama canal, 1449
Sankey, E. H. O., remuneration of Poor-law medical officers, 762
Sarcoma, choroidal, 19; of toe, etc., 367; of scapula, operation, recovery, 837
Satchel, the obstetric, a problem in asepsis, 1303
Satin-wood irritation, acute dermatitis produced by, 1484
Saul, B., alleged poisoning in an indigo dye worker, 487
Saundby, R., mechano-therapeutics, 161; extensive carcinoma of the oesophagus with unusual nervous complications, 589
Saunders, Dr. C. E., obituary notice of, 165
Savage, E. S., hydatid mole, 367
Savill, T. D., on arterio-sclerosis, 432
Sawyer, Sir J., pilewort ointment and suppository, 14; improvements in dietetics of diabetics, 537; Contributions to Practical Medicine, rev., 1431; Insomnia, its Causes and Cure, rev., ib.
Sayer, Miss E., the deterioration of vision during school life, 1418
Scabies, obstinate treatment of, 227, 875
Scanlan, Surgeon-General F. E., death of, 468
Scapula, sarcoma of, operation, recovery, 837
Scarlet fever and scarlatina. See Fever, scarlet
Scars, raised, after vaccination, 304, 412, 816, 1116
Scharlieb, Mrs., unruptured tubal gestation, 369
Schenck, F., Die Pathologie und Therapie der Unfruchtbarkeit des Weibes, rev., 374
Schism among the Peculiar People, 409
Schlench, Professor C., gets Renecker prize, 153
Schmidt, M. B., metastasis in carcinoma, 851
——— O., examination of a case treated by the method of, 77; ineffectual treatment of cancer by the method of, 299; the treatment of cancer by the method of at the Middlesex Hospital, 562, 572, 576
School, medical certificates for non-attendance at, 928
——— of Instruction, Volunteer Ambulance, annual banquet of, 1227
——— life, the deterioration of vision during, 1418
——— a medical in Japan, closing of, 21
——— of Tropical Medicine, Liverpool, annual report of, 678; Report of the Trypanosomiasis Expedition to Senegambia, rev., 1023
——— of Tropical Medicine, London, visit of French professors to, 41; entries at, 226, 1205; pass list, 994
Schoolboy, the London, physical development of, 829
Schools, medical, of London and out-patient work, 35, 44; sanitary inspection of, 345; the teaching of sanitation in, 682; medical inspection of in Philadelphia, 683; Italian, prophylaxis of infectious diseases in, 705; for midwives, 742; medical inspection of in Chicago, 754, 1083; Poor-law, inspection of educational work in, 762; medical inspection of, 850; secondary, the inspection of, 973; physical exercise in, 1026; elementary, physical education in, 1091; elementary of London, physical examination of 1580 girls from, 1248
Schott, T., on some haemoglobin investigations in cases of chronic heart disease, 536
Schwalbach as a health resort, 1263
Schweinburg, Handbuch des allgemeinen und speciellen Hydrotherapie, rev., 1141
Sciatica, Dr. Feddersen on, 146; and lumbago, 892
Science, new conceptions in, 1096
Sclerodema associated with Raynaud's disease and Addisonian pigmentation, 126
Sclerosis, disseminated and exophthalmic goître, 725
Scotland, notes from, 41, 98, 153, 210, 266, 330, 393, 453, 568, 630, 688, 747, 800, 856, 914, 974, 1038, 1101, 1157, 1218, 1275, 1336, 1454, 1509; Poor-law midwifery in, 58; small-pox in, 98, 154, 210, 267, 393, 454, 470, 568, 631, 689, 747, 801, 856, 914, 1038, 1101, 1218, 1276, 1509; the Poor-law medical service in, 148, 220, 223, 1029; action for wrongful dismissal in, 167; lunacy laws in, 523; vaccination returns in, 815; Poor-law medical relief in, 1108, 1224, 1464, 1515; medical attendance on rural postmen in, 1172; lunacy in, 1275; report of the Registrar-General for, ib.; the Poor-law medical service in, 1390; prosecution of unqualified dentist in, 1409; women medical practitioners in, 1509; school certificates in, 1518
Scots Guards, promotions and appointments in medical staff of, 166, 404
Scott, H. H., Compounding and Dispensing Made Easy, rev., 844
——— J., bilharzia in Persia, 725
——— Lieutenant L. B., detachment of the odontoid process of the axis, with fracture of atlas, continued life without symptoms of injury to the spinal cord, 247
Scudder, C. L., The Treatment of Fractures, with Notes upon a Few Common Dislocations, rev., 957
Scurvy, land, case of, 189; case of in an infant fed on municipal "humanized" sterilized milk, 479; and sterilized milk, 503; etiology of, 730
Sea sickness, luxation of the jaw during, 1472
—— voyages, therapeutics of, 655
Secrecy, medical, 223; professional, 448, 700, 760, 809
"Secretion," internal, in disease and treatment, 666, 726
Section, Dental (proposed) for annual meeting, 331
Seegen, J., Gesammelte Abhandlungen ueber Zuckerbildung in der Leber, rev., 897
Selby, E. W., right duodenal hernia, 605
Semon, Sir F., Professor Dunbar's serum in hay fever, 1168
Senator, H., Die Erkrangungen der Nieren, rev., 80
Senn, Dr. N., and the medical service of the Japanese army, 507, 567; on Tahiti, 1449
Sepsis, puerperal, Dr. P. Horrocks on, 349, 457; puerperal, 578, 635, 693, 757, 868, 1049, 1288; puerperal, a midwife and, 990
Septa, vaginal, causing delay in labour, 74; multiple of vagina, ib.
Septicaemia, case of, 367; puerperal, case of, 433
Sera, haemosozic, note on, 658
Serum, Schmidt's cases treated by, 77, 299, 562, 572, 576; antistreptococcus, pelvic peritonitis treated by injections of, 133; inoculations of in pyogenic infections, 135; Marmorek's in tuberculosis, 575, 749, 857; antipneumococcus, pneumonia treated by, 663; Dr. Moser's scarlet fever, 1045; Dunbar's in hay fever, 1116, 1168; antipneumonic, croupous pneumonia treated with, recovery, 1253; antidysentery for the Russian army, 1498
Serumtherapeutics of tetanus, 796
Serumtherapy, human, 219
Servants, responsibility of master's agent for attendance on, 643
Sewage, contamination of shellfish by, 497
——— testing apparatus. See Apparatus
Sex, determination of, review of book on, 252; determination of, 472
Sharp, G., two cases of lung disease treated with the emanations of thorium nitrate, 654
——— P., messages to medical men, 1407
Shaw, H. B., congenital deformities, 549
——— J., The Physiognomy of Mental Diseases and Degeneracy, rev., 1199
——— T. C., the Government Lunacy Bill, 1406
——— W. G., the staphylococcus aureus and rheumatic fever, 77
Sheen, W., cases of lateral sinus pyaemia, 827; medical assessors, 1048
Sheep, the oestrous cycle in the, 206
Sheffield, the health of, 525; correspondence from, 634; the Privy Council and the charter for the University of, 634
Shellfish, the cooking of, 265; and the pollution of tidal waters, 376; sewage contamination of, 497
Shelters, outdoor, for consumptives, 1060
Shennan, T., Descriptive Catalogue of the Anatomical and Pathological Specimens in the Museum of the Royal College of Surgeons of Edinburgh, rev., 437
Shield, Volunteer Ambulance Challenge, contest for, 1408
Ships, passenger, trained nurses on, 148, 165, 648; hospital, in war time, 203; a warning to medical men applying for surgeoncies on, 228; the destruction of rats on board of, 695; Japanese hospital, 909
Short, T., hemiplegia, 367
Shuttleworth, G. E., the future of feeble-minded children, 1034; degeneracy, physical, mental, and moral, 1205
Siberia, small-pox in, 678
Sichel, G., a case of rodent ulcer treated with radium bromide, 182; the defects of the naval medical service, 520
Sick room, the reporter in, 1388
Sieveking, A. R., a case of liver abscess, 1487
——— Sir E., death of, 508; obituary notice of, 581; the estate of, 904
Sime, D., Rabies, its Place among Germ Diseases and its Origin in the Animal Kingdom, rev., 1260
Similia similibus, 565
Simon, R. M., reflex disturbances associated with adherent prepuce, 596; typhoid fever, 953
Simpson, G. F. B., a hydatid cyst in the ovary, 724
——— J. C., life insurance examinations, 400
Simulation, dementia praecox and, 1268
Sinclair, J., hallux rigidus, 724
——— W. J., accidental haemorrhage in pregnant women, 20; ventrifixation of the uterus, 713, 923; the Central Midwives Board, 1341
Sinus, lumbar, passage of a renal calculus through, 834, 1372
——— thrombosis, series of, 1314
Siphonage and hydraulic pressure in the large intestine, 218
Skene, G. W. R., drug rash complicating enteric fever and simulating scarlet fever, 364
Skin, books on diseases of, 59; light treatment and disease of, 134; formalin and disease of, 1448
——— grafting, remarkable case of, 116; the influence of on the recurrence of morbid growths, 399
Skull, depressed fracture of caused during birth, treatment of, 880; instrument for rapidly enlarging opening in, 1024
Skulls, British, the British Dental Association and, 60
Sleeping sickness in Uganda, 39; in the Congo, 40 (97), 153, 1404; discussion on at the Epidemio-

logical Society, 78; French inquiry into, 208; Colonel D. Bruce on, 505; lecture by Dr. Mott on the pathology of, 575; transmission of by the genus "Glossina," 696; trypanosomiasis and, 889; examination of the tissues of a case of in a European, 1000; at Antwerp, 1023; lecture by Colonel D. Bruce on, 1028; the lymphatic glands in, 1252; review of books on, 1258
Sleeman, Surgeon-Major R., the R.A.M.C. Manual, 283
Sloan, S., x-ray treatment of cancer, 370
Small-pox in Scotland, 98, 154, 210, 267, 331, 393, 454, 470, 568, 747, 801, 856, 914, 1038, 1101, 1218, 1276, 1394, 1509; the 1902 epidemic of in London, 169; in Belfast, 268, 1511; at York, 328; aërial convection of, 464, 516: vaccination in the incubation stage of, 488, 1176; in Germany, 508; at Achill Island, 630; in Siberia, 678; duties of medical officers of health in respect to, 705; the cause of, 723; recrudescence of, 736; at the London Hospital, 744; in London, 790: recrudescence of in London, 910; and vagrancy, 967; the epidemic of, 1035; at Stockport, 1053; prevention of in Germany, 1085; investigation of, 1093, 1206; and vaccination at Gateshead, 1150; books on epidemics of, 1296; intrauterine infection of the fetus in, 1485
——— ships, the Thames, 170
Smiles, Dr. S., note on, 964
Smith *v.* Pare, 1227
——— D. L., a new post-mortem table, 1492
——— E., the invasion stage of measles, 128
——— E. A. Cloete. See Smith *v* Pare.
———E. N., the Management of Lateral Curvature of the Spine, Stooping and Development of the Chest in Phthisis, rev., 957
——— Major F., hysterical paraplegia in the male, 125
——— F. J., cough and its significance, 1237
——— H., ventrifixation of the uterus, 867
——— Dr. H. B., death of, 871
——— Dr. John (Dumfries), the portrait of, 396
——— W., milk, human and bovine, 729
Smoke abatement, 754
Smolensky, P., Traité d'Hygiène, rev., 1140
Smyly, Sir P. C., obituary notice of, 925
Smyth, Mrs. Watt. See Watt Smyth.
"Snake-stone," an Indian, 438
Snell, S., removal of the crystalline lens in high degrees of myopia as illustrated in sixty cases, 486; primary optic atrophy due to lead, 1429; optic atrophy after post-partum haemorrhage, ib.; optic glioma, ib.
Snyder, C., new conceptions in science, 1096
Sobotta, J., Grundriss der descriptiven Anatomie, des Menschen, rev., 896
Societies, Friendly, the attitude of as to contract practice, 802; medical aid, 809, 1518; medical officers of, 1172
Society, American, of Tropical Medicine, first meeting of, 265
——— Anaesthetists, meeting of, 371, 670
——— Anatomical, of Great Britain and Ireland, the localization of abdominal viscera, 1196
———Anatomical and Anthropological, Aberdeen, objects, etc., of, 462
——— of Apothecaries. See Apothecaries.
——— Balneological, British, meeting of, 1324
——— Benefit, surgeon's position on dissolution of, 1396
——— Clinical, Chelsea, debate on "internal secretion" in disease and in treatment, 666, 726; annual dinner of, 1442
——— Clinical, of London, pneumococcal peritonitis, 134; diffuse lipomatosis, 249; tumour of the liver, ib.; total paraplegia due to vertebral caries, ib.; ununited fracture of radius and ulna, ib.; enlargement of both testicles, ib.; complete ophthalmoplegia externa with blindness of acute onset, ib.; translucent cystic swelling of root of nose, ib.; multiple aneurysms, ib.; fractures of the spine without symptoms, ib.; cases, 249, 549, 1018; disease of the pancreas, 431; malignant anaemia, ib.; ankylosis of the jaw, 432; tuberculosis of the thyroid, ib.; exhibits, ib.; congenital deformities, 549; morbus cordis, ib.; achondroplasia with spinal curvature, ib.; pyopneumothorax due to phthisis, ib.; progressive myositis ossificans, ib.; femoral hernia, ib.; chronic polycythaemia with enlarged spleen, probably a disease of the bone marrow, 729; epileptiform neuralgia of superior maxillary nerve, ib.; foreign body impacted in bronchus, ib.; intestinal obstruction after typhoid fever, 838; fatal haematuria of unknown origin, ib.; tinnitus, ib.; mobility after joint operations, 1017; polycythaemia and erythromelalgia, ib.; osteo-arthritis of the knee, 1018; gangrene of finger, ib.; spontaneous fracture of neck of femur, ib.; *x* rays in the diagnosis of pulmonary tuberculosis, 1194; recurrent carcinoma treated by *x* rays, ib.; pyopneumothorax, 1316; tumour of left auricle, ib.; osteitis deformans, 1317; annual meeting and election of officers, ib.
Society, Clinical, of Manchester, accidental haemorrhage in pregnant women, 20; meeting of, 250, 550
——— Coal Smoke Abatement, annual meeting of, 754
——— Dermatological, of Great Britain and Ireland, meeting of, 955, 1197
——— Epidemiological, discussion on sleeping sickness, 78, 250; the etiology of scurvy, 730; enteric fever in Hamburg, 785; anthrax, 1079: prevalence of enteric fever in Prussia from 1892 to 1901, 1197
——— of French Army Medical Officers, formation of, 510
——— French Orthopaedic, proposed formation of, 580
——— Harveian, of London, meeting of, 493, 786, 1019
——— Hunterian, meeting of, 194, 310, 1019; the Nauheim baths, 838
——— Laryngological, of London, annual meeting and list of officers, 226; meeting of, 251, 434, 786, 955, 1257
——— London Licentiates and Members, general meeting of, 511
——— Medical, Aberdeen Students', meeting of, 1393
——— Medical Benevolent, Birmingham, annual meeting of, 1266
——— Medical Benevolent, Devon and Exeter, note on, 1272
——— Medical Diplomates of London, formation of, 1055
——— Medical, Folkestone, officers of, 391
——— Medical, of London, serum and other injections in pyogenic infections, 135; discussion on pelvic lesions in relation to abdominal diagnosis, 249; meeting of, 371, 895; progressive paralysis of the insane, 492; anniversary dinner of, 618; discussion on acute intestinal obstruction, 669; treatment of urinary tuberculosis, 784; prevention and early treatment of disease, 1018; perityphlitis simulating cancer, ib.; study of a case of rheumatic fever, 1138; influence of early operation on the mortality and results of acute appendicitis, ib.; election of officers, ib.; the annual oration, 1177
——— Medical, Manchester, procidentia recti, 550; malaria, ib.; colour photography, ib.; renal decapsulation, 607; gall-bladder surgery, ib.; a family record, 608; meeting of, 1019
——— Medical, Midland, double empyema, 250; cerebral tumour, ib.; subphrenic abscess, ib.; otitis media, 370; obstructive suppression of urine, ib.; cases, ib.; chronic pancreatitis, 493; a uterine cyst, ib.; fleshy mole, ib.; gastro-jejunostomy, ib.; rupture of the axillary artery, 731; right hemianopsia, ib.; otitis media, ib.; meeting of, 787
——— of Medical Phonographers, prizes offered by, 608
——— Medical Protection, London and Counties, annual meeting of, 572; and medical defence, 676
——— Medical Sickness and Accident, monthly meeting of Executive Committee of, 88, 391, 618, 1088; annual report and quinquennial valuation, 1261; annual meeting, 1262
——— Medical, Southport, officers, etc., of, 410
——— Medical, Ulster, and Queen's College, Belfast, 510; general meeting of, 914; meeting of, 1081
——— Medico-Chirurgical, Bradford, meeting of, 20, 550, 787, 1081, 1430
——— Medico-Chirurgical, Bristol, meeting of, 193, 434, 955
——— Medico-Chirurgical, Edinburgh, light treatment and cutaneous disease, 134; the glycoyen reaction of the blood, 431; streptothrix infection, ib.: glaucoma, ib.; high-frequency currents, 607; annular stricture of the large intestine, ib.; tuberculous arthritis, 1137; meeting of, 1256; the anatomy of the prostate, 1372; cases, ib.; card specimens, ib.
——— Medico-Chirurgical, Glasgow, meeting of, 785, 839, 1020, 1256
——— Medico-Chirurgical Leeds and West Riding, Beraneck's tuberculin, 194; typhoid perforation, ib.; specimens, ib.; rupture of the intestine, 669; inversion of the uterus, ib.; the causation of cancer, 670; the prophylactic use of diphtheria antitoxin, 1018; the estimation of uric acid in the urine, ib.; intussusception, ib.; mechanism of the alimentary canal, ib.
——— Medico-Chirurgical, Sheffield, meeting of, 21
——— Medico-Chirurgical, West London, anniversary dinner of, 1146
——— of Members of the Royal College of Surgeons of England, meeting of council of, 224
——— National Antivivisection, annual meeting of, 1209
——— National Health, lectures of, 628
——— Obstetrical, of Edinburgh, vaginal Caesarean section, 193; Bossi's dilator, ib.; hebotomy, 491; some renal cases, 492; obstructed labour, 954; gynaecology and the thyroid gland, ib.; thyroidectomized animals, ib.; malignant complications in fibromyomata, 1196; the obstetric satchel, a problem in asepsis, ib.; Caesarean section in eclampsia, 1428; tubal abortion ib.; specimens, ib.
Society, Obstetrical, of London, fibromyoma of the round ligament, 308; pyometra, ib.; uterine abscess, ib.; pregnancy in a fixed uterus, ib.; unruptured tubal gestation, 369; specimens, 370; president's address, 370; honorary Fellows, ib.; officers and council, ib.; the site of impregnation, 730; fibroids complicated by pregnancy, ib.; tubal gestation, ib.; puerperal eclampsia treated by thyroid extract, 895; myoma, ib.; torsion of Fallopian tube, ib.; a degenerating fibromyoma, 1195; haematoma and haematocele ib.; primary carcinoma of the ovaries, 1430; cancer of the body of the uterus, ib.; fibroids complicating pregnancy, ib.; hydatid disease in the pelvis, ib.
——— Obstetrical and Gynaecological, Glasgow, meeting of, 20, 731, 839, 1080; "accouchement forcé," 78; the *x*-ray treatment of cancer, 370; some conditions of the Fallopian tubes, ib.; spontaneous rupture of the uterus, 1429; mesenteric cyst, ib.; diaphragmatic hernia, ib.
——— Obstetrical and Gynaecological, North of England, meeting, 310
——— Ophthalmological, of the United Kingdom, proptosis, 308; asthenopia, ib.; rheumatoid arthritis, 309: tuberculosis of the choroid, ib.; specimens, 309, 433, 1139, 1429; gonorrhoeal conjunctivitis and hydrogen peroxide, 432: congenital anterior staphyloma, 433; meeting of, 670; the retina in anencephaly, 1138; pannus and associated corneal changes, ib; the operation for trichiasis, ib.; primary optic atrophy due to lead, 1429; optic atrophy after post-partum haemorrhage, ib.; optic glioma, ib.; microphthalmos, ib.
——— the Optical, and testing the eyesight of the nation, 926, 1050, 1109
——— Otological, of the United Kingdom, introductory address, 370; atresia auris congenita, 371; labyrinthine suppuration, 371, 669; cicatrized external meatus, 371; exhibits, 371, 669; cases, 669; meeting of at Glasgow, 1336, 1431
——— Pathological, of London, the staphylococcus aureus and rheumatic fever, 77; dermoid tumours of brain, ib.; racemose aneurysm of the brain, ib.; pulsating exophthalmos, ib.; examination of a case treated by Dr. Otto Schmidt's method, ib.; on the pathogenesis of carcinoma, 193; nutrose agar, ib.; a new pathogenic bacills (B. carnis), ib.; a method of isolating B. enteritidis sorogenes, ib,; colon bacillus from a case of emphysematous gangrene, 194; meeting of, 309, 1081; arterio-sclerosis, 432; the influence of adrenalin on the nitrogenous metabolism of the bird, 549; relation of ammonia nitrogen to the total nitrogen in diabetes, ib.; a survey of the recorded cases of haematoporphyrinuria not due to sulphonal, ib.; note on some experiments concerning bacillary dysentery, 666; deep chromatin staining in malaria, ib.; bacteriology of climatic bubo, 953; pyocyaneus pyaemia, 954; the glomerular lesions in diffuse (parenchymatous) nephritis, 1196; the cytology of malignant growths, ib.; papers, ib.
——— Pathological, of Manchester, meeting of, 251, 493, 787, 1020, 1257
——— Pathological and Clinical, Glasgow, meeting of, 136, 434, 786, 1257
——— Pharmaceutical, of Great Britain, annual dinner of, 1211
——— Physiological, Edinburgh University, opening address at, 688
——— for Promoting the Training and Supply of Midwives, aims and objects of, 618
——— the Quain, objects, etc., of, 328
——— the Red Cross in America, 405; in Japan, 507, 567, 623, 682; in Russia, 623, 846; in Korea, 915
——— for the Relief of Widows and Orphans of Medical Men, meeting of court of directors of, 208, 964, 1266
——— Royal, new Fellows of, 566; conversazione of, 1210
——— Royal Medical, Edinburgh, dinner of, 688
——— Royal Medical and Chirurgical, hypertrophic pulmonary osteo-arthropathy, 134; hour-glass stomach, 248; anaemia splenica infantum, 368; metabolism in the febrile state, 491; report of council, 548; presidential address, ib.; election of officers, etc., ib.; cardiac dullness in cases of cancer, 606; properitoneal hernia, 607; the prostate and prostatectomy, 728; the mental condition in epilepsy in relation to prognosis, 894; peptic ulcer of the jejunum, ib.: case, 895; the economic value of the sanatorium treatment, 1016; effects of a proteid dietary, 1136; leucocytosis and appendicitis, 1137; the elasticity

of the aorta, 1316; protracted and recrudescent infection in diphtheria and scarlet fever, 1428
Society Royal Meteorological, annual meeting of, 263
——— South African Colonization and the medical profession, 508
——— Royal Statistical, annual meeting of, 1498
——— for the State Registration of Trained Nurses, general meeting of, 1212
——— for the Study of Diseases in Children, meeting of, 78, 608, 840, 1139, 1431; meeting of at Bristol, 1514
——— for the Study of the Mental and Physical Conditions of Children, annual meeting of, 1205
——— Therapeutical, meeting of, 136, 309, 549, 1018
——— Zoological, of London, exhibits, 286
Sodium hydrosulphate, preparation of, 764
Soldiers on sick furlough, medical attendance on, 111
Solicitors, doctors *v.*, 228
Solly, E., uterine "flag mop," 673; a case of malignant obstruction of oesophagus, gastrostomy, 1074
Somerset, Lady Henry, on cures for alcoholism, 324
Somersetshire, prevention of consumption in, 1264
Somerville, R., the Harveian oration at Edinburgh, 1454
Sommerville, D., a rapid method of preparing Drigalski and Conradi's medium for the differentiation of B. typhosus and B. coli communis, 190 (281)
Somnoform and ethyl chloride, the examination of alone or in conjunction with nitrous oxide or ether, 949
——— inhaler, a, 140
Somnolence of long duration, syphilitic convulsions preceded by, 594
Sore throat, and milk, 57; epidemic, and suppurative mammitis in cows, 831
Soudan, and Egypt, report of Lord Cromer on, 901; Leishmania-donovani in, 1252
South Africa, prevention of consumption in, 380; honours for medical officers of Colonial contingents in, 401; lepers in, 717; the plague in, 752, 856, 962, 1103, 1204, 1336, 1434; malarial disease in, 894
——— African Colonization Society. See Society
——— America, leprosy in, 711
——— Stoneham, remuneration of district medical officers of, 507
——— Wales, correspondence from, 456, 918, 1046, 1405, 1514; infectious diseases, 456; tuberculosis, ib.; small-pox, 918, 1514; school hygiene, 918; midwives, ib.; midwifery training, 1047; infectious diseases, 1405; Glamorgan County Council and the training of midwives, 1514; sewarage of Ely and Fairwater Grove, 1515; Aberavon water supply, ib.; Glamorgan County Council Sanitary Committee, ib.
Southam, F. A., remarks on a series of 120 operations for vesical calculi, 1190
Southwark, the Board of Guardians of and Guy's Hospital, 263, 327
Spain, cancer in, 99; medical practice by foreigners in, 328; the protection of children in, 567
Spalding, spread of cancer in, 1234
Spanton, W. D., some practical points associated with appendicitis, 297
Specialists, the methods of some, 1518
Specific gravity of urine, estimation of, 191; of the blood, the value of Hammerschlag's method in clinical estimations of the, 473
Spectacle Makers' Company. See Company
——— prescribing in France, 1107
Spence, Dr. R., presentation to, 39
Spencer, H. R., Messrs. Mayer and Meltzer's gynaecological operating table, 26; fibromyoma of the round ligament, 308
——— W. G., serum and other inoculations in pyogenic infections, 135; enlargement of both testicles, 249: fatal haematuria of unknown origin, 838
Spinal cord. See Cord
Spirilla in the blood in a patient from Gibraltar, recurrent fever associated with, 538
Spirillum of relapsing fever, morphology of, 1014
Spitting nuisance, the, 14, 103, 385, 563, 617, 634, 635 678, 856
Spittoon, a bedside, 1434
Spleen enlarged, in chronic cyanotic polycythaemia, 121; enlarged ascites due to pressure on the portal vein by, 429; enlarged in chronic polycythaemia, 729; the Leishman-Donovan parasite in the juice of, 911; spontaneous rupture of, 1077
Splenomegaly tropical, the Leishman-Donovan body and 183; note on the nature of the parasite bodies found in, 303
Splint, for transverse fracture of the patella, 612
Sporozoa and disease, 563, 624, 684, 742, 797, 1093, 1153, 1213
Spriggs, E. I., relation of ammonia nitrogen to the total nitrogen in diabetes, 549
Spurgin, P. B., the paroxysmal cough of influenza, 288
Sputum flasks. See Flasks
Squire, J. E., common causes of error in examination of the chest, 1241
Stables, house duty on, 227
Stack, E. H. E., an ethyl-chloride inhaler, 313
Staff, hospital, charges against, 1467
Stafford, Dr. J., celebrates 99th birthday, 846
Stamp duty on medicines, alterations in the incidence of, 908
Standardization, bacteriological, of disinfectants, 853
Stanley, D., joint disease, 367
Staphylococcus aureus, the and rheumatic fever, 77
——— vaccine. See Vaccine
Staphyloma, congenital anterior, 433
Status epilepticus, fatal case of, 132
Steavenson, A. P., extreme hyperpyrexia, 130
Stedman, F. O., adrenalin chloride, 430
Steel matting, 648
Steinbuchel, R. v., Schmerzverminderung und Narkose in der Geburtshilfe mit speziellen Berüchsichtigung der kombinierten Skopolamin-Morphium-Anaesthesia, rev. 196
Stengel, A., A Textbook of Pathology, rev., 1053
Stenosis, congenital hypertrophic, of pylorus, 1073; congenital hypertrophic of pylorus, pyloroplasty, result, 1483
Stephens, G. A., the national physique, 104
——— J. W. W., The Practical Study of Malaria and other Blood Parasites, rev., 1022
Sterilization of catheters, 637; proposed, of certain degenerates, 695, 808, 868, 1109; of the hands, 1133; of the hands, a bacteriological inquiry into, 1364
Stevens, A. A., Modern Materia Medica and Therapeutics, rev., 495
——— W. M., the tendon reflexes in uraemia, 123
Stevenson, W. C., differentiations of B. typhosus and B. coli communis by means of the photographic plate, 1004
Steward, F. J., mobility after joint operations, 1017
Stewart, H. M., dermoid tumours of brain, 77
——— James, treatment of inebriety by drugs, 1223
——— Joseph, two cases of primary malignant disease of the pancreas, 885; "kidney cough," 1486
——— P., cerebro-spinal meningitis, late development of head retraction, long illness, recovery, 1254
Stirling, R. J., the prevention of syphilis, 219
——— W., breathing in living beings, 623
Stitt, R. R., unfounded charge of neglect against, 927
Stockman, R., the causes and treatment of chronic rheumatism, 477; the treatment of ankylostomiasis, 1014
Stockport, small-pox at, 1053
Stoker, G., the treatment of consumptives, 876
——— Sir T., on prostatectomy, 229
Stokes, C. E., hyperpyrexia in measles, 130
Stomach, hour-glass, 248, 413; congenital narrowing of the pyloric orifice a cause of chronic disease of in an adult, 416; the subsequent history of eighteen patients upon whom operations on the had been performed, 419; congenital hour-glass, 1073, 1288; reviews of books on disorders of, 1081, 1258
Stone, "dodi" twig as a nucleus of a, 490
Stoney, R. A., the pelvic fascia, 369
Strachan, B., suboccipital presentation, 75; reduction of dislocation immediately after the accident, 1133
Straits Settlements, the plague in, 159; annual report of medical department of, 409
Strangulation by band simulating appendicitis, 546
Stratton, J. E., double monster, xiphopagus, 472
Strauss, H., Untersuchungen ueber den Magensaftfluss, rev., 1081
Streets, horsedung in the, 26, 172
Streptothrix infection, 431
Stretcher parties, regimental, 929
Stretton, J. L., entropion forceps, 899; suprapubic prostatectomy in a man aged 84 years, 1427
Stricture, annular, of large intestine, 607
Strike, the, in the Irish Poor-law medical service, 1480
Strutt, Hon. R. J., radio-activity and mineral waters, 797
Stuart, Dr. J., obituary notice of, 811
——— T. P. A., the Queen Victoria Memorial Pavilions, Royal Prince Alfred Hospital, Sydney, 959
Students, medical, preliminary general education of and the General Medical Council, 144, 280, 384; medical, in the United States, 313; outdoor, obstetric practice of, 867; university, vision of, 1447
Sturmer, Lieutenant-Colonel, puerperal eclampsia treated by thyroid extract, 895
Sturrock, P. S., leaking aneurysms, 303
Style, Dr. A. H., treatment of pneumonia, 411
Sublimate solutions, perils of, 450
Suckling of children when suffering from intermittent fever, 932
Sugar, cane, and beetroot, 695
Suicide, in a case of pain in old ectopic gestation complicating normal pregnancy, 15; in the United States, 895
Sulphonal, a survey of the recorded cases of haematoporphynuria not due to, 549
Sultan, the, and the Hamidié Hospital at Constantinople, 900
Sunderland, S., repetition of prescriptions containing dangerous drugs, 278; perityphlitis simulating cancer, 1018
Superannuation of Irish Poor-law medical officers, 1032
——— Act. See Act
"Supplement," the, leading article on, 681
Suppression, obstructive, of urine, 370
Suppuration, labyrinthine, 371, 669
Suprarenal gland, the dangers of treatment by extract of in haemoptysis, 603
Suprarenalin in pulmonary haemorrhage, 1246
Surgeon, certifying, appointment of, 409; responsibility of for assistants, 1446 (1524); veterinary charges by, 1523
Surgeons, dental, to the army, appointment of, 814; civil, and gratuities, 1171, 1292; metropolitan police, appointment of, 1471
Surgery, infectious cases in a, 113; 8 Professor Howard Marsh on the progress of, 29; aseptic in theory and practice, 294, 422, 540; modern, of the prostate, 307; operative, reviews of books on, 311; preanaesthetic, 326; rectal, reviews of books on, 494; gall-bladder, 607, 886; reviews of books on, 608, 955, 1318; dental, reviews of books on, 610; plea for conservatism in, 852; aseptic, the technique of, 954; orthopaedic, books on, 1060
Sussex, prevention of consumption in, 380
Sutcliffe, W. G., acute appendicitis, 841; removal of uterine fibroid with a gangrenous ovarian cyst, 1371
Sutherland, W. G., Dispensing made Easy, rev., 843; Dr. Laville's antigout remedies, 1296
Suture of the heart, 736
Swabs, sterilized surgical, 1142
Swain, J., fifty consecutive intra-abdominal operations, on the ovaries, Fallopian tubes, and broad ligaments, 354
Swan, Captain, J. G., case of continued fever with Leishman-Donovan bodies, 1484
——— R. H. J., primary vesical tuberculosis, 764
Swanzy, H. R., A Handbook of Diseases of the Eye and their Treatment rev., 841
Sweating of medical men, 164, 281, 412, 460
Sweden, medical women in, 108
Sweeny, Lieutenant-Colonel T. H., ovaro-hysterectomy (Porro), notes on twelve cases performed during the last seven years in the Ishwari Memorial Hospital, Benares, 359
Sweet, W. M., Textbook of Diseases of the Eye, rev., 842
Swithinbank, H., Bacteriology of Milk, rev., 137
Switzerland, the thermal waters of, 471
Sycosis, treatment of by inoculation of staphylococcus vaccine, 1075
Sydney, correspondence from, 335, 635, 1166, 1339; the use of preservatives in food, 335, 635; the abattoirs at, 335; the Queen Victoria Home for Consumptives, 335, 1340; Prince Alfred Hospital appointments, ib.; expectoration in trams and trains, 635; infectious diseases, ib.; vital statistics, ib; leprosy in New South Wales, 1166; purifying the milk supply, 1167; the bubonic plague, 1167, 1339; the declining birth-rate, 1167; the New Guinea expedition, ib.; boracic acid in milk, 1340; Hospital for Sick Children, ib.; anniversary of opening of Prince Alfred Hospital, ib.; death of Dr. Blaxland, ib.
Sykes, J. F. J., consumption and sanatoria, 368
Syme, W. S., some general results of affections of the nose and naso-pharynx, 656; case of bone cyst of the nose, 834
Symes, J. O., on tuberculosis, 305; parasite of aestivo-autumnal fever, 840; an inquiry into the primary seat of infection in 500 cases of death from tuberculosis, 884
Symes-Thompson, E., a winter holiday, 165
Symonds, C. J., gangrene of fingers, 1018; spontaneous fracture of neck of femur, ib.
Syphilis, the prevention of, 219; treatment of during pregnancy, 288; alleged mitigating serum for, 506; inoculation of apes with, 852; and pregnancy, 1351
Syphilology, reviews of books on, 609

T.

Table, Messrs. Mayer and Meltzer's gynaecological operating, 26, 140; a new post-mortem, 1492
Tabloid, the sale of drugs in, 872
Tahiti, Dr. N. Senn on, 1449

Talipes calcaneus, congenital dislocation of the knee with, 190
Tallerman treatment, the, 1175
Tallgvist, T. W., haemoglobin scale, 1472
Taplin, Dr. J. F., obituary notice of, 1056
Tarbouriech, J., Technique des Analyses Cliniques, rev., 312
Tate, W. H. H., myoma, 895
——— W., Thorne defence fund, 1462
Taxation by weight, 1094
Taylor, F., pneumococcal peritonitis, 135
——— G. G. S., rodent cancer treated by x rays, 946
——— J. W. (Birmingham) the diminishing birth-rate and what is involved in it, 427
——— J. W. (Bristol) the Association and medical defence, 1169
——— S., treatment of whooping-cough, 1412
——— W., some cases of intestinal obstruction successfully treated, 1069
——— Sir W., on the work and purpose of the Royal Army Medical College, 291
Teaching of children alleged to be mentally deficient, 927
Teeth, artificial, the supply of, 108; of school children, 346
Temesvary, hypertrophy of the breast and pregnancy, 388
Temperance, instruction in, 201, 212, 261, 907, 1041; books on, 1175
——— work in the army, 1153
Temperature, remarks on, 475, 664
Temperatures, fictitious, 1060
Temple of Hygeia, an insanitary, 264
Tendeloo, N. P., Studien ueber die Ursachen der Lungenkrankheiten, rev., 787
Tendon reflexes, the, in uraemia, 123, 781
Tenure of office of medical officer of health, 757
Testicles, enlargement of both, 249
Testing the eyesight of the nation, 926, 1050, 1109, 1170, 1287, 1345, 1463, 1517
Testimonials, medical, in trade advertisements, 55, 342, 467, 809
Testis, the imperfectly-descended, the value of, 1306
Tetanus, following operation for radical cure of hernia, 132; acute traumatic, case of, 782; serumtherapeutics of, 796; acute, death, 1191
Tetany associated with muco-membranous colitis and phthisis, 597
Texas, a Pasteur Institute for, 474; an epileptic colony for, 1088; yellow fever in, 1450
Thames, the small-pox ships in the, 170
——— valley, recent cancer mortality in the, 825, 989
Theatres, operating, ventilation of, 1059
Therapeutics, of lung diseases, 18; of sea voyage, 655; books on, 1060; reviews of books on, 1198
Thermometer for the tropics, 438
Thibet, the medical arrangements of the expedition to, 1094
Thin, Dr. G., obituary notice of, 221; the estate of, 346; the late, 412
Thomas, A. M., prostatorrhoea, 1472
——— G. D., repetition of prescriptions containing dangerous drugs, 278
——— J. L., a method for anastomosing a severed vas deferens, 13
——— W. B., training and national degeneration, 1389
——— W. T., perforating gastric and duodenal ulcers, 492
Thompson, Sir H., obituary notice of, 991; the estate of, 1155
——— H. T., tumour of left auricle, 1316
——— W., typhoid perforation, 194; rupture of intestine, 669
Thomson, A., treatment of obstinate scabies, 227; Manual of Surgery, rev. 956
——— St. C., foul convalescent homes, 1464
——— Sir G., obituary notice of, 53
Thorburn, W., a modified operation of castration, 127
Thorium nitrate, two cases of lung disease treated with emanations from, 654; observations on the therapeutic value of, 1366
Thorne, Byrne, v., 1408, 1446. See also Fund
——— L. T., the physical development of the London schoolboy, 1890 examinations, 829; A Practical Guide to the Administration of the Nauheim Treatment of Chronic Diseases of the Heart in England, rev., 1320
Thornton, B., observations on an epidemic of scarlatina, 1420
——— Mr. J. K., obituary notice of, 109
Thorowgood, J. C., first manifestations of heart symptoms about the age of 40, 1370
Thresh, J. C., A Simple Method of Water Analysis, rev., 672
Thring, E. T., abdominal operations during pregnancy, 64
Throat, sore See Sore throat
Thursfield, H., anaemia splenica infantum, 368
——— J. H., the glomerular lesions in acute (parenchymatous) nephritis, 1196
Thyroid gland, puerperal eclampsia treated by extract of, 895; gynaecology and, 954
Tibbles, W., sporadic cretinism, 1426
Tick, a parasitic, 1524
Ticket, a cancelled, 1296
Tidal waters and enteric endemicity, 90, 151; the pollution of, 376
Tidey, S., baleonies as sanatoria, 105, 400; the treatment of pneumonia, 163, 696
Tinea, x rays in the treatment of, 868
Tinnitus, case of, 838
Title, assumption of, 990
Tobin, R. F., the strike in the Irish Poor-law medical service, 1480
Todd, J. L., human trypanosomiasis on the Congo, 186
Toldt, C., An Atlas of Human Anatomy, rev., 896
Tolstoi, Count L. L., a hygienic decalogue, 563
Tomes, C. S., mechano-therapeutics, 215
Tomkinson, J. G., twins, placenta praevia (?) concealed accidental haemorrhage, 835
Tommasoli, Dr. P., death of, 1111
Tongue, review of book on, 252
Tonsillotome, a, 1024
Tooth in the trachea during anaesthesia, 940
Toronto, proposed consumptive sanatorium for, 43
Torsion of Fallopian tube, 895
Tottenham, sanitary inspection of schools in, 345
Tournament, the Royal Military, 1273
Trachea, tooth in the during anaesthesia, 940
Tracheotomy, in an apparently dead man, recovery, 866
Traill, Dr., presentation to, 1039
Training, of bearer companies, book on, 587; and national degeneration, 1359
Transactions and Reports, rev., 552, 609, 1200
Transvaal, report of medical officer of, 114
Central African natives in, 796
Trauma in relation to disease of the nervous system, 997
Travancore, leprosy in, 462
Tree, a family, 190
Trend, Dr., the late, 207
Tresilian, F., a plea for some old drugs, 922
Treves, Sir F., A Manual of Operative Surgery, rev., 608; the Hong Kong Branch and, 854; medical aspects of the Russo-Japanese war, 1391, 1395
——— Z., the physiology of fatigue, 145
Trevithick, E., note on the method of demonstrating tubercle bacilli in the urine, 13
Trichiasis, the operation for, 1138
Trimmer, Mr. E., appreciation of, 1507; obituary notice of, 1520
Triplets, presenting some unusual features in a case of plural pregnancy, 75
Trophy, a volunteer ambulance, 583; the Scottish Volunteer Ambulance, 1038
Tropics, thermometer for the, 438
Troutbeck, Mr. J., and medical evidence, 321, 1210
Trudeau, E. L., the Adirondack Sanatorium, 100
Truhart, H., Pankreas-Pathologie, rev., 24
"Truth," libel action against, 698; on Christian Science, 1095
Trypanosoma in birds, 789
Trypanosomiasis, human, on the Congo, 186; and morbus dormitivus, 889; Laveran on, 964
Tubby, A. H., some deceptive abdominal conditions and the question of operation, 361; infantile paralysis, 1315
Tube, Fallopian, torsion of, 895
Tubercle, early, the detection of in the lungs, 765
Tuberculin, Beraneck's, 194, 735
Tuberculosis, in the Lewis, 16; the prevention of, 41, 48, 99, 380, 573, 616, 691, 750, 856, 983, 1264, 1497; in Belfast, 97; pulmonary, compulsory notification of, 103; reviews of book on, 196, 671; the paths of infection in, 205; analysis of 300 cases of necropsies of, 305; of the choroid, 309; pulmonary, death-rate from in England and Wales, 346; and sanatoria, 368; in Germany, 430; Marmorek's serum in, 575, 749, 857; in dairy cows, 585; pulmonary, tetany associated with, 597; the administrative control of, 626; pulmonary, the action of a maritime climate in the treatment of, 633; primary vesical, treatment of, 764; of the lungs, the early diagnosis of 769; urinary, treatment of, 784; the primary seat of infection in death from, 884; in the French army, 1044; pulmonary, x rays in the diagnosis of, 1194, 1288; pulmonary, of miners, rock drilling and, 1211; in the South of Ireland, 1243; primary intestinal, in children, perforation of ulcers, 1245; the surgical treatment of, 1314; pulmonary, in miners, prize for the prevention of, 1324; the international crusade against, 1331; pulmonary, the organization of the home treatment of, 1357; pulmonary, early detection of râles in, 1370; in childhood, prevention and treatment of, 1375, 1387, 1450; pulmonary, in miners, the causes and prevention of, 1387; mixed infection in, 1488; guardians and, 1507
Tuberculous, infection, primary, of the intestinal tract in children, the occurrence of, 1126
Tubes, Fallopian, fifty consecutive intra-abdominal operations on, 354; Fallopian, some conditions of the, 370
——— railway, the air of, 450, 528
Tucker, Captain E. F. G., the Symptoms and Pathology of Plague, rev., 313
Tumour of the liver, 249; cerebral, 250, 307; villous, of bladder, suprapubic cystotomy, recovery, 782; of left auricle, 1316; dermoid, pregnancy after removal of both ovaries for 1360
Tumours, dermoid, of brain, 77; abdominal, round worms simulating, 835; innocent and malignant, essential similarity of, 1300
Turner, G. G., the treatment of appendix abscess in the recto-vesical pouch, 639; Some Surgical Aspects of Appendicitis, rev., 1319
——— Mr. J. S., obituary notice of, 523
——— R., iliac abscess following gonorrhoea, 724; the modern pursuit of novelties in medicine, 1515
——— W. A., the mental condition in epilepsy in relation to prognosis, 894
Turpentine in carbolic acid poisoning, 1024
Turvey Treatment Company, treatment of alcoholism by, 317
Tuttle, J. P., A Treatise on Diseases of the Anus, Rectum, and Pelvic Colon, rev., 494
Twins, pleuropagous, difficult labour, 74; placenta praevia (?) concealed accidental haemorrhage, 835; different sex, double amnion, common chorion, 952; quintuple, 1505
Tylecote, F. E., fatal case of status epilepticus, 132
Tyler, W. F., a scheme for the comparison of climates, 1034
Typhlitis, perforative, operation, recovery, 545
Typhoid fever. See Fever, enteric,
Tyson, W. J., prevention and early treatment of disease, 1018

U.

Uganda, sleeping sickness in, 39
Ulcer, rodent treated with radium bromide, 182; perforated gastric, five consecutive cases of treated by excision, 421; a case of perforated gastric (or duodenal) recovery without operation, 428, 579; gastric, perforation twice in five months, 665; ruptured gastric, operation, recovery, 837, 1313; peptic, of the jejunum, 894; rodent, radium in a case of, 946; gastric, gastro-jejunostomy for, 1193; gastric, and high-frequency currents, 1255; ruptured duodenal, laparotomy, 1315; ulceration, tuberculous, radium, and, 784; syphilitic of ileum, causing acute intestinal obstruction, 1068
Ulcers, perforating gastric and duodenal, 492; specific cutaneous, local treatment of, 1427
Underwood, A. S., degrees in dentistry, 516; Studies in Comparative Odontology, rev., 610
Union, Medical Defence, resolves to maintain its integrity, 513, 677; report of council, 1121; solicitor's report, 1322; annual meeting of, ib.
——— Medical and Dental Defence of Scotland, annual meeting of, 572
——— Midland Medical, the position of the medical attendant in criminal cases, 1466
Unions, medical and the British Medical Association, 399, 460
United Provinces of Agra and Oudh, sanitary report of, 617
——— States of America, increased longevity in, 58; the medical services of the, 111; practice in, 115; cancer research in, 153; hospitals in, 171; medical students in the, 313; medical women in the, 328; insanity in, 385; leprosy in, 387, 678; practice in, 388; the Red Cross Society in, 405; the oldest University in, 421; the plague in, 513, 615; the prevention of consumption in, 616, 856, 1265, 1497; medicinal plants in, 684; pure food and drugs in, 699; suicide in the, 815; formation of Society for Study of Tuberculosis in, 912; medical education in, 977; medical incomes in, 1146; medical defence in, 1153; antivivisection in, 1206; experiments on human metabolism in, 1214; and undesirable emigrants, 1424; State examination in, 1436; destruction of the mosquito in, 1451; the Post-office department of and indecent advertisements, 1506
Universities, French, students at, 846
University, the modern, medicine in, 689
——— Aberdeen, honorary degrees at, 700; graduation ceremony at, 930, 975; pass lists, 995, 1054; the summer session, 1158; quatercentenary celebrations at, 1218; meeting of University Court of, 1522
——— of Birmingham, physics and therapeutics, 224; meeting of court of governors of, 343; gift to, 692; Sir Robert Ball's address at, 1404; examiner in surgery, 1468; degrees for students, ib.; anatomical department, ib.; Russell memorial prize, ib.
——— of Brussels, pass lists. 583
——— of California, European professors for summer session of, 970

University of Cambridge, appointments, 56, 343, 1173, 1409, 1467; degrees, 56, 224, 343, 463, 583, 643, 700, 1114, 1229, 1350, 1468, 1521; pass lists, 56, 1054, 1173, 1521; Addenbrooke's Hospital, 224; the new schools and laboratories at, 323, 553, 559; royal visit, 343, 446, 463, 553, 559; tropical medicine, 343, 463, 524, 577, 1521; Boards of Electors, 407; State Medicine Syndicate, 463; medical and surgical examinations, ib.; recognized schools, 583; University of Wisconsin, 643; examiners, 643, 1054; examinations, 1054; botany, 1173, 1521; honorary degrees, 1229, 1350; pathology, 1350; surgery, ib.; experimental psychology, ib.; theses for M.B., ib.; anthropology, ib; Professor of Surgery, 1409; gift of drawings, ib.; prize, 1521; surgery, ib.
——— of Cincinnati, the presidency of, 306
——— of Dublin, degrees, 56, 525, 1055; degrees for women in, 1437, 1468
——— of Durham, pass lists, 1054; degrees, 1230; the Heath scholarship, 1294
——— of Edinburgh, extension of the chemistry department of, 98; annual report of for, 1903, 111; rectorial address at, 266; the rectorial disturbance at, 331; meeting of university court of, 761, 1294; pass lists, 873, 1054; notes from, 930; meeting of general council of, 1101; examination for the M.D. degree of, 1471
——— of Glasgow, and the medical education of women, 208; proposed commemoration day at, 267; honorary degrees at, 700; close of winter session at, 800; the chemical department of, ib.; the chancellorship of, 854; pass lists, 874; commemoration and graduation days at, 974; graduation ceremony, 1054; professor of geology at, 1468
——— Johns Hopkins, Baltimore, loss to by fire, 854
——— of Liverpool, a Fellowship of Dermatology at, 160; vote by city of Liverpool to, 456; diploma in tropical medicine, 643; diploma in veterinary hygiene, ib.; post-graduate courses at, 1404
——— of London, the medical degrees of, 32; recognition of teachers, 56; physiological laboratory, 56, 407, 524; B.Sc. degree of research, 56; Brown Animal Sanatory Institution, ib.; pass lists, 56, 524, 1409; the Institute of Medical sciences at, 92, 223, 583; meeting of convocation of, 224, 1114, 1173; courses of advanced study and research, 281; preliminary scientific examination, ib.; preliminary scientific investigation, 407; recognition of teachers, ib.; books for the examination in pharmacology at the Intermediate M.B. Examination of, 411; meeting of senate of, 761, 873; chemistry in the medical curriculum, 1468
——— of Oxford, the Regius Professorship of Medicine at, 92, 149, 160, 202, 262; degree days, 343, 1054; degrees, 343, 761, 1073, 1350, 1521; Radcliffe Travelling Fellowship, ib.; the Philip Walker studentship in Pathology, 407, 446, 1294; research scholarship, 407; pathology at the M.B. examination, 523; B.M. and B.Ch. degrees, ib.; the question of exemption from Greek, 524; forensic medicine and public health at the M.B. examination, 583; scholarships, ib.; the chairmanship of the Faculty of Medicine at, 643; Board of Faculty of Medicine, 700; examinations, 809, 873, 994, 1114, 1350, 1467; notes from, 930, 1229; examinations for the degrees of B.M. and Ch., 1229; representative on the General Medical Council, 1409; examiners, 1409, 1521; representative on the General Medical Council 1521; pass lists, ib.
——— of Paris, opening of information bureau at, 515
——— of Pennsylvania, the new medical laboratory at, 1206
——— of Philadelphia, claim of to be oldest American university, 421
——— Queen's, Kingston, gift to, 571
——— Royal, of Ireland, meeting of Senate, 1229; pass lists, ib.
——— of St. Andrews, honorary degree, 874
——— Victoria, of Manchester, pass lists, 343, 874; vote of city of Manchester to, 456; qualifying medical examinations in, ib.; the bacteriological laboratory, 700; degree ceremonial, ib.; appointment of examiner, 809; notes from, 1115; meeting of court of, 1173; pathology at, 1391, 1403; appointments, etc., at, 1468
——— of Wales, annual meeting of university court of, 1212
Upham, C. H., early detection of râles in phthisis, 1370
Uraemia, the tendon reflexes in, 123, 781
Ureter, double, case of, 488
Ureters, hydronephrosis due to abnormalities of the, 1010
Urethrotomy, external, retention of rubber catheter after, 604, 759
Urgency cases and no beds, 263, 327
Uric acid, estimation of in the urine, 1018
Urine, method of demonstrating tubercle bacilli in the, 13; of grave cases of hepatic cirrhosis, reaction with perchloride of iron in the, 13, 339; estimation of specific gravity of, 191; obstructive suppression of, 370; intravesical separation of 433; the, in beri-beri, 480; the chemistry of in diseases of the pancreas, 776, 868; incontinence of in children, 840; some tests for albumen in the, 882; estimation of uric acid in the, 1018; reviews of books on analysis of 1082, 1259; treatment of incontinence of by lumbar puncture, 1166; so-called "pancreatic reaction" in the, 1347, 1462, 1516; normal, note on the anti-haemolytic (haemosozic) properties of, 1418
Urquhart, A., notes on recent cancer mortality in the Thames valley, 825, 989
——— A. R., presentation to, 912
Utah, patent medicines in, 846
Uterus, the operative treatment of myomata of, 65; forcible dilatation of the cervix of in "accouchement forcé," 67, 228, 472; abscess of, 308; fixed, pregnancy in a, 67; perils of ventrifixation of, 325, 400; spontaneous rupture of, laparotomy, recovery, 365; affections of and constitutional disease, 388; is myoma of often a fatal disease? 461; cyst of, 493; modern treatment of fibromyoma of, 547; hour-glass contraction of, ib.; inversion of the, 669, 1191; ventrifixation of, 713, 867, 923; gravid, retroversion of, 877; removal of appendages of in enterectomy, 1103; spontaneous rupture of, 1429; cancer of the body of, 1430

V.

Vacation courses in Berlin, 1176
Vaccination, in Yorubaland, 170; and politics, 216; fees for at Newark, 284; raised scars after, 304, 412, 816, 1116; isolation and small-pox in Germany, 381; in the incubation stage of small-pox, 488, 1176; successful, grants for, 790; in Germany, the cost of and the risks attending its use, 903; increase of, 1036, 1154; and small-pox at Gateshead, 1150
——— Act. See Act
"——— Inquirer" on small-pox in Germany, 508
——— law, the Prussian of 1835, 378, 517
——— notices, 346
——— regulations, 113, 345
——— returns in Scotland, 815
Vaccinators, public, regulations as to contracts of with guardians, 1470
Vaccine, staphylococcus, treatment of acne, furunculosis and sycosis by inoculations of, 1075; use of chloroform in the preparation of, 1273
Vagina, septate, causing delay in labour, 74; multiple septa of, ib.; perils of atresia of, 853; septate, 1133
Vagrancy, small-pox and, 967
Valentini, A., Aromatici e Nervini nell' Alimentazione, rev., 1433
Vallauri prize. See Prize
Vancouver, the climate of, 411
Vapour, ether, 1296, 1471
Variation in its relation to insanity, 266, 331
Varicocele, adenoids and, 764; the etiology of, 1133
Variot, G., gouttes de lait et consultations de nourrissons, 1125
Vas, deferens, severed, a method of anastomosing, 13
Vasectomy for enlarged prostate, 246
Vaughan, G. T., The Principles and Practice of Surgery, rev., 956
Vein, portal, ascites due to pressure on by enlarged spleen, 429
Venereal diseases, reviews of books on, 251
Venesection in opium poisoning, 664
Ventilation of factories and workshops, 211; of operating theatres, 1059
Ventricle, the inception of the rhythm of the heart by the, 579
Ventrifixation, uterine, perils of, 325, 400; of the uterus, 713, 867, 923
Vera Cruz, the sanitation of, 735
Verdon-Roe, S., the Association and medical defence, 1223
Veresaeff, V., The Confessions of a Physician, rev., 1070
Verhaeven, La Cure de la Tuberkulose dans les Sanatoriums Français, rev., 671
Vernon, H. M., Variation in Animals and Plants, rev., 81
Veronal, a new hypnotic, 538; exhibition of, 1236
Verworn, M., Allgemeine Physiologie, rev., 311
Veterinary surgeon. See Surgeon
Vicars, F., puerperal sepsis, 1049
Viceregal court, the, 392, 510, 569
Vichy, as a health resort, 1143
Victoria Cross, statistics of, 405
Vidal, eunuchoid giantism, 972
Vienna, medical work in, 678; correspondence from, 1045, 1283, 1513; a political contest, 1045; the surgical clinic at the General Hospital, ib.; a new cancer microbe, ib.; new plans for the General Hospital, ib.; lady doctors in Austria, ib.; Dr. Moser's scarlet fever serum, ib.; a trio of anniversaries, 1283; the antituberculous campaign, 1284, 1511; contract medical practice, 1284; laying foundation stone of new hospital at, 1507; statistics as to small-pox and diphtheria, 1513; foundation of new clinics, ib.
Villiers-le-Duc, the extinction of infant mortality in, 753
Villiers-sur-Marne, the sanatorium at, 1380
Vincent, G. F., acute septic colitis due to milk poisoning, 302
Viscera, anthropometry of the, 970; abdominal, localization of, 1196
Viscount Wolseley, two quotations from the "Story of a Soldier's Life" of, 565
Vision, defective, in school children, 112; of school children, 468; of candidates for the army and navy, 1060; deterioration of during school life, 1418; of university students, 1447
Visit, proposed, of French medical men to England, 1451
Vivisection question, the, in Germany, 1382
Vocabularies, reviews of, 425
Volunteer Infantry Brigade, promotions and appointments in medical service of, 111
——— Infantry Brigade Bearer Companies, promotions and appointments in, 111, 341, 405, 697, 872; formation of Lancashire Fusilier Brigade of, 1349
——— Rifles, promotions and appointments in medical service of, 166, 223, 341, 405, 468, 697, 760, 872, 930, 1052, 1171, 1227, 1292, 1465, 1518
Volunteers, report of Royal Commission on, 1326, 1348
——— Royal Engineers, promotions and appointments in medical service of, 111, 1053, 1227
——— Royal Engineers, Submarine Miners, promotions and appointments in medical service of, 111, 405, 1518
——— Royal Garrison Artillery, promotions and appointments in medical service of, 697, 760, 930, 1052, 1112, 1171, 1227, 1465
Vouzelle, La Syphilis, Chancre et Syphilis Secondaire, rev., 252

W.

Wackerhagen, Dr. and Mr. E. S. Bishop, 1236
Wade, E. W., the sweating of medical men, 460
Wake, a real live, 911
Walden, Miss E., death of, 507
Waldeyer, Professor H. W. G., gets honorary degree at Cambridge, 1350
Waldo, F. J., lectures on medical jurisprudence, 223, 283, 342, 406, 466, 642
——— H., recurrent herpes zoster, 1191; pneumoccocal peritonitis, 1254; facial pigmentation, 1352
Wales, T. G., Dr. Laville's antigout remedies, 1296
Walford, W. G., reduction of dislocations immediately after the accident, 664
Walker, A. E. W., The General Pathology of Inflammation, Infection and Fever, rev., 1259
——— C. E., cancer and its origin, 162, 278; the cytology of malignant growths, 1196
——— H. J., yerba maté, 401
——— J. W. T., gaseous *versus* fluid media in cystoscopy, 694; the prostate and prostatectomy, 728
——— N., x rays in the treatment of tinea, 868
Wallace, A. R., The Wonderful Century, rev., 671
——— C. S., an anatomical criticism of the procedure known as total prostatectomy, 239; tinnitus, 838; total prostatectomy, 1187
——— D., annular stricture of small intestine, 607
——— J. S., Essay on the Irregularities of the Teeth, rev., 611
——— J. W., ventrifixation, uterine, 400
Walls, W. K., accidental haemorrhage in pregnant women, 20
Walsham, W. J., Surgery, its Theory and Practice, rev., 609
Walter, R. H., is atmospheric pressure a possible cause of cerebral haemorrhage? 835
Walters, F. R., balconies as sanatoria, 163, 639
War, in the Far East, the, 384; against cancer, 1448
—— Office, the reconstitution of the, 323, 395
—— Russo-Japanese, medical aspects of, 1391, 1395
Ward, A. O., testing the eyesight of a nation, 1287, 1463
Wards, decoration of, 685
Waring, H. J., Manual of Operative Surgery, rev, 1319
Warning, a, to medical men applying for ships' surgeoncies, 228; a, 471, 932
——— sign of danger to the child during labour, 715, 1414
Warrington, W. B., cerebral tumour, cerebral thrombosis, 307
Washington, the cocaine habit in, 4
Watercress, typhoid fever and, 37, 57; in the treatment of beri-beri, 564

Water supplies, lead poisoning and, 571; country, 912
——— supply, of Bridgend, 207; of Paris, 745; of Gosport, 1058
Waters, mineral, radio-activity and, 797
——— tidal. See Tidal
Watkins, D. J. G., a family tree, 190
Watkins-Pitchford, H. W., an Indian "snake-stone," 438
——————— W., an Indian "snake-stone," 438
Watson, C., observations on the pathogenesis of gout, 68, 219; Encyclopaedia Medica (Index Volume), rev., 845; effects of a proteid dietary, 1136
——— C. G., South African Civil Surgeons' dinner, 1170
——— Captain E., plural pregnancy, triplets presenting some unusual features, 75
——— J. H., chronic polycythaemia, with enlarged spleen, probably a disease of the bone marrow, 729
——— J. K., The Examination of the Urine, rev., 1082
——— J. W., action against, 1039
——— Sir P. H., action against for slander, 1466
Watt, T. M., veronal, 1236
Watt Smyth, Mrs. A., Physical Deterioration, its Causes and the Cure, rev., 1317
Watts, A. M., lumbago, 217
Weatherly, L. A., guardians and tuberculosis, 1507
Weber, F. P., reaction with perchloride of iron in grave cases of hepatic cirrhosis, 13, 339; diffuse lipomatosis, 249; chronic polycythaemia, with enlarged spleen, probably a disease of the bone marrow, 729; polycythaemia and erythromelalgia, 1017; a case of leukanaemia with great hyperplasia of the spleen and prevertebral haemolymph glands, and with increase of connective tissue in the bone marrow, 1416
Webster, J. C., A Textboook of Obstetrics, rev., 195
Weidhaas Institute. See Institute
Weight, taxation by, 1094
Weights, figure, 674
Welford, Mr. G., death of, 706
Welland, Lieutenant J. R., appreciation of, 154
Wells, F. M., The Garden Decorative, rev., 1023
——— J. W., certificates for school children, 401
Welsford, A. G., the Association and medical defence, 863, 1287
Wemyss Coal Company the, and contract practice, 313
Wenckebach, K. F., Die Arythmie als Ausdruck bestimmter Funktionsstorungen des Herzens, rev., 551
West African Medical Staff, some grievances of, 806
——— Australia, sanatorium for consumptives in, 48
——— Coast of Africa, life on, 1485
——— Indies, the disease problem in, 624
——— Riding of Yorkshire, report of medical officer of, 112
——— Wales, sanatorium for, 48
Westcott, M., the therapeutics of sea voyages, 655
——————— W. W., The Extra Pharmacopoeia of Martindale and Westcott, rev., 1198
Westland, A., a plug for antral perforations, 1434
Westmorland, the prevention of consumption in, 616
Whalley, E., drug rash, 528
Wheeler's Handbook of Medicine and Therapeutics, rev., 843
Whichello, H., the metric system in prescribing, 866
Whisky habit, the, 104
Whitby C. J., the treatment of pneumonia, 52, 519
White, A. T., adenoids and varicocele, 764
——— E. D., Samaritan Free Hospital for Women, 462
——— F., suppurative disease of the ear, 430
——— J. W., A Textbook of Surgery for Practitioners and Students, rev., 957
——— S., five consecutive cases of perforated gastric ulcer treated by excision, 421
——— W. H., "internal secretions" in disease and treatment, 727; joint disease in medical practice, 1135
——— W. W., insanity in the United States, 385
Whiteabbey, proposed Poor-law sanatorium at, 570
Whiteford, C. H., a case of perforated gastric (or duodenal) ulcer, recovery without operation, 428; a simple method for the administration of ethyl chloride, 663; retention of rubber catheter after external urethrotomy, 759; irrigation of wounds with chemical irritants, 1462 (1524)
Whitelaw, T., atmospheric pressure and cerebral haemorrhage, 1352
Whitfield, Dr. L., death of, 1111
Whittaker, Lieutenant-Colonel J. H. death of, 1051
Whooping-cough, quarantine after, 469; hemiplegia occurring during, 597; notification of, 924; treatment of, 1412, 1471
Widal's reaction, note on, 528
Wiggins, D., Midwifery for Midwives, rev., 1199
Wightman, C. F., first-aid treatment of cut arteries, 1352
Wiglesworth, J., St. Kilda and its Birds, rev., 82
Wigmore, A. W., some typical examples of Roentgen-ray and high-frequency treatment, 944
Wilkin, G. C., treatment of hysterical cough, 587; the Association and medical defence, 920
Wilkinson, R., belladonna poisoning, 1472
Wilks, Sir S., illness of, 447, 508, 567, 627, 686, 854, 912; recovery of, 1391
Williams, C. T., the x rays in the diagnosis of pulmonary tuberculosis, 1288
——————— D. J., three cases of abscess of the lung, 8
——————— H., report of on the health of the Port of London, 1144
——————— J. T., primary quadruple amputation, recovery, 1371
——————— J. P., puerperal eclampsia, 16
——————— L., foul convalescent homes, 1516
——————— P. W., rheumatic infection through the air passages, 1314
——————— S. R., a bedside spittoon, 1434
——————— W. M., puerperal sepsis, 758
——————— W. R., is myoma of the uterus often a fatal disease? 461; Vaginal Tumours, with Special Reference to Cancer and Sarcoma, rev., 733
Williams-Freeman, J. P., on the Medical Acts Amendment Bill, 889
Williamson, Professor A., death of, 1226
——————— A. M., annual report of the Sanitary and Markets Department of the City of Edinburgh, 1157
——————— H., two cases involving the question of the site of impregnation, 711
——————— J. R., sterilization of the hands, 1133
——————— R. T., changes in the spinal cord in diabetes mellitus, 122; cylindrical epithelioma in centrum ovale, 1191
Wills, medical, 366
Wills, W. A., elasticity of the aorta, 1316
Wilson, C., rupture of intestine, 669
——————— Miss H., medical examination of school children, 865
——————— Dr. J., death of 870
——————— Dr. J. A., presentation to, 1324
——————— J. M., sanitary authorities and the milk supply, 103
——————— S. W., preliminary general education of medical students, 280; the finances of the General Medical Council, 864; fee for restoration to the Medical Register, 1224
——————— T., modern treatment of fibromyoma of the uterus, 547
Wiltshire, prevention of consumption in, 1264
Windle, J. D., the bacteriology of acute rheumatism, 1223
Wingrove, W., a non-toxic preparation of iodine, 724
Winter holidays. See Holidays
Wise, C. H., poisoning from atropine eyedrops, 189
Wishart, J., certificates for children, 462; Poor-law medical system in Ireland, 807
Witnesses, medical, coroners and, 321, 342; medical, consultations between, 891
Wodynski, leprosy of the ovaries, 851
Wolff, J., Ueber die Ursachen das Wesen und die Behandlung des Klumpfusses, rev., 957
Wolseley, Lord. See Viscount
Wolstenholme, R. H., the Association and medical defence, 806
Wolverhampton, a new hospital at, 575
Woman, as hospital physician in Buda-Pesth, 14; an abominable old, 1518
Women, pregnant, accidental haemorrhage in, 20; gardening for, 94; medical, in Sweden, 108; Glasgow University and the medical education of, 208; medical, in the United States, 328; reviews of books on diseases of, 733; medical practitioners in Scotland, 1509
Wood, F. E., strangulation by band simulating appendicitis, 546
——— T. O., the repetition of prescriptions containing dangerous drugs, 215
Woodcock, H. M., the literature of the protozoa, 623
——————— Dr. S., memorial portrait of, 1513
Woods, H., the Association and medical defence, 864, 988
Woodward, M., inversion of the uterus, 1191
——————— W., pasaage of a renal calculus through a lumbar sinus, 147
Woolcombe, Assistant Surgeon R., death of, 1227
Wooldridge, A. T., watercress and enteric fever, 57
Work, educational, inspection of the Poor-law schools, 762
Workhouses, certification of lunatics in, 286; imbeciles and lunatics in, 1233
Workmen, accidents to, 389; sanatoria for, 856, 983; general paralysis and compensation of, 955
Workmen's Compensation Act. See Act
Workshops, and factories, ventilation of, 211; measles and, 1255
Worms, round, simulating abdominal tumours, 835
Wounded, in naval action, treatment of, 152, 910 1060
Wounds, non perforating, of the anterior capsule of the lens, 1311; irrigation of with chemical, irritants, 1462 (1524)
Wrestling, Japanese, in America, 904
Wright, A. E., inoculation on staphylococcal infection, 135; on "internal secretion" in disease and treatment, 667; the treament of acne, furunculosis and sycosis by therapeutic inoculations of staphylococcus vaccine, 1075
——— C. R. A., Animal and Vegetable Fixed Oils, Fats, Butters, and Waxes, rev., 312
——— G. A., Handbook of Surgical Anatomy, rev., 435
——— W., the inquest on, 340
Wundt, W., Outlines of Psychology, rev., 1199
Wynne, J. D., tuberculosis in the South of Ireland, 1243

X.

X rays. See Roentgen

Y.

Year Book, the Association, 322
Yellow fever. See Fever
Yeomanry, Imperial, promotions and appointments in medical service of, 110, 697, 760, 1052, 1171, 1227, 1465, 1518
Yerba maté, correspondence as to, 401
Yonge, E. S., a self-retaining ear-douche basin, 313
York, small-pox at, 328; prevention of consumption in, 1264
Yorubaland, vaccination in, 170
Young, feeding in relation to the health of the, 674
Young, A., total extirpation of the prostate, 398
——— W., cerebral abscess with unusual complications, 604
Younge, Lieutenant-Colonel G. H., the treatment of myiasis, 365

Z.

Zarniko, C., Die Krankheiten der Nase und des Nasenrachens, rev., 138
Zoophilism, a bright examplar of, 93

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A Clinical Lecture
ON
OEDEMA OF THE LUNGS AND ITS IMPORTANCE AS A MODE OF DEATH.

Delivered at St. George's Hospital,

By Sir ISAMBARD OWEN, M.A., M.D., F.R.C.P.,
Physician to, and Lecturer on the Principles and Practice of Physic at, the Hospital.

The search for specific remedies for diseases has not up to the present yielded any considerable harvest. It is true that we seem to be on the verge of a new epoch. Now that *materies morbi*, which to our fathers was little more than an abstract conception, has begun to take particulate form, and chemical analysis is diving into the secret of its mode of action on the body, we may reasonably hope that experimental science will one day surmount the further step of discovering the means of counteracting it. That step, however, is a long one, and at present we must reconcile ourselves to the fact that there are few remedies known to us to which we can even plausibly attribute the property of destroying or neutralizing the physical basis of any disease inside the human body.

We physicians, however, cannot therefore sit down idly and await further discovery. Our business is with the present. Disease, with its train of suffering and death, is in the field. If we cannot always destroy the enemy, we can at least place some obstacles in its path; strategy is open to us, though we may not have the force for direct attack; and by well-directed therapeutic strategy death may be avoided as well as suffering. In fighting disease delay is often equivalent to victory, and *cunctando restituit rem* may be written as well of therapeutic as of Fabian campaigns.

The tendency of acute diseases in particular to run a course definitely limited in point of time is not a newly-observed fact, though modern bacteriology has confirmed and partly explained it. If the patient survive the allotted time the gravest danger to life is past. He may, indeed, be left crippled, he may have sustained during conflict with the disease an organic lesion which will eventually cut short his life; but the acute illness is over. If no permanent organic lesion is left behind his recovery is complete. Such is the normal course of the greater number of acute diseases, without reference to treatment. In some few we have already the power of cutting the attack short; in most we can only endeavour to limit its effects on important organs, and to stave off a fatal issue until the time is passed at which the malady possessed the power to cause it.

Successfully to resist an enemy one must know something of his resources and methods. If we are to succeed in averting death from disease we need, above all things, to know how in each case the fatal result may be brought about. It is to this subject, or at least to a part of it, that I wish to direct your attention to-day. I do so the more particularly as it is a subject to which, I venture to think, adequate attention is seldom given. We are too apt to content ourselves with generalities. It is so easy to say that a patient died of scarlatina, or cerebral haemorrhage, or granular kidney; so much more difficult to define how the malady actually brought life to an end. But this is often the really important matter; the malady itself we may not have the means of removing; its fatal effects we may perhaps find ourselves able to avert if we know precisely what they are.

Death means the permanent arrest of the heart and respiration, or practically of either, for neither can go on long without the other. It may be brought about by destruction or by temporary abeyance of function of any one of the active elements which are necessary to the cardiac or respiratory movements, from the nerve centres in the medulla oblongata to the haemoglobin in the red corpuscles, and it can occur in no other way. Older authors used to classify deaths into deaths occurring from the heart, deaths occurring from the lungs, and deaths occurring from the brain. This triple classification was unsound and misleading. There is no death from the brain except through the agency of the nerves and muscles of the heart, the thorax or the arterial channels; there is no death at all as long as the heart and respiratory muscles are still in action.

The mechanism of death, you will find, is in the great majority of cases neither obvious nor simple. When, indeed, a ventricle which is the seat of advanced fatty degeneration has stopped contracting, or a large aneurysm ruptured, or a mediastinal growth occluded the trachea, or an intracranial effusion been present in sufficient amount seriously to compress the medulla oblongata, it needs no profound physiological knowledge to tell us in what way the condition of things had become incompatible with the further maintenance of life. But such simple cases are the exception, and from the examples I have quoted you will be correct in judging that the most obvious modes of death are, generally speaking, those that least admit of remedy.

Some cases of poisoning, again, show us the mechanism of death in a simple form. We have poisons that kill, like morphine, by paralysing the respiratory centre; like curare, by paralysing the motor terminals of the respiratory nerves, like carbon monoxide, by paralysing (if I may so call it) the haemoglobin; like chloral and prussic acid, by bringing both heart and respiration to a standstill. To these modes of death we oppose, and with some measure of success, equally simple and direct remedies. We have no means of destroying or neutralizing (in the chemical sense) any of these poisons, once they have been absorbed into the circulation; but in the less severe cases, by means of atropine and artificial respiration, for example, we may succeed in keeping going the respiratory function, or by means of digitalin that of the heart, until such time as the excretory glands have been able to eliminate the absorbed poison from the fluids of the body, and the danger to life is past.

In the greater number of cases of disease the problem is far less simple. We know that in microbic diseases definite poisonous substances are thrown into the circulation; we know that in some forms of organic disease equally definite poisons are retained in it, and some at least of these poisons seem to possess a directly depressant action on the cardiac and bulbar nerve tissue; but in clinical experience it is exceptional to witness a death directly and solely due to such intoxication of the cardiac or respiratory nerve apparatus or the muscles which they actuate. In by far the greater number of instances the immediate cause of death is to be traced in some more tangible lesion of vital organs; but I must warn you that even in diseases which essentially involve

lesions of the heart or respiratory organs the proximate cause of death is seldom that which a prima-facie knowledge of the disease would suggest. In illustrating this I shall have particularly to ask your attention to a lesion the clinical significance of which is often overlooked, and which has hardly received the measure of attention in medical literature that its real importance seems to me to claim. The lesion I mean is oedema of the lungs.

In cases of disease of the heart valves, to take an example, it is exceptional to find death occurring primarily from stoppage of the heart. The damaged heart, in fact, seldom stops as long as the respiration is free. I have often invited your particular attention in the wards to the phenomena of mitral stenosis in its successive stages. The narrowing of the left auriculo-ventricular orifice, if duly compensated by adequate hypertrophy of the right ventricle, may exist, as we almost daily see, for many years, not, indeed, without causing troublesome symptoms, but at any rate without immediately threatening a fatal issue. At length the day comes when compensation fails. The right ventricle gives way under the strain. Perhaps the stenosis has increased beyond the capacity of the ventricle to compensate; perhaps bronchitis has aggravated the obstruction in the pulmonary circulation; perhaps the nutrition of the thickened ventricular wall has begun to fail. The ventricle dilates; the right auriculo-ventricular orifice becomes stretched; the tricuspid valves are therefore incompetent; and the scene is changed. The systemic and portal veins become engorged, oedematous effusion appears in the lower extremities and mounts upwards, the liver swells, and the obstructed portal circulation unloads itself into the peritoneal cavity. The patient is now quite disabled; his legs waterlogged, his abdomen distended, his heart struggling to overcome the deficiency of its valves, his breathing oppressed, and his blood insufficiently aërated. But in all this disablement, serious as it is, there is as yet little of a *fatal* element. Oedema of the extremities does not kill, unless cellulitis supervene. Digestive disturbances and impaired nutrition kill but slowly. Ascites, it is true, may hinder the respiration by preventing the descent of the diaphragm, but ascites may be relieved, in some cases many times in succession, by paracentesis. In such a condition, severely ill, but not immediately threatened with death, the patient may linger weeks or months before fatal lesions appear; he may even improve under treatment and partly recover. Danger is chiefly to be looked for neither in the extremities nor in the abdomen, nor even in the heart, the original source of the trouble, but in the lungs and the pleural cavities. In these regions several untoward events may happen. The systemic dropsy may extend to a pleural cavity; though this, indeed, may be relieved, like ascites, by paracentesis. Infarction of the lung may take place by means of emboli from the dilated right ventricle; pneumonia may intervene; but by far the commonest danger to be apprehended is the extension of the dropsy to the lung itself.

You may have often seen me, when brought for the first time to a severe case of heart valve disease in the wards, without waiting for a detailed examination of the heart itself, proceed at once to make the patient sit forward, and begin by investigating the state of the bases of the lungs. It is there that the most significant signs of immediate danger are to be found; and oedema is the condition most to be suspected. Cardiac oedema is a passive oedema, and usually therefore appears first in the most dependent parts. In its early stages it interferes little with the resonance of the chest, and it makes no change in the vocal fremitus or vocal resonance; but on deep inspiration the ear will detect a number of clear, fine, "fluid" crackles, of uniform size. The prompt recognition of the nature and significance of these crackles is highly important, and with a little practice it is not difficult. The rhonchus, and sometimes the *râles*, of bronchial catarrh may be present with them, for the process may be actually affecting the minute bronchi as well as the lungs, or there may have been a pre-existing bronchitis. It is essential, therefore, to learn not to confuse the two sets of signs, for the oedema is of far graver import than the bronchial catarrh. The rhonchus can cause no difficulty; but practice alone will enable you certainly to distinguish between the "mucous" *râle* of bronchial secretion, and the clearer, sharper, more "fluid" sound of oedematous effusion into the lung itself.

As the process progresses, the crackles are heard extending from below upwards, and larger, but still sharp and "fluid" *râles* become mixed with them in increasing proportion. If the oedema is severe the percussion note becomes impaired; if the lungs in any part become completely waterlogged dullness may be complete, and breath sounds over the region entirely abolished; but the persistence of the voice sounds and vocal fremitus enable the condition to be distinguished without difficulty from one of pleural effusion.

The subjective symptoms of pulmonary oedema are few, and not distinctive. Distress of breathing, needless to say, is increased by it; cough is often increased, and becomes more hacking; but expectoration of the oedematous fluid occurs only when the oedema is extreme. In slighter grades of oedema there is no *vis a tergo* to expel the fluid, as there is in the case of bronchial secretion, the fluid being in the air sacs themselves. There is little, therefore, in the symptoms to draw particular attention to the onset of oedema; it has to be watched for by regular and systematic examination of the back of the chest.

Oedema of the lungs, though for the time and even more than once it may be checked by treatment, usually proves sooner or later the last scene of the drama. When treatment finally fails to control it, the *râles* become more and more abundant and large; the respiration-rate goes on mounting higher and higher as long as the reserve forces of the respiratory apparatus hold out against the increasing demands upon them; cyanosis becomes more and more marked; until at last the reserve of respiratory force begins to fail, and the respiratory movements grow slower and shallower, till in the end they stop altogether. The end, however, is not always purely by failure of respiratory movements; the obstruction to the passage of blood in the lungs adds to the strain already suffered by the right ventricle, and the damaged heart may stop somewhat suddenly as things are rapidly nearing the fatal end, even before the respiratory power is quite exhausted. In either case, nevertheless, necropsy plainly reveals the waterlogged state of the lung tissue which is the real method of death.

I have spoken here for the sake of clearness of mitral stenosis; but the case of aortic regurgitation is not very different. In aortic regurgitation the compensation is made by a marked hypertrophy with dilatation of the left ventricle. As long as the hypertrophied ventricular wall remains sound no serious results are likely to occur. The downward course is generally started by such additional dilatation or partial degeneration of the left ventricle as renders the mitral valves insufficient and throws part of the work of compensation on the right ventricle, which in the actual state of the heart at the time has preserved little power of hypertrophy, and ere long undergoes dilatation in its turn, causing the tricuspid valves to be incompetent and systemic dropsy to set in. What I have just said of the final stage of mitral stenosis may be said with little variation of almost any common form of heart-valve disease; in all these cases alike oedema of the lung is the danger chiefly to be dreaded, the condition most often calling for treatment in the last resort.

In acute croupous pneumonia, to take a second illustration, we might think we discerned an obvious method of death in the inflammatory consolidation that is its most constant lesion; but I have frequently pointed out to you in the wards, on the one hand, how large an extent of lung tissue we may find involved in the inflammation without its causing or even seriously threatening a fatal termination, and in the *post-mortem* room, on the other hand, how small a portion may be found inflamed even in a rapidly fatal case. "A patient," says a recent writer, "may die of pneumonia, and yet the area of consolidation be not larger than a small orange." The average extent of lung found consolidated after death is indeed much less than that which is found destroyed or rendered useless in many cases of pleural effusion or tuberculous disease, in which, nevertheless, life is preserved for a far longer period than would cover the limited duration of a pneumonic attack. Consolidation alone is obviously not always the precise cause of death. But, as I have also taken occasion to point out to you on the *post-mortem* table, the unconsolidated portions of the lung in a fatal case of pneumonia are seldom in a state of health. Large tracts of them, if not the whole, are usually the seat of a morbid condition nearly as detrimental to their utility as inflammation. They appear after death fully distended, with the surface stretched smooth, and their cavities are found on section to be more or less completely filled, to the exclusion of air, with a clear albuminous fluid exuded from the blood. They are, in a word, affected by a severe oedematous process.

Now we cannot regard this oedema as a mere terminal or *post-mortem* change, for two plain reasons: that the distension

of the lung tissue is usually too great to be the result of such passive oozing, and that the physical signs of oedema have often been heard during life; heard, I mean, not merely *in articulo mortis*, but for hours or days before death in a fatal case, and occasionally for hours or days in severe cases that ultimately end in recovery. Nor can the theory be deemed tenable which represents the oedema as but a secondary and mechanical phenomenon, the result of engorgement of the pulmonary veins from failure of the left ventricle of the heart owing to the direct action of pneumonic toxins. This theory, I believe, reverses cause and effect. Neither in the phenomena of a mild case of pneumonia, nor in those of the early stage of a fatal case, do we see anything to suggest, as we do in cases of typhoid, diphtheria, and influenza, that the poison of the disease exerts a marked and direct depressing action on the heart. On the contrary, the characteristic pulse of pneumonia is full and bounding, the pulse-rate is seldom excessive, and the face usually wears a bright flush.

Nor is oedema of the lung by any means so easy to produce by mechanical means as this explanation assumes. Obstructive oedema, even in the area of the systemic circulation, requires either one of two conditions—a fairly complete obstruction, or a sufficient duration of obstruction to allow of changes taking place in the walls of the distended vessels. And mechanical oedema of the lungs is, if anything, less easy to produce than systemic oedema. Let me remind you again of the phenomena of mitral stenosis. We saw that in a well established case of this lesion, compensated by hypertrophy of the right ventricle, serious obstruction to the outflow of blood from the pulmonary veins may go on for years, though the raised pressure in the pulmonary circulation may be evidenced by high accentuation of the pulmonary second sound during life, and by tortuous dilatation of the pulmonary capillaries seen after death. Nor can it be supposed that it is merely the rapidity of the onward flow maintained by the hypertrophied right ventricle that prevents the oedema appearing; for even when the right ventricle has failed and systemic dropsy set in, the latter may, as we have seen, persist weeks and months before any sign of pulmonary oedema appears. In view of this everyday experience it is difficult to understand what form of cardiac failure can take place in pneumonia which is to produce instantaneous and abundant oedema in the lungs without a trace of leakage from the systemic vessels.

Oedema of cardiac origin, further, as we see it in the later stages of valve disease of the heart, begins, as might be expected, in the most dependent parts, and thence extends upwards; but this is by no means always the case in pneumonic oedema, the signs of which may sometimes be detected in the scapular regions, or even in front, as early as at the base.

And, finally, I have satisfied myself in more than one actual case of severe pneumonia that signs of oedema have begun to appear before any appearance whatever of failure of the heart was observable.

In truth, I have long since found reason to believe that the theory of death from cardiac failure, which bulks so largely in clinical descriptions of pneumonia, is, to a considerable extent at least, founded on a misreading of clinical facts. Whenever I have myself had the opportunity of witnessing the terminal stage of a pneumonia it has been a respiratory and not a cardiac death that I have seen. Whenever the fatal stage has been sufficiently prolonged to allow of adequate physical examination, signs of oedema have preceded instead of following anything that could be called paralysis of the heart. What giving way of the heart or dilatation of its cavities takes place in pneumonia is, in my belief, more often a consequence than a cause of the lesions of the respiratory apparatus, the consequence, it may be, of advancing consolidation, it may be of bronchitis associated with consolidation, but in most cases of oedema attacking those portions of the lungs which have escaped inflammatory consolidation.

It is true that in a severe case the end sometimes comes on with startling rapidity, but we know how rapidly in many other instances oedematous fluid may increase once transudation has begun. In pneumonia we have less need to marvel at the rapidity of the oedema if, as seems reasonable to suppose, it is not of mechanical origin at all, but a direct effect of the pneumonic poison on the walls of the pulmonary capillaries. It is true also that in the most rapid deaths little or no indication of respiratory distress is seen; but this by no means excludes death from asphyxia. Under No. 5,444 in our museum you will find a lung taken from a recent case of mine in which death occurred rather suddenly during a moderate attack of haemoptysis, six or eight ounces only of blood being coughed up. At the necropsy the cause of death was plain; most of the secondary bronchi were plugged with fresh blood clot, and the lungs were in a state of forced distension behind them such as occurs during an attack of asthma. That death occurred from pure asphyxia was obvious, but I was assured in this case that the patient sank quite quietly, without any choking or appearance of suffocation. It is cases similarly rapid in their fatality that are especially attributed to cardiac failure, but their phenomena during life are equally compatible with the hypothesis of a death from the rapid occurrence of the oedema which is almost invariably found in the lungs after death.

I am labouring this point not merely as an interesting item of pathology, but as a matter of grave practical importance. The fear, exaggerated as I think it, of cardiac failure in pneumonia deters many medical men from that systematic examination of the back of the chest which, from my point of view, is necessary to descry the approach of the most serious danger to life. In dealing with a severe case of pneumonia the duty of repeated thorough examination of the chest, not merely for the purpose of defining the limits of consolidation but with the equally important end of knowing the state of the unconsolidated portions, cannot, I think, be too strongly insisted upon.

These are but two out of the many conditions of fatal disease in which oedema of the lungs plays a part in the closing scene. The frequency with which this condition is met with in necropsies has long been noted, though the tendency has been to overlook or to ignore its clinical importance and treat it as an inevitable and irremediable terminal phenomenon. Our careful pathologist, Dr. Salusbury Trevor, at my request recently ran through the records of 228 consecutive necropsies from January 1st to November 26th of the present year. He found that in no less than 124 oedema of both lungs, and, in 8 more, of one or other lung, had been discovered in such amount as to preclude the possibility of its being due to *post-mortem* oozing.

I cannot in the limited space of a single lecture discuss all the classes of disease in which this appearance was found, or attempt to determine in each the part which it may have played in the mechanism of death. One class of case only I will ask your attention to to-day in addition to those we have already considered; it is a class of case commoner even than heart disease or pneumonia. Simple as it may seem to assume that in a fatal case of bronchitis death has ensued owing to asphyxia from obstruction of the bronchial tubes, it is doubtful whether, except in very young children, death ever occurs precisely in that way. In more advanced life the reserve power of the respiratory system is very great, and bronchitis, perhaps, seldom occludes the entire system of tubes in equal degree. In children, catarrhal occlusion of the small tubes tends to induce collapse of the air sacs from the impediment it offers to inspiration; in adults inspiration seems rarely to be prevented to the same extreme degree, and the result on the air sacs is more often to produce distension of them owing to impeded expiration. But vesicles distended with air alone are not often seen in the *post-mortem* examination of a fatal case; over the greater part of the affected lungs the pulmonary tissue will be found to contain very little air, and a great deal of thin clear fluid. The lung pits on pressure; and the condition, in short, is again seen to be one of oedematous effusion Now, in bronchitis there can be no practical question whether the oedema is an *ante-mortem* or *post-mortem* phenomenon. Its onset is gradual, and the signs of its progress are plainly discernible, not merely for hours, but for days and even weeks before a fatal termination, and for days and weeks also in many cases that do not terminate fatally at all. The course of a severe bronchitis in an elderly person (it is mainly at the extremes of life that the fatality of bronchitis is seen) often resolves itself into a combat between the physician and the oedema. I have many times warned you against the habit so prevalent in hospitals of passing over cases of bronchitis as "ordinary" or "uninteresting." The treatment of bronchitis forms a large proportion of general medical practice; no two cases of bronchitis are exactly alike, and every case invites individual study. The degree of emphysema present, the amount of available expansion, the presence of signs of bronchial dilatation, the probability of fibrous thickenings or of pleural adhesions, the condition of the right heart, the size of the tubes affected, the degree, if any, of bronchial spasm, all are questions very pertinent to the prognosis and treatment: but the most important point of all is to be quick to detect

the presence, among rhonchi and *râles* ascribable to bronchial secretion, of those sharper, clearer broken sounds that, as in our previous illustrations, indicate the onset and progress of oedema. The detection of them in bronchitis is more difficult, perhaps, than in any other form of disease, as *râles* of another kind so constantly accompany them; but with adequate practice it is easy to avoid error in most cases, particularly if the direct method of auscultation, without the intervention of a stethoscope, is habitually employed for the bases. In the absence of oedema and with evidence of sound heart tissue, the prospects of recovery in bronchitis are always good; the advent of signs of oedema indicates a further stage of graver import in the case.

I have thus restricted my illustrations almost entirely to the single subject of oedema. I have not even attempted to enlarge on the passive pleural effusions, passive pneumonias, and insidious broncho-pneumonias that play also a large part in the pathology of death, and that the careful examination I have urged of the pulmonary bases may also bring to light. The chief lesson I have sought to impress on you is the necessity of careful and repeated examination of these regions in cases of serious disease. Clinical mistakes, said Sir William Jenner, are more often due to neglect of examination than to lack of knowledge. When, therefore, your patient's countenance changes, when his complexion grows pale and dusky, when he becomes drowsy and apathetic, and his pulse begins to flag, do not content yourselt with folding your hands and saying "toxaemia," or "collapse," or "asthenia," or "cardiac failure," but examine with care, and ascertain whether there may not be some condition involved that admits of treatment. The first three of the imposing terms I have cited are mere cloaks for ignorance, the last is more likely to be wrong than right. Unless its walls are the seat of fatty degeneration, the heart is a much more resistant organ than it is the fashion to admit, and has very little tendency to stop unless there is some strong hindrance to its continuing its work. Weakness of the pulse is not necessarily an indication that the heart is failing; it may equally be the result of deficient supply of blood to the cavities of the left side. A fatal end directly due to the heart is the exception rather than the rule in disease; in the majority of cases the issue of life and death is determined in the bases of the lungs.

The administration of "expectorants" still forms the staple of the current treatment of bronchial catarrh. Drugs that augment the fluidity of bronchial secretion or increase the activity of the expulsive cough are rationally indicated in dealing with such an affection. For ridding the lungs of oedematous fluid "expectorant" action is no less obviously useless; oedematous effusion is nearly always a thin fluid, and, as I have pointed out, it is in a situation from which it cannot be expelled by coughing. The clearing of the air sacs is chiefly the work of the absorbent vessels. How much of the task of absorption may fall on the veins I will not attempt to define; it seems at least reasonable to assume that the bulk of it falls on the pulmonary lymphatics, which deliver into the thoracic and right lymphatic ducts. These ducts discharge, I may remind you, into the great veins at the root of the neck, and the efficiency of their discharge is therefore affected by the degree of blood pressure in these veins, which in its turn depends on the efficiency of the right side of the heart. A careful investigation of the right side of the heart is, therefore, an important preliminary to the treatment of oedema of the lung, particularly as the right ventricle, even if previously healthy, is liable to give way before the strain of any sudden and severe obstruction to the pulmonary circulation. The signs of dilatation of this ventricle, undue extension of dullness to the right of the sternum, displacement of the apex beat to the left, the presence of a heaving impulse over the middle of the heart, coupled with blunting of the apical beat, or the transference of the most marked impulse to the epigastrium, must be looked for. Of even greater importance is it to note the presence of any direct evidence of obstructed venous circulation, such as may be afforded by distension of the jugular veins.

If these signs are present and the conditions are at all urgent, venesection should be without hesitation resorted to. The letting of blood may be practised without fear; but I am not convinced that the large amounts sometimes recommended are really necessary. The removal of 10 or even 6 oz. of blood has in some cases seemed to me to do all that is necessary. In very urgent cases, however, it is safe to go to 15 or 20 oz. at once.

The relief afforded by venesection is often very marked; not always as speedy as would be the case were the relief of the right ventricle the sole question at issue, but as speedy as can be expected on the assumption that absorption of some portion of the oedematous fluid is the actual means of relief.

Failing venesection, other less efficacious methods of reducing the venous pressure may be resorted to. The application of six or eight leeches over the front of the chest is in some cases attended with good results, though less marked than those furnished by venesection. We may, further, use with effect free watery purgation, by means of elaterin, jalap, or gamboge, or the synthetic purgative compound that has been recently introduced into medicine. Diuretics are practically useless; a hot-air bath is not always applicable, and the only other really efficient sudorific—pilocarpin—is contraindicated by the probable state of the heart. I will mention, also, dry cupping, as it is recommended by some authors, though my own experience of it is insufficient for me to give a definite opinion of its merits.

When marked dilatation of the right ventricle has existed, some damage to the left is nearly certain to have followed. On account of both ventricles bleeding should be followed up by the administration of digitalis, digitalin, strophanthus, convallaria, or squill, to aid in restoring the tone of the stretched cardiac wall. None of these drugs are likely to be of avail unless any serious engorgement of the right side that may exist has previously been relieved by more direct means; but in lesser degrees of dilatation, unaccompanied as yet by urgent symptoms, one or other of them may suffice to overcome the cardiac difficulty without resort to the removal of blood.

Though isolated doses of alcoholic liquors, particularly brandy in hot water, are often of service as temporary stimulants, particularly in the early hours of the morning, when the forces of the heart and of the respiration are at their minimum, the continous administration of alcohol when oedema is present in the lungs has always seemed to me useless, if not actually injurious. Oxygen will, of course, find a place in the plan of treatment. The reasons for employing it are so obvious that I need not enlarge on them. The effects, it is true, are only palliative; but then a mere postponement of complete asphyxia may be of cardinal importance in the case. The use of atropine and ammonia as stimulants to the respiratory centre is at least indicated by theory if not fully confirmed by practice, and may be employed without risk. I was in the habit of administering potassium iodide in these cases at one time, on account of its alleged "absorbent" properties, but have seen no reason to think that it has any good effect.

One drug I have yet to mention, and that, I believe, the most important of all. I have so often seen marked and speedy improvement, accompanied by a corresponding clearing up of the characteristic signs, follow the administration of strychnine by hypodermic injection in cases of pulmonary oedema that I can scarcely suppose the connexion to be accidental. How the strychnine acts I will not pretend to say; its effects are equally observable in slight cases and in severe ones, in cases apparently independent of cardiac dilatation, and in cases accompanying it. I have for some years past regularly resorted to this mode of treatment almost as a matter of routine as soon as any signs of serious oedema of the lungs appear, to whatever cause they may be due.

The Cocaine Habit in Washington.—The superintendent of the Washington police force has recently reported that the cocaine habit is greatly on the increase among the lower classes of that city, and urges that vigorous measures should be taken at once to check the evil. He says: "It (cocaine) is bound to become a destructive agency unless something is done to prevent its sale by druggists. Two years ago the drug was hardly known, but the habit has grown, and the wreck of lives which accompanies the use of this deadly drug and its sister drugs, morphine, chloral, and other pharmaceutical preparations, and even patent medicines, is becoming apparent." At present the police are almost powerless in the matter. Mr. J. M. Robinson, of Indiana, a member of the House of Representatives, intends to introduce a Bill for the regulation of the sale of poisons in the district of Columbia. The Bill has the approval of the Medico-Legal Society of Columbia, and the measure is in harmony with recommendations made by the coroner, Dr. J. Ramsay Nevitt, in his annual report to the Commissioners of the District of Columbia.

A Note ON POSTURAL ALBUMINURIA.

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FUNCTIONAL albuminuria, which was the subject of three important papers read before the Medical Society by the President, Dr. Rose Bradford, and Dr. West, and of an interesting debate, is a question which has occupied my attention for many years, and as time did not permit of my taking part in the discussion, I hope I may be allowed to make a few observations now.

The first point which comes out is the necessity for greater precision in the definition of what we mean by functional albuminuria. Albuminuria can never be physiological; the term "functional," though admissible in the sense given to it by Dr. Pavy as a contra-distinction to structural, is vague; the albuminuria of the apparently healthy, the designation accepted by Dr. Rose Bradford, is still more unsatisfactory. To begin with, many of the subjects of intermittent albuminuria are not in apparent health; they faint in church or at drill, as pointed out by Dr. Armstrong and Dr. Clement Dukes, and as a descriptive term it includes structural disease of various kinds and continuous, as well as intermittent or occasional, presence of albumen in the urine. It can only serve as a starting-point for discrimination and classification. Without entering upon this point, which occupied much of all three of the original papers, it may be said definitely that there is an affection which may be called postural albuminuria. We can eliminate early nephritis and nephritis in process of recovery, early stages of contracted granular kidney, unsuspected heart disease, albuminuria from fever, from overfeeding or indigestion, gout or oxaluria, or from adventitious discharges from different parts of the genito-urinary tract. There is left a group of cases in which the characteristic feature is albuminuria on rising from bed in the morning, usually passing off in the course of the day. These cases are exceedingly common, especially in boys and young men working up for examination, and, applied to them, the designation albuminuria of adolescence is perfectly appropriate, but the name postural albuminuria is no doubt better, as open to no uncertainty. The albumen is not due to food; it does not appear if the patient remains in bed to breakfast or after meals later in the day; it cannot, as was clearly shown by Dr. Rose Bradford, be toxaemic; it disappears quickly on lying down. It is obviously in relation with the erect posture after a night's rest in bed, and scarcely less obviously with imperfect cardio-vascular adjustment to the changed hydrostatic conditions. Albuminuria from excessive exertion is also circulatory, the cardio-vascular capacity for adjustment having been overpassed. It does not seem to me that any antecedent affection of the kidneys by febrile disease need be postulated.

The amount of albumen is usually small, but it may be very considerable. It is important that this form of albuminuria should be recognized, since the treatment required is the exact reverse of the milk diet and protection from exposure to cold and fatigue, which would be suitable in renal disease; and the debate will have been of signal service if it should lead to the adoption of the term postural.

The antecedent which in my experience has been most common is a neurotic family history, and the condition invariably existing in the patients themselves has been cardio-vascular instability. The pulse varies greatly in frequency and tension, often while under examination, certainly at different periods of the day, and is unduly influenced by changes of position, such as lying down or standing up. A distinctly high-tension pulse, not very uncommon in childhood and early youth, would take the patient out of the category of postural albuminuria, and would warrant suspicion of actual renal disease or of juvenile gout.

The action of the heart affords further evidence of the instability of the circulatory system. Both Dr. Pavy and Dr. Armstrong spoke of the violent cardiac impulse. According to my experience it is the impulse of the right ventricle which is forcible, the apex beat being weak. Contrast between a weak apex beat and left ventricle sounds and the powerful right ventricle impulse and loud sounds has seemed to me to be constant in these cases. Another observation of like significance is that the second sound is reduplicated when the patient lies down.

The prognosis is favourable. I have never known true postural albuminuria to resist treatment or to develop into actual renal disease. Usually all the treatment required is good simple food, fresh air, and vigorous exercise. There is no need to forbid school games, except perhaps house runs and long paper-chases. Tonics such as iron, arsenic, strychnine, and quinine will be useful in many of the cases. Constipation should be corrected by aloetic or other aperient of the tonic class. On the morning after a mild pil. hydrarg., c. colocynth, et hyoscyamo the albumen may be absent even when habitually abundant. This should be borne in mind when a candidate for one of the public services has to undergo the medical examination.

If these cases are treated for renal disease, put on milk diet, protected from cold, and forbidden to take exercise, they will probably go from bad to worse, and I have met with several instances of confirmed nervous valetudinarianism apparently attributable to this error in early life.

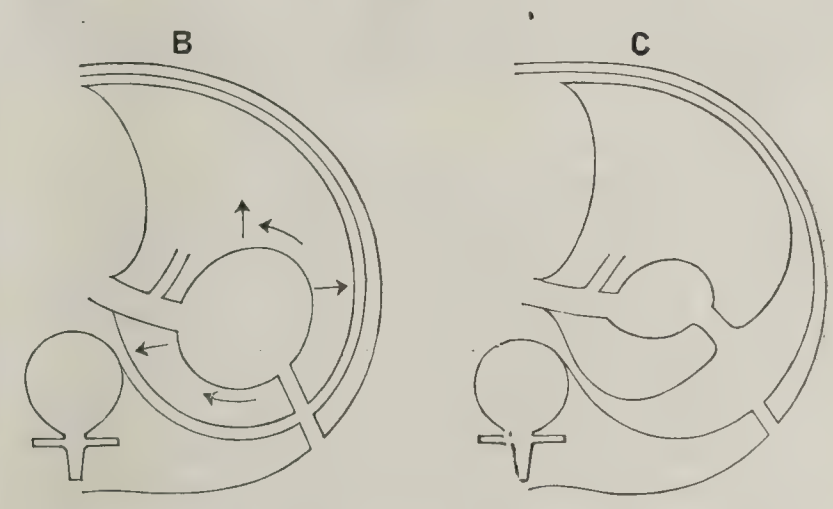
A SUMMARY OF

Two Clinical Lectures ON EMPYEMA AND BRONCHIECTASIS.

Delivered in the Edinburgh Royal Infirmary.

BY ALEX. JAMES, M.D., F.R.C.P.EDIN.
Physician to the Infirmary.

WE have seen how a large bronchiectatic cavity, when incised and drained through the chest wall, tends to produce a pleural cavity. The fibrosed lung around the bronchiectatic cavity, being allowed to contract by the establishment of drainage, separates itself from the parietal pleura to which it has been previously bound by adhesions, and so tends to produce a pleural cavity which much resembles an empyema. The diagrams show how this occurs; they also show two practical points which should always be borne in mind in dealing with such cases. The first is that extensive resection of ribs is as necessary for the healing of a large bronchiectatic cavity as it is for an old-standing empyema. The second is that, if this extensive rib resection is not performed, we must, as time goes on, experience increasing difficulty in introducing the drainage tube into the lung cavity through the pleural opening.



The diagrams represent how a large bronchiectatic cavity B will tend to contract and form a pleural cavity C, as the result of the establishment of drainage through the chest wall, causing a lessening of its distending forces.

Let me here further make a slight digression to demonstrate how these same mechanical conditions account for the difficulty which we experience in the healing of phthisical empyemas. I have a skiagraph of one such case, which was lately in my ward, and in which, months after the operation, could be seen a long probe passed through the wall opening, which easily reached the apex of the lung above the clavicle. In this case the original empyema cavity had been a relatively small one—containing only about 10 oz. or 12 oz. of pus—but it had been sufficient to start progressive cicatricial contraction of the lung apex, and so to separate it from the posterior wall of the chest.

But next we also have seen that an inflammatory effusion into the pleural cavity can produce a bronchiectatic cavity. In its simplest form this occurs when a sero-fibrinous effusion has lasted too long. In this case the portion of lung corresponding to the effusion has its air cells obliterated, and its tissues transformed into what is practically fibrous tissue. As the pleuritic fluid gradually becomes absorbed the space left in the thorax must be filled up. In part this is done by drawing in of the chest wall, by drawing up of the diaphragm, by drawing over the heart and mediastinum, and by producing over-distension (hypertrophous emphysema) of any air-cells in the neighbourhood which are still capable of being inflated. But in other part—and this is the important matter—this space is filled up by drawing outward the bronchial walls, and thus producing a bronchiectasis.

When the pleuritic effusion is purulent and, still more, when it is fetid as well, this bronchiectatic production process is much more active and more serious. In such cases we have in the first place the same factor acting as in sero-fibrinous effusion, namely, the lung tissue with its obliterated air cells, which with the removal of the pus cannot be reinflated; but, secondly, a purulent, and still more a fetid purulent, effusion tends to erode its way through the lung tissue into a bronchial tube. This, although it is Nature's way of bringing about recovery, and though it is often fortunately successful enough, is often unfortunately not successful because it is insufficient. A certain amount of the pus gets away by expectoration, and the patient feels better; but soon the opening through the lung closes, and the purulent fluid collects again, to come away after it has regathered in sufficient quantity to burst through. In this way the patient goes on for weeks or months expectorating pus, and suffers from all the bad results of insufficient drainage.

But we have to note a still more unfortunate occurrence. The pus, and specially so if it is fetid pus, sets up irritative and destructive, perhaps gangrenous, changes in the lung tissue in its course through it to the bronchi; it irritates also to a very great degree the bronchial tissues themselves. In this way portions of lung tissue are destroyed and bronchial walls over large areas are weakened, so that if eventually the empyema pus be got rid of and the original empyema cavity closes, the patient is left with a bronchiectasis. That empyema, and specially fetid empyema, is frequently a cause of bronchiectatic cavities is certain, and I now wish to describe cases in which this process was either taking place or had already occurred. I shall not waste time by describing instances of empyemata, or of bronchiectatic cavities which were easily recognized, and easily got at and drained. I shall describe only those in which the indications were not absolutely clear, and the treatment by drainage presented some little difficulty.

The first case is one in which a fetid empyema still existed, and was in process of setting up basal lung destruction and bronchorrhoea.

Case I.

J. P., aged 46, maltster in a brewery, was admitted to the Royal Infirmary, November 2nd, 1903, complaining of pain in the chest, cough, and fetid spit, and stating that he had been ill about seven weeks. His family history is very good, at home and at work his surroundings are favourable enough, except that at the brewery he has probably been in the habit of taking too much alcohol. He has had no previous illnesses nor accidents.

History of Present Illness.—He developed a cough about seven weeks ago, but this for two weeks did not trouble him much. He then experienced a pain in the side, which necessitated his laying up, and from his account seems to have been accompanied with some fever. This condition continued till about a fortnight before his admission, when the pain became much worse, and with the cough he noticed sudden marked increase in the amount of spit, and that it smelt very foul. His medical adviser, suspecting an empyema, had explored the chest at the right base, and had apparently struck a purulent collection. Subsequently, however, the chest had been again explored at two places and no pus found. The feverish condition and fetid spit continuing he was sent into Ward 31.

On admission he was found to be a man of good development, though somewhat poor in muscularity and anaemic looking. His temperature varied from 97° F. to 100° F., his pulse was about 120, and his respiratory embarrassment was such that he could not lie down in bed, his respirations being about 40 per minute. Nothing abnormal was found in connexion with his alimentary, circulatory and urinary systems. His blood showed leucocytes increased to 16,400. He had occasional sweatings.

Respiratory System.—He had cough and fetid spit, the amount of which in twenty-four hours varied from 12 to 14 oz. On examination of his chest we found an impaired percussion note on the right side posteriorly, with relatively weak, indeterminate breathing, many coarse crepitations, and rhonchi over this area. The crepitations could be traced over the upper lobe on this side, and also over the lower lobe on the left side.

Here then was a case in which we believed there was a small fetid empyema of the right lower lobe. It had burst through into the bronchi there and was setting up a fetid bronchitis. Some of the pus was being aspirated into the bronchi of the left side, and was setting up irritation there also. We first tried in his case the effects of nourishing diet and antiseptic inhalations, in the hope that with this help Nature might do all that was required. In this, however, Nature did not show signs of succeeding after about a week's trial. I therefore determined to get a largish portion of the posterior part of the eighth rib (about 3 in.) excised, feeling sure that if no empyema was discovered at the operation I should subsequently be able thoroughly to explore the whole lung base through this opening and strike pus, either in some unsuspected empyema cavity or in some somewhat dilated bronchial tube situated in the disintegrating lung tissue. The advantage which I claim for this plan is that the numerous punctures which from time to time may be required in such cases can be done without hurting the patient, and therefore with a completeness which would be practically impossible if each individual exploratory puncture had to be made through the skin in the ordinary way. As I anticipated, this case turned out a comparatively simple one. Dr. Macgillivray kindly did the resection for me, and at the operation he was able, by pushing an exploring needle through the thickened pleura in a direction upwards and towards the spine, to strike a small fetid empyema cavity. The opening was then enlarged and about an ounce of fetid pus evacuated. It was drained in the usual way, and the patient is rapidly recovering.

This case shows very clearly how a very small fetid empyema can set up a very copious fetid spit. As has been stated, the cavity hardly contained an ounce of pus, whilst the patient was expectorating at least 12 oz. in the twenty-four hours. The explanation of this is that the bulk of the expectoration is the result of a fetid bronchitis or bronchorrhoea.

The next case is one in which the empyema had healed itself, but had set up fetid bronchiectasis.

Case II.

A. H., aged 27, belonged to the mercantile marine, was admitted to the infirmary on April 9th, 1901, complaining of cough and copious fetid spit. His family history was very good, as also were his surroundings. There is no doubt, however, that he tended rather to exceed as regards alcohol. He had had the ordinary diseases of childhood, and no other illness, except typhoid fever some years before when in China.

History of Present Illness.—His present illness began some ten weeks before his admission. He had cough and chest pain in the left side, and he seems also to have been feverish for some weeks. He had noticed little clots of blood in the spit, and somewhat suddenly the spit became much more copious and fetid. This cough and fetid spit have continued, sometimes better, sometimes worse. He also felt himself getting weaker and thin, and so he applied for admission to the infirmary,

State on Admission.—He appeared a fairly well nourished and developed man. His height was 5 ft. 5½ in., weight 11 st. He says he was much heavier and stronger, but his muscles have gone down lately. His temperature varied from 97° to 99.5°, his pulse from 80 to 90; his respirations were about 18 per minute. He was able to move about fairly well. His digestive, circulatory, integumentary, urinary, and nervous systems showed nothing abnormal. His blood showed a slight leucocytosis.

Respiratory System.—Patient has now no chest pain, except after coughing, when he feels a soreness in the throat and left side. His cough is troublesome, and his spit, which is very fetid and offensive, amounts to about 20 oz. in the 24 hours. The spit shows numerous organisms, and some diplococci. On examination of the chest there was found at the left base an area of dullness the upper limit of which was curved and reached its maximum just about the line of the scapula, where it reached 3 in. above the normal limit. Over this area the breath sounds were feeble and crepitations were easily made out.

Progress.—Believing that this was an empyema which Nature might cure, and, what was perhaps more important, the patient declining any operative interference more serious than one simple exploratory puncsure, which discovered no pus, we treated him in the ordinary way with rest, good diet, fresh air, and antiseptic inhalations. He improved considerably, and on April 24th the amount of spit had diminished to about 4 oz. in the 24 hours. It was still fetid, though much less so than formerly. Thinking he was better he requested to be discharged, and of course this request was granted.

Second Admission.—He returned on September 3rd, feeling weaker and with the cough and fetid expectoration more pronounced than ever, his temperature varying from 97° to 101°, and his pulse from 76 to 104. On examination of his chest we found that the area of percussion dullness, weak breath sounds, and crepitation was much the same as before. We determined on thorough exploration, and the following are the notes of his case.

Operation.—On October 9th, the patient being put under chloroform, Dr. Macgillivray incised over the dull area and resected about 3 in. of the eighth rib. The pleura was found thickened; the wound was packed.

October 11th. Dr. James tried to strike the pus by means of an exploring needle, but was not successful. Further unsuccessful attempts were made on the 14th, 19th, 23rd, and 27th, the needle, how-

ever, on all occasions being felt to pass through firm condensed tissue.

October 29th. Dr. James, in exploring, came on pus. It was found upwards towards the root of the lung, at a distance of about 3 in. from the pleura. The opening was enlarged by a probe-pointed forceps, and a drainage tube about 7 in. long, with only one side opening near the point, was inserted.

November 11th. The purulent collection is draining thoroughly. There is practically no cough or spit.

November 22nd. The patient left for home with orders to have the drainage tube looked after by his doctor. The drainage tube has been shortened to about 4in., and some difficulty is experienced in introducing it at times. He has practically no cough or spit, and feels quite well.

The next record of him is in the following June the note being that he had been very well, but that one day he had coughed up some "stringy stuff," and that for three days after he had coughed up some fetid pus, and passed it through the tube. Since then he had been well. Lastly, on December 14th, 1902, he reported that the cough, spit, and fetor of breath had all gone, that the tube, after having been gradually shortened, had been discontinued, and that the chest wound had healed. Examination at the left base revealed percussion impairment with weak breath sounds, but no crepitation.

In this case there had probably been several bronchiectatic sacculi, only one of which was properly drained. This drainage, however, and the fact that by the rib resection the lung has been allowed to fall in, had practically cured the condition.

CASE III.

The next case was one of fetid empyema, which had produced bronchiectasis and lung induration, and also a sinus through an interspace.

C. K., aged 53, a traveller, was admitted to the Royal Infirmary, August 27th, 1903, complaining of pain in the right side and cough with copious, at times fetid, spit. His family history was fairly good, and his surroundings at home and at work were quite satisfactory. He acknowledged to have taken formerly a good deal of alcohol. He has had practically no previous illnesses.

History of Present Illness.—About six months ago he caught a cold and was feverish, with pain in the right side and cough, his doctor telling him that he had pleurisy. After some weeks he recovered somewhat, and was moving about, and one day he had a severe fit of coughing, and he noticed great increase in the amount of spit, and that it had a disagreeable taste and smell. This condition has persisted till now in spite of all treatment. For some weeks he says he would notice some improvement as regards cough and expectoration, and then for some weeks it would be worse again. At times there is blood in the spit. He has lost nearly 3 st. in weight since the commencement of his illness, and feeling that no treatment was doing him any good, he came to the Royal Infirmary.

State on Admission.—He was found to be of rather poor muscularity, his height 5 ft. 5 in., and his weight 8 st. 4½ lb. His temperature varied from 97° to 99.5°, his pulse was usually about 80 per minute and respirations 24 per minute. His digestive, circulatory, urinary, integumentary, and nervous systems were all normal. Examination of his blood showed a leucocyte count of 21,200.

Respiratory System.—He has a severe, loose cough, with a large quantity of sputum, sometimes amounting to 20 oz. in the 24 hours. It is muco-purulent, often brownish-red in colour, and shows no tubercle bacilli. At the present the fetor is but slight. Examination of the chest shows deficient movement on the right side all over, with a somewhat impaired percussion note posteriorly, becoming dull at the base of the lung. In the right interscapular region there is some pain and tenderness, and on palpation there and down the vertebral of the scapula, some bulging with crackling can be felt, when the patient coughs. On auscultation, the breath sounds were very faintly heard over the right side, becoming specially faint at the base posteriorly. Crepitation can be heard all over the side, especially also at the base posteriorly.

Operation.—Believing that this was the case in which an empyema of the right base had burst into a bronchial tube, and had set up bronchiectasis, with fibroid changes at the base of the lung, and believing that my best chance of draining it would be by getting at it from below, I got Mr. Caird to remove for me about 2 in. of the seventh rib posteriorly. When this was being done a sinus was found in the fascia close to the chest wall, leading up to a point opposite the spine of the scapula where the bulging or coughing had been noticed. A long tube was put in this sinus, and the wound was packed. Some improvement followed from this, as a good deal of discharge occurred from the sinus, but on my return from my holidays in the beginning of October I determined to explore more thoroughly. Needles passed into the lung from the lower opening had revealed that the whole lung base was indurated; in fact, it felt as if the needles were passing through cartilage. In a straight line inwards, about 3 in. from the pleura, a purulent collection was struck, and this communication having been enlarged, a drainage tube 5 in. long was introduced.

Progress.—From this time the patient's condition showed marked improvement. With free drainage along the two tubes, the expectoration soon ceased. By the end of October the upper tube had been discontinued, and he is now (November 23rd) an out-patient, coming up every day or two to get the tube cleaned and replaced. The tube is now shortened to about 3 in.

In this case there had been, I believe, a fetid empyema, which had burst into the bronchi and possibly also, aided by violent coughing, through the fourth interspace in the interscapular region. By the time he came to the infirmary it had itself disappeared, leaving however a bronchiectasis, an extremely indurated lung base, and a sinus through the chest wall posteriorly. The patient's condition is one which still requires great care, but we may anticipate for him a fair recovery.

It will be evident that with those cases of empyema which have gone on to bronchiectasis, some will be easy of treatment, and others difficult. It is also evident that the difficult ones will be those in which the condition is one of multiple sacculation of bronchi, rather than one of one or two large sacculations. Of such I propose to give one instance out of several in which I have been unsuccessful.

It is evident further that if an empyema occur out of its usual position, more especially if it occur at or near the lung apex, so that when it perforates the lung it can drain in a downward direction, and therefore less incompletely than when it is in its usual situation, its recognition will be more than usually difficult.

The following is a case in point, one in which multiple sacculations of the bronchi existed, and in which efforts to drain were unsuccessful. This was one of the first cases of the kind which I endeavoured to treat in this way.

CASE IV.

H. P., a little girl of 9, was brought to me at the infirmary in September, 1889.

History of Illness.—She had been well until about two years previously, when, after exposure to cold, she had "inflammation" in the right side. The nature of this inflammation could not clearly be ascertained, but she had had pain in the side, cough, fever, and sweatings. After some two months, during which time she was mostly in bed, she suddenly coughed up about a teacupful of fetid purulent matter. She seemed to have improved somewhat after this, but the cough and expectoration of fetid matter, though in smaller quantity, continued, and she had remained weak and feverish, and was manifestly ill.

State on Admission.—Dullness on percussion was noted, and cavernous breathing and resonating crepitation were heard over the lower half of the right lung, and some harsh breathing with crepitation at the base of the left.

Operation.—In this case I resected portions of two ribs, and on some six or eight occasions afterwards explored from the exposed pleura. Although on one or two occasions I seemed to strike pus, I never could establish a proper drainage. On three occasions, into an opening made by a probe-pointed forceps, a drainage tube was introduced, and left in in the hope that the pus might find its way to it, but it was of no avail.

Result.—Becoming gradually weaker, and with the cough and fetid spit persisting, the child died some six months afterwards. At the necropsy, the larger bronchi at the base of the right lung were found much dilated, and the surrounding lung tissue in a state of fibrosis. The pleura all over the lower lobe was adherent, except at a spot laterally, where about an ounce of yellow serous fluid was found encapsuled. At the left base there existed, but to a very much less marked extent, a similar condition of lung and bronchi.

CASE V.—*Fetid Empyema Bursting into the Lung at an Unusual Position not Recognized.*

A. N., aged 49, a cabman, was admitted to the Royal Infirmary March 11th, 1900, complaining of cough, with profuse fetid expectoration and odour of breath. His family history was excellent. As a cabman he has taken a good deal of alcohol, and his home surroundings were good.

History of Present Illness.—Until November, 1898, he had been perfectly strong and well. At that date, as the result of an exposure, he caught a cold, and was ill in bed with pain in the right side and cough. After two weeks of this, during a severe paroxysm of cough and pain, he suddenly expectorated a considerable quantity of foul-smelling spit. After this he seems to have improved considerably, the cough and spit gradually diminished, and in a few weeks he was able to return to work. During the summer of 1899, however, he began to cough again. The spit was not so copious or bad smelling, but, as time went on, got gradually worse. In February, 1900, he was so bad that he had to take to bed. He again had a cough, with an expectoration more copious and more fetid than before, and at times showing a little blood. He also became feverish and weak, and was troubled with copious perspirations. It was noticed that on some days there would be very little expectoration, whilst on others it would be very copious. The cough was apt to occur in paroxysms, and to cause great cyanosis, and these paroxysms, with the chest pain which accompanied them, weakened him very much. Finding himself getting rapidly weaker, he came to the Royal Infirmary.

State on Admission.—Although not extremely emaciated, patient appeared very feeble and weak. The face was rather cyanosed, and very slight movement induced severe paroxysms of coughing, so that a thorough examination of his organs could not fitly be made. His temperature varied from 97° to 102°, and showed a distinct resorption type of fever. His pulse varied from 90 to 130, and was very feeble. His

cough was very troublesome, the slightest change of position bringing on a severe paroxysm, with copious fetid expectoration. On examination of the chest the left side was found normal to percussion, whilst on the right side some impairment was met with all over the upper part, and dullness was found over the lower part, especially laterally, where the dull note extended as high as the level of the fifth rib. Auscultation, which was extremely difficult owing to the very feeble condition of the patient and the paroxysms of cough, revealed rhonchi and crepitations over both sides of the chest and very much enfeebled breath sounds over the right base posteriorly. The other organs appeared fairly healthy, except that the urine contained a small quantity of albumen.

Progress.—In this case I believed that I had to deal with a bronchiectasis at the base of the right lung, the result most probably of a fetid empyema which had burst into the bronchial tube. I felt that the only possible way of doing good in the case was to drain, and I therefore on several occasions, made exploratory punctures to locate the cavity or cavities. Distinctly to my surprise, however, I never could strike pus, nor could I feel that the exploring needle passed through dense tissue. I was content, therefore, to limit my treatment to antiseptic inhalations, and cardiac and general stimulants. The patient got rapidly worse, the cough and fetid expectoration continued, some days more, some days less. Paresis of the right arm was noticed, and pericarditis supervened, death occurring on April 11th.

Necropsy.—April 12th. External appearances: Body somewhat emaciated, general pallor of surface, slight rigidity in lower limbs only. Thorax: Pericardium showed a recent purulent inflammation. Sac contained about half a pint of turbid fluid. The parietal layer was somewhat thickened and covered with fibrinous exudation. The left pleural sac contained about 6 oz. of turbid fluid; no adhesions. The right pleural sac showed a very peculiar condition. Over the upper lobe of the lung anteriorly the pulmonary pleura showed dense chronic thickening ($\frac{1}{8}$ in.) and was firmly adherent to the thoracic wall. When this was perforated an empyema cavity was exposed containing over 15 oz. of fetid brownish pus. This cavity was confined to the anterior portion of the upper lobe of the lung by dense fibrous adhesions, but closer investigation showed that the pus had burrowed, both into the chest wall in front and into the lung beiow. As regards the chest wall, it had burrowed through the first and second right intercostal spaces, and had caused gangrenous changes in the muscular tissues there. As regards the lung, it had burrowed through the fibrous adhesions into the anterior portion of the lower lobe.

Right lung: On section this showed extensive collapse. The pleura all round was much thickened, and the lobes were all adherent. In the lower lobe was found a cavity of about the size of a walnut, with soft gangrenous walls, and into this cavity opened three or four bronchi of about $\frac{1}{4}$ in. in diameter, with greatly thickened walls. The entire right lung was much collapsed, so that the liver had risen high into the thoracic cavity. The other organs showed nothing specially noteworthy.

This was a case in which there had been a fetid empyema bursting into the lung, and the fact that the purulent expectoration varied much in amount was due probably to the very imperfect communication between the empyema cavity and the lung tissue. The fact that the empyema cavity was not diagnosed was probably due to its being at the times of examination comparatively empty. The dullness and feeble breathing at the base of the right lung were accounted for by the great collapse and high position of the diaphragm. The slight paresis of the right arm was a condition not at all uncommon in empyema.

THREE CASES OF ABSCESS OF THE LUNG.*

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Llanelly.

The surgical treatment of suppuration within the thorax has been marked by slower progress than that of allied conditions within the abdominal cavity. Successful if primitive operations on lung abscesses are recorded in medical literature from the time of Hippocrates down to the latter half of the last century, but operative interference in these cases was not recognized as a justifiable proceeding until Lister's antiseptic methods were fully appreciated.

The cases I have to report are—first, one of tuberculous abscess diagnosed as an empyema; secondly, one of abscess following fibrinous pneumonia, on which no operation was performed; and thirdly, a case of septic embolism and abscess which recovered after operation.

Case I.—A. D., aged 14, a pale anaemic girl, gave the following history: About six months ago she had measles, followed by bronchitis and pneumonia on the right side, from which she had not completely recovered. Her father had died of phthisis a year before.

State on Examination.—Movement was impaired over the right side and slight flattening over the left apex. The heart's apex beat was in the left nipple line. There was complete dullness on the right side from the level of the fourth rib in front and seventh behind, downwards and continuous with that of the liver, which projected two finger-breadths below the costal margin. Vocal fremitus and resonance were absent over the same area. The breath sounds were weak over the left apex, but no adventitious sounds were noted on either side. An exploring needle being introduced above the sixth rib some thick pus was readily withdrawn. Empyema was diagnosed and operation advised.

Operation.—On May 8th, 1891, the patient being anaesthetised, a portion of the eighth rib was removed, and on opening the pleura about two pints of a slightly opalescent fluid escaped, totally different in character from that withdrawn by the exploring needle. The pulmonary pleura seemed fairly glistening, but on introducing the finger it was found adherent to the costal pleura above. On exploring again above the sixth rib thick pus was again withdrawn. The wound was closed, carefully sutured and sealed with collodion. A second incision was made over the sixth rib and about an inch of it removed. A sinus forceps was then pushed in by the side of the exploring needle, the cavity freely opened, and about 10 to 12 oz. of thick pus evacuated. Some iodoform was introduced, a large drainage tube inserted, and the wound dressed. There was no communication with the bronchus.

Progress.—The little patient soon improved in health, appetite improved, and when seen three months later she had gained 10 lb. in weight, but some pus had discharged from the wound in the interval. I did not see her again, but I heard she died three years later from acute tuberculosis of the left lung.

Case II.—W. G., aged 26, returned home ill on November 25th, 1899, and I saw him on the following morning, when he gave the following history: He was quite well up to a month previously, when he had influenza, but did not give up his work—that of an engineer. He had a bad cough, had rusty expectoration, and pain in the left side. He was allowed to go to his office daily until his return home.

State on Examination.—His left thorax was absolutely dull from apex to base. The heart's apex beat could scarcely be made out, but cardiac dullness extended well beyond the sternum to the right, and all the symptoms of fluid in the left pleural cavity were noted. An exploratory aspiration gave clear fibrinous serum. His temperature was 101° F., pulse 112, respirations 32, and he looked exceedingly pale and ill.

Progress.—Counter-irritation and general treatment resulted, after a week's trial, in no improvement, and it was decided on December 3rd to aspirate, and four pints of fluid was withdrawn. Examination of the chest immediately after gave physical signs of consolidation and a guarded prognosis was given. The dry, hacking cough continued, but his general condition was, for a time, improved. Signs of fluid in the pleura cavity reappeared, and on December 22nd it was decided again to aspirate, and a further two pints of fluid were removed. On examination immediately after it was found that the dullness over the lower lobe was increased; the temperature continued high—104° in the evening, with morning remissions to 101°—and from the general symptoms abscess of the lung was diagnosed. There was no further reaccumulation of fluid in the pleura, but the general condition deteriorated, and the lung symptoms became predominant. I strongly advised operation, and with this view had a consultation on January 27th. I have this note of his condition on that date: "Temperature 103°, pulse 120, respirations 30; looks worn out, thin, emaciated, and hectic, percussion note over the left upper lobe, front and back fairly resonant, breath sounds distinct but distant, percussion note dull over base, reaching as high as sixth rib in posterior axillary line, breath sounds absent."

Result.

The patient's friends adopted the consultant's advice to postpone operation notwithstanding my expressed reluctance. The condition of the patient became gradually worse, and I continued impressing the necessity of operating. Another consultation and another consultant resulted in a further postponement, this time for three days, but before its termination the abscess perforated into the abdomen, probably the colon, and the patient died on March 1st, without any operation having been performed.

Case III.—I was called to see the patient (Mrs. J., aged 33) on June 23rd, 1901, when the following history was elicited. She was taken ill on June 7th with what was supposed to be influenza; she miscarried at the fifth month, on June 12th, and became seriously ill three days later, and the local practitioner was called in.

State on Examination.—At my visit on June 23rd she complained of pain and distension in the abdomen, especially in the pelvic region. There was no cough, but she was constantly sick and the bowels constipated. Her face was flushed, and she complained of great thirst. Her tongue was very dry. Temperature 104°; pulse 120; respirations 28. On examination the abdomen was distended and tympanitic, and very tender over the uterus, which could be felt through the abdominal wall and enlarged. Per vaginam the os was patulous, the uterus enlarged and tender and the discharge offensive. The temperature as taken in the vagina was 105°. The patient complained of tenderness in the left hypochondrium, and a rounded swelling was felt under the costal margin in the left mid-axillary line. It was not movable, tender on pressure, and dull on percussion; this note was continued upwards over the thorax to the level of the fifth rib in the mid-axillary line. There was defective movement of the left side of the thorax, percussion and auscultation normal, breath sounds distinct at the base behind,

* Read at the Tenby meeting of the South-West Wales Division of the South Wales and Monmouthshire Branch of the British Medical Association.

and there was no adventitious sound, and no cough or expectoration. The only area of dullness was the one alluded to. This was triangular in shape, with the apex at the fifth rib in the mid-axillary line, becoming broader towards the costal margin, where it was continuous with the swelling felt below. There were no vocal fremitus, *râles*, or crepitation to be detected over the area. The uterus was repeatedly irrigated, and portions of fetid secundines removed. Quinine and opium were administered internally, and enemata to relieve the boweis.

Progress.—June 27th. Condition much improved; there was no sickness, and she was able to take liquid nourishment. Temperature, 102°; pulse, 108; respirations 32. I was called hurriedly on June 30th, and the patient complained of pain in the left side over the dull area, which I found increased. There was pain at the end of inspiration, and a pleuritic rub was audible over the area. Temperature 104°, pulse 124; respirations 36. On July 2nd, Dr. Tudor Thomas, who visited her for me, found symptoms of effusion into the pleura, and her condition very grave. On July 3rd I made an exploratory examination with a long needle of large bore in the seventh space in the mid-axillary line, and from a depth of 2½ in. withdrew a syringeful of thick, reddish offensive pus, and an operation was advised as the only means of saving the patient.

Operation.—The condition of the patient was extremely grave. The pulse 140, temperature 103°, respirations 40. It was a question whether she would stand the shock of the operation. Dr. Edgar Davies, who gave the anaesthetic, examined the patient and found incidentally a patch of consolidation in the right base. I made a 3½ in. incision over the eighth rib and removed about 2 in. of its length, and on opening the pleural cavity a considerable quantity of thin blood-stained serum escaped from the sac. Portions of costal pleura were excised, and in a window about 2 in. square, the lung presented. The needle was again plunged into abscess and a long sinus forceps was with difficulty forced into the abscess cavity, but so dense and tough was the lung substance that I had to introduce a grooved director and cut it freely with a scalpel before I could introduce the finger. About 10 oz. of thick reddish and most offensive pus was evacuated. The cavity had a craggy uneven wall and extended to the pericardium, the finger feeling in detail the movements of the heart in its sac. Iodoform was introduced into the abscess cavity, two large drainage tubes inserted, the wound around the tubes packed with iodoform gauze, a large padding of alembroth wool applied, and the patient put back to bed. Dr. Davies injected strychnine before and during the administration of the anaesthetic. She bore the operation (which did not last 20 minutes) well.

Progress.—The case was dressed daily, and a great deal of pus continued to be discharged for ten or twelve days. The temperature continued high, 101° to 103°, and though she took nourishment well her condition continued grave through the continuous septic absorption. I now irrigated the abscess cavity with 1 in 40 carbolic, and in this way removed several masses of lymph or necrotic tissue, and improvement was soon evident. Her temperature went down to 99° to 101°, appetite improved, and she began to gain flesh, but the discharge continued in lessening quantities until September 2nd, when the tube was not further used.

She has made a perfect recovery. I examined her chest recently, and the physical signs are normal, excepting a circular area of an inch and a half in diameter over the cicatrix.

REMARKS.

In Case I the signs of pleuritic effusion masked those of pulmonary abscess, and the operation was performed with the idea that the condition was one for empyema. Had I known the case was one of tuberculous abscess of the lung I should not have advised operative measures; but once committed to it, the operation was completed. The result justified the procedure, for the patient's health was improved, and, I have no doubt, her life prolonged. The results of operation on tuberculous cavities have not been satifactory, and I would not recommend operation excepting in large basic cavities, especially if septic, and then only in the hope of relieving the constant distressing cough and arresting septic absorption.

Case II I have reported in some detail as an example of those that should in my opinion be operated upon. Had this been done in January, in all probability the patient would have recovered. It is a curious pathological fact that most basic abscesses due to pneumonia perforate downwards, and those secondary to abdominal lesions generally open into the bronchus. In my earlier experience three basic abscesses (two following acute lobar pneumonia and one following enteric fever) perforated into the abdominal cavity, and one following typhlitis (or appendicitis) and subphrenic abscess perforated finally into the bronchus, death being due to septic absorption. No attempt was made, or would then have been regarded as justifiable, to operate. In my opinion all were cases that should have been operated upon and with every prospect of success. When non-tuberculous, I regard the aphorism "*Ubi pus ibi incisio*," as being as applicable to the lung as to any other organ, provided Paquelin's cautery and a scalpel are regarded as convertible terms. In Case II every condition favourable to operation were present. The abscess could be definitely located, the costal and pulmonary pleurae were adherent and yet fatal delay was recommended and adopted by the friends, for the intercession, I suppose, of some special providence.

In Case III the diagnosis was fairly clear when I first saw the patient, and the operation was performed shortly after the appearance of the secondary pleurisy. As to the operation, when the abscess can be accurately located the opening into the pleura need not be large. A long linear incision down to the rib and the removal of 2 in. of its length will be enough. It is stated by Truc that the lung should not be opened if the costal and pulmonary pleurae are not already adherent or sutured together so as to shut off the pleural cavity. This was not done, though the cavity was at any rate partially open, and yet no empyema ensued. The lung tissue was so dense and infiltrated that it was thought safe to open with the knife and not with the cautery. There was scarcely any haemorrhage. It is also laid down as a rule by the same authority that on no account should the abscess cavity be irrigated. For some time after the operation there was evidence of septic absorption, the temperature continued high, and the patient's condition most precarious. There being no communication between the abscess and the bronchus, I irrigated the cavity daily with a 1 in 40 carbolic lotion with immediate benefit, and with no other untoward result than a transient carboluria, which I met by using a weaker solution.

A CASE OF PURULENT PERICARDITIS ASSOCIATED WITH EMPYEMA IN A CHILD AGED TWO AND A-HALF YEARS.

DEATH NEARLY FOUR MONTHS AFTER A DOUBLE OPERATION.

BY

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and

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PURULENT pericarditis is a not infrequent disorder in children, but cases of operation for its relief are sufficiently rare to justify the putting each one on record. The present case is a specially noteworthy one, both from the youthful age of the patient and the time he lived after the operation. The notes are abridged and slightly altered from the careful ones taken by Dr. A. Emerson, formerly House-Physician at the East London Hospital for Children.

M. P., a Jewish child, aged 2½ years, was admitted into the East London Hospital for Children on February 11th, 1903, under the care of Dr. Coutts.

Family History.

In the family history there was little to note. The father had been drowned. The mother was healthy, and there were no other children. There was no family history of tuberculosis.

History.

The present illness commenced with pneumonia a month ago, and the child has never been well since. He has had a bad cough ever since pneumonia, and he has suffered from loss of appetite and langour, with occasional vomiting. The bowels were regular. During the past few weeks he has wasted somewhat.

Condition on Admission.

The patient was a fairly well-nourished child, presenting distinct evidence of rickets. There was well-marked beading of the ribs, along with slight enlargement of the epiphyses of the long bones with bowing of the tibiae. The abdomen was not distended, the liver was not enlarged, but the spleen could just be felt below the costal margin. On examination of the thorax, the cardiac dullness was found to be slightly increased, and the heart's apex beat almost impalpable. The heart sounds were weak, but apparently pure. There was no audible pericardial friction. The pulse was 136, regular in force and rhythm, and of fair tension. On the right side posteriorly the percussion note was impaired at the apex, and from the sixth rib downwards absolutely dull. This dull area extended into the axilla and right round to the front of the chest. Over the dull area the breath sounds were extremely weak and faintly bronchial in character. Over the rest of the right chest both percussion and breath sounds were normal. The left lung was normal both to percussion and auscultation, with the exception of a patch at the extreme apex where there was some doubtful bronchial breathing and increased vocal resonance. The respirations were rapid—58 per minute. The child was wakeful and peevish, and seemed in pain; giving a short grunt with each expiration. The tongue was clean, but the appetite poor. There was no diarrhoea or vomiting. On admission the temperature was 99°, but in the evening it rose to 101°.

Progress.

February 13th. The child still looked very ill. Since admission the temperature has varied greatly, reaching on one occasion 104°. The right base was explored twice, but nothing found except a little blood. The needle appeared to touch the lung.

February 16th. The child was much worse and his condition critical in the extreme. The signs over the right lung remained as before, and there were signs of bronchitis over the left. The cardiac dullness had increased and reached to the upper border of the second rib above, and below extended from an inch outside the left nipple to the mid-sternal line. The apex beat could not be felt, and the heart's sounds were almost inaudible. No pericardial rub could be heard. The pulse was very rapid and weak, but regular. This afternoon Dr. Coutts saw the child for the first time and acquiesced in the diagnosis that had already been made of a probable empyema at the right base with a purulent pericarditis. A consultation was held with Mr. Rowlands, who agreed to operate on condition of the mother's consent being obtained.

Operation.

At 9 o'clock at night Dr. W. P. S. Branson gave chloroform, and Mr. Rowlands opened the pericardium through an oblique incision, exposing the fifth left costal cartilage and the neighbouring sternum. The sternal half of this cartilage having been removed with care to avoid perforation of the left pleura, the internal mammary vein was seen greatly distended and lying close the sternal margin. Some fibres of the triangularis sterni were separated, and the thin parietal pleura was seen to extend inwards under the sternal margin; therefore a semilunar piece of the still cartilaginous sternum was pared away, the margin of the left pleura discovered and displaced outwards, thus exposing the pericardium in the depth of the inner angle of the wound. An exploring needle was inserted, and withdrew a syringeful of thin, greenish-yellow pus. On incising the pericardium along the needle, the fluid rushed out, reaching to a height of three feet; probably about half a pint escaped, but it was impossible to collect it for measurement. A finger introduced into the pericardial sac failed to discover any masses of lymph, therefore irrigation was not resorted to; but a rubber drainage tube was inserted, and the rest of the wound closed.

The immediate results of the operation were very striking, the internal mammary vein was seen to collapse at once, the cyanosis diminished, the pulse was stronger and better, and its rate and that of respiration diminished. It was not thought well, however, to deal at this juncture with the possible empyema at the right base, and the child was accordingly placed back in bed.

The pathologist's report on the pericardial fluid stated that it contained a coccus which morphologically and from its staining properties and growth on culture media resembled the pneumococcus

After-History.

February 17th. The improvement after the operation of the night before being maintained, the right pleura was again explored and pus was found. The child was again placed under chloroform and Dr. Branson excised a piece of rib in the post-axillary line, and with some difficulty a small quantity of pus was discovered and evacuated. The pathologist's report on the empyema pus was as follows: "An extremely impure culture; subcultures have not been found to be of much value. A coccus is evident which by culture and morphology resembles the pneumococcus. Other forms of cocci and bacilli are also numerous."

February 22nd. Very slight amount of purulent discharge from the pericardial incision and the empyema opening. The child is holding its own well. The pulse remains good. The cardiac dullness is still much increased, but the heart sounds are normal and clear. The temperature for the last two days has been practically normal.

March 2nd. The tube has been given up in the pericardial wound for the last few days, and a small drain of gauze used instead. There has been very little discharge from either wound to-day, but yesterday there was a fairly large quantity from the pericardial one. For the last week the temperature has been markedly swinging, and has sometimes reached 103° or 104°. The pulse is small and rapid.

March 9th. During the last week the condition of the patient has varied, but to-day he seems a little better. The temperature has fallen to normal. The pericardial wound discharges freely, but the cardiac dullness has diminished and the heart sounds are regular and more distinct. The empyema wound looks dry and the discharge has ceased. The child appears to have still a good deal of pain with cough, and the ensiform cartilage appears to be dislocated upwards and forwards with each inspiration.

April 6th. Since the date of the last note the child's condition has varied from day to day, but on the whole he has improved. The pericardial wound has discharged pus freely, but for the past week the discharge has lessened and to-day has practically stopped. There is still, however, a small sinus in the pericardial wound, but the empyema one has healed. For most of the time the temperature has been about the normal, but for the last few days it has begun occasionally to rise again to 100° or 101°.

April 13th. Dry scales over the two wounds. The cardiac dullness extends from the left nipple line to the left sternal border. Heart sounds clear. Yesterday the temperature, which had been irregular, reached 103°, and the child vomited several times. To-day there are signs of slight bronchial catarrh over both lungs.

April 23rd. The child has been very ill for the last three days. The temperature has been higher and varied less. There has been a purulent discharge from both eyes and nose, and the glands below the jaw are enlarged. To-day he developed a measles rash and was removed to the isolation block. Yesterday the pericardial wound broke open again and a small quantity of purulent discharge came away.

April 27th. Measles rash almost disappeared; temperature lower. There are signs of bronchitis over the left lung, and in the right axilla are some tubular breathing and increased vocal resonance, considered to be due to a consolidation of the middle lobe of the right lung. The pericardial wound is discharging freely.

May 2nd. There is no improvement in his general condition. The signs of consolidation in the right lung persist. There is a copious discharge from the pericardial wound, and there is well-marked oedema of the feet and ankles. The tongue is clean, and he is taking his food fairly well.

May 7th. The signs of consolidation of the right lung have cleared up, and the oedema of the feet disappeared. The child's condition, however, remains very variable, and he gets very restless at nights and appears to be in a good deal of distress. The pericardial wound discharges freely, and the surrounding skin is red and irritated.

In the rest of the history there is little to note. The child's recovery in the weak condition he was in from a severe attack of measles and broncho-pneumonia was totally unexpected. In the later weeks of his life a permanent recovery never seemed probable. A week before death he developed two bedsores posteriorly, and for the last two months he was emaciated in the extreme, and his skin covered with a profuse branny desquamation. The discharge from the pericardium, after its re-establishment, showed no tendency to diminish, but remained profuse and purulent to the end. The severe precordial pain, too, which had almost gone, reappeared after the measles and persisted until death. In the last few weeks of life tenderness to the gentlest percussion or palpation over the precordium became more marked The temperature remained very irregular, but scarcely to be called high, until the last few days of life. The child gradually sank, and died on May 22nd, in the sixteenth week after the two operations.

Necropsy.

Notes on the necropsy by Dr. W. P. S. Branson, Pathologist to the Hospital.

On opening the thorax there was found a condition of universal dense adhesion of the contained viscera to each other and to the chest wall, and the whole anterior mediastinum was occupied by a thick fibro-gelatinous deposit. The wound over the pericardial area drained a small pocket on the anterior surface of the heart, but elsewhere the pericardium was inseparably adherent to the heart in front. On attempting to separate the pericardium from the left lung an abscess cavity was opened, with a discharge of 3 oz. of pale thick pus. This cavity lay behind, and to the left of the heart and within the pericardial sac; its walls were very thick from the presence of fibrinous matter similar to that occupying the mediastinum. Between the heart and the right lung there lay another smaller cavity, independent of the first, and full of very inspissated pus. The pus in both cavities was extremely dry and gritty to the feel, as if impregnated with lime salts. The tracheal glands were greatly enlarged, but free from all sign of tubercle. The pleurae were everywhere adherent, but not inseparably except at the right base behind the site of the wound made to drain the empyema. Here the adhesions were old and fibrous and no trace of a pleural membrane could be discovered. Elsewhere the pleurae were much thickened, again with what appeared to be a fibro-gelatinous infiltration. The lung tissue was very dark throughout, but crepitant and not engorged. The liver showed some signs of the "nutmeg" order, and the spleen and kidneys were also engorged. Examination of the head was not allowed.

REMARKS BY DR. COUTTS.

The frequency of purulent pericarditis in childhood is only appreciated by those who have special opportunities of witnessing necropsies in young children. That the complaint is usually first discovered on the *post-mortem* table is due to the large majority of cases being undiagnosable during life, owing to the scantiness of the pericardial effusion and the absence of all symptoms referrable to it. Certain cases that might have been diagnosed during life are missed because the condition of the patient has been too urgent to admit of any satisfactory or adequate examination. Other cases, again, go unrecognized owing to the reluctance to harass the child by having the dressings over an empyemic wound removed in order to examine the chest. The complaint, however, is so frequent in infants dying with empyemata that the possibility of its being discovered *post mortem* should not be lost sight of, although there may never have been any recognizable signs of pericarditis during life.

To calculate roughly the number of cases of purulent pericarditis occurring annually at the Shadwell Hospital at about a dozen would probably be to under-estimate its frequency at that institution. A limited number of such cases occur in the course of a suppurative bone disease, whilst practically all the rest have a causal origin in the presence of the pneumococcus. As might be expected from this, then, purulent pericarditis in children, in the vast majority of instances, is associated with pneumonia or empyema, or a combination of these two last. In brief notes of 15 cases of purulent pericarditis under my care, where a necropsy was made, in 8 cases

it was associated with empyema alone, in 4 with evidence of recent pneumonia alone, and in 2 with a combination of recent pneumonia and empyema. In only one case was there no evidence of either of these last. This association with recent pneumonia or empyema may afford a valuable aid, often an indispensable one, in the diagnosis of the complaint.

The combination of purulent pericarditis and empyema is much more frequent than is commonly supposed. In a valuable paper on empyemata in children,[1] founded on a personal observation of 81 cases, Mr. P. S. Blaker gives statistics which show that purulent pericarditis occurs in 11 per cent. of empyemata in children of all ages, and where infants alone are taken into account this percentage becomes much greater. In 23 cases of fatal empyemata, the same observer found purulent pericarditis *post mortem* in 7; or an average of about 30 per cent. An experience of a much larger number of cases than 81 would not induce me to believe there is anything exceptional in Mr. Blaker's figures, and I believe they may be taken as fairly representative of the frequency of the association of the two conditions, empyema and purulent pericarditis.

There is, unfortunately, a prevalent impression, and one often expressed, that the diagnosis of purulent pericarditis is in every case too difficult, or even impossible, to be made with any degree of precision. In the absence of empyema or suppurative bone disease, or in that of a history of recent pneumonia, there might be justification for this pessimistic view. But given the presence of one of these three last, then I would contend that the diagnosis can at times be made with a reasonable degree of certainty. Under such conditions, in fact, the possibility of the diagnosis mainly rests on that of determining the presence of free fluid in the pericardial sac. That cases arise where it is impossible to distinguish between fluid in the pericardium and a cardiac dilatation has to be admitted. But cases where insuperable difficulties exist in differentiating between the two are, in my opinion, mainly those of rheumatism of some standing, where, in addition to the cardiac dilatation, there is also thickening of the pericardium itself.

The conditions, moreover, associated with purulent pericarditis are not such as to lead frequently to a cardiac dilatation sufficiently great to embarrass the diagnosis when dealing with the question of fluid in the pericardium. The slighter degrees of pericardial effusion are admittedly undiagnosable, but in cases where there is marked pericardial dullness along with diminution of the cardiac sounds the difficulties of diagnosis have certainly been exaggerated. Many cases are missed solely from the want of a thorough examination, either because the urgent state of the patient forbids it or from a natural reluctance to cause discomfort to the child by the removal of the dressings over an empyema wound. A remembrance of the frequency of a combination of the two complaints, and a preliminary hint as to the possibility of a purulent pericarditis being discovered at necropsies on infants dying with empyemata, will often disarm the satire of the pathologist at the expense of the clinician.

Having satisfied oneself as to the presence of fluid in the pericardium in early cases, there need be but little hesitation as to its character; if not already purulent, it will speedily become so. I can see no advantage, then, in a preliminary exploration before deciding on a more radical operation, if such be contemplated. In more than one instance I have known a left-sided pleurisy added to the other gravities of the case simply from the use of the exploratory needle. On six or seven occasions, too, I have known the cardiac wall to be pierced by the needle, and although in no instance was this attended by any subsequent harm, still the possibility of such a contingency is not one to be contemplated with any satisfaction or complacency. The present is the third case I have had operated on without preliminary exploration, and in each one the assumption as to the nature of the fluid was verified at the operation.

In a few other cases where I have ventured on the diagnosis without a preliminary exploration, and where operation was deemed inadvisable or refused, the supposition as to the presence and nature of the fluid in the pericardium has been justified on necropsy. Occasionally, instead of pus, a merely turbid fluid is found, yielding a pure cultivation of the pneumococcus. There is, however, a growing opinion, which I am inclined to share, that such cases should be treated as if the fluid were already pus, whether it be in the pericardium or the pleura. Very often, indeed, flakes of pus are discovered at the bottom of a cavity that at first sight is apparently filled only with such turbid fluid.

One reason for purulent pericarditis being so frequently missed is the absence, in the vast majority of cases, of any audible pericardial friction. In the rare cases where the pericarditis arises in connexion with bone disease friction may be loud and persistent, but in the far more numerous ones associated with the pneumococcus an audible rub is usually absent, invariably so in my experience. This absence of audible friction is perhaps due to empyemata and pericarditis, when associated with pneumonia, being in no sense sequelae of the last complaint, their origin dating back to that of the pneumonia itself. If this be so, the time for hearing any pericardial friction would be in the very earliest stages of the pneumonia. Unfortunately, in the early stages of that complaint, the attention is so centred on the predominating lung symptoms that, possibly, an adequate examination over the pericardium is seldom made. But, as a rule, no opportunity occurs of seeing these cases of purulent pericarditis until several weeks after the onset of pneumonia or empyema. It may well be, however, that audible friction is absent from the very beginning of the complaint.

Occasional aids to diagnosis are extreme pallor, orthopnoea, irregular pulse, and other signs of cardiac and respiratory distress. Pallor, indeed, is a fairly constant feature in most cases, but the other symptoms are of very uncertain occurrence. In a case I lately published[2] there were 10 oz. of pus in the pericardium of a child aged 4 years, with a total absence of any respiratory or cardiac embarrassment.

When all things are considered, it has to be admitted that the diagnosis is often extremely difficult, and in the majority of cases impossible. At other times, as I have said, the difficulties are not insuperable, and the diagnosis can be made with a reasonable degree of confidence. And when the frequency of the association of purulent pericarditis with empyema and pneumonia is more generally recognized, I believe that a diagnosis made during life will with increasing frequency replace that which is at present usually only made upon the *post-mortem* table.

In my present case the diagnosis was attended with no special difficulty. Although there was no audible pericardial friction, yet the history of a recent pneumonia, the presence of a probable empyema, the increase of the precordial dullness, along with the diminution of the cardiac sounds, and the absence of a definable apex beat, the extreme pallor, and the precordial pain associated with both cardiac and respiratory distress, all combined to make the diagnosis of pericarditis a fairly certain one. The history of pneumonia, too, with the concomitant empyema, left little room for doubt as to the character of the fluid in the pericardium. When I first saw the child his condition was critical in the extreme, and it was clear that no measure short of operation offered any hope of relief. The case was put fairly before the mother that there was but faint prospect of recovery after an operation, and that there was a great possibility that the child would die under the anaesthetic, and she elected to give the child the outside chance that surgical interference offered.

As the child lived so long after the operation, the ultimate result was disappointing in the extreme. At the time of the unfortunate contraction of measles, the child was improving in many ways and seemed to have a fair chance of recovery. That the measles and the concomitant broncho-pneumonia shortened life will hardly be doubted. But whether ultimate recovery was possible, with the heart clogged as it was with the pockets of inspissated pus, is open to question; it is equally open to question, moreover, whether recovery was desirable with the heart hampered in the manner it must always have been. Life in any case, under such circumstances, could not have been either a pleasant or prolonged one. The distribution of the pus, a not infrequent one in such cases, raises the inquiry whether the usual operation of opening the pericardium from the front is the best one under such circumstances. The question, however, is a purely surgical one, and I leave it to the more capable hands of Mr. Rowlands to deal with.

REMARKS BY MR. ROWLANDS.

It is now generally believed that incision and drainage are indicated in practically all cases of purulent pericarditis; but owing to difficulties of diagnosis, the operation is frequently too long deferred for a permanent success to be expected; and although temporary relief follows the evacuation of the fluid in most cases, recovery is unlikely, when from delay

such complications as myocarditis, mediastinitis, or pyaemia have arisen.

The anatomical relations of the pericardium are not favourable for the safe establishment of efficient drainage, and this may explain the number and the variety of the operations which have been proposed and practised for this condition. It is impossible to open the sac from the back without also opening the pleura. Having noticed that the right extremity of the oblique sinus of the pericardium was opposite and only about 2 in. away from the vertebral end of the seventh right rib, I removed a portion of this bone, and attempted to displace the pleura from the vertebrae, and thus to reach the pericardium through the posterior mediastinum, but in each of four attempts on the cadaver the pleura was perforated; the vena azygos major and thoracic duct are also in danger of being wounded.

Luschka's statement, that no parietal pleura lies between the pericardium and the inner 1.5 cm. of the fifth left costal cartilage, the inner 2.0 cm. of the sixth, and the inner 3.5 cm. of the seventh, is only true of exceptional cases, but it has been so often quoted that it has been almost generally believed. The researches of Sick and others have since established the fact that it is usual for the left pleural reflexion to lie under cover of the sternum at the level of the fifth costal cartilage, and often also at the level of the sixth. My own observations in the dissecting room during some years convince me of the accuracy of Sick's description. Delorme and Mignon have shown that a pericardial effusion has little or no effect in displacing the pleural margin outwards; but protective pleural adhesions sometimes form when that effusion is purulent. Paracentesis, however useful it may be in some cases of serous pericarditis, cannot afford more than a temporary relief of pressure in pyopericardium, for the pus rapidly and persistently reaccumulates; but as a preliminary to a more radical treatment it may be of considerable service in patients too seriously ill to take an anaesthetic safely. A very striking improvement of the circulation generally occurs after allowing the fluid to escape, and then the treatment may be completed with all the advantages of a general anaesthetic.

In a very few cases recovery has followed mere tapping, but only after the lucky establishment of a sinus along the track of the needle. Paracentesis is not quite devoid of danger, for empyema, pleurisy, and perforation of the heart have resulted in rare cases.

From anatomical considerations and experiments on the cadaver it is certain that the safest place to tap or to insert the needle of the exploring syringe is the left costo-xiphoid angle as suggested by Roberts years ago. The instrument should touch the lower end of the gladiolus and pass backwards upwards and a little inwards behind the sternum until it is felt to enter the cavity of the pericardium, at a distance of not more than $2\frac{1}{2}$ in. from the skin. The pleura and the internal mammary vessels are too far out to be injured, and the peritoneum too low, and the heart, unless adherent in front, lies too far back within its distended sac to be reached if the above precautions be taken. The inner extremity of the fifth left space is probably the next best situation, where the needle should be passed backwards and inwards in close contact with the sternal edge; but although the internal mammary vessels are quite safe, the pleura will certainly be pierced occasionally. The sixth left space is to be preferred, if wide enough at its sternal end, which is not often the case.

Exploratory aspiration through the left xiphoid fossa deserves more frequent use in doubtful cases, so that delay in diagnosis and treatment may be avoided if possible.

Operations.

Which is the best operation is a question still to be answered by time and experience.

1. *Simple incision* through the fifth (or fourth) left intercostal space near the sternum has been the method most frequently employed and can be very quickly performed, which is an advantage in these grave cases; but the drainage is far from perfect, especially in children, and the pleura and internal mammary vessels are difficult to define and avoid through the narrow space available.

2. *Excision of the Fifth Left Costal Cartilage.*—Parker was the first to perform this operation on a child at the East London Hospital. It has since been strongly recommended by Porter and others, and has of late become the most popular operation. More room is given for exploration and also for drainage, and the pleura and vessels can generally be seen, displaced, and avoided; it is, however, not possible to explore the pericardial sac thoroughly and to remove masses of lymph from the auricular regions. Moreover, the wound is not placed low enough on the anterior wall of the sac, so that a pool of fluid remains undrained even when the body is upright. In the case above related, having excised the sternal end of the left fifth costal cartilage, I also removed a semilunar portion of the cartilaginous gladiolus in order to avoid injury of the pleura and to provide better and more permanent drainage. As far as I know, this was the first occasion on which this modification of Parker's operation was employed in actual practice; but Durand and Dwight had each suggested it several years ago. This step, which only takes a few seconds, may be found useful if Parker's operation cannot be completed without endangering the delicate and perhaps extensive pleura of a small child; it gives an excellent view of the pericardium, but in my case the drainage it afforded was not perfect, as proved at the necropsy, and it is possible, or even probable, that Allingham's operation would have been more satisfactory in this important respect.

3. *Flap Operation.*—Roberts,[3] in a most instructive and exhaustive paper, proposed a new operation based on experiments on the dead body. A flap containing the fourth and fifth left costal cartilages is lifted upwards and the internal mammary vessels and pleura can then be well seen and displaced outwards, so that the pericardium can be fearlessly opened by a vertical incision. The chief objections to this operation are its unnecessary severity and comparatively long duration in a patient whose circulation is seriously embarrassed; moreover, it is by no means so easy to raise the flap with safety to the pleura and vessels, especially in children. I once opened the pleura in performing the operation on a stillborn but mature infant. It may, however, be of use after pressure symptoms have been relieved by aspiration, as Roberts himself suggests. It certainly gives a better view of and access to the pericardium than any other operation, but it does not provide as efficient drainage as Allingham's operation.

4. *The Epigastric Operation.*—Allingham[4] in 1900 gave a full account of an operation performed by him on the cadaver. In this operation the left rectus abdominis is incised, and the peritoneum having been avoided, the cellular interval between the sternal and costal fibres of the diaphragm is opened up, and the pericardium thus exposed and incised at the lowest part of its anterior wall. Allingham also claims that a finger can be passed to any part of the sac to remove débris and open loculi, and that the pleura is not in danger.

The following are some of the chief drawbacks of this ingenious operation:

(*a*) The little room available in most adults, who have wide, firm, or even ossified ensiform cartilages and rigid costal cartilages; the costo-xiphoid space is too narrow in these cases.

(*b*) The operation is necessarily performed somewhat in the dark, and under cover of the sternum and seventh costal cartilage, and it is not easy to be sure whether the exploring finger is above or below the diaphragm, so that the peritoneum may be opened, especially by an operator not quite familiar with the anatomy of this region.

(*c*) The superior epigastric artery may be wounded as it comes through the diaphragm, and cause troublesome haemorrhage out of sight in the depth of the wound.

(*d*) The pericardium may be separated by the finger from the parietes, and pus may then leak into the loose connective tissues and set up a fatal mediastinitis.

When the pericardium is much distended, these dangers and difficulties are diminished. In children, who are the most common subjects of suppurative pericarditis, the operation is much easier owing to the elasticity of the boundaries of the costo-xiphoid angle. In them a large drainage tube can be easily introduced, as I have found in several stillborn children. This operation is without doubt the best one to adopt in children.

In adults I have not been able to pass my fingers through the costo-xiphoid angle into the basal sinuses of the pericardium, nor even satisfactorily into the oblique sinus. In them Allingham's modification of his own operation will be required in most cases; a portion of the seventh and sometimes even of the sixth costal cartilage will have to be removed to provide the necessary room for exploration and drainage; the pleura must be pushed away first if necessary. The patient must be kept upright or even leaning a little forwards before the fluid can drain away; he should also lie on his face for a short time at intervals during the day. A soft rubber tube

may be guided into the lower end of the oblique sinus past the termination of the inferior cava, and another one towards the base of the heart on its right side. The edges of the pericardial wound should be sewn to the parietes whenever possible to try to avoid suppurative mediastinitis. Irrigation at the time of the operation is only necessary if masses of lymph or false membranes can be felt by the finger, and care must be taken to use two tubes side by side to ensure a free exit for the fluid, which may otherwise compress the heart; Mr. Parker believed this was the cause of death in his case. Daily irrigations may be used in the after-treatment. About 60 cases of operations for suppurative pericarditis have been recorded, with a mortality of about 65 per cent.; the real mortality is certain to be higher than this, for it is no doubt true that many unsuccessful operations have not been recorded.

REFERENCES.
[1] BRITISH MEDICAL JOURNAL, 1903, i, pp. 361. [2] Ibid., 1903, ii, pp. 359. [3] *Trans. Amer. Surg. Assoc.* [4] *Lancet*, June, 1900,

NOTE ON THE METHOD OF DEMONSTRATING TUBERCLE BACILLI IN THE URINE.

BY EDGAR TREVITHICK, M.D.CAMB.,
Physician, Cheltenham General Hospital.

I have heard it remarked by observers that tubercle bacilli, when occurring in urine, are usually only to be found in very scanty numbers, and are to be considered as being somewhat difficult of demonstration. My own experience is opposed to this. And I am led to believe that the secret of finding representative numbers of bacilli in film preparations made from urinary deposits depends upon the thorough washing of such deposits with distilled water before the films are made from them. I have lately compared films made from urinary deposit after being thus washed with films made from the same deposit without this precaution being taken, and I find that in the latter very many fewer bacilli are to be found. The explanation of this appears to be that the urinary salts prevent the bacilli and even the pus cells from adhering sufficiently well to the cover slip to withstand the subsequent treatment necessitated in the process of staining, and that in reality in some parts of this process many, and I believe the majority of them, get dislodged and washed away.

The method which I have found eminently successful is as follows. The lower part of the urine which has been resting in a conical glass is transferred to the receiver of the centrifugal machine. After centrifugalizing, the supernatant fluid is carefully decanted from the minute collection of deposit which will be found adhering to the bottom of the glass. The glass is then filled with distilled water, and the centrifugalate shaken up with it. This is once more centrifugalized, and after that the foregoing process is once more repeated. From the final centrifugalate the films are prepared. In my experience the number of tubercle bacilli found in such films will be very greatly in excess of those that will be demonstrated from the same urine where this precaution of washing away the urinary salts is not followed.

In my experience the demonstration of tubercle bacilli in tuberculous urine is not more difficult, but on the contrary more simple and certain than their demonstration when occurring in sputum, and I find, moreover, that in the urinary films their numbers are not less, but on the contrary much greater, than is the case with films made from tuberculous sputum.

This is not surprising, seeing that in the case of urine one is able to take advantage of the concentration brought about by the process of centrifugalizing, an advantage which is not easily possible in dealing with sputum.

REACTION WITH PERCHLORIDE OF IRON IN THE URINE OF GRAVE CASES OF HEPATIC CIRRHOSIS.

BY F. PARKES WEBER, M.D., F.R.C.P.,
Physician, German Hospital.

I HAVE lately been struck by the presence of a strong perchloride of iron reaction in the urine of several patients with hepatic cirrhosis. On adding a weak solution of perchloride of iron to the urine the colour obtained was sometimes similar to that obtained from the presence of diacetic acid in cases of diabetes mellitus, but sometimes it appeared to me more like that obtained in the urine of patients taking sodium salicylate, so that I should have expected that some drug like aspirin had been taken. In only one of the cases was there any history of there ever having been any glycosuria. The appearance of the reaction sometimes coincided with very threatening general symptoms, such as drowsiness in Case 1. I unfortunately delayed exact analysis, and at present can obtain no urine giving the reaction. I therefore am unable to say that the reaction is due to the presence of diacetic acid in the urine, and must content myself by giving a few clinical details of the cases in which the reaction was present, hoping that it will be detected in other cases of hepatic cirrhosis when its nature can be fully investigated.

CASE 1.—Mrs. T. B., aged 42, admitted to the German Hospital June 20th, 1903. A fat woman, with slight jaundice, ascites, and epigastric pains. No cardiac or renal disease. No vomiting. Menses absent last two months. History of free use of beer and whisky during last five years. Ascites commenced apparently about three months before admission. Soon after admission the patient became drowsy and more jaundiced, and her pulse was very weak. She was treated by magnesium sulphate, digitalis, camphor hypodermics, and the temporary use of alcohol, and her general condition soon improved. A strong perchloride of iron reaction was first noted on July 2nd (the first time the urine was tested in that way), and the reaction was present after that date whenever the urine was tested. Paracentesis abdominis was twice performed. The patient left the hospital without permission on July 10th, and died not long afterwards.

CASE II.—Mrs. E. D., aged 53, admitted October 5th, 1903. A very sallow woman, with uniform great enlargement of the liver, but without ascites. History of taking whisky and beer. Enlargement of the abdomen noted two years before admission. Brought up blood three weeks before admission. The urine was free from albumen and sugar, and on many occasions gave a strong perchloride of iron reaction, though it had been rendered alkaline by giving the patient sodium bicarbonate. The patient left the hospital on November 17th. On December 12th, when in her own home, she became unconscious, and died on the following day. No necropsy.

CASE III.—J. A., aged 45, a carter, admitted September 22nd, 1903, for ascites, apparently of recent onset. History of habitual indulgence in beer and whisky. After paracentesis abdominis the liver could be felt enlarged. The urine was free from albumen and sugar, but dark, and at one time showed a distinct urobilin band by spectroscopic examination. On several occasions it gave a marked perchloride of iron reaction, but this has been invariably absent of late, though diligently searched for. The patient has been tapped for ascites six times, and is still in the hospital.

CASE IV.—Mrs. A. B., aged 53, admitted November 13th, 1903, on account of ascites, vomiting, and great frequency of cardiac action. The patient, a fat woman with a bloated face, used to drink much ale and whisky. About seven years before admission she was told she had "diabetes"; this disappeared after some time, and she has generally enjoyed good health. Her abdomen began to swell about six months before admission, and before her admission it had already been tapped twice at another hospital. The urine was free from albumen and sugar, but, although often alkaline, usually gave a marked perchloride of iron reaction. Her general condition has improved, she has had no vomiting lately, and her appetite is better; recently the perchloride of iron reaction has been absent. She has been tapped twice since admission, and is still an in-patient.

A METHOD FOR ANASTOMOSING A SEVERED VAS DEFERENS.

BY J. LYNN THOMAS, C.B., F.R.C.S.,
Surgeon, Cardiff Infirmary; Consulting Surgeon, Hamadryad Hospital, Porth Hospital, Bridgend Hospital, and the Cardiff Provident Dispensary.

ABOUT twelve months ago I had under my care a gentleman who had his vasa deferentia tampered with, one being completely divided, and the other one incompletely severed by his wife during a fit of jealousy. I was consulted in the matter about a week after the somewhat tragical episode had taken place, and I found two scars in the scrotum anteriorly, one on each lateral aspect. I was informed that they had been performed by the patient's wife by means of a surgical knife whilst the patient was in a state of advanced semi-comatose intoxication. On the side where the vas deferens had been completely divided there was a rounded hard swelling in the spermatic cord about 1 in. above the testis of the size of a big pea; the testis itself being more sensitive than the one on the other side. I was asked if anything could be done in the case, as the participants in the tragedy had become very much concerned as to the result with regard to sexual impotence, for the effect of double vasectomy was

considered by the husband and wife to lead to atrophy of the testis with consequent unsexing of the individual.

After experimenting I carried out the following method of uniting the vas deferens.

An oblique incision was made along the course of the inguinal canal similar to that used in the operation for the radical cure of an inguinal hernia, the spermatic cord was exposed, and the testis dislodged through the wound, carrying with it the small swelling described above as being the size of a large pea. This turned out to be a collection of semen confined in a fascial sheath between the ends of the divided vas deferens. The vas was found to be completely divided and its ends were separated for about half an inch.

The following diagram will assist in elucidating the method adopted for the anastomosis. Very small curved needles had to be used for applying fine silk sutures in the operation performed.

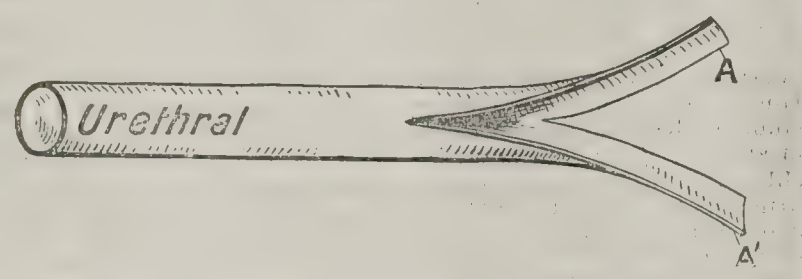

Fig. 1.—Method of preparation of the urethral end of the vas deferens. The tails, A A, are wrapped round the testicular end of the vas and fixed by sutures after the obliquely cut end of the testicular portion is fixed to the grooved wall beyond the tails (see J, Fig. 2).

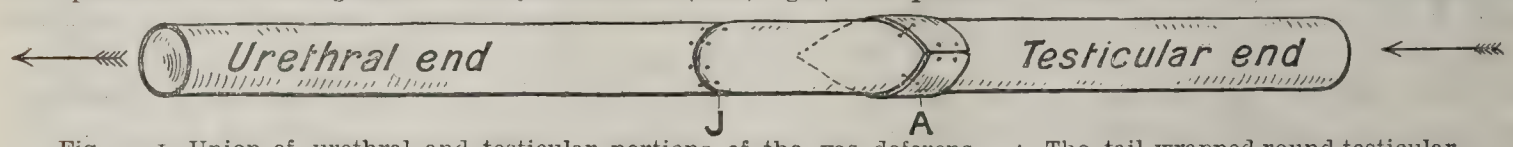

Fig. 2.—J. Union of urethral and testicular portions of the vas deferens. A, The tail wrapped round testicular end of vas. ←— shows direction of semen travelling along vas.

The testicular end of the vas deferens was cut obliquely by means of a cataract knife. The distal or urethral portion of the vas was split up longitudinally for about 1 in.; this free end was further divided up for about half an inch from its extremity so as to provide two tails of equal size; in other words, each tail consisted of one half of the longitudinally split vas deferens. The utility of these tails will, I think, be appreciated from the diagram representing the completed anastomosis. The obliquely cut free end of the testicular portion of the vas was placed with its lumen in contact with that of the testicular portion, and was fixed by means of fine silk sutures as closely applied as the whipcord-like tube would admit. The two tails of the distal end were then enveloped round the testicular portion of the vas in order to counteract the disruptive force of the weight of the testis. Afterwards layers of fascia were wrapped round the anastomosed vas deferens and fixed by sutures.

I found it necessary to form the tails in order to secure a firm and permanent approximation of the divided end. It seemed to me that end-to-end anastomosis was not practicable, owing to the smallness of the tissues for suturing. Invagination of the ends was impossible on account of the rigidity and size of the walls of the vas deferens.

One can demonstrate the practicability of the above method of anastomosis of the vas deferens on the cadaver by injecting fluid along its lumen by means of a syringe.

As far as I know this case is unique, and I venture to record the method I devised on account of its being, I believe, a suitable operation in the conservative surgery of an injured vas deferens.

I saw my patient about nine months after the operation, and on careful examination I could find nothing abnormal in the testis as regards its sensitiveness and size. Thickening of the spermatic cord at the seat of the operation was inevitable from its nature, and I thought it was about the same size as it was at the time of its performance.

The patient informed me that his wife was four months pregnant, and that he considered the operation had been a perfect success.

GERMAN CONGRESS OF INTERNAL MEDICINE.—The twenty-first annual session of the German Congress of Internal Medicine will be held at Leipzig, April 18th to 21st, 1904. Communications should be addressed to the Perpetual Secretary of the Congress, Dr. Emil Pfeiffer, Parstrasse, 13, Wiesbaden.

PILEWORT OINTMENT AND SUPPOSITORY.

BY SIR JAMES SAWYER, M.D.LOND., F.R.C.P.,
Senior Consulting Physician, Queen's Hospital, Birmingham.

MORE than two years ago I published a formula for pilewort ointment, unguentum ranunculi ficariae.[1] Many cases of haemorrhoids are surgical in nature, management, and cure, and rightly are not usually included in a physician's practice. But there are many diseased conditions, haemorrhoidal or haemorrhoidaloid, affecting the mucous covering of the lower part of the rectum and the anal margins which come into a physician's daily work, as incidents in the course of greater or more general maladies, and he must even often relieve by medicinal methods haemorrhoids which are distinct tumours within or without the anus, which, for sufficient reasons in particular cases, are not submitted to the the usual surgical methods of cure. In such cases various ointments are used locally, and I have used pilewort ointment for several years with much therapeutic success. Of course, local medication in such cases can only be supplementary to the relief or cure of the well-known visceral obstructions and constitutional conditions which occasion the local disease.

To prepare this ointment I direct that the whole fresh plant be used, gathered in the spring. The plants, cut into small fragments, are kept immersed in melted hog's lard, at a temperature of about 100° F. for twenty-four hours, in the proportion of one part by weight of the plant to three parts of lard. Then the portions of infused herb in the fused lard are pressed to cause the further yielding of their juices to the fatty infusion, which infusion is afterwards strained to form, when cold, the ointment. The heat of the mixture must not be too high lest the bright green of the ointment be spoiled.

In some cases in practice in which the use of this ointment may be indicated, the prescriber may wish to exhibit the remedy as a suppository. To harden the ointment up to an adequate consistency for a suppository, I am accustomed to direct that one part by weight of spermaceti be mixed with four parts of the ointment, by fusion by heat. Of such a mixture 1½ drachm, is a serviceable quantity for a rectal suppository. In a mixture of spermaceti and unguentum ranunculi ficariae, in the proportion of 1 to 4, the melting point of the solidified mixture would be kept well below the normal temperature of the rectum, taking the melting point of spermaceti at 120° F., and that of the ointment at 83° F., the mixture of them here recommended would melt at a temperature of about 90.4° F., and it will be found in practice that a suppository so made will be sufficiently firm for easy introduction within the rectal cavity. The only reason why a rectal suppository should be sufficiently hard is, that it should be stiff enough to be easily placeable in the site of its employment; once in that position, its qualities of softness and lowness of melting point favour the application of the remedy it carries under conditions propitious for remedial action. For such a suppository the prescriber's formula may be as follows:—℞ Ung. ranunc. ficar., gr. lxxij, cetacei, gr. xviij. Misce leni calore, et fiat suppositorium.

Pilewort has an ancient vogue amongst our country people as a local remedy for "piles."

REFERENCE.
1 *Birmingham Medical Review*, May, 1901.

A FEMALE HOSPITAL PHYSICIAN IN HUNGARY.—It is announced that Dr. Ida Szentesz has been appointed Assistant Physician to the Buda-Pesth Hospital. She is said to be the first medical woman to be elected to the staff of a public hospital in Hungary.

THE SPITTING NUISANCE IN MONTREAL.—Dr. Laberge, Medical Officer of Health of Montreal, reports that for some time past his department has been conducting an active campaign for the suppression of the practice of spitting in churches, theatres, halls, and other public places. Ministers and priests of congregations have promised to make public appeals to their congregations to do all in their power to abate the unpleasant custom. Many petitions have been sent in to the Health Department asking that every effort should be made to suppress the filthy practice.

MEMORANDA:

MEDICAL, SURGICAL, OBSTETRICAL, THERAPEUTICAL, PATHOLOGICAL, ETC.

CASE OF OLD ECTOPIC GESTATION COMPLICATING NORMAL PREGNANCY: PAIN: SUICIDE.

ON December 7th, 1903, I was asked to make a necropsy of the body of a Hindu female, aged 23 years. She had committed suicide by throwing herself into a well. It was said she had suffered severe pain in the abdomen lately, which had impelled her to suicide, and I was asked if there was anything to account for this pain.

The history of her illness was imperfectly given by her husband. He stated that the woman had thought herself pregnant a year ago. Her abdomen had swollen to a considerable size, when, without anything in the nature of pains or haemorrhage or collapse, the swelling gradually got less, but did not disappear altogether. A few months later her abdomen was observed to be swelling again, and during the last two months the woman had suffered very severely from abdominal pain and vomiting.

On opening the abdomen a gravid uterus containing a seven-months fetus was found. This fetus seems to have died at the same time as its mother. In the position of the left Fallopian tube was a bridge of tissue about the thickness of the thumb, which connected the uterus with another gestation sac occupying the left side of the abdominal cavity. On opening this sac I found a full-time fetus, whose skin had undergone adipocere formation. There was no liquor amnii, and the degenerated placenta, which was about the size and thickness of the palm of one's hand, was attached near the pedicle of the gestation sac. A large part of the omentum was adherent to the gestation sac, but was fairly easily stripped off it. The small intestine also adhered to it in three places.

I presume one would account for the pain and vomiting as being caused by the enlarging gravid uterus pulling on these adhesions through its connexion with the gestation sac, that is, the altered left Fallopian tube. The diminution in size of the abdomen after the death of the first fetus would doubtless be due to the gradual absorption of the liquor amnii.

Godhra. R. W. ANTHONY, Captain I.M.S.

LEPROSY AND FISH EATING.

THE BRITISH MEDICAL JOURNAL of October 17th, 1903, contains a letter from Mr. Hutchinson *re* Dr. Turner's report on leprosy, and specially refers to Basutos as a non-fish-eating race. As a former resident medical officer in Basutoland, and as the son and grandson of men who have lived most of their lives in the country, and as one who has an intimate knowledge of the customs and habits of the people, I regret to say that Dr. Turner is utterly wrong, and I entirely agree with Mr. Hutchinson that Basutos are very fond of all kinds of fish, and will eat it whenever available. Some few years ago I wrote a somewhat extensive report on leprosy and lepers in my district, and, if I am not mistaken, I pointed out at the time that although the consumption of salt fish is practically unknown in the country, it is a matter of common knowledge that fresh fish is eaten in fairly large quantities by the inhabitants. In the valleys of the Malutis, an offshoot of the Drakensberg, the streams are well supplied with two kinds of fish, and these the natives catch by means of hooks, rarely nets, but often destroy a large quantity of animals by exploding cartridges of dynamite in the water. I have seen as many as 100 so killed on the Thlotse River by Kimberley boys, who had secured dynamite caps at the diamond fields for that express purpose. The fish is always eaten fresh, and I have never seen it cured by any process, nor am I aware that it has ever been used as such by natives. Tinned fish, specially sardines, is considered a delicacy and eagerly bought. I have seen scores of times a Mo-Suto enter a trader's store, buy a couple of boxes, and there and then devour the whole at once on the counter. I confess never having seen herrings in barrel, or any other kind of salt fish; if these are now sold in Basutoland they are a recent importation, and hardly likely to affect the question.

Dr. E. Casalis, my late father, told me that as far as he knew, leprosy was introduced in Basutoland before 1830, when my grandfather, the Rev. Dr. Casalis, first came there. The Basutos called it "Lefer la Baroa," the disease of Hottentots, meaning by that that it came from Hottentots, most of whom then inhabited East and West Griqualand. He thought there had been an increase of the disease when the diamond fields were first opened and the intercourse between Basutos and Griquas become more frequent; but of this he had no definite proof to go upon except native evidence.

That leprosy entered the country many years before is likely. For instance, the Barotse, who now live on the banks of the Zambesi, and are an offshoot from the Basuto race—a native chief emigrated there from Basutoland over a century ago—are greatly affected by leprosy. The Rev. Mr. Coillard, who has laboured among them for several years, told me, the natives say they brought it with them from the south, and it appeared to him to be on the increase. Now the Barotse are a great fish-eating race, the Zambesi abounds with several varieties, but here, contrary to the Basutos, it is not always eaten fresh, some of it being preserved by drying in the sun. I am not aware, however, that it is salted or cured in any other way; this I think improbable, as salt is too valuable an article in native territories to be used to that extent. It is a noted fact, however, that Basutos or other natives who come down to the coast, readily partake of salt fish whenever meat is not available. If Mr. Hutchinson's fish theory is correct, it is possible that during their stay at sea-coast towns, the men should get infected, and thus show a greater proportion to women lepers in Basutoland. As for Dr. Turner's boy not eating fish, it is merely an exception. We don't all love oysters! I have now a Zulu boy in my service who objects to it, and calls it "a snake." He says Zulu boys never eat fish! And still not a hundred yards from my gates, rickshaw boys, unmistakably Zulu, eat voraciously all kinds of fresh, tinned, and salt fish.

My experience with natives—and it is very extensive—is that they will refuse very few articles of diet, when out of their kraals, and when not bound down to observe the customs and habits of their own people as when at home.

Capetown. G. A. CASALIS, M.B., C.M.Edin.

DIDYMIN IN EXOPHTHALMIC GOÎTRE.

IT is difficult to ascertain the determining factor in the causation of exophthalmic goître. Every system has from time to time been looked upon as having some influence upon the etiology of the disease, but it appears to me that the theory of perverted and excessive secretion of the thyroid gland itself is the most rational. Of course the disease is, with few exceptions, peculiar to the female, and it is one belonging to the menstruating epoch. There seems to be, too, a correlation between the sexual organs and the thyroid gland, as instanced by the engorgement of the gland at the menstrual periods, pregnancy, etc. I have had a case under observation, where tumour, exophthalmos, and rapid pulse characterized the menstrual periods, and the symptoms passed off with the cessation of the flow. I have also had a case of severe exophthalmic goître which was absolutely cured after marriage.

Is it possible, therefore, that the secretion of the ovary may in some way contribute the irritant to the thyroid gland which stimulates it to excessive and perverted secretion, and, further, can it be possible that the testicular secretion may have some influence in counteracting to some extent this tendency on the part of the ovarian secretion?

I have had ten cases of this disease under treatment during the last three years, and have tried almost every known therapeutic procedure except surgical interference. In one case I was tempted to try ovarian gland substance. The patient took 15 gr. per diem for three to six months, without, however, any improvement. I then superseded this by didymin tabloids, beginning with 10 gr. a day, and going up to 20 gr. In four weeks there was marked improvement. Two other patients showed no reaction to ovarian substance, but satisfactorily improved under didymin. My next two patients were treated from the first by testicular gland substance, and in both cases there has been noted marked improvement in the pulse-rate, tremor, the nervous excitability, and exophthalmos, but there has not been a corresponding improvement in the size of the thyroid tumour. The tabloids were continued for a period of six months and then discontinued.

I have therefore no doubt as to the efficacy of testicular secretion in the treatment of this disease, and, although my experience is limited in its use, I hope to be able to report at greater length later on, after a more prolonged use of this therapeutic agent.

Carnarvon. G. LLOYD ROBERTS, M.D.Edin.

CONSUMPTION IN THE LEWIS.

IN her recent popular book, *The Outer Isles*, Miss Goodrich-Freer, quoting from an older work, Smith's *Lewisiana*, endorses a statement as a present fact what is simply traditional, that "tuberculous consumption is unknown in Lewis." For the sake of truth and the best interests of Lewismen this assertion has to be not only disputed, but very seriously denied. It is believed that a century ago, when this remote "outer isle" was more isolated from foreign intercourse and outside influences and diseases, specially the infections, which, like commerce, follow the various flags, it may have been then justly credited with partial if not total immunity from phthisis.

But, alas! this character of blessed exemption from a malady so death-dealing can no longer be maintained, much less boasted of. The pitiless tubercle bacilli have in recent years been silently depositing their deadly virus in every class of dwelling and inmate so widely and so fatally that its victims in Lewis number from 46 to 60 annually, and are yearly on the increase. Seeing that the rumoured absence of consumption is thus entirely fabulous, its ravages so deplorably spreading, the well-known means of prevention so utterly beyond local effort, all baseless barriers to public sympathy removed by true representation of facts, the insular authorities are resolved to take such steps as may prove efficient in securing such remedial means as have proved a priceless boon to their more favoured fellow-subjects.

CHARLES M. MACRAE,
Stornoway, Island of Lewis. M.O.H. for Lewis District.

PUERPERAL ECLAMPSIA.

THE two papers on this subject in the BRITISH MEDICAL JOURNAL of November 7th, 1903, serve to remind us how very unsettled our views are as to the best method of dealing with the condition. Radical and conservative measures are strenuously advocated by different observers from time to time under apparently similar conditions. I venture to again remind your readers that the Clinical Society of Manchester is endeavouring, by a collective investigation, to acquire and disseminate more definite knowledge on the whole subject of eclampsia, particularly in its clinical aspects. Every member of the profession is earnestly invited to report any case of eclampsia he may attend, and in order to facilitate reporting and subsequent analysis we have drawn up a form of report which can be filled in in a very few minutes. Since February last rather more than fifty reports have been sent in—enough, I think, to warrant us in asking for more and continuing the inquiry. Several of these reports show conclusively that death does sometimes occur, "if the patient survives the emptying of the uterus, whether by artificial or natural means."[1] I have just had an application for forms from Calcutta, a very encouraging sign. I may mention that fatal cases, and cases of threatened eclampsia, which recover under treatment without developing convulsions, are quite as valuable for our purpose as those which recover from convulsions, and that cases in which the excretion of urea has been noted are especially valuable as tending to establish or correct modern opinions as to the pathology, etiology, and symptomatology of the condition. If deficiency of urea excretion is a proximate cause of the convulsions, a cup of strong beef tea may conceivably determine an attack in a patient already on the verge of eclampsia, just as a glass of beer may, in some individuals, bring on an attack of gout. Some of us are quite convinced as to the latter possibility, and I have some practical reason for believing in the former. The question is of some practical importance in both cases. Abundant evidence is wanted on the whole subject of eclampsia. We believe that there is plenty of evidence available if only we can collect it, and in this almost every general practitioner can help us. I shall be very pleased to send report forms to any member of the profession who will apply by postcard to

J. PRICE WILLIAMS,
Broomfield, Swinton, Manchester. Hon. Sec. for the Investigation.

GERMAN BALNEOLOGICAL CONGRESS.—The twenty-fifth annual meeting of the German Balneological Congress will be held at Aix-la-Chapelle, March 3rd to 8th, 1904, under the presidency of Professor Oscar Liebreich. Communications should be addressed to the General Secretary of the German Balneological Society, Geheimer Sanitätsrath Brock, Thomasinsstrasse, 24, Berlin, N.W.

[1] BRITISH MEDICAL JOURNAL, November 7th, 1903, p. 1212, line 11.

REPORTS
ON
MEDICAL AND SURGICAL PRACTICE IN THE HOSPITALS AND ASYLUMS OF THE BRITISH EMPIRE.

ROYAL INFIRMARY, GLASGOW.

INJURIES AND EFFECTS OF A RIFLE SHOT AT CLOSE QUARTERS.

(By R. RAMSEY, M.B., Ch.B., Senior Resident Surgeon).

THE following account of the effects of a rifle shot at close quarters is of interest as showing the character of the wounds of the different tissues caused by a bullet travelling at a high rate of speed. The value of this report is enhanced by the position of the men in line, as if for experiment, and the different kinds of tissue involved.

Fig. 1.—Rioch, shot first: bullet grazed the right thigh, perforated the right hand, the left mid-finger and the left thigh.

History of the Accident.—Three men, recruits of the Gordon Highlanders, stationed at Maryhill, were admitted to the Royal Infirmary, Glasgow, on Tuesday, May 19th, 1903, with injuries caused by the discharge of a rifle at the shooting range, Dechmont, Cambuslang. The rifle was the Government "Lee-Enfield," the bullet being of the usual pattern covered with a copper nickel casing, all but the base, its diameter being 0.303 in., and its weight 215 gr. The explosive was cordite, and the muzzle velocity is stated as 2,000 ft. per second. These three men were sitting about 2 yards apart on a bench facing the butts, where they awaited instructions to commence firing. Another man was standing at the end of the bench when his gun accidentally went off, shooting first the man named Rioch who was within 3 yards of the gun, then MacDonald, and lastly Bathgate.

Injuries.—Rioch sat with his hands between his thighs, and the bullet abraded the skin of the anterior surface of his right thigh, pierced his right palm from within outwards—the second finger of his left hand—notching the second phalanx, and then passed through the left thigh, anterior to the femur. The wounds of the hands and left thigh were sharply defined holes, those of entry and exit being of similar size and free from scorching or discoloration. MacDonald was sitting at a slightly higher level and was shot in the back. In his case the bullet entered at a point anterior and external to the right posterior superior

iliac spine, passed through that prominence, the posterior surface of the upper end of the sacrum, the left posterior superior iliac spine, and emerged at a similar position to the wound of entry. The haemorrhage was profuse, and the track of the bullet had to be laid open and packed. Owing to the nature of the bleeding surface—cancellous bone for the most part—the packing had little effect until the gauze was saturated with a solution of adrenalin chloride (1 in 1,000). The wounds of entry and exit were small and of about the same size. A clean bored track could be seen, and in addition, for about 2 in. on each side, the bone was shattered. The spinal canal was just opened, but there were no symptoms of disturbed innervation, motor or sensory. The bowels and bladder acted normally soon after admission. This patient suffered considerably from shock, as evidenced by his restlessness, feeble pulse, and mental distress. The great loss of blood no doubt contributed much to this condition. Bathgate's wound was the least serious of the three. A piece of the bullet was found in the subcutaneous tissue of his forehead and was readily removed through an incision. This portion was about a sixth of the bullet, and was free from all covering and much altered in shape. He was rendered unconscious, and remained in that condition for about two hours, but, after he once regained consciousness, there was no further mental disturbance.

Progress.—The subsequent history was uneventful. Bathgate was dismissed well on May 28th, nine days after the accident. On June 8th Rioch's injuries were practically healed, though there was a small area of anaesthesia on the front of the left thigh below the bullet marks. MacDonald at the same date had made rapid progress. His wound was healing by granulation, and very little bare bone remained visible. All attempts at suture had resulted in the stitches tearing through.

REMARKS.—Had these injuries occurred in actual warfare it is possible that Rioch and MacDonald could have stumbled on for a short distance, but the injuries to the hands in the

Fig. 2.—MacDonald, shot second; bullet perforated the back from the one posterior superior iliac spine to the other, the track was laid open to arrest haemorrhage.

one case and the loss of blood in the other would very soon have rendered them *hors de combat*, while Bathgate, with the least wound, became at once unconscious. It is curious to note in this connexion that the effect of the unexpected report of the shot startled the men so much that it was difficult to elicit their relative and individual positions at the time of the accident. The wounds, where only soft parts were involved, healed very quickly. There was no scorching or blackening of the skin, no foreign matters such as particles of clothing in the wounds, and the speedy recovery seemed to indicate that the passage of the bullet did not cause sufficient elevation of temperature to produce necrosis of tissue. The only injury to bone in the first case was the punched-out half-circle of the second phalanx of the second left finger. There was no splitting or starring of the rest of the bone. The bony lesions in MacDonald's case, however, were very marked. The two posterior superior iliac spines, in addition to being perforated, were smashed into little fragments. So too the sacrum showed a large amount of comminution for a distance of about 2 in. on each side of the bullet track. When this patient was admitted to the ward, the flow of blood from the wounds of entry and exit was alarmingly free, and, as indirect pressure had no apparent effect, the track of the bullet was laid open in the hope of finding some bleeding vessel. The incision revealed a broad area of torn spongy bone from which the blood welled up continuously, and, as the pressure of iodoform gauze packing was not sufficient to arrest the haemorrhage, it was replaced by gauze saturated with a solution of adrenalin, as above noted, which soon had the desired effect. In the course of three days the iodoform dressings were reapplied. An early attempt, and a later, to suture the wound, were unsuccessful, the stitches being torn out on each occasion, probably by the contractions of the longissimi dorsi muscles. The freedom from nerve disturbances seems remarkable in view of the proximity of the sacral nerves and the concussion of the spinal column. It may be taken as likely that the bullet was broken up in its passage through the pelvic and sacral bones (MacDonald) for the fragment found in Bathgate's forehead, formed only about a sixth of the whole. A search was made in the patients, with the aid of the Roentgen rays, and at the site of the accident, for the rest of the bullet and its casing, without result. In conclusion, I wish to thank Dr. James A. Adams, for permission to publish this report, and to Dr. A. N. McGregor for the photographs illustrating this article.

At the end of August MacDonald reported himself; the back was healed, and his only trouble was slight pain on stooping.

Fig. 3.—Bathgate, shot third; a portion of the bullet was found under the skin of the forehead.

EAST LONDON HOSPITAL FOR CHILDREN.

EMPYEMA IN AN INFANT OF FOUR MONTHS: SIMPLE INCISION: RECOVERY.

(By T. L. LLEWELLYN, M.D., B.S., Resident Medical Officer.)

THE patient, an infant of four months, was admitted into hospital on August 26th, 1903, under the care of Dr. Coutts:

Previous History.—Until August 12th the child was in good health: on that day a severe cough developed, and the child was thought to be suffering from bronchitis. This did not clear up, and of late the child had had considerable difficulty in breathing.

State on Admission.—The child, a well-nourished baby, was suffering from severe dyspnoea; the respirations were shallow, grunting, and of the rate of 76 a minute. There was marked cyanosis. The pulse was very feeble, and could be counted only with great difficulty. The heart's apex beat could not be seen or felt, but by percussion was found to be situated in the nipple line of the fourth left interspace The right side of the chest, which did not move at all on respiration, was completely dull, and the breath sounds were weak, distant, and tubular. The breathing was exaggerated over the left side of the chest.

Progress.—An hour after admission the child's condition became worse, and aspiration was performed in the ninth right intercostal space; 5 oz. of pus were drawn off, and the relief of the patient was immediate. The parents refused to give their consent for an operation.

August 27th. The dyspnoea is still marked, and the dullness extends up to the third right rib in front. The culture taken from the pus grew a pure culture of staphylococci.

August 30th. A fluctuating swelling has formed over the site of the puncture, and gentle manipulation resulted in the escape of a drachm of thin yellow pus.

September 1st. The discharge from the track left by the aspirating needle has been continuous, and at least 3 oz. of pus have escaped. The parents have finally given their consent to an operation.

Operation.—Under a spray of ethyl chloride an incision, 1 in. in length, was made parallel to the ninth right intercostal space. There was no collection of pus under the skin. The superficial muscular fibres were divided, and then a pair of sinus forceps was introduced into the pleural cavity. Three ounces of pus escaped. The opening was enlarged, and a drainage tube, three-eighths of an inch in diameter, was introduced. The child stood the operation, which lasted a little more than a minute, well.

After-progress.—After the operation the temperature remained 103.8° for twenty-four hours. The empyema drained well, and there was no trouble in introducing the tube.

September 26th. The rubber tube was dispensed with, and a small gauze plug was inserted into the sinus.

October 2nd. The wound has completely healed.

October 13th. The child was discharged to-day in good health.

Remarks.

Cases of empyema at the age of 4 months are very uncommon, and recovery must be very rare.

The prognosis in cases of empyemata in young infants is extremely grave, and this gravity depends largely on the shock which operative interference produces. In the present case the extreme youth of the patient, together with the nature of the infection and the delay before the operation was performed, all seemed to point to an inevitably fatal issue. That this fatal issue was avoided I attribute solely to performance of the simple operation above described. The advantages of this method over rib resection, of which this case seems to me a striking example, are, on the one hand, the ease and quickness with which the operation can be done, and, on the other hand, the avoidance of all the risks of chloroform and of rib necrosis. The disadvantage generally urged against this method, namely, that of inadequate drainage, was in no way experienced.

ST. MARY'S HOSPITAL, MANCHESTER.

CASE OF CAESAREAN SECTION.

[Under the care of D. Lloyd Roberts, M.D.St.And. F.R.C.P.Lond., from notes taken by Harold Clifford, M.B.Lond., House-Surgeon.]

H. H., a married woman, aged 29, was admitted to St. Mary's Hospital, June 1st, 1903, when about 8½ months pregnant. She had been pregnant previously seven times. The first three times she went to full time, and on each occasion it was found necessary to perform craniotomy. The next three labours were induced artificially. One of the children was born alive but lived only five days; the others were stillborn. The seventh pregnancy ended with a miscarriage at six months.

Pelvic Measurements.—Internal conjugate, 3¼ in.; external conjugate, 6⅛ in.; diagonal, 4 in.; between superior iliac spines, 8¼ in.; crests of ilium, 10⅝ in.

On June 11th, Caesarean section was performed. A vertical incision was made in the middle line through the abdominal wall, and then in the same direction through the uterus. The child was easily extracted, the placenta being situated high up and towards the back of the uterus. The wound in the uterus was closed by means of interrupted silk sutures passing through the peritoneum and the muscular wall, avoiding the most internal layers of the wall. A few superficial sutures were put in afterwards. The abdominal wound was closed with silkworm-gut sutures passing through its whole thickness.

The patient made an uninterrupted recovery. The baby weighed 9 lb., and has since steadily increased in weight.

Remarks by Dr. Lloyd Roberts.—The point of interest in the case is that the patient had had seven children all born dead but one. The presumption is that all the children were alive *in utero* before labour was induced or was ended by craniotomy, though all were born dead except the fifth, which lived five days. Hitherto the patient would not allow Caesarean section to be performed; in this last pregnancy, however, she desired to have the operation done. There was nothing uuusual in the operation; the uterus was not drawn through the abdominal wound until it had been opened and emptied of its contents. At this stage of the operation it is advisable to bring the uterus out through the abdominal wound, in order to promote better contraction by digital manipulation, and thus prevent haemorrhage; it also permits of more accurate suturing of the uterine wound.

British Medical Association.

CLINICAL AND SCIENTIFIC PROCEEDINGS.

SOUTH-EASTERN BRANCH: CHICHESTER AND WORTHING DIVISION.

J. C. Thorowgood, M.D., in the Chair.

Bognor, November 20th, 1903.

Case.—Dr. Morris (Bognor) showed a case of tumour of the liver in a boy aged 11, which was generally thought to be syphilitic.

Therapeutics of Lung Diseases.—Sir Hugh Beevor read a paper entitled Some Ancient and some Modern Therapeutics in Lung Disease. He introduced the subject by pointing out the advances made in the treatment of pulmonary affections since 1837, when Stokes wrote his well-known work. Although Stokes's knowledge of physical signs had hardly been improved on even in our own day, his treatment showed little advance on the methods of his predecessors. Stokes's treatment of acute and chronic bronchitis was compared with modern methods, and it was pointed out that, although his antiphlogistic system of treating the acute variety was obsolete, nearly all his therapeutics were still employed in the chronic stage. The giving up of systems was probably the greatest advance in the treatment. The therapeutics were now based on broad considerations of physiology and pathology. Venesection, so largely advocated by Stokes, was still recognized as a powerful aid in the treatment of bronchitis and emphysema when the right heart was overloaded. The methods of external applications in modern custom appeared to be merely a less energetic continuation of the old applications. In reference to the treatment of asthma, the drugs recommended by Watson in 1848 were still their mainstays. Salter in introducing arsenic and Thorowgood in bringing forward caffeine placed two valuable remedies in the hands of practitioners. Asthma had always been the happy hunting-ground of quacks, and one enterprising American was at the present time making a fortune out of a nostrum containing cocaine and sodium nitrite. The modern method of intertracheal injections was a very uncertain one, as most frequently the fluid injected tended to distribute itself in one lung only. A modern method of treating lung disease was by oxygen. The best indication for its use was cyanosis, but it was a waste of time if such cyanosis was due to a blocking of the bronchi with sputum. Its greatest use was in pneumonia; but even then it should not be given too undiluted, as 80 per cent. of it was said to diminish movements of respiration. Treatment by fumes of creosote acted mainly by the coughing it produced rather than by its antiseptic virtue. Contrasting the treatment of pneumonia in the time of Stokes with that of to-day, instead of the use of depressants like antimony, aconite, and veratrin, practitioners now employed stimulants such as alcohol, ether, ammonia, strychnine, and digitalis. The antipneumococcus serum was on its trial, but the published statistics did not help much in forming a conclusion as to its efficacy. The relative value of icebags and poultices was discussed, to the advantage of the former, and reference was made to the occasional use of saline injections.

Papers.—Dr. Going (Littlehampton) read a paper on a case of meningitis supposed to be tuberculous which showed unusual symptoms and finally recovered.—Mr. Rawlinson (Bognor) read a paper on a case of infantile scurvy.

STAFFORDSHIRE BRANCH.

F. Milnes Blumer, President, in the Chair.

Stoke-on-Trent, Thursday, November 26th, 1903.

Patients.—Dr. Hind showed a case of paralysis of the serratus magnus in a man, the result of an injury.—Dr. Hughes showed (1) a schoolboy, aged 13, with cerebral tumour. The patient complained of inability to write properly, staggering gait, nausea, and progressive deafness, with occipital headache for nine months. He had much the aspect of a boy suffering from adenoids. There was marked inco-ordination in movement, but no loss of muscular power

n all four limbs. The deep reflexes were all exaggerated. There vas complete deafness in the left ear, partial in the right. An uroscopic examination gave negative results. The tuning-fork laced on the centre of the forehead was heard equally well n both ears. There was marked paresis of the left side of he face. The retinae were pale, the discs pale; there was light cupping of the left. No swelling or haziness. Both isual fields were contracted. Cutaneous sensation was ormal. Sensations of smell and taste were blunted. On eing told to stand with the feet together and the eyes closed he patient at once fell. On percussion a tender area was ound in the left occipital region. The naso-pharynx was locked by soft growth or growths. Diagnosis was made of arcomatous tumour growing from the bones at the base of he skull, involving in the first instance the cerebellum, now rowing forwards involving the auditory and the facial nerves f the left side.—Dr. PETGRAVE JOHNSON showed: (1) A case f lupus erythematosus; (2) a case of hypertrophic pulmonary steo-arthropathy in a boy aged 10 years.—Dr. LIST showed adiographs of a case of osteo-arthropathy and of the limbs f a cripple.—The PRESIDENT, Dr. DEANESLY, and Dr. McALDOWIE discussed the cases.

Appendicitis.—Mr. W. D. SPANTON read a paper on some ractical points associated with appendicitis, which will be ublished.—Mr. R. ALCOCK read notes of a case of hydatid yst simulating appendicitis.—The PRESIDENT, Drs. DEANESLY, IIND, HATTON, STUART, BYRNE, HARTILL, and SPANTON took art in the discussion.

Specimens.—Dr. HUNT showed the following: (1) Gall stone emoved from the ileum for obstruction; (2) fractured stragalus which had to be excised; (3) lower end of femur ith sequestrum; (4) myoma of the uterus.—Dr. HADLEY howed the head of a taenia mediocanellata.—Mr. W. D. PANTON showed (1) sarcoma and myoma of the uterus. A arried lady, aged 64, living in Derbyshire, had pelvic pains nd obstructive symptoms with colic three or four years efore he saw her, with Dr. Boswell, in March, 1903. The terus felt normal on vaginal examination, but a large, ovable tumour and several nodular outgrowths were found n abdominal examination. She had lost flesh, and was nable to move about without pain. There was an occaional, but not constant, rise of temperature. An operation as performed on April 18th, 1903. A large, hard tumour as found attached to the fundus uteri by a sloughing pedicle hich had become twisted, and to which a large mass of mentum was firmly adherent. The tumour was cut away and he stump sutured over. Six subperitoneal myomata were also nucleated and removed, each wound being sutured separately. he uterine cavity was not opened. The large tumour was ery dense, dark-coloured on section, and consisted of fibroyomatous tissue undergoing sarcomatous changes, the sarcoma cells being infiltrated between the fibrous and myomatous tissue. The separate smaller growths were myomata ndergoing calcareous degeneration. The patient made a ood recovery but had recently developed a swelling in the eighbourhood of the omental stump which looked very uch like secondary sarcoma. The case afforded a good stance of secondary changes in simple growths, and some f the dangers incident to them. (2) Papilloma and cystic varies: A married lady, aged 42, previously married to a yphilitic husband, no family, noticed some abdominal nlargement with pelvic pain about twelve months before she as seen in November, 1902. On examination a cystic tumour as found on each side of the pelvis, reaching to the mbilicus. The uterus was free, but a mass was felt on ither side. Operation disclosed two ovarian cystic papilomatous tumours. These were removed and ligatured in the rdinary way. Sickness caused some trouble, but the patient ventually made a good recovery, and was now nearly ighteen months after) in perfect health. One interesting feature about the tumours consisted of the outrowth of papilloma through the cyst wall, forming an outside as well as intracystic tumour. (3) lyoma of uterus: A single lady, aged 39, April 2nd, 1093. he uterus was removed with soft oedematous myoma, leaving ervix. This lady first consulted Mr. Spanton on account of tention of urine in June, 1899. She had had three attacks since hristmas, 1898, each one being accompanied by rise of temerature to 103°. Uterine myoma was found to be the cause, nd in August, 1900, both ovaries and appendages were exised. The catamenia continued, but the tumour diminished ntil the end of 1902, when the latter began to increase quickly nd caused much discomfort. On April 3rd, 1903, abdominal ysterectomy was performed, and the patient made a quick recovery and was now perfectly well. The tumour was a fibromyoma. (4) Multiple myoma of uterus: A single lady, aged 51, first seen fifteen years before for uterine tumour, which was then recorded as multiple subperitoneal myomata. Mr. Spanton had seen her at intervals since. She suffered much inconvenience from sickness, pain, and menorrhagia, and afterwards from pressure symptoms. Five years ago a fresh outgrowth appeared, and it was evidently telling on her general health. Early this year it was found that there had been considerable increase in size, a new mass having appeared deep in the pelvis, the main uterine tumour reaching up to the ribs. Operation had been repeatedly advised, but owing chiefly to domestic reasons was as often deferred; but this year it was quite impossible to go on, as she was unable to move about, and going fast down hill. In April last Mr. Spanton opened the abdomen and found the main mass so incorporated with the abdominal and pelvic contents that removal was impossible. He therefore took away the large mass (shown) which was the one pressing upwards and also three smaller tumours, hoping this might afford some relief. She rallied well, but on the third day died rather suddenly from syncope with all the symptoms of pulmonary clot. The operation ought to have been done when it was first advised some years ago before the heart began to fail. The growths were myomatous, with a large proportion of fibrous element. (5) A very dense fibrous polypus removed from the uterine cervix of a single lady on account of obstruction, and in whom there also existed an epithelioma of the rectum. (6) Seventy-seven biliary calculi removed from the gall bladder of a married woman, 44 years of age, who had her first attack of biliary colic sixteen years before and repeated attacks since. The gall bladder was drained and she made a rapid recovery.

SOUTH MIDLAND BRANCH: NORTHAMPTONSHIRE DIVISION.

FRANK BUZZARD, M.D., F.R.C.S., President, in the Chair.

Northampton, December 10th, 1903.

President's Address.—The PRESIDENT gave an interesting address on the science and art of medicine, dwelling on the importance of the personal element in present-day practice, but foreseeing a happy future when medicine would be practised as an art which had a true basis of scientific fact.

The Treatment of Haemorrhoids.—Mr. G. H. PERCIVAL read a paper on the treatment of haemorrhoids, external and internal. For external he relied chiefly on hot applications and anodynes. Internal he had found chiefly due to pregnancy, constipation, and associated with stricture of the rectum. Where the haemorrhage was severe he usually operated by the method of ligature.

Anaesthetics.—Dr. McCARDIE (Anaesthetist, General Hospital, Birmingham) gave a demonstration on anaesthetics, especially ethyl chloride, which he said was cheaper than somnoform and quite as efficacious, the average duration of anaesthesia being 71.3 sec. He also showed several instruments and appliances, especially a form of chloroform inhaler in which the dose of the vapour could be regulated.

Treatment of Ascites.—Dr. CLEMENT DUKES (Rugby) read a paper on the treatment of some forms of ascites (especially those due to chronic peritonitis) by stitching the great omentum to the parietal peritoneum, thus establishing an anastomosis between the systemic and portal circulations.

Choroidal Sarcoma.—Mr. HARRIES JONES read notes and showed specimens of two cases of choroidal sarcoma which had occurred at Northampton Hospital, and drew attention to the differential diagnosis (1) in the early stage from retinal detachment due to other causes, (2) in the acute stage from acute glaucoma.

INTERNATIONAL CONGRESS ON PHYSICAL CULTURE.—Preparations for the second meeting of the International Congress on Physical Culture which is to be held at Geneva in 1904, are now in active progress. The following is the provisional programme: 1. Facts and figures as to the actual condition of physical culture in different countries. 2. Scientific bases of physical culture. 3. The physical education of childhood and youth in the school: organization, programme, methods, time devoted to training, teaching, etc. 4. Teaching in universities; training of professors and masters, organization, etc. 5. Physical culture of the working classes: schools for adults, people's holidays, competitions. 6. School hygiene. 7. Unification of gymnastic terminology.

REPORTS OF SOCIETIES.

CLINICAL SOCIETY OF MANCHESTER.

W. MILLIGAN, M.D., President, in the Chair.

Tuesday, December 15th, 1903.

ACCIDENTAL HAEMORRHAGE IN PREGNANT WOMEN.

DR. BRIGGS opened a discussion on the treatment of severe cases of accidental haemorrhage, and claimed that there was a prima-facie case for reconsideration of what the treatment should be. By a detailed review of the literature of the past, including the essay of Rigby and the statistics of Sir James Simpson, he showed the high mortality which occurred in cases of placenta praevia when podalic version was practised by famous obstetricians. Better results had followed the adoption of gentler and more precise methods, such as external version and the use of the bag of Champetier de Ribes, as less rapid and more natural delivery was effected. It was doubtful, however, whether in the treatment of severe accidental haemorrhage equal improvement had occurred. The literature of this subject was also brought under review, and in conclusion Dr. Briggs drew attention to the Rotunda Hospital method of treatment by pressure effected by binder, vaginal tampon, and perineal bandage, which seemed to be effectual in that most difficult class of case in which with accidental haemorrhage the os uteri was closed, no pains present, and the patient suffering from shock, but still possessing a chance of recovery. In the hands of Smyly and his followers the treatment of this alarming complication had been of a more encouraging character than formerly, and he thought that the method, which he had himself tried in his own practice, should be adopted generally.

Dr. WALLS considered the term "accidental haemorrhage" a misnomer, and in some measure responsible for unsatisfactory treatment. The cases should be regarded as influenced by some toxaemia of pregnancy, for the patients almost invariably expressed themselves as "never having been well" during pregnancy; and in many cases the urine was loaded with albumen. He considered that many cases might be suspected beforehand and treated on general lines appropriate to the toxaemia, taking the urine as guide, and improving the action of bowels, kidneys, and skin. The three great indications which guided his practice were to improve the patient's condition by quiet, rest, food, stimulants, and warmth, and encourage the uterus to overcome its inertia by friction, binder, and vaginal plug or Champetier de Ribes's bag. In the absence of proper uterine action he condemned the practice of rupturing the membranes; the second indication was to deliver the patient if improvement ceased to follow the preliminary treatment; and, thirdly, to guard especially against *post-partum* inertia and haemorrhage.

Dr. SINCLAIR thought true cases of accidental haemorrhage were extremely rare, not more than 1 in 10,000, but when it did occur energetic interference and treatment were demanded, and *accouchement forcé* should be adopted.

Dr. FOTHERGILL explained the *rationale* of the Dublin treatment of accidental haemorrhage. A healthy uterus could not be distended to more than a certain extent; therefore, if escape of blood from the cervix could be prevented by vaginal plugging, the tension within the uterus would soon equal the blood pressure, and, according to the Dublin school, bleeding would cease. In a diseased uterus, however, distension could go much further, and practically all the blood in the body might empty into it. In really serious cases, perhaps, abdominal section gave the patient the best chance.

Dr. P. R. COOPER thought that cases of severe accidental haemorrhage were not so rare but that they might occur in the practice of any practitioner. He considered the essential guide to correct treatment was the condition of the uterine muscle. When this was active, or responded to stimulation, expediting delivery by the ordinary methods would probably answer best. When, however, the uterus was completely inactive and irresponsive, forcible extraction was absolutely contraindicated. In these cases a Porro's operation probably gave the patient the best if not the only chance of recovery.

Mr. STANMORE BISHOP had had no experience of accidental haemorrhage, but in *post-partum* haemorrhage he believed too much attention was directed to measures which could only act upon the uterus itself. He urged the more scientific consideration of the anatomy of the vessels supplying the blood lost, and the advantages of compression of the aorta to control the arterial and the elevation of the lower half of the body and legs so as to affect the venous supply. The essential thing was to keep the respiratory and cardiac centres supplied, and so to obviate the tendency to death.

Further observations were made by Drs. HELME, MARTIN, and TYTLER; and Dr. BRIGGS replied.

GLASGOW OBSTETRICAL AND GYNAECOLOGICAL SOCIETY.—A meeting was held on December 16th, 1903, Dr. J. NIGEL STARK, President, in the chair, and was given up mainly to pathology.—Dr. CARSTAIRS DOUGLAS showed two pairs of kidneys from patients who had died of eclampsia. In one case the kidneys were small and cirrhotic, weighing 2 oz. In the other case the kidneys weighed 4 oz.—Dr. JARDINE showed (1) a modification of Braun's hook, with a cutting edge on the concave side; (2) a ruptured uterus from a case in which decapitation was done; there was a tear extending up the left side of the uterus, and another across the lower uterine segment.—Dr. KELLY showed: (1) A large soft myoma; (2) a dermoid cyst of the left ovary; (3) a myomatous uterus with an ovarian cyst on the right side.—Dr. BALFOUR MARSHALL showed a uterus with carcinoma of the body.—Dr. A. MCLENNAN showed microscopic sections from a case of endometritis glandularis hypertrophica.—Dr. A. LOUISE MCILROY showed microscopic sections.—Dr. RUSSEL showed (for Dr. EDGAR) a dermoid cyst of the ovary removed from a patient six months pregnant.—Dr. TAYLOR showed a seven-months female fetus in which the left half of the diaphragm was absent. Hernia of the greater part of the abdominal contents had taken piace into the left side of the thorax. The heart was pushed over to the right.—Dr. G. SCOTT MACGREGOR read a paper on the management of anterior and posterior displacements of the uterus. The paper was discussed by Drs. KELLY, MCLENNAN, MARSHALL, and RUSSEL.—Dr. MCLENNAN read notes of a case of sarcoma of the uterus. Hysterectomy was performed. The uterus was much enlarged. When split open it was found to contain a tumour involving the whole posterior wall, and almost rupturing into Douglas's pouch. Dr. McLennan attributed the enlargement of the uterus to the poison secreted by the tumour acting on the myometrium.—Dr. J. LINDSAY showed a double monster (thoracophagus), and read a clinical note by Dr. Edgar. All the serous cavities in the two fetuses were completely separate, except the pericardium, which contained two hearts. The organs were normal, except that the liver was composite. Dr. Lindsay gave a description of the circulatory arrangement.

BRADFORD MEDICO-CHIRURGICAL SOCIETY.—At a meeting on December 15th, Dr. H. ANGUS, President, in the chair, Dr. JASON WOOD read notes on a case of hydatid cyst simulating enlarged prostate, and causing complete retention of urine.

The patient was a man, aged 68, who came to hospital with complete inability to void his urine. It was impossible to obtain any history, as he was almost completely deaf, and was of deficient intelligence. His friends knew nothing of what he had been doing for some time prior to his entering the hospital. The bladder was distended up to the umbilicus, and was relieved by a soft catheter, which at first passed easily, but after a few days only a silver instrument could be used successfully. Examination per rectum showed a large firm swelling in front of the rectum. It was smooth and rounded, and no nodules were felt on it. The finger could not reach completely above it. On deep pressure above the pubes the anterior aspect of the swelling could be reached. A diagnosis of hypertrophied prostate (? tumour) was made and it was decided to operate on it by the suprapubic method. The patient was a healthy-looking man, and showed no physical signs of disease. The urine was clear, acid, specific gravity 1010, and contained no albumen at first; on the day of the operation, however, a trace of albumen was found. On August 6th suprapubic cystotomy was performed. On opening the bladder the swelling was at once seen covered by the mucous membrane of the bladder. The urethral opening was in front of the swelling and hidden by its projection into the bladder cavity. On incising the bladder mucous membrane it was found to strip readily from the swelling, and the latter was seen to be covered by a dense parchment-like membrane. It was not found practicable to enucleate the tumour owing to the limitations of the wound in the bladder and the depth to which it extended. The covering of the tumour was then incised, and the nature of the case made evident by the escape of a large quantity of hydatid daughter cysts. As much as possible of the cyst wall was cut away from the front and the cavity packed with gauze, the end of which was brought out through the wound into the cyst through the perineum. The peritoneal cavity was accidentally opened during the attempt at enucleation of the cyst. The bladder wall was sewn up with interrupted catgut sutures, the suprapubic wound partly closed, and a large drain inserted. Patient did well for twelve days after the operation except that he was troubled wiih hiccough; this, however, ceased on the sixth day after the bowels had been moved. There was no escape of urine through the perineal wound, no signs of peritonitis; both wounds looked healthy. The

mperature was normal but the pulse was quick—110. He took urishment well. On the thirteenth day he became lethargic and fused his food, gradually became comatose, and died on the fifteenth y after the operation, apparently from uraemia. Necropsy showed e cyst in the recto-vesical space; the peritoneal cavity was shut off by hesions, and the bladder wound was healed by soft tissue. The kid-ys were cystic, and the total kidney weight was 8 oz. The ureters ere dilated. There were numerous small cysts in the liver but no gn of hydatid disease elsewhere. The prostate was natural in appear-ice and size, and in close relation to the cyst wall. The other organs re fairly healthy.

rs. FARROW, SLATER, GOYDER, HALL, and ANGUS made emarks on the case; and Dr. WOOD replied.—Dr. GOYDER ave some details of a case in which there were peculiar henomena attending menstruation, and narrated its sequel. The patient was a single woman, aged 32, who had some tenderness nd pain in the iliac region, together with pain and fullness about the ft ovary, as made out by vaginal examination. As the menstrual eriod came on there was *malaise*, the tongue became thickly coated, e external genitals swelled, and there was sometimes retention of ine, requiring the use of the catheter. There was soreness of the ruces, which passed into nausea and vomiting as the period advanced. e had also occasional hysterical manifestations.

hese phenomena attended menstruation for ten years more less constantly. Operative treatment was refused. As me went on she developed symptoms of haemophilia. When 42 years of age she developed ascites, and after emoval of a quantity of bloodstained fluid by tapping, a umour the size of an orange was felt in the left iliac region. he died in six months after repeated tappings, apparently om malignant disease of the peritoneum.—Dr. EURICH ead notes of a series of cases of epilepsy, in which "fits" ere not the prominent symptom. In some of them there ere acute maniacal attacks, with homicidal tendencies. In ne case lapses of consciousness occurred, in which the patient andered away and did not remember where he had been. he importance of these cases from a medico-legal point of iew was pointed out in their association with the plea of responsibility on account of epileptiform seizures by persons ho had committed criminal acts.—Dr. F. W. EURICH gave a emonstration of microscopical specimens, and Mr. C. M. LTHORP showed a uterus removed for procidentia.—Mr. B. I. SLATER showed (1) a patient whose tongue had been com-letely removed for epithelioma six months previously; 2) a case of secondary suture of the ulnar nerve; (3) sarcoma f thyroid gland from a child $2\frac{1}{2}$ years old.

LIVERPOOL MEDICAL INSTITUTION.—At a meeting on December 17th, 1903, Mr. RUSHTON PARKER, B.S., F.R.C.S., President, in the chair, Mr. THELWALL THOMAS exhibited eceptacles for dressings, designed by him to facilitate the arrying out of aseptic surgery in private practice. The boxes ere rectangular, the lid placed underneath, and let in in uch a way that when the box rested on a flattened surface ust could not enter; the sides had perforated "hit and iss" slides. They fitted into a large steam sterilizer, and ach box held the necessary dressings, bandages, sheets of terilizable waterproof material covered with thick muslin, nd two specially-designed gowns. A dark macintosh cloth ase was fitted over the box for transportation. The PRESIDENT hought the boxes shown were by far the most convenient nd suitable ones he had seen.—Dr. GORDON GULLAN showed lad, aged 18 years, suffering from morbus coeruleus. There ere signs of enlargement of the right heart, with obstruction f the pulmonary artery, and probably a patent ductus rteriosus. He was able to follow his trade as a watchmaker. Dr. Gullan also reported two cases of cretinism in youths f 20, one patient being shown. Both were typical cases. One was improving under thyroid; the other had shown no mprovement.—Dr. HUBERT ARMSTRONG referred to the risk f sudden death in congenital heart disease, and mentioned wo cases in his own experience, one a baby and the other a boy of 12.—Mr. NIMMO WALKER showed a woman, aged 49, with double optic atrophy and double third nerve paralysis. There was a history of "inflammation of the bowels" two years previously, with vomiting and headache, and the lesions were probably due to a basal syphilitic meningitis implicating the affected nerves in the interpeduncular space and the chiasma. Some power was returning under mercurial inuncton and potassium iodide internally. Mr. Walker said it was a rare case, and had only occurred once in 9,000 patients seen at St. Paul's Eye and Ear Hospital in the present year.—Mr. GEORGE G. HAMILTON read a paper on rapid paraplegia, and reported a case. In commenting on the condition, he suggested that discussion might usefully turn upon the following conditions—traumatic neurasthenia, meningitis, spinal haemorrhage, Landry's paralysis, peripheral nerves, and toxic palsies. In this particular case the necropsy revealed a haemorrhagic myelitis. Dr. E. E. GLYNN had examined the spinal cord and cerebro-spinal fluid and had found no evidence of bacterial infection. Dr. W. B. WARRINGTON said many cases of so-called acute myelitis were really due to softening of the cord following syphilitic arterial disease, but the differential diagnosis was difficult. He suggested that a syphilitic history and spread of the symptoms from one limb to the other with the Brown-Sequard features might help, and quoted two cases in which this symptom-complex was present. Primary haemorrhage into the cord was extremely rare. It was important to recognize a syphilitic origin as a guide to treatment. Drs. T. R. GLYNN, RAW, CARTER, and BARR spoke, and Mr. HAMILTON replied.

SHEFFIELD MEDICO-CHIRURGICAL SOCIETY.—At a meeting on December 3rd, 1903, the PRESIDENT, Mr. G. H. WEST JONES, in the chair, Dr. A. E. NAISH showed a case of haemophilia with haemorrhage under the right iliac fossa. The patient was a boy, aged 17. The ankles, knees, and elbows had been frequently affected since the age of 5. The left knee was the subject of extensive osteo-arthritic changes, with enlargement of the bones and fixation in a flexed position. A large haemorrhagic effusion had appeared suddenly in the right iliac fossa, accompanied by pain in the corresponding hip-joint. This mass had now mostly disappeared, leaving the psoas muscle firm and thickened. The patient was the eldest of a family of four boys, three of whom suffered from the disease. One brother had died from a minute cut on the lip. His mother suffered from haemophilia of a mild type.

—Dr. A. J. HALL read a paper entitled Some Remarks on Sudden Death, illustrated by pathological specimens. He referred to the different conditions under which sudden death, apart from violence, poison, drowning, etc., occurred, and the difficulty of framing a definition which would cover such cases. Even if the term "unexpected death" were used, it left out many cases. Specimens were shown illustrating various causes of sudden death—for example, pulmonary embolism, ruptured heart, ruptured aneurysms, meningeal haemorrhage from cerebral aneurysm, syphilitic fibrosis of heart, pontine haemorrhage, etc. Reference was also made to sudden death in which nothing was found *post mortem* to account for it; pneumonia in the aged apparently of a mild type was also mentioned as dangerous, also alcoholism in women and particularly the taking of strong purgatives by old people.—The following cases were shown:—Mr. S. SNELL: (1) A boy, a file-cutter, aged 15, with optic atrophy from lead poisoning; (2) a woman with monocular proptosis and v. Graefe's sign; no enlargement of thyroid or tachycardia; (3) and (4) two sisters, one with coloboma of iris and choroid in each eye, the other in whom one eye only was affected; reference was made to a boy at present under observation with double microphthalmos, coloboma of the iris, and choroid in one eye, and remains of pupillary membrane in each eye; (5) well-marked case of diabetic retinitis in a middle-aged woman with diabetes of long duration; (6) a woman with marked albuminuric retinitis; (7) an instance of extreme convergent strabismus in a man; (8) trachoma in an alien.—Dr. G. WILKINSON: Two cases of syphilitic lesions of the auditory meatus.—Dr. A. J. HALL: (1) Exophthalmic goître; (2) tertiary syphilitic eruption of the legs; (3) favus; (4) congenital syphilide.—Specimens of tumours of the uterus were shown by Mr. R. FAVELL, namely: A submucous fibroid, a submucous fibroid undergoing necrotic change, and sarcoma.

CLOSING OF A MEDICAL SCHOOL IN JAPAN.—According to the *Sei-I-Kwai Medical Journal*, the proprietors of the Saisei Gakusha, a well-known medical school which has existed for twenty-seven years, have closed both it and the Somon Byoin, the hospital attached to it. The reason assigned for this decisive step is the refusal of the Education Department to give permission to the school to call itself a college. Recently the law schools in Tokyo transformed themselves into colleges, "in order," says our contemporary, "to impress the public mind, which is notoriously impressionable by words," and the Saisei Gakusha wished to do likewise. The result of the rejection of its application to the Government is that no fewer than 3,000 students, 600 of whom have been in regular attendance, find their future prospects seriously affected by the closure of the school, and are clamouring against the authorities. The booksellers, lodging-house keepers, pawnbrokers, and others who have hitherto lived on the students are also agitating for a reconsideration of the decision.

REVIEWS.

DIGESTIVE DISORDERS.

DR. AITCHISON ROBERTSON'S *Contributions to the Physiology of Digestion and to Dietetics*[1] is a collection of papers published by him during the last few years in various periodicals. They appear here without modification and with no attempt to cover the whole of the ground. His ten papers, in fact, deal almost exclusively with the digestion of sugars and starch and the relation of the various digestive juices to these processes. It was well worth while to remind us of the enormous increase that has taken place in the consumption of cane sugar during the last two hundred years. According to M'Culloch, the amount consumed in Great Britain in 1700 was only 10,000 tons, while in 1891 it reached the total of 1,352,676 tons, which is equivalent to an annual consumption of 80 lb. per head. The amount consumed has increased nearly three times since 1864, and, although the author says nothing about it, this increase affords a highly probable explanation of the deterioration of the teeth and the proneness to digestive troubles of the present day. It is believed that cane sugar cannot be absorbed until it is inverted into glucose. This process of inversion is apparently effected by the hydrochloric acid of the gastric juice, healthy gastric juice and a solution of hydrochloric acid of the same strength giving practically the same results. Experiments with the gastric juice from a case of chronic gastritis showed the inverting power to be diminished and when a solution of cane sugar was poured into the stomach through a tube after the organ had been thoroughly washed out, it caused pain, heartburn, flatulence, and vomiting; on the other hand a solution of equal strength of invert sugar produced no discomfort. These experiments explain why cane sugar so often causes stomach trouble, and also indicate the desirability in gastritis of substituting for it invert sugar of which honey constitutes an agreeable and convenient form. It is probably on account of the high percentage of invert sugar contained in it that treacle has a good reputation in the nursery, and toffee is regarded as one of the most wholesome forms of confectionery. The study of the digestion of starch confirms the general belief that it goes on until the stomach contents contain free acid, but this will not happen so long as there are proteids present for the hydrochloric acid to attack, therefore starch is better digested when accompanied by a certain amount of proteid food. His careful experiments upon the digestibility of various infants' foods in the main confirm what was previously known. The salivary digestion of bread is only seriously interfered with when it is eaten in combination with acids, such as acid wines, particularly sherry and claret, so that the combination of sherry and a biscuit seems to be unphysiological; tea, which is also acid, has an inhibitory action, and so to some extent, though no explanation is forthcoming, has milk. The amount of saliva and its activity in various diseases and conditions have been studied by Dr. Robertson, and (but this is contrary to our own experience) he finds that in gastro-intestinal disorders there is frequently a decrease in the power of ptyalin; quite rarely the ferment may be almost absent or at least not active, but in other cases it may be above the average. A similar decrease was noted in nervous diseases, Addison's disease, and in renal diseases, while in diabetes it was found to be very active. He does not recommend the use of any of the preparations of malt, taka-diastase, or salivary gland substance as a means of remedying the deficiency, but prefers to give a sialagogue of which there are many; for example, columba, gentian, ginger, horseradish, and pepper, act powerfully in this way. These are the chief points brought out in Dr. Robertson's essays. We hope he will continue his work, which is carefully planned and leads to practical conclusions.

In his lectures upon dilatation, motor insufficiency and atony of the stomach, Dr. FRIEDRICH CRAEMER[2] has published an excellent, detailed and practical study of the subject. He follows the usual practice of dividing dilatation into two forms: first, that due to mechanical obstruction and second, that dependent upon atony of the muscular wall. With respect to the frequency of the two forms he is inclined to agree with those who do not believe the atonic form to be the more frequent, a conclusion in which he is probably wrong but which results from the method of diagnosis he exclusively employs. He defines dilatation of the stomach as "enlargement of the organ with or without obstruction of the outlet combined with motor insufficiency." This is a very good definition, for as he very truly points out mere enlargement such as may occur in copious eaters does not constitute disease so long as the stomach empties itself in due course, and even a certain amount of obstruction may be so compensated by muscular hypertrophy as to give rise to no symptoms at all. His test of motor insufficiency is whether the stomach contains traces of food when examined by the tube a sufficient time after a meal. For this purpose he employs a mixed meal, consisting of meat, vegetables, and bread, and not the simple test breakfast of Ewald, and in this we believe that he is quite right. He divides motor insufficiency into two degrees: in the first class he would put those cases in which the fasting stomach when examined in the morning contains the remains of food, and in the second those in which food may be found six hours after a meal. The quantity of residue present affords a good measure of the extent of the motor insufficiency, but a healthy stomach should in both conditions be entirely free from even microscopical traces of food. We may add, however, that there are many persons who suffer from motor insufficiency of a degree which would not be always revealed by this test, especially if they are kept quiet and at rest during the observation. Their stomachs fail in muscular power whenever they are fatigued or exhausted, but under ordinary circumstances are able to empty themselves. Such stomachs reveal their weakness by the ease with which they are distended by carbonic acid gas, and probably cannot be recognized by any other means. In considering the causes of obstruction he states that masses of cherry-stones, figs, and similar foreign bodies, which sometimes cause obstruction do so in consequence of relative weakness of the muscular wall, for children are able to swallow such things without suffering ill-effects. He says that German country boys always swallow the stones with the cherries, and if that is not the case in England we at least see them eat green apples with impunity. Dr. Craemer is not a believer in movable kidney as a cause of obstruction of the pylorus, but is much more disposed to regard it as merely secondary, for Landau has proved on physical grounds that the kidney cannot exercise such pressure upon the intestine as could give rise to dilatation of the stomach. The conditions leading to gastric atony are in the first rank, attacks of infectious disease, chlorosis, abuse of tobacco, tea, and coffee, diseases of the brain and spinal cord, and protracted dyspepsia; he overlooks the highly important influence of exhausion and debility from over-work, excessive fatigue, loss of sleep, or lactation in persons of feeble organization, especially where there is hereditary nervous predisposition. On the basis of the definition already given the author is less concerned to determine enlargement of the stomach than whether it can empty itself in due time, and therefore he attaches little importance to the means used for estimating its size by distending it with carbonic acid gas, air, or water, or by diaphany or by the *x* rays; he is in accordance with most stomach specialists in recognizing that the chemical examination of the stomach contents, however interesting, does not give results in proportion to the amount of time devoted to it; the existence of cancer cannot be affirmed or denied from the presence or absence of free hydrochloric acid, nor can any definite conclusions be drawn from the percentage of hydrochloric acid in the stomach contents. The value of the absence of rennet ferment as an indication of atrophy of the gastric mucous membrane (Boas) has yet to be determined, but the method is one which presents no difficulty, and is worth attention. Is it a fact, as maintained by the author, that pyrosis or heartburn, which is common enough in ordinary dyspepsia, is always absent in true hyperacidity due to excessive secretion of gastric juice? He believes it to be always caused by fermentation, and recommends guaiacol carbonate as a remedy. The formation of gas by fermentation he holds to be an unfailing indication of motor insufficiency and food retention, but is it possible in a given case to determine whether the flatulence present is the result of fermentation or is merely due to the swallowing

[1] *Contributions to the Physiology of Digestion and to Dietetics.* By W. G. Aitchison Robertson, M.D., D.Sc., F.R.C.P.E., F.R.S.E. Edinburgh: For Private Circulation, 1903. (Demy 8vo, pp. 144.)

[2] *Magenerweiterung, motorische Insufficienz und Atonie des Magens,* Von Hofrat Dr. Friedrich Craemer. [Dilatation, Motor Insufficiency and Atony of the Stomach. By Court Councillor Dr. Friedrich Craemer.] With an Appendix on the Surgical Treatment of Dilatation of the Stomach by Dr. Albert Krecke. Munich: J. F. Lehmann. 1903. (Demy 8vo, pp. 160. M. 3.)

of air? He reminds us that Cohnheim has said that the presence of infusoria (amoebae) in the stomach contents is an indubitable sign of cancer, but quotes a case in opposition to this dictum, where both sarcinae and amoebae were found, yet nine years later the patient returned with his stomach in a perfectly healthy condition. The diminution in the quantity of urine marks the accumulation of gastric contents in a dilated stomach, and when the stomach empties itself or is emptied the quantity of urine increases at once. In a lecture devoted to tetany as a consequence of dilatation of the stomach, he lays stress upon the great gravity and frequent fatality of this complication, He believes it to be due chiefly to intoxication or blood poisoning from the absorption of poisonous substances formed in the stomach, but he does not deny that loss of water and reflex irritation play a part in its causation. A good example of the last element is seen in the case in which a fatal attack followed percussing the epigastrium, and he connects this with the intoxication theory by comparing it to the convulsions following disturbance in strychnine poisoning. He thinks the high temperature (106.7° F.) sometimes attained can only be explained as the result of toxin poisoning, and he quotes Bouveret's experiments to show that an alcoholic extract of the stomach contents causes tetanic phenomena in animals. In treating this condition it must not be forgotten that it has occasionally followed washing out the stomach, so that although this seems a rational proceeding, it is better to give large saline enemata, or to infuse normal salt solution under the skin, while, to control the convulsions, chloral is given by the rectum, or morphine subcutaneously. Dr. Craemer thinks that a favourable prognosis may always be given in simple atonic dilatation, with which we may agree if the statement is only taken to imply that such cases do not usually die if properly treated, and may in the long run get better; but many of them present the greatest practical difficulties in their management, and relapse over and over again. We join with him in protesting against the frequency with which such cases are dismissed with a diagnosis of simple nervous dyspepsia without the physical condition of the stomach having been recognized, or even looked for. The section on treatment is very clear and precise, and his conclusions on diet are those with which we are generally familiar, but we do not remember to have seen before the statement that either vermouth, or orange-juice or lemon-juice in small quantities is capable of seriously interfering with stomach digestion; grape-juice also is said to be often the cause of severe pains and great development of stomach gas. An excessive amount of importance is attached to washing out the stomach in the morning; the evening presents many advantages, for if the stomach is washed out before going to bed the patient will not be disturbed by indigestion and the mucous membrane of the stomach will remain for seven or eight hours free from the presence of irritating gastric contents. The disadvantage is that we diminish the time in which the stomach can digest and remove food which might have been absorbed, but this objection is not serious if, as we hold, washing should only be used when it is evident that the retention of gastric contents is irritating the stomach, and should not be continued daily for long periods. Intragastric electricity is spoken of favourably, but the author admits that his experience of it is limited; he disapproves of massage, but does not seem to appreciate that its real value is as a means of promoting improvement in general nutrition. Dr. Krecke in an appendix gives an excellent account of the surgical treatment of diseases of the stomach. He points out that such operations, even in recent years and with improved technique, are still serious; the causes of death are chiefly exhaustion, infection, pneumonia, and circulus vitiosus, and he discusses the means by which they may be prevented. He is of opinion that operations when undertaken in cases of primary atony of the stomach are not satisfactory. In cases of dilatation due to non-malignant obstruction operation is of course the only means of effecting a cure, and in this condition, where the obstruction is not due to a removable foreign body, such as masses of hair, shellac, or cherry-stones, the operation of gastro-enterostomy is generally selected, but in malignant obstruction pylorectomy is on the whole to be preferred as it at least affords a chance of a complete cure and after all is not really more dangerous. Statistics show that the average mortality from gastro-enterostomy for malignant obstruction is 38 per cent. and from pylorectomy 28 per cent; this is, no doubt, in part due to the cases of pylorectomy having been selected, while those of gastro-enterestomy have been done in more desperate conditions. But the ultimate results compare favourably, the duration of life after gastro-enterostomy being from five to nine and a-half months, while after pylorectomy it is from sixteen to seventeen months, some cases having lived as long as five or even eight years; he concludes, therefore, that resection is the operation of the future in cases of malignant obstruction. He believes that up to the present time pylorectomy for cancer of the stomach has not had a fair chance, and will not until it comes to be as commonly performed as the operation for appendicitis!

Dr. GEORGE HERSCHELL'S *Manual of Intragastric Technique*[3] may be described as a catalogue of instruments, with directions and recommendations for their use and selection. The burden of its teaching is that we want a great deal of stomach apparatus, and if we want it good we must get it from America, except where the transatlantic pattern has been modified and improved by the author. We confess to feeling some surprise, after reading the condemnation of English stomach tubes as capable of severely injuring the stomach because their eyes are not properly bevelled, to find, in the description of the use of the gyromele of Professor Turck of Chicago, that

> Turck has demonstrated by experiments with animals that the risk of injuring the stomach in the absence of any lesion is extremely small, and that any slight injury will quickly heal. It was found to be almost impossible with a rotating wire brush to produce injuries which could be found on killing the animal a few hours afterwards.

The ingenious instrument in question is a gyrating sponge driven by a mechanism similar to that of a dentist's drill. As to its use we are told that

> Professor Turck himself, in many such cases, dips the sponge of the gyromele in a solution of soft soap and water, and vigorously cleans up the whole of the interior of the stomach.

This is not quite an original invention, for Professor Ewald tells us that Rumsaeus in 1659 invented a "stomach brush" to remove mucus from the stomach—an instrument which was apparently popular among the beer-drinking companies of his day. We wonder whether the gyromele is likely to be much used in this country, or can Teutonic stomachs only bear such treatment? The value of the electrical treatment of stomach diseases is still unsettled. Without wishing to be too conservative, we may quote the author's own words that "it is the fate of all new methods of treatment to have claims made for them which will not stand the test of scientific investigation." It is certain that these methods do not grow more in favour in Germany than they do with us, and that only in the United States are they much employed. Although Dr. Herschell's apparatus seems to us unnecessarily elaborated, there are many useful suggestions and hints to be obtained by reading his book. But he is not quite fair to many ordinary instruments and methods; for example, he condemns the phloroglucin-vanillin test for free hydrochloric acid because lactic acid, oxalic acid, or tartaric acid will decompose sodium chloride with the evolution of HCl; but the only proper way to use the test is with an Ewald's test breakfast, in which there is no sodium chloride or oxalic or tartaric acid, so that, although the theoretical objection may be strong, properly used the test is quite trustworthy. Nor does the presence of lactic acid fallaciously favour the occurrence of the hydrochloric reaction, for in cases of an acidity where no hydrochloric acid reaction occurs, lactic acid is frequently present. Again, Uffelmann's test for lactic acid (the name is wrongly spelt Uffelman) is condemned because alcohol, sugar, and acid phosphates give similar reactions, but this test, too, should be only used with an Ewald's test breakfast in which these substances are not present. In the directions for testing for the presence of the milk-coagulating ferment, the author omits to direct the filtered stomach contents to be neutralized. In future editions the following slips might be corrected: p. 15, "pastel," which means a crayon for "pastille," a lozenge; on p. 19, "dilation" for dilatation; on p. 21, "Frerich" for Frerichs; and on p. 42, "enema" for enema-syringe.

As Dr. EINHORN'S work on *Diseases of the Stomach*[4] has now reached the dignity of a third edition, it may be said to have established for itself a place beyond the reach of criticism, but it is probably better known in the United States than here. The arrangement of the book is systematic; after a

[3] *Manual of Intragastric Technique.* By George Herschell, M.D.Lond. London: Henry J. Glaisher. 1903. (Demy 8vo, pp. 172. 7s.)

[4] *Diseases of the Stomach.* A Textbook for Practitioners and Students. By Max Einhorn, M.D. Third edition. London: Baillière, Tindall, and Cox. 1903. (Demy 8vo, pp. 550. 74 illustrations. 14s.)

chapter devoted to anatomy and physiology, there is a very adequate account of modern methods of examination; the third chapter is on diet, and the fourth on local treatment by such means as lavage, douches, sprays, and electricity. Then follow chapters upon organic and functional diseases of the stomach, and finally one upon the condition of the stomach in diseases of other organs. The last is too short and sketchy, for the subject is one of some importance, and deserves greater attention than it has perhaps ever received from any writer. The systematic plan of dealing with stomach diseases has the disadvantage of too rarely coinciding with clinical experience, as various conditions are so frequently associated in one patient; for example, many if not most cases of neurosis of the stomach are complicated by inflammatory lesions; atony is frequently associated with gastritis, ulcer with hyperchlorhydria, and so on; so that the rules for differential diagnosis laid down in a work like this are too schematic, and require a good deal of modification when we come to the bedside. The clinical descriptions are, moreover, by no means the strong part of the book, which is at its best in the description of modern methods of stomach examination and local treatment. As is well known, Dr. Einhorn is one of the strongest advocates for the treatment of stomach diseases by intragastric electricity, but he lays quite as much stress upon the use of intragastric sprays, particularly a spray of silver nitrate. We note with some surprise that he makes use of the gastro-diaphane as his ordinary means for determining the size of the stomach, although the fallacies attending its use were long ago pointed out, and it has, so far as we know, been given up by every other authority; moreover, it cannot be said that it is a simple and convenient means of ascertaining the size of the stomach; he also attaches a significance to "splashing" which is not accorded to it in this country or in Germany. The diet recommended is too German in its character, it needs modification to suit British tastes, and in some cases the statements should be modified in accordance with altered facts; the rectal enema recommended is far too large to be well borne by patients in this country; 10 gr. to 15 gr. of calomel is an unnecessarily large dose to recommend in simple acute gastritis, and it seems to us not rational to pass at once from a diet of bread and hot water and gruel to French bread, butter, and oysters, nor can we understand any experienced physician maintaining that butter is always easily borne by the stomach. Thus in Professor Ewald's bill of fare for chronic gastric catarrh only 20 grams, or two-thirds of an ounce, of butter is allowed in twenty-four hours, whereas in the author's bill of fare he gives 65 grams, or $3\frac{1}{4}$ oz., and this in the first week of treatment. He recommends that the stomach should be washed out in the morning, without giving any reason why this time should be preferred, although the great advantage of letting the patient go through the night with a clean stomach seems so strong as to outweigh every other argument. He omits even to mention the Boas-Oppler bacillus in cancer of the stomach, while in the diagnosis of cancer he does not lay sufficient stress upon rapid emaciation as a means of distinguishing it from other stomach diseases. We doubt, too, whether he is sufficiently clear respecting the value of recognizing food residue in the fasting stomach as evidence of pyloric obstruction, and he is certainly insufficiently definite in advocating surgical intervention as soon as the diagnosis of pyloric obstruction has been made, but talks about "palliative treatment." We note "unexplainable," "sardellen," "bonny clabber," "pits" for cherry-stones, "Forster" for Foster, as small blemishes.

THE PANCREAS.

WE are already familiar with the publications in English of the observations of Opie and Mayo Robson on diseases of the pancreas; but, despite the works of Körte, Oser, and others, so far as we are aware, no work promises to be of greater use to the medical profession than the monograph written by Dr. TRUHART.[5] Its publication is most opportune, because great interest has of late years been shown in the elucidation of disorders of this gland; and though observers hold different opinions as to the possibility of establishing a well-defined symptomatology of such varied disorders as pancreatitis, pancreatic lithiasis, and cyst formation in and about the pancreas, it is essential that a solid foundation should be laid in the way of collecting reliable evidence, and placing it before the reader in as compact a form as possible. One of the problems discussed is the determination of the causes which produce fat necrosis. Balser, who first gave a full account of the occurrence of fat necrosis, considered that it was the primary disorder, and that pancreatic haemorrhage and pancreatitis were secondary changes. This theory gave place to that so strongly advocated by Fitz, which is that fat necrosis and the other associated changes found in the pancreas are due to an invasion of the organ by bacteria. A number of cases have, however, been recorded in which there was no evidence of bacterial invasion; further, there is no constancy in the type of organism found in such cases where organisms have been found, and there is considerable doubt, backed by the opinions of Pasteur and Fränkel, whether bacteria are capable of splitting fats. Nor is there much support for Rolleston's view that fat necrosis is a neurotrophic change. On the whole, the more probable view seems to be that first enunciated by Langerhans and elaborated by Hildebrand, that all the changes can be traced to the action of the pancreatic juice upon the tissues, solution of the protoplasm of cells being effected by trypsin. In this way would be explained, first, the occurrence of haemorrhages from solution of vessel walls, and secondly the production of fat necrosis, a phenomenon due to the action of the lipolytic ferment, traces of which have been demonstrated by Flexner and others in the neighbourhood of areas of fat necrosis. Truhart favours the view that in all cases of fat necrosis some obstruction to the escape of the pancreatic secretion is responsible for its dissemination into the tissues of the pancreas, so that the interacinar structures are exposed to its fermentative action: angiosclerosis, so common in people of mature years or subjects of alcoholism is of secondary but weighty importance in determining the particular areas of susceptibility due to faulty blood supply. It is of importance to remember Truhart's warning, that fat necrosis may be present and yet be invisible to the naked eye, and he insists on the importance of applying Benda's new method in which by means of a solution of copper acetate the smallest areas of necrosis may be rendered visible. The reader will find an exhaustive analysis of cases, so complete indeed that it would be almost unnecessary to refer to the original descriptions. Hale White has recently commented on the current tendency to diagnose "chronic pancreatitis" as a cause of certain obscure affections of the upper abdominal regions. Truhart could only find records of 7 such cases in a series of 267, which he has analysed, notwithstanding the fact that he was quite aware of the risk of mistaking chronic pancreatitis for carcinoma of the pancreas (*Cf.* Case 61, described by Winkler). Another matter of considerable importance is whether the discovery of fat necrosis necessarily entails a grave prognosis. Truhart has been able to collect over ten cases in which the diagnosis was made, and yet an immediately fatal result did not take place, indeed in some cases such as those of Hahn, Finney-Halsted, Welch, Wiesinger, and others, life was prolonged for considerable periods.

If the second volume of this work, promised for publication in the near future, proves as exhaustive as the first, the medical profession will be much indebted to Dr. Truhart, who has shown very great industry. We feel confident that his labours, undertaken in addition to the duties of a general practitioner, form a fitting tribute to the memory of his Alma Mater, the University of Dorpat.

[5] *Pankreas-Pathologie* [The Pathology of the Pancreas]. Von Dr. Med. H. Truhart. Erste Theil. Multiple Abdominale Fettgewebsnekrose. Wiesbaden: J. F. Bergmann; and Glasgow: F. Bauermeister. 1902. (Demy 8vo, pp. 493. 12s.)

GEOGRAPHICAL PATHOLOGY.

IN his *Geography of Disease*[6] Dr. FRANK CLEMOW deals with a subject in the treatment of which he has not very many competitors. Hirsch, Lombard, and Davidson almost complete the list. The works of all these writers, to which may be added the studies of limited areas by Haviland in England and Dantec abroad, have to a greater or less extent become classics, and there is every reason to expect that Dr. Clemow's book will attain the same position. His natural bent towards the subject is shown by the several studies on epidemiology which have caused him to be already well known as a writer, and it is probably thanks to them that he was selected by the general editor and the managers of the Cambridge Geographical Series to carry out this part of the work of that undertaking. As a general scheme of work Dr. Clemow has

[6] *The Geography of Diseases.* By Frank Clemow, M.D. Edin., D.P.H. Camb. Cambridge: University Press. 1903. (Demy 8vo, pp. 624, with maps. 15s.)

divided his subject into three books, of which the first deals with general medical and surgical diseases in 534 pages; the second treats in some 35 pages of diseases of the skin in general, but chiefly of craw-craw, oriental sore, tropical phagedaena, pinta, tinea imbricata, verruga Peruviana, and yaws; the last gives an account of some 35 or more animal parasites recognized to be the cause of disease, whether in the tropics or elsewhere. The work is limited to some 600 pages, and as the information is conveyed in a readable and scholarly style throughout, this fact may ensure for it greater popularity than that attained by its more ponderous predecessors. This result is more likely to be secured if steps are taken to provide new editions at frequent intervals. Research nowadays is being conducted with such energy that a work dealing with the known distribution of disease is in the nature of things likely to get quickly out of date in certain particulars. This is a fact which, in spite of the great position accorded to the monumental work of Hirsch in particular, should prevent any allied treatise being regarded as a true classic, for most of the information which is really intrinsic to the subject needs constant revision. Looking over the books that have been written on the subject, it is impossible for the thought not to occur that the writers have to some extent forgotten the titles of their works. Immense research and great space are accorded to historical surveys of epidemics, to their clinical features, and to statistics of the relative prevalence of disease at various times and in various places, while little information is given as to the physical features of the countries in which the diseases prevail, or to the climatic, meteorological, and economic conditions under which the inhabitants who suffer from them live. These, however, it seems to us, should be given the very first place. For it is not to be forgotten that the true interest of precise knowledge of the past and hypothetical or present known distribution of any given disease lies chiefly in the assistance which such information may afford to those who are endeavouring to ascertain what natural circumstances seem favourable to the persistence, propagation, and distribution of any organism known or supposed to be its cause. The study, in short, of geographical pathology, belongs rather to the department of preventive medicine than to that of the clinical physician. To the latter, in fact, books on geographical pathology may prove a stumbling-block, for diseases have a way of concealing themselves from those who do not look for them, and not a little harm probably has been done by men overlooking certain diseases simply because they have gathered from their reading that they are not known in the localities in which they reside. In a future edition, therefore, we should be glad to find that Dr. Clemow had divided up his subject not into diseases but into countries, dealing at length with the points to which we have referred, and giving only a brief description of the diseases which have been observed there, and of the history of their prevalence. In such case, as research extends or local observation becomes more accurate, it would be much easier to keep the work up to date without structural alteration.

NOTES ON BOOKS.

ANNUALS.

AMONG annual books of reference there is none of which we find ourselves making use so frequently as *Who's Who*[1] and *Whitaker's Almanack*[2]; very seldom does it happen that reference is made in vain, and still more rarely does the information which these two annuals contain prove to be erroneous. Mr. Joseph Whitaker, F.S.A., who edits the *Almanack*, has sought to meet the demand for information with regard to our fiscal system by adding, in the edition for 1904, articles on the British share of the world's commerce, on statistics of trade for fifty years, on bullion, and on food imports. We also find a note upon the Motor Car Act 1903, and particulars as to motor car licences. A new article of a type somewhat different from any that have previously appeared in the *Almanack* is that entitled a "Political History of the World"; it contains a brief record of the chief events in the British Empire and foreign countries, and will, we doubt not, prove very useful, for few things are more difficult to verify than facts of recent history.

Who's Who now consists solely of biographies, and as these are for the most part corrected by the persons mentioned, the information may be accepted as quite authentic, while the cast of the editor's net is so wide that very few fish of any size can have escaped it. The volume has grown so much in bulk that the plan now adopted of issuing in a separate volume, under the title of *Who's Who Year Book*, the tables which used to occupy the earlier pages of the volume itself is probably justified. The tables have been expanded and include lists of members of both Houses of Parliament, Government officials, principal newspapers and periodicals of learned and artistic societies, of steamship lines and university professors. There is also a list of clubs which might be improved by the addition of the telegraphic address, and a long list of peculiarly pronounced proper names, which might be very much shortened without loss.

The editor of *Whitaker's Peerage*,[3] a directory of titled persons, laments that the principal portion of the book, which is a directory of the peerage, baronetage, knightage, etc., has grown by a further twenty-eight pages, "in consequence of the enormous flow of new creations during the past two years." The index to residences has therefore been curtailed; it might without any great loss be abolished altogether. The volume is useful for reference, and its moderate price places it within the reach of every one.

The *Knowledge Diary and Scientific Handbook*[4] for 1904 is a desk diary for persons interested in science, and especially in astronomy; it is, in fact, perhaps too much given up to this science to make it useful to workers in other subjects.

The *Amateur Gardener's Diary and Dictionary*[5] is designed for the use of people who take a real interest in their gardens. We believe that their number is increasing, and that the tendency is one which deserves to be encouraged. We therefore wish well to this diary, which contains an immense amount of useful information on general principles and on the special cultivation of particular plants.

We have received the new and revised edition for 1904 of *Herbert Fry's Royal Guide to the London Charities*.[6] This, the fortieth edition, is edited by Mr. JOHN LANE. It is, as the preface states, a guide to the charities of London. We are told that the ill-effects of the South African war which led to a shrinkage of contributions to charities, though still traceable, are now disappearing. The revision has been made with the assistance of the secretaries of the charities, and the volume is one which medical practitioners in London will often find very convenient.

The well-known *Students' Guide to Medical Diagnosis*,[7] by Drs. SAMUEL and SOLTAU FENWICK, has reached a ninth edition, but it has not been sufficiently revised and modernized to meet the requirements of the present day. For example, the statement about the morbid anatomy of the nervous system in tabes dorsalis requires alteration and expansion; as Senator and others have shown, it is a mistake to apply nitric acid *and* heat in testing for albumen in the urine: Widal's test is referred to, and spelt sometimes with a W and sometimes with a V. Such illustrations as those on pp. 117, 135, and 137 are out of place; the latter two are relief representations and do not well represent the appearance of a microscopic section of the kidney. The authors did well to retain the original model of the book, for the plan adopted of mentioning the cardinal symptoms of a disease, then stating the diagnosis, and finally completing the picture by a fuller discussion of clinical details is excellent. The volume is no mere compilation of extracts from advanced works on chemical pathology and bacteriology. It is a useful guide to a student at the beginning of his practical medical work, but it needs a somewhat larger infusion of modern ideas to ensure it a success in the future as great as it has enjoyed in the past.

Major G. H. FINK, I.M.S. (retired), sends us a pamphlet which he has written on *Fungi, Protophyta, and Protozoa*, as causative of malarial and other diseases common in tropical countries. He discusses parasitic diseases in a manner which indicates a genuinely scientific interest in the subject, and the interesting descriptions of his medical experiences in India and Afghanistan prove that he was a very keen observer.

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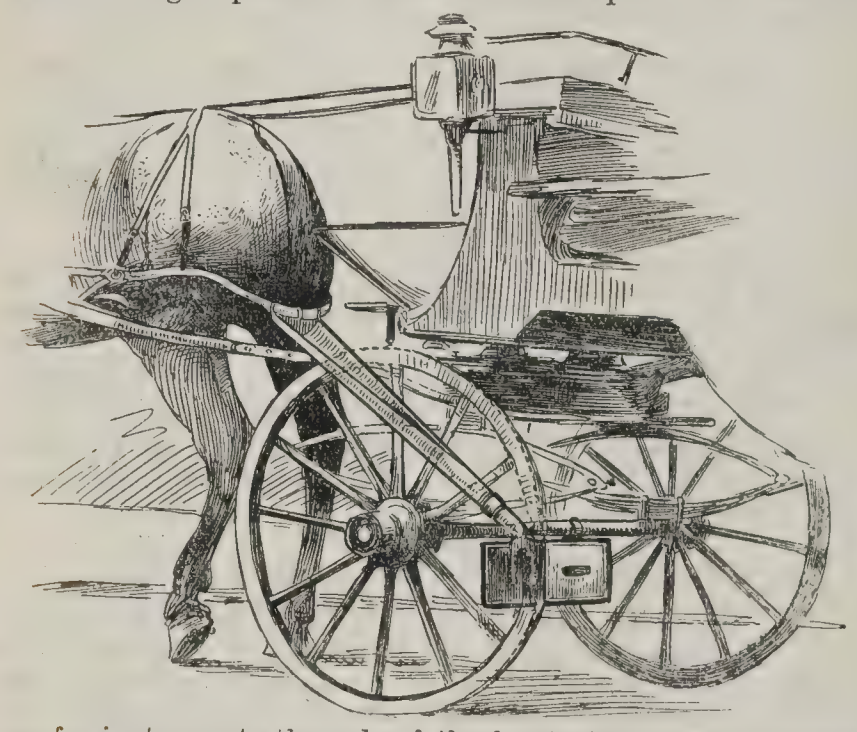
[1] London: Adam and Charles Black. 7s. 6d.
[2] London: Whitaker and Co. 1s. and 2s. 6d.
[3] London: Whitaker and Co. 3s. 6d.
[4] London: *Knowledge* Office. 3s.
[5] London: *Garden Life*. 1s.
[6] London: Chatto and Windus. 1904. 1s. 6d.
[7] *The Students' Guide to Medical Diagnosis*. By Samuel Fenwick, M.D., F.R.C.P., and Soltau Fenwick, M.D., B.S.Lond., M.R.C.P. Ninth edition. London: J. and A. Churchill. 1903. (Cr.8vo, pp. 480, 139 illustrations. 9s.)

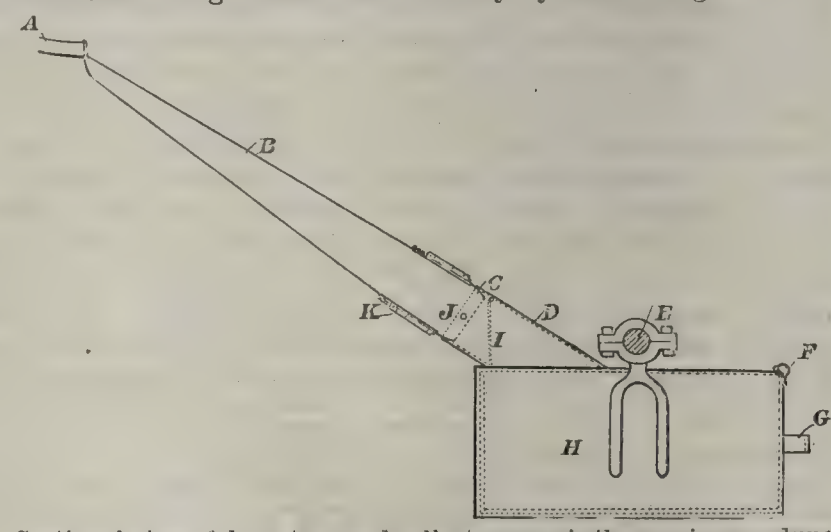
REPORTS AND ANALYSES
AND
DESCRIPTIONS OF NEW INVENTIONS
IN MEDICINE, SURGERY, DIETETICS, AND THE ALLIED SCIENCES.

APPLIANCES.

Horsedung in the Streets.—The disgusting condition into which the frequented streets of London and other large cities get owing to the accumulation of horsedung on their surface has often attracted attention. In wet weather the streets are slimy with filth from this cause, and in dry weather the air of the streets is everywhere filled with the odour of pulverized dung droppings. These are swept up more or less frequently in proportion to the activity of the sanitary authority, but this attempt to remedy the nuisance is never completely effectual. The only complete remedy which has been suggested is the abolition of the horse and its replacement by the motor. Until this drastic cure has been carried out the question arises whether something might not be done, and Dr. Calantarients, of Scarborough, has sent us an account of an invention which he has made; he calls it an automatic dung trap for carriage horses. It consists of a suitable reservoir or dung trap fixed to some convenient part of the vehicle,

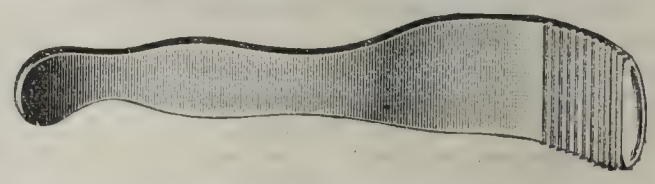


as, for instance, to the axle of the front wheel, and of a shoot or collector of some flexible waterproof material, attached at one end to the breech-strap or its equivalent, and at the other end to an outlet tube extending from the top of the receiver in the direction of the animal's breech. The receiver or dung trap contains an open-topped drawer or removable lining, which can be withdrawn and replaced by its handle at the back of the receiver. The shoot or collector has an expanded trough-like shape near the breech, just large enough to catch the dung, but narrows down to the diameter of the inlet tube. The inlet tube is pivoted to the top of the receiver in such a manner that the shoot will always adjust itself so as to extend in a straight line from the breech strap, notwithstanding the variations in the heights of different horses. Dr. Calantarients claims that whether the animal is standing or running its dung (and its urine in the case of a mare) is caught by the shoot or collector, and travels by gravity into the removable drawer, which can be emptied and cleaned periodically. With regard to the urine of a male animal, if desired, a funnel-shaped receptacle might, he suggests, be arranged in the proper position to catch the urine and convey it by means of a rubber tube into the dung trap or separate receptacle. There is a valve at the inlet tube of the receiver which allows the dung and urine to pass freely into the receiver, but prevents smell coming out. The shoot and receiver are permanently fastened together and to the carriage. When a horse is put to the carriage, the shoot is attached by means of clamps or straps and buckles. With the exception of the receiver which is placed quite out of the way, everything is soft and flexible, and as no part of it touches the horse, there is nothing, Dr. Calantarients considers, to frighten the most timid animal. The only objection that he can see is its unusual or novel appearance. It is not very obtrusive or ugly, and he thinks that, considering its great utility, people will soon get used to its appearance as they have to the splashboard or any other necessary part of a carriage. He is convinced that if this apparatus were universally adopted, the streets of towns would become almost as clean and as wholesome as a garden walk, disease and mortality would diminish and the comforts of town life would be considerably increased. He does not enter into the economical question for that will at once suggest itself to municipal authorities, the enormous expense of scavenging the streets being necessitated mainly by horsedung.



Sectional view of dung trap and collector. H is the receiver or dung trap secured to the front axle (E) of the vehicle, and containing an open-topped drawer or removable lining, which can be withdrawn and replaced by its handle (G) through a suitable door at the back of the receiver, a catch (F) retaining it in place. The shoot or collector comprises the waterproof sheet (B), attached at one end to the breech strap (A) and at the other end to a telescopic and laterally adjustable inlet tube (C), extending from the top of H in the direction of the horse's breech. The inlet tube comprises the member (D) fixed to the receiver (H) and the spring telescopic member (K) pivoted within D at J so as to be laterally adjustable in a vertical direction. The spring telescopic member (K) permits extension of the shoot under stress and causes its return again to its normal length when the stress is relieved. The dotted line (I) represents a light flap-valve hung so as to normally close the tube and prevent the escape of smell from the receiver, but swinging freely to allow the dung to pass by it.

Brain Elevator and Retractor.—Mr. DONALD ARMOUR, M.B., F.R.C.S. (London), writes: The instrument shown in the accompanying illustration is designed for use in the Krause-Hartley operation for removal of the Gasserian ganglion, in which the temporal lobe with its dural covering is elevated and retracted from the basis cranii. Its present form has



been attained after use in practice and it possesses the following advantages over the ordinary flat malleable copper retractor: (1) It is so shaped that it is comfortably held by an assistant's hand resting on the patient's head and does not obscure the field of operation; (2) it is deeply, but not sharply, serrated, and with an indirect bulbous extremity to prevent its sliding off the smooth and wet surface of the dura; (3) it is highly polished to act as a reflector to a head lamp worn by the operator. It was originally made for me by Mr. Farrow (Coxeter and Son) from my design, but can now only be obtained from Messrs. H. and W. Davis, 52, Grafton Street, W.C.

Messrs. Mayer and Meltzer's Gynaecological Operating Table.—Dr. HERBERT R. SPENCER (London, W.) writes: In the BRITISH MEDICAL JOURNAL of August 8th, 1903, is figured a gynaecological operating table exhibited at the Annual Museum by Messrs. Mayer and Meltzer, and described as being made "to the design of Professor Spencer." It should have been stated that the table is a modification of Professor Monprofit's table, a fact well known to Messrs. Mayer and Meltzer, through whom I procured a Monprofit table which I used at University College Hospital until the table alluded to was made. Messrs. Mayer and Meltzer's table differs from Professor Monprofit's in having a horizontal frame on which the top can rest, in having two arms to fix the top, in a more satisfactory screw for raising and lowering the top, and in being more strongly made in bronze, and in some other particulars. As I have no wish to have my name associated with a surgical instrument, I have requested Messrs. Mayer and Meltzer to describe this table as a modification of Monprofit's, and not as made "to my design." I was unaware till to-day that Messrs. Mayer and Meltzer had published a figure or description of the table.

British Medical Association.

PUBLIC HEALTH ADMINISTRATION IN ENGLAND.

MEMORANDUM ON THE RECONSTITUTION OF THE LOCAL GOVERNMENT BOARD.

A CONFERENCE between the Medico-Political and the Public Health Committees of the British Medical Association was held on December 3rd, 1903, under the presidency of Mr. Andrew Clark, Chairman of Council. The conference considered matters with regard to public health administration and security of tenure of medical officers of health referred to it by the Council, and adjourned until January 14th, 1904. By desire of the conference the following memorandum which was placed before it is published for the information of members.

Memorandum by the Editor of the BRITISH MEDICAL JOURNAL.

The following Memorandum, submitted for the consideration of the Medico-Political Committee, consists of two parts: the first part (A) is a mere statement of facts, with a quotation giving Sir John Simon's opinion on certain points; the second part (B) contains some considerations which it is hoped may be of use to the Committee in coming to a decision as to the course which it may think fit to recommend the Association to adopt:

A.

ENGLAND.

The Local Government Board in England is, in theory, a Committee of the Privy Council, and consists of

The President of the Board.
The Lord President of the Council.
The Secretaries of State.
The Lord Privy Seal.
The Chancellor of the Exchequer.

This Board does not meet, and the persons responsible to Parliament are

The President primarily, also
The Parliamentary Secretary.

The staff of the office comprises—

(1) A Permanent Secretary, five Assistant Secretaries, and clerks of various grades.
(2) A Legal Adviser, a Parliamentary Agent, and a Legal Assistant.
(3) An Architect and three Assistant Architects.
(4) General Inspectors and Assistant General Inspectors.
(5) Medical Inspectors for Poor-law purposes (two).
(6) Inspectors of Poor-law Schools (two) and Inspectors of boarded-out children (three).
(7) The Audit Department.
(8) The Engineering Department.
(9) The Medical Department.
(10) The Vaccine Lymph Department.
(11) The Alkali Department.

And certain other officials appointed for special purposes.

The Registrar-General for England and Wales reports to the President of the Local Government Board, and may, therefore, be considered to be dependent on the Local Government Board, though the office of Registrar-General existed (1838) before the Board was created (1871).

SCOTLAND.

The Local Government Board in Scotland consists of

The Secretary for Scotland (President).
The Under-Secretary for Scotland.
The Solicitor-General for Scotland.
A Vice-President.
A Legal Member.
A Medical Member.

The Board employs

A Secretary.
Clerks.
Superintendents of Poor and Inspectors under the Public Health Act.
A Medical Officer under the same Act.
A Medical Inspector who also superintends the Vaccine Institution.

The General Registry of Births, Deaths, and Marriages is a department of the General Register House, Edinburgh, and reports to the Secretary for Scotland.

IRELAND.

The Local Government Board for Ireland consists of

The Chief Secretary (President).
A Vice-President.
Three Commissioners, namely,
(1) The Under-Secretary for Ireland.
(2) A Lay Commissioner.
(3) A Medical Commissioner.

The Board employs

A Secretary.
Clerks.
Inspectors.
Medical Inspectors.
Engineering Inspectors.
Auditors.
A Legal Adviser and Solicitors.

The Board of Public Works for Ireland appears to discharge some of the functions of the Architectural Department of the Local Government Board in England.

The General Registrar for Ireland reports to the Lord Lieutenant:

HOME OFFICE.

The Factory Department consists of

A Chief Inspector.
A Deputy Chief Inspector.
Superintending Inspectors.
A Medical Inspector.
Inspectors.
Lady Inspectors.

There are also

An Inspector under the Inebriates Act.
Two Inspectors under the Cruelty to Animals Act—one for England and one for Scotland. The Inspector for Ireland reports to the Chief Secretary for Ireland.
Three Inspectors of Anatomy.

History of the Local Government Board in England.

The Local Government Board in England was founded by an Act of 1871 as a consequence of the recommendations of the Royal Sanitary Commission of 1869-71, and its duties were extended by an Act of 1872, and a series of Acts of later date.

Sir John Simon, in his *English Sanitary Institutions*, in relating the history of the Royal Sanitary Commission, and the consequent legislation. makes the following observations:

A departmental Minister, controlling local authorities in respect of their machinery and finance and common municipal services, and in respect of their functions under health law, and Poor-law, nnd farm law, and of the conservancy of rivers and lands, and having under his direction such proceedings of registration and census, and such making of geodetic and geological surveys as civil administration requires, might no doubt be a sufficiently comprehensive Minister of Local Government, but would not, unless he commanded also the other sorts of central sanitary relation, be, in any satisfactory sense, a Minister of Health. The endeavour, it seems to me, ought to have been to fulfil conjointly the two objects; to have aimed at consolidating in an equally full sense all the central responsibilities which relate to public health, and all the central responsibilities which relate to local government, with intention that they should all be in charge of one political department; all under one Chief Minister, with such assistant offices, polltical and other, and such divisions of service, as would be necessary; and with common rule, as between the component parts of the staff, that, in every affair concerning two or more sections of subject-matter the respective divisions of staff should act in concert. Arrangements for the transaction of central sanitary business could then have been planned with proper regard to scientific affinities, as well as to other exigencies and conveniencies of the case. The Commission, however, had not been authorized to take any such general view of the multifarious business which was in disorder; and the Government of the day not only showed no inclination to advance beyond the proposals of the Commission, but even (as will hereafter appear) fell short of entire adhesion to them. Consolidation, to so limited an extent that it could not be deemed more than provisional, was an alternative with some risks of its own; but opinion prevailed that some such consolidation would be better than to let things remain quite as they were; and Government, though not accepting all that the Commission has recommended, accepted enough to justify the constitution of a new department. It decided to propose the discontinuance of the Poor-law Board, and the creation of a department to be called the Local Government Board, in which new Board should be vested, first, all powers and duties of the discontinued Poor-law Board; secondly, certain powers and duties of the Secretary of State relating to local government outside the metropolis, and to the direction of the office of the Registrar-General; and, thirdly, certain powers and duties of the Privy Council relating to the public health, but not including (as the Commission had proposed) the powers and duties as to diseases of cattle.

These powers and duties were transferred to the Board of Agriculture.

The general effect of the Local Government Act of 1888

which created county councils was decentralization and devolution, but it did not diminish the importance of the work left to the central authority (Local Government Board in England).

B.

The following observations are offered for the consideration of the Committee:

I.

Some of the advocates of a separate Ministry of Health have referred to the defects in the sanitary administration of the navy and army without distinctly asserting that they suggest that the proposed Minister of Health should be responsible for the sanitation of the two military departments. The suggestion seems quite impracticable, but the objections to it need not be set out until the advocates of the new Ministry have expressed themselves distinctly on the point.

II.

The advocates of the change may be invited to state whether they propose that the new Minister shall direct, and be responsible for, the public-health administration of Scotland and Ireland as well as of England. If they do, their proposal seems to be entirely contrary to the whole trend of recent legislation and of public opinion, more especially in Ireland. If they do not, then it follows that their proposal amounts to no more than the creation of a Ministry of Public Health for England to take over part of the duties of the Local Government Board in England.

III.

It is common ground that public health administration suffers from the want of consideration attaching to the Ministry (the Local Government Board) which discharges the duties of a central public health authority.

The President of the Board is not a Secretary of State; he is not, as is the Home Secretary, inevitably a Cabinet Minister; he receives a smaller salary than a Secretary of State, and everybody in his office receives a smaller salary than corresponding officials in the office of a Secretary of State. The reason for this was stated by Mr. Austen Chamberlain, then Financial Secretary of the Treasury, to be that the work in the offices of Secretaries of State "requires higher qualifications than does that of other departments." This was not an *obiter dictum*, but an official statement to the House of Commons. This official view ought, it is submitted, to be combated as strongly as possible, on every suitable occasion; but it may be asked, Is the political consideration attaching to the Ministry at present charged with public health functions likely to be enhanced by splitting it into two parts—a Local Government Office and a Public Health Office?

IV.

If the Local Government Office is to be split into two parts where is the line of cleavage to be found?

It may be assumed that the advocates of a separate Ministry of Health would transfer the medical department (including the vaccination sub-department) to the Ministry of Public Health.

Would they assign the engineering and architectural departments to the new Ministry? If not, then the Local Government Board would still require a medical department.

Is Poor-law administration to remain with the Local Government Board? If so, the Board would require a medical department.

If the Local Government Board were split both resulting Ministries would require a legal department.

The importance of the financial department of the Local Government Board must be constantly borne in mind in considering this matter. For example, the Local Government Board audits the accounts of all local authorities except the county boroughs, and in this way checks jobbery and prevents illegal expenditure; local authorities cannot contract loans without its sanction; and it pays half the salary of medical officers of health. It is very largely through this power of the purse that the Local Government Board brings its influence to bear on local authorities, and this duty would therefore have to be transferred to the proposed new Ministry for all expenditure relating to hospitals, water supply, drainage, and other works of a sanitary nature.

If the medical department, the engineering, and architectural departments, the Poor-law department, and, therefore, the financial department of the Local Government Board are to be transferred to the new Ministry of Public Health, what is left to the Local Government Board?

V.

The effects of the proposal on local sanitary administration must also be considered. The borough and district councils are the sanitary authorities at present. Is it proposed that these local authorities should be subject to the control of two central offices—the Local Government Board and the Ministry of Public Health—or that new special sanitary authorities should be created in every borough and district? The abolition of Boards of Guardians and the transfer of their powers to other existing local authorities would probably be a reform.

VI.

The factory department of the Home Office is largely concerned with matters affecting the health of workpeople, and to achieve symmetry ought to be transferred to the Ministry responsible for other public health administration. It is, however, very special work, and only touches ordinary public health administration indirectly. In practice there seems to be no clashing of authority, and no serious inconvenience arises from the present arrangement.

VII.

A survival from the past which may be noted in passing is that the Minister ultimately responsible for the administration of the Medical Acts is the Lord President of the Privy Council. Neither he nor the Privy Council secretariat know anything about medical or public health matters, and have no expert department to advise them. In fact, the late Lord President and Vice-President both on a recent occasion paraded their ignorance. The duty should be transferred to the President of the Local Government Board, whose attention is constantly directed to public health matters, and who has a medical department to advise him. There can be little doubt that this view would be endorsed by Sir John Simon, who was Medical Officer to the Privy Council before he was transferred as Medical Officer to the Local Government Board.

VIII.

It may be noted that the Foreign Office, which has to nominate representatives to international sanitary conferences, such as that now (November, 1903) sitting at Paris, and to conduct negotiations with foreign Powers as to sanitary inspection of ships, pratique, quarantine, etc., has no medical department or medical adviser. The precedent of the Colonial Office ought to be followed, and a medical officer appointed to the Foreign Office who could advise on all questions affecting international sanitation. In ordinary times he could be usefully employed in organizing and directing a system of international notification of epidemic diseases.[1]

IX.

It is submitted that when the proposal for a Minister of Public Health comes to be considered in detail it practically amounts to no more than proposing a new title for the President of the Local Government Board. This change of title may be desirable, and might have the effect of bringing into prominence the fact that the main business of the Local Government Board is public health. But it is submitted that the important point to which the Association should give attention is the vicious constitution of the Local Government Board. It is in fact a paper Board, and so far as is known has never once met in the thirty odd years of its existence. The responsible political officers are the President and Parliamentary Secretary. The President may or may not ask for expert advice. If he asks for it it is probably given in the form of a written minute or memorandum. Unless he chooses to invite it, there is no room for argument, and from his individual decision there is no appeal.

Lord Esher in a note appended to the report of the Royal Commission on the War in South Africa suggested that the principle of the Board of Admiralty should be applied to the War Office. His selection as chairman of the new committee appointed to advise as to the creation of a Board for the administrative business of the War Office appears to indicate that the suggestion is likely to be adopted. The principle might be extended without difficulty to the Local Government Board, as shown in the following comparative table:

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[1] It is stated that the International Sanitary Conference, 1903, will recommend the establishment of an international sanitary bureau in Paris to receive such notifications from the signatory nations.

Admiralty.

First Lord	A Cabinet Minister.
Senior Naval Lord	An Expert.
Second Naval Lord	An Expert.
Third Naval Lord	An Expert.
Junior Naval Lord	An Expert.
Civil Lord	A Politician.
Parliamentary and Financial Secretary ...	A Politician.

(Three Politicians and four Experts.)

Local Government Board.

President	A Cabinet Minister.
Vice-President...	A Politician.
Medical Member	An Expert.
Legal Member	An Expert.
Engineering Member	An Expert.
Poor-law Member	An Expert.
Parliamentary and Financial Secretary ...	A Politician.

(Three Politicians and four Experts.)

The position of an expert officer, who is a member of a Board of which his political chief is President, is very different and far more influential than that of an expert official who may or may not be consulted, and whose views and arguments may be set aside or ignored without any explanation or reason assigned. Every important matter would have to come before the whole Board. The members of the Board would have the right to express their opinions, and to have them recorded, and the President could take no important decision without consulting his Board. If he worked loyally with his Board the opinions he expressed in the Cabinet would have in consequence greater weight with his colleagues.

In Scotland and Ireland the Local Government Boards are really Boards (see A), so that precedents for the reform here outlined exist.

November, 1903.

WINTER HOLIDAYS.

WE have been asked to suggest how and where a medical man could best spend a fortnight's holiday in the month of February. We have referred the question to a contributor of greater leisure and of more experience than the Editor or his colleagues have the opportunity of acquiring in this direction, and the following is the reply we have received:—

This is the most difficult task of its kind imaginable; for whereas in summer fifty suggestions might be made, in winter to get to a warm climate seems indispensable, and to reach a warm climate means time spent in travelling. Then we do not know whether the inquirer is a good sailor, and would contemplate a sea voyage in the light of a holiday; whether he is so rich as to be regardless of expense, or so fagged out as to dread the racket of a railway journey; whether he likes scenery or company;—even Hercules might have shied at the task.

We can only suggest what we have done ourselves under the circumstances more than once, and perhaps our suggestion may inspire him with the wish to go and do likewise. It was the end of January last year that we decided to get out of England. We were able to spare just over a fortnight. We had long wished to see Algiers; we took railway and steamer but not hotel tickets from Cook via Dover, Calais, Paris, and Marseilles. As no one in real need of rest would dream of turning their holiday into a time of suffering, we naturally travelled first class, and for those who are fond of railway journeys nothing more delightful can be conceived than sitting in a comfortable carriage, dividing your attention between the scenery and a French novel, if you happen to have found one racy of the soil. The steamers of the Transatlantic Company run in connexion with the Mediterranean express trains, and Algiers is reached some fifty hours after leaving London.

Those who do not know Algiers may be envied their first visit, for a more beautiful and peaceful spot it would be impossible to imagine. On arriving you are landed in the town, but a drive of half an hour takes you into the upper quarter, Mustapha Supérieur, where snow-white villas and hotels peep out of tropical gardens. Perhaps the most ideal hotel is the St. Georges, formerly an old palace. From its marble terrace can be seen the deep blue waters of the Bay, with the Atlas Mountains everlastingly snow-tipped to the right, orange and palm gardens stretching far down to the edge of the shore. The drives and walks are wonderful, and for those who like gaiety there is the town with its cafés, where admirers of the *danse du ventre* may see it danced in all its glory.

Otherwise Algiers is rather an abode of rest and peace, and did he wish for gaiety, we would advise our inquiring colleague to go as fast as he could to Monte Carlo from London by the Mediterranée Sud Express; he would be there in twenty-four hours. Once there he should take up his quarters in a room with balconied windows facing the Casino and the sea. Surely with ten days spent between the Casino with its rooms and theatre, where there are generally in February some of the best Paris companies, varied by excursions, what more could heart of man desire? Or, if he preferred, he could stay at Nice or Cap Martin, for trains run continually between all the Riviera towns. If extreme quiet were desired, San Remo on the Italian Riviera might be selected.

Then there is Constantinople, that wondrous city which to see once is to long to see again and again; it exercises a sort of subtle fascination on any one with a soul. A halt of twenty-four hours may be made at Vienna, which is reached in about thirty hours (travelling via Ostend by the Orient express). There there are delightful shops, theatres, and drives. At Buda-Pesth, about five hours further on, another halt may be made, our friend leaving it probably a merrier, but a poorer, man.

Belgrade is dull, save for the bloody interest recently attached to it, so Constantinople may be the next halting place. From Buda-Pesth to Constantinople is a matter of thirty-six hours. The country is flat and dull, but this only makes the view which greets the traveller looking out of the Péra Palace Hotel windows (ask for a bedroom at the back of the house) all the more wonderful. No one who has ever seen it will forget that sight; the deep blue Bosphorus with ships and sails of every hue from cream to copper; green gardens and clumps of tall cypresses sloping down to the water, while against the deeper blue sky are outlined countless minarets; and then the endless excursions, the glamour of the bazaars, the mysteries of the harem and the palace. A fortnight would be all too little from London to London via Constantinople; but the return journey could be done without stopping, three days and three nights.

The Canary Islands might be suggested, but not in a fortnight. In a month, yes. The traveller could go by sea via Gibraltar to Tangier, coasting along Morocco to the Canary Islands, and bask in the mild and pleasant climate of Grand Canary, Teneriffe, or Madeira, where he would probably find the temperature about 65° F. The return journey might, if he wished, be made through Spain and France, so that he might have the chance of a last fling in Paris.

It is useless to talk of Egypt or the West Indies, for they would take too long; but in three weeks or a month a visit, such as that outlined, might be made to Constantinople, returning via Greece. Fair lines of steamers, for those who do not mind black beetles, run from Constantinople to Piraeus. Athens is reached in about a quarter of an hour. Choose the Hôtel d'Angleterre. Twenty-four hours will perhaps be enough for Athens; the Necropolis contains nearly all the marvels of ancient architecture, and the new town is very dull and uninteresting. The modern Greeks are a degraded looking race, who retain nothing of the grandeur of their ancestors. The railway journey from Athens to Corinth (about three hours) is interesting from beginning to end, passing as it does Eleusis with its famous temple; Megara, the birthplace of Euclid; the Corinth Canal, said to have been commenced by Nero, and only completed ten years ago; while Parnassus, at the foot of which is the famous temple of Delphi, is visible from every point of view. Six hours more bring you to Patras, the port of embarkation for Brindisi. But no one should dream of leaving Greece without seeing Olympia, an excursion which can be done from Patras in twenty-four hours. The marvellous Hermes of Praxiteles alone is worth travelling thousands of miles to see, and the whole of Olympia, the seat of the great Olympic games, teems with relics of the ancient Greeks.

From Patras to Brindisi by steamer, this time accompanied by cockroaches, is a matter of about forty-eight hours, with a break of a few hours at Corfu, an exquisite spot where one might well spend a month. Another forty-eight hours, and you are once more at home, like a giant refreshed, and with a brain clear enough to discover the hiding place of the most cunningly concealed microbes.

INTERNATIONAL CONGRESS ON SCHOOL HYGIENE.—The first International Congress on School Hygiene will be held at Nuremberg from April 4th to 9th, 1904. Addresses will be delivered by Professor H. Cohn of Breslau, Professor Axel-Johannesen of Christiania, Dr. Legendre of Paris, Professor Hueppe of Prague, and other sanitarians who have given special attention to school hygiene.

FEES TO MEDICAL WITNESSES IN CRIMINAL PROSECUTIONS.

NEW REGULATIONS BY THE HOME SECRETARY.

THE new scale of fees to be allowed to prosecutors and witnesses in criminal trials has just been promulgated by the Home Office, to take effect on and after December 28th, 1903. These regulations are preceded by a memorandum which states that the annexed regulations are based on the report made to the Secretary of State by a majority of the members of a Committee specially appointed to consider the subject, of which Sir John Dorington, Bart., M.P., was chairman. A few words of explanation, it is said, appear to be necessary with regard to some of the allowances.

Witnesses Giving Professional Evidence.

There is a considerable increase in the allowance under this head. They are fixed on a higher scale than the rates for ordinary witnesses on the ground, stated by the Committee with reference to the medical profession, that "its members are much more frequently called on to assist criminal justice by evidence drawn from their professional experience than any other class of the community."

Except in one point the fees under this head follow the recommendations of the Committee, with a few alterations in the wording which seemed to be necessary to avoid ambiguities. The one exception is that the fee recommended by the Committee for making a preliminary examination in cases of suspected sexual offences has been omitted. Were this table inserted in a table of fees to witnesses, it would, of course, be payable only where the examination leads to a prosecution in which the medical man who made the examination is a witness. It appears to the Secretary of State to be wrong in principle that a medical man should be placed in the position of earning a fee if he recommends a prosecution, and of receiving nothing if his report negatives the institution of proceedings. In such cases the medical man makes the examination as the adviser to the police or to the prosecutor, and he is entitled to receive an appropriate fee, whether the examination is or is not followed by criminal proceedings.

Expert Witnesses.

It is not intended, the memorandum states, to make any alterations with regard to the allowances to expert witnesses, and no definition of an "expert witness" has been inserted, the term being well known to the courts of law. It is to be borne in mind that the Court has already power (under 7 George IV, cap. 64, Section XXII) to allow reasonable expenses for analyses, microscopical examinations, etc., which may be necessary for the prosecution.

Travelling Allowances.

The question whether a railway fare in excess of third class is to be allowed in any case will mainly depend on what may reasonably be supposed to be the witness's ordinary habit and practice. First-class fare should not be allowed even to a professional witness, unless there is reasonable ground for supposing that he ordinarily travels first class.

Lastly, it should be noticed that no distinction is made between attendance at petty sessions and attendance at quarter sessions and assizes. In the former case, however, Regulation 7, which limits the allowances when the attendance involves less than four hours' loss of time, will much more frequently apply.

Regulations as to Fees and Allowances.

From these we extract so much as is of interest to medical witnesses.

1. *Witnesses giving Professional Evidence.*

There may be allowed to practising members of the legal and medical professions, for attending to give professional evidence, but not otherwise, allowances not exceeding the sums stated in the following scale:

For attending to give evidence in the town or place where the witness resides or practises—if the witness attends to give evidence in one case only, not more than 1 guinea per diem; if the witness gives evidence on the same day in two or more separate and distinct cases, not more than 2 guineas. For attending to give evidence elsewhere than in any town or place where the witness resides or practises, whether in one or more cases, not more than 2 guineas per diem.

In this regulation "town" means municipal borough or urban district; and "place" means the area within a radius of three miles from the court at which the witness attends to give evidence.

Expert Evidence.

There may be allowed to expert witnesses such allowances for attending to give expert evidence as the Court may consider reasonable, including, where necessary, an allowance for qualifying to give evidence.

7. General Regulation.

No full day allowance under Regulations 1 (Professional Witnesses), 3, and 5 shall be paid unless the witness is necessarily detained away from his home, or place of business, or employment, for at least four hours, for the purpose of giving evidence. If the time be less than four hours the witness shall receive not more than one-half of the allowance which he would have received had he been detained for the full day.

Travelling Allowances.

There may be allowed to witnesses attending Court to give evidence from a distance of more than two miles their railway fares actually paid, or (where a railway is not available) reasonable expenses of conveyance actually incurred; provided that the railway fare, except for special reasons allowed by the Court, shall be third-class fare, and if return tickets are available only return rates shall be allowed.

Form of Certificate.

A form of certificate given in the appendix to these regulations is directed to be used when a magistrate or magistrates grant a certificate for the allowances payable to witnesses who appear to give evidence. It provides spaces for the witness's name, profession, trade or occupation, residence, attendance for half-day, day, or night; and for travelling expenses or railway fare.

THE PLAGUE.

PREVALENCE OF THE DISEASE.

INDIA.

DURING the weeks ending November 14th, 21st, and 28th, 1903, the deaths from plague in India numbered 18,360, 18,329, and 17,617 respectively. These figures are some 8,000 higher than during the corresponding period of 1902, when for the second week of November the deaths from plague recorded were 10,441. The detailed figures for the three weeks in question are respectively as follows; Bombay City, 56, 47, and 57; Bombay Presidency, 10,285, 9,791, and 8,825; Calcutta, 16, 22, and 21; Bengal, 469, 685, and 717; North-West Provinces and Oudh, 1,021, 1,819, and 1,917; Punjab, 751, 1,154, and 1,223; Central Provinces, 2,490, 2,051, and 1,945; Rajputana, 16, 24, and 26; Kashmir, 17, 23, and 27; Central India, 942, 975, and 1,025; Hyderabad, 962, 792, and 843; Madras Presidency, 242, 264, and 275; Mysore State, 623, 673, and 662. Up to November 21st the North-West Frontier Province was reported free of plague, but during the week ending November 28th 44 deaths from the disease was notified. Burmah and Baluchistan are free from plague.

CAPE COLONY.

During the weeks ending November 21st and 28th and December 5th the plague reports from the towns of Cape Colony were as follows: No cases of plague in any part of Cape Colony, except at King's Williamstown, where a native male was found dead of plague on November 15th. Plague-infected rats continue to be found in Port Elizabeth, East London, Knysna, Queenstown, and Lady Grey Bridge.

MAURITIUS.

For the weeks ending December 3rd, 10th, and 17th, the fresh cases of plague in Mauritius numbered 60, 70, and 83 respectively, and the deaths from the disease during the corresponding weeks were 41, 46, and 49.

HONG KONG.

During the weeks ending December 5th and 12th the fresh cases of plague in Hong Kong were returned as 1 and 1; and the deaths from the disease as 1 and 1 respectively.

BRAZIL.

A telegram from Rio de Janeiro, dated December 17th, 1903, states that "during the past week there were 25 fresh cases of plague in the city, 21 deaths from the disease, and 74 cases under treatment."

PRESENTATION.—On Christmas Eve Dr. Robert Spence, of Burntisland, was the recipient of a pleasant surprise in the shape of a purse containing about 250 sovereigns. Dr. Spence, who has been Medical Officer of Burntisland and Medical Officer of Health for the district for a great many years past, has recently been ill, and the purse was intended as an expression of sympathy on the part of his many friends and patients, and as an acknowledgement of the many unrequited services for which they have been indebted to him during the course of his work.

BEQUESTS TO HOSPITALS.—Mrs. Georgina Margaret Bower of Altamont, co. Carlow, who died on October 24th, bequeathed the sum of £100 to each of the following medical charities in Ireland: The New Consumption Hospital near Delgany, the City of Dublin Hospital, the St. Mark's Ophthalmic Hospital, Dublin and, the Orthopaedic Hospital, Dublin.

BRITISH MEDICAL ASSOCIATION.

Subscriptions to the British Medical Association for the year 1904 are now due and should be forwarded by postal order or cheque to the amount of 25s. to the General Secretary, 429, Strand, London, W.C., or, in the case of Colonial members, to their Branch Treasurer.

British Medical Journal.

SATURDAY, JANUARY 2ND, 1904.

PUBLIC CONTROL OF HOSPITAL ADMINISTRATION.

THE need of some public body to exercise effectual control over the expansion, the administration, and the expenditure of hospitals and other medical charities experienced in every large city is felt with special acuteness in London, which contains nearly one-seventh of the people of England and Wales, and provides hospital accommodation for a still larger proportion of the country's population. The idea has been in the air for years, and six years ago the Charity Organization Society tried to bring the bird to ground. But for some reason the Society failed, perhaps because it came empty-handed. It sought to establish a controlling Board, but offered nothing in return. The *Times* on Boxing Day gave great prominence to an article "from a correspondent" purporting to propound a scheme for the creation of a Board which would exercise some central control over metropolitan hospitals, and published a leading article supporting the scheme, if it can be called a scheme. Shortly stated the proposal is that the central distributing funds, King Edward's Hospital Fund for London, and the Metropolitan Hospital Saturday and Sunday Funds should appoint "a small competent Board to advise" the administrative bodies of the central funds. Such a Board, it was maintained, would not only give stability to disciplinary measures taken on its advice by the distributing funds, but would direct its attention to such larger questions as the provision for the future needs of London under a definite scheme, including new institutions, removals and amalgamation. It would issue an annual report not only enjoining economy by showing how it might actually be effected, but would also supply detailed information derived from an examination into the working of the best managed and most economical medical charities.

The British Medical Association has a Hospitals Committee to consider how best the widespread abuses of medical charities can be removed. That Committee has, we understand, commenced its inquiry. Very much will be expected from it, and we trust that it may not be presumptuous to express the opinion that the Committee is numerically weak in the representation of London. The reform of hospital administration is a larger question in London than in any other centre, and it is also a more pressing question, and a question which we believe is rapidly ripening. Something must be done, and the medical profession through the British Medical Association, which alone of medical organizations represents the whole body, should take a leading part.

The questions upon which the Committee may be expected to make its voice heard are very numerous; they include questions of principle and of detail. As an illustration of matters of principle which arise we may refer in particular to the growth of the out-patient system. In another column is published an analysis of official statistics of the number of out-patients treated at the larger general hospitals. It has been found necessary to limit our inquiry to the general hospitals to which medical schools are attached, but probably similar statistics of other hospitals would be even more instructive. The comparison is between the year 1891 and the year 1901, and it will be seen that the gross number of out-patients had increased from six and a-third millions to over seven millions. Excluding the maternity cases, which did not show any notable increase, it will be seen that the number of medical and surgical out-patients and casualties had increased in the ten years by 12.4 per cent. It will be said that the population of London has increased during the decennium, but another table in the article shows that the increase in the number of out-patients, excluding confinements, is out of proportion to the increase in the population, the actual relative increase being 3.9 per cent. We are well aware that the figures upon which this analysis is based are not above suspicion, but the tendency of hospital secretaries to exaggerate the number of patients relieved by their hospitals was not greater in 1901 than in 1891, so that we conceive the statistics of the two years to be fairly comparable. They show a very distinct increase in the proportion of out-patients to the population and we are aware of no circumstances which justify such an increase. This is a point upon which we venture to think the Hospitals Committee of the Association would do well to obtain further statistics, and we make no doubt that a report from it, fortified by a statistical analysis, would have great weight with the public.

The objections to the unlimited and uncontrolled expansion of out-patient departments are manifold. We would put first the interests of the patients. Is it really to their advantage that they should be gathered together in out-patient waiting rooms to loiter there for hours until they obtain a brief interview with an overworked assistant physician or surgeon, or his deputy? Would it not be far better in their own interests that they should rather be encouraged to seek, in the first place, the advice of private medical practitioners in their own neighbourhood? They could obtain advice with far less loss of time, and in the vast majority of cases with equally good results to themselves. With regard to those cases in which a second opinion was found to be desirable, the system of out-patient relief should be so organized as to command the confidence of private practitioners, who would then be ready to refer suitable cases to the hospitals for consultation. Is it really in the interests of the hospitals to spend so much time and energy and money in endeavouring to give relief to these huge battalions of out-patients? Finally, is it to the interest of the medical staff of a hospital that its junior members should be called upon to devote a large part of the working days of the best years of their lives to the dreary round of the out-patient room? We believe that if those members of the staff who are called upon to do this work could be polled, or rather could be balloted, there would be an enormous majority in favour of measures of drastic reform, and for this reason, if for no other, we should like to see a public-spirited member of the junior staff of a London hospital upon the Association's Committee.

We might easily make a long list of principles which

require consideration, but we would conclude what we now have to say by indicating as matters of detail which appear to require more attention, the question of whether the site to which it is proposed to remove King's College Hospital is the best that could be chosen, and whether the opinion endorsed by the King Edward's Hospital Fund for London that a new hospital is urgently required at Earl's Court is correct. We may note also as a matter demanding inquiry the decision of this Fund to set apart a sum of £10,000 to be drawn on as required for the amalgamation of hospitals. Similar questions of principle and detail arise from time to time in provincial cities, and we believe that the need for some central controlling body is felt also in such places as Manchester, Liverpool, and Glasgow.

THE MEDICAL DEGREES OF THE UNIVERSITY OF LONDON.

In the Educational Number of the British Medical Journal published on September 5th, 1903, a detailed summary of the regulations which are now in force in the medical faculty of the University of London was given at page 509, and upon page 522 of the same number attention was drawn to the principal points in which they differ from the regulations of the past. A good deal of misapprehension seems, however, still to exist as to the general effect of the new regulations. Graduates of the University who have not hitherto made a close study of the alterations effected appear to be under the impression that these are of a retrograde nature, and will lead to a lowering of the value of the medical degrees of the University in the public estimation. We believe, however, that this is very far from being a correct view of the case, and that to true friends of the University and of medical education and scientific progress alike, the alterations introduced should be a cause not of sorrowing but of rejoicing.

The greatest change of all is one that affects not the medical faculty alone but all faculties alike, for the regulations for matriculation have been altered materially. The aim has been to frame regulations which would be applicable to boys coming from different types of schools. Every candidate must pass in (1) English, (2) elementary mathematics, and (3, 4, 5) in three other subjects. Under (3) the the candidate has a choice between Latin, elementary mechanics, or elementary physics. Having made his selection he must choose two other subjects. If Latin has not been taken under (3) one of these must be another language, chosen from a long list, while the other subject may be taken from another long list which contains history, logic, geography, mathematics, mechanics, chemistry, physics, botany, zoology. If the candidate has taken Latin under (3) he is not compelled to take another language, but he may do so; thus, a public schoolboy can take up Latin, and, if he wishes, Greek, with, for his fifth subject, a modern language or ancient or modern history, whereas, the boy educated on the modern side can take up elementary mechanics or physics and a modern language, with, for a fifth subject, modern history or geography. But although the University allows this wide choice of subjects it is of course within the competence of any body which has to regulate the conditions of admission to a profession or calling to prescribe that candidates who require recognition from it must take up some particular subject. For instance the General Medical Council could prescribe that it would only accept the matriculation of the University of London as qualifying for admission to the *Students' Register* if the candidate produced a certificate that he had passed in Latin and so on. It should be added that it is now possible for a student who has passed certain examinations at certain universities and educational institutions recognized by the University for this purpose to become an undergraduate of the University without passing the matriculation examination. Though this alteration is undoubtedly most drastic it must be noted that the alternative examinations permitted in lieu of ordinary matriculation are of high class, and indicate a standard of knowledge fully as great as that of the old matriculation examination. The old unsatisfactory paper in elementary science is dropped, and the new regulations for matriculation make the portal wider, but do not make each individual path that leads through it a less adequate test of knowledge and ability than heretofore. The University of London, in short, has merely modernized its preliminary examinations upon the same lines as equally famous universities have modernized their final graduating tests. But this is far from saying that any of these universities have lowered their standard; they have merely extended the scope of possible study in view of the progress which has been made since the days when mathematics, theology, and the dead languages were considered to represent the whole sum of desirable human knowledge.

In the Preliminary Scientific Examination and other special to the Medical Faculty the changes are of a less radical nature, and, apart from minor modifications it may be said that the general tendency is to throw more stress on practical work, and the regulations leave no room for doubt that throughout the whole series of examinations all tests of the laboratory type will be much more exacting than hitherto. Honours can still be obtained, but there is no longer any separate examination for them.

Under the old regulations the candidate for the degree of M.B. was examined in surgery, and thus the degree was made a qualification for registration, but the examination in surgery was undoubtedly inadequate. It was so found by the General Medical Council, and the impeachment has been admitted by the University. It was optional upon the candidate to proceed to the B.S. degree, and therefore the University was in the position of placing upon the *Medical Register* candidates who had been subjected to an insufficient examination in surgery. This has been changed under the new regulations. The double degree M.B., B.S. will be given after an examination, in the course of which the candidate will be subjected to a wide and practical test of his knowledge in surgery. This, so far as an examination can, will ensure that the graduate possesses an adequate knowledge of the subject. In future the curriculum will provide that the candidate for the degrees M.B., B.S., shall receive a better and more practical training in pathology, and the examination will likewise be more practical and of wider scope. The regulations for the degree of M.D., have also been materially modified. The principle which would appear to have inspired the alterations is that the M.B., B.S., being a degree qualifying for registration, must be complete and equal for all candidates, but that the University is justified in allowing holders of those degrees who wish to proceed to M.D. to specialize to some extent. In future a graduate who seeks the degree of M.D. can present himself for examination in one of five branches: in the first, medicine; in the second, pathology; in the third, mental disorders;

and psychology; in the fourth, midwifery and diseases of women; and in the fifth State medicine will predominate. Every candidate will be required to pass an examination in medicine and every candidate will be subjected to a clinical or laboratory examination, but the main stress of the examination in each case will fall upon the special branch selected.

Other modifications designed to meet the needs of special cases are very slight in themselves, and are in the nature of cutting away some of the red tape which for the last twenty-five years has been a curse to the University of London itself, not less than to its would-be graduates. In effect it may be said that until this great upheaval took place the University had for a good many years practically stood still while other universities were advancing, especially in the direction of making their curricula and examinations more practical. This was no doubt owing to the fact that for the whole of this period the University was threatened with (or shall we say promised?) the drastic measure of reform which has now been carried out, and of which these new regulations are one evidence.

Jealousy in graduates at a change in regulations which may possibly lower the value of a degree which they have laboured hard to obtain is a very human feeling; but it is only justifiable if it results from a lowering of the standard of scholarship required. We do not believe that the new regulations of the University of London will have this effect, and we hope that the number of graduates will greatly increase. The M.B., B.S.Lond. as it now stands is probably the best qualifying degree in this country.

So far so good, but we cannot help feeling that the Senate of the University is throwing away a great source of strength by its failure to appeal to the loyal feelings which most of its graduates would be ready to display towards it if only they could find opportunity. Convocation, which used to be a kind of rallying point, has been shorn of some of the limited powers it formerly possessed; interest in its meetings has therefore very rapidly declined, and on the last occasion there was no quorum. The graduates know little or nothing of what goes on, they have no part or lot in the life of the University, and neither the Senate, nor the Academic Council, nor the Principal, nor indeed any other body or individual seems to think it worth while to maintain or conciliate their interest. It is true that a *London University Gazette* is "published by authority," and that it has now reached the forty-sixth number of its third volume, but we defy any one to match it for extreme dullness and dryness. It would be as reasonable to read the *London Gazette* for news of the day as the *London University Gazette* for news of what is happening in the University or its Colleges. Promptness of publication even of such information as it contains is not characteristic of this authoritative periodical. The number issued on December 12th, for instance, consists largely of a report of the Acts of the Senate at its meeting on November 18th. No graduate is told what the Academic Council does; he knows that it meets, and that the Council for External Students, the Committee for this and the Committee for that meet because the *Gazette* contains a list of "University Agenda" in which the dates of coming meetings are set out. But what business they are to do is not revealed, and when it has been done the graduate is left dimly to conjecture from such decisions of the Senate as may be published what has been its nature. It is not so in other universities. We should be very much surprised to be told that the decisions of the Senate were always unanimous. We hope not, because out of controversy there generally comes wisdom. Would the whole fabric of the University come clattering about the head of the Principal if he took the graduates occasionally into his confidence, if he tried to put into the *Gazette* matters which would keep alive their interest, if he took opportunity now and again to speak in public on the problems and the difficulties, which no doubt are of the greatest interest to him? If to him, why not to them? Might not the Dean of the Faculty of Medicine do likewise? Might not the members of the Senate feel themselves, on some subjects at least, absolved from the oath of secrecy which seems to have been imposed on everybody who has anything to do with the business of the University? To put the matter on the lowest ground, the University wants money, and to get money it wants advertisement why does it so laboriously conceal its aspirations and its needs from its own graduates, who, though members of the University, cannot but feel that under the present régime they are given the cold shoulder?

MEDICAL WITNESSES' FEES.

THOSE who have followed with any closeness of attention the eight years' struggle in which a few active members of our profession have been engaged with the authorities at the Home Office, in order to secure a more suitable scale of remuneration for medical witnesses in criminal prosecutions than that laid down by Sir George Grey in 1858, will read with pleasure the new regulations sanctioned by the present Home Secretary, of which we give a summary at page 30.

It was in 1895, when Mr. Asquith was at the Home Office, that the facts of the case were laid before that department by a deputation which showed the utterly inadequate remuneration hitherto paid to medical witnesses in these cases, and the great injustice done to many country practitioners by compelling them to leave their practices, often for the best part of a week, and paying them at a rate which left them frequently out of pocket by the transaction. Mr. Asquith did not attempt to deny the injustice, but made the curious excuse that, as it had existed since 1858, and successive Home Secretaries had been afraid of burning their fingers by touching it, he himself was going to leave it as he found it. He also made the utterly unpractical suggestion that police surgeons, who are very frequently appearing as medical witnesses, should apply to their employers, the Watch Committees of town councils, etc., for extra remuneration for their other police duties in consequence of their being underpaid for this one.

Mr. Asquith's successor at the Home Office, Sir Matthew White Ridley, refused even to receive a deputation from the British Medical Association or the United Kingdom Police Surgeons' Association, the two bodies specially interested in the matter, and it was not till after the general election of 1900 that sufficient Parliamentary support was obtained by a Joint Committee of the two Associations to enable them to press for the appointment of a Departmental Committee. This Committee was appointed by Mr. Ritchie last year when at the Home Office, and it is on the basis of its report, which was summarized in the BRITISH MEDICAL JOURNAL of July 18th last, that these new regulations, are avowedly based.

The memorandum which accompanies these regulations points out that there is a considerable increase in the

allowances under the heading of witnesses giving professional evidence, and it is said that these are fixed on a higher scale than the rates for ordinary witnesses on the ground, stated by the Departmental Committee with reference to the medical profession, that its members are much more frequently called on to assist criminal justice by evidence drawn from their professional experience than any other class of the community. The Departmental Committee put the matter much more strongly, and said that "we think that the allowances hitherto paid have been inadequate, especially in the case of doctors summoned to places distant from their practice. It seems to us that the complaints made by the medical profession in respect of the present scale are justified by the very fact that its members are much more frequently called on to assist criminal justice, etc." We understand, however, from this sentence that the Home Secretary agrees with the Departmental Committee that the fees hitherto allowed are too low and ought to be raised.

On the one point on which the memorandum states that the new regulations do not follow the recommendations of the Departmental Committee, we must admit that there is something to be said in favour of the Home Secretary's view. We entirely agree that the fee should be paid to a medical man who makes an examination in sexual cases whether his examination leads to a prosecution being undertaken or not; and the same principle applies, as we shall see presently, to those cases to which the attention of the Departmental Committee was called, where in several parts of the country at petty sessions the medical witness receives no fee whatever unless the case is committed for trial. We cannot admit, however, that the fact of such a fee being inserted in a table of fees to medical witnesses, and its amount fixed, as recommended by the Departmental Committee, at one guinea, would be at all prejudicial to those who, employed by the police or other authorities to make such examinations without being called upon to appear as witnesses, might fairly, on the Home Secretary's own showing, claim a similar fee.

The Home Secretary has, however, means ready to his hand to show that he intends to carry out the recommendations of his Departmental Committee in regard to this matter. Under his direct authority examinations in suspected sexual cases are constantly being made by divisional surgeons of the metropolitan police, for which a most inadequate fee is at present paid. By a stroke of the pen he can authorize the payment of a guinea fee in all such cases, and so prevent the necessity of inquiries in the House of Commons when Parliament meets by one of the M.P.'s who sat on the Departmental Committee, as to the carrying out of this, one of the most important of the Committee's recommendations.

We are unwilling to believe that the General Regulation (No. 7) is intended to take away with one hand what has been granted with the other, but this will certainly be its effect in most cases heard at police-courts and petty sessions, and probably also in some heard at quarter sessions and assizes when the medical witness resides in the assize town. It is pointed out in the memorandum that no distinction is made between attendance at petty sessions and at assizes, the intention apparently being that the half-guinea fee at the former should be levelled up to the guinea at the latter; but, as attendance at a police-court or petty sessions does not usually involve a loss of four hours' time, the half-guinea fee would again become the rule. At quarter sessions and assizes the effect of this regulation in the case of those medical witnesses living in the town would be to reduce the present guinea fee to half-a guinea for those who were not detained from their homes for four hours. As this is directly contrary both to the recommendations of the Departmental Committee and to the expressed wish of the Home Secretary, as stated in the memorandum accompanying the Regulations, we can only look upon it as an unfortunate mistake, to be corrected at the first opportunity.

We very much regret not to see any recommendation added by the Home Secretary as to those cases in various country places, of which evidence was given before the Departmental Committee, where no fee whatever is allowed the medical witness unless the case is committed for trial. It is quite possible that a short Act of Parliament may be required to change the "may be allowed" of the Home Secretary's regulations into "shall be allowed," for those magistrates who are insensible to the injustice they are constantly inflicting on medical men who are compelled to waste their time in attendance before them. But a letter from the Home Office on the subject would doubtless have effect with some of them. The Home Secretary's own principle applies here: that the medical man is entitled to receive an appropriate fee whether his evidence is followed or not by criminal proceedings.

It is but the barest justice to add that the two members of the medical profession to whose efforts it is due that the whole question of medical witnesses' fees has gained its present position, and seems likely after all these years to be satisfactorily settled, are Mr. Frederick Lowndes, of Liverpool, and Mr. Nelson Hardy, of London. We do not think the profession will soon forget their labours on its behalf. Mr. W. F. Lawrence, M.P., has also rendered important services both in the House of Commons and on the Departmental Committee, which, we may assure him, are fully appreciated.

DISAPPEARING QUARANTINE.

Our Paris correspondent, in a communication published in the British Medical Journal of December 12th, 1903, p. 1549, gave a summary of the provisions of the convention adopted by the International Sanitary Conference which met recently in Paris, and held many prolonged sittings. The convention has been signed by the representatives of twenty Powers, including all the chief European countries—Egypt, Persia, and the United States.

This convention is the last of a long series, and differs from its predecessors mainly by reason of the greater amount of attention given therein to regulations as to medical inspection and the corresponding relegation of quarantine regulations to the background, or in certain instances their entire disappearance. This is a valuable testimony to the acumen of those sanitary experts who have enabled Great Britain to take the initiative in this matter, and to demonstrate that in the absence of quarantine regulations, but with medical supervision, and a good second line of defence in the shape of sanitary administration, she can keep her coasts and inland towns more free from exotic disease than the majority of countries which enforce rigid quarantine regulations.

It is evident from the contents of the articles of the convention that unanimity has only been reached by allowing alternatives in the measures to be enforced. Thus, under the head of plague, vessels infected with this dis-

case are subject to the following regulations:—The ship is medically inspected, the sick are taken ashore and isolated. So far there is uniformity of procedure, but from this point there is divergence. The persons remaining on board, it is stated, should also if possible be taken ashore, and (*a*) either put under observation (that is, isolated in a sanitary station before they obtain free pratique) for not more than five days; or (*b*) simply subjected to supervision, which is not to exceed ten days. The latter, it need hardly be said, is the British, the former the Continental system. It is something to have the period of quarantine thus reduced to five days, and there can be little doubt that this limited period will eventually disappear. On the other hand, a temporary detention is desirable for the disinfection of linen, clothing, and other articles belonging to persons who may have been in contact with infection, and the power to enforce this enables the sanitary authority temporarily to detain persons who could not in all probability be traced after landing.

Few things are more striking at the present day than the rapid manner in which the results of scientific investigation become embodied in sanitary administration. Ships infested by plague-infected rats are required to have all rats destroyed within forty-eight hours, and the disinfection of the ship is required.

It is pleasant to find that the last has been seen of land quarantine for the countries signing this convention. Such quarantine has always been useless as well as annoying and expensive. Now only persons showing symptoms of plague or cholera can be detained on the frontier.

A scheme for international notification of plague and cholera is also embodied in the convention. Each Government is charged with the duty of immediately notifying to other Governments the first appearance in its territory of cases of plague or cholera. This notification must state the place where the case has appeared, the date of its appearance, its origin, the form of disease, and the preventive measures taken. In the case of plague, the occurrence of an unusual mortality among rats or mice must also be notified.

The terms of the convention will, if carried out in the proper spirit, do much not only to prevent the spread of disease from country to country, but also to help forward the realization of the ideal of the international solidarity of interests in sanitary as well as in other concerns.

THE OUT-PATIENT WORK OF THE MEDICAL SCHOOLS.

IN another part of this issue (page 44) will be found the result of some statistical investigations into the out-patient work of the eleven hospitals in London which have medical schools attached. The results are striking in point of the essential magnitude of the figures given, of their proportion to population, and of the growth shown to have occurred in ten years. As regards their magnitude, the extent of the out-patient work in London has long been known, but the fact that nearly three-quarters of a million persons are out-patients during the year at the eleven general hospitals alone may bring home the magnitude of their operations to some people more clearly. To others the growth in the work shown to have occurred in the short space of ten years may seem more notable still; and, indeed, it is curious that the numbers should have increased to such an extent as over 12 per cent. For it must be remembered that of late years some efforts have been made to restrict the benefits of the work to those who have a real claim upon medical charity, and that at the same time these general hospitals have been exposed to the increased competition, so to speak, of the special hospitals, and of the growth of smaller general hospitals further afield. The former factor is of particular import, for the general public ascribes more value to specialism than most medical men probably do and the growth in popularity of special hospitals has been correspondingly great. Certainly, however, the most important point brought out by this inquiry is the proportion borne by the out-patients of these eleven hospitals to the total population of the Administrative County of London. It will be seen that put into simple language the mathematical proportion shown is equivalent to saying that out of every twenty persons met in the streets three are, or have been during the year, out-patients at one or other of these hospitals. If this is the proportion of the public which receives gratuitous medical assistance at these general hospitals as out-patients, what would be the proportion if the work of all the other hospitals were taken into count and in-patients included as well? There are many difficulties in the way of an exact determination of this further proportion, but the figures now published are sufficient in themselves to bring home to the public the immense claim which the hospitals have upon the public purse, while to the social economist and the medical profession they may suggest ideas of another character. One of them will probably be that the whole question of out-patient relief demands much more organized attention than it has yet received. Apart from these general questions there is a point of a special character in which the results of the inquiry are of interest. During the last year or two the question of the continued necessity of a hospital at any particular spot has often been discussed, and has proved extremely difficult to decide. The figures contained in the report suggest that one of the best criteria of the continued need of a hospital in any given neighbourhood will, if it has a school, be furnished by the extent of its out-patient maternity work. This work of a hospital is always among the really poor, and is rarely conducted at any great distance from the hospital itself. Unless, therefore, the size of the school and the number of its students have greatly varied, or another school doing maternity work has sprung up in its neighbourhood, or pronounced changes have taken place in the general birth-rate, the extent of the maternity work of a hospital should not vary to any considerable degree; and if it is found to do so in a series of years, that fact may be taken as evidence that the character of the locality has altered in such way as to increase or decrease the need of a great hospital in its midst.

THE ROMANCE OF THE BLONDLOT RAYS.

THE march of scientific discovery depends largely upon the invention and application of new methods of research. Amidst much that has been unpleasant in the year of grace 1903, it has left us a rich legacy of scientific advance achieved and given us promise of a still richer harvest in the future. The discovery of radio-activity, and above all that of radium and some of its allies, has perhaps obscured the importance of vibrations of far less frequency, the rays of Blondlot known as *n* rays. To the scientific imagination it is easy to conceive vibrations at the rate of one a second—for example, of a pendulum—to pass from such vibrations to those constituting auditory waves, then to those at still ever-increasing rates of vibration and therefore of shorter wave length, for example, electrical waves, and Hertzian waves. Beyond this, although the physicist assumes that nothing in Nature is discontinuous, there was until lately a great unknown territory. Now certain rays have been discovered in this region, and among them those of most interest to medical men are the rays of Blondlot, rays of a rate far below those of heat and light, and consequently far lower in the scale than the radio-active radiations and emanations of radium and its allies. Imagine a lighted incandescent gas lamp. It emits heat and light rays and also the rays of Blondlot. Find a filter or screen that will separate the individual rays as a prism sorts out those of light, find something that will filter out or be opaque to all rays save those of a particular

rate of vibration, and the problem is solved. Suppose a lighted incandescent lamp to be surrounded with an iron jacket, save at one spot, where a window of aluminium is let in. The aluminium stops all rays save those known as the rays of Blondlot. If these rays after they have traversed the aluminium plate be focussed by an aluminium lens, it is found that an electric light or a scarcely visible gas flame shines more brightly, and phosphorescent or fluorescent bodies become more luminous and more active. This is practically the way in which such rays are separated by filtration from the innumerable other rays mixed with them emitted by an incandescent gas lamp. One of the most remarkable discoveries made in the year which has just ended is that of Professor Charpentier of Nancy. He states that living nerve and muscle emit Blondlot's rays or *n* rays and that during activity of muscle and nerve there is a larger emission of these rays. This can be shown in a dark room by the following experiment: a phosphorescent body as little luminous as possible is chosen such as a fluorescent platino-cyanide of barium screen; its action is regulated by means of a salt of radium and it is covered with black paper so as to leave an air space between the two surfaces. The luminosity of this screen is increased when it is brought near to a living nerve or muscle or nerve centre and the effect rises with the degree of functional activity of the nerve or muscle. The course even of superficial nerves such as the ulnar or median can be traced by this means. The rays obtained seem to be identical with the *n* rays as they were transmitted by substance (aluminium, paper) which transmits *n* rays, and arrested by lead which stops *n* rays. Other tests were applied to prove the identity of these rays emitted by living and active nerve and muscle and *n* rays. They are not heat rays, as was proved by means of a calorific screen. Nor are they rays that have been stored up in daylight and emitted in the dark. Charpentier was able to map out the area of the beating heart, and to trace the course of superficial nerves by their aid. Here indeed we have something new. Physiologists know the electrical variations that accompany nerve action, and the chemical and thermal changes during muscular actions; but here we have evidence of rays far below the wave length of those of heat and above those of electricity. They may be expected to afford a test of the activity of nerve and nerve centres. The possibilities opened up by these researches far surpass anything that the wildest dreams of the imagination have so far suggested. We offer our hearty congratulations and thanks to Professor Charpentier, and we look forward to the promise of further contributions in this subject from one whose researches in physiological optics are amongst the classical investigations in that most interesting domain of science.

FRUIT CULTURE IN GREAT BRITAIN.

A DEPARTMENTAL Committee has been appointed by the President of the Board of Agriculture and Fisheries to inquire into and report upon the present condition of fruit culture in Great Britain, and to take measures to advance and encourage this industry. The Committee is constituted as follows: Mr. A. G. Boscawèn, M.P., Chairman; Mr. C. W. Radcliffe Cooke, Mr. J. M. Hodge, Colonel Charles W. Long, M.P., Mr. George Monro, Mr. P. Spencer Pickering, M.A., F.R.S., Dr. W. Somerville, Assistant Secretary of the Board of Agriculture and Fisheries; Mr. Edwin Vinson, and the Rev. W. Wilks, M.A., Secretary of the Royal Horticultural Society, with Mr. Ernest Garnsey, of the Board of Agriculture and Fisheries, as Secretary. When it is realized that in 1901 the sum expended upon raw fruit imported into the United Kingdom was £7,623,500, it will be seen that it is time something was done to improve our fruit-growing conditions. At present that branch of horticulture is practically confined to a few counties, fully one-third of the area of small fruit in England being produced in Kent alone. English growers of fruit under glass are far more successful than those who grow fruit in the open, the latter branch being practically in its infancy. In countries like France, where orchards upon orchards of fruit trees, such as apples, greengages, and pears, line the country roads, the fruit is often as good as our most carefully-selected specimens. When it comes to garden fruit grown either on standard trees or walls they equal our hothouse fruit. But in France fruit growing is a science, and gardeners spend half their lives studying and experimenting, with the result that they can command the high prices which we have to pay when we get our best fruit from France. At the present day, when the national physique is deteriorating on account of the migration of the rural population to town, every nerve should be strained to keep the people in the country; and there is in open-air fruit culture, conducted scientifically, an opening for many a man or woman of ordinary intelligence. Training colleges should be established in all the most promising districts, so as to bring theoretical and practical training within the reach of students, male and female. Orchards and walled-in gardens would be required for experimental purposes, and the profit on the sale of the fruit used to help to maintain the colleges. Valuable practical experience has been gained on the Woburn experimental fruit farm established in 1894 by the Duke of Bedford, the object of which is "to ascertain facts relative to the culture of fruit, and to increase our knowledge of, and to improve our practice in, this industry;" the experiments prove the many errors into which the ordinary fruit grower falls. As in every other trade, the best article commands the best price, and repays extra initial cost and trouble.

CENSURES ON MEDICAL MEN BY CORONERS' JURIES.

CORONERS' juries are apt on certain occasions to append a rider to their verdicts in which some censure on the conduct of medical practitioners is found. It is quite clear that such riders are *ultra vires*, and it was decided in the High Courts many years since that such censures are entirely beyond the province of a coroner's jury. It would be well for coroners to realize this and for newspaper reporters and editors also to consider that if such censures are reported no privilege would attach to such publications, and that an action for libel might ensue. In a case brought before Mr. Justice Coleridge in 1848 a Croydon coroner's jury had brought in a verdict "that E. Hopkins had died from exhaustion from protracted labour and that Dr. Berncastle had shown the greatest inhumanity in leaving the patient, and they thought him unfit to remain as a medical officer of the Union." There was an appeal to the High Court to quash the inquisition, but it failed, as Mr. Justice Coleridge held that the rider was no part of the inquisition. He ruled, however, to the following effect: "The jury had exceeded their jurisdiction. They were empanelled to inquire into the cause of the death; they found that the cause of death was exhaustion, but they did not say, and no doubt they had plenty of disposition to say it, that Dr. Berncastle's conduct had anything to do with it, but they went on gratuitously to make accusations against him. It was to be regretted that the coroner had taken down the statement the jury had made. They were empanelled for a particular purpose, but they had no more authority to express an opinion on Dr. Berncastle's conduct than on his (the learned judge's) or any other person who had nothing to do with the matter. He had in this case technically to rule, but with deep regret to dismiss, the application to quash the injunction. He held that the rider was no part of the verdict, and that the jury had exceeded their jurisdiction in expressing it." We commend this judicial decision to coroners and their juries in the hope that it will be remembered by them, and that the coroner's court will be only used for the purpose for which it was designed—to inquire into the cause of death—and not for the purpose of commenting gratuitously upon the action of any medical practitioner against whom no legal charge can be made or sustained.

MR. COLERIDGE'S CONVERSION.

THE Hon. Stephen Coleridge has lately had the antivivisectionist stage almost to himself; it is scarcely surprising

therefore that his brethren of the cynophil persuasion—who do not include each other among the animals whose feelings need be spared—are anxious to have a turn. Mr. Frederick E. Pirkis, Chairman of the National Canine Defence League, has therefore come on with a "Nation's Petition to Parliament Against the Dissection of Live Dogs in Medical Laboratories." With the object of securing signatures to this document the League has distributed a leaflet inviting a credulous public to believe that "thousands of dogs are tortured yearly by licensed experimenters;" that "the total number of experiments performed in 1902 was 14,906, 12,776 of which were without anaesthetics;" that "the number 14,906 does not give the number of dogs used, for each experiment may include any number of dogs—there is no limit fixed by the law"; that "the Home Secretary stated in Parliament on July 10th, 1903, that one dog may be used *again* and *again* for vivisectional experiment or demonstration—and this without anaesthetics." These statements lead up to an appeal to the nation "to rise as one man and say, 'This shall not be.'" The nation, it may be remarked incidentally, is not in the least likely to say anything of the kind, for it knows that as a matter of fact these things are not. We should certainly not have taken the trouble to refute such ridiculous charges, which merely supply an additional example of the unscrupulous manner in which the wirepullers of antivivisectionist societies attempt to trade for their own purposes on the gullibility of the public, and Mr. Pirkis may possibly have counted on his lying leaflet being passed by with silent contempt by those who know the truth about his "facts" and "figures." But he counted without Mr. Coleridge, who has the true mummer's dislike of being thrown out of focus by a rival. To bring the light on him once more he is bold enough to appear in an entirely new character—as a lover of truth. He professes to be grieved by "the grossly false and misleading statements" put in circulation by the National Canine Defence League, and he feels it his duty to expose them. The assertion that "thousands of dogs are tortured yearly" he characterizes as a gross exaggeration, pointing out that "if every animal experimented on in 1902 under licence alone were a dog, and if every animal used under Certificate B. were a dog, and every animal used under Certificates B. and EE. and A. and EE. (which permit either dogs or cats) were a dog, the total would not come to thousands"; he adds that to assert that "no dog of all those experimented on under licence alone is ever painlessly vivisected and destroyed is not fair." Dealing with the statement that of the 14,906 experiments performed in 1902, 12,776 were without anaesthetics, Mr. Coleridge says it is not fair to make this statement without adding that the 12,776 experiments referred to were all inoculations or similar proceedings. He further shows that the figure 14,906 included all animals used—frogs, guinea-pigs, cats, etc., as well as dogs; and that in regard to the question of a "limit," the Home Secretary has stated that "the number of animals does not exceed the number of experiments given in the return—in fact, it is less." Finally, Mr. Coleridge affirms that the statement put into the mouth of the Home Secretary as to the repeated use of the same dog for vivisectional experiment or "demonstration" is misleading, as on the occasion presumably referred to the Home Secretary alluded to no "demonstration" nor to anything in the nature of "living dissections" but to certain drowning experiments made by Professor Schäfer. Mr. Pirkis's reply to this exposure is futile and, we must add, disingenuous. It is not, however, with the refutation of his easily-disproved charges that we are concerned; the interesting thing in the controversy is the conversion of Mr. Coleridge to a sense of the value of accuracy and fairness in dealing with opponents. It is truly edifying, after his recent experience in the High Court of Justice, to find him denouncing "false statements made by antivivisectionists" and declaring that he will not for a moment countenance controversial "methods which must bring disaster to any movement that employs them, and justly alienate the sympathies of all honourable people." The reproof administered by Mr. Coleridge to Mr. Pirkis must we suppose, be taken as an illustration of the zeal of the convert. But by some strange association of ideas, as we read it, there comes across our memory the scene in the *Fortunes of Nigel* in which King James says to "Jingling Geordie" that "it was grand to hear Baby Charles laying down the guilt of dissimulation, and Steenie lecturing on the turpitude of incontinence," and honest Heriot replies that it made him think of the old proverb about Satan reproving sin.

PHYSICAL DETERIORATION.

IT is gratifying to find the *Times* opening its columns to a discussion of the question of national physique, and we are glad to see that the views expressed in its leading article on December 29th, 1903, confirm and correspond in so striking a manner with those set forth in the BRITISH MEDICAL JOURNAL in the series of articles on physical deterioration which have been appearing for several weeks past. We have laid stress upon the view set forth by Dr. Farquharson in his letter published in the *Times* of December 26th, 1903, that it is imprudent to overwork underfed children in schools, and that if the State requires the children of the very poor to work, they should be so fed as to enable them to learn without injury. To this end we have recommended that every child should be provided with a dinner at school at a small cost to parents, to be cooked in classes by the elder children. We have also advocated the importance of teaching domestic economy, cooking, and the nutritive value of foods in order to instruct the future mothers. Again, we have pointed out that education is of small use to those children physically unfit to benefit by it. We have referred to such subjects as ventilation, and we have propounded a simple system of weighing and measuring all school children once every three months, the records to be carefully entered in registers for reference. A letter from Dr. Jones, of the Claybury Asylum, published in the *Times* of December 29th, 1903, contains the significant statement that 40 per cent. of male cases admitted to that asylum were country-born men who had gone to the wall because they found hoped-for town conditions unattainable, either from want of proper bringing-up, or through self-indulgence, the craving for pleasure, and the gratification of the passions in those whose poisoned environment had weakened their self-restraint. But, as is observed in the leading article of the *Times*, although due weight must be given to Dr. Jones's belief that the physical condition of the degenerates under his care has become worse during the period covered by his experience, this is a matter of individual impression to which too much importance must not be assigned. The article winds up: "The whole question seems to be eminently one for inquiry, not only for such inquiry as the expected Royal Commission will be likely to institute, but for inquiry established upon a national basis, and conducted for a sufficient time to give certainty to its results." With this we most heartily agree, and we are not sure that Dr. Donkin is right in maintaining that comparative statistics could be obtained only after an interval of fifty years. Anthropometric observations made on the children of elementary schools in districts of varying class, such as those which Dr. Hall has made in Leeds, would provide comparable figures within a year or two.

TYPHOID FEVER AND WATERCRESS.

ON several occasions watercress has been suspected of conveying the infection of enteric fever. A fairly convincing instance has occurred recently at Hackney. From a special report by Dr. King Warry it appears that in June and July last there was a marked increase in the number of notified cases of enteric fever. The first group consisted of 48 cases and the second of 62. The 110 cases were distributed in 95 households. After eliminating water, milk, shellfish, ice cream, and sanitary defects, as sources of infection, Dr. Warry found a particular incidence rested on persons who had consumed watercress. In the first 48

cases, 29 (or 64.4 per cent.) and in the second group of 62 cases, 28 (or 48.2 per cent.) had consumed watercress. In all, therefore, 55.3 per cent. of the cases had come in the way of infection from this food, if it had been infective. It was found that in the general population the watercress eaters might be taken at 27.5 per cent. It therefore became evident that the watercress eaters in the epidemic had suffered 4.6 times more than the non-watercress eaters in the first group, and more than twice as much in the second. An inquiry was accordingly instituted into the source of the watercress and its bacteriological condition. In respect of the source Dr. Warry visited beds situate in West Ham fed by water from an adjoining ditch, into which it was pumped from a sump hole about 6 ft. deep adjacent to the Channelsea branch. This branch is one of the most polluted of the badly polluted river Lea; so that practically the West Ham beds were fed by almost undiluted sewage. A sample of water taken as it flowed from the ditch on to the watercress beds was found to contain at least 50 B. coli in every c.cm. Bacteriologically the Lister Institute reported that the water was polluted, B. coli being present, and the watercress (seventeen samples) was all found to be contaminated with sewage organisms of the intestinal type. "These organisms have been found in each sample," the report states, "and it is obvious, therefore, that all these samples of watercress have been contaminated with sewage." As Dr. Warry remarks, "these facts furnish material for serious reflection. They show that the bulk, if not the whole, of the watercress sold in Hackney is cultivated under such polluted conditions as to be liable at any time to be specifically polluted and to give rise to outbreaks of enteric fever. If so many samples of watercress sold in Hackney are in a polluted condition, is it not probable that watercress sold in other boroughs of London is similarly polluted?" This is a pertinent question.

THE SCHOOL BOARD AND THE OPHTHALMIC DEPARTMENTS.

Complaints continue to reach us both from the ophthalmic departments of general hospitals in London, and more especially from the ophthalmic hospitals, to the effect that the School Board deals in an inconsiderate manner with them in regard to the children whom its examiners find it necessary to refer for treatment. During recent years a great additional strain has been thrown, often spasmodically and without any notice, upon the ophthalmic departments of the London hospitals, and some hospitals have adopted rather summary measures, not unattended with some hardship to the patients. The question at issue is part of a larger one, namely, what relationship should exist between the public elementary schools on the one hand and the hospitals on the other in the matter of the treatment of such diseases and defects as the exigencies of school life discover and require to be dealt with. In this connexion cases of infectious disease, of ringworm, of pediculosis, deafness, post-nasal growths, mental deficiency as well as defects and diseases of the eye need to be considered. There is much to be said for the view which has been urged on behalf of the School Board to the effect that it is the business of the Board to make such observations for the discovery of the presence of such conditions in the interest of the individual child and the health of the school generally, but that it is no business of theirs to treat such cases. It appears from the last report of the Board's medical officer that from 10,000 to 20,000 of the school children in London should, in his opinion, annually receive detailed medical examination, and, if required, treatment in order to get the best educational results. The Board has been employing some half-dozen examiners to detect cases of ocular defect and disease, and when found we understand the children so affected receive either a green or red card according to the urgency of the case; the card is taken home to the parent, who is thereupon advised to seek medical advice as to the need of glasses, etc. The card, it is true, does not now bear any special direction to go to a hospital, but it bears a caution against glasses "as prescribed by the various sight-testing establishments, certified opticians, chemists, toy shops, or any other than qualified medical men." In the case of the ordinary parent of the ordinary School Board child, however, this amounts to advice to go to a hospital, and such advice is largely acted upon, too largely in the opinion of the governing bodies and overworked staffs of some of the hospitals. It is clear that solicitude for the educational well-being of the child, which no one will gainsay and which was never more thorough than now, is right, and maybe the disciples of the gospel of municipalization would desire to go further and have free physic and free spectacles all rate-provided. We confess we incline to the view of the School Board as being the correct one, that they should seek to discover any let or hindrance to the child's educational progress, else money is thrown away on its instruction, but that a sharp line should be drawn when it comes to treatment. We wish, however, they would not transgress the rule they appear to have laid down for themselves in this matter. We refer to a curious postscript which appears on the back of the aforesaid green card. We reproduce it verbatim:

> In most cases of pustular eye inflammation, irritable or sore eyelids in delicate children, a piece of the ointment, the size of a lentil, in each eye at bed time will be found of benefit. Any chemist will supply it of the following composition: Powdered yellow oxide of mercury, 3 grains; lanolin, 2 drams; vaseline, to half an ounce.

Without calling in question here the universal applicability of this School Board Golden Eye Ointment, we doubt the desirability of this wholesale and indiscriminate mode of prescribing. If the School Board adheres to the view laid down, the remedy for the grievances of the hospitals must be found in a proper mutual arrangement between the Board and them as to days and hours and means whereby this great addition to their ordinary work is to be provided for. It is neither fair nor tolerable that the regular work of a department should be suddenly and without notice dislocated or swamped by the invasion of a battalion of School Board ametropes. The work entailed is not particularly exhilarating, and needs to be done deliberately and conscientiously. Many hospitals we know have recently made special appointments of refractionists to meet the influx. We shall continue to watch the solution of the difficulties to which we have referred, and which, we trust, may proceed on the lines we have ventured to indicate.

THE DOCTOR IN HIS SOCIAL ASPECT.

Every now and again during the last two or three years we have had to contradict rumours as to the King's health which found their way into the newspapers. The latest of these reports was apparently inspired by an announcement made by the *Court Circular* that Sir Frederick Treves was a visitor at Balmoral. The fact that a circumstance of no importance in itself, and of no interest except to those immediately concerned, should give rise to such rumours suggests reflections of a not altogether pleasing character as to the light in which even the most distinguished members of the medical profession are still regarded from a social point of view in this country. We are in the habit of congratulating ourselves on our improved position; yet it is evidently deemed incredible that the Sovereign should invite a surgeon who has rendered him an incalculable service to spend a few days with him as his guest simply by way of social courtesy. Nor does this particular instance by any means stand alone. We can recall several occasions in recent years, when the mere accidental proximity of an eminent physician or surgeon has been made the basis of sinister suspicions and rumours. There is surely nothing more incongruous in the presence among the King's guests of an eminent doctor than in that of an eminent lawyer. Yet His Majesty may entertain a legal luminary without giving rise to the report that he is making his will. The fact is that the public will never allow the doctor to divest himself of his professional character. If he goes out to dinner he may be selected to take down a great lady, only to have his gratification at the honour dashed by the discovery that his fair companion wishes to be told what she is to eat and drink, and what she is to eschew. Perhaps, however,

many *grandes dames de par le monde* agree with Lady Chettam in *Middlemarch* in liking a medical man who is more on a footing with the servants. It may, indeed, sometimes be as awkward to meet one's doctor at dinner as it would be for a sinner to have to entertain his father confessor. A medical man at a social gathering of his patients, if not exactly like a death's head at the feast, must perhaps be something of a restraint. Fortunately society is large enough nowadays to give ample scope and verge enough even to the busiest practitioner for the satisfaction of his social instincts without acting as a *memento mori* to those about him. It is doubtless in a large measure the fault of the doctor himself—or rather of his predecessors—that he cannot so easily throw off his professional character as men of other callings. This is a legacy of the days when the physician thought it necessary to advertise his profession by the fashion of his garments, and the tradition of the wig and gold-headed cane still clings to his successors. Now that, like a well-known Nonconformist divine, we wear no clothes to distinguish us from our fellow Christians, it is surely time that it should be known that a man may practise medicine without forfeiting his right to be treated, even by the first gentleman in the land, as a friend as well as a physician. We only plead for a more general recognition of this fact, so that a doctor may accept an invitation to a country house without causing unpleasant myths to be woven around his hosts, or attend a wedding without being suspected of a far-seeing eye to future contingencies.

THE FUTURE OF ELECTRO-THERAPEUSIS.

AT the annual conversazione of the British Electro-Therapeutical Society an address was given by Sir Isambard Owen, who said that he took it as a proof of the critical spirit in which the Society conducted its work that it had invited an address not from a professed specialist in electro-therapeutics or neuro-pathology but from one whose field of work obliged him to take a general view of matters. The treatment of disease by physical methods and especially by certain recently-discovered forms of physical energy had been pushed forward with such enthusiasm and such remarkable claims had been made for it, that the profession at large was very much in need of sober guidance and of a source of authoritative information. The matter was further complicated by the fact that while most of the enthusiasts were honest many of them were entirely unfit, if one might judge by their published utterances, to deal with questions of scientific therapeutics; others, again, who had no *locus standi* in the matter at all, except the possession of a powerful instrument, yet claimed to take a leading part in directing treatment, although ignorant alike of pathology and diagnosis. In the face, therefore, of the extravagant promises made and the eager expectations evoked it was most desirable that those members of the medical profession who were in a position to undertake a really scientific investigation of the claims made should draw together, partly as a means of assuring their position in the eyes of their professional brethren and partly to give strength, by union of effort, to the cause of serious and critical inquiry. To sift the grains of sober fact from the chaff in which they are buried would be part of the work which the Society proposed to itself. Difficult, and even invidious, as the task must needs be, it was one of urgent necessity; for unless the two were separated a wind threatened ere long to arise that would carry both wheat and chaff indiscriminately away. To a period of exaggerated expectations one of equally groundless distrust must inevitably succeed. The popular idol whose day of unmerited favour is past is liable to become the victim of equally needless opprobrium, and it may be long before a hearing can be obtained for a calm and impartial judgment. No philosopher, as far as he knew, had made inquiry into that most suggestive subject, the psychology of therapeutic belief and therapeutic error. Few philosophers, it was true, had the necessary experience of medical practice, and few practising medical men had the necessary leisure for philosophic meditation. Were a philosopher with the requisite experience of medicine to arise, the results of his inquiry would be of practical no less than of theoretical value. While awaiting his advent it would not be rash to suggest that while some of the marvellous therapeutic results recently reported would eventually be referred to inadequate diagnosis, a still larger class would be ascribed to imperfect prognosis in the individual case. The medical Socrates of the future would probably reduce a part of our alleged curative results to the mere natural termination of transitory functional disorders, a part to the psychical relief of symptoms mainly of psychical origin, and yet another part to the natural pauses or fluctuations in the march of organic diseases, which, like most forms of pulmonary tubercle, for example, normally tended to run a remittent or intermittent course. But the conjecture might also be hazarded that when destructive criticism had done its worst, and all that it could reasonably challenge was left out of the account, the body of established fact which recent electro-therapeusis could claim would appear either small or unimportant. If it could be said to have shown no more than this: that in the various forms which radiant energy assumes we have a manageable means of modifying profoundly the vital processes of the individual cells; that in these modes of force we have further the power of checking, or of attenuating, or of rendering the tissues resistent to the action of certain parasitic organisms; and that these forces could be practically utilized for the effectual checking of such terrible maladies as lupus, epithelioma and rodent ulcer; we should have to allow that electro-therapeusis must be credited with one of the most remarkable steps in therapeutic knowledge that the present generation has seen.

SLEEPING SICKNESS IN UGANDA.

A REPORT on the Uganda Protectorate by the Commissioner, Lieutenant-Colonel Hayes Sadler, C.B., has been issued as a Parliamentary paper. The period under review, the year ending March, 1903, was "one of unbroken quiet, free from internal disturbance." The efforts of the administration to encourage trade and agriculture have, however, been handicapped by the epidemic of sleeping sickness which "has wrought such a sad havoc in the populous districts adjoining the Victoria Nyanza," adversely affecting the revenue, and retarding the general advancement of the country. The results of scientific inquiries into this mysterious disease are carefully followed by the local authorities. It has been found that there is no danger of infection spreading to places in which the tsetse fly is not found, though there may be some danger in bringing natives from healthy districts into the sleeping sickness area. So far as has been possible, natives in the affected areas have been kept to those areas, but with a disease which may be inherent in a patient for two and a-half years before any constant symptoms are declared; and, where whole districts are concerned, it is evident that, in the absence of any known remedial measure, the precautions taken can have little effect on the epidemic. So far, the disease has not spread inland, except in part of Busoga, and Unyoro, Toro, and Ankole and the Nile Province have not been effected. Not only tsetse flies but mosquitos are a source of trouble. Colonel Sadler is of opinion that mosquitos are more prevalent in Uganda than they were a year ago. The position of Entebbe, the administrative capital, in close proximity to the lake, renders the extermination of mosquitos "practically impossible"; but breeding places have been seen to, and wire gauze, sufficient to render at least one room of each house mosquito-proof, has been distributed among householders.

MEDICAL AND SURGICAL NURSING HOMES, LIMITED.

FOR the expressed purpose, *inter alia*, "to carry on the business of physicians, surgeons, dentists, chemists, druggists," etc., and to establish, equip, and "carry on such hospitals, homes, and institutions," a cashier, a clerk, two printers, a secretary, a merchant, and an in-

corporated accountant have formed themselves into a company. There is no initial public issue, and the directors are to be appointed by these signatories to the memorandum of association. It remains to be seen how this lay company will carry out its avowed object; will it secure, if it can get them, registered medical men to act as its servants, or will it employ with impunity persons not registrable in this country, following the example of some other companies? Even on the first supposition the evil is great enough, for all personal responsibility of practitioner to patient vanishes when a company is the master and proprietor. This is assuming that only properly qualified and registered medical men are employed. But there are not wanting plenty of examples where persons not qualified and not registrable in this country have been foisted upon the public under the wing of a company as medical practitioners, and the recent Irish appeal case of Jaffe, Limited, exemplifies once more the hopelessness, under the circumstances, of bringing legal responsibility home to any one, corporation or individual. It is nothing short of a scandal that such a means of evading laws framed for the benefit of the public should be allowed to remain unremedied. A correspondent suggests that the General Medical Council should define that association with a company would constitute "infamous or disgraceful conduct in a professional sense." There are, however, practical difficulties in framing any such resolution in general terms which may not have occurred to him—difficulties arising out of the legitimate employment of medical men by, for example, steamship companies, hydropathic institutions, and so on. After all, it would only remedy one form of evil—that in which a registered person is employed. The far more serious evil is the facility with which unqualified persons may be employed without risk to themselves or to the company, and this would remain untouched by any action of the General Medical Council, and can only be effectually met by legislation.

THE REVOLTING DOCTORS.

THE story told elsewhere (p. 47) with regard to the action taken by the proprietors of certain alkali works at Oldbury and the Committee of their men is one we would particularly commend to the attention of our younger readers. It illustrates very well the high-handed manner in which certain manufacturers and workmen think it becoming to treat members of the medical profession. We believe that all our readers will agree that the medical men concerned are fully justified in protesting against the conditions of payment to which they have been consenting parties in the past. No doubt the rates are a legacy from a relatively distant past, and it is quite clear that they require revision. As will be seen, there was in force at these works a system of pooling; that is to say the men paid a certain sum weekly to a fund, and were at liberty at the beginning of every year to select, from the list of medical men who consented to act, that practitioner whom they preferred; the payment made to the medical man was in proportion to the number of workmen on his list. As usual various abuses crept in, among others that persons holding positions which cannot be held to entitle them to low contract rates of attendance claimed to be admitted, and were admitted. The fact that the medical men undertook to attend not only the workmen, but their families, for 13s. a year is a most objectionable feature of the scheme, and we would strongly recommend that no compromise should be made upon this point. Of course the firm and its committee endeavoured to place the onus of the rupture on the shoulders of the medical men, but we may hope that the workmen at Oldbury, like those at Ballachulish, possess sufficient discrimination and sense of justice to see through this manœuvre. Of course, also, the medical men are menaced with the introduction of outside practitioners. We trust, however, that it may turn out that this threat is more easily made than carried out, and that no medical man will be found willing to sell his services for a rate which cannot be remunerative, to the detriment of the resident practitioners who are making a reasonable stand against oppression.

FEES FOR INSURANCE WORK.

A PARAGRAPH published under this title in our last issue has drawn from the chairman and honorary secretary of the Norwich Division of the British Medical Association the interesting letter which is published at page 49. As will be seen, that Division a short time ago appointed a Committee to report on the conditions under which medical men in Norwich are now examining lives for insurance companies. This will probably result in some further action which will bring the question formally before the other Divisions of the Association. The matter is one which will require careful handling, and the promised report from the Norwich Division will be awaited with much interest.

ST. BARTHOLOMEW'S HOSPITAL.

THE statement to which we referred a fortnight ago to the effect that the Post Office had acquired an option over the remaining portion of the site of Christ's Hospital is now confirmed. The refusal or acceptance of the bargain now rests with H.M. Treasury, which is not likely to decline to sanction the purchase of the site, or rather its acquirement under a form of leasehold agreement. It is not, on the other hand, certain that the whole ground will be required for Post Office purposes, or that by dealing with the Government after its bargain has been completed the hospital may not be able to obtain at least some addition to its present ground in this, the most convenient, direction. In any case, however, the authorities are in no way discouraged, and intend to persist in the course upon which they have entered. They have, in fact, adopted one of the suggestions made in the BRITISH MEDICAL JOURNAL, and intend, if necessary, to plant out, so to speak, in the immediate neighbourhood as many of the administrative and allied buildings as need not be absolutely within the same boundaries as those intended for the care and treatment of the sick. The finding of contiguous sites on which to place such buildings as the nursing home must, nevertheless, take time, and it is a question whether the chances of a successful appeal to the public will not be greatly diminished if the authorities are not in a position to lay before the meeting at the Mansion House a clear outline sketch of what it is proposed and desired to do.

RICHARD MIDDLEMORE POST-GRADUATE LECTURE, BIRMINGHAM.

DR. JAMESON EVANS, Surgeon to the Birmingham and Midland Eye Hospital, delivered the annual post-graduate lecture under the endowment of the late Mr. Richard Middlemore on December 18th, 1903, at the hospital. The subject was Bacterial Diseases of the Conjunctiva, and the lecturer discussed the etiology, symptoms, and treatment of the various forms of conjunctivitis, with especial reference to their microbic origin. The lecture was illustrated by the exhibition of numerous drawings, microscopical preparations, and clinical cases. Dr. Jameson Evans stated that bacterial conjunctivitis, in the total of all its varieties, accounted for 25 per cent. of the ophthalmic cases treated at the Birmingham Eye Hospital.

IT is announced that three patients suffering from sleeping sickness have come from the Congo to England for treatment at the Liverpool School of Tropical Medicine. They were found by the mission sent out by the School at the instance of King Leopold.

COLONEL ARTHUR MUDGE BRANFOOT, C.I.E., Indian Medical Service, retired, has been appointed by the Secretary of State for India to be President of the Medical Board, India Office, upon the retirement, which will shortly take place, of Surgeon-General Sir William Roe Hooper, K.C.S.I.

DR. NILS RYBERG FINSEN, to whom the Nobel Prize for Medicine was recently awarded, has given £2,753 out of the £7,750 constituting the prize to the Light Institute founded by him at Copenhagen.

PROFESSOR BLANCHARD, of Paris, accompanied by Dr. R. Wurtz, Professeur Agrégé in the Medical Faculty of the University of Paris, and twelve students of the Paris Institut de Médecine Coloniale, paid a visit to the London School of Tropical Medicine on December 28th, 1903. They inspected the laboratories in the morning, and after being entertained at luncheon by the teachers of the School, attended Sir Patrick Manson's clinic in the afternoon.

Scotland.

EDINBURGH ROYAL INFIRMARY.

AT the weekly meeting of the Managers on Monday, December 28th, 1903, it was intimated that Dr. J. O. Affleck and Dr. C. E. Underhill had been elected as representatives of the Royal College of Physicians to the Infirmary Board for 1904. The managers of the Royal Infirmary have recently enacted that there shall be an age limit of 65 as regards the period of service of the physicians and surgeons to the infirmary, excepting however from this rule the University professors. In the case of these physicians and surgeons this age limit rule has hitherto practically never been required, because all have by the rules of the infirmary a period of service limited to 15 years, and in this way nearly all of them have been under 55 or 60 years of age when their periods of service had expired. In the future things may be different, and this age limit may become important. As there has been no age limit in the University, several professors have held their chairs and their infirmary appointments beyond the age of 65, and there have been instances in which, owing to age changes, they could not be regarded as being thoroughly fit for their work. It is felt by many that the age limit of 65 should be made to apply to every physician and surgeon in the institution. It must, of course, be understood that the managers of the infirmary might, in the case of any individual physician or surgeon, grant an extension of service with advantage. It is a pity that the reforming zeal of the managers cannot be diverted into utilitarian lines. Much remains to be done to bring the school and the hospital abreast of the times. Attention has already been drawn in the BRITISH MEDICAL JOURNAL to the fact that the managers neither appoint nor pay for a single skilled anaesthetist. Herein alone the Edinburgh Royal Infirmary lags behind most of the great hospitals of the kingdom. Even in Edinburgh, both the Royal Hospital for Sick Children and the Deaconness Hospital employ highly-trained anaesthetists. So do the private hospitals of the city.

THE PREVENTION OF CONSUMPTION: GLASGOW.

The movement which has been going on during the last few weeks in Glasgow to hasten the more effective control of consumption in the city has made considerable progress. Subscriptions are coming in for the proposed sanatorium at Lanark, and it is hoped that it will be possible soon to make a beginning with the work there. The *Evening News* fund, made up principally of shillings subscribed by the working men themselves, had by Christmas Day exceeded £4,000, and this very gratifying response is being daily added to. Moreover, the Corporation of the city, although they have not felt justified in recommending notification of the disease, are taking more active steps to assist the National Association for the Prevention of Consumption, and last week an important conference took place between the members of the Town Council and the various ward committees, the Lord Provost being in the chair. It was agreed that the various town councillors, with a representative from each ward committee, should co-operative with the Glasgow and District Branch of the National Association in considering the best means to be taken for the prevention of the disease in the city, and the treatment of the many sufferers therefrom.

QUEEN VICTORIA'S JUBILEE INSTITUTE OF NURSES: SCOTTISH BRANCH.

The fifteenth annual report, that for the year ending October 31st, 1903, shows that at that date the Scottish Council was responsible for the maintenance of 51 nurses and probationers. Of these, 18 were undergoing six months' district training, and 26 were in various institutions for hospital training; 37 nurses completed training, and 1 failed; 22 candidates entered the training home for the required month of probation before receiving hospital training, and 2 of these failed. In consequence of the managers of the Edinburgh Royal Infirmary having recently made new arrangements for the entry and training of nurses, the Council of the Scottish Board record with regret that they have no longer the 12 vacancies for the hospital training of their probationers in the Royal Infirmary as hitherto. They hope that a larger number of candidates who have already received hospital training will come forward for district training and become Queen's Nurses, and that the work of the Institute will not therefore suffer. Thirteen new branches have been established and affiliated to the Institute. The working classes in some districts make organized effort to support Queen's Nurses. At Prestonpans every miner makes a weekly contribution and every fishing-boat an annual contribution; Kinneil Collieries, Bo'ness, entirely support a Queen's Nurse for their own districts; at Keltz and Cowdenbeath nurses are supported from the proceeds of the Gothenburg system. There are now 238 Queen's nurses in Scotland. The excess of ordinary expenditure over the receipts has been £357. The Institute is therefore in pressing need of more funds, and few things can be so whole-heartedly commended to the consideration of a generous public.

PROPOSED CONSUMPTION SANATORIUM FOR THE COUNTY OF AYR.

A public meeting in support of the scheme for the erection of a consumption sanatorium for Ayrshire was held recently in the Corn Exchange Hall, Kilmarnock. Limelight pictures were exhibited to illustrate the nature of the disease and the method of its treatment at various sanatoria, the medical aspects of the subject being dealt with in a popular way by Dr. Chalmers, the Medical Officer of Health for Glasgow, and Dr. Caverhill, of Edinburgh. Patients who had undergone the open-air method of treatment in Germany and in this country were present, and gave testimony as to its efficacy. The meeting gave its hearty approval to the proposed sanatorium, and commended it to the support of all classes in the town and the county. A site of about thirty acres has been secured about two miles from New Cumnock, 800 ft. above the sea level, and very suitable in every respect. About £8,000 of the £14,000 required has now been subscribed, and building operations are about to be commenced.

THE PREVENTION OF MALARIA.

At a meeting of the Liverpool Chamber of Commerce held on December 29th, 1903, a letter was read from the Glasgow Corporation stating that the Glasgow Faculty of Physicians and Surgeons, the Chamber of Commerce, and the Corporation had allied their forces to co-operate with any other authorities interested in order to bring pressure on the Government with the view of inducing them to take some decisive action to mitigate the ravages of malaria in West Africa. It was resolved to ask the Liverpool School of Tropical Medicine to formulate a scheme which might be submitted to the Government.

Ireland.

HOUSING OF THE WORKING CLASSES IN DUBLIN.

LAST spring a deputation from the Trades Council waited upon the Corporation of Dublin with reference to the question of the housing of the working classes, and as a result it was arranged that a conference should be held between the Parliamentary representatives of the city and county of Dublin, the members of the Corporation, and the Trades Council. At this conference, held in September, a committee was appointed to consider and report upon all the questions involved. The report of this committee contains a complete summary of all that has been done in the recent past to provide suitable dwellings for the working classes, whether in connexion with the clearing of insanitary areas, or by commercial companies, or by schemes of private philanthropy, and gives details also of certain undertakings which are as yet incomplete. It shows that there are still some 13,000 persons living in houses which have already been or may shortly be expected to be condemned as insanitary, and makes certain suggestions as

to alterations required in the law in order that the matter may be dealt with in a satisfactory manner. Finally, it ends with a strong expression of opinion that it would be a fatal mistake to continue to put a premium on bad sanitation and improper housing by purchasing insanitary areas at ruinous rates and rebuilding on them. It is urged that the proper course is to erect upon the outskirts of the city cottages and other self-contained dwellings, and to secure by arrangement with the tramway and railway companies cheap means of transit for workpeople to and from the city. The erection of such semi-rural dwellings will, it is considered, not only contribute directly to the health of the population, but will, by lessening the pressure on tenement houses, make it possible for the corporation to enforce the laws with regard to insanitary dwellings strictly. The course thus recommended is practically the same as that which has been urged for some years past by the Professor of Hygiene at the Catholic University, Dr. Antony Roche.

THE IRISH POOR-LAW COMMISSION IN BELFAST.

At the third sitting in Belfast of the Irish Poor-Law Commission Dr. Brice Smyth expressed the opinion that there should be a sanatorium for consumptives for each county. Boarding-out would be of immense benefit to pauper children, and epileptic colonies would be of advantage. Dr. Macintosh said that the proposal for the amalgamation of workhouses would not apply to Belfast. Some of the country workhouses, no longer required for Poor-law administration, could be taken over for the purposes of a fully-equipped auxiliary lunatic asylum. He approved of suitable buildings for sanatoria for consumptives, and an institution for aged pensioners, who deserved better treatment from the State than they now received. A system of old-age pensions would reduce the number of aged inmates. Children should be taken away from workhouses, and everything done to reduce the tendency to hereditary pauperism. He was in favour of cottage and scattered homes. Vagrancy should be treated as a disease to be cured; labour colonies could be instituted where vagrants could be put to productive labour. Dr. Kirk also approved of cottage hospitals throughout the country. Dr. Hall (Belfast) gave evidence as to the desirability of hospital patients paying for their treatment. Sanatoria for consumptives should be erected, and consumption should be made compulsorily notifiable. Dr. Lynass thought workhouse and fever hospitals should be separated from workhouses. Children over 4 should be removed from workhouses altogether. The guardians might subsidize charitable bodies which provided nurses for the sick poor. Dr. McLeish said lunatics and epileptics should be removed from workhouses. The best way to deal with surplus lunatics would be to send them to district asylums to which annexes on the cottage or villa plan could be built. A large amount of lay evidence was also submitted.

PROPOSED CONSUMPTIVE SANATORIUM FOR BELFAST WORKHOUSE.

The Local Government Board has written to the Belfast Board of Guardians notifying that its inspectors, Dr. E. C. Biggar and Mr. Agnew, will hold an inquiry regarding the proposal of the guardians to purchase certain premises at Whiteabbey, consisting of a house and thirty-three acres of land to be converted into a sanatorium for workhouse consumptives. The points to be inquired into are (1) whether under existing circumstances an additional workhouse is required for Belfast Union; (2) whether the premises proposed to be purchased are suitable and necessary and the price reasonable; and (3) what would be the probable amount of annual charge.

THE IRISH POOR-LAW MEDICAL SERVICE.

Dr. Leonard Kidd has recently addressed to the Irish press a lengthy and important letter in answer to Mr. McArdle and some others who have deprecated the idea of the present unsatisfactory state of affairs in the Irish Poor-law Medical Service being remedied by the conversion of the latter into a State medical service. His letter is an historical summary of the principal events in an agitation which has been going on for years, and much of it is devoted to answering what is either merely destructive criticism, or, at the best, advocacy of a resort to means which have been tried again and again and failed. The arbitration suggested between representatives of the medical profession and the Local Government Board would, says Dr. Kidd, be a very one-sided affair even if such a plan were not perfectly hopeless, owing to the fact that endless representations to that authority have already been made in vain. Nor would it be useful to hold a conference with the Boards of Guardians. The latter number over 150, and it is impossible to bring them into line. An attempt was once made, but half of them did not deign even to acknowledge the invitation. Besides, even if an agreement were reached, it would still be useless, for, to put it into effect, an increased contribution from the Local Government Board would be necessary, and this the Local Government Board, getting behind the Treasury, would refuse. The Local Government Board already knows the position of matters and avoided including the dispensary question in the work of the Viceregal Commission on the poor excuse of contention and expense. The only response open, therefore, was to show that in default of radical reform administration would be impossible. To urge men not to accept underpaid appointments has proved effective, for already in many places substantial additions to salaries have been made. There is nothing hostile to the "people" in recommending a State service in lieu of popular election of medical officers, for the idea was introduced years before the "people" had anything to do with the matter. Moreover, a proper scheme of promotion not less than a living wage is one of the objects of the Irish Medical Association, and it is difficult to secure that under a system of election more especially because religious and political views held by candidates are considered to be of greater importance than professional fitness for the posts sought. The IrishMedical Association, moreover, has merely fixed upon £200 per annum as a working and irreducible minimum. It desires that salaries should be graded from this point upwards in strict accord with the work involved and the contingent possibilities in the way of private practice; that is another reason which makes a popular election scheme more difficult. But besides this, no one knows except those who have visited them what dreadful places the dispensaries are and how utterly unfit for the treatment of men and women, however able the doctor may be; nor will they ever be any better as long as they are under local guardians. The dispensary doctors, in addition, are practically the only medical officers of health for Ireland, and the regeneration of Ireland requires that an immense amount of sanitary work should be done. The people also have to be taught to regard the asylums not as prisons but as hospitals for those who are temporarily sick in mind. Altogether, therefore, there is an immense field of practically untouched work and the only way in which it can really be taken in hand is by the creation of a uniform State service. The objections raised to such a service are mainly that its introduction would deprive the people of a newly acquired power, that it would be subject to Castle influence, and that complications would arise in fixing rates of superannuation. Superannuation being based on official pay the question would be settled as easily as in any other service, while the people would be fully compensated for any loss of power by partial relief from rates, and the expenses of the service would come out of funds to which the smaller people do not contribute except very indirectly. Besides this Dr. Kidd shows that the power which the people at present possesses is merely nominal, for the guardians cannot do anything without the approval of the Local Government Board, and the latter can over-ride the guardians to any extent that it pleases. Entrance examination with competition would secure the best men, and promotion based on examination records together with efficiency and good and long service would eliminate the dreaded Castle influence. To the profession the proposed service would offer all the advantages of a definite career. The Irish Medical Association may possibly prefer to move along the lines of least resistance and retain popular election in its programme, but from the point of view of the people what is to be prayed for is a State medical and sanitary service freed from all questions of religion, politics, interest, and favoritism.

THE LATE DR. GEORGE GRAY, J.P.

A large representative meeting of the residents in the Castlewellan district was held last month under the auspices of the Castlewellan Literary Society on the occasion of the first unveiling of a portrait of the late George Gray, M.D., J.P., who was the first president of the Society. The chair was taken by Lady Annesley, who, in the course of a stirring speech, gave an account of all that the deceased had done for the inhabitants of Castlewellan and Newcastle, and said they had all met, young and old, rich and poor, and of various religious persuasions, to give expression to their thoughts and feelings with reference to one who had been a friend to

all of them, without respect to class or creed. She concluded by saying that to live in the hearts of those we leave behind, as did Dr. Gray, was not to die. Speeches of an allied character followed from a number of clergymen of various denominations and other residents.

Canada.

NEW AND ENLARGED HOSPITALS.

DURING the past six months remarkable activity has been shown throughout the Dominion in planning and erecting new hospitals, and extending the older institutions. This is undoubtedly due to the demand for greater accommodation on account of the substantial increase in population during the past few years. In Montreal the Royal Victoria Hospital and Hotel Dieu have both built a new wing. The Notre Dame Hospital has purchased a site, and will commence its new hospital in the spring. The Western Hospital, New Children's Hospital, and Hospital for Infectious Diseases have accepted plans for new building before their committees, and the Montreal General Hospital is seriously discussing an addition to its overtaxed accommodation, while the Montreal Maternity Hospital has commenced its foundations on the new site. In Toronto it is felt that the hospitals are inadequate, especially in regard to clinical facilities for medical students. Patients who can pay even the minimum fee are exempt from examination by any but the physician in charge, and consequently clinical material has to be drawn from the small class of pauper patients. Further, the outdoor departments have been poorly equipped and have lacked organization, and as a result are practically valueless from this standpoint. At a meeting of the Medical Faculty of Toronto University and the Boards of Trustees of the principal hospitals these questions were discussed and a plan agreed upon whereby the defect would be remedied. Dr. Rose Bradford, of University College, London, who was in Canada as a member of the Mosely Commission, addressed the meeting held at the General Hospital, and gave an account of hospital work in London and the methods adopted for the instruction of students. A Committee of the Faculty visited New York, Boston, Philadelphia, Chicago, Montreal, and Baltimore to find out the most approved methods of conducting the outdoor departments, and rendered a detailed report of the changes required in the Toronto General and St. Michael's Hospitals, that they might be rendered efficient. These improvements will doubtless be undertaken very shortly. In addition to this the Toronto Western Hospital has opened its doors to students, and has plans under consideration for the erection of a new set of buildings. Members of the Committee have been visiting many of the more modern hospitals in Canada and the United States in search of new ideas. In the Maritime Provinces a hospital has just been opened at Moncton, N.B. It is equipped with all modern appliances and contains a model operating room.

The completion of the new wing of the Winnipeg Hospital was unfortunately delayed owing to one of the walls being blown down in a gale while still incomplete; the work, however, was at once recommenced, and the completed hospital will stand comparison with the best in the Dominion.

Work has been begun on the new hospital for epileptics at Woodstock (Ont.). It is expected that the buildings will be ready for occupation on August 1st, 1904, and that the existing scarcity of accommodation in the province for the mentally unsound will be materially relieved.

PROPOSED MUNICIPAL CONSUMPTION SANATORIUM FOR TORONTO.

The Board of Control of the City of Toronto will submit to the electors at the beginning of the new year a proposition to devote $50,000 to the erection of a municipal consumption sanatorium. It is not stated whether this fund is to be expended by the city or used to aid any existing institution with a similar aim. The National Consumption Sanatorium Association maintains at Gravenhurst two institutions, one for pay patients, the other free, both treating only cases in the early stages of the disease, and are likewise undertaking the establishment of a hospital for the care of advanced cases, and they hope that part at least of this fund may be devoted to the support of the latter institution. According to the statistics prepared by the Provincial Health Department the the number of deaths from tuberculosis in Ontario shows a decided falling off during the last few years, due no doubt to the improved sanitary regulations. The figures for the past six years are as follows: 1897, 3,154; 1898, 3,291; 1899, 3,405; 1900, 3,484; 1901, 3,243; 1902, 2,694; total, 19,371.

COLLEGES.

The jubilee year of the Medical Faculty of Queen's University, Kingston, was celebrated recently. The chief speaker was Dr. W. L. Herriman, of Lindsay (Ont.), the only survivor of the first graduating class. Manitoba Medical College began its twenty-first consecutive session with the largest class in its history. Dr. J. C. Connell, M.A., has been appointed Dean of the Medical Faculty of Queen's University, Kingston. Dr. Jno. W. Scane has been appointed Registrar of the Faculty of Medicine at McGill.

ANTISEPTIC BARBERS.

The Board of Health of the Province of Ontario has conducted a preliminary series of experiments to determine the mode of sterilization of barbers' instruments which should best combine simplicity and effectiveness. Dr. Amyot, provincial bacteriologist, made the experiments by smearing knives with pus containing staphylococci, then using the various means of sterilization, after which they were immersed in culture tubes and the subsequent growth examined. It was found that for immersion in pure carbolic acid a period of at least five minutes was necessary. Formalin was used by placing it in a vessel over which the instruments were put in a tray, the whole being enclosed in an airtight box overnight. In two out of three cases growth was present. Immersion for fifteen minutes in 95 per cent. alcohol was also ineffective. The only method that seemed to be successful was the pouring of boiling water on the knives for fifteen minutes. This would not kill spore-bearing bacteria, and probably its value was partly due to the washing. In accordance with these results a set of rules for the guidance of barbers was formulated by the Board of Health, of which the chief points were as follows: Razors are to be washed with boiling water, brushes and combs to be washed every twenty-four hours with soap and soda, separate towels are to be provided for each client, and hands to be washed between each, fresh absorbent cotton to be used each time as powder puff, alum to be used in powder, soap and vaseline in collapsible tubes, shaving mugs to be avoided, a separate kit to be used for shaving the dead, and infectious-looking cases to be avoided. These rules are intended as suggestions for barbers in the management of their shops.

DIPHTHERIA ANTITOXIN AS A PROPHYLACTIC.

In the *Canadian Practitioner* for December, 1903, Dr. J. S. A. Graham reports the results of the use of antitoxin as a prophylactic for diphtheria in the Hospital for Sick Children, Toronto. The hospital had never been free from diphtheria for any length of time since its establishment, and in the six months previous to the experiment there occurred 42 cases, while in the six months which it lasted there occurred not a single case, and in the subsequent six months 8 cases occurred; 500 units were given to every child in the hospital over 3 years of age and 250 units to every child of 3 or under, every 21 days. In all 384 cases were treated and watched with results both instructive and valuable.

SMALL-POX AND TYPHOID FEVER.

Small-pox has appeared in the country about Tweed, Ontario. There were 29 cases in eight houses; one death resulting. The cases have been isolated, and measures adopted to prevent further extension. Fourteen cases are reported in Madawaska County, N.B., near the boundary of Maine, U.S.A. Typhoid fever has been unusually prevalent at Winnipeg this season, and temporary hospital accommodation had to be provided.

PROPOSED MEDICAL CLUB HOUSE.

The Executive Committee of the Ontario Medical Library Association has under consideration the establishment of a club-house, where all the recent works and current publications of interest to the profession will be available.

DEATH OF DR. LANDERKIN.

The Hon. Dr. Landerkin, of Hanover, Ontario, died on October 4th, 1903, aged 64. He was well known both as a physician and as a politician. He was a member of the House of Commons for many years, and was appointed a member of the Senate in February, 1901.

OUT-PATIENTS AT LONDON HOSPITALS.

IT has been thought that a comparison of the number of out-patients seen at the principal London hospitals in the year 1891 and in the year 1901 respectively would probably yield some interesting and instructive results. This interval has been taken because it was believed that it would be sufficient to allow any general tendency to increase or decrease to manifest itself, while at the same time avoiding certain classes of errors due to changes in habit and administration which might have been introduced had a longer period been taken. The investigation has been made simply to ascertain the real and relative number, and is not concerned with such questions as the class of persons to whom medical attendance has been given in the out-patient departments—a matter as to which no statistical material, so far as we know, exists.

At an early stage it was found to be impossible, with the means at our disposal, to embrace all hospitals in London. The out-patient statistics at many hospitals in past years would appear to have been somewhat negligently compiled, while in others the system of record has been altered from time to time. For this and other reasons it was found advisable to limit the inquiry to the statistics of the eleven general hospitals which have medical schools attached. The figures which we have used have been taken in the main from Burdett's *Hospitals and Charities*, but we are indebted to the officials of certain hospitals for additional information.

Table I shows the crude total number of out-patients coming within all categories treated as stated at the eleven great general hospitals in the years 1891 and 1901 respectively. It will be seen that the number increased from 633,175 in the year 1891 to 706,307 in the year 1901; or in other words that 73,132 more out-patients were treated in the year 1901 than had been treated at the same hospitals in the tenth year before.

TABLE I.—*General Out-patient Work.*

Hospital.	Year 1891. Total No. of Persons Treated as Out-patients.	Year 1901. Total No. of Persons Treated as Out-patients.
St. Bartholomew's	157,211	134,507
Guy's	59,846	121,466
St. Thomas's	92,531	62,861
St. George's	26,803	31,843
University	43.151	42,560
London	114,219	169,020
Charing Cross	21,522	14,092
Westminster	26,607	22,344
Middlesex	39,383	43,084
St. Mary's	30 441	43 681
King's College	21,461	20,840
Totals	633,175	706,307

The second table shows the medical and surgical out-patients and casualties in the same years, and it will be seen that these increased from 617,731 in 1891 to 690,775 in 1901; or, in other words, that of the total increase shown in the foregoing Table I, 73,044 belonged to the ordinary medical and surgical and casualty class.

TABLE II.—*Medical and Surgical Out-patients and Casualties.*

Hospital.	Year 1891.	Year 1901.
St. Bartholomew's	155,348	132,837
Guy's	56,884	117,972
St. Thomas's	90,324	60,831
St. George's	26,426	31,319
University	40,645	40,899
London	112,092	166,379
Charing Cross	21,243	13,820
Westminster	26,302	22,112
Middlesex	38,318	42,277
St. Mary's	29,372	41.858
King's College	20,777	20,471
Totals	617,731	690,775

Table III shows the same particulars with regard to the maternity out-patient work, and that this was represented by 15,444 cases in 1891 against 15,532 cases in 1901, or, in other words, that of the total increase shown in Table I only 88 cases were due to increase in the confinements conducted by students or officers of the hospitals mentioned among out-patients.

TABLE III.—*Maternity Cases.*

Hospital.	Year 1891.	Year 1901.
St. Bartholomew's	1,863	1,670
Guy's	2,962	3.494
St. Thomas's	2,207	2,030
St. George's	377	524
University	2,506	1,670
London	2,127	2,641
Charing Cross	279	272
Westminster	305	232
Middlesex	1,065	807
St. Mary's	1,069	1,863
King's College	684	369
Totals	15,444	15,532

Table IV shows by how much per cent. the out-patient work actually done at these hospitals has increased in the ten years. It will be seen that it amounts in the aggregate to 12.4, being made up of 11.8 per cent. increase in the medical, surgical, and casualty work, and of 0.6 per cent. only in the maternity work.

TABLE IV.

Nature of Work.	1891.	1901.	Percentage Difference.
Medical and surgical out-patients and casualties	617,731	690,775	11.8
Confinements	15,444	15,532	0.6
Totals	633,175	706,307	+12.4

The next three tables are based upon the foregoing, but regard matters from quite a different point of view, that is, in relation to population, etc., at the beginning and end of the period which the figures cover. From the first of them (No. V) it will be seen that in the earlier year out of every thousand persons in the administrative County of London 149.9 were in receipt of one or other form of out-patient relief at these eleven general hospitals alone, and that by the end of the year 1901, the proportion had increased 155.3 per 1,000.

TABLE V.—*Out-patients in Proportion to Population.*

Number of Out-patients of all Classes per 1,000 of Population of the Administrative County of London.

1891. Population, 4,221,452.			1901. Population, 4,544,983.		
Out-patients.	Maternity.	Total.	Out-patients.	Maternity.	Total.
146.3	3.6	149.9	150 0	3.4	155.4

Table VI deals with the figures from the same general point of view, but shows the percentage of increase or decrease in the work done in proportion to population. It is really a deduction from the preceding table, but may be compared also with Table IV. It will be seen that while general out-patient work at these hospitals has increased 3.7 per cent. in proportion to population as well as 12.4 per cent. in actual work, as shown in Table IV, the maternity work, in relation to population, has slightly decreased. As, however, no proper proportion can be established between maternity work and net population, any conclusion from this fact would be fallacious, so that the reduction must be disregarded.

TABLE VI.—*Percentage of Increase or Decrease of Out-patient Work in Proportion to Population.*

Work.	1891.	1901.	Percentage Difference.
Medical and surgical out-patients, etc., per 1,000 of population	146 3	152.0	Increase, 3.9
Maternity cases per 1,000 of population ...	3.6	3.4	Decrease, 5.5
Total work per 1,000 of population ...	147.6	155.4	Increase, 3.7

Table VII deals with the maternity work alone, and brings it into its proper relation—namely, with the number of registered births. It will be seen that although this part of the work of the eleven hospitals has practically stood still, yet nevertheless when compared with the total number of registered births in the two respective years, the relative increase in this part of their work is not less marked than that of their general work. In other words, it will be noted that whereas in the earlier year 115.2 cases per 1,000 registered births were conducted among out-patients, this proportion had increased to 118.3 per 1,000 by the end of 1901. There is a slight element of error introduced by this comparison, inasmuch as stillbirths are not registered, so that the total births registered do not necessarily represent the total confinements. This error would, however apply to both years.

TABLE VII.—*Maternity Cases in Comparison with Registered Births.*

1891. Registered Births, 134,003.		1901. Registered Births, 131,278.		
				Increase per Cent.
Maternity patients at the 11 hospitals per 1,000 births	115.2	Maternity cases at the 11 hospitals per 1,000 births	118.3	2.7

As regards the apparently stationary character of the maternity work, it is to be observed that this class of work is affected by several factors, for example: (1) The number of students doing midwifery (at several hospitals the schools are considerably smaller than they were, while others are larger); (2) the birth-rate (in the ten years this has fallen very considerably); (3) the growth of midwifery training schools; (4) alteration in the character of the neighbourhood surrounding a hospital, for midwifery work is never done at any great distance from the hospital, and if there are large movements of poor, either out of or into the locality, the maternity work of the hospital may be very greatly diminished, and cannot in the reverse circumstance be increased unless the number of students also grows.

It is necessary to observe one caution in the use of the tables; they are perfectly correct for the purpose for which they are compiled, that is, to show the combined work done; but fallacies would arise if it were attempted to use the earlier tables for comparing the work of one hospital with another. For it is not absolutely certain that the rules by which patients are recorded are the same at all the hospitals.

PHYSICAL DEGENERATION.

[BY OUR COMMISSIONER.]

VI.—EDUCATION OF THE ANCIENT GREEKS.

THE physical and intellectual beauty of the ancient Greeks, of which proofs innumerable have been handed down in their literature and works of art, may be traced in large measure at least to the public games, which formed part of a religious observance bidding them worship their gods with athletic contests. No other nation has ever produced such perfection of human form, no other institutions have ever had such influence in moulding and elevating the mind. No honour has in the world's history been so coveted as that perishable garland of wild olive cut with a golden sickle from the sacred tree brought by Hercules "from the dark fountains of Ister, in the land of the Hyperboreans, to be a shelter common to all men, and a crown of noble deeds," that garland won at Olympia in the presence of the delegates of States and cities and enthusiastic multitudes assembled from the remotest corners of Greece for the great festival. The simple crown, placed on the head of the victor, and the palm he held in his hand, were awarded so that the combatants might contend for glory and not in the desire for gain; but the glory of the victor was immortal, and among the Spartans he had as his prerogative the post of honour in battle. Great sculptors, such as Praxiteles and Phidias, were employed by the State to immortalize his form, and from the palaestra and gymnasium an inexhaustible supply of perfect models of youthful grace and manly strength were handed down to posterity. Pausanias mentions 230 bronze statues of Olympian victors adorning the streets and public places of Olympia even after its destruction.

The moral influence of these contests was as important as their physical effect. They had, as has been said, a religious character, and all athletes competing must be of pure Hellenic descent and free from religious or civil stain. In the presence of the presidents sitting in the Bouleuterion they must lay their hands on the bleeding victim, and swear before witnesses that they had no blot on their character which could prevent them from competing. So deep was the influence of these religious contests on the people of Greece that the care of their children's physique from earliest infancy was uppermost in the minds of parents. Their son must be perfect in body, so that he might grow up one day to be a warrior able to fight for his country. Thus the father had the right of life and death over his offspring. On the birth of a child it was laid at his feet, when, if he despaired of being able to correct certain defects in conformation, it might be put to death. Women bearing children were constantly reminded that it was their duty to eat nourishing food and to take gentle exercise.

Aristotle, writing on the care of infancy, says:

> Once the children are born, it must be understood that the character of their diet makes a great difference to their bodily strength. From careful observation of the lower animals and of peoples which devote themselves to the creation of a warlike condition, we find that a diet consisting mainly of milk is best adapted to their bodies, and one without much wine, on account of the diseases which it produces. Further, it is good for them to make all the movements that it is possible for them to make at that age. To prevent their tender limbs being deformed, some peoples even at the present day have recourse to certain mechanical appliances to make their children's bodies straight.

The Spartan nurses were so careful and experienced that they brought up the children entrusted to them straight and well proportioned without the use of swaddling bands. So celebrated were these nurses that they were employed throughout Greece.

> It is a good thing, too (says Aristotle), to accustom them to cold from early childhood; it is most serviceable from the point of view of health and as a preparation for military service. This is the reason of the custom which prevails among many of the barbarians, either of dipping children after birth into a cold stream, or of covering them only with a light wrapper, as the Celts do.

Usually the Greek child was bathed in warm water. It was then put in one of the wicker baskets used to separate wheat from chaff, as wishing for it future opulence and a numerous posterity.

Women of the highest rank suckled their babies. At a later period of Grecian history female slaves were employed as wet nurses, and generally became the friends and confidants of the girls they had brought up. Barthélemy in his *Travels of Anacharsis* (1788) states on the authority of Plato:

> So rapid is the growth of the human body in the first five years of infancy, that according to some naturalists it does not double its height in the twenty succeeding years. It then requires plentiful nourishment and much exercise. Nature agitates the infant with a secret restlessness and nurses are often obliged to take him in their arms and gently lull his brain by pleasing and melodious songs, It should seem as if long habit had led them to consider music and dancing as the primary elements of our education; these promote digestion, procure calm sleep, and dissipate those sudden terrors which external objects are apt to produce on the yet feeble organs.

After the child was weaned it was fed on pap made with honey. When the nurse carried an infant who cried in the street she applied to its mouth a sponge dipped in honey to quiet it.

Schools in Athens were kept by private teachers, the Government occupying itself only with the moral qualifications of the schoolmaster. Music, drawing, grammar, and gymnastics were the ordinary subjects taught.

Aristotle was of opinion that to put the child to lessons before its fifth year would be to interfere with its growth. Occupation, above all play, it must have, in order to counteract sluggishness of the body. The games must not be vulgar, and must be neither too slack, too soft, nor yet too fatiguing. Officers called inspectors of children were to decide upon the kind of stories, true or fictitious, which were to be told to children of this age so that reverence might be aroused by properly chosen stories.

As all these things were a preparation for later life, most of the games were to be foreshadowers of what the child would have to do in earnest later on. Aristotle was emphatic in the matter of allowing children to shout and cry, and in his opinion the prohibition of this by the laws was a complete mistake. It was good for growth; in fact, a sort of gymnastic, for as holding the breath gave people strength in gymnastic exercises so children got the same advantage by shouting.

Children were not to be allowed into the company of ser-

vants during the time—up to the age of 7—when they were necessarily at home. Xenocrates said that children needed ear protectors even more than boxers did. The Greek mother was taught to be par icularly careful as to the first impressions her son should receive—"impressions sometimes so powerful and durable as to leave traces on the character for the remainder of life." She was impressed with the belief that a mind continually agitated in infancy by idle terrors would become more and more timid, therefore she withheld from her child all objects that might increase his fears, instead of multiplying them by menaces and blows.

Aristotle laid it down that, broadly, there are four subjects which enter into education—reading and writing, gymnastics, music, and drawing. Reading and writing were of the highest utility for practical life; gymnastics to promote strength and courage; and music as a pastime, useful in making youths use leisure rightly, and to excite in them feelings of tenderness. Music represented the mental training of the Greeks, embodied in the art of expression; gymnastics the physical training. In the intervals of running, wrestling, and batting youths were instructed on such subjects as beauty, truth, and goodness. Thus, as their curiosity was aroused by the elegant discourses of the philosophers, they were enabled to defend their opinions upon any subject with facility and grace.

Children began physical exercises at a very early age, sometimes as early as 7, and they continued them until they were 20. They were first taught to be hardy by bearing heat and cold, and then by gentle exercises, throwing balls of different sizes to each other. As their strength developed they were taught to hurl javelins, run in deep sand, to leap over ditches and barriers, throw quoits of brass or stone, or hold heavy leaden weights. Later they were trained to run once, or oftener, the length of the stadium, frequently in heavy armour. The chief exercises of young men were wrestling, pugilistic encounters, and the various combats which took place in the Olympic games. A boy was required to indulge in games with moderation, and to correct their effects by mental exercises. He was taught arithmetic, geometry, and astronomy. Arithmetic, by increasing the sagacity of the mind, would prepare it for the reception of geometry, with the assistance of which, should the pupil one day be placed at the head of armies, he would be better enabled to mark out a camp, conduct a siege, arrange troops in order of battle, and direct their motions on a march or in an action. Astronomy would serve to guard him against the panic terror with which the soldiers were often seized at the sight of eclipses and other rare phenomena of Nature.

Plato, who wrote the first treatise on education, emphasizes the fact that worthy and strong children spring from strong and worthy parents. He taught that the beautiful is allied so closely with the true as to be indistinguishable, and that the mind trained to contemplate art was best able to grapple with the difficult problems of existence. Youth was to be instructed in swimming and in the rudiments of literature. They who were poor were to be taught husbandry, manufactures, and trades; but such as could afford a genteel education were to learn music, philosophy, hunting, and gymnastic exercises. The precise age at which children were to receive public lessons, the characters and talents of the masters who were to instruct them, and the preceptors who were to attend them, were appointed. He was reckoned infamous who beat his parents or did not maintain them in their old age. Children were brought up to treat them with deference and respect, not scorning such humble offices as washing and anointing their feet. They saved their money so as to maintain their parents in old age, and employed some of their friends to look after them while they were engaged in any hazardous enterprize.

At the age of 7, the domestic education of the Spartan ended. At the head of the children above this age was placed one of the most trustworthy men in the State. He distributed them into different classes, over each of which presided a young chief, distinguished by his sense and courage. They submitted to his orders, and to chastisements inflicted by rods, without a murmur. To accustom them to cold their hair was cut off, they walked about without shoes or stockings, and sometimes exercised quite naked. Each company slept on reeds from the river, which they broke off with their hands, without employing any iron instrument. Certain youths when they were 20 were appointed to teach a number of other youths committed to their care. They led them when they swam, hunted, wrestled, ran, or engaged in exercises in the gymnasium. After partaking of a frugal wholesome meal, their young leaders ordered them to sing or engaged them in conversation, in order that they might judge of their wit; those who answered carelessly were chastised. Their diet was watched and they were examined to see if they were disposed to corpulency, as this was considered a proof of luxurious indolence; in order to guard against it, they were employed the greater part of each day in the gymnasium.

A most marked characteristic of the ancient Greeks was the strong religious feeling which pervaded their daily lives. Those who were desirous of having children were liberal in making presents and offerings to the gods, especially to those who presided over generation. The infant on the fifth day after birth was put under the protection of the household gods, the hearth being emblematic of the altar; and on the eighth or tenth day it was named, and sacrifices were offered to the gods. At banquets statues of the gods were placed on the table, and those present offered libations to them; thus to dishonour the tables at which the gods presided by indecent or irreverent behaviour was considered a great crime. Special honour was paid to Jupiter, who, from the protection he afforded to guests and friends, was called the god of friendship and hospitality. Indeed, the Greeks were so convinced of the superintendence of the gods, that they thought it unlawful to eat until they had offered them part of their meal. The first oblation was to Vesta, who was the principal household goddess; and when they drank to their absent friends they frequently poured some of the wine on the earth; this seems to have been a sort of adoration of the gods or prayer for their friends. At the end of every entertainment a prayer was offered and a hymn sung to the gods.

The Greeks, in this religious belief had the strongest of all guarantees for a good national physique, for they tried to please their gods by worshipping them with athletic contests. Thus, the Olympic games were dedicated to Jupiter, the Pythian were celebrated in honour of Apollo, the Isthmian were held near a temple of Neptune, and were said to have been instituted by Theseus in honour of that god; while the Nemean games, it is said, were established by Hercules in honour of Jupiter. All these games, instituted in honour of the gods, or deified heroes, always commenced and ended with a sacrifice. If any one was conqueror in all the exercises, namely, leaping, running, wrestling, throwing and boxing, he was considered superior to mortals and the honours showered upon him extended to his parents, their relations, and to the city which gave him birth.

Boys were allowed to compete in the foot race, doing half or two-thirds of the course, and the foot-race was also considered a suitable gymnastic exercise for maidens, the length of their course being one-sixth shorter than that of the men.

Among gymnastic exercises the Greek physicians recommended the game at ball for strengthening the limbs and developing the grace and agility of the body. Boys, men, and girls practised it.

Dancing in the open air, especially chorus dancing, was greatly encouraged by the Greeks. Chorus dancing was in reality of sort of drill, and is often commended by their writers for its military advantages. Like gymnastics, the dance retained its original purity as long as public morality prevailed in Greece; its connexion with religious worship preserved it from being neglected or abused.

By reading aloud and singing much more than we do they kept their lungs sound. In fact, the general healthy mode of Greek life compensated for, and perhaps accounts for, their slow advance in medical science, which remained almost stationary from Hippocrates (in the time of Pericles about 450 B.C.) to Galen (in the time of Marcus Aurelius about 150 A.D.).

The absence of crowding, the climatic conditions, and their school life compensated for the want of sanitary science. Great cleanliness was observed by them, and they used to bathe and anoint themselves and change their apparel frequently. Sea water was considered strengthening for the nerves, and natural hot baths were highly esteemed.

It was certainly not the quality of the food they ate or its quantity which caused the ancient Greeks to possess the marvellous physique displayed in the statues that have survived. The Athenians lived sparingly, for their soil was poor. "To live like an Athenian" meant to live frugally. In the primitive ages they drank water, and later the water of hot springs was in great request as a beverage, and they also used much ice. Indeed, in the primitive ages men lived on such fruits as grew without cultivation. At Argos the people ate chiefly

pears, at Athens figs; in Arcadia and most other parts of Greece acorns were eaten. Bread was made out of meal, salt, and water, to which some added oil. Barley meal was much used, while a dish made of rice, cheese, and eggs and honey wrapped in fig leaves was greatly esteemed. Another favourite dish was a mixture of cheese, garlic, and eggs, and the poor in Athens used much garlic and onion. The first animal used as food was, it is said, the swine. It was unlawful to eat oxen which were useful to man, and they were not killed for food until a later period. The Greeks considered it wrong to eat young animals as tending to destroy the species, and because they had scarcely tasted of the joys of life. Roast meat was preferred to boiled, and the Greeks loved fish, such as eels, dressed with beets. Their sweets consisted of apples, almonds, nuts, figs, and peaches. The Spartans, whose diet was sparing, ate meat, hares, partridges, and fish. The heroes often dressed their own food, and sometimes the heralds employed in civil and military duties performed many of the holy rites at sacrifices, serving as cooks.

Part of the education of the Spartan boys, after the Spartans commenced to drink wine, was to be occasionally shown a drunken slave at their banquets. This was done in order to disgust them and prevent them from drinking to excess themselves.

The few facts here brought together may serve to prove that a perfection which was attained hundred of years before Christ should not be unattainable by a nation such as ours, whose sons are imbued with courage, ambition, and endurance, if only given the means of improving their physique. This will only be done by teaching; by giving them some ideal to live up to, and by making them feel that the nation is one great living body of whom they are a part.

CENTRAL MIDWIVES BOARD.

WE have received the following report from the Secretary of the Central Midwives Board:

At a meeting of the Central Midwives Board, Dr. F. H. Champneys in the chair, held at the Board Room, 6, Suffolk Street, S.W., on December 17th, 1903, the following business was transacted:

1. The report of the Standing Committee as to the principles on which the Board should act in dealing with applications for recognition under Section C of the rules as approved institutions, or as approved teachers, was considered, amended, and adopted.

2. In accordance with the recommendations of the Committee the Board resolved:

(1) To accept the signature to Form V of registered medical practitioners who are
   - (A) Past or present holders of appointments to lying-in institutions or maternity charities; or
   - (B) Past or present examiners in midwifery to any examining Board for a medical qualification; or
   - (C) Lecturers on midwifery to institutions where pupil midwives or students of medicine are instructed.

(2) To consider individually, and on their own merits, applications from registered medical practitioners not coming within the above categories.

(3) To postpone for the present all applications from teachers in Poor-law institutions, in view of the fact that almost all midwives exercising their calling in such institutions are (at the express instance of the Local Government Board) specifically exempted from the operation of Section E of the rules.

3. The following applications for recognition as approved institutions under Section C of the rules were granted:

Queen Charlotte's Lying-in Hospital.
Liverpool Ladies' Charity and Lying-in Hospital.
Manchester Southern and Maternity Hospital.
British Lying-in Hospital.
Newcastle-on-Tyne Lying-in Hospital.
General Lying-in Hospital, York Road, Lambeth.
Glasgow Maternity Hospital.
Dundee Maternity Hospital.
District Nursing Association, St. James's Square, Cheltenham.
Maternity Charity and District Nurses' Home, Plaistow.

4. The Board resolved that a slip be appended to Form III (Certificate of Attendance on Cases) as follows:

NOTE.—Although a case of labour may be used for the instruction of more than one pupil, the case can only be counted to the credit of the one pupil to whom the actual delivery is entrusted.

5. After consideration of applications for certificates the names of 270 women were passed under Section II of the Act, and ordered for entry on the Roll. Of this total, 65 claimed as holding the certificate of the Obstetrical Society of London, 5 that of the Rotunda Hospital, Dublin; 1 that of the Coombe Lying-in Hospital, Dublin; 1 that of the Liverpool Lying-in Hospital; 8 that of St. Mary's Hospital, Manchester; 2 that of the Salvation Army Maternity Home; and 138 were admitted as having been in bona-fide practice for one year prior to July 31st, 1902.

[Form V is a certificate to the effect that the candidate has attended, to the satisfaction of the person signing, it a course of instruction given by him on the subjects enumerated in the regulations.]

BATTLE OF THE CLUBS.

OLDBURY.

WE are informed that seven medical men residing at Oldbury, Langley, about five miles from Birmingham, and surrounding districts, have been summarily dismissed from their posts as surgeons to the alkali works of Messrs. Chance and Hunt. It appears that the men have been paying 13s. per annum each for the medical services afforded, each man being free to chose yearly whichever medical man he preferred, the practitioner being paid according to the number of men on his list.

About 700 persons are employed at the works, each of whom is required to contribute 3d. a week. Instead, however, of receiving 13s. per annum for every man on his list, the authorities mulct the medical officer in the sum of 1s. 6d. per member, and pay over only 11s. 6d. It will be readily reckoned that 1s. 6d. from every subscription means an aggregate of upwards of £52. These deductions have been made for many years for the purpose of forming a "dispensary fund" from which the cost of supplying trusses and other small surgical appliances was defrayed. It is obvious that this amount could not be required for the purpose in any one year, and it is now asserted that from the accumulated funds the authorities have been in the habit of sending subscriptions "from the men, etc.," to convalescent homes and similar charitable institutions—whereas, if the statement be correct, the amount has been taken, not from the men, but from the seven medical officers. Even if they had received the full amount earned the medical men would have been wretchedly underpaid. For the 13s. per annum paid by each employé the medical officers are required to attend, not only the employé himself, be he the chief foreman, works' manager or merely a day labourer, but the whole of his family, whether they be young or grown up (the fact that they earn their living at other factories or offices being no bar to their right to his services), the wife in her confinement, and to vaccinate.

As though all this was not bad enough, it has become the custom for subcontractors and their employés to contribute to the medical fund, and demand the same rights and privileges as the bona-fide workmen at the factory. Recently the medical men held a meeting, and asked "either to have the full 13s. paid by the men, or else a fee of 10s. 6d. allowed for confinements."

Mr. Chance and his committee rudely replied that they would not allow either alternative, that the medical men were already sufficiently well paid and that no alteration in the rate of payment would be considered. The committee desired the secretary to say still further that "in future only four of the doctors would be allowed to fill the post; the three lowest at the election would be compelled to retire." A further threat was added to the effect that if the medical men did not like it they would all be dismissed, and one or two outside medical men would be kept to do the work.

Since many of the men live two and three miles from the alkali works, in different directions, it is not easy to understand how "one or two" men could cope with the work of attending upon 700 families.

The medical men, of course, refused the terms, and the following circular has been posted at the works. It will be noticed how the onus is placed upon the medical men:

Oldbury Alkali Works Provident Society, Dispensary Branch.
December 24th, 1903.

In consequence of the doctors having declined the offer and terms of the committee for their services next year this branch of the society will cease on Thursday next, December 31st, 1903, and after that date the deduction from the wages will cease,

(Signed) A. M. CHANCE, *Chairman.*
G. A. COTTRELL, *Secretary.*

Then follow the names of the committee.

We sincerely trust that no medical man with an atom of self-respect will apply for the post should it be advertised.

THE PREVENTION OF CONSUMPTION.

Sanatorium for West Wales.

At the second annual meeting of the West Wales Branch of the National Association for the Prevention of Consumption the Honorary Secretary submitted his report, which stated that a site for a sanatorium on the Highmead Estate had been kindly offered by Colonel Davies-Evans. The proposed sanatorium, which will be erected by Messrs. Speirs and Co., Glasgow, of composite iron and wood, with air-spaced walls, will provide accommodation for thirty beds, including two wings of four beds, each for special paying patients, with administrative block. The total cost, including foundation, lighting, etc., is £7,000.

A Sanatorium for Consumptives in West Australia.

The movement for providing open-air treatment for patients suffering from pulmonary tuberculosis is still active in Australia. We learn from the *Australasian Medical Gazette* that a deputation from the West Australian Branch of the British Medical Association recently asked the Colonial Secretary, Mr. Kingsmill, to provide for the establishment of a sanatorium for consumptives. Mr. Kingsmill has promised to obtain reports upon the subject, with the view of making provision in the next year's estimates.

LITERARY NOTES.

Messrs. J. and A. Churchill are about to publish the second edition of *A Manual of General or Experimental Pathology*, by Dr. W. S. Lazarus-Barlow, Director of the Cancer Research Laboratories of the Middlesex Hospital. The preface states that "not only has much of the matter been altered, but also the entire form of the work has been changed, so that it now constitutes in large measure a complementary volume to the *Pathological Anatomy and Histology*." It is added, "that the work of revision has not proved a small one is perhaps evidenced by the fact that the Index of Authors in this edition contains nearly two hundred more names than it did in the last."

Folia Haematologica is the title of a new periodical described as an "International Central Organ of Blood and Serum Research." The editor is Dr. Arthur Pappenheim, and among the collaborators are Drs. Babes of Bucharest, Curschmann of Leipzig, Denys of Louvain, Ehrlich of Frankfort, Foà of Turin, Laache of Christiania, Marchiafava of Rome, Metchnikoff of Paris, Muir of Glasgow, Senator of Berlin, Sherrington of Liverpool, W. S. Thayer of Baltimore, and F. Widal of Paris. The publisher is August Hirschwald of Berlin.

M. Anatole France has written a preface for a volume containing a collection of the speeches of M. Combes, Prime Minister of France. It was published in *L'Aurore* of December 27th, 1903, and is in fact a detailed review of the agitation which brought about the Dreyfus case, and led eventually to the law against religious congregations which M. Combes has enforced. Incidentally M. France refers to the fact that M. Combes is a member of the medical profession. After referring to the honesty and firmness of his character, he goes on to speak of the great simplicity of his life. "In the little white house at Pons," M. France writes, "where the doctor's bell may still be seen, for M. Combes long practised medicine, he spends his holidays walking and reading; he knows the ancient tongues, and he loves, as I have been told, the orators and the historians of Greece; he does well, for the Greeks had this merit among others: they knew how to maintain a just balance and never ran into excesses. In this M. Combes follows them." When we remember that he has now maintained himself at the head of the French Government for nearly two years we may recognize in him a man of very unusual character and ability.

In a review of a paper on Jewish Influence on Medical Science in the Middle Ages by Dr. J. Snowman, which recently appeared in *Janus*, a letter from Maimonides (A.D. 1135-1204), the Sultan Saladin's Jewish physician, was quoted. As it gives a vivid description of the life of a mediaeval physician in busy practice it may not be out of place to transcribe it here:

> My duties to the Sultan are very heavy. I am obliged to visit him every day early in the morning; and when he, any of his children, or any of the inmates of his harem are indisposed, I dare not quit the city [Cairo], but must stay during the greater part of the day in the palace. It also frequently happens that one or two of the officers fall sick and I must attend to their healing. Hence, as a rule, I repair to Cairo very early in the day, and even if nothing unusual happens I do not return into my residence until the afternoon. Then I am almost dying with hunger; I find the antechamber filled with people, judges, and bailiffs, a mixed multitude, who await the time of my return. I dismount from my animal, wash my hands, go forth to my patients and entreat them to bear with me until I partake of some slight refreshment, the only meal I take in the twenty-four hours. Then I go forth to attend to my patients with prescriptions and directions for their numerous ailments. Patients go in and out till nightfall, and sometimes even, I solemnly assure you, until two or more hours in the night. I prescribe for them and converse with them while lying down from sheer fatigue, and when night falls I am so exhausted I can scarcely speak.

For a generation Mark Twain has enjoyed the privileges of a chartered humorist whose dullest utterance is accepted as tending to laughter. And if the plain truth must be spoken, he was often, in his best days, not a little dull. Of late years, however, under the combined influence of osteopathy, in which he is a believer; of Christian Science, which he treats with much greater seriousness than it is worth, and of anti-vivisection, he has become very dull indeed. His latest production—a dog story in the Christmas number of *Harper's Magazine*—is not merely dull, but silly. The dog has saved the life of its master's child, and the master, a renowned scientist, by way of return, takes its puppy for the subject of an experiment, having for its object, as far as we can gather, the production of blindness by destruction of a part of the brain. This is how the experiment is described by the dog which tells the tale:

> And one day those men came again, and said, Now for the test; and they took the puppy to the laboratory, and I limped three-leggedly along, too, feeling proud, for any attention shown the puppy was a pleasure to me, of course. They discussed and experimented, and then suddenly the puppy shrieked, and they set him on the floor, and he went staggering around, with his head all bloody, and the master clapped his hands and shouted: 'There, I've won—confess it! He's as blind as a bat!" And they all said, "It's so—you've proved your theory, and suffering humanity owes you a great debt from henceforth," and they crowded around him, and wrung his hand cordially and thankfully, and praised him.

An illustration shows the experimenter with the pup in his arms and the dog quietly looking on in the midst of a crowd of attentive spectators, while an instrument like a gimlet is about to be thrust into the puppy's head. There has been no preparation of the animal, and no attempt at anaesthesia. The whole thing is as absurdly unreal as it possibly could be from every point of view, including that of the dog, which would certainly not have looked on at the experiment with the air of complacent expectancy given her by the artist. We protest against this grotesque caricature, not in the name of science which cannot be hurt by such pointless weapons, but in the name of literary decency and common fairness.

Laveran communicated to the Paris Academy of Medicine his discovery of a haematozoon in the blood of persons suffering from malaria in December, 1880. According to Professor Blanchard the parasite had been seen by two previous observers, who however failed to understand the significance of what they saw. Blanchard tells the story in the *Archives de Parasitologie* for March, 1903. In looking through a work by P. F. H. Klencke, entitled *Neue physiologische Abhandlungen auf selbständige Beobachtungen gegrundet* (Leipzig, 1843), he found an account of the "marvellous parallelism between the manifestations of vertigo and the presence of infusorial animalcules in the human blood." The illustrations show that the "infusoria" were really Laveran's flagella, that is to say, the microgametes of the plasmodium malariae. The crescentic and spherical bodies (microgametocytes) were also seen and figured by Klencke, who in fact was the first to describe the haematozoon of malaria in some of the phases of its evolution. His observations were made on himself, but he seems to have had no suspicion of the association of the parasites which he saw with malaria. The haematozoon was also observed in 1871 by Maxime Cornu, at that time demonstrator in Duchartre's laboratory in the Sorbonne. He was a native of a notoriously malarial district in the Loir-et-Cher Department, and was himself a great sufferer from the disease. He sought for parasites in his blood, and found in it bodies which seemed to him to be such, and which he afterwards recognized to be identical with the haematozoon described by Laveran. Cornu's observations were never published, but the fact that he made them is attested by Professor Brissaud, who was his pupil. It need scarcely be said that the glory which rightly belongs to Laveran as the discoverer of the parasite of malaria is in no wise lessened by the fortuitous and imperfect work of Klencke and Cornu.

ASSOCIATION NOTICES.

COUNCIL.

NOTICE OF MEETING.

A MEETING of the Council will be held in the Council Room of the Association, at 429, Strand (corner of Agar Street), London, on Wednesday, the 20th day of January next, at 2 o'clock in the afternoon.

GUY ELLISTON, *General Secretary.*

COUNCIL.

NOTICE OF QUARTERLY MEETINGS OF COUNCIL FOR 1904.

MEETINGS of the Council will be held on Wednesdays, January 20th, April 20th, July 6th, and October 19th, in the Council Room of the British Medical Association, 429, Strand, London, W.C.

ELECTION OF MEMBERS.

ANY candidate for election should forward his application upon a form, which will be furnished by the General Secretary of the Association, 429, Strand. Applications for membership should be sent to the General Secretary not less than thirty-five days prior to the date of a meeting of the Council.

LIBRARY OF THE BRITISH MEDICAL ASSOCIATION.

MEMBERS are reminded that the Library and Writing Rooms of the Association are fitted up for the accommodation of the members in commodious apartments, at the office of the Association, 429, Strand. The rooms are open from 10 a.m. to 5 p.m. Members can have their letters addressed to them at the office.

BRANCH MEETINGS TO BE HELD.

BIRMINGHAM BRANCH: COVENTRY DIVISION.—A meeting of this Division will be held at the Coventry and Warwickshire Hospital at 4 p.m. on Tuesday, January 5th. Agenda:—Clinical cases: Dr. Orton: Unusual Abdominal Hernia. Mr. W. E. Bennett: Renal Calculus. Specimens: Dr. Orton: Acardiacus Monster. Dr. Snell: Excessive Desquamation after Scarlet Fever. Dr. Fenton: Note on a Case of Bilharzia Haematobia. Dr. Milner Moore will move a resolution in favour of the amendment of the law regulating the registration of births and deaths with a view to their more accurate definition, and to the remuneration of the profession in connexion therewith. Annual report to the Branch Council.—E. H. SNELL, Knighton House, Coventry, Honorary Secretary.

PERTH BRANCH.—A Council meeting will be held in the Literary and Antiquarian Museum, Perth, on Friday, January 22nd, at 3.45 p.m. Business: Election of members; Medical Acts Amendment Bill; arrangements for clinical meeting.—WILLIAM A. TAYLOR, 10, Marshall Place, Perth, Honorary Secretary.

CORRESPONDENCE.

A SCIENTIFICALLY WORKED DAIRY FARM.

SIR,—I am pleased to be able to give a practical answer to the letter signed "D. M.," which appeared in the BRITISH MEDICAL JOURNAL of December 19th, 1903. I think I cannot do better than describe a scientifically-worked dairy farm which, by the courtesy of Mr. Sorensen, the owner and manager of the farm, I was enabled to visit early this month at West Huntington, near York. The first thing which struck me was the extreme simplicity of all the appliances combined with spotless cleanliness. Mr. Sorensen is of Danish extraction and nephew of Mr. Busck of the Copenhagen Milk Supply Company, which is well known to be the most perfectly worked dairy company in the world. The dairy farm near York is worked on the same lines, with this advantage, that Mr. Sorensen supplies milk from his own herd of cows only and supervises everything himself.

He holds that milk should, with common care and cleanliness, be produced in such a manner as to be drunk in all confidence by the public without any necessity for pasteurization or sterilization. The essentials, he considers, for such a milk supply are, briefly:

1. Healthy, properly fed and housed cows.
2. Cleanliness from A to Z, and a responsible guarantee that nothing is added to or extracted from the milk.
3. Prompt and thorough cooling of the milk so as to prevent germ growth.
4. Delivery under hygienic conditions.

These conditions are all fulfilled at this farm. A York Corporation veterinary officer of experience inspects the cows every month, and is empowered to dispose of any unhealthy or suspected animal. The feeding of the cows is scientifically carried out. No brewers' grains, turnip tops, or other unsuitable foods are used; the hay the cows are fed upon, the mangolds, etc., are grown upon the farm, while water from the York city water supply is used for drinking, and also for cleansing purposes, washing the utensils, etc. The cowshed, containing fifty perfectly-groomed cows, is lofty, well lighted and ventilated, and the platform on which the cows are tethered is built short, so that their hind quarters do not rest on the ground, but over a drain made specially to carry away the manure. Thus the cows are unable to roll and soil themselves during the periods of weather too bad for them to remain out-of-doors. This is as seldom as possible, as Mr. Sorensen disapproves of housing his cows when it is possible for them to be out-of-doors.

In the cowshed I observed a simple wash basin fixed against the wall, with towels beside it, while on pegs hung the clean smocks worn by the milkers during milking.

No money is wasted on fancy fittings, which simply increase the cost without making the milk any better. The aim is to keep everything—from the cows to the smallest utensils—sweet and clean. The cans, etc., are cleansed with live steam from a high-pressure boiler.

After the cows are milked, the milk is cooled by allowing it to flow over a corrugated cylinder, inside which cold water and ice are passed, in order to reduce the temperature in a few seconds to a point unfavourable to germ life. Clean milk so treated will, without preservatives, remain sweet, if kept in a cool place, for several days.

Most of the milk is delivered in glass bottles, which are filled and sealed at the dairy, the rest being sent out in cans, also filled and sealed at the dairy. There is a third method of sending out the milk in a sealed can with a tap. To save himself the trouble and expense of book-keeping, Mr. Sorensen has a system of payment by tickets, which are sold in books, and handed by customers to the man who delivers the milk.

Now for the result of the theory preached, that to conduct a dairy farm cleanly and scientifically does not cost more than does to run a filthy one. The following were the charges: $3\frac{1}{2}$d. per quart delivered in cans filled and sealed at the dairy; milk drawn by tap from sealed can in the cart, per quart, $3\frac{1}{2}$d.; per pint, 2d. Special table or nursery milk in sealed glass bottles, per quart, 4d.; per pint, 2d.

To show that right methods are not really overlooked by the public, I may mention that the demand for Mr. Sorensen's milk is so great that twice during the last month he has raised the price of it for fresh customers whom he is unable to supply, and he is thoroughly satisfied with his venture from a pecuniary point of view. It is significant that many of his customers are medical men.

I, also, hope with "D. M.," that in spite of being conservative in the worst sense of the word, farmers may soon adapt themselves to the requirements of modern science. It is certain that if they do not a time will come, and is rapidly approaching, when the public will cease blindly to accept a poisonous milk supply without asking to see the source of that milk. The question has now become a national one, and no intelligent person should rest content until every farmer in England follows in the footsteps of Mr. Sorensen, who has proved so ably and intelligently that a farm managed scientifically may also be made profitable.—I am, etc.,

December 28th, 1903. THE WRITER OF THE MILK ARTICLES.

LIFE INSURANCE EXAMINATIONS.

SIR,—In the BRITISH MEDICAL JOURNAL of December 26th, 1903, p. 1658, you refer to the vexed question of the fees given to medical examiners for insurance work, and conclude your remarks with the suggestion that the matter is one which the Divisions of the Association should consider. The Norwich Division of the British Medical Association appointed a Committee a few months ago to investigate and report on the present condition of the "insurance work" done by medical men in this city, and the Committee hopes to present its report at the next meeting of the Division; but as your article and the action of the "Law Union and Crown Insurance Company" have brought this question forward now, it may interest members of the Association if some of the facts elicited by the Committee are briefly stated.

In spite of the enormous sums as capital and income of which these companies proclaim themselves to be possessed, a large number give a fee of 1 guinea for a medical examination in those instances only in which the policy asked for is of more than a certain value; if of less value the fee is half a guinea.

Some companies fix £100, others £500 or any intermediate sum, as the standard by which the medical examiner's fee shall be regulated, but in no instance is the report required from him for the half-guinea less than that for which 1 guinea is given.

For policies of less than £50, or for those granted to members of the labouring classes, the scale of fees is ridiculously low—always, however, in proportion to the value of the policy, and never to the work required from the medical examiner.

The fact that it is quite immaterial to the latter, whether the candidate he is examining is paying some one else £5 or £500, is ignored; but as the medical officer is in the employ of the company, and is giving an expert opinion to prevent it from losing money, it is surely only common justice that he should be paid according to the work he does for it.

In taking this matter up the Norwich Division hoped that it would be setting an example to the other Divisions, and that by common action and a statement of the case from the point of view of the medical examiner, the profession might induce insurance companies to refrain from asking, and medical men from accepting, conditions of work which are generally held to be unsuitable.—We are, etc.,

MICHAEL BEVERLEY, M.D.,
Chairman of the Norwich Division.

ARTHUR T. CLEVELAND, M.D.,
Hon. Sec. of the Committee.

Norwich, Dec. 24th, 1903.

*** A correspondent sends us the following copy of a letter which he addressed recently to a life assurance company paying the medical referee a fee of 10s. 6d. for sums insured under £500.

SIR,—I have examined this life as requested, but I beg to express my opinion that no office obtains any advantage for itself by limiting the fee paid to the medical referees to 10s. 6d. for the examination of lives insuring for sums under £500. In this neighbourhood, as in many, the number of fees attainable above the £500 scale is very small indeed, so that practically the medical referee gets paid the inadequate sum of 10s. 6d. for making a report of a long and careful examination of an applicant such as the office requires—a report demanding the same care and time as one made for lives insuring for above £500. Of course I am aware the competition in the overstocked medical profession enables offices paying on the lowest scale to obtain examiners enough; but no medical men of standing and experience are enthusiastic in enlarging on the superior merits of any half-guinea paying institution. My examinations of lives are always as painstaking and investigatory in cases of the lower as in those of the higher scale. I examine and grumble, like many more, believing that no cheese-paring policy on the part of any life office with respect to its medical examiners is anything but detrimental to its highest attainable success. I hope I may be excused for expressing my views on this occasion, remaining, as I do,

Yours faithfully,

THE MEDICAL PROFESSION AND ALCOHOL.

SIR,—I am glad to see that the question of the attitude of the medical profession towards the alcohol question has been raised in your leading article this week. It is surely time that the profession, with its special knowledge of the effects of alcohol, and its great influence on the public mind, should waken to its responsibility; there is a section of the profession that is working to teach the public what the true effects of alcohol are, but I fear thaf the majority do not yet grasp the full significance of their position of influence.

You write that "if any one ever held such a view" (that is, that alcohol was a food or necessary part of healthy diet) "it has been amply disproved by observation;" but while one would naturally think that such was the case we have only to look back to letters appearing in the BRITISH MEDICAL JOURNAL about the time of the international manifesto to see that evidently there are some who are not familiar with the present scientific aspect of this important question, that is, that alcohol is not only unnecessary but is actually harmful in health and that even in disease it is seldom necessary except as a temporary stimulant.

You write of the secondary sedative effect of alcohol and attribute to it "the sociability produced by the flowing bowl." I think it has been shown by Sims Woodhead that the action is rather a destruction of the higher nervous control, and certainly the type of after-dinner speech which owes its eloquence to alcohol seems to bear out this doctrine. You write in conclusion, "We should then have to consider . . . . whether, having regard to the evil consequences of intemperance and the insidious manner in which the alcohol habit becomes established, it is not the duty of the medical profession to go even further in the future." I should think in view of these very facts it is the *present* duty of the profession to take a firm stand and in no uncertain way to let the public know its opinion of alcohol. There is an organization for this purpose in our midst. Why don't all medical men who think alike on this subject join its ranks, so as to derive that strength which comes from union?—I am, etc.,

H. NORMAN BARNETT, F.R.C.S.,
Honorary Secretary, North of Ireland Branch, British Medical Temperance Association.

Belfast, Dec. 26th, 1903.

SIR,—All but rabid teetotallers will be grateful to you for the article on this subject in the BRITISH MEDICAL JOURNAL of December 26th, 1903.

In practice I constantly have to disabuse patients' minds of the idea that whisky as a beverage is superior to light wine and light beer. Partly influenced by medical opinion, the public have come to look upon the substitution of whisky for light wine as a positive virtue. How commonly one hears in reply to the question as to the amount and kind of stimulant taken, "Oh, I only take whisky;" and, if the patient is well-to-do or in the trade, it is added, "and the very best of that." What possible objection there could be to a glass of light wine in cases of chronic gout or rheumatism I have never been able to understand. My experience points quite the other way. It is generally conceded that gout, at any rate, is at the root due to faulty metabolism, caused or provoked as much by indolence and over-eating as by free indulgence in wine. The great objection to the prescription of whisky as an habitual stimulant is the danger that the limit laid down by the doctor will be overstepped, or, as you say, "the insidious manner in which the alcoholic habit becomes established." Verily we have paid dearly for the discovery of uric acid as an accompaniment of gout.

In my experience, gouty patients not infrequently benefit largely by discontinuing spirit of all kinds, and, if a stimulant is needed, a little light wine with the meals has been ordered. I feel persuaded that much of the excessive drinking of spirit among women has its origin in medical prescription of whisky for indigestion, rheumatism, gout, etc. I have had some of these patients excuse their habit of whisky drinking by referring to an enlarged and red great toe-joint which on examination was clearly due to narrow and high-heeled boots. That this was the real cause was proved by the improvement that followed the adoption of proper footgear.—I am, etc.,

London, W., Dec. 26th, 1903. CHAS. W. CHAPMAN.

HOSPITAL REFORM.

SIR,—As it is evident that the hospital question is once more to be brought into the arena of discussion, it may be convenient and perhaps useful to remind your readers very briefly of the conclusions arrived at after much consultation and thought by the little Society called the Hospital Reform Association.

It is rather more than seven years since the Association started its campaign with a view of carrying out the following objects:

1. The prevention of abuse of hospitals, infirmaries, and dispensaries.
2. The promotion of a Central Hospital Board in London and other large towns.
3. The formation of properly-regulated provident dispensaries.

Perhaps the programme was too ambitious; at all events, the Association found the first item on it was more than sufficient to be coped with in a satisfactory manner. Meetings were held in London, Manchester, Birmingham, Liverpool, Bristol, and Brighton, and speeches were delivered by many of the most prominent members of the profesion and laymen interested in philanthropic work. I may mention the names of these gentlemen who rendered yeoman service to the cause: Sir Isambard Owen, Mr. Timothy Holmes, F.R.C.S., Thomas Bridgwater, LL.D., W. Knowsley Sibley, M.D., Ernest Snape, M.D., the late F. J. A. Waring, M.D., David Walsh, M.D., Fred. J. Smith, M.D., Colonel Montefiore (C.O.S.), Mr. Douglas Dent, (Bristol), Arnold Lea, M.D.,

G. A. Hawkins-Ambler, F.R.C.S.E., G. A. Wright, F.R.C.S., Bertram M. H. Rogers, M.D., W. Richardson Rice, M.D., Mr. C. W. Warren and Dr. Beverley.

After discussing the matter from every point of view the Council of the Association drew up the following recommendations, and directed that they should be sent to the Managing Committees of every hospital in England and Wales:

1. That in the casualty department of the general hospitals only cases of urgent importance should be attended to.

2. That in the out-patient department patients bringing notes from medical men should have, *caeteris paribus*, a prior claim to treatment. That a resident physician should be appointed whose duty it shall be to see all out-patients in the first instance, and select those that require immediate treatment, and decide which do not require hospital treatment. That after patients have received "first aid" their circumstances shall be inquired into by a competent officer. That the honorary medical officers shall not be required to treat more than 20 new cases at one sitting.

3. That the circumstances of all in-patients, with the exception of cases of accident, etc., should be carefully inquired into before admission.

4. That in the case of well-to-do people who are admitted to hospitals in consequence of accidents, etc., the hospitals should have the power at their discretion of recovering adequate fees for attendance.

5. In the case of small provincial hospitals, that the plan adopted at the Oldham and Dorchester Infirmaries be recommended for trial.

6. That both in the large general hospitals and in the smaller ones out-patients coming from outside districts should be requested to bring notes from medical men before being treated.

7. In the case of special hospitals: (*a*) That payments by patients should cease; (*b*) that the eligibility for free treatment should largely depend on the recommendation of private practitioners; (*c*) that some provision should be made outside the hospitals for people who are in a position to pay a reduced fee but are not in a position to pay the ordinary fee of specialists.

It will naturally be asked what was the outcome of all this work. Well, Sir, although it is sometimes difficult to state absolutely that reforms have been effected by any agitation that has taken place, yet I think without undue egoism one can reasonably say that hospital managers did take steps in many instances to endeavour, through the medium of inquiry officers, to prevent well-to-do people from abusing these institutions.

Now that the British Medical Association has determined to take up this subject in earnest, there seems to be an excellent chance of making the voice of the profession heard. The whole subject, if I may be allowed to say so, concerns the public much more than it does the profession. But it must be through the profession that the public must learn the truth. If it is the case, as many of us believe, that the public are asked to subscribe their money for the extensions of hospitals which are totally unnecessary, and if the public are asked to support hospitals which admit out-patients indiscriminately and without due cause—as many of us believe they do—then it becomes the manifest duty of any hospital to show cause why it requires additional funds, and to prove to its supporters that the work it performs is carried on for the benefit of the suffering and needy.—I am, etc.,

Cardiff, Dec. 26th, 1903. T. GARRETT HORDER.

THE LOCAL ORGANIZATION OF THE BRITISH MEDICAL ASSOCIATION.

SIR,—So far as I can make out, the work of organization of the Association is proceeding but slowly. This, to me, is not at all surprising. Much trouble and expense have been gone to in arranging the network which is to embrace the whole of the country, but it is not enough. There should be a heart to send its pulsations from the centre to the periphery, and a head to co-ordinate the whole, but these seem to be wanting. Medical men have not yet learned to organize, and the work of getting all the Divisions in working order will take more time and more trouble and expense.

Take our own Branch—that of Lancashire and Cheshire. Some Divisions even in this city have not met at all, except perhaps the initial meeting. Some of our prominent members in the medico-political world do not seem to have moved at all in their respective Divisions. It is certainly curious to observe that men who are energetic agitators appear to have no notion of how to organize, or to see the necessity for it. One cannot help wondering how soon they would move if there were some project they had in hand, and that required the sanction and support of their Division!

Now, Sir, I do not consider that this is an ideal mode of procedure. The sooner the members composing a Division are brought together the better. This should be the primary object to be achieved. Tact, of course, would be required to effect this and different means will be required in each Division, and the general benefit of members should be aimed at rather than for any prominent man or men in it to seek to push themselves forward.

It has occurred to me to send you, Sir, these cursory thoughts with a view to raising a discussion in these columns to stimulate sluggish Divisions, to invite suggestions from different quarters, and to obtain information of how the work is progressing in the various Branches.

In conclusion I would like to ask if there is one Branch Secretary who has called together the whole of the Secretaries of Divisions in his Branch with the object of conveying information to them as to their duties and in order to co-ordinate the work in all parts of his Branch?—I am, etc.,

Ardwick Green, Dec. 28th, 1903. G. H. BROADBENT.

CANCER AND ITS ORIGIN.

SIR,—In the BRITISH MEDICAL JOURNAL of December 26th, 1903, you give a very full account of the interesting paper recently communicated to the Royal Society by Professor Farmer and Messrs. Moore and Walker, in which they dwell on the resemblances between certain of the cells of malignant growths in man and those of normal reproductive tissues, and from which resemblances they draw the conclusion that the malignancy of these tumours is intimately connected with the reduction of the normal somatic cells into reproductive or germinal tissue. To me this communication is of special interest, as I have already put forward a similar view in my paper on Inoperable Mammary Carcinoma read before the Edinburgh Medico-Chirurgical Society in May, 1896, and published *in extenso* in the *Lancet* for July 11th and 18th of that year. I there say, when dealing with the etiology of cancer, that "in whatever way brought about, there seems to me a reasonable ground for thinking that the active processes seen in a cancerous tumour are best explained by regarding the epithelium of the part as having taken on the properties and powers of the germinal epithelium." I further expressed the belief that the special cells seen in sections or scrapings of cancer, and known as "cancer bodies," may eventually be shown to be special germinal cells corresponding to the ovum cells elaborated by the ovary in the female and by the testis in the male.

While Professor Farmer and his coadjutors seem to have come to the same conclusion as the result of their microscopical inquiry, I did so clinically, and chiefly in consequence of the results obtained by oöphorectomy in inoperable mammary cancer. Under that procedure cancerous activity has been arrested and proved cancerous tissue has disappeared, with, in addition, diminution of pain and improvement in the general health—a state of matters that has never before been observed in this disease under any other medication, and that, too, in advanced cases of the malady. In writing thus, I am not giving only my own individual experience. Other surgeons have observed the same results. Unfortunately, I think, the profession has regarded this method of treatment from a therapeutic aspect only and judged it solely by the standard of its value as a curative agent. This is of course quite right, but whatever be the final decision on this point I would fain hope that the effects following oöphorectomy will not be lost sight of, especially as we are dealing with a disease whose true nature has, so far, baffled inquiry. To cause cancerous tissue and cancerous glands to disappear is a very remarkable fact, and one that should have more importance attached to it than it has yet had, for I look upon it as furnishing a clue to the real nature of cancer, and as strongly confirmatory of the opinion I expressed in May, 1896, "that the disease consists in the epithelium of the part affected taking on the active proliferation which is the marked characteristic of the germinal epithelium." The observations of Professor Farmer and his coadjutors seem to support this view of mine, which, however, was arrived at by a different line of inquiry.

I am not sure that Professor Farmer and Messrs. Moore and Walker are altogether correct in the statement they make as to the exact mode of development of the special cells to which they give the term "gametogenic," but a letter such as this is not the place to go into such a question. The mere establishment of the presence of such cells in malignant tissue is a point of the greatest importance, and strongly corroborative of what I may call the germinal cell theory of cancer.—I am, etc.,

Glasgow, Dec. 28th, 1903. GEORGE THOS. BEATSON.

THE TREATMENT OF PNEUMONIA.

SIR,—But for the evidence of Dr. Barr's letter one would have found it impossible to believe that "an earnest inquirer after truth," with a quite superior knowledge of anatomy, could have any difficulty in perceiving that abstraction of blood by leeches from the wall of the chest lessens the amount of blood conveyed by the intercostal veins and the azygos vein to the right auricle, and thus produces a temporary diminution of intra-auricular tension, which may allow a much overstrained right heart to recover itself. But Dr. Barr "wants more evidence." Let him, then, apply six or eight leeches to the chest wall, or perform a small venesection, in a case of advanced mitral stenosis with dyspnoea and enlarged liver, or in one of mitral regurgitation with dyspnoea and general dropsy. The obvious improvement will soon convince him that relief to the right heart by moderate bleeding is one of the most certain, as well as one of the most helpful, of therapeutical facts.—I am, etc.,

London, W., Dec. 22nd, 1903. D. B. LEES.

SIR,—Dr. Barr's remarks on the uselessness of inhalations of oxygen in pneumonia seem to me to be more dogmatic than convincing. The test of therapeutic efficacy is not *a priori* reasoning but clinical experience, and no one who has watched, as I and many others have watched, the deep purple flush of increasing cyanosis fading rapidly away during the inhalation of oxygen, and the hurried respirations becoming comparatively slow and steady, will be greatly impressed by Dr. Barr's *ex cathedra* statements as to the supposed limits of the possible utility of this procedure. If the administration of pure oxygen is indeed valueless, how can we account for the fact that young children will eagerly and repeatedly demand it when the advent of air-hunger and cyanosis has rendered them indifferent to all other considerations but the craving for immediate relief?—I am, etc.,

Bath, Dec. 20th, 1903. C. J. WHITBY.

A PUBLIC DANGER FROM SANATORIUM INMATES.

SIR,—During the last few years great attention has been paid to the treatment of tuberculous diseases, and especially those of the chest, by "fresh air."

The erection of sanatoria in different rural districts, in conjunction with the various hospitals for consumption in the larger towns, followed; and it is to the dangers arising from the patients residing in these that I wish to call your special attention.

My advice has been asked on several occasions when in these districts by innkeepers and others, "What means could be taken to stop the patients whilst out for their walks (part of the treatment) visiting their public-houses, and spitting on the floors, also of spitting on the highways."

I have seen this indiscriminate spitting myself, and in my opinion, knowing the danger arising from infected dust, etc., I consider it should be stopped at once by the respective institutions in the interests of the local rural population.

The following preventive measures, to my mind, are the only practical ones available:

(*a*) That all sanatoria should be provided with sufficient ground to allow of the requisite walking exercise being taken without allowing the patients to stroll along the highways; or

(*b*) Where this is impossible that all patients should be under the supervision of a thoroughly reliable nurse or attendant when out for their walks.

The defence put forth by all these sanatoria is that their rules forbid both the entrance to any public-house and spitting on the roads, etc., under penalty of instant dismissal. Such rules are nevertheless daily broken, as I know only too well.—I am, etc.,

JOHN PENNY, D.Sc. (Public Health), M.B., F.R.S.E.
Great Broughton, near Cockermouth.

ST. BARTHOLOMEW'S AND THE OUT-PATIENTS.

SIR,—Notwithstanding the plentiful discussion about the rebuilding of St. Bartholomew's Hospital one part of the scheme does not seem to have had its due share of attention. What has been the result of the energetic deputations of three or four years ago at Whitehall and elsewhere about hospitals? As to out-patients the conclusions reached were on the whole adverse to the present method—which is no method. But the first part to be rebuilt is a new out-patient department. "The out-patients amounted to more than 160,000 annually.' Is this not enormous? And is it desirable that it should continue?

The better method has not been settled yet; it may be either a widening of the Poor-law regulations or some modification of a provident scheme (weekly or monthly payments by patients). But the present ways should not be renewed. Is it at all necessary or advisable that there should be an out-patient department in connexion with the hospitals?

Surely there is a case for inquiry, and also with regard to King's College Hospital. I do not allege that the Governors of St. Bartholomew's have not considered the question, but it would be satisfactory if we had some authoritative assurance whether they have or no. It concerns indirectly the whole of the metropolis. In view of the more recent statements about the area available, it would certainly be well if the out-patient department were cut adrift.—I am, etc.,

London, S.W., Dec. 22nd, 1903. G. CRICHTON, M.D.

MEDICAL REFEREES UNDER THE WORKMEN'S COMPENSATION ACT.

SIR,—I enclose copy of a letter addressed by me to-day to the Home Secretary, resigning my position as medical referee under the Workmen's Compensation Act. My experience is no doubt similar to that of many of my professional brethren.—I am, etc.,

Cinderford, Dec. 14th. RICHARD MACARTNEY.

COPY.

Lisanore, Cinderford, Gloucestershire,
December 14th, 1903.

Sir,—I hereby beg to tender my resignation of the position of Medical Referee, Workmen's Compensation Act. It has been a source of loss to me in my practice, and I have never been once called upon to perform any duty in connexion therewith.

I am, Sir, your obedient servant,
RICHARD MACARTNEY.

The Right Honorable A. Akers-Douglas, M.P.,
His Majesty's Secretary of State for Home Affairs.

REGISTRATION OF PLUMBERS.

SIR,—I am desired by the Master and Wardens to express their appreciation of the reference to the registration of plumbers made by Sir Victor Horsley in his important address to the Northumberland and Newcastle Medical Association on December 9th, as reported in the BRITISH MEDICAL JOURNAL of December 19th.

The Master and Wardens feel that Sir Victor Horsley's words will go far to strengthen the influence which the British Medical Association has from the beginning exercised in building up the registration system, which was first discussed by the Association purely as a medical question at their meeting in Liverpool in 1883, when a resolution was passed recommending the technical instruction and registration of plumbers on public health grounds. Since that time the Association has continuously lent its aid towards promoting the registration system as a practical aid to the development of preventive medicine, the sphere of which is so widely and continually extending with such beneficial results.—I am, etc.,

WM. R. E. COLES,
Clerk, the Worshipful Company of Plumbers.

London, E.C., Dec. 23rd, 1903.

OBITUARY.

ROBERT JAMES BLAIR CUNYNGHAME OF CRONAN,

M.D.Edin., F.R.C.S.Edin., J.P.,
Superintendent of Statistics, Registrar-General's Department, Scotland.

THE profession in Edinburgh has lost one of its most respected and beloved members by the death of Dr. Blair Cunynghame on Wednesday, December 23rd. He had nearly completed his 63rd year, having been born in January, 1841. For some years his friends had noticed with regret symptoms of failing health, and the death of a dearly-loved daughter which occurred a fortnight before his own seemed to have made him less able to face the toil of living.

After a distinguished undergraduate career Blair Cunynghame took the M.D. degree in the University of Edinburgh in 1862. He was a favourite pupil and clerk in the wards of Dr. W. T. Gairdner, now the distinguished Sir Wm. T. Gairdner, K.C.B., Emeritus Professor of Medicine in the University of Glasgow. He took the University Gold Medal in the class of Forensic Medicine. This subject continued to be a favourite with him, and he acted as Examiner for the Triple Qualification in that branch till within a month or two of his death.

After graduation and a term of office as Resident Physician in the infirmary, he pursued his medical studies in London, Berlin, Paris, and Vienna, and then passed into the medical service of the army. He served in the Rifle Brigade for four years, chiefly in India. He then retired for family reasons; his only brother having died he was needed at home, and on his retirement he settled in practice in Edinburgh. He had taken the Fellowship of the Royal College of Surgeons in 1866, and the Membership of the Royal College of Physicians in 1877. He was a many-sided man in his professional work and tendencies. He was an expert physiologist, and did much excellent work in the teaching of that branch. He worked at pathology with the late Professor Sanders of Edinburgh, and for many years held the post of Conservator of the Museum of the Royal College of Surgeons; in this post he conducted classes for the study of the magnificent pathological collection, and also added many preparations to its shelves. He became Physician to the Royal Hospital for Sick Children, and continued to the end of his life a valued office-bearer on the staff of directors.

An acknowledged expert on questions of forensic medicine and public health, he obtained an important appointment as medical officer to a large life insurance office; this office he demitted a few weeks before his death.

He never seemed to care much for the routine and responsibilities of general private practice, and did not need to work at it as a means of subsistence; his friends were not surprised when some years ago he gave it up entirely and accepted an important Government appointment as Superintendent of Statistics in the Registrar-General's Department for Scotland. He liked this kind of work, and had exceptional qualifications for such a post, and did the work admirably. In fact in every position, as a professional man and as a citizen and a patriot, he worked with a will, quietly but diligently.

He served the Royal College of Surgeons of Edinburgh well—an admirable business man, punctual, courteous, and full of tact; he served it as Conservator, as member of President's Council for many years, and as Secretary for several years, till in 1892-3 he was elected its President. This high office he filled with great tact and conscientiousness; indeed everything to which he put his hand was done as ever in "the Great Taskmaster's eye."

An enthusiastic Volunteer, he served as Surgeon in the Queen's Edinburgh Volunteer Brigade long enough for him to earn and receive the Victoria decoration for long service. He was a good citizen, and acted with great acceptance on the board of management of many of the most important of the charitable and philanthropic institutions which Edinburgh possesses in such numbers, notably the Longmore Hospital for Incurables and the Queen Victoria Jubilee Institute for Training District Nurses. He was a Justice of the Peace for Perthshire, the county in which his property is situated.

But after all this is said and done, his work detailed, and his public character and conduct lauded, our notice would be absolutely incomplete without an attempt, however feeble, to pourtray the man and his life. His very presence was elevating. A calm, beautiful face, with a gentle, cultured voice, the man himself the soul of honour and mirror of courtesy, he was a type of what the cultured physician should be. Nothing mean or unprofessional could look possible under his clear vision. He was to many of us a guide in matters of doubt. "What would Cunynghame think of this?" was an excellent touchstone of quality. A loyal friend and no one's enemy, his death leaves a sad blank in the lives of many of his old friends.

Dr. Blair Cunynghame is survived by two sons and one daughter. His wife died in 1893. His marriage had been an ideal one, and her loss was irreparable.

J. B.

SIR GEORGE THOMSON, K.C.B., M.B., C.M.ABERD.,
Surgeon-Colonel (retired), I.M.S.

WE regret to have to record the death, on December 21st, of Sir George Thomson, K.C.B., an Indian Medical Service officer of great distinction. Although he went on the retired list some five years ago, and had then put in full thirty years of active service, Sir George Thomson was only 61 years of age, and his death was sudden and unexpected. He was a native of Aberdeen, where he received both his professional and general education; about a year after obtaining the degrees of M.B., C.M., and in October, 1865, he entered the Indian Medical Service, winning a high place in the competitors' list. In India his service was mainly in the military department, but he was also for some years Civil Surgeon in the Punjab, and Medical Adviser to the Maharajah of Patiala. He was for some time Principal Medical Officer of the Lahore military district. He had a great deal of war service to his credit. It was mainly to his work with troops on active service that he owed the distinctions he acquired. Thus he took part in the Afghan campaign of 1878-9, and in 1895 was P.M.O. of the Chitral Relief Force. Two years later he was with the Malakand Field Force, and later in the same year served as P.M.O. of the Tirah Expeditionary Force. This it was which brought him the Knight Commandership of the Bath, the companionship of the same order having been awarded him for his services in the Chitral expedition. All his war service indeed must have been valuable, for he was three times mentioned in dispatches. Sir George Thomson had a brother who is a major in the same service. He leaves a widow and three sons, one of whom has entered in the army.

CHARLES FREDERICK MOORE, M.D. (UNIV. GLASG.), F.R.C.S.I.

THE death of this highly esteemed member of the medical profession took place, after a very brief illness, at an early hour on the morning of Christmas Day, at his residence, 10, Upper Merrion Street, Dublin. Although Dr. Moore had reached the advanced age of 83 years he was brisk and active to a remarkable degree, and may be said to have died in harness, for so recently as the Monday before his death he spent several hours in the discharge of his duties as Certifying Factory Surgeon for the Dublin district.

A scion of a medical family, Charles Moore at an early age chose medicine as his calling. He became a Licentiate of the Apothecaries' Hall, Dublin, in 1843, a Licentiate of the Royal College of Surgeons in Ireland in 1844, and a Doctor of Medicine of the University of Glasgow in the same year. In 1865 he obtained the Fellowship of the Royal College of Surgeons, Ireland, by examination.

Soon after he became qualified, Charles Moore entered the service of the Peninsular and Oriental Steam Navigation Company, in which he was in due time promoted to be Senior Surgeon. During his many voyages to the Far East he gained a sound knowledge of tropical and subtropical diseases, which he was in after-life able to turn to practical account in the interest of the public. He was an artist of no mean power, and in the Fifties often enriched the pages of the *Illustrated London News* by the work of his pencil.

After he retired from the company's service, Dr. Moore practised for a short time in London but soon returned to Ireland. At first he settled in the country, being finally appointed Medical Superintendent and Surgeon to Middletoun Hospital, co. Armagh. From this he removed to Dublin, where his life-work was mainly cast. For many years he acted as Medical Officer of one of the metropolitan dispensary districts, becoming a Medical Officer of Health under the Public Health Acts of 1875 and 1878. He was also for several years one of the Visiting Physicians of Cork Street Fever Hospital and House of Recovery. In more recent years he filled the important posts of Medical Inspector of Seamen for the port of Dublin and Certifying Factory Surgeon for the metropolitan district. For some years Dr. Moore represented the Apothecaries' Hall of Dublin on the General Medical Council. He was also in course of time chosen President of the State Medicine Section in the Royal Academy of Medicine in Ireland, President of the Dublin Sanitary Association, and a Vice-President of the British Association of Certifying Factory Surgeons—a conclusive proof of the estimation in which he was held by the public as well as by his professional brethren.

Dr. Moore wrote frequently, but published no large work. He was author of Suggestions for Improvements in the Sewerage of Cities and Towns (1854), and contributed to the *Dublin Journal of Medical Science* a Report of Cholera as observed in 1854 in the Finglas Cholera Hospital, to which he was physician, as well as reports of cases observed in the East Indies, Mediterranean, Egypt, and Turkey. He also published occasional clinical records in the weekly medical journals.

As to his private life, the Dublin *Daily Express* says: "Dr. Moore was a kindly, courteous gentleman, of retiring habits, and a keenly sensitive and refined disposition. He never

willingly did an injury to any one, and his death will be deplored by a host of friends who valued him for his sterling qualities of heart and mind. The fact that he passed away on Christmas Day adds a special touch of pathos to the sorrow with which the announcement has been received by all who knew Charles Frederick Moore, and held him as a true and faithful friend.

It is with much regret that we have to record the death at an early age of Edward Courtney Drake of Spennymoor, County Durham, which took place on December 8th, 1903. He received his medical education at Westminster Hospital, and after taking the diploma of L.S.A. in 1893 spent some years in professional work in the south of England. Thence some five years later he moved to the north and established himself in the colliery district of Spennymoor, in which he acquired several Poor-law appointments, and eventually took a partner. Late this autumn he suffered an attack of influenza, and while barely convalescent resumed his work, but soon afterwards experienced symptoms of membranous laryngitis. During the illness which followed he received the most unremitting attention from his neighbour, Dr. Andersen, as well as from Dr. Hall, who was acting as *locum tenens*. A tracheotomy was required, and was duly performed, but in spite of it death occurred soon afterwards. One who knew Mr. Drake well writes that he was a most genial friend whom it was a pleasure to know, and that as a doctor he was most popular and never spared himself in the performance of his duties. The truth of this summary of his character is fully borne out by the extent of the sympathy and regret at his loss which were obvious as the funeral procession passed through the colliery villages inhabited by those amongst whom his work had been done.

ROYAL NAVY AND ARMY MEDICAL SERVICES.

ROYAL NAVY MEDICAL SERVICE.

The following appointments have been made at the Admiralty: William E. Breton, M.D., Deputy Inspector-General, to Bermuda Hospital, December 16th, 1903; John J. Dinnis, M.D., Fleet Surgeon, to the Royal Marine Infirmary, Deal, December 28th; G. C. Cross, Surgeon, to the *Speedwell* (lent), December 16th; R. Kennedy, M.B., Surgeon, to the *Hebe* (lent), December 16th; J. H. L. Page, Surgeon, to the *Spanker* (lent), December 16th; C. H. Dawe, Surgeon, to the *Circe* (lent), on commissioning.

ROYAL NAVAL VOLUNTEER RESERVE.

The undermentioned gentlemen have been appointed Surgeons from the date specified: William Allan, December 22nd, 1903; Marcus S. Paterson, M.B., B.S., M.R.C.S., L.R.C.P., December 23rd; Reginald J. E. Hanson, M.B., B.C., M.A., December 23rd.

THE DEFECTS OF THE NAVAL MEDICAL SERVICE.

Mr. Gerald Sichel, F.R.C.S. (Guy's Hospital, S.E.) writes: In your Supplement of December 5th, 1903, I see it stated that the competition for the Royal Naval Medical Service at the present time is three candidates for every two posts. A candidate who was up last time informed me that there were thirty-four men up for forty commissions, of which number thirty were found qualified to take them. As the number of vacancies to be competed for is no longer efficiently advertised, and as I understand the Naval Medical Service is considerably below establishment, I am bound to confess I feel somewhat confused; no doubt it is my own stupidity; but as quite possibly others besides myself may be not quite clear on the point, I trust you will do me the honour of sparing me space for this letter, so that some one in full possession of all the facts may perchance be good enough to throw some definite light on the question.

*** The analysis which we published of the return presented to the General Medical Council is quite accurate. At the examination in May last, to which the return refers, there were 22 candidates for 15 commissions, which mathematically is as 3.1 to 2.1. If by the "last examination" Mr. Sichel means the examination concluded in November, the particulars respecting it are not yet published. When they are, we have every reason to believe that Mr. Sichel will find that he has been misinformed. As to the question of establishment, Mr. Sichel can obtain the necessary light for himself by looking at the last quarterly Naval List. By a very easy calculation he will find that on the day following the last examination the Naval Medical Service cannot have been more than some fourteen or fifteen under full authorized strength. This is not a remarkable shortage in any service the establishment of which is fixed a long time in advance and which, under ordinary conditions, fills up the vacancies caused by deaths and retirements only at fixed intervals and in such batches as will not overweight the teaching power of those who are responsible for breaking in the accepted candidates.

BRIGADE-SURGEON-LIEUTENANT-COLONEL P. E. HILL, V.D.

Field-Marshal Sir Evelyn Wood, Commanding 2nd Army Corps, sanctions an extension of service till January 31st, 1906, in the case of Brigade-Surgeon-Lieutenant-Colonel P. E. Hill, V.D., Senior Medical Officer, South Wales Border Infantry Brigade. Brigade-Surgeon-Lieutenant-Colonel Hill has been a volunteer medical officer for over twenty-nine years, and this is the second occasion on which an extension of his service has been accorded.

ROYAL ARMY MEDICAL CORPS.

Lieutenant-Colonel J. F. Williamson, M.B., C.M.G., to be Colonel, to complete the establishment, December 20th, 1903. He was appointed Surgeon, February 4th, 1877; Surgeon-Major, February 4th, 1889; was granted the rank of Lieutenant-Colonel, February 4th, 1897; and made Brigade-Surgeon-Lieutenant-Colonel, December 1st, 1898. The following is his war record: Afghan War, 1878-9: Battle of Charasiab, action on the heights of Kabul, defence of Sherpur cantonments, and march from Kabul to relief of Kandahar and battle of September 1st (mentioned in dispatches, medal with three clasps, bronze star). Egyptian expedition, 1882: Battle of Tel-el-Kebir (medal with clasp, and Khedive's bronze star). Burmese expedition, 1887-8 (medal with clasp). Operations on the North-West Frontier of India, 1897-8: Operations of the Mohmand Field and Tirah Expedition Forces (mentioned in dispatches, medal with two clasps). South African War, 1899-1900: In charge of General Hospital (mentioned in dispatches, C.M.G.). It will be remembered that Colonel Williamson has been placed in Senior Medical Charge in Somaliland.

Colonel W. Saunders, C.B., has been transferred from the Poona District to the Meerut and Bundelcund Districts, but will continue to officiate as Principal Medical Officer, Bombay Command, until relieved by Surgeon-General Gubbins.

SECOND LIFE GUARDS.

Surgeon-Captain J. H. Power, from Royal Horse Guards, to be Surgeon-Major, October 21st. He joined the service as Surgeon-Lieutenant, January 28th, 1897, and was made Captain, January 28th, 1900. He was attached to the Royal Horse Guards in 1901, and confirmed as Medical Officer to that Regiment, October 15th, 1902.

INDIAN MEDICAL SERVICE.

Captain G. J. G. Young, M.B., is appointed to officiate as Personal Assistant to the Principal Medical Officer Bombay Command.

Surgeon-General Alfred James Dale died at 27, Rosary Gardens, South Kensington, on November 24th, 1903, aged 73. He was appointed Assistant-Surgeon on the Bengal Establishment, October 20th, 1853; and became Surgeon-General, July 23rd, 1886, in which year he retired from the service. He was in the Afghan war in 1879, and had the medal for that campaign.

Surgeon-Major Hamilton De Tatham, M.D., late Bombay Establishment, died on November 25th, aged 59. His first commission bore date April 1st, 1867; that of Surgeon-Major, April 1st, 1879. He retired in 1888. He served in the Abyssinian war in 1867-8, receiving a medal.

The undermentioned Majors are promoted to be Lieutenant-Colonels:—*Bengal:* J. J. Pratt, R. Shore, M.D.; *Madras:* W. B. Bannerman, M.D., H. Thomson, M.B.; *Bombay:* C. J. Sarkies, M.B. Their first commissions date from September 29th, 1883. Lieutenant-Colonel Pratt served with the Zhob Valley Expedition in 1884; Lieutenant-Colonel Bannerman in the Burmese Campaign in 1885-9 (medal with two clasps); Lieutenant-Colonel Thomson with the Burmese Expedition in 1886-7 (medal with two clasps); Lieutenant-Colonel Sarkies in Burmah in 1887-9 (medal with two clasps), and in the Tirah campaign in 1897-8 (medal with two clasps).

Lieutenant-Colonel H. A. F. Nailer, M.B., Madras Establishment, has retired from the service from October 20th, 1903. He was appointed Assistant-Surgeon, March 31st, 1877, and became Surgeon-Lieutenant-Colonel, March 31st, 1897.

Lieutenant-Colonel W. K. Hatch, M.B., F.R.C.S., Bombay Establishment, has also retired, from November 15th, 1903. He joined as Assistant-Surgeon, March 31st, 1877, and was made Brigade-Surgeon-Lieutenant-Colonel, March 31st, 1897. He was in the Afghan war in 1880, receiving a medal.

The retirement from the service of Lieutenant-Colonel D. F. Barry, M.D., Bengal Establishment, which has been already announced in the British Medical Journal, has received the approval of the King.

Captain J. E. Robinson, Bombay, is permitted to resign the service from November 1st. He joined as Surgeon-Lieutenant, January 28th, 1899, and was promoted to be Captain, January 28th, 1902.

Colonel Arthur Mudge Branfoot, C.I.E., late of the Madras Establishment, has been appointed President of the Medical Board at the India Office, upon the retirement, which will shortly take place, of Surgeon-General Sir W. R. Hooper, K.C.S.I.

Captain J. E. Robinson has resigned his commission from November 1st, 1903. His first appointment bore date January 28th, 1899; his commission as Captain, January 28th, 1902.

Deputy Surgeon-General John Henry Sylvester, late of the Bombay Establishment, died in London on December 29th, 1903, aged 73. He joined as Assistant Surgeon, December 4th, 1853, and retired from the service March 24th, 1875. He served in Persia with the 14th Light Dragoons, and during the Mutiny with the same regiment in the Deccan, Malwa, Nerbudda, and Central India, and with Beatson's Horse in Bundelcund and Rajputana. He had the medal for Persia with clasps for Umbeyla and Central India.

THE INDIAN MEDICAL SERVICE AND THE MONTHLY ARMY LIST.

Surgeon-General George Evatt (Retd.) writes: I suggest that the Indian Medical Service List, now wrongly printed in the list of departments of the army in the Monthly Army List, be removed from that list and placed with the "Indian Army" section of the Army List. The Indian Medical Service is a military organization forming part of the Indian army, and its list is wrongly placed amongst the departments of the English Army.

RETIREMENT ON PENSION AFTER TWENTY YEARS' SERVICE.

Enquirer asks whether a Major R.A.M.C. who fails to pass one examination for promotion to lieutenant-colonel "is in consequence deprived of the pound-a-day pension after completion of twenty years' service and given a gratuity instead"?

*** We are surprised at the question, because its answer ought to be within the knowledge of all officers of the R.A.M.C. It was one of the points most strongly insisted on by the Parliamentary Bills Committee of the British Medical Association in criticizing the recommendations of Mr. Brodrick's Committee, that retirement on pension after twenty

years must be definitely secured with or without examination, and it was secured. If our correspondent will compare Articles 556 and 557 of the Royal Warrant of March 24th, 1902, he will there find the conditions under which a Major R.A.M.C. retires after twenty years' service on pension and not on gratuity.

THE LATE FLEET SURGEON KIRKER, R.N.

MR. G. H. MAKINS, C.B., F.R.C.S., writes: In the sympathetic notices of the late Fleet Surgeon Gilbert Kirker no mention seems to have been made of that officer's work on the effects of the modern rifle bullet of small bore. Dr. Kirker's observations were communicated by the late Professor Longmore to the Section of Military Medicine and Surgery of the International Medical Congress of 1881, and have since lain buried in the ponderous volumes of the *Transactions* of that meeting (*Transactions* of the International Medical Congress, 1881, vol. ii, p. 578). A careful study of his paper, entitled a Comparison of the Cylindro-conoidal and Round Bullet Wounds, would have rendered many of us less free in the expression of surprise at the results of the modern bullet wound as observed in the late war. The late Dr. Kirker, I know, felt that his work had scarcely obtained the recognition it deserved, and it seems only right, that although late, attention should be drawn to his pioneer work in this direction.

MEDICO-LEGAL AND MEDICO-ETHICAL.

MEDICAL TESTIMONIALS IN TRADE ADVERTISEMENTS.

WE have had brought under our notice two cases of trade advertisements containing testimonials which purport to be given by members of the medical profession occupying positions of some distinction, but in each case we failed to trace the signatories. The first is a testimonial in favour of Kutnow's Powder from an "eminent physician," signed "W. R. Jones, M.D., Professor of Medical Chemistry and Toxicology, University College." This would be naturally assumed to be University College, London, but as no such person existed on the staff the advertiser was asked for an explanation, which is that the University College referred to is the University College of Virginia, U.S.A.! The second case is an advertisement of "McNair's Famous Chouthea Powders," an Indian preparation for malaria, the virtues of which are attested by "A. B. Griffiths, Major, A.M.S." We have been unable to trace this person, and it has been pointed out to us that at the time the Army Medical Staff was so described the title was Surgeon-Major for officers holding major's rank. There may have been a Surgeon-Major A. B. Griffiths who was the author of the testimonial. These cases illustrate the difficulties met with in the course of attempts to put a stop to this abuse.

MEDICAL MISSIONARIES AND PRIVATE PRACTICE.

SCRUTATOR returns to the charge, but adds no arguments to those already considered. The position in brief is that in a large city of Turkish Arabia there is a residency surgeon who is a member of the Indian Medical Service, and who of course receives the pay of his rank and appointment; there is also in the same city a medical missionary belonging to the Church Missionary Society who is paid a salary to work gratuitously among the poor. Each of these gentlemen, in addition to the work for which they are paid, undertakes private practice amongst the well-to-do natives, the money so earned being in the case of the residency surgeon his private perquisite, whereas in that of the medical missionary it is paid into a fund out of which the mission is supported, any surplus being accumulated towards the object of building a hospital for the poor of the city.

Our correspondent is the residency surgeon, and complains of the medical missionary being allowed to compete with him in private practice, and charges the Church Missionary Society with (1) making use of the funds of its subscribers in order to compete with him, and (2) making a profit out of the mission.

It seems plain that if the Society makes a profit it cannot be using its subscribers' funds, so that these charges are mutually destructive. We cannot see that the reasons urged against an officer of the Church Missionary Society being engaged in private practice do not hold good equally against the residency surgeon, and could be advanced with some force by a practitioner who was trying to make a living without any official salary to help him. It cannot be argued that what is right for the salaried residency surgeon is wrong for the salaried medical missionary, nor are the uses to which the Church Missionary Society intends to put the money such as in themselves constitute reasons why we should object. Further we are informed that some of Scrutator's predecessors have declined to take private practice; under those circumstances the medical missionary has been the only available European doctor in the city. It is too much to expect the Society to order its medical missionary to accept practice only on the condition that the residency surgeon declines it. We have given careful consideration to the facts laid before us and cannot pursue this matter further.

MEDICAL ETIQUETTE.

R. D. M.—A., B., and C. are medical practitioners. X. is a patient. A. is called in to attend X. B. is called in in consultation with A., and advises removal of X. to hospital for immediate operation. A. sends X.'s friends with a note for C., who is one of the honorary surgeons to the hospital, asking him if X. could be admitted under him, or, if not, that he would be present at the operation, and, in fact, assume responsibility for it. C. explains that this cannot be done, as he is not surgeon for the week, but that if he sees X. in consultation with A. before his admission to hospital he can then take X. under his care. This is done, and C. operates. Some days after leaving hospital X. calls to see C. at his residence. C. tells him he would prefer him to place himself under A.'s care, examines the site of the wound, applies fresh bandage, and makes no charge. He hears nothing more about X. for seven months, when X. again comes to see him for trouble arising out of the operation wound. C. again tells him that he would much prefer him to consult A. X. replies that he had only been under A.'s care on that one occasion, and that he thought he ought to be allowed to consult what doctor he wished. What ought C. to do under the circumstances?

*** It seems reasonable that C. should advise about the wound, but, as he saw the case originally in consultation with A., we think he should refuse to accept X. as his own patient.

SEASIDE.—We see no reason why, under the circumstances, B. should not continue in attendance upon C.; he was not bound to inform A. of the fact of his attendance; A. is not called upon to do anything, but if he meets C. he should talk the matter over with him in a friendly way without suggesting that he has any right to complain of C.'s conduct.

R. D. M.—A. is on the staff of the local hospital. X. is admitted under him with a simple fracture, and goes out in a few weeks with his leg in plaster. A few days after his discharge A. is sent for by X.'s friends, at whose house he is staying, to attend him for an attack of influenza. A. explains to them that X., as an infirmary out-patient, is entitled to be visited by one of the house-surgeons free of charge. The friends, however, prefer that A. should attend him, and undertake to see that he is paid for his services. Was it right for A. to attend X., or should he have inquired from X. who were his previous medical attendants, and advised him to send for one of them?

*** A. was free to attend X. He was not bound to make any inquiries about his previous medical attendant.

ADVERTISEMENTS IN THE LAY PRESS.

NEWFOUNDLAND.—The custom of advertising a so-called "card," is, as our correspondent says, recognized as a not unprofessional proceeding on the part of a newcomer in many of the British colonies. In our opinion such matters should be regulated by local professional opinion and if any change is deemed desirable the question should be raised in the local Branch of the British Medical Association

OUT-PATIENT PAPERS.

DUBITANS writes enclosing an out-patient prescription paper and complains of it as "a specious kind of advertisement for the gentleman whose name is printed in such bold type on the two sides of the form." The paper is one intended to be folded in two and contains on the outside in addition to the name of the physician, some directions to the patient as to his time of attendance. We can quite agree with our correspondent that the printing of the names of the members of the staff of a hospital upon the out-patient prescription papers should be regarded as improper, or as fairly laying them open to the charge of advertising.

PARTNERSHIP INTRODUCTION.

Z. D. expresses dissatisfaction at an opinion expressed in our columns that it is the duty of a medical practitioner to introduce an incoming partner to all his patients, so far as necessary for the welfare of the firm. He thinks he should be introduced to all without reserve.

*** Such a rule might have its drawbacks. A nervous patient might imagine that the introduction of a partner was the prelude to the loss of his or her old doctor. In a good class practice such introductions should certainly be made with discrimination, and the senior partner would be by far the better judge as to how and when they should take place. If the incoming partner has no reason to doubt the bona fides of his senior such a matter can be of little importance, while if he has reason to imagine the converse his interests might suffer just as much were the latter compelled to introduce him without reserve.

TWO INSURANCE REPORTS AND ONE FEE.

ALPHA forwards details of a dispute which he has had with an insurance company, and asks for an opinion thereon. He is not the ordinary medical examiner of the company, but had two report forms handed to him by the proposer. These he filled up after completing his examination, and forwarded them to the company. It would appear, though it is not definitely so stated, that the reports were required in connexion with two distinct and separate proposals to the same company. Alpha expected therefore to receive two fees, but the company only sent a guinea, and refused to pay for the second report on the ground that the two reports only covered one examination. Alpha claims that as both reports were required by the company and were of value to it, both should be paid for, because if they were regarded as identical in value, a simple transcript by a clerk would have sufficed.

*** Inasmuch as by signing two reports for different sums of money the medical examiner gave two separate pieces of advice and incurred a double responsibility, he is certainly entitled to a double fee; whether one examination or two was required is beside the question, for the benefit to the company is double and the responsibility on the examiner is double. Upon a future occasion it would be well to have a distinct agreement.

MEDICAL FEES.

F. E. A. C.—Our correspondent's charge seems reasonable, and under the circumstances the Society is no doubt responsible through its agent.

INDIA AND THE COLONIES.

FEDERATED MALAY STATES.

Campaign against Mosquitoes.—In a pamphlet entitled "An account of antimalarial work carried out with success in Selangor, one of the Federated States of the Malay Peninsula," Dr. Travers, the State surgeon of Selangor, gives an account of some interesting experiments. Two towns, Klang and Port Swettenham, notably malavious, were selected and measures of a sanitary nature were adopted to extirpate the mosquitoes which frequented these areas. The results of these operations, as the figures given show, were eminently satisfactory; for example, the admissions into hospital from Klang town during the months of October, November, and December, 1901, were 116, whereas after the campaign, in the corresponding months of 1902, they were only 11. Similarly in Port

Swettenham, in 1901, they were 136, while in 1902 there were 15. The cost for the work, which was mostly of a permanent nature, came to a little over £4,000, a small sum when the great reduction in malaria and the consequent decrease of hospital expenses is taken into account.

UNIVERSITIES AND COLLEGES.

UNIVERSITY OF CAMBRIDGE.

Appointment.—Dr. Nestor Tirard, Professor of Medicine in King's College, London, has been appointed Examiner in Pharmacology for the Third M.B. Examination.

Degrees.—At the congregation on December 17th the following degrees were conferred: *M.C.:* C. E. Marriott, Clare. *M.B.:* G. B. Norman, St. John's; G. E. Loveday, Caius.

The following have passed the Second Examination for Medical and Surgical Degrees as undernoted:

Human Anatomy and Physiology.—J. B. Banister, B.A., Jes.; F. A. Barker, B.A., Emm.; R. L. Barwick, B.A., Christ's; T. R. H. Blake, B.A., Pemb.; L. B. Cane, King's; S. P. Chan, Cai.; S. Churchill, B.A., Trin.; H. N. Coleman, Christ's; H. B. Corry, B.A., Cai.; R. Crawford, Jes.; W. F. Denning, B.A., Trin.; A. W. C. Drake, B.A., Pemb.; A. C. J. Elwin, Corp. Chr.; E. G. Fearnsides, Trin.; N. M. Fergusson, Magd.: W. J. Fison, Sid. Suss.: R. L. Gamlen, B A., Cai.; B. C. Ghosh, M.A., Joh.; G. W. Goodhart, B.A., Trin.; G. Graham, Trin.; G. F. Greenwood, B.A., Sid. Suss.; F. W. W. Griffin, B.A., King's; H. S. Hall, B.A., Pemb.; R. A. Hill, Cai.; E. B. Hinde, B.A., Emm.; W. H. Hodgson, B.A., Christ's; R. S. Jenkins, B.A., Joh.; A. R. Jordan, Cla.; R. B. Lloyd, B.A., Emm.; R. G. Markham. Cai.; J. H. B. Martin, B.A., Emm.; D. C. Master, B.A., Cai.; J. B, Mennell, B.A., Pemb.; E. V. Oulton, B.A., Christ's; D. G. Pearson, B.A., Pemb.; R. C. Priest, Cai.; R. L. Rawlinson, B.A., Trin.; E. F. Skinner, Corp. Chr.; A. C. H. Suhr, B.A., Cai.; W. H. R. Sutton, B.A., Down.; B. S. Taylor, M.A., Cla.; C. B. Ticehurst, B.A., Joh.; C. Tylor, B.A., Cai.; K. M. Walker, Cai.; S. L. Walker, B.A., Sid. Suss.; B. Wallis, B.A., Trin.; H. P. Weaver, B.A., Trin.; H. B. Weir, B.A., Trin.; C. E. Whitehead, Cai.; F. P. Young, B.A., Christ's; R. F. Young, B.A., Christ's.

UNIVERSITY OF LONDON.

Recognition of Teachers.

DR. HENRY RUSSELL ANDREWS has been recognized as a teacher of obstetric medicine at the London Hospital Medical College, Mr. Stanley Boyd as a teacher of surgery, Mr. A. C. Latham, Mr. J. J. Perkins, and Dr. H. Batty Shaw as teachers of medicine at the Hospital for Consumption and Diseases of the Chest, and Dr. W. H. B. Stoddart as a teacher of medicine at the Bethlem Royal Hospital.

Physiological Laboratory.

Dr. A. D. Waller, F.R.S., has been appointed Director, and Dr. T. L. Mears Honorary Treasurer. of the physiological laboratory for 1904.

Eight lectures on the physiology of immunization will be given by Dr. A. E. Wright on Mondays, beginning on January 18th, at 5 p.m.; and a course of eight lectures on the functions of the stomach and intestines by Mr. J. S. Edkins on Thursdays, beginning on January 21st, at 5 p.m.

B.Sc. Degree of Research.

Among the candidates admitted to the degree of B.Sc. by research was Frederick Wood Jones, of the London Hospital College, who presented a thesis on the development and musculature of the visceral openings of the hind end, with an explanation of some of their commoner abnormalities.

Brown Animal Sanatory Institution.

A legacy left by Mrs. Pappacalo has reverted to the institution, the funds of which benefit to the amount of £661 1s. 8d. A revised scheme for the management of the institution was approved and the Committee for 1903-4 appointed. The nature of the scheme is not disclosed.

M.B. Honours.

The following candidates have passed the M.B. Examination for Honours as undernoted:

Medicine.—First Class: C. N. Sears (Gold Medal), St. Thomas's Hospital; A. R. Short, B.Sc. (Scholarship and Gold Medal), University Colleges, London and Bristol. Second Class: W. F. Annand, University College; C. W. Chaplin, London Hospital; E. E. Maples, St. Bartholomew's Hospital; O. T. Williams, B.Sc., University College and Royal Infirmary, Liverpool. Third Class: W. Appleyard, University College; Olive Muriel Elgood, London (Royal Free Hospital) School of Medicine for Women; A. M. H. Gray, University College; J. J. S. Lucas, B.A., University College and Bristol Royal Infirmary; N. I. Spriggs, Guy's Hospital; G. T. Wrench, Guy's Hospital.

Obstetric Medicine.—First Class: W. Appleyard (Scholarship and Gold Medal), University College; Helen Chambers, London (Royal Free Hospital) School of Medicine for Women; C. W. Chaplin (Gold Medal), London Hospital; W. C. Macaulay, B.A., Middlesex Hospital; A. R. Short, B.Sc., University Colleges, London and Bristol. Second Class: W. F. Annand, University College; A. M. H. Gray, University College; G. Hall, University College and Durham College of Science; A. C. A. Van Buren, St. Bartholomew's Hospital. Third Class: W. P. Gowland, Owens College and Manchester Royal Infirmary; Catherine Mary Ironside, London (Royal Free Hospital) School of Medicine for Women.

Forensic Medicine.—First Class: Helen Chambers (Gold Medal), London (Royal Free Hospital) School of Medicine for Women; C. W. Chaplin (Scholarship and Gold Medal), London Hospital. Second Class; N. S. Finzi, University College; A. F. Hayden, St. Mary's Hospital; W. C. Macaulay, B.A., Middlesex Hospital; A C. A. Van Buren, St. Bartholomew's Hospital; G. T. Wrench, Guy's Hospital. Third Class: W. A. Brend, B.Sc., King's College; D. Gray, Charing Cross Hospital; W. O. Greenwood, Yorkshire College and Leeds General Infirmary; S. M. Hebblethwaite, St. Bartholomew's Hospital; J. J. S. Lucas, B.A., University College and Bristol Royal Infirmary; E. E. Maples, St. Bartholomew's Hospital; N. I. Spriggs, Guy's Hospital; A. M. Webber, Guy's Hospital.

[N.B.—The foregoing list, published for the convenience of candidates, is provisional only, and is not final until the reports of the Examiners shall have been confirmed by the Senate.]

B.S Examination.

The following candidates have passed the B.S. Examination as undernoted:

First Division.—W. F. Annand, University College; E. Bayley, Charing Cross and London Hospitals; Mary Cecilia Bell, London (Royal Free Hospital) School of Medicine for Women; P. M. Heath, University College; Elizabeth Hill, London (Royal Free Hospital) School of Medicine for Women; J. F. Jennings, St. Bartholomew's Hospital; H. McD. Parrott, Guy's Hospital; M. H. Phillips, London Hospital and University College, Bristol; C. H. Robertson, Guy's Hospital; C. N. Sears, St. Thomas's Hospital; H. Watts, Guy's and St. George's Hospitals; A. M. Webber, Guy's Hospital; G. T. Wrench, Guy's Hospital.

Second Division.—A. L. Badcock, Charing Cross Hospital; Annie Thompson Barnard, London (Royal Free Hospital) School of Medicine for Women; E. A. Bell, King's College; J. Broadley, Yorkshire College; J. Burfield, St. Bartholomew's Hospital; E. R. Carling, Westminster Hospital; L. E. Dickson, St. Barthlomew's Hospital; R. V. Dolbey, London Hospital; Mary Gertrude Edis, London (Royal Free Hospital) School of Medicine for Women; Olive Muriel Elgood, London (Royal Free Hospital) School of Medicine for Women; J. Evans, Guy's Hospital; B. G. Fiddian, Charing Cross Hospital; Bessie Marion Gilford, London (Royal Free Hospital) School of Medicine for Women; W. P. Gowland, Victoria University; W. O. Greenwood, Yorkshire College; S. Hastings, Middlesex Hospital; T. Holmes, Guy's Hospital; Annie Elizabeth Hooper, London (Royal Free Hospital) School of Medicine for Women; G. S. Hughes, Middlesex Hospital; Jessie Lamb, London (Royal Free Hospital) School of Medicine for Women; R. C. Leaning, St. Mary's Hospital; G. Lewin, Guy's Hospital; H. A. Lyth, University College; E. H. B. Milsom, Guy's Hospital; C. S. Parker, University College; Agnes Agatha Parson, London (Royal Free Hospital) School of Medicine for Women; C. W. Rowntree, Middlesex Hospital; A. R. Short, B.Sc., St. Bartholomew's Hospital and University College, Bristol; Enid Marian Smith, London (Royal Free Hospital) School of Medicine for Women; N. I. Spriggs, Guy's Hospital; W. C. Swayne, M.D., Guy's Hospital and University College, Bristol; Mary Townsend, London (Royal Free Hospital) School of Medicine for Women; A. C. A. Van Buren, St. Bartholomew's Hospital; J. H. Watson, London Hospital; H. V. Wenham, St. Bartholomew's Hospital; E. C. Williams, St. Bartholomew's Hospital and University College and Southern Hospital, Liverpool; G. E. O. Williams, University College.

This list, published for the convenience of candidates, is issued subject to its approval by the Senate.

LONDON SCHOOL OF TROPICAL MEDICINE.

OF the students of the London School of Tropical Medicine who presented themselves for the examination at the end of October-December, Session 1903, the following have passed: Dr. A. E. Horn (Colonial Service), Dr. A. H. Barclay (Foreign Office), Major Wilson, R.A.M.C., M.B., etc., Dr. W. J. Radford (Foreign Office), Dr. D. Cowin (Colonial Service), Dr. J. E. Mitchell, Dr. S. G. Ranaday, Dr. C. H. Allan (Colonial Service), Dr. J. T. Cartaya, Dr. F. A. Baldwin (Colonial Service), Dr. T. F. G. Mayer (Colonial Service), Dr. F. C. Sutherland, Dr. Guy Ruata. The first four candidates on the list passed with distinction.

UNIVERSITY OF DUBLIN.

AT the Winter Commencements, in Michaelmas Term, held on Friday, December 18th, 1903, the following Degrees in Medicine, Surgery, and Midwifery were conferred:

Baccalaurei in Medicinâ, in Chirurgiâ, et in Arte Obstetriciâ.—W. Boxwell, T. J. P. Crean, T. H. Gibbon (*stip. cond.*), R. H. Lee, H. R. Nelson, P. S. Stewart, H. Stokes, S. H. Vickery, F. F. C. Willington.

Doctores in Medicinâ.—W. J. T. Buchanan, T. W. Crowley, T. H. Gibbon, R. E. Halahan, G. M. Holmes, A. L. Hoops (*stip. cond.*), H. C. MacQuaide, H. R. Nelson, H. M. D. Townshend, A. J. M'Nally (*in absentiâ*).

TRINITY COLLEGE, DUBLIN.

THE following candidates have passed the Examination for the Diploma in Public Health as undernoted:

Part I.—J. H. Brunskill, J. T. Bouchier-Hayes, J. W. H. Houghton.

Part II.—J. H. Brunskill, J. T. Bouchier-Hayes, W. F. Erskine, J. W. H. Houghton, J. H. Douglass.

ROYAL COLLEGE OF SURGEONS OF ENGLAND.

THE following gentlemen have passed the First Professional Examination for the Diploma of Fellow:

O. L. Addison, M.B.Lond., M.R.C.S.Eng., L.R.C.P.Lond., University College Hospital and King's College, London; J. A. Andrews, M.R.C.S.Eng., L.R.C.P.Lond., M.B., B.C.Camb., Cambridge University and Guy's Hospital; J. B. Ball, G. N. Bartlett, T. H. Barton, and G. Cockcroft, Guy's Hospital; R. T. Baillie, M.B., Ch.B.Edin., Edinburgh University; A. S. B. Bankart, B.A.Camb., Cambridge University, King's College, and Guy's Hospital; R. Davies-Colley, B.A.Camb., Cambridge University and Guy's Hospital; A. Dinnis, Charing Cross Hospital; B. T. J. Glover, Liverpool University; P. L. Guiseppi, St. Bartholomew's Hospital; W. Hackney, M.R.C.S. Eng., L.R.C.P.Lond., M.D.Toronto, Toronto University and King's College, London; A. H. Hart, M.R.C.S.Eng., L.R.C.P.Lond., M.S. and M.D.Durh., Durham University and London Hospital; J. W. Heslop, M.R.C.S.Eng., L.R.C.P.Lond., M.B. and B.S.Durh., Durham University; M. L. Hine, Middlesex Hospital; A. C. Hudson, M.A., M.B., B.C.Camb., Cambridge University and St. Thomas's Hospital; T. B. Layton, Guy's Hospital; J. E. McDougall, M.R.C.S.Eng., M.B.Vict., D.P.H.Camb., Liverpool University; G. P. Mills, Birmingham University; J. E. R. McDonagh, R. F. Moore, B.A.Camb., A. H. Pinder and S. S. Rendall, St. Bartholomew's Hospital; G. C. F. Robinson, Guy's Hospital; H. C. Samuel, King's College, London; C. H. Smith and C. O. Stallybrass, Liverpool University; C. E. Tangye, B.A.Lond., Birmingham University; W. Welchman, B.A.Cape of Good Hope, Guy's Hospital; H. B. White house, St. Thomas's Hospital; C. Yorke, Liverpool University.

Ninety-six gentlemen presented themselves for this examination, of whom thirty-two passed and sixty-four were referred.

The following gentlemen having passed the necessary Examinations

and conformed to the By-laws and Regulations have been admitted "Fellows" of the College:

J. G. O. H. Lane, M.B., B.S.Durh., L.R.C.P.Lond., Guy's and St. Thomas's Hospital and Durham University; J. W. Myler, L.R.C.P.Lond., M.D.Brux., Middlesex Hospital; T. H. Molesworth, B.A., M.B., B.C.Camb., L.R.C.P.Lond., Cambridge University and St. Bartholomew's Hospital; F. E. Taylor, M.A., M.B., B.Ch.Vict., L.R.C.P.Lond., Yorkshire College and General Infirmary, Leeds, and King's College Hospital; F. A. Rose, M.A., M.B., B.C.Camb., L.R.C.P.Lond., Cambridge University and St. Bartholomew's Hospital; B. H. Slater, B.A., M.B.Camb., L.R.C.P.Lond., Cambridge University and Middlesex Hospital; G. G. Turner, M.B., B.S.Durh., L.R.C.P.Lond., Durham University; H. E. Brown, L.R.C.P.Lond., Birmingham University; W. H. Maxwell, M.A., M.B.Camb., L.R.C.P.Lond., Cambridge University and London Hospital; J. F. Jennings, M.B.Lond., L.R.C.P.Lond., St. Bartholomew's Hospital; J. C. Marshall, M.B.Lond., L.R.C.P.Lond., St. Bartholomew's Hospital; M. H. Phillips, M.B.Lond., L.R.C.P.Lond., University College, Bristol, and London Hospital; C. S. Parker, M.B.Lond., L.R.C.P. (I.M.S.), University College Hospital; H. T. Dobble, L.R.C.P.Lond., St. Mary's Hospital; F. W. F. Ross, M.D., C.M.Edin, L.R.C.P.Lond., D.P.H.Eng., Edinburgh University and Middlesex Hospital; G. Coates, M.D., Ch.B.Glas., Glasgow University and St. Bartholomew's Hospital; C. A. B. Horsford, M.D., Ch.B.Edin., Edinburgh University and St. Bartholomew's Hospital; W. C. Wilson, M.B., Ch.B.Edin., Edinburgh University and St. Bartholomew's Hospital; D. S. Wylie, M.B., Ch.B.Vict., Owens College, Victoria University, and King's College Hospital.

Sixty-four gentlemen presented themselves for this examination, twenty-two of whom passed (including three gentlemen not yet entitled to their Diplomas), and forty-two were referred, nine for one year and thirty-three for six months.

PUBLIC HEALTH
AND
POOR-LAW MEDICAL SERVICES.

HEALTH OF ENGLISH TOWNS.

IN seventy-six of the largest English towns, including London, 8,581 births and 5,159 deaths were registered during the week ending December 19th. The annual rate of mortality was 17.8 per 1,000, against 17.6, 18.6, and 19.2 per 1,000 in the three preceding weeks. The rates in the several towns ranged from 8.2 in King's Norton, 9.0 in East Ham, 9.1 in Bournemouth, 9.7 in Barrow-in-Furness, 10.3 in Grimsby, 10.6 in Hornsey, and 11.1 in Burton-on-Trent to 23.1 in Hanley, 23.2 in Walsall, 23.5 in Wigan, 23.6 in Warrington, 24.0 in Swansea, 24.1 in Stockton-on-Tees, 24.4 in Gateshead, 34.5 in York, and 36.0 in Preston. In London the rate of mortality was 16.8 per 1,000, while it averaged 18.3 per 1,000 in the seventy-five other large towns. The mean death-rate from the principal infectious diseases was 1.5 per 1,000; in London this death-rate was equal to 1.3 per 1,000, while in the seventy-five other large towns it ranged upwards to 3.4 in Wigan, 4.1 in Willesden, 4.5 in Bury, 5.2 in York, 5.5 in Warrington and in Rotherham, 6.3 in Gateshead, and 13.7 in Preston. Measles caused a death-rate of 1.1 in West Ham, 1.3 in Aston Manor, 1.5 in Ipswich, 2.0 in York, 3.1 in Warrington, 3.6 in Bury, 3.7 in Willesden, 4.6 in Rotherham, and 10.5 in Preston; whooping-cough of 1.1 in Wolverhampton, 1.2 in Walsall, 1.5 in Merthyr Tydfil, 1.6 in Warrington and in Swansea, 1.7 in Wigan, 1.8 in Rochdale, 1.9 in Liverpool, 2.6 in York, and 3.2 in Gateshead; and diarrhoea of 1.2 in Walsall, 1.4 in Gateshead, 1.5 in Merthyr Tydfil, 1.7 in Rhondda, and 1.8 in Preston. The mortality from scarlet fever, from diphtheria, and from "fever" showed no marked excess in any of the large towns. Two fatal cases of small-pox were registered in Gateshead and one in Warrington, but not one in any other of the seventy-six large towns. The Metropolitan Asylums Hospitals contained 26 small-pox patients on Saturday, December 19th, against 40, 35, and 32 on the three preceding Saturdays; 6 new cases were admitted during the week, against 5, 3, and 2 in the three preceding weeks. The number of scarlet fever patients in these hospitals and in the London Fever Hospital, which had been 1,770, 1,715, and 1,717 at the end of the three preceding weeks, had further declined to 1,654 at the end of the week under notice; 188 new cases were admitted during that week, against 157, 161, and 173 in the three preceding weeks.

During the week ending Saturday last, December 26th, 6,251 births and 4,464 deaths were registered in seventy-six of the largest English towns. The annual rate of mortality in these towns, which had been 18.6, 19.2, and 17.8 per 1,000 in the three preceding weeks, further declined last week to 15.4 per 1,000. The lowest death-rates among these towns were 7.1 in Barrow-in-Furness, 7.3 in Leyton, 7.6 in East Ham, 7.8 in Walthamstow, 7.9 in Hastings, 8.0 in Hornsey, 8.9 in Smethwick, and 9.0 in Tottenham and in Reading; the highest rates were 21.1 in Great Yarmouth, 21.5 in Bradford, 22.6 in Merthyr Tydfil, 23.4 in Stockport, 24.1 in Stockton-on-Tees, 24.6 in Preston, 26.7 in Warrington, 29.4 in Wigan, and 30.6 in York. In London the rate of mortality was 13.6 per 1,000, while it averaged 16.3 in the seventy-five other large towns. The death-rate from the principal infectious diseases averaged 1.3 in the seventy-six large towns; in London this death-rate was equal to 1.2 per 1,000, while it ranged upwards in the seventy-five other large towns to 3.1 in West Bromwich, 3.8 in Swansea, 4.1 in Willesden, 5.1 in Gateshead, 4.6 in Rotherham, 6.3 in Warrington, and 10.5 in Preston. Measles caused a death-rate of 1.2 in Leeds, 1.6 in Warrington, 2.1 in Sunderland, 3.0 in Great Yarmouth, 3.1 in West Bromwich, 3.3 in Willesden, 3.6 in Rotherham, and 9.1 in Preston; diphtheria of 1.6 in Hanley; and whooping-cough of 1.5 in Leyton, 1.6 in Liverpool, 2.0 in Stockton-on-Tees, 2.4 in Warrington, 2.5 in Wigan, 2.7 in Swansea, and 3.6 in Gateshead. The mortality from scarlet fever, from "fever," and from diarrhoea showed no marked excess in any of the large towns. Three deaths from small-pox were registered in Warrington, one in London, and one in Tynemouth, but not one in any other of the seventy-six large towns. The number of small-pox cases remaining under treatment in the Metropolitan Asylums Hospitals, which had been 35, 32, and 26 at the end of the three preceding weeks, had risen again to 27 at the end of last week; 7 new cases were admitted during the week, against 3, 2 and 6 in the three preceding weeks. The number of scarlet fever patients in these hospitals and in the London Fever Hospital on Saturday, December 26th, was 1,617, against 1,715, 1,717, and 1,654 on the three preceding Saturdays; 142 new cases were admitted during the week, against 161, 173, and 188 in the three preceding weeks.

HEALTH OF SCOTCH TOWNS.

DURING the week ending December 19th, 1,001 births and 686 deaths were registered in eight of the principal Scotch towns. The annual rate of mortality in these towns, which had been 18.7, 20.0, and 22.4 per 1,000 in the three preceding weeks, declined again to 21.0 per 1,000 during the week under notice, but was 3.2 per 1,000 above the mean rate during the same period in the seventy-six large English towns. The rates in the eight Scotch towns ranged from 13.7 in Leith and 15.8 in Greenock, to 23.2 in Perth and 23.3 in Paisley. The death-rate from the principal infectious diseases in these towns averaged 1.9 per 1,000, the highest rates being recorded in Glasgow and Aberdeen. The 346 deaths registered in Glasgow included 2 which were referred to small-pox, 30 to measles, 2 to scarlet fever, 4 to whooping-cough, 2 to "fever," and 10 to diarrhoea. Two fatal cases of measles and 2 of diphtheria were recorded in Edinburgh, and 3 of whooping-cough in Aberdeen.

During the week ending Saturday last, December 26th, 814 births and 680 deaths were registered in the eight Scotch towns. The annual rate of mortality in these towns last week was 20.8 per 1,000, or 5.4 per 1,000 in excess of the mean rate during the same period in the seventy-six large English towns. Among these Scotch towns the death-rates ranged from 12.0 in Paisley and 13.7 in Leith to 23.3 in Greenock and 24.9 in Dundee. The death-rate from the principal infectious diseases in these towns averaged 2.3 per 1,000, the highest rates being recorded in Glasgow and Perth. The 350 deaths registered in Glasgow included 4 from small-pox, 23 from measles, 2 from scarlet fever, 2 from diphtheria, 8 from whooping-cough, 2 from "fever," and 10 from diarrhoea. Five fatal cases of whooping-cough occurred in Aberdeen and 2 in Edinburgh. Two deaths from diphtheria occurred in Dundee.

HEALTH OF IRISH TOWNS.

DURING the week ending Saturday, December 19th, 465 births and 454 deaths were registered in six of the principal Irish towns, against 502 births and 388 deaths in the preceding period. The mean annual death-rate of these towns, which had been 15.3, 24.3, and 19.9 per 1,000 during the three preceding weeks, rose abruptly to 27.5 in the week under notice, this figure being 9.7 per 1,000 above the mean annual rate in the seventy-six English towns during the corresponding period. The death-rates from the principal zymotic diseases during the same period averaged 1.1 per 1,000, the highest point, 2.5, being reached in Belfast, while Waterford registered no deaths under this heading at all. During the following week, ending Saturday, December 26th, only 348 births and 348 deaths were registered in the same six towns, while the mean annual death-rate underwent a sudden decline to 15.6 per 1,000, and thus fell to only 0.2 above the mean of the seventy-six English towns during the same period instead of nearly 10 per 1,000 above it. The death-rate from zymotic diseases in the same towns also dropped to 0.8 per 1,000, the highest rate, 3.2, being reached in Belfast, while Londonderry, Limerick, and Waterford registered under this heading no deaths at all. The heavy rate in Belfast was due to whooping-cough, which was also the principal cause of death from zymotic disease during the fortnight in all the towns.

SORE THROAT AND MILK.

THE Local Government Board has issued a report by Dr. L. W. Darra Mair on an outbreak of illness which occurred at Lincoln in May, 1902. The persons affected were mostly adults, and exhibited similar symptoms—sickness, sore throat, fever, and sometimes a rash. Nearly all the affected households were supplied with milk from one dairy. The local practitioners, whilst agreeing that a particular milk supply was responsible for the outbreak, held different opinions as to whether the disease was or was not scarlatina. Dr. Mair had no opportunity of seeing any of the patients in the initial stage of the disease. He did not see the rash, nor could he observe the earlier characteristics of the throat and tongue. Most of the patients he saw were desquamating, and in many of these the nature of the desquamation appeared to him to be typical of scarlatina. But on making inquiries as to the general course of the disease from the practitioners who attended the cases, Dr. Mair found that many symptoms present were unlike those of scarlatina.

He has arrived at the conclusion that "the Lincoln epidemic was not only quite distinct from scarlet fever, but was in fact a special disease." Some of the points of distinction on which he lays stress are its frequent occurrence in old people, the rarity of albuminuria, the fall of temperature at the appearance of the eruption, the absence of "strawberry" tongue, and the rarity of vomiting. He also mentions that Dr. Samuel Gee saw one of the cases in consultation, and expressed the opinion that it was not scarlatina. Dr. Mair finds further corroboration of his views in the bacteriological investigations of the disease conducted by Drs. Klein and Gordon, of which a preliminary account has already been issued. From none of the seventeen swabbings of throats examined by these authorities was there streptococcus scarlatinae obtained; but in three cases an interesting yeast was isolated which proved pathogenic to animals, and the suggestion is raised that this may have been the specific organism. But as we are told that Dr. Klein has not yet concluded his investigations of the yeast in question, it would be premature to discuss at present the value of this hypothesis.

WATERCRESS AND ENTERIC FEVER.

DR. A. T. WOOLDRIDGE (Camberley) writes: I am glad to see that the Public Health Committee of the London County Council is causing inquiries to be made by the Medical Officer of Health with regard to the condition of watercress beds in the County of London, and that the inquiries are to be extended to sources outside the county from which watercress is supplied to London if it is found practicable to do so. I have for some time past been growing more and more suspicious of the succulent watercress as a carrier of typhoid germs, and have on several occasions, while passing some large "beds" in the train, seen what appeared to be garden privies at the ends of cottage gardens abutting on these "beds." Unfortunately I have not had time to visit the spot and verify my suspicions, as it is some miles off, but I intend doing so shortly. Surely it is high time something was done to remedy this state of affairs, and the county medical officers of health should have such danger spots closely inspected, so that country dwellers may be protected as well as their brethren in London.

MEDICAL OFFICERS IN THE HIGHLANDS AND ISLANDS OF SCOTLAND.

Dr. Alexander Murchison, Parish Medical Officer, Uig, Skye, writes us concerning difficulties he has experienced in connexion with the granting of medical certificates to school boards. The school board of Uig apparently declined to accept certificates granted by Dr Murchison, and prosecuted the parents because their children had not attended school. A letter appeared in the *Northern Chronicle*, Inverness, on February 25th, signed "Clach Ard," to certain statements in which Dr. Murchison objected; as no apology was forthcoming he raised an action in the Sheriff's Court for defamation, but before the case came on for proof the following apology from the writer of the letter was received:

Apology.

Wester Daldowie, Broomhouse,
November 13th, 1903.

To Dr. Alex. Murchison, Uig, Skye,

Dear Sir,—With reference to the letter published in the *Northern Chronicle* under date February 23rd, 1903, under the name of "Clach Ard," I beg to acknowledge that I was the writer thereof, and at the time it was written I was principal clerk in the office of the Kilmuir estate in Skye, and resided at Uig.

I beg to express my regret for having written the letter in question, and I apologize therefor, and acknowledge that I was under a misapprehension as to the facts mentioned in my letter. In particular, I acknowledge that I have been mistaken when I stated that the sheriff said "that it was disgraceful that any public official should discharge his duties in such an irregular manner," or words to that effect.

The letter in the *Northern Chronicle* was written by me hastily, and without due consideration, and I regret if you have thereby been injured in your practice or wounded in your feelings.

I agree to the publication of this letter in the *Northern Chronicle*, and in any other way which you may think proper.

Yours faithfully,

(Signed) Willoughby M. Dunn.

The recently-formed Medical Union of Scotland acted for Dr. Murchison.

*** We congratulate Dr. Murchison on his success. At the same time the case is an example of the difficulties and annoyances to which medical practitioners in the Highlands of Scotland are subjected, and is an additional proof that applicants for such appointments should make every inquiry before accepting office.

MAGISTERIAL ACTION IN REFERENCE TO LUNATICS.

Lex.—(1) We should consider it very undesirable for a medical man acting in his capacity as magistrate to call in his own partner to certify a lunatic residing in the district of another medical man, except in the case of extreme urgency. (2) It is contrary to the provisions of the Lunacy Act, 1890, for two partners to certify the lunacy of the same patient for detention under the Act. It is not contrary to the Act for the acting magistrate and the certifying medical practitioner to be partners. (3) We can only suggest that the matter should be brought to the notice of the local Division of the British Medical Association.

POOR-LAW MIDWIFERY IN SCOTLAND.

Beta states that he attended a pauper patient during her confinement (posthumous), and claimed a special fee from the Inspector of Poor, which was disallowed on the ground that such service was covered by his salary. He states that any information he can obtain from Rules and Regulations for Attendance upon Poor-law Patients is embraced under the headings of Medical and Surgical Practice. He does not think it was ever intended to include midwifery under the heading of Medical Practice to Poor-law Patients, but wishes information on the subject.

*** We understand that under the Poor-law (Scotland) Act, the parish medical officer has to give his services under all circumstances to paupers, and that no special fees are given for attendance on cases of midwifery unless there is a special arrangement in the agreement with the parish council. If there is no special arrangement, and the inspector of poor was to pay a special fee, the auditor would surcharge it. Thus it entirely depends on the arrangement "Beta" has made whether he is entitled to a fee or not.

MEDICAL CERTIFICATES BY DISTRICT MEDICAL OFFICERS.

Beta writes as follows: A labouring man, who is a member of a benefit society which has no medical officers, falls ill, and then obtains from the relieving officer an order for medical attendance. Is the district medical officer bound to supply gratuitously a certificate to enable the patient to draw sick pay from his society?

*** By Article 205, No. 3, of the Consolidated Order of the Local Government Board, dated July 24th, 1847, it would appear to be the duty of the district medical officer to give the certificate required in this case.

MEDICAL NEWS.

The *Deutsche medicinische Presse* published a *Festnummer* on December 11th, 1903, in honour of Professor Robert Koch who on that day celebrated his sixtieth birthday.

Mr. William Henry Fretz, Principal Medical Officer and Health Officer, has been appointed an Official Member of the Legislative Council of the Residency of St. Christopher and Nevis.

A discussion upon Sophistication of Foods will be introduced by Dr. J. Spottiswoode Cameron at the meeting of the Society of Medical Officers of Health to be held at 9, Adelphi Terrace, Strand, at 8 p.m. on Friday, January 8th. The meeting is open to public analysts and others interested in the question.

The spring term of lectures at the Samaritan Free Hospital will commence on January 7th, when Mr. Alban Doran will give a lecture on Abdominal Tumours and Swellings in Women. The lectures are given on Thursdays at 3 p.m. and are free to medical practitioners.

Dr. Arthur Newsholme will deliver the inaugural address in connexion with the post-graduate lectures and demonstrations at the Mount Vernon Hospital for Consumption and Diseases of the Chest at 7, Fitzroy Square, on Thursday, January 7th, at 5 p.m. The subject of Dr. Newsholme's address will be Public Preventive Measures against Tuberculosis in relation to the Medical Practitioner.

Presentation.—Dr. and Mrs. Geoghegan, who left Mickleton last year, have been presented with a handsome silver sugar bowl and cream jug and a testimonial "with Christmas greetings and all good wishes for their future happiness and prosperity from the undersigned friends and children of Mickleton, Christmas, 1903."

Sir Charles Nicholson, M.D., LL.D., D.C.L., J.P., who recently died at his residence, The Grange, Totteridge, Herts, at the age of 95, left estate of the gross value of £87,810, including net personalty valued at £73,808. Sir Charles was a member of the first Legislative Council of New South Wales (1844), and three times Speaker of that assembly (1845-56).

Remuneration of Medical Witnesses in Australia.—In response to the representations of the Council of the New South Wales Branch of the British Medical Association, the following amended scale of fees payable to medical witnesses came into force on November 1st: For giving evidence, one guinea for each case (maximum per diem, two guineas); for attendance at court, one guinea for each day actually and necessarily away from his practice.

Craig Colony Prize.—The "Craig Colony Prize" of 200 dollars (£40) is offered for the best essay on the etiology, pathology, and treatment of epilepsy. The following conditions must be complied with: The paper must show original work; its subject-matter must not have been previously published; the manuscript must be in English, and must be in the hands of Dr. Frederick Peterson, 4, West 50th Street, New York, before September 30th, 1904. The manuscript must be accompanied by a sealed envelope enclosing the name and address of the writer, and bearing on its outside a device or motto corresponding to the device or motto on the manuscript.

Increased Longevity in the United States.—At the International Congress of Insurance Actuaries recently held in New York, Mr. John K. Gore, of Newark, New Jersey, presented statistics showing that during the last five years of the nineteenth century there had been a very perceptible decrease in the mortality rate. From 1870 to 1874, the period including the fatal small-pox epidemic of 1872, there was an increase in the death-rate of every age group but one. From 1880 to 1884 the rate was relatively high, owing to the great prevalence and wide distribution of diphtheria, scarlet fever, and measles. The influenza epidemic of 1891 caused an augmented death-rate from 1890 to 1894. As to causes, it was stated that there had been a remarkable decrease in the death-rate from phthsis, and a slight decrease from typhoid fever in the northern countries. In a discussion on the subject there was practical unanimity as to the fact of the increase in longevity. Among the factors contributing thereto were mentioned the advance in medicine and surgery, the growth of hospitals, and the better care of the poor and suffering, and the more enlightened treatment of sick and weakly children.

MEDICAL VACANCIES.

This list of vacancies is compiled from our advertisement columns, where full particulars will be found. To ensure notice in this column advertisements must be received not later than the first post on Wednesday morning.

BOURNEMOUTH: ROYAL VICTORIA HOSPITAL.—House-Surgeon; resident. Salary, £100 per annum.

BRIGHTON: SUSSEX COUNTY HOSPITAL.—Third House Surgeon; resident. Salary, £60 per annum.

CAMBERWELL: PARISH OF ST GILES. Assistant Medical Superintendent of the Infirmary; resident. Salary, £130, increasing to £160 per annum.

CITY OF LONDON LYING-IN HOSPITAL, City Road, E.C.—Surgeon Accoucheur. Salary, £100 per annum and fees.

HULL ROYAL INFIRMARY.—Fourth House-Surgeon; resident. Salary, £50 per annum.

LANARK COUNTY.—Resident Physician for the Middle Ward Isolation Hospital. Salary commencing £140 per annum.

LEEDS: YORKSHIRE COLLEGE.—Junior Demonstrator of Pathology. Salary, £120 per annum.

MANCHESTER: ANCOATS HOSPITAL.—Resident House-Surgeon. Salary, £100 per annum.

METROPOLITAN HOSPITAL, Kingsland Road, N.E.—Surgeon.
NORTH-EASTERN HOSPITAL FOR WOMEN, Hackney Road, E.—(1) Surgeon. (2) Medical Officer in charge of Electrical Department; salary, £50 per annum. (3) Pathologist and Bacteriologist: salary, £50 per annum.
ST. MARK'S HOSPITAL FOR FISTULA, City Road, E.C.—(1) Honorary Surgeon; (2) Honorary Assistant Surgeon.
ST. MARY'S HOSPITAL MEDICAL SCHOOL, Paddington, W.—Demonstrator of Physiology. Salary, £150 per annum.
SAMARITAN FREE HOSPITAL FOR WOMEN, Marylebone Road, N.W.—Clinical Assistants.
STOCKPORT INFIRMARY.—Junior Assistant House Surgeon; resident. Salary at the rate of £60 per annum.
TIVERTON INFIRMARY AND DISPENSARY.—House-Surgeon and Dispenser. Salary, £8 per annum.
UNIVERSITY OF LONDON.—Two Examiners each in Medicine, Surgery, and Pathology, and one each in Materia Medica and Pharmaceutical Chemistry, and Mental Diseases.
WESTERN GENERAL DISPENSARY, Marylebone Road, N.W.—Honorary Surgeon.
WOLVERHAMPTON EYE INFIRMARY.—House-Surgeon; resident. Salary, £70 per annum.

MEDICAL APPOINTMENTS.

BLAYNEY, J. H., L.F.P.S.Glasg., Certifying Factory Surgeon for the Middleton District, Lancashire.
BOYD, A. J., B.A., M.D.Dub., Honorary Assistant Medical Officer Hertford General Infirmary.
CROSSE, R. E., M.R.C.S.Eng., L.R.C.P.Lond., Medical Officer and Public Vaccinator of the Milford and Lauditch Union Workhouse.
FOLKER, H. H., M.R.C.S., L.R.C.P., Certifying Factory Surgeon for the Hanley District, Staffordshire
GARRUIT, R., L.R.C.P. & S.Edin., Medical Officer for the Wolsingham District of the Weardale Union.
ISHERWOOD, F., L.R.C.P. & S.Edin., L.F.P.S.Glas., Certifying Factory Surgeon for the Cockermouth District, Cumberland.
MCNABB, H. Horsman, M.D., Assistant Honorary Surgeon to the Manchester Eye Hospital.
STANLEY, John Douglas, M.D.Edin., M.R.C.P.Lond., Honorary Physician to the Birmingham Children's Hospital, *vice* Dr. A. E. Clark, resigned.
TURNER, H. N., M.B., Certifying Factory Surgeon for the Castle Bytham District, Lincolnshire.
WADE, Henry, M.B., F.R.C.S.Edin., Conservator of the Museum of the Royal College of Surgeons, Edinburgh.
WALKER, J. D., M.B., C.M.Aberd., Certifying Factory Surgeon for the Shaftesbury District, Dorsetshire.
WATSON, C. Gordon, F.R.C.S.Eng., Assistant Surgeon to the Metropolitan Hospital.
WILLIAMS, S. R., M.R.C.S., L.R.C.P., Clinical Assistant to the Chelsea Hospital for Women.
WILLIAMSON, H. H., M.R.C.S., L.S.A., Certifying Factory Surgeon for the Ludgershall District, Wiltshire.

DIARY FOR NEXT WEEK.

TUESDAY.

Pathological Society of London, 20, Hanover Square, W., 8.30 p.m.—Drs. Poynton and Shaw: The Staphylococcus Aureus and Rheumatic Fever. Dr. H. M. Stewart and Dr. F. Buzzard: Dermoid Tumours of Brain. Dr. Drysdale: Racemose Aneurysm of Brain. Messrs. H. L. Barnard and H. M. Rigby: Pulsating Exophthalmos with Aneurysms of the Internal Carotid.

WEDNESDAY.

Obstetrical Society of London, 20, Hanover Square, W., 8 p.m.—Specimens will be shown by Dr. R. Hamilton Bell and Mr. J. D. Malcolm. Communications: —Dr. Victor Bonney: Pyometra in One Half of a Septate Uterus. Dr. A. W. W. Lea: Abscess of the Uterus. Paper:—Dr. Herbert R. Spencer: Fibromyoma of the Intra-abdominal Portion of the Round Ligament of the Uterus.

THURSDAY.

Roentgen Society, 20, Hanover Square, W., 8.30 p.m.—Dr. G. B. Batten: On the Revelations of Radium.

FRIDAY.

Incorporated Society of Medical Officers of Health, 9, Adelphi Terrace, Strand, W.C., 7.30 p.m.—Dr. J. Spottiswoode Cameron: Sophistication of Foods.
Clinical Society of London, 20, Hanover Square, W., 8.30 p.m.—Sir Dyce Duckworth and Professor Howard Marsh: A case of Pneumococcal Peritonitis. Dr. Frederick Taylor: A case of Pneumococcal Peritonitis. Dr. Sidney Phillips: A case of Fibroid Disease of the Pancreas with Calculi, accompanied by Jaundice and subsequently by Diabetes: Laparotomy: Relief of Symptoms: Death.

POST-GRADUATE COURSES AND LECTURES.

Charing Cross Hospital, Thursday, 4 p.m.—Demonstration of Medical Cases.
London Temperance Hospital, Hampstead Road, N.W., Wednesday, 4 p.m.—Lecture on Gastric Ulcer.
Medical Graduates' College and Polyclinic, 22, Chenies Street, W.C.—Demonstrations will be given at 4 p.m. as follows: Tuesday, Medical; Wednesday, Surgical; Thursday, Surgical, Friday, Eye.
Samaritan Free Hospital for Women, Marylebone Road, N.W., Thursday, 3 p.m.—Lecture on Abdominal Tumours and Swellings in Women.

BIRTHS, MARRIAGES, AND DEATHS.

The charge for inserting announcements of Births, Marriages, and Deaths is 3s. 6d., which sum should be forwarded in post-office orders or stamps with the notice not later than Wednesday morning, in order to ensure insertion in the current issue.

BIRTHS.

ANDERSON.—On December 26th, 1903, at Newholme, Pitlochrie, Perthshire, the wife of John Anderson, M.B., C.M.Edin., of a son.
LE RICHE.—On Wednesday, December 23rd, 1903, the wife of Philip J. Le Riche, M.R.C.S.Eng., L.R.C.P.Lond., L.S.A., of Wennington House, Marine Parade, Worthing, of a son.
MURRAY.—On December 27th, 1903, at 2, Chevening Road, Kensal Rise, W., the wife of Robert Galway Murray, M.R.C.S., L.R.C.P., D.P.H., of a daughter.
NEWSOME.—On December 26th, 1903, to Dr. and Mrs. H. Newsome, Pill, near Bristol, a daughter.
PENFOLD.—On December 24th, 1903, at 21, Kingsley Road, Mutley, Plymouth, the wife of Staff-Surgeon E. A. Penfold, M.B., R.N., H.M.S. "Aurora," of a son.
SAW.—On December 24th, 1903, at 13, Granada Road, Southsea, the wife of Major F. A. Saw, R.A.M.C., of a son.

MARRIAGE.

BELMONT—SMART.—At North Morningside United Free Church, Edinburgh, on December 23rd, 1903, by the Rev. David W. Forrest, D.D., assisted by the Rev. Alexander Moir, D.D., Ministers of the Church, and the Rev. Robert Oswald, B.D., St. Stephen's Parish Church, Perth, Edward Parr Armour, M.A., M.B., C.M., to Elizabeth Gray, only daughter of John Smart, Solicitor in the Supreme Courts of Scotland, 1, Greenhill Place, Edinburgh.

DEATHS.

CLAPTON.—On December 27th, 1903, at 41, Eltham Road, Lee, S.E., Mary, wife of Edward Clapton, M.D., F.R.C.P., aged 63.
O'FARRELL.—On December 16th, 1903, at 44, Waterloo Road, Dublin, Maria, the dearly-beloved wife of Surgeon-General O'Farrell. R.I.P.

LETTERS, NOTES, AND ANSWERS TO CORRESPONDENTS.

COMMUNICATIONS respecting Editorial matters should be addressed to the Editor, 2, Agar Street, Strand, W.C., London; those concerning business matters, advertisements, non-delivery of the JOURNAL, etc., should be addressed to the Manager, at the Office, 429, Strand, W.C., London.

ORIGINAL ARTICLES and LETTERS *forwarded for publication are understood to be offered to the* BRITISH MEDICAL JOURNAL *alone, unless the contrary be stated.*

AUTHORS desiring reprints of their articles published in the BRITISH MEDICAL JOURNAL are requested to communicate with the Manager, 429, Strand, W.C., on receipt of proof.

CORRESPONDENTS who wish notice to be taken of their communications should authenticate them with their names—of course not necessarily for publication.

CORRESPONDENTS not answered are requested to look at the Notices to Correspondents of the following week.

MANUSCRIPTS FORWARDED TO THE OFFICE OF THIS JOURNAL CANNOT UNDER ANY CIRCUMSTANCES BE RETURNED.

IN order to avoid delay, it is particularly requested that ALL letters on the editorial business of the JOURNAL be addressed to the Editor at the Office of the JOURNAL, and not at his private house.

TELEGRAPHIC ADDRESS.—The telegraphic address of the EDITOR of the BRITISH MEDICAL JOURNAL is *Aetiology, London.* The telegraphic address of the MANAGER of the BRITISH MEDICAL JOURNAL is *Articulate, London.*

☞ *Queries, answers, and communications relating to subjects to which special departments of the* BRITISH MEDICAL JOURNAL *are devoted will be found under their respective headings.*

QUERIES.

TREATMENT OF BILIARY FISTULA.

FISTULA has a case of biliary fistula, and would be glad of any suggestions for treatment. The wound, which is now very small, admits a probe; and the discharge, which is somewhat mucoid, is not at all free. Some months back it healed up for a fortnight. The patient's general health is good. She refuses further operation.

HISTOLOGY OF BONE.

B.M.A. asks: (1) Have nerve fibrils been found in the Haversian canals of compact bone? (2) Are Volkmann's canals the only canals which open on the exterior of long bones by piercing the periosteal lamellae: or do Haversian canals of Haversian systems also open upon the exterior, in addition to Volkmann's canals?

*** (1) Nerve fibrils have been demonstrated in bone by Kölliker, Rémy, and Variot. (2) Volkmann's canals are not the only canals which open on the exterior of long bones; Haversian canals also open on the surface.

COCAINE IN POST-PARTUM HAEMORRHAGE.

DR. C. FOX (Caerphilly) writes: On November 30th I was called suddenly to a case of *post-partum* haemorrhage. On entering the room I could see at a glance the patient was in an exceedingly grave condition. Uterus on examination, flaccid; haemorrhage profuse, the countenance portraying approaching death. Having no ergotine, I bethought me of a solution of cocaine hydrochlorate I happened to have in my bag. I immediately injected a quantity equal to $1\frac{1}{2}$ gr., and in the course of two minutes at most was gratified by seeing a total change in the aspect of affairs. The uterus had contracted, the haemorrhage had ceased, and the facial expression completely altered. The patient then spoke in her usual voice and said she felt "quite well." She made an uninterrupted recovery. I should be very glad to hear if any of your numerous readers ever tried cocaine in a similar case, I have not heard of it being so used, though I have often inquired. To me the effect was marvellous.

THE MIDWIVES ACT.

M. O. H. asks for information as to the scale of fees which should be paid by the local supervising authority under Section VIII of the Midwives Act, 1902, to a medical officer of health, whose appointment is not whole time, instructed to carry out Rule 20, Section E, of the Rules of the Central Midwives Board, when that officer does not hold a full-time appointment.

*** So far as we are aware no such scale has yet been published. The duties of the local supervising authorities will vary with the population or area of the county or county borough, and the medical officers of health will be entitled to remuneration for the extra duties imposed upon them, and also to expenses for help in carrying out the rules made under the Act. The county councils are responsible for the payment of local expenses, and these must include the fees due to medical officers of health and their assistants.

ANSWERS.

H. E. is recommended to consult an ophthalmic surgeon.

R. W.—We have referred our correspondent's question to Mr. S. G. Shattock, F.R.C.S., who writes: The original and fullest description of the plant disease known as "fingers and toes" is by Woronin, published in Pringsheim's *Jahrb.*, vol. xi, 1878; the article is fully illustrated with figures of the *Plasmodiophora Brassicae.* A concise account of the disease will be found in *A Textbook of Plant Diseases*, by George Massee, published by Duckworth and Co., London. For a copy of the work *Das Gewebe und die Ursache der Krebsgeschwülste*, 1903, our correspondent is advised to apply to Gustav Fischer, Jena.

J. D. M.—Probably one of the following works would suit our correspondent's needs: *Atlas of Diseases of the Skin*, by H. Radcliffe Crocker, M.D., F.R.C.P., in 16 fasciculi (London and Edinburgh: Young J. Pentland; 21s. each fasciculus); or, *A Pictorial Atlas of Skin Diseases and Syphilitic Affections*, edited and annotated by J. J. Pringle, M.B., F.R.C.P., in 12 parts (London: Rebman, Limited, 1895-7; 10s. 6d. each part); or the small *Atlas der Haut-Krankheiten*, von Dr. F. Mracek (Munich: J. F. Lehmann, 1899; M.14). An English edition of the last named has been published by Messrs. W. B. Saunders and Co. at 15s.

EMBRYOLOGY OF EYE AND EAR.

OCULIST.—A complete list of the literature of the development of the vertebrate ear and a summary of the present knowledge of the

subject is given in Oscar Hertwig's *Handbuch der vergleichenden und experimentellen Entwickelungslehre der Wirbeltiere.* Vierte und Fünfte Lieferung. Published by Gustav Fischer, Jena. The literature of the eye will be found in the lists published in the *Anatomischer Anzeiger.* Details of the earliest rudiments of the eye and ear in invertebrate animals, together with lists of literature on the subjects, are contained in Kerschelt and Heider's *Textbook of the Embryology of Invertebrates,* translated by M. Bernard and M. F. Woodward. (Swan Sonnenschein and Co.

NOTES, LETTERS, Etc.

An Appeal.

We have received the following appeal: Will you kindly allow us to appeal to the benevolent readers of the British Medical Journal for immediate help on behalf of the widow and five children of a doctor—who has just died—who, through illness, was for some years unable to support his family? Four of the children are now dependent on the widow, and one partially so. He was much respected in the country town in which, for 16 years, he practised, holding also Local Government appointments.

The wife has been—and still is—struggling to provide for herself and family, but financial support is absolutely necessary to render her efforts effective. The generosity of private friends has been severely taxed, and now there is no source of income whatever available. The delicate health of the widow and two of the children adds to the urgency of this appeal.

Any contributions will be gratefully received and acknowledged by Miss M. P. Durnford, Longparish, Hants, and Mrs. Stanley Dent, 115A. Sloane Street, S.W., from whom any further information can be obtained.

We are, Sir, your obedient Servants,

(Signed) J. Durnford, Rear-Admiral.
W. B. C. Deeble, Surgeon-Lieut.-Colonel.
R. W. Hoare, Vicar of St. Michael's, Croydon.
E. H. Winnington Ingram, Rector of Ross.
C. J. Vaughan, Courtfield, Ross.

"The Doctor," by Luke Fildes, R.A.

We are asked to warn possible purchasers against buying or in any way dealing with pirated copies of the picture called "The Doctor," by Luke Fildes, R.A., of which Messrs. Thos. Agnew and Sons, of 39B, Old Bond Street, publish an engraving. The picture has been extensively reproduced in America, and from time to time pirated copies have been imported into the United Kingdom either as engravings or for use as advertisements mainly in connexion with American chemical preparations. Large numbers of these copies have been seized, and injunctions obtained against the importers. Electrotypes of the picture have also been offered to printers and chemists in the United Kingdom by several American electrotype manufacturing firms. The importation, exhibition, or use of any of these unlawful copies or electrotypes constitutes a breach of the Copyright Acts, and the owners of the copyright feel compelled for their own protection to take proceedings against all persons whom they may find committing such breaches.

Hyoscine in Nervous Disorders.

Dr. Thomas Percival (Knottingley, Yorks.) writes: I was very much interested in Dr. Rose's communication in the British Medical Journal of December 19th, 1903, p. 1589, with regard to the use of hyoscine. In the January number of the *Practitioner* of 1873 there was inserted, "Abstract of Researches on the action of Hyoscyamine," by Dr. Oulmont, of Paris. He said in connexion with tremors, namely, nervous and convulsive diseases of obscure seat and nature: I have obtained improvement and even cure in cases where every other remedy had proved ineffective. He also quoted Dr. Charcot as having treated many patients with paralysis agitans with hyoscyamine, and obtained an improvement which he had vainly sought for by all known remedies. Hyoscyamine was recommended by Dr. Lawson, of the West Riding Asylum, in 1876, for violent cases of mania in doses of 1 gr. (Mercks). I have personally used it for that purpose and also for violent chorea, and found it a great success. It is a drug which deserves a greater amount of attention and systematic study as to its effects and action. Dr. Mitchell Bruce, of Charing Cross Hospital, some years ago reported favourably of its effects in mitigating the suffering in a case of hydrophobia, and I found it act in a similar way in a case at Sheffield.

Fire Insurance and its Deceptions.

Mr. W. H. Eady, M.A. (Enfield, London, N.), has sent us a circular with reference to fire insurance in which he states that the majority of those who insure their goods against fire are under the impression that in the event of their goods being destroyed they will receive the amount for which they have insured and for which they have paid premiums. In reality, however, this is very far from being the case, and the advertisements as to prompt and liberal settlement and "unconditional policy" are usually entirely misleading. A company, even though it may have been receiving premiums for years based upon the supposed value of the goods will, when it comes to paying after a fire, demand the most precise and detailed proof as to the value of every single article lost, and the insurer in short will not only have to prove that any given article was amongst those destroyed, but will have to show when and where he bought it and what he paid for it. When he has done his best at his own expense in this direction the company will assess his loss at whatever it pleases, and the assurer has no remedy except resort to arbitration before an arbitrator receiving about 20 guineas a day, whose verdict is final. The ultimate result therefore is that the insured in view of all the expense recovers very little indeed of what he has lost. This state of affairs arises because the majority of the companies have formed what is known as a tariff ring, and insert in their policies a clause by which the insurer contracts himself out of the protection of the law and thereby places himself entirely in the hands of the companies. Mr. Eady therefore urges that all those who insure against fire risks should refuse to deal with any company in whose policy this arbitration clause exists. He is ready to forward a pamphlet to any one who desires to make further inquiry into the matter and who communicates with him at the above address.

British Skulls.

The British Dental Association has appointed a committee—in connexion with the inquiry at present taking place as to the alleged physical degeneration of the British race—to investigate the question of the alleged increase of dental caries. With this object the Committee is anxious to examine British skulls and teeth of the last few centuries if possible. Early British skulls are to be found in museums and elsewhere in considerable abundance, but, with the exception of Professor Thane's collection of skulls from Whitechapel (? plague-pit) none have been examined of more recent date. The Honorary Secretary of the British Dental Association, 32, Leicester Square, W.C., would be grateful for any information concerning any such collection, if existent.

Deferred Climacteric.

Ormuz writes: I have seen a woman to-day whose catamenia appeared for the last time last March. The old family Bible showed the date of her birth as October 21st, 1845. Her last child is a daughter born October, 1887. She herself looks quite ten years younger than she is—58, and has borne six children. This record may interest some medical statistician.

A Gas Griller.

Mr. A. E. Harris requests us to state that in the large cooker, referred to last week, p. 1,645, eighty chops can be cooked in five minutes, and that he believes that by the superheating of the gas sulphuretted hydrogen and other impurities in it are destroyed.

Erratum.—In the annotation on the League of Mercy in the British Medical Journal of December 26th, 1903, p. 1658, col. 2, line 9, for "one-fifth" read "one-fiftieth."

LETTERS, COMMUNICATIONS, Etc., have been received from:
A Messrs. Allen and Hanburys, London; A. H. **B** Sir W. H. Broadbent Bart, K.C.V.O., London; Messrs. Burroughs, Wellcome, and Co., London; B.M.A.; Mr. H. N. Barnett, Belfast; Dr. A. T. Brand, Driffield; Mr. G. H. Broadbent, Manchester; Dr. G. T. Beatson, Glasgow. **C** Dr. G. Crichton, London; Mr. W. R. E. Coles, London: W. Christie, M.B, Aberdeen; Capetown Med co; Messrs. J. and A. Churchill, London; Dr. C. W. Chapman, London; G. Carter, M.B., Sheffield; T. F. S. Caverhill, M.B., Edinburgh. **D** J. S. Dick, M.B., Manchester; Messrs. Doulton and Co., London; Mr. G. W. Duncan, London; Dr. W. R. Dix, Wigan; Dr. T. Dutton, London. **E** Mr. A. Elliot-Blake, Bognor; Dr. J. M. Elder, Montreal. **F** Fistula; Mr. A. Flemming, Clifton; Mr. E. S. G. Fowler, Leeds; Mr. H. E. Futvoye, Halifax, N.S.; J. Fraser, M.B., Edinburgh; Frontier. **G** Mr. E. Green, Ludlow; Dr. W. Glegg, Birmingham: Gazette Publishing Co., Manager of, New York; Dr. J. Grimshaw, Birkenhead: Mrs. Gray, Newcastle, co. Down; Dr. A. V. Geoghegan, Wimbledon. **H** Messrs. W. Hughes and Co., London; Mr. E. Hoile, London; Mr. C. M. Heanley, London; Mr. W. A. Hudson, London; Dr. J. W. Hamill, Manchester Dr. W. Hartigan, London. **I** S. T. Irwin, M.B., Belfast. **J** Dr. G. Jubb, Glasgow. **K** Mr. W. G. King, London. **L** Liverpool Medical Institution, Secretary of, Liverpool; Dr. D. B. Lees, London; Dr. G. H. Lancashire, Manchester; F. H. Low, M.B., London. **M** Dr. C. M. MacRae, Sternoway; Dr. W. A. M'Lachlan, Dumbarton. **N** Newfoundland. **O** One of the Crushed Doctors; Oculist. **P** Mr. T. Percival, Knottingley; Mr. A. W. Power, Sunningdale; Mr. E. M. Pearse, Liskeard; Mr. F. E. Pirkis, Nutfield. **R** Reader; Mr. A. Roche, Dublin; Dr. J. Reid, London; Dr. A. Rosenau, Monte Carlo. **S** Dr. T. P. Stewart, Newport, Fife; Dr. D. W. Samways, Mentone; Dr. G. A. Sutherland, London; Mr. C. H. Souter, Balaklava, S. Australia; Spes: Dr. E. Smith, London; Dr. E. H. Snell, Coventry; Mr. J. A. Shawyer, Carlisle. **T** Trevor; Mr. J. Turton, Brighton. **W** Dr. H. Woods, London; J. Weir, M.B., Glasgow; Mr. G. W. Wight, Glasgow; Dr. T. J. Wood, Bradford; W. A. B.; Mr. C. Williams, London; Dr. F. Willcocks, London; W. D. G.; D. C. Watson, M.B., Edinburgh; Messrs. J. Walker and Co., London; Mr. A. T. Wooldridge, Camberley; Dr. E. F. Willoughby, London. **Y** Young Practitioner; etc.

BOOKS, Etc., RECEIVED.

Milk; Its Production and Uses By Edward F. Willoughby, M.D.Lond., D.P.H.Lond. and Camb. London: Charles Griffin and Co, Ltd. 1903. 6s.

The Jewel and its Casket: an Address by George Black, M.B Edin. Torquay: Published by the Author. 1903.

Nursing Handbook for Soldiers in India. By C. Frances Hill. Madras: M. E. Press. 1903 8 annas.

A Manual of Operative Surgery. By Sir Frederick Treves, Bart., K.C.V.O., C.B., LL.D., F.R.C.S. New edition revised by the Author and Jonathan Hutchinson, jun., F.R.C.S. In two volumes. London: Cassell and Co., Ltd. 1903. 42s.

The Sterilization of Urethral Instruments. By Herbert T. Herring, M.B., B.S. Durh., M.R.C.S. London: H. K. Lewis. 1903. 5s.

A Short Practice of Gynaecology. By Henry Jellett, B.A., M.D., B.Ch., B.A.O.Dublin, F.R.C.P.I., L.M. Second edition. London: J. and A. Churchill. 1903. 10s. 6d.

An Essay on the Irregularities of the Teeth. By J. Sim Wallace, D.Sc., M.D., L.D.S. London: The Dental Manufacturing Co., Ltd 1904 5s.

A Method for the Treatment of the Apparently Drowned. By R. L. Rowles, M.D., F.R.C.P. London: Baillière, Tindall, and Cox. 1904. 6d.

Beiträge zur experimentellen Therapie. Herausgegeben von Professor Dr. E. v. Behring Heft 7. I. Aetiologie und aetiologische Therapie des Tetanus. Von E. v. Behring. II Neue Mittheilungen über Rindertuberculosebekämpfung. Von Dr. Med Paul H Römer. Berlin: August Hirschwald. 1904. M. 12.

*** In forwarding books the publishers are requested to state the selling price.

SCALE OF CHARGES FOR ADVERTISEMENTS IN THE BRITISH MEDICAL JOURNAL.

Eight lines and under	£0	4	0
Each additional line	0	0	6
A whole column	2	0	0
A page	5	5	0

An average line contains six words.

Advertisements should be delivered, addressed to the Manager, at the Office, not later than first post on Wednesday morning preceding publication; and if not paid for at the time, should be accompanied by a reference.

Post-Office Orders should be made payable to the British Medical Association at the General Post-Office, London. Small amounts may be paid in postage-stamps.

N.B.—It is against the rules of the Post Office to receive letters at *Postes Restantes* addressed either in initials or numbers.

An Address
ON
PERATIVE AND EXPECTANT TREATMENT IN ECTOPIC PREGNANCY.

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OME interesting and instructive papers have recently peared the writers of which have taken trouble in com- ring the results of ectopic pregnancy treated on expectant inciples and treated by operation. But such a comparison pears to me not helpful in practice. There ought to be no estion of comparison. Each mode of treatment has its own ace. There are events in the course of ectopic pregnancy ich indicate operation, and there are also times at which pectant treatment is right. In this communication purpose to point out as definitely as I can when an opera- n ought to be done and when it ought not to be done for topic pregnancy.

Let us consider first the very earliest stage, before haemor- age has taken place. I am not sure that any case has been agnosed as tubal fetation before haemorrhage has taken ace. Mr. Rumley Dawson has published two cases[1] in which e diagnosis was made before the end of the first month, but e report does not state whether haemorrhage had taken ace or not. The diagnosis is so seldom made thus early, cause until haemorrhage has taken place either into the be or outside it there are no symptoms beyond the vague bjective symptoms which often announce to the patient t she is pregnant. Now and then, although there are no finite symptoms, something will cause anxiety and she y come for examination. Then if the examiner is skilful may perceive a slight enlargement of one tube, together h slight enlargement of the uterus. These physical signs, ether with the patient's belief that she has become gnant, will warrant a reasonable suspicion that there is ubal pregnancy.

What ought to be done? Undoubtedly, the proper treat- nt is removal of the pregnancy by abdominal section. ntrast the immense dangers that the patient incurs if the al pregnancy is left to take its course with the small risk he removal of a pregnant tube. The only consideration ch can cause any hesitation about operating in such cases the difficulty of the diagnosis. This difficulty is not ally in concluding that ectopic gestation is present, but is ier in being certain that there is anything at all the tter. No one likes to urge a serious operation on a patient o feels quite well, and whose physical signs are so slight t it is possible, were a second opinion asked for, that the geon consulted might in perfect good faith, and with every h to agree with his colleague, yet be unable to perceive disease. A pregnant Fallopian tube is not so firm as an amed Fallopian tube: and its detection by palpation is in sequence more difficult. For these reasons the removal of id tubes before rupture or haemorrhage is, and I think continue for long to be, one of the rarest surgical achieve- nts.

ake now the case a stage further. The pregnant tube has been removed; and the chorionic villi have perforated tube on its peritoneal aspect. The result is profuse ding into the peritoneal cavity. The doctor is hurriedly for. He finds the patient collapsed, blanched, with k, feeble pulse. Her mind is clear, her breathing is easy, there is no external bleeding, or, if any, its amount is small to account for the patient's prostration. On inquiry doctor finds that when menstruation was last expected ame not, and the patient suspected she was pregnant. h such signs and symptoms, and such a history, there can ttle doubt as to the probable diagnosis. Ruptured tubal ation is a far commoner cause of great intraperitoneal ding in a young woman than anything else; commoner han all the other causes put together.

hat should be done? At once open the abdomen, and remove ruptured tube. What objections can be raised to this se? It may be said that, if nothing is done, syncope will on, the bleeding may stop, and the patient get well out operation. It is true that the patient may get well out operation, but how many such cases do? Thirty s ago such cases were always treated without operation. The opinion of those who then practised is important evidence of the chances of recovery or death. Parry's estimate of the total mortality of ectopic pregnancy was about 68 per cent., and of this 53 per cent. he thought due to rupture. This does not give strong ground for trust in the resources of Nature. Further, if the bleeding stops, the patient is not always cured of her illness. The fetus may go on developing, and peril arise subsequently. I think, therefore, that the physician who in a case of internal haemorrhage advises the surgeon to do nothing assumes a very grave responsibility indeed.

It may be objected that the advice to operate is good when the patient is in a well-appointed hospital or in circumstances such that she can command the services of an experienced abdominal surgeon; but that when the patient must be operated upon in her own home, and the surgeon who has to operate is a general practitioner who only occasionally has surgery to do, he had better let the patient take her chance without an operation. If the practitioner's inexperience is such that he is not acquainted with antiseptics, I grant this. But with the younger generation of practitioners a knowledge of asepsis is, as it were, their surgical alphabet. The operation of removal of a perforated Fallopian tube is one of the simplest and easiest in surgery. The operator should open the abdomen in the middle line. Three inches is a long enough incision. Then he should put in two fingers and feel for the uterus. This is a body so large and firm and so different from everything else that is felt in the peritoneal cavity that there is no difficulty in its identification by touch. With the uterus as a guide the operator then traces outwards each Fallopian tube. He will find one of them enlarged, and, holding it between two fingers, can easily bring it up through the wound. The perforation will then be visible. The broad ligament should be transfixed and tied with two interlocking ligatures and the tube cut away. There is no need to remove the ovary. The inexperienced operator's confidence in himself will be strengthened if he remembers that the very fact of pregnancy implies that the pelvic peritoneum is practically healthy, for adhesions about the mouth of the tube almost of necessity produce sterility. As a matter of fact, in almost every operation for rupture of pregnant tubes—in all that I am acquainted with—the tubes were found free from adhesions.

Another objection, and one possibly operative in practice, is that the patient is so bad that she cannot stand the shock of an operation. If the patient is going to die the doctor naturally prefers she should die without his intervention rather than after it. But if the patient is dying from haemorrhage, the only way to get her out of the fatal collapse is to stop the haemorrhage. You cannot see through the abdominal wall whether the perforated tube has ceased to bleed or not. The only way to tell is to pick up the tube and look at it, and the only way of surely stopping the bleeding is to tie and remove the diseased tube. And however prostrate the patient may be, when the bleeding has been stopped there are means of reviving her—the introduction of water into the peritoneum, into the veins, or into the cellular tissue, which are most powerfully restorative when bleeding has been stopped but useless till then. It is as yet an open question whether it is necessary to remove clot from the peritoneal cavity. If the abdomen is not opened the blood is generally absorbed, and I have read of cases in which no attempt has been made to remove clot and the patient has done well Still it would seem the better practice, when a mass of clotted blood is lying in the peritoneal cavity, to remove it and so save the peritoneum the trouble of dealing with it and the bacterium coli the temptation of invading it. I think it has been the practice of most, as it has been mine, to leave the peritoneum as clean as possible within a short time and with a small amount of friction.

For the foregoing reasons I think that the right thing to do, even if the practitioner be not an experienced abdominal surgeon, in the case of great intraperitoneal bleeding in a young woman, is to open the abdomen without delay and stop the bleeding.

Intraperitoneal bleeding is happily a comparatively rare, though a formidable accident in the course of tubal pregnancy. It is much commoner for some chorionic villi to give way, and bleeding to take place into the chorion or into the tube. This effused blood very soon distends the tube, and the pressure then stops further bleeding. The blood clots, and we have the condition known as a "tubal mole." What happens next? I have no doubt that the majority of tubal moles are ab-

sorbed. I think so for this reason. Of late years, during which abdominal section has been freely done for tubal pregnancy, tubal moles have been found to be very common, much commoner than ruptured tubes. Thirty years ago, when operations were not done, tubal moles were never heard of. Now and then a tubal mole was seen, but they were not common enough for any one to take the trouble of comparing a number of them and describing the morbid process. But every museum contained specimens of ruptured tubes. The London Hospital museum contained several ruptured tubes put there by Dr. Letheby and Dr. Ramsbotham, but I was the first person to add to it a tubal mole. The only explanation I can see, why in pre-operative days tubal mole was so little heard of, was that they were nearly all absorbed.

When a tubal mole has been formed, the diagnosis is easier than it was at an earlier period. There are not only the subjective symptoms of pregnancy and the enlargement of the uterus, but there will have been pain, and very likely uterine haemorrhage from partial separation of the decidua. The tubal swelling will be larger and firmer, and clearly appreciable even to comparatively inexperienced fingers. What is to be done?

I have said that nearly all tubal moles are absorbed, but are they all absorbed? And if absorbed, are they absorbed without detriment to health or danger to life? Certainly not. The patient is in some danger of death and in considerable danger of a long illness. Perforation, with intraperitoneal bleeding, may yet take place. A pelvic haematocele may form. The tube may suppurate. On the other hand, the removal of a tube which contains a mole is as easy and as safe as the removal of a tube which does not contain a mole. The only difference between the removal of a ruptured tube and the removal of a tubal mole is that in the latter case the operation may wisely be postponed until every preparation has been made for operating under the most favourable circumstances. The danger of removing a tubal mole is far less than the danger of leaving it in the abdomen.

Suppose now that the tubal mole is not removed; that, as often happens, the patient does not consult her medical man until something else has happened. Generally further haemorrhage takes place, and the blood escapes from the fimbriated end of the tube. Or the tube may be perforated, but only a slight haemorrhage occur. In that case the blood irritates the peritoneum, and adhesions are formed among the bowels round it. Often further haemorrhage takes place, but the blood is then poured out into a space bounded by adhesions among the bowels, so that it cannot escape into the general peritoneal cavity, but remains in the pelvis and displaces the pelvic viscera. It generally fills Douglas's pouch, pushing the uterus forwards, and the bladder forwards and upwards. Its forward pressure may be so great as to cause retention of urine. Repeated haemorrhages occur, until the chorionic villi are so extensively damaged that the ovum dies. It may become completely detached, and expelled, presumably by contractions of the tube, out of the fimbriated end of the tube. When the ovum is dead haemorrhage ceases to occur, and in most cases the ovum and the effused blood are quickly absorbed. This is the common, but not the invariable, course. In most cases the blood clots, but in some it remains fluid for weeks, we know not why. Although some chorionic villi have been detached, and haemorrhage has taken place, yet the fetus may not die; it may go on growing in the peritoneal cavity. If so, as it grows chorionic villi will spread beyond the tube, and implant themselves on neighbouring abdominal viscera. If there should be a great haemorrhage, the limiting adhesions may be torn through and great haemorrhage into the peritoneal cavity take place. If the blood is not quickly absorbed, it may become invaded by microbes and suppuration take place. The tube may be perforated where it is in relation with the cellular tissue between the folds of the broad ligament, and blood be poured out into the cellular tissue of the pelvis underneath the peritoneum Considerable haemorrhage may occur here without the death of the fetus, which may develop to full term underneath the pelvic peritoneum. These are the possibilities that we have to consider in deciding how to treat a case of pelvic haematocele. Most of them end in absorption. In a few the events I have mentioned occur.

An encysted effusion of blood in the pelvis is not hard to recognize. If the blood is in Douglas's pouch it will push the uterus forwards and bulge down between the rectum and vagina. Felt from the rectum the swelling will be convex. It will at first be elastic and fluctuating afterwards, when the blood has clotted, firmer and irregular. The history will be of a sudden illness, marked by abdominal pain, pallor, and faintness, and preceded by the subjective symptoms of pregnancy. If the bleeding is into the cellular tissue it will surround the rectum, and the finger passed into the bowel will feel it like a half-ring. In the case of a large haematocele there is less difficulty in diagnosis than in a small one, for an inflammatory swelling of large size requires time for its production, and is accompanied with general symptoms of inflammation.

The diagnosis of pelvic haematocele having been made, what is to be done? We may with profit look back fifty years. When French surgeons first taught the medical profession to diagnose clinically collections of blood in the pelvis they thought it was the best practice to let out the blood. But at that time they had no knowledge of antisepsis. They let out the blood with dirty instruments held in dirty fingers, and in consequence some of the patients died from blood poisoning. Such experience made them more chary of interference; they learned to let the haematoceles alone, and found that nearly all of them in time disappeared, and that some were absorbed very quickly. The structure of the human body has not altered since then, and I think the surgeons of forty years ago could diagnose pelvic haematocele as accurately as we can to-day. The chief thing about the disease which they did not know was the frequency with which it depended upon tubal mole and tubal abortion. We may learn, then, from the practice of forty years ago, that if we leave a pelvic haematocele alone it will probably—indeed, almost certainly—be absorbed. Sometimes it will be absorbed very quickly.

But absorption is not certain, and often it is slow. It is not safe to predict recovery without telling the patient that she will be more or less of an invalid for months. There is generally in the early days of a pelvic haematocele a little fever, there is pelvic pain, weakness, some bladder and bowel irritation: and these discomforts, to use the mildest term, often persist for many weeks. When I have been called in consultation to a pelvic haematocele, and have advised expectant treatment, I have usually told the patient that she would be an invalid at least three months.

Is it not, therefore, better to shorten the course of the illness, and avoid possible ulterior risks, by early operation? In considering this question, we must remember, first, that absorption sometimes takes place quickly, and secondly, that the risks which I have mentioned are not immediate, nor, with the exception of secondary rupture, which is very rare, are they sudden. A delay of two or three weeks will do no harm; and if we counsel expectant treatment for that length of time we may at the end of it find the symptoms gone and the pelvic swelling very much smaller. No better result than this can be attained by operation. I think therefore that a pelvic haematocele is best treated in the first instance by expectant treatment, that is, rest in bed, gentle laxatives (for when there is pressure on the rectum scybala will give trouble), suitable diet, and careful watching. If at the end of a fortnight it is found that the swelling is no smaller, or has increased in size, then the question of operation must be considered. If although there is not distinct shrinking of the swelling yet the patient is free from pain and fever, and is in such circumstances that the active discharge of social duties is not required from her, expectant treatment may be continued longer. But if, in addition to the fact that the lump is no smaller, the patient has pain or fever, then recovery may be hastened and made more sure by operation.

If operation is decided upon, the question arises, What operation? There are two routes by which the collection of blood may be reached, the abdominal and the vaginal. If the uterus is much displaced, that is proof that the effusion is under pressure—that it is in a cavity bounded by adhesions, and shut off from the general peritoneal cavity. The blood, therefore, can be let out by an incision from the vagina without opening the general peritoneal cavity. This is not an unimportant advantage, for if the effused blood has been invaded by microbes its introduction to the peritoneal cavity may be disastrous. The only objection that I can see to operating by the vagina is that the diseased parts cannot be well seen by this route. But it is in most cases not necessary that they should be seen; what is wanted is to remove the blood and the tubal mole. When this is done through an abdominal incision the operator is in most cases guided by touch. The operator should make a free incision through Douglas's pouch. He

can scoop out the blood clot through such an opening as easily as from the abdomen. By bimanual manipulation he can perceive which tube is diseased. If a tubal mole is lying in or near the fimbriated end of the tube he can detach it and remove it as easily by the one route as the other. If as is the case with most haematoceles, the ovum is dead and the pregnancy has ceased to advance, there will be no bleeding of amount needing to be stopped. If the cavity is afterwards kept clean, recovery will be rapid.

There are two contingencies in which this method of treatment may be unsatisfactory. One is that of a case in which the pregnancy has not come to an end, but in spite of the formation of a haematocele the fetus is living, and the placental circulation active. In that case there will be haemorrhage, which may be difficult to stop. If so, the operator will be better able to deal with the bleeding from above than from below. Should the operator think it necessary for this reason to open the abdomen, the fact that the vagina has been opened first does not add any difficulty or danger to the abdominal incision.

The other contingency is that the diagnosis may have been wrong, or the case a complicated one; so that after emptying the fluid contents of the sac it is found that the pelvic swelling is not entirely removed; that there is not merely a collection of fluid, blood, serum, or pus in the pouch of Douglas, but something else as well. In that case, if the operator is not certain of what he is dealing with, it may be better to open the abdomen, but in this event the patient's prospect of recovery will be none the worse because a vaginal incision had previously been made.

The disadvantages of attacking an encysted intraperitoneal haematocele in the first instance by the abdomen are that the exposure of the bowels to chilling and contact causes greater shock. There is the risk to which I have already referred of infection of the peritoneum if the effused blood should have been invaded by microbes, and there is the remote possibility of the abdominal scar becoming the site of a ventral hernia. In short, therefore, I think the best treatment of a pelvic haematocele is first to give it a chance of being absorbed, and if it is not clear that this is taking place to open it by a vaginal incision.

The case may have to be treated after the formation of a haematocele, while the pregnancy is still going on, but before the fetal heart is audible; or, which is rare, the pregnancy may have reached the fourth month and the fetus be (from its point of view) growing normally without the formation of a haematocele. At this stage the diagnosis is so difficult that I think I do not go too far if I say that ascertainment of the exact state of affairs is not possible. If the swelling, which at its formation was thought to be a pelvic haematocele, goes on slowly and steadily increasing in size, the conclusion may be drawn that there is a living and growing pregnancy; but as fetal heart sounds cannot be heard, fetal parts distinguished or fetal movements felt, there can be no certainty. There may be certainty as to this, that if there is a growing swelling in the pelvis beside the uterus, the sooner it is removed the better. If the swelling is so large that its upper pole cannot be reached by the vagina it had better be attacked from the abdomen.

Consider now the case at a later stage. The patient has entered the second half of pregnancy, and the fetal heart is audible. Supposing the case is let alone, what will happen? The pregnancy will in all probability go to, or nearly to, full term. Then spurious labour will come on, and the child will die. Any untoward event in the second half of ectopic pregnancy is a very rare thing. The placenta has by this time spread beyond the tube. The child is developing either in the peritoneal cavity or in the cellular tissue underneath the peritoneum. If in the peritoneum, there is no reason why the placenta should get prematurely detached. The child is enclosed in its amnion, and does not irritate or infect the peritoneum. If under the peritoneum, the peritoneum gradually rises as the child grows; it is a strong, tough membrane that has no proclivity to rupture.

When full term has been reached, spurious labour, although it may be disagreeable, is not in any way dangerous. After spurious labour has occurred the child dies, and then the liquor amnii is usually absorbed, which makes the abdominal swelling smaller. Then after a time, usually about six months, suppuration begins. It may begin sooner, within six weeks, or it may be postponed later, for a year or two years, or it may never happen, and the patient may live to old age, with no other trouble than a lump of some size in her abdomen. But this is exceptional; suppuration is the rule. The point on which I lay stress is this—that, *from the end of the first half of an ectopic pregnancy until the beginning of suppuration the patient is practically in no danger*; fatal events during this period are excessively rare. There is therefore no urgent necessity for operation. The only reason that I can discover for urging immediate operation at this stage of the case is that ectopic pregnancy is an illness, and the earlier operation is done the shorter the illness.

The removal of an ectopic pregnancy during its second half while the child is alive is a very dangerous operation. Champneys, in 1887, collected the cases published up to that date and found that the mortality among them was 88.8 per cent. Whitridge Williams, in his excellent textbook on midwifery, gives the mortality as 31 per cent., and as operative technique has advanced since 1887, probably the mortality of cases operated on now would not reach the appalling figure of the cases before 1887. But a mortality of 31 per cent. is far too high to permit us to advise an operation for a patient who is in no immediate danger.

It may be said that, although the mortality has been high, yet surgical methods have been and will be so improved that a great reduction in this mortality may be taken for granted in the future; that the risk should not be greater than that of ovariotomy, hysterectomy, or Caesarean section. Is this likely? I think not, for there are special risks attending this operation which are not present in any other abdominal section. These risks arise from the presence of the placenta. While an extrauterine child is living, it is not possible, with our present means of diagnosis, to ascertain the site of the placenta, any more than we can determine the implantation of an intrauterine placenta. The placenta may be implanted on the anterior abdominal wall, and if so, the first incision will open placental sinuses, and be followed by great bleeding. In Caesarean section, if the placenta is implanted on the anterior uterine wall, the bleeding when it is divided is alarming. But after the child has been extracted it is quickly stopped, because the uterus contracts. In ectopic pregnancy the placental site has no contractile power, and there is no natural mechanism to stop bleeding when the placenta is divided or separated. If the placenta is not implanted on the anterior abdominal wall, the operator cannot see where it is until he has extracted the child; and it has often happened that in extracting the child the placenta has been accidentally detached or wounded, with terrible haemorrhage as the result. There have also been cases in which ill-informed or rash surgeons have tried to remove the placenta. However brought about, the bleeding from detachment or wounding of the placenta of an ectopic pregnancy is great, and the resources of the surgeon for stopping it have often proved inadequate; so that death from haemorrhage has often been the result of these operations. Hence it has been accepted as a cardinal rule not to attempt to remove the placenta, but to keep open a way for its subsequent separation and expulsion. A patient with an open wound leading into an open cavity from which a mass of dead tissue has to be slowly separated and cast off is not an ideal convalescent. The patient is not safe without the most careful attention to antisepsis for a long period. And even if this is maintained, the wound may close before the placenta has been separated, and the retained placenta may kill the patient. Besides these dangers, there are all the dangers that attend any abdominal section. Hence I do not believe that delivery of a living child in ectopic pregnancy by abdominal section will ever be accomplished with a mortality as low as that which attends most abdominal operations. I think if the 31 per cent. given by Whitridge Williams errs, it is by understating rather than overstating the mortality. And when we remember that at the time when this operation is so dangerous, the patient herself is, excepting for rare accidents, in no danger, I think it ought not to be performed. We ought to think of the mother's life, let spurious labour come and go, and the child die.

If we follow this course, sooner or later the circulation through the placenta will stop, and its vessels will become thrombosed. If the operation is postponed until this process is complete, the operator will then find the placenta resembling a piece of hepatized lung, and will be able to peel it off with only trifling bleeding.

Unfortunately we know not how soon after the death of the child the placenta becomes thrombosed. It is certain that the placental circulation may go on for many weeks after the child is dead. If we had some means of ascertaining whether the placenta had become thrombosed or not, I think there would hardly be two opinions as to the proper time to operate.

There being this uncertainty, I think the best rule for practice is to keep in mind the broad fact that, until suppuration has begun, the patient is in no danger. The mere presence of a lump in the abdomen is no justification for an operation with a mortality of 31 per cent. But when suppuration has begun, indicated by the presence of fever, then we know the patient is at the beginning of a long and exhausting illness which may prove fatal, and we ought not to let this go on. As soon as symptoms of suppuration begin the child should be removed by operation, and in most such cases the placenta will be found thrombosed, and can be peeled off and removed with only trifling bleeding. The results of operation under such conditions ought to be as good as those of abdominal sections generally.

What should the operation be? When we are dealing with a large abdominal tumour of uncertain relations clearly abdominal section is indicated. But there are certain cases in which I think it better performed by the vagina. These are the cases in which the child develops in the broad ligament, lifting up its posterior peritoneal fold and displacing the uterus forward. In such a case the lower pole of the fetus bulges down between the rectum and vagina, and it has been found possible to feel through the vagina the cranial sutures and fontanelles. In such a case I think it will be best to open the fetus-containing sac by an incision through the vagina. The risk of infection of the peritoneum will then be avoided, and the cavity can be well drained from the vagina. The placenta need not be removed. The cavity can be kept clean by frequent irrigation, and the placenta will be broken down and discharged in shreds within about ten or fourteen days. I do not advise vaginal operation unless it is certain that the tissues between the vaginal canal and the fetus are thin, and that one end of the fetal ovoid lies downward; still less if there is the slightest doubt as to the diagnosis.

REFERENCE.

[1] *Journal of Obst. and Gyn. of the British Empire*, September, 1903.

ABDOMINAL OPERATIONS DURING PREGNANCY.

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EVERY medical man, whether engaged in general practice or in doing abdominal surgery, has probably met with instances of serious disease of one or other of the abdominal organs complicating pregnancy. If, however, I may judge from my own experience—first, of some years of general practice, and subsequently of ten years of abdominal surgery—such cases as urgently require operative interference are less common than one might—*a priori*—have expected. Probably the most frequent pathological condition complicating pregnancy—or, perhaps, more correctly speaking, complicated by pregnancy—is either an ovarian cyst or a fibromyoma of the uterus. Most surgeons who do much abdominal work have been at some time or another called upon to remove such a tumour or tumours which would otherwise obstruct labour. In this country (Australia) one occasionally meets with instances of a hydatid cyst occupying the pelvis, and calling for treatment in the same way. I have seen cases of renal calculus which were discovered during pregnancy. and the question had to be decided as to whether removal should be undertaken immediately or delayed until after the confinement. In one instance I have been called upon to deal with a carcinomatous growth of the gut causing obstructive symptoms. We may roughly classify all the instances above referred to as mechanical conditions, and each case must be judged upon its merits. There is, however, an entirely different class of case, which fortunately is not commonly encountered during pregnancy. I mean cases in which an acute infective process attacks certain organs, such as the gall bladder and bile ducts, the vermiform appendix, and, more rarely still, the Fallopian tubes.

Under such conditions, that is, an acute infective cholecystitis, an acute appendicitis, or an acute infective Salpingitis, are we to temporize, and trust that the acute symptoms will subside, and permit the pregnancy to terminate normally—or should we deal at once with the pathological condition, removing its cause by operation, and leave the physiological condition to go on to its natural ending? Comparatively recently I have, in my private practice, had to deal with a case of acute gangrenous appendicitis in a woman six months pregnant, and also an instance (the only one I have ever seen of the kind) of double pyosalpinx in a woman three months pregnant. A short account of each case, together with an instance of double ovarian dermoid cyst removed during pregnancy, and also presenting unusual features, is given. Not so many years ago, it was generally held that surgical interference with pregnant women was to be avoided under almost all circumstances. Even now one meets instances in which pregnant women who are suffering agonies from neuralgia, induced by carious teeth, are solemnly warned that the operation of extraction or "stopping" will probably induce premature labour, and they are left to go on with prolonged pain and discomfort, which might easily be removed without any untoward result. It is only of late years that the safety and generally good results of major abdominal operations in pregnant women have been demonstrated. I do not mean that we should choose to operate during pregnancy if it can with safety be avoided, but in such instances as the acute infective conditions to which reference has been made, and which in themselves threaten life, there can, I think, be no doubt of the advisability of operative interference. This fact was particularly brought home to me by the case of gangrenous appendicitis recorded below. This patient had been seen by a surgeon and a physician, both of large experience, and for whose opinion I have the greatest respect, but because the second and third attacks of appendicitis occurred after the commencement of pregnancy these gentlemen negatived operative interference and advised waiting. This was, I believe, a decided error in judgement; the verdict should have been reversed. In that case the patient would have been saved great risk to life, for, although she did recover perfectly and the pregnancy was in no way interfered with, the risk which both she and her child ran was infinitely greater than it would have been had the operation been done in the "quiet interval"—after either the second or third attack.

With regard to the case of double pyosalpinx, we had no choice. The pregnancy, however, was in no way interfered with, and it is now approaching its termination, apparently normally; the fetal heart sounds can be heard, and the movements felt.

The conclusion, therefore, to which I think we must come, is that all cases of acute infective disease during pregnancy, involving either the appendix vermiformis, the Fallopian tubes, or the gall-bladder and bile ducts, should be treated as though the pregnancy did not exist. By so doing, I believe we shall be acting in the best interests of our patients, and also of their unborn children. I do not propose to refer at length to those cases which I previously spoke of as mechanical complications during pregnancy. It has been abundantly demonstrated that the operations both of ovariotomy and myomectomy can, if necessary, be safely performed on pregnant women and without interfering with the pregnancy.

CASE I.

Mrs. M., aged 30 years; four children at full time; no miscarriages.

The patient was seen in consultation with Dr. McMaster of Penrith, near Sydney, N.S.W., on December 26th, 1901. She was then suffering from an acute attack of appendicitis, and had been ill for five days. She had severe abdominal pain, chiefly in the right iliac region, and marked "guard tension" of abdominal muscles on the right side of the abdomen. The uterus was enlarged to about the size of a six-months pregnancy; the bowels had been relieved that day as the result of an aperient and enema. Vaginal examination confirmed the fact of the six-months pregnancy, and showed the presence of an inflammatory mass high up in the right posterior quarter of the pelvis, continuous with a tender swelling in the right iliac region. Temperature varied between 99° and 103° Fahrenheit. Uterus quiet, no normal contractions.

History.—The patient had had three previous attacks of undoubted appendicitis. The first, two months before the present pregnancy, namely, eight months ago; this was a slight attack; then another more severe attack four months after the first attack, and a third two months after the second, namely, when she was about four months pregnant. During the interval between the second and third attacks the patient had consulted a surgeon and a physician in Sydney, and had been advised, because she was pregnant, that no operation should be undertaken.

On December 29th, 1901, the patient came to Sydney, and was admitted to a private hospital. She stood the journey of 40 miles in the train very well.

Operation.—December 30th, 1901. Under ether anaesthesia the usual oblique incision in the right iliac region was made. The deeper layers of the abdominal wall were oedematous (in this instance because of the altered physical conditions due to the pregnancy, the incision was not made at the outer border of the rectus sheath, but through the oblique muscles, the fibres of which had to be divided, as simple separation did

not give sufficient room). There were adhesions involving the colon, omentum, small intestine, and appendix. The right half of the broad ligament was greatly thickened and oedematous, as well as the right ovary and Fallopian tube, the ovary being almost black in colour. The appendix, when separated and stripped from surrounding adhesions, was found to be swollen and gangrenous. It was removed close to the head of the colon. The right ovary and Fallopian tube were also removed, the separate vessels being picked up and ligatured, and the top of the broad ligament overstitched with catgut. A small gauze drain with guttapercha tissue round the middle portion was placed in position and the abdominal incision closed in layers, catgut sutures being used. Convalescence was quite uneventful, her temperature never reaching 100° F. The pregnancy went on to full term, and the patient was safely delivered of a living child, the line of incision remaining sound.

July 22nd, 1903. The patient reported herself and was examined. The abdominal scar was perfectly sound, nor was there any sign of hernia or stretching of the cicatrix, or any pain or discomfort, the patient being in perfect health. She was again pregnant, from seven to seven and a-half months.

CASE II.

Mrs. L., sent to me by Dr. Abbott, who attended during her confinement; aged 20 years, married fifteen months.

History.—Confinement at full time on October 10th, 1901. Labour difficult and prolonged. Convalescence delayed. Was in bed for one month after birth of child. Suffered from severe abdominal pain; high temperature; there was, in fact, marked peritonitis, the cause of which was not apparent at the time, as there was no *post-partum* sepsis due to infection of the genital tract, so far as could be ascertained. Patient was first seen by me on December 26th, 1902. She was then complaining of pelvic pain and discomfort. Menses absent; was not nursing the child.

State on Examination.—The chest and abdomen showed nothing abnormal. Pelvic examination showed uterus to be involuted and in good position. There were adhesions about the left Fallopian tube and ovary, which was enlarged and fixed low down in Douglas's pouch. The right ovary and Fallopian tube were high up, fixed by adhesions at the level of the brim of the true pelvis, making a mass the size of a large hen's egg.

Progress.—On March 30th, 1903, patient was again seen. She had been "unwell" in January and on February 7th, but not since. On examination the uterus was found to be enlarged to about the size of a two-months pregnancy. Uterine appendages as before. April 28th, 1903. Uterus still further enlarged. As it was obvious that the fixed mass in Douglas's pouch would interfere with labour, abdominal section was advised with a view to removal of the two tumours, the intention being to disturb the uterus as little as possible, thus leaving the pregnancy to continue.

Operation.—May 28th, 1903. On opening the abdomen anteriorly in the middle line, the uterus was seen to be pregnant about four and a-half months. There were general adhesions between the omentum, uterus and appendages, intestinal coils, abdominal walls, and all about the pelvis. Both ovaries and Fallopian tubes, which were in the positions above described, were separated from adhesions and removed, the tubes being cut through in a line with the uterine cornua. The utero-ovarian arch and vessels in the broad ligament were cut and tied separately with fine catgut, and the top of the broad ligament overstitched with fine catgut, from the uterine cornua to the infundibulo-pelvic fold on each side. On the left side of the anterior abdominal wall, near the internal abdominal ring, was a flattened ovoid mass about 1½ in. in diameter, firmly attached to the parietal peritoneum, and close by were two similar, but smaller, masses; these were excised and removed. In all the adhesions over the uterus, bladder, etc., were dark brown hairs about ¾ in. to 1½ in. long, and on the fundus uteri was a felted plaque of hair attached by adhesions. This was peeled off. The abdomen was closed in three layers with catgut, mattress sutures of chromicized gut being used for the anterior layer of rectus sheath. No drainage.

Result.—Patient made an uneventful recovery, and was able to come to my consulting room to report five weeks afterwards. On examining the parts removed both ovaries contained dermoid cysts full of sebaceous material and hair. The right Fallopian tube was completely closed, the left still pervious. The masses excised from the anterior abdominal wall were all three secondary dermoid cysts, each containing sebaceous material and hair.

July 30th, 1903. The pregnancy was still going on, and the patient was perfectly well.

CASE III.

Mrs. R., married November 25th, 1902; last menstrual period December 18th, 1902.

History.—She was first seen as a patient by Dr. Abbott, of Stanmore, Sydney, on January 26th, 1903. For a few days before this she had been feeling faint, feverish, and had had slight nausea and vomiting. On January 26th, 1903, there was slight pain and tenderness about the region of the appendix vermiformis and a feeling of nausea; temperature 99° F. A few days later the symptoms were the same. On examination of the pelvis there was a slight fullness and swelling posteriorly to the left. The uterus was not easy to define bimanually, but was not greatly enlarged.

State on Examination.—On February 4th, 1903, the patient was seen by Dr. Abbott and myself; symptoms and signs were as described above, and the conclusion arrived at was that a pregnancy existed, possibly extrauterine, on the left side, or that there was a normal uterine pregnancy complicated by a tubo-ovarian mass on the left, in connexion with which there had been an attack of pelvic peritonitis. In spite of the somewhat indefinite signs and symptoms, the patient was obviously ill, and it was decided, more especially as it was impossible to exclude a tubal gestation, to operate.

Operation.—On February 6th, Dr. Abbott assisting, abdominal section was performed, no preliminary curetting being done, because of the possible existence of a uterine pregnancy. On opening the abdominal cavity a pregnant uterus was found of a size equal to between two or three months gestation, together with double pyosalpinx; the pathological condition being more advanced on the left side than on the right. The adhesions were fairly extensive, and on the right side the vermiform appendix was involved in the inflammatory process. The ovaries were so adherent, oedematous, and involved in the general inflammatory process, that they were removed together with the Fallopian tubes and the vermiform appendix. Each Fallopian tube was excised from the corresponding uterine cornu. The vessels of the broad ligament were picked up and tied separately with fine catgut, and the tops of the broad ligament overstitched with the same material. The uterus was disturbed as little as possible, although considerable manipulation was unavoidable in separating the pelvic adhesions. The pelvis was drained per vaginam by means of iodoform gauze, and the abdominal incision closed in layers.

Result.—The patient made an uninterrupted recovery, and at this date (August 7th, 1903) Dr. Abbott tells me that she is still well and the pregnancy undisturbed. On examination of the parts removed each Fallopian tube was found to contain a considerable quantity of pus. The left tube had leaked at the fimbriated end, thus causing the pelvic peritonitis. Unfortunately no bacteriological examination of the pus was made, as by mistake the specimens were removed and destroyed.

ON THE OPERATIVE TREATMENT OF UTERINE MYOMATA.*

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THE relation of operative surgery to surgical disease is for ever changing, and in no condition is this more apparent than in regard to uterine myomata. At no distant date these tumours were rarely interfered with, the treatment of the pedicle was extraperitoneal, and only very large growths, placing life in immediate jeopardy, were touched. As a consequence the mortality of operation was appalling. An additional reason for unwillingness to meddle with them was the fact that their existence, as a rule, is not dangerous to life. Patients drag on a miserable existence, but they live. Occasionally, when the size of the growth is great, sudden death occurs, but this is a rare ending. Much more frequently a state of misery, invalidism, and suffering lasts till the menopause occurs and then an arrest of growth or retrocession may render the remainder of life more endurable. By slow degrees, however, methods of operation of simple kinds have been evolved and the total mortality has been reduced to little over that of ovariotomy. It is to report the cases of such operations that I have performed in the last three years that I bring the subject before you to-day.

Post-mortem records have revealed the fact that uterine myomata exist in 25 per cent. of all females examined after 25 years of age. In the vast majority of cases they are trivial in size and have given no evidence of their existence during life. They vary in size from extremely minute growths to great tumours, filling and distending the whole abdomen. Their shape varies, though they are all more or less globular, and they are often moulded to the shape of the pelvis. Their relation to the tissue of the uterus is subject to three variations. They may project into the cavity; they may be enclosed in the uterine wall; or they may form pedunculated growths on the outer surface. They are consequently distinguished as submucous, interstitial, and subperitoneal.

They only become the subjects of surgical attention when from their size or position, or from being the cause of haemorrhage they are either the sources of local suffering or general feebleness. The local symptoms are due to pressure. The size may be such as to be a serious inconvenience, from the sheer weight of the growth. Apart from absolute size, a growth may press on any of the pelvic contents. The bladder most commonly suffers, and pain on micturition, and either

* Read before the Border Counties Branch of the British Medical Association.

incontinence or retention, according to the position of the growth, are the symptoms produced. Occasionally the external iliac veins are pressed on, causing oedema of the feet. Pressure on nerves (sacral plexus, or obturator) may produce pelvic or lower limb pains. I shall also have to tell you of a case in which delivery would have been impossible owing to a myoma blocking the way, while I have known one so placed as to bar intercourse. The bowel is not often interfered with; it lies protected in the hollow formed between the sacrum and the ilium. Pressure and more or less blocking of a ureter is one of the conditions occasionally encountered.

Haemorrhage is the commonest symptom associated with myoma and one which from its very obviousness most often leads to a diagnosis being made. It is most common when the growth is submucous, less so in the interstitial, and often absent in the subperitoneal. It is at first generally an aggravation of the usual period, but it may gradually increase until it becomes almost continuous. Contrary to what was at one time believed, the arrival of the menopause is often postponed, and active bleeding is troublesome at a time when the normal discharge should have ceased. Frequently the menopause is delayed to the age of 52 or 53. From the continuance of bleeding the patient is gradually reduced to a state of extreme anaemia. This, combined with the inconvenience inseparable from a continual bleeding, gradually induces a condition of invalidism which deprives life of a great part of its pleasures.

Whenever such a tumour is making life a burden the time has come for the surgeon to interfere, whether the discomfort be due to general or local symptoms. The position of the growth alone may also occasionally make operation necessary as in cases when the outlet of the pelvis is blocked.

As a rule, the diagnosis of these growths is not difficult. The moderate, slightly elastic hardness, the mobility, and the attachment to the uterus, form a combination which is sufficiently distinctive. Sometimes, however, especially in stout women, it is very difficult to arrive at a correct conclusion. In such cases I would specially call your attention to the great help which complete anaesthesia gives. It abolishes sensitiveness and muscular action. It allows us to manipulate with a freedom which we cannot approach without it. We can press upon and define a growth in relation to the abdominal wall, the vagina, and the rectum in a way in which we could never accomplish with a conscious patient. The greatest difficulty arises with malignant growths, and it is quite possible to make mistakes in both directions; to believe a fibroid jammed in the pelvis to be malignant and to conclude that a moveable sarcoma is only a myoma.

Sometimes the operation may be commenced with the surgeon in doubt as to what will be found. I show you here a cast which illustrates this. This tumour was easily felt through the abdominal wall; it was hard, but elastic, and moved with the uterus. The uterine cavity was of normal length, and ran in front of the growth. There was haemorrhage and pelvic pain. One sign alone gave rise to suspicion; it was this—the tumour was freely movable when felt per vaginam, but it could not be moved about in the abdomen. The operation revealed a malignant growth of the uterus and left ovary adherent in the neighbourhood of the left kidney, on which anchorage it could be moved as on an axis. In making a diagnosis, the possibility of every other pelvic growth, as also of those in connexion with the kidneys and mesentery, has to be kept in remembrance; but I will not detain you by enumerating these, for rarely is the question any other than one of myoma *versus* malignant uterine growth.

Operations may be broadly divided into two kinds, either simple removal of the growths or removal of the whole uterus. For a time removal of the ovaries and tubes found much favour with surgeons, but prolonged experience has not borne out the early promise; frequently haemorrhage was not stopped, and the bulk and growth of the tumour were not improved.

There is no doubt that the ideal operation is removal of the growth, suturing the stump, and leaving a normal uterus. This should be done whenever possible. The uterus is a peculiar organ; no other tissue in the body has the same physical structure. It is tough and indiarubber-like. Owing to this it is very little liable to infiltration with blood, and haemorrhage can be controlled by sutures which press together the sides of a wound of its substance. If the cavity left by the removal of a myoma is sewn up from the bottom, one, two, or three tiers of sutures being used as necessary, it is rarely the case that bleeding gives any further trouble. If it does one or more of the ovarian and uterine arteries can be ligatured and thus the circulation brought under control.

The operation is as follows: The abdomen is opened in the middle line and it is a great help in subsequent manipulations to have the patient in the Trendelenburg position. The uterus is turned out of the abdomen and examined. Occasionally this turning out is a most troublesome process: the growth sticks to the pelvis like a boys' sucker to a stone. One or other of the screws invented by Tait or Grieg Smith make a most useful handle. If the growth or growths have good pedicles or lie so that they can be easily shelled out a rubber band is passed as a tourniquet round the uterus and each growth is removed either by forming flaps like amputation flaps or by a straight incision over the most prominent part and peeling the uterine tissue away from the myoma. It is very curious how considerably and rapidly the uterine tissue contracts. In a few minutes the divided surface may shrink to half its original size. The cavity is then securely sewn up and the tourniquet removed. The arrest of bleeding is tested by lowering the patient and waiting a few minutes. If bleeding still occurs, other and wider sutures may be passed, or the nearest vessel may be tied. The abdomen is then closed.

It may be found that the position of the growths is a mechanical bar to their removal, or that their separate removal would involve such damage to the uterus that it is better surgery to take away both uterus and growths together. I show an example in which a growth on each side of the uterine cavity made such a procedure an infinitely more simple and safe operation. There are many methods of doing this differing from each other in some slight details. But all that I need say to you is that ligature of the broad ligaments cutting across just above or just below the os and sewing up the peritoneum so as to make a closed linear wound right across the pelvis leaves little to be desired, and is attended by the minimum of risk. Some operators have spoken strongly in favour of vaginal amputation, but I certainly think it is better to see your field of work rather than to go groping in the dark.

In the 8 consecutive cases of which I show you casts 6 had haemorrhage, and 6 complained more or less of pain; while 4 had trouble from the bladder (1 retention, 3 irritability, and 3 simple inconvenience) from sheer bulk and weight of the growth. Of the 8 cases 6 recovered and 2 died. One of these was at a distance, and I did not see her after operation. The account which reached me was that she never rallied well from the operation and gradually sank the next day. The other case died from a singular cause—haemorrhage into the bowels, eight days after the operation. There was no obvious connexion between this and the operation. Of course, my cases are too few in number to justify any deduction as to mortality.

Five was the greatest number of growths removed from any one case, and the largest tumour measured 10 in. by 8 in. by 6 in. in its three principal diameters. In 7 of the cases the growths alone were removed, in 1 complete hysterectomy was performed. Many of the growths had distinct pedicles; others had to be dug out of the uterine tissue. None were intrauterine.

Of these 8 cases 1 only seems to call for individual mention. She was a lady of 35, married nearly seven months. Menstruation had ceased for seven weeks. Until this time she had been in perfect health. She then got retention of urine, and was seen on this account by Dr. Barnes, who subsequently asked me also to see her. We found a tumour low down in the pelvis displacing the uterus upwards and forwards so that the os uteri was resting on the symphysis pubis. The uterus was enlarged, the vagina violet coloured, and there was an areola round each nipple. The tumour blocked the pelvis against the passage of a child. We decided to wait over the time when the next period was due, and then as it did not occur, the patient's consent to operation was secured. I removed by enucleation the myoma (of which I show you a cast) from the posterior uterine wall. No tourniquet was used. The stump was laced up, she recovered, and was ultimately delivered of a full-time child. She has since had another.

It does not appear to be generally known among medical men that there is at Mentone an institution known as the St. John's Home of Rest which is specially intended for such members of the various professions as are unable to afford the ordinary expense of the rest and change which they require. The charge for each week's stay is only £1. For the balance of the expenditure, which is on an average about £250 a year, the institution depends on the donations of those who are well-to-do.

FORCIBLE DILATATION OF THE CERVIX IN "ACCOUCHEMENT FORCÉ,"

MORE ESPECIALLY BY MEANS OF THE BOSSI AND FROMMER DILATORS.

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DILATATION of the cervix as a step in the operation of *accouchement forcé* may be carried out with the hands, rubber bags, or metal dilators. I shall briefly refer to each of these methods, and then devote the main part of this contribution to a consideration of the use of metal dilators in obtaining forced dilatation.

Manual Dilatation.—The obvious advantages of manual dilatation are that the operator requires no instruments, all the stretching being done with the fingers, and that he can tell what he is doing. The disadvantages are that the operation takes time, is sometimes impossible if the cervix is undilated and rigid, and is often very fatiguing. Before manual dilatation proper can be commenced one must be able to get at least two fingers through the canal. Sometimes the preliminary dilatation may be carried out with one finger pushed further and further in, but often even that is impossible, and recourse must be had to the graduated dilators of Hegar or Cameron. Having got the two fingers through the os, the rest of the operation may be carried out by forcing more and more of the hand through, or by employing the fingers of the two hands (Bonnaire's method). Could one always dilate the cervix quickly enough by this method it would without doubt be the best, for there is less chance of tearing it, especially if one moves the dilating fingers about, stretching sometimes antero-posteriorly and sometimes laterally, and one can tell better what is happening. Besides, there is another advantage, but one which I do not remember having seen mentioned, and that is that with finger manipulations the cervix often becones softer.

Le me with extreme brevity give a few illustrative cases:

CAS: I.—Mrs. L., 6-para, six months pregnant, was admitted to the Maternity Hospital for eclampsia, August, 1900. The os admitted a finger with difficulty, and was extremely rigid. Manual dilatation; versioi and extraction. Duration of operation an hour and a-half.

CASEII.—A 2-para; seen in consultation with Dr. McMillan, June, 1902. *Accouchement forcé* on account of dyspnoea. Manual dilatation and extaction with forceps. Duration of operation fifty minutes.

CASE II.—A 2-para, six months pregnant, seen with Dr. Loudon, of Hamilto, September, 1902. Eclampsia. Os admitted finger. Dilatation witl bags and fingers, followed by version. Os very rigid, so sixty minutes t least elapsed before the child was extracted.

CASE I.—A primipara, about seven and a-half months pregnant, seen in consultation with Dr. Parker, Gartloch. Acute mania, Dilatation with finges, followed by version and extraction. Duration of operation forty-five inutes.

These ases have purposely been picked out as amongst the mostlifficult cases of manual dilatation. In my experience the hortest time taken to dilate manually and deliver a woman nt in labour has been fifteen minutes. It was a case of contraced pelvis in which I was going to induce labour, but afterduching I found the cervix so soft that I easily dilated and extraced the child. The longest time taken was about an hour ari a-half (Case 1).

Taking a average of my cases I would say that to dilate and delivera multipara not in labour, and with the cervix not obliteraed, forty minutes are required at least, and to do the same in primipara about sixty to eighty minutes. I do not include of course, cases of abortion when the os is slightly dilaed and will admit only one finger; but I am sure that most pesons will agree with me that a very considerable time indeed : often necessary to dilate the cervix in such cases manualy, and indeed that it is sometimes impossible.

Dilatation vith Hydrostatic Dilators.—Dilatation with rubber bags should hardly come into consideration in *accouchement rcé.* One cannot get sufficient dilatation with such bas alone, a more complete stretching with the hands being necessary after their removal. Other objections are that rubbe bags can only be used after the cervix has been sufficiently dilated to allow of their being introduced, and dilatation with them takes some time. Undoubtedly the bag of Champetier de Ribes is the best, but one must always test it refully as it is liable to burst if at all old. Only the other cy one burst in my hands when I tested it prior to employng one for the induction of labour. The advantages of hyrostatic dilators of the type of Champetier de Ribes over tose of Barnes are that a more extensive dilatation can be rought about by them. Barnes's bags, if the cervix is at all rigid, balloon up inside the uterus. This ballooning is doubtless due to the rubber being softened by the soaking in the antiseptic solution or by the boiling; but that is unavoidable, for there are no other means of sterilizing such bags. I have seen it sometimes suggested that for more extensive dilatation two bags should be used simultaneously, but that is really not practicable.

Dilatation by Metal Dilators (Bossi, Frommer).—But of all methods of dilating the cervix none is so rapid as that carried out by means of metal dilators. This method was introduced by Bossi in 1890, when he described his instrument. At first it was not taken up very enthusiastically, but ample amends have been made him in that respect, for in the last few years so much has it been discussed that one can hardly open an obstetric journal without seeing some reference to it. Bossi's first instrument consisted of three prongs, but later a fourth was added. Quite recently Frommer introduced another instrument, which consists of eight prongs, and which is an improvement in this respect, that it allows the pressure being more equally distributed round the margin of the os. It has this disadvantage, however, that the prongs are sharper, and that the operator cannot so readily as with Bossi's dilator get the finger between the prongs and feel how the cervix is stretching.

The great advantage of the instruments of Bossi and Frommer is that with them the os can be dilated much more quickly and with less fatigue than with the hands. Roughly speaking, one takes about twenty-five minutes to dilate the cervix from the time it will admit the instrument. The operation is easiest in multiparae where the cervix is already obliterated. Here are some recent cases:

4-para, eclampsia at term. Seen a few months ago in consultation with Dr. Watson, Langside. She had had about forty fits before I saw her. Os admitted dilator. Dilatation and extraction of child with forceps took twenty-five minutes; no tearing of cervix; patient died following day.

A much more difficult case was the following:

Primipara, eclampsia. Seen July, 1903, with Dr. Jones, Govan. Patient had had seven fits, and os just admitted one finger with cervix not quite obliterated. I dilated without caps, then completed dilatation with caps over prongs. Dilatation up to figure 9 on index took twenty-five minutes. Delivery completed with forceps five minutes later. Slight laceration of cervix, but none of perineum. This patient's recovery was excellent.

The last case of forcible dilatation which I shall give was carried out with Frommer's eight-pronged dilator. It illustrates the danger of the instrument in cases where the cervix is not taken up and when pregnancy is not far advanced.

A primipara five months pregnant was admitted to the Maternity Hospital under my care on account of haemorrhage. It was a case of threatened abortion. I tried to arrest the abortion with rest and sedatives, but profuse bleeding occurred two days later and the patient became much collapsed and showed signs of sepsis, the pulse and temperature becoming quite febrile. I determined to empty the uterus. The cervix admitted a 13 Hegar, after which I got the Frommer dilator pushed well in, steadying the cervix with a vulsellum forceps while doing so. I went on dilating a little way and felt that the resistance suddenly became less. I withdrew the instrument and found that I had torn the cervix at the left side, not on the vaginal surface but on the cervical.

My explanation to the students was that the dilator had not gone quite through the os internum, and that was the reason why Gardner,[1] my house-surgeon at the time, entirely with my approval, said in his paper: "In cases where the cervix is not taken up there is a greater risk of doing damage owing, as already detailed, to the prongs not passing completely through the internal os. From reported cases I have not seen this danger referred to; it is the more liable to occur when the cervix is dragged upon and consequently lengthened by the vulsellum forceps being used to steady the organ." I am still of opinion that this is possible with Frommer's instrument; but thinking over the case described I doubt if it really occurred, for the internal os was considerably dilated when I removed the instrument. But to return to the case:

I went on with the dilatation very cautiously, and the cervix split completely through on both sides. I then cleared out the uterus, douched, and stitched the tears carefully. This patient died in three days of sepsis. She was of course, as I have explained, septic before the operation.

Taking these three cases there are two deaths, and that may seem at first rather alarming, but let it be clearly understood that the dilators cannot in the slightest degree be blamed for such unfortunate terminations. In the first case the patient had had forty fits, and in the other the patient was septic before operative treatment was commenced. One must remember that as a rule Bossi's or Frommer's dilator is

resorted to only in very bad cases, in which a high mortality will be the rule no matter what treatment is adopted.

We must base our criticism on the extent of injury done to the cervix. Looking at the matter from that point of view, I find that in six cases in which the os was the size of a shilling or less I had one bad case of laceration and two of very slight laceration. In fourteen cases recently reported by Gardner from the practice of the Maternity Hospital, two had very bad lacerations, one being the case described already. Leopold, one of the strongest advocates of this treatment, has reported seventeen cases without a laceration of any account, although in Case II of his first series there was a laceration, for he had to apply stitches on account of the bleeding. Leopold's results are very satisfactory, but if you read over the cases you will find that only in one was the cervix not already dilated to some extent. In his second paper he says: "The os was in some 1 pfennig, in others 1, 3, or 5 markpiece in size."

Now, there are certain factors which influence the occurrence of lacerations, and of these I would mention the following:

1. The manner in which the dilatation is carried out.
2. The number of the pregnancy.
3. The degree to which the cervix has been taken up.
4. The age of the pregnancy.

The influence of the first two factors is obvious. It is perfectly clear that lacerations will be more common when dilatation is carried out rapidly than when it is done slowly, and in primiparae than in multiparae. There remain therefore only the other two to discuss, and they are really the most important. With comparatively few exceptions in the cases which have been reported by different writers, the cervix has been already taken up. Simpson and others, in this country, Germany, and America have, however, recorded cases where the cervix was not obliterated, and the os was not dilated. With time and caution doubtless these cases, if at or near term, can be safely dilated with Bossi or Frommer's instrument, as the recorded cases illustrate. Some of the worst tears, however, have been in such cases. But although the unobliterated cervix at or near term dilates wonderfully well, any one who has dilated to the full extent such a cervix and then tried to deliver with forceps or by version will bear me out when I say that the os externum invariably contracts round the head. One is always disappointed; the canal is never so well dilated as one expects.

I turn now to the last factor, the age of the pregnancy. In dilating the cervix in gynaecological work I have more than once found the cervix give way not externally but internally. I can also remember once having seen the same thing in dilating the cervix in a case of abortion. That this may occur has been pointed out by several writers. It is further borne out by Case XII (abortion at fourth month), which Gardner describes as follows: "Two days after delivery haemorrhage occurred while an intrauterine douche was being given: examination showed that a clot had been washed from a pit or depression within the cervix."

And this brings me to say that the cervix tears readily in the early months of pregnancy, and consequently Bossi's dilator should be used with great caution in such cases. Also, and this is of the very greatest importance, the tear may not always be external; by that I mean that to the finger from the vagina the vaginal portion of the cervix may appear intact, yet if one carefully examines the cervical canal one will find a tear there. Lacerations are commonest in this group, and the case of extensive laceration described was an illustration of this.

Finally, I would sum up my views as regards Bossi's or Frommer's dilator as follows:

1. When the cervix is obliterated and the os will admit the dilator without difficulty, dilatation can be carried out in about twenty-five minutes, and there will be little or no laceration.

2. In cases where the pregnancy has advanced to or near term, even although the cervix is not obliterated, dilatation may be accomplished with comparative safety to the cervix, provided care, time, and patience are expended in the operation.

3. In cases of early pregnancy with the cervix unobliterated there is a decided risk of extensive lacerations, even although the greatest care is taken.

REFERENCE.

1 Fourteen Cases of Forcible Dilatation of the Os by Means of the Bossi Dilator, *Journal of Obstetrics and Gynaecology of the British Empire*, October, 1903.

OBSERVATIONS ON THE PATHOGENESIS OF GOUT.

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PRIOR to Garrod's great discovery of the presence of uric acid in the blood in gout (1847), some authorities expressed the opinion that a derangement of the intestinal tract was the primary factor in the disease. This view was expressed by Van Swieten (1255 A.D.) in the following terms: "Indigestio viscorum pro origine proxima hujus morbi habetur." Since 1847 this theory has been abandoned, and in the writings of Garrod 1876, Duckworth 1889, Ewart 1896, Roberts 1897, and Luff 1898, the possibility of gout being due to an intestinal auto-intoxication or infection is never considered. In 1901 the writer revived this old-time theory in the following terms: "(*a*) There is ample evidence to prove that the uric acid in the blood is not the primary factor in gout, and (*b*) uric acid can be deposited in cartilages and other tissues even in considerable amount, without the association of any inflammatory phenomena. (1) The last-mentioned point clearly proves that uric acid is not the factor which causes the inflammatory phenomena characteristic of the acute attack; (2) What, then, are the toxic principles in the blood which possess the power of inducing the characteristic inflammation? and (3) what are the factors which determine the passage of these toxic substances from the blood into the tissues? In connexion with these queries we have to consider the all-important part played by the alimentary canal Here we have doubtless one of the important keys to the solution of the problem."[1]

Evidence for or against this theory is difficult to obtain from the human subject, and it is therefore advisable to have recourse to the study of the comparative pathology of the disease. Gout is a rare occurrence in the lower animals. The literature of the subject contains references to isolated records of the occurrence of uratic deposits in the tissues of lower animals, mainly wild animals in captivity, but detailed histological records are wanting. As an indication of the rarity of the disease in poultry, I may say that some years ago the writer obtained the assistance of the editors of leading poultry journals in his quest for "gouty fowls."

A considerable amount of pathological material was forthcoming; this comprised fowls which had died from tuberculosis, fowls which had been affected with swollen joints, others with large chronic inflammatory swellings of the feet, and fowls that had succumbed to disease unaccompanied by any lesions in the limbs which were visible *post mortem*. In no single instance was there any indication of uratic deposit in or about the joints, or in any of the tissues of the dead animals. Three years ago, however, I was fortunate enough to secure one typical case of gout in a fowl (cock. The animal was a year old, and was bred on the farm from which it was sent to me. The clinical record shows that the fowl was observed to be out of sorts for a few days, its comb became dusky, and it was found dead.

The present paper is a record of the *post-mortem* appearances of the case. Particular attention is directed to the histological appearances of the kidneys, pancreas, intestine, and tissues generally, the lesions described being regarded as characteristic of the invasion of the tissues by bacteria or their products. The facts recorded have a bearing on present theories regarding the disease, more especially the well-known views of Ebstein, but the consideration of this point is beyond the scope of the present paper.

Necropsy.

1. The synovia in some joints was of the colour and consistence of cream; this readily gave the murexide reaction. When this creamy layer was washed off there was no visible lesion of the articular or other structures of the joints.

2. A deposit of sodium urate in some extra-articular tissues, mainly in relation to the smaller joints. This was specially abundant in relation to tendons, several of which were completely exposed. Microscopic sections of these tendons, which were treated by the addition of weak hydrochloric acid, showed copious deposit of uric acid crystals. The murexide reaction was readily obtained.

3. The heart showed early pericarditis, a fine layer of fibrinous

[1] Since the above was written my attention has been drawn to an admirable paper by Gore (BRITISH MEDICAL JOURNAL, 1900, ii, p. 898), in which the same opinion is clearly expressed.

exudation being present at the base of the organ. Microscopic examination showed pronounced distension and a quantity of fibrin in the subepicardial veins.

4. Widespread thrombosis, notably in the vessels of the liver, lungs, kidneys, and some large abdominal veins. The distension and thrombosis of veins in the liver is shown in Fig. 1. The appearances at the necropsy appeared to indicate that this thrombosis was the immediate cause of death.

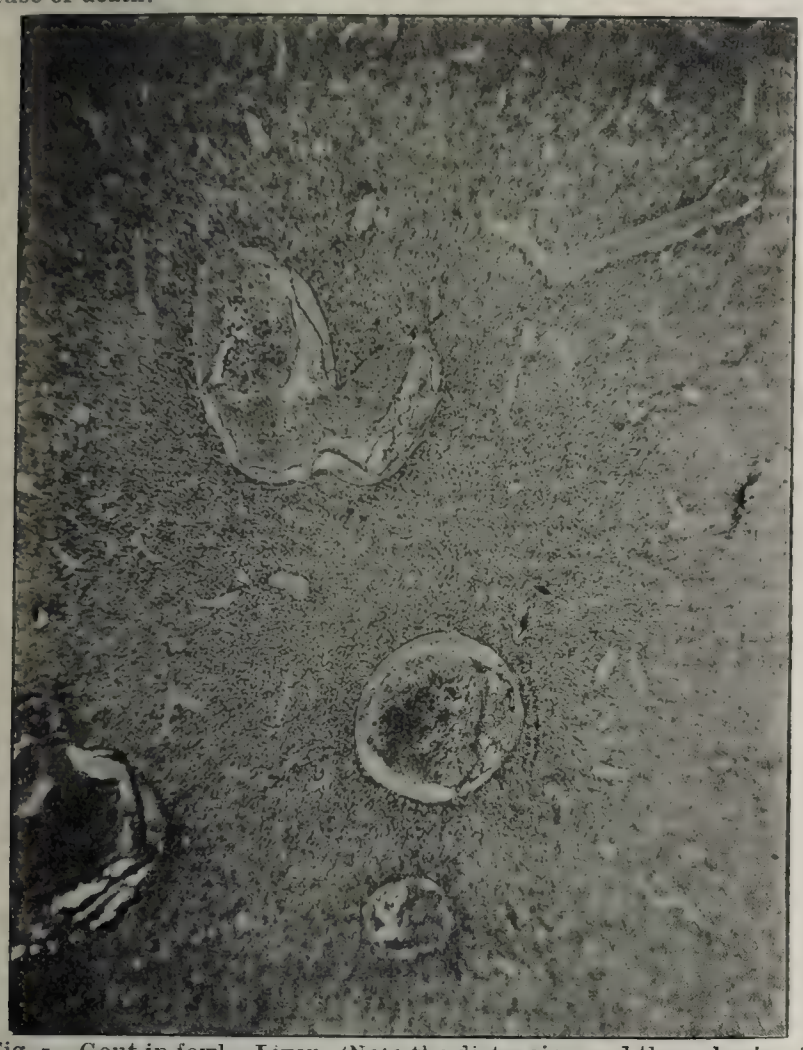


Fig. 1.—Gout in fowl. Liver. (Note the distension and thrombosis of the veins and the congestion of the organ.)

Fig. 2.—Gout in fowl. Small intestine. The mucous membrane shows, *a*, diminution in the glandular elements; *b*, increased amount of lymphoid tissue; and *c*, catarrhal exudation on the free surface.

5. Marked congestion of the liver, lungs, and kidney. Microscopic examination of the liver showed some atrophy of the liver cells. The congestion of liver is indicated in Fig, 1.

6. Areas of necrosis in the kidneys. Scattered throughout the organ there were numerous areas of necrosis (see Fig. 5). which varied in size from the head of a pin up to a small bean; these presented a white amorphous appearance quite distinct from the rest of the organ. The

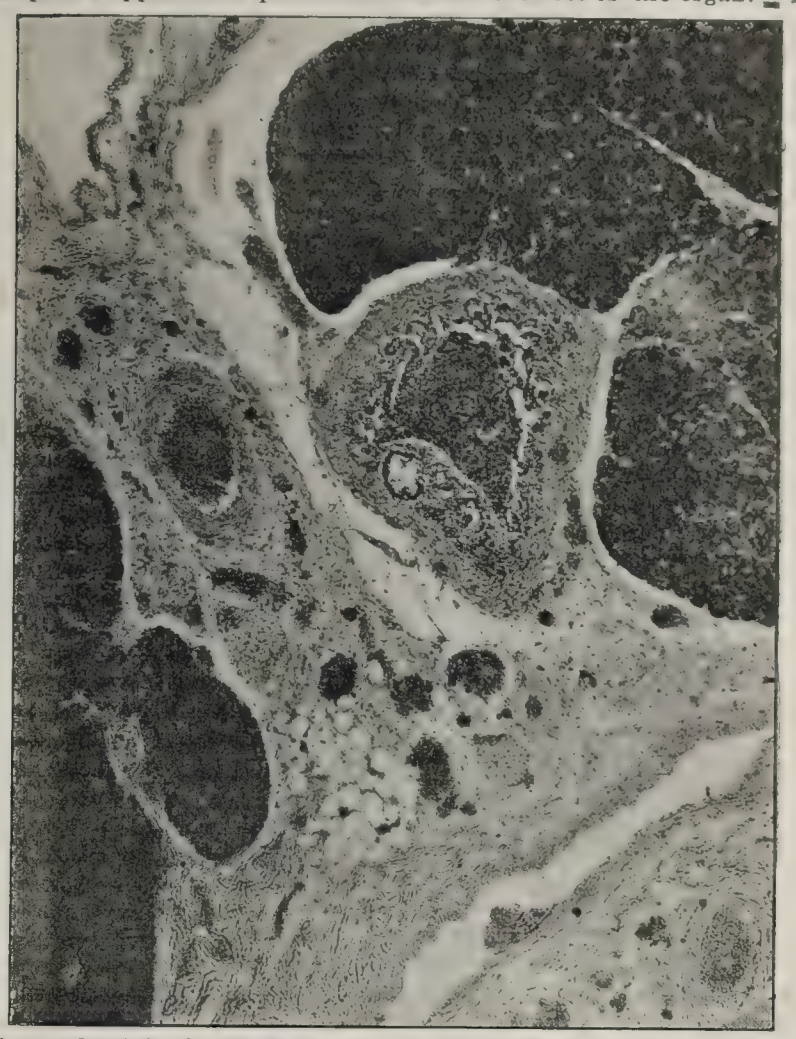


Fig. 3.—Gout in fowl. Pancreas. Transverse section at the hilum. The lumen of the duct is filled by catarrhal cells derived from the inflamed mucous membrane; the vessels in the wall of the duct and around are congested.

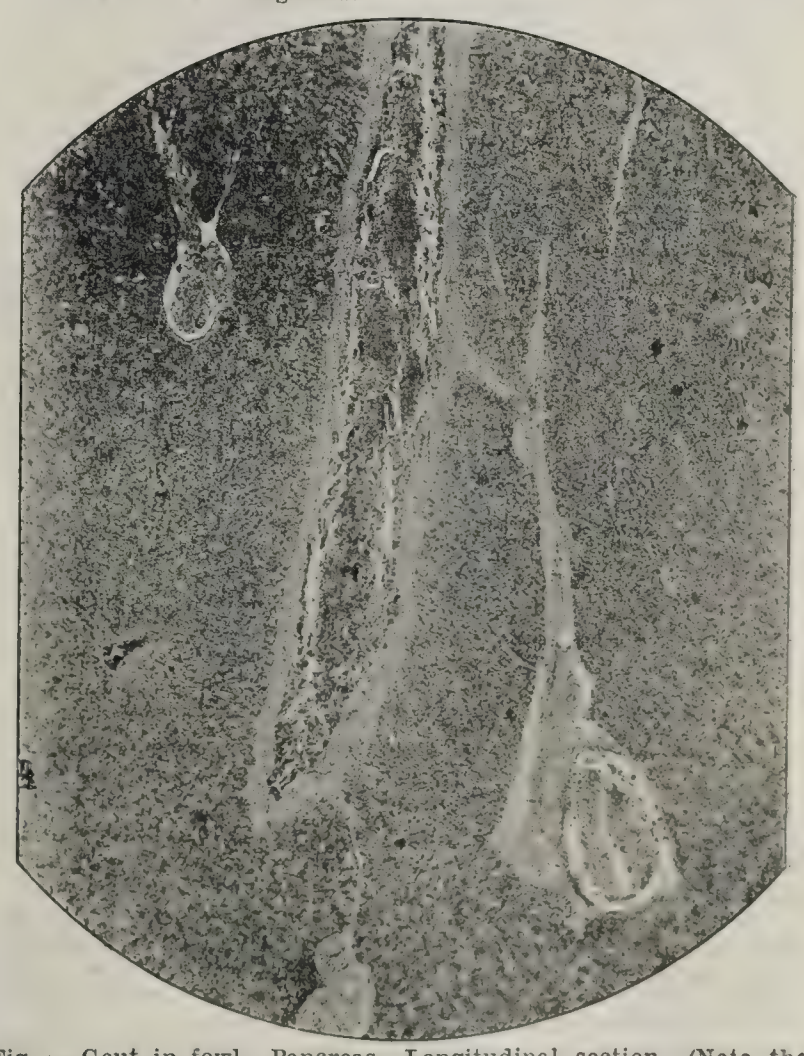


Fig. 4.—Gout in fowl. Pancreas. Longitudinal section. (Note the blocking of the lumen of the duct by catarrhal products.)

cortex was markedly congested (see Fig. 5). The histological characters of the kidney are described later.

A microscopic examination was made of the foregoing and other tissues—namely, intestinal tract, pancreas, lymphatic glands, spleen, sciatic arteries and nerves, skin, comb, and testicle, the tissues of a healthy fowl of the same age being used for comparisons. The bone marrow was not available for examination. The following morbid appearances were found:

(*a*) Catarrh of the intestine, especially in the ileum, duodenum, and large intestine. This was of a patchy nature in the upper part of the

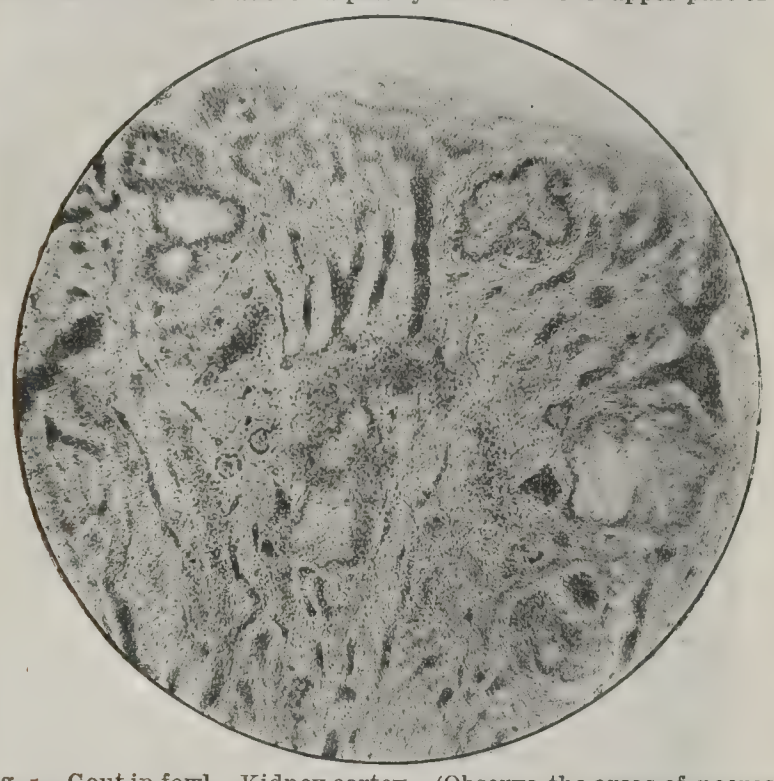


Fig. 5.—Gout in fowl. Kidney cortex. (Observe the areas of necrosis (see text) and the congestion of the organ.)

tract, but was continuous and pronounced in the lower end of the ileum. The capillaries were markedly dilated, apparently due to a condition of venous stasis. There was a great excess of lymphoid tissue in the ileum.

Fig. 6.—Gout in fowl. Kidney at junction of cortex and medulla. The dark bands are dilated collecting tubules full of granular leucocytes. The blood vessels have been blocked out of the section.

Fig. 2 shows a loss of glandular structures with a separation of the glandular elements by excess of interglandular tissue, and a catarrhal exudation lying on the free surface.

(*b*) The pancreatic duct was filled by catarrhal products derived from their lining membrane. This is well seen in a transverse section of the gland at the hilum (see Fig. 3) and also in a longitudinal section (see Fig. 4). The vessels in the wall of the duct were much distended, and also the vessels around (see Fig. 3).

(*c*) The spleen showed congestion, the endothelial cells of the sinuses were proliferated, and there was a marked increase in the number of granular leucocytes in the capillaries and sinuses as compared with the control sections.

These features are the characteristic reaction of this organ to invasion by bacteria or their products.

(*d*) A lymphatic gland showed a minute crystalline deposit of urate of soda surrounded by a few small round and epithelial cells.

This point is of interest in connexion with views previously held as to the involvement of lymphatic glands in cases of gout. In his well-known work Duckworth states that "the lymphatic system has been held to be free from any changes in gout. The glandular portion cannot be said to be involved, but there is clinical evidence of subacute gouty inflammation of lymph spaces in certain organs due to uratic deposit and influence. Dr. Buzzard has called attention to this."

(*e*) The kidneys. Fig. 5 shows the appearance of the cortex of the kidneys under a magnification of 20 diameters. Note four necrotic areas in the field. These present a whitish colour, and are surrounded by a dark ring which consists of small round cells of an inflammatory nature. The small dark points visible in the centre of the areas are granular leucocytes which have invaded the necrosed areas. In fowls those leucocytes are large and possess very coarse "crystalline" granules. The dark bands in the figure are congested blood vessels. Under a magnification of 600 diameters with ordinary stains, for example, haematoxylin, eosin, and methyl blue, these necrotic areas presented a structureless homogeneous appearance. An examination of smaller and earlier nodules revealed at parts a considerable amount of crystalline deposit of sodium urate surrounded by inflammatory tissue. It was not possible for me to express a definite opinion as to whether their original starting point was in the tubules or in the intertubular tissue. The arrangement of these smaller areas alongside the interlobular arteries suggested an infection by the blood stream.

Fig. 7.—Gout in fowl. Kidney at deep part of the cortex. (Note (1) the collecting tubules full of granular leucocytes, with atrophy of the epithelial lining; (2) several convoluted tubules which appear perfectly normal. The blood vessels have been blocked out of the section, and appears white. See also Fig. 6.)

Mr. Richard Muir, of the Pathological Department of the University, kindly made a bacteriological examination of the sections, the methods employed being (1) the ordinary basic stains, and (2) a modification of Benda's stain. The former gave negative results, the necrosed areas presenting a structureless hyaline appearance; the latter method of staining demonstrated that the tissue in the necrotic areas was not structureless, as was indicated by the ordinary staining methods. The tissue consisted of rod-like bodies of the size of large bacilli massed together in dense clusters; the appearance suggested that these rods were either degenerated cell products of an unusual character, degenerated bacteria, or crystalline in nature.

An examination with a polariscope, kindly made for me by Dr. Marshall of the Chemistry Department of the University, clearly indicates that they were not crystalline. We therefore conclude that the rods in question are either the products of degenerated cells or bacteria which had lost their affinity for ordinary bacterial stains, owing to bacteriolytic or other changes. The appearances generally are in favour of the latter view. It is, however, right to indicate that an examination of the earlier areas failed to show any bacteria; and, further, that an examination of a necrosed tendon by the same method (modified Benda) did not reveal a similar appearance. In the deeper part of the cortex and in the medulla a very striking pathological condition was present in the collecting tubules. These were everywhere markedly dilated and filled with granular leucocytes. This appearance is well shown in

Fig. 6, in which the dark bands are collecting tubules. For the sake of clearness the vessels have been blocked out of this and the subsequent figure. These granular cells can be seen emigrating from surrounding capillaries through the walls of the collecting tubules. The renal blood vessels contained a marked excess of these blood constituents. This condition of the collecting tubules is also indicated in Fig. 7, which shows in addition the following features:

(*a*) The presence of granular leucocytes lying free in the intertubular tissue.

(*b*) An atrophy of the epithelial lining of the convoluted tubules, doubtless due to pressure of the leucocyte exudation.

(*c*) Several convoluted tubules which appear perfectly normal.

A transverse section of the ureter in the same section from which Fig. 6 was taken shows that the leucocytes had undergone marked degeneration in the course of their downward journey, very few leucocytes being present as such in the ureter.

The gouty deposit in the tissues, the changes in the synovia, the widespread thromboses, and the areas of necroses in the kidney clearly indicate the nature of the disease. It is a typical case of gout. It is furthermore a case of acute gout which had proceeded to its natural termination. The fact that early indications of pericarditis were present might suggest the opinion that the animal, undoubtedly the subject of gout, succumbed to some terminal infection not immediately related to the gouty disorder. The clinical history and pathological appearances alike fail to substantiate this view. In this connexion reference may be made to the:

1. Absence of any alteration in the joint structures other than in the synovia, the nutritive fluid of the joint. There was no gouty arthritis nor other indication of chronic disease.

2. The absence of any cirrhotic changes in the kidney and fibrous overgrowth in relation to the deposits in the extra-articular tissues such as we would expect in chronic disease.

3. The blood vessels of the animal were singularly healthy, which in all probability would not have been in a case of chronic disease that had succumbed to what is commonly known as a terminal infection.

These negative facts fail to substantiate this hypothetical view as to the existence in this fowl of two or more diseases not etiologically related, and this failure is emphasized by reference to some of the other unusual features of this case, more especially to the condition of the pancreas and collecting tubules of the kidney, both of which present pronounced morbid appearances of a character extremely rare in the history of simple terminal infection. We are therefore driven to the conclusion that we have to deal with a case of pure gout in which the disease had run a natural course, in which an examination of the tissues shows that the *post-mortem* appearances generally are characteristic of an infection by bacteria or their products.

Particular interest centres in the condition of the intestinal tract, pancreas, and kidneys. The condition of the pancreatic duct is a very striking one; it appeared to be an extension from the duodenum. A reference to the figures shows that the lesion would be in its results analogous to the effect of a ligature of the duct. The interesting question is raised as to the existence of any relationship between these appearances and the occurrence of gouty glycosuria in the human subject. The changes in the tubules of the kidney are remarkable. I am not aware that these appearances have been previously described. The alterations in the leucocytes have a special interest in connexion with the changes in the blood in acute polyarticular gout recently described by the author[2] and confirmed by Bain.[3]

The main facts learned from this investigation emphasize the necessity of further examination into the comparative pathology of the disease. It is specially important to obtain material sufficiently fresh to allow of an adequate bacteriological investigation. A question that at once presents itself from the foregoing record is, How would the acceptance of the theory of a bacterial origin of the disease harmonize with the known clinical facts of the disorder? The consideration of this point is not relevant to this communication. It may, however, be stated that in my opinion the clinical features of gout—regular or irregular, acute or chronic—are more adequately explained by the light of our present knowledge of infections, relapses, and immunity than by any other theory. The distinctive feature of the infection in gout is that the toxin or toxins have the special property of disturbing nitrogenous metabolism in a manner favourable to the deposit of uric acid in certain tissues.

In conclusion, I would only add that the addition of a bacterial factor to our present conception of the disease would in no way minimize the importance of attention to dietetics in its treatment. It would correct the teaching of some writers whose standard of dietary has special reference to nuclein-holding foods, and would focus attention on the by-products of deranged digestion of carbohydrates and proteids arising from abnormal bacterial activity in the digestive tract and other tissues.

REFERENCES.
1 *Encyclopaedia Medica*, vol. iv, article Gout. 2 BRITISH MEDICAL JOURNAL, January 6th, 1900. 3 Ibid., January 31st, 1903.

GLANDULAR FEVER.

By JOHN W. BYERS, M.A., M.D.,
Professor of Midwifery and of Diseases of Women and Children, Queen's College, Belfast; Physician for Diseases of Women, Royal Victoria Hospital, Belfast; Physician, Belfast Maternity Hospital; and Consulting Physician, Belfast Hospital for Sick Children.

SINCE the middle of November an epidemic has been prevailing, chiefly among children, in Belfast and in parts of the North of Ireland of a kind which I have not seen before, either in private practice or during the years that I was physician to the Belfast Hospital for Sick Children, and which seems to me to correspond to the condition described in 1889 by Pfeiffer, and termed often by German writers Pfeiffer's *Drüsenfieber*. O. Heubner, Dawson Williams, Comby, Donkin, and J. P. West have also contributed largely to the literature of glandular fever. My knowledge is based on 33 cases, some of which occurred in two public institutions, while the others were seen in consultation.

Age.—The youngest child was 13 months, the oldest case was a female servant, aged 25, in a family where the children were attacked; but, with the exception of two cases (the one mentioned and another aged 21), all were in children or young people under 16 years.

Onset.—As a rule this was sudden.

Period of Incubation.—This was from five to seven days.

Symptoms.—In some of the cases the children went to bed in the evening complaining of slight sore throat. The next morning there was sharp fever (102° to 104° F.), pain on one side of the neck, which was tender on pressure and held stiffly; this was succeeded in another twelve hours by a distinct swelling of the glands under and in front of the sterno-mastoid. In the majority of the cases a similar enlargement appeared involving the deep glands of the corresponding and opposite sides of the neck. In the cases seen by me the right side was as a rule first affected. In another group of those attacked the children complained of nothing until the glands of the neck seemed suddenly to enlarge, and such cases when seen at first looked somewhat like aberrant forms of "mumps." In the severer cases headache was an initial symptom, and in a few sickness and vomiting were present and some abdominal pain, but I failed to detect any objective signs of involvement of the mesenteric glands. In none of the cases was the throat in any way affected beyond some slight congestion, and in the majority it was normal and showed no alteration to explain the slight dysphagia. The glands affected were as a rule the deep set under and in front of the sterno-mastoid, but in others those in the posterior triangles of the neck were involved; no suppuration occurred in any of the cases and the swelling of the glands subsided in most of the cases within a week from the onset of the attack, but in one case the enlargement remained for a fortnight, the fever going up and down in an erratic manner most of that time. The majority of the children were convalescent in a week, but in some of the severe cases those attacked remained poorly and looked anaemic for three to four weeks the glands continuing enlarged. When the disease entered a house nearly all the children were attacked, and in one place two of the female servants, both adults. No rash appeared in any of the cases, nor was there any kidney or other complication, and none suffered from depression except the very severe cases. There were no deaths.

Diagnosis.—When the first case appeared in a house, the adenitis naturally suggested some primary throat mischief, but nothing sufficient to cause the glandular swellings could be discovered on an examination of the throat, either on the tonsils or pharynx, and the presence of other cases in the same house showed that one had to deal with an epidemic fever.

Etiology.—In the BRITISH MEDICAL JOURNAL of December 5th, 1903, p. 1492, there is described an "epidemic sore throat and suppurative mammitis in cows," but in none of the cows seen by me were there any such conditions observed in the throat, and the cases were in groups, widely separated, and with no common milk supply. The mild type of cases, when

seen for the first time with a well-marked unilateral swelling of the neck, looked like a form of aberrant mumps, but careful examination showed that the parotid gland was not affected, and the children had no pain in closing the jaws or in eating; besides, some of the cases had previously suffered from mumps. It has been suggested that the disease might be a peculiar form of influenza; but as a rule in recent years, when abnormal types of that protean disorder occurred, we were able to diagnose them as due to the influenza poison from the fact that in the same house or locality other ordinary forms of that disease were detected. None of these usual forms of influenza occurred in the houses where the cases I have described were seen. I believe the cases were true examples of that acute epidemic infectious fever in which there is primary inflammation of the lymphatic glands. The poison of glandular fever is probably microbial, and the present extraordinary atmospheric conditions may present precisely those factors necessary for the growth of the infective germ which causes the disease. Some have suggested that infection is through the intestine; in the cases seen by me, it seems more likely that the invasion was by the throat.

Since writing this article I find that in a family where the children suffered from the ailment I have described, two of the adults developed a follicular tonsillitis, but in them although the glands of the neck were tender there was no palpable enlargement.

NOTES ON THE DISTRIBUTION OF CANCER IN THE FREEBRIDGE LYNN RURAL DISTRICT.*

BY CHARLES B. PLOWRIGHT, M.D., F.R.C.S.,
Consulting Surgeon, West Norfolk and Lynn Hospital; Hon. Chairman of the Division.

THE following notes are an epitome of a special report on the subject recently laid before the above district council.

The district in question consists partly of a chalk plateau covered in places by beds of boulder clay, glacial and post-glacial gravels and sand, and partly of the lower greensand; there is also a considerable area of alluvium. Each parish was visited, and the actual house, or its site if it had been pulled down, in which the patient lived, made out. During the forty-one years 308 deaths from cancer were registered; from these were eliminated those which were obviously due to sarcoma, and they were further corrected for immigration and emigration. As thus amended, 241 were found to have lived upon the various geological formations as given below, for a period of not less than three years preceding their death.

	Deaths.
Glacial and post-glacial gravels and sands ...	88
Lower greensand	75
Boulder clay	26
Chalk	25
Chalk marl	16
Post-glacial clay	6
Alluvium	5
	241

Of 265 deaths traced to their altitudes, one-half were found to have resided below 50 ft., and less than one-tenth between 100 and 300 ft. above sea level. The disease was more frequent in the western than in the eastern half of the district in the proportion of 3.1 to 1.8 per cent.

Some of the villages have suffered much more than others, and, furthermore, certain parts of some produced more cases than other parts. Especially was this the case in water-logged places where the water supply is derived from surface wells. There was evidence of the disease being more frequent amongst those who used certain wells. For example, in one village in which there were 10 deaths, 4 of them occurred in a small cluster of cottages around one shallow well from which they all drew their water supply; there were nineteen other wells in the parish. In another village there were 3 deaths all using the same surface well; in this parish there were twelve other wells. In another there were 3 cases amongst the users of one well out of a total of 5 cases; there were twenty-three other wells in this parish.

When the yearly deaths of each parish were "charted," in many cases a tendency to fall into groups was observable, a point quite hidden when the whole series of deaths in the district was treated in a similar way. This falling into little groups or miniature epidemics, when it occurred, was very striking. There were 5 instances of husbands and wives dying from cancer and 2 instances of the first and second wives of the same husband. In 13 instances 2 cancer cases occurred in the same house, in 10 of which both cases died in the house.

Woodland seems to have had no effect on increasing the number of cases, for the six parishes with the most woodland (2,635 acres) averaged 1.0 case per cent., while six other parishes without any woodland averaged 2.4 per cent. Neither had beer drinking any observable effect.

Respecting the geological formations most liable to cancer, it is interesting to note that they are the same in West Norfolk as those which produce most calculus,[1] namely, the gravels and sands, where the percolation of water is rapid, not upon the chalk, the deep wells of which yield water of great organic purity.

* Read at the Autumn Meeting of the West Norfolk Division of the East Anglian Branch of the British Medical Association.

REFERENCE.

1 On the Distribution of Calculous Disease in Norfolk, by C. B. Plowright, BRITISH MEDICAL JOURNAL, November 7th, 1885.

A NOTE ON DR. PRIMROSE'S PAPER ON FILARIASIS.

BY SIR PATRICK MANSON, K.C.M.G.,
Medical Adviser, Colonial Office and Crown Agents of Colonies.

IN his interesting article on filariasis,[1] Dr. Primrose, of Toronto University, gives the details of a case of lymph scrotum associated with embryo filariae in the blood. Two months after removal of the scrotum, in which an adult filaria and several fragments were found, the filarial embryos had disappeared from the circulation. Dr. Primrose concludes that the subsequent absence of embryos from the blood was attributable to the removal of the parent worm.

On January 29th, that is twenty-four days after the operation, embryos were still in great abundance in the blood, as many as 1,764 having been found in 1 c.cm. at 9 p.m. Dr. Primrose's assumption, therefore, postulates that the life of an embryo filaria is at least twenty-four days. I take the liberty of dissenting from Dr. Primrose in his interpretation of the facts.

Dr. Primrose states that his patient, forty-six days after the operation, suffered from an attack of elephantoid fever, accompanied by much inflammatory swelling at the root of the neck; the swelling was incised, and a mass of sloughy broken-down tissue was removed. I attribute the disappearance of the filariae from the circulation, not to the operation on January 5th, but to the attack of lymphangitis on February 19th.

The infection in Dr. Primrose's case was so severe that it could not have been produced by two or three parental filariae. We do not know how many adult filariae it would take to produce a stock of embryos such as he describes, but I think if we regard a minimum infection (that is, the product of one pair of parental filariae) to be five to ten embryos in a drop of blood (and this I consider an over-estimate), such an infection as Dr. Primrose describes would require ten to twenty, or even more, female adult filariae to produce. The scrotum must therefore have contained more parent filariae than were found in it, or there must have been parent filariae in some other part or parts of the body. The latter is my view, and I conclude that the main body of parental worms was destroyed during the very severe attack of lymphangitis on February 19th.

In 1892 and for several years subsequently I frequently saw a gentleman the subject of filarial varicose glands in the groin. His blood contained large numbers of embryo filariae—300 to 400 per drop at 10 p.m. About this time I was endeavouring to find out what became of the embryo filariae during their daily absence from the blood, and what might be the duration of the life of the individual embryo filaria. To settle these points, or at all events to throw some light upon them, I had arranged with the gentleman I refer to to have some of his blood transfused into two monkeys, my idea being that the embryos would continue to live in the monkey pretty much as they lived in their human host, and that by periodical examination of the blood I could watch their disappearance, and so get a key to their life-span. I also hoped from this experiment, should the embryos exhibit their usual periodicity of appearing and disappearing in the general circulation, that by killing one of the monkeys during

ne day, and subsequently examining its tissues, I should be ble to ascertain the place of their retreat.

At an examination of the patient's blood on October 22nd, 903, the embryo filariae seemed to be fewer in number than rmerly (thirty-nine to the slide at 9 p.m.). Three days sub-equently he had a severe attack of lymphangitis, but by ovember 18th had recovered his usual health, and the trans-ision agreed upon was arranged for, Sir Victor Horsley having indly consented to operate. Before commencing, I thought prudent to examine the patient's blood so as to get some lea of the number of embryos present in the blood we pro-osed to transfuse. I was astonished to find that the worms ad practically disappeared, only one or two in a slide being et with. Of course the operation was not carried out, as it ould have been hopeless to expect results with so small an nfection.

Subsequently, from time to time until July 16th, 1894, xaminations of this patient's blood were made at night. Up ll that date filarial embryos could still always be found in nall numbers—from one to eight at 10 p.m. On July 16th e came to me suffering from a feverish attack apparently ssociated with lymphangitis. I examined the blood, and und four filariae per drop ; next day I found six at 10 p.m. did not see him again till November, when I found no laria. I examined his blood many times subsequently, and lthough the glands in the groin were still varicose there were o nematodes in his blood.

The disappearance of embryos was manifestly a sequel of ne attacks of lymphangitis. This is not the only case in which have seen permanent disappearance of embryos follow an ttack of lymphangitis, but I have never before or since had chance of watching a case so closely and completely. There an be little doubt that the death of the parental filaria roduces lymphangitis or vice versa ; the circumstances are ssociated.

I therefore consider that in Dr. Primrose's case, although me diminution in the stock of embryos doubtless resulted om the removal with the scrotal tissues of one or two males, the great bulk of the infection was got rid of at the me of the subsequent lymphangitis.

In discussing the subject of filarial infection, Dr. Primrose fers to Drs. Dutton, Annett, and Elliot's opinion as regards ne specific identity or the reverse of filaria nocturna and laria diurna. These gentlemen submit that the weight of vidence is on the side of identity of these two forms, and I e their views frequently quoted. I recommend the student be careful in committing himself to such an opinion. he precise evidence I was at one time able to collect nder very favourable circumstances leads me to the pposite conclusion. Recently I had an opportunity of xamining the blood of one of the cases of sleeping sick-ess now in Paris. The examination was made about midday, nd the blood was full of embryo filariae. Of course ne circumstance that filariae were present in such great undance during the day may be explained by the sleeping abit of the patient, but I was struck with certain features of ne parasite in dry films which forcibly reminded me of ob-rvations on filaria diurna many years ago. These features ere (1) the awkward position, so to apeak, assumed by the arasite, the body flexures being more in angles than curves, s is generally the case in dry specimens of filaria nocturna ;) the tenuity of the extreme end of the tail ; (3) the acute exion of the tip of the tail on the body in a majority of the mbryos. It is a dangerous thing to attempt to diagnose pecies from embryos, but there are slight differences which, ken together with the marked difference in periodicity, stify to my mind the conclusion that nocturna and diurna e specifically distinct, and that in this Paris case we were ealing with filaria diurna.

I notice in Drs. Stephens's and Christopher's newly-issued dmirable work on *Malaria and other Blood Parasites* that they uote Dr. Christy and Professor Firket as holding that there e several species to which the name of filaria perstans has en applied. I do not know what Dr. Christy's evidence may e on this point, but I have had an opportunity of seeing Pro-ssor Firket's preparations, and from these it is evident how e comes to the conclusion that the name filaria perstans vers at least two pieces of small, non-sheathed, blunt-tailed ood worms. In any slide of blood unevenly spread and con-ining filarial embryos it is always possible to find marked fferences in the size of the filariae. This depends on the ickness or thinness of the film of blood and the rate at which ne different areas of blood film dried. Moreover, filaria perstans ssesses in a remarkable degree the power of extension and contraction ; an embryo which died when fully extended would present very different measurements and appearances from one which died when contracted.

REFERENCE.
1 British Medical Journal, 1903, ii, p. 1262.

THE LIFE-SPAN OF THE GUINEA-WORM.

By ARTHUR POWELL, B.A., M.Ch.,
Surgeon, Police Hospital ; Professor of Biology, Grant Medical College Bombay.

A paper on this subject, by Sir Patrick Manson, appeared in the British Medical Journal of July 4th, 1903, p. 10. In Sir Patrick Manson's cases the time of possible infection extended from February to June. In the cases under consideration the period of exposure in the endemic area was only two days. I am indebted for the particulars to Messrs. M. Cursetjee and Fazalbhoy Chinoy. A party of sixteen gentlemen, with five servants, all residents of Bombay—a city with a good artificial water supply, where guinea-worm is only seen in patients from the country, chiefly from the Deccan—left Bombay, and reached Mahad on April 20th, 1902. They all stopped there for two days, drinking unfiltered the water of a well. They returned to Bombay on April 22nd, 1902.

On April 2nd or 3rd, 1903, the first worm made its appearance in the leg of one of these gentlemen. Up to the first week in July worms to the number of nine continued to be discharged from his body. Doubtless owing to injection with mercury perchloride the exit of some of these worms was delayed, as they were killed and came away piecemeal, causing a good deal of suppurative cellulitis.

The next patient was delivered of a worm on May 1st, 1903, five other patients between that date and May 20th, 1903. Seven patients in all were attacked, six of the party of sixteen and one of the five servants. Nineteen worms in all were extracted. None have come out since the first week in July up to the present date, October 3rd, 1903. The shortest period in these cases was 345 days, the longest 435. The great majority of worms appeared a year and two or three weeks after the date of infection.

The estimation of the life-span of this worm in its human host is a matter of importance in prognosis in the case of persons exposed to infection. Thus I had no hesitation in informing the ten gentlemen who have not yet been infected that they have little reason to fear the appearance of worms, a matter of considerable concern to some of them.

Inquiries were made among the inhabitants of Mahad as to the prevalence of the worm in the district. The replies indicate that about half the population suffered from guinea-worm this year.

There is frequently considerable fever a few days before the worm becomes palpable. Two of these cases suffered from fever, with swelling of the face and hands. The sensation of swelling and tension to the patient is greater than the appearance to the surgeon seems to warrant. This swelling of the face and hands seems independent of the situation of the parasite, and I have frequently observed it when the worm was in the lower extremities.

The origin of this fever may be suspected from the absence of malarial parasites and an increase in the proportion ef the eosinophile corpuscles in the blood. In a paper [1] recently read before the Bombay Medical and Physical Society I described six cases of guinea-worm infection in which examination of the blood showed 4.75, 5.5, 7.5, 7.5, 8, and 12.25 per cent. of eosinophile corpuscles respectively. The pus from one sinus contained 19 per cent. eosinophiles.

REFERENCE.
1 Examination of the Blood in 3,400 Cases of Fever, *Traneactions of the Bombay Medical and Physical Society*, September, 1903.

Bequests and Donations.—The Duke of Northumberland has given £1,000 for the building fund of the proposed new infirmary at Alnwick, and has offered the choice of two sites in the neighbourhood of the town.—Under the will of the late Mrs. Eliza Darling, of Phillimore Gardens, Kensington, £1,500 has been bequeathed to the Broadstairs Convalescent Home of the Victoria Hospital for Children at Chelsea ; £2,000 to the Victoria Home for Invalid Children at Margate ; £1,000 to the National Society for the Employment of Epileptics ; and £500 each to the London Fever Hospital, the Brompton Hospital for Diseases of the Chest, King's College Hospital, and St. Thomas's Hospital.

MEMORANDA:

MEDICAL, SURGICAL, OBSTETRICAL, THERAPEUTICAL, PATHOLOGICAL, ETC.

PRIMARY ECLAMPSIA IN A MULTIPARA.

THE proportion of eclamptics who, after their first pregnancies, escape further troubles in subsequent gestations is about 80 per cent.; what proportion of women develop eclampsia for the first time in a second or subsequent pregnancy I can find no records to show, but it must be rare indeed for a woman to become eclamptic for the first time in her tenth pregnancy. A brief record of such a case may be worth recording.

Mrs. N. M., aged 43, is the mother of nine children, the eldest 26, the second youngest 10, and the youngest 3. The first eight pregnancies were normal; in the ninth she suffered from what Herman calls the chronic renal disease of pregnancy—that is to say, she had oedema of the legs and slight general functional disturbance, but was delivered at full term and made a normal recovery.

The tenth pregnancy progressed normally till the sixth month, when slight oedema showed itself, as in the previous one; there were no other symptoms; the urine was not examined. Four weeks before term the patient had a convulsion; the urine contained $2\frac{1}{2}$ per cent. of albumen and was scanty; the convulsion was not severe, and there was no intermediate coma; a diuretic mixture was given. The first fit occurred at 5 p.m., at 7.30 p.m. there was another; next morning she had a third, during which the fetal membranes ruptured. On examination per vaginam the os uteri was found slightly dilated, and the head of the child presenting; there were no uterine pains, but three hours afterwards a well-grown living child was born. The same afternoon the patient had a fourth mild fit. Next day the urine contained no albumen, and from then onward the patient made an uneventful recovery.

In this case the determining cause of the eclampsia was probably the anaemic condition of the patient. She has now reached the menopause, and suffers periodically from severe menorrhagia, which is best controlled by the exhibition of iron in large doses.

Kingsbridge. HARRY GREY, M.D.

SEPTATE VAGINA CAUSING DELAY IN LABOUR.

ON June 29th, 1903, when examining a primipara, aged 22 years, lying in the left lateral position, the finger seemed unable to enter the vagina between the labia majora, but ran against a soft, fleshy mass close to the outlet. To the left, however, an opening was found, by which the finger entered. To the right was a strong, bandlike structure, behind which the finger passed into narrow canal leading to an outlet at the top of the partition. On finding this, I passed a finger of the left hand through it, and could touch the right hand finger within the vagina beyond the mass. The left opening was the larger, and the left of the two divisions of the vagina seemed the roomier. As the head came in contact with the mass, labour was thus delayed, so I delivered with forceps by the left opening. The perineum was left intact, and there was little blood loss.

Upon subsequent examination, when sufficient time had passed for the parts to regain their natural form, it was found that the fleshy mass met with during the confinement now consisted of a narrow band about $\frac{3}{16}$ in. in diameter, which ran across the vaginal outlet from the base of the meatal opening to the posterior wall, and thus divided the vagina into two parts. Eventually I sent the patient to hospital for removal of the band, when a confirmatory diagnosis of septate vagina was made, with the remark added, "that the child had been born by the left aperture," which was the case. A rudimentary second uterus was removed from the right side at a subsequent operation.

Birmingham. JOHN W. DUNCAN, M.A., M.B., Ch.B.

MULTIPLE VAGINAL SEPTA.

MRS. X., aged 35 years, married six years, was sent to me for operation for vaginal trouble. Sexual intercourse had been difficult, and accompanied with extreme pain ever since her marriage. Her general condition was extremely good; there was no neurotic tendency, and the catamenia had always been regular. The external genitals were normal in appearance, and remains of the hymen were present. There was marked extroversion of the mucous membrane of the urethra, and the urinary meatus was much enlarged. On vaginal examination the finger entered for about one inch, and here it was then intercepted by a tough fibrous partition, with an aperture in the centre not large enough to admit the tip of my little finger. This was the evident cause of the incomplete coitus, and the attempts had produced the urethral condition.

Under chloroform this septum was divided almost down to the vaginal wall in two or three directions, and well dilated with the fingers. On further examination, I found a similar partition about one inch farther up the vaginal canal which had to be treated in the same manner, and finally a third septum, through which the external os and cervix uteri could just be felt. The vagina was tightly packed with iodoform gauze at the time, and repacked daily after antiseptic douching for about ten days, by which time the cut surfaces were healed, and two fingers passed readily up to the cervix. The first septum, as far as one could judge, was twice as thick as either the second or third, but all sufficiently dense to require incision before dilatation. In all the aperture was about the same size, and sufficient for the menstrual flow, which had always been regular. With reference to the first septum, of which cases have been recorded, the theory of Dr. Berry Hart is, I think, substantiated, namely:

> That the upper two-thirds only of the vagina are derived from the ducts of Müller, and the lower third is due to the coalescence of the upper portion of the urino-genital sinus and the lower ends of the Wolffian ducts.

Certainly this septum was formed at the junction of the middle and lower third, or approximately about one inch from the hymen. How can the second and third septa be accounted for? One thing is certain, they were congenital, for sexual penetration was impossible beyond the first.

In the *Edinburgh Obstetrical Transactions* for 1900-01, pp. 270, Dr. Berry Hart says:

> The epithelial lining of the vagina is derived from the Wolffian bulbs, which bulbs are epithelial proliferations of the Wolffian ducts, and as these, according to all recent embryological work, are derived from the ectoderm, this layer is the source of the epithelium of the bulbs. He also states that the epithelium of the bulbs proliferated into the Müllerian vagina (that is, the upper two-thirds), mapped out the fornices, and passed into the lower third of the cervical canal, blocking these up, and rendering them solid for the time, as Tourneux and Legay have well figured. Further, the central cells, which both in the Wolffian bulbs and the Müllerian vagina are the more advanced, soon begin to desquamate, and in this way a central lumen forms.

Might these septa, second and third, be due to a failure in desquamation?

W. H. GRAHAM ASPLAND, M.D.Toronto, F.R.C.S.Edin., etc.
Harbour Grace, Newfoundland.

PLEUROPAGOUS TWINS: DIFFICULT LABOUR.

ON October 8th, 1903, I received an urgent summons to attend a case of labour in the country. The patient was a multipara, 26 years of age. On examination I found the head presenting in the vagina. During two hours there was not the slightest progress made, and accordingly I began to suspect that it was due to some abnormality. I then made a further and more exhaustive examination and discovered that I had to deal with a case of united twins. After several fruitless efforts to deliver them *per vias naturales* I was preparing to perform Caesarean section, but to this operation the friends objected. Finally, after I had almost given up hope, and was afraid of rupturing the uterus, I succeeded in effecting the delivery of two stillborn female babies. They were united not by a band alone, as were the Siamese twins, but were closely joined from the pelvis to the shoulder. Lying side by side the two bodies were as one. There was only one placenta and one cord connected with one umbilicus, which was situated midway between both bodies.

The mother had no rise of temperature or any unfavourable symptoms, and was sitting up by October 18th.

Listowel. THOS. GALLIVAN, M.D.

CASE OF PLACENTA PRAEVIA.

I WAS summoned at 4 a.m. on December 6th, 1903, to see Mrs. A., aged 32, multipara, a labourer's wife, by a midwife, who said there was "something wrong." On arrival I found the placenta lying in the bed attached by the cord to a fetus *in utero*. I removed the placenta and with a little trouble extracted a fetus of about the eighth month encased in

membranes, of course dead. The presentation was facial. The patient informed me that she had had two or three pains, and then with a gush of blood and amniotic fluid the placenta was expelled. Perhaps the case is worth recording as it seems to be the very easiest case of the obstetrician's bugbear, placenta praevia, of which I have ever heard. There were no complications whatever.

Shebbear, N. Devon. A. BLECKLY CLARKE, L.R.C.S., etc.

PLURAL PREGNANCY, TRIPLETS, PRESENTING SOME UNUSUAL FEATURES.

A HINDU (Tamil) woman, Rangamal by name, and a native of Madura, was admitted into the Municipal Lying-in Hospital at 4 a.m. on June 29th, 1903, with enormous distension of the abdomen and complete inertia. She gave the following history. Aged about 40. This was her eighth pregnancy. The former labours had been normal and single, but in her seventh instruments had been necessary, apparently from inertia. She stated that she had this time gone to full term, that her pains had started the previous evening about 7 p.m., and had ceased an hour or two prior to admission. She came to hospital because of the great distension of the abdomen, which rather scared her.

Condition on Admission.—Abdomen enormously distended, pains entirely absent, os fully dilated, and a foot and cord presenting. The feet of the presenting child were pulled down, and attempts made to get the cord out of the way; but it could not be kept up, and as there was some delay with the aftercoming head the child was stillborn. The second child gave no trouble, feet presented, and the child was speedily born, and alive. After the birth of the second there was still considerable distension, and on introducing my hand I was surprised to find that there was still another child, and this being small was removed with the placenta and membranes intact. This third was a fetus papyraceus, and the cause was at once apparent. The cord was very short, and near its placental origin much twisted on itself and constricted, causing the death of the fetus about the fifth month from malnutrition. All three cords had separate origin from a common placenta, which was very large, and all three children were males. The first-born weighed just over 6 lb., the second 4½ lb., and the third about 2 lb. The puerperium was uneventful, and the patient was discharged on the ninth day with the second-born child also doing well.

I do not know whether statistics have been collected in India as to the frequency of this condition. I have not been able to find any in any of the books of reference available here, but that it is rare is certain.

Madura, S. India. E. WATSON, M.B.Ed. Captain I.M.S.

HEREDITARY TENDENCY TO MULTIPLE BIRTHS.

IN view of the well-known hereditary tendency towards multiple births in certain families the following history may be of interest: I attended Mrs. M., aged 30, in her last two confinements, and on both occasions she has had twins. On inquiry I found the following remarkable history. Her mother had twins twice, her sister twins once, and her aunt had twins at 40. On the husband's side, I find he himself is a twin, whilst his first cousin had twins once and triplets once. As the tendency to multiple births increases with later pregnancies, I see no reason, in view of Mrs. M.'s age, why she should not easily eclipse the extraordinary recorded case of Curgenven quoted by Playfair.

Platt Bridge, Wigan. WM. RALPH DIX, M.D.

SUBOCCIPITAL PRESENTATION.

MRS. B., a multipara, had been previously attended by me in most of her confinements without anything noteworthy occurring. This time the presentation was at first occipito-anterior, but as the case proceeded the occiput began to retreat posteriorly, and as the pains got heavier the flexion became more and more extreme until the upper part of the neck presented, and then came an entire block, after which no progress was made. The treatment adopted was to put the patient thoroughly under chloroform, and, introducing my hand, to grasp the head, and pushing it up during the absence of pain, convert it by extension into a vertex presentation, rotating it into the nearest oblique diameter, and at the same time fixing it there with the forceps. The subsequent delivery was easy.

Sunderland. B. STRACHAN, M.B.

REPORTS
ON
MEDICAL AND SURGICAL PRACTICE IN THE HOSPITALS AND ASYLUMS OF THE BRITISH EMPIRE.

LONDON HOSPITAL.

A CASE OF BILATERAL EXTRAUTERINE PREGNANCY.

(By HENRY RUSSELL ANDREWS, M.D., B.S.Lond., M.R.C.P., Assistant Obstetric Physician to the Hospital.)

CASES of repeated tubal pregnancy are not very uncommon, nor are cases in which an extrauterine fetus has been carried for many years in the abdomen without causing trouble. There have also been recorded cases of uterine pregnancy occurring in women carrying a lithopaedion. The following case, however, in which a left-sided extrauterine pregnancy occurred while there was present in the abdomen a lithopaedion resulting from a full-time, right-sided, extrauterine pregnancy of eight years before, is, if not unique, at least of sufficient rarity to warrant its publication.

E. W., aged 37, was sent to me by Dr. Herman and Dr. O. R. M. Wood, to the latter of whom I am indebted for some of the following notes:

Previous History.—The patient had been married thirteen years, and had had no children and no miscarriages. The catamenia began at 13, and were quite regular until nine years ago, when she had nine months' amenorrhoea. During these nine months she had frequent attacks of abdominal pain, which used to double her up and make her vomit. The abdomen became as much enlarged as in an ordinary pregnancy, but the enlargement was more marked on the left side than on the right. Movements of the fetus were felt up to the end of the nine months, when pains like those of labour came on, lasting twenty-four hours, and accompanied by a "show." The fetus was found to be lying with its back in front and to the left, with the head in the brim of the pelvis. The fetal heart was heard. There was no result from these pains except that the patient became rather collapsed, and the cervical canal was slightly dilated. After this "spurious labour" the patient lost a small quantity of blood for a week or two. For the next eight years her health was excellent, aed she was free from abdominal pain. The abdominal swelling became somewhat smaller. The catamenia were perfectly regular.

State on Examination.—When the patient was admitted into the London Hospital she had missed three periods, and had had a good deal of vomiting. She considered herself to be pregnant again. She was well nourished, and not anaemic. The breasts showed signs of activity. A very hard, irregularly-rounded tumour was found rising out of the pelvis to a point three fingerbreadths above the umbilicus. It was situated much more on the left side than the right, reaching out almost to the left anterior superior iliac spine. Per vaginam the cervix, which was soft, was felt displaced to the right. To the left of the cervix was a soft swelling below and to the left of a rounded mass of almost stony hardness, which was filling up the brim of the pelvis. This soft swelling was quite fixed. Its size could not be estimated on account of the presence of the hard fixed swelling above it. It was thought to be the body of the uterus, three months pregnant, with a lithopaedion above it. As part of the lithopaedion was firmly fixed in the pelvis, it was obvious that pregnancy could not continue, so I decided to operate.

Operation.—On opening the abdomen a lithopaedion of almost full size was found. The right side of the peritoneal cavity was comparatively free. The left half was obliterated by adhesions between the fetus and the omentum and the peritoneum of the abdominal wall. The head of the fetus was firmly fixed in the pelvis. The fundus of the uterus could just be seen below and in front of the head. The whole breadth of the great omentum was adherent to the breech and legs of the fetus, requiring numerous ligatures in its separation. When the legs and buttocks had been freed the adhesions between the back of the fetus and the anterior abdominal wall were cut and torn through. Some of these adhesions were tough and fibrous, others soft and filamentous. There was some difficulty in separating the head from its firm connexions with the pelvis. While this was being done a gush of blood came from the left side of the pelvis low down. The abdomen and arms of the fetus were practically non-adherent. As soon as the head was freed it was seen that there was another fetus, of about three and a-half months, hanging out of a rent in the posterior layer of the left broad ligament, from which blood was pouring. The left Fallopian tube and the greater part of the left broad ligament, containing a placenta, were then removed. The small fetus was apparently living up to the time of the operation. The right tube was thick and tough, about 8 in. long, and firmly attached by its fimbriated extremity to the right shoulder of the lithopaedion. The right broad ligament was very thick, tough, and opaque. The right ovary was not identified with certainty. Removal of the left tube, and the greater part of the left broad ligament, left a cavity deep in the pelvis, with numerous oozing points. This cavity was lightly packed with iodoform gauze, which was brought out between the two lowest stitches in the abdominal wound.

Result.—The after-history of the case was uneventful. The gauze was

removed on the fifth day, and the wound healed by first intention. The patient left the hospital on the twenty-fourth day.

Description of the Specimen.—The larger fetus, a male, weighs 3 lb. 5 oz., and measures 17 in. in length. It is well formed; it is enclosed in amnion and chorion, which closely embrace the fetus without being anywhere adherent to it. The adhesions described in the account of the operation were between the chorion and surrounding structures; the fetus itself was adherent to nothing. Besides the amnion, chorion, and placenta there was no "sac" enclosing the fetus. The placenta, which measures 4½ in. in diameter, was lying over the right side of the back of the fetus. It is impossible to say anything about the connexion between the right tube and the placenta, except that its fimbriated extremity was adherent to the chorion over the right shoulder of the fetus, close to the edge of the placenta. The head is extended on the trunk, and there is much overlapping of the cranial bones. The thighs and legs are flexed. The skin of the back where it was in contact with the placenta is little altered. Over the rest of the surface there is a varying amount of calcareous deposit. The amnion and chorion are free from calcareous deposit. The hair has become separated from the scalp, and is lying mixed with fatty material, much resembling the contents of a dermoid, in the fold between the head and the back. The fetus is rather brittle and quite stiff; the left hand was broken off at the wrist during the separation of adhesions. Except for the marked change in the shape of the head, due to overlapping of the cranial bones, the shape of the fetus is very little altered. The placenta belonging to the lithopaedion was not noticed during the operation. It must have been adherent to the right tube and anterior abdominal wall. The smaller fetus, also a male, is 3¾ in. in length.

Remarks.—This case bears out the usual teaching that in advanced "abdominal" pregnancy the fetus is not free in the peritoneal cavity, but is enclosed in its amnion. The absence of suppuration and the freedom of the mother from any symptoms beyond those caused by the weight of the fetus are probably due to the fact that the chorion was nowhere adherent to the intestine. From the absence of any disturbance in the anatomical arrangement of the pelvic peritoneum, except that both layers of the right broad ligament were increased in size, it is probable that secondary rupture into the abdominal cavity took place early, and that the pregnancy was not long subperitoneal. It is noteworthy that in neither pregnancy was there discharge of blood from the uterus or passage of a decidual cast.

The specimen was shown at the December, 1903, meeting of the Obstetrical Society of London.

LEEDS GENERAL INFIRMARY.

TEN THOUSAND CONFINEMENTS ATTENDED IN THE OUTDOOR MATERNITY DEPARTMENT.*

(By John B. Hellier, M.D.Lond., Honorary Obstetric Physician to the Infirmary.)

The Maternity and Gynaecological Departments of the General Infirmary at Leeds were inaugurated in November, 1885, to meet a want long felt by our students and to make a much needed extension of the benefits of the charity. The first obstetric physician, Dr. James Braithwaite, held office till 1899 when he was appointed Consulting Obstetric Physician, and the present writer took his place. The staff of the department also includes a qualified resident obstetric officer, the first one appointed being Mr., now Dr., E. O. Croft. Two maternity clerks are appointed monthly and each student of the school is required to take a month's maternity clerkship. No midwives or outdoor maternity nurses have hitherto been employed. There are no lying-in beds in the infirmary, but cases of special urgency requiring major operative measures are admitted from time to time. The following report refers only to cases arising in connexion with the outdoor maternity department. Between 500 and 600 cases are attended annually and each student may usually calculate on having from 20 to 30 cases.

The maternity district lies principally in the oldest and worst part of this densely-populated, smoky, and dirty manufacturing city. The district includes some confessedly insanitary areas, there is a considerable Irish population, and a large number of Polish Jews, who are mostly engaged in the clothing trade. These Jewesses furnish a very considerable contingent to our gynaecological and maternity departments. They are usually poor and dirty, they bear pain badly, and complain much of various subjective abdominal symptoms, due very largely to constipation and flatulent dyspepsia. They are, for reasons of ritual, curiously particular as to the regularity of menstruation, and the occurrence of a slight stain for a day or two too long at the period will bring them to the hospital. The "Yiddish" which they speak, when mixed with a smattering of the Yorkshire dialect, makes a most extraordinary patois.

Towards the end of 1902 the number of confinements attended reached 10,000, and I think the following report of work done in this city under the above-mentioned conditions may be of interest. I am not aware of any similar statistics relating to midwifery practice in this part of England that have been previously published.

Statistics of Maternity Department, 1885-1902.

Women delivered, 10,000.

Children born: Males, 5,145; females, 4,987; total, 10,132. Twins, 130 cases; triplets, 1 case.

The number of females to males is as 1,000 : 1,032. This closely corresponds with the proportion for England given in the last reports of the Registrar-General (Report for 1900, p. xiv), namely, 1,000 : 1,033; twins occur 1 in 76 labours. The average frequency in England is 1 in 110, and in Ireland 1 in 60 (Galabin).

Presentations (single births): Vertex, 9,519 (95 per cent.), 19 in 20. Pelvic presentations: Breech, 209; foot, 32; total, 261, or 1 in 38. Face and brow, 43, or 1 in 232: transverse, 46, or 1 in 217. Presentations (twin births): Vertex and vertex, 57; vertex and breech, 49; breech and breech, 8; unclassified, 16. An undue proportion of pelvic and transverse presentations would point to frequency of contracted pelvis, but the above figures do not show any special excess over the average.

Operations: Forceps, 386 cases (1 in 25.9). Version for crossbirth, 34; for contracted pelvis, 23; for placenta praevia, 22; unclassified, 9. Perforation, embryotomy, 20.

Complications: Placenta praevia 37 (1 in 270); eclampsia 17 (1 in 588); chorea 3; *post-partum* haemorrhage 76; phlegmasia dolens 5; rupture of uterus 1; puerperal sepsis (data inadequate). The figures for *post-partum* haemorrhage are of little value. Opinions vary so much as to what shall be called *post-partum* haemorrhage, and too many inexperienced observers have been responsible for the diagnosis.

The number of cases of placenta praevia is distinctly high, and the figures are more reliable. Estimates of frequency vary from 1 in 1,500 (Winckel) to 1 in 1,000 (Herman, W. Williams) to 1 in 748 (Pozzi) and 1 in 534 (Guy's Hospital). Even allowing for a certain number of errors in diagnosis, there seems to have been a high proportion of cases of placenta praevia in our practice.

The maternal deaths in the first ten days have been 30 (or possibly 34), 3 per 1,000. This mortality is so very low that pains have been taken to determine the accuracy of the figures. It is almost certain that all the deaths that have occurred in patients' homes in the first ten days have been recorded. The Infirmary Board receives a weekly return from the department, and any fatality would certainly be noted. Some few cases have been brought into the hospital, and included if fatal in the in-patient returns. Search has been made, and such as have been found have been included in the figures given. Concerning 4 such cases we are not now able to state whether they were maternity patients or not. Therefore the deaths may possibly be 34 instead of 30. As to deaths after the first ten days information is wanting. Cases of chronic or protracted puerperal disease may have been transferred to the Poor-law authorities or have been occasionally taken into the infirmary.

Causes of Maternal Death.

"Puerperal fever" and peritonitis	8
Phlegmasia and embolism	1
Mitral disease	1
Eclampsia	7
Syncope	1
Accidental haemorrhage	1
Placenta praevia	2
Secondary haemorrhage	2
Acute phthisis	1
Pneumonia	3
Mitral obstruction	1
Haematemesis	1
Chorea	1
	30

The 4 doubtful cases mentioned above are 1 each of "puerpera fever," eclampsia, placenta praevia, and accidental haemorrhage. I the 10,000 confinements there have been 464 cases of stillborn children including a few cases of abortion: 195 children have died in the firs ten days, or 1 in 52. There is a good deal of rickets in Leeds, but th experience of our practice does not seem to indicate a great prevalenc of dystocia.

Considering the unfavourable surroundings of our patients and considering also that such maternity work is in the ver nature of things the work of beginners, the above report is c its kind very satisfactory.

One cannot, however, insist too strongly on the fact tha the percentage of mortality is not the only test of success i midwifery. Successful midwifery means parturition witho pathological sequelae. The amount of chronic pelvic disea that is seen in all gynaecological wards points to the need c general improvement in the care and treatment of lying-i women in England. The suppression of incompetent mi wives, the provision of more lying-in hospitals, and the bett clinical instruction of students are the principal requiremen for this end.

The present system of instruction in midwifery has obviou

*The statistics have been prepared by Mr. H. Brown, M.B., Ch.B. Victoria, Resident Obstetric Officer from May, 1902, to May, 1903.

efects. A student who presents himself for examination in nedicine or surgery has had some three years or more of good nd varied clinical experience in a hospital. He has seen xamples of most of the diseases and injuries of which he has ead, and has seen all the principal operations of surgery arried out under the best attainable conditions. But the verage student who comes up for examination in midwifery as seen about twenty labours, most of them normal presentaion and uncomplicated. His midwifery practice has been rincipally in a "slum" population where proper aseptic onditions are not attainable. He has almost no experience f operative midwifery, and the greater part of his knowledge f obstetrics is pure "book work." The ideal for the future s that every medical student should commence his practice f midwifery with clinical experience in a properly appointed ying-in hospital.

REPORTS OF SOCIETIES.

PATHOLOGICAL SOCIETY OF LONDON.

RICKMAN J. GODLEE, F.R.C.S., Vice-President, in the Chair.

Tuesday, January 5th, 1904.

THE STAPHYLOCOCCUS AUREUS AND RHEUMATIC FEVER.

DR. F. J. POYNTON and Dr. W. V. SHAW brought forward a ommunication in continuation of recent investigations pon the pathogenesis of rheumatic fever. Many spoke of heumatic fever in a vague way as an attenuated pyaemia, he result of any infection which might cause pyaemia. The uthors were opposed to this contention, held that rheumatic ever had a definite clinical entity, and relied entirely on atal cases for their arguments. If merely an attenuated yaemia, the staphylococcus aureus, one of the most imortant causes of pyaemia in man, should also be a frequent ause of rheumatic fever. This, however, did not prove o be the case. In the research described it was demontrated that the staphylococcus aureus and the diplococcus heumaticus could be easily distinguished from one another. n the 25 fatal cases of rheumatic fever investigated the taphylococcus aureus could not be found. They had solated it from human tissues, but not in rheumatic fever. Differential experiments with the staphylococcus aureus and he diplococcus rheumaticus produced different results. The taphylococcus produced septicaemia or pyaemia with mulple abscesses, or no result, and the diplococcus either the anifestations of rheumatic fever or no result. The effect of ixed infections with the two micro-organisms had also been tudied, the injections being sometimes simultaneous and ometimes consecutive. When the injections were simultaeous death was rapid, and pyaemic abscesses containing the taphylococcus were found, and also arthritis and in some ases endocarditis. The staphylococcus was most easily ound in the blood, the diplococcus in the joints. Both nicro-organisms were demonstrated in the tissues and solated after death. When the staphylococcus inection followed the rheumatic, the disease that deeloped was a pyaemia, or rapidly fatal septicaemia. o far as it was admissible to argue from these experiments o clinical medicine, the staphylococcus aureus, far from prolucing in mixed infection rheumatic fever, produced a yaemia with multiple abscesses or a rapid septicaemia. A linical case of mixed infection was described. The patient, boy who was suffering from cellulitis of a leg, developed rthritis and pericarditis. In spite of the cellulitis the ymptoms were so very similar to rheumatic fever as to raise his point in diagnosis. After death purulent pericarditis, rthritis, and multiple abscesses were found, and Dr. Paine solated from the pus the staphylococcus aureus and a diplococcus. Their final conclusions were: (1) The staphylococcus ureus is not a cause of rheumatic fever either in simple or ixed infection; (2) rheumatic fever is not an attenuated yaemia so far as the staphylococcus aureus is concerned. The paper was illustrated by macroscopic and microscopic preparations, drawings, lantern slides, and cultures.)

Dr. BERTRAM ABRAHAMS thought that before concluding that heumatism was not an attenuated pyaemia, experiments vith attenuated cultures of staphylococcus aureus should be nade. He was inclined, too, to regard the streptococcus ather than the staphylococcus as the organism to be investigated. Different organisms had been isolated in different xamples of rheumatic fever, and it was hardly right at present to assume that any one was *the* cause of the disease; possibly the various organisms found were responsible only for the various complications that arose.

Dr. J. F. H. BROADBENT considered that the absence of suppuration in the lesions of rheumatic cases indicated that the staphylococcus pyogenes aureus was not the microbe causing the disease.

Dr. POYNTON replied that the theory that rheumatic fever is a reaction to several forms of microbic infection was one that needed proof. In the work by Dr. Shaw and himself the staphylococcus had been attenuated by growing it in acid media until it would produce no effect on animals. He thought that the streptococcus pyogenes was an organism which needed defining.

DERMOID TUMOURS OF BRAIN.

Dr. H. M. STEWART exhibited the above. One of the cysts had grown in the site of the pituitary body, the other lay in the marginal convolution of the frontal lobe, in close proximity. The patient, a man, was subject to severe headache; there were no retinal changes, and no ocular or other paralysis. Death was preceded by severe vomiting.

Dr. F. BUZZARD described the case of a boy in whom, after death, a large dermoid tumour was found on the orbital surface of the frontal lobe. He was healthy until the age of 14 years, and the author thought the symptoms might have arisen from the filling of the cyst with sebaceous secretion, the glands having acquired activity at puberty. As to the relation between pial dermoid cysts and cholesteatoma, some writers had claimed that all gradations occurred between the two.

RACEMOSE ANEURYSM OF THE BRAIN.

Dr. J. H. DRYSDALE exhibited an example of this rare condition. On the anterior part of the right hemisphere was an extensive area of tortuous vessels, from which a wedge-shaped mass extended into the white matter. The lesion was not an angeioma, but a tortuous plexus of arteries, the supplying vessels being of remarkably large size. It corresponded with the cirsoid aneurysm in other situations, and its causation was in none definitely known. In some of the twelve cases to be found in literature the condition was congenital, in others it was associated with injury. The chief clinical feature in the case under consideration was the occurrence of typical epileptic fits. In answer to the CHAIRMAN, Dr. DRYSDALE stated that an examination of the brain in cases of cirsoid aneurysm of the scalp had not disclosed any similar condition in that organ.

PULSATING EXOPHTHALMOS.

Mr. H. L. BARNARD and Mr. H. M. RIGBY recorded a case of this condition in a man who attempted suicide by firing a pistol through his mouth. The diagnosis made was traumatic communication between the internal carotid and the cavernous sinus. The common carotid was ligatured and the condition disappeared. The bullet was not extracted for prudential reasons, and death occurred with cerebral abscess. At the necropsy no arterio-venous communication was found, but an aneurysmal condition of the internal carotid. This was responsible for the pulsating exophthalmos, though certain writers had maintained that in every such case of the latter an abnormal arterio-venous communication existed. The authors found it difficult to explain the occurrence of the exophthalmos under the circumstances.

EXAMINATION OF A CASE TREATED BY DR. OTTO SCHMIDT'S METHOD.

Dr. R. N. SALAMAN exhibited the pelvic organs in a case of epithelioma of the cervix from a patient who had been treated by the so-called passive immunization therapy of Dr. Otto Schmidt of Cologne, a case referred to in the address to the Abernethian Society, November 5th, 1903, given by Dr. Josse Johnson. In that address attention was drawn to the occurrence of intestinal obstruction during the course of the treatment, and this, together with the uraemic symptoms which ushered in death, were ascribed to an undue fibrous formation, and "inconvenient cicatrization" or overcure on the part of the diseased tissues under the curative stimulus of the serum. Microscopical preparations, both from the strictured colon and from the infiltrated anterior vaginal wall at the point where the ureter was constricted, showed clearly that not only was there no undue fibrosis, but that the constricting agent in each case was actively proliferating epitheliomatous growth, replacing the fibrous and muscular walls of both gut and ureter. The sections demonstrated also the absence of any evidence suggestive of atrophy, nor

were there any more marked retrogressive cellular changes than could be observed in any case of epithelioma. The section of the gland from the left iliac region showed an active inflammation as well as the hyperplasia of endothelium found in cases of chronic irritation. The following outlines of the treatment and clinical course of the illness were supplied by Dr. Kochman, the physician in whose charge the case was:

October 22nd, 1901: Abdominal hysterectomy for fibroids, the right ovary was also removed. (The cervix, since examined, is epitheliomatous). December, 1901, to January, 1902: Recurrent vaginal haemorrhages. February 12th, 1902: Currettement of new growth in the vagina. End of April, 1902: Laparotomy performed in Berlin, with view to radical operation. The latter was abandoned and the vaginal growth curetted and cauterized with chloride of zinc. September 3rd, 1902: Further cauterization. April 6th, 1903: Dr. Otto Schmidt injected his serum, which was repeated twice at weekly intervals. No reaction apart from pain and swelling in immediate neighbourhood of the injection was observed. End of April, 1903: For ten weeks treated by injections under the personal care of Dr. Schmidt in Cologne. July and August: Treatment by serum continued in London. August: Colotomy performed to relieve the intestinal obstruction. Serum treatment interrupted. October 15th and onwards: Vomiting and uraemic symptoms.

Death took place on November 7th.

GLASGOW OBSTETRICAL AND GYNAECOLOGICAL SOCIETY.

J. NIGEL STARK, M.D., President, in the Chair.

Wednesday, November 25th, 1903.

"ACCOUCHEMENT FORCÉ."

AT this meeting the evening, after the exhibition of some specimens by Dr. KERR, was given up to a discussion on the artificial dilatation of the cervix uteri, which was opened by Drs. JARDINE and MUNRO KERR.

Dr. ROBERT JARDINE in his opening remarks referred to the definition of *accouchement forcé* given by Williams. The operation, he remarked, was done almost entirely in the interests of the mother, but in a few rare cases it might be done in the interests of the child, as, for instance, when the cord prolapsed very early in the course of labour, or when the membranes ruptured before labour began, with resultant pressure detrimental to the child. The operation was most frequently done in the interests of the mother for eclampsia. In pernicious vomiting, heart disease, chorea, and insanity it might also be necessary. In cases of complete occlusion of the os the speaker had occasion to perform it five or six times. The methods of performing the operation were then brought under review, attention being limited to the dilatation of the cervix. It was noted that when the cervix was not taken up, but retained its full length, it was more difficult to dilate than when fully taken up, as in those who had about reached term, and especially in those in whom labour had begun. The dilatation might be carried out forcibly or by the aid of incisions. Digital dilatation was mentioned as being the oldest method. If the cervix were soft and yielding, full dilatation could be obtained in fifteen or twenty minutes. The strictest aseptic precautions were necessary, and a continuous hot douche during the process was beneficial. Chloroform should be administered, not only to prevent pain, but to assist the relaxation of the cervix. Though the lithotomy position was the more suitable, the lateral was also convenient. After dilatation delivery might be completed in a variety of ways according to the nature of the case. As regarded dilatation by instruments, in some cases, if the cervix were very soft, hydrostatic bags might be used. This was a slower method, and where time was of importance the method was not very suitable. Hegar's dilators were useful to begin the operation when a finger could not be inserted. Expanding dilators were the most useful, and of these Bossi's or a modification thereof was the best. (The various varieties of the instrument were shown.) The eight-pronged instrument of Frommer was recommended. The dilatation must be continuous and slow, and from twenty to thirty minutes was required for full dilatation of the cervix. If carefully used, there was very little tearing. Dr. Jardine then related the histories of several cases in illustration. The incision method was next reviewed. The speaker had employed this a considerable number of times in eclampsia cases. He had practised the making of four incisions in the cervix. Further dilatation was obtained by the hand. In some cases the cervix had been subsequently stitched, while in others, where there was no haemorrhage, the cervix was left alone; the after-results in the latter had been quite as good as in the former. He had not practised vaginal Caesarean section. From his experience of the incision method he was convinced that it resulted in less shock than did forcible dilatation. In conclusion he stated his opinion that Bossi's dilator was a most useful instrument but that in a case where the cervix was extremely rigid he preferred the incision method.

Dr. J. M. MUNRO KERR, like the first speaker, limited himself to the question of cervix dilatation. His observations on the matter will be found on p. 67 of this issue.

Dr. W. L. REID had not used the dilator nor seen it used. He had employed the hand to dilate and incisions to enlarge the canal, and had met with few cases where manual dilatation had failed. He considered that the cutting method was free from danger even in the days when antiseptic precautions were lax.

Dr. ARMSTRONG (Kirkintilloch) had used Bossi's instrument for some time and was satisfied with it. He did not think that even at the seventh month there was any difficulty in dilating the cervix with it without tearing.

Dr. SCOTT MACGREGGOR, referring to the effect of the point of the instrument, thought dilatation ought to be slow, so as to give time for the tendency towards spasmodic contraction to cease.

Dr. A. MACLENNAN had had no experience of the Bossi instrument, but had performed Dührssen's operation upon a primipara at full term. Suture of the anterior incision had been effected speedily, and without assistance in a private house.

Dr. GAIRDNER, from his experience of Bossi's dilator, thought that the general practitioner would prefer it to vaginal Caesarean section. As regarded tearing, the dilatation should be carried out with the eye on the clock to ensure absence of haste, and the cervix examined from time to time with the finger.

Dr. J. NIGEL STARK thought that there was a danger of midwifery becoming too meddlesome. In certain cases the Bossi dilator might be necessary, or in default incisions made. From what had been said it seemed to him that incisions were preferable, because although the cervix might not tear with the Bossi, it did during the extraction of the child.

Drs. JARDINE and KERR replied.

EPIDEMIOLOGICAL SOCIETY.—At a meeting held on December 11th, 1903, Dr. B. A. WHITELEGGE, C.B., President, in the chair, Dr. L. W. SAMBON read a paper on sleeping sickness. He said that as soon as Castellani discovered a trypanosome in sleeping sickness the idea of a fly as the carrier of the infection came naturally to all who had any knowledge of trypanosome disease. The first to publish any definite opinion on the matter, not merely as a hypothesis, but as the outcome of the concurrence of well-established facts, were Brumpt and himself. He expressed his views in an article on sleeping sickness which was published in the *Journal of Tropical Medicine* on July 1st, 1903. Brumpt's observations were published on July 2nd. Dr. Sambon specified a West African species, and more especially *Glossina palpalis*; but he attached no great importance to this, because he had books and specimens at hand, while Brumpt was in the wilds of the Congo. At first Castellani's discovery met with little favour in this country. At the last meeting of the British Medical Association at Swansea Dr. Sambon was the only one to uphold a causal relationship between Castellani's trypanosome and sleeping sickness. He expressed the opinion that the *Glossina* did not merely carry the trypanosomes as suggested by Colonel Bruce, but played the part of an alternative host. Considering the very remarkable mode of development which obtained in tsetse flies he further suggested as a working hypothesis that nagana and sleeping sickness might be transmitted not directly by the fly that sucked the blood of infected animals, but by its progeny as was known to be the case in the transmission of red-water fever by *Rhipicephalus annulatus* and in the transmission of the malignant jaundice of dogs by *Haemaphysalis leachi*. After discussing the reports on sleeping sickness by Colonel Bruce and Dr. Nabarro, Dr. Sambon said the experiments made by them with tsetse flies collected at Entebbe and fed on susceptible monkeys after being fed on cases of sleeping sickness had been almost unanimously accepted as proving that the trypanosomes of sleeping sickness were transmitted from the sick to the healthy by the *Glossina palpalis*, and that the fly carried the parasites much in the same way as the vaccinating needle carried the

infection of vaccinia from child to child. He did not doubt in the least that the *Glossina palpalis* was a carrier of sleeping sickness. But the experiments made by Colonel Bruce with *Glossina pallidipes* and nagana, those made by Rogers with various *Tabanidae* and surra, and those made by Theiler with *Hippoboscidae* and gall-sickness, only proved that a fly disturbed while sucking the blood of a trypanosoma-infected animal might convey the disease to a healthy animal by means of its blood-soiled proboscis, just as malaria might be conveyed by a needle soiled with infected blood. This mode of transmission, however, did not seem to be the usual one. It did not explain why nagana was carried exclusively by a *Glossina*, and not by the many other blood-sucking animals which attacked horses and cattle outside the fly belts. It did not explain why sleeping sickness was likewise confined to the tsetse zone and not communicated by the blood-sucking insects and *Acaridae* which swarmed in the huts of the natives. Further, Drs. Bruce and Nabarro did not rear their flies in the laboratory; they collected them at random, and they knew for certain that these flies were already infected because in the second set of experiments they also infected the monkeys they were made to bite soon after being caught and without being previously fed on cases of sleeping sickness. That the trypanosomes which they conveyed were those of sleeping sickness was not in any way proved; on the contrary, the Commissioners had examined some oxen at Entebbe and found in the blood of those animals a trypanosome which was neither trypanosoma brucei nor trypanosoma gambiense. Who could say how many other species of trypanosomes were to be found in the blood of the mammals, birds, batrachians, and fish of Uganda? Those experiments would have to be repeated in a thoroughly scientific way. Meanwhile he believed that the bond of association between Castellani's trypanosome and *Glossina palpalis* was a far more intimate one. Lastly, Dr. Sambon referred to Manson's case of trypanosoma fever in a white woman which terminated with the characteristic symptoms of sleeping sickness, thus proving that trypanosoma fever was only an early stage of sleeping sickness, and that a trypanosome was the cause of that deadly Africa scourge.—Sir PATRICK MANSON believed that sleeping sickness was caused by the trypanosoma gambiense, but he could not say that it had been proved. Until the thing was positively decided one way or another he thought that one incurred a certain amount of responsibility and danger in advising anything in the way of extensive public measures with a view of counteracting the influence of the trypanosoma gambiense in connexion with sleeping sickness.—Professor E. RAY LANKESTER thought Dr. Sambon seemed inclined to claim a kind of priority in suggesting that the *Glossina palpalis* was the carrier of the trypanosoma and that some change in the parasite occurred after its absorption by the *Glossina*. Priority as to the former was not worth discussing and the latter suggestion would occur to any one who had ever heard of the parasite. The real interest was that Colonel Bruce had looked for and found the *Glossina palpalis* on the shores of Lake Nyanza.—Dr. M. E. BRUMPT (Paris) expressed the belief, after his researches in Africa and those which he had carried out in Paris in collaboration with Dr. Wurtz, that there was an absolute coincidence between the appearance of the trypanosoma and the symptoms of sleeping sickness. (The discussion was adjourned to January 15th, 1904.)

SOCIETY FOR THE STUDY OF DISEASES IN CHILDREN.—At a meeting on December 11th, 1903, Mr. SYDNEY STEPHENSON in the chair, Dr. A. MONSON showed an abdominal case for diagnosis. The patient was a boy of 9 who had suffered from an attack of nephritis accompanied by general oedema, albuminuria, and tube casts. After recovery he was sent to a convalescent home, and there a lump was discovered in the left side of the abdomen, fixed below and movable above. The boy had been conscious of something movable there for six months. The majority of the opinions expressed inclined to a floating kidney above and a tuberculous swelling below.—Mr. ARNOLD LAWSON showed a well-marked case of exophthalmic goître in a girl aged 12 years. No cause could be assigned for the onset of the disease; the child's health had been excellent previously and there was no family history of insanity or nervous disease. The constitutional effect of the illness on the child was very slight although the disease had been in progress for over twelve months. Drs. ROBERT HUTCHISON and SANSOM referred to cases seen by them in children of 8 and 12 years respectively.—Dr. E. P. BAUMANN showed a boy 7 years old suffering from mediastinitis. Last July he suffered from acute rheumatism complicated by endocarditis and pericarditis. In September puffiness of the face and ascites developed. There was found to be a large liver and an enlarged heart. The abdomen had been tapped several times, but the evacuation of the fluid made no difference in the venous dilatation of the neck. Examination by the *x* rays threw no further light on the case. In view of the history and the clinical symptoms a diagnosis of adhesive mediastinitis had been made. The boy's general health was good.—Dr. GEORGE CARPENTER showed a girl aged 16 years with a tumour at the root of the tongue, which was accidentally discovered. The mass was probably a dermoid in connexion with the thyro-glossal duct. The thyroid gland could not be felt in the neck, and the possibility of the lingual swelling being a misplaced thyroid was suggested. Dr. FRANK COLLIE said he had known the patient for four years; the swelling commenced shortly after menstruation became established. He inclined to the view that it was a misplaced thyroid.—Dr. LEONARD GUTHRIE showed a boy aged 12, who seven years previously had suffered from a severe attack of polyneuritis of uncertain origin. At the end of three months he had completely recovered save that the knee-jerks were absent and there was a tendency to contraction of the tendo Achillis on both sides. He had been admitted into hospital during 1903 suffering from a well-marked condition of talipes equino-varus, for which tenotomy had been performed with improvement of walking powers. When shown pes cavus was present, the knee-jerks absent, and the muscles of the extremities small; there was also mental deficiency. Dr. Guthrie concluded that the case illustrated the after-effects of polyneuritis.—Dr. GUTHRIE also showed a girl aged 11 with physical signs which he regarded as those of aortic valvular disease with stenosis. The maximum of the intensity of the murmur was in the second left intercostal space. The case was examined by members present and various diagnoses made, including mitral disease, aortic regurgitation with presystolic thrill and murmur (Flint's murmur), pulmonary valvular disease, and patent ductus arteriosus.—A paper on some cases of lymphangeiomata was read by Dr. ALBERT CARLESS, and pathological specimens shown by Mr. J. W. THOMSON WALKER, Mr. DOUGLAS DREW, and Dr. GEORGE CARPENTER.

British Medical Association.

CLINICAL AND SCIENTIFIC PROCEEDINGS.

BIRMINGHAM BRANCH.

JORDAN LLOYD, F.R.C.S., President, in the Chair.

Birmingham, December 10th, 1903.

Epilepsy following Mastoiditis and Cerebral Abscess.—Dr. F. SYDENHAM showed a man, aged 26, on whom he had performed Stäcke's antrectomy on January 16th, 1903, for acute post-influenzal left mastoiditis.

The lateral sinus and tegmen tympani were normal; wound healed by first intention. On January 30th cerebral abscess was diagnosed: on trephining over left temporo-sphenoidal lobe, 2 drams of pus were found at a depth of ½ in.; the cavity was drained, and healed up in fourteen days. On February 18th symptoms of compression came on suddenly; the next day the brain was again explored, and after diligent searching a tablespoonful of pus was found at a depth of 2 in., some distance from the previous abscess; a tube was kept in four weeks, and patient left the Walsall Hospital well on April 14th. Whilst returning home he had an epileptic fit, and similar seizures had recurred at intervals of about a month. The march of the aura was always in the following order: Loss of power of speech, of vision, and of hearing, then unconsciousness and clonic spasms, the whole attack lasting several minutes. The patient had been taking bromides for the last six months. Both fundi were normal, and vision was $\frac{6}{6}$ in both eyes.

Dr. Sydenham invited opinions as to the treatment now to be adopted. Several members examined the patient with great interest, and advised that the treatment with bromides should be continued.

Sarcoma of Femur.—Dr. PLUMMER showed a specimen of sarcoma of the lower end of the femur beginning to fungate through the cartilage of the knee-joint. The patient was a man aged 66, and the limb was removed by Furneaux Jordan's amputation through the hip-joint. Recovery was uninterrupted, the wound healing by first intention.

Enlarged Prostate.—Mr. G. HEATON showed an enlarged prostate which he had removed by suprapubic enucleation (Freyer's method) fourteen days previously. The patient, a

gentleman, aged 63, had suffered from prostatic troubles for many years. For the last six months he had been accustomed to pass water every half-hour during the day and fifteen to twenty times in the night. The residual urine was as much as two pints. The passage of a catheter had become more and more difficult, and latterly no urine had been passed naturally. The operation was comparatively easy, and the patient had made an uninterrupted recovery and was now out of bed. The organ weighed 2½ oz.

Suprapubic Prostatectomy.—Mr. GILBERT BARLING read a paper of which the following is a synopsis: "The inadequacy of the operative measures hitherto available in the treatment of enlarged prostate; the possibility of enucleating the prostate as suggested by Freyer; the injury inflicted on prostatic urethra and adjacent parts; a brief description of the operative proceedings with details of 10 cases submitted to operation, and analysis of the results." Mr. Barling showed the specimens he had removed, and gave a lantern demonstration of a large series of slides illustrating the structure, relations, and morbid anatomy of the prostate. Remarks were made by the PRESIDENT, Mr. BENNETT MAY, and Mr. M. HALLWRIGHT. In his reply Mr. BARLING acknowledged the help rendered by Mr. Hewetson in preparing and demonstrating the specimens.

Specimens.—Mr. JORDAN LLOYD showed the following specimens: (1) A large carcinomatous kidney, successfully removed by lumbar nephrectomy, from a man aged 45; (2) a carcinomatous sigmoid flexure successfully removed by enterectomy and immediate suture of the divided bowel, from a man aged 51; (3) a colloid carcinomatous breast and axillary glands excised in one piece, and also a uterus containing a sloughing submucous fibroid, with secondary carcinomatous nodules of the endometrium, successfully removed from a woman aged 61. The last two operations were done with a fortnight's interval.

REVIEWS.

RENAL DISORDERS.

PROFESSOR SENATOR'S monograph on diseases of the kidney[1] forms part of the nineteenth volume of the system of medicine edited by Professor Nothnagel, and constitutes one of the most important German contributions to the study of renal disease. Professor Senator's name has been known to the medical profession for many years, and his close study of the problems of renal disease entitle this volume to the serious consideration of the profession at large. In the first part, the kidneys are studied from a physiological and pathological point of view, and the vexed questions as to the nature of renal dropsy, albuminuria, uraemia, and the cardiac hypertrophy associated with renal disease are treated exhaustively. The rest of the volume is more clinical, and is devoted to the study of the various forms of Bright's disease, albuminoid disease of the kidneys, and various local conditions such as suppurative inflammation, neoplasms, stone, cysts, etc. It is a matter of regret that such an important volume as this should not be provided with an index, as much time is lost in referring to subjects to which attention is called in several places. The subject of albuminuria, or more broadly speaking, proteiduria, such as occurs in Bright's disease, continues to present many difficulties and it is to the credit of this volume that one finds that no one-sided view is taken of the probable reason for the existence of albuminuria. Professor Senator agrees with those who hold that there is a primary disease of the kidney, and that the damaged epithelium allows the escape of proteids present in the blood serum, but he also admits that there are cases in which the renal epithelium is damaged, and yet albuminuria is not detected, and conversely albuminuria may exist and yet no changes recognizable by our present means of investigation can be made out in the kidney. In other words there is room for the opinions of those who, like Semmola, hold that the primary mischief is in the blood serum, in which proteids are present in a too diffusible form or are incapable of assimilation by the cells of the body, and hence are got rid of being present in excess; the further question may be raised as to the baneful effect this excretion of proteid has upon the renal epithelium. Already there are many instances of a pre-renal albuminuria which most authorities are disposed to admit, for instance, proteiduria occurs in diabetes, in jaundice, leukaemia, after an attack of epilepsy or even in association with intestinal obstruction. Omitting all these cases and also the instances in which, as in contracted kidney associated with extensive arteria disease albuminuria occurs, there still remains the large group of cases known as Bright's disease, the true explanation of which is to this day unknown; the prevailing fashion is to consider that the pathogenesis of Bright's disease is allied to a toxaemia, the poisonous bodies being of intracorporeal or extracorporeal origin, but until more efficient physical, chemical, and biological means for the separation and recognition of these substances have been introduced, we must remain content with our present rough clinical generalizations. Another subject which is most exhaustively treated is uraemia. The various views as to its causation are considered, and especially the more modern one, which seeks to find a physical explanation of the phenomena of uraemia by establishing an enhanced molecular concentration of the blood as revealed by a lowering of the freezing point. Strauss, Koranyi and Lindemann have made investigations in this direction, but against the discovery that this increase of molecular concentration is so commonly found in uraemia there are many other conditions not at all associated with uraemia, in which the same physical condition of the blood has been found. Little advance, therefore, has been made in the theory that uraemia is closely associated with the presence of harmful nitrogenous material. With respect to the causation of hypertrophy of the heart in various renal diseases, we hardly think Professor Senator has so correctly interpreted Cohnheims's view as did the late Dr. Fagge. The classification of the various forms of Bright's disease is that usually adopted in this country, but the writer calls attention to a curious group of cases which has come under his own notice and was described as long ago as 1889 by Besançon, and since then by Poillon, Lancereaux, and Moutard-Martin. In this group acute uraemia occurs in healthy young people, especially in chlorotic girls, who have hitherto been quite free from any symptoms suggestive of renal disease. In these cases, an apparent primary atrophy of the kidney has been found after death. The practical side of the subject is also fully treated, and it is interesting to note the swing of the pendulum in regard to the use of proteid diet in treatment; for example, eggs so long as they are cooked and not given in excess may be ordered for a patient with chronic parenchymatous nephritis; morphine too may be given for the relief of uraemic manifestations, and though it is not necessary to order tincture of cantharides, as Rayer recommended, in acute nephritis, stimulant diuretic drugs may be used in this condition.

Dr. PAUL BERGOUIGNAN has written a treatise[2] to maintain the thesis that in a large proportion of cases of cardiac disorder, the heart's action is disturbed, even to the degree of permanent disease as a result of vascular changes, and that to secure either permanent or temporary relief it is necessary to invoke the eliminative action of the kidneys. The author brings forward many valuable arguments and then concludes with observations made upon cases drawn from the practice of M. Huchard and his pupils, among whom the author is numbered. Huchard has divided all cases of organic cardiac disorder into two classes: (1) those in which the disturbance is primarily peripheral—the arterial form of cardiac disease occurring in 70 per cent. of male cases and 47.5 per cent. amongst women, giving a rough average of 60 per cent., and (2) the so-called rheumatic or valvular cardiac cases forming 30 per cent. of male cases and 52.5 per cent. amongst women with an average of about 40 per cent. From these figures it would appear that the arterial form of cardiac disease is much more common than the valvular, and it is to the treatment of this class of case that M. Huchard's pupil devotes his treatise. In order to clear the way for concise rules of treatment of cases of cardiac disorder due to arterial disease, it has been found advisable to distinguish various phases in its development, and we find considerable guidance to this end in the recognition of (1) a presclerotic stage, (2) a cardio-arterial stage and three (3) a cardio-mitral stage. The second and third stage are familiar to us all, for in the second stage we often meet with cardiac arrythmia, primary angina pectoris graving and the Stokes-Adam's syndrome, all more or less associated with manifest disorder of the peripheral vessels; in the third stage with a failing left heart and regurgitation through the mitral orifice, we see the familiar picture so often met with in hospital wards. The symptoms and signs, however, of the presclerotic stage are rather ill-defined and not yet full

[1] *Die Erkrankungen der Nieren* [Diseases of the Kidney]. Von Professor Dr. H. Senator. Second edition, Wien: Alfred Hölder. 1902. (Demy 8vo, pp. 525. M. 12.)

[2] *Le Traitement Rénal des Cardiopathies Artérielles.* [The Renal Treatment of Disorders of the Heart Secondary to Arterial Disease.] Par le Dr. Paul Bergouignan. Paris: Jules Rousset. 1902. (Demy 8vo, p. 212. Frs. 6).

understood. The author takes considerable care to set out Huchard's researches. It will be admitted that once a vascular sclerosis has been established, little or nothing can be done to cure the lesion, successful or not as may be the efforts to combat the symptoms arising from it, so that if it is possible to, as it were, anticipate the establishment of this lesion and obviate its occurrence, we should really do our patients inestimable service. It is familiar knowledge that lead, alcoholism, strain, gout, and even heredity are apparently greatly concerned in the development of arterio-sclerosis, and it is possible in some of these cases to ward off the vascular change, but until we know more of the actual cause of occlusion of the vasa vasorum, we shall still have many cases in which prophylaxis is impossible, so that symptomatic treatment alone remains. The French school, however, is very much dominated by the idea that various alimentary toxins are responsible for much that is at present a mystery: the liver is a great neutralizing agent, nullifying the baneful influence of alimentary toxins arriving by the portal system, and the kidney is subservient to the process of excretion of toxins, neutralized or not. Dr. Bergouignan, following his master's teaching, has chosen to look upon the kidneys as the organs to be relied upon, in treating the pre-sclerotic stage of arterial cardiac disease, and support for this attitude is found in the facts that milk is an excellent diuretic, and of very low toxicity (Charrin and Roger). As a diuretic treatment an exclusively milk dietary is recommended, and in addition theobromine is prescribed. Excellent results are recorded from this line of treatment; in some cases various other agents may be used, such as massage, mineral waters, etc. Digitalis, on the other hand, is relegated to the third and final stage of the disease, and even then is to be used in certain selected cases only; arrythmia alone, we are reminded, should not be the criterion for the use of this drug. For those who seek to secure better results in that large group of disorders probably due, so far as pathological evidence can guide us, to arterio-sclerosis, local or general, this volume will prove most suggestive and helpful.

MEMBRANOUS COLITIS.

A PAMPHLET on colica mucosa,[3] which is the third of the series on the pathology and treatment of disorders of metabolism and nutrition, now being issued under the direction of Professor C. VON NOORDEN, is from the joint pens of the editor and Dr. CARL DAPPER, of Kissingen. The second part, which treated of nephritis, was reviewed in the BRITISH MEDICAL JOURNAL of March 22nd, 1902. "Colica mucosa" denotes the condition usually known in England as membranous colitis. The first sixteen pages are devoted to the symptoms and the vexed question of the pathology of the disease. The authors believe that inflammation is no essential element, though mucous colic may be complicated by enteritis and vice versa. Thus *post mortem* the mucosa may be anatomically unchanged, although shreds of mucus may adhere to it with great tenacity. The condition, with the concomitant neurasthenia, cannot depend merely on chronic constipation, for at least forty cases of obstinate constipation, complicated by every known neurosis, may be treated before one of mucous colic is met with. The authors' view is that the abnormal secretion of mucus arises from nervous influences; in other words, that the disease is a "secretion neurosis." The attacks of colic are due to the efforts of the intestine to expel the adherent mucus. The most interesting section is that devoted to treatment. Till recently the diet generally advocated for membranous "colitis" was one which would irritate the hypothetically inflamed intestine as little as possible by undigested residue. Most practitioners who have treated cases on this principle will admit that the results are unsatisfactory unless the constipation can be relieved by constant recourse to enemata. The authors, recognizing that whatever may be the pathology of the condition cure is attainable only by the relief of constipation, advocate an "indigestible" diet—that is, one which furnishes a copious residue, and consists largely of leguminous vegetables, fruit, and wholemeal bread. Much fat, chiefly in the form of cream and butter, is also given. For the first three or four days of this treatment all the abdominal symptoms may be aggravated, and it may be necessary to administer morphine. The bowels should be relieved by large enemata of oil as long as necessary; but in a short time, usually a few days, the stools become soft, the mucus disappears, and with it all the abdominal pain and discomfort. The authors' views are justified by cases. Of 75 patients so treated, 50 per cent. were cured permanently, often within a few weeks, and only 5.2 per cent. were unbenefited. To all practitioners, and especially those who have cases of this refractory disorder under treatment, a careful perusal of this pamphlet is most cordially recommended.

We have received two works on *Muco-membranous Entero-colitis* written by medical men practising at Plombières, a health resort which has acquired some reputation in its treatment. The longer and more detailed account is given by Dr. DE LANGENHAGEN[4] on the basis of more than 1,200 cases observed by him. The disease appears to be commoner in females; its three main characteristics are a glairy or pseudo-membranous rectal discharge, irregularity of the bowels, and abdominal pain. This pain may be either habitual or paroxysmal; in the latter event it usually follows a dietetic error, or prolonged constipation; it is then exceedingly intense and chiefly marked in the umbilical region. As a rule there is constipation; lientery is common, but true diarrhœa rare. Blood is often passed by the bowel; this is in some cases due to haemorrhoids. In all serious cases enteroptosis is present; this the author considers to be a secondary symptom. Pathologically there is a a superficial catarrh of the intestinal mucous membrane, which begins as the result of muscular atony. The disease, according to Dr. de Langenhagen, is increasing, and is mainly found in the inhabitants of towns; all the patients are arthritic, and the majority neurotic also. With regard to treatment diet is the first essential; no green vegetables or fruit should be allowed, and fat and alcohol should also be prohibited. Milk often disagrees and should therefore be given in moderation. Purgatives are virtually always required; of these castor oil is the most satisfactory, next the salines, and then the vegetable aperients. For the pain hot applications are best, but if very intense, codeine or morphine may be indicated. The author recommends systematic intestinal lavage with quite hot water (45° C. to 48° C.). Local massage is also of use, and a belt should be worn if there is enteroptosis. Dr. de Langenhagen's book is very clearly and systematically written, and offers an excellent account of the disease. Dr. FROUSSARD's pamphlet[5] on the same subject is on a much more modest scale. The principal points on which he lays stress are his belief that the disease is usually a manifestation of the rheumatic diathesis, that it is more commonly seen in the wealthy classes, and that the earliest symptoms sometimes follow severe emotion. He states that movable kidney, especially on the right side, is often present, and that in women diseases of the reproductive organs often coexist. He lays stress on the frequency of dyspeptic symptoms. He distinguishes four forms of the disease in adults; in the first the symptoms are long latent, with very rare attacks; in the second they are continuous; in the third, which is most common, they are paroxysmal; and in the fourth there is rapid and dangerous emaciation of the patient. Dr. Froussard believes that the disease is caused by a functional disturbance of the intestinal nerves; he regards the prognosis as always grave. His views on treatment are similar to those of Dr. de Langenhagen.

BIOLOGY.

THE volume on *Variation in Animals and Plants*[6] which Dr. VERNON has contributed to the International Scientific Series suffers by reason of the limited space at the author's disposal. The whole subject had to be crammed into some 400 pages. Nevertheless there are a number of errors which might have been avoided by a careful revision. Considering too that the book is a popular exposition on the subject of variation, there are a few faults of another kind which might also have been remedied. For instance, on page 42 there is a reference to "the marsh plant, *typha*, which is found in the eastern

[3] *Sammlung klinischer Abhandlungen über Pathologie und Therapie der Stoffwechsel und Ernährungsstörungen.* Heft 3. Ueber die Schleimkolik des Darms (Colica mucosa) und ihre Behandlung. [On Intestinal Mucous Colic and its Treatment.] Von Professor Von Noorden und Dr. Dapper. Berlin: August Hirschwald. 1903. (Demy 8vo, pp. 32. M.0.80.)

[4] *Muco-membranous Entero-colitis.* By Maurice de Langenhagen, M.D. London: J. and A. Churchill. 1903. (Crown 8vo, pp 115 3s. 6d.)

[5] *Muco-membranous Colitis.* By Dr. Froussard. London: Bailliere, Tindall and Cox. 1903. (Crown 8vo, pp. 15. 1s.)

[6] *Variation in Animals and Plants.* By H. M. Vernon, M.A., M.D (International Scientific Series.) London: Kegan Paul, Trench, Trübne and Co. 1903. (Cr. 8vo, pp. 415. 5s.)

United States." Had it been mentioned that this *typha* was merely a species of bulrush the non-botanical reader might have been helped. Dr. Vernon, although not directly admitting the inheritance of acquired characters, does not differ very materially in his conclusions from those who do. He recognizes adaptability as a fundamental property of protoplasm and works up to adaptive variation, and considers that

in order to account for the numerous instances of the cumulative effects of changed conditions of life . . . we may assume with considerable probability and reason that the germ plasm is directly affected as well as the body tissues. These apparent instances of the inheritance of acquired characters are in reality, therefore, nothing of the kind, but are due to the germ plasm reacting to change of environment simultaneously with the body tissues.

He considers that the effects of environment upon the germ plasm are much less than on the soma, and also that somatic variations,

by reason of their adaptation to changed surroundings, are of very great importance in the evolution of more adaptive forms, in some cases, perhaps, of greater importance than genetic variations.

He suggests that the agency through which the environment is enabled to act upon the germ plasm is a chemical one, and advances what he calls the theory of specific secretions. Every tissue of the body to some extent affects every other tissue. He explains the action of the environment thus:

Whenever a changed environment acts upon an organism . . . it to some extent affects the normal excretions and secretions of some or all of the various tissues, and these react not only on the tissues themselves, but also to a lesser degree upon the determinants representing them in the germ plasm.

The idea of specific secretions has been advanced before, as Mr. Vernon says, by Delage in 1895, but his idea was that the somatic variations influenced the germ plasm through the agency of the secretions. Galton, as long ago as 1872, suggested that the body cells can react upon the sex elements. It is therefore not easy to see how Mr. Vernon's modification of these older views advances matters. Although by no means dispensing with natural selection, Mr. Vernon gives that part of the theory of evolution less responsibility than Darwin did, and thus he is led at p. 392, when referring to Wallace's criticisms of Henslow's theory, to consider that Wallace, "by excluding other agencies, is inclined somewhat to exaggerate the importance of natural selection." He seems to us to obscure the meaning of the terms definite and indefinite variation when he endeavours to show at the beginning of Chapter XII that there is no fundamental difference between them. After giving Darwin's definition of definite variations and discussing its meaning, he says:

Are we to agree with Henslow that in Nature variations are always definite, or are we to follow Darwin in believing that variations are, as a rule, indefinite and only exceptionally definite? Here it seems to me we are in want of more exact definitions.

Then he proceeds to consider the matter from the mathematical standpoint in connexion with the law of error, and, after leading the reader through something of a maze, he comes back to the simple meaning of "definite" variation as synonymous with "adaptive," a meaning which it possessed before mathematics were brought to bear upon the subject of variation. So much debateable ground is covered in the book that we would rather have seen it in two-volume form than as a popular scientific manual.

M. LE DANTEC in his *Traité de Biologie*[7] presents us with a a condensation or summing-up of his previous works. The chapters are often long and rambling, while many important points are much too scantily dealt with. He does not always appear conversant with his various subjects. For instance, half a page is devoted to telegony, which he treats as an established phenomenon, and makes no mention of the work of Professor Cossar Ewart and others. Xenia is defined as follows: "A flower of a race A being fertilized by the pollen of a race B, the fruit which results from this fertilization is intermediate between fruits of the race A and the race B." The introduction is a long discourse directed chiefly against the inaccurate use of language by scientists, producing what the author terms "*l'erreur anthropomorphique*." The first chapter deals with "molaire" and "moleculaire" forces, and states that life is the transformation of the latter into the former. The second chapter, upon assimilation, must be read carefully by any one working through the book, as we learn later, p. 245: "Assimilation is life"; and again we conceive "assimilation as a bipolar and symmetrical phenomenon, or if you will, the complete living molecule is itself two poles, male and female, the existence of which in the substance of the plastide is indispensable to the elementary life which it manifests" (p. 176). Thus the author believes that the living cell consists of molecules composed each of a male demimolecule and a female demimolecule. The reproductive cells by some means get rid of the demimolecules of the opposite sex, and are therefore purely male, purely female. The centrosome is the male element in the cell, and the astral figure produced on the entrance of the male pronucleus into the ovum is due to the female elements being drawn towards the male. The chromosomes are mechanically divided in karyokinesis, they "represent a condition of equilibrium, and not a collection of special substances." Thus, from the author's standpoint, Weismann's theory of qualitative division is untenable. The theory of heredity as put forward is very simple. Heredity is simply the nature of the cell. Form is merely the outcome of environment acting during growth. "The active assimilating substances take at each instant during growth a form which is their equilibrium form at that particular moment, but at the same time they secrete a rigid skeleton which definitely fixes that form, so that in an adult animal the form is not in reality the equilibrium form of an active substance, but a skeletal form on which the human substance is moulded." We looked for some interesting statements in the chapter upon "la détermination du sexe somatique," but were disappointed. Altogether the book strikes us as very superficial, and, as far as facts of biology are concerned, could have been written by any student well up in modern textbooks. The author's interpretations of phenomena are certainly ingenious, but at times somewhat overpowering. All through the book there are very few references to work by other authors, and there is no bibliography.

[7] *Traité de Biologie.* Par Felix le Dantec. Paris: Felix Alcan. 1903. (Demy 8vo, pp. 557. Frs. 15.)

Although Mr. MUDGE and Mr. MASLEN, the joint authors of *A Class-book of Botany*[8] claim that it is based upon the "type" principle, and although chapters are headed by the names of types, yet some of these chapters deal with a great deal more than the type concerned, and, we think, with a great deal too much. A student who knows little or no botany will be apt to be confused by such a chapter as that upon the sunflower and bean-plant. The book is divided into four parts, the first dealing with the "types," the second with the flower and the classification of angiosperms, the third part is physiological, and the fourth is a glossary. The number of floral diagrams in Part II will be a useful aid to the student. The arrangement of the book is not one by which we think the student will profit. The morphology would have been better dealt with under such headings as Shoot, Leaf, Root, etc.; and after the student had been given a grounding in the subject the system of types might have been applied to better advantage.

St. Kilda and its Birds[9] is a reprint from the *Transactions* of the Liverpool Biological Society, and is an interesting account, in the form of a lecture, of an expedition which Dr. WIGLESWORTH made to St. Kilda in the summer of 1902. The author, who is a member of the British Ornithologists' Union, is well fitted to give an account of the existing bird life of the isolated island group of which St. Kilda alone can boast any human inhabitants. From his own observation and the stories of the islanders he has collected a number of facts as to the habits of the different breeds which make the island their headquarters of a kind which is not to be found in more formal treatises on the same subject. Besides his account of the island from the ornithological point of view Dr. Wiglesworth gives some information on the habits, traditions, and folklore of the present population and of certain modifications which have been observed in the general fauna of the locality. The little book makes a visit to the island seem somewhat attractive, and it would form an excellent handbook to any one who desired to follow the author's example of devoting part of a summer to it. He draws attention to the threatened extinction of certain breeds of birds owing to the number of egg-trading collectors who have obtained a footing of late years, a matter which, in regard to the St. Kilda wren, has recently received comment in the general press.

[8] *A Class-book of Botany.* By G. P. Mudge, A.R.C Sc.Lond., and A. J. Maslen, F.L.S. London: Edward Arnold. (Crown 8vo, pp. 512, 228 illustrations. 7s. 6d.)

[9] *St. Kilda and its Birds.* By J. Wiglesworth, M.D., F.R.C.P. Liverpool: C. Tinling and Co. 1903. (Demy 8vo, pp. 69. 2s.)

DONATION.—Mr. Joseph Storer Fry, Chairman of the Bristol General Hospital, has made a Christmas gift of £1,000 to that hospital.

NOTES ON BOOKS.

FIRST AID.

DR. R. J. COLLIE, medical superintendent of the hygiene, ambulance, and home nursing classes of the School Board for London, and Mr. C. F. Wightman, F.R.C.S., late examiner and lecturer on ambulance to the School Board for London, have published a small book, entitled *First Aid in Accidents*.[1] The volume has evidently been prepared for the large mass of people who, without the interest or ability to study the subject deeply, wish to obtain some practical knowledge which may be useful in an emergency. The necessary anatomical details are very shortly and simply explained, and instead of being collected in a preliminary chapter are distributed through the book. The arrangement of the matter in each chapter allows of the essentials being readily and clearly seen, and there is no unnecessary expenditure of words. At the end of each chapter are a few questions bearing upon the subject discussed in that chapter; these questions are good and practical, and the short answers given show at once the essential points raised in the question. Most of the illustrations seem to have been specially prepared for this book. Photography has been utilized to show the various bandages in position, and to illustrate the actual compression of arteries or the performance of artificial respiration. Three coloured plates, from diagrams prepared by Dr. Collie, showing the skeleton, the muscles and organs, and the scheme of circulation are excellent and effective. A curious mistake in the last of these makes the word "ventricle" refer to the whole right side of the heart, whilst the whole left side is named "auricle." There is another error in the plate showing the bones of the spinal column; in the text we are correctly informed that the spine comprises twenty-four separate small bones and *one* large bone (the sacrum), whilst in the plate this one bone is referred to as "*five* sacrum." The idea that the adult sacrum consists of five separate bones seems to belong specially to writers on first aid. We are not quite convinced as to the wisdom of the advice given in reference to compound fractures attended with bleeding—namely, to put the finger in the wound to press upon the bleeding point. This might be well if the cleanliness of the finger were assured, but there is a distinct possibility that in case of accident this desirable condition might be overlooked. The small price of the book should ensure a ready sale amongst the people for whom it is primarily intended, and it is so suitable for its purpose that we hope it may attain a wide circulation.

We have also received *Schemes of Instruction in First Aid, Home Nursing, and Hygiene*,[2] prepared for the Evening Continuation Schools of the School Board for London by Dr. COLLIE. This pamphlet contains a syllabus for lessons to be delivered to classes in the subjects named; it is very good. It may be noted that there is nothing in these publications to shock the most fastidious; and, in regard to first aid, the primal instruction under the head of "treatment" in nearly all the accidents mentioned is "send for the doctor."

HANS SACHS, an assistant of Professor Ehrlich's in Frankfurt, has reprinted his article on investigations on *Haemolysis*[3] from Lubarsch-Ostertag's *Ergebnissen*. He discusses the bearing of haemolysis on the immunity doctrines of to-day, and deals briefly from time to time with its applications to pathology and serum-therapeutics. The booklet is naturally written in defence of Ehrlich's theories, which Sachs gives tritely and lucidly. On the other hand, those who are inclined to adopt the Buchner-Bordet teaching will probably be inclined to regard a great deal of it as dogmatic. However, the arguments used by Ehrlich and his co-workers are exceedingly strong, and in view of this fact one may excuse Sachs for somewhat belittling the objections raised by the opponents ot the "plural complement" theory. Part of the work is written in the same somewhat involved manner which characterizes the works of Ehrlich on the same subject; but since it deals fully with the later developments of Ehrlich's haemolysin work, and especially with the complex subject of "partial complements," one must be prepared to study the work with care. Sachs's own contributions to the study of haemolysis are not thrust too prominently on the reader, but find a suitable place in the record of the processes of artificial and natural haemolysis.

The *Chemists' and Druggists' Diary*[4] is supplied gratis to the subscribers to the *Chemist and Druggist*, and the volume for 1904 quite maintains the high level of usefulness which previous numbers have displayed. It is, perhaps, inevitable that the proportion of advertisements should so far exceed that of other matter as to make the volume somewhat unwieldy, but possibly on no other terms could it be supplied free of cost. We are glad to see that although the publishers have retained the alphabetical list of practitioners who hold appointments in metropolitan hospitals, the classification under specialities to which exception was taken by the Ethical Committee of the British Medical Association has been omitted. We have nothing but praise for the admirable way in which information of importance to the trade is collected and condensed in this *Diary*. A prominent feature is a list of some hundreds of formulae, apparently supplied by members of the trade, which are well worth the attention of young medical practitioners, as they will find there many hints of great use in private practice which are not learnt at a hospital.

[1] London: George Gill and Sons. (32mo. pp. 133. 6d.)
[2] London: Alexander and Shepheard. (8vo, pp. 52. 1d.)
[3] *Die Haemolysine und ihre Bedeutung fuer die Immunitaetslehre.* [Haemolysis and its Bearing on the Immunity Doctrine.] Von Dr. H. Sachs. Reprint from Lubarsch-Ostertag's *Ergebnissen fuer pathologische Anatomie.* Seventh Year. Wiesbaden: J. F. Bergmann. 1902. (Demy 8vo, pp. 72. 3s. 6d.)
[4] *The Chemists' and Druggists' Diary for 1904.* Published at the offices of the *Chemist and Druggist*. Price to non-subscribers, 3s. 6d.

REPORTS AND ANALYSES
AND
DESCRIPTIONS OF NEW INVENTIONS
IN MEDICINE, SURGERY, DIETETICS, AND THE ALLIED SCIENCES.

MEDICAL AND SURGICAL APPLIANCES.

Lamp for Rhino-Laryngoscopy.—Dr. WILFRID GLEGG (Assistant-Surgeon to the Ear and Throat Hospital, Birmingham), writes: Messrs. Walker Brothers, Electricians, Birmingham, have fitted up a lamp for me giving a light of about 100-candle power. It consists of one ampère Nernst electric lamp adapted to fit the ordinary Mackenzie lens holder. Behind the lens a circle of finely ground glass is fixed to diffuse the light. It has been in use for three months. The light is steady, white, and of an intensity resembling limelight, and does not require attention as the limelight does. Discoloration of the glass bulb, with decrease in the light as occurs in the ordinary electric lamp, is obviated, as the Nernst lamp burns in air. The interior of the trachea is well illuminated, and examination of the posterior part of the nasal passages is facilitated. As the lamp is only used for short periods, heat from it does not become unpleasant, and no cooling arrangement is required. The only disadvantage, in my opinion, is a relative slowness in lighting up, as the filament requires to attain a certain heat before it becomes incandescent. The half-ampère Nernst lamp can be used in similar fashion, and gives a better light than the ordinary 32 c.p. electric lamp. A practical point to note in the use of such an illuminant is that the lamp be turned away from the operator before switching it on, and then brought back after adjusting the head reflector until the light is concentrated on it, as shown by the illumination of the area under observation. In this way the observer may entirely guard his eyes from the direct rays, and he can also avoid looking at the light by always turning it aside after making an examination of a patient.

MIDWIFERY TRAINING.—The Association for the Training and Supply of Midwives, which has its offices in Hanover Chambers, Buckingham Street, Strand, is a society formed to facilitate the carrying out of the Midwives Act, partly by acting as a general bureau of information to the public as to the regulations of the Act, and the requirements and means of training already in existence, partly by carrying on some cheap or possibly entirely free training for midwives on its own account, and partly, and more particularly, by developing itself into a general council or centre for the promotion of midwifery training, and assisting in the raising of funds for that purpose. Many of those who formed the Association were members of the now extinct Association for Promoting the Registration of Midwives.

AËRATED PRESERVED MILK.

We have recently had the opportunity of observing a method of preserving milk by aëration and pasteurization which is being carried out on a small scale by the Aërated Cream and Dairy Company (52, Bedford Row, W.C.). As the results on inspection appeared to be good, and as the process presents several points of scientific and practical interest, it has seemed desirable to subject the products to careful examination by experts.

The Process.

The milk is first heated to 150° F., and then passed through a machine which is termed the "fixer." In this the milk is forced in fine jets against an agate piston, which is controlled by a strong spring; the force has to be sufficiently great to overcome the resistance of the piston, in order that the milk may pass through the rest of the apparatus; the net result of this is to break up the fat globules into extremely small particles. It is then passed over coolers which bring the temperature down to about 40° F., next mixed with gas which consists of oxygen and carbon dioxide in the proportion of 3 to 1, at a pressure of 50 lb. to the square inch, and then corked with "crown corks." The bottles in which the milk is received have previously been thoroughly cleaned and sterilized. The corked bottles are then heated to 150° F. for thirty minutes, then cooled, and finally subjected to a second heating to the same temperature for another thirty minutes.

The bottles used are of various sizes—from half-pints to quarts—and a number of these were marked and subsequently sent to a physiological laboratory. On November 2nd, 1903, we tasted some of the milk which it was stated had been bottled in July, 1903, and it was still perfectly sweet.

Samples of cream and butter made at the same time were also submitted. In the making of the cream it is first separated in the usual way and then subjected to the same process as that just described for the milk. The samples submitted were unusually thick specimens of cream, and both it and the butter made from it were perfectly sweet and good.

No antiseptic or preservative is added at any part of the process, and this is a point of considerable importance. The harmfulness of the antiseptics and preservatives commonly added to milk cannot be doubted, and if some process can be discovered by which milk can be preserved without such additions the boon to the public will be immense.

Physiological Examination.

Length of Time the Milk Remains Good.

The milk examined was bottled in our presence on November 2nd, 1903, and various bottles have been opened at intervals since that time until the date of this report (December 8th, 1903).

With two exceptions, all the bottles when opened were found to contain perfectly fresh and sweet milk. The two exceptions noticed did not go bad until November 24th, and both of these were bottles of the half-pint size. There are some manipulative difficulties in bottling the milk in small bottles at the requisite pressure of gas. The larger bottles contained perfectly good milk after nearly six weeks, and there seems no reason why they should not remain in this condition for an indefinite period.

The method of corking appears to be effective, in so far as the corks are perfectly airtight, and on uncorking them the gas escapes. The corks are of the same pattern as those used for certain natural mineral waters, and here they have to withstand a much higher pressure of gas. The corks are sterilized when they leave the works where they are made, and are coated with a thin layer of paraffin, which minimizes the danger of subsequent infection. It would be a wise precaution however, to sterilize them again immediately before they are used. When the corks are removed the gas escapes from the bottles, but there is no frothing of the milk. The question arises whether the aëration of the milk is really necessary to assist its preservation. The makers, however, state that milk bottled without being aërated soon goes bad, and the best proportion of the two gases employed (3 parts of oxygen to one of carbon dioxide) was only arrived at after many preliminary trials. In order to investigate this point a certain number of bottles of the milk not aërated, but which had otherwise gone through the same details of preparation, were obtained from the works. The milk in these bottles kept longer than untreated milk, but it was all sour and curdled at the end of a fortnight, in some cases in eight to ten days. It has been proved by the researches of Professor Lorrain Smith that high pressure of oxygen has an injurious action upon the higher animals. The gas may also be inimical to the activity of micro-organisms.

The action of the "fixer" also appears to be important in crushing the life out of any bacteria or micro-organisms that might have been originally present. Macfadyen and Rowlands, of the Lister Institute of Preventive Medicine, have shown how bacteria can be pulverized by mechanical means, and though the force used in the preparation of this milk is not so great as that employed by those investigators, yet as the force employed is sufficient to pulverize the fat globules, it is probably sufficient also to act harmfully on micro-organisms.

The most remarkable fact in connexion with the milk seems to be the following: That after the bottle has been opened and exposed to the air the milk still remains sweet for several days; always in our experience for four days, and sometimes for as long as seven or even eight days; the temperature of the laboratory where the milk was kept was fairly cool, but not cold.

Taste.

The milk tastes perfectly sweet, and there is no taste of burnt or boiled milk, which renders pasteurized milk so unpleasant to many people. In ordinary pasteurization the temperature is raised to 180° F.; in the present process the temperature is not allowed to rise above 150° F. This no doubt accounts for the difference.

The taste, however, is not absolutely the same as that of perfectly fresh milk, and the difference is mainly in the after-taste. At first, when drinking the milk, it appears indistinguishable from fresh milk, but afterwards the milk clings about the mouth, and the after-taste appears to be mainly due to this circumstance. It is slight, but quite noticeable, and can be detected even when the milk is mixed with tea or coffee. There is also a suspicion of a taste like that produced by the presence of carbon-dioxide in ordinary aërated beverages. The clinging to the mouth just mentioned is due to the broken-up state of the milk globules. One sees the same thing when the milk is poured out of a glass; it does not pour clean, and much remains adherent to the glass for a time.

Condition of the Fat.

The extraordinarily fine state of subdivision of the fat produced by the machine called the "fixer" becomes apparent on microscopic examination. Very few of the ordinary fat globules are seen, but the whole appearance is that of almost immeasurably tiny granules. It seems doubtful whether these are all composed of fat, and it is probable that some of them are proteid in nature. The researches of Ramsden have shown that mechanical agitation precipitates various proteids, and it is therefore probable that the "fixer" may throw the proteid matter, at any rate in part, out of complete solution. It may be that the force employed may also be sufficient to incorporate the fat and the proteid so inextricably that the rising of the cream subsequently does not take place. This view is supported by the following consideration: If ordinary milk is treated with a little potash and then extracted with ether, the fat readily passes into the ether and may be thus easily estimated. The subjacent fluid loses its milky appearance completely and is of a gummy consistency. If this procedure is followed with the aërated milk much more prolonged contact with ether is necessary to extract the fat, and the residue is even then not entirely freed from fat unless a Soxhlet's apparatus is employed; the proteid residue is gelatinous and still contains a considerable residue of fat incorporated with it. Determinations of the total fat by a Soxhlet's apparatus give a total yield of fat rather higher than that of the control specimens of pure milk employed.

Whatever be the explanation, the fact remains that the cream does not rise, and this in itself is one of the strongest points in favour of this method of milk preservation. The rising of the cream into a buttery mass in the neck of the bottles in the case of ordinary pasteurized milk and the subsequent difficulty of diffusing it equally through the milk have constituted a bar to the extensive use of pasteurized milk.

Still more remarkable was the observation that even by the use of a powerful centrifugal machine, which caused a complete separation of the cream in a few minutes in control specimens of milk, no separation at all took place in the aërated milk. On the surface the few milk globules which had escaped rupture and subdivision after passing through

the "fixer" were seen, but the amount was negligible, and needed search to discover it at all.

Condition of the Sugar and Inorganic Constituents of the Milk.

There was no difference either in quantity or quality between the milk sugar and inorganic constituents of the aërated milk and those of specimens of fresh milk examined side by side with it.

Condition of the Proteids.

These have specially attracted attention, as upon them mainly depends the nutritive value of the milk.

The proteid or albuminous constituents of milk are two in number:—(1) Caseinogen, the principal proteid, the most characteristic properties of which are its precipitability by acid, by saturation with certain neutral salts, and its convertibility into casein by the rennet ferment. (2) Lactalbumin, which is present in smaller quantities, and which remains in solution under the circumstances just mentioned which precipitate or change the caseinogen.

Both these proteids are present in the aërated milk in normal amount and show all their characteristic properties. The possibility has already been mooted in a previous section of this report that the proteid matter may not be as fully in solution as in ordinary milk. Whether this is the case or not, there is no detectable difference chemically between the proteids present and those in ordinary fresh milk. The behaviour of rennet is the most delicate of all tests for determining whether or not any change has occurred in the physical condition or chemical state of the more important of the two milk proteids. The curdling which occurs when rennet is added to the aërated milk differed in no particular from that ordinarily observed, except that it took place more rapidly than in some of the control specimens of fresh milk with which it was compared.

No experiments of an exhaustive nature on the digestibility of the milk *in vivo* have been made. A number of artificial digestion experiments have been performed and the results controlled with specimens of fresh milk. For comparative purposes such results are useful.

A measured quantity of milk was taken, and the amount of total proteid determined. An equal quantity was then subjected in a flask to the action of artificial gastric juice, kept at the body temperature. At the end of a given time—two hours—the mixture was filtered; excess of absolute alcohol was added to the filtrate, and the products of proteolysis (peptones and proteoses) so precipitated were collected on a weighed filter, dried, and again weighed in the usual way. Specimens of aërated and fresh milk were in that way treated side by side; in all cases two specimens of each were taken, and the figures given below represent the average of the results obtained.

In a second series of experiments pancreatic juice was employed instead of gastric juice. In this case the proteolytic products were separated by boiling with an equal volume of 10 per cent. trichloracetic acid; the mixture was filtered hot; the filtrate was evaporated to a small bulk, the small amount of remaining acid neutralized by soda, and the products of digestion precipitated by alcohol as before.

The following table gives the results obtained:

Percentage of	Aërated Milk.	Fresh Milk. No. 1.	Fresh Milk. No. 2.
Total proteid originally present	3.80	3.60	3.90
Total peptone (including proteoses) after two hours' gastric digestion	0.78	0.81	0.76
Total peptone (including proteoses) after two hours' pancreatic digestion	1.62	1.77	1.58

It will thus be seen that the preparation of pancreatic juice used was the more powerful of the two; that the digestibility of the aërated milk was a little better than one specimen of fresh milk, and a little worse than that of the other specimens of fresh milk employed. The differences, however, are so slight that they come within ordinary experimental error. The main result is that the digestibility of the aërated milk is practically the same as that of fresh milk.

Aërated milk is, like fresh milk, amphoteric to litmus paper; and the specific gravity of the sample examined was 1038.

Conclusions.

The main points ascertained may be summarized in the following way:

1. In spite of the absence of preservatives, aërated milk prepared in the way described will keep perfectly sweet for at least six weeks.
2. When opened, it will remain sweet for several days.
3. It does not taste of boiled or burnt milk, as the temperature to which it is raised is never allowed to go above 150° F.
4. Owing to the breaking up the flat globules by the "fixer," there is no rising of the cream, even when centrifugal force is employed.
5. Its constituents are the same as those of ordinary milk.
6. The fine state of mechanical subdivision of the fat is the main physical difference between this milk and other milk.
7. The taste is somewhat different from that of fresh milk, but the difference is slight and difficult to define.
8. The digestibility of the milk, as tested by the action of gastric and pancreatic juices, is the same as that of ordinary milk.
9. The power of the milk to keep sweet so long is in part due to care in bottling in sterilized bottles and proper corking, and in part to the processes adopted. These processes are mainly three—(*a*) disintegration of the fat by the "fixer"; (*b*) aëration; (*c*) subsequent heating to 150° F.

All these processes appear to be essential to keep the milk sweet and to prevent the cream rising. These processes in combination appear to have the power of either excluding or killing or hindering the activity of the micro-organisms to which the souring of milk is due under ordinary circumstances.

REPORT ON THE BACTERIOSCOPIC ANALYSIS OF, AND ON EXPERIMENTS WITH SAMPLES OF, AËRATED PRESERVED MILK.

The milk has been examined for the manufacturers by Dr. E. Klein, F.R.S., who has drawn up the following report:

First Series.—Four bottles, hermetically closed, were delivered at my laboratory on March 25th, 1903. They were labelled respectively:

1. Pure cream.
2. Whole milk (treated).
3. Soda-milch.
4. Soda-milch with flavouring.

All four bottles were placed in the incubator and kept there at 37° C. On March 30th the contents of the bottle of "pure cream" contained a curdled material, whey at the lower layer with plenty of gas. Opening and examining the contents, it was found to emit a strong smell of butyric acid, and the fluid whey was found to contain numerous bacilli, being in fact those of bacillus butyricus. This particular sample of cream by chance contained the highly-resisting spores of the bacillus butyricus, which will survive the temperature of boiling water for several minutes, and for this reason it underwent the above change. But the ordinary non-sporing microbes—for instance, the bacteria lactis, which generally are the cause of the fermentation of cream, cannot survive the treatment. The other three bottles remained unaltered. Bottle No. 4 (soda-milch with flavouring) has been kept unopened in the laboratory until June, that is for two months; at the end of this time it was quite unaltered. On April 1st both the whole milk and the soda-milch were carefully opened and plugged with sterile cotton-wool. During the opening process a large amount of gas escaped, showing that the interior of the bottle had been kept under considerable pressure of the gas with which it had been originally charged, about 50 lb. to an inch. The charging consists in first exhausting the air and then charging with oxygen mixed with a small proportion of carbonic dioxide. The two bottles, whole milk and soda-milch, plugged with cotton-wool, were now (April 1st) placed in the incubator at 37° C. Two days later, April 3rd, both bottles showed their contents curdled at the bottom, with turbid whey at the top. This change was due to the development of sporing motile bacilli. These were then present in the contents as spores, and owing to the great pressure within the spores could not germinate or produce the host of bacilli which caused the subsequent curdling of the milk. So long then, as the pressure within remains unaltered, the spores would not cause any change; and so long as the contents, after opening, are used within a day or so, no alteration of the milk need be anticipated, since the above curdling did not set in till after forty-eight hours at a temperature of 98° F. The above spores are quite harmless.

Second Series.—On April 8th three half-pint bottles were charged with fresh milk of the quality generally used for the treatment by the process. To each bottle of milk was added a turbid emulsion of bacillus diphtheriae, the amount of culture put into each bottle amounting to half an agar-culture. The agar-culture had been incubated at 37° C. for forty-eight hours. The three bottles of milk were treated in the following manner:

Bottle (*a*) was plugged and kept in the laboratory as control.
Bottle (*b*) was charged with the gas according to the process, but was not heated.
Bottle (*c*) was subjected to the whole process, that is, aëration and heating.

The next day the contents of the bottles were subjected to the culture test on agar and on serum, with the following result:

Control bottle (*a*) yielded numerous colonies of the bacillus diphtheriae.
Bottle (*b*), numerous bacillus diphtheriae, besides other microbes.
Bottle (*c*), no bacillus diphtheriae, and free of growth of any microbe.

From this we see that in the killing of the diphtheriae bacillus the heating forms an essential part of the process.

Third Series.—On May 6th normal milk was infected with the tuberculous organs of a guinea-pig, the organs being the spleen and inguinal glands. The caseous matter of both organs contained abundance of tubercle bacilli. The milk was fresh milk brought to the laboratory. One bottle (*a*) was kept as control. Bottle (*b*) was subjected to the treatment, that is, gas and heating. With the sediment of the milk of bottle (*a*) a control guinea-pig (No. 1) was injected subcutaneously in the groin. With the sediment of the milk of bottle (*b*) two other guinea-pigs (Nos. 2 and 3) were injected subcutaneously in the groin. The control guinea-pig (No 1) developed typical tubercle in the inguinal glands of the inoculated side. The guinea-pig (No. 1) was killed on the nineteenth day after injection. The necropsy showed swollen inguinal glands contraining necrotic foci, with numerous tubercle bacilli in them; the spleen was slightly enlarged, and contained a few tubercles, the liver also showed a few tubercles. There can be no doubt that the tuberculous material which had been placed in the milk was of an active and virulent nature, since already in eighteen days distinct tuberculosis was produced in the control guinea-pig (No. 1).

The two guinea-pigs (Nos. 2 and 3), that is, those that were injected with the tuberculous milk previously treated by the process, remained without any change. After twenty-eight days there was no sign of enlargement of the inguinal glands, and the animals appeared perfectly normal. On necropsy the viscera were found quite unaffected. From this it appears that the treatment of the milk (aëration and heating) was successful in killing the tubercle bacilli with which the milk had been previously charged.

FURTHER BACTERIOLOGICAL EXAMINATION.

Samples of the milk bottled on November 2nd, 1903, as explained above, under the head Physiological Examination, have been submitted to bacteriological examination for us. The following is the report which we have received from the bacteriological expert:

"The bottles had been kept for a week in a dark cupboard without being unpacked. Two of them were labelled in pencil, 'No gas,' which I was informed meant that the milk had not been saturated with oxygen and carbon dioxide. These two bottles had undergone decomposition, and had separated into a clear whey and a ragged curd riddled with gas bubbles. They smelt rancid, and had evidently undergone the butyric acid fermentation. The whey teemed with motile bacilli. Cultivations—aërobic and anaërobic—yielded several different species of bacilli, all spore-forming, some aërobic and some anaërobic. The most important was probably the anaërobic B. butyricus (Botkin). I did not attempt to identify the aërobic ones, as they were unlike any of the known species pathogenic for man.

"The remaining bottles had, I was informed, been saturated with oxygen and carbon dioxide. These bottles had undergone no apparent change, but were sweet and good. They were not, however, sterile, as scanty motile bacteria could easily be found after a little search, and grew readily on culture. When once the bottles had been opened they rapidly underwent the changes described above as having taken place in the bottles not exposed to the action of the gas. The conclusion which seems justified is that the milks are 'incompletely sterilized,' that is, non-sporing bacteria have been destroyed, but not the spores of either aërobic or anaërobic bacteria. The saturation with oxygen and CO_2 seems sufficient for a time to prevent the development of these spores, and so hinder changes in the milk."

CONCLUSIONS.

The process, as will be seen, presents many points of interest both scientific and practical. We are informed that since the samples examined as stated above were taken certain improvements have been introduced in the method of bottling. An examination of the gases showed that in certain bottles there must have been some defect either in the gases used or in the apparatus, as in some bottles the pressure was low and others contained a large proportion of nitrogen in place of oxygen. The evidence from the gas examinations tended to show that the presence of a large proportion of oxygen is essential. We are also informed that experiments for charging churns have been successful, so that it would appear that the milk thus treated can be dealt with in bulk.

PHYSICAL DEGENERATION.

[BY OUR COMMISSIONER.]

(*Continued from p. 47.*)

VII.—PHYSICAL CULTURE OF CHILDREN OF THE LABOURING CLASSES.

Games, Drill, Gymnastics, etc.

WE now come to the question of physical culture which has been exercising the minds of those concerned about the national physique as bearing on the question of recruits for the army and navy. The class from which these are drawn is chiefly that of labourers and artizans educated at public elementary schools.

Boys.

We will describe the system carried out in boys' schools in London under the general superintendence of Mr. Thomas Chesterton, organizing teacher of physical exercises for the London School Board. It was only in 1889, nineteen years after the establishment of the Board, that physical exercises were made a compulsory subject for boys and girls. All teachers in the service of the Board are expected to qualify in order that they may drill their own classes. This is considered desirable, for although their teaching may be inferior to that of experts, the personal influence of class teachers over their pupils and the knowledge they have of their physical strength are believed to compensate for the extra skill of the professional.

By way of introducing physical training into boys' schools, instructional classes for teachers were formed, and the Swedish and English systems were taught; but later, the English system, arranged by Mr. Chesterton, became so much more popular than the Swedish that the latter was allowed to drop. An assistant trained at one of the classes was appointed to assist Mr. Chesterton by superintending the instruction in the schools of North London.

While Mr. Chesterton does not claim to have originated the entire system, he may be credited with having himself classified and adapted a series of useful exercises after a careful and practical test of the different methods in use in other countries of Europe, a task in which he tells us he was guided by twenty years' practical experience in teaching physical culture.

The classification of the exercises is based on a study of anatomy and physiology, and is designed to encourage general development. Many foreign systems aim only at "setting-up" drill for military purposes, and this has invariably been found a failure when tried in this country. Since there is more often than not no space for games in London, physical exercises are of the first necessity, and in order that they may not become irksome they should be varied as much as possible. For this reason music is sometimes used, and it is quite remarkable how many of the children, often quite young, can play the piano, keeping excellent time and changing tunes to suit the exercises. Often the children of the poorer classes play quite as well as those of the rich, their parents having paid for a piano on the hire system. When we went from school to school inspecting the drill, these youngsters came forward to play with a graciousness and want of false shame which would have done credit to many a well-born child. We were told that in every class there were players, though generally the drill is taught without music, especially at first, until the pupils are quite sure of the exercises. The system aims at general or all-round development, and the exercises are adapted to the requirements of the average pupil. In a vast concourse of over half a million it is obvious that it would be impossible to give special movements for special cases; that is the reason why class teachers are selected to drill each their own class, as they are presumed to know the weakly ones, and to put them in the background where they follow as best they can. This, of course, is not ideal, more especially as the weakly

ones are more often than not those who need the exercises most, and probably special ones. Perhaps, under the new educational authorities it may be easier to look into this matter and give more attention to the most physically unfit.

It is satisfactory to know that in the ordinary teaching nothing is introduced for show or display, but merely for its effect upon the principal muscles and articulations of the body. The exercises are progressive, according to the standard in which the child happens to be, and none are so complicated as not to be readily learnt. They are arranged as follows:

Commencing positions of the upper and lower limbs.
Head movements.
Arms raising and swinging.
Arms bending and stretching.
Trunk movements.
Trunk and arm movements.
Leg and hip movements.
Leg, hip, and arm movements.
Side lunging.
Direct lunging.
Side lunging with arm movements.
Direct lunging with arm movements.
Balance movements.
Shoulder movements.
Shoulder movements with direct lunging.
Exercises when on the march.
Marching in various formations and figure marching.

It is believed that these movements gradually bring into play every muscle and articulation in the body, and that the children, by learning to do the simple movements correctly, are laying the foundation for the performance of the more advanced. A teacher conversant with such a system can teach without constant reference to a textbook. Further, as the exercises are grouped in progressive order, the necessity for tables of exercises is obviated, the teachers being able to select movements suitable for their classes according to the circumstances under which the instruction is given, namely, time of day, weather, and whether indoors in a hall or corridor, in the open air, or under a shed.

Many of the Board schools have a hall in which drilling can take place, and where such a hall does not exist, and where class-rooms only are available for the purpose, the Board is gradually building special halls. These new rooms are spacious, with plenty of windows for ventilation, but we were glad to note that some headmasters preferred the drill to take place in the school yard in dry weather or under a shed, usually to be found in the yard, provided the weather was suitable. This excellent plan cannot be too highly praised and encouraged.

The exercises may be taught in several different ways: as free movements by word of command, they can be performed by the elder children with dumb-bells if desired, or the whole may be performed, with or without dumb-bells, to music, any tune in simple or common time being all that is necessary. It is curious to note that, when two or more classes occupy the same room, one class may perform the exercises as silent drill without in any way interrupting the work of the others.

Boys and girls dressed in ordinary clothes can perform the movements with equal readiness, though we cannot help thinking it a pity that there should not be a distinctive dress for the girls, and in particular special shoes. In one or two of the higher grade Board schools, such as Montem Street, Finsbury Park, to which we were taken by Miss Kingston, one of the instructresses for girls' departments, the girls wore dark blue frocks with smart red collars and sashes, and drilling shoes, and the difference in their appearance (of course they were better in other ways too) was quite marvellous, they looked so smart and business-like. Surely if one Board school can accomplish this miracle, others, perhaps all, might do the same. A little bit of coarse blue serge and another bit of red for facings would cost next to nothing, and the girls could make the gowns at their sewing classes. The School Board ought where necessary to provide flat shoes if it wants the drill to be successful. How can children in boots down at the heel and often sizes too large for them succeed in doing foot-and-leg movements perfectly?

The children are taught to assemble, to form classes, and to move from one point to another quietly and in an orderly manner by a sort of drill adapted from that in the Infantry Drill Book. This is useful as instilling into boys the elements of military drill; later when they leave school it encourages them to join boys' brigades, and eventually the army. For the sake of discipline, in schools where there is sufficient space in the playground, the children are made to assemble, marching from the class-room into the playground in a methodical manner. This is in a great measure to keep up discipline in case of a panic caused by fire or any other accident. Its usefulness has been demonstrated lately when, during fires, the children were marched out of the school-rooms in an orderly manner, no panic or accident occurring. It also assists obedience and orderliness, and makes the children punctual. This is another reason why it is thought desirable that each teacher should drill his or her own class. They are naturally supposed to maintain better discipline than a stranger could. Indeed the school discipline is striking, and a class seems to move like one person. Of course this must crush out individuality, but in a motley crew, where a large number of subjects have to be taught in an absurdly short space of time, nothing short of rigid discipline could accomplish a task so Herculean.

Instruction of Teachers.

Classes for male and female teachers are held after school hours; they last one hour and take place once a week for twenty-five weeks. At the classes for males all the exercises contained in the manual—a copy of which is supplied to each boy's school—are gone through. The essentials of physiology and hygiene, bearing on the theory of physical education, are included in the instruction given at the training classes, the instruction including muscular development; effects of exercises on heart, chest, lungs, and circulation; air and ventilation; food and clothing; skin and its functions; games and swimming; effects of respiratory movements; spinal curvature; injurious positions assumed during school life; and rules for conducting the lessons. At the termination of the course the teachers are called upon to undergo two distinct examinations, one in theory and the other in practice. The practical examination consists in each teacher performing exercises at the word of command from the instructor and in drilling a class of adults in presence of the examiners.

Until within the last few years the theoretical examination consisted in answering on paper a few questions connected with the physical education of school children. But now each teacher—male and female—in addition to the practical, must pass a theoretical examination, which involves a comprehensive knowledge of physiology and hygiene, far beyond what may be considered necessary, before he or she can obtain a certificate of competency to teach physical exercises in schools. A teacher possessing advanced certificates in physiology and hygiene may claim exemption from this examination, but the possession of both is indispensable in order to obtain this concession. When a teacher has passed the theoretical as well as the practical examination, he or she is granted the certificate. A teacher, male or female, does not obtain an increase of salary in accordance with the scale unless in possession of the above certificate. A pass in either part of the examination is credited to the teacher, but the certificate is granted only on a pass in both parts being obtained. Still, successful or not, the teacher who has passed the practical examination, but not the theoretical, has to teach his or her class physical exercises, although the annual increase of salary (£5 in the case of men, and £3 in the case of women) is not allowed.

The examiners of the practical and of the theoretical subjects are different men. It does not seem absolutely necessary for teachers of physical exercises in Board schools to be obliged to obtain the advanced certificates in physiology and hygiene of the Science and Art Department, or to undergo an examination equivalent to that held by that Department before being considered worthy of a certificate to teach physical exercises, although their practical knowledge—which is by far the most important—may be of the highest order. It is therefore curious that a Board school teacher who is permitted to instruct a class in physical exercises, and is presumably thought fit to do so, perhaps for several years—for teachers who have failed are allowed to go in for the theoretical examination year after year—should be deprived of extra salary the while.

Teachers do not learn why they have failed in the theoretical examination, for their papers are not returned to them nor their mistakes pointed out. The examiner is one of the Board's inspectors, and consequently has access to the office in which the register is kept containing the names of candidates alongside the numbers which they are given during the examination. Though of course we are persuaded that no man in a position of trust would open such a register, it is regrettable that he should be placed in a position where a

rejected and disappointed candidate, being human, might insinuate that there had been some unfairness. It is regrettable also that the examiner should both receive a fee for each candidate every year they come up for examination and that he should advise his committee. Great discouragement is produced among teachers who have failed and yet have to go on teaching the subject. It is no wonder if they do their work in a half-hearted manner, lose interest in the physical training of their class, and that the children in the class suffer. The examination should be confined to the theory of physical culture in connexion with practice, and nothing further, while outsiders, preferably medical men, should be the examiners, and not an official whose duties lie in other channels. Let hygiene and physiology be taken by all means, but as separate subjects, and not to act as dampers to the zeal of the unlucky men and women who may have the gift of teaching exercises, but are unable to grapple with scientific subjects learnt at the expense of their leisure and recreation at the evening continuation classes, when they are far too tired to take in what they are required to learn. This applies to male and female teachers.

The matter appears to be worthy of early and careful investigation in the interests of the teachers, and consequently of the physical training of the children. If the physical training is to be successful (when undertaken by the teacher, which is the only way in which it can be conducted in the schools), it must be popular. The theoretical examination as now held is useless and unnecessary, and must consequently react on the interest of the teacher in the subject.

Girls.

The girls, who are taught solely the Swedish system, might with advantage have brisker exercises into which they would throw more energy. In some classes, especially, it is noticeable that they seem slack and listless. This depends greatly on the teacher, and among so vast a concourse the slack as well as the energetic are bound to be found. The Board's instructors visit both boys' and girls' schools periodically, in order to see that the classes are properly taught, and to advise teachers to wake up those who are phlegmatic, or to assist those who have to fight against difficulties such as the want of halls in which to drill their classes.

The teaching of the girls is progressive, the exercises gradually increasing in difficulty from Standard I to Standard VII. It is needless to give in detail the course taught, as the Swedish system is so well known. As a matter of fact, however, it is hardly correct to call the system we employ the Swedish system, as a most important part of it is left out. There, all school children are measured and weighed and are medically examined with their clothes off at the beginning and end of each term. Records are kept which are of the greatest value in noting the benefit or injury done to the children from physical exercises. Besides this the weakly or physically unfit are weeded out of each class and formed into a group where special suitable exercises are given.

As a rule, in the English classes no apparatus is used, the whole of the exercises being free movements, though of late years the girls have followed the example set by the boys, and in numerous schools are now using both dumb-bells and wands. Skipping is taught as being a good exercise for the development of the lungs, and during the summer swimming is encouraged. Each class under the School Board, both boys and girls, drills three times a week for twenty minutes. It is to be hoped that it may soon be found possible to give them twenty minutes every day, or even more. None of the exercises are violent, and as long as they remain such as not to overtax children's strength there is no fear of their being hurtful to them, unless they are suffering from any particular deformity or disease which might necessitate special exercises under medical supervision.

Delicate Children.

Dealing with a huge mass of children, it is necessarily difficult to separate completely the robust and the delicate. But when there is regular medical supervision of all the children it will be advisable to have, say, one class a day with special exercises, which all the most physically unfit in the school could attend, the work being regulated to suit their strength.

Swimming; Games.

The teaching of swimming cannot be too highly commended. Apart from its utility in case of drowning emergency, it is invaluable in stengthening the lungs, and especially when done in cold water, in developing the limbs. If judiciously taught it gives courage and confidence. At first girls were timid, but now it is extremely popular with both girls and boys, and many of the former have become splendid swimmers. We are glad that a great number of teachers encourage outdoor games among the children attending Board schools. No doubt most of the playgrounds are small, and the space for such games as cricket and football cramped. But they play somehow, and on Saturdays the boys may be seen on commons and in fields and parks enjoying sports and games.

Mr. Chesterton has written a capital book entitled *Organized Playground Games* (suitable for elementary and secondary schools), in the preface to which he points out that games, physical exercises, and drill are all three essential to the all-round development of children, no single form being sufficient for an ideal training. The author says:

> Drill is indispensable in securing discipline and a ready response to orders; systematic physical exercises provide beneficial training for all parts of the body and aid in attaining that "set-up" which is so essential to giving to children a smart carriage; while from games a great amount of physical and mental benefit is derived.

He rightly contends that a boy's real character is manifest while he is at play, and by watching him his master can form a good estimate as to whether he is likely to develop into an energetic and self-reliant man. The moral benefit of games is beyond all doubt. A boy who plays fairly will probably be honourable and fair all his life long, and he will turn out more manly and self-reliant than the boy who has never joins in sports. Open playgrounds and parks should be secured as often as possible for children condemned otherwise to play in slums and alleys as best they can.

Now that tramways and trains run so frequently into the suburbs every effort should be made by benevolent societies to assist schools to take cricket and football teams to play in green fields or commons. Small school funds might even be raised for the purpose. The physique of the children would be considerably benefited by the exercise and change of air, which would be good also for the teachers accompanying them. In Germany games are taught in schools. Generally a large playing field is secured, and twice a week the classes assemble and are taught by their teachers a great variety of games. We do not say that they are to be held up as models of their kind, and we can imagine, for instance, one of our boys having the megrims from horror at German football, but the idea is good. Teachers are paid extra for teaching and taking part in the games, and therefore enter into the fun with a light heart. It is a Herculean task to provide ideal education for about 1,500 school departments containing over half a million pupils; but when the Board schools are handed over to the County Council we must hope that the separate districts will have it in their power to work each batch of schools as perfectly as possible, and that in time emulation will enable us to have an ideal educational system.

Medical Sickness and Accident Society.—The usual monthly meeting of the Medical Sickness Annuity and Life Assurance Society was held at 429, Strand, W.C., on December 18th, 1903, Dr. de Havilland Hall in the chair. It was reported that during the eleven months ending in November the number of new entrants was larger than in the whole twelve months of the year 1902, although this year showed a considerable increase over both 1901 and 1900. The valuation of the Society's business is now in progress. During the quinquennium just ended the sickness experienced has been very nearly equal to the expectation, and therefore only a small margin of profit has been made in this way. But in consequence of the very economical manner in which the business has been conducted a larger sum has been saved in the management branch and this, with the interest earnings in excess of the low rate assumed in the valuation, produces a considerable surplus. Prospectuses and all particulars on application to Mr. F. Addiscott, Secretary, Medical Sickness and Accident Society, 33, Chancery Lane, London, W.C.

Leprosy in Germany.—According to official statistics the total number of cases of leprosy in Germany at the end of 1903 was 37. They were distributed as follows: Prussia, 25; Hamburg, 8; Bavaria, 2; Mecklenburg-Schwerin, 1; Alsatia, 1. In all the cases the disease had been contracted abroad.

Malaria in Algeria.—An antimalaria league has been formed in Algeria. Its object is to promote the adoption of modern prophylactic measures, and to use every available means of combating the scourge. The conduct of the campaign will be under the direction of Professors Moreau and Soulié.

BRITISH MEDICAL ASSOCIATION.

Subscriptions to the British Medical Association for the year 1904 are now due and should be forwarded by postal order or cheque to the amount of 25s. to the General Secretary, 429, Strand, London, W.C., or, in the case of Colonial members, to their Branch Treasurer.

British Medical Journal.

SATURDAY, JANUARY 9TH, 1904.

SANATORIA IN THE PREVENTION OF CONSUMPTION.

THE question whether the sanatorium plan of combating onsumption is generally applicable or universally satisactory when it is applied is now being asked in many uarters. There can be no doubt that the good accomlished by the method goes a long way in accounting for he marvellous change that has taken place in public pinion during recent years as to the curability f phthisis. Laënnec, who is generally recognized s the father of diagnostic methods in regard to onsumption, held that it was no more curable than ancer. Now, by the profession, it is looked upon as one f the most curable of chronic diseases, and by the laity s very far indeed from hopeless. For all that there is rowing up at the present time a body of expert opinion to he effect that, under certain conditions—in those of dire overty, to wit—Laënnec's dictum was not very far wrong. It is in Germany that the sanatorium system has been ost fully developed, and it is to Germany that the nquirer naturally turns for an exposition of its advanages. Its limitations, on the other hand, are probably ore freely discussed in France than elsewhere, but there re not wanting, even in Germany, vigorous exponents of a imilar *thätige Skepsis*.

Among the more favourable statistics as to the urability of pulmonary tuberculosis in sanatoria, ose of Penzoldt are perhaps the best known. hese give a proportion of 70 per cent. of -called economic cures—that is, the attainment of a egree of recovery sufficient to allow of return to work, ither in a former position or in one less exacting. But by any this percentage is considered to be distinctly too igh, unless, as it is suggested, cases of simple bronchitis re included in it; and they maintain that, in order to rrive at a truthful estimate of the position, the signifiance of the term "economic cure" must be analysed from he point of view of permanency of the improvement. mong the less favourable statistics are those of Dettweiler, erived from a sanatorium for the well-to-do, which show proportion of actual cures, after an interval of three to ine years, of only 10 per cent. It is probable, however, hat Dettweiler's statistics are as much too gloomy as enzoldt's are too bright. For not only is there the well-nown fallacy to take into account of the more severe of ie early cases being selected for sanatorium treatment, and ie fact that the urgency of the need for removing a patient om his unfavourable surroundings into a sanatorium is recisely equivalent to the disadvantage of sending him ack after treatment to his former home life; but there is e great weight, on the brighter side, of the acknowledged frequency with which healed tubercle is found in the lungs of persons who die from non-tuberculous diseases.

A more accurate average statement of the position, as it would seem, was that outlined by Dr. Katz at a meeting of the Berlin Medical Society in January last when he asked if sanatoria could be advanced as the best possible means of combating tuberculosis seeing that after three or four years 56 per cent. of the so-called cures were either dead or incapable of work. The following fairly exact statistics may be taken as roughly indicating the after-progress of sanatorium cases. To an inquiry made by a German assurance society as to the state of consumptives who had been treated in sanatoria between 1893 and 1897, 1,336 replies were received which were classified as follows: 257 or 19.2 per cent. were dead, 120 or 9 per cent. were unable to work, and 959 were able to work, partially or completely. In these 959 economic cures capacity for work lasted from 8 months to 1 year in 36 or 3.7 per cent., from 1 to 2 years in 376 or 39.2 per cent., from 2 to 3 years in 345 or 35.9 per cent., from 3 to 4 years in 185 or 19.5 per cent., and for more than 4 years in 15 or 1.5 per cent. Correspondingly, of 2,248 patients treated at Goerbersdorf during 1895-6 one quarter continued to work after an interval of four years and one-half were dead. Still more recent statistics are those of Engelmann, who found that of 424 early cases subjected to sanatorium treatment 94.7 per cent. were able to work at the end of 6 months, 80.3 per cent. at the end of 2 years, 66.7 per cent. at the end of 3 years and 44 per cent. at the end of 4 years. In another series of economic cures he found, however, that after an interval of 4 years only 21 per cent. were still able to work, and what is remarkable 18 per cent. of those discharged as unfit to work were still following some employment at the end of that time.

What, then, are the lessons which the *quasi*-reactionary school read in such an analysis—and to prevent misconception it should be said that no bad significance should be attached to the term "reactionary," because their teaching may be leading to what on every count is most desirable, a just appreciation of conditions and a just estimate of possibilities? One lesson is that economic cure is a commercial expression which must not be held to cover the scientific idea of recovery. The natural process of recovery from definite phthisis probably requires three years rather than the regulation three months. For the well-to-do who can afford protracted treatment on sanatorium lines the method is an immense gain; while for the favoured few among the poor who can obtain the full treatment for a sufficient time the method is equally of priceless value. For the great majority, however, a three months' course of sanatorium treatment, if it be immediately followed by a return to ordinary life, cannot be relied on to afford lasting benefit; indeed the educational value of such a course is its chief value, and this might sufficiently well be bestowed by one month's residence, or even by less costly means still. The economic results, it is held, are not in fact proportionate to the benefit conferred, and at the best the sanatorium is only one arm of the great force waging war against tuberculosis. The watchword of the new crusade is that prevention and not cure is more certain, easier, and cheaper, and that the means of prevention, and in the last resort of cure, is the rendering of the soil of the individual living human organism unsuitable for the seed of tubercle. In other words, the thing to aim at is a high degree of bodily resistance throughout the community before the disease has been acquired.

THE BLONDLOT RAYS.

WE published last week a preliminary note upon the so-called *n* rays discovered by M. Blondlot, of Nancy. As they are being applied to the study of vital phenomena, some further particulars will probably be found of interest. The earliest observations were made in the laboratories of the University of Nancy, where M. Blondlot is Professor of Physics, and the term *n* rays has been applied from the initial letter of the name of that city. An incandescent gas lamp emits *n* rays, and is the source most usually employed for their investigation. An ordinary circular gas-burner (without glass funnel) emits them, as also a plate of silver heated to redness, while a Bunsen burner scarcely emits any.

The rays pass through aluminium, are reflected by polished glass, and follow the same laws as regular reflection of light. They pass through lead (0.2 mm. thick), platinum (0.4 mm.), and saline water, and through cigarette paper if dry, but not when it is moistened with pure water. They also pass through tinfoil, lamina of copper (0.2 mm.), steel, silver (0.1 mm.), a book of paper containing twenty-one sheets of gold leaf, mica, glass, paraffin wax, and even sulphur. The rays are of relatively long wave length, occupying a position below the thermal rays, and in close proximity to the rays discovered by Professor Rubens, of Berlin, which, however, do not pass through certain metals. There seem to be four sets of rays included under the term *n* rays, and they all lie probably in the five octaves of the series of radiations which are still unexplored between the rays of Rubens and the electro-magnetic rays.

A small gas flame bluish in colour is rendered whitish when these rays are focussed on it by means of a quartz lens. They do not cause phosphorescence in bodies capable of being rendered phosphorescent by the action of light; but when such a body as calcium sulphide has previously been rendered phosphorescent by exposure to sunlight the phosphorescence is considerably augmented when the *n* rays are focussed on it. A certain time is required both for the production and the disappearance of the effect. In this respect they resemble the red and infra-red rays discovered by M. Edmond Becquerel. The *n* rays also affect incandescent bodies; for example, a platinum wire made red by an electric current. They also affect a small strip of black paper made feebly luminous with a small flame. More intense effects are obtained from a Nernst lamp of 200 volts. By it the effects upon a flame, phosphorescence, or electric spark can easily be made visible.

The rays are stored up by certain substances; for example, if passed through aluminium, and focussed on phosphorescent calcium sulphide, it remains phosphorescent for over twenty minutes after the source is removed. The quartz lens itself also becomes a secondary source of *n* rays. Iceland spar, fluor spar, barytine, glass, and calcium sulphide behave in this respect like quartz. The filaments of a Nernst lamp remain active several hours after the lamp is extinguished. Aluminium, wood and paper, dry or moist, are not capable of storing the rays.

The *n* rays possess the still more remarkable property of re-enforcing the action of a ray of light on the eye. This effect can be shown by the following experiment: In a dark room an object—as, for instance, a small band of paper or the face of a clock—is feebly illuminated; a brick which, having been exposed to the sun, emits *n* rays is so placed that the rays fall not on the object looked at but on the eye; then the object looked at appears more brightly illuminated. The insolated brick produces this effect even when covered with black paper and placed far away from the object looked at. The *n* rays appear to enhance the effect of the ordinary rays of light on the eye, yet the smallest layer of water completely arrests the *n* rays, and, as the eye media contain about 98 per cent. of water, it seems all the more remarkable that the *n* rays should pass through the ocular media and affect the retina. The explanation appears to be that water containing a minute trace of salts—for instance, common salt—is quite transparent to the *n* rays; while moist paper arrests them, they pass without hindrance through 4 cm. of normal saline solution, which also stores up the rays; indeed, the brick of the previous experiment may be replaced by normal saline solution through which *n* rays have been passed. Sodium hyposulphite is a powerful accumulator of *n* rays, and sea water and stones exposed to sunlight also store the rays. The excised eye of the ox is transparent and itself becomes active by insolation. It is the storage of the *n* rays by the media of the eye itself which appears to cause the delay observed in the establishment and cessation of these phenomena.

These rays may be of importance in connexion with certain phenomena of vegetable and animal life. The *n* rays are emitted by certain bodies, such as wood, glass, and caoutchouc when forcibly compressed or twisted. Tempered steel, crystallized sulphur, and hammered metals are permanent and spontaneous stores of *n* rays. Even the blade of a pocket-knife augments the phosphorescent effect of calcium sulphide. Non-tempered steel is inactive. The emission of *n* rays seems to go on indefinitely; objects of the eighteeenth century and a knife from the Merovingian period were equally active. The rays come exclusively from the blade, and in the case of the Merovingian knife they must have persisted for twelve centuries.

These remarkable rays in their spontaneity and indefinite duration recall the radiant properties of uranium discovered by H. Becquerel, and those of radium, polonium etc., since discovered by M. and Mme. Curie. The *n* rays are certainly spectral rays; they are emitted from the same source as those radiations, they can be reflected, refracted, polarized, and have a well-defined and long wave length.

TIDAL WATERS AND ENTERIC ENDEMICITY.

MR. A. G. R. FOULERTON, F.R.C.S., the County Medical Officer of Health for East Sussex, has presented to the county council an interesting report on the pollution by sewage of the tidal Ouse, with special reference to the prevalence of typhoid fever in the adjoining districts. The value of the report is increased by the fact that Mr. Foulerton has viewed the matter from the bacteriologic point of view, and has thus been able to incorporate in h deductions facts which are of more than local importanc The inquiry is divided into three sections: (1) The degr to which the tidal Ouse is polluted by the discharge into of the sewage of towns and villages on its banks, (2) t effect of such pollution on the public health, and (3) gene results and remedial measures. It appears that whils part of the sewage of Lewes is still disposed of in cesspoo the greater portion is discharged in an unpurified con tion into the tidal portion of the Ouse. Active progress being made with the sewerage of the town, and in the futu the crude sewage (amounting to 382,400 gallons) from t

total population will be discharged into the Ouse, a river incapable apparently of assimilating this mass of sewage or of purification between Lewes and the sea. Several villages likewise empty their sewage into the river. Hence it is not surprising to learn that chemically, bacteriologically, and even by inspection, the water of the Ouse shows marked contamination. Nor in a tidal river is the full advantage of deposition obtained as occurs in a non-tidal stream. Consequently, as Mr. Foulerton points out, such sewage is a menace to the inhabitants on the banks of the river, the exact degree of danger depending upon the previous treatment of the sewage (which in this case is *nil*) and the distance from the source of the pollution. But in the case of the Ouse "the seven or eight miles which the river runs between Lewes and the sea represent a stretch of water which is contaminated by sewage bacteria from end to end."

The towns of Lewes and Newhaven, the former the source of gross river pollution, the latter receiving this pollution some seven miles lower down, present an interesting field for the investigation of the prevalence of enteric fever in relation to this pollution; and they are the subjects of such investigation in Mr. Foulerton's report. During the years 1894-1902 the town of Newhaven had a mean case-rate of 15.5 cases of typhoid fever per 1,000 of population, while in Lewes the corresponding case-rate was 7.9, that in the watering-places of Eastbourne and Hove being 5.6 and 6.6 per 1,000 respectively.

Notwithstanding these remarkable differences between Lewes and Newhaven, Mr. Foulerton comes to the conclusion that the pollution of the Ouse, especially by the sewage discharged into it at Lewes, is the cause of the excessive prevalence of typhoid fever in Newhaven, and that this pollution operates in two ways—by polluting the other extensive mussel layings in the Upper Harbour and by polluting the foreshore. The latter influence is regarded by Mr. Foulerton as more important than the former; and apparently flies are regarded as the means of conveying infection from the sewage sludge to human food.

The assumption being that the sewage-polluted condition of the banks of the harbour is the cause of Newhaven's excessive prevalence of enteric fever, it is important to note the condition of Lewes in relation to contamination of the river banks. Mr. Foulerton's exhaustive inquiries on this point go far to rebut his own conclusion. The Cliffe district of Lewes, situate on the Ouse alluvium, had only 4 cases of typhoid fever in nine years, and for five years had 11 cases, while during the same period the more healthy parts of Lewes—that is, the parts more remote from the river—had 38 cases of this disease. If flies or other agents associated with sewage mud are so operative in Newhaven, why not also in Lewes? The observations extend over nine years, and it is difficult therefore to accept Mr. Foulerton's suggested explanation that the relative immunity of Lewes is due to fortunate accident. It appears clear that some other factor not sufficiently recognized has been at work. Possibly this may be the mussels referred to in Mr. Foulerton's report; but it was clearly impracticable for him to obtain accurate data on this point respecting cases which had occurred some years previously, and in fact no attempt appears to have been made to investigate the prevalence of enteric fever from this standpoint. We do not suggest that the Lewes people should be permitted to continue to discharge crude sewage into the Ouse. But the Newhaven inhabitants must, judging by the evidence given in Mr. Foulerton's report, look nearer home for the explanation of the excessive amount of enteric fever from which they suffer.

We welcome also the appearance of a report which Mr. A. G. R. Foulerton has presented to the Local Fisheries Committee of the Sussex Sea Fisheries District on this subject, as we believe it is the first report on a sanitary survey of tidal waters which has been produced on the instruction of any of the District Fisheries Committees. The Sussex Committee deserves considerable credit for incurring the expenditure involved in such a survey and report; and we hope that they will live up to the reputation they have thus secured by taking any practical curative measures which lie within their power.

The facts with regard to the New Shoreham Harbour and the tidal Adur, and Chichester Harbour are all fully set out and the various sources of pollution clearly indicated. Although the facts are not new, having been previously given in reports by Drs. Bulstrode and Newsholme, it is most helpful to have them elaborated and restated and brought before the official notice of an authority which, although it has to deal with the welfare of fish and not of human beings, is by the irony of circumstances at present the only authority which can take effective measures to stop contamination of these streams by sewage. We look, therefore, anxiously to the summary of conclusions and recommendations made by Mr. Foulerton. The purification of the sewage of Emsworth by some such method as that now being carried out at Chichester is urged; the necessity for fresh legislation regulative of the condition of tidal waters used for oyster fishing is referred to; but there is no recommendation as to any practical issue from the present report. Mr. Foulerton's report cannot, however, be regarded as of mere academic interest. The evils set forth demand a local remedy. Can the Local Fisheries Committee be said to have discharged its duty until it has taken fully into consideration the facts for which it has asked, and used all its present powers for the removal of the insanitary conditions which now hamper and paralyse the shellfish trade as well as scatter disease among those consuming shellfish?

JAPANESE AND RUSSIAN MILITARY MEDICAL SYSTEMS.

THE marvellous way in which the Japanese during the last thirty years or so have in many directions adopted and often improved the most modern methods of European nations is a matter of common knowledge. It is not, however, so well known that, in spite of the brief time that has elapsed since their awakening, the Japanese have already produced some men of high distinction in medical science, men, that is, who are not only thoroughly versed in the knowledge common to most of their colleagues throughout the world, but who have been eminent in research and extended the scope of scientific knowledge. In view of this it is the less surprising that their military medical arrangements should be, to use the inevitable expression, so much up to date as to be scientifically comparable with those of any nation, while in point of generosity in the provision of medical officers, elasticity and adaptableness to varying conditions, the difference is perhaps in favour of Japan. Thus while base hospitals, field hospitals, dressing stations of three types, bearer companies and hospital ships, all find their place, each division of the army has a medical reserve, which is mobilized simultaneously with it, and serves in the base or reserve hospitals. The medical department also has its own independent transport, and every infantry regiment, cavalry, artillery, engineer, and general transport battalion has a medical staff

attached to it of a very complete kind. The staff, for instance, for an infantry regiment consists of 2 surgeon-captains, 4 surgeon-lieutenants, 3 chief attendants, 12 ordinary attendants, and 48 bearers drawn from the regiment. Besides all these standing arrangements the regulations provide for an automatic addition to the *personnel* of the hospitals in accordance with the number of patients present, without reference to head quarters. Moreover, so long as a military medical officer remains in chief command additions may be made from the civilian population; everything, too, is done to facilitate the co-operation of the Japanese Red Cross Society. The Russian arrangements are also good upon paper, and Russian military surgeons have an advantage over the majority of their European colleagues inasmuch as that they habitually do the work of nearly all the civil hospitals. It is not to be forgotten, however, that the Russians will be working at an immense distance from their real base as far as medical matters are concerned. When all is said, the amount of mortality and suffering to be anticipated is dreadful. Of what it is likely to be in a naval combat we have a glimpse in the report on the Chino-Japanese war by the Director-General of the Medical Department of the Japanese Navy. A single shell killed 2 medical officers and 12 men, besides wounding 28 others. On land, too, the casualty-rate seems likely to be abnormally high, since it is doubtful whether the mass of Russian soldiers are sufficiently intelligent to fight well in very open order, while as for the Japanese, the Gourkhas of the extreme East, though the rank and file are of high intelligence, they are credited with a love for close quarters, and with regarding death in such a way that even discipline, perhaps, will not induce them to take the precautions against it which are considered right and legitimate further West. The amount of sickness, on the other hand, may possibly be less than under corresponding circumstances elsewhere, for both nations are habitual tea drinkers, and in consequence rarely drink unboiled water.

THE REGIUS PROFESSORSHIP OF MEDICINE AT OXFORD.

As we have already announced the Chair of the Regius Professor of Medicine at the University of Oxford is vacant through the resignation of Sir John Burdon Sanderson. The appointment is in the hands of the Crown, and we learn that a recommendation on the subject has been made to the Prime Minister by the Vice-Chancellor. We have reason to believe that the statement published by a contemporary to the effect that this representation has been made without seeking an expression of opinion from the University is erroneous. The fact is that the question of the successor to the office of Regius Professor vacated by Sir John Burdon Sanderson those has been very fully discussed in Oxford. Among who, as professors or teachers, are interested in the appointment there is, we understand, perfect unanimity. All are united in the desire that the Professorship should no longer be merely administrative, but that duties should be associated with it of real value to the Medical School. The subject which the Regius Professor could teach with advantage is that of pathology, for the other branches of medical science are provided for. The university now possesses for the teaching of pathology a perfectly-equipped laboratory and, what is of even more importance, a teacher of acknowledged reputation as an investigator, who is familiar with all modern methods of research, and signally successful in communicating this knowledge to students—in short, a man who possesses all the qualifications which could be desired for undertaking the direction of a pathological institute. Unfortunately the emolument of the Readership in Pathology is wholly inadequate, and the present financial position of the University makes it impossible to increase the stipend. Under these circumstances the proposal to amalgamate the Regius Professorship with the office of Reader in Pathology has been recommended to the Vice-Chancellor, and has received the unanimous support and approval not only of the teachers belonging to the Faculty of Medicine, but also of those of the Faculty of Science. The statement, therefore, that the opinion of the University has not been sought is misleading.

THE LONDON UNIVERSITY INSTITUTE OF MEDICAL SCIENCES.

WE understand that towards the fund being raised by the Senate of the University of London for the proposed Institute of Medical Sciences, Mr. Butlin, the Dean of the Faculty of Medicine, has contributed £1,000, and Sir William Church, Bart., K.C.B., President of the Royal College of Physicians, and Mr. Tweedy, President of the Royal College of Surgeons, £100 each.

THE CONSUMPTIVE POOR OF LONDON.

IT is generally admitted that if consumption is to be prevented the provision of hospital or sanatorium accommodation for sufferers from the disease forms an essential factor in the scheme of prophylaxis. Sanatorium treatment offers the best expectation of cure for the early cases, and cure in the early stage of the disease removes a source of future danger to others. Hospital treatment of the more advanced cases of consumption not only furnishes relief to those whose circumstances make proper treatment and comfort at home impossible, but removes a potent centre of infection from amongst those whose mode of life and general surroundings cause them to be especially susceptible to infection. It is, of course, amongst the poorer members of the community that the danger of infection from cases of advanced consumption is greatest, and it is therefore for sufferers in this class that hospital accommodation is most urgently needed. The accommodation for the sanatorium and hospital treatment of the consumptive poor of London is lamentably deficient and inadequate. The general hospitals cannot take cases of consumption to the exclusion of more acute and urgent cases of illness, and the comparatively small number of beds in the special consumption hospitals in the metropolis have to accommodate patients from other parts as well as from London. Many advanced consumptives are received into the Poor-law infirmaries, but still the accommodation falls far short of the requirements. A conference of Poor-law authorities was held in October, 1900, to consider this matter, and it unanimously resolved that some provision for the sanatorium treatment of the consumptive poor of the metropolis was required. It was considered that the Metropolitan Asylums Board was the proper body to provide and administer the sanatorium or sanatoria, which should receive patients from all parts of the metropolis, and the matter was brought to the consideration of the President of the Local Government Board, with the view to the necessary steps being taken to carry out the proposa The Asylums Board was also approached with desire that the Board should provide accommoda tion for the isolation and treatment of persons sufferin from consumption. The matter was referred in July, 190 to the General Purposes Committee of the Board, and fou months later this Committee reported in favour of defe ring consideration of the matter for twelve months. Th period having elapsed the subject came before the Board f further consideration last November, when it was resolve that the matter was of such importance as to call for son authoritative expression of opinion by the chief heal authority of the country, the Local Government Boar before the managers took any definite action in the matte It now rests, therefore, with the Local Governme Board to express an opinion on this subject. I T. Orme Dudfield, M.O.H., Kensington, has point out, in his reports to his borough council, that the Asylu Board possesses certain hospitals provided for the acco modation of small-pox cases, which are fortunately r required for their original purpose, and which might, believes, easily and speedily be adapted for the recepti of consumptives. The Gore Farm Hospitals, near Da ford, for example, are, he says, from their situation a construction, eminently suitable for sanatoria, and wo accommodate some 1,800 patients.

A BRIGHT EXEMPLAR OF ZOOPHILISM.

IT is stated in some of the daily papers that it is proposed to erect a monument to the dog which figured prominently in the action brought by Dr. Bayliss against the Hon. Stephen Coleridge. The monument is to take the form of a drinking fountain. The scheme is said to be promoted by the International Antivivisection Council and the World-wide Antivivisection League, bodies whose existence was previously unknown to us. According to the *Daily Express*, the National Antivivisection Society knows nothing of the proposal, and Mr. Coleridge is said to disapprove of an appeal which has been issued by the organizations above named. There is however nothing inherently improbable in the statement, for there is no limit to the excesses of zoophilists. There is in Paris, we believe, a cemetery specially reserved for defunct dogs, which are buried there with appropriate rites, and commemorated by costly monuments. Many women spend on the dressing of their canine pets money that would not only clothe but feed a number of poor children. Only the other day Pierre Loti, the celebrated novelist, who in ordinary life is Captain Viaud, now in command of a French warship in the Bosphorus, had his cat solemnly baptized in the presence of a number of officers and representatives of several of the foreign embassies at Constantinople. So much love indeed do many zoophilists lavish on animals that they have none to spare for their fellow creatures. There is a well-known story of a mother going to one of the leaders in the Reign of Terror to plead for the life of her son condemned to the guillotine. Her prayer was brutally refused. On turning to go out, blinded with tears, she accidentally trod on the pet cur of the heartless monster whom she had tried to move to pity. "Madam," said the human brute with unconscious irony, "have you no humanity?" We commend this bright exemplar of zoophilism to the special veneration of the members of the National Canine Defence League.

PIRKIS *V.* COLERIDGE.

IN the BRITISH MEDICAL JOURNAL of January 2nd we mentioned that the Hon. Stephen Coleridge had been moved to deal faithfully with Mr. Fred. E. Pirkis, Chairman of the National Canine Defence League, on account of a number of serious misstatements made in an antivivisection leaflet issued with his authority. We treated this as a sign of grace in Mr. Coleridge. Mr. Pirkis, not unnaturally, appears to regard it as a sign of reprobation, and he asks us to publish a long reply to his critic's observations. The reply has appeared in the *Times* and other newspapers, and we have already expressed the opinion that it is futile, and not altogether ingenuous. Mr. Pirkis appeals to us to publish it in full on the ground that we published Mr. Coleridge's attack on him *in extenso*. We did no such thing. We merely gave a brief summary of the more important misstatements put forward by Mr. Pirkis, setting against them in each case Mr. Coleridge's corrections. We have already said that we are not concerned with the refutation of the errors of the Chairman of the Canine Defence League; we are content to leave that congenial task to the Honorary Secretary of the National Antivivisection Society. We have nothing to do with the quarrels of rival fanatics, each of whom appears to be chiefly eager to impress on the public mind the fact that "Codlin's the friend"—of the dogs—"not Short."

ANOTHER MEDICAL COMPANY.

WE have just received, a year after its publication, the first number of a new medical periodical entitled *La Médecine des Accidents du Travail*. It is ostensibly devoted to matters arising in connexion with the French—and other—laws corresponding to our own Employers' Liability Act, and is largely devoted to what is termed "Mécanotherapie." This may be described as the application by means of specially designed apparatus of the methods of the bone-setter—that is to say, it is a means of completing the cure after injury by a system of massage and exercise. Speculation as to the explanation of the belated arrival of a year-old periodical is set at rest by an enclosure contained in it, which informs us that it is proposed to form a syndicate, with a capital of £15,000, in order to purchase from Dr. Vermeulen, the author of the longest paper in the periodical, and from Dr. Courtault, the sole rights for their mechanisms in Great Britain and the British Colonies, and to start institutes for their employment. Thus we are threatened with yet another form of joint-stock medical enterprise, as little desirable as those others to which we have lately drawn attention. We are told that that these "institutes" have been very profitable on the Continent, but we are not told why the knowledge and the appliances are not placed at the disposal of the profession, nor why the treatment cannot be carried out at hospitals and in private practice. Is it uncharitable to seek the explanation in the "great successes both medical and financial" which are said to have been obtained by the "institutes"?

DRINK AND CRIME.

To those alone whose daily avocations bring them to courts of criminal jurisdiction is it given to understand the intimate relationship between drink and crime. Wholly apart from the large number of cases in which the prisoner vainly pleads intoxication as an excuse for his wrongful act, many offences can be traced to the remoter consequences of alcoholic indulgence. At the assizes recently held at Durham, 47 cases came before the court, of which no fewer than 39 were attributable directly or indirectly to drink. Roughly speaking, this means that 85 per cent. of the serious crime in the county of Durham during the last few months was due to drink. That the crime was serious may be gathered from the fact that no fewer than 4 of the 47 cases were charges of murder. Mr. Justice Grantham recently made some remarks from the bench, which have been resented by the Croydon Licensed Victuallers' and Beersellers' Protection Society. That body adopted a resolution of a somewhat personal character, which has drawn from Mr. Justice Grantham a retort, in the course of which he says: "I have lately been brought face to face for weeks with the conduct of publicans in the carrying on of their business, which has resulted in the most heartbreaking crimes that it is possible to imagine. Husbands murdering their wives, wives their husbands, fathers their sons, friends their own best friends—all through the maddening influence of excessive drinking. Twelve murders, eighteen attempts at murder, and woundings without number that were just as likely to have ended in murder as far as the conduct of the criminal was concerned, have been mine and my brother Judges' daily fare for the last four weeks on one circuit, and in almost every case, as appeared in evidence, drink was the cause—drink served by publicans and not at clubs, and drink proved to have been served in the public-house where the man was openly drunk. These are the men whose conduct I complained of, and these are the men who the Croydon publicans consider are carrying on a lawful and respectable trade, and on whose behalf they speak of my strictures as being 'vile aspersions.'" The fact that intoxication affords no excuse for crime has been emphasized from the Bench from time immemorial. The only exception to the rule is in the case of murder, where it is possible to prove absence of "malice aforethought" by showing that the prisoner is intoxicated. Delirium tremens, however, is an excuse, and attempts have been made from time to time (but without avail) to argue that the existence of a form of insanity termed *mania a potu* should be sufficient to excuse the prisoner. In a case which was heard at Leeds in 1899 a man was charged with shooting at his daughter with intent to murder her. Dr. Bevan Lewis, in giving evidence for the prisoner, stated that in his view at the time when the shot was fired the prisoner was suffering from *mania a potu*, a disease of the mind which could be greatly aggravated by a little drink. In answer to a question by the judge, however, Dr. Lewis admitted that he was of opinion that all men who are very drunk are mad. The jury found the prisoner guilty. It is obvious that if drink were an excuse

for crime the safety of the public could never be guaranteed, inasmuch as an intending malefactor might always shelter himself behind the plea of intoxication.

A HEALTH CONSCIENCE.

THE weekly bulletins issued by Dr. Reynolds, the Health Commissioner of Chicago, often embody matter of more than passing interest. Two letters published in a recent bulletin illustrate some American varieties of conscience in relation to matters of health. Incidentally they throw considerable light on differences of sanitary procedure on the two sides of the Atlantic. The first instance is a letter from the Chief Medical Inspector in the Health Department to a private practitioner. It sets out how on November 6th the latter had reported two cases of scarlet fever; how he had then "assumed the responsibility" of preventing the spread of infection from these cases; how the private practitioner had allowed one patient to leave the city at the end of only two weeks from the onset of illness; how this could only be justified by an error of diagnosis; how, if an outbreak of scarlet fever occurred in the place to which the patient had gone, Dr. —— would have to bear the odium; and ended by enclosing a circular letter "with information upon the subject of contagious diseases." If the sanitary education of Dr. —— is not rapidly completed, it is not the fault of the chief medical inspector. The second instance is much more pleasing to contemplate. It is embodied in a letter from a lady living in one of the best residential districts of Chicago, and is addressed to Dr. Reynolds. It runs as follows:—"Dear Sir,—While I have every confidence in Dr. ——, who is attending my daughter afflicted with diphtheria, and in his ability to protect others from the spread of contagion, I still wish you would have your warning cards posted on my residence, both the 'diphtheria here' card and the warning to the milkman. I should never forgive myself if any one else were to contract diphtheria through any neglect on my part." No wonder that Dr. Reynolds in commenting on this letter states that ten years ago the card would have been resisted and the physician would have neglected to report the case. This letter is striking evidence of the development of a "health conscience" among ladies, who can do far more in these matters than men. As we have often observed, domestic hygiene is largely a woman's question. In ninety-nine cases out of a hundred it is Materfamilias who regulates every domestic detail, and among these the preservation of health and the prevention of the spread of infectious disease ought to be numbered.

GARDENING FOR WOMEN.

GARDENING must be looked upon, by those interested in the national physique, as a healthy and invigorating occupation for women. The Ladies' Branch of the Practical Gardening School of the Royal Botanic Society is interesting, inasmuch as most of the pupils trained there are School Board scholars, who have obtained scholarships from the London School Board, and who intend to adopt gardening as a profession. The pupils are nominated by the Technical Education Board of the London County Council. Among its Fellows the Society numbers many members of the medical profession, and Lord Lister is a member of its Council. It is satisfactory to feel that the gardening branch is of such definite use in opening up a healthy invigorating and interesting employment for women. The advantage to girls who attend this particular training school is that the Botanical Gardens in Regent's Park are usually within easy reach of their houses, and they can attend classes without living away from home. The students, under the superintendence of Mrs. Sowerby, are allowed to work in a particular portion of the grounds and also learn practical hothouse work in the conservatories. The longest course is three years. The first-year students are taught ground operations, flower and vegetable gardening, and everything connected with the operations. During the second year the subjects taught are outdoor work, indoor work, and theoretical work. The third year is devoted to pruning, mowing, care of conservatory, plant houses, frames and pits, etc., and to theoretical work, such as keeping accounts, elementary meteorology, landscape gardening, sprays and washes for insect pests, and to classes and laboratory work in botany and horticultural chemistry. A new laboratory has been built for the use of students, and theoretical lectures, followed by practical teaching, are given on botany, elementary and advanced general histology, morphology and physiology. Those students who wish to learn gardening as a pastime are allowed to attend on special days. The training extends over three years, and the fees are £20 the first year, £15 the second year, and £10 the third year. The course of study in the botanical and horticultural laboratory is under the direction of Professor E. J. Schwarz, M.A., B.Sc., and is similar to that of the Science and Art Department of South Kensington. Owing to the satisfactory report of the progress made by the scholars, the Board has doubled its grant to the Royal Botanic Society, and now offers twenty scholarships instead of ten. Students readily find situations, and it is interesting to note how many people now employ lady gardeners in preference to men.

FAMINE FOODS IN INDIA.

THE India Office has just issued a brief account by Drs. Noel Paton and Dunlop upon the nutritive value of some uncultivated foods used by the Bhils during recent famines. These drought-resisting foods were collected by Mr. S. M. Barucha and Mr. F. B. Garda from the famine districts. Thirteen of the most important of these foods were analysed; of these seven were grains, five obtained from different species of panicum and two from eleusine Aegyptica. Of the remaining six, two were roots, three seeds, and the remaining one the pollen of a flower. The grains were gathered in two ways: at an early stage by plucking them from the plants, or later on by sweeping them up from the ground; and in the latter case they were mixed with much earth, which was often extremely difficult to remove, so that the nutritive value of a given weight was much less than if the food had been gathered by hand. Analysis divided these foods into three groups: (1) Those with proteid more or less in a proportion similar to that in ordinary cereal foods; (2) those with more proteid than ordinary cereal foods; and (3) those with less proteid than ordinary cereal foods. The first group contains seeds of the various species of panicum, the seeds of nymphoea lotus, known as ghitolas, the seeds of eleusine Aegyptica, and the pollen of the doda flower. The panicum seeds seem closely to resemble barley in composition, but contain less soluble carbohydrates and more fats, fibre, and ash; owing to the small proportion of carbohydrates the energy value of these foods is smaller than that of ordinary cereals. The second group contains two seeds known respectively as zinjroo and kasaiya; the former, as had been previously discovered by Professor Church, contains an exceptional quantity of proteid, while the latter, which was also investigated by him, is very rich both in proteids and fats, but has an extremely hard husk. The third group contains two roots which resemble in characters dried bulbs; they are known as theck root and bid root respectively. They contain very little proteid or fat but a large amount of soluble carbohydrate. Bid root is used by some natives habitually for about six months in the year, but those who ate it for the first time during the recent famine suffered from swollen feet and hands, and in some cases died of the effects, which the authors consider to be due to proteid starvation. Ghitolas seem to have a more definite toxic action, resembling that of iodides. Some elaborate tables of the value of these foods for daily rations are given. It is concluded that the best adapted for daily food are samo, battairioo, dodi flower, kasaiya, podru, and kodri. Ghitolas, anchu manchi and zinjroo have a more limited use, as toxic properties have been ascribed to them. Bid root and theck root, from their poverty in proteid, are not well adapted for use as single foods. A daily ration of 1 lb. 13 oz. of the mos

nutritious foods would, theoretically, be sufficient to maintain a man weighing 120 lb., doing light work and living in a warm climate; this ration may be reduced to 1 lb. 9 oz. when doda flower, kodri, or kasaiya are the foods used.

FEES FOR INSURANCE WORK.

WE are indebted to Dr. J. C. Simpson of Cambridge and Dr. Girdlestone of Bournemouth for further examples of the inadequate fees offered by insurance companies. In the example furnished by Dr. Simpson the society in question is the Provident Association of London (Limited), which works in association with the Provident Free Home Assurance Company (Limited). By these companies two forms are now in use, the one pink and the other white. The former is intended for policies up to £100, and a fee of 5s. is paid in respect of it. Besides entailing the extraction from the proposer of answers to at least twenty questions, there are two certificates to be completed, and some eighteen other questions, the answers to which have to be found by the examiner from physical examination of the proposer. The white form is for policies for £100 and upwards; the fee paid for it is 10s. 6d. when the proposal is for a sum upwards of £100 but under £300, and 21s. for policies over the latter amount. It entails some seventy questions to the proposer, besides a very complete physical examination, including analysis of the urine and double measurements of the chest and height and other time-absorbing, if simple, details. Dr. Simpson has declined to have anything to do with the white paper for a smaller fee than 1 guinea. He believes that the company will get some one else to do the work at the fees named, and, as he very correctly remarks, there is no satisfactory way in which sweating of this character can be met until a definite stand is made by each Branch or Division of the British Medical Association or by the doctors of each town or each local medical society. In the meantime a better method of dealing with the matter can probably not be found than that detailed in the letter from Dr. Girdlestone. He coupled refusal to do any more work for half-guinea fees with a lively description of the extent of work which the company, the Scottish Temperance Life Assurance Company, expected him to do for that amount. At the same time he put in plain terms the point to which we recently drew attention. This is that there is a vast difference between looking after the sick either at very low fees or for nothing at all, and doing work of an equally conscientious character for purely commercial companies. The latter have no right to expect it, and in the long run they will not get it. Readers will also observe from the letter of Dr. Brown, chief medical officer of the Scottish Life Assurance Company, that while the principle of graded fees which we indicated as possibly the best solution of the question has been adopted by his company, it has only been adopted in truncated form. We are inclined to think that the principle, if adopted, should be adopted entirely, and fees steadily graded. This is a question of medical finance which is, perhaps, more completely in the hands of the medical profession than any other. If the latter makes a stand for proper fees, a certain number of companies may abandon medical examinations altogether, but the vast majority certainly will not, nor will the person known in other connexions as a blackleg be able to exercise his deleterious influence on the contest. Commercial companies have more respect for their pockets than the managers of sick clubs have for the well-being of their members.

MONARCHS AS MEDICAL ADVISERS.

KING EDWARD VII, as we are all proud to know, has been graciously pleased *intrare in nostro docto corpore*, and is a Fellow of both Royal Colleges in England. Though His Majesty is, as far as we are aware, the only monarch who has honoured the profession by consenting to be formally enrolled in its ranks, there is at least one precedent in the list of English sovereigns for the sympathetic interest which he has always shown in medicine. Froude says that Henry VIII was one of the best physicians of his time; with regard to this, however, any one who knows what physicians in the sixteenth century were like would be justified in saying with Othello, "That's not much." Charles I took an intelligent interest in the discoveries of Harvey, and Charles II, although he played tricks on the Royal Society, found relief from the boredom of politics in scientific experiment. The frequently-repeated statement that the Queen of Portugal is the possessor of a medical diploma was officially contradicted in the BRITISH MEDICAL JOURNAL on Her Majesty's behalf some years ago, but at least two scions of royal houses at the present day have studied medicine and taken their degrees in the same manner as ordinary mortals. His Royal Highness Duke Theodore of Bavaria is an ophthalmologist of note, and although the vast and varied wardrobe of the German Emperor does not, we believe, include the robes of a Doctor of Medicine, it is understood that before he ascended the throne he made a special study of throat diseases under a very distinguished master, and he may therefore claim to speak with some authority as a laryngologist. The great Napoleon was fond of gibing at his physicians; but the fact that he himself on occasion gave medical advice seems to suggest that his contempt for them may not have been altogether free from professional jealousy. We are indebted to Dr. Comenge, of Barcelona, for the discovery of another royal unqualified practitioner in the person of Martin the Humane, King of Aragon. In our excellent Spanish contemporary, *Revista de Medicina y Cirugia Practicas*, he gives the text of a letter written by that monarch to his eldest son, the King of Sicily, under date January 28th, 1409, which is preserved in the archives of the crown of Aragon. The object of the letter is to impress on the King of Sicily the need of precautions for the preservation of his health. In particular he is enjoined to drink water only after it has been boiled and allowed to cool. He is also urged to take certain pills which his royal father sends him in a box; the pills are to be taken on such days and in such manner as Master Pere Soler, "our faithful leech," shall consider necessary according to the meteorological conditions prevailing in Sicily. The use of water sterilized by boiling for drinking purposes was recommended by Hippocrates and by other ancient writers. In the Middle Ages it was employed by surgeons, notably by Guy de Chauliac, in the washing of wounds with the view of preventing suppuration. The pills sent by King Martin to his son appear from another document discovered by Dr. Comenge in the Barcelona archives to have been those known at that day by the name of Rhases, the famous Arabian physician; they were purgative in character, and had a great reputation as preservatives against many diseases.

MUNICIPAL AID FOR HOSPITALS.

IT is announeed that the Local Government Board has informed the Tottenham District Council that "it appears to be competent for that body to make a contribution to the funds of an established hospital." On the strength of this opinion, the Council is said to have decided to grant a sum of money from the rates towards the maintenance of the local hospital. It may confidently be predicted that this deliverance of the Local Government Board, whether it be, as is generally considered, the enunciation of a new principle, or, as the Board itself seems to hold, the first application of a provision implicitly contained in the Public Health Acts, will have far-reaching consequences. The direct pecuniary advantage to hospitals will obviously be very great if district and borough councils will exercise the powers which under the new reading are conferred on them by the Acts. There is a Bill before Parliament framed with the object of relieving hospitals from the payment of rates. To some extent that measure is anticipated by the letter of the Local Government Board, which practically declares that it is within the power of any local authority to relieve its hospital of the burden of the rates. The letter, however, goes further, for it states that municipal authorities can contribute to the support of hospitals out of the rates. Nevertheless, it is to be hoped

that the Bill will become law, for the relief from rates is a matter of too great importance to the hospitals to be left to the judgement or caprice of local authorities.

FOREIGN MEDICAL PRACTITIONERS IN ITALY.

THE question of the legal status of holders of foreign degrees or diplomas who wish to practise in Italy came again before the Italian Legislature on December 14th, 1903. Dr. Santini, the leading spirit in the recent agitation to preserve Italy for the Italians, asked a question on the subject. Signor Giolitti, the Minister of the Interior, said the existing law allowed foreign doctors to practise their profession in Italy when they were called in to advise in special cases, or when they undertook the charge of foreign patients exclusively. If such practitioners attended Italian patients, that was an abuse which the Government would do its best to suppress. With regard to reciprocity he promised without delay to enter into negotiations on the matter with such foreign countries as did not grant equivalent privileges to Italian practitioners. He added, however, that foreign practitioners were not sufficiently numerous in Italy to make their competition a serious matter for Italian graduates. Signor Orlando, Minister of Public Instruction, stated that he would admit to the examinations of the Italian faculties only foreign practitioners who had pursued their studies in universities of good repute, recognized by the Medical Faculties and the Superior Council of Public Instruction.

HYPNOTISM IN ABYSSINIA.

M. ILG, described as a confidential adviser of His Majesty Menelek, Emperor of Abyssinia, appears to have confided to a French interviewer some curious facts as to the uses to which hypnotism is put in Abyssinia. From time to time a number of children under the age of 12 are selected for the position of *labascha* or detector of crime. They are believed to have the power, when hypnotized, of revealing to the proper authorities the identity of any criminal who may be "wanted" for a given offence. For instance, not long ago there was a case of arson at Adis-Ababa. A *labascha* was taken to the scene of the crime and there thrown into hypnotic sleep. The child forthwith set off in the direction of Harrar. He ran without stopping for sixteen hours on end, and his pace was so severe that the professional runners told off to accompany him gave up one after the other. When he got near Harrar, the boy suddenly took a path which led into a field where he laid hold of a labourer who was quietly at work there. Thereupon the man confessed his guilt. Again, a robbery with murder was committed in the neighbourhood of Adis-Ababa. A *labascha* was procured, and after being hypnotized proceeded to visit a number of churches and private houses, and at last lay down at the door of an empty hut. The owner on his return was arrested. He at first denied all knowledge of the crime and was subjected to a searching interrogatory. His movements were traced, and it was found that they corresponded exactly to the course taken by the *labascha* in finding the hut. The criminal, tortured by remorse, had thrown himself down at the door just as the *labascha* had done. There must be a considerable number of criminals at large in this country. On the venerable principle *Anceps remedium melius quam nullum* we venture to commend the Abyssinian method to the attention of Scotland Yard.

THE CARNEGIE INSTITUTE.

ON December 9th a meeting of the Board of Trustees of the Carnegie Institute was held at Washington, when a report on the year's work was presented. The number of grants made by the Executive Committee for scientific research was 66, involving an aggregate of £30,000. Twenty-five research assistants were appointed. It was announced that arrangements had been made for the early publication of all scientific papers, most of them in large and costly volumes. The trustees authorized an aggregate expenditure of £74,600 in grants for scientific researches, and £8,000 for publications during the ensuing year. The following officers were elected: Chairman, Dr S. Billings, New York; vice-chairman, Mr. Elihu Root, Secretary of State for War; secretary, Charles D. Walcott, Director of the United States Geological Survey. Drs. S. Weir Mitchell and Carroll D. Wright were re-elected members of the Executive Committee for three years. It was decided that in future a yearbook should be printed by the Board of Trustees, giving in full the names of the recipients of Carnegie fellowships and the colleges at which they are studying.

THE CORONERSHIP FOR EAST MIDDLESEX.

THERE were thirty-five candidates for the office of coroner for East Middlesex; from this list three were selected, and eventually Mr. A. M. Forbes, solicitor, was elected by a large majority. None of the candidates who had had considerable experience as deputies, and were doubly qualified in medicine and law, were among the selected. It would thus appear that experience in the work and special qualifications had no weight in the election. It must, however, be remembered that Mr. Forbes had been for seven years previously a member of the Council and resigned his seat to become a candidate for the coronership. At the last election to the coronership for the Eastern Division the same thing occurred, but we trust that this method of election does not generally obtain in county and borough councils, otherwise intending candidates, however good their qualifications, will have very little chance of success unless they have served an apprenticeship in the council at whose hands they seek the appointment.

THE KAISER AND HIS DOCTORS.

IF certain foreign newspapers are to be believed, the German Emperor has been not only liberal, but commendably prompt in marking his sense of the value of the services rendered him by the medical men who had charge of him during his recent illness. On Surgeon-General von Leuthold he is said to have bestowed the Grand Cross of the Red Eagle with oak wreath and crown. His Physician-in-Ordinary, Dr. Ilberg, has received the decoration of the Red Eagle of the Second Class. To Professor Orth has been given the Order of the Crown, second class; and to Dr. Spiers, of Frankfort, under whose direction the Emperor has gone through a course of vocal gymnastics, the Cross of Commander of the Hohenzollern Order. As already stated in the BRITISH MEDICAL JOURNAL, the title of "Excellenz" has been conferred on Professor Moritz Schmidt, who removed the growth from the Kaiser's larynx.

RADIUM IN THE BATH WATERS.

AT a meeting of the Bath City Council on January 5th Councillor Cotterell recalled the fact that for some considerable time Professor Dewar had, at the expense of the Royal Society and with the concurrence of the Baths Committee, collected the gases that rise from the largest of their mineral springs, that of the King's Bath. An analysis of these gases revealed the presence of helium. Some weeks ago a quantity of the iron deposit collected in the tanks and pipes of the New Royal Spring was obtained and sent to the Hon. R. Strutt, son of Lord Rayleigh, who made a careful investigation of the material. That gentleman reported that he had found that the deposit contained radium in appreciable quantities, though not enough to make extraction profitable. He thought there could be little doubt that the helium of Bath owed its origin to large quantities of radium at a great depth below the earth's surface. A little of this radium was carried up by the rush of hot water and was found in the deposit. He added that his experiments promised further interesting developments, which would be brought to the notice of the Committee in due course. In reply to an inquiry by Mr. Cotterell, Mr. Strutt explained that by appreciable quantities of radium he meant quantities such that its presence might pretty easily be detected. But the amount of radium in the deposit was very much less than that in the ores at present used. The Council agreed to give Mr. Strutt every further facility for continuing his researches.

ST. BARTHOLOMEW'S HOSPITAL.

WE learn that at a small meeting of the Governors, held on January 7th, it was decided to make an appeal to the public, at the Mansion House meeting next Tuesday fortnight, for contributions to erect certain buildings on the present site, and not to make an appeal for a larger site, nor to bring forward any detailed plan. This is practically a reversal of the decision reached by the large meeting of the Governors on December 17th. It is to be hoped that the medical staff will adhere to the considered opinion which they have expressed. We make no doubt that they will be supported by public opinion.

DR. CHANTEMESSE has been appointed Inspector-General of Sanitation in Paris, in succession to the late Professor Proust. Dr. Chantemesse's name is well known to bacteriologists throughout the world, especially in connexion with research on cholera and typhoid fever.

THE New Year Honours are confined to the Indian military and civil services, some members of which receive decorations or promotions in orders already held. It is stated that the fact of the King's birthday coming so near the end of the year militates against the publication of a list of honours on New Year's Day, and that for the future Coronation Day honours will supersede New Year honours.

WITH regard to the Behring Institute which, as stated in the BRITISH MEDICAL JOURNAL a few weeks ago, it is proposed to establish in Germany, it is now announced that the Prussian Government will take over the institutions founded in the neighbourhood of Marburg by Professor Behring some time ago. The serum used by him in the treatment of diphtheria and tuberculosis will be prepared in those institutions.

THE patients supposed to be suffering from sleeping sickness, who, as stated in the last issue of the BRITISH MEDICAL JOURNAL, recently arrived in Liverpool for treatment in the School of Tropical Medicine of that city, are not, it now appears, affected with that disease but with trypanosomiasis. The mistake was due to the ambiguous wording of a telegram. Three natives were sent home by the Liverpool Expedition to the Congo, but only one of these was suffering from sleeping sickness and he died on the voyage.

Ireland.

HEALTH OF BELFAST.

AT the monthly meeting of the City Council held on January 1st, the Medical Superintendent Officer of Health reported that 235 cases of zymotic diseases had been notified during the last month, typhoid fever showed a marked decrease; but there had been a mild epidemic of scarlatina; the death-rate from all causes was 22.0 as compared with 24.9 for the corresponding period of last year; 831 births and 605 deaths were registered. Deaths from whooping-cough largely increased; 9 cases of small-pox were reported; two were imported, and the infection in the others was easily traced.

CONSUMPTION IN BELFAST.

Acting on the instructions of the Health Committee, the medical officer submitted a report in regard to the provision of a sanatorium for consumptives. The number of deaths from consumption in Belfast from 1893 to 1902 run as follows:—1016, 977, 1083, 1008, 995, 1044, 1112, 1115, 1092, 1132, or about one-seventh of the deaths are due to consumption. This does not include any other form of tuberculous disease. The estimate of the total number of cases lies between 2,000 and 4,000; about 240 cases are actually in the union infirmary at one time. For mild cases of consumption the medical officer recommends covered open-air spaces, where the patients could walk about.

In fact, if the rising generation were compelled to sleep and work in the open air, and were provided with wholesome, nutritious food and warm underclothing, tuberculosis would, I believe, gradually disappear, and all the efforts of sanitary science should be devoted to this end, and not with the almost impossible object of successfully treating cases when the disease is far advanced.

The usual recommendations as to site, soil, aspect, etc., are given, and attention is drawn to the fact, that although phthisis is increasing in other parts of Ireland, it is diminishing in Belfast; in 1891, 1 out of every 250 of the population was affected; in 1902, only 1 out of every 318. Since May, 1902, the medical officers of the several dispensary districts have voluntarily notified all cases of phthisis coming under their notice, a female sanitary inspector has visited the house and given advice and a paper of printed instructions; disinfection was also offered. The report recommends compulsory notification of phthisis.

PROPOSED SANATORIUM FOR THE BELFAST UNION INFIRMARY.

On December 28th Messrs. R. Agnew and E. Croey Bigger, M.D., Local Government Board Inspectors, held an inquiry as to the proposed establishment of a sanatorium for the workhouse infirmary consumptives. Mr. Wilson, master of the workhouse, gave statistics as to the number of patients, accommodation, and overcrowding, and also as to the facilities which would be afforded by the proposed auxiliary workhouse, which would take the form of a consumptive sanatorium at Whiteabbey. Dr. Hall, senior medical officer of the infirmary, said that the consumptives were specially classified, and, as far as possible, were isolated by themselves; their removal to open-air treatment would be beneficial to themselves, and give room for twice the number of inmates without disease. He had examined the proposed premises and site, and thought the property very suitable. With little alteration it would give accommodation at once to sixty patients and attendants, and by the erection of suitable huts, using the house as the administrative block, to 250 patients. The site was very convenient to Belfast, and close to a station. The objections against the site which were put forward by owners of property in the neighbourhood were that it was too low-lying, of a clayey nature, and too populated. The inquiry was adjourned till January 18th.

QUEEN'S COLLEGE, BELFAST: APPEAL FOR GOVERNMENT AID.

A series of resolutions have been framed by the Council and Corporate Body of the Queen's College, Belfast, and forwarded to His Excellency the Lord Lieutenant. These point out the necessity for largely increasing the equipment and staff of the College; insufficient accommodation in the laboratories of Natural Philosophy and of Natural History, and the incompleteness of the Chemical Section, the necessity for an increased number of assistants and tutors, the increased interest taken locally and the growing number of students, nearly £100,000 having been bestowed on the College by the public. These and other reasons are all put forward in detail to support the petition for Government aid.

THE MILK SUPPLY OF BELFAST.

Recently Dr. and Mrs. Henry O'Neill of Belfast offered to present £300 to the Public Health Committee of the City Corporation to encourage the establishment of an infants' milk dépôt. The Committee, at its meeting on January 1st, considered that it had no legal power to maintain such a dépôt, and therefore declined Dr. O'Neill's gift, while expressing a high appreciation of his motives. Though the immediate result of Dr. O'Neill's generous and public-spirited offer is thus disappointing, we make no doubt that by his action he has most effectually called the attention of the people of Belfast to the present condition of the milk supply of the city. The *Northern Whig* on January 4th published an admirable article on the subject founded largely upon the articles on the Milk Supply of Large Towns, published in the BRITISH MEDICAL JOURNAL early last year. The conditions which must be fulfilled in order to ensure that the milk supplied to the public is in good condition and free from infection are admirably set out, and we are glad to observe that our contemporary adopts the view advocated in these columns, that with reasonable precautions at the farm, and proper care in transit, it should be quite unnecessary to subject milk to the processes of sterilization or pasteurization under ordinary circumstances. The *Northern Whig* concludes its article by drawing attention to the results obtained by Mr. Sorensen at York, as related by our Commissioner in the letter published last week.

Scotland.

Resumption of Medical Session.

The various classes in the University and Extra-Academical Medical School in Edinburgh resumed work after the Christmas recess on Tuesday, January 5th.

Extension of the Chemistry Department of the University of Edinburgh.

Since the opening of the chemistry laboratories in 1885 there has been a steady increase in the number of students of chemistry, while of late years there has been a great increase. This no doubt is due to the growing importance of chemistry in so many other branches of science, and in the manufacturing industries of the country. Then, too, a considerable number of school teachers seek in the University chemical department to qualify themselves for giving elementary instruction in that subject. The result has been great pressure on the available laboratory accommodation. In the quinquennial periods between 1881 and 1903 the annual average number of students has risen from 27.0 to 85.5. Accordingly the existing laboratories have been altered and readjusted so as to give accommodation for 40 additional students. The department and the new laboratories were open for inspection on Monday last, January 4th, when Professor Crum Brown received a large number of visitors, who were conducted over the various rooms, and had the apparatus, etc., described to them.

Edinburgh Royal Infirmary.

At the annual meeting of the contributors to the Royal Infirmary, Edinburgh, held on January 4th, Lord Provost Sir Robert Cranston in the chair, the report for the year ending October 1st, 1903, was submitted. The percentage of deaths to cases treated was 7.2, against 8.3 in the previous year; 10,484 cases were treated in the wards, and there were 31,801 out-patients. The ordinary income amounted to £32,685 11s. 1d., being a slight increase of £64 4s. 9d. over last year, but some contributions, such as church collections, showed a decrease. The ordinary expenditure was £47,600 18s. 1d., and the cost of each occupied bed £64 1s. 3¾d., a decrease of £1 0s. 7d. The period of training for nurses had been increased to three years, a preliminary examination being obligatory. The new pavilion for eye and throat and ear work, as well as the bathing department, had all been opened during the year, and new fire precautions introduced. It was also reported that a new rule had been introduced to the effect that professors in the University, who hold their chairs *ad vitam aut culpam*, should act as physicians and surgeons in the Royal Infirmary on the same basis, but that in future others should retire at the age of 65, exception being also made in favour of those who were at present serving their second or third term of five years in charge of wards.

Age-Limit for Professors.

Before the termination of the proceedings Mr. J. F. McLennan, Advocate, moved:

> That in the public interest the age-limit enacted by the managers of the Royal Infirmary for the ordinary physicians and surgeons be made to apply as well to the physicians aud surgeons of the institution nominated by the University.

He desired that the age-limit should apply to professors hereafter appointed as well as to ordinary physicians and surgeons,

This motion having been seconded, Sir Charles Pearson submitted as an amendment:

> That the question of the application of the age-limit to profersors having wards in the infirmary be remitted to the managers for consideration and for report to the first annual meeting of contributors in 1905.

On a vote being taken, Mr. McLennan's motion was carried by 46 votes against 23 for Sir Charles Pearson's amendment.

The Usher Institute and Bacteriological Examination.

Sir Henry Littlejohn in his annual report for the year 1902, says:

> The Corporation decided towards the end of the year 1901 that this work which had previously been carried out in the laboratory of the Royal College of Physicians, should be transferred to the Usher Institute of Public Health and that the sum of £300 a year should be paid for its performance. A large number of medical men still continue to send their specimens to the College of Physicians Laboratory, where the work is performed gratuitously. In 1901 the number of specimens reported upon on behalf of the Corportion was 630 at a cost of £127 15s., whereas in 1902 only 383 specimens were received, so that the present arrangement entails a considerably increased expense to the Corporation.

On December 29th, 1903, Sir Henry Littlejohn issued a circular letter in these terms:

> I beg to inform you that the Town Council have made arrangements with the Usher Institute, Warrender Park Road, for the examination, free of expense, of discharges, blood, etc., in connexion with infectious diseases. All articles proposed by medical practitioners in the city to be examined should be sent to the institute, by post or otherwise, with the address of the sender. The result of the examination will be forwarded without delay, together with a fresh apparatus for any future specimen.

Sudden Deaths in Edinburgh.

From December 31st, 1903, till Tuesday, January 5th, 1904, no less than 24 cases of sudden death were reported to the police in Edinburgh. In at least two of the cases alcoholic poisoning was certified as the cause of death.

Small-pox.

There is no improvement to report in regard to the present outbreak of small-pox in Glasgow. The number of cases discovered from the beginning of the epidemic up to January 2nd was 315, of which total 92 had recovered and 25 had succumbed to the disease. The medical officer of health still complains of the apathy of the public in regard to revaccination. The house-to-house visitation of the eastern district organized by the Sanitary Department has little effect, except when the disease is actually present in particular tenements. An extreme case of carelessness on the part of the poor illustrates the difficulties under which the health authorities have to work. A visit was paid to a house of three apartments in the southern district on the receipt of an anonymous note, and three cases of small-pox were discovered. The house was occupied by nine persons, three of whom were under 10 years of age. The body of an elderly man covered with the eruption was found lying on the floor; apparently he had died a few hours previously. No doctor had been in attendance, and the other inmates were not aware that death had occurred until it was pointed out to them. Two of the other inmates subsequently sickened of the disease while under observation in a reception house.

In view of the probability of a further spread of the disease amongst the comparatively large number of inefficiently protected persons in the city, it has been thought advisable to restrict the admissions to the fever wards of Belvidere, with the view of having them readily available for any overflow from the Small-pox Hospital. The present experience of Glasgow is illustrating again how expensive existing methods of dealing with small-pox may become. We may supervise contracts at considerable expense, and may urge revaccination, and yet the disease may spread. The Glasgow Corporation, with the experience of the 1901-2 outbreak fresh in its recollection, recorded its conviction of the importance of national compulsory vaccination. Possibly the recurrence and wide distribution of the disease at present in Scotland may help to promote the wider acceptance of that principle.

In the course of the week ending January 2nd, there were three fresh cases of small-pox in Edinburgh, all from common lodging-houses in the city. One had been placed in the observation ward of the Royal Infirmary, but when the disease was manifest he was removed to the temporary small-pox hospital at Colinton Mains. All three had been in contact with former cases, and as many as could be got to submit of those who had been in contact with these cases were revaccinated, There are now 6 cases, all of a mild type, at Colinton Mains.

Paisley Branch of the National Association for the Prevention of Consumption.

At the annual meeting of this Branch, recently held in Paisley, it was reported that the Association had 500 members in Paisley, and the balance in hand was £446. A subcommittee had been endeavouring to secure a suitable site for a sanatorium which the Branch intended to erect in the neighbourhood. So far, however, these endeavours have been unsuccessful, as proprietors were found to be averse to selling ground for this purpose. A suggestion that at least in the meantime the Branch should arrange for the treatment of cases from the district at the Consumption sanatoria of the Quarrie Homes, Bridge of Weir, was very favourably received, and will be further considered by the executive. The Committees and officials were appointed, Dr. Ferguson being reappointed Medical Secretary.

CANCER IN SPAIN.

FROM the official statistics published by the Government of the condition of the population of Spain in 1900,[1] much interesting information can be gathered as to the prevalence and distribution of cancer in that country. From this disease 7,294 deaths were registered in the year under consideration, comprising 3,172 males and 4,122 females, and were 1.3 per cent. of the total deaths from all causes. In a population reckoned at 18,600,000, this was equal to a ratio of 39 cancer deaths per 100,000 living. It seems, however, improbable that these low figures adequately represent the death-rate from cancer; some addition would have to be made for deaths really due to this disease, but not so described, while there is reason to believe that deaths from some forms of malignant growths are not included under the generic head of cancer.

The rate varied greatly in the different provinces, the highest being 68 per 100,000 in the province of Burgos and the lowest 21 in that of Oviedo.

Table I shows the cancer-rate in the 9 provinces (out of a total of 49), having a cancer-rate of 50 and upwards, and in 11 others in which the rate was less than 30. A calculation has also been made of the proportion which the deaths from cancer bore to the total deaths from all causes of persons over 40.

TABLE I.—*Showing the Death-rate from Cancer in Certain Provinces in Spain.*

	Death-rate from Cancer per 100,000 Living all Ages.	Proportion of Deaths from Cancer to 100 Deaths from all Causes of Persons 40 Years of Age and Upwards.
Kingdom of Spain ...	39	2.4
Burgos	68	5 5
Madrid	65	5 4
Guadalajara	59	4.5
Soria	58	4.6
Palencia	55	4.4
Avila	51	4.4
Alava	50	4.2
Segovia	50	4.2
Sevilla	50	4.2
Alicante...	29	2.9
Badajoz	29	2.6
Gerona	28	2.1
Valencia	28	2.7
Orense	27	2.2
Lérida	26	2.1
Alméria...	25	2.5
Cuenca	22	2.0
Oviedo	21	2.0

It will be noticed that the rough correction which has been made for age-distribution makes little or no difference in the position of provinces highest on the list, and it may be stated that the same is the case in most of those having an intermediate mortality, and not here mentioned. On the other hand, it will be seen that in several provinces in which the uncorrected rate was well below the average, the proportion of deaths over 40 due to cancer was greater than the same figure for the whole kingdom.

In Spain, as elsewhere, there are apparent indications that malignant disease is not equally diffused over the country, but tends to attack particularly the inhabitants of a special and well-defined area. With the exception of that of Seville (in which the high mortality from cancer is due to a cause which will be presently explained) the provinces with a rate above 50 form a compact group, comprising those surrounding the capital, and forming the central plateau, while also including much of the country to the north as far as Burgos; all are contained in the old divisions of the kingdom known as Old and New Castille. These districts are mostly rocky and mountainous, and very arid, having the hottest and driest climate of any part of the Peninsula. The population is almost entirely pastoral, or engaged in agriculture. The mortality from cancer is exceptionally low among the manufacturing populations of Catalonia, and along the whole of the warm and moist Mediterranean coast. The coal and metal miners also seem to suffer from this disease to a less extent than the rest of the population, judging from the low rates in the mining provinces.

The great diversity in origin of the Spanish population would lead one to expect that this cause would have some influence in producing differences in the predisposition to malignant disease. The distribution of the malady seems to confirm this view, the susceptibility of the inhabitants of Castille being far greater than that of the Catalonians, Andalusians, or Basques.

Table II shows the death-rates in eight of the chief towns. These are, in all cases but one, higher than in the rural districts, a fact which is no doubt in great part to be explained by the uncertainty of diagnosis in many parts of rural Spain.

TABLE II.—*Showing the Death-rate from Cancer in Eight of the Chief Towns in Spain.*

	Death-rate from Cancer per 100,000 Living at all Ages.	Proportion of Deaths from Cancer to 100 Deaths from all Causes in Persons 40 Years of Age and Upwards.
Seville	85	5 6
Madrid	78	6.2
Granada	76	5.2
Saragossa	68	5 8
Malaga	58	4.6
Barcelona	53	4.4
Burgos	53	3.6
Valencia	39	3.3

It will be observed that cancer is the cause of an exceptionally high mortality in the city of Seville, and here is probably to be found the cause of the much greater mortality from the disease in the province of Seville than in any other in the district of Andalusia.

The Committee which has been formed in Germany for cancer investigation has recently issued a special inquiry form on the subject to all Spanish medical men. Unfortunately the number of replies received was so small—less than 600 in response to a total issue of 20,000—that it is difficult to draw inferences of any great value from the results recorded. It appeared, however, from the information so obtained that in Spain, as in other countries, the stomach was the organ most often affected in men, while in women cancers of the breast and sexual organs were most commonly met with. In this respect the only exceptional fact noticed was the comparative frequency with which the eyes suffered from the disease in this country. Suggestions were received by the Committee referred to as to several conditions which were said to predispose to malignant disease; among these were residence in malarial districts and on soils containing large quantities of potash, also in generally unhygienic surroundings. No very valuable evidence seems, however, to have been adduced in proof of these opinions.

An interesting fact which in the opinion of the Committee has been clearly established is that the workers in lemon and apple orchards are especially predisposed to suffer from cancer. This is extremely noteworthy in view of the consideration that, as was shown in the BRITISH MEDICAL JOURNAL in May last, districts abounding in trees present a high mortality from cancer in every country which has been investigated. A separate inquiry into the relation of trees to the development of malignant disease would appear to be very desirable, and might produce valuable results.

[1] *Movimiento Anual de la Poblacion de España, año de 1900.* Madrid, 1901.

PREVENTION OF CONSUMPTION.

THE METROPOLITAN PROVIDENT MEDICAL ASSOCIATION.

IN a paper read at the annual meeting of the Council of the Association on November 28th, 1903, Dr. Jane Walker gave an account of her early work in the treatment of poor consumptives. She began by treating them in a small farmhouse managed by the farmer's wife. The next step was to take a small house in a Suffolk village, from which the windows were taken out and a shelter erected in the garden. The staff consists of a matron, a probationer, and servant, and the sanatorium accommodates thirteen patients. At first men as well as women were admitted but this was found to be a mistake. The women pay 15s. a week and do most of the housework. The results are very satisfactory, and Dr. Walker suggests that similar institutions might be simply, inexpensively, and easily established by provident associations.

THE HOSPITAL SATURDAY FUND SANATORIUM COMMITTEE.

The Committee, which comprises representatives of various working men's clubs and Friendly Societies, will meet on

January 18th to elect officers and a subcommittee of nine members. The subcommittee will be asked to consider the following questions:

1. Is there sufficient accommodation in existing sanatoria for the needs of the workers; if so, where and at what cost?
2. If more accommodation is needed, what would be the cost per bed of a suitable sanatorium, say, for 200 patients.
3. The cost of maintenance.
4. Cost of endowment of beds per annum.
5. To arrange for lectures and meetings on the question of the need of sanatoria.

The Committee has received, through Dr. Hillier, Secretary of the National Association for the Prevention of Consumption and other Forms of Tuberculosis, who is a member of the Committee, a donation of £100 from Mr. Phipps.

THE EARLIEST AMERICAN SANATORIUM.

In 1897, when the annual meeting of the British Medical Association was held at Montreal, a good many members took the opportunity of visiting the sanatorium under the direction of Dr. E. L. Trudeau at Saranac Lake, among the Adirondack mountains, and were greatly impressed by what they saw there. Dr. Trudeau has recently given a history of it in a lecture delivered at the Henry Phipps Institute, New York. That lecture, it may be mentioned incidentally, was the first of a series of six to be given during the present winter as part of the programme of the crusade against tuberculosis in the United States. Three of those lectures are to be given by American physicians, Dr. Trudeau being followed by Professor Osler and Dr. Hermann Biggs; the remaining three will be given by European authorities. Professor Maragliano of Genoa and Dr. Pannwitz of Berlin have each promised one; the name of the third lecturer has not yet been made public. Like so many of those who at the present day have taken on themselves the mission of treating tuberculosis in sanatoria, Dr. Trudeau began by being himself a patient.

The Beginning of the Institution.

Thirty years ago when he went into the Adirondack wilderness to seek for a respite from the sentence of death which he believed to be hanging over him, nothing would have seemed to him more improbable than that he should live to lecture on consumption in the early winter of 1903. In 1873 both the profession and the public looked upon the disease as practically incurable. The only chance of recovery was believed to lie in the choice of a suitable climate. Medical authorities, however, were very far from being agreed as to what constituted a suitable climate, and clear-sighted observers gradually came to recognize that the great majority of consumptives died wherever they were sent. There were special wards for consumptives in one or two of the larger hospitals in New York; there were also a few homes for consumptives; "but no institution was presumptuous enough to announce that its object was anything beyond affording them a place where they might die." In 1873 the Adirondack region was a real wilderness, visited only by a few sportsmen during the summer months. It was then that Dr. Trudeau met Dr. Alfred Loomis, who, in spite of his critical condition, encouraged him in his determination to remain during the winter in a small summer hunting lodge in the Adirondacks. The place was forty-two miles from a railroad or a physician, and was completely cut off from the outer world for weeks at a time by deep snow. The spring found Dr. Trudeau much improved. The next twenty-nine winters were spent at Saranac Lake, which in 1874 consisted of a sawmill and half-a-dozen guides' houses, but which has now grown into a town of 4,000 inhabitants, and is known all over the world as a health resort. Under the influence of Brehmer's teaching as to the value of the open-air treatment, Dr. Trudeau determined to establish at Saranac Lake a sanatorium for consumptives of moderative means. Little by little there came to him the idea of founding a similar institution for working men and women. He collected a fund of about £1,000 with which he bought a few acres of land, where in 1884 he built two cottages. The first cottage consisted of one room, heated by a wood stove, and lighted by a kerosene lamp. It accommodated two patients, and cost about £70. It had a small covered piazza, where, "after much persistence and eloquence," he persuaded his first two patients to sit most of the day at rest. This, Dr. Trudeau believes, was the first attempt made in America to apply the rest and open-air method according to the teaching of Brehmer and Dettweiler.

Its Development.

From this humble beginning the institution developed until it has become a small village. The evolution of the cottage has continued, and the latest erections are substantial yellow brick and stone structures, costing about £1,000, and accommodating four patients. They are lighted by electricity, heated by hot water and open fires, and supplied with baths and running water; each room opens directly on a covered verandah, upon which the patients' beds are easily pushed when they are not allowed to get up and when they are directed to sleep out at night. As time passed the struggling institution needed in turn more land, an abundant water supply, good drainage, electric lighting, a crematory for the disposal of infectious material, an open-air recreation pavilion, many more cottages, a library, a chapel where religious services could be held, and an infirmary where the very sick could be properly nursed, and, as the cottages increased in number, a new administration building suited to the enlarged needs of the growing community. As these needs arose from year to year they were supplied, until to-day a small village consisting of twenty-two buildings entirely free from any financial encumbrance has grown up about the little one-room cottage which still stands as a reminder of the institution's humble beginning. During the early years of the sanatorium's existence no nurses were available and there was no resident physician. Gradually financial difficulties were overcome and these and other problems were solved. The price charged from the first has been £1 a week, but each patient costs the institution from 32s. to 36s. a week. There are no private patients and no graduated rates, all patients being on the same footing. No charge is made for medical attendance, and there are no extra charges except when patients are so ill as to be taken to the infirmary, thus requiring constantly the services of a nurse, special diet, etc.; in such cases an additional charge of £1 is made. There is a small Free Bed Fund, the income of which is applied to defray the expenses of patients who have come to the end of their resources. It took a long time to overcome the prejudice existing in the professional as well as the lay mind against hospitals for consumptives, a prejudice founded at first on the discouraging death-rate among patients in such institutions, and, later, on the fear of infection. The excellent results obtained at the sanatorium soon overcame the first objection. Dr. Hance's research, which proved that the dust taken from all the buildings at the institution, except in one instance, failed to infect guinea-pigs, and the published fact that ever since the sanatorium was opened none of the employés or servants had been known to develop consumption soon proved that the measures adopted to guard against infection there were efficacious for the protection of all residing at the institution. At first it was very difficult to fill the few beds of the sanatorium, but for years past there has always been a long waiting list, and not one in twenty of the applicants for admission can be taken.

Results of Treatment.

Speaking of the results obtained, Dr. Trudeau said that the report for 1902 showed that of the really incipient cases, which were only 40 in number, 75 per cent. were discharged as apparently cured, 15 per cent. had their disease arrested, and 10 per cent. improved; while of the advanced cases, 99 in number, 12 per cent. were discharged as apparently cured, 57 per cent. with disease arrested, 22 per cent. improved, 8 per cent. were not benefited, and 1 per cent. died in the institution; of the far advanced cases none was apparently cured, in 33⅓ per cent. the disease was arrested, 33⅓ per cent. improved, and 33⅓ per cent. failed while under treatment. Thus, for the 165 cases at whatever stage treated during that year, 30 per cent. were discharged as apparently cured; in 41 per cent. the disease was arrested, 19 per cent. improved, 7 per cent. failed, in 2 per cent. the diagnosis was doubtful, and 1 per cent. died in the institution. To test the permanency of the results an exhaustive inquiry was made by Dr. Lawrason Brown, the resident physician. The figures collected by him showed that of the 1,500 cases under consideration, which have been discharged from two to seventeen years, 434 could not be traced, leaving 1,066 which have been traced. Of these 46.7 per cent. are living. Of these 31 per cent. are known to be well at present, in 6.5 per cent. the disease is still arrested, 4 per cent. have relapsed 5.2 per cent. are chronic invalids, and 53.3 per cent. are dead. As to the influence of the stage of the disease on the permanency of the results obtained, it was found 66 per cent. of the 258 incipient cases discharged are well at present. Of the 563 advanced cases, 28.6 per cent. are well; and of the far advanced cases, 2.5 per cent. only remain cured. It appears therefore, that 31 per cent. of all cases discharged from two t

seventeen years have remained well; and that 66 per cent. of the incipient cases discharged during the same period continue well up to the present.

Effects of Tuberculin.

The only specific treatment which has been carried on at the sanatorium has been Koch's tuberculin treatment. It has been used in a limited number of cases ever since Koch first proposed it, in order that some evidence might be obtained as to its specific influence when given under the most favourable conditions of environment, and where patients were constantly under medical supervision. Its use has been found inadmissible in the active types of the disease, and has been confined almost entirely to incipient cases and advanced cases of subacute types only. Of the patients selected for tuberculin treatment, 29 per cent. were classed as incipient, 63 per cent. as advanced, and 8 per cent. as far advanced. All the tuberculins prepared by Koch, as well as Hunter's modification of it, most of which were made in the Saranac laboratory, have been tested. At present Koch's emulsion of crushed bacilli is being employed in a few cases. From 1890 to 1901 143 cases were treated with tuberculin, and of these patients 58 per cent. are alive, 33 per cent. are dead, and 9 per cent. are untraced. Taking the 1,367 cases treated at the sanatorium without tuberculin during the same period of time, we find that 38.9 per cent. are alive, 39.6 per cent. are dead, and 21.4 per cent. are untraced. This leaves a considerable percentage of living, 20 per cent., in favour of the tuberculin-treated cases. The value of any deduction based on these figures is, however, impaired by the fact that the tuberculin cases were to a certain extent selected, and for this reason were possibly of a somewhat more favourable type than the general average of those treated at the institution during the same period which served for comparison. Dr. Trudeau has therefore procured from Dr. Brown the results in the incipient cases only, treated with and without tuberculin, which were discharged during the same period of time, 1890 to 1901. Of the incipient cases which received no tuberculin, 61 per cent. are alive at present, while of the tuberculin-treated incipient cases, 76.7 per cent. are now living. Dr. Trudeau therefore thinks there is still an appreciable, though not very pronounced, percentage in favour of the tuberculin-treated cases.

The Financial Question.

Touching on the question of finance, Dr. Trudeau says he at first experienced the greatest difficulty in obtaining the comparatively small sums required, because people then looked upon any attempt to cure tuberculosis with the greatest incredulity. The sanatorium has been throughout the whole course of its existence an Adirondack charity; it has been supported almost entirely by visitors who come to the St. Regis and Saranac Lake region in search of pleasure, recreation, or health. The two fairs held each year at Paul Smith's and the Saranac Inn have supplied a goodly share of the funds necessary to meet the yearly deficit in running expenses. Starting with no capital, the sanatorium now represents a plant worth about £70,000, which is paid for: a yearly deficit on running expenses of £1,400 to £4,000 has been met for twenty years entirely by subscriptions, and an endowment fund of £40,000 has been gradually put aside, the interest of which has been allowed to accumulate each year, as £80,000 will be needed before the deficit in the running expenses can be even approximately supplied by this fund and the work established on a permanent financial basis.

A co-operative scheme for obtaining employment for discharged patients will soon be ready to come into operation.

Research Work.

In addition to its function of healing the sick, the sanatorium has done good work in scientific investigation. The Saranac Laboratory was the first in the United States devoted to original research on tuberculosis. The opportunities of investigation afforded by it have always been placed freely at the disposal of any medical man desiring to make researches bearing on the etiology, bacteriology, or chemistry of tuberculosis, or to test experimentally any proposed specific methods of treatment. The original work accomplished in this way by Dr. Trudeau and his colleagues has been published from time to time during the past twelve or fifteen years in various medical journals, and comprises thirty-seven papers, twenty-one of them by Dr. Trudeau himself.

It has been said that a large part of the world's best work has been done by invalids. No more striking proof of the general truth of that proposition could be cited than the career of the man who went out into the wintry wilderness with the hand of death, as he believed, already on him, and who in thirty years has built, and by his untiring efforts to a large extent maintained, a sanatorium that has been the means of saving a great number of consumptives from an early grave, and has been a centre of light and leading in the matter of tuberculosis w' ose influence has radiated to almost every point in the circumference of the globe.

LITERARY NOTES.

DR. A. E. GARROD AND MR. MCADAM ECCLES have been appointed respectively medical and surgical editors of the *St. Bartholomew's Hospital Reports*. The next volume, which is the thirty-ninth, will be issued in the course of this month.

A work by Dr. R. R. Rentoul, of Liverpool, entitled *Proposed Sterilization of Certain Mental and Physical Degenerates*, has just been issued by the Walter Scott Publishing Company.

The *Index Medicus* has now some 450 subscribers, a number still inadequate to keep it alive. The New York *Medical News* says there is every reason to believe that, if 500 bona fide subscribers can be secured, the Carnegie Institute will continue its subvention, and place the *Index Medicus* on a permanent basis. It is earnestly to be hoped that this invaluable publication will not again be suffered to die for want of support by the medical profession for whose benefit it is carried on.

The first number of a new periodical, entitled *Illustrated Review of Physiologic Therapeutics*, has just appeared in America. Its nature and scope are indicated by the title. The editor is Dr. S. D. Morrell; the publisher E. R. Pelton of New York.

The *Gazette Médicale du Centre* (Tours) in its issue of January 1st commenced the publication of a new edition of the letters of Gui Patin, the famous Dean of the Paris Faculty of Medicine. The letters will appear month by month in a special number of the *Gazette*. The editor is Dr. Paul Triaire, who has spared no pains to gather together all Patin's letters. Those suppressed by former editors are to be restored, and a copious commentary is supplied. Two well-known scholars and members of the Institute of France, MM. de Montaiglon and Tamisey de la Roque, had undertaken the issue of a complete edition of Gui Patin's letters, but the fruit of their labours was destroyed by a fire in which the library of M. Tamisey de la Roque perished in 1895. The letters are invaluable to students of the history of medicine, and throw curious sidelights on the social and political life of France in the seventeenth century.

Le Scalpel, of Liége, in its issue of January 3rd declares its intention of publishing, from time to time, reports of medical cases in Esperanto, that curious hotchpotch of vocables which might make one think that the ingenious inventor had, as Moth says, been at a great feast of languages and stolen the scraps. The following announcement is made:

En Parizo aperos, la nunan Decembron, medicina gazeto esperante redaktita de grupo de fakultatay profesoroy: "internacia medicina revuo."

From which we gather that a new medical journal in Esperanto entitled the *International Medical Review* has recently appeared in Paris.

In *The Life and Letters of Charles Butler*. of New York, a book recently published by Charles Scribner's Sons, an amusing account is given of a consultation with Samuel Hahnemann, the founder of homoeopathy. Mr. Butler, who was then a middle-aged man, took a journey to Europe in search of health, and being in Paris, where Hahnemann, at the age of 83, was still in active practice, he sought counsel of the oracle. In due time he was admitted to the presence. Hahnemann questioned him very minutely about his symptoms, all of which were recorded in an exact manner by his handsome French wife, who acted as his secretary. After a few minutes of this kind of examination Hahnemann intimated that the consultation was finished and told the patient to return on the next day. Mr. Butler, according to instructions, left a gold piece upon the mantelpiece and retired—we are not told if he did so backward. The next day exactly the same system of examination was conducted for the same time. Again Mr. Butler was told to come on the following day, and again he left his offering on the mantelpiece. This process was repeated for several days, when the American, not having been vouchsafed a word of advice or prognosis, began to be a little anxious as to his case. He intimated to Hahnemann that he could not stay very long

in Paris, and that he was very eager to get his opinion. Thereupon Hahnemann, who is described as a distinguished-looking man, arose in wrath and closed his casebook with a slam, exclaiming, "If you care more for your business than your health, more for your money than your life, I will have nothing to do with you." With this gracious *Nunc dimittis*, Mr. Butler took his leave, and never knew what Hahnemann thought of his case. Most likely the physician knew just as little. In any case, we cannot think that the patient lost much by not learning his opinion.

In a recent number of the *Journal de Médecine* Dr. Paul d'Estrée has published a letter from the Countess de Bizemont to the Count de Bruc de Livernière, which gives the impressions of a lady of fashion on Mont Dore as it was in 1822. She describes the village as presenting "a frightful aspect." The houses were mere peasants' cottages; the church had no belfry, and no pavement, and showed in everything the simplicity of the first ages of the world. The accommodation for visitors was of the scantiest and roughest; one had to share a bedroom with people one had never seen; there was not the most elementary provision for natural necessities. Yet everything was frightfully dear and the visitors were treated by the natives as their natural prey. The Countess, however, makes no complaint of the food, which from her description seems to have been fairly good. Of the treatment and mode of life she gives the following account:

> The baths open at ten in the morning. The patient remains in the bath at most twenty minutes; the temperature is higher than that of the bath of Caesar, about 113° F. The patient lies down for a quarter of an hour, then goes to the spring to drink the water. Then he goes for a walk and makes calls between breakfast and midday dinner; after dinner he does the same. Sometimes parties are made up. . . . There are persons who go out on ponies for two hours; this costs 2 fr., 10 sous, 3 fr., and in the case of longer expeditions, where there are many riders, 6 fr.

The physician who played the part of tutelary deity to the spring had plenty to do. When the Countess de Bizemont was at Mont Dore there were 600 patients, yet the doctor felt her pulse two or three times while she was in the bath. The smallest fee for the course was 40 fr. Some patients, however, gave 500 or 1,000; others 200 or 300 fr From the poor the doctor took nothing. The Countess estimates his total receipts during the season at 30,000 to 40,000 fr. (£1,200 to £1,600). The doctor's residence differed in nothing from the peasants' cottages. It may be inferred that the thermal establishment was fairly well equipped, for it is spoken of as being a heavy charge to the Government. It is clear that Mont Dore was already fashionable at the time of the Countess's visit, for she speaks of meeting several persons of distinction there, among them being the Prefect of the Seine, an ex-Ambassador to Constantinople, a colonel or two, a member of the Académie Française, a famous singer, and a well-known violinist.

Heine gives an amusing account of the awe with which, as a child, he saw Napoleon calmly riding along the central walk of an open space in his native town in defiance of the order of the municipality. The conqueror had little respect for laws, human or divine; it is not surprising, therefore, to learn that he even practised the art of healing, though, unlike our own gracious Sovereign, he had not even an honorary qualification. Dr. Batuaud not long ago published in the *Chronique Médicale* a letter from Napoleon to his brother Jerome, in which he gives him advice as to a troublesome complaint. The letter, which is dated "Finkenstein, 26 May, 1807," is to the following effect:

> My brother, I learn that you have piles. The simplest way to get rid of them is to have three or four leeches applied. Since I used this remedy ten years ago I have not been bothered with them.

Frederick the Great was similarly affected, and appears to have made trial of many remedies. Voltaire, who was a fellow sufferer, chides him gently for not telling him of his *bonnes fortunes* in the way of physic.

In connexion with Napoleon's invasion of the sphere of medical practice, it may be mentioned that his great opponent also appears to have dabbled in surgery. In the *Personal Reminiscences of the Duke of Wellington*, by the first Earl of Ellesmere, just published by John Murray, it is stated that at Woodford the Iron Duke "invented a very neat bandage for a sore finger and did nothing but exhibit how he could tie and untie it for himself." We should not be surprised to hear that Wellington felt more pride in the invention of this surgical appliance than in having crushed Napoleon at Waterloo.

ASSOCIATION NOTICES.

COUNCIL.
NOTICE OF MEETING.

A MEETING of the Council will be held in the Council Room of the Association, at 429, Strand (corner of Agar Street), London, on Wednesday, the 20th day of January next, at 2 o'clock in the afternoon.

GUY ELLISTON, *General Secretary.*

COUNCIL.
NOTICE OF QUARTERLY MEETINGS OF COUNCIL FOR 1904.

MEETINGS of the Council will be held on Wednesdays, January 20th, April 20th, July 6th, and October 19th, in the Council Room of the British Medical Association, 429, Strand, London, W.C.

ELECTION OF MEMBERS.

ANY candidate for election should forward his application upon a form, which will be furnished by the General Secretary of the Association, 429, Strand. Applications for membership should be sent to the General Secretary not less than thirty-five days prior to the date of a meeting of the Council.

LIBRARY OF THE BRITISH MEDICAL ASSOCIATION.

MEMBERS are reminded that the Library and Writing Rooms of the Association are fitted up for the accommodation of the members in commodious apartments, at the office of the Association, 429, Strand. The rooms are open from 10 a.m. to 5 p.m. Members can have their letters addressed to them at the office.

BRANCH MEETINGS TO BE HELD.

PERTH BRANCH.—A Council meeting will be held in the Literary and Antiquarian Museum, Perth, on Friday, January 22nd, at 3.45 p.m. Business: Election of members; Medical Acts Amendment Bill; arrangements for clinical meeting.—WILLIAM A. TAYLOR, 10, Marshall Place, Perth, Honorary Secretary.

BIRMINGHAM BRANCH: COVENTRY DIVISION.—A special meeting of this Division will be held at the Coventry and Warwickshire Hospital at 4 p.m. on Tuesday, January 19th. A paper will be read by Dr. Webb Fowler on Malignant Growths and their Modern Methods of Treatment. Synopsis: Theories as to cause. Treatment: (*a*) Extirpation by early operation; (*b*) methods of dealing with inoperable cases, and some of the results of such treatment. Sedatives. Coley's fluid. Beatson's method (oöphorectomy). Thyroid. Cinnamic acid. Formalin. Caustics. Finsen Light. Other light treatment with demonstrations of apparatus. *X* rays. High frequency. Radium. Conclusions.—E. H. SNELL, Knighton House, Coventry, Honorary Secretary.

EAST ANGLIAN BRANCH: NORTH SUFFOLK DIVISION.—A meeting of this Division will be held at the Y.M.C.A., London Road, Lowestoft, on Thursday, January 14th, at 4 p.m. Agenda: Minutes of last meeting. Notes on a Case of Recovery from Cerebro-Meningitis, probably Tuberculous: Mr. W. M. Crowfoot. To consider matters referred to the Divisions: (*a*) Medical Acts Amendment Bill; (*b*) Vaccination Acts: resolution relative to future legislation; (*c*) resolution respecting the representation of the British Medical Association on the General Medical Council. N.B.—The full text of the Medical Acts Amendment Bill and the various resolutions will be found in the SUPPLEMENT to the BRITISH MEDICAL JOURNAL of August 22nd, 1903. To facilitate discussion it is hoped that members will give it careful consideration beforehand, and also bring a copy of the SUPPLEMENT to the meeting.—WILSON TYSON, Lowestoft, Honorary Secretary.

SOUTH-WESTERN BRANCH.—The next meeting of this Branch will be held at the Museum, Babbacombe Road, Torquay, on Tuesday, January 19th, at 3.30 p.m., the President, Dr. W. T. Thompson, in the chair. The following communications are already promised: Dr. J. Harley Gough: Axis Traction in Midwifery. Mr. Paul Swain: Excision of Ascending Colon for Malignants Growths, with specimens. Dr. W. Gordon: Some Nervous Cases of Interest. Mr. C. Hamilton Whiteford: Anaesthetics. Dr. Bushnell: The Health Factor in Education. Gentlemen wishing to join the Association and Branch are requested to communicate with the Honorary Secretary, Mr. G. YOUNG EALES, 1, Matlock Terrace, Torquay.

THE late Sir Robert Martin Craven, F.R.C.S., some time Sheriff of Hull and President of the Central Hull Conservative Association, has left property of the gross value of £40,492, including net personalty estimated at £23,335.

A NEW Pasteur Institute has been established at New Orleans, where the antirabic treatment will be carried out without any expense to the patients.

SPECIAL CORRESPONDENCE.

BERLIN.

The Prevention and Treatment of Venereal Diseases.—The Emperor and Empress Frederick Hospital.

THE keen and intelligent interest taken by the Prussian Government in medical questions—where they affect the public weal—is shown anew in a letter addressed to Professor von Bergmann, as President of the "Central Committee for the Organization of Post-graduate Medical Instruction in Germany," by the Prussian Cultus-Minister. "Among the weapons for combating infectious venereal diseases," so runs the letter, "a prominent position must be given to thorough and up-to-date training of doctors in the diagnosis and treatment of the various forms these diseases assume. It is a matter of regret that there should still be members of the profession who—underrating the gravity of these diseases, and the side of their calling which makes them warners and advisers of the public—neglect not only timely and reiterated enlightenment, but also timely energetic therapeutic measures. To step in here with instruction and encouragement seems to me an object worthy of the Central Committee for Organizing Post-graduate Instruction, and I therefore request your Excellency"—v. Bergmann has that title—"to give your consideration to a scheme for making special courses and general addresses on the nature, prevention, and cure of infectious venereal diseases a permanent factor in the cycles of lectures arranged by the Committee in Berlin and in all towns where gratuitous post-graduate courses are held. I look forward to receiving the expression of your Excellency's opinion on the subject, together with an account of any measures you may have already thought fit to take in the direction here indicated."

The Special Committee of town councillors appointed to prepare the material for the forthcoming debate on the enlargement of the Emperor and Empress Frederick Children's Hospital, held an important meeting just before Christmas. The following resolutions were proposed:

To inquire of the Magistrates' Committee whether it is in accordance with facts (*a*) that the demand for funds formulated by the Municipal Hospital Committee for carrying out the urgently-necessary enlargement of the Emperor Frederick Hospital has been refused by the magistrates on financial grounds; and (*b*) that the demand for immediate erection of a venereal disease department (of 130 beds) in the Moabit Hospital under the direction of a specialist—likewise formulated by the Hospital Committee—has been similarly refused.

After a long and thorough discussion of the questions in all their bearings, the following resolutions were finally formulated:

(1) To request the magistrates to prepare plans for the further completion of the hospital as speedily as possible, the temporary pavilions to be replaced by permanent ones, without considerably increasing the number of beds; and (2) to request the magistrates to take steps for opening a syphilis department affiliated to one of the municipal hospitals and under the direction of a specialist, without thereby diminishing the number of beds available for other diseases in the hospital—the said syphilis department to be used until the opening of the syphilis department in the Rudolf Virchow Hospital.

MANCHESTER.

Against Spitting.—Compulsory Notification of Phthisis.

WE welcome the proposal that is about to be made to the Manchester City Council that a by-law should be passed providing that "No person shall spit on the floor, side, or wall of any public carriage, or of any public hall, public waiting room, or place of public entertainment, whether admission thereto be obtained upon payment or not." The penalty for a breach of the by-law would be a fine not exceeding £5.

The Manchester Medical Guild has addressed to the Manchester City Council a letter of protest against the proposal to seek Parliamentary powers for the compulsory notification of phthisis. The protest states that

The proposal is one to which there are serious objections. Medical men in close touch with cases of phthisis realize that public opinion is not ripe for such a drastic procedure, and believe the present system of voluntary notification, which gives the medical attendant discretionary power in his private practice, to be quite sufficient.

As an experiment in the compulsory notification of phthisis is now being tried at Sheffield, the Guild expresses the opinion that it would be well to await the results of that experiment before committing Manchester to such a course.

CORRESPONDENCE.

SANITARY AUTHORITIES AND MILK SUPPLY.

SIR,—I have been interested in reading Dr. Hime's letter on the question of sanitary authorities obtaining increased powers of control over the milk supply. I think we medical officers of health are nearly all of one mind if it is intended that the sought-for control shall be given to all sanitary authorities and not merely to a few. In recent years the opposition offered to the authorities of many large towns in their claims for special powers of dairy and cowshed inspection outside their boundaries has been for the reason that we who have objected consider this question of the milk supply as one of primary concern to every sanitary authority. It is too often forgotten that some portion of the milk is sold where it is produced, and that any evil results likely to follow from its use must concern the authority of that district as well as that of the far-off town community.

I may claim to have had a long and practical acquaintance with this matter. My experience has been from inspections made of cowsheds and dairy premises alike in towns varying in population from 70,000 to smaller urban districts of 5,000 and less, and in a very wide rural area in Yorkshire. I have seen many cowsheds where serious defects existed, but I have never met with the equal of the conditions set forth by Dr. Hime, especially that unique concentration of wrongs described by him in the following sentence:

I happened to call at one farm, which I found supplied 60 gallons of milk daily to one of the largest infirmaries in the district. Three empty milk cans were standing in the sinkstone, along with a well-filled chamber-pot and unwashed dinner things.

Most incongruous collection! to say nothing of that same sinkstone having to serve as the family washstand and dressing table as well.

I note that Dr. Hime was led to begin his inquiries as to the condition of the farms outside the borough from what he first saw within the borough boundary. I think his graphic pen might have revealed to us some of the sights and conditions he first saw within the borough. However, he probably feels that he is now writing of conditions which existed years ago in Bradford, and I doubt very much if to-day he could find similar conditions as he has described anywhere in Yorkshire. My experience of the conditions under which the milk trade is carried on is that among the small cowkeepers, that is, those having only a few cows in town and country districts alike are to be found the sheds which are most wanting in every requirement for cows being kept in a healthy condition, and where there is the least regard for the need for the cleanliness of the milk vessels. Among those who make cowkeeping their main occupation, I have seen many and great improvements brought about in recent years, and it is absurd to imagine, as might be inferred from much that is now being written on this subject, that all rural or small urban sanitary authorities and their officials are asleep, or are either ignorant or wholly unmindful of their duties in the matter of looking after the cowsheds in their districts.

I doubt whether a large number of the readers of the BRITISH MEDICAL JOURNAL, who are not specially interested in the sanitary question, are aware of the very general and permissive character of the powers which sanitary authorities possess to regulate the conditions under which milch-cows are kept, and for securing cleanliness in the handling and distribution of the milk. Regulations *may* be adopted. The reasonable requirements of the district council are to be complied with regarding the sanitary condition of any newly occupied cowshed, while another standard is set up for premises previously occupied. Yet much has been done in spite of this want of statutory powers and of definite regulations, a great educational work has been going on, and the results are to be seen everywhere, I should imagine, by the animals being now better housed, that is, with more air space, better light, cleaner premises, better drainage; but I regret that so little has been accomplished in providing adequate ventilation, and I venture to think that there is generally more reasonable care taken to secure cleanliness in the dairy and freedom from infection in the distribution of the milk.

I must leave the medical officers of health for the districts near to Bradford to defend themselves against Dr. Hime's criticisms of their alleged indifference to this part of their work, but if every statement made was strictly accurate even to-day, the remedy does not appear to me to be in granting further piecemeal legislation, giving it first to this town and then to that, but rather that the whole matter should be

recognized as one of great concern to the whole community, and that the sanitary authorities must be required to deal adequately with it.

We have a very good model in the working of the Factory and Workshops Act, 1901, which requires the same authorities to examine and to require all workshops to be kept in good sanitary condition so as to protect the health of the workers, and every medical officer of health is required to report annually on this special work. In that particular case the powers are well defined, the requirements are precise, and a record of the work done has annually to be made. Something analogous must be provided if the residue of dirty and neglected cowsheds are to be compulsorily improved, and I fear that legislation by instalments, such as we have been recently accustomed to, will never accomplish even that which the sanitary authorities of our large towns desire, for it is physically impossible that their officials can inspect the premises of every one who supplies milk from a distance.

I am told that some of the milk supply for London is sent from Cheshire, and probably part of the supply for Bradford is sent from the Craven districts, or from farms in the North Riding. I can imagine that much irritation would be caused, and that it would be a step backward in our sanitary aims if the local authorities and their officials were to be ignored and excused the work of controlling the milk supply in their own areas. Rather compel authorities to adopt a reasonable code of regulations, and to require a yearly return of the work of inspection.

Many medical officers of health might heartily welcome the assistance of veterinary surgeons in doing the work of inspecting the cows and the cowsheds, and I readily acknowledge that I have learnt much about cowkeeping and dairy work from farmers whose long acquaintance with the subject demands consideration, even if we cannot accept it always as our guide.—I am, etc.,

Beverley, Dec. 30th, 1903. J. MITCHELL WILSON.

THE WHISKY HABIT.

SIR,—May I thank you for devoting a leader to this great subject, and for the reasoned terms in which, with evident sense of responsibility, you discuss what you call the whisky habit, but which might with equal accuracy be called the whisky delusion? It is a hopeful sign when the leaders of medical journalism devote editorial care to the medical bearings of the habit, and anxiously impress upon medical practitioners their responsibility in the matter. It is one thing to devote special articles to a chemical and scientific account of an alcoholic article, and another to tackle the physiological and clinical bearings of it in society and among our patients. I am constantly receiving advertisements in favour of such articles, with copious extracts from the medical press, seeming to abet and encourage the use of whisky as a harmless and even beneficial form of alcohol, calculated to mislead even the young and wise. Let us hope that in the next edition of these advertisements we shall see some extracts from your warning leader, so much in the line of the best medical and physiological teaching.

I have heard that the Swiss physiologists are becoming teetotallers on the strength of the mere physiological evidence of the pathogenic effects of alcohol. I have never thought that that alone settled the question of its moderate use by human beings in a complicated civilisation like ours. But it is impossible to resist the combined evidence afforded by common observation and medical practice, which goes to show that for the young alcohol is altogether a dangerous superfluity, and for those who are advancing in years an article favouring the senilizing processes of the body, in all but the most moderate quantities.

Again thanking you for your leader, which I hope will be read by practitioners not only at home, but in India and the Colonies, where, in the opinion of some cool observers, the whisky habit is threatening to impair the most vital qualities on which the continuance of British supremacy depends.—I am, etc.,

London, N., Jan. 5th. JAMES GREY GLOVER.

THE NATIONAL PHYSIQUE.

SIR,—This country is faced at the present time with the fact that the physique of its inhabitants is not as good as it ought to be. Apart from the question of stock, the most important element affecting the physique is that of sanitary surroundings. In this connexion the surveyor's report on the "voluntary" schools of Carmarthenshire is of immense importance as showing under what conditions the children in the rural districts are brought up.

In the surveyor's summary of the report we find that many of the schools are old and in a very dilapidated condition. They are weakest in the roof, and in a few cases the roof has given way, necessitating the use of iron props. Owing to lack of proper ventilation to floors the joists, etc., have rotted and become unsafe. The arrangement of rooms is such as to necessitate passing through one room to reach another, and in case of fire would be terribly dangerous. The cloak rooms are small, and as they are without doors the children's clothes are exposed to the rain. The lighting is in many cases insufficient and liable to try the eyes to a serious extent.

With only one or two exceptions, out of fifty-six schools, there is a total absence of exhaust ventilation, so that the children have to breathe air of a very vitiated character. The warming is by means of stoves, which dry the already vitiated air, so that the resisting power is considerably lowered, and chest affections are prone to occur.

Drinking water in some cases is only obtainable three-quarters of a mile from the school. There is a general absence of lavatories. Most of the schools are fitted with privies, which can only be emptied with difficulty, and have remained uncleaned, in one or two cases, for ten years. At the Panteg school the privy is washed out by a stream, and after this pollution children have drunk of the water. The teacher's house at Abergwili, the village where the Bishop of St. Davids lives, is said to be without any conveniences!

Can we expect children who are brought up under such conditions to develop into healthy men and women, or such as are likely to bring up healthy children? Children at such schools, with such a poor example, are not likely to realize the value of healthy homes.

The Bishop of St. Davids is responsible for the state of these schools. Can it be true that within 200 yards of his "palace" his teacher's house is without any conveniences? A bishop of the National Church surely ought to take an interest in the national physique and welfare.—I am, etc.,

Swansea, Jan. 3rd. G. ARBOUR STEPHENS, M.D.

A PUBLIC DANGER FROM SANATORIUM INMATES.

SIR,—In reply to the letter under the above title by Dr. John Penny in your issue of January 2nd, the following quotation from the December number, 1903, of *Tuberculosis*, the monthly organ of the International Central Bureau for the Prevention of Consumption, seems appropriate:

Tuberculosis is a house disease. Not in the open air, not *extra muros* is it transferred, and even where otherwise such favourable conditions are given for infection—as, for instance, amongst street-sweepers—not a single time has such an event hitherto been positively ascertained. In the face of exaggerated and entirely unfounded fears to the contrary this fact cannot be stated often enough, and not precisely enough. It is inside the house, amongst families, in factories, workshops, and prisons, amongst people who live, work, and sleep in badly-kept and uncleaned rooms that infection takes place. As soon, however, as once the bacillus has passed the threshold of the house it has lost its terrors, and only in exceptional cases may find its way again into the human organism.

The author of the article in question is no less an authority than Professor C. Fraenkel, the well-known bacteriologist of Halle.—I am, etc.,

London, W., Jan. 4th. F.R.C.P.

THE TREATMENT OF PNEUMONIA.

SIR,—The importance of the subject and the doubt left as to the real value of venesection in pneumonia after the very conflicting opinions recently expressed in your pages by such eminent authorities as Dr. Lees and Dr. Barr, must be my excuse for trespassing on your space.

As I understand Dr. Barr he unhesitatingly condemns venesection as a means of relieving the right side of the heart. He says "We cannot siphon the blood back from the right side of the heart to the arm"; quite true, but if, say, 8 oz. of blood are abstracted from the median basilic vein, we prevent that amount of blood reaching the already over-distended right auricle, and 8 oz. of blood mean a great deal when we consider that each ventricle at each contraction only ejects about 4 oz. into the circulation; there is therefore, I think, prima facie evidence that by preventing this amount of blood reaching the right auricle, that we must help that much distressed part of the heart in dealing with the excess of blood it contains, and so in relieving the impending paralytic over-distension of the right side of the heart which threatens our patient. I believe that venesection acts

upon both sides of the heart; upon the left side it allows the left ventricle to contract better, so that during diastole there is more suction action upon the left auricle, and hence upon the pulmonary veins, and upon the right side in the fact that by diminishing the amount of blood reaching the right auricle it allows that chamber to contract better and get rid of the excess of blood it contains. Personally, I believe I have seen great and immediate benefit follow venesection both in pneumonia and mitral stenosis.

With regard to the frequent examinations of the patient I quite agree with Dr. Barr; the panting and distress which follows an examination surely contraindicate its frequent repetition. I think we can learn all we want from the character of the pulse and from the area of cardiac dullness without turning our patient about to find fresh areas of consolidation.

I think a great deal of harm is done by giving stimulating expectorants early in this disease; I can see no good in them possibly before the stage of grey hepatization is reached.—I am, etc.,

Ludlow, Dec. 21st, 1903. EDWARD GREEN.

SIR,—If you apply, it may be four, icebags from day to day to an average healthy man's chest or abdomen for upwards of a week, and at the same time subject him to considerable periodical haemorrhages, you cause such a departure from his normal internal economy and external environment as must inevitably exercise a notable effect on his vital powers. It will probably be universally admitted that in such circumstances life would be maintained under greater difficulties than under those which normally obtain.

The question, however, is—and it is certainly one of the utmost importance—are these conditions, though admittedly unfavourable to life in a healthy man, helpful to a man with pneumonia in his struggle for life? It may be safely assumed, I take it, that such an alteration in his internal and external environment will either materially help him or materially handicap him.

To many medical men who, like myself, have felt it rather doubtful whether the ordinary methods of treatment could often, if ever, be truthfully said to be a determining factor in the issue of this disease, such proposals are extremely interesting. They seem to offer us an opportunity of taking a real part in the race for life which our patient is running. It has, however, yet to be settled whether we shall be helping or handicapping him. I must confess that dogmatic statements, however distinguished their source, and appeals to anatomy and physiology, however seemingly relevant, fail to carry conviction. What we really require for the solution of this fascinating problem are careful detailed clinical observations, supplemented and controlled by a series of comparisons of the death-rate under this radical method and the death-rate under expectant treatment. It is because I have a limited experience of bloodletting in pneumonia that I venture to make a contribution to this discussion. My experience is as follows:

CASE I (1901).—Man, aged 35; history of asthma and bronchitis; fifth day of attack, consolidation left lower lobe; pulse 140, fluttering, low tension; extreme cyanosis, nails being black; large beads of perspiration; gasping respiration; apparently moribund; hurried venesection left median basilic, without, it must be admitted, very clear physiological conceptions as to the probable result; about 14 oz. thick tarry-looking blood taken; hypodermic of strychnine and brandy; considerable immediate improvement in patient's aspect and in the character of respiration; increase of arterial tension; continued very ill for three weeks, some cyanosis persisting; this was temporarily relieved by aspirating pus from localized empyema at left base; rapid recovery after free drainage.

CASE II (1903).—Man, aged 23. Sixth day, consolidation whole left lung; sputum almost pure blood; rhonchi and *râles* over right; slight delirium, drowsy and apathetic; could only be aroused momentarily; had had a very restless and sleepless night. Pulse 126 (average of five observations), occasional intermission; temperature, 102.4°; respirations varying, 40 to 50; well-marked cyanosis; hypodermic $\frac{1}{60}$ gr. strychnine; venesection left radial, about 10 oz. blood; incision unnoticed; while blood was flowing patient opened his eyes wide and said: "I feel a lot better." Pulse 118 (average of five observations) twenty minutes after venesection: continued bright and rational all day; slept well that night without a sedative. Two days later worse; venesection about 6 oz.; not same obvious improvement as before, doubtful if any; crisis next day; convalescence normal.

Whether the good impression left on one's mind by these observations on the utility of venesection in some cases of pneumonia is based on credulity or on an important clinical phenomenon I must leave to Dr. Lees and Dr. Barr to decide; though it would be much more interesting to hear from the former whether the areas of consolidation which improved so quickly under his icebags were of the influenzal or "lobar" type. If the former, I might suggest, perhaps, that rapid changes in the physical signs are not uncommon where no ice has been used.

Though I have already trespassed too far on your space, perhaps you will permit me to refer to a somewhat delicate question which, in my opinion, might well have been left in abeyance. The parallel between perforated gastric ulcer and pneumonia seems a little bit far-fetched, and I submit with all due deference that whether consultations be held early or late, the pneumonia patient will in 99 cases out of 100 owe his life to the keenness and educated judgement of the man in hourly attendance—if he owes it to anything except his own powers of resistance. Consultations are, however, of undoubted value in diminishing general nervous tension in such cases.—I am, etc.,

Manchester. J. STAVELEY DICK, M.B.(R.U.I.)

BALCONIES AT SANATORIA.

SIR,—The circumstance of the omission of balconies in Dr. Latham's prize essay and of their inclusion in the actual design of the King's Sanatorium draws attention to an important point in sanatorium architecture.

If we are to have sanatoria springing up all over the country, are the sanatoria to have balconies or not? I fancy we may arrive at the general favour in which they are held by the fact that in Swiss health and pleasure resorts they are introduced widely in all new hotels. Moreover, they are constructed of stone, with light iron balustrades, which do not cut off the sun's rays, and with sheet iron at ends to protect from wind and neighbours. They are made wide enough to admit large chairs and small tables, and long enough for one, or even two, reclining chairs.

The theoretical objection raised against balconies is that they cut off light and air from the room. My contention is that not only do they not do so, but they actually increase both the amount of light and air admitted to the room.

The increased amount of air is due in the first place to the fact that the window opens to the bottom, and, therefore, so long as the window remains open, the air ingress is greater. But nowadays the window always remains open, except when the wind is so boisterous as to necessitate its closure in order to prevent the furniture from being blown about the room. Under such circumstances the protection afforded by the balcony enables the occupant of the room to keep his window open when, in the absence of a balcony, he would be forced to close it. This is not a hypothesis, but the result of observations.

Again, with regard to light, the balcony door-window admits more direct light than an ordinary window, by virtue of its opening down to the floor; but it also admits a large flood of light reflected from the balcony itself, and from that portion of floor just within the room which, under an ordinary window, would remain in shadow. Hence I regard the properly-constructed balcony as a means of increasing in practice both the supply of air and of light to a room.

With regard to direct sunlight, the properly constructed balcony cuts off but a minimum quantity, corresponding to the thickness of the balustrades. The roof, if fixed, may cut off a certain amount of direct sunlight during the summer when the sun is at a high altitude, but it cuts off none during the winter months, when the sun's arc is low.

On these grounds I am in favour of the universal adoption of balconies in sanatorium architecture. The present barrack form, both of hotels and sanatoria, is merely a transition stage, which is doomed to disappear at no distant date in response to the demands of sanitary science.—I am, etc.,

Montreux. STUART TIDEY.

CANCER AND ITS ORIGIN.

SIR,—I cannot help thinking that Mr. Henry Morris is right in directing the attention of the medical profession to the "tumour germ" theory, for the origin of malignant disease. Ribbert, we are told, indicated the possibility "during an inflammatory process," of a group of newly-formed epithelial cells becoming completely detached from their natural parent tissue, and assuming a power of proliferation whereby a tumour becomes developed. Apart from inflammatory processes, why not from simple cell proliferation by *continued endogenous growth?*

A simple protoplasmic cell consists of protoplasm, nucleus, and cell wall; the last most prominent in the older cells,

said to be due to a retrograde process taking place in the outer layers of the protoplasm. Increasing age, therefore, should tend to the formation of a capsule. Let this cell multiply *by endogenous growth*. To what is this form of multiplication due? To toughness of the limiting cell wall, or to an inherent quality of the cell? Let each of these two cells multiply *by simple division*, and let this multiplication be continued, the capsule getting firmer by age. Would not the resulting formation resemble a benign tumour?

But suppose each cell within the capsule to possess the same power of multiplication by endogenous growth as the mother cell, and let the process be further continued indefinitely. If the parent cell has this power, why not the daughter cells? Might not this formation resemble the cell nests and fibrillated stroma of a malignant growth? Would not the high pressure of the tissues, produced by the continued endogenous growth limited by an increasingly resisting membranous wall, tend to the production of the simple or "embryonic" cells, such as exist in a malignant growth? Again, would not a growth consisting of cells proliferated *by simple division* be expected to retain the character of the parent cell?

Instead of the existence of an isolated matrix of embryonic cells in each case, should we not rather expect that during mature life and advanced age, the cells becoming more thoroughly encapsuled should lead to proliferation *by endogenous growth?* It seems possible that each succeeding growth of daughter cells, confined under pressure, may take on their primitive characters from adaptation to environment.—I am, etc.,

HENRY TEMPEST DUFTON.

Brockford, near Stowmarket.

SIR,—The two recent papers in the BRITISH MEDICAL JOURNAL by Mr. Morris and Mr. Plimmer give most excellent summaries of the two conflicting theories which at present occupy the most prominent position in this field of research, and induce me to record some considerations derived from the study of vegetable neoplasms which might serve as indications for the lines of future research.

The Director of the Cancer Research Laboratories has wisely determined to keep an open mind, and to regard the solution of the problem as most likely to be found by wide biological conceptions. Vegetable tissues, when wounded in nature or by art, have provisions for complete healing, but under certain conditions the tissues undergo hypertrophy, and give rise to such peculiar structures as witches' broom, galls and cankers of various sorts, sometimes produced by vegetable, sometimes by animal, parasites. A good collection of galls, with their varied shapes and forms, growing sometimes from the root, sometimes from the stem, at other times from the buds and leaves, will furnish a pathologist with a subject for serious consideration. These structures, moreover, are produced by such various agencies as mites, eel worms, beetles, flies, fungi, aphides, larvae of moths and wasps.

I will not go further into this subject except to mention that a good account of them may be found in Kerner and Oliver's *Botany*, *British Galls*, by Connold, and Adler and Straton's *Oak Galls and Oak Flies*. For our present purpose the point of interest is the possible cause of their production. If the gall producer dies the gall ceases to grow. If the twig on which the gall is situated dies the gall ceases to grow so that the structure is formed by the mutual reaction of the host and the parasite. As vegetable structures heal readily we must assume that the growth is continued by the activity of the parasite, and it is difficult to escape the conclusion that this activity is caused by the insect feeding on the cells by which it is surrounded, during which process stimulation to further growth takes place. It is not easy to believe that mechanical stimulation is sufficient for this purpose and we must rather look to the possible presence of some ferment or allied body for the continued growth. If we grant this hypothesis we must assume that there are substances in Nature which have this remarkable property, and remarkable it must be when we consider that in galls produced by the larvae of some flies the gall of each generation differs in form and shape from the preceding, though the second insect is only the parthenogenetic product of the first. As far as I know nobody has yet produced a gall, and the results of my own experiments with organic and inorganic poisons have been capable of explanation by the toxicity or solubility of the drug used.

Now if there is in nature such a substance as I have indicated, capable of, to use an old term, spermatic action, it behoves us to search for it, and if found might we not extend the argument by analogy to cancerous growths which are so largely connected with glands or gland-bearing parts of the body? Or, to express this idea differently, should not research for the cause of cancer be conducted on the lines of biological chemistry, and the search for ferments or allied bodies take the place of morphological studies? The rhythm of development has been accounted for as due to chemical processes including ferment action, and any interference with this action, such as the presence of anomalous ferments, may disturb this rhythm and alter the ultimate cell aggregate in its properties and behaviour. Orderly cell growth is organization, disorderly growth is disorganization, such as we see in malignant processes.

I have lately been much struck with the fact that these insect-produced hypertrophies do not always keep to their tissue place. In examining some of the soft growths produced on apple twigs by the aphis which causes canker, in microscopical sections it would seem that the hypertrophy of the cambrium produced by the punctures of the insect does not only swell up and produce a meristematic tissue, but that this tissue can invade and modify the already formed woody tissue on which it rests in a manner very suggestive of malignant growth. It is to my mind difficult to believe that these punctures are by themselves the mechanical cause of the cambial hypertrophy unless we assume that some ferment is emitted at the same time which would account for the cell activity and power of invading formed tissue, for it must be remembered that these overgrowths are as a rule for the benefit of the parasite and not very injurious to the host. In some cases indeed they have been regarded as beneficial to the host. In conclusion let me recapitulate my main idea. It would seem that in Nature there are substances at present unknown which have a specific action on cell development and which may possibly be found in cancerous growths connected with glands, which would account for the local recklessness of growth and the formation of secondary deposits if these reckless cells found their way into the circulation by lymph or blood, or produce the well-known cachexia if only the substances themselves were absorbed.—I am, etc.,

JAMES E. BLOMFIELD, M.A., M.B.(Oxon).

Sevenoaks.

EPIGASTRIC OPERATION FOR DRAINAGE OF PERICARDIUM.

SIR,—May I occupy a little of your valuable space with a few remarks occasioned by the interesting case of purulent pericarditis recorded in the BRITISH MEDICAL JOURNAL of January 2nd by Dr. Coutts and Mr. R. P. Rowlands?

First, I should like to congratulate Mr. Rowlands upon his operation, which was obviously of great benefit, although unfortunately the complicated nature of the case and subsequent additional disease rendered a fatal issue eventually inevitable. Mr. Rowlands gives an excellent summary of the operations hitherto devised and performed for exposing and draining the pericardium. In his comments upon the operation which I proposed,[1] he points out several theoretic objections. These Mr. Rowlands himself meets to a large extent in his further remarks. I propose now to go a little further in combating these objections, and I do so with the more confidence because since designing the operation I have performed it on three occasions with success, and another successful case has been recorded by my colleague, Mr. H. J. Pendlebury. My own cases were those of two children and one adult, and I hope to publish them in detail shortly. Mr. Rowlands's first objection, that in adults with firm ensiform and rigid costal cartilage there is too little room, I have not yet found to hold good. Should it do so, however, the difficulty would probably be easily met in the same manner that Mr. Rowlands most appropriately met a similar difficulty in his own case, namely, by removing portions of the thoracic wall. The seventh costal cartilage in the case of an adult may thus have to be cut away.

His second objection, that the peritoneum may be opened through the operator being unfamiliar with the anatomy of the region, I can only say that an operation of this nature which is required only in cases where the patient's condition is already extremely critical, should of course never be undertaken by a surgeon who is not perfectly at home in the region where he is operating. Mr. Rowlands further objects that the inferior epigastric artery may be wounded and cause trouble through being out of sight. But proper arrangement of light and sufficient length of incision ensure that no portion of the depths of the wound is at all out of sight. The artery may be seen and pushed aside, as has happened to myself.

[1] *Lancet*, June, 1900.

Lastly, he thinks it possible that the pericardium might be eparated by the finger from the parietes, and pus be thus llowed to leak into the loose connective tissue. In these ases, however, the very condition which occasions the operaion negatives the chance of such an accident. For the periardium is distended, and the finger has little difficulty in istinguishing it from other structures in such a way that it an be incised without risk of its contents escaping into ndesirable situations. Even if it did so escape, harm is nlikely to result if effectual drainage has been established. t present one is speaking, of course, from a very limited xperience; as far as it goes, however, that experience has een highly encouraging as to the efficiency of operations hrough the epigastrium for dealing with and draining a listended pericardium.—I am, etc.,

London, W., Jan. 2nd. HERBERT W. ALLINGHAM.

ISOLATION HOSPITALS.

SIR,—I think I shall not be wrong at the present time in ffirming that the majority of the medical profession who ive any thought to the above subject are rapidly coming to he conclusion that the removal of scarlet fever cases to, and he congregating of them in, isolation hospitals is altogether failure, whether from the point of view of stamping out an pidemic, or of benefit to the patients, or of cost to the rateayers. Worse than a failure has been clearly proved during he present epidemic of a peculiarly mild form of scarlet fever n this district. The facts are: (1) The epidemic has existed or the past eighteen months, and is still with us notwithtanding that for the first nine months practically all the ases notified were immediately removed to hospital; (2) umerous cases returned from hospital started the disease fresh in their homes; (3) several cases (there is strong vidence to prove) originated from infection in the public rams which pass the hospital, often conveying friends of atients and the patients themselves (presumably disinfected nd free from infection) direct from the hospital; (4) several ery mild cases have undoubtedly been converted into more evere ones as a result of being confined in a concentrated tmosphere of the disease; (5) the cost to the ratepayers has een very great, averaging about £12 a case.

Our district council are in the very anomalous and unsatisactory position (according to the ruling of the Local Governent Board, as we have an arrangement with a neighbouring solation hospital) of not having the power to spend small ums out of the rates for the purpose of—in some very special ircumstances—boarding out a member or two of a family or upplementing the nursing. We have appealed to the Local overnment Board to give us this power, and if the appeal ad been granted a large number of the cases sent to hospital ould have been economically dealt with at their homes at ne-third or one-fourth of the cost to the ratepayers, and uite as effectively as regards the prevention of the spread of he disease, and more beneficially as regards the patients. nstances have occurred where the judicious expenditure of £5 would have saved £30 at least to the ratepayers.

I should be glad through your columns to have this imporant question ventilated.—I am, etc.,

W. MOORE,
Member of the British Medical Association, and of the
January 5th. Stourport Urban District Council.

LIFE INSURANCE EXAMINATIONS.

SIR,—In the number of the BRITISH MEDICAL JOURNAL for December 26th, 1903, I observe an editorial comment on the question of medical fees for insurance work, in which you refer to the low fees paid to medical men examining pplicants for insurance when the proposal is for a small mount.

It may be of interest to point out that in the case of the Scottish Life Assurance Company, for which I act as Chief Medical Officer, the plan adopted—largely, I think, at my uggestion—seems to reach an equitable solution of the difficulty. The fee for examining proposers to this office, the mount of whose insurance does not exceed £100, is at the ate of half a guinea. From this point upwards until the nsurance reaches the sum of £1,000 the fee is 1 guinea. In he case of insurances above £1,000 the fee is 2 guineas. In ther words, the company has a sliding scale of fees.

I trouble you with this communication in the hope that ome such scale as the above may meet the wishes of other medical officers, and that they will endeavour to get it dopted by their companies. In the case of my own office the circumstance that the chairman of the Board—Sir Arthur Mitchell, K.C.B., M.D.—is himself a medical man, facilitated the adoption of this very reasonable scheme.—I am, etc.,

Edinburgh, Dec. 31st, 1903. J. J. GRAHAM BROWN, M.D.

THE MIDWIVES ACT.

SIR,—When the Local Government Board demanded that Section E of the Midwives Act should not apply to midwives under the Poor Law the Board could not have estimated the mischievous effect of this demand. The rules under Section E enforce disinfection, cleanliness, care of infant's eyes, casetaking—matters of extreme importance in the work of a midwife. Is the Local Government Board in a position to affirm that all the midwives in its employ are so well trained and so far above suspicion that these rules are unnecessary? or does it say in act if not in word that to enforce such attention to detail is of no importance in the case of the lying-in pauper mother? To those who are acquainted with the inside of the workhouse maternity department, this policy of the Local Government Board strikes a note of despair. Are all efforts to raise the standard of nursing, thus indirectly improving the condition of the pauper, to be nullified by retrograde action at head quarters?

One immediate result of this policy is that the Central Midwives' Board has resolved "to postpone for the present all applications for recognition as approved teachers under Section C from teachers in Poor-law institutions, in view of the fact that almost all midwives exercising their calling in such institutions are (at the express instance of the Local Government Board) specifically exempted from the operation of Section E of the rules."—I am, etc.,

January 4th. OBSERVER.

THE MEDICAL PROFESSION IN CAPETOWN.

SIR,—My attention has just been called to a paragraph in the BRITISH MEDICAL JOURNAL of September 12th, 1903, from your Capetown correspondent. He paints a gloomy picture of the medical men in Capetown being split up into what he calls "Burgher" and "Uitlander" camps, who are constantly warring with each other. On the whole, after twelve years' residence as a practitioner in Capetown, I am glad to be able to state that the feeling among the medical men is as good, or rather better, than in most other towns of its size. It is true there are here, as in many other parts of the world, a few atrabilious gentlemen (of whom one fears your correspondent may be one) who, having been unfortunate in life, go about believing the world to have deep designs upon their happiness.

I would not have troubled you with this letter, but many of us (old and newcomers) feel that your readers should take these somewhat dyspeptic views of your correspondent with a grain of salt.—I am, etc.,

Capetown, Dec. 8th, 1903. A CAPETOWN MEDICO.

DOCTORS IN PARLIAMENT.

SIR,—I have read with interest the letters published in the BRITISH MEDICAL JOURNAL of November 28th, 1903, p. 1437, of Mr. George Jackson and Dr. Horder, earnest medical reformers, and I am glad to see this subject of direct medical representation in Parliament advocated by them, although in no way a new idea.

At the annual meeting of the British Medical Association at Carlisle or Portsmouth some five or six years ago, I publicly mentioned this want, and even suggested the name of Sir Victor Horsley as one who would be a fitting medical representative capable of giving effect to his thoughts and enforcing his convictions with the power and strength of oratory.

The British Medical Association is certainly an Association of equal importance, as Mr. Jackson observes, to the National Union of Teachers, and has done equally useful work in the interests of the public. There are, too, many retired medical men who are fitted for Parliamentary life, and who could give their undivided attention to the duties of a medical member of Parliament.

Deaths are still registered without medical certification notwithstanding the crime and evil that results therefrom, as has been often shown, and the profession remains much overcrowded, and our medical interests, even those almost equally allied to the public interests, are uncared-for or forgotten, and will continue to be neglected till doctors have a voice of their own in the making of our laws.

The scientific side of the British Medical Association is a

great one, but the practical one by which we can live our life better and in greater usefulness and prosperity by wider fields of labour is not less important, and might even be more productive in results.—I am, etc.,

Bournemouth. FREDK. H. ALDERSON, M.D.

SIR,—Dr. Jepson's letter in the BRITISH MEDICAL JOURNAL of November 7th, 1903, p. 1245, *re* doctors in Parliament, confirms what ex-President Cleveland said to the Academy of Medicine in New York not long ago. He said that medical men should go more in for politics, as at present they had no position politically, and so represented "nothing and nobody," so that whenever any matter affecting the profession was brought forward it was nearly always defeated, as no one was present who had any interest in supporting it. The apparent weakness of the profession is explained by the letter alluded to.—I am, etc.,

Natal, Dec. 22nd, 1903. SPES.

MEDICAL WOMEN IN SWEDEN.

SIR,—I forward the following, which may be of interest; it is a translation of a paragraph from a Swedish newspaper—last Thursday's issue:

At the request of Karolina Widerström, Licentiate in Medicine (this lady is in practice), with whom were associated several medical women and students of medicine, His Majesty the King has decreed that unmarried medical women may, equally with men, hold all medical posts with the following exceptions: Medical officer for province or town (the duties of our medical officers of health and Poor-law medical officers are comprised in these posts), appointments in the army and navy medical departments, and the position of superintendent or head physician of an infirmary, hospital, or asylum. As soon as a medical woman marries she is regarded as having resigned any post to which she may have been appointed.

The Swedish State, therefore, excludes women from very important public appointments, covering a large sphere of activity, and from the highest posts in institutions. Whilst apparently leaving untouched the scope of medical women in private work, Sweden, an enlightened and educated country, finds itself able to formulate definite views as to their limitations in public work.—I am, etc.,

Carmarthen. EDWIN GOODALL.

THE GENERAL MEDICAL COUNCIL AND THE ENGLISH COLLEGES.

SIR,—I notice in the BRITSTH MEDICAL JOURNAL of December 12th, 1903, p. 1564, a letter from Mr. H. Nelson Hardy *re* the dispute between the English Colleges and the General Medical Council. I fully agree with all he says, and sincerely hope that the profession will not rest until this matter is settled to the satisfaction of Sir Victor Horsley and his supporters on the Council. We diplomates of the Colleges are already at a great disadvantage in practice as compared with the licentiates of any other colleges and provincial M.Bs., as we are forbidden to style ourselves "Dr." unless we hold a "M.D.," while such a restriction is imposed on none of the others. Now, by their action towards the General Medical Council, the Colleges are making our fight still harder, for the general public will not consult a man whose first examinations were considered "insufficient" by the General Medical Council. The final examination, as reported by the Council's visitor and inspector, are "excellent" and "as good as could be desired," but unless a sound foundation is obtained in the earlier subjects the public, whose eyes are being opened more and more daily, will feel that there is something wanting.

As an example of one of the difficulties a diplomate has to fight against, I might just mention that a lady once told some relatives of mine that she could not consult me "because I was not fully qualified, being only "Mr." and not "Dr.," and though she has since been under my care, I am still "only Mr."—I am, etc.,

December 14th, 1903. M.R.C.S., etc.

DIETETICS, AND THE "ELIXIR OF LIFE."

SIR,—Though it may be quite true that the "elixir of life" of the alchemists has not yet been found, and never will be found, still we are beginning to understand how it is that some live even to a hundred years of age.

The conclusion reached by the Collective Investigation Committee of the Association helped to point out the direction in which long life was to be found, and the facts, as to longevity, which the BRITISH MEDICAL JOURNAL of December 12th contained, all point in the same direction.

We are beginning to learn that it is possible to live eve beyond a hundred years of age without becoming disciples Pythagoras, who taught that the secret of long life an happiness consisted in avoiding the use of animal foo Temperance in all things has long been recognized as tendi to longevity, but it is gradually being proved that temperan in eating is of paramount importance. Alcohol and tea ha both been blamed for shortening life, but now food itself arraigned.

The drama and the daily press have taken up the questi of dietetics; and "Little Mary" will probably do more tha many learned books in calling the attention of the people the necessity of knowing what, when, and how much to ea that they may be healthy and happy.

Seeing that this subject is being brought so prominent before the people, it is well that we as an Association shou take an interest in the subject and use what power a influence we can on the responsible authorities to have t subject of "dietetics" more fully taught in every medical scho

Sanitation, in which the profession was the pioneer, h done much to improve the health of the people, but a refo of their dietetic habits will do more, and to teach them ho when, and what to eat would be to them as the "elixir life." I commend the consideration of the subject to t members and of the Committee of the Association whi concerns itself with such questions.—I am, etc.,

Hawick. JOHN HADDON, M.D.

MEDICO-LEGAL AND MEDICO-ETHICAL.

THE SUPPLY OF ARTIFICIAL TEETH.

IN a recent case at the Blackburn County Court the question ar whether an unqualified dentist could recover the price of a set of fa teeth supplied by him. A firm of unregistered dentists sued a patient the price of teeth supplied, their claim including the operation of fitt the teeth. The learned county court judge came to the conclusion t he could separate the claim for the teeth, as being one for goods suppli from that for work done in fitting, etc., and he assessed this work a certain sum giving judgement for the price claimed, less this amou If this decision is allowed to stand it will put a premium upon qu dentistry. As the law now stands there is nothing to prevent a num of quack dentists forming themselves into a limited liability company order to escape the penal clauses of the Dentists' Act. If they can claim the price of teeth as "goods supplied" to their patients, t position will be strengthened.

MAY A PRACTITIONER OFFER HIS SERVICES GRATUITOUSLY A PUBLIC BODY?

J. G.—(1) A practitioner may legitimately place his special knowle and experience at the service of a public body without remuneratio he chooses to do so, but his letter of application should be addresse the ordinary course to the Clerk of the Board, and should not be s to each individual member or to the press, as that would sugge desire to advertise himself and to force the hands of the Board. (2 our opinion, this work (the examination of the refraction of sch children), which is most laborious, should be paid for, but it is ha reasonable to expect the ratepayers to pay for the examination by ophthalmic surgeon of all the children attending elementary scho If the ratepayers are to undertake to determine refractive defects, next step will be a demand for spectacles to be supplied at the pu expense, and if this is granted we do not see why we should stop th (3) and (4) We cannot perceive that the offer, if accepted, would stan the way of our correspondent pursuing his ophthalmic work for s fees as he chooses to charge. (5) Circulars are dangerous things, b medical practitioner may send a circular to his professional breth without any breach of medical ethics; he should, however, take car see that it does not reach persons for whom it is not intended.

PERSONAL CANVASSING BY MEDICAL PRACTITIONERS.

CURETTE writes that A. and B. are the two surgeons for a colliery either of whom the workmen may enter their names, and the wee payments are distributed accordingly. C. is another surgeon who, w ing to share in the work, entered upon a personal canvass for hin in order to persuade a certain portion of the workmen to transfer t patronage from A. and B. to himself. "Curette" asks whether this w be regarded as coming under the warning of the General Med Council respecting canvassing?

*** We cannot presume to say what the General Medical Cou might do, but its warning referred only to medical aid societies, the present case does not seem to be exactly on all-fours with t which have so far been before the General Medical Council. Such vassing is, however, to be greatly deprecated, and cases of this sort eminently suited for the disciplinary powers of the Divisions of Association.

RET.—The custom would not apply to our correspondent under the cumstances, but we make no doubt that the medical practitioners i neighbourhood would appreciate a visit as an act of courtesy.

ERRATA.—In the answer to "Dubitans" on "Out-patient Papers the BRITISH MEDICAL JOURNAL of January 2nd, p. 55, col. 2, the t sentence should read "We cannot quite agree," etc., and not as prin —In the reply to "Seaside" under the heading of "Medical Etiqu (same page and column), there was a little confusion. The person whom A. was recommended to "talk the matter over" was obvious and not C. as printed.

OBITUARY.

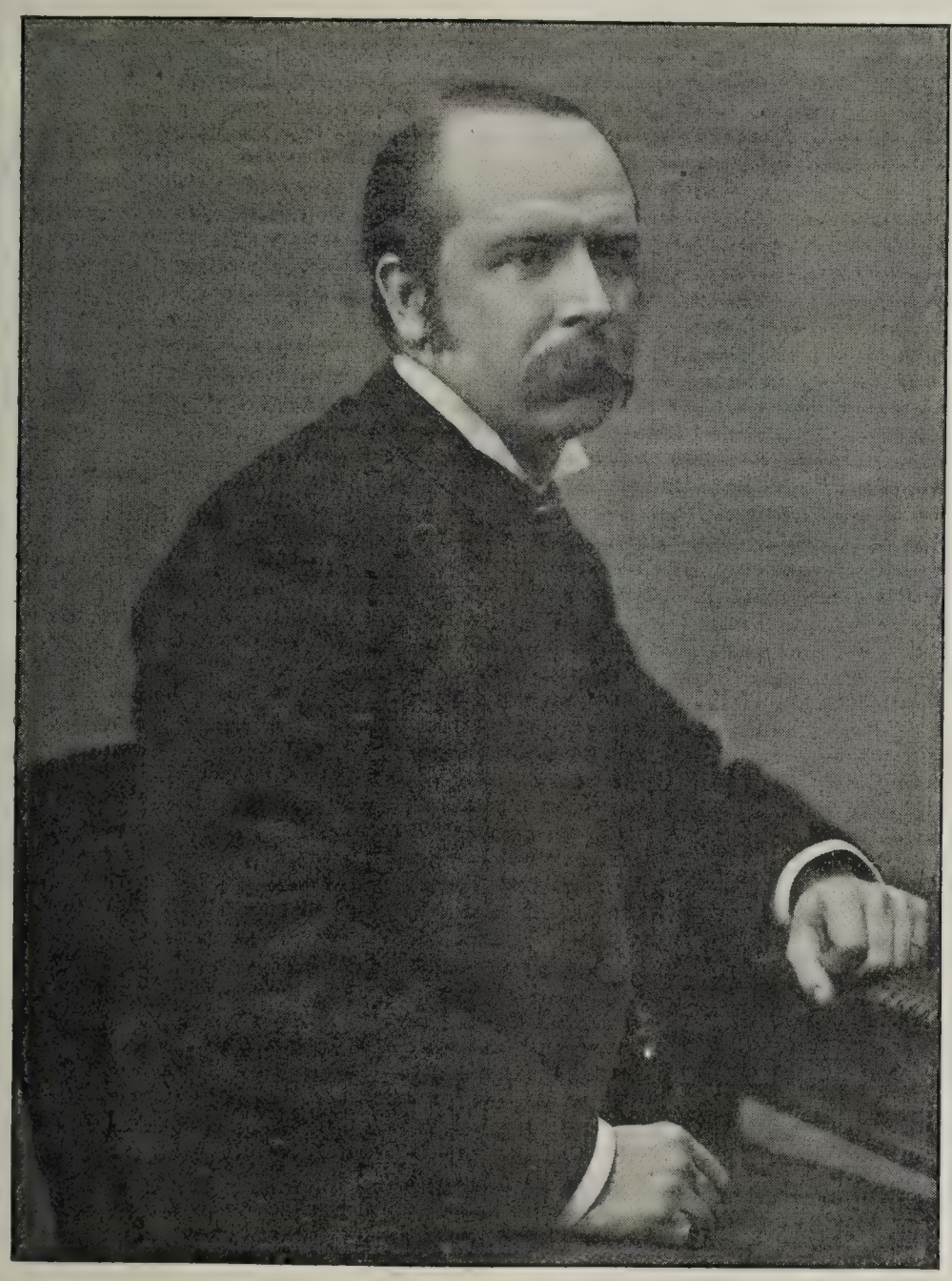
HN KNOWSLEY THORNTON, M.B., C.M.EDIN., J.P.
s distinguished authority on abdominal surgerydied on Sun- night last, January 3rd, at his residence, Hildersham Hall, abridge, in his 59th year, after much distress from pro- ged ill-health.

nowsley Thornton was the son of the Rev. John Thornton All Saints', Northampton, in which town the subject of notice was born on January 15th, 1845. His father was rwards head master of Kimbolton School, and for thirty rs Vicar of Aston Abbotts. Knowsley Thornton was edu- d at Rossall, and spent some years in teaching and clerical k. He was 22 years of age when he became a medical dent, and in a speech delivered a few years ago at a dinner he Medical Society, he expressed an opinion, based on his experience, that re were advantages entering the medical fession relatively late life. He studied dicine entirely at nburgh, graduating 871. He then be- e House Surgeon to d Lister in the yal Infirmary, nburgh. In conse- nce he was soon wn as the most nuous advocate of ierian surgery, and ned the spray for onsiderable period it had been dis- ed by other autho- ts.

r under two years owsley Thornton in general prac- at Ford, in North- berland, close to Scottish border. In his friend, Dr. liam Thomson, now Algiers, deter- ed to leave London practise in the h, and, through his duction, Thornton me Surgeon to the aritan Free Hos- , and assistant to ncer Wells in his ite practice.

Thornton's work at Samaritan Free Hos- l raised him to t distinction. His ter had estab- ed ovariotomy, was, becoming rly, still excelling n ovariotomist, yet ing a little suspici- of innovations. nton introduced the most rigorous antiseptic surgery into ital practice. He had to admit that carbolic poisoning, which he was himself a sufferer at least on one occasion, arely complicated convalescence, but still he insisted to east that "antisepsis" was far superior to "asepsis," and ended vigorously in his writings in journals and his ches at medical societies against colleagues and opera- in other hospitals who rejected carbolic solutions and the y.

s care about after-treatment was proverbial and pro- y, as in the case of the practice of other surgeons to every conceivable variety of technique, accounted hose good results which he attributed to his particular of treatment. Thornton was always an extremely care- perator, yet at the same time bold, for complications seemed to stimulate him, and if there were a way out difficulty he was the man to find it. He insisted on ability in an assistant, and hence was an excellent trainer of junior colleagues, whilst remarks by bystanders specially irritated him, and he reproved more than one distinguished visitor for talking during an operation. His name on the roll of surgery will not, however, rest on his surgical discipline nor on his faith in the spray. He will, rather, be be remembered as one of the chief of those ovariotomists who developed their speciality into the general abdominal surgery of to-day. For fibroid disease of the uterus he did much; he was not too fond of hysterectomy as the panacea for that disease, yet he did not advance the technique of the operation very appreciably; he was, on the other hand, incontestably one of the leading pioneers in renal surgery. His Harveian Lectures on the Surgery of the Kidney, delivered in 1889, greatly increased his reputation. He demonstrated with great care the process by which the vessels in the hilum of the kidney should be secured, and dwelt at length on the management of the ureter, now mere matters of routine, but then considered feats of high surgical prowess. He was the apostle of the abdominal incision as opposed to the lumbar wound, which Morris and other British and foreign surgeons advocated. The discussions between these authorities on this subject led to the determination of the advantages of each incision according to circumstances.



Though fifteen years old, Thornton's *Surgery of the Kidneys* is still worth study. The deceased surgeon likewise played a great part in the establishment of the operative treatment of diseases of the gall bladder and liver, and his instructive series of papers on the subject are to be found in the *Transactions of the Medical Society*. His boldness was soon imitated, and, as in the case of renal surgery, what was once only dared by the few, such as himself, is now widely practised by general surgeons. In splenic surgery, again, Knowsley Thornton ranks as a pioneer.

Knowsley Thornton had the qualities which bring success in practice, and he prospered greatly; but that peace and comfort which he deserved, and had conferred on so many of his fellow-creatures, was not to be his portion in this world. Not only was there distressing sickness in his own home, but from the age of 18 upwards he was tormented with gout, which greatly interfered with his work. He admitted to a friend when he resigned his hospital appointment that though he had earned success it was quite unenjoyable to him, for he was often in pain and never well.

In 1891 he gave up hospital practice but for some years continued his private work, living until 1896 in Montagu Square, W. At the end of that period he fell very ill indeed, and was further much reduced in strength by repeated attacks of influenza complicated by gout. In 1898 he retired, and since then he lived at Hildersham Hall, near Cambridge. He worked hard in his garden and farmyard and his health grew better for a time, but of late years he

suffered much from peripheral neuritis which gradually exhausted his strength.

Knowsley Thornton did much work for Societies, and was President of the Medical Society in 1890; he also took part in many discussions at the annual meetings of the Association, and was a Vice-President of the Section of Obstetrics at the annual meeting in London in 1895. He married, first, a Miss Patterson, by whom he had a son—who holds an appointment in South Africa—and two daughters; his second wife was the Hon. Mary Windsor Clive, by whom he had one daughter; both survive him.

Boldness and straightforwardnesss were the distinguishing features of Knowsley Thornton, who was of a combative disposition, but his very strife advanced the cause of surgery which he loved so well. Of this real benefactor of his kind we may say what Carlyle said of a friend of humanity of a less satisfactory type: "No hollow formalist, deceptive and self-deceptive, *ghastly* to the natural sense, was this; but a very man.....fire-real from the great fire-bosom of Nature herself."

WILLIAM HENRY KEMPSTER, M.D.St.And.,

Formerly M.O.H., Battersea.

WE regret to have to record the death last month of Dr. William Henry Kempster, of Clapham Common, at the age of 69. Dr. Kempster was a distinguished pupil of the Westminster Hospital Medical School, where he gained the Chadwick Prize and Medal, and was a Prosector of the Royal College of Surgeons. He received his first qualification in 1862, when he was admitted a Member of the Royal College of Surgeons and obtained the licence of the Society of Apothecaries. Six years later he went to Scotland and became L.R.C.P.Edin., and some fourteen years afterwards took the degree of M.D. at St. Andrews. In 1890 he was elected a Member of the Society of Apothecaries. It was in Battersea that the greater part of his life's work was performed, as he was its Medical Officer of Health for upwards of thirty years and also Divisional Surgeon of Police, while other appointments held for briefer periods were those of District Medical Officer for East Battersea and Public Vaccinator. He was a member of several scientific societies, but took most interest in that of the Medical Officers of Health, of which he was Treasurer and at one time President. Outside professional matters he took an active interest in Freemasonry, of which order he was a Past Grand Master, while he also acted as a Governor of the Masonic Boys' Institute. For several years, however, before his death he had given up all professional work, and had perforce ceased to take an active interest in most of the matters which had previously engaged his attention, for the long and painful illness which eventually brought about his death almost entirely confined him to the house.

WE regret to announce the death of SAMUEL THOMAS BADGER, which occurred after a long illness at his residence at Knowle in Warwickshire, on Monday, January 4th. He was 84 years of age and had been a member of the medical profession for just sixty years, as he became M.R.C.S. and L.S.A. in 1844. His early medical education was pursued at St. Bartholomew's Hospital in London. He was a pupil of the late Dr. Archer, and practised in Birmingham as a general practitioner from 1844 until his retirement in 1895. Mr. Badger was very well known in Birmingham and was held in high esteem, not only by his professional brethren, but also by a large number of friends and acquaintances. He was a keen supporter of the Conservative party, but he never played any prominent part in politics. He took great interest in many of the philanthropic institutions in the city. He leaves a widow and three sons. One of his sons is a member of the medical profession, another is headmaster of King's School, Peterborough, and the third, the Rev. G. E. Badger, is vicar of Bishop Ryder's Church in Birmingham. The funeral took place at Solihull on Thursday, January 7th.

WE regret to announce the death of FRIEDRICH JOLLY, Professor of Mental and Nervous Diseases in the University of Berlin, and one of the foremost specialists in that department of practice in the world. He was born at Heidelberg in 1844 and was Professor successively at Würzburg and at Strassburg before he accepted a call to Berlin in 1890.

ROYAL NAVY AND ARMY MEDICAL SERVICES.

ROYAL NAVY MEDICAL SERVICE.

DEPUTY INSPECTOR-GENERAL T. L. HORNER has been placed on the retired list at his own request, with the rank of Inspector-General, from October 1st, 1903. His commissions are thus dated: Surgeon, November 9th, 1868; Staff-Surgeon, December 26th, 1879; Fleet-Surgeon, April 17th, 1889; and Deputy Inspector-General, March 9th, 1898.

The seniority of Staff-Surgeon C. M. BEADNELL has been antedated under His Majesty's Order in Council of October 9th, 1903, to May 13th, 1896, instead of as stated in the *London Gazette* of December 5th, 1903.

The following appointments have been made at the Admiralty: FREDERICK W. STERICKER, M.B., B.A., Fleet Surgeon, to the *Doris*, December 31st, 1903; ALEXANDER F. HARPER, Fleet Surgeon, to the *Melampus*, January 7th; WILLIAM G. STOTT, M.B., M.A., Fleet Surgeon, and HAROLD G. T. MAJOR, Surgeon, to the *President*, for three months' study in a civil hospital, January 7th; ALWORTH E. MEREWETHER, M.B., Surgeon, to the *Wildfire*, January 7th; R. THOMPSON, Surgeon, to the *Aurora*, January 7th.

FIRST LIFE GUARDS.

SURGEON-LIEUTENANT B. PARES is promoted to be Surgeon-Captain, November 14th, 1903. He joined the department as Lieutenant, November 14th, 1900, and after being for some time attached to the 1st Life Guards as medical officer, was confirmed in that appointment, October 15th, 1902.

ARMY MEDICAL STAFF.

SURGEON-GENERAL SIR W. D. WILSON, M.B., K.C.M.G., is placed on retired pay, January 1st. He entered the service as Assistant Surgeon, October 1st, 1867; became Surgeon, March 1st, 1873; Surgeon-Major, October 1st 1879; was granted the relative rank of Lieutenant-Colonel, May 21st, 1884 made Brigade-Surgeon-Lieutenant-Colonel, October 28th, 1889; Surgeon Colonel, July 18th, 1894; and Surgeon-General, October 3rd, 1898. His war record is as follows: Afghan war, 1878-80 (medal); Egyptian war, 1882 (medal and Khedive's bronze star); Soudan campaign in 1884, including the battles of El Teb and Temai (mentioned in dispatches, two clasps and promoted to be Surgeon-Major, ranking with Lieutenant-Colonel) and South African war in 1899-1900 as Principal Medical Officer South Africa (mentioned in dispatches, awarded the King's medal with two clasps, and made Knight Commander of the Order of St. Michael and St George).

ROYAL ARMY MEDICAL CORPS.

LIEUTENANT-COLONEL W. J. R. RAINSFORD, C.I.E., is promoted to be Colonel, *vice* J. F. Supple, C.B., retired, December 14th, 1903. Colonel Rainsford was appointed Surgeon, February 4th, 1877; Surgeon-Major February 4th, 1889; was granted the rank of Lieutenant-Colonel, February 4th, 1897; and made Brigade-Surgeon-Lieutenant-Colonel, December 9th 1898. He has been recently appointed Principal Medical Officer Thames and Woolwich Districts, *vice* Colonel G. D. W. Leake, who has proceeded to India. His war services comprise: The Afghan war in 1878-80 with the Khyber Field Force (medal); the Egyptian war in 1882 (medal, and Khedive's bronze star); the Soudan campaign in 1885-6 with the Frontier Field Force; and the China expedition in 1900, for which he was mentioned in dispatches and appointed a Companion of the Order of the Indian Empire.

Lieutenant-Colonel EDWARD RUSSELL CREE died at Wokingham on December 29th, 1903, aged 45, very suddenly of heart failure. He was son of the late Inspector-General E. H. Cree, R.N., and entered the service as Surgeon, July 31st, 1880, becoming Surgeon-Major, July 31st, 1892 and Lieutenant-Colonel, July 31st, 1900. He was in the Soudan campaign in 1885, and was present in the actions at Hasheen and the Tofrek zereba and at the destruction of Temai (medal with two clasps, and Khedive's bronze star). He was also in the South African war in 1899-1900, and took part in the relief of Ladysmith, and was mentioned in dispatches.

MILITARY LAW EXAMINATION.

THE undermentioned Majors of the Royal Army Medical Corps have been recorded as having passed in Military Law at the recent examination at home stations of officers for promotion:

Lieutenant-Colonel H. J. Wyatt	Major C. A. Lane, M.B.
Major R. J. Geddes, M.B., D.S.O.*	Major H. D. Rowan, M.B.
Major G. Wilson, M.B.	Major H. Carr, M.D.
Major J. M. Reid, M.D.	Major W. H. Starr
Major R. J. A. Durant*	Major J. Kearney, M.D.
Major J. J. C. Donnett	Major F. A. Saw, M.B.
Major H. M. Sloggett	Major A. Kennedy*
Major J. R. Mallins, M.B.	Major J. Fallon*
Major S. F. Freyer, M.B., C.M.G.	Major H. W. Austin
Brevet Lieutenant-Colonel M. W. Russell	Major J. Donaldson
	Major H. B. Mathias, D.S.O.
Major M. L. Hearn	Major F. S. Le Quesne, V.C.*
Major R. H. Hall, M.D.	Major C. Dalton
Major S. C. Philson*	Surgeon-Major E. N. Sheldrake (Grenadier Guards).
Major J. M. Nicholls, M.B.	
Major P. C. H. Gordon	

* Signifies distinguished.

ARMY MEDICAL RESERVE.

SURGEON-LIEUTENANT T. BEARD, 4th Volunteer Battalion the Argyll and Sutherland Highlanders, to be Surgeon-Lieutenant, November 28th, 1903.

Surgeon-Captain A. LINGARD to be Surgeon-Major, November 11th, 1903.

The names of the undermentioned Surgeon-Lieutenant-Colonels are now described, and not as stated in the *Gazette* of November 10th, 1903: W. CHALMERS-COWAN, C. M. MACQUIBBAN.

The notification regarding the promotion of Surgeon-Lieutenant H. G. O. COLLETT in the *Gazette* of November 10th, 1903, is cancelled, intimation of his death prior to that date having been received.

IMPERIAL YEOMANRY.

SURGEON-CAPTAIN J. E. BOWSER, M.B., Westmorland and Cumberland, is promoted to be Surgeon-Major, January 2nd.

INDIAN MEDICAL SERVICE.

LIEUTENANT-COLONEL H. ALISON, M.D., Madras Establishment, is permitted to retire from the service, with effect from December 23rd. He was appointed Assistant Surgeon, September 30th, 1873, and was made Brigade-Surgeon-Lieutenant-Colonel, June 30th, 1898.

Brigade-Surgeon WILLIAM SMYTH FOX, of 11, Westbourne Gardens, Bayswater, late of the Madras Establishment, died on December 25th, 1903, aged 65. He entered as Assistant Surgeon, March 31st, 1865, and became Brigade-Surgeon, January 4th, 1887. He had no war record.

ROYAL ENGINEERS (VOLUNTEERS).

SURGEON-MAJOR G. B. FRASER; 1st Devonshire and Somersetshire, to be Surgeon-Lieutenant-Colonel, January 6th.

ROYAL ENGINEERS, SUBMARINE MINERS (VOLUNTEERS).

SURGEON-CAPTAIN W. L. EDWARDS, the Severn Division, to be Surgeon-Major, January 2nd.

ROYAL ARMY MEDICAL CORPS (VOLUNTEERS).

MAJOR D. HEPBURN, M.D., the Edinburgh Company, resigns his commission, retaining his rank and uniform, November 28th.

Captain J. G. GRAHAM, M.B., the Glasgow Companies, resigns his commission, November 28th.

WILLIAM BRYCE, M.D., to be Lieutenant, Glasgow Companies, November 7th.

Captain J. W. SMITH, M.B., the Manchester Companies, resigns his commission, January 6th.

VOLUNTEER INFANTRY BRIGADE BEARER COMPANY.

Lieutenant A. H. MCDOUGALL, Worcester and Warwick Company, resigns his commission, November 28th.

Surgeon-Captain (Hon. Captain in the army) E. V. ST. V. RYAN, from the 4th Middlesex Volunteer Rifle Corps, to be Surgeon-Captain in the East Surrey Company, January 2nd.

The announcement which appeared in the *London Gazette* of September 4th last regarding the transfer of Surgeon-Captain W. N. EVANS from the 1st London Volunteer Infantry Brigade Bearer Company to the 5th London Company is cancelled.

VOLUNTEER INFANTRY BRIGADE.

MAJOR W. J. WHITCOMBE, commanding Worcester and Warwick Brigade Bearer Company, to be Brigade-Surgeon-Lieutenant-Colonel while holding the appointment of Senior Medical Officer to the Brigade, January 21.

CAPE COLONIAL MEDICAL SERVICE.

COLONEL E. B. HARTLEY, V.C., C.M.G., P.M.O., Colonial Forces, has retired from the Cape Colonial Service on pension, on account of ill-health, after twenty-six years' military and three years' civil service. The appointment of P.M.O. has been given to the next senior, Lieutenant-Colonel G. B. Faskally, who saw much service during the Anglo-Boer war.

LOST TIME AT NETLEY.

MAJOR, R.A.M.C., writes: With the example of the Admiralty in the Order in Council of October 9th promoting over 200 officers before their eyes, is there no hope of the War Office redressing a grievance affecting a small proportion of the Royal Army Medical Corps? I mean, cannot the four months we spent at Netley be given us? Those who went before and those whe came after count these four months, but an unlucky few do not.

MEDICAL ATTENDANCE ON SOLDIERS ON SICK FURLOUGH.

A CORRESPONDENT submits a case in which he was called upon to attend on a non-commissioned officer on sick furlough suffering from pneumonitis. There was no military hospital near, and it was "impracticable" to remove him to one. Under such circumstances, and in accordance with regulations, he preferred a claim for medical attendance, which was technically repudiated by the man's regimental commanding officer. He asks what he should do.

*** The question seems to turn upon whether it was "impracticable" to remove the man to a military hospital; and so viewed, we think our correspondent has a good claim. In any case, he should now prefer it and submit the correspondence through the following channel: The Under Secretary of State for War, War Office, London, S.W., Medical Department. A letter and claim so addressed will doubtless be duly considered by the proper official authorities.

PRECEDENCE.

R.A.M.C. writes: Referring to the regimental position in the monthly Army List of the Bandmaster, Royal Horse Guards, is it a fact that in future bandmasters when commissioned are to take regimental precedence of the medical officers in the regiments of Household Troops?

*** The medical officers of these regiments occupy the position they have hitherto held in regimental lists, beneath all—quartermasters and riding masters, but we are not aware that this involves any question of precedence. They are the last remnant of the regimental system, with compound titles, etc.; and in Article 388 of the Royal Warrant of March 25th, 1902, are declared to be, when not otherwise provided, governed by the "general regulations for regimental officers."

THE MEDICAL SERVICES OF THE UNITED STATES.

It is a curious anomaly that no diploma is required from candidates for commissions in the medical department of the United States army or navy, nor is any certificate demanded that any prescribed number of sessions has been passed in study. The examinations for admission to the services are, however, so severe that there is no chance of any one passing through who has not gone through at least the usual four years' study with diligence.

UNIVERSITIES AND COLLEGES.

UNIVERSITY OF EDINBURGH.

ANNUAL REPORT FOR 1903.

Number of Students.

DURING the past year the total number of matriculated students (including 300 women) was 2,990, the highest number reached for ten years. Of this number, 238 (including 6 women) were enrolled in the Faculty of Science, 1,451 (including 14 women) in the Faculty of Medicine. Of the students of medicine, 677, or over 46 per cent., belonged to Scotland; 333, or nearly 23 per cent., were from England and Wales; 118 from Ireland; 72 from India; 232, or about 16 per cent., from British colonies; and 19 from foreign countries. The number of women attending extra-academical lectures, with a view to graduation in medicine in the University, was 101.

Degrees Conferred, etc.

The following degrees were conferred during 1903: Bachelor of Science (B.Sc.), 28; Doctor of Science (D.Sc.), 4; Bachelor of Medicine and Master in Surgery (M.B., C.M.), 3 (including 1 woman); Bachelor of Medicine and Bachelor of Surgery (M.B., Ch.B.), 166 (including 17 women); Doctor of Medicine (M.D.), 74 (including 1 woman). The General Council of the University now numbers 9,246. The special University certificate in diseases of tropical climates was conferred on 44 candidates (including 9 women).

Fellowships, etc.

The total annual value of the University Fellowships, scholarships, bursaries, and prizes now amounts to about £18,150. In the Faculty of Science the amount is £1,500, and in the Faculty of Medicine £3,630. A number of bursaries are in the gift of private patrons, but the great majority are awarded by the Senatus after competitive examination. In addition a sum of upwards of £600, being the income of the Earl of Moray Endowment Fund, is annually available for the encouragement of original research.

The Carnegie Foundation.

Although the Carnegie Foundation has not as yet had an appreciable influence in increasing the aggregate of students, the number of those availing themselves of that section of the scheme which provides for payment of class fees has during 1903 been higher than formerly, and it is noticeable that many of these students take out a larger number of classes than they would probably otherwise have done. Of those who have been appointed to Carnegie post-graduate fellowships and scholarships, and who have received grants in aid for research, a considerable proportion are graduates of the University of Edinburgh. In accordance with the scheme of allocation intimated in 1902, grants have been made in augmentation of the salaries of several of the University lecturers, and a sum of over £7,000 is available for improvements in the library, in addition to an annual grant of £1,000 for the purchase of books.

Appeal for Funds.

As the allocation made to the University from the Carnegie Trust is inadequate to satisfy all its present requirements, an appeal is being made to the public for subscriptions to a fund "for the further development and extension of the University in the direction more especially of a proper provision for the erection and maintenance of laboratories for physics and engineering, for a more extended training in modern languages and the subjects of commercial education, for facilities for research, for improved tutorial instruction, and for the library."

Resignations and Appointments of Principal and Professors.

At the beginning of the year Sir William Turner, K.C.B., D.C.L., LL.D., etc., after forty-nine years' service, first as demonstrator and afterwards as Professor of Anatomy, was elected Principal of the University, in succession to Sir William Muir, resigned. A vacancy was thus created in the Chair of Anatomy, and this was filled in February by the appointment of Professor Daniel John Cunningham, of Trinity College, Dublin. Three other Chairs were rendered vacant by resignation, and three widely-honoured names have been removed from the roll of the Professoriate.

Other Personal Changes.

Several changes have taken place in the *personnel* of the University Court. As Assessors of the Senatus, Sir Thomas R. Fraser has succeeded Sir William Turner, and Professor Pringle Pattison fills the place vacated by Professor Laurie; while, as Assessors of General Council, Mr. D. F. Lowe, M.A., LL.D., has been appointed in room of Mr. F. Grant Ogilvie, and Dr. R. M'Kenzie Johnston succeeded Sir Patrick Heron Watson, whose term of office had extended to the long period of sixteen years. On the Board of Curators of Patronage, Sir James Steel is succeeded by Treasurer Brown as one of the representatives of the Town Council. As Lecturer on Diseases of the Larynx, Ear, and Nose, Dr. R. M'Kenzie Johnston is successor to Dr. P. M'Bride; Dr. David Waterston succeeds Dr. David Hepburn as Lecturer on Regional Anatomy. A Lectureship in applied anatomy has recently been instituted by the University Court, and Dr. Harold J. Stiles has been appointed lecturer. Sanction has also been given for a special class in advanced experimental physiology, for women students, suitable for candidates for the B.Sc. degree, to be conducted by Dr. Andrew Hunter. The Lord Rector, the Right Honourable Sir Robert Bannatyne Finlay, K.C., LL.D., M.P., Attorney-General for England, will deliver his Rectorial address on January 21st current.

Benefactions.

As in former years, the University has to make grateful acknowledgement of a number of benefactions. Among these may be mentioned: A gift by Principal Sir William Turner, K.C.B., etc., of a large collection of anatomical diagrams, drawings, skeletons, etc., together with several microscopes and other instruments, as well as a number of books; a gift by the Rev. T. J. Prout, Christ Church, Oxford, of a portrait of his father, the late William Prout, M.D., F.R.C.P., F.R.S., London; a gift by the Rev. Professor Gwatkin, of Cambridge, of a collection of molluscan radulae for the microscope; and a gift by Dr. Henry Barnes, Carlisle, of MS. letters of Boerhaave, a distinguished professor of the University of Leyden in the eighteenth century.

Additions to the Library.

The donations to the University Library numbered 1,237 for the year, many of the volumes being of considerable value.

Cataloguing of the Library.

The recataloguing of the library has been continued throughout the

past year under the supervision of Dr. James Burgess, C.I.E., by a special staff of cataloguers. By the end of September a total of 204,614 volumes had been dealt with in 174,013 entries and 20,000 cross references. This covers the whole of the books in the general library, with some very small exceptions. The theological libraries have been catalogued, as also the physiological and medical and other books in the reading room of the new university buildings. The catalogue has brought to light a large number of incomplete books of a kind that ought to be completed, and the want of other works that a university library ought to possess; and it is hoped that funds will be forthcoming to supply these defects. The catalogue is now being arranged alphabetically for printing, so far as the present reshelving will permit. The printing of the students' hand catalogue was delayed for its entire revision by one of the librarians, but is now in the printer's hands.

Structural Changes.

In the library a much-needed increase of accommodation is at length being obtained. Considerable additional floor space has been secured, and this, with an improved system of shelving, will enable the librarians to cope with the increase in the number of books for many years to come. Important structural changes in the chemistry department have also been made, as a result of which additional laboratory accommodation sufficient for forty students has been obtained.

The Students' Union.

The extension of the Students' Union has been energetically carried out during the year. The acquisition of the necessary ground, and the construction of a new billiard room and of the enlarged dining hall, both already in full occupation, are the outcome of the appeal made in 1902. This by no means exhausts the scheme of extension, which only awaits the further liberality of the public for its complete realization.

UNIVERSITY OF LONDON.

UNIVERSITY COLLEGE, LONDON.

DR. W. M. BAYLISS, F.R.S., will commence a course of ten lectures on Enzymes and Their Actions on Wednesday next at 5 p.m. The lectures are open to all internal students of the University without fee, as well as to qualified medical men.

CHARING CROSS HOSPITAL MEDICAL SCHOOL: THE T. HENRY GREEN PRIZE.

A PRIZE in clinical medicine has recently been founded at Charing Cross Hospital by old students and friends to commemorate the long connexion of Dr. T. H. Green with the hospital and medical school (34 years). The prize is open to all unqualified Charing Cross students who have finished their preliminary work or have prosecuted their clinical studies for not less than one year at the hospital. It will be given for the best work done upon some special subject involving simple clinical observation in the wards or clinical laboratory and on the result of a practical examination on cases in the wards. The subjects of research may be chosen by the candidates themselves, but they must be submitted to the examiners for their approval.

PUBLIC HEALTH AND POOR-LAW MEDICAL SERVICES.

THE WEST RIDING OF YORKSHIRE.

The Medical Officer's Report.

THE area of the Administrative County of the West Riding of Yorkshire is 1,679,501 acres; its population is 1,465,084 persons; and it comprises 132 urban and 29 rural authorities. The report for 1902 recently issued by Dr. Kaye, the Medical Officer to the County Council, shows a birth-rate of 28.7 and a death-rate of 15 8. The infant mortality-rate for the year was 138 as compared with 157, the average of the previous five years. The County Health Department has been engaged in assisting the various local authorities and in carrying out a good deal of sanitary work on its own account. During 1902 the tenth instalment of the sanitary survey of the Riding was issued. This was an elaborate report on the sanitary circumstances of the Pontefract Union. Seventy-four of the authorities have petitioned the County Council to take action for the treatment of patients suffering from phthisis. The action the Council has taken includes (1) a declaration that pulmonary tuberculosis is an infectious disease; (2) the preparation of a scheme for a sanatorium for 50 patients at the cost of the county; (3) the issue of educational literature regarding consumption; (4) the adoption of a by-law prohibiting spitting in public vehicles and in enclosed places of public resort. A great deal of work has also been done during the year in the matter of isolation hospital provision, and much activity prevailed in regard to provision, in particular, for small-pox cases. Sanitary lectures were also delivered. As many as 2,673 samples under the Food and Drugs Acts were taken, of which 151 (or 6 per cent.) were adulterated, and 61 were of doubtful or inferior quality. Dr. Kaye's report contains particulars of water supply, drainage, schools, infectious diseases, factories and workshops, dairies, etc. It appears that 359 Board Schools and 556 other elementary schools exist in the Riding. During 1902, 227 school closures took place on account of infectious disease.

The Bacteriological Laboratory.

The second annual report by Dr. P. J. Cammidge on the work of this bacteriological laboratory is full of interest and importance. It will be remembered that Dr. Cammidge was appointed bacteriologist to the County Council in 1901 That the laboratory has more than justified its existence becomes apparent when one considers only the number of specimens sent for his examination. It appears that 251 medical men practising in the West Riding (of whom 71 were medical officers of health) sent in all 2,236 specimens, including 219 of blood for serum reaction, 437 of sputa, 1,486 of suspected diphtheria, and 94 miscellaneous specimens such as milks, waters, urines, etc. These are substantial facts, but they are perhaps the least important from a scientific point of view. Dr. Cammidge's report is valuable for quite other reasons, and chiefly for the large body of facts and findings with which he has filled it. It provides out of the large number of examinations scientific material of a character which cannot fail in the course of years to be of great value. instance, not only are careful records kept of each specimen exami bacteriologically, but a clinical history of the cases is also obtained.

Of the 219 specimens of blood tested for serum reaction, 95 gav marked positive reaction, 30 gave a doubtful reaction, and 94 pro negative. Dr. Cammidge obtained the final clinical diagnosis of all th 219 except 35. He shows that in slightly over 4 per cent. the se reaction was at fault but that in 96 per cent. it turned out correctly number of particulars about the cases are added with comments on likely source of infection.

Of the 437 specimens of sputum, tubercle bacilli were found in 13 30 per cent.) of which 69 had shown little or no physical sign of disease. In only 16 of the cases in which the bacilli were not found of the total of 437 did the disease develop. Of the 125 positive case which sex was known, 76 were males and 49 were females. The ave age of incidence was 33 years. Dr. Cammidge also reports on the rela of occupation to the disease, the mortality, the line of probable infect and the utility of bacteriological examination.

The return of diphtheria examinations is also interesting. About the whole number examined were positive. The Neisser stain is used provisional method in all cases, and has proved of much value. source of infection was traced in many cases, and an interesting tabl added respecting age and sex incidence. Twenty-nine cases of suspe typhoid urine were examined, and in thirteen of them the B. typh was found. Particulars are also given of the miscellaneous specimer

The report is one calling for careful study, and we regret we have space to deal with it more fully. It cannot fail to be of service to th vancement of bacteriology in relation to public-health work, and we gratulate Dr. Cammidge, and Dr. Kaye also, upon such an excellent re of scientific work.

HEALTH OF ENGLISH TOWNS.

IN seventy-six of the largest English towns, including London, births and 5,944 deaths were registered during the week en Saturday last, January 2nd. The annual rate of mortality in t towns, which had been 19.2, 17.8, and 15 4 per 1,000, in the three pr ing weeks, rose again last week to 20.6 per 1,000. The rates in the se towns ranged from 10.0 in Hornsey, 11.5 in King's Norton, 11.9 in S Shields, 12.7 in Handsworth, 13.6 in Coventry, 13.9 in Northampton in Leyton and in Derby, and 14.2 in Walthamstow, to 24.1 in Stockto Tees, 24.2 in Ipswich, 24.5 in Newport (Mon.), 24.9 in Brighton, 2 Liverpool, 33.1 in Merthyr Tydfil, 32.4 in Preston, 33.6 in Wigan, an in York. In London the rate of mortality was 21.1 per 1,000, wh averaged 20.3 per 1,000 in the seventy-five other large towns. The deatn-rate from the principal infectious diseases was 1.7 per 1,0 the seventy-six large towns; in London this death-rate was equal t per 1,000, while among the seventy-five large provincial towns the ranged upwards to 3.1 in Birmingham, 3.2 in Blackburn, 3.3 in York, Bootle, 4.0 in Stockton-on-Tees, 5.0 in Wigan, 5.3 in Willesden, and Preston. Measles caused a death-rate of 1.2 in Leeds and in Ca 1.4 in Birmingham, 2.3 in Ipswich, 2.4 in Blackburn, 2.7 in Rother 4.9 in Willesden, and 6.4 in Preston; scarlet fever of 1.7 in Wigan; theria of 1.4 in Reading; whooping-cough of 1.1 in Portsmouth, Leeds, 1.6 in Liverpool and in Swansea, 1.7 in Bootle, 2.0 in York Walsall, and 2.5 in Wigan; "fever" of 1.7 in Bootle; and diarrhoea in Rochdale, 1.4 in Southampton, and 2.0 in Stockton-on-Tees. One case of small-pox was registered in Nottingham, one in Bolton, an in Sunderland, but not one in any other of the seventy-six large t The Metropolitan Asylums Hospitals contained 26 small-pox pat at the end of last week, against 32, 26, and 27 at the end of the preceding weeks; 4 new cases were admitted during the week, a 2, 6, and 7 in the three preceding weeks. The number of scarlet patients, which had been 1,717, 1,654, and 1,617 on the three prec Saturdays, had risen to 1,632 on Saturday last, January 2nd; 19 cases were admitted during the week, against 173, 188, and 142 i three preceding weeks.

HEALTH OF SCOTCH TOWNS.

DURING the week ending Saturday last, January 2nd, 945 birth 712 deaths were registered in eight of the principal Scotch towns. annual rate of mortality in these towns, which had been 22.4, 20. 20.8 per 1,000 in the three preceding weeks, rose again to 21.7 pe last week, and was 1.1 per 1,000 above the mean rate during the period in the seventy-six large English towns. Among these S towns the death-rates ranged from 13.7 in Leith and 16.5 in Green 24.6 in Glasgow and 27.9 in Perth. The death-rate from the pri infectious diseases averaged 2.2 per 1,000, the highest rates bei corded in Glasgow and Aberdeen. The 372 deaths registered in Gl included 5 which were referred to small-pox, 23 to measles, 6 to who cough, 2 to "fever," and 10 to diarrhoea. Four fatal cases of who cough and 4 of diarrhoea occurred in Edinburgh. Four deaths whooping-cough and 2 from diarrhoea were recorded in Aberdeen; diarrhoea in Dundee, and 2 from measles in Paisley.

HEALTH OF IRISH TOWNS.

DURING the week ending Saturday, January 2nd, 583 births ar deaths were registered in six of the principal Irish towns, again births and 348 deaths in the preceding period. The mean annual rate of these towns, which had been 19.9, 27.5, and 15.6 per 1. the three preceding weeks, rose abruptly to 29.7 per 1,000 in the under notice, this figure being 9.1 per 1,000 above the mean annual r the seventy-six English towns during the corresponding period figures ranged from 20.2 in Londonderry to 50.6 in Limerick. The rates from the principal zymotic diseases during the same perio aged 2.1 per 1,000, against 0.8 in the preceding week, the highest poi being reached in Limerick, while Waterford registered no deat zymotic disease at all. With the exception of 1 case each of m scarlet fever, diphtheria, and simple continued fever, 3 cases of e and 3 of diarrhoeal diseases, whooping cough was again responsi practically the whole of the zymotic death-rate.

DEFECTIVE VISION IN SCHOOL CHILDREN.

ON December 30th, at the monthly meeting of the Birkdal Education Subcommittee, which has jurisdiction over ten sc townships, one of the lady members, Mrs. Foard, introduced the qu of the prevalence of astigmatism in school children, and suggeste

e committee should persuade a number of medical men to give their rvices gratuitously in the same way that physicians gave their services the hospitals. It was also advisable that local dentists should be pre- iled upon to give help.

Canon Blundell remarked that many children were supposed to be dpid when in reality they could not see.

Archdeacon Fletcher, the chairman, asked if the proposal was that a heme should be worked from head quarters or that each set of school nagers should represent their own district?

drs. Foard thought a scheme could be worked by the local authority, d each medical man who gave his services would work the schools in district. In reply to the Chairman, she reiterated the statement that r suggestion included gratuitous treatment. Mrs. Foard with another y was asked to make inquiries, Archdeacon Fletcher remarking, amid ghter, that they would leave the matter until the ladies got hold of the t side of the medical practitioners.

INFECTIOUS CASES IN A SURGERY.

RIOLA.—The only case, so far as we are aware, bearing on this point which there has been an appeal to the High Court is that of the unbridge Wells Local Board *v.* Bisshopp (*L. R.* 2, C.P.D, 187). In this se a medical practitioner was consulted at his surgery by a man hom he found to be suffering from scarlet fever. After warning him walk in the middle of the street he sent him to the police office with structions that the ambulance should be sent for to take him to the olation hospital. After some delay both ambulance and admission to spital were refused, and the man then went to his lodgings. Next ay the doctor took the patient to the house of the chairman of the ard, and after some difficulty obtained an order for his admission to e isolation hospital. The doctor was summoned before the magis- ates for exposing a patient when in his charge. The magistrates dis- issed this summons partly on the ground that it was not proved that e doctor was in charge of the patient, partly because he had not lfully exposed the patient without proper precautions, and he had de the best use of the means at his disposal to prevent the spread infection. The High Court on appeal upheld this decision. We ould regard it as the duty of the public health authority to give ention to the matter, and to instruct the medical officer of health to ganize a system under which an ambulance should be immediately t to remove an infectious patient who may call at a surgery.

PAYMENT FOR PAUPER PATIENTS IN AN ISOLATION HOSPITAL.

rites to ask: (1) Whether the expense incurred for detention of a uper patient in an isolation hospital, sent there by order of the medi- officer of health, should be defrayed by the guardians or by the trict council? (2) He also asks whether a medical practitioner has take out a licence for his coachman?

***(1) This must depend upon local arrangements. Some isolation hos- als are free for all patients. If the managers of the hospital in ques- n have entered into any engagement with the guardians to receive per patients these terms would probably apply to the case, but in the ence of any such agreement we do not think that the Hospital Board uld have any claim on the guardians. (2) A licence is certainly re- red for a coachman.

VACCINATION REGULATIONS.

L asks for opinions on the following points in the Vaccination Act: I vaccinated five or six girls from a Home, where they were em- yed at laundry work, at my surgery; four of the cases were revacci- tions, two were primary vaccinations, aged 16 and 20. The matron ing stated that it was inconvenient to bring the girls to my surgery he following week for inspection, I offered to inspect at the Home. I id so, and entered them all in my register as vaccinated at my sur- y and inspected at their homes, and charged in each case 2s. 6d. er Article 3 of the contract. My fee was disallowed for the two mary cases by the clerk of the guardians, who referred me to icle 5. (2) In another case I vaccinated a baby at its home; the her was a widow and went out washing. On visiting to inspect I d them out; a second visit with the same result, and then the 14 s allowed by the contract expired. About the sixteenth day the her and child spontaneously turned up at my surgery with the vacci- on certificate. She had walked nearly two miles. What could I do inspect? I did so and entered the case in the register as vaccinated e home and inspected at the surgery, charging 5s. under Article 2. fee was disallowed on the two grounds—the time and the place of ection. I should be glad to hear if you think the clerk is legally he right, and if so whether law comes before equity in such cases.

*** We believe that the law of the clerk to the guardians is wrong in . of these cases. (1) Primary vaccinations of persons over 14 years of ge are governed by precisely the same regulations as apply to re- inations. Even if this were not the case, "Metol" attended at his ery for the purpose of inspecting if the cases had come, and he ly inspected the cases. The wording of Subsection 5 of the Vacci- on Contract does not go so far as to say that he must inspect the s at the place where the vaccination was performed, nor does it say he must inspect within fourteen days. His statutory attendance e prescribed place, whether home or surgery or elsewhere, and his ection of the case, are not necessarily to be at the same time, if a onable explanation be given. (2) In the case of the child the same ciple applies. The statutory visit was paid between the sixth and eenth days, and the child was subsequently inspected. This com- s with the Vaccination Order, and we repeat the clerk's law, in our ion, is wrong. If he persists in his view the case should go to the al Government Board.

RELATIONS OF MEDICAL OFFICERS OF HEALTH TO THEIR PROFESSIONAL COLLEAGUES.

V complains that he notified a case of small-pox, which was at once ted by the medical officer of health and removed to the hospital. e day the sanitary inspector visited the house, examined the mer, and made a statement to the medical officer of health, which caused the latter to call upon our correspondent, and they visited the case together but arrived at no definite diagnosis. Our correspondent promised to examine the case again the following morning and telegraph to the medical officer of health. This he did to the effect that there was no change and that the patient was quite well. The next morning (Wednesday) he received a note from the medical officer of health, saying that he had removed this patient and another of her sons to the observation ward, but omitting to say that he had visited the house in company with another practitioner in our correspondent's absence and without his knowledge, and that they had examined his patients. On his complaining, the medical officer of health justified himself by saying that the other practitioner was chairman of the Sanitary Committee. Our correspondent informs us that the patient's house is a quarter of a mile from his, that the other practitioner resides about 150 yards from him, and that the medical officer of health is a general practitioner in the neighbourhood. He also complains that the patients declare that they did not go voluntarily, but were coerced by threats of being taken before a magistrate In reply the medical officer of health denies that he visited the house in company with another practitioner, He says that he went by himself, and on leaving met the other practitioner, who is the chairman of his Sanitary Committee, outside the house, and naturally spoke to him about the case. In consequence of their conversation they returned to the house and saw the patient together, but the medical officer of health expresses his regret that he did this on the spur of the moment, although he pleads that he was thinking only of the importance of isolating a doubtful case in the interests of the public health. He also points out that he had reason to believe that our correspondent was at the time away on his rounds, and he thought the matter of sufficient urgency to make it desirable to remove the cases at once to the observation ward. The medical officer of health denies that he used any threats but upon being asked whether the patients would be obliged to go he replied that "they would have to have a magistrate upon the job."

*** Medical officers of health, especially when they are in general practice, cannot be too careful to avoid the display of anything like high-handedness, particularly when dealing with the patients of their colleagues. In this case the medical officer of health would, we think, have acted more prudently had he informed our correspondent of his intention to visit the case again, and if not satisfied to have her removed to the observation ward. We believe that he acted as he did in what he believed to be the interests of the public health, but as we are informed that the house was a five-roomed tenement of which the patients were the sole occupiers, they do not seem to come under the provisions of the Public Health Act relating to the removal of infected persons, and the medical officer of health was not in our opinion wise in threatening the intervention of a magistrate, or in causing them to be removed with such precipitate haste that it was impossible to obtain the concurrence of their own medical attendant.

NOTIFICATION BY MEDICAL OFFICER OF HEALTH.

M.O.H. asks whether, if he is called into consultation with a general practitioner in an infectious case, it is his duty to notify the case in addition to the notification by the general practitioner; and whether he should receive a fee of 1s. for so doing.

*** The Act states that "every medical practitioner attending on or called in to visit the patient shall forthwith.....send to the medical officer of health for the district a certificate," etc. This implies that it is the duty of a consultant as well as of the family practitioner to notify each case. The possible utility of this provision lies in the risk that otherwise each doctor might think that the other had notified the case. In practice the consultant scarcely ever notifies infectious cases, but leaves it to the family attendant. Any medical officer of health who recommended the prosecution of a consulting practitioner for not having notified a case which had been notified by the family attendant would, in our judgement, act unwisely. When the medical officer of health is himself the consultant, it is clearly an act of supererogation for him to notify in his capacity of consultant to himself in his capacity of medical officer of health. He is, however, according to the letter of the law, entitled to so, and to receive a fee. Whether this fee should be 1s. or 2s. 6d. would depend on whether the visit to the patient had been made in his public or private capacity. In our opinion, it would be impolitic for a medical officer of health to notify under such circumstances; he would lay himself open to the charge of taking advantage of a legal technicality to earn money at the expense of the local authority. If M.O.H. has scruples about refraining from a duty which is technically laid upon him, he might state the facts to his committee, and act in accordance with their wishes.

INDIA AND THE COLONIES.

QUEENSLAND.

Report of the Health Commissioner.—The report of the Health Commissioner for Queensland for the year ending June, 1903, shows that considerable progress has been made in the work of this central authority which was called into existence by the Health Act of 1900 The objects of the new organization were twofold. First, it was to act as a bureau for the collection and dissemination of useful information relating to health and the prevention of disease; and, secondly, it was to control, stimulate, and, where necessary, supplement, the efforts of the local authorities. Dr. Burnett Ham's report affords evidence that, as far as the limited resources of the department allow, these objects are being in measure fulfilled. The services rendered to sanitary reform in the Colony by the consolidation of the statutes dealing with sanitary matters and the unification of authority have evidently been considerable. Sanitary inspection has been greatly increased, both in the Brisbane area and elsewhere. Cesspits are being abolished, and the duplicate pan arrange-

ment substituted. Dr. Ham advocates a water-carriage system for the sewerage for Brisbane. Large quantities of unsound food have been seized. During the year under review there was an outbreak of plague, the fourth in Queensland; 26 cases with 14 deaths occurred; 19 of the cases occurred in Brisbane. Some 17,000 rats were caught, 9,530 being bacteriologically examined, and 91 found infected with the B. pestis. Plague regulations were put into operation and effectively carried out. A severe outbreak of scarlet fever in Brisbane is only now diminishing. Altogether, to the end of July, there were 237 cases, The epidemic was mild, and only 4 deaths were reported, which compares favourably with the 1899 epidemic of 865 cases and 49 deaths. The reduction in spread and severity is attributed to effective isolation, etc. A local centre of the Sanitary Institute of Great Britain has recently been established at Brisbane, and is meeting with considerable success. Dr. Ham and his colleagues have delivered a number of lectures on health questions which have received considerable support. The Bacteriological Institute, of which Mr. C. J. Pound is superintendent, has apparently done more work than in previous years. During 1900, 1,506 specimens were received and examined; in 1901, 2,972; and in the last year, 5,274. Reports of the Public Analyst and Chief Sanitary Inspector are appended to the Commissioner's statement.

Dairy Reform.—In a general way it may be said that dairy reform in the British colonies is at least in advance of England. Probably the regulations in force in Tasmania and New Zealand, for example, are ahead of any dairy legislation existing in this country, unless, indeed, it be in the Scottish Public Health Act. In Queensland, however, things are not so advanced. The only enactment bearing on the subject is Part III of the Health Act Amendment Act of 1886. Under this unrepealed part of that Act the local authorities have power to make by-laws with respect to dairies. Dr. Burnett Ham, the Health Commissioner, and Mr. A. H. Cory, M.R.C.V.S., the dairy inspector, hold that a new Dairy Act is greatly needed, and we trust they will be successful in obtaining this required legislation, for it appears that in the few instances where the local authorities have taken advantage of their powers the by-laws drawn up are wholly inadequate and not properly enforced. Dr. Ham, in his recent report, writes: "The aim of official dairy and cowshed inspection is the production of pure milk. To this end proper provision for the health of the cows, cleanliness of the animals and surroundings, cleanliness on the part of persons milking the cows, cleanliness of the milk-receiving utensils, and systematic and frequent inspection by competent officials is essential." We entirely agree and we are pleased to notice that Dr. Ham lays emphasis upon cleanliness rather than structural conditions, though, of course, the latter are important in their place. In spite of the difficulties Dr. Ham and Mr. Cory are able to furnish evidence that some improvement is taking place. There are now 2,440 dairies, 28 butter and cheese factories, and 24 creameries "on the books" in the Colony. Fifty-four per cent. of the dairies have more than ten milch cows, and 10 per cent. have only one or two. The total inspection of dairies during the year ending June 30th, 1903, was 5,498, and of cows 6,492 every quarter, or more than 25,000 yearly. During the year 30 cows were stopped temporarily from being milked for public use, and 41 were condemned as unfit for dairy purposes (20 had malignant growths, 14 diseased mammary and lymphatic glands, 5 were suffering from tuberculosis, and 2 from actinomyces). The sanitary condition of the cowsheds appears to be generally unsatisfactory, though there is marked improvement following inspection. Fresh powers are, however, necessary before much can be expected. Registration is needed, and powers in respect to construction, cleanliness, the making of by-laws, etc. We trust the excellent work which has been done will be an encouragement to the legislature to grant what is necessary without delay.

THE TRANSVAAL.

THE report of the Medical Officer of Health for the Transvaal, Dr. George Turner, which is included in the General Administration Reports for the year 1902, states that it is at present a hopeless task to attempt to draft a proper health report, inasmuch as the returns received are defective, and no information is at present available as to the population of various districts of the Transvaal. The returns, so far as they go, point to typhoid fever being unduly prevalent, and to natives suffering less than Europeans. Other information, however, convinces him that natives suffer not less than Europeans, and that colour confers no immunity at all.

Some 25 hospital districts have been mapped out and the buildings are being erected. They will be supported by Government, and are to be of three classes:

Class A. Hospitals with 20 beds for whites, 20 for natives, and 6 single-bed wards.

Class B. The same number of single-bed wards and half the number of general beds.

Class C. Four single-bed wards and 5 general beds for whites, and the same number for natives.

Some of the subreports included in Dr. Turner's general report, such as that on leprosy, have been noticed separately in these columns. The manufacture of vaccine and veterinary bacteriology, including the preparation of rinderpest serum, have now been removed from the department of the medical officer of health. Vaccine was for some time prepared under Dr. Turner's direction, and it seemed to him that it was much more difficult to keep calf vaccine active for human beings in the dry, warm climate of the Transvaal than it is elsewhere. The general machinery for a health department has been organized, district health officers appointed, and a Government laboratory under Mr. W. C. C. Pakes, with a bacteriological department under Dr. Theiler, has already done a great deal of work of a routine character.

MEDICAL NEWS.

DR. E. SYMES THOMPSON, Gresham Professor of Medicine, will give a course of lectures on evolution at the Gresham College, Basinghall Street, E.C., on January 19th, 20th, 21st, and 22nd, at six p.m.

The South African Medical Congress, which is now in session at Capetown, has initiated a movement for the formation of an association for the prevention of consumption and other forms of tuberculosis.

THE second Hunterian Society's lecture will be delivered by Mr. Anthony Bowlby, C.M.G., on Wednesday next, at 8.30 p.m. The subject will be "Pain; its Clinical Significance and Importance in Diagnosis." All members of the medical profession are invited to attend.

THE opening clinical lecture of the spring session at the North London Post-Graduate College, Tottenham Hospital, will be given by Dr. T. Gilbart Smith on January 14th at 4.30 p.m. The subject will be "Certain Points in the Diagnosis of Fluid in the Chest."

THE course of lectures at the Hospital for Consumption and Diseases of the Chest for 1904 will be opened by Sir Richard Douglas Powell, Bart., M.D., who will give a lecture on foreign bodies in the bronchi, on January 27th, at four p.m. The lectures are free to qualified practitioners and to students of medicine.

AT the meeting of the British Gynaecological Society, to be held at 20, Hanover Square, W., on January 14th, at 8 p.m., Dr. Mendes de Leon, Professor of Midwifery at the University of Amsterdam, will read a paper on a hitherto not sufficiently recognized source of infection during operations. Members of the profession are invited to be present.

INTERNATIONAL CONGRESS OF OTOLOGY.—The International Congress of Otology will hold its seventh congress at Bordeaux, August 1st to 4th, 1904, under the patronage of the French Minister of Public Instruction. The following subjects are proposed for discussion: 1. The choice of a simple and practical acoumetric formula, to be introduced by Professors Politzer, Gradenigo and Delseaux; 2. The diagnosis and treatment of suppuration of the labyrinth, to be introduced by Drs. Brieger, von Stein and Dundas Grant; 3. Technique of the opening of brain abscess of aural origin, and after-treatment, to be introduced by Drs. Kapp, Schmiegelow and Botey. The Lenval prize, given in recognition of the greatest progress achieved in the practical treatment of affections of the auditory apparatus during the interval between two sessions of the Congress, or to the inventor of an easily portable apparatus capable of markedly improving the hearing of deaf persons, will be awarded during the Congress. The jury consists of Professor Politzer, of Vienna (President), Dr. Benni of Warsaw, Dr. Gellé of Paris, Dr. Urban Pritchard of London, Professor St. John Roosa of New York, Professor Kircher of Würzburg, Professor Grazzi of Florence, and Professor E. J. Moure of Bordeaux. The prize consists of the interest on 3,000 francs, accumulated during the interval between two sessions of the Congress. Candidates must send in a statement of their claims to Dr. E. J. Moure, President of the Organizing Committee, Cours du Jardin Public, 25 bis, Bordeaux, before July 1st., 1904.

MEDICAL VACANCIES.

This list of vacancies is compiled from our advertisement columns, where full particulars will be found. To ensure notice in this column advertisements must be received not later than the first post on Wednesday morning.

BIRMINGHAM GENERAL HOSPITAL.—(1) Resident Medical Officer. Salary, £70 per annum. (2) House-Physician; resident. Salary at the rate of £50 per annum. (3) Casualty Assistant Physician. salary. £50 per annum.

CHELSEA HOSPITAL FOR WOMEN, Fulham Road.—Clinical Assistants.

CHELTENHAM GENERAL HOSPITAL—House-Surgeon; resident. Salary, £80 per annum.

HULL ROYAL INFIRMARY.—Fourth House-Surgeon; resident. Salary, £50 per annum.

LINCOLN COUNTY HOSPITAL.—Senior Male House-Surgeon, resident. Salary, £100 per annum.

LEEDS GENERAL INFIRMARY.—Ophthalmic and Aural House-Surgeon; resident.

LIVERPOOL STANLEY HOSPITAL.—Second House-Surgeon; resident. Salary, £80 per annum.

METROPOLITAN HOSPITAL, Kingsland Road, N.E.—Surgeon.

ROCHDALE INFIRMARY.—Resident Medical Officer. Salary, £100 per annum.

ST. MARK'S HOSPITAL FOR FISTULA, City Road, E.C.—(1) Honorary Surgeon; (2) Honorary Assistant Surgeon.

ST. MARY'S HOSPITAL MEDICAL SCHOOL, Paddington, W.—Demonstrator of Physiology. Salary, £150 per annum.

SAMARITAN FREE HOSPITAL FOR WOMEN, Marylebone Road, N.W.—Clinical Assistants.

STAMFORD, RUTLAND, AND GENERAL INFIRMARY.—House-Surgeon; resident. Salary, £100 per annum.

STOCKPORT INFIRMARY.—Junior Assistant House Surgeon; resident. Salary at the rate of £60 per annum.

TIVERTON INFIRMARY AND DISPENSARY.—House-Surgeon and Dispenser. Salary, £80 per annum.

UNIVERSITY OF LONDON.—Two Examiners each in Medicine, Surgery, and Pathology, and one each in Materia Medica and Pharmaceutical Chemistry, and Mental Diseases.

WEST HAM AND EAST LONDON HOSPITAL, Stratford.—Resident Medical Officer. Salary at the rate of £120 per annum.

WESTMINSTER GENERAL DISPENSARY, Gerrard Street, W.—Honorary Surgeon.

WOLVERHAMPTON EYE INFIRMARY.—House-Surgeon; resident. Salary, £70 per annum.

MEDICAL APPOINTMENTS.

BONE, D. J. M., M.D.Edin., District Medical Officer of the Ulverston Union.

BONNEY, W. Victor, M.S., M.D Lond., F.R.C.S., M.R.C.P., Tutor in Practical Midwifery in the Middlesex Hospital Medical School.

BROWN, Thos., M.B., Ch.B.Vict., Resident Medical Officer to the Leeds Public Dispensary.
BUSH, J. Paul, C.M.G., M.R.C.S.Eng., Medical Officer to the Bristol Post Office.
CARVELL, John Maclean, M.R.C.S.Eng., L.S.A.Lond., Registrar to Out-patients, Central London Throat and Ear Hospital.
DUPREY, George Perry, M.R.C.S., L.R.C.P., L.D.S., Dental Superintendent to the Royal Dental Hospital of London, Leicester Square, *vice* Tice F. Buuden, M.D., L.D.S., retiring.
HOWE, G. B., M.R.C.S., L.S.A., J.P., Medical Officer No. 5 District, and Public Vaccinator Nos. 3 and 5 Districts of the Ashton-under-Lyne Union.
LEWIN, S. T., M.B., Ch.B., Junior House-Surgeon, St. Peter's Hospital for Stone, Henrietta Street, W.C.
JOHNSTON, L. A. W., M.R.C.S., L.R.C.P., District Medical Officer of the Birmingham Union.
MCMANUS, Hugh, M.B., Second Resident Medical Officer of the Nottingham Union Workhouse.
MAIN, D. W., M.B., Ch.B.Vict., Medical Officer of Health for the Bollington Urban District, and District Medical Officer of the Macclesfield Union.
MOORE, F. H., L.R.C.P. & S.Irel., District Medical Officer of the Dunmow Union.
PASSMORE, J. E., M.R.C.S., L.R.C.P.Lond., District Medical Officer of the Basingstoke Union.
PENNY, W. R., M.R.C.S., L.R.C.P.Lond., District Medical Officer of the Ulverston Union.
VAUGHAN, K. O., M.B.Lond., Superintendent, Victoria Dufferin Hospital, Calcutta.
VON BERGEN, C. W., M.B., B.S.Durh., Medical Officer for the Ashtead District of the Epsom Union, *vice* W. D. Smyth, L.R.C.S.Edin.

DIARY FOR NEXT WEEK.

MONDAY.

Medical Society of London, 11, Chandos Street, Cavendish Square, W. 8.30 p.m. The Use of Serum and other Inoculations in Pyogenic Infections—(1) Antistreptococcus Serum, Mr. W. G. Spencer; (2) Inoculation in Staphylococcus Infection, Dr. A. E. Wright.

TUESDAY.

Royal Medical and Chirurgical Society, 20, Hanover Square, W., 8.30 p.m.—Dr. H. E Symes Thompson: Hypertrophic Pulmonary Osteo-arthropathy; illustrated by the epidiascope.
Society for the Study of Inebriety, 11, Chandos Street, Cavendish Square, W., 8 p.m.—Dr. W. Ford Robertson will open a discussion on the Pathology of Chronic Alcoholism. Dr. Robertson's paper will be illustrated by lantern slides.

WEDNESDAY.

Dermatological Society of London, 11, Chandos Street, Cavendish Square, W., 5.15 p.m.—Demonstration of Cases of Interest.
Hunterian Society, London Institution, Finsbury Circus, E.C., 8.30 p.m.—Mr. A. Bowlby on Pain; its Clinical Significance and Importance in Diagnosis. Second Hunterian Society's Lecture.
South-West London Medical Society, Bolingbroke Hospital, Wandsworth Common, S.W., 8.45 p.m.—Mr. J. H. Targett on the Causes of Uterine Haemorrhage.

THURSDAY.

British Gynaecological Society, 20, Hanover Square, W., 8 p.m.—Dr. Mendes de Leon: A Hitherto not Sufficiently Recognized Source of Infection during Operations. The President will deliver his valedictory address.
North London Medical and Chirurgical Society, Great Northern Hospital, Holloway, N., 9 p.m.—Discussion on Recent Methods of Inducing Anaesthesia, opened by Dr. J. F. Silk.

FRIDAY.

Epidemiological Society, 11, Chandos Street, Cavendish Square, W., 8.30 p.m.—Adjourned discussion on Sleeping Sickness.
Society for the Study of Disease in Children, 11, Chandos Street, W., 5.30 p.m.—Cases will be shown by Dr Eric Pritchard, Mr. Brickdale (Clifton)—introduced, and Dr George Carpenter. Papers: Dr. Dan McKenzie: A Fatal Case of Streptococcus Mouth Infection following Measles in an Infant. Mr. J. Howell Evans: Cranial Haemorrhages in the Newborn Dr. W. C. Chaffey: Sequel of a Case of Extreme Wasting. Cases will be on view at 5 p.m.

POST-GRADUATE COURSES AND LECTURES.

Charing Cross Hospital, Thursday, 4 p.m.—Demonstration of Surgical Cases.
London Temperance Hospital, Hampstead Road, N.W., Monday, 3 p.m.—Demonstration of Surgical Cases.
Medical Graduates' College and Polyclinic, 22, Chenies Street, W.C.—Demonstrations will be given at 4 p.m. as follows: Monday, Skin; Tuesday, Medical: Wednesday, Surgical: Thursday, Surgical: Friday, Throat. Lectures will be delivered at 5.15 p.m. as follows: Monday, Some Errors and Difficulties in the Treatment of Appendicitis; Tuesday, Normal and Abnormal States of the Blood; Wednesday, Infant Feeding; Thursday, Myopathies.
Mount Vernon Hospital for Consumption and Diseases of the Chest, 7, Fitzroy Square, W., Thursday, 5 p.m.—Lecture on Pulmonary Cavities.
National Hospital for the Paralysed and Epileptic, Queen Square, W.C.—Lectures will be delivered at 3.30 p.m. as follows: Tuesday, Friedreich's Ataxy; Friday, Muscular Atrophy.
North East London Post-Graduate College, Tottenham, N., Thursday, 4.30 p.m.—Lecture on Certain Points in the Diagnosis of Fluid in the Chest.
Post-Graduate College, West London Hospital, Hammersmith Road, W.—Lectures will be delivered at 5 p.m. as follows: Monday, Practical Surgery; Tuesday, Wednesday, and Thursday, Diagnosis of Common Affections of the Spinal Cord; Friday, Plaster-of-paris Splints.
Samaritan Free Hospital for Women, Marylebone Road, N.W., Thursday, 3 p.m.—Lecture on Cases from the Wards.

BIRTHS, MARRIAGES, AND DEATHS.

The charge for inserting announcements of Births, Marriages, and Deaths is 3s. 6d., which sum should be forwarded in post-office orders or stamps with the notice not later than Wednesday morning, in order to ensure insertion in the current issue.

BIRTHS.

CHAMBERS.—At Maclean Town, Cape Colony, on December 3rd, 1903, the wife of T. Stewart Chambers, F.R.C.S.Edin., etc., of a son.
KENNEDY.—On Wednesday, January 6th, 1904, wife of Angus Kennedy, L.R.C.P., M.R.C.S., L.S.A., of a son, at Plaistow, E.

DEATHS.

HUNTER.—On December 28th, at his residence, 146, Lavender Hill, S.W., after a short illness, Frederick Hunter, M.R.C.S., L.R.C.P., etc., the loving and dearly-beloved husband of Caroline Ida Hunter. Deeply regretted. Sadly missed.
KEMPSTER.—On December 29th, 1903, at Chesterfield, North Side, Clapham Common, S.W., William Henry Kempster, M.D., M.R.C.S. L.R.C.P., M.M., etc., late Medical Officer of Health for Metropolitan Borough of Battersea.
SUGDEN.—On December 30th, 1903, at Buckfastleigh, S. Devon, D'Arcy Sugden, M.R.C.S. Eng., L.R.C.P.Lond., third son of the late William Sugden, of Bath.
TURNER.—On December 29th, 1903, at 31, Clarendon Street, Bedford, Arthur Cromack Turner, M.R.C.S., L.R.C.P., aged 62 years, late of the Priory, S. Neots, Hunts.

LETTERS, NOTES, AND ANSWERS TO CORRESPONDENTS.

COMMUNICATIONS respecting Editorial matters should be addressed to the Editor, 2, Agar Street, Strand, W.C., London; those concerning business matters, advertisements, non-delivery of the JOURNAL, etc., should be addressed to the Manager, at the Office, 429, Strand, W.C., London.

ORIGINAL ARTICLES and LETTERS *forwarded for publication are understood to be offered to the* BRITISH MEDICAL JOURNAL *alone, unless the contrary be stated.*

AUTHORS desiring reprints of their articles published in the BRITISH MEDICAL JOURNAL are requested to communicate with the Manager, 429, Strand, W.C., on receipt of proof.

CORRESPONDENTS who wish notice to be taken of their communications should authenticate them with their names—of course not necessarily for publication.

CORRESPONDENTS not answered are requested to look at the Notices to Correspondents of the following week.

MANUSCRIPTS FORWARDED TO THE OFFICE OF THIS JOURNAL CANNOT UNDER ANY CIRCUMSTANCES BE RETURNED.

IN order to avoid delay, it is particularly requested that ALL letters on the editorial business of the JOURNAL be addressed to the Editor at the Office of the JOURNAL, and not at his private house.

TELEGRAPHIC ADDRESS.—The telegraphic address of the EDITOR of the BRITISH MEDICAL JOURNAL is *Aitiology, London.* The telegraphic address of the MANAGER of the BRITISH MEDICAL JOURNAL is *Articulate, London.*

TELEPHONE (National):—
EDITOR, 2631, Gerrard.
GENERAL SECRETARY AND MANAGER, 2630, Gerrard.

☞ *Queries, answers, and communications relating to subjects to which special departments of the* BRITISH MEDICAL JOURNAL *are devoted will be found under their respective headings.*

QUERIES.

PRACTICE IN AMERICA.

INQUIRER writes: Can British registered medical practitioners take out a licence to practise in the United States?

*** There is no national register in the United States. In most States it is possible for a qualified English medical man to obtain permission to practise upon comparatively easy terms. In some permission to practise is accorded upon production of proof of lawful possession of a degree or diploma granted after a minimum course of study. In others an examination before a State Board has to be passed as well. The regulations differ, but so much has been done recently towards regulating and assimilating the conditions of practice throughout the whole country that "Inquirer" should write for information as to present regulations to the Secretary of the Medical Board of any State which he may have in his mind.

INCOME-TAX.

ASSISTANT asks what a qualified assistant can claim to be deducted from his salary for income-tax purposes. Can he deduct board, instruments he buys, insurances? Suppose he has £200 and rooms, how much ought he to be taxed on? Also, suppose he has £180 and board, how much ought he to be taxed on?

*** A qualified assistant is liable to pay income-tax on the full amount of the salary receivable by him, less one of the statutory abatements if his total income does not exceed £700. If in addition to his salary he is provided with rooms or board, or both, the value of such rooms or board is not taken into account, and he is not required to pay tax thereon. Thus, if he has £200 a year and rooms, he pays tax on £200; if he has £180 and board he pays tax on £180, less any abatement to which he may be entitled. He cannot deduct the cost of instruments or board, if he has to board himself, but he can claim an allowance for life insurance by filling up the space provided for the purpose on the form of income-tax return and producing the premium receipts to the surveyor of taxes, if required.

DIET IN PHOSPHATURIA.

CALCULUS asks to be recommended a work on diet in phosphaturia, or for suggestions for diet in the treatment of a patient who has undergone several operations for the removal of phosphatic stones in the course of six months.

*** More information is required about the kind of phosphates present and the state of the urine. Phosphatic calculi are frequently deposited upon a nucleus of some other substance, and treatment in that case must be directed rather to prevent the formation of the nuclei than to the subsequent deposit of phosphates. The precipitation of amorphous earthy phosphates can be checked by the steady use of nitro-hydrochloric acid in doses of m xv three times a day after food. Acid or stellar phosphates are sometimes deposited in large quantities from acid urine, and on account of the symptoms which attend this occurrence the condition has been described as phosphatic diabetes; in some instances these cases have passed into saccharine diabetes. The diet that checks the phosphaturia is a mild antidiabetic regimen, for example, all sugar and sugar-containing articles of food and drink must be forbidden, and starchy food limited in quantity to something like half a pound daily. If the urine is alkaline, ammoniacal, and deposits triple phosphates, the phosphaturia is secondary to infective decomposition, and treatment must take the form of disinfecting the bladder by such drugs as urotropine and boric acid, or by local antiseptic means.

A CASE FOR DIAGNOSIS.

A YOUNG PRACTITIONER writes: A lady, aged 72 years, has suffered for over twelve months from pain after eating, which was relieved by taking bismuth and pepsine. She has also acute gout and chronic eczema for years and has lost flesh considerably. About a week ago she had an attack of melaena which caused collapse for a few hours. She recovered and had a hearty supper. Next morning 7.30 a.m., she had a violent attack of haematemesis which again caused collapse. She was

attended by two medical men at 1.30 p.m. who diagnosed malignant disease of the stomach, and gave her champagne and a hypodermic injection of 2⅔ minims of strychnine. Soon after this she had convulsions. I was called in at 6.30 p.m. and found her still in a collapsed condition. I gave her a hypodermic injection of strychnine sulphate and a rectal injection of salt. She became convulsed again and died at 7 p.m. I diagnosed the case as ulcer of the stomach but could not account for convulsions. I might mention that the patient had gastric ulcer in her younger days.

*** We do not think that upon this statement of facts it would be possible to distinguish with certainty between simple and malignant ulcer of the stomach. Simple ulcer of the stomach occurs with sufficient frequency in people of advanced age to make that diagnosis quite reasonable and in the absence of a palpable tumour and of rapid emaciation it would be most probably the correct view to take of the case.

A CASE OF JAUNDICE.

DR. F. G. HAWORTH (Darwen) writes: J. K., aged 47 years, a clogger by trade, which means a sedentary occupation with much stooping, for five weeks had not been well, suffering from gastric disturbance, accompanied by much pain in that region. Being advised to take two tablespoonfuls of sodium carbonate as being good for "spasms," he partly followed the advice by taking two teaspoonfuls—heaped up—in some hot water. This was a month ago. This increased the pain, and to his astonishment the following morning he presented a jaundiced appearance; his wife described him as being "copper-coloured." About three weeks after he consulted me for pain in the hepatic region but no enlargement, and pain in the stomach (the organ was much distended). I attributed the icterus to catarrh of the common bile duct, probably blocked by inspissated bile, but in the absence of enlargement of the liver I could not account for the pain. He looked very ill, careworn, and almost emaciated. He thought he must have lost considerable weight. He was obstinately constipated; evacuations were white and dry, like dried oats; urine very high-coloured, and gave the bile reaction. I gave him calomel (5 gr.) and an acid mixture, with mx doses of tr. opii. In a few days he was perfectly well; urine had cleared, pain gone, yellowness disappeared. I send you a note of this case, as to me the interest lies in its apparent cause. I have never known sodium carbonate have such effect. Perhaps some of your readers can enlighten me.

ANSWERS.

H. E. F.—We agree with our correspondent that the conditions are undesirable. The committee of the hospital should obtain the opinion of its medical staff.

MALINGERING.

QUERIST.—Long articles on malingering, with extensive bibliographies, will be found in the following books, *The Encyclopaedia Medica*, vol. vii, p. 257 (W. Green and Co., Edinburgh) and Hamilton and Godkin's *System of Legal Medicine*, vol. ii (Rebman and Co.).

LEPROSY IN THE BRITISH EMPIRE.

MR. GEORGE PERNET, Assistant to the Skin Department at University College Hospital, and English Editor of *Lepra*, has been asked by the President of the forthcoming Fifth International Congress of Dermatology, to be held in Berlin this year, to supply a report of the present incidence of leprosy in the British Empire, South and West Africa excepted, and the steps taken to deal with the disease since the International Leprosy Conference of 1897. The report will be required to be supplied by May 1st next. As it is desired to make it as full and reliable as possible, Mr. Pernet asks for information, the source of which will be acknowledged in the report.

NOTES, LETTERS, Etc.

THE PARASITIC THEORY OF CANCER.

MAJOR G. H. FINK, I.M.S. (ret.), M.R.C.S., L.S.A. (London), writes: In an article on the parasitic theory of cancer, on p. 1513 of the BRITISH MEDICAL JOURNAL of December 12th, by Mr. H. G. Plimmer, F.L.S., he states that recently attention has been drawn to the "mycetozoa" on account of the connexion of one of them—*Plasmodiophora Brassicae*—with a disease called "Kohlhernie" in certain plants. I think I might claim to be first in the field in having drawn the attention of the Cancer Research Committee to the "mycetozoa" in connexion with cancer in June, 1901, when my views were placed before that body, and then published in my pamphlet on *Cancer and Precancerous Changes; their Origin and Treatment*, in September last, copies of which have been sent to all the important journals in this country and abroad, and in some of them reviews have appeared. The BRITISH MEDICAL JOURNAL also had a copy, and I felt it should have been reviewed long ago. The "tumour germ" theory referred to by Mr. Morris, and the behaviour of the *Plasmodiophora Brassicae* in plants (by Mr. H. G. Plimmer) are given as an analogy in my pamphlet on *Cancer and Precancerous Changes, etc.*, pp. 81-87, section xxiii, which was published by Lewis, who had the work in hand for some time. I have since had ample evidence to justify my theory as well as my views, and consider that the precancerous changes and their treatment by a proper technique is absolutely necessary for the early recognition and eradication of the disease and its parasites, without which it is certain that benign tumours and cysts are liable to become malignant, and certain accidental circumstances will create malignant growths of a cancerous character in almost any region of the human body. My pamphlet, I feel, clearly shows how this can arise, and which, I feel sure, does occur in the process of cancer formation.

CHLOROMA.

DR. J. REID (Southfields) writes: Is chloroma a genuine disease or only a variety of lymphadenoma? Dr. Hichens (BRITISH MEDICAL JOURNAL, December 26th, 1903) calls it rare. Dr. Bramwell (Ed. Med. Soc., February 5th, 1902) thinks it is probably more common than suspected. Klebs (*Allgemeine Pathologie*, 1899, vol. ii, p. 212) states that the green colour has as its starting point extravasation of blood. Green colour is described by Dr. Bryant, among others, in lymphadenoma (JOURNAL, September 14th, 1901; Allbutt's *System of Medicine*, 1898). Fagge and Pye-Smith, Bristow and Rokitansky do not index the disease under the name. Why are these workers so shy in the use of the name "chloroma?" If the disease is only a phase of lymphadenoma, it seems a pity that the student and practitioner should be compelled to store more synonyms in his limited memory. Surely we shall tend at some time to minimize the disjointed facts and come to more general and more scientific knowledge. I frankly admit that I do not attempt to carry synonyms in my head, but refer to authors when I require them. Perhaps we shall learn why the term "chloroma" has been neglected by compilers. I pity the poor student who failed to know what chloroma is if his examiner had found a case.

SKIN GRAFTING.

A CASE of skin grafting which has excited considerable interest is reported from the Muhlenberg Hospital, Plainfield, New Jersey. We give the particulars on the authority of the *Boston Medical and Surgical Journal* of December 17th, 1903. The patient, who was recently discharged from the hospital was chief clerk in the New York Office of the United States Express Company, and was one of the victims of a terrible smash which occurred on the New Jersey Central Railroad at Westfield last winter. He had been under treatment since January 27th, 1903. He was scalded so severely with steam that a third of the cuticle was destroyed. The case was at first regarded as hopeless, but after he had lingered for several days it was decided to try skin grafting. Thiersch's method was adopted, and over 4,200 grafts were used, the material being furnished by 200 Masonic brothers and employés of the company

OUT-PATIENTS AT LONDON HOSPITALS.

IN the article published on p. 31 of the BRITISH MEDICAL JOURNAL of last week on Public Control of Hospital Administration there is an obvious slip. It should have been said, as is in fact stated at p. 44, that the gross number of out-patients had increased from six and a-third hundred thousand to over seven hundred thousand.

LETTERS, COMMUNICATIONS, ETC., have been received from:

A Anti-Sweater; Mr. F. Addiscott, London; Dr. F. P. Atkinson, Bexhill-on-Sea; Mr. H. W. Allingham, London; Assistant. **B** Bovril Limited, Manager of, London; Dr. M. Beverley, Norwich; A. H. Burgess, M.B., Manchester; Dr. J. J. G. Brown, Edinburgh; Barleycorn Co., Manager of, London; Mr. C. A. M. Bailey, London; Mr. C. C. Burman, Alnwick; Mr. L. A. Bidwell, London; Dr. H. T. Bulstrode, London; Dr. G. B. Batten, London; Mr. A. W. Bodger, London; Mr. A. Berrill, London. **C** Curette Colonial; Mr. W. R. E. Coles, London; D. T. Cadvan-Jones, M.B., Ramsgate; Dr. J. A. Calantarients, Scarborough; Lieutenant-Colonel W. H. Climo, A.M.S. (ret.), London; J. A. Craig, M.B., Belfast; Messrs. W. H. and L. Collingridge, London. **D** Messrs. Dean and Farrar, Halifax; Mr. H. T. Dufton, Stowmarket; Mr. G. W. B. Daniell, Edinburgh. **E** Mr. G. Y. Eales, Torquay; Mr. H. Elliot-Blake, Bognor. **F** Mr. C. W. Fearne, London. **G** "Garden," Editor of the, London; Mr. G. Grazebrook, Sudbury Mr. H. E. Girdlestone, Bournemouth; Dr. J. L. Gibson, Brisbane; G.; Dr. J. Galloway, London; Mr. H. B. Gardner, London; Dr. J. G. Glover, London. **H** W. Haig, M.B., Crieff; Mr. W. M. Harding-Raynes, Penryn; Dr. J. B. Hellier, Leeds; Dr. E. H. Houfton, Shirebrook; Dr. J. Highet, Workington; Mr. L. G. Hill, Cheltenham. **I** Inquirer. **J** Mr. H. Jones, London; Dr. A. C. Jordan, London. **K** Dr. T. N. Kelynack, London. **L** Mr. F. Leeder, Parkstone; A. R. Laing, M.B., Aberdeen; T. D. Luke, M.B., Edinburgh; Dr. T. G. Lyon, London. **M** Mr. P. Michelli, London; Mr. J. P. Milton, South Brent; Mr. G. H. Makins, C.B., London; J. Mills, M.B., Ballinasloe; Dr. S. Mallannah, Hyderabad; Mr. W. Moore, Stourbridge; Messrs. Mayer and Meltzer, London; Dr. S. G. Morris, Mardy; Dr. W. H. Masters, Parkstone. **N** Mr. J. D. S. Nodes, Worthing; Mr. P. Newell, Bexhill-on-Sea. **P** Dr. H. F. Parker Guildford; Messrs. H. S. Persse, Limited, Galway; Mr. F. Pfister, London. **R** Ret Dr. J. M. Rhodes, Didsbury; R. F. W.; Dr. A. Rosenau, Monte Carlo. **S** Messrs. Speirs and Co., Glasgow; Dr. J. C. Simpson, Cambridge; Mr. A. Sharp, Berlin; Messrs. G. Street and Co., London; Mr. A. H. Style, London; Mr. N. Smith, London Dr. L. E. Shaw, London; Dr. W. Sykes, Paignton; Dr. E. H Snell, Coventry; Dr. G. A. Stephens, Swansea; Mr. G. Sichel, London. **T** Mr. N. Thornton, London; Mr. J. Taylor, Glasgow; Mr. T. C. Tunstall, Southport; Messrs. Townson and Mercer, London; R. Thomson, M.B, Uddingston; Mr. H. W. Thomas, Liverpool; W. Tyson, M.B., Lowestoft. **V** Mr. G. F. Vincent, Woking. **W** Dr. J. M. Wilson, Beverley; N. P. Watt, M.B., Edinburgh; Mr. W. L. Winterbotham, Bridgwater; Dr. F. Willcocks, London; J. D. Wynne, M.B, Clonmel; W. H. N.; C. S. Wallace, M.B., London; Dr. E. F. Willoughby, London: D. J. G. Watkins, M.B., Lincoln. **X** X. I. M. S., etc.

BOOKS, ETC., RECEIVED.

Disinfection and the Preservation of Food. By Samuel Rideal, D.Sc. Lond. London: Sanitary Publishing Co.; and New York: John Wiley and Sons. 1903.

A Pocket Dictionary of Hygiene. By C. T. Kingzett, F.I.C., and D. Homfray, B.Sc. Second edition. London: Bailliere, Tindall, and Cox. 1904. 2s 6d.

Educational Psychology. By Edward L. Thorndike. New York: Lemcke and Buechner. 1903.

A Heraldic and Physiological Curiosity. Thirty-nine children of one father and mother (seven sons and thirty-two daughters), amply proved. By Geo. Grazebrook, F.S.A. London: Mitchell Hughes and Clarke. 6d.

Transactions of the Royal Academy of Medicine in Ireland. Vol. xxi. Edited by John B. Story, M.B., F.R.C.S.I., with Index to vols. i to xx. by E. J. McWeeney, M.D. Dublin: Browne and Nolan. 1903.

The Edinburgh Medical Journal. Edited by G. A. Gibson, M.D., F.R.C.P. Edin., and Alexis Thomson, M.D., F.R.C.S. Edin. New series. Vol. xiv. Edinburgh and London: Young J. Pentland. 1903.

The London Manual for 1904. Edited by Robert Donald. London: Edward Lloyd, Ltd. 1904. 1s. 6d.

Rudderless Ships. By Airam. London: Henry J. Drane. 6s.

*** In forwarding books the publishers are requested to state the selling price.

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A Lecture

ON

LUMBAGO: ITS LESSONS AND ANALOGUES.

Delivered at the National Hospital for the Paralysed and Epileptic.

BY SIR WILLIAM R. GOWERS, M.D., F.R.S.,
Physician to the Hospital; and Consulting Physician, University College Hospital.

GENTLEMEN,—There are many ways of acquiring knowledge f disease. Perhaps the most effective—although certainly ne least agreeable—is personal experience. Symptoms that re felt, sufferings which have to be endured, are impressed pon the mind as they cannot otherwise be. I do not desire or you this effective way of gaining knowledge, but there are ome maladies which you can scarcely hope to escape. You ill be exceptionally fortunate if you do not have opportunities, if indeed they have not already come to you, for the ubjective study of the disease which I take as my text to-day -lumbago.

What is lumbago? Our conception of its symptoms is ufficiently clear, precise, and perhaps vivid. But our conception of its nature is not at all precise or clear. We think f it as muscular rheumatism—and correctly. But if we are sked what muscular rheumatism is, I am afraid the reply hich would be given is that "it is rheumatism of the uscles," an answer which, you will admit, does not carry us ar. Nor does it conduce to better understanding to call the ffection "myalgia," a term which is not much used at the resent time, perhaps because its analogy with "neuralgia" uggests spontaneous pain, unexcited.

Consider the symptoms of lumbago. Its great characteristic pain in the lumbar muscles, but felt only when they contract or are extended. In health we are conscious of no sensaon in them. We may, indeed, by attention, become aware of vague feeling in any muscles, if we direct our attention to them -a feeling which varies if they are contracted or extended. hysiological considerations compel us to consider that these wo influences are constantly determining afferent impulses om the muscles, which act on the spinal centres, although ormally they scarcely affect consciousness. But we must all ave been made aware of such afferent impulses when they re rendered intense by the excessive contraction we call cramp." The intense stimulation causes severe pain. It lso renders the muscles afterwards over-sensitive, and for any hours the influence of tension is demonstrated to us by ain from a degree of extension which in health would be unelt. When the calf has been the seat of cramp, you must have oticed the pain produced when the muscle is afterwards xtended, as in going up or down stairs. Moreover, if the uscle is pinched, it will then be found to have a sensiveness far greater than normal. If these suggestive experinces induce you to test your muscles in health, you will find hat, even under normal conditions, an unpleasant sensation ay be produced by a strong compression of any muscle or by s strong extension. Thus we have ample evidence that the ensory nerves in muscles respond to those influences which in umbago give rise to the characteristic pain.

The afferent nerves of muscles, which we can only call sensory by the widest use of the word, end or begin, as you know, n a manner quite different from the motor nerves. Instead of erminating on the muscular fibres, as do the latter, they end n the interstitial tissue between the fibres, and the only endng which has yet been generally found is in the remarkable odies called "muscle spindles." As far as we know, all fferent impulses from the muscles arise in these, including he pain of cramp and the peculiar pains of lumbago and he allied affections I shall have presently to speak of. It is ndeed strange that such acute pain should be produced hrough structures which normally give rise to no sensation, ain due either to excessive excitation or to an induced excesive susceptibility. But we are familiar elsewhere with the ame fact—that acute pain may be produced by morbid action n structures which seem insensitive in health. We meet ith it in the pleura, the peritoneum, and the intestinal all. Indeed, the last is a pertinent example, because we re quite unconscious of intestinal contraction under normal onditions, and yet its increase, as by a simple purgative, may give rise to intense pain. These facts illustrate the constancy of afferent nerve impulses from all parts, whether we feel them or not, for pain can only be ascribed to the intensification of nerve impulses which are constant in less degree.

The muscle spindles through which contraction and tension of the muscles, in health, produce unperceived impulses, and when excessively stimulated, or rendered over-sensitive in lumbago, give rise to acute pain, are remarkable bodies. They are long structures lying between (or in) the bundles of muscular fibres, narrowed at each end, as their name implies. One or more narrow muscular fibres enter each, and two or more nerve fibres, usually one at the end, one in the middle.

The nerves divide and form a ramification around the muscular fibres, which also divide in the middle region, to reunite before they pass out at the other end. No special nerve endings have been detected. The muscle fibres do not seem to receive any motor nerve, according to the balance of evidence.* They seem to be small portions of the general muscular substance deflected into this meter-like structure. We must assume that they share the contraction of the whole muscle, and as it were, they register it by compressing the nerve fibrils within the capsule of the spindle. Thus they resemble the apparatus for the measurement of an electrical current, which uses a fraction of it as an index to the strength of the whole. If so we may regard the function of the muscle spindle as a muscle meter. But if the contraction of the fibres within the capsule of the spindle acts by compressing the nerves, we can also understand that an intense general contraction of the muscle, as in cramp, may compress them from without as well as from within, and thus give rise to acute pain, which only subsides when forced extension overcomes the contraction. We may expect that with such sensitiveness to lateral compression the nerves will also be responsive to external pressure, and we find that when a muscle is firmly pinched, pain is felt. Moreover, since a strong stimulation of any afferent nerves may cause pain (though normal impressions are unperceived), it is not surprising to find that induced electricity, as the faradic current, causes severe pain. This is probably due to its direct action on the nerves as well as to their compression by the muscular contraction that is excited. The peculiar intensity of pain caused by the serial current, compared with isolated shocks, seems to confirm this. It is an example of the effect of a summation of sensory stimuli, which is met with also in the skin.

Such a nerve ramification, sensitive to the mechanical influence of compression, can be readily conceived as sensitive also to the influence of tension. We cannot, indeed, discern any mechanism which can promote the influence of tension, but of its effect on the afferent nerves we have ample evidence. The same functional capacity may subserve both forms of sensitiveness, especially since the nerve fibrils surround the muscle fibre. The general sensitiveness of nerve fibres to mechanical influences makes it easier to understand the apparent absence of special end organs, and also the absence of the special spindles in some cases, as the eyeball muscles. A ramification of nerve fibrillae between the muscular fibres may serve the purpose of afferent impressions as well as the more elaborate structures.

We are now concerned with these facts as they are related to the symptoms of lumbago. If these muscle spindles are the only sensory structures in the muscle, and as far as is known there are no others, it is through them that the symptoms of muscular rheumatism are produced. They are by some means brought into a state of extreme sensitiveness, and thus pain is produced by the moderate mechanical influences by which, as we have seen, their normal excitation is produced. We might thus conceive lumbago to be a pure affection of the muscle spindles, but we may easily fall into error by regarding the structures through which a disease is manifested as its sole seat. These peculiar bodies seem to belong to the fibrous tissue of the muscle, to that which sheathes and connects the muscular fibres, rather than to the latter. This, indeed, we should expect, for we find elsewhere such special structures related to the enclosing tissues, is in the bodies in which the nerves end in the fibrous sheaths of nerve trunks.

Fibrous tissue, or connective tissue, as it is termed in its looser form, is an element common to all structures and

* Such an ending by a plate on the muscle fibre has been described only by Ruffini.

organs; by it separation is effected and even seclusion provided, but also connexion as well as isolation. Yet this tissue, although so universal, presents variations in pathological liability in different parts, and it seems prone, beyond any other tissue, to be influenced by certain morbid states. In all parts it seems the most susceptible to the influence we call "rheumatism." I might call it an unknown influence; it is unknown so far as its nature is concerned, but known only too well by its effects. The relation of lumbago to rheumatism would alone make us expect to find it an affection of the fibrous tissue of the muscles, the tissue in which the spindles are situated, rather than of these alone.

But we have another important proof that the malady is an affection of the fibrous tissue; it may spread, and it spreads by continuity of this tissue. It spreads to the tendinous attachment of the muscles to the crest of the iliac bone and the back of the sacrum. Indeed it may begin there. In each case, pain in this position is produced by the contraction of the lumbar muscles, which causes tension on the tendinous structures that connect them with the bone. We know that these are continuous with the interstitial tissue of the muscle, and seem indeed to be a concentration of it. This tendinous tissue contains nerve endings, which resemble the muscle spindles in being peculiar bodies, and consisting of an interlacement of divided nerve fibres enclosed in a capsule. But they are not elongated as are the spindles, and contain no muscular fibre. We can understand this, since they have not to respond to muscular contraction except by the increased tension it involves. To tension, their sensitiveness is manifested by the pain felt in this form of "tendinous lumbago," and also by peculiarly intense pain caused by tension after they have been exposed to a severe strain. But they are also sensitive to compression, although this is not the usual mode of their excitation. You can easily convince yourselves that this is a fact by vigorously pinching your own tendo Achillis, one of the least sensitive structures of the kind. You cannot fail to notice the peculiar pain that is produced. It is indeed possible that tension, by elongation of the tendon, exerts some lateral pressure on these nerve endings. The tendon is composed of wavy, elastic tissue. I once examined microscopically a tendon which had been divided long before, and the contrast between the cicatricial tissue which connected the divided ends and the normal wavy fibres of the tendon was very striking. Any elastic structure, if elongated, necessarily exerts considerable lateral pressure on that which it contains. But the nerves within the end organs must share also the direct traction on the tissue. We can thus understand their stimulation by tension.

The extension of lumbago from the substance of the muscle to the tendinous structures justifies us in regarding, as its seat, the fibrous tissue of the muscle, in which the sensory nerve endings are situated, and with which they suffer. As I have said, the fact seems to preclude the idea that it is an affection of these endings alone. But the extension may go farther, and in doing so it presents us with additional and important information. Such morbid sensitiveness of the tendinous structures at the back of the sacrum—"sacral lumbago" we may call it—whether secondary or primary, often spreads, apparently by the fasciae, and reaches the sheath of the sciatic nerve. There, it may increase to definite sciatic neuritis. Some of the most severe cases I have seen have clearly had this origin, by the extension to the nerve from the sacral tissues. You know that sciatic neuritis is primarily an affection of the fibrous sheath of the nerve. It is a structure prone to inflammation from many causes, and we can understand that it may readily arise by such extension. In some cases of sciatic neuritis, clearly arising thus, the inflammation has spread from the sheath to the interstitial tissue of the nerve, and has there attained such a degree as to impair the conducting function of the fibres and to cause muscular wasting and diminution of sensibility.

The importance of this fact is definite. If a morbid process, by extension, presents itself as manifest inflammation, it must be originally inflammatory in nature. We are thus compelled to regard lumbago in particular, and muscular rheumatism in general, as a form of inflammation of the fibrous tissue of the muscles. We are familiar with other forms of inflammation of such tissue. We know that the looser "cellular" tissue may be inflamed, especially from certain causes, as septic influences, and we call it "cellulitis." But we apply the word to those conditions that are hyperplastic in nature, and produce induration or suppuration. I think we need a designation for inflammation of the fibrous tissue which has not such results, and yet, we cannot doubt, is of this nature. We may conveniently follow the analogy of "cellulitis," and term it "fibrositis."

The conception of muscular rheumatism as a rheumatic inflammation is, I know, old enough, and the term "fibrositis" is so convenient that I cannot doubt that it has been used. But I have mentioned the evidences of the inflammatory nature of the process, and I desire to insist on them, because the features of the malady differ from those of ordinary inflammation. There is no indication of the formation of "inflammatory products," as we call them, but this is certainly not enough to justify a denial of its inflammatory nature. It has the acute course of an inflammation, and may result from a frequent cause of this in any part—exposure to cold. It presents another peculiarity in the extreme suddenness with which its symptoms seem to come on. You are familiar with this. But the suddenness is, I believe, often apparent, not real. The pain, which may transfix the sufferer in a moment, and make any movement impossible, usually occurs on the first movement after a period of rest. Often it is the first motion in the morning, or there has before been some slight definite discomfort in the muscles, and then some peculiar action causes an extreme stimulation of the structures which had been gradually becoming over-sensitive. Hence the morbid process may be much less sudden than is its manifestation; the production of the pain is sudden, but the condition on which it depends has been gradually developed. The fact that the pain is never spontaneous is a clear distinction from the nerve pains, especially neuralgia, with which we might be disposed to associate it. Hence I think the term "myalgia" is equivocal; it suggests spontaneous pain, and not that which is purely induced.

We must moreover remember that the process, compelled though we are to regard it as inflammation, varies a good deal according to its cause and seat. Apart from the muscles and tendons, the fibrous tissue of the joints is liable to a condition in which tension causes acute pain; although there is no effusion, we regard this state as inflammatory. In the compact fibrous stucture we can best observe—the sclerotic—inflammation may have, as its chief result, tenderness and vascularity, but with spontaneous pain. There is no evidence of a hyperplastic process, no thickening of the sclerotic or suppuration within it, but vascularity is conspicuous. We cannot know the state of the vessels of the hidden tissue of the muscles and tendons, but they probably share the acute disturbance in the morbid condition we are considering, and which we must conceive as a rheumatic inflammation.

You may think that I am labouring too much to prove what is commonly accepted. If you do, I quite agree with you. But I have found that many students, and many who have ceased to be nominal students, have no definite conception of the nature of muscular rheumatism, and that those who would say that it is a rheumatic inflammation can go no further. I have also endeavoured to give you the evidence of the nature of lumbago because I wish to impress on you the features of a malady, similar in nature but different in seat—that which I would call muscular fibrositis in the arm. It may be called brachial myalgia, if you restrict the term to this class of affection. It is met with in every degree of severity, and when intense it is a very terrible malady, distressing and prolonged, for which the term "muscular rheumatism," as generally understood, is inadequate. Its great feature is pain in the muscles, not spontaneous, or only in slight degree spontaneous, but induced by their contraction, or by sudden tension, however slight. Any attempt at passive movement causes such pain from the tension that an involuntary muscular contraction occurs to prevent it, a contraction which itself causes even greater pain. The result is very singular. The joints, shoulder, elbow, and even wrist, seem as if fixed. Every attempt to move them is prevented by secondary contraction in the muscles, secondary, but seeming simultaneous, which is so painful that it may make a strong man cry out. Yet, if the patient does not know what you are doing, and you proceed with such gentleness that the movement is really imperceptible, you will be surprised to find how much passive motion is possible. You may not be the only person who is surprised. I remember a severe case of this character, in which all the muscles of the left arm were affected, and the patient—indeed his doctor also—believed the shoulder-joint to be fixed by adhesions. No passive movement of it seemed possible. But the hindrance to such movement was only the strong and most painful muscular contraction which occurred on every attempt. While questioning the patient on some other

ymptom, I moved the arm very, very gradually, so that the novement could not be noticed until it had reached a consi-lerable degree. Then the muscles passed into painful con-raction. I desisted for a minute, keeping the arm in the osition reached; the contraction passed off, and then I enewed the gentle movement until the arm was abducted to n extent that neither the patient nor his doctor had thought ossible. In the same case any attempt at passive movement f the wrist caused extreme pain through the whole arm; ut when I held the forearm, gently but firmly, above the rrist, I was able to extend or flex the wrist-joint slowly with-ut causing any pain. Muscles far apart are linked together n function. Unless the forearm was thus held, the passive novement of the wrist excited supporting contractions in he muscles of the upper arm which were most painful. When the forearm was held no tension on the upper muscles ccurred, and no contraction. The case was one of severe nuscular fibrositis, so severe as to mimic a fixation of the oints.

In such a case the muscles are sensitive to pressure as well s to contraction. There may be some spontaneous aching in ne severe degree, but this is trifling compared with the nduced pain. It is, indeed, not easy for a patient thus suf-ering to avoid the induction of pain in any posture, sitting r lying Even in bed it is almost impossible to prevent me tension on the muscles, or some compression, which auses pain, and thus the pain may seem to be spontaneous hen it is not really so.

Such severe brachial fibrositis may spread, just as some-mes does the lumbo-sacral form. It may reach the nerve heaths of the arm, and in them set up a secondary brachial euritis with all its consequences, tenderness of the nerves, ain along their course and in their distribution, oedema of he hand, and even muscular wasting or impaired sensation. hese two symptoms are, however, rare in this secondary euritis. Sometimes the nerve sheaths seem to suffer simul-aneously with the muscles; from the first, even when the ffection is slight, we may have evidence that both are involved. Remember that in all forms of unilateral neuritis the ffection is primarily of the nerve sheaths. Indeed, this rm may be accurately termed nerve fibrositis. It is quite ifferent from the bilateral, symmetrical, toxic forms. In hese the nerve elements suffer first and chiefly, and the con-ective tissue hardly at all, far less than the symptoms ould suggest.

In other cases extension to the capsules of the joints may ccur, especially to the shoulder-joint, the tenderness of hich, with local pain on movement, distinctly in it, is the ost prominent symptom. The finger-joints seldom suffer nless there is neuritis, or there is an independent tendency o arthritis. All these rheumatic affections are closely allied, nd slight variations on the causal blood state seem to deter-ine the special predominance of muscular, articular, or erve symptoms.

This brachial fibrositis is met with in various degrees of everity and in any part of the arm, in the muscles of the houlder girdle, the upper arm, or forearm, but those moving t shoulder-joint seem most prone to suffer—the deltoid, capular muscles, and pectoralis, sometimes the trapezius, t triceps, and the biceps. Usually one arm only is affected, n I have known the malady to be bilateral, even in severe degree. It is then absolutely disabling, even when limited to t muscles. The pain produced by movement has an abso-ely inhibitory effect, such as to simulate paralysis. But it s only a simulation; when limited to the muscles their motor erves seem not to suffer, and there is no marked change in lectric irritability, faradic or voltaic.

I doubt not that much of what I have said is familiar to o, but my chief object is to impress on you the features of e brachial form, because its nature is often mistaken. It s regarded as neuritis, even when there is no indication that nerves are involved. In some cases, just as in the lumbar gion, the tendinous attachments of the muscles suffer pecially, and the local character of the pain may then be ssling. It may be limited, for instance, to the insertion of deltoid. But it is still induced by tension, and felt only n the muscles contract.

You know full well how common elsewhere, in trifling egree, is this condition of the muscles. Many varieties are familiar with. It constitutes the familiar stiff-neck, a similar condition of the muscles of the pharynx often lts from cold. The act of swallowing is painful, from the scles, not the mucous membrane. The well-known erodynia is, I believe, really intercostal fibrositis, and pain attends the contraction of these muscles, which is symmetrical and felt on both sides of the thorax. The same morbid state in the tendinous attachments of the diaphragm is a very distressing affection, each respiratory movement causing pain around the thorax at their level. In the leg such fibrositis is less common, except as the result of strain, to which I shall recur presently.

This rheumatic fibrositis is seldom strictly symmetrical. Even in the lumbar and sacral tissues, in which its tendency to affect both sides is greatest, it is generally more on one side than on the other, and manifests its predominance by spreading to the sciatic nerve only on the side on which it is more severe. In the arm it is rare for the muscles on both sides to suffer, and when they do it is very seldom in equal degree.

I need hardly remind you that muscular rheumatism is more common in the second half of life than in the first, while the opposite is true of the acute articular form. It is currently associated with gout, and the truth of the belief is soon impressed on the practitioner. But it is "gout with a difference." It may occur in those who are gouty in the common sense of the word, but some of the most severe cases I have seen, especially of the brachial form, have been in those who have inherited the tendency to gout but have not merited its development. The patients have been elderly ladies of blameless habits and elderly abstemious clergymen, members of conspicuously gouty families. You know the distinction that has been drawn by Mr. Hutchinson and others in the constitutional forms assumed by the diathesis. But all are connected. One notable link between these varied affections is that most cases of rheumatic fever in the young are in the children of gouty parents. If you have not already noted this you will be surprised to find how often it is true.

Another definite form of fibrositis is the traumatic, induced by sudden violent tension on tendinous and ligamentous structures, much less frequently by tension on the muscles. Examples of this are common in many situations. I lately saw a woman who had strained her back severely during the overturning of a tramcar three months before. Ever since the accident there had been extreme sensitiveness of the tendinous attachments of the dorsal muscles to the iliac bone. The slightest tension on these, especially that which was caused by contraction of the muscles in the effort to keep the spine erect, or even to steady the contraction of the opponents, as on sitting up in bed, or on an attempt to turn in bed, caused acute pain, limited to this situation and to such movements. Remember always that every muscular movement involves contraction of the opponents as well as of the muscles which cause the movement. Were it not so we should be indeed wobbly beings. No steady motion would be possible; every motion would be overdone, first in one direction and then in another. But the muscles which are oversensitive, or their tendons, may be those that act secondarily, and then we have pain in them on the action of their opponents. It is important to keep this fact in mind, in order to unravel these muscular and tendinous pains.

While any structure may suffer from overstrain, the fibrous attachments of the muscles to the back of the sacrum are especially prone to such traumatic derangement. Some sensitiveness to pressure usually coexists, but it is far less in degree than that to tension. We meet with a like condition also in ligaments. A violent strain on the spinal ligaments may be followed by enduring susceptibility to pain on any tension, a condition often met with after railway accidents and other injuries. Like other subjective symptoms, it is open to forensic depreciation, but its peculiar relation to tension clearly establishes its genuine character. Other mechanical causes besides sudden strain may co-operate in producing fibrositis. Habitual posture, or the constant slight strain of habitual exertion such as riding, seems often to induce fibrous pain in those who are otherwise disposed to it. The familiar contraction of the palmar fascia seems to be the result of a peculiar form of fibrositis. It is usually painless, and clearly due to habitual postural use of the hand. But it is seldom met with apart from a gouty diathesis, a fact that is instructive with regard to our present subject.

To return to pain felt after strain. It may or may not be right to regard this persistent hypersensitiveness after strain as inflammatory. We cannot indeed distinguish it from inflammation, and yet we need much more pathological study before we can confidently assert its nature. These firm fibrous

structures consist of compact supporting tissue and of nerves and nerve endings. The enduring sensitiveness after injury is certain evidence of changes in the latter. We may safely assume that they are at first due to organic damage, with secondary inflammation, as all effects of injury seem to be. But the after-state which lasts so long may be a residual effect rather than a persistent active process. We have not such proof of activity as is afforded by the extension of rheumatic sacral fibrositis to the sciatic nerve, and we must therefore regard the condition which persists for long, for many months, as still uncertain. But the absence of spontaneous pain seems a definite distinction from that which we term "neuralgia."

While the slighter forms of muscular fibrositis, such as lumbago or "stiff-neck," are usually brief in duration, that which involves the tendinous structures may last for many weeks, and when due to injury often continues for months. Indeed, the duration of muscular fibrositis seems proportioned to the slowness of its onset, perhaps in part because the slighter pain does not compel the needful rest, of which I shall speak in a moment. The affection of the arm is often prolonged; when it has become severe it generally lasts for months, and the pain produced by every movement of the arm, with the interference with sleep due to the difficulty of securing any easy posture, wears down the patient's strength, lessens the power of endurance, and induces a dreading expectation of pain which actually increases the degree of suffering. Pain which is both expected and feared is positively felt more than pain which is mentally resisted, and unhappily the power of resistance inevitably fails before constant suffering.

The general treatment of these forms of rheumatic fibrositis is, I doubt not, sufficiently familiar to you. But there are two measures the beneficial influence of which I am sure is not so generally recognized as they should be. One is diaphoresis, the other is rest. The value of free perspiration has some popular recognition. There is a strong impression that muscular rheumatism may be cut short at its onset by active exercise. The usual result of acting on the belief is a serious increase in the affection, but there are some cases in which it does good. They are cases in which the exercise does not involve much use of the affected muscles, and in which it causes copious perspiration. This seems to relieve the condition of the blood, and at the very onset may enable the morbid state quickly to pass away. If the pain of commencing lumbago is not felt on standing or walking, and if a long walk is taken in a thick overcoat, any chill being avoided, the lumbago may be gone next day. A Turkish bath is equally beneficial and safer. But it is only at the onset that this relief to the blood state is effective. Even after two or three days the muscular fibrositis seems to become so established that it cannot be speedily influenced by diaphoresis.

Above all things, rest is that which these painful muscles need. However this sensitiveness is produced, it is certainly maintained by every influence which excites pain. We can understand this; all irritation of the sensory nerves increases the vascular disturbance which we must assume in the early stage and the sensitiveness of the nerve endings is maintained by their stimulation. In the brachial form, adequate rest to the muscles is very seldom secured early, when its importance is so great. Slight movements may entail only a little pain, but doing so they inevitably increase the morbid state. In every case of the kind the arm should be carried in a sling and the clothes should be arranged to make dressing and undressing easy. Ladies should be sternly forbidden to "do up their back hair," a process which seems to involve peculiar strain on the shoulder muscles, which is kept up for some time in a form to which they are unaccustomed. The use of a sling is seldom adopted early enough. It has advantages beyond the direct rest to the arm and the support to the upper arm which it affords, in the obtrusive evidence of enforced rest which it presents. This saves the patient from many undesirable movements. In the early stage frequent hot fomentations are certainly useful, and so is encasement in a thin layer of cotton wool or lint, over which oiled silk or some light impermeable material is placed. It seems to do good by keeping the skin warm and moist. Neither massage nor electricity should be used at the beginning; afterwards very gentle upward massage is good, but it should never be such as to cause discomfort. In the later stage, if any spontaneous aching is felt, it may often be relieved by extremely gentle applications of electricity. A high-frequency current may be used, or, what answers even better and is much simpler, a rapidly-interrupted faradic current, so weak as to be felt only as a sensation of vibration, and not as pain or pricking. If it is strong enough to cause any muscular contraction, it does harm. Liniments are most suited to the later period, though at first a little may be sprinkled on the lint that is applied. Belladonna and chloroform liniments, mixed in equal parts, answer best. Not even passive movement should be employed until it causes no pain, and then it should be most gentle. The avoidance of pain should be made the standard for all local measures.

Aperients are of the first importance in all rheumatic and pseudo-gouty cases, and nothing is of so much value as salines. They free the system of bile far more than the so-called "cholagogues." Taken into an empty stomach, they seem not to be absorbed, but to pass on, into and through the intestine, augmented by the exosmosis they excite, and they carry away the bile they find in the bowel. This has done what digestive work it had to do, and much of it would simply pass back into the blood, through the liver, and increase the amount of harmful matter in the general circulation. At least, this is how I understand the fact that salines do remove bile abundantly, and improve the general state. But if a saline is taken when the stomach contains food, it seems simply to mix with this and to be absorbed, and its valuable "flushing out" action is not obtained. Moreover, it seems to pass through the stomach more readily, and to excite osmosis and peristalsis in the bowel more effectively, if concentrated than if dilute; and thus the stronger aperient waters act better than those that are dilute. I may add, parenthetically, that what I have said is quite consistent with the mild aperient influence obtained by some persons from a glass of plain water in the early morning. That which differs in any way from the normal character of the intestinal contents may have a similar effect: that which is more dilute may act like that which is less dilute, just as the bladder is irritated by watery urine as well as by that which is concentrated.

The medicinal agents which have most effect on articular rheumatism seem to have far less influence on rheumatic muscular fibrositis. The salicylates, for instance, seem to do little good, except in the most acute forms. In this it is very difficult to discern with precision the effect of any therapeutical measure. We cannot try experiments in severe suffering. We can very seldom secure the essential condition for observation, namely, that the agent to be tested shall be used with no other change in the influences to which the patient is exposed, that no other attempt to do good shall be made at the same time. Hence doubt must attach to many of our records of apparent good, and they need to be confirmed by subsequent observations before they possess weight. I mention this because this morbid state is one of those in which the opportunity for increasing and making sure our therapeutic knowledge comes chiefly to the general practitioner. But we may give the salicylates, or salicin, or aspirin. The salicylate of potash or lithia seems a more reasonable salt to use than the more common salicylate of soda. The salicylates have the disadvantage that we cannot obtain, in combination with them, the diuretic influence of nitrous ether. I think that most good is obtained in the early stage from nitrous ether, citrate of lithia, and colchicum, with which small doses of perchloride of mercury may be combined if the affection is of considerable intensity.

The developed brachial form is extremely obstinate, especially when the fibrositis has spread to the nerves or joints. It is often difficult to perceive that any treatment has a marked effect if the opportunity of the early stage has been allowed to pass. The malady lessens, and passes away in time, leaving only such lasting effects as neuritis or arthritis may have caused. Good is certainly done by superheated air, but the applications have to be continued for weeks, and the accessory incidental disturbance seems to lessen the benefit derived.

The traumatic form of tendinous fibrositis, when it settles down to a stationary condition, with pain on any tension and often some tenderness on pressure, resists almost all treatment. It also passes away in time, but unfortunately the time is long before the tendency to subside manifests itself. If any constitutional condition seems to co-operate in perpetuating the effects of injury, this of course should be treated. It is chiefly to be discerned when fibrositis is set up by slight habitual strain. Rest is important, but is not easy to maintain for an adequate time.

Counter-irritation sometimes lessens the pain, and the actual cautery is certainly the most effective form. A local measure that often does good is the deep hypodermic injection of cocaine, repeated daily for two or three weeks. It unquestionably promotes the subsidence of the sensitiveness, provided the ease obtained is not abused by increased exertion. Probably eucaine would be equally effective.

At present we are without any direct evidence of the real nature of these affections, such as can only be furnished by the microscope and modern methods of discerning that which it reveals. We cannot wonder at our ignorance, still less complain of it, for it is only quite recently that the minute structure of the sensory elements of muscle and tendon has been clearly perceived, and much of the normal structure still remains obscure. It is one of the departments of pathology in which the recognition of the changes that attend disease has to come long after the full discernment of the normal structure. We must therefore be content to wait, and content also meanwhile to rely on the apparent meaning of the symptoms of disease, as far as that meaning can be made out. Opportunities for pathological research are rare. Possibly it would be more true to say that they are rarely seized. They are not uncommon, but need to be watched for to be found. These diseases have little gravity, so far as concerns the mechanisms by which life is ended. The processes that cause death absorb attention, and minor maladies which coexist are naturally disregarded. I shall be indeed glad if what I have said to-day should lead you to look for and to take advantage of opportunities which others may use, if you cannot do so yourselves.

NOTE.—The recent investigations of Cattaneo, Sherrington, Ruffini, Batten, Horsley, and others have added much to our knowledge of the structure of the muscle spindles, but leave their physiology still in the realm of conjecture. Still more is this true of what may be called their clinical pathology, the attempt to discern the part they play in disease. The suggestions made above are, I think, as much as is at present justified—that their normal function may be described as that of "muscle meters." One other remarkable fact may be referred to. It has been definitely ascertained that when all the fibres of a muscle perish in consequence of division of its nerve, or of atrophic disease due to changes in the spinal cord, those that are contained in the muscle spindle remain undegenerated. It is so, even when the nerves within the spindle perish in consequence of their separation from the posterior ganglia. The intrafusal muscle fibres (as those within the spindle are termed) clearly possess some independent vitality. We can only associate this with the remarkable mass of nuclei which occupy the fibres in the middle ("equatorial") region of the spindle. There, for a short space, they seem to replace the transverse striation, which reappears beyond them. Wherever we can trace the element on which vitality depends, it is a nucleus with protoplasm around it. The only reason we can conceive for the presence of these nuclei in the muscular protoplasm, is to secure independent vitality, and it is the only mechanism we can at present perceive by which their nutrition is maintained when all other muscular fibres perish. Far as the retina is removed from these structures, we seem to have in it a peripheral vital centre. Its ganglion cells are believed to control the nutrition of its elements and of the fibres of the optic nerve. But a ganglion cell is simply a nucleus surrounded by circumscribed protoplasm, and a vital influence may be equally exerted by nuclei whose individual protoplasm is not thus limited. The most important researches regarding the muscle spindles are contained in *Brain*, vol. xxvii, 1898, and to Dr. Batten's valuable paper, references to earlier writings are appended.

THE MEDICAL PROFESSION IN AUSTRIA.—According to the Austrian *Medizinalkalender* for 1904 the total number of medical practitioners in the Austrian Empire at present is 11,689. The number last year was 11,339. They are distributed in the several provinces as follows: Lower Austria, 3,454; Upper Austria, 396; Salzburg, 133; Styria, 692; Carinthia, 151; Carniola, 109; Coastland, 352; Tyrol and Vorarlberg, 598; Bohemia, 2,905; Moravia, 955; Silesia, 240; Galicia, 1,413; Bukowina, 146; Dalmatia, 145. In Bosnia and the Herzegovina there are 108 practitioners. In the principal cities they are distributed as follows: Vienna, 2.721; Linz, 63; Salzburg, 4; Graz, 274; Klagenfurt, 41; Laibach, 41; Trieste, 188; Innsbruck, 70; Prague, 580; Brünn, 186; Troppau, 39; Lemberg, 312; Czernowitz, 60; Zara, 20.

CHRONIC CYANOTIC POLYCYTHAEMIA WITH ENLARGED SPLEEN.

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AT the meeting of the Association of American Physicians in May, 1903,[1] I called attention to a group of cases characterized by chronic cyanosis, polycythaemia, and enlargement of the spleen. The chief symptoms were constipation, headache, vertigo, and weakness; in some cases the patients were in very good health, in spite of an intense cyanosis. The 3 patients which I have seen present a fairly well-defined clinical entity. I was able to collect from the literature 6 additional cases; of the 9, 6 were males and 3 females. The youngest was 35 years of age. The cyanosis was the most remarkable feature, without, as a rule, any respiratory distress, and without any obvious cause. Advanced emphysema and chronic heart disease could be excluded in all the cases. The blood presented a greatly increased viscidity, an unusually dark colour, and in 8 of the cases the red blood corpuscles were above nine millions per cubic centimetre. The haemoglobin ranged from 120 to 150; the leucocytes showed no special changes.

In 7 of the 9 cases the spleen was enlarged, in 4 reaching nearly to the navel. Pigmentation of the skin was present in 5 cases. The symptoms were chiefly sensations of fullness in the head, headache, vertigo, weakness, and prostration. Constipation was present in 4 cases, attacks of nausea and vomiting in 2. There were necropsies in 3 of the cases. In Case IV (Stockton) the heart was normal. There was moderate emphysema of the lungs, with cyanosis and moderate enlargement of the spleen. In Case VI (Cabot) the patient died comatose, with cerebral haemorrhage. There was passive congestion of all the organs. In Case IX (Saundby and Russell) there was hypertrophy of the left ventricle and great enlargement of the spleen.

The following additional cases may be mentioned: Dr. J. N. Hall[2] of Denver, reports a very characteristic case in a woman with cyanosis of an extreme grade, dyspnoea, and a blood count of nearly ten millions of red blood corpuscles per cubic centimetre. Türk presented to the Medical Society in Vienna in January, 1902, a woman, aged 40, who had had enlargement of the spleen for about ten years with remarkable cyanosis, and a polycythaemia of nearly ten millions; haemoglobin, 180 per cent. Dr. Joseph Collins reports a case[3] of an Irish girl, aged 24, with an extreme degree of cyanosis of the face and extremities, marked constipation, pain in the side, and a blood count of 9,800,000. The spleen was greatly enlarged. In a recent number of the *Mitteilungen aus den Grenzgebieten der Medizin und Chirurgie* (Bd. xi, Heft 4) Dr. Rosengart discusses the question of splenic tumour and hyperglobulism. His patient was a man, aged 41, who complained of stomach troubles, vertigo, and loss of weight. The skin of the face was mottled with yellowish and violet shades, but was lighter than in the ordinary cyanotic discoloration. The hands were of a purple-red colour. The mucous membranes were very dark. The patient had marked dyspnoea. The red blood corpuscles were ten millions, and the haemoglobin up to 190. The spleen was enlarged. There was slight albuminuria. The case is similar to those reported in my paper, but, not aware of this group, Rosengart leans to the belief, based on certain cases reported in the literature, that the condition is one of tuberculosis of the spleen.

Scharold[4] in 1883 reported a case of miliary tuberculosis of the spleen without infection of other organs. There was no blood count, but the colour of the face is reported to have been between red and deep blue. Rendu and Widal[5] report the case of a policeman who had an attack of vomiting without apparent cause, with dyspnoea. The temperature was normal. Red blood corpuscles, 6,200,000; leucocytes, 6,000. This count gradually diminished. On examination, skin subicteric, cyanosis of face and hands marked, to a less degree, all over the body. A tumour, evidently the spleen, reaching from diaphragm to iliac crest. Eventually ulcers developed on tongue, and the liver became enlarged. Necropsy: Spleen adherent to diaphragm, fibrous on section, filled with caseous masses.

Collet and Gallavardin[6] report a case of a man, aged 60, with an enlarged, not painful, spleen of two years' duration, without any cachexia and without any leukaemia or fever. There was also enlargement of the liver. The face was very congested (*très colorée*). The blood from the finger was deeply

coloured. There was no blood count. At the necropsy the spleen was found greatly enlarged, 2 kilos in weight, and had enormous caseous masses scattered through it. There were a few old granular tubercles in the lungs.

In D. D. Stewart's case of acute tuberculosis of the spleen[7] the patient had an illness lasting in all a little over two months. Typhoid fever was suggested. There was no increase in the number of red blood corpuscles, which were at one count below four millions. The statement is made that there was a tendency to cyanosis and continued blueness of the extremities and "cold water was resorted to to reduce the temperature."

Cyanosis and polycythaemia are met with then in primary tuberculosis of the spleen, but it does not seem at all likely that the cases of chronic cyanotic polycythaemia are due to this cause. In the series which I have collected there were three necropsies, and no mention is made of caseous masses or miliary tubercles in the enlarged spleen, and, moreover, the chronic course—eight or ten years in some cases—is opposed to it.

In studying obscure cyanosis it is well to bear in mind the possibility of chronic poisoning with the coal-tar products. Dr. W. B. Platt sent me the report of a very interesting case of two years' duration without any enlargement of the spleen or hyperglobulism. The patient denied having taken any drugs, but Dr. Platt has recently found out that she had taken for nearly two years a quack medicine which contains acetanilide.

In a case of chronic acetanilide poisoning reported by Stengel and White[8] the cyanosis was extreme and the spleen could be felt 2 in. below the ribs. The red blood corpuscles were only three millions per cubic centimetre, but the most remarkable feature was the extraordinary increase in the number of nucleated red blood corpuscles, which were on one occasion up to 71,400 per cubic centimetre.

I would suggest to those who meet with cases of chronic cyanosis with polycythaemia to study carefully the condition of the heart and lungs, and in the blood the specific gravity and the viscosity, as the cyanosis probably depends upon the latter and upon the increased difficulty in the flow of the blood through the capillaries.

REFERENCES.

[1] *American Journal of the Medical Sciences*, August, 1903. [2] *Medical News*, New York, 1903. [3] Ibid. [4] *Aertzl Intelligenzbl.*, München. 1883, No. 32. [5] *Bull. et Mém. Soc. Méd. des Hopitaux.* 1899, 3 S xvi, 528. [6] *Arch. de Méd. Exp. et d'Anat. Path.*, March, 1901, No. 2. [7] *Trans. Assoc. Amer. Physicians*, vol. xvi. [8] *University of Pennsylvania Medical Bulletin*, February, 1903.

CHANGES IN THE SPINAL CORD IN DIABETES MELLITUS.

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A NUMBER of cases are now on record in which degenerative changes have been found in the posterior columns of the spinal cord in diabetes mellitus. In 1894 I recorded[1] two cases in which these changes were present.[2] Recently I have found similar changes in another case of diabetes mellitus of a very severe form.

The patient was a man, aged 25, who was admitted into the Ancoats Hospital, April 6th, 1903. The diabetic symptoms had been first noticed nine months previously. The disease had developed after a period of mental worry and anxiety caused by loss of employment. The man was much wasted. The urine had a specific gravity of 1032; the daily quantity varied from 150 to 200 ounces; the amount of sugar was usually from 18 to 25 gr. to the ounce; a trace of albumen was present, and a deep brown-red coloration was obtained with perchloride of iron. The knee-jerks and tendo-Achillis reflexes were absent. There were no signs of tuberculosis at first, but a slight dullness at the apex of the left lung was detected about three weeks after admission. On April 28th symptoms of diabetic coma appeared, but passed away after the administration of large doses of sodium bicarbonate, with urotropine and purgatives (castor oil and calomel). After a temporary improvement the weakness increased, and death occurred on May 11th, not from coma, but apparently from asthenia.

The necropsy did not reveal any macroscopic change of importance beyond early tuberculosis of the lungs and the marked general wasting. The pancreas, kidneys, and liver appeared normal on macroscopical examination. The spinal cord appeared normal at the time of the necropsy, but after hardening in Müller's fluid a slight change could be detected, on section, in the columns of Goll in the cervical region. To the naked eye Goll's columns in the cervical region appeared slightly paler than the other parts of the white matter. The change was only seen in the cervical region.

Specimens were embedded in celloidin, and sections stained with aniline blue-black, logwood and eosin, and according to the methods of Weigert, Pal, Van Gieson, Marchi, and Bielschowsky.

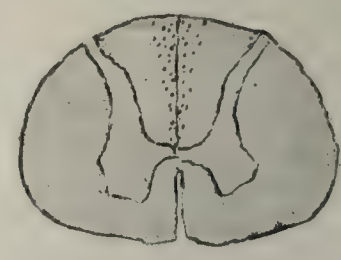

Fig. 1.—Diagram showing position of degeneration in section of cervical region of the cord, stained according to Marchi's method. Degenerated fibres represented by black dots.

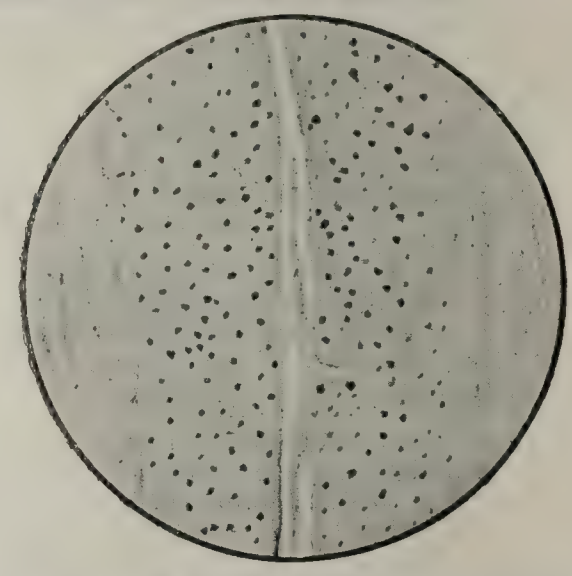

Fig. 2.—In the centre of the figure, transverse section of Goll's columns of cervical region of spinal cord under high power of microscope; showing numerous degenerated fibres, stained black. (Marchi's method). In Burdach's columns at each side very few degenerated black fibres are seen.

Fig. 3.—Degeneration of intramedullary fibres of posterior nerve roots between the surface of the cord and the posterior horn of grey matter. Degenerated fibres stained as black dots, Marchi's stain. Lumbar region of cord. Extramedullary part of posterior nerve root, seen at upper part of figure, is normal.

Microscopical examination of the spinal cord revealed a slight excess of neuroglia connective tissue in Goll's columns of the cervical region. This was best seen in sections stained with aniline blue-black, and according to Van Gieson's method. Even to the naked eye, in sections stained according to these two methods, Goll's columns appeared of a deeper colour than the rest of the white matter. The nerve fibres of Goll's columns were mostly diminished in size; the myelin sheaths and axis cylinders were usually smaller than in Burdach's columns or in other parts of the white matter. In some parts, chiefly at the posterior third of Goll's columns and close to the posterior median septum, a few nerve fibres with swollen axis cylinders were seen. Also in this region a few fibres with distended myelin sheaths were detected (these were best seen in sections stained according to Weigert's method).

In sections stained according to Marchi's method, degenerated fibres, stained black, were seen in Goll's columns in the cervical, dorsal, and lumbar regions; but they were most

numerous in the cervical region, scanty in the dorsal and lumbar regions (see Figs. 1 and 2). A very few scattered degenerated fibres were seen in Burdach's columns. Degenerated fibres (indicated by black dots) were also seen in the intramedullary course of the posterior nerve roots, between the posterior surface of the cord and the posterior horn of grey matter, and to the median side of the posterior horn (see Fig. 3). This degeneration of the intramedullary portion of the posterior root fibres was best seen in the lumbar and cervical regions. The posterior roots, external to the spinal cord, generally presented no degenerated fibres in sections stained according to Marchi's method. In a few sections, however, degenerated fibres (stained black) were seen in the posterior roots for a very short distance, just outside the pia mater; but this degeneration ended very abruptly close to the cord.

The spinal changes here described are probably secondary, and due to the altered blood condition in diabetes mellitus. At the region where the posterior root fibres pass through the pia mater, on the posterior surface of the cord, they lose their myelin sheaths for a very short distance; and it appears probable that at this point the fibres are specially liable to suffer from the action of toxic substances in the blood.[3] The changes in the intramedullary portion of the posterior root fibres could be traced to this point in the case here recorded.

Similar changes in the intramedullary fibres of the posterior root may be detected in tabes.

The knee-jerks and tendo-Achillis reflexes were absent in the case just recorded. These signs have been attributed to changes in the peripheral nerves, and no doubt this is the explanation in many cases. But I have found the peripheral nerves (in diabetes) of normal appearance on microscopical examination, when the knee-jerks have been absent. It is possible that the loss of knee-jerks and tendo-Achillis reflexes may sometimes be due to changes in the intramedullary fibres of the posterior nerve roots. In the case here recorded there were no symptoms of peripheral neuritis beyond the loss of the reflexes just mentioned, but the peripheral nerves were not examined pathologically. The changes in the intramedullary fibres of the posterior roots were, however, sufficient to account for the absence of the reflexes.

REFERENCES.

[1] BRITISH MEDICAL JOURNAL, February 24th, 1894. [2] References to other cases recorded are given in this article and in the writer's book on *Diabetes Mellitus and its Treatment* (London, 1898). [3] D. Orr, *Rev. of Neurology*, vol. i, No. 10, p. 658, 1903.

A NOTE ON THE TENDON REFLEXES IN URAEMIA.

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ALTHOUGH uraemia in its various clinical manifestations is so common, I am not aware that the condition of the reflexes in this affection has attracted particular attention, and on looking through the literature of the subject I find it noted that in acute uraemia there is an increase of muscular irritability with frequent exaggeration of the knee-jerks, but there is no reference to the diagnostic significance of the excess of tendon-reflex excitability which is undoubtedly present in some cases to a most remarkable degree.

Since uraemia may occur in persons apparently healthy and may reveal itself by such varied symptoms, it is of importance to recognize any sign which may prove of help in the differential diagnosis of this affection from others which it may more or less closely simulate.

When we consider that convulsions, twitchings, and restlessness are common symptoms in uraemia, it seems probable *a priori* that an exaggeration of reflex activity would frequently be present, and that such is the fact I have satisfied myself from the examination of a considerable number of cases; I find, too, that the condition may show itself not only by an exaggeration of the knee-jerks, but that in severe cases such phenomena as ankle-clonus, knee-clonus, wrist-jerk, and elbow-jerk may all be present and well marked.

My attention was first directed to this subject about a year ago by seeing a patient suffering from well-marked uraemic coma, in whom I was surprised to find that beside exaggerated knee-jerks, ankle-clonus, knee-clonus, wrist-jerk, and elbow-jerk were all present.

The next two cases of acute uraemia which came under my observation presented exactly similar phenomena, one being a case of coma due to cirrhotic kidneys and the other one of chronic parenchymatous nephritis with oedema, vomiting, and headache, ending a few hours afterwards in coma.

In addition to these cases I have noticed the same signs in other acute cases to a greater or less degree.

Although I do not wish to assert that the reflexes are constantly excessive in cases of uraemia, nevertheless, I hold that this symptom is common, and I will now point out some of the circumstances in which it may prove of diagnostic value.

(1) *In Comatose States.*

In many cases it is very difficult to come to a conclusion respecting the cause of coma, especially when nothing is known as to the previous history of the patient or mode of onset of this condition; specially is it of importance to decide whether the condition be due to a cerebral lesion such as haemorrhage, or to a toxic condition of the blood, such as uraemia.

In many cases, of course, the distinction is comparatively easy from a consideration of the history and accompanying symptoms, for frequently uraemic coma is of gradual onset, and accompanied or preceded by convulsions, twitchings, or restlessness, and is very rarely associated with hemiplegia.

Great difficulties, however, may sometimes arise, for cerebral haemorrhage may begin with a convulsion, it may not be very profound, and may be unassociated with any evident paralysis; and, on the other hand, uraemic coma may supervene suddenly in an apparently healthy subject: may be profound and unaccompanied by convulsions; and, in rare cases hemiplegic symptoms (not referable to an organic lesion) may be present.

In regard to the help in diagnosis given by the examination of the heart, pulse, and urine, it is to be remembered that cerebral haemorrhage is not infrequent in cases of granular kidney, in which affection uraemic symptoms are common, and that albuminuria is occasionally the result of cerebral haemorrhage; absence, however, of albuminuria does not of necessity disprove the existence of granular kidney, for in this affection the urine may be free from albumen for days together.

When all these possible pitfalls are taken into account, it would seem impossible in some cases to make a differential diagnosis between uraemic coma and cerebral haemorrhage, for very little stress can be laid upon the "hissing breathing" which sometimes characterizes the uraemic condition, nor on the state of the pupils, which is subject to wide variations, and indeed the difficulties may be so great that cases are quoted in hospital reports of patients being admitted in an unconscious state, and of death occurring before a definite diagnosis could be made.

It is in such cases as these that I think an examination of the deep reflexes might often prove of much assistance; for if one found exaggerated knee-jerks and ankle-clonus, with, perhaps, other signs of great myototic irritability, a diagnosis of uraemia might be made; though I am not prepared to assert the converse—namely, that the absence of such signs would negative that affection.

In this connexion reference may be made to the statement by Sir William Gowers, that in rare cases of cerebral haemorrhage there may be an exaggerated knee-jerk with ankle-clonus on one side even from the first. Being unilateral, however, this rare occurrence would not be misleading.

Obviously the diagnosis of uraemic coma from apoplexy is of the greatest importance, since the treatment in the former affection should be active, while in the other non-intervention is indicated.

(2) *In Convulsive Affections.*

The epileptiform convulsions of uraemia may closely simulate epilepsy and other conditions. Although in such cases the diagnosis of uraemia may be easy from the presence of other symptoms, nevertheless the exaggeration of the deep reflexes may be helpful.

It may here be noted that Beevor has pointed out that after epileptic fits the deep reflexes may be exaggerated and ankle-clonus be present, but that this condition only lasts for a few minutes.

(3) In other cases, especially those of granular kidney, where certain symptoms may be present without attracting attention to the state of the urine, such as vomiting, headache, *malaise*, dyspnoea, sleeplessness, etc., an exaggerated reflex excitability might lead us to suspect that uraemia was impending, and make us cautious in giving morphine for the relief of such symptoms.

It has been stated that the presence of true ankle-clonus shows almost invariably an organic lesion (lateral sclerosis) of the spinal cord, but as already mentioned, Beevor has shown that it is not uncommon for a few minutes after an epileptic fit. Dudley Buxton has proved that it may be present from the administration of nitrous oxide gas, and Angel Money has demonstrated its existence in some cases of nervous debility, and also, though rarely, in wasting illness such as cancer.

Since I am not aware that the presence of ankle-clonus and other signs of exaggerated reflex excitability have previously been noted in cases of uraemia my object is to draw attention to the fact and to point out its clinical significance from a diagnostic standpoint.

I may say that I do not wish to assert that the above-mentioned exaggeration of the reflexes is present in all, or even in most, cases of uraemia, for the investigations which I have made upon this point do not bear out such an assumption; indeed, when we consider how complex is the uraemic condition, and how variable are its manifestations, it would be surprising to find any symptom common to all cases. There is no doubt, however, that exaggerated reflex action is a symptom which is present in some cases, and that its "presence" may be of considerable diagnostic import. I will not dwell upon a theoretical explanation of the phenomena of increased reflex excitability in uraemia, for it is obvious that renal inactivity may lead to the presence in the system of some toxic material, whose effects are comparable to those of strychnine or the toxin of tetanus; indeed, all the symptoms of uraemia may be explained by the action of toxic substances on the nervous system, and the varied clinical phenomena observed may reasonably be referred to the preponderating influence of one or other of such toxins.

A NOTE ON "BRACHIAL NEURALGIA."

By HOWARD DISTIN, M.B.Lond.,
Enfield.

DR. SIMON'S short article on the above subject in the BRITISH MEDICAL JOURNAL of July 11th last was of the greatest interest to me, as I have had two cases under my care quite recently which coincide in almost every particular with those quoted by him.

CASE I.—A retired army officer, aged about 65, who is an enthusiastic gardener, and quite accustomed to using the spade, became conscious last winter of some loss of power in the right arm, together with pain in the shoulder radiating down the limb to the fingers. The cause of these symptoms was quite clear. He was digging for hours one day whilst suffering from synovitis in the knee, and his efforts to keep the leg straight threw an unusual amount of strain on the arm. In a short time the paresis had so increased that he was unable to give an appreciable grip with the hand. The pain also became so intolerable, especially at night, that he was able to get only occasional snatches of sleep, and he told me he could have cried with the agony. He was accustomed to take a long walk every morning before breakfast, and, the weather at the time being cold and very damp, he found the pain much aggravated thereby, and he used to come home utterly exhausted. No treatment seemed to have the slighest effect, and the pain gradually wore itself out, but even now there is some loss of power. While the trouble was at its worst the patient was unable to shave himself, not so much from inability to raise the razor to the cheek, but from the intense pain caused in the effort to do so. In this case there was fortunately no great deterioration in the patient's general condition, considering the bad time through which he passed.

CASE II.—A gentleman, aged 73, long since retired from an occupation which entailed a large amount of manual work, began to suffer from pain in the region of the shoulder-joint. He had a few days previously assisted to lift his wife, who had had a serious illness, from her bed to a couch, and in doing so he admitted that it had cost him an unusual amount of exertion, which he noticed at the time. In a few days the pain had extended down the arm, especially along the course of the ulnar nerve, to the finger tips. I particularly observed that the most painful spots were over the acromion and along the course of the short head of the biceps, thus peculiarly corresponding to Dr. Simon's first case. Muscular tenderness, especially in the upper arm, was very marked, the myositis being evidently secondary to the perineuritis. There was progressive loss of power, again caused by the extreme pain produced by any effort to raise the arm. Brushing the hair became impossible except by lowering the head to the level of the hand, and the greatest inconvenience was experienced in writing, a prolonged rest being imperative after every few lines. But this patient also complained chiefly of the distress caused by the pain in the arm at night. Continuous sleep was out of the question, and he spent several hours every night sitting up in an armchair getting what little rest he could. This went on for months, and, of course, it told considerably on his general health. In this case also no treatment seemed to produce any improvement in spite of the patient consulting two neurologists of great experience, both of whom warned him that his recovery could only be very gradual. Poultices, liniments, ointments, and blisters were tried locally, and internally sodium salicylate, potassium iodide, arsenic, colchicum, phenacetin, antipyrin, etc., were each tried in turn without success. Considering the age of the patient, it was surprising to me that he did not become more seriously ill owing to prolonged loss of sleep.

In each of the above cases the patient had always been most regular and abstemious in his habits. In both, strain, otherwise traumatism, was undoubtedly the exciting cause, although this only clearly followed upon a depressed condition of health in Case II. In neither case was muscular atrophy very marked. The distressing pain at night seemed to be quite characteristic. It was not brought on by the patient becoming heated, or by the limb being exposed. In each case it came on shortly after the first sleep (in other words, after the limb had been still for an hour or two). Consequently, after midnight very little further rest in bed was obtainable owing apparently to the impossibility of placing the limb in a comfortable posture. What to my mind is the most important point of all, and here I am sure I am echoing the opinions of the patients, is the fact that all forms of treatment were equally unsatisfactory with regard to the relief of pain.

In neither case did I employ morphine, as in my opinion its use causes the last state of the patient to be worse than the first.

In conclusion, any one who reads Dr. Simon's article in conjunction with the description of the above cases must be struck with the many points of similarity.

Since writing the above, there has been a very gradual improvement in the condition of Case II, effected by bathing the shoulder and upper arm with very hot water thrice daily, a remedy suggested by one of the consultants. But perhaps the result has been rather *post hoc* than *propter hoc*.

RESPIRATORY SPASM FOLLOWED BY CESSATION OF BREATHING IN A RECENTLY-BORN CHILD.

By ROBERT FULLERTON, M.D.,
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IN view of the difference of opinion held in regard to the production of infantile spasm or stridor, particulars of the following case that came under my notice may be of interest.

Late in the evening of March 2nd last I was called by Dr. J. Hamilton Campbell, of Partick, to see a child that suffered from difficulty in breathing. The history of the case was as follows:

The baby, a first child, was not quite 3 days old, and although forceps had been used to assist its delivery no real difficulty was met with, and labour was regarded as normal. Both parents were young and healthy, but the father was of a decidedly neurotic type. The child was a plump, well-developed boy, without any traceable mark or abnormality, who, until thirty-six hours after birth, showed no unusual symptoms. About this time he appeared to be irritable, and cried a good deal, and when he cried his face became rather deep in colour. During the night following this he slept well, but in the morning the nurse stated that, on awakening, after uttering one or two cries, he appeared to cease breathing and became livid. She placed him in a hot bath without any effect, and it was only after artificial respiration had been carried on for some time that his normal colour returned. Similar attacks followed with brief intervals, during which his breathing and cry were natural.

Dr. Campbell, having been summoned, found that the child was alive, though its pulse could not be felt at the wrist, and its heart's sounds were so slow and feeble that they could barely be detected. The attacks occurred without any apparent cause, as the child lay breathing naturally, with eyes shut, and sometimes when asleep. They lasted from fifteen to thirty minutes, with intervals of from five to ten minutes, and during these intervals the baby took nourishment readily from a spoon. Breathing appeared to be arrested at the end of inspiration, and it is doubtful how far artificial respiration affected the duration of the attacks, as only a shallow sigh could be heard at long intervals. Ether was injected hypodermically, and used by inhalation without any effect.

State on Examination and Progress.—These attacks had been in progress for over twelve hours before I saw him, and he was then deeply cyanosed, although artificial respiration was being carried on. Supported in the arms of the nurse, he lay limp and motionless as if in the last stage of asphyxia. The artificial respiration was continued for some time without any apparent effect, although it probably kept the child alive, but shortly after oxygen had been brought into use respiration gradually became established, and his normal colour returned. For about five minutes the patient seemed peaceful and comfortable, but

about the end of that time another attack supervened, which was ushered in by three deep crowing inspirations. After the third inspiratory sound the child threw its head backwards with its eyes half opened, raised slightly both arms for a few seconds, and then let them drop by its side. The child seemed, suddenly and without further effort, to cease breathing, and became rapidly cyanosed. There was no movement or struggle of any kind except an occasional feeble sobbing gasp. Artificial respiration with oxygen was resorted to, as before, and after some time normal respiration returned without any special manifestation. There were no convulsions, and in the intervals between the attacks the child showed no signs of exhaustion and looked surprisingly placid.

Operation.—It was felt that something ought to be done to relieve or obviate the attacks, and Dr. Campbell was strongly of the opinion that the initial cause lay at the glottis. The crowing sounds at the onset of the seizure, and which seemed to be produced in the larynx, favoured this supposition, but the very feeble respiratory effort that was put forth led one to suspect complications in connexion with the respiratory centre. A view could not be obtained beyond the epiglottis, which was of the usual infantile type, and inspection and palpation with the forefinger negatived any idea of hypertrophy of the faucial or pharyngeal tonsil. It was decided to perform tracheotomy in preference to intubation, and during an interval between the attacks the trachea was opened, after having to draw slightly downwards the isthmus of the thyroid. A small amount of chloroform was used, and there was no difficulty with the breathing during the operation. The result was satisfactory, for all the symptoms disappeared after the tracheotomy tube had been inserted.

Subsequent Progress.—The further history of the case was quite uneventful. The morning following the operation he was found to have passed a good night, taken nourishment freely, his bowels had moved and his temperature was normal. On the 6th, or four days afterwards, I removed the tube and placed a thick pad of gauze over the wound, but in a short time the patient seemed to experience difficulty in breathing, became excited, began to cry, and finally relapsed into an attack similar to those already described. At this time I spent about an hour in accustoming him to breathe by making him inspire by the wound and expire by the larynx. An unsuccessful attempt was also made to get a view of the larynx as I suspected the presence of a loosely attached congenital papilloma. The tube was then reintroduced. The same plan as regards breathing was carried out on the 7th. On the 8th he seemed to have more confidence and to breathe better, so when the usual spasm took place the pad over the wound was retained and after a rather severe struggle the spasm appeared to relax and breathing became natural. A firm pad was put over the wound and retained with a bandage during the day. The tube was replaced that evening and finally removed the following morning or six and a-half days after operation. Five and a-half months afterwards he had had no recurrence of the symptoms.

Can a satisfactory explanation of this respiratory disturbance be given? In some respects it resembles laryngismus stridulus, while in others it offers points allied to the condition described by Thomson[1] under the title of "infantile respiratory spasm," and which is further discussed by Sutherland and Lack[2] as "congenital laryngeal obstruction." But while possessing features in common with both of these affections it differs in certain particulars from either. The early age of onset and the absence of any known cause or complication correspond with what is noted in infantile respiratory spasms, but in other respects the general character of the attacks differs. It resembles more closely a severe attack of laryngismus, for there is in both a sudden onset with a few inspiratory struggles, which is followed by cessation of breathing. But in laryngismus, except in rare instances after the occurrence of cyanosis, the spasm relaxes and respiration is resumed. Moreover, the severe forms are usually accompanied by spasms of other muscles and general convulsions.

The attacks in the present case differ from these in being free from convulsions or facial spasms, in being prolonged in character, and in following each other in rapid succession without any apparent cause. Further, cessation of breathing, which showed little tendency to pass off, invariably occurred, and the symptoms were instantly relieved and ultimately entirely disappeared after tracheotomy. That the laryngeal spasm was the chief factor is shown by the natural breathing which followed opening of the trachea.

We have here to deal with a powerful stimulus, or a peculiarly hyper-sensitive nervous organization, or a combination of both. Accepting the statement that electrical stimulation of the central end of the superior laryngeal branch of the vagus nerve usually tends to inhibit inspiration, we can well believe that an irritant sufficiently powerful to cause glottic spasm would profoundly affect the highly sensitive respiratory centre, and so bring about such inhibition. It might further be argued, that the respiratory centre being largely automatic in action, this automatism having once been interfered with would not be sufficiently established in so young a child as to enable it to respond readily to the stimulus from the venous blood.

REFERENCES.
1 *Edinburgh Medical Journal*, September, 1892, p. 205. 2 *Lancet*, September 1897, p. 653.

HYSTERICAL PARAPLEGIA IN THE MALE.

BY FREDERICK SMITH, D.S.O., L.R.C.P., L.R.C.S.I.,
Major, Royal Army Medical Corps.

HYSTERIA is not generally regarded as a military disorder, and in the advanced form above named it is probably rare in males, whether civilians or soldiers. Two marked cases, however, have come under my care in army practice.

CASE I.—This was a negro soldier of the West India Regiment, aged 23, serving in West Africa. The patient was admitted for malarial fever. The fever subsided in the course of three days' treatment, and it was suggested to the patient that our sympathetic attentions would be no longer required after the morrow—a return to stern duty was imminent. The following morning he complained of a lump in his throat; there was also a pain there. In the evening the pain extended from the throat to the legs. Finally he was unable to move his legs at all. The case was recognized as hysteria throughout, the cue being the initial globus hystericus. The difficulty was to bring it home to the man's mind. Corrigan's buttons applied along the sciatic nerves had no effect except to injure the patient's skin. There was not an electric battery available. For some three months the patient lay on his back, legs fully extended, and bedsores developed on his heels. This last fact caused the diagnosis to be questioned. In the meantime, however, on two occasions when visiting the hospital in the evening I saw that the sleeping patient's legs were doubled up. The attendants most likely told him of this fact. Any way, he informed me one morning that he was much better, and would like to try and walk.

The next day, at my morning visit, the man was clothed and standing by his bed. He was discharged to duty. Two years later he was still soldiering, and displayed to me with some merriment a scar where the buttoning had been a little overdone.

CASE II.—This was a European British soldier, aged 19, at home. His history is taken from the written records, as he came into my hands at a late period in the disorder. He was first admitted for influenza. After a couple of weeks' treatment he was discharged to go on active service in South Africa. The day after embarkation he reported sick, with weakness of the legs. Arrived at Capetown, he was transferred to hospital and at once invalided home. At this time he is said to have had weakness of limbs, exaggerated knee-reflex, some inco-ordination, and great difficulty in walking. When I took over the case in England the man had been some six months in hospital altogether. He had been supplied with a bicycle-wheeled chair to be worked by hand, and in this conveyance he moved about the hospital as quickly as the men on foot. He was allowed as much food and drink as he liked to ask for, being, so to speak, one of the war heroes.

His condition was as follows:—Lower Limbs: Absolute motor paralysis as far as patient's will was concerned. The limbs were invariably fully extended in front of him, but he could sit up in bed. Complete anaesthesia to touch, pinpricks, etc., existed from the toes to about the junction of the upper-third and middle-third of the thigh. The knee reflexes were slightly exaggerated. The rest of the body was normal; the bladder and rectum unaffected; and no pain experienced along spine or anywhere else. There was no wasting of lower limbs; appetite was very good; sleep was normal.

The patient had gone on from bad to worse. At the Cape he could get about a bit. At home, though the picture of health in other respects, he was completely paraplegic, and daily massage caused no improvement. There being a suspicion that the case was one of functional disorder, a reliable nursing sister was asked to observe the man at night. She reported that on two occasions she had seen him move his legs when he was asleep; a definite movement, such as drawing up his knees. Her evidence was confirmed from other sources. A strong battery was then used. To this there was no anaesthesia; the muscles contracted quickly and powerfully, and the patient complained that the current was too strong; that the pain was very severe. There was no change in the symptoms during the next few days.

I then lost sight of the case for six weeks. On my return the patient appeared to be no better. He was invalided as unfit for further service, but remained in hospital. A few days after passing the Board for discharge the man was again examined carefully, and the battery was mentioned. On examination it was surprising to find that he could move the limbs a little. The battery had gone wrong (the current being scarcely perceptible), yet it was noticed that he contracted the extensors of the foot before the electrode touched him. He was inconsistent in some of his statements as to anaesthesia, and as regards perception of heat, etc. Anaesthesia seemed to be patchy, but on going over the ground several times mistakes were made—places were anaesthetic one moment and five minutes later were not so. I should have said that the man was now aware that I thought he was not so helpless as he seemed to be.

Permission to carry out the Weir-Mitchell treatment with this case was refused, but his wheeled chair was taken away. He was given a walking machine, and told that he *had* to

walk. A week later he was walking fairly well with a stick, though there was still exaggerated knee-jerk. The case then passed out of my hands.

That these cases were both hysteria I have no doubt. As complete recovery of Case II had not taken place when I parted from him, I cannot say for certain that it was purely hysterical. It may be thought that there was a malingering element in both the cases, for both men expressed their wish to be invalided, thus revealing a sufficient motive; but that Case I, however, could have gone on to bedsores without self-mesmerizing agency is unlikely.

AN UNUSUAL EPILEPTIC CASE.

By W. HENRY LEWIS, M.B., B.Sc.Edin.,
Llansantffraid.

The following short note refers to a case of epilepsy of sufficiently unusual character to be worth recording: The patient, a young fellow 25 years of age, a farmer's assistant, first came under my observation on December 26th, 1902, and on that day I had an opportunity of observing a form of fits which was new to me. The patient when I entered the room was in the position of opisthotonos, which was abruptly and violently exchanged for that of emprosthotonos, and then back again, the alternations occurring three, or four times varied with an occasional right pleurothotonos. The subsidence of the fit was followed by a short interval of consciousness, after which I was able to watch the initiation and development of another fit. The first indication of the onset I noticed was a dulling of the intellect, followed by a fixing of the gaze; then came complete suppression of consciousness, extreme extension of the right leg and right arm, with clenching of the right hand, followed by the alternations between opisthotonos and emprosthotonos, with an occasional curious grand convulsion of the body to the right, which threw the patient, if not held, out of bed. A succession of such fits gave opportunity of observing their undoubted peculiarities. Unconsciousness apparently commenced with the fixed look, a decided and obvious dullness preceding it. The convulsions were tonic in character, and not of the ordinary tonic-clonic epileptiform type; there was, in fact, no succession of clonic movements. They were entirely limited to the right side of the body; the left side during the fit being at rest, even while the opisthonotic and emprosthonotic positions were maintained, a lateral deviation to the right in these positions being noticeable. During the subsidence of a fit the face took on an expression of agony, and the left hand, with a slow and deliberate movement, was passed up to the left side of the head; this was a regular sequence, and almost immediately the unconsciousness passed off, and, in a hesitating manner, the patient would converse and respond to questions, and even gave information as to his history, which information was verified on later inquiry, but had no recollection or knowledge of the fit through which he had passed.

While still conversing he would lapse into a state of dullness, the eyes would be fixed, unconsciousness occur, and the details of a fit as I have described them follow. This type of fit continued to occur and recur for about four hours, then, after a period of rest, he became maniacal, and attempted to strangle himself by means of his handkerchief, and, when this was taken from him, by a rolled-up corner of his bed-sheet. Being again interfered with, he violently and with intention threw himself—striking the left side of his head—against the wall of the room which adjoined his bed.

When I saw him next morning I found that the type of fit had altered. It was now much modified, and was of the ordinary epileptiform variety—tonic and clonic—slight in degree, and limited to the right side. The unconsciousness was not so profound, but was still preceded by the dullness, and disappeared with the subsidence of the fit. He would then at once converse and give expression to gloomy forebodings, his mania being decidedly melancholic. He stated that all was up with him, that he would be of no good any more, and asked for a razor that he might kill himself. He complained of pain on the left side of his head, and suddenly, with quick elusive springs, would bang that side of his head against the wall with apparently suicidal intentions. The gravity of the symptoms on the third day had appreciably diminished, and on the fourth day the epileptic state was over, and he was practically well.

I have allowed time to elapse before reporting the case, so that I might be enabled to watch for any recurrence of the attacks, but I have only to record that he has been in all ways perfectly well since. In character he is a man of singularly fearless disposition, careless of danger and peril, and most distinctly "non-nervous."

His previous history was as follows: About ten years ago he was waylaid by robbers, who knocked him on the head and left him lying unconscious. Since that time he has had occasional fits, the last series having occurred three years previously to the one I describe, but none had the severity of the one under notice.

The family history is good; father and mother are alive, and there are brothers and sisters who have nothing in their history, as far as I have ascertained, which affords any light on the case.

The treatment adopted consisted in large doses of bromides, which drug he still takes; blistering over the left side of the head, and the administration of croton oil, the brisk action of this drug being a determining factor apparently in his recovery from the epileptic state; the probable beneficial action of this oil being suggested by the possible influence of the generous feeding associated with the festal season in inducing the attack.

Certain interesting points in the case seem worth recapitulating: (1) The dullness of the intellect, which was quite obviously the first indication of the approach of a fit; (2) the curious and unusual clearing up of the intellect which at once followed the subsidence of the convulsions; (3) the violence of the fit; (4) the purely tonic character of the "grand contortions"; (5) the limitation to the right side; (6) the indication of pain on the left side of the head; (7) the prolonged period of the epileptic state; and (8) the long interval between successive periods.

Is this case one to be regarded as of the type described by Hughlings Jackson, or does it partake in any way of the hystero-epileptic form of Charcot's as occurring in the male? Probably the explanation is to be found in regarding it as of the Jacksonian or symptomatic type, the epileptic state being consequent to irritative disturbances in a cortical lesion somewhere in the left central convolutions.

SCLERODERMA ASSOCIATED WITH RAYNAUD'S DISEASE AND ADDISONIAN PIGMENTATION.

By GEORGE C. R. HARBINSON, M.B., B.Ch.,
Matlock.

On June 10th, 1902, I was consulted by a lady, aged 45, who complained of rheumatic pains flitting about the body, accompanied by some stiffness. Two and a-half years before she had an attack of "influenza," followed by rheumatism, which lasted nine weeks. A year later the rheumatism reappeared, and had since troubled her. I noticed that the skin of the neck and parts of the face looked bronzed, and on inquiry found it had been gradually becoming more pronounced during the past four or five years. The pigmentation began, the patient thinks, on the abdomen and top of the thighs, and then affected the chest and arms, and recently the neck and face. The patient has not felt in good health for five or six years, owing to "worry and bother and trouble." Twelve months ago she noticed, when she stretched her hands and fingers out, or when she went out into the cold, that the fingers became white at the tips, numb, and icy cold, which condition disappeared on warming them thoroughly. Shortly afterwards they broke out at the tips, and continued in this condition all the summer, being treated as "whitlows" by the medical attendant. Now only tiny scars mark the place of ulceration.

During the past six months the condition of the hands has been becoming much worse. The fingers and hands and wrists feel swollen, and the skin has a drawn feeling. On exposure to the least cold the fingers become blue and icy cold and numb, and oftentimes painful, and the tips of the nose and ears become white and cold. There is a peculiar "numb" (not anaesthetic) and tight-drawn feeling in the chin, lower lip, angles of mouth, cheeks, temples, forehead, and over the angles of the lower jaw, so that the patient has difficulty in opening the mouth sufficiently to take solid foods. The skin is dry, the hands and chest alone perspiring in the night. There are varicose veins of twenty years' standing in both legs to the middle of the thigh, and there has been oedema of legs for some years. Five weeks ago the patient was laid up with phlebitis of the right internal saphena vein from above the ankle to the middle of the thigh, and she is now suffering from a similar attack in the left leg. She has

lost half a stone in weight since the beginning of the year. She has no cough, has palpitation of the heart sometimes, dyspnoea only on going up hill; she has had occasional fainting attacks since girlhood, but these have not been worse lately. The appetite is pretty good; seldom any sickness; the bowels are rather constipated, and there are no piles. There is some bladder catarrh, menstruation is regular, and there is some leucorrhoea. She sleeps well.

On examination the hands and fingers are stiff and swollen-looking, covered with a thick, hard, shiny skin of slightly yellow tinge that cannot be pinched up. When kept warm the fingers are red and burning, on exposure they become affected with a local asphyxia. The nose has a pinched look and is cold. The cheeks are pale, glossy, and hard, and the skin is thick and cannot be pinched up; and that on the chin, forehead, temples, over the angles of the lower jaw, lower half of neck, over the manubrium sterni, and in the infraclavicular regions is of a similar character. Over the greater part of the body the skin presents bronzing, or a brown pigmentation, varying in intensity in various parts. There is decided bronzing of those parts of the face and neck not affected by the sclero-derma, the parts so affected being much less pigmented and surrounded by a somewhat hyperaemic zone. The patient says her hair has darkened from brown to black during the past two or three years. The conjunctivae are natural in colour. On the lower lip is a brown line where the upper meets it on closing the mouth, as well as one at the junction of the mucous membrane with the skin; and on the buccal mucous membrane inside the lip is a light brown irregular patch the size of a finger-nail. There are no patches on the tongue. The neck and upper part of the chest are markedly browned; the posterior triangles of the neck are very deeply pigmented, and below the left angle of the jaw is a collection of very dark "freckles" on the already pigmented area. The arms are uniformly lightly bronzed, with marked bronzing in the flexures of the elbows and over the olecranon. In the axillae the brown colour is very marked, and especially on the anterior and posterior borders where the friction of the garments is most exercised. From the axillae the deep pigmentation extends down both sides, over the lower part of chest, and the whole abdomen and buttocks and upper third of thighs. Below that the bronzing is light to a little below the knees, being marked in the popliteal spaces, and over the patellae and ligamenta patellae. The skin of the abdomen, sides, groins, and perineum is as dark as a mulatto's, and has the same soft, dry feel. A specially dark band circles the waist to the spine, due to pressure of waist bands. The back is but lightly discoloured, except over two or three of the lumbar vertebral spines, which are darkly pigmented from pressure of the corsets. The breasts are natural in colour, contrasting strangely with the surrounding dusky skin, but the nipples and areolae are dark brown. On the right leg the whole course of the old phlebitis is mapped out by a dark brown broad line of pigment, which shades off gradually to the surrounding colour, and suggests the marking of a range of mountains on a map. This is evidently due to the deposit of pigment during the cutaneous hyperaemia accompanying the phlebitis. The skin of the feet and legs below the knees is not pigmented except for the geographical marking I have just described, and a few little brown areas over little knots of varicose veins. This omission is probably due to the existence of a chronic state of oedema in those parts. The feet go cold and blue easily, but there is no numb feeling or thickening of the skin. A deep scar of an old burn above the left elbow is quite white. The patient is anaemic; the heart asthenic, with some dilatation; and there is nothing abnormal to be found in the lungs or abdomen.

This case is remarkable in several respects: (1) There is sclerodema of the diffuse type affecting the hands, wrists, face, neck, and top of chest; (2) there is associated Raynaud's disease affecting hands, nose, and ears; there is deep bronzing of the skin, in distribution and characteristics typical of Addison's disease, without the typical constitutional symptoms, though there is undoubted debility.

Is this combination a rare clinical entity?

DISQUIETING reports having appeared in the press as to an outbreak of yellow fever in Jamaica, the Governor has telegraphed to the Colonial Secretary that, since the death of an officer from the disease reported on November 19th, 1903, no case has occurred, and that the state of health in the island is most satisfactory.

A MODIFIED OPERATION OF CASTRATION.*

BY WILLIAM THORBURN, F.R.C.S.,
Honorary Surgeon, Manchester Royal Infirmary.

I WISH to call your attention to certain modifications in the operation of castration which I have practised during the last twelve months and which appear to me to constitute an improvement on the ordinary method. Whether, in so doing, I am following in the footsteps of others, I do not know but I have not found any description of the operation which we now adopt.

You are aware that we encounter special difficulties in procuring strict asepsis in operations upon the scrotum, difficulties due to various factors of which the most important are the folds of skin, the large sebaceous and sweat glands, the proximity of the anus and urethra with consequent risk of soiling dressings, and the absence of resistance to firm scrubbing or firm bandaging.

You are also aware that the lax connective tissue of the scrotum tends to the ready production of oedema, and that its numerous veins are liable to cause oozing of blood into its substance, these factors rendering its tissue a most favourable nidus for infective organisms. It is for these reasons that we take somewhat exceptional precautions in operating through the scrotal skin. In the operation for varicocele we make the incision as high up as possible, and bring it over the pubic region; in the radical cure of hydrocele we do not close the wound completely, but insert a gauze drain to remove the blood and serum which form so exceptional a cultivating medium.

In the operation of castration the difficulty of an aseptic technique is often still further increased by the presence of an open sinus or ulcer due to tuberculous or less commonly to fungating malignant disease. Under these unfavourable circumstances, suppuration after operation is difficult to avoid, and although the ultimate result is probably always, or nearly always, satisfactory, it is not unusual to have convalescence prolonged by the formation of sinuses leading to ligatures which have been placed upon the spermatic cord or by slowly-healing wounds of the scrotum itself.

To a certain extent these difficulties are overcome by making the incision as high as possible, and then dragging the testis upwards, and by this method we can avoid in many cases cutting through the skin of the lower part of the scrotum, but we still have a more or less extensive scrotal wound continuous with that which leads to the ligatured end of the cord. It is thus important to avoid if possible any connexion between the upper part of the cord with its ligatures and its communication with the pelvis on the one hand and the too frequently septic scrotal wound on the other.

It is also important in most cases of tuberculosis and malignant disease to divide the cord at as high a level as possible, and for this purpose the internal oblique muscle often requires to be partially divided, while we do not wish to leave a weakened area which may give exit to a hernia.

The operation which I now describe appears to meet most thoroughly these various indications—namely: (1) To give high access to the cord; (2) to close securely the abdominal wall; and (3) to avoid the danger of suppuration in the upper wound, with tedious convalescence and possible exacerbation of tuberculosis about the upper end of the cord and the vesiculae seminales.

The pubic and scrotal regions having been prepared in the usual manner and the patient placed upon the table with his antiseptic compress *in situ*, the latter is turned off the pubic region only, the genital organs being still covered by it. An oblique incision is then made along the line of the inguinal canal as for the radical cure of hernia, but only about 1½ in. in length, the external oblique aponeurosis and the internal oblique muscle are separately divided, and the spermatic cord is traced well down into the pelvis, and clamped there with Spencer Wells's forceps. By means of an aneurysm needle the cord is then transfixed and securely tied with silk immediately above the clamp. A single ligature is next placed on the cord, about ½ in. below the clamp, and the whole cord is cut across close to and on the distal side of the clamp, which is then removed. The spermatic cord is thus doubly ligatured, and is cut across at a high level. To close the abdominal wall the internal oblique muscle is then sutured to Poupart's ligament, the external oblique aponeurosis is sutured, and the skin wound is completely closed. For the deep sutures we use

* Extract from a Clinical Lecture.

silk, and for the skin silkworm gut. A fresh guard is then applied to the wound which is afterwards to be dressed, or the latter may be at once sealed with collodion.

We now for the first time uncover the scrotum and can complete the operation very quickly. The testis is held up firmly between the index and middle fingers of the left hand, and a short, straight incision made over it, unless there be a septic opening in the skin which would be cut out by two curved incisions. As soon as the skin is divided the entire testis, with its appendages and the whole length of the cord, is squeezed forward and can be torn out of this wound. The edges of the latter are still held and clamped by the fingers of the left hand, and before it is released a number of straight needles bearing sutures are thrust through its opposed edges. The grasp of the left hand being now slightly relaxed it will be found that any cut veins are readily seized and tied, while in some cases it is unnecessary to secure any of these as they are controlled by the sutures. Finally, the clamping fingers are again tightened and the needles are drawn out and the sutures tied by an assistant, the clamping action of the fingers having brought the skin edges into good position, so that accurate suturing is much more easy than in ordinary scrotal operations.

This method of operating may at first sight appear needlessly complicated, but it is actually most easy to perform. The total length of incision is less than the ordinary operation for ulcerating disease of the testis with high division of the cord, and the time required is probably shortened, especially as suturing is so readily performed.

That the operation is efficacious in its primary object is indicated by the fact that in all cases the upper or pubic wound has healed by primary union, the silk ligatures and sutures giving no trouble. In two instances of tuberculous disease with ulceration the scrotal wound became infected, but the important pubic wound remained absolutely aseptic.

My colleague, Mr. J. W. Smith, informs me that he has recently adopted a similar method of operation by double incision in a case of troublesome suppurative tuberculosis of the testis, without having been aware that I had been practising it, and he also has been much pleased with its simplicity and its satisfactory results.

INTRAPERITONEAL ABSCESS DUE TO PNEUMOCOCCUS.

By STANLEY BOYD, M.B., F.R.C.S.,
Surgeon, Charing Cross Hospital and Brompton Hospital for Consumption.

MRS. A. R., 26 years, was sent to me at Charing Cross Hospital late on November 1st, 1902, by Dr. Rogers, of Belvedere. She had had three children, the youngest being 6 years old; no pregnancy since. Menstruation had been quite regular, and—four weeks ago—she was expecting a period when the present illness began. Except that she was inclined to constipation, she was perfectly well. She was suddenly seized with severe pain in the lower abdomen, and became rapidly collapsed. So serious was her condition that when Dr. Rogers saw her, shortly after the onset of the pain, he was afraid to move her even to the Cottage Hospital. He thought that either a tubal gestation had ruptured or that some viscus had perforated. There was no vaginal discharge. Within an hour incessant vomiting and diarrhoea came on and lasted for six hours, since when there has been marked constipation. Micturition normal. The abdomen soon became distended, but this together with the pain gradually subsided and disappeared in about a week, tenderness lasting somewhat longer. During the first week the temperature reached 102° to 103° daily. For the next fortnight she was kept in bed because she was so weak, but she was free from pain.

Six days before admission, pain, abdominal distension, and fever recurred and increased, and she again became very ill. When she reached Charing Cross she was found to be a well-nourished woman, in obvious pain; she did not move from dorsal decubitus if she could avoid it. Temperature, 102.8°; pulse, 136; respirations, 30. The abdomen was curiously distended, being full from the pubes to the navel, and thence outwards and upwards upon either side into the iliac and lumbar regions, reaching even to the ribs. This fullness was more obvious to touch, and a distinct wave was obtained across its area. The regions named were dull, except behind the loins, where some resonance persisted. Respiratory movements of the abdomen were fair. Per vaginam a firm, tube-like body was felt in the right half of Douglas's pouch.

It seemed probable that some acute infection of the pelvic peritoneum had occurred at the onset of the illness, that after a week the inflammatory exudate became well shut off, but that in the fourth week fresh and pretty rapid increase of the exudate occurred, and the adherent intestines, etc., round about it were raised in the manner shown by the physical signs.

Accordingly, an opening was made above the pubes, the tissues deep to the recti being found oedematous, and about three pints of inoffensive pus, showing no sign of admixture with blood, escaped. Mr. Leathem, our bacteriologist, found it to contain the pneumococcus in pure culture. Counter-openings were made far back in the loins, and a large tube was introduced into each opening. Examination from the suprapubic wound showed that the pelvic viscera lay beneath a layer of lymph, and a body like the uterus was fixed in front of the left half of the sacrum. Just above the navel some loose intestinal adhesions were felt, limiting the cavity in this direction.

The patient improved rapidly, temperature and pulse reaching normal on the 5th. After that, however, the evening temperature not uncommonly was 100°, and the pulse quick, out of proportion to this, 132 being once recorded. The lumbar drainage was abandoned in a week, the suprapubic drainage in a month (when she got up), and all wounds were healed in six weeks.

On November 16th I found the uterus fixed with a rounded swelling behind and on either side of cervix, not tender, and fixed.

On October 20th, 1903, this patient was readmitted for operation upon a small ventral hernia, which had formed where the drainage tube had lain in the suprapubic scar. Except that the swellings by the uterus were larger and filled much of the pelvis, and that the left was now easily felt above the pubes, the pelvic contents were as on November 16th, 1902. Were these swellings tubes, and had the actual onset of illness been due to infection from them of the pelvic peritoneum?

At the operation for cure of the hernia I found the swellings to be due to a large left and smaller right collection of clear red serous fluid, apparently in the broad ligaments, and beneath the peritoneum of the left pararectal fossa. I could find neither ovary. The normal right Fallopian tube arched out and back over the right cyst. The left I could not find, but in removing as much as possible of the wall of the cyst I cut across a structure on its posterior aspect near the uterus, which was almost certainly the Fallopian tube—undilated.

This further operation, therefore, threw no light upon the mode of infection of the peritoneum with the pneumococcus. The absence of all smell from the pus showed that no perforation of the appendix or other portion of the intestine had occurred. The absence of blood pigment negatived a haematocele as the starting point. I believe I may say that neither tube contained pus. The accumulation of serous fluid beneath the pelvic peritoneum was probably a by-result of an acute purulent peritonitis.

THE INVASION STAGE OF MEASLES.

By EUSTACE SMITH, M.D., F.R.C.P.,
Physician, East London Hospital for Children, Shadwell: Consulting Physician, City of London Hospital for Diseases of the Chest.

DR. MARSDEN, in his remarks in the BRITISH MEDICAL JOURNAL of December 26th, 1903, p. 1031, upon the stage of invasion of measles deals with a subject of great interest. There must be few practitioners who at one time or another have not been puzzled by the freaks of the infectious fevers. A scarlatinous rash with a sore throat, but a normal temperature; or fever with sore throat, followed after an interval by peeling of the skin without previous eruption, are abnormalities to be met with from time to time.

As to measles, I have seen several cases in which the pre-eruptive stage has been absent or unrecognizable. Some years ago I saw a boy of 14 who had been exposed to the infection of measles on February 24th, 25th, and 26th. On March 6th and 7th he did not seem quite the thing, but had no sign of catarrh and was not obviously feverish. On March 8th a few red spots were noticed on the face, behind the ears, and on the neck. He temperature then (in bed) was

99.6°. In the evening his temperature was 102°, and his eyes looked a little red. On March 9th the spots were more marked, he had begun to snuffle, his temperature was 103°, and the rash had spread to the chest and abdomen. On March 10th the rash was fully out and the catarrhal symptoms were fairly well marked. The temperature at 10 a.m. was 102.6°. The complaint ran a normal course. I have seen two other cases in which the bodily heat for the three days before the appearance of the rash was between 98° and 99° morning and evening, and even when the eruption came out did not rise above 101°. In these cases also the catarrhal symptoms developed very gradually.

Lately I have seen a young lady of 12, who became feverish on a Thursday with an evening temperature of 104.6°. Her face was flushed, but she seemed lively and looked well. She had had some headache over the eyes—she was subject to neuralgic headaches—but no cough or other catarrhal symptom. Her appetite was good and she said she was quite well. On the Friday her temperature in the morning was 103.2° and at 6 p.m. 104.5°, but there were no fresh symptoms and the child assured me that she felt quite well. On the Saturday the temperature in the morning was 100.2° and at 6 p.m. 104.8°; still there was no catarrh and a renewed examination of the patient could discover nothing abnormal. On the Sunday (the fourth day) the temperature in the morning was 100.2°; the eyes were a little weak and avoided the light but there was no cough or sore throat; the cheeks were flushed as before, but in addition a few red spots were noticed on the chin, and examination showed the chest, abdomen, and back to be covered with a well-marked measles rash. In the evening the temperature was 103° and there was more rash on the face. On the following day the temperature was normal; there were more spots on the face and the rash had spread to the legs. On the next day (the third of the rash, sixth of the illness) the temperature was still normal and the eruption had begun to fade.

I believe this to have been a true case of measles, although I had seen the patient in a normal attack of the disease only twelve months previously, and although, except for some weakness of the eyes, catarrhal symptoms were absent throughout and there was no feeling of illness. There was no tenderness or swelling of the superficial glands as in rubella. It is curious to note the contrast between the height of the temperature in the pre-eruptive stage, when the fever was the only symptom to be discovered, and the very mild and short course run by the complaint after the rash had appeared. It is possible that the first attack, which had occurred, as has been said, only twelve months previously, may have had something to do in moderating the intensity of the second.

Such abnormal cases are very perplexing. If they occurred during an epidemic one would, of course, bear the fact in mind when searching for the cause of the fever; but in the absence of other cases in the neighbourhood the nature of the attack must remain a mystery until revealed by the appearance of the eruption.

A CASE OF EXTREME HYPERPYREXIA.

By W. C. WATSON GLENNY, L.R.C.S., L.R.C.P.I.,
Omeath, co. Louth, Ireland.

A few notes on this case may be of interest, as a temperature of 113.6° is very rare:

History.—Miss C., aged 19 years, stout and healthy-looking, had enjoyed good health until about eighteen months before this illness, when she had a fall on the back of her head. Shortly after this she began to have occasional headaches with vertigo, which were relieved when she had free haemorrhage from her ears and occasionally from the nose also. The headaches had lately been recurring more frequently.

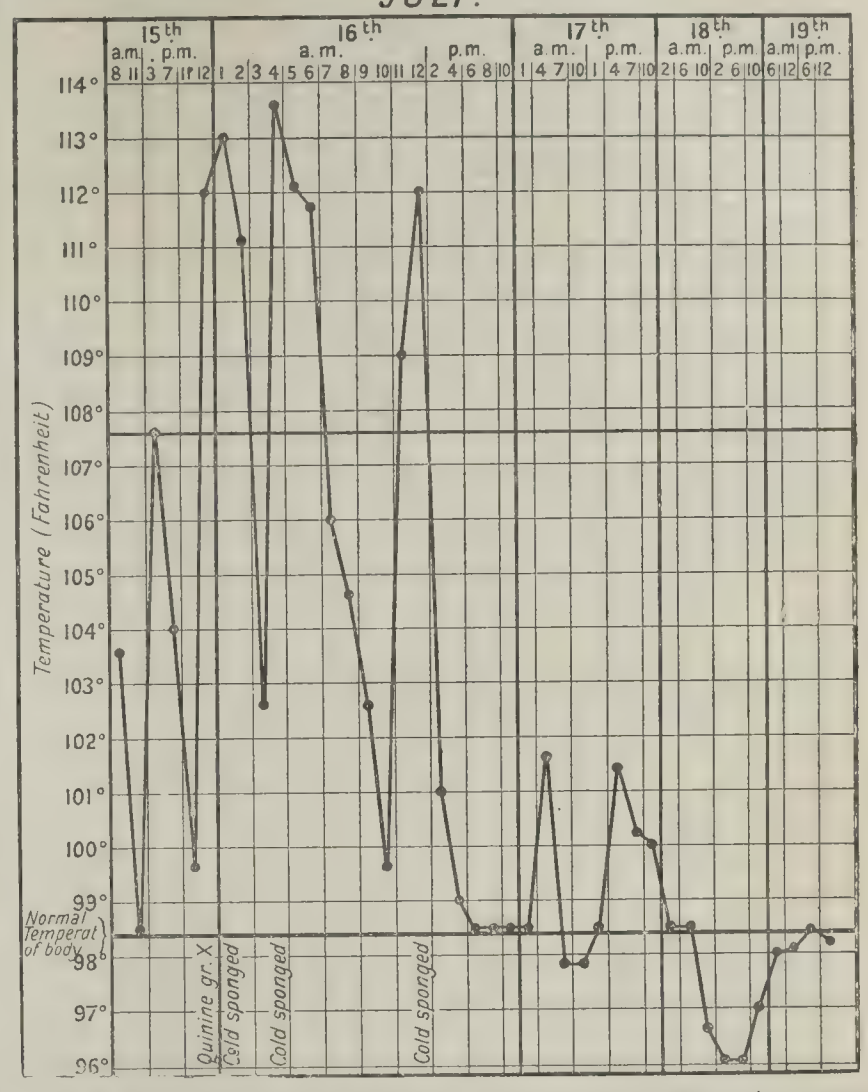
State on Examination.—On June 14th, 1903, I was sent for. I found the patient in bed, lying with her head slightly retracted and with bogginess over the occiput. Her temperature was 98.4° and her pulse 84. She said her head felt as if it would burst, and complained of violent pain over the occiput, giddiness whenever she moved her head, and vomiting.

Progress.—I had her head shaved and a blister put over the occiput, and her ears syringed out with very hot water to encourage haemorrhage as there had been none from the ears for over a week. She was given nutrient suppositories, as nothing had remained on her stomach for three days. The vomiting was cerebral in character.

For the next few days the pain in her head seemed to increase and she became delirious and violent. Leeches were put to the nape of her neck and she was given hypodermic injections of hyoscine (gr. $\frac{1}{100}$), with little or no benefit.

On June 20th as vomiting had ceased she was put on large doses of pot. iod. and pot. brom. which quietened her somewhat, and she also got inunction of Hg. She now said everything looked black to her, and on the following day she could not distinguish between light and darkness.

On June 23rd she started having epileptiform seizures and these continued for four days, and after these she had in turn, dysphagia, right facial paralysis, paralysis of right side of tongue, paralysis of left leg, rigidity of left arm and attacks of angina pectoris. Each of these lasted for a few days and gradually wore off.



Up to July 15th her temperature was normal, pulse 80 to 90, and urine free from albumen. At 8 a.m. on this date the temperature was 103.6°, at 10 a.m. normal, at 3 p.m. as she looked flushed, the temperature was taken when it was 107.6°, although she said she had not felt so well since she had taken to her bed. When I saw her that night the temperature was 99.6°, she said her head felt very tight, but otherwise well. I left quinine gr. x to be given should her temperature go up much, and gave directions to have the temperature taken hourly.

It was on the morning following (16th) that she developed the extraordinary temperature of 113.6°, during which time the nurse informs me she remained quite conscious, but complained of the cold so much she had to give her hot drinks. When I saw her later she said she felt well, only she was "awfully tired."

Result—After this she remained fairly well for a week, when the pain in the occiput started again, with bogginess over occiput, then delirium, convulsions, and partial paralysis in turn, each lasting for some days, and so, as it were, the cycle went on, temperature remaining normal or subnormal all the time till September 17th, when she developed pneumonia, and the temperature gradually rose till it was 110.6° an hour before she died, on September 21st. She remained blind all the time from the second week of her illness.

Unfortunately I could not obtain permission to make a necropsy. The course taken by the temperature during the hyperpyrexia in July is shown on the chart.

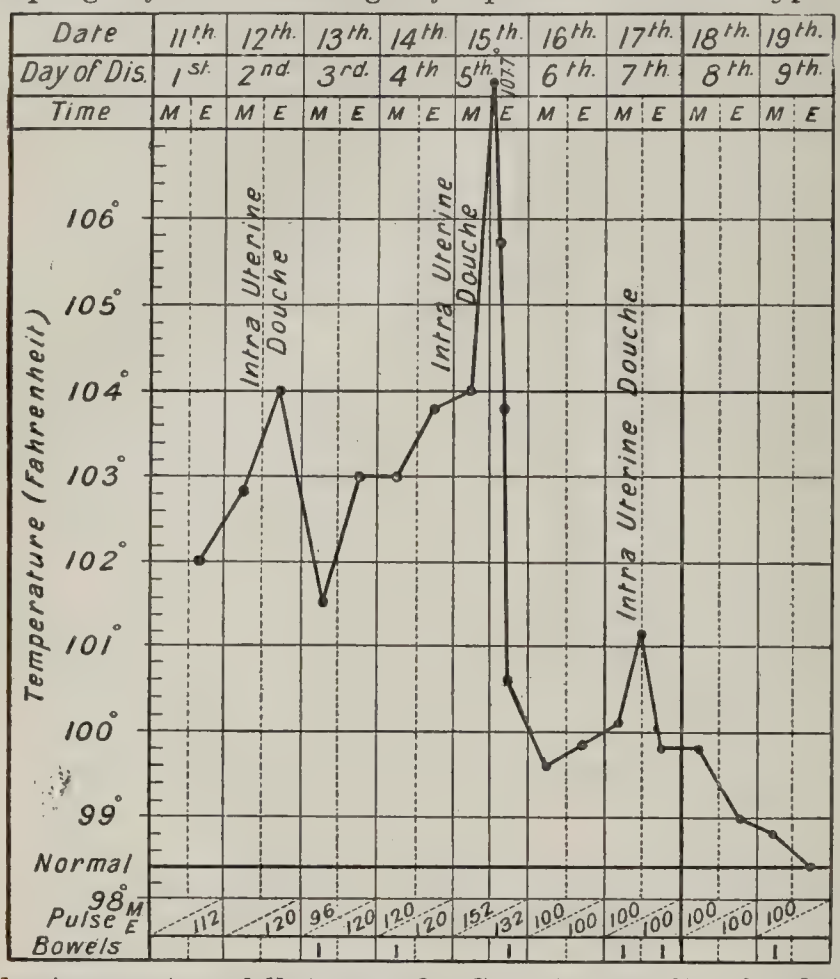
MEMORANDA:

MEDICAL, SURGICAL, OBSTETRICAL, THERAPEUTICAL, PATHOLOGICAL, ETC.

EXTREME HYPERPYREXIA.

HAVING read the notes on extreme hyperpyrexia in the BRITISH MEDICAL JOURNAL of July 25th, 1903, p. 193, and of August 1st, p. 248, the following notes, with chart, on a case of puerperal fever registering a higher temperature, with recovery, than any mentioned by Dr. Watson, may be of interest.

Mrs. A., aged 37 years, housewife, multipara, always enjoyed good health. I attended her confinement on October 6th, which was natural, and until the evening of October 11th she progressed favourably. On that evening a rigor took place, and the temperature rose to 102° F. Lochia natural, and continued so for the following three days. On the morning of October 15th lochia became fetid, and the temperature rose to 104° F. At 3 p.m. I gave a creolin intrauterine douche, and at 4 p.m. a severe rigor occurred. At 5 p.m. the temperature registered 107.7° F. (twice taken to avoid error), and pulse was beating at the rate of 152 per minute. I administered quin. sulph. gr. vj and antifebrin gr. iij in powder form. At 6.15 p.m.



the temperature fell to 105.7°. Gave tr. aconit. ♏j and t_r stroph. ♏iij. Repeated the dose at 7.30 p.m., half the dose at 8.45 p.m., and the full dose at 10.40 p.m. At 8.45 p.m. the temperature had fallen to 100.6° F., and pulse to 132 per minute. At 11 p.m. gave quin. sulph. and antifeb. each gr. iij.

October 16th, 7.20 a.m. The patient passed a quiet night, morning temperature being 99.6° F., and pulse 100 per minute. For the seven days of acute illness brandy, milk, and eggs were administered from every fifteen to thirty minutes.

The patient made an uninterrupted recovery.

H. A. C. DAVIDSON, L.R.C.P.&S.Edin., L.F.P.S.Glasg.
Coupar Angus, N.B.

I OBSERVE in the BRITISH MEDICAL JOURNAL of July 25th and August 1st memoranda of cases of hyperpyrexia, and I wish to record an instance which came under my observation a few days ago, It occurred in a boy of 15½ years suffering from yellow fever. The course of the disease was atypical. When first seen the patient had a temperature of 104.5° F., and this high level was maintained with only slight remissions for the next four days.

From the fifth to seventh days the temperature dropped considerably, reaching 101° F. on one occasion. There was, however, no alleviation of the general condition.

On the eighth day the temperature began to rise again, and ranged to 104° F. Injections of normal saline solution were administered under the skin of the abdomen in order to try to relieve the labouring kidneys. At 4 p.m. on the ninth day the temperature rose to 105.1° F. It fell 1° after sponging with alcohol and water. At 7 p.m. it had risen to 107° F., and as the patient was in a sinking condition he was not disturbed.

At 9 p.m., half an hour before the boy's death, the thermometer in the axilla registered 110.2° F. A second thermometer was used, and gave exactly the same reading.

JOHN MCPHERSON, M.B., Ch.B.,
Medical Officer, Salina Cruz Port Works, Mexico.

I HAVE been much interested in this subject, as I had patient, aged 19, under me whilst house-surgeon at t District Hospital, West Bromwich, who frequently had ve high temperatures. He suffered from spinal caries, but suppuration. It was thought that the hyperpyrexia w caused by small haemorrhages into the cord. His temper ture was always reduced by hypodermics of ergotinin. Duri the attacks he was quite conscious, but all his muscles we in a state of clonic spasm. He got quite well, and resumed h work as a joiner. The figures were repeatedly teste by visiting surgeons and other doctors in the district:

Date.	Temperature.	Date.	Temperature.
November 30th ...	98.5	December 9th ...	99 M.
December 1st ...	105 M.	,, ...	108 E.
,, ...	98.5 E.	December 10th to 14th	98.5
December 2nd ...	107 M.	December 15th ...	108 E.*
,, ...	106.5 E.	December 16th ...	98.5 M.
December 3rd ...	104 M.	,, ...	105 E.
,, ...	98.5 E.	December 17th ...	105 to 106
December 4th ...	110.4 M.	December 18th to 22nd	98.5
,, ...	98.5 E.	December 23rd ...	98.5 M.
December 5th and 6th	98.5	,, ...	112 E.*
December 7th ...	104 M.	December 24th to 29th	98.5
,, ...	112 E.	December 30th ...	98.5 M.
December 8th ...	103 M.	,, ...	107 E.
,, ...	98 E.	December 31st ...	Normal.

* For three hours.

Hurworth-on-Tees. A. PAGET STEAVENSON, M.D.

HYPERPYREXIA IN MEASLES.

IN an epidemic of measles which occured here in the autum of 1901 I was called one day at 7 a.m. to see a baby, aged months. The child was suffering from measles, the rash being very copious and well developed. He was comatose with stertorous breathing, and on taking the temperature the thermometer registered 110.4° F. There was no evidence o any complication. The parents had recognized the previous day that the child had measles, but he had not appeared ill enough to cause them any anxiety.

Every effort was made to reduce the temperature, but the child never recovered consciousness, dying about 2 p.m. the same day.

Exeter. C. E. STOKES.

WE have recently had an extensive epidemic of measles in this Colony, attended by a very small mortality. This is remarkable in view of the hyperpyrexia which accompanied so many cases. Temperatures of 106° F. and 106.5° F. have been fairly common, whilst in two cases seen by me, the temperature reached 107° F. and 107.2° F. respectively. A large majority of such patients recovered without any treatment whatever beyond rest in the house and a light diet. In about twelve cases, however, including the cases that recorded temperatures of 107° F. and 107.2° F. respectively, phenacetin gr. x was administered, for experimental purposes, every two hours until gr. xxx had been given. The result was highly satisfactory, the temperature becoming normal and remaining so. Such cases seemed to have recovered much quicker than those left untreated.

Similar high temperatures were noted by various other observers in the Colony.

RAOUL DE BOISSIÈRE,
Provincial Medical Officer, Bua, Fiji.

A MENTAL CASE TREATED WITH OVARIAN EXTRACT: COMPLETE RECOVERY.

ON May 12th, 1903, a lady, aged 60, was placed under my care suffering from delusions and other mental symptoms of a very decided character. Briefly her history was as follows:

She had been married thirty-one years, had had five children, and menstruation had ceased at the age of 48. She had been always extremely sensitive and highly emotional, and had had several attacks of hysteria. The summer of 190 was spent in Switzerland, where she is said to have had an attack of cerebral haemorrhage, which was characterized by loss of consciousness, right hemiplegia, and paralysis of the left side of the face, which, however, all cleared up in a short time. From that time onwards the patient suffered from hallucinations and melancholia, which steadily got worse, and were developing into attacks of acute violent mania. At this stage the patient came under treatment, and presented the following symptoms in addition to the above:—(1) Great sleeplessness, and hallucinations, seeing and talking with people who did not exist; (2) imagination of much cruelty from those attending on her, and occasional fits

violence and screaming, alternating with melancholia. At the same time the patient was totally unable to feed or do anything for herself, and spent most of her time in all carrying on a rambling and disconnected conversation with those about her. Extreme constipation existed, and food, when administered, was frequently spat out after having remained in the mouth for some minutes. These symptoms continued for one month, during which time there was occasional slight improvement, which was not maintained. At the end of that time I decided to give ovarian extract a trial, and accordingly began treatment with a dose of 10 gr. three times a day. This dose was continued for four days, and was then increased to 15 gr. three times daily. After two days the dose was increased to 20 gr. Finally it was raised to 25 gr. three times daily, until, at the end of the tenth day, the improvement in the patient's condition was so marked that the administration of the extract was stopped. All the symptoms had entirely disappeared, leaving the patient in every respect a sane woman, able to dress herself, feed herself, converse rationally upon any subject, and write a good hand. She was still, of course, somewhat feeble after her long stay in bed, but this rapidly passed away, and by August 20th she was completely recovered in every way.

The special points that seem to be noteworthy are: (1) That no improvement in the patient's condition was noticeable until the administration of ovarian extract was commenced, after the patient had steadily gone from bad to worse for twelve months; (2) that the extract effected a cure, although the mental condition of the patient could not have been due in any way to menstruation, since that had ceased about twelve years before.

Kensington, W. R. N. GEACH, M.R.C.S., L.R.C.P.

ADRENALIN IN ADDISON'S DISEASE.

ABOUT a year ago I was called to see a middle-aged lady who had been seized with severe and recurring epileptiform convulsions.

In 1893, after scarlet fever, she was noticed to have some undue pigmentation of the skin. During the next four years she began to be troubled by attacks of diarrhoea and vomiting, and soon afterwards had fainting attacks; pigmentation slowly increased. In 1901, while abroad, the syncopal attacks became so severe and frequent that the condition seemed hopeless, and it was with the greatest difficulty that she was brought home. She was now treated for the first time with suprarenal tabloids, and, though very weak and with occasional fainting attacks, she seemed better.

She had been comparatively well up to the time of the convulsions, which came on suddenly one morning. They became so frequent and severe that chloroform was administered, and this effectually arrested them; but the condition of the patient was critical in the extreme, the pulse very rapid (120 to 150), and so small as to be hardly perceptible. She lay in a comatose state for nearly a week, during which time she was fed with a nasal tube and stimulated freely with brandy and hypodermic injections of strychnine.

All the characteristic symptoms of Addison's disease were present, the pigmentation general, of a blue-bronze colour, almost marked on the abdomen, in the folds of the skin, and round scars; it was present also in the buccal and other mucous membranes; the emaciation was marked, the pulse tiny and thready, yet the heart sounds were normal, regular, and comparatively strong, and there was no cardiac dilatation.

On the fourth day after the convulsions she was given 5 minims of a 1 in 1,000 solution of adrenalin (Parke, Davis, and Co.) three times a day, and gradually as consciousness returned at the end of the week the circulation began to improve. There was no return of the convulsions, and in a fortnight the dose was increased to 10 minims; at the end of a month she had improved wonderfully, the pulse (80 to 90) was fuller and stronger, and there was distinct diminution in the amount of pigmentation. The dose was increased to 20 minims, and later to half a drachm three times a day, but had to be reduced from time to time on account of the pulse becoming too small.

The patient has steadily improved in strength and weight, and the asthenia, which at first was extreme, is beginning to pass off, and to-day—eleven months from the commencement of the treatment—she is able to get about all day and play croquet. The pigmentation cleared off to a large extent during the first four or five months, but there has been little change in this respect lately. There has been no recurrence of the old symptoms, fainting fits, and gastro-intestinal disturbances, and it is to be hoped that she will continue to improve and keep well provided she continue the use of the adrenalin; at present she takes it in doses varying from 10 to 20 minims.

Broadstairs. HUGH M. RAVEN, M.R.C.S., L.R.C.P.

NEURITIS IN COAL MINERS.

THE recent article on brachial neuritis by Dr. Simon, and the communications on the subject which have since appeared in the BRITISH MEDICAL JOURNAL, have induced me to call attention to the frequency with which this disease is met with in coal miners, a fact which, I think, is common knowledge to most practitioners whose work lies among them.

Sacral neuritis and "miners' back," which latter is often complicated with neuritis of one or more lumbar nerves, are affections to which the coal miner is well known to be specially subject, but neuritis of some of the nerves arising higher up in the cord is also with them a common and troublesome disease.

The cause is doubtless to be found in the circumstances attending the coalminer's work—for example, exposure to cold air currents, to wet from the roof of his working place, and in the fact that, during work, the neck, shoulders, and back are very scantily protected by the short, loose, flannel shirt, the only garment, as a rule, worn at work on the upper part of the body. Another factor in the causation is doubtless the severe strain on the muscles of the shoulders, neck, and back incidental to his work, and the constrained postures he is obliged to assume therein.

The nerves most frequently affected are:

1. The brachial plexus and its component parts, particularlarly (in order of frequency) the circumflex, musculo-cutaneous, musculo-spiral, and supra-scapular nerves.

2. Upper cervical nerves (first, second, and third), especially the great and small occipital branches.

3. Lower dorsal nerves—the intercostal and anterior branches of the eighth and lower dorsal nerves distributed to the inferior portion of the chest wall, the part usually left uncovered by the short undershirt worn at work.

All the cardinal symptoms of neuritis are generally present, although it is not usual to find any decided atrophy of the muscles. In brachial neuritis the pain is so severe as a rule as to render the arm completely useless for long periods, a loss of work of from eight to twelve weeks being not infrequent. When the cervical or dorsal nerves are affected the disease is rarely of such long continuance, but in the former case the suffering is perhaps the greatest while it lasts.

In the treatment absolute and prolonged rest is a *sine qua non*. Small fly blisters repeatedly applied along the course of the affected nerves and over the "painful spots" gave the greatest relief to the pain, and, I believe, shorten the duration of the disease. In several intractable cases the actual cautery or a seton kept in for a month effected a cure when other means had failed.

Morphine hypodermically, galvanism, and the prolonged application of dry heat are all helpful in relieving the suffering, which is frequently severe. Antirheumatic remedies invariably fail to produce any appreciable effect on the disease, either in shortening its duration or in easing the pain.

Stanley, Durham. J. CHARLES, M.D.Glasg.

SUCCESSFUL REPLACING OF A SEVERED FINGER.

IN connexion with the recent transplanting of an ear it may be of interest to your readers to place on record the following case:

A man, J. M., aged 60, some years ago, during the killing of a pig, had his right index finger bitten completely off through the middle phalanx by the animal. He walked to my house, a distance of six miles, with a friend. On my inquiring for the missing piece of finger the friend, after hunting in various pockets, produced it from one of them covered with tobacco dust, etc. Having cleansed the stump and severed portion, I joined the two ends by strapping and fixed on splints. In about fourteen days circulation was completely restored, union had taken place, and he has his finger to this day. The nerves did not unite, so that the part is insensitive. The finger had been off about two hours. The distal joint is stiff, but notwithstanding this he finds it extremely useful and is very proud of it.

Surbiton. G. A. EDSELL, M.D.

REPORTS
ON
MEDICAL AND SURGICAL PRACTICE IN THE HOSPITALS AND ASYLUMS OF THE BRITISH EMPIRE.

MANCHESTER ROYAL INFIRMARY.

FATAL CASE OF STATUS EPILEPTICUS.

[Reported by FRANK E. TYLECOTE, M.B., Ch.B.Vict., late House-Physician, Manchester Royal Infirmary; Resident Assistant Medical Officer, Manchester Workhouse Infirmary; Associate and Scholar of Owens College.]

History and State on Examination.—On January 13th, 1903, I was called about 10.50 a.m. to a warehouse to see an errand boy, aged 15, whom I found to all appearances in a typical epileptic fit; the fit passed off, and for half a minute the boy lay quiet, then another began, and they kept up in quick succession, lasting about three or four minutes, and with an interval of half a minute between each. I took the usual precautions to prevent his injuring himself, and, as I had no means with me of giving a rectal injection of chloral and bromide, and the administration of anything by the mouth was out of the question, I gave him a hypodermic of $\frac{1}{6}$ gr. morphine. The fits, however, still continued, so a little later I sent for chloroform, and gave him one or two whiffs as each fresh fit commenced; the effect of even one inhalation was very marked, the particular fit aborted, and he lay still for several minutes. I examined the heart, which was normal, and there was no renal facies or oedema. Inhalation of amyl nitrite produced no evident beneficial effect. As he had now had about thirty fits altogether in rapid succession, and was becoming exhausted and had a feeble pulse, I sent him in the ambulance to the Royal Infirmary; he was admitted at 12.30 p.m. into one of Dr. Steell's beds, and to the latter I am indebted for permission to publish the case. The fits still continued, though they were not so severe as before. I drew off ℥iv of urine, which contained a trace of albumen, but was otherwise normal, while it did not contain any aceto-acetic acid, as in some cases of acid intoxication. His pulse was 128, of moderate tension, and his temperature was 97.6°; his pupils were dilated and equal. He was now given another $\frac{1}{6}$ gr. morphine hypodermically, and the chloroform inhalations were again occasionally resorted to, while the collapse was treated with brandy. At 2.30 p.m. he seemed to be under the influence of the morphine, the pupils were very small, and the fits had stopped. At 3.30 p.m. the pupils again dilated, and patient had another fit and then seemed very collapsed, and hot bottles were applied and strychnine and oxygen given. His temperature was now 95°. His pulse improved somewhat, and he lay quiet till 6 p.m., when he had another fit, and I ordered him a rectal injection containing chloral hydr. 30 gr. and pot. brom. 20 gr. The treatment of the collapse was continued. Once or twice in the afternoon the patient had Cheyne-Stokes breathing and again in the evening. Patient lay quiet, but still unconscious—as he had of course been all day—till 8.35 p.m., when the fits began again, and he died at 9 p.m., apparently from exhaustion, eleven hours after the onset of the first fit. I removed another sample of urine immediately after death, and it still contained only a trace of albumen.

Previous History.—On the morning of the fits, before they began, he said at the warehouse that he could not see, and later he staggered and fell. The parents say he had scarlet fever when 3, and that when a small boy he was very weakly, but had improved much in the last few years. He used to walk in his sleep sometimes, but, as far as they know, he has never had a fit before. Has had pain in legs for last three days. No family history of epilepsy.

Necropsy.—At the necropsy the next day all the organs appeared normal except those remarked on below. The thymus gland was rather large, weighing over an ounce; the spleen was enlarged (5½ oz.), normal on section. There was slight congestion of the dura mater; the pia mater was very congested throughout, especially in the upper region of the crura and cerebellum. There was marked increase of cerebro-spinal fluid. The circle of Willis was normal. The brain weighed 45 oz., and showed slight congestion, especially cortical. There were a few scattered petechiae in the brain substance. There were a few caseous nodules in the bronchial lymphatic glands, and the mesenteric glands were somewh enlarged. The stomach contained a few ounces of fluid, ar the large intestine some scybalous masses. The kidneys a peared normal.

Microscopical Examination.—I made sections of all t organs of the body to see if any microscopical changes cou be detected, but with a negative result. The thymus, on se tion, showed well-marked concentric corpuscles; the kidn substance was normal on section, save for slight passive co gestion and for the fact that in the lumen of some of t tubules was here and there a trace of coagulated albumen there were no signs of old nephritis.

REMARKS.—In this case the diagnosis presumably lay b tween epilepsy and uraemia. The diagnosis of epilepsy wa supported by the *post-mortem* and histological examination there being no evidence of any nephritis of scarlatinal other origin, nor did the history suggest any renal troubl Ohlmacher has stated that in cases of epilepsy the thymu may be found persisting, and the fact that in a boy of 15 w found a thymus fully an ounce in weight is of interest in thi connexion, and supports in some measure the diagnosis, a also does the meningeal engorgement. There was no evidenc of acid intoxication, and the absence of the $FeCl_3$ reaction i the urine is against this. Most authorities state that th temperature in status epilepticus is usually raised. Whethe this was so earlier I cannot say, but after he was admitte to hospital he had a collapse temperature. The presence of trace of albumen in the urine is recognized as a usual occu rence in status epilepticus. I cannot find another cas recorded where the status epilepticus, at any rate a fatal on has occurred where there have been no previous epilepti seizures, but in this case the history given by the parents o the absence of previous fits is definite, though the possibilit of his having had slight nocturnal epilepsy, unknown to any one, must remain.

ROYAL VICTORIA HOSPITAL, BELFAST.

TETANUS FOLLOWING OPERATION FOR RADICAL CURE OF HERNIA.

(Under the care of ROBERT CAMPBELL, F.R.C.S.Eng.)

[Reported by S. T. IRWIN, B.A., M.B., House Surgeon.]

THE patient, a farm labourer was admitted to the Royal Victoria Hospital on October 11th, 1903, suffering from tetanus:

Previous History.—On September 20th the patient was operated upon in the country for radical cure of right inguinal hernia. For five days succeeding the operation nothing beyond a slight uneasiness in the neighbourhood of the wound was noted. On September 30th the notes report the wound as having healed by first intention, and next day the patient was allowed out of bed. During the day some fullness of the wound was observed, and on squeezing this a clear serous fluid was exuded. There was some pain extending from the wound up the right side of the body. On October 6th the patient complained of sore throat and stiffness of the back; on trying to examine the throat it was found that he could not properly depress the lower jaw. There was at the same time considerable rigidity of the muscles of the neck and back. During the next two days the stiffness of the muscles increased and there were several clonic spasms.

State on Examination.—On October 11th, the patient showed the typical signs and symptoms of tetanus—tonic contracture of the muscles generally with clonic spasms. Risus sardonicus was well marked, but trismus was not complete, it being possible to separate the teeth about half an inch; fluids were swallowed with difficulty; the abdomen "felt like a board," opisthotonos was marked from head to buttocks, the limbs rigid but not quite immovable. The intellect was clear, and patient complained bitterly of the fact that he was continually biting his tongue. Temperature, normal. The only wound found was the operation wound. There was some fullness of the wound, which in one place had opened, and was discharging a clear fluid.

Treatment.—Under chloroform the wound was opened; no pus was found, but there was a good deal of serous discharge. Three silk ligatures were removed, but the ligature round the neck of the sac, which was reported as being of catgut, was not found. The wound was sponged with 1 in 500 biniodide of mercury and a dressing of this applied. At the same time hypodermic injections of antitetanus serum (10 c.cm.) were given every four hours. This was continued for nine days. Following the injections the spasms became fewer and less severe; the worst occurred on October 12th, when the patient was with difficulty kept from falling out of bed. In spite of the diminution of the spasms the rigidity did not disappear, and when the injections were discontinued on October 19th the stiffness was almost as marked as on admission.

Result.—Very slowly the rigidity also passed off, and on October 30th it was confined to the abdomen. On November 6th patient was discharged quite well. Bacteriological examination did not disclose the bacillus tetani in the silk ligatures or in the catgut which had remained over from the operation.

The points of interest in the case are:

1. The patient was a farm labourer, a class specially exposed to tetanic infection.
2. He had a cutting operation, and infection may have occurred from (*a*) the patient's own skin and incomplete sterilization; (*b*) operator's hands; (*c*) catgut used for ligature (a piece from the same strand proved sterile).
3. The wound was reported as healed by first intention. Tetanic infection is supposed not to occur in such wounds.
4. Treatment by the serum; was the recovery *post hoc* or *propter hoc?*
5. Disappearance of the spasms without diminution of the rigidity.
6. The long period of incubation.
7. Failure of bacteriology to assist in the case.

WESTERN INFIRMARY, GLASGOW.

CHRONIC PARALYSIS OF THE FACIAL NERVE: OPERATION: RECOVERY.

(Reported by J. CRAWFORD RENTON, M.D., Surgeon and Lecturer on Clinical Surgery.)

A. B., a girl aged 14, was sent to me by Dr. A. MacLelland of Alexandria, with a history of discharge from the right ear for three and a-half years and of paralysis of the right side of the face for three years.

State on Examination.—On admission to the infirmary she had tenderness over the mastoid region with an increased pulse-rate and temperature and she was somewhat drowsy.

Operation and Treatment.—The mastoid antrum was opened with the electric burr and a quantity of pus evacuated. When the acute symptoms subsided the mastoid and tympanic cavities were converted into one according to the method recommended by Sir William Macewen and Mr. C. A. Ballance and an amount of unhealthy tissue removed. The cavity being covered by granulations at the end of a week skin grafts were applied to effect complete healing and cessation of discharge. The patient was sent to the country with directions to return in a month with a view to having the facial nerve joined to the spinal accessory in order to correct the paralysis. It was not thought likely that the nerves, having been so long subjected to pressure, would recover by themselves. When she returned in a month the paralysis had completely disappeared and she was using the muscles of the right side of her face normally.

REMARKS.—The above case illustrates the value of the operation which Sir William Macewen and Mr. Ballance have recommended and is also interesting as showing how quickly muscles which have been paralysed for three years recover. No electricity was employed to effect this so that the benefit must be entirely ascribed to the facial nerve being relieved from pressure caused by the chronic inflammation in the tympanum.

* This report was accompanied by two photographs of the patient, one taken before and the other two months after her recovery. They show the extent of the paralysis and the great subsequent improvement in appearance very clearly but are not suitable for reproduction.

WANGANUI HOSPITAL, NEW ZEALAND.

A CASH OF PELVIC PERITONITIS TREATED WITH ANTI-STREPTOCOCCUS INJECTIONS.

(Reported by Dr. A. J. CRAWFORD, House-Surgeon.)

M. W., aged 29, was admitted under the care of Dr. Clennell Erwick on March 11th.

Previous History.—She had been married six years and had had no children. She stated that seven years earlier she had undergone an operation for "dilatation of the womb," and eighteen months ago ventrifixation. She had had constant attacks of pain in the lower abdomen lasting from one to three weeks. Menstruation was regular but profuse.

Condition on Admission.—She was a thin pale woman. The temperature was 102.4°, pulse 196, and respirations 24. The abdomen was distended and tympanitic, and breathing thoracic. Pain was felt on pressure in the left iliac fossa. The vagina was very hot and tender, and a tense cystic mass could be felt on the left side fixed to the uterus. A diagnosis of chronic salpingitis of probably tuberculous origin was made.

Treatment.—Three injections of antistreptococcus serum were given, one daily. The temperature fell after each injection. The abdomen became soft and pain subsided. The patient was convalescent in seven days.

Operation.—Three months later she returned and requested operation, stating that the constant attacks of pain were making life unbearable. On opening the abdomen the intestines were found adherent to the abdominal wall, and the whole of the lower abdomen was filled with densely adherent intestines. An hour was occupied in freeing the pelvic organs from adhesions to intestines. The right ovary and tube were normal. The left side of the pelvis was occupied by a large adherent mass, which proved on dissection to be the enormously thickened broad ligament covering a dilated tube. The ligament was divided between clamps, and the tube, the size of an orange, was dissected out and removed. Unfortunately, as it was being lifted out of the wound it burst, but it is believed that none of its very fetid contents reached the abdominal cavity. Many of the intestinal adhesions were calcareous or cheesy. The pelvis was drained with gauze strips.

Death.—The patient rallied well, but on the third day the heart failed, and she died suddenly. There was no haemorrhage nor were there any septic symptoms.

REMARKS.—The rapid result of the antistreptococcus serum was most marked. The abdominal distension and tenderness disappeared on the third day, and the pulse lost its wiry feeling, becoming soft and quiet. It was evident that the constant attacks of which the patient complained had been recurrent pelvic peritonitis, and the success of the first treatment was very pleasing. The operation was undertaken with reluctance, as the case was most unpromising. It was only at the urgent request of both husband and wife that the surgeon consented to interfere.

GOVERNMENT CIVIL HOSPITAL, HONG KONG.

A CASE OF ALCOHOLISM, FOLLOWED BY HYPERPYREXIA: COMA: DEATH.

(Under the care of E. A. R. LAING, L.R.C.P. and S.Edin., Assistant Superintendent.)

F. G., aged 50 years, a Scotch marine engineer, was brought to this hospital at 9.15 p.m. on August 16th, 1902, suffering from alcoholism. The history given by the friends was that the patient had been drinking steadily for many years, and to excess during the previous week. A few hours before admission he tried to jump out of a second-story window, hence the anxiety of his friends to put him under restraint.

When admitted he was in the usual maudlin, argumentative state of a chronic drinker who had taken too much, but not enough to send him to sleep. In appearance he was a short, stout, thick-set man, with florid, flushed face and short neck. His talk was fairly rational and he knew where he was, but though disposed to be violent, was amenable to firmness and reason. He said he wanted a good sleep as he had not slept for many nights. Pulse 86, temperature 100° F. After a glass of milk and soda-water (as he was thirsty) and a draught containing pot. brom., amm. brom. āā gr. 7½, chloral hyd. gr.x, tinct. capsici mv, aq. chlorof. ad. ℥j, patient went to sleep. He had a good night, slept six hours, and at 5.30 a.m. draught was repeated, and he slept till 8 a.m. On awakening he said he felt quite well. Temperature 101.4°, pulse 88. A diaphoretic mixture was ordered every four hours, and milk, soda-water, chicken broth, etc., besides the ordinary "low" diet, which includes beef-tea.

At 7.30 p.m. temperature rose to 103° F. (Notes read.) "Patient comfortable, takes his food, talks quite rationally, and feels better. States his resolve to stay in hospital for at least a week, or until he is quite cured."

9.30 p.m.—Temperature 103.4°. Phenacetin gr. iv and caffeine cit. gr. ij given in powder, icebag applied to head. Powder vomited.

10.10 p.m.—Temperature 105.6°, rising. Cold sponging started. Icebag to head continued. Iced milk and soda-water given at intervals to allay thirst. Patient grumbles at being cold sponged, talks rationally at times, but suffers from delusions.

10.40 p.m.—Temperature reduced to 103° F. Cold sponging stopped.

11 p.m.—A loose brown watery motion passed.

11.10 p.m.—Temperature rose suddenly to 105.6° F. Pulse 114, thready, patient incoherent, Cold sponging restarted.

11.50 p.m.—Temperature 102° F. Inj. strychnine hypo. mx given; brandy ℥j in water given at intervals of ten minutes.

12.10 a.m.—Temperature 104.8°. Cold sponging restarted.

12.40 a.m.—Temperature 109° F. Bowels open; motion loose, offensive, and brown in colour.

12.50 a.m.—Temperature 110° F. taken in axilla and rectum, and remained 110° F. in spite of every effort to reduce it.

Patient was wrapped in sheets wrung out of iced water and the sheets in position rubbed with lump ice. He remained quite unconscious from 12.10 a.m. with noisy respiration, pulse 150, thready, racing, till 1.55 a.m. when he died. Temperature registered 110° F. in axilla and rectum just before death, and in rectum five minutes after death.

This case requires little or no comment. My excuse for publishing it is that hyperpyrexia from any cause is worth recording, and that sufficient stress is not laid in the various textbooks and reference works on medicine on the fact that hyperpyrexia is a danger in all cases of acute and chronic

alcoholism. All medical works warn the students as to the danger of cardiac failure, exhaustion, secondary lung trouble, etc., and only a few mention hyperpyrexia as a complication or as a cause of death. This fact is, however, well known to the majority of practitioners in tropical and semi-tropical countries. They are on the look-out for it, and treat with caution any rise of temperature in an alcoholic. In the above case the half-minute thermometers used were only graduated to 110° F. as a maximum. It is more than probable that the temperature of the patient would have registered even higher than this before death, judging from the rapidity with which the mercury rose each time the temperature was taken.

REPORTS OF SOCIETIES.

ROYAL MEDICAL AND CHIRURGICAL SOCIETY.

ALFRED WILLETT, F.R.C.S., President, in the Chair.

Tuesday, January 12th, 1904.

HYPERTROPHIC PULMONARY OSTEO-ARTHROPATHY.

DR. H. E. SYMES-THOMPSON read a paper on this subject, recording four cases of the disease, with two necropsies, that had come under his own observation. In one of these there was found secondary carcinoma of the lung and in the other spinal caries. The disease, it was emphasized, occurred in suppurative disease, usually, but not necessarily, in the thorax, in congenital heart disease, and in syphilis. Particulars of 20 necropsies, previously published, were given with clinical details of 77 cases in addition to his own. In regard to the bacteriology of the disease, it was pointed out that the absence of softening or suppuration was in favour of toxins alone being present, as also was its symmetry. An analogy was indicated between it and waxy disease, syphilis and chronic suppuration being associated with each. As to its more intimate causation it was suggested that it depended on a retention in the blood of volatile toxins normally eliminated by the lungs, this elimination being prevented by any lung disease, such as fibrosis, or even congestion, that interfered with a normal respiratory interchange. The essential toxic foci might be in the lungs themselves, or might not: of others those associated with diarrhoea and psoas abscess were the most important. The first of the author's cases, one of sacculated bronchiectasis, afforded evidence in favour of the toxic theory, in that subsidence of the joint attacks coincided with the emptying of the bronchiectatic cavities.

Dr. THEODORE WILLIAMS alluded to the rarity of joint affections in bronchiectasis, also to the difficulty of understanding the deposition of new bone in joint attacks so transient.

Dr. PERCY KIDD gave details of four other cases. The changes were of the nature of an arthritis and a periarthritis. The explanation of a defective elimination of toxins hardly seemed to be adequate. There was something peculiar in bronchiectasis, as evidenced by the fetor. Analogy with the acute polyarticular form of rheumatoid arthritis was pointed out.

Dr. ROBERT MAGUIRE thought the gland theory of the lung should be kept in mind, but there was the rival micro-organismal theory. Reference was made to improvement of a case associated with bronchiectasis following on intravenous injections of formaldehyde, and coinciding with a marked diminution in the amount of sputum.

Mr. W. G. SPENCER thought that as regards the thickening of the bones there was no sharp line of division between the pulmonary cases and chronic septic conditions. No simple toxic theory of causation was, he thought, sufficient, and he suggested as an additional factor chronic venous congestion in the ends of the bones.

Dr. NEWTON PITT, in criticizing the toxic theory, suggested that one of the possible factors in the thickening of the bones might be the marrow changes associated with protective processes against infection.

Dr. RUSSELL WELLS alluded to a possible chemical similarity in different structures attacked by the same microbic disease.

Dr. SYMES-THOMPSON replied.

EDINBURGH MEDICO-CHIRURGICAL SOCIETY.

Professor JOHN CHIENE, C.B., President, in the Chair.

Friday, January 8th, 1904.

LIGHT TREATMENT AND CUTANEOUS DISEASE.

A SPECIAL afternoon clinical meeting of this Society was held in the large theatre of the Royal Infirmary, when Dr. W. ALLAN JAMIESON read a paper on the treatme various forms of cutaneous disease by the *x* rays and He observed that the epidermis, when structurally i offered an almost impermeable protection to the unde structures, so that hitherto our means of dealing with tions of the underlying tissues had been most unce Science, however, had lately placed in our hands agents as the *x* rays, the Finsen light, radium, and the curre high frequency, which had the power of influencin deeper layers of the integument. His remarks only with the two first of these. Until they had a mercury i interruptor the results of the *x* rays had not been factory. But working with that, using a moderately voltage and amperage and soft tubes, excellent effects been obtained. Careful supervision and adequate prote by lead masks had been observed in all cases, and the considered as essential to success. The distance from the was from 4 to 6 in. as a rule, the duration of exposure minutes, and the frequency four times a week. Burns o severity were uncommon, and occurred chiefly in lupus often in sycosis and favus, not at all in rodent ulcer or my fungoides. Weather exerted some influence in predisp to reaction, as these seemed more frequent in cold, raw During the last eighteen months 133 cases of lupus vul had been under treatment. All who had continued u treatment had improved, and many had been cured. numerous instances the effect of the rays had been to c advance at the margins, though isolated nodules might sist in the centre. Crusting within the nose, so often in lupus, frequently wholly ceased under the rays. I case tuberculous abscesses had appeared during the t ment, but as this was an instance standing quite by he did not think the rays had anything to do with occurrence. The Marshall and Woods lamp had been exclusively in a few cases, and in more as an adjunct t *x* rays, for the purpose of getting rid of residual nodules was much slower, and not nearly of such universal ap bility as the *x* rays. In rodent ulcer the *x* rays had pr most efficacious, but did not entirely obviate relapses. recommended the simultaneous use of scraping and caute tion with fused chromic acid. Twenty-one cases were tre during the same period. Thirty cases of favus had under treatment by the rays. When attendance had long enough for all the hairs to fall out, the disease had cured. Twelve examples of sycosis had been treated. V the falling of the hair the disease had disappeared, but it recurred more or less extensively with the regrowth of hair, showing that the rays were not parasiticide. In myc fungoides the rays offered the sole means of cure. A treated a year since remained free from any recurrence o parts which were then exposed, but a few patches shown themselves on situations then free, and which not subjected to the rays. Another case in the erythrode stage at present in his wards might be said to be well. Al number of cases showing the results of treatment exhibited.

Dr. NORMAN WALKER, Dr. DAWSON TURNER, and oth discussed the paper; and Dr. ALLAN JAMIESON replied.

[The meeting of the Society on January 20th will be gi up to a discussion on the diagnosis of acute appendicitis, the indications for operation.]

CLINICAL SOCIETY OF LONDON.

FREDERICK TAYLOR, M.D., F.R.C.P., President, in the Ch

Friday, January 8th, 1904.

PNEUMOCOCCAL PERITONITIS.

SIR DYCE DUCKWORTH and Professor HOWARD MARSH c tributed a case.

The patient, a woman, aged 27, was seized with headache, general pains and a rigor on February 26th, 1903. The temperature was 10 next day, and peritonitis followed. Widal's reaction was negative, a large polynuclear leucocytosis was present. On March 2nd, Mr. M and Mr. Bowlby saw the case, and a diagnosis of typhlitis with s general peritonitis was made. Mr. Marsh operated, and signs o flammation were seen in the peritoneum and large intestine. appendix was constricted at the base, dilated, and full of mucus ab it was ligatured and removed. There was some thin, turbid, and coloured fluid in the peritoneal cavity, and no adhesions or evid of the perforation of a viscus were found. A culture of the fluid sho pure specimens of the pneumococcus, the presence of which was firmed by an inoculation test. Three days later hiccough and abdom pain supervened, and 10 c.cm. of No. 1 antipneumococcus serum injected. On March 6th, the injection was repeated. Signs of flui the left base appeared, and on March 20th, pus was found on expl

section of part of the ninth rib being performed the next day, oz. of sour-smelling pus were evacuated.

urther progress of the case, though slow, was uneventful. he sudden onset and rapid and grave development of ritonitis closely corresponded with what is observed in ococcal inflammations elsewhere.

PRESIDENT also communicated a case.

atient was a girl, aged 8 years, who was admitted into Guy's l on November 19th, 1903. On November 10th abdominal pain in, followed by a rigor, and two days later signs of pneumonia ed. On admission the abdomen was distended and tender, very little on respiration, while physical signs of consolidation bases behind were present. Some herpetic vesicles were seen ase of the nose. Mr. Lucas performed laparotomy, and a quan- odourless pus, together with masses of lymph, was removed. ity was irrigated with hot saline solution, and drained. The onia on the right side cleared up, but on the left side physical of empyema manifested themselves, and on November 27th 6 oz. were withdrawn, resection of a portion of rib being performed ys later, when more pus was evacuated. Cultivations taken by re from the peritoneal pus gave a pure growth of the pneumo- ; those taken from a second collection in the left iliac fossa, was incised on December 11th, gave a growth of pneumococcus ted with the staphylococcus aureus. Cultivations from the pus ed from the chest were sterile, but under the microscope showed staining diplococci, empty capsules, characteristic of a pneumo- empyema. The child was now making good progress.

Taylor discussed the question of the seat of primary ion, which he thought was shown by the sequence of s to be the lung, and the peritonitis and empyema he dered were secondary.

STANLEY BOYD described another case which will be at length elsewhere in this issue.

J. H. BRYANT alluded to three cases of pneumococcal nitis which he had described,[1] in which the part pri- y affected was the peritoneum. He thought there was bly no general channel of infection; and that in one of ases the organism probably entered by the intestinal . It was constantly found in the throat, and although in h the gastric juices might be fatal to its vitality, yet in rmal conditions the pneumococcus might possibly find nce to the peritoneum. In some cases of pneumonia the was characterized by abdominal pain; and the adhe- sometimes found between the liver and diaphragm, and between the diaphragm and the right lung, suggested a e which the pneumococcus might possibly traverse. He ot seen any benefit follow the use of antistreptococcus n.

J. FAWCETT stated that during the last five years at Hospital in 182 fatal cases of pneumonia in which psies had been made, there were only 5 in which there infection of the peritoneum, and this was very slight. hought it might be inferred that the peritoneum was y infected from the lung.

W. LANGDON BROWN referred to the case of a girl, aged who had pneumococcal empyema and effusion in the knee-joint and in the abdomen. A rib was resected, and nee-joint drained, but the abdomen recovered without opened. As pneumococci were obtained from the ema and the knee, they probably existed also in the men, and, if so, they subsided without operation.

. GOLDING-BIRD suggested that possibly Mr. Marsh's case one of pneumococcal appendicitis, and that certain of the of appendicitis which failed to recover after operation t be of that nature.

J. J. W. H. EYRE said that probably the cases of pneumo- l peritonitis would be found to be less rare if bacteriolo- examinations were more frequently made. Pneumo- l pus, whencesoever aspirated, showed a tendency in 90 ent. of the cases to the formation of a sediment, the r layers soon becoming clear, and the pus cells subsiding. simple test might be of value at the time of operation. lso thought that animal inoculation experiments were nough resorted to for the determination of the character e infecting organism.

. HERBERT FRENCH described an acute case in a child, 12, under the care of Dr. Newton Pitt, in which death rred in three days, acute peritonitis and consolidation of base of one lung being found. He thought the cases t be divided into two groups—the less acute, in which peritoneum was primarily infected, as in Sir Dyce Duck- h's and Dr. Taylor's cases, and the more acute in which organisms entered the blood stream and thus dissemi- d themselves, attacking several organs at once.

[1] er published in the BRITISH MEDICAL JOURNAL, September 21st, 1901, p. 767.

Sir DYCE DUCKWORTH, in reply, said that the cases presented varying degrees of virulence, as an individual at various times had varying degrees of resistance to infection. It was impossible to say whether peritonitis was of pneumococcal origin until the abdomen was opened; if, however, there was also a herpetic rash it might suggest the presence of the pneumococcus.

Professor MARSH and the PRESIDENT also replied. The latter said that there were no signs of appendicular trouble in his case.

MEDICAL SOCIETY OF LONDON.

F. DE HAVILLAND HALL, M.D., F.R.C.P., President, in the Chair.

Monday, January 11th, 1904.

SERUM AND OTHER INOCULATIONS IN PYOGENIC INFECTIONS. MR. WALTER G. SPENCER, in opening the discussion, contributed a paper on the use of antistreptococcus serum, particularly in erysipelas, septic pharyngitis, malignant scarlet fever, puerperal fever, endocarditis, pericarditis, pneumonia, and pleurisy. The essential requirements for the successful use of the serum were general infection by streptococci, a standard antitoxin, a polyvalent serum for general use, and for special cases a univalent serum derived from the same variety of streptococcal infection, early administration after the inoculation and onset of the fever so as to neutralize the toxins before irrevocable lesions had been set up, subcutaneous, or, perhaps, in severe cases, intravenous injection, and the administration of full doses every three or four hours until relief. There was abundant reason for the proper use of antistreptococcus serum, and the causes of failure in the past could probably be eliminated. The need for a constantly available supply of active serum was therefore urgent.

Dr. A. E. WRIGHT read a paper on inoculation in staphylococcal infection, chronic or frequently recurrent, by which the life of the patient was not threatened, as in boils, sycosis, and acne, with the view of developing protective substances in the body of the patient. Twenty-one cases were quoted which had been treated with injections of dead cultures of staphylococci with excellent results. No untoward constitutional symptoms followed the inoculations. The injections were standardized by enumeration of the organisms. In some cases a vaccine was made from the patient's own staphylococcus. The phagocytic activity of the leucocytes was markedly increased by the injections. A drawback was that if the inoculations were given too rapidly before the system had had time to elaborate the protective substances its bactercidal power was lowered.

Sir FELIX SEMON pointed out that the septic infections referred to might be due not only to streptococci but to any of the pyogenic group. Yet in an emergency any streptococcus serum available should be employed.

Dr. E. GOODALL referred to the antistreptococcus serum treatment of scarlet fever, but he could not admit that the streptococcus conglomeratus was the cause of scarlet fever, although some of the complications were doubtless streptococcal. The direct benefit of such injections was doubtful.

Dr. CYRIL OGLE especially alluded to malignant endocarditis, and thought in a few cases recovery had resulted from antistreptococcal injections. He advocated its early use in this disease.

Dr. W. Gow, in reference to puerperal fever, had had an unfavourable experience of the use of serum injections. Pyrexia in the puerperal state was frequent apart from the serious disease.

Dr. F. J. POYNTON discussed the difficulty of preparing the serum, and pointed out that the antibactericidal property was easily lost. Cases were recorded in which harmful results had followed such injections.

The PRESIDENT had had good results from antistreptococcal injections in erysipelas, puerperal fever, and angina Ludovici. Other precautions should not be neglected. He had never seen any ill-effects from the use of the serum.

Mr. SPENCER and Dr. WRIGHT replied.

LIVERPOOL MEDICAL INSTITUTION.

RUSHTON PARKER, B.S., F.R.C.S., President, in the Chair.

Thursday, January 7th, 1904.

DR. A. S. GRÜNBAUM showed an experiment to demonstrate the haemolytic action of radium rays on red blood corpuscles.

Dr. STENHOUSE WILLIAMS exhibited and described a new ethyl chloride inhaler. Given by his method the patient was under its influence in fifty seconds; the anaesthesia was maintained with ether. He had found it very useful in alcoholic subjects.

Dr. F. W. BAILEY had noticed that patients frequently came out of the ethyl chloride anaesthesia before ether anaesthesia was induced.

Sir WILLIAM BANKS and the PRESIDENT also spoke.

CONGENITAL HYDRONEPHROSIS.

Mr. R. C. DUN read notes of a case of congenital hydronephrosis, due to stricture of the ureter at its junction with the renal pelvis. The chief point of interest lay in the fact that the abdominal tumour was principally on the left side, and was not palpable in the right loin. The diagnosis of left hydronephrosis was made. On performing nephrectomy through an incision on the left side, a normal left kidney and ureter were exposed. The tumour, which proved to be a hydronephrosis of the right kidney, lay in front of the left kidney, and was readily removed. Recovery was uneventful. A congenital displacement of the right kidney, either to the middle line, or into the loin of the opposite side, probably explained the abnormal position of the hydronephrosis.

Dr. BLAIR BELL and the PRESIDENT commented upon the case.

X RAYS AND RENAL CALCULUS.

Dr. C. THURSTAN HOLLAND read a note on the *x*-ray diagnosis of renal calculi; he laid special stress on the necessity, in making a negative diagnosis, of taking the *x* ray whilst the breath was held; also the importance of obtaining a plate showing differentiation of the shadows of the soft structures lying between the iliac crest and the lower ribs. The note was illustrated by a series of lantern slides showing stones *in situ* and also the type of negative to be aimed at.

Drs. W. CARTER, CHAS. MACALISTER, and ALEXANDER spoke; and Dr. HOLLAND replied.

CLINICAL LECTURES IN 1749.

Dr. CASSELS BROWN exhibited an old notebook containing notes on Dr. John Rutherford's clinical medical lectures delivered in Edinburgh in 1749, and read a paper on the subject. After giving an account of Edinburgh, the Medical School, and Dr. Rutherford, he referred to the total absence of anything like scientific observation in medicine, but pointed out that the rate of mortality in Dr. Rutherford's wards was, under the existing circumstances, a not at all discreditable. Dr. Cassels Brown gave details of the treatment adopted in cases of anaemia, rheumatism, ague, phthisis, syphilis, cardiac disease, and hydrophobia, and in conclusion remarked that while the medical profession had advanced scientifically to an enormous extent, it had not advanced equally in other directions. He suggested that more attention should be given to the teaching of practical therapeutics, and advocated a modified return to the culture of the old-time physician. THE PRESIDENT, Sir WILLIAM BANKS, Dr. GRÜNBAUM, and Dr. LOGAN spoke; and Dr. CASSELS BROWN replied.

THERAPEUTICAL SOCIETY.—At a meeting on Tuesday. December 22nd, 1903, Dr. CLARENCE COOPER, Master of the Apothecaries' Company, in the chair, Dr. W. E. DIXON, of Cambridge, read a paper describing the action of drugs on the pulmonary vessels. He showed that these vessels had no nerve supply on them, so that drugs which contracted ordinary systemic vessels did not affect those of the lungs. He divided the drugs into three groups: (1) Pilocarpin, adrenalin, physostigmine, and digitalis, which acted on peripheral nerve endings and produced marked contraction in systemic vessels, but these had no action on the pulmonary vessels; (2) those drugs which acted directly on muscles, as salts of barium and calcium and veratrine: these produced contraction not only in systemic but also in pulmonary vessels: (3) drugs which caused vaso-dilatation, as the nitrites and caffeine; these acted not only on the systemic vessels, but also those of the lung, and must therefore affect directly the muscular tissue of the vessels. In conclusion, Dr. Dixon showed how digitalis and adrenalin caused decided congestion of the pulmonary vessels. Dr. SAUNDBY, Dr. DE HAVILLAND HALL, and Dr. VINRACE took part in the discussion.—Dr. DENNIS VINRACE then pleaded for the more thorough study of therapeutics. He said that quack remedies were now used very largely and advertised freely, and this was greatly due to the little attention now pa[id] medical students to therapeutics, which in examinations [had] not the same attention as pathology or bacteriology; h[ence] young practitioners were often not well qualified to [treat] minor ailments, and the patient often went to a che[mist] and, obtaining relief, continued to consult him in [place] serious diseases. Unfortunately also medical practitio[ners] had in many cases ceased to dispense their own medic[ines] and even the art of writing prescriptions was on the wan[e] many medical men now depended on the wholesale dru[g] for the supply of remedies ready prepared for use. These [the] patient might afterwards obtain for himself from chemis[ts] other ailments, whether similar or not, without consul[ting] any medical man, thus running great risks. In conclus[ion] he suggested that (1) every medical student should disp[ense] at a hospital for one hour daily during three months; (2) [that] there should be a Professor of Practical Pharmacy as well [as] of Therapeutics. The former to teach the art of compoun[ding] drugs in the most efficient manner, while the latter w[ould] teach their actions in health and disease; (3) that at [the] hospitals the use of stock mixtures and printed form[s] should be reduced to a minimum. A discussion followe[d] which Drs. CRICHTON, F. DE HAVILLAND HALL, and [others] took part.

GLASGOW PATHOLOGICAL AND CLINICAL SOCIETY.—A [the] meeting on January 11th, the President, Mr. A. E. MAYL[ARD] in the chair, Dr. ROWAN showed an infant whom he had u[nder] observation. It suffered from a growth of the iris, which [was] believed to be a gumma; there was a distinct syphi[litic] history. Professor MUIR showed as a fresh specime[n] haemorrhage into the pons Varolii and crura cerebri, [and] granular kidneys from the same case.—Dr. A. N. McGRE[GOR] demonstrated a case of varicosity of both superficial epigas[tric] veins. The condition commenced after an attack of ent[eric] fever seven years ago and was regarded as due to thromb[osis] of the iliac veins on the left side. The varicosity acte[d as] a relief channel, the blood flowing up the left epigas[tric] and through a large anastomosis and down the right [epi]gastric to the right femoral vein. The veins empti[ed] when patient was in the recumbent position. [Dr.] McGregor was of the opinion that the lumen of [the] thrombosed vessels had been partly restored, and [the] practical question was, Would they now be capable [of] carrying on the circulation if the epigastric veins w[ere] excised? The case will be shown again at a later meeting.—Dr. JAMES CARSLAW and Professor MUIR described the clini[cal] and pathological features of a case in which rupture of a hyd[ro]nephrosis occurred. The illness set in with vomiting a[nd] pain, which suggested appendicitis. Operation revealed [a] swelling round the right kidney. The swelling was then [in]cised and drained from behind. The patient died from suppr[es]sion of urine, which set in immediately after the first vom[it]ing. On necropsy bilateral hydronephrosis, with r[up]ture of the pelvis of the right kidney, was discover[ed]. The nature of the obstruction could not be ma[de] out. Kinking of the ureters appeared to be the most proba[ble] cause.—Mr. HENRY E. CLARK showed an eyeball which h[ad] been removed on account of tumour; the latter he believ[ed] was a secondary deposit resulting from carcinoma of [the] mamma. The tumour of the mamma had been removed f[our] years ago. It recurred, and on this account double oöph[o]rectomy was performed followed later on by *x*-ray treatme[nt]. Secondary tumour in the eyeball was an extremely rare co[n]dition, and as the specimen had not yet been examin[ed] microscopically it was impossible to be sure that it w[as] really of the nature supposed: it might be an [in]dependent new growth. The result will be reported later.—Mr. RUTHERFURD showed (*a*) a specimen of hydronephro[sis] (unilateral) due to kinking of the ureter by the renal vesse[l] and (*b*) a humerus, the seat of rapidly-developing sarcoma [in] relation to an injury. Three weeks after a fall the patie[nt] was examined, but no evidence of fracture was found. Thr[ee] days later fracture resulted from another fall, and a tumo[ur] then rapidly developed. The arm was amputated seve[n] weeks after the first injury; the patient, a boy about 6 yea[rs] old, died from shock.

BEQUESTS TO MEDICAL CHARITIES.—Under the will of t[he] late Mr. John Penn, M.P., £2,000 has been bequeathed to t[he] Miller Hospital and Royal Kent Dispensary. The late M[r.] Philip Hedgcock, of Brighton, has left £1,000 to the Suss[ex] County Hospital and £300 each to the Brighton, Hove, an[d] Preston Dispensary and to the Sussex Eye Hospital.

REVIEWS.

[E BACTERIOLOGY OF MILK AND THE CONTROL OF THE MILK SUPPLY.

VALUABLE addition to existing works dealing with the lk question is *Bacteriology of Milk*,[1] by Mr. HAROLD ITHINBANK and Dr. GEORGE NEWMAN, just published John Murray. The volume contains 603 pages, 451 of ich deal with the bacteriology of milk, while the remainder devoted to the subject of the control of the milk supply.

The earlier chapters on bacteriological technique contain ellent descriptions of the way to obtain sterile milk direct m the cow's udder and of the methods of quantitatively imating milk bacteria. Besides matters of special interest the milk analyst, these chapters contain elementary in-uctions in technique suitable for a student who is com-ncing the study of bacteriology, a description of the neral methods of preparing culture media, and an account the bacteriological methods of examining water and air.

The chapter on the bacterial content of milk gives a useful ord of milk analyses made in various countries, and also bodies the results of the author's own analyses. They in-bated their samples at 5°, 15°, and 37° C., and found that maximum number of bacteria occurred in seventy-two urs at the highest temperature, in six days at the inter-diate temperature, and in ten days at 5°. The degree of dity after incubation at these temperatures for various nes was also estimated, and was found to compare closely h the results of the bacteriological experiments. The in-pretation of the various data recorded is carefully discussed m the standpoint of the practical hygienist. Important tions in the earlier portion of the book are those written Dr. Newman on the occurrence of pathogenic bacteria in lk. The chapter on tuberculous infection and the modes which tubercle bacilli gain access to milk is particularly ful. In dealing with the controversy which Koch has ginated concerning the relationship of human to bovine ercle bacilli, Dr. Newman collects a considerable amount ecent experimental evidence, which on the whole tends invalidate Koch's assertions; and therefore, though ognizing that certain points have not yet been finally tled, the opinion is expressed that the data at present ilable justify the view that

> lst tuberculosis is not chiefly spread by means of milk, there is un-takeable evidence, derived from pathological and clinical experience, ving that tuberculous milk can, and does, set up some form of erculosis (bovine or human) in the bodies of man and other animals suming the milk.

The importance of differentiating the bacillus tuberculosis m other acid-fast bacilli liable to be found in dairy pro-ducts is only gradually gaining recognition in public health rk; we are therefore glad to see that this subject is dealt h here more fully than usual, and is freely illustrated. The apters on milk in its relation to epidemic disease are chiefly luable for their excellent abstracts of typical milkborne tbreaks of scarlatina, typhoid fever, and diphtheria. After eview of the evidence brought forward in favour of a bovine rlatina and a bovine diphtheria, the authors wisely return rdicts of "not proven."

Considering the bacteriological part of the work as a whole, are of opinion that the book is a useful summary of the portant English, Continental, and American literature upon lk bacteriology, and that the authors have arranged and ticized the material available with impartiality and sound dgement. It would have been an advantage if they had nfined themselves more strictly to their main object of iting a standard textbook on milk bacteriology, and if they d recognized that elementary bacteriological technique, neral methods of preparing culture media, and the exami-tion of air and water are all subjects to which special text-oks, many of them excellent, have already been devoted. he inclusion of these matters in the present volume has in-eased its bulk. Milk bacteriology, as the authors are aware, a subject upon which a great deal of important research ll remains to be done, and we hope that, having so roughly demonstrated their competence in technique and eir wide acquaintance with the literature, their future in-stigations will help to clear up some of the obscurities con-ning the important milk bacteria which are pathogenic to an.

That part of the book in which the control of the milk supply is discussed is divided into three chapters, the first of which deals with what has already been done by the State in controlling and protecting the milk supply; the second is devoted to the system of private enterprise: while the third deals with what can be done by the trade in respect to (*a*) milk-herds, (*b*) the housing of milk-herds, (*c*) milkers and milking, and (*d*) the after-treatment of the milk and the suitable conditions of its sale. The authors point out that the condition of the milk trade has been revolutionized, on account of the migration of the population from the country to towns. The milk trade is comparatively a modern growth and one which calls for totally new measures of control. Milk is now transported long distances, and is collected not from one farm and for one family, but from hundreds of farms and for thousands of families: therefore it is idle to suppose that the methods which answered the requirements of our forefathers will be found adequate by those who have followed the growth in our knowledge of milk and its relation to disease.

We cannot agree that the milk supply is not as important a matter as the water supply. On the contrary, considering how every infant, fed artificially, is, for the first years of its life, dependent on clean milk it is in our opinion vitally important that milk should be guarded as carefully as water.

As examples of what may be done to supply the public with milk produced under scientific management, the methods employed by the Aylesbury Dairy Company are described, and the Danish and American systems are given at length. There is a chapter touching on tuberculosis, and some sound information about the treatment of milk after milking. The question of milk dépôts is discussed, and we are glad to note that the writers point out, in connexion with it, the importance of "a naturally pure milk supply" as compared with the present system of sterilizing milk coming from an uncontrolled source. They write:

> Each mother must be separately advised, each infant inspected and weighed periodically, each home supervised, the condition of the milk regularly tested, and the source of the milk kept under control, the cows and cowsheds from which the milk is derived being supervised by a veterinary surgeon and the medical officer of health. And here, in any event, the quality of the milk used must reach a high standard, chemically and bacteriologically. If these conditions are not fulfilled, it would appear that a municipal sterilized milk supply can only be a palliative measure of transient usefulness. The desideratum is a naturally pure milk supply rather than an artificially purified and humanized supply. The latter question is one certainly requiring careful consideration, but of a different nature to the former. If undertaken by a local authority, it would appear desirable to do it very thoroughly, after the manner of Budin's work in Paris, each case being under strict medical supervision.

With all this we heartily agree. The book has, the authors state, taken five years to write, and they observe that even so, chiefly owing to the extremely rapid growth of bacteriology, much of the work must be looked upon as provisional only. The practical and applied aspect of the bacteriology of milk also claims much fuller inquiry, while comparatively little is known of the relationship between disease in the cow and of its transmission to man by means of milk. The question of the control of the milk supply, although having no direct relation to the bacteriology of milk, is indirectly allied to it, inasmuch as a wise control depends entirely upon a knowledge of the bacteriology of milk.

The portion of the work dealing with the bacteriology of milk is profusely illustrated with photographs, photomicrographs, and water-colour drawings by Mr. Swithinbank, Mrs. George Newman, and others, reproduced by André and Sleigh of Bushey, Herts, most artistically, many of them being coloured. We wish this work all the success it so well deserves.

[1] *...cteriology of Milk.* By Harold Swithinbank and George Newman, M.D., F.R.S.E., D.P.H. London: John Murray. (25s.)

LARYNGOLOGY AND RHINOLOGY.

THE innervation of the laryngeal muscles is a subject of great interest to investigators as well as clinical practitioners, and likely to continue to be so for a long time to come. Professor ONODI, of Buda-Pesth, has been one of the most active researchers in this domain, and in a book issued recently[2] he presents the results of his own original experiments and the conclusions to be derived from them, as well as from the various observations and experiments of others.

[2] *Die Anatomie und Physiologie der Kehlkopfnerven, mit einschlägigen pathologischen Beiträgen.* [The Anatomy and Physiology of the Laryngeal Muscles, with Supplementary Pathological Contributions.] Von Dr. A. Onodi, Professor of Rhino-laryngology in the University of Buda-Pesth. Berlin: Oscar Coblentz. 1902. (Demy 8vo, pp. 182; 42 illustrations. M.6.)

In the chapter on the laryngeal muscles there is a valuable review of the various experimental researches bearing upon the adduction of the vocal cords present in partial degeneration of the recurrent nerve. The author, while giving every value to the adduction power exercised by the crico-thyroid muscle as advanced by Wagner, expresses himself as a strong corroborator of Semon's law, in view of the obvious and incontrovertible fact of the early degeneration of the posterior crico-arytenoid muscle. He concludes with the description of an illustrative case in which he dissected the strands of fibres going to the various muscles, and in which he could find that

> First of all the abductors of the nerve degenerate; this stands in agreement with the experimental facts already related; then comes the nerve going to the thyro-arytenoid muscle, an observation which corresponds to the clinical experience that paralysis of the internal thyro-arytenoid often follows paralysis of the abductors; the latest to degenerate are the nerves to the adductors, namely, the lateral crico-arytenoid, the transverse arytenoid, and the crico-thyroid, which explains the median position of the vocal cords, because these muscles alone are in a position to fix the vocal cord in the middle line and to bring about movements of adduction (p. 179).

Among the newer points of interest may be noted the share of the sympathetic nerve, examined both from the anatomical and the experimental standpoint. He quotes a curious anomalous specimen from a human subject, in which the fibres of the recurrent laryngeal were derived for the most part "from that part of the sympathetic which extends from the lower cervical to the first dorsal ganglion" (p. 79). Stimulation in the dog of the double nerve cord between the inferior cervical and first thoracic ganglia produced in numerous experiments a contraction of the muscles of the vocal cord on the corresponding side with rapid movement to the middle line. Stimulation of the neighbouring twigs of the sympathetic and vagus were without result (p. 150). The author leaves the inquiry as to the deeper physiological and pathological significance of these observations as an onerous duty for subsequent investigators. Unfortunately it is on the score of ill-health that Professor Onodi leaves this to others. It is to be hoped that he may be able to resume the work and carry it through to its conclusion with his own hand.

Dr. HAJEK's work on the pathology and treatment of inflammatory affections of the accessory sinuses of the nose,[3] being founded on a solid basis of anatomy and pathology, and being written in an eminently lucid style, it is no wonder that the first edition has been rapidly exhausted. The subject of which it treats is comparatively a new one, and students of the old school were apt to be startled, not unnaturally, by the enthusiastic energy of the ultra-progressive rhinologist. A reasonable appreciation of the importance of the subject is now well-established, and for this we owe a good deal to the temperate zeal of the author of the work under consideration. In the first part of the book the pathogenesis, etiology, symptoms, and diagnosis in general are considered. Among other points may be noted the distinction drawn between primary sinusitis resulting from such causes as influenza and the secondary or consecutive such as may be due to extension from a diseased tooth or traumatic disturbances in the nasal cavities. Attention is wisely drawn to the tendency to spontaneous recovery which does not seem to be so prominently before the eyes of some operators as is desirable. The anatomy of the various sinuses is described, anomalies noted, and various diseases, so far at least as these are of inflammatory nature, are discussed. In the present edition consideration is given to osteo-myelitis and to tuberculosis of the superior maxilla. The thorough radical operations of Desault-Küster and of Luc-Caldwell are very fully described, the latter being more strongly recommended (p. 121). Certain difficulties in the diagnosis of frontal sinusitis are also reviewed (p. 169) and transillumination of the frontal sinus is, in agreement with Logan Turner, rejected as useless (p. 168). Exploratory opening is in certain cases recommended (p. 170). Due value is given to conservative treatment but the various radical operations are fully described including the new osteoplastic methods devised by Killian, Hartmann, Barth, and Hajek himself. The author expresses the strongest antagonism to Woakes's view as to "necrosing ethmoiditis" (p. 215) the objection being apparently more to the attribute "necrosing" than to the term "ethmoiditis" which H considers the basis of most nasal polypi (p. 212). section on diseases of the ethmoid cells forms a valu clinical treatise full of such detailed information as intending or even the experienced operator des The subject of the accessory sinuses in relation to ozaen dealt with in a peculiarly objective manner. The autho of the opinion that previous writers who had not noted association between these two conditions had failed to d owing to their having overlooked the disease of the sinus an error into which he confesses himself to have fallen i the same reason. Suppuration in the sinuses may be c looked from its not being thought of, and, even when thou of, it is difficult to discover. He is, however, opposed to views of those who think that in every case of ozaena origin is to be found in the suppuration of one or more of accessory cavities. In support of his opinions he giv careful analysis of 12 consecutive cases; the ante ethmoidal cells were involved in 7, the maxillary ant in 3, the posterior ethmoidal and sphenoidal cells in 1 respectively; in 2 the "ozaena" arose from suppuratio the pharyngeal tonsils, and in 2 from diffuse suppura catarrh of the nasal mucous membrane. The book has q ties which make it stand alone, and it well maintains author's great reputation.

In our review of the first edition of the remarkable v on diseases of the nose and naso-pharynx, by Dr. ZARN of Hamburg,[4] we indicated its striking features. A seco revised, and somewhat expanded edition is now being iss in two parts, of which only the first has been received. is concerned with general subjects. Among the points wh are new or treated more fully in this edition we may note more recent anatomical researches of Zuckerkandl and Kill the discussion on micro-organisms in the nose, a most inter ing study of the sense of smell, the physiological and pa logical relations of the nose in regard to voice and speech intelligence, the organs of hearing and vision, the brain, the general constitutional state. Killian's "rhinosc media" by means of a very long-beaked speculum, the di inspection of the naso-pharynx, the value of transillumina and of the Roentgen rays receive critical attention. A ticularly valuable feature in the work is the section accidents which exceptionally accompany or follow op tions on the nose, classified under the four heads of in tion, haemorrhage, and mechanical or nervous disturban To the observant this chapter with its numerous refere will be of the greatest interest. The wisdom of avoi tamponment, if by any means possible, is most stro insisted on. The whole work is remarkable for its accur exhaustiveness, moderate bulk, and readableness.

Professor GRADENIGO's monograph on hypertrophy of pharyngeal tonsil[5] is an exhaustive and interesting accou all that is known with regard to the so-called adenoid veg tions, a term which he unhesitatingly rejects. The histor the development of the knowledge of the subject is car back as far as Hippocrates. The embryology and the anato both macroscopical and microscopical, are fully describ these he considers fairly well established, but, with regar the physiology, the same cannot be said, "as it still pres an open field for hypothesis." Among the better-known vi as to its function, the author quotes the extremely interes observations of Masini, who found that animal inoculati with watery and glycerine extract of tonsils produced a ris arterial pressure and slowing of the pulse, an action wh however, did not take place when the extracts were m from hypertrophied tonsils; these observations, if confirm would indicate the absence of a valuable "internal secreti when the gland is diseased (p. 39). Various views as to etiology of the hypertrophy are considered, but little defi information is given beyond the fact that in most cases predisposing cause is a diminished power of resistance, the exciting cause the repetition of inflammatory distu ances. The relation of tuberculosis to the hypertro is critically discussed, the author's opinion being t

[3] *Pathologie und Therapie der entzundlichen Erkrankungen der Nebenhohlen der Nase* [Pathology and Therapeutics of the Inflammatory Diseases of the Accessory Sinuses of the Nose]. Von Dr. M. Hajek, Privatdozent of the University of Vienna. Second enlarged edition. Leipzig and Vienna: Franz Deuticke. 1903. (Demy 8vo, pp. 378, 103 illustrations. Kr. 12.)

[4] *Die Krankheiten der Nase und des Nasenrachens*, mit besonderer Ber sichtigung der rhinologosichen Propädeutik. [The Diseases of the N and Naso-pharynx, with special attention to the general principle rhinology.] Von Dr. Carl Zarniko in Hamburg. Zweite Auflage. Hälfte: Propädeutik. Berlin: S. Karger. 1903. (Demy 8vo, pp. 26 illustrations, 3 plates. 5s. 9d.)

[5] *Die Hypertrophie der Rachentonsille* [Hypertrophy of the Pharyn Tonsil]. By Professor Dr. G. Gradenigo, Turin. Jena: Gustav Fisc (Demy 8vo, pp. 214, 5 plates, 45 illustrations. M. 7.50.)

e association is much less frequent than some ob-vers believe. The symptoms are carefully classified, d in relation to diagnosis are discussed under the adings "manifest" and "latent," the latter referring nerally to those cases in which repeated catarrhs of the roat, ear, or nose occur without the physiognomical charac-ristics or persistent nasal symptoms which would draw ention to the pharyngeal tonsil, although palpation or inoscopy reveals the presence of a hypertrophy the moval of which alone leads to a disappearance of the mptoms. The methods of examination are described in tail with their various advantages and drawbacks. Anterior inoscopy is one of those least used by our practical fellow-untrymen, and it is one of the least value; its limited ace is, however, duly accorded to it by Professor Gradenigo. osterior rhinoscopy is apt to give a diminished image of the owth, but if allowance is made for this it is in suitable cases luable proceeding. Direct autoscopy of the rhino-pharynx, volving the use of an instrument for retracting the soft late is described, but with little approval; the other ethods are all familiar. The section on prognosis deals ith the question as to the results in cases in which the perplasia of the pharyngeal tonsil is left alone or insuffi-ently treated; he refuses to admit that the diminution hich takes place as the child gets older can be looked upon in any case a recovery; he believes that it is "a kind of atrization which leaves as its results a chronic catarrh of e pharynx with injurious effects upon the ear, nose, and o-pharynx;" he mentions further the possibility of conver-on into a malignant growth. The injurious influence upon e ear he considers most potent, and actually goes the ngth of saying that "the final changes in the nutrition this mucous membrane which affects the periosteum ay extend later to the wall of the labyrinth d the internal ear." This view is certainly fficult either to prove or disprove. Allowing due lue for general and gymnastic treatment in slight ses, he admits of nothing short of surgical removal when e hypertrophy is considerable. The indications for the eration are those generally received, but the following re-arks are somewhat striking—namely, that "the operative terference is generally necessary in cases of children with a arked hereditary tendency to otitis"; also that "the tional treatment of adenoid hyperplasia is efficacious in pre-nting the development of progressive deafness in the child-n of people suffering from sclerosis of the middle ear; and, general, it affords the best means of prophylaxis against is." As a rule, his preference is for Gottstein's ring knife one of its modifications. He is strongly in favour of a neral anaesthetic, and considers that, on the whole, bromide of ethyl is, without possibility of contradiction, the haesthetic agent which has the advantage over all others." is views with regard to the avoidance of nasal washes after e operation are very decided. His book is full of thought d suggestiveness, but lacks a table of contents and an dex. The arrangement of subjects is, however, logical and telligible enough for the reader to find his way to any par-cular point without much difficulty.

Those who have attended the crowded clinical demonstra-ons by Professor CHIARI which are among the most con-picuous features of medical teaching in Vienna have awaited ith keen anticipation the appearance of his monograph upon iseases of the upper respiratory tract. The second volume, ealing with the pharynx,[6] has now appeared and may irly be said to be in every way worthy of its distinguished thor. The first section is devoted to anatomy, the question development receiving clear and adequate treatment. An count of the physiology of the region follows, including at of deglutition; this is illustrated by numerous drawings which those of the entrance to the Eustachian tubes in rious conditions are particularly interesting. General thology is next briefly discussed and is followed by apters on methods of examination and on general faucial erapeutics. The author is an advocate of posterior rhino-opy, and finds that the evidence obtained by this means ay often with advantage be extended by sounding the aso-pharynx under cocaine. For local anaesthesia, he commends painting with cocaine subsequent to vigorous abbing with a 1 in 1,000 solution of adrenalin chloride. This results in a vascular contraction which lasts for quite two or three hours, so that the risk of haemorrhage is minimized. For tonsillotomy he prefers the instrument of Mathieu to that of Mackenzie. The account of the instruments which may be used in the treatment of adenoids is very complete, but the writer's preference is evidently for the ordinary Gottstein's knife. He states that recurrence is not very rare; it may perhaps be that in England the operation is not always completely carried out, but we think that experience here would generally be that Schmidt's figure of 3 per cent. is below the mark. In diphtheria Professor Chiari strongly recommends the use of inhalation and sprays in addition to the antitoxin treatment; he is, however, much against the plan of painting the throat, which he considers obsolete. In addition to complaints of every-day occurrence, the author is able to describe from his vast experience many of extreme rarity and interest, such as scleroma of the larynx, lupus, and chronic tuberculosis of the hard and soft palates. These are illustrated with admirable skill and fidelity, and the engravings of instruments are equally to be commended.

[6] *Die Krankheiten des Rachens* [Diseases of the Pharynx]. Von Professor r. Ottokar Chiari, Director of the Clinique for Laryngeal and Nasal isease, University of Vienna. Leipzig and Vienna: F. Deuticke. 1903. oy. 8vo, pp. 250. M.8.)

INTESTINAL DISORDERS.

DR. LEFTWICH has been struck by the occurrence of the longitudinal bands of involuntary muscular tissue in the walls of the large intestine, and in his volume on *Syphonage and Hydraulic Pressure in the Large Intestines*[7] endeavours to prove that besides peristaltic action, there are other agencies which drive on the contents of the alimentary tract. The caecal region, itis maintained acts somewhat as a Bramah's hydraulic press, so that the pressure exerted at the ileo-caecal valve is multiplied according as the sectional area of the ascending colon is greater than that of the ileo-caecal aperture. In order to increase the resistance of the walls of the colon, the latter is reduced in length by contraction of the longitudinal bands of muscle, thereby producing a greater infolding of the constrictions present between the sacculi, much as the walls of a concertina are more resistant when the instrument is collapsed. The writer then proceeds to argue that in man the assumption of the upright posture, though accompanied by a certain degree of hindrance to the passage of the contents of the bowel along the ascending colon against gravity, has the advantage of supplying him with a siphon-like action and the caecum may be looked upon as a reservoir of fluid, and the "pioid" arrangement of the rest of the large bowel as the siphon tube. The reader will be struck by the ingenuity with which Dr. Leftwich endeavours to prove his theories, and will certainly meet with novel opinions as to the treatment of typhoid fever, appendicitis, intestinal obstruction, etc., based upon the views for which the writer makes himself responsible. We wish that he had convinced us that the retraction of the anus in young adults is due to the tonic action of the muscular taenia which have become spread out in the walls of the rectum; the pelvic fascia and levator ani probably play a much more important part.

It gives us much pleasure to notice another of the admirable cheap manuals issued by MM. Baillière of Paris, with which we have nothing that can compare in the English language. Dr. FROUSSARD's book on constipation[8] is quite equal to its predecessors; it is admirably clear and well arranged. He makes a decided advance upon most of the clinical descriptions met with in this country by insisting upon the importance of spasm as a cause of constipation, especially in neurasthenic patients. The details of treatment are given most carefully and convey a great deal of useful information; in general they may be followed with advantage by any practitioner, but in certain instances—such as the preference for particular drugs or particular methods—it is possible that national taste or prejudice may interfere and that English patients would prefer the practice generally followed in this country. From our standpoint the author seems to have an exaggerated fear of the prolonged use of small doses of such aperients as aloes or mineral waters, and to ignore the dislike that most patients evince to castor-oil as a regular remedy. But these are, as already indicated, merely small details of practice. We can cordially commend the work as worthy of the attention of our readers.

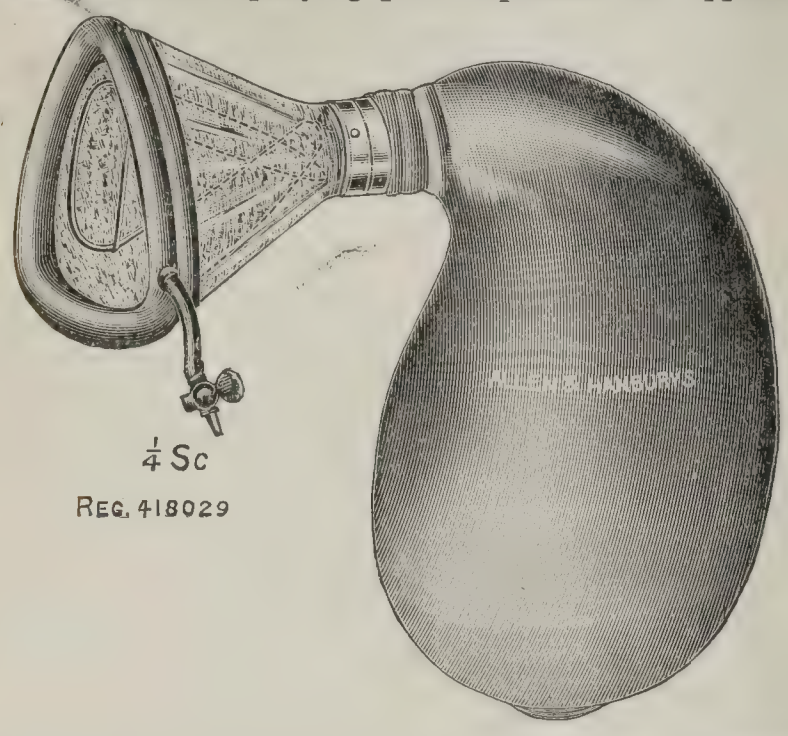
[7] *On Syphonage and Hydraulic Pressure in the Large Intestine.* By R. W. Leftwich, M.D. London: J. H. Churchill. 1903. (Crown 8vo, pp. 80. 3s.)

[8] *Le Traitement de la Constipation.* Par le Dr. Froussard. Paris: J. B. Baillière et Fils. 1903. (Cr.8vo. pp. 100. Fr 1 50.)

REPORTS AND ANALYSES
AND
DESCRIPTIONS OF NEW INVENTIONS
IN MEDICINE, SURGERY, DIETETICS, AND THE ALLIED SCIENCES.

MEDICAL AND SURGICAL APPLIANCES.

A Somnoform Inhaler.—Mr. H. EDMUND G. BOYLE, M.R.C.S., L.R.C.P., Resident Anaesthetist, St. Bartholomew's Hospital, writes: The accompanying plate represents an apparatus



which I have had made, and which I have been using for some time for the administration of somnoform. It consists of a celluloid facepiece and a rubber pad connected to a rubber bag, while a piece of lint, easily changeable, about 4 in. by 8 in., can be adapted to the interior of the facepiece by means of a special spring. I have found that with this apparatus a dose of from 2.5 c.cm. to 3 c.cm. of somnoform is enough to produce within from 35 to 50 seconds an anaesthesia sufficient to act either as a brief general anaesthetic or as a precursor to ether. The advantages I claim for the apparatus are: (1) Simplicity of construction, there being no valves or anything else liable to get out of order; (2) that the lint does not require any special shape, a piece 4 in. by 8 in. being all that is necessary; (3) that the aperture leading to the bag has been made especially large to prevent any difficulty in respiration; (4) that the cost of the apparatus, fitted with one facepiece, is only £1 1s., and is therefore relatively inexpensive. The apparatus has been made to my design by Messrs. Allen and Hanburys, from whom it can be obtained.

APPLIANCES.

A Razor Sharpener.—Mr. SHEFFIELD NEARN, of the Pathological Laboratory at the Great Ormond Street Hospital for Sick Children, has sent us a description of a razor sharpener which he has had prepared by Messrs. Baird and Tatlock. It consists of a plate of fine-grained iron specially faced by grinding on an emery lathe, and is used with very fine oxide of iron powder and oil. Ordinary stones, he says, are difficult to get perfect, and also are very expensive, and require skilful use. With this plate, however, it is claimed that any one can put a fine, single, and continuous edge on a razor in a very few minutes. The plates are now on sale by the above firm at 2s. each, while the powder costs 5s. a lb.

Messrs. Mayer and Meltzer's Gynaecological Operating Table.—Messrs. MAYER AND MELTZER (London) write: We notice a letter in the BRITISH MEDICAL JOURNAL for January 2nd, page 26, from Dr. Spencer, with reference to the table exhibited by us at the annual museum at Swansea. The description of the table which appears in your JOURNAL omitted to state that the design was a modification of that by Professor Monprofit. This was entirely due to an oversight on our part which we very much regret, as we always endeavour to give the credit to the original inventor. The facts of the case are these. Dr. Spencer ordered through us a table by Professor Monprofit and used it for some time at the University College Hospital, but did not consider the table sufficiently rigid, and gave us an order to build one on similar lines, but stronger, and with some other modifications. These instructions were duly carried out, and though the engraving of the two tables would appear similar the actual articles standing side by side are very different, and this is our only excuse for the oversight. We shall, however, in future, couple Professor Monprofit's name with the table.

PHYSICAL DEGENERATION.
[BY OUR COMMISSIONER.]

(*Continued from p. 88.*)

VIII.—SCHOOL CHILDREN OUT OF SCHOOL.

WHAT becomes of school children between the hour t leave school and bedtime is a question most vitally imp tant to this inquiry; they are turned loose upon the stre when the school closes at 5, and not all of them have hor to go to. Among the poorest neither parent may reach h from work until 7 or 8—the home is locked up, and children cannot get in till the parents return. Even if mother hurries home and prepares a meal for her childr they may still have to put in two or three hours in streets; others less fortunate have parents who turn into public-house on their way home, and remain there perh until closing hour. To one not habituated to the sight i an extraordinary experience to pass through the poorest d tricts of a large town at night, and to find that there are many children as adults in the streets at a time when m children of the middle and upper classes have been in b perhaps for hours. There are children of all ages, fr infants in arms to growing-up idlers. Not a dozen st can be taken without passing as many children who clus about the lighted shops or hang round the public-hous where presumably their parents are drinking. Oth wander on at their own sweet will; nobody seems to unkind to them, or, indeed, to take much notice of the they gather in large groups about the hurdy-gurdies in s streets and dance in a most spirited manner. It is said t some of the stars are given an occasional penny by the p organ man to attract an audience, and when the org moves on the crowd of children follow it to the next stre Gradually the children are claimed by their parents as t appear out of public-houses to steal away into the night l the Arabs of song, though whether silently or not is a mat which must depend upon the quantity of drink consum When the mother does not go out to work the children course have a home to go to when the school gates shut up them, but the parents may be tired and little inclined to p up with the noisy rompings, and are glad to let the childr go out of doors where they have room to play. The love the streets grows on them, so that they lose all love of hon Many a child has heard the chimes at midnight not once twice but many times a week, and, like Justice Shallow, th get into mischief; a boy or girl too young and untrained realize wrong in the act commits some fault which lea them to the reformatory or truant school, and no matter h good their conduct there, these children emerge wi the smirch of a conviction before the magistrate, which th carry to the end of their days.

No one who has walked through the slums can fail to ha been struck by the old wizened faces of many of the childre faces so careworn and pinched that if one did not see t tiny body it might be thought that they belonged to old m and women. The general belief is that the cause is mise and semi-starvation; doubtless this is true in some case far more often it may be traced to insufficient sleep. Th have no fixed bedtime, and are often kept waiting until or 1 before they can get to bed in rooms almost alwa ill-ventilated and sometimes underground, or parents m come home drunk and disturb the children when they ha had the chance of getting to bed early. Again, many paren have to be up very early in the morning, and some childre are sent out to do jobs, such as cleaning knives and boot before they go to school. The number of beds, too, is ofte insufficient, so that several children must sleep in one shak down, or even perhaps without undressing, on the floor, whi the infant shares the parents' bed, and—as is mentioned els where—many infants are smothered or overlain. Dr. Wyn Westcott, the coroner, has suggested that a desirable form charitable effort would be to provide cradles for the poor, bu failing this, it would be better to let the infant sleep in a empty drawer, in a hammock, or in the empty orange bo as Dr. Danford Thomas has often recommended.

It is a disastrous mistake that, with the clanging of th school bell announcing freedom, all control or influence the teacher—usually the only refining influence ever e

ed by these unfortunate children — should cease. To ow all responsibility to be thrown off at a moment when it ght be most useful is a very serious flaw in the school stem. The shutting of the school gates against wretched ildren can only be compared to the locking-up of churches ainst unhappy human beings, except during routine hours service. Lessons according to the code are all very well, t more important is the moral influence that should be ought to bear by the refined and cultivated upon their less tunate brothers and sisters.

The ready response which may be expected to any effort to pply the much-needed shelter from the streets after school urs has been shown in a striking way by the numbers of hool children who voluntarily attend Mrs. Humphry ard's summer vacation and evening recreation schools in nexion with the Passmore Edwards Settlement. Evening reation classes have been carried on at the settlement for wards of six years. They began with only about 300 child-n, while now there is a weekly attendance of 2,000. The sses are held from 5.30 to 6.30, and the same child is not owed to attend oftener than three times a week, so that me ties may not be loosened.

The building consists of several airy class rooms, a gym-sium, and a large hall used as a play room. Rows of ildren may be seen waiting outside the gates, two and two orderly fashion, and keen is the disappointment of those o have to be turned away because the "house is full." In ery class room something different is going on, and it is od to see the excellent behaviour and the keen attention th which each subject is listened to. In one room rows on rows of small children are hearing fairy stories, in the xt perhaps a drawing class is going on; in others brush inting, singing, basket making is being taught to the ys and needlework to the girls; dramatic classes are ld, drill is taught in the gymnasium, and games in the at play room. This room is most interesting; without y actual division it is separated into two parts, one side ing occupied by studious quiet children, happy reading or oking at picture books, while the other camp consists of se preferring games. The curious feature of this latter ss is that it consists chiefly of the real residuum of the slums, ildren who had to be tamed and civilized first in their n neighbourhood by getting them into the halls of their own hools to play, after which they were gradually drawn to the ssmore Edwards Recreation School. But even now they nnot be got beyond the play room to the more serious reation; this will doubtless come gradually. Musical mes are taught, and Saturday morning is devoted to play in e recreation room. One might imagine they would become manageable, but nothing of the kind. The room is vided into four squares by chairs; there are four lots of loured badges for the children, and each lady in charge a square has a corresponding coloured apron. A space st big enough for one child to pass through is left, and as goes in its name is entered in a register by the lady in arge of that particular playground. Once in, they find enty of toys and are taught games; at a given moment all e chairs are cleared and there are musical games. One nnot but be impressed by the moral effect which this ntle discipline—for they are expected to behave well and e made to understand that it is an honour to be admitted the school—combined with the refining influence of ladies ust mean to these children who would otherwise be outside aying in the gutter. There is nothing to compel the ildren to attend, and yet some of them turn up year after ar and bring their brothers and sisters as soon as they ow old enough. The teachers visit the houses and put emselves in touch with the parents, for whom social enings are provided in order that they may become terested and be glad to allow their boys and girls to attend. e classes are easy enough to interest without being a rain, and the same system is employed in the summer cation school, when there is a simple religious service llowed by singing, dancing, drawing, carpentry, "story-lling," cooking, musical drill, clay-modelling, and many her subjects.

A special room is provided for the sole use of boys wishing study quietly. This is a great boon especially to those o are preparing for examinations.

The discipline in all the classes is excellent, owing to the ct that the children are always pleasantly occupied, and anaged with kindness and understanding. It is noteworthy at no child has had to be expelled or even punished during e two years the summer recreation schools have been open. We quote from the report of the headmaster of the school in 1903:

"The school has for its object the giving of its pupils a good time. Had the children shown signs of weariness or dislike we should have at once deemed the venture a failure, but, as the opposite symptoms were those invariably displayed, we have naturally concluded the school was a success. The school aimed at giving the children something to do in place of roaming listlessly about in street or alley, with nothing to tempt them to action save the ever-present opportunity for mischief. Children such as we had cannot amuse themselves. They have little initiative and imagination, and, as a rule, unless acting under guidance, fail to give their desire for amusement and occupation suitable shape. They roam about suffering from a peculiar childish *ennui*, and actually long for the return of the normal schooldays and the cessation of the wearisome holidays. The purpose of the school is to change all this. It sought to satisfy the hunger for occupation by setting the children something to find out, or something to do. It sought to care for the physical well-being of the scholars by carefully-organised exercises. It sought to raise the children's ideals of morals and conduct by direct and indirect instruction. It sought to show the children that coming to know and learning to do are, in themselves, some of the truest of pleasures. It sought to afford pleasure chiefly to those children who were doomed from one cause or another to remain in London throughout the vacation and so go sea-less, fresh-air-less and joy-less." In order to get the children, application forms were placed in the hands of the teachers of some dozen neighbouring Board and voluntary schools. These forms were filled in and sent back to the settlement where the remainder of the printed forms, some 1,500 in all, were distributed to the applicants themselves. Altogether there were 1,681 applications for the 750 places, which it was calculated would give an average attendance of 600. The average number on the rolls was 751. Even in the wettest weather the attendance was never bad and the scholars were genuinely anxious to come, often standing outside for an hour before the opening of the doors.

Among the subjects taken at the summer vacation schools during the last two summers were: Manual training (woodwork for the older boys); housewifery and cooking (for the older girls, and once or twice for boys also); singing, gymnastics (including boxing for the older boys), and musical drill and physical exercises; story-telling (with which was carefully combined a spice of moral instruction); clay modelling, dancing, nature study (botany and zoology from life); brushwork and drawing; reading room (story books); dramatics (the pieces prepared were performed before the whole school on breaking-up day); needlework (chiefly doll-dressing); basket work and cane weaving, lantern story-telling; ambulance work and nursing (even to washing and dressing a baby); swimming (for both boys and girls); and last, but not least, sand-digging. Most of these subjects, it will be observed, permitted the students to be actually doing something—that is, they brought into play physical as well as mental activities. With the exception of woodwork, housewifery, needlework, and cane-weaving. each lesson lasted only thirty-five minutes, so as to avoid tiring the scholars. Moreover, the subjects were so arranged that a child as far as possible got one lesson in the building and one in the garden alternately. A few children displaying special aptitude and expressing a genuine desire to take up any one particular subject were allowed to spend as much time as they wished at it.

For the younger children story telling, building, games, paper folding, cutting, and pasting, Nature study, chalking, colouring, clay modelling, soap-bubble blowing, singing, skipping, ship sailing, and other recreative occupations were provided; this kindergarten was managed by a responsible mistress.

The Inter-Departmental Committee on the Employment of School Children, which reported in 1902, was struck by the need there is in London of providing shelter and occupation for school children, in order to prevent their being overworked as wage earners, and to remove them from the demoralizing influences of the streets. The following is an extract from the report:

"Consider the case of a boy of 12 or 13, who lives in a poor and crowded home in a town. He is at school five and a-half hours daily, on Saturdays and Sundays he is free, and he has from six to eight weeks' holiday in the year. After deducting time for sleep and meals there remains to him at least seven hours on weekdays and twelve on Saturdays, Sundays, and

holidays during which he has complete leisure. If the schoolrooms were open to him, and he had sufficient incentive to study, if there were everywhere public playgrounds and organized games, he might conceivably lead a life approaching that of boys of public schools, which is, at least, a healthy life, even if, in the opinion of some, the vacant hours are too long, and the inducements to idleness too long. But the poor boy.....has in most large towns only the alternative of playing or loafing in the streets, or of moping in dull rooms in a crowded tenement."

In summing up the Committee directs attention to "the absence in the large towns of adequate means of physical recreation for children. We have again and again put the question, 'What would these children do if they did not work?' and again and again found that the only other active mode of life open to them out of school is running the highways or 'playing weird games in back streets.'"

An association called the Children's Happy Evenings Association, of which Lady Jersey is President, has been carried on for fourteen years and has 113 branches in London. Its object is to make the early years of children happier, and to teach them to play and amuse themselves in a healthy and orderly manner. They attend voluntarily in clean, well-lighted schoolrooms which form a pleasant contrast to the streets. Toys are provided and games are played, but the Association does not aim at instructing children beyond teaching them to behave with courtesy and to play fair. It is sufficient that the children are out of the streets and under the influence of ladies, which must have a refining effect on them. Each child attends once a fortnight only.

The School Board has granted the use of schoolrooms for the "evenings," and it is claimed that owing to the movement the day-school attendance has been very materially improved, as admission to these recreation classes is made dependent on the regularity of attendance at school.

It might not be easy to establish an ideal recreation school such as that of Mrs. Humphry Ward in every crowded neighbourhood, yet something ought to be done on those lines, and recreation schools, even if less perfect, established all over London and other large towns. It might have seemed hopeless to move a body like the London School Board, but here is an opportunity for the new educational authorities to accomplish this sorely-needed reform. At first sight the suggestion may appear Utopian, but when it is carefully considered it will be seen that the difficulties in the way are less formidable than they look. In places where schools in adjoining districts are under different authorities, if even one authority were to make up its mind to work the scheme thoroughly, it would be the pioneer of the remaining districts. In each school two or three at least of the smaller school-rooms should be thrown open in the evening, and where a large hall existed it should be used, under judicious discipline, as a play-room, in which slum children, without an idea of how to amuse themselves, could be taught interesting games. Part of the time should be devoted to physical exercises, while there should be a quiet corner and well-chosen books for those disinclined to join the games. In the smaller rooms light occupations tending to cultivate the taste without fatiguing the brain could be organized. The occupations should be chosen with the view of allowing the children to stand or move about, for the many hours in the day they have to remain sitting in schools should always be borne in mind. The evening would afford excellent opportunities for cooking classes, which do not necessitate much brain work, and for simple useful object lessons. One small room could be reserved for the really studious, where they might find absolute quiet and study without interruption. This would be an inestimable boon to lads and girls who have to work for examinations and find it impossible for various reasons to do so at home.

In the report on Mrs. Humphry Ward's recreation classes it is stated that the object of the school is to give its pupils a good time. This is a happy expression, for the secret of happiness is to be employed, and none appreciate the delight of being interested and occupied so keenly as those who have previously spent an aimless life.

Though these evening recreation schools yield results of inestimable value they could be run at a small cost. There would be the lighting and heating of the rooms in winter and the salary of a few teachers to assist voluntary workers, for the movement has only to be started to find support. The Passmore Edwards Settlement Recreation School, with its six hundred children in daily attendance, is managed for a little over £200 a year; it is therefore not unreasonable to urge that to shirk this duty any longer will be a slur on any educational authority which does not wish to acknowledge itself unable to see every side of the education question. In those places where a system of evening recreation classes is not established it will perhaps be wiser to close the schools for the afternoon and to reopen them after tea from 5 to 8, care being taken to get through all the more difficult lessons in the morning, reserving the less fatiguing for the evening classes. Under this system the children would at least run less risk of danger to their health if they played about the streets by daylight instead of at night.

AUTOMOBILES FOR MEDICAL MEN.

We are constantly receiving applications for advice about motor cars, and mainly in three forms. First, as to whether the advantages of automobiles are so great as to make it desirable to give up horses for them; secondly, as to what the initial and permanent cost of a car is likely to be; and thirdly, as to what particular car or which of two or more mentioned it will be best to purchase.

All of these questions depend upon factors which are to some extent interdependent, and none of them are easy to answer in any individual case without the most specific information as to the nature of the practice, the extent of the work to be done, the character of the roads to be used, the proximity or otherwise of a large town, the amount of money which has hitherto been spent on getting about, the personal idiosyncracies of the prospective purchaser, and the amount of attention which he is prepared to, or can in any case, give to the care of his car himself.

The Considerations Involved.

Expert opinion of a really satisfactory kind is not easy to obtain, for nearly all the experience hitherto acquired has been from a different standpoint to that of the ordinary medical practitioner whose requirements are of a somewhat special nature. The latter does not want a racing car or a touring car or primarily a pleasure car of any description, but a business machine upon which he can rely to take him about his work at any time of the day or night at the very least as well and surely as a horse-drawn carriage. Besides this it must have some other definite and certain advantages to make up for his loss in getting rid of his horses and carriages if he has any, and certainly for the fact that with a car he puts most of his eggs into one basket instead of spreading them over a couple of horses and a carriage. If, moreover, the use of a car is going to add anything to the annual expenses of his practice it must fully make up for it either by enabling him to make more money or at all events put him in a position to do more work if he can get it by getting through all he has already more rapidly.

The Advantages.

Can all these conditions be met by a car? Well, provided the car is a good car, they certainly can, for a car never gets tired; can be taken out a dozen times a day, and even if never driven faster at any one moment than the best pace of an average horse, it gets over the ground much quicker, owing to the facility with which it threads traffic, and to the fact that it does not slacken pace except over quite steep hills. Moreover, hasty calls can be answered much more quickly, for a car in good order can be got out of the stable and under way at five minutes' notice. Work, therefore, can certainly be got through a deal quicker than in a carriage, with the added advantage that, distance being no object, the day's round need not be arranged more with a view to saving the horses than to the absolute needs of the practice, and serious cases at any distance can be visited as early and as often as desired. The time saved, of course, is of great advantage, whether it be used for recreation or for other work which otherwise could not be done. There can be small doubt, therefore, that, given a reliable car, automobiles have a distinct advantage in a town practice or in a country one which covers a good deal of ground, but not in a practice which is of such a nature that, if need were, it could either be done on foot or with a cheap pony and corresponding cart.

The Disadvantages.

As for corresponding disadvantages they are in the main such as will readily occur to any one who has had an opportunity of seeing cars at work. The proviso that the car shall be a good one, or, in other words, a reliable machine, has

ready been made, and it is on this and on the driver's ill, the nature of the roads, and the attention which e car receives in its stable (garage work) that the liability small accidents and awkward stops depends. Tyre troubles e perhaps the most to dread, for they cannot be entirely oided even by care, and though for the most part capable of ing very quickly remedied they are nevertheless very annoy-g. They can of course be practically abolished by the sub-itution of solid tyres for pneumatics, but in this case it is ot advisable to drive more than twelve miles an hour, and cept on the very best of roads much of the pleasure of car iving is gone. Apart from matters of this character in which liability of the car, a point to be discussed later on, is involved may also be fairly mentioned as a disadvantage that with a ar there is much more money at risk than with any carriage. ence a really big smash with the former is, apart from ther contingencies, likely to be more disastrous financially an a similar smash with the latter, unless entirely satisfac-ory insurance arrangements have been made. Apart, too, om big smashes, some of those liable to occur with a car annot be put right with the same facility and speed as acci-ents of corresponding importance to a horse and carriage. or instance, in most places a sick or injured horse can enerally be easily replaced by a hired or borrowed one, and broken shaft can be spliced or efficiently repaired. With he less expensive forms of cars, too, it is less easy to arrange or protection from the weather than in carriages, and even in ne weather travelling fast in the face of a wind is not pleasant r healthy if a man has a bit of a cold in the eyes or chest. he adoption of automobile costume, also, which is necessary n doubtful weather or fast work, in anything but a closed ar entails a certain loss of smartness, but that is of little oment to the majority of men whose patients know them.

INITIAL COST.

Then we come to the question of initial cost and current utlay. As regards the former, the tendency of late has been o lower the price of cars all round, and it is a question hether in the future it will be worth the while of manufac-urers to build, unless under exceptional circumstances, the normously expensive cars which have hitherto found ready urchasers at practically fancy prices. The real cost of a car epends, apart from very smart and luxurious fittings, upon ts power, weight, the nature of its fittings, and the number nd cost of the patents used in its construction. Manufac-urers now know that the future of the industry depends, not pon the pleasure seeker to whom money is no object, but pon the business man who requires full value for his money, r will not spend it at all. They are endeavouring, therefore, o turn out cars at as low a price as is compatible with actual eeds. The movement already has proceeded so far that, part from the numbers of first-class cars which can upon ccasion be obtained secondhand, practical machines can now e purchased straight from their makers at anything from £150 upwards. In the main, therefore, the initial cost of a ar is, starting from that sum, really a question of how much apital the purchaser is prepared to put into this part of his usiness. A great many men will perforce satisfy themselves with the cheapest first-cost car they can get, but others will be prepared to pay any sum required if they are assured that they will ultimately receive advantages corresponding to it. Probably, however, no practitioner who is purchasing a purely business car need think of spending more than three or four hundred pounds at the outside, and, in considering whether it is worth while to strain resources to this extent, the main point to be kept in mind is the following: The power of a car should always be more than equal to the work that it has to do, for the wear and tear on a small car continually driven to the extent of its power is much greater than that on a machine which is always going well within itself. There is usually, too, more finish about the cars sold nearer the higher limits named, and less tendency, perhaps, to small defects.

In connexion, however, with initial cost, the question of annual depreciation must be borne in mind. Under any circumstances it should probably be put down as not less than 15 per cent. per annum, for, though the life of properly-used engines may be practically unlimited, many of the other parts will certainly be finished in six years, whilst the gears may go in two. Besides, the progress of improvement promises to be rapid, and before the six years were up most car owners would be wanting to try a newer model; for the mania for new cars seems as strong among car users as it used to be among bicycle riders. A final point that may be borne in mind is that it is easier and of course very much cheaper to gain the necessary experience of car driving and car keeping with a small car than with a large one.

CURRENT COST.

This, again, is almost impossible to estimate with precision, and in advance, in any given case, as it depends upon so many varying factors. A horse costs the same whether it is idling or at work, but, apart from differences of make in various cars, the greater part of the cost of using an automobile depends absolutely upon how much, how skilfully, and how carefully it is used; also, to a considerable extent, on the nature of the roads, smooth, rough, hilly, or flat, the weight of the car itself, the weight that it carries, and, finally, to some extent, on luck pure and simple. One man will get only fifteen miles out of a gallon of petrol; another will get twenty-five or thirty or more. An incompetent driver will be perpetually having small, easily-avoided accidents, slight and unimportant in themselves, but certain to bring in a big repairing bill by the end of the year, and such as no insurance company will cover. Another may be careless about ensuring that his car is really properly cleaned and daily oiled in unseen parts, and that small, easy adjustments are made with the promptness which makes both for efficiency and economy. Tyre troubles are another varying source of expense. Bad luck apart, they depend very much on the nature of the roads, but in the main chiefly upon the weight of the car. A heavy car necessarily wears out its tyres much quicker than a light one, and though, in a general way, a big car may suffer less from wear and tear, it absorbs a good deal more time and trouble in cleaning and keeping it in order than does a small one. Here comes in a personal factor. If a medical man leaves his interests entirely in the hands of his driver, as many men do their horses in the hands of their coachman, a car is not likely to prove a money-saving purchase. In fact, any practitioner who desires to drive a car at a moderate cost should be prepared to learn to understand it thoroughly himself, and even if he does not actually act as his own mechanic, he should at least see that all oilings, cleanings, and adjustments are carefully carried out by his man. It is not really a very exacting task, and in default of readiness or ability to undertake it the car owner must be prepared to employ a much more expensive kind of servant than he would otherwise require, and even then he will not be certain that his best interests are being looked after. Other varying factors are the proximity of a town and stabling. As for the former, if a practice is buried in the depths of the country, it may be difficult to get small repairs effected either cheaply or well, or occasionally even at all, and the practitioner who depends entirely on a single car, and can neither hire nor borrow another vehicle, might conceivably find himself upon occasion in a real difficulty, and an expensive one as well. As for stabling, a car simply requires standing room and a pit to facilitate cleaning of the underpart, but whether this means economy or not depends upon whether the practitioner lives in a town and has to pay heavily for stable room, or possesses stables which he has to pay for irrespective of their use. When all is said, however, it still remains possible to make a general estimate of current expense, and in terms of horses it may be said that in a practice which fully requires two horses the transport work could be done actually and relatively cheaper by a fair-sized car. In detail, and taking an average moderate-sized car, the things that have to be thought of are petrol, say $\frac{3}{4}$d. a mile, or about £20 a year on an average of from fifteen to twenty miles every day of the week; lubricating oil, say 1s. for every 250 miles; tyre repairs and a spare new pair every year, from £10 to £25, according to weight of the car and the roads; and, finally, valves, sparking plugs, and sundry repairs, £10 to £20. To these expenses, which may amount to £65 per annum, must be added the expense of a stable, which can safely be put down in most places as under £20, and finally the wages of a man or boy either to take complete charge of the car or merely act as assistant and look after the cleaning and oiling, etc. According to the amount of attention which the practitioner is prepared to give to matters himself, this item will vary from the wages paid to an ordinary stable help to those paid to a first-class coachman.

The question of the actual choice of a car and the light thrown upon it by the reliability trials in September will be discussed in a further article.

(To be continued.)

THE annual meeting of the American Medical Association this year is to be held in Atlantic City from June 7th to 10th

PRELIMINARY GENERAL EDUCATION OF MEDICAL STUDENTS AND THE GENERAL MEDICAL COUNCIL.

By W. Gordon, M.D.,
Exeter.

At the beginning of a new year it will be well to review our position with respect to one of the most important questions in medical politics, the preliminary general education of medical students. This is all the more desirable as the question is entering upon a new phase.

It will be remembered that attention was drawn, nearly two years ago, to the scandalous condition of the preliminary general education requirements of the General Medical Council, and that on April 16th, 1902, the Council of the British Medical Association adopted the following four resolutions proposed by Dr. Deas, of Exeter:

1. That it is undesirable that any one should be registered as a medical student until he or she has attained the age of 17.

2. That the standard of the examination in preliminary general education required by the General Medical Council should be suitable for candidates of 17 years of age and not lower than that required at present for the Oxford or Cambridge senior local examinations.

3. That the examination should include a pass and an honours division, as in the University Local Examinations, the subjects for the pass to comprise at least Latin, mathematics (comprising arithmetic, algebra, and geometry), English grammar, literature and essay writing, history, geography, and either French or German; the honours division to include Greek and physical science as compulsory subjects.

4. That the present system of multiple examining Boards is most undesirable, and that it is essential, in order to secure uniformity of standard, that the Medical Acts should be amended, so that the General Medical Council should be empowered to appoint a single examining Board, which should hold its examinations, as often as necessary, at multiple centres simultaneously.

These resolutions were laid before the General Medical Council on May 31st, 1902, by a deputation from the Association, which was received, on behalf of the General Medical Council, by its Education Committee.

On November 26th, 1902, the reply of the General Medical Council was sent to the Council of the Association. It was to this effect:

1. That no definite answer could be given on the subject of the age limit until the General Medical Council had certain data before it. These data were to be ready "presently."

2. That it was inexpedient at present to further suddenly raise the standard of examination, because doing so might seriously deplete the profession.

3. The question of scope of examination was ignored.

4. That it was inexpedient at present to attempt to establish a single examination in lieu of the existent multitude of examinations, because powerful opposition would be met with and because certain proposals were already being considered by the educational authorities.

Now, more than a year has elapsed and the answer as to the age limit has still not been given. That question may therefore fairly be regarded as shelved, since the General Medical Council has had more than ample time to look up the data concerning it, so that its whole reply amounts to a *non possumus*. Let us see where this leaves us.

1. The General Medical Council has taken the retrograde step and the grave responsibility of approving of boys leaving school at 16, just when school discipline is most needed, and beginning a course of study for which they are unfit and which, a little later on, is unfit for them, amidst the risks of a great town, where no proper supervision is exercised over them.

2. The standard of general education required by the General Medical Council from these boys of 16 is one adapted to boys of 15.

3. The scope of examination required by the General Medical Council differs little from what is now expected from students of veterinary surgery and pharmaceutical chemistry.

4. The multitude of existing examinations precludes the possibility of any certain uniformity of minimum standard. Sir John Tuke's letter of December, 1898, to the educational authorities proves that the Education Committee was then absolutely unaware of the disparities which existed amongst even the best known examinations on its list. There is no guarantee that any one part of the United Kingdom may not be "dumping" on the rest medical students of great inferior general education.

In justification of this amazing state of affairs, the General Medical Council alleges the fear of unduly depleting the profession, although it is well known that the profession is at present greatly overcrowded, and highly probable that many clever boys are deterred from entering the profession because of this overcrowding. In short, the General Medical Council's policy is to increase numbers at the expense of efficiency, a policy most injurious to the public and to the profession and only obviously advantageous to the qualifying bodies. Now what does this mean? It means something very sinister and serious. It means that proposals, absolutely necessary, strikingly moderate, carefully and laboriously elaborated, representing the views of the great majority of medical men throughout the country, backed by the recommendations given to the General Medical Council in 1899 by eminent educational authorities—proposals running on exactly similar lines to the recommendations independently made to Government with regard to army candidates by a very distinguished Government Committee—that these proposals have been rejected by the General Medical Council on a pretext which will not bear a moment's investigation further, when this is considered and when it is seen how important and far-reaching are the consequences of this rejection, and when the amazing admission on the part of the General Medical Council is taken into account, that it has no real control over the age of student-registration or over the standard and scope of the examinations in preliminary general education, it then means this, that the question of reform in the general education requirements for medical students has merged into the wider question of the reform of the General Medical Council itself. On this I would say a few words.

I suppose that, in a "free country," there is no more surprising institution than the General Medical Council. *It is the government imposed on the profession, for the advantage of the public, supported by a tax levied on the profession, which has practically no voice in the government for which it pays!* How is that for a constitutional government? England lost America for a smaller irregularity. A very small sample of such irregularities meted out to our present colonies would for ever prevent the dream of an Imperial Zollverein from disturbing the rest of English statesmen. But the curiosity does not end here. The members of this Council of Medical Education need not be medical men! The educational bodies, whom this Council is designed to control, themselves constitute the Council! Further, they are required to control medical education, and are given no real powers to do so!

I imagine there is no other community besides the medical profession so supine and so senseless as to have borne with such a government so long, or indeed to have ever permitted it to come into existence.

When the proposals come to be considered for the reform of this extraordinary Council, I trust that consideration for the interests of the country, if not common self-respect, will move the profession to insist on a government at once equitable and rational.

But, in pressing for the greater need, we must not overlook the less. The subject of the general education of the medical student lies at the root of all true medical progress, and it is to be hoped that, in the year before us all, who are interested in the welfare of medicine will endeavour to acquaint themselves with the main facts of this weighty question. Shall I be pardoned if I add a list of references to past publications, some of them my own, which, taken together, give the main outlines of the subject?

References.

Paper, British Medical Journal, 1901, ii, p. 1327; Report of Committee, ibid., 1902, i, p. 1351; Report of Deputation, ibid., 1902, i, p. 1435; Paper, ibid., 1902, ii, p. 1042; Answer of General Medical Council, ibid., 1902, ii, p. 1798; Leading Article, ibid., 1902, i, p. 1555; Editorial, ibid., 1902, ii, p. 197 (this needs one correction; pharmaceutical students must now also take algebra, Euclid, and a modern language); paper, ibid., 1903, i, p. 1152 ("Overcrowding of Profession"). The "papers" referred to give all necessary references to documents, etc.

Council of Legal Education.—Dr. F. J. Waldo will give a course of six lectures on medical jurisprudence in the Old Hall, Lincoln's Inn, on Thursdays at 8 p.m. The first lecture, which dealt with the medical man as witness, was given on January 14th. Further particulars can be obtained on application to the office of the Council, 15, Old Square, Lincoln's Inn, W.C.

BRITISH MEDICAL ASSOCIATION.

ubscriptions to the British Medical Association for the year 1904 are now due and should be forwarded by postal order or cheque to the amount of 25s. to the General Secretary, 429, Strand, London, W.C., or, in the case of Colonial members, to their Branch Treasurer.

British Medical Journal.

SATURDAY, JANUARY 16TH, 1904.

HE MORTALITY EXPERIENCE OF ABSTAINERS AND NON-ABSTAINERS.

N several occasions the three or four insurance companies who separate the experience in their offices of abainers and non-abstainers from alcoholic drinks have ublished results showing marked superiority in the rmer, and it is not surprising that these results have een received with considerable scepticism, and that rious explanations other than the particular factor of coholic habits have been adduced in explanation of the wer mortality in the abstainers.

On page 155 of this issue is summarized an extremely luable paper by Mr. R. Mackenzie Moore, which sets this estion at rest, and confirms all that has been previously leged as to the superior prospects of life of abstainers, ough whether this superiority be due to abstinence from cohol or to concomitant circumstances of life which are timately associated with such abstinence may still be subject for discussion.

Mr. Moore's paper is based on the experiences of the nited Kingdom Temperance and General Provident Initution for over sixty years; in each section, abstainers id non-abstainers, it deals with about 30,000 life policies, id is concerned altogether with nearly 900,000 years of fe among the persons thus insured. The data are therere on a very large scale; they have been accurately kept roughout, abstainers having always been classed separely from non-abstainers, so that there is no difficulty in ating the mortality experience of each group separately. he salient feature is the fact that the abstainers' section shows an experience which is from 25 to 45 per cent. perior to that of the non-abstainers' section, between e ages of 25 and 65—that is, in the working, active, valuble years of life.

The results as to other ages are given in another lumn, and their significance is there discussed. The st majority of the lives were at the ages 25 to 65, and e weight of the observations at these periods of life therefore greater and more significant than that at rlier and later ages.

In explaining such an important discrepancy various ssibilities suggest themselves. In the first instance, are e two groups, abstainers and non-abstainers, truly comrable? Mr. Moore states that the average amount insred in the two groups is about the same—namely, £300. e learn also that the transference between the two oups is insignificant, and that the two are rigidly treated similar lines. There can therefore be no doubt as to e real significance of the facts. Here we have, as Mr. P. Hardy put it in the discussion on Mr. Moore's per, "certain numerical results, unimpeachable in their origin, and marshalled in due scientific order." The differences shown by them are too great to be merely accidental. Either the abstainers have a better mortality experience because they are abstainers, or they are abstainers because they belong to a more vital type of humanity, or their abstinence is in close, it may be essential, connexion with certain other habits which make for longevity.

The fact that amongst the clergy of the Church of England, as shown in the experience of the Clergy Mutual Office from 1829 to 1887, the expectation of life was half a year longer than that shown by the abstainers' section of the United Kingdom Institution does not negative the conclusion that abstinence from alcohol is the determining cause of the superiority of experience of abstainers over non-abstainers in the institution. The clergy are a specially select group, and no more need be said about them until statistics are available showing their experience separated into abstainers and non-abstainers.

It may be urged, however, that the non-abstainers section consists in part of those who are intemperate, and that the comparison is not strictly between moderate drinkers and abstainers, but between the latter and an uncertain admixture of moderate drinkers and drunkards. Doubtless there is truth in this contention; but in assessing the value of this factor we must remember that inquiries are made as to alcoholic habits at the time the life is insured. It is probable also that an office like the United Kingdom Institution catering especially for teetotallers is likely to obtain a certain undetermined excess of non-teetotallers, who, though not strictly abstainers, are almost so. Mr. Whittaker, M.P., director of the institution, remarks on this point that "the abstainers and non-abstainers lived in the same towns, worked in the same occupations, had practically the same income, and were precisely the same kind of people." On the whole, therefore, it seems probable that in the main the results really represent the difference in mortality and experience of abstainers and moderate drinkers; and that the teetotallers had no greater initial vitality than the non-teetotallers. We are informed that the fact of a man being an abstainer would, when any doubt arose, be more likely to lead to his acceptance as a good life than if he were a non-abstainer.

A careful study of the statistics fail to reveal any other circumstance of life except abstinence from alcoholic drinks which is a likely cause of the remarkable superiority in life-prospects shown by the abstainers. It must be frankly admitted that steady persistent abstinence from alcoholic drinks, is, in the light of this experience, an important factor in securing a healthy and a long life. No other conclusion is consistent with the facts than that indulgence in alcoholic drinks to the extent in which they are drunk by the members of the non-abstainers' section of the United Kingdom Temperance Institution is the cause of their greater mortality.

The directors of this institution have done a public service in giving facilities for the publication of Mr. Moore's important paper. They would still further benefit the interests of public health were they to arrange for the publication of corresponding results classified according to causes of death.

THE PHYSIOLOGY OF FATIGUE.

THIS most important subject formed the topic of two valuable papers read by Professor Z. Treves, of the University of Turin, and Professor J. Demoor, of the University of

Brussels, at the International Congress of Hygiene and Demography. The first practical fact needing recognition in industrial centres is that only work done without fatigue is done physiologically. Beyond this point work is done less efficiently and with disproportionate expenditure of effort. The fatigue point is difficult to determine, the factors concerned in obtaining the "quotient of fatigue" being complex. In the past incorrect results have been obtained by the use of single tests. Thus by mathematical determinations an attempt has been made to show that the overworked children in Belgian brickfields are not the victims of protracted fatigue. By statistical investigations it has been attempted to be shown that certain unhealthy occupations are less unhealthy than they appear, forgetting the considerations that statistics only give average results and are not strictly applicable to individuals. The only rational method of investigation is, as pointed out by Dr. Demoor, the continuous medical observation of the workers. By this is meant not only that the sanitary conditions of workshops shall be improved, but that each workman must be the subject of regular medical supervision, to ensure that his health is maintained, that he is not unwittingly being exposed to unfavourable conditions, and that he is not being overworked.

Medical science will thus to a steadily increasing extent be diverted from the unsatisfactory work of attempting to ameliorate disease already established, to the work of entirely preventing its appearance. This is necessary in the interests of labour and of output of work, and its more general adoption would be followed by a great national saving of health and wealth.

In investigating the question of overwork, dogmatism based on insufficient data is to be specially avoided. At the Congress at Paris in 1900 Dr. Vaillant asserted, without bringing forward any facts justifying such a conclusion, that an eight-hours workday was too protracted and that a five-hours day was sufficiently long for work. Quality as well as duration of work has to be considered, rapidity as well as total amount. Muscular fatigue does not correspond strictly with the amount of work. It is greater when a certain pace of work is exceeded. It appears to be generally admitted that the American works at a quicker rate and that his daily output is greater than that of the English workman and still greater than that of the German workman. This difference cannot be due to ethnological causes, for the German and the Englishman in the United States are quite equal to their fellow workmen. In modern industrial life not only strength is involved, but also agility, intelligence, decision, and promptitude; and it would appear that in some of these the American workman is pre-eminent. An important share in his superiority must be ascribed to his better and more abundant food, and to his greater temperance in regard to alcoholic drinks.

Extreme monotony of work may cause the same sensation of fatigue as is produced by prolonged hours of labour; and it appears probable that we have on this account reached in many industries a degree of specialization which, by producing premature fatigue, does not secure the best results. Monotonous work is arranged, because the workman thus engaged can work at a higher pace than if his work were more varied. This policy may in some instances over-reach itself.

Another tendency of modern industry is to demand more intense work. Such work is more dangerous than less intense work, and produces a nervous irritability and strain. It is true both physiologically and industrial that the best work and the most profitable work, giving maximum production, from a permanent standpoint is th which is carried out under strictly physiologic conditions.

If we were to classify the reforms necessary in co nexion with factories and workshops in the order not on of importance but also of practicability, we should pla first the sanitary improvement of workplaces. Mu has already been done for these, though, with the exce tion of lead and other forms of metallic poisoning, tl subject has been too little regarded as a problem in tl prevention of disease. When phthisis in workplac becomes a notifiable disease much more can be don Next comes the prevention of accidents, and here facto inspectors are doing admirable work. There remain t problems of the limitation and rational distribution of t hours of labour. In our opinion the advocacy of "day" of any particular duration would be a mistak The conditions vary in different industries. Mu more exact and detailed medical investigations workplaces are needed before a positive conclusion c be arrived at. It is quite certain, however, that in ma instances the working day might be shortened witho risking production if work were more efficiently organize and still more if the worker were better fed, and if h technical equipment were made more perfect. In co nexion with efficiency of work the enormous waste money on alcoholic drinks plays an important part diminishing output, directly by the loss of healt indirectly by the fact that insufficient funds are left for abundant supply of food.

It is alleged that work, whether physical or psychical, less sure and less profitable when first begun, and it therefore urged that intervals of rest during work are mistake. We should like to see some proof of this. T maxim of Goethe adopted by the Swiss mountaineer, "Oh Hast, aber ohne Rast" (without haste, but without res may embody the profoundest wisdom; but the Swiss gui is the last man to observe it. In large factories it is t usual practice to begin work at 6 a.m., an hour's inter being allowed later for breakfast. As we pointed out so years ago, better results are secured by beginning an ho later and no interval for breakfast.

What has been said with respect to intensity of wo deserves serious consideration in relation to "piece-wor Every physician is familiar with the evils of "worki against time." Unless carefully regulated, "piece-wor involves this deleterious form of work. It may be urg that it is only thus that in many instances a satisfacto output can be secured. Other means can, however, devised to secure this result; and, speaking generally, t interests of master and worker in the long run are identic and can only be secured by insisting on work being carri on under strictly physiological conditions.

SCIATICA.

IT is a matter of common observation among clinicia that the incidence of certain diseases changes in frequen as years pass on, while others are found to alter in ty Thus, for example, improved medical and hygienic con tions are rendering such affections as noma, stricture of t urethra, and the graver forms of syphilis progressiv rarer; nowadays, too, we see diarrhoeal typhoid far l and lysis-pneumonia far more often even than was the c

n years ago. Among these changes none is more definite d characteristic than the progressive increase in vulnera- lity of the nervous system, the greater liability of which disease is by no means restricted to the central parts, t extends to the peripheral nerves as well. Among the fections of the latter which have become notably com- oner of late sciatica occupies a prominent place; as nglish writers have not perhaps devoted sufficient atten- on to the systematic investigation of this subject, a brief count of an excellent little German monograph which s recently appeared[1] may not be out of place.

Dr. Feddersen divides sciatica into the genuine or pri- ary, and the symptomatic or secondary, forms. The rmer may assume the neuralgic or the neuritic type, ther of which may be acute or chronic; the latter may sult from mechanical, toxic and infectious, or metabolic uses. In a simple case the typical pain is the pre- ominant characteristic, and tends usually to assume a gular paroxysmal type. Tender spots are generally soon be detected; they are arranged at intervals along the rve, the most marked being that over its point of emerg- ce from the great sciatic notch. In the neuritic form ere may be superadded patches of cutaneous anaesthesia, ss of tendon reflexes, localized muscular atrophy, and rious vasomotor and trophic changes—for example, rpes. A diminution in the cutaneous temper- ure of the affected extremity is held by some to pathognomonic. After a time the pain and dis- mfort may lead to a posture suggesting scoliosis. though the disease is typically unilateral, there ay at the outset be some irradiation of the pain the opposite limb. The neuritic form tends to be more ronic than the neuralgic, to exhibit less definite roxysms, and to lead early to atrophies and pareses. he presence of the reaction of degeneration would con- rm the diagnosis of neuritis. It is of course of great ractical importance to distinguish the primary from the condary forms, to which end a thorough knowledge of the uses of the latter is necessary. Among these Dr. Fedder- sh lays especial stress upon the accumulation of hard fecal masses in the intestine and the presence of patches myositis in the muscles of the buttock and the posterior rt of the thigh. Intoxication with metallic poisons or ose of infective diseases may also lead to sciatica; among ose which Dr. Feddersen considers are insufficiently garded in this respect are gonorrhoea, tuberculosis, laria, and syphilis. Among metabolic disorders diabetes es an important rank as a cause of sciatica. Anaemia d chlorosis are much rarer causes, but are apt to lead to y intractable attacks. The uric acid diathesis is a much re frequent etiological factor, as also is rheumatism. In e latter case patches of myositis are often to be found, d Dr. Feddersen thinks that it would almost be justi- fiable to speak of a myogenous sciatica. Among other predisposing causes, old age—especially if premature—and e granular contracted kidney must not be lost sight of.

By far the most common and important excitants are d and over-exertion; the disease is hence most frequent tween the ages of 20 and 60, and in the male sex. The agnosis is, as a rule, not difficult. Affections of the inal nerve roots in the sacral region may lead to con- sion, but are usually bilateral, and the pain tends to volve the whole limb. The lightning pains of tabes and her central affections are to be distinguished by the absence of tender spots. Hip-joint disease may be excluded if the pain is not elicited by movements of the articulation or by pressure on the trochanters; in sciatica, on the other hand, violent agony results from putting the nerve on the stretch by lifting the limb with the knee flexed. The prognosis is generally good, though cases may be pro- longed and there is a liability to relapse.

As to treatment Dr. Feddersen has much to say. Acute cases should be put to bed, and the affected limb wrapped up in wool, with the knee kept flexed by means of a small cushion. The diet should be of warm slops, alcohol and strong tea and coffee being avoided, and a mild diaphoresis being promoted by the use of warm demulcents. The bowels are to be well opened with castor oil. Dr. Feddersen's main medicament for this class of cases is sodium salicylate in large doses for four or five days; if this is ineffectual he uses one of the numerous substitutes, especially aspirin. He continues the drug, in smaller doses, for some time after the pain is over. Very intense pain calls for an injection of morphine over its acutest seat.

The subacute form tends to spontaneous cure; the most useful adjuvant drugs are potassium iodide, oil of tur- pentine, methylene blue, and arsenic; fly blisters may also be most valuable. For the neuritic form, galvanism com- menced at the end of the second week is recommended, the cathode being placed over the sacrum on the affected side, and the anode over the most tender spot; a warm bath is also of great use. If the disease becomes chronic the general principles of treatment are to improve the arterial blood supply to the affected limb and to restore abrogated function by the systematic use of physical methods. The author is, not unnaturally, an advocate of the Wiesbaden hot baths; he recommends the simul- taneous application of the hot douche to the sacrum, the hip, and the affected nerve. Passive movements should be employed at first, then successively active movement and resistance exercises. The passive movements may at first produce an increase of pain, but this is temporary and to be disregarded. Much good results from stretching the nerve by forcible flexion of the hip, the knee being kept extended. Muscular atrophy indicates the faradic current, which should be just strong enough to cause muscular contraction without painful tetanus. Many other forms of mechanical and electrical treatment which have been much vaunted are of value simply by their "suggestive" use. As an aid to cure and in the prophylaxis of recur- rences Dr. Feddersen recommends the morning use of a tepid to cold sponge bath—known in Germany as "the English sponge bath"—as to the employment of which he gives explicit directions.

[1] *...hias, nach praktische Erfahrungen.* Von Dr. Feddersen, Wiesbaden. Berlin: Hirschwald, 1903.

ATTENDANCE ON MIDWIFERY CASES BY POOR-LAW MEDICAL OFFICERS.

SEVERAL communications have recently been received from Poor-law medical officers in the country complaining that the guardians are in the habit of "selling parish orders for confinements to non-pauper patients, many of whom can afford to pay the usual 1 guinea fee." It would appear that a custom has grown up in certain parts of the country of granting such orders to applicants on the pay- ment of half a guinea. As the guardians only pay the district medical officer 10s. for such attendance, no expense is put upon the rates by this practice; indeed a profit of 6d. is made on each case, but the injury done to the medi- cal officer is obvious. That such gross maladministration of the Poor Laws should exist is almost incredible, and

we can only hope that our correspondents' representations are exaggerated. Under the orders of the Local Government Board the medical officer has no power to refuse to attend, on receipt of an order from the proper authority, whatever knowledge he may have of the social position of the patient. His only remedy is to bring the case before the guardians at their next meeting, and if their decision is against him, he can do nothing more beyond bringing the matter before the Local Government Board. Unless a prima-facie state of destitution is made out by the applicant, no order for medical relief ought to be made under any circumstances; and if our Poor-law machinery is being utilized as a means of providing cheap midwifery attendance for persons who have no right to Poor-law relief, this is a scandal that ought, without loss of time, to be brought to the notice of the Local Government Board. A short time ago attention was drawn in our columns to the necessity that exists for a reform in the arrangements for the treatment of the lying-in poor. At the present time it is impossible for any district medical officer to regard with satisfaction an order to attend a lying-in pauper. Under the General Order of July 24th, 1847, a fee of 10s. is allowed for attendance on all such cases, but a certain number of unions have been permitted to contract out of this order. In the case of many others, where the charge does really fall on the rates, so many impediments are put in the way of the district medical officer—as, for instance, by refusing an order or by granting it after the event—that many of the fees are lost by that official. Friction of this kind is most deplorable, and must necessarily sap the efficiency of the attendance on the poor during a critical period, and is therefore far from good for the national welfare. If, as proposed by the Poor-law Medical Officers' Association of England and Wales and by many of our correspondents, an all round fee of 20s. were paid for attendance on all pauper midwifery cases alike, no extras being allowed, as at present, for cases of special difficulty, the burden on the rates would be but little if at all increased and the gain to the poor would be very considerable. Then, such a scandal as that referred to above would not be likely to occur.

SCOTTISH POOR-LAW MEDICAL SERVICE.

IN the matter of Dr. Macara, of Durness, in Sutherlandshire, who was lately dismissed from his appointment as medical officer by his Board of Guardians, we are informed that the Medical Defence Union has taken action on his behalf, and instructed Messrs. Hempson to take all necessary steps to preserve his legal rights. An interim interdict was obtained by the Medical Defence Union recently and served upon the Board to prevent the appointment of a successor to Dr. Macara. The action of the Union will be watched with interest by all Poor-law medical officers in Scotland, whose duties are onerous in the extreme, and whose position is by no means as pleasant as that of their English colleagues.

THE STATE REGISTRATION OF NURSES.

MENTION has already been in the BRITISH MEDICAL JOURNAL of a proposal that a State register of trained nurses should be established. In pursuance of this object a special general meeting of the Royal British Nurses' Association was held on January 8th to discuss a report from the General Council respecting the introduction of a Bill into the House of Commons. Mr. Pickering Pick was in the chair. A synopsis of the proposed Bill recommended by the Executive Committee was discussed and with certain amendments adopted. The chief provisions are the creation of a central Board, to which ten medical practitioners are to be appointed for a term of three years and to be eligible for re-election. Of these, one is to be named by the Royal College of Physicians of London, one by the Royal College of Surgeons of England, one by the two Edinburgh Colleges, one by the two Irish Colleges; one by the London Society of Apothecaries, one by the Royal British Nurses' Association, one by the Incorporated Midwives Institute; one provincial practitioner is to be appointed by the General Medical Council, while the British Medical Association, and the Asylum Workers' Associa tion are to be represented respectively by one member. I addition to the medical members there are to be three la members appointed by the Lord President of the Council three nurses, one representing the army and navy, and tw to be appointed by the Royal British Nurses' Associatio and the Queen Victoria Jubilee Institute for Nurses re spectively; ten matrons or lady superintendents of hospital or infirmaries with training schools attached; and si fully-trained nurses to be elected by the nurses on th State register. Within one year from the date of the Ac coming in force a nurse may be registered on production c a certificate of two years' training in an institu tion recognized by the Board, or of satisfactor evidence that at the passing of the Act she ha been at least five years in bona-fide practice a a trained nurse, and that she bears a good character After the time of grace the period of training necessar for registration is to be extended to three years, and th minimum age is fixed at 24 years. The training mus include invalid cookery and sanitation, as well as nursing The powers which it is proposed to confer on the Boar comprise, in addition to the regulation of the conditions o admission to the register, of the course of training and o the conduct of examinations, the regulation, supervision and restriction within due limits of the duties of nurses the determination of the conditions under which nurse may be suspended, and the removal of the names from th register for disobeying the rules and regulations laid dow by the Board, or for other misconduct; the issuing an cancelling of certificates of registration, and the inspectio and registration of private nursing homes. Lastly, ther are penal clauses in regard to the procuring of certificate by fraudulent representation. On the motion of th Honorary Secretary, Dr. Comyns-Berkeley, the Executiv Committee was instructed to draft a Bill based upon th synopsis submitted by it to the meeting. We refrain fro commenting on these proposals at present, as the whol question is under the consideration of the Medico-Politica Committee of the British Medical Association.

TRAINED NURSES FOR PASSENGER SHIPS.

ON August 22nd last year reference was made in th BRITISH MEDICAL JOURNAL to a scheme which had bee forwarded to us, with a request that we would further it objects. This scheme was one for the provision of a society or agency having for object the supply of trained nurse to work in passenger ships. While fully approving of th general idea, and recognizing what great advantages it realization might confer both on the travelling public an on shipowners, we pointed out that many difficulties woul have to be adjusted if it was to be made a success. It ap peared essential that the nurses should not only be trained women, but ladies capable and likely to hold their ow among the trying conditions of shipboard life, and it di not appear to us that in the scheme as propounded ade quate attention had been given either to this point or t the interests of the nurses as regarded salary and the pro vision made for their comfort on board. To the request made in the course of the notice which we gave to th matter, for further information on these points no respons was made, and since then we have heard nothing mor about the scheme. Meantime, however, a passenge ship company appears to have seen the advantages offere by carrying trained nurses, and advertised for lady nurses Two ladies were engaged, and the results of their experi ence will be found detailed in a letter published elsewhere It is not a communication from the ladies themselves, bu from a person who was in a position to be fully cognizan of everything concerning them and their work. It will b observed that the opinions as to probabilities expressed i the notice to which reference has been made are full justified by the facts revealed in this letter. The nurse were put under the steward, and treated as and given th work practically of stewardesses and nothing else; the were treated, in fact, worse than ordinary stewardesses, fo while the latter were provided with proper cabins, thes

urses were obliged to sleep for some part of the voyage in he anteroom to a ladies' lavatory, and to share even this ndesirable accommodation with a negro servant. It will e observed, also, that occasions occurred which prove that urses might be most useful on board ship; as, however, the ccidents and illnesses mentioned took place amongst hird-class passengers and the crew; it was only with diffi- ulty that permission was obtained from the steward for he nurses to set aside their stewardess work and give the ssistance to the sufferers which they required. Obviously, herefore, until the plan of employing nurses on board ship as been much more thoroughly worked out, any ladies ttracted by the thought of a sea voyage and new countries hould be dissuaded from going to sea in the position of hip nurses.

THE REGIUS PROFESSORSHIP OF MEDICINE AT OXFORD.

A MEETING of medical graduates of Oxford engaged in eaching in London was held on January 5th to consider he question of the Regius Professorship at Oxford, vacant y the resignation of Sir John Burdon Sanderson. The chair as taken by Sir William Church, President of the Royal ollege of Physicians, and over 40 medical graduates were resent. The Chairman, in explaining the object of the eeting, stated that shortly after the resignation of Sir ohn Burdon Sanderson had been made public it had ccidentally come to his knowledge that a movement was n foot to recommend Dr. Ritchie, the present Reader in athology, to the post. A letter had been written to the ice-Chancellor, signed by the Professors of Anatomy and hysiology and by one of the lecturers on physiology, ecommending that the emolument of the reader- ip in Pathology should be increased by adding it that of the Regius Professorship, in the in- erests of medical education, and that the two posts ould be united in the present Reader in Pathology. The ppointment to a Regius Professorship was made by the rown on the advice of the Prime Minister. On learning hat was going on he had himself written to the Vice- hancellor stating his views, and had received an answer, hich, however, he could not read to the meeting, as it as marked "private." The meeting had been called to ve the Oxford graduates, and more particularly those en- ged in teaching in London, an opportunity of expressing eir opinion. After some discussion a statement was awn up and signed by, it is stated, the great majority of ose present, and it was decided that it should be sent to l medical graduates of Oxford for signature. In this atement a strong protest was made against the appoint- ent of Dr. Ritchie to the Chair of Medicine on the ound that the Regius Professor is responsible for the ganization, direction, and conduct of the final ex- inations in Oxford and should take part in them as e Regius Professor used to do. It was urged at for this and other reasons the Regius Professor ght to be a physician of great experience in clinical rk and clinical teaching, and should be thoroughly con- rsant with all the details of the students' work, and with e requirements of the licensing bodies and the General edical Council; he ought also to be a man of established putation in medicine, and one who could worthily uphold e dignity of the University in the estimation of the pro- ssion and the public; further, he should be a man who could l accepted as the leader and representative in Oxford of e medical graduates, and one to whom they would all th confidence give their loyal support. The view was pressed that on these grounds it was desirable that the gius Professor of Medicine should be an Oxford man. e following resolutions were passed:

hat in the opinion of this meeting the Regius Professor of Medicine uld be a physician who is representative of medicine in its widest se.

hat it would be detrimental to the best interests of medicine in ord if the Regius Professorship were converted into a professorship ny one branch of medical study.

was further agreed that a deputation should wait upon l Chancellor of the University to express the views of the medical graduates, and that the question of suggesting any name for the appointment should be left to the discretion of Sir William Church. We take the facts from a report of the meeting published in the *Times*, as those responsible for summoning the meeting did not extend an invitation to the BRITISH MEDICAL JOURNAL to send a representative.

ST. BARTHOLOMEW'S HOSPITAL.

FROM information we have since received it would appear that in the paragraph published under this head in the BRITISH MEDICAL JOURNAL of January 9th, too gloomy a view was taken of the prospects of the proposal for the reconstruction of St. Bartholomew's Hospital. We are given to understand that the Treasurer, the almoners and House Committee, at a preliminary meeting, accepted the proposal of the medical staff to acquire new land outside the present hospital site, and to remove to it the nursing home. At the subsequent Court of Governors, held on January 7th, in addition to deciding that the appeal should go forward as previously arranged, an agreement was come to as to the modifications to be made in the scheme upon which the appeal is to be based. These modifications were put forward by the medical staff of the hospital in combination with the House Committee, and are in effect the same as those which we suggested a few weeks ago as affording a possible and not undesirable alternative if the Christ's Hospital scheme eventually proved unfeasible. The scheme as now arranged is, we are told, practically a combination of the first two proposals put forward by the Medical Council in its memorandum to the Mansion House Committee last spring, and in some respects is superior to either of them. In addition to removing the church, the college, and eventually part of the medical school buildings, it is hoped to find a site in the immediate neighbourhood for the nursing home. The removal of the latter will have the advantage of taking away from the neighbourhood of the wards a resident population of about 300 persons. The present site of $6\frac{1}{2}$ acres will, thus freed, eventually be entirely available for the hospital proper. The general situation has also improved in other respects, for it is understood that the Postmaster-General has promised to arrange his buildings on the Christ's Hospital site so as to meet, as far as possible, the medical requirements of St. Bartholomew's. It is regarded, indeed, as practically certain that a road will be placed so as to run between the boundary of the hospital and the boundaries of the Post Office, and that the blocks of the latter building will be placed at right angles to those of St. Bartholomew's on the opposite side of the road, so as to leave plenty of air space between them in addition to the road. Little Britain, the street to the east of the hospital site, is also, by a decision of the Court of Common Council, to be widened. Besides, therefore, having the open space of Smithfield in front, the hospital will be bounded by streets on all its other sides. The site thus cleared of superfluous buildings will, it is believed, lend itself particularly well to the construction of a completely new hospital on the modern ward unit system; three plans showing different ways in which this may be done without interruption of the ordinary medical work have already been prepared. It would appear, therefore, that the hospital authorities will be able to go to the meeting at the Mansion House on January 26th with a scheme more or less complete. Certain sums have already been received, and are ear-marked by their donors for certain purposes, and it is anticipated that the appeal will invite contributions either to the general fund or to one of three distinct purposes. These are, first, the immediate erection of new out-patient buildings, with eight special departments; secondly, the rebuilding of the general hospital; and, thirdly, the acquirement of a site outside the ring fence, and the erection thereon of a nursing home. An Appeal Committee, with Sir W. Treloar as Chairman and Sir Ernest Flower, M.P., as Honorary Secretary, has already been formed, and a Building Committee is in process of formation.

HEALTH OF LONDON IN 1902.

THE annual report of the Medical Officer of Health to the London County Council for the year 1902[1] was issued on January 12th. It is an elaborate document, which with its six appendices forms a bulky volume, and we shall hope to have the opportunity of dealing with some of the many points of interest contained in it in subsequent issues. Infantile mortality, which is perhaps the most sensitive test of sanitary administration, showed a satisfactory decline; the rate per 1,000 births was 139, as compared with 148 in 1901, 158 in 1900, and 166 in 1899. In earlier years the returns showed certain fluctuations; it is therefore too much to assume that the low rate of 1902 will continue. The birth-rate, which was 28.5, was the lowest on record; it was 0.5 lower than in 1901, and 2.5 lower than in 1893. Life tables based upon the mortality in the decennium 1891-1900, showing for the London population the expectation of life at each year of age, was presented to the Council in July, 1902. The present report contains life tables based on figures relating to two metropolitan boroughs, the one, Hampstead, rich, and the other, Southwark, poor. The comparison is, as might have been expected, very much in favour of Hampstead; not only does the average individual in Southwark begin life under more adverse conditions than the average individual at Hampstead, but the conditions which adversely affect longevity in Southwark are operative at each age period up to 65. Out of 1,000 boys born, in Southwark 326, and in Hampstead 189 died before reaching the age of 5 years; in later childhood the difference is also marked, for of 1,000 children aged 5 in Southwark 40, and in Hampstead 24 died before reaching the age of 15. Between the ages of 25 and 45, when the economical value of life to the community may be taken to be at its maximum, the difference is still greater, of 1,000 males aged 25 in Southwark 236, and in Hampstead 125 died before reaching the age of 45 years. The report contains particulars with regard to the occurrence of small-pox in London during the year, and Dr. Hamer's report on the efforts made to minimize the spread of the disease in common lodging-houses is given in an appendix.

THE EMISSION OF BLONDLOT RAYS BY NERVE CENTRES.

PROFESSOR A. CHARPENTIER has continued his researches on the emission of *n* or Blondlot rays by active nerve tissue. The nerves and muscles of the lower animals emit *n* rays even more actively than those of man. The frog serves admirably to demonstrate the fact. Its temperature at this season can be kept considerably lower than the room temperature, and even then the general laws of the emission of *n* rays are not modified. The *n* rays and all similar rays emitted during physiological action act on all phosphorescent bodies. They increase even the luminence of the nocticluca and phosphorescent bacilli, such as photobacterium phosphorescens. Speaking generally, solids subjected to mechanical pressure generally emit *n* rays. A tendon—tendo Achillis, for example—does not cause any increase in luminosity of the test object when its attached muscle contracts. The points of insertion of the tendon, however, and the bony points of attachment of the tendon do emit rays copiously during muscular activity, which subjects them to tension and pressure. The tendons themselves contain few nerves, while the points referred to contain many nerve endings, and their presence seems to explain the emission of radiations. Compression of a nerve considerably increases its power of brightening luminosity, both above and below the point compressed. If the compression is prolonged the radiation from the nerve diminishes. Perhaps the most interesting observation is the physiological emission of *n* rays by the nerve centres. The whole spinal cord increases the phosphorescence of the test object, and the effect is greater opposite the cervical and lumbar enlargements of the cord. If the person examined contracts his arm, the effect is expressed in greater activity of radiation of *n* rays in the cervical enlargement of the cord. It increases also from the cord to the brain. If the muscles of one arm only are contracted the illumination is increased most on the same side of the cervical enlargement, and higher up the effect can be traced on the opposite side, where the nerve impulses cross. To study these radiations straight tubes of lead 5 to 10 cm. in length are used. One end is applied over the nerve centre; the other end contains a small piece of wood or card covered with a phosphorescent sulphide. M. Charpentier was able even to localize the so-called "motor centres" of the cerebrum by the rays emitted when they are called into action. Even the centre for speech in the region of the third left frontal convolution was found to emit more *n* rays when the person spoke either in a high or a low voice. In right handed people there was no corresponding action of the right frontal convolution. It seems that even the act of attention or mental effort is attended by the emission of rays which increase the phosphorescence. Other centres for writing, movements of arms, and sensory nerves behave similarly. Thus it would appear that all nerve centres in action give off more *n* rays than during repose.

[1] London: P. S. King and Son. 3s. 6d.

THE RAINFALL OF 1903.

ALTHOUGH the rainfall of November and December was considerably below the average in almost all parts of England, amounting in November in London to 1.90 in. and in December to 1.38 in. only, yet the previous ten months had such an abundant rainfall that the whole year was at many observation stations the wettest on record. At Yarmouth however, there was in the whole year a deficit of more than an inch, the actual proportion of the normal fall being only 95 per cent. The greatest excess was in the Thames valley and its immediate neighbourhood. In London (at Brixton) the total rainfall of 37.95 in. was 56 per cent. above the average. But over the British Islands generally last year was not nearly so wet as 1872; at many places in the West and North it was not so wet as 1877, and in the Eastern and Midland Counties it was somewhat drier than in 1882. One feature of the rainfall of 1903 in London was the excessive weight of many of the individual falls or their intensity rather than their duration; for, although the excess was (at Brixton) nearly 6 in. beyond the fall in 1879—hitherto the wettest of the previous 35 years—yet the number of days with rain in 1903 was smaller than in 6 of the past 31 years. In the 35 years ending 1900 the number of days with rain was 167 and the average rainfall on each rainy day was 0.147 in. Last year there were 171 days with rain, and the average fall on each of these days was 0.202 in., or nearly half as much again as the average. Exceptional heavy falls of rain (exceeding 1 in. in twenty-four hours) were nearly seven times as numerous as the average; heavy falls (exceeding $\frac{1}{2}$ in.) were nearly twice as numerous and moderately heavy falls (exceeding $\frac{1}{4}$ in.) were more than half as frequent again as the normal. In London the highest rainfall was that recorded at the Victoria and Albert Museum, Kensington—42.37 in.; the lowest that at East Ham—32.29 in. The exceptionally wet months of the year were June, July, August, and October; February, November, and December were less wet than usual. In June three times the usual volume of rain for the whole month fell in ten days. Besides the Thames valley there were two other very wet areas, namely, North Wales and the West of Cheshire and Lancashire, and Scotland to the north of the Caledonian Canal. Some parts in the North and West of Ireland were also very wet. The driest areas were in Norfolk, and a narrow strip running from south of Leicester through Lincoln to Hull. Here the excess was under 10 per cent. Taking the whole of England 1872 seems to have proved the wettest on record, 1852 was second, and 1903 third. But in the Thames valley, and especially in London, neither 1852 nor 1872 were nearly as wet as 1903. The highest rainfalls in 1903 were recorded at Seathwaite in Borrowdale (173.70 in.), at Glenquoich, in Inverness (151.83 in.), and at Bendamph, Loch Torridon, West Ross (106.26 in.). But although the rainfall in London was excessive, the duration

of sunshine was 1,181 hours in the year against an annual average of 1,127 hours; and the public health was exceptionally good.

PROFESSIONAL JEALOUSY.

AN Italian philosopher, Signor Ferriani, who has made extensive inquiries into what may be called the psychology of occupation, has constructed a scale showing the varying degrees in which professional jealousy exists in different professions. The lowest place in this scale is assigned to architects; next above them come clergymen, advocates, and military officers; then follow in order from below upwards, professors of science and literature, journalists, authors, doctors, and actors. It will be seen that our profession holds a bad eminence in the scale of jealousy, being marked as only a little lower than actors. According to Ferriani doctors display that mean vice by affecting to regard each other as quacks. The old saying, *Invidia medicorum pessima*, shows that doctors have long had an evil reputation in this respect. How is this to be accounted for? Ferriani thinks that the comparatively slight tendency to jealousy which he notes in architects and advocates is to be explained by "the precision and truth of their studies." From this remarkable pronouncement we are inclined to think that our philosopher himself belongs to one or other of those favoured professions. It would certainly not occur to many people, in this country at any rate, that the study of the law was in any special way marked either by precision or by truth. It may be admitted that barristers are, as a rule, less jealous of each other than doctors. The reason of this, however, is to be found not so much in the nature of their studies as in the fact that their personal feelings are but little engaged in the collisions which occur between them. They have to conduct their wrangles through a neutral medium, the judge, as members of Parliament abuse each other circuitously through the Speaker. They are not brought into intimate contact with their clients as medical practitioners are with their patients, and they have little opportunity, had they the wish to do so, of intriguing to supplant a rival. As counsel are, as a rule, selected by the solicitor, they can safely leave the vaunting of their merits to that useful third party. A doctor, however, must impress his patient directly: either legitimately by a manner that inspires confidence and by proofs of skill; or illegitimately by the vulgar arts of the charlatan, or by subtler methods of self-recommendation and depreciation of professional brethren which need not be described. As much may be conveyed by a slight shrug of the shoulders or even by silence as was believed to be expressed by Burleigh's nod. Quarrels as to priority—for the most part about matters of no importance whatever—are more bitter among doctors than among discoverers and inventors in other fields. Doubtless this is in great measure due to the fierce struggle for life caused by the overcrowding of the profession. But it is to be feared that in a profession in which men are necessarily brought into such close personal rivalry as is the case in medicine, jealousy, with its unhappy and often degrading consequences, is inevitable. There is no reason, however, why it should be so rampant. The remedy is that each of us should, by self-discipline and the pursuit of a high ideal of life, as far as possible subdue sordid commercial instincts, and look to the cultivation of a noble science and the practice of a beneficent art as in themselves our best reward. A man who is devoted to his profession for its own sake, and whose first consideration is not his own profit but the good of his patient, is not likely to be jealous of any one, and cannot be hurt by the envy, hatred, and uncharitableness of others.

BLINDNESS ATTRIBUTED TO METHYL ALCOHOL.

IN a paper read before the Montreal Medico-Chirurgical Society, Dr. Buller, Ophthalmologist to the Royal Victoria Hospital, drew attention to the serious eye lesions produced by the ingestion of wood alcohol. He reported three cases of blindness due to this cause which had been under his care during the past year. In two of these a single dose of about 2 oz. within twenty-four hours produced complete blindness, which lasted about ten days, and was followed by but slight improvement. The third patient took a wineglassful on three successive days before the onset of eye symptoms, but the result was eventually the same as in the other two. Each of these cases has been under observation for more than three months, and at the last report there was distinct optic atrophy, central scotomata, and vision sufficient only to count fingers at 3 ft. or 4 ft. Owing to the immense increase in output and consumption of wood alcohol, Dr. Buller thought that the public should be warned of the great danger attending the absorption of this spirit. He used the word absorption advisedly, for he had learned that in at least one branch of hat-making the air of the room in which the process was carried on was absolutely saturated with alcohol of this kind, and that breathing this air produced the same effects in the end as swallowing the liquid. Another point mentioned was that the methyl alcohol in ordinary methylated spirits had been recently increased 35 per cent. by Government regulation, so that intoxication from methylated spirits was a much more serious thing than formerly. He suggested that each bottle should be furnished with a label stating that blindness would result from drinking the contents. An ordinary poison label would not be as good, for some unfortunate might be tempted to commit suicide by this cheap method, whereas he had yet to meet the individual, however despondent, who wished to become blind.

KALA-AZAR IN ASSAM.

ELSEWHERE will be found a letter from Major Ronald Ross stating that he has received a telegram from Dr. C. A. Bentley of Assam announcing that he has discovered Leishman's bodies in cases of kala-azar by puncture of the spleen during life. On January 11th Sir Patrick Manson received a telegram to the same effect from Dr. Bentley, who promises to send specimens by mail. It will be remembered by those of our readers who are interested in the subject that in the BRITISH MEDICAL JOURNAL of November 14th, 1903, we published a note by Major Ross on the bodies recently discovered by Leishman and Donovan. In that communication he said he was strongly inclined to think, from the description of the bodies given by those observers, that they had found an entirely new organism. He added that the charts of two of Dr. Donovan's cases recalled the chronic pyrexia with enlarged spleen so frequently observed in India, and seemed to him not a little suggestive of kala-azar. Dr. Bentley's discovery tends to confirm this sagacious surmise. We have in our hands a paper on kala-azar by Sir Patrick Manson, which was sent to us before he had recived Dr. Bentley's message, and which we hope to publish at an early date. The subject of kala-azar is a most important one from a practical as well as from a scientific point of view, as the disease is the cause of a vast amount of suffering and death among the natives in Assam. The prevention of this disease is a question of exact knowledge as to its causation. It is within the province of the Indian Government to promote and actively assist research on the subject by every means in its power, and it is to be hoped that public opinion will not allow it to neglect this clear duty.

TIDAL WATERS AND ENTERIC ENDEMICITY.

IN the article published under this head last week we drew attention to the valuable work which Mr. Foulerton had done with regard to this important subject. The references made to the tidal Adur, New Shoreham Harbour, and Chichester Harbour may, however, have led to an incorrect impression. With regard to Chichester Harbour, Mr. Foulerton informs us that the conditions have changed since the date of Dr. Bulstrode's report, inasmuch as a new

system of sewage disposal for the city of Chichester has been introduced, and certain relatively unimportant modifications have been made in connexion with similar sources of nuisance. Mr. Foulerton has also made an examination of the chemical and bacteriological conditions of Chichester Harbour at various stages of the tide, which it would appear had not been done previously. Dr. Newsholme made reports on Shoreham Harbour some years ago, but not, so far as we are aware, on Chichester Harbour. Neither he nor Dr. Bulstrode dealt with the river Adur, which extends above New Shoreham Harbour for eight miles from Old Shoreham Bridge. The conditions in New Shoreham Harbour also have been changed since the date of Dr. Bulstrode's report by the introduction of a main drainage system for the large urban districts of Portslade-by-Sea and Southwick. Other matters dealt with by Mr. Foulerton and not touched upon by previous writers on these districts are the effect of the sewage pollution of the tidal waters on the fisheries there, apart from the contamination of the oyster layings, and the influence of different modes of sewage disposal on the conditions of the fisheries in the harbour. We need scarcely add that we had no intention of misrepresenting the extent of Mr. Foulerton's investigations or depreciating his work, of the value of which we expressed our opinion with no uncertain sound.

ILLEGIBLE PRESCRIPTIONS.

The Austrian Minister of the Interior has recently called the attention of medical practitioners to the serious evils caused by illegible prescriptions. He insists that every prescription "must be clearly and legibly written in all its parts." If we may judge from "awful examples" from abroad which at one time or another have come under our notice, prescribers in this country do not, as a rule, cultivate the art of hieroglyphic writing with such success as many of their foreign brethren. But there are not a few among us who would seem to act on the popular theory that illegible handwriting is a proof of genius. Serious and even fatal accidents have been caused by the careless writing of symbols, or the misreading of the preparation of an active drug which the physician intended to order. The fact that such accidents are so rare is a gratifying proof of the efficiency with which, on the whole, dispensing is carried out. Moreover, an undecipherable ingredient is not unlikely to be replaced by something which the pharmacist may judge to be a satisfactory substitute. The effect of this will often be bad, although occasionally it may be good. In the former case the art of healing is undeservedly discredited; in the latter medical science is to some extent vitiated since "Betty's praised for labours not her own." An illegible prescription is a danger to the patient, a hindrance and perhaps a temptation to the pharmacist, and a disgrace to the physician.

FROM MEDICINE TO MUSIC.

The famous musician, Berlioz, the centenary of whose birth was celebrated recently in France with much begarlanding of busts and effusive oratory, was the son of a medical practitioner and was himself intended for the same profession. To young Berlioz, who felt himself irresistibly drawn towards music, the thought of a medical career was utterly distasteful; but his father coaxed him to grapple with Munro's treatise on osteology by the promise of "a magnificent flute provided with all the new keys." Berlioz has given an interesting account of his medical studies. He was set to work at the bones with his cousin, A. Robert, who afterwards rose to eminence as a physician in Paris. Unfortunately for the views of the elder Berlioz, Robert was a good violin player, the consequence being that the two lads gave much more attention to music than to medicine. Robert, however, contrived to work fairly hard at anatomy, whereas in Berlioz such studies awakened no interest. Nevertheless, in 1822, when he was 19, he was sent with Robert to Paris. His first visit to the dissecting room gave him a shock from which he never recovered. It must be remembered that in the early part of last century practical anatomical work had to be done under very different conditions from those existing in medical schools of the present day. Berlioz's own description of his experiences may comfort fastidious modern students: "The aspect of that horrible human charnel house, of those scattered limbs, those grinning heads, those cleft skulls, the sewer of blood in which we walked, the revolting smell that came from it, the crowds of sparrows fighting with each other for shreds of lungs, the rats gnawing at bloody vertebrae in corners, filled me with such fear that, jumping through the window of the amphitheatre, I ran home with all the speed I could muster, as if Death and his frightful suite were at my heels. It was some days before he could summon up courage to pay a second visit to the chamber of horrors, but this time he was surprised to find that all his repugnance had vanished, and he set about the dissection of a thorax with the coolness of an old hand. He followed the anatomical course "with stoical resignation," greatly helped, as he confesses, by a secret admiration for his teacher Amussat, in whom he recognized an artist with a passion for anatomy equal to that which he himself felt for music. The lectures of Gay-Lussac on chemistry and those of Thénard on physics also interested him, and he was becoming "a student like so many others, destined to add an obscure unit to the disastrous number of bad doctors," when fate led him one evening to the opera. There he at once found his vocation. He could think of nothing else but of the massive harmonies which he had heard, and when Robert expostulated with him, pointing out that the subject which had cost them eighteen francs would be spoiled, he replied with a song from the opera he had heard. In obedience to his father he still struggled on through what was to him the dreary waste of anatomy, but nature, expelled for a time with the scalpel, inevitably came back, and with resistless force carried him away from medicine to his true sphere of music. He gave time that he ought to have given to lectures to the study of the works of Gluck in the library of the Conservatoire. He read the scores again and again, copied them, learnt them by heart. They kept him awake at night, and even made him forget his meals. The end of his medical career came when he had the opportunity of being present at a performance of the German composer's *Iphigenia in Tauris*. On leaving the opera-house he swore that "in spite of father, mother, uncles, aunts, grand-parents, and friends," he would be a musician. The remonstrances of his father at first gentle, became sterner and sterner as the son showed himself more and more resolute to follow the guidance of his genius. One cannot help sympathizing with the father, anxious to do his duty by his son, and doubtful as fathers usually are—and with too much reason—of the lad's powers in a field which seemed to his practical mind to offer no prospect of a decent livelihood. It is a familiar tale. But genius must have its way, and one must thankfully acknowledge the wisdom of the divinity that shapes our ends, which in giving the world a great musician saved a French village from an indifferent doctor.

THE TREATMENT OF THE WOUNDED IN NAVAL ACTIONS.

This question is, we learn, now under the consideration of an Admiralty Committee, under the Presidency of Rear-Admiral Charles James Barlow, D.S.O. It is an important but—owing to the complicated construction of modern battleships, cruisers, and other vessels of the Royal Navy—a most difficult subject. It engaged the attention of the Section of Navy, Army, and Ambulance at the annual meeting of the Association in 1901 at Cheltenham, and in 1902 at Manchester. On both occasions the late Fleet-Surgeon Gilbert Kirker, M.D., R.N., communicated papers on the subject, and papers were read also by Surgeon F. H. A. Clayton, M.D., R.N., on the former and Staff-Surgeon W. J. Colborne, R.N., on the latter occasion, as fully reported in the British Medical Journals of August 24th 1901, and October 4th, 1902. These papers attracted much attention, and at the meeting in Manchester, a resolution was carried: "That it be a recommendation to the British

Medical Association to suggest to the naval authorities the desirability of improving the accommodation and arrangements for the treatment of wounded on board ship till they be transferred to a hospital ship or a suitable hospital on shore."

CANCER RESEARCH IN AMERICA.

THE fourth annual report of the Cancer Laboratory of the New York State Board of Health, containing the results of the work done in it during the past year, has recently been issued. The workers in the laboratory, which is under the direction of Dr. Roswell Park of Buffalo, have been engaged in cancer research for the last four years. Dr. Park points out that the work is now being conducted along three principal lines and in three laboratories. Pathological, chemical, and bacteriological investigations are being carried on in correlation with each other in the hope of reaching results which a single line of investigation has hitherto been unable to accomplish. Metabolism in the broadest sense is being studied in relation to cancerous disease. In regard to protozoa in relation to cancer, Dr. Park says that there is not a practising physician in the United States who has anything more than a rudimentary knowledge of the subject, and yet the question of cancer is becoming more and more a biological problem. Professor Gary Calkins, of Columbia University, has therefore been appointed consulting biologist. In a paper, entitled "Suggestions for the Biological Study of Cancer," Professor Calkins contends that we are justified in considering, as a working hypothesis, that the cell inclusions in carcinoma are phases of an organism. He thinks that "inclusions in carcinomatous tissues should be studied by specialists trained to the study of protozoa and not left exclusively to pathologists, many of whom regard all structures which are to them incomprehensible as some type of degeneration product of the cell. Such a study, made with the best methods and the best technique that the zoological side can afford, should lead to an independent point of view, and should give definite results, which, together with those of the pathologist, the chemist, the physiologist, and the surgeon, should give a clear conception, if not a solution, of the general problem of carcinoma." Professor Calkins also insists on the necessity of work from the physiological and chemical points of view, with reference especially to the possibility of a specific activity of toxins derived from micro-organisms. Finally, he expresses the belief that the experimental side of the question may ultimately give definite results. The work hitherto done, although far from complete, leads him to the provisional assumption that the cell inclusions are not secretions, as described by Greenough, or degeneration products of the cell, or modified centromoses and spheres, but phases of an organism belonging to the group protozoa.

SLEEPING SICKNESS IN LIVERPOOL.

THE truth as to the cases of supposed sleeping sickness sent to the Liverpool School of Tropical Medicine by the Congo Free State Expedition of the School seems, like the birth of Jeames de la Pluche, to be "wrop in mystery." It was first announced that there were three cases; then that there had been only one case among them, and, this one having died, then, as the nursery rhyme says about some other little niggers, there were none. Now, according to the newspapers, the situation has again changed. An official report is said to have been issued on January 12th, to the effect that in both the patients now under the charge of the School the parasites which have been associated with sleeping sickness are present in large numbers. They do not, indeed, show the full symptoms of the disease, but it is oracularly hinted that these "may appear in the cases under observation in spite of treatment." This would seem to imply that the development of the symptoms may sometimes be prevented by treatment, a therapeutic potentiality, as Dr. Johnson would have said, which is as yet beyond the dreams of observers elsewhere. The Liverpool School of Tropical Medicine has given many proofs that it is wide awake, but *aliquando bonus dormitat Homerus;* and in regard to this matter it would almost appear that, in the absence of the imported disease, a native form of sleeping sickness has manifested itself in Liverpool.

THE PENITENT'S PROGRESS.

MR. STEPHEN COLERIDGE is showing a most praiseworthy desire to make it clear to the world that he has not only seen the error of his ways, but is resolved to make amends for his misdeeds. Two or three weeks ago he came forward as the stern censor of inaccuracy and unfairness in controversy; now we learn that he has expressed a wish to contribute to the support of two of the very hospitals which he charged with diverting their funds to the support of vivisection. It is true that his offerings are not large, but allowance must be made for the fact that he has recently had to pay heavy costs, every penny of which we are assured came out of his own pocket. Viewed in the light of this fact, his proffered subscriptions must be looked upon as, like the widow's mite, more acceptable than many larger donations. Of course it is not for a moment to be supposed that in Mr. Coleridge's mind there lurks any *arrière pensée* in connexion with his benefactions. They are doubtless to be taken as marks of sincere penitence, and we rejoice over him accordingly as the angels are said to do over a sinner that repenteth.

THE Medical Faculty of the University of Würzburg has awarded to Professor C. Schleich of Berlin the Rinecker prize, consisting of a silver medal and the sum of £50, in recognition of his work on local anaesthesia.

THE Organizing Committee of the World's Congress of Medicine, which was to have been held at St. Louis in September, 1904, in connexion with the Universal Exposition, has intimated that the project has been abandoned. It appears that the principal reason for this decision is that a Congress of Arts and Science has been arranged, which is to have departments covering practically the whole field of medicine and surgery; it was feared, therefore, that the two bodies might have been brought into conflict.

Scotland.

EDINBURGH ROYAL INFIRMARY AND THE AGE-LIMIT.

THE recent decision—by two votes to one—of the Court of Contributors to the Royal Infirmary of Edinburgh, imposing an age-limit of 65 on professors in the University who, as a necessary adjunct to their Chairs, have charge of wards, is one of considerable importance. Some time ago it occurred to certain members of the Board of Management to impose an age-limit of 60 on the ordinary physicians and surgeons, excluding the University professors, of whom three have charge of medical wards, one of a gynaecological ward, and two of surgical wards. In deference to the strong remonstrances of the ordinary members of the staff the limit was raised to 65. There was, indeed, no need for such a rule if it was meant to apply only to the ordinary physicians and surgeons—in other words, to the extramural teachers; because on no occasion in the past had any such physician or surgeon continued in office beyond the age of 60. If the object of the managers was to prevent such an occurrence in the future they had already a sufficient check in their hands, since it has been their custom to appoint these members of the staff for three periods of five years each, or fifteen years in all. They had it in their power, therefore, as each period of office expired, not to re-elect any one who, at its close, should have exceeded a stated age. Further, in electing new assistant physicians and surgeons, it would have been possible to choose men of such an age that their period of service should have determined at any given time. Instead of this, the new rule exempted the

University Professors, but it might have been foreseen that the age-limit assigned for the ordinary physicians and surgeons, must sooner or later, in common justice, be made applicable to the whole staff. This is precisely what has happened. When the annual report of the managers, containing the new rule, was laid before the Court of Contributors for their approval, they at once decided by 46 votes to 23 that the rule must apply to the whole staff. The result is that needless irritation has been caused both to the ordinary members of the staff and to the professors.

We do not say that the 65 age-limit is a bad thing in itself, but as yet there is no age-limit in the University. That may come. It would have been better in the meantime, however, to let well alone, unless the managers were prepared to go the whole way and face the opposition of the University. The Royal Infirmary owes its prestige first (chronologically) to the Royal College of Physicians; next, to the Royal College of Surgeons (which together represent the ordinary staff); and then to the University. Prudence and courtesy might have suggested conference with these bodies on so thorny a question before action was taken. When one of the ordinary physicians or surgeons ceases to have wards in the Royal Infirmary it has been the custom in the past that he at the same time should cease to teach, and should retire into private or consulting practice. It may at no distant time happen that the Professor of Medicine or the Professor of Surgery will cease to have at his disposal wards in the Royal Infirmary in which he can give his students clinical instruction. He will not on that account cease to teach medicine or surgery, since the tenure of his chair has no relation to the infirmary. What then will happen? Will the foundation of new chairs be necessary, or will the University be compelled to establish a hospital for clinical teaching?

We have said enough to show that a somewhat critical situation has arisen, and all who are interested in the prosperity of one of our leading medical schools will watch its development with some anxiety.

The Morison Lectures.

The Morison Lectures of the Royal College of Physicians of Edinburgh will be given this year by Dr. John Macpherson, one of the Scottish Lunacy Commissioners. The subject announced is Variation in its Relation to the Origin of Insanity and the Allied Neuroses, and the dates of the three lectures are Monday, Wednesday, and Friday, January 25th, 27th, and 29th. They will as usual be delivered in the College Hall, 9, Queen Street.

Small-pox in Scotland.

The distribution of the cases of small-pox in Scotland is shown by the statistics recently issued by the Scottish Local Government Board for the fortnight ending December 31st, 1903. The following cases—234 in all—had been notified during that time:

County of Ayr	...	7 cases
County of Edinburgh	...	4 ,,
County of Fife	...	1 ,,
County of Lanark—Lower Ward District	...	16 ,,
Middle Ward District	...	13 ,,
Upper Ward District	...	1 ,,
Burgh of Coatbridge	...	12 ,,
,, Glasgow	...	126 ,,
,, Govan	...	56 ,,
,, Hamilton	...	1 ,,
,, Kinning Park	...	1 ,,
,, Motherwell	...	5 ,,
,, Partick	...	4 ,,
County of Peebles	...	2 ,,
County of Renfrew	...	5 ,,

This table shows that Glasgow and the surrounding towns are suffering most, and the Glasgow Corporation is to be commended for its persistent encouragement of the revaccination of all inefficiently-protected persons. Its latest action in this direction is a circular which has been sent to all medical men in the city asking their active co-operation in this work, and offering to pay practitioners for the operation in the case of those persons who are unable to do so themselves.

The Glasgow Companies, R.A.M.C.

On the evening of the annual gathering and presentation of prizes of the Glasgow Companies the editors issued the third number of the *Annual* of the Royal Army Medical Corps (Volunteers).[1] It is an interesting record of the work of the past year, and contains many cleverly-written and well-illustrated articles, which show that the Glasgow Companies are going forward with their work even with increasing spirit. The lessons of the South African war are discussed in a long article, based on the Report of the Royal Commission. There is an interesting account of the unveiling of a tablet in Glasgow Cathedral by the Director-General, Sir William Taylor, K.C.B., in memory of members of the corps who lost their lives in that campaign. The varied aspects of camp life at Netley and Aldershot are well described, and other instructive and humorous papers might be referred to did space permit. The editors are to be congratulated on the successful volume they have produced.

[1] Royal Army Medical Corps (Volunteers) (Glasgow Companies), *Annaul*, No. 3. December, 1903. Glasgow: John Horn, Limited. (Demy 8vo, pp. 50. 3d.)

Ireland.

Lieutenant J. R. Welland, R.A.M.C.

Of the two officers killed in the recent battle in Somaliland, one was Lieutenant Joseph Rabuteau Welland, of the Royal Army Medical Corps. He graduated in 1900 in the University of Dublin, and in the following year entered the Royal Army Medical Corps. Soon after he went to Somaliland, and was attached to the 6th Battalion of the King's African Rifles. He served for some time with his regiment in the operations against the Mullah, but returned home last summer suffering from malaria. In October he returned to the seat of war, and it was in his first general action, while attending the wounded, that he was killed. Lieutenant Welland's father was a rector in the south of Ireland, and his death leaves his widowed mother childless. He was a well-known figure in Trinity College, Dublin. He was a clever and observant student, and he had a wide knowledge of other sciences than medicine. He was an excellent naturalist. In athletics he was a leader, and when the American crew came to Ireland to try conclusions with an eight of the University Boat Club, it was Welland who was chosen as stroke in the contest on Killarney lake. His death is deeply deplored by his friends, who were numerous and devoted.

A Consumption Sanatorium for Cork.

The Cork Branch of the National Association for the Prevention of Consumption is still determined if possible to take advantage of the promised offer of a site for a sanatorium in Cork. They are now trying to get the various urban and rural district councils of the City and County of Cork to form themselves into a united district for the purpose of providing for the use of the inhabitants of the united districts, under powers conferred by the Public Health (Ireland) Act, 1878, and Acts amending the same, a hospital or sanatorium for the purpose of treating curative cases of consumption. The Cork Rural District Council and the Cork Corporation have passed resolutions expressing a desire to be formed into this united district and asking the Local Government Board to make a provisional order forming such a district, and requesting that the rating power of the joint Board shall not exceed one penny in the pound per annum on the annual valuation of the ratable hereditaments comprised in the united district. The amount already guaranteed by the Cork District Council and Cork Corporation is £1,500 per year, and each contributing council is to have representation on the joint Board of Management, and will be entitled to send patients to the sanatorium in proportion to the amount of the rate levied. It is proposed to treat about 160 patients in the year in a building containing 40 beds, the average treatment in each case extending over three months.

Clonmel Spa.

Dr. Darley Wynne, of Clonmel, having had his attention directed to the matter by a passage in an old book written about Waterford by a medical man in the eighteenth century, has had a partial analysis made of the chalybeate spring in Clonmel. Some 140 years ago Clonmel Spa had considerable repute, and enjoyed the patronage of many fashionable invalids of the time. After that, however, it dropped out of fashion, and though the existence of the spring is not entirely forgotten, nothing is known about it, nor is any use made of it. In a letter, therefore, to the local press, he suggests that it would be worth while for the corporation to have a complete analysis made, because if the favourable estimate of its medicinal properties, which his partial analysis has led him to make, should be confirmed, the spring is a wasting asset which could be made of considerable value to the town.

ALCOHOL AND THE DEATH-RATE.

MR. R. MACKENZIE MOORE, at a recent meeting of the Institute of Actuaries, read a paper on the Comparative Mortality of Abstainers and Non-Abstainers from Alcoholic Beverages,[1] based on the experience of the United Kingdom Temperance and General Provident Institution during the last 60 years.

This institution was founded in 1840 for total abstainers, non-abstainers being admitted from 1849 onwards. The records of the office have been kept in such a way that the two sections can be compared. The same premiums are charged for both abstainers and non-abstainers, the former receiving any advantage arising from their superior vitality in the form of additional bonus.

Persons are eligible for the abstainers' section who do not take alcohol as a beverage in any form; and the continued adherence of the assured to abstinence is checked by an annual declaration to that effect. If an abstainer cease to abstain he is transferred to the non-abstainers' section, and on the other hand assurers in the non-abstainers' section who become abstainers "are generally eligible for transfer" to the abstainers' section. Such transfers are not made if the assurers be known to be in bad health or of intemperate habits. Furthermore, an abstainer is allowed to take alcohol temporarily as a medicine bona fide. The abstainers' section is stated to have "never been favoured or nursed, with the view of securing more favourable mortality results, either by the admission of unexceptionable lives only in the first instance or by the removal or transfer of inferior or doubtful lives." In the tables which follow it is shown that the transfers are so small in number as to have an inappreciable effect on the total result.

The relative pecuniary positions of the persons assured in the two sections of the institution are almost identical, as indicated by the average sum insured, which is about £300 in both sections as compared with £575 in seven leading ordinary life offices.

The experience of the institution has been taken for the entire period of 61 years, 1841 to 1891 inclusive. The experience given throughout is that of "policies" and not "lives," every separate policy being regarded as a separate risk. A check on duplicate policies was made in the case of 28,383 policies, and it was found that the results stated as "lives" did not vary at any age-period from those stated as "policies,"—the latter being taken to equal 100—more than between 97.4 and 104.

Ages.	No. of Healthy Males exposed to Risk, Whole Life Policies, 1841-1901.		Taking Ordinary O_m Rate of Mortality at each Age Period as 100, the Corresponding Rate was among		Taking Non-Abstainers' Experience as 100, Abstainers' Experience is
	Non-Abstainers.	Abstainers.	Non-Abstainers.	Abstainers.	
10-14	590	1,051	49.3	55.1	112 0
15-19	2,104	4,491	127.0	177.3	141.0
20-24	9,516	15,760	154.0	108.0	69.9
25-29	27,099	32,740	111.0	77.8	70.1
30-34	46,965	46,555	111.0	62.9	56.5
35-39	61,106	54,097	101.0	55.2	54.8
40-44	67,423	55,604	95.6	54.6	57.2
45-49	65,931	51,377	100.0	58.7	58.5
50-54	58,941	44,138	99 4	62.0	62.4
55-59	47,879	34,974	101.0	71.5	70.6
60-64	35,161	25,263	97.6	76.7	78.5
65-69	23,219	16,479	103.0	86.9	84.0
70-74	12,857	9,325	98.5	85.1	86.5
75-79	5,780	4,351	97.6	107.0	110.0
80-84	1,890	1,346	100.0	93.6	93.7
85-89	358	322	94.2	85.8	90.7
90-94	49	55	93.9	73.7	77.9
95-99	1	5	207.0	—	—
All ages ...	466,943	398,010			

A table is next given showing the mortality among the non-abstainers, healthy males, whole-life policies. There were 5,776 of these passing through 466,942 years of life, of whom 4,947 died. This is followed by a table giving the mortality in connexion with 29,094 whole-life policies of abstainers, passing through 398,010 years of life, of whom 5,124 died. In the table printed above the experience of these two groups has been summarized. The number of lives at risk is also given.

[1] *Journal of the Institute of Actuaries*, vol. xxxviii, p. 213.

This by implication gives the reason why ages under 20, and over 85 are omitted from remark. The number at these ages is small, and comparisons of lives over 85, unless on a large scale, can possess no value. The death-rates for each group at each period are not given, as these would not greatly facilitate comparison, but in each instance the corresponding death-rate among the ordinary O_m tables of the Institute of Actuaries, based on the experience of a large number of insurance companies, is taken as 100, and the experience of abstainers and non-abstainers respectively is stated as a proportion on this basis. In the last column a similar comparison is made by Mr. Moore between abstainers and non-abstainers, the latter being taken at each age-period as 100.

It will be seen that the mortality among the non-abstainers in the institution during the ages up to 34 was in excess of the wider ordinary experience (O_m) compiled by the Institute of Actuaries, but that for all higher ages, and throughout the more important part of the mortality table, it shows a remarkable agreement with the ordinary rate. The expected deaths from age 35 upwards were according to the ordinary tables 8,414, the actual number of deaths 8,377, a difference of less than one half per cent.

The mortality of abstainers for ages 20-24 is distinctly higher than the ordinary mortality (O_m), though much lower than that among non-abstainers. For ages 25 and onwards up to age 74 the results are greatly in favour of the abstainers. "This advantage increases up to the group of ages 40-44, when it is at its maximum, being under 55 per cent. of the ordinary rate. After that age the rate very slowly approximates to the standard, being 71½ per cent. at ages 56-59, and 85 per cent. at the ages 70-74. For the group 75-79 the abstainers' rate is in excess of the ordinary, but for the remainder of life it is distinctly below. In general terms we may say that the feature of the abstainers' mortality is a great saving after early manhood throughout all the working years of life; which saving increases up to middle age, and gradually rises to the normal rate of healthy life as old age is reached at, say, ages 70 or 75."

With regard to the excessive mortality at ages 75-79 Mr. Moore shows that this occurs more or less in all classes of policies in the institution, and he regards it as "consistent with a general deferment of mortality consequent on a prolongation of the working years of life." In other words, under normal conditions—that is, if the ordinary mortality rate had prevailed throughout—they would have died earlier.

It may, however, be alleged, notwithstanding the assurances to the contrary of those responsible for the working of the institution, that there has been special selection of lives of abstainers. It is well known that during the first five years of assured life those insured compare very favourably with others. The special influence of insurance must wear itself down as time passes, and though even at the end of five years the assured may be "selected" as contrasted with non-assured, it cannot seriously be contended that any special selection holds good for abstainers when compared with non-abstainers in the institution. Mr. Moore has, therefore, prepared the following table setting out the relative experience of abstainers and non-abstainers after excluding the first five years of insured life. In the following table the results thus obtained by excluding the first five years of assurance are compared with corresponding results in the wider experience of the ordinary mortality tables (O_{m5})

Ages.	Taking Ordinary Mortality (O_{m5}) as 100, the corresponding Rate of Mortality at each Age Period for Males assured over 5 years was among		Taking Non-Abstainers' Experience as 100, Abstainers' Experience is
	Abstainers.	Non-Abstainers.	
15-19 ...	100.5	68.2	147.4
20-24 ...	68.9	150 5	45.8
25-29 ...	76.7	131-9	58.2
30-34 ...	59.0	114.0	51.7
35-39 ...	54.1	102.6	52.7
40-44 ...	55.0	98.7	55.8
45-49 ...	59.4	106.2	55.9
50-54 ...	61.5	101.3	60.7
55-59 ...	70.8	102.1	69.4
60-64 ...	76.2	100.2	76.1
65-69 ...	86.7	103.9	83.4
70-74 ...	85.9	99.5	86.4
75-79 ...	107.0	97.7	109.5
80-84 ...	94.4	100.6	93.7
85-89 ...	85.4	91.3	93.6
90-94 ...	73.2	93.8	78.0

Here again the abstainers show as marked a superiority over the non-abstainers as in the complete experience.

Mr. Moore next considers the experience of "rated-up" lives. Without going into details, it may be stated that at all ages from 25 to 75 the abstainers have a superior experience. If the non-abstainers' experience at any given age be taken as 100, the corresponding experience among abstainers varies from 48 to 92. The only exceptions to this rule among rated-up lives are at ages 20 to 24 and 75 to 79, when the mortality is higher among abstainers. The number of lives at risk on which these results are based is 48,859 abstainers and 56,321 non-abstainers.

Among endowment assurances, the number of abstainers exposed to risk was 216,039, of non-abstainers 157,192. Between the ages of 20 and 60 the non-abstainers' was to the abstainers' experience in the proportion of 100 to from 65 to 94 according to the age. At ages 15 to 20 and over 60 the abstainers had a less favourable experience than the non-abstainers.

FEMALE EXPERIENCE.

Coming next to whole-life policies for healthy females, and taking the H_f Table (based on the experience of a large number of assurance offices) as a standard, the experience of the institution shows that the difference between abstainers and non-abstainers is not so marked as among the males. Both female abstainers and non-abstainers are superior to the standard, though the latter to a less extent than the abstainers. Mr. Moore therefore infers that "the female non-abstainer of the assuring class is more temperate and careful in her habits, that is, more closely approaches the abstainer than does the corresponding male," and that this is the probable reason of her greater comparative vitality.

EFFECT OF TRANSFERS.

The possible influence of transfers from one section to another has already been considered. Apart from the rigid care which has been exercised, it is noteworthy that the transfers have been so few as to render their total effect insignificant. In the whole period from 1847 to 1901 the number of transfers to non-abstainers was 2.685, to abstainers 1,465. To ascertain the effects of these transfers (which were omitted from both sides in the previous tables and statements of results), special tables have been constructed by Mr. Moore. Although, as shown by Table XVIII in his paper, the general rate of mortality of these transferred lives has exceeded what may be termed the normal rate of mortality of the non-abstainers, the effect of combination of these lives with the general body of the non-abstainers is inappreciable. The same remark applies to the transfers in the opposite direction. This is shown in the following table, in which whole-life healthy male policies are dealt with. In this table the normal rate at each age-period among abstainers and non-abtainers respectively is given as 100, and the number of deaths occurring when the transfers have been made is stated in proportion to this.

Age.	Transfers to Non-Abstainers (taking Normal Rate as 100) Combined with Non-Abstainers.	Transfers to Abstainers (taking Normal Rate as 100) Combined with Abstainers.
15-19	98.3	99.5
20-24	102.7	100.6
25-29	99 5	101.0
30-34	99.6	99.0
35-39	100.9	99.1
40-44	100.5	99.1
45-49	101.4	101 5
50-54	99 5	99.2
55-59	102.1	99.6
60-64	99.8	100.1
65-69	101.6	100.2
70-74	100.2	99 9
75-79	98.9	97.8
80-84	102.1	98 9
85-89	95.8	97.7
90-94	98.2	110.2

Mr. Moore claims that the above ratios are a complete refutation of the suggestion that the mortality of the non-abstainers has been increased by the importation into their ranks of unhealthy withdrawals from the abstainers' section: and the claim is, in our opinion, completely substantiated.

It may, however, be urged that the non-abstainers are injured by the withdrawal of their select lives who become abstainers. It is not necessary to reproduce here the tables in which it is shown that the results are not materially influenced by this means.

Mr. Moore sums up his facts and conclusions in the following words:

If it be granted—

(*a*) That the average pecuniary positions of the abstainers and non-abstainers assured in the institution are approximately equal; or in other words that they belong to the same social class;

(*b*) That the members of the two sections are admitted, and afterwards dealt with on equal terms;

(*c*) That the methods used by me in this investigation are correct.

Then, bearing in mind that the point chiefly in view has been to compare the mortality of a body of abstainers with that of a similarly circumstanced body of non-abstainers, I submit that the data now put forward, and the results deduced therefrom, prove—

First: That the non-abstainers assured in the institution are good average lives, generally equal to the best accepted standard of assured life, namely, the ordinary table.

Secondly: That the abstainers show a marked superiority to the non-abstainers throughout the entire working years of life, for every class of policy, and for both sexes, however tested.

Thirdly: That this superiority has not been brought about by the operation of the "transfers" between the two sections.

Fourthly: That the financial working of the institution in the allotment of bonuses as between the abstainers' and non-abstainers' sections has not been influenced by such transfers.

LUNACY REFORM.

(FROM A CORRESPONDENT.)

IT is well sometimes to see ourselves as others see us, and the following extract from the report of the French Senate is interesting when, as at the present time, there is some hope that the question of bringing the Lunacy Acts into real conformity with the needs of the present time is likely to be pressed seriously upon the attention of Parliament:

"This complication of successive detailed laws all dealing with one subject is sufficiently remarkable in itself, and is all the more astonishing when it is learnt that in Great Britain the laws made are rarely applicable to the whole country, and that in nearly every respect the legal requirements and regulations in England, Scotland, and Ireland all differ. This is notably the case with regard to lunatics, for the laws respecting them in the three divisions of the United Kingdom differ from one another to an even greater extent than is commonly the case with the laws of countries which are entirely foreign to one another."

The above paragraph does not overstate the case; there is no lunacy law for the United Kingdom; what law there is is a sort of home rule that demands revision; even the lunacy law applicable to England is a thing of shreds and patches. There has been far too much respect for "the traditions of the elders," too little realization of the fact that

> Newer occasions teach new duties,
> Time makes ancient good uncouth.

A very good example of the absurdity of the present state of things is furnished by the fact that the Lunacy Commission, which is responsible for the inspection of 113,964 lunatics, cost in 1900 £15,000, while the Masters in Lunacy and Visitors in Lunacy, who are merely responsible for the inspection of a thousand or so Chancery lunatics,[1] costs £16,000. In other words, it costs at least £10 per head for the inspection of Chancery lunatics, while it only costs about 2s. 6d. for a case under the Commissioners.

There are corresponding discrepancies in the salaries and numbers of the two classes of inspectors, and it is difficult to understand why five Masters and Visitors, at £1,500 to £2,000 a year, should be required to look after some 1,200 Chancery lunatics, if six Commissioners at £1,500 each are good enough to inspect 100,000 other lunatics and supervise the administration of the law as well.

Another reform required is in the relations between the Commissioners and the asylum authorities, paid and unpaid. No doubt when the Commissioners were first appointed the state of affairs was totally different from what

[1] A very large number of these cases are in the asylums and are therefore seen by the Lunacy Commissioners.

is now. There were not only abuses to remedy, but edical men had little or no training in the treatment of ental disease. Literature was comparatively scarce, and fficulties of travel made experience of other asylums, at me and abroad, difficult to acquire; but now the superinndents and some of the members of the Asylum Commites, are quite as competent to express an opinion as are some the Commissioners, and are quite as desirous that the eatment of those under their care should be conducted on ie most humane and efficient plans.

It would also be much more to the interests of all conrned if the Commissioners meddled less with petty details id did more to help and encourage the authorities in proding for the increasing number of the certified insane adeuate accommodation at a reasonable cost on common-sense nes. In this connexion it is worth noting that in a recent lue Book a view was given of the new Winwick Asylum, but nly, it is to be presumed, as an example of what an asylum ught not to be; because it would be difficult to find a more ideous mental hospital in England, and because not further ack than 1900 the Commissioners in their annual report oke of the acute hospital and working patients' villas at Vakefield as carrying—

"The differentiation of asylum buildings to a point further than has en previously reached in asylum construction in England and Wales, id we welcome this new departure as an experiment which is disnctly evolutionary in its nature, and to which as such we wish ccess.

As the "experiment" was tried in America more than enty years ago, and has since then been adopted in France, ermany, Austria, and Scotland, we should have thought the perimental stage was passed, especially as those countries hich tried it have continued to carry it out. It would be of enefit alike to patients and ratepayers if the authorities ould get rid of the idea that a large number of lunatics, ute or chronic, should not be located on one site, for the il of the aggregation of large numbers of the insane lies t in the number but in the lack of classification and indidualization that was too often typical of the barrack "madouse" of past times. In the report which has just been ade, the Commissioners express themselves in favour of a an which provides:

1. A more or less separate hospital for the treatment of acute cases d cases of acute sickness, in which the hospital idea is primary and ndamental, and carries with it the full equipment necessary for its actical realization.

2. A central establishment of much simpler and cheaper construcn, in which can be maintained the rank and file of mental and ysical decrepitude interspersed with the subjects of troublesome ppensities.

3. A series of simple cottage residences, in which the quiet and rmless, the industrious, and the convalescing may live under nditions more closely approximating to those of their previous and rmal lives.

These recommendations are excellent, nor is there any ason why Nos. 2 and 3 should not at once be carried t. Excellent cottages indeed have in some places en provided for this class of cases at £120 per bed comete.

Another point calling for reform is the method of dealing th the insane pauper class. The number of this ass in county and borough asylum has risen in the last irty-seven years from 22,000 to 78,000, but the number workhouses and residing with relatives has only risen m 16,553 to 22,623, including the number in the district ylums. If the number in the district asylums is deducted should have 16,783 only in workhouses and living with latives in spite of the fact that the population during that riod has increased from 21,145,151 to 32,621,263. The cause the increase in the numbers in the asylum is to a large tent the 4s. grant, and the result has been that in many ses there has been unnecessary expenditure upon asylum ildings when much cheaper buildings would have been equate. The change in the class of cases now treated in ylums is shown by the fall in the percentage of cases of nia and those with suicidal propensities, and the large rease in the percentage of quiet cases over 65 years age.

This question is one for inquiry, and the Local Governmt Board might appoint a small departmental committee inquire into the best means of making provision for the insane in workhouses. It would probably conclude that the responsibility for providing accommodation the insane should be placed upon the county councils, ving them power to make arrangements, if they think with Boards of Guardians who have provided proper accommodation, and that this power should be so extended that the county councils would have authority to deal not only with the insane, but also with the epileptic and feeble minded.

THE VITAL STATISTICS OF IRELAND.

FOR several reasons the vital statistics of Ireland are interesting and important to all students of the social interests of the British empire, as will be seen from the following summary of the annual report of the Registrar-General for Ireland dealing with the statistics for the year 1902.

Birth-rates.

From a diagram opposite page 1 of the report it is plain that the marriage-rate has during the last twenty years slightly risen, while the birth-rate has remained almost stationary. Thus the marriage-rate in 1883 was 4.8, in 1902 was 5.2, while the birth-rate was 23.5 in 1883 and 23.0 in 1902.

Of the births, 2.6 per cent. were illegitimate, as compared with 3.9 per cent. in England and Wales in the preceding year. Of the marriages, 15,916 out of 22,949 were between Roman Catholics. These were equal to a rate of 4.84 per 1,000 of the estimated number of Roman Catholics, while the other marriages represent a rate of 6.15 per 1,000 of all persons other than Roman Catholics in the population. It is unfortunate that no statement of marriage-rates, birth-rates, and illegitimate birth-rates per 1,000 of population is given for each province of Ireland or for each county, and that it is impracticable, therefore, without the expenditure of great labour, to ascertain the relative birth-rates and the relative amount of illegitimacy in districts which are chiefly Protestant or chiefly Roman Catholic. It is, however, a well-known fact that illegitimacy is less common among Roman Catholic than among Protestant countries.

So far as the general birth-rate is concerned, the fact that it has remained practically stationary during the last twenty years is noteworthy. During the same period the English birth-rate has declined from 33.5 to 28.5 per 1,000 of population. A comparison of the English with the Irish birth-rate is a comparison of the incomparable, with only the data contained in this report, as the age-constitution of the Irish differs greatly from that of the English population, there being a much smaller proportion of married women of child-bearing ages in Ireland than in England. Assuming that the age-distribution of the Irish population has not changed very greatly during the last twenty years, it would follow that the causes producing a lowered birth-rate in England have not been operating to any appreciable extent in Ireland. This fact must also be connected in part at least with the fact that the greater part of the population of Ireland is Roman Catholic, though the lower general education of the Irish population may have contributed to the same result. It is well known that the Roman Catholic clergy have sternly forbidden those devices for preventing conception which are so generally employed in France and to a less extent in England.

Death-rates.

The death-rate in Ireland in 1902 was 17.5 per 1,000, as compared with an average of 18.2 in 1892-1901. The death-rate was 13.6 in Connaught, 16.5 in Munster, 18.1 in Ulster, and 19.5 in Leinster.

Causes of Death.

Turning next to causes of death, we find that only one death from small-pox occurred during the year. Measles caused a death-rate of 24.3 as compared with a decennial average of 18.3 per 100,000 of population. The death-rate from scarlet fever was 4.2, as compared with a decennial average of 9.5. The corresponding death-rates in England in 1901 were measles 27.6, scarlet fever 13.3.

Typhus still shows itself a cause of death in each province of Ireland, and it is noteworthy that in the ten years 1893-1902 there is not a single year in which deaths from this disease did not occur in every province of Ireland. The death-rate from this cause in 1901 was 1 per million of population in England and Wales, and 20 per million in Ireland in 1902. Ireland is still the source from which typhus in England is chiefly derived.

Whooping-cough caused a death-rate of 22.6 per 100,000 in 1902, as compared with 31.3 in 1901 in England and Wales.

Diphtheria caused a death-rate of 9.5 per 100,000 of population, as compared with 27.3 per 100,000 in England and Wales in 1901. The actual number of deaths from diphtheria registered in Ireland in 1902 was 421. Prior to this the

highest numbers were 565 in 1874 and 411 in 1893. The comparative exemption of Ireland from the diphtheria which has ravaged England is a striking fact which is worthy of further consideration by epidemiologists. It has been stated that "the small amount of diphtheria in rainy Ireland" confirms the general induction that "the amount of diphtheria is greatest in the parts having the smallest rainfall."[1]

A different story has to be told for enteric fever. Although the death-rate from this disease was in 1902 only 138 per 100,000 of population as compared with 155 in England in 1901, it reached to 190 in Leinster and 289 in Ulster.

Diarrhoea caused a death-rate of 25.5 per 100,000 as compared with 92.4 in England in 1901, which again confirms the law of inverse relationship to rainfall.

Tuberculosis.

A most important part of this report is that dealing with the statistics as to tuberculosis. A diagram is given showing the relative death-rates of England, Scotland, and Ireland from all forms of tuberculosis from 1864 onwards. This diagram shows that up to and including 1879 the death-rate from tuberculosis was lower in Ireland than in England, and still lower than in Scotland. From 1810 to 1885 it was lower than in Scotland, but slightly higher than in England. From 1886 to the present time it is much higher than in England and considerably higher than in Scotland. Speaking broadly, the death-rate from tuberculosis in Ireland has remained stationary or perhaps slightly increased, while the death-rates from tuberculosis in England and in Scotland have greatly declined. In Table VIII the number of annual deaths from each of the chief forms of tuberculosis from 1871 to 1901 are given. The value of the table would have been greatly increased if the death-rates from each of these chief forms as well as from tuberculosis as a whole had been given.

In an appendix to the report are given a series of valuable meteorological tables by Sir J. W. Moore.

LITERARY NOTES.

THE *Polyclinic*, which is the journal of the Medical Graduates' College, London, after undergoing a period of occultation, once more shines in the journalistic heaven. Mr. Hutchinson has vacated the editorial chair, which is now occupied by Dr. C. O. Hawthorne. The journal, which appears in altered shape and with somewhat greater variety of contents, will, it is hoped, in future be issued regularly every month.

Messrs. Wright and Co. of Bristol have in the press a small work entitled *Dispensing Made Easy*, by Dr. William G. Sutherland. The book contains numerous formulae, with practical hints by which simplicity, accuracy, and economy may be secured. It is designed specially for the medical practitioner who dispenses his own medicines, and is, we are informed, the result of observations made by Dr. Sutherland when acting as *locum tenens* in over a hundred different practices in England and Wales.

Sir Herman Weber's lecture on the Means for the Prolongation of Life, delivered before the Royal College of Physicians of London on December 3rd, 1903, which was published in the BRITISH MEDICAL JOURNAL of December 5th, 1903, has been issued in pamphlet form (John Bale, Sons, and Danielsson).

Therapia is the title of a new Russian medical journal which came into existence with the New Year. It is edited by Dr. Alexander Losinky, and is published by W. S. Etlinger of St. Petersburg. It has a foreign department, which is under the direction of Dr. S. Lipliawsky of Berlin.

We have received the first number of *Folia Haematologica*, an international journal devoted to researches on the blood and serum. It contains an original paper by Dr. Fr. Proscher and Dr. Artur Pappenheim, the editor, on the theoretical foundations of the modern doctrine of immunity; and a copious review of haematological literature from June 1st till October, 1903. The periodical, which is to appear monthly, is published by August Hirschwald of Berlin, and can be procured through Messrs. A. Owen and Co., 286, High Holborn, W.C.

A prize of the value of £10, entitled the "Sivewright Prize," is offered by the Hon. Sir James Sivewright, K.C.M.G., LL.D., for the best article on the Treatment of Dysentery. The article must not exceed 5,000 words in length. Papers, which may be written in English, French, German, Italian, or Spanish, must be sent to the editors of the *Journal of Tropical Medicine*, 83-89, Great Titchfield Street, London, W., by July 1st, 1904.

[1] *Epidemic Diphtheria*, Newsholme, page 159.

By permission of the directors of Murray's Royal Asylum, Perth, an open-air performance of *As You Like It* was given last summer in the grounds of Kincarrathie House, in aid of the Bridgend Institute and the Perth Sick Poor Nursing Society. Dr. Urquhart was a member of the Committee. The play which was rendered by amateurs, was a great success, notwithstanding "the interruptions caused by the showers." We have received a pretty souvenir of the occasion, containing a number of excellent photographs, which show that a pastoral play could scarcely have been presented in more beautiful surroundings or in more artistic fashion. The costumes were appropriate, the stage grouping effective, and the acting, as may be gathered, was quite in keeping with the perfection of the setting. We congratulate all concerned on the result of their efforts.

In the *Pall Mall Magazine* for January, Mr. Ernest Rhys writes pleasantly of "a famous doctor and his friends." The famous doctor is the late Dr. George Bird, who among his friends and patients numbered several people of note. As his *vates sacer* says: "A London physician who had known and doctored Leigh Hunt, fenced with Captain Burton (before he was Sir Richard), and outlived younger friends like William Black and Grant Allen, might for their sakes ask to be remembered." Lady Burton, who was married from his house, then situated in Osnaburgh Street, called him "an unbaptized angel"; another acquaintance called him "the angelic doctor," on which phrase Mr. Rhys gives us the curious gloss that its author perhaps considered medicine a kind of divinity. It would seem that Mr. Rhys has never heard of the "Angel of the Schools," the *doctor angelicus*, a title which Dr. Bird's friend, with the permissible licence of friendship, transferred from Thomas of Aquinum to the kindly physician of Welbeck Street. Dr. Bird was the champion of Leigh Hunt, and drew up a statement, founded on intimate knowledge of the facts, which, it seems, completely clears the memory of that charming writer from the cruel misconception which Dickens impressed deeply on the public mind by the character of "Harold Skimpole." Dr. Bird was apprenticed to a worthy practitioner of Yoxford, then "a city of smugglers." He used to be sent by his master to Dunwich to visit mysterious patients, "from under whose bed there invariably emerged smuggled kegs of brandy." The Yoxford doctor was famous for a "gout cure," of which he possessed the secret, and which he was invited to test on the person of George IV. The composition of the "cure" is said to have been "colchicum digested in old cognac"; it is probable therefore, that the suffering monarch was an unconscious beneficiary in the profits of a fraud on his own revenue. Bird was a great believer in athletics, and had a gymnasium in his house to which he often took his patients, and made them try the foils or the parallel bars. Hengist Horne, the author of *Orion*, the "farthing epic," was one day found by two ladies who had called to see the doctor, sliding head first down the banisters. In addition to those already mentioned Dr. Bird numbered among his friends Mr. Swinburne, Sir William Crookes, Miss Ellen Terry, Sir Squire and Lady Bancroft, Mr. Clodd, and Mr. Justin McCarthy. With Richard Burton, the great traveller, he often heard the chimes at midnight as they sat discussing the philosophy and poetry of the East till far into the night. It is related that on such a night, when Burton had been telling of an Arab attack which ended fatally for his assailant, Bird asked the innocent question, "How do you feel, Captain, when you kill a man?" To which came at once the answer, "I don't know, Doctor. How do you?" The jest, which is said by Mr. Rhys to be "one of the most perfect retorts ever made at a doctor's expense," is probably as old as the art of healing itself, but it must be admitted that in the circumstances it was particularly apt, and that the victim fairly brought it on himself. George Bird lived to an advanced age, and passed away, *multis bonis flebilis*, on May 4th, 1900.

Mr. Herbert Spencer, unlike Achilles, had more than one vulnerable part. One of these was medicine. Whenever the author of *Synthetic Philosophy* touched on medical matters he was apt, not to put too fine a point on it, to talk nonsense. In his last book, *Facts and Comments*, he displayed a bias against vaccination unworthy of a philosopher, and the flimsiness of the arguments by which he sought to justify his hostility proved only too clearly that he had not taken the trouble to make himself acquainted with the facts. His treatment of the subject recalls Huxley's criticism that if Spencer had written a play the catastrophe would have been an induction wrecked by a fact. There is mourning in the house of the "antivacks" for the loss of one whom the

aturally regard as a main pillar of their cause. The *Vaccination Inquirer* complains that in none of the biographies f Spencer that have come under its notice has there been ny reference to the fact that he approved and assisted the ntivaccination movement. It states (and the information is nteresting from a psychological point of view) that it was ot only by Spencer's "kind permission but at his own sug-estion that the essay ..... was made use of by the National ntivaccination League as part of their propagandist litera-ure." To such base uses has come the philosopher who ndertook to lay down laws *de omni scibili*, and, like another anute, forbade the tide of human thought to rise beyond e limit which he had fixed for the Unknowable.

At the annual dinner of the Ulster Medical Society held at elfast on November 19th, a song entitled "Goufin" was ng to the great delight of the audience by Dr. McHarry. is, we understand, the composition of Dr. R. J. Johnstone, ssistant Gynaecologist to the Royal Victoria Hospital, elfast. The song, which purports to give "some account of e modern pestilence," begins with an invocation to Dr. raham (described in a footnote as "a noted Belfast alienist," or. circ. A.D. 1900) to the following effect:

Oh, Dr. Graham, this mental epidemic ye should see,
It's neither gastromania nor blood-coont insanity,
Nor yet the scalpel-frenzy; but just look both near and far,
They're all hittin' a ba' they chase and misca',
An' it's goufin' mad they are.
They've thrown away the stethoscope an' taken up the cleek,
An' if they're wanted for a "mid," ye've got the links to seek,
An' the patients sit in batches,
Waitin' till they finish matches,
Sin' the doctors hae ta'en up wi' goufin'.

e chorus bewails the madness which has seized them:

Goufin' a' the day,
Daein' nae work ava',
Rinnin' aboot wi' a bag fu' o' clubs,
Hittin' a wee bit ba'.

utter is the demoralization caused by the "new pestilence" at—

f they saw a man wi' tabes they wad say, "He's lost his swing,"
nd murmur, "Very badly pulled," of an apex 'neath your wing.

nally the bard is carried away by his indignation and sug-sts a drastic remedy:

A hear there's gaun tae be a cup tae crown the doctor's game,
But A ken richt well the toddy that should brawly wet the same:
We'll fill the challenge beaker
Wi' vin. ipecac. for liquor—
'Twould maybe mak' the doctors throw up goufin'.

With the New Year the *British Journal of Children's Diseases* kes it first bow to the medical public of Great Britain—or ch part of it as is specially interested in children's diseases. e editor is Dr. George Carpenter. Among the contents of e first number are a note of a case of hemicrania with ird nerve paralysis, by Dr. James Taylor; a paper on con-nital hypertrophic stenosis of the pylorus by Mr. Clinton nt; one on intussusception and Henoch's purpura by Dr. A. Sutherland, and a report of a case of Henoch's purpura in ich laparotomy was performed by Mr. Harold Burrows. Mr. orge Pernet contributes an interesting note on the antiquity achondroplasia based on a study of certain small Egyptian rthenware statuettes in the British Museum which repre-nt the deformity. Our new contemporary seems to have a finite reason for existence, and if we may judge from the st number it will be a useful addition to the literature of e province which it takes for its own.

THE PLAGUE.

PREVALENCE OF THE DISEASE.

INDIA.

URING the weeks ending December 5th and 12th, the deaths from plague i India numbered 16,437 and 17,295 respectively. Both these figures are ver the returns for the week ending November 28th, when the number deaths from plague amounted to 17,617. There has, therefore, been a sht abatement in the virulence of the disease during the two weeks in stion. During the corresponding weeks in 1902, the returns were ne 3,000 less. The principal returns during the week ending ember 5th are:—Bombay City, 46; Bombay Districts, 7,073; North-West Provinces and Oudh, 2,252; Central Provinces and Berar, 1,888; njab, 1,674; Central India, 1,094; Calcutta, 14; Bengal Districts, 778; dras Districts, 498; Mysore State, 573; Hyderabad State, 529. In the y of Srinagar (Kashmir) plague is increasing, and is of a virulent lmonic type. On December 21st 30 cases and 30 deaths were gistered.

CAPE COLONY.

uring the weeks ending December 12th and 19th, 1903, the plague reports in the several towns of Cape Colony were as follows. One case of plague, a native male, was found dead on December 18th in East London. No plague in any other town in Cape Colony. Plague-infected rats continue to be found in Port Elizabeth, Queenstown, Knysna. At Capetown 1,053 rats were examined during the two weeks ending December 12th and 19th respectively, but no plague-infected rat was found.

MAURITIUS.

During the three weeks ending December 24th and 31st, 1903, and January 7th, the fresh cases of plague in Mauritius numbered 62, 53, and 55 respectively. During the same periods the deaths from this disease amounted to 41, 29, and 37 respectively.

JAPAN.

A telegram dated Yokohama, December 4th, 1903, states that "Owing to the spread of bubonic plague in this port the authorities have isolated 120 houses comprising the area infected with the disease."

SELANGOR, STRAITS SETTLEMENTS.

Beyond the 3 cases of plague reported from Kuala Lumpur, no cases of plague have been met with since November 28th, 1903.

ASSOCIATION NOTICES.

COUNCIL.

NOTICE OF MEETING.

A MEETING of the Council will be held in the Council Room of the Association, at 429, Strand (corner of Agar Street), London, on Wednesday next, the 20th day of January, at 2 o'clock in the afternoon.

The following Committees will also meet:

Tuesday, January 19th, 1904.—Premises and Library Committee, 2.30 p.m.—Medical Defence Committee, 3.0 p.m.—Assistant Secretary Committee, 5.0 p.m. *Wednesday, January 20th, 1904.*—Journal and Finance Committee, 10.0 a.m.

January 12th, 1904. GUY ELLISTON, *General Secretary.*

NOTICE OF QUARTERLY MEETINGS OF COUNCIL FOR 1904.

MEETINGS of the Council will be held on Wednesdays, January 20th, April 20th, July 6th, and October 19th, in the Council Room of the British Medical Association, 429, Strand, London, W.C.

ELECTION OF MEMBERS.

ANY candidate for election should forward his application upon a form, which will be furnished by the General Secretary of the Association, 429, Strand. Applications for membership should be sent to the General Secretary not less than thirty-five days prior to the date of a meeting of the Council.

LIBRARY OF THE BRITISH MEDICAL ASSOCIATION.

MEMBERS are reminded that the Library and Writing Rooms of the Association are fitted up for the accommodation of the members in commodious apartments, at the office of the Association, 429, Strand. The rooms are open from 10 a.m. to 5 p.m. Members can have their letters addressed to them at the office.

BRANCH MEETINGS TO BE HELD.

BIRMINGHAM BRANCH: COVENTRY DIVISION.—A special meeting of this Division will be held at the Coventry and Warwickshire Hospital at 4 p.m. on Tuesday, January 19th. A paper will be read by Dr. Webb Fowler on Malignant Growths and their Modern Methods of Treatment. Synopsis: Theories as to cause. Treatment: (*a*) Extirpation by early operation; (*b*) methods of dealing with inoperable cases, and some of the results of such treatment. Sedatives. Coley's fluid. Beatson's method (oöphorectomy). Thyroid. Cinnamic acid. Formalin. Caustics. Finsen Light. Other light treatment with demonstrations of apparatus. *X* rays. High frequency. Radium. Conclusions.—E. H. SNELL, Knighton House, Coventry, Honorary Secretary.

METROPOLITAN COUNTIES BRANCH: WANDSWORTH DIVISION.—An ordinary meeting of this Division will be held at the Town Hall, Wandsworth, on Thursday, January 28th, at 9 p.m. Business: (1) Resolutions suggesting medical certificates in order to reduce the abuse of hospital funds, so rapidly increasing; information asked for from 200 hospitals is tabulated, and will be given; Lieutenant-Colonel E. Montefiore, Secretary, Medical Committee, Charity Organization Society, will speak. (2) Letter from King's College Hospital Medical Committee. (3) Resolution from Midwives Act, 1902, Special Committee. (4) Resolution with regard to voluntary subscription to refund Representative's expenses at Oxford. (5) Other business. Any medical practitioner desirous of attending and taking part in the debate will be welcomed, and can obtain a detailed agenda on applying to E. ROWLAND FOTHERGILL, Honorary Secretary, Torquay House, Southfields, S.W.

Metropolitan Counties Branch: Richmond Division.—The next meeting of the above Division will be held on Wednesday, January 27th, in the Sun Hotel, Kingston, at 8.45 p.m., when Mr. D'Arcy Power, M.A., M.B., F.R.C.S., will read a paper, Notes on an Ineffectual Treatment of Cancer, being a record of cases treated by the injection of Dr. Otto Schmidt's serum.—J. R. Johnson, M.R.C.S., Honorary Secretary, 3, Ellerker Gate, Richmond.

Perth Branch.—A Council meeting will be held in the Literary and Antiquarian Museum, Perth, on Friday, January 22nd, at 3.45 p.m. Business: Election of members; Medical Acts Amendment Bill; arrangements for clinical meeting.—William A. Taylor, 10, Marshall Place, Perth, Honorary Secretary.

South Wales and Monmouthshire Branch: Cardiff Division.—The next ordinary meeting of this Division will be held in the rooms of the Cardiff Medical Society, 131, Queen Street, on Thursday, January 21st, at 3.30 p.m. Certain resolutions on the proposed Medical Acts Amendment Bill will be submitted to the meeting, and the following papers will be read:—Dr. Walford, M.O.H., Cardiff: The Local Administration of the Midwives Act. Dr. A. Sheen: Brief Notes of a Case of Morphine Poisoning, with Recovery after Subcutaneous Injection of Atropine. Dr. T. Wallace: Notes on a Case of Appendicitis. Dr. Mitchell Stevens: Some Clinical Illustrations of the Difficulties in Diagnosis of Cancer of the Liver. It is suggested that members should cordially invite their medical friends to this and other general meetings of the Division. Tea and coffee will be provided.—Ewen J. Maclean, 12, Park Place, Cardiff, Honorary Divisional Secretary.

South-Western Branch.—The next meeting of this Branch will be held at the Museum, Babbacombe Road, Torquay, on Tuesday, January 19th, at 3.30 p.m., the President, Dr. W. T. Thompson, in the chair. The following communications are already promised: Dr. J. Harley Gough: Axis Traction in Midwifery. Mr. Paul Swain: Excision of Ascending Colon for Malignants Growths, with specimens. Dr. W. Gordon: Some Nervous Cases of Interest. Mr. C. Hamilton Whiteford: Anaesthetics. Dr. Bushnell: The Health Factor in Education. Gentlemen wishing to join the Association and Branch are requested to communicate with the Honorary Secretary, Mr. G. Young Eales, 1, Matlock Terrace, Torquay.

SPECIAL CORRESPONDENCE.

LIVERPOOL.

Hospital Sunday.—The Stanley Hospital.—Co-operation of Clinical Hospitals.—Preservatives in Food.—A University Fellowship in Dermatology.

As has so frequently happened in former years, Hospital Sunday, which fell on January 10th, has been marked by very inclement weather, and there has been a notable falling off in the returns from the various churches. The question of changing the date of this annual event has long been under consideration, but the difficulty in choosing a more suitable date has so far proved insurmountable. It is clear that to secure a probability of milder weather the date would have to be postponed at least three months, and that if that were done the hospitals would be out of pocket on the year the change was made to the extent of one-fourth at least of the amount collected. Further, in the spring and summer a considerable proportion of the more wealthy donors to the fund spend their Sundays away from Liverpool. On the whole, it is doubtful whether the hospitals would materially benefit from a change in the date even if the numerous places of worship could agree upon some other Sunday in the year.

The Stanley Hospital, after a long and heroic struggle in the face of much neglect and consequent scarcity of funds, has at length equipped 106 beds for permanent occupation, and will consequently be recognized as a field for clinical instruction by the University of Liverpool and by other licensing bodies. The hospital, which was founded in 1868, owed its inception chiefly to the exertions of two medical practitioners whose friendship was almost proverbial, the late Dr. D. D. Costine and the late Mr. E. M. Sheldon, the staff of the institution has always taken a high position, and it is a notable fact that the three physicians now on the staff of the Royal Infirmary, and two of the surgeons, began their hospital career at the Stanley Hospital. The Royal Southern Hospital Staff has also to a large extent been recruited from the same source. There is no reason to fear that clinical teaching in Liverpool will deteriorate in consequence of this enlargement of the field of clinical work.

The Royal Southern, the Northern, and the Stanley Hospitals are endeavouring to co-operate so as to enable students to divide their attendance among them. They all labour under the disadvantage of being at a considerable distance from the University, a disadvantage which has, however, become less since the completion of the electric tramway service in the city.

For some years past the question of the employment of p servatives in decomposable foods exposed for sale has ceived much attention in Liverpool. The health authorit have endeavoured to prohibit their use altogether, and seve prosecutions have taken place. The medical evidence call showed a marked difference of opinion on the subject, emine practitioners called for the prosecution maintaining that p servatives, more particularly salicylic acid, were unnecessa and injurious even in small amounts, while the medical w nesses for the defence maintained that in the minute qua tities in which they occurred in manufactured foods, such temperance drinks, they could have no appreciable effect on t economy, and that unless some such means were employed t manufacture of such articles must cease. The last t summonses for selling fruit juices containing salicylic a were dismissed. Quite recently a summons was taken against a dealer for selling lime juice cordial containing 7 of salicylic acid per pint, but before the case came to a he ing the prosecution was withdrawn. It is noteworthy that prosecutions have been instituted against the use of s phurous acid in the preservation of liquids such as lime jui although its employment is pretty common.

Dr. Stopford Taylor has instituted a Fellowship in Derm tology in the University. The Fellow will be required devote a stated amount of time to research in the Thomps Yates Laboratories, and also to do clinical work in hospita

CORRESPONDENCE.

LEISHMANIA DONOVANI FOUND IN KALA-AZAR

Sir,—With reference to my former articles on the new discovered parasite *Leishmania donovani*,[1] those interes in tropical medicine will doubtless be very glad to hear t a telegram has been received from Dr. C. A. Bentley, Assam, informing me that he has found the organisms in spleen in kala-azar during life, thus verifying previous c jectures.

I may add that I have also heard from Captain Dono to the effect that he remains unable to detect the organis in the peripheral blood, where we should expect to find th if they were intracorpuscular.—I am, etc.,

Liverpool School of Tropical Medicine, Jan. 11th. R. Ross

THE REGIUS PROFESSORSHIP IN OXFORD.

Sir,—Those interested in the appointment of the Reg Professor in Oxford will learn with interest that the rec mendation made to the Crown through the Vice-Chance was fully discussed in the University. It was unfortun that the discussion should have taken place during Christmas vacation and a name sent in in the short spac time that elapsed between the end of term and the New Y It was unfortunate, too, that none of the Oxford medi graduates attached to the London or provincial schools medicine were not approached. I think they might reas ably have expected that their opinion should have b sought, for they, after all, have as much, if not more, to with the education of students than the teachers or profess in Oxford.

The attitude, Sir, you take in the matter is evidently agreement with the Oxford men who have circulated a le recently in justification of their action, and in disagreement w those present at the meeting held in London on January May I point out, in answer to your leaderette, that ther no reason why the Regius Professor should do nothing, or, you put it, be a merely administrative person? In f Messrs. Gotch, Haldane, and Thomson clearly show in th letter that he has a great deal to do. This is not quite w these gentlemen meant us to understand from their let which reads more like an apology for the Professor do nothing than a justification of their action in suggest that he should give his attention solely to pathology. University has not yet declared by statute that the Profes shall lecture on that particular subject. These gentle quite ignore the important work the Regius Professor ha do for the profession of medicine generally. This is not least important part of his duties, for the C is endowed—it may be inadequately—in order that holder may be able to give his time to organization of m cal education and the welfare of the profession genera The climax of this letter—namely, that because he has

[1] British Medical Journal, November 14th and 28th, 1903.

ito do and the statutes say he shall do something it is for the Professor to lecture on pathology—might raise uestion whether it is not better to defer instruction in logy till the student has some clinical knowledge of e, when he could better understand and appreciate he sees and hears at lectures on pathology.—I am, etc.,

on, Bristol, Jan. 12th. BERTRAM M. H. ROGERS.

MECHANO-THERAPEUTICS.

.—The paragraph headed "Another Medical Company" rs to have been written without regard to the fact nstitutions for mechano-therapeutics have now been in nce for many years on the Continent, and that in Eng- we are without these very useful means for treating a derable number of cases of chronic disease of muscles oints. In the edition of 1896 of Dr. Hermann Weber's *and Mineral Waters of Europe*, p. 33, I read: "Institu- for Swedish gymnastics have been established at many n spas, furnished with Dr. G. Zander's medico-mechani- pliances for passive movements and for voluntary mus- exercises with graduated resistance. Institutions of this are to be found at Aix-la-Chapelle, Wiesbaden, Baden n, Wildbad, Karlsbad, Ragatz, etc. Here graduated ments may be made in order to exercise particular s and particular sets of muscles."

ce that time many other places might be added to this nd in particular I saw a very excellent establishment ear at Vichy. I think it is much to be desired that we d have places of this kind in England, and, as they re very costly plant, I do not see how they are to be pro- except by the intervention of the capitalist, nor can I nat the raising of capital for this purpose by a limited ity company is in itself objectionable. Such insti- ns are comparable with sanatoria for phthisis, pathic institutions. and private hospitals; and, ugh there may be features in some of these to ich we take exception, I think we may say that annot expect to get along without them in the present y. It seems to me that if the medical profession cordially omes the establishment of mechano-therapeutic institu- it will be able to influence their management, and that will be more likely to be conducted in accordance with r ideas if we treat them from the first as affording valuable iance in practice and do not class them with "bone- ts" or try to exclude them from the pale of respectable cal practice. When the Zander Institute was started in on some years ago its utility was generally recognized, it is a matter for regret that it fell into the hands of a prietor who worked it in such a way that the method has grievously damaged in the eyes of the medical profes- on this country; but abroad no one doubts its useful- ss.—I am, etc.,

ingham, Jan. 11th. ROBERT SAUNDBY.

LIFE INSURANCE EXAMINATIONS.

Sir,—You have had letters lately in the BRITISH MEDICAL URNAL in reference to inadequate payment for examination life insurance, but none of them can touch a request made a few weeks back. A man called and asked to appoint examiner for a company, informing me, apparently re- ntly, on my request, that the fees paid were from 1s. 6d. rds, each rise being an additional sixpence until 21s. eached. I objected to such sweating of the profession, he stated that I was the first doctor who had raised any tion. He further stated that the "cream of the pro- sion" in Cambridge had accepted the post, and mentioned e names. If it is correct, as he stated, that the two men tioned hold such posts, there are other positions they that they have no right to. On leaving he expressed t at paying me a visit, and volunteered the information his candidates would have their fares paid to Cambridge e they would go for examination.—I am, etc.,

bourn, near Cambridge, Jan. 10th. F. L. NICHOLLS.

,—The adoption of a sliding scale of fees for medical inations for insurance companies as advocated by the ISH MEDICAL JOURNAL and by Dr. Graham Brown is open to serious objections.

ording to Dr. Brown, the Scottish Life Assurance Com- fix £100 as the minimum value of a policy for which guinea is given for the medical examination, but other anies fix different sums. As we pointed out in the URNAL for December 26th, 1903, it is the great variation in the amount of this minimum that constitutes an injustice to the medical examiner. Some companies give half a guinea when the policy is below £500, yet the work required from the medical examiner is just the same as in the case of the Scottish Life Assurance Company.

Surely the principle for which the medical profession should contend is that the fee should be proportionate to the work done. Another objection to the sliding scale of the Scottish Life Assurance Company is that its range is so very limited; it apparently only slides as far as the two guinea mark. The majority of candidates examined in the provinces take out small policies, and, from a pecuniary point of view, the sliding scale would have a doubtful value, but even if a fee of 10 guineas were given for an examination for a £10,000 policy, it would seem to us to be a less desirable way of remunerating justly the medical officer than by assuring him of a fixed sum for a definite report. The taking out of an insurance policy is a commercial transaction between a candidate and a company, and the medical officer should have no financial interest in the bargain beyond that of being paid for what he does.

As we stated in our previous letter, this matter is being investigated by a Committee of the Norwich Division of the Association, and we hope soon to publish our report. From the facts which we have ascertained, however, the adoption of a sliding scale of fees, except it be proportionate to the work done, does not seem to us to supply a satisfactory answer to the many objections of the present systems.—We are, etc.,

MICHAEL BEVERLEY,
Chairman of the Division.
ARTHUR J. CLEVELAND,
Honorary Secretary of the Committee.

Norwich, Jan. 11th.

*** The only thing we intended to advocate was that this important question should be considered by Divisions of the Association and other medical bodies, in order that in each locality a scale of fees for insurance work may be determined, so that the companies may find themselves faced in each locality by a united profession. A decision will be greatly aided by the results of the inquiry which the writers of this letter have undertaken. As a possible working plan we threw out the suggestion of a sliding scale starting from 10s. 6d. for a £100 policy, and thence steadily rising. There is reason to believe that the average value of a policy is £575, so that if a rise of 5s. were made for every £100 from the initial fee of 10s. 6d., the average fee would be, say, £1 13s. 6d.

THE PATHOGENESIS OF GOUT.

SIR,—I have read with much interest Dr. Chalmers Watson's Observations on the Pathogenesis of Gout, published in the BRITISH MEDICAL JOURNAL of January 9th. Dr. Watson endeavours to support his view that there is a bacterial factor in the causation of acute gout by referring to a fowl, dead of some acute disease which he believes was gout, in the body of which large quantities of bacteria were discovered after death.

That numerous joints, not to mention lymphatic glands, showed the presence of urate of soda, and that there was intense inflammation in various parts of the body, is obvious, but are we justified in concluding from this that the animal was the subject of the disease we call gout in the human subject? It is very unusual for a first attack of gout to affect numerous joints and to be attended with various visceral inflammations and almost unknown for it to prove fatal. In fact, apart altogether from the improbability of this disease, characteristic of a high civilization, being found in birds at all, I submit that the clinical history and the pathological findings in this case go to prove that it is not one of gout.

I venture to offer another explanation, which is that the bird was the subject of an acute nephritis, and that the accumulation of the salts of uric acid in various parts of the body was analogous to the state of uraemia in the human subject. That the inflammation of the kidneys was more severe than that of other organs is apparent from the necrotic areas found in them, and it may well have been the primary lesion. Since the kidneys of birds excrete the waste nitrogen in the form of uric acid, it is clear that the latter must accumulate in the body when the kidneys are thrown out of action from any cause. In fact this has actually been observed to take place when the kidneys of birds have been excised experimentally. That the primary disease in this case arose in the kidneys is further supported by the finding of micro-organisms in these organs alone.

If this interpretation of Dr. Watson's observations on the fowl be correct, we have here a very interesting illustration of the manner in which an acute and fatal intoxication will arise when the function of an eliminating organ is suspended; but I think we ought to hesitate before we apply these observations directly to the explanation of a disease such as gout, which affects an animal of an entirely different species, and which arises under conditions totally different from those likely to be met with in poultry.—I am, etc.,

Liverpool, Jan. 11th. THOS. R. BRADSHAW, M.D.

SIR,—Dr. Chalmers Watson has wisely turned to the animal kingdom for some light to be thrown on the pathogenesis of gout; but the microscopic section depicted of the intestinal tract, coupled with the fact that the dead fowl was forwarded to him from a farm, shows that he mistakes the usual *post-mortem* changes that occur in the digestive mucous membrane for a catarrhal disease. The lining membrane of the digestive tract must be fixed within ten minutes after death or the material is worthless. His statements as regards universal changes in the synovial fluid and of the numerous areas of thromboses and of necrosis, would seem to point to a general infective process, in the nature of pyaemia, rather than that a young living being, as this cockerel, should be the subject of acute gout.

Pampered dogs, and horses petted with sugar and apples will supply him with much more likely subjects of gout. Whatever may be the exciting causes of gout, there can be no question that errors, chiefly in the nature of excesses of diet, are the prime predisposing causes of gout.—I am, etc.,

J. KINGSTON BARTON, M.R.C.P.Lond.

London, S.W., Jan. 11th.

ISOLATION HOSPITALS.

SIR,—In this rural district of Upton-on-Severn, like the Stourport authority, we have been passing through an epidemic of scarlet fever. If my friend Dr. Moore is correct in the suggestions as to the futility of isolation in scarlet fever, it is, indeed, an important subject for consideration. Very large sums have been, and are now being, spent in the construction of isolation hospitals, mainly for the treatment of scarlet fever. If, therefore, these large buildings are unnecessary, it is an extravagance which will appeal to the present tender feelings of the ratepayers. The following points strike one at once in a brief examination of the subject: (1) In the adoption of the Notification Act of 1888 it would be manifestly unjust to tradesmen and others, who would seriously suffer pecuniarily if there was no opportunity of removing the disease from the premises. The ratepayers would not be freed from the expenses attending the precautions necessary for attempted isolation in their homes and the compensation to occupiers for loss of employment. (2) Is it not well to reflect that every case treated at home infects those premises, and forms a "nidus" for infection for an indefinite time afterwards? Many subsequent outbreaks can be traced, I feel sure (given favourable conditions and fresh subjects) to this. (3) It may be somewhat difficult to determine when an outbreak is likely to assume epidemic dimensions and when the expense of isolation should interfere with the principle. (4) As regards the beneficial effect on the patients. The atmosphere of the hospital with efficient ventilation ought not to be worse than the small and often badly-conditioned room in cottages. The divided attention of the mother or head of family, already much occupied, should bear no comparison to the care in diet and general attention given by skilful nursing in an institution, and which should go very far to prevent the disastrous "sequelae" which I have often witnessed in the treatment of even mild cases at home.—I am, etc.

J. SELWYN COWLEY,
Medical Officer of Health for Upton-on-Severn Rural District Council.

Upton-on-Severn, Jan. 9th.

CANCER AND ITS ORIGIN.

SIR,—We were greatly interested to learn from the letter appearing in the BRITISH MEDICAL JOURNAL of January 2nd that Dr. Beatson had, as long ago as 1896, put forward the view "that the active processes seen in a cancerous tumour are best explained by regarding the epithelium of the part as having taken on the properties and powers of germinal epithelium."

Though, with our present knowledge the term "germinal epithelium" can hardly be applied to cells which are destined immediately to undergo, or have undergone a reduction division, to which we have applied the terms "gametogeni and "gametoid"—the former to those occurring norma the latter to those whose presence is abnormal—it would h been difficult at the time he wrote for Dr. Beatson to h come nearer to the facts since demonstrated by us. Th are, however, a few points with regard to our paper to Royal Society which this letter leads us to believe would elucidated by a brief explanation.

While there is a vague similarity in many respects betw the general idea suggested by Dr. Beatson and those conc sions which we have drawn from our definite cytological vestigations of malignant growths, we must state that differ from him in many important details which space v not at present allow us to discuss. We would, however, di attention to the following points. The chief conclusion dra by Dr. Beatson from his clinical observations was, as fa we are able to make out from a careful perusal of his origi paper, that the ovaries and testicles exercise "a control the human body over local proliferations of epithelium" a that "the removal of the tubes and ovaries has an effect u the local proliferation of epithelium which occurs in carcino of the mamma." To these conclusions he was led by clinical observations of several cases, particularly of one carcinoma of the breast where he removed the ovaries a tubes of the patient. In this case the carcinoma was parently cured, Dr. Beatson attributing the cure to the remo of the ovaries.

Our observations upon malignant growths have, on other hand, been entirely microscopical, and we h simply described what we have seen and are able to dem strate. We express no opinion, one way or the other, to the possible influence of the ovary or testicle upon production or growth of malignant tumours.

We would lay particular stress upon the fact that we h shown that cells which have been for a long time carrying specialized somatic functions may, under certain conditio become gametogenic, and go through a reduction divisi In certain plants this occurs normally. In mammalia cert cells in the genital organs are set apart at some period dur the life of the organism to produce sexual germ cells, and these at the proper time reduction takes place normally. Wh however, reduction division takes place in other soma cells abnormally, the growth possesses not only a parasi character, but is also malignant. This reduction divisi may apparently take place anywhere and in any kind tissue, and the presence of such cells enables us differentiate between benign and malignant growths.

With regard to Dr. Beatson not being sure about statement as to the exact mode of development of nor gametogenic cells, we would merely point out that features of this particular metamorphosis are matters of co mon knowledge among cytologists.—We are, etc.,

J. B. FARMER.
J. E. S. MOORE.
CHARLES WALKER

Royal College of Science, London, Jan. 11th, 1904.

SIR,—It has been said that "imitation is the sincerest fo of flattery." This may be so, but it is not always agreeab For example, in the BRITISH MEDICAL JOURNAL of Janu 2nd, Dr. George Thomas Beatson states that "cancer bodie may be derived from the ovary. This fact I demonstrated the Egyptian Medical Congress, held at Cairo in Decemb 1902. The subject has also been fully commented upon in book on *Cancer*, published early last year. Dr. Beatson, li wise in 1896, some weeks after I had read a paper before British Gynaecological Society upon the value of thyroid the treatment of cancer, and which I had verified by num ous successful results, came forward advocating the sa therapeutic measures, without even acknowledging priority.

He now states that oöphorectomy has been the only mea which has proved of any avail in arresting cancer. Now t is an assumption he has no right to make. Moreover, it not true. In my own experience I have had ample evide that cancer is curable without oöphorectomy. Several of cases are over 9 years old and yet there is no recurren These comprise cases of both uterine and mammary canc Indeed, it would be strange if oöphorectomy would prove any avail when the author of the treatment acknowledges t disease as being due to the presence of ovarian tissue in t mamma. Would the operation not then amount to shutti the door after the steed had been stolen?—I am, etc.,

London, S.W., Jan. 11th. ROBERT BELL

BALCONIES AT SANATORIA.

—Dr. Stuart Tidey's arguments in favour of balconies at
ria are too sweeping; and a little practical experience
r working in this comparatively sunless climate would
onvince him of the fact. In dull weather, when light is
needed in the room, very little is reflected from the
f the balcony. Less of the sky can be seen from a room
balcony than from one without. For protection against
he roof of the balcony must either be low at its outer
r deep; and in either case cuts off much light and air.
s roof would no doubt let in more light, but in summer
be unbearably hot. At Hohenhonnef they have
d their balcony roofs with a stream of water. Even an
g is apt to make rooms stuffy at times. A flat-roofed
y no doubt admits air as freely as a large window; but
d is further from the fresh air, and a patient who was
o wide-open windows would want his bed moved nearer
lcony, so that there would be no practical advantage.
boisterous weather the balcony cuts off wind, in still
r it will cut off needful air. There is no difficulty in
g the window open to the ground without a balcony;
ill render it safe; but a low sill, 6 inches high, is useful
ect the feet against cold.
Tidey quite loses sight of the effect of a balcony on the
elow, which is necessarily darkened in proportion to
oth of balcony. Such structures should in my opinion
ed not over bedrooms but over such places as entrance
nd between blocks of bedrooms, where their darkening
ce will not matter.
Tidey is quite right in objecting to the "barrack form"
ls and sanatoria; but there are even now some sana-
hich are not like barracks; and it is to be hoped that
es will be beautiful as well as useful.
reux is not in England; and I am sure that conclu-
ill be misleading which do not take into account the
and situation of the sanatorium, and which apply to
untry the experience derived from a different one.—
tc.,

bury Sanatorium, Jan. 12th. F. Rufenacht Walters.

THE TREATMENT OF PNEUMONIA.

-Dr. James Barr's letter, which appeared in the
Medical Journal of December 19th, 1903, prompts
olicit an opportunity to reply to some of the points
t raises.
regard to blood-letting, my experience points to its
al effect both early in sthenic cases when the blood-
e is high, and later, when the venous system is gorged
hyxia is threatening.
ll very well to say that you may reduce the intake of
but the liquids may have been taken already and the
ate condition be critical.
-letting by venesection may under such circumstances
patient over a period of imminent peril, and the re-
relief may then be maintained by a strict limitation
ntake of liquids.
perience of the use of oxygen leads me to regard it as
d cardiac stimulant. I have repeatedly felt a failing
gain force under the influence of oxygen inhalation.
y to argue that it cannot be of use, but the humble
ner must be guided by facts and not deny potency to
he action of which he cannot explain.
es and Dr. Barr both advocate the use of icebags,
ifferent grounds—Dr. Lees to inhibit pneumococcal
Dr. Barr to reduce the temperature. But Dr. Barr
t explain in what way reduction of the temperature
the patient. I think we shall all admit that it does
ded that it is effected by suitable means, of which
better than the ice compress. My own theory is that
ts most important effects is due to its decreasing the
of gases contained in the practically closed cavities of
. My attention was drawn to this point by observing
ease and decrease of abdominal distension in cases of
fever, occurring *pari passu* with the rise and fall of
perature.
xpansion of gases under the influence of increasing
ture is a fixed physical law, and must take place in
as well as out of the body. With the expansion of
the bowel there is increased abdominal tension, and
men is distended in all available directions. Among
t is distended upwards, encroaches on the thoracic
nd impedes the action of the heart and lungs. In
people with chronic flatulence you can relieve symptoms of weak cardiac action most surely and permanently by reducing the abdominal tension; in febrile conditions you can effect a similar result by different means, chief among which is the application of ice to the abdomen. Thereby the temperature is reduced, the volume of abdominal gases is reduced, and the pressure exerted by abdominal distension on the thoracic organs is reduced.

I have dwelt at some length on the last point, as I have never heard it mentioned, nor have I met with it in literature, though doubtless it is to be found.—I am, etc.,

Montreux, Dec. 21st, 1903. Stuart Tidey.

PUBLIC HEALTH ADMINISTRATION IN ENGLAND.

Sir,—I am glad to see in the British Medical Journal of January 2nd that the question of a Minister of Public Health and a great department attached is beginning at last to receive practical attention. It is now nearly ten years since I advocated this in a lecture which I delivered before the Wordsworth Institute at Cockermouth entitled State Obligations in Matters of Public Health, and later in a condensed form I made it the subject of my Presidential address to the Border Counties Branch of the British Medical Association. Reference to it will show how I proposed this great public health department should be created, how it should act, and what its work and duties ought to be. In the light of the memorandum which you publish, and taking the matters seriatim, I wish with regard to the observations which you offer for consideration to say:

1. I should not interfere with the sanitary administration of either the army or navy.

2. I should in the meantime let Scotland and Ireland alone. If you care to put it so, the proposal is by the creation of a State Board of Health to relieve the Local Government Board of much of its work.

3. The Minister of Public Health, in my opinion, ought to have Cabinet rank, but not to be affected by the rise or fall of parties.

4. As to the line of cleavage, I have briefly sketched this in my lecture, but with regard to the queries under this head would say:

(*a*) I see no reason to assign the engineering and agricultural departments to the new Ministry, though in all matters of sanitation connected with these the Local Government Board should not hesitate to utilize the department; and

(*b*) In Poor-law administration the same.

(*c*) Certainly all matters and all expenditures incurred in connexion with hospitals, water supply, drainage, and other works of a sanitary nature should be transferred to the new Ministry.

(*d*) Enough and to spare is still left to the Local Government Board.

5. (*a*) This is the most difficult part of the whole business, as I have pointed out in my lecture, the object being to remove as far a possible the medical officer of health from local control, and to place him under one central authority, the Ministry of Public Health.

(*b*) Relieve Boards of Guardians from being the vaccinating authorities.

6. Leave the Factory Department of the Home Office as it is for the present, but in all matters affecting the health of workpeople, etc., let them have every assistance from the new Ministry.

7. All medical and public health matters to be transferred to the new department, the Minister of Public Health to be its President.

8. Relieve the Foreign Office of its present duties with regard to sanitary inspection of ships, quarantine, and transfer to new Ministry.

9. It is not proposed to abolish the Local Government Board or even to change its title, but to create a new department which shall not be a paper Board.

These briefly are the lines on which it appears to me this new reform might operate, but of course much detail requires to be worked out. This may take time, but it ought not to be an impossible task, and I think that now the matter has been taken up it will not be allowed to drop, but that in the near future a Minister of Public Health and a great Public Health Department will be *un fait accompli*.—I am, etc.,

Workington, Jan. 5th. John Highet, M.D., M.O.H.

A SANITARY MILK SUPPLY.

Sir,—The weekly medical inspection of dairy farms I have advocated for years both in the medical and lay press. The abominable insanitary condition of many is not mere fancy, or what our friends the dairy farmers call the latest "medical fashionable craze." It is, if I may be allowed to use the expression, solid insanitary dirt conditions which many dairy farms are conducted under and which carry disease and even death in their train. But I have frequently pointed out that most of the medical inspectors employed do not possess sufficient knowledge for the work. A medical inspector, to be of any practical worth, should have a sound practical knowledge of farming, be a good judge of cattle and the feeding of cattle, should possess some knowledge of veterinary surgery, besides being an expert hygienist, and, I may add, be up to "the tricks of the trade."

I was once inspecting a dairy farm with a very scientific

medical man who had showed me nearly all the latest improvements in milking, etc. He asked me if I was not satisfied. I said not at all. He seemed very surprised. I told him I wanted to see the cows. I am afraid this gentleman had not often seen them himself, for he certainly did not appear to know their whereabouts.

Farmers, as your correspondent "D.M." states, are conservative in the worst sense of the word, but they will generally lend an ear to a man who knows their trade as well as his own, but certainly not to the mere scientist; him they make a laughing stock of.—I am, etc.,

London, W. THOMAS DUTTON.

ST. BARTHOLOMEW'S HOSPITAL.

SIR,—The paragraph on p. 97 of the BRITISH MEDICAL JOURNAL of January 9th, is somewhat misleading. It represents that the governors came to a conclusion to which the Medical Council could not assent. This is not by any means the case.

We originally urged the governors to purchase more land from Christ's Hospital. To this they agreed. But unfortunately Christ's Hospital had in the meantime sold the remainder of their site to the Post Office. Nothing, therefore, was left but to obtain more room by removing the Nurses' Home and College from the hospital area. This alternative had been already suggested by us to the Lord Mayor's Committee. We told that Committee, and we lately told our governors, that the removal of these buildings would leave sufficient room to build a thoroughly satisfactory hospital of the best pattern, containing at least as many beds as the present.

The Court of Governors, confirming the resolution of the House Committee, decided to follow our recommendations. This conclusion virtually enlarges the hospital area by about one acre, and, bearing in mind that we have five acres of open ground on our northern frontier, I have no hesitation in saying that in point of space and air we shall compare favourably with any hospital in London.

You further say that the Governors decided not to bring forward any detailed plan. This is quite a mistake. No such decision was made. On the contrary, fresh block plans for the whole area now rendered available have been at once submitted to the Medical Council.

It may be—for such matters require careful and prolonged discussion—that we shall not be able before January 26th to determine the site of each separate block. We have to see how each can be made a component part of a single comprehensive scheme, and how each can be erected with the least possible interference with our daily work. We hope gradually to replace the old buildings, and bit by bit to form a completely new hospital. It is a matter of great difficulty to arrange a plan on which this idea can, as money comes in, be carried out without crippling our usefulness.

But the numbers of the blocks, the purpose for which each is required, and the estimated cost of each have long been settled, and will be distinctly laid before the public at the Mansion House meeting. The public need not for a moment doubt that our scheme is perfectly definite, and will, I feel sure, be quite content to leave architectural details in the hands of the governors and the Medical Council, who are acting in hearty and full accord.—I am, etc.,

London, W., Jan. 13th. W. P. HERRINGHAM.

THE MIDWIVES ACT.

SIR,—As was to have been expected, the Midwives Act begins to prove unmanageable, and the lay governors and advocates of this Act at last realize the decided difference between the whole art of midwifery and mere midwives' work. Amongst other medical suggestions before the Act passed, payment of medical fees, supervision, and real efficiency provided the points emphasized by my own writings, so that at least the chief absence from the Act of the essential and paid medical aid was clearly foreseen.

As it is, the doctor can go begging for his fees under the present arrangements, for they cannot be put down as expenses under the Act. The different local councils' finances have to be audited and passed, and assuredly if illegal charges are submitted they will be rejected or, on complaint, disallowed by the Local Government Board. Possibly an Amendment Bill may be required; if so, medical supervision, fees, and the advisability or the option of nurse-training should be put in. With approved attention to political bearings, Law, dealing with "an artificial state," and the Church, with its "philosophical state," take good care to establish and very large emoluments and allowances for their public but Medicine, concerned with the equally important "health state," is left or expected to forego or tolerate niggardly remuneration, because of our inaptitude and lessness in attending more than we do to political ques or in safeguarding legitimate rights as in a Bill like thi Dr. Snell's municipalization of medical practice extenc yond the issues of this century, excepting hospital adi tration, and his fear as to providing the necessary m attendance under this Act appears to me to reach t Obviously, the Act will not now be allowed to rema abeyance. It was purposely intended, in most part, f poorer classes, but not the paupers, so that abuse by otherwise well able to pay the proposed consulting fees have to be guarded against. Of course medical mid will always be regarded as superior to that of the mid and command corresponding preference; besides, the presents itself that complications with the practice midwives must arise at a later and more inopportune than if the doctor attended from the first. -I am, etc.,

Bognor. H. ELLIOT-BL

THE SWEATING OF MEDICAL MEN.

SIR,—Seventy-five per cent. of medical men to-day that their condition is deplorable. By means of unic co-operation much of this wretchedness can be done away To qualify we spend £1,500 to £2,000. Most of us years of age before we have earned a penny. We largel selves adopt the cut-throat system. Hundreds of men i place never pay one penny to a doctor. If such m taken ill or have an accident the local practitioner a them for four to twelve weeks, generally for nothing. put them into court you lose all round—you lose time, you get anxiety, the sneers of the crowd, the gibes of a sympathetic judge, and you have spent 20s. to try to 15s. I have been through the mill. So bitter is my e ence that, unless paid there and then, I never make a r such items, and I am happier and better off.

Our pay is bad, but the respect paid us is worse. Ed people respect us, but the working classes, which are fa numerous, simply give us an ignorant nod, and c "Jones" or "Smith."

No educated man dies at a younger age than a medica We are a poverty-stricken profession. Not one medica in this locality can afford even a horse. I can neve my practice for six hours. I can never go to a thea cannot afford to go to see my parents once in twelve m A *locum tenens* I cannot afford. Here we never tru another to manage our respective surgeries for even day.

The charity work we do is simply enormous. We d charity work a thousand times than any other class. respectable—so as not to offend—and to be equal to m neighbour Dr. So-and-So, the amount of money I give is almost incredible. The amount of medical and s work I have to do for nothing is appalling. The othe put a fractured humerus into a splint for a youth. The who was with him, never thanked me, nor offered a p pay. Before and after we were utter strangers.

Air your grievance to the working man, and at on become a monster in his sight. Some of them pay m month. For that I must attend everybody, often for m that may be connected with them.

Recently I had to go four miles at 9 p.m. to see an i man not in any way connected with me. Another m man was sent for, and he was there before me. I h hope to get a copper for this. I asked who sent for m was insulted—my only reward. I had to leave the in which the patient was as if I were guilty of misconduct.

When we try to save life people are suspicious of u would like to kick us out of their houses. I can easily what I say. How can we remove this cruelty and ab tion? It can be done largely through union and co tion. The most ignorant of working men have such Let towns and large centres where medical men are nu take the lead and the general practitioner will follo are a thousand times too educated for the average w man. The good money, the easy and spare time, th leges, the voting power, the jaunting about, the spen valuable time and money in betting, gambling, and houses, the eating and stuffing, the gaudy and ex

, together with throwing wholesome food to the heap, belongs to the working man.—I am, etc.,

ber 23rd, 1903. ONE OF THE CRUSHED DOCTORS.

A WINTER HOLIDAY.

Your article on Winter Holidays in the BRITISH JOURNAL of January 2nd, p. 29, is refreshing especially to one who, like myself, has enjoyed the ggested, and has found Algiers, Monte Carlo, Conple, Greece, Madeira, and the Canaries all—and more —you describe them to be. Your correspondent, . put aside in a sentence the attractions of the snow ins for a busy doctor needing a fortnight's holiday. es: "In winter to get a warm climate seems indisie, and to reach a warm climate means time spent in ng."

warm climate" I would venture to substitute "sun- and would put in a claim for the "Alpine Winter Resorts," and would recommend Adelboden, Grindelavos, Arosa, and St. Moritz.

I describe in a few words the ten days' trip I have en? Leaving London at 2 p.m. you reach Frutigen (via ne, Paris, Basle, and Thun) in twenty hours. A ours' drive up a beautiful valley brings you to len at 4 p.m. A week of unbroken sunshine, spent in skiing, tobogganing, curling, and—best of all—in ineering, renovates and refreshes as completely as two weeks spent in the Riviera. The return journey—twenty-four hours—need not be fatiguing. The sun rm that a great coat is quite *de trop*. Mountain are supposed to be less attractive and more fatiguing r than in summer. Yet, though the snow may be is dry, and the delight of seeing the familiar mounwinter garb is great.

the hills around Adelboden the Jungfrau and its urs. and the whole range from Pilatus, overhanging , to the mountains that conceal the Geneva Lake are our view; a cheering memory to bring back to the es and fogs of London.—I am, etc.,

d., W., Jan. 8th. E. SYMES-THOMPSON.

WARNING: NURSES ON PASSENGER BOATS.

Nurses cannot be too strongly warned against going nger boats unless their position be defined in writing nd. One of the large south-going Mail lines advertised the *Hospital*, and two women were selected, signing rticles as stewardesses—the only females recognized d of Trade Regulations as part of a crew. They were er the purser's orders, and told off as stewardesses month) to attend certain ladies' cabins. They were to e children's table to have their meals, but if there was ren's table they had to go to the pantry for their own which they could take and eat as best they could. re allowed to go on the saloon deck when saloon ers were off it at meals. Should their particular quire meals in their cabins, these had to be fetched ntry or saloon by the nurses, in which case they were o avail themselves of the saloon deck for fresh air at l hour. For three nights they had a good cabin, which d to keep clean, etc., and had to make their own beds. arising with the purser, under pretext of the ing full, the nurses were turned out of their cabin l to sleep in the waiting-room attached to the female nd waterclosets. Access to baths and waterclosets e had only through this room, and there the nurses leep, dress and undress, and keep their boxes, with no merely a curtain screening them off from the public , and always liable to have lady passengers passing to bath. They had to be up and out by 6 a.m., when n was used by ladies waiting their turn at bath, and t supposed to prepare for sleeping till after 11 p.m. a.m. to 11 p.m. they had nowhere to go. In addition woman servant (head swarming) was put along with he three on absolute equality. On speaking to the they were told the Board of Trade could not compel accommodation to be found for servants.

rtnight's time on request being again made for a cabin, passengers having left and several cabins being vacant steps having been taken to better their position, they en a good cabin for three nights, when they were then an inside cabin with no port-hole. The two esses proper had a cabin each throughout the voyage. the kindness of the bedroom steward one nurse got a separate cabin (ship now one-sixth full) where she painted, read, etc., and ultimately used to sleep in. The purser, hearing of this, ordered all the keys of the vacant rooms to be brought to him, baggage to be cleared out, and the night watchman to post himself by the cabin door to see that no admittance was gained. They were thus again together in the cabin with no porthole.

No mention was made to the surgeon that trained hospital nurses were to be carried. A fracture of base of skull in one of the crew raised the question as to their being available, but at first the purser declined to let their services be available. Ultimately one was allowed to attend the case. Next day a third-class woman aborted, and septic poisoning set in. A nurse was twice denied—they were stewardesses on the articles. The seriousness of declining to allow professional aid to the case was referred to the captain, and a nurse given, and the footing established that in spare time not used in stewardess work they might be allowed to volunteer for work with the surgeon. Both were delighted to volunteer for nursing, and in spite of the indignities and difficulties did some most trying and difficult work (inguinal hernia operation, measles, etc.) involving attendance both night and day.

To advertise for ladies and then put gentlewomen in the position of black servants, give them no sleeping quarters, and put them beside waterclosets in the tropics in a public waiting room is somewhat misleading. The idea of the company is to replace the old stewardess by a hospital-trained one, and women of that class may be found, but women of education and refinement had better inquire fully what their status is to be.

Nurses should be taken as such, given the rating of a saloon officer, and badged as officers, with the status of a first saloon passenger, and put in the medical department. On such a footing alone will the movement be successful.—I am, etc.,

January 1st. X.Y.Z.

THE GENERAL MEDICAL COUNCIL AND THE ENGLISH COLLEGES.

SIR,—Your correspondent "M.R.C.S. etc.," in his letter published in the BRITISH MEDICAL JOURNAL of January 9th, states, referring to the English Colleges: "The final examination, as reported by the Council's Visitor and Inspector, are (*sic*) 'excellent' and 'as good as could be desired.'"

In the report of the third or final examination of the Royal College of Physicians of London and the Royal College of Surgeons of England, held in January, 1903—the report itself being dated November, 1903—the opinion of the Visitor and Inspector on the examination is expressed in the following words in the

"*Conclusion.*

"We are of opinion that the Final Examinations in Medicine, Surgery, and in Midwifery by the Conjoint Examining Board in England are sufficient."—I am, etc.,

January 12th. A LICENTIATE.

OBITUARY.

CHARLES EDWARD SAUNDERS,

M.D.Aberd., M.R.C.P.Lond., D.P.H.Camb.

WE regret to have to record the death of Dr. C. E. Saunders, of The Cottage, Edenbridge, Kent, which took place in the south of France on January 3rd. Dr. Saunders, a cadet of a Devonshire family, was born in 1843, and was a younger brother of the late Dr. Sedgwick Saunders, Medical Officer of Health for the City of London. After completing his general education at Cheltenham College, he proceeded to St. Thomas's Hospital, then situate in the Borough, in 1861, and took the M.D.Aberdeen with honours five years later. He engaged in practice for a short time at Cuckfield, Sussex, and then obtained the post of Surgical Registrar at his old hospital, and commenced practice in Lower Seymour Street. Later on he obtained the appointment of Medical Officer of Health for certain combined districts of Hertfordshire and Middlesex, and held it until he was elected Superintendent of the Sussex County Asylum at Haywards Heath. This appointment he continued to hold until the close of last century, and he fulfilled its duties with the greatest credit to himself until his health broke down. The early symptoms from which he suffered were those of recurrent attacks of gall stone; later on complications set in and eventually caused his death, which occurred while he was residing at Nice. In accordance with his previously expressed

wishes his remains were cremated at Paris. Dr. Saunders was a man of fine presence, with a manner full of tact and charm, and a *persona grata* to all the patients and officials with whom he had to deal. In private life Dr. Saunders, upright and courteous in all his dealings, greatly endeared himself to a large circle of friends, and hence will long be mourned. Mentally he was a man of much activity, and besides contributing various papers on sanitary matters to the medical journals, he was the author of a pamphlet entitled the Essential Conditions of a Healthy House. Dr. Saunders was married, and leaves a widow and three children.

DEATHS IN THE PROFESSION ABROAD.—Among the members of the medical profession in foreign countries who have recently died are Dr. Julius J. Chisholm, Emeritus Professor of Diseases of the Eye and Ear in the University of Maryland, aged 73; Dr. William Ingalls, a distinguished Surgeon of Boston, U.S.A., aged 90; Dr. Edward Fridenberg, of New York, a well-known Specialist on Diseases of the Eye and Ear, aged 48; Dr. K. F. Emmert, Professor of Forensic Medicine in the University of Berne, aged 92; Dr. William Begrens, of Gottingen, editor of the *Zeitschrift für wissenschaftlichen Mikroskopie und mikroskopische Technik*, and author of works on botany and on methods of microscopical research; Dr. Cornelius O'Leary, a prominent medical practitioner of New York, and Inspector in the Health Department of that city, and also professor of philosophy and classics in Manhattan College, and a writer of some note, especially on evolution and allied subjects, aged 64; Baron George von Liebig, a son of the famous chemist, for some years a surgeon in the service of "John Company" and for a time Professor of Natural History in the Hindu College, Calcutta, afterwards official doctor at Reichenhall and lecturer on climatology and baths in the University of Munich and author of works on the physiological and therapeutic effects of atmospheric pressure, "mountain sickness," etc., aged 76; Frances E. White, M.D., for many years Professor of Physiology in the Woman's Medical College of Pennsylvania; and Dr. Sim Werekundoff, Lecturer on the History of Medicine in the Medico-Military Academy of St. Petersburg.

ROYAL NAVY AND ARMY MEDICAL SERVICES.

ROYAL NAVY MEDICAL SERVICE.

THE following appointments have been made at the Admiralty: ALEXANDER J. J. JOHNSTON, Fleet Surgeon, to Haslar Hospital, January 23rd; WILLIAM BEIT, Fleet Surgeon, to the *President*, for three months' course of hospital study, January 13th; JONATHAN SHAND, M.B., Fleet Surgeon, lent to the *President*, for three months' course of hospital study, January 12th; WILLIAM E. MARSHALL, Staff Surgeon, to the *Bedford*, January 12th; JOHNSTON H. ACHESON, M.B., Staff Surgeon, to the *Latona*, undated; HENRY HUNT, Surgeon, to the *Agincourt*, lent, January 12th; WILLIAM JACKSON, M.B., Surgeon, to the *Latona*, January 19th, and to the *Pallas* on recommissioning; H. C. ROSS, Surgeon, to the *Wildfire*, for the *Immortalité*, January 19th, JOHN JENKINS, Fleet Surgeon, to the *Ocean*, January 9th; LLEWELLYN A. BAISS, Surgeon, to the *Andromache*, temporary, January 9th.

DEPARTMENT OF THE MEDICAL DIRECTOR-GENERAL OF THE NAVY.

WE note that this department of the Admiralty has been strengthened by the addition of a fifth Medical Officer, Staff Surgeon Edward P. Mourilyan, M.B. The rapid increase of the naval *personnel* has largely added to the work of this department and further medical assistance was therefore necessary. It is stated to be the intention of the Lords of the Admiralty to grant Sir Henry F. Norbury a further extension of his appointment as Medical Director-General of the Navy.

SCOTS GUARDS.

SURGEON-MAJOR W. C. BEEVOR, M.B., C.M.G., Scots Guards, on vacating his appointment as Surgeon and Acting Military Secretary to the Governor of Bombay, is directed to proceed to England and report himself to the War Office.

ROYAL ARMY MEDICAL CORPS.

COLONEL W. E. SAUNDERS, C.B., on arrival at Meerut from Poona, will assume the administrative medical charge of the Meerut and Bundelkhund Districts, *vice* Colonel J. F. Supple, C.B., retired.

Lieutenant-Colonel J. G. HARWOOD, who is serving in the Bombay Command, is directed to officiate as Principal Medical Officer, Poona District, until further orders, *vice* Colonel W. E. SAUNDERS.

Captain S. G. BUTLER, who is serving in the Madras Command, is appointed Personal Assistant to the Principal Medical Officer, Madras Command, temporarily.

Colonel A. T. SLOGGETT, C.M.G., Principal Medical Officer, Home District, has been appointed President of a Board of army medical officers which is to examine candidates for commissions in the Royal Army Medical Corps at the office of the Director-General of the Army Medical Service on January 26th.

ARMY MEDICAL RESERVE.

SURGEON-LIEUTENANT-COLONELS T. J. AUBIN, M.D., and R. T. CÆSAR, having attained the prescribed limit of age, are removed from Medical Reserve, January 9th.

Surgeon-Lieutenant-Colonel F. E. FENTON and Surgeon-Capta KEMM, having resigned their Volunteer appointments, cease t the Army Medical Reserve.

Surgeon-Captain J. MCMULLEN, M.B., having been retired Volunteers, ceases to belong to the Army Medical Reserve.

INDIAN MEDICAL SERVICE.

LIEUTENANT-COLONEL W. P. CARSON, M.B., Bombay Establi permitted to retire from the Service, from January 28th. pointed Assistant-Surgeon September 30th, 1878, and was made Colonel September 30th, 1898. He was in the Afghan war in 18 and in the Burmese campaign in 1885-7 (medal, with clasp).

VOLUNTEER RIFLES.

BRIGADE-SURGEON-LIEUTENANT-COLONEL T. JOYCE, 2nd (the Kent) Volunteer Battalion the Buffs (East Kent Regiment), Seni Officer, Sussex and Kent Volunteer Infantry Brigade, resigns h sion, and is granted the honorary rank of Surgeon-Colonel, re uniform, December 5th, 1903.

Mr. ALEXANDER K. TRAILL, to be Surgeon-Lieutenant i (Dundee Highland) Volunteer Battalion the Black Watch (R landers), December 5th, 1903.

Surgeon-Lieutenant-Colonel W. G. LOWE, M.D., 2nd Voluntee the Prince of Wales's (North Staffordshire Regiment), resign mission and is granted the honorary rank of Surgeon-Colonel, 5th, 1903; he retains his uniform.

Supernumerary-Surgeon-Lieutenant J. J. R. MACLEOD, M.B., dlesex (Bloomsbury), 5th London Volunteer Infantry Briga Company, resigns his commission, December 5th, 1903.

The undermentioned officers resign their commissions from 28th:—Surgeon-Lieutenant A. FOSTER, M.D., 1st Volunteer Ba East Lancashire Regiment; Surgeon-Lieutenant G. R. R. F Volunteer Battalion the Royal Sussex Regiment; Surgeon- SHAW, M.D., 1st Bucks.

Captain R. P. SHEARER, 1st Nottinghamshire (Robin Hood), commission and is appointed Surgeon-Lieutenant, November 2

Surgeon-Lieutenant J. F. F. PARR, 1st Tower Hamlets, to b Captain, November 28th.

Surgeon-Captain J. HARVEY, 2nd Volunteer Battalion Princess of Wales's Own (Yorkshire Regiment), to be Surg January 2nd.

Surgeon-Captain J. O. WILSON, M.D., 4th (Donside Highland) Battalion the Gordon Highlanders, to be Surgeon-Major, Janua

Surgeon-Lieutenant-Colonel (Lieutenant-Colonel retired, Indi Service) T. R. MACDONALD, M.B., 1st (Inverness-shire Highland) Battalion the Queen's Own Cameron Highlaneers, resigns his co January 2nd.

Mr. WILLIAM G. MACFEE to be Surgeon-Lieutenant in the 19 sex (Bloomsbury), and to be borne as supernumerary while with the Bearer Company of the 5th London Volunteer Infantr December 4th, 1903.

Surgeon-Captain R. FIELDING-OULD, M.D., 4th Volunteer Bat King's (Liverpool Regiment), resigns his commission, January

Supernumerary Surgeon-Captain W. P. PEAKE, 1st Volunteer the Leicestershire Regiment, also commanding the Leicester a Volunteer Infantry Brigade Bearer Company, resigns his co January 6th.

HENRY G. SMEETH, M.D., to be Surgeon-Lieutenant in the 4th Battalion the Cheshire Regiment, January 6th.

Surgeon-Lieutenant E. J. W. CARRUTHERS, M.D., 5th Volunteer the Cheshire Regiment, to be Surgeon-Captain, January 6th.

Captain J. E. H. DAVIES, 1st Volunteer Battalion the Ro Fusiliers, resigns his commission and is reappointed Surgeo January 2nd.

Surgeon-Lieutenant G. F. MORLEY, 3rd (Duke of Connaug Volunteer Battalion Hampshire Regiment, to be Surgeon-Capta 6th.

Surgeon-Captain W. N. EVANS, from the 1st Volunteer Bat Middlesex Regiment, to be Surgeon-Captain in the 19th (Bloomsbury), and to be borne as supernumerary while comma Bearer Company of the 5th London Volunteer Infantry brigad 6th.

Supernumerary Surgeon-Captain J. G. FRASER, M.B., 19th (Bloomsbury), commanding the 5th London Volunteer Infant Bearer Company, resigns his commission, January 6th.

Surgeon-Lieutenant F. W. KENDLE, 4th Volunteer Batt Devonshire Regiment, is promoted to be Surgeon-Captain, Janu

Captain H. DODGSON, 3rd (Cumberland) Volunteer Battalion t Regiment, resigns his commission and is appointed Surgeon-L January 9th.

Surgeon-Lieutenant C. H. NEWBY, 3rd (Duke of Connaug Volunteer Battalion the Hampshire Regiment to be Surgeo January 9th; he resigns his commission from the same date, his rank and uniform.

TITLES OF UNITED STATES NAVY SURGEONS.

REAR-ADMIRAL P. M. RIXEY, the Surgeon-General of the Uni Navy, is anxious that the titles of officers of the medical corps changed, and devotes part of his annual report to advocating th "A dissatisfaction has existed for a long time among the memb medical corps," he says, "in regard to the titles which are give the different grades of the corps. The present titles convey n as to military rank or importance of duty, and embarrassme the result when medical officers of the navy are brought in co their fellows in civil life or other military services. To m medical men it is distasteful to subordinate the professional t military one, but it is fully recognized, on the other hand, t which designates both the rank and grade is desirable. Th recommends that Congressional action be asked for authority t the different grades of the medical corps now existing, as fo place of surgeon-general, surgeon-admiral; and in the oth medical-director to be surgeon-captain, medical inspector to b commander; surgeon to be surgeon-lieutenant-commande assistant-surgeon to be surgeon-lieutenant, and assistant-surg surgeon-lieutenant (junior grade)."

BILLETS FOR MILITIA MEDICAL OFFICERS.

A.M.C. writes: I read in the British Medical Journal of er 28th, 1903, an account of the Irish Medical Schools and es' Association dinner. Surgeon-Major Moyle O'Connor is ported to have said in his speech that more officers were re- or his branch of the service, that is, the R.A.M.C. Militia. In o obtain the requisite number he urged that officers of this "should be permanently employed in home billets, because in the R.A.M.C. officers would be available for service abroad full strength."

his would no doubt be a very satisfactory method of providing medical officers with billets, and as far as they are concerned t probably be very popular; but the reverse of the picture ot, I think, give equal satisfaction to those affected by it. me tours of R.A.M.C. officers already bear such a small and atio to their foreign tours, that any step likely to still further hem would be looked upon with anything but approval by the of that corps. To instance my own case: I am due home next season, by which time I shall have completed fourteen years' Out of this period I have had three years and one month at which one year and eight months was on first joining. So of my last twelve years and four months' service I shall have t one year and five months at home stations. This has been any exchanges.

ally I should be very sorry to see the introduction of any which would be likely to still further diminish the above pro- of home service, which cannot be considered excessive. Let r be robbed in order to pay Paul.

MEDICO-LEGAL AND MEDICO-ETHICAL.

PROSECUTION UNDER THE MEDICAL ACTS.

est London Police Court on Thursday, January 7th. James ly, a coloured man, carrying on medical practice at Fulham, honed on four summonses for that he not being upon the *gister* did wilfully and falsely pretend to be and take and use style, title, addition and description of "Doctor" "L.R.C.P. S.Edin.," contrary to the provisions of the Medical Act, 1858.

H. Bodkin, instructed by Messrs. Hempson, prosecuted for al Defence Union, and described the case to be one of of the kind that could be imagined. It appeared Ady held in 1878 the qualifications of L.R.C.P. and in., and his name appeared upon the *Medical Register*. At that time, owing to certain matters which came nnexion with a criminal libel action which Ady brought newspaper, and which action was dismissed a report to the General Medical Council and an inquiry held by rity, which resulted in his name and qualifications being m the *Register* for "infamous conduct in a professional Since 1896, therefore, his name did not appear upon *al Register*. In January, 1898, Ady was convicted at l Criminal Court of procuring abortion, and was sentenced years' penal servitude. In April, 1903, he was released of leave, permission being given him to make the usual port to the police by letter instead of in person. Recently owever, to the knowledge of the Scotland Yard authorities efendant was acting as a medical practitioner at Fulham, atter was at once reported to the Medical Defence Union. mpson, acting upon the instructions of the Union, sent down r clerks to Fulham, and in consequence of what happened a n was directed by the Council of the Union.

s in question gave evidence that Ady prescribed for and dis- dicine for them, declaring them both to be ill and giving them to the effect that rest was necessary; these certificates were dy with the letters L.R.C.P. and L.R.C.S.Ed., 1878, appended ature. The clerk Tyrrell deposed that outside the house brass plates with the defendant's name and qualifications n addition there was a card in one of the windows bearing "Institute of Eclectic Medicine, Medical Superintendent Dr. P. and L.R.C.S.Ed., ex med. reg.;" these three last mendss being in smaller type.

vend, counsel for the defence, endeavoured to obtain from a statement that upon one of the brass plates the words reg." appeared. This Mr. Tyrrell absolutely denied, and, wn a photograph of the plate with these words, he stated were on the plate now they were not on it when he attended on dates named. For the defence, it was urged that by putrds "ex. med. reg" upon card and plate the defendant clearly the public that he was not a registered practitioner.

istrate, in convicting the defendant, observed that no one mall letters written in that way after the much larger letters, atisfied that the defendant had ceased to be a duly-qualified on the *Register*. The Medical Act was a most useful one, and igidly enforced. He imposed a penalty of £20 and 10 guineas o months' imprisonment.

t of this prosecution is most satisfactory, as it has clearly disregistered practitioners cannot avoid the penalties under l Act by using the words "ex Med. Reg.' after their names. e that the qualifications of L.R.C.P. and L.R.C.S.Edin. were the respective Colleges from Mr. Ady after the erasure of his the *Register* by the General Medical Council. We learn from y of the Medical Defence Union that the penalty being unpaid, arrant was obtained, but the levy thereunder proving insuffisfy the penalty and costs the defendant was arrested and conson.

ACTION FOR WRONGFUL DISMISSAL IN SCOTLAND.

dal Defence Union has successfully raised an action in the urt, Glasgow, on behalf of a Scotch member, Dr. Lithgow, of e points at issue were of much importance. The action was ainst Messrs. Thomas Gibb and Sons, Limited, to whose workAchinlee Quarry, Shotts, Dr. Lithgow had been appointed and dical officer, for wrongful dismissal and for balance of salary eared that the medical officer had been appointed both to the Messrs. Gibb's and Messrs. King's quarries, and Messrs. Barr and Higgin's colliery by a joint committee representing the masters and those employed, and under contract it was agreed between Dr. Lithgow and the committee that the latter should be a permanent committee to consider complaints on either side, and by this joint committee only could the plaintiff be dismissed.

On February 27th, 1903, the defendants, Messrs. Gibb, wrote to Dr. Lithgow, stating that their workmen had elected a fresh medical officer, and intimated that the services of Dr. Lithgow would therefore not be required after February 28th. It was contended on behalf of Dr. Lithgow that the notice was insufficient and bad; that as only one of the parties to the original contract had dismissed him such an act was *ultra vires*, and that he was still the medical officer to the joint committee, and that his salary should be paid for the remainder of the quarter. The Learned Sheriff found that Dr. Lithgow had not been competently removed from the position of medical officer of defendants' workmen, and directed an account to be taken of the amount due to him.

We are informed by Messrs. Hempson, the solicitors to the Medical Defence Union, that an appeal against the decision of Sheriff Boyde has been entered. As such is the case we cannot comment upon the action at present, but will reserve such until after the hearing of the appeal.

THE WEIDHAAS HYGIENIC INSTITUTE.

We have received various letters complaining of the way in which the Weidhaas Hygienic Institute, which is carried on by unqualified persons for the treatment of disease, seeks to attract the attention of sick persons by addressing letters directly to them. The letter we have seen was accompanied by a copy of a pamphlet entitled *Dum Spiro Spero*, which is made up mainly of the usual testimonials, but contains also a sort of outline of the physiology of various organs taken from medical works. The pamphlet is beneath contempt, and differs in no way from the ordinary production of the advertising quack, but the method adopted of finding out persons who are suffering from chronic diseases and writing directly to them is a novelty. Some light on the method by which such information is obtained is gained from a letter sent to us by Messrs. Colby and Co., pharmaceutical chemists, of Brighton, who enclose a postcard received from the Diabetes Flour Company, of 16, St. Dunstan's Hill, London, E.C., which offers 5s. for the name of any patient suffering from diabetes, and points out that "it is money easily earned." Messrs. Colby and Co. express their indignation at the attempt to bribe them to commit a breach of confidence; but we fear that in many other cases it is by means such as these that the quack obtains the information he needs.

MEDICAL ETIQUETTE.

J. T.—(1) If our correspondent sent a letter with his patient explaining that he only desired an opinion, and that he was prepared to perform the operation himself, the London surgeon's conduct was clearly unfair; but if he did not make his intentions plain, the London surgeon cannot be blamed if he supposed the case was sent to him for treatment and acted accordingly; (2) we cannot approve of giving or sending papers or pamphlets upon the treatment of disease to lay patients.

E. H. H.—If, as we understand, the boy should not have been sent to M. at all, H. was quite justified in taking over the treatment. There may have been circumstances in the relations between H. and M. which would have made an explanation from H. desirable, but the omission cannot be qualified as unprofessional conduct or as unbecoming a gentleman.

DEATH OF PATIENT BEFORE ARRIVAL.

L.—It is a well-understood principle that if a consultant is summoned on a country journey and obeys the summons he is entitled to his full fee, even though the patient may have died before his arrival. So far as we are aware there is no established rule upon the point whether the fee should be paid to the consultant through the family practitioner or directly; it is a debt from the patient's friends or executors to the consultant. The consultant is obviously under no obligation to visit the patient's house; in fact, such a visit would, under the circumstances, be an intrusion.

MEDICAL TESTIMONIALS TO "BILE BEANS."

A correspondent draws our attention to the continued advertisement of testimonials from "eminent physicians" in favour of this nostrum. The matter has received the attention of the Ethical Committee, and we are informed that one of the persons is not a medical practitioner: another was, but his name has been removed from the *Medical Register*, while the third has been reported to the licensing body whose diploma he holds.

CIRCULARS IN CONNEXION WITH PARTNERSHIP ARRANGEMENTS.

J. H. Scot.—Our correspondent encloses a circular issued by a medical practitioner to announce that he has taken his late assistant into partnership. He says that the circular is being sent to the patients of other medical men in the neighbourhood.

*** Such a circular is permissible if sent only to bona-fide patients of the practice, but if sent beyond these limits it is unquestionably a form of advertising. If our correspondent can prove that the circulars have been sent to any extent to persons who are patients of other practitioners, he should bring the matter before the local Division of the British Medical Association.

MEDICAL TESTIMONIALS AS TRADE ADVERTISEMENTS.

L. J. B.—Our correspondent says that a dairyman has asked him to examine a sample of milk once a fortnight, and to give him a written certificate, which he desires to hang in a frame in a prominent position in his shop, the report, of course, to bear our correspondent's name and address. He wishes to know whether from an ethical point of view it would be wrong to give the certificate asked for this purpose?

*** This would unquestionably be giving a testimonial for the purpose of trade advertisement. Consequently it should not be done.

THE CONDITIONS UNDER WHICH LOCAL ACTION MAY OBTAIN THE SUPPORT OF THE ENTIRE PROFESSION.

J. D. W. states: An Irish police surgeon was dismissed from his appointments on grounds which were considered insufficient by his medical neighbours, who signed a memorial asking for a further inquiry, and upon this being refused entered into an agreement not to accept the vacant posts. A successor was appointed outside their number, and they retaliated by refusing to meet him in consultation. At the end of about a year he left the district and was followed by the present holder, who was away at the time the difficulty arose, did not sign the memorial, and accepted the posts on the understanding that under no circumstances would the original holder be reinstated. We are asked to say whether, and to what extent, any breach of medical ethics is involved in his acceptance of these appointments.

*** We think that before the decision of the local practitioners can be held to be binding upon those who have not bound themselves, the question at issue must be submitted to an independent body such as a meeting of a Division or Branch of the British Medical Association, where the proceedings are governed by carefully-considered rules. If this had been done and the Division or Branch had decided that under the circumstances no one should accept the posts, it would be ethically improper for any practitioner to do so, but in the absence of such a *quasi*-judicial inquiry and decision there can be no ethical offence. No local unorganized group can dictate to the rest of the profession; it must ask for support and show the grounds upon which this is claimed.

MEN OF THE DAY.

Sussex.—We answered a similar question on July 25th last year to the effect that we cannot object to the proposal in principle. The fashion has been set by *Who's Who*, and rival publications will bid for support by widening the circle of persons included.

A COMPLAINT AGAINST A DUBLIN HOSPITAL.

W. H. N. writes to complain that a child of poor parents was refused admission to a Dublin hospital, although it was suffering from intussusception and was sent by him as an urgent case. To a letter of complaint addressed by him to the secretary of the hospital no answer was received, and our correspondent charges the Dublin hospitals generally with an unwillingness to receive "poor" people, as these do not bring grist to the mill, and he calls them "frauds on the charitable public."

*** No question of ethics arises out of this complaint. It is understood that the Irish hospitals object to receive pauper patients, as these are supposed to be provided for by rate-supported institutions; further, as the Dublin hospitals are almost entirely supported by the State grant, they have not much to do with the "charitable public." If they fail in their duty, a letter addressed to the Dublin newspapers would be the most effectual way of drawing public attention to the matter, but our correspondent should remember that his position would be much stronger if he would send a letter with any case he may recommend for admission to a hospital. It is quite possible that the case was sent away merely from ignorance of its real gravity.

IS IT CANVASSING?

J. A. W. writes that it is customary in some places for the medical officers of Friendly Societies to offer a prize to the member who during the year brings in the largest number of new members. This means hard canvassing, especially towards the end of the year, when several competitors are running each other closely for the prize. He asks whether in our opinion this is canvassing?

*** There can be no doubt that it is canvassing.

UNIVERSITIES AND COLLEGES.

UNIVERSITY OF LONDON.

The following candidates have passed the M.D. Examination as undernoted:—

Medicine.—H. Balean, London Hospital; H. R. Beale, St. Thomas's Hospital; T. P. Berry, Guy's Hospital, S. H. Bown, B.S., University College; J. C. Briscoe, King's College; C. H. Bullen, B.S., University of Birmingham; F. Challans, London Hospital; G. Clarke, Guy's Hospital and Owens College; C. F. Coombs, B.S., St. Mary's Hospital; T. V. Crosby, University College; W. S. Danks, St. Bartholomew's Hospital; F. A. Field, St. Bartholomew's Hospital; D. Forsyth, Guy's Hospital; F. G. Gibson, Guy's Hospital; C. B. Goring, B.Sc., University College; J. C. Griffiths, B.Sc., University of Birmingham; C. D. Hatrick, University College; S. Hodgson, B.S., Guy's Hospital; H. S. Jenkins, University College, Bristol; A. E. Jones, B.S. (gold medal), University College; B. H. Kingsford, St. Thomas's Hospital; C. E. Lakin, Middlesex Hospital; T. L. Lewellyn, B.S., University College; Olave McDougall, London (Royal Free Hospital) School of Medicine for Women; C. A. Marsh, London Hospital; R. R. Mowll, B.S., King's College and Hospital for Sick Children; G. E. Richmond, B.A., B.Sc., B.S., Guy's Hospital; *W. M. Robson, Guy's Hospital; H. W. Sinclair, St. Thomas's Hospital; L. E. Stamm, B.A., B.Sc., Guy's Hospital; W. L. Stuart, B.S., King's College; C. E. Sunder, B.S., University College; J. H. Sykes (private study); C. Tessier, Guy's Hospital; C. Thackray, B.S., University and Owens Colleges; R. L. Thornley, St. Bartholomew's Hospital; W. H. Unwin, B.S., Charing Cross Hospital; R. Waterhouse, St. Bartholomew's Hospital; G. W. Watson, Yorkshire College; G. E. Waugh, University College and Cambridge University; J. T. Williams, University College.

State Medicine.—A. Caddy, B.S., St. George's Hospital; H. Nolan, LL.B., (gold medal), Guy's Hospital; C. P. Oliver, M.D., Charing Cross Hospital; R. W. C. Pierce, B.Sc., St. Thomas's Hospital.

* Obtained the number of marks qualifying for the gold medal.

The following candidates have passed the B.S. Examination for Honours as undernoted:

First Class.—W. F. Annand, University College; P. M. Heath, [illegible]sity College; M. H. Phillips (scholarship and gold medal), [illegible] Hospital and University College, Bristol; H. Watts (gold [illegible] Guy's and St. George's Hospitals.

Second Class.—J. F. Jennings, St. Bartholomew's Hospital; [illegible] Robertson, Guy's Hospital.

Third Class.—E. Bayley, Charing Cross and London Hospitals; [illegible] Sears, St. Thomas's Hospital.

The following candidates have passed the M.S. Examination:

W. Billington, University of Birmingham and Queen's Hospi[illegible] Edmunds, B.Sc., King's College; H. A. T. Fairbank, Charing [illegible] Hospital; R. J. Howard (gold medal), London Hospital; [illegible] Hannah F. Ivens, London (Royal Free Hospital) School of M[illegible] for Women; G. E. Manning, M.D., Guy's Hospital; C. A. S. [illegible] St. Bartholomew's Hospital; *R. P. Rowlands, Guy's Hospita[illegible]

* Obtained the number of marks qualifying for the gold me[illegible]

These lists, published for the convenience of candidates, are subject to their approval by the Senate.

Advanced Botany.

A course of ten lectures on the Morphology and Affinities of t[illegible] Filicinean Families of Vascular Cryptograms will be given at Un[illegible] College by Mr. D. H. Scott, Honorary Keeper of the Jodrell Lab[illegible] Royal Botanic Gardens, Kew, on Tuesdays, beginning January 26t[illegible]

Proposed Institute of Medical Sciences.

The *University Gazette* of January 9th contains the appeal by the [illegible] for funds to build and endow an Institute of Medical Sciences u[illegible] control of the University. The appeal, as issued to the pre[illegible] published in the British Medical Journal of December 19th, [illegible] as printed in the *Gazette* it contains some additional par[illegible] The Senate reports that it referred to the Faculty of M[illegible] a body consisting of 350 members, all recognized teac[illegible] the University, to consider and report how the duty [illegible] ing upon the Senate under Statute 80 could best be [illegible] out. This statute directed the Senate to use its best endeavou[illegible] ever practicable to secure such common courses of instructio[illegible] ternal medical students in the preliminary and intermediate po[illegible] their studies under appointed or recognized teachers at one or m[illegible] tres; the preliminary subjects are chemistry, biology, and phy[illegible] intermediate subjects are anatomy, physiology, and pharmacolog[illegible]

At a meeting of the Senate, held on October 22nd, 1902, it was r[illegible]

"That steps should be taken to secure a site and funds t[illegible] the Senate to establish an Institute of Medical Sciences in t[illegible] neighbourhood of the University."

Negotiations for such a site are now in progress, and it is hope[illegible] may shortly be possible to make a definite statement as to their [illegible] ful completion. The scheme as set out in the report of the Facu[illegible] approved by the Senate, is as follows:

The Adopted Scheme.

The Faculty state in their report to the Senate that:

"The Faculty of Medicine would desire to see ample acco[illegible] tion of every description at the proposed Institute of Medical S[illegible] not only in regard to space and equipment, but also to the [illegible] staff, together with the best possible arrangements and facil[illegible] research in the various branches of study. The Faculty belie[illegible] the funds could be disposed in the most advantageous manner [illegible] ing to the following scheme; and that this scheme would pro[illegible] a teaching and research institute worthy of what it is ho[illegible] believed will become one of the greatest of modern universiti[illegible]

It is proposed that accommodation adequate for 500 students s[illegible] provided in connexion with the teaching of anatomy, p[illegible] (including pharmacology), biology (zoology and botany), chemis[illegible] physics.

The cost of building and annual expenditure on staff and se[illegible] estimated as follows:

	Cost of Building.	Annual E[illegible] ture on [illegible] and Se[illegible]
	£	£
Anatomy	50,000	5,5[illegible]
Physiology (including Pharmacology)	50,000	7,0[illegible]
Biology (Zoology and Botany)	25,000	2,7[illegible]
Chemistry } ... ... Physics }	35,000	{ 2,6[illegible] { 1,7[illegible]

Note.—With regard to the remuneration of teachers it is d[illegible] that in each case the salary should consist of a fixed stipend, t[illegible] should be added an additional sum, being a fixed proportio[illegible] balance remaining after deducting the departmental expenses [illegible] sum received from students' fees. An attempt should be made t[illegible] the various fixed stipends, which should be about three-quarter[illegible] total salary, by endowments.

A physiological laboratory for advanced students has alrea[illegible] established in the University, and is well attended. The instru[illegible] given by the principal teachers of the University in that subject [illegible] present are all working gratuitously. The University has [illegible] rooms for the laboratory, and £2,000 has been given by M[illegible] Palmer, M.P., to enable the experiment to be tried for two years. [illegible] W. Palmer, M.P., has also given £1,000 towards the formation o[illegible] for the permanent endowment of the laboratory, which it is ho[illegible] form the nucleus of the Research Department of Physiology i[illegible] stitute. A further donation of £1,000 has been received from M[illegible] Palmer, J.P., conditionally upon the establishment of the la[illegible] upon a permanent basis.

Donations should be sent to the Honorary Treasurers, address[illegible] Clarges Street, W.

For the convenience of donors the payment of a donation m[illegible] tended over a period of three years.

Cheques should be made payable to "Medical Sciences [illegible] Fund," and crossed "London and Westminster Bank, South Ke[illegible] Branch."

ERAL meeting of Convocation will be held at the University, South ngton, on Monday next, at 5 p.m. Messrs. W. Blake Odgers, B.A., nd R. M. Walmsley, D.Sc., will present the report of the Standing ittee and move its reception. The report describes the unsatis- y state of the University Library, and the efforts now being made prove its condition, and states the result of an interview between a ation of the Standing Committee of Convocation and the Library ittee of the Senate, which took place on December 9th last. gements are being made whereby the books of the Library will be ble for the use of graduates, and accommodation provided for rs. The Jehanghir Hall of the University in which Convocation , is for the future to be at the disposal of the University on Tues- Wednesdays, and Fridays. It will therefore be proposed that for ture the January meeting of Convocation take place on the Friday e the third Monday in January.

UNIVERSITY OF GLASGOW.

ANNUAL REPORT.

istics.—The report of statistics of the University of Glasgow for the nding September 30th last has just been issued by the University . Amongst the information given is a list of members of the Court, salaries of the various professors, lecturers, demonstrators, iners, etc., and the pensions paid to the retired professors. The addition to the lecturing staff was a lecturer on Italian language literature. The number of matriculated students was 1,798 men and omen, in all 2,158. The students were distributed in the different ties as follows: Arts, 949; medicine, 726; science, 213; law, 190; and ogy, 57. In all 418 degrees were granted, of which 13 were honorary 46 were with honours. There are now 6,176 members of the General cil.

nts and Bequests.—Reference is made to the annual grant of £11,000 ve years which the University is receiving from the Carnegie trustees uildings and equipment, for teaching, and for the library. It is er stated that a sum of £5,000 has been left to be applied to the en- ent of a Chair of Mercantile Law; that the Bellahouston Trustees granted £200 towards the library, the Natural Philosophy Chair, he Chemistry Chair; and that during the year £3,000 had been sub- ed to the special fund for the extension and better equipment of the ersity, the total sum for this purpose now standing at over £76,000. ng the year 1899 volumes had been added to the library by purchase, these being periodicals, while about 1,035 volumes and 990 parts of nes and pamphlets had been presented.

ROYAL COLLEGE OF SURGEONS IN IRELAND.

Lord Lieutenant will be present at the annual charter dinner of the l College of Surgeons in Ireland to be held at the College on Satur- February 13th. As the accommodation will be limited, Fellows ous of being present are requested to send their names and those of guests to the Registrar.

SOCIETY OF APOTHECARIES OF LONDON.

following candidates have passed the Primary Examination, Part II, ndernoted:

tomy.—A. J. K. Brayton, Liverpool; F. H. W. Brewer, St. Bartholo- mew's Hospital; F. M. Cunningham, Royal Free Hospital; H. J. Duske, St. Mary's Hospital; R. C. T. Evans, University College Hospital; J. C. Fletcher, Royal Free Hospital; M. S. Jevons, Royal Free Hospital: E. W. Lowry, St. Bartholomew's Hospital; J. M. Lynch, Cork; W. J. G. Gayton, London Hospital.

siology.—F. H. W. Brewer, St. Bartholomew's Hospital; H. J. Duske, St. Mary's Hospital; R. C. T. Evans, University College Hospital; M. S. Jevons, Royal Free Hospital; J. M. Lynch, Cork; H. W. Phillips, Manchester.

e following candidates have passed the Primary Examination, Part I, as undernoted:

logy.—E. G. Brisco-Owen, Cardiff; A. Samuel, Cardiff; M. V. Webb, Royal Free Hospital.

emistry.—C. J. Wolfe, Edinburgh.

teria Medica and Pharmacy.—J. M. Lynch, Cork; M. Rathbone, Royal Free Hospital.

PUBLIC HEALTH AND POOR-LAW MEDICAL SERVICES.

HEALTH OF ENGLISH TOWNS.

Seventy-six of the largest English towns, including London, 9,390 births and 5,968 deaths were registered during the week ending Saturday last, January 9th. The annual rate of mortality in these towns, which had been 17.8, 15.4, and 20.6 per 1,000, in the three preceding weeks, declined again last week to 20.4 per 1,000. The rates in the several towns ranged from 7.9 in Barrow-in-Furness, 10.5 in Bournemouth, 11.8 in Hastings, 12.0 in Smethwick, 12.2 in Handsworth, and 13.1 in Walthamstow and in Burton-on-Trent, to 24.1 in Salford, 24.6 in Manchester, 24.7 in Stockport, 25.6 in Brighton, 26.1 in Gateshead, 26.7 in Liverpool, 28.5 in Bury, 34.6 in Wallasey, 40.1 in Merthyr Tydfil, and 41.7 in Preston. In London the rate of mortality was 19.4 per 1,000, while it averaged 20.8 per 1,000 in the seventy-five large provincial towns. The death-rate from the principal infectious diseases averaged 1.6 per 1,000 in the seventy-six large towns; in London this death-rate was equal to 1.6 per 1,000, while in the seventy-five other large towns the rates ranged upwards to 3.5 in Willesden, 3.6 in Rotherham, in Newport (Mon.) and in Merthyr Tydfil, 3.8 in West Hartlepool and in Rhondda, 4.4 in Gateshead, 5.1 in Bury, and 7.3 in Preston. Measles caused a death-rate of 2.0 in Blackburn, 2.3 in West Hartlepool, 2.7 in Bury and Rotherham, 2.8 in Willesden, and 5.9 in Preston; scarlet fever of 1.7 in Bootle; diphtheria of 1.1 in Northampton, 1.3 in East Ham, 1.4 in Plymouth, and 1.8 in Bury; whooping-cough of 1.2 in Liverpool, 1.3 in Acton Manor, 1.4 in Leyton and in Devonport, 1.5 in Warrington and West Hartlepool, 1.7 in Rhondda, 1.8 in Rochdale, and 3.5 in Gateshead; and diarrhoea of 2.2 in Merthyr Tydfil. The mortality from "fever" showed no marked excess in any of the large towns. Of the 5 fatal cases of small-pox registered in these towns last week, 1 occurred in Warrington, 1 in Halifax, 1 in York, 1 in Sunderland, and 1 in Gateshead. The Metropolitan Asylums Hospitals contained 26 small-pox patients at the end of last week, against 26, 27, and 26 at the end of the three preceding weeks; 6 new cases were admitted during the week, against 6, 7, and 4 in the three preceding weeks. The number of scarlet fever patients in these hospitals and in the London Fever Hospital, which had been 1,655, 1,617, and 1,632 on the three preceding Saturdays, had risen again to 1,659 on Saturday last, January 9th; 201 new cases were admitted during the week, against 188, 142, and 194 in the three preceding weeks.

HEALTH OF SCOTCH TOWNS.

During the week ending Saturday last, January 9th, 1,111 births and 768 deaths were registered in eight of the principal Scotch towns. The annual rate of mortality, which had been 20.9, 20.8, and 21.7 per 1,000 in the three preceding weeks, further rose last week to 23.2 per 1,000, and was 2.8 per 1,000 above the mean rate during the same period in the seventy-six large English towns. Among these Scotch towns the rates ranged from 17.5 in Leith and 19.9 in Paisley, to 24.8 in Glasgow and 46.2 in Perth. The death-rate from the principal infectious diseases averaged 1.6 per 1,000, the highest rates being recorded in Glasgow and Perth. The 379 deaths registered in Glasgow included 3 which were referred to small-pox, 12 to measles, 2 to diphtheria, 3 to whooping-cough, and 10 to diarrhoea. Three fatal cases of whooping-cough were recorded in Dundee; 4 of whooping-cough and 2 of diarrhoea in Aberdeen; and 2 of whooping-cough both in Paisley and in Leith.

HEALTH OF IRISH TOWNS.

During the week ending Saturday, January 9th, 520 births and 485 deaths were registered in six of the principal Irish towns, against 583 births and 510 deaths in the preceding period. The mean annual death-rate of these towns, which had been 27.5, 15.6, and 29.7 per 1,000 in the three preceding weeks, fell to 26.1 per 1,000 in the week under notice, this figure being 5.7 per 1,000 above the mean annual rate in the seventy-six English towns during the corresponding period. The figures ranged from 16.4 in Londonderry and 21.4 in Waterford to 31.4 in Limerick and 31.5 in Cork. The death-rates from the principal zymotic diseases during the same period averaged in the same six towns 1.8 per 1,000, against 2.2 in the preceding week, the highest rates, 3.1 and 3.2, being recorded in Belfast and Cork respectively, while Londonderry and Waterford recorded no death under this heading at all. Whooping-cough was again the principal cause of death from zymotic disease, while measles caused 3 deaths in Belfast and 2 in Dublin. In the latter there were also 5 deaths from enteric and 3 from scarlet fever.

SMALL-POX EPIDEMIC OF 1901-2 IN LONDON.

We find in the *Sanitary Record* some interesting notes by Dr. F. J. Waldo on the late small-pox epidemic in London. They give the impressions produced by perusal of various reports on the subject—by Dr. Shirley Murphy, Dr. Collingridge, the metropolitan medical officers of health, and the Local Government Board. The greatly-diminished prevalence of the disease in modern times, says Dr. Waldo, "stands as an eternal monument of the virtue of the empirical method in practical medicine, for Jenner's great discovery of vaccination ..... was arrived at long before the theory of immunization rested on any scientific basis." Though small-pox outbreaks are now as nothing to what they were in former days, the interest which they excite is unabated, so that "the minds of a host of competent observers become focussed at once with the utmost keenness and critical sagacity upon any large epidemic." After briefly noting the course taken by the epidemic, Dr. Waldo goes on to express his agreement with Dr. Sykes, Medical Officer of Health St. Pancras, in his two propositions, that the decrease of small-pox in London subsequent to 1885 was largely due to the removal out of London of the great small-pox hospitals of the Metropolitan Asylums Board assisted by other agencies, and that its increased prevalence in 1900-2 was owing to the gradual accumulation of susceptible persons to such an extent as to outweigh the benefits of the removal of the hospital centres of infection. Reference is also made to Dr. Thresh's investigation of small-pox prevalence at Purfleet on the Thames, opposite the small-pox ships, and to the explanation of the large percentage of mistaken diagnoses met with by Dr. Ricketts at the wharves. The differentation which small-pox always makes between the vaccinated and unvaccinated is summarized in a quotation relative to the Asylums Board's statistics for 1901: "Once more, therefore, the two-fold benefit of vaccination is made manifest. It greatly diminishes the liability to attack by small-pox, and it greatly diminishes the fatality-rate among the attacked, and this double benefit is most manifest in the years which are least distant from the time of performance of the protective operation." Dr. Waldo's brightly-written article concludes as follows: "The outbreak has been interesting for various reasons. First of all it has shown how small-pox is always waiting at our gates ready to rush in at the first opportunity and fasten on that part of the community which is unprotected by vaccination. It has furnished the public with a valuable object-lesson in the proper way of dealing with infectious disease. By creating a wholesale panic in favour of vaccination it did more to defeat the anti-vaccination tactics than could have been brought about by years of argument. On the other hand, it has served to confirm the view that scientific medicine must trust mainly to preventive measures in the fight against small-pox. New remedies for the disease have been few and tentative, and thus far no one appears to have seriously contemplated the question of a curative serum."

MAGISTERIAL ACTION IN REFERENCE TO LUNATICS.

A Correspondent questions the accuracy of the reply to "Lex" which appeared in the British Medical Journal of January 2nd, p. 58. He says that it may be contrary to the spirit of the Lunacy Act for the medical practitioners who are partners to certify the lunacy of the same patient for detention under the Act, but that such certification is not contrary to the provisions of the Act, and he quotes Section XIII, Subsection 2, in support of his opinion, the words he relies upon being as follows: "Any such justice.....shall direct and authorize any two medical practitioners whom he thinks fit to visit and examine the alleged lunatic, and to certify their opinion as to his mental state," etc. Our correspondent says he sees nothing to prevent two medical partners certifying the same patient.

*** This is certainly prohibited by Section XXXII, Subsection 2, of the

Act, which is as follows: "Neither of the persons signing the medical certificates in support of a petition for a reception order shall be the father or father-in-law, mother or mother-in-law, son or son-in-law, daughter or daughter-in-law, brother or brother-in-law, sister or sister-in-law, or the partner or assistant of the other of them." We apprehend that with this strict prohibition no justice would think fit to call to his assistance two partners to certify the mental condition of any patient for detention as a lunatic, but even if he should do so the case would not be advanced by any such injudicious action, as subsequent detention as a lunatic on such certification would unmistakably be illegal, and would subject all parties concerned in the certification to more or less serious consequences for not having strictly complied with the provisions of the Act in question.

RATE-AID FOR HOSPITALS.

THE following is the text of the letter addressed by the Local Government Board to the Tottenham Urban District Council, to which attention was called in these columns last week:

Local Government Board,
Whitehall, S.W.,
November 26th, 1903.

Sir,—I am directed by the Local Government Board to acknowledge the receipt of your letter of the 18th inst., with reference to a proposal of the Tottenham Urban District Council to contribute to the funds of a general hospital situated in their district; and, in reply, I am to state that it appears to the Board to be competent to the District Council to make a contribution to the funds of an established hospital in pursuance of an agreement with a view to obtaining the benefits indicated in Section CXXXI of the Public Health Act, 1875.

I am, Sir, your obedient servant,
(Signed) JOHN LITHIBY,
Assistant Secretary.

The Clerk to the Urban District
Council, Tottenham.

CUBIC SPACE IN HOSPITALS.

ENQUIRER asks (1) whether in an isolation hospital for diphtheria and scarlet fever we should consider a cubic space per patient (child or adult) of 1,134 cubic feet sufficient. (2) He also asks whether, if in a hospital having only 1,134 cubic feet per patient the results were apparently as good as in other isolation hospitals, this would constitute sufficient ground for not increasing the cubic space.

*** We must refer our correspondent to the memorandum of the Local Government Board on Hospitals, which states that "ward space for each patient should approach, as nearly as circumstances allow, to 2,000 cubic feet and 144 square feet of floor space." No distinction is made in this memorandum between children and adults, and none ought in our opinion to be made. It would not be necessary to take into account the space occupied by the bedstead and furniture if the above standard were adopted. (2) We should wish to investigate "results apparently as good" before crediting them. It is conceivable, however, that even better results might be obtained in such a hospital well administered than in a hospital badly administered with double the cubic space per patient. But abundant cubic space favours good administration and proper distribution of patients, and should be had. Enquirer might write to the governing bodies of each of the hospitals named by him for particulars as to their cubic space.

THE THAMES SMALL-POX SHIPS.

THE new permanent small-pox hospital for London at Joyce Green, Dartford, will be opened this month, and as the hospital ships will no longer be required they are to be sold. Some members of the Board suggested that it would be better to burn the ships in view of the possibility of spreading infection. The Chairman, Sir Robert Hensley, said that on a former occasion a small pox ship was, after disinfection by the medical officer of health for the Port of London, broken up without a single case of small-pox arising in consequence.

INDIA AND THE COLONIES.

LAGOS.

Vaccination in Yorubaland.—The Board of Health of the Colony of Lagos has recently been considering a memorandum drawn up by the Governor, Sir William McGregor, M.D., with reference to small-pox in Yorubaland, which is the mainland opposite the island of Lagos, and the introduction of a scheme of vaccination. It was shown that small-pox decimated the native towns in the interior at intervals, and a scheme was propounded by which it was hoped to get the native population efficiently protected at a cost of £3,000 a year for the first ten years. It entails the addition to the medical staff of another medical officer to act as inspection officer, while the vaccination itself will be carried out by trained natives paid partly by salary and partly by results. Each member of the Board presented his criticism of the scheme in writing, and as in the main these criticisms were entirely favourable to it, it is to be supposed that the plan will be put into practice unless the Home Government refuses to sanction the additional expenditure—an unlikely contingency.

CAPE COLONY.

The Health of Capetown.—The second annual report of Dr. Jasper Anderson on the health of the City of Capetown is for the year ending June 30th, 1903. A "rough census" taken in 1902 showed the population to be approximately 64,192. The birth-rate of all classes, European and coloured, was 39.22, and the death-rate for all classes 31.29. The death-rate amongst the Europeans was 17.28, and amongst the coloured po tion 50.83. The infant death-rate amongst Europeans was 168.2 per births, whilst among the coloured people it reached the except figure of 309 8. Measles, consumption, and enteritis appear to have the chief causes of those high figures. There also appears to be in town a large amount of mismanagement and bad feeding of infants the medical officer seems abundantly justified in his plea for some lation for the protection of infant life. He also advocated the not tion of measles. The phthisis death-rate amongst Europeans is 2.22 higher than prevails in certain sanitary districts in England, but amo the coloured population the rate is enormous, 11.6 per 1,000. Nor is due, as Dr. Anderson makes clear, to the importation of persons alr suffering from the disease. Out of 162 such deaths investigated, or had been in Capetown less than a year, 24 had been there more tha years, and 102 were born there. These figures dispel the idea whicl been somewhat widely quoted that the high consumption death-ra Capetown is due to imported cases. Compulsory notification has been adopted. Happily the city has been free from plague, though o to its occurrence in the South African Colonies and the presence o port the disease may be introduced at any time. One case came to port in March, but the infection did not spread. Enteric fever has prevalent on more than one occasion and appears to have been sp by consumption of specifically infected food (milk, ice cream, and aer waters)

MEDICAL NEWS.

The Food Test Commission, appointed by the United St Government, has reported that the use of salicylic aci food is seriously injurious to health.

DR. ALICE N. V. JOHNSON has been selected by the Laml Guardians from among fifty-five applicants for the pos medical officer to the Board Schools at West Norwood. schools accommodate 500 children.

THERE is a vacancy for a medical officer under the Sanit Maritime and Quarantine Board of Egypt. The salar Fr.8,000 rising to Fr.12,000 Further particulars can be tained on application to Dr. Armand Ruffer, Chairman of Board, Alexandria.

HAMPSHIRE HOME FOR EPILEPTICS.—The county of Ha shire has recently been provided, through the munificenc Mr. J. Martineau, with a home for its epileptics. The Nati Society for the Employment of Epileptics has received f Mr. Martineau the sum of £4,000, being the estimated of erecting and fully equipping a home for 24 patients at Chalfont Colony for Epileptics, the legal documents ha been transferred to the Hampshire Quarter Sessions. home, which is to be known as Hampshire House, is t reserved in perpetuity for the benefit of Hampshire patien

FRENCH CONGRESS OF CLIMATOTHERAPY.—The first mee of the French Congress of Climatotherapy will be held Nice, during the Easter vacation, from April 4th to 9th, 1 under the presidency of Professor Chantemesse. The v presidents are: Professor Renaut (Lyon), Professor Gra (Montpellier), Professor Calmette (Lille), Dr. Balestre (Ni The members of the executive committee for England a Dr. G. H. Brandt, Nice; Dr. Johnston Lavis, Beaulieu; MacDougall, Cannes; Dr. Price Mitchell, Monte Carlo; Stanley Rendall, Mentone. The following subjects are p posed for discussion: (1) The climate of the French Medi ranean coast; (2) the adaptation of the individual to clim (3) the influence of the French Mediterranean coast clim on tuberculosis and tuberculous patients; (4) the influenc climate on the French Mediterranean coast on rheumat and on those subject to rheumatism; (5) the disinfectio towns. Travelling facilities in France and abroad will granted to members of the Congress and their families. hotel prices at Nice will be reduced in their favour. F particulars may be obtained from the General Secretary, Herard de Besse, Beaulieu-sur-Mer.

MALARIA IN CORSICA.—At a recent meeting of the Pa Academy of Medicine Professor Laveran presented a rep by Dr. Battesti, of Bastia, on the work of the Corsican A malaria League, of which he is President, during 1 The campaign was carried on with great activity. The doctrine as to the causation of malaria was sedulou diffused among the people with the help of the teachers in public schools, and suitable prophylactic measures were e ployed in a large number of places where malaria had hithe been prevalent. The use of mechanical means for the clusion of mosquitos from dwellings had given very sa factory results. Whereas, in houses not thus protec malarial fever occurred in from 57 to 60 per cent. of the habitants, in those in which the safeguards were prope used, not a single person previously free from the disease attacked. In dwellings only partially protected, the prop tion of persons attacked was 10.5 per cent.

HOSPITALS IN THE UNITED STATES.—A recent issue of the American *National Hospital Record* contains an article showing the increase in the number of hospitals in the United States since 1878. Twenty-five years ago there were but 442 institutions of this kind in the United States; now, according to the figures given by the periodical quoted, there are 2,500 hospitals, or, if all institutions providing hospital care are included, about 4,000. The 2,500 hospitals have a total bed capacity of over 300,000, or about one bed to 350 inhabitants. Both in the total number and in the number relative to population New York heads the list with 350 institutions, having a bed capacity of 75,000, or one bed to every 100 inhabitants. California stands next with 125 institutions, and 12,000 beds, or one bed to every 125. Next comes Massachusetts, with one bed to every 150; then follows Washington, with one bed to every 175 persons. Lowest on the list is Georgia, with 35 small hospitals and one bed to every 1,500 people. North Carolina, South Carolina, Arkansas, Alabama, Tennessee, and the other Southern States are poor in hospital facilities; the Western States are generally well supplied. Illinois, with 200 institutions and one bed for every 200 people, is an average State—better provided for than Pennsylvania and Missouri, and not quite the equal of Ohio and Maryland.

PRESENTATION.—On December 22nd, 1903, on the occasion of his leaving Nantgaredig, Carmarthenshire, to take up a post in another county, Dr. S. Glanville Morris, Honorary Secretary of the West Wales Division of the South Wales Branch of the British Medical Association, was presented, at an enthusiastic meeting of the inhabitants of a widely-spread district, with an illuminated address testifying to the high appreciation and admiration which his nine years' work among them had excited, not only as the family doctor but also as medical officer of health, Poor-law medical officer, public vaccinator, and ambulance lecturer under the County Council, and to the affection he had inspired by his social qualities. At the same time Dr. Morris was presented with a marble clock and gold watch, Mrs. Morris with a silver afternoon tea set and a silver tray and Miss Morris with a gold watch. Colonel Gwynne Hughes, chairman of the meeting, in making the presentation said that it had often been remarked that presentations and addresses were sometimes given on too slight grounds—the simple performance of duty being the pretext, but the country parish doctors who in all weathers, in pelting rain and driven snow and often with their lives in their hands ably and conscientiously discharged their duty deserved not only substantial thanks but often admiration.

MEDICAL VACANCIES.

The list of vacancies is compiled from our advertisement columns, where full particulars will be found. To ensure notice in this column advertisements must be received not later than the first post on Wednesday morning.

AYLSBURY: ROYAL BUCKINGHAMSHIRE HOSPITAL.—House-Surgeon; resident. Salary, £100, rising to £120 per annum.

BETHNAL GREEN INFIRMARY.—Assistant Medical Officer; resident. Salary at the rate of £100 per annum.

BRADFORD POOR-LAW UNION.—Assistant Medical Officer for Hospital and Workhouse; resident. Salary, £125 per annum.

CHELSEA HOSPITAL FOR WOMEN, Fulham Road, S.W.—Clinical Assistant.

CHELTENHAM GENERAL HOSPITAL—House-Surgeon; resident. Salary, £80 per annum.

DUBLIN: DR. STEEVENS'S HOSPITAL.—(1) Assistant Physician. (2) Assistant Surgeon. (3) Anaesthetist.

EXETER: ROYAL DEVON AND EXETER HOSPITAL.—Assistant House-Surgeon; resident. Salary, £60 per annum.

GREAT ORMOND STREET HOSPITAL FOR SICK CHILDREN, Great Ormond Street, W.C.—House-Surgeon; resident. Salary, 20 for six months.

HULL ROYAL INFIRMARY.—Fourth House-Surgeon; resident. Salary, £50 per annum.

LEEDS GENERAL INFIRMARY.—Ophthalmic and Aural House-Surgeon; resident.

LEICESTER INFIRMARY.—Assistant House-Surgeon; resident. Salary, £80 per annum.

LIVERPOOL: DAVID LEWIS NORTHERN HOSPITAL.—Assistant House-Surgeon resident. Salary, £70 per annum.

LIVERPOOL DISPENSARIES.—Head Surgeon; resident. Salary, £200 per annum.

METROPOLITAN ASYLUMS BOARD.—Medical Superintendent of the Training School and Industrial Colony at Darenth Asylum. Salary, £600 per annum, rising to £800.

NATIONAL HOSPITAL FOR THE PARALYSED AND EPILEPTIC, Queen Square, W.C.—Registrar. Honorarium, £50 per annum.

NORTH STAFFORDSHIRE INFIRMARY, Hartshill, Stoke-on-Trent.—Assistant House-Surgeon; resident. Honorarium, £25 for six months.

OLDHAM INFIRMARY.—Resident Medical Officer. Salary, £100 per annum.

PADDINGTON GENERAL DISPENSARY, Gerrard Street, W.—Honorary Surgeon.

VICTORIA HOSPITAL FOR CHILDREN, Tite Street, S.W.—House-Surgeon; resident. Honorarium, £25 for six months.

WOLVERHAMPTON EYE INFIRMARY.—House-Surgeon; resident. Salary, £70 per annum.

YORK COUNTY HOSPITAL.—House-Physician; resident. Salary, £100 per annum.

MEDICAL APPOINTMENTS.

WILSON, W. G., M.B., Ch.M.Syd., Lecturer on Public Health at the University of Sydney, *vice* W. H. Goode, M.D.Dub., deceased.

WOOD, F. J., M.B., C.M., Clinical Assistant to the Chelsea Hospital for Women.

WYLL, Harold, M.B.Lond., F.R.C.S.Eng., Assistant Surgeon to the Metropolitan Ear, Nose, and Throat Hospital, Grafton Street, Fitzroy Square.

YEAT, N., M.D.Durh., District Medical Officer of the Newcastle-upon-Tyne Union.

DAVIES, W. J., M.R.C.S., L.R.C.P., Assistant Medical Officer, Gordon Road Workhouse of the Camberwell Parish.

EMANUEL, J. G., M.D., B.S., B.Sc.Lond., M.B., Ch.B Birm., M.R.C.P.Lond., Physician to Out-patients at the Birmingham and Midland Free Hospital for Sick Children.

FAGGE, R. H., M.R.C.S., L.R.C.P., District Medical Officer of the Melton Mowbray Union.

GARBUTT, R. H. O., L.R.C.P. & S.Edin., District Medical Officer of the Weardale Union.

HUNGERFORD, L. M. T., M.R.C.S., District Medical Officer at Perth, West Australia, *vice* A. J. H. Saw, M.D.Camb., resigned.

HOOD, A. J., M.B., Ch.M.Glasg., Visiting Medical Officer to the New South Wales Lunatic Asylum, *vice* W. H. Goode, M.D.Dub., deceased.

JOHNS, C. P., M.R.C.S., L.R.C.P., Senior Medical Officer of the St. Pancras Parish Workhouse.

JOHNSON, Alice Vowe, F.R.C.S.I., D.P.H.Camb., Medical Officer to the Lambeth Poor-law Schools.

LEEDHAM-GREEN, Charles, M.B., F.R.C.S., Honorary Surgeon to the Birmingham Children's Hospital.

MCDOUALL, H. C., M.R.C.S.Eng., L.R.C.P.Lond., Acting Medical Superintendent at the Hospital for Insane, Collan Park, Sydney, *vice* Chisholm Ross, M.D.Syd.

MACKENZIE, G. E., M.B.Toronto, Clinical Assistant to the Chelsea Hospital for Women.

MACMILLAN, J. G., M.B., Ch.M.Edin., Health Officer to the Kalgoorlie and Boulder District Board of Health.

MUDIE, R. F., M.B., C.M.Edin., Certifying Factory Surgeon for the Ladybank District, County Fife.

NORMAN, R. H., M.D.Lond., B.S., M.R.C.S., L.R.C.P., Assistant Anaesthetist, Great Northern Central Hospital.

PRICE, D., M.B.Lond., Certifying Factory Surgeon for the Works of Messrs. Boyd and Co., Castle Cary, county Somerset.

STAMM, L. E., M.D., B.A., B.Sc., Medical Officer to the British Home and Hospital for Incurables, Streatham Common, S.W.

THOMPSON, W. F., M.D.Edin., Medical Officer and Public Vaccinator for the No. District of the Launcestou Union.

WESTCOTT, Wynn Martyn, M.R.C.S.Eng., L.R.C.P.Lond., Resident Assistant Medical Officer, Heigham Hall Asylum, Norwich.

WOODWARD, E. A., M.B., C.M.Edin., Government Medical Officer and Vaccinator at Wyalong, New South Wales.

YOUNG, H. C. Taylor, C.M., M.D.Glasg., Honorary Assistant Gynaecological Surgeon to the Royal Prince Alfred Hospital, Sydney, New South Wales.

DIARY FOR NEXT WEEK.

TUESDAY.

Therapeutical Society, Apothecaries' Hall, Water Lane, Blackfriars, 4 p.m.—Agenda:—Professor Farmer: Some Recent Investigations on Cancer. Dr. T. W. Kelynack: On Some Points in the Hygienic Treatment of Pulmonary Tuberculosis. Dr. Gray Duncanson: On the Therapeutic Value of Suprarenal Gland Products.

Pathological Society of London, 20, Hanover Square, W., 8.30 p.m.—Dr. Eyre: Nutrose Agar. Dr. K. W. Monsarrat: On the Morphology of an Organism associated with Carcinoma Mammae and its Relationship to the Etiology of the Disease. Dr. Leonard Dudgeon: A Case of Emphysematous Gangrene. Professor Hewlett: Note on a Method of Examining Water for B. enteritidis sporogenes.

WEDNESDAY.

British Balneological and Climatological Society, 20, Hanover Square, W., 8.30 p.m.—Dr. W. S. Hedley: On Physical Therapeusis.

FRIDAY.

Clinical Society of London, 20, Hanover Square, W., 8 p.m.—Exhibition of Clinical Cases followed by discussion. Patients will be in attendance from 8 p.m. to 9 p.m.

POST-GRADUATE COURSES AND LECTURES.

Charing Cross Hospital, Thursday, 4 p.m.—Demonstration of Gynaecological Cases.

Hospital for Sick Children, Great Ormond Street, W.C., Thursday, 4 p.m.—Lecture on Diphtherial Paralysis and its After-Effects.

London Temperance Hospital, Hampstead Road, N.W., Wednesday, 4 p.m.—Lecture on Diseases of the Stomach.

Medical Graduates' College and Polyclinic, 22, Chenies Street, W.C.—Demonstrations will be given at 4 p.m. as follows: Monday, Skin; Tuesday, Medical; Wednesday, Surgical; Thursday, Surgical; Friday, Ear. Lectures will be delivered at 5.15 p.m. as follows: Monday, Mediastinal Tumours; Tuesday, Some Common Errors in the Diagnosis and Treatment of Ear Diseases; Wednesday, Infant Feeding; Thursday, Errors of Refraction, their Diagnosis and Treatment.

Mount Vernon Hospital for Consumption and Diseases of the Chest, 7, Fitzroy Square, W., Thursday, 5 p.m.—Lecture on Pulmonary Cavities.

National Hospital for the Paralysed and Epileptic, Queen Square, W.C.—Lectures will be delivered at 3.30 p.m. as follows: Tuesday, Hemiplegia; Friday, Family and Hereditary Disease.

North East London Post-Graduate College, Tottenham, N., Thursday, 4.30 p.m.—Lecture on Abdominal Surgery.

Post-Graduate College, West London Hospital, Hammersmith Road, W.—Lectures will be delivered at 5 p.m. as follows: Monday, Diseases of the Kidneys; Tuesday, General Remarks on Dislocations and Sprains; Wednesday, Practical Medicine; Thursday, Diseases of the Kidney; Friday, Some Surgical Cases.

Samaritan Free Hospital for Women, Marylebone Road, N.W., Thursday, 3 p.m.—Lecture on Extrauterine Fetation.

BIRTHS, MARRIAGES, AND DEATHS.

The charge for inserting announcements of Births, Marriages, and Deaths is 3s. 6d., which sum should be forwarded in post-office orders or stamps with the notice not later than Wednesday morning, in order to ensure insertion in the current issue.

BIRTHS.

CHAMBERS.—At Maclean Town, Cape Colony, on December 3rd, 1903, the wife of T. Stewart Chambers, F.R.C.S.Edin., etc., of a son.

CHIENE.—At 23, Alva Street, Edinburgh, on January 2nd, the wife of George L. Chiene, F.R.C.S.Edin., of a son.

COPEMAN.—On January 9th, 1904, at 57, Redcliffe Gardens, S.W., the wife of S. Monckton Copeman, M.D., F.R.S., of a daughter.

HANLEY.—At Rawal Pindi, Punjab, on December 11th, 1903, the wife of Major R. G. Hanley, R.A.M.C., of a son.

MARRIAGE.

PLAYFAIR—LEIGHTON.—On January 11th, at St. Andrews, N.B., by the Rev. Canon Winter, Ernest Playfair, M.B., M.R.C.P., son of the late Sir R. Lambert Playfair, K.C.M.G., to Harriet, daughter of the late Henry Forester Leighton, and granddaughter of the late John Hall Maxwell, C.B., of Dargavel.

DEATHS.

HUNTER.—On December 28th, at his residence, 146, Lavender Hill, S.W., after a short illness, Frederick Hunter, M.R.C.S., L.R.C.P., etc., the loving and dearly-beloved husband of Caroline Ida Hunter. Deeply regretted. Sadly missed

SAUNDERS.—On January 3rd, at Nice, Charles Edward Saunders, M.D., M.R.C.P., D.P.H., late Medical Superintendent, Sussex County Asylum, Hayward's Heath.

WALKER.—On December 6th, 1903, at Las Acacias, Durazno, Uruguay, South America, Blanche, second daughter of Dr. H. J. Walker, in her 8th year. Deeply lamented.

WILSON.—At 338, Oxford Road, Manchester, on January 11th, suddenly, as the result of an accident, Mary Louise Barker, wife of Alexander Wilson, F.R.C.S., and daughter of the late Richard Watts Barker, of St. Martin's-at-Palace, Norwich.

LETTERS, NOTES, AND ANSWERS TO CORRESPONDENTS.

COMMUNICATIONS respecting Editorial matters should be addressed to the Editor, 2, Agar Street, Strand, W.C., London; those concerning business matters, advertisements, non-delivery of the JOURNAL, etc., should be addressed to the Manager, at the Office, 429, Strand, W.C., London.

ORIGINAL ARTICLES and LETTERS *forwarded for publication are understood to be offered to the* BRITISH MEDICAL JOURNAL *alone, unless the contrary be stated.*

AUTHORS desiring reprints of their articles published in the BRITISH MEDICAL JOURNAL are requested to communicate with the Manager, 429, Strand, W.C., on receipt of proof.

CORRESPONDENTS who wish notice to be taken of their communications should authenticate them with their names—of course not necessarily for publication.

CORRESPONDENTS not answered are requested to look at the Notices to Correspondent of the following week.

MANUSCRIPTS FORWARDED TO THE OFFICE OF THIS JOURNAL CANNOT UNDER ANY CIRCUMSTANCES BE RETURNED.

IN order to avoid delay, it is particularly requested that ALL letters on the editorial business of the JOURNAL be addressed to the Editor at the Office of the JOURNAL, and not at his private house.

TELEGRAPHIC ADDRESS.—The telegraphic address of the EDITOR of the BRITISH MEDICAL JOURNAL is *Aitiology, London.* The telegraphic address of the MANAGER of the BRITISH MEDICAL JOURNAL is *Articulate, London.*

TELEPHONE (National):—
EDITOR, 2631, Gerrard.
GENERAL SECRETARY AND MANAGER, 2630, Gerrard.

☞ *Queries, answers, and communications relating to subjects to which special departments of the* BRITISH MEDICAL JOURNAL *are devoted will be found under their respective headings.*

QUERIES.

WE would request correspondents who desire to ask questions in this column not to make use of such signatures as "A Member," "A Member B.M.A.," "Enquirer," and so on. By attention to this request much confusion would be avoided. Correspondents are asked to write upon one side of the paper only.

G. asks what would be the usual capitation fees for attendance and medicines at an industrial school five miles distant, the average number of boys being about sixty-five.

THE CAUSES OF FAECAL BALL-FORMATION.

AINSWORTH asks why in some cases of constipation the faeces assume the shape of hard, round balls?

*** This condition is believed to be due to (1) prolonged retention of faeces in the large intestine, causing (2) absorption of liquid and shrinking of the bulk of the faecal contents; and (3) moulding of the dry residue in the sacculi of the large bowel. It is often associated with the spasmodic form of constipation and the discharge of mucus.

THE TREATMENT OF PNEUMONIA.

DR. F. PORTER (Edinburgh) writes: I have read with interest the discussion on pneumonia in the BRITISH MEDICAL JOURNAL, and as the treatment is of great importance I should be pleased to hear from Dr. Lees or Dr. Barr why the ice treatment has superseded the treatment by hot linseed meal poultices, and if the former mode of treatment has diminished the death-rate from the disease, as to my mind the latter mode of treatment is the more physiological one. I should be also glad if Dr. Barr will state his reasons for applying an icebag to the abdomen rather than the chest, and if he would apply an icebag to the chest in a case of peritonitis?

SALIVATION IN PARALYSIS AGITANS.

D. R. G. asks for suggestions for the treatment of "continual running at the nose and mouth" in a case of paralysis agitans.

*** The treatment which is likely to be effective is that which on the whole gives as good, if not better, results than any other in the treatment of the general condition—namely, the administration of belladonna or duboisine. The former is, perhaps, best given in the form of the liquor atropinae sulphatis in doses of $m\frac{1}{2}$ three times a day, and the latter as duboisinae sulphatis in doses of $\frac{1}{100}$ gr. three times a day, which may be gradually increased in each case.

TREATMENT OF OBSTINATE SCABIES.

F. Q. writes: About two and a-half years ago, a gentleman of independent means and well connected consulted me for scabies; he had the acari in almost every part of his body. He had been thus afflicted for two years. He had, he said, consulted every dermatologist of any note both at home and abroad, but no advice benefited him. I suggested various remedies, but he told me he had tried them all. I persuaded him to recommence his trials, he did so with no good effect, and after a few weeks I lost sight of him as he left my district. Now another case has cropped up like this—a lady, who, like the other patient is of exceptionally cleanly habits and moving in good society. She has been similarly afflicted for two years, and has been a paying patient in a hospital under one of our best dermatologists. She has given her complaint to several people, to her son on two occasions when he paid her a short visit, but a free application of sulphur ointment promptly cured him. I have tried "everything" with her, from mercurial vapour and potassium sulphide baths to Vleminckx's solution, the latter allays irritation temporarily only, but nothing kills the acari. At the present moment she is salivated (at her own request), but with no good results. I wonder if any member of the Association can suggest a cure for this case and assist me in curing a state that is almost on a par with that of being "a leper."

ANSWERS.

SOUTH AFRICAN.—The information can be obtained from any book on elementary physiology, or from one of the many books on first aid. Warwick and Tunstall's *First Aid*, third edition (Bristol: John Wright and Co. 1903. 2s. 6d.), will be found useful.

C. A.—(1) The mental condition of a cretin, aged 37, even if subjected to thyroid treatment, would certainly justify certification under the designation of "a person of unsound mind," that is, a person wh mind does not act in a healthy manner. (2) An institution imbeciles—such as Earlswood—would probably receive such a cas about the payment named; failing this, application might be mad St. Luke's Hospital, London, E.C.

W. D. G.—Aesculin, a glucoside obtained from the horse chestnut, yi a solution with a similar fluorescence to quinine, but we have no kn ledge of its therapeutic properties. The fact that quinine hy chloride and quinine hydrobromide yield non-fluorescent solutions be noted. The bitterness of quinine may be imitated by mean infusion of quassia.

NOTES, LETTERS, Etc.

HORSE DUNG IN THE STREETS.

DR. PERCY NEWELL (Bexhill), while expressing his admiration of the genuity that Dr. Calantarients has displayed in designing his auton dung-trap, writes to express the opinion that not one horse in would permit such an apparatus to be attached to the britchen and that the system is impracticable.

ERRATUM.—In the paper by Professor Byers on Glandular Fever, in BRITISH MEDICAL JOURNAL of January 9th, p. 71, line 4 from bot for "none of the cows" read "none of the *cases*."

LETTERS, COMMUNICATIONS, ETC., have been received from:
A Messrs. Adlard and Son, London; Dr. S. J. Aarons, London; Ainsworth; **M** Abbott, Birmingham; Dr. J. Abercrombie, London; A. B.; Mr. P. Angelo, Ha pura; A. M. T.; Mr. W. A. Aldred, Peterborough. **B** Dr. T. E. B. Brown, C. London; Dr. W. Bulloch, London; Dr. F. Bagshawe, St. Leonards-on-Sea; Dr. J Byers, Belfast; Mr. E. F. Bour, Mauritius; Dr. A. T. Brand, Driffield; Dr. J Barrett, Melbourne; Mr. L. A. Bidwell, London; J. H. Bailey, M.B., Port Erin, of Man; Dr. R. Bell, Glasgow; Mr. J. K. Barton, London; Mr. C. A. D. Br Leicester. **C** C. A.; Mr. W. A. Collier, London; Messrs. C. J. Clay and Sons, Lon Mr. W. McE. Clendinnen, Coseley; Dr. C. H. Cattle, Nottingham; Mr. M. J. Che Huddersfield; Country Surgeon; Dr. J. E. G. Calverley, C.M.G., Folkestone; Mi B. Clapham, M.B., London; Mr. J. S. Cowley, Upton-on-Severn; Dr. A. K. Chalr Glasgow; Mr. E. Cox, Worcester; Dr. A. J. Cleveland, Norwich. **D** J. W. Du M.B., Birmingham; Dr. T. O. Dudfield, London; Distemper; Dr. A. Duke, Lon Mr. W. H. Date, Culmstock; Dr. W. F. Dearden, Manchester; Messrs. Davi Ornstein, London. **E** Enquirer; Mr. H. Elliot-Blake, Bognor; Dr. W. A. E Huddersfield. **F** M. N. Fish, M.B., Colombo; E. R. Fothergill, M.B., London; Fletcher, M.B., Manchester. **G** Dr. J. Grimshaw, Birkenhead; A. H. Gregson, Blackburn; Dr. G. T. Gifford, Darwen; Dr. J. G. Garson, London; D. R. Guns, Kirby-Moorside; Mr. H. M. Guest, Dorrington; J. Gardner, M.B., Burscough Br **H** F. G. Haworth, M.B., Darwen; Mr. J. Houston, London; Mr. F. Haydon, Lon Dr. R. G. Hebb, London; Dr. J. Hussey, Farnham; Dr. W. W. Hall, London; M Hope, London. **J** Dr. F. H. Jacob, Nottingham; J. B; Mr. T. Jacobs, London J. R. Johnson, Richmond, Surrey. **K** Dr. W. H. Kelson, London; Mr. H. S. K ford, London. **L** Dr. J. M. Lawrie, Weymouth; Messrs. Lorimer and Co., Lon Dr. R. Lomer, Hamburg; L. J. B.; Liverpool Medical Institution, Secretary of, pool. **M** J. D. Malcolm, M.B., London; Mr. W. J. Morton, London; Miss Maitland, London; K. W. Monsarrat, M.B., Liverpool; Dr. S. Mallanah, Hyder Major R.A.M.C.; Dr. J. A. Menzies, Rochdale; Dr. W. H. Masters, Parkstone; J. Maclean, Cardiff; Messrs. Mayer and Meltzer, London; Dr. D. W. K. Moody don. **N** Mr. F. L. Nicholls, Fulbourn. **P** Mr. H. Paterson, London; Mr. F. E. P Nutfield; Dr. C. B. Plowright, King's Lynn; Dr. E. R. Pelton, New York; Power, M.B., London; Mr. E. J. Parry, London; F. Porter, M.B., Edin Q Q. F. **R** Dr. J. C. Renton, Glasgow; Dr. R. J. Reece, London; Dr. J. Reid, Ba Dr. W. Reeve, London; Rica. **S** Sussex; Dr. L. E. Shaw, London; Mr. E. N. S London; Dr. A. J. Sharp, Whitby; G. W. R. Skane, M.B, London; Mr. G. S London; Mr. K. Snowden, London; Dr. E. H Snell, Coventry; J. B. Story, Dublin; Dr. E. Symes-Thompson, London; Dr. J. H. Scott, Camberley; South Af W. G. Sutherland, M.B., London; Dr. G Sharp, Leeds; Messrs G. Street ar London; Mr. B. Saul, Manchester; Dr. J. C. Simpson, Cambridge; E. Solly, Harrogate. **T** Mr. H. W. Thomas, London; Mr. W. Tibbles, Nottingham; Tisdell, London; Dr. E. F. Trevelyan, Leeds. **U** Unsettled. **V** Mr. S. Vines, chester. **W** Dr. R. T. Williamson, Manchester; Dr. J. M. Wilson, Beverley; Mr Wellcome, London; Dr. F. J. Waldo, London; Dr. J. A. Wilson, Glasgow; Dr. F. H cocks, London Dr. E. F. Willoughby, London; W. W. Wagstaffe, M.B., Seve **Y** Y.; etc.

BOOKS, ETC., RECEIVED.

New Conceptions in Science. By Carl Snyder. London and New York: Harper and Bros 1904 7s. 6d.

The Full Solution of the Sewage Problem. By W. D. Scott-Moncrieff. London: Sanitary Publishing Company, Limited. 1904. 6d.

Permanent Cure for Stuttering. By Theodore Jacobs. London: The Church Agency, Limited.

The Value of Ureteric Meatoscopy in Obscure Diseases of the Kidney. By E. Hurry Fenwick. London: J. and A. Churchill. 1903. 6s. 6d.

A Manual of General or Experi Pathology for Students and Prac ers By Walter Sydney Lazarus-B B.A., B.C., M.D., F.R.C.P. Secon tion. London: J. and A. Chu 1904 21s.

Eye Symptoms as Aids in Diagnosi Edward Magennis, M.D., D P.H. tol: John Wright and Co. 1903.

The Practical Care of the Baby. By Wendell Kilmer. M.D. Philad F. A. Davis Co. 1903. 1 dol.

The Law relating to Pauper Lunati Sydney Davey, B.A., LL.B. L Poor-law Publications Co. 1903.

*** In forwarding books the publishers are requested to state the selling pr

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N.B.—It is against the rules of the Post Office to receive let *Postee Restantes* addressed either in initials or numbers.

SCIENTIFIC GRANTS COMMITTEE
OF THE
British Medical Association.

REPORT LXXIX.

ON THE ETIOLOGY OF CARCINOMA.

RESEARCHES ON THE MORPHOLOGY OF AN ORGANISM ASSOCIATED WITH CARCINOMA MAMMAE, AND ON THE ETIOLOGICAL SIGNIFICANCE OF THIS ASSOCIATION.

(With Special Plate.)

By KEITH W. MONSARRAT, C.M., F.R.C.S.E.
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In a paper read before the Royal Society in 1899[1] I described the morphological characters of an organism isolated from carcinomata. During the last four years these researches have been continued, but have been confined to one clinical type of carcinoma—that affecting the female breast. These further researches have provided material out of which I have been able to construct the life-history of the organism, and have also afforded evidence of interest and importance relating to the question whether the organism is etiologically connected with the disease.

THE ISOLATION OF THE ORGANISM.

All the material which has been used in the attempts to isolate the organism has consisted of specimens of ulcerated carcinoma mammae removed by operation. These have been examined in the laboratory at periods varying from half an hour to four hours after removal, and with one exception I have been present at each operation, and have been personally responsible for the precautions taken to prevent contamination. These precautions I have described in a recent paper,[2] so that I need not here refer to them in detail. The specimens thus treated have been twelve in number. From seven of these I have isolated the organism I am about to describe, one was contaminated with staphylococcus epidermidis albus, the remaining four yielded no cultures. A large variety of nutrient media have been tried, but the positive results have been obtained with ordinary nutrient both in one case, with glucose broth (4 per cent.) and glucose agar (1 per cent.) in the other six. In all cases the method of cultivation has been that of immersing small pieces of the growth in the fluid media, and rubbing pieces over the surface of the solid medium, or leaving small slices on the surface of the medium. All tubes have been incubated at 37° C., and all the positive results have been obtained under aërobic conditions.

THE MORPHOLOGY AND LIFE CYCLE OF THE ORGANISM.

The organism is remarkably polymorphic. It exhibits two chief types, which differ to a marked degree (*a*) in morphology, (*b*) in behaviour in culture media, and (*c*) in the effects which they produce in the animal body. These two types I shall describe as Type A and Type C. I have been able to observe the changes which the organism undergoes in passing from one type to another, but not, hitherto, to determine exactly the conditions which govern and control these changes.

Type A is that form of the organism which is found in the primary cultures derived from the carcinomata; in one of the seven cases which I am here reporting, Type C was associated with Type A in these primary cultures, but, with this exception, Type A alone was present in these cultures.

In the form of Type A the organism is spherical; its size varies from that of a minute spherical granule to a diameter of 2 μ to 3 μ.

In the fluid media it is seen partly suspended, but for the most part as a sediment; on the solid medium it occurred as a scanty, greyish-white, very viscid and translucent streak. The viscosity is a marked characteristic. The amount of growth obtained has been very small in all cases; in no case was I able to obtain more than one generation of subcultures, and in most instances no subcultures at all developed. The inoculation experiments also showed that the vitality of this type of the organism was of a very low order on the media employed.

In this form the organism is liable to be mistaken for a coccus; the pronounced disparity in size of the different specimens is the chief peculiarity which distinguishes it from this class of organism.

In no case have I observed a development of this Type A into Type C *in vitro*. After injection into the animal body Type A may either (1) show no marked morphological change, or (2) exhibit changes in the course of which specimens develop of somewhat larger size than those in the culture, along with oval and club-shaped forms; or (3) pass on in development to what I shall now describe as Type C.

Type C is a spherical form, of a diameter varying from 5 μ to 10 μ. It possesses a capsule, a cell network, and one, a few, or many refractile granules in the interior. Romanowski's stain shows the presence of nuclear bodies, which may be single or multiple; as many as eight of these nuclear bodies have been observed within a single cell, each usually surrounded by a clear "halo," but this is not constant.

Type C multiplies readily on media; in particular on glucose-containing media, by budding. The details of this process, and the full description of the morphology of this type have been described by me in a recent paper.[3]

Type C has been found in the course of my observations (*a*) in the lesions in animals which have followed inoculation with Type A, and (*b*) in one case (excluding those reported in 1899) associated with Type A in the primary cultures obtained from the carcinomata.

The development of Type C from Type A has been followed in a considerable number of animals inoculated with the latter. In all these animals with one exception the number of organisms which showed the characteristic structure of Type C was small, and none showed the budding process peculiar to this type. In the one exception the number of specimens of Type C was large, and they showed active budding.

From these lesions which resulted from the inoculation of Type A, either no cultures at all were recovered, or cultures of Type A similar to that injected. The exceptional case just mentioned was also exceptional in this respect in that cultures of Type C were recovered from the lesions.

It has already been stated that Type A grew on media to a very slight degree only, and this difficulty of cultivation was further shown in that many of the animals, the lesions in which showed microscopically the presence of Type A, yielded no cultures. On the other hand, by direct inoculation from animal to animal by breaking up the nodules which had been experimentally produced, in normal saline, and injecting the material thus obtained, I was able to produce a series of lesions in which the organism showed no diminution of activity.

From these observations it follows that the organism in the form of Type A must be described as a facultative parasite, whereas in the form of Type C, which grows luxuriantly on different kinds of media and also shows a capacity for developing in the animal body, it must be described as a facultative saprophyte.

By combining the observations it is possible to construct a scheme of the life-history of the organism as follows:

Scheme of the life-history of the organism: I. Vegetative cycle. A. Type A, the form in which the organism occurs in primary cultures from carcinomata mammae (facultative parasite). B. Intermediate (? involution) forms of A. C. The vegetative type (facultative saphrophyte). D Form of C with interior taking dense chromatin stain. S_1 S_2. Stages in the process of sporulation. T. Sporulation process showing extrusion. All specimens stained wet with methyl violet.

In addition to the method of reproduction by budding

which Type C exhibits, I have ascertained that this form of the organism proceeds to the development of a sporulating process. In spite of a large number of observations designed to discover the occurrence of this process *in vitro* I have not been able to produce it under these circumstances. The process was observed in animals which had been inoculated with cultures of the Type C form; it was also discovered in the one case of which I have made mention above in which the primary cultures from the carcinoma showed organisms of both types; in these cultures a few specimens of the C type showed the sporulation process in a very distinct manner.

The process consists in the separation of the interior protoplasm of the cell into small spherical bodies and the extrusion of these through a dehiscence in the capsule, which is denser than that of the ordinary specimen of Type C. These small spherical bodies when extruded give the staining reactions and present the same general appearances as the organisms which have been described as Type A.

To recapitulate the characters of the two main types. Type A is that form which is to be found in primary cultures from the carcinomata; in all the cases here recorded, with one exception, this was the only type present in these cultures; in the one exception it was associated with Type C, the latter being in part in a sporulating condition. Type A grows on ordinary media either not at all or to a very scanty extent only; after injection into animals it usually remains unchanged, but may show certain morphological alterations in the course of which a few specimens similar in all respects to Type C are produced. In a single animal the specimens of Type C were present in large numbers in the lesions following inoculation with Type A.

Type C was cultivated from the animal just mentioned, and in one case direct from a carcinoma. In this form the organism grows abundantly on ordinary media. On injection into animals it may remain unchanged or may develop a process of sporulation which results in the production of organisms which resemble Type A; this sporulation process was also observed in the single case in which Type C was found in the primary cultures from a carcinoma.

The Appearances Presented by the Organism after Inoculation into Animals.

Both forms of the organism are readily demonstrated in the tissues after inoculation, by Gram's method. Both give rise to a certain degree of proliferation on the part of certain of the cells of the tissues with which they are brought in contact, but Type A presents an important difference from Type C in regard to its relation to these proliferating cells. Whereas Type C is not seen within cells but between them and in interstices in connective tissue, Type A is found characteristically as an intracellular parasite, usually extranuclear, occasionally intranuclear. Type A is demonstrable as an intracellular parasite by Gram's method (Fig. 4). Usually single specimens were seen within the cells, but from two to five have been observed in a single cell. Single specimens lie in a vacuole in the cell, which appears as a clear space or "halo" around the organism, and is well seen in Fig. 4. If more than one specimen is present in a cell each may lie in a separate vacuole, or the vacuole may be common. The organisms within the cells show the same marked variations in size as are to be seen in the cultures *in vitro*. They were seen within endothelial (peritoneal) and epithelial cells and in these alone. They were not numerous in any of the lesions, from one to three being usually visible in each microscopic field (Leitz $\frac{1}{12}$ in. objective; eyepiece IV). The organism *in the form of Type A* is therefore capable of infecting and entering epithelial and endothelial cells.

The Lesions Produced in Animals by Inoculation of the Organism.

Before describing the lesions which are produced by the inoculation of the organism in the form of Type A, which description is the second of the two chief objects of this paper, I shall first shortly refer to the effects which are produced by inoculation of the actively vegetating Type C. These I described at length in the paper[4] to which reference has been made above, and the observations there recorded have been confirmed by later experiments, particularly by the examination of lesions in animals at varying periods after injection. When a culture of this type is inoculated intraperitoneally the early effect is the local stimulation of the endothelial cells of the peritoneum to proliferation, so that small nodules are formed composed of masses of these endothelial cells, with numbers of the organisms between them. The organism in this type does not show a capacity entering and inhabiting the endothelial cells; it continue active multiplication by budding, with the result that new-formed endothelial cells become compressed, and nodules are vacuolated. Ultimately these nodules consis masses of the organism, with a network of connective-tis like appearance around and between them. Analogous cesses have been observed in other organs and tissues.

The effect which the organism produces when injected the animal body in the form of Type A is of a quite diffe character.

The effects have been uniform with the exception certain number of negative results, which were appare due to the rapid loss of vitality which this type display *vitro* in the media which I employed.

In stating that the results were uniform I do not inten convey that the extent of the lesions produced has b equally great in all the animals used, but that the gen character of the lesions was the same in the diffe animals.

A total of 23 guinea-pigs have been inoculated, and les were produced in 13 of these; 2 were inoculated su taneously without result; the rest were inoculated into peritoneal cavity. Three dogs have been inoculated, 1 the peritoneal cavity, 2 into the mammary gland; in 3 cases lesions were produced. These numbers are of co exclusive of those animals which are still under observat In illustration of the characters of the lesions, I shall desc those in 2 guinea-pigs and 2 dogs.

Description of Figures.

Fig. 1.—Branching columns of parenchyma cells in a connective tis stroma, from an experimental new formation in the oment of the dog. $\frac{1}{6}$ in. obj.

Fig. 2.—New-formed tissue, consisting of cells arranged in alveo like groups, occupying a dilated bronchiole, and extending bey this. From the guinea-pig. $\frac{1}{6}$ in. obj.

Fig. 3.—Carcinoma mammae in the human subject. Shows two sp mens of the organism within parenchyma cells. Stained carm and Gram's method. $\frac{1}{12}$ in. oil immersion.

Fig. 4.—Section from a nodule of new-formed tissue in the omentu the guinea-pig. Shows two specimens of the organism occupy vacuoles in the cells. Stained carmine and Gram's met $\frac{1}{12}$ in. oil immersion.

Fig. 5.—From the liver of the guinea-pig occupied by nodules of n formed tissue. Shows the origin of this new-formed tissue by liferation of the epithelium of biliary ducts, and its extru from these. $\frac{1}{6}$ in.

Fig. 6.—Section from a nodule of new-formed tissue in the periton of the guinea-pig. Shows a structure composed of large derived from the peritoneal endothelium supported by a fine nective tissue reticulum.

Guinea-pig I.—Inoculated into the peritoneal cavity, k twenty-four days later. Nodules were found in the pe neum, the abdominal glands, the liver, the lungs, and spleen.

The peritoneal nodules consisted of masses of large spherical, and polygonal cells arranged in part in pa columns but also in part in an alveolar manner, in grou the interstices of a stroma. The masses of cell growth not defined at their margins, and in this situation the ty parenchyma cells were seen within perivascular lymp spaces; these cells could be definitely traced to have a by proliferation of the endothelium of the peritoneum.

The glands show areas which stand out when stained the normal gland tissue and the differentiation can be with the naked eye. These areas are found to poss structure which shows a definite resemblance to that o peritoneal nodules both in the character of the cells and arrangement.

The liver nodules are all situated in the portal regions; they consist of oval and spherical cells arra in columns and masses bordered by connective tissue is seen (Fig. 5) that these columns and masses originated by proliferation of the epithelium of the bile ducts; they extend directly from these into the rounding tissue in the portal canals and form masses of siderable size which separate and compress the he lobules.

In the lung the nodules stand out as whitish patch irregular shape; the majority can be traced to a conn with small bronchioles, and from the epithelium of they have arisen; in one or two instances the new-fo cell masses can be seen (Fig. 2) infiltrating along the lu of bronchioles, but for the most part the direction of g has been into the surrounding tissue; the cells of this formed tissue are arranged in an alveolar manner. In a

nodules—peritoneal, glandular, hepatic, and pulmonary—organisms were demonstrated by Gram's method within the new-formed cells.

GUINEA-PIG II.—Inoculated into the peritoneal cavity; killed thirty-seven days later. The nodules in the peritoneum consist of oval and polygonal cells with a large cell body and large spherical and oval nuclei (Fig. 6). Lymphocytes are present throughout the nodule in fair numbers. The arrangement of the cells is similar to that described in Guinea-pig I. The mesenteric glands are occupied by masses of cell growth, which reproduces in the character of the cells and their arrangement the characteristics of the nodules in the peritoneum.

The liver nodules are numerous; the type of the cells composing these nodules and their arrangement are exactly similar to those of the peritoneal nodules. The new cell growth cannot, as in Guinea-pig I, be traced to the small bile ducts, and its structure is different from that found in Guinea-pig I.

I have recently had the opportunity of examining sections of a peritoneal carcinoma in the human subject kindly placed at my disposal by Dr. A. S. Grünbaum, and I find that the structure of this shows a marked resemblance to that of the nodules I have described in these guinea-pigs.

DOG I.—Killed forty-two days after intraperitoneal inoculation. Nodules were seen with the naked eye in the omentum, mesenteric glands, liver, and spleen. The omental nodules consist of a parenchyma and a stroma. The parenchyma consists of branched columns of epithelium-like cells irregularly arranged (Fig. 1). They can be traced from the surface endothelium, where their arrangement is in masses, downwards to the deeper parts, where they lie in a dense stroma. The mesenteric glands appear to be infiltrated with new tissue which can be seen with the naked eye. This is similar in structure to the omental nodules in regard to both the character and arrangement of the cells. Nodules in the liver are situated in relation to the portal canals, and between them the liver parenchyma is compressed; they consist of branching columns of cells and of fine tubules in a connective-tissue stroma; the cells composing the columns and tubules show characters which are identical with those of the epithelium of the bile ducts, but there are appearances also which seem to connect these cells with the parenchyma of the liver lobules, and the exact histogenesis of the nodules is somewhat uncertain. The spleen is studded with nodules; the structure of these is somewhat indistinct, but their general characters resemble those of nodules in the peritoneum.

DOG II.—Killed eighty-two days after inoculation into the mammary gland. A single nodule the size of a large hazelnut was present in the mamma, and there were numerous nodules in the spleen. The mammary nodule was composed of cells with large body and spherical or oval nuclei, supported by a fine connective tissue; lymphocytes were scattered throughout. The large cells are arranged for the most part in parallel columns within the stroma interstices, but the arrangement cannot be said to be regular or to have assumed a definite type. The nodules in the spleen are fibrocellular; they are not marked off from the splenic pulp by any fibrous boundary; the cells are arranged in groups within the connective-tissue stroma, but their histogenesis is uncertain. The stroma is denser than in the mammary nodule, and the nodule on the whole does not reproduce the characters of the latter, although it bears some resemblance to it.

These four examples illustrate the character of the new tissue formation which follows inoculation with the organism; in one animal alone were there nodules in the kidney; these consisted of groups of cells arranged in a distinctly alveolar manner in a fine stroma, and derived by proliferation from the epithelial cells of the renal tubules.

In all the lesions examined the characteristic organisms were demonstrated as intracellular parasites; occasionally intercellular specimens were seen.

SUMMARY OF THE INOCULATION RESULTS.

The organism showed a capacity for initiating active proliferation of endothelial and epithelial cells. The new-formed tissue resulting from this showed a parenchyma and a stroma, and at its edges a progressive growth without encapsulation. In neighbouring glands there was found in some instances a formation of new tissue whose structure resembled that of the primary nodules. The nodules in viscera appeared as a rule to arise from epithelium *in loco*, and showed a capacity for active growth and infiltration similar to that observed in the nodules arising from endothelium. In one instance, at least, new-formed tissue in the liver reproduced exactly the characters of nodules in peritoneum and mesenteric glands, and, assuming that the observation that it did not arise from cells *in loco* was correct, must be considered a true visceral metastasis.

DEMONSTRATION OF THE ORGANISM IN HUMAN CARCINOMA.

Having found that the organism was demonstrated by Gram's method within the cells of the experimentally-produced nodules, the application of this method to carcinoma mammae naturally followed.

My observations on this point have up to the present been few in number and relate to three cases only. In these three carcinomata Gram's method shows the presence within the parenchyma cells of bodies which give the same staining reaction (Fig. 3) and have the same general appearance as the parasites in the cells of the experimentally-produced nodules; in the latter they were few in number in most cases, and in the carcinomata also they were not numerous. In the nodules they have been described as occupying vacuoles in the cells outside the nucleus, in the carcinomata they occupy the same position; in both cases they were also seen within nuclei forms which presented the same appearances, but this was an exceptional occurrence.

SUMMARY OF RESEARCHES.

1. From a considerable proportion (58.3 per cent.) of specimens of carcinoma mammae an organism presenting characteristic features was isolated.
2. This organism presents a life-history in which two cycles were traced—the one a vegetative budding cycle, the other a sporulating cycle.
3. The organism when injected into animals is capable of infecting and inhabiting endothelial and epithelial cells.
4. The organism initiates in endothelium and epithelium a process of proliferation, as a result of which masses of new-formed tissue are built up which consist of a parenchyma and a stroma, and grow and extend actively from their centres of origin.
5. This new cell-mass formation may be associated with growth of a similar character in neighbouring glands, and some evidence was also provided that visceral metastasis occurs.
6. Intracellular bodies are demonstrable in carcinomata mammae, which present the same features as the intracellular parasites of the experimentally produced nodules.
7. The evidence derived from these researches points to the conclusion that the organism described is an etiological factor in the morbid process known as carcinoma mammae.

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REFERENCES.

[1] *Proc. Roy. Soc.*, December 14th, 1899. [2] *Thompson-Yates and Johnston Laboratories Report*, vol. v, part 1, 1903. [3] Ibid. [4] *Proc. Roy. Soc.*, December 14th, 1899.

CARCINOMA OF THE COLON AND ITS TREATMENT BY COLECTOMY.*

[WITH ABSTRACTS OF SEVEN SUCCESSFUL CASES.]

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GENTLEMEN,—When your President invited me to read a paper before this Society I was engaged in collecting and following up my cases of colectomy for carcinoma of the colon. I was going to publish a bare record of the cases, but, when your President assured me that it would be difficult to find a subject which, at the present time, would be of more interest to you than that of colectomy for malignant disease of the colon, I determined to recast my paper and give it a somewhat more general character in order to fit it for an address to this Society.

The subject of carcinoma of the colon is, I think, worthy of close attention, for it presents a very hopeful field for surgery if only the cases can be dealt with in an early stage. Given early cases, with the patients in good condition, not only should the immediate results be good, but a large percentage of permanent cures should be possible. Columnar-celled

* A paper read at a meeting of the East Sussex Medico-Chirurgical Society on November 17th, 1903.

carcinoma, as it occurs in the intestines, is apparently the least malignant of the carcinomata. Carcinoma of the rectum is well known to persist for a long time without greatly impairing the health, unless it gives rise to obstruction of the bowels, or leads, by local extension, to some grave complication. The same is true of carcinoma of the colon. Its tendency to implicate the neighbouring lymphatic glands, and to reproduce itself in distant organs is slight, and only noticed in late stages of the disease. It has often happened that a carcinoma of the bowel has proved fatal by causing intestinal obstruction, and that no evidence of secondary growths could be detected at the necropsy.

From this it follows that if cases of carcinoma of the colon are diagnosed whilst they are still in an early stage and are submitted to operation at once, and that if all visible and palpable disease is removed, there are good grounds for expecting prolonged immunity, even if a permanent cure is too much to be hoped for. But before it is possible to advise a patient to submit to an operation of such apparent gravity as colectomy for a disease which is one of slow progress, and which, at the time the decision has to be taken, may give no indications for an immediately fatal ending, it is necessary to be able to assure him that his chances of recovery from the operation are good. It is not possible to gauge these chances at all accurately at present, more experience is necessary; but it is well known that in comparison with other operations of the first magnitude, the results, both immediate and remote, of colectomy for carcinoma of the colon when unattended with intestinal obstruction, are good. I have myself performed colectomy in seven cases of carcinoma of the colon, and in all the operations were immediately successful, and with the exception of one patient who died from heart disease four years after the operation, they are all alive and well at the present time—at periods ranging from two months to over four years from the time of their operations.

These results would certainly justify us in recommending operation in the early stages of carcinoma of the colon, if only the disease could be diagnosed early. But *there* is the difficulty. The disease begins so insidiously that in the majority of cases its presence is not suspected until it is already far advanced, and in not a few it is unsuspected until a tumour is accidentally discovered, or until an attack of acute intestinal obstruction occurs.

It cannot be too strongly insisted upon that in cases of chronic illness, however slight, associated with dyspeptic symptoms, a systematic physical examination of the abdomen should be made. A tumour in connexion either with the stomach or the intestine, or some other organ, may be detected when least suspected.

Let us first of all consider the symptoms which are most commonly found in connexion with carcinoma of the colon. They are just such symptoms as might be expected to be caused by a growth which offered some impediment to the passage of the intestinal contents. Indigestion, in which flatulence is a marked feature, is one of the commonest symptoms. Sometimes patients are troubled with nausea and sickness, but flatulence is an almost constant symptom. It is doubtless due to the partial retention and decomposition of intestinal contents. The retention may be more complete and may result in marked constipation with the accumulation of scybalous masses of faeces on the proximal side of the growth. The scybala cause irritation of the mucous membrane and, by inducing effusion of fluid into the bowel, set up a sort of spurious diarrhoea. This symptom has been a characteristic one in several of the cases which have come under my notice. Alternating constipation and diarrhoea is, as is well known, a frequent symptom of chronic obstruction of the large intestine. In most cases pain occurs sooner or later. It may be slight and not very distinctly localized, or it may be constantly referred to some particular spot. It may, at first, be no more than a feeling of discomfort, which may be relieved or aggravated by some particular movement. But in many cases, without any definite obstruction occurring, the pain is very severe. It comes on in attacks and is evidently due to intestinal colic. This symptom was very marked in my third and fifth cases. In Case III it was associated with much flatulence. The growth was situated in the splenic flexure, and the patient described the attacks of pain as beginning in the right iliac fossa and travelling along the course of the colon to the left hypochondrium. The attacks of pain got more and more severe until he felt a gurgling and the passage of flatus down the left loin, when he obtained relief. In Case V the pain was greatly aggravated by meals, particularly of solid food; and in consequence of this symptom the patient had, for some months before his operation, restricted himself to liquid food. It is not surprising that patients who have been troubled with these symptoms should have lost flesh; and in all my cases loss of flesh had been a marked feature, but they had all reached a fairly advanced stage when they came under my notice.

When most of the symptoms already mentioned occur together, we get a fairly characteristic clinical picture, and when there is added to them another symptom, the evidence of a growth in the bowel is nearly complete. The symptom I refer to is haemorrhage from the bowel. The bleeding may be only sufficient to cause melaena, or it may be profuse enough for unaltered blood to be passed from the bowel. In two of my cases—Cases III and V—a quantity of bright blood was passed per rectum.

In the presence of some or all of these symptoms a careful physical examination should be made, and very probably an abdominal tumour will be readily detected. If the surgeon is in doubt, it is much wiser to insist on the necessity of making an examination under an anaesthetic, with relaxed abdominal walls, than to run the risk of missing the tumour.

In some cases the symptoms are slight and do not trouble the patients much; and, indeed, the tumour itself may be the first thing to definitely arrest their attention. This was so in my second, sixth, and seventh cases.

So long as there is no obstruction of the bowels, with consequent abdominal distension, the detection of a large tumour of the colon is generally easy. Sometimes, however, the growth is quite small although it constricts the bowel considerably. A growth of this kind would be very difficult, and perhaps impossible, to feel, especially if it occupied the splenic flexure and was hidden in the left hypochondrium, or if it occupied the sigmoid flexure and, owing to the presence of a long meso-colon, hung down into the pelvis.

In an ordinary case there is a tumour to be felt somewhere in the course of the colon by abdominal palpation. The seven cases which I am at present chiefly considering were located as follows—two in the ascending colon, two about the splenic flexure, one in the descending colon, one about the middle of the sigmoid flexure, and one at about the junction of the latter with the rectum. I have also met with cases of carcinoma of the caecum and of the hepatic flexure of the colon, but I do not recollect a case in which the transverse colon was primarily involved at a distance from the hepatic and splenic flexures. Such cases have been recorded, however, and I have met with a case in which the middle of the transverse colon was invelved by extension of a carcinoma which was primarily situated in the small intestine—at the beginning of the jejunum. It follows, therefore, that the tumours of the colon are generally situated in the lateral parts of the abdomen—in the hypochondriac, lumbar, and iliac regions.

In the early stages, before the growths have become adherent to the abdominal wall, they are very movable, and then, in the absence of localizing symptoms, the question of diagnosis from movable kidney has often arisen. This question actually did arise in two of my cases. In Case III the growth occupied the lower part of the left hypochondriac and the upper part of the lumbar regions. It was so movable that it could be displaced upwards entirely beneath the ribs on the left side as well as quite over to the opposite side of the abdomen. This tumour was thought by another surgeon to be a movable kidney, and the symptoms and signs—flatulence, severe attacks of colicky pains and haemorrhage from the bowel—were attributed to other causes. Now, in my experience, it has generally proved to be true, when there were well-marked symptoms and a well-marked physical condition which could quite reasonably be the cause of these symptoms, that the physical condition was really the cause of the symptoms. Relying on this general principle, I was strongly of opinion that in this case, although the patient was only 29 years of age, we had to do with a tumour of the large intestine. This view gained support from the superficial position of the tumour and the irregularity of its outline, and especially from the fact that a swelling, which I took to be the normal kidney, could be felt behind the tumour, and unconnected with it, in the proper position for the kidney. In another case—No. VII—the possibility of the tumour being a displaced kidney was raised with more justification, for the tumour had somewhat the shape of the kidney, and had a smooth surface, and the patient complained of frequency of micturition, and made no other complaint until he was questioned. He then said that he had been troubled with diar-

oea on and off during the last two months, and that he had ot passed a formed stool during the last three weeks, that he id been subject to slight attacks of pain in his left side, and at he had latterly been losing flesh. In this case the mour had not much mobility. It could be moved a little teraliy and a little downwards, but hardly at all upwards. ow, in my experience, a displaced kidney can always be re-rned by manual pressure to the normal position of a kidney, id I am inclined to rely absolutely on this sign.

It is, of course, obviously possible for a displaced kidney get fixed by perinephritis, but then there would be evi-ences of kidney disease in the state of the urine. I have awn attention to the fact that carcinoma of the colon gives se, to begin with, to a movable tumour, and that it is owing secondary adhesions that the mobility is lost later on. his was so in Cases IV and V, and to a less extent in Case VII, all of which the bowel had become adherent to the parietal eritoneum.

Carcinoma of the colon may become adherent to another rgan, and thus acquire the physical signs of that other organ. his possibility is well illustrated by my second case, in hich a carcinomatous tumour of the splenic flexure of the olon had extended into the left kidney, and the two together rmed a tumour which I thought was a renal tumour. Its hysical signs were exactly like those of a renal tumour, and lthough there were no urinary signs of renal disease, the mptoms were not inconsistent with a renal source.

A carcinoma situated at about the hepatic flexure of the olon might, so far as its physical signs were concerned, semble an enlarged gall bladder or a growth of the pyloric ortion of the stomach. I had such a case a few months ago, ut it proved to be inoperable. The patient had been ailing id losing flesh for two years. He complained of discomfort the abdomen just below the ribs on the right side. Under anaesthetic a lump could be felt there. The only localizing mptoms were occasional sickness and diarrhoea. The vomit id only consisted of partially digested food; it had never en very voluminous, and had never contained blood. The mour was a big one, and, if it had been situated in the yloric portion of the stomach, I should have expected more vidence of pyloric obstruction. In these circumstances the mour was correctly diagnosed as carcinoma of the hepatic exure of the colon.

It must not be forgotten that a tumour of the splenic exure or the neighbouring part of the transverse colon ay invade the stomach, and that then stomach symptoms ay overhadow those due to the original disease in the olon.

There were special difficulties in diagnosis in Case V owing to e position of the growth. The symptoms, however, were of emselves almost conclusive. Attacks of griping pains had en of daily occurrence for nine months before the operation; ey were much worse after food, and particularly after solid od. Loss of appetite and loss of flesh had been marked for ven months. Aperients had been required regularly during e previous half-year and on many occasions the motions had ntained blood. Malignant disease of the large intestine was course suspected to be the cause of these symptoms, but, at rst, no tumour could be detected either by abdominal or ctal examination. Another surgeon had examined the atient with the assistance of an anaesthetic and had failed to tect the growth. The patient was brought to me on the dvice of Dr. Sidney Martin by Dr. Dill Russell, of Fortis reen, who had been able to throw much light on e case. He had found a piece of new growth in the notion and he had succeeded in feeling the tumour y rectal examination. When I saw the patient first, neither r. Russell nor I could feel the tumour, but I was satisfied at it was there, and I arranged to operate. Dr. Russell, owever, felt it again a few days later, and on the day before e operation I succeeded without an anaesthetic in feeling e tumour quite distinctly by rectal examination. The ucous membrane of the rectum was normal, and the growth, hich could be felt to be outside the rectum, was evidently con-ected with the bowel higher up. At the operation it was und to be situated at the junction of the sigmoid flexure ith the rectum. In this case the evidence pointing to the resence of a tumour of the colon was very strong, and I etermined to operate although I could not at that time feel e tumour. But I think it would be right to do an explora-ry operation in cases in which the symptoms were less efinite than they were in this case, provided that they were aracteristic and persistent; for it must not be forgotten at some carcinomatous growths of the colon, although they cause a good deal of constriction of its lumen, are so small that they cannot be felt through the abdominal wall.

Now I come to the subject of treatment, and, in regard to that, there are two classes of cases to be considered—those in which there is acute obstruction of the bowels and those in which there is no material obstruction. It is mainly with the latter class of cases that I am at present concerned, but with regard to the former a few words will not be out of place, particularly as one of my cases belonged to that class.

In cases of acute obstruction due to carcinoma of the colon it will rarely be possible to feel the growth, and the exact site of the obstruction will be incapable of determination. No reliance can be placed on statistics of relative frequency. It would, undoubtedly, be a mistake to do typhlotomy with the idea that the obstruction would certainly be relieved by opening the caecum. A better procedure would be to explore the abdomen through a median incision below the umbilicus, as I did in Case I, and possibly the surgeon may be fortunate enough to find, as I was in that case, that the growth is situated in a portion of bowel sufficiently mobile to allow of its being brought up to the surface. If the piece of bowel containing the tumour can be withdrawn from the abdomen, the obstruction may be relieved by opening the bowel on the proximal side of the growth and tying in a Paul's tube. Later on the piece of bowel containing the growth may be excised, and still later the continuity of the intestinal canal may be re-established. It the growth cannot be readily brought out of the wound I think it best not to meddle with it at all at that time, but to relieve the obstruction by making a temporary artificial anus higher up, and at a later date, on the subsidence of all acute symptoms, to remove the growth through an incision made directly over it.

And now let me turn to the consideration of the other class of cases: those in which there is no material obstruction of the bowels, but in which the symptoms and physical signs have led to the diagnosis of carcinoma of the colon—cases in which a tumour can be felt. As a general rule the incision should be made directly over the tumour, and it should be made long enough to allow of the necessary manipulations being readily carried out. Want of room uselessly hampers manipulation and adds to the risks of the operation in several ways. If the growth is at the upper end of the rectum and cannot be felt through the abdominal wall, as in Case V, the incision may be most conveniently made in the lower part of the left linea semilunaris.

Having opened the abdomen, the surgeon must, first of all, decide whether the operation of colectomy is justifiable, and, if so, whether it seems possible to carry it through successfully. He must make a thorough examination of the tumour and its connexions, and search for secondary growths both in the lymphatic glands and in the liver. If there are secondary growths in the liver, or if the lymphatic glands are the seats of undoubted and widespread secondary growths, it would not be justifiable to expose the patient to the risks of colectomy. But in this connexion it should be borne in mind that mere enlargement of the lymphatic glands does not of necessity imply carcinomatous infection. Both clinical and pathological experience has shown that the glands may be considerably enlarged without their being carcinomatous. In Cases IV and VI the lymphatic glands were much enlarged, but not carcinomatous, I think. It is now over two years since Case IV was operated upon, and there is no evidence of recurrence. It is only six months since Case VI was operated upon and so the clinical evidence is not so conclusive, but in that case I removed a few of the largest glands, and the Surgical Registrar at University College Hospital examined them carefully, but failed to detect any evidence of carcinomatous infection. Mere enlargement of lymphatic glands then should not, I think, contraindicate colectomy.

But before commencing to separate the bowel the surgeon should carefully examine the relations of the growth and satisfy himself that it is removable. It may have involved the abdominal wall too extensively for removal or it may have invaded some neighbouring organ of importance which it is not feasible to remove, or, on the other hand, which could be removed, if only the patient were strong enough to bear the operation. If the growth had involved a coil of jejunum or ileum its removal would still be possible if the patient's condition was good enough to warrant the surgeon's subjecting him to a double enterectomy. I have removed the sigmoid flexure of the colon together with three feet of small intestine myself in a case which at the time of the operation I thought was one of carcinoma of the sigmoid flexure to which some coils of ileum had become firmly connected by

inflammatory adhesions. The patient made a normal recovery, and the case has been already reported.[1] It is not, however, included in this series of cases, abstracts of which are in your hands, because subsequent examination showed the tumour and the adhesions to be of a simple inflammatory nature. I have had two other cases in which both the large and small intestine were involved by undoubted carcinomatous tumours; but in neither of these cases was complete removal of the diseased structures possible.

In one the primary growth was in the hepatic flexure of the colon, and it had spread back into the second part of the duodenum and had implicated the anterior and inner parts of its circumference. Had it been possible to perform the double enterorrhaphy satisfactorily there would still have been the common bile duct and the pancreatic duct to deal with, and they would have presented insuperable difficulties, I think. In the other case the tumour involved the jejunum just at its commencement and the colon in the transverse portion. The latter could have been dealt with readily enough, but in order to remove the growth in the jejunum it would have been necessary to divide the bowel close to the termination of the third part of the duodenum. Owing to the immobility of this portion of the duodenum the reunion of the divided small intestine seemed impossible. And, further, it seemed likely that removal of the growth would have involved injury to the superior mesenteric artery—a necessarily fatal accident. In this case a short-circuiting operation was done and it afforded great relief to the patient.

Carcinoma of the transverse colon is also liable to invade the stomach, but that is not a complication which would present insuperable difficulties to the surgeon unless the extent of stomach involved was too great for removal. Solid viscera may be implicated also, as happened in my second case, in which the growth, primarily situated in the splenic flexure of the colon, had extended into the kidney and the tail of the pancreas, and necessitated the removal of the kidney and a portion of the pancreas, together with the splenic flexure and neighbouring parts of the colon.

In those cases in which the radical operation of colectomy is impossible, owing to the infiltration of the growth into irremovable structures, or in which it is not justifiable to expose the patient to the risks of colectomy, because of the presence of secondary growths incapable of removal, relief may be afforded by the less serious operation of short-circuiting.

Before commencing to isolate the piece of bowel containing the growth, the surgeon should try to determine what length of bowel will need removal. Now this will primarily depend on the extent of bowel involved in the growth, but it will also depend upon what is called for in order to make a satisfactory union of the divided ends. In cases of carcinoma of the ascending colon, the surgeon will have to determine whether the caecum will have to be removed or not. This decision will depend on the extent of healthy bowel which intervenes between the growth and the caecum. In Case IV it was unnecessary to remove the caecum because, after division of the colon at a sufficient distance from the growth, there was still enough bowel above the ilio-caecal valve to suffice for its union with the distal segment. In Case VI it was not possible to preserve the caecum, because the mere removal of the growth would have necessitated division of the colon just above the ileo-caecal valve.

Again, in order to perform the operation with the least risk of septic infection it is necessary that both the divided ends should be sufficiently mobile to allow of their being manipulated outside the abdomen. In both the cases just referred to it was necessary to remove the whole of the upper part of the ascending colon because it was involved in the growth. Consequently, the distal section lay in the transverse colon, which, owing to its long mesocolon, was mobile enough to be brought into contact with the proximal end. But sometimes the needs of the enterorrhaphy call for the removal of more bowel than would have been required if the mere eradication of the growth had been all that needed consideration. This point is illustrated by Case VII, in which the growth occupied the lower end of the descending colon, and in which adequately wide removal of the growth could have been effected by division of the bowel below the splenic flexure. But section at that spot would not have provided two segments of sufficient mobility to allow of their being brought together without causing great tension, and still less to permit of their being brought outside the abdomen during the performance of the operation. As is well known, the splenic flexure of the colon is held firmly up by the pleurocolic fold and the other peritoneal folds, and, in the case under consideration, it was only after these folds, together with the blood vessels contained in them, had been divided and the transverse colon reached that a sufficiently mobile piece of gut was obtained. At the lower end, also, it was necessary, with the same object, to divide the bowel well within the sigmoid flexure. Cases of colectomy in the course of the ascending and descending portions of the colon have been recorded in which, owing to want of attention to this point, sloughing of the bowel, which was attributed to strain on the mesocolon, had occurred. And, again, in considering this same question—the length of bowel which should be removed—it is all-important to consider the vascular supply of the pieces of bowel to be united. If there is any suspicion of the adequacy of the vascular supply, a little more of the bowel should be removed. For instance, in Case VI, in separating the attachments of the caecum, it appeared that the blood supply of the lower end of the ileum had been interfered with; and so, in order to avoid any risk of sloughing, 5 in. of the ileum were removed as well.

Having decided to proceed with the colectomy, and having settled upon the length of bowel to be removed, the surgeon should carefully isolate the field of operation from the rest of the abdomen by packing in large folds of sterile gauze. He may then begin to free the bowel. The growth, together with the whole piece of bowel to be removed, should be loosened from all its attachments by ligaturing and dividing the mesocolon and other peritoneal folds connected with it. In doing this the greatest care must be taken of important structures in relation with it, such as the ureter and the renal vessels. Of course, if those or other removable structures were involved in the growth they would have to be sacrificed. In Case II the growth had invaded the kidney, and the renal pelvis, and in consequence the kidney was taken away along with the tumour. The same treatment would in all probability be required if the ureter was involved.

In separating the parts to be removed it is necessary to be constantly on the look-out in order to avoid injuring blood vessels supplying other tissues, and particularly the stomach and portion of intestine which are not going to be removed. The piece of bowel being separated, it should be withdrawn from the abdomen and emptied by passing it through the fingers. It should then be clamped two or three inches beyond the places at which the bowel is to be divided, and another pair of clamps should be put on the bowel to be removed close to the points of section. After trying various kinds of clamps I have come to the conclusion that there is nothing better for the purpose than Doyen's forceps.

At this stage the gauze packing, which has been used to isolate the field of the operation from the rest of the abdomen, should be changed, and additional strips of gauze should be packed into the wound beneath the separated loop of bowel, and particularly about the lines of section, in order to mop up anything which escapes from the bowel when it is cut across. The section of the gut must be made close up to the unseparated mesentery or mesocolon, and it is well to make the sections rather obliquely, more bowel being removed on the side opposite the mesenteric attachment, so that they may lie within an area of as good vascular supply as possible. In removing the piece of bowel the greatest care should be taken to avoid contamination of anything remaining in the field of operation. If at this time, or at any time, any of the gauze packing gets contaminated, it should be removed at once and replaced by fresh. The interior of the pieces of bowel about to be stitched together is a constant source of contamination of the fingers, and, through them, of the exterior of the bowel, and even of the abdominal wall. In order to reduce this risk to a minimum the open ends of bowel beyond the clamps should be thoroughly wiped out with little swabs of dry gauze held on forceps, and finally the mucous membrane of these portions of the bowel should, so far as this is possible, be disinfected by mopping it over several times with swabs of gauze moistened with some antiseptic—such, for instance, as 1 in 1,000 solution of perchloride of mercury.

Everything is now ready for the union of the bowel. In my opinion simple stitching is preferable to any form of mechanical contrivance with which I am acquainted, and I have used it exclusively during the last four years in all my operations on the stomach and intestines. In Case II of this series I used a Murphy button, but not because at that time I preferred it to simple suture, but because the operation had been a severe one and had caused so much shock that it was thought advisable to complete it as quickly as pos-

[1] *Lancet*, 1903, vol. i, p. 871.

No.	Age.	Sex.	Nature & Situation of Growth	Duration & Nature of Symptoms.	Physical Signs at Operation.	Nature of Operation.	Immediate Result.	Result at late...	
1	54	M.	Columnar celled carcinoma of the sigmoid flexure. The tumour was about the size of a fist. There was a long mesocolon. Lymphatic glands not enlarged	An attack of sickness accompanied by constipation occurred 5 months before acute symptoms supervened. Bowels constipated since but no other signs. Acute symptoms 5 days	Signs of acute intestinal obstruction. No tumour could be felt	Median laparotomy on March 17, 1903. Growth in sigmoid flexure felt. Incision as for inguinal colotomy made, and the growth, together with the whole of the sigmoid flexure drawn outside the wound. A Paul's tube was tied in the colon above the growth. On about the fourteenth day the growth, together with the neighbouring part of the colon, was excised	The patient made a slow but perfect recovery. He had some septic infection of the right side of his chest—apparently pneumonic	The patient lived for 4 years without any evidence of recurrence. He enjoyed very good health and died suddenly—in 15 minutes after the onset of severe pain in his chest	Private case brought to me by Mr. Noble, of Kendal who was present at the operation. The patient was so comfortable that he declined a further operation to close the artificial anus
2	55	F.	Columnar celled carcinoma of the splenic flexure, which had invaded the left kidney, the pelvis of the kidney, and ¾ in. of the tail of the pancreas. No obvious implication of lymphatic glands	Ailing 5 months. Two severe attacks of colic accompanied by diarrhœa 4 months, and 1 month before operation; otherwise no trouble with bowels. Dragging and aching pain in left loin 2 months	There was a tumour in the left loin having the character of a renal tumour. Urine normal	Left kidney exposed by the usual oblique lumbar incision on September 14, 1899. The nature of the case being determined, the renal vessels and the ureter were tied and divided, the pancreas was divided through healthy tissue. Peritoneal connections being tied off and divided, the whole mass was brought out of the wound. The transverse colon and descending colon were each divided 2 inches from the growth, and end to end union of the bowel was effected by means of Murphy's button. Part of the wound was plugged with iodoform gauze	The Murphy button obstructed the bowel, and on the fifth day the symptoms became so urgent that typhlotomy was done with local anæsthesia. The urgent symptoms were at once relieved and the patient made a slow but perfect recovery. The Murphy button was removed from the rectum on the eighteenth day after the operation	On October 27, 1903—rather over 4 years after the operation—the patient was in very good health and was stouter. Her bowels acted normally. No sign of recurrence could be detected.	This patient was sent to me by Dr. Herbert Spencer, and was operated upon at University College Hospital. The specimen is in the museum of University College.
3	29	M	Colloid carcinoma of the splenic flexure, making a tumour about the size of a fist. It was covered by adherent omentum. All the peritoneal folds were long. Lymphatic glands not enlarged.	Flatulent dyspepsia 4 years. Aggravation of symptoms and loss of weight 18 months. Severe attacks of colicky pains at intervals of about 3 weeks for about 14 months. At these periods the bowels were usually relaxed, and towards the termination of an attack a quantity of bright blood was often passed.	To the left of and just below the umbilicus there was a well-defined, very movable tumour. It could be pushed to the opposite side of the abdomen as well as into the left hypochondrium	On April 8, 1901, the tumour was exposed through an incision in the left linea semilunaris and drawn out of the abdomen. The peritoneal connections were tied and divided, and the tumour, with 2 inches of healthy bowel on either side of it, was removed. End to end union of the bowel was effected by two rows of continuous silk sutures. The wound in the abdominal wall was completely closed	The patient made a quick and complete recovery	On October 23, 1903—2½ years after the operation—the patient was "as fit as possible." He had no bad symptoms and he was actively engaged in his profession as an engineer	Private case sent to me by Dr. Winder of Aylesbury. The specimen is in the museum of University College
4	40	F	Columnar celled carcinoma of ascending colon extending from about 2½ in. above the ileo-cæcal valve to just below the hepatic flexure. The great omentum was adherent to the growth and the outer surface of the latter was adherent to the parietal peritoneum. The neighbouring mesenteric glands were enlarged	Marked constipation for 5 years. Pain in the right iliac fossa together with flatulence and abdominal distension 3 months	There was a firm, tender swelling about the size of an orange in the lower part of the right loin and the upper part of the iliac fossa. It was not movable	On August 14, 1901, the tumour was exposed by an oblique incision directly over it. The great omentum and the ascending and transverse mesocolon from just above the cæcum to a little beyond the hepatic flexure, had to be tied and divided before the tumour could be brought out of the abdomen. The parietal peritoneum in the loin to which the growth was adherent was removed with the tumour. The colon was divided above a little beyond the hepatic flexure, and below 1½ inches above the ileo-cæcal valve, and the two cut ends of the bowel were united by two rows of continuous silk sutures. The abdominal wound was completely closed	The patient's convalescence was delayed by phlebitis of the left saphenous vein, otherwise her recovery was uneventful	On October 25, 1903—2 years and 2 months after the operation—Dr. Stevens reported the patient "is perfectly well, there is no sign of any return of the growth, and, indeed, the bowels are acting now better than I have ever known them to do"	Private case brought to me at Sir T. Barlow's suggestion by Dr. Stevens of Braintree, who was present at the operation. The specimen is in the museum of University College.
5	54	M	Carcinoma of the lower end of the sigmoid flexure and the upper end of the rectum. The growth hung down into the pelvis and had apparently stretched and lengthened the mesorectum. Lymphatic glands not enlarged	Attacks of griping pains in the abdomen began 9 months before operation. They recurred daily. They were much worse after food and particularly after solid food. Motions often contained blood. Poor appetite and loss of flesh for 7 months. Constipation requiring aperients for 6 months	No mass to be felt by abdominal palpation. No growth could be felt in the rectum, but on three occasions a mass could be felt through the rectum occupying the upper part of the pelvis on the left side	The operation was performed on January 28, 1903. The incision was placed low down in the left linea semilunaris. The sigmoid mesocolon and the mesorectum were tied and divided, and the growth brought outside the abdomen. The growth, together with 2 inches of healthy bowel on each side, was removed. End to end union was effected by means of two rows of continuous silk stitches. The abdominal wound was completely closed	The patient made an uninterrupted recovery	On October 30, 1903—9 months after the operation—the patient was quite well and had put on flesh. His bowels acted naturally and he was free from pain and discomfort. He had returned to his business from which he had previously retired owing to his ill-health	A private case brought to me on the advice of Dr. Sidney Martin by Dr. Dill Russell, who assisted at the operation. The growth which was suspected to be present by others was felt first by Dr. Russell. The specimen is preserved in University College Museum.
6	49	F.	Columnar celled carcinoma of ascending colon which was much shortened and diseased from just above the cæcum to near the hepatic flexure. The growth was adherent to the parietal peritoneum for 1½ in. The lymphatic glands were big, but the microscope showed no signs of secondary growth in them	The patient noticed the lump 9½ months before the operation. She had a dull aching pain in it, but had no other symptoms. She had lost a stone in weight in 9 months	There was a well-defined mass, oval in shape, measuring 3 inches by 2 inches, situated in the right iliac fossa immediately internal to the anterior superior spine and the outer third of Poupart's ligament. It had an irregular surface and a hard consistence, and appeared to be fixed to the abdominal wall near the anterior superior iliac spine	The abdomen was opened by an oblique incision over the growth on April 23, 1903. Although the growth did not implicate the cæcum, it reached so near to it that it had to be removed. The adherent peritoneum was stripped off and removed with the growth. The lower end of the mesentery, the ascending mesocolon, and a portion of the transverse mesocolon, were tied and divided, and the bowel brought outside the abdomen. The small intestine was divided 5 inches from the ileo-cæcal valve, and the large intestine just beyond the hepatic flexure. The ends of the two pieces of bowel were closed by two rows of continuous silk sutures, and then the small intestine was united to the large by lateral anastomosis, the apposition being secured by two rows of continuous silk sutures. The abdominal wound was completely closed	The patient made an uneventful recovery so far as the operation was concerned, but her convalescence was delayed by phlebitis of the left internal saphenous vein	On October 22, 1903—6 months after the operation—patient was very well in health. She had lost the cachectic look she previously had. Her bowels acted quite normally. She had gained 2 stones in weight	This patient was sent to me by Dr. Herbert Spencer, and was operated upon in University College Hospital. The specimen is preserved in the Museum of University College.
7	36	M	Columnar celled carcinoma of the descending colon. The growth was very fixed. Its extra-peritoneal surface was covered by a considerable thickness of fat indurated by chronic inflammation, and its peritoneal surface was adherent to the parietal peritoneum over a considerable area. The lymphatic glands were not obviously enlarged.	Diarrhœa off and on for 2 months and no formed stool passed for 3 weeks. Slight intermittent pain in left side. Had frequency of micturition, for which he consulted his doctor, about a month. Some loss of flesh	Deeply seated in left loin was a rounded tumour about 2½ inches across. Its lower margin was 2 inches above the anterior superior iliac spine. The tumour was smooth on the surface and rather kidney-shaped. Mobility was very limited and especially in an upward direction	The operation was performed on August 31, 1903. In order to mobilise the bowel sufficiently to bring the tumour out of the wound its mesocolic attachments had to be divided as low as the sigmoid mesocolon, and owing to the fixation of the splenic flexure by the pleurocolic fold the upward separation of the bowel had to extend to the mobile transverse colon before the two divided ends of the bowel could be brought into apposition. End to end union of the bowel was effected by means of two rows of continuous silk stitches. The abdominal wound was completely closed	So far as the bowel was concerned recovery was normal, but convalsecence was delayed by some superficial infection of the wound	At the end of October, 1903—2 months after the operation—the patient was quite well. He had gained 21 lbs in weight	This patient was sent to me by Dr. Norman, of Havant, and was operated upon in University College Hospital. The specimen is in University College Museum.

sible. I used the largest size button, and the patient finally did well and she is still alive and well, but the button was very nearly the cause of her death. In the small intestine the Murphy button may possibly be used safely, but in the large bowel its use is attended with an additional risk, which is well illustrated by this case. The lumen of the bowel evidently got blocked with faeces. No flatus was passed per rectum after the third day after the operation, and on the fifth day I found the patient in a very collapsed state, with a very rapid and feeble pulse; faecal vomiting, too, had come on, and there was great abdominal distension. Without delay and under local anaesthesia I made a little opening into the caecum and tied in a small glass tube and gave vent to a huge quantity of gas. The alarming symptoms then quickly subsided. But if simple stitching is adopted there is still ample choice of methods. It is at present a vexed question whether end-to-end union or lateral union is the better. It is possible to find arguments in favour of each method, and these were well stated by Mr. Makins at the last meeting of the British Medical Association, but experience will alone decide which plan is really the better one. Personally, I must confess to a preference for end-to-end union whenever it is possible. I have only had occasion to perform the operation of enterorrhaphy eight times in cases of chronic intestinal obstruction. In seven of the cases end-to-end union was established, and in the remaining case lateral union was effected. All the cases recovered, and they are all still alive, and so no comparative conclusion can be drawn from the results of my experience. In the case in which I reunited the bowel by lateral anastomosis I selected this method on account of the inequality of the lumina of the two pieces of bowel. It was in Case VI of this series in which the ileum had to be united to the transverse colon.

In this paper I shall only refer to the way in which I perform end-to-end union, because I think that method is the one which is most generally applicable to enterorrhaphy after resection of portions of large intestine for carcinoma. The description of the operation has been already carried to the point where the two ends are ready to be united. The pieces of bowel are first of all linked together by an interrupted stitch at the mesocolic attachment, and then the first row of continuous stitches are inserted from the mucous surface through all the coats of the bowel. I commence the suture at a point well removed from the attachment of the mesocolon—at a place where the bowel has a good peritoneal covering. An experienced assistant is a great help at this stage of the operation, for he is practised in holding the two segments of bowel in apposition, first with his fingers and then with forceps, in such a way that the stitches can be inserted from the mucous surface for fully five-sixths of the circumference. The final sixth of the circumference is obliged to be stitched from the outside—a method which is both slower and less efficient than stitching from the mucous surface. Owing to foresight in commencing the continuous suture at the spot mentioned the weak part of the first row of stitches—the final sixth—will fall at a part of the bowel where the peritoneal covering is compiete, and therefore at a part most favourably situated for being securely controlled by the second row of continuous sutures, which will be inserted from the peritoneal surface according to Lembert's method, and will penetrate all the coats except the mucous. The first row of sutures serves a double purpose. First of all it controls bleeding, and, with this object, the loops of the suture should be drawn tight. If each loop is tightened before the next is inserted there will be no tendency to constrict the bowel by the running together of the loops in the way the loops of a pursestring suture run together. In the second place, it serves as a first line of defence against leakage, and in order that it may fulfil this function as thoroughly as possible great care should be taken to bring peritoneum to peritoneum, and, where there is no peritoneum, muscular coat to muscular coat. Accurate appposition can be assured so long as the stitches can be inserted from the mucous surface; but just at the last, when the sutures have to be put in from the peritoneal surface, it is, I think, impossible to prevent a little mucous membrane showing outside here and there between the loops of the suture. The most difficult part to stitch satisfactorily is that in the neighbourhood of the mesocolic attachment, and it is in order to reduce this difficulty to a minimum that the suture is planned in such a way that the mesocolic portion comes where the stitches can be easily inserted from the mucous surface. The outside suture—the continuous Lembert suture—is the chief defence against leakage. This row of sutures should get as secure a hold of the coats of the bowel as is possible without penetrating the lumen. It should involve the serous, muscular, and submucous coats, but on no account should it implicate the mucous coat. The surgeon's muscular sense soon learns to gauge the amount of resistance offered to the needle. This is distinctly greater when the needle, punctures the mucous coat than when it avoids it. If the surgeon is in doubt whether he has passed the needle too deeply or not he had better withdraw it and reinsert it more superficially. The clamps may be removed after the first line of sutures has been inserted. The gap left in the mesocolon should be closed, if possible, by suturing the two sides together, but if this cannot be done, the cut edges of the mesocolon should be stitched down to some surface, so as to close any opening through which small intestine might pass. The bowel in the neighbourhood of the suture line should be dabbed with a 1 to 1,000 solution of perchloride of mercury and then washed over with sterile salt solution. After the removal of the gauze packing the sutured bowel may be returned to the abdomen. Finally, the wound in the abdominal wall may be completely closed. That is the course I have adopted in all my cases except one. The exception was Case II of this series. The oozing surface left by the removal of the kidney and a portion of the pancreas was so large that it seemed imperative to provide some drainage. This was supplied by a piece of gauze. In an ordinary case there is not likely to be much oozing, and consequently there is no need for drainage.

I have entered with what may be thought to be rather tedious detail into the method of operating which I employed in these cases, and my excuse is that I consider success in the field of intestinal surgery can only be obtained by attention to the minutest details of technique.

The treatment of the cases after operation was conducted on essentially the same lines in all. A rectal injection of normal saline solution was given a few hours after the operation in order to relieve thirst Four hours later rectal feeding was begun. The feeds were given every four hours, and consisted generally of a suppository of beef peptone alternated with a nutrient enema containing 2 oz. of Gerrard's peptones, an ounce of water, and the yolk of an egg. The rectal feeding was continued for four to seven days, according to the tolerance of the rectum. By mouth sips of hot water were allowed from the first, and on the day after the operation some nourishment was given by mouth hourly or every two hours. This consisted, as a rule, of one or other of the following: Half an ounce of albumen water, two teaspoonfuls of liquid peptones diluted with an equal quantity of water, two teaspoonfuls of peptonized milk with an equal quantity of barley-water, or a teaspoonful of raw meat juice in half an ounce of water. The amounts were gradually increased, so that by the end of a week 2 oz. were given every hour. Food was now only given every second or third hour, and the quantity given at a time was correspondingly increased. The patient was at this time allowed to masticate the lean part of an underdone chop and to swallow the juice, but not the solid. A little bread and butter was given once a day, and some Benger's food two or three times a day. By the end of a fortnight after the operation the patient was usually taking light solid food.

In the early days after the operation, whilst the nutrient enemata were used. the rectum was washed out every morning and then half a pint of normal saline solution was injected into the bowel and left in. A rectal tube was frequently passed in order to give vent to flatus, and thus to prevent, as far as possible, strain on the line of sutures. The patients were instructed not to strain in their endeavours to pass flatus, but to ask the nurse to introduce the rectal tube whenever they felt the presence of flatus in the bowel. As a rule the bowels acted as the result of an oil enema, followed by a simple enema on the tenth to fourteenth day after the operation. If necessary a dose of castor oil was given about a fortnight after the operation.

I now come to a consideration of the results, and it is very satisfactory to be able to report that all my cases made good recoveries. Convalescence was delayed, however, in some of the cases by the occurrence of phlebitis of the superficial veins of the leg. It is curious how often phlebitis complicates operations on the bowels. It occurred in three of these cases—the fourth, fifth, and sixth, and in each case it was on the side opposite to that on which the operation had been performed that the phlebitis developed. I have noticed the same complication in cases of appendectomy. I do not see how to explain this complication. Doubtless one factor is

me slight septic contamination of the blood, owing to the peration involving a naturally septic region like the bowel; ut there must be some other factors, the nature of which is ot obvious. The only other complication was, in one case, ptic infection of the abdominal wound, which led to separaon of some of the buried silk sutures. The deep part f the wound was not involved, and the bowel healed ormally.

Immediately successful results are very gratifying to the rgeon as showing the perfection of his operative technique, ut, unless the remote results were good also, there would not e much encouragement to perform operations which are ttended by so many grave risks. I have already stated hat with the exception of the first patient on the list, who ived in complete comfort for four years and then died sudenly from heart disease, all the patients are alive and in ood health at the present time, and they have all put on esh. All the patients have been examined recently, and o evidences of recurrence can be detected either from the resence of symptoms or by physical examination of the bdomen. In three cases sufficient time has elapsed to give ood grounds for hoping that the cure in them will be permaent. One case was operated upon over four years ago, nother two and a-half years ago, and the third two years and wo months ago. The remaining three cases were operated pon too recently—nine, six, and two months ago—to warrant ny prediction regarding ultimate prognosis.

There is but little more for me to say. It is unnecessary or me to describe the parts removed, for the specimens are ere, ready for your inspection; and, as they will be preerved in the museum of University College, they will be pen to the inspection of any one else who is interested in the ubject. I need only state that in five cases the growths ere columnar-celled carcinomata, and that in one, Case III, he growth, which was a very large one, was a colloid arcinoma.

RADIUM BROMIDE:

NOTES ON SOME CASES IN WHICH IT HAS BEEN TRIED.

BY JAS. MACKENZIE DAVIDSON, M.B., C.M.,

Medical Officer in charge of Roentgen-ray Department, Royal London Ophthalmic Hospital, and Charing Cross Hospital.

T seemed highly probable that the radiations from radium romide, considering their nature and properties, would rove serviceable in the treatment of cases which were enefited by *x* and ultra-violet rays (Finsen treatment). In he early part of May, 1903, I obtained 5 milligrams of radium romide in a sealed glass tube.* The exact strength of the adium bromide I use I am unable to state in figures. Mr. oddy, who has done such excellent work on radium, kindly examined it for me, and it is said to be of the finest quality.

It may be well to preface the notes of cases in which I have sed it by stating briefly some of the physical properties of his remarkable substance which concern us. In the solid state it gives off three kinds of rays;

1. *Alpha Rays.*—These are minute material particles propelled at an enormous velocity, and which, if they impinge on a suitable fluorescent screen, cause brilliant scintillations. This was first noticed by Sir William Crookes, who has called he little instrument devised to show the phenomena the "spintharoscope." The glass tube in which the radium is enclosed entirely cuts off all these α rays, so that their action n the cases presently to be described was *nil*.

2. *Beta Rays.*—These rays are similar to the cathodal rays nside a Crookes's tube, but have a much higher velocity nd consequently have the power of penetrating the glass ube and our tissues to some considerable depth. It seems retty certain that it is these rays which cause the burning nd destructive action on the skin.

3. *Gamma Rays.*—These resemble in some respects *x* rays f extraordinary penetrating power, somewhat similar to the ays produced by an extremely high Crookes's tube. The low on a barium platino-cyanide screen can be seen from ne of my 5-mg. tubes through half an inch of copper.

The many other extraordinary properties of radium, such s its power of producing heat and its emanations when in solution, etc., have no bearing upon the method employed in the following cases, and so nothing need be said about them here. The action upon a photographic plate is rapid and intense. If the salt be shaken down to one end of the tube, and this then used to write upon a photographic plate enclosed in the usual opaque envelopes for *x*-ray work, it will be found on development to show the writing extremely black.

CASE I.—*Rodent Ulcer.*

Mrs. F., aged 69, was sent to me at the *x*-ray department, Charing Cross Hospital, by my colleague, Dr. Macleod, for *x*-ray treatment.

There was a typical rodent ulcer on the right side of the nose, the upper border being close to the inner canthus. It was 1 in. in length by ¾ in. in breadth, and had resisted both Finsen and *x*-ray treatment.

I was glad to have this opportunity of trying radium bromide, and, having no data to guide me in its application, it was tried tentatively at first, and the following are extracts from my casebook.

On May 21st, 1903, a tube of 5 mg. of radium bromide was placed on the upper part of the ulcer for fifteen minutes, and again on May 22nd as before, only further down.

The salt was always shaken down to one end of the tube, so that the point of application was definite. The tube was held in position by a strap of rubber plaster put across the upper part of the tube which fixed it to the skin.

On May 26th there was apparently slight reaction. Two tubes now applied for a short time (exact time not recorded). On May 29th the ulcer was apparently greatly improved; its edges were levelling. The tubes were applied for twelve minutes. On June 11th the ulcer was practically healed, but some thickening could be felt at the upper border. Two tubes were applied for eighteen minutes, and on June 26th they were applied for eight minutes over a slightly thickened part.

On July 10th a slight tendency to breaking down was noticed in the centre, and one tube applied (time not stated). Treatment was now stopped.

This patient was carefully examined on December 7th, and there was no trace of recurrence; the skin was quite natural over the part and freely movable, and it was only on very careful inspection that any difference could be detected between the two sides of the nose. Thus for five months there has been no recurrence.

CASE II.—*Tuberculosis Verucosa Cutis.*

P. V., aged 10. Sent to me by Dr. Macleod. The patch, about the size of a sixpence, was situated on the skin of the palm of the right hand, between thumb and forefinger. It had been under treatment for three years.

June 12th. Two tubes of radium applied for twenty-five minutes.
June 15th. Two tubes for twenty-two minutes.
June 28th. Two tubes for twenty minutes.
July 13th. Two tubes for thirty-five minutes.
July 16th. Greatly improved; two tubes applied for thirty-five minutes.
July 20th. Two tubes for half an hour.
July 22nd. Two tubes applied for twenty minutes. The patient went to the country for six weeks, on return he was nearly well. I sent him to Dr. Macleod, who tells me that there was a small spot, to which he applied a radium tube, and this effected a complete cure.

CASE III.—*Rodent Cancer.*

Miss S., suffering from rodent cancer of the nose, was sent to me by Mr. Rickman Godlee.

July 22nd, 23rd, 24th, 25th. Two tubes applied for thirty minutes. The tubes were placed on different parts of the ulcer on each occasion. There was no reaction.

July 28th. Greatly improved. Two tubes applied for forty minutes in one position and for twenty minutes in another.

August 5th. A blush round the border, but thickening all gone. Yellow crusts in centre.

August 20th. Greatly improved. The crust came away. Put single tube in the centre for half an hour.

August 30th. Put single tube in lower border, where there is a slight thickening left.

September 24th. Quite cured, apparently. Placed a single tube at lower part, where there are a few dry scales, for fifteen minutes.

October 15th. Cured.

CASE IV.—*Rodent Ulcer or Epithelioma.*

Miss H. presented what appears to be an extensive rodent ulcer of right side of the face.

This case was brought to me by Dr. Powell. It seemed hopeless. Three operations had been performed, recurrence following; *x* rays had been tried with a slight improvement at first, only to be followed by what appeared to be increased destructive activity. The surgeons who saw this case in the early stages state that it is an undoubted case of epithelioma.

The condition when I first saw her was as follows: The whole of the right cheek had been destroyed, the tongue and teeth being laid bare; the upper and lower lips were destroyed to within an inch of the middle line; the patient could not speak. The tongue was foul, and there was a very offensive discharge from the whole surface; the hard palate and part of the soft palate were invaded.

It was agreed that radium should be tried on the lips, where any improvement could be readily noted. If arrest of the process occurred,

* Sir William Crookes gave me the address of a firm in Germany likely to supply what I wanted, and this address I handed to Mr. Martindale, 0, New Cavendish Street, W., who obtained it for me, and through him have from time to time obtained further supplies.

then it would be reasonable to hope that we might be able to arrest the progress of the whole.

July 30th. Two tubes were applied to the upper lip for fifty minutes, on July 31st for forty minutes, and on August 1st for forty minutes. In addition I gave her some thorium nitrate enclosed in "oil silk" and guttapercha outside it, to be worn as a pad in the cavity; a piece of lint was interposed between this pad and the parts.

August 3rd. Two tubes applied for forty and forty-five minutes to different parts. Several applications were made subsequently, and on August 20th, having obtained some more tubes, but not of such good quality as the first, these were also used, so that on this date four tubes were applied for an hour and a pad of thorium hydroxide given for the patient to wear. The hydroxide is more powerful than the nitrate, and is not deliquescent.

As Dr. Powell is joining me in publishing this case with more details later on it will suffice at present to state the progress made.

On September 1st three tubes were applied for one hour in the forenoon and two and a-quarter hours in the afternoon,

On September 2nd an erysipelatous blush was observed round the parts. A severe attack of what appeared to be erysipelas ensued; the temperature went up to 105°; there was sickness, with vomiting, etc.; some of the parts that had skinned over broke down; but, on the whole, when the attack subsided the parts looked better.

Applications began again on September 17th, and these have been continued ever since. Sometimes as many as eleven tubes were applied at the same time.

All went on slowly improving till after a longer exposure than usual, when another attack of what appeared like erysipelas occurred. The temperature did not during this attack go higher than 103.4°, and it subsided more quickly. Serum, blood, and some of the discharge were placed in sterilized tubes for cultivation, and Dr. Bulloch, of the London Hospital, reports that they remained entirely sterile.

There is a steady gain, the discharge is much less and not at all offensive, the tongue clean, and the patient can now speak distinctly, cicatrization going on slowly and steadily. That the disease has been arrested is obvious, and it seems reasonable to look for a complete cure.

When the palates, hard and soft, were treated, the nurse had to hold a narrow strip of thick lead upon which two or three tubes were fastened with a rubber plaster. In this manner the radium tubes could be held up against the diseased parts, while the thick lead screened the normal tongue, etc., from the radiations.

It seems fairly clear that the radium radiations produce profound changes in rodent cancer, and that absorption of the altered products leads to the blush that so often follows the application of radium in this disease; and, if the exposure has been too long, then the blush may be succeeded by a severe inflammation resembling erysipelas. There seems a possibility that the products absorbed may act as antitoxins. There is no evidence, meantime, that this is so. It is obvious that with a large surface care must be taken not to overexpose the parts to radium, otherwise serious constitutional disturbances may be produced.

CASE V.—*Malignant Degeneration of Mole.*

Miss D., aged 46, had a mole on her left cheek, which took on a malignant character, and excision had been advised. After several applications of a single tube of radium it disappeared, leaving only a slightly pigmented area which is gradually fading.

During the treatment of this case, after a long exposure a relapse appeared to occur, but it turned out to be only the reaction from over-exposure, for on stopping the radium the inflammation subsided and a cure effected. It is therefore a matter of consequence to give a correct exposure, and what this should be can only be ascertained by tentative trials in each particular case.

The results in the above cases justify the hope that radium will prove to be a very valuable therapeutic agent. It now remains to find out in what diseases it is potent and what may be the best method of using it. In sealed glass tubes it can be applied readily to any part; can be introduced into cavities, and by means of easily-devised flexible tubes it can be applied to the throat and other regions quite inaccessible to either *x* rays or Finsen treatment. It is quite painless in its application, and need not prevent the patient from reading, etc., while the treatment is going on.

CARCINOMA.

Radium has been tried in several cases with no good results. In one patient two small nodules had prolonged exposures; ulceration resulted and they shrivelled up, but a thickening remained which showed no tendency to disappear. In this same case a mass on the breast the size of an egg had such long exposures that ulceration and sloughs were produced and yet no appreciable good was done. The conclusion forced upon us is that radium, with the present method of application, is no use whatever in carcinoma.

Thorium gives off emanations and rays the same as radium, but about 1,000,000 times weaker. The hydroxide of thorium can be obtained in any quantity and at a moderate price. A large quantity can be enclosed in a rubber bag and applied to the part. The duration of this application must depend on the reaction produced. It would be well to try thorium in this way in septic ulcers, and it can be used with advantage in cases in which radium is being also applied at intervals.

A CASE OF RODENT ULCER TREATED WITH RADIUM.

BY GERALD SICHEL, F.R.C.S.,
Surgeon in Charge of the Actino-Therapeutic Department, Guy's Hospital.

G. T., aged 65, presented a rodent ulcer of the lower part of right cheek of six months' duration. Four years earlier another had begun higher up on the same cheek, which was operated upon twelve months back.

The active ulcer was treated by applications of 5 mg. of radium bromide, each sitting usually lasting fifteen minutes. There were forty-two sittings in all, spread over a period from October 14th, 1903, to December 31st, 1903. The radium bromide was contained in a small sealed glass tube.

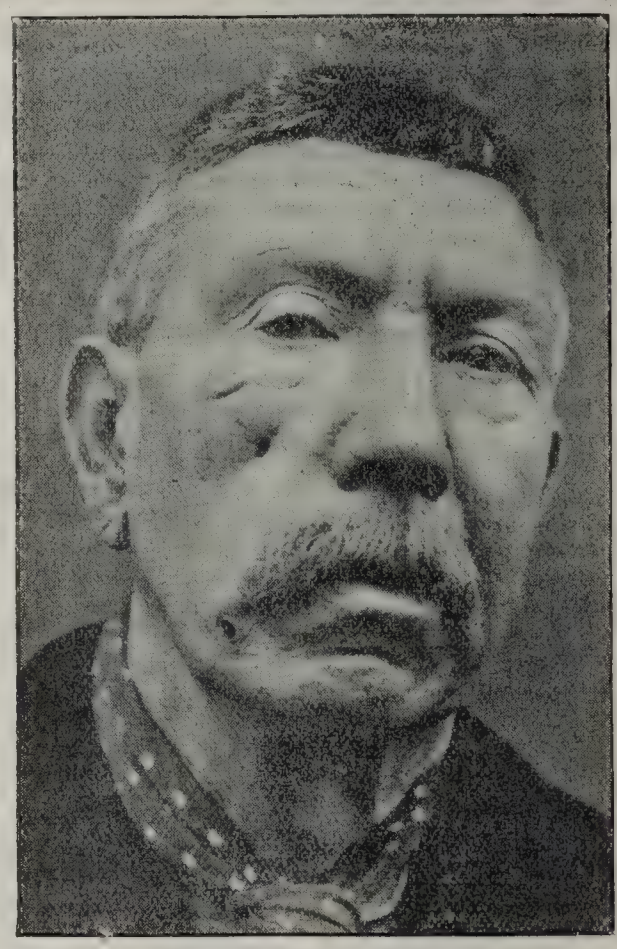

Fig. 1.—October 14th, 1903.

After the first application the patient stated that the pain was easier, and that he slept better. After five sittings there was no bleeding and no pain or tenderness. At first the ulcer had bled readily on touching. After seven sittings the granulations had become pale and smoother.

The ulcer was rather a deep one compared with its extent, and it took a long time to fill up. Eventually a depressed, slightly reddened, indurated circular scar was left, which latterly remained unaffected by treatment. The condition of things at the beginning and the end of treatment are shown in the accompanying photographs.

It is interesting to note that the radium salt was held in a glass tube, which, of course, must stop some of the rays from passing through the glass, which was at first ordinary white glass, has been changed to a violet colour (Experiments in Radio-activity and the Production of Helium from Radium, by Sir William Ramsay and Frederick Soddy, abstracted in the *Journal of the Chemical Society*, November, 1903). In the same journal is the abstract of another paper by William B. Hardy and Miss E. G. Willcock, in which the anthors conclude that the physiological action of radium rays is some process of oxidation; also, they found experimentally on a solution of iodoform in chloroform that decomposition is accelerated by certain substances, of which sodium chloride

ne, so latterly I have been bathing rodent ulcers treated vi radium with a strong solution of common salt before h radium is applied. In the present case I do not think h made any difference, but I am not certain it has not e of some help in two other cases now under treatment. T patient used to hold the radium in position himself.

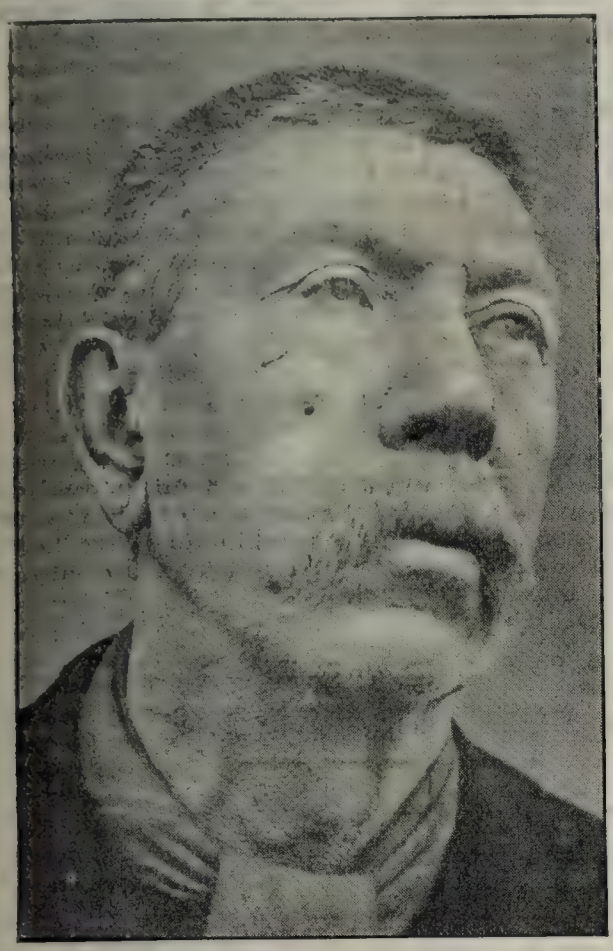

Fig. 2.—January 4th, 1904.

t was by the direction of Sir Cooper Perry, who sent the e to the electrical department from his out-patients, that t radium treatment was adopted.

HE LEISHMAN-DONOVAN BODY AND TROPICAL SPLENOMEGALY.

BY

IR PATRICK MANSON, K.C.M.G., M.D., F.R.S., and GEORGE C. LOW, M.B., C.M.,

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HE great majority of the cases of splenic enlargement which very year return to Europe from India, Africa, and other tropical countries are undoubtedly of malarial origin. Their histories, their liability to intercurrent acute malarial phenomena, the presence in the blood during these acute attacks of the malarial parasite, and their response to quinine prove this. But over and above these malarial cases and those of ætiology, cirrhosis of the liver and other well-recognized pathological conditions associated with enlargement of the spleen, there is a considerable residuum of cases of tropical disease in which enlargement of the spleen is a prominent feature, and which hitherto have not been adequately recognized or explained.

Clinically, the cases we refer to seem to fall into two categories—the subacute and the chronic. In the more acute forms there is a history at first of a malaria-like condition with recurring attacks of high fever, which, after some months, and in spite of liberal dosing with quinine, leads to the development of a very definite cachexia. This cachexia is characterized by quotidian fever—afternoon chill followed by high temperature and profuse sweating, and terminating by the following morning in a subnormal temperature—and anæmia. Although in some instances there may be intervals of apyrexia of several weeks' duration, in others there is little variation in the quotidian recurrence of fever, which is absolutely uninfluenced by quinine. In time the spleen enlarges, the anæmia becoming intense. According to our experience the patients die in a few months. The fatal event is brought about sometimes by pure asthenia, sometimes by cerebral thrombosis, sometimes by diarrhœa, sometimes by other intercurrent disease.

The second type of febrile splenic enlargement to which we refer resembles the foregoing, only the fever is much milder, rarely exceeding 101° F., the splenic tumour and the anæmia being less pronounced. There is, however, always a malaria-like initial stage; and, just as in the other type, this and the subsequent course of the disease are unaffected by quinine. What the ultimate fate of these more chronic cases may be we cannot say, but it seems probable that they drift along as valetudinarians until they are ultimately cut off by some other affection, to which their persistently enfeebled state renders them specially liable.

In both types of the disease the tongue is clean, the appetite good, and, but for weakness, the patient feels fairly well. Occasionally, as might be expected in persons coming from malarial localities, attacks of genuine malarial fever may be interpolated. In this event there may be considerable gastric derangement, and quinine may be of temporary service.

In certain instances the skin becomes deeply and fairly uniformly pigmented. Owing to this latter circumstance, and because most of the cases which have passed under our observation have come from Assam and the Indian Terai, we have arrived at the conclusion that the disease is none other than what is known by the natives in Assam and India as kala-azar or kala-dunkh.[1] We have seen an exactly similar condition in a patient from South Africa, but whether his case and the Indian disease are identical we are not prepared to say.

On the discovery of the trypanosoma as a factor in human pathology it occurred to us that possibly in this or a similar organism the obscure cases we have attempted to outline might receive their explanation. Accordingly in two instances of non-malarial febrile splenomegaly—one from India, one from Africa—we made careful examination of the peripheral and splenic blood, but without finding any parasite. It may be that in the Indian case our failure was attributable to the fact that the puncture in the spleen was made into sloughy and gangrenous tissue.* Notwithstanding these failures, and encouraged by Leishman's and Donovan's discovery of what appears to be a new protozoal organism in cases of the type we have described, when some time ago such a patient from the Darjeeling district consulted one of us, we persuaded him to enter the tropical wards of the Seamen's Hospital and submit to splenic puncture. This little operation was performed on two occasions—December 18th and 28th, 1903. The first tapping was followed by a slight rise of temperature, which quickly subsided to normal; the second tapping was also followed by fever and some perisplenitis.

At the first tapping we got very little blood, barely enough to fill the needle of the exploring syringe; at the second tapping quite a drachm of blood was obtained. In both specimens, on submitting them to microscopical examination, we found Leishman-Donovan bodies in great profusion. They were especially numerous in the first specimen, many fields of the microscope showing dozens of them.

Although Leishman and Donovan, and latterly, working with Donovan slides, Laveran and Ross, have described them, our observations on these bodies may be of some interest and value, inasmuch as they confirm and perhaps supplement the descriptions of the earlier observers, but more especially as they completely disprove Laveran's contention that the parasites are parasites of the red blood corpuscles, and a species of piroplasma. We may at once state that although parasites were frequently encountered superposed on or underlying a red corpuscle, we have not once seen anything that would lead us to believe that they were inside the corpuscle.

Our examinations were made in ordinary wet blood preparations, in hanging-drop preparations, and in dried and stained films. The stains employed were the Leishman-Romanowsky carbol-fuchsin and carbol-thionin; fuchsin was a failure. The Romanowsky stain gave by far the best results.

In the stained films we recognized the following:

1. Oat-shaped, oval, and circular bodies, clearly defined in outline, stained a faint blue, and having a rather large and deeply-stained usually spherical nucleus lying against the capsule about the middle of the parasite, and a still more deeply-stained, short, bacillus-like body on the opposite side

* This case died. Smears of blood from bone marrow and spleen showed many Leishman-Donovan bodies.

of the capsule, but directed as a rule, but not invariably, towards the nucleus at various angles. In a few instances this bacillus-like centrosome, if so we may call it, is represented by a point. The centrosome is stained even more darkly than the nucleus, which, when large, is distinctly less deeply coloured. (Fig. 1.)

2. Similar and generally rather larger bodies with the nucleus (*a*) larger and less deeply stained, or (*b*) with the nucleus spread out as a deeply-stained layer on the inside of the capsule, and in the usual position this is *vis-a-vis* to the centrosome. In the latter type of parasite, with the exception of nucleus and centrosome, the contents of the capsule are very faintly stained. (Fig. 2.)

3. The foregoing bodies in association with a faintly-staining and slightly granular substance, which may be either regularly disposed around them or attached to one side of them as a roundish or flocculent irregular mass. (Fig. 3.)

4. Two of the oval bodies closely applied to each other, one of the bodies being usually smaller than the other. Occasionally in these twin bodies their respective nuclei and centrosomes are disposed symmetrically. (Fig. 4.)

5. Two or more up to fifty of these bodies arranged as an almost perfectly circular sharply-defined rosette, the matrix of the zoogloea mass being evidently of the same nature as the faintly-staining material already referred to as being sometimes attached to the single isolated parasites. These rosette-like bodies, when made up of eight or ten elements, but for the presence of the centrosomes could easily be mistaken for a sporulating quartan fever rosette. The parasites composing the smaller rosettes are usually larger than those in the bigger groups. (Fig. 5.)

6. The same zoogloea masses broken up evidently in making the preparation, the parasites and matrix being scattered about irregularly but still keeping more or less in association (Fig. 6).

7. Circular masses of the zoogloea matrix with ill-defined outline and varying in diameter, but containing no parasites (Fig. 7).

8. Similar and generally larger masses with more definite outline, and containing one or more parasites, and exhibiting unstained spaces which may have formerly been occupied by parasites (Fig. 8).

9. Sharply-defined capsule-like bodies containing one or two parasites or quite empty, but with a zoogloea mass of parasites in its neighbourhood, the proximity and appearances suggesting that the capsule had contained the zoogloea mass (Fig. 9).

From an examination of the parasite in wet preparations, especially in the hanging drop, it is apparent that the zoogloea masses have a spherical mulberry-like arrangement. In such preparations the individual parasites can be made out as very minute oval bodies, each of which possesses a highly refractile point, presumably the nucleus. Neither in ordinary wet films, nor in the hanging drop, whether on the ordinary or on the warm stage, could we make out any movement or indication of growth or development.

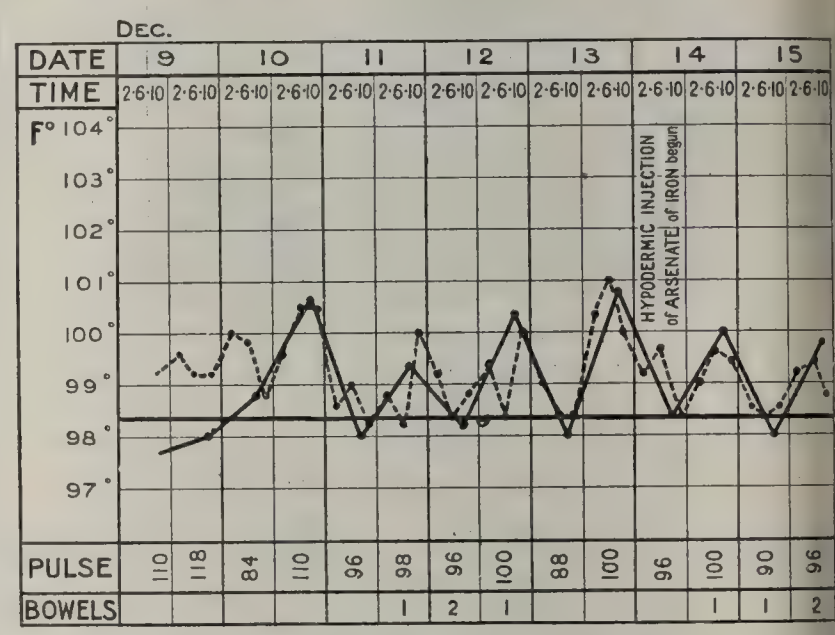
The evidence of phagocytosis is difficult to assess, seeing that it is always possible that in preparations in which the parasites are very abundant the appearance of inclusion of a parasite by a white blood corpuscle may be owing to superposition. However, in the case of the macrophage represented in Fig. 10 there can be no question of superposition; the parasites in this phagocyte were too numerous to admit of such an explanation.

There can be little doubt, from the frequency with which Donovan has found it in India, and of the occurrence of chronic febrile splenomegaly in Europeans from India and possibly elsewhere, that this new parasite is one to be reckoned with in tropical pathology. It would be important therefore to follow out its life-history, and more especially to be able to determine how it obtains entrance into the human body.

Judging from the appearances met with in our preparations, it seems fairly safe to assume that once in the spleen it multiplies by simple division. Certain of the parasites, after being liberated from the zoogloea masses, are destined for passage into another phase outside the body, others for endogenous multiplication. The latter on becoming free in the splenic pulp probably conjugate, and throw out a material which ultimately forms the matrix of the zoogloea masses within which the parasites divide for some five or six generations. This goes on indefinitely apparently.

Thinking that the blood might be the medium by which the parasite travels towards its exogenous phase, we mad repeated and prolonged examinations of peripheral bloo obtained from the patient at regular intervals of two hou during the day and night. Although two expert assistant worked at these films for several days no Leishman-Donova body, with one doubtful exception, was ever found b them or by ourselves. Neither in these examination of the peripheral blood nor in those of splenic or hepati blood did we ever encounter malarial parasites or malaria melanin.

It is evident that the parasite must get out of the bod somehow, and that the blood is the most probable channe We thought that possibly the parasite was filtered out fro the splenic blood as the latter passes through the liver i the portal circulation. Accordingly we tapped our patient' liver, and found in the small quantity of blood so obtaine numerous single or double parasites but no zoogloea masses This discovery seemed to point to the biliary ducts as th channel through which the parasites escaped to gain subse quent freedom by passing out of the body with the faeces but repeated examinations of the faeces were negative. Simi larly, centrifuged urine also yielded no parasites. A curiou feature about the parasites from the liver was that in quit 90 per cent. of them the nucleus was either extruded an swollen, or was in process of extrusion (Fig. 11). Possibl this phenomenon was owing to the blood having been dilute with normal salt solution. An attempt to cultivate th parasites in blood agar failed.



The following are the leading facts of the case:

C. O., aged 37, a tea-planter, when 10 years of age had Pott's diseas of the lower dorsal vertebrae, which has eventuated in permanen kyphosis. He is delicate looking, but had good health till 1897. Fro 1893 to 1897 he was in Assam; in the latter year he went to Sylhe where he got severe bilious remittent fever. He was in the Dooars fro 1898 to 1899, and did not have much fever; again in Sylhet, in 1900, bu this time he had little fever. He came home in 1901. From January 1902, to June, 1903, he was in the Terai, near Darjeeling, and had at firs good health, but in June last he began to get low fever, and in July ha two sharp attacks, for which he was sent to the hills. He improved little, but, returning to work in August, he became subject to regula tertian (as he calls them) attacks. Getting steadily worse, he was sen to the hills again on August 18th; there he got double pneumonia. O October 8th he was invalided, arriving in London on November 13t During the first part of the voyage he felt better, but later he got feve every afternoon, followed by profuse night sweats. Since his arrival i England he has had fever every third day, with occasional but milde intervening attacks. He has been taking quinine steadily for month without apparent benefit. On November 30th, 1903, it was found tha his spleen came $3\frac{1}{2}$ in. below the costal border, was smooth and firm His liver was also enlarged, the free edge coming well below the costa border. The urine had about a-sixth of albumen. Lungs and hea were normal. Blood contained no malarial parasites, and the red co puscles were regular in size, 3,600,000 per c.mm. He was admitted int the tropical wards of the Seamen's Hospital, Albert Docks, on Decembe 6th, and has been there ever since. For a few days at a time his tem perature has been normal. Most days there has been an evening rise t 99.5° or 100°. On the day on which the spleen was first tapped it stoo at 102.6°, after the second tapping the temperature got as high as 103 but in three days with the decline of the perisplenitis it fell to norma His tongue has been clean throughout, and his appetite fair. The urin is now free from albumen.

The blood count was as follows:

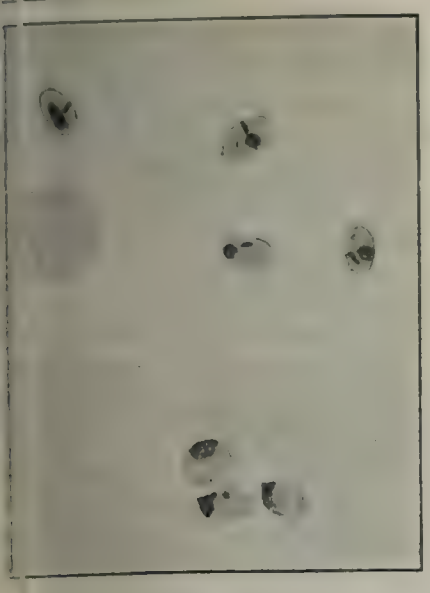


Fig. 1.

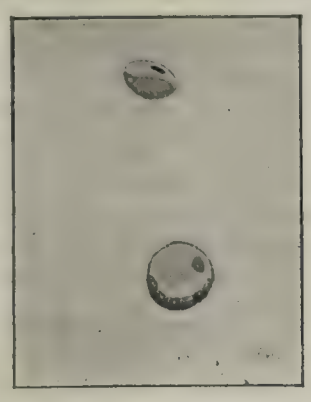


Fig. 2.

Fig. 3.

Fig. 4.

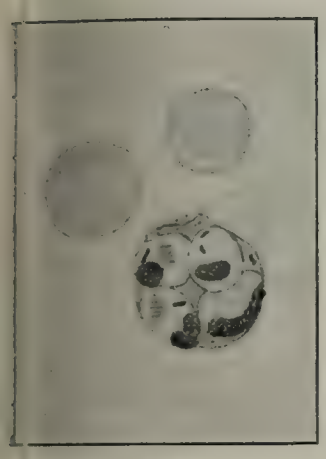


Fig. 5.

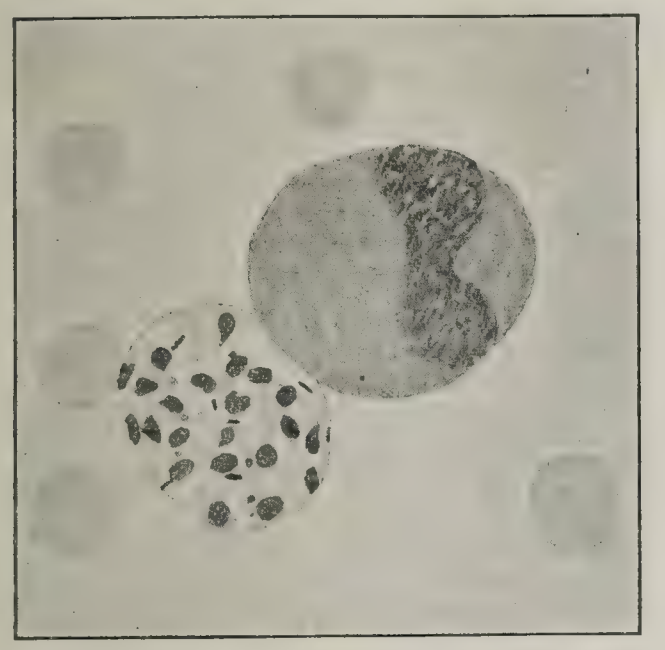


Fig. 5.

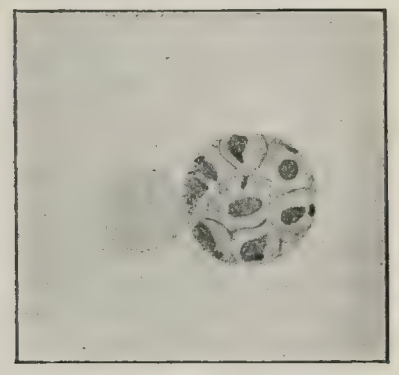


Fig. 5.

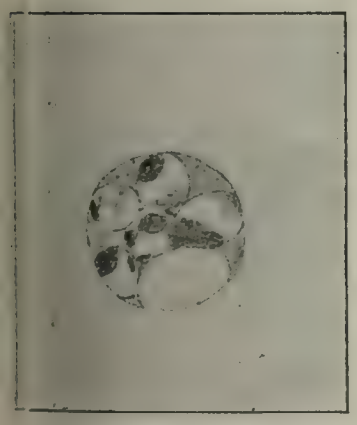


Fig. 8.

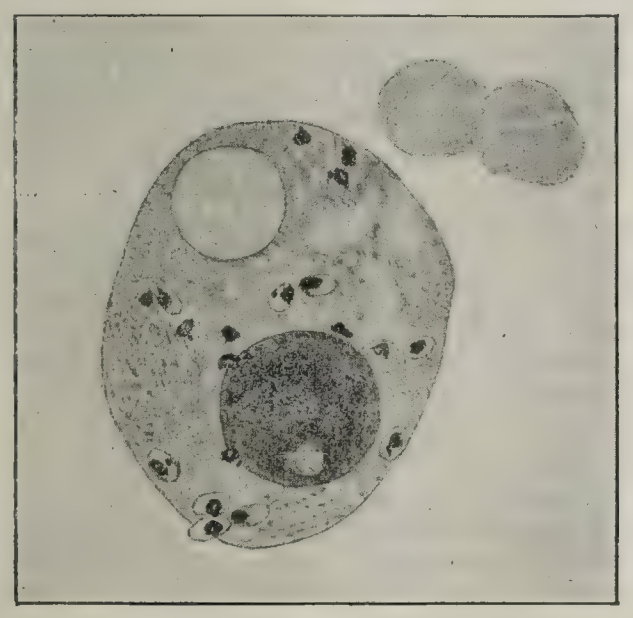


Fig. 10.

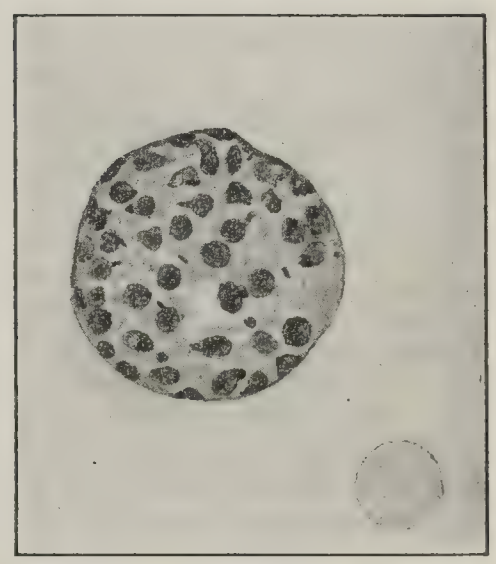


Fig. 5.

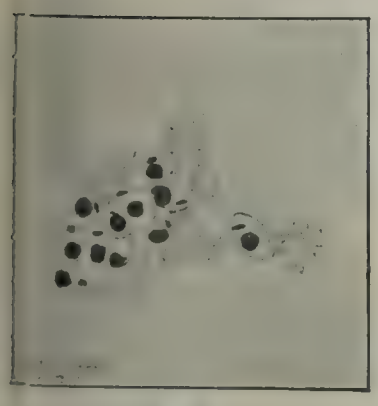


Fig. 6.

Fig 7.

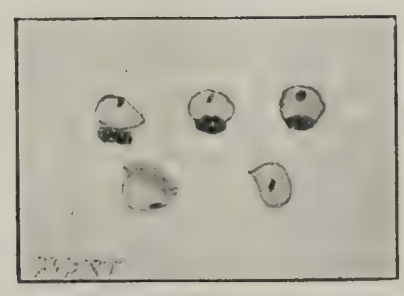


Fig. 11.

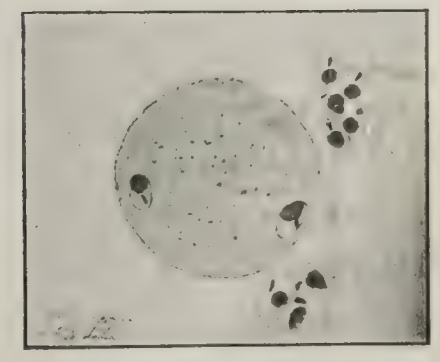


Fig.

Magnification circa 1500.

Blood Counts.

	December 17th.	December 18th.*	December 30th.†
Red cells...	3,500,000	3,650,000	4,000,000
White cells	3,700	3,100	3,120
Haemoglobin	56%	57%	64.0%
Polymorphonuclear...	40%	42%	44.0%
Large mononuclear ...	13%	11%	10.5%
Lymphocytes	44%	41%	40.8%
Eosinophiles	2%	2%	1.1%
Transitional		1%	2.1%
Mast cells	1%	3%	0 6%
Malaria parasites ...	*Nil*	*Nil*	*Nil*

* Spleen punctured. † Spleen and liver punctured.

We are very much indebted to Dr. T. S. Kerr for the extremely accurate drawings which illustrate this paper.

REFERENCE.

1 *Tropical Diseases*, 3rd edition, p. 271.

HUMAN TRYPANOSOMIASIS ON THE CONGO.

BEING THE FIRST PROGRESS REPORT OF THE EXPEDITION OF THE LIVERPOOL SCHOOL OF TROPICAL MEDICINE TO THE CONGO, 1903.

BY

J. EVERETT DUTTON, M.B.Vict.; Walter Myers Fellow, University of Liverpool.

J. L. TODD, B.A., M.D., C.M.McGill.

AND

CUTHBERT CHRISTY, M.B.Edin.

At the request of His Majesty King Leopold II, King of the Belgians, this expedition was sent in September last to the Congo Free State to report upon the sanitation of the larger towns and to continue the School's work on human trypanosomiasis. Through the kindness of the Governor-General of the Congo and of Drs. Vourloud and Neilseng, Government physicians at Boma, the hospital for natives at Boma was opened to us. It contained about sixty-five patients, and we saw there eighteen patients who had been admitted as cases of sleeping sickness.

Whether admitted to hospital by the medical officers, or pointed out to us by the missionaries as cases of sleeping sickness, with three or four exceptions the cases which we have as yet seen have been in our opinion very unlike what has hitherto been described as sleeping sickness. Continued sleep or even abnormal sleep has been almost absent from many of the cases. It has been absent even in those who were believed to be in an advanced stage of the disease and who ultimately died. In only three or four of the cases observed by us has somnolence been a marked feature, and only in these few cases have the symptoms in any way coincided with those observed by one of us during the Uganda epidemic of sleeping sickness.[1]

From November 4th to November 29th two of us were occupied in travelling through the cataract region in order to ascertain for ourselves the exact conditions existing there. Reports sent to the Congo Free State officials and handed on to us, as well as correspondence received by ourselves, led us to believe that in this district we should find, not only an epidemic of sleeping sickness, but that the whole population was being "decimated" by the disease. Although in the course of our journey we visited many villages and made tiresome expeditions to visit those especially mentioned to us, not a single case of illness did we see in which sleep was a marked feature.

We stayed for some time at the Baptist Missionary Society's station at Wathen, in the Lutete district, where we received hospitality and assistance at the hands of those in charge of the mission. From here excursions were made into the surrounding district, and a large number of persons brought to us as cases of sleeping sickness were examined.

These consisted of a heterogeneous collection of men, women, and children, many of whom were found to be suffering from heart, lung, and other more or less common ailments. Amongst the boys it seemed that a diagnosis of "worms" was sufficient in many cases to account for the symptoms. Cases of apparent starvation and neglect were also common, and it appeared from what we were told that, owing to there being a general belief in the contagiousness of "manimba"—the native name for what is believed to be sleeping sickness—children and even adults were, as soon as the slightest symptoms developed, liable to be isolated and shunned by every one, causing eventually a state of emaciation and filth which ended sooner or later in death. Apart from these, however, and eliminating the many common ailments, there still remains in the cataract region a class of cases which undoubtedly terminate fatally within a year or two. These cases, of which most villages visited by us contained one to three examples, have few very evident symptoms of illness beyond emaciation, and in some cases weakness, headache, enlargement of lymphatic glands, and a dirty, dry, scurfy skin. In a proportion of these cases trypanosomes were found in the peripheral blood, and we think it probable that if a systematic examination were possible the parasites would be found in a much larger number.

Trypanosomes have been found in the finger blood both in those cases in which the diagnosis of sleeping sickness was certain and of those in which the case picture was atypical. In addition, trypanosomes have been frequently seen in the peripheral blood of apparently healthy individuals. The routine method adopted for the detection of the parasites in the peripheral blood of unsuspected cases was the simple examination of a rather thick, freshly-made, cover-slip preparation. All of the following persons were examined in this way.

Place and Class of Native.	Number Examined.	Number Infected with Trypanosomes in Peripheral Blood.	Number of Cases Admitted to Hospital or shown to us as Cases of Sleeping Sickness.	
			With Trypanosomes.	Without Trypanosomes
Boma.				
1. Hospital at Boma. Native soldiers coming from all parts of the Congo	72	11	9	7*
2. Prisoners in Boma gaol coming from all parts of the Congo	181	17	0	0
3. Children of native soldiers at Boma	19	0	0	0
4. Colony school. Native boys from all parts of the Congo ...	50	1	0	0
5. Native labourers and children from native quarter	34	0	0	0
Matadi.				
1. Natives collected for examination by Dr. Sims	78	1	0	0
2. Children of native soldiers up to 8 years of age	10	0	0	0
3. Patients at the native hospital	22	3	2	2
4. Children at the Sansel, native quarters, up to 10 years of age	28	0	0	0
Cataract Region.				
1. Carriers collected from Tumbar District	20	2	0	0
2. Carriers from Lutete District	23	0	0	0
3. Boys at Wathen Mission, ages up to 15	35	1	0	0†
4. Natives examined indiscriminately at two small villages near Lutete	42	2	0	2
5. Natives coming to the mission for treatment, or sick natives seen in village within a 20-mile radius of Lutete ...	79	11	10	47
6. Cases collected for us as sleeping-sickness cases by Chef de Port at Kusu from neighbouring villages	14	0	0	14

* Lumbar puncture was done in 6 of the sleeping-sickness cases. In trypanosomes were seen in the cerebro-spinal fluid. One of the 4 new showed trypanosomes in the peripheral blood.

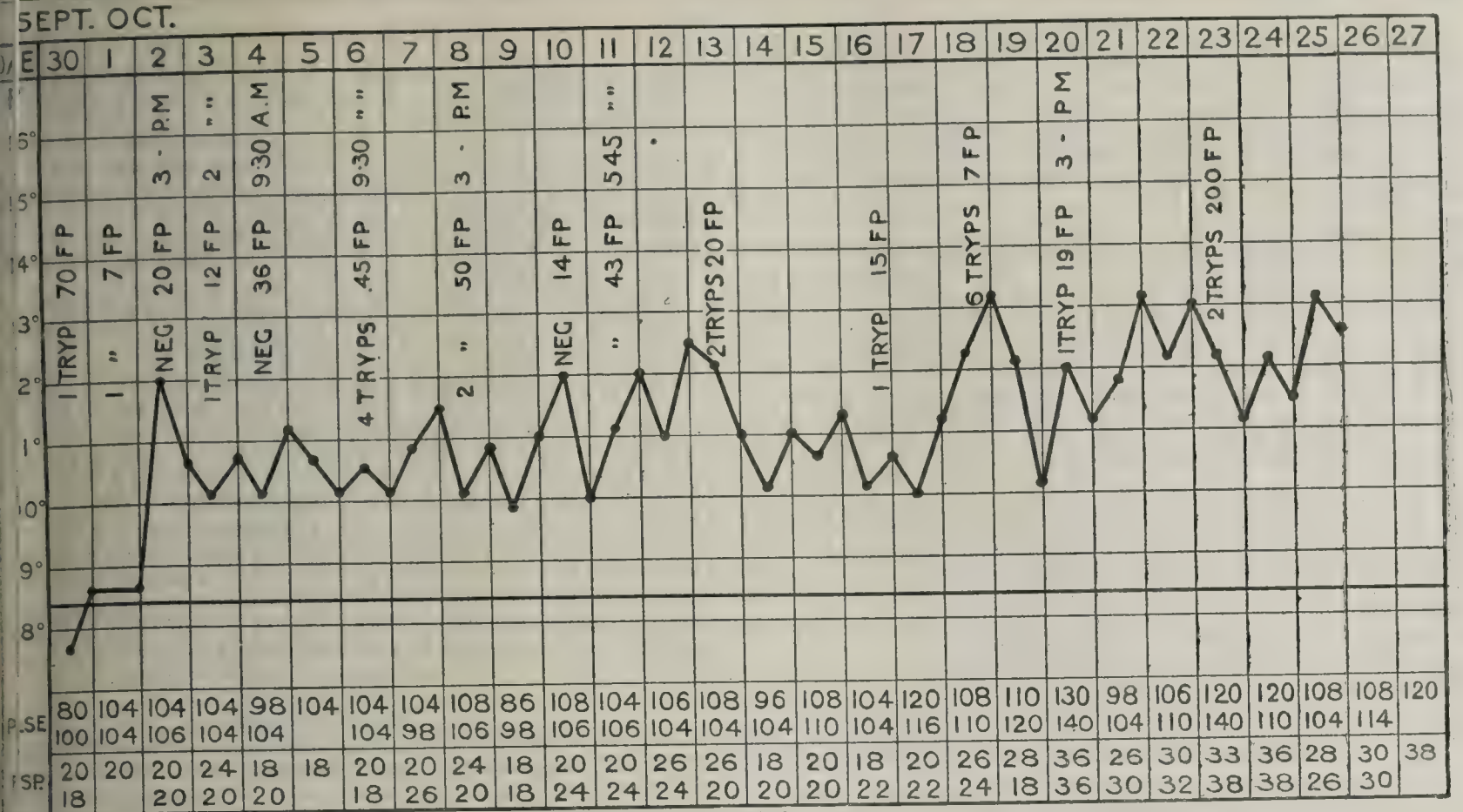
† This boy had been suffering for twenty-four days previous to on arrival at the mission from a fever which was not amenable to quinine.

CASE VI.

Sleeping Sickness (September 30th, 1903).—N'Bela, male, aged a agricultural labourer. A Mongo man. Patient never saw sleeping sick ness before coming to Boma. Had lived in Boma for nearly three years Illness commenced in July of this year. Admitted to hospital August 1st, 1903.

When the patient was seen (September 30th) somnolence was already a marked feature of his condition. This symptom steadily became more marked as emaciation increased. When we left Boma (October 27th) the patient was comatose, and death had been expected at any time during the preceding week.

General Condition.—Patient is thin and very weak. Questions are answered rationally, but only after a long interval. He displays



Temperature chart, Case VI.

ment indifference to everything about him, and only by constant can drowsiness be dispelled for a period long enough to permit speak.

Clinical Examination.—Nervous system; co-ordination imperfect. of weight good. Knee-jerks and superficial reflexes were obtain-, and showed no abnormality. Eyes reacted to light and to accom-dation. Thoracic and abdominal examination showed nothing of note. Lymphatic glands were all enlarged, hard, and freely vable. There was no haemorrhage into mucous membranes. Slight of the conjunctiva was seen.

The accompanying chart indicates the course of the temperature in case, and shows the results of the examinations for parasites. Trypanosomes were seen in both cerebro-spinal fluid and peripheral

October 9th, 35 c.cm. of slightly clouded, colourless cerebro-spinal were taken by lumbar puncture. No red cells were seen in early profuse deposit formed by centrifuging. This precipitate contained a fair number of trypanosomes, many mononuclear cells of large size, and numerous polymorphonuclear leucocytes.

Experimental Inoculation.

The following animals have been inoculated from this case. The material inoculated was in each case demonstrated to contain living trypanosomes.

Animals Inoculated from Case 6.

October 7th. White mouse (Experiment 16) inoculated subcutaneously with 1 c.cm. cerebro-spinal fluid; infected October 25th.

October 7th. White mouse (Experiment 17) inoculated subcutaneously with 1 c.cm. cerebro-spinal fluid; never infected.

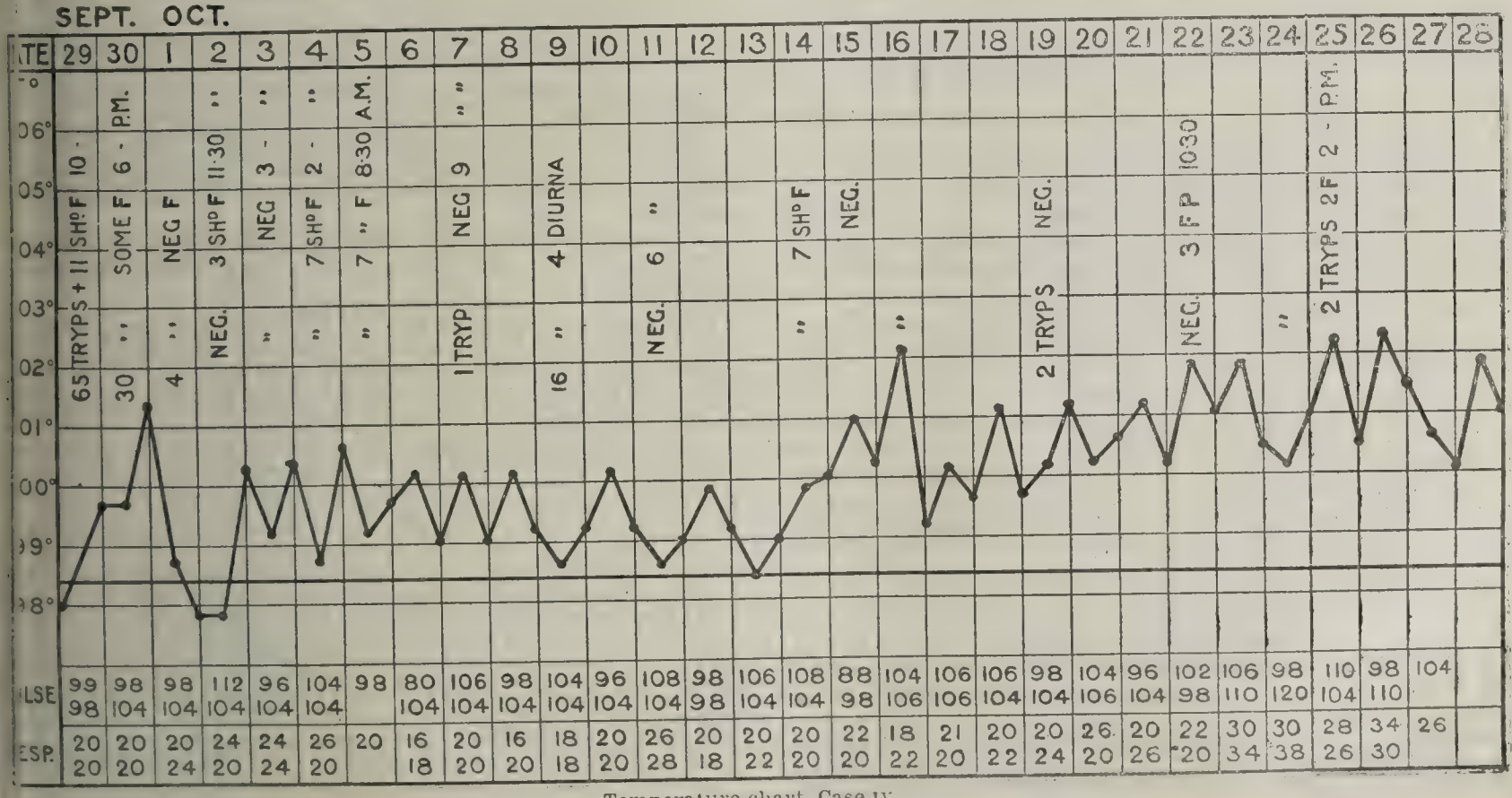
September 30th. White rat (Experiment 5) inoculated subcutaneously with 5 c.cm. blood; never infected.

September 30th. White rat (Experiment 6) inoculated intraperitoneally with 1 c.cm. blood; never infected.

October 9th. White rat (Experiment 21) inoculated intraperitoneally with 4 c.cm. blood; never infected.

October 9th. White rat (Experiment 22) inoculated subcutaneously with 8 c.cm. blood; infected October 23rd.

October 9th. White rat (Experiment 23) inoculated intraperitoneally with 5 c.cm. blood; infected October 23rd.



Temperature chart, Case IV.

CASE IV.

Simple Trypanosomiasis (*"Maladie de Dutton"*)[2] September 22nd.—J. P., male, aged 28, native of Sierra Leone, where sleeping sickness is not endemic, Came to Boma six years ago as a Free State soldier. Has always been in lower river districts. Entered hospital September 22nd with gunshot wound. Had gonorrhoea in 1902, otherwise has not been ill during his stay in the Congo.

Patient is a strong, healthy man, well nourished, skin moist and clean; slight oedema over both shins; patient does not complain of feeling ill.

Glands are easily palpable, but are not markedly enlarged or hard. He is a bright, intelligent man, slightly deaf, but answers questions quickly and well. He is alert and interested in his surroundings. Mucous membranes are anaemic. There is a complete cataract of right eye. Heart and lungs are normal. Liver normal in size, but slightly tender Spleen normal. Appetite good. Bowels constipated. Nervous system is normal.

Urine passed in twenty-four hours, 760 c.cm.; specific gravity 1002, light straw colour, cloudy precipitate, acid; small amount of albumen present, no sugar; urea, 0.41 gram to 100 c.cm. of urine. Microscopically a few pus cells, probably due to a chronic gonorrhoea, were seen.

On October 26th 10 c.cm. of limpid cerebro-spinal fluid, as clear as distilled water, were withdrawn with some difficulty by lumbar puncture. The patient almost fainted before 8 c.cm. had been withdrawn. A very slight precipitate was obtained after long centrifuging. On examination it was found to contain a very few red cells, and still fewer small mononuclear white cells. No trypanosomes were seen during a long and careful search of the whole of the precipitate.

The cerebro-spinal fluid from this case presented a very different appearance, both macroscopically and microscopically, from that obtained from sleeping sickness cases. The fluid was clear, not clouded. None of the large mononuclear or smaller mononuclear and polymorphonuclear leucocytes seen in sleeping sickness cases were present.

The accompanying chart (p. 187) shows the course of the temperature in this case, and indicates the occasions on which trypanosomes were seen in the peripheral blood.

Experimental Inoculations.

The following animals were inoculated from this case:

Animals inoculated from Case 4.

September 30th. White rat (Experiment 5) inoculated subcutaneously with 5 c.cm. blood; never infected.

September 30th. White rat (Experiment 4) inoculated subcutaneously with 1 c.cm. blood; infected October 8th.

October 27th. Guinea-pig (Experiment 27) inoculated subcutaneously with 4 c.cm. blood; infected November 7th.

October 27th. Guinea-pig (Experiment 28) inoculated subcutaneously with 5 c.cm. blood; infected November 18th.

October 27th. Rabbit (Experiment 24) inoculated subcutaneously with 6 c.cm. blood; never infected.

Necropsies were done at Boma on four cases which were admitted to the hospital for sleeping sickness. Two of these died before their blood or cerebro-spinal fluid could be examined. Repeated examinations of the blood (centrifuge used) of the third failed to demonstrate trypanosomes. Lumbar puncture was not done on this case. In spite of repeated and very careful examinations of the blood and cerebro-spinal fluid of the fourth case, trypanosomes were never seen.

A necropsy was also done on the body of a native admitted to the hospital as a case of encephalitis. This patient never showed the usual signs of sleeping sickness, and finally died of dysentery. Many trypanosomes were seen in his finger blood. Lumbar puncture was not done.

The *post-mortem* appearances in each of these cases were very similar to those described as occurring in sleeping sickness.[3] The usual increase of subarachnoid fluid which had become cloudy, or occasionally almost purulent, was observed. The superficial and substantial vessels of the brain and spinal cord were turgid, and in two cases small subependymal haemorrhages were noted.

In addition to these changes in each case, lymphatic glands were enlarged, several were congested or injected, not infrequently members of the various groups of glands were to the eye either partially or—especially the smallest glands—totally haemorrhagic. The naked-eye appearances of these glands were particularly interesting to us since we have observed very similar changes in animals infected by us with Trypanosoma gambiense.

Experimental Inoculations.

The following experimental inoculations were made in white rats, white mice, rabbits, and guinea-pigs, with the results indicated:

Twenty white rats were inoculated with cerebro-spinal fluid or blood taken either during life or *post mortem* from patients admitted to hospital as cases of sleeping sickness and from cases of trypanosomiasis. Living trypanosomes in 11 instances were seen in the material inoculated. In 7 of these the material inoculated was from cases of "sl sickness," in 4 from cases of simple trypanosomiasis. Of the for became infected, of the latter 2. None of the rats inoculate material taken *post mortem* in which no living trypanosomes wer have ever become infected.

Four white mice were inoculated with cerebro-spinal fluid taker 2 cases of sleeping sickness. Trypanosomes had been found i cerebro-spinal fluid and blood of the first case, in the second try somes were never seen. Two mice were inoculated with fluic taining many trypanosomes from the first case. One has b infected. Neither of the mice inoculated from the second ca ever shown parasites.

Two rabbits were inoculated with blood containing trypanos The blood for one experiment came from a case of sleeping sic for the other from a case of simple trypanosomiasis. Neither a has become infected. Four guinea-pigs were inoculated with containing trypanosomes, 2 from a case of sleeping sickness and 2 a case of trypanosomiasis. Both of the latter have become infecte

The very slight susceptibility of laboratory animal infection with the trypanosomes found in man in the C the great chronicity of the infection produced when ino tion has been successful, and the periodicity with whic parasite has appeared in the peripheral blood of the ex mental animals, are points which greatly resemble the an reactions of Trypanosoma gambiense.[6] The number of ex ments done is not yet sufficiently large to permit the me of incubation periods. During the eight or nine weeks w the infected animals have been under observation no them have ever shown any gross sign of disease.

CONCLUSIONS.

The examination of trypanosomes seen in stained specir of blood from cases of trypanosomiasis, from cases of slee sickness (typical or doubtful), in the specimens of cer spinal fluid of the latter cases, and in the blood of ex mental animals, infected with either of three above-menti fluids, has led us to the following conclusions:

1. The trypanosomes seen in the blood of man, whe symptoms of sleeping sickness were present or not, always been the same. The number of cases in which panosomes from the spinal fluid have been examined present too small to permit of a definite description of phologic characteristics. We have seen forms in the cere spinal fluid similar to those described by Bruce[3] and Ca lani,[4 5] and also longer forms similar to those seen in finger blood of the same cases.

2. None of the human trypanosomes seen, whatever t source, have presented any morphologic appearance inc patible with Trypanosoma gambiense.

3. The parasites seen in rats inoculated with the cere spinal fluid of cases admitted to the hospital for slee sickness are the same as those seen in rats inoculated the blood of cases of either sleeping sickness or sin trypanosomiasis.

4. The organisms seen in the blood of rats inoculated trypanosomes from any of the three indicated sources hav to the present shown no differences from those observe animals infected with Trypanosoma gambiense.

We have observed the extraordinarily long forms v prolonged flagella and the stumpy forms with short flag described as occurring in animals inoculated with the gamb parasite.[6]

We have therefore no reason to suppose that the organi seen by us in the Congo are other than Trypanos gambiense.

REFERENCES.

[1] Christy, The Epidemiology and Etiology of Sleeping Sickne Equatorial East Africa, with Clinical Observations, Royal Society Sl ing Sickness Commission, Report III, November, 1903. [2] Laveran Mesnil, Des Maladies à Trypanosomes, leur Réparition à la Surface Globe, *Janus*, August 15th, 1903. p. 395-402. [3] Bruce, Royal Society Slee Sickness Commission, Report I, August, 1903. [4] Castellani, Royal Soc Sleeping Sickness Commission, Report I, August, 1903. [5] Kruse, U das Trypanosoma Castellani den Erreger der Schlafkrankheit. *Sitz berichten der Neiderrhein Gesellschaft f. Natur. u. Heilkunde zu Bonn*, 1903. [6] J. E. Dutton and J. L. Todd. First Report of the Trypanosomi Expedition to Senegambia, Liverpool School of Tropical Medic *Memoir* XI.

COLONIAL NURSING ASSOCIATION.—The Goldsmiths' C pany has, according to the *Daily Chronicle*, forwarded £ and the Mercers' Company 10 guineas, while other contri tors have given smaller sums to the Colonial Nursing Asso tion, Imperial Institute, S.W., in response to a letter of app recently issued by the Committee. The Association, of wh Lord Grey is President, has since its foundation in 1896 s plied nearly 200 nurses for work in the Crown Colonies and other British communities abroad. At the present time nurses are at work in various parts of the Empire.

MEMORANDA:

EDICAL, SURGICAL, OBSTETRICAL, THERAPEUTICAL, PATHOLOGICAL, Etc.

SOME CLINICAL FEATURES ASSOCIATED WITH GUINEA-WORM.

MAN comes to hospital with urticaria over his limbs and elsewhere all over his body. He has a "puffy" face and frequently a rash—papular or only erythematous—and sometimes oedema of the eyelids. Simultaneously epigastric pain accompanied by vomiting comes on spasmodically. The only preceding symptom has been itching and tingling; the bowels have been acting well; no food of an indigestible character has been partaken of, and the vomit does not contain evidence of such; in short, there is no apparent cause for the urticaria.

The temperature is at this stage normal first, but very soon becomes about a degree subnormal, and is then accompanied by marked dyspnoea, irregular feeble pulse, and "muffled" heart sounds at both apex and base. Presently the vomiting ceases and at the same time the urticarial weals become less prominent and the acute symptome generally diminish, but the "puffiness" of the face remains; the heart sounds are still "muffled." Within a few hours the temperature has risen to nearly three degrees above normal. Either at this period or from the very onset there is frequently noticed oedema over the front of both tibiae, or of only one, perhaps.

There is no anaesthesia, nor are there are paretic symptoms anywhere. The heart sounds are normal now, the pulse normal, urine normal, and no feeling of *malaise* or headache as a rule (in spite of the pyrexia). The skin is generally desquamating on the upper and lower extremities.

The guinea-worm is very soon evident locally (perhaps at the outset it had been already noticed as a small localized "firmness" in the tissues of the leg).

All symptoms disappear in a few days from now, except the oedema of the legs and the abnormal temperature—the former persisting indefinitely (now in one leg, now in the other), and the latter (which had generally reached its maximum at about midnight) subsiding gradually with the oedema.

As the oedema subsides, the temperature tends to become subnormal, so that with the disappearance of the oedema the temperature may be as low as 96° at midnight, and about normal during the daytime (morning and afternoon).

The oedema and the abnormal temperatures persist even after the guinea-worm—if one has been present—has been completely got rid of.

Fyzabad, Oudh. D. C. Kemp, I.M.S.

A CASE OF LAND SCURVY.

The following case seems worthy of notice as land scurvy is so rare in this country.

Some weeks ago I was called to see a well-to-do old lady of 78 who was said to have sprained her left ankle six weeks before. There was no clear history of a twist, but it was supposed that the condition could be accounted for in no other way. The ankle was swollen, and there was a good deal of pain. The ankle was swollen, and there was a good deal of recent subcutaneous haemorrhage about the joint. On the outer side of the leg, just below the head of the fibula, were three blotches of greenish-yellow discoloration, resembling bruises made by finger tips. The patient remarked that during the last few days the right ankle had become swollen and discoloured, and on examination a similar condition was found, though not so extensive as on the left ankle. Her temperature and pulse-rate were normal; her complexion though pale was apparently natural; the tongue was clean but her breath was very offensive; the urine was normal and the bowels said to be regular. The gums were normal and edentulous except in five scattered places, where some yellow stumps of teeth remained. Around these teeth the gums were swollen, dark red, and spongy. This state of affairs in the mouth had existed for some months. There was no history of haemorrhages from any mucous membranes. Her diet for the last nine months, owing to a fright caused by an accident in deglutition, had been almost purely liquid and devoid of fresh vegetables. Breakfast was composed of cocoa made with a little milk, said to be fresh and unboiled. A dry pin biscuit was nibbled at the same meal. Dinner consisted of clear soup made with meat and strained. Tea was similar to breakfast and supper to dinner; no vegetables had been used for many months.

She was ordered an antiscorbutic diet, namely, fresh vegetables and various fruits, and at my next visit, a week later, I found her improving. Unfortunately, no thorough examination of her body could be made, as she was an old maid with prejudices against a *locum*, so it cannot be stated whether there were other haemorrhages about her body, and for the same reason the subsequent history of the case cannot be given.

Starbeck, Yorkshire. J. W. Malim.

HAEMOPHILIA IN A FEMALE CHILD.

Haemophilia, as a general rule, is transmitted through the female members of a family to their male descendants, though the mothers themselves may never have shown any exceptional tendency to bleeding. The opposite condition of affairs was the interesting feature in the following case, and hence my excuse for putting it on record.

F. H., a female child, aged 11 months, was admitted into the East London Hospital for Children, Shadwell, E., on September 7th, 1901. About four weeks previous to admission she had measles, from which she had completely recovered, and about three weeks later bruises developed on the right wrist, the lower part of her back, and on both legs. Three days before admission the patient fell off a chair, and cut her gum, and since then she has been continuously bleeding from the wound. There had been no diarrhoea, but the stools were quite black. She vomited blood several times. Nothing peculiar was noticed about the urine. The patient was a breast-fed child. There was no history of any other previous illness, and she never had bruises before.

Family History.—The father and mother were quite healthy; there was one other child in the family who was quite healthy. The mother had had three miscarriages. The grandmother and two aunts on the father's side had been "bleeders;" the grandfather had died of phthisis. Both parents on the mother's side had been perfectly healthy.

Condition on Admission.—The patient was well nourished, but she was very pale and bloodless; she was very restless. Respirations were short and 44 to the minute; pulse soft and 144. The tongue was rather dry. Blood was continuously oozing from the gum opposite the right upper central incisor tooth; there was a slight wound of the mucous membrane at this point. The throat was healthy. The heart and lungs were natural. The abdomen was rather distended. There was no blood in the urine. On the outer side of the right leg there were several bruises, as also on both arms. For about thirty-six hours after admission the haemorrhage continued in spite of various local applications—ice, tinct. ferri perchlor., and a solution of suprarenal extract. The patient's condition became extremely serious, the pulse was scarcely perceptible at the wrist, the temperature went up to 102°, and the restlessness became more marked, so that the patient had had no sleep since admission. Several stools were passed containing dark altered blood. Eventually the bleeding ceased, the patient made a good recovery, and was discharged on the 22nd of the same month.

I am indebted to Dr. J. A. Coutts, under whose care the patient was, for kind permission to publish this case.

P. Stanley Blaker, M.R.C.S., L.R.C.P.Lond.,
Late Resident Medical Officer, Children's Hospital, Shadwell, E.

CASE OF POISONING FROM ATROPINE EYE DROPS.

About 9 p.m., on October 14th, 1903, I was called to see S. C., a boy 7 years old, who was said to be delirious. I found him in bed, talking rapidly and incessantly, frequently smiling to himself and now and then laughing outright. He was continually tossing about in the bed, occasionally sitting up and looking round the room as if frightened at something he saw. His face was flushed and his eyes were unusually bright. Every now and then he picked at the bedclothes with his hands as if gathering something. But he seemed to know me, and answered my questions, explaining that he was gathering strawberries which were growing on the bedclothes. His temperature was 100.2°, and his pulse 96. There was no rash or sore throat. His pupils were moderately dilated and insensitive to light.

I was told that he had been well until that afternoon, when he had complained of giddiness and dryness of the throat, and had seemed strange in his talk. In the evening these symptoms had increased, and he was unable to swallow except with difficulty, and was very unsteady on his feet. He began to talk of seeing things—in fact, had visual hallucinations—such as the strawberries already mentioned, strange men in the room, birds about the ceiling, and railway signal posts in the corners. He had occasional severe convulsive jerkings of his arms and legs.

The symptoms suggested poisoning by belladonna, and I found he had had drops for the eyes prescribed by an ophthalmic surgeon for refraction purposes, consisting of 1 gr. of atropine sulphate in 2 drachms of water. One drop was to be dropped into the eyes three times a day, and had been begun the day before I saw him. The symptoms began to show them-

selves after the fifth instillation, and after the sixth assumed the characters that had alarmed the parents. I made careful experiments with the dropper which had been used (and used, I was assured, with great carefulness), and I found that it dropped a minim with very fair accuracy, so that, seeing both eyes were treated, a total of 12 minims of the drops had been used, equivalent to $\frac{1}{10}$ gr. of atropine, and this was spread over a period of two days.

The symptoms became somewhat worse during the night, and persisted with but little alteration during the next day. There was no sleep, but the convulsions did not increase. During October 16th the symptoms gradually subsided, and on the 17th the patient was substantially well, although the pupils were still, perhaps even more, fully dilated.

The case seems unusual enough to be recorded, as I find there are not many published, and one does not expect such an apparently alarming condition to supervene on such a simple and usual procedure as the paralysis of accommodation in a child by an ordinary solution of atropine. Must there not have been some idiosyncratic susceptibility? One frequently meets with an intolerance of belladonna as an external application in the shape of plaster or liniment, but one does not see in such idiosyncrasy anything more than severe dermatitis of varying form, never in my experience typical constitutional symptoms, even though a raw absorbent surface has resulted from the applications.

Walthamstow. C. H. WISE, M.D.

A RAPID METHOD OF PREPARING DRIGALSKI AND CONRADI'S MEDIUM FOR THE DIFFERENTIATION OF B. TYPHOSUS AND B. COLI COMMUNIS.

IN the original account of the preparation of this medium the details are so lengthy that it is impossible to complete the process within the compass of a working day, and often two, or even three, days are required. On casting about for a short cut to the desired result I find that the following modification answers admirably:

To make a litre of the medium—

Take 10 grams Liebig's extract of meat (Lemco) and dissolve in 1 litre of water; heat to boiling.

Add 10 grams Witte's peptone,
10 grams neutrose,
3 grams NaCl
2.75 grams agar.

Steam in Koch's sterilizer for two hours.

Neutralize with pure Na_2CO_3.

Put in autoclave thirty minutes at 115° C.

Filter. (Filtration requires on an average forty-five minutes.)

Add to filtrate 100 c.cm. neutral litmus (Kubel and Tiemann's) which has been recently boiled and mixed with 15 grams lactose.

Neutralize with Na_2CO_3.

Add 2 c.cm. 10 per cent. Na_2CO_3.
10 c.cm. 1 per thousand crystal violet.

Sterilize in Koch's sterilizer (fifteen minutes).

Pour into large Petri dishes to depth of 2 mm.

The entire process is completed in three to four hours, and the volume turned out is just about a litre.

DAVID SOMMERVILLE, B.A., M.D., D.P.H.

State Medicine Laboratories, King's College, London.

CONGENITAL DISLOCATION OF THE KNEE WITH TALIPES CALCANEUS.

ON April 24th, 1903, I attended the confinement of a woman who was delivered of a female child. The presentation was the normal cranial one; the labour was tedious and was finished with forceps. The child's left knee was found to be in a position of extreme hyperextension, displaced backwards, and it presented the features of the condition known as genu recurvatum. The presence of the patella was made out, though with difficulty on account of the looseness of the skin over the knee. The deformity was easily corrected, but when the support was withdrawn the knee assumed its former position. The right knee was normal; there was also present double talipes calcaneus.

There was no record of talipes in the family history of the parents, but it appeared a somewhat remarkable circumstance that the father—who at the age of 17 had received a severe injury to his right knee in a machinery accident, resulting in a flail-like joint—requires the continuous use of mechanical apparatus to enable him to use the right limb.

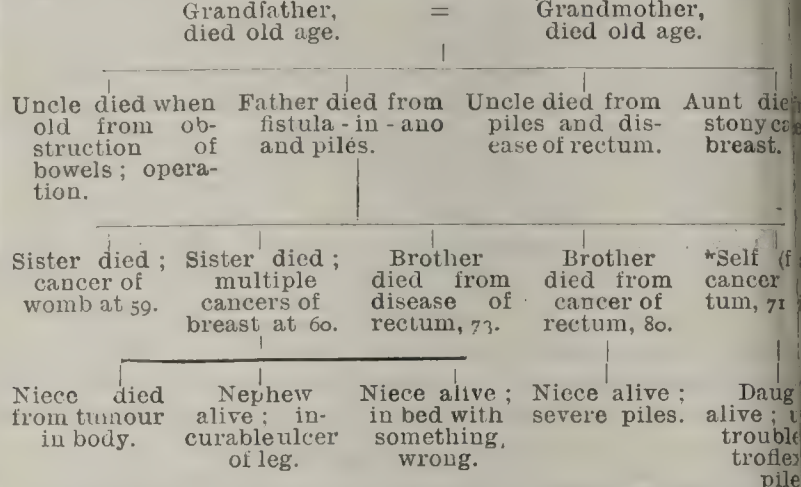
The treatment adopted was to keep the limb in a position of flexion by a suitable splint, and now, after the lapse of eight months, the knee appears normal, and extension can be made without producing backward displacement.

In conclusion, it may be remarked that the term "c[ongen]tion" is not strictly applicable to a congenital conditi[on] the one described; that it is rather a subluxation or ba[ck]ward displacement of the knee, due to contraction of the ex[tensor] muscles and to defect in the formation of the joint, a[nd] this is probably brought about by the position of th[e] in utero, the limbs being packed in a position of ext[ension] along the ventral surface of the body instead of being f[lexed]

Glasgow. GEORGE JUBB, M.D.

A FAMILY TREE.

THE accompanying table shows the causes of death in the family of a female patient I am now attending. My p[atient] suffers from cancer of the rectum of the usual type, within the reach of the finger, and also from ordinary in[ternal] haemorrhoids.



The relationships all refer to the patient marked with the asteris[k] the information is just as supplied by her, and in many cases quently not sufficiently definite, but even in the indefinite cas[es] cause of death is at least suggestive of malignancy.

The family history is, I think, remarkable both fro[m] number of cases of malignant disease, and also from the number in whom the rectum seemed to be the seat of disease or other. It is also, of course, interesting as be[ing] upon the question of the inheritance of cancer.

Lincoln. D. J. G. WATKI[N].

CASE OF LABOUR IMPEDED BY FETAL BLADD[ER] CYST.

THE following case is of interest on account of its rarity:

On January 12th, 1903, I was called to see Mrs. H[.] aged 31, who was in labour. She had had one c[hild] previously, now 1 year 7 months old, whose b[irth] gave no trouble. The membranes had ruptured, a[nd] the presentation was vertex, second position, the os fully dilated. The head was very slow in com[ing] down, yet there seemed to be plenty of room. Eventu[ally] about seven o'clock the head was delivered, but traction d[uring] during pains failed to bring the rest of the child. Thinki[ng] the shoulders were possibly the cause of the difficult[y] brought down the arms, the left one towards the mate[rnal] pubes. Considerable force now effected no delivery, and [the] abdomen was palpated to discover if possible the cause [of] delay. By this time the fetus was apparently dead. [No] second child could be made out, no other fetal heart hea[rd] but the abdomen still remained very large. Nourishm[ent] was administered, and hot bottles, etc., applied. I sent [for] my partner, Mr. Eades, when chloroform was given, and [the] hand introduced into the uterus discovered the abdomen [of] the fetus to be of enormous proportions.

Dr. Herbert Brown was then sent for. On his arri[val] chloroform was again administered. He made an incis[ion] with a scalpel in the left side of the fetus through the d[ia]phragm into the abdominal cavity, but not much fl[uid] escaped, and extraction was still impossible. Simpson's p[er]forator was then introduced into the wound and the openi[ng] enlarged. The hand was introduced into the abdomi[nal] cavity of the fetus, and a huge cyst was felt occupying t[he] greater part of the abdomen. It appeared to be about t[he] size of a football. This was torn through with the finger, a[nd] a large quantity of clear fluid was violently discharged. T[he] fetus was then easily removed. There was no trouble wi[th] the placenta and membranes, and the uterus contract[ed] firmly. An intrauterine douche of 1 in 4,000 perchloride w[as] given.

patient bore the manipulation exceedingly well, and ned a good pulse and colour. On regaining consciousse said she felt comfortable. The subsequent progress ffectly normal.

xamination of the fetus was kindly made for me by wn, from whom I have obtained the following notes: cystic tumour referred to above was found to be an usly dilated urinary bladder. The external genitals nperfectly developed. The penis was very small, and in the subcutaneous tissue, only a small preputial fold isible externally. Both testes were retained in the en. There was no anus, the colon terminating blindly level of the sacral promontory. The vesical orifice of ethra was found, and admitted a fine bristle; this could sed along the very minute urethral canal as far as the but the canal terminated here, and the glans was imate. The large quantity of fluid which distended the r evidently represented the entire urinary secretion of tus, and none had passed into the liquor amnii. No measurement of the amniotic fluid present could be ed, as the membranes had ruptured before the patient isited, but very little fluid escaped after extraction of tus. This appears to be of interest as indicating that at any rate, of this fluid is derived from the urinary ion of the fetus."

A. W. Paterson, M.B., C.M.

MATION OF THE SPECIFIC GRAVITY OF URINE

e quantity of urine is too small to float a urinometer, it nerally diluted with one, two, three, four, six or more nes of water as required and the specific gravity taken in usual way. The actual specific gravity of undiluted urine tained by multiplying the last two figures of the specific ity of diluted urine by the number which represents ion. This rule which is given in textbooks, no doubt ers very well when equal parts of urine and water are n, but it does not hold good for other dilutions. In such s it is necessary to multiply the last two figures of the ific gravity of diluted urine by the number which repres dilution and then add the number representing dilution ne product obtained. For example, if one part of urine be ted with three parts of water and the specific gravity of diluted urine be 1004, then the specific gravity of undiluted ne will be 1020 as shown:

$$(04 \times 4) + 4 = 20.$$

cording to the old method the specific gravity in this e would come to 1016 which is less approximate than the ner and this can be easily verified by taking a sample of ne of a known specific gravity and making dilutions at will l noting the specific gravities obtained.

J. Mallannah, M D., D.P.H.,
Lecturer, School of Medicine, Hyderabad.

ADRENALIN IN PULMONARY HAEMOPTYSIS.

NOTE that Graeser, as quoted in the Epitome of the British EDICAL Journal of November 14th, 1903, has had good results th adrenalin in the treatment of haemorrhage in enteric ver and reports a case. I have been fortunate a few weeks o with a case of haemoptysis in pulmonary tubercle: A ung lady, aged 26, with a family history of phthisis had en under my care and undergoing the open-air treatment nce January, 1903. Tubercle bacilli were found in the utum in considerable numbers at first, and her right apex as affected and the usual physical signs were apparent. er weight then was 9 st. 8 lb. She never had any haemotysis. She did well, and on July 7th no tubercle bacilli ould be found in the sputum. No active mischief was iscovered at the right apex, and her weight had increased o 11 st. ½ lb. At the end of July she went away for change f air and came back again here early in September, and ppeared to have benefited by the change.

On September 12th the patient went up to her bedroom at night, when she suddenly coughed up about three-quarters of a wineglassful of frothy blood. I gave her two 5-gr. tabloids of suprarenal gland (B. W. and Co.), and of course ordered the horizontal position with the head on a level with the body, and the usual iced drinks, etc,

Next morning she had considerable tickling in her throat and a good deal of coughing, and complained that she kept on tasting blood. On my arrival she had a bout of coughing, and brought up about a teaspoonful of blood. I then gave her 25 drops of solution adrenalin chloride 1 in 1,000 (Parke, Davis, and Co.) with two teaspoonfuls of water, and repeated the dose again in the evening. My patient had no more haemoptysis, and is continuing to do well, although the cavity at the right apex from which the blood came is of course larger. There is now no active mischief going on. I may add that I examined the larynx, and found no ulceration that would have accounted for the bleeding, although during the first month of her illness (January, 1903) there was a slight ulceration, which, however, rather quickly answered to treatment locally and the open-air cure.

Arthur C. Bird, M.R.C.S.Eng. L.R.C.P.Lond.

Sidmouth.

REPORTS
ON
MEDICAL AND SURGICAL PRACTICE IN THE HOSPITALS AND ASYLUMS OF THE BRITISH EMPIRE.

44TH GURKHA RIFLES REGIMENTAL HOSPITAL, SHILLONG, ASSAM.

EXCEPTIONAL CASE OF ENTERIC FEVER.

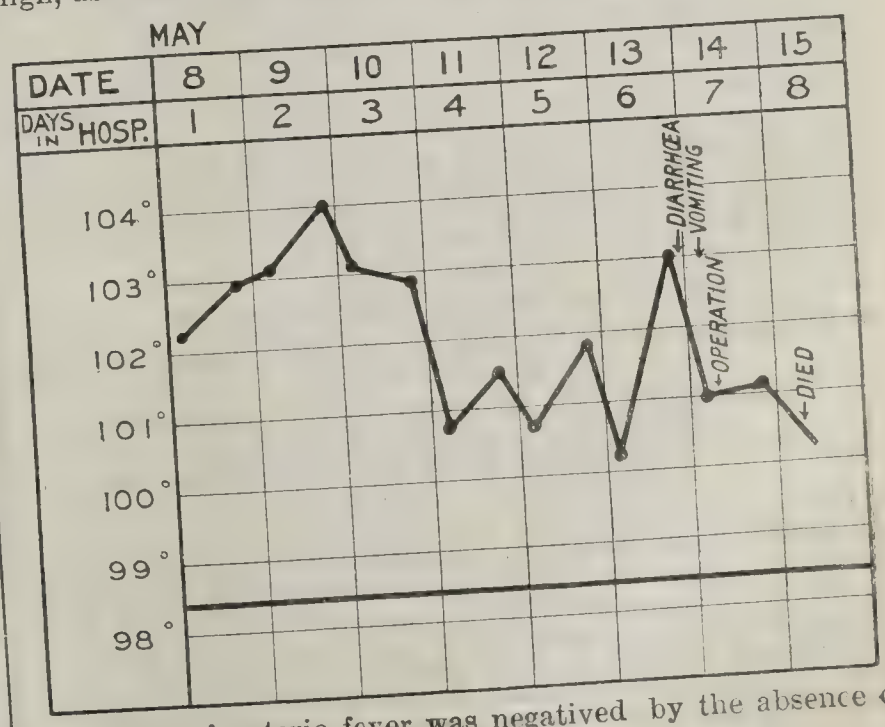
(By G. Denne Franklin, B.A., M.B., B.C.Cantab., Lieutenant I.M.S.)

History.—Musician Badha Sing Pun, aged 20, with nine months' service, was admitted into hospital on May 8th, 1903. He had been in previously for two days in the middle of April of the same year. He was then suffering from a mild attack of dysentery. The stools at that time were few, but were typical of the disease, which is a common one among the Gurkhas here. With two full doses of ipecacuanha the stools became formed and normal in every way, and the man was sent back to duty.

State on Admission.—His temperature was 102°. His pulse was over 100, and of good tension and volume. His tongue was clean. There was no rash. His heart and lungs were normal. The abdomen was not distended, nor was it tender. The liver could not be felt. The spleen extended to 1 in. below the costal margin. It was moderately hard. The urine was normal. A stool passed shortly after admission was formed and normal. There was no headache or any cough.

Diagnosis and Treatment.—The case was considered to be one of chronic malarial fever, from bouts of which during the present rains Gurkhas are very prone to suffer, owing to the fact that they practically without exception are malarious when enlisted in Nepal. The slight enlargement of the spleen also added strength to this diagnosis. The patient was sent to bed and placed on a milk diet, quinine being administered.

Progress.—For the next five days the patient continued to suffer from fever, but apart from that there were no other abnormal symptoms. His stools were normal, and he was free from pain of any kind. The temperature remained fairly high, as can be seen from the accompanying chart; but the



possibility of enteric fever was negatived by the absence of

any other symptoms, and the general condition of the patient, which was excellent. The case was, however, considered a peculiar one, and the patient was kept in bed, and on a rigid milk diet. On the evening of May 13th the patient passed an ordinary loose watery stool. He still complained of no pain, and the abdomen was normal with the exception of the splenic enlargement. He passed two similar stools during the night. On waking up on the morning of the 14th he complained of intense pain in the abdomen. The patient's face had a pinched appearance, and was covered with sweat. The tongue was clean. The pulse was 120, and thin and wiry—in fact, typical of peritonitis. The extremities were cold. The abdomen moved but slightly on respiration, and looked slightly full. The liver dullness was absent, and there was dullness in both flanks. The abdominal wall was rigid and exquisitely tender, in fact the pressure of the blanket could hardly be borne. Vomiting occurred on two occasions, and the vomit consisted of partially-digested milk.

Operation.—Laparotomy was performed the same day. The abdomen was opened in the middle line below the umbilicus. There was an immediate gush of purulent liquid faecal matter. The gut which presented was congested and covered with plastic lymph. The caecal region was first examined and the appendix found to be normal. On tracing the small intestine upwards a perforation was found 9 in. from the caecum. This was closed in the ordinary manner, and the peritoneum was thoroughly cleansed with a hot, weak antiseptic solution. The abdominal wound was then closed with the exception of its lower end, through which a drainage tube was inserted. The patient improved during the operation, and took chloroform very well. He rallied towards the evening, but later became collapsed, and died at 3 a.m. the following morning.

Necropsy.—This was made the same afternoon. The spleen was enlarged and congested, but not as soft as in cases of enteric fever at home. The peritoneum was dry, but showed the usual other signs of recent peritonitis. The intestine, with the exception of the last 14 in. of the small intestine, was healthy; 9 in. from the ileo-caecal valve there was the perforated ulcer which had been closed the previous day. It was oval and its edges were cleanly cut. It was situated opposite to the mesenteric attachment. There were two other ulcers nearer the valve; they also had clean edges, and their floor was formed by the muscular coat. In addition to these ulcers there were a large number of greyish-white swollen follicles, extending from the ileo-caecal valve up for 14 in. The mesenteric glands were swollen slightly; two or three contained pus. The remaining organs were macroscopically healthy.

REMARKS.—In reviewing this case of ambulatory typhoid fever, it appears probable that the dysentery of the previous month was not dysentery but enteric fever. If it was so, then in enteric fever it is possible to get a stool differing in no way from the ordinary dysenteric stool, as this man's stools when he was admitted in April differed in no way from the stools of the men, 40 or 50 of whom were admitted in May for dysentery, and were completely cured by a few doses of ipecacuanha and milk diet. The absence of any symptoms save the fever during the first five days of this patient's admission was remarkable, as also were the absolutely normal stools and the absence of abdominal tenderness. The rapid onset of the peritonitis, or at any rate of the symptoms of peritonitis, is also remarkable. The case is, moreover, interesting, as enteric fever is not common among the Gurkhas up here, whereas every variety of chronic malarial fever, which this case at first strongly resembled, may be observed daily.

ST. MARYLEBONE INFIRMARY, W.

SPINAL CARIES IN A MAN AGED 60, WITH ABSCESSES POINTING IN THE EPIGASTRIUM.

[Under the care of J. R. LUNN, F.R.C.S.Edin., Medical Superintendent to the Infirmary.]

(Reported by W. SIDNEY PAGE, M.B.Lond, M.R.C.S., Assistant Medical Officer to the Infirmary.)

History.—W. H., aged 60, a tailor by trade, was admitted to the infirmary on July 17th, 1902, compaining of pain in the abdomen and general weakness. He had been at his work up to within a week of his admission, and he had to give it up on account of constant abdominal pain and loss of strength. The onset of symptoms was slow, and he had experienced this pain for about a month and began to lose his appetite about the same time. There was no history of injury.

State on Examination.—In appearance he was a ma small stature, and in a very emaciated condition. His a men was extremely hard, almost like a board, and there slight tenderness in the epigastric angle. It was in sible to palpate the abdomen without an anaesthetic o to the immediate contraction of his abdominal muscles. percussion note was fairly resonant over the whole abdo On asking the patient to sit up he did so with difficulty very slowly. He kept his spine very rigid, and there slight prominence of the third, fourth, fifth, and sixth d spines. There was no tenderness over these vertebrae was any pain elicited on tapping him on the head or h He had a slight cough of some three months' duration. examining his chest both lungs were found diseased, the apex being more advanced than the right. His weigh admission was 6 st. 7¼ lb.

Progress.—He was kept in bed and allowed a very lib diet. He seemed to improve a little, and certainly took food better. He remained lying flat in his bed for mon his temperature was never up; his cough was extrem slight, and he never had any haemoptysis. His only constant complaint was the fixed pain just below the xi sternum, and his difficulty in sitting up. During t months the dorsal curvature of the spine slightly increa but it never became in any degree angular. In January, 1 there was noticed for the first time a cystic tumour appea over the costal cartilages of the seventh and eighth ribs ab 1½ in. to 2 in. from their junction with the sternum. It w small, painless, tense, fluctuating; there was no sign o inflammation around it. It increased in size till it was ab 1 in. long and ½ in. wide, and slightly raised above the sur of the abdomen. I personally did not connect this swel with his spinal mischief, as I had never seen or read of This did not increase in size, and during the next two mon it remained much the same. The patient gradually sank d died after being in the infirmary about nine months.

Necropsy.—The apex of the right lung was consolidated, a there were were scattered foci of tubercle in the middle lo There was a small cavity in the apex of the left lung and e lower lobe was also affected. The cyst was found to be a c abscess, and there was another one forming in a correspond situation in the other side of the epigastric angle, but t had not quite reached the surface. Both of these abscess we traced back along the wall of the chest to a large absc situated over the third, fourth, fifth, and sixth dor vertebrae. The bodies of the fourth and fifth dorsal verteb were almost completely eroded. As far as could be made o the pus seemed to follow the course of the intercostal nerv and thus made its appearance at the epigastrium. There w no signs of pressure on the cord during life.

ST. LEONARD'S HOSPITAL, SUDBURY, SUFFOLK.

STRANGULATED FEMORAL HERNIA: OPERATION UNDER COCAIN

(By EDGAR HUNTLEY, M.B., B.S.Lond., Surgeon to the Hospital.)

DURING the temporary indisposition of Dr. Mason, I w called in early in the morning on November 13th, 1903, to married woman, aged 57, who was said to be suffering fro "inflammation of the body." From 5 o'clock the previo evening she had been in pain in the lower part of the abd men, had had frequent attacks of vomiting, and had notice the lump in the right groin, to which she was accustome get larger and more tender. On examining this mass the was no impulse on coughing. She was sent into hospit without delay, and given hypodermic injection of morphi (¼ gr.) at once.

Operation.—The region of the lump having been thoroughl cleansed three hypodermic injections of cocaine hydrochlo (4 per cent. solution) were given, each of 4-minims, on at the top, one at the bottom, and one over the middle of th lump. The ordinary operation for strangulated hernia wa then performed, and absolutely no pain complained of unti dividing the constriction at the neck of the sac, and even thi pain was not severe enough to make the patient move her leg No pain was evinced on ligaturing and freeing several masse of omentum, nor on twisting, ligaturing, or removing the sac The stitches were felt being put in, but in a very mild man ner. On being carried on the stretcher back to bed she remarked, "That's a nice ride." The after-progress wa uneventful.

REMARKS.—This case is reported in order once more to call attention to the benefits of cocaine or eucaine for such cases over general anaesthetics, namely, (*a*) the absence o

l upset and vomiting; (*b*) the freedom from the risk ed to general anaesthetics, especially where eucaine is Beyond these there is the probability of being able to valuable time when called long distances in the y, and not having to send miles for a second pair of

REPORTS OF SOCIETIES.

INBURGH MEDICO-CHIRURGICAL SOCIETY.

BREWIS, M.D., F.R.C.P.E., President, in the Chair.

Wednesday, January 13th, 1904.

VAGINAL CAESAREAN SECTION.

MUNRO KERR (Glasgow) read a paper on this subject. ssen's name was specially associated with this opera- as he had since 1895 strongly recommended it. Criti- had been rather adverse to the operation, although m and a few others had expressed themselves strongly in vour. The speaker thought it most unfortunate that this nod of treatment should be pitted against dilatation by i's or Frommer's dilators, as each had its place. The ation was a much more extensive one than the making eep incisions into a cervix already obliterated, for it con- d in stripping the bladder off the anterior uterine wall possibly the peritoneum from the posterior wall, and tting the cervix anteriorly, and, if necessary, poster- y right into the uterine cavity. He then described case. The patient, the subject of hyperemesis vidarum, became suddenly and extremely collapsed, the end of the fifth month; dilatation was empted, but the cervix was so extremely rigid that only a . 10 Hegar could be introduced. He stripped the bladder the uterine wall, made a median incision right through the ernal os, and readily removed the fetus and placenta, then tched up the uterine wound with catgut and brought the dder down into its place. The stitching was not difficult d there was no bleeding. The patient made an excellent overy and the wound healed perfectly. The following guments in favour of Duhrssen's operation had been ad- nced: (1) It was sometimes the only method by which pid emptying of the uterus was possible—for example, in ses of extreme rigidity of the cervix; (2) it was the most pid method of emptying the uterus; (3) there was little shock, d the wound obtained had clean-cut edges. The disadvan- ges were that it required some surgical skill, good light, d competent assistants. The speaker thought that it was operation less suited to general practice than dilatation ith Bossi's instrument. It was not often required, but in rtain cases it was the best operation to practise. It was ecially indicated in cases of extreme cervical rigidity, and so in accidental haemorrhage, for which hysterectomy was present more often advocated.

BOSSI'S DILATOR.

Dr. J. W. BALLANTYNE gave an account of his experience with the Bossi dilator in eight cases of complicated labour. He referred to the effect of the introduction of a new method of treatment, to the consequent disturbance and readjust- ment of medical opinion, and to the value of case records in establishing such a readjustment. He then narrated his 8 cases, of which 3 were accompanied by eclampsia and 1 by albuminuria; 2 had narrow pelvis, 1 hydramnios and placenta praevia, and 1 accidental haemorrhage. None of the cases were normal labours. Three infants survived birth, but 1 only for a few hours. The more dangerous cases were those where the cervix was not taken up. The risks were severe laceration of the cervix and consequent haemorrhage, and that of septic trouble. Asepsis was not always possible, and it was necessary to fall back on antiseptics. The other dangers were those associated with all rapid methods of de- livery. Bossi's dilator was an instrument to be worked with the head rather than the hand.

The two papers were discussed together by Professor A. R. SIMPSON, Dr. HAULTAIN, the PRESIDENT, and others; and Drs. KERR and BALLANTYNE replied.

Specimens were shown by Professor SIMPSON.

BRISTOL MEDICO-CHIRURGICAL SOCIETY.—At a meeting of this Society on January 13th, Mr. J. PAUL BUSH, C.M.G., in the chair, Dr. H. ELWIN HARRIS showed a case of congenital absence of the left auricle and external auditory canal, with facial paralysis. Dr. FIRTH remarked on the case.—Mr. H. F. MOLE showed (1) patients on whom the radical mastoid opera- tion, or ossiculectomy, had been performed for the cure of chronic suppuration in the middle ear; (2) a case of choledochotomy with the stones removed; (3) a tumour grow- ing from the cartilaginous portion of the nasal septum; (4) a skiagraph of an unusual dislocation of the ankle.—Dr. J. M. FORTESCUE-BRICKDALE showed a cyst from below the liver, apparently an accessory gall bladder, and the brain of a child showing simple meningitis and considerable dilatation of the ventricles.—Mr. JAMES TAYLOR showed a skiagraph from a case of scurvy rickets.—Dr. E. W. HEY GROVES read notes and showed the specimen of a case of tubal gestation producing severe internal haemorrhage without rupture.—Dr. W. KENNETH WILLS read a paper on the present position of radiography in therapeutics, and Dr. THEODORE FISHER one on haematemesis associated with small white kidneys.—The various papers, cases, and specimens were discussed by the members present.

PATHOLOGICAL SOCIETY OF LONDON.

Professor E. KLEIN, F.R.S., Vice-President, in the Chair.

Tuesday, January 19th, 1904.

ON THE PATHOGENESIS OF CARCINOMA.

A COMMUNICATION upon this subject by Mr. K. W. MONSARRAT will be found on p. 173. In the discussion which followed upon this paper,

Dr. LAZARUS-BARLOW observed that if the organism isolated by the speaker from carcinoma of the human breast were capable of reproducing the disease in the lower animals, grafts of recently-removed carcinomata should be capable of doing the same; yet the latter was not the case. The cultures of the organism isolated by Mr. Monsarrat probably arose, in the speaker's opinion, as an external contamination. The inoculation results, nevertheless, were important in that tumour-like formations ensued, but of an inflammatory or an endotheliomatous type rather than a carcinomatous.

Mr. S. G. SHATTOCK did not share in the view taken by Dr. Lazarus-Barlow with respect to external contamination. There was no great difficulty in accepting the first and second of Koch's postulates; one had at present to view the presence of micro-organisms in the tissues as a symbiosis, and the blastomyces isolated from mammary carcinoma might be really in the tissue. Possibly, indeed, it was one of the causes of the mastitis so commonly the antecedent of car- cinoma, and Mr. Monsarrat had perhaps isolated the patho- genic factor of the mastitis, and not that of the accompany- ing carcinoma. Check experiments in this direction were needed. Everything turned upon the growths produced by the experimental injection. Mr. Shattock did not think it certain that a true carcinoma had been induced. In two cases the injections had been made into the mammary gland, but it was impossible to say without a study of the sections whether a proliferous mastitis only had been set up or a true carcinoma. The most suggestive result was that in which Mr. Monsarrat obtained a growth in the liver which appeared to start from the bile ducts. He moved that the author should submit his preparations to the Council of the Society.

The CHAIRMAN pointed out that examples of sporulation in certain blastomyces had been described resembling those referred to by Mr. Monsarrat.

NUTROSE AGAR.

Dr. J. W. H. EYRE described in detail methods for preparing this medium, the chief use of which was in connexion with the differentation of the typhoid and colon bacillus.

The CHAIRMAN observed that although the medium gave a reliable colour reaction with pure cultures, when faeces were used as the inoculating medium, the result was very unsatis- factory, and in only a few instances of typhoid stools was the bacillus recognized in cases where he had himself tried it.

Dr. W. BULLOCH spoke to the same effect.

Dr. EYRE, in reply, admitted that for success much pre- liminary technique was requisite, especially in order to diffuse the faeces in fluid with the object of disentangling the various organisms from one another.

A NEW PATHOGENIC BACILLUS (B. CARNIS).

The CHAIRMAN described an anaërobic bacillus of the malignant oedema class isolated from putrefying beef-tea, and pathogenic to animals.

A METHOD OF ISOLATING B. ENTERITIDIS SPOROGENES.

Professor R. T. HEWLETT demonstrated the above, which

consisted in using largely-diluted instead of pure milk. When a small quantity of milk was added to the water to be tested and the fluid incubated anaërobically, the usual clotting ensued and rendered the diagnosis easy.

COLON BACILLUS FROM A CASE OF EMPHYSEMATOUS GANGRENE.

Mr. L. S. DUDGEON recounted the bacteriological examination of the above case. The organism on injection into the tissues of animals did not produce emphysema unless mixed with staphylococcus aureus. In filtrates of its own culture the organism would not grow, whereas others of the colon group did so without difficulty.

LEEDS AND WEST RIDING MEDICO-CHIRURGICAL SOCIETY.

C. RICHARDSON, M.R.C.S.Eng., President, in the Chair.

Friday, January 8th, 1904.

BERANECK'S TUBERCULIN.

DR. CHRISTY WILSON read a paper on the subject of Beraneck's tuberculin. It was founded partly on his personal acquaintance with Professor Beraneck and his work from visits to Neuchatel, and partly on the paper read in November, 1903, before the Académie des Sciences at Paris, in which Professor Beraneck gave his first public account of the results of his nine years' work.

Dr. TREVELYAN observed that Beraneck's tuberculin appeared to be prepared on much the same line as Koch's old tuberculin and tuberculin R.; he doubted whether an active immunization by the toxins was likely to provide a really efficient means of treating tuberculosis. After some actual experience of sanatorium treatment he was quite prepared to admit that something more was wanted, no doubt in the shape of a bacteriological treatment, especially in cases with persistent pyrexia. If, however, Beraneck's tuberculin was as harmless as Dr. Christy Wilson maintained, it was only right to try it.

Dr. CHURTON also took part in the discussion; and Dr. WILSON replied.

TYPHOID PERFORATION.

Dr. BARRS and Mr. THOMPSON described the case of a young woman in whom an operation was performed with success for intestinal perforation due to typhoid. Dr. Barrs gave a clinical outline of the case, and emphasized the importance of early diagnosis. Operation was performed on October 5th at 11 p.m., two hours after the occurrence of perforation. The patient was suffering severely from shock, and was therefore infused with saline solution; 5 minims of strychnine were also injected. Under ether an incision about 4 in. long was made in the right linea semilunaris. On opening the abdomen, some 4 or 5 oz. of turbid fluid was found. There was no faecal odour or escape of faeces, and the intestines were small and empty. A small cleanly-punched-out perforation was found about 4 in. from the ileo-caecal valve. The perforation was the size of a filiform bougie; it was so small that it was missed at the first examination. The whole ulcer and perforation were inverted with a single continuous suture of Pagenstecher's thread. Two other ulcers which had roughened the peritoneum were treated in the same manner. The abdomen was cleaned and drained with gauze. The greater part of the wound was closed. For the next four days it was impossible to say whether she had general peritonitis or not. The wound suppurated and healed slowly, but she was now quite well.

Dr. C.M. CHADWICK, Dr. T. CHURTON, Mr. H. LITTLEWOOD, Mr. B. G. A. MOYNIHAN, and the PRESIDENT took part in the discussion; and Dr. BARRS and Mr. THOMPSON replied.

SPECIMENS.

Dr. C. OLDFIELD: (*a*) A specimen of hydatidiform mole; (*b*) a case of pyosalpinx.—Dr. CRAWFORD WATSON: A case of splenic enlargement.—Mr H. LITTLEWOOD: (*a*) Suppurating fibroid removed by abdominal hysterectomy; (*b*) a portion of catheter removed from the male bladder; (*c*) two specimens of ovarian cysts associated with pyosalpinx.—Dr. T. CHURTON: Three cases of recovery from tuberculous meningitis.—Dr. J. B. HELLIER: Specimens of tubal and ovarian disease.—Dr. GORDON SHARP: A case of periodic tonic spasm of muscles of right upper extremity following injury to the left motor area.—Mr. B. G. A. MOYNIHAN: A series of specimens from cases of enterectomy, colectomy, and proctectomy.—Dr. C. M. CHADWICK: A case of aneurysm.—Mr. A. L. WHITEHEAD: A case of empyema of the right frontal sinus, right sphenoidal sinus, both antra of Highmore, and of the eth cells on both sides.—Mr. CONSTABLE HAYES: Skiagraph and spe of a piece of steel removed from the eye by Mr. Secker Walker wi electro-magnet.—Dr. CHRISTY WILSON: A case of pylorectom gastro-jejunostomy five years after operation for perforating ulcer.

HUNTERIAN SOCIETY.—The second Hunterian lecture delivered on January 13th by Mr. ANTHONY BOWLBY, the ject being Pain: its Importance in Diagnosis and Tenden Mislead. Mr. Bowlby first pointed out the great utility of and what an essential part it played in the preservatio only of the organism, but of every tissue. He went on to out that nevertheless the value of pain as a symptom varie terially in different cases. In children pain was nearly alway important and valuable sign, especially in tuberculous jo rheumatism, and all the many conditions included unde popular name "growing pains." In old age pain was very slight considering the severity of the condition w excited it, as in strangulated hernia and stone in the blad Mr. Bowlby then gave illustrative cases in which dull, st people complained of no pain, whilst nervous, highly-cult people stated that they were suffering agony, although conditions were precisely similar. Neurasthenic pain m be produced in previously strong men by illness, accid excessive mental strain, or indulgence in drugs. This Bowlby illustrated from his South African experie He then passed on to the localization of pain, and part larly to what is known as "referred pain." He specially war his hearers in reference to the diagnosis of sciatica, and g cases in which such a diagnosis had respectively obscure sarcoma of the ilium, a secondary deposit of cancer in femur, and a large tuberculous abscess in the gluteal regi The lecturer then passed on to the reference of intestinal p to the umbilicus, and pointed out that in the earlier cases appendicitis the pain was often not located in the right il fossa, but was either general or was referred to the umbilic The appendix hung free in the peritoneum in these cases, when it contracted adhesions to neighbouring parts the p was localized.—Dr. GLOVER LYON referred to the sensibility pain observed among Hebrews, and to the possibility of cur it by suggestion.—Dr. ADAMS contrasted the sensibility Hebrews and Indian fanatics, and spoke of the absence pain in some cases of cancer and appendicitis.—Dr. DAV narrated a case of aneurysm which was painless, although eroded vertebrae. He thought doctors should guard agai suggesting pains to their patients.—Dr. GOODALL believed power to bear pain had greatly decreased since the introd tion of anaesthetics. He pointed out that the abdomi pain in some cases of acute pneumonia often led to err in diagnosis.—Dr. HOSFORD referred to multiple aneurys without pain.—Dr. LANGDON-BROWN spoke of a case of treme pain in the head which was never accounted for. referred to Mr. Barnard's published opinion that wh abdominal pain occurred in chest cases the diaphragm was a rule involved.—Mr. BOWLBY, in reply, said that Semit bewildered surgeons by unaccountable rises of temperatu as well as by pain. He agreed that the appreciation of p increased with the development of the intellectual faculti —At the same meeting a case of apparent chronic and diff mastitis was shown by Dr. A. V. HICKMAN in which a h cord extended to the umbilicus. It was examined, and opinion expressed that it was probably a case of ea scirrhus.

FEMALE PRACTITIONERS IN PARIS.—According to *Annuaire* for 1903 the number of women practising medic in Paris is 65. Of these 25 are Frenchwomen who for most part hold appointments in lycées, the Post Office, Telegraph department, normal schools, and training colleg The remainder are in private practice in which they are fai sucessful. Of the foreign medical women 10 are married Frenchmen, mostly doctors; the rest are single women mos Jewesses of Russian and Polish nationality. It may be m tioned that women are not admitted to compete for appoi ments on the visiting staff of hospitals or for the position *professeur agrégé*; with these exceptions, there is, we belie no medical post in France for which duly qualified women not eligible. Two women competed successfully for coveted appointment of *interne* of the Paris hospitals in 19 There are a few female medical practitioners at Lyo Bordeaux, Rouen, Havre, Montpellier, Vichy, Nice a Marseilles, all of whom are said to be doing well in their p fession.

REVIEWS.

OBSTETRICS.

R Clarence Webster, of Chicago, is an able histnd embryologist. He has studied frozen sections, rned in recent German literature. His *Textbook of*[1] is written clearly and dogmatically. The chief king in his equipment is a knowledge of practical y. He says in his preface that "emphasis is given ds of treatment that have been tested by experience." y be so: but we find methods described that we think have been tested by any large experience. We will larize some. In his directions for treatment of pro- the cord, Professor Webster rightly gives the first postural treatment. Like many others he speaks of nu-pectoral" position. What is meant is the knee- osition. He goes on to say, "In hospitals it is perore convenient (?) to employ the extreme Trendelensition instead of the genu-pectoral." We cannot see at convenience of propping the patient up on a special ith her head downwards, over putting her on her knees ows. Nor can we understand the obstetric advantage. the patient lies on her back, the long axis of the is inclined roughly, about 45 degrees to the horizon, the ri being the lowest part. When she is on her knees ows, the long axis of the uterus is vertical, the fundus the lowest part. The advantage of this position is ns. But in the Trendelenburg position, supposing the to be at an angle of 45 degrees to the horizon, the long f the uterus will be horizontal. This condition, if ht desirable, can be attained by putting the patient on de: an attitude more convenient to everybody than the elenburg position. We think the author cannot have ractical experience of treating prolapse of the cord by endelenburg position, or he would have found out its tability. The paragraphs on the treatment of placenta ia lead us to infer lack of practical experience as well of intance with the best English obstetrical literature. earner is given no definite guidance. He is told that authorities employ the tampon; that Barnes's bag may ed, but that Champetier's is of greater service; that ar version is much practised; that rupture of the mem- es is advised by some; that Barnes advocated separation e lower part of the placenta, and Simpson of the whole enta; and that Caesarean section has been done, and ely criticized by several authorities. The reader may f his choice among these different methods; Professor ster does not tell him which is the best. The vaginal tam- is no new treatment. It was introdnced by Leroux, in 1776, advocated by Baudelocque, Bernstein, Wigand, Dewees, en, Burns, Busch, and Rigby. We mention all these es to show that the tampon has been abundantly tried. fessor Webster says an objection to it is the "delay and ry." We turn to the man who, together with Lord er, brought the mortality of placenta praevia from 20 cent. down to 5 per cent., and with whose writings fessor Webster seems unacquainted; we mean Braxton ks. This is Hicks's judgement on the tampon: "The eral consensus of British midwifery is against its use, with this I am in accord—partly because, unless perly done, and this is difficult, it is of no use, and if fectly done it is very distressing to the patient." Now, think an author who recommends the tampon ought to tell student this. We cannot think that any one who has ampetier's bag would ever plug the vagina. We know not y Barnes's bag should be mentioned if Champetier's is tter—and we agree with Professor Webster that it is. ofessor Webster mixes up together the diametrically posite conditions of uterine inertia and tonic conaction of the uterus. It is unsound teaching on a most portant practical point. He cannot have read Braxton icks's essay on the condition of the uterus in obstructed bour, although this is a paper which every accoucheur ould regard as a classic. His want of acquaintance with is subject appears also in his chapter on the forceps. the chapter on "version, or turning," the author first escribes external version, which, he says, is "rarely easily erformed," then internal version, lastly, bipolar version. his seems to us the wrong order. It should have been external version, then bipolar version, then internal version, and the reader should have been told that internal version ought only to be done when bipolar version is impracticable, and bipolar version only when external version cannot be done. This is not a mere matter of arrangement; it may lead the student to bad practice. In describing internal version, the author says: "If the cervix needs to be somewhat dilated, the membranes should be preserved if intact." In these conditions we submit internal version ought not to be done; bipolar version is here indicated. This is a practical error of a grave kind. In the chapter on the forceps the author says, "whenever the forceps is applied to the head compression is undoubtedly produced. With the axis-traction forceps this is slight; with the short or long forceps this is greater, because the hands, in exerting traction, are used to keep the handles together, and can scarcely fail to compress the head unduly." We think it exactly the reverse. The main objection to the axis-traction forceps is that the handles have to be screwed together, and thus the head is continuously compressed. With the ordinary forceps it is not necessary to compress the head with the forceps at all, as was pointed out by Robert Barnes; all that is wanted is to pull; the pelvis will do all the compression that is needed and no more than is needed, and the pelvis will keep the blades applied to the head. The indications for forceps are badly given. The author says, "uterine inertia, manifested by weak or irregular pains." There is no hint of the vital difference between absence of pains and weak pains. Weakness of the pains is *the* indication for forceps; but, if pains are absent, forceps delivery is the worst possible practice. In the next paragraph we read, "when there is abnormal resistance on the part of the vagina or vulva, from conditions inherent to the walls or due to causes external to them." What the "conditions inherent to the walls" of a healthy vagina which produce "abnormal resistance" may be we cannot think. The instances known to us supposed to be of this kind resolved themselves on investigation into weakness of pains. The "causes external to them" we suppose mean tumours or disease of some kind in the pelvis; and we must protest against this indiscriminate recommendation of forceps delivery in such cases. When incarceration of the gravid uterus is present the author recommends passing a catheter and pulling back the cervix with a volsella while doing it. Has he ever tried this? He says "sometimes these methods may fail, and it is necessary to perform suprapubic puncture of the distended bladder." He goes on to recommend abortion through the cervical canal, puncture of the uterine body through the posterior fornix, and abdominal section. We have ourselves never known a competent man, with the use of his eyes and a good light, fail to pass a catheter in these cases. Professor Webster omits to mention that if the bladder is kept empty and the patient recumbent, in the large majority of cases, the uterus will rise spontaneously within forty-eight hours, and that if the uterus does not rise, if the retention is relieved, the pregnancy will probably go to term, the anterior uterine wall gradually rising in the abdomen to accommodate the fetus; and that, if this takes place, when labour comes on, the uterine contractions will pull up the posterior wall, pull the cervix down to its proper place, and effect natural delivery. These are well authenicated facts, very important to know before deciding on abdominal section. Nor does he mention that if the uterus does not right itself within 48 hours it may yet be pushed up; and therefore it is needless to say that he does not tell the student the best way to push it up. He describes the reposition of a retroverted uterus which is not incarcerated; a condition which he seems to think generally due to adhesions, although pelvic peritonitis commonly closes the tubes and thus causes sterility. He says it may be pushed up per rectum or per vaginam, but does not mention which is the better way nor the importance of pressing it towards one side, so as to avoid the sacral promontory, a point emphasized by Robert Barnes. He says that "gangrene of the uterine wall is very fatal." Is there any case recorded in such a way as to satisfy a critical reader that it was not ectopic pregnancy? Professor Webster is eclectic in his operations. Caesarean section, laparo-clytrotomy, symphysiotomy are described. Directions for the open and subcutaneous methods of symphysiotomy are given, but the author knows not what subcutaneous symphysiotomy is; the operation he describes under that heading is not subcutaneous. He describes further on another method which, if he had tried it, he would know was impracticable. From his remarks on cephalotripsy we

[1] *A Textbook of Obstetrics*. By J. Clarence Webster, M.D.Edin., F.R.C.P.E., F.R.S.E., Professor of Obstetrics and Gynecology in Rush Medical College, University of Chicago, etc. London: W. B. Saunders and Co. 1903. Demy 8vo, pp. 767; 383 illustrations. 21s.

infer that he has never used Braxton Hicks's cephalotribe, nor has he used Ramsbotham's decapitating hook; he recommends the comparatively inefficient decollator of Braun. In conclusion, we may say that while we gladly commend this work for its anatomy, histology, and embryology, we cannot recommend it as a guide to midwifery either to the practitioner or the student. We hope Professor Webster will keep up the anatomical and histological studies which he has pursued with such distinction, but we hope he may be induced also to read and assimilate the works of Burns, Denman, the two Ramsbothams, Matthews Duncan, and Braxton Hicks, not to mention the writings of living British obstetricians.

We reviewed the second edition of this excellent book[2] in our issue for March 4th, 1899, p. 540. In that notice we gave instances of the cautious, critical, and conservative attitude of Dr. AHLFELD towards novel proposals in practice. One of the principal points in which Dr. Ahlfeld's teaching differs from that commonly given is in the management of the third stage of labour. He advises what he calls the "waiting" (*abwartende*) method. This is his advice: After the birth of the child the umbilical cord is to be tied; then the genitals of the mother are to be washed, her perineum examined and stitched if necessary. Wet linen is then to be removed and replaced by dry. The patient is on her back, warmly covered, with her knees slightly separated. From time to time the doctor feels her pulse, and the midwife if necessary changes the pad in contact with the vulva. In 80 per cent. of cases it requires no changing for an hour and a-half. Then the bladder is emptied, and the placenta pressed out of the vagina by the hand applied over the fundus uteri. Ahlfeld advises that the placenta should be expressed slowly, and that when it has passed outside the vulva it should not be allowed to drop, lest the membranes should thereby be torn. Only in cases of haemorrhage should earlier expression of the placenta be attempted. Ahlfeld is as emphatic against too early interference with the process of delivery, and too rapid extraction of the child, as he is against too early expression of the placenta. We need not say anything further, except to repeat that as the work of a learned and experienced teacher and practitioner of midwifery the book should be read by all who teach midwifery, and will be found interesting by all whose linguistic powers enable them to read it easily.

Dr. STEINBÜCHEL'S little book[3] begins with a historical sketch of the use of anaesthesia in childbirth. Next he sets forth the advantages and disadvantages of the different anaesthetics at present in use. Then he comes to that which is the special object of the book, namely, the combination of skopolamine with morphine. (Perhaps not every reader knows that skopolamine is another name for hyoscine.) Skopolamine is, in some ways even more than atropine, antagonistic to morphine. Morphine slackens the pulse and lowers the blood pressure; skopolamine quickens the pulse and raises the blood pressure. Morphine makes the breathing slow and shallow; skopolamine makes it quicker and deeper. Morphine contracts the pupil, skopolamine dilates it. Morphine produces perspiration, skopolamine stops it. Morphine restricts intestinal peristalsis, skopolamine provokes it. The one point in which the action of the two drugs is identical is that they are both narcotics. Hence, by combining them we get the narcotic effect of both drugs, while as to their other effects they neutralize one another. The author administers hypodermically a freshly-made solution containing in 1 gram of distilled or boiled water 0.0003 gram of skopolamine and 0.01 gram of morphine. This usually so far annuls the pain that the patient ceases to cry out. If in an hour and a-half or two hours the effect is not sufficient, the dose may be repeated. If chloroform is then thought desirable, very little is enough to anaesthetise the patient. No bad effect on the child has been observed. Dr. Steinbüchel has worked out his subject carefully and well.

As in our issue of April 12th, 1902, we noticed the previous edition of Dr. JELLETT'S *Short Practice of Midwifery*,[4] not say much about it now. It is a clearly and ple written work by one who knows much of practical mi There are some few things in which the author is i mainly from copying statements from other books in looking into the matter for himself. Thus at p. 2 describing the way in which, with retroversion of the pregnancy may go on to term with the posterior uteri in the hollow of the sacrum, and the cervix high up i he says: "When labour comes on the child's head is down into this *cul-de-sac*, instead of against the inter The cervix consequently does not dilate, and the uter rupture." Then follow directions as to dilating the If Dr. Jellett will look into the cases on record he w that the cervix has dilated and natural delivery has place in every case in which it has been allowed to do s mortality of this condition has arisen from attempts to artificially what it was wrongly assumed the uterus not do. In the chapter on uterine inertia we find "me given as a cause. What does this mean? We take it t survival of a time when men's ideas as to inflammatio hazy. Inflammation of the uterus in pregnancy is a th rare, if it even occurs, that we know nothing as to its upon uterine action. We should have liked to have fo this chapter a clearer and sharper distinction between pains and absence of pains. We should also have lik p. 426, instead of the statement that in puerperal insani patient is "usually sleepless," prominence given to th that sleeplessness is the precursor and first symptom disease. We have no doubt that this edition will retai popularity of the work.

Philips's Anatomical Model of the Female Human Body[5] is a of diagrams rather than a model. The diagrams are colo and the drawings illustrating the different stages of diss of an adult female body are superimposed upon one an and attached so that they can be lifted up, displaying lies underneath. Each structure is marked by a numb which the student can identify it. The coloured dra are accompanied by a short description of the parts, w in popular language. This "model" may be useful for who have to instruct nurses; and possibly it may hel memory of a medical student. It can never take the pla dissection; and teachers of anatomy may hesitate to re mend it, lest the student should think it can. Consider a set of diagrams it is very well done.

We had the pleasure of noticing the first edition of JARDINE'S *Practical Textbook of Midwifery for Nurses*[6] in BRITISH MEDICAL JOURNAL for March 31st, 1900. The se edition is materially improved by the addition of a cha on the accidents to the child during delivery and the ab malities and diseases of the newborn child. The work is which may safely be recommended to monthly nurses.

THE PREVENTION OF CONSUMPTION.

THE appreciative remarks of Professor KOCH with which HILLIER'S work on *The Prevention of Consumption*[7] are faced, and the fact that the work has been revised by eminent authority on tuberculosis, are in themselves evide that the author has carried out the task he set himself satisfactorily, and will commend the book to all who wis study the subject. The book is evidently intended for intelligent public, whose interest must be stimulated, si their co-operation is necessary for preventive measures. this purpose it is admirably adapted, whilst at the same t it will be most useful to professional readers.

The historical sketch which forms the first chapter is in esting, and shows that the communicability of consumpt is no new idea. Chapter II treats of infection—the tra mission of the disease from man to man, and Dr. Hill wisely emphasizes the difference in the degree of infectiv

[2] *Lehrbuch der Geburtshilfe* [Textbook of Midwifery]. Von F. Ahlfeld. Dritte Auflage. Leipzig: F. Wilh. Grunow. 1993. (Demy 8vo, pp. 757; 479 illustrations.)

[3] *Schmerzverminderung und Narkose in der Geburtshilfe mit speziellen Berüchsichtigung der kombinierten Skopolamin-Morphium-Anaesthesia* [The Diminution of Pain and Narcosis in Midwifery, with special reference to the combined Skopolamin and Morphine Anaesthesia]. Von Dr. Richard von Steinbüchel, Dozent für Geburtshilfe und Gynakologie an der Universität zu Graz. Leipzig und Wien: Franz Deuticke. 1903. (Demy 8vo, pp. 111. M. 4.)

[4] *A Short Practice of Midwifery*, embodying the treatment adopted in Rotunda Hospital, Dublin. By Henry Jellett, B.A., M.D., ex-Assist Master, Rotunda Hospital, etc. Fourth Edition. London: J. and Churchill. 1903. (Crown 8vo, pp. 557. 152 illustrations. 8s. 6d.)

[5] *Philips's Anatomical Model of the Female Human Body*. Edited by W Furneaux. London: George Philip and Son. (Imp. 8vo, pp. 17. 4s.

[6] *Practical Textbook of Midwifery for Nurses*. By Robert Jardi M.D.Edin., M.R.C.S.Eng., etc., Professor of Midwifery in St. Mungo's C lege, Glasgow, Physician to the Glasgow Maternity Hospital, etc. Seco edition. Edinburgh: William F. Clay. 1903. (Cr. 8vo, pp. 268, 39 ill trations. 6s.)

[7] *The Prevention of Consumption*. By Alfred Hillier, M.D., C.M., B Revised by Professor R. Koch. London: Longmans, Green and Co. 19 (Crown 8vo, pp. 226. 5s.)

uch acute infectious diseases as scarlet fever or and the more chronic tuberculous disease. The f bovine to human tuberculosis is treated judicially iously, both sides of the question being fairly

cautions—personal and public—necessary for pre- are next considered. The subjects of sanatoria, or advanced consumptives and open-air colonies VI), are very fully discussed, and illustrations of and shelters for patients are given. The appendix large (60 pages), but it contains much valuable in- which could not well have been incorporated in the he book. It includes reprints of the various leaflets the National Association for the Prevention of Con- , of which Dr. Hillier is Secretary; a paper on the ion of Tuberculosis in Boston, U.S.A., and various by the author and others bearing upon the prevention umption, which have been already published in ions or journals. Amongst these is a very interest- le by the author upon State Insurance for Workmen any.

illier has done his work well, and the book cannot rove most useful.

NOTES ON BOOKS.

Nature's Ways,[1] by R. Kearton, F.Z.S., is in the s words "An attempt to show something of the most te relationships of wild creatures at home, amidst their l surroundings, and entirely unaware of the fact that re under observation of any kind whatsoever. It some new light upon the habits, instincts, and ence of the feathered inhabitants of our woods and The descriptions are admirable, and the illustrations fulfil the highest aspirations of the author. It is a book and will encourage the rising generation to e the study of Nature's wild ways. Though devoted to birds it contains one chapter on insects. The ing extract is one of the many interesting descriptions author's methods of photographing wild birds at home. rrates that having carefully concealed himself and his graphic apparatus in a stuffed sheep in front of a sand- s nest, she was returning to her eggs, when perceiving mera's eye staring at her from the sheep's chest, she ed up as if shot at, and flying down the moorland beck- stayed away hours. When she reappeared she zig- d to and fro near her nest, gradually growing bolder, till finally ventured home. The author was anxious to do ing to destroy her growing confidence in the three-eyed o, but after a long time made a movement necessary for ographing her, and the sandpiper hastily leaving her ran agitatedly about the bare rock-strewn ground on the ographer's right, protesting in plaintive notes against thing not to her liking. He being obliged to reveal himself ix the mechanism, not before two hours could she be uaded by her confidential mate to return to her nest. can imagine the patient discomfort which must have endured to obtain photographs under such circum- ces. The results, however, are well worth all they cost.

[1] *Wild Nature's Ways*. By R. Kearton, F.Z.S. London: Cassell and Co. 1903. (Demy 8vo, pp. 308, 10s. 6d.)

CONTRACT MEDICAL PRACTICE.

How Elections to Club Appointments are Sometimes Conducted.

A Scotchman writes:

In a country district in England the post of surgeon to a large club became vacant owing to the resignation of my predecessor. There are three of us in practice in the district, and we all applied for the post. The following are a few of the steps taken by the oldest doctor, who holds several appointments, including a Government one, to obtain the post. For several weeks preceding the voting he personally canvassed all the members and impressed upon them, amongst other things, that he had a large family and wished to get the post. The night before the voting he sent printed circulars to many of the members, and he had a footnote stating that he would send a conveyance to take them to the meeting, and after it was over to take them home. He hired conveyances, and on the night of the voting cabs and 'buses were running all over the district bringing the members to the hotel where the club is held, and when the voting took place he was at the hotel receiving them as they arrived and treated them to whisky, wine, and beer, in fact, was a waiter for the time being. After the voting I was at the top of the poll and got the post, and all I did was to send in my application. I should be pleased to have a comment on the old doctor's conduct, not only towards myself, but as a member of the medical profession.

The story illustrates the undesirability of permitting these elections to be in the hands of the entire body of members. Proceedings like those related by our correspondent are of course little short of a scandal and highly discreditable to the profession. We congratulate our correspondent upon being at the top of the poll, in spite of his opponent's proceedings.

PHYSICAL DEGENERATION.

[By our Commissioner.]

IX.—The Evil Effects of Drink.

The report of the Commissioners in Lunacy issued last July stated that one person in every 293 of the population was insane in January, 1903. Alcoholic excess was assigned as the cause of 23.1 per cent. of the male and 9.6 per cent. of the female cases. Inebriety in men and women, but particularly in the latter, is one of the chief causes which tend to the degeneration of the British race. Alcoholism has its share in the decreasing birth-rate and in the abnormally high infantile death-rate; and in causing the dearth of young men of strong enough physique for the requirements of the navy, the army, the police, and other public services.

Drinking among Women.

The increase of drinkers may be ascribed to town life, with its overcrowding, machine-done work tending to rush, and its accompanying strain on the nervous system; while the increased employment of women at daily work is a cause of the neglect of infants. It is a common practice for expectant and nursing mothers to take stimulants, and in either case the children suffer. It has been stated that alcohol consumed by the mother passes, as such, into the circulation of the unborn child, and so directly produces injurious results. A child born in gaol, where it is impossible for the mother to obtain drink, often turns out better than its brothers and sisters. Hereditary drunkenness may cause epilepsy, imbecility, and, finally, extinction of the family. It is believed that a drunken father has a much less injurious effect upon the physique of his offspring.

The death-rate among Jewish is lower than among Christian infants, and one reason is to be found in the more sober habits of Jewish women.

Dr. Claye Shaw has said that the children of drunken women are born with all sorts of deformities, mental and physical; they fill Broadmoor; of their offspring 56 per cent. die at birth or before the age of 2 years. In the case of sober women the percentage is only 26. The survivors lack self-control and are neurotic, impulsive, and hasty.

Statistics of drunkenness among women in London appear to prove that it is increasing rapidly. The number of drunken women apprehended in 1901 was nearly double the number for 1892. Convictions of women are on the increase also in other large cities. In Liverpool recently one woman was found lying in the open street intoxicated with her 14-day old baby by her side, another, also drunk, was carrying her child by one leg head downwards, while a third had flung hers at a policeman several yards away.

Dr. Wynn Westcott, Coroner for North East London, has stated recently that England excels all other countries in Europe in the proportion of deaths of infants under 1 year of age from suffocation in bed with their parents or nurses. His paper was published in the British Medical Journal of November 7th, 1903, p. 1208. He pointed out that the number of inquests on such cases is higher in proportion to the poverty of the inhabitants of the district, and adds that "it cannot be doubted that a considerable number of infants are overlain by parents who, habitually sleeping with a baby in bed with them, yet follow the same practice when they go to bed well knowing that they are intoxicated with alcoholic drink and recklessness of consequences. It is likely also that if a drunken mother give her infant the breast milk before going to sleep the baby may become more or less stupefied by the alcohol in the milk, and so fall an easy prey to gradual suffocation." In Germany, where drunkenness among women is rare, such deaths are almost unknown.

Among the reasons likely to have caused increase of drink among women is the example the girl has had since she first saw out of her eyes with understanding, for if her parents are steady there are the neighbours; the running backwards and forwards to the public-house for jugs of beer, and the recollection of what she had seen going on there.

The changes in a woman's position have much to say to it also. Whereas in the olden days she was a domestic drudge, now she is often a worker and a breadwinner, a comrade to the man she has married, and a person of independent means.

Further, whereas it used to be considered a slur for a woman to be seen in a public-house, now it is the fashionable thing for a young man to take his girl there openly and treat her to drinks. Few young women drink to any extent before they are married, but after this what they call their "worries" begin. Their homes are often comfortless, and if they go out to work they come home too tired to care to cook food. They feel the pangs of hunger, and to satisfy them drink instead of eating. Others suffer from being left alone day after day while their husbands are out at work, and drown poverty and *ennui* in drink. Even if able to sew well their poverty must often prevent the purchase of material, and their literature consists probably of a weekly paper filled with police news and crimes, sensational and unwholesome from the first to the last line. They have no ideals, no imagination; they grope through a life of dull routine in cheerless homes. Outside they meet friends with whom they can gossip, and who teach them that drink dulls their real and imaginary worries, and beginning with small quantities, they gradually go on and on until they lose all self-respect.

The men usually drink beer, and must take a great deal to become drunk; the women drink gin if they have plenty of money, and can afford the luxury of gradual stupefaction. But if they have only a penny to spend they take beer and gin mixed, which is considered an ideal mixture with which to become "fuddled." Then it is that they see everything in a rosy light, and forget hunger, cold, and alas! even their own children, who are the chief sufferers; for a woman who yields to drink generally neglects her home and her children. They have bad food at uncertain hours, and are often left locked into or locked out of the house until their mother chooses to come home to bed. An unsteady woman is often the cause of a drinking husband. It may be taken for granted that where a man has a steady wife and a comfortable home the temptation to go out again after his hard day's work is small. But when he has not it is great.

Licensing Law.

It has been urged that to the enormous numbers of public-houses is due much of the drinking which goes on. It may be assumed that the larger public-houses are the most respectably conducted, and that as they go down in size and smartness they are less well managed and less reputable, until lowest in the scale come beer-houses. It has been suggested that the bad public-houses and beer-houses should be weeded out, while the most respectable should be enlarged and licences only granted to better-class managers, required to put their foot down and refuse to allow excessive drinking and rowdy conduct. As the accommodation in these houses would be larger, the actual numbers able to get drink might possibly not be much diminished, but they would have to drink in moderation and behave respectably, so that by degrees drinking excesses would be put down, and a higher standard of morals attained. The law provides that the publican shall refuse to serve a drunken man. But even if it be admitted for the sake of argument that a publican is really anxious to carry out the law, he has so many conditions of drunkenness to distinguish that he may often break the law unknowingly. Different men present different symptoms, so that it may be difficult to diagnose the psychological moment when the fatal stage is reached. There are the maudlin, the unsteady, the talkative, the quarrelsome stages, there is the man who seems all right until he gets out into the open air and then becomes hopelessly unsteady. In an ever-changing crowded assembly it is hard for a conscientious manager to be quite certain, and easy for an unscrupulous one to keep his eyes shut. It is said, too, that the police wink at drunkenness as much as they can. The confirmed drunkard will always manage to get drink; drunkards are unfortunately "cute"; but were the number of public-houses reduced the temptation to the ordinary man or woman who does not necessarily drink hard would be diminished.

The excesses of teetotal advocates have done much to repel reasonable people who might have been disposed to accept more moderate measures. There are irreclaimables, but there are also those who under the force of wise guidance might gradually reach a higher level.

The Public-house Trust Association.

Earl Grey is President of the Central Public-ho Association, which seeks to promote temperance secure that all new licences, with their enormous n values, shall be held as trusts for the community an given to private individuals for private gain. counties and in many towns a local trust company established, whose aim it is to acquire existing houses or to offer to manage them for their owners, whenever the magistrates think it desirable to crea licence, to ask on public grounds that it shall be g the company. The dividend is limited to 5 per cent the shareholders may have only a nominal monetary in the trade. The council is empowered to employ al profits to promote objects of public benefit other th properly chargeable to the rates, the chief consi being the provision of counter-attractions to public Should a trust company be wound up, the asse repayment of the shareholders' capital at par, handed over to the council for public objects.

The main idea of the scheme is to conduct publi rather as refreshment houses than as mere drinki non-intoxicating drinks, tea, coffee, and cocoa, and are provided if customers care to ask for them in liquor, and the food and drink supplied are of quality. The managers are paid a fixed salary and interest in profits from the sale of intoxicants. Th are not tempted to push their sale, while they are enc to promote the sale of food and non-intoxicants. E believes that the widespread acceptance of the trust p is due to the fact that it is recognized that the public- a public necessity, and that therefore it is desirable vert it from a mere drinking bar into something rese as much as possible a well-conducted club. At prese to the publican's interest to force his drink on the the customer has to drink liquors good or bad, manuf by the brewery or distillery company to whom the h longs, and thus privileged individuals get the high resulting from monopoly rights which should belon community.

It has been objected by some that the Public-house although calculated to diminish excessive individual ing, may, on the other hand, tend to increase the n consumption of drink. The many instances quoted b Grey of the results of the movement serve to allay hension on this score.

The Automatic Reduction of Licences.

Sir Edward Clarke in his recent address before th stitutional Club proposed that new legislation should that no new on-licence shall be granted for either a house or a beer-house. The increase in the number of li would be checked, whereas the population would go on ing. On the other hand, he argues that no renewal or t of an existing licence should be refused on the groun the house is not required for the convenience of the bourhood, but that misconduct of the owner should only ground for cancelling a licence. Justices, in vi licences not being evenly distributed over a given a proportion to the population, should be given the po transfer any existing licence from one spot to another their jurisdiction, subject to the law respecting notice, o tion, and confirmation, now in force with regard to applic for new licences. These transfers should be made subj the approval of the justices for the division as causi inconvenience to the locality. The drawbacks to this sc are the uneven distribution of the population and the co changes in it, and the varying proportion to the populat public-houses in various districts. A periodical rear ment of licences on the lines of a census would be neces Failing this some districts would possess a pletho licences while a new population would be unable to o any beyond those already existing.

Sir Edward Clarke said that in 1872 there were 70,000 p houses and 53,000 beershops; in 1896 there were less 67,000 public-houses and only 35,000 beershops, thus, t both classes of licences together, there had been a redu of 21,000 in twenty-four years. Assuming the same pr to continue until thirty years had passed, he said that

The population would then be 45,500 000, the number of lic 85,000. This would give a proportion of licences to population little differing from that indicated in the minority report of Lord Commission, and now accepted by temperance reformers as the portion which they were content to accept. To these reformers

seem a long period of delay. But the last thirty years had in agitation and political strife. Would it not be better now onflict cease and secure a gradual but a certain improve-

ard Clarke objected to the plan of surrendering one r another, and he considered that it was not legal for es to make it a condition of granting a new licence other licences should be surrendered.

s nothing in Sir Edward Clarke's scheme which ith Lord Grey's, and if the reduction in numbers Edward Clarke works out were to take place, and izing influence of Lord Grey's Public-house Trust ht to go on, these two reforms worked simultaneously ing us nearer to a solution of this vexing problem.

School Teaching.

ch schemes must be supplemented by conscientious of all children in schools as to the evils of drink, necessary, as has been said before, the removal by of all schools to the country, where the children would s boarders the whole of their school life, away from influences of the slums. These are drastic measures, a wise surgeon seek to delay a necessary operation by Nothing short of drastic measures will cure the evil, sooner this is realized the better.

is connexion the reader is referred to the article on and Temperance published at page 212. A petition g out the need of elementary scientific instruction in subjects, including temperance, in schools, which is o be circulated to members of the medical profession, set out. As will be seen, the proposal was approved Council of the British Medical Association at its on January 20th.]

LITERARY NOTES.

ME of lectures by Sir William Gowers will shortly be ed by Messrs. J. and A. Churchill. The lectures, have been carefully revised by the author, deal with lowing subjects: Subjective Visual Sensations; Subjec- nsations of Sound; Abiotrophy—Diseases from Defect ; Myopathy and a Distal Form; Metallic Poisoning; itic Diseases of the Nervous System; Inevitable e; Syringal Haemorrhage into the Spinal Cord; henia and Ophthalmoplegia, and the Use of Drugs.

The *House Beautiful* is the title of a new journal, edited by rnest Hart, intended, as its subtitle imports, for the ce of "those who design, beautify, furnish, and inhabit s." As Mrs. Hart points out in a graceful "Introduc- there is no existing English journal in which the house e home are considered from every point of view—struc- decorative, artistic, ethical, hygienic. The first number nts an attractive appearance; the literary contents are and interesting, and the illustrations are numerous dmirably executed. There was a distinct place for such odical in English journalism, and we congratulate Mrs. on having filled it so successfully.

Dr. Reginald A. Farrar, Medical Inspector of the Local rnment Board, has written a life of his father, the late of Canterbury, which is to be published in the course of esent month by Messrs. Nisbet and Co.

Dr. David B. Lees has collected his Harveian Lectures on Acute Visceral Inflammations, which appeared in the ish Medical Journal of November 21st and 28th and mber 5th, 1903, with some other papers, two or three of h also appeared in the Journal, into a small volume h will shortly be issued by Mr. John Murray.

The *Journal des Médecins* is a medical review of reviews, ished monthly, which constitutes an abstract and brief nicle of all the work in medical science done in France. editor is Dr. Roger Hyvert, and his staff is composed of ner *internes* of the Paris hospitals. The journal is published Maloine, 25-27, Rue de l'Ecole de Médecine, Paris.

Medical Electrology and Radiology, the official organ of the ish Electro-therapeutic Society, will in future be pub- ed monthly. The January number contains a forecast for coming year by the editor, Dr. W. S. Hedley, with inal papers, reports of proceedings, etc.

The *Daily Chronicle* of January 11th quotes from an un- ed source the following advice as to the risk of "catching " after a visit to the theatre, given by an anxious parent his son at Oxford in 1686:

Child,—I heard that the players are gon down to Oxford, but I am willing that you should go to see them act, for fear on your coming out of the hot play house in the cold ayer, you should catch harm, for as I did once coming out of the theatre at a publick Act when it was very full and steaming hot, and walkin a Broad in the cold, and gawe me sutch a cold that it had Likt to a cost me my Life. Your best way in sutch a cold is to go hom to your one chamber directly from the play house, and drink a glass of Sack, therefur Be sure you send your servant At your hand for a bottle of the Best Canary and keep it in your chamber for that purpose. . . . Harkon thou unto the voyce and Advise of me Thy ffather, Loving Thee Better then himselfe.

This advice, in principle, is largely acted on at the present day. Many, however, substitute whisky in the form of hot grog for the cup of sack, in the virtues of which Sir John Falstaff had so firm a belief. In the light of modern research as to the etiology of coryza and the composition of whisky, the treatment is doubtless unscientific.

AUTOMOBILES FOR MEDICAL MEN.

(*Continued from p. 143.*)

The Choice of a Car.

Finally, we arrive at a choice of a car. On this point it is to be remembered that it is only comparatively recently that cars of any make or by any manufacturer have been put upon the market at prices within the reach of most general practitioners, and that, therefore, the total accumulated experience, even of experts, is less than in the case of larger cars; and that as for the verdicts of amateurs, private owners are, like owners of bicycles and all other machines, very liable, unless of unusual experience, to be very enthusiastic over the merits of the particular car which they happen to possess, and therefore understand best. But, fortunately, in the reliability trials of last September we have an excellent guide. These elaborate, costly, and carefully-organized trials were got up by the Automobile Club of Great Britain and Ireland, with the co-operation of a committee of manufacturers. They were designed especially with a view, on the one hand, to provide the purchasing public with data which would enable them to determine what class of car was best suited to their special requirements; and, on the other, to give manufacturers an opportunity of seeing what their productions really could do in competition with those of other makers, and hence see where improvements were required, and at the same time obtain certificates from a public body as to what they actually achieved.

Some reference to these trials has been made before in these columns, and it has been objected by certain correspondents that they are useless as a guide to the medical profession inasmuch as that they were carried out under special conditions. This fact, however, so far from decreasing their utility, increases it; for the conditions, though special, were only so in the sense that they were of an unusually exacting character. Thus though the cars were driven naturally by good drivers, weak points in faulty cars were brought out which would have escaped notice in any ordinary trial of a car, and which even might not have revealed themselves to a purchaser until they had been some time at work under the ordinary conditions of work in a medical practice.

Correspondingly, the cars which came out well are justly entitled to great credit, and any of them could be purchased with full assurance that they would be reliable in practice in the points in which they have won high marks in the trials. Thus, during the eight days which the trials lasted each car had to travel in company a distance of over 1,000 miles, and during all that time they were under constant observation and might neither be cleaned nor receive any of those attentions upon the importance of which we have laid such stress without the penalty of loss of marks. The six judges were all experts in car work, well known as such, and some of them—such as Mr. Cozens Hardy and Colonel Crompton—well known in other directions as well, and any prospective purchaser might well be recommended to peruse their final report but for the fact that it covers sixty pages of printed matter. Its extreme length is due to the fact that it gives details of the performance of all cars entered, 140 in number, and the points in which marks were lost. It is also, perhaps, of somewhat too technical a nature to be usefully studied by those not fairly acquainted with the subject.

A juster criticism of the results than that to which we have referred is one which has been made by those who organized them themselves, and which is of a nature easily comprehended by medical men accustomed as they are to competitive examinations. There were seventeen different points in

which marks could be won or lost, and in the allotment of maximum marks to each point before the trials commenced the greatest number of marks were naturally allotted to the points considered of most importance—such as reliability in road work, the garage work they required, and the condition in which they were found at the termination of the eight days' running under trying conditions. In the result, however, it was found that some of the cars which obtained the highest aggregate marks and were therefore entitled to the medals awarded in each of the classes into which the cars were divided according to selling price, were not the cars which proved the best on these particular points, but owed their position rather to excellence in an aggregation of qualities of which some were of comparatively minor importance.

In order, therefore, to remedy to some extent this drawback and enable the net result to be more properly appreciated, we have prepared the following tables in which the aggregate marks obtained by the first five cars in classes A, B, C, D, are given, and also the marks obtained by each of the first five cars in classes on the points which are relatively of the greatest importance to medical purchasers—that is to say, reliability in work on the road, the garage work required, and the condition after the trials were completed. Only the results in four out of the seven classes into which the competition was divided will be given, as this article is intended mainly for the use of medical practitioners who it is imagined will not as a rule care to give more than £550 for a car, even if nearly so much were at all necessary. The conditions of trial, it should be noted, were precisely the same in all classes, and the marks divided among the following points, all cars being obliged to travel throughout the competition carrying either their full number of passengers or an equivalent weight calculated for each passenger at not less than 11 st.: Reliability on the road; cleaning and replenishing; power of restarting after stopping on a hill; brakes, horse-power (that is, nearness of proved to declared horse power) speed; consumption of fuel; absence of dust raising; absence of noise; absence of vapour; absence of vibration; cheapness; general finish, and, finally, condition after trial. For absence of dust, as also for speed and consumption of fuel, 500 were the maximum marks, while 125 were obtainable for cleanliness in use for the other points, with the exception of those given below; 250 marks were the maximum on each point, while the marks for cheapness were 7 for every £1 under the maximum price in the class.

In Table I the cars are placed in order of merit judged by the aggregate of marks obtained in all the different tests. It should be examined and compared with Table II.

Table I.—CARS IN ORDER OF MERIT JUDGED BY AGGREGATE MARKS.

Class A.—Vehicles Declared at a Selling Price of £200 or less.

Name.	Weight.	Passengers.	Price.	Marks.
1. 5 h.p. Oldsmobile	7 cwt.	2	£150	8,650
2. 6 h.p. Oldsmobile	7 ,,	2	£168	8,460
3. 5 h.p. Baby Peugeot... ...	7 ,,	2	£175	8,370
4. 6½ h.p. Cadillac	11 ,,	3	£200	8,217
5. 6 h.p. de Dion Bouton ...	8 ,,	2	£200	8,129

Class B.—Vehicles Declared at a Selling Price of more than £200 and not more than £300.

1. 8 h.p. M. M. C...	11¼ cwt.	4	£270	8 785
2. 6 h.p. Swift	10 ,,	2	£220	8,763
3. 9 h.p. Argyll	12 ,,	4	£275	8,727
4. 9 h.p. Beaufort	13 ,,	4	£295	7,491
5. 9 h.p. Darracq...	12½ ,,	4	£270	7,477

Class C.—Vehicles Declared at a Selling Price of more than £300 and not more than £400.

1. 10 h.p. Gladiator	14½ cwt.	4	£395	9,102
2. 7½ h.p. Wolseley	15 ,,	4	£325	9,010
3. 12 h.p. Wolseley	19 ,,	4	£400	9,002
4. 10 h.p. Wolseley	19 ,,	4	£380	8,885
5. 19 h.p. Argyll	13 ,,	4	£335	8,553

Class D.—Vehicles Declared at a Selling Price of more than £400 and not more than £550.

1. 12 h.p. New Orleans... ...	17 cwt.	4	£500	9,483
2. 12 h.p. De Dion Bouton ...	14 ,,	4	£420	9,189
3. 10 h.p. Renault	13 ,,	4	£437	9,039
4. 10 h.p. White Steam Car ...	15 ,,	4	£420	8,988
5. 12 h.p. Gladiator	15½ ,,	4	£525	8,913

Table II.—CARS IN ORDER OF MERIT JUDGED BY CE TESTS.

Class A.—Fourteen Competitors, all Different Makes. Price £200.

Road Work. Maximum 3,000.	Garage. Maximum 1,500.	Condition. Maximum 1,000.	Hill C Maxim
Cadillac ... 2,979	De Dion ... 1,454	De Dion ... 981	Peugeot
Baby Peugeot 2,973	Oldsmobile . 1,423	Oldsmobile ... 950	Oldsmo
Oldsmobile . 2,957	Oldsmobile . 1,415	Clyde... ... 898	Cadillac
Clyde ... 2,957	Peugeot ... 1,408	Peugeot ... 837	Achilles
Oldsmobile . 2,945	Cadillac ... 1,387	Cadillac ... 796	De Dion

Class B.—Eleven Competitors. Highest Price £300

M.M.C. ... 2,999	Darracq ... 1,452	M.M.C. ... 1,000	Mohawk
Argyll ... 2,984	M.M.C. ... 1,443	Argyll ... 980	Eagle
Swift ... 2,974	Eagle ... 1,438	Swift ... 965	M.M.C.
Mohawk ... 2,940	Argyll ... 1,432	Darracq ... 690	Argyll
Darracq ... 2,937	Beaufort ... 1,414	Beaufort ... 645	Beaufor

Class C.- Eighteen Competitors, all Different Makes. Price £400.

Argyll ... 3,000	Wolseley ... 1,464	Albion ... 1,000	Wolsele
Wolseley ... 3,000	Wolseley ... 1,453	Wolseley ... 1,000	Gladiato
Wolseley ... 2,995	Wolseley ... 1,449	Richard ... 1,000	Wolsele
Richard ... 2,992	Richard ... 1,442	Wolseley ... 1,000	Wolsele
Wolseley ... 2,989	Darracq ... 1,440	Hortick ... 938	Darracq

Class D.—Twenty-two Competitors. Highest Price £

Lanchester 2,998	Renault ... 1,463	Sunbeam ... 1,000	De Dion
Star 2,996	Sunbeam ... 1,460	White Steam 1,000	New Orl
Renault ... 2,996	De Dion ... 1,453	De Dion ... 1,000	Gladiato
De Dion ... 2,990	New Orleans 1,452	Brooke ... 998	White
White 2,986	Star 1,443	Renault ... 942	Star ...
		New Orleans 942	

In regard to these tables, it should be noted th highest total theoretically obtainable was 10,375, bu practically it was impossible for any car to obtai number, inasmuch as the fuel necessarily had to be ished in the course of a series of runs aggregating ove miles, and marks were deducted for every minute occu so doing. It will also be seen that in both tables the obtained are, in some cases, so exceedingly close, t positions obtained by certain cars might have been se affected owing to marks won by relative cheapness an lost by accidental tyre puncturing.

These are facts which possibly might give cau grumbling among competitors but which do not mat detract from the value of the trials to would-be purc Any car which attained a place in Table I and also well in Table II might probably be acquired with co able assurance on that datum alone that it would a satisfactory purchase. In any given case in which chaser is seriously thinking of buying a car which ha peted in the trials, a full official record of its perfor throughout all the tests should be examined with especially with a view to observing in what tests the c many marks, and to deciding how far such tests w importance from his point of view. It will be seen th total aggregates tend to be rather higher in the clas higher-priced cars, and that in Classes A and B high for hill climbing were in no case obtained. It is to be r bered, however, that the hills were very steep, and th cars had to go up fully laden. Finally, it may be not not all the cars in the trial were bran new. One of th which our representative travelled had already com some thousands of miles and yet took a good place.

BEQUESTS TO HOSPITALS.—The late Mr. George Harv Maida Vale, has left £500 each to the London Hospit City of London Hospital for Diseases of the Chest, the Eastern Hospital for Children, and the Metropolitan Ho —Mrs. Maria Sneath, of Sutton Coldfield, in addition quests of £500 to the Queen's Hospital and £50 to the Orthopaedic and Spinal Hospital, Birmingham, h queathed, subject to a life interest, £500 to the Bi ham General Hospital, £300 each to the Birmingha Midland Eye Hospital, the Moseley Convalescent H for Children, and the Birmingham Ear and Throat Ho also £200 to the Royal Orthopaedic and Spinal Ho Birmingham.—Under the will of the late Miss A Bernard, of Clifton, Bristol, £200 has been bequeathed Bristol Royal Infirmary and £150 to the Bristol Eye Disp

BRITISH MEDICAL ASSOCIATION.

Subscriptions to the British Medical Association for the year 1904 are now due and should be forwarded by postal order or cheque to the amount of 25s. to the General Secretary, 429, Strand, London, W.C., or, in the case of Colonial members, to their Branch Treasurer.

British Medical Journal.

SATURDAY, JANUARY 23RD, 1904.

INSTRUCTION IN HYGIENE AND TEMPERANCE.

THE Council of the British Medical Association, at its meeting on Wednesday last, January 20th, resolved unanimously to represent to the Board of Education that it is of urgent importance that elementary scientific instruction in health subjects, including temperance, should be provided in all primary schools by the local educational authorities, in order that the conditions which lead to deterioration of the national physique may be understood, and as far as possible prevented.

The matter came before the Council in the form of a recommendation from the Public Health Committee of the Association, and we know that for some time past the conviction has been growing among the officers of the Public Health service throughout the country that ignorance of the laws of hygiene, and of the evil effects of alcoholic indulgence are among the prime causes of the squalor and disease by which the poorer quarters of our large towns are disgraced; that in fact ignorance and intemperance are the causes of much of the poverty which makes slums possible.

Our Commissioner, in the series of articles on national physical deterioration now being published, has laid stress upon the fact that instruction should be given to every child attending elementary schools in such subjects as personal cleanliness, pure air, food and cookery, and the evil effects of intemperance; it is therefore very satisfactory to find that the matter is being seriously taken up by the medical profession.

As will be seen by reference to page 212 a committee of medical men has been formed to draw up and distribute to the profession a petition to the central educational authorities of the United Kingdom, which is at the same time a valuable declaration of opinion. This petition will, we understand, reach members of the profession before the end of the month. It may safely be assumed that the terms of the petition will commend themselves to all medical practitioners; it is therefore reasonable to hope that the document will be signed by all, and as the Committee of Distribution has been at the pains to enclose an envelope addressed and stamped, it is not unreasonable to appeal to all our readers to take the small pains involved in posting it.

The petition sets out some facts with regard to what is being done in our colonies and in other countries. Hygiene, and scientific instruction on the effects of alcohol are compulsory subjects in the public elementary schools throughout nearly the whole of the Dominion of Canada. In Victoria, in South Australia, and in Natal, the laws of health and the nature and effects of alcohol are among the subjects regulary taught in elementary schools. In the United States of America 22 millions of children are being educated to understand the practical importance of these subjects. The fact that such teaching is commonly given in our colonies and in the other great English-speaking nation should make the people of Great Britain feel that to remain any longer behindhand will be a slur on their intelligence.

Already, indeed, in the army schools of this country and of all our foreign stations west of Aden, teaching in elementary hygiene is compulsory, and special attention is drawn to the bad effects of alcohol. Instruction is also given in the subject in some schools in Ireland by means of reading primers, moral instruction, and talks, and also through the medium of temperance lessons provided in certain schools by voluntary organizations; but under a system which is not universal a large number of pupils must remain without instruction.

What is to be dreaded most when considering the effect alcohol may have upon children is the fear that the constant sight of drunkenness will cause heavy drinking to be looked upon as an everyday occurrence. Children used to seeing parents or neighbours drunk, after a time are not disgusted by the sight. Part of the education of Spartan children consisted in bringing before them a drunken slave in the expectation that the sight of such degradation would horrify them and produce a disgust for drink. But children who are sent two or three times a day to the public-house for bottles of beer or flasks of gin will be very apt, when their time comes, to look upon beer or gin as an indispensable thing; the sight of reeling drunkards in or near the public-house will not frighten or disgust them.

When the Act to prevent the sale of intoxicating liquors to children was under discussion in 1901, some curious arguments were advanced. It was urged that to send the youngsters to get drink for their parents was the lesser evil that if the parents went to fetch it themselves they would be tempted to remain on, talking and drinking in the public-house. The situation was well hit off in one of the late Phil May's cartoons, which represented a slatternly woman justifying her visit to the public-house on the ground that if she sent the boy he would not be served, and that if she sent her "old man" he would not come back till morning. The critics of the Bill alleged that the child would probably regard the errand as a matter of business, and that, if tempted to taste the liquor in the jug, would only sip it for fear of punishment if the bulk of the liquid were too obviously reduced. Yet it was admitted that such sips might engender a craving in the child for more, and it was acknowledged that those of tender years when on these errands often heard disgusting language; nevertheless, it was urged that for fear the parents shonld be tempted to drink worse if they went themselves to beer-houses or public-houses, the children had better be allowed to go. This is a suicidal policy, for as Sir Thomas Barlow has pointed out, once a woman drinks to excess she will want watching and advice all her life long, and can never be trusted not to break down again under temptation. Yet it was proposed to attempt to save incurable mothers, vile in their example to their children, and for their sake to sacrifice innocent young children who, under careful guidance and isolation from the sights and examples around them, might probably turn out steady men and women.

In these days, when drunkenness is of such frequent occurrence as to make Spartan methods useless, the question will have to be carefully considered how best a horror

and disgust of drink may be instilled into young hearts already beyond feeling natural horror and disgust at the sight of almost any depth of degradation.

A great deal could be accomplished to check drinking and drunkenness if in all primary schools the elementary chemistry of food, in which would be included the injurious effects of alcoholic liquors, were taught as a part of the ordinary course. As has been fully pointed out by our Commissioner, the inferior quality of food and the worse manner of cooking it drives many to drink who might otherwise never feel the temptation. Let us by all means teach hygiene and personal cleanliness in schools in as complete a manner as possible; but in dealing with young children that portion of the instruction which deals with alcohol should be entrusted to the wisest and most tactful. That there is a certain risk of doing harm if the teaching is not judicious was present to the minds of those who drew up the petition which the profession is now asked to sign; in the second clause it is recommended that the teaching should be such as shall not develop any tendency to dwell on what is unwholesome. To forbid a child or youth to read certain books commonly arouses a longing to read them; in the same way lessons on alcoholism might, if not wisely framed, lead a child to ponder too much upon the subject and arouse a morbid interest. It is therefore very desirable that temperance reformers should give attention to the question of the best method of giving this instruction; the textbooks should be carefully prepared, and, as has been already observed, the subject should be taught by the most experienced and judicious of the teachers.

As has been said, the matter is one which must interest all who are engaged in public-health work, and we are glad to learn that the Society of Medical Officers of Health also proposes to represent to the Board of Education that it is desirable that all children in elementary schools should be taught the elements of personal and domestic hygiene, including the effects of alcohol, and receive physical training, and that all teachers in such schools should be instructed in these subjects.

There is good reason to believe that the representations about to be made to the Board of Education will be received by it in a sympathetic spirit. At present domestic hygiene is a voluntary subject, and Education Committees may place what interpretation they choose upon the term. If the petition is widely signed by the medical profession the hands of the Board will be greatly strengthened, and it will be encouraged to insist that personal and domestic hygiene shall be taught in all schools and that instruction about alcoholism shall invariably be included.

THE PROFESSORSHIP OF MEDICINE AT OXFORD.

THE turbid water of controversy about the Regius Professorship of Medicine at Oxford, stirred up by the resignation of Sir John Burdon Sanderson, has now, as a former Rector of Lincoln would have said, been "defecated to a pure translucency." Setting aside questions of personality and emolument, a clear issue is presented to the advisers of the Crown: Is the Professorship to be continued as a Chair of Medicine, or is it to be transformed into a Chair of Pathology? We have already stated that there is a strong feeling among the members of the teaching staff of the Medical Faculty in Oxford that the latter of these plans would be the better in the interest of the Oxford Medical School. But there is an equally strong feeling against it which found expression at a largely attended meeting of medical graduates of Oxford, the result of whose deliberations was announced in the BRITISH MEDICAL JOURNAL of January 16th. It is evident that the opinion of a meeting so representative in character cannot be simply ignored. We frankly admit that the question is somewhat more difficult than we were at first led to believe. We still hold that the proposal to merge the Regius Professorship of Medicine into a Chair of Pathology would in existing circumstances be the preferable plan. The plea that the Professor should be a practical physician, though specious, is not, we venture to think, entirely sound. Clinical medicine cannot be taught in a small city like Oxford, and it would probably be difficult to find a man in the front rank of medical practice. who would be willing to give up his professional career in London and subside into the dignified leisure of a Chair, the duties of which offer little scope for the intellectual energies of a first rate clinician. The following passage from Lord Macaulay's diary [1] appears to be so apt to the present situation that we venture to quote it. Writing under date January 14th, 1851, Macaulay says: "I had a few words with the Prince about the Regius Professorship of Medicine at Cambridge, now vacant by Haviland's death. I remarked that it was impossible to make either Oxford or Cambridge a great medical school. He said, truly enough, that Oxford and Cambridge are larger towns than Heidelberg, and yet that Heidelberg is eminent as a place of medical education. He added, however, something which explained why this was. There was hardly, he said, a physician in Germany, even at Berlin, even at Vienna, who made £1,000 a year by his profession. In that case a professorship at Heidelberg may well be worth as much as the best practice in the great cities. Here, where Brodie and Bright make more than £10,000 a year, and where, if settled at Cambridge or Oxford, they probably could not make £1,500, there is no chance that the academic chairs will be filled by the heads of the profession."

We fully recognize the force of the arguments put forward by the Oxford graduates, especially in view of the criticism recently passed on some of the medical examinations of the University by the Visitors of the General Medical Council. But we submit that a knowledge of the system of instruction at the large medical schools, and of the requirements of the licensing and examining bodies and of the General Medical Council, is not of so abstruse a character that it can be acquired only by a man of established reputation in medicine. We think that in a school like that of Oxford, where only the sciences which used to be collectively designated as the "institutes of medicine" can be efficiently taught, pathology, which is the groundwork of scientific medicine, must necessarily take precedence of the clinical study of disease. If nothing had yet been done for pathological teaching in the University, the practicability of the suggestion that has been made might be questioned. But when it is considered that at Oxford there is a completely organized course of instruction in all branches of the subject; that there is an admirable laboratory fitted with every appliance for teaching and research, and above all, that there is a man at the head of it of acknowledged ability as a teacher and organizer, and of considerable reputation as an investigator, it is scarcely

[1] *Macaulay's Life and Letters.* By George Otto Trevelyan. Vol. ii, p. 295.

surprising that his colleagues are unanimous in desiring that the present opportunity should be used for placing this essential branch of scientific teaching in a satisfactory position.

The aim of the Oxford teachers of medical science, as we understand it, is to concentrate the limited financial resources at their disposal on the scientific training of the medical student, leaving his instruction in the practice of his profession to the hospital school to which he attaches himself after having passed the first examination for the medical degree. Without reference to the question whether this is the only right principle, it seems to us that they are justified in doing their utmost to make every department of scientific teaching, and particularly the essential ones of anatomy, physiology, and pathology, as perfect as possible. For the last mentioned subject, their resources have been taxed to the uttermost, and are still insufficient. The proposal to transform the Regius Professorship of Medicine into a Chair of Pathology, offers a way out of this financial difficulty. A still better way would be to create a Chair of Pathology with an adequate stipend attached, leaving the Regius Professorship of Medicine for occupation by an Oxford graduate of sufficient academic distinction to make him a worthy representative of the dignity of the profession in the eyes of the University and of the world. But if the choice lies between ornament and practical usefulness, there can be surely no question which should be preferred if Oxford is to be a centre of progressive science instead of a "lost medical school."

HOSPITAL SHIPS IN WAR TIME.

IN view of the fact that if war breaks out between Russia and Japan the earliest hostilities are likely to be carried on at sea, it will be interesting to refer to the International Convention relating to hospital ships which was signed at the Hague on July 29th, 1899, by, among other nations, Russia, Japan, and England. It was provided that military hospital ships, that is to say, ships constructed or assigned by States specially and solely for the purpose of assisting the wounded, sick, or shipwrecked, and the names of which shall have been communicated to the belligerent Powers at the commencement of or during the course of hostilities, and, in any case, before they are employed, cannot be captured while hostilities last. Hospital ships equipped wholly or in part at the cost of private individuals or recognized relief societies are also privileged.

The treaty provides that no hospital ship must in any way hamper the movements of the combatants, and during and after an engagement they must act at their own risk and peril. All military hospital ships are to be distinguished by being painted white outside with a horizontal band of green about a metre and a-half in breadth.

With regard to other vessels whose owners assist the wounded, it is provided that neutral merchantmen, yachts, or vessels having or taking on board sick, wounded, or shipwrecked of the belligerents cannot be captured for so doing.

The religious, medical, or hospital staff of any captured ship is inviolable, and its members cannot be made prisoners of war. On leaving the ship they may take with them the objects and surgical instruments which are their own private property. These staffs may continue to discharge their duties so long as may be necessary, and can afterwards leave when the Commander-in-Chief considers it possible. Further, the belligerents must guarantee to the staff that has fallen into their hands the enjoyment of their salaries intact.

The position of the wounded also is somewhat ameliorated by the treaty, which provides that sailors and soldiers who are taken on board when sick or wounded, to whatever nation they belong, shall be protected and looked after by the captors. The shipwrecked, wounded, or sick of one of the belligerents who fall into the hands of the other are prisoners of war. The captor must decide, according to circumstances, if it is best to keep them or send them to a port of his own country, to a neutral port, or even to a hostile port. In the last case prisoners thus repatriated cannot serve as long as the war lasts.

OPTICIANS AND EYE-TESTING.

THE pretensions of opticians to pose as "eyesight specialists" and the proposal of the Spectacle Makers' Company to include sight testing in the subjects of the examination for its certificate have on several occasions been the subjects of adverse comments in the BRITISH MEDICAL JOURNAL, and we are therefore glad to recognize that there is amongst the better class of opticians a very widespread feeling against these proposals, which has found expression in a letter addressed by Mr. W. A. Dixey to the leading optical trade journals. Dealing with the argument that the optician has practised sight-testing for 300 years, Mr. Dixey admits the fact, but points out that it is owing to the great advances made in ophthalmic science during the last 40 years that sight-testing has acquired new meaning, and that what was formerly a simple matter within the competence of the tradesman is now a highly complicated procedure, requiring all the knowledge that only a medical education can afford. He admits, too, that there must always be a certain amount of eyesight testing by opticians, just as there will always be some counter prescribing by chemists, but he asks "what would be thought if a Worshipful Company of Alchemists of the City of London were to invite chemists and their assistants to an examination and offer them a certificate of proficiency, limiting their practice perhaps to cases of sore throats, headache, and indigestion?" He argues with considerable force that while much good has been done by the establishment of technical classes for opticians and by the examinations of the Spectacle Makers' Company, there is an ample field for such trained workers in the intelligent management and direction of the wholesale and manufacturing side of the trade, as well as in shops where there is a dearth of efficient assistants, and that from lack of technical knowledge and a want of enterprise the country is inundated with foreign goods which could just as well, nay better, have been made in England; he thinks it will be greatly to be regretted if by the addition of sight-testing to the technical examination young men who are being trained for the trade should be tempted towards what "at best can only be a half-educated profession, and at worst may develop into a system of licensed quackery."

THE BALLACHULISH QUARRIERS AND THEIR MEDICAL OFFICER.

THE long dispute between the Slate Quarries Company at Ballachulish and the men in its employ, which had its origin in an attempt on the part of the directors to deprive the quarriers of their right to choose their own medical officer, will be fresh in the recollection of most of our readers. We recently stated that the company had, after an exhibition of obstinacy and folly which must have cost them very dear, come to their senses, and held out the olive branch, which was accepted by the men. We now have the pleasure of announcing that the men have celebrated their victory in a most appropriate fashion by re-

appointing Dr. Lachlan Grant as their medical officer. At a meeting held on January 6th, Dr. Grant delivered an address admirable alike in tone and in matter. He said the company by its policy at the beginning of the trouble gave them no option but to fight. They had to vindicate their independence as citizens, while he had to vindicate his character and the principles and rights of the profession to which he had the honour to belong. Who would have believed that in this great country the law could have been invoked to prevent a doctor giving his services to people anxious to have him, especially by a company that was not interested to the extent of paying one copper towards his salary? He would always remain at heart a Ballachulish man with a deep and lasting interest in their welfare. He was only sorry that he was not in the position of a modern millionaire so that he might put into practice some of the ideas which he entertained to make life brighter and better for them all. They heard a good deal nowadays about "garden cities," and there was no doubt room for improvement everywhere. In Ballachulish, thanks to the munificence of the late Lady Beresford Drummond, they already had a public park. By-and-by they would perhaps be able to have a library and recreation rooms. All that would be of great usefulness, especially during the winter months, and to the younger generation. They would also like to see a cottage hospital or home. As they were now about to return to their respective duties, he said that for his part he entertained no feelings of bitterness to any one. Knowing them as he did, he thought he might speak for them and say that they had buried the past. They would go back to their work with the intention of doing their very best, and that nothing would be done on their part to recall any spirit of recrimination. Dr. Grant concluded by thanking them for their loyal support. Dr. Dingwall Kennedy, who had attended the quarriers during Dr. Grant's enforced absence, said that they had every reason to be proud of the stand they had made on Dr. Grant's behalf, and, in asserting their own rights, they had vindicated those of the profession which Dr. Grant represented. It had given him the greatest pleasure to assist them and Dr. Grant even in a small way. The attempt to foist upon them unknown medical men was an experiment which had ended in dismal failure. No self-respecting member of the medical profession with any knowledge of the circumstances would have stooped to play the part of usurper. For his own part, he hoped to be with them for some time yet while Dr. Grant enjoyed a well-earned rest. The strain of last year had been very severe, and the wonder was that Dr. Grant stood it so bravely. It would have been impossible for him to do it had he not felt assured of the sympathy and co-operation of his patients and friends. Now that it was all over he sincerely hoped that in the future all would be perfect peace and harmony. In this hope we most heartily join. We congratulate Dr. Lachlan Grant on his successful vindication of the rights of the medical profession, and we also congratulate the Ballachulish quarriers on a victory over injustice and tyranny which has resulted in their retention of the services of a very capable medical officer.

ATTENDANCE ON MIDWIFERY CASES BY POOR-LAW MEDICAL OFFICERS.

A MEDICAL correspondent, who is also a guardian, objects to the charge made against Boards of Guardians of "selling midwifery orders." He admits that in doubtful cases such orders are granted on "loan," and where possible the fees are recovered from the applicants, but that, as a matter of fact, little is found to be recoverable. No doubt this is the foundation of the above charge; but it must not be forgotten that such a practice, unless carried out with the greatest caution, would practically amount to "selling midwifery orders." The legality of the "loan" system rests on S. 58 of the Poor-law Amendment Act of 1834, and it is referred to in connexion with this subject in the Note to Art. 215, No. 3 of the Gen. Ord. of July 24th, 1847, in Glen's *Poor-Law M. Orders*. We there read (p. 446 of the latest edition) that the guardians or relieving officers "will not properly discharge their duties if, by fear of incurring responsibility, they are deterred from withholding relief when the position, station, and circumstances of the applicants have satisfied them that it ought not to be allowed; but the safest course in such cases is for the guardians to give notice that whenever the circumstances of the applicant render him a fit object, the medical aid would be granted by way of 'loan.'" From this it would appear that in most poor districts the relieving officer might safely grant "loan" midwifery orders to many, if not to most, of the poorer patients of the medical men practising there, and it is difficult to see what check could be put on abuse of this system. Probably nothing but the dislike of English people generally to apply for Poor-law relief has any power to control it. The fact that the guardians are seldom able to recover these so-called "loans" is not conclusive. Few Boards would be willing to push the law against poor people, nearly always living from hand to mouth. But it might be difficult to show any real difference in the financial position of the labourer, who paid his doctor a fee of from 15s. to a guinea, and that of his less thrifty neighbour, who, putting pride in his pocket, seeks and obtains a "loan" order from the relieving officer.

PATENT MEDICINES.

WE have received from the Secretary of the Workmen's League, Rotherhithe, a copy of a leaflet which the League is causing to be circulated amongst the working classes, and which is of a very useful nature. It is headed "A Warning," and deals with the subject of quacks and patent medicine vendors, pointing out in very trenchant style the harm which they do to the working and other classes. "These gentry claim to cure every disease which flesh and blood is heir to. By means of booklets and circulars which are offered broadcast at the doors of all classes, and which are drawn up in such a cunning style that they make the most healthy persons believe that they suffer from some disease, they extract millions of money from the pockets of all classes of the community." This is a statement the truth of which no one can deny. The leaflet then goes on to say that "these humbugs prey upon the credulity of the British race," and "are greatly assisted in their quackery by a section of the press which a certain well-known King's Counsel described as 'ghouls that revel in the flesh and blood of their fellow-creatures.' A certain number of so-called Sunday papers also, we regret to state, publish the advertisements of these humbugs, thus acting contrary to the teaching of their professed Master, Jesus Christ, in that, for personal gain they help to ruin the bodies and minds of their fellow-creatures." A further point is brought out in the following sentence: "We find that the usual method of these gentry is to obtain a testimonial from some high-placed and well-known personage by some means best known to themselves, and then employ it in their advertisements to catch the public at large. If you take the trouble to look at the aforementioned gutter rags and so-called religious papers, you will see that 95 per cent. of their so-called testimonials are supposed to be written by people residing in the provinces. This, in our opinion, is significant of their worth." Finally, the leaflet refers briefly to the fiscal aspect of the question, and states that the League intends to try to effect an alteration in the attitude of Government towards the matter. It is interesting, but not surprising, to find that this evil is judged of sufficient importance to call for action by bodies such as the Workmen's League, and we can but congratulate those who are responsible for the issue of this leaflet on the strong common sense which they display, and wish them good luck in their effort. Unfortunately, credulity in medical matters is not limited to the working and comparatively uneducated classes. The higher in the social scale one goes, the more intense does the belief seem to be in anything mystical including occasionally any form of medicine other than the orthodox and legalized. Dr. Hutchison's lecture (a summary of which was published in the BRITISH MEDICAL JOURNAL on December 26th, 1903, page 1654) throws

strong light upon the whole question, and it would be well worth the while of medical men to study the analyses which he gave of a large number of the more popular patent remedies.

THE PATHS OF INFECTION IN TUBERCULOSIS.

IN a previous issue of the BRITISH MEDICAL JOURNAL we gave the salient points in the first lecture in the course established by the Henry Phipps Institute for the Study, Treatment, and Prevention of Tuberculosis, Philadelphia, which was delivered by Dr. Trudeau. The second was given by Professor Osler, of Baltimore, who dealt with the home treatment of tuberculosis. He said that as 98 per cent. of tuberculous patients are treated in their homes, the general practitioner was, after all, the man behind the gun. Upon him must be impressed two things—(1) the early recognition of the disease by better attention to the principles of practice and more care in diagnosis; (2) more masterful management of early cases. Home treatment by modern means must be carried out not only in cities, but in suburbs, in small towns, and in the country. The third lecture was delivered on December 29th by Professor G. Sims Woodhead, of Cambridge, who dwelt upon the conditions favouring the deposition and the manifestation of the activity of the tubercle bacillus which might be present on the surface of healthy tissues without doing harm or giving rise to symptoms. To enable it to manifest its activity special conditions must first be present in the host. He showed how the disease developed and spread, particularly in those portions of the lungs that were little expanded, whether normally from anatomical conditions or pathologically as a result of adhesions or other disease. A catarrhal process of the pulmonary alveoli was the common precedent of invasion. Extension took place through the lymphatics or the blood stream. The tuberculous nodule might undergo softening and break down, leaving a cavity, or it might undergo fibrosis or cicatrization, and eventually, perhaps, calcification. Involvement of the bronchial lymphatic glands had an important influence on the nutrition of the lungs. In the early stages there might be slight haemorrhage, from the congestion due to the morbid process, while the bleeding in the latter stages resulted from the erosion of arteries of considerable size. The tendency to the formation of fibrous tissue was the indication of Nature's attempt at cure, and was to be encouraged by the physician as far as lay in his power. This process was observed in a large number of cases in which death occurred from other causes, demonstrating the curability of the disease. Not infrequently it took place spontaneously. The physician, however, could contribute largely to the same end by improvement of the general nutrition of the patient, and by properly stimulating the functional activities of the respiratory apparatus.

QUACKERY AND BALDNESS.

BALD heads have long been happy hunting grounds for quacks; there is no kind of advertisement with which readers of newspapers and magazines are more familiar than those vaunting the virtues of "hair restorers" of one kind or another, and inviting the public, as Hamlet did his mother, "to look upon this picture, and on this." In the one is shown an individual whose pate is a "bare ruined choir"; while in the other, his head is covered with a fell of hair which, if roused and stirred by a dismal treatise, would look like Birnam Forest on its way to Dunsinane. It would be unwise to accept those pictorial representations with too easy a faith. Advertisers use many dainty devices to push their wares, and the use of faces as well as names can be bought for a price. Sometimes, indeed, your adviser will, like Molière, take his property where he happens to find it. Only the other day an enterprising vendor of a specific for obesity had to stand, figuratively, in a white sheet for having, with more ingenuity than righteousness, used the portrait of a lady of a certain age to illustrate the condition of a patient before the use of his nostrums, and the portrait of the same lady when a young girl to show the effect of the treatment. The incurability of what may be called essential baldness in the present stage of knowledge is admitted by all scientific practitioners. Sabouraud says, uncompromisingly, that we cannot cure baldness nor restore hair to denuded scalps. Our helplessness in the matter is due to our ignorance of the etiology of the disease. Among the causes that have been assigned are time—the subtle thief of youth, which steals the hair with other juvenile adornments; brain work—an etiology which commends itself chiefly to bald-headed men; the "arthritic" diathesis; dissipation; a sedentary life; cutting the hair too short or wearing it too long; a too carnivorous diet; the use of heavy, unventilated hats; that universal scapegoat alcohol; and the inevitable microbe. We remember hearing of the fungus theory at least thirty years ago, and M. Sabouraud has given it a new lease of life by his discovery of the micro-bacillus, which, however, has not yet acquired the freedom of the city of science, and as to which he himself, it would appear, has some doubt. A few years ago an American physician proved to his own satisfaction that baldness was due to a special poison manufactured in the lungs, which he called by the question-begging name "trichotoxicon." M. Sabouraud, though he admits that the problem is at present unsolved, does not, it may be gathered, regard it as insoluble, inasmuch as with the detection of the cause would doubtless come the discovery of a cure. There is therefore still a dim ray of hope for the bald. In the meantime they will do well to accept the situation with fortitude, and waste no money on any of the multifarious remedies that are advertised. It would need a fresh act of creation to restore a dead hair bulb to active life, and no remedy has yet been found that can prevent its becoming blighted: nor, if such a thing were known, is there any means available of applying it so as to act directly on the seat of the mischief. We do not, of course, say that no form of alopecia is influenced by treatment. At the present time the fact that one of the most prominent of American multimillionaires is suffering from alopecia areata is being thrust, with indecent insistence, on the attention of the public of the United States by advertisers of "specifics" for the cure of baldness. Doubtless in due course, when a fresh crop of vegetation has appeared, the new-thatched head will be exhibited in the newspapers as a miracle wrought by somebody's lotion or pomade. A distinguished French dermatologist, Dr. Brocq, has recently pointed out that in most people the hair is subject to seasonal variations, falling out more or less abundantly in May and again in September, and recovering its normal luxuriance in the intervals. This would explain the apparent effect that sometimes seems to be produced by a remedy. If its use coincides with the period of new growth, it is credited with what is really a natural process. On the other hand, the vendors of hair restorers may plead in explanation of the failure of their remedies that they were applied at the wrong time.

DRUNKARDS AND DRINK CURES.

AT a recent meeting of the Chelsea Clinical Society Dr. J. Foster Palmer read a paper on the *rationale* of certain so-called drink cures. He began by stating that drink cures as such do not exist. It was the moral control which was lacking, and an artificial removal of the craving would only leave the drunkard a prey to worse evils. The bane of medicine was the exaggerated belief in drugs, and the prevalent faith in quack nostrums recalled a state of the medical art in the seventeenth century when Charles II, on his deathbed, was drugged with *spiritus cranii humani*, and an extract from some disease in goats. The belief in drink cures was a type of modern credulity. There was no substitute for patience, conscientious perseverance, and the cultivation of the will. Roughly speaking, there were three classes of drunkards: those with an uncontrollable physical craving, those who had cultivated an existing tendency, and those who had become drunkards from sheer lack of will power. It was only in the first class that drink

cures were of service, for they alone really desired to be cured. Such cures were not miraculous or specific, but therapeutic. A very ancient drink cure was bitter almonds, largely used in the sixteenth century, its action being, no doubt, due to the sedative effect of hydrocyanic acid. Liquor ammoniae was much extolled a century ago, and would act as a substitute for alcohol, or in large doses as an emetic. Oxide of zinc had been used with greater reason as a nerve tonic, and cinchona bark both as an antiperiodic and a local astringent. Arsenic was a still more hopeful form of treatment, as its action on the skin suggested a similar action on the mucous membranes. Strychnine was a very obvious remedy, acting as a nerve tonic. The numerous sedative remedies, including picrotoxin, might allay the alcoholic craving, but were attended by the risk of establishing a worse one. Calomel might, besides its purgative action, allay fermentation by its germicide effects. Capsicum, too, had been found useful, but only when given with the patient's co-operation. The so-called "gold cure" was a secret remedy, and in the "Keeley" treatment was probably combined with some of the drugs already referred to. The high-flown language, too, of most of those who professed to be cured suggested that they were subjects not altogether insusceptible to hypnotic influence. This, of all drink cures, Dr. Palmer thought the most dangerous and the most fallacious.

MEDICAL ADVERTISING IN FORMER DAYS.

COMPLAINTS of unprofessional advertising are still too common, as our letter-bag bears witness. But the growth of a healthy public opinion among us, powerfully reinforced by the fear of the General Medical Council, has made direct advertisement practically impossible to any who wish to remain within the fold of the true Church of Medicine. This is one of the greatest medical reforms ever achieved. To appreciate it one has only to look at the manner in which our predecessors of the seventeenth and eighteenth centuries proclaimed *urbi et orbi* their skill in healing diseases. As examples we may cite two old advertisements sent to us by correspondents. Dr. R. Newenham Lyon, of Lucan, co. Dublin, has extracted the following from an old book printed by John Dunton, at the Raven, in the Poultry, in 1691:

In plow yard, the 3rd door in Grays Inn lane lives Dr. Thomas Kirleus, a Collegiate Physician, and Sworn Physician in Ordinary to King Charles the Second, until his death: who with Drink and Pill (hindering no Business) undertakes to Cure any Ulcer, Sores, Swellings of the Nose, Face, or other parts: Scabs, Itch, Scrufs, Leprosies, and Venereal Diseases, expecting nothing until the Cure be finished. Of the last he has cured many hundreds in this City, many of them after fluxing, which carries the evil from the Lower Parts to the Head, and so destroys many. The Drink is 3s. the Quart, the Pill 1s. a Box with Directions; a better Purger than which was never given, for they clense the Body of all Impurities, which are the causes of Dropsies, Gouts, Scurvies, Stone or Gravel, Pains in the Head, and other parts. With another Drink at 1s. 6d. a Quart He cures all Fevers and hot Distempers without Bleeding, except in few Bodies. He gives his opinion to all that writes or comes for nothing.

To the courtesy of Dr. J. F. Keenan of Edgworthstown we are indebted for the following, copied from *Saunder's News Letter*—a well-known Dublin newspaper of the day—of Saturday, October 29th, 1796:

Doctor Robertson, removed to his house, No. 3, Mark Street, Dublin, begs leave to acquaint the public that he continues to cure the dropsy, scurvy, kings' evil, cancer, sore eyes, itch, falling sickness, rheumatism, gout, gravel, hysteric and nervous complaints, agues and fevers, kills worms in old and young, etc. He likewise cures the venereal disease, in both sexes, in the quickest and easiest manner, without hindrance of business, regard to diet or help of mercury, on reasonable terms. The Doctor takes no patients in hand but those he can cure; he likewise assures the public that there never was an instance of any one person that made application to him (afflicted with a certain complaint) that has it in his power to say that they did not receive a safe, speedy, and perfect cure.

Attendance from 9 to 2, and from 5 to 9 in the evening.

N.B.—Ladies and gentlemen may be attended at their own houses, etc., and the strictest honour may be depended on. Proper medicines for seafaring people.

All is not yet for the best in the best of all possible medical worlds. But we may at least be thankful that nowadays doctors do not beat the big drum in front of their booths with the breadth of style displayed in the announcements that have been quoted.

THE OESTROUS CYCLE IN THE SHEEP.[1]

SOME time ago we commented in these pages[2] upon Mr. Heape's work in connexion with the comparative physiology of menstruation. This work Mr. F. H. A. Marshall has recently been supplementing, and he has specially increased our knowledge of the processes in the sheep which correspond with menstruation in the human female. His observations and experiments have been made in Professor Ewart's laboratory in Edinburgh and at the "Biological Farm" at Penycuik, Midlothian; the varieties of sheep used were the Scotch black-faced and half-breeds between these and Cheviots and Leicesters. Mr. Marshall has carefully described the changes in the uterus during the pro-oestrum (the period which corresponds to menstruation in the human subject), during oestrus (the period of desire), and in the resting periods (met-oestrum and an-oestrum), which follow. In the sheep oestrus succeeds the pro-oestrum very closely. In the resting periods the blood vessels of the uterine mucosa are small and comparatively scarce; during the pro-oestrum there is growth of stroma and increase of vessels followed by breaking down of vessels and extravasation of blood, and these changes may be found also in the period of oestrus; and, then, during the met-oestrum there is recuperation and pigment-formation. Bleeding into the uterine cavity and from the external genitals does not necessarily occur in the sheep. Since impregnation often follows upon the pro-oestrum and oestrus we must regard the processes of denudation and degeneration not as of the nature of an undoing of preparations already made for the reception of the ovum, but rather as being themselves acts of preparation. Mr. Marshall also has made interesting observations upon the corpus luteum in the sheep, which, in view of recent work in Germany upon the nature and functions of the corpora lutea, are of some importance. He has found that the lutein cells are the much hypertrophied epithelial cells of the undischarged follicle, and are not derived in the main from connective tissue as some have suggested. These cells may, therefore, possibly, have some at least of the physiological activities which have been recently ascribed to them. If lutein can be shown to have the therapeutic properties of ovarian extract, something will have been done to establish its position as an agent capable of influencing both menstruation and pregnancy. With regard to the vexed question of the relation of menstruation to ovulation, Marshall thinks that they are connected but not interdependent; they are neither effect and cause nor cause and effect; but they may both be due to the same causes; and they may react upon each other or not, behaving in this respect differently in different mammals. It is possible that it may be the formation (and glandular activity) of the corpus luteum rather than the bursting of the follicle that has an effect upon menstruation. "*Felix qui potuit rerum cognoscere causas*" wrote a poet long ago; so far at any rate as the causes of menstruation are concerned we must all be prepared as yet to be satisfied with the partial happiness which comes from the search after truth, and not with the perfect felicity of its attainment.

THE TREATMENT OF PNEUMONIA.

IN view of the recent discussion in our columns on the treatment of pneumonia to which the publication of Dr. Lees's Harveian lectures gave origin, a critical review of the same subject by Dr. David Finlay, Professor of Medicine at Aberdeen, which appeared in *International Clinics* is of interest. It is true that it does not deal with some of the theoretical issues which have been raised, but it gives his considered views upon the special points of treatment which alone make these issues of any interest publish before the discussion arose. After running over and commenting upon the treatments which have been in vogue in the past, Dr. Finlay points out that they were all based upon the now abandoned idea that pneumonia can either be cured or cut short. To-day the physician recogni

[1] Marshall, F. H. A., the Oestrous Cycle and the Formation of the Corpus Luteum in the Sheep, *Phil. Trans.*, B. vol. 196, pp. 47 to 97, 1903.

[2] BRITISH MEDICAL JOURNAL, March 9th, 1901, p. 593.

at he is for the most part simply a pilot waiting to give useful turn to the wheel if any opportunity presents itself. The object of his chief solicitude should be the heart d the evil effects both of high temperature, and of that, atever it be, which causes high temperature upon the art muscles must not be overlooked even though it is ognized that fatal cases do occur without any high temrature. Of drugs, the most useful are ammonia, ether, inine, and strychnine; because whether to be regarded as mulants or as tonics, they are at any rate not depressts. Antipyretic drugs are worse than useless and if the mperature is deemed dangerously high, the icebag, cold ck, or, in extreme cases the cold bath, will generally et the needs of the situation. The same sort of hydrorapeutic measures are also the best in calming delirium. digitalis he disapproves: it causes nausea and this inferes with the all-important point, nutrition. Apart m this practical observation the result of the inquiry Lauder Brunton and Cash is not to be forgotten. ey showed that in pyrexia digitalis loses its power over vagus, and hence, being cumulative, may readily be shed to such extent as to be dangerous should the mperature fall. Opium Professor Finlay would never re under any circumstances, and the pleuritic pain, ich may seem to indicate it, is best met by leeching llowed by either hot or cold applications. Sleep is of gh importance, and neither for food nor medicine should ever be disturbed. Cold or tepid sponging favours it, t if the administration of some drug is inevitable to cure it chloralamide may be tried. He has never been le to satisfy himself that the icebag, as has been claimed, lly checks the inflammatory process in the lung or acts any other way than as a local refrigerator, the local ect necessarily assisting to reduce general pyrexia; even h this limitation, however, it may often be very useful. m oxygen he has never obtained any permanent istance, but possibly this is because it is only in the rst cases and as a last resort that it is thought of. cohol should never be given as a matter of routine, but en clearly indicated by a consideration of pulse, mperature, and tongue it is invaluable. As regards neral blood-letting, in the case of vigorous subjects and en engorgement of the right side of the heart is obvious may be practised with advantage. Finally, he recalls ler's warning: "How natural, when on the third or rth day the crisis occurs and convalescence sets in, to ribute the happy result to some special medication! w easy to forget that the same early unexpected overies occur under other conditions!"

SYMPATHETIC NERVE DEAFNESS.

inquiry received lately from a correspondent raised a stion of no little practical importance. Is there in the e of the ears any process analogous to sympathetic thalmia? Apparently the answer must be in the gative, although it is not at all uncommon to erve cases of long-standing suppurative or even n-suppurative inflammatory disease of one ear which at a later stage the auditory nerve ver in the opposite ear becomes defective, this ect being diminished if treatment of the first affected is carried out. This may be effected by such methods the instillation of antiseptics, the removal of polypi, nulations, the ossicles, the outer wall of the attic or the ical mastoid operation, in suppurative cases; the reblishment of a healthy condition of the Eustachian es and tympanic membrane, the tightening up of rea portions of the membrana tympani, etc., in non-supative cases. This induced auditory nerve weakness the second ear is by some termed "sympathetic ve deafness." The mechanism of its production is very obvious. It may perhaps be induced by a urbance in the synergic action of the accommodative hanisms of the two ears. In any case the fact has n noted by many writers, and more particularly by antschitsch of Vienna, and if the pathology suggested correct the term sympathetic may be applied to it more correctly than to sympathetic ophthalmia, which is apparently due to an infective process, though the primary lesion even in this case may be nervous irritation. In deciding whether a surgical operation should be carried out in the case of any individual patient suffering from disease of one ear, the fact that the hearing of the opposite ear is becoming weaker, presumably from sympathetic nerve deafness, would be an additional argument in favour of operation.

THE VALUE OF THE BACTERIOLOGICAL EXAMINATION OF WATER.

THE inquiry which Dr. Timbrell Bulstrode has made on behalf of the Local Government Board into the water supply of Bridgend, in Glamorganshire, and upon its relation to the prevalence of enteric fever in that town is one which emphasizes the importance of adequate examination of water supplies. Bridgend, the population of which is a little more than 6,000, is supplied with water by the local gas and water company. The water is derived from the Schwyll springs, which issue from the carboniferous limestone near to the Schwyll pool on the banks of a millrace, immediately before it rejoins the river Ewenny and near its junction with the Ogmore, which flows through Bridgend. Dr. Bulstrode found that the water of the spring was discoloured after heavy rain in circumstances which did not allow of much surface washings from the vicinity of the spring itself, and that the rocks over a wide area in the neighbourhood of the spring were fissured. There was evidence that certain spring tides accompanied by a west wind exerted an influence so that the springs might become flooded with water of the Ewenny river and the millrace. Actual pollution of the water with infected matter was not demonstrable, though the wide distribution of the disease, its appearance in all kinds of houses, its occurrence in a neighbouring district supplied with the suspected water, all pointed in the direction of its being waterborne. The water company, having accepted this view, are now engaged in laying down a filtration plant. Up to December, 1901, the water analyses, chemical and bacteriological, had yielded satisfactory results, but at that date Dr. Savage, Bacteriologist at the County Laboratory at Cardiff, condemned the water on the following grounds: (*a*) the undue number of bacteria present; (*b*) the presence of B. coli in unusual amount; and (*c*) the presence of the B. enteritidis sporogenes. The first examination made by Dr. Savage in November, 1901, showed "no evidence of contamination." Subsequently he found, as above recorded, evidence of contamination by bacteriological examination, but satisfactory results by chemical analysis. He therefore suggested faulty collection. Hereafter until May, 1902, the chemical examination continued satisfactory, the bacteriological unsatisfactory. In May, however, Dr. Savage found the chemical analysis also unsatisfactory. Other examinations, chemical and bacteriological, were made by other persons, some of whom even found the water satisfactory. Ultimately, Drs. Klein and Houston examined the water bacteriologically, and found B. coli and the spores of B. enteritidis sporogenes to be present. Had the water company relied upon chemical analyses alone it seems evident that the bad condition of the water would not have been detected. The whole report and the appendix of chemical and bacteriological records serves in quite an exceptional degree to emphasize the absolute importance of bacteriological and chemical analyses of public water supplies, coupled with careful local examination and sustained supervision of the topographical conditions under which water supplies are yielded and collected.

THE LATE DR. TREND, OF SOUTHAMPTON.

OF the losses which the British Medical Association incurred through death last year, none probably will be more greatly felt than that of Dr. Trend, of Southampton, of whom a short obituary notice was published in the BRITISH MEDICAL JOURNAL of December 26th, 1903. He had ever

been a warm supporter of the Association, and a discreet but enthusiastic advocate of its objects and principles; and the Southern Branch in particular has much cause to remember him with gratitude and regret. That Branch, indeed, is perhaps more indebted to the deceased for its popularity and success than to any other person, with the exception of its founder, Dr. J. Ward Cousins. For twenty years he acted as Secretary of the Southampton Division, and was its moving spirit, and for twenty years also he was regularly appointed by the members of the Branch to represent them on the General Council of the Association in conjunction with Dr. Ward Cousins. During all this long period the annual meetings of the Branch Council were held at his residence, and no one of those who were privileged to attend those meetings can fail to recall with pleasure the genial kindliness and generous hospitality of their host. Even after his retirement from practice his interest in the affairs of the Association never waned, and he continued to be to the last a prominent member of the Branch Council and a regular attendant at annual meetings of the Branch itself. It is men of this type of enduring energy and unswerving loyalty that the Association has to thank for its immense growth and present power; and the only consolation for the loss of one of them is the knowledge that there are not a few others of whom the same tale will one day have to be told.

SLEEPING SICKNESS.

With the object of obtaining exact data as to the geographical distribution of sleeping sickness in the French possessions on the West Coast of Africa—which for administrative purposes are classed together in a group comprising Senegambia, the old territory of the Soudan, Guinea, the Ivory Coast, Dahomey, and their respective hinterlands—the French Colonial Minister in April, 1903, sent to all officials in these colonies a circular letter asking for information on the subject. The answers, of which up to the present time 111 had been received, go to show that the following parts of the French territories are seriously affected: Casamance, the greater part of Upper Guinea, the hinterland of Liberia and of the Ivory Coast, and Lobi. There are besides some very limited foci of secondary infection, such as Baol, Sine-Saloum, Cayor in Senegambia, Baoule on the Ivory Coast, and the country of the Bobos. Imported cases have also been found in places along the routes of traffic and travel; from none of these did infection spread. It is in wooded districts with deep valleys, at the sources of rivers or at the upper part of their course, that the chief centres are for the most part found.

SIR FRANCIS LOVELL'S MISSION.

In the British Medical Journal of December 19th, 1903, it was stated that Sir Francis Lovell, C.M.G., Dean of the London School of Tropical Medicine, was about to start on an expedition to the tropics with the object of arousing interest in the work of the School and enlisting public support on its behalf. It is with deep regret that we have to announce that Sir Francis is for the present prevented by illness from carrying out the plan which he had arranged. Although barely recovered from an attack of influenza he started on his journey at the appointed time, but on reaching Marseilles he became so ill that he had to come home. His medical adviser has ordered him a prolonged period of rest. Sir Francis Lovell hopes to be able to proceed on his self-imposed mission in the autumn. The course proposed has the full approval of the Board of the Seamen's Hospital Society. We are sure that all well-wishers to the cause in furtherance of which Sir Francis Lovell has undertaken a task which to a man of his age must be irksome, and by no means free from risk, will join in the hope that he may soon recover his health.

THE MEDICAL TEACHING OF WOMEN.

At the last meeting of the Glasgow University Court an interesting discussion took place on the medical teaching of the women students. The women's department of the University is at present carried on at Queen Margaret's College and at the Royal Infirmary of Glasgow. Sever years ago a sum of money was left by a Glasgow gentlema to be used for some department of women's education i an institution to be called the Muirhead College, but u till now nothing definite has been arranged as to the be method of carrying out this bequest. The governors of th Muirhead College now propose to set up an extramur medical school for women in the vicinity of th Victoria Infirmary to take up certain portions the medical curriculum, the earlier portions of the cour being taken as now at Queen Margaret's College. In th matter they sought the co-operation of the Universi Court, but a committee of the Court reported that, in the opinion, the scheme was impracticable. However, t Muirhead College scheme found a warm advocate in I McVail, who urged the Court to agree generally with t plan of the governors and appoint a committee to wo with the governors in drawing up the details of a sche for the consideration of the Court. The governors h £40,000 which they proposed to use in this way, and would be folly of the University Court to throw away t money, and might prejudice the public against entrust further funds to them. A lively discussion followed, af which Dr. McVail's proposal was carried.

ST. BARTHOLOMEW'S HOSPITAL.

As will be seen from a letter from Sir Trevor Lawren which appears elsewhere in this issue, the meeting launch the appeal of St. Bartholomew's Hospital will held at the Mansion House on Tuesday next at 3 p Dr. Herringham has stated in a letter published in last issue that the numbers of the blocks, the purpose which each is required, and the estimated cost of ea have been settled, and that all that remains to be de mined is the position which each block shall occu The prospects of a successful appeal, therefore, pear now considerably more promising than they We wish the appeal early success, and a quick respo will be the best thing in the long run for all hospital London. Now that the medical staff and the authorities of the hospital are in full accord it appe certain that the plan of rebuilding *in situ* will eventually carried out, whether the appeal prove succes or the reverse. In the latter case the hospital would to spend its capital, and, as a consequence, would enter permanent competition for support with other hospita

PHYSICAL DETERIORATION COMMITTEE.

The sittings of the Physical Deterioration Comm were resumed on January 18th at the Privy Council O Whitehall. Mr. Almeric FitzRoy was in the chair, an the members were present. Evidence was given by Charles Booth, Mrs. Watt Smyth, and Miss A Anderson (His Majesty's Principal Lady Inspect Factories). The Committtee intends to sit, as fa possible, continuously until the evidence is exhausted

The *Journal Officiel* of January 14th announced Professor Debove, Dean of the Medical Faculty o University of Paris, has been appointed President o French Consultative Committee of Hygiene, in the of Professor Brouardel, who has been named Hon President. Dr. Roux, Sub-director of the Pasteur tute, has been re-elected Vice-President of the Comm

Society for Relief of Widows and Orphans of Me Men.—A quarterly Court of the Directors of the Societ held on Wednesday, January 13th, Mr. Christopher I the President, being in the chair. Three new members elected and the death of a member reported. There we fresh applications for grants. It was resolved to dist £1,513 among the 53 widows, 15 orphans, and 4 reci from the Copeland Fund, now in receipt of grants. A £586 was given at Christmas as a present—£10 each widows, £3 each to 12 orphans, and £5 each to the 4 o on the Copeland Fund. The expenses of the quarte £77 12s. 6d.

Ireland.

IRISH MIDWIVES AND THE ENGLISH ACT.

At a meeting of the Obstetric Section of the Royal Academy of Ireland at the end of November, a discussion on the effect of the Midwives Act of 1902 on Irish training institutions and nurses was introduced by the President of the Obstetric Section, Dr. A. Smith. In the course of the speech of the President, and of those which followed from Drs. Tweedy, Kidd, Jellett, Smyly, Horne, Stevens, and Barry, the fact was brought out that the present regulations of the Central Midwives Board will, if unaltered, eventually disbar the nurses trained in the chartered Irish maternity hospitals altogether. Until the year 1905, they are practically put on a par with the ordinary handy woman of an English village, but after that they will have to pass the prescribed State examination. This, however, it will be impossible for them to do, however highly they may be trained, unless they put in three months' training in England in addition to their work in Ireland. It should be remembered that before any prospective midwife can be admitted to examination she will have to supply certain certificates; one of these is to the effect that the candidate has personally conducted not less than twenty labours, and the other that she has nursed such patients for not less than ten days after their confinements. These certificates it would be impossible for Irish midwives to obtain, unless, as one speaker suggested, it were possible to double the size of the Irish lying-in hospitals, or, as another speaker said, the birth-rate were doubled as well. Under the present system of training in Ireland it is impossible to allocate to each nurse 20 cases to be conducted solely by herself. The regulation as to ten days' nursing creates an even greater difficulty, for it is the practice in Irish maternity hospitals for the patients to leave before the expiration of ten days, and it is not in the power of the authorities to compel them to remain longer than they choose.

A comparison was made between the methods of instruction laid down by the regulations of the Central Midwives Board and those practised in the Irish maternity schools. It was shown that women who desire to become midwives in Ireland have to spend six months in the hospital, furnish testimonials of exemplary character, see hundreds of labours, conduct some of them personally themselves, look after the lying-in women from the time they arrive in hospital until they leave, take care of the children, etc., and, finally, that they receive a thorough training in antiseptics and do not receive their certificates until they have passed a difficult examination. This, it was pointed out, was an infinitely superior training to that which was described as merely muddling through 20 conductions of labours and attending the patients for ten days after in each case.

After it had been pointed out that the Privy Council was incompetent to amend the regulations for the Central Board, this part of the discussion ended by the following resolution being moved and passed unanimously:

"That in the opinion of the Obstetric Section of the Royal Academy of Medicine in Ireland any woman holding a nursing certificate of the Irish Chartered Maternity Hospital shall be deemed to have complied with the rules of the Central Midwives Board regulating the course of training of "pupil midwives," and shall be eligible to present herself for the examination of the Central Midwives Board.

A further discussion arose as to the desirability of the extension of the Midwives Act to Ireland. It was pointed out that it was due to the Act not extending to Ireland that the Irish training schools found themselves in their present position, and that but for a certain amount of opposition from some persons, and inertia on the part of others, the Act might have been made to apply from the first to Ireland as well as England. The opinion was expressed that the Act would be useful in Ireland from several points of view, one of which was that in spite of the number of training institutions a good many women were confined by untrained persons in certain parts of Ireland.

Finally, the opinion of the meeting was expressed in a motion which favoured the extension of the Act to Ireland; and by a further resolution it was resolved to send a copy of the opinion for the consideration of the Irish Medical Association and other bodies. By a final resolution it was resolved that a copy of the first resolution passed should be sent both to the Central Midwives Board and the Privy Council, and that the results should be awaited before further action was taken.

IRISH MEDICAL ASSOCIATION.

A meeting of the County Roscommon Branch of the Irish Medical Association was recently held, Dr. P. C. Walsh, Castlerea, in the chair. The following resolutions were passed unanimously:

1. That we see with regret that the superannuation question has latterly assumed a rather backward place in the programme of the Irish Medical Association, and we are of opinion that a matter so vital and so long delayed should be pressed to a successful issue with all the energy and influence which the Association can command.

2. That as we consider that a Superannuation Bill upon any other basis than that of contributions from the officials as embodied in Bill propounded by the Poor-law Association of Ireland is not feasible at present, we call upon our Central Executive to assist in every possible way the Poor-law Association in having its Bill passed into law during next session of Parliament.

3. That we call upon all members in their own best interests and in the interest of the profession to which they belong to act faithfully by and honourably observe the rules of the Association, and in view of vacancies occurring in the neighbourhood we trust that no member of this county branch or of branches of adjoining counties will be found to offer for such vacancies at less than the minimum fees as laid down by the Association.

4. That we hereby declare we are not in agreement with any movement tending to take the appointment of Poor-law medical officers out of the hands of the popular representative Boards of the country.

In the course of the discussion it was pointed out that it was almost impossible to get a large number of the doctors of the county to attend a meeting no matter where it was held. The question of turning the Poor-law medical service into a Civil Service Department was discussed and condemned.

IRISH POOR-LAW COMMISSION.

On January 14th the Irish Poor-law Commission sat in Newry. Dr. S. Edgar Martin, Medical Officer of the Newry Workhouse, said that if the insane and the children were removed from the workhouse, there would be accommodation for the sick, aged, and infirm of some of the adjoining unions; the Kilkeel and Banbridge unions could be dissolved. He was in favour of placing children in a central institution, in preference to boarding them out. Lunatics should be sent to asylums, and the guardians should have the power of charging people of means admitted to the fever hospital. The workhouse was not the proper place to treat consumptives.

Dr. Elizabeth Bell said that it would be better if the guardians would extend the outdoor relief of old people. She would keep all children out of the workhouse.

Dr. Beamish gave evidence regarding the working of the Newry General Hospital, which receives a grant from the Down County Council.

ROYAL VICTORIA HOSPITAL, BELFAST.

The Misses Riddel, Beechmount House, Belfast, have given £10,000 to this institution to name a ward after their late brother, Mr. Samuel Riddel, Belfast. Of this sum £2,000 is to be devoted to building a residence in the grounds for the superintendent. It is very gratifying to the Board of Management and the Construction Committee to obtain at this early date such a substantial approval of their endeavours in the building and conduct of the hospital. It will advance also considerably the project of opening one of the three units that have been kept closed owing to lack of funds. Although the number of beds now open exceed the total number in the old hospital, yet patients, very suitable from a medical and social aspect, are either turned away or kept waiting for days before admission is possible. The new electric and photographic department is now equipped. Faradization, galvanization, Roentgen rays, the high frequency current, the Finsen light, and massage by an electric motor are all in full working order, and already it is felt that the amount of accommodation is insufficient.

QUEEN'S COLLEGE, GALWAY.

On January 9th an ordinary triennial visitation was held by the Board of Visitors at Galway Queen's College, Lord Clonbrock presiding. The other visitors present were Lord Westmeath, the Bishop of Tuam, Sir A. V. Macan (President of the Royal College of Physicians, Ireland), and Sir Lambert Ormsby (President of the Royal College of Surgeons, Ireland). After some formal business President Anderson gave a review of the work of the college last session. The visitors afterwards inspected the laboratories, museums, and other departments of the College. They then returned to the examination hall, and Lord Clonbrock, the chairman, said that the visitors unanimously were of opinion that everything was in extremely good working order in all the departments considering the limited space available. The chair-

man also stated that it was the unanimous opinion of the visitors that as there was no chair of pathology in the College the council should make arrangements for the appointment of a suitable lecturer in pathology, who should devote the whole of his time to the subject.

Derry Lunatic Asylum.

At the monthly meeting of the Committee of Management of the Londonderry District Lunatic Asylum the report of Sir George P. O'Farrell was considered. The report stated that the asylum population had decreased by 5, but that this decrease was due to an excessive death-rate. The medical officers were most zealous in the discharge of their duties, but the serious overcrowding had undoubtedly acted unfavourably on the health of the inmates. In the short time under review one death took place among every six or seven patients; the death-rate was higher among the females, where the overcrowding was most accentuated.

Alderman Dr. Graham of Belfast.

At the meeting of the Health Committee of the Belfast Council held on January 14th Dr. James Graham took the chair for the last time. Dr. Graham has been a member of the City Council and of the Health Committee for seventeen years, and has been Chairman of the Committee since January, 1891. His geniality, tact, and skill as chairman have made him one of the most popular members of the Council, and general accordance is felt with the resolution passed by the Committee, when Dr. Graham was asked to leave the chair and Alderman Dr. King was moved into it.

That this Committee desires to place on record its sense of the loss the Committee, the Council, and the city sustain by the retirement of Alderman James Graham, M.D., from the Corporation. The time and attention which Alderman Graham gave to, as well as the skill which he brought to bear upon, the discharge of the duties of his office have been of incalculable advantage to the city, and the Committee feels that Alderman Graham is entitled to the grateful thanks of the citizens; while the members of the Council regret the official separation from one of the most genial and friendly of their number. They sincerely wish him continued health, happiness, and prosperity, and count upon having his sympathetic support in their efforts for the betterment of the conditions under which the working population of this city exist.

Scotland.

Edinburgh Royal Infirmary.

It has already been stated in the British Medical Journal that at a meeting of the Court of Contributors to the Edinburgh Infirmary, held on January 4th, a new rule was submitted by the Board of Managers, to the effect that the ordinary physicians and surgeons should in future retire at the age of 65. The rule specifically exempted the Professors. The contributors at their meeting, by a considerable majority, adopted a resolution to the effect that the rule should apply to Professors.

At the adjourned meeting on January 18th, the feeling was expressed by the meeting that the whole matter had been dealt with somewhat hastily, and Mr. Haldane, the Convener of the Contributors' Committee, rightly said that the matter required to be handled with very great caution, as it was one of vast importance both to the infirmary and to the Medical School of Edinburgh, as well as to the University. He therefore moved:

That this meeting in the meantime delay approval of the new rules, and remit to a committee to consider the question and report.

Sir John Batty Tuke seconded. Mr. J. T. McLennan, Advocate, proposed as an amendment:

That this meeting approve of the new rule with this exception, that the words "nor to the professors" be deleted.

Dr. Alexander James seconded. The motion was carried by 91 votes to 52, and a committee of five was selected to represent the contributors, it being understood that the managers should choose a similar number to represent their Board. One result of the above resolutions is to reopen the whole matter of the age-limit. The Committee was instructed to obtain information from all persons interested.

Small-pox.

The epidemic of small-pox in Glasgow continues to spread, and on January 18th there still remained 210 cases under treatment in the Fever Hospital. Though most of the cases occur in the eastern district of the city, some cases are admitted from all the districts, and fresh cases continue to appear in the surrounding burghs, particularly in the shipbuilding burgh of Govan. In his last fortnightly report Dr. Chalmers comments on the fact that three of the new cases had occurred in members of the Small-pox Hospital staff, a fact that was rather disappointing considering the remarkably clean bill of health that had always been maintained by those so much exposed to infection. Two of these patients had only recently joined as cleaners, while the third—an assistant van driver—had been in the service of the Fever Hospital from March last, and was transferred to the Small-pox Hospital on December 23rd. The condition as to vaccination of each of these patients is as follows:

1. M. H., van driver, was vaccinated in March with lymph which gave a typical reaction up to the end of the papular stage and then aborted. This being considered at the time unsatisfactory and several others having presented similar appearances, it was intended that they should all be redone, and this was carried out in the majority of cases but this patient was missed. He was transferred to the small-pox hospital staff on December 23rd and sickened fourteen days later. The eruption is discrete and much modified.

2. E. M., joined the staff on December 23rd and was vaccinated on the same evening. As the result was unsatisfactory the patient was vaccinated again a week thereafter, although this proved too late to prevent attack, as the eruption of small-pox appeared on the night of January 6th.

3. A. C., joined the staff along with E. M., and was vaccinated with similar results, being also revaccinated a week later. She sickened on January 6th.

In each of these cases the unsatisfactory nature of the vaccination attracted the notice of the medical staff before the symptoms of small-pox became manifest. They are not illustrations of failure of vaccination to protect from small-pox, but rather of the necessity to ensure adequate protection before exposure to infection.

At a meeting of the Edinburgh Town Council on January 19th Mr. Lang Todd, the Convener of the Public Health Committee, reported that during the last eight days 20 cases of small-pox were removed to the hospital. With the exception of 2 cases, all the cases were directly traceable to the Guthrie Street lodging-house, either directly or indirectly from the case in which the disease was introduced from the Talla at the end of December. There were only 2 severe cases—that of one of the Christian Scientist, who had died, and the other which came from the Glasgow "model" on January 11th and arrived in Edinburgh when already suffering from the disease. All the cases in Guthrie Street—10 in number—were in direct contact with persons who had the disease, and the others were indirectly in contact with them. The case of the Christian Scientist was undoubtedly very unfortunate. Whatever the man may have believed there can be no doubt whatever that he refused to call in a doctor. While suffering from the disease he visited Glasgow, Alexandria, and elsewhere. He had already come in contact with 1 case in hospital in Glasgow. The unfortunate man had paid the last penalty, and while under treatment had been so ill that it was impossible to get information from him as to where he had been. This was 1 imported case. The other case was that of a man who came from a Glasgow lodging-house with the disease on him. The others had been in direct or indirect contact with people suffering from the disease.

Glasgow Hospital Sunday Collections.

The first list of the Hospital Sunday collections has been published, and shows that the gratifying sum of rather over £5,000 has been raised in this way for the three great infirmaries of the city. As there are still a number of collections to be handed in to the treasurer, the books are to be kept open till February 12th, and it is hoped that the above sum may be yet considerably augmented.

A Tuberculosis Camp.—An experimental tuberculosis camp has been established at the Pensacola (Florida) Naval Yard. There are at present six patients in the camp, and the reports of the first month's results are said to be very gratifying. The patients live out-of-doors day and night, being sheltered in tents. It has been decided to establish a naval resort for such patients, and Surgeon-General Rixey intends to investigate other localities, besides Pensacola, each of these being on the Pacific Coast and another in the East further north. When the experts decide on the best site for the camp, Congress will be asked to make an appropriation for the establishment and maintenance of an open-air hospital.

Under the will of Surgeon-Major Hamilton de Tatham of Duke Street, St. James's, Westminster, £250 has been bequeathed to Epsom College, and £100 to the British Medical Benevolent Fund.

Queensland.

DUCTION OF THE GOVERNMENT SUBSIDY TO QUEENSLAND HOSPITALS.

ED for economy has induced the Government to reduce its sidy to Queensland hospitals for the past year. Instead two pounds for every pound of voluntary subscription the vernment now gives thirty shillings—a substantial subsidy, n though a quarter less than before.

Two circumstances militate specially against maintenance of spitals in Queensland by voluntary subscription: First, an willingness on the part of the public to subscribe except ough the channel of a bazaar, a ball, or a fête, and, ondly, the only half-realized knowledge that their bscriptions enable many no poorer than themves to obtain medical comfort and relief gratis, by paying hospital fees become what they proudly l "pay patients." While the hospitals remain charitable stitutions, the abolition of any payment by patients uld do more good than harm, even to the finances. present much of this payment comes from the really or, for whom hospitals are meant, and from whom no payents should be exacted. They would rather stint themves of necessaries than be pauper patients when others y. Those who have no real right to receive hospital treatent and advice are careful to make the lowest possible pants' payments. They are careful also to call themselves paying patients," and, curiously enough, often loudly little the advantages they had no right to use, while the ally poor evince as a rule only gratitude.

Two other circumstances doubtless influence voluntary bscriptions; one of these is hard times, and the other the lief that hard times are at least partly due to the want of inligence displayed by the Labour Party in the choice of a rliamentary platform. The withdrawal of capital from e State, with diminished confidence in its immediate ture, is with some justice attributed to the behaviour of e Labour Party. The hospitals are maintained by employers of labour for their employés, and while the Parliamentary representatives of labour fail to grasp the fact that thout capitalists there can be no employment for labour, ployers cannot be expected to take the same interest in e class from which the hospitals should draw their tients.

In a country so large as Queensland, where many outng districts depend entirely upon the district hospital ctor for medical attendance, it would be to the advange of all concerned if the local hospitals combined e usefulness of public and private hospitals. Those able pay should be charged for board and lodging by the spital, and medical fees by the hospital doctor. At present e private practice allowed to up-country hospital doctors in dition to their small salaries is much curtailed by many of eir most serious cases, especially surgical ones, becoming spital patients, not only for economy's sake. In the larger wns where private hospitals exist there can be no excuse r combining public and private hospitals in one institution.

VOLUNTARY SUBSCRIPTIONS TO HOSPITALS.

Subscriptions to hospitals in Queensland are obtained rough voluntary subscriptions, Hospital Saturday and spital Sunday collections, and by means of bazaars, balls, d fêtes.

In Brisbane the "Hospital Saturday" street collections are mbined with the "Hospital Sunday" church collections, d proportioned amongst the different metropolitan hosals—the General Hospital, the Hospital for Sick Children, e Lady Bowen Maternity Hospital, the Lady Lamington spital for Women.

Each hospital's committee takes personal charge of special orts on behalf of its own hospital. This year an effort is ing made by the establishment of a "Brisbane Hospitals' d Association" to centralize all the efforts on behalf of the spitals in the hands of one capable committee. This committee takes up the position that the whole area contributing tients to the metropolitan hospitals is debtor to these institutions and should be canvassed for contributions. For is purpose the committee is to have added to its members representatives in the State Parliament and the presiding icers and clerks of every local government authority within territory to be canvassed. A general meeting of this sociation will be held each year, at which will be determined the participants in the benefits during the next ensuing year, and at which the executive council will be elected. This council will direct all affairs and will have the appointment of the general secretary, who will be a paid officer and expected to do good work. Five members of this council will form a nucleus for the Saturday Collections' Committee, and a like number will form a nucleus of the Sunday Collections' Committee. Committees will be expected to organize collections from wage-earners throughout the year, and by special endeavour. The council is preparing for a huge district fair to take place at the beginning of next cool season, partly for the purpose of initiating the public to the new system; those unable to contribute money being expected to send gifts "in kind."

A rather important objection to centralizing effort for the hospitals in this way will be the danger that those who for special reasons take an interest in one of the hospitals and not in all may not receive sufficient inducement to either collect for, or subscribe to, the institution of their choice.

Until this year the only hospital in Brisbane managed by men only has been the General Hospital, all the others are managed by committees of women, and have remained practically free from debt. The General Hospital has always been in debt. Doubtless for this reason chiefly, four women have this year been added to its committee. How a combined committee will work remains to be seen, and the wisdom of the change has yet to be proved.

The ladies forming each of the committees of the other hospitals have shown their wisdom, by, in medical matters, consulting the honorary medical staff of the hospital, and have almost invariably been guided by their advice.

THE NEW DENTAL ACT.

A Queensland Dental Bill, passed last December, came into operation this year, and will doubtless do much needed work in restricting dentistry to those who have some training for it.

Four of the members of the Board, not less than two of whom "shall be medical practitioners and the remainder of whom shall be dentists, shall be appointed by the Governor in Council and shall remain in office for a period of six years." Three of the members of the Board, all or any of whom may be medical practitioners or dentists, shall be elected by the dentists of Queensland . . . . and shall remain in office for a period of three years.

The first Board consists of two medical men and five dentists. At their first meeting each year the members of the Board elect a member to be president of the Board. Dr. G. Herbert Hopkins is this year's President; he has also been President of the British Medical Association Branch for the past year.

INFECTIOUS DISEASES IN QUEENSLAND.

A single case of plague crops up every month or two, to show that it has not entirely left our coast, and infected rats are sometimes found. Epidemics of measles and of scarlet fever occurred during the winter months. The cases, except for an unusual proportion of nephritis cases amongst the scarlet fever patients, were mostly of a mild type. Some cases of nephritis following measles were also observed.

VENTILATION OF FACTORIES AND WORKSHOPS.

THE report of a Special Committee of the Association of Certifying Factory Surgeons on the ventilation of factories and workshops has recently been issued. The report recalls the fact that at the 1902 meeting of the British Medical Association a resolution was brought forward, in the Section of Industrial Hygiene, arising out of the discussion on the relationship of the factory and workshop to the spread of phthisis, to emphasize the need for better ventilation in these workplaces. This was withdrawn on the understanding that the subject would be taken up by this Association.

Provisions of the Factories and Workshops Act, 1901, re Ventilation.

The report recites the provisions of the Factories and Workshops Act, 1901, with respect to ventilation, and gives the following epitome of the recommendations of the Departmental Committee, consisting of Dr. John Scott Haldane, F.R.S., and Mr. E. H. Osborne, which reported in August, 1902:

1. That the Home Secretary should utilize the power possessed under Section VII of the Act to fix such a standard that the proportion of carbonic acid at breathing level should not be greater than twelve volumes to 10,000 of air during daylight or where electric light is used, and that after dark, or before the first hour after daylight, where gas or oil is used for illuminating purposes, this proportion should not exceed 20 per 10,000.

2. That cotton cloth factories be allowed the option of accepting this regulation or keeping to the present one.

3. That where these proportions are exceeded notice for amendment be served, but that no legal action be taken until after a reasonable interval, and then only when the average of two or more carefully-taken analyses shows these proportions to have been exceeded by at least one volume.

4. That duly-qualified persons be appointed to analyse samples of air collected by inspectors, prosecutions to be based on the results of such analyses only.

5. That inspectors should have the use of a portable apparatus for the purpose of making analyses on the spot.

Sufficiency of a Carbonic Acid Standard in all Cases.

The report of the Association of Certifying Factory Surgeons then proceeds to consider the question whether a carbonic acid standard is sufficient in all cases. While agreeing, in samples taken under the conditions laid down by the Committee, that a proportion of carbonic acid in excess of that mentioned in paragraph 1 (above) would be sufficient evidence of defective ventilation, it is pointed out that, if this is to constitute in itself the sole "standard" on which legal proceedings are to be based, great difficulty will be experienced in obtaining a badly-needed reform in many urgent cases.

If the analyses of samples show the proportion of carbonic acid gas to be below the limit, it does not follow that the place is properly ventilated, because the windows may have been opened immediately before the visit of the factory inspector. The opinion is expressed that the only way to surmount the difficulty is to insist upon proper regard being given to the relationship between ventilation and temperature. Since Section VI insists upon the maintenance of a reasonable temperature without interference with the purity of the air in the room, no ventilation can be regarded as "sufficient" in a true sense, if the plan adopted is calculated to bring down the temperature to too low a limit whenever it is called upon to clear the atmosphere.

It is also proposed that the order should provide that the means for ventilation should be of such a nature as to ensure, during any season of the year, within the room, a minimum temperature of 60° F. where the occupation is of a sedentary character, or 50° F. where the occupation is of an active kind. A further suggestion made is that the order should specify that all fresh-air inlets should be of such a nature or design and placed in such positions that no appreciable draught be directed against any of the workpeople.

Proposed Standard during Daylight.

With regard to the proposed standard during daylight it is pointed out that as it is recommended that no proceedings should be taken until the limit of twelve volumes is exceeded by at least one volume, it appears that for all practical purposes that the limit is fixed at thirteen volumes of carbonic acid in every 10,000 volumes of air. Not only is the wisdom of allowing this comparatively large margin doubted, but the utility of any order passed on such a standard is questioned. In all probability the adoption of such a standard would almost mean an actual continuance of the present admittedly bad conditions.

Proposed Standard during Gaslight.

While agreeing that the standard should be lowered when gas or oil is burning, inasmuch as the proportion of deleterious matters given off to the amount of CO_2 is much smaller than in the case with respiratory impurities, the Association of Certifying Factory Surgeons does not accept the Committee's actual limit of 20 per 10,000 as at all justified by the tables published. The opinion is expressed that the proportion of carbonic acid over that of the outside air which might reasonably be allowed during gaslight would be double the amount allowed in excess of outside air during daylight.

Fixing the Standard at the Gross Amount of CO_2.

The fixation of the standard at the gross amount of CO_2 estimated in the sample is considered to be somewhat unscientific in principle, and unfair to the occupier or factory inspector, as the case might be, in practice. It is urged that the standard should be stated in terms of carbonic acid in excess of that found in a sample of outside air taken at the same time.

Results published by Mr. F. Jones, F.R.S.E., of Manchester Grammar School, show a difference of one volume of CO_2 per 10,000 between the atmosphere of Manchester proper and the immediate outskirts—a difference not due to respiratory impurities, but to smoke troubles and stagnation of air. An employer in the outskirts, with better natural facilities for ventilation, should not be allowed an extra volume of respiratory impurity over and above the employer in the town.

Conclusions.

The Committee's report, which is signed by Dr. T. F. Young (President), Dr. Thomas Fort, and Dr. W. F. Dearden (Honorary Secretary), concludes as follows:

After acknowledging the proper regard which must be given to unnecessary draught, and the undoubted relationship which exists between ventilation and temperature, we have come to the conclusion that an equivalent of impurity to the extent of an additional five volumes of CO_2 per 10,000 in excess of that found outside would be a fair proportion to allow during daylight, and that double this amount could reasonably be allowed during gaslight. We are also of opinion that the basis for legal proceedings should be one volume in excess of that named for a daylight sample, and two volumes in excess in the case of samples taken during gaslight. The carbonic acid limit suggested should also be made to apply to cotton-cloth factories.

HYGIENE AND TEMPERANCE.

THE NEED OF ELEMENTARY SCIENTIFIC INSTRUCTION IN HEALTH SUBJECTS, INCLUDING TEMPERANCE, IN SCHOOLS.

AN influential committee has been formed with the object of inviting members of the medical profession to call the attention of the central educational authorities of the United Kingdom to the urgent importance of providing that elementary scientific instruction in health subjects, including temperance, should be given in all the primary schools by the educational authorities, and of considering whether steps cannot be taken to encourage in the secondary schools such teaching as to lead the pupils in all schools to appreciate the value of healthful bodily conditions in regard to cleanliness, pure air, food, and drink.

The matter was brought to the notice of the Public Health Committee of the British Medical Association at its meeting on January 14th, when a resolution approving of the objects of the petition was adopted on the motion of the Chairman, Dr. J. Groves, seconded by Dr. Manley. A further resolution was adopted recommending the Council to forward a copy of the resolution to the Board of Education, together with a covering letter, to be prepared by the Chairman, setting out the facts. At the meeting of the Council, on January 20th, the resolution was adopted in the following terms:

That in the opinion of this Council it is of urgent importance that elementary scientific instruction in health subjects, including temperance, should be provided in all the primary schools by the educational authorities, in order that the conditions which lead to deterioration of the national physique may be understood and as far as possible prevented.

The General Committee which has undertaken to distribute the petition consists of the following members:

Committee of Distribution.

Elizabeth Garrett Anderson, M.D.
Sir Thomas Barlow, Bart., K.C.V.O., M.D.
Byrom Bramwell, M.D., F.R.C.P., F.R.S.E.
Sir William Broadbent, Bart., K.C.V.O., F.R.S.
Sir Lauder Brunton, M.D., F.R.S.
William Carter, M.D., F.R.C.P.
Professor John Chiene, C.B., LL.D., F.R.S.E.
Mr. Andrew Clark, F.R.C.S., Chairman of Council B.M.A.
T. S. Clouston, M.D., President Roy. Coll. Phys. Edin.
Professor D. J. Cunningham, M.D., F.R.S.
Julius Dreschfeld, M.D., F.R.C.P.
Professor Finlay, M.D., F.R.C.P.
Mr. A. Pearce Gould, F.R.C.S.
T. Dryslwyn Griffiths, M.D., President B.M.A.
Sir Victor Horsley, F.R.S., F.R.C.S.
Sir Henry Littlejohn, M.D., F.R.S.E.
Mr. Jordan Lloyd, M.S., F.R.C.S.
Sir William Macewen, M.D., F.R.S.
Sir John William Moore, M.D. President Roy. Coll. Phys. Irel.
Mr. A. W. Mayo Robson, F.R.C.S. Vice-President Roy. Coll. Surg.
Robert Saundby, M.D., F.R.C.P.
Professor C. Hunter Stewart, M.D. F.R.S.E.
Sir Henry Thompson, Bart., F.R.C.S.
Sir William Thomson, C.B., F.R.C.S.
Mr. Charles S. Tomes, F.R.C.S. F.R.S.
Sir William Turner, K.C.B., F.R.S. President Gen. Med. Council
Mr. John Tweedy, F.R.C.S., President Roy. Coll. Surg.
Sir Samuel Wilks, Bart., M.D., F.R.S.
Dawson Williams, M.D., F.R.C.P.
Professor Windle, M.D., F.R.S.
Professor Sims Woodhead, M.A. M.D., F.R.S.E.

This Committee has approved the following letter and form of petition, and we understand that a copy of the petition will be distributed immediately and will reach all members of the medical profession between January 23rd and the end of the month.

the Registered Medical Practitioners of England and Wales, Scotland, and Ireland.

London, W., January, 1904.

Dear Sir or Madam,—The undersigned Committee of Distribution beg your kindly perusal of the petition printed on the next leaf, and venture to express the hope that you will append your signature thereto.

The object of the petition is to endeavour to secure that every child in our national schools shall obtain some instruction in the rudiments of the simpler rules of health and temperance.

The Committee hopes that an expression of opinion by the medical profession on this pressing need of modern life and education may thus be obtained, and it is proposed, when the signatures are collected, to lay the petition, with the special support thus gained, before the Central Educational Authorities of the United Kingdom.

On behalf of the Committee of Distribution, I have the honour to remain, yours faithfully,

E. CLAUDE TAYLOR, M.D., Hon. Acting Sec.

After signing the petition kindly forward it in the accompanying addressed envelope, after closing the same.

Petition.

We, THE UNDERSIGNED MEMBERS OF THE MEDICAL PROFESSION, having constantly before us the serious physical and moral conditions of degeneracy and disease resulting from the neglect and infraction of the elementary laws of Hygiene, venture to urge the CENTRAL EDUCATIONAL AUTHORITIES OF THE UNITED KINGDOM (the Board of Education of England and Wales, the Scotch Education Department, the Commissioners of National Education in Ireland and the Intermediate Education Board of Ireland)

TO CONSIDER WHETHER

it would not be possible to include in the curricula of the Public Elementary Schools, and to encourage in the Secondary Schools, such teaching as may, without developing any tendency to dwell on what is unwholesome, lead all the children to appreciate at their true value healthful bodily conditions as regards Cleanliness, Pure Air, Food, Drink, etc.

In making this request we are well aware that at the present time pupils may receive teaching on the laws of Health, by means of subjects almost invariably placed upon the Optional Code. By this method effective instruction is given to a small proportion of the pupils only. This does not appear to us to be adequate. We believe that it should be *Compulsory*, and be given at a much earlier age than at present.

It may, perhaps, be useful to call attention to what is being achieved in this direction by English Speaking Nations. In reviewing the steps taken it will be noted that one of the most prominent subjects with which the various countries have found it necessary to deal, is the question of the nature and effects of Alcohol.

In the ARMY SCHOOLS of this country and of all our foreign stations west of Aden, teaching in Elementary Hygiene is Compulsory; such teaching including Temperance, Health and Sanitation, special attention being drawn to the deleterious effects of Alcohol.

In CANADA, with the exception of two Provinces, Hygiene and scientific instruction on the effects of Alcohol are compulsory subjects in all Public Elementary Schools throughout the Dominion. In the two excepted Provinces (Quebec and Prince Edward's Island) teaching on Temperance is given. In the Protestant Primary Schools of the Province of Quebec lessons upon Temperance and Health are compulsory, while in the Catholic Schools instruction in Hygiene is compulsory, beginning with the fifth year of school work. In the books on Hygiene authorized in the Catholic Schools the ill-effect of the excessive use of Alcohol is mentioned, but no special prominence is given to Temperance instruction.

In VICTORIA (AUSTRALIA) teaching on Health and on the nature and effects of Alcohol is placed on the list of compulsory subjects taught in all the Public Elementary Schools.

In SOUTH AUSTRALIA teaching of Temperance is regularly carried out.

In NATAL instruction is given in the Primary Schools on the laws of Health and Temperance, these being included in the list of Optional Subjects.

The whole question is dealt with still more completely in the UNITED STATES OF AMERICA. There the teaching of Physiological Hygiene, with special reference to the effects of Alcohol and other narcotics, is compulsory in all Schools under State or Federal control. About twenty-two million children are being educated under this system.

Thus we have shown that in many English Speaking Countries definite attempts are being made to train the rising generation to appreciate from childhood the nature of those influences which injure physical and mental health.

Having regard to the fact that much of the degeneracy, disease, and accident with which medical men are called upon to deal is directly or indirectly due to the use of Alcohol, and that a widespread ignorance prevails concerning not only the nature and properties of this substance but also its effects on the body and the mind, we would urge the Board of Education of England and Wales, the Scotch Education Department, and the Irish Education Authorities to include in the simple hygienic teaching which we desire, elementary instruction at an early age on the nature and effects of Alcohol.

We gladly recognize (1) the value of the teaching on this subject given in some Schools in Ireland and in a proportion of the Schools of Great Britain, by means of reading primers, moral instruction talks, etc.; and (2) the excellence of the occasional Temperance lessons provided in certain Schools by voluntary organizations: but until the four Central Education Authorities of the United Kingdom include this subject as part of the system of National Education, it appears to us that the mass of the pupils must fail as at present to receive that systematic teaching of hygiene and of the nature and effects of Alcohol, which alone we consider adequate to meet the national need.

Finally, we would venture to urge the necessity of ensuring that the training of all teachers shall include adequate instruction in these subjects.

Signature.....

It need scarcely be said that the active sympathies of the members of the British Medical Association have always been extended to movements of this important character. It is confidently hoped by the Distribution Committee that the large majority of practitioners, however busy, will forthwith on receipt of the petition sign it and post it in the stamped and addressed envelope sent with the petition.

ASSOCIATION NOTICES.

NOTICE OF QUARTERLY MEETINGS OF COUNCIL FOR 1904.

MEETINGS of the Council will be held on Wednesdays, April 20th, July 6th, and October 19th, in the Council Room of the British Medical Association, 429, Strand, London, W.C.

ELECTION OF MEMBERS.

ANY candidate for election should forward his application upon a form, which will be furnished by the General Secretary of the Association, 429, Strand. Applications for membership should be sent to the General Secretary not less than thirty-five days prior to the date of a meeting of the Council.

LIBRARY OF THE BRITISH MEDICAL ASSOCIATION.

MEMBERS are reminded that the Library and Writing Rooms of the Association are fitted up for the accommodation of the members in commodious apartments, at the office of the Association, 429, Strand. The rooms are open from 10 a.m. to 5 p.m. Members can have their letters addressed to them at the office.

BRANCH MEETINGS TO BE HELD.

BIRMINGHAM BRANCH: COVENTRY DIVISION.—The next ordinary meeting of this Division will be held at the Coventry and Warwickshire Hospital, on Tuesday, February 2nd. The chair will be taken by Dr. Milner Moore at 8.30 p.m. Agenda: Mr. Faulder White will read a paper on Suppurative Disease of the Ear, with a description of a new treatment. The paper will be illustrated by some clinical cases. Dr. Bankes-Price will show some appendices which have been removed by operation, and will make some observations thereon.—E. H. SNELL, Knighton House, Coventry, Honorary Secretary.

BATH AND BRISTOL BRANCH.—A meeting of this Branch will be held at the Medical Library, University College, Bristol, on Wednesday, January 27th, at 8 p.m., Dr. Barclay J. Baron, President, in the chair. The following communications are expected: Annual Reports from the Bath, Bristol, and Trowbridge Divisions. Dr. J. O. Symes and Dr. Theodore Fisher: An analysis of 500 Necropsies of Cases of Tuberculosis. Mr. T. Carwardine: A Case of Double Ovarian Hydrocele. Mr. E. W. Hey Groves: Specimen from Case of Acute Gastric Dilatation. Dr. J. Michell Clarke: Case, with specimen, of Porencephaly, with Haemorrhage into Brain.—J. MICHELL CLARKE, Clifton; W. M. BEAUMONT, Bath, Honorary Secretaries.

EDINBURGH BRANCH.—The annual clinical meeting of this Branch will be held in the Royal Infirmary on February 12th. Members of all the Scottish Branches will be welcome. The annual dinner will be held in the evening. Intimation of cases to be shown should be made to the Secretaries.—NORMAN WALKER, 7, Manor Place; A. LOGAN TURNER, 276, Walker Street, Edinburgh, Honorary Secretaries.

METROPOLITAN COUNTIES BRANCH: WANDSWORTH DIVISION.—An ordinary meeting of this Division will be held at the Town Hall, Wandsworth, on Thursday, January 28th, at 9 p.m. Business: (1) Resolutions suggesting medical certificates in order to reduce the abuse of hospital funds, so rapidly increasing; information asked for from 200 hospitals is tabulated, and will be given; Lieutenant-Colonel E. Montefiore, Secretary, Medical Committee, Charity Organization Society, will speak. (2) Letter from King's College Hospital Medical Committee. (3) Resolution as to the expediency of holding the Annual Meeting of 1905 in Ireland. (4) Resolution with regard to voluntary subscription to refund Representative's expenses at Oxford. (5) Resolution from Midwives Act, 1902, Special Committee. (6) Report from Medical Acts Amendment Bill Committee. (7) Ethical Rules. (8) Other business. Any medical practitioner desirous of attending and taking part in the debate will be welcomed, and can obtain a detailed agenda on applying to E. ROWLAND FOTHERGILL, Honorary Secretary, Torquay House, Southfields, S.W.

METROPOLITAN COUNTIES BRANCH: RICHMOND DIVISION.—The next meeting of the above Division will be held on Wednesday, January 27th, in the Sun Hotel, Kingston, at 8.45 p.m., when Mr. D'Arcy Power, M.A., M.B., F.R.C.S., will read a paper, Notes on an Ineffectual Treatment of Cancer, being a record of cases treated by the injection of Dr. Otto Schmidt's serum.—J. R. JOHNSON, M.R.C.S., Honorary Secretary, 3, Ellerker Gate, Richmond.

STAFFORDSHIRE BRANCH.—The next meeting of this Branch will be held at Stafford on Thursday, March 3rd, instead of Thursday, February 25th, as one of Sir Oliver Lodge's lectures occurs on the latter date.—E. PETGRAVE JOHNSON, Stoke-on-Trent, Honorary General Secretary.

SPECIAL CORRESPONDENCE.

BERLIN.

Ankylostomiasis in Miners.—Popular Lectures on Tuberculosis.—Quackery in Germany.—Disease Notification and Death Registration.

ALMOST two entire sittings of the German Reichstag—on January 12th and 13th—were taken up with a debate on the Social-Democratic interpellation as to ankylostomiasis in miners. Undoubtedly the disease has gained ground of late years, and it cannot be denied that the prophylactic measures officially recommended and carried out by different mining companies have failed to stamp it out. On the other hand, to accuse the Prussian Government of slackness in the matter—as the Social Democrats do—is unfair, and the sympathies of the House were decidedly with the Minister of Commerce, Herr Moeller, as he explained the peculiar difficulties met with at every step in the struggle against the disease. That mistakes had been made he acknowledged freely; prophylactic measures, excellent in theory, had failed in practice from the carelessness of the workmen, or other reasons; the disease itself was not generally known or closely studied until of late. But he affirmed that since the time when the nature of the disease and the mode of infection were cleared up, no efforts had been spared by the official authorities to devise and carry out with energy really practical methods of prevention and cure. This energy had already met with its reward, for in a period of between seven and eight months, of 1,720 miners attacked, 60 per cent. were now well. Immense sums had been spent on sanitary arrangements and on medical treatment and supervision—almost one and a-half million marks (£75,000) in all.

Public and gratuitous evening lectures on tuberculosis and its remedies—illustrated by photographs thrown on the screen—have been arranged by the German Central Committee for the Erection of Lung Sanatoria. Among the speakers are Professor Fraenkel and Professor Pannwitz, the well-known authorities on tuberculosis.

The German Society for the Repression of Quackery held its first annual meeting in the large hall of the Langenbeck House. A letter from the Prussian Cultus-Minister, Herr Studt, was read, which expressed full sympathy with the aims of the Society, and the hope that the Society might be able to assist the Government in laying down principles for action. The annual report was read by Dr. Siefarl. It contained the astounding statement that in Berlin alone quackery had increased by 1,600 per cent. (in round numbers) since the year 1870, that is, in little more than thirty years.

Hospital reports, and the notification of deaths and of infectious diseases in Prussia and the other Federal States of Germany, are to be reorganized in accordance with the progress of modern medicine. This much-needed reform has long been projected, but before it could be carried out a new table or list of diseases and causes of death had to be made out, to serve as a basis for a uniform system of medical statistics. This has now been accomplished, and several preliminary discussions having likewise been got through, a final conference of representatives of the Federal States of Germany is to take place under President Kohler's direction in the Imperial Board of Health in Berlin.

BUENOS AIRES.

International (South America) Congress of Medicine and Hygiene at Buenos Aires: The Sections: The General Arrangements: Subjects for Discussion.

THE second Latin American Medical Congress will take place at Buenos Aires in April, 1904, from the 3rd to the 10th, while concurrently a hygienic exhibition will be opened and continue till May 30th. This Congress, while of primary importance to South America, will also interest medical science in general, as many observers from tropical and semi-tropical countries will be present and have promised communications. The following countries will be officially represented by prominent scientific men: Argentine Republic, Uruguay, Brazil, Paraguay, Chili, Bolivia, Peru, Ecuador, Columbia, Venezuela, Mexico, Cuba, Salvador, Guatemala, Nicaragua, Costa Rica, Honduras.

The Congress will meet in eight Sections, including Sections on Veterinary Science and Dentistry, and at the same time conferences will be held in connexion with the Hygienic Exhibition.

The different passenger steamer lines from Europe will make reductions of 20 to 25 per cent. in return fares, and intending visitors will find order and arrangement, and there will be no such muddle as has occurred at some international congresses.

The following are the subjects chosen for open discussion: (1) Causes of deaf-mutism in the Argentine; (2) prevention of blindness in the Argentine; (3) etiology of goitre in the Argentine; (4) *x* rays in surgery; (5) dystocia in the Argentine; (6) haematology in surgery; (7) strictures of the urethra; (8) surgical treatment of exophthalmic goitre; (9) the treatment of cancer; (10) treatment of laryngeal tuberculosis; (11) treatment of ocular tuberculosis; (12) biliary lithiasis and its complications. Important communications will be made on yellow fever, plague, cholera, malaria, leprosy, syphilis, alcoholism, framboesia and yaws, cancer in the Argentine, hydatid cysts in the Argentine, cremation in the Argentine, infantile tuberculosis and infant feeding and mortality in the Argentine, etc., while instructive papers on sanitary progress in South American States will be read in the Hygienic Section.

MANCHESTER.

Lectures on Public Health.—Free Dinners for Poor School Children.—Memorial to Joule.

THE course of lectures on various subjects connected with public health was successfully inaugurated on January 13th by a lecture on industrial diseases due to poisonous fumes or gases, by Professor T. Oliver, of Newcastle-on-Tyne. The lectures will be delivered in the Public Health Laboratory of the University of Manchester in Stanley Grove. From statistics quoted by Dr. Oliver it appeared that the total number of cases of phosphorus poisoning notified under the Factory Acts in Britain during the last twenty-three years was 113, of which 20 were fatal. No cases were reported last year. So long as the ordinary white phosphorus was used in matchworks absolute freedom from risk could not be guaranteed to the workers. It had been proved in France that matches possessing all the qualities claimed for the ordinary "strike anywhere" could be made from the comparatively harmless sesquisulphide of phosphorus. Nearly six years had elapsed since then, and not only ha

sphorus necrosis disappeared from France, but in conse-nce of the substitution of this form of phosphorus for the dly white phosphorus by our largest manufacturers in-trial phosphorus poisoning in our own country had very terially diminished. In addition there had been a marked inution in the number of cases of suicide from phos-rus poisoning in the Newcastle district. Dr. Oliver also lt with cases of poisoning due to the inhalation of sul-uretted hydrogen in sewers. On the subject of carbon noxide poisoning, Dr. Oliver said that illuminating gas a frequent source of poisoning owing to its escape into leeping room. Injurious effects from breathing carbon noxide were sometimes observed in limestone burners cement workers, distillers of coal tar, lamp-black kers, labourers employed in iron smelting works, laun-sses who use irons heated by gas, and brickmakers.

he Education Act has brought with it an extension of the k of giving free meals to destitute school children. Under new Act all the schools of the city are brought under the mmittee. Many of the voluntary schools and Jewish ools are placed in the poorest parts of the city. Last year 000 free dinners were given at a cost of £400. This ter both the cost and number of dinners will be nearly bled. Free meals have no legal sanction, and therefore no ney is obtainable from the rates. Every care is taken in Manchester to guard the free meals from abuse. The custom or the teachers in all the poorer schools to send in to the es of the Education Authority lists of the children in ir schools whose circumstances seem to warrant their re-ving free meals. The house of each child is then visited school inspector, who examines closely into the position he parents. If the inspector's report is satisfactory the d is allowed to "stay dinner," but not otherwise. Every is taken that no child should receive a free dinner who ld get a decent meal at home.

he name of James Prescott Joule is one of the brightest the roll of Lancashire worthies. The classic statue by ntrey in the Town Hall shows the great philosopher and erimentalist, but it is now proposed to erect in Sale Park wer to his memory, the tower to be fitted with certain re-cling meteorological instruments. A fund has been for the pose raised in Sale, where Joule lived for many years ore death in 1889.

CORRESPONDENCE.

E REPETITION OF PRESCRIPTIONS CONTAINING DANGEROUS DRUGS.

R,—I desire to call attention to a grave defect in the law ctrolling the sale of dangerous drugs. As this law now tds, there is apparently nothing to prevent any person who tains possession of a prescription from procuring by its aid rugh poison to kill a community.

here has just come into my possession an undated copy of escription given by a firm of chemists to a patient, with ch the patient in a short period has obtained no less than 7oz. of a 20 per cent. solution of cocaine hydrochlorate. is quantity of solution contains 1,680 gr. of this highly conous alkaloid, of which according to the *British Pharma-oeia* the maximum dose is ½ gr.

his large amount of poison had been procured by taking copy of a prescription to one firm of chemists after ther (nine different firms have stamped it with their nes) and obtaining 1 oz. at a time from each, and on one asion ½ oz., although only ½ oz., was ordered on the pre-cription. With this exception, everything seems to have en done to meet the requirements of the law. The original scription had been apparently given to the patient by a n authority.

nything more serious to the welfare of the public cannot well magined. By this means drug habits go unchecked, and dly poisons can be procured wholesale. Chemists cannot v hesitate to make up the prescriptions of well-known dical men, especially when the prescriptions bear upon the a of them the stamped names of some of the best firms in h trade certifying that they have already been dispensed by hn.

ne remedy which suggests itself to me, and which possibly ht be adopted, not only in connexion with the prescribing f thal doses of dangerous drugs, but also with regard to y prescriptions for disorders requiring but a short course f eatment, is one which I am assured by a highly respect-able firm of pharmaceutical chemists they would gladly welcome. It is that in all cases where medical men prescribe such drugs as morphine, opium, cocaine, etc., which are known to induce a habit, the words "not to be repeated" should be written across the prescription, which should be signed by the prescriber in full, and not merely initialled. By this means the prescriber would be able to control the quantity of the drug taken or used, and prescriptions would not be handed about from one person to another *ad libitum*, especially if the words "not transferable" were added.

We know but too well how many valuable lives are lost and reputations ruined under the working of the present system, which loudly calls for amendment.

I may add that I fortunately obtained possession of the poison and the prescription from the patient, and was thus enabled to save a valuable life.—I am, etc.,

London, W., Jan. 19th. T. OUTTERSON WOOD.

MECHANO-THERAPEUTICS.

SIR,—In the BRITISH MEDICAL JOURNAL of January 16th appeared a letter from Dr. Saundby, in which he to a certain extent defends the establishment of gymnastic (in the widest sense) institutes under joint-stock auspices. As to the actual degree of their utility I am not in a good position to speak, and on that point I willingly defer to Dr. Saundby's authority.

But for some time past I have watched attentively the operation of limited liability companies which carry on practice of one sort or another, and there is a very important aspect of the question upon which he has not touched. In this relation it is especially significant that the institutes to which he gives approval are all upon the Continent, and that in the only instance cited of a similar institution in this country he admits that abuses crept in "in such a way that the method has been grievously damaged in the eyes of the medical profession." Now, I would point out that on the Continent safeguards against abuse exist which we do not possess in this country. This arises out of the unique peculiarities of our medical legislation in that it merely prohibits the unauthorized use of titles and leaves untouched the act of practice.

Some years ago in an appeal case carried to the House of Lords it was decided that the word "person" in such Acts as decreed a course of education and the passing of examinations prior to the assumption of titles implying qualification did not apply to companies (the Interpretation Act notwithstanding); and a more recent decision in an Irish appeal case carried this ruling yet further in that it laid down that not only was the company not amenable to the law, but that individuals working under its aegis could not be touched. Thus it becomes possible for an individual to use his own name, defined by his own initials, and to append to it a title to which he has no right whatever, merely appending to his name the word "limited": this is actually being done at the present moment. These decisions relate, the one to a pharmaceutical and the other to a dental case, no medical case having been yet taken to an appeal court, but the terms of the judgements are such as to cover the whole principle of the use of protected titles, and so are fully applicable to purely medical cases. Thus the object avowed in the preamble of the Medical Act, 1858, of enabling the public to distinguish between the qualified and unqualified is defeated by the incorporation of a company, which collectively and individually can assume titles with impunity.

Only a fortnight ago the formation of yet another lay company was noticed in your columns, the objects of which are declared to be the establishment of medical and surgical homes, and "to carry on the business of physicians and surgeons." Inquests may be held, coroners and coroners' juries may express censure, and yet no one is brought within the reach of the law.

On the other hand, it is well to recall that the protection afforded to wrongdoers by company incorporation is not absolute, and that under particular circumstances police-court convictions have been obtained against offenders; still the state of the law is very unsatisfactory and uncertain.

In France, Germany, Italy, and Switzerland, however, the prohibitory clauses of the Medical Acts are directed, not merely against the unauthorized assumption of titles implying qualification, but against the act of practice itself by unauthorized persons. These laws are enforced with considerable stringency, and, so far as I know, the company form of evasion has not arisen. Hence the conditions are different in an essential respect, and the likelihood of abuse,

so evident in this country, can hardly be said to exist elsewhere. I would not contend that such a company as those under discussion might not be conducted with perfect propriety. But the question of its desirability turns upon the balance between the advantages it may offer, and the disadvantages to which it opens the door. Experience, so far, though it is but of limited extent, has not, on Dr. Saundby's own showing, been favourable as to the manner in which such work has, in fact, been carried out. It is perfectly true that for the acquisition of expensive plant and the like, the aid of the capitalist may be called for, and it is probable that professional feeling in this country would not look with approval upon medical men embarking in a commercial venture of this kind, and becoming themselves the proprietors. It is equally true that although, speaking generally, the personal professional relation between practitioner and patient must be weakened where a commercial company intervenes, and the medical man is not directly employed by the patient, yet there are conditions under which his employment by a company is inevitable and indeed unobjectionable; such are the cases of steamship companies, well-conducted hydropathic institutions, and sanatoria.

In the absence of any legal check upon companies exceeding their proper province, and giving rise to abuses of an obvious and sometimes extreme character, the only safeguard which occurs to me is that the articles of association (within which the company is compelled to act) should be so framed as to guard against abuse by securing adequate supervision by registered practitioners. But, unfortunately, the articles of association are apt to be drawn up by the persons providing the original capital, and the opportunity for bringing them into accord with professional feeling would often not arise.—I am, etc.,

London, Jan. 18th. CHARLES S. TOMES.

VACCINATION AND POLITICS.

SIR,—It has been suggested that members of the Association might be interested to see the opinions expressed upon the subject of vaccination by the parliamentary candidates at the recent by-election in Norwich. The resolutions submitted to the candidates corresponded in the main with those referred by the Central Council to the Divisions for their consideration, but the original wording had been somewhat modified at a meeting of the Norwich Division. Of the resolutions referred by the Central Council, the one dealing with the proposal to insert in a certificate of successful vaccination a statement of the number and area of the vesicles produced was not submitted to the candidates, because it was thought to be of too technical a nature; nor was the one proposing that any practitioner furnishing the vaccination authority with a certificate of successful vaccination, satisfying a standard fixed by the Local Government Board, should be the recipient of a suitable fee, as it would have given rise undoubtedly to much misconstruction during the heat of a by-election.—I am, etc.,

H. A. BALLANCE,
Honorary Secretary, Norwich Division of the
Norwich, Jan. 16th. British Medical Association.

The following is a copy of the correspondence:

46, Prince of Wales Road, Norwich,
January 9th, 1904.

Dear Sir,—In view of the approaching introduction into Parliament of a Bill relating to vaccination, by reason of the expiration of the Vaccination Act of 1898, during the present year, I am instructed by the Norwich Division of the British Medical Association, which comprises forty-five members of the medical profession in this city, to request replies to the following proposals which have been considered and approved by the Norwich Division, and which are calculated to promote efficient vaccination and revaccination throughout the country, and to obtain direct administration of the Act by a Government Department.

Are you in favour of the following:

1. That revaccination be made compulsory by law, and that it be performed between the ages of 10 and 13 years.

2. That both primary vaccination and revaccination be subject to the same provisions for enabling conscientious objectors to obtain exemption, as in the present Vaccination Act, but that the procedure be defined more strictly in any future legislation.

3. That the Vaccination Act be administered directly by a Department of the Local Government Board.

4. That all lymph be supplied by the Government, or by private establishments under Government supervision and guarantee.

5. That in any future legislation relating to vaccination power be obtained to control the movement of vagrants who may have been in contact with small-pox cases.—I am, yours very faithfully,

H. A. BALLANCE,
Hon. Sec. Norwich Division of the
British Medical Association.

ANSWERS OF CANDIDATES.

Mr. Wild (Conservative).

To Q. 1 and 2. I am in favour of compulsory vaccination (subject the rights of the conscientious objector), and convinced of the adva ages of revaccination; but until the public mind is further educated to the necessity for primary vaccination I am of opinion that legislati directed to making revaccination compulsory would be more likely prejudice the public against primary vaccination than to produce t beneficial results aimed at by such legislation.

3. Yes.
4. Yes.
5. Yes.

Mr. Tillett (Liberal).

1. No.
2. No.
3. If this suggestion means administration wholly apart from lo control, I am decidedly against. I prefer keeping control locally.
4. Yes.
5. Yes.

Mr. Roberts (Labour).

1. No.
2. I do not believe that people should be put to the inconvenien (and often insult from the Bench) of having to state their conscientic objection to a practice which, I hope and believe, enlightened medi opinion will soon universally reprobate.
3. ——
4. If the practice of vaccination is continued, I certainly believe th lymph should only be supplied under Government supervision of t strictest kind.
5. ——

LUMBAGO.

SIR,—Your readers are all deeply indebted to Sir W. Gowers f his learned lecture on lumbago. We hear too little of what mig be called "The Pathology of Common Life," and are propo tionately delighted when a Nestor like himself takes th trouble to enlighten his more ignorant *confrères*. An account the minute bodies "muscle spindles" so curiously hybrid their structure, and which he so happily describes as "musc meters," although discovered some years ago, must be new most practitioners. But while granting most fully th ingenuity and ability of the lecturer, may we be excused f saying that the whole narrative reads, to us, like a romanc Is everything to be explained by calling it inflammatory? to labelled and finally disposed of, by adding *itis* to the end its name?

We are pleased, however, to see that he doubts if dubbin a disease "neuralgia" takes us any "forrader," and that h shakes his head over so convenient a term as "neuritis Where is there any benefit—the very slightest ground—i morbid anatomy for burthening pathology with such an ou landish term as "fibrositis"?

I would not, however, have troubled you, Sir, by feeb attempts at criticizing such a weighty authority, and or whose opinions as a rule we humbly and with deference liste to, as sound and sufficient, unless I felt that some one shoul protest against abandoning old explanations for new-fangle hypotheses.

Garrod long ago showed that gout was invariably associate with uric acid in the blood, and almost as constantly with th deposition of urate of soda in and about the joints of th body. More particularly do such deposits take place in th cartilaginous structures, producing a decided roughening their articulatory surfaces. Assuming these statoments to b correct, and taking the everyday explanation of a piece grit getting "into the eye," or more properly, of "a foreig body coming into contact with the conjunctiva," and causin not only pain, but violent contraction of the muscles of th eyelids, and applying this analogy to the rough deposits w have described as occurring in and about the shoulder-join for example, have we not sufficient cause for the pain and th "contracture" of the muscles connected with this articul tion, and also of the local muscular wasting, without th necessity of inventing a new disease, so to speak?

May I, in this connexion, refer to the bottom of page 118 i your issue of the 16th inst., where Sir William Gowers de scribes a severe case of "brachial" myalgia, with suffuse adhesions and fixation of the joint, and ask your readers t note that when Sir William held the forearm firmly th patient could flex or extend the wrist without pain, whereas if unsupported, any attempt at passive movement at th wrist caused excessive pain in the limb? Why should thi prove not only that there was "muscular fibrositis," wit "mimicry of fixation"—whatever that may mean? Th simple explanation, to our mind, is that firm support of th wrist relieved the tension on the shoulder joint, and wit that relief the muscles surrounding that articulation wer

wed the rest the lecturer so ably advocates, and the extreme
is through all the movements of the wrist disappeared.
venture to add a word or two on "sciatica," of which
give, in the same issue, an interesting and learned
ount from a recent German writer on that subject.
haps I may be pardoned for referring in this connexion
ly experience, deduced from a record of nearly 500 cases
iatica, that such a combination is so frequent as to be
ent in something like 1 in 6 of all cases of sciatica. Is
e any real anatomical relation between the fibrous struc-
s of the sacral region and those emerging from the pelvis
onnexion with the sciatic nerve? I humbly hold that
as I have said brachial neuralgia takes its origin from
deposition of sodium urate in and about the shoulder-
t, so does sciatica start from similar deposits in and about
hip-joint. Further, so also most probably does lumbago owe
ymptoms, recurrence, and too frequent persistence to the
ological deposition, temporary or otherwise, of minute
icles of urates on the opposed surfaces and in the sheaths
e tendons connected with the articulations of certain of
bar vertebrae.—I am, etc.,

WILLIAM BRUCE.

Pathpeffer Spa, Jan. 17th.

.S.—May I add a word or two on one point referred to by
W. Gowers—namely, the sudden onset and sometimes the
ost equally rapid disappearance of these pains? Reference
arrod (p. 191, edition 1876) will show the possibility of
hing away the deposit of urates from an affected joint
mortem. May not this help to explain the complete cure
bsorption of the deposits of urates—"digestion" he very
pily names it—in many of these cases? Another and
e probable explanation is the alteration produced in the
tive position of the deposits, just as takes place in
ting loose cartilages in the knee, by movements of the
culations, and the effect of taking the recalcitrant muscles
surprise, as is well known occurs in dislocations,
tures, and in cases of long-standing "hysterical" joints
onesetters and other more legitimate practitioners.

R,—In reading the lecture on lumbago delivered by Sir
liam Gowers, in the BRITISH MEDICAL JOURNAL of
uary 16th, I was very much surprised to find that he
le no mention of a symptom of true lumbago which is
ays present, namely, the passage of a small amount of
ne containing a large quantity of lithates. Neither did he
er to the well-recognized treatment of the complaint by
doses of belladonna and potassium bicarbonate, which I
k I may say never fails to relieve the pain in the back
"clear" the urine at the same time. It is an interest-
fact in connexion with lumbago, which I suppose every
has observed, that the pain in the back does not dis-
ear until the urine becomes normal,—I am, etc.,

nster, Ramsgate, Jan. 18th. A. M. WATTS, M.D.

R,—I read Sir William Gowers's lecture on lumbago with
at interest. I am not sure, however, that I did not mis-
erstand him when he wrote that in inflammations of the
ous tissue of a muscle there is no indication of the forma-
n of inflammatory products or indurations.

think that on careful palpation of the affected muscle it
s possible in almost all cases to discover distinct alterations
rts structure. In acute cases the muscle feels less elastic,
. has a "doughy" consistence as if infiltrated with
ous exudation. In the more chronic forms one often
es distinct hardenings in the muscle, extremely tender to
touch. In lumbago these are somewhat difficult to
gnose, as the most frequently-affected muscles—erector
inae and sacro-lumbalis—are covered by the thick lumbar
neurosis. But in cases of sciatica it is very common to
l circumscribed hardenings scattered over the glutei.
her muscles frequently affected by "fibrositis" are the
k muscles and trapezius, and this is often the pathological
dition found in occipital headache.

s a student I was not taught to palpate the muscles in
umatic affections. This I have since learnt in Sweden. It
uires a good deal of practice, as the condition in the mus-
s may easily be confounded with a very common affection
he subcutaneous tissue under the skin (the cellulites of
edish authors). These are small tender indurations often
nd under the skin of the arm and abdomen, and must be
tinguished from the physiological lobulation of the adipose
sue. "Cellulites" of the abdomen have not infrequently
n mistaken for diseases of the visceral organs. The
nest way to discover pathological alterations in a muscle is by having the skin over it well lubricated, and then passing the tips of the three middle fingers deeply along the muscle both longitudinally and transversely. Some superficial muscles can be grasped and kneaded between the fingers. Some Swedish authors believe that those cases of muscle inflammation caused by excessive muscular exertion are due to imperfect absorption of the "fatigue stuffs," which, remaining, act as irritants and produce the inflammation. The majority of chronic muscle indurations can be cured by deep friction-massage over the affected areas, but this treatment can of course only be given by a person capable of diagnosing the condition. In Sweden it is, therefore, frequently undertaken by medical men.—I am, etc.,

London, W., Jan. 18th. G. B. JACOBI.

SIR,—Sir William Gowers's lecture on the nature of lumbago and its analogues cannot fail to interest many of his professional brethren, for personal reasons. Common diseases which present such obstacles to thorough pathological research demand all the more a careful study of their symptoms, a study which is more likely to bear fruit when a personal interest is added to the scientific.

Muscular "rheumatism" appears to be a good name to embrace lumbago, stiff-neck, and kindred disorders, if one regards the original meaning of the word and its reference to a humoral pathology; but a bad one if it is taken to mean any near kinship with acute rheumatism, which is probably, or certainly, a disease of microbic origin. Sir William lays stress on its connexion with the gouty diathesis—its prevalence among those whose metabolic processes are easily disordered, people who pass habitually a highly-concentrated urine which on fatigue or the use of certain articles of diet becomes loaded with lithates. We see here a link between muscular "rheumatism" and the semi-physiological stiffness following on unaccustomed exertion.

My personal experience has not extended to lumbago, but has been confined chiefly to the variety of "stiff neck" due to involvement of the upper section of the trapezius and the pre-vertebral muscles (? longus colli); and here it appeared to me that one of the symptoms pointed to a neuritis or neuralgia of the sympathetic system as the essential lesion. I refer to the dull, vague, aching pain extending down the arm of the corresponding side in the distribution of the ulnar nerve.

This recalls the shooting pain produced by thoracic aneurysm and some cardiac affections, which is generally considered to be due to mechanical or other interference with the sympathetic fibres, and is evidently of a referred character. Sir William Gowers finds the sensory nerves of the muscles at fault. Is it not possible that all the afferent nerves of normally insensitive structures—for example aponeuroses, intestine—belong to the sympathetic system? In the case of the trapezius affection the cerebro-spinal nerve supply evidently fails to furnish the clue to the wide distribution of the pain. And can we be certain that the stiffness of the affected part is really the result of a massive lesion? Is it not rather the indication of involuntary hypertonicity, such as can be observed in the abdominal wall in internal inflammations?

In the treatment of these conditions, rest is assigned the place of honour by the lecturer. It is quite certain that perfect immobility and perfect relaxation in the dorsal position will remove the pain of "stiff neck," and indeed rest has always appeared to me a much more efficient remedy for general muscular stiffness than "walking it off." This is negative treatment, of course; of positive measures, counter-irritation has proved of little use, and we have no right to expect much from salicylates in a complaint simply because we choose to call it by the same name, as one totally different.

The simplest and most satisfactory treatment I have found to be sipping a good quantity of cold water—distilled for preference—and this on the theory that the first thing to be done is removal of a toxin. The object of taking it cold and slowly is to flush the kidney without acting on the skin. Bouchard has shown that the kidney is vastly the more efficient emunctory for the majority of toxic substances.

I may just add that in those predisposed, the position in bed may have something to do with determining an attack, which, as Sir William points out, is felt so frequently after a night's sleep. From the relief experienced in the flat position I continued to sleep with only a single pillow, and since then I have had practically no recurrence. This may be a *post hoc* rather than a *propter hoc*, but Sir William's remark on the

time of incidence lead one to think that imperfect muscular relaxation, or tension during sleep, may be sufficient to determine an attack.—I am, etc.,

Cheltenham, Jan. 18th. ERNEST CHRISTISON CARTER.

CANCER AND ITS ORIGIN.

SIR,—In the BRITISH MEDICAL JOURNAL of December 26th, 1903, p. 1664, there is an abstract of some observations by Messrs. Farmer, Moore, and Walker. They have been investigating karyokinetic processes in malignant tumours, a field of investigation in which I, too, worked extensively some years ago. Since my observations do not seem to be familiar to the authors, who are, I believe, botanists by profession, I should be glad if you would give me space in the JOURNAL for the following remarks.

These authors have found that in the cell development of malignant tumours the mitotic figures exhibit certain definite differences from those occurring in normal tissues. The essential alteration lies in the fact that the cells undergo a reductive division similar to that occurring in the formation of sexual cells, whereby germinal tissue is formed. The authors state explicitly that the cells do not become embryonic—in fact, differ from these through the small number of their chromosomes. In addition, the chromosomes are also changed in shape. These are all observations coinciding more or less with those described some time ago by me in various publications—for example, Virchow's *Archiv*, vol. cxix, 1890, p. 299; *Archiv f. mikroskop. Anatomie*, vol. xliii; the *Festschrift für Virchow* in 1891; and in the *Verhandlungen der anatomischen Gesellschaft*, 1891, p. 255; and elsewhere. I have given a connected account of these processes in my monograph entitled *Studien über die Spezifizität, den Altruismus u. die Anaplasie der Zellen* (Berlin, 1893), and reverted to the subject in my book on *Die mikroskopische Diagnose der bösartigen Geschwülste* (2nd edition, Berlin, 1902), pp. 91 *et seq.*

According to my investigations, it is not a question of a reduction to exactly one-half the normal number of chromosomes, nor does the reductive division occur in the manner seen in the maturation of ova and spermatozoa. According to my observations, the reduction is effected in a twofold manner: either by asymmetrical nuclear division, or by a destruction of individual chromosomes without destruction of all the nuclear substance. The first result by either of these two processes is cells with a smaller number of chromosomes than normal. I have called these cells hypochromatic. In the further stages of development these chromosomes may be doubled, quadrupled, sextupled, and so on, so that from hypochromatic hyperchromatic cells may arise, but always with a smaller than the normal number of chromosomes of human cells.

I have sought to correlate with these observations the peculiar characters which the cells of malignant growths possess, especially their greater power of independent existence and their loss of differentiation as compared with the normal tissue cells. The combination of these two properties I have termed "anaplasia," an expression now very generally employed in the scientific world, even by those investigators who do not altogether agree with the details of my observations on the cell processes.

I have also given a detailed account of the change of form of the chromosomes, and have shown how extraordinarily manifold their form may be in malignant tumours, which in nearly all cases differ not only from normal tissues, but also amongst each other, so that not only in different cancers, but in one and the same the most varied forms of chromosomes may be found.

Since these investigations are perhaps but little known in England, I am naturally anxious, in reference to investigations of Messrs. Farmer, Moore, and Walker, to guard my priority of observation in this field.—I am, etc.,

Berlin, Jan. 15th. Professor D. v. HANSEMANN.

THE TREATMENT OF PNEUMONIA.

SIR,—Since reading Dr. Lees's articles on the treatment of pneumonia, I have had practical experience of their great value. I have recently had under my care two children aged about 3 years. They were suffering from bad broncho-pneumonia after measles. They were deeply cyanosed; the pulse was very rapid and very weak, and the right auricle extended two fingerbreadths to the right of the sternum. These children were living in the vitiated atmosphere of small, overcrowded rooms, and I have never before seen children similarly circumstanced recover from the condition in which I found them. To relieve the gorged, distended right heart I applied four leeches over the right lower ribs. When the leeches had fallen off I ordered hot water to be applied for some hours to the leech bites. In this way we got away a considerable quantity of dark venous blood. The result was to me a revelation. The children, who had been sleepless, slept all that night and late into the next morning. When at last they awoke the cyanosis was gone, the pulse was good, and the distended heart had contracted to its normal size. The children were, in fact, convalescent and recovered.

Dr. Barr, in criticising Dr. Lees, makes some remarkable statements which I can only explain by supposing that he has forgotten his anatomy. He says, "Leeches abstract blood in the course of circulation from the capillaries, and possibly in some cases from a small vein, but, from whichever source, the blood comes immediately from the left side of the heart, and not from the right. In venesection from the median basilic the bleeding is directly from the arterial tree."

Surely any medical student could tell him that the blood in the capillaries and small veins between the ribs passes into the right auricle through the intercostal veins, the azygos and the vena cava. So also the blood in the median basilic is hurrying on towards the right auricle, and to extract 6 oz. or 8 oz. of blood from these veins is to prevent 6 oz. or 8 oz. from entering the over-distended right auricle and thus give it an opportunity to recover itself.

Dr. Lees refers to the value of belladonna, but I do not think that he lays sufficient emphasis on the great value of large doses of this drug in certain cases of bronchitis and broncho-pneumonia. The cases to which I refer are those in which there is a dangerous excess of mucus in the bronchial tubes. These patients die drowned in their own secretion. In large doses of belladonna we have a life-buoy that will save many of them. Patients taking belladonna often complain of dryness in the throat. It is this dryness, not only in the throat, but in the bronchial tubes, that we want to produce, and large doses of belladonna will do it. Of this I have ample experience. My last serious case was an old gentleman 80 years of age. He had bad bronchitis. His bronchial tubes were swamped with mucus. He was cyanosed, pulseless, and apparently sinking into stupor and death. I gave him 20 minims of the tincture of belladonna in one dose. This made him delirious, but after a little delirium the mucus disappeared, and he rapidly recovered.

I may add that alcohol, which is generally given in these cases, does nothing but mischief. Professor Sims Woodhead has proved that alcohol causes congestion and engorgement of the mucous and submucous membranes of the bronchial tubes. This effect of alcohol is the very opposite of that which is produced by belladonna, and explains why so many alcoholic subjects are also the subjects of chronic bronchitis.

I will conclude by referring again to the articles of Dr. Lees and expressing my conviction that they are the most valuable contribution ever made to the therapeutics of pneumonia.—I am, etc.,

London, W., Jan. 17th. J. MCNAMARA, M.D.

SIPHONAGE AND HYDRAULIC PRESSURE IN THE LARGE INTESTINE.

SIR,—While thanking your reviewer for the able manner in which he has condensed a considerable portion of my views on this subject, I should like to traverse his opinion that retraction of the anus in the young adult is due in large measure to the action of the pelvic fascia and the levator ani. There are three conditions in which retraction of the anus is emphatically absent—early infancy, the typhoid state, and death. Now, since none of these conditions can affect either the muscle or the fascia, why should retraction be absent? On the other hand, tonic contraction explains its absence perfectly. In early infancy the taeniae, like the sphincter ani, have not yet acquired tonicity; in the typhoid state there is paralysis of the musculature of the intestine, including its longitudinal fibres; in death, tonicity is of course lost. After all, retraction is only one of the many arguments in favour of tonicity. It is difficult, for instance, to explain otherwise the fact that when the abdomen is opened *post mortem* the transverse colon, averaging 20 in. in length, is found reposing peacefully and without undulations on a bed measuring 10 in. or less. The subject of my book is by no means one of pure academic interest; on the contrary, it is of the highest importance not only to our patients but to ourselves.—I am, etc.,

London, Jan. 18th. RALPH W. LEFTWICH, M.D.

THE PREVENTION OF SYPHILIS.

—Is it not high time that some serious attempt were o attack this disease as we do others less far-reaching r evil effects?

Act which was in force for a short time some years ago despite good intentions, because it was built upon an re foundation. "The State regulation of vice" was a hich started off public opinion (and the whole work in ion with the scheme) upon a wrong basis. The ques- came one of morals and caused great misunderstanding. State took in hand the "suppression of disease" with to its elimination no one could complain, especially philis is so insidious and far-reaching in its ill-effects. n Act should deal not with the question of morals, but eans of eradicating, as thoroughly as possible, a dis- hich is day by day being reproduced. Morals must be l separately, although, as regards syphilis, very many hrough no immoral act of their own.

man contract small-pox by contagion when picking the of an infected person, we do not ignore his disease, er great a criminal he be, but require that he be treated lly as a source of public danger; when he doubtless s upon the immorality of the act through which he ted disease!

lesire is to raise the question whether great good might achieved by a carefully-prepared Act of Parliament the State power, by all possible means, to suppress and ible eliminate syphilis. The difficulties to be faced in g such an Act are many and great, but not insuperable. tly moral conditions would improve with the physical vement and the education of the people in this matter. erers in the upper classes, who already understand to a xtent what syphilis means, generally receive for them- a proper course of treatment; but this cannot be said lower classes; and it must be remembered that it is in per orders only that the birth-rate has been artificially d, and that, therefore, the upkeep of the population of ntry is very largely left to the lower rank so widely l with syphilis.

not time that the State ceased to ignore this one of the ontagious diseases which is at present left to be pro- d by a callous and ignorant people?—I am, etc.,

h Crookham, Hants. R. Johnstone Stirling.

HUMAN SERUMTHERAPY.

—According to accepted views, specific immunity is the presence in the blood of a definite antitoxin, ped in reaction to the introduction of a definite patho- organism. It follows that the rational treatment of diseases which confer this immunity should be the on of the serum of a person who has successfully through the same disease. If antidiphtherial serum ed from the horse is effectual, so probably would be serum from a patient recovered from diphtheria, with ditional advantages of freedom from undesirable by- , and of longer action. The acute eruptive fevers, ally small-pox and scarlet fever, which confer a marked c immunity, might on this theory be combated from tset by injections of serum drawn from patients whose is re-established after passing through the same dis- Experiment alone could determine the immunizing eutic value of serum taken, say, from a patient re- d from small-pox, and the quantity and frequency of jections required to influence the clinical course of the e.

practical difficulty would be to obtain a sufficient sup- the serum, but when it is remembered how readily a eneration submitted to bleeding for trivial maladies it t be doubted that many patients would be found stic enough to allow themselves to be bled on behalf of -sufferers. If the comparative immunity of infants at reast from acute infectious diseases is correctly ex- d by the fact of their taking in with the milk the pro- antitoxin which is the result of the mother having through the same disease in childhood, there is a pre- ion that the injection of the mother's serum would have me effect on older children. Many a mother would un- tingly be bled for the benefit of her child, endangered, y scarlet fever.

n not aware whether the same idea has occurred to , or whether the experiment has been tried, but I ven- send the suggestion for publication in the hope that those in charge of fever hospitals, or others having the opportunity, may deem it worthy of trial.—I am, etc.,

Theory.

THE PATHOGENESIS OF GOUT.

Sir,—I have read with interest the letters appearing in the British Medical Journal of January 16th, dealing with my article on the above subject. I appreciate the criticisms of your correspondents and feel it incumbent upon me to deal with certain points they raise.

Dr. Kingston Barton is in error in suggesting that an imperfect acquaintance with the usual *post-mortem* changes in the digestive tract has led to a misinterpretation on my part of the appearances shown in the section. If Dr. Barton will do me the honour of referring to a paper published by me in the *Journal of Mental Sciences* in July, 1903, he will see that I have studied the normal intestinal tract in the human subject and have there given clear illustrations of the unavoidable *post-mortem* changes. I have similarly studied the digestive tract in fowls and other animals in a number of cases in which the tissues were fixed at periods ranging from a few minutes to several days after death, with results confirmatory of those illustrated in the foregoing paper. This experience has taught me to attach no significance to an apparent loss or destruction of tissue provided the number and arrangement of the glandular elements in the deepest part of the mucous membrane are fairly normal. But if, as in the section in question, the number and arrangement of these glands is far removed from the normal, and if this change is associated with a great excess of lymphoid tissue such as is referred to in my paper, we have conclusive evidence of an *ante-mortem* condition. These appearances are indicative of formative changes of the nature of a vital reaction to an irritant. For the rest I note with satisfaction that Dr. Barton is in perfect agreement with me in regarding the changes throughout the tissues as characteristic of a general infective process. It would be premature at this stage with the insufficient data at our disposal to attempt to define the precise nature of this infective process, but if the theory is correct and is adopted as the basis of future investigations, it will have the effect of still further concentrating attention on dietetics and especially on the interaction of particular forms of food and the bacteria normally existing in the digestive tract.

Dr. Bradshaw disagrees with the *post-mortem* diagnosis of gout on the following grounds. It is very unusual for a first attack (1) to affect numerous joints; (2) to be attended with various visceral inflammations; (3) it is almost unknown for a first attack to prove fatal; and (4) as gout is characteristic of a high civilization, it is unlikely to be found in birds at all. How far are these statements justified? In Garrod's classical work on gout there is a record of 516 cases (Scudamore) drawn up for the purpose of showing the seat or seats of the first invasion of the disease, and in 202 of these cases more than one joint was involved. His first statement, so far as it can traverse the actual record in my paper, is therefore inaccurate. With regard to his second ground, it would be interesting to learn the foundation of his statement. So far as I am aware, no opportunity has ever arisen of ascertaining the actual condition of the viscera in the acute phase of gout. This information is one of the chief desiderata for a true knowledge of the disease, and the notorious difficulty in obtaining it in the human subject is one of the cardinal reasons for turning to comparative pathology if the necessary conditions for obtaining it either exist in animals, or can, like other diseases, be induced in them. His second statement, therefore, is a pure assumption. It is quite accurate to say that it is almost unknown for a first attack of gout to prove fatal in the case of human subjects under treatment, but this can form no basis for the conclusion that a fatal result is unlikely in the adverse conditions that obtain in the animal kingdom. On the last point, which Dr. Bradshaw mentions incidentally, I may mention that a disease presenting the clinical and pathological features of gout has been successfully induced in fowls (Kionka), and I submit that this proved susceptibility to the disease is sufficient reason for anticipating its occasional existence where a faulty system of dietary coexists with a diminished power of resistance to the toxic influences at work.

Accordingly, the negative considerations put forward by your correspondent appear to have little weight, and in the absence of an adequate alternative diagnosis that of gout must be accepted. This diagnosis was based upon the

generally-accepted definition of that disease—that "gout" is a constitutional disorder characterized by paroxysmal attacks of inflammation of the joints associated with formation of chalk-like concretions (urates) in and about the joints (Roberts). Dr. Bradshaw suggests that the case was one of acute nephritis, and that the deposits in the tissues were the result of the suspension of the functions of the secreting elements of the kidney, whereby uric acid accumulated in the tissues producing a condition analogous to uraemia in the human subject. A weak point in this analogy is the fact that uraemia is now generally believed to be not simply dependent on the retention of urea in the system. Apart from that, his theory of the kidneys being thrown out of action, and the function of an eliminating organ being suspended, is not supported by the pointed statement of fact (Fig. 7) that the secreting elements of the kidneys—the convoluted tubules—were singularly healthy, notwithstanding the existence of marked disease in adjacent structures.

I would point out that Dr. Bradshaw does not indicate a single respect in which the histological features illustrated differ from the type of gout as above defined, and I am pleased to observe that we are in substantial accord in believing that the case was one of an "acute and fatal intoxication." On the question of labelling the disease, his criticism reminds one of the Shakespearean humourist who, in dealing with the Baconian theory, admitted that the plays were not written by Shakespeare but by another man of the same name.—I am, etc.,

Edinburgh, Jan. 17th. CHALMER WATSON.

"DOCTORS IN PARLIAMENT."

SIR,—In view of a probably approaching general election, I am glad to see letters in the BRITISH MEDICAL JOURNAL urging the necessity for more doctors in Parliament. More medical men are certainly required in the House of Commons for the sake of the profession, but there are even better reasons for wishing to see them there—they are greatly needed for the sake of the country. Medical measures, amongst which I class measures dealing with the feeding and with the housing of the people, are engrossing more and more the attention of the Legislature, and must be dealt with by an assembly which fully understands them.

For more than twelve years I have had ample opportunity of watching the control of medical institutions by lay and by mixed medical and lay committees and, without entering into undesirable detail, I would state my clear conviction that no merely lay body, however intelligent, however empowered to consult medical men outside itself, can safely administer public medical affairs. For safe administration of public medical affairs, I am convinced that medical men in reasonable numbers must be actually members of the governing body. I believe further that this is as true in national matters as in local matters, and that consequently there is a great need at the present time of adequate medical representation on all bodies dealing largely with medical public questions. This is particularly the case in both Houses of Parliament, on the Privy Council, and on the County Councils.

The medical profession is by no means a wealthy one, and the number of its members with sufficient means and leisure to represent a constituency in Parliament is necessarily limited. But I fancy that, if the national need for medical members of Parliament were once grasped by the profession, more medical candidates would be forthcoming for election. It is a great pity that we possess no fund which could be used for defraying in part the expenses of medical members of Parliament. The fact that their presence in the Commons would be a clear gain to the whole profession constitutes, it seems to me, an obvious claim upon the whole profession to share the burden of expense.—I am, etc.,

Exeter, Jan. 9th. W. GORDON.

SCHOOL CHILDREN OUT OF SCHOOL.

SIR,—I have read with much interest the articles by your Commissioner on Physical Degeneration, and especially that in the BRITISH MEDICAL JOURNAL of January 16th, which gave such an admirable account of the Passmore Edwards Recreation School, and the work of the Children's Happy Evening Association.

Some of your readers may be interested in a further effort which is being made by the Women's Industrial Council in this direction. The Council lately, and on the lines proposed by your Commissioner, appealed for funds to enable it to start "recreation classes" for school children whose mot have to go out to work, and who therefore miss home life parental care until perhaps the late evening.

APPEAL.

The Women's Industrial Council is anxious to follow in London example set by the *Kinderorte* or recreation schools of Germany. aim is to keep safely and happily occupied outside of school h certain carefully-chosen children who owing to poverty or fa circumstances cannot be properly cared for in their homes. Such instance, are children who have lost one parent and whose remai parent has to be at work all day. It is desired to obtain the of the infant departments of certain elementary schools from 4. 7.30 or 8 p.m. on five days a week, and in these schools to games, drill, classes in various handicrafts—such as carving, ba making, etc.—in sewing, and in drawing. Half an hour would be left for airing the rooms at the close of the afternoon ses A light meal at very low prices might be provided. One paid s intendent would be required for each school; the rest of the would be carried on by voluntary helpers, while the school pre it is hoped would be lent free of charge. It is desired to se such schools going immediately as an experiment, and volu helpers are forthcoming for both. The expenses of each are mated at about £1 a week. A sum of £100, that is, will carr the two recreation schools for about a year. For this sum we appeal to the public. The neglected children of to-day are criminals, the wastrels, and the paupers of to-morrow. Every one who can be taken from that dangerous and demoralizing ground, the street, and can be taught to find pleasure in healthy g physical exercise, and intelligent occupations, will become, not o happier and healthier, but also a more productive and less bu some member of society. To preserve children from evil ways is the truest philanthropy and the truest economy, and the childr whom we plead are those who are least able to help themselves.

ISABEL ABERDEEN, President.
CLEMENTINA BLACK, Vice-President.
NETTIE ADLER, Chairman, Executive Committee.
ELSIE M. CADBURY, Vice-President.
MARGARET E. MACDONALD, Secretary, Education Commit
L. WYATT-PAPWORTH, General Secretary.

19, Buckingham Street, Strand, W.C., Dec. 8th, 1903.

Any of your readers who may be interested in work of nature will obtain full information about it from the o of the Council, 19, Buckingham Street, Strand, W.C.— etc.,

ALICE R. JOSEPH,
Honorary Secretary, Recreation School Commit
Women's Industrial Council.

19, Buckingham Street, Strand, Jan. 19th.

ST. BARTHOLOMEW'S HOSPITAL.

SIR,—With the sanction and sympathy of His Royal H ness the Prince of Wales, President of this hospital, wh graciously associated himself with the appeal, a public ing will be held, under the auspices of the Right Hon Lord Mayor, at the Mansion House, at 3 p.m. on the inst., to promote the appeal of this hospital for fun enable it to undertake the works which are absolutely n sary to bring it up to modern requirements.

May I earnestly beg you to give the hospital your val help and support at this meeting?

St. Bartholomew's is the only hospital for the sick w the City limits. It is of great antiquity, and has carrie vast work of mercy and charity on the same site for 800 years. The value of this work will be realized whe known that in the last fifty years of the nineteenth ce the hospital gave relief to more than 7,000,000 of the poor. For many generations it has been a prominent of medical education, and its pupils are found in ever of the empire.

St. Bartholomew's has not asked the public for he more than 150 years, but now help is urgently requi meet the demands made by the unceasing advance of m science. These demands, with the requisite addition hospital site, will cost not less than £500,000.—I am, et

London, E.C., Jan. 15th. TREVOR LAWRENCE, Treasu

THE POOR-LAW SERVICE IN SCOTLAND.

SIR,—The Poor Law medical officers of Scotland owe debt of gratitude for the zeal with which you from ti time champion their cause in the BRITISH MEDICAL JOU Dr. Macara's case is but a sample of the spirit which in parts of this country is manifested towards parochial m officers, and unless such treatment be rendered impo by legislation the time is not distant when the serv qualified medical men will be absolutely unattainable remote Highlands of Scotland. In this connexion let

...r hope that the gentleman at the head of the Scottish ...d may not be found to be so unsympathetic as his pre...ssor.—I am, etc.,

...n. 17th. ALPHA.

THE MIDWIVES ACT.

...,—In the BRITISH MEDICAL JOURNAL of January 9th, ..., there is a letter from "Observer" criticizing the Local ...rnment Board *re* the Midwives Act. I think your corre...ndent, like the Central Board, has entirely overlooked the ...that the exemption from operation of Section E is not ...ed to Poor-law institutions, but includes hospitals of ...l kind, and over those, of course, the Local Government ...d has no control. Another point that should be noted ...t Section E is evidently drawn on the assumption that ...e will usually be no supervising medical attendant to see ...he midwife does her duty.

...What we ought to have—and I have little doubt we shall ...—s a special Local Government Board order that will pro...bly combine all that is good in the rules of the Central ...mittee with any modifications that may be suitable to ...-law institutions.

...ly I point out to your correspondent that the Local ...rnment Board does not "employ" midwives; that they ...appointed by the guardians; and I can assure him that in ...e last majority of workhouse maternity wards he will find ...at the present time "disinfection, cleanliness, care of ...es' eyes, case taking," are enforced, and in the excep...nal cases that may exist where it is not so I am afraid that it ...rt the fault of the Local Government Board, but that of ...nion medical officer.—I am, etc.,

...bury, Jan. 17th. JNO. MILSON RHODES.

OBITUARY.

SIR WILLIAM RAYMOND KYNSEY, C.M.G., J.P.

...regret to announce that Sir William Raymond Kynsey, ...principal Civil Medical Officer and Inspector-General of ...pitals in Ceylon, died at his residence at Horsham, in the ...year of his age. He was a son of the late Dr. Thomas ...Kynsey, J.P., of Athy, co. Kildare, and the grandson of ...cicer in one of the old Royal Fencible Regiments. He ...born in 1840, and received his professional education at ...y College, Dublin. He obtained the licence of the ...y College of Surgeons, Ireland, in 1861, and that of the ...y College of Physicians, Ireland, in the following year. ...ined the Medical Service of the army as an Assistant ...on in September, 1863. He served mostly with the ...y Artillery in Bombay and Poonah, in Ceylon, and in ...sey. He served in the Ashantee war of 1873-4, when he ...resent at the capture of Coomassie, for which he had the ...d. In 1875 he was placed on half-pay on appointment as ...pal Civil Medical Officer in Ceylon, and in 1886, ...having been admitted a Member in 1880, was elected a ...of the Royal College of Physicians, Ireland. While ...nt in Ceylon, he filled various other offices, including ...f a member of the Legislative Council, a magistrate, a ...of the gaols of the island, and a municipal councillor ...ombo. He was for some time President of the Ceylon ...h of the British Medical Association, an office which ...ed with great dignity and efficiency. While at home in ...e represented the Ceylon Branch on the Council of the ...iation. He was decorated with the C.M.G. in 1888, and ...ighted in 1897. In 1899, on the completion of twenty-...years' service, he retired and returned home. He was a ...er of the several medical societies, and spent the last ... of his life in attending different clinics and special ...als, always taking the greatest interest in the advance ...dicine and in everything relating to the profession. ...illiam Kynsey married, in 1866, Isobel Keith, daughter ... late Captain J. K. Jolly, of the East India Company's ...e, of Farieland, Kandy, Ceylon.

...William Kynsey was the author of a work on Parangi ...oesia tropica) with atlas, and of one on Ankylostomi...s.

GEORGE THIN, M.D.,

London.

...e death of Dr. George Thin, which took place at Nice ...cember 27th, 1903, the profession has lost a most able ...onscientious physician. For the past year his health ...en so unsatisfactory that he was obliged to relinquish all work, and it was hoped that a stay in the South would enable him to enjoy a measure of health in his retirement. But the cardiac disease from which he suffered became aggravated soon after his arrival at Nice, and he succumbed to its effects.

George Thin was educated at Aberdeen University. He took the diploma of L.R.C.S.Edin. in 1858, and graduated M.D. at his University in 1860. He engaged for a time in practice in Scotland, but soon gave this up to proceed to Shanghai, where he worked for some seven years. It was there that he laid the foundation of his wide knowledge of tropical disease, a study which occupied much of his after-life. In the early Seventies he returned to England and settled in London, devoting himself to medicine. At this time he made a special study of dermatology, and in order to acquire a more intimate knowledge of this subject he spent some time in Vienna and Paris. He soon obtained recognition, and was a frequent contributor to the journals on this subject. Among the more important of his papers may be mentioned Cancerous Affections of the Skin, published in book form, and papers in the *Proceedings* of the Royal Society, and in this and other journals on ringworm.

As time passed his interest in dermatology was to some extent diverted by increasing demands made upon him in connexion with tropical disease. In this subject he was an indefatigable worker, and his experience gained in China was continually being added to from his practice amongst those returning from the East who sought his advice. All tropical conditions were carefully studied by Dr. Thin, but that to which he devoted most attention was sprue. The results of his investigations and wide experience in this disease were embodied in a book entitled *Psilosis, or Sprue*, which ran through more than one edition, and is still a standard work on the subject. In this book he sought to assign a distinctive entity to the disease as opposed to other forms of tropical diarrhoea. Dr. Thin was a strong advocate of the value of an exclusive milk diet in sprue, and the great success he had was largely due to minute care in all matters of detail. All through his life the microscope was his constant companion, and at different times the histology of one system after another was taken up and carefully worked through.

In addition to private practice Dr. Thin held the post of medical adviser to many corporations doing business in the East, and not the least valuable part of his work was the careful selection he made of candidates going abroad. His large experience in this capacity enabled him to tell with almost unerring precision the kind of man likely to stand Eastern climates, and it was his pride to think that he had recommended for duty in far-off lands only the very best.

Dr. Thin was for many years a member of the British Medical Association, and took great interest in the scientific side of its work. He was a regular attendant at the annual meetings, and was a vice-president of the Section of Dermatology in 1893, and president of the Section of Tropical Diseases in 1899.

As a man he had a wholesome dislike of all shams and formulas, and honesty of purpose characterized all his work. Naturally reserved in manner, he had few intimate friends, but those who did gain his confidence had in him a firm friend. Patient and careful, always striving after the truth, his mind had a strong scientific bent, and these characteristics were observed in all that he undertook. His death will be sincerely regretted by many.

WILLIAM MORRISON,

M.D.Edin., B.Sc.(Nat. Sc.), B.Sc.(Pub. Health); Special Plague Officer.

DR. WILLIAM MORRISON, who died in India some months ago, was born in Comrie, Perthshire, in 1842, and received his early education there. When still quite young he showed a leaning towards natural science, but for family reasons had to turn aside to commerce, and was employed first in Glasgow, and afterwards in some engineering works in Dundee. He occupied his spare time, however, with scientific pursuits, and was Secretary of the Dundee Naturalists' Society, as also of a similar association in connexion with his native Strath-earn. It was not until 1877 that he found it possible to turn to the study of medicine, and the first degrees he obtained were those of M.B., C.M.Edin. in 1882. During his career as a medical student his taste for natural science secured him three medals, two in botany and one in natural history.

Soon after graduating he received an appointment as medical officer to the Chinese Customs and British Consulate at Newchang, China. While there he found time to pursue his botanical studies, a paper by him on the flora of Man-

churia being published in the Consular reports. Ultimately he found that the climate was trying his health too much, and, giving up his post in 1893, he returned home by way of America, where he remained some time making a study of the flora of the Rocky Mountains. After his return home he commenced work in London, and in 1895 took the degree of B.Sc. in Natural Science at Edinburgh. This he followed up a year later by presenting himself for and obtaining the corresponding degree in Public Health, and also graduated M.D., his thesis on the climates and flora of North China being commended by the examiners.

About three years later he went out to India as one of the special plague officers, being allotted for duty to the Government of Bombay. In this position he continued up to the time of his death, and his work while in charge of the Famine-Camp Hospital at Dohad was specially commended by the Viceroy, Lord Curzon.

Dr. Morrison was one of those quiet, retiring men who are not known to many, but are, nevertheless, greatly beloved by a small circle of intimate friends. His death, which was due to an accident during sleep-walking, was a cause of great regret to the small Scots community at Bombay, and his kindly and genial presence will be specially missed by his native colleagues, with whom, as with his native patients, he was very distinctly a *persona grata*.

GEORGE EDMUND LEGGE PEARSE, F.R.C.S.,

Formerly Surgeon, Westminster Hospital.

WE regret to have to record the death of Mr. George Edmund Legge Pearse, F.R.C.S., which took place on January 13th at Homefield, Merton, Surrey. The late Mr. Pearse, born in 1843, received his general education at Westminster School, and subsequently proceeded to Westminster Hospital Medical School, where he gained the silver medal for anatomy and chemistry in 1862, and was awarded the Chadwick prize two years later; he was also a Prosector of the Royal College of Surgeons. After obtaining the diplomas of L.S.A., M.R.C.S., in 1864, he remained two more years at the hospital, occupying consecutively the positions of House-Surgeon and House-Physician. Subsequently he became Senior House-Surgeon at the Royal Infirmary, Manchester, and later Resident Superintendent of the Ardwick and Ancoats Hospital. Upon receiving an appointment as Demonstrator of Anatomy at his old medical school he returned to London, and in 1868 he became a Fellow of the Royal College of Surgeons of England. In the years which followed he held at his school the Chairs of Anatomy and Surgery, and finally became one of the Surgeons to Westminster Hospital.

During this time he lived at Queen's Mansions, Victoria Street, where he remained until about four years ago. His health then failed, and in consequence he relinquished all work and settled down at Merton. Outside surgery Mr. Pearse took considerable interest in microscopy, and was a Fellow of the Royal Microscopical Society and also of the Zoological Society. Though not a profuse writer, he from time to time contributed papers to the medical journals. His funeral took place on January 18th at Norwood Cemetery.

R. VICARS FLETCHER, F.R.C.S.I.,

Late Medical Superintendent, Ballinasloe Asylum.

WE regret to record the death of the late Dr. Robert Vicars Fletcher, Medical Superintendent of Ballinasloe Asylum, which occurred on December 17th. Dr. Fletcher was a Dublin student, and did most of his early work at Steevens's Hospital, Dublin, but took his first qualifications—the L.R.C.P. and L.R.C.S.Edin.—in 1865 in Scotland. Later he received the diploma of the Irish College of Surgeons, and in 1879 became one of its Fellows. He turned quite early in his career to psychology, and in 1870 obtained the appointment of First Assistant in the Downpatrick Asylum, County Down. From this he was promoted two years afterwards to the superintendentship of the County Waterford Asylum, and finally was transferred to a similar institution at Ballinasloe. This asylum, upon his arrival, he found in a very backward condition, and for many years he was busily occupied in introducing reforms. Finally, twelve years after his arrival, he was successful in persuading the governing body to create special provision both for cases in an acute stage of mental disease and for the physically sick. As an asylum superintendent he was exceedingly successful, and he continued to occupy this post at Ballinasloe until his death, which was not entirely unexpected; for many months, and indeed ever since last winter, when he had a bad attack of influenz had been in frail health. The greater part of his work, ever, during this time was taken off his shoulders b senior assistant, Dr. J. Mills. Personally Dr. Fletcher very popular man, and his funeral was attended by a number of representatives of all classes. Amongst the as superintendents of Ireland he was a decided personality

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WE regret to announce the death of Dr. PETER DETTWE founder of the well-known sanatorium at Falkenstein one of the pioneers of the modern treatment of consum Dr. Dettweiler was in his 67th year.

DEATHS IN THE PROFESSION ABROAD.—Among the me of the medical profession in foreign countries who died recently are Dr. Josef Seegen, for many years the official physicians of Carlsbad, since 1859 profes balneology in the University of Vienna, and auth numerous works on diabetes, etc., aged 81; Dr. K Clar, extraordinary professor of balneology at Vienna author of works on health resorts, on the treatment o sumption, etc.; Dr. Ziem, of Danzig, a well-known spe in diseases of the throat and nose; Dr. H. E. Turgis, M of the French Senate for the Calvados Department, and Physician to the Hospital of Falaise, aged 75; and Pro Gebhard, of Berlin, well known by his contributions literature of gynaecology, aged 42.

ROYAL NAVY AND ARMY MEDICAL SERV

ROYAL NAVY MEDICAL SERVICE.

THE following appointments have been made at the Admiralty: W. MAY, Fleet Surgeon, to the *Cormorant*, for Gibraltar H January 27th; THOMAS C. JAMES, Fleet Surgeon, to the *Britan* Cadets' Sick Quarters, January 27th; HERBERT A. PENNY, Staff-S to the *Juno*, February 5th; ROBERT H. ATKINS, Surgeon, to th January 26th; MICHAEL J. LAFFAN, M.B., B.A., Surgeon, to the commissioning; WILLIAM E. RUTTLEDGE, Surgeon, to the *Bedford*, 19th.

Civil Practitioner JOHN D. WYNNE, M.D., has been appointed and Agent at Clonmel, January 18th.

CHANGES OF STATION.

THE following changes of station amongst the officers of the Roy Medical Corps have been officially reported to have taken plac the last month:

		From.	T
Lt.-Col.	I. B. Emerson...	Madras...	Portsr
,,	O. Todd, M.B.	Cork ...	Egypt
,,	W. Dugdale ...	Bombay ...	Netley
,,	T. P. Woodhouse	Dover ...	Punja
,,	G. J. Coates, M.D.	Templemore...	Hong
,,	M. W. O'Keeffe, M.D.	Punjab...	Woolw
,,	C. W. Thiele, M.B.	Chester	Warri
,,	F. J. Lambkin...	Hong Kong	Bomb
,,	A. A. Pechell, M.B.	Bengal...	Dubli
,,	W. G. Macpherson, M.B., C.M.G.	Home District	N. Ch
,,	R. J. S. Simpson, M.B., C.M.G.	,,	Lond
Major	R. J. A. Durant...	Warrington	Benga
,,	J. J. C. Donnet...	Gosport	Bomb
,,	G. B. Russell, M.B.	Cork ...	Temp
,,	A. E. Morris, M.D.	Bombay	Woolw
,,	R. I. Power	Dublin...	Wate
,,	M. L. Hearn	Belfast...	Holyw
,,	L. T. M. Nash	Punjab	Ports
,,	M. J. Sexton, M.D.	Dublin...	Benga
,,	J. B. Wilson, M.D.	Woolwich	Egyp
,,	J. Donaldson	Tipperary	Beng
,,	R. J. Windle, M.B.	Bombay	Hom
,,	C. H. Hale, D.S.O.	Cardiff...	Newp
,,	H. S. Peeke	Canada...	Alde
,,	F. W. Hardy, M.B.	Netley ...	Egyp
,,	C. J. Healy, M.B.	Dublin...	Ceylo
Captain	L. A. Mitchell, M.B.	Aldershot	Beng
,,	H. S. Thurston	Portsmouth ...	N. C
,,	H. W. K. Read	Dublin...	Belfa
,,	G. T. K. Maurice	SalisburyPlain	Bulf
,,	D. E. Curme	Devonport	Mad
,,	C. H. Carr, M.D.	Edinburgh	Bom
,,	J. T. Johnson, M.D.	Bulford	Hon
,,	W. L. Steele	,,	Beng
,,	H. A. Davidson, M.B,	—	Mad
Lieutenant	J. M'Kenzie, M.B.	Portsmouth ...	Beng
,,	N. D. Walker, M.B.	Aldershot	Bom
,,	R. B. Ainsworth	Portsmouth ...	Mad
,,	C. A. J. A. Balck, M.B.	Woolwich	Pun
,,	R. Storrs	,,	
,,	G. A. K. H. Reed	,,	Ben
,,	D. S. Skelton	Aldershot	Ceyl

Lieutenants J. M. M. Crawford, C. Bramhall, T. E. Harty, H. J. E. Skey, and H. T. Stack, M.B., recently appointed on pro stationed at Woolwich.

ARMY MEDICAL STAFF.

THE appointment of Surgeon-General W. L. GUBBINS, M.B., Principal Medical Officer Bombay Command, is gazetted, to December 12th.

ROYAL ARMY MEDICAL CORPS.

ANT-COLONEL J. HICKMAN retires on retired pay, January 20th.
appointed Surgeon, July 29th, 1882; Surgeon-Major, July 29th,
Lieutenant-Colonel, July 29th, 1902. He was in the Burmese
n in 1886-7 (medal with clasp); with the expedition to the Gambia
ncluding the capture of Toniataba (medal with clasp); with the
e expedition in 1895-6 (star); in the operations in Sierra Leone in
asp); and in the South African war in 1899-1900 (Queen's medal
clasps).

n JAMES M. BUIST, from the seconded list, to be Captain, Decem-
1903. Captain Buist was seconded for service with the South
Constabulary, August 2nd, 1902.

nant-Colonel W. G. MACPHERSON, M.D., C.M.G., has been ap-
Principal Medical Officer to the forces in China.

e-Surgeon THOMAS WILLIAM WRIGHT died on November 10th, 1903.
d as Assistant Surgeon, September 24th, 1864; was made Surgeon,
st, 1873; and Surgeon-Major, August 3rd, 1874. He retired from
ice, with the honorary rank of Brigade-Surgeon, June 11th, 1882.
n the Ashanti war in 1873-4, receiving a medal.

INDIAN MEDICAL SERVICE.

. B. O'BRIEN, M.D., Bengal Establishment, is appointed to
as Inspector-General of Civil Hospitals, United Provinces.

n F. S. C. THOMPSON, M.B., and Lieutenant L. P. FARRELL,
Medical Service, are appointed for duty with the hospital ship,
, for the Somaliland Field Force.

VOLUNTEER RIFLES.

L. FITZ GERALD to be Surgeon-Lieutenant in the 2nd Volunteer
the East Lancashire Regiment, January 16th.

n-Lieutenant-Colonel J. KNOX, 2nd Volunteer Battalion the
amshire and Derbyshire Regiment (Sherwood Foresters),
is commission, retaining his rank and uniform, January 16th.

n-Major G. H. DARWIN, M.D., 2nd Volunteer Battalion the
ter Regiment, resigns his commission, January 16th.

MEDICO-LEGAL AND MEDICO-ETHICAL.

TISH POOR-LAW MEDICAL SERVICE AND DR. MACARA.

on to this matter, which was noted in the BRITISH MEDICAL
of January 16th, p. 148, we observe from a report in the *Scotsman*
ry 13th that Lord Pearson in the Bill Chamber Court of Session,
gh, disposed of a note of suspension and interdict for Dr. Macara
ne Parish Council of Durness. The note was brought for the pur-
preventing the respondents carrying out a resolution passed by
November 20th, 1903, to the effect of dismissing the complainer
post of medical officer for the parish. It appeared that on
st and April 1st Dr. Macara attended a pauper child suffering
cken-pox, advising isolation, and directing that the sister of
should not attend school for two or three weeks. In disregard
dvice the sister was sent to school, was taken ill, and had to re-
home until April 20th. Dr. Macara was not, however, called in
her, but was directed by the council to certify the cause of her
rom school. He declined to do so on the ground that whilst he
id and willing to give certificates to the parish council and to
Government Board, he was not bound to give such either to the
or to the school board.

eting of the parish council on November 6th two members were
ed, and thereafter Dr. Macara alleges the resolution of which
ains was passed by a majority of three to two, and the resolution
firmed at a later meeting. The defence raised was that
ra refused to supply their clerk with the certificate required,
in so doing he acted in breach of his duty; and, further, that the
cation of the two members of council was entirely independent
hatter at issue between the council and Dr. Macara. Lord
passed the note, and continued the interim interdict previously
The case for Dr. Macara was in the hands of the Medical Defence
essrs. Hempson, solicitors.

LECTURES ON MEDICAL JURISPRUDENCE.

sday, January 14th, Dr. F. J. Waldo, coroner for the City of
delivered the first of a series of six lectures on Medical Juris-
at the Old Hall, Lincoln's Inn, under the auspices of the
f Legal Education. The subject of the first lecture was the
Man as Witness. At the outset the abilities and disabilities
to the registration of medical men were dealt with. A medical
give evidence either as a common witness to facts or as an ex-
atters of deduction and experience. The why and wherefore of
g medical evidence was next discussed at some length, and
iven to show how candid and skilful men could contradict each
ourt without sacrifice of honesty. The illustration of this point
from "railway spine," cases of accidental injury in which the
fference of opinion often prevails. The ending of litigation is
nded by a speedy recovery on the part of the patient. Quite
or greater differences exist among lawyers, as proved by the
of decisions, time after time, in successive courts, until the
Lords is reached. The question of professional privilege was
, and the illustrations included the recent appeal of a provincial
table to the local medical men for information likely to identify
der, in a case of infanticide. A medical witness is bound to
lly in the witness-box, if required to do so by the Court, except
so doing he would incriminate himself. In ordinary life, how-
violation of professional secrets might involve an action at law.
itten law of the medical profession appears to be that there is
tion to reveal anything that comes under notice short of
r the very gravest criminal charges. This professional secrecy
m the earliest times, as shown by the oath of Hippocrates, the
of which is still adopted in the declaration of the Scotch
aduate. The lecturer concluded with an analysis of the various
medical evidence and some of the points concerned in the
amination of prisoners.

MEDICAL SECRECY.

D.—We can quite understand that our corresponden does not
offend his vicar, and that in many cases to refuse to answer would be even more disadvantageous to his patients than to frankly give the information desired, but occasions may arise in which he will not be able to answer truthfully without disclosing his patients' secrets, and therefore he had better explain to his vicar and his wife that the medical profession regards as sacred all information derived from a medical examination, whatever the position of the patient, and that in future he must adhere to the rule of silence about his cases.

MEDICAL ADVERTISING.

A. B. writes from a Continental city to complain of the persistent way in which the name of one of the medical men with British qualifications practising in the city is introduced into the pages of the local English newspaper.

*** We find these references to be purely social, and we do not think any notice can be taken of them. In two out of the three they refer not to the practitioner himself but to his wife, and in the other case to his connexion with a local charity. If such notices appear unfair to the other resident practitioners they might address a remonstrance to the editor of the newspaper in question.

THE ASSISTANTS' BICYCLE.

AN assistant who possesses a bicycle, and uses it chiefly to visit his principal's patients, wishes to know whether the latter ought not to pay the cost of any necessary repair to his machine, as he is not provided with any other means of locomotion.

*** If a bicycle is required to do the principal's work, the expense thereof should devolve on the latter. But if an assistant for his own purposes desires to keep a bicycle, the principal is not bound to keep it in repair.

DELAY IN PAYMENT OF FEES.

VIATOR asks, as regards etiquette, how long after the last professional visit a practitioner should wait before sending in his account; also whether the interval should be longer where the patient has died.

*** Accounts are usually sent in half-yearly by medical practitioners, but it may often be wise not to wait so long. There is no reason why a patient's death need make any difference, but our correspondent must bear in mind that executors are allowed twelve months to administer the estate of the deceased. A recent work dealing with the subject of medical etiquette is *Medical Ethics: a Guide to Professional Conduct*, by Robert Saundby, M.D. (Bristol: John Wright and Co. 1902. 3s. 6d.).

UNIVERSITIES AND COLLEGES.

UNIVERSITY OF LONDON.

INSTITUTE OF MEDICAL SCIENCES.

THE following letter has been addressed to the Earl of Rosebery, Chancellor of the University of London:

My Lord,

We have observed with satisfaction that the Senate of the University of London have lately issued an appeal for funds to build and endow an institute of medical sciences under the control of the University.

The positions which we severally hold in connexion with the general hospitals of London and their medical schools have compelled us, especially of late, to give the proposal that the University should undertake the teaching of the preliminary scientific subjects of the medical curriculum the most serious consideration.

We are convinced that the adoption of the recommendation of the Royal Commission in favour of the concentration of the teaching of these subjects in one or more centres has become a matter of urgent necessity, in the interests alike of medical education, of the hospitals and the medical schools.

We are,
My Lord,
Yours faithfully,

SANDHURST,
Chairman of the Weekly Board, Middlesex Hospital.
TREVOR LAWRENCE,
Treasurer, St. Bartholomew's Hospital.
H. COSMO BONSOR,
Treasurer, Guy's Hospital.
SYDNEY HOLLAND,
Chairman, London Hospital.
J. G. WAINWRIGHT,
Treasurer, St. Thomas's Hospital.
TIMOTHY HOLMES,
Treasurer, St. George's Hospital.
H. A. HARBEN,
Chairman, St. Mary's Hospital.
THOS. PERCY BORRETT,
Chairman, Charing Cross Hospital
J. WOLFE-BARRY,
Chairman, Westminster Hospital.

A large sum is required to carry out the scheme. The Honorary Treasurers of the Appeal Fund are:

Dr. J. K. FOWLER,
Member of the Senate.
Mr. H. T. BUTLIN,
Dean of the Faculty of Medicine.

Communications should be addressed to 35, Clarges Street, W.

The following donations, in addition to those previously announced, have been promised to the Institute of Medical Sciences Fund:

	£	s.	d.
Alfred Beit, Esq.	5,000	0	0
Messrs. Rothschild and Sons	500	0	0
J. K. Fowler, M A., M.D.	250	0	0
H. J. Chinnery, Esq.	100	0	0
Sir Charles Metcalfe, K.C.M.G.	25	0	0
Sir Henry Roscoe, F.R.S.	100	0	0
Sir E. Cooper Perry, M.D, ...	100	0	0
E. Lauriston Shaw, M.D.	100	0	0
Sir R. Douglas Powell, Bart., M.D.	50	0	0
C. B. Lockwood, F.R.C.S.	50	0	0

MEETING OF CONVOCATION.

A GENERAL meeting of Convocation was held at the University, South Kensington, on January 18th. After a lapse of more than twenty minutes a quorum was obtained and the Chairman, Sir Edward Busk, took the chair. The report of the Standing Committee, the nature of which was detailed in the BRITISH MEDICAL JOURNAL of January 16th, page 169, was presented and its reception moved and carried. The Chairman also reported that the Library Committee had recommended to the Senate the appointment of a person to arrange the books on proper shelves, and that there was reason to hope that when the Senate next met the necessary vote would be passed. A motion was proposed and passed conveying the thanks of the House to the Worshipful Company of Goldsmiths for its gift to the University of the Foxwell Library.

UNIVERSITY OF CAMBRIDGE.

Degrees.—On January 14th the following were admitted to medical and surgical degrees:

M.B.—T. Guthrie, King's.

B.C.—N. C. Carver, King's; H. H. Clarke, H. D. Hoffmann, Trinity; J. E. Pellow, St. John's; C. M. Murray, Pembroke; G. E. Davidson, J. H. Donnell, E. Gardner, Caius; P. Hardy, Trinity Hall; E. Higson, Magdalene.

Addenbrooke's Hospital.—On January 18th Mr. G. E. Wherry was re-elected Surgeon and Mr. A. Cooke was elected Assistant Surgeon to the hospital. A further donation of £1,000 from Dr. A. Peckove, Lord Lieutenant of Cambridgeshire, was announced.

UNIVERSITY OF BIRMINGHAM.

PHYSICS AND THERAPEUTICS.

AT the request of the Dean of the Faculty of Medicine, Sir Oliver Lodge, Principal of the University, has consented to deliver a course of four lectures on those parts of physics which are of special interest at present in connexion with medicine. The lectures, which will be delivered on Thursdays at 4 p.m. in the Medical Theatre of the University, will deal with the following subjects: On February 4th, the production and properties of cathode rays; on February 11th, production and properties of Roentgen rays; on February 18th, production and properties of ultra-violet light; on February 25th, production and properties of high-frequency alternating currents.

ROYAL COLLEGE OF SURGEONS OF ENGLAND.

QUARTERLY COUNCIL.

A COUNCIL meeting was held on January 14th, Mr. John Tweedy, President, in the chair.

Library.

The thanks of the Council were given to Dr. G. V. Poore for presenting from the library of the late Mr. Marcus Beck, notes of the late Mr. John Marshall's lectures taken by Mr. Cluff.

Physical Disability of Army Recruits.

The following report, dated December 16th, 1903, from the Committee of the Council appointed to further consider this subject, was adopted by the Council:

"The Committee beg to report that the further memorandum and four additional tables of figures prepared by the Director-General of the Army Medical Service have received their careful consideration, and that, in reply to Mr. FitzRoy's letter stating that the 'Physical Deterioration Committee' will be glad to be favoured with any observations upon these documents which the Royal College of Surgeons may desire to make, and especially desire to be informed 'whether the perusal of the supplementary matter now furnished suggests the modification in any degree of the opinions previously expressed upon the subject,' the following letter was drawn up and approved by the Committee, namely:

"Sir,—With reference to your letter of the 1st instant forwarding a copy of a further memorandum prepared by the Director-General of the Army Medical Service, together with four tables of figures giving more detailed statistics as to the percentage of rejection of those who have offered themselves as recruits, and as to the causes of the rejections, the Council of the Royal College of Surgeons beg to make the following observations:

"The Council note that the Director-General thinks 'that the idea of "progressive physical deterioration" has occupied a much too prominent position in the minds of those who have had to consider and report as to the advisability of inquiry being necessary,' and they also note the statement that the intention of his original memorandum was to call attention to "the most disturbing fact that from 40 to 60 per cent. of the men who present themselves for enlistment are found to be physically unfit for military service,' and not to suggest there was evidence of a 'progressive physical deterioration of the race,' concerning which there are no trustworthy 'statistical or other data.'

"With reference to these remarks of the Director-General, the Cou desire to point out that in their report to the Home Office they did use the phrase 'progressive physical deterioration,' though some of t criticisms did assume that the first memorandum of the Director-Gen seemed to suggest the idea of progressive physical deterioration am certain classes of the community.

"While, therefore, the Council may not in every respect have in preted quite accurately all the meaning and import of the Direc General's first memorandum, their opinion was in no sense based u a misunderstanding as to the main question at issue; and they entirely in accord with the Director-General in believing that the principal matters now to be considered are, first, an inquiry into causes and present extent of the physical unfitness for military ser that exists in a large degree among certain classes of the populat and, secondly, the institution of measures which may bring abou improvement of the physique of the classes from which most of recruits are at present drawn.

"The Council believe that, in addition to any other means which commend themselves to your Committee, the adoption of the precau and supervisions indicated in the Council's previous report would co bute not a little to the physical and moral improvement and well-bei the classes concerned.

"In conclusion, the Council beg to state that, after a careful perus the supplementary information now supplied, they see no groun modify the opinions which they have previously expressed upon subject of the physical disability of many of those who offer themselv recruits.

"I am, Sir, your obedient servant,
"JOHN TWEED
"*Presid*

"A. W. FitzRoy, Esq.,"
"Privy Council Office."

Under the authority given by the Council on December 10th, 1903, letter will be signed and forwarded by the President to Mr. FitzRoy reply of the Council.

Sir Henry G. Howse, as Chairman of the Committee on the Ph Disability of Recruits for the Army, reported that since the meeti that Committee a letter had been received from the Physical Dete tion Committee asking the College "to recommend the names of tw geons who would give evidence, representing the views of the profe in general, on the condition of the eyes and on the prevalence of sy respectively among the poorer classes of the population."

Mr. John Tweedy (President) and Sir Alfred Cooper (Vice-Pres were selected by the Council.

Hunterian Orator.

Mr. John Tweedy was appointed Hunterian Orator for 1905.

President's Badge.

The thanks of the Council were given to Mr. John Tweedy for h of a President's badge.

Ventilation of Factories and Workshops.

The following recommendations from the Examiners for Part I Examination in Public Health (Dr. A. P. Luff and Mr. A. Foulerton) were adopted:

Concerning the question of the lowness of the ventilation sta for factories and workshops recommended in the report referre the Incorporated Society of Medical Officers of Health, and conc whose letter we have been requested by the Council of the College of Surgeons to advise, we are of opinion:

(1) That, in the interest of factory and workshop workers, the a of carbonic acid in the air of such places should not exceed 9 v in 10,000.

(2) That carbonic acid produced by the combustion of gas or o for lighting purposes should be made to pass directly to the air, and should not be allowed to contaminate the air of the fac workshop.

It was resolved that a copy of the resolutions be forwarded to the tary of State for the Home Department.

SOCIETY OF MEMBERS.

A MEETING of the Council of this Society was held at 20, Bru Square, on January 12th, Mr. Joseph Smith, J.P., M.R.C.S., in the c

The following resolutions were unanimously agreed to, and ord be sent to the College:

"1. That this Council considers the reply of the College Co the resolutions passed at the last annual meeting of Fell Members to be most unsatisfactory. Having regard to the r refusal to accede to the wishes of the Members as expressed i ings to which they have been specially summoned, this emphatically repudiates the claim of the College Council to re the Members, and further declares its determination not to a efforts to obtain adequate representation for the great majorit body corporate.

"2. That this Council desires to call attention to the inexp of appointing a committee to deal with the relations of the profession to the coroners' courts, composed entirely of those seldom brought into contact with those courts, and would sug addition to the Committee of some Members or Fellows ou College Council having special knowledge of the matter."

We are informed that it is the intention of the Society to hold of Members in various provincial centres during the year, in protest against their continued exclusion from all collegiate righ

PUBLIC HEALTH
AND
POOR-LAW MEDICAL SERVICE

VITAL STATISTICS OF LONDON DURING THE FOURTH Q OF 1903.

IN the accompanying table will be found summarized the vital of the metropolitan boroughs and of the City of London, based Registrar-General's returns for the fourth, or autumn, quarter o The mortality figures in the table relate to the deaths of person

sis of the Vital Statistics of the Metropolitan Boroughs and of the City of London after Distribution of Deaths occurring in Public Institutions during the Fourth Quarter of 1903.

OROUGHS.	Estimated Population middle of 1903.	Births.	Deaths.	Annual Rate per 1,000 Living. Births.	Deaths.	Principal Infectious Diseases.	Deaths from Principal Infectious Diseases.	Small-pox.	Measles.	Scarlet Fever.	Diphtheria.	Whooping-Cough.	Typhus.	Enteric Fever.	Simple and Ill-defined Fever.	Diarrhoea.	Phthisis.	Deaths of Children under 1 year of age to 1,000 Births.
OF LONDON	4,613,812	31,511	18,514	27.4	16.1	1.48	1,707	3	375	89	187	208	—	163	—	682	1,890	152
on	146,032	762	501	20.9	13.8	1.30	47	—	15	4	2	2	—	1	—	23	40	138
on	178,409	891	661	20.0	14.9	1.19	53	—	24	4	3	2	—	3	—	17	51	167
smith ...	115,803	693	470	24.0	16.3	1.66	48	—	20	3	6	2	—	4	—	13	44	167
... ...	147,780	1,186	599	32.2	16.3	2.69	99	—	48	1	8	4	—	8	—	30	68	128
... ...	74,169	376	279	20.3	15.1	1.12	21	—	8	—	1	1	—	3	—	8	24	152
estminster ...	179,052	732	631	16.4	14.1	1.13	51	2	21	1	6	4	—	6	—	11	76	131
ebone ...	131,234	992	590	30.3	18.0	1.85	61	—	23	4	8	3	—	8	—	15	55	116
ad	85,197	335	232	15.8	10.9	0.19	4	—	1	1	2	—	—	—	—	—	20	125
as	235,716	1,559	1,002	26.5	17.1	1.04	61	—	5	6	10	13	—	4	—	23	112	153
... ...	339,137	2,221	1,198	26.3	14.2	0.68	57	—	3	5	6	7	—	10	—	26	135	136
wington ...	52,069	251	170	19.3	13.1	1.38	18	—	—	—	1	6	—	2	—	9	14	135
... ...	224,082	1,425	846	25.5	15.1	1.40	78	—	16	5	11	13	—	14	—	19	84	143
... ...	57,845	360	282	25.0	19.6	1.46	21	—	3	—	2	1	—	4	—	11	40	136
... ...	99,717	914	507	36.8	20.4	1.80	45	—	8	6	2	3	—	4	—	22	56	150
ondon ...	24,539	80	89	13.1	14.5	0.81	5	—	—	1	—	—	—	1	—	3	10	213
h	117,513	923	602	31.5	20.5	2.22	65	—	20	4	4	10	—	6	—	21	71	192
Green ...	130,028	1,092	626	33.7	19.3	1.98	64	—	3	5	6	10	—	10	—	30	63	193
... ...	302,153	2,673	1,446	35.5	19.2	2.06	155	1	17	5	19	16	—	12	—	85	168	175
... ...	169,550	1,379	830	32.6	19.6	2.37	100	—	5	10	19	12	—	7	—	47	81	186
k	207,369	1,664	952	32.2	18.4	1.59	82	—	6	1	4	9	—	14	—	48	120	165
sey	129,801	934	650	30.4	20.1	1.41	46	—	1	2	3	9	—	6	—	25	77	191
... ...	307,711	2,153	1,229	28.1	16.0	1.72	131	—	38	6	11	19	—	9	—	48	110	131
... ...	173,422	1,245	649	28.8	15.0	1.56	68	—	14	1	11	13	—	9	—	20	62	139
rth	249,678	1,685	896	27.1	14.4	2.09	130	—	57	5	11	9	—	7	—	41	71	133
ell	265,562	1,776	963	26.8	14.5	1.08	71	—	18	3	3	9	—	4	—	34	89	146
... ...	112,537	757	430	27.0	15.3	1.33	37	—	—	3	10	12	—	2	—	10	44	168
h	99,824	657	373	26.4	15.0	1.52	38	—	—	1	9	14	—	—	—	14	33	166
in	136,405	866	383	25.5	11.3	0.56	19	—	1	2	4	—	—	2	—	10	31	117
n	121,478	880	428	29.1	14.1	1.07	32	—	—	—	5	5	—	3	—	19	41	153

y to the various boroughs, and are the result of a complete of distribution of the deaths in public institutions among the oroughs in which the deceased persons had previously resided.

511 births registered in London during the three months under re equal to an annual rate of 27.4 per 1,000 of the population, d at 4,613,812 persons in the middle of last year; in the correspondgers of the three preceding years the rates were 27.0, 28.0, and 1,000, the average rate for the fourth quarters of the ten 3-1902 being 28.9 per 1,000. The birth-rates last quarter ranged in the City of London, 15.8 in Hampstead, 16.4 in the City of ster, 19.3 in Stoke Newington, 20.0 in Kensington, and 20.3 in to 32.2 in Fulham and in Southwark, 32.6 in Poplar, 33.7 in Green, 35.5 in Stepney, and 36.8 in Finsbury.

514 deaths of persons belonging to London registered during last ere equal to an annual rate of 16.1 per 1,000, against 16.3, 17.9, per 1,000 in the fourth quarters of the three preceding years; rate in the corresponding quarters of the ten preceding years per 1,000. The death-rates last quarter in the various metroboroughs ranged from 10.9 in Hampstead, 11.3 in Lewisham, 13.1 in lington, 13.8 in Paddington, and 14.1 in the City of Westminster Woolwich, to 19.3 in Bethnal Green, 19.6 in Holborn and in 0.1 in Bermondsey, 20.4 in Finsbury, and 20.5 in Shoreditch.

In last quarter 1,707 deaths were referred to the principal us diseases; of these, 3 resulted from small-pox, 375 from 89 from scarlet fever, 187 from diphtheria, 208 from g-cough, 163 from enteric fever, and 682 from diarrhoea, any from typhus or from ill-defined forms of continued hese 1,707 deaths were equal to an annual rate of 1.48 per 1,000, n average rate of 2.05 per 1,000 in the corresponding quarters of preceding years. The lowest death-rates last quarter from these us diseases were 0.19 in Hampstead, 0.56 in Lewisham, 0.68 in , 0.81 in the City of London, and 1.04 in St. Pancras; the highest e 2.06 in Stepney, 2.09 in Wandsworth, 2.22 in Shoreditch, 2.37 r, and 2.69 in Fulham. Measles showed the greatest proportality in Kensington, Hammersmith, Fulham, St. Marylebone, gh, and Wandsworth; scarlet fever in St. Marylebone, the City of London, Shoreditch, Bethnal Green, and diphtheria in St. Marylebone, Stepney, Poplar, Battersea, Deptd Greenwich; whooping-cough in Stoke Newington, Shoreditch, Green, Battersea, Deptford, and Greenwich; enteric fever in St. Marylebone, Hackney, Holborn, Bethnal Green, and Southnd diarrhoea in Fulham, Finsbury, Bethnal Green, Stepney, nd Southwark. Of the 3 fatal cases of small-pox, 2 belonged y of Westminster, and 1 to Stepney.

In the last quarter of the year, 1,890 deaths from phthisis were ed, equal to an annual rate of 1.64 per 1,000, against 1.57, 1.77, and 000 in the corresponding quarters of the three preceding years. he various metropolitan boroughs the lowest death-rates from last quarter were registered in Paddington, Kensington, Hampoke Newington, Wandsworth, and Lewisham; and the highest Holborn, Finsbury, Shoreditch, Stepney, Southwark, and Ber-

nortality, measured by the proportion of deaths among children ear of age to registered births, was equal to 152 per 1,000 last against 154, 152, and 155 in the corresponding quarters of the ceding years. The rates of infant mortality during the quarter tice were lowest in Fulham, City of Westminster, St. Marylebone, ad, Lambeth, and Lewisham; while the highest rates were recorded in the City of London, Shoreditch, Bethnal Green, Stepney Poplar, and Bermondsey.

HEALTH OF ENGLISH TOWNS.

In seventy-six of the largest English towns, including London, 8,668 births and 5,557 deaths were registered during the week ending Saturday last, January 16th. The annual rate of mortality in these towns, which had been 15.4, 20.6 and 20.3 per 1,000, in the three preceding weeks, declined again last week to 19.0 per 1,000. Among these large towns the death-rates ranged from 8.5 in Coventry, 9 6 in Hornsey, 10.3 in Walthamstow, 10 8 in Leyton, 11.1 in Devonport, 12.2 in Handsworth, 12.5 in King's Norton, and 12.6 in Derby, to 24.7 in Gateshead, 25.6 in Rochdale, 27.5 in Tynemouth, 28 7 in Warrington, 29.0 in Preston, 30.1 in West Hartlepool, 33.0 in Merthyr Tydfil, and 38.2 in Wigan. In London the death-rate was 18.8 per 1,000, while it averaged 19 1 per 1,000 in the seventy-five other large towns. The death-rate from the principal infectious diseases averaged 1.5 per 1,000 in the seventy-six large towns, and corresponded exactly with the rate in London; among the seventy-five large provincial towns the rates ranged upwards to 3.3 in Walthamstow and in Wigan, 3 4 in Salford, 3 5 in Handsworth, 4 4 in Gateshead, 5.4 in Warrington, and 7.3 in Preston. Measles caused a death-rate of 1 3 in East Ham, 1.4 in Salford and in Sunderland, 1.8 in West Ham and in Rotherham, 2.8 in Willesden, 3.1 in Warrington, and 5.4 in Preston; scarlet fever of 1 4 in Merthyr Tydfil; whooping-cough of 1.3 in Portsmouth, 1 4 in Birkenhead, 1.5 in West Hartlepool and in Newport (Mon.), 1.7 in Handsworth, 2.5 in Wigan, and 2.6 in Gateshead; and diarrhoea of 1.4 in Walthamstow. The mortality from diphtheria and from "fever" showed no marked excess in any of the large towns. One fatal case of small-pox was registered in Nottingham and 1 in Sunderland, but not one in any other of the seventy-six large towns. The Metropolitan Asylums Hospitals contained 26 small-pox cases at the end of last week, this being also the number remaining under treatment at the end of each of the two preceding weeks; 4 new cases were admitted during the week, against 7, 4, and 6 in the three preceding weeks. The number of scarlet fever patients in these hospitals and in the London Fever Hospital, which had been 1,617, 1,632, and 1,659 on the three preceding Saturdays, had further increased to 1,660 on Saturday last, January 16th; 195 new cases were admitted during the week, against 142, 194, and 201 in the three preceding weeks.

MEDICAL NEWS.

ROYAL BRITISH NURSES' ASSOCIATION.—A special general meeting of this Association will be held at the rooms of the Medical Society of London, 11, Chandos Street, Cavendish Square, W., on Tuesday, February 2nd, 1904, at 4 p.m., for the purpose of considering the draft of a Bill upon the State registration of trained nurses, which will be submitted to the meeting; and any amendments that may be proposed thereon. The following resolution will be proposed: "That the draft Bill, as amended, be approved; and that the Executive Committee be directed to take such steps as they may think necessary to have it submitted to Parliament."

London School of Tropical Medicine.—Twenty-eight students have entered at the London School of Tropical Medicine for the session of three months which commenced on January 15th. In addition to these four students entered for a shorter course. Of the total number four are ladies.

Laryngological Society of London.—At the twelfth annual meeting of the Laryngological Society of London, which took place on January 15th, the following officers were elected for the ensuing year:—*President:* Dr. P. McBride. *Vice-Presidents:* Mr. Anthony Bowlby, Dr. Percy Kidd, Mr. Charters Symonds, and Dr. W. Milligan. *Honorary Treasurer:* Mr. W. R. H. Stewart. *Honorary Secretaries:* Dr. Furniss Potter and Mr. P. de Santi. Six members of Council were also elected. The same evening the annual dinner of the Society was held at Prince's Rooms, Piccadilly. There was a large attendance and several distinguished guests were present.

Royal London Ophthalmic Hospital.—This year is the centenary of the Royal London Ophthalmic Hospital, an institution which is widely known to medical men as the Moorfields Eye Hospital. By the sale of its old site in Moorfields it was enabled to rebuild and equip itself in the City Road a year or two ago, and it is now in every way what a modern ophthalmic hospital should be. Although, however, it has thus been able to make an excellent start in its quarters, it is found difficult to keep all the beds open, owing, amongst other things, to the heavy rates imposed upon the institution by the local authorities. In ground rent and rates it has to pay out over £2,000 a year; an appeal therefore is made for more support in this the hundredth year of its existence. The institution is too well known to most medical men to need much commendation, but we should wish to endorse the statement made about it by the Distribution Committee of the King's Hospital Fund in its report at the end of last year, to the effect that it is an institution which should receive all the support required.

MEDICAL VACANCIES.

This list of vacancies is compiled from our advertisement columns, where full particulars will be found. To ensure notice in this column advertisements must be received not later than the first post on Wednesday morning.

AYLESBURY: ROYAL BUCKINGHAMSHIRE HOSPITAL.—House-Surgeon; resident. Salary, £100, rising to £120 per annum.

BOURNEMOUTH: NATIONAL SANATORIUM FOR CONSUMPTION.—Resident Medical Officer. Salary, £50 from February 13th to June 30th.

BOURNEMOUTH: ROYAL VICTORIA HOSPITAL.—House-Surgeon; resident. Salary £100 per annum.

BRADFORD POOR-LAW UNION.—Assistant Medical Officer for Hospital and Workhouse; resident. Salary, £125 per annum.

CENTRAL LONDON OPHTHALMIC HOSPITAL, Gray's Inn Road, W.C.—Assistant Surgeon.

CITY OF LONDON HOSPITAL FOR DISEASES OF THE CHEST, Victoria Park, E.—Two House Physicians, resident. Salary at the rate of £30 per annum.

EXETER: ROYAL DEVON AND EXETER HOSPITAL.—Assistant House-Surgeon; resident. Salary, £60 per annum.

HOSPITAL FOR SICK CHILDREN, Great Ormond Street, W.C.—House-Surgeon; resident. Salary, 20 for six months.

LIVERPOOL: DAVID LEWIS NORTHERN HOSPITAL.—Assistant House-Surgeon resident. Salary, £70 per annum.

LONDON HOSPITAL, Whitechapel Road, E.—Two Senior Clinical Assistants (Aural).

MANCHESTER CORPORATION.—Fourth Medical Assistant at the Monsall Fever Hospital; resident. Salary, £400 per annum.

NATIONAL HOSPITAL FOR THE PARALYSED AND EPILEPTIC, Queen Square, W.C.—Registrar. Honorarium, £50 per annum.

NORTH RIDING INFIRMARY, Middlesbrough.—Assistant House-Surgeon; resident. Salary, £75 per annum.

ROYAL EAR HOSPITAL, Frith Street, W.—Honorary Assistant Anaesthetist.

ST. GEORGE'S UNION INFIRMARY, Fulham Road, S.W.—Second Assistant Medical Officer; resident. Salary, £70 per annum.

ST. PANCRAS AND NORTHERN DISPENSARY, Euston Road, N.W.—Honorary Surgeon.

WINCHESTER: ROYAL HANTS COUNTY INFIRMARY.—Honorary Surgeon-in-Ordinary.

YORK COUNTY HOSPITAL.—House-Physician; resident. Salary, £100 per annum.

MEDICAL APPOINTMENTS.

Beach, H. W., M.R.C.S., L.R.C.P., Medical Officer of Health to the Yarmouth Town Council.

Buckland Jones, H., M.B., M.Ch.Edin., Assistant Surgeon to the Metropolitan Ear, Nose, and Throat Hospital.

Coleridge, A., M.R.C.S., L.R.C.P., Senior Resident Medical Officer at the Mount Vernon Consumption Hospital, Hampstead, N.W.

Condell, A. P., M.D.Manitoba, Clinical Assistant to the Chelsea Hospital for Women.

Donald, C. W., M.B., F.R.C.S.Edin., Assistant Honorary Physician to the Cumberland Infirmary, Carlisle.

Dyer, Sidney R., M.D.Brux., M.R.C.S.Eng., L.R.C.P.Lond., D.P.H.Eng. Conjoint Board, Barrister-at-Law of the Middle Temple, Medical Officer, H.M. Prison, Dartmoor.

Evans, J. Howell, M.A., M.B., M.Ch., F.R.C.S., Registrar to the Chelsea Hospital for Women.

Forsyth, C. W., M.R.C.S., L.R.C.P., Resident Assistant Medical Officer of the Workhouse of the South Shields Union.

Goodwin, Robert, M.D., C.M.Manitoba, Clinical Assistant to the Chelsea Hospital for Women.

Grant, Lachlan, M.D., C.M.Edin., Medical Officer to the Ballachulish Quarries Medical Club, *vice* A. Dingwall Kennedy, M.B., Ch.B.Glasg., resigned.

Grey-Edwards, H., M.D., M.Ch.Dub., Honorary Ophthalmic Surgeon to the Carnarvonshire and Anglesey Infirmary, Bangor.

Hine, H., M.B., F.R.C.S., Medical Officer of the Infirmary and the Newark District of the Newark Union.

Jamieson, Sydney, M.B., Ch.M.Edin., Lecturer on Medical Jurisprudence at the University of Sydney., *vice* W. H. Goode, M.D.Dub., deceased.

Jenkins, A. W., M.B.Lond., M.R.C.S., District Medical Officer of the Hinckley

Jones, R. H., M.B., Ch.M.Melb., Honorary Assistant Ophthalmic Surgeon at th Hospital.

Lister, W. T., B.A., M.B., B.C., F.R.C.S., Assistant Surgeon to the Royal Ophthalmic Hospital, City Road, E.C.

Miller, A. C., M.D.Edin., Medical Officer to the Post Office for the For District.

Nix, R. E., M.B. B.C.Cantab., Medical Officer of Health to the Chatteris Urban Council.

Price, E. O., M.D.Edin., Honorary Medical Officer to the Carnarvonshire and Infirmary, Bangor.

Rose, Thomas, M.R.C.S., L.R.C.P., Resident Medical Officer to the Chelsea Ho Women.

Waugh, Alec, M.B., C.M.Glasg., Medical Officer and Public Vaccinator, Ski trict, Skipton Union, *vice* G. E. Fisher, L.R.C.P.I., L.M. & L.R.C.S.I., resign

Weir, G. W., M.D., M.Ch., R.U.I., D.P.H.Camb., Medical Officer of the Work the South Shields Union.

Derbyshire Royal Infirmary.—The following appointments have been ma House-Surgeon.—Basil M. Wilson, M.B.Vict., *vice* Ernest Wethered, M.B. House-Physician.—Rupert Butterworth, M.B.Cantab., *vice* F. Bryan, M.B. House-Surgeon No. 2.—Ernest Bennett, M.B.Glasg., *vice* C. M. Hope, M.B. Assistant House-Surgeon.—Percy Hardy, M.R.C.S., L.R.C.P., *vice* Ruper worth, M.B.Cantab.

DIARY FOR NEXT WEEK.

MONDAY.

Medical Society of London, 11, Chandos Street, Cavendish Square, W —Dr. M. Handfield-Jones will open a discussion on Pelvic Lesions in Relation minal Diagnosis.

Odontological Society of Great Britain, 20, Hanover Square, W., Casual communications by Mr. Sefton Sewill. Paper by Mr. F. J. Bennett.

TUESDAY.

Royal Medical and Chirurgical Society, 20, Hanover Square, W., 8. Mr. B. G. A. Moynihan: Hour-glass Stomach. With Demonstrations Epidiascope.

WEDNESDAY.

Hunterian Society, London Institution, Finsbury Circus, E.C., 8.30 p.m. logical Evening. Exhibition of Specimens.

THURSDAY.

Ophthalmological Society of the United Kingdom, 11, Chando W., 8 p.m.—Cases, etc., by Messrs. G. W. Thompson, E. T. Collins, G. W. R Taylor, and Drs. L. Werner and D. Mowat. 8.30 p.m.—Papers:—Mr. W. H. Cases of Ptosis. Mr. G. Brooksbank-James: A Plan of Treatment in some Asthenopia. Mr. W. M. Beaumont: The Eye Symptoms of Rheumatoid A with a Special Reference to the Field of Vision. Major Maynard and Dr. Rogers: Pulsating Exophthalmos due to Dilatation and Dropsy of the Opt Accompanying Internal Hydrocephalus. Mr. J. R. Lunn: Notes of a case culosis of the Choroid.

FRIDAY.

British Laryngological, Rhinological and Otological Assoc 11, Chandos Street, Cavendish Square, W., 4 p.m.—Mr. Mayo Collier wil Communication and show Cases. Cases will also be shown by Mr. Kelson, D Wingrave, Dr. A. Wylie, and Mr. Stuart-Low. The President will deliver hi Address.

POST-GRADUATE COURSES AND LECTURES,

Charing Cross Hospital, Thursday, 4 p.m.—Demonstration of Medical Cases.

Hospital for Consumption and Diseases of the Chest, Brompton, Wednesday, Lecture on Foreign Bodies in the Bronchi.

Hospital for Sick Children, Great Ormond Street, W.C., Thursday, 4 p.m.—Le the Significance of some Common Symptoms in Diseases of Children.

London Temperance Hospital, Hampstead Road, N.W., Wednesday, 4 p.m.—Le Diseases of the Stomach.

Medical Graduates' College and Polyclinic, 22, Chenies Street, W.C.—Demons will be given at 4 p.m. as follows: Monday, Skin; Tuesday, Medical; We Surgical; Thursday, Surgical; Friday, Throat. Lectures will be delivered at as follows: Monday, Chronic Intestinal Obstruction; Tuesday, Primary A Wednesday, Infant Feeding; Thursday, Operations for Cancer of the Ton Naso-labial Regions.

Mount Vernon Hospital for Consumption and Diseases of the Chest, 7, Fitzroy W., Thursday, 5 p.m.—Lecture on Fibrosis of the Lungs.

National Hospital for the Paralysed and Epileptic, Queen Square, W.C.—Lect be delivered at 3.30 p.m. as follows: Tuesday, Family and Hereditary Friday, Epilepsy.

North-East London Post-Graduate College, Tottenham, N., Thursday, 4.30 p.m.— on Abdominal Surgery.

Post-Graduate College, West London Hospital, Hammersmith Road, W.—Lect be delivered at 5 p.m. as follows: Monday, Practical Surgery; Tuesday, Pl paris Splints; Wednesday, Practical Medicine; Thursday, Dental Caries, its and Treatment; Friday, Plaster-of-paris Splints.

Samaritan Free Hospital for Women, Marylebone Road, N.W., Thursday, 3 p.m.— on Metrorrhagia.

BIRTHS, MARRIAGES, AND DEATHS.

The charge for inserting announcements of Births, Marriages, and D 3s. 6d., which sum should be forwarded in post-office orders or sta the notice not later than Wednesday morning, in order to ensure ins the current issue.

BIRTHS.

Byers.—On January 17th, 1904, at Wilmslow, Cheshire, the wife of Alfred Byer of a son.

Gale.—On January 8th, 1904, at "Manorgate," Kingston Hill, Surrey, to Arth M.R.C.S., L.R.C.P., and Ursula Gale—a son.

Newton.—On January 13th, at Brookhill, Sheffield, the wife of Duncan Gray M.B., C.M., of a daughter.

Williams.—On January 19th, at Bryn Derw, Penarth, the wife of W. William M.D., County Medical Officer, of a son.

MARRIAGES.

Swales—Pentin.—On January 20th, at St. James's Church, West Derby, Live the Rev. G. Fred Wills, Vicar of Up-Holland, near Wigan, Edward Swales, L.R.C.P.Lond., to Florence Booth, third daughter of the late F. J. Pentin, pool.

Whyte—Howden.—At Roselea, Falkirk, on January 12th, by the Rev. Alex. M.A., Dr. Charles A. Whyte, to Mary Ritchie, daughter of James Howden, No cards.

Wilson—Twiss.—At St. James's Church, Birkdale, Lancashire, on January 18th Rev. R. Stephenson, M.A., Vicar, Roger Parker, Captain, Indian Medical third son of the late William Wilson, of Walton Priory, Liverpool, and of Mrs Birkdale, to Elsie Dora, youngest daughter of the late Walter Twiss, of House, Withington, Manchester, and of Mrs. Twiss, Southport.

DEATH.

Hunter.—On December 28th, at his residence, 146, Lavender Hill, S.W., after illness, Frederick Hunter, M.R.C.S., L.R.C.P., etc., the loving and dearly husband of Caroline Ida Hunter. Deeply regretted. Sadly missed.

LETTERS, NOTES, AND ANSWERS TO CORRESPONDENTS.

MMUNICATIONS respecting Editorial matters should be addressed to the Editor, 2, Agar treet, Strand, W.C., London; those concerning business matters, advertisements, non-elivery of the JOURNAL, etc., should be addressed to the Manager, at the Office, 429, trand, W.C., London.

IGINAL ARTICLES and LETTERS *forwarded for publication are understood to be fered to the* BRITISH MEDICAL JOURNAL *alone, unless the contrary be stated.*

THORS desiring reprints of their articles published in the BRITISH MEDICAL JOURNAL re requested to communicate with the Manager, 429, Strand, W.C., on receipt of proof.

RRESPONDENTS who wish notice to be taken of their communications should authenti-ate them with their names—of course not necessarily for publication.

RRESPONDENTS not answered are requested to look at the Notices to Correspondent f the following week.

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order to avoid delay, it is particularly requested that ALL letters on the editorial busi-ess of the JOURNAL be addressed to the Editor at the Office of the JOURNAL, and not t his private house.

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☞ *Queries, answers, and communications relating to subjects to which specia artments of the* BRITISH MEDICAL JOURNAL *are devoted will be found der their respective headings.*

QUERIES.

EMBER would be glad of information as to the prevalence of phthisis mong the Jewish population in East London.

L. P. asks to be referred to records of recovery from, or arrest of, uberculosis of the kidney.

EED asks for information as to Montana, U.S.A., as a resort for a man f 50 who has suffered from malaria.

THE PAROXYSMAL COUGH OF INFLUENZA.

STICUS asks for advice as to the treatment of the paroxysmal hacking ough of influenza, with scanty tough secretion. The cough is quite ut of proportion to the pathological condition. The temperature is ot elevated, and there are only a few *rdles* present. Expectorants and edatives have been tried in vain.

TREATMENT OF COCCYDYNIA.

D. asks for suggestions for the treatment of "coccydynia" in an fficer who has been home from India for six months and has had euralgia of the coccyx, varying in intensity ever since. The slightest ctive exercise beyond walking is impossible. He is 40 years of age, bstemious, and has always lived an active, energetic life. There is no raumatic history, and he is perfectly healthy except for this neuralgia."

THE CLIMATE OF JAVA.

X asks for particulars as to the climate of Java. Would a young nglish lady be likely to reside there for three years without suffering health? Has the land active volcanoes?

*** The climate of Java on the coast is hot and damp, and in many laces highly malarious. The interior, especially in the highlands, ossesses an excellent climate, where an English lady could with rdinary care be as healthy as in her own country. Java is volcanic nd has several active volcanoes.

ANASTOMOSIS OF NERVES IN FACIAL PARALYSIS.

RTH writes to ask if anything in the way of operation can be done to nprove the condition of facial paralysis of a girl aged 7, which was rst noticed soon after an operation for mastoid disease when 9 months ld.

*** After this interval of time it is probable that nothing, or nothing f any value, could be accomplished. But if there is any remaining action to galvanism in the muscles on the paralysed side the question the anastomosis of nerves might be considered; as for example the nastomosis of the peripheral end of the divided facial nerve with the ntral end of the divided spinal accessory or hypoglossal nerve. At the st the movement restored would be only in association with the ovement of other muscles, but there might be gained an improvement the symmetry of the face while at rest. A paper on the subject the BRITISH MEDICAL JOURNAL of May 2nd, 1903, p. 1099) by r. C. A. Ballance, Mr. H. A. Ballance, and Dr. J. P. Stewart, might consulted.

HOUSE DUTY ON STABLES.

V. V. writes: For the past five years I have occupied a house with ntal of £65 per annum; on this I have each year paid a house duty of x 9s. I have also a stable situated about three-quarters of a mile off—a different parish. On this stable during these five years I have not en required to pay house duty. For it I pay a rent of £13 per annum. ow this year I have received a demand note for house duty of £3, the per stating that this "includes stable." Now, I cannot see how this gure is arrived at. For my private house the duty on £65 at 9d. would £2 8s. 9d., leaving 11s. 3d. duty on stable, and this would mean a rate 10½d. on the £13 rent of stable. The surveyor, on my asking him r an explanation states that "this year, being a new quinquennial sessment, the house and stable were charged in one assessment." is may explain why the duty on the house has been raised from 9s. to £2 8s. 9d., but it does not show why the stable is now charged a rate higher than that for the house. Can you kindly inform me whether a stable—not inhabited, except by the horse, and not in nnexion with a dwelling house—should be charged inhabited house ity; (2) if it should be so charged, can the duty be fixed on a higher ale per £1 rental than the duty on a dwelling house?

*** By the House Tax Act, 1808, Schedule B., Rule 1, "every ..... stable ... belonging to and occupied with any dwelling house, shall in charging the duties be valued together with such dwelling house." Whether the stable referred to can be said to belong to and be occupied with the house is a question to which a definite answer cannot be given without a fuller knowledge of the facts of the particular case. It may, however, be said that while the distance of the stable from the house tends to show that the former is not occupied with the latter within the meaning of the above-quoted rule, yet this is not conclusive, for if the stable is rented from the same landlord as the house, and used in the ordinary way as an adjunct of the house, it may be within the charging section. Our correspondent should see the surveyor, lay the full facts before him, and ask him to have the premises inspected. With regard to the second point raised, V. V. V. is clearly under a misapprehension. The rates of inhabited house duty are 3d., 6d., and 9d. respectively, according as the annual value of the premises liable is between £20 and £40, £40 and £60, or exceeds £60. In this case the Commissioners have valued the house and the stable at £80, and have charged duty at 9d. in the pound on such value. If the rent is £75 for the house and £13 for the stable, V. V. V. is fortunate in not having been charged duty on the total rent paid by him, namely, £88 at 9d.

ANSWERS.

A CORRESPONDENT.—An obituary notice of the late Dr. R. J. Cunynghame Blair was published in the BRITISH MEDICAL JOURNAL of January 2nd, p. 52.

A CASE FOR DIAGNOSIS.

DR. G. A. FERRABY (Nottingham) writes in reply to "A Young Practitioner," to suggest that more probably there was chronic renal disease with its accompanying passive haemorrhages from the gastro-intestinal mucous membrane and uraemic convulsions as the final scene.

BRESLAU'S TEST.

P.N.—"Breslau's test" is another name for the "stomach-bowel" test. In the absence of artificial inflation or putrefaction, if the stomach and intestine contain air, and therefore when removed from the body float in water, there is strong probability that the child was not only born alive, but also that it did not die immediately after birth.

DIET IN PHOSPHATURIA.

WITH reference to the reply published under this head in the BRITISH MEDICAL JOURNAL of January 9th, p. 115, "Calculus" sends some further particulars, and asks for suggestions as to suitable beverages. From the additional information supplied to us we learn that the calculi, of which two have been passed during the last six months, consisted of calcium oxalate with a coating of phosphates, and at the present time the urine contains a large amount of mucus with pus and red corpuscles. Nothing is said about the presence of phosphates or of any crystals, even oxalates, so we are left to infer their absence. We should interpret this urine report to mean that there is still a good deal of unexplained cystitis. Is there another calculus in the bladder, or may it be attributed to the last and the consequent operative proceedings? A table water suitable for such cases is Contrexéville (Pavillon) water, of which not less than a bottle should be taken daily.

TREATMENT OF OBSTINATE SCABIES.

DR. ARTHUR THOMSON (Stratford-on-Avon) in reply to "F. Q." writes: Probably two years' active treatment has induced severe dermatitis, and the line of treatment, if this is the case, should be to treat the skin inflammation primarily. Lanoline and vaseline, equal parts, with half a drachm of balsam of Peru to be constantly applied to all affected surfaces, with calcium sulphide pills in full doses might be of service if continued for a month. No soap to be used, and oatmeal water alone to be mopped on for cleansing purposes. The difficulty in such a case would usually be to succeed in carrying out any one line of action for a lengthy period.

LIEUT.-COLONEL T. ROBINSON, M.B. (Clonakilty), writes: I think "F. Q.'s patient would derive benefit from the following: ℞ Caustic lime 1b.j,' rock sulphur ʒviij, water O.iv (four pints). Pound the sulphur in a mortar. Put the lime in a clean saucepan with the water; add the sulphur and let it simmer—not boil—until it becomes of a deep gold colour. Strain off into bottles when cool; keep well corked. Apply a good coating from head to foot, let it dry. Put patient to bed and give him (in this case her) next morning a piece of plain soap and plenty of hot water.

NOTES, LETTERS, Etc.

MEDICAL MISSIONARIES.

WE have received from "Temperantia In Omnibus Rebus," who is in a very distant part of the world, a letter on this subject, which is too long for publication. It is in answer to the criticisms which his first letter (September 19th, 1903) evoked, especially to those which were conveyed in a letter from Belfast. The following summary conveys its main points. The object of his original letter was not to detail his personal experiences, which he believes were exceptional though not unique, nor was he so disappointed as not to offer himself for work under another society as soon as he arrived home. He was certainly not, however, content, for he was forbidden to do evangelistic work, and had to satisfy himself with practice. What he desired in his letter was to draw attention to certain points in which he thinks reforms are required. Amongst these is that more use should be made of the opportunities afforded by the mission hospitals for evangelizing work. The medical missionary's first duty is his professional work, and he rarely has time to use his missionary opportunities to the full, and in any case his efforts should be supplemented by the regular and consolidating work and teaching of the pure cleric, who at present lets the opportunities afforded by the hospitals slip by. The medical missionary should not only be not indifferent to mission work, as some are; nor merely "in sympathy" with it as are others, but anxious to evangelize himself; nevertheless, his work should always supplement and not replace that of the cleric. For pioneer work it is better that the missionary should

be unmarried, but not when he comes to settle down in a town. It is not always possible, but as far as may be the medical missionary should confine himself to the work of the mission alone. If, however, he does visit non-native patients he should be allowed to dispose of the fees as he pleases; rich natives he should also be allowed to charge but pay over the fees to the mission. Finally, the salary question is of importance, though the writer did not intend it to figure as the pre-eminent one in his last letter. At present some missionaries are enabled to live in luxury while others live in poverty and neither condition is compatible with effective work. The proper way would be to pay a uniform salary all round and, although there are some differences in the necessary expenses of different places, probably an all-round salary of £250 and a house would enable all to live in that condition which, being one neither of poverty nor of luxury, would best make for efficiency. Finally, he suggests that members of the British Medical Association should form among themselves a society for sending out medical missionaries.

FORCIBLE DILATATION OF THE CERVIX IN "ACCOUCHEMENT FORCÉ."

DR. ALEXANDER DUKE (London) writes: Having read the interesting paper on this subject by Dr. Munro Kerr in the BRITISH MEDICAL JOURNAL of January 9th, I could not help thinking that surely something could be done in the way of some local application to the os and cervix before using Bossi's dilator, which at first sight would appear more like a veterinary surgeon's instrument. Belladonna locally applied has been found useful in cases of rigid os, and of late cocaine solution, 10 per cent, has given good results in such cases, producing (or at least assisting) in a marked manner dilatation of the os. Why should not this valuable help be tried in cases of eclampsia before using the brutal-looking dilator, which by its too rapid action sometimes makes "the cure worse than the disease," and is certainly very different from Nature's plan of dilatation? A 10 per cent. solution of cocaine applied on a tampon to os and cervix for five minutes would, I should think, be found of value in these anxious cases, and, if it fail, the patient is no worse off, as the sedative effect alone on the parts concerned should facilitate introduction, more especially if the uterus were supported from above, and not held down forcibly with volsellum, allowing no "play" for that organ during the introduction and expansion of the blades.

DOCTORS V. BARRISTERS AND SOLICITORS.

DR. ROBERT R. RENTOUL (Liverpool) writes: I have often wondered why medicals are such fools in giving so much service for nothing, and in accepting as a working basis the idea that it is better "to throw a sprat to catch a mackerel" than to act in an honest business-like way. The above views are revived by studying the Midwives Act, in which no provision whatsoever has been made for paying medicals called in, and by looking into the Poor Prisoners' Defence Act, 1903, in which Parliament has enacted as follows: Section 1 (1) "When it appears, having regard to the nature of the defence set up by any poor prisoner.....that it is desirable in the interests of justice that he should have legal aid in the preparation and conduct of his defence, and that his means are insufficient to enable him to obtain such aid," the justices or the judge or the chairman of quarter sessions "may certify that the prisoner ought to have such legal aid; and thereupon the prisoner shall be entitled to have solicitor and counsel assigned to him." Under the above Act the Secretary of State has issued the following rules: Solicitor's fee from £2 2s. to £5, travelling expenses (for self and clerk); counsel's fee £1 3s. 6d. to £3 5s. 6d.

Now, Sir, we must admire our legal brethren for having such an Act passed. Each year the legal profession is making itself more and more felt in public importance, while the doctors—well, they can sue persons for using certain medical "titles" and allow a Medical Act to pass without a single proviso such as in the Poor Prisoners' Defence Act. It has been stated that about £1,000,000 per annum will be required to cover the fees under this Act. The Act and the rules made under it can be had from Messrs. Eyre and Spottiswoode, East Harding Street, London, E.C., price 1½d. Let every medical obtain a copy and make a close study of it. Then perhaps—I use the word perhaps—they will lay aside their petty jealousies, in tongue and backbiting, and work as men entitled to payment for services. Doctors evidently prefer "to take their licking lying down."

CANCER IN IRELAND: AN ECONOMICAL QUESTION.

WE have received a letter from Lieutenant-Colonel Hill-Climo as to a note relative to his article on this subject in the *Empire Review*, which appeared in the BRITISH MEDICAL JOURNAL of December 12th, 1903. In this letter he protesis against our "trades-union attempt to prevent discussion of a question of public interest, because it is medical, in a lay magazine." If Dr. Hill-Climo will do us the honour to read again what we said he will find that he has missed the point. We pointed out the undesirability of first broaching important medical propositions in lay journals in which they could not conveniently be subjected to skilled criticism, and the still greater undesirability of advancing theories in any journal without supplying substantial facts in their favour. We see no reason for modifying this criticism, and as Dr. Hill-Climo contents himself with a bare protest, without giving any reasons, the matter must rest there.

THE STAGE OF INVASION OF MEASLES.

DR. F. P. ATKINSON (Bexhill-on-Sea) writes: I cannot say my experience coincides with that of Dr. Marsden (BRITISH MEDICAL JOURNAL, December 26th, 1903, p. 1631). During an epidemic which occurred in Surbiton in 1898 I tried to stop the spread of the disease in one family by very early isolation of the infected individual. At the same time the other children were kept under daily observation, and I found that for a fortnight at least prior to the appearance of the influenza symptoms, although they seemed perfectly well and had good appetites, the temperature persistently remained at 97°. It, however, at once began to rise when the running of the eyes and nose commenced.

A WARNING TO MEDICAL MEN APPLYING FOR SHIPS' SURGEONCIES.

LATE SHIP'S SURGEON writes: I was engaged at the nominal salary of £6 a month through an agent who introduced me to a shipping firm's superintendent, and they both stated that the voyage would be for six months. I unfortunately signed the ship's articles without putting in a special clause, trusting to the statements made to me at the time of engagement. I was kept at sea nearly a year, and I might possibly have been detained two years, but luckily the steamer was ordered bac England. I was refused permission to leave at the end of six mo by the captain on any other condition than that I found a stitute, which was impossible. I was told by the shipping firm wh returned that they entirely ignored any responsibility in the matte

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BOOKS, ETC., RECEIVED.

Hygiene und Seuchenbekämpfung. Gesammelte Abhandlungen von Dr. Martin Kirchner. Berlin: Richard Schoetz. 1904 M.18

How to Keep Well. By Floyd M. Crandall, M.D. London: Grant Richards. 1904. 6s.

A Non-surgical Treatise on Diseases of the Prostate Gland and Adnexa. By George Whitfield Overall. A.B., M.D. Chicago: Rowe Publishing Co. 2 dol.

Elementary Dispensing Practice. By Joseph Ince, F.C.S., F.L.S., F.R.M.S. London: "Chemist and Druggist" Offices. 1903. 3s 6d.

Tuberculöse Arbeiten aus dem kaiserlichen Gesundheitsamte. Heft I. Berlin: Julius Springer. 1904

Moderne ärztliche Bibliothek. Heft I. Die wissenschaftlichen Grundlagen der Kryoskopie in ihrer klinischen Anwendung. Von Professor Dr. A. von Korányi. Berlin: Leonhard Simion Nf. 1904 M.1.

Energetik und Medizin. Von Professor Dr. O. Rosenbach. Berlin: August Hirschwa'd. 1904. M.2.80

Die chirurgischen Untersuchungsarten. Einführende Vorlesungen über allgemeine chirurgische Diagnostik Von Dr Otto Manz, I. Teil. Jena: Gustav Fischer. 1904. M.6.

Hazell's Annual for 1904 Edited by Palmer, B.A.Lond. London: Ha Watson and Viney, Limited. 3s 6d.

Transactions of the Association of A can Physicians. Eighteenth se held at Washington, D.C., May 13th, and 14th, 1903. Vol. xviii. P delphia: Association of American sicians. 1903

Transactions of the Southern Surgica Gynecological Association. Vol. Fifteenth session held at Cincin Ohio, November 11th, 13th, and 1902 Edited by W. D. Haggard, Philadelphia: Southern Surgical Gynecological Association. 1903.

Aids to Surgery. By Joseph Cunning, B.S., F.R.C.S.Eng London: Bail Tindall and Cox 1904. 4s. 6d.

The Englishwoman's Year Book and D tory, 1904. Edited by Emily J Twenty-fourth year. London: A and Charles Black, 1904 2s. 6d.

On Movable or Dropped Kidney: its tion to Diseases of the Nervous Sy (second paper) By C. W. Suc M.D Lond., M.R.C.P. London: Lewis. 1903 1s

Manuel Pratique d'Hygiène. Par Guiraud. Troisième edition. Par Steinheil. 1904. Fr.12.

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Observations
ON
SUPRAPUBIC PROSTATECTOMY.

By SIR THORNLEY STOKER, M.D., F.R.C.S.I.,
President of the Royal Academy of Medicine in Ireland; Surgeon, Richmond Hospital, Dublin.

The performance of suprapubic prostatectomy is of such comparatively recent origin, and is as yet so much in course of development, that I have an apology for recording the small number of three cases. I do so because every example of an operation of such magnitude is an item of some value. Besides, although I have done but three prostatectomies by this route, I have performed a large number of suprapubic cystotomies for bladder diseases, and the treatment of the bladder after every suprapubic opening is a matter of importance, as one in which so much is learned by experience, that I wish to describe not only the method I have followed in dealing with the prostate gland itself, but also the points of interest in the treatment of the wound and the bladder during and subsequent to operation. The mere removal of the gland is usually a more easy and simple matter than the after-treatment of the case. I have had the advantage of assisting Sir William Thomson at most of his prostatectomies and have added to my experience in that way. The description of his technique by a surgeon may be interesting to his colleagues, and I offer mine with every respect, knowing how much my own surgical work I have been helped by a practical account of details.

When the bladder and the urine are healthy and when the injury in operating is as slight as possible it is of great advantage to get the patient into a better condition by the use of a white diet, by washing, and by the use of such other measures or drugs as may appeal to individual surgeons.

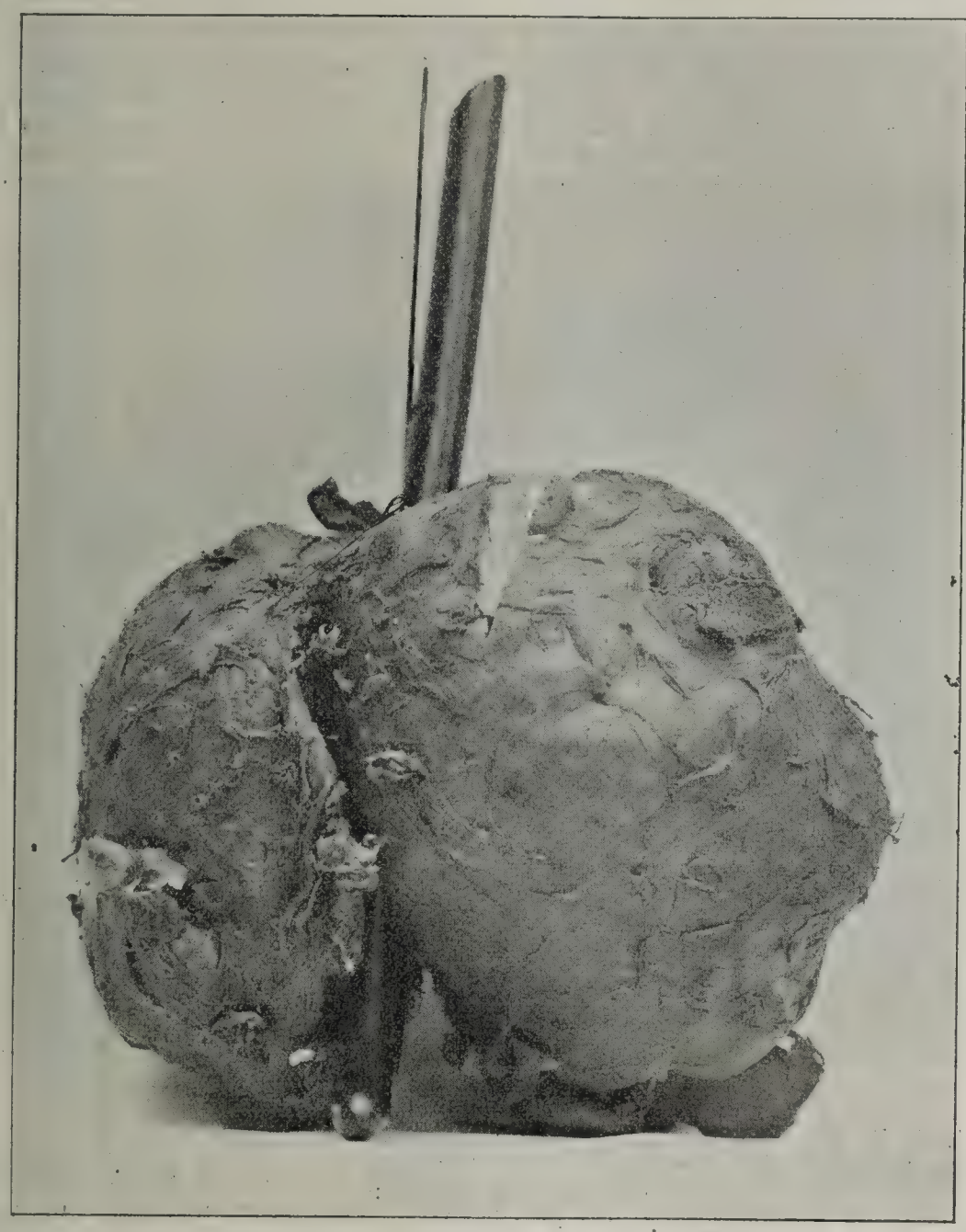


Fig. 1.

I propose to speak first of the removal of the prostate when the bladder has been opened, and afterwards of the method of opening the bladder and the treatment of the parts subsequently. The two latter matters are common to all suprapubic cystotomies and hang naturally together.

When the bladder has been opened, the operator standing on the left of the patient, the prostate should be thoroughly examined with the index finger of the right hand in the rectum, assisted by the left index or the left index and middle fingers if necessary in the rectum; great care should previously have been given to the cleansing of the rectum, owing to the necessity of having at least one finger in it during most of the time occupied in enucleating the prostate as cleanness cannot be achieved without the use of a rubber glove for the rectum, and this lessens the delicacy of manipulation.

During this examination the surgeon must determine whether one or both sides of the gland require removal, and whether some myomatous outgrowth may not have been the cause of obstruction and its removal suffice to open the passage for urine. If the prostate itself is essentially enlarged, or if a nodular condition of the gland due to separate capsulated tumours of an adenomatous or a myomatous nature exist, the entire gland should be removed. If any partial operation be done in such cases, a fresh development of some of these tumours is likely to occur later on and produce fresh obstruction. In one of my cases the obstruction to the urine, which was complete and acute, was not due to the general enlargement of the gland but to a projecting nodule not much larger than a pea; the gland itself was full of such small tumours, and had it been left behind there is no doubt that sooner or later a fresh obstruction would have taken place either from the growth of such a nodule or from the general gland hypertrophy. When this latter condition exists, I believe it always produces obstruction by lateral approximation of the lobes of the gland towards the middle line so as to press one against the other. The so-called middle lobe I do not believe in, and I think that the outgrowth of a separate adenoma or myoma is what has been so christened.

When the prostate has been thoroughly examined the left index, washed after its removal from the rectum, is placed in the bladder and used as a guide for a pair of blunt-ended scissors, which should be used to snip through the floor of the bladder and capsules of the gland, on one side of the middle line in an antero-posterior direction. This incision should be made over the most projecting part of the larger of the two lobes. It may be found that the whole gland can be delivered through one incision, but if the lobe first incised comes away without its fellow, a second and similar cut can be made on the other side and the remaining lobe disencapsuled. I think it is of the utmost importance to make the incision of sufficient depth, not merely seeking to divide the bladder wall and fascial capsule of the prostate, but to cut for a short distance through its proper capsule into the gland substance. If it be merely sought to expose the gland without injury to its substance, the operator cannot be certain whether he has thoroughly divided its coverings so as to render its enucleation easy. I hold strongly—and have formed the opinion as the result of anatomical as well as surgical observation—that the safest and most easy way to be sure that you are within the capsule of pelvic fascia, and in a region where enucleation can be safely and rapidly effected, is to snip with your scissors into the substance of the prostate.

The incision I have been speaking of need not be more

than 1 in. in length, enough to admit the end of a finger easily; any increase of its size can be effected by tearing with the point of the finger. It will be found after the removal of a large prostate has been effected that the incision or rent in the bladder wall has contracted to a very small size. The scissors are then withdrawn, the left index, with the middle finger if required, again placed in the rectum, and the right in the bladder. The process of enucleation is effected as rapidly as possible, the left fingers being used for counter-pressure and for the protection of the rectal wall from perforation or other injury. In one case I enucleated a prostate weighing 4½ oz. in ten minutes. I have seen much difficulty experienced in enucleating a sclerosed prostate, but in most cases ten to twenty minutes suffice for this stage of the operation.

The question of attempting to conserve the prostatic urethra generally settles itself. The urethra may be so glued to the gland that it separates with it, and comes away attached to the prostatic substance. The prostatic urethra may come away with a soft and easily disencapsuled prostate, and, on the other hand, may remain intact in a case of old and hard hypertrophy. Records seem to show that cases do just as well in which the prostratic urethra has been removed as those in which it has been preserved. Inasmuch as the chief source of haemorrhage in this operation is from veins between the bladder and fascial capsule or between the fascial capsule and the true capsule of the gland, we find another reason for getting well into the gland so as to avoid extensive injury to them.

When the prostate has been removed, the bladder should be irrigated with hot water to remove clots and check any oozing which may be present. As a rule, haemorrhage gives no trouble, but if it should occur subsequently to a grave extent a repetition of the irrigating process will usually stop it, and it is in view of this being necessary that one reason is found for leaving the bladder and abdominal wound as open as possible. In this context it may be remarked that the bladder generally contains a good deal of clotted blood for two or three days subsequent to operation, and it is by no means desirable to be too diligent in removing it. Its presence seals the large veins about the prostatic area, and limits both the tendency to bleeding and to septic absorption, so that it is not well to make much effort to remove clots. The urine has a rapid disintegrating effect on them, and they are soon got rid of without effort. I seldom use more than the most gentle syringing of the bladder through the wound for some days after a suprapubic operation. When more energetic washing is called for, it is best effected by injecting boric lotion through a catheter introduced by the urethra, and allowing it to discharge through the abdominal wound.

I now pass to the method of opening the bladder above the pubes. The viscus should be thoroughly washed out, and about 4 to 8 oz. of warm boric lotion allowed, if possible, to remain in it. But even if its contracted state forbids this moderate distension, there should be no difficulty in finding it when the parietal incision has been made. For many years I have abandoned the use of Petersen's bag, as it is both unnecessary and a source of danger by the strain it puts on an unhealthy bladder. The parietal incision requires to be fr 3 to 4 in. long, according to the thickness of the abdomi wall, and should extend to within ½ in. of the symphys Once the skin and the musculo-tendinous structures divided, no more use need be made of the scalpel except pierce the bladder wall; all the tissues may be got out of t field and the bladder exposed by scratching with a half-blu instrument, such as the point of Greig Smith's scissors. T peritoneal pouch seldom gives trouble, even when the blad is contracted, and can readily be held up by the finger of t assistant or by a small retractor. The bladder is best open by puncturing with a small scalpel, and passing into the op ing the blades of Greig Smith's scissors. If these blades then separated in a vertical direction, they may be used tear the opening in the bladder to any necessary size, a while doing so to lift it to the surface, so as to enable t operator to insert his finger. If the opening requires furth enlargement, or is difficult to tear, owing to hypertrophy the bladder coats, it can be increased in size by snipping w scissors

I then take a piece of thick silk which at each end threaded into the eye of a large fully-curved needle; t point of one needle is passed into the bladder and, guid by the left index, made to pass forwa through the blad wall on one side the incision, at upper end and ab ½ in. from its ed and then through the tissues of the dominal wall anter to the peritoneum cept the skin. T proceeding is th repeated with second needle on opposite side; further use of t suture is made ur the intravesical p tion of the ope tion has been co pleted.

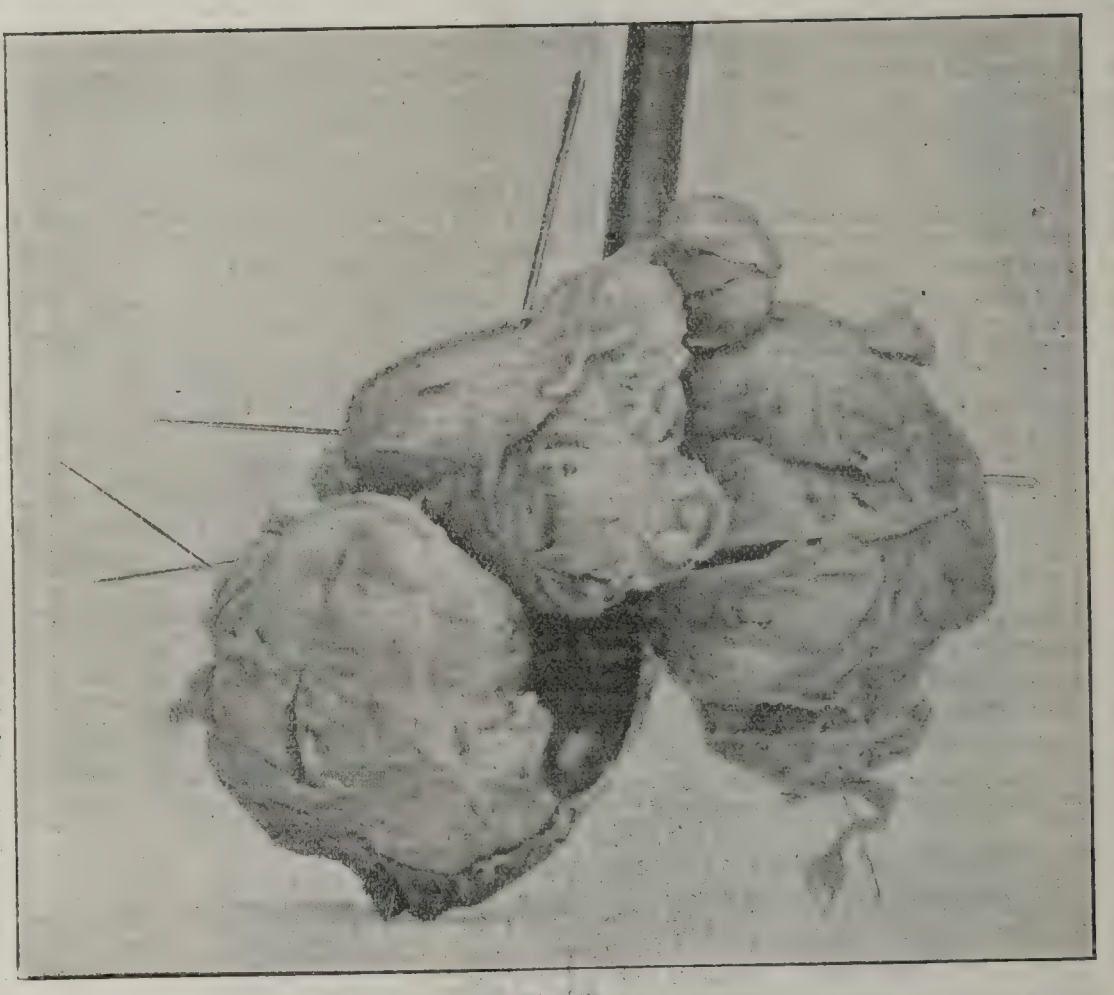


Fig. 2.

When the ope tion is ended and bladder has b irrigated the sut should be tied, tightly but with j enough force to proximate the posed surfaces of subcutaneous p tions of the tiss at the upper end the wound. should be tied wit bow and the e left long so t it may be loosened if necessary. As it does not incl the skin it causes no pain. The uses of this suture ar follows:

1. By drawing the bladder and sides of the parietal incis together it effectually prevents any prolapse of the p toneal sac.

2. It keeps the opening in the bladder accessible, so tha tube can readily be introduced and washing easily and sa performed if called for.

3. It prevents undue contraction of the bladder towards floor, and provides space for the collection of a small amo of urine, so helping to limit the overflow, which at times the patient and causes trouble.

4. By fixing the bladder to the upper end of the wound, keeping the peritoneal pouch above the area, it prevents chance of the cicatrix being afterwards subjected to b pressure and becoming hernial; and it leaves a cicatri such a position and under such conditions that it ma necessary at any time in future, be safely incised for ac to the bladder.

The suture may be removed on the fourth or fifth when lymph exudation will have cemented the parts, and n the treatment of the wound a comparatively simple matt

performing a suprapubic cystotomy the endeavour ild be to form a wound with its apex at the bladder and ase at the skin surface. It ought not, as a rule, be closed utured in any way, except by the solitary suture I have ribed. In cases where, owing to the presence of a large unt of fat, the incision through the superficial tissues has extended much upwards, a single suture of silkworm may be introduced towards the superior end of the nd. Attempt to suture the bladder or parietal incision ot only useless but is injurious, and helps to cause infilion of urine.

nce I have adopted this method I have had entire dom from the infiltration of urine, which so often gives ble in the tissues of the abdominal wall or pelvis, proing suppuration and sloughing. Nor have I seen any ble from the phosphatic concretions which may cause so h suffering and delay in the process of healing.

hen the operation of cystotomy has been completed a per drainage tube of large size is introduced: it should nd from the surface level into the bladder, but not ch its floor, as if it does it will cause pain resembling produced by vesical calculus. It should be attached at surface by a rectangular glass bend to a lighter tube, ch is passed over side of the bed a receptacle for ne. The wound be loosely packed h gauze, not for purpose of occluding it, but in order ct as a conductor rine and prevent ltration.

covering of celuse wadding and linder loosely apld, will, after the lder clots have e away, suffice keep the patient the bed dry and vent much suffern

ne wound when r ted in this way ls in from three our weeks, leaving rrow cicatrix.

CASE I.

O'B., aged 60, a er, of medium re, in spare muscucondition, was aded to the Richmond ital on the recomdation of Dr. Robert ghton, of Ballyshanon October 6th, .

o years previously ead suffered from frequency of urination for a few weeks. The k passed off without any stoppage of water, and he remed in good health until five weeks before his admission to hos., when he was suddenly seized with complete retention, and up e date of operation was unable to empty his bladder except with a ter. When he came under observation his urine was slightly line, contained a little pus and some consequent albumen, and had cific gravity of 1020. His prostate examined by the rectum revealed derate general enlargement of the gland, most marked on the left a No. 11 (E) catheter was readily introduced.

patment by systematic catheterization, by sodium benzoate, and a diet was used, and, his urine having become acid, the prostate removed on October 15th.

e details of the operation and subsequent treatment were in this he following cases essentially those already detailed.

covery was uneventful. A little vesical bleeding took place some en hours after operation, and was checked by the introduction of alin solution. The temperature was never very high, and was ically normal after the ninth day. On November 3rd—the ninech day—water was passed per urethram, and from this on the drainube was only used at night.

November 12th (the twenty-eighth day) the man was allowed out l into an armchair, and from this the tube was abandoned. The d was quite healed when he left hospital on December 12th.

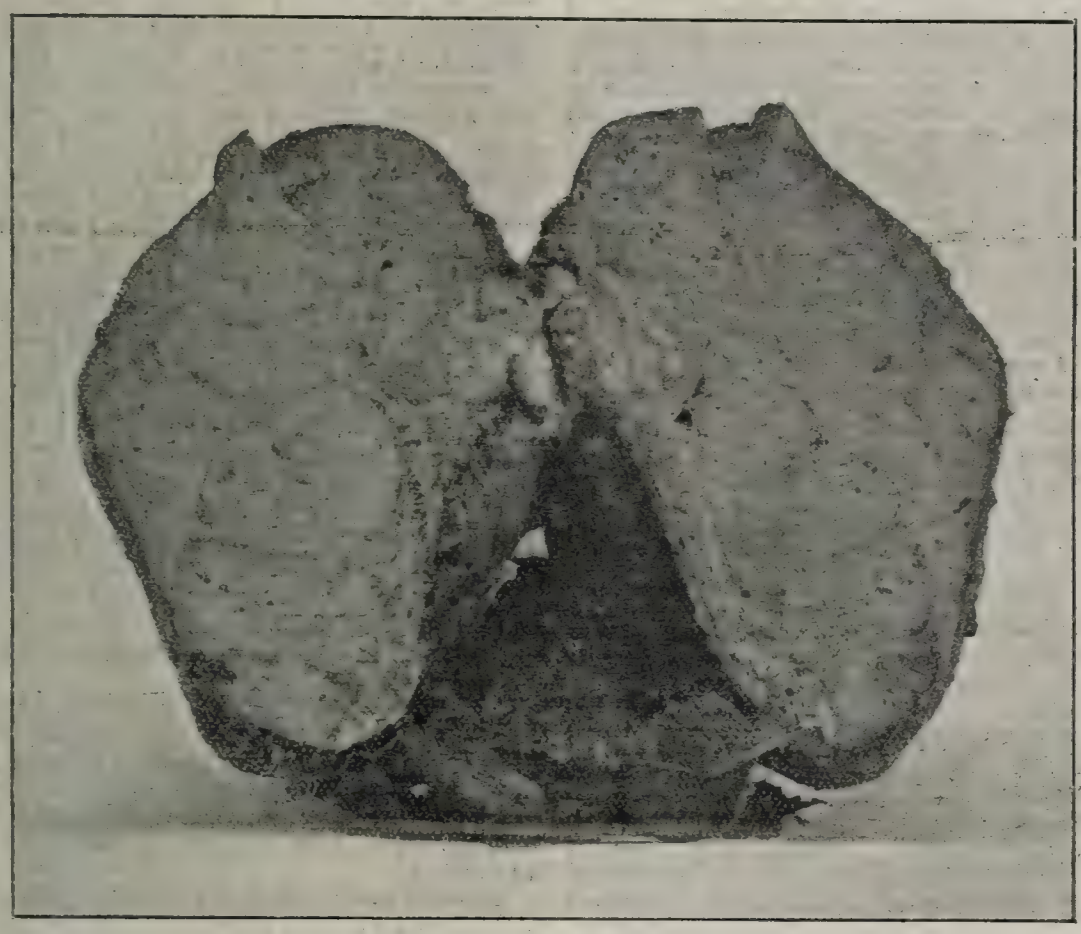


Fig. 3.

Examination of the parts in this case, both before and after their removal, showed that the general hypertrophy of the prostate had not as yet caused the complete obstruction to urination which existed, but that it was due to a small rounded outgrowth, about the size of the tip of a little finger, which projected into the prostatic urethra. Dr. Earl reports it as being a myoma, and weighing 16 gr. This little tumour explains the unusual circumstance of the sudden complete stoppage of urine in a case where a large catheter was easily passed.

The following is Dr. Earl's report on the parts removed:

"Right lobe, weight 210 gr.; length, 1¾ in.; small round mass, 16 gr.; circumference, 4¼ in. Two masses of left lobe—one weighs 239 gr.: length, 2 in.; circumference, 4¼ in.; second weighs 142 gr.; length, 1¾ in.; circumference, 4 in.

"The total weight, therefore, is 11 gr. less than 2 oz. The small round mass is a myoma. There is no glandular tissue contained in it, and only a very small quantity of fibrous connective tissue. The other portions of tissue all show a similar structure. On section they exhibit a number of rounded areas, which are separated from each other by a small quantity of tissue which has not the yellowish tinge the rounded areas have. These rounded areas, on microscopic examination, are found to be composed mainly of tubular glands lined by columnar epithelium with a small quantity of fibrous and muscular tissue lying between them, that is, are adenomata. The tissue lying between the adenomata has the appearance of normal prostate."

Finally, as regards this case, Dr. Creighon, writing on October 10th, 1903, reports the man in his former vigorous health, retaining his urine for normally long periods, passing with a large stream, and having full control of his bladder.

CASE II.

A. B., a gentleman aged 65 years, sent to me by Dr. Goff, of Dundrum, suffering from prostatic obstruction and stone in the bladder, came under my observation in May, 1901. I then removed by litholapaxy a calculus weighing about 90 gr. I hoped that the prostatic enlargement, which seemed to have been provoked by the presence of a stone and which had begun synchronously with the rational evidence of its presence, would, as we sometimes see, diminish when the cause of irritation had been removed. But it was not so, and eventually worn out by the torment of a catheter life, the patient submitted to operation on September 1st, 1903. He was in a soft leucophlegmatic condition, his health being lowered by constant urinary distress. There was always a large quantity of residual urine, and the secretion could only be kept neutral or slightly acid by the use of drugs and by washing the bladder.

The operation was done on September 1st, 1903. It was rapid and easy, not more than ten minutes being occupied in enucleating the prostate. A little urine was passed by the natural channel on the tenth day and gradually increased until the twenty-first day, when the tube was withdrawn during the day and only used on occasional nights. On the twenty-seventh day the patient was allowed up for a short time. From this on he only passed water every fifth hour, and finally left the private hospital on October 20th, forty-nine days after the operation, the wound being healed and his urinary functions in a perfectly normal condition. The convalescence was delayed by a short intercurrent attack of pneumonia. I saw Mr, A. B. on January 15th, 1904, when he visited me at my house in perfect and vigorous health.

Dr. Earl reports: "The right lobe weighs 1,332 gr., and measures 2¾ in. in length: the left lobe weighs 631 gr., and measures 2½ in. in length. The total weight, therefore, is 4½ oz., less 27 gr., and the total circumference a little more than 8½ in. Sections were made from each lobe, and portions adhering to their surface were also examined. The lobes have the general structure of the prostate, but the glandular tissue is more abundant than normal. Some small elevations on the surface of the lobes are composed of glands very much dilated. The tissue adhering to the surface of the lobes is fibrous. It contains no glands; one of the pieces examined contains some of the lining

membrane of the urethra." With reference to the urethral membrane, I was not aware, either during the operation or from the subsequent progress of the case, that it had been injured.

CASE III.

C. D., a gentleman aged about 58, was sent to me in January, 1904, by Dr. M. O'Malley Knott of Castlebar, and Dr. Allman of Westport. He had suffered for four or five years from gradually increasing prostatic irritation, which assumed the form of urethral obstruction about two years ago, and has since been increasing in degree. The urine was faintly acid, and contained a little pus and albumen, but no tube casts. The amount of residual urine was never less than 24 oz. The prostate examined by the rectum did not seem to be much increased in size, but was distinctly larger on the left than on the right side. A No. 12 (E) catheter passed without any resistance. The catheter had not been previously used except on one occasion about a year ago for the purpose of examination. The patient could not pass any urine except when lying down on either side; it then dribbled slowly away. From these conditions I expressed the opinion that a pedunculated growth was present without much hypertrophy, and this was found to be the case.

I operated on January 16th, 1904, feeling some anxiety owing to the low condition of the patient and the shabby state of a somewhat exhausted heart, and found a prostate slightly enlarged on the left side, not at all hypertrophied on the right, and with a small flabby growth ¾ in. long, with a broad pedicle, growing from the prostate gland at the right side of the neck of the bladder, and movable in such a way that it effected the maximum of obstruction when the patient was erect, and the minimum when lying down; in the former position its action was valvular. I incised, enucleated, and removed this growth, finding, owing to its small size and flabby consistence, more difficulty in doing so than if the whole of an ordinary enlarged prostate were in question. No necessity existed for attempting to remove the gland itself. It was not the seat of any essential enlargement, and was not nodular. Indeed, I doubt if it would be possible, without inflicting grave injury, to enucleate a prostate in a normal or nearly normal condition as regards size and attachment, and which had not by growth freed itself to some extent from its connexions.

The patient is now (on the eighth day), doing well, and has given no cause for anxiety, except for the twenty-four hours following operation, when the weak state of his heart caused some alarm.

Dr. Earl reports that "the part removed weighs 105 gr., and is an adenoma mainly composed of glands lined by columnar epithelium lying close together, and similar to those forming the prostate."

As the nature of prostatic enlargements seems still to be a moot point, I may be allowed to express my views, founded on an extended observation of cases and specimens. There seem to be three conditions of senile enlargement:

1. A true hypertrophy of the gland without any interstitial growths.

2. The existence upon and within the substance of the prostate of one or more encapsuled tumours, distinct from the substance of the gland proper, and either myomatous or adenomatous in structure. Both forms of neoplasm or one only of them may be present.

3. A mixed condition of true hypertrophy and interstitial growths of the second class. This condition is much the most common. The tumours may eventually reduce the prostate to a state of pressure atrophy, or cause it to become a mere capsule for adventitious growths. It is the latter condition which in all probability has given rise to so much dispute and uncertainty as to the true pathology of enlarged prostate. The third of the figures represents a section of one of the lobes seen in Fig. 2, and shows the appearance of the prostate studded with these growths, which are nearly always of a spherical form, and only depart to more irregular outlines when they become of large size or approach the surface of the prostate.

ADULTERATION OF HONEY.—The Laboratory of the Inland Revenue Department of Canada has issued two brief reports by Mr. Thomas Macfarlane, Chief Analyst, on the results of analysis of honey and of flavouring extracts. Ninety-nine samples of honey were examined: eighty-one were genuine, five were doubtful, and thirteen were adulterated (six with glucose sugar and five with cane sugar). Honey may contain cane sugar either owing to artificial addition or because the bees are fed exclusively on it. Invert sugar may also be added and is less easy of detection. This sort of adulteration is known in Europe, where the product is sold as "Turkey honey" or "table honey." Its manufacture has increased greatly during the last decade. Water may also be added to honey above the amount (20 per cent.) normally present. Only eight samples were found to contain water in excess of 25 per cent. No injurious ingredients were met with in this series of analyses. The same may be said for the flavouring agents, many of which however are artificially coloured.

PROSTATIC ENLARGEMENT AND ITS TREATME
BY FREYER'S METHOD.*

BY GILBERT BARLING M.B., F.R.C.S.,
Professor of Surgery, University of Birmingham; Surgeon, Gener
Hospital, Birmingham.

ENLARGEMENT of the prostate is a subject of perennial
terest from the frequency with which it occurs, the difficulti
it offers to the practitioner, the dangers to life which it bri
in its train, and last, but by no means least, from the mis
and degradation with which it surrounds the later period
life.

The various operative measures for the relief of this con
dition hitherto at our disposal have on the whole been eit
disappointing or surrounded with too great risks, hence
readiness with which new proposals are welcomed. T
latest of these, namely, the possibility of complete remo
of the prostate by the perineal or the suprapubic route w
reasonable safety, and with complete relief to the patie
symptoms, is now earnestly receiving the attention of
surgical world. Numerous observations in man and anim
show conclusively that the prostate fails to develop if
testicles are removed in early life, further, that the healt
prostate shrinks if the testicles are removed when adult lif
attained. We are familiar with the ingenious arguments
White, of Philadelphia, based on these facts, which led h
to advocate castration to relieve the symptoms attendant
the enlargement of the prostate associated with advanci
age. The proposal was welcomed with enthusiasm, and of
indiscreetly practised, but we are now in a position to es
mate fairly the true value of the proceeding. As far as my o
experience goes, and I believe I am in accord with most otl
surgeons, the final results have been disappointing, and c
tration is now rarely done for prostatic enlargement. It
not without risk to life and to the patients' mental conditi
but these drawbacks might have been faced if the relief
been thorough and persistent. Unfortunately this has
been realized, and *a priori* argument falls to the ground in
face of clinical experience which is opposed to it. The ade
matous, fibroid, or myomatous overgrowth does not yield
removal of the testicles as does normal prostatic tissue. T
lesser operation of vasectomy has given even more dis
pointing results, and has equally fallen into disrepute.

Ligature of the internal iliac arteries with the purpose
cutting off the prostatic blood supply and inducing atro
has been resorted to in a few cases, but the results have b
disappointing and not commensurate to the severity of
operative proceedings.

Partial removal of the prostate, in this country so hono
ably associated with the name of McGill of Leeds, has, on
whole, given the best results attained, but its mortality
not been small; whilst in some cases the relief has not b
adequate to the risk run, and in others continued growth
the prostate has eventually nullified the advantage at f
obtained.

These are the reasons which induce—nay, which requir
surgeons to give a fair trial to methods which promise be
results, for unless some more satisfactory method is for
coming than those briefly alluded to the catheter, with all
drawbacks, will still remain, in the large majority of ca
the main remedy by which relief is given.

Complete removal of the prostate, either via the perine
or by the suprapubic route, is now on its trial; each met
has its ardent advocates, and if one listened uncritically
either side it would seem as though the question were s
and settled, the risk to life very small, the recovery a
operation uneventful, the final results irreproachable;
conclusion is like that of a child's story book, in which
characters "all lived happily ever after."

In bringing the subject before you to-day I do not inten
contrast the two operations—the high and the low—bu
place before you the main facts with reference to case
which I have removed the prostate by the suprapubic rou

It is necessary to make a few preliminary observation
the parts concerned. Without going minutely into
anatomy of the prostate, there are some essential point
which I wish to call attention as bearing directly upon
question before us. We have to deal with an organ whic
healthy adult life weighs about 6 drachms, embraces an
intimately connected with that portion of the urethra nex

* Read at a meeting of the Birmingham Branch of the British Medi
Association.

ne bladder, and is composed partly of glandular and partly of involuntary muscle and fibrous tissue. It has its own proper apsule, just as the kidney or testicle has; it is surounded by a plexus of veins, and these veins, ogether with the prostate, are enclosed in a sheath erived from the deep perineal fascia. When the rostate becomes so altered as to interfere with the function f micturition we have always, so far as my own observaion goes, an increase in its weight, but this may vary in an xtreme degree from little more than 1 oz. to as much as 10 oz., he increase in bulk being due to an overgrowth of any or of ll the elements of which it is composed, sometimes the troma only showing an increase, so that we have a body roduced which may be compared to the familiar fibromyoma f the uterus, but more commonly the gland element is hiefly in excess, and the term "adenomatous prostate" is airly descriptive of the result. The varying conditions produced are well seen in the microscopic sections I shall resently show on the screen, taken from cases upon which I ave operated.

The enlarged prostate varies greatly in consistence, so that e find in some cases a tough, hard body difficult to enucleate r to remove piecemeal, and clinging closely to the prostatic rethra, from which it cannot possibly be separated, the rethra coming away with the prostatic tissues; or we have n elastic—almost succulent—body, generally of considerable ize, enucleated with comparative ease, perhaps separable rom the urethra and leaving it behind, but this I believe to e an uncommon event. Between these two extremes we ave various graduations, but the variations in size and in onsistence do not correspond to particular types in microcopic structure. The prostate in health is of pyramidal hape, with the apex forward, but as it enlarges the shape lters until we have a body produced still pyramidal in hape, but with the base forward, tightly pressed against the riangular ligament, and the apical portion facing backwards, nd encroaching on the bladder. The changes in the protatic urethra are in the direction of elongating and of flattenng it, thus increasing its length and vertical measurement; t the same time its walls become atrophied until practically othing may remain but the epithelial layers. The changes n the bladder, the ureters, and kidneys, are too well known o justify me in occupying your time by describing them ere, but I would like just to emphasize the importance of he latter. The dilatation of the kidney pelvis, the atrophy f part of the renal substance, the interstitial nephritis which amages what part of the kidney remains; these are the conitions to be dreaded, and they are mainly responsible for he mortality which follows removal of the prostate by procucing uraemia, and constitute a strong argument for early perative intervention. An argument sometimes advanced gainst operative interference in enlarged prostate is the resence of a general arterio-sclerosis, of which the enlarged rostate is only a part. I found this in one of my cases, and ough the patient died after operation, the death was not due o this change, but to an entirely different disease, which I hall allude to when describing the case, but as I shall point ut later there is some evidence that this arterio-sclerosis is ot merely coincident with, but may actually be induced by he prostatic overgrowth. Another objection urged against emoval of the prostate is the probable inability of the bladder uscle to contract and expel the urine when the patient has een for some time dependent on the catheter, it being nferred that the muscle has become feeble and atonic, but ere again experience of the final results attained shows the bjection to be groundless in, at all events, the very large ajority of cases.

Before describing the operation of suprapubic prostatecmy, it is only just to acknowledge the obligation, which I all events feel under to Mr. Freyer for introducing, and, as r as I know, originally working out the method associated ith his name, an acknowledgement which has I think in me quarters been rather churlishly withheld. The diaosis having been made by rectal examination, the patient's mptoms, and often by the use of the cystoscope, the usual eparations are made for suprapubic section of the bladder. e organ is distended with fluid, and the patient is placed in e Trendelenburg position, this last being, I believe, a useful sistance in the diminution of haemorrhage, which is mainly nous.

When the bladder is open I generally introduce a rgusson's speculum and inspect the prostatic region; in is way a clear idea is obtained of the amount and shape of e outgrowth into the bladder. This may be massive or quite small, sessile or almost polypoid, regular or irregular in outline, but it is interesting to note that in two of my cases in which the overgrowth was quite moderate in size, a small lobe not bigger than a bean situated at the very margin of the internal meatus appeared to play a large part in the obstruction to the outflow of the urine. By examination with the speculum we often find also enormous venous dilatation in the mucous membrane over and around the prostate, a condition which is very suggestive when we recall how large a part chill, or other causes of venous engorgement, plays in the production of retention of urine. Having made this inspection, which may be omitted if there is reason for haste in the operation, I pass a metal bougie of good size, introduce my left finger into the bladder, and, with a pair of blunt pointed scissors in the right hand, divide the mucous membrane over the most prominent part of the prostate close to the floor of the bladder. This division is only large enough to admit the end of the finger, and it must be made only through the mucous membrane. The scissors are then entirely discarded and the right index finger, entering the small wound in the mucous membrane, proceeds to strip underneath the prostate, but clinging close to it all the time. The stripping may be quite easily accomplished, especially when the enlargement is considerable and elastic, but in the firmer and tougher prostate it may be necessary to use all the force of which the fingers are capable. The left index passed into the rectum protects that cavity and at the same time pushes up and steadies the prostate. When the organ has been freed underneath the finger strips it on each side and then above so that at last the digit can sweep round it. Beginning then at the front of the prostate, close to the triangular ligament, an attempt is now made to peel it off the urethra stripping backwards towards the bladder, and here the metal bougie is of assistance, steadying the part and acting as a guide to the enucleating finger.

Occasionally the prostatic urethra may be left behind, but in the large majority of cases it comes away with the organ, and in a few cases part, or even all, the membranous urethra may be torn away also. As the process of enucleation proceeds it will in some cases be found that the prostate separates in two halves, or it may be into three or more portions, but often it comes away in one connected mass. These points, as to the condition of the urethra, the subdivision or otherwise of the prostate, and that it is possible to remove the whole of it I shall hope to demonstrate presently with specimens and with the aid of the lantern screen. When I say the whole of the prostate I do so with this reserve, that there may be some outlying acini left behind in the outer layers of the split sheath, but these are microscopic objects and, I believe, quite unimportant. During the enucleation there will be a continuous, but as a rule very moderate, loss of blood, which I think one may estimate as a rule at not more than 4 oz. to 6 oz. This loss should be entirely disregarded and no attempt at this time made to stop it. The fingers should go quickly and persistently on with the stripping process, and when the prostate is once completely freed most of the oozing stops spontaneously, the rest is easily controlled by sponge pressure or by hot douching. The enucleation is generally completed in a few minutes, and indeed, from the commencement of the operation until the dressing is applied, not more than from twenty to thirty minutes is occupied. The after-treatment is simple, the bladder is washed out through the wound daily as long as the latter is patent enough; the drain is removed on the fourth day, and the patient may be allowed out of bed as a rule in the third week, and in some cases earlier, with advantage. If the passage of the urine by the urethra has been delayed I have thought it useful to pass once or twice a No. 12 metal bougie to see that no granulation tissue or similar obstacle is obstructing the outflow. I have in two or three cases washed out the bladder with a soft catheter passed down the urethra, thinking that it would be more effective than the washing from above. On the whole, however, I doubt if this method has any advantage and in one case (No. 7) I came to the conclusion that it was a positive disadvantage and danger and I no longer resort to it.

Before describing the cases and showing the preparations, macroscopic and microscopic, which illustrate them, I will briefly give you the results attained and the conclusions I have arrived at.

Of the ten patients operated on, three died, one of malignant disease in the colon during the process of recovery and when he was practically convalescent; his death cannot therefore be in any way ascribed to the prostatectomy. The other two

deaths are in a different category, one patient died of uraemia in the third week after operation the ureters and kidney pelves being dilated and the renal tissue atrophied and cirrhotic; the other patient died of angina pectoris in the sixth week. Both of these patients were bad subjects for any operation, and their lives, if no operation had been performed, would probably have been comparatively brief, but I certainly do not wish to suggest that the prostatectomy must therefore be acquitted of bringing about the deaths probably earlier than they would otherwise have occurred. As to the safety then of the operation I will only say that at all events it is as great as can reasonably be expected under the circumstances and for the conditions for which it is performed.

The final result in those who have recovered has generally been most admirable, far beyond what has been attained by the operations previously in vogue—a complete restoration of the function of micturition, freedom from pain, from broken rest, from haemorrhage, and so on. Whether the prostatic urethra has been removed or not, so far no ill-result such as stricture from cicatrization has followed, and pretty certainly now will not, seeing what time has elapsed since operation.

In the past I have made little selection of my cases. Once I refused to operate on a hospital patient as his kidneys were evidently insufficient, and he justified my refusal by dying of uraemia three weeks afterwards; and here is his bladder, prostate, and kidneys. In another case, a private patient, the prostate is very large and elastic, the catheter is required three or four times daily, and there is much inconvenience from incontinence when only a very moderate amount of urine has accumulated in the bladder; but there are granular and fatty casts in the urine, an insufficient excretion of urea, and a feeble failing heart. Prostatectomy would, I feel satisfied, be a highly dangerous operation in this case, and I have refused to undertake it. (This patient has just died.)

I hesitate yet to commit myself to any dogmatic statement as to which cases should be selected for operation and which rejected, but my inclination is to reserve it for cases in which the prostate conforms to the large elastic and succulent type. It goes almost without saying that patients should not be allowed to fall into a worn-out and poisoned condition from pain and cystitis without prostatectomy being considered. It is one thing to remove the prostate of a fairly hale old man at the commencement of catheter life, but quite another to do so when disturbed rest, pain, and sepsis have broken him physically and mentally. One limited class of sufferers from this distressing condition will obtain immense benefit from Freyer's operation; I allude to the young prostatic subjects, one of which is included in my cases. Whilst about 55 is the usual age at which prostatic overgrowth occurs, there are a few patients in whom symptoms exist in the early 40's, and catheter life is reached by 45 or even earlier. To such the boon offered by prostatectomy is enormous, and I feel justified in urging them to seek relief in this way.

In yet another group of cases very great benefit is to be expected—namely, in patients where vesical stone is complicated with enlarged prostate. Unlike the last, this group is a considerable one in point of numbers. Such patients, if submitted to litholapaxy, are apt to get recurrence of stone, in some cases, no doubt, because a fragment is left behind to form a nucleus for a phosphatic deposit in the presence of a cystitis, in others because the enlarged prostate prevents the expulsion of small stones formed in the kidney and passed into the bladder. If instead of crushing the stone suprapubic section is resorted to, the wound is a long time in healing in the presence of an enlarged prostate, and the function of micturition does not resume its normal course but remains too frequent and often painful as well, whilst residual urine may call for the assistance of the catheter. In the future, when vesical calculus and enlarged prostate coexist it will, I believe, become the routine practice to remove both by high section of the bladder.

Case I.

W. M., aged 55, was admitted to the General Hospital on May 28th, 1902, with pain and frequent micturition and cystitis.

The history dated back two years, when he noticed that he had occasional difficulty in passing water, and that the stream was suddenly arrested, and at times he had to defaecate before he could micturate; following this came frequent micturition, especially at night, when he often had to rise four or five times. Later he suffered also from pain in the hypogastric region. Three weeks before admission pain in the hypogastrium became severe and he was in bed three days, and his doctor advised the use of a catheter.

When admitted the patient was sounded for stone, but none was found. The prostate was much enlarged as felt per rectum, was firm, but not densely hard; residual urine amounted to nearly a pint, co taining a good deal of pus. Cystoscopy revealed a good deal of e largement of the prostate and a collection of what appeared to be p and mucus in a pouch behind the prostate.

Operation.—June 2nd, 1902. The prostate was enucleated in tw portions of nearly equal size. Bleeding was very moderate and th enucleation easy. The bladder itself and the tissues in front of it show evidences of severe recent inflammation, and there was much oedem the cavity of the bladder was hourglass in shape, the upper portion w up in the abdominal cavity being separated from the lower cavity by marked constriction.

A good recovery followed the operation, and the patient was d charged quite healed on July 9th, but still with some cystitis and wi residual urine generally amounting to 3 oz. or 4 oz., but with his sy ptoms very much relieved. The tissue removed consisted of two n capsulated and nearly equal portions, weighing together 45 grams (abo 1½ oz.), but this was after hardening in spirit and not in the fresh stat The prostatic urethra and a little of the membranous were removed wi the prostate. The enlargement was mainly an adenomatous one.

Present Condition.—Dr. Berkeley Murray, the patient's medic attendant at Tenbury, wrote me on November 28th, 1903: "I think l case may be considered a decided success. The condition compar with what it was before operation must be one of absolute bliss, and is now able to do his ordinary work." I saw the patient at hospit December 3rd, 1903, and found that he completely empties his bladd and that there is no stricture of the urethra. The only point in the ca which is not entirely satisfactory, eighteen months after the operatio is that there is occasionally a little incontinence of urine at night, abo a teaspoonful escaping at times. On examining his rectum a somethi is felt in the prostatic region, suggesting just an outline of the org without its central filling up. Taking this into consideration with t parts removed, it is probable that a thin layer of prostatic tissue w left when the bulk of the organ and almost the whole of it was stripp out.

Case II.

E. F., aged 59, was admitted to hospital on March 10th, 1903, difficult, painful, and frequent micturition. Two years ago he fi noticed difficulty in passing water, later pain also troubled him. Th symptoms increased in intensity, and six months ago the patient fou he had to get up ten or a dozen times at night to pass his water, and felt much broken in consequence.

On admission it was found he only passed a very little urine, and bladder was constantly overfull. Per rectum the prostate was found be considerably enlarged and of dense consistence; the urine contain pus, blood, and phosphates; its quantity varied from 20 to 48 oz., s cific gravity from 1008 to 1018, and the urea was under 200 gr. As patient was unable to manage a catheter himself, and the condition his bladder and his general condition were growing worse, prostatecto was determined upon.

Operation.—March 16th. A speculum introduced into the blad through the incision showed a small projecting lobe on the poste lip, which appeared to play a large part in the obstruction to the o flow of the urine. Enucleation was performed, but with great di culty, owing to the extreme toughness of parts, and the line of cleav was nothing like as definite as it generally is. Operation was borne, but at the end of a few days the patient became dull apathetic, the escape of urine into the dressings became less and l and he died of uraemia on the twentieth day. The necropsy sho that the right kidney weighed 7 oz., the left 5 oz. The cortex diminished, the capsule stripped badly, the pelves were dilated, croaching on the kidney substance, and causing some atrophy of pyramids; the ureters were dilated, their diameter averaging ab one-third inch. The prostate was removed entire, and with a fa complete capsular envelopment, but the surface of this indicated t the line of cleavage was irregular; the specimen weighs 33 gram little over 1 oz.) after immersion in preservatives. The whole of prostatic and part of the membranous urethra came away with prostate.

Case III.

In June, 1902, I was asked by Dr. Short to see, in consultation him, a gentleman, aged 46, who was suffering from a distended blad He had consulted Dr. Short three years previously as to his gen health, at which time there was no complaint of bladder symptoms the urine was of specific gravity 1016 and free from albumen and su The apex-beat was in the normal position, but the arteries were so what thickened and tension was increased.

At the time of our consultation the patient looked very ill. symptoms complained of were extreme lassitude, inability to concent thoughts, broken rest from frequent micturition, dizziness, and skin; duration some weeks. The heart was hypertrophied, the a beat ½ in. outside the nipple line, the arteries were hard and the ten high. The bladder reached nearly to the umbilicus and the pros from the rectum was found to be much enlarged; micturition frequent, the urine of specific gravity 1010, but free from albumen, excessive in quantity. There was considerable loss of weight.

We arranged that the bladder should be emptied three time twenty-four hours with a rubber catheter. Speedy improvement i symptoms followed; but at the end of five days the quantity of u passed, though greatly lessened, still amounted to 120 oz. in 24 hou

August 1st. Dr. Short's note is, apex-beat just internal to the ni line, pulse much less hard. Urine, specific gravity 1020; amount, 7 in twenty-four hours.

In March, 1903, I was asked to see this patient again, because he suffering from haematuria set up by the passage of a metal instru

Fig. 1.—Case VI. Weight, 182 grams; posterior aspect; vesical end above; removed in one mass with the prostatic urethra.

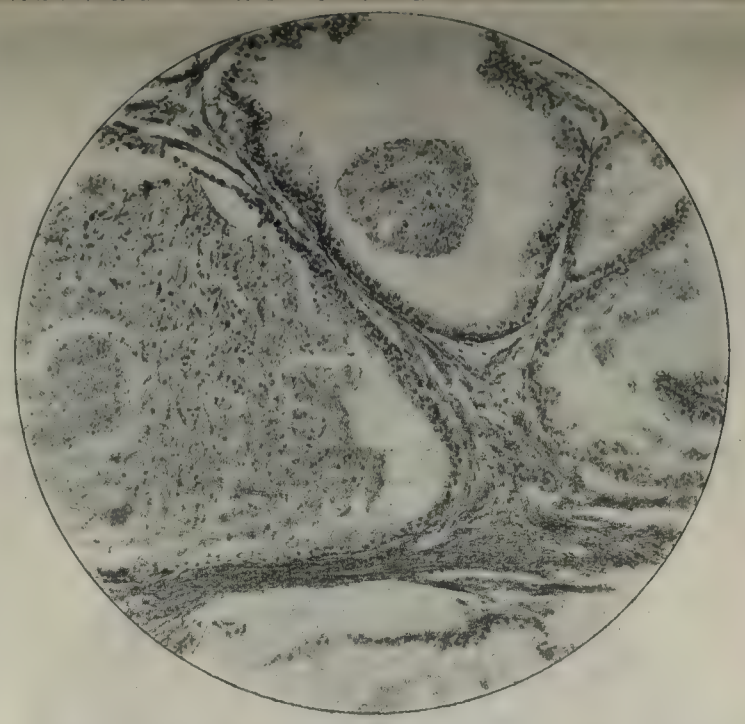


Fig. 2.—Case VI. Showing enormously dilated acini, generally rounded in shape, lined by low columnar epithelium, and containing mucus and catarrhal cells in varying proportions. The acini are supported by delicate bands of fibromuscular tissue.

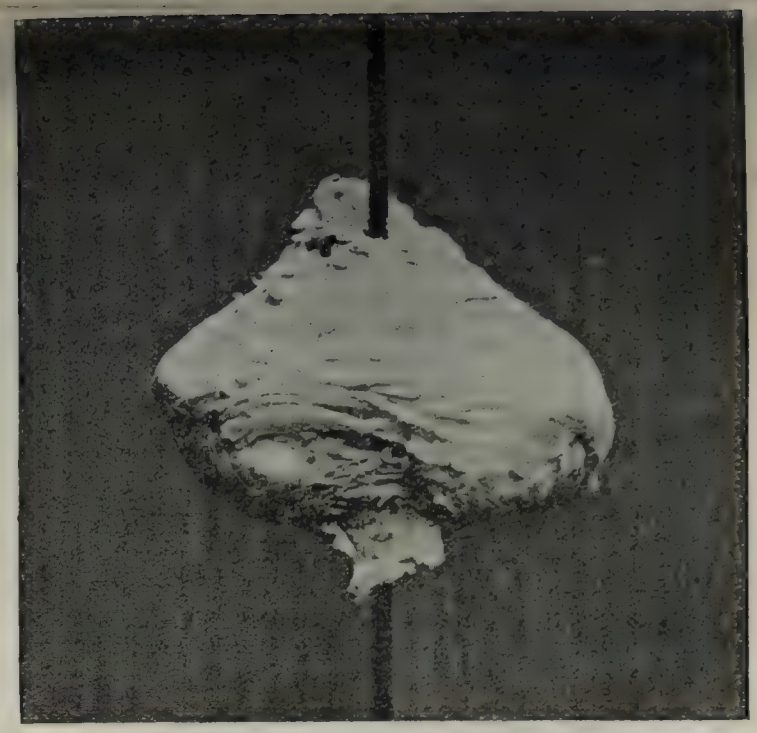


Fig. 3.—Case IX. Weight 33 grams. Anterior aspect; vesical end above; removed in one mass with prostatic and membranous urethra.

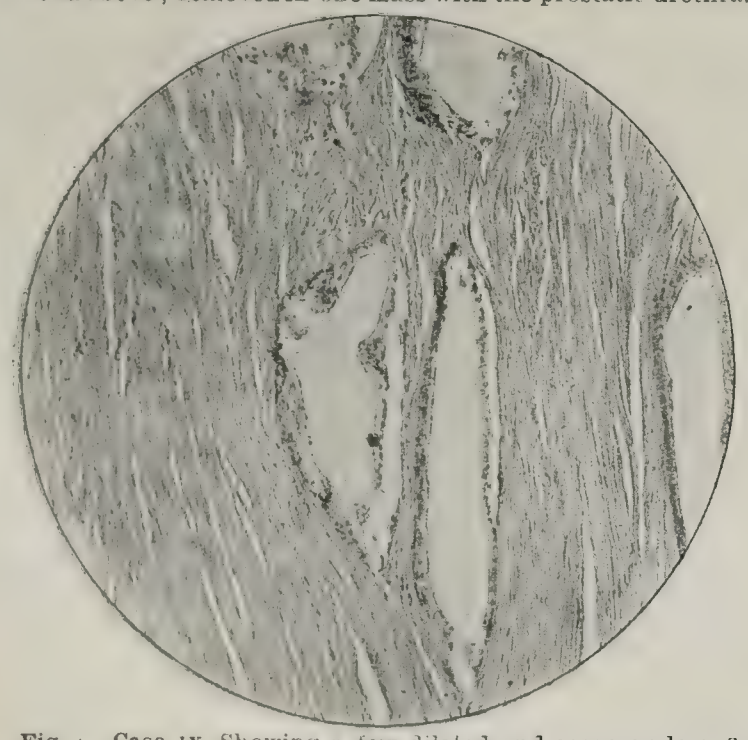


Fig. 4.—Case IX. Showing a few dilated and more or less flattened acini lined by low columnar epithelium, and supported by a dense fibromuscular stroma

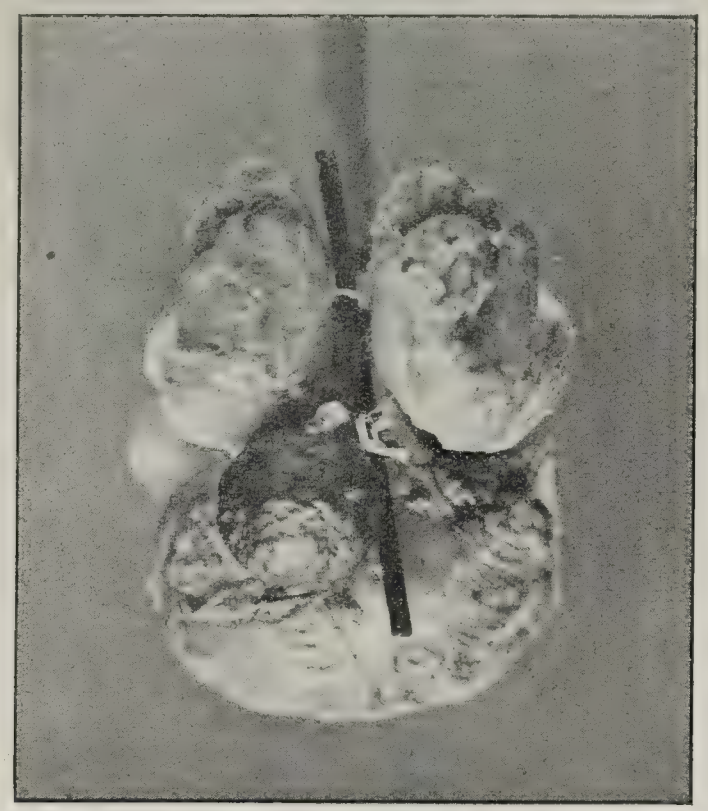


Fig. 5.—Case III. Weight, 51 grams; postero-superior aspect; vesical part below; threee separate masses; vesical calculus; bristle in bleeding vein. Prostatic urethra not removed.

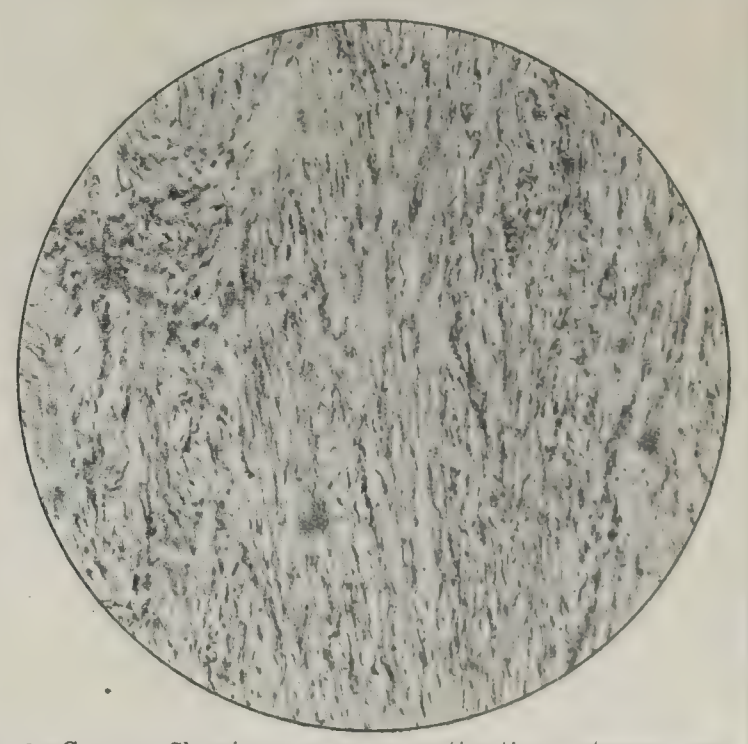


Fig. 6.—Case III. Showing a pure connective-tissue stroma, consisting of fibrous and non-striped muscular tissue intimately intermixed and running in all directions.

To Illustrate the Relation of the Prostatic Tissue to its Capsule, to its Sheath, and to the Levator Ani, showing also that, however Complete Enucleation Appears to be, some of the Outlying Acini may be Left Behind though Junctionless.

Fig. 7.—The relations of the prostatic acini to the prostatic capsule are well seen in this specimen. The levator ani is seen on the extreme right; passing towards the left we see a loose layer of areolar tissue, then fibromuscular bundles running longitudinally. Within this layer are the large blood vessels, and on the extreme left prostatic acini are just showing themselves.

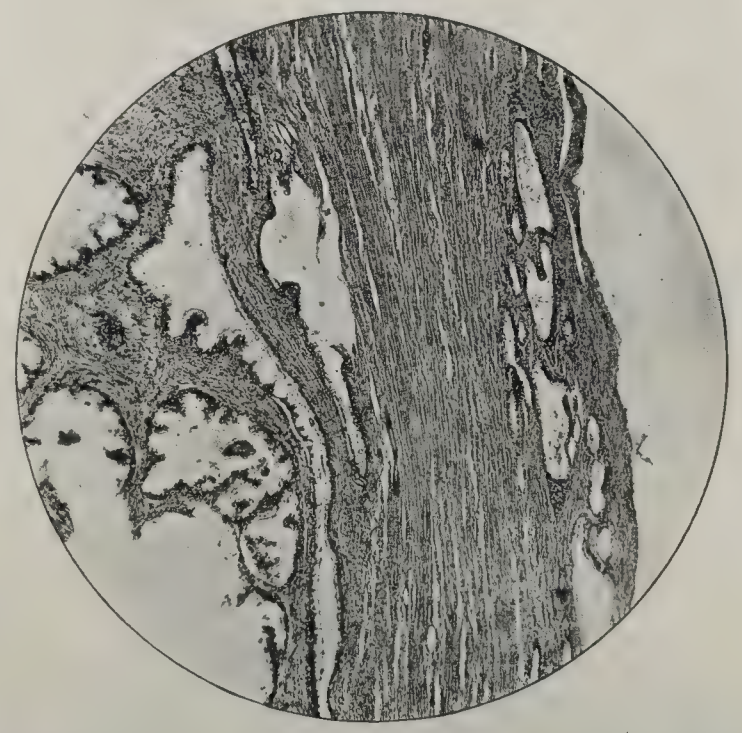


Fig. 9.—Capsule of Case VII. A general enlargement showing dilated acini below, flattened acini in the circular capsule, going quite to the surface.

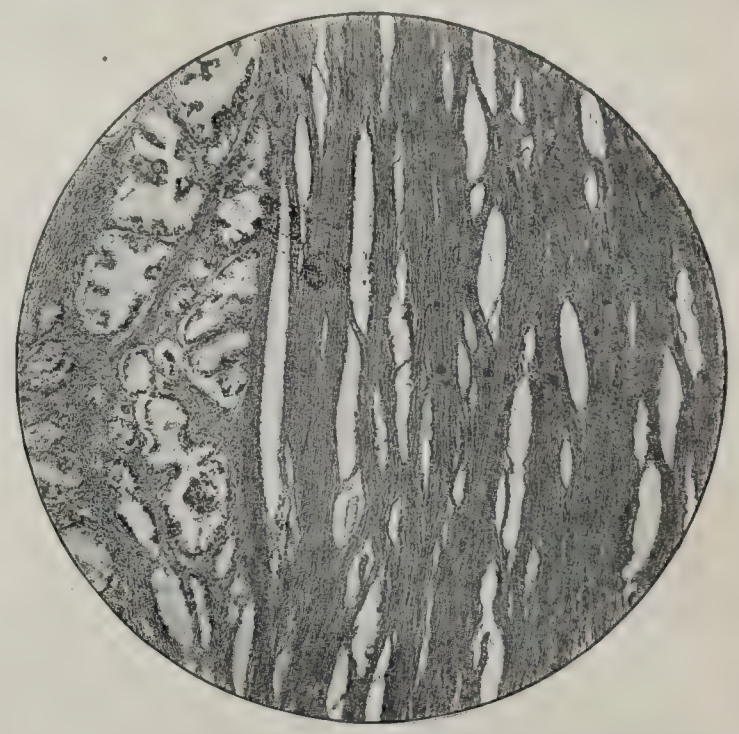


Fig. 8.—Shows prostatic acini to the left, then a very thick fibromuscular tissue which extends to the levator ani; the elliptical spaces are flattened prostatic acini, and can be seen quite close to the levator ani.

Fig. 10.—Case VIII. Showing a section of a smooth adenoma which shelled out readily. Outside the dilated acini of the tumour is a capsule of fibromuscular tissue, in whose meshes are

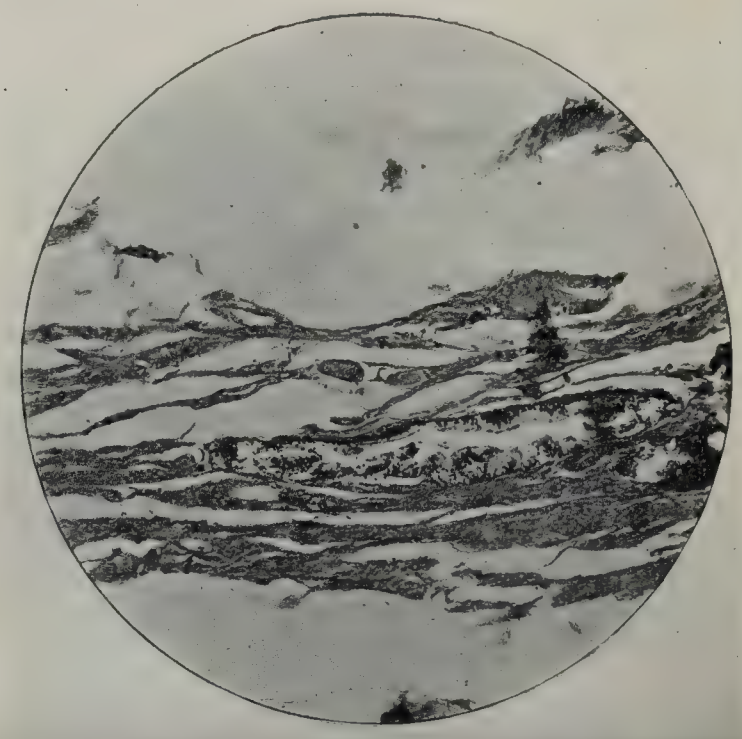


Fig. 11.—Case VII. A section through a piece of loose capsule which was all but detached from the surface of the tumour, showing a large acinus with one or two bundles of striped

a stone in the bladder was suspected. Before this accident the patient had for some time been entirely dependent on the catheter, no urine being voided without it; but, by the aid of elaborate precautions as to cleanliness, cystitis had so far been avoided. His general condition had greatly improved with the complete emptying of the bladder, the apex-beat had come back considerably: the condition of the arteries was also much more satisfactory, and the urine, about 40 oz. in the twenty-four hours, was of specific gravity 1020.

Despite treatment the haematuria persisted for eleven days, and was so severe as to cause faintness at times. The patient was therefore advised to submit to operation for control of the bleeding and for enucleation of the prostate, if that was feasible. This was done on April 1st, and when the bladder was opened a Fergusson's speculum clearly demonstrated the source of the bleeding, which was a small vein partly divided lying on a lobe of the enlarged prostate; there was a calculus the size of a hazel nut. Enucleation was speedily performed, the prostate coming away in three portions with moderate difficulty, and apparently leaving the urethra behind.

A very good recovery followed the operation. The urine was slow in coming by the urethra, but by the end of the fifth week the patient was able to undertake a little professional work, and was quite healed in about six weeks. Since that time he has been and is well. He passes his urine four times in twenty-four hours, never rises at night for that purpose, and has a full and forcible stream such as he had in early adult life. He is free from headaches, his arterial condition is fairly good, the urine, specific gravity about 1020, averages about 40 oz. in twenty-four hours, and has no abnormal constituent.

The case I have just related, apart from the successful operative result, is a singularly interesting one, from the evidence it gives of the strain thrown on the kidneys and, owing to their imperfect excretion, on the heart and arterial system by unrelieved distension of the bladder due to prostatic enlargemeut. When I first saw the patient with Dr. Short we both took a most anxious view of his condition. It would hardly be an exaggeration to say that he was on the verge of uraemia. The regular emptying of the bladder with the catheter speedily improved matters and relieved us of our fears, bringing about a rapid improvement, which has continued. In view of this case it is not unreasonable to say that, at all events in some cases where a marked arterial sclerosis and hypertrophied heart coexist with prostatic enlargement, the last-mentioned is the cause of the before-mentioned changes and not merely coincident with them.

The prostate was removed in three masses, well defined but only in part showing a capsule; the weight was 51 grams (nearly 1¾ oz.) after immersion in preservatives. No trace of urethra can be found in the specimen. The enlargement is due almost entirely to an overgrowth of the connective tissue of the gland, and the specimen may fairly be described as a fibromyoma.

To Illustrate the Relation of the Urethra to the Prostatic Tissue, and the Difficulty of Separating the Two and Leaving the Urethra when Removing the Whole Prostate.

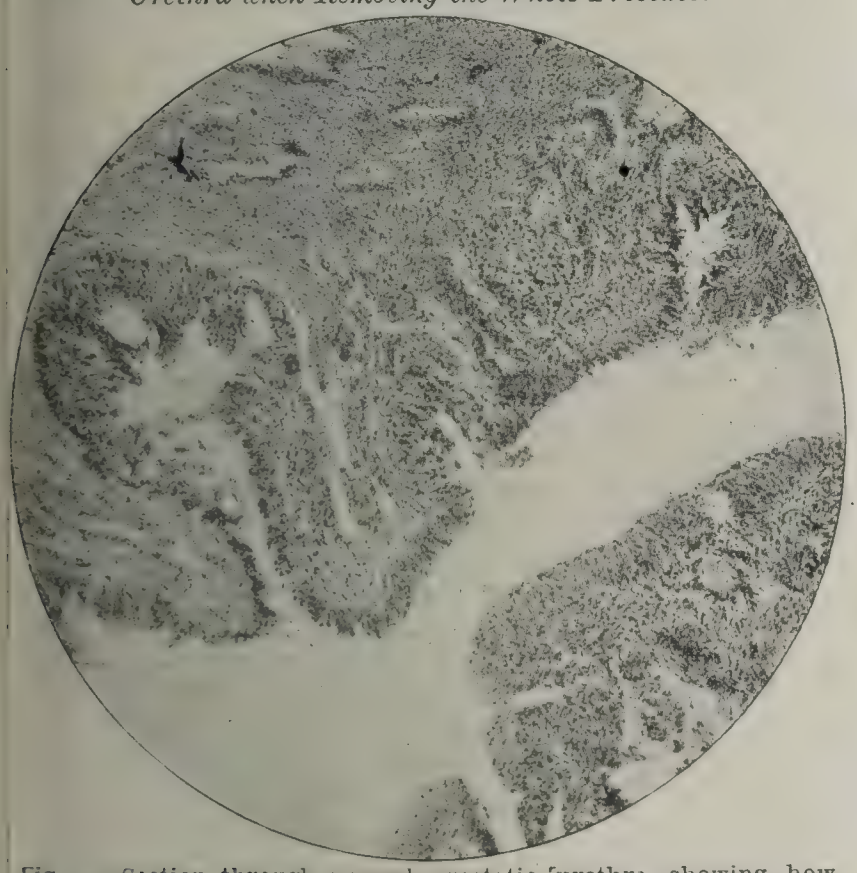


Fig. 12.—Section through normal prostatic urethra showing how closely adherent is the epithelium of the mucous membrane to the fibromuscular tissue of the prostate. Urethral glands and prostatic acini seen in section also.

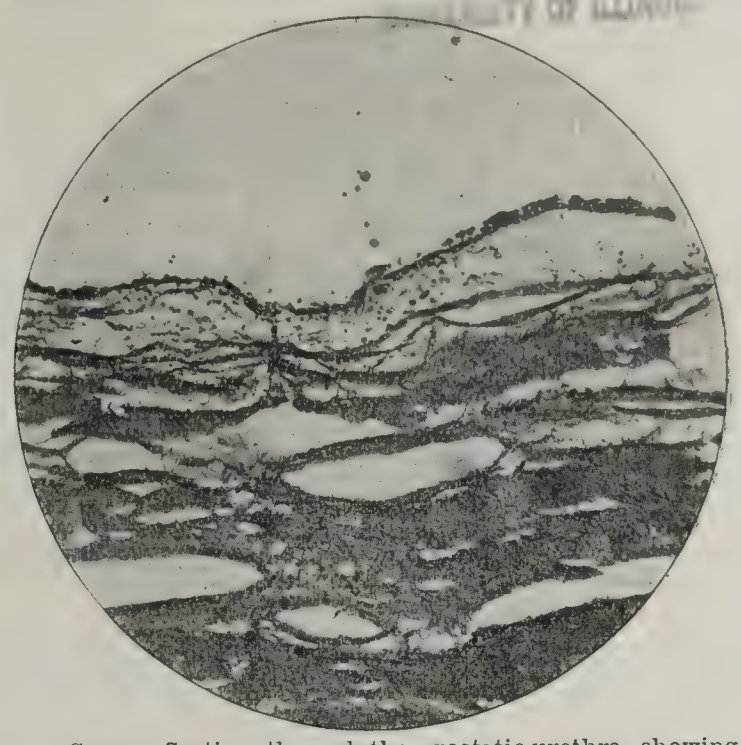


Fig. 13.—Case VI. Section through the prostatic urethra, showing the epithelium represented by a single layer of cells, and occasionally several layers, below which is a loose areolar tissue, infiltrated here and there by small round cells; subjacent to this is the fibro-muscular tissue of the prostatic enlargement, containing oedematous lymph spaces and flattened blood vessels.

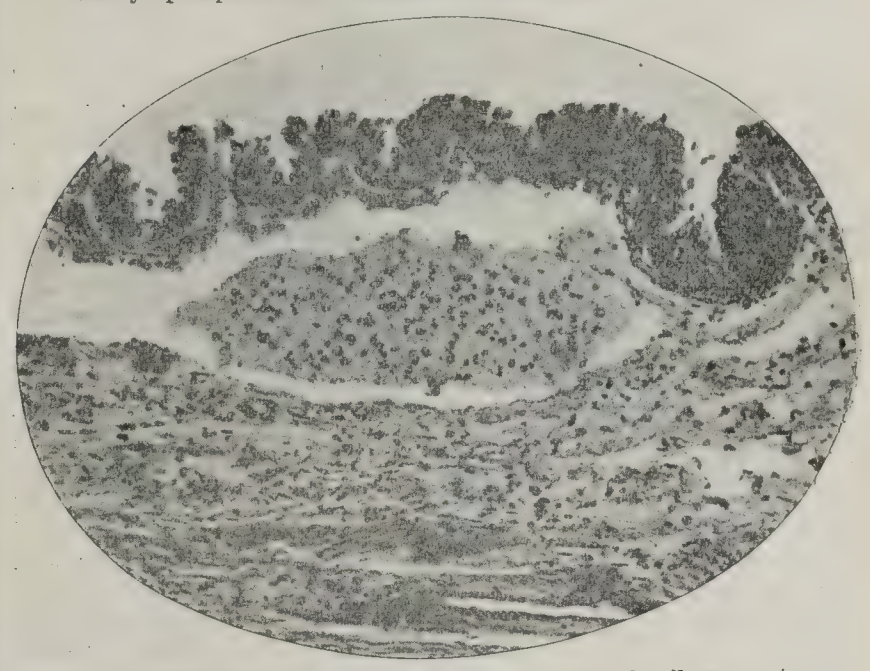


Fig. 14.—Epithelium of urethra of Case VII; areolar layer; stroma with vessels.

CASE IV.

H. T., aged 70, was admitted to the General Hospital on April 15th, 1903, with retention of urine, which was relieved by a silver catheter, but a soft catheter could not be introduced into the bladder. The prostate was felt to be moderately enlarged by the rectum and extremely dense and hard. At the end of sixteen days the patient was still unable to pass his urine and it was considered undesirable to provide him with a metal catheter for his own use. Operation was determined upon, especially in view of the fact that his urine was normal in quantity and specific gravity and contained 300 gr. to 400 gr. of urea in the twenty-four hours.

Operation.—April 23rd. When the bladder was opened a speculum showed a small button-like nodule from the upper margin of the urethral orifice, which probably played a large part in producing retention. Enucleation was impossible, the tissues were dense to a degree, but with considerable force practically all the prostatic tissue was dug out with the fingers. The bleeding was moderate and the operation well borne.

On the fifteenth day some urine was passed by the urethra, and the patient was discharged on May 23rd with his wound perfectly healed, and passing the whole of his urine without the aid of a catheter, at intervals of five to six hours, there being no residuum.

The tissue removed consists of two masses rather irregular on the surface and devoid of any defining capsule, weight 17 grams, a little over ½ oz. No part of the urethra is contained in this specimen. The overgrowth is partly very dense fibrous tissue and partly glandular.

CASE V.

H. G., aged 71, was admitted to the General Hospital, April 29th, 1903, for persistent haematuria, frequent and painful micturition. When in hospital there was constantly a good deal of blood in the urine.

Micturition took place every hour and a-half with pain and there were several ounces of residual urine, The use of the catheter by his doctor at home and treatment by medical measures failed to give relief. Cystoscopy was difficult owing to the presence of blood, but in addition to enlargement of the prostate it was discovered that a dark mass lay behind the prostate which it was feared might be growth. This proved at the time of operation to be partly decolorized blood clot which had escaped from a vein over the enlarged prostate.

Operation.—On May 4th the prostate was enucleated entire, and the bleeding was very moderate indeed. Steady convalescence followed but it was five weeks before much of the urine passed by the urethra. At the end of the sixth week when the patient left the hospital all the urine came by the natural channel.

Present Condition.—The patient still has a little blood in the urine at times, but the bladder is emptied and the frequency of micturition is much less, the urine being retained about three hours, except when blood is present, at which times there is more frequent call but probably this is due to nervousness, as the patient very much dreads the occurrence of bleeding.

The prostate was removed entire and was enclosed in a well-defined capsule, the weight was 42 grams (about 1¼ oz.) after immersion in preservatives. The whole of the prostatic and some, if not all, of the membranous urethra came away with the prostate.

CASE VI.

Mr. Y., aged 62, was referred to me by Dr. Saundby (May 5th, 1903) for bladder symptoms. These appeared to have originated about four years before, at which time the patient states that he had an attack of cystitis. This recurred about two years later, when he was laid up in bed for three months, and subsequent to this time practically all his urine was drawn off with the catheter.

When I saw the patient his condition was most deplorable, his rest was constantly broken, the catheter was constantly required, was passed with increasing difficulty and did not give complete relief, the pulse was quick, the temperature considerably raised, and the mental condition was very unstable. Per rectum the prostate was found to be a good deal enlarged, but the finger could reach its posterior boundary, to touch it was elastic, and appeared possible of enucleation.

May 7th. The prostate, which proved to be 6½ oz. in weight, the largest I have removed, was enucleated entire, and the operation in so feeble a man was well borne.

The few following days the patient was fairly well, though the pulse continued to be rapid. A little later he became restless and excited, did not know where he was, and became altogether like a patient with senile dementia. Still, he took nourishment well and healing went slowly on. In the third week the patient left my private hospital to go home in the hope that more familiar surroundings would assist in restoring his mental condition. He then came under the care of Dr. Hadow, who looked after him assiduously. The wound healed at the end of several weeks, the mental condition slowly improved, and the bladder resumed its functions. In October, when I last saw him, he held his water three to four hours, had good nights, was quite free from pain, and had no residual urine. Mentally he was clear and alert, had lost a habit of very stuttering speech, and was, as regards his mind, much better than before his operation, in fact the general contrast of before and after operation was eminently satisfactory.

The prostate was removed in one piece with a well defined thick capsule; the weight immediately after removal was 6½ oz. The prostatic urethra came away with the organ. The enlargement was mainly due to glandular overgrowth and dilatation, though there is also in parts excess of the connective tissues.

CASE VII.

C. L., aged 72, was admitted to the General Hospital on June 6th, 1903, with retention of urine. It was found impossible to introduce a catheter of any description or size into the bladder, so aspiration above the pubes was resorted to. The day after admittance it was found possible to pass a silver catheter, and later in the day a rubber one could be introduced.

History.—The illness dated back fourteen years, with symptoms of frequency of micturition, especially at night, and difficulty in the act, it being generally some time before the stream would flow. Six months ago he had his first attack of retention, which was relieved by catheterization. Since then he has had three or four such attacks, which have had to be relieved by instruments.

Operation.—On June 8th the prostate was enucleated in one piece without much difficulty. During the whole operation the patient did not lose more than 3 to 4 oz. of blood, and it was well borne.

June 15th. The patient developed acute orchitis on the right side, probably due to the use of the catheter daily for washing out the bladder. This was followed on June 21st by an acute attack of gout in the metacarpo-phalangeal joints of both great toes, which cleared up under the influence of colchicum. On June 29th orchitis occurred on the left side, in addition to that already existing on the right side. On July 17th he had another attack of gout, this time in the left ankle-joint, and in addition during the evening had an attack of severe pain in the left side of his chest. During the following day, July 18th, these attacks of pain in the left chest continued at intervals, death occurring suddenly during an exceptionally severe attack late in the evening. The patient passed urine per urethram for the first time after the operation on July 7th, at the beginning of the fifth week. Necropsy was refused.

The prostate was removed in one mass, surrounded by a capsule, complete everywhere, except over a portion of the anterior surface. It weighed when fresh 3½ oz., but only 90 grams after being in preservatives. The whole of the prostatic urethra appears to have been removed with the specimen. The overgrowth is mainly glandular, and there is some prostatitis.

CASE VIII.

Mr. K., aged 63, was sent me by Dr. Craig of Bridgnorth in June 1903, complaining of very frequent micturition, especially at night, of pain in the act and afterwards, and of haematuria. The symptoms dated back five or six years, and had steadily increased in intensity until the patient, who was a very nervous man, was driven by broken nights to seek relief. Sounding for stone was most unsatisfactory owing to the patient's extreme sensitiveness, and no stone was detected, but I thought it extremely probable that calculus existed in the bladder. Examination per rectum revealed a much enlarged prostate, quite elastic to the touch, and there were some ounces of residual urine. I advised sounding under an anaesthetic, and, if stone were detected, its removal by suprapubic section and the enucleation of the prostate at the same time. This was effected on June 12th. Five calculi of some size were removed from a large prostatic pouch, and the prostate was enucleated in two portions. Recovery was uneventful; most of the urine was passed by the urethra at the end of three weeks, and the whole of it in the sixth week. On November 4th Dr. Craig kindly wrote to me saying that the patient was well and completely free from all bladder symptoms, being able to hold his urine a normal period and going through the night without wanting to micturate. The prostate was removed in three masses, which were well defined, and in the main encapsuled; the weight was 70 grams (about 2½ oz.) after immersion in preservatives. The prostatic urethra was also removed. The enlargement was mainly a glandular overgrowth and distension.

CASE IX.

R. T., aged 60, was admitted to the General Hospital on July 28th 1903, with overflow of urine following retention dating back five to six weeks, during which time he had been catheterized by his doctor at home, but he was still unable to pass his urine, and there was a severe cystitis. This was preceded by frequency of micturition and some difficulty to starting the stream. Per rectum moderate enlargement of the prostate could be felt, and it was densely hard.

Operation.—July 27th cystoscopy was first performed, but the enlarged gland could only very indefinitely be made out owing to the turbid condition of the fluid in the bladder, The bladder was opened by the suprapubic incision, and the prostate enucleated by the fingers with very great difficulty, owing to it being so very firmly adherent to adjacent parts. It was noticed that the walls of the bladder were much hypertrophied and in a very friable condition. Only about 3 to 4 oz. of blood were lost during the whole procedure. Shock was considerable but after the first two days steady progress was made, and on the tenth day after the operation some urine was passed per urethram for the first time. About this time the patient complained of slight escape from the rectum at times which he could not control. Per rectum nothing abnormal could be made out except some thickening in the region of the prostate and great laxity of the sphincters. The suprapubic wound closed by August 18th, all urine being passed by the natural channel but it broke down and opened again by September 2nd, and about this time the patient lapsed into a very weak and cachectic, drowsy condition with very loose green involuntary stools, and it was now discovered that he had a hard lump to be felt on palpation of the abdomen on the right side just internal to the anterior superior iliac spine. Patient gradually became more cachetic and weak and died on September 16th. Necropsy showed a large malignant growth involving the caecum with secondary growths in the liver and enlarged retroperitoneal glands. The cavity left by removal of the prostate was almost obliterated, but its walls were covered with sloughy particles. The coats of the bladder were greatly thickened and very friable. The kidneys were fairly healthy. The prostate was removed complete and in a well-defined capsule, the surface of which was ragged, showing that the line of cleavage was irregular and rather erratic. The weight was 30 grams (about 1 oz.) after immersion in preservative fluid. The whole of the prostatic and some of the membranous urethra came away with the prostate.

CASE X.

Mr. I., a stout man, aged 56, was brought to me on September 16th 1903, by Dr. Huxley, with the following history: Five or six years ago he had difficulty in passing water, having to strain when doing so; this difficulty was followed by increased frequency of micturition. Both these symptoms became more marked as time went on, until a last micturition, which now at times was painful, was performed as a rule every half-hour, and was most trying at night owing to broken rest. When Dr. Huxley's advice was first sought he found the bladder much distended, and as catheter life was intensely distasteful to the patient he brought him to me.

I found the bladder within 2 in. of the umbilicus: the prostate was much enlarged when palpated from the rectum, and was elastic to the touch. The urine was almost the colour of water and its specific gravity 1005, but it was free from albumen and sugar; the amount passed was not known, but was evidently very excessive. The patient complained, in addition to his urinary troubles, of great lassitude, persistent thirst, and a dry tongue. An important point in this condition was the presence of an old mitral stenosis from acute rheumatism, but the heart appeared to be doing its work well and there were no symptoms indicating any inefficiency of that organ.

Prostatectomy was decided upon by the patient without hesitation as an alternative to the persistent use of a catheter. On one occasion I did pass a rubber catheter, but it produced such intense pain and

ism that an injection of morphine had to be given, and the experience
s one the patient declined to repeat.
Operation (September 20th) was devoid of unusual features, but inspec-
n of the intravesical portion of the prostate showed an enormous
nous dilatation, and the oozing of blood during enucleation was freer
an usual. On the ninth day there was a good deal of blood oozing
m the wound; this continued free for a week, and the temperature,
nerally averaging about 99.5° at night, rose on the fourteenth day
er a rigor to 104°, and again after a rigor on the seventeenth day to
3.5°. In view of the patient's chronic heart trouble I felt anxious
out him, but the oozing and the fever both came to an end when on
e twentieth day I washed a large slough out of the bladder, probably
me of the detached mucous membrane stripped off the prostate. At
e end of the third week some urine was passed per urethram, and
en the patient went home at the end of the fifth week practically the
ole of his urine was passed naturally. By this time the thirst and
yness of the mouth, which had proved so troublesome, had quite
appeared.
At the present time the patient holds his urine for three to four hours
the day time, and is not disturbed at all in the night; the specific
avity of the urine has risen to 1020.
The prostate came away in one mass, and was surrounded by a com-
ete capsule; the weight was 90 grams (nearly 3 oz.) after immersion in
eservatives. The whole of the prostatic urethra came away with the
gan. The enlargement was almost entirely due to overgrowth and
stension of the acini, and there was a considerable amount of
ostatitis.

Conclusions.

Briefly, my conclusions are that:
1. It is possible to enucleate the prostate.
2. The prostatic urethra is then almost invariably, if not
ways, removed with the organ.
3. If the prostatic urethra were left it would necrose from
ant of blood supply.
4. Stricture does not follow the damage to the urethra.
5. The operation gives excellent results, often restoring
ie functions of the bladder to an absolutely normal
ndition.

I should like to express my great indebtedness to my friend,
r. Hewetson, for the assistance he has given me in preparing
ie material I exhibit.

N ANATOMICAL CRITICISM OF THE PROCEDURE KNOWN AS TOTAL PROSTATECTOMY.*

By CUTHBERT S. WALLACE, B.S., F.R.C.S.,
ssistant Surgeon, St. Thomas's Hospital and the East London Hospital for Children.

The Normal Prostate.

SHORT description of the normal prostate is necessary in
der to make one or two points of comparison with the organ
i its diseased state.

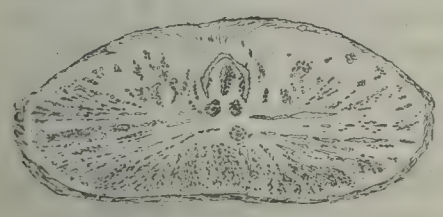


Fig. 1.

Fig. 1 shows the appearances of a section of an adult rostate taken at right angles to the urethra. There is no idication of any division into lobes. The fibro-muscular ssue is most marked in the following situations: (1) At the ircumferential portion of the gland where there is an absence f gland tissue; (2) behind the urethra from which place it diates in all directions to join the outer non-glandular area; ;) in front of the urethra, where it forms the so-called anterior ommissure.

The gland tissue is fairly evenly distributed in the posterior art of the gland, both at the sides of and behind the rethra. The amount of gland tissue behind the urethra aries very much in different specimens, as has been pointed ut by Griffiths. This variation has an influence on the type f enlargement, as will be pointed out later in this paper.

Outside the non-glandular area is the fibrous covering of the rgan, which is derived from the recto-vesical fascia. This overing is not a dense definite structure, as is the fascia lata f the thigh or the arm, but consists of a series of areolar planes in which on the lateral and anterior aspects is embedded the prostatic plexus of veins. It is a structure in which extravasation of fluid could take place, and would form the wall of the cavity left if a prostate were completely ablated.

In speaking of prostatectomy and of the presence or absence of a "capsule" it is very necessary to define the terms used.

The term "sheath" as used by Sir H. Thompson is the fibrous covering derived from the recto-vesical fascia, and contains the venous plexus. The term "capsule" as used by the same observer is the thin outer non-glandular portion of the organ, and is really only the outer portion of the stroma of the organ; it contains both muscular and fibrous tissue.

In *Quain's Anatomy* the term "fibrous capsule" is used to express the fibrous sheath derived from the recto-vesical fascia. There is no "capsule" in the sense of a separable membrane such as invests the kidney, nor can the prostate be shelled out from its surroundings like a lymphatic gland or the thyroid body.

Mr. Shattock has suggested that the outer non-glandular portion of the organ be termed the cortex, which title seems to represent the facts adequately.

I propose, then, that the investment from the recto-vesical fascia be called the "sheath," and that the outer part of the gland proper be called the "cortex."

Let us now study the organ in its pathological state:

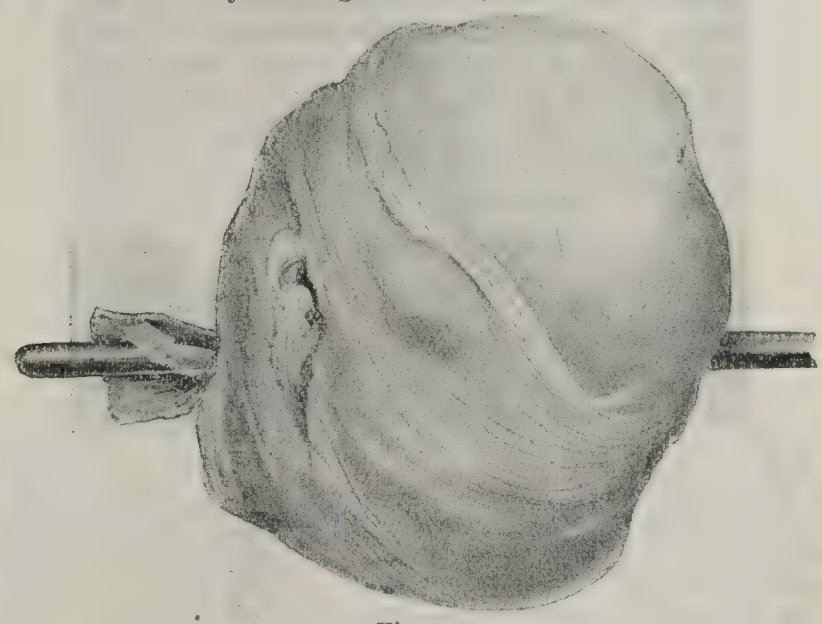


Fig. 2.

Fig. 2 represents a specimen that I removed by the so-called operation of total prostatectomy. It was taken from a man, J. M., aged 77, who had suffered from complete retention for six years. The intravesical projection was circular, and of a character that I ventured to compare with the projection of the uterus into the vagina, and to which I shall refer hereafter as the "os uteri" type of projection. The

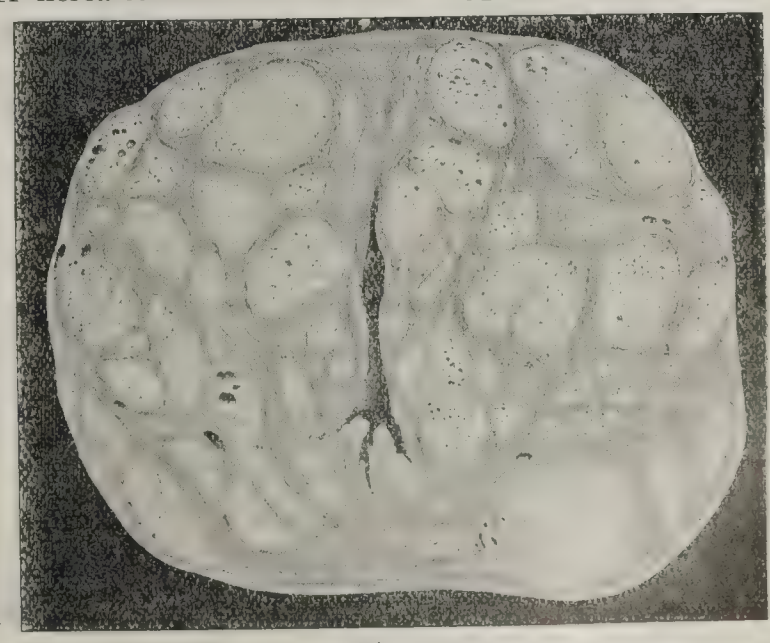


Fig. 3.

weight of the specimen was 152 grams (4¼ oz.). The so-called "capsule" is seen to be composed of transversely-coursing bundles. The upper or vesical part of the specimen is smooth

* A previous paper on the same subject, to which references are made the present communication, appeared in the BRITISH MEDICAL JOURNAL of March 29th, 1902, p. 764.

and rounded. Connected with the inferior part of the gland is a torn portion of the membranous urethra, which projects 13 mm. and partially surrounds the catheter which has been passed through the canal. The prostatic urethra is intact within the tumour.

Fig. 3 is a cross section of the same made through the middle of the organ at right angles to the axis of the urethra. It shows that the adenomatous tissue has practically surrounded the slit-like urethra, the wall of which is very thin and could not be separated from the adenomatous mass without rupture. At the circumference of the specimen and completely surrounding it can be seen the thin so-called "capsule." This may be considered a typical example of the parts removed by the so-called total prostatectomy.

With this specimen compare the following obtained after death:

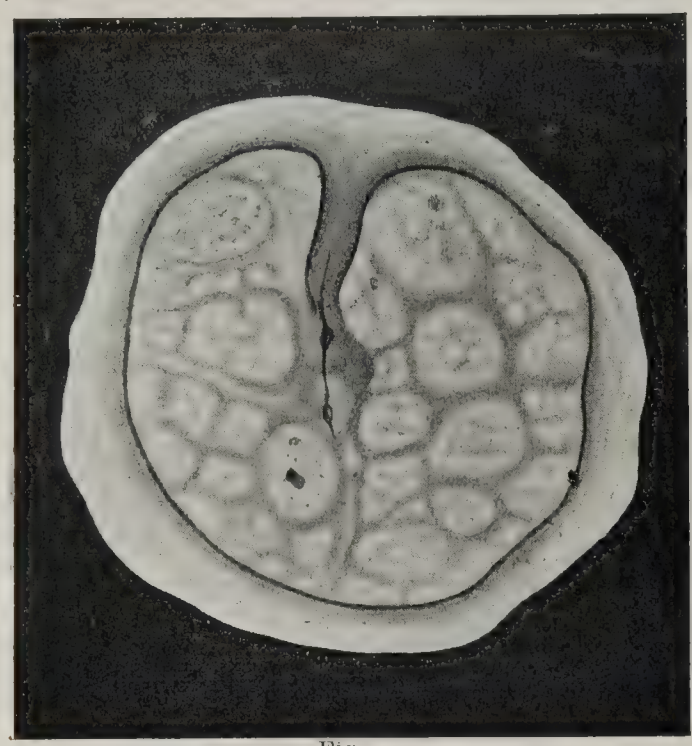


Fig. 4.

Fig. 4 represents a section at right angles to the urethra of the prostate of a man, H. H., aged 60, who was admitted for the impaction of a stone at the junction of the prostatic and membranous urethra. The stone was removed by suprapubic lithotomy. The patient died suddenly on the fourth day after operation. After death the prostate and bladder were removed from the body, hardened in alcohol, and examined by means of sections cut at right angles to the urethra.

The projection of the prostate into the bladder was of the "os uteri" type. The "posterior lip" was more prominent than the anterior. The whole organ viewed from the outside forms a globular swelling without any indications of division into lobes. The greatest transverse diameter measures 6 cm.; the urethra along its length also measures 6 cm. The cut surfaces show a distinct envelope and within this a glandular mass. The average thickness of the envelope is 0.3 cm. It is an exceedingly definite structure, and is distinctly laminated to such a marked degree that it admits of artificial cleavage for considerable distances along its lamellae.

In the section taken through the centre of the enlargement the urethra is a vertical slit measuring 1.5 cm., and lies 2 cm. from the posterior and 1.5 cm. from the anterior border of the organ. The glandular substance is arranged in somewhat ill-defined lobules, absent on the anterior aspect of the urethra. In the last-named situation there is a septum of fibrous or fibromuscular tissue surrounding the urethra, and continuous above or in front with the "envelope." Towards the inferior or distal end of the organ this fibrous septum is less distinct, being broken up by processes of gland tissue.

The median projection behind the urethral orifice is shown on a transverse section, carried through this part, to be inseparably continuous with the lateral portions.

Fig. 5 shows the separation between the envelope and the glandular portion. The central mass containing the urethra has been shelled out from the "envelope." This can be repeated in every section of the organ, so that ultimately the organ is divided into two parts, namely, the "envelope" and a contained glandular mass, in which lies the urethra, the only line of continuity between the two being the thick anterior fibrous septum, which is continued in from the "envelope" to join the peri-urethral tissue.

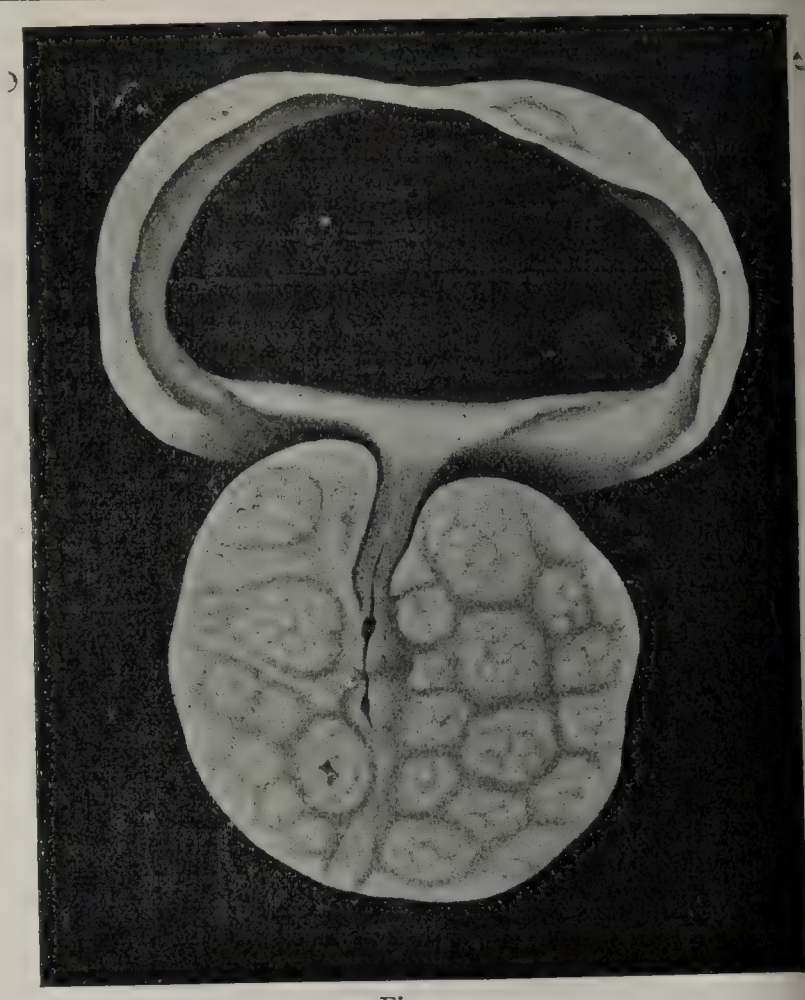


Fig. 5.

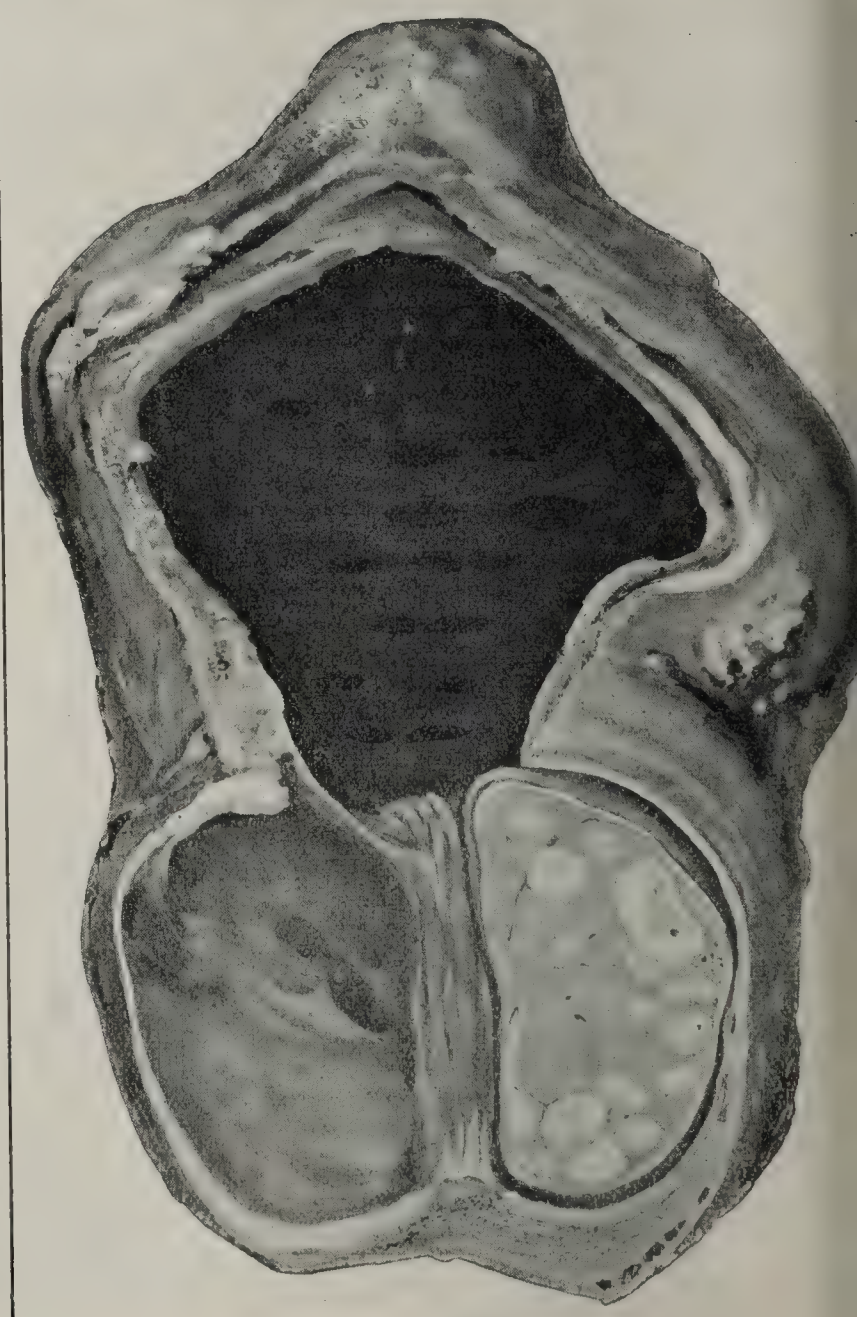


Fig. 6.

think that no one can fail to be struck with the similarity hese two specimens (Figs. 2-3, 4-5), the first obtained as result of a surgical procedure, the other in the *post-mortem* m. The only difference is the thickness of the surrounding elope; the central portions are identical; in fact, they ear to represent the same pathological change in different ividuals.

the specimen removed in the *post-mortem* room the ure of the envelope can be studied. Now, this contains d matter as shown by the lenticular mass seen in Fig. 5, by the fact that a microscopic section taken at a point ch is entirely fibro-muscular to the naked eye, reveals the sence of flattened gland spaces. (A figure illustrating this be found in the British Medical Journal, loc. cit., mbered Fig. 7). This envelope therefore represents more n the outer non-glandular part of the organ.

t can be studied further in the specimen on p. 240 (Fig. 6). is represents the bladder and enlarged prostate taken after th from a man, F. H., aged 83, who died of uraemia. The nt of the bladder and of the prostate has been removed by oronal section.

he two lateral adenomatous masses have been removed by ital separation, which was accomplished without any diffi-ty. The left of these masses has been replaced, but the e of its separation is indicated in the drawing. The eral wall of the urethra was closely adherent and removed h it. It will be seen that there is a median ridge left after removal of the lateral masses; this is the posterior wall of urethra, and is still covered with mucous membrane. At summit of the ridge and projecting into the bladder in position of the uvula vesicae is a small rounded eminence med by a small adenoma. The walls of the bilocular ity left after the removal of the lateral adenomatous sses have a very considerable thickness. This is especially case behind the urethra on both sides, as seen in the rest portion of the drawing.

n the left side behind will be seen a portion of the pro-tic plexus of veins. A further examination of the speci-n showed that the walls left after the ablation of the lateral sses were capable of a further division. With the finger a blunt dissector the division was carried out until the t of the envelope immediately surrounding the lateral sses was completely isolated. The result of this isolation shown in Figs. 7 and 8.

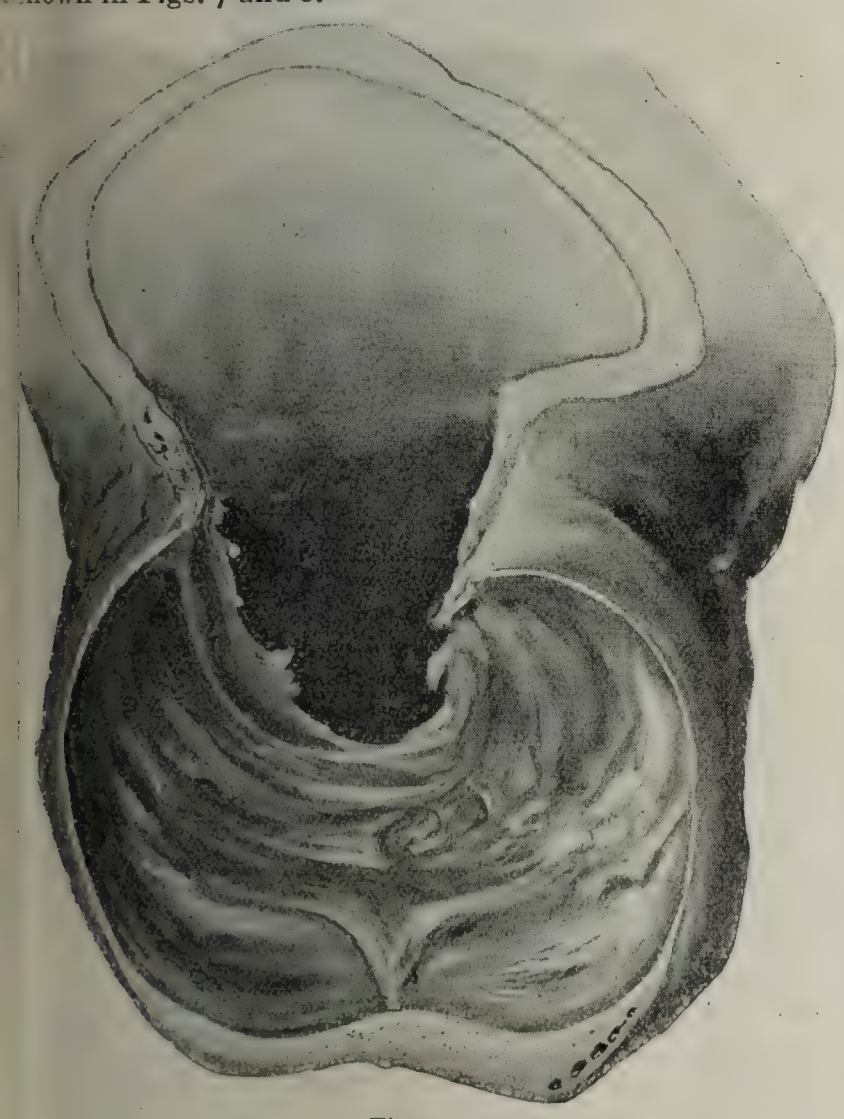


Fig. 7.

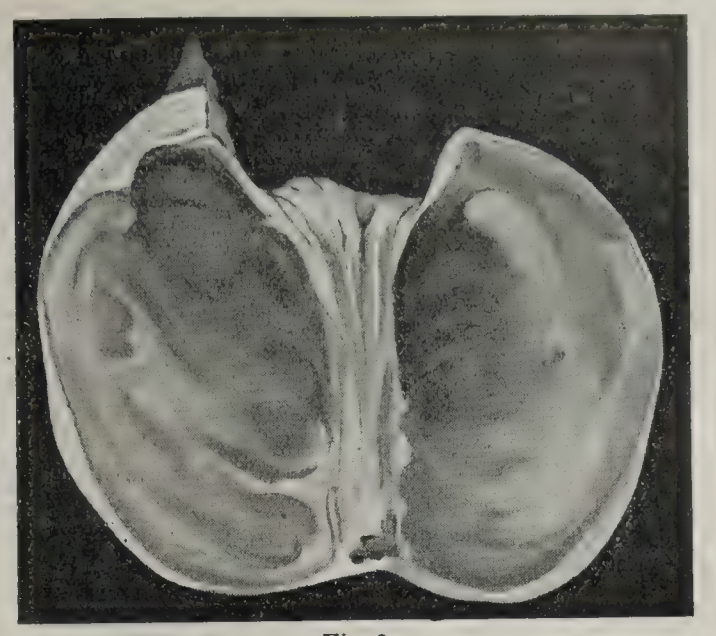


Fig. 8.

With this portion of the envelope has come away the posterior wall of the urethra, and with it, of necessity, the terminal portions of the ejaculatory ducts. This shell or envelope shows naked-eye evidences of gland tissue, for it contains the adenoma at the uvula vesicae, and a microscopic section of the envelope taken from the right side, where only fibrous tissue is visible to the naked eye, reveals the presence of flattened gland spaces lined with columnar epithelium (Fig. 9).

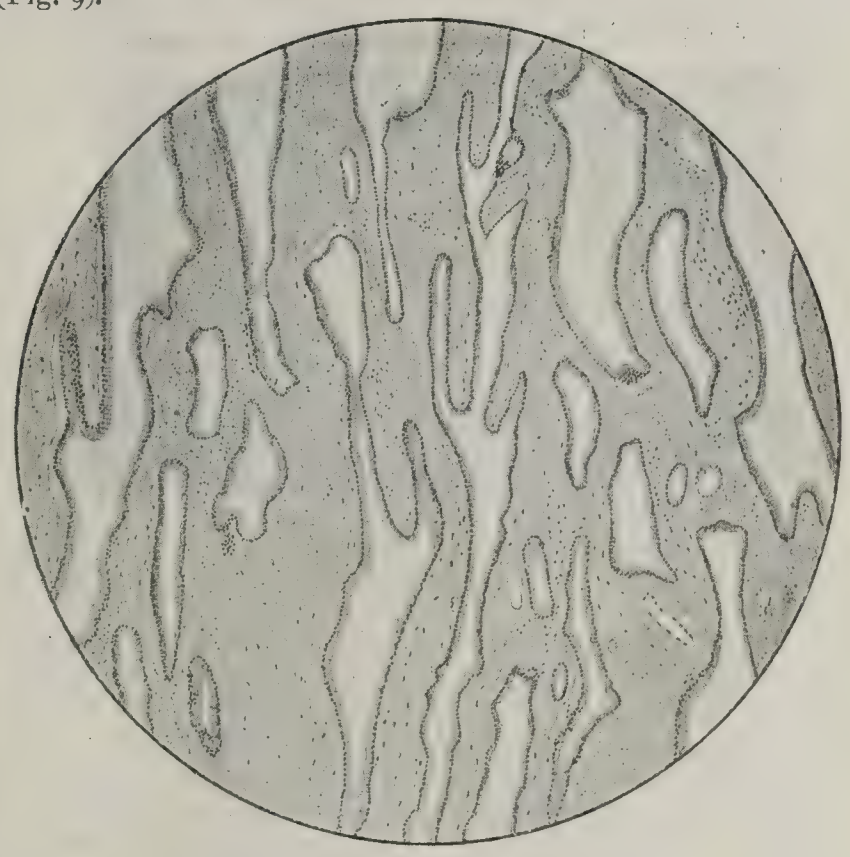


Fig. 9.

The outer surface of the envelope shows circularly coursing bundles of fibres. A drawing of these fibres has not been made, but a reverse of the outer surface can be seen in Fig. 8, which represents the parts after the removal of the envelope described. The wall of the now unilocular cavity left by the removal of the adenomata and of the envelope is still a definite structure, and has an appreciable thickness even at its thinnest part, while behind it measures 0.6 cm. in plan of section. The texture at this spot is spongy, and a microscopic section shows the presence of a considerable amount of flattened gland tissue which is not much altered from the normal (Fig. 10).

Still more externally can be seen the prostatic plexus. If the two adenomatous masses were replaced in their envelope, it will be seen that the whole would resemble the parts that are often removed in the so-called total prostatectomy, namely, two lateral adenomatous masses encompassed by an envelope that is most strongly marked at the equator of the mass, and presenting transversely coursing fibres.

Fig. 10.

The two specimens removed after death show that the enlargement of the prostate consisted of adenomatous masses enclosed in an envelope, the urethra being so closely adherent to the adenomata that its separation for any extent was impossible without laceration. The development of the adenomata and envelope will now be traced.

THE GROWTH OF THE ADENOMATA AND THE FORMATION OF THE "CAPSULE."

The first indication of a change in the prostate in the process of enlargement is seen in the altered relations between the fibromuscular and glandular portions. Small white areas become visible, and tend to assume a rounded outline. These areas may be single or arranged in groups. At the same time the arrangement of the fibrous tissue is altered. It no longer runs out in straight lines from behind the urethra, but the strands take a wavy course, and arrange themselves round the growing glandular masses (Fig. 11).

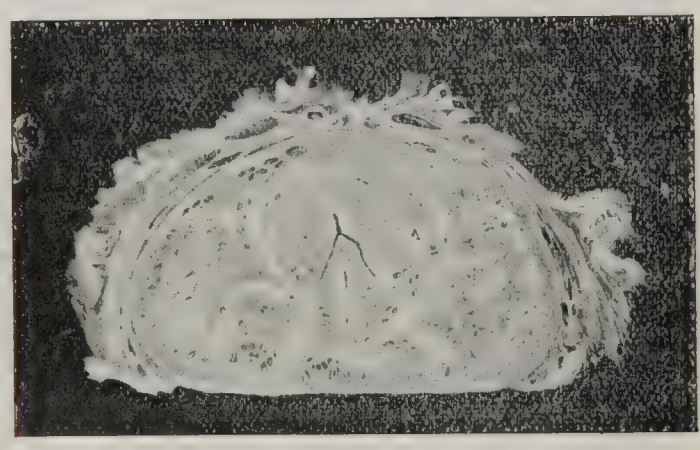


Fig. 11.

There can often be seen in the same specimen normal prostatic tissue areas showing whitish spots, ill-defined lobulated masses.

As the time goes on the normal gland tissues becomes less and less obvious, disappears from the centre of the organ, and is only seen at the periphery of the organ. The whitish areas increase in size, and become recognizable as adenomatous masses (see Figs. 4 and 6, loc. cit.).

The more rapidly-growing areas increase at the expense of the more slowly-growing ones, which are compressed and stretched over the surface of their more-quickly growing neighbours. The tissue between the adenomata, composed partly of the fibromuscular septa of the normal organ and partly of the stretched prostatic tissue, becomes circularly disposed round the gland masses (Fig. 12).

The adenomata may be either single or compound, that is to say they may be composed of several adenomata bound together by one common envelope or one adenoma may contain two or more smaller ones.

By the time that the adenomatous changes have become well marked the external form of the organ has undergone a change. The antero-posterior measurement approaches then equals the lateral, so that the organ not infrequently becomes globular in outline, and its cross section circular instead of being transversely elongated.

There does not appear to be any definite relation between the size of the organ and the progress of the adenomatous change.

This is well shown if Figs. 2 and 3, representing a specimen weighing 150 grams and having an antero-posterior measurement 5.5 cm., are compared with Figs. 13 and 14, representing a specimen weighing 20 grams (5 drachms) with an antero-posterior measurement of 3.5 cm. In fact, the second specimen is a miniature of the first.

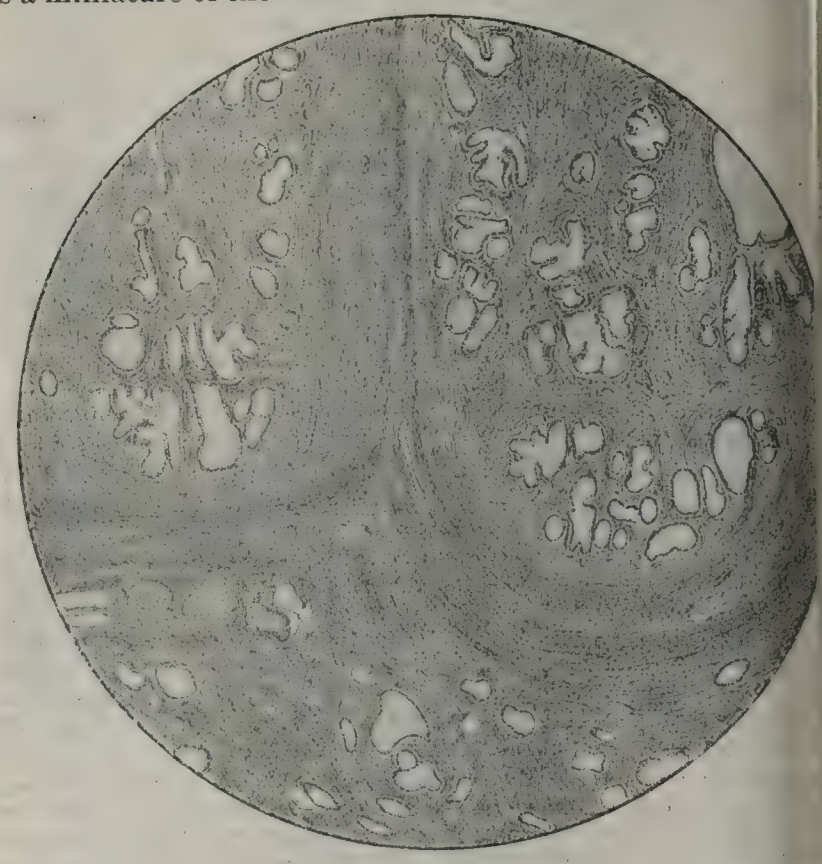


Fig. 12.

Fig. 13.—This specimen was removed by the author from a man, L. C 65, who was admitted to St. Thomas's Hospital in August, 190 with a dribbling retention. Its weight was 20.4 grams (5 drachms It is hardly, if at all, larger than the normal organ. The appea ances are those usually presented by the specimens removed the so-called total prostatectomy. The view is that of the anteri surface, and shows the transversely coursing bundles of fibr muscular tissue. Above and projecting beyond the rough tran verse fibres are seen the smooth rounded eminences of the later glandular masses. Below are the portions of the torn membrano urethra, the longest of which measures 2 cm. The catheter placed in the urethra, the wall of which has been removed wi the tumour.

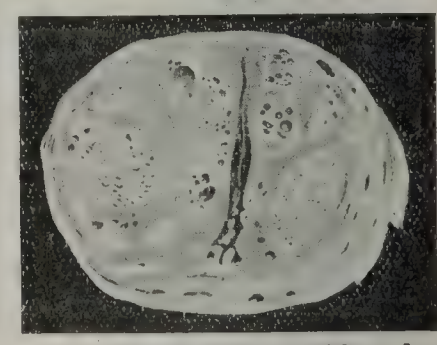


Fig. 14.—A transverse section of Fig. 13. The adenomatous grow is situated at the sides of the deepened slit-like urethra. In fro and behind there is no abnormal growth of gland tissue. On t circumference of the specimen can be seen the laminated envelo which differs in thickness in different parts. No part of t prostatic plexus of veins has been removed.

om the disposition of the gland tissue in the normal tate it follows that the adenomata can develop in any ition round the urethra except immediately in front of anal where lies the anterior commissure. If the adenoous change starts in either side of the urethra it will h lateral masses of adenomatous tissue. On the other l should the change affect all the glandular portion of the n alike the growth will surround the urethra everywhere pt the front and even here by its growth eventually disle the fibromuscular anterior commissure. The projecd of the gland into the bladder will in this case be equal hd the whole circumference of the urethra, or in other ds the projection will be of the "os uteri" type.

hould the adenomata, however, develop more rapidly in portion of the gland behind the urethra and above the ulatory ducts there will be formed what has been called a dian lobe, but this is as a matter of fact always continuous h one lateral mass as shown in Fig. 15 or with both as in . 9, loc. cit.

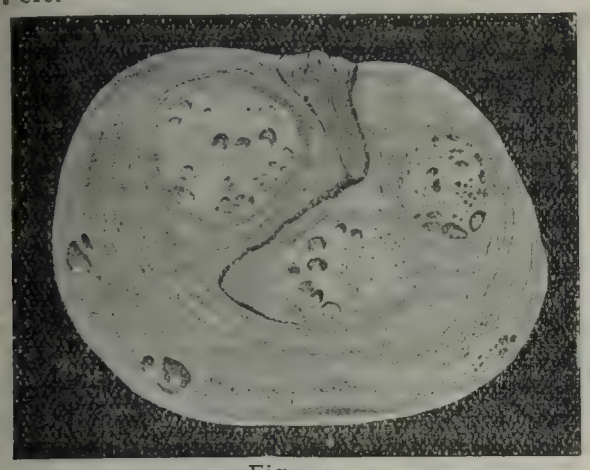


Fig. 15

situated near a free surface the adenomata grow in the ection of least resistance, and form the nodular masses so n met with on the vesical surface of the prostate or in the erior of the prostatic urethra. This can be seen in specios Nos. 4,331 and 4,340A in the Museum of the Royal College urgeons; a short account of these specimens is inserted e.

ecimen 4,331, *Royal College of Surgeons*.—"The prostate is erally enlarged, and the parts that project into the bladder and hra are irregularly knobbed. Part of the right lobe projects as ort, thick nipple-like process into the neck of the bladder in front e enlarged middle lobe. Part of the left lobe projects as a broad, rather flattened, process into the urethra directly over the caput aginis, so as to be in contact with the opposite wall. The middle forms a deep and broad transverse and trilobed ridge across the of the bladder." The patient was aged 70 years. A vertical, almost nsverse, section along the course of the urethra shows the following nts: On the urethral aspect it presents three rounded eminences ch correspond with the same number of imperfectly circumscribed nomata. External to these there lies a thin layer of more or less mal spongy prostatic tissue, and beyond this, without any line of aration, lies the prostatic plexus. The section of the right lateral e shows the nipple-like process to be separated from the main mass a fibrous septum. The rest of the mass presents two adenomatous , but elsewhere it is spongy, but for the most part less so than the mal gland. The outer surface of the lateral lobe can be separated n the muscular and fibrous tissue enveloping it; the surface of the elope thus raised is transversely striated from the presence of mus- ar fibre.

ecimen 4,340 *A*, *Royal College of Surgeons*, shows a similar condition which the adenomatous enlargement occupies a median position be- d the urethral orifice. Microscopic sections taken from these adenoous areas show, besides a fibromuscular stroma, a large proportion land tissue.

o recapitulate, it may be said that the increase in the an is due in the first instance to an increase in the ndular elements. This growth usually affects the greater t of the organ, but often leaves small portions almost unered. Within the changed area the alteration of the ndular element may be of very varying degree, consisting some cases of small discrete points, while in others wellrked adenomatous nodules occur. These adenomata are en, indeed, usually compound, and may occupy the whole ice within the "envelope" (Figs. 3 and 4).

he overgrowth of the prostate in these cases is therefore t described as an adenomatous hypertrophy, and is comrable to the adenomatous form of goitre.

n order to ascertain the changes that occurred in enlargent of the prostate many specimens have been examined, d in nearly every instance the changes described above ve been seen. There are, however, other forms such as the fibroid and carcinomatous, with which this paper does not deal.

The formation of the so-called "capsule" goes on pari passu with growth of the adenomata. The rapidly growing gland tissue stretches and expands the circumjacent tissue over and around itself. The radiating fibromuscular bands lose their original disposition and run in a wavy course between the adenomata. The normally diffuse spongy nature of the gland is lost. As the adenomata grow the circumferential part of the organ comes to be laminated, the fibres being driven to take a more or less circular course when seen in a cross section of the organ (Fig. 5, loc. cit.). In this specimen, which is in the museum of the Royal College of Surgeons and which was taken from the body after death, the centre of the lateral mass of the prostate is occupied by an adenoma; around it can be seen the remnants of normal gland tissue, the stroma being concentrically arranged. Outside again can be seen the plexus of veins inbedded in the recto-vesical fascia. This is a fairly early stage, but it can be seen that with the growth of the adenoma the circumferential tissue would be more and more thinned and come to resemble the envelope seen in Figs. 3 and 4.

The urethra as seen in cross section is at first crescent shaped. It next becomes triradiate (Fig. 4, loc. cit.), the radii being placed one anteriorly and two laterally. The next change is the disappearance of the lateral radii and the elongation of the anterior until the urethra is a simple slit. If both lobes develop at the same rate the urethra in cross section will be linear, but if one lateral lobe increases disproportionately to the other, the canal will be correspondingly curved.

Not only is the prostatic urethra increased as measured along the catheter, but it is considerably increased in the antero-posterior plane, as can be well seen in Figs. 3 and 4. Even if the adenomata first show themselves towards the middle of the lateral masses, they soon come into close relation with the urethra, and lie immediately alongside the walls of the canal.

The increase in dimensions of the urethra both in length and in the antero-posterior plane caused by the growth of the adenomata leads to a thinning and stretching of the urethral wall, so that in most specimens examined the urethra is represented by a mucous membrane so thin and delicate that it cannot be raised for any distance from the surface of the adenomata without rupture. This necessarily leads to a removal of the urethra on the adenomata. Whether the adenomata are removed singly or as one mass in a surgical "envelope," the mucous membrane is demonstrable on their inner surfaces, though its thinned condition makes this a matter of some difficulty unless a microscopic section is cut.

The tags of urethra that are seen to project from the inferior extremity of the specimens (Figs. 2 and 13) obtained by the so-called total prostatectomy are really derived from the membranous portion of the canal, and their continuity with the prostatic urethra within the tumour can be traced.

Enucleation of the Adenomata and the so-called Total Prostatectomy.

I think that it can easily be shown that the nature and appearance of the parts removed depends on two factors:

1. The situation and extent of the adenomatous change.
2. The point at which the finger enters and cleaves the envelope.

It has been shown that the glandular portion of the prostate represented in Fig. 4 could be shelled out from the envelope. If the separation were carried out throughout the organ as it had been done in Fig. 5, there would have been removed a glandular mass containing the urethra, the surface of which would have been smooth and somewhat nodular, in other words it would have resembled the surface of the adenoma. Now the envelope is laminated, and can be split in any part of its thickness. If the finger had entered in the middle of the cut surface of the envelope, as shown in the section, the adenomatous mass would have come out surrounded with an envelope, the fibres of which would have formed circularly-disposed bundles, and the surface would have resembled that seen in the specimen represented in Figs. 2 and 3.

The amount of capsule removed with such a tumour will then simply depend on the thickness of the envelope and depth to which the finger happens to have been penetrated in the process of enucleation. Figs. 7 and 8 demonstrate that in such an enlarged prostate as this, each adenoma could have been removed separately, provided that the finger had

reached to the surface of the adenomatous masses. If the finger penetrated less deeply, and entered the envelope, the parts removed would have consisted of two lateral adenomatous masses bound together by the innermost layers of the envelope.

By the help of specimens removed from the dead body, the growth of the adenomata, the formation of a definite laminated envelope, and the alteration in the shape and environment of the urethra have been traced. It has been shown that the glandular masses surrounded by the innermost layers of the envelope enucleated from the parts removed after death correspond accurately to those removed by the so-called total prostatectomy in the living subject. It must be concluded, therefore, that the parts left behind in these two procedures correspond.

Now, in the case of the parts removed after death, after a removal such as that just described, there is left behind a definite envelope. This envelope has been shown to contain glandular tissue, and therefore to have been formed by the periphery of the organ, and to represent more than the outer non-glandular cortex of the prostate. External to this envelope the prostatic plexus has been shown to lie. It therefore follows that after the so-called total prostatectomy an envelope formed of expanded prostatic tissue is doubtless left behind, and bounds the cavity formed by the removal of the tumour. From a study of these facts corroborated by others not referred to for want of space, the following conclusions may, I think, be drawn.

Fig. 16 (slightly reduced).

Fig. 16 represents the mass enucleated; it measures 9.5 cm. in transverse diameter, and 6.5 cm. in a vertical direction. The surface is lobulated, but here and there shows portions of a transversely fasciculated envelope. The prostatic urethra is intact within the mass. A finger introduced into the canal shows the tumour to consist of two lateral masses joined together in front and behind the urethra. The projection from the top of the tumour is a strip of the vesical mucous membrane.

Conclusions.

1. That the usual form of prostatic enlargement is an adedomatous one.
2. That the adenomatous tissue may surround the urethra or form masses in the lateral parts of the organ, behind the urethra, or in all three parts.
3. That the parts removed may consist of adenomatous masses from the lateral parts, or of an adenomatous formation completely surrounding the urethra.
4. That there is always left behind a definite laminated envelope containing glandular tissue, derived from expanded outer portion of the organ.
5. That the amount of envelope left on the surface of tumour after removal depends on the depth at which enucleating finger cleaves the envelope.
6. That the recto-vesicular fascia is not opened nor prostatic plexus of veins injured.
7. That though it is possible to remove a small adeno from the centre of the lateral part of the prostate with extensively injuring the urethra, yet this canal is removed *toto* when the adenomatous growths are extirpated in th envelope, and the lateral walls come away adhering to adenomata when these are of any considerable size.

Fig. 17 (slightly reduced.)

Fig. 17 shows the bladder and the surgical capsule left after removal of the adenomatous mass. The capsule is a very defi structure; a portion of the front wall of this has been removed, through this opening can be seen the space left after the ablation of tumour. Above this the cavity communicates with the bladder b opening having a diameter of about 4 cm.; below can be seen the ope of the membranous urethra, shown in the drawing as a triangular a ture. At one spot in the capsule, traversed by the section exposing interior, can be seen a white lenticular mass. This is shown on right and lower part of the drawing. A microscopic section of mass shows it to consist of glandular tissue. Flattened recess similar tissue occur in the adjoining portion of the capsule. L outside the surgical capsule can be seen the layers of areolar ti forming the recto-vesical fascia, and lying between the planes are veins of the prostatic plexus.

I would, in conclusion, suggest that the term "surg capsule" should be applied to the envelope formed from prostate by the expansion of the adenomata. It is a pa logical formation, and represents more than the outer

dular portion, to which Mr. Shattock has given the name rtex." To its presence is due the small amount of bleed- nd the absence of urinary extravasation. Indeed, in the alled total prostatectomy, the enucleating finger never es outside the limits of the prostate, and, therefore, ot enter the recto-vesical fascia or tear the prostatic us of veins.

ADDENDUM.

nce the above was written, the specimen (see Figs. 16 17, p. 244) has come to hand.

was obtained from R. O., a male, aged 81, who was admitted to St. has's Hospital in November, 1903, suffering from retention of urine. bladder had been twice opened for retention. The patient was mely ill, and beyond giving relief by a third suprapubic opening ing was done. Death followed in a few hours.

the necropsy there was found intense haemorrhagic cystitis, le hydronephrosis, and dilatation of the left ureter. The bladder its enlarged prostate was removed from the body, the membranous ra being cut across at its commencement. The bladder was then ed on its anterior surface. The intravesical projection of the pro- was of the "os uteri" type. The operation of so-called total pro- ctomy was then performed on the parts in an exactly similar way to adopted in the living subject. The process of enucleation was very

his specimen fully bears out the contention that a definite elope formed of expanded prostatic tissue is left behind r the so-called total prostatectomy.

NOTES ON MYIASIS.

BY CAPTAIN P. S. LELEAN, R.A.M.C., F.R.C.S.ENG.

RE would seem to have been a somewhat strong prejudice hst flies as remotely as the time of the fourth plague of es, 1491 B.C., and it is interesting to follow the develop- t of that preju- into the de- e knowledge of present day, the researches he entomologist the pathologist shown how. portant a part is ed by winged cts in the eti- y of human ise.

nce the geo- hical distribu- of the larvae h cause myi- is almost co- ent with that e order *Diptera*, nding as it does the Shetlands he equator, the y is obviously of merely tropi- nterest; nor can said to concern the biologist n it is observed a series of 38 s. recently col- d by Maillard, of *Compsomyia* larvae showed a mortality per cent.

ferring to ancient records we find that in 1582, Ambrose described a maggot passed per urethram which he calls iscus." This is the first of a series of 30 such recorded s, the second being in 1641, and the last—published by Foster Palmer recently—being a larva of *Homalomyia aris* (house-fly).

definite attempt was made by Baier in 1740 to place the ect on a more scientific basis in an article entitled "De eratione insectorum in corpore humano."

1787, we read of a case of "Violent pains from worms er the skin," which worms were "near an inch long, all in s in the back, with hard scales," and the theory of in- on by insects is only tentatively advanced as a mere ulative explanation of a pathological novelty.

arke in a brilliantly illustrated and able contribution to transactions of the Linnean Society in 1797 establishes relation between larvae and oestridae, elucidates the confusion involving the classification of the latter, and incidentally combats some suggestive fallacies of his day: one *re* the ovulation of *Oestrus haemorrhoidalis* suggested by the quotation "Mire per anum intrans" showing the need for an illuminating contribution to the literature of his day.

In 1824, a really interesting case was reported from the sister isle. A lady, after a prolonged geophagism, became subject to constant vomiting, and produced quite a remarkable biological collection, in which, among many strange beasts, dipterous larvae "literally teemed," larvae, pupae, and imagines being curiously ejected together. One realizes the paucity of accurate knowledge in the last century when one reads that it inspired "a feeling of horror to see them (the larvae) frisking along, occasionally expanding their jaws and extending their talons," and although the doctor himself witnessed the extrusion of these forms, it is impossible not to be a little sceptical of the patient's bona fides, when one reads that she invariably concluded by "chanting the Litany at full length in a clear and beautiful voice."

In 1842, an eminent London physician writes: "I saw hundreds of worms escaping from the skin of her body, the carpet was covered with them where she stood while dressing.....they had a power of ejecting themselves to a distance of from 12 in. to 20 in."—a startling fact, but confirmed in 1899 by Lieutenant-Colonel J. Smith, who saw dipterous larvae spring a distance of 3 ft.

Coquerel, writing in 1858 *Des Larves des Diptères développés dans les Sinus Frontaux*, makes this lament: "Ces faits sont peu précis et laissent beaucoup à désirer sous le rapport scientifique;" and twenty years later Cobbold responds in his "Entozoa," giving a list of species of reputed dipterous parasites under no less than fifteen headings.

1880 brings the record by Biaudet of a case of spontaneous cure of *Homalomyia scalaris* by a surfeit of sorrel. The growing interest in myiasis is shown by the reading of a paper on this subject before the International Congress of 1881 by Dr. Smith of Dublin. In this he gave a brief summary of the progress in the classification of parasitic diptera from the time of Humboldt, who describes the *Oestrus humanus*. Smith contended that there is no *Oestrus hominis* peculiar to man, that human larval parasites are all muscidae, and quoted the extraction from Dr. Livingstone's leg of a muscid larva in Central Africa.

Auchmeromyia luteola, Fabr.

In 1882 two cases of migrating larvae appeared, on specu- lated segmented specimen, 13 mm. long, being removed from the back of the neck after a three months' journey from the right ankle, leaving an indurated track.

Of more recent years, perhaps the most curious biological contribution is that of Dr. Folker of Guatemala on the gusano worm. The ovulation of this mosquito-like fly was observed to be effected as follows: The proboscis is inserted in the skin; the long body is arched until the "tail" (? ovipositor) is passed along it as along a director; then, erecting itself on its hind legs to a convenient angle, a full charge of ova is passed deeply into the cavity, a boil ensuing in three days.

From a pathological standpoint Colonel David Bruce's recent demonstration of the rôle of *Glossina palpalis* in sleeping sickness stands alone in importance.

While on service recently with the Anglo-French boundary Commission in Northern Nigeria my attention was drawn to this subject by the occurrence of ecto-parasitic larvae on natives near the Sokoto Arc (7.18 N., 13.29 E.). I secured two larvae and hatched the flies. On submitting these to

Mr. Austen, the dipterologist of the British Museum, he identified them as specimens of *Auchmeromyia scalaris*, Fabr., and I am indebted to him for the scientific description of fly and puparium accompanying the figure. Of this accurately-defined species no larva has previously been described as a human ecto-parasite. The larva is of the usual muscid type, twelve-segmented with hooked mouth-armature.

DESCRIPTION OF THE FLY.

Mr. Ernest E. Austen, of the Zoological Department, British Museum, has been good enough to supply the following brief description of the fly:

Family, MUSCIDAE.

Auchmeromyia luteola, Fabr.

Musca luteola, Fabricius. *Systema Anthatorum*, p. 286 (1805).

♂, ♀. Length, 10½ mm. to 12 mm.; length of wing, 10⅔ mm.; width of head, 3½ mm. in ♂, 4 mm. in ♀.

A rather stoutly-built fly, orange-buff in general colour, but with the distal half of the abdomen blackish.

Head, orange buff, with the eyes wide apart in both sexes; *thorax* somewhat darker than the base of the abdomen, with a faint greyish bloom, and marked with two indistinct blackish longitudinal stripes, which do not extend to the hind margin of the thorax; *abdomen* in the ♂ with the hind margin of the first segment very narrowly, the hind margin of the second segment more broadly, a more or less complete forwardly tapering medium stripe, the whole of the third segment except the extreme base, and two large lateral blotches on the fourth segment, meeting, or nearly so, in the median line—blackish. In the ♀ the blackish area on the abdomen is greater, since it includes in addition the whole of the second segment, except a more or less narrow band at the base. A striking sexual difference is to be seen in the second abdominal segment, which in the ♀ is twice the length of the same segment in the ♂. *Legs* orange-buff. *Wings* faintly brownish but entirely devoid of blotches or other markings, so that the veins are plainly visible.

The chitinous pupa-case of this species is of the usual reddish-brown colour and barrel-like shape common to the Muscidae; it measures about 11 mm. in length, by 4⅔ mm. in greatest width.

The two specimens *bred* at Maradi by Captain Lelean are both females, and exhibit a divergence from the normal type in that their abdomens are almost entirely orange-buff in colour and show but little trace of the blackish apical half as described above. Two other specimens *caught* by Captain Lelean's boy at the same place are, however, perfectly normal, so that I am inclined to think that the pallor of the bred specimens is probably due to immaturity.

TREATMENT.

To conclude with a few notes on treatment:

In gusano worm the natives (1) occlude the orifice of the cavity in which the larva is contained by a piece of stamp paper, the air-breathing parasite, being thus asphyxiated, can be expressed; (2) cover the aperture with a tobacco-leaf, the nicotine poisoning the grub.

Dr. Folker uses a hypodermic of chloroform which so paralyses the larvae that he has by this means expressed as many as fourteen in less than two minutes, a velocity which commands respect. The *Dermatobia noxialis* (screw worm) is killed in the frontal sinus by carbolic injections of a 2 per cent. solution.

In the auditory meatus the larvae often cause so much tenderness as to make mechanical extraction impossible. A little calomel blown into the meatus is said to cause their death and spontaneous extrusion.

Lieutenant-Colonel J. Smith, writing of Indian experience, found maggots ingested in mangoes most difficult to dislodge, a fact not to be wondered at when they survived five minutes' immersion in pure carbolic acid. One patient passed from fifty to a hundred larvae daily for twelve months, and intensely feared their eating through the intestine. One case was cured by enemata terebinthinae; another was on butea frondosa; and in a third—parasiticides having no effect—scybala were produced by opium, and the embedded maggots came away by subsequent use of purgatives and enemata.

Finally, in huts infested by diptera, if cones of dried pyrethrum powder be burnt, the flies fall stupefied to the floor, whence they can be collected and burnt.

MEMORANDA:

MEDICAL, SURGICAL, OBSTETRICAL, THE PEUTICAL, PATHOLOGICAL, ETC.

VASECTOMY FOR ENLARGED PROSTATE.

Is the operation of vasectomy abandoned? Having regar the much more serious one of prostatectomy now being a cated, I think the following case is worthy of being pl on record, the patient having been continuously under observation from 1896 to the present time. I must pre that I was an absolute sceptic as to the utility of excisio the vas deferens, and only did it at the express solicitatio my patient, and I plainly told him previously that I did expect it to be of any good.

A gentleman of fat and flabby physique, aged 58, mar no family, of very regular habits, abstemious in all resp came under my observation in May, 1896, for symptom enlarged prostate, frequent micturition both night and urgent need to respond quickly to the call to do so, occasi difficulty in passing urine even to almost absolute reten urine only being voided by drops and with extreme pain violent strain. The prostate was felt to be uniformly enla like a medium-sized apple. The urine was fairly clear, clouded with mucus; no pus or albumen. These symp continued with more or less severity until the operation. seven occasions he came to what he describes as a com stoppage; these were always gradually relieved by free gation with salines (I may here remark that of all treat of retention from enlarged prostate, that of active purg is the best). His less urgent symptoms in the intervals kept in abeyance by rendering the urine alkaline, frec hot baths; yet, notwithstanding every care and leadi most judicious life, his condition was one of chronic invalic and anxiety as to recurrent retention of urine. No cat could ever be passed, even under chloroform, though was no stricture of urethra or spasm, or pain on attempti do so.

On July 17th, 1901, I excised about 1 in. from the righ deferens. He experienced no discomfort, and was u about in six days. From this time he has had no diffi in micturition or occasion to seek medical aid. I have wr to him at intervals asking particularly as to his cond and have always had replies expressing his perfect sat tion with the results of the operation, and that he was well. His last letter, dated August 17th, 1903, follows:—

> In reply to your inquiry, I am very glad to say that I h difficulty with passing water, and have had none since the ope neither have I had a stoppage since the operation, and I am certainly convinced that the operation has been beneficial to me.

On August 20th, 1903, I personally examined him, whe only criticism I could make was the right testis felt flabby than the left. He is now 66 years of age. He w six years under my care, suffering more or less continu before the operation, and for over two years since the tion I have never heard of him excepting when I wr inquire.

Ryde. THOS. ALPH. BUCK, M.B.L

CASE OF FACIAL PARALYSIS FOLLOWING FOR DELIVERY.

MRS. G., aged 23, primipara, was confined on March 1903. The pelvis was narrow, and forceps had to be a to extract the child, a good deal of force being e both by traction and compression.

When she was visited next day the child was crying, was quite evident that he had paralysis of the left side face. The mouth was drawn to the right side, whic puckered, the left being full, and the right eye was while the left was open. When the child slept bot were closed. In addition the head was deviated to th side, and there was a convergent squint, the left eye l directly forwards, but the right cornea being right und inner canthus. There were rhythmic twitchings of t arm and leg, and when crying became more violent, the arm and leg became affected similarly, but to a less ext

Next day (15th) the twitchings of the left side still present on crying, but not so marked as On the 18th these had quite gone, as had also the tion of the head to the left; and the squint was less m The child rapidly improved. For the first week he ha

y spoon, but by March 20th could take the breast by
s of a glass shield with indiarubber teat, and by April
ithout anything intervening whatever.
April 10th the squint had gone, and the paralysis was
improved, both eyes being closed when he cried.
April 25th there was only a slight difference between the
ides of the face, which had quite disappeared by May
The child was then healthy, well-nourished, and had
n considerably since birth.
presentation was occipital, with the head in the first
sion. The right blade of the forceps had marked the
over the right half of the frontal bone, but there was no
ession of the skull. The left blade left no mark, but
have been applied just over or behind the left ear.
ng, W. GEORGE ARTHUR, M.B.

HAEMOGLOBINURIC FEVER.

THIAL, aged 37, a native of Hyderabad and a butler in the
ce of Mrs. F., residing at Malakpeth, had been suffering
ague for a couple of months, but on November 15th, 1903,
as astonished to find that during the fit of shivering the
voided was dark in colour; this frightened him a good
The attacks of ague came on every morning, lasted for
uple of hours, and left him extremely weak. Bilious
iting occurred only once at the commencement of the
se. He had jaundice, constipation, pain in the loins,
siness in the belly, which was relieved on voiding urine
passing wind. The conjunctivae were pigmented at the
canthi as a result of malaria. Liver and spleen were not
ged. The urine during the ague period used to become
in colour, and later in the day it became quite clear
ually.
e dark, port-wine coloured urine was faintly acid in reac-
its specific gravity was 1020, and it contained albumen.
n submitted to centrifuge a greenish deposit was obtained,
h under the microscope revealed a number of peculiar
es resembling cylindroids tinged yellowish green, having
lar knot-like structures, placed at varying intervals. and
the circumference of which a number of fine wavy fibres
milar colour radiated in various directions. The deposit
contained haemoglobin, casts mostly granular, and a few
helial, oxalate of lime crystals, and half a dozen spherical
es having central nuclei resembling spores of quartan
sites, but somewhat larger. Not a single red blood cell
d be seen under the microscope.
Hemoglobin was detected by means of chemical tests:
guaiacum test; (2) production of haemoglobin crystals.
Blood was examined on two occasions, but no parasite of
description could be found.
I was informed that the patient had quinine administered
m before he noticed the dark-coloured urine. The disease
d about three weeks, and ended in recovery.

S. MALLANNAH, M.D.Edin., D.P.H.Camb.,
Lecturer, Medical School, Hyderabad.

INFECTION IN ACUTE RHEUMATISM.

Dr. TURNER'S note in the BRITISH MEDICAL JOURNAL of
ust 8th, 1903, p. 311, on the infection of acute rheumatism
inds me of several similar cases that I have had in Cape
ony. I have unfortunately no access at present to my
books, but the one most impressed on my memory was
of a guard on the Cape Government Railways (W. H.),
was every year subject to periodical attacks of acute
matism.
om force of circumstances he was obliged to move out
is married quarters and share a single room (about 9 ft.
ft.) with a fellow-guard. Here he had one of his attacks
hees and ankles, the maximum temperature being 101° F.,
the attack lasting about ten days. He had scarcely
vered, when his room mate was for the first time in his
similarly attacked. In the case of the latter there was no
e in personal or family history of any rheumatic taint,
ner was there anything in the position or neighbourhood
he guards' quarters to suggest a cause for the attack. He
used the same bed alternately with W. H., and the room
both small and deficient in ventilation.
nother case which suggested infection to my mind was
of a mother who came up to nurse her married daughter
ng an attack, and suffered similarly after about a week's
rival.
have noted two or three similar cases, and, like Dr. Turner,
impressed with the unlikelihood of a series of such cases being due to mere coincidence. Sometimes the second attacks have been subacute.

Another point which recalls to my mind the emphatic opinion expressed by Dr. Pye-Smith in the clinical wards of Guy's some fifteen years ago is that one soon learns to dissociate rheumatism either acute or chronic from "damp." Few climates in the world are drier than the Karroo, where twelve months may elapse without a shower of rain, and yet rheumatism is one of the commonest affections met with. The fact is doubtless due to the extremes of heat and cold met with during the 24 hours. In winter we continually have hoar frost in the early morning, and a temperature of 70° F. or more in the afternoon of the same day.

W. P. LEFEUVRE, M.R.C.S., L.R.C.P.,
Late Railway Medical Officer, Touws River, Cape Colony.

REPORTS
ON
MEDICAL AND SURGICAL PRACTICE IN THE HOSPITALS AND ASYLUMS OF THE BRITISH EMPIRE.

ROORKEE CIVIL DISPENSARY.

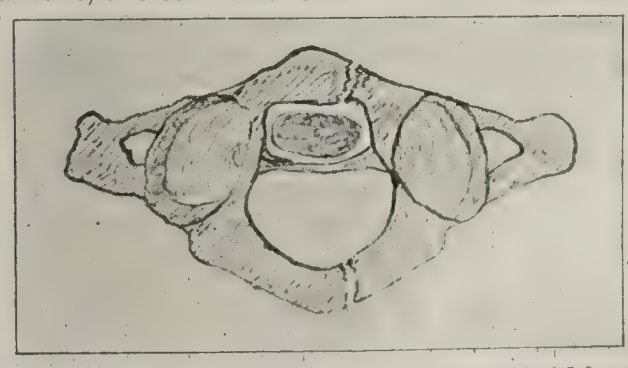
DETACHMENT OF THE ODONTOID PROCESS OF THE AXIS WITH FRACTURE OF THE ATLAS; CONTINUED LIFE WITHOUT SYMPTOMS OF INJURY TO THE SPINAL CORD.

(By L. B. SCOTT, B.A., M.B.Cantab., Lieutenant I.M.S., Officiating Civil Surgeon.)

History.—U. U., aged 23, was brought in from the country by the police on February 14th, 1903, to the civil dispensary at Roorkee, U.P., India, for treatment and medical report on his injuries. Two days before, while cutting leaves for goats' food, he was attacked by some men who hit him across the back of the neck with a heavy stick. He put up his hands to protect himself and both his arms were broken by the same blow. The fractures had been put up at a village dispensary.

State on Examimation.—There was some pain and stiffness of the neck, but no bruising, a typical Colles's fracture in each arm, the left compound, and some rise of temperature. Chloroform was given and both fractures readjusted. The compound one was aseptically opened up, some loose fragments of bone removed, the wound thoroughly irrigated with perchloride solution, and antiseptically dressed. While he was under the anaesthetic I further examined the neck and rotated it fairly forcibly. Nothing was to be felt. Two days afterwards the arm was much swollen and the wound suppurating. The splint was removed. The arm was lightly fixed on a plain bit of wood and soaked in a perchloride bath. The arm improved slightly, but there was much pus coming from the wound. A week after admission and nine days after the accident. he began to develop signs of tetanus in the jaw muscles. This advanced very rapidly, and he died within seventeen hours of the first signs of tetanus appearing in a state of opisthotonos. Unfortunately I was not sent for and amputation was not done. During this week, he had walked about hospital most days, but complained of much pain in the neck and insisted that his neck was broken.

Necropsy.—Both fractures were perfectly typical Colles's, the styloid processes of both ulnae being detached. I was not intending to open up the neck, but on rotating the head once again I though I felt crepitus. I therefore cut down from behind upon the vertebrae and found the posterior arch of the atlas broken. On opening up the posterior altanto-axial ligament, the cord was found intact. I divided the cord



and on introducing a finger felt that the odontoid process was loose. I then made an opening in front and extracted the

two vertebrae together. I found all the joints and ligaments intact and no displacement of any kind; but the atlas was broken in two places (see Fig.), and the odontoid process was snapped off at its base from the axis and was lying loose but undisplaced within the intact transverse ligament.

REMARKS.—The case is not only interesting as a curiosity but also medico-legally. On admission, owing to the typical Colles's fractures and absence of bruising on the neck I refused to believe the man's story of having been hit with a stick, and reported his injuries as being due to a fall, probably from a height out of a tree, as might well happen to an Indian goatherd. After the necropsy I changed my mind. The cervical injuries, I think, could only have been caused by direct violence. Indirect force could hardly have produced such fractures without also causing dislocation. I therefore reported that the man had probably been knocked down by a blow on the neck, and had landed so forcibly on his hands as to produce the Colles's fractures. He probably imagined that the stick had caused them. It was most fortunate that during the examination under chloroform I did not dislocate the bones. In all probability the man would have completely recovered from his broken neck if he had not died of something else. The ligaments had withstood the forces of ordinary movements of daily life for ten days and also fairly forcible movements on the *post-mortem* table when unassisted by muscles.

British Medical Association.

CLINICAL AND SCIENTIFIC PROCEEDINGS.

BIRMINGHAM BRANCH: COVENTRY DIVISION.

MILNER MOORE, M.D., in the Chair.

Coventry, Tuesday January 5th, 1904.

Registration of Births and Deaths.—Dr. MILNER MOORE introduced a discussion on the law regulating the registration of births and deaths. As its outcome the following alterations in the law as it at present stands were suggested, and it was resolved to communicate these suggestions to the Council of the Association. Death certification: (1) No burial shall take place until the fact and the cause of death have been certified by a registered medical practitioner. (2) The practitioner in attendance, when informed that death has taken place shall, within 24 hours, see the body, satisfy himself that death has taken place, and certify to the fact and cause of death. (3) The two certificates shall be embodied in one form, and the forms shall be supplied by the registrars. (4) The certificate of the cause of death shall be sent under cover to the registrar by the certifying medical practitioner. The registrar shall then give an order for the burial, unless for any reason he considers it necessary to refer the case to the coroner. This shall not exonerate the nearest relative of the deceased from duly registering the death. (5) If the practitioner in attendance is unable, through illness or other unavoidable cause, to certify the fact of death, he shall authorize another medical practitioner to see the body and certify. This must be stated in the certificate, and the fee is to be paid to the practitioner who authorizes. Stillbirths: (1) No stillborn child shall be registered without a medical certificate. (2) The registered medical practitioner in attendance at the stillbirth shall specify on a special form the fact of stillbirth, and shall give such certificate to the father or other competent person, who shall forthwith take it to the registrar of the district. (3) If no medical practitioner is in attendance, then the midwife or person in attendance shall, as soon as the stillbirth has occurred, notify a registered medical practitioner, who shall within 24 hours see the body and give the necessary certificate, stating who was in attendance. In cases where the practitioner does not feel justified in giving a certificate he must forthwith notify the registrar. (4) By the term "stillborn" is meant a child that is born at a sufficiently advanced period of pregnancy to be viable but which does not breathe or show any sign of life after it is completely born. Fees.—(1) For every certificate of the fact and cause of any death occurring in an urban district the fee shall be 5s. (2) For every certificate of the fact and cause of any death occurring outside an urban district the fee shall be 5s. where the distance travelled does not exceed two miles from the nearest residence or surgery of the medical practitioner, by the nearest roadway to the place where the body is lying, and for every half mile or portion thereof, beyond two miles, 6d. extra. (3) For every certificate of the fact and cause of death in any public institution the fee shall be 2s. (4) For every certificate of the fact of stillbirth, 5s.

Cases and Specimens.—Dr. J. ORTON showed a patient with an unusual abdominal hernia, where the hernia was of long standing and had followed the track which an enterolith had taken on escaping from the abdominal cavity.—Mr. W. E. BENNETT showed a patient from whom he had removed, in December last, several large renal calculi; these were exhibited. Mr. Bennett also showed a pig's kidney with calculi *in situ* and also a calculus impacted in a ureter.—Dr. ORTON exhibited an acardiac monster about $1\frac{3}{4}$ in. in length which consisted only of lower extremities and pelvis; it had been born with a fully developed six-months fetus.—Dr. SNELL exhibited a specimen of excessive desquamation after scarlet fever.—Dr. FENTON read a note on a case of bilharzia haematobia which was under his care, and exhibited specimens of the parasite met with in the urine.

REPORTS OF SOCIETIES.

ROYAL MEDICAL AND CHIRURGICAL SOCIETY.

ALFRED WILLETT, F.R.C.S., President, in the Chair.

Tuesday, January 26th, 1904.

HOURGLASS STOMACH.

MR. B. G. A. MOYNIHAN communicated a paper on this subject. So far as he was aware, there was not a single specimen or an accurate record in existence which could be accepted as evidence of the congenital origin of this disease. The causes of acquired hourglass stomach were perigastric adhesion, chronic ulcer, and malignant disease. In addition to the ordinarily accepted causes of the condition, constant recurring spasm was one. This could be seen during operation, and must lead to hypertrophy of the circular muscular fibres. The symptoms and the signs which enabled a positive diagnosis to be made in the great majority of cases were if a tube were passed and the stomach washed out with a known quantity of fluid, the loss of a certain quantity would be observed when the return fluid was measured (Wölfler's "first sign"); if the stomach were washed out until the fluid returned clear, a sudden rush of foul, evil-smelling fluid might occur; or if the stomach were washed clean, the tube withdrawn and passed again in a few minutes several ounces of dirty, offensive fluid might escape (Wölfler's "second sign"); if the stomach were palpated and a succussion splash obtained, the tube passed, and the stomach apparently emptied, palpation would still elicit a distinct splashing sound; on distending the stomach a bulging of the left side of the epigastrium was produced, after a few moments this gradually subsided, and concomitantly there was a gradual filling up and bulging of the right side (von Eiselsberg); a bubbling, forcing "swishling" sound might be heard when the stethoscope was applied over the stomach, after distension (von Eiselsberg); if the stomach resonance were percussed, and the stomach distended with gas and again percussed after about 20 or 30 seconds, an enormous increase in the resonance of its upper part would be found, while the lower part remained unaltered (Moynihan). In view of the fact that in many cases there was a narrowing, not only in the body of the stomach but also at the pylorus, no single operation would suffice in every case to fulfil all the requirements. Mr. Moynihan had performed gastroplasty alone in 5 cases; gastro-enterostomy alone in 4 cases; gastroplasty and gastro-enterostomy in 1; gastro-gastrostomy alone in 1 case, and both gastro-gastrostomy and gastro-enterostomy in 2 cases.

Mr. STEPHEN PAGET asked if, in performing gastro-enterostomy, any form of bobbin or appliance were used.

The PRESIDENT referred to the exclusion of the congenital origin of hourglass stomach as a point of value. It was noticeable that there was a preponderance in the cases in women over men. The mortality of 4 per cent. was low, but yet it was high as compared with that from simple gastro-enterostomy, but the most severe operation of gastro-gastrostomy it was noteworthy had a favourable issue. There was nothing like the number of cases of this condition in London as in the neighbourhood in which the cases recorded in the paper occurred, and it was a question whether anything in habits or surroundings predisposed.

Dr. G. B. FERGUSON asked whether the technique was aseptic or aseptic.

Dr. H. J. PATERSON asked where the first incision was made in the operations. As regards mortality, the operation

saved a patient from subsequent gastric ulcer, which be taken into account. A case in point was quoted.
Moynihan, in reply, said the greater prevalence of the e in the north seemed without explanation. The mor- was higher than it ought to be, partly because the t was reduced by years of gastric disorder, both from cer and the impossibility of cleansing the distal pouch. pliance of any kind was used. The operations were aseptic.

CLINICAL SOCIETY OF LONDON.

Clinical Evening.

Erick Taylor, M.D., F.R.C.P., President, in the Chair.

Friday, January 22nd, 1904.

Diffuse Lipomatosis.

F. Parkes Weber showed two patients. One was a woman, aged 34.
had always enjoyed good health, and the disease ap- two years ago. There had never been any associated pain. The patient was a man, aged 52, in whom the disease appeared thirty- ears ago. He had slight wasting, with possibly cirrhosis of the

Tumour of the Liver.

A. E. Garrod exhibited a boy, aged 10 years.
had had enlarged liver for upwards of six months, possibly of a atous nature, though a diagnosis of hydatid had also been ad- d. He had taken potassium iodide almost continuously since ate, and the liver generally had decreased; but certain hard, non- ting swellings in the right lobe had grown larger. There had been any fever.
ply to different suggestions, Dr. Garrod stated that he led to put the patient upon a course of mercury together he iodide.

Total Paraplegia due to Vertebral Caries.

W. H. B. Brook (Lincoln) showed a male aged 18.
ad had incontinence of urine and faeces with bedsores, and total power in the legs. Dr. Brook performed the operation of right ransversectomy (eighth dorsal vertebra), giving exit to a quantity k pus; and in three months the patient was able to walk, and covered control over the bladder and rectum.

Ununited Fracture of Radius and Ulna.

J. R. Lunn showed a man, aged 74.
thirty-eight years he had been working constantly. The fracture en compound, and amputation advised; but the patient refused. obility at the line of fracture was excessive.

Enlargement of Both Testicles.

W. G. Spencer showed a boy, aged 10.
testicles were swollen to the adult size, and elastic, but not d. There was a sinus in front of each testis, which was healing. tient presented no further sign of past or present disease. The sis rested apparently between tubercle and syphilis. Under weeks' treatment with mercury internally and locally, and with a odide, the oedema of the scrotum and cord had diminished, and sticles were not larger.
Bowlby and Mr. Raymond Johnson debated the ques- and concluded that the case was one of tubercle.

lete Ophthalmoplegia Externa with Blindness of Acute Onset.

F. E. Batten showed a girl, aged 5 years, in whom the oing symptoms had occurred after whooping-cough of rate severity.
had had no loss of consciousness, convulsions, or pain. The as probably one of polio-encephalitis inferior, affecting the oculo- nuclei and the lower visual centres. The movements of the eyes turned, but there was no return of vision.

Translucent Cystic Swelling of Root of Nose.

Raymond Johnson exhibited a man, aged 28.
three years he had had a swelling at the root of the nose; it was ss. The diagnosis lay between hydatid meningocele and a mucous

Douglas Drew suggested that the cyst should be ured and the fluid examined.
reply, Mr. Johnson thought it was a dermoid cyst, pro- (as explained by Mr. Bland-Sutton) by the union of the nasal bones nipping in a portion of the skin, which be- deep-seated. He proposed to incise it in the middle nd remove the cyst.

Multiple Aneurysms.

R. Johnson also showed a wheelwright, aged 47.
had an aneurysm removed by operation from the upper part of the brachial artery in July, 1902. He then had three other small aneurysms—on the left brachial artery, at the bend of the elbow, and in the left popliteal artery respectively; and these had not since increased to any extent, although he had meanwhile worked hard as a wheel-wright.

Post-diphtherial Bulbar Paralysis.

Dr. Wilfrid Harris showed a woman, aged 25, in whom this condition had existed for four years. Many facial and other muscles were affected. In another case the symptoms lasted four years, and then the muscles perfectly regained their power.

Fractures of the Spine, without Symptoms.

A patient, a potman, aged 56, was exhibited by Mr. Battle. The neck was held stiffly, and a skiagraph showed a fracture of the axis vertebra.

Mr. E. M. Corner showed two cases (1) fracture of both pedicles of the axis; (2) fracture of the body of the fifth cervical vertebra. He thought that if cases of severely sprained neck were generally skiagraphed, it would be found that many of them were cases of fracture. In the cases exhibited by him a considerable interval elapsed before the patients came to the hospital, and in neither were there any paralytic or sensory symptoms.

Cases.

The following cases were also exhibited:—Mr. L. McGavin: Congenital absence of the phalanges of the left hand.—Dr. J. R. Lunn: Chronic periostitis (syphilitic), with skiagraph; symmetrical swellings of the lower jaw (probably dentigerous cysts).—Mr. C. R. Keyser: Congenital elevation of the shoulder; congenital absence of the fibulae.—Mr. C. Gordon Watson: Two cases of osteitis deformans, one male and one female.

MEDICAL SOCIETY OF LONDON.

F. de Havilland Hall, M.D., F.R.C.P., President, in the Chair.

Monday, January 25th, 1904.

Discussion on Pelvic Lesions in Relation to Abdominal Diagnosis.

Dr. M. Handfield-Jones, in opening the discussion, referred to the gastric irritability associated with metritis and endometritis. He then discussed the question whether certain symptoms pointed to a ruptured gastric ulcer or to peritonitis due to rupture of a gravid tube. In the latter menstrual history was of little value, pelvic examination might give little help, as no definite tumour might be palpable, and the position of the pain was also but little guide; there were indeed no clear abdominal signs. Exploratory laparotomy was the only satisfactory course, making in the first place a small incision above the pubes. The difficulties in the diagnosis of such conditions as suppurating dermoid cysts of the ovary and appendicular abscess were set forth. The difficulty arising from the conjunction of an abdominal and a pelvic lesion in the same case with symptoms due to both was illustrated by cases. The influence of pelvic adhesions in producing evidence of abdominal complications was discussed, and suggestions given as to the mechanism by which adhesions produced symptoms.

Mr. Alban Doran alluded to so-called uterine vomiting, to nausea and fainting at menstrual epochs, and to menopause symptoms after removal of the ovaries. In reference to intra-peritoneal haemorrhage from extrauterine gestation, slight attacks of nausea and vomiting might be due to an early arrest of a tubal pregnancy. Pelvic tumours of non-pelvic origin were misleading; for example, pelvic kidney. Lumbar tumours or cysts in women were sometimes ovarian cysts with twisted pedicle. Secondary operations for adhesions were very unsatisfactory. The symptoms produced by adhesions were probably often directly due to irritation of the sympathetic nerves.

Dr. Heywood Smith thought that in a primipara the mammary symptoms were of help in the diagnosis of early extrauterine gestation; a bidigital examination was also of importance. A zone of want of tenderness between the inflamed appendix and the pelvis might sometimes be made out.

Dr. Vincent Bell described a case of apparent intestinal obstruction due to a parovarian cyst.

Mr. Edmund Owen referred to the frequency of recovery from distressing symptoms after the abdomen had been opened, although nothing had been found. He alluded to the importance of the passage of dark blood by the vagina as a sign of tubal pregnancy.

The PRESIDENT described a case supposed to be one of appendicitis which proved to be one of strangulated ovarian cyst.

Dr. HANDFIELD-JONES replied.

MIDLAND MEDICAL SOCIETY.

Wednesday, January 20th, 1904.

J. W. TAYLOR, F.R.C.S., in the Chair.

DOUBLE EMPYEMA.

MR. LEEDHAM-GREEN showed a man on whom he had operated for a double empyema.

The patient had double pneumonia in 1901, and subsequently fluid appeared in each side of the chest. On this being found to be of a purulent character, both pleural cavities were opened and drained. The patient did not seem to suffer from any respiratory difficulty, made a good recovery, and at the present time showed only some thickening of the pleura.

Attention was drawn to the paucity of references to such cases in medical literature.

Mr. GAMGEE referred to a corresponding case. In this one pleural cavity was opened and the other aspirated; a few days later the latter was also opened, and the patient made an excellent recovery. He was of opinion that in such cases aspiration of the second side offered some advantages. The prognosis, he believed, was better in the case of children.

Dr. DOUGLAS STANLEY had an opportunity of seeing Mr. Leedham-Green's case in Queen's Hospital. The lungs re-expanded in a satisfactory manner. He agreed that in the event of both pleurae containing pus it was safer to aspirate one side before draining the other.

CEREBRAL TUMOUR.

Dr. A. S. BARNES showed a cerebral tumour from a man aged 54, who had been admitted into Queen's Hospital under Dr. Carter's care.

The patient had a severe blow on the head two months previous to admission, and pain had been constantly present ever since. A fortnight before coming to hospital he was noticed to do silly things, and seemed to be stupid. His mental symptoms increased; there was nausea, but no vomiting. For some days before admission he used to drop things from the left hand, and when seen there was left-sided hemiplegia. No optic neuritis was found. The patient continued in a drowsy state till death, a month after his admission to Queen's Hospital. On necropsy a large tumour was found in the substance of the right hemisphere, and passing backwards from the region of the motor fibres to the optic radiation.

The absence of optic neuritis in cases of cerebral tumour occurring in the latter half of life received comment.

Dr. DOUGLAS STANLEY thought the fact of optic neuritis being absent in such cases was not sufficiently recognized, and errors in diagnosis thus occurred. He referred to other cases in which he had noted negative appearances in the fundus oculi.

SUBPHRENIC ABSCESS.

Mr. LEEDHAM-GREEN read a paper on this subject, and showed a specimen. He reviewed the anatomy of the subject, and described the causation and topography of collections of pus under the diaphragm, basing his remarks on a series of five cases under his care at Queen's Hospital. Among these were instances of the principal causes of abscess: Obscure appendicitis, perforating gastric ulcer, sinus after previous operation for gastric perforation, and suppurative hepatitis. The first condition mentioned was the most frequent cause. The ordinary methods of physical examination, though of great service, often failed to guide the surgeon to localization of collections of pus. Leucocytosis was of material aid in diagnosis. Exploratory punctures might have to be made often and in various directions before pus was found. The prognosis was very unsatisfactory, chiefly owing to the difficulty of free drainage.

Mr. GAMGEE said his experience of subphrenic abscess was also unsatisfactory. He thought that if its occurrence were better born in mind in cases of appendicitis an earlier diagnosis might be made, and better results obtained in a greater number of cases.

Dr. ARMITAGE narrated a case of the same condition which illustrated the difficulty of diagnosing even large collections of pus.

Mr. TAYLOR said he would have thought gastric ulcer a more frequent cause of subphrenic abscess. He was, therefore, interested in hearing Mr. Leedham Green's statistics.

PATHOLOGICAL SOCIETY OF MANCHESTER.—At a meeting January 20th, Dr. REYNOLDS in the chair, Mr. COLL exhibited specimens of (*a*) chrondro-sarcoma of os cal (*b*) pancreatic cysts.—Dr. EUGENE YONGE made a commu cation on the recurrence of nasal polypi, with special re ence to the theory of bone disease. He discussed a num of suggestions which have been advanced to account for occurrence and recurrence of nasal polypi. The theory sinus suppuration and the theory of bone disease were, thought, tenable under some particular conditions. Yonge also mentioned the excellent results, as regarded prevention of recurrence, of treatment based on the hypo esis that the bony areas in the regions from which po grew were, in obstinate cases, frequently at fault. Mr. SM mentioned a case of non-traumatic rupture of the bladder, showed the specimen. Mr. JOHN B. WOLSTENHOLME ex ited the cervical vertebrae of an old male horse affected v osteomalacia associated with periostitis, in which spo neous fracture of a process of the sixth and of the seve had occurred. He also exhibited mounted specimens of sarcoptes scabiei var. equi, together with a section of showing galleries with acari, etc., therein.

CLINICAL SOCIETY OF MANCHESTER.—The monthly mee was held on January 19th at the Palatine Hotel, MILLIGAN, President, in the chair.—Dr. EUGENE YO showed new self-retaining basins for nasal and aural w also a new apparatus for demonstrating the laryngeal in and intralaryngeal manipulations. By this apparatus vented by Professor Meyer of Berlin) a beautiful image o larynx could be obtained by five observers at a time, cluding, of course, the examiner. Intralaryngeal manip tions were also as clearly observed by the bystander by the operator. It appeared, so far as the exhibitor k to be the best apparatus extant for the purposes indicate Dr. G. H. LANCASHIRE read a paper on "Some Specific Tuberculous Affections of the Face." The various syphi manifestations commonly met with in this region were cussed, and clinical features were described which serve differentiate them from other skin diseases. Ter syphilitic disease was dealt with at greater length, especial mention was made of those cases simulating l vulgaris, and *vice versâ*. In all doubtful cases the adop of a preliminary antisyphilitic treatment was urged, and danger of immediate surgical procedures in these cases emphasized. Finally, attention was drawn to that s group of cases in which both syphilis and lupus were bined in the same lesions. Photographs, plates, and were shown illustrating the paper.

EPIDEMIOLOGICAL SOCIETY.—At a meeting held on Jan 15th, Dr. B. A. WHITELEGGE, C.B., in the chair, adjourned discussion on sleeping sickness was resumed. L. SAMBON, in reference to the experiments of Colonel B and Dr. Nabarro, expressed the opinion that it was no proved that the flies conveyed the trypanosomes of slee sickness from the patients on which they were fed to healthy monkeys. He considered that Colonel Bruce Dr. Nabarro had only proved that the flies were car trypanosomes, and that the monkeys were susceptibl these, but who, he asked, could tell whether these tryp somes were those of sleeping sickness. The study o bionomics of tsetse flies was important; the habitat o *Glossinae* was near water, and they disappeared w a few miles of water. The essential conditions of a t station were the presence of water, a thickly-wooded dis and a loose fragmentary soil. The idea was that the fly w near water to feed on the animals that came down to d Their distribution might be connected with that of th breathing fishes of Africa, or the fly might prey, not o fish, but on some fish-eating mammal.—Dr. NABARRO that Colonel Bruce and he were told on their arriv Entebbe that Castellani had found trypanosoma in cer spinal fluid in 5 out of 15 cases, and that Dr. Baker had f the trypanosoma in the blood of one native of Ug Subsequent investigations, conducted while Dr. Cast was still at Entebbe, raised the number to 19 in 34 which worked out at 56 per cent., and not at 70 per cen had been stated. He himself and Colonel Bruce thought the tsetse fly was an important agent in the di and made experiments with the flies on animals, but were not very satisfactory, and no true sleeping sickne caused in monkeys. The feeding experiments to whic

n had been raised were with the same class of fly. As sted by Dr. Sambon it would have been certainly ible to rear the flies for the experiments, but the s of rearing them was very protracted, as each female ne larva, and the latter took six weeks to hatch and be- a fly. They had found trypanosoma in other animals, ey were different trypanosomes. They had never found hosoma in a healthy monkey straight from the fields, as certain the trypanosoma was not a normal parasite nkeys in Entebbe. The disease was spreading along hores of Lake Nyanza.—Dr. F. W. Mott said that at t there were two theories in regard to the etiology of isease—the trypanosoma theory and the diplococcus 7. Castellani had latterly adopted both regarding the -organisms as in the nature of a secondary infection. rains which had been sent him for examination showed facts: (1) excess of lymphocytes in the blood contained vessels of the brain; (2) accumulation of lymphocytes perivascular lymphatics and the subarachnoid space; larged lymphatic glands. The diplococcus probably as an important subsidiary cause in a secondary infec- process. The distribution of sleeping sickness and its ation with the existence of the fly and the presence of nosoma in the blood of the natives were, he thought, g arguments in favour of the trypanosoma being a cause disease.—Dr. C. F. Harford said that in the regions of pper Niger the disease presented itself in a sporadic The natives thought that by removing the enlarged natic glands they could cure the disease. It probable, however, that they regarded all cases arged lymphatic glands as cases of sleeping sickness, ought after removal of the glands they had cured the e if sleeping sickness did not develop.—Sir Patrick on said that sporadic cases occurred on the West Coast ica, and it would be interesting to know what relation pore to the presence of the trypanosoma in the general ation of the districts concerned. It was quite possible the disease might prevail in many places, but had not recognized. It had been suggested that the entrance of ypanosoma into the cerebro-spinal fluid was the deter- g cause of the symptoms of sleeping sickness. That id not recommend itself to him. Trypanosoma might e cause of the sleeping sickness, but to particularize as precise way in which it was caused was going beyond as at present ascertained. He did not think the profes- ad sufficiently recognized the work of Drs. Low, Castel- and Christy.—Mr. Cantlie, Colonel McCulloch, and ULSTRODE also contributed to the discussion, which Dr, ON brought to a conclusion by repeating his opinion that was no longer room for doubt as to the cause of sleep- ckness.

Laryngological Society of London.—At a meeting on ary 15th, Dr. P. McBride, President, in the chair, the ing cases were shown: Dr. W. H. Kelson: A case of mity of the fauces in a woman, and one of epithelioma e cricoid plate region in a woman aged 30.—Dr. A. N Turner: A case of affection of the palate and larynx man.—Mr. Atwood Thorne: A case of malignant dis- of the nose in a man aged 70.—Mr. H. B. Robinson: A of syphilitic necrosis of the sphenoid bone; one of left tor paralysis in a male aged 31; also a case of syphilis e posterior part of the tongue and posterior pharyngeal —Dr. L. H. Pegler: A case of crumpled septum in he had excised the hard structures four years before, which the intact muco-perichondrium remained un- ed.—Mr. P. de Santi: (1) A case of laryngeal vertigo; an with tertiary syphilis of the larynx causing stenosis, om thyrotomy had been performed four years ago with actory results.—Dr. StClair Thomson: A case of com- paralysis of the left vocal cord in a woman aged 36, and ases of bleeding polypus of the septum.—Mr. H. T. N: A specimen of epithelioma of the cricoid plate and oesophagus removed by operation.—Mr. F. C. Shrub- showed (for Dr. P. Kidd) a patient suffering from a culous outgrowth from the anterior end of the left vocal —Dr. Dundas Grant: A case of sessile fibromata at the or extremity of the left vocal cord partially removed by s. and completely extirpated by the galvano-cautery; ne of atrophy and collapse of the alae nasi treated by s of a subcutaneous injection of paraffin; also photo- s of a case of flat and sunken nose treated by paraffin ions.—Mr. Hunter Tod: A case of soft fibroma of the bcal cord in a woman aged 31; and one of sarcoma of the post-nasal space with enlargement of the cervical glands o the right side in a man aged 51.—Dr. Watson William showed a man 42 years of age with an interlaryngeal new growth.

REVIEWS.

THE INFLUENCE OF ALCOHOL UPON MUSCULAR ACTION.

In 1895 Dr. Hermann Frey published a work on this subject, which, although conceived in an impartial spirit, has according to him evoked a storm of hostile personal criticism, chiefly on the part of the advocates of total abstinence. To these he has replied in a small volume[1]; of this a good many pages are occupied by somewhat cumbrous sarcasms, from which the main arguments are often only to be disinterred with some difficulty. The author's original experiments were conducted with Mosso's ergograph. The normal curve of the person observed having been recorded, two such were taken at an interval of an hour, which the author found sufficient for muscular recovery; after another hour a small quantity of alcohol was administered and a third curve taken, the change in which was held to indicate the effect of the drug. A second method was to administer the alcohol during the course of a series of voluntary muscular contractions, between each pair of which there was an interval of ten seconds. Frey's conclusions were that the action of alcohol in respect of its effect upon muscular effort differed materially according as whether the muscles investigated were tired or untired. When tired, he concluded that alcohol abolished the sense of fatigue, and thereby increased the maximal contractions; but when untired, he found that alcohol exercised a harmful influence and caused a marked diminution in lifting power. The correctness of these conclusions has been denied by a number of other observers, such as Professor Destree of Brussels, Kraepelin and his pupil Oseretzowsky of Heidelberg, Scheffer of Utrecht, and Schnyder of Berne, who have either repeated Frey's experiments as detailed by him, or carried out independent investigations on their own account. For the most part these observers unite in either totally disagreeing with Frey, or, while admitting a temporary stimulation, state that it is immediately followed by a paralysing action, which more than outweighs the effect of the primary stimulation. In this book Dr. Frey sets to work to demolish his critics, and adds certain fresh observations of his own by which he is confirmed in his previous views, and led to conclude that alcohol has a nutrient action and a more favourable and lasting influence on tired muscle than either sugar, coffee, caffeine, or tea. His criticism of his opponents consists largely in detailing points which he considers justify him in denying the accuracy of their observations or the soundness of their methods, or in accusing them of bias. As, however, so far as this book is concerned, we depend for our knowledge of his opponents' work upon Dr. Frey's version of it in each case, the details of the combat between them cannot be given in a review with fairness to either side, so those who set store by laboratory assessments of the effect of alcohol should read the book, and the papers which it seeks to answer, for themselves.

VENEREAL DISEASES.

The third edition of Dr. Hayden's book on *Venereal Diseases*[2] is a useful epitome, which on the whole may be said to justify its author's description of it as giving "a practical working knowledge of gonorrhoea, stricture, chancroid, and syphilis." Gonorrhoea is clearly and judiciously dealt with. Dr. Hayden, it may be remarked, condemns Janet's method of irrigation by hydraulic pressure, and he also states that he cannot see any advantage from the use of argonin, protargol, and other similar preparations of silver during the acute stage of gonorrhoea. For the treatment of syphilis Dr. Hayden considers inunction to be "the most efficacious and rational" mode of administering mercury, and, though not applicable to all cases, there can be no doubt that it is an excellent way of introducing mercury when properly carried out. But we cannot at all agree with Dr. Hayden when he advises that mercurial treatment should be postponed until the appearance

[1] *Alkohol und Muskelermüdung* [Alcohol and Muscular Fatigue]. Von Dr. H. Frey. Leipzig and Vienna: Deuticke. 1903. (Demy 8vo, pp. 62, 7 tables. M 4.)

[2] *Venereal Diseases*. By James R. Hayden, M.D., New York. Third edition. London: H. Kimpton. 1902. (Demy 8vo, pp. 301; 60 illustrations. 7s. 6d.)

secondary symptoms. The earlier and the more superficial effects of syphilis are well described, but the affections of some of the viscera are only scantily treated; and in the section on syphilis of the nervous system the important question of diagnosis might well have received some sort of consideration.

Dr. VOUZELLE'S small book on syphilis[3] is one of the volumes of the *Encyclopédie Scientifique des Aide-Mémoire*, and, as its title indicates, it deals only with a part of the subject, namely, the primary and secondary stages of syphilis. The various phenomena of these two stages of the disease are well and clearly described, and the names (by no means always correctly spelt) of various French and other authors are duly cited. The book gives one the impression that the author has worked hard at his subject, and that in a more complete form it might have been of considerable value. But it is difficult to understand what useful purpose can be served by the publication of the present fragment.

Dr. NARIO[4] reports the results obtained in the treatment of acquired and inherited syphilis by the intramuscular injection of a solution of mercury biniodide (1 part) and potassium iodide (2 parts) in 100 parts of distilled water. The doses have to be regulated according to the weight of the patient—that is, 3 milligrammes of the biniodide per kilogram, and half the quantity in children. In adults the injection may be repeated every ten days, while in infants an interval of from fifteen to thirty days, according to the state of the general health, must be left. As a rule, the acute symptoms disappear after the first application. The operation is followed by intense pain in the part chosen for injection, but this subsides soon. No local complications have been observed. A preliminary injection of morphine will alleviate but not totally prevent the pain. In children the injection may be followed by considerable loss of weight and diminution of the red blood corpuscles, but return to the former state is speedy. The full histories of twelve cases are given. In some of them there has been no relapse for three years.

THE TONGUE.

DR. CARL ROSENTHAL'S volume on the tongue[5] is written for physicians and surgeons. The surgical disorders of the tongue are comparatively speaking well known, though it must be admitted that as in all questions referring to cancer of this or any other organ, we are ignorant of the cause of the malady. The same may be said with regard to leucoplakia, and we are entirely ignorant of the laws underlying the process controlling the development of carcinoma of the tongue from a gummatous ulcer; then, again, the question of the nature and origin of endotheliomata is far from settled, and criticism must be made of the author's wisdom is classifying endotheliomata of the tongue as benign tumours. Dr. Rosenthal does not seek to explain away the difficulties of etiology; he acknowledges them and is content to group together all the known disorders of the tongue, whether primary or secondary to disease situated elsewhere in the body; in discussing treatment, he merely hints at the surgical methods, but gives a very full account of what may be done by medical means. Scattered through the book, we find a rich store of facts, some valuable in a negative sense, others offering real help in the recognition of the more rare conditions and in the estimation of the clinical significance of the many and varied changes met with in the tongue. The association of furred tongue with gastro-intestinal disorder is well-known, but Dr. Rosenthal is able to assure us that it is much more diagnostic in acute than in the non-chronic gastric disorders; the tongue may be quite clean in chronic gastric disease, and in disorders affecting the lower part of the intestinal tract, and even in typhoid fever. Herpes of the tongue may be met with in facial or labial herpes, in cases of gastro-intestinal catarrh, in diseases of the lung, in malaria, and rarely in typhoid fever; it is also met with in hard smokers, or after the use of tuberculin or antipyrin, though the author has not apparently seen it after the administration of arsenic. Another curious affection of the tongue which is but little understood, is the occurrence of haemorrhages in Werlhoff's disease, in scurvy and in purpura haemorrhagi but there is another curious form of submucous haemorrha occurring in the tongue, especially in aged people, whi according to Dr. Rosenthal, does not indicate any spec pathological condition but is of venous origin. It for submucous haematomata, which may measure a centime across; from a diagnostic point of view the recognition important, because we are thus supplied with another possi source of blood in cases of so-called spurious haemoptysis a haematemesis. Chronic superficial glossitis or bald ton is a common disorder, and its true etiological relationsh are ill-known; Virchow, Lewin and Heller attribute it entir to syphilis, Seifert and Mracek have, however, found closely associated with wasting diseases, such as carcino and tuberculosis; Goldschmidt has also seen it in cases general degeneration, and Lublinski in various anaemic c ditions including chlorosis. Readers of this volume will f information on all the rarer disorders of the tongue a references to the literature are abundantly supplied. general practitioner, too, will find a full account given of diagnosis of each condition from those allied to it, an satisfactory account of the medical treatment accompanies description of each disorder.

THE DETERMINATION OF SEX.

ALTHOUGH Dr. GUIARD entitled his work a critical revie the laws of the determination of sex,[6] it is hardly crit with regard to one of the theories which are conside in it. Dr. Guiard dismisses somewhat summarily the theories which venture to advance such noti as the relative vigour of the parents, the testicle ovary from which the spermatozoon or ovum comes, nu tion, age, etc., and accepts freely the hypothesis of Profe Thury, of Geneva, with all the difficulties which accomp it. According to Thury it is the more or less complete turity which the ovum has reached at the moment of imp nation which determines the sex of the new being; the spring will be feminine when this maturity has not yet arri at a certain degree, and masculine when it has passed it. other words early impregnation of the ovum will produ female, and late impregnation a male. There may, theref be said to be an early feminine phase in the life-histor each ovum and a later masculine one. It is considered the feminine phase begins with the beginning of the n strual flow, while the masculine will not commence t varying period after it. It need hardly be pointed out tha is taken for granted that ovulation and menstruation coinc a somewhat gratuitous assumption. The practical conclu follows, if we can accept the foregoing hypotheses, tha order to procreate a female child impregnation ought to place just before or immediately after menstruation, whil produce a male the correct period for coitus will be sev days after menstruation and on into the middle of the in menstrual period. Experiments upon animals have g varying results. Guiard thinks that those carried out cows support Thury's theory; but he admits that rab fowls, and pigeons do not appear to obey the Recent experiments on cows would also appear be unsatisfactory. Further, in thirty-five observat upon the human subject made under the directions of Guiard there were four failures. It is claimed that t were only apparent failures. It is suggested that the co tions necessary for success were not scrupulously obse (which we can very well imagine), and that when they w then the result was what was desired, as in 31 out of th cases reported. When it is remembered that for suc there must be only one occasion on which coitus is pract and that must be three or four days before the mens flow for a girl, and three or four days after it for a boy, it be obvious that many fallacies may interfere with a pr test being obtained. In order to explain the comm observed fact that daughters most often resemble the fa and sons the mother, Dr. Guiard points out that for fem the ovum must be impregnated at an earlier date tha males; in other words the ovum must come under the i ence of the paternal sexual cell (the spermatozoon) for a lo time. This prolonged influence, he thinks, will impress paternal peculiarities more markedly upon the females upon the males. Of course this is simply an assump In order to explain away some of the difficulties which

[3] *La Syphilis: Chancre et Syphilis Secondaire.* Par le Dr. Vouzelle. Paris: Masson et Cie. 1902. (Crown 8vo, pp. 180. Fr. 2.50.)

[4] *La Méthode de Prokhorow dans le Traitement de la Syphilis.* Par François L. Nario. Buenos Aires: Tenorio. 1902. (Demy 8vo, pp. 55.)

[5] *Die Zunge und ihre Begleit-Erscheinungen bei Krankheiten* [The Tongue and its Manifestations in Disease]. Von Dr. Carl Rosenthal. Berlin: August Hirschwald. 1903. (Demy 8vo, pp. 259. M.6.)

[6] *Revue Critique sur les Lois de la Formation des Sexes.* Par le Dr. Guiard. [Critical Review of the Laws of the Determination of Sex.] Paris: Octave Doin. 1903. (Pp. 96.)

id the subject, Guiard has to have recourse to the othesis that there may be supernumerary ova, and that in there may be anomalies in ovulation, which is more n likely. It must be remembered, also, as was pointed by Dr. Robin in the discussion which followed the read- of Dr. Guiard's paper, that we do not know whether the uration of the ovum (expulsion of polar cells, etc.) ays occurs at a set time in reference to the escape of the m from the ovary. It is to be feared that Thury's law be an uncertain guide to the anxious parents who are ing for a son; but it can at least be tested with little rible, for it has the merit of simplicity. It is simple, but ; sure?

THE PUBLIC HEALTH REPORT FOR THE COUNTY OF LONDON IN 1902.

M. SHIRLEY MURPHY'S annual report is, without exception, most important official report published yearly, not y for medical officers of health, but for all who require to sult statistics on a large number of matters affecting blic health and sanitary administration. The full-page strations to the report enable the reader to ascertain the in vital facts with a minimum of trouble.

POPULATION.

he administrative county of London had an estimated pulation at the middle of 1902 of 4,579,110.

OVERCROWDING.

very valuable comparison of the percentage of total pulation, living in tenements of 1, 2, 3 or 4 rooms, and of amount of overcrowding in each of these is en, the census results of 1891 being compared with those d 1901. These figures give encouraging evidence of social provement. Thus in London as a whole, the percentage of the pulation occupying tenements of one room has declined m 9.2 to 6.7, and the percentage has declined in every nitary area. The proportion of the population occupying tements of two rooms has declined in 23 districts and in- ased in 15 districts. In the whole of London the propor- n of the total population living in two-roomed tenements h declined from 16.4 to 15.3 per cent. The proportion of the pulation living in tenements of three rooms has increased m 15.8 to 16.5, and in four rooms from 14.1 to 15.2 per cent. ing the ten years. As the percentage of the total popula- n living in tenements of not more than four rooms has de- ed from 55.5 in 1891 to 53.7 in 1901, the general result of above comparison is that there is less misery as indicated one-roomed and two-roomed dwellings.

ext, the same districts are classified in accordance with method of the Registrar-General according as the tene- nts contain on an average two or more persons per room; more than two they are regarded as overcrowded. Here in improvement is manifested. In London, as a whole, proportion of the population living in "overcrowded" ements declined from 19.70 to 15.97 per cent. in the ten rs; and although the decline was shared by the popula- ns of each class of tenement, it was greatest in those upying one and two rooms. Only in three sanitary areas hose of Whitechapel, Mile-End Old Town, and St. George- the-East—which have been specially affected by alien migration has there been an increase in the proportion of total population occupying overcrowded tenements of less n five rooms, and even in these areas the proportion over- wded in one room has declined.

MARRIAGES AND BIRTHS.

Diagrams I and II opposite p. 11 show very clearly that the ve of the birth-rate is ceasing to follow that of the rriage-rate, some recovery in the latter being associated h a steady decline in the former. We note that birth- es are now given for each metropolitan borough in terms the number of married women aged 15-45. This, we ieve for the first time, enables the exact relative fecundity the populations of the different boroughs to be compared. e lowest is the City of London with a birth-rate of 14.6, xt come the City of Westminster, 16.6; Hampstead, 17.8; ke Newington, 18.7; and Kensington, 18.7; while at the er end of the scale we have Greenwich, 24.1; Bermondsey, 2; Bethnal Green, 27.5; and Poplar, 27.6 per 1,000 married men aged 15-45.

CORRECTED DEATH-RATES.

t is interesting to compare these birth-rates with the death-rates, corrected for age-distribution and sex-distribution of the corresponding metropolitan boroughs. The lowest death-rates were 12.1 per 1,000 in Hampstead, 14.0 Lewisham and Stoke Newington, 14.2 Wandsworth; the highest 22.4 City of London, 23.6 Holborn, and 23.9 in Finsbury. Although low birth-rates are commonly associated with low death-rates there is no causative relationship between the two.

LOWERED DEATH-RATE.

The death-rate for males was 10.1 per cent., and for females 12.0 per cent. lower than the corresponding mean death-rates in 1881-90. This implies a saving of 9,363 lives during 1902, representing a gain to the community of 385,756 years of life capital.

"LIFE EXPECTATION" IN TWO SELECTED DISTRICTS.

The preceding may be regarded as the results for the average Londoner. But variations of social conditions and all that this implies are related to variations in the death-rate and life-expectation. This is shown by Mr. Shirley Murphy by a comparison of a short life table for Hampstead and Southwark. Confining ourselves to the statistics for males, which are probably more trustworthy than those for females, it is significant that the average male of Southwark at birth has 14.28 years less of expectation of life than the corresponding male of Hampstead. At age 20 the Southwark male has an expectation of life of 36.41 years, the Hampstead male of 44.23 years; at age 45 the corresponding figures are 18.93 and 23.81 years; and so on. From these and other figures it is clear that the conditions adversely affecting longevity in Southwark are operative to a greater or less extent throughout the whole of life. If the Hampstead figures be taken as the standard, Southwark males lose 13.0 per cent. of the period of infancy (0-5), 17.7 per cent. of the school-age period (5-15), 28.0 per cent. of the working period (15-65), and 59.1 per cent. of the period of decline (65 and upwards). It is interesting to note that the figures of the present day relating to Southwark are somewhat similar to those calculated by Dr. Farr, for St. George, Hanover Square, some sixty years ago. This, as Mr. Murphy points out, is "distinctly encouraging to further efforts in the direction of improving the standard of public health."

The significance of the comparative life-expectations for Hampstead and Southwark would be missed, were we not to note that over 70 per cent. of the Southwark population are housed in tenements of less than five rooms, as compared with less than 30 per cent. of the Hampstead population thus housed; while nearly 10 per cent. of the Southwark population live in one-roomed tenements as compared with a little over 2 per cent. in Hampstead. It is significant, also, that 22.35 per cent. of the population of Southwark were occupying tenements of less than five rooms which were overcrowded (more than two per room); while only 6.37 per cent. of the population of Hampstead occupied overcrowded tenements.

INFANTILE MORTALITY.

The deaths under 1 year of age per 1,000 births were 139 in London, varying from 87 in Hampstead and 117 in Marylebone to 149 in Kensington, 154 in Finsbury, 155 in Bethnal Green, 166 in Southwark, and 174 in Shoreditch.

SMALL-POX.

In 1902 a considerable epidemic of small-pox occurred in London, causing a death-rate of 0.28 per 1,000—higher than that of any other town except West Ham, which was 0.54. It is unnecessary to follow the steps of the history of the spread of this disease as narrated in Mr. Murphy's report, but a few remarks on the account of the administrative measures taken to minimize its spread are desirable. The failure to diagnose the disease, and particularly its confusion with chicken-pox, were a frequent cause of spread. The supervision of persons exposed to small-pox was one of the main difficulties. Apart from economic difficulties, the impracticability of the wholesale quarantining of all persons exposed to infection when small-pox is widely distributed is obvious. Thus in four boroughs there were 1,093 cases of small-pox and 13,259 contacts. The Local Government Board takes the view that in most instances it meets the requirements of the case if dwellings and personal apparel are properly disinfected, if the contacts are so far as practicable vaccinated, and in any case examined carefully day by day towards the end of the second week from their exposure to infection. The system of paying for quarantine of contacts seems to have been adopted

largely in Poplar, where 660 cases of small-pox occurred and £1,089 was expended on the supply of food to persons kept in their homes. Statistics are given of the effect of vaccination in diminishing the incidence of small-pox on contacts; the effect varying in accordance with the promptitude of the vaccination. It is noteworthy that the source of infection could not be discovered in more than one-third of the total cases of small-pox, and that in a large number of other instances cases of small-pox were not recognized until after immediate vaccination was unavailable as a means of preventing infection. Attention has previously been drawn in these columns to the excessive prevalence of small-pox among sanitary inspectors and disinfectors. In this report the evidence as to these and as to the experience of nurses in the metropolitan small-pox hospitals is summarized with the usual result, that neglect of revaccination is shown to be the cause of such cases of small-pox as occurred.

CHICKEN-POX.

From February, 1902, to January, 1903, this disease was added to the schedule of notifiable diseases in London. During this time the cases notified numbered 5.9 per 1,000 of the population per annum. The seasonal curve of this disease appears closely to resemble that of measles, there being a maximum in June and a second maximum at the end of November. More male than female cases occurred at all ages together. The greatest incidence of attack, as in scarlet fever and diphtheria, was upon the age of 4-5. The high case-rate at the age 0-1 distinguishes it from other notifiable diseases.

MEASLES.

The death-rate from this disease was 0.51 per 1,000, and a diagram representing the incidence of mortality from this disease since 1841 shows no indication that the disease is becoming less fatal. Out of corresponding statistics for 10 foreign capitals, 3 had in 1902 a higher death-rate from measles, namely, at St. Petersburg 0.52, Amsterdam 0.88, and Rome 0.94. In London the highest death-rates from measles were 1.16 in Fulham and 1.17 in Bermondsey; the lowest 0.20 in Lewisham and 0.10 in Stoke Newington.

SCARLET FEVER.

The death-rate from this disease was only 0.12 per 1,000, and the case-rate varied from 2.1 in Kensington and in Shoreditch to 5.1 in St. Pancras and Battersea.

DIPHTHERIA

caused a death-rate of 0.25 per 1,000, having steadily declined since the maximum year, 1893. In New York the corresponding death-rate was 0.56, in St. Petersburg 0.68, in Brussels it was only 0.11. In London the case-rate from diphtheria varied from 1.0 per 1,000 in Kensington, 1.2 in Hampstead to 3.1 in Wandsworth, 3.5 in St. Pancras, and 3.7 in the City of London. Reference is made to the importance of the action taken by Dr. Kerr, the Medical Officer of the London School Board, in securing co-operation between local medical officers of health and himself in the examination of school children both at home and at the school, and of the free use of the laboratory in the diagnosis of atypical cases of this disease.

WHOOPING-COUGH.

Whooping-cough, unlike measles, shows signs of a declining mortality, the death-rate from this disease in 1902 having been only 0.40 per 1,000 as compared with a mean death-rate of 0.69 in 1881-90. Whooping-cough is still much more fatal than in any of the chief European capitals or in New York.

ENTERIC FEVER.

Enteric fever caused a death-rate of 0.12 per 1,000 in 1902. The case-rate from this disease varied from 0.4 in Lewisham, Hammersmith, and Stoke Newington to 1.2 in Poplar and 1.3 in Shoreditch. The connexion of polluted shellfish with the causation of enteric fever receives considerable attention in this report, and it is satisfactory to find that the investigation of this vehicle of infection is becoming increasingly practised.

PHTHISIS.

It is unnecessary to summarize statistics as to other diseases except phthisis, which happily is receiving each year more attention as a disease concerning which active preventive measures are applicable. The death-rate from this disease was 1.60 per 1,000, varying from 0.85 in Hampstead, 0.90 in Wandsworth, and 1.05 in Paddington, to 2.28 in Finsbury, 2.62 in Southwark, and 3.01 in Holborn. Corrected for age and sex distribution of population, Hampstead is the lowest, 0.84, Wandsworth comes next, 0.91, then Paddington, 1. while at the opposite extreme are Finsbury, 2.30, Southwa 2.62, Holborn, 2.65.

Although a system of voluntary notification of phthisis l been established in thirteen metropolitan boroughs, o 1,191 cases were actually notified in London in 1902. some of these boroughs the machinery of notification o came into operation late in the year.

SANITARY ADMINISTRATION.

Part II of the report consists of a very full summar every branch of sanitary administration in the metropoli boroughs, which, although it does not lend itself to conveni comment, will none the less be extremely valuable to engaged or interested in sanitary work.

A special report of Dr. Hamer is appended, giving a v full account of small-pox in London common lodging-hou 1901-2; in another appendix by Dr. Hamer the occupatio persons attacked by small-pox is discussed; exempt clauses in by-laws as to houses let in lodgings form subject of a third appendix; accommodation for womer common lodging-houses of a fourth; in a fifth appendix Young gives a detailed account of the sanitary administrat of Hammersmith; and the sanitary staffing of each Lon borough is the important subject of a final appendix.

CONTRACT MEDICAL PRACTICE.

CONTRACT WORK AT ASHTON-IN-MAKERFIELD.

A CORRESPONDENT writes: The four resident practitioner Ashton-in-Makerfield, through the Secretary of the Wi Medical Guild, some time ago intimated to the various se taries of the sick clubs in their district that after Decem 31st, 1903, unless the rates of pay of 2s. 6d. and 3s., wh have been the standard rates for the last thirty years, w increased to 4s. they would not accept re-election.

Several conferences were held between the representat of the various Lodges and the medical men, at which s minor points were agreed upon, but the rate of 4s. insisted upon by the medical men. This the clubs defini refused to pay, with the result that they amalgamated advertised in the lay press for a qualified man to work them at the old rate of 2s. 6d. per member. Numer applications were received and a selection made, with result that an outsider is now brought into the district wi guaranteed salary of £150 per annum for attendance u 1,200 members.

The Wigan Medical Guild has given all the support it c in the matter, but the weakness lies in the fact that in Wi which is only five miles distant, the old rates prevail. the movement originated in Wigan, as the centre (and change is equally desired there) the Ashton practitio would have experienced no difficulty in obtaining the vanced rate; it is to the credit, however, of Ashton th has been the pioneer in the movement.

It is very much to be regretted that a registered med man should be found willing to offer his services under s conditions. One important fact which has been made c during this incident is that the most enthusiastic of work men federators are the prime movers in preventing ot from obtaining what they themselves advocate so eagerly

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PRESENTATION.—The recent marriage of Dr. Ronald Pol of Worcester, was made the occasion, early this month, of of those ceremonies which it is always pleasing to record asmuch as they show that the self-denying efforts of med men do not always pass unappreciated. Dr. Polson has l resident in St. John's, Worcester, since 1887, and was sented at a large gathering of his patients and friends wit congratulatory address, and a silver tray. Several spee were made, by Canon Carr and others, in which attention drawn to the beneficent character of the work which Polson had done. The plate was inscribed, "I was sick ye visited me."

A LEPROSY SCARE IN AMERICA.—A rumour gained curr not long ago that 25 cases of leprosy had been discovere the Russian colony near Lincoln, Nebraska. Some uneasi was felt, but the Health Commissioner, who made a thoro examination of the suspected persons and found them t suffering from a perfectly benign skin disease, issued a re which dispelled the alarm. How often must sufferers f harmless cutaneous affections have been cut off from c munion with their kind and condemned to the living d which was the leper's portion in the Middle Ages?

The King's Gift to the Nation.

E CONVALESCENT HOME AT OSBORNE HOUSE.

HE name of Osborne became very familiar to all the subjects of Queen Victoria owing to Her late Majesty's marked preference for Osborne House as a place of residence at certain seasons of the year. She erally spent several of the winter months there, after ving Balmoral, and usually returned in the early nmer.

Her Majesty's liking for Osborne may probably be attrited partly to its beautiful situation overlooking the ent—one of the most frequented pieces of water in the row seas—partly to its mild yet bracing climate, and tly to the way in which the garden and park lent themves to a quiet outdoor life for many hours of the day ring several months of the year—a rather rare combinan of attractions in this country.

The Osborne estate, which comprises about 2,000 acres, as acired in 5 by purase from dy Isala Blachd. It occies both es of a tly-slop- hill fall- towards north to e seaore, where sea wall s been ilt to proct the k, and to south to e River edina. To e west the rk gates en on to a ad road, ich leads, about a arter of a le by a ther steep line, to st Cowes, ile to the east of the estate is open cultivated country. e grassy slope between the house and the sea is picresquely planted with trees, while further to the east e park includes a considerable extent of woodland. Imediately in front of the house are terraced gardens, while the south side the pleasure grounds contain many autiful trees and shrubs. Trees of all kinds, indeed, do markably well at Osborne, and varieties of the arbutus, d a grove of cork oak, not often seen in this country, ow vigorously. That the camellia flowers out-of-doors, d that there is a palm some 30 ft. high on the terrace e evidences of a mild and equable climate. From the ast Cowes entrance the house is approached through a nse avenue of well-grown ilex and cedar, planted under e direction of the late Prince Consort. There are ranges hothouses and a walled garden, well open to the sun, d protected from the north and east. The offices are to e east, so that the house has, if an explanatory bull may e pardoned, two fronts—to the north-east and south-west spectively—the one to be preferred for out-of-door life in mmer and the other in spring.

In the park golf links have been laid out, and there is a small building originally erected for a summer tea-room which will serve as a club-house.

The general aspect of the house is shown in the view here reproduced (Fig. 1). Its two square towers are well seen from many parts of the Isle of Wight and from the coast in the neighbourhood of Portsmouth. It is an irregular building, consisting of the private apartments of Her late Majesty, of a main and a south wing connected with each other and with the pavilion by an open loggia and cross passage, and of the Durbar wing. The whole, with the exception of the Durbar wing, which was added in 1890, was built in the five years following the purchase of the estate in 1845.

Queen Victoria bequeathed this fine property to her eldest son, and His present Majesty presented the whole—the park, the house and all its appurtenances, and the farms comprised in the rest of the estate—as a free gift to the nation as a memorial to Her late Majesty. It was a kingly gift and is to be devoted to a noble purpose. The house, with the exception of the private rooms used by the late Queen, which will be kept unaltered as she left them, will be devoted to public purposes.

Fig. 1.—Osborne House, General View.

The Durbar hall and some other ceremonial rooms with their connecting corridors will be open to the public on certain days, and will donbtless attract many visitors, for they contain a large number of interesting portraits and other mementoes of Queen Victoria's long and eventful reign. The park also will be open to the public on the same days. With these exceptions the grounds and house will be given up to the purposes of a convalescent home for officers of the navy and army.

The Osborne Estate Act, 1902 (2 Edw. VII, c. 37), recited that the Osborne Estate was, under the will of the late Queen Victoria, vested in His Majesty for life, with certain remainders, and that His Majesty had, with the concurrence of the Prince of Wales, signified his pleasure that on the occasion of his coronation the Osborne Estate should be handed over so as to become part of the public property of the Sovereign, and that provision should be made for the use of the house and grounds as a memorial to Queen Victoria. The Act accordingly gave effect to this declaration, certain parts of the estate—consisting of ground adjacent to Osborne Cottage—being reserved for the private use of members of the Royal Family. Osborne House and the grounds adjacent thereto were placed under the management of the Commissioners of Works, the rest of the estate falling to the charge of the Commissioners of Woods. The Act further directed that:

"As a memorial to Her late Majesty the Commissioners of Works

"(*a*) shall, during His Majesty's pleasure, preserve, so

Fig. 2.—Plan of First Floor.

far as may be in its present condition, and keep open to the public in such manner and on such terms as the Commissioners, with the approval of His Majesty, may determine, such part of Osborne House as appears to have been in the personal occupation of Her late Majesty; and

"(*b*) shall devote the rest of Osborne House and the grounds under their management to be used for the benefit of officers of His Majesty's naval and military forces, or their wives, widows, or family."

A Committee appointed by the King to consider the disposition of the estate had reported on December 5th, 1902, in favour of the above arrangements, recommending especially that the park and woods adjoining the sea front should not be treated as land bearing revenue; that the house, except that portion reserved by His Majesty—that is, the private apartments of the late Queen Victoria—should be appropriated to the uses of the army and navy as a convalescent home for officers, and that the stables and cricket ground should be utilized for the naval cadets of a training ship to be stationed off the Isle of Wight.

The scheme as originally devised has, with the approval of His Majesty, undergone certain modifications, a Naval College with accommodation for 198 cadets having been already built, and further buildings to accommodate 108 more being in the course of erection. Eventually accommodation will be provided for 378 cadets. The arrangements with regard to the naval cadets are under the co trol of the Admiralty. Dormitories, a recreation roo etc., for the cadets are being constructed, and the bui ings occupied by them are at present maintained by t Office of Works at the expense of the Admiralty.

Osborne House has been altered and adapted for use a convalescent home, and, as regards the State Rooms, exhibition to the public. There will be accommodati for about fifty patients.

The selection of the convalescent patients will be referr to the Navy and Army Medical Boards. The Office Works will be advised as to the arrangements for th accommodation by a committee consisting of Viscou Esher, K.C.B., K.C.V.O. (Chairman); Sir Francis Mowa G.C.B.; Sir George Murray, K.C.B.; Sir Frederick Trev Bart., K.C.V.O., C.B.; Sir Francis H. Laking, Bart., G.C.V. the Hon. Sir Schomberg K. McDonnell, K.C.B., C.V. Colonel Sir Edward W. D. Ward, K.C.B.; and Captain t Hon. Hugh Tyrwhitt, R.N.; and Secretary, Mr. A. Durrant.

It may be said at once that the plan of the house h been found to lend itself singularly well to the purpose which it is henceforth to be devoted. The structural alt ations have been comparatively few, and are now co plete;; the internal sanitary arrangements have be reconstructed on modern principles, the decorations a now nearly finished, and the furniture will soon be place.

e recently had the opportunity of inspecting the mmodation for convalescent patients under the ance of the officials of His Majesty's Office of Works, on many matters of detail have had the advantage of dvice of Sir Frederick Treves, of Miss McCaul, and of Haines, who has already taken over duty as matron.

he parts of the house in which the convalescents will ccommodated are the main wing, the south wing, and cross passage. There are here three stories and a ment. Most of the bedrooms are on the two upper rs; the dining room, sitting rooms, and recreation rooms he ground floor; and the kitchens, pantries, and ser- s' mess rooms in the basement.

he uppermost floor of the two wings and the cross age will provide bedrooms, one patient in each. The s are painted a cool light green with a white dado, the rs are covered with linoleum, and every room is well ted by lofty sash windows. Each patient has a tele- ne at his bedside and an electric emergency bell for at night. Both the telephone and the night bell com- nicate with a telephone exchange on the first floor.

he furniture has been specially designed by Mr. Bailey, ..O., Con- er of ies, Office Works, in rdance l valu- suges- s fur- sed by Mc- . We amiliar, he con- tion of pital ls, with idea of ding all es and o ners e dust dirt can lect and which duster rubbing h can- easily etrate; has been govern- idea in design of Osborne furniture, and as it has been admirably carried and as the cost has not been increased it is probable the new furniture will set a standard of excellence for future, not for hospitals only but for the bedrooms ivate houses. It has been made by Maple and Co.

he larger rooms at Osborne contain a dressing-table, robe, washstand, writing table, chairs, of which one is k chair with a washing cretonne cover, bedside cup- d, and screen. In some of the smaller rooms the ber of separate pieces has been reduced by various ious combinations. All the furniture is painted with a hard enamel surface, and is so designed that part can be easily and thoroughly cleaned. The robes, for instance, take into four pieces: cornice h has a flat flush top, hanging cupboard, drawers, and rpiece. The drawers in all the furniture have rounded nal corners; there is no useless underboarding, and by g the drawer out the housemaid can quickly pass her r round every part of the table or cupboard, both e and below. All doors can be lifted off, all shelves out easily for cleaning, and the back of the bed- oard is of slats with air spaces between. The screen

Fig. 3.—View showing Cross Passage with Loggia.

is washable, and each article of furniture is mounted on practicable rollers so that it can be easily pulled away from the wall. The floors are covered with linoleum. Each room has a drop and standard electric light, and whether by day or night is a model of lightness and comfort.

The general plan and arrangements of the first floor are similar to those of the second, except that there are ten married quarters, each consisting of a bedroom and dressing room, as shown in the block plan (Fig. 2) of this floor, which we are enabled to reproduce by the courtesy of the architect, Mr. H. N. Hawks. The plan shows very well the general arrangement of the two wings and the cross passage; it shows also the loggia, which we foresee will in summer be of the greatest use for giving the air to those patients who may be well enough to leave their rooms, though not sufficiently recovered to take outdoor exercise. An external view of the loggia is given in Fig. 3. As, however, there is a lift from the ground floor to the top of the house, large enough to admit a couch, it will be easy to take patients unable to walk into the terrace garden on fine days. The decorations of the rooms on this floor are pink and white. There are two ward kitchens on the first and second floors, and there is also ample bathroom and lavatory accommodation on both floors. The linen room is on the first floor.

On the ground floor where the rooms are decorated in blue, there is a large dining-room with two fireplaces, a dinner lift, and hot-plate. Adjoining this is a smaller dining-room which can be used when the house is full. Near by, on the other side of the corridor, is the Sisters' dining-room. Writing and billiard rooms, as well as a cloak and locker room, are provided on this floor. The Victoria Hall, which is approached by a long corridor and a flight of stairs, will be used as a library and music room for the convalescents, and will also be fitted with writing tables. A room has been converted into a small dispensary for stock medicines, and has been furnished with bench, sink, and testing apparatus for the use of the medical attendant, Dr. H. E. W. Hoffmeister, of Cowes. The nursing staff will consist of the matron, Miss Haines, and four Sisters; three, one for each floor, for day duty, and one for night duty. The general attendance on the patients will be provided by commissionaires, in the proportion of one to every six officers.

Accommodation for the nurses is provided on the upper story of the Durbar Wing, where the matron and each sister will have a large and airy bed-sitting-room. They will also have a common sitting-room, and two bedrooms have been set apart for extra nurses, should their services be required. The nursing quarters communicate with the ground floor of the convalescent home by a

corridor, and also directly with the first floor, by way of the loggia.

The servants' rooms, in two semi-detached buildings to the east, have been remodelled, and contain quarters for the male and female staff respectively.

All the internal sanitary fittings have been very carefully considered, and the apparatus throughout is of the newest and best patterns; the lavatories are tiled; there are altogether eleven bath rooms, seventeen w.c.'s, five bedpan sinks, and an infected linen tank on each floor. The sewage is disposed of in a septic tank, special arrangements being made for dealing with storm water. The high ground on which Osborne stands is covered with plateau gravel. Water is supplied from the Carisbrooke Waterworks, the source being a deep well in the chalk about four miles south of Newport. It is of a high standard of purity, though, like all the waters of the district, rather hard.

An external emergency iron staircase has been built at the east end of the convalescent wings.

All the rooms and corridors are fitted with the electric light, and heated by hot water. In the sitting rooms and bedrooms there are open fireplaces.

Taking them altogether it may be said that the alterations have converted the wings of Osborne House into an ideal convalescent home.

The King has throughout displayed the greatest interest in the work, and has on several occasions generously sanctioned alterations in the original plans which it was shown would increase the amenity and convenience of the house when used as a convalescent home.

To many an officer wounded on active service, or recovering from the hardships of war or the debilitating effect of a tropical climate, Osborne in the future will be a veritable haven of rest and recuperation, where he may recover the health of body and peace of mind lost in the service of his country.

In conclusion, we may be permitted to express to His Majesty the gratitude which every one of his subjects must feel for the thought which inspired him to devote Osborne to this purpose, and to offer at the same time our respectful congratulations on the admirable manner in which his wishes have been carried out.

LITERARY NOTES.

MR. ALBAN DORAN has resigned the editorship of the *Journal of Obstetrics and Gynaecology of the British Empire*. Journalistic enterprises of great pith and moment not infrequently turn their currents awry owing to the want of expert direction. Mr. Doran fortunately brought to the arduous task which he undertook a ripe experience in the practical details of journalism which enabled him to guide the young periodical safely through the obstacles that lie about the beginnings of such undertakings. He is succeeded by Dr. T. W. Eden, whose appointment gives assurance of a career of unimpaired usefulness for the *Journal of Obstetrics*.

A book entitled *Behind the Footlights*, by Mrs. Alec-Tweedie, a daughter of the late Dr. George Harley, is now in the press. The volume is described as a *pot pourri* of first nights, theatrical parties on the stage, with peeps into green-rooms and dressing-rooms. The publishers are Messrs. Hutchinson and Co.

The *Scottish Medical and Surgical Journal* for December contains an interesting article on Scottish toxicology in the sixteenth century as illustrated by the inquest of the Earl of Atholl in 1579. The writer, Mr. A. Francis Steuart, points out that the history of Scotland is "singularly free from even the suspicion of" poisoning. This, we suggest, may be explained, not by any particular squeamishness as to taking human life characterizing mediaeval Scots, but by their preference for more rough-and-ready methods. One of the most celebrated cases of alleged poisoning occurred in 1579, when John Stewart, fourth Earl of Atholl, fell a victim, it was supposed, to the jealousy of the Regent, James Douglas, Earl of Morton. Atholl, a near kinsman of the King, was a Catholic; Morton was a "licentious man, but a fervent Protestant." In 1578, during the minority of James VI., Atholl was made Chancellor at a time when Morton was under a cloud. They were formally reconciled, and Morton gave a feast in honour of the event at Stirling on April 20th. Atholl died suddenly on April 25th. It was taken for granted by eve one at the time that the Earl had been poisoned. An inque was held in Stirling Castle on June 16th. The medic evidence is chiefly remarkable as showing the dense ignoran of the witnesses on the subject which they were called to el cidate. James Owhegarty (?) "Irelandman borne, leiche th ministratis medicine in the month and curis outward herbis," gave it as his opinion that death had been caused "rank venom" introduced by the mouth. Alexand Prestoun, "Doctour in Medicine," and George Boswe "Mediciner and Chirurgiane in Perth," also testified that t Earl had died of poison. Gilbert Moncrief, though he fou the humour in the stomach to be venomous, could not s whether it was exterior or interior grown within the boc David Rattray, "Chirurgiane in Coupare," said that dea was caused by "ane extraordinare poyson, and that ane spu (silver?) put in the humour changeit the cullour in t cullour of brass." R. Craig, "Burgess of Edinburgh, Chir giane," cautiously said the Earl had "to all appearance" d of poison. Mr. John Hammill, Minister of Aberuthven, s "strange and unnatural tokens in the stomach, black and r as it were the dregs of bread and wine mixed," and furt stated that he had heard the dead man say "that he had offence and God forgive them that had done it." The Span Envoy Bernardino de Mendoza sent the following account the inquest to the King of Spain:

> They had opened the body in the presence of five doctors, thre whom said he had been poisoned, and two that he had not. On the latter, to assure them that he was right by proof, took som the contents of the stomach on his finger and put it into his mo The effect was that in a few hours he was thought to be dying. is not known whether the order to poison him came from Morto some private person.

In the end the physicians declared on oath that Lord Atho death "was not caused by any extraordinary mean." S suspicion was not allayed, and Morton made the follow dying declaration on the scaffold on June 2nd, 1581:

> I would not for the Earldom of Atholl have either ministered po unto him or caused it to be ministered unto him; yea, if I had be hundred and he himself alone, I would not have stirred a hair of head.

The question whether Atholl was poisoned must remain of the numberless riddles of history. Of the medical dence, however, it may safely be said that it threw no ligh the problem. Indeed, the subject of Scottish toxicolog 1579 might be dealt with in the summary fashion adopted the writer of the famous chapter on Snakes in Iceland.

In the January number of the *Journal of Anatomy and siology*, Mr. William Wright, Lecturer on Osteology and C Demonstrator of Anatomy in the University of Birmingh gives a description of some skulls obtained from a grou barrows closely aggregated together a mile or so from Gar on-the-Wolds, in the East Riding of Yorkshire. Iron never been found in these barrows; bronze has been occas ally and sparsely met with in a few of them. The chief r found in the barrows have been made of flint or bone. this ground Mr. Wright thinks himself justified in assig the burials to the early Bronze Age, some of them pos to the late Stone Age. Of sixteen skulls described, e were those of females, seven of males, and one of a child about 8 years. The shapes of the skulls were of very di character: there were among them examples of such t as ellipsoides pelasgicus longissimus, ellipsoides af rotundus, sphenoides latus, and two resembling in ge shape the chancelade skull. Mr. Wright, who is engag the examination of a considerably larger number of York prehistoric skulls, reserves detailed conclusions for a f paper. In the meantime he contents himself with sa that even in times so remote as the early Bronze Age, was a marked diversity in skull shapes, although all skulls were taken from the same neighbourhood. "Furt he says, "there is not the least vestige of evidence tha Thurnam's dictum "round barrow, round skull," is approximately accurate as far as the round barrows of Yorkshire are concerned."

In a recently published volume of Selections fro Correspondence of the late Mr. A. B. North Peat, wh accidentally killed during the siege of Paris, the follo example of a printer's error is given as having re occurred in an evening paper, and as having given rise to merriment at the expense of a medical man of real ta "Dr. X. has been appointed head physician to the Hôpi la Charité. Orders have been issued by the authorities f immediate extension of the cemetery of Mont Parnasse. works are being executed with the utmost dispatch."

BRITISH MEDICAL ASSOCIATION.

scriptions to the British Medical Association for ie year 1904 are now due and should be forwarded y postal order or cheque to the amount of 25s.) the General Secretary, 429, Strand, London, W.C., r, in the case of Colonial members, to their Branch reasurer.

British Medical Journal.

SATURDAY, JANUARY 30TH, 1904.

RECENT CANCER RESEARCH.

: publish elsewhere an important communication by . E. F. Bashford and Mr. J. A. Murray, which was pre-ated to the Royal Society on January 21st. In that per are embodied some of the results of the investiga-ns pursued during the past year in the laboratories of : Cancer Research Fund.

t will be seen that Dr. Bashford and Mr. Murray have nfirmed and extended the results arrived at by Professor rmer, Mr. Moore, and Mr. C. E. Walker, an account of ich was given in the BRITISH MEDICAL JOURNAL of cember 26th, 1903. The confirmation is all the stronger ce the two groups of investigators started from wholly ferent standpoints. While, on the one hand, Messrs. rmer, Moore, and Walker were led by a long comparative dy of the general phenomena of cell division and repro-iction to investigate cell division as it occurs in cancer the human subject; on the other, Dr. Bashford and . Murray approached the same question as the result comparative study of the incidence of cancer throughout e whole animal kingdom.

In the first report of the Cancer Research Fund pub-hed last summer it was pointed out that cancer must be garded as part of a general biological problem, and a thod of inquiry based on this principle was outlined by . Bashford in a paper entitled the Problems of Cancer hich appeared in the JOURNAL of July 18th, 1903. In llowing out the lines of inquiry there indicated Dr. shford has had the support of the Executive Committee the Cancer Research Fund, and the willing co-operation many workers both in this country and abroad. During e past year specimens of malignant growths in the horse, e sheep, the pig, the mouse, the cat, the hen, the Indian rakeet, the salamander, the cod, the gurnard, and the but have been examined at the laboratories on the nbankment, and it has been proved that in their nical, pathological, anatomical, and microscopic charac-'s the growths in these animals are in all essential atures identical with those found in man. The de diversity in the habitat, food, and mode of e of the animals suggests that such external conditions ay only a secondary part in determining the occurrence malignant growths, and appears to indicate that the use of cancer must be sought in a disturbance of the henomena of reproduction and cell life common to all e forms of animal life in which it occurs. Hence purely tological investigations must evidently have a most portant bearing on the solution of problems connected th the unrestricted growth of cancer. It was, we ppose, the appreciation of this fact that influenced the xecutive Committee to appoint Mr. J. A. Murray, who has had special experience in cytological investigations, to assist the Superintendent in the research proceeding under their immediate direction.

In the paper which we publish this week the facts proving the occurrence of a reducing division in cancer cells, as first recorded by Farmer, Moore, and Walker in man, are described as they occur in various animals; Dr. Bashford and Mr. Murray do not, however, commit themselves to any definite statement in support of the deductions drawn by these investigators as to the malignancy of cancer being due to tissues which have undergone a reducing division. Nor do they express any opinion as to the diagnostic value which has been claimed for the recognition of heterotype divisions in cancer cells, as contrasted with its absence in benign tumours.

To prevent misconception it is necessary to emphasize the fact that the discoveries of Messrs. Farmer, Moore, and Walker, important as they are, have not dispelled the mystery in which the origin of cancer is enshrouded. As Dr. Bashford and Mr. Murray point out, although the phenomena of cell division, indicating a similarity to the normal reproductive tissues, may be held to explain the proliferative activity of new growth under favourable conditions, they leave the problem of the genesis of cancer practically untouched. They do, indeed, supply important indications of the character of the processes on the elucidation of which depends the solution of the problem. As far as the researches have gone, however, the results seem to us scarcely to warrant the statement made in certain quarters as to the "wide field of possibilities" in regard to cure that have been opened up by these discoveries.

The Cancer Research Fund of the Royal Colleges may claim in the short period of its existence to have contributed materially to the advancement of our knowledge of the nature of cancer. Since the publication of Virchow's work on cellular pathology investigators have devoted all their energies to the study of the processes of growth and extension of cancer without recognizing that the question of origin is entirely distinct. The two problems were differentiated from one another at the outset of the investigations of the Cancer Research Fund, and it must be repeated that the researches which have been published have been directed solely to the solution of the former. An important step forward has been made, but the goal is not yet in sight. It is to be hoped that the contributions to our knowledge of the nature of the scourge which levies so terrible a tribute of human lives are but the firstfruits of an investigation that will place in our hands the means of preventing, or at least greatly mitigating, its ravages.

THE VITAL STATISTICS AND SANITARY ADMINISTRATION OF THE METROPOLIS.

AN immense urban community, having a population of four and a-half millions, and deserving the name of a province rather than that of the "County of London," cannot fail to present problems of the greatest interest and of the utmost complexity. This is particularly the case when public health matters are concerned, and if the Medical Officer of Health of the County of London performed no other duty than the preparation of the important annual report which is summarized on page 253, he would be conferring on the entire metropolis, as well as on everybody everywhere who is interested in vital statistics and in sanitary administration, a benefit the magnitude of which it would be difficult to exaggerate.

The twenty-nine boroughs into which the administrative county of London is now divided, and the still larger number of district Boards and vestries into which it was formerly cut up, furnish sanitary problems of greater complexity and difficulty than those provided by any provincial borough. The latter, especially if they be county boroughs, are self-contained and self-governed. The metropolitan boroughs are larger than most of the provincial county boroughs, and, by the circumstances of their relation to each other, they are inevitably so closely interwoven that independent sanitary administration or control of disease is impossible. Independent sewerage would be impossible; it would be equally impracticable for each borough to have its own small-pox and fever hospitals; the areas of water supply have no regard for borough boundaries; the chief food inspection of the metropolis is carried on in two or three districts, and so on. A very large proportion of Londoners work in one borough and sleep in another; infection is thus difficult to trace and consequently difficult to stop. We need not state the difficulties in further detail; but it cannot be surprising if a sense of half-despair occasionally seizes the mind of the medical officer of health of a metropolitan borough, when he finds the limits of his investigations in the interests of the health of those whom it is his duty to protect, cribbed, cabined and confined by limitations through which it is difficult to break. Of course there is free intercommunication between the responsible officials of different boroughs; but this is not quite so efficacious as free opportunity for personal investigation of a problem from start to finish.

The difficulties which we have sketched would be enormously greater were it not for the co-ordinating action of the London County Council, and particularly for Mr. Shirley Murphy's work and reports. Each borough is compared with every other borough by statistics which are carefully compiled, accurately corrected for age and sex distribution, and set forth in such a way that their teaching is fully displayed. And so for sanitary administration. The details for each borough are accurately contrasted with those for every other borough. and the general effect in levelling up sanitary administration and in securing general efficiency must be very great.

Although in certain respects the sanitary administration of such a vast congeries of houses as London may tend to partial disheartening, the mental depression is greatly relieved when the present is viewed in the light of the past. Mr. Shirley Murphy gives a very interesting contrast between the life prospects at the present time of the inhabitants of Hampstead and Southwark respectively. This contrast brings out the appalling fact that a male child born in Southwark and continuing to live under its present conditions may be expected to have a life fourteen and a-quarter years less than a male child born and living under the conditions at present holding good for Hampstead.

Compare this difference, however, with the experience of a life-table calculated by Dr. Farr for the fashionable parish of St. George Hanover Square some sixty years ago. A male child born then and there had a prospect of 13.4 years less of life than the male child of the present day in Hampstead. If in fashionable districts so much improvement has already occurred, it is not unreasonable to hope that similar, though slower, improvement will occur in the poorest districts. It is because they are "poor" that the improvement is delayed. Over 70 per cent of the Southwark population live in tenements of less than five rooms; less than 30 per cent. of the Hampstead population are thu housed. The manner of housing is but an index of othe things beyond mere dense aggregation. It implies wors and less abundant food, uncleanliness, deficient light an air, greater strain of effort in life, more alcoholism, and long string of social ills.

Even in such a district as Southwark there are signs tha improvement has occurred. Taking conditions of housin again as an index, we find that between 1891 and 190 the percentage of population occupying one-roome tenements had declined from 18.1 to 14.7 per cent., whi the number of those that were occupied by more than tw persons had declined from 10.4 to 7.2 per cent.

Such facts as these must serve to draw attention t existing evils, to stimulate efforts for their removal, and t call into active co-operation the efforts of the sanitar authorities of every metropolitan borough.

PROSTATECTOMY.

THE interest which the more recent operations upon th prostate have aroused is evident in the communicatio which have from time to time appeared in the BRITIS MEDICAL JOURNAL during the past two years, since th publication of the first series of cases of prostatecton recorded by Mr. P. J. Freyer.[1] Into the development evolution of the operation we do not propose to enter, b from the first there has been considerable difference opinion in regard to certain anatomical questions involve The chief points at issue, the fate of the prostatic portio of the urethra, and the completeness or otherwise of th prostatectomy, may be considered as now cleared up. is certain that the preservation of the prostatic portion the urethra, as an intact tube, is not possible when th enlarged prostate itself is removed. Nor is this to wondered at when the extreme tenuity of the prostat mucosa, and the wide extension of its area in this disea are remembered. As regards the parts actually remove very diverse statements have been made. It has been he that the prostate is removed with its fibromuscul "capsule," together with a portion of the recto-vesic fascia, and even the pubo-prostatic ligaments, etc.; and, the other hand, that the parts removed are merely tumou enucleated from the enlarged gland.

It has, of course, long been known that tumours may enucleated from the prostate; but the procedure no termed "prostatectomy" involves something more, an though the enlargement is as a rule of an adenomato type, a fasciculated "capsule" is found in many of t specimens surrounding the adenomatous mass.

A critical examination of what is removed in successf cases shows that this "capsule" consists of unstriat muscle, and that embedded in this may be recognized t flattened recesses of gland tissue.[2] It became, therefo very doubtful if the whole of the prostate, histologica speaking, was removed, however complete the operati might appear from a surgical standpoint. Such obser tions, in short, have to be supplemented by a study of wh is left behind. This does not appear as yet to have be minutely carried out in cases of operation, the success which is so striking a feature. But from an examinati both macroscopic and microscopic, of the parts remaini when prostatectomy is carried out after the removal of t bladder, etc., from the body after death, it is plain tha peripheral layer of expanded prostatic tissue is left *in si*

[1] BRITISH MEDICAL JOURNAL, July 20th, 1901.
[2] S. G. Shattock, BRITISH MEDICAL JOURNAL, October 24th, 1903, p. 1

ıe evidence of this will be found set forth in the paper Mr. C. S. Wallace published in the present issue, a er which embodies observations made since the date of evious communication by the same author.[3]

is perhaps the anatomical fact so demonstrated that ely explains the success of the procedure, since this n yet dense peripheral remnant of prostatic tissue acts n efficient barrier in preventing the escape of urine the pelvis—an event which would be fraught with e results, seeing that in not a few cases (where the ılt has been quite successful) the urine has been in a ın degree foul or septic.

he term "total prostatectomy," then, is not absolutely rect, notwithstanding that the procedure now commonly pted does not consist in the mere enucleation of nomatous or other tumours; it is prostatectomy, since ortion of the gland beyond the growths is taken away; it is not total prostatectomy, since remnants (histo- cal only though they may be) are left behind.

HYGIENE AND TEMPERANCE.

ventured last week to express the confident hope that petition to the Central Educational Authorities in the ted Kingdom circulated for signature to all members he medical professon would receive general support, that individual members would sign and return it to Secretary of the Distribution Committee at an early . We are glad to learn that this expectation is being illed. The petition was only posted on Saturday last, uary 23rd, and on the first four days of this week a very e number of petition forms were returned duly signed number estimated at 14,000. We venture to repeat the eal to all members of the profession that they should attention to the petition, and if, as we cannot help king will be the case, they approve of its terms, that should sign it and return it in the stamped envelope ressed to Dr. E. Claude Taylor, at 20, Hanover Square, don, W.

e understand that many of those who have signed the tion have accompanied it by letters in which they ess in the strongest terms their approval of the action has been taken. It will be remembered that the tion asks the Central Educational Authorities of the ted Kingdom to consider whether it would not be ible to include in the curricula of the public entary schools, and to encourage in the secondary ols, such teaching as may, without developing any lency to dwell on what is unwholesome, lead all the ren to appreciate at their true value healthful bodily litions as regards cleanliness, pure air, food, drink, The Committee of Distribution hoped thus to in an expression of opinion by the medical profession regard to a need of modern life and education h is year by year becoming more evident ose whose work, whether medical or educational, gs them into contact with the people who live in the er quarters of towns. While it may be true that there conclusive proof of the existence of progressive ical deterioration, that is to say, of inherited unfitness, can be none that there is a most disquieting amount dividual unfitness. This is proved, *inter alia*, by the recruiting statistics, to which so much attention has directed during the last year. In his report for the nine months of the year, just issued, the Inspector-General of Recruiting, Major-General Sir Francis Howard, states that there has been a further increase in the percentage of recruits rejected—24.77 as against 22.46. A slight decrease in the percentage rejected for want of physical development—9.06 as compared with 9.76—is attributed mainly to the greater care exercised by recruiters, but partly to the new standard of chest measurement.

This prevalence of physical unfitness among the youth of certain classes of the population is associated with, and there can be little doubt is in large part due to, the fact that an ever-increasing proportion of the population are being subjected to the injurious influences of life in crowded quarters of large towns, where the death-rate and infant mortality are higher, and where ignorance of the laws of health is gross, and intemperance rampant. The facts are well known to the medical profession, which is under a moral obligation to guide public opinion on the subject.

The wide response to the invitation of the Committee which has distributed the petition already makes it certain that it will go forward to the Central Educational Authorities with the strong support of the medical profession. It is, however, desirable that this expression of medical opinion should be as nearly unanimous as possible. As we have said, medical men must generally approve the terms of the petition, and it is therefore sincerely to be hoped that all will be at the small trouble required to express their opinion by their signature. There is good reason to believe that the view expressed in the petition will have the sympathy of the Central Educational Authorities; but of even greater importance must be the effect which a petition signed by the great majority of the medical profession in the country will have on the public. It is, of course, difficult for the central departments to be much in advance of public opinion; the independence of local authorities must be respected, and an emphatic expression of medical opinion cannot fail to have the effect of convincing members of local authorities that the central authority will be fully justified in the action which it may be expected to take to encourage the teaching of domestic and personal hygiene—including in that the subject of temperance—in elementary schools.

VITAL STATISTICS OF ENGLAND AND WALES.

WE publish elsewhere the main facts with regard to the vital statistics of England and Wales for the year 1903. We owe them to the courtesy of the Registrar-General, and we shall be very glad to receive similar statistics for Scotland and Ireland. The birth-rate for England and Wales was 28.4, and was almost identical with the rates for the last two years, though a fraction lower than either, 28.5 in 1901, 28.6 in 1902. These rates compare with a decennial average-rate of 29.9; in 1895 the birth-rate stood at 30.3; since that year the decrease has been almost continuous. The death-rate for England and Wales in 1903 was 15.4, as compared with 16.3 in 1902 and 16.9 in 1901. The proportion averaged 18.2 per 1,000 in the decennium 1891-1900 and 21.0 for the period 1838-1901. From an analysis made by Dr. T. Orme Dudfield, Medical Officer of Health for Kensington, it appears that the birth-rate of London in 1903 was 28.4 and the death-rate 15.6, both the lowest on record. The coincidence between these rates and the general rate for England and Wales is striking. The close approximation of the figures for rural England and Wales and for the 103 smaller towns with regard to birth-rate and death-rate is also remarkable; it is evidence, so far as it goes, that the condition in the smaller towns approximates to

[3] BRITISH MEDICAL JOURNAL, March 29th, 1902.

that of rural districts, although when we come to the death-rate due to the seven chief epidemic diseases and more especially to the infantile mortality, there is a conspicuous difference. The rate of infantile mortality for the whole country was 132, while that for rural districts was only 118, in the 76 great towns it was 144, in the 103 smaller towns 135; in London it was 131, a fact which would be held to reflect great credit on the sanitary administration of the metropolis were it not that we must anticipate that when the full returns for the several boroughs are published very conspicuous differences will appear. Thus Dr. Dudfield tells us that in Kensington, which, as is well known, includes some very poor districts, the infantile mortality was 143 per 1,000 births. Dr. Dudfield's figures further confirm this conclusion by showing that the rate in North Kensington was 158 per 1,000 and in South Kensington only 103 per 1,000. The statistics for 1903 therefore, so far as they are at present available, afford evidence of the continuation of tendencies noted during the last eight or nine years a declining birth-rate, a declining death-rate, and a relatively slight decline in the infantile mortality.

THE PROFESSORSHIP OF MEDICINE AT OXFORD.

IN the BRITISH MEDICAL JOURNAL of January 16th we gave a summary of a statement adopted at a meeting of Oxford graduates holding teaching appointments in medical schools which took place on January 5th. We have since received a copy of a circular letter, which is said to have been "agreed to and ordered to be circulated." This letter, which is substantially identical with the statement above referred to, has attached to it the signatures of 134 Oxford graduates. A document which represents the views and the feeling of so large a number of medical teachers must be regarded with the greatest respect. Many of the names appended to it are representative of all that is best and noblest in British medicine. The loyalty to the University and the zeal for its interests which have prompted the deliverance are in the highest degree praiseworthy. But looking at the matter objectively, we confess we find the arguments not altogether convincing. We need not again go over the ground covered in the article on the subject which was published in the JOURNAL of January 23rd. It may be worth while, however, to call attention to one or two small points in which the revised text differs from that published in the *Times* of January 6th. In the latter, after rehearsing the qualities which a Regius Professor should possess, the graduates said: "On these grounds we think it desirable that the Regius Professor should, if possible, be an Oxford man." In the revised version the words "personally familiar with the University curriculum and traditions" are added, apparently for the purpose of more absolutely excluding persons who, though graduates of the University, have not had the advantage of being cast, in an academic sense, in the Oxford mould. It is a trifling matter, but it is not without significance. It is natural enough that a highly select body like the Oxford graduates should think that no one not nursed at the breast of Alma Mater could "worthily uphold the dignity of the University in the estimation of the profession and the public." We venture to remind them, however, that at no time has the reputation of Oxford as a medical school stood so high as during the last score or so of years when the teaching has been almost wholly in the hands of "outsiders" adopted for the purpose. There are among the Oxford medical graduates men of world-wide fame who would add lustre even to that ancient seat of learning. But, as far as we can gather, they do not want a Regius Professor to teach. They object to "the proposal to convert the Regius Professorship of Medicine into a professorship of any single branch of medical study"; or, rather, according to the revised version, they do not think this desirable "at the present time." We do not care to discuss the precise meaning of this qualifying clause, but we may be allowed to call attention to the remarkable conception of the functions of a Professor which seems to exist in the minds of the Oxford graduates. If the Professor is not to teach any single branch of medical study, is he to be a Professor of Things in General, lik Teufelsdröckh at the famous University of Weissnichtwo Or is he simply to "exist beautifully," sittin in an Olympian repose untroubled by dreams of th lecture-room? But, it is urged, the Regius Professor h important practical duties to perform; among them, hov ever, we find no mention of teaching. The question, w repeat, seems to us to be: Is the Professor to teach, or he to profess without performing? If he is to be a teache what is he to teach? The answer is, we think, obviou He cannot teach clinical medicine at Oxford, but he ca teach the great fundamental truths which constitute th basis of scientific medicine. As a teacher of pathology th Regius Professor will more worthily uphold the dignity the University in the estimation of the profession and th public than by doing the work of a mere official. The di coverer of radium has complained bitterly of the drudge of examinations and other routine work—"which ar school teacher could do as well"—thrown upon him by h appointment to a Chair at the Sorbonne. It is to hoped that a more enlightened view of the duties of scientific professor will guide the advisers of the Crown filling the vacant Chair at Oxford.

PROTECTION OF THE NOTIFYING PRACTITIONER

THE case of Salisbury *v.* Gould, heard in the King's Ben Division on January 20th and 21st before Mr. Justi Grantham and a special jury, is one of considerab importance to the medical profession. A report of t hearing is published in another column. Briefly the alleg tion was that Dr. Gould had shown negligence in notifyi as small-pox a case which, after removal by the sanita authority, was pronounced to be chicken-pox by t officers of the Metropolitan Asylums Board. The result the case establishes the important principle that, in t opinion of the judge, the members of the medical professi in the discharge of public duties have protection afford to them being within the provision of the Public Authorit Protection Act. It was pointed out on behalf of t defendant that every medical practitioner attending on patient when he became aware that the patient was sufferi from an infectious disease was bound to notify to the medi officer of health, and to state what was in his opinion disease from which the patient suffered. Mr. Just Grantham said he had no doubt that the case came wit the Public Authorities Protection Act, and only allowed to go to the jury on the ground that matters had gone far, and that it would be better to take the verdict of jury so as to save the possibility of another trial hereaf The jury stopped the case and found a verdict for defendant, and Mr. Justice Grantham said that the find of the jury amounted to a finding that the case w proper one for notification under the circumstan The result of this action is most satisfactory, and we c gratulate Dr. Gould and the Medical Defence Union u it. No other verdict could possibly have been given, a was quite clear that from the first the defendant had only not been in the least degree negligent, but had g beyond his absolute duty in obtaining an expert opi from the medical officer of health so as to prevent possible doubt being cast upon the accuracy of his gnosis. We need not comment upon the difficultie diagnosis between some cases of small-pox and chic pox; these are too well known to our readers, and it be remembered that the London County Council se uled chicken-pox as a notifiable disease in order to pre the chance of a possible case of small-pox being negle through error of diagnosis. This case proves once a (if proof be now needed) the absolute necessity of e medical man in active practice insuring against the ri having personally to defend actions brought against by impecunious litigants. Dr. Gould, owing to his a member of the Medical Defence Union, had the ad ages of membership brought forcibly home to him. defence was assumed by the Union, and no expense spared to ensure a satisfactory result; the relief to hi all anxiety, and trouble, and costs can therefore be appreciated by all.

HE LIFE-INSURANCE ASPECTS OF PHTHISIS.

T. D. Lister has contributed a thoughtful and sug-ive paper on this subject to a recent number of the *-titioner*. The modern attitude of hope in regard to disease is bound to influence the way in which life-rance officers will deal with it. It is inevitable, for ance, that the infectivity of phthisis should be called the argument by intelligent would-be insurers, who re to discount the value of a family history of phthisis. important to study the age-incidence of phthisis in nating risks; and the main fact in connexion with this iat almost as many deaths from phthisis occur in the r years of life as in the earlier years, per 1,000 lives at age. True, the proportion appears to fall off in the few years of life; but probably this is owing to the that tuberculosis in the aged is frequently unrecog-d on account of the previous condition of the lungs, as hronic bronchitis and emphysema. The risk of death n phthisis being fairly constant from 30 to 60 years ige, Dr. Lister employs an ingenious assumption to ain the probably complex constitution of this uniform lt. He assumes that it consists of three parts—an easing part, a decreasing part, and a constant part; considers this possibility in connexion with the cus-ary clinical diagnosis of the three dangers which give to tuberculosis—namely, hereditary vulnerability, ired vulnerability, and the constantly present danger fection. If the assumption is correct, then it is pos-e that the total risk is constant "because a certain ber of people inherit vulnerability, a certain number ire it, and the risk of infection is always about the e." The inherited vulnerability tends to die down er favourable conditions; unfavourable circumstances er the resistance of those who were formerly less vul-able; while infection is always possible. On this sup-tion a more accurate weighing of the risk in a poser's life can be made. If, for instance, he is a draper a family history of phthisis, the life prospects are rly worse than if he is a clergyman, and so on. It is be noted that family infection does not necessarily ly inherited vulnerability. It may mean excessive and mulative dosage of infection. Conversely, a robust pro-er in good circumstances, who has not for a long period d in the same house as his infected family, may be pted at a normal rate. In short, a more complete ory will need to be obtained of opportunities of infec-and of their duration than has hitherto been con-red necessary in insuring a proposer who has a hisical family history. In dealing with true hereditary disposition resemblance to the parent may furnish some nt guidance. A family history of phthisis when the pro-er is under the average weight for height and age is also important fact. It would appear, therefore, from Dr. er's summary that the normal danger to an insurance e arising from phthisis may be regarded as made up of e factors—inherited vulnerability, largely diminished r middle life, that is, decreasing with age; acquired erability, increasing with age; and infection, equally ly, assuming exposure to infection, at all ages. It is ssary in assessing a given life to ascertain as fully as ible the facts under each of these heads.

FEES FOR INSURANCE WORK.

G. A. Phillips, of Walsall, and Dr. L. G. Davies, of all, have both forwarded to us a copy of communica-s which they have respectively received from the Law n and Crown Insurance Company, one of those com-es to which reference has recently been made in these mns. In these documents the company, stating case for the defence, says that it quite recognizes the services rendered to it by the examining medical r would be the same whether the insurance were for ge amount or for a small one; it excuses, however, its osed reduction of fees from one guinea to 10s. 6d. for osals under and up to £200 upon the ground that a f one guinea taken in connexion with other necessary nses leaves no balance from the first year's premium to cover the risk undertaken. However that may be it does not alter the fact that, owing to the services of the medical man and the work which he does for the company, the latter is put in a position to receive an annual premium for succeeding years.

PRACTICAL METEOROLOGY.

At the annual general meeting of the Royal Meteorological Society nothing of very general interest was revealed except, perhaps, the fact that out of thirteen members whom the Society lost last year through death, four were upwards of 92 years of age. To those who are fond of *post-hoc-propter-hoc* reasoning this fact may furnish a convenient hook on which to hang the theory that the study of meteorology is conducive to long life. In one sense it certainly may be, for an intelligent anticipation at 9 o'clock in the morning of what the weather is likely to be at 4 o'clock in the afternoon might lead to the avoidance of a good many chills and other discomforts. Meteorology, unfortunately, however, is still so far from being an exact science that we cannot endorse the recommendation made in a speech at the meeting that the study of meteorology should be crammed into the already overcrowded curriculum of the unfortunate latter-day schoolboy. The year 1903 is not yet too far away for any of us to have forgotten what we suffered from the vagaries of the weather, of which, so far as we are aware, meteorologists have not yet supplied us with any consoling explanation. Those, however, who like to see their sufferings depicted in concrete form, and their numerous disappointments with respect to the weather reduced to inches of rain, may be interested by the statistics which Mr. W. W. Wagstaffe has compiled with regard to the weather last year at a place no further from London than Sevenoaks. He says that the year was quite the wettest known within our times, and that the total amount of 41.92 in. was only approached by the year 1852. In January, February, November, December the rain was less than the average; in March, April, and May it was more than it should have been; and in June, July, and August, when the most cautious of us go about without umbrellas quite light-heartedly, the surplusage of rain was enormous. In July, indeed, 6.17 in. of rain fell, an amount little short of that which fell in all the four winter months put together. Altogether it rained 187 days out of the 365, and this in the meteorological sense only, for meteorologists do not consider it a rainy day unless it rains one-hundredth of an inch, a good deal more, it may be noted, than is sufficient to spoil a new hat or soak a summer dress. Two-thirds of the rain seems to have fallen at night. Statements, it may be noted, as to the hour of the day at which the greatest amount of rain may be expected to fall are rather various. Some authorities say the early morning, and some authorities say the afternoon, others daybreak. The fact is, a sufficient number of exact observations on the point are wanting. Besides, however, being the wettest year, 1903 was also the coldest. This must seem particularly absurd to those who remember Professor Haughton's teaching, that the amount of heat set free by the condensation of vapour into a gallon of rain was enough to melt 45 lb. of cast iron. A man of science will of course tell us that the condensation takes place at a distance from the earth of from 200 or 300 yards to 2 or 3 miles, and that therefore the effects of the warmth given out are not invariably felt. That, however, is no consolation. If the meteorologists cannot supply us with dry weather in summer, they ought at least to arrange that the air be reasonably warm.

URGENCY CASES AND NO BEDS.

A good deal of prominence was given by the press last week to a discussion which took place at a meeting of the Southwark guardians. Briefly the circumstances which led to it were that on December 28th, 1903, a man sought relief at Guy's Hospital for stricture, accompanied, it would appear, by retention of urine. The house-surgeon did all that was possible in a "surgery" case, but as there was no bed vacant he was unable to admit the mad; consequently he was sent away in a

cab and was taken to St. George's Workhouse. At that place there is no resident medical officer; but the Poor-law medical officer was summoned, saw the patient, and eventually had him removed to the infirmary. The guardians, having had the circumstance reported to them, sent a letter to the superintendent of Guy's Hospital, containing a strongly-worded complaint, and making, it would appear, sundry accusations against the house-surgeon. The medical superintendent of the hospital, in his reply, stated that the House Committee had inquired into the matter and fully exonerated the house-surgeon. There were no beds, and consequently no choice open but to send the case away. A good many foolish remarks were made at the guardians' meeting, such as that patients were only refused admission when their cases were not interesting, and that the hospital, receiving as it did support from the public, ought at all times to provide beds for patients, whether it were full or whether it were not. Finally, it was resolved to send a statement of the case, with details of a number of others said to have occurred, to the Council of King Edward's Hospital Fund. We believe that the practice at Guy's Hospital is to keep two beds vacant, one for a woman the other for a man, and very properly to reserve them absolutely for cases imperatively demanding admission, such as strangulated hernia and the like; also, that in the event of a case presenting itself which appears to require indoor treatment, at a time when there is no ordinary bed vacant, the custom is to hand the patient a recommendation to the relieving officer that he or she should be admitted to the workhouse infirmary. Guy's Hospital, therefore, appears to have paid a considerable amount of attention to the matter. It is, of course, absurd to expect hospitals to provide beds for an unlimited number of patients, and it must inevitably occur that admission must from time to time be refused on account of lack of beds. The system adopted at Guy's is probably as good as any that could be suggested so far as the actual necessities of patients go; but, to protect their own interest, it might be well for all general hospitals to go a step further, and lay down for the guidance of their resident staff some such rule as the following. Whenever a case presents itself which medically is deemed a proper one for immediate admission, but which cannot be admitted on account of lack of beds, it should be sent in a conveyance, accompanied by a representative of the hospital, straight to the nearest infirmary, with a note explaining the circumstances, or to his or her own home in the case of one of those well-to-do persons who occasionally apply to hospitals. Such a course would naturally entail some expeuse, as well as a good deal of trouble, but it would be well worth while. The rule, moreover, could be extended to those cases in which the desirability of keeping the case under skilled observation is recognized, but the propriety of admitting it doubted for some other reason than that of having absolutely no bed whatever. Young resident officers would thus be relieved of an undue amount of responsibility.

THE HEALTH OF THE COLONY OF NATAL.

THE first annual report of the Health Officer of Natal, Dr. Ernest Hill, for the year 1902, states that the average death-rate of Europeans throughout the Colony is 14.4 per 1,000, but this and the return of deaths among the native population are unreliable, as there has been no recent census, although it is understood that one will be taken shortly. Further, a number of deaths of Indians and natives are not registered. The first Public Health Act was passed in 1901, and became law in that year, and in the following year the Public Health Department came into existence. But its operations have been hindered by the negligence of the public concerning all matters of sanitation. The laws are sufficient; the by-laws are, in most cases, adequate, but advantage is not taken of the former, and the latter are not enforced. Several cottage hospitals have been built, and water supply is being laid on in many villages. Plague, as is well known, existed during the year at Durban; 15 cases occurred in December; and enteric fever has become endemic in certain places where, previous to the war, it was unknown. The mortality exceptionally low, and Dr. Hill thinks some of th anomalous forms of the disease ought perhaps to be class fied separately, The disease is endemic in the towns, ar though it is increasingly prevalent among natives in the own kraals, cases usually originate in the towns. Measle scarlet fever, and beri-beri have occurred in outbreaks several places, the scarlet fever being comparatively mild ar the measles more severe. An inquiry has been institut into the incidence of leprosy. It seems to be slowly on t increase among the natives. The incidence of disease members of a family show that it is communicated wi difficulty, and probably not directly, but through sor intermediary, such, possibly, as community of utensi The disease is of a mild type, and not nearly so destru tive as that occurring in Oriental countries. Close assoc tion over an extended period seems to be necessary. Rig and absolute segregation of all infected houses wou theoretically result in an ultimate suppression of the d ease, but the long incubation period, and the obscurity early symptoms, together with administrative difficult in the way of securing all affected persons, render th impracticable; therefore Dr. Hill thinks that the cou most likely to produce satisfactory results would be modified segregation in selected areas in different parts the Colony. To meet plague at Durban, a bacte ological laboratory, energetic inspection of ships, a disinfecting apparatuswere established.

IMMUNIZATION AGAINST ANTHRAX.

THE New Zealand correspondent of the *Times* has recen sent a description of some experiments upon anth bacilli made in the Auckland district, where the diseas prevalent, by Mr. J. A. Gilruth, Pathologist to the Pub Health Department. It appears that he has produ some degree of immunity in rabbits by inoculating th with a mixture of anthrax bacilli and certain other org isms which are not pathogenic. The first of these organi used was "an accidental short bacillus varying from alm a coccus to almost the length of B. typhosus." The *Ti* correspondent appears to be under the impression that important pathological discovery has been made. Whet that is the case or not we cannot say until we have s more exact scientific details of the work which has b done. We observe, however, that the correspondent hibits entire ignorance of the fact that the principle of antagonistic action of bacteria is by no means new. I as all bacteriologists are aware, quite ancient history. antagonistic action of various bacteria upon anthrax been tested many years ago and by many obser Bouchard, for example, employed as the antagon organism the bacillus pyocyaneus, a method which criticized as being equivalent to "driving out the devi means of Beelzebub." Fortunately a like stricture not seem applicable to the "accidental short bacillus we are told that it is innocuous. We only hope tha efficacy will prove proportionate to its innocence.

AN INSANITARY TEMPLE OF HYGEIA.

WE remember in a foreign church coming across a t which was covered to the depth of an inch by a verit dust drift; on this some sarcastic visitor had written his finger, *Domine dilexi decorem domus tuae!* Even at h churches do not always illustrate the saying that cle ness is next to godliness. But one might reasonably ex to find better things in the Temple of Hygeia itself. with sorrow, therefore, that we have to record that coveries made in the buildings in the Rue des Sa Pères, vacated some time ago by the Paris Academ Medicine, show that the holy fathers of medical sci while fulminating *urbi et orbi* against transgressions c sanitary law, had for many years been—we hope u sciously—providing in their own official dwelling a str object-lesson of the very evils which they we the habit of solemnly anathematizing in place which the sacred light of hygiene had never s The sanctuary of the Temple—the room in whic

ncil of the Academy used to hold its meetings—
found to be a kind of museum containing specimens of
is dirt, collected in the course of many years. When
Academy gave up possession it must in a literal sense
e shaken the dust of its ancient home off its feet. As a
t step in the process of purification the carpet, worn
heavy with the dust of ages, was taken up. when to the
derment of the beholders, another carpet, still more
ged and grimy, came into view; under this was another.
ow that again a fourth and so on till some ten layers of
uldering carpet had been removed. The work must
e resembled the excavations which reveal several
ient cities lying on the top of each other. Imagination
dders at the thought of the myriad tribes of bacilli,
ptococci, and other invisible enemies of the human race
ch so long found an undisturbed shelter within the four
ls where the prophets and leaders of medicine were
ing counsel how to compass their destruction. Like the
onomer of the fable, who fell into a ditch while looking
he stars, they laid down laws of health for the world,
took no heed of the nests of disease at their feet. The
iation recalls a story of Pasteur, who, after holding a
ner table spellbound by his vivid description of the
ntless brood of microbes in the midst of which we live
move, and have our being, concluded by swallowing
contents of the bowl in which he had been washing his
ers!

THE SANITARY IMPROVEMENT OF THE GOLD COAST.

DER the auspices of the African Trade Scetion of the
erpool Chamber of Commerce, Dr. C. S. Patterson, (late
dical officer of survey. Gold Coast Government Rail-
ys) delivered an address on January 18th on "The Gold
ast Colony and Ashanti in 1903." Sir Alfred Jones,
.M.G., who presided, said they were endeavouring
every way they could to improve the British
elements by making them healthier for the British
ple. The Liverpool School of Tropical Medicine
done a good deal in setting the example to the whole
rld in that respect, and when history came to be written
erpool would come out very well as having commenced
effort to make all places healthier. Nevertheless, a great
l remained yet to be done. He wished to acknowledge
very liberal treatment which the Liverpool School of
pical Medicine had received from Liverpool merchants
erally, and particularly the African Section. Dr.
S. Patterson said that prior to 1901 practically
ile was done to open up the interior of the Gold Coast
ony, but during the past six months tremendous
gress had been made in that direction. There was no
son why any man should suffer from blackwater fever
e lived in proper white quarters, away from the hospital
l native children, with properly-fitted mosquito curtains
ked in round his mattress before nightfall. A white
n in good health at the start should be able to put in
ht to ten months without fever. Frequent and long leave
s necessary, however, if a skilled man was to be retained
railway, mining, or cotton growing. At Sekondi there
s a unique opportunity for making a healthy port on the
st Coast if immediate action were taken, but such action
s full of difficulties. Those in authority on the spot did
t believe in mosquito-born malaria, and any "faddists"
ongst the medical officers were at once sent up country.
e right man to send out was a medical officer of health
h a mind of his own and powers to act. If such a man
e sent to the municipality of Sekondi, and in six
nths he did not reduce the fever cases one-half, his ex-
ience would be at variance with every other medical
ctitioner in the world. The mosquito theory was a fact,
l should be properly carried through to a legitimate
clusion.

THE COOKING OF SHELLFISH.

We have received from Mr. J. Wrench Towse some par-
ulars of experiments recently carried out for the Fish-
ngers' Company in the cooking of the smaller shellfish.
has been clearly shown by Dr. Klein, and unintended experiments on human beings in many towns have even more conclusively proved the same thing, that the usual method of cooking by scalding cannot be trusted to destroy pathogenic micro-organisms, while further cooking in boiling water spoils the shellfish for food. A suggestion was then made by Dr. Klein that cooking by steam might be found to be an efficient sterilizer without spoiling the fish as food. In pursuance of this suggestion, two batches of cockles and mussels were cooked in a steamer, one for ten minutes and one for five minutes. The steamer used was a fixed vessel some 2 ft. deep, into which steam was introduced near the bottom. A layer of cockles was placed at the bottom and two other layers on trays above it. In the top tray mussels were also placed. Some of the shellfish were heaped up, others spread out. So far as edibility was concerned, at the end of ten minutes the mussels were found to be spoiled and the cockles in the upper layers "all right;" those near the bottom of the steamer were overcooked. At the end of five minutes the mussels were "all right," the cockles in the upper layers good, those below overcooked. Dr. Klein found that in every instance the cockles were sterile; the mussels were also sterile except those heaped up on the top layer and steamed for only five minutes. From these experiments Dr. Klein is induced to recommend that if steaming is to be relied on as a means of sterilizing shellfish for food at least five minutes must be recommended. There can be no doubt that if the retailers of cooked shellfish can be induced to substitute steaming for boiling—or rather for scalding—in the cooking of shellfish for sale there will be a distinct gain to public safety. The majority of mussels and cockles, however, which are cooked after being purchased by the general public are not likely to be treated by the same method. Furthermore, both the retail vendor of mussels and cockles and the housewife who has purchased them uncooked will be influenced chiefly by the desire to do nothing to interfere with the palatability or digestibility of the shellfish. This difficulty is likely to stand in the way of the general adoption of a system of sterilization by steam. If, however, the Fishmongers' Company will draw general attention to the necessity of such sterilization they will have done a considerable public service.

MOSQUITOS AND MALARIA: A CHALLENGE.

THE formation of an Algerian League for the Prevention of Malaria has moved some ardent unbelievers in the mosquito theory of the origin of that disease to issue a challenge to the promoters of the movement. Dr. Emile Legrain, editor of the *Revue Médicale de l'Afrique du Nord*, and Dr. Alcide Treille, Physician to the Civil Hospital of Constantine, and Professor of the Diseases of Hot Countries, both retired medical officers of the French army, offer themselves as the subjects of experiment. They will submit to be bitten by mosquitos fed on a patient suffering from quartan ague, "the only type of fever on which one can count for an accurate and protracted observation." They undertake to use no preventive treatment beforehand, to take no bark or quinine in any form, and to use no antipyretic therapy. They will, in a word, allow the fever to pursue its course in them uncontrolled, "with all the haematozoa it may please to develop, as long as it may please, and in any manner that it may please." They consider Manson's experiments unscientific and inconclusive, and are anxious that the question may be tested on their persons before a campaign, "as useless as it is likely to be costly," is entered upon in Algeria.

AMERICAN SOCIETY OF TROPICAL MEDICINE.

THE American Society of Tropical Medicine, we learn from the New York *Medical Record*, held its first formal meeting in the buildings of the University of Pennsylvania on January 9th. Dr. James Carroll, of the United States army, delivered an address, entitled "The Etiology of Yellow Fever." Dr. Carroll, it may be remembered was a member of the Army Medical Commission sent to Cuba a few years ago to study the causes and the mode

of transmission of yellow fever, and as a result of these investigations it was established that the disease is conveyed solely by the mosquito, *Stegomyia fasciata*. This Commission was composed of Dr. Walter Reed (surgeon U.S.A.), Dr. Jesse W. Lazear, Dr. James Carroll, and Dr. Aristides Agramonte (contract surgeon). Of these the last alone was immune. Dr. Carroll and Dr. Lazear submitted to inoculation and both had attack of yellow fever, to which, unhappily, Dr. Lazear succumbed. It was definitely determined that the bacillus icteroides of Sanarelli has no etiological relation to yellow fever, being merely a variety of the hog cholera bacillus. In like manner, the micro-organism found by Finlay is an accidental and indifferent parasite. It was demonstated that the disease is not conveyed by fomites, the only demonstrable medium of communication being the *Stegomyia* that has sucked the blood of an infected person within the first few days of the disease, though only after an interval of twelve days, and from that time so long as the mosquito may live. The period of incubation in man is about twelve days. The disease may be transmitted by means of the blood of infected persons directly, even after passage through a porcelain filter, but if the blood be heated to 55° C. it loses its infectivity. The evidence seemed to show that the blood serum of convalescents from the disease has both prophylactic and curative value. As a result of the work of the Commission, of which Dr. Carroll was a member, yellow fever has been practically exterminated in Cuba. The part played by the mosquito in the transmission of the disease had been previously suggested by others, but it remained for the Commission to furnish the conclusive demonstration of the fact. The identity of the hypothetical micro-organism has yet to be established. The officers of the American Society of Tropical Medicine are as follows: President, Dr. Thomas H. Fenton; Vice-Presidents, Drs. James C. Wilson and James M. Anders; Secretary, Dr. Jos. McFarland; Treasurer, Dr. E. Baldwin Gleason.

ST. BARTHOLOMEW'S HOSPITAL.

As will be seen from a report published on p. 273, the much-discussed St. Bartholomew's appeal was launched last Tuesday. The meeting, which was held in the large Egyptian Hall of the Mansion House, was very largely attended. The authorities have determined to carry out the plan of rebuilding on the present enlarged site, and now that the appeal in support of it is formally and finally launched it is to be hoped that all opposition to it will be allowed to drop, and that the appeal may meet with a generous response. The recognition generally accorded to the great importance of facilities for medical education and of the schools attached to the great general hospitals marks decided progress. For the rest, we hope to have no further occasion to refer to the question of St. Bartholomew's Hospital until some date—not, we hope, too far off—when we can announce that the appeal being fully met no longer requires support. The sooner this comes the better, not for St. Bartholomew's alone, but for all hospitals in London.

JOINT CLINICAL MEETING OF SCOTTISH BRANCHES.

The annual clinical meeting of the Edinburgh Branch of the British Medical Association, in conjunction with other Scottish Branches, will be held at the Royal Infirmary, Edinburgh, on February 12th, at 3 p.m. The pathological museum and the new pavilions will be visited, and in addition to the exhibition of clinical cases, demonstrations of *x* rays, radium, and high-frequency currents will be given. A dinner will take place at the North British Station Hotel at 6.30 p.m.

Dr. D. C. Lloyd Owen, Consulting Surgeon to the Birmingham and Midland Eye Hospital, and Honorary Ophthalmic Surgeon to the General Hospital, Birmingham, has resigned his membership of the Spectacle Makers' Company in consequence of the action of the company in instituting an examination and issuing a certificate in sight testing, an action of which Dr. Lloyd Owen entirely disapproves.

Scotland.

University of Edinburgh.

Lord Rector's Address.

The Lord Rector of Edinburgh University, the Right Hon. Sir Robert B. Finlay, K.C., M.P., LL.D., Attorney-General for England, gave his rectorial address on January 21st, in the McEwan Hall, when the Chancellor of the University (the Right Hon. A. J. Balfour) was in the chair. The subject of the address was international arbitration. The proceedings were marred by the behaviour of a section of the students. To such an extent was this carried that very few of the audience heard anything of the address. At the close of the address two students, clad in dirty fancy women's costume, walked up the central passage to the rostrum, and presented to the Chancellor and Lord Rector two little black dolls. The Senior President of the Students' Representative Council, who was to have proposed and the President of the Union who was to have seconded a vote of thanks was unable to get a hearing. The Students' Representative Council held a special meeting on January 26th to consider the matter. Resolutions were passed expressing regret at the uproar, the disgraceful treatment of the distinguished guests, the insulting incident at the close of the address, making various suggestions for future Rectorial addresses, and finally calling on one of the members of the Council to resign on account of his unseemly conduct towards the Lord Rector. The resignation of the student in question has been received. A letter was submitted from the Principal and Deans Committee calling the attention of the Council to the conduct of a section of the students at the Rector's meeting, and asking for a public disclaimer of sympathy with conduct so disgraceful.

The Morison Lectures at the Royal College of Physicians of Edinburgh.

Variation, in its Relation to the Origin of Insanity and the Allied Neuroses.

The first of the present course of Morison lectures was delivered on Monday afternoon, January 25th, before the Royal College of Physicians, Edinburgh, by Dr. John Macpherson, one of the Commissioners in Lunacy for Scotland. The subject of the course is Variation in its Relation to the Origin of Insanity and the Allied Neuroses. The first lecture was almost entirely devoted to a consideration of the laws of heredity, the extent of variation in Nature, and to the phenomena of genetic selection, regression, correlation, and the normal distribution of mental characters. On the subject of heredity the lecturer argued in favour of the view that descent is not through the parental body, but through the sex cells. From the idea that the body of the parent is in some way remodelled into that of the child a host of errors have arisen, which has resulted in confusion of thought on the subject. He pointed out that the recent researches of Beard, especially those which demonstrate the existence of a larval stage in the embryology of the vertebrates, have confirmed in a remarkable manner the more theoretical assumption of Weismann that descent is through the germ cells alone, and also the theory of the immortality of the germ plasm. By means of the use of the normal curve of probability, the lecturer showed the normal distribution of physical characters in plants and animals, and the distribution of stature in man, also the fixed necessity which exists for the largest number and the most normal members of a race to group themselves around the mode or mean, and the consequent paucity of individuals who occupy either extremity of the curve. The paucity of the more exceptional members of a race was accounted for by the laws of regression and genetic selection.

Following the lines of Professor Karl Pearson's method it was next shown that there were sufficient proofs, numerical and otherwise, for asserting that psychical characters were transmitted in precisely the same manner as were physical characters, and that they obeyed the same laws of distribution. On this basis tables and curves were exhibited with the object of demonstrating the distribution of mental ability among 107,740 Glasgow school children of whom last year, 235 were returned as mentally defective. Commencing with the latter figure, it was estimated that 1,745 were very dull intellectually, 5,500 slow dull, 13,335 slow, 32,430 slow but intelligent, 37,924 intelligent, and 15,811 quick intelligent. The mean mental ability of the population would on this assumption lie between "slow intelligent"

telligent." Further, if the curve represented at all rly the normal distribution of mental ability among se children, there must be between 200 and 300 children were quite exceptional in their mental ability. A similar ess was applied to the population of Scotland based upon amount of mental defect in the last census returns. hough, it was pointed out, these figures were greatly erestimated, they helped to show the method of distribu- of any abnormal character in a population, its decrease intensity as the mean was approached, and its increase in nsity but decrease in frequency the greater its distance rn the mean. In the next lecture the distribution and ses of congenital mental defect will be taken up.

OPOSED COMMEMORATION DAY AT GLASGOW UNIVERSITY.

proposal has been for some time under the consideration the authorities of Glasgow University to have a com- moration day, similar to those held in the English univer- es, a ceremony which would help to keep alive the interest ormer graduates in the affairs of the University. The idea now taken definite form, and it is intended that the meet- should take place in June, and that one feature might be delivery of an oration on some distinguished graduate of University or another subject of special interest. The ceedings would probably extend over two days, the first ng set apart for the oration, and the second for a banquet the Bute Hall. We understand that Sir William Ramsay, University College, has undertaken to deliver an address the life and work of Professor Joseph Black, the distin- shed chemist, who held the Chair of Chemistry in Glasgow iversity from 1756 to 1766, and who during that period olved the theory of latent heat on which his scientific fame efly rests.

SMALL-POX.

On January 25th the number of cases of small-pox in Glas- gv Fever Hospital was 228, and in the surrounding burghs es continue to make their appearance. Fortunately the rjority of the cases are mild, and this is shown by the t that while there have already been 482 cases in the city, deaths have so far only numbered 35. The cases reported i Scotland during the first fortnight of the year numbered and were distributed as follows:

County of Ayr	...	2 cases
County of Dumbarton	...	3 ,,
County of Edinburgh	...	11 ,,
County of Elgin	...	1 ,,
County of Fife	...	1 ,,
County of Lanark—Lower Ward	...	2 ,,
Middle Ward	...	7 ,,
Upper Ward	...	3 ,,
Burgh of Airdrie	...	1 ,,
,, Coatbridge	...	6 ,,
,, Glasgow	...	102 ,,
,, Govan	...	35 ,,
,, Hamilton	...	3 ,,
,, Kinning Park	...	2 ,,
,, Motherwell	...	1 ,,
,, Partick	...	4 ,,
County of Peebles	...	1 ,,
County of Perth	...	3 ,,
County of Renfrew	...	11 ,,
County of Stirling	...	1 ,,

irteen fresh cases were reported in Edinburgh in the week ding mid-day, January 23rd. Since then up to Tuesday ening 3 further cases had occurred. A third death has curred, that of a labourer removed about eight days ago m the Guthrie Street lodging-house. There remain 27 ses in the temporary small-pox hospital at Colinton Mains.

Ireland.

DEATH OF THE PROVOST OF TRINITY COLLEGE, DUBLIN.

E graduates of Dublin University everywhere will have rnt with sorrow that the distinguished man who since 1888 sided over the fortunes of Trinity College, Dublin, as its ovost, is dead. Although the Rev. Dr. Salmon was not a mber of our profession, he was associated with it as an ucationalist, and he had a large share in the development the medical school which has attracted to it so many pils and has maintained its eminence as a place of instruc- n. For two generations Dr. Salmon had been a prominent ure in Trinity, but long before that he had given evidence the high intellectual qualities which in the years to me were to make him a great power in the world of ience and his name familiar to thinkers everywhere. rn so far back as 1819, he became scholar in 1837, in a brilliant year. Two years later he was first gold medallist in mathematics, and in 1841 he gained a Fellowship in open competition. Entering the Divinity school he was in due course ordained, but while he soon became prominent as a theologian, his post-graduate work was pre-eminent in the subject of mathematics. He published his famous treatise on *Conic Sections*, followed by the *Geometry of Three Dimensions*, the *Higher Plane Curves*, and the *Modern Higher Algebra*. In 1863 he was elected a Fellow of the Royal Society; and was awarded the Gold and Copley Medals by that body. He was also awarded the honorary degrees of D.C.L.Oxford, LL.D.Cambridge, the Fellowship of the Royal Society of Edinburgh, and was elected a corresponding member of the Institute of France, and of the Royal Academies of Science of Göttingen, Berlin, and Copenhagen. In 1878 he was President of the Mathematical Section of the British Association at its meeting in Dublin, and when in 1892 Trinity celebrated its tercentenary the Corporation conferred upon him the freedom of the city. But his genius showed itself in other fields also. His position as a theologian was early recognized, and he was selected to fill the position of Regius Professor of Divinity in 1866. Thereafter there came from his pen the famous *Historical Introduction to the Study of the New Testament*, and volumes of sermons in which he dealt with many great problems, attracting the reader by the clearness, simplicity, and force of his writing, and making for many the rough places smooth. In one of these, "On Pain and Disease," he said:

> Nothing impresses me more with a sense of the goodness of the Creator than to observe how the very pains and sorrows of life seem unable to resist the universal tendency to turn themselves into sources of happiness. What could seem more destructive of happiness than sickness? A strong man delighting in the vigorous exercise of his faculties is suddenly reduced to helplessness; he is not only rendered incapable of carrying on his ordinary work, but he becomes dependent on others for common services, and has the distress of feeling that he is not only useless, but is a cause of trouble and anxiety to those about him: pain is added—it may be life imperilled, and yet any of you who have known it can tell whether that has been a time of unmixed misery. Far from it, I have no doubt you will say. The causes of pain bring into operation reacting causes of happiness, and these far more powerful. What bodily pain can be set against the happiness of loving and being loved? and seldom is that happiness felt so keenly as when, on the one hand, love is called on to show how it delights in sacrifice, and, on the other hand, that love is appreciated and returned as it never might have been but for those tender ministrations which soothe the hours of Nature's weakness.

As the head of the great college to which he belonged he ruled with great sagacity and strength. His simplicity and geniality made him a favourite with all classes. He had a playful wit, and many good stories will serve to keep in mind the lighter side of the Provost's life. He was indeed a great Irishman in the best sense, and the country of which he was so proud truly mourns to-day for a loss that seems to be almost irreparable.

THE MIDWIVES ACT, 1902, AND IRISH TRAINING INSTITUTIONS.

At a meeting of the medical staff of the Incorporated Belfast Maternity Hospital on January 19th, 1904, the following resolution was unanimously passed:

> That the Central Midwives Board be requested to so alter their rules that any woman attending "The Incorporated Belfast Maternity Hospital" shall be deemed to have complied with their regulations in reference to the training of hospital midwives, and shall be eligible to present herself for the examination of the Central Midwives Board.

Professor Byers was requested to forward this resolution to Dr. Champneys, Chairman of the Central Midwives Board. The Incorporated Belfast Maternity Hospital finds itself in exactly the same position as the Rotunda, the Coombe, and the National Lying-in Hospital, Dublin.[1] So far as two of the principal requirements of the Central Midwives Board, namely, those in reference to the training of candidates—that they must have attended and watched the progress of not fewer than twenty labours, and have nursed twenty lying-in women during the ten days following labour—patients leave the Belfast Hospital on the eighth or ninth day (as in the Dublin hospitals) after delivery, and it would be as impossible in the Lying-in Hospital in Belfast as in those in Dublin to allow each nurse to have twenty cases for personal conduction. While anxious that the training of the midwives of the future should be thorough, practical, and based on personal experience, those connected with the Belfast Hospital believe that a hard-and-fast rule may in the end not conduce to what is desired. In the Incorporated Belfast

[1] BRITISH MEDICAL JOURNAL, January 23rd, 1904, p. 209.

Maternity Hospital, where last year in the intern and extern departments 563 deliveries took place, and where the nurses' training extends over six months, with theoretical teaching and a final examination, it is contended that the practical experience gained there would be quite as good as if the nurses had fulfilled to the letter of our law the regulations of the Central Midwives Board. It is therefore hoped that to meet the case of the Irish maternity hospitals the Central Midwives Board will make a change in its demands as to the certificates required from those nurses trained in Ireland who may wish to be admitted to the examination so as to work in England. It is also hoped the Midwives Act will be made to extend eventually to Ireland.

Proposed Belfast Workhouse Sanatorium for Consumptives.

Local Opposition.

A large and influential meeting of the inhabitants of the Whiteabbey district was held on January 16th in the Courthouse, to protest against the establishment of a consumptive sanatorium by the Belfast Board of Guardians in the district.

The objections raised were that the site was much too low-lying, the highest points being only 140 ft.; that the ground was an undrainable, heavy, wet clay; that the grounds were much too small, only 33 acres for 250 patients; that it was in close proximity to the village of Whiteabbey, and to the smoke from the railway and to two not very distant mills; and that it was exposed to north and east winds, and afforded little view.

Resolutions to oppose the scheme to the utmost were passed.

Local Government Board Inquiry.

The Local Government Board inquiry was resumed before Mr. Robert Agnew and Dr. E. Coey Bigger, inspectors in the workhouse board room, on January 18th and 20th.

Dr. R. J. Purdon, physician to the Foster Green Consumptive Hospital, said that he had examined the place; the air was pure and bracing and free from any deleterious gases; the railway cutting on the one side and the stream on the other would contribute materially to the efficient drainage of the ground. There was good shelter from the northern and eastern winds; the view was varied, extensive, and beautiful; the country around was sparsely populated; the subsoil was a light pliable gravelly clay; although it was a wet day, he had found little water in the borings; he considered the mansion eminently suitable for the purpose intended. The witness was cross-examined at considerable length, as to the borings, as to a specimen of clay produced, as to whether he had ever sent patients to the district, as to why the Foster Green Hospital had gone to the opposite quarter of the town in the Castlereagh Hills, and as to the number of patients the proposed site should accommodate.

Dr. Moore, of the Royal City of Dublin Hospital, said that he had visited Abbeylands and believed it was not suitable for a sanatorium; it was too near the railway line: it had a road on each side, there were fields on which the grass was rank and had rushes growing in them; it was a very short way to the sea, and there was a large foreshore which would act like a marsh; there was an increasing population; the house was not suitable; there was little protection; even if the soil could be drained, the damp from the adjacent fields would be deleterious. The house was not an acquisition, Alterations would cost more than to build a new hospital; he strongly disapproved of 255 patients being penned in a space of three-quarters of an acre, surrounded by buildings.

Dr. McLeish, one of the visiting medical officers of the infirmary, said that the union was much overcrowded, and there was no room for extension. He thought the proposed site excellent. The paths were dry, even after heavy rain; he did not think a town of 2,000 inhabitants at a distance of a quarter of a mile would affect the patients; the sanatorium would not have the least evil effect on the neighbourhood generally.

Dr. H. L. McKisack, Physician to the Royal Victoria Hospital, said that he had examined the site. He saw rushes on the lawn; when he stepped from the elevated avenue to the ground below he found he was walking on surface water; he made some excavations, and found a retentive clay below 6 in. or 10 in. of dark loam; in the field beyond the tennis-court there were a great many rushes. Having regard to the soil, he was of opinion that the site was most unsuitable and unhealthy for consumptives; no portion of the ground would be suitable for huts; it would be an advantage to have the sanatorium more elevated; he believed there were a great many parts of the surrounding country more suited to th purpose. He would prefer a site as far removed from a villa as possible; he thought the air at the Abbey was damp.

Several architects and civil engineers, guardians, ar residents were also examined both for and against the pr posed site; their evidence was very contradictory. There a general feeling in support of the guardians' effort to procu a sanatorium, but perhaps more than a doubt whether th have chosen the best place.

Small-Pox in Belfast.

At the meeting of the Health Committee on January 21s the Medical Superintendent Officer of Health referred to th steps taken to deal with the cases of small-pox, and drew a tention to the apparent indifference of the people as to th necessity for revaccination. Over 20 cases of small-pox ha been discovered. Authority was given by the Committee supply the principal of every school in the city with a copy Section cxlvi of the Public Health Act (Ireland) 1878, showi the penalty for sending children to school from a house whe a dangerously infectious disease was being, or had lately bee treated. The clause is as follows:

> 146. Any person who shall knowingly or negligently send a child school who, within the space of three months, has been suffering fr any dangerous infectious disorder, or who has been resident in a house in which such dangerous infectious disorder shall have exist within the space of six weeks, without a certificate from some d qualified medical practitioner that such child is free from disease a infection, and unless his or her clothes have been properly disinfect shall be liable to a penalty not exceeding forty shillings.

The Sweets of Dispensary Practice.

A man named Lennon, of Moira, co. Down, wrote to t Local Government Board stating that a fever epidemic h broken out in the family of a shopkeeper and milkseller the village; and although the patients had been attended Dr. Brownrigg, J.P., Medical Officer of the Moira Dispensa District, the shop was kept open for the sale of groceries a milk; that consequently his sister caught the contagion a subsequently died. The writer added: "I am only a po labouring man and a Roman Catholic, and I suppose I was n considered of any consequence." Dr. Brownrigg, in reply the charge, proved that the milk trade and grocery had be promptly stopped by his direction, and all communicati with the affected house cut off; that Mary Ann Lenn had been smitten with the disease before the shopkeepe family had sickened; and that he had notified the Lo Government Board and the Council when the outbreak to place, and repeated disinfection had been carried out. answer to the insinuation touching Lennon's religion, Brownrigg enclosed a letter from the parish priest of Maral saying, "I am happy to bear testimony to your invaria kindness and liberality to all my people." Such a charge i district where sectarian strife might easily be arou might have had most serious consequences, and it w fortunate that the circumstances were such that it could so completely refuted. Dr. Brownrigg is to be congratula on the issue.

Richmond Lunatic Asylum.

At the last meeting of the Board of this asylum, the rep of the finance committee on the estimates for the ensu year, was submitted. The sum of £99,120 will be required meet all charges, including the new asylum ot Portrane, n Dublin. This also provides for an estimated increase of patients during the next twelve months. The alarm statement is made that since 1894, the number of lunatics be provided for in the asylums of the Dublin district increased by 1,000. The committee bear testimony to admirable management of Dr. Conolly Norman, the sup intendent.

An Insanitary Infirmary.

At a recent meeting of the Board of Guardians Dr. T. Moorhead made strong representations as to the insanit state of the Cootehill Infirmary, co. Cavan, not for the f time. He was unfortunately able to support it by show that, despite the most stringent antiseptic precautions variably taken by himself and all his assistants at operatic an epidemic of blood poisoning had occurred. One p operated on for cancer of the lip developed erysipelas days later and died, whilst of two women operated on on day one developed septic pneumonia and the other hosp gangrene. Cases of septic sore throat had also occurred. demanded that the reforms, which he had long advoca should be taken in hand at once as a matter of urgency.

E SIGNIFICANCE OF THE ZOOLOGICAL DISRIBUTION, THE NATURE OF THE MITOSES, AND THE TRANSMISSIBILITY OF CANCER.[1]

BY

. F. BASHFORD, M.D., and J. A. MURRAY, M.B., B.Sc.
(Laboratories of the Cancer Research Fund)

: object of this communication is to relate some results of work conducted under the immediate direction of the cutive Committee of the Cancer Research Fund during past year. We believe that these results will convince ters of the important practical assistance which biologists erally can give in the further elucidation of certain proins of cancer which must be settled before scientific pretive and curative measures can be devised. It will also nade evident that the elucidation of cancer is something e than a problem of human pathology only.

'e shall adduce evidence tending to show that the wide logical distribution and the character of the mitoses, and transmissibility of cancer, are nearly-related phenomena n a common basis.

he fundamental significance of ascertaining the extent of zoological distribution of cancer was recognized by the ncer Research Fund from the first, and determined the ecution of definite lines of inquiry with all the means at disposal of the organization, not only with the object of iting new facts in regard to the zoological distribution lf, but also with the object of discovering cancer in rnals well adapted to cytological and experimental obserons.

Zoological Distribution.

'ithin the past year specimens of malignant new growths e accumulated from all the domesticated animals and n many other vertebrates. The appended list shows the ndance of the material which has thus been examined. list includes also specimens which we have been privied to examine through the courtesy of investigators bad, who, subsequently to the inauguration of the Cancer earch Fund, have published descriptions of malignant ours in the lower vertebrates. It is noteworthy that such yths have been obtained, not only in domestic animals, also in animals living in a state of nature—wild mouse, fish, gurnard.

ne clinical, pathological, anatomical, and microscopical racters of these new growths are identical with those nd in man in all essential features, although the animals nselves are drawn from the different classes of the vertere phylum. A detailed histological description of the ous tumours examined will not be attempted here. Only general significance of the observations in relation to the dence of cancer in man will be emphasized.

ne great diversity of the habitat, food, and conditions of generally of the forms in which malignant new growths ir relegates such external conditions to a subsidiary rôle etermining the incidence of the disease, and shows that essential factors must be sought in the potentialities ch reside in the cells constituting the living body.

ne list of specimens, while giving no safe basis of deduc as to the relative incidence of cancer in the different ses of vertebrates, or of the comparative susceptibility of different sites of the body, is extremely suggestive.

ne large number of epitheliomata obtained in the horse dog indicates very clearly that malignant new growths recognized according to the ease with which animals can examined, and the length of time they are kept under obation. The larger ratio of malignant new growths curring in the internal organs of cows have been discovered ng meat inspection at abattoirs, and form a welcome llary to the other observations.

ated generally, it may be said that malignant new growths requent according as animals are carefully examined, and unrecorded in forms which are difficult to examine or do reach old age in considerable numbers.

'ne figures are not sufficiently extensive to determine rately the age incidence of the various types of new yths in different animals, but a relatively higher incidence d age is apparent.

Communicated to the Royal Society by Professor J. Rose Bradford, F.R.S. Received January 12th, read January 21st.

List of Specimens of Malignant New Growths examined by the Cancer Research Fund during the year 1903.

Animal.	Age.	Primary Site.	Microscopic Character
Cow	Aged	Orbit	Carcinoma, large polygonal cells.
,, ...	,,	Rumen	Carcinoma, spheroidal cell.
,, ...	,,	,,	,, squamous cell.
,, ...	,,	,,	,, ,, ,,
,, ...	,,	Liver	,, cubical cell.
,, ...	,,	,,	,, ,, ,,
,, ...	,,	(?) Pleura (secondary)	,, squamous cell.
,, ...	,,	(?) Gastric gland (secondary)	,, ,, ,,
Heifer	1	Perineum	Melanotic sarcoma.
Cow	Aged	Ovary	Sarcoma.
,, ...	—	Suprarenal	,,
,, ...	Aged	Ovary	Carcinoma.
,, ...	—	Jaw	Osteo-sarcoma.
,, ...	—	Adrenal	Sarcoma.
,, ...	Aged	Liver	Carcinoma, cubical cell.
,, ...	—	Bowel	Sarcoma, spindle cell.
,, ...	—	Neck	,, ,, ,,
,, ...	Aged	Face and neck	Carcinoma, squamous cell.
Heifer	2	Side of thigh	Melanotic sarcoma.
Dog	14	Mammae	Carcinoma (scirrhus).
,, ...	10-11	Upper lip	Epithelioma.
,, ...	—	Testis	Sarcoma, mixed cell.
,, ...	—	Upper lip	Fibro-sarcoma.
,, ...	10-11	,,	Carcinoma, squamous cell.
,, ...	—	Abdominal gland	Sarcoma, round cell.
,, ...	—	Sympathetic glands	Fibro-sarcoma.
,, ...	10	Liver	Carcinoma, columnar cell.
,, ...	—	Mouth	,, squamous cell.
,, ...	—	Anus	,, ,, ,,
,, ...	12(?)	Leg(subcutaneous)	Sarcoma, round cell.
,, ...	—	Superior maxillary, orbit, gland. lower jaw	,, spindle cell.
,, ...	10	Anal tumour	Carcinoma (sebaceous adenoma).
,, ...	11	Spleen, liver, stomach	Sarcoma, spindle cell.
,, ...	12	Leg	,, small round cell.
,, ...	10	Palate, cervical gland	Carcinoma, squamous cell.
,, ...	—	Mammae	Osteo-sarcoma.
,, ...	10-12	Axilla	Carcinoma, squamous cell.
Horse, gelding ...	10	Penis	Epithelioma
,, ,,	7	,,	Carcinoma, squamous cell.
,, stallion ...	15	,,	,, ,, ,,
Mare	10	Vulva	,, ,, ,,
Horse	Aged	Lung	,, columnar cell.
,, ...	10	Penis	,, squamous cell.
Mare	14	Vaginal growth	,, ,, ,,
Horse	—	Parotid	Medullary carcinoma.
Sheep	2	Mandible	Osteo-sarcoma.
,, ...	—	Liver	Carcinoma, cubical cell.
Pig	—	Submaxillary glands	Sarcoma, mixed cell.
White mouse ...	—	Inguinal mammae	Adeno-carcinoma (localized keratinization).
Yellow mouse ...	—	Axillary tumour	Adeno-carcinoma.
Wild mouse ...	—	? Mammary glands	Carcinoma, spheroidal cell.
Mouse (Jensen) ...	—	Leg(subcutaneous)	Epithelioma.
,, (Borrel) ...	—	Axilla ,,	Adeno-carcinoma.
,, ,, ...	—	Groin ,,	,,
,, ,, ...	—	,, ,,	,,
,, ,, ...	—	Jaw ,,	Epithelioma.
Mouse (Pick) ...	—	Back ,,	Adeno-carcinoma (sweat glands).
Cat	10	Tongue	Carcinoma, squamous cell.
Hen (Pick)	—	Floor of mouth	Squamous cell epithelioma.
Indian parakeet ...	—	Pectoral muscle	Myxo sarcoma.
Giant salamander (Pick)	—	Testis	Cystic adenoma, malignant.
Cod	—	Air bladder	Sarcoma, spindle cell.
Gurnard	—	Abdominal tumour	Adenoma, malignant.
Trout (Gilruth) ...	—	Floor of mouth	Carcinoma, columnar cell.
,, (Plehn) ...	—	,, ,,	,, ,, ,,
,, ,, ...	—	,, ,,	,, ,, ,,

The Phenomena of Cell-division in Malignant New Growths.

The progressive increase in size of malignant tumours is due to the division and increase in size of their constituent cells. The process of cell-division is usually indirect, mitotic division of the nuclei preceding the division of the protoplasm. The protoplasm division is frequently omitted, and multinucleated cells are formed, and these may subsequently enter on mitosis, giving rise to pluripolar figures. Amitosis or direct nuclear division also occurs, but its full significance has not yet been determined. It is, however, evident that the occurrence of amitosis does not signify degeneration. The amount of chromatin entering into the equatorial plate of the mitoses of malignant new growths has long been recognized as subject to variation (hyperchromatosis, hypochroma-

tosis of von Hansemann, 1893); but a new light has been thrown on this phenomenon by a paper communicated to the Royal Society on December 10th, 1903, by J. B. Farmer, F.R.S., J. E. S. Moore, F.L.S,, and C. E. Walker, entitled Resemblances Exhibited between the Cells of Malignant Growths in Man and those of Normal Reproductive Tissues.

Homotype mitosis seen from side. The chromosomes are in reduced number, but present the same character as in the somatic mitosis.

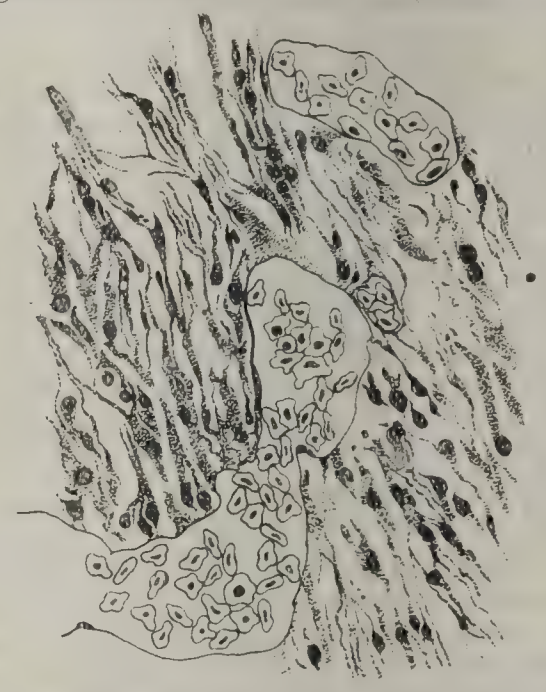
These observers found that while the growing margin of carcinomata and sarcomata presented mitoses similar to those found in other tissues in repair and inflammation, certain cells in the deeper layers, after a slight increase in size, entered on mitosis with ring chromosomes similar to those found in the heterotype division of spore-mother cells of plants and spermatocytes of animals, and like these, in

Somatic mitosis in cell of parenchyma (columnar cell carcinoma in trout). Somatic equatorial plate in margin of tumour seen from the pole; slender **V**-shaped chromosomes arranged transversely on spindle, and showing longitudinal splitting.

number only half that characteristic of the mitoses of somatic cells. Mitoses similar in character to the somatic divisions, but with reduced number of chromosomes, were also seen (homotype), corresponding to the divisions in the sexual generation of plants and the second ripening divisions of animals. From these observations the authors concluded that malignant new growths were virtually reproductive tissue arising in abnormal situations and possessed of an independence and power of growth like that of the testis in the mammalian body.

Heterotype mitosis in cell of parenchyma (columnar cell carcinoma of trout). Seen from the pole. Chromosomes in reduced number and in form of short thickened rings.

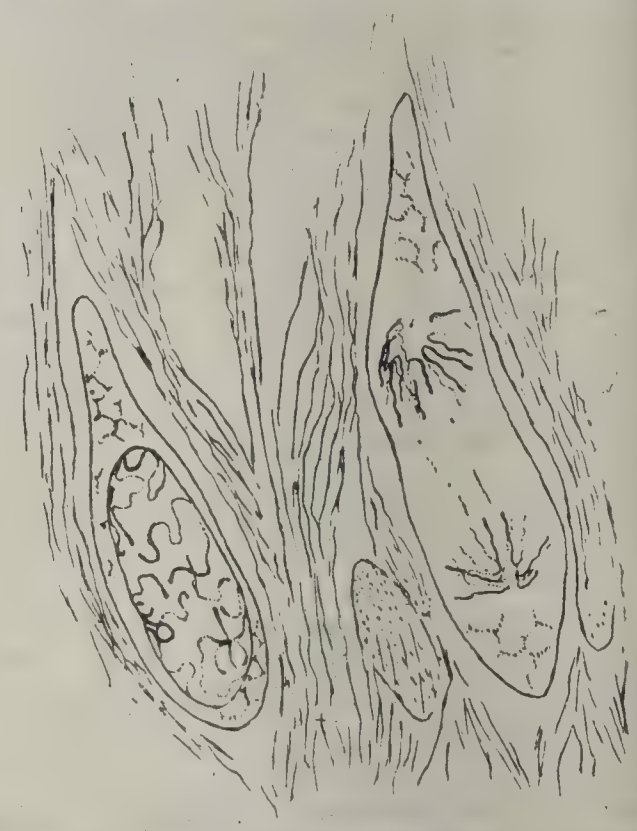
This striking sequence of characteristic mitoses had been found in all malignant tumours examined, and was absent in those of benign character. We at once determined to communicate with the authors, who with great courtesy afforded us an early opportunity to examine their preparations. It was then decided to determine how far similar phenomena were characteristic of the malignant new growths occuring in animals. The result has been a complete confirmation of the observations of Farmer, Moore, and Walker in tumours from the trout (Mr. Gilruth's and Miss Plehn's cases of adeno-carcinoma), the mouse (two cases of aden carcinoma, Jensen's epithelioma), and the dog (mixed ce sarcoma, round cell sarcoma, squamous cell carcinoma). In t columnar cell carcinoma of the trout the phenomena were esp cially distinct, the small number of chromosomes[2] (24, 12), t striking contrast between the long slender chromosomes of t somatic mitoses, and the rings of the heterotype divisio being of diagrammatic clearness. Homotype mitoses occurre



Spindle-cell sarcoma in codfish (high power).

but were few in number. Mitoses in the stroma are relativ scanty in the tumours at our disposal, but such as have be seen are somatic in character. Farmer, Moore, and Wall record a similar result. In the mouse it has been possible compare the mitoses in the testis, and those occurring the irritation produced by iodine, with the result that t significance of the mitoses in cancer has been furt confirmed.

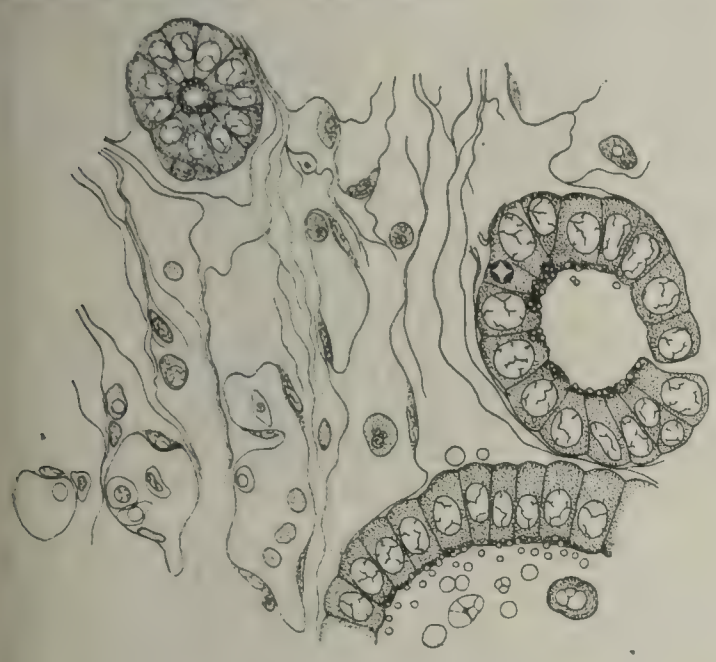
The following points are of great importance in these servations: A complicated sequence of cell changes has b found to be characteristic of carcinoma and sarcoma ali This sequence is the same as that which initiates the ori of the sexual generation in plants from the asexual, and terminal in the history of the sexual cells in animals.



Stroma (trout). The chromosomes in the stroma mitoses are slender **V**-shaped loops which split longitudinally. Somatic in tw

[2] The achromatic figure has always been carefully studied as a co to the observations made on the chromatin of the mitosis. Whe chromosomes have been counted, this has been done on section thick, mounted in series.

st be noted, also, that all the cells of the malignant new wths do not undergo the reducing division; a certain num- differentiate in the direction of the tissue among which y have arisen, and in the secondary growths when present, iatic mitoses occur in the growing margin, which it will sequently be shown is also a feature in the growth of cer when transferred to a new host.



Malignant adenoma in gurnard (high power).

The Transmissibility of Malignant New Growths from One Animal to Another.

The transmission of cancer from man to animals or from e animal to another of different species has never been cessfully performed. Successful transplantation experi- nts have been made, however, from animals suffering m malignant new growths to others of the same species. e most exhaustive observations in this connexion have n made by Jensen and Borrel on mice. Professor C. O. hsen, of Copenhagen, most generously placed at the dis- sal of the Cancer Research Fund a portion of one of his erimental tumours,[3] and with this and another tumour curring naturally in a tame mouse similar experiments ve been performed. We have thus been able to confirm hsen's observations by microscopical examination of the sues at the site of inoculation at short intervals, and have nd that the new tumours which develop arise from the ual cells introduced. While many of these degenerate, a w remain of normal appearance, and these gradually rease in number. In the earliest transplantations mitotic ision is absent, and it is not till later, when a consider- le mass has arisen, that mitoses appear. The earliest toses we have been able to observe have been of the somatic pe.

Transplantation is, in fact, identical with the process of tastasis as it occurs in the individual providing the nour. It is remarkable, however, that the tumour of hsen's experiments does not produce metastases natur- y, and its malignancy is only evidenced by its pro- ssive growth and the undifferentiated character of the ls. The process is in no sense an infection, the tissues of e new host not participating in the formation of the new enchyma. In this interpretation we are in agreement h Jensen and differ from Borrel, who conceives the ults to be due to the agency of a *virus cancéreuse*.

The origin of the stroma has not been accurately deter- ned. The power of growth of this tumour is remarkable. every mouse in which the transplantation succeeds, the w growth may attain a weight equal to that of the animal lf, and over 400 such transmissions have been effected by hsen in Copenhagen and the Cancer Research Fund in ndon. A mass of tumour, 16 lb. in weight, has thus ually arisen from the original one, and that without par- ipation of the cells of the various hosts and without mani- t change in structure. This great power of growth is a enomenon unparalleled in the mammalia, and indicates e potentialities in cases in which widespread dissemination s occurred before death in a human patient.

[3] Sent by post under such precautions as to preserve sterility. The transplantations were effected by the Cancer Research Fund five days after the tumour was posted in Copenhagen.

The experimental transmission of carcinoma shows that we must distinguish between the problem of the genesis of a malignant new growth and that of the conditions which permit of its continued existence. While the conditions leading to the initiation of malignant tumours are relatively infrequent, we have examined upwards of 1,000 tame mice, and have discovered two with cancer; once begun, this proliferative activity can persist, given favourable conditions, for a long time unaltered, and can give rise to masses of tissue of great size, having no relation to the restrictions which limit the growth of adult organisms in a large proportion of healthy animals.

The phenomena of cell division, indicating a similarity to the normal reproductive tissues, may help to explain the nature of this great power of multiplication, but leave the problem of cancer genesis practically untouched. They give, however, important indications of the character of the processes on whose elucidation the solution of the question depends. The wide zoological distribution of malignant new growths—its limits are not yet determined—indicates that the cause of cancer is to be sought in a disturbance of those phenomena of reproduction and cell-life which are common to the forms in which it occurs.

Our observations on animals show that malignant new growths are always local in origin and of themselves produce no evident constitutional symptoms whatsoever. These facts are in full accord with accumulated clinical experience in man. In connexion with diagnosis and statistics, we have already emphasized the importance of the absence of specific symptoms. The evidence we have advanced that cancer is an irregular and localized manifestation of a process, otherwise natural to the life-cycle of all organisms, probably explains why it is that malignant new growths and their extensive secondary deposits, *quâ* cancer, are devoid of a specific symptomatology.

We cannot here make full acknowledgement to those who have assisted our inquiry in this country, but our indebtedness may be expressed to those observers abroad who have recorded isolated instances of cancer in animals, and have so generously furthered our investigations by placing material or specimens at our disposal.

In particular, we desire to thank Professor Borrel, of the Pasteur Institute; Professor C. O. Jensen, of Copenhagen; Mr. J. A. Gilruth, Chief of the Veterinary Department, New Zealand; Professor Landau and Dr. L. Pick, of Berlin; and Dr. Marianne Plehn, Munich.

Without the generous co-operation of these and many others it would not have been possible within so short a time to have covered the extensive ground indicated in this paper.

[We find that the guarded terms in which the points of importance are emphasized may lead to a misconception of our interpretation of the facts. The cells which have undergone the reducing division are not responsible for the active invasion of surrounding tissues, nor for the production of metastases; the cells dividing somatically are responsible for both. The number of heterotype mitoses may not stand in any relation to the degree of malignancy, and their absence is only presumptive evidence of the benign character of the tumour. We postulate nothing as to the future of the cells which have undergone the reducing division, though we believe the latter to be a terminal phase in the life-cycle of cancer cells as it is in the history of sexual cells in animals. The local origin, and the expansive and infiltrating growth of cancer in its relation to surrounding tissues, while respecting its own proper elements, is the criterion of its malignancy. This stamps it as belonging to a new cycle comparable in its entirety to the whole organism which it is invading, rather than to any one of its tissues, reproductive or otherwise.

We intentionally restricted our original statement to recording the facts, and only such general conclusions as could be irrefutably drawn from them. (Note added January 25th, 1904.)]

OYSTERS AND TYPHOID FEVER.—The health authorities of Orange, New Jersey, as a result of an inquiry as to a recent outbreak of typhoid fever, have come to the conclusion that the epidemic was due, not, as was at first supposed, to a contamination of the water supply, but to the consumption by the persons affected of oysters procured from infected beds.

DR. ELLEN L. LOWELL, a graduate of the Johns Hopkins University, Baltimore, has been appointed chief bacteriologist to the Graves Pathological Laboratory of the Orange Memorial Hospital, New Jersey.

PHYSICAL DEGENERATION.

[By our Commissioner.]

(*Concluded from p. 199.*)

X.—Rural Conditions.

Speaking generally, the conditions of life in rural districts, even in the poorest, contrast favourably with those of towns.

The cottage of the agricultural labourer is a more healthy habitation than the tenement of the town labourer, and absorbs no larger a proportion of his weekly earnings. It is true that the cottage is probably not ideal, that the bedrooms are small with sloping roofs and miniature windows, that the water is from a surface well, and that the other sanitary arrangements are of the most primitive kind. But the pure fresh air when door or window is open, the open space back and front even if the cottage be one of a row, and the greater freedom and simplicity of the country life, are compensating advantages so important to the young that the physical development of the average country child contrasts most favourably with that of his town cousin of the same class. It is, however, undoubtedly true that the health of children, especially the younger children, suffers during winter, owing to the unfortunate prejudice which impels the agricultural labourer to crowd his family into a single bedroom and to keep the window shut from night to morning. On the other hand, the elder children spend much of their time out-of-doors, and even when at home are constantly running in and out of the house. The other great essential for the growing child, food, is also of better quality and generally more ample. As a rule even if the cottage has not a garden, the labourer can rent an allotment. In either case he grows potatoes or cabbages, and other coarse vegetables, which form a regular part of the diet of his family. It would appear from the following table, that the agricultural labourer's family in the northern counties spends nearly as much on bread and flour and meat as the family of a town labourer whose wages are under 25s. a week; while the former has the produce of his garden to add variety and many health-giving qualities to his diet.

The information collected by Mr. Wilson Fox for the Board of Trade shows that the total earnings of all classes of agricultural labourers in England ranged, in the year 1902, from 15s. to 22s. a week, the average being probably about 18s. 6d. In explanation of the following table, showing the average weekly cost of (1) bread and flour, and (2) of meat, including bacon, consumed by an agricultural labourer in several groups of counties, it should be pointed out that the lowest earnings are in the Eastern counties and the highest in the Northern.

Average Cost of (1) Bread and Flour and (2) Meat Consumed Weekly by Agricultural Labourers' Families in 1902.

Articles.	High-wage Counties.		Low-wage Counties.		General Average for England.
	Northern Counties.	Midland Counties.	Eastern Counties.	Southern and South-Western Counties.	
Bread and flour...	2s. 10¾d.	3s. 0¾d.	3s. 10d.	3s. 10¼d.	3s. 5d.
Meat (including beef, mutton, pork, and bacon)	5s. 2½d.	4s. 9¾d.	3s. 2d.	3s. 5½d.	4s. 2d.
Total... ...	8s. 1¼d.	7s. 10½d.	7s. 0d.	7s. 3¾d	7s. 7d.
Per cent. of total value of food consumed ...	5.45	58.2	55.6	54.6	56.0

It will be observed that more bread and less meat is eaten in the low-wage than in the high-wage counties. Indeed in the former beef or mutton is frequently purchased only once a week, pork and bacon being eaten instead. In the Eastern counties only 1 lb. 12 oz. of beef and mutton are consumed in a week, while pork and bacon amount together to 4 lbs. 1 oz.

The estimated value (13s. 6½d.) of the principal articles of diet come to about 73 per cent. of the average weekly earnings (18s. 6d.). But this does not include money which a labourer may make by the produce of his garden, or allotment or the keeping of pigs and poultry, nor have the extra earnings of wife and children been taken into consideration. It is said that it is often impossible for mothers in the country to buy milk for their infants, owing to the fact that it is all sent to towns or used for making butt The figures in the above table seem rather to confirm t supposition, for, judging from the expenditure, it must assumed that the greater part of the milk is skimmed. Ev supposing the milk to be whole, a pint a day would not very far in a family that includes a baby requiring artific feeding.

It is sometimes said that country children, owing to t long distances they have to walk to school, arrive fatigu and unfit to benefit by the teaching. This may be true very young children, but it will be admitted that in m respects the life of children in the country is healthier th in towns. For example, they escape late hours and get m sleep; as a rule the whole household goes to bed early, a though the father may rise early also the children genera have a good night's rest. This is not a trivial matter, for r only does it favour healthy growth of body but is good the mind, for thus the child comes to its school tasks fre and alert. For the young child sufficient sleep is only seco in importance to good food. The more regular hours also g them a sense of order which remains with them through li and they escape the moral contamination of the stree There is much less drinking among women in the count and most cottagers' wives take a pride in keeping their roo clean and even pretty and in sending their children tid dressed to school.

The cultivation of the garden and the tending of flowers have a refining influence, and bring the child ea into contact with Nature. Another influence for good is life of the farm on which the father works, where the ch gets to know every animal, and learns to take an interest the farm work proper to each season of the year. All t tends insensibly to educate them for the calling to wh they appear destined. Why then do so many of the most telligent and strongest seek an uncertain fortune in towns

Many young men and women are attracted to town by desire "to see life" as they call it. They think the town be livelier and more amusing, and they contrast the mu halls, and even the brightly-lighted streets, with the qu homes and muddy roads of the country. It is, howe probably easy to attach too much importance to such indu ments. The two main causes of the desire for change first, that the agricultural labourer has little or no prosp of improving his position and making some provision for age, and secondly, the failure of the elementary schools give the kind of education which reconciles him to remain the country.

The want of any reasonable prospect of bettering him undoubtedly induces many a young man to leave the coun To the young farm labourer who is earning perhaps 15 week, with no prospect of ever getting much more, howe hard he may work, and who sees about him old men their prime earning less, 25s. a week seems riches. He gets that he must pay more for a tenement in a crow slum[1] than for a country cottage, and that the vegetables the small perquisites from the farm will have to be purch in the market. He does not realize how depression of t may throw him out of work for weeks or months, and difficult it is for the old workman to find regular employ in towns, where he is constantly being elbowed out by new comers.

The desire to seek higher wages in towns is strongest the most intelligent and robust, and if, as is probably case, it is they who migrate in greatest numbers to town follows that the intelligence and physique of those wh main must be inferior to the average. It would s that it is the best of the rural population, the vigorous, and therefore the most likely to be the parent vigorous children, who suffer in greatest number the in dual deterioration produced by towns. No nation can g indefinitely withstanding this drain upon its fountain vitality. The process is, in fact, one not of survival of fittest, but of the least fit.

If landlords who lament the depopulation of their vill would seriously consider whether they could not hold o the more ambitious, industrious, and intelligent of the y villagers some hope that they might eventually become prietors of small holdings, it would go a long way tow checking the flow of population from the country, and reversing its direction. Experience proves that where s holdings exist the exodus is comparatively small; lab

[1] In London the average rent paid by a working-class family is mated to be about 5s. a week; in provincial manufacturing towns about the same; in Manchester and Liverpool it appears to be (about 4s.).

bugbear of the large farmer, is more plentiful since the ll holders are generally ready to work for others in r spare time, and the production from the land is er. Moreover, the families are larger; children are an antage to the small farmer, and it may be said of him as he patriarchs "blessed is the man who hath his quiver " The experiments of Sir Richard Edgcumbe in Dorset- e and of Major Poore in Wiltshire prove conclusively that n reasonable opportunities are afforded, farm labourers come forward in sufficient numbers and eventually be- e the owners of as many small holdings as are available. Tomkinson, M.P., Professor Long, Mr. Spear, M.P., and ers, are working out a scheme for bringing back labourers he land. They purchased 365 acres of fine old pasture land Newdigate at £15 an acre with tithes. They advertised they were prepared to sell lots, from the historical e acres of Mr. Jesse Collings, to twenty acres, and to meet vidual requirements would advance part of the purchase ney. There were some 1,200 applicants and the 25 who ned most desirable were selected. These are to pay the chase money in 10 years, 10 per cent. being paid on enter- and 5 per cent. on the outstanding balance. The moters of the scheme are erecting cottages for certain of tenants, who are mostly people having made a little ney in other callings. Considering the fertility of the l, they should make their venture pay.

Denmark, Luxembourg, and elsewhere, State aid has en wisely distributed, and agricultural societies have given rvision and help to individual small farmers as regards lity and uniformity of production. The result has been that orts have largely increased, and the rural population in these ntries has secured a large share in the markets of Great ain. A similar policy might be expected to yield similar ults in this country. The pressure on the rates and the sent condition of the rural population make it impracti- e to expect that these improvements will be provided by action of local authorities. It would be an advantage to whole country, as well as to the districts directly con- ed, if loans from Imperial sources were obtainable by alowners and others on favourable terms for the equip- nt of small holdings and the provision of cottages; and ther, if the Board of Agriculture, both directly and ough agricultural societies, would carry out a policy of en- aging and organizing special branches. Among these y and poultry farming, market gardening, agriculture, fruit growing should be included.

ne Board has recently appointed a Departmental Com- ttee to report upon the present condition of fruit culture Great Britain, and to take measures to advance and ourage this industry. It is to be hoped that the labours his Committee will have important practical results. In t parts of England suitable to fruit growing, markets are e at hand, and it is interesting to remember that the dus from the country has been greatest from those dis- rts where there were fewest industrial towns and villages, reasing in proportion to the distance from railways and nufacturing centres. This has seriously affected many nerly prosperous market towns in the agricultural tricts.

order to obtain the best results co-operation is essential, in the provision of capital, and for marketing and ing the produce. In dairy farming, poultry farm- or fruit growing, very little can be accomplished isolated individuals with small capital in the h of organized foreign competition. But when ers combine, co-operative farming becomes possible. is proved by the experience of the Irish Agricultural anization Society, as well as by the German land banks. he matter of co-operative production, also, Ireland affords xample England would do well to imitate. Although the ement is still young, there is hardly a county in Ireland h does not contain several co-operative creameries. Small ers, keeping, perhaps, one or two cows, are enabled by system to find a regular market for their milk all the round. At the creamery the butter is made by skilled aymaids, and shipped in bulk to large towns, while the rated milk is returned to the farmer for his pigs. A lar principle is applied with equal success to the collec- and sale of eggs, and it is obvious that it could also be plied to fruit farming.

e smaller branches easily followed by women include try farming on a small scale, agriculture, and flower re, lace making and other cottage industries. County cils are now authorized to include the teaching of the principles and practice of agricultural co-operation among the subjects for which grants may be made. It does not appear, however, that advantage has generally been taken of this permission, yet it is most important that the system should be explained to the small farmer and agricultural labourer, and it would be well if all county councils would follow the example of the Buckingham County Council and appoint a county organizer at an adequate salary.

The belief that the kind of education given in the elementary schools is one reason why young people will not settle down in the country like their forefathers, is very widespread, and the question arises whether some part of the impetus causing the flow from country to town may not be due to wrong educational ideals. Very slowly is the modern scientific idea of education spreading—that it should be such a training as will best develop the intelligence of the boy or the girl to do well that work which the man or the woman will have to do.

People lament that young lads and girls waste their time on unwholesome literature. But though the notion will be repudiated by the men responsible for its dissemination, these young people have been taught that reading is an end in itself. The boy who is to be a farmer or a farm hand, the girl who is to be the mistress of a farmstead or a cottage, should be taught to recognize the dignity of labour, and to regard books as a means to an end, or a recreation. They should be trained up to observe the processes of Nature, and should be given some inkling of the principles of the sciences on which agriculture and horticulture rest. It would be very good for the young rustic to know something about the pressure of the atmosphere; the process of the germination of seeds would certainly arouse his interest, and the simple elements of the chemistry of artificial manures would explain to him facts within his observation.

Country life, we are told, is found dull and uninteresting by the lads taught according to the Codes. If the assertion be true, does not the conclusion follow that the Codes must be badly drawn? The aim of compulsory education is to fit the boy for the calling he is to follow as a man. If the system ends in unfitting the country boy to be a country worker, obviously the system must be at fault. Similar causes are producing similar results in other countries. In France the exodus from the villages causes much anxiety, and educational authorities appear to admit that the character of the teaching in the primary school may be in part responsible. The late M. Felix Pécaut, in his *Quinze Ans d'Education*, published in 1902, after his death, suggested that a change in the subjects taught has been proved to be necessary. He wrote:

> First of all teach the children to take an interest, not only in books, but in the life of the fields. Teach them gardening, and how to keep bees, the making of cheese and the management of a dairy. Show them the reason of these things, their cause, and the possible improvements. Above all, in educating your little rustics, do not impose an ideal from without; work your reform from within. Make your scheme of education deliberately rural; be sober, just; teach them courage, and the contempt of mere ease and well-being; give them a wholesome ample way of looking at things; instil the taste for an active life, the delight in physical energy. Try and turn out, not a mandarin, but a man of the fields.

ST. BARTHOLOMEW'S HOSPITAL.

REBUILDING APPEAL.

THE LORD MAYOR OF LONDON took the chair at a meeting held at the Mansion House on January 26th in furtherance of the appeal on behalf of St. Bartholomew's Hospital for funds for the erection of new buildings.

Sir TREVOR LAWRENCE, Treasurer of the hospital, said that though he thought some one more able to speak to the great meeting before him should have been entrusted with the duty of pleading for the hospital, he nevertheless had some claim because his father was a member of the staff for 65 years. He himself had been Treasurer of the hospital for nearly twelve years. The rebuilding appeal was made with the sanction and sympathy of the Prince of Wales. A certain daily journal had devoted a great deal of its space in endeavouring to impress on the public the necessity for the removal of St. Bartholomew's Hospital from its present site. That question had been dealt with by the Mansion House Committee. That Committee was composed of independent and competent men, and they decided in favour of the retention of the hospital on its present site with one exception, and that exception was a gentleman known by every one to have

settled convictions in the opposite direction. The chief of the London police gave evidence before the Committee that 65 per cent. of the accidents and cases of sudden illness in the City were sent to St. Bartholomew's Hospital. The midwifery work of the hospital was enormous, and that work was the best criterion of the need of a hospital in any special locality, since it could only be conducted in poor homes close at hand. The only alternative suggestion to rebuilding the hospital on its present site put forward by any responsible person was that of splitting the hospital into two parts, one for urgency cases on the present site, and the other in the suburbs for after-treatment. Such a scheme, besides having most of the drawbacks of total removal, was medically impracticable, while financially it would add at least one-third to the cost of annual upkeep, and thus quickly outweigh any problematic saving on the site and initial outlay. The Medical School also would of course be destroyed, because students could not spare the time to be continually going from one hospital to the other. He considered that the value of the site of the hospital had been very seriously and largely exaggerated. They had all heard the opinion of a gentleman who writes in the newspapers, but he would like to inform the meeting that in the opinion of experienced valuers the prices talked about were much beyond the real value. The hospital would be in the disadvantageous position of compulsory sellers and compulsory buyers. He thought that the mere question of the value of the site was not by any means the only question for consideration, because it put money considerations above their regard for a great work of mercy and charity. It would be admitted by all fair-minded people that the hospital was required where it stood, and no more serious evil to the sick poor of the City of London could be done than by moving the hospital elsewhere. The present hospital buildings were erected 150 years ago, and the total cost of rebuilding according to modern necessities would be £438,000. That sum would provide an absolutely new hospital.

The BISHOP OF LONDON then moved the following resolution:

That this meeting, having heard the statement of the Treasurer of St. Bartholomew's Hospital, cordially approves of the decision of the governors to reconstruct the hospital on its ancient City site, extended as it has recently been by the addition of one acre and a-half.

He said that the hospital was founded by a Prebendary of St. Paul's Cathedral, and that the land on which it was built was obtained from King Henry I, through the influence of a Bishop of London.

Sir WILLIAM CHURCH, Bart., President of the Royal College of Physicians, in seconding the resolution, said he was justified in coming forward because of his long connexion with St. Bartholomew's Hospital. He had spent upwards of forty years in the hospital, and he ought to know about the work and the present needs of the institution. Important improvements had been made by the governing body in the wards and in the service of the hospital, but, from want of space, no structural changes could be made to facilitate the ever-increasing work that had to be done, especially in the casualty, in the out-patients, and in other departments. The hospital had had an opportunity of extending its borders, and now could appeal for help to remove the difficulties under which it had so long laboured. Certain objections had been raised to an appeal being made before producing detailed plans for rebuilding the hospital, but he could not believe that those objections would be upheld, because surely the governors of the hospital and the medical staff could be trusted in the matter. In regard to the need of the hospital in the centre of London, he pointed out that there was an enormous influx of workers during the day into the district round the hospital, and, in addition to those who came into immediate proximity to the hospital, there were many commercial undertakings employing thousands of hands. They had heard the percentage of the accidents brought to St. Bartholomew's Hospital, and that would increase in consequence of the removal of King's College Hospital. There was an impression abroad that the present wards were so out of date that the patients might suffer; but that impression might be dismissed from their minds entirely, because he was in no danger of contradiction when he said that the results obtained by the medical staff of St. Bartholomew's Hospital were as favourable as could be shown in the most up-to-date hospitals elsewhere. He considered that the accessibility of the hospital was one of the strongest arguments for its retention in its present site. Certain hospital reformers thought, or wished to think, that the sick poor always went to the nearest hospital, but, as a matter of fact, the sick poor were very like the sick rich, the like to have a freedom of choice in regard to medical atten ance. The sick poor did not always go to the nearest ho pital, nor was it desirable that their freedom of choi should be interfered with. It was necessary for lar hospitals to have medical schools attached, becau otherwise the expense of the treatment of the patien was enormously increased. There was also the ben ficial effect that was exerted on the medical st by the active criticism of a large number of inquirin and earnest students, constituting an important safegua for the proper management of the great hospitals. To remo St. Bartholomew's Hospital to another site would destroy t medical school. The Treasurer of St. Bartholomew's Hospit said before the Mansion House Committee that even now t school of St. Thomas's Hospital had not quite recovered fr the check that it had received from its removal, and th removal was to a more central and more convenient site th it occupied before. Sir William Church concluded by sayi they all hoped that the hospital in the future would be, as the past, one of the great centres for the relief of pain, the acquirement of medical knowledge, and for the advan ment of medicine and surgery.

Mr. JOHN TWEEDY, President of the Royal College Surgeons, in supporting the resolution said that he w willing to admit that at the first blush he was disposed think that it would be an advantage to remove the of St. Bartholomew's Hospital, but having read with open mind the very careful report of the Mansion Ho Committee, and having carefully considered the conclusi at which they had arrived, he had no hesitation in sayi that in his opinion to remove the hospital from its pres site would be almost a calamity and certainly a disgra He asked if there was nothing to be said for the histori traditions of the hospital. What would New York give have within its confines an institution that for nearly consecutive years had been doing one of the nobl works of charity throughout the whole world, nurs the sick, helping the poor, and dispensing as far as could comfort and consolation to the sick and the dyi What would any city in any part of the civilized w not give to possess in its midst an institution like tholomew's Hospital, standing on a site which he might had been hallowed by association with the great Har John Hunter received his surgical education there, Harvey and Hunter were venerated throughout the wh civilized world. Was the City of London not responsiv the appeals of sentiment and tradition? He was certain the City would come forward and freely discharge all obligation in regard to St. Bartholomew's Hospital.

Dr. SAMUEL GEE, Senior Physician to the hospital, said the institution was never more vigorous than at the pre moment. It was growing so fast that it had outgrown buildings provided in the eighteenth century. He tho that the removal of the hospital would end in the disinte tion of the institution.

The resolution was then put and carried unanimously.

Mr. ALBAN GIBBS, M.P., then moved the following lution:

That this meeting pledges itself to support the governors of St. tholomew's Hospital in their appeal for the funds necessary fo reconstruction of the hospital, and earnestly commends to the rosity of the public this the first appeal which the hospital has for 150 years.

He asked in what position would those people be who d depend on the hospitals for medical advice if their doctors had not acquired experience and knowledge i medical schools attached to the great hospitals.

The MASTER OF THE MERCERS' COMPANY seconded the lution, and it was supported by the CHIEF RABBI in a eloquent speech.

Sir W. H. DYKE M.P., also spoke, and he was follow Mr. A. BOWLBY, who said that he was there to emphasiz fact that the staff of the hospital were entirely unanimo supporting the present proposal, and were absol unanimous as to the need of new buildings.

The resolution was carried with two dissentients.

Sir W. TRELOAR announced subscriptions amountin £40,000, and the meeting concluded with a vote of thar the Lord Mayor, which was moved by the MASTER O MERCHANT TAYLORS' COMPANY, seconded by the Reveren CAMPBELL, and supported by Mr. J. LANGTON.

A REGULAR service of medical officers has been establ on all the larger railway systems of Russia.

SCOTTISH POOR-LAW MEDICAL OFFICERS' ASSOCIATION.

ANNUAL MEETING.

: annual meeting of the Scottish Poor-law Medical cers' Association was held in Glasgow on January 22nd.

REPORT OF COMMITTEE.

he report presented contained the following passages:

PARLIAMENTARY.

he Bill promoted by our Association was again introduced Mr. J. Cathcart Wason, M.P., who also presented our tion in favour of the same, signed by nearly 300 medical ers from all parts of the country. As usual, it was ked, and never reached a second reading. The Bill, ch was promoted by the Lord Advocate in session -2, contrary to our expectation, was not reintroduced session. Whether it is the intention of the Lord Advoe to reintroduce the Bill this session, your Committee have information; but the usual means will be taken to carey watch for its appearance in Parliament. The Blue Book taining the evidence on Poor-law medical relief, taken the Local Government Board, has not, as far as r Committee are aware, been yet presented to liament. Your Secretary attended the meeting of the ish Medical Association at Swansea, and has pleasure in orting that the Business Committee of that Association lged itself to assist us in every way possible. At the de- of your Committee, Mr. J. Cathcart Wason, M.P., asked a return of the number of vacancies which had taken e during the past seven years in the post of medical offi- in the crofting parishes in the Highlands and islands. ull, there are 60 parishes included in the return, and 130 ancies occurred. A considerable number of those ishes changed their medical officer on several oc- ons—a few as often as five or six times. This return emsizes our contention that the petty interferences, the part of parish councils, with the social and profesinal duties of medical officers are such that no man with an m of respect for himself, or for the profession he belongs could submit to; and, therefore, he resigns in disgust. In in the language of one of our correspondents, medical ers in the Highlands and islands come and go with the ularity of slides in a magic lantern. Such constant changes st be detrimental to the welfare of the sick poor, and the al Government Board ought to possess such powers as uld enable medical officers to do their work, without fear of rference or dismissal by their parish councils, so long as y performed their professional duties in a satisfactory ner.

CONTRA-ADVERTISING.

our Committee have regularly continued their advertisents in the *Lancet* and BRITISH MEDICAL JOURNAL, with tifying results. A great many applicants for vacant Highl and island appointments have applied to your secretary information; and, when the facts in each case were ught before them, nearly every one ceased to be applicants the vacant posts. A number of parish council appointnts were thus kept vacant during the greater part of the r; and, we believe, several are still without medical ers. Your Committee would like to extend this rse of action to the *Scotsman* and *Glasgow Herald* spapers, as it is found that some parish councils il themselves driven to avoid the medical journals, advertise only in the daily newspapers where, as we have not followed them. Our action appears to be iting a better *esprit de corps* amongst the profession; and feeling of loyalty, one to the other, appears to be increasIt is, however, with regret we have to remark this does appear to be the case so far as the lady medicals are conned, and their want of professional loyalty is a distinct ment of difficulty in our fight.

VACANT APPOINTMENTS.

our Committee have pleasure in submitting an outline of w of the more important, which came under their notice ing the year:

rra, Uist, and Harris.—These parish appointments have been nt during the greater part of the year—of the exact reasons of the ncies your Committee have no information, but in the Parliamen- Return issued in 1902 those parishes appear as defaulters in having issed their medical officers without reason being given. In regard arra, the terms of appointment submitted to candidates were such our Committee considered illegal—in so far as they interfered with the private practice of the medical officer. Your Secretary brought this before the Local Government Board, but that Board refused to interfere.

Strath.—The medical officer of this parish was threatened with dismissal—owing apparently to some personal spleen—at any rate it was not due to professional fault. Your Secretary appealed to the Local Government Board to use some moral suasion to prevent the injustice, but we regret that that Board declined to interfere. Your Secretary then communicated with several members of the parish council, calling their attention to the great injustice which was contemplated, and sincerely trusting, for the welfare of the parish, that a different course of action would be taken. It is highly gratifying to state that our appeal was successful, and the injustice was not carried out.

Durness.—The medical officer of this parish has been dismissed, not for professional fault, but because he would not agree to visit at regular intervals a hamlet a number of miles from his house, whether his professional services were required or not. As this would have entailed a considerable expense, he offered to do as requested, provided the parish council paid the cost of hires. This the parish council refused to do. Your Secretary brought this case before the Local Government Board, who, however, refused to interfere. Your Secretary also appealed to the parish council against the injustice—unfortunately, without effect. This parish council in 1898 also dismissed its then medical officer without cause being given. It has just come to our knowledge that the medical officer has raised an action in the Law Courts for interdict, and concluding for a reversal of his dismissal, with damages against the parish council. Need we say we all wish him success.

Papa Westray.—This parish council has again been seeking a medical officer. We understand the reason for the very frequent changes is the fact that a decent income cannot be made in the island. We believe the parish council has always treated its medical officers in a courteous manner; therefore your Secretary communicated with the chairman of the parish council offering, on our part, to assist in getting a competent and permanent medical officer for the island, provided the parish council would agree to offer some such terms as the following—namely: That a salary of £200 a year be guaranteed; that a suitable house be provided free of rent; that extra fees be paid for midwifery, lunacy, vaccination, fractures, etc.; that drugs and surgical appliances be paid for by the patients; that a moderate holiday be granted each year at the expense of the parish council; and that the medical officer be not dismissed unless for grave professional fault. No answer was got to this offer.

Rousay, *Kildonan*, *Evie*, and *Rendall* have also been in the market, but whether they have succeeded in getting medical officers your Committee are not aware. In the Parliamentary list these parishes appear as defaulters, in having dismissed their medical officers without cause being given.

A number of vacancies and complaints have been lodged with your Secretary in regard to some parish councils in other parts of Scotland. In two cases the medical officers were advised to threaten an action at law against members of their parish councils for persistently traducing their professional character. This course of action resulted in a cessation of the annoyance.

The report further stated that the Association numbers 350 members, but that there were 850 Poor-law medical officers in Scotland. An appeal is therefore made to those medical officers who had not yet joined the Association to do so, and there is also a further appeal to those who are nominally members to pay their subscriptions. The financial statement showed a balance in favour of the Association. The report was adopted.

The Secretary of the Society is Dr. W. L. Muir, 1, Seton Terrace, Dennistoun, Glasgow.

THE PLAGUE.

PREVALENCE OF THE DISEASE.

INDIA.

DURING the weeks ending December 19th, 26th, and 31st, 1903, the number of deaths from plague in India amounted to 17,527, 15,600, and 16,503 respectively. The principal plague figures during the weeks ending December 19th and 26th were: Bombay city, 57 and 65; Bombay districts, 7,579 and 5,656; Calcutta, 15 and 15; Bengal districts, 1,039 and 1,377; North West Provinces and Oudh, 2,504 and 2,522; Central Provinces, 1,687 and 1,547; the Punjab, 1,066 and 1,049; Central Provinces, 1,687 and 1,547. Kashmir during the week ending December 26th reports 26 deaths. The latest reports point to an increase in the Bombay districts, but in all other parts of India the mortality from plague remains practically unchanged. Of 16,503 deaths from plague reported in India during the last week of the year 6,630 occurred in the Bombay Presidency. During the month of December, 1903, the cases from plague in the city of Bombay numbered 315 and the deaths from the disease 279; and in the Bombay districts there were 41,621 cases and 31,646 deaths from plague. During the four weeks ending January 23rd, 1904, the plague report as regards cases and deaths were, in the Southern parts of the peninsula, as follows: Mysore State, 3,349 cases, 2,632 deaths; Hyderabad State, 4,177 cases and 3,566 deaths; Madras Presidency, 3,664 cases and 2,563 deaths.

CAPE COLONY.

East London.—During the weeks ending Dec. 26th, 1903, 1 case of plague was discovered in East London; and during the week ending January

2nd, 1904, 1 case. At the end of the latter week 2 cases were under treatment at the plague hospital.

From no other part of Cape Colony were any cases of plague reported. At Port Elizabeth, East London, and at Lady Grey Bridge, plague-infected rats continue to be found, but in no other towns was plague in man or animals discovered.

MAURITIUS.

During the week ending January 14th, 44 fresh cases of plague were notified, and 25 deaths from the disease.

ASSOCIATION NOTICES.

NOTICE OF QUARTERLY MEETINGS OF COUNCIL FOR 1904.

MEETINGS of the Council will be held on Wednesdays, April 20th, July 6th, and October 19th, in the Council Room of the British Medical Association, 429, Strand, London, W.C.

ELECTION OF MEMBERS.

ANY candidate for election should forward his application upon a form, which will be furnished by the General Secretary of the Association, 429, Strand. Applications for membership should be sent to the General Secretary not less than thirty-five days prior to the date of a meeting of the Council.

LIBRARY OF THE BRITISH MEDICAL ASSOCIATION.

MEMBERS are reminded that the Library and Writing Rooms of the Association are fitted up for the accommodation of the members in commodious apartments, at the office of the Association, 429, Strand. The rooms are open from 10 a.m. to 5 p.m. Members can have their letters addressed to them at the office.

GUY ELLISTON, *General Secretary.*

BRANCH MEETINGS TO BE HELD.

BIRMINGHAM BRANCH: COVENTRY DIVISION.—The next ordinary meeting of this Division will be held at the Coventry and Warwickshire Hospital, on Tuesday, February 2nd. The chair will be taken by Dr. Milner Moore at 8 30 p.m. Agenda: Mr. Faulder White will read a paper on Suppurative Disease of the Ear, with a description of a new treatment. The paper will be illustrated by some clinical cases. Dr. Bankes-Price will show some appendices which have been removed by operation, and will make some observations thereon.—E. H. SNELL, Knighton House, Coventry, Honorary Secretary.

EDINBURGH BRANCH.—The annual clinical meeting of the Edinburgh Branch in conjunction with other Scottish Branches will be held in the Royal Infirmary, Edinburgh, on February 12th. Pathological Museum 3 p.m. Inspection of New Pavilions and Demonstration of Eye, Ear, and Throat Cases 3.30 p.m. Clinical Demonstration 4 p.m. Demonstrations of X Rays, Radium, and High Frequency 5.30 p.m. Dinner in the North British Station Hotel at 6.30 p.m. Morning dress. Dinner ticket 5s. Those who have patients or specimens to show should communicate with one of the Secretaries.—NORMAN WALKER, 7, Manor Place; A. LOGAN TURNER, 27, Walker Street, Edinburgh, Honorary Secretaries.

STAFFORDSHIRE BRANCH.—The next meeting of this Branch will be held at Stafford on Thursday, March 3rd, instead of Thursday, February 25th, as one of Sir Oliver Lodge's lectures occurs on the latter date.—E. PETGRAVE JOHNSON, Stoke-on-Trent, Honorary General Secretary.

SPECIAL CORRESPONDENCE.

LIVERPOOL.

Trypanosomiasis Cases in Liverpool.—Annual Meeting of the Royal Infirmary.—Proposed Municipal Grant to the University.—Recognition of the Ladies' Charity and Lying-in Hospital by the Midwives Board.

SEVERAL notices have lately appeared in the columns of the daily papers with regard to certain negroes, said to be affected with sleeping sickness, who had been sent to Liverpool in order that their symptoms might be fully investigated. Since the accounts have been to some extent contradictory, it is desirable that the facts should be stated. The negroes in question, three in all, natives of the Congo State, were found to have trypanosomes in their blood, and were sent by H.M. the King of the Belgians to the Liverpool School of Tropical Medicine, in order that their cases, and through them the whole subject of sleeping sickness, might be thoroughly studied. One of them was a man aged 26, another was his wife, and the third was a man aged 21. At the time of embarkation the woman had the symptoms of sleeping sickness well developed and she died on the voyage; the younger man at first manifested similar symptoms in a less degree; but he improved greatly when he reached a cooler latitude and is now practically well except that the trypanosomes are still found in his blood. The elder of the two men has not shown any symptoms of sleeping sickness although the trypanosomes are still present. The two men are at present residing near the School of Tropical Medicine and are under the daily observation of Professor Ronald Ross and his assistants.

The annual meeting of the Trustees of the Royal Infirmary took place on January 20th. It was announced that the fourth operating theatre was almost completed, and would be equipped in the most modern and approved style. Mr. E. R Bickersteth, the Senior Consulting Surgeon, was appointed President for the ensuing year. In his remarks on accepting the office, he related some very interesting recollections of the conditions under which the practice of the Infirmary was carried on in the year 1856, when he first became a member of the staff, and he also stated his intention of endowing a bed with the sum of £1,000 in memory of his father, Mr. Robert Bickersteth, who was Surgeon to the Infirmary from 1811 to 1853.

Under the Liverpool Corporation Act of 1902 the City Council is empowered to contribute to the Liverpool University such annual or other sums as it may deem expedient, and such contribution may be made out of the city fund and general rate, or either of them, provided that the amount in any one year shall not exceed the amount which would be produced by a rate of one penny in the pound on the property assessable to the city rate or general rate. In consequence of this provision the University recently sent a deputation to the Finance Committee of the Council to present a memorial praying for a grant. The Committee unanimously decided to recommend the Council to grant to the University the sum of £10,000 during the year 1904, such sum to be paid out of the city rate.

The Central Midwives Board has intimated to the Board of Management of the Liverpool Ladies' Charity and Lying-in Hospital that it has placed that institution upon the list of institutions approved by it for the purpose of training pupils for qualification as midwives under the Midwives Act.

MANCHESTER.

Hygiene in the Slums.—Improvements in Work of Coroner.—Abandonment of Proposal for the Compulsory Notification of Phthisis.—Home for Nurses.—Gratitude for Benefit received at a Hospital.—Manchester Milk Supply and Precautions for its Purity.

THE Ladies' Public Health Society are doing excellent work in the social regeneration, or at least improvement, of Manchester, more especially in the homes of people in the crowded districts. At the annual meeting the report of the Committee stated that there are twenty-three paid visitors whose duty it is to go into the homes of the poor to instruct them in the matter of hygiene. This is the right and practical way. Actual visitation and personal instruction are the only means of reaching and convincing the ignorant. The object aimed at—clean houses and cleanly personal habits—is peculiarly one for women to engage in. The paid visitors are charged with the following duties:

1. The systematic visitation of babies and the instruction of women in the matter of feeding and care of them.
2. Instruction in cases of infectious diseases (special attention being given to consumption cases), coupled with seeing that the necessary precautions are taken.
3. The systematic visitation of the houses in the districts.
4. The distribution of leaflets on sanitary and other matters, and the supplying of lime, whitewash brushes, sanitary powder, and also of carbolic soap to the people of the districts.

Owing to the intelligent efforts of the visitors in instructing young mothers in the management of their children infant mortality had perceptibly decreased. In the third quarter of last year there were 2,518 deaths in Manchester, and of these no fewer than 361, or 1 in 8, arose from tuberculosis in some form, 209 were children who succumbed to dysentery and diarrhoea, 158 before they had reached the age of 1 year.

Under the régime of the new coroner for the city a new system of administration most favourably affecting all who come into contact with the court—jurymen, witnesses, and medical men—has been introduced. Generally jurors are able to finish soon after noon; formerly the business went on for most of the day. The new coroner has enlisted the assistance of medical men, with the result that there is less work for the jurymen and a saving to the rates. Last

licious inquiry and with the aid of the medical men, ases were passed over, thus reducing the total number quests in twelve months to 799. In 1902, 865 inquiries held and 165 cases passed over; in 1901, 1,021 conducted 42 passed over.

s understood that, in deference to the representations by the Medico-Ethical Society, the City Council will nclude in its omnibus Bill a clause to render the notifi- of phthisis compulsory.

new home erected for the accommodation of the nurses Hope Hospital at Eccles has just been opened. The is situated close to the Hope Hospital. It gives accom- ction for 72 persons, and the estimated cost was £12,000. isters and nurses, of whom there are at present 60, have a separate bedroom, and there is besides a matron's g-room, a separate sitting-room for the sisters, and one e probationers. There are also a receiving-room and g-room.

he nineteenth annual meeting of the Manchester Royal Hospital, it was stated that 13,036 patients were treated ford Road and about the same number at St. John . The in-patients numbered 1,407, and the accident averaged 18 a day, reaching a total of 5,776. It is not that so striking an instance is recorded of gratitude as s meeting. It appears that a former patient, who earns ving as a charwoman and by letting lodgings, sent £10 r ognition of the benefits that she had received.

r since Manchester, under its Act of 1899, possessed the to collect samples of milk coming in from the country a view to examine it for the presence of germs of ele, intermittent struggles between the milk producers the milk consumers as represented by the central rity have been in progress. Recently the bitter cry of pressed farmer is again heard in the land, and some g statements were made by the champion of the pro- s. It appears that the Manchester authority enforces h the city boundaries the following rules: (1) That the eds be kept in a perfect state of cleanliness; (2) that ws, and particularly the cows' udders, be kept perfectly ; (3) that the milkers' hands be well washed before ng. The farmers' strong point is the liability of con- ation of the milk in transit on the railway, in dirty , and dirty houses, after it has reached the city and the mer. Last year not a single cow in the Manchester was found to be suffering from tuberculous udder. But f 345 "outside" farmers whose milk was tested, more no per cent. were found to be supplying diseased milk.

CAPE OF GOOD HOPE.

South African Medical Congress.—Difficulties of Attend- s.—Papers Read.—Scurvy or Beri-beri.—Pneumococcal ticaemia.—Rapid Spread of Tuberculosis.—Sanitary Slack- of Governments.—Proposed Medical Guild.—Reciprocity iplomas.—Medical Candidates for Parliament.

outh African Medical Congress has just concluded its ng at Capetown. This is the sixth Congress, but a nterval has elapsed since the last, which was held in when the meeting took place at Johannesburg. Of , the war was answerable for the intermission.

D E. Sinclair Stevenson, a well-known Capetown tioner, and a former President of the Medical Council, led. There was only a moderate attendance, some ir- five in all, besides local practitioners, and these were y from the Western Districts of the Cape Colony, that t parts from which Capetown is most easily accessible. e were three representatives from Natal, two from Johan- rg, three from the Eastern Province of the Cape, and rom Kimberley. Neither the Orange River Colony nor sia was represented. Considering the enormous ces that separate towns in this big country, and the se and difficulty of travelling, the paucity of attendance to be wondered at, although perhaps it is difficult for on your side, accustomed to European networks of ys and trains at fifty or sixty miles an hour, to under- that for a large number of practitioners in South it is a much greater undertaking to attend our Cape- Congress than it is for one of your Aberdeen readers, stance, to journey to Moscow.

papers were, however, of better calibre than has been n at any previous Congress, some of them giving evi- of much original research on points distinctly local, herefore, all the more interesting. Amongst these may specially be mentioned one on So-called Scurvy, by Dr. Gregory, Government M.O.H. for the Cape Colony; one by Dr. A. J. Anderson, M.O.H. for Capetown, on Tuberculosis; one on Epidemic Pneumonia, with special reference to its infectious nature in native compounds, by Dr. Waldron, Medical Officer to the De Beers Dynamite Factory; and one by Dr. F. Napier, of Johannesburg, on Affections of the Eye in Pneumococcal Septicaemia. A paper by Dr. Darley-Hartley on Enteric Fever also brought out some interesting points of difference between that disease as seen in South Africa and in Europe.

Dr. Gregory's paper was a very exhaustive review of a number of cases which have from time to time occurred, apparently in an epidemic form, amongst natives, mostly in compounds and public institutions, generally put down to surgery, but in which many of the special features of that affection are absent, while they present many features of beri-beri, notably the liability to heart failure so characteristic of that disease. Although some of the speakers disputed the point, it appeared from Dr. Gregory's case reports that the affection is by no means traceable to the dietetic treatment which so easily cures scurvy. Dr. Gregory seems inclined to regard the disease as a distinct entity.

Dr. Napier's paper, although written by an ophthalmologist, gave a good deal of interesting information about that peculiar affection which, for want of a better name, must be called "pneumococcal septicaemia," and which is so fatal amongst the natives in the Johannesburg mines. It has been investigated by Drs. Davies and Hamilton, and others. It is evidently acutely infectious, beginning with rhinitis, and then leading to basal meningitis, pneumonia, and general septicaemic symptoms. The pneumococcus is found everywhere in the morbid parts *post mortem*. In a considerable number of cases Dr. Napier found that optic neuritis resulted, apparently as a direct extension of the infective basal meningitis.

The paper of Dr. Jasper Anderson on tuberculosis, and the discussion which followed upon it, and a paper on the same subject by Dr. Guillemard, in which Dr. Gregory took part, drew attention to the remarkable and rapid increase in tuberculous affections in the Cape. There was an absolute consensus of opinion that this disease, one which well within the memory of even middle-aged practitioners present was almost unknown except when imported, is now advancing by leaps and bounds, not only in the large towns but all over the country, and making great ravages amongst the Kaffir and coloured population. It may here be explained that, in Colonial parlance, "coloured" means the brown-skinned races of all shades and of all sorts of mixed strains who constitute the bulk of the working population of the western parts of the Cape. The colour element in them is mostly Hottentot. The Kaffirs, on the other hand, are an aboriginal and pure race. They appear to suffer less than the mixed coloured people, but they are coming under the scourge whenever they adopt civilized habits. Dr. Gregory gave it as his opinion that, so rapidly is the disease taking hold, that in a few years it will be the greatest scourge from which the country suffers; and he roundly accused the people of South Africa, white as well as black, of being "an essentially filthy nation," their lack of public and personal hygiene and their dislike of fresh air being the reasons why, in an ideal climate and a scantily-populated country, the disease is making such progress.

The address of Dr. George Turner, M.O.H. Transvaal, as President of the Public Health Section, was an interesting summary of sanitary changes within his professional memory, and contained a sledge-hammer indictment of the various Governments for their refusal to pass efficient sanitary laws, and their lack of backbone in enforcing what little law they had.

Besides the sectional papers, three important general subjects were discussed. A comprehensive scheme for the formation of a Medical Guild for South Africa, prepared by Dr. Darley-Hartley, was approved, and a strong committee appointed to put it into shape. Dr. Fuller read a paper advocating the creation of a complete medical school for South Africa; it led to a good deal of discussion and much difference of opinion, a tentative resolution being eventually agreed to affirming the immediate advisability of preliminary teaching, and the full curriculum "when practicable." Lastly, Dr. Kitching read a paper on the question of reciprocity with regard to foreign diplomas. This was intended to test the feeling of Congress on the point as to whether the present restrictions, which, as you know, operate in favour of British diplomas, should be

maintained. A vigorous discussion followed, but Dr. Beck, late a member of the Legislative Assembly, was the sole champion of free trade in diplomas, a cause which he defended in a very able speech. When it came to the vote he stood alone. This resolution will strengthen the hands of the Medical Council against the political attempts which are being made by the Bond to make the Cape a "dumping" ground, as your fiscal politicians would phrase it. The next Congress is to be held in Natal, but probably not for about eighteen months, as that colony is too hot for comfortable gatherings in December. The work of Congress was agreeably diversified by a large number of social functions, for which the attractions of this charmingly-situated city afford every opportunity. Besides several old members, Drs. Hewat, R. A. St. Leger, and Whyte are aspirants for Parliamentary honours. The second, however, some time ago abandoned medicine for the post of assistant general manager of the *Cape Times*, Limited, but still takes a lively interest in medical matters.

CORRESPONDENCE.

THE REPETITION OF PRESCRIPTIONS CONTAINING DANGEROUS DRUGS.

SIR,—I have read with much interest Dr. Outterson Wood's letter in the BRITISH MEDICAL JOURNAL of January 23rd, p. 215, and I can confirm all he says about the irregular and dangerous use of prescriptions. Cases of suicide, and deaths by misadventure, are frequently investigated by me in the coroners' courts, where the deceased persons have procured the fatal doses of poison by getting a prescription repeated at various chemists' until a sufficiency of the poisonous drug is obtained, as in Dr. Outterson Wood's case of 1,680 gr. of cocaine. In other cases the patient has procured a hypodermic syringe, and having learnt how to use it, presumably from instructions from either doctor or nurse, has continued its use long after the occasion for which the narcotic was first prescribed, and thus acquired a habit which unless checked terminates life either by accident or design. Dr. Wood calls special attention to the facility with which poisonous drugs and repetitions of prescriptions containing them can be obtained, and points to the fact that the writer of the prescription rarely gives any instructions on the face of it for how long the medicine is to be continued, thus enabling the patient to obtain it in any quantities. With regard to so-called patent and proprietary medicines containing poisons which many of them do, these may be obtained in any quantity without prescriptions at all. The law regarding the sale of poisons does not prevent a person purchasing many of them, or the chemist selling them so long as the label contains his name and address, the name of the drug and the word "poison."

Dr. Outterson Wood has suggested, with regard to prescriptions, that the writer might add the words "not to be repeated" or "not transferable," and sign with his name in full and address instead of the usual hieroglyphics, so that the chemist may be enabled to refer to the medical attendant if desirable.

I venture to suggest that this subject might be discussed at one of your committees and the results made public in the JOURNAL.—I am, etc.,

London, W.C., Jan. 26th. GEORGE DANFORD THOMAS.

SIR,—Dr. Outterson Wood's letter emphasizes the existence of a grave evil in the present system of prescribing dangerous drugs which may be procured from the same prescription for an indefinite time.

His suggestion that the words "not to be repeated" should be written across such prescriptions is one good method of lessening the evil, which should commend itself to most physicians. I have been in the habit of carrying out this plan for several years—ever since I attended a lady whose nervous system had been completely shattered by the habit she had acquired of taking every night for twenty years a dose of chloral which had been prescribed after an accouchement by a celebrated physician in the West of England.

The effects of such prescriptions may be widespread, as the following anecdote shows: The late Dr. Edis, of the Middlesex Hospital, once told me he had just met a lady who informed him that he had prescribed for her on one occasion some years previously for neuralgia, which had been completely cured by the prescription. She ended her profuse thanks with the following remark—"I can never be grat enough to you, Dr. Edis, for that wonderful prescriptio have given a copy of it to at least a hundred people."

In addition to deadly and dangerous drugs there are ot often prescribed which, if taken for months and years by same patient—as they frequently are—may produce di trous effects on the consumer. But the remedy for th difficult to find, for the prescribers may never see t patients more than once, and may be unable to control t greed for drugs. Within the past few years the introduc of compressed drugs, which may be procured without scription from any pharmacy or store, has increased the to an enormous extent.

The profession and the public should feel grateful to Outterson Wood for his warning. I cordially endorse hi marks as to the necessity of avoiding the loose prescrip of dangerous drugs.—I am, etc.,

London, W., Jan. 25th. SEPTIMUS SUNDERLAN

CANCER AND ITS ORIGIN.

SIR,—The letter of Professor D. v. Hansemann cont misleading statements that invite comment, and contr tions that are difficult to reconcile. His impression more than one of us is a botanist is incorrect. We do understand why Professor v. Hansemann should ima that we are ignorant of his work because we do not a with his conclusions. We are perfectly familiar not with his own investigations but also with those of others have similarly described irregular mitoses as of freq occurrence in malignant growths. But it is obvious Professor v. Hansemann's account of hypochromatosis hyperchromatosis that his conception of the whole phenor of these nuclear divisions is radically different from formed by ourselves.

The main point in the abstract of our paper, to which fessor v. Hansemann refers, lies in the recognition and cription of the occurrence of a heterotype mitosis i abnormal position. In normal cases the heterotype div is strictly confined to reproductive cells, and of these characteristic. We found it appearing also in malig growths. Since then Professor v. Hansemann neither tions the existence of the heterotype mitosis nor accept consequences of our statement as to its occurrenc malignant growths, we are at a loss to determine wha those precise points in our own investigations in conn with which Professor v. Hansemann is so anxious to g his priority.—We are, etc.,

J. BRETLAND FARM
J. E. S. MOORE,
CHARLES WALKER.

Royal College of Science, South Kensington, S.W., Jan. 23rd.

SIR,—In reply to the letter of Professor Farmer an colleagues in the BRITISH MEDICAL JOURNAL of January I wish to say that I did not mean to call in question th rectness of their description of the changes in normal ga genic or reproductive cells. As they say, these chang matters of common knowledge. I see, however, that I unintentionally reversed their terms, and that I should employed the term "gametoid" and not "gametog What I wished to convey was that I could not quite with their views as to the mode of development or sou these "gametoid cells" in malignant disease. Appar from their work in the vegetable kingdom it is clea "gametogenic tissue may be reproduced upon the so tissue of certain plants by appropriate stimuli." I thi same thing happens in carcinoma, but to allow of its rence the cell or cells that become "gametoid" o minal must have lost their functional power, ever that may have been, and reverted to wha call (perhaps erroneously) "an embryonic cond What has perhaps impressed this view so st on my mind is the fact that the most common se carcinoma in the human subject are those where cell been subjected to physiological atrophy or to tra irritation. While then believing that somatic cell become germinal and be the starting point of a can growth, I am of opinion that they cannot do so as l they are normal. They must first revert towards wh term an embryonic type, and from that, when the con are favourable, they pass into the germinal form. O point, apparently, I am not in agreement with Pr Farmer and his colleagues.

1, these gentlemen do not, I consider, quite correctly
e the position of matters when they say that there is
ue similarity" between the idea suggested by me as
ult of my clinical observations in oöphorectomy in
ary cancer and the conclusions drawn by them from
icroscopic work. Any one reading the respective
will see that the opinion arrived at by both of us is
ally the same. They hold that their investigations
trongly to the malignancy of tumours "being inti-
connected with the reduction of the normal somatic
the body into reproductive or germinal tissue," while
nsequence of what I have observed of the behaviour
erous tissue under oöphorectomy, stated as far back
, 1896, "that the active processes seen in a cancerous
are best explained by regarding the epithelium of the
having taken on the properties and powers of the
al epithelium," and that the special germinal cells
e represented by the so-called "cancer-bodies."
r proof of this being my view is furnished by the
nents I undertook in 1898, and published in the BRITISH
L JOURNAL of February 18th, 1899, to ascertain
r the germinal cells were of local origin or might arise
igratory ovarian or testicular cells.
d hardly say that I regard the work done by Professor
and his colleagues as most valuable and original, but
same time it is only confirmatory of a view of the
y of cancer that I put forward six years ago, based on
ults of clinical work.—I am, etc.,

w, Jan. 24th. GEORGE THOS. BEATSON.

LUMBAGO.

-In my experience there are clinically two varieties
bago—one in which the pain is experienced only on
ent, and the other in which it is constantly present
made worse by movement. These two varieties have
distinctions: in the former there is no tenderness on
e, and sciatic neuritis rarely occurs as a complication;
latter, though the lumbar muscles are not tender on
e, yet there is often tenderness on pressure at spots
tside the erector spinae, and sciatic neuritis is a fre-
complication. The first affection appears to be a
tic inflammation of the connective tissues, the latter
which this extends to lumbar and sometimes to sciatic
These distinctions are not absolute, but may I think
rally observed.
e first variety counter-irritation has, I think, a greater
han Sir William Gowers is inclined to admit. A very
ient method is to apply a capsicum lotion (made by
1 oz. of tincture of capsicum with 5 oz. of water) on a
f lint or folded pocket-handkerchief. It is frequently
hat shortly after this begins to sting the patient can
uite freely. The pain on movement returns, however,
our or so after removal of the pad, though to a less
This disappearance of the pain on counter-irritation
st curious and hitherto unexplained phenomenon.
gard to drugs, I think that salicylates to do good must
in in large doses, say 20 gr. every three hours. It is
that they give relief until salicylism is produced.
r drug often most useful is chloride of ammonium
n 30-gr. doses with a little spt. chlorof. and plenty of
it often cures, and that rapidly, when salicylates have

uld like, in conclusion, to say that in view of the fact,
ng to most authorities the muscle fibres within the
spindles do not receive any motor fibres, it is a little
t to understand how "they share the contraction of
ole muscle," as Sir William Gowers states. Is it pos-
hat we have here another instance of "antidromic"
es?—I am, etc.,

, Jan. 26th. F. H. EDGEWORTH.

-Dr. William Bruce, in his criticisms of Sir William
's lecture on Lumbago, says that "the whole narrative
ke a romance." Much, however, of what Sir William
states is based on anatomical fact and physiological
ment. He has given a simple anatomical explanation
production of pain and spasm of the muscles in lum-
The "muscle spindle" is no romance. It is quite an
atter to tease these spindle-shaped bodies out from the
ding muscle fibres, and see them with the naked eye,
y often measure nearly $\frac{1}{2}$ in. in length.
nerves passing from these spindles are very numerous,
ve been shown to pass into the posterior roots of the
spinal cord, and certainly do not belong to the sympathetic system, as suggested by Dr. Carter.

The irritation of these sensory structures would give rise to pain and reflex muscular contraction in exactly the same way as in the illustration given by Dr. Bruce of the foreign body in the eye, causing violent contraction of the orbicularis.

Dr. Bruce seems to forget to how great an extent muscular contraction depends upon the integrity of the sensory nerve fibres.—I am, etc.,

London, W., Jan. 25th. FREDERICK E. BATTEN.

SIR,—With reference to a letter by Dr. Watts in the BRITISH MEDICAL JOURNAL of January 23rd on the treatment of lumbago, I am reminded of a remark by my late lamented brother, Dr. Hilton Fagge. He said in pains of the back (lumbago) he always suspected the action of the kidneys, and with that idea ordered alkalies. I have found potassium bicarbonate with tinct. hyoscyam. very efficient remedies in these cases.—I am, etc.,

Llanfairfechan, Jan. 25th. FREDERICK T. FAGGE.

THE PHYSIOLOGY OF FATIGUE.

SIR,—In your leading article on the Physiology of Fatigue you call attention to a most important subject. You state that the "fatigue-point" is difficult to determine, the factors concerned being so complex; but is it not possible to ascertain the primary cause of fatigue? There are no doubt many other causes, but, from my own personal experience, I believe it will be found that the primary cause depends upon auto-intoxication, which promises in the near future to surpass even the ubiquitous microbe as a cause of disease. I was very much impressed by the observation of a member of the House of Commons which I met with in an old book, to a fellow-member who was complaining of the ill-effects upon him of the atmosphere of the House: "I can stand it if I don't eat too much." What truth there is in that observation, and how wide is its application! Formerly I was in what may be called a state of chronic fatigue. My digestion failed, and I had to change my diet, avoiding flesh food. To my astonishment, the sense of fatigue was gone, and I did not know what it was to be tired. I never seemed to wish even to sit down, let alone lie on the couch, as I had been in the habit of doing. I became sleepy at bedtime, but I was not really what one would call fatigued or tired when I went to bed. Such a marked change astonished me, and helped me to an explanation of the observation of the member of the House of Commons. When he ate little he had little waste in his system to consume, and even the polluted air of the House was sufficient to supply him with all the oxygen he required: whereas his friend, who ate too much, was as it were poisoned by his inability to consume the waste products in his system. So is it with regard to fatigue; he who eats too much is easily fatigued.

A single meal may produce fatigue if it is unusually large or rich. Workmen are easily fatigued on Monday, compared with any other day of the week, owing to having more food and less work on the Sunday. Thus I have come to regard fatigue as a product of over-eating and the result of auto-intoxication. That I believe to be the true "Physiology of Fatigue," and any one can test its truth who has sufficient self-denial to put himself on a very restricted diet for a sufficient length of time. It may take a month or two to effect any great change, unless the change of diet is preceded by fasting, or a diet of fruit alone, for some days. My experience, I find, is not uncommon among those who have given up eating animal food, and it may be found that such food is the chief cause of the fatigue, which is so common. This is rendered highly probable by the fact that the staying power of those who are called vegetarians is so much greater than that of those who eat the flesh of animals in walking matches over long distances. It is a subject well worthy of the attention of every one, but more especially of physiologists.—I am, etc.,

Hawick, Jan. 18th. JOHN HADDON, M.D.

LOCAL ORGANIZATION OF THE BRITISH MEDICAL ASSOCIATION.

SIR,—Although no letters referring to mine which appeared in the BRITISH MEDICAL JOURNAL of January 2nd have been published, perhaps I may be allowed to reply to some which I have received privately.

Objection has been taken to placing any extra burdens upon Branch Secretaries with respect to Divisions. This I fall in

with, and am glad it has been made, as it gives me the opportunity of advancing what had previously occurred to me, namely, to obviate the inconvenience, and in order to push organization, as I certainly think it ought to be, in every Division in every Branch, that an organizing Secretary, either paid or unpaid, should be appointed in each Branch, and that his special duty should be to further organization in his Branch, as such, and in each Division of it; that he should be in touch, say, at least monthly, either with the General Organizing Secretary or with the Central Organization Committee, or both.

Intercommunication between Branch organizing secretaries also ought to be encouraged. Each of them ought to be in a position to visit two or three Divisions in each month when required, and to visit each Division at least once annually.

I am quite satisfied that such an appointment made in each Branch would be one of the most important levers for moving the general organization of the Association. Of course much would depend upon the choice of the best men. I would throw it open to competition, and encourage all those at all suited by special talents or inclinations to send in their names to the Council of the Branch. A payment of £20, £50, or even £100 per year would be a great inducement for many energetic and capable young practitioners to compete for it. It would be money well invested, and I say that it we are to have organization at all let us have it thorough, and we shall soon reap the fruits. It would encourage the subject to be studied and developed as a science. Those holding such appointments might make capable and well-informed representatives or delegates for the annual meeting of the Association, and I would allow them to attend, *ex officio*, all meetings of the Council of their Branch.

The formation of Divisions must have already unearthed many capable young practitioners who have good business and organizing abilities which had previously been unknown. I can with pleasure testify that some instances have come under my own observation.—I am, etc.,

G. H. BROADBENT.

Manchester, Jan. 16th.

PRELIMINARY GENERAL EDUCATION OF MEDICAL STUDENTS.

SIR,—Kindly let me, in reference to Dr. Gordon's statement in the BRITISH MEDICAL JOURNAL of January 16th on the above subject, point out that the effect of any serious effort by the General Medical Council to raise the standard of preliminary examinations would be to dig the graves of nine licensing corporations: that is, seven Royal Colleges and two Apothecaries' Halls.

These institutions are supported mainly by non-university students, or such matriculated university students as are unwilling to pass any further Arts examination that their university may require of medical students.

In these days the standard of passing in professional subjects is much the same at universities as at colleges; hence if the standard of preliminary education were the same for degrees as for licences, there would be no inducement for students to seek other than university qualifications. Many of your readers will say "and a good thing too."

It is hardly to be expected, however, that the representatives of the colleges or halls on the General Medical Council would sanction any scheme of primary education tending to jeopardize the existence of the Boards they represent. As it is, the Irish Colleges are already feeling the pinch caused by the popularity of the Royal University Arts examinations.

The meaning of the Dublin Apothecaries' Hall wishing to revive its preliminary examination is that it seeks a base of supply for pupils, and legally it has as much right to acquire such base of supply as the Irish Conjoint Board.—I am, etc.,

S. WESLEY WILSON.

Dublin, Jan. 18th.

DOCTORS IN PARLIAMENT.

SIR,—I trust this question will not be allowed to die down before some definite result is attained. Dr. Gordon mentions that the profession possesses no fund which could be devoted to the purpose of defraying the expenses of medical members of Parliament, but surely this difficulty could be surmounted easily by collective action. I should deprecate most strongly any separate little fund being raised for this purpose. It is the multiplicity of little subscriptions that is so irritating to the busy practitioner, and the thought of it often prevents men joining medical societies and organizations of various kinds with which they are otherwise in entire sympathy.

It is, however, a well-known fact that the present subs tion to the British Medical Association is inadequate for dual purpose of maintaining the Branches in their pris vigour, and at the same time of giving effect to the work has been allotted to the Divisions. The subscription mus raised, and if it be raised to 30s. per annum from the pre 25s. there would then, in my opinion, be an ample sur which could be devoted to the purpose of maintaining or two representatives of the profession in Parliament.

Of course, if the Association wants medical defence it pay for it, as well as for any other luxuries; but my poi this—and I can speak with some experience of organiz work and secretarial work—that medical men will n rather pay a subscription, say, of £1 per annum than of 5s.

Let us then, as far as possible, consolidate our subs tions, and if 30s. is not sufficient for all the objects we de let it be £2.—I am, etc.,

E. D. KIRBY,
Hon. Secretary, Central Division, Birmingham Bra

January 25th.

ST. BARTHOLOMEW'S HOSPITAL.

SIR,—Since our former letter was published in the BR MEDICAL JOURNAL of December 19th, 1903, several events occurred which are of importance to those interested in institution; we are therefore again asking you to give licity to our views on the present situation.

We wish to emphasize the fact that the recent decisi the governors to extend our site, either by acquiring land or by utilizing adjacent land, already in our posses on which to erect the Nurses' Home and the Reside College for students meets with our unanimous approva support.

It has been alleged that the plans for rebuilding ar sufficiently advanced to enable any accurate estimates made, and we should like therefore to say publicly that t certainly not the case. The needs of the hospital for tional buildings were placed by us before our governors than two years ago, and the fullest details of even the space required by individual departments were also g This has enabled the hospital architects to supply esti of the cost of the required buildings, and the precise pos of the new blocks in a completed plan will not affect conclusions.

It has always been the opinion of the Medical Council all such additional buildings as they have asked for shou planned so as not to interfere with the rebuilding of the w and plans have now been submitted to us which suppo views, and show that a completely new hospital can be factorily erected on our site of six and a-half acres. I thus be seen that, instead of St. Bartholomew's Ho having no sufficiently settled plans or estimates, the are in an advanced state. We are indeed quite con that more than enough time has been already spent i liminary considerations, and we most heartily suppo decision of the Governors to issue an appeal at once, know better than others can possibly know how urgent need for prompt action.

There is another matter that has also attracted attent which we desire to allude, namely, the situation of S tholomew's. Its great accessibility is a matter of the highest importance to the poor of London. So long City is the heart of London and of the empire, so lon access to it, and consequently to St. Bartholomew's, be and easy, and so long will this charity remain a grea sulting centre for the sick poor. The fact that its out-pa number about 150,000 in a year is a sufficient proof in of the usefulness of the hospital on its present site. is no other district in any part of this city or in its s where the hospital could be more advantageously place none where a more healthy site could be found.

But the situation of St. Bartholomew's is further portance to its medical school, and we may be pardon thinking that this is also a matter of material public in For many years past St. Bartholomew's has been not only the most important hospitals in England, but also the school of medicine. In this way the benefits of the h are not restricted to its numerous patients, but are over Great Britain and its Colonies. For the past years an annual average of 600 students have studied Bartholomew's, and nearly one in every eight medical England can lay claim to the distinction of having medicine and surgery there. The interests of the h

its school are one, and removal to some remote district not only destroy the school, but would also by so completely alter the whole character of the institution

y other reasons might very easily be adduced in rt of the appeal for sufficient funds both to maintain rtholomew's in its present position and also to make it the most complete and modern of English hospitals of the City of London might well be proud. But we have nough to show the public that the present appeal is in the best interests of the poor of London, and ow that many thousands of our fellow-citizens will nd in after-years, reap the benefits of those buildings money alone can supply.—We are, etc.,

Samuel Gee, A. E. Garrod,
Dyce Duckworth, J. Calvert,
T. Lauder Brunton, F. H. Champneys,
Norman Moore, W. S. A. Griffith,
Samuel West, D'Arcy Power,
John Langton, H. J. Waring,
Harrison Cripps, W. McAdam Eccles,
W. Bruce Clarke, R. C. Bailey,
Anthony Bowlby, W. D. Harmer,
C. B. Lockwood, W. H. H. Jessop,
J. A. Ormerod, T. Holmes Spicer,
W. P. Herringham, A. E. Cumberbatch.
H. H. Tooth,

artholomew's Hospital, Jan. 20th.

THE SWEATING OF MEDICAL MEN.

—Whilst agreeing with "One of the Crushed Doctors" by means of union and co-operation many of the troubles dical men can be relieved—and I have no doubt in time e relieved—I would like to point out that there is no ike self-help. I believe he would best help himself by ing his mental superiority over these ignorant people by ng a bold front. Surely the fact of his being a medical s no reason why he should sacrifice his British grit and , and, when attacked, turn his hinder part to the enemy er that he may be kicked. I feel confident that if he e more courageous, at the same time cultivating the lship of his medical neighbours and his faith in them, ll become a happier and more prosperous man.—I am,

ary 21st. An Uncrushed Country Doctor.

—"One of the Crushed Doctors" throws out a suggesvhich I think is a reasonable one. He says, "let places medical men are numerous take the lead in co-operat- There are thousands of "crushed doctors," so crushed hey have not time even to complain, and this, I believe, y your columns are not every week inundated with complaints. In the British Medical Journal of er 24th, 1903, I gave an account of how the medical men in strict are sweated by the guardians, and yet we have no ly, because with only two men in the place we cannot to risk the competition of a third, introduced with the ly of an "appointment." In larger towns, however, even or eight practitioners the advent of another is not ious, and if the existing ones made a united stand in re- all ill-paid or non-paid work, the newcomer would have nds so full that he would be unable, through sheer lack e, to touch their paying patients.

often hears of the profession being overcrowded; that ainly not true if one paraphrases it into saying that is not enough work for the present number of medical There is, perhaps, not enough money for them to live t there is work, and more work than can be conscienly overtaken by all the practitioners in the country.

e my own case—typical of hundreds of country districts. a fair income, but for it I do a very large practice—in sy time, twelve or thirteen hours a day for seven days week. A few details of such work: I attend at the e hospital throughout the year and see four or five nts daily; my work there should bring me in about £150 , it is taken for nothing, and not even vouchsafed an ission of thanks in the annual report of the institution. auper work comes to an average of £240 a year: the ians give me £70 for it. My clubs: well, at 3s. 6d. and head, you will know what that means. Then there are d payers and the non-payers, and even when we arrive ordinary client, he thinks he is doing the doctor pretty well when he pays him 7s. 6d. for a four-mile journey and a bottle of medicine: raise the fee just a little, a sixpence or shilling perhaps, and the talk of "exorbitant charges" so takes the heart out of one, that one is glad to slip back on that vague notion of laying by for a rainy day. And not only is one done out of an old-age pension, but the public itself suffers ultimately by this overworking of the doctors. How many interesting cases pass through our hands every year, if we had only time to read up the subjects and record them: much valuable information is thus lost to science, and many first-class men never manage to emerge from the mediocrity to which their slavery condemns them.—I am, etc.,

January 16th. A Medical Fiscal Reformer.

THE GENERAL MEDICAL COUNCIL AND THE ENGLISH COLLEGES.

Sir,—As some of the letters under this heading have the tendency to undermine the good name of the Colleges' diploma, I would revert to the statistics brought forward by Mr. Bryant when the General Medical Council were in session last May:—Whereas only 8.84 per cent. of London Conjoint men were rejected for the competitive service examinations, 36.23 per cent. Scottish Conjoint men, 30 per cent. Irish Conjoint men, 22 per cent. from Dublin University, 14.28 per cent. from Aberdeen University, 14.28 per cent. from Edinburgh University, and 16 per cent. from the Apothecaries Society of London were rejected respectively.

These figures show, I submit, the undoubted high standard maintained by the London Colleges. So, also, does a fuller analysis of the five more recent examinations.—I am, etc.,

London, W., Jan. 18th. F. W. Collingwood.

MEDICAL DEFENCE.

Salisbury v. Gould.

Sir,—Doubtless your readers will have seen the report of the case Salisbury v. Gould, tried before Mr. Justice Grantham and a special jury in the London Courts on January 21st and 22nd, and will have appreciated the position in which I was placed. It was, however, my good fortune to be enrolled as a member of the Medical Defence Union, of 4, Trafalgar Square, W.C., by whom my defence was undertaken and conducted throughout, immediately on my applying to them for assistance. I cannot overestimate the care and attention which was bestowed upon the case and the zeal which was exhibited in its conduct, securing for me by its means the satisfactory result which was obtained, whilst I was relieved not only of all trouble and anxiety but of very great expense, having only to go in the witness box and give my evidence. I cannot conceive how any registered medical practitioner can be so foolish as not to avail himself of the insurance afforded to all members by the Medical Defence Union.

I can never be sufficiently thankful to my friend, Dr. Danford Thomas, for inducing me years ago to belong to this excellent association, also to Mr. W. E. Hempson, the solicitor to the Union, for the skilful and most able manner in which he conducted my case and for the great courtesy and kindness which he and his staff exhibited on every occasion on which I had to consult him during the two years and four months of the various proceedings of the case.—I am, etc.,

London, W.C., Jan. 26th. W. R. Gould.

Correction.—Dr. D. Sommerville (London, W.C.) writes: In my note of last week on the Drigalski and Conradi medium, 2.75 grams agar should read *27.5* grams.

UNIVERSITIES AND COLLEGES.

UNIVERSITY OF LONDON.

Courses of Advanced Study and Research.

The amended regulations for persons who have taken a first degree in the University of London for graduates of other universities, and for other persons desirous of prosecuting a course of advanced study or research, or of proceeding to a higher degree were adopted by the Senate at its meeting on December 16th, 1903. In so far as they affect internal graduates these regulations have reference only to those who desire to study for a higher degree in a faculty other than that in which they have graduated. The regulations have regard to the degrees of M.A., D.Lit., D.D., D.Sc., LL D., and D Mus.

Preliminary Scientific Examination.

The Senate has determined that in the Preliminary Scientific Examination there shall be a practical examination of three hours in botany and a practical examination of three hours in zoology.

OBITUARY.

DUNCAN CAMPBELL LONGDEN, M.B., M.R.C.S.Eng., D.P.H.Ed., F.R.C.S.Ed.

THE numerous friends and old pupils of Dr. D. C. Longden will learn with deep sorrow of his untimely death, which took place in London at the house of his brother, Dr. W. Longden, on January 18th, 1904, at the early age of 37.

Dr. Longden began his medical studies in the University of Edinburgh in 1884, and was recognized throughout his medical curriculum by teachers and fellow students alike, as a most earnest and thoughtful worker. Besides other prizes and honours he obtained in 1886 the Gold Medal Scholarship in Anatomy at the Royal College of Surgeons and thereafter acted as a Junior Demonstrator of Anatomy. He graduated M.B. C.M. in 1887 and was appointed by Dr. Macdonald Brown as Senior Demonstrator of Anatomy at Surgeons' Hall. Henceforward he devoted his entire energies to anatomy, and his labours at Surgeons' Hall not only won for him the esteem of his colleagues but the admiration of the numerous students who during the succeeding three years passed through his hands. In 1890, owing to ill-health, he was reluctantly compelled to resign his position and abandon teaching for some time. His resignation was the signal for an outburst of student enthusiasm, and at a smoking concert given in his honour he was presented by them with an address and a handsome gold watch.

During the period of enforced repose which followed he yet found time to take the D.P.H.Edin. and the M.R.C.S.Eng., and in 1891 he obtained the F.R.C.S.Edin. (by examination). Having recovered from his indisposition he accepted the appointment of Lecturer of Anatomy in the School of Medicine for Women in Edinburgh. He performed the important duties of this post with marked success for the period of two years, until he was obliged by a recrudescence of chest symptoms finally to abandon teaching and go abroad. In 1894 he proceeded to St. Helena, where for six months he resided with his brother, a lieutenant in the 84th Regiment garrisoned there. During the next five or six years he acted as a Surgeon in the British India Steamship Company's service, and in that capacity he made frequent passages to India and the Cape. In 1900, while at the Cape, he obtained permission to leave his ship, and was appointed Medical Officer for the Boer Refugee Camp at Barberton, Transvaal. He remained there until March, 1903, when he returned to England. Since that time he had lived principally at Norwood with his father and sisters, and it was, alas! too noticeable that he was getting weaker and weaker. He was, however, able to appear at Buckingham Palace in November last, when he received the Transport Service medal at the hands of the King. The end came unexpectedly while on a visit to his brother last week. He had a severe haemoptysis, from which he never rallied. He was interred at Kensal Green Cemetery, and, in addition to immediate relatives, there were present his old teacher and friends, Dr. Macdonald Brown, Dr. Whitlock, and Dr. O'Connor.

Dr. Longden was a man of most unassuming nature and singular gentleness of disposition. During his days in Edinburgh he was essentially a "student's man." A brilliant teacher and a sound anatomist, he won by these qualities the admiration of his pupils; still further, by his uprightness and kindly manners, he made himself beloved by all. He was a man whom the Edinburgh School could ill afford to spare, and his memory will live long amongst his old students as that of a true friend and a just and upright man.

W. J. CONEYS, L.R.C.P. AND S.I., Carna, Roundstone.

YET another victim to typhus fever has been claimed in the person of Dr. W. J. Coneys, the Dispensary Medical Officer of the Roundstone No 1. District. He had been infected by one of his poor patients. Dr. Gorham removed him at once to Clifden Fever Hospital, and he was seen in consultation by Professor Kinkead of Galway. But he gradually sank, and died on January 19th, in his 35th year. He was a very popular and energetic officer, and was beloved by the people of his district. The Clifden Union Board of Guardians passed the following resolution by a unanimous vote:

That owing to the sad and lamented death of Dr. Coneys, of Roundstone No. 1 Dispensary District, who, in discharge of duty, sacrificed his life on behalf of the people, who are suffering from a fever epidemic in that district, it is resolved that the business of the Board stand adjourned, in respect to the memory of this brave man, and we beg to tender our respectful sympathy to his friends and relatives in the bereavement.

Dr. Coneys was educated at the School of the Royal Co of Surgeons, Ireland, and Richmond Hospital, Dublin.

MEDICO-LEGAL AND MEDICO-ETHICAL.

PROTECTION OF MEDICAL PRACTITIONERS NOTIFYING INFECTIOUS CASES.

SALISBURY v. GOULD.

THE action brought by Mrs. Salisbury, a dressmaker, of Lamb's C Street, W.C., against Dr. W. R. Gould, who resided in the same stre alleged negligence in notifying as small-pox a case which after turned out to be chicken-pox, was heard before Mr. Justice Gra and a special jury at the High Court on January 21st and 22nd. Da were claimed on the ground that the plaintiff had lost customers to its being known amongst them that an ambulance had taken aw child from the house in which her business had been carried on.

The plaintiff was represented by Mr. Edgar Swan and Mr. E. C Dr. Blake Odgers, K.C., and Mr. R. F. Colam appeared for Dr. instructed by Messrs. Hempson, the solicitors for the Medical D Union, of which association Dr. Gould was a member.

The date of the notification certificate and the occurrence was S ber, 1901, and although action had been threatened shortly thereaft writ in the case was not issued until over twelve months had pass the trial did not take place, as we have stated, until this year.

The Medical Defence Union on Dr. Gould's behalf claimed that the Public Authorities Act the delay was fatal to the action, a application in chambers obtained an order last year from the dismissing it, and on appeal to the judge in chambers this order Master was upheld. The plaintiff, however, took the matter to the of Appeal, by which tribunal it was decided that the special point Public Authorities Act must be pleaded in the action, and order proceed to trial.

Mrs. Salisbury and the child gave evidence to the effect that the was taken ill on September 1st, 1901, that Dr. Gould was sent for following day, made but a slight and superficial examinatio declared the case to be one of small-pox; that the next day h again, together with Dr. Bond, the Medical Officer of Health for H and in conjunction with him made an altogether useless exami without asking any questions or taking pulse or temperature, an fied the child to be suffering from small-pox; that in consequence notification the child was, upon a magistrate's order being ob forcibly removed to the "sheds" at Rotherhithe, and there detai three days, and then returned as suffering from chicken-pox only.

For the defence it was contended that Dr. Gould acted as he di fide, and was compelled under the provisions of the existing Health Acts to notify the case so soon as he was of opinion that one of small-pox, that he was performing a duty which was under rendered imperative by statute, and that he was protected by the Authorities Protection Act, 1893, which made it necessary that act this nature must be commenced within six calendar months fr date of the alleged cause of action. It was urged that as over months had elapsed before any process was issued the action w statute-barred, and that there was really no case to go to the jury.

After hearing the arguments of counsel on both sides, Mr. Grantham stated that he had no doubt the case came within the Authorities Protection Act, but it having gone so far, and as th were there and as he might be wrong, the verdict of the jury had b taken in order to save the necessity of a further trial thereafter.

Dr. Gould accordingly went into the witness-box and gave evider he had made a full and thorough examination of the child, and c the conclusion from all the symptoms that it was a case of small-p subsequent consultation and examination of the child with Dr. Bo Medical Officer of Health for Holborn, confirmed this diagnosis: notified the case accordingly, and that after doing so his duty en he took no part in the removal of the child to Rotherhithe.

Dr. Bond was called, and his evidence confirmed that of Dr. Other medical witnesses were tendered, including Dr. Wanklyn, w in charge of the observation sheds at Rotherhithe, and received t there on the day of her removal. The jury did not require to h further evidence, and at once gave a verdict for the defendant, fo judgement was entered, with costs.

The learned Judge, in answer to Dr. Blake Odgers, stated Gould had acted quite properly in giving the notification certific that the jury so found.

THE RESPONSIBILITIES OF A NURSING HOME.

IN a recent case at the Manchester Assizes which was heard Justice Jelf an action was brought against the House Committe Oldham Nursing Association to recover damages alleged to ha sustained by a patient owing to the negligence of one of the nur out by them. It appeared that in February, 1902, the plaintiff's adviser applied to the Association for two nurses to attend a during two operations. In the course of, or immediately af second operation the female plaintiff was severely burnt about by hot-water bottles applied, and in consequence she was laid many months. The plaintiff's medical adviser stated that to the his belief no hot-water bottles had been used on the operating ta far as he knew they were only used when his patient was un nurses' care.

For the defence it was urged that the only obligation put Association, by its rules, was that it should provide properly nurses. During attendance upon patients they were under the c the doctors engaged by the patient. Medical evidence was given defendants to show that it was usual for hot-water bottles to be the operating table. The jury returned a verdict for the plai £300. The learned judge refused a stay of execution, saying that h with the verdict.

It may be noted that in an old case an action was brought aga surgeons at St. George's Hospital for maltreatment by causing the to be placed in a bath so hot that he was scalded and injured. proved that the bath had been ordered by the defendants, but was administered by the nurses, and that it was no part of the de ordinary duty personally to superintend and direct such admini

course of his summing up to the jury, Cockburn, C.J., said that efendants would not be liable for the negligence of the nurses near enough to be aware of it, and to prevent it.

E MEDICAL PROFESSION AND TRADE ADVERTISEMENTS.

ollowing correspondence illustrates the manner in which profes- writings may be abused for trade purposes:

[COPY.]

87, Harley Street, Cavendish Square, W.
January 15th, 1904.

ir Sir.—My attention has been drawn to-day for the first time to a signed by your firm, and apparently issued by you as an advertise- of an "Injection Adrenal-Eucaine" (Hewlett's). This begins by my name in full, and goes on to quote freely from a paper of mine hed in the *Lancet* of July 25th, 1903.

all feel greatly obliged to you if you will kindly stop the circulation is leaflet altogether, or so alter it that my name does not appear any- in it, or any clue to the paper on which you have drawn so largely. rculation of such an advertisement is calculated to do me harm, annot but be distasteful to every right-minded member of our ission.

I am, faithfully yours,
ARTHUR E. BARKER, F.R.C.S.

. Hewlett and Son.

e following is the leaflet (omitting prices):

INJECTION ADRENAL-EUCAINE.
(*HEWLETT'S.*)

ARTHUR E. J. BARKER, F.R.C.S.Eng., has recommended ("Lancet," July 25th, 1903), a combination of Beta-Eucaine and Adrenalin, in rmal salt solution as a most efficient local analgesic and anaesthetic.

found that when injected into the arm, after a lapse of about 20 tes, the part was quite blanched and wholly insensitive to pain, and his anaesthesia lasted on an average for about two hours. An ex- e operation can be done with 50 or 60 centimetres (about 2 fl. ozs.). ploys an ordinary glass and metal Hypodermic Syringe, holding ., which can be boiled in plain water, *without alkaline addition*, and with Frienstein's Needles. The fluid is injected at blood heat.

he radical cure of Inguinal Hernia, Professor Barker first reduces ernia, and the index finger is thrust with the skin into the external s far as possible. Along this finger the needle is entered and the nal canal filled with 10 C.c. of the injection. Three or four injec- in the adjoining area are made with a view of infiltrating the field eaching all the nerves. It is necessary, now, to wait 20 minutes to the full effects to develop. The whole field of operation ought to nched, and if the skin is not white and bloodless the solution is The part to be operated upon can be tested with the point of a c. and will usually be found to be insensitive to pricks though not uch. If not quite insensitive, a few minutes longer may be allowed pse. When the incision is made, the absence of oozing of blood is eable: only the larger vessels bleed at all. When the sac is exposed ould be dissected cleanly without any dragging. Prof. Barker rts the use of the injection in the case of a man whose varicose veins e tied whilst the patient smoked a pipe during the operation and also yed a cup of tea! The operations should be aseptic throughout, and olution can be boiled, if required, without decomposition. Obviously njection should prove most useful in numerous operations where a eral anaesthetic is undesirable, and Prof. Barker reports a case in-grafting for chronic ulcers of the leg. Psoas abscess treated by operations and Cystic Adenoma were also operated on by this method success.

Inject. Adrenal-Eucaine (Hewlett's).

"I have used the above several times with perfect success, and I am very ased with its effect. In one case I made a deep exploratory incision into the ole of the foot, and found perfect local anaesthesia."

ED. KING HOUCHIN, L.R.C.P.Ed., L.M., L.R.C.S., etc.,
August 29th, 1903. Dep. Coroner, East London.

C. J. HEWLETT and SON, *Wholesale and Export Druggists*,
35 to 42, Charlotte Street, London, E.C.]

[COPY.]

35, 36, 37, 38, 39, 40, 41 and 42, Charlotte Street,
Great Eastern Street, London, E.C.
January 18th, 1904.

ofessor Arthur E. J. Barker, F.R.C.S.Eng., etc.,
87, Harley Street, Cavendish Square, W.

ar Sir.—We are duly in receipt of your letter of the 15th and regret to o that you object to our using your name in connexion with the sug sed use of a combination of beta-eucaine and adrenalin.

e are rather surprised at the objection as it is perfectly obvious that e leaflet referred to only a quotation from the *Lancet* is made use of o suggestion that you have recommended our injection is inferred v

ll we are most anxious to meet your wishes and propose omitting name altogether from the leaflet, merely stating the source of the e (namely, the *Lancet*) which we think you will agree we have a per- ght to do.

may add that we have published Therapeutical Notes on various remedies for many years and quoted extensively from papers and estions by Sir T. Lauder Brunton, Dr. Murrell, Dr. Alfred Eddowes, and never received any complaints.

With compliments.

We are, dear Sir, yours faithfully,
C. J. HEWLETT AND SON.

The ground of Mr. Barker's complaint is that he did not recommend ention Messrs. Hewlett's preparation; but, even had he done so, he t still reasonably object to the use made of his name and article. We ot agree with Messrs. Hewlett that "no suggestion" that he has ommended their injection is inferred even." If the leaflet does not citly state this, it nevertheless quotes Mr. Barker's name and pub- d opinions as a warrant for its value, and suggests the inference if it not "infer the suggestion" that the preparation advertised is ical with that which he has used. We are glad that Messrs. Hewlett consented to withdraw Mr. Barker's name, but we regret that they pt to excuse themselves by contending that the use of the names of bers of the medical profession in trade advertisements is not gene- considered to be objectionable. Cases may pass unobserved, but the Censors of the Royal College of Physicians have repeatedly taken exception to such use of the names of Fellows or Members of the College, and we should have thought that this would have been known to a firm of the standing of the Messrs. Hewlett.

ACTION FOR ALLEGED NEGLIGENCE.

ACCORDING to a report in the *Daily Telegraph* of January 18th, an action was tried at the County Court, Greenwich, before Judge Addison, K.C., to recover damages from Dr. George John O'Reilly of Hither Green. The damages were said to have been sustained by the unskilful attendance of Dr. O'Reilly during the confinement of a Mrs. Johnston. It was alleged that the defendant, although frequently visiting the plaintiff between the date of the birth of the child and November 1st, 1903, neglected to make a proper examination; that he appeared on one occasion to be in an excited state, and was unable to appreciate the condition of the patient. The damages claimed were for extra nourishment, nursing, and medical expenses. Evidence in support of the case was given by Drs. Park and Wood, two nurses, and the plaintiff and her husband.

An absolute denial was given by Dr. O'Reilly, whose defence was conducted by the London and Counties Medical Protection Society. Dr. O'Reilly said that everything possible was done for the patient, and the medical witnesses called on his behalf included Dr. Herman of the London Hospital, and Dr. Wellesley Harris. The jury awarded a verdict of £26 3s. 6d. to the plaintiff, and allowed a small counter claim to the defendant. Judgement was entered accordingly with costs.

LECTURES ON MEDICAL JURISPRUDENCE.

IN the second of a course of lectures on medical jurisprudence, delivered by Dr. F. J. Waldo, Coroner for the City of London, at the Old Hall, Lincoln's Inn, the subject dealt with was Live Birth in relation to Civil and Criminal Law, a subject of great importance to lawyers. The consideration of live birth is naturally divided into two classes—namely, those that affect either civil cases of inheritance or criminal cases of infanticide. In both the evidence that establishes the fact of live birth is identical. The medical view of live birth differs from the legal. The medical man demands proof of the establishment of circulation and of respiration, even when the child has not been born into the world. In this way, crying is one of the most satisfactory proofs of respiration, and hence, to the medical mind, of live birth. The law, on the other hand, is content with the faintest sign of vitality, provided the child is fully born into the world, as establishing the fact of live birth. The tremor of a muscle or the quiver of an eyelid may be sufficient evidence of live birth from the legal point of view. The positive signs of live birth, as laid down by Casper, were next discussed. Infanticide was systematically treated as affecting, first, the mother, and secondly, the child. The crucial point of viability, or the capacity of a child to survive birth, was treated at some length. The period of gestation mentioned by Taylor and other authorities as the earliest at which a child might possibly be born alive is four months. The capacity to survive, however, is not attained until the seventh calendar month of gestation. The questions of legitimacy and illegitimacy are also involved in the question of birth in relation to civil law. The celebrated Poulett peerage case hinged on a question of legitimacy. The lecture was closely followed by a legal audience. The remaining lectures of the course will be delivered on subsequent Thursdays. They deal with death in its medico-legal relations; insanity; and poisons.

LEGS FOR THE LAME.

R. S. H.—We have referred the matter to the Ethical Committee.

PURCHASING A PRACTICE.

E. N. P.—In the case submitted to us much would turn upon (1) whether there has been suppression of material facts; (2) whether the purchaser, having had four months' introduction, would not be held to have had sufficient opportunity to make himself acquainted with the circumstances now complained of; and (3) the construction of the arbitration clause in the agreement. It seems to be a case in which it would be better to consult a solicitor.

ASSISTANTS AND CONTRACTS NOT TO PRACTISE.

ITTAI.—If the assistant has signed no bond he is under no legal obligation of any kind as to where he may practise.

ROYAL NAVY AND ARMY MEDICAL SERVICES.

ROYAL NAVY MEDICAL SERVICE.

THE following appointments have been made at the Admiralty: DONALD P. CHAPMAN, Surgeon, to the *Victorious*, February 2nd; ALGERNON C. BEAN, Surgeon, to the *Caesar*, February 2nd; GEORGE R. MACMAHON, Surgeon, to the *Leander*, January 21st; RICHARD A. ROSS, M.B., Surgeon, to the *Vivid*, February 14th.

ROYAL NAVY VOLUNTEER RESERVE.

CHARLES O'B. HARDING, M.R.C.S., L.R.C.P., has been appointed an Honorary Surgeon, January 18th.

ROYAL ARMY MEDICAL CORPS.

LIEUTENANT O. CHALLIS, from temporary half-pay, to be Lieutenant, December 24th, 1903. He is also promoted to be Captain from the same date. Captain Challis was appointed Lieutenant, July 28th, 1899, and was placed on temporary half-pay on account of ill-health, July 23rd, 1902.

SURGEON-MAJOR REGINALD SLEMAN (the Volunteer Ambulance School of Instruction, London) writes: An "Extract from the Manual for the R.A.M.C." has recently been published, giving important alterations in the drill. The movements are much simplified, and are mostly in accordance with the changes adopted in infantry training. The words of command are more practical. The following movements have been abolished—extending at the halt, moving to a flank with sloped stretchers, and changing front. The bearer company and field hospital camps are altered: in the former the tents are reduced to nine, two of

the officers' tents and the guard tent being omitted, and in the latter two tents for general stores has been added, whilst the tents for the Army Service Corps have been reduced by two. A combined camp for a bearer company and a field hospital is authorized; perhaps we shall soon see the *personnel* also combined to form a "brigade medical unit."

INDIAN MEDICAL SERVICE.

THE following were the successful candidates at the Indian Medical Service examination held on January 19th and the four following days:

	Marks.		Marks.
H. B. Drake	3,515	I. D. Jones	2,834
E. E. Hodgson	3,167	H. Watts	2,810
W. S. McGillivray	3,046	J. Anderson	2,800
W. Gillitt	2,991	W. T. Finlayson	2,799
W. F. Brayne	2,978	H. E. Stranger-Leathes	2,792
M. S. Irani	2,899	E. A. Roberts	2,789
S. W. Jones	2,882	G. G. Hirst	2,777
W. Tarr	2,874	M. J. Quirke	2,753
C. H. Barbar	2,867	J. M. Holmes	2,684
W. T. McCowen	2,839	M. F. White	2,666

Forty-two candidates (of whom 26 had university degrees) competed for 20 vacancies.

CAPTAIN B. G. SETON, Bengal Establishment, is appointed Personal Assistant to the Principal Medical Officer, Bengal Command.

The *Pioneer*, an Indian paper, says it is understood that Sir Frederick Treves will furnish a report to the home authorities regarding the position and work of the Royal Army Medical Corps officers in India. It is anticipated that the Indian Medical Service will also be commented on.

Captain WILLIAM HENVEY, Bengal Establishment, died on January 11th, aged 36. He joined the department as Surgeon-Captain, July 28th, 1891, and was transferred to temporary half-pay, March 4th, 1902. He was with the Isazai Expedition in 1892.

ROYAL ARMY MEDICAL CORPS (MILITIA).

LIEUTENANT (Honorary Lieutenant in the army) W. V. SINCLAIR to be Captain, December 19th, 1903.

WEARING OF MEDALS.

EX-CIVIL SURGEON, LATE BOER WAR, asks: On what occasions can I, with good taste, wear my South African medal? Can it be worn when in evening dress, at public dinners, functions, etc.? Should the medal or only the ribbon be worn?

*** H.R.H. the Duke of Cambridge, when Commander-in-Chief, ruled, a good many years ago, to the following effect, regarding the wearing of *miniature medals* (not ribbons) and other decorations, when in evening dress: Such medals *may* be worn, according to taste, at any public dinner, or function, and *will* always be worn when representatives of *Royalty* are present on such occasions. Observe the words in italics; these rules are now generally followed by holders of medals,

PUBLIC HEALTH
AND
POOR-LAW MEDICAL SERVICES.

VITAL STATISTICS FOR ENGLAND AND WALES.

WE are indebted to the Registrar-General for the following statistics, compiled for the convenience of medical officers of health who are now required to complete their annual reports to the Local Government Board by the middle of February in each year. The figures are provisional.

ENGLAND AND WALES, 1903.

Annual Birth-rates and Death-rates from the Seven Chief Epidemic Diseases.

	Annual Rates per 1,000 Living.			Infant Mortality—Annual Death-rate of Infants under 1 Year per 1,000 Births.
	Births.	Deaths from all Causes.	Deaths from Seven Chief Epidemic Diseases.	
England and Wales	28.4	15.4	1.46	132
Rural England and Wales	27.3	14.8	1.08	118
76 great towns	29 7	16.3	1.89	144
103 smaller towns	27.4	14.6	1.41	135

THE RURAL MIDWIVES ASSOCIATIONS.

THE Executive Committee of the Rural Midwives Association held a conference, under the chairmanship of Lord BELPER, at 3, Grosvenor Place on January 27th. The conference was well attended by representatives of county councils and others interested in nursing and maternity work. After hearing speeches from Dr. Handfield-Jones, Dr. Holman Cassidi (Derby), Dr. W. S. A. Griffith, Dr. R. Boxall, many other speakers, the following resolutions were unanimously agreed to:

(*a*) That the requirements of the Midwives Act may be useful by adding midwives to the staff of the local nursing associations by training local women to work under a small committee, pro that in both cases their work is kept distinct from cases dangero their calling.

(*b*) That where localities are unable to meet the initial expe training, recourse must be had to grants from county councils others, but some payment by the patient should always be made to the current expenses.

(*c*) That respectable women of the cottage class, carefully tr and working under supervision, will meet the requirements of th in rural districts.

(*d*) That the supervision of a local committee is advisable in case, who should be in communication with the local super authorities under the Act.

VACCINATION.

THE following correspondence has been forwarded to u publication:

Newark Union,
December 31st,

Vaccination.

Dear Sir,—The guardians of this union have decided to pay on minimum fees sanctioned by the Local Government Board from and February 1st next. They have therefore instructed me to give you that they will terminate on the 31st proximo the contract whic entered into with you on February 13th, 1900. I shall be glad if yo inform me on or before the 9th proximo whether you are desi being reappointed public vaccinator on the conditions mentioned.

I am, yours faithfully,
M. H. COLTON, C

To the Chairman and Members of the Board of Guardians.
January 6th.

Gentlemen,—At a meeting of the public vaccinators of the N Union held on January 6th the question of the reduction of the v tion fees was considered, and it was decided to ask the Board of Gu to grant the public vaccinators an interview. This courtesy w tended to them four years ago when the present fees were arrang they trust the same courtesy will be extended to them on this occa

Your obedient servant,
FRANK BROADBENT, Hon

Newark Union,
January 12th

Dear Sir,—Your letter of the 6th instant was laid before the gua and I am instructed to inform you that they would be prepared t the public vaccinators as desired, but they would not for one m discuss the question of fees again or depart from the resolution pa the last meeting,

Yours faithfully,
M. H. Co

To the Chairman and Members of the Newark Board of Guar
January 23rd, 1904.

Gentlemen,—I regret the guardians have declined to discuss th tion of fees with the public vaccinators. I must remind them th have inflicted *a great hardship and injustice* on the county vaccina that they expect them to drive many miles to do efficient vaccina the same fee as those whose vaccination cases are close t residences.

Yours truly,
FRANK BROADBENT, Ho

ENGLISH URBAN MORTALITY IN THE FOURTH QUARTER

[SPECIALLY REPORTED FOR THE "BRITISH MEDICAL JOURNA

THE vital statistics of the seventy-six large towns dealt with Registrar-General's weekly returns are summarized in the accom table. During the three months ending December last, 107,452 birt registered in these towns, equal to an annual rate of 28.6 per 1,000 aggregate population, estimated at 15,075,011 persons in the middl year; this rate was 0.4 per 1,000 below the birth-rate in the corres period of the preceding year. In London the birth-ra 27.4 per 1,000, while it averaged 29.1 in the seventy-five large pr towns, among which the rates ranged from 17.9 in Hastings, Bournemouth, 18.5 in Hornsey, 19.2 in Halifax, 21.8 in Rochdale Bury, and 22.1 in Northampton to 34.1 in Hanley, 34.6 in Warring in Gateshead, 34.8 in Wigan, 35.7 in Smethwick, 36.7 in Merthyr 38.3 in Rhondda, and 39.9 in St. Helens.

During the quarter under notice 64,931 deaths were registered seventy-six towns, corresponding to an annual rate of 17.3 per 1,00 was 0.6 per 1,000 below the rate in the corresponding quarter of ceding year. In London the rate of mortality was 16.6 per 1,000, averaged 17.6 per 1,000 in the seventy-five large provincial towns which the rates ranged from 7.5 in Hornsey, 9.9 in King's Nor in Leyton, 11.6 in East Ham, 11.7 in Walthamstow, and 12.3 in Hand to 21.5 in Sunderland, 21.9 in Merthyr Tydfil, 22.8 in Warrington Middlesbrough, 23.0 in York, 23.3 in Wigan, and 23.5 in Preston.

The 64,931 deaths from all causes in these towns last qua cluded 6,245 which were referred to the principal infectious d of these, 32 resulted from small-pox, 1,201 from measles, 2 scarlet fever, 717 from diphtheria, 973 from whooping-cough,

Analysis of the Vital Statistics of Seventy-Six of the Largest English Towns during the Fourth Quarter of 1903.

Towns.	Estimated Population middle of 1903.	Births.	Deaths.	Annual Rate per 1,000 Living. Births.	Deaths.	Principal Infectious Diseases.	Deaths from Principal Infectious Diseases.	Small-pox.	Measles.	Scarlet Fever.	Diphtheria.	Whooping-Cough.	Fever.	Diarrhoea.	Deaths of Children under one year of age to 1,000 Births.	Rate per cent. of Uncertified Deaths.
Towns	15,075,011	107,452	64,931	28.6	17.3	1.66	6,245	32	1,201	471	717	973	572	2,279	167	1.2
Provincial Towns	10,461,199	75,941	45,849	29,1	17.6	1.73	4,524	29	825	381	528	764	403	1,594	173	1.5
[illegible]on	4,613,812	31,511	19,082	27.4	16.6	1.50	1,721	3	376	90	189	209	169	685	154	0.3
[illegible]on	141,157	921	449	26.2	12.8	0.54	19	—	—	—	7	1	1	10	101	—
[illegible]den	127,077	970	504	30.6	15.9	3.56	113	—	78	2	3	10	3	17	157	0 2
[illegible]ey	78,386	361	147	18.5	7.5	0.05	1	—	—	—	—	—	—	1	102	—
[illegible]ham	109,749	864	363	31.6	13.3	0.62	17	—	2	—	5	2	4	4	148	0.3
[illegible]Ham	281,894	2,306	1,205	32.8	17.1	2.66	187	—	40	2	12	25	17	91	183	0.2
[illegible]lam	110,451	895	320	32.5	11.6	1.23	34	—	—	2	5	3	2	22	139	1.3
[illegible]n	107,153	789	276	29.5	10.3	1.68	45	—	5	3	6	14	5	12	106	0.4
[illegible]amstow	106,290	859	309	32.4	11.7	1.43	38	—	2	—	2	5	10	19	134	0.3
[illegible]ngs	66,194	296	212	17.9	12.8	0.60	10	—	—	—	—	4	—	6	128	1.4
[illegible]ton	125,405	735	459	23.5	14.7	0.79	25	—	—	—	10	6	2	7	133	0.2
[illegible]mouth	194,960	1,379	815	28.4	16.8	1.39	68	—	—	7	21	10	4	26	131	1.1
[illegible]emouth	63,132	286	206	18.2	13.1	0.50	8	—	—	—	3	1	1	3	108	—
[illegible]ampton	110,120	745	363	27.1	13.2	1.31	36	—	—	2	7	1	8	18	119	—
[illegible]ng	75,082	476	239	25.4	12.8	0.64	12	—	—	—	3	—	1	8	132	0.8
[illegible]ampton	89,863	4.6	358	22.1	16.0	1.60	36	—	—	8	7	1	2	18	194	3.1
[illegible]ch	68,818	484	294	28.2	17.1	1.51	26	—	15	—	2	1	3	5	174	1.7
[illegible] Yarmouth	51,851	332	229	25.7	17.7	2.56	33	—	12	—	12	1	1	7	169	—
[illegible]ich	114,351	778	480	27.3	16.8	0.53	15	—	—	2	2	—	2	9	170	1.2
[illegible]outh	112,022	687	504	24.6	18.0	1.33	37	—	—	5	3	6	3	20	191	0.2
[illegible]port	73,815	538	300	29.2	16.3	0.71	13	—	—	4	3	2	—	4	147	—
[illegible]ol	338,895	2,249	1,298	26.6	15.4	0.96	81	—	3	6	27	11	8	28	146	0.4
[illegible]ey	63,205	538	324	34.1	20.6	2.66	42	—	—	2	12	1	3	24	223	2.2
[illegible]n-on-Trent	51,450	349	174	27.2	13 6	0.40	5	—	—	2	1	—	—	2	112	0.6
[illegible]erhampton	96,947	711	405	29.4	10.8	1.57	38	—	3	7	2	4	5	17	205	0.7
[illegible]all	89,878	750	400	33.5	17.9	1.96	44	—	—	5	3	20	4	12	168	1.0
[illegible]sworth	57,557	350	177	24.4	12.3	0.91	13	—	1	1	1	2	—	8	129	2.3
[illegible] Bromwich	66,558	530	290	31.9	17.5	2.04	34	—	10	3	4	—	1	16	204	1.7
[illegible]ingham	533,039	4,078	2,556	30.7	19.2	2.46	324	1	46	18	46	24	18	171	193	2.5
[illegible]s Norton	63,717	408	157	25.7	9.9	1.01	16	1	—	7	2	—	—	6	96	3.8
[illegible]hwick	58,787	524	214	35.7	14.6	0.96	14	—	2	2	2	—	3	5	151	2.3
[illegible]a Manor	79,417	520	275	26.3	13.9	1.76	35	—	4	2	2	7	3	17	154	1.1
[illegible]ntry	72,684	519	278	28.6	15.3	0.89	16	1	—	—	4	—	—	11	123	1.4
[illegible]ester	220,272	1,474	849	26.8	15.5	1.04	57	1	5	1	10	15	3	22	185	0.7
[illegible]rsby	65,772	439	214	26.8	13.0	0.78	13	—	—	1	5	1	4	2	137	2.8
[illegible]ngham	245,985	1,709	1,065	27.9	17.4	1.65	101	2	4	11	15	23	11	35	193	0.9
[illegible]ey	118,707	759	428	25.6	14.5	0.88	26	—	3	—	2	8	—	13	153	—
[illegible]port	95,709	674	475	28.2	19.9	1.46	35	1	10	4	2	2	6	10	212	0.2
[illegible]enhead	113,598	814	459	28.7	16.2	1.24	35	—	—	3	4	15	2	11	136	0.4
[illegible]asey	58,258	388	206	26.7	14.2	1.11	16	—	—	3	—	3	3	7	103	1.5
[illegible]'pool	716,810	5,799	3,783	32.4	21.2	2.00	356	—	7	39	38	148	37	87	171	3.8
[illegible]ole	60,761	471	292	31.1	19.3	1.64	25	—	—	4	3	9	2	7	174	5.5
[illegible]elens	87,259	868	421	39.9	19.4	1.47	32	—	—	4	6	7	7	8	164	7.4
[illegible]n	62,165	539	361	34.8	23.3	2.46	38	—	—	8	1	16	2	11	215	0.3
[illegible]ington	66,370	573	378	34.6	22.8	6.58	109	4	79	2	1	15	1	7	173	2.6
[illegible]on	173,401	1,152	757	26.6	17.5	1.22	53	1	4	4	6	5	11	22	156	0.4
[illegible]	58,313	320	262	22.0	18.0	2.48	36	—	21	—	2	3	2	8	187	1.9
[illegible]hester	553,486	4,154	2,700	30.1	19.6	1.91	262	1	31	33	27	27	34	109	183	2.0
[illegible]ford	226,480	1,795	1,188	31.8	21.0	2.59	146	1	28	21	17	20	19	40	178	0.8
[illegible]lam	138,786	813	687	23.5	19.9	1.47	51	—	14	3	11	6	3	14	216	—
[illegible]dale	84,824	462	385	21.8	18.2	1.52	32	—	—	—	5	18	—	9	232	1.3
[illegible]ley	99,469	643	517	25.9	20.8	2.86	71	—	4	4	3	17	4	39	240	0.8
[illegible]burn	131,218	736	566	22.5	17.3	2.01	66	—	24	3	7	—	4	28	193	1.8
[illegible]on	114,404	796	670	27.9	23.5	5.80	165	—	94	5	6	—	15	45	251	2.1
[illegible]ow-in-Furness	59,009	498	198	33.8	13.5	1.02	15	—	1	—	1	1	3	9	145	7.1
[illegible]dersfield	94,963	582	393	24.6	16.6	0.85	20	—	—	1	7	—	4	8	127	0.3
[illegible]ax	106,754	512	422	19.2	15.9	0.78	21	—	4	3	4	4	3	3	170	2.4
[illegible]ford	283,412	1,575	1,311	22.3	18.6	1.22	86	—	13	11	11	6	16	29	171	0.7
[illegible]s	443,559	3,181	2,097	28.8	19.0	1.80	200	—	50	24	12	47	19	48	189	0.0
[illegible]field	425,528	3,463	1,872	32.6	17.6	1.64	173	—	38	23	7	36	16	53	169	2.5
[illegible]erham	57,212	472	281	33.1	19.7	3.99	57	—	27	3	2	4	4	17	225	2.8
[illegible]	80,186	570	459	28.5	23.0	4.60	92	1	38	6	3	27	1	16	221	—
[illegible]	249,639	1,873	1,012	30.1	16.3	0.71	44	—	2	1	12	3	1	25	151	1.4
[illegible]llesbrough	95,013	776	541	32.7	22.8	2.15	51	—	2	1	3	6	3	36	238	1.7
[illegible]kton-on-Tees	51,965	391	248	30.2	19.1	1.63	21	—	—	1	1	7	4	8	230	0.4
[illegible] Hartlepool	67,201	535	293	31.9	17.5	1.02	17	—	2	1	6	7	1	—	215	0.7
[illegible]derland	149,572	1,240	802	33.3	21.5	3.40	127	1	79	—	9	5	8	25	190	1.7
[illegible]th Shields	105,325	891	430	33.9	16.4	0.88	23	—	—	6	2	1	—	14	120	5.3
[illegible]shead	115,531	997	558	34.6	19.4	2.81	81	9	—	12	3	26	—	31	204	6.1
[illegible]castle-on-Tyne	222,241	1,594	1,113	28.8	20.1	1.08	60	1	5	3	8	11	1	31	195	0.3
[illegible]mouth	52,531	412	266	31.5	20.3	1.15	15	3	—	2	5	—	1	4	199	1.9
[illegible]port (Mon.)	70,217	548	285	31.3	16.3	1.31	23	—	1	4	2	10	2	4	166	1.1
[illegible]liff	172,598	1,218	663	28.3	15.4	1.45	62	—	9	12	12	5	6	18	160	0.2
[illegible]ndda	119,652	1,143	502	38.3	16.8	2.18	65	—	5	3	12	12	8	25	186	1.0
[illegible]thyr Tydfil	71,651	655	392	36.7	21.9	3.75	67	—	—	12	10	10	14	21	202	0.8
[illegible]nsea	95,489	714	468	30.0	19.7	1.84	44	—	—	7	6	16	4	11	211	0.2

"fever" (principally enteric), and 2,279 from diarrhoea. The death-rate from these diseases averaged 1.66 per 1,000 in the seventy-six towns, and was 0.48 per 1,000 below the rate in the fourth quarter of 1902. In London these diseases caused a death-rate of 1.50 per 1,000, while the rate averaged 1.73 in the seventy-five large provincial towns, and ranged from 0.05 in Hornsey, 0.40 in Burton-on-Trent, 0.50 in Bournemouth, 0.53 in Norwich, 0.54 in Croydon, 0.60 in Hastings, 0.62 in Tottenham, and 0.64 in Reading, to 2.86 in Burnley, 3.40 in Sunderland, 3.56 in Willesden, 3.75 in Merthyr Tydfil, 3.99 in Rotherham, 4.60 in York, 5.80 in Preston, and 6.58 in Warrington. The 32 fatal cases of small-pox registered in the large towns last quarter included 9 which belonged to Gateshead, 4 to Warrington, 3 to London, and 3 to Tynemouth. The death-rate from measles was equal to 0.32 per 1,000, against 0.59 in the corresponding period of the preceding year; in London the death-rate from this disease was 0.33 per 1,000; while it averaged 0.32 in the seventy-five provincial towns, and was highest in Willesden, Ipswich, Great Yarmouth, Warrington, Bury, Preston, Rotherham, York, and Sunderland. The mortality from scarlet fever was equal to an annual rate of 0.12 per 1,000, being 0.08 per 1,000 below the rate in the fourth quarter of the preceding year: in London the rate last quarter was 0.08 per 1,000, while it averaged 0.15 in the seventy-five large provincial towns, among which this disease was proportionally most fatal in Northampton, King's Norton, Wigan, Salford, York, Gateshead, Merthyr Tydfil, and Swansea. The mean death-rate from diphtheria in the seventy-six towns was 0.19 per 1,000, against 0.29 in the corresponding period of 1902; in London this death-ratewas equal to 0.17 per 1,000, while it averaged 0.20 in the seventy-five other large towns, among which the highest death-rates from this disease were recorded in Portsmouth, Great Yarmouth, Hanley, Birmingham, West Hartlepool, Tynemouth, Rhondda, and Merthyr Tydfil. The fatal cases of whooping-cough were equal to an annual rate of 0.26 per 1,000, which was also the rate during the fourth quarter of the preceding year; in London the death-rate from this disease was 0.18 per 1,000, while it averaged 0.29 in the seventy-five other large towns, among which whooping-cough was proportionally most fatal in Walsall, Liverpool, Wigan, Warrington, Rochdale, Burnley, York, Gateshead, and Swansea. The death-rate from "fever" averaged 0.15 per 1,000 in these towns last quarter, against 0.19 in the corresponding period of the preceding year; in London also this death-rate was 0.15 per 1,000, while among the seventy-five large provincial towns "fever" showed the greatest proportional fatality in Walthamstow, Southampton, St. Helens, Salford, Preston, Rotherham, Stockton-on-Tees, and Merthyr Tydfil. The mortality from diarrhoea was equal to 0.61 per 1,000, being slightly in excess of the rate in the corresponding quarter of the preceding year: in London the rate was 0.59 per 1,000, while it averaged 0.61 in the seventy-five other large towns, among which the highest death-rates from this disease were recorded in West Ham, Hanley, Birmingham, Burnley, Preston, Rotherham, Middlesbrough, and Merthyr Tydfil.

Infant mortality, measured by the proportion of deaths among children under 1 year of age to registered births, was equal to 167 last quarter, against 166 in the corresponding period of the preceding year. In London the proportion, during the quarter under notice was 154 per 1,000, while it averaged 173 in the seventy-five large provincial towns, and ranged from 96 in King's Norton, 101 in Croydon, 102 in Hornsey, 103 in Wallasey, 106 in Leyton, 108 in Bournemouth, 112 in Burton-on-Trent, and 119 in Southampton, to 221 in York, 223 in Hanley, 225 in Rotherham, 230 in Stockton-on-Tees, 232 in Rochdale, 238 in Middlesbrough, 240 in Burnley, and 251 in Preston.

The causes of 749, or 1.2 per cent., of the deaths registered in the seventy-six towns last quarter were not certified; in London the proportion was 0.3 per cent.; among the seventy-five large provincial towns all the causes of death were duly certified in Croydon, Hornsey, Bournemouth, Southampton, Great Yarmouth, Devonport, Derby, Oldham, and York, while the highest proportions of uncertified deaths were registered in Northampton, King's Norton, Liverpool, Bootle, St. Helens, Barrow-in-Furness, South Shields, and Gateshead.

HEALTH OF ENGLISH TOWNS.

IN seventy-six of the largest English towns, including London, 8,718 births and 5,304 deaths were registered during the week ending Saturday last, January 23rd. The annual rate of mortality in these towns, which had been 20.0, 20.3 and 19.0 per 1,000, in the three preceding weeks, further declined last week to 18.1 per 1,000. The rates in the several towns ranged from 2.3 in King's Norton, 7.1 in Hornsey, 8.7 in Barrow-in-Furness, 10.3 in East Ham, 11.3 in Bournemouth, and 11.8 in Leyton and in Hastings, to 22.6 in West Ham, 22.8 in Liverpool, 23.2 in Wigan, 23.6 in Tynemouth, 24.0 in Stockton-on-Tees, 25.0 in Great Yarmouth, 29.5 in Preston, and 39.4 in Merthyr Tydfil. In London the death-rate was 17.4 per 1,000, while it averaged 18.4 per 1,000 in the seventy-five other large towns. The mean death-rate from the principal infectious diseases was 1.5 per 1,000 in the seventy-six large towns; in London this death-rate was equal to 1.4 per 1,000, while in the seventy-five large provincial towns the rates ranged upwards to 3.5 in Gateshead, 3.6 in Burnley, 3.8 in Swansea, 3.9 in West Bromwich, 4.3 in Rhondda and in Merthyr Tydfil, and 9.5 in Preston. Measles caused a death-rate of 1.6 in West Ham, 1.8 in Rotherham, 3.1 in Warrington, and 7.3 in Preston; diphtheria of 1.2 in Rochdale and 1.8 in St. Helen's; whooping-cough of 1.2 in Rochdale, 1.3 in Rhondda, 1.5 in Newport (Mon.), 2.2 in Swansea, 2.6 in Gateshead, 3.0 in West Hartlepool, and 4.3 in Merthyr Tydfil; and diarrhoea of 2.3 in West Bromwich. The mortality both from scarlet fever and from "fever" showed no marked excess in any of the large towns. One fatal case of small-pox was registered in Gateshead, but not one in any other of the seventy-six large towns. The number of small-pox cases under treatment in the Metropolitan Asylums Hospitals, which had been 26 at the end of each of the three preceding weeks, had declined to 24 at the end of last week; 3 new cases were admitted during the week, against 4, 6, and 4 in the three preceding weeks. The number of scarlet fever patients in these hospitals and in the London Fever Hospital on Saturday last, January 23rd. was 1,677, against 1,632, 1,659, and 1,660 on the three preceding Saturdays; 178 new cases were admitted during the week, against 194, 201, and 195 in the three preceding weeks.

HEALTH OF SCOTCH TOWNS.

DURING the week ending Saturday, January 16th, 888 births and 668 deaths were registered in eight of the principal Scotch towns. The annual rate of mortality, which had been 20.8, 21.7, and 23.2 per 1,000 in the three preceding weeks in these towns, declined again to 20.2 per 1,000, but was 1.2 per 1,000 above the mean rate during the same period in the seventy-six large English towns. Among these Scotch towns the death-rates ranged from 16.8 in Edinburgh and 18.1 in Leith, to 24.3 in Dundee and 27.7 in Perth. The death-rate from the principal infectious diseases averaged 1.9 per 1,000, the highest rates being recorded in Aberdeen and Paisley. The 309 deaths registered in Glasgow included 4 which were referred to small-pox, 19 to measles, 2 to whooping-cough, 2 to "fever," and 4 to diarrhoea. Two fatal cases of whooping-cough and 6 of diarrhoea were recorded in Edinburgh. Two deaths from whooping-cough and from diarrhoea occurred in Dundee; 6 from whooping-cough in Aberdeen, 2 from measles and 2 from diphtheria in Paisley; and 1 from small-pox and 2 from whooping-cough in Leith.

During the week ending Saturday last, January 23rd, 1,017 births and 668 deaths were registered in eight of the principal Scotch towns. The annual rate of mortality in these towns, which had been 21.7, 23.2, and 20.2 per 1,000 in the three preceding weeks, further declined last week to 19.8 per 1,000, but was 1.7 per 1,000 above the mean rate during the same period in the seventy-six large English towns. The rates in the eight Scotch towns ranged from 12.0 in Greenock and 14.9 in Paisley to 25.2 in Dundee and 26.2 in Perth. The death-rate from the principal infectious diseases averaged 1.6 per 1,000 in these towns, the highest rates being recorded in Dundee and Perth. The 316 deaths registered in Glasgow included 2 which were referred to small-pox, 13 to measles, 3 to diphtheria, 2 to whooping-cough, 3 to "fever," and 5 to diarrhoea. Four deaths from whooping cough and 4 from diarrhoea were recorded in Edinburgh. Five fatal cases of measles and 2 of diarrhoea were recorded in Dundee; 3 of diarrhoea in Aberdeen; and 2 of whooping-cough in Leith.

HEALTH OF IRISH TOWNS.

DURING the week ending Saturday, January 16th, 509 births and 348 deaths were registered in six of the principal Irish towns, against 485 births and 485 deaths in the preceding period. The mean annual death-rate of these towns, which had been 15.6, 29.7, and 26.1 per 1,000 in the three preceding weeks, fell to 24.7 in the week under notice, this figure being 5.7 per 1,000 above the mean annual rate in the seventy-six English towns during the corresponding period. The figures ranged from 15.6 in Waterford, and 19.9 in Cork to 29.7 in Belfast and 31.4 in Limerick. The death-rates from the principal zymotic diseases during the same period averaged in the same six towns 1.8 per 1,000, against 1.8 in the preceding week, the highest point, 2.5, being registered in Londonderry, while Cork and Waterford recorded no deaths under this heading at all. Whooping-cough still held the premier place in all the towns, while from scarlet fever, small-pox, and diphtheria no deaths were registered in any of these towns. Belfast had 1 death from measles, and Londonderry 1 from typhus.

During the week ending Saturday, January 23rd, the births and deaths respectively in the same towns were 509 and 424. The mean annual death-rate rose slightly to 26.9, against 29.7, 26.1, and 24.7 in the three preceding weeks, and was thus 8.8 per 1,000 over the mean annual rate in the seventy-six English towns during the same period. The figures ranged from 17.6 in Londonderry to 37.4 in Waterford. The death-rates from the principal zymotic diseases during the same period averaged in the six towns 1.7 per 1,000, Waterford again registering no deaths under this heading. No further deaths from typhus occurred, nor any from small-pox or measles. One death from scarlet fever occurred in Cork and from diphtheria in Belfast; but whooping-cough still remained the principal though diminished cause of death from zymotic disease.

CERTIFICATION OF LUNATICS IN WORKHOUSES.

WORKHOUSE MEDICAL OFFICER writes: Occasionally inmates of a workhouse become insane, and unable to be cared for under our conditions. The procedure then is to send a form to the relieving officer of the district to which that inmate belongs. He then arranges for the removal to the asylum. It is his custom to call in the medical officer of that district to sign the certificate. This procedure leads to delay, during which time the patient has to be watched night and day, usually by another pauper. Is there any legal or other objection to the medical officer of the workhouse signing the certificate?

*** It would appear that in the union to which our correspondent refers the justices accept the nominee of the relieving officer as medical examiner, and there is no legal reason why they should not do so. It is the justice called upon, and acting in such a case as that described, to call in any medical man he prefers, and may call in the medical officer of the workhouse where the alleged lunatic is.

MEDICAL NEWS.

AT a recent meeting of the Zoological Society of London Mr. Macleod Yearsley exhibited and made remarks upon an aneurysm of the abdominal aorta from a jaguar, and photographs of one from a turtle. At the same meeting Dr. W. Kidd proposed the use of two additional characters which he considered to be of some importance in the description of genera and species of certain mammals. These were the arrangement of the hair on the naso-frontal region and the distribution of hair-whorls.

PRESENTATION.—On Christmas Day Dr. George Philip Rugg of Streatham, was the recipient of a very handsome silver bowl from the patients and nursing staff of the British Home and Hospital for Incurables. Dr. Rugg has been Medical Officer of the Home for twenty-four years, and Mr. Tees, a member of the Board, who made the presentation on behalf of the patients and staff, spoke in eloquent terms of the kindness and sympathy which had always been received from Dr. Rugg's hands, by patients and staff alike.

DICATED PUBLIC BATHS.—Some little time ago our ion was attracted by a report in a provincial paper of a ng of the Corporation of Bradford, at which a recom- ation, founded on a report from the medical officer of h, was adopted. This was to the effect that baths should tablished in Bradford upon the same principle as those ddersfield, with certain exceptions as to the treatment ients for skin disease and syphilis. On inquiry we find he baths at Huddersfield do not belong to the Corpora- ut to the infirmary, to which they were presented by Mr. . The bath establishment consists of Turkish baths ussian vapour baths of the ordinary character, and, in on, a number of medicated slipper and vapour baths, her with arrangements for the application of electricity. ompounds used to medicate the slipper baths are various alkalies, and acids, in addition to sulphur, ammonia, ote, mustard, etc., while corresponding arrange- s are made in the vapour baths. Medical itioners in Huddersfield are supplied with a f the baths and a book of recommendation forms hich they are requested to enter the nature of the required, the charge that should be made for the same, he number of baths to be given. But during certain of the day the medicated baths can be used on a pay- of 1s. 6d. without a doctor's recommendation. The ic, vapour, and medicated baths are all so arranged that rained attendant is supposed to be able to attend to the nistration of all of them. At Bradford the medical of health recommended that the Corporation should de from use of the baths persons suffering from skin ses and syphilis; and, while favouring the adoption of ic bath treatment, discountenanced the idea of the duction of Roentgen rays or allied treatment. The cated baths, he thought, should be reserved for persons ring from lumbago, sciatica, and gouty or rheumatic affections. Whether baths under the system and of the e described are really likely to be of great utiliity is bly open to question; but, perhaps, if they are used at t is better that the institution which provides them ld be run, so to speak, rather as a public than as a private ulation, provided always that the ratepayers do not t to their money being used in this somewhat unusual on.

MEDICAL VACANCIES.

list of vacancies is compiled from our advertisement columns, where full iculars will be found. To ensure notice in this column advertisements st be received not later than the first post on Wednesday morning.

BENHEAD UNION.—Resident Assistant Medical Officer for the Infirmary, Work- se, and Sanatorium. Salary, £120 per annum.

RAL LONDON OPHTHALMIC HOSPITAL, Gray's Inn Road, W.C.—Assistant geon.

OF LONDON HOSPITAL FOR DISEASES OF THE CHEST, Victoria Park, E.— o House Physicians, resident. Salary at the rate of £30 per annum.

IN: RICHMOND DISTRICT ASYLUM.—Two Clinical Assistants; resident. ary, £60 per annum.

LOUCESTER: BARNWOOD HOUSE HOSPITAL FOR MENTAL DISEASES.—Junior istant Medical Officer; resident. Salary, £150, rising to £170.

ON HOSPITAL FOR FISTULA, Vauxhall Bridge Road, S.W.—House-Surgeon; ident. Honorarium, £15 15s. for six months or £40 for twelve months.

STEAD GENERAL HOSPITAL.—Resident Medical Officer. Salary at the rate £120 per annum.

ITAL FOR SICK CHILDREN, Great Ormond Street, W.C.—House-Surgeon; ident. Salary, £20 for six months.

RNESS DISTRICT ASYLUM.—Medical Superintendent. Salary, £500 per annum.

VERPOOL DISPENSARIES.—Assistant Surgeon; resident. Salary, £100 per annum.

ON HOSPITAL, Whitechapel Road, E.—Two Senior Clinical Assistants (Aural).

A HESTER: ANCOATS HOSPITAL.—Resident House-Physician. Salary, £80 per num.

A HESTER: COUNTY ASYLUM, Prestwich.—Junior Assistant Medical Officer; ident. Salary, £150 per annum, increasing to £200.

ONAL HOSPITAL FOR THE PARALYSED AND EPILEPTIC, Queen Square, C.—(1) House-Physician; resident. Salary, £50 per annum. (2) Registrar norarium, 50 guineas per annum.

TH RIDING INFIRMARY, Middlesbrough.—Assistant House-Surgeon; resident. ary, £75 per annum.

RWICKSHIRE GENERAL INFIRMARY.—Assistant House-Surgeonn; resident. norarium, £40 for six months.

HAM AND EAST LONDON HOSPITAL, Stratford, E.—Junior House-Surgeon; ident. Salary, £70 per annum.

CHESTER GENERAL INFIRMARY.—House-Surgeon; resident. Salary, £70 per num.

DISPENSARY.—Resident Medical Officer. Salary, £120 per annum.

MEDICAL APPOINTMENTS.

ON, A. J. H., M.R.C.S., L.R.C.P.Lond., Certifying Factory Surgeon for the athington District, County Oxford.

S, H., M.D.Vict., D.P.H., Medical Officer of Health and Medical Superintendent the Isolation Hospital of the Hornsey Borough Council, *vice* H. Clothier, D.Lond.

S, H. R. Lloyd, M.D.Edin., District Medical Officer of the Cheltenham Union.

ANS, D. R., L.R.C.P., & S.Edin., Anaesthetist to the Swansea Hospital.

S, D. E., M.B., B.S.Lond., Medical Officer Out-patients Department Swansea spital.

ER, W., L.S.A., D.P.H., District Medical Officer of the Sunderland Union.

N, G. R., L.R.C.P.Edin., M.R.C.S., District Medical Officer of the Ripon Union.

John, M.D., Ch.B.Vict., M.R.C.S.Eng., M.R.C.P.Lond., Physician to the Liverpool anley Hospital.

HERN, George, L.R.C.P., L.R.C.S., L.D.S.Eng., Dental Surgeon to the Royal Dental Hospital of London, *vice* Leonard Matheson, L.D.S., resigned.

HIGHET, John, M.D., D.P.H., Medical Officer of Health for Burgh of Prestwick, Ayrshire.

HOFFMAN, A. H., M.D.St.And., M.R.C.S., District Medical Officer of the Ellesmere Union.

MARTIN, R. H., M.B., Ch.B.Edin., First Assistant Medical Officer to the Cleveland Street Asylum of the Central London Sick Asylum District.

MILNS, J., M.B., District Medical Officer of the Oldham Union.

MILWARD, F. Victor, B.A., M.B., B.C.Cantab., F.R.C.S.Eng., Surgeon to Out-patients to the Birmingham and Midland Free Hospital for Sick Children.

MUMMERY, T. P. Lockhart, M.B., B.C.Cantab., F.R.C.S.Eng., Assistant Surgeon to St. Mark's Hospital for Fistula and Other Diseases of the Rectum.

NEWTH, W. P. R., L.S.A., District Medical Officer of the Northampton Union.

PERRY, Sidney Herbert, M.D.Lond., M.B., Ch.B.Birm., M.R.C.P., Physician to Out-patients at the Birmingham and Midland Hospital for Sick Children.

PHILLIPS, James, F.R.C.S.Edin., Honorary Surgeon to the Bradford (Yorks) Children's Hospital, *vice* F. Elliott Meade, M.R.C.S., resigned.

RIDDELL, J. Scott, C.M.&c.Aberd., Additional Examiner in Clinical Surgery, Edinburgh University.

STUMBLES, H. M., M.B., Ch.B.Edin., Medical Officer of Health for the Amble Urban District.

DIARY FOR NEXT WEEK.

MONDAY.

Anatomical Society of Great Britain and Ireland. London School of Medicine for Women, Hunter Street, W.C., 4 p.m.—Specimens by Mr. B. H. Burne. Professor J. Symington, F.R.S.: On Grattan's Craniometer and Craniometric Methods. Dr. Christopher Addison will open a discussion on The Best Practical Method of Locating in the Living Subject Parts of the Alimentary Canal and Certain Viscera in the Abdomen.

Medical Society of London. 11, Chandos Street, Cavendish Square, W. 9 p.m.—Mr. C. B. Lockwood: Aseptic Surgery in Theory and Practice (Lettsomian Lecture I.

TUESDAY.

Pathological Society of London. Lister (Jenner) Institute, Chelsea Gardens, 8.30 p.m.—Exhibits by Mr. H. G. Plimmer, Dr. A. Paine, Mr. S. Rowland, Mr. J. A. Craw, Mr. C. J. Martin, and others.

WEDNESDAY.

Obstetrical Society of London, 20, Hanover Square, W., 8 p.m.—Annual meeting. Specimens will be shown by Mrs. Scharlieb, Dr. Blacker, and Dr. Briggs. The President (Dr. Malins of Birmingham) will deliver the annual address.

THURSDAY.

Neurological Society of the United Kingdom, 11, Chandos Street, Cavendish Square, W., 8.30 p.m.—Annual General Meeting. Presidential Address by Dr. S. J. Sharkey.

Roentgen Society, 20, Hanover Square, W., 8.30 p.m.—Discussion on the Production of Photographic Reversal through the Action of Various Radiations.

FRIDAY.

Laryngological Society of London, 20, Hanover Square, W., 5 p.m.—Cases and specimens will be shown by Dr. E. S. Yonge, Mr. A. H. Burt, and others.

Society of Anaesthetists, 20, Hanover Square, W., 8.30 p.m.—Clinical Evening. Communications by the President and Drs. Luke and McCardie.

West Kent Medico-Chirurgical Society, Royal Kent Dispensary, Greenwich Road, S.E., 8.45 p.m.—Mr. Charles Ryall: The Surgical Treatment of Appendicitis

West London Medico-Chirurgical Society, West London Hospital, Hammersmith, W., 8.30 p.m.—Dr. Samuel West: Some Points in Functional Albuminuria.

POST-GRADUATE COURSES AND LECTURES.

Charing Cross Hospital, Thursday, 4 p.m.—Demonstration of Dermatological Cases.

Hospital for Consumption and Diseases of the Chest, Brompton, Wednesday, 4 p.m.—Lecture on The Treatment of Thoracic Aneurysm by Gelatine Injections.

Hospital for Sick Children, Great Ormond Street, W.C., Thursday, 4 p.m.—Lecture on Affections at and above the Umbilicus.

London Temperance Hospital, Hampstead Road, N.W., Wednesday, 4 p.m.—Lecture on Diseases of the Stomach.

Medical Graduates' College and Polyclinic, 22, Chenies Street, W.C.—Demonstrations will be given at 4 p.m. as follows: Monday, Skin; Tuesday, Medical; Wednesday, Surgical; Thursday, Surgical; Friday, Ear. Lectures will be delivered at 5.15 p.m. as follows: Monday, On the Treatment of the Muscular Factor in Cardiac Failure; Tuesday, Mucous Membranes, Normal and Abnormal; Wednesday, The Treatment of Pneumonia; Thursday, Errors of Refraction, their Diagnosis and Treatment.

Mount Vernon Hospital for Consumption and Diseases of the Chest, 7, Fitzroy Square, W., Thursday, 5 p.m.—Lecture on Fibrosis of the Lungs.

National Hospital for the Paralysed and Epileptic, Queen Square, W.C.—Lectures will be delivered at 3.30 p.m. as follows: Tuesday, Myasthenia Gravis; Friday, Cerebral Tumours.

Post-Graduate College, West London Hospital, Hammersmith Road, W.—Lectures will be delivered at 5 p.m. as follows: Monday, Examination of the Stomach and Gastric Contents; Tuesday, X Rays, illustrated by lantern slides; Wednesday, Pneumonia; Thursday, Tuberculosis of the Bladder; Friday, Skin Cases.

Samaritan Free Hospital for Women, Marylebone Road, N.W., Thursday, 8 p.m.—Lecture on Cases from the Wards.

BIRTHS, MARRIAGES, AND DEATHS.

The charge for inserting announcements of Births, Marriages, and Deaths is 5s. 6d., which sum should be forwarded in post-office orders or stamps with the notice not later than Wednesday morning, in order to ensure insertion in the current issue.

BIRTHS.

CRAWLEY.—On January 22nd, to Herbert E. and Agatha Crawley, a son.

MAY.—On January 26th, at Ivanhoe, 50, Archers Road, Southampton, the wife of Henry J. May, M.B., B.C.Cantab., of a daughter.

PROTHEROE-SMITH.—On January 24th, 1904, at Richmond House, Redditch, to Mr. and Mrs. E. Protheroe-Smith, a son (premature).

YELD.—On January 22nd, at 15, Gloucester Road, Regent's Park, the wife of Walter H. Yeld, M.R.C.S.Eng., L.R.C.P.Lond., of a daughter.

MARRIAGE.

DA COSTA—DA CUNHA.—On 16th instant, at St. James's, Spanish Place, by the Rev. Herbert Laughton, Francis Xavier da Costa, F.R.C.S.Eng., to Emmeline, elder daughter of the late Dr. Gerson da Cunha and Mrs. da Cunha, of Olive Lodge, Bombay.

DEATHS.

BARNARD.—On December 7th, 1903, at Wanganui, New Zealand, after a bicycle accident, Richard Barnard, B.A., B.C.King's Coll.Camb., late Surgeon R.N., youngest son of the late William Barnard, of Harlow, Essex, and the late Mrs. Barnard, of 49, Argyll Road, Kensington, aged 40 years.

MILLIGAN.—Died, at Ardoyne, Forres, on 23rd inst., George Colville, M.A., M.B., eldest son of the late Rev. P. Milligan, Minister of Guthrie, aged 40 years.

SOMERS.—On January 23rd, at 4, Leaf Square, Pendleton, Frances Crofton Somers, widow of the late Alexander Somers, Surgeon, of Salford.

LETTERS, NOTES, AND ANSWERS TO CORRESPONDENTS.

QUERIES.

JANUS would be glad of information as to the action, or failure of action, of apomorphine in cases of alcoholic poisoning.

Y. asks for information as to the best method for getting rid of permanently dilated and quite superficial capillaries in the cheeks of a young lady. Solution of sodium ethylate and the acid nitrate of mercury have been suggested. Is it safe to use these undiluted?

TRAVELLER writes: I should be much obliged if any member who has visited Lisbon, Busaco, and Cintra will give me some information as to the climate, temperature, and the best time of the year to visit these places. Would it be warm enough in April or May?

ALSERSTRASSE asks for hints as to the diagnosis and treatment of the following case: X., a gentleman between 70 and 80 years of age, in good general health and of active habits, with neither heart disease, aneurysm nor diabetes, has lately been troubled, especially in the evenings, with fits of yawning—or rather attempts at yawning, as the yawn seems to be arrested at the end of a long inspiration. These abortive yawns cause him great distress, and frequently he is unable to get sleep for hours at night owing to the attacks. Ordinary remedies, such as pot. brom., stomachics of various kinds, are of no service.

THE TEACHING OF SPEECHLESS CHILDREN.

W. L. W. asks for the titles of treatises on the instruction of infants and young children in whom, although there is no apparent malformation of hard or soft palate, there is no inclination to, nor power of, speech.

*** We have referred this question to Dr. Shuttleworth, who has replied as follows:

"I do not know of any book quite meeting 'W. L. W.'s' requirements. All depends upon the cause of the speechlessness, for example, deafness, want of intelligence, or some aphasic brain condition. 'W. L. W.' might get some hints from Van Praagh's *Lessons for Deaf and Dumb Children* (Trübner), or Elliott's *Articulation and Lip-Reading*, to be had from the Secretary of the Society for the Education of the Deaf and Dumb, 93, Cannon Street, E.C.; but after all, a tactful teacher, rather than a treatise, is what is wanted. For myself, I think that the old nursery rhymes set to catchy airs (such as are found in Elliott's *National Nursery Rhymes* (Novello, Ewer, and Co.) often form the best speaking lessons for backward infants."

ANSWERS.

ENQUIRER.—Our correspondent must write to the Commanding Officer of the R.N. Volunteer Reserve Division to which he wishes to belong, who will give him all the necessary information.

TREATMENT OF COCCYDYNIA.

DR. J. STENSON HOOKER (London) writes: I would suggest that "M.D.'s" patient should be treated with high-frequency current for his coccydynia. I have obtained good results in somewhat similar cases.

THE PAROXYSMAL COUGH OF INFLUENZA.

DR. PERCY B. SPURGIN (Wimbledon) writes in reply to "Rusticus": In such cases I have found tonic treatment of the very greatest use. I generally prescribe a mixture as follows for an adult: ℞ Liq. strychninae miv, acid. nitro-muriatic dil. mx, tr. aurantii et tr. belladonnae āā mv, aq. ad ʒj. Misce. Ft. mist. S. ʒj 4tis horis.

KOUMISS AND KEPHIR.

R. N.—True koumiss can only be prepared with mare's milk, which lends itself particularly well to vinous and lactic fermentation owing to its low ratio of fats and casein and the high proportion of sugar. The corresponding preparation from cow's milk, however, more properly known as kephir, seems to have identical physiological properties, and is perhaps even more nourishing. It may be prepared as follows: Boil fresh milk, and when nearly cold put it into quart bottles, leaving plenty of room for shaking. Add ½ oz. of crushed lump sugar and 20 gr. of Vienna yeast. Cork the bottles with new corks, tie them down carefully, and keep the bottles in a horizontal position in a cool cupboard. Shake them well at least twice daily. As a rule fermentation will proceed sufficiently rapidly for the koumiss to be ready to drink about the sixth day, the time required being longer in cold weather and shorter in hot. It can be made thinner by using skim milk instead of whole milk, and when thus made approximates, perhaps, more nearly to koumiss.

TREATMENT OF SYPHILIS DURING PREGNANCY.

RADIUM.—In the case of a married woman suffering from syphilis and three months pregnant it would not be justifiable to produce abortion; the patient should be treated with mercury throughout the pregnancy. A convenient form of administration is Hutchinson's pill, of which Mr. Hutchinson writes in his work on *Syphilis* as follows: "Hydrargyrum cum cretâ is perhaps the most constant and least variable of all preparations. It may be made into pills of 1 gr., in combination with 1 gr. of Dover's powder if necessary, and of these the patient may take one every six, four, three, or even two hours, according to circumstances. Usually one pill four times a day will suffice to clear away a chancre or a secondary eruption as rapidly and completely as can be wished. In some cases it may be more convenient to double the dose than to increase the frequency of administration, but the latter, if the patient is willing, is the better plan."

NOTES, LETTERS, Etc.

AUTOMOBILES FOR MEDICAL MEN.

WE have received a long letter from "Dissatisfied" on this subject. The following summary contains the main points:

He says that there seems to be a conspiracy amongst medical men to give a rose-coloured view of their experiences with automobiles. As an example he mentions a letter which appeared recently in the *Lancet*, the writer of which, estimating his running expenditure with a 3½ h.-p. car at £130 a year, stated that he had had only one puncture since January, 1901, and had been stopped only six times during the same period from small troubles on the road.

This experience "Dissatisfied" thinks must be uniquely happy. It does not correspond with his own, either in respect of stoppages or expenses. His own car of the same size has cost him at least £130, although he includes nothing for stables or pneumatic tyres. A boy may be able to do all ordinary running repairs, but there are many things which require a skilled mechanic. In respect of such repairs the person to be avoided, he thinks, is the "sole agent," and a sharp eye should be kept on the item of "time employed." Often it is difficult to check this, because there necessarily may be little to show for the work done, and it is impossible to say that a man is wasting his time when he spends it looking for an imaginary waste of current. He does not agree with the writer whom he criticizes that the use of bicycle wheels with solid tyres is satisfactory, as the latter are always getting loose, and the process of replacing them sooner or later necessitates rebuilding the wheel at an expense of £5 or £6.

The *Lancet* correspondent has also allowed nothing for the cost of carriage hire when his car has been incapacitated, which, in "Dissatisfied's" case has been a serious item. It is true that "Dissatisfied" uses a belt and that he may be told that this is out of date. But this is itself a "motor" disadvantage, since with a horse and trap a man is not expected to renew the outfit every two or three years in order to keep up to date. He does not agree, also, that it is possible, at night, at any rate, to be out on the road in three minutes. The discrepancy, moreover, between declared and actual horse power, as ascertained at the recent reliability trials, is of importance, and explains the loss of speed which he himself has experienced when the roads have been heavy. Using solid tyres he has found that in bad weather he can run away from high-powered cars with pneumatic tyres, because the latter skid; and although makers as a rule are opposed to them, he does not think automobiles will prove an ideal vehicle for medical men until cars can be made to run on solid tyres. He would like to hear the experiences of others who have tried the latter on any car.

MESSRS. BURGOYNE, BURBIDGES AND CO. (16, Coleman Street, London, E.C.) desire to state that they are not the Messrs. Burgoyne and Co against whom proceedings were taken recently under the Merchandise Marks Act in respect of adulterated soda crystals.

LETTERS, COMMUNICATIONS, ETC., have been received from: **A** Alserstrasse; A. T.; Auxiliary; Dr. F. H. Alderson, Bournemouth. **B** Mr. G. H. Broadbent, Manchester; Mr. W. F. Brook, Swansea; Mr. O V. Brandford, London; Dr. J. W. Byers, Belfast; British Druggists Limited, Manager of, London; Dr. C. Buttar, London; Mr. E. Berry, Leyland: Mr. S. Bibby, Lancaster; Mr. O. Bowen, Liverpool; Mr. A E. Barker, London; Mr. F. Broadbent, Newark; Mr. L. A. Bidwell, London; Mr. J. F. Briscoe, Alton; Dr. F. Bushnell, Plymouth. **C** Messrs. J. and A. Churchill, London; Dr. J. M. Clarke, Clifton; Colonial; Miss R. N. Cohen, M.B., Rangoon; Dr. J. B. Coumbe, Newport, Mon; Dr. W. A. Caskie, Glasgow; Mr. J. M. Copcen, Ascot; Dr. R. H. Cook, Enfield. **D** Mr. J. T. Dold, Oxford; D.M.; Mr. G. W. B. Daniell, Edinburgh; Miss M. P. Durnford, London; Dr. J. G. Duncanson, London. **E** Hon. Mrs. Eliot, London; Dr. W. H. Evans, Cardiff; Mr. A. Emlyn, Brae; F. H. Edgeworth, M.R., Clifton. **F** Dr. J. K Fowler, London; E. R. Fothergill, M.B., London; Dr. P. C. Franze, Bad Nauheim; Mrs. B. Fenwick, London; Mr. F. T. Fagge, Llanfairfechan. **G** Mr. F. Gould, London; T. H. Godfrey, M.B., London; Dr. S Gee, London. **H** S. Hughes, M.B., Southampton; H.; Mr. A. J. Hobbs, London; Mr. A. Hope, London: Mr. C. H. Hibbert, Marple Bridge; Dr. T. W. Hime, Bradford: Dr. J. Highet, Workington; W. W. H.; Hygiene; Mr. W. W. Hornsby, London; Dr. J. W. Hamill, Manchester; J. A. B. Hammond, M.B., Shanklin; Dr. J. P. Henry, London; Dr. J. Haddon, Hawick; Dr. J. T. B. Hayes, Rathkeale; House-Surgeon; Dr. E. B. Hulbert, London; M. Henry, M.B., Belfast. **J** Miss A. R. Joseph, London; Mr. F. P. Joscelyne, Redditch; Mr. R. Jones, Eaglehawk, Queensland. **K** Messrs. Kemp and Co., Bombay; Dr. E. D. Kirby, Birmingham. **L** Dr. T. G. Lyon, London; Mr. W. Latham, Ashton-in-Makerfield; Mr. F. C. Larkin, Liverpool; Laryngological Society, Secretary of, London; Mr. C. B. Lockwood, London; Liverpool Medical Institution, Secretary of, Liverpool; Dr. A. G. Levy, London. **M** Dr. E. J McWeeney, Dublin; M.D.; Mr. P. Micheli, London; Dr. C. M. Moullin, London; Mr. W. J. Morton, London; B. G. A. Moynihan, M.B., Leeds; M.R.C.S.; Mr. W. L. Muir, Glasgow; Midland Medical Society, Secretary of, Birmingham; W. J. McCardie, M.B., Birmingham; A. A. McNab, M.B., Leeds; R. M. Murray, M.B, Gullane; Dr. A. W. Mackintosh, Aberdeen; Dr. F. C. Moore, Manchester. **N** Dr. J. T. C. Nash, Southend-on-Sea. **O** Dr. J. Oliver, London; Dr. D. C. L. Owen, Birmingham; Dr. E. H. L. Oliphant, Glasgow. **P** Mr. E. J. Parry, London; Dr. T. H. S. Pullin, Sidmouth; Mr. G. A. Phillips, Walsall; Mr. S. Paget, London; E N. Pridmore, M.B, Beckenham; Miss K. Pearce, London. **R** Mr. F. C. Rogers, Belvedere; T. Robinson, M.B, Clonakilty; Dr. M. Randell, London. **S** Messrs. Southall Brothers and Barclay, Birmingham; S. Stephenson, M.B., London; Sir J. B. Sanderson, Bart., Oxford; Mr. W. Stuart Low, London; Sir T. Stoker, Dublin; Dr. J. D. Stanley, Birmingham; E. H. E. Stack, M.B., Bristol; Messrs. G. Street and Co., London; Mr. N. Smith, London; Dr. R. M. Simon, Birmingham; Dr. G. G. S. Taylor, Liverpool; Mr. R. R. Sleman, London; Dr. W. H. B. Stoddart, London; J. E. F. Snell, M.B., Nottingham; Dr. A. Sellers, Manchester; Dr. S. Sunderland, London. **T** Mr. C. W. Thies, London; Dr. T. H. Thomson, Cambeltown. **U** Uncrushed Country Doctor. **W** West London Medical and Chirurgical Society, Secretary of, London; Dr. T. Outterson Wood, London; Workhouse Medical Officer; J. F. L. Whittingdale, Sheborne; Dr. J. P. Weber, London; Mr. C. Walker, London; Dr. A. J. Wallace, Liverpool; W. B. C.; Mr. W. Whitehouse, London; F. Wyatt-Smith, M.B., Woking; Dr. I. Willcocks, London; A. Westlake, M.B., Great Grimsby; W. D. C.

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Post-Office Orders should be made payable to the British Medical Association at the General Post-Office, London. Small amounts may be paid in postage-stamps.

N.B.—It is against the rules of the Post Office to receive letters *Postes Restantes* addressed either in initials or numbers.

Inaugural Address
ON
HE PROGRESS OF SURGERY.

By HOWARD MARSH, F.R.C.S.,

VERED BEFORE THE VICE-CHANCELLOR AND MEMBERS OF THE UNIVERSITY ON HIS APPOINTMENT AS PROFESSOR OF SURGERY IN THE UNIVERSITY OF CAMBRIDGE.

. VICE-CHANCELLOR,—I must begin by assuring you that n fully conscious of the honour of the position I occupy Professor of Surgery in your University. I am conscious, , that as the honour is great, so likewise is the responsi- ty. This responsibility, which to-day weighs heavily upon I shall henceforth at all times bear in mind, and en- vour to meet it to the full.

aving now joined your medical school, and having in the ire to take part in its work, I am able to reflect—with more placency than was possible when I was attached to, in a se a, rival institution—that this department of the Univer- of Cambridge occupies a position which you may well template with genuine satisfaction. The number of dents shows that your medical school is highly suc- sful, and this success depends on the fact that the ous departments are presided over and personally con- ted by great masters who have themselves, in their eration, considerably advanced the sciences which y severally represent. Anatomy is taught—in Professor alister by no mere human-anatomist, but by one who is ply versed in many other fields of research, and able to and and enrich his particular subject by making the ghbouring sciences largely contribute to it. In your late fessor of Physiology, Sir Michael Foster, you had one who long and easily held the first place, whose name is known revered wherever physiology is taught, and whose position he world of science outside and in the public eye is one of highest importance and distinction. As you yourself, Sir, e said, "It is not easy to express the greatness of the debt ch the study of biological science among us owes to Sir hael Foster, both before and after his election to Chair" in 1883. To follow him and to adequately tinue the work which he has so long carried out, must be ed a difficult task, but every one concerned feels that in Langley, at first his pupil and subsequently his most able accomplished fellow-worker, a worthy successor has been d. For your Professor of Pathology you have secured in Sims Woodhead a man whose departure from London regarded as a very heavy loss. This, I am able to state personal knowledge, was especially felt to be the case by Royal Colleges of Physicians and Surgeons, where his ices in the Conjoint science laboratories were much ted and appreciated.

our Regius Professor of Physic, Dr. Clifford Allbutt, has many years been my intimate friend. As a man of wide ntific culture, as a learned physician of unusually wide erience, as a teacher, and, as I may be permitted to add, in whole personality, he occupies a foremost place, and it t be gratifying to him to observe that his *System of icine* has been an unqualified success. The constant and est work of Dr. Bradbury, Downing Professor of Medi- , is well known to all. There are many others among you se names are household words. Of these I cannot refrain mentioning Dr. Donald MacAlister and Mr. ley, whose co-operation and unstinted labour and tion are conspicuous factors in your success. In- , Cambridge occupies a position as a medical school h has excited the envy—always however mixed with iration—of us all, whether in London or elsewhere. And two principal reasons. First, because as I have said, the is so distinguished; and, secondly, because as if by c, there has sprung up a mass of new buildings allotted ur various departments which, for convenience and fit are unsurpassed, and I might even, I believe, truly say, alled in this country.

w, any one who has studied the subject of education, ecessarily in detail but in its broader lines, must be k by recent events in this renowned University. The ng half of the last century must always remain a land- in the intellectual progress of our race, for during these there was a new departure, which was to issue in what carcely less than a transformation. Until that time in- tual activity here and elsewhere had been largely expended in the field of literature and in the cultivation of general learning. The leaders were poets, pure mathematicians, historians, and great novelists. Then we had our great ecclesiastics, our renowned Parliamentary orators, and our illustrious judges, all as examples of the strength which culture adds to mere intellectual powers; while in the imperishable literature of Greece and Rome was a field which offered ample opportunities for the acquirement of culture in its highest forms, and which afforded also welcome relief and refreshment to many a one who was wearied by the anxieties and worries of life.

But in the years to which I have referred another world was more and more distinctly disclosed, and as it gradually emerged from the nebulous stage and took specific form, every observer felt that a new order of things was being established. The new power which now assumed its sway, which was so profoundly to modify human progress, and under whose beneficent influence events as yet undreamt of and inconceivable, till they stood revealed and established as matters of fact, broke in upon us on every side. And here was the advent of modern science, which like light itself was to be all-pervading and vivifying, promoting, and controlling. It touched everything with creative power; nothing was left unaffected by it.

Now, these two departments of intellectual activity to which I have referred, the *literae humaniores* on the one hand, and modern science on the other, are no natural foes whose interests are opposed, but influences which are intimately related, and destined to travel side by side, yet with a gradual approach, until, blending in closest assimilation and interaction, they shall at length embody the highest developments of human achievement, They are in fact but

> . . parts of one stupendous whole
> Whose body Nature is, and God the soul.

Now, of all human institutions, it was clear that those most closely concerned in these events were the universities, among the foremost of which stood the University of Cambridge; and here, obviously, the new order demanded early recognition and a fostering home. By the new order, I mean the intimate association of modern science with the culture and elevation of the human mind and character which naturally spring from the pursuit of the *literae humaniores*. It is in the just balance between these two departments that true progress lies.

If we glance at this University to-day we cannot fail to see and, seeing, to be unfeignedly satisfied, that this consummation has been safely and in good time achieved. The renown of this great University as, in the words of your statutes, "a place of education, religious learning, and research" is not only as splendid as it has ever been, but it constantly increases.

I have been among you all for so short a time that there are many things of which it would be presumptuous of me to speak. But this much I will say without fear of contradiction. I am perfectly certain that no one who has not looked into the matter for himself can have any idea of the amount of work that is being at present done at Cambridge, or of the activity, the vigour, and the success with which your numerous departments are being developed and maintained. Some may, and I believe do, ignorantly think that the older universities are half asleep: that they are living on their reputation and droning away their time.

A short residence here has completely demonstrated the fact to me—of which I must own I was not previously quite fully aware—that the amount of work which is done in many of your departments is constantly so heavy and exacting as to tax the endurance of strong and determined men. Idlers no doubt there are, but they are few in number and opposed to the spirit which pervades your university life. On the scientific side we find that almost every department is assiduously followed, from astronomy—in which your distinguished Professor and delightful exponent, Sir Robert Ball, is confronted with distances which even he cannot always quite accurately measure, and with periods of time in which millions of years appear more brief than fly ephemeral which has its day, down to those sections of pathology which are concerned with a study of objects so minute that their presence is revealed only by the most elaborate methods of research. These two blood relations—learning, which is power and comeliness; and science, which in the keen competition of our daily life will with many henceforth mean daily bread—must work heartily together for mutual support and progress.

Now the development—on the science side of the University—of your medical school was largely due in its inception and

early progress to my predecessor in this Chair, Sir George Humphry. Later on several of his colleagues who shared his views, and notably among these was Sir Michael Foster, worked heartily with him. Sir George Humphry was well suited for this new departure, which was to reach such important developments. He was a man whose cast of mind was essentially scientific. He constantly worked as if he wanted to know; and with this natural mental attitude he combined sleepless perseverance and quite remarkable shrewdness. He would take nothing for granted, especially statements made by other people. Discussion, even controversy, he dearly loved. He was the best I have ever known at holding his own, and that not only with the keenest tenacity, but with an ingenuity of resource which must in some cases have provoked his opponent to protest

> An' I thought he had been so cunning in fence
> I'd have seen him damn'd ere I'd have challeng'd him.

Now here are the elements of which men who achieve great results are made. Imagination, or in other words the power of conception, as, for example, the power by which Cecil Rhodes conceived great imperial ideas, the mental endowments necessary for the work in hand, and the abiding tenacity which ignores all opposition and goes on steadily, even, I had almost said, stealthily, upon its way. We used to watch Humphry not only with interest, but with amusement, and think that his biography was summed up in the words of a popular advertisement, "He won't be happy till he gets it." For my own part, I felt that had he been a soldier instead of a professor he would have left his mark on the history of his country. As a teacher, I have never met his superior, and in teaching I have myself constantly tried to copy him. As to his personality, two separate estimates were formed. Those who did not know him did not like him. They did not understand his attitude of caution. They could not get him out of his shell. They were conscious that they did not know what he was at, or what he would do next. Those, however, who were his intimates, and who knew him well, found him friendly, warm-hearted, and genial, and as an intellectual companion in a quite rare degree interesting and entertaining. Yet he was always Humphry, and at his best when he was discussing some question in surgery or pathology with some one who he thought might throw some light upon it, but in whose harness he was determined, if possible, to find a weak spot. You will not, I think, Mr. Vice-Chancellor, be surprised that I have availed myself of this opportunity of alluding to him as one whose memory will long be kept green amongst us. To follow such a man, who grounded his claims to be remembered not only on the character of his work, but on the long period during which he was a conspicuous figure amongst you, is so difficult that any success that is possible to me can only be very limited. It can be only *longo intervallo*. But it shall be as far from failure as my most strenuous efforts can remove it.

As I have but recently come among you as the representative of a not unimportant department in the field alike of science and of art, for in both surgery now holds an established place, you may expect me, speaking to an audience which includes a considerable lay element, to say something of surgery not as surgeons study it, but as a subject in which the public must feel a keen and increasing interest, seeing that every advance which is achieved is an event which in case of illness or accident, which, however, may Heaven avert, might by any one be found a valuable personal asset. I will venture to say that the changes which have taken place in surgery in recent years are as great as those which have revolutionized so many other departments of human energy. Views which were but lately universally held have been completely and for all time swept away, and discoveries have been made which have fundamentally altered our conceptions, and enabled us to establish new principles, and to elaborate new methods of procedure. These results have been mainly due to the work of Pasteur and Lister—work which must last as long as the discovery of the circulation of the blood by Harvey, or of the principle of the steam engine by Watts.

Before their time the surgeon was met at every turn by blood poisoning in the form of erysipelas or some of its allies, and these complications were so certain to attack even small wounds that there were many operations which, warned by bitter experience, no one ventured to perform. And there were many parts of the body (for instance, the organs within the abdomen) which it was believed were so intolerant of interference that any operation would be attended by almost necessarily fatal results. Thus, while many operations we never attempted, even minor operations were frequent followed by the death of the patient.

The new starting point consisted in the discovery Pasteur that many diseases in the vegetable and anim kingdoms are due to the action of minute organisr or *bacteria*. The next step was the application Pasteur's discovery to surgery by Lister, who co menced investigations into the use of substances by whi these harmful micro-organisms, these bacteria, might excluded or destroyed. I have heard him describe l first experiences. He found that when he used carbolic a in a case in which he had opened a large abscess, the behavic of the wound and the subsequent progress of the patient w absolutely different from what had hitherto been observe He found also that wounds which before had taken six wee to heal now healed soundly within a week, or, as the techni expression is, by first intention; and that whereas previou inflammation had occurred and a large discharge of mat had taken place, attended with fever, or with some danger form of erysipelas, or even mortification, now there was inflammation, no matter was formed, no fever was dev oped, and recovery was rapid and entirely without compli tion. Can we not all understand Lister's astonishment a the delight with which these results were contemplated? course he was at first regarded as a visionary, some ev thought him scarcely honest, so great was the difficulty believing what he declared his experience to have be Surgeons who pinned their faith to established authority, a whose minds had passed their plastic stage, would have n of it. Men, however, who were younger, and whose mi were receptive and untrammelled by stereotyped impressio hailed Lister's announcement with enthusiasm, and at o set to work to enlarge his observations and improve upon first attempts. But his glory must always be that he set t great stone rolling. He demonstrated the main fact as to part played in surgical cases by micro-organisms in the p duction of disease. Following his lead, his disciples s spread themselves over the whole field of surgery, and c stantly established new records of success. To paraph Goldsmith, one may say:

> And still they worked, and still the wonder grew,
> Lister was right, and everything was new.

The thirty years that have elapsed have been years revelation and advance in every direction. While the fu mental principle is the same, methods of procedure h undergone rapid development. Many agents have b ascertained to be efficient in dealing with these mi organisms. First there is cleanliness secured by soap water, while carbolic acid and mercury in dilute solut are the substances most commonly, but by no means clusively, employed in their destruction. These are usec the patient's skin and for the hands of the surgeon and assistants and the nurses, while all instruments are prep by so simple a method as boiling. Thus the patient, surgeon, and his instruments are all protected, and the op tion is rendered, as the term is, aseptic. The general re have far transcended the most sanguine expectations. It been gradually disclosed to us that there is no organ where in the body which is not amenable to operatio part which is so constituted or endowed that it cannot, u the aseptic method, be treated by surgical interfer Whereas in the olden times no surgeon dreamt of opera on the abdominal organs, every one of them is now ope upon with a degree of success which steadily increases a perience accumulates and methods of procedure are perfe Whereas to operate on a nerve was supposed to produce jaw, nerves are now, if they have been divided and the they supply are paralysed, sewn together as a sailor w join a rope. If a part of a principal nerve has been destr the lost piece can be replaced by the spinal cord of a r with the result that complete recovery may take place. haps the most astonishing thing of all is that there been several cases in which patients have recovered wounds of the heart which have been sewn up.

The study of anatomy has now reached so advanced a that those who are to be operating surgeons are able to p for their future work by making themselves intim acquainted not only with the structures of the body and minute particulars concerning their component parts in usual formation and relations, but with the deviation the normal which, when complicated operations have

formed, might, if unknown, lead to failure or serious diffi-ty.

he safety with which surgical operations can now be per-ned has added greatly to our resources in another direc-i. There are numerous cases the exact nature of which it mpossible to ascertain by mere external examination. To e sure of the precise condition nothing less than direct estigation will suffice. As matters at present stand, the uired information can be obtained by what is called an loratory operation, during which the part concerned can fully examined, so that the surgeon may know not only t can be done, but the exact manner in which it should be ied out.

very important result of this development of surgery has n to produce a kind of secondary revolution in the prac-of medicine, for the only remedy in numerous cases ch are termed medical consists in mechanical interference other words, in a surgical operation. In many forms of grave condition, peritonitis, in many forms of malignant ease of the stomach and intestines, in gall stones and nes of the kidney, in some diseases of the brain, in alysis depending on growths which press upon the spinal d, in perforation of ulcers of the small intestine in the rse of enteric fever, and in numerous other instances, the geon can render the physician indispensable assistance.

gain, it has been found that many of the most dangerous atal diseases met with in surgery are in their simpler ns comparatively mild and easily treated. It is only n they are complicated by the action of bacteria, that is, n infection occurs, that they assume a grave character. is there are forms of mortification which, if the part cked can be kept free from the influence of bacteria, in er words, if the aseptic condition can be maintained, ain confined almost entirely to the part originally olved, aud they do not disturb the general health. But uld bacteria be allowed to enter upon the scene the whole ect of the case is forthwith changed. The process of tification becomes active and rapidly extends; the life ill the blood is touched corruptibly, fever is developed, frequently in a few days a fatal result is reached.

urthermore, the revealing light which was thrown on the l of pathology by the discovery of Pasteur has enabled ervers to discern the fact that many dread diseases—for ance, tetanus or lockjaw—are due entirely to infection by articular micro-organism. Let such infection be pre-ted and these diseases disappear from among men.

very remarkable event in the chain of progress was the iovery of anaesthetics or of those agents by which con-cusness can be completely and safely suspended while rations are being performed. Here was the realization of eam which poets and philosophers had dreamt for cen-es. It took place in 1846, and was the work of an American tist of the name of Morton. The agent he employed was er. Shortly afterwards, Simpson of Edinburgh discovered roform. Since those early days the subject has, of course, n carefully investigated, and at the present time several its are regularly employed, either alone or in combina-, in such a way that the peculiarities and susceptibilities different patients may be met with the least amount of er and subsequent discomfort. These agents are in so h demand, for example, at St. Bartholomew's Hospital—nce I have lately emigrated—that no less than four anaes-hists are occupied exclusively in giving them. Last year ards of 8,000 administrations took place in that institu-. Under the system which has now been established and kilful hands, the administration of these various agents is ee from risk that accidents scarcely ever occur. And to ide as far as possible for the safety of the public every ent at the hospital attends compulsory lectures and ses on the subject, and himself, of course under the t careful supervision, gives anaesthetics to from thirty ighty cases. Similar arrangements are in vogue at all other hospitals. At the present time every surgical ation which entails more than slight and momentary ring, whether it be the removal of a firm tooth or one of most formidable and critical operations, anaesthetics are n as a matter of course, as they are also in the numerous inations that are called for, especially in those in which necessary that the muscles should be all relaxed. Surely discovery of anaesthetics was one of the most priceless that have ever been conferred on the human race, par-arly as it was made before the dawn of the new surgery, ithout it obviously surgery in its recent developments d have remained an impossibility.

And now, Mr. Vice-Chancellor, while heartily thanking you for having spared time to pay me the honour of your presence to-day, and for many acts of courtesy and kindness which I have already received at your hands since I assumed my office under your jurisdiction, I will conclude by quoting words which were recently used by the Master of Trinity, and which appear to me to embody grand and exalted conceptions, and to be instinct with noble eloquence:

"Let us all, if we can, agree in this....that the noblest function of this ancient Mother of all is to be a source of light, to cherish and diffuse what has been revealed already; to believe and hope that there is always more on its way; to search the heavens for it before it has shone; to hail it with joy when at last it dawns; to diffuse it also without reserve to all; and, finally, to own with humblest reverence at each glorious discovery,

"Not unto us, O Lord, not unto us, but to Thy Name give the praise."

An Address

ON

THE WORK AND PURPOSE OF THE ROYAL ARMY MEDICAL COLLEGE.

Delivered at the Opening of its Eighty-eighth Session.

BY SIR WILLIAM TAYLOR, K.C.B.,
Director-General, Army Medical Staff.

GENTLEMEN,—It is a great pleasure to me to welcome you here to-day on the threshold of your life as army medical officers. My welcome is sincere and honest, for I feel assured that, in the selection you have made of a career, you have chosen wisely.

It is fitting, too, that your career in the army should begin in this College, for here, I believe, you will find that, though qualified to practise medicine, your education is not yet complete, but you have yet to be instructed in certain special branches of professional knowledge with a view to your being the better equipped for your military medical career, and which you might never have found it necessary to take up had you remained in civil life. Though you are now, each one of you, legally qualified to practise your profession in civil life—are fully equipped for such practice—there are still subjects you must master before you can be considered, or can consider yourselves, able to take up the varied and multifarious responsibilities of an officer of the Royal Army Medical Corps.

You are further to be congratulated on the fact that you are now enabled to study these other subjects here, in London, one of the greatest centres of instruction in matters bearing on medicine, surgery, and hygiene.

THE HISTORY OF THE ROYAL ARMY MEDICAL SCHOOL.

The recommendations of Mr. Brodrick's Reorganization Committee have, through the labours of the officers of the headquarters of the Army Medical Service and of the Advisory Board, been brought to a successful issue. You should know that a special Subcommittee of the Reorganization Committee dealt, in a somewhat exhaustive manner, with the details of a college scheme; and further experience of the methods which have been in operation for the early and advanced courses of study for army medical officers has enabled the Advisory Board to put forward proposals of a comprehensive nature.

The course of post-commission study, now happily provided for and established, renders the establishment of a military-medical teaching institution in the metropolis essential, and the location of the College in London entails the attendance of junior officers there.

It is unnecessary to enter fully into a consideration of all the conditions which the College is designed to meet, but it appears plain that the effects upon the efficiency of the medical services of the country should be valuable. It goes without saying that the closer the union between the civil and military members of the medical profession (and in the latter I include the auxiliary medical services) the better for the State and for the Royal Army Medical Corps. For it is not the least of the objects sought to be gained by the College that it should become a centre towards which, for imperial purposes, the

medical profession at home and in the Colonies, the regular and auxiliary military medical services, should converge. It is not now a question as to how far the Royal Army Medical Corps is alone prepared to undertake the responsible duties which devolve upon its officers in time of war. If the military efficiency of the country is held to depend largely upon the military education and training of the civil population, it is assuredly true that the medical profession is equally deeply concerned with military medical problems. While, therefore, the primary object of the foundation of this College is to provide for the more efficient training, elementary and advanced, of the military medical officer, it will be possible to adapt the school to the requirements of the profession generally, and of the auxiliary forces, by means of lectures, exhibits, etc.; in other words, by the formation of a Military Medical Institute. This College, then, should have far-reaching results, beneficial alike to the civil and military medical professions.

Time will not permit me to give a complete history of army medical education. The earliest official recognition of specialized study for military medical officers on any important scale is associated with the revered name of Lord Herbert of Lea, who instituted the Army Medical School in connexion with the Royal Victoria Hospital at Netley.

The records of the Senate of the Army Medical School at Fort Pitt, Chatham, show unquestionably that the contemplated removal of the school so far from London as Southampton, was received with regret. The professors and the senate appear to have recognized the difficulties, inconveniences, and hindrances likely to arise from a position of isolation, and favoured the alternative proposal of setting up the school in connexion with the then recently-established Herbert Hospital at Woolwich. In support of this they urged

> its proximity to London and the offices of army administration, particularly that of the head of the department, of the great hospitals, medical schools, and learned societies, and the facilities its nearness to these great fountains of medical knowledge afford for profitable intercourse, as well as for receiving visits of professional foreigners of distinction, who have already evinced a desire to reciprocate benefits to profit by what the professors have to show and to aid them in return.

We may be certain that Professor Parkes, who signed a document in which these words occur, exerted a potent influence in the expression of views which have now been independently adopted by the Secretary of State.

Since the days of Lord Herbert, the organization of the medical department of the army has undergone remarkable changes. It may be maintained that the efforts of its officers have been mainly directed to improvement in the military position; but it should always be remembered that the principle of autonomy has been a fundamental one in the minds of those who have been responsible for the direction of events. It is quite clear that Mr. Sidney Herbert was impressed with the importance of the development of the military medical service in both the military and professional senses. It is. at any rate, certain that when the history of the Medical Corps comes to be written it will be abundantly clear that at least one of the professional advisers of the Secretary of State of the day held views regarding administration in war which must have profoundly impressed that statesman. Some of the letters of Mr. (afterwards Sir Thomas) Longmore, written from the Crimea, clearly indicate the position which powerfully influenced all the subsequent events. The enthusiasm which, under the influence of Parkes, Longmore, and Maclean, became the predominant feature of the early years of the school of Sidney Herbert, cannot be said to have been extinguished in the struggle for autonomy which followed. But it was hidden. Meanwhile, the influence of the professors was enormous. Charged with the success of the first attempt at education in hygiene and tropical medicine ever made in this country, their disciples imbibed something of their spirit. The school came subsequently to be described by American army surgeons as "the Mecca to which the thoughts of army surgeons all over the world were directed."

HYGIENE IN THE ARMY.

That we may clearly understand the gradual development of the importance of preventive medicine—hygiene—in the army, let us go back to a much earlier period than that of the Crimean war.

Sir James McGrigor, shortly after his appointment as Director General of the Army Medical Department in 1814, organized a system of returns and reports, which may be regarded as the foundation of the first systematic attempt to control the sickness and mortality prevailing in the army. In 1835 Mr. H. Marshall, Deputy Inspector-General of Hospitals, and Lieutenant Tulloch, 46th Regiment (afterward Major-General Sir A. M. Tulloch, K.C.B.), were associated i preparing a report on the sickness and mortality of the troop serving in the West Indies. In the following year Dr. T Graham Balfour, M.D., F.R.S., replaced Mr. Marshall, an the inquiry was extended to other Colonies. The reports pr pared by these officers were published in four volumes, an to these reports may be given the credit of first seriousl attracting the attention of the military authorities to the fac that many of the agencies which exercised an adverse effe on the health of the soldier were under control and could b removed or ameliorated. In 1848 a second series of repor was prepared by the same officers, embracing a further perio of ten years. As the result of the Crimean war, a Roy Commission was appointed in 1857 to inquire into the regul tions affecting the sanitary condition of the army, of whic Commission the Right Honourable Sidney Herbert w president and Dr. Graham Balfour secretary, and two of th practical outcomes of the Commission were the establishme of the Army Medical School and of the Statistical Branch the Army Medical Department.

Since then the subject of preventive medicine has alwa occupied a foremost position in schemes of military medic education, and in this regard it is of interest to note that t Herbert Commission gave expression to the following views

> The medical officer should, therefore, not only be thoroughly co versant with sanitary science, but with the mode of its application the preservation of health under every possible variety of circu stances and character.

It may be fairly claimed that the foundation of the Ar Medical School was the very beginning of systematic teac ing of sanitary science in this country. The Army Medi School may well be proud of the world-wide fame which first Professor of Military Hygiene earned for himself. Amo the many reputations as hygienists which have since be earned there is no name so illustrious as that of Profes Parkes. The history of sanitation in England is the hist of army sanitation, and Parkes has justly been called "Father of Hygiene." To him belongs the credit of hav laid the foundation of that rapid advancement of knowledge of the laws of health which has placed t country in the forefront of the nations of the world as rega sanitary progress. Parkes's *Practical Hygiene* for years mained the standard textbook, and while, to keep progr with the times, it has had to be added to and to a large ext rewritten, the book, though no longer bearing the well kn name, is still one of the leading treatises on the subj Apart from its influence upon the spread of sanit knowledge throughout the world, the teaching of Parkes h excellent fruit among the many army medical officers w had the great privilege of being his students, and it ha that way contributed in an immeasurable degree to enormous improvement which has taken place in the sani surroundings of the soldier since the days of the Crim war.

Professor Parkes was succeeded in the Chair of Mili Hygiene by the late Surgeon-Major F. S. F. de Chaum F.R.S., a man who also did much to advance the progre sanitary knowledge. Professor de Chaumont was a lea authority on hygiene, and perhaps his best known orig work is that connected with the ventilation of barracks his dietetic researches. He was a man of wide cultu capable linguist, and an able mathematician. He ed several editions of Parkes's classical work, and was the au of many papers on sanitary and scientific subjects.

The next incumbent of the Chair was Colonel Lane No also well known in the world of hygiene, and a frequent tributor to the literature of his special subject. The pre Professor of Military Hygiene, Lieutenant-Colonel R Firth, has already made a name for himself in sanitary sci He has written much and well on sanitary and me subjects. His best recent original researches have be study of the pathology of dysentery, and an inquiry int influence of soil, fabrics, and flies in the disseminati enteric infection, a valuable piece of work don association with Major Horrocks, who was at the Assistant Professor of Military Hygiene. Major Horro also well known as an authority on the bacteriol examination of water, and is the author of the most com monograph on that subject which has as yet appeared Lieutenant-Colonel A. M. Davies we have another authority on hygienic questions. He was Assistant fessor in the Army Medical School in Professor de Chaun time, and for a year discharged the duties of prof

Afterwards, as sanitary adviser at army headquarters in India, he did most excellent service in furtherance of sanitary progress in that country. Improved sanitary conditions in many Indian cantonments have resulted from his labours, but perhaps his best work in India was in connexion with the provision of pure water supplies to many stations. He is the author of a most excellent book on hygiene, and he now holds the appointment of sanitary expert on the Advisory Board at headquarters.

Amongst men who have had no connexion with the teaching staff of the school, but who have taken a leading share in the advancement of military hygiene, many names might be mentioned: Massy, Home, Marston, Ker Innes, Welch, and Martin are perhaps the best known. Of the recent men, Macpherson, keen, enthusiastic and thorough, should receive special notice. He was sent on special duty to South Africa to report and advise on sanitary matters connected with the South African garrisons.

Since the institution of the medical school every medical officer entering the Army Medical Service has had a careful training in hygiene to fit him to deal with the numerous sanitary questions which he is sure to encounter in the performance of his ordinary duties, under very varying conditions.

Prevention of disease is a most important part of his daily work—I had almost said the most important part. The result is that a very large amount of quiet unostentatious sanitary work is being done by army medical officers in all parts of the world, and there can be no doubt that the greater part of the amelioration in health conditions, in stations which were formerly unhealthy; and the improvements which have resulted in connexion with the housing, clothing, and feeding of soldiers, and the removal of causes of preventable diseases, have been due to well-directed efforts, born of the knowledge imparted to every officer of the service during his course at the Army Medical School. The good work which has been done has well sustained the great reputation of the school, and that is the best augury for the future. With well-equipped laboratories in the new Royal Army Medical College we need never fear that we are likely to be outstripped in the race of progress, and we look forward confidently to the army medical officer being kept abreast of the times, nay, leading them as far as sanitary knowledge is concerned.

I have learnt to look upon a low sick-rate as the sign that the officer in medical charge of the troops has been doing his duty to them and to the State; that he has been spending his time with intelligent observation in the lines, that he has been seeing to the soldiers' surroundings, has been interesting himself in their personal habits, and so by tact and sympathy gaining the confidence of the men, the sure, the only way of acquiring that influence with them which will enable him to give advice which will be listened to and acted upon.

You will sometimes hear it said that the army doctor has little to do. Let not that disturb you; you will find from experience that it is otherwise. Work on unceasingly, work earnestly with might and main at prevention, which is better than cure; strive unremittingly to teach every soldier under your care how to avoid the little ailments of daily life, as well as how to safeguard himself, as far as it is possible to do so, against those more serious and more dangerous diseases to which he is specially exposed. It is also said that his practical experience is confined to treating the diseases of early manhood, and that this limitation of practice leads to stagnation of effort and to blunting of mental acuteness and judgement. Believe me, there is nothing further from the truth. No army medical officer need let his knowledge rust; his opportunities for keeping himself abreast of the knowledge of the times are as good, and I think even better, than those of the doctor in civil practice. There is abundance and variety of clinical work to be found in our army hospitals. The field of the army surgeon is world-wide, and in the domain of tropical medicine he will find a field for observation and research that affords opportunities for practice and progress that no other section of our profession possesses.

Pathological Work in the Army.

Results not less important than those which have resulted from the teaching of hygiene have followed the pathological teaching at Netley. Consider the history of that interesting and most important disease, Malta or Mediterranean fever, interesting and important from a military and naval as well as a civil point of view.

The true nature of this fever was unknown until the year 1886. Up to that time it was thought by some to be enteric fever, by others to be remittent fever, and by others still to be a combination of these two fevers, and called by them typho-malarial.

In September, 1887, one of our officers—now Colonel Bruce, F.R.S.—wrote a paper announcing his discovery of the micrococcus melitensis, showing that this bacterium is the specific cause of the disease, and he separated Malta fever definitely from enteric and malarial fevers. The next point in its history was to overcome the difficulty of diagnosing the disease during life. That difficulty was overcome by Professor A. E. Wright and his assistants in the Army Medical School, who discovered the blood test for the fever. The incubation period was also made out there, once by Professor Wright, who knowingly inoculated himself, and on other occasions through the accidental inoculation of other members of the staff. Our knowledge of its geographical distribution was much extended by officers of the Royal Army Medical Corps; and here I may quote from a paper by the late Professor of Pathology in the Army Medical School:

> By the application of the blood test to patients invalided from abroad, it was determined that Malta fever existed in certain stations in Northern India. These results were confirmed and extended by other observers abroad and in India, with the result that the disease is now known to occur all over the Mediterranean basin, in Northern, Central, and Southern India, and in Hong Kong and South Africa.
>
> Quite recently the medical officers of the American army have described the occurrence of the disease in Puerto Rico, in the Philippines, and in certain other of the Pacific Islands.

There is still much to be done in the elucidation of this fever, and we are looking anxiously to our officers stationed at Gibraltar and Malta to tell us how the disease is conveyed from the sick to the healthy; whether by water, food, inhalation, inoculation, or by means of an insect carrier; how the micrococcus leaves the body, how it behaves outside the body, and many other points of great interest and utility in framing measures of prevention.

It would appear then that officers of the Royal Army Medical Corps have done their share in the investigation of this disease, and in this alone the establishment of this school appears to be justified.

Let us now turn to another most important army disease—enteric fever. The principal work done in the Army Medical School during the past few years in relation to this disease has been the attempt to modify its ravages by antityphoid inoculation. The prevention of enteric is one of the most momentous questions of the day in army sanitation. War would lose half its terrors if this disease could be kept within bounds. We know what an immense amount of work has been done by Royal Army Medical Corps officers under the guidance of Professor Wright, and, if the results are still under discussion, many are of opinion that it is on the lines pointed out by him that final success will be attained. For the careful consideration of the subject a subcommittee of the Advisory Board has been formed, and Lieutenant Smallman, R.A.M.C., is devoting himself to experimental research on this subject at the Lister Institute.

Time will not permit me to take up the closely allied disease, dysentery; but much of the recent work on this disease has been done by our officers, among whom I may mention Birt, Bruce, Firth, and Horrocks.

Leaving the bacterial diseases, the history of a disease which is much in evidence at present, trypanosomiasis, is of interest in connexion with this subject.

This branch of tropical medicine has its origin in the discovery by Surgeon-Major T. Lewis, F.R.S., of a flagellate in the blood of rats, which was afterwards named "trypanosoma lewisi." That officer, trained at Netley, was one of the best types of scientific men. At the time of his death it was written of him that "he was gradually becoming a very centre of scientific influence and a source of inspiration for earnest work as a teacher and of genuine research in the Army Medical School in his position as Assistant Professor of Pathology. He was, indeed, one of those men "who go on working for Truth's sake," and he imbued the minds of those he taught with the same keen love of work. The life-history of such a man and the work he did is worthy of more than a passing notice for the example it teaches, as pursuing a lofty ideal. He died at the early age of 44, almost before the scientific medical world knew what it possessed in his life.

> Sunk like an Argosy scarce left the shore;
> And the boundless depths of ocean hold
> Pearl, and diamond and gleaming gold,
> Lost to the use of man for evermore.

The next step in the trypanosome problem was made by

Evans, who found similar flagellate organisms in the blood of horses suffering from surra.

The third step was the discovery, also made by one of our officers, Colonel Bruce, that tsetse fly disease was due to the presence in the blood of a trypanosoma, and that the fly merely acted as a carrier of the parasite from the affected to the healthy animals.

And, finally, the last addition to our knowledge of this class of diseases has been again made by the same R.A.M.C. officer, who within the last few months has discovered that the sleeping sickness of Western and Central Africa is nothing more or less than a human tsetse fly disease.

In another great group of diseases, namely, filariasis, the pioneer work was again done by Surgeon-Major Lewis, who discovered and described the filaria sanguinis hominis, from which discovery most of our work on this group of diseases has dated, and there can be no doubt that his papers are the most masterly disquisitions on the subject of filariasis that have appeared in this or any other language.

To come to the present day, one of the most interesting discoveries of recent times in the etiology of human disease was made a few months ago by your Professor of Pathology, Major Leishman. As the result of the examination of microscopical preparations of a spleen from a case of what has been known locally as Dum-Dum fever, he came to the conclusion that the disease was not malaria, but was caused by another kind of protozoal parasite. When we think of the difficulty of differentiating the various appearances seen in the splenic pulp, we must heartily congratulate Major Leishman on the keen observation and acumen which enabled him to detect these infinitely minute bodies. He wrote an excellent paper describing what are now known as Leishman's bodies, and this has led to work being done on the subject by Donovan, Laveran, and Ross, which goes to show that the discovery is a notable one. The generic name *Leishmania* has been proposed for the parasite, and Major Leishman has every reason to feel satisfied in having done such a fine bit of observation.

To recapitulate the work done by medical officers trained in this school would almost be to write the history of tropical medicine, and so I will close this cursory account of their attainments by mentioning to you the name of Major Ronald Ross, F.R.S., the discoverer of the etiology of malaria, who received his training in hygiene and pathology in our school.

Conclusion.

Gentlemen, the Army Medical Service has every reason to be proud of the work done by such of its officers as those I have named, and it holds them in honour, not only for the work they have done, but also for the bright example they have given and are still giving to all who would do well.

If the record of the army medical officer in the domains of general medicine and surgery are not so brilliant it is partly because the isolation of the school hitherto from the great civil schools rendered any plan of advanced teaching in these subjects impossible, and perhaps more because he had no channel through which to let his work be known. It is now recognized that the closest connexion between the leading institutions and the College must be maintained to ensure effective education. We in the army have held that this connexion will have effects upon the medical profession of Imperial importance, and we cannot doubt that far-reaching consequences will follow that long-desired combination of the civil and military medical professions, not only for teaching purposes, but for the serious study of the adaptation of the science and art of medicine to the science and art of war.

Just one word more. It may seem disheartening to you who have just finished your course of study and qualified that you should have to begin your career in the army by going to school again. Gentlemen, we all, each and every one of us, remain at school every day of our lives, either as diligent and attentive learners, or as idlers, not listening; the demonstrations and experiments continue to be made before our eyes if we are intelligent and attentive enough to see them. Life to those of us who would do well, who would succeed, and who would leave "behind us footprints in the sands of time," means work, constant work, for our own happiness and for the general good.

> Know'st thou yesterday, its aim and reason?
> Workst thou well to-day for worthy things?
> Then calmly wait to-morrow's hidden season,
> And fear not thou what hap so e'er it brings.

Believe me, gentlemen, you will find the greatest happiness in constant, earnest work for the benefit of your fellow-men, and will sooner or later realize—

> That he is bravest, happiest, best,
> Who from the task within his span
> Earns for himself his evening rest,
> And an increase of good for man.

The Lettsomian Lectures
on
ASEPTIC SURGERY IN THEORY AND PRACTICE.

Delivered before the Medical Society of London

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Lecture I.—Introductory.

I thank the President and Council of the Medical Society of London for the honour they have done me in inviting me to deliver the Lettsomian Lectures. I propose to try and justify this choice by lecturing upon a subject which must be of interest to every one of the Fellows, whatever line of practice he may pursue.

And, at the outset, it is desirable to say how I intend to proceed. As a matter of fact these lectures will be on the same lines, and a continuation of, the reports on aseptic surgery which I have published at intervals since 1890.[1] It might be thought that little was left to be said upon such a well-worn topic. But every one knows that although all surgeons aim at asepsis, they endeavour to attain that end by many different and ever-changing methods. Some of these methods I have tested, and you will hear the results. I shall also try to tell you what has been the result of my own methods of treating wounds. To render this of value it will be necessary to lay emphasis upon the unsuccessful cases, and especially upon the circumstances which led to failure. I will not insult your intelligence by talking as though I operate upon the immortals, who die not, nor suppurate. All operators must have a certain percentage of sepsis. When sepsis occurs the cause is to be sought for in the patient, in the environments, in the methods, in the application of the methods. It is instructive to the philosophical mind to contemplate the relative importance which is attached to one or other of these sources of failure. I have heard a surgeon vehemently maintain that, when a wound suppurated, the patient was at fault. I have heard another ask whether there was not a deal of suppuration about, as though it were a kind of epidemic. The surgical egotist never admits the possibility of failure either in his methods or in their application. As a matter of fact the fault may lie in the patient, in the environments, in the methods, or in their application. If we possessed definite scientific information, there could be no room for differences of opinion, and it is singular that better scientific information is not forthcoming. The research is difficult and surrounded with fallacies. But what an advantage it would be if, when sepsis occurred, we knew the exact state of the patient, the bacteriological conditions of the wound, of the atmosphere, of the operating theatres; the cubic capacity of the ward, and the condition of the air in it, the purity of the materials and appliances, and, lastly, the methods of the operator. Most of our great hospitals now possess well equipped bacteriological laboratories and skilled bacteriologists, so that some at least of the difficulties have vanished. In a very humble and inadequate way I will endeavour to deal with some of these questions using, as I proceed, the clinical and bacteriological material which is at my disposal, though I am fully conscious of the crudeness of the attempt.

It is strange that we should be obliged to begin with a definition of the term "aseptic." But whoever reads the medical papers with reasonable diligence will agree that the need exists.[2] Of course I am aware that there can be no agreement in the definition of general terms. But on this question the disputants are divided into two camps. In one are those who would apply the term aseptic to the *methods* they employ, and in the other are those who apply it to the *end* they achieve. Let us consider the position of those who apply the term aseptic to the methods. They begin by assuming that chemicals are harmful, and therefore endeavour to do without their help. Everything brought in

contact with the wound is sterilized by heat; heat-sterilized salt solution is used as a lotion; heat-sterilized cotton swabs are used for sponges; and a heat-sterilized cotton dressing is applied to the wound. I am at a loss to know how this type of surgeon sterilizes his hands, or the patient's skin, because if he uses the harmful chemical he ceases to be consistent, and becomes what I suppose would be called an antiseptic surgeon. One who writes somewhat vauntingly about his so-called aseptic surgery nevertheless uses strong chemicals for his ligatures; and, furthermore, transfers the ligatures straight from the chemical into the wound.

The other school is consistent, for it applies the word aseptic to the end and not to the means. To gain the end both heat and chemicals are utilized. Perhaps in the future science may provide some method of sterilization as yet undreamed of. This school, to which I belong, will apply it to the end in view—sterility—and continue to speak of aseptic surgery. Should the other school use the new discovery they will have to invent some new name for their new method. We are, perhaps, living too near the great revolution in surgery to be able to take a dispassionate view of the question. The voices of those who threw doubt upon the teaching of Lord Lister may still be ringing in our ears. But, assuredly, in the future it will be assumed, as a matter of course, that all surgery is aseptic: and then surgeons will cease to speak of "aseptic surgery" or of "antiseptic surgery" as though wishing to imply that they alone dealt in a special brand of superior excellence. But even in that golden age it may be that, after suitable tests, the ultimate result will be called septic or aseptic. For even then sepsis will sometimes occur. All the bacteria will not have died of senile decay.

It may be readily granted that ideal perfection would be reached if asepsis could be attained without the use of chemicals. Nay, I will go further and say, as I have often said before, that the more efficaciously heat is used to sterilize instruments, lotions, materials, and dressings so much the more can we dispense with the use of chemicals. It is, however, difficult to conceive how they can ever be dispensed with in the disinfection of the skin. To sterilize on a large scale the lotions, sponges, materials, and dressings entails an elaborate equipment and organization. A special scheme of architecture and system of ventilation are required merely to improve the atmosphere. A reasonable outlay is justifiable to attain these ends. Asepsis must be easier to attain under such conditions, and the proportion of sepsis ought theoretically to be less.

In this country several elaborate and expensive installations have been started with these ends in view. It will be most instructive to have detailed reports of the results. These reports should not be based upon opinion, but should tell us exactly what proportion of sterility was obtained.

The atmosphere with its swarms of bacteria must of necessity vitiate the results of the consistent aseptician. Reluctant to bring chemicals into contact with wounds, he is compelled to strive for a germless air. If it were found that the attempt was successful, then the elaborate and expensive precautions would be fully justified. But what if the air showers bacteria into wounds unprotected by either antiseptic or disinfectant? Are we now to put our trust in the assumed harmlessness of atmospheric bacteria, or are we to confide in the germ-killing powers of the tissues and fluids of the body? Obviously no combination of glass, brass, and marble can ensure a germless atmosphere. So what provision does the consistent aseptician make for the destruction of atmospheric germs? Surely his aim is to keep out all bacteria, or does he pretend to separate the harmful from the harmless, allowing the latter to enter and keeping the former outside? It is impossible for me to conceive that an open wound is germless. When it is closed some bacteria must be imprisoned in its depths, unless some steps be taken to wash them out or compass their destruction. One would imagine that it were easy to be sure whether a wound was septic or aseptic. But even such a straightforward question is difficult to answer. One observer[3] has tested cases of laparotomy at various stages of the operation. Culture media were inoculated from the wound and from the peritoneum at the beginning, the middle, and the end of the aseptic operation. Bacteria were constantly present. They were most numerous in long operations involving much manipulation. Döderlein opines that most of the bacteria come from the hands and person of the operator, some entering by contact, and some through the air.

It seems to me irrational to make no attempt to get rid of these bacteria, especially when there is a reasonable possibility of washing them out or of killing or attenuating them with dilute chemical solutions. It is true that the wounds which Doederlein tested healed by first intention. But laparotomy wounds are not the most stringent test. The fate of a breast wound in which a haematoma had formed might have been very different. Buried silk sutures, too, might reappear in a mysterious way from these microbe-haunted wounds. To my mind such observations as these are arguments in favour of the rational and moderate use of chemicals.

Pray do not suppose that I wish you to infer that by any use of chemicals all the evils of an infected atmosphere can be overcome. In our cities a large expenditure is justifiable to improve the quality of the air supplied to the wards and operating theatres of our hospitals.

It is so well known that the air of ordinary operating theatres contains bacteria that it is unnecessary to recapitulate the evidence. I should now like to hear what is the condition of the air in those new theatres into which purified air is driven. Perhaps an elaborate bacteriological report has been issued, but, if so, I regret that I have not seen it yet. Such a report would be of great value to those who contemplate the adoption of this system rather than that which relies upon extraction, aided by the occasional introduction of steam.

I wish the results of bacteriological tests could be laid before you in every case, but it has only been practicable to carry them out in hospital practice. Therefore the success or failure of the methods has had to be judged by the way the wound healed. But it will be observed that the slightest amount of suppuration, even of a minute part of a wound or of a stitch, suffices to place it in the septic class. It may be that the sepsis was too slight to injure the result, but that is not the point: the patient ran an unnecessary risk. Some fatal cases of sepsis have very small beginnings.

What constitutes an aseptic case? Our ideal is one in which all the sponges, towels, materials, instruments, skin of the hands, skin of the patient, and the wound itself are all sterile when tested with culture media. This stringent ordeal entirely puts aside the personal idiosyncrasies of the operator. If it were in common use we should not hear of a septic discharge called a little turbid serum, or of such an absurdity as non-purulent pus.

It is our endeavour to have the wound tested with culture media when the dressing is removed. Except when a drain is left in to provide for the oozing of blood, the first dressing is done on the eighth or tenth day. As a rule a piece of one of the skin sutures is dropped into the broth. Hitherto a very minute proportion of wounds have withstood this stringent ordeal. Theoretical perfection is exceedingly hard to attain; but the effort to attain it has a most excellent disciplinary effect. When house-surgeons, dressers, and nurses know that their towels, sponges, dressings, silk, catgut, and skin may at any time undergo the stringent test of culture media, they apply themselves with great earnestness to carry out with exactitude the directions of the surgeon. The surgeon, too, does his best to sterilize his own hands when he knows that their state of sepsis or of asepsis will be accurately revealed. I need hardly add that he will avoid introducing infection into the wound with as much care and accuracy as if he were dealing with culture media; in fact, he ought to remember that he is performing a delicate bacteriological experiment.

To my mind this experiment is rendered fallacious by two things: first, the uncertain disinfection of the skin of the patient, of the surgeon, and of his assistants; and secondly, by the condition of the atmosphere in which he works. It has become too much the fashion to ignore the dangers of aërial infection. Perhaps we shall arrive at an explanation of some of our contradictory results when we have accumulated enough scientific information regarding all the conditions under which operations are performed.

A culture tube of nutrient broth is a very delicate test. If we were working without chemicals it might be absolutely relied upon. No chemical need be introduced with silk, towel, or silkworm gut, for they can be conveyed straight from the sterilizer into the broth. But a certain quantity of antiseptic clings to the bits of skin removed from the fingers of the surgeon and of his assistant and from the margins of the wound, and some clings to the sponge. The catgut probably contains a relatively large quantity. The presence of a minute trace of a diluted chemical does not render the tests absolutely valueless. In spite of its presence a percentage of test objects infects the broth. Being very dilute, and in exceedingly minute quantities, it probably cannot

exert more than a retarding influence upon bacterial growth. Inasmuch as the tubes are incubated for a week at body temperature, there is time for the bacteria to grow in spite of the presence of the minute trace of chemical. For some time we tried to neutralize the biniodide of mercury upon the test object by dipping the bits of skin or of sponge into a solution of ammonium sulphide. There was no increase in the proportion of infected broth, and therefore the unpleasant sulphide was discontinued, I think most will concede that although our present tests may not be perfect, nevertheless they are infinitely better than none at all. At all events, since they have been instituted there has been a marked improvement in results. I am endeavouring to get our bacteriological department to undertake independent and stringent tests of their own. Further, may we not reason thus? If the chemical which clings to the skin prevents the skin from infecting culture media, may it not also prevent the skin from infecting the wound? Surely it is reasonable to suppose that skin saturated with the antiseptic is less likely to infect than skin which is not. Chemicals will kill spores or bacteria in time, but in surgical practice they are used under the most disadvantageous conditions. Sublimate, for instance, is rendered inert by the albumen and salts with which it comes in contact. I am quite sceptical as to the possibility of disinfecting an infected wound. Indeed, it is hard to imagine any one more helpless than a surgeon confronted with a septic wound. He cannot cure, and his best efforts may not alleviate. If the septic wound could with certainty be made aseptic, surgery would have made another vast advance. On the other hand, although we cannot disinfect with chemicals, yet we possess several which, even in extreme dilution, act as antiseptics, and can be relied upon to protect the hands, the wound, the instruments, and materials from aërial infection. I cannot myself observe that the dilute antiseptic solutions have the slightest appreciable malign influence upon the tissues. Therefore it seems to me irrational to leave bacteria within a wound when there is a possibility of washing them out with a weak and harmless chemical solution.

The search for the ideal chemical antiseptic and disinfectant is as arduous as the quest of the Holy Grail. It is easy, as I have said, to find a chemical which, in weak and harmless solutions, acts as an antiseptic, but it is quite another matter to find a chemical disinfectant. The task would be easier if our knowledge of the action of chemicals upon bacteria was more scientific. It is useless to beg the question by saying that the bacteria are poisoned. I confess a deep ignorance as to how a chemical like sublimate kills bacteria. It may, and probably does, enter into chemical combination with the micro-protein. But this cannot be the whole truth, because the quantity of the chemical varies according to the species of bacterium and not according to the quantity. Some species of micrococci are more quickly killed by a given quantity of sublimate than others, and even the age and vigour of the growth may make a difference. We begin to know something about the antiseptic and disinfectant properties of chemicals. Quite a romance might be written about the vicissitudes of some. The experiments of Koch placed sublimate upon the highest pedestal only to be laid low by the experiments of Geppert. Kanthack and Drysdale gave the palm to biniodide of mercury, and said it was twice as strong as sublimate. Andrewes,[4] and Krönig and Paul[5] throw doubt on this and exalt sublimate; but, as a matter of fact, a chemical which is the best in the laboratory is not necessarily the best in surgical practice.

The other day a friend showed me his hands covered with an angry rash. He had been trying a skin disinfectant on the recommendation of a bacteriologist. The disinfectant had, I believe, given wonderful results in the laboratory, but evidently it did not agree with that particular skin. Nevertheless another individual might have found it non-irritating; so much depends upon personal idiosyncrasy. Whilst working with a colleague who used sublimate my own hands were in a continual state of irritation and yet his seemed always to be smooth and comfortable. Now the biniodide of mercury which I habitually use never causes me discomfort and seldom roughens the skin of my hands. Others, owing to some peculiarity, may not have had such a fortunate experience. Again, a chemical which gives bad results in the laboratory may give good ones in surgical practice. Iodoform is one of these. It cannot be called a disinfectant and its antiseptic properties are exceedingly feeble; nevertheless it is of great value in the treatment of wounds about the rectum and for some forms of tuberculous ulceration.

The truth is that different kinds of infection have to be fought with different kinds of chemicals used in different ways. Experience has a great part to play in the choice, and doubtless we have all much to learn. Here are a few examples, selected because they illustrate some sources of infection which are sometimes overlooked.

The importance of using the right chemical disinfectant in the right way is, I think, well shown in the treatment of chronic sepsis of the bladder and urethra. These dangerous forms of sepsis are often overlooked and the strange symptoms they produce are attributed to wrong causes. For instance, an officer was affected with a series of abscesses in the subcutaneous tissues of the face, neck, buttocks, and thighs. The abscesses left discharging sinuses which did not heal. Although the tubercle bacillus was not seen or its presence demonstrated by inoculations the abscesses were attributed to tuberculosis. Whenever a patient has mysterious suppuration the source of infection should be looked for though it may be very difficult to find. In this instance it was discovered by making the patient pass urine into a glass, when numerous flakes of lymph were seen. The bladder could not be disinfected until a stricture of the urethra, about which nothing had hitherto been said, had been divided. Recovery was rapid, complete, and permanent.

When bladder sepsis is overlooked its effects may be attributed to mere abstractions, such as "rheumatism." A gentleman who was supposed to have "gouty arthritis of the ankle" was speedily cured by disinfecting the infected bladder and urethra with nitrate of silver. A lady with "rheumatic arthritis of the knee" was cured and remarkably improved in health after a gynaecological colleague had curetted and disinfected the septic interior of the uterus. Some chemicals can hardly be used on conscious patients because they are so painful even in extreme dilution. This is especially noticeable when they are applied to some of the mucous membranes. For instance, a gentleman's bladder was being disinfected with a solution of nitrate of silver, the strength of which had been gradually increased until it had reached 1 gr. in 1 oz. of distilled water. This could be retained in the bladder for five minutes without much discomfort. One day no nitrate of silver was available, so 4 oz. of 1 in 10,000 solution of sublimate was introduced. The patient immediately complained of intense pain, and was obliged to eject the lotion as quickly as possible.

I have found solutions of hydrogen peroxide far more efficacious than mercurials in the treatment of those horribly fetid appendicular abscesses, and for similar ones about the middle ear. The effects of about three applications of a 5 per cent. solution of hydrogen peroxide were most striking in the case of an elderly lady. A large localized appendicular abscess was opened, with relief of pain and a diminution in the height of the temperature and in the rapidity of the pulse. Two days afterwards the abscess cavity became abominably fetid, with gangrene of the edges of the abdominal wound. The gangrene attacked the muscles more than the skin and fat. The patient became critically ill, with a rapid pulse and heightened temperature. The gangrene was arrested and the fetor removed by two or three applications of a 10 per cent. solution of hydrogen peroxide, and the patient got well. The usual mercurial disinfectant had been used, but without any result.

It is not without interest to note how iodoform has fallen from its high repute. Less than five years ago many of us thought a dusting of iodoform an indispensable part of the dressing of a wound. I myself have quite given iodoform up, and seldom use it except in the form of 10 per cent. iodoform gauze for septic wounds, such as those about the rectum, fetid appendicular abscesses, or those in connexion with middle-ear disease. In such cases as these it seems to be of value but in what way I know not. It is also useful in the treatment of tuberculous ulcers of the skin or mucous membranes.

It is sometimes asserted that the iodoform is decomposed in septic wounds and gives off free iodine, a powerful disinfectant. But I have tested mixtures of putrid pus and iodoform, and also septic wounds, with the delicate starch reaction without seeing a trace of blue discoloration, so that that explanation seems open to doubt. Perhaps iodoform does neutralize ptomaines, but we are still groping in the dark, and obviously must continue to do so until provided with scientific information. There are other reasons for relinquishing the use of iodoform. Some patients object strongly to its peculiar odour, others are very susceptible to its poisonous effects, and speedily begin to smell and taste

it. Occasionally iodoform causes acute local inflammation. A lady had several operations performed upon her face after a severe horse accident. A little finely-powdered iodoform was dusted upon the wound, and produced an acute dermatitis with abundant vesication. Had this occurred but once I might not have thought much about it, but it happened after a second operation, and not after others in which iodoform was omitted. It is only fair to say that iodoform has not infrequently been blamed for the effects of septic infection. Doubtless the layer of iodoform dusted upon a wound served a good purpose by excluding the air, but a layer of silver foil is more efficacious and perfectly harmless.

We all devote much time and attention to methods of operating, but I am inclined to think that all do not give the same thought to what may be called "the organization of operations." I should imagine that the organization of an operation bears the same relation to methods of operating as strategy in war bears to tactics. In an aseptic operation every detail must be perfect and all engaged in it consistent. Not least amongst the details should be included an exhaustive diagnosis and a complete knowledge of human anatomy and pathology. To get the very best results in hospital practice each surgeon ought to have his own wards, theatres, instruments, nurses, and assistants. It is most undesirable for septic cases to be introduced into the wards or theatres used for the aseptic, and separate septic wards and theatres ought to be provided. It is necessary to make provision so that septic cases arising in the wards can be removed. Obviously to carry out these requirements necessitates a much larger provision of isolation wards for septic cases as well as a theatre for septic operations. Moreover, the theatres at present used for aseptic operations often leave much to be desired, especially as regards the intrusion of the audience into the area of operation. The present organization, buildings, and equipment of our old hospitals cannot be made to meet such requirements as these; but I do not doubt that evolution will continue and that our ancient hospitals will be replaced by modern. Hospitals built on modern lines require for their construction a spacious area of land. Imagine for a moment a spacious ward containing twenty-five beds, all in view of the night nurse. Then project from one end the sanitary towers cut off by cross-ventilation, and perhaps a balcony too; at the other end put the sisters' room, kitchen, day room for convalescents, clinical room, four separation rooms, linen rooms, clothes room, and such like conveniences. Lastly, remember that in proximity must be operating theatres with anaesthetic rooms, recovery rooms, instrument rooms, and dressing rooms. What a space all these require, without mentioning the accommodation of the resident medical and surgical staff, or of the medical school, or of the sterilizing rooms, or machinery for heating and ventilating. A medical school is a great aid to efficiency and to that perfection of organization which aseptic surgery demands. Further, it is to be remarked that all this tends to the humane and considerate treatment of those who are so helpless from disease or injury. To my mind it is barbarous to compel those who are convalescent to sit about in wards surrounded by those who are undergoing the painful ordeals from which they themselves have just emerged, and to pass their time

'Mongst horrid shapes, and shrieks, and sights unholy!

Day rooms should be provided for them, and separate rooms for those who are maimed, and whose lives are ebbing away. As a profession we are far too callous about these things.

It is also probable that the system of assistants will require modification. It is of importance that the surgeon should be assisted by one who is a convinced aseptician, and who is thoroughly conversant with his methods. In nearly all our hospitals the house-surgeons and dressers are appointed for limited periods. Those gentlemen do their work remarkably well, and with great devotion, but unfortunately their period of office comes to an end just as they are beginning to be efficient.

Obviously our present system must increase the percentage of sepsis even among the cases of the most consistent aseptic surgeon; but the system is of great educational value, and it is difficult to say which is best—a system which sends out into the world numbers of men well educated in the requirements of aseptic surgery, or one which helps one surgeon to obtain a minimum percentage of suppuration. I myself have no doubt as to the right answer; the greatest good of the greatest number ought to prevail. I believe that the inhabitants of the British Isles, even in remote parts, have at their disposal one of the best medical services that exists.

I have pointed out many details in which my own organization may be imperfect. The disinfection of the skin of the patient and of the operator's hands leaves much to be desired, and much of my work has to be done amidst surroundings which are out of date. But one who is alive to deficiencies is more likely to supply them than one who is wrapt in complacent optimism. I am an advocate for simplicity and uniformity in the organization of operations. It has been well and truly remarked by the celebrated Desault "that the simplicity of an operation is the measure of its perfection."[6] In organizing the operation it would be hard to improve upon these words of Desault, quoted with approval by one of his peers. Now that we are so alive to the dangers of infection simplicity is more needed than ever before. The elimination of each unnecessary pair of hands lessens the dangers of infection. Therefore the surgeon alone handles the instruments, ligatures, sutures, and dressings. The single assistant has little to do and his fingers ought to be kept out of the wound. A garrulous assistant is particularly objectionable. A passage of infective particles from the nose and mouth ought to be a well-recognized danger. Simplicity should govern the choice of instruments and of materials. Instruments should be few and simple, materials uniform and simple. Thus it would be safer to use a single reel of silk throughout than several sizes, with perhaps some fishing gut or catgut and kangaroo tendon in addition. Obviously diversity of materials multiplies the chances of infection. The same applies to dressings. The chances of error must be less when one kind of dressing is chosen and adhered to. As our hospital organization is at present I find it difficult to adhere to one dressing and those who watched my practice might naturally suppose that I was extremely inconsistent.

References.

[1] British Medical Journal, October 25th, 1890; May 28th, 1892; January 27th, 1894; July 11th, 1896; September 17th, 1898; February 24th, 1900. [2] Correspondence in British Medical Journal, August 6th, 1902; *Lancet* February, March, May, and June, 1903; also Watson Cheyne, Aseptic and Antiseptic Surgery, *Lancet*, February 7th, 1903, p. 347. [3] Doederlein, *Münch. med. Woch.* (Abst., British Medical Journal, June 27th, 1899). [4] *Lessons in Disinfection and Sterilization*, by F. W. Andrewes, London, 1903, p. 91. [5] Die chemischen Grundlagen der Lehre von der Giftwirkung und Desinfection, *Zeits. f. Hyg. u. Infectionskrank.*, Leipzig, 1897, pp. 1-112. [6] Robert Liston, *Practical Surgery*, 3rd edition, London, 1843, p. 1.

SOME PRACTICAL POINTS ASSOCIATED WITH APPENDICITIS.

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Quite recently it has fallen to my lot to see several cases of appendicitis which present tempting material for a few remarks, for almost every case, and certainly every group of cases, presents some features of interest and value.

Somewhere about twenty-five years ago I excised the appendix, long before it had become a fashionable procedure. No doubt, like many other affections, appendicitis had been long known and recorded, but its full clinical significance was not appreciated until more recently; now, as one comic paper cynically observes, those are most subject to it who can afford to pay for an operation. There may be some truth in this, although it is by no means the rule.

The early symptoms are often not only obscure but positively misleading, and the typical signs the books describe so mathematically are often represented by a cipher. Statistics on the subject have been denounced by one surgeon as belonging to the third category of lies, so I will refrain from alluding to them. The remarks I have to make are based entirely on my own observation and experience, which date back to a period long before McBurney's point was ever heard of.

Case I.

The first case of nine quite recent ones was a young gentleman, aged about 22, whom I was asked to see by Dr. Leapingwell. When I saw him he looked very ill. There was distinct tension and fullness over the right intra-iliac region; he did not complain of pain, and only slight tenderness over the swelling. The temperature, which had been nearly 108° F. at 4 a.m., was at 8.30 a.m. about 104°. His pulse had become firmer, about 120. As he had rallied from the collapse of early morning I at once operated by lateral incision, and found considerable matting of the omentum round the caecum, the appendix gangrenous, lying in a circumscribed cavity containing some reddish, thin, foul pus. I removed the appendix very close, and noticed sloughy patches on the

caecum. A large drainage tube was inserted and some iodoform gauze. There was almost immediate improvement, and in less than a month he recovered completely.

CASE II.

A healthy farmer, aged about 34, whom I saw with Dr. Munro, of Nantwich. No history of any previous attack. Had the usual symptoms of ordinary subacute appendicitis, extending over nearly a fortnight. Then an ill-defined hard mass was felt near the umbilicus, the right side of which, when I saw him, was nearly the size of the fist. There was much tenderness over it, but little pain. He had, however, dry tongue, a temperature of 101° to 103°, and looked decidedly ill. An opening was made over the swelling along the outer edge of the rectus, and several ounces of thick, fetid pus evacuated. As the mass was omental and well shut off from the general peritoneal cavity, I disturbed it as little as possible, and put in a large drain only. Recovery was rapid and complete.

CASE III.

A Convent school girl, about 11, in whom the symptoms had developed rapidly. I saw her at the request of Dr. Hartley, and found a history of habitual constipation, and two nights before she had a very indigestible supper, followed by sickness. diarrhoea (so-called), and very acute abdominal pain referred chiefly to the right side and umbilicus. When I saw her late at night there was extreme distension of the abdomen, with rigidity of muscles, but no defined tumour. Chloroform was given, which enabled me only to make out there was fluid in the peritoneum. I arranged to operate at 8 a.m. the next morning. I opened the abdomen in right side, found intestines more or less matted, with foul sero-pus in general cavity. There were numerous adhesions about the caecum, but no appendix could be made out. It had clearly sloughed. I put in a large drainage tube, which had to be used for some time. She is now convalescent. There was no sickness after operation.

CASE IV.

A gentleman, aged 24, seen with Dr. Candler. This was the third attack, two others having occurred abroad. When I saw him the attack was passing off, so we waited for a few days, and then operated. I made the usual lateral incision, removed the appendix, which was very long and thick, and adherent to the side of the bladder. The patient was tuberculous. The appendix was found to be very large, thickened, and contained pus, with bacilius coli, but no tubercle. No drainage. Rapid recovery without untoward symptoms, except some temporary rise of temperature, which disappeared on removing some sutures.

CASE V.

A married lady, aged 35, whom Dr. J. M. Johnson asked me to see. In this instance obstinate constipation, followed by severe sickness, were the marked indications. There was a distinct hard swelling over the caecum, tender on pressure, but no marked rigidity of the muscles. Under the influence of hot applications and calomel and opium, this case yielded to treatment, and the thickening round the appendix gradually disappeared.

CASE VI.

A farmer's wife, about 42 years of age, whom I saw with Dr. Hall of Alton. She had subacute symptoms for two days, constipation, very frequent sickness which steadily increased, and acute abdominal pain chiefly at the epigastric and right iliac regions. She was subject to epilepsy. Morphine and atropine had been freely given to relieve the pain. She refused to let us examine her, and, by way of evading it, struggled violently, then climbed over the foot of the bed on to the floor. Under chloroform the muscles were rigid, abdomen very tense, and there was a localized swelling on the right side. I made a lateral opening, found a large quantity of milky fluid, fetid and confined to the pelvis and right abdomen by numerous adhesions. In some matted omentum I found the appendix very adherent and excised it in the usual way. On the surface were numerous granular bodies, also on the surface of the ileum and caecum, which looked precisely like tubercles. They were found to consist of tuberculous matter. A drainage tube was used and kept in for about ten days. In spite of all the drawbacks, she made an excellent recovery.

CASE VII.

A young dressmaker, 14 years of age, attended by Dr. Russell, who asked my opinion more especially as to the propriety of operation. The symptoms were chiefly constipation and sickness at first—very little pain complained of anywhere—some slight tenderness over the caecal region, and abdominal distension. We agreed that there was nothing to warrant operation; and as she continued to improve after the bowels had acted, we felt the attack meant to subside, She was, however, allowed to get up to the bed chair, and the same evening severe pain at the epigastrium and rapid abdominal distension set up, accompanied by signs of collapse with a running pulse and rapid rise of temperature. Clearly perforation had taken place, and immediate operation was imperative. She had some rectal enemata, strychnine, etc., to avert collapse, and we operated in a very short time after, when she looked alarmingly ill. On opening the abdomen, a quantity of most putrid thin sero-pus escaped, and among a mass of very recent adhesions were two concretions lying loose which had no doubt escaped from the perforated appendix. The girl was so very ill, I did not attempt to remove this, more especially as it appeared to be gangrenous. A large drain was put in, and each day the cavity was carefully emptied. As the peritonitis subsided, she gradually improved and has made a good recovery.

CASE VIII.

A young man, about 21, seen with Dr. Parkes. The symptoms had come on insidiously, constipation and sickness being the most marked. Pain, beginning over the appendix, had become severe and was most marked below the umbilicus. There was a distinct lump, with typhoid tongue, high temperature, and feverishness, and he was rapidly getting weaker, so we advised his removal to the North Staffordshire Infirmary. There he was admitted under the surgeon of the week, the acute symptoms having subsided, but some induration remaining to the right and below the umbilicus. It seems like one of those slumbering volcanic cases which may open up a crater at any time.

CASE IX.

A young groom, 18 years of age, in Cheshire, whom Dr. Stain, of Audlem, sent an urgent message for me to see with him. Symptoms began after a chill about thirty-six hours previously, and developed rapidly into those of general peritonitis. I operated in less than two hours after. The abdomen was swollen, very tense, extremely tender to touch over the right side, which was more resistant than the left. Temperature 103°, with rapid pulse, frequent sickness, great thirst, etc.; he looked extremely ill and weak. A right lateral excision gave exit to a large quantity of foul sero-purulent fluid; there were numerous adhesions extending quite into the pelvis, where the omentum was firmly attached to the ileum. No attempt was made to remove the appendix, as I wanted to be as expeditious as possible. He rallied well, and was apparently going on favourably until the evening of the second day, when he died quite suddenly from syncope. Dr. Stain very kindly sent me the following account of the necropsy: "The caecum was very firmly bound down to the posterior abdominal wall, the appendix firmly adherent to the caecum. Lying outside it was a concretion, possibly dislodged by manipulations. The appendix contained another concretion, was very short, and had thin and friable walls. In addition to the adhesions mentioned the whole contents of the abdomen were bound together by fresh and easily broken down adhesions, extending as far as we could reach through the wound."

CASE X.

More recently I have seen a very similar case to the last. A lad, aged 17, healthy and strong, got overheated in running after hounds on November 14th, 1903; had a heavy supper after. Next day complained of *malaise*, attributed to dyspepsia; the second day had inclination to sickness, bowels had acted the previous day; and on the morning of the third day sent for his doctor. He was then very sick, had severe pain and fullness of right iliac region, and tenderness to touch. No flatus was passing. I was at once wired for, and when we saw the patient in the afternoon we found rigidity of the right lower abdomen, great tenderness to touch and dullness on percussion. The pulse was 72, temperature normal. The definite signs decided us to operate, which I did forthwith (finding the Bleriot lamp of my motor car a great help); and we found about a pint of flaky serum in the peritoneal cavity, a long, rigid, highly-congested appendix already adherent and curled up; but no defining lymph exudations. Here was a typical case of acute catarrhal appendicitis running rapidly to acute septic peritonitis. There was a dark patch near the extremity, which in a few hours would have sloughed. A drain was put in; the patient has so far done well.

Of these 10 cases 6 were operated upon during one week, with one death.

If we take these as typical instances of some of the conditions associated with appendicitis, we find simple catarrhal inflammation, recurrent appendicitis leading to recent adhesions, entirely local; a more acute inflammation with or without matting of all the adjacent parts, with general peritonitis, causing abundance of serous effusion. Again, in Case III we have a far more acute form coming on suddenly, with rapidly developing symptoms, ending in acute septic peritonitis and a sloughing appendix.

A further variety we find in Case VII, where the ordinary indications of appendicitis were present, and steadily improved under medical treatment for three or four days, when sudden collapse occurred with acute pain at the epigastrium, and rupture had taken place, thin sero-pus only being found in the pelvis.

In Case II symptoms developing slowly, leading to a large collection of pus in a general matting of the omentum to the anterior abdominal wall.

Case IX was of a very acute type, without the graver symptoms, but running rapidly into a very septic peritonitis, with only very recent and slight adhesions. The septic condition began before the inflammatory had time to do any protective work. Then there is, lastly, the fulminating form so-called, with alarmingly high temperature and rapid collapse (Case I). Such cases are, humanly speaking, lives entirely saved by operation, for without it none recover.

The ordinary symptoms of simple appendicitis are sufficiently familiar and I will not detail them, but there are some to which I think undue importance is attached, while there are others which may readily be mistaken for those of other morbid conditions. Pain, for example, is relied upon by some as essential. I have seen several cases in which the pain has been so slight as to be hardly mentioned by the patient. The locality of the pain, too, is very misleading. In a large proportion of the worst cases the pain is referred to

the epigastrium or along the course of the colon. Epigastric pain is almost invariably associated with peritonitis, and is one of the most valuable indications of its presence and the need for operation in these cases. Tenderness on pressure and referred pain should be kept distinct. Tenderness is usually over the seat of the appendix, but it must be borne in mind that the appendix may be fixed in one of the hernial openings (I found it in the obturator foramen in one of my patients), or, on the other hand, it may be free and move its position considerably, hence the locality of the tenderness may vary greatly. In women it is liable to be confounded with ovarian tenderness, and it is not an uncommon thing for the appendix and ovary to be adherent—both inflamed. I have before pointed out the comparative frequency of appendicitis in young women occurring at the catamenial periods. The presence of a lump again is very misleading. A good proportion of the cases where a localized swelling appears without very marked constitutional symptoms do well, and recover without operation. The absence of such a swelling indicates little, for the appendix may be gangrenous, may be hidden away down in the pelvis, or may be doubled down behind the ileum, and no lump be perceptible at all.

But when we come to abdominal tension, especially with rigidity of the right abdominal muscles, we have an indication of a more definite character, almost always denoting formation of pus or circumscribed peritonitis. This, in conjunction with constitutional symptoms, especially persistent sickness, is almost pathognomonic. In such cases operation is demanded. Constipation is no doubt usually present, but, on the other hand, spurious diarrhoea is not uncommon. There is frequently a history of more or less habitual constipation, with some unusual meal followed by sickness and diarrhoea, which may persist even as the graver symptoms increase. Temperature counts for little, except when a sudden rise gives indication of grave mischief, which is ordinarily apparent enough already. The same as to pulse; it is often quiet, and even slow, when the necessity for operation is clear enough (Case x).

Then as to the grounds on which we ought to operate in acute cases. Each case must be considered on its merits; but one safe rule may be laid down—that with any definite indication of general peritonitis or of increasing prostration denoting septic trouble no time should be lost; where the temperature rises and falls irregularly, with some weakening of pulse and increase of abdominal tension, operation is demanded. Persistent sickness, obstinate constipation, with typhoid symptoms, likewise. Localized swelling, painful and tender to touch, with steady rise and fall of temperature, denotes pus, and ought to be evacuated before bursting into the general cavity. Many such cases are extracaecal, and can be safely opened and drained from outside the peritoneum. Nearly all these do well.

The more I see of appendicitis the more am I convinced that it is far safer to operate too soon than defer it a minute too long. It is true the graver ones come most under my observation, and I frequently am not asked to see them until all doubt as to the wisdom of operation has passed; still even where we deem it wise to wait in hope, we too often find that hope deferred maketh the patient's heart sick, and sudden symptoms of the worst character arise while we are hoping for the best. One case in this list especially emphasizes this, for Dr. Russell and I were both agreed in the case of Miss L. that we might safely wait, as the symptoms were apparently (I say "apparently" advisedly) improving, and the girl herself was cheerful and comfortable. Yet you have heard what happened. Sudden collapse, with acute peritonitis, and fortunately for her she was operated on in less than two hours after and her life saved. If she had lived far away from the surgeon and the telephone, or he had acted less promptly, that girl would certainly have died. We ought to have done it the day before, apparent improvement notwithstanding. I hope you will not misunderstand me; a certain proportion of patients will get well with ordinary care and treatment, especially strict recumbency: but in all cases of doubt it is far safer for the patient, and more to the credit of surgery, to act soon, and make practically certain of saving the patient's life. Friends have something to account for in some cases, for the pleadings for delay serve just to tip the balance of doubt in the doctor's own mind, and lead him to consent to delay, even sometimes where his unfettered judgement would decide otherwise.

As to the nature of the operation, that can only be decided after it is begun. When the appendix can be safely removed, I always remove it; but this is sometimes impossible, and the condition of the patient often requires as rapid and as simple a procedure as can be. In all instances free drainage may stave off imminent death, and prove the first step towards complete recovery, even were it is not possible to do more. No one ought to be allowed to die unopened, unless actually moribund. Some most desperate cases do get well.

NOTES ON AN INEFFECTUAL TREATMENT OF CANCER;

BEING A RECORD OF THREE CASES INJECTED WITH DR. OTTO SCHMIDT'S SERUM.*

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So much has been written lately about cancer that when your able Secretary—Mr. J. R. Johnson—asked me to read a paper before you, taking malignant disease as my text, I was more than half inclined to excuse myself on the ground that I had nothing of importance to communicate; but just about the same time my friend, Dr. Harold Johnson, came with a glowing account of a new method of treatment introduced by Dr. Otto Schmidt, of Köln, and I told him that if he would procure the serum I would provide the patients, and would afterwards give, as far as possible, an unbiassed account of the results obtained by its use. The notes of these cases, and the conclusions which I draw from them I now propose to bring before you, for I know that, like the Athenians of old, the members of the Richmond Division of the Metropolitan Counties Branch of the British Medical Association, love "to spend their time in nothing else but either to tell or to hear some new thing." Besides, I think in so important a subject as cancer, with its apparently increasing mortality, that a fair trial ought to be given to every method of treatment which promises to give relief, provided that method can be adopted without ill-consequences to the patient. Such trials are most fittingly carried out by those who, like myself, are working in the wards of a large general hospital, for the test can then be conducted upon lines which will at least ensure an accurate record of results. The patient can be watched with a scientific accuracy which is impossible in private, for one has the assistance of the house-surgeon and dresser, the ward sister and the nurses. The observations, too, are checked and counterchecked, so that there can be no question as to their accuracy and as to entire absence of bias attending their record. I take this opportunity, therefore, of thanking Mr. Waterfield and Mr. Gurley, as well as Sister Lucas, Sister Henry, and their nurses, for the assistance they have given me in obtaining the detailed information which I shall presently submit to you.

Dr. Harold Johnson's account of Dr. Otto Schmidt's work appeared in the *Lancet* for November 14th, 1903, p. 1374, under the title "Dr. Otto Schmidt's Specific Treatment of Cancer," and his paper gained a somewhat wider circulation than was intended, as a long abstract appeared in the *Daily Mail*. The points upon which special stress is laid appear to be three in number. First, a specific reaction indicated by a general rise of temperature; secondly, local manifestations connected with the new growth; thirdly, alterations taking place in the new growth in the direction of its conversion into scar tissue. I quote a few passages from Dr. Johnson's paper on each of these heads:

1. The most constant and striking result of the injections into the body of a cancerous patient is a specific reaction in the tumour and infected parts. Injections of the cultures into a healthy subject or into one suffering from any other disease produce no symptoms whatever beyond the pinprick of the hypodermic needle. But if the cancerous process is in the body then the specific reaction is produced whenever there is any recuperative power in the blood of the patient. After the second or third injections, and generally eight or ten hours afterwards, there is a general sense of *malaise*. The temperature rises more or less: most often the evening temperature alone is raised, but sometimes the morning temperature is also affected. In a few cases the highest temperature is found in the early morning hours. The rise may occur suddenly, or it may go up by daily increments to 102° F., then it falls to the normal in two or three days. The primary rise of reaction may go on in spite of the discontinuance of injections as soon as the temperature rises at all. Patients whose blood is already poisoned by toxins—cachectic patients—often do not react at all.

2. Local signs and symptoms are noticed about the same time as the

* Read at a Meeting of the Richmond Division of the Metropolitan Counties Branch of the British Medical Association.

first rise of temperature. The constant symptoms are, first, swelling of the tumour and of any metastatic deposits or secondary glands; secondly, pain in the parts or increase of pain if such were previously present; and thirdly, tenderness of all affected parts.....The examining hand is often led by the pain indications to find metastatic glands and deposits where the most careful examination failed to detect them previously.....The activity of the reaction varies very much in individuals and diminishes as the patient becomes more immune. As far as can be told at present closed carcinomata react more violently than those which are free or consist of breaking-down cells. Cachectic patients hardly react at all—and where I say cachectic patients I mean those who are suffering from the cancerous cachexia properly so-called, not those who on account of oesophageal or gastric cancer are suffering from starvation cachexia.

3. The reaction is of an inflammatory nature, confined to the cancerous parts, more or less acute according to the newness of the growth and the condition of the patient. It is of short duration, a few days only. A chronic state of inflammation can be induced by setting up reactions at short intervals or by raising the injections gradually but without pause.

Dr. Johnson then proceeds to argue that the inflammatory process arrests the growth of the cancer, which very soon afterwards begins to degenerate, and eventually becomes converted into cicatricial tissue.

Now here are definite statements capable of proof or disproof. Dr. Otto Schmidt, in a manner worthy of all commendation, was willing to allow his serum to be used by independent observers without imposing any conditions in order that its utility might be tested. Dr. Johnson, who is the chief medical officer to the Gresham Life Assurance Co., with no object to serve but that of truth, visited Köln, watched Dr. Schmidt's methods, brought back the serum, and made a series of injections in my presence. It is only by such plain dealing that we can hope to obtain conclusive results, and if the conclusions at which I have arrived do not bear out the optimism of Dr. Otto Schmidt, as voiced by Dr. Johnson, we still owe him a debt of gratitude for the work done, whilst we wish him the success he deserves.

The cases I selected for trial of the serum were (1) a woman from whom I had recently removed a part of the breast for a scirrhous carcinoma; (2) a man, the half of whose tongue I had removed for epithelioma; (3) a patient from whose neck I had removed a malignant growth the origin of which was not clear.

CASE I.

E. B. (St. Bartholomew's Hospital Female Surgical Register, vol. i, 1903, No. 2705), aged 46 and single, came under my care on August 21st, 1903, complaining of a tumour in the left breast which she had only noticed for six months, though she had felt pain in the breast for more than twelve months. She said too that her left arm often felt numb. On admission to the hospital the left breast contained a hard nodule measuring about 1½ in. in diameter, adherent to the skin and situated at the upper and inner quadrant of the gland. No enlarged lymphatic glands could be felt in the axilla, and the tumour was freely movable on the underlying tissues. I removed the growth with the pectoral fascia and some of the pectoral muscle on August 26th, but not the whole breast, and the patient left the hospital a week later. The pathological report stated that the growth was a scirrhous carcinoma.

She returned to the hospital on November 23rd complaining of neuralgic pains in the scar, and on this day the notes state that "there is a linear scar in the left breast starting just internal to the nipple and extending upwards and inwards for 5 in. The scar is not adherent to the deeper tissues, and presents no induration. The breast is normal and shows no indication of any chronic inflammatory change either nodular or diffuse. The nipple is not retracted, and no enlarged lymphatic glands can be felt in either axilla or in the left supraclavicular or infraclavicular regions.

The temperature was 98,6° F., the pulse 90, and the respirations 24. Four one-hundredths of a milligram of Schmidt's killed culture were injected at 3.30 p.m into the upper part of the right pectoral region, the seat of puncture being first frozen with ethyl chloride.

At 8 p.m.	the temperature was	98.8° F.,	pulse	90,	respirations	20
At 10 p.m.	,, ,,	99.2° F.,	,,	88,	,,	24
At 12 midnight	,, ,,	99.0° F.,	,,	92,	,,	22
At 2 a.m.	,, ,,	98.6° F.,	,,	92,	,,	24
At 7 a.m.	,, ,,	98.6° F.,	,,	90,	,,	24

November 24th. The patient said that she had suffered a good deal of pain in the left breast during the night. At 3.30 p.m., that is, twenty-four hours after the injection, a small and very hard gland of the size of a pea could be felt at the apex of the left axilla, where no such gland had existed on the previous day.

An injection—injection 2—of half a milligram of Schmidt's culture was made into the upper part of the right pectoral regien, the seat of puncture being frozen with ethyl chloride. The temperature at the time of the injection was 98.6° F., the pulse 90, and the respirations 24.

At 7.30 p.m.	the temperature was	99 6° F.,	pulse	84,	respirations	24
At 9 30 p.m.	,, ,,	99.6° F.,	,,	80,	,,	24
At 11.30 p.m.	,, ,,	99 2° F..	,,	—	,,	—
At 1.30 a.m.	,, ,,	98.6° F.,	,,	88,	,,	24

November 25th. The lymphatic gland at the apex of the left axilla is larger and not quite so hard as on the previous day. The left breast still remains painful, and a small tender lump can be felt just below the nipple. The scar is certainly more tender than it was. A blood count showed the number of white blood corpuscles to be 5,000, so there is no leucocytosis. No injection was given on this day.

November 26th. 1 mg. of Schmidt's culture (the third injection) was injected at 4 p.m., the temperature being 98.8° F., the pulse 72, respirations 24.

At 8 p.m.	the temperature was	99.6° F.,	pulse	76,	respirations	24
At 10 p.m.	,,	99 0°,	,,	80,	,,	28
At 12 midnight	,,	98.8°,	,,	80,	,,	24
At 1 a.m.	,,	98.6°,	,,	80,	,,	24
At 5 a.m.	,,	98.8°,	,,	80,	,,	24

November 27th. The enlarged lymphatic gland in the left axilla is still tender and painful on pressure but it has not increased in size. No other enlarged glands can be felt in either axilla nor are there any in the neck. An injection of 2 mg. of Schmidt's culture (the fourth injection) was made at 4 p.m., the temperature at the time being 99.8°, the pulse 84, respirations 24.

At 4 p.m.	the temperature was	100.0° F.,	pulse	84,	respirations	24
At 8 p.m.	,,	99.6°,	,,	84,	,,	24
At 10 p.m.	,,	99 0°,	,,	90,	,,	28
At 12 midnight	,,	98.4°,	,,	84,	,,	28
At 2 a.m.	,,	98.0°,	,,	80,	,,	24
At 6 a.m.	,,	99.4°,	,,	76,	,,	24
At 10 a.m.	,,	99.4°,	,,	80,	,,	24

November 28th. 5 mg. of Schmidt's culture (the fifth injection) was made at 1.50 p.m., the temperature being 99.8° F. and the pulse 80.

At 6 p.m.	the temperature was	100.0° F.,	pulse	88,	respirations	24
At 8 p.m.	,,	100.0°,	,,	88,	,,	20
At 10 p.m.	,,	99.6°,	,,	—	,,	20
At 12 midnight	,,	99.4°,	,,	80,	,,	—
At 4 a.m.	,,	98.6°,	,,	88,	,,	20
At 8 a.m.	,,	100.0°,	,,	88,	,,	24

November 29th. The patient was not injected to-day, as she appeared to be rather feverish. Her maximum temperature during the day was 100° F., and the highest pulse-rate was 89, both at 8 a.m. The temperature then fell gradually until it reached 97.6° F., and the pulse 64 at 12 o'clock midnight.

November 30th. One cg. of Schmidt's culture was injected at 4.30 p.m. (the sixth injection), the temperature at the time of the injection being 98.4° F., the pulse 68, and the respirations 20. At 10 p.m. the temperature was 99°, pulse 80, respirations 24. At midnight the temperature was 99.8°, pulse 76, respirations 24.

December 1st. The patient complained of a good deal of pain. The left breast was still tender, and the lump below the nipple was larger but not so hard. A second enlarged lymphatic gland could be felt in the left axilla. It was situated below the one originally felt. The first gland was still tender, but had not increased in size. One and a-half cg. of Schmidt's culture (the seventh injection) were injected at 4 p.m., the temperature being 99.2° F., the pulse 72, and the respirations 28. At 8 p.m. the temperature was 99.2° F., pulse 88, respiration 20; at 4 a.m. the temperature was 99°, pulse 84, respirations 22.

December 2nd. The patient had suffered a good deal of pain, and an enlarged axillary gland could now be felt in the right axilla. There was also a distinct line of induration in the breast tissue on either side of the scar. I did not feel justified, therefore, in recommending a continuance of the injections, and on the following day, December 3rd, I removed the left breast, the pectoral fascia, and a part of the pectoral muscle, together with the enlarged axillary glands from the left axilla and the enlarged gland from the right axilla. The wounds healed by first intention, and the patient left the hospital on December 17th. Dr. F. W. Andrewes (our Lecturer on Pathology) and Mr. G. E. Gask (his Demonstrator of Surgical Pathology) were present at the time of the operation, and they put the suspected portions of the breast and the lympathic glands into hardening fluids before leaving the theatre. In due course the following report was received from the Pathological Laboratory, signed by Mr. Gask and corroborated by Dr. Andrewes: "The sections of the breast showed nothing abnormal beyond a small amount of inflammation which might well be accounted for by the previous operation. There was no sign of any malignant growth. None of the lymphatic glands showed any trace of carcinoma."

I think that this case was a satisfactory test of Schmidt's culture. The patient was a woman in good condition, who had undoubtedly suffered from cancer quite recently. She reacted to the injections in the manner predicted, and her lymphatic glands became enlarged first on the side connected with the breast which had been affected, and afterwards on the side where the injections were made. The breast tissue in the immediate neighbourhood of the scar became indurated and tender. It appeared, therefore, as if the serum might be valuable as a diagnostic agent. But this hope was dispelled when a microscopic examination showed that the swelling was merely inflammatory, and that neither the breast nor the lymphatic glands were carcinomatous. The explanation of the reaction therefore appears to be that the serum intensifies any chronic inflammatory process which is going on in the body and has itself some power of setting up inflammation.

CASE II.

The next patient upon whom the cultures were tried was a man aged 46, a porter by occupation, who first came under observation in March, 1903, saying that he had noticed a pimple on his tongue since December

. The pimple increased rapidly in size in spite of full doses of assium iodide, and on June 5th I removed the left half of his tongue. patient left the hospital on June 15th, and microscopic examination wed that the tongue was the seat of a squamous-celled carcinoma.
n November 15th the patient was readmitted to the hospital on unt of a secondary deposit of cancer in the neck. The deposit was he form of an irregular mass measuring 3½ in. by 2½ in., situated below the angle of the jaw on the left side of the neck. The mass painless, but so fixed that I considered it to be incapable of removal out undue risk.
t 6 p.m. on November 18th, 20 minims of sodium cinnamate were cted subcutaneously over the tumour, and at 5.15 p.m. on November 25th the same quantity was injected into the tumour itself. In her case was there any evidence of reaction, as shown by the temature, pulse, or respiration.
n November 28th an injection of one-tenth of a milligram of midt's serum was made at 1.45 p.m., the temperature at the time of ction being 98.4° F., the pulse 88, and the respirations 20.

At 3 p.m.	the temperature was	98.4° F.,	pulse	84,	respirations	22
At 5 p.m.	,,	98 0°,	,,	92,	,,	24
At 7 p.m.	,,	98 6°,	,,	96,	,,	24
At 9 p.m.	,,	98.4°,	,,	92,	,,	20
At 11 p.m.	,,	98 4°,	,,	92,	,,	20
At 1 a.m.	,,	97.8°,	,,	72,	,,	20
At 3 a.m.	,,	98.0°,	,,	80,	,,	20
At 7 a.m.	,,	97.0°,	,,	100,	,,	20
At 11 a.m.	,,	97.0°,	,,	84,	,,	20

ovember 29th. The patient complained of a good deal of pain ng the night, the pain being felt over the whole of the left side he head and neck. The cervical lymphatic glands are not rged.
ovember 30th. ½ mg. of Schmidt's culture was injected at 6 p.m., mperature being 97° F. and the pulse 88. There was a sudden rise emperature to 98° F. at 11 p.m., and the patient complained that tumour was very tender. An enlarged gland could be felt in the supraclavicular fossa.
ecember 1st. An injection of 1 mg., the temperature being 98.8° and pulse 84. This was followed by a maximum temperature of 99.2° p.m. but with no local change.
ecember 2nd. An injection of 2 mg. at 3.30 p.m., and on the following day the tumour was thought to be a little larger and more tense. cond enlarged lymphatic gland could be felt in the posterior triangle he left side of the neck.
ecember 3rd. The injection of 5 mg. was followed by a slight rise of perature, the maximum being 99.2° F., and the pulse 88 at 8 p.m. swelling was more tense and a little larger, while another small hard gland could be felt in the posterior triangle on the left side of neck.
cember 4th. A centigram of Schmidt's culture was injected, and this unt was gradually increased until 2½ cg. were injected into the r part of the pectoral region on December 8th. On this day a l oval ulcer with a raised and everted edge developed on the left of the tongue opposite the last molar tooth.
jections of 2 cg. of culture were made on December 9th and 10th, without any marked effect. The tumour in the neck was then beng inflamed; it suppurated on December 21st, when it was incised er an anaesthetic, about an ounce of pus escaping. The incision became an ulcer, which presented the ordinary characters of a inomatous ulcer. He went from bad to worse and died on January 8, 1904. The necropsy showed that there were no secondary osits.

he condition of this patient did not appear to me to be in way modified by the injections of the culture. He was cond operation when I admitted him to the hospital, as he suffering from extensive secondary deposits of epithelioma he glands of his neck. The affection ran the course which ght have been expected had he undergone no treatment, glands suppurating as a result of infection carried by the phatics from the cancerous ulcer in his mouth. He ived sixteen injections of the culture and two injections odium cinnamate.

CASE III.

G., aged 63, a messenger, was admitted into St. Bartholomew's ital under my care on August 19th, 1903, on account of a malignant th of his neck. On admission he was found to have three swellings neck, one being situated on each side beneath the angle of the whilst the third was situated in the middle third of the neck on the ide. The tumours were hard but not circumscribed. The skin hem was movable, but the growths themselves were fixed to the cent tissues.
August 28th, 1903, I removed the two smaller tumours without ulty, but the third and larger one was found to be very adherent to rynx and to the internal jugular vein, a piece of which had to be ed. The patient left the hospital on September 18th, and the logical report stated that the tissue "shows malignant disease, the e of the malignancy is not clear, but on the whole it resembles a oma rather than a sarcoma."
patient was readmitted to the hospital on November 16th, 1903. en had a hard and irregular-shaped swelling on the left side of his extending from just below the ear to the clavicle, and filling up ace between the anterior border of the trapezius and the sternod muscles. The tumour is not movable upon the deeper struce but the skin over it is normal and not adherent. The tumour is painful, the pain being of a neuralgic character, and extending up the side of the neck into the ear and on to the face.

November 18th. Twenty minims of a 10 per cent. solution of sodium cinnamate were injected at 3.15 p.m., the temperature being 98.4° F., pulse 84, and respirations 24. In the evening the temperature rose to 99°, and the pulse was 80. On the following day the pulse was subnormal.

November 23rd. One-tenth of a milligram of Schmidt's culture was injected beneath the skin over the lower part of the right scapula. The injection was made at 3.45 p.m., the temperature being 98° F., the pulse 84, and the respirations 22.

At 7.45 p.m.	the temperature was	98.4° F.,	pulse	84,	respirations	22
At 9 45 p.m.	,,	98.0°,	,,	68,	,,	22
At 11.45 p.m.	,,	97.8°,	,,	76,	,,	24
At 1.45 a.m.	,,	97.8°,	,,	76,	,,	24
At 3.45 a.m.	,,	98.2°,	,,	80,	,,	20
At 5.45 a m.	,,	97.6°,	,,	76,	,,	20
At 9.0 a.m.	,,	98.6°,	,,	84,	,,	20

November 24th. The patient has not complained of any increase of pain during the night. The skin over the tumour is unaltered, and the neighbouring lymphatic glands are not enlarged.

November 25th. The tumour appears to be more tender and painful. The patient had a little sore throat, so a further injection was deferred until the next day.

November 26th. An injection of 1 mg. was made at 4 p.m., the temperature being 98.2° F., and the pulse 88.

At 7 p.m.	the temperature was	98.0° F.,	pulse	84,	respirations	20
At 10 p m.	,,	97.8°,	,,	88,	,,	24
At 12 midnight	,,	98.4°,	,,	80,	,,	20
At 2 a.m.	,,	97.8°,	,,	80,	,,	24
At 4 a.m.	,,	97 6°,	,,	76,	,,	20
At 6 a.m.	,,	97.0°,	,,	100.	,,	20
At 8 a.m.	,,	97 6°,	,,	88,	,,	20
At 10 a.m.	,,	98 2°,	,,	96,	,,	24

November 27th. The patient complained of a good deal of pain during the night, The tumour is tender but has not increased in size. There is some superficial redness and a small hard lymphatic gland can be felt in the posterior part of the left axilla. An injection of 1 mg. of Schmidt's serum made at 4 p.m. was followed by a rise of temperature which reached its maximum, 99.6° F., at 11 p.m. The temperature had fallen to normal on the following morning.

November 29th. A further injection of Schmidt's serum was made at 2 p.m., the temperature being 98.4°, the pulse 99, and the respirations 24.

At 3 p m.	the temperature was	98.4° F.,	pulse	96,	respirations	24
At 5 p.m.	,,	97.8°,	,,	100,	,,	20
At 7 p.m.	,,	93.8°,	,,	100,	,,	24
At 9 p.m.	,,	99.8°,	,,	96,	,,	24
At 11 p.m.	,,	97.6°,	,,	96,	,,	24
At 1 a.m.	,,	98.0°,	,,	96,	,,	20
At 4 30 a.m.	,,	98.2°,	,,	96,	,,	24
At 7 a.m.	,,	98.0°,	,,	108,	,,	24
At 9 a.m.	,,	97.6°,	,,	88,	,,	24
At 11 a.m.	,,	98.4°,	,,	96,	,,	24
At 3 p.m.	,,	98.0°,	,,	88,	,,	24

There was here a short but sharp rise of temperature, lasting less than four hours, but without a corresponding increase in the pulse-rate.

November 30th. An injection of 0.002 gram of Schmidt's serum was made at 6 p.m., the temperature being 98° F., and the pulse 76. There was a gradual rise of temperature to a maximum of 99° F. at 12 o'clock midnight, when the pulse was 100.

The quantity of serum was slowly increased, until 3 cg. were injected on December 8th, and again on December 9th, but without producing more than a slight rise of temperature. The note states that on December 9th the tumour had not increased in size, but that it still remained very tender. The patient continually suffers pain, which is worse about three hours after each injection. After December 9th the quantity of culture injected was reduced to 1 cg., but without any marked effect until December 28th, when 0.01 gram was injected into the right scapular region, the temperature at the time being 99.4° F., and the pulse 100. During the night there was a sudden rise of temperature to 101.2° F. The pulse at 7.30 next morning was 108, and the temperature was 99.2° F. This attack of fever was not accompanied by any increase of pain, but on the next day the patient had an ordinary attack of tonsillitis. This patient was injected on one occasion with sodium cinnamate, and nineteen times with Schmidt's culture.

Now, as to the conclusions to be derived from these cases. Dr. Johnson says, "You will have noticed that I have been very careful to speak always of the treatment of the cancerous process, and that I have never in connexion with Dr. Schmidt's name, or what I have described, referred to this treatment as a cure of cancer." He merely claims that the "treatment is to be employed as a prophylactic immunization immediately after the surgical operations for the removal of malignant growths." For this reason the three cases submitted to treatment had already been operated upon within a recent period. The tumour removed had been submitted to microscopical examination and was known to have been cancerous. To avoid any complication none of the cases selected showed any sign of suppuration.

1. In regard to the reaction. There is no doubt that a reaction takes place after the injection of Schmidt's serum.

The temperature rises and with it the pulse, but the respirations as a rule are not affected. In this rise of temperature I see nothing peculiar, for it follows the injection of serum which admittedly contains toxins, and in all probability any similar serum would produce a similar result if it were active. It cannot therefore be said with accuracy that the reaction is specific, and this is proved by the fact that Case I showed the most typical reaction, yet subsequent examination of her tissues failed to detect any malignant disease.

2. The local effect upon the tumour was shown in each case, for the breast in the first case and the malignant masses in the other two cases became inflamed and reddened as the result of the injection. Yet here, again, I could not satisfy myself that the serum acted by selection upon malignant tissues only. It seemed to me to intensify any pre-existing inflammation. This was effectually shown in Case I, where the lymphatic glands in the right axilla became enlarged in addition to those in the left armpit, the original seat of cancer being the left breast. For here, again, subsequent examination showed that none of the glands which had thus become enlarged after the injections of the culture were affected with cancer.

3. The treatment is certainly painful apart from the succession of hypodermic injections.

Lastly, malignant disease progresses, even to a fatal issue, whilst the injections are being given, as is shown by Case II. I fear, therefore, that as my experience goes the method is of no service at present either from a prophylactic, diagnostic, or curative standpoint. But it may fairly be argued that the trial I have given is insufficient, and that further observations are desirable, for Case I was not suffering from cancer and Case III remained very much in statu quo ante.

ACUTE SEPTIC COLITIS DUE TO MILK POISONING.

BY G. F. VINCENT, F.R.C.S.EDIN.,
Woking.

THE following case appears worthy of record:

On October 30th I was called to see E. L., aged 32. He complained of aching pains in his neck and over his left shoulder. Some of the cervical glands were swollen and tender, his tongue furred, temperature 99°, pulse 100. He stated he had been ill the previous week with "influenza," and an attack of "jaundice." It was further elicited that during the last eighteen months he had had several slight attacks of jaundice. The left apex of the lung indicated tuberculous lesion probably old. No other physical signs were evident.

Progress.—On November 1st he was much better, and the pains in the neck and shoulder had almost disappeared. On November 3rd the patient was seized with severe pain in the left lumbar region radiating towards the groin. During abdominal examination he said the pain had shifted to the right hypochondrium, passing up to the right shoulder. Slight enlargement of the liver and spleen was detected at this time. Temperature 100.3°, pulse 110, urine normal. The pain was intense and paroxysmal, and called for repeated doses of morphine hypodermically (½ gr.).

November 4th. He was considerably easier; the pain, now much less, was confined to the hepatic and right iliac regions, and these parts were tender on pressure.

During the following ten days he remained in much the same condition, the severity of the pain varying from day to day, but on the whole decreasing, so that he was able to get up and about, and on November 13th went out of doors.

On the evening of November 15th he had a severe shivering fit, and it was also stated that he was "jaundiced," but by gaslight this could not be detected, nor was there any icterus the following morning.

November 16th. The pain had returned with greater intensity, and was diffused over the right hypochondriac, epigastric, and umbilical regions. His bowels were loose, but the stools were otherwise normal in appearance, and temperature 98.8°.

November 17th. There was practically no change in the symptoms. The temperature remained normal, the pulse increased in rapidity (120), and he became more feeble. The pain was relieved temporarily by morphine,

November 18th. The motions became more frequent and contained a little bright blood and small pieces of mucus. Slight tenesmus and occasional vomiting occurred. Temperature 98°, pulse 130.

November 19th. The abdomen was slightly distended, vomiting more frequent, and blood and mucus in considerable quantities passed in the stools. Temperature 97°, pulse 135.

Result.—November 20th. The patient was considerably worse, suffering intense pain which all treatment failed to relieve. The abdominal distension was increased and continued to increase rapidly during the day, pointing to the onset of peritonitis. Stools exactly resembled red currant jelly and were very offensive. Vomiting was constant and th ejecta were liquid and of a grass-green colour; even teaspoonfuls water could not be retained. He suffered severe paroxysmal pai radiating all over the abdomen, but most marked on the right side ar epigastrium. The pulse became more feeble and more frequent. H rapidly sank, and died at 12.20 a.m. on November 21st, retaining co sciousness to the end.

Necropsy.—On examination fifteen hours after death rigor mortis w well marked. On opening the abdomen, about half a pint of free bloo stained fluid escaped. The caecum, ascending colon, and proxim half of transverse colon were enormously distended and of purplish red colour. The distal half of the transverse colon, splenic flexur and upper part of the descending colon were only slightly congest and distended, but the lower part of the descending colon with sigmo flexure was swollen and deeply congested. The rectum was normal. few flakes of recent lymph were observed on the surface of the caecu The large gut, on removal, was found to contain very offensive bla fluid, though not in large quantity. The portions above noted we found greatly dilated, and the walls on section nearly ½ in. in thickne The caecum was the part most affected, and here small white patches we visible on the inner aspect, which proved to be collections of small bubbles beneath the mucous membrane. On compressing the intesti wall between the finger and thumb distinct emphysematous crackli could be both felt and heard. The duodenum and the upper 2 ft. 3 ft. of small intestine were congested and somewhat distended w dark fluid contents. The rest of the small intestine and the appen vermiformis were perfectly normal. The liver was enlarged, the lov edge reaching about two fingerbreadths below the costal arch. T portal vein contained fluid blood. On section the surface of the li appeared normal, but here and there were yellowish-white patc which proved to be medium-sized portal tributaries containing dec rized thrombus, and in one spot a recently thrombosed vessel divided. The other abdominal organs were normal. Chest: Apex the lung fixed to the chest wall by old pleural adhesions. The a itself puckered and contracted by fibrous tissue. Lungs elsewh normal. Heart normal.

Pathological Report (by Dr. Spitta of St. George's Hospital).—Mac scopically, the liver is smooth and slightly shrunken; microscopica the appearances presented are those of an acute toxaemia, and in m respects simulated acute yellow atrophy. There is, however, a v widespread thrombosis of the intralobular blood vessels, and t coupled with the minute pathological appearances of the intest points to the primary cause being thrombosis of the portal vein an branches. The intestine, macroscopically, is oedematous, soft, spongy, whilst the internal surface is covered with minute gas bubb probably the result of micro-organic decomposition. Microscopic there is very little inflammation and no ulceration. The mucous is either absent or markedly necrotic, whilst the main wall of the presents an obvious capillary thrombosis, which is most distinct characteristic. The peritoneal coat is slightly inflamed. In opinion these morbid changes are due to a thrombosis in the bran of the portal vein.

The pathological examination having established the se nature of this case, it is quite clear it was also due to contaminated milk supply, which the medical officer health (Dr. Pierce) found to be the cause of the then prev ing epidemic of septic sore throats. The patient supplied with milk from one of the two dairies condem and to within a few days of his death he drank of milk freely. The case was most puzzling until a few before death, and without the *post-mortem* and pathol cal examinations much would have remained obsc In the first place, acute colitis is very rare, and t were few symptoms in the early stage of the disease to i cate its nature. In fact, pain was the only thing compla of, and that was misleading owing to its paroxysmal shifting nature, leading me at one time to suspect renal c which was soon dispelled for biliary colic, and the histo repeated attacks of jaundice seemed to confirm this l diagnosis. Yet the gall bladder and the ducts were f normal and healthy at the necropsy. There was no tra albumen in the urine, and the faeces gave no clue until t days before death; the bowels, however, were somewhat fined. The absence of high temperature, with incre rapidity of the pulse, enlargement of the liver and sp should have been of diagnostic value as pointing to toxa absorption had I then any reason to suspect such. medical officer of health's report concerning the epid appeared later. The septic nature of this epidemic manif itself in various ways. Commencing, as a rule, with lacunar tonsillitis, many cases were followed by enlarge suppurating cervical and and submaxillary glands, were accompanied by acute rhinitis, pharyngitis, laryn with acute oedema of the glottis, parotitis, arthritis, pelas of the face, and a case of acute glossitis with Lu angina. This was treated with the antistreptococcus s with excellent results, and most likely had the serum used in these other cases the result would have bee beneficial.

NOTE ON THE NATURE OF THE PARASITIC BODIES FOUND IN TROPICAL SPLENOMEGALY.

By Major W. B. LEISHMAN, M.B., R.A.M.C.,
Professor of Pathology, Royal Army Medical College.

NCE the publication[1] of my description of the small rasitic bodies, found in the spleen of a soldier dying from e of the anomalous types of Indian fever, a considerable mber of cases have been reported in which these bodies ve been found, and the questions as to their true nature d etiological relationship to tropical splenomegaly are be- ming more important. The subject is rendered still more gent by the interesting news, telegraphed by Bentley[2] from sam, that he had found the parasites in cases of kala azar, I suggested might prove to be the case, by spleno-puncture ring life.

Excluding Bentley's cases, of which no particulars have t been received, Donovan[3] has found the parasites in 16 es, Manson and Low[4] in 2 cases, and Marchand and edingham[5] report their occurrence in a German soldier, ently returned from Pekin. (In this case it is interesting note that there is a history of a fly bite on the foot.) In lition to these I have, within the last few days, detected se parasitic bodies in films made from the spleen and liver two soldiers who died, one at Newport and one at Netley. e of these cases came from Dum Dum and the other from rrackpore, which is within a few miles of Dum Dum, and each case the parasites were present in both liver and een. Particulars of these cases will, I hope, be published rtly.

ly main object, however, is to point out the close resem- nce of these parasitic bodies to some that have recently n described by Dr. J. H. Wright[6] in an article entitled otozoa in a Case of Tropical Ulcer (Delhi Sore). In this e, which presented all the features of the Delhi sore, so l known to those who have served in the East, Wright nd in the cells of the tissue—removed by curetting the er—large numbers of small parasitic bodies which, from careful description and the very excellent photomicro- phs which accompany the article, leave no doubt in my nd that they are very closely analogous with the parasitic ies now being found in tropical splenomegaly. Wright nself has no doubt as to the parasitic nature of these ies, and proposes for them a new genus and species as *cosoma tropicum*.

n connexion with these parasites an interesting possibility been suggested to me by Major Ross, who informs me t he has frequently found in the pus of Delhi sores large mbers of a flagellated organism, the *Cercomanas hominis*, that it is just possible that these parasites of Wright's prove to be altered *Cercomonads*.

he frequency with which these sores occur in India and r superficial nature should facilitate the confirmation of ght's work, and, if the parasites he describes are found to onstantly associated with this disease, I think it not im- able that investigations into their life-history and the le of their introduction into the human host may throw her light upon the corresponding problems in connexion h the parasitic bodies found in the spleen.

ith regard to the nature of the spleen parasites three rent opinions have been advanced. Laveran[7] and Ross,[8] working with films supplied by Donovan, come to dif- nt conclusions, Ross seeing in them parasites of an alto- er new genus, while Laveran, in his most recent note[9] on subject, adheres to his original view that they represent a species of the genus *Piroplasma*. Finally, to my own , that these bodies represent an involuted stage of a llate organism, I may now add the support of Marchand Leedingham, who subscribe to this theory. Manson and [4] while expressing no decided opinion on their nature, gly dissent from Laveran's views as to their intra- uscular nature. Certainly the failure in all cases to t the parasites in the peripheral blood is a strong argu- against their being intra-corpuscular, and it appears ble that Laveran's conception of their being *Piroplas-* may have to be abandoned.

References.

[1] British Medical Journal, May 30th, 1903, p. 1252; and November 903. [2] Ibid., January 16th, 1904, p. 160. [3] Ibid., July 11th, 1903, p. 79; ovember 28th, 1903, p. 1401. [4] Ibid., January 23rd, 1904, p. 183. l, January 16th, 1904, p. 149. [6] *Journal of Medical Research*, vol. x, No. 3, p. 472, December, 1903. [7] *Bull. Acad. de Médecine*, November 3rd, 1903. [8] British Medical Journal, November 14th, 1903, p. 1261; and November 28th, 1903, p. 1401. [9] *Comptes Rendus de l'Académie des Sciences*, December 7th, 1903.

MEMORANDA:

MEDICAL, SURGICAL, OBSTETRICAL, THERAPEUTICAL, PATHOLOGICAL, Etc.

LEAKING ANEURYSMS.

The following cases seem sufficiently interesting to be recorded:

R.A., aged 42, while at work about 4 p.m. on May 3rd in a coal mine, slipped and putting out his hand prevented himself from falling. When he regained his equilibrium he felt as though he had strained a muscle in his right arm. He continued at his work, but had to desist an hour later, owing to a large swelling having formed on the inner side of the arm at the lower boundary of the axilla. He was seen about two hours after the occurrence by Dr. Dickson, of Lochgelly, who detected slight pulsation in the swelling but the radial pulse was not appreciably affected. The arteries were noted to be atheromatous. The patient was removed by ambulance the same evening to the hospital at Dunfermline. When seen by me at 9 p.m. the swelling was the size of a Jaffa orange, was tense and tender, and pulsation in it had entirely ceased; no difference could be noted between the right and the left radial pulses. On inquiry the patient stated he had never noticed any swelling in his arm previous to the accident, but had felt pain in the region of his shoulder-joint for some eight days past and on that account had used an embrocation. The heart was hypertrophied, the apex being felt in the sixth interspace ½ in. outside the nipple line, and a systolic murmur could be heard over the cardiac area and also posteriorly. There was no history of rheumatism or syphilis.

The following morning, as traces of extravasated blood could be detected in the forearm, I cut down upon the swelling in the upper arm, expecting to find a branch of the brachial artery ruptured. A large quantity of blood clot was turned out, but after a most careful search I could detect no bleeding point. I therefore came to the conclusion that the artery must have become occluded; the incision was accordingly closed, and a drainage tube inserted. Six hours later I was called to see the patient; the forearm, arm, and shoulder were greatly distended with extravasated blood, and the patient was in great pain. It seemed evident there must be an aneurysm, probably of the axillary artery, which was leaking, notwithstanding the absence of previous history pointing to this condition. I decided to tie the subclavian artery, and as there seemed little likelihood of the arm recovering its vitality after ligature of the artery owing to the amount of blood clot in the tissues, and as the patient's condition was grave, and he would not likely be able to stand a second operation for amputation of the arm were gangrene to set in, I deemed it wiser policy at once to amputate the arm after ligaturing the subclavian. I therefore ligatured the third part of the artery, and at once performed Spence's amputation through the shoulder-joint, Dr. Tuke very kindly assisting at the operation. On account of the serious condition of the patient the operation had to be performed as speedily as possible, and no investigation of the condition could therefore be made. The after-history of the case was uneventful, both wounds healing by primary union.

The second case was of an Arab whom I met while in Bagdad, Turkish Arabia. He had tuberculous caries of the metatarsal bones of the left foot. I thoroughly scraped the carious bones, and the patient left hospital with the wounds nearly healed. I saw him some six months later; he was then very anaemic owing to the leaking of blood from a small aneurysm of the communicating branch of the dorsalis pedis with the external plantar artery. The aneurysm was the size of a haricot bean. The condition of the foot was far from satisfactory owing to the extension of the tuberculous trouble. I therefore performed Lisfranc's amputation of the foot.

On dissection of the removed portion there was caries around the aneurysm but no spicule of bone was found to have pierced the artery; no atheroma was present. The condition had apparently arisen from tuberculous or traumatic arteritis, the latter being possibly caused at the time of the first operation.

P. S. Sturrock, B.A.Oxon., B.A., M.B., B.C.Cantab.
Dunfermline, Fife.

ACUTE HAEMORRHAGIC PANCREATITIS: OPERATION: RECOVERY.

C. S., a cook, who gave her age as 40, but appeared a good deal older, was admitted into the Royal Victoria Hospital, Bournemouth, on December 3rd, 1902, in a condition of considerable collapse, complaining of great abdominal pain and tenderness, chiefly in the epigastric region.

She stated that her health had not been very good for about twelve years, during which time she had suffered a good deal from indigestion; she occasionally had pains in the abdomen with sickness, but never brought up blood. A year previously, when in the service of a medical man, she was kept on lime water and milk, raw eggs and Benger's food for three months. For nearly a month before admission she had had almost constant pain in the epigastrium, and had had several attacks of epistaxis; during this time she had been dieting herself on bread and butter and tea, with an occasional glass of porter. At her menstrual periods, which were regular, she took gin and water. Her bowels were fairly regular and acted on the night of December 2nd, two or three days previously to which there had been some diarrhoea. On December 2nd she did her work as usual, but had a slight headache. At 4.30 p.m. she had tea with bread and butter. At 7.30 she went out and after walking about two miles was suddenly seized with very severe pain across the upper part of the abdomen, so that she could not stand upright. She vomited, bringing up her tea. She drove home in a cab and was put to bed. The pain continued all night and all the next day till the operation. She was frequently sick, bringing up bile-stained fluid. A little brandy and water was given her when the pain came on, but besides this she took no food after her tea on the 2nd. On admission at 3 p.m. she was, as above stated, a good deal collapsed, but was quite clear in her mind. The abdomen was not distended and nothing abnormal could be made out by palpation or percussion. She had been sent in as a possible case of appendicitis, and the diagnosis seemed to rest between this and a perforated gastric ulcer. An anaesthetic was given at once and the abdomen was opened through the right rectus muscle above the umbilicus. The omentum over the pancreas and the bowel in its neighbourhood were found deeply blood-stained, with numerous small elevated white spots, resembling small grains of rice or sago scattered about them. The pancreas itself was almost purple and extremely tense. Considering the apparently invariably fatal termination of these cases, we decided to try the result of relieving the tension. An incision was therefore made into the head of the pancreas where the tension seemed greatest. This was followed by haemorrhage, which for some time was distinctly alarming. It could, however, be controlled by pressure, and was eventually completely arrested by artery forceps and a ligature. The abdominal wound was partly closed by sutures, a gauze drain being left in. The patient made an uninterrupted recovery, her temperature never rising above 100. She is now in service again. The success of the case is chiefly due to my colleague, Dr. Ramsay, who helped me throughout with his advice and assistance.

Bournemouth. CHARLES D. MUSPRATT, M.D., F.R.C.S.

RAISED SCARS AFTER VACCINATION.

I WISH to call attention through the BRITISH MEDICAL JOURNAL to a condition which sometimes follows vaccination. Previous to last year I have not seen it, and I do not think it is figured in any of the books of illustrations relating to vaccination. The question suggests itself, Is the scar condition due to the use of calf lymph? The scar is usually of a size corresponding to the vaccination, and is either arranged in ridges corresponding to the scratchings made when vaccinating, or is of a smooth elevated appearance. It may rise to $\frac{1}{8}$ in. in height. It is usually either white or raw-bacon-like in colour, and patients complain of a feeling of itching in it. In four cases, I have painted this keloid condition with tincture of iodine, and with fair results.

Liverpool. ROBERT R. RENTOUL.

INSANITY AMONG AMERICAN INDIANS.—The National Hospital for Insane Indians at Canton, South Dakotah, has, we learn from the *Medical Record*, recently completed the first year of its existence. The hospital now contains thirty-four patients, and at the present rate of increase in the number of applicants for admission the institution will soon be filled. It is said that insanity is increasing rapidly among the Indians on the reservations, and for much of this the enforced civilization of the red man is believed to be responsible.

REPORTS

ON

MEDICAL AND SURGICAL PRACTICE IN TH HOSPITALS AND ASYLUMS OF THE BRITISH EMPIRE.

LIVERPOOL ROYAL INFIRMARY.

CIRSOID ANEURYSM OF FOREHEAD TREATED BY FREE INCI AND EXTIRPATION.

(Under the care of Mr. RUSHTON PARKER.)

J. B., aged 19, a groom from Workington, was admitted hospital on January 1st, 1901, suffering from a pulsa swelling the size of half a small orange in the skin of left frontal region. It appears that when less than 5 y old he fell down a flight of eighteen steps, striking his h on a flagged floor at the bottom, and being rendered conscious for two hours. About a month later a lump size of a pea showed under the skin in the upper part of left forehead, and gradually grew ever since.

Fig. 1.—Three days before operation.

Up to about a year before admission the skin ove swelling was unaltered in colour, but after that it be purplish red. There had never been pain. Free ble broke out in it eleven days, and again five days, b admission. This was controlled by a dressing, applied pressure by Dr. J. H. Dudgeon, of Workington, an bleeding orifice quickly healed.

On admission the left frontal region was the seat pulsating swelling irregular in shape, $5\frac{1}{2}$ in. in gre length and 4 in. in greatest width (Fig. 1). Puls was not very strong in the main part of the tu measuring over 3 in. in diameter. But towards the m line, where the lump tailed off into a dilated tortuous v expansile pulsation was marked; and towards the te where it similarly tailed off into a dilated and tortuous poral branch, there was strong expansile pulsation and systolic *bruit*. At the back of the growth was another va vessel, apparently a vein. The vessels of the left side face were engorged, but not those of the right. The sw was superficial to the bone, against which it could be pressed; while the skin over it was hot, of a deep port colour in places, and mostly free from hair.

Operation, January 14th, 1901.—After tying the tem branch of artery, Mr. Parker laid the growth quickly open to the pericranium by triple incision, forming three

ach of which was immediately compressed under a sponge ending the application of compression-forceps to the wide paces opened on its under-surface. The undilated vessels ere then picked up and tied, and the cavernous dilatations ut away, along with spongy naevoid tissue. The flaps being edundant were freely trimmed so as nearly to fit, and only net closely when slightly stretched by the stitches. The ressings were applied with a little pressure under a capelline andage. Union occurred by first intention, the stitches eing removed and dressings abandoned after ten days. The nes of union are accentuated by pencil mark in Fig. 2.

Remarks by Mr. Rushton Parker.—The treatment here dopted was based upon a paper by Mr. Furneaux Jordan of irmingham, which appeared in the British Medical ournal of 1869, vol. i, p. 490. and which impressed me favourbly at the time. In it he advises the free incision of naevi hen practicable, followed by piecemeal excision of the terior. Puncture of cavernous naevi, as is well known, sults commonly in free bleeding, difficult to control; but heir free incision is followed immediately by collapse of the velling, which can then be excised at leisure. Attempts to xcise cirsoid aneurysm by ordinary dissection, or by ndeavouring to isolate and tie the feeding arteries, have been

Fig. 2.—Eighteen days after operation.

escribed to me as attended by most troublesome haemorrage and great difficulty. It seemed to me that the applicaon of Mr. Furneaux Jordan's method must be the only certain way of reaching and securing the vessels of this purely eal disease, by attacking them on the under-side of the skin, er freely opening and removing the cavernous and varicose ces; and I had proved for myself the efficacy of his plan on erectile tumours devoid of pulsation. For all that I was duced to cut down on and tie the more manifest branches of ery, enlarged and tortuous, which fed the growth. But after ing this to a single artery on the temple, without any effect the loss of time involved, the original plan was proceeded . Two assistants were ready with a sponge in each hand, I with one in my left, in case the bleeding should be tall troublesome. But no difficulty was encountered, and free momentary bleeding was readily controlled. The flaps e easily secured, when quickly severed, and the opened ernous mass easily clamped. The patient came to see me eptember, 1902, being entirely free from his disease.

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ternational Congress of Physiology.—The sixth International Congress of Physiology will be held at Brussels om August 30th to September 3rd, 1904. All communicaons on the subject should be addressed to Dr. Slosse, Institut Solvay, Parc Leopold, Brussels.

British Medical Association.

CLINICAL AND SCIENTIFIC PROCEEDINGS.

BATH AND BRISTOL BRANCH.

Barclay J. Baron, M.D., President, in the Chair.

Bristol, Wednesday, January 27th, 1904.

Tuberculosis.—Dr. T. Fisher and Dr. J. O. Symes read a paper on an analysis of 500 necropsies of cases of tuberculosis. They dealt with the question of the point of entry of the tubercle bacillus, taking the oldest lesion present as the primary one. It was shown that abdominal tuberculosis may arise from caseous bronchial glands, and, on the other hand, that very occasionally the lungs might be affected in infection by the mouth. In children invasion of the lungs took place by direct infection from the bronchial glands. Either lobe might be invaded in this way—bronchitis might be excited by the tubercle bacillus; in such a case infection of the abdominal glands was apt to be extensive. Of 96 cases under 12 years of age 56 per cent. suffered from thoracic, 12.5 per cent. from abdominal tuberculosis, and 4 per cent. from affections of bones and joints. General adhesions in the abdominal cavity were rare as a result of healed abdominal tuberculosis; localized lesions with caseation were not uncommon. The number of cases of abdominal tuberculosis was relatively greater under 12 years of age.—Drs. Roger Williams, Eliza Dunbar, Michell Clarke, Newman Neild, W. Swayne, Tubb Thomas, and Fortescue-Brickdale discussed the paper; and Drs. Fisher and Symes replied.

Double Ovarian Hydrocele.—Mr. T. Carwardine read a paper on a case of double ovarian hydrocele. He remarked on the extreme rarity of the condition, and explained its pathology. The operation done in this case was completely successful. Mr. Hey Groves suggested that there might be another explanation for the case in perimetritis with much effusion and inflammatory adhesions over the uterus. Drs. E. W. Dunbar and W. Swayne also discussed the case, and Mr. Carwardine in reply said that the normal condition of the parts anterior to the Fallopian tube negatived the theory of an inflammatory origin of the condition.

Acute Gastric Dilatation.—Mr. Hey Groves read a paper on a case of acute gastric dilatation with fatal termination. He considered the case was one of hypertrophy of the pylorus with spasm; there were no symptoms of the condition in the period antecedent to the fatal attack. Drs. Parker, Newman Neild, Stack, T. Fisher, and Mr. Paul Bush discussed the case.

Specimens.

Dr. Michell Clarke showed (1) a specimen of congenital porencephaly of the left cerebral hemisphere; the part of the brain mantle overlying the island of Reil was absent; the patient died from haemorrhage from the cerebellum during an attack of infective endocarditis. (2) A brain showing a patch of softening in Broca's convolution producing motor aphasia, and another in the region of the arm centre.

BORDER COUNTIES BRANCH.

A meeting of this Branch was held at Dumfries on December 11th, 1903, Dr. Maxwell Ross, President, in the chair. The staff of the Dumfries and Galloway Royal Infirmary, Dumfries, where the meeting was held, had kindly made arrangements to make the meeting a clinical one.

Dr. Clark read the histories of a series of cases of alcoholic neuritis:

1. A butcher, aged 26, had been in the hospital before for a previous attack. He had consumed a large amount of whisky and beer, and showed paralysis of extensors, tenderness along course of post-tibial nerve, and shooting pains. He had massage.

2. A plumber, aged 42, was admitted suffering from loss of power and shooting pains in legs. He had anaesthesia in the lower and inner aspects of both legs, and the sense of heat and cold was very defective. There was marked tenderness along course of sciatic and post-tibial nerves. He had improved greatly under massage. He was a plumber, but there were no special symptoms to indicate lead poisoning.

3. A fishmonger, aged 39, had loss of power in legs and great hyperthesia of soles.

These cases were shown in the wards.

Two cases were presented for diagnosis:

1. A girl, aged 22, who had a large abdominal tumour of one year's duration. She had no leucocytosis. It was thought to be a new formation of the spleen or tuberculous glands.

2. A girl, aged 16, who had patches of pigmentation on the trunk. Addison's disease and leucodermia were suggested. Examination of blood showed no excess of leucocytes.

In addition to these cases, the following were shown:

1. A man with an epithelioma of the tongue was shown. He had a double aortic murmur, with a greatly hypertrophied heart.

2. A sarcoma of the lung was demonstrated. The case had been diagnosed as a tumour of the lung.

Dr. KERR showed a series of abdominal cases:

1. A girl, aged 16, who had an abdominal swelling in the epigastric region. On opening the abdomen, a large cyst was found containing 60 oz. of a dark-coloured fluid resembling bile.

2. A girl, aged 22, who had a parovarian cystoma. On opening the abdomen, a cyst was removed containing 460 oz. of fluid.

3. A girl, aged 20, who had a gastric ulcer which perforated one afternoon, and she was operated on four hours after. On opening the abdomen, gastric contents were found in the peritoneal cavity, and were seen exuding from the perforation. The ulcer was stitched up, and the wound healed by first intention.

Dr. Kerr also showed a woman, aged 35, who had been operated on for a myeloid sarcoma of the upper jaw.

Dr. LIVINGSTON showed a case of Raynaud's disease, the special interest in the case was the presence of cerebral symptoms. On three occasions the patient, a well-developed and in other respects healthy young woman, lost the power of the whole of her left side. These attacks lasted about five minutes and the patient did not lose consciousness. On several occasions she had temporary loss of memory. Dr. Livingston indicated the treatment adopted—namely, general tonics, avoidance of sudden changes in temperature to which she had been previously exposed, high-frequency currents ten minutes daily from March 24th to May 1st while in Professor Stockman's wards, Glasgow Western Infirmary. Dr. Livingston also showed an extreme case of hypospadias. The midwife in attendance at the confinement pronounced the child to be a female. On examination about twenty-four hours afterwards Dr. Livingston found a cleft empty, scrotum resembling the labia of the female, the diminutive penis resembling a large clitoris, the orifice of the urethra in the perineum being mistaken for a minute vagina.

Messrs. Gardner and Son, of Edinburgh, gave a demonstration of surgical instruments, and the members of the Branch afterwards dined together at the Station Hotel.

SOUTH-WESTERN BRANCH.

THE winter intermediate meeting of this Branch was held at the Museum, Torquay, on January 19th, 1904, Dr. W. F. THOMPSON, President, in the chair.

The minutes of the last meeting having been read and confirmed, the PRESIDENT spoke in feeling terms of the recent death of Mr. D'Arcy Sugden of Buckfastleigh, a member of the Branch Council. He pointed out that Mr. Sugden took a very active interest in the affairs of the Branch, and that his death was a distinct loss to the Branch. He proposed that a vote of sympathy should be sent to the relatives, which, on being put to the vote, was carried unanimously.

Cases.—Mr. PAUL SWAIN read notes of the case of a maiden lady, aged 64, who had had symptoms of obstruction of the ascending colon for some months. On December 18th, 1903, he opened the abdomen over the ascending colon, and with a little difficulty was able to draw the bowels containing the cancerous mass into the wound. The intestine was then divided through the ileum, 3 in. from the ileo-caecal valve, and lower down through the colon at the hepatic flexure. A large-sized Murphy's button was inserted. The operation was prolonged by the extensive mesenteric attachments which had to be divided. This was accomplished by clamping bit by bit on the distal side, and tying all the vessels divided. The operation lasted one hour and three-quarters. The patient rallied well from shock, and had no pain or vomiting. Flatus was passed on the second day. On the fifth the bowels acted. On the twelfth there was a discharge of pus and faecal matter, the bowels acting freely. On the twenty-first the button was passed per rectum. The patient made after this a rapid recovery. The excised portion of the colon was then shown to the members.—Dr. GOUGH read a paper on the Use of Axis-traction in Midwifery. He briefly described the history and mechanism of axis-traction forceps, and specially recommended Milne-Murray's forceps (old pattern); having used them for some eighteen years in all kinds of cases where forceps were indicated. He also explained and showed to the meeting another pair of Milne-Murray's forceps designed for use in certain cases of deformed pelves, where the traction handle was so fitted on a horizontal bar, springing from the traction rods, that it could be fixed either further behind or in front of the normal line of traction.—Dr. GORDON read a paper on Some Nervous Cases of Interest.—Mr. HAMILTON WHITEFORD read a paper on Anaesthetics.—Mr. GARDNER showed the following cases: (1) Compound fracture of the skull with extensive brain injury; (2) recovery after operation on perforated gastric ulcer; (3) a case of hip-joint disease successfully treated by operation; (4) a case of genu valgum successfully treated by operation.—Dr. HORTON showed a phosphatic calculus weighing 4½ oz. passed per urethram by a woman aged 41.—Mr. ARNOLD showed a case in which he had successfully sutured the popliteal nerve many months after it had been severed; also he showed a case of extroversion of bladder.

SYDNEY AND NEW SOUTH WALES BRANCH.

THE regular monthly meeting of this Branch was held on December 11th, 1903, at the Royal Society's Room, Sydney, Dr. A. J. BRADY, President, in the chair. There were forty-two members present.

Confirmation of Minutes.—The minutes of the previous meeting were read and confirmed.

New Member.—The PRESIDENT announced the election of Dr. H. H. Lee, of Wollongong.

Communications.—Dr. WORRALL exhibited: (1) Degeneration of uterine myomata; (2) concurrent uterine and tubal gestation; (3) the situation of the corpus luteum in four cases of ectopic gestation. Dr. Worrall read notes of the cases. Drs. MAITLAND and PERKINS asked questions on the cases, and Dr. WORRALL replied.—Dr. FOURNESS BARRINGTON read a paper on the first series of 100 coeliotomies for pelvic abdominal disease. The paper was discussed by Drs. WORRALL, GEORGE ARMSTRONG, CRAGO, BOWKER, and TAYLOR YOUNG. Dr. BARRINGTON replied.

Resolutions.—Dr. WILKINSON proposed the following resolutions:

1. That in the interests of public health neither boracic acid nor borax should be used as a preservative in ordinary or concentrated milk or even in milk products.

2. That this resolution should be communicated to the State Government and the City Council through the proper channels.

3. That a deputation from the Association should wait upon the Premier to place the views of the medical profession on this question before him.

ULSTER BRANCH.—At a meeting held on January 27th, Dr T. McLAUGHLIN, President, in the chair, Dr. DARLING (Lurgan) read notes of a successful case of Caesarean section on a patient whose mother had undergone a similar operation.—Mr. FULLERTON (Belfast) read notes of a case of gunshot wound of the abdomen involving the caecum, which was successfully treated by laparotomy, and showed the patient.—The discussion on the training and education of children mentally deficient was opened by Dr. BERNARD (Derry), who read a paper entitled The Evolution of Successive Phases of Infant and Adolescent Life. Dr. Bernard laid especial emphasis on the necessity of training in the pre-scholastic period. The discussion was continued by Dr. WILLIAM GRAHAM (Belfast), Professor LINDSAY (Belfast), Dr. LESLIE (Strandtown), Dr. LAWLESS (Armagh), Dr. ALLEN (Armagh), Dr. O'NEILL (Belfast), and Dr. CALWELL. Finally it was proposed by Dr. O'NEILL, seconded by Dr. CALWELL, and passed:

That the question be referred to the Council, with instructions to approach the Ulster Medical Society, to appoint a combined committee to inquire into (1) the suggestion of Dr. Bernard's concerning pre-scholastic training; (2) the training and education of children mentally deficient; (3) the general bodily welfare of children of the poor attending school: and to make recommendations as to the best means of remedying the defects.

Dr. JOHN MACCORMAC (Belfast) read a paper entitled Heredity in its Relation to the Nervous System.

THE UNIVERSITY OF CINCINNATI.—Dr. Charles Whitney Dabny has been elected President of the University of Cincinnati, with a salary of £1,600 a year. A handsome residence will be immediately built for him on the University campus. Dr. Dabny will, as President, also be the head of the Medical College of Ohio and the Cincinnati Law School, these being respectively the medical and law departments of the University. The University has an annual income of £50,000.

THE Görbersdorf Sanatorium has recently been converted by the heirs of Dr. Brehmer, the founder, into a company. Among the directors are Professor Rudolf Kobert, formerly head of the sanatorium, and Professor Flügge of Breslau. The present medical superintendent is Staff Surgeon-Major von Hahn.

REPORTS OF SOCIETIES.

LIVERPOOL MEDICAL INSTITUTION.

James Barr, M.D., F.R.C.P., President, in the Chair.

Thursday, January 21st, 1904.

Cerebral Tumour: Cerebral Thrombosis.

Dr. Warrington read a note on a case of cerebral thrombosis clinically characterized by total aphasia but with retention of consciousness. The necropsy showed that the softening had occurred in the region of distribution of the middle cerebral artery, and that it was in great part limited to the lower frontal convolution, temporo-sphenoidal and angular gyrus on the left side. He also gave an account of a case of cerebral tumour. An exploratory operation was performed by Mr. Rushton Parker. The Rolandic area was exposed revealing oedema of the subarachnoid tissue and softness of the brain, but no tumour or even marked tension of the brain. The operation afforded marked though temporary relief to the patient, who died four months later. At the necropsy a tumour was found occupying the basal ganglia and hippocampus major.

Mr. Rushton Parker said that the operation was done chiefly with the view to relieve tension supposed to be the cause of the optic neuritis. The piece of bone removed was replaced in fragments. The wound healed by first intention, and the patient's eyesight was restored and preserved. The patient lived nearly four months after the operation, and undoubtedly his life was prolonged, and the progress of the tumour found after death was greatly diminished.

The Modern Surgery of the Prostate.

Sir William Banks read a paper on the modern surgery of the prostate by way of introduction to a general discussion on the subject. He described a typical case of acute prostatic retention, with its generally disastrous termination as the result of the treatment in vogue when he began practice, and highly eulogized the work of Sir Henry Thompson, which had completely revolutionized the whole conduct of urinary surgery. Passing over Bottini's treatment by the electric cautery, as one of which they had no practical experience in this country, he recalled the work of McGill of Leeds. Had not death cut short the labours of this very admirable surgeon, he would almost certainly have still further advanced the surgery of the prostate. His method of attacking the gland from above by means of suprapubic cystotomy showed a fine combination of courage and originality. The mortality from haemorrhage and sepsis was, however, severe, and the operation did not gain ground. When Freyer made public his operation it was so novel in its character and so opposed in appearance to anatomical possibilities that many persons would not believe that it could be done and he himself was one. But he ventured frankly to say that this would not have occurred if at the outset it had been clearly pointed out that there was no comparison between the normal anatomical prostate and the pathological, adenomatous prostate. The attempt made to deprive him of the credit due to him by saying that his operation was simply that of McGill was very paltry. He (Sir W. Banks) saw McGill's specimens and patients some fourteen years ago, and it was plain that his attack was mere nibbling in the effort to get away as much as possible of the gland and that by means of instruments, Freyer's operation was done with the avowed object of removing the whole gland bodily by enucleating it with the finger, even if the urethra had to go too. He referred to the magnificent specimens exhibited that night by Mr. Freyer and to his mortality of 10 per cent., a low mortality considering what was done and the age and condition of the patients to whom it was done. Allusion was made to the operation of Parker Sims by which the gland was removed by the perineal route—an operation which doubtless promised a better drainage than that by the suprapubic, but which, though apparently making great way in America, had so far not been extensively used in this country. Coming to the question of double castration, while admitting the direct effect of the removal of the testes in diminishing the prostate, he never could bring himself to do it, and he was glad to think that its own inherent defects and Freyer's operation would ere long render it a thing of the past. He regretted very much that Mr. Reginald Harrison's excellent attempt to accomplish, by the safe and easy operation of resectomy, any good that had been done by castration had not proved as successful as he could have wished. His own experience in this department of surgery all went to show that early treatment was the real line upon which efforts should be made. As soon as a man showed any symptoms of enlarged prostate, and as soon as his surgeon found that he did not completely empty his bladder, so soon ought that man to draw off his water at night with the biggest soft catheter he could pass. A silly phrase—"entering upon catheter life"—had done a great deal of mischief by inducing many to believe that this was entering a kind of hell upon earth, the tortures of which were brought on by the use of the catheter. The second point was the prompt use of prostatotomy in certain cases. When a man having symptoms of big prostate suddenly got retention, and when it was clear that instruments of any kind could only be passed with difficulty and suffering and that the retention of a catheter could not be tolerated, the following proceeding had been promptly adopted by him with the greatest success in obtaining not only a relief from the immediate danger, but a complete and permanent cure. With the patient in the lithotomy position the membranous urethra was opened. Then the floor of the prostatic urethra was deeply incised, and the cut carried right up into the bladder so as to split any valve-like third lobe or a cervix-like protrusion. Next the prostatic urethra should be dilated to the utmost with the finger and the biggest possible glass tube inserted and worn for at least a month. It might be said that every surgeon in an urgent case did a urethrotomy and drained the bladder. So he did, but he did not split the lower lobe of the prostate, as described, nor did he forcibly dilate the prostatic urethra and keep it dilated afterwards.

Mr. Freyer briefly referred to the various operative procedures which had from time to time been advocated in dealing with an enlarged prostate. He particularly mentioned castration, and as illustrating the uselessness of such a procedure exhibited a prostate which he had removed from a patient upon whom castration had been performed five years previously. After describing the anatomy of the prostate, he laid great stress upon the importance of ascertaining as far as possible the condition of the kidneys before attempting enucleation, for in long-standing prostatic trouble there was always a danger of suppression of urine, quite apart from the result of operative interference. If cases were more carefully selected and better prepared for operation the mortality in future would be less. Mr. Freyer finally described in detail the various steps of his operation.

Mr. Reginald Harrison said he would confine his remarks to the influence that suprapubic prostatectomy, as illustrated by Mr. Freyer's cases, would be likely to have on the operative treatment of stone in the bladder complicated with such a degree of prostatic enlargement as to render the patient incapable of fully emptying his bladder or of doing so with a catheter. In such cases the expectancy of a recurrence of stone after its removal either by crushing or by suprapubic cystotomy was very great. In fact, under these conditions, the obstructing prostate might be regarded as the principal factor in the formation or re-formation of stone. He cited examples where, after litholapaxy had been repeatedly performed for recurrence of bladder stone, the concurrent removal of both stone and prostate had been followed by the complete and permanent recovery of the patient in the fullest sense of the term. He exhibited a stone and prostate which he had removed the previous day from a patient who had undergone suprapubic lithotomy six months previously. He thought there were many cases where the stone and prostate should be removed as a primary operation. In fact, he had done so in several instances with excellent results. He said this without any prejudice to litholapaxy, which he regarded as the best and safest operation in uncomplicated cases of stone, or where coexisting prostatic symptoms were not pressing. He did not think the combined operation increased the risk.

After remarks from Mr. Robert Bickersteth, Mr. Newbolt, and Mr. Douglas Crawford,

Mr. Rushton Parker said he could confirm Mr. Freyer's description of the so-called third lobe as being an integral part of one of the lateral lobes.

Mr. Thelwall Thomas spoke in favour of the perineal route, and said when the enlargement was not very great the prostate could, after free division of the capsule, be as readily enucleated as by the suprapubic method.

Mr. Paul said his experience of complete enucleation of the prostate was limited to one case, a gentleman of 70 years of age; the power of urinating had subsequently been normal. He was a firm believer in the value of catheterism in prostatic

retention. In many cases nothing more was required, but in some a period came when operative inter erence was necessary. In his experience the advantages claimed for castration and for vasectomy had not been fulfilled.

OBSTETRICAL SOCIETY OF LONDON.

Edward Malins, M.D., President, in the Chair.

Wednesday, January 6th, 1904.

Fibromyoma of the Round Ligament.

Dr. Herbert Spencer read a paper on Fibromyoma of the Intra-abdominal Portion of the Round Ligament of the Uterus. From an examination of fourteen cases, including one of his own, he concluded that fibroids in this situation usually occurred in women over 40. The youngest patient was 24, and the eldest 70. They were commoner on the right side than on the left, might occur in virgins, did not tend to prevent pregnancy or to cause abortion, did not influence menstruation, and when menorrhagia or dysmenorrhoea were present these symptoms were due to associated uterine fibroids. The tumours were subject to lymphangiectasis and to myxomatous and calcareous degeneration, and might cause trouble after the menopause. They varied in size, and might be pedunculated or sessile, intraperitoneal or subperitoneal. The pedicle might be the ligament itself, which was hypertrophied, or there might be a separate pedicle attaching the tumour to the ligament. Torsion of the pedicle might occur. Special symptoms due to the tumour were often not marked; abdominal pain and stiffness, pain on walking, sacral pains, intestinal pains, and pressure on the bladder had been met with. The tumours, which varied in consistence, closely simulated ovarian, uterine, and broad-ligament growths. They should be removed as soon as they caused symptoms or attained a considerable size. The pedicle should be carefully tied, and, when possible, the ends of the ligament should be united. If a sac were left after enucleation, it should be closed by suture or drained.

Mr. Alban Doran was not surprised to find that more than half the cases were associated with fibroids in the uterus. It was significant that, as in the case of fibroid of the broad ligament, the same kind of tumour was found both in the intra-peritoneal and extra-peritoneal portion of the round ligament with relative frequency in young subjects, one patient being only 4 years old. Fibroid disease was also relatively common in the band representing arrested development of a uterine cornu, and in that case the corresponding round ligament was usually very large. Josephson and Falk believed that the rapid development of that ligament in fetal life was the cause of malformation of the uterus. Hence fibroid of the round ligament might in one sense represent a teratological condition. Quite recently Mr. Doran had removed a uterus bicornis for a large fibroid developed in the septum—another half-teratological condition, not very rare.

Mr. Sampson Handley suggested that possibly fibromyoma of the broad and of the round ligaments were genetically identical, and that both varieties of growth might originate from accessory Fallopian tubes. Koumann had shown how frequently these accessory tubes were present, and it was now known that certain broad ligament cysts arose from them. He had himself proved the presence of plicae in such cysts. Since fibromyoma was known occasionally to arise from the muscle of the normal Fallopian tube, it seemed probable that accessory tubes might give rise not only to broad ligament cysts, but to fibromyoma of the broad and round ligaments.

Dr. Herbert Spencer, in reply, thought there was much to be said for the teratological origin of these tumours, especially as they sometimes contained adenomatous tissue, as in Cullen's and Bluhm's cases. Of the enlargement of the round ligament in unicornuate uteri, mentioned by Mr. Alban Doran, he had not previously been aware. With regard to Mr. Handley's suggestion, it was not yet proved that accessory Fallopian tubes existed, and even if they did there did not seem to be any reason why they should be brought in to explain a simple fibromyoma occurring in a fibromyomatous structure like the round ligament.

Pyometra.

Dr. Victor Bonney read a communication on a case of pyometra in one-half of a subseptate uterus. The history and symptoms of the case had been such as to lead to the diagnosis of a pregnancy in a uterus bound down in every direction by old adhesions, and the condition of the patient being serious it was decided to operate. On incising the uterus, with a view to removing the supposed gestation sac, a quantity of pus escaped from a cavity, which on further exploration, proved to be the left half of a subseptate uterus; the median septum having become adherent to the left uterine wall about the level of the internal os. The uterine sac was stitched to the abdominal wound and drained, and the patient made a good recovery.

Uterine Abscess.

Dr. Arnold W. W. Lea related a case of abscess in the wall of the uterus, in a patient who suffered from gonorrhoea at the time of delivery, which developed during the puerperium and ruptured into the peritoneal cavity. After one or two earlier attacks of recurrent pain the patient six weeks after delivery was suddenly seized with intense abdominal pain, followed by symptoms of acute peritonitis. Abdominal section was performed, and an abscess in the posterior wall of the fundus uteri was found to have ruptured into the peritoneal cavity. The patient, though very ill for a few days, made a perfect recovery. Dr. Lea remarked that uterine abscess was rare, and in many cases perforation took place into the peritoneal cavity unless operation were performed. The diagnosis was difficult, but pain, associated with great sensitiveness and enlargement of the uterus, should lead to a suspicion of its presence; it was often difficult to distinguish it from an infected myoma of the uterine wall. If perforation occurred, immediate abdominal section afforded the best chance of success.

Pregnancy in a Fixed Uterus.

Dr. Amand Routh, after alluding to the great rarity of pregnancy in a fixed uterus, related a case of pregnancy occurring in a uterus entirely fixed by parametric exudation, and resembling, therefore, in its essential aspects the case of Dr. Victor Bonney as first diagnosed by him. Haemorrhage occurred at about the twelfth week, and the temperature rose to 102°. It was impossible to draw down the cervix, but after rapid dilatation he was able to empty the uterus by means of his finger and a ring forceps.

OPHTHALMOLOGICAL SOCIETY OF THE UNITED KINGDOM.

Charles Higgens, F.R.C.S., Vice-President, in the Chair.

Thursday, January 28th, 1904.

Proptosis.

Mr. W. H. H. Jessop read a paper on this subject describing 2 cases.

The first one was of syphilitic origin, the patient being a man who suffered from intense headache with swelling in the right temporal region and protrusion of the eyeball. He was treated with iodide, etc., but without much relief. The vision was reduced to fingers at 12 in., there was slight ptosis, pupil 4 mm. inactive, optic disc pale and a discharge from the nostril. An incision was made into the swelling and dead bone was discovered. This gave slight relief but the pain soon returned and Mr. Waring then undertook a very extensive operation and removed a great deal of necrosed bone including a portion of the great wing of the sphenoid.

The patient recovered and was much benefited.

The second case was that of a lady who had normal acuteness of vision when first seen but subsequently developed retrobulbar neuritis and supraorbital neuralgia. The symptoms increased with proptosis and tumour of the optic nerve was diagnosed. Sir Victor Horsley operated and a growth was found which proved to be an endothelioma. The patient was much relieved.

Mr. Jessop referred to other cases and emphasized the great relief afforded by the operations.

Asthenopia.

Mr. C. Brooksbank-James read a paper detailing a plan of treating some cases of asthenopia. He had noticed how rare it was to see myopia develop in watchmakers and those who used a single eyeglass for magnifying their work; applying the same principle to other cases he had come to the conclusion that the development of myopia might be arrested by similar means. He mentioned the case of a patient who had — 1.5 D myopia, and for this he ordered a glass of + 1.5 to be used for one eye only, so that convergence might be prevented. The myopia did not increase during many months while using this method, though it increased 0 5 when ordinary glasses were used.

Mr. C. Worth thought that, in cases in which pain and fatigue were prominent symptoms, hyperphoria was present.

Mr. Bishop Harman did not consider that the mere closing of one eye would prevent convergence when looking at a near

object; and thought it would much interfere with education if this plan were adopted.

Rheumatoid Arthritis.

Mr. Beaumont read a paper on the eye symptoms of rheumatoid arthritis, with especial reference to the fields of of vision. In spite of recent research by Bannatyne and Wohlmann there was much that was obscure in rheumatoid arthritis, and he desired to call attention to the contraction of the fields of vision which frequently occurred. He compared the compound charts of male and female patients and found them similar. They were obtained by a novel method. The number of degrees from fixation point outwards was noted in each case. These were added together and divided by the number of patients examined, and so an average field was constructed. The uniformity of the fields in males and females excluded, he thought, hysteria but not necessarily neurasthenia. There was no central scotoma in rheumatoid arthritis, and no evidence of optic atrophy, and, as a rule, not more than a proportionate contraction of the colour fields. He remarked upon the Raynaud-like symptoms that were sometimes present, and said that Dr. Samuel Lodge had noticed contracted fields in this disease. Possibly the contraction was due to the syncopal conditions of the terminal vessels of the retina. Diagrams were shown in which expansion of the fields occurred when amyl nitrite was inhaled, whereas in a healthy person no enlargement was noticed.

Tuberculosis of the Choroid.

Mr. J. R. Lunn described a case of tuberculosis of the choroid. The child was 6 years of age, and was suffering from symptoms of general tuberculosis, and was in a typhoid condition. There was discharge from the left ear. Optic neuritis was present and a swelling in the choroid. In spite of the disease the child got quite well, but the oval area in the choroid was still present, though the optic neuritis had subsided. He thought the case was doubtless tuberculous.

Mr. Jessop mentioned a case of allied character.

Specimens.

The following card specimens were shown:—Mr. Johnson Taylor: A swelling of unusual size, probably inflammatory, in the ciliary region.—Mr. Treacher Collins: An unusual superficial circumferential opacity of the cornea, symmetrical in the two eyes.—Mr. G. W. Thompson: An unusual form of central choroiditis in a young man.—Mr. G. W. Roll: Unusual changes in the macular region.—Dr. D. Fowat: Paralysis of inferior recti muscles.—Dr. Rayner Batten: Subretinal haemorrhages.

British Laryngological, Rhinological, and Otological Association.—At a meeting on January 29th, Mr. Bark (Liverpool), President, in the chair, a case of intermittent nasal obstruction and others illustrating stages of progressive deafness were shown by Mr. Mayo Collier.—Dr. Kelson showed a case of laryngitis in a girl, and in answer to observations from Dr. Dundas Grant and Mr. McDougall (Liverpool) said that he intended removing the tonsils, and that he had not noticed any nervous tendencies.—Mr. Stuart-Low showed a series of cases in which aural sepsis had been obtained by means of kelvolin vapour and the local application of pure kelvolin. The cases and treatment were favourably discussed by the President, Dr. Dundas Grant, and others, and Mr. Stuart-Low, in reply to questions, said that all the cases shown had been treated by the usual methods, some for years before coming under this special treatment. Two of the cases shown were Dr. Jakins's patients, and both were instances of intractable discharge. Cultures were always taken before using the vapour, and then it was pushed until the culture was negative. There was no doubt about the germicidal power of kelvolin vapour, even the staphylococcus succumbed to its influence. There had been four failures, but when many granulations were present shielding the seat of the mischief, the treatment was necessarily more prolonged.—Mr. Stuart-Low also showed a case of nasal polypi in a boy aged 7 years. The extreme youth of the patient had led Professor Hajek of Vienna to suggest that it might be a sarcoma.—Dr. Wylie showed a case of primary hard sore on the lip of a woman. The President had not seen one before, but Dr. Jobson Horne, though such cases were uncommon, had seen three in five years. Remarks on the difficulty sometimes of tracing the primary infection were made by Mr. C. Nurse and Dr. Dundas Grant.—Dr. Wylie showed a case of neoplasm of the oesophagus, probably malignant, and causing paralysis of both vocal cords. Dr. Lodge (Bradford) had had a similar case, in which death ensued from septic pneumonia after perforation of the trachea.—Dr. Wyatt Wingrave showed a case of laryngeal disease in a man aged 30 years. In answer to Mr. Barwell he said he could get no syphilitic history, but intended to try antisyphilitic treatment.—Dr. Kelson showed a case of eruption on the fauces which had at first looked like malignant disease. Hypodermic injection of arsenic and iron was suggested by Mr. Wright, but the President and Dr. McDougall threw out a diagnosis of syphilis.—Mr. Barwell showed a case of syphilitic laryngitis. Dr. Dundas Grant, who had a somewhat similar case under treatment, thought it looked like a solid oedema. In his own case potassium iodide failed, but mercurial inunctions did good. In reply to suggestions, Mr. Barwell said that he was already giving 75 gr. of potassium iodide a day, but intended to increase the amount. He did not think it was oedema.—A case of growth in the anterior commissure above the vocal cords was shown by the President, and its nature discussed by Drs. Wyatt Wingrave, Vinrace, Horne, and Lodge. The President, in reply, said there was a good deal of dyspnoea occasionally. His experience was that fibromata were always single, while papillomata were often multiple.—Mr. Mayo Collier then read a paper on latent or intermittent nasal obstruction, discussion of which was adjourned to the next meeting.

Pathological Society of London.—At a meeting of this Society, held at the Lister Institute on Tuesday, February 2nd, Sir John Burdon Sanderson, Bart., President, in the chair, the following communications were made: Mr. H. G. Plimmer, the Organisms of Monkey Malaria and Sleeping Sickness; Dr. A. Paine, a New Method of Staining with Iron Haemotoxylin; Dr. J. A. Craw, Agglutination.

Therapeutical Society.—At a meeting on January 19th, Sir W. Thiselton Dyer, President, in the chair, Professor Farmer read a paper on some new discoveries respecting cancer. The causation of cancer by parasites or by stray cells was not proved, but he, with Messrs. Moore and Walker, had found that the development of cancer cells differed from that of the cells of other tumours, and closely resembled that of reproductive cells. In both animals and plants the nuclei of the somatic cells divided longitudinally into rods or chromosomes, but reproductive cells divided transversely into oval or ring-like chromosomes, forming only half the number of those four somatic nuclei. Cancer cells divided just like reproductive cells, and had the power of destroying any somatic cells in contact with them, just as in the embryo sac of plants. This mode of division occurred in some cells of every malignant growth, but not in any benign tumour. The somatic cells of plants sometimes changed into reproductive cells by this heterotypal division; the causes of this were still being investigated. The frequent anomalies observed in the malignant growths, while they obscured it, did not affect the existence of the characteristic heterotype mycosis; they were probably due to nutritional and other disturbances that were known to affect similarly the nuclei of ordinary tissues.—Dr. Kelynack spoke of the hygienic treatment of pulmonary tuberculosis based on inspection of many establishments. He indicated how pioneers like Parrish, Bodington, and Richardson had anticipated hygienic measures in the treatment of phthisis, and also the need for a systematized "after-cure" of consumptives. He showed that wide differences existed in clinical methods and therapeutical practice in sanatoria, and urged that efforts should be made to secure scientific uniformity in clinical procedure and combination in investigation, and a system of recording returns which would allow a comparison of results.—Dr. Gray Duncanson discussed the suprarenal gland products and described the medicinal preparations from it. Dry powders were best for internal administration and liquid extracts for hypodermic use. The active principle, adrenalin, first isolated by Takanine, a Japanese chemist, had the empirical formula $C_{10}H_{13}NO_3$. He described their use in ecchymosis and other affections of the eye, their haemostatic qualities when applied to bleeding surfaces directly or indirectly. He warned against their administration in haemoptysis and diabetes, citing cases which became worse under their use, and concluded with an appeal for the recognition of suprarenal gland products as therapeutic agents. Sir W. Thiselton Dyer, Sir H. Beevor, Dr. Rolleston, and Dr. Wild also spoke.

HUNTERIAN SOCIETY.—At a meeting on Wednesday, January 27th, Dr. APPLEFORD, the President, in the chair, the following specimens were shown and discussed:—Dr. E. W. GOODALL: The intestines, with a drawing and photograph from a case of dysentery in a girl, aged 17 years. The relation of acute ulcerative colitis to asylum dysentery and tropical dysentery was discussed. Dr. LANGDON-BROWN stated that Dr. Washbourn had failed to find the amoeba coli in any of a very large number of cases of dysentery examined by him in South Africa.—Dr. GOODALL also showed a case of ulceration of the tongue and pharynx after measles.—Dr. W. H. KELSON: A large mucous polypus removed from a man whose post-nasal space it had completely filled.—Dr. HENRY RUSSELL ANDREWS showed a specimen of a lithopaedion of six years' duration which he had removed from the abdomen with an ectopic gestation of the other tube. He drew attention to the curious fact that the patient had only conceived twice, and that each gestation had been tubal, the first producing a lithopaedion.—Dr. LEWIS SMITH: An acute gastric ulcer which had ulcerated through the coronary artery of a young woman and caused her death by profuse haemorrhage. He discussed the importance of recognizing whether the ulcer was (1) chronic and indurated, (2) round ulcer eroding a large artery, (3) a mere erosion. The second of these was alone suitable for immediate surgical interference as far as the ulcer was concerned. Dr. Lewis Smith also showed a specimen of the leather-bottle form of carcinoma of the stomach. He pointed out the insidious character of the symptoms and the fact that the mucous membrane was not ulcerated in these cases. Mr. TARGETT suggested that this form of carcinoma found its homologue in atrophic scirrhus of the breast.—Dr. KERSHAW (introduced by Dr. F. J. Smith) and Mr. HUGH M. RIGBY showed a specimen of diaphragmatic hernia of the transverse colon and omentum into the left pleura. The aperture resulted from a stab wound two years before.—Mr. HAROLD L. BARNARD: A specimen of a hernia into a duodeno-jejunal fossa. It was remarkable for the reason that the aperture was to the right of the root of the mesentery, but the sac passed below the superior mesenteric artery into the left side of the abdomen, and, secondly, because the lower jejunum was the gut strangulated in the sac.

NORTH OF ENGLAND OBSTETRICAL AND GYNAECOLOGICAL SOCIETY.—The annual meeting was held at Owens College, Manchester, on January 15th 1904, when Dr. W. J. Sinclair was unanimously elected President for 1904. At the conclusion of the annual business, Dr. A. STOOKES (Liverpool) read notes of a case of eclampsia with fatal result. A discussion followed, in which the PRESIDENT, Drs. H. BRIGGS, MARTIN, CROFT, NESFIELD, and J. GARNER took part.—Dr. A. DONALD (Manchester) read a paper on Chronic Endometritis and Chronic Metritis in Virgins. He dealt with affections of the endometrium and mesometrium occurring apart from the usual infective causes (sepsis, gonorrhoea, etc.). The paper was based on a series of 40 cases which had been carefully observed. Attention was specially directed to one group of cases, which were characterized by the association of these three conditions: (1) Small or infantile cervix; (2) acute flexion, forwards or backwards; (3) enlargement of the uterine body. The symptoms in these cases were, in the order of frequency, (1) pain or dragging sensation in one or both iliac regions, or pain generally in the lower zone of the abdomen (in 36 out of 40 cases); (2) dysmenorrhoea (in 33 out of 40 cases); (3) leucorrhoea (in 31 out of 40 cases); (4) menorrhagia or metrorrhagia (in 16 out of 40 cases); and (5) remote or nervous symptoms. In a large proportion of the cases the uterine mucosa was much thickened. The uterine cavity showed an increase in length of from $\frac{1}{4}$ in. to $1\frac{3}{4}$ in., and the mesometrium was sometimes considerably thickened. Microscopic examination of the mucous membrane removed showed great increase in glands or in interglandular stroma or both. Remarks were made as to the etiology and treatment of the condition. The paper was discussed by Drs. LLOYD ROBERTS, ARNOLD LEA, W. E. FOTHERGILL, STOOKES, RICHARDSON, and the PRESIDENT (Dr. Donald) replied.

GERMAN ORTHOPAEDIC CONGRESS.—The third congress of the German Society of Orthopaedic Surgery will be held at Berlin in Easter week. The principal question on the programme is the pathology and treatment of joint contractions. The discussion will be opened by Professor von Mikulicz and Dr. Ludloff of Breslau, and Dr. Gocht of Halle.

REVIEWS.

DISEASES OF CHILDREN.

So favourable a reception was accorded the first edition of Dr. EMMETT HOLT'S *Diseases of Infancy and Childhood*[1] that the fact of a second edition being so soon called for will cause no surprise. The author states that nearly every chapter has been subjected to careful revision and that many have been rewritten. He may be congratulated on the result of his labour, for the book is one of the best dealing with its special subject. In many instances his descriptions of children's diseases are equal to or better than any others we are acquainted with. The reader feels that these descriptions are drawn from the personal experience of a careful and accurate observer. Dr. Holt makes large use of statistics in many of his chapters, and statistics are often of value, especially in prognosis; but we cannot help feeling that he has overdone the statistical method. To record the fact that in a disease this symptom appeared so many times and that symptom so many other times often only adds to the difficulty of reading and serves no useful purpose. He would appear, again, to be too prone to make minute subdivisions in many complaints, and this is more apt to confuse the reader than to render any assistance in either diagnosis or treatment. As an example, he makes a separate section under the heading of pleuro-pneumonia of cases of both lobar and catarrhal pneumonias where the pleurisy is judged to be in excess, a grouping for which there would seem to be little justification or utility. It would have been much better to have described such cases as mere varieties of their common types than to have grouped them as a separate disorder. In the midst of much excellent matter it is disappointing and indeed exasperating to come across such a paragraph as the following:

> The results of sucking may be serious. Deformities of the thumb or finger, of the lips and teeth, and even of the jaws, are sometimes produced . . . Probably the most pernicious result of sucking is its tendency to develop the habit of masturbation. Habitual sucking of one hand or finger may lead to spinal curvature.

Now the connexion between the habit of "sucking" and that of a subsequent masturbation is manifestly incapable of direct proof, and in its absence statements like the foregoing are uncalled for, and verge on the absurd. Much has been written and said against the "comforter," but it has been left to Dr. Holt to make the severest indictment of all of that usually unsavoury-looking article of infantile furniture. In two or three other instances, too, the text is spoilt by the interpolation of statements as dogmatic and equally as incapable of proof as that quoted. Still, the faults discoverable are wondrous few and the merits many and conspicuous. Very few points of importance would seem to have been missed, and the work can be warmly recommended.

The first edition of Dr. JACOBI'S book on the *Therapeutics of Infancy and Childhood*[2] was published in 1896, and that a third edition has been called for in 1903 is sufficient testimony as to the extent to which its merits have been appreciated. The work is so well known that a lengthy notice of it is now uncalled for. In this new edition the whole has been revised but no material changes have been made. As in former editions, we understand Dr. Jacobi to plead in this that the mistakes will be found to be those in diction and not in the more important consideration of matter. Truth to tell, the frequent shortcomings in the way of diction are not to be gainsaid, and the innumerable and constant interpolations in the text are somewhat disconcerting, and render the work far from easy to read. Nevertheless, they serve the purpose, of no other more useful, of recalling the personality of the author himself to those who may have had the pleasure of meeting him. Dr. Jacobi is confessedly a believer in medicines, and asserts: "What the knife is to the surgeon, drugs are to the physician." His work is founded on this belief and, indeed, the list of drugs he advises in most complaints is bewildering both in number and variety. On the subject of infant feeding Dr. Jacobi is not a follower of Dr. Rotch, although he accords that physician all the praise he is entitled to for his endeavours to place the subject on an accurate and scientific basis. But, as Dr. Jacobi says, the needs of infanti

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1 *The Diseases of Infancy and Childhood.* By T. Emmett Holt, M.D., LL.D., Professor of Diseases of Children in the College of Physicians and Surgeons (Columbia University), New York, etc. Second edition. London: Henry Kimpton. 1903. (Roy.8vo, pp. 1180. 25s.)

2 *Therapeutics of Infancy and Childhood.* By A. Jacobi, M.D., LL.D. Third Edition. London: J. B. Lippincott Co. 1903. (Demy 8vo, pp. 578. 18s.

individualities are not necessarily controlled by considerations of physiological chemistry, and "fortunately digestion and assimilation are not regulated by mathematics."

Dr. Jacobi is not only a firm believer in drugs, but he is an advocate in numerous instances for giving them in large doses after short intervals, until some direct physiological result is obtained. He urges that much of the unsatisfactory results from their use in the practice of others is due to their being given in the ordinary doses, which are often too small. Writing of alcohol, for instance, he says:

Its most beneficial action is exhibited in sepsis of all forms, mainly, also, in the septic varieties of erysipelas, no matter whether there are brain symptoms or not, and of diphtheria. Here it is almost impossible to give too much. The doses must be watched so as to be *sufficiently large*. Whoever is not afraid to give, in diphtheria, 6 oz. of whisky daily to a child when one or two fail, or ten or twelve when six fail, will soon convince himself of its power for good.

After this, it is not surprising to read "alcohol is having a hard time between temperance women and sensational medical writers." Many of the theories advanced and the lines of treatment advocated are novel and surprising. According to Dr. Jacobi:

In rachitis the heart is of average size, but the arteries are abnormally large. Great width of arteries lowers the blood pressure. That is why the muscles and bones suffer from insufficient nutrition, and why the circulation in the respiratory organs is slow and sluggish, with a tendency to produce congestion and catarrh.

On the treatment of the same complaint, he writes:

The sluggish circulation, depending on general debility and the large size of the arteries, demands the administration of heart tonics—digitalis, strophanthus, sparteine, caffeine, or coffee—from the very beginning, and besides, small doses of alcoholic stimulants at an early stage, or the use of stimulant expectorants, such as ammonium carbonate or camphor.

High authority may be quoted for this enlargement of the arteries in rickets, yet it may safely be said that much more conclusive evidence of its reality as a factor of importance in the complaint will have to be forthcoming before the method of giving alcohol and heart tonics to infants will commend itself to any large section of the profession. In fact, we would enter a most emphatic protest against such heroic doses of alcohol. Even if the theory on which their use is well founded were proved up to the hilt, we should still be prepared to maintain that the remedy was worse than the disease. The quotations given will testify to the originality of Dr. Jacobi's views and methods. On every page, and in almost every sentence, new ideas may be gathered which are at least suggestive, even if they frequently fail to carry conviction. The author possesses the courage of his opinions, and his book carries evidence of great erudition and wide experience.

In the preface to his recent work on *Diseases of Infancy and Childhood*[3] Dr. Koplik states that it is "not in any sense a compilation," but an "endeavour to gather and unify the world's best practice" in paediatrics. While basing his teaching on "individual experience," he has exercised a "careful judgement regarding the work of others" in America, England, France, Germany, and Italy. With conscientious regularity the name of each authority for individual statements is quoted in the text, while at the end of every chapter the author adds a valuable list of authorities referred to. The diverse national opinions respecting disease, sifted as they have been by Dr. Koplik, will prove an incentive to a reconsideration of moot points; and while promoting further discrimination between essentials and accidentals, will tend incidentally towards greater international uniformity in theory and practice. Special interest attaches to the author's views on Koplik's "spots" as a pathognomic sign of measles. In 1896 he pointed out that "the exanthema on the hard and soft palate" described by Rehn "was not peculiar to measles," being found also in "rotheln, scarlet fever, and ..... simple angina." Dr. Koplik originates the statement, not universally admitted, that "the eruption on the *buccal mucous membrane* alone, however, preceding the appearance of the exanthema on the skin by a period of from three to five days is characteristic of the invasion of measles." A lucid and graphic description of the spots is given, illustrated by four excellent chromo-lithographs.

OPERATIVE SURGERY.

Although some of the subjects usually discussed in a complete treatise have been omitted by Dr. Bickham from his book on *Operative Surgery*,[4] it is one of formidable dimensions and, it must be confessed, considering its purpose, of rather inconvenient form. If this objection be disregarded it will be found a very useful as well as a trustworthy guide to operative surgery on both the living and the dead subject. The author has evidently had much experience in the teaching of this important branch of surgical work, and knows well how to point out the best ways of overcoming the difficulties met with by both practitioner and student in operative practice. The book is fairly comprehensive, and, although so bulky and closely printed, includes very few descriptions of such operations as a hospital surgeon might not be called upon to perform in a life time. The clinical aspect, quite absent in some and unduly prominent in other books of this kind, is not fully dealt with by Dr. Bickham, and mainly in general considerations of groups of operations. Much attention is paid to surgical anatomy, the author laying stress on the necessity of applying a good knowledge of anatomical facts during the progress of surgical manipulations. Another important and very useful feature of this work is the abundance and excellence of its illustrations, the large majority being original, for which the author, with very good reason, expresses deep gratitude to Miss E. Fry. The drawings, especially those of intestinal operations, are exceptionally clear and distinct, and seem likely to prove very helpful.

The guide to operative surgery prepared by Professor Bennecke[5] is intended to assist those attending the courses given by Professor König and the author. It seems to be well adapted by its full and clear teaching, and also by its excellent illustrations, to meet the requirements of a much wider circle of German students. As it deals only with operative surgery on the dead subject, it is free from clinical and statistical details which in so many works of this kind form rather a disturbing element to those engaged in working for strictly technical instruction and for examination. The operations here described, though well selected, do not include, as might be expected in a complete course, any of those performed on the contents of the abdominal cavity.

PHYSIOLOGY.

It is not much more than a year since we had to chronicle the appearance of the third edition of Professor Max Verworn's work on general physiology.[6] It is, therefore, unnecessary to add to what we said then in reference to its interest and importance. Although the time is so short since the last, the new edition contains considerable alterations and additions in the present volume. Indeed, so much new material is rapidly accumulating in the domain of general physiology that Professor Verworn has found it necessary to establish a journal (*Zeitschrift für allgemeine Physiologie*) to deal with the researches in this branch of biological science, which he has himself done so much to stimulate. The actual bulk of the present edition is not much increased, and we note with satisfaction the incorporation of nearly a hundred new illustrations. These add greatly to the interest of the book, and throughout they are of a high standard of excellence. In order to make the volume as perfect as possible Professor Verworn has secured the services of eminent specialists to rewrite or revise certain sections; for instance, Professor von Baeyer of Munich and Dr. Cöhn of Göttingen are responsible for the chemical and physico-chemical sections; and the part which describes cell division has been rewritten by Professor Rhumbler in accordance with most recent views. Verworn's book is still unique of its kind among physiological textbooks, and we congratulate its author on its continued popularity.

A manual of *Practical Physiological Chemistry*[7] has been compiled by Professor T. H. and Dr. J. A. Milroy. The book is designed as a guide to students attending a three

[3] *The Diseases of Infancy and Childhood.* By Henry Koplik, M.D. London: Henry Kimpton. 1903. (Demy 8vo, pp. 675; 169 engravings and 30 plates in colour and monochrome. 21s.)

[4] *A Textbook of Operative Surgery, covering the Surgical Anatomy and Operative Technic Involved in the Operations of General Surgery.* By Warren Stone Bickham, Phar.M., M.D., Assistant Instructor in Operative Surgery, College of Physicians and Surgeons, New York, etc. Philadelphia, New York, and London. W. B. Saunders and Co. 1903. (Demy 8vo pp. 584, 550 illustrations. 25s.)

[5] *Operationsübungen an der Leiche* [Exercises in Operative Surgery on the Cadaver]. By Professor Bennecke; with a preface by Professor Dr. F. König. Leipzig: H. Hartung und Sohn. 1903. (Crown 8vo, pp. 182. 108 illustrations. M. 4.)

[6] *Allgemeine Physiologie.* By Max Verworn, Professor of Physiology in the University of Göttingen. Fourth edition. Iena: Gustav Fischer. 1903. (Royal 8vo, pp. 652, 300 illustrations. M.15.)

[7] *Practical Physiological Chemistry.* By J. A. Milroy, M.A., M.D., and T. H. Milroy, M.D., B.Sc., F.R.S.E. Edinburgh; W. Green and Sons. 1904. (Demy 8vo, pp. 210. 5s.)

months' laboratory course, and is interleaved with blank pages so that the student can record his own notes and observations. Only that amount of theoretical explanation is given which is essential to the proper understanding of the practical processes. The book is well designed and only the most instructive tests and methods are properly selected by the authors. Excellent tables are given to guide the student in the detection of unknown substances of physiological importance, also useful tables of reagents, weights and measures, solubilities of salts, etc. The illustrations of spectra and crystals are likewise good.

The *Studies in Physiology, Anatomy and Hygiene*, by J. E. PEABODY,[8] the Instructor in Biology in the Morris High School, New York, consists of lessons in elementary anatomy and physiology, while simple rules of hygiene are discussed in a separate section at the end of the study of each system. The early chapters are devoted to the simple principles of chemistry, atmospheric pressure, etc. Many of the physiological functions are treated from a comparative standpoint and illustrated by the study of some of the common animals and plants. In the United States instruction regarding the effects of alcohol and narcotics is prescribed, and the author has devoted twenty pages to this subject. The book is sensibly written, and well illustrated, and seems suitable for high schools.

Mr. PEYTON BEALE has founded his *Aids to Physiology*[9] upon the volume written many years ago by Professor B. T. Lowne. It is designed as an aid to the student who is presenting himself for examination—in other words, it is a cram book. It is carefully compiled and clearly written, but should not be allowed to take the place of the student's lecture notebook. The use of such books is, we consider, harmful to the education of the student, as it leads him to be negligent of his proper course of teaching, and to depend on cramming just before his examination.

CHEMICAL TEXTBOOKS.

PROFESSOR J. LOEB has rendered us a great service in encouraging Dr. Fischer to translate COHEN'S *Physical Chemistry*.[10] The book consists of a series of masterly lectures and serves not only as an introduction to physical chemistry, but also indicates how the physician and biologist has and may study the application of this science to medical and biological problems. Such subjects are dealt with as the relation of catalysis to ferment action; the influence of temperature on reaction velocity and its application to growth of metabolism of living organisms, and to the action of poisons on protoplasm, etc.; osmotic pressure and the theory of electrolytic dissociation with the application of this theory to the principles of disinfection and to pharmacology. One of the principles upon which the maximal dosage table of the *German Pharmacopœia* is based is that the therapeutic action of the substances named therein is proportional to their weight. "This assumption," says Cohen, "is in itself certainly incorrect, and we know, moreover, that the action of a dissolved substance depends to a great extent upon the medium in which it is dissolved." Thus carbolic acid loses from one-fifth to one-half its effect when 20 to 30 per cent. glycerine is added to it, and while the addition of sodium chloride to carbolic acid solution increases its germicidal action, it decreases the activity of corrosive sublimate. It is evident then that extensive reforms in the field of pharmacology will be brought about by the study of physical chemistry. The book ends with the consideration of electromotive force. In this the theory of concentration cells is explained, a theory which has recently being used by Professor MacDonald to explain the phenomena of animal electricity.

The fact that an eighteenth edition of Dr. JOHN ATTFIELD'S *Manual of Chemistry*[11] has been demanded speaks volumes for the high position it still holds in the estimation of those for whom it was primarily intended. The advance of years has driven the author, for the first time, to seek the collaboration of an editor, and he has been fortunate in securing the services of Dr. LEONARD DOBBIN, whose knowledge of the subject, both in theory and in its application to medicine and pharmacy, well fit him for the task. The distinguishing features of the manual have been preserved, and we note with pleasure that the principle of teaching inorganic chemistry by synthetical and analytical exercises, instead of exclusively by the latter, is continued. For the student working alone, in particular, these synthetical exercises are of the utmost value, and lead to the acquisition of a knowledge of the general properties of chemical substances, which is never so thoroughly learnt by purely analytical work. The section on organic chemistry, hitherto the weak spot of the work, has been largely remodelled, and will be now found quite up to the standard of the other matter. That part dealing with the general principles of chemical philosophy has also been much improved, and its perusal will give the student a good grasp of modern chemical theories. The ionic theory is, however, treated very cursorily in a single page, and more space should have been allotted to this now generally-accepted hypothesis which is so necessary for the rational explanation of many chemical and physical phenomena. We can recommend the manual as a textbook for medical or pharmaceutical students and as a work of reference for all interested in medicine or pharmacy.

The publication of a ninth edition of Dr. JOHN MUTER'S *Short Manual of Analytical Chemistry*[12] bears evidence of the continued favour in which this textbook is held. The general scope of the work remains unaltered, only such minor changes and improvements having been made as increased experience has suggested. Containing, as it does in a concise and convenient form, the information on analytical methods likely to be required by the medical student and the pharmacist, we have no doubt that this edition will be as successful as its predecessors.

In his treatise on quantitative chemical analysis[13] Dr. BIAIS has specially considered the needs of pharmacists. To this end he has described methods which can be quickly carried out without elaborate apparatus, and which nevertheless give sufficiently accurate results for most practical purposes. Special stress is laid on the value of volumetric methods, and all the more recent processes are pressed into service. Besides treating of the quantitative determination of ordinary chemical substances, the author enters fully into the analysis of urine, milk, wines, vinegar, cider, beer, soils, and manure.

M. J. TARBOURIECH'S volume on the technique of chemical analyses[14] is a manual written expressly for the use of pharmacists. Theoretical considerations are absent, and instead of confusing the reader by giving various methods of procedure for each operation, that one which the author considers best is alone detailed. The qualitative analysis of chemical substances in general is treated of, and also the quantitative analyses required in manufacturing processes, as well as those necessary in the examination of foods, urine, calculi, crude drugs, and galenical preparations. In this country it will be found specially useful to those undertaking the examination of substances under the Food and Drugs Act.

The late Dr. ALDER WRIGHT'S work on *Oils, Fats, Waxes and their Manufactured Products*[15] is too well known to need any extended comment. It has long been considered a standard work of reference; and the second edition, which has been edited and partly rewritten by Mr. C. AINSWORTH MITCHELL, should prove still more useful to those interested in the class of substances of which it treats. In the first edition minute details of the various tests employed in practical examination of oils, etc., for adulterations were omitted as were also detailed descriptions of individual oils and fa

[8] *Studies in Physiology, Anatomy and Hygiene.* By J. E. Peabody, A.M. London: Macmillan and Co. 1903. (Demy 8vo, pp. 350. 5s.)

[9] *Aids to Physiology.* By Peyton T. B. Beale, F.R.C.S. London: Baillière, Tindall, and Cox. 1903. (Fcap. 8vo, pp. 240, 48 illustrations. 3s. 6d.)

[10] *Physical Chemistry for Physicians and Biologists*, by Dr. Ernst Cohen. Translated from the German by Martin H. Fischer, M.D. New York: Holt and Co. London: George Bell and Sons. 1903. (Crown 8vo, pp. 343. 6s.)

[11] *Chemistry: General, Medical, and Pharmaceutical.* By John Attfield, F.R.S., etc. Edited by Leonard Dobbin, Ph.D., F.I.C., etc. Eighteenth edition. London: Gurney and Jackson. 1903. (Demy 8vo, pp. 854; 65 illustrations. 15s.)

[12] *A Short Manual of Analytical Chemistry.* By John Muter, Ph. F.R.S.E., F.I.C., F.C.S. London: Baillière, Tindall, and Cox. 19 (Demy 8vo, pp. 235; 56 illustrations. 6s.)

[13] *Traité d'Analyse Chimique Quantitative.* Par le Dr. Biais. Paris: Maloine. 1903. (Demy 8vo, pp. 495; 88 illustrations. Frs. 6.)

[14] *Technique des Analyses Chimiques.* Par J. Tarbouriech. Paris: A. Maloi 1903. (Crown 8vo, pp. 509; 81 illustrations. Frs 6.)

[15] *Animal and Vegetable Fixed Oils, Fats, Butters, and Waxes: their Prepa tion and Properties, and the Manufacture therefrom of Candles, Soaps, other Products.* By C. R. Alder Wright, D.Sc.Lond., B.Sc.Vict. F.R Second edition, edited and partly rewritten by C. Ainsworth Mitch B.A Oxon., F.I.C. London: Charles Griffin and Co., Limited. 19 (Demy 8vo, pp. 804, 2 plates; 154 illustrations. 25s.)

except in a few typical cases. Although such an arrangement enabled the ordinary reader to obtain a comprehensive view of the subject more readily, the specialist was obliged to supplement the information given by reference to other text-books on the subject. The scope of the book has now been extended; this has necessitated the rewriting of many chapters, and that which deals with adulterations consists almost entirely of new matter. The whole book has also been brought into line with the large amount of original work published during the decade which has elapsed since the appearance of the first edition. To the specialist it will remain indispensable, and we can cordially recommend it to the analyst and pharmacist as a valuable work of reference.

NOTES ON BOOKS.

The *Year Book of New South Wales*, of which a new edition for 1904 has recently been published, contains an immense amount of information as to that colony, together with an excellent map. The whole of the broader geographical, climatic, administrative, and executive facts appear to be covered by the various sections into which the work is divided, and a summary of the principle sanitary and other laws affecting medical men included. The more notable medical institutions such as hospitals and the Australian Branch of the British Medical Association also receive due notice. Copies may be obtained from the Agent-General, Victoria Street, S.W.

Tropical Diseases.

The hygienic condition of many tropical Colonies is a very important question, and medical officers in such situations would do well to study carefully a work on the hygiene of Colonial establishments,[1] recently published by Dr. Gustave Reynaud. The book covers much ground, descriptions being given of malaria and other diseases specially found in the tropics. One or two of these are not quite up to date, but on the whole they give a synopsis of the main features necessary for identification. The part dealing with sanitation is full; vaccination, disinfection, hospitals and sanatoria are all dealt with; and an appendix with useful instructions for the prevention of the propagation of transmissible diseases closes the book. The subject of the prophylaxis of malaria is divided into general and individual, and under the latter, suitable houses, protection from mosquito bites, and the administration of quinine every three days are advocated. Many excellent photographs of tropical towns and hospitals and many other illustrations are inserted in the text.

The Symptoms and Pathology of Plague,[2] a small manual by Captain Gordon Tucker, of the Indian Medical Service, will be found useful by those commencing the study of this important disease. The description of the six clinical types is full and good, and special emphasis is laid on the difficulty of diagnosing the rarer varieties, such as the cerebral and intestinal. The importance of those obscure types cannot be overestimated, as they are often the source of the infection of other cases, which in turn may originate a real epidemic. In the differential diagnosis "climatic buboes" are mentioned, and they are properly described as having no connexion with plague at all. The contention, however, that these buboes are caused by skin streptococci, which have become unusually virulent as a result of climatic conditions, will not hold good, as in several cases of this nature, where thorough bacteriological examinations have been made, no such organisms have been found. The discussion of the treatment of patients and the management of an epidemic of plague is full, and will repay careful study.

[1] *Hygiène Coloniale: Hygiène des Etablissements Coloniaux.* Par Gustave Reynaud, Médecin en Chef du Corps de Santé des Colonies, en Retraite, Chargé du Cours a l'École de Médecine de Marseille; Professeur d'Hygiène à l'Institut Colonial de Marseille; Lauréat de l'Académie de Médecine. Préface de M. A. Kermorgant. Paris: J. B. Baillière et Fils. 1903. (Crown 8vo, pp. 412; 54 illustrations. Fr 5.)

[2] *The Symptoms and Pathology of Plague* (with a note on the management of a plague epidemic). By E. F. Gordon Tucker, Captain, Indian Medical Service; Acting Professor of Pathology, Grant Medical College, etc. Bombay: Education Society's Press. 1903. (Demy 8vo, pp. 85. Rs. 2.)

Medical Students in the United States.—The number of students of medicine enrolled in the medical colleges of the United States in 1903 was 27,615. Of these, the regular schools had 24,930; the homoeopathic, 1,498; the "eclectic," 74; the "physio-medical" and other schools, 339.

REPORTS AND ANALYSES
AND
DESCRIPTIONS OF NEW INVENTIONS
IN MEDICINE, SURGERY, DIETETICS, AND THE ALLIED SCIENCES.

MEDICAL AND SURGICAL APPLIANCES.

A Self-Retaining Ear-Douche Basin.—Dr. E. S. Yonge, Assistant Physician, Manchester Hospital for Consumption and Diseases of the Throat, writes to describe a self-retaining ear-douche basin. It is made of indiarubber, and kept in place by a metal band, which passes over the head and secures itself round the opposite ear by means of a large loop. The metal band is adjustable, so that it can be adapted to any head. The apparatus fits securely under the ear which is to be syringed, the lobule projecting into the basin. In order to prevent liquid in the bowl from spilling a narrow rim is fitted along the inner edge. For cases which require syringing with large quantities of lotion, the makers supply a special basin, with a waste pipe attached provided with a clip. The advantages claimed for the apparatus are that the necessity of holding a basin to the ear when syringing that organ is dispensed with; that no fluid as it runs from the ear can trickle down the neck; and, in the case of an unruly child or a patient who may move suddenly, that no water is spilt, as the basin moves with the patient, and the rim prevents fluid from overflowing. The apparatus has been made for Dr. Yonge by Messrs. Mottershead and Co., Exchange Street, Manchester.

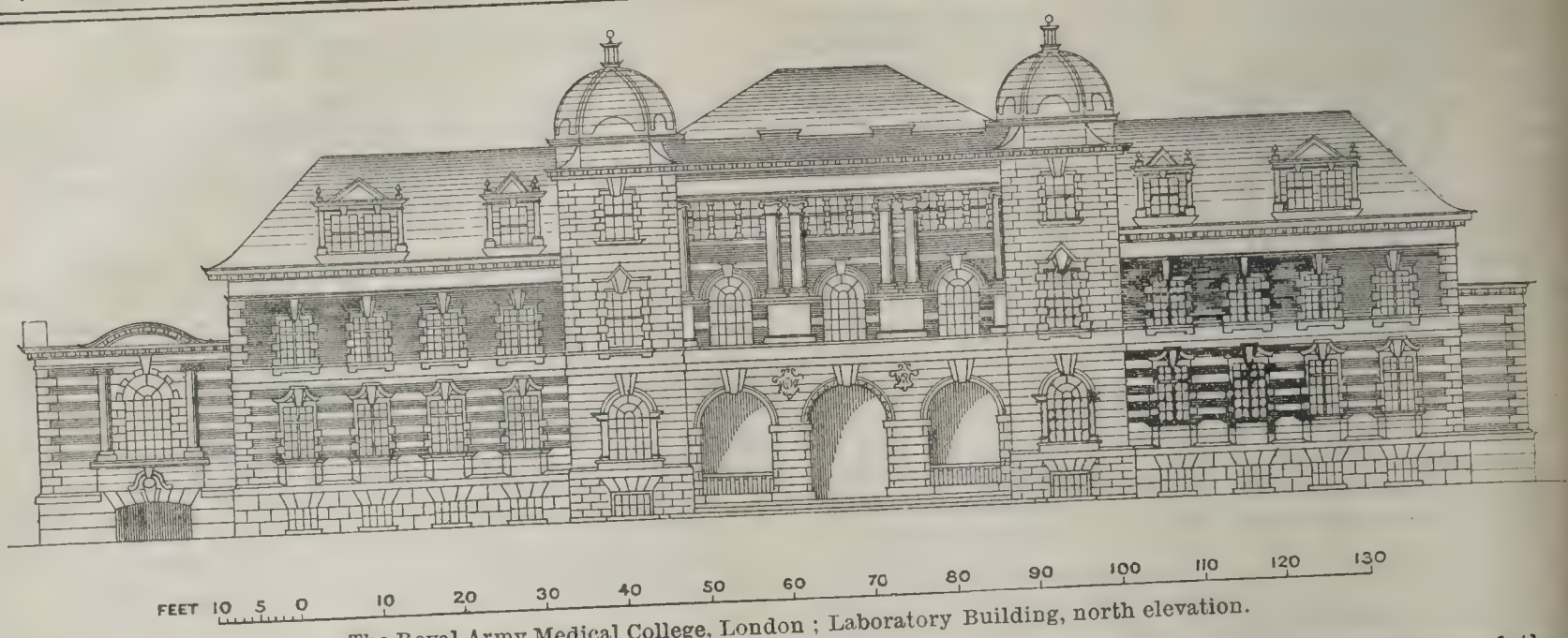
An Ethyl Chloride Inhaler.—Mr. E. H. E. Stack, M.B., B.C., F.R.C.S., House Surgeon, Bristol Royal Infirmary, writes: Several forms of inhaler have been invented for ethyl chloride or somnoform, the best of which seems to be Mr. Boyle's, figured in the British Medical Journal, of January 16th, p. 140. We have been using here for some time, and with great success, practically the same thing, only that it requires no apparatus other than that which every anaesthetist already has. The facepiece of a Clover's inhaler is taken off the ether chamber, and the bag, which just fits, is put on to it; a piece of lint is put in the facepiece and the anaesthetic sprayed on the lint. This serves every purpose and involves no addition to the already fairly large armamentarium which an anaesthetist nowadays requires.

CONTRACT MEDICAL PRACTICE.

Miners.

According to the *Western Mail*, the miners in the upper part of the Aberdare district are considering a new scheme, for ensuring for themselves medical attendance, in lieu of the plan at present in force. Under the present arrangements the medical men who attend the miners share the good and evil fortune of their patients, being paid for their attendance 3d. for every pound of wages received by each miner. The leaders of the men now propose to put an end to this plan, and to substitute one under which the entire services of six medical men are to be engaged, one at £500 a year, an assistant at £300 a year, three others at £200 a year, and a sixth at £150 a year. The estimate also includes £500 for drugs and instruments, £150 for saddlery and stables, £200 for rent, coals, water, and gas, £100 for sundries, and £50 for management expenses. This comes to a total of £2,500, and the promoters claim that it will mean an aggregate saving to the men of £835 when wages are at their minimum, and of £1,585 when the pay of the men is as high as at present.

In connexion with the Wemyss Coal Company a contest appears to be foreshadowed in Fife not very dissimilar to that which so lately terminated happily at Ballachulish. The managers of this company, according to the *Edinburgh Evening News*, desire to dispense with the services of the present medical officer, and have ceased to collect the 8d. a fortnight, which, by agreement with the men, has hitherto been deducted from each man's wage on pay days as his contribution toward the medical officer's salary. The men, however, are averse to any change of medical attendant, and have given a clear indication of their intention to retain the medical man of their choice by making the customary payments independently of the company. It is understood that a conference will shortly be held between all the parties interested in the matter.



The Royal Army Medical College, London; Laboratory Building, north elevation.

THE ROYAL ARMY MEDICAL COLLEGE.

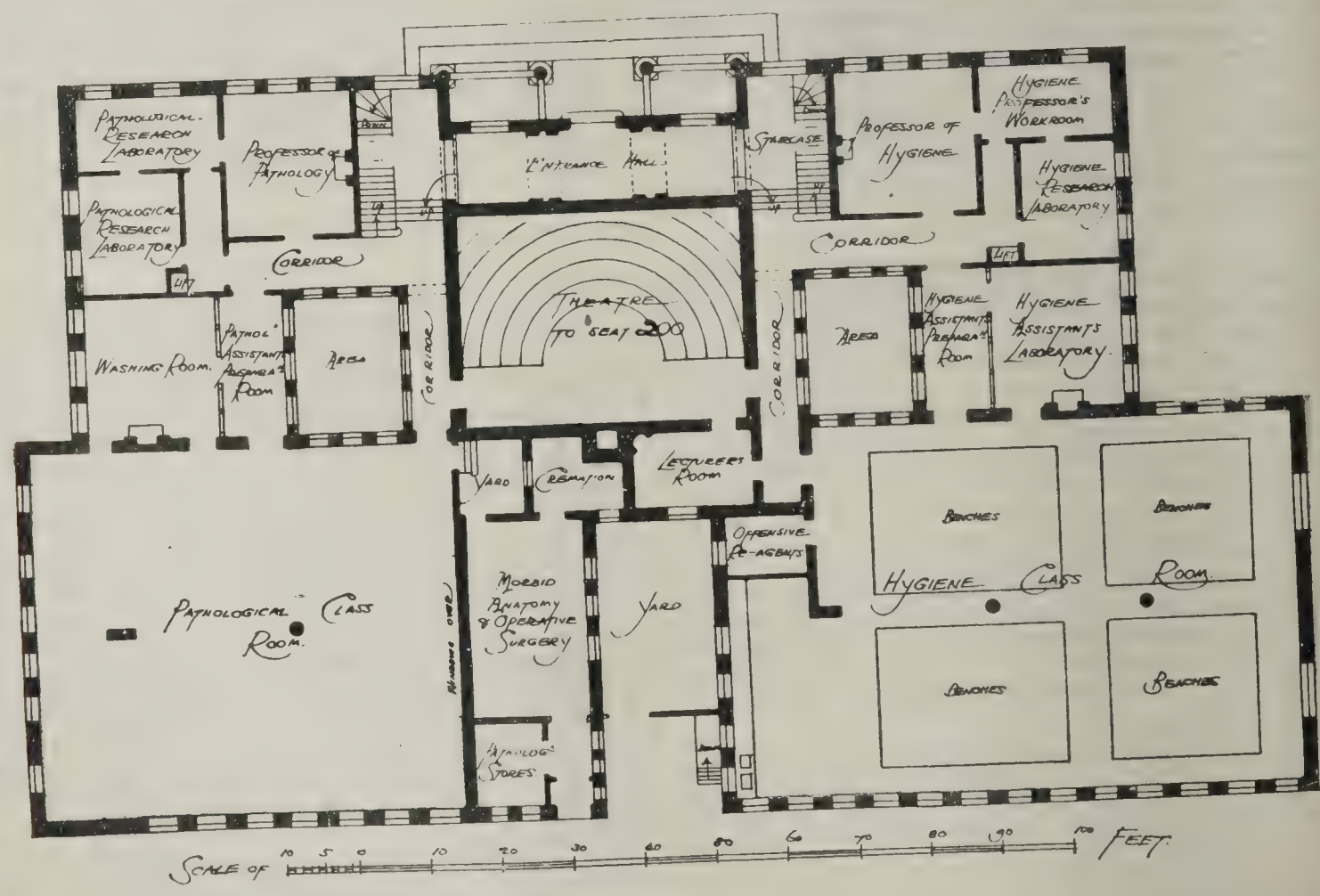
The transfer of the Royal Army Medical College from Netley to London was, in view of the educational opportunities afforded by the metropolis, considered to be a matter of such urgent necessity that it was carried out as soon as sanctioned. Laboratories were obtained on lease in the Examination Hall on the Victoria Embankment, and residential quarters in a hotel in Victoria Street.

These expedients were, however, recognized to be merely temporary, and the plans for a new Royal Army Medical College on part of the Government site provided by the clearing away of Millbank Prison have now been approved. The work will, it is understood, shortly be taken in hand.

The Thames here runs nearly north and south. The Tate Gallery now occupies the central portion of the site facing the river; behind this are the Army Service Corps barracks, while to the north (down-river) side is the new Military Station Hospital for London, which is just complete, and will serve as the clinical hospital for the Royal Army Medical College. The College will occupy the remainder of the site to the south (up-river) side of the Tate Gallery.

The College will consist of a laboratory block, a mess and officers' quarters, and a house for the Commandant.

The building will be of red brick with stone facing, of the kind of Georgian-Victorian which finds favour with the moribund War Office, as exemplified in the squat military hospital on the other side of the Tate Gallery. It is deplorable that three such opportunities of adorning the Thames bank with graceful or noble buildings have been thrown away, but the quarters for laboratories are excellent.



Ground floor plan.

The Laboratories.

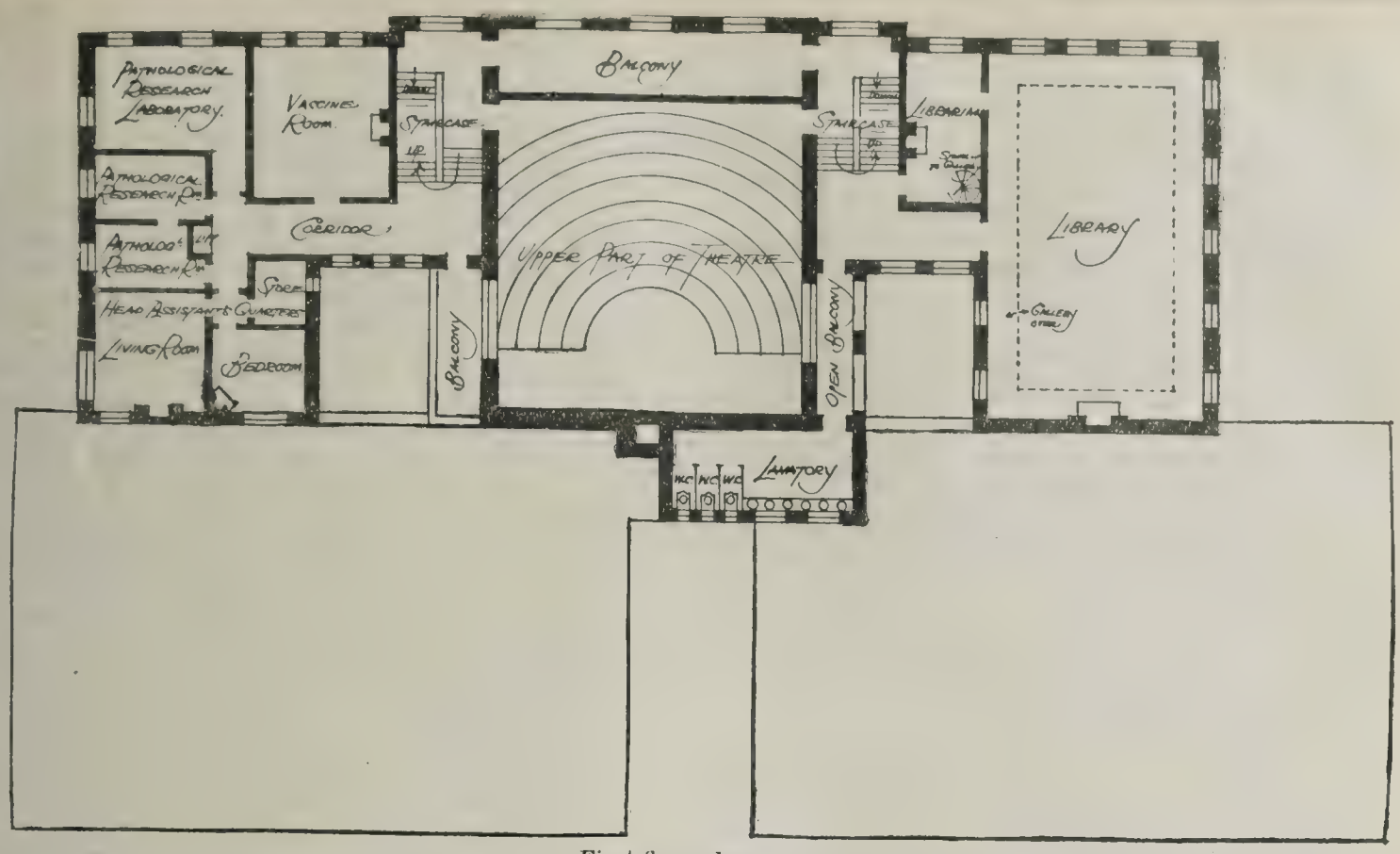
The two blocks together will cover a more or less triangular space of about 300 by 200 ft. The elevation of the laboratory block is shown in the drawing. It will occupy the part of the site farthest from the river. It will measure 185 by 105 ft., and the plan shows a quadrilateral building. It comprises basement, ground floor, and first and second floors.

In the basement will be a furnace and boiler room for heating of the buildings; a covered yard for experiments

mall projectiles; room for hygiene xperimental aparatus; workhops; a cloak oom, lockers, and ycle stable for the fficers; a photoicrographic oom; rooms for istillation, for isinfection, and or sterilization; nd storerooms.

On the ground oor, which has a entral portion and vo wings, a lecire theatre to seat o is provided in ie centre. There an entrance hall, nd hygiene and athology class ooms of 80 by 50 . each with their nnexes, and laboatories connected ith each departent.

On the first floor, rough whose eight the theatre



First floor plan.

nd class rooms rise, will be a library and reading room 30 by ft., pathological research rooms, and lavatories.

On the second floor will be provided a museum and a model om, each of 40 ft. by 25 ft., with top light.

A squash-ball racket court will be constructed on the uthern aspect of this building.

Mess.

The block containing the mess and officers' quarters is parated from the laboratory block by a passage about 12 ft. de. The ground it covers is a right-angled triangle with e two acute angles truncated, the side subtending the right gle looking to the south-west.

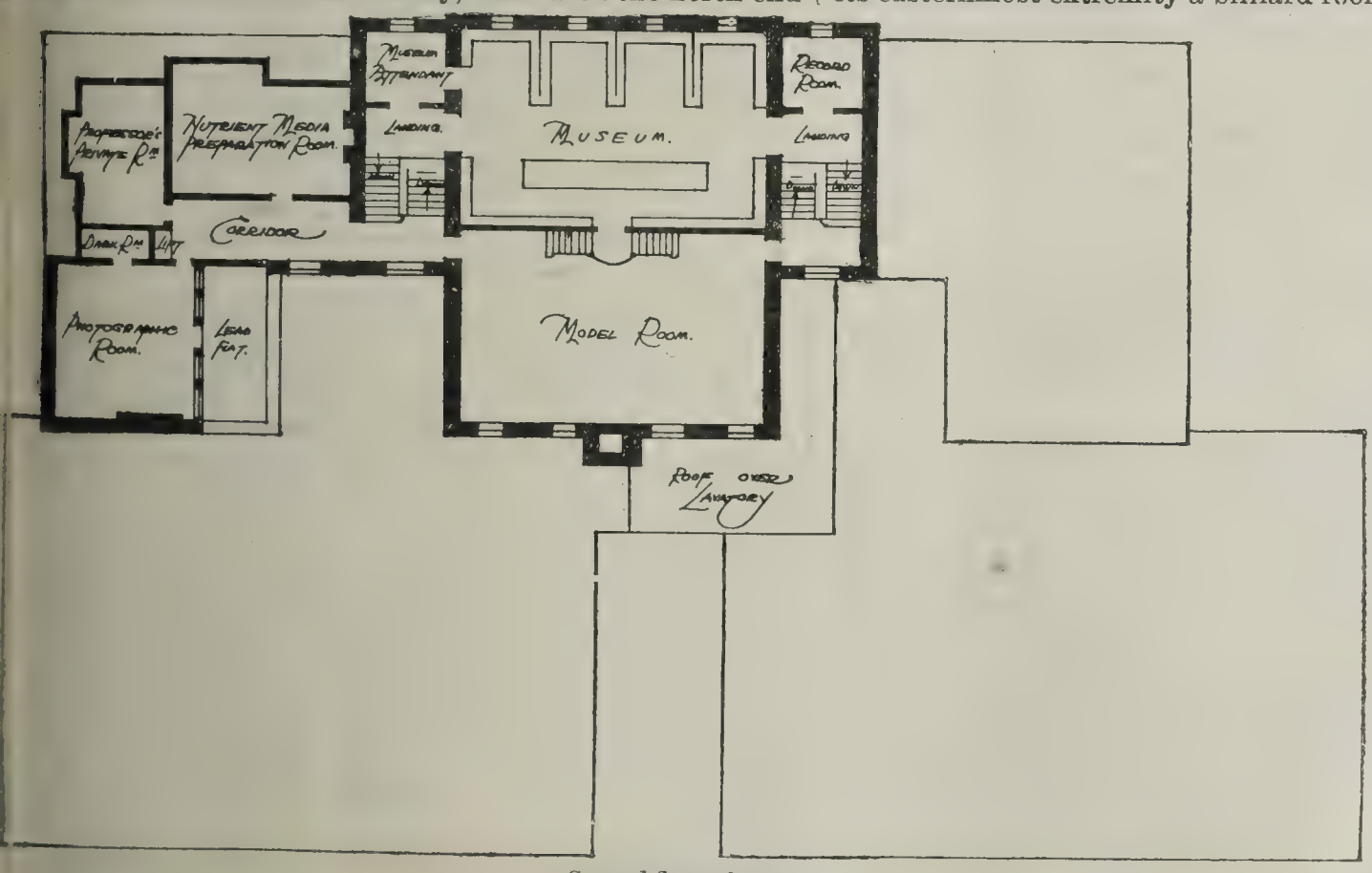
The largest part of the block is parallel to the laboratory ock, and from its centre a narrower limb extends towards e river frontage with a projection from its south centre, d from the north side of its eastern extremity is a limb tting out towards the Tate Gallery, flush with the north end of the main and laboratory blocks. The space enclosed on three sides by the last-mentioned projection, the long limb, and the main block will be laid out in grass, and possibly planted.

This block will have a basement, and the basement is taken up by cellarage, furnaces, boilers, and hot-water pipe subways.

The lower ground floor in the main block has in its centre the kitchen and scullery flanked by a yard on each side, with coal stores to the west.

The basement of the Commandant's house will extend to its north, while to its south will be store rooms, larders, wash-up rooms and other offices. A lift will be provided from the kitchen to the mess room on the floor above.

The long limb to the east of the main block will contain a pantry, there will be a plate room jutting out to the south, from its centre; safes; a dormitory for mess waiters, and at its easternmost extremity a billiard room for two tables.



Second floor plan.

The short north-easterly limb will contain the entrance hall, and beyond this a visitors' room, mess, secretary's office and lavatories.

On the upper ground floor in the main block, at its southern extremity, will be the mess-men's quarters, and, separated from them by a corridor which will run the whole length of the block, two officers' quarters. There will be two more officers' quarters in the central part of the block, and the Commandant's house will continue through this story.

The long limb will contain a serving room, the mess dining-room, 50 ft.

by 40 ft. and of fine dimensions, which it will be possible to throw into the anteroom by the opening of folding doors, beyond this will be the anteroom 48 ft. by 28 ft., with windows to the east looking over the river.

To its north, over the entrance hall, will be a landing, and beyond this the smoking room (38 ft. by 26 ft.) with a bay window at its north-east angle. Between the anteroom and smoking room there will be a balcony.

The first floor of the main block will be entirely occupied by officers' quarters, with the exception of the north end, through which the Commandant's house will continue. In the long limb will be the upper part of the mess room, with a band alcove, and the upper part of the anteroom of these rooms are two floors in height. Over the balcony will be a card room, and the smoking room wall will rise through this floor.

The second and third floors will be devoted to officers' quarters, to which access will be given by corridors running through the long axes of the blocks. The quarters will be of two types—those for the senior officers measuring about 21 ft. by 14 ft., and those for juniors 16 ft. by 12 ft. The plans make provision for quarters for 20 senior and 50 junior officers.

Bath rooms will be provided in the proportion of one to every six officers, and there will be w.c.'s on each floor.

The buildings as a whole are warmed by hot water, but each officer's quarter has a fireplace.

The lighting will be by electricity.

The entrance to the officers' mess will be from the river side on the east, the tradesmen's entrance on the north side. A passage between the laboratories and the mess will give access to the two divisions.

The laboratory accommodation will be of the first order, and the whole conception is one which reflects credit on its authors, and its realization should go far towards promoting the object for which it was designed—namely, the education of the army medical officer.

It is to be hoped that every officer on returning from a foreign tour will find his sojourning place there for the purpose of refreshing his knowledge, and that the army will be greatly advantaged by the facilities which will in future be afforded to its medical officers to make themselves thoroughly efficient. The demand for such facilities made repeatedly, in fact unceasingly, during the last twenty years or more, has always excited the keenest sympathy of the civil profession. We have seen within that period more than one post-graduate college attain more or less success in London; we have seen the Tropical School spring up, and the civil profession recognizes that what is a necessity for them is not less necessary for their military brethren.

The country has made, or sanctioned the making of, this provision of time and opportunities for study for medical officers of the army at the public expense. In this respect they are more fortunate than any other section of the medical profession. Let us hope that they will appreciate their good fortune, and will be serious and eager students in the fine college which is about to arise.

"CURES" FOR ALCOHOLISM.

ANTIDIPSO.

IN addition to the account of a series of "cures" for alcoholism published in the BRITISH MEDICAL JOURNAL (February 1st, 1902, p. 291), we are enabled to give particulars of another cure which is being put forward by the Ward Chemical Company, 205, Regent Street, London, W. The remedy is called Antidipso.

The history of the remedy and the methods of the proprietors in effecting its sale are very much the same as those we have previously described, the moral pointed by the methods employed being perhaps even of a more weighty character from the point of view of the physician than in the case of the other cures. The inquirer is in the first instance furnished by the company with a pamphlet entitled *Bright Beams of Hope*—"a Problem Solved. Antidipso the Indian Herb Remedy, infallible cure for drunkenness." The pamphlet opens with an emphatic assertion that drunkenness is a disease, and a lengthy description of the effects of alcohol on most of the bodily organs is given. Sundry objections to rival modes of treatment are enumerated, and the public are warned against other cures, very much in the manner followed by the vendors of other secret remedies, many of whom display an anxiety to have their remedy considered the genuine and only cure. Thus:

There are also on the market many so-called remedies which are, in most cases, absolutely worthless. Such impositions as these work untold harm, as they not only fail to cure, but they destroy confidence; and thus many who have been victimized in this manner will not try a reliable remedy.....Were it not for these imitations they would purchase the genuine.....

The opinions of three medical men on the evils of drunkenness, but not, it may be noted, on its cure, are somewhat prominently set out. The pamphlet then goes on with an engaging simplicity and frankness to tell the story of the discovery of the drug, and to account for the company's possession of the secret, which, as presently will be seen, would seem to depend on geographical considerations.

We learn that "neither chemistry nor pharmacy, though inspired by medical learning, has given to the world anything that could meet the trouble." But "an obscure tropical plant was yielding the very remedy that acts as an antidote and expels the alcoholic poison." The plant "was discovered in the southern part of the South American continent."

We are reminded at once of the discovery of the Tacquaru specific in a "hitherto unexplored country" in the interior of the Argentine. Both secrets were communicated to Europeans by Indian medicine men. Antidipso was obtained in 1895, the Tacquaru specific in 1894. While the Tacquaru was discovered by a "neer-do-weel," Antidipso was discovered by a "successful English physician," who, after trying its effects on alcoholic subjects, narrated his remarkable experiences to the Ward Chemical Company. But, not satisfied with the communications of this physician, the company "at once sent out an agent to make more accurate investigations. This gentleman succeeded in penetrating to the Indian tribe that held the coveted secret." A year of experiment followed "which was the triumph of Antidipso." All cases on which it was tried were "speedily and triumphantly cured." Antidipso is said to have cured cases so severe "that a physician might well shudder at the thought of taking them in hand."

It would appear that the public who buy secret medicines have some preference for vegetable cures, for the Tacquaru, Hutton Dixon, Tyson and Antidipso all claim to be purely vegetable substances. The Antidipso pamphlet asserts:

The medicine is entirely of a vegetable nature, nothing mineral whatever enters its composition. In this respect it is different to any other remedy which has hitherto been administered for the cure of the craving for strong drink.

It is especially suggested that the remedy contains no mercury. Nothing of importance is stated about the action of the drug, except that it is "the greatest nerve tonic known." It is also said to cause a "repugnance to the taste and odour of liquor." Like all the remedies of its kind it is all-powerful and quite harmless. This is the company's view of it, but they also publish a showy and somewhat disquieting certificate from a Dr. A. B. Griffiths, Principal of the Brixton School of Pharmacy, which maintains that it possesses "marked therapeutic action."

The letters from purchasers and patients published by the company are some of the least convincing of their kind that it has been our lot to examine. Many are written while the patient is actually under treatment—a large proportion vouch for themselves, a very small proportion so much as allude to abstinence from intoxicating drink. We have examined a series of 63 such letters, in only 8 of which is the time that has elapsed since cure was completed mentioned. One case is said to have remained cured for 10 months, no other case longer than 4 months; two had been cured 14 days.

In reply to the inquiry of a correspondent, the Ward Chemical Company sent a type-written letter beginning "Dear Friend," and urging the immediate treatment of the patient. The inquiry went no further, but some days later another letter was sent enclosing a "form for ordering" with a "reference number." On the form is printed and underlined, "N.B.—If you desire there shall be no further correspondence return this form." A third letter runs as follows:

Experiences have been coming in so thick and fast lately that we believe Antidipso will achieve a greater success than ever before. Recent reports from many cured patients show that in nearly 80 per cent. of all cases a single package of Antidipso was sufficient to establish a complete and lasting cure. This is very gratifying. It has always been our hope to make Antidipso a cure for the masses, to do good to the greatest number, and we can now rejoice that we are able to state that one 10s. package of Antidipso will accomplish all that is desired in removing the craze for drink. You will probably recall the fact that when the free sample was sent you and reference made to the treatment in a letter it was stated that two packages would be required. We are now pleased to say that we feel confident you will obtain all you could desire in one package at 10s.

In confirmation of this statement a book of testimonials of cases cured by one package was enclosed. The letters in the

book are all dated 1899, so that the discovery is at least four years old, and the company's disinterested rejoicing perhaps a trifle tardy. The proprietors of three other cures stated that changes in their results were due to their having "improved" or "perfected" their remedies, but the Ward Chemical Company gives us no reason for their improved results according to "recent reports."

The third typewritten letter further invited the intending patient to secure his own treatment free of charge by becoming an agent for the company, in which case they would sell him three packets of the medicine for 20s., or he may buy any quantity of six dozen packets, costing him 4s. each. It is pointed out that he can sell them again for what is justly called "a handsome profit."

A fourth letter runs thus:

Now seeing that we have given you all evidence as to the certain cure which Antidipso will effect, the only reason we can assign for not having received your order is the matter of expense. We have therefore decided to assist you in this direction, feeling confident that the further treatment we shall put out through your recommendation will remunerate us. We therefore make the offer (providing your order is received within twenty-one days from this date) to supply you with Antidipso at half price—namely, a 10s. packet for 5s. This low price would be an inducement to you to send your order at once. . . .

A noteworthy feature of the company's method to which special attention may be drawn is their advice to purchasers to administer the medicine without the patient's knowledge. To this end they especially address themselves to women who control the preparation of the patient's meals and ordinary drinks, and the suggestion as to secret administration is a prevailing note in their advertisements. They appear, however, to find it necessary to justify the advice to be more scrupulous among their clients. For instance:

The poor drunkard is less able to take care of himself than an innocent prattling child. To do good by stealth is enjoined on us by the highest authorities.

. . . to save him administer Antidipso surreptitiously.

Directions are given with reference to the secret reception of the drug and secret administration in the food of the patient. It would, perhaps, be folly to expect that persons who in their blind belief in drugs and urgent desire for relief from misery will follow this advice, should realize either the different ethical position or additional peril to the patient involved in the proceeding. The moral results are, however, not difficult to gauge.

A low standard of responsibility and feeble recognition of the rights of others is an inevitable result of the whole system of dealing in secret drugs, whether on the part of seller or buyer, but perhaps only the imagination of the physician can apprehend the reality and magnitude of the physical dangers or can understand to what lengths the principles advocated might be pushed. A man may suffer from disease and may be in dire need of treatment, but so long as the law regards him as a sane and responsible being he should surely be entitled to protection against ignorant and indiscriminate drugging without his knowledge or consent at the hands of any other person whatever.

The Turvey Treatment Company (Limited).

Although the evolution of secret remedies is of much interest to the student of their history and methods, considerable agility of mind is necessary in order to follow up the quick changes of places, names, and titles which seem to occur at intervals in connexion with many of them. For instance, since last year various things have happened to the various "cures" for alcoholism. We understand that the case in which the Hutton-Dixon treatment was carried on is closed, and Mr. Hutton Dixon now sells his medicine to the public at a higher price than formerly. Dr. Tyson's modest advertisement has not of late met our eye, but a very casual scrutiny of the advertisements in sundry magazines and daily papers have made us aware that our old friend the Tacquaru Company is dead, and that the Turvey Treatment Company reigns in its stead. The Turvey Treatment Company was registered as a company in May, 1903. Though the company is new the treatment is old, being the same which was applied in a series of test cases in 1893 under the auspices of Mr. Turvey. It has now reappeared, after an interval, during which the Tacquaru Company flourished, and is now carried on in the late Tacquaru Company's premises by the same secretary, with duly-adapted pamphlets, and on more or less the same plan as before. The letter of testimony from Mr. Thomas Holmes, which was withdrawn for a time from the Tacquaru Company's advertisements last year, is again published in full as referring to the Turvey treatment.

The cost of the treatment is from 6 to 12 guineas. The remedy is secret, though it is said by the company in its pamphlet that "the treatment is specially prescribed and prepared by a highly-qualified English physician." Another pamphlet published by the company states that there is "a mass of medical evidence of the value of the Turvey treatment. This is a unique instance in which medical men have been glad to acknowledge the value of our method. Personal references can be given to medical men of the highest standing." Four of the shareholders are medical men, one is a dentist, one a nurse. The company (started in 1903) publishes an Annual Medical Report for the year ending December 31st, 1902. In it we read: "The past year has been great in results. There has been a large increase in the number of patients taking advantage of our treatment, and the high percentage of satisfactory results has been more than maintained. A gratifying feature of the year's work has been the great and increasing support given us by medical men in all parts of the United Kingdom. In hundreds of cases medical men have been glad to avail themselves of the advantages of the Turvey treatment on behalf of their patients. In official quarters we regret recognition is more tardy ....." A series of testimonials from medical men are published by the company bearing the letters of their qualifications but no names.

LITERARY NOTES.

We understand that Professor Mayo Robson has rewritten his work on *The Gall Bladder and Bile Ducts*, which has been out of print for many months past, bringing the subject up to present-day knowledge. The third edition, containing much new matter and several new plates, will be published next week by Messrs. Baillière, Tindall and Cox. The same publishers will also shortly issue a new and revised edition of *The Surgical Diseases of the Stomach*, by Messrs. Mayo Robson and B. G. A. Moynihan.

Reference is made elsewhere to the new feature introduced by Mr. Shattock into the *Transactions of the Pathological Society of London* in the form of Latin summaries prefixed to certain papers. In order to give our readers an opportunity of forming a judgement as to the feasibility of his proposal we give his own account of the reasons which led him to make the attempt. It is prefixed to a Latin summary of a paper by himself on the fatty infiltration ("vacuolation") of the nucleus in fat cells (*De vacuolatione nuclei in cellulâ adiposâ*).

Commentato diligenter mihi visum est eos maxime errasse qui non multo ante nostram aetatem linguam latinam adhibere noluerunt ut medium quo ii qui in scientia naturali versantur inter se communicare possent.

Quorum quantus sit error omnes nunc vident quum numerus linguarum quibus utuntur ii qui de rebus naturalibus scribunt, maxime multiplicatur.

Ex quo fit ut nemo omnia de re qualibet scripta cognoscere possit quamvis accurate in catalogis sint descripta. Ad cujus rei remedium, nihil valet, ut mihi videtur, introducere aliam novam et non ante cognitam linguam quae sit omnibus communis, quia omnes qui litteris humanioribus (ut dicuntur) operam dant, jam lingua latina utuntur; quinetiam ut pars disciplinae superioris fere necessaria habetur.

Quae si in eundem locum qua antea restitueretur, nullum eveniet detrimentum alicujus linguae recentioris progressioni; in libris enim qui nonnisi de rebus purae scientiae tractant, nec expectatur talis progressio nec tentatur. Nam in re scientiae modo postulatur expositio accurata rerum et legum quibus gubernantur, sine litterarum floribus aut ornamentis.

His igitur persuasus sententiis ausus sum hujus tractatus in linguam latinum redditum brevissimum proferre summarium, ut alii judicent quanta facilitate lingua illa ad res scientiae naturalis exponendas etiam nunc accomodari possit, et ut concitentur animi eorum qui cognoscere cupiunt ea quae alii scripserunt de iisdem rebus quibus ipsi student.

Attamen si, forsan, minus conveniens videatur totum opus latine vertere, summarium saltem ejus utilissime edi posset ut ab hominibus cujusvis nationis intelligatur.

[Having given careful consideration to the matter, it has seemed to me that a most serious mistake was made by those who not long before our day decided not to retain the Latin tongue as the medium of communication for those who devote themselves to the study of natural science. How grievous the mistake was is evident to all now when the number of languages employed by those who write on matters of natural science has increased to an excessive degree. Hence it comes about that no one can have knowledge of everything written on any subject, however accurately the references thereto may be set forth in catalogues. As a remedy for this state of things it is unnecessary, in my opinion, to introduce another new and as yet unknown tongue as a language common to all, since all who cultivate humane letters, as they are called, already use the Latin language, which, indeed, is regarded as an almost necessary part of a liberal education.

If Latin were restored to the place which it formerly held, no injury would be done to the expansion of any more recent language; for in works which deal only with purely scientific subjects such expansion is neither looked for nor attempted. In matters of science an accurate exposition of facts and of the laws governing them is all that is required, without literary flourishes or ornaments.

Inspired by these views, I have ventured to offer a very brief summary of this paper rendered into Latin to enable others to judge with what facility that language can, even at the present day, be applied to the exposition of matters of natural science, and to arouse the attention of those who wish to know what others have written about the things at which they themselves are working.

If perchance, however, it may seem inconvenient to turn a whole work into Latin, at least a summary of it might with great advantage be furnished, so that it may be understood by men of any nationality.]

The other two papers of which Latin summaries are given are one on a specimen of mammary carcinoma which had been treated by *x*-rays (*De penitiori structurâ carcinomatis mammae radiis "X" subjecti*) by Mr. Shattock; and one on fibromatosis of the nerves of the head and neck (*De macroglossiâ neurofibromatosâ*) by Mr. F. C. Abbott and Mr. Shattock. We cannot refrain from adding a word of congratulation to the Pathological Society and the editor of its *Transactions* on the admirable execution of the plates and the artistic effectiveness of the cover.

Dr. Trudeau, an account of whose work in founding and developing the well-known sanatorium at Saranac Lake was given in the BRITISH MEDICAL JOURNAL of January 9th, had among his patients there Robert Louis Stevenson. A cottage in the outskirts of the village, where the author of *Catriona* spent the autumn and winter of 1889, has become an object of historical interest. In his little sitting-room Stevenson received the visits of many prominent men who went to Saranac Lake for the express purpose of seeing him, and it was in that room, on a cold winter night, by the light of the wood fire in the big fireplace, while Stevenson sat on a chair placed on the table which had been moved into a corner, that Richard Mansfield delighted the great author with his weird and gruesome impersonation of "Dr. Jekyll" and "Mr. Hyde." To a temperament like that of Stevenson who lived in an ideal world and craved sunshine, blue skies, and tropical seas and verdure, Saranac Lake in winter, with its ice and snow, its grey skies, and its ever-present problem of human suffering and sorrow, did not especially appeal, but he acknowledged to Dr. Trudeau, as he did in his writings, that his health was much benefited by his stay there. He was repelled by the exact and uncompromising methods of scientific research and animal experimentation, and he had many heated arguments on this subject with his physician. Dr. Trudeau finally persuaded him one day to visit the little room in the cottage which was then the physician's only laboratory. He had just written for *Scribner's* a short essay entitled "The Lantern Bearers," which had as its *leitmotif* a game played by him and others which consisted of walking along the beach on a dark night, hiding under their coats a lantern, which they flashed at each other as a signal as they passed. Dr. Trudeau showed him his animals and culture tubes, and the ravages caused by the tubercle bacillus in their organs, and was trying to impress upon him the vast possibilities for the good of the human race which lay in these experiments, when suddenly he noticed that Stevenson looked pale, was not listening, and was edging towards the door as fast as possible. As soon as he got outside he turned and said, "Trudeau, your lantern may be very bright to you, but to me it smells of oil like the mischief." "It was evident," says the physician, "that neither of us could fully appreciate the brightness of each other's lantern, though we both tried."

Dr. Robert A. Reid, of Newton, editor of the *Massachusetts Medical Journal*, completed his twenty-second year of editorial service on December 19th, 1903. His colleagues on the staff of the journal took advantage of the occasion to present him with a handsome diamond scarf-pin.

It is well known that Rabelais eked out the scanty livelihood which he earned by the practice of physic at Lyons by the compilation of almanacs. The *Gazette Médicale de Paris* calls attention to the fact that in this combination of medicine with almanac making he was anticipated by Jehan de Lespine, who was an astrologer as well as a physician. His almanac, which is preserved in the municipal library of Mans, was published in 1543. It consists of thirty-two pages, printed by Jacques Niverd, Printer to the University of Paris, in Gothic type of two colours. The almanac is in Latin. The days on which plants should be put in the ground, etc., are carefully indicated.

The birth of triplets is not a common thing; and is probably less common among the higher classes than among the lower. Still less common is it for the birth of the successive children to follow the one that preceded it after exactly a week's interval in each case, and for all three to survive. An old manuscript has just been printed, entitled *Heliotropes, or New Posies for Sundials*, said to have been written by John Parmenter in 1625, and edited by Perceval Landon in 1904. In it he refers to an occurrence recorded in the Palmer family papers at Dorney Court. Alice, daughter of Sir Richard Clement of Ightham Mote, and wife of Sir Edward Palmer of Wingham, gave birth to three sons on Whitsun Day and the two following Sundays in 1488. The eldest, Sir John, lived to a great age at Angmering, in Sussex. The second lived to become Sir Henry Palmer. The youngest, Sir Thomas, was executed in 1553, on the same scaffold as the Duke of Northumberland, for aiding Lady Jane Grey. The baby clothes of the triplets are still preserved at St. Audries, the Somersetshire seat of Sir Alexander Acland Hood, M.P., Sir Henry's present representative. We are not told about the delivery of the placentae, but obviously each placenta must have quickly followed the baby it belonged to; nor who was the medical attendant. He or she deserved great credit for judicious non-interference. Mr. Perceval Landon, who has edited the reprint which is published by Methuen, observes in his preface that Parmenter gives involuntary evidence that he was partially colour blind. In commenting on the posy ("*Ante Arcum Arka*") Parmenter gives the following mystical interpretation of the colours of the rainbow:

> The Collours of the Bowe are thus: Blew-Purpure to shewe foorth the Maiestie of God: Greene to put us in minde of the Resurrection, as the Earthe rose againe from vnder the Floodes: Yelowe,—a small peece —that is for the Unconstancie and Lewdenesse of Men, wherefor the Earthe was Drown'd. There be manie who pretend that there is also Red in the Bowe; But it is manifestly an Idle tale. Red is a uerie dirtie collour, moost unfit to be vsed, for it hath much Blacke in it.

It seems clear that a man who would call red a very dirty colour with much black in it must have had imperfect colour vision.

The *Journal of Infectious Diseases* published at Chicago is as far as we know, the only endowed medical journal in existence. It has been established in connexion with the Memorial Institute for Infectious Diseases, Chicago, by the munificence of Mr. and Mrs. Harold F. McCormick, and will, it is authoritatively stated, "be conducted under conditions that ensure its permanence as well as the adequate presentation of the material submitted for publication." It is edited by Drs. Ludvig Hektoen and Edwin O. Jordan, in conjunction with Drs. Frank Billings, F. G. Novy, and W. T. Sedgwick. The first number, which bears date January 2nd, contains among other important articles a communication by Drs. Novy and Ward J. McNeal on the cultivation of trypanosoma brucei; a report on two cases of a peculiar form of hand infection due to an organism resembling the Koch-Weeks bacillus by Drs. John R. McDill and William B. Wherry, and a paper on the pathological anatomy of "paratyphoid fever" by Drs. Gideon Wells and Lee O. Scott. The *Journal of Infectious Diseases*, which is beautifully printed and excellently illustrated, promises to be a most useful addition to the periodical literature of medical science.

We have received the first number of the *Calcutta Practitioner*, which is described on its title page simply as "a medical journal." In the editorial introduction it is said that the "venture is not at all intended to be an ambitious one..... What is primarily sought is to have a medium of circulating of the records of the valuable experiences of the isolated units of the medical profession of Bengal." This, we are told, has been totally neglected in the past. We fully agree that "there is no reason why the myriads of important professional events that are happening at the present day should be allowed to slip out of our grasp and that of our successors." We applaud the enterprise of our new Indian contemporary, but we fear that it will find a difficulty in compressing the myriads of important professional events into the compass of some thirty pages. The first number contains a paper on Adrenalin Chloride, by Kailas Chandra Bose, I.M.S., C.I.E., and one on the Bhowanipore Food-poisoning Case, by Chunder Bose, M.B.

PROFESSOR KRAEPELIN, Chief of the Psychiatric Clinic of the University of Munich, has obtained a long leave of absence with the object of visiting the Dutch Indies in order to study the prevalence of mental diseases among the natives.

BRITISH MEDICAL ASSOCIATION.

Subscriptions to the British Medical Association for the year 1904 are now due and should be forwarded by postal order or cheque to the amount of 25s. to the General Secretary, 429, Strand, London, W.C., or, in the case of Colonial members, to their Branch Treasurer.

British Medical Journal.

SATURDAY, FEBRUARY 6TH, 1904.

PHYSICAL DETERIORATION.

Last week was concluded a series of articles in which an endeavour was made to set forth some of the causes of physical deterioration, together with some practical remedies.

After a brief historical account of the way in which serious notice was drawn to the state of recruiting for the army, it seemed desirable to make a special inquiry into that portion of the population from which the majority of recruits are drawn. The fact, pointed out by Sir Frederick Maurice, that 60 per cent. of the men willing to serve their country had within two years to be rejected as unfit, naturally led to the desire to ascertain the cause of this unfitness, not only on account of the army, but because of the larger question, If men are unfit to serve as soldiers what can become of them? When the large numbers enlisting in the army is realized, and when it is remembered how few men having any marked talent for any trade at which they can command large wages will, for the honour and glory of serving their country, enter the army, then will be seen the horror of this human mass thrust back upon the slums unfit and discouraged.

Among the questions that have to be faced in an inquiry such as this are those of overcrowding, diet, the evil effects of drink, and so on. These are the points usually seized upon by well-meaning social reformers, regardless of the fact that these influences, though in themselves very weighty, come into operation only after the evils caused by neglect of such matters as the care of mothers, the proper feeding of infants, and the wise control of education.

It follows that in most stages the task of finding a cure for the ill is in a large measure a medical obligation. Who but the doctor should tell the mothers to look after their health during pregnancy and afterwards, and teach them the importance of suckling their infants? Supposing this to be impossible through such causes as physical weakness, or the necessity of going out to work, whose duty is it to see that infants unfortunately deprived of their natural food should be provided with a suitable substitute in the form of wholesome cow's milk?

Medical officers of health are entrusted with the supervision of farms and dairies; with medical practitioners lies the responsibility of prescribing milk for the infants. How do they carry out their trust? Is it by conscientiously seeing regulations carried out in the country farms, and by prescribing nothing as to the quality of which they are not sure, or is it by shutting their eyes and trusting to Providence? Providence has provided milk upon which—if not contaminated through human handling—children may be fed in all confidence. But, unfortunately, in creating rural sanitary authorities the Legislature overlooked the necessity for stimulating the still small voice of conscience, and until means can be devised to awaken it the sacrifice of human life must take its course, and the sediment of the unfit become deeper and deeper. Passing over the period of earliest childhood—and it can be affirmed that a child wisely fed under medical supervision for the first two or three years of its life has every chance of turning out a strong and healthy man or woman, while a false start can never be made up for—the question of compulsory education has next to be considered. Here it is generally imagined that the moment has come for the medical profession to pass its cases on to the educational authority waiting with outstretched arms to add mental accomplishment to the physical perfection of the child.

Like the horse who shakes himself free of the halter, we may picture the doctor who has worked so hard for the health of the infant shaking himself free of all further responsibility. But here again is it not the province of the medical profession to order the whole portioning-out of a child's education? What is to be said of the desks full of weary, stooping children, cramped for long hours in badly-ventilated and overcrowded schoolrooms, many—and in some districts the majority—hungry, unwisely-clothed, and suffering from affections of the eyes, ears, nose, or throat? Then, too, those who are fit or unfit are often made to go through unsuitable physical exercises, the delicate and the robust doing exactly the same for the same length of time. Masses of children, the hope of our nation, are raked into school to plod year in and year out at subjects which will in all probability be of no practical use to them when they have to begin the work of life.

For all this the medical profession is partly responsible. But it is surely a great reproach to the educational authorities that in this moment of national disquiet and anxiety as to the question whether there is or is not progressive deterioration there are absolutely no figures or records by which this point can be satisfactorily determined.

That there is unfitness is beyond all doubt, but progressive deterioration cannot be proved in the absence of data. Simple methods for the weighing and measuring of school children have now been pointed out, costing no money and little time; in the short space of two or three years figures could be got together by which a fair estimate might speedily be arrived at of the real state of the physique of children in elementary schools. By means of the fresh figures thus easily attainable a reliable opinion could be formed of the effect of compulsory education on the physique of the masses, and serve as a guide in modifying certain matters.

School children should be periodically examined medically with a view of checking such diseases as spinal curvature, narrow chests, and diseases of the ears, eyes, nose, and throat before they become chronic, and with a view to collecting the weakly ones of each school in order that they may have special classes and suitable physical exercises.

The provision of intelligent medical supervision in all schools will not only furnish reliable data as to the state of the children who are compulsorily educated but will check the evil, at present amounting to positive cruelty, of subjecting boys and girls, physically and mentally unfit

to benefit by their lessons to a strain owing to which they will in all probability be launched into life mentally and physically blemished.

Class teachers, with whom at present rests the responsibility of duties purely medical, cannot be blamed for not possessing the judgement which can be gained only by special education and long experience. But they also have a duty to perform in giving their whole hearts to the task of educating the future fathers and mothers of the nation in subjects which will later on be of vital importance to them; with the girls especially there lies a vast field for education in useful subjects, such as hygiene (including personal cleanliness, the value of fresh air, and the dangers of alcohol), simple cookery, together with lessons on the management and feeding of a baby. No town child is too young to understand and enjoy thoroughly these lessons, and it is well known that many are temporary mothers to their infant brothers and sisters long before the time has come for them to be real mothers. It should not be a question of these subjects being taught in some schools; they should be compulsory, and a proper amount of time devoted to them.

Every effort should be made to compel farmers to manage their dairy farms sanitarily, and we have shown that this is to their own advantage; for the purpose of enforcing the rules framed to that effect power should be given to county councils, subject to reference to the Local Government Board, to compel the rural authority to take action. The most impressive conclusion arrived at, after carefully considering all the different sides of this inquiry into the question of the national physique is that at the root of the unfitness which undoubtedly exists in the ranks from which our soldiers are drawn, is the question of proper infant feeding. It cannot too often be repeated that a child wisely fed for the first two or three years of its life has every chance of growing up into a strong man or woman; a child rendered rickety and puny by ignorant feeding will in all probability never make up the ground it has lost. A great number of infants, especially in towns, have from one cause or another to be fed artificially. The natural substitute for the mother's milk is cow's milk. At present cow's milk is too often, when it reaches the houses of the poor, in a state which renders it dangerous to life. Can any reasonable mind be surprised at the great infant mortality and at the unfitness of the majority of the survivors? Without clean milk there will be continued death and unfitness; without statistics there will be no certain data to prove physical deterioration; the moral is that every effort should be made to get clean milk, and to obtain the weighing, measuring, and medical supervision of school children. Then, and then only, will this great national problem be satisfactorily solved.

AN INTERNATIONAL LANGUAGE OF MEDICINE.

IT is one of the commonplaces of medical oratory that the art of healing has no political boundaries and knows no distinction of race. The commonwealth of medicine, we are told, forms one nation bound together by a common aim, and holding all scientific goods in common for the equal advantage of all. There is no trade in medical discoveries. Whatever a member of the profession in any country finds that he deems likely to be useful for the treatment or prevention of disease he forthwith makes freely known, so that it becomes the public property of his brethren throughout the world. This intellectual Socialism is doubtless very beautiful; the pity of it is that it exists only in theory. It is true that no honourable practitioner of medicine would for his own profit keep secret any knowledge that should be added to the common stock. But, unluckily, there are at presen practical difficulties in the way of his making his new light to shine upon the darkness of other countries. An account of a discovery written in Russian, for instance, might as well, as far as the medical profession of the rest of the world is concerned, be conveyed in hieroglyphics. To how many foreigners are Hungarian, Japanese, Swedish, Bohemian, Greek, Roumanian, nay even Italian, Spanish, and Portuguese intelligible? At each of the three or four last meetings of the International Medical Congresses the confusion of tongues has made serious discussion difficult, and in some cases has reduced the proceedings to an unedifying farce. It is not at all likely that things will in this respect be any better at Lisbon than they were at Madrid and at Rome. The curse of Babel is on the International Medical Congress, and must inevitably bring it to ruin unless means can be found of preventing its being treated by the natives of the country in which it happens to be held as their own particular preserve.

The linguistic difficulty has become one of the greatest hindrances to scientific progress, and the steadily increasing number of workers throughout the world, while tending to make research more fruitful, at the same time limits more and more the diffusion of knowledge of its results. The cause of the evil being the multiplicity of tongues, the remedy is clearly to be found in the use of a common language. This as an abstract proposition will be admitted by all. But when we come to the point of choosing a language for the purpose we are met by a sea of troubles. Naturally none of the great nations of the earth is willing to submit to the yoke of another in the matter of speech. This makes the choice of a living language, unless it be that of a people too insignificant to excite jealousy, practically impossible.

A learned German, Professor Schröer, has, indeed, advocated the choice of English as an international language, on the ground that already, "by its extension over the whole globe and by the ease with which it can be learnt, it has obtained such a foothold that nothing can prevent its becoming in the near future the great means of international communication." Another German, the late Dr. Semeleder of Cordoba, in Mexico, writing in the *Wiener Presse* in 1896, estimated that of 1,181 medical journals then in existence, 363 were in English, 262 in French, 214 in German, and 101 in Spanish and Portuguese. A hundred years ago Schiller wrote of German, "Our language shall the world command;" but this prophecy has not been fulfilled, nor do we think that it is in the least likely to be so. The choice of French as the sole official language was strongly urged upon the organizers of the International Medical Congress at Moscow by Dr. Kartchaguine and Dr. Steinberg. French has many claims, but we fear that it would be vain to expect that Germany, where it has been carefully eliminated even from bills of fare, could be brought to adopt the language of its hereditary enemy. Billroth thought English would be the best international language of medicine, but as a concession to the Latin races, which he said have no aptitude for learning foreign tongues, he suggested Spanish for the purpose. Virchow, too, we remember aright, thought Spanish might

he common language of science. Dr. Achilles Rose f New York is a strenuous advocate of modern reek. Setting aside, however, the question of the fitness f that language for the purpose—a matter as to which ome doubt may be permitted—it is certain that until reek is taught in schools in a very different manner from hat which at present prevails, the proposal is impracicable.

Attempts have been made to meet the difficulty by the nvention of artificial languages. Some years ago Volapük as fashionable for a brief period, and then died a natural eath; of Spokil and one or two others, it can scarcely be aid that they ever lived. Now there is Esperanto, which oubtless will in time follow its predecessors to the grave. e may admire the ingenuity with which those "universal anguages" are constructed; but at best they are like the an made by Frankenstein—bodies without a soul. They re as hard to learn as as a real language, and, when learnt, e has acquired nothing but a *lingua franca* without a story and without a literature.

In our opinion, the only solution of the problem is to be und in a return to Latin, which for many centuries was the nguage of science and learning, and which is excellently ted to be the international language of medicine. Up to e end of the eighteenth century, the great medical assics were written in Latin; in the early years of the neteenth century medical lectures were delivered in tin at Dublin, and at Edinburgh students were examined f their degrees in the same tongue. In London about t same period candidates for the licence of the College of ysicians were questioned in Latin. Latin orations re delivered at the College till near the middle of last ntury. Latin is still the official language of the urch of Rome and is written and spoken as a living gue by the students in her seminaries. For all the poses of scientific intercourse it could be learnt just easily as French. Its fixed forms have the great antage that a man must clearly understand his own aning before he attempts to express an opinion. e use of Latin at Congresses would be a check on verity. In Mr. Morley's *Life of Gladstone* there is an ount by the future leader of a meeting of Convocation Oxford in 1829 where Catholic Emancipation was the ject of discussion. Writing to his father he says: "All ordinary business there is transacted in Latin; I mean h things as putting the question, speaking, etc., and rule, I assure you, stops many a mouth, and saves the nan Catholics many a hard word." A similar rule ened at gatherings of the medical tribes would doubtless not only hard words but much loss of time. The proal is not new. A petition. signed by a number of esentative members of the medical profession in India presented to the International Medical Congress held ome in 1894; but, as far as we are aware. nothing was in the matter.

An interesting proof of the adaptability of Latin to the es of the most modern science is afforded in the new ne of the *Transactions of the Pathological Society of ron.* The editor, Mr. Shattock, there makes a strong for the use of Latin as the common language of ce. He has not been content with preaching the that is in him, but has exemplified it in practice. ree papers wholly or partly by himself, which are ined in the volume, he has prefixed a brief summary tin that will enable educated men of science ghout the world to gather their purport. The Latinity is clear, without affectation of Ciceronian elegance or impossible purism; the summaries are admirably succinct, and the experiment seems to us to be in every way successful. It will, we are assured, be a very decided help to scientific progress if the example set by Mr. Shattock is widely followed by scientific workers throughout the world. The Linnean Society, we believe, insists that every new plant brought to its notice shall be described in Latin, and the symptoms and pathology of a disease can be described with equal ease and accuracy in the same language.

CORONERS AND MEDICAL EVIDENCE.

"Crowner's-quest law" is still something of an anomaly from the purely legal point of view; from the medical standpoint it is saved from being a farce only by the practical good sense of the majority of those in whose hands its administration lies. The eligibility of medical men for the office of coroner was established by Thomas Wakley, and it may truly be described as one of the most important of the many reforms which we owe to his sagacity, courage, and perseverance. If the medical coroners have not yet had time to leaven the whole lump, at least their influence has been felt by their non-scientific colleagues. They have taught not only lawyers but the public—even those lower strata of it from which coroners' juries are mostly drawn—to appreciate, at least to some extent, the value of medical evidence.

Unfortunately the state of the law still makes it possible for a coroner to use what he may be pleased to call his judgement in dispensing with medical evidence, or in choosing the source from which it is to be procured. To a man of ordinary understanding it would appear to be a self-evident truth that in any given case of sudden death the evidence most likely to throw light on the cause of the event would be that of a medical practitioner who had attended the deceased person during life. Failing that, the evidence of the doctor who first saw the body after death would seem to be of some importance. If a necropsy is considered necessary it would probably occur to most men of average intelligence that the proper person to make it is the medical practitioner who has first-hand knowledge of the facts. If, owing to any points of exceptional difficulty in the case, an examination by an expert pathologist appears necessary, it would seem unquestionable that the presence of a practitioner who had seen the deceased person during life or soon after death is highly desirable.

These are truisms which it would be absurd to insist upon, were it not that they are systematically disregarded by a London coroner who apparently considers medical evidence a superfluity unless it can be given in the form of a *post-mortem* report. This at any rate is the impression left on our mind by a study of the numerous cases in which Mr. John Troutbeck has dispensed with the evidence of medical practitioners who had been in attendance during life or had first seen the body after death, and who were in possession of material information. In many cases the only medical evidence submitted to the jury has been that furnished by a necropsy made by a medical man who had no direct knowledge of the facts of the case. Practitioners who could have supplemented that evidence from first-hand knowledge have been ignored; they have not been invited to be present at the necropsy, nor have they even been informed of the fact that such an examination was to be made.

A glaring example of this official discourtesy towards the medical profession is given in a letter from Mr. Oliver Atkey, acting House Physician at King's College Hospital, which we publish elsewhere. Mr. Atkey was called in to attend Mr. Whitaker Wright in his last moments, and not unnaturally expected to receive an intimation as to the time and place of the necropsy. He heard nothing of the matter, however, till, in reply to a telephonic communication addressed to the coroner, he received a message referring him to Dr. Freyberger, and at the same time informing him that the examination was completed or actually being made. These facts alone suffice to show that Mr. Troutbeck's conception of his duties as coroner is sufficiently remarkable to deserve the attention of all who are interested in the detection and prevention of crime. He pins his faith on the knowledge of a practitioner as to whose special fitness for the difficult task with which he is entrusted the profession in this country has had no adequate means of judging. We do not wish even to seem to suggest that Dr. Freyberger is incompetent, but it can scarcely be claimed for him that he has achieved any such distinction either in pathology or toxicology as can entitle him to be regarded as an authority in these highly-specialized branches of medical science.

We do not here call in question the regularity of Mr. Troutbeck's procedure; the matter is not one of law but of the best means of arriving at a correct solution of problems which are often extremely complex and are always matters of importance to the public welfare. As the law stands, the calling of medical evidence is largely left to the discretion of the coroner. Naturally, if he has no discretion, it cannot be imputed to him as a fault that he fails to exercise that quality. But it is a danger to the public safety that the shortsighted economy, or overweening self-confidence or bias of a coroner should lead him to exclude evidence that may throw light on the problems with which he has to deal in inquests. And, as courtesy costs nothing, a coroner may surely use it, at least in moderation, without fear of the County Council.

Mr. Troutbeck's studied discourtesy to the medical profession would, however, be unworthy of notice did it not tend to interpose needless difficulties in arriving at the truth in those inquiries. It would be preposterous to imagine that the failure to notify practitioners interested of the time and place of necropsies is due to any unwillingness on the part of Mr. Troutbeck's trusted expert that any brother of the craft should be present at his investigations. But, as Sir Peter Teazle says, it is a wicked world; and it is by no means unthinkable that in the case of men of less unquestioned uprightness such misplaced secretiveness might be so interpreted. From every point of view the practice is a bad one, and opens the way to the possibility of gross abuses.

The attention of the Lord Chancellor has already been called to the conduct of Mr. Troutbeck in the matter of medical evidence. The reception given by Lord Halsbury to the deputation which waited upon him to represent the views of the medical profession was not particularly sympathetic. We have reason to believe that since then the case put before him has been considerably strengthened, and that further representations will be made to him. The existing state of things is a scandal which urgently calls for a remedy, as it may at any time give rise to serious difficulty in the detection of crime.

THE ASSOCIATION *YEAR BOOK*.

THE *British Medical Association Year Book for 1904*,[1] which has just been issued will, it is hoped, supply a want felt by active members of the Association and especially by Honorary Secretaries of Branches and Divisions. Within a brief compass it supplies full and accurate information as to the organization, the scientific, professional and political work and the general financial position of the Association. It contains a calendar which is a synopsis of the whole duty of man in relation to membership of the Association. In it are indicated the dates of meetings of Committees and of the Council; the latest days for sending in notices of motion to the Council, and returns of various kinds; the dates of elections of representatives, of the expiry of scholarships; the date when subscriptions become due and the last day for notifying resignation of membership. There follow lists of the members of Council and of the Standing Committes for 1903-4. The story of the birth and development of the Association is briefly told, the principal changes it has undergone in the process of evolution being noted, and the work done in the first five years of its existence summarized. The historical sketch is completed by a list of annual meetings, the number of members who attended being given in each case. It is interesting to trace the growth of the Association from the 140 members with which it started in 1832 to the 19,181 of 1903. The present Constitution is set forth at length, and a clear summary of the work done by the Association during 1902-3 is given. A note on the Library shows its value to members, who through it have access to the best standard and periodical literature in every province of medical science. The balance sheet for 1902 proves that the financial condition of the Association is absolutely sound, while the record of financial progress shows that its prosperity is stable. An even better assurance of the vigorous life of the Association is afforded by the list of its Branches and Divisions, which are spread over the whole United Kingdom and extend to the remotest parts of the Empire. The British Medical Association, in fact, is a striking object-lesson—which may be commended to the notice of statesmen—of the feasibility of applying the federal principle to a world-wide organization. Short articles are devoted to the BRITISH MEDICAL JOURNAL, and to the scientific grants made and the scholarships and prizes awarded by the Association. Lists of officers and of honorary members of the Association, and a programme of the forthcoming annual meeting serve to give completeness to a compact volume which, in the compass of 142 pages, contains an outline of practically all there is to be known about the British Medical Association. It is unnecessary to lay stress on the great utility of such a manual to members, but we may be allowed to point out how excellently adapted it is for the purpose of making known the advantages of membership to young doctors on the threshold of professional life, and inspiring in older practitioners who have hitherto remained outside the wish to join the largest and most powerful medical organization in the world.

THE REMOVAL OF KING'S COLLEGE HOSPITAL.

WHEN, last November, it was announced that it had been finally decided that King's College Hospital should be removed from the site near Lincoln's Inn Fields to a plot of ground at the foot of Denmark Hill close to Camberwell Green, the attention of medical practitioners in the South of London was immediately called by Dr. Rowland Fothergill, the energetic Secretary of the Wandsworth Division of the British Medical Association, to the risk of pauperization and the extension of hospital abuse to that district of the south of London which would inevitably attach to the establishment of a large hospital there unless carefully-considered measures were taken to prevent such abuse. We are glad to learn that the views expressed in our columns

[1] Published by the British Medical Association, 429, Strand, London. Price, 1s.

behalf of the Association in London have received the attention of the Medical Board Committee of the hospital, and that the Honorary Secretary of the Wandsworth Division has received from the Secretary of the Committee a letter stating that the authorities of the hospital desire to place themselves in communication with the local charities and medical societies of South London in order to ascertain their views as to the best methods of safeguarding their interest in framing rules for the out-patient department, for the admission of in-patients, and with regard to the question of paying patients. Similar communications have, we understand, been addressed to the Norwood and Lambeth Divisions of the British Medical Association, and these Divisions are now appointing representatives to serve on a joint Committee to meet representatives of King's College Hospital. The Wandsworth Division has appointed Dr. M. G. Biggs Chairman and Branch Representative; Dr. C. R. C. Lyster, late medical officer for eighteen years to Bolingbroke Hospital; and Dr. E. Rowland Fothergill, Secretary of the Division. The Lambeth Division has appointed Dr. R. Capes, Dr. Herbert Taylor, and the Divisional Secretary, Dr. W. H. B. Stoddart, of Bethlem Royal Hospital. The Norwood Division has not, so far as we are aware, taken steps to nominate its representatives, but it is hoped that the importance of the matter may lead this Division to hold, if necessary, a special meeting in order to complete the Committee representing the Divisions. We are glad to learn that action has been thus early taken, because it is in the highest degree desirable that questions of this order should be thoroughly discussed and a solution reached which, it may be hoped, will be satisfactory to all parties. The attitude taken by King's College Hospital is also satisfactory, and gives reasonable hope that such a solution may be found. While recognizing fully that the question of hospital administration, more particularly the regulations which should be adopted for the management of out-patient departments, is one which affects the profession in all great centres throughout the country, it yet appears to us plain that the question is one of greater acuteness at the present time in London than elsewhere, owing mainly to the circumstance that the whole matter of the distribution, maintenance, and management of hospitals is at the present time under revision in the metropolis. There can be no doubt that the result of the consultations and discussions which must take place in London during the next few months or years will have a large share in establishing general principles of universal application.

THE NEW SCHOOLS AND LABORATORIES AT CAMBRIDGE.

The King has graciously notified that it is his intention to visit Cambridge on March 1st to open certain new schools and laboratories which have been recently completed or are now rapidly approaching completion. The geological museum and the botanical institute are complete, and the work of arranging the collections in these is now nearly finished. The new medical buildings, comprising laboratories and lecture rooms for the departments of medicine, surgery, pharmacology, and pathology are finished, though not fully furnished, and the Humphry museum of anatomy and pathology, a building of three stories, is nearing completion. The law library and class-rooms on the other side of Downing Street are not so far forward, but are sufficiently advanced to make it plain that they will form a noble pile of buildings, containing a spacious library of fine proportions. It is anticipated that the King, after opening the medical and botanical schools and passing through the hall of the law library, will visit the geological museum and there unveil a memorial to the late Professor Sedgwick, a life-size bronze statue by Onslow Ford.

THE RECONSTRUCTION OF THE WAR OFFICE.

The first report of the War Office Reconstitution Committee, consisting of Viscount Esher (Chairman), Admiral Sir John Fisher, and Colonel Sir George Clarke, which was issued on February 1st, has been received with very general approval; but we feel bound at once to call attention to an omission of serious importance. The main recommendation of the report is the constitution of a supreme Board to be called the Army Council, following the general principles which obtain at the Admiralty. This Council, which the Government is resolved to constitute at once by patent, will consist of seven members, four military and three civil, with the Permanent Under-Secretary as Secretary. The Secretary of State, the Minister responsible to the Crown and to Parliament, will be its President. The duties of the various members will be allotted as follows: First military member, operations of war; second military member, *personnel*; third military member, supply; fourth military member, armament; first civil member, civil business; second civil member, finance. It will be observed that there is no mention here of the medical department of the army, which is responsible for its health in peace and war, its first duty being the prevention of disease. Nor is there any reference to this matter in the first section of the report, which recommends the formation of what is rather oddly termed "the permanent nucleus of the Defence Committee." In addition to a Permanent Secretary appointed for five years, renewable at pleasure, this Committee will consist of two naval officers selected by the Admiralty, two military officers chosen by the War Office, and two Indian officers, nominated by the Viceroy, with, if possible, one or more representatives of the Colonies. It is recommended that these officers should not be of high rank, and that the duration of their appointment should be limited to two years. Shortly stated, the duties of this permanent nucleus will be to act as an intelligence department, and here again we note with regret that there is no reference to medical matters. We need not insist upon the importance of remedying the omission to which we call attention because we have received, by the courtesy of Lord Esher, an intimation from the Secretary of the Committee that the position of the medical service under the War Office Reconstitution scheme is receiving the serious attention of Lord Esher and his colleagues.

DENTAL DEGREES.

By a majority of two to one, at a meeting specially convened to discuss the question, and largely attended, the British Dental Association has declared that it does not desire that the Universities should institute dental degrees. This conclusion perhaps calls for some explanation, as the issues thought to be involved were too complex to be expressed in the terms of resolutions, and it is more than possible that of those who voted on the one side or the other all were not influeneed by precisely the same considerations. Although the University of London and the Victoria University have both had the matter under consideration, the only dental degree as yet instituted is that of Birmingham, which is peculiar in that it does not confer a right to admission to the *Register*. Candidates for it must have completed an additional year of study after qualification and registration. It is thus purely an additional or "higher" qualification. But if the speakers at the meeting were well informed, it is not in the least likely that the other Universities would follow the lead of Birmingham in this important respect; on the contrary, it is obvious that qualifying diplomas were intended, and so a further departure from a one-portal system would be established. At present there is no great multiplicity of dental diplomas—although in Scotland, rather unnecessarily, two bodies do grant them—so that there is some approach to a one-portal system. As regards the question of higher degrees than the qualifying licentiateship, it was urged with irresistible force that the ambitious student cannot do better than pursue his studies in the direction of a complete medical education, and gratify his aspirations by taking a medical qualification, as many have done in the past. This was by no means the view of many of the advocates of fresh University degrees in dentistry; they desire to extend study in quite other direc-

tions, and almost openly avowed a desire to dissociate dentistry from medicine, an attitude which probably induced many to vote against them. So far as the question of higher degrees was involved, it was felt that a multiplication of qualifying examinations was little calculated to effect or maintain an improvement in standard. Moreover, a feeling of loyalty to the Royal College of Surgeons of England, which came to the rescue of dental education so long ago as 1858, by instituting its licentiateship long before there was any thought of a Dentists Act, operated to induce many to vote against any multiplication of qualifications. Thus the vote was rather to be regarded as adverse to the proposition in its present form and with its possible consequences, particularly in regard to its tendency towards dissociation from medicine, than adverse to the abstract proposition. It may, indeed, be doubtful if the mover of the motion in favour of the institution of university degrees, who himself holds a medical qualification, was in the least in sympathy with the most prominent speakers in favour of his motion. It remains to be seen what the effect of this decided expression of opinion may be, and how far it will influence the bodies concerned, who, of course, are in no way bound by it.

CURES FOR ALCOHOLISM.

THE *Daily Express* states that it has received a letter from Lady Henry Somerset in which she gives an interesting account of her investigations into a drink cure which has been tried in several large cities of America. Instances are narrated in which confirmed drunkards have under its beneficent effects been quite restored in a few weeks while in one instance the recovery was almost complete in ten days. The name of the inventor and the address in London at which information can be obtained are given. This latest American notion has arrived opportunely and just in time to be introduced to some of its relatives of which we give an account on p. 316 of this issue. We are quite sure that Lady Henry Somerset has been influenced by the best motives, but we could wish that she had refrained from giving any "cure" the support of her name. We should have thought it might have occurred to her that, in the case of so intermittent a disease as alcoholism, it is foolish to talk of recovery in ten days or even a few weeks. The majority of drunkards cure themselves for such periods from time to time. We venture to think that Lady Henry Somerset might usefully peruse sundry articles upon the subject which have appeared in these columns during the last year or two. A reference to one will be found in the special article in this issue, and others will be found at page 385, vol. i, 1903, and page 429, vol. ii, of the same year.

AN M.P. ON CONTRACT MEDICAL PRACTICE.

AT a recent meeting of a large Friendly Society at Hulme, Manchester, Mr. W. J. Galloway, M.P. for the South-West District of Manchester, gave an address in the course of which he made remarks of some interest to medical men. He regretted that there should be even a whisper of disagreement between Friendly Societies and medical men, because the interests of both were so interwoven that it was essential that harmonious relations should exist between them. He sympathized with the view of the Societies that if a doctor entered into a contract to visit its members for a certain sum of money, it was absurd for him to say he would only visit such as earned only a certain wage. The question of wages had nothing to do with belonging to a Friendly Society, and, indeed, the latter welcomed all who would agree to pay the stipulated rate of subscription. Further on in the same speech he referred to the existence of certain doctors who formed societies and ran them as kinds of unlimited companies. They caught a certain number of people who would agree to pay a certain sum a week, and for that they undertook to treat them whenever they were ill. They appeared to be more common in the North than in the South of England, and it was not in the interest of members of Friendly Societies that their existence should be perpetuated. Those who were responsible for the general management of the medical profession should keep such undesirable persons out of their ranks if they wished the profession to preserve the high position it had attained. Finally he called upon the medical profession to deal with the question which had arisen between it and the Friendly Societies if it desired to get accepted a Bill which he understood was to be submitted to Parliament for the better regulation of the profession. This address deserves attention, for members of Parliament, and indeed all level-headed persons who have influence with the working classes might do a good deal towards clearing away conditions by which the interests of medical men and those of certain sections of society are brought into apparent collision. But in order to effect this desirable object they must give sufficient study to the matter really to grasp the principles which underlie them. This unfortunately, as far as Mr. Galloway is concerned, does not appear to be at present the case. It is mainly the Friendly Societies the medical profession has to thank for the presence in its midst of the undesirable persons to whom Mr. Galloway made reference, and the power of abolishing them rests largely with the societies themselves, who can at once render them harmless—as far as they at least are concerned—by making equitable arrangements with medical men. Moreover, even if it be granted for the sake of argument that it is to the interest of medical men to do most of their working-class practice through the medium of societies, this at once ceases to be the case if an endeavour is made to force them to extend the benefits of the arrangements to others than persons of limited means. There is, of course, no desire whatever on the part of the medical men concerned to lay down the law as to who should or should not be admitted to the Friendly Societies, but they have a perfect right to exact that the benefits of contracts to which they are active parties shall be extended only to those in whose interests the societies were originally founded and are still kept up. The difficulty is one in itself easily capable of adjustment, but unfortunately there has hitherto been a tendency to sacrifice the interests of the general body to those of a few members whose success in life has at once removed them from the true category of the working classes, and at the same time put them into a position in which they can lead the latter blindfold.

SIR WILLIAM MACEWEN AT CARDIFF.

SIR WILLIAM MACEWEN visited Cardiff on January 29th to deliver the annual address to the members of the Cardiff Medical Society. Dr. Stewart, the President of the Society, was in the chair, and a large number of members were present. The subject chosen by the distinguished Glasgow surgeon was Appendicitis. He said he did not regard appendicitis as a new disease. In his student days he remembered a number of cases which were then described as acute peritonitis, and he was now inclined to think that many of them were really due to appendicitis. He pointed out that in some forms there was no sign by which the physician could tell whether the patient suffered from an early or an advanced stage without an operation; in a great many instances he did not know when appendicitis commenced, and often the first thing which arrested the attention of the patient was the symptoms of the late stage. The difficulty of diagnosis made appendicitis a very dangerous disease, but he added instances where an operation had saved the patient, even in most advanced cases. In the evening Sir William Macewen was entertained at dinner at the Royal Hotel, Dr. Prichard (ex-President of the Society) being in the chair. After the loyal toasts had been duly honoured the Chairman proposed the health of Sir William Macewen, who, in responding, said although he had been in Cardiff only a short time he had seen something of the town. They had got capital fresh air, which was one thing, and they had got a fresh medical school; and if they wanted to complete its curriculum why did they not do so? They had the material. They had an infirmary with 160 beds, and they had men who were proved surgeons and physicians, pathologists and bacteriologists. Why were they waiting? He could not tell. For money? That was

ifficult. There was no place in Britain where they ould not get money if they would bestir themselves to et it. He did not think there was any difficulty in egard to the school. If they wished to increase the umber of students, surely they would be increased if they ompleted the school. Once they could show that they ould send men to take the diplomas of the Royal College f Surgeons, the charter would come by-and-bye. He oped they would still send up men to Glasgow; they had ways had a considerable number of Welshmen, and Welshmen were represented on the professorial staff. hey had Professor Henry Jones in the Chair of Moral hilosophy. He did not know whether the successor of ord Kelvin was a Welshman, but he had been in a Welsh ollege. Dr. W. Sheen hoped the time would not be long coming before the medical school would be completed. e did not think the conversation between Principal riffiths and Sir William Macewen that day would be ithout result.

THE PERILS OF UTERINE VENTRIFIXATION.

HERE is an impression gaining ground that abdominal steropexy, hysterorrhaphy, or ventrifixation is too freely rformed, without any due consideration of consequences, hilst after-histories are, to say the least, much neglected. Two bad results were reported at a recent meeting of the erlin Obstetrical Society;[1] the proportion of cases of the me kind which escape notice or publication is difficult compute. Bröse spoke of a case of removal of a tumour the left ovary in June, 1902. As the serous coat of the ck of the uterus was much damaged during the separaon of adhesions in Douglas's pouch, the uterus was tured to the anterior abdominal walls by two catgut reads passed through the round ligaments. On Novem- 5th, 1903, it was necessary to induce premature labour account of general anasarca, dyspnoea, and albuuria, whilst the abdomen was extremely distended. he cervix lay abnormally high, the introduction of ugies proved very difficult, and the presentation could be defined. The labour lingered on for 48 hours, though pains were strong, Porro-Caesarean section was therefore performed. The fundus uteri was found at the level of the umbilicus, whilst the posterior wall of the uterus ve up behind the normal upper limits of that organ nigh as the ribs. The uterine contents were removed, sisting of a pair of living one-yolk male twins, which, ether with the single placenta and liquor amnii, weighed lb. This great heavy mass lay in what was, accurately aking, a diverticulum in the posterior uterine wall. e uterus itself was much distorted by a thick cord over inches long, which ran from immediately below the left nd ligament to the anterior parietes, representing the ner operation. The traction of this cord had prevented evolution of the anterior wall of the uterus. No trace he fixation could be discovered on the right side, a fact be remembered, as it shows that when the degree of esion after ventrifixation is unsymmetrical a very gerous rotation of the uterus on its long axis towards side where the adhesion is strongest may occur, and adhesion on the opposite side will be torn through, or atrophy so that the uterus will at the best be much laced, an evil in itself, independently of the dangers of bsequent pregnancy. The patient died. Advanced nchymatous nephritis, and right hydronephrosis with ed ureter were detected. In discussing this case kel reasonably observed that the left adhesion partly esented the pedicle of the ovarian tumour, and Opitz e in the same sense. Odebrecht referred to 18 cases entrifixation where in 17 the uterus rose duga subsequent pregnancy without any trouble up e epigastrium. In one, however, he had to perform arean section six years after he had fixed the fundus ree silkworm-gut sutures to the parietes; in these he added, he only inserted one suture. The patient on the third day. In this instance there was no rotaof the uterus, but the bands of adhesion drew down nterior aspect of the cornua to within a hand's breadth of the symphysis whilst the uterus reached to the liver, in other words the evolution of the anterior uterine wall had been greatly interfered with. Mackenrodt objected both to abdominal and to vaginal fixation. He preferred to perform a "vesico-fixation," simply suturing the serous coat of the uterus to the peritoneum on the contiguous surface of the bladder; that procedure was, he thought, quite sufficient. Strassmann confessed to some bad results in cases of pregnancy and labour after ventrifixation under his own observation, but "only very few" and he added a case of dystocia from this cause reported by Milaender, of Dorpat. Several gynaecologists of repute confess to "a few" cases of difficult labour after uterine ventrifixation. What must be the truth about the results of the practice of less experienced operators, especially in countries like our own, where it is not nearly so easy to trace hospital patients after discharge as is the case in Germany? Lastly, no case which has simply recovered from the operation should be reported as "cured." It may, as experience has proved, prove highly beneficial or, as above demonstrated, it may not. A long after-history is therefore essential.

[1] *Zentralbl. f. Gynäk*, No. 2, 1904, p. 61.

ANTIPYRIN AND PURPURA.

AN instance of sudden death during pregnancy where the patient had taken a large dose of antipyrin and had a purpuric rash is reported by Dr. Rudaux.[1] Unfortunately the patient's decease occurred quite unexpectedly within a few hours after her admission into a hospital, so that the blood was not examined. She was a needlewoman, aged 22, in the sixth month of her first pregnancy. Six days before admission she had a bad chill and lumbar pains after getting her feet wet. On the next day the midwife prescribed four cachets of antipyrin, which the patient, through a misunderstanding, swallowed all at once. She took six more at intervals on the third day. As little urine passed triticum repens was prescribed. On the fourth day a doctor was called in; he found the patient suffering from intense sacral pains, and gave salophen and Dover's powder. On the morning of the fifth day the patient seemed better, lactophenine and exalgine were prescribed, with plenty of milk; but in the evening she was much worse, an ecchymosis was noted in the right conjunctiva, and there was slight delirium. On the sixth day, as the patient was very ill, she was admitted into the Hôpital Beaujon at 10 p.m. She was in full possession of her faculties. The body was covered with a rash such as is seen in certain subjects after strong doses of antipyrin. Subconjunctival haemorrhages, bright red and elevated, were noted in both eyes on the inner side of the cornea. The abdomen and back, as well as the thorax below the mammae, were covered with purpuric spots of different sizes. The tongue and teeth were black, the gums injected, the pulse 120, the temperature 99°. The pregnancy seemed progressing normally. A careful examination of the blood was to be made on the following morning, but the patient after free dry-cupping to relieve the anuria, which was complete, died suddenly at 3 a.m. Both layers of the pericardium, the peritoneum, and the mucous membrane of the stomach and upper part of the duodenum showed abundant ecchymoses. The uterus, fetus, and placenta were quite normal and free from bleeding points, though there was a very large subserous haemorrhage in Douglas's pouch. In the kidneys the haemorrhages were limited to the connective tissue under the capsule. Rudaux is doubtful about the precise interpretation of the purpura. It was not purpura simplex, as there were marked visceral haemorrhages, nor infective purpura haemorrhagica, as there was no fever. Werlhoff's disease, rejected as a special variety by Dieulafoy, is never so severe as was this case, which might have been an instance of Hayem's medicinal or toxic type classed under deuteropathic purpuras. As for the cause, antipyrin poisoning seemed

[1] *Comptes Rendus de la Soc. d'Obstét., de Gyn., et de Péd. de Paris*, vol. v, October, 1903.

very likely, as there was a characteristic rash, and haemorrhages have been observed in undoubted cases. Auto-infection of pregnancy suggested itself, as the pains preceded the administration of the drug. Rudaux puts forward a hypothesis that the heavy dose of antipyrin produced toxic effects in a woman whose liver acted badly owing to the biliary stasis due to pregnancy. The case is of much importance to the toxicologist; many ladies take quantities of antipyrin without medical advice, whilst the causes of sudden death during pregnancy are often subtle and may lead to judicial inquiries.

PRE-ANAESTHETIC SURGERY.

AMONG the "human documents" concerning the discovery of anaesthesia there is none of more thrilling interest than a letter in which Dr. George Wilson gives Sir James Simpson an account of his sufferings when undergoing amputation of a limb in the days before chloroform or ether. Speaking of the operation, he says: "Of the agony it occasioned I will say nothing. Suffering so great as I underwent cannot be expressed in words....The particular pangs are now forgotten; but the black whirlwind of emotion, the horror of great darkness, and the sense of desertion by God and man, bordering close upon despair, which swept through my mind and overwhelmed my heart, I can never forget." Worse than the operation itself was the period of waiting for it, when Dr. Wilson says the patient felt like a condemned criminal preparing for execution. The full text of the letter may be read in the *Practitioner* for October, 1896. With it may be compared the following description of an amputation before the days of anaesthesia, unearthed by a writer in the *New York Medical Journal* from a book by Dr. W. Beach of New York, which was published in the early Forties. It should be stated that the description is quoted by Beach from a newspaper (bearing date July 21st, 1841), but evidently he did not think it overdrawn: "The next [case] was an interesting one of white swelling, for which the thigh was to be amputated. The patient was a youth about 15, pale, thin, but calm and firm. One professor felt for the femoral artery, had the leg held up for a few moments to ensure the saving of blood, the compress part of the tourniquet was placed upon the artery, and the leg held by an assistant; the white swelling was frightful. A little wine was given to the lad; he was pale, but resolute; his father supported his head and left hand; a second professor took the long, glittering knife, felt for the bone, thrust in the knife carefully but rapidly; the boy screamed terribly; the tears ran down the father's cheeks. The first cut from the inside was completed, and the bloody blade of the knife issued from the quivering wound; the blood gushed by the pint; the sight was sickening, the screams were terrific; the operator calm. Again the knife was thrust in under the bone; the terrific screaming was renewed; one or two picked up their hats to leave; scream on scream—and again the bloody blade of the knife issued from the wound, and was laid aside. The flesh quivered, and the boy cried agonizedly, 'Oh, father! father! father! Oh, mercy! mercy!' The flesh was thrust back with a small piece of wet linen, the divided ends of the quivering muscles were stopped from blood with a sponge, the saw glistened in the hands of the operator; the father turned as pale as death; the boy's eyes fastened on the instrument with glazed agony—grate—crush—once—twice—and the useless limb, from the toes to the centre of the thigh, was quickly dropped into the tub under the table. At this moment the father's eyes closed, his child's hand dropped from his grasp, and he reeled from the table, and fell senseless on the floor. The arteries were taken up, cold compresses only were applied; one or two stitches in the flesh, one or two more screams, and the boy was taken into an adjoining room and laid on a bed. The whole took less time than the details have occupied in writing." Beach, who, it must be remembered, held a brief against operation for white swelling, says that such displays of surgical art are fraught with alarming consequences, and by way of proof calls an unnamed poet as witness to the fact that

> Scenes of blood the human feelings sear.

It may be admitted that, although pre-anaesthetic surgery did not necessarily harden the hearts of surgeons, it could hardly have tended to soften their manners. The sight of an operation nearly made Simpson himself abandon the profession. Among the incalculable gains which anaesthesia has brought to surgery, not the least is that it has made the practice of the art possible to men of delicate sympathy who could not brace their nerves to the infliction even of salutary suffering on a sentient fellow creature.

HISTOLOGICAL STUDIES ON CEREBRAL LOCALIZATION.

THE results of an investigation by Dr. A. W. Campbell on the relation of structure to function in the cerebral cortex has been communicated by Professor Sherrington to the Royal Society. The groundwork of the research was the form of the nerve cells and the arrangement of the myelinated fibres in a series of normal brains, human and anthropoid, but confirmatory evidence was obtained from pathological material. Five distinct cortical fields were described in the paper, one area immediately in front of the Rolandic fissure and another immediately behind it with the occipital, temporal, and limbic lobes. The first named the precentral area, consisting of the ascending frontal convolution and a small adjacent part of the paracentral lobule, was quite clearly distinguished, both from the so-called post-central area, and from the rest of the brain by a very great wealth of nerve fibres and by the presence of the "giant cells" of Betz or "ganglionic cells" of Bevan Lewis. This area, it was to be believed, is purely motor. An area similar to the pre-central area in the human brain was found in two chimpanzees and one orang, which moreover precisely coincided with the motor field delimited in these animals by Sherrington and Grünbaum with the method of unipolar faradization. In two cases of amyotrophic lateral sclerosis, moreover, in which the pathological changes are limited to the motor side, these giant cells had quite disappeared from the pre-central area while the post-central showed no recognizable change. In six cases of amputation of a limb, chromolytic changes were found in the pre-central areas closely corresponding with those mapped out in the ape by faradization. The histological characters of the post-central area differed markedly from the motor type, and corresponded with the sensory type, as seen in the visual and auditory areas, suggesting the sensory function of this area. This suggestion was borne out not only by the previously-known observations that the area is silent under faradization, and partial ablation produces no interference with movement, and that its fibres, like those of spinal sensory fibres, myelinate early, but also by Dr. Campbell's observation that in three cases of tabes (a sensory disease) cell changes were found concentrated in this region, while similar post-amputation changes were found in corresponding parts of the post and pre-central areas. These observations certainly seem to crystallize out hitherto somewhat formless views of the sensory function of the Rolandic cortex and the suggestion made in the paper that the fibres connected with the convolutions on either side of the fissure of Rolando run so closely together in the subcortex that a lesion of one would almost of necessity affect the other might be held to fairly well satisfy the clinical facts at least, bearing on this point. Similar histological evidence was advanced tending to negative the idea that the gyrus fornicatus is concerned with common sensation, to show that vision was represented solely in the occipital lobe (not at all in the angular gyrus) hearing in the temporal and smell in the limbic lobe. An attempt was made to differentiate the visual area into a visuo-sensory part near the calcarine fissure and a surrounding visuo-psychic part, the latter corresponding in its function to that previously ascribed to the angular

rus. In the temporal lobe a lower audito-sensory ntre was located in the small transverse temporal ri and a higher audito-psycho area in the posterior rt of the first temporal gyrus, corresponding indeed th the well-recognized centre for word-hearing, but it s found that this centre had a precise counterpart in ch hemisphere of the brain. In regard to the latter fact, case was quoted (one of the two on record, as it was id) of complete, uncomplicated, and lasting word-deafss, verified by necropsy, in which the lesion was bilaal. It will doubtless appear to many that the new idence in relation to the special senses is less weighty an that advanced on the cortical representation of tion and sensation, but in any case the method proses to make much more precise, and therefore more ctically useful, our knowledge of the function of the st complex organ of the body.

THE EXTERMINATION OF THE MOSQUITO.

FERENCE has already been made in the British Medical Journal to the general Convention on Mosquito Extermin-on, held in New York on December 16th, 1903. Further par-ulars of the meeting have since been published in the w York *Medical News*. Professor John B. Smith, te Entomologist of New Jersey, read a paper, enied How a State Appropriation may be Used. In he described the work done during the past season the aid of the first State appropriation for mosquito rk ever made in the United States. During the summer 1903 seven men were kept in the field, distributed well r the State. A total of thirty-three species of mosquitos e collected, and thirty-one of these were bred. Proor Smith considers it legitimate for a State to make squito surveys and to give general advice, leaving the k of extermination to local communities. Money should t of all be spent in study, so as to avoid the loss of lic confidence which would follow mistaken executive sures. Mr. Walter C. Kerr gave an interesting account What a Rural Community Can Do. The community on Staten Island, and included an area of some two are miles, embracing both marsh land and upland. In subscriptions were secured, and twenty-five ponds were ered with petroleum oil Later the ponds were drained. oiling was temporarily effective and the drainage permently so. The greatest difficulty met was in dealing with marsh lands as could not be drained. Plans to keep sea water from these by tide gates were under conration when annexation to New York City checked the posed municipal undertaking. Dr. E. Porter Felt, State omologist, Albany, New York, discussed the question hat New York State Ought to Do." He deemed it ntial that practical work, particularly where undern on a large scale and when requiring to be extended r a long time, should be based on scientific principles. said the needs in the neighbourhood of New York were greatest, for within a radius of 25 miles there were some square miles of marsh land, about equally divided een New York and New Jersey. A biological survey wamp and marsh areas, particularly near the large s, was needed. The problem could, perhaps, be studied iently if there were available for four or five years an nal appropriation of 3,000 to 5,000 dollars. Mr. Weeks mosquito extermination was essentially an engineerroblem; the engineer might best determine and carry lans to get rid of the breeding places, often involving edemption of thousands of acres of marsh or saturated of vast value. Hitherto engineering had been for ot against the mosquito. Breeding places had almost rsally been caused by engineering works. This state-, he said, applied to highway, railroad and landscape eers. The result had often been the depopulation of ble sections by malaria and its carrier, the *Anopheles*. hinks "economic engineering" is a better term, for ork covers a wide range besides simple extermination utilization of large areas for agriculture and even for ation, and the improvement in living conditions of a opulation. In the course of the conference a resolution was adopted providing for a committee of ten, to be named by the chair, to consider and report on permanent organization, such committee to have power to promote legislation, to arrange for the publication of the proceedings of the conference and to call another conference whenever it should see fit.

AN EFFICIENT AMBULANCE SERVICE FOR LONDON.

We are glad to see that the need of a better ambulance service for street accidents and casualties in London, to which we have frequently directed attention in the British Medical Journal, is again receiving the consideration of the public and the press. If progress is to be made, and the metropolis to obtain the same facilities in the prompt handling of street casualties which are already provided in large provincial towns, some steps must be taken to focus public attention and to bring pressure to bear upon the authorities concerned. It is pretty clear that the question is of such magnitude that private organizations, however admirable, cannot adequately cope with it. Moreover, the police, with whom rests the first dealing with street accidents in London, have shown a lack of initiative, and a want of sense of proportion and of the extent and nature of modern requirements. That only three horsed ambulances should exist under their supervision in the metropolis, and these not readily available, and sometimes not available at all, indicates that the police are either unwilling or unequal to undertake the provision required. The Metropolitan Asylums Board has dealt in an admirable way with ambulance arrangements in the case of infectious diseases, and has wisely agreed to utilize its conveyances for transport of persons so affected from and to places other than the Asylums Board's hospitals. But the Asylums Board have, we understand, decided not to deal with similar accommodation for the purposes of non-infectious cases, street accidents, casualties, etc. It will be remembered that in December, 1902, the question of a complete ambulance service for London was brought before the London County Council by Sir W. J. Collins, and he presented a report dealing fully with the existing system and its deficiencies. As will be seen by a letter published on another page, it is proposed to utilize the approaching County Council election to be held next month for ventilating the question, and candidates will be invited to say whether they will, if elected, use their influence with the Council to secure that London shall no longer be deprived of these safeguards against unnecessary suffering and injury arising from street casualties which are already in daily operation in other large towns.

URGENCY CASES AND NO BEDS.

The ill-judged attack by the Southwark guardians upon Guy's Hospital, with which we dealt last week, has drawn forth a very crushing retort in the columns of the *Guy's Hospital Gazette*. It is pointed out that the hospital is a voluntary institution, not built upon the concertina principle, but with a definite number of beds, and that, though it exists in Southwark, it does not exist, as the guardians seem to think, for Southwark alone. Such as it is, it is doing its best with intelligence and to the utmost limits of its resources. Out of these resources it cares for some 8,000 in-patients, of whom two-fifths come from the immediate neighbourhood of the hospital, while the proportion of the out-patient work done for Southwark is equally great. In return for this Southwark charges it some £3,000 a year in local rates, while only £277 was received in subscriptions from Southwark last year towards the £90,000 odd which the hospital required for its upkeep, and less than £1,500 from all South London, including Southwark. Further than this, the Southwark guardians do not even pay the 2s. a day for Poor-law patients which by law the hospital is entitled to receive. The balance of debt against Southwark is therefore heavy, but instead of being grateful the guardians launch an unjust charge with such noise and violence as to deceive a large section of the press into accepting it as true. The duty of providing for the sick and necessitous is laid by law upon the guardians, and the particular case which has

given rise to so much talk was a simple one with which they should have been able to deal perfectly easily, and as a matter of fact they found they could do so when they found they must. The hospital will continue to send to the workhouse cases which the hospital cannot accommodate, and which need shelter and medical attention, and if the guardians neglect to deal properly with them it will rest with the hospital to refer their dereliction of duty to the Local Government Board.

SMALL-POX AT WORK.

IN a recent issue the *Yorkshire Herald* gives one or two examples of the doings of small-pox in York—examples which can be abundantly paralleled wherever small-pox prevails. A case occurred in a house in Tower Street, and the patient was removed to hospital. Nine inhabitants remained, of whom 6 were revaccinated and 3 were not—a grandmother, her daughter, and a grandchild. The daughter was removed to hospital eighteen days later suffering from small-pox, and the child a week afterwards. The latter died. At the commencement of the outbreak at York Workhouse 3 men were removed to the Small-pox Hospital and 21 remained. Twenty of these accepted revaccination, but the twenty-first refused. In fifteen days he was found to be suffering from small-pox, and was taken to hospital, where, after two days, he died. From a lodging-house in Skeldergate 3 cases of small-pox were removed to hospital in October. Seventeen inmates were revaccinated and 7 refused. The 17 have remained free from infection, but nearly all the 7 have been attacked. To every one acquainted with the doings of small-pox these occurrences are the mere commonplaces of experience, but to people who have to take their information second-hand, and who, from the amount of noisy vituperation that they hear against vaccination may have loosely come to the conclusion that there are two sides to the question, such illustrations of how small-pox differentiates between the unvaccinated, the once vaccinated, and the revaccinated must be very striking, and it is not surprising to hear that in York many parents have discarded their conscientious objections, and have submitted their children to vaccination. As has often been said before, there is no schoolmaster like small-pox, but the education so provided has to be paid for at a terrible price.

HORSEFLESH FOR CONSUMPTIVES.

THE Director of the General Administration of the Assistance Publique in Paris has recently appointed a Committee to investigate the use of horseflesh in the form of raw minced meat in the treatment of tuberculosis and other diseases. Among the members of the Committee are Professor Debove, Dean of the Paris Faculty of Medicine; Dr. Faisaus, Member of the Supervising Council of the Administration; Dr. Letulle, Physician to the Boucicault Hospital; and Professor Barrier of the Veterinary School, Alfort. The reasons given for the appointment of the Committee are that raw minced meat is more and more frequently prescribed in certain Paris hospitals for patients suffering from tuberculosis and other diseases; that inasmuch as the meat for this purpose has to be taken from the prime parts, the other patients and the hospital staff have necessarily to be content with inferior portions; and that horseflesh is cheaper than beef or mutton, and seems in the raw state to have advantages in regard to the medication referred to which have induced several hospital physicians to suggest that it should be used for the purpose. The report of the Committee will be awaited with interest.

THE QUAIN SOCIETY.

THE Quain Society of University College, London, has for its object to promote interest in the study of anatomy, its history, progress, and recent advances. It was, we learn, founded by Mr. Donald Armour, who, from five years' experience as senior demonstrator of anatomy at University College, was impressed with the lack of interest and knowledge of the subject, beyond the amount required in the class-room and for examinations ordinarily displayed by students. The Society was started two years ago, and its title was no doubt chosen in memory of the late eminent professor of anatomy whose name is still so well known as the foundation author of that much-edited book, *Quain's Anatomy*. The Society began in a small way, but so much interest was taken in it by the students that last October the membership was thrown open to every student in the Medical Faculty of University College. It has for its officers a President (Mr. Armour), a Treasurer-Secretary, and a Council of seven members. Its members are honorary and ordinary, the former being persons who have distinguished themselves in the study of anatomy. Meetings are held every second week, at which papers are read and discussed, and at the meeting on Monday next, February 8th, at 8 p.m., in the Anatomical Theatre at the College, Sir Victor Horsley, F.R.S., will read a paper, illustrated with photographs and lantern slides, on the termination of the fillet in the optic thalamus. Visitors are invited to attend this meeting. Mr. Donald Armour is very much to be congratulated on the success which has attended his scheme. Human anatomy does not make the same strong appeal to the student of to-day that it did to the best of his predecessors of a century ago. To most thoughtful students the problems it presents seem less interesting than those which its daughter physiology, is seeking with so much energy and enthusiasm to solve. All the more credit, therefore, to a teacher who can so stimulate the interest of students as to make them anxious to join a society for their discussion.

MEDICAL WOMEN IN THE UNITED STATES.

THE New York *Medical Record* says there is little or n prejudice against female medical practitioners in th United States. Some of them are prosperous members c the community. Our contemporary quotes from a news paper article concerning the Women's Medical College c Pennsylvania. In order to ascertain what becomes of it graduates, an inquiry was instituted, and an effort wa made to trace the careers of 244 of them. Seventy-si women gave information as to their professional earning Twenty-four stated that they made from £200 to £400 year; 20 from £400 to £600; 10 from £600 to £800; 5 fro £800 to £1,000; 3 as much as £1,000 and less than £3,00 while 4 gave their income at £3,000 to £4,000 a year. O the other hand, 10 stated that they made less than £200 year. The average income was found to be about £580.

MEDICAL PRACTICE BY FOREIGNERS IN SPAIN.

THE question of medical practice in Spain by holders foreign diplomas has recently formed the subject animated debates in the Spanish senates. The discussi has so far led to no definite conclusion, but from t reports that have been published it may be gathered th a foreign doctor can at present practise his profession Spain without the necessity of submitting to any furth examination.

DR. HENRY KENWOOD has been appointed Professor Hygiene at University College, London, in succession the late Professor W. H. Corfield. Dr. Kenwood has be actively engaged in the teaching of hygiene and pub health for the past twelve and a-half years, and six a a-half years ago was appointed Assistant Professor.

DR. D. J. CUNNINGHAM, Professor of Anatomy at University of Edinburgh, and Chairman of the Anth pometric Committee of the British Association, and Lauder Brunton, M.D., F.R.S., gave evidence before Physical Deterioration Committee on January 25th. the meeting of the Committee on January 28th the nesses who gave evidence were Mrs. H. G. Close, Mr. J Atkins (London editor of the *Manchester Guardian*), Dr. Edward Malins (President of the Obstetrical Socie On February 1st Mr. J. Gray, Secretary of the Ant pometric Committee of the British Association, evidence.

The Hunterian Oration before the Hunterian Society ill be delivered by Dr. J. F. Woods at the London Institu- on, Finsbury Circus, at 8.30 p.m. on Wednesday next, ebruary 10th. The subject of the oration, which is open members of the medical profession, is the psychic side therapeutics.

Dr. Horace Dobell, of Parkstone Heights, Dorset, for- erly of Harley Street, London, has presented £500 in nsols to the Royal College of Physicians, London, for the omotion of original research into the ultimate origin, olution, and life-history of bacilli and other pathogenic cro-organisms. The conditions are that the President d Censors of the College shall select a lecturer once in ery two years, who shall give a lecture recording ginal researches on the above subject, made by himself d others, and that he shall receive a fee of £50 for so ng. These lectures are to be continued biennially so g as a sufficient amount of the £500 and its accumulated erest remains. The first lecture will be delivered in vember, 1904, by Dr. Klein.

MEDICAL NOTES IN PARLIAMENT.

[From our Lobby Correspondent.]

he Opening of Parliament.—It is many years since a new ion of the two Houses of Parliament has excited so much rest as this session of 1904. Members began to arrive at night on Monday so as to secure their seats for Tuesday's eedings. Mr. Macdona, who arrived on the stroke of ve, secured the somewhat questionable distinction of place, as he has in previous years. Several others ved soon after, and must have passed the night in the pre- its of the House, as the rule is that after taking a place the mber should not leave till the House opens. Many ved between 7 and 8 in the morning, and by midday the n benches were well covered with cards bearing the es of members. The Speaker took his seat in full State s at a quarter to two, and was soon after summoned to the King's Speech in the House of Lords. Followed by occupants of the two front benches Mr. Speaker eeded in State to the Bar of the Upper House, e the faithful Commons found places near him or he north gallery of the gilded chamber. The red hes of the peers' chamber, filled with peers in robes and peeresses in court dress brilliant diamonds and gems, made a splendid spectacle. The ne occupied by the King and Queen was surrounded by hief officers of state, while the diplomatic corps and udges grouped on the woolsack made a varied-coloured round. The King and Queen looked remarkably well, he speech was delivered with great dignity and distinct- Their Majesties then bowed and withdrew, the faithful mons found their way back to their own chamber, and e right-coloured assemblage rapidly dispersed.

T; Speech from the Throne.—This year the King's Speech onger than usual, but the most noteworthy feature and e he which gave rise to most comment was that two-thirds was devoted to foreign affairs. Only a slight reference s nade to the financial position and the possibility of s ing the burden imposed on the resources of the ry. It was hinted that a diminution might be possible nnexion with the army and navy problem. The list mised legislation was very short and to those interested cial reforms disappointing. First came the question of te aliens, then licensing reform, third the promised of the system of valuation for local and Imperial on, and then Scotch education and a Labourers and ng Bill for Ireland. These are to constitute the pal measures for the session. In the secondary pro- l however, were mentioned measures for the amendment law relating to public health and for dealing with the f employment in shops. These will necessarily be of l interest, and the first named, it is hoped, may turn e a comprehensive measure. Besides the amendment ublic Health Acts in many important particulars, the unity arises in a session not overburdened with legisla- posals to attempt some codification of the law. It is many quarters that the time is ripe for such action, and that the position of all health officials should be satisfactorily determined as to tenure of office and qualifications. The almost universal uncertainty which prevails as to how long this Parliament is to last, makes the enactment of any of the measures mentioned in the gracious speech very problematical. The much-regretted absence of the Prime Minister at the opening of the session added greatly to the feeling of uncertainty, and parties as a whole as well as members individually seemed to have more eyes for the constituencies than for the prospects of legislation.

Private Members' Legislation is always much talked of in the opening days of the session, and this year, in spite of doubtful prospects as to a general election, members are as active as ever in seeking places for their pet measures. Between 100 and 200 names were put down for the ballot on Tuesday, and by Wednesday night, when the list was closed, no less than 362 names were down to ballot for Bills or motions. The first dozen names drawn will practically secure all the chances of getting any discussion, to say nothing of passing their measures. There was much talk in the Lobby of two measures of medical interest—one a Bill for the Registration of Nurses and the other a Bill for Compulsory Revaccination. If either gets a good place a most interesting and important debate will be certain on the second reading; and if the second Bill comes on, the Government would be forced to define its position as regards vaccination generally. The Revaccination Bill is introduced by Sir J. Batty Tuke. It provides for the revaccination of all children between the ages of 12 and 13, except those who obtain certificates of exemption in the way prescribed by the Act of 1898 and those who may be excused on medical grounds. It leaves the Local Government Board to decide all administrative details. The Bill is backed, in addition, by Sir Michael Foster, K.C.B., the Right. Hon. R. B. Haldane, K.C., Dr. Farquharson, Captain Jessel, Mr. Ian Malcolm, Mr. Heywood Johnstone, Mr. B. L. Cohen, Mr. Edward R. P. Moon, Sir Charles Dalrymple, Bart., Sir John E. Dorington, Bart., Sir Andrew N. Agnew, Bart., Sir Richard C. Jebb, LL.D., Mr. E. C. Thompson, and Mr. T. P. O'Connor. The text of the Bill will be published in a subsequent issue. There is a group of members also pushing a Bill for paying compensation to owners of animals slaughtered on account of tuberculosis by public authority. But the great groups of members balloting are those connected with the Miners Eight Hours Bill, the Deceased Wife's Sister Bill, the Rating of Machinery Bill, and Bills to enable women to serve on local authorities. This last question has received great impetus from the recent Education Acts, and is sure in some form or other to be brought before the House.

The Deterioration of National Physique which has been so fully discussed in the British Medical Journal, and brought so prominently before the public by the action of Dr. Farquharson, excited much interest in the lobbies. It cannot well be treated by way of any Bill, but a day may be obtained for a discussion in the House, and Sir John Gorst intends to move for a Select Committee to consider and report on the best methods of ascertaining and recording the health and physical condition of children in public elementary schools.

The Course of Business.—At the commencement of the session the first business is to vote the Address in reply to the Royal Speech. In these days this occupies ten days to a fortnight, and is the opportunity for criticizing the general conduct of the Government in home and foreign affairs. This year there are some twenty-six amendments to the Address, and consequently a fortnight at least is likely to be occupied in the discussion. Mr. Balfour's absence has necessarily postponed amendments which require his presence for their consideration, and on this account Mr. John Morley's amendment on the trade policy of the country has been postponed till next week, when the Prime Minister is expected to be in his place. Mr. Robson will proceed this week with his amendment on the conduct of the war, and this will no doubt call forth some remarks on the army medical service and the loss of life from preventable disease. There will later on be a full-dress debate on the Education Acts, and so altogether it looks as if the third week of the session would be occupied with the Address, and then will come the introduction of Government Bills and the consideration of Estimates.

Scotland.

EDUCATION AND MEDICINE.

AT a meeting of the Association of Teachers in the Secondary Schools of Scotland held at Aberdeen on January 22nd, Professor Ogston delivered an address on Education and Medicine. After referring to the fact that he had taken a share in the labours of the recent Royal Commission on Physical Training in the Schools of Scotland, he said that in his early days the ventilation of class rooms, soundness of constitution and strength of physique were little thought of in regard to education. Happily for the children of the present day such times were past in Scotland. The Education Act of 1872 had created a body of teachers with enlightened views, guided by an Education Department with wise and able men at its head. It was now recognized that mental culture was, in the great majority of instances, incompatible with an unsound body, and that bodily deficiency, to a greater or less degree, existed in considerable numbers of school children. In addition to those defects and deformities that struck the eye, it had been observed that, among the poorer classes and in the larger towns, conditions of disease existed in latent forms, and especially that a state of malnutrition, approaching to semi-starvation, had to be dealt with as a factor adverse to proper education.

Deterioration of Physique among the Young.

Among the points which were brought under the notice of the Royal Commission was the deterioration of the physique of the young, particularly in the large towns. Nearly every witness had observed it and could testify to its reality, though with very few exceptions only in general terms. They failed to obtain anything like conclusive evidence that a general racial deterioration was going on in these islands, although such evidence was exhaustively sought for in all possible quarters. All that could be concluded with anything approaching to certainty was that in the poorest and lowest strata of the population of the larger towns a certain amount of degeneration was taking place among the children owing to insufficient and defective feeding, disease, intemperance of parents, unhealthy occupations and dwellings, inadequate clothing, and unwholesome environment generally. It became apparent that, at any rate as regards Scotland, there were actually no data in existence to enable them to draw any satisfactory conclusions. Under those circumstances, he suggested to the Commissioners that a health census of the school children of Scotland should be taken to such an extent as to furnish a basis, however limited, of incontrovertible facts. A census taken by Professor Hay and Dr. Leith Mackenzie showed that there was an amount of ill-health vastly in excess of what had been anticipated among young people attending school, and that a sensible proportion of these urgently required the supervision of skilful medical advisers co-operating with the teachers. Equally striking was the proof which it furnished that there was a vast amount of underfeeding, amounting almost to semi-starvation, among the young, conjoined with inadequate clothing and unhealthy homes.

A Universal Health Census Required for Schools.

The report of the Commissioners proved the urgent need for the institution of a census of the health of school children being taken, supplemented at intervals by a renewed inspection into their fitness for study and exercise. In all educational institutions a properly-conducted health census would throw much light upon what was now a subject little known or thought of—namely, What amount of study is each child by itself, and children as a whole, capable of undergoing with benefit to its mind and without damage to its health? Overpressure of individuals and classes existed at present, and could be recognized by the expert. In the universities he could speak as to its evils with some knowledge. In the medical schools, for instance, they were forced on by pressure from the General Medical Council, who had the power, and did not fail to exercise it, of holding them up to opprobrium unless the stringency of their examinations satisfied them. Most of their professors, though, as a rule, men of exceptional ability, were perhaps on that very account poor judges of what the average student ought to be expected to undertake, and the result was that the more intense the labour required in their classes, the more hopelessly severe their examination papers, the more efficient as professors they considered themselves, and were esteemed to be by others. Forty years ago numbers varying from three to ten of Aberdeen medical graduates annually used to obtain highest honours on taking their degrees, and their after-careers showed their worthiness of them; but now in the last ten years only six graduates in all had obtained this distinction. The blame lay not with the student but with his teachers. He had long observed, and often said, though never till that day in public, that it was impossible nowadays for a medical student of average ability and physique to pass through his curriculum and obtain his degree in the average time without either, on the one hand, being rejected in some of his examinations, or, on the other, over-studying so as seriously to risk his health and overtax his constitution. Once a systematic health census was introduced into schools it would enable a standard of capacity to be approximately fixed, and over-pressure would be unmistakeably recorded in the deteriorating health of the pupils. When aided by the co-operation of the teacher, medical inspection constituted the most promising method of enlisting attention to defective or injurious feeding of the young. The matter of nutrition of school children which existed was a subject of high importance to the race, and one to which the Commissioners devoted much of their attention.

Sugar-Gluttony.

Professor Ogston then referred to sugar-gluttony, which was a growing evil among the children in towns. He had had many years of medical experience among children, who though not actually delicate, were not of the strongest constitution, and he was persuaded that to such children the present-day gluttony of sugar was a real and spreading evil. There were some children in whom the tendency to sugar-gluttony had become so strong that their infatuation for it resembled the craving of the drunkard for his dram. Such saccharomaniacs showed early disappearance of the teeth from decay. Edentulous subjects were to be found in large numbers among adolescents, particularly in towns where, in contrast to what was the case a generation ago, there has sprung up a gigantic trade in all kinds of sweet-stuffs, cheap as to be within the means of all, and of a nature to constitute a serious danger to the rising generation; and would not be surprised if future observers were to place the evils of sugar-gluttony on a pedestal as conspicuous as the drink question, in causing deterioration of individuals and race. It would be of no small benefit if measures could be devised to mitigate this danger to school children.

The Medical Examination of School Children.

Speaking of the physical training of school children, he said they had arrived at a juncture when the co-operation of teaching and medicine could no longer be delayed without very obvious disadvantages to all engaged in the former of these professions. Education could not be bestowed with full effect upon those who were physically unfitted to receive benefits; and many young people in the school period of their lives were so unfitted. The detection and removal of these impediments could be attained only by a medical examination. This ought to be carried out with great care and minuteness at the commencement of each child's school career so as to ensure a recognition of actual disease that might be present and unfit it for study, or physical training, or both. Besides evident deformities, it would reveal certain defects of sight or the like which prevented its keeping pace with its fellows in receiving mental instruction, and which might be at once corrected or gradually remedied. It would also reveal the existence of any conditions of malnutrition or of diseases of debility such as glandular or throat affections, defective or decayed teeth, poverty of blood, etc., which might require prolonged medical observation, or the attention of the parents being drawn to their existence and to the proper means of rectifying them. Lastly, it could be utilized to direct the attention of the parents, or of benevolent organizations, to insufficient or unsuitable clothing, want of cleanliness, and the like. For the due management of the last two classes of hindrances to education, it would be of inestimable benefit that the medical examiner should be aided by lady inspectors. These officials would effect what neither teachers nor doctors could effect. After the initial inspection of the scholars had secured a first and full record of their condition, it should be repeated once a year during the whole period of education. The annual medical inspection would constitute the best means of lessening or eradicating the neglected minor ailments that affected children's education, and which

structed both mental and bodily growth and development, sides leading to the production of a stunted and imperfect ult.

A health census of school children begun and continued on ch lines, and extended to every school and educational stitution in the country, would, in a very few years, prove a cord exceeding in value even anything that could be timed for the existing decennial Government census of the pulation, or in its bearing on the health of the community y other statistical record that now existed, with the sole ception of the registration of causes of death and of zymotic ease.

Systems of Physical Training.

Professor Ogston proceeded to deal with the various stems of physical training—military drill, the Swedish stem introduced by Ling, and others in which it was empted to combine what was best in all. In regard to s matter the conviction was forced on his mind that they re as yet far from having reached perfection and finality as what might constitute a good national system of physical ication for Scotland. The military system was unsuitable young children, though some degree of drill was beneficial l even necessary. The Swedish system, which scientifically s perfection, was also found in practice to be unsuited to weakness and failings of humanity, and must be modified t were to be beneficially employed in schools. Modifica- ns and combinations of the existing systems which left m for future alteration and improvement were what was uired. The little child, the growing maiden, the robust , had to be variously provided for. The recreative lment, the sense of pleasure, must not be lost sight of any system of physical training. Even when a good ional system had been worked out the teachers had still be taught. A better initial instruction in anatomy physiology as bearing on physical training, and machinery ctactfully helping and correcting the teachers and afford- them well-considered guidance among the chaos of rival ems must be provided. No inspector of schools was able of doing this. It was a task for the specialist, and the best educated, wisest, and most tactful of specialists ld do it so as to counsel and help and mould the body of ing teachers whom the country possessed, in order that might carry out physical training in such a manner as to e it a really beneficial part of school work.

The Morison Lectures at the Royal College of Physicians of Edinburgh.

Variation in its relation to Insanity.

The second lecture was delivered on January 27th by Dr. on Macpherson. Mental defect was defined as a congenital ation, characterized by the partial or complete absence of or more of the faculties or subfaculties which are recog- d as normal in the average human being, and was shown e commonly correlated with imperfect physical develop- t of some kind. Mental defect was held to depend (1) on herent incapacity for perfect development latent in the ryo or germ cells; and (2) upon mental development ng been arrested by extraneous causes acting *in utero* or at time of birth or in early childhood. The first cause was commoner, and descriptions of conditions illustrative of were given. Only three things were certainly known ding anomalous germinal variations: (1) They were ble of being experimentally produced; (2) they were e in the germ cells, otherwise they could not be regu- transmitted; and (3) they occurred in races with rical regularity, and generally limited themselves to in stocks in which they tended to be transmitted.

In the concluding lecture the subject of the various neuroses dered as variations from the normal was brought under w; epilepsy, hysteria, and alcoholism being included in. The former affected all nationalities without respect mate or soil or habits, and the probable proportion of disease in Europe was 1.5 per 1,000 inhabitants. The otigenous tendency latent in the population was, how- probably much greater. Hysteria, the most common of e neuroses, had, like epilepsy, neither geographical or l limitations; and among the higher species of domestic ls and among primitive races it was probably as common long civilized mankind. Alcoholism was defined as a ion from the normal, characterized by an abnormal g for artificial mental states produced by drugs, chief which was alcohol. In concluding the lecture it was d out that the whole theory of variation fell under the matical theory of chance, and from that standpoint three questions required to be answered with regard to the affections treated in this and the preceding lectures: (1) Were these diseases constant variations? (2) Did they show a universal distribution throughout the various races of mankind and the higher animals? (3) Were they hereditary? The lecturer claimed that he had answered all these questions satisfactorily in the affirmative. That being so, there remained three alternative explanations of their occurrence. Either (1) their occurrence was fortuitous and due to mere coincidence; or (2) it depended upon the action of the environment; or (3) it was due to genetic variation. It was held that the theory of genetic variation discussed in the first lecture was the only tenable explanation.

Dr. Argyll Robertson.

Dr. Argyll Robertson, the Senior Oculist of the City of Edinburgh, and Surgeon-Oculist to the King for Scotland, who is about to leave Edinburgh to reside in the island of Jersey, was the guest of the Cap and Gown Club at a farewell dinner held in the Royal Hotel on January 30th. Mr. G. W. W. Barclay, F.R.S.E., presided, and nearly 100 were present, including many members of the medical profession. The Chairman referred to Dr. Argyll Robertson's long career and work in Edinburgh, and wished him and his wife long life and happiness. The guest replied.

Edinburgh University Rectorial Disturbance.

A special meeting of the Senatus Academicus of the University of Edinburgh was held on January 30th for the purpose of considering the questions raised by the recent disorderly proceedings at the delivery of the Rectorial Address in the McEwan Hall. The general subject of students' rowdyism and their conduct in the class-rooms was, it is understood, considered, as was also the tone of the language used in the Students' Magazine. It is also understood that the question was actually discussed whether in future there should be a formal address delivered at all by the Lord Rector, and a remit was made to the Principal and Deans to have a full consideration of the subject. The two students who, in dirty fancy costume, made an insulting presentation to the Chancellor and Lord Rector at the close of the latter's address have been rusticated for two years by the Principal and Deans' Committee.

Small-pox in Edinburgh.

In the week ending Saturday (mid-day), January 30th, 9 new cases of small-pox were notified. At a meeting of the Public Health Committee on the afternoon of Tuesday, February 2nd, the Medical Officer of Health reported that since the beginning of the present outbreak of small-pox in December last 43 persons had been removed to the hospital. Of this number, 1 case, after being under observation for a week, was discharged as not suffering from the disease. Three deaths had occurred, so that on the morning of the day named there remained 39 persons under treatment. Of these 34 are males and 5 females. Of the latter, one is an infant of 14 months.

The Glasgow Royal Infirmary.

A fresh effort is being made in Glasgow, the Lord Provost taking a leading part in the movement, to raise the large sum of money required for the complete reconstruction of the Royal Infirmary. It is now 106 years since the Royal Infirmary was opened, and although much of the present building is more modern than that, it is generally admitted to be wise that the present opportunity should be taken to build an entirely new infirmary. Some years ago a fund was raised for the purpose of rebuilding the front block as a Queen Victoria Jubilee Memorial. For that purpose there is in hand a sum of £86,500, but to complete the building £200,000 is wanted in addition. Last week a public meeting was held in the City Chambers at which the Lord Provost presided and commended the scheme to the generosity of the city and neighbourhood. The building of the infirmary originally was a much greater effort than its reconstruction would be now, and he had the greatest confidence that the present scheme would be carried to a successful issue. Appropriate resolutions were passed and a committee appointed to promote the special building fund, towards which the Lord Provost had the pleasure of announcing that a few individual citizens had already contributed the handsome sum of £79,400.

Bequests to Hospitals.—The late Miss Georgina Barron, of Cambridge Terrace, Regent's Park, has left £200 each to Guy's Hospital and the Middlesex Hospital, and £100 to St. Mark's Hospital.

Ireland.

CENTRAL MIDWIVES BOARD.

THE Master of the Rotunda Hospital, Dublin, and Professor Byers, of Belfast, who wrote to the Central Midwives Board asking that certain alterations should be made in their regulations which require from candidates going into their examination that they should have attended and watched not fewer than twenty labours and have nursed twenty lying in women during the ten days following labour, so as not to disqualify Irish women, have received replies that a resolution was passed at a meeting of the Central Midwives Board on January 28th, 1904, to the effect that "the Board regret that the suggested alterations were not brought to their notice before the rules were sent to the Privy Council, as having been now approved by that body it is impossible for the Board to alter them." This is regarded as a remarkable reply, and it is asked, How could the heads of the obstetric profession in Ireland have made suggestions when they were not asked? The members of the Central Midwives Board must have been aware that the amount of training of midwives was a very debatable one, and their duty was to consult their colleagues in Ireland and Scotland. It is surely absurd to say that no change can be made if the Central Midwives Board has made a mistake. It would probably be wiser for the Board to represent to the Privy Council that an alteration was desirable, rather than raise an agitation in which obstetricians, anxious as they are to keep up the standard of the midwives, must oppose them. It is argued that the Board is demanding from midwives more than is required from medical students, and that the profession will take alarm on realizing that a body of female obstetricians is being trained who will really not act with them, but oppose them. We hear that the question will be brought up in the coming session of Parliament.

AN ISOLATION HOSPITAL.

Last year the Vice-Chancellor of Ireland granted an injunction to restrain the Rathmines and Pembroke Commissioners from erecting an isolation hospital for the reception of infectious cases at Clonskeagh. The defendants brought the case to the Court of Appeal and judgement has just been delivered. The court unanimously dismissed the action. Lord Justice Fitzgibbon, in giving the decision, reviewed the evidence for the plaintiff, the theory put forward being that the germs of small-pox were airborne. As against that evidence there was the testimony of Dr. Hope, Medical Officer of Health of Liverpool; Dr. Marsden, Medical Officer of Health of the Borough of Birkenhead; and of Dr. Pers, of Wolverhampton, whose experience has been that, although the hospitals under their superintendence in each of these towns were closely surrounded by residences, no instances had come under their notice of small-pox infection which could be said to support the theory of aërial convexion. Dr. Hope, in answer to a question as to whether he believed the Clonskeagh hospital would be a source of danger to the inhabitants of the neighbourhood, said "None whatever." The Lord Justice proceeded to say that the sanitary condition of both districts, Pembroke and Rathmines, favoured the view that there never would be any great demand upon the hospital. There was no evidence that the value of property in the vicinity of the proposed hospital had been depreciated. On the contrary, there was evidence that the portion of the ground which formed part of the hospital site had realized its full value at a public sale, the facts as to the contiguity of the hospital being plainly stated in the particulars. On the whole he had come to the conclusion that there was no evidence of danger, and that the action must be dismissed. He confidently hoped that experience might justify him in declining to accept the theory of aërial convexion as against fact, or sanctioning an alarm based only upon theory, as the result had justified the decision of Mr. Justice Romer, who declined to grant an injunction in a somewhat similar case in Ossett, Yorkshire.

DISPENSARY DOCTORS AND THEIR SUBSTITUTES.

A deputation from the South Down Branch of the Irish Medical Association, consisting of Dr. S. Edgar Martin, Dr. B. A. Palmer, J.P., Dr. H. W. Smartt, and Dr. James M'Avoy, appeared before the Newry Board of Guardians on January 23rd, in regard to the remuneration of temporary substitutes for medical officers in the Union. Dr. S. Edgar Martin, who acted as spokesman, said the Branch was composed of practically all the medical men in the Newry and other unions in that district. The parent society had laid down a rule that fair and reasonable remuneration for a temporary substitute for a dispensary medical officer during the latter's absence on holidays or sick leave would be 4 guineas a week, and in the case of workhouses 3 guineas a week. They as members of that Association were in honour bound to observe that rule. Latterly, however, with the Newry Board of Guardians the remuneration for such services was only £3 a week. They were, therefore, in an awkward position, and they wished the guardians to relieve them by increasing to 3 guineas a week in the case of workhouses and 4 guineas a week in the case of dispensaries. If any of the medical men in the union refused to undertake temporary medical work in a dispensary for less than 4 guineas a week the guardians might not be able to procure a substitute, and hence a difficulty would arise. In reply to a guardian, Dr. Martin said that it was difficult to get other men to undertake the work at the fee heretofore paid by the guardians. The Chairman said that the application of the medical officers could not be entertained except on fourteen days' notice. Mr. M'Quaid gave notice of his intention to move in the matter.

ORTHOPAEDIC HOSPITAL OF IRELAND.

At the annual meeting of this hospital held in Dublin, Lord Justice Walker occupied the chair. It was mentioned that the governors were about to increase the beds from 90 to 100; 164 cases had been treated during the year. Of these, 88 were cured and 6 were relieved, 3 died, and 67 remained under treatment. The report was adopted. Mr. Justice Ross, Colonel Dobbs, and Mr. R. L. Swan (Senior Surgeon) were among the speakers.

BELFAST HOSPITAL FOR CONSUMPTION.

The annual meeting of the Forster Green Hospital for Consumption was held in Belfast on January 28th. The medical report submitted by Dr. Howard Sinclair showed that 153 cases had been admitted and 655 new out-patients seen, with a total of 1,734 attendances. Much stress was laid upon early recognition of the disease; the open-air treatment is carried out fully, but many cases have had to be refused as being too far advanced to offer any reasonable hope for cure. Resolutions and expressions of sympathy on the death of Mr. Forster Green were passed. Mr. Green had left a large legacy to the hospital. A deficiency of £235 was shown in the Treasurer's statement.

THE FORESHORE NUISANCE IN BELFAST LOUGH.

Local Government Board Inquiry.

Mr. Cowan, Engineering Inspector of the Local Government Board, held an inquiry into a petition of the Castlereagh Rural Council, asking for a provisional order to form the Castlereagh Rural and the Holywood Urban District into a united urban district for the purpose of abating a nuisance on the foreshore of Belfast Lough.

Evidence was submitted that some years ago the nuisance was small, but that from about 1889 it increased to a very objectionable extent. Towards 1898 an agitation was set on foot, which culminated in a public meeting, and a deputation appointed to wait on the Belfast Corporation. The nuisance spread down the southern side of the Lough, and the development of land for building was injured. It was worse after the completion of the main drainage scheme for Belfast. The essence of the complaint is that huge masses of seaweed collect on the foreshore, lie rotting in the summer and autumn sun, and poison the air with their effluvium.

Dr. Dowman, medical officer of health for District No. 2 of the Castlereagh Rural District, said that in summer the nuisance was both objectionable and injurious to health; it was due to sulphuretted hydrogen, which at times was sufficient to blacken silver. A certain amount of disease was probably caused or predisposed to by the nuisance.

Dr. Charles O'Neill, superintendent officer of health of the Castlereagh District, said the nuisance was serious in summer.

Dr. Greenfield (Holywood) said he had found cases of sore throat and typhoid on the land between the railway and the foreshore.

Dr. Letts, Ph.D., Professor of Chemistry, Queen's College, Belfast, said he had carried on investigations as to the best means for the purification of the sewage of Belfast, and had presented reports to the Corporation. The seaweed was the *ulva latissima*, and its growth was due to the fertilizing qualities of the sewage. His chief recommendations were: Treatment of the sewage by the septic tank as a prelimin

step before passing it to the contact beds; this method removed mostly the free ammonia but led to the production of nitrates, which encouraged the growth of the *ulva latissima* and other seaweed. Finally, the use of the seaweed as a fertilizing agent might be tried. As a simple and little costly remedy, he thought that a few men engaged each year in carting the seaweed away would enormously diminish the nuisance.

Belfast Hospital for Sick Children: Annual Meeting.

The annual meeting was held on January 28th, when the annual report showed that 821 cases had been admitted; the average number of beds occupied was 44; 328 operations were performed, and 46 deaths occurred; 5,377 new cases were treated in the extern. Although the institution is relieved of the immediate pressure of debt, still the deficit of the annual income continues; the annual cost per bed is £49 13s.

British Medical Temperance Association.

The quarterly meeting of the Belfast Branch was held on January 25th, in the Medical Institute, Belfast. The President, Dr. Kevin, occupied the chair, when Dr. Howard Sinclair read a paper entitled, Does Alcohol Predispose to Tuberculosis? Seventy per cent. of tubercle in those over 40 years of age occurred in alcoholics, and Dr. Sinclair expressed the general opinion that undoubtedly alcoholism did predispose to tubercle. He illustrated the great difference in the practice of medical men now in respect of alcohol and the treatment of consumptives.

Canada.

The Quebec College of Physicians and Surgeons and British Diplomas.

It is stated that the College of Physicians and Surgeons of the Province of Quebec recently decided to lengthen the medical curriculum. It was further decided that British diplomas should no longer be recognized in the province. A more complete preliminary education as represented by a B.A. degree was also advocated for students of medicine.

Enteric Fever at Montreal.

The western suburbs of Montreal have been visited by a rather severe epidemic of typhoid fever. It is estimated that there are at present 250 cases in St. Henri, 80 in Ste. Cunegonde, and 40 in Westmount. In the city itself the number of cases is not above the average. The wards of the hospitals are taxed to the utmost to provide accommodation for the patients. In the Royal Victoria Hospital there are 44, in the General Hospital 30, in the Hôtel Dieu 20, and in the Nôtre Dame 12 cases of enteric fever. Of those in the Royal Victoria Hospital, 11 came from the city proper, and 33 from the suburbs, as compared with 16 from the city and 3 from the suburbs during a similar period last year. The cases are for the most part of moderate severity. The outbreak started about December 22nd, when there was a sudden change of 35° in the temperature. An examination of the Westmount water supply undertaken by the city analyst revealed a condition of things which demands investigation. At times the culture plates were loaded with colonies of bacilli, and at others none could be detected. Dr. Starkey found numerous bacilli of the colon group in the water furnished to houses in St. Henri, in which there had been cases of typhoid fever. The engineers also examined the intake of the Westmount water supply, and found that at low water there was danger of contamination from the sewer draining the town of Verdun, and they advised its removal. At the same time the attention of the Hygiene Committee was drawn to the ice cut in the St. Lawrence river, near enough to the Verdun sewer to be considered suspicious. The whole crop was condemned, and harvesting the ice within certain limits prohibited.

Aneurysm of Abdominal Aorta.

Dr. Osler, of Baltimore, read a paper recently before the Montreal Medico-Chirurgical Society on aneurysm of the abdominal aorta. After expressing his pleasure at being back in his old society among friends, he reviewed the cases reported by Bryant at St. Bartholomew's Hospital, and then proceeded to speak of the series he had collected at Johns Hopkins Hospital. In regard to diagnosis he considered that unless one could grasp the tumour and feel the definite expansile pulsation, a diagnosis of aneurysm of the abdominal aorta could not be definitely made, as there were many conditions in which a pulsating abdominal aorta resembled aneurysm in almost every detail. Syphilis and strain were the main factors in the causation. Pain was the main symptom, and to this might be joined any or all of the other conditions arising from pressure. Vomiting was frequently an early sign, and intermittent claudication was not uncommon. The prognosis was bad, and rupture was the usual termination. Treatment was unsatisfactory, although gelatine injections, with rest in bed, were useful; however, he considered that on the whole the introduction of wire into the sac produced the best results. The operation was simple, could be done under local anaesthesia, and was as a rule harmless. In conclusion, he considered that the future treatment of aneurysm would be largely surgical.

Radium.

A second very interesting lecture before the Montreal Medico-Chirurgical Society was delivered by Professor Rutherford, of McGill University, on radium. The physical properties of the substance were discussed and numerous experiments and lantern slides illustrating its action were shown. The lecturer felt somewhat diffident in speaking of its application to medical work, but suggested that as the emanations restrained bacterial growth and could be disseminated like a gas they might be used as an inhalation in cases of phthisis.

Congress of French-speaking Physicians.

A meeting of the Committee of the Congress of the French-speaking Physicians of North America was held at Laval University, Montreal, in order to appoint committees and arrange for the second congress, which is to be held in 1905, at the same time as the twenty-fifth anniversary of the foundation of Laval University in Montreal. The first congress, which was held in Quebec in 1902, was very successful, and the second will undoubtedly surpass it both in numbers and in interest. The Committee has drawn up a scheme which has proved helpful in similar organizations, and in order to save time for discussion the following rules will be enforced:

1. Each section is to furnish a lengthy work on a subject of actual interest.
2. Members intending to read a paper are to prepare it as soon as possible.
3. All such papers are to be printed previously to the meeting.
4. At the congress the speaker is to give but a concise summary and the conclusions of his communication.

CENTRAL MIDWIVES BOARD.

We have received the following report from the Secretary of the Central Midwives Board:

At a meeting of the Central Midwives Board, Dr. F. H. Champneys in the chair, held at the Board Room, 6, Suffolk Street, S.W., on January 28th, 1904, the following business was transacted:

1. On the recommendation of the Standing Committee, the Board adopted three sets of questions to be addressed respectively to those applying for approval or recognition in the following capacities:

(*a*) Institutions applying for approval of their certificates or for recognition as approved institutions under Section C 1 of the rules.

(*b*) Registered medical practitioners seeking recognition as teachers under Section C 1 (3).

(*c*) Certified midwives applying to be approved for the purpose of signing Forms III and IV under Section C 1 (2).

2. The following applications for recognition as approved institutions under Section C 1 of the rules were granted:

National Maternity Hospital, Dublin.
Edinburgh Royal Maternity and Simpson Memorial Hospital.
City of London Lying-in Hospital.

3. The following application for recognition as a teacher under Section C 1 (3) of the rules was granted:

John W. Fordham, jun., M.R.C.S.

4. A letter was read from Dr. E. Hastings Tweedy, the Master of the Rotunda Hospital, Dublin, calling the attention of the Board to the practical impossibility of pupil midwives trained in the Rotunda complying with the requirements of Section C rule 1 Subsection (1) (personal conduction of 20 cases) and Subsection (2) (ten days puerperium). It was hoped that the curriculum of the Rotunda might be accepted as an equivalent to the course of training prescribed by the rules, or that such exception or modification might be made as would enable the Rotunda nurses to qualify for the Board's examination.

After consideration of the subject it was unanimously resolved:

That having considered the letter addressed to them by the Master of the Rotunda Hospital, the Board regret that the suggested alterations were not brought to their notice before the rules were sent to the Privy Council, as having been approved by that body it is impossible for the Board to alter them.

5. A letter of similar purport was read from Professor Byers, Physician to the Incorporated Belfast Maternity Hospital, and a copy of the foregoing resolution was ordered to be sent in reply.

6. After consideration of applications for certificates the names of 1,040 women were passed under Section 11 of the Act, and ordered for entry on the roll. Of this total 269 claimed as holding the certificate of the Obstetrical Society of London, 14 that of the Rotunda Hospital, 26 that of Queen Charlotte's Lying-in Hospital, 14 that of the Glasgow Maternity Hospital, 14 that of St. Mary's Hospital, Manchester, 2 that of the Liverpool Lying-in Hospital, 1 that of the Edinburgh Royal Maternity Hospital, 1 that of the City of London Lying-in Hospital, and 699 were admitted as having been in bona-fide practice for one year prior to July 31st, 1902.

ASSOCIATION NOTICES.

PROCEEDINGS OF COUNCIL.

IN connexion with the Proceedings of Council published last week in the SUPPLEMENT, p. 2, it was inadvertently reported that the Chairman had received a communication from the British Dental Association petitioning for a Dental Section to be held in connexion with the Annual Meetings of the Association. The report should have read as it was actually stated by the Chairman at the time—that he had received a copy of a resolution passed at a well-attended meeting of members of the British Medical Association who practise dental surgery to the effect "That this meeting is of opinion that a Section in Dental Surgery should be formed in connexion with the Annual Meetings of the Association, and that the President and Council be asked to grant such a Section."

NOTICE OF QUARTERLY MEETINGS OF COUNCIL FOR 1904.

MEETINGS of the Council will be held on Wednesdays, April 20th, July 6th, and October 19th, in the Council Room of the British Medical Association, 429, Strand, London, W.C.

ELECTION OF MEMBERS.

ANY candidate for election should forward his application upon a form, which will be furnished by the General Secretary of the Association, 429, Strand. Applications for membership should be sent to the General Secretary not less than thirty-five days prior to the date of a meeting of the Council.

LIBRARY OF THE BRITISH MEDICAL ASSOCIATION.

MEMBERS are reminded that the Library and Writing Rooms of the Association are fitted up for the accommodation of the members in commodious apartments, at the office of the Association, 429, Strand. The rooms are open from 10 a.m. to 5 p.m. Members can have their letters addressed to them at the office.

GUY ELLISTON, *General Secretary.*

BRANCH MEETINGS TO BE HELD.

EDINBURGH BRANCH.—The annual clinical meeting of the Edinburgh Branch in conjunction with other Scottish Branches will be held in the Royal Infirmary, Edinburgh, on February 12th. Pathological Museum 3 p.m. Inspection of New Pavilions and Demonstration of Eye, Ear, and Throat Cases 3.30 p.m. Clinical Demonstration 4 p.m. Demonstrations of *X* Rays, Radium, and High Frequency 5.30 p.m. Dinner in the North British Station Hotel at 6.30 p.m. Morning dress. Dinner ticket 5s. Those who have patients or specimens to show should communicate with one of the Secretaries.—NORMAN WALKER, 7, Manor Place; A. LOGAN TURNER, 27, Walker Street, Edinburgh, Honorary Secretaries.

METROPOLITAN COUNTIES BRANCH: CENTRAL DIVISION.—The adjourned special general meeting of this Division will be held at the rooms of the Medical Society of London, 11, Chandos Street, W., on Wednesday, February 17th, at 5 p.m. Agenda: (1) Minutes of the last meeting. (2) Dr. Heron's addition to the Draft Medical Acts Amendment Bill: After Clause 27 insert as follows, and number as Clause 28: "No person registered under this Act, excepting only as hereinafter indicated, shall dispense or supply drugs or other medicaments to any one." Exceptions: (*a*) Medical officers of His Majesty's navy or army not engaged in private practice in the United Kingdom; (*b*) registered practitioners while in attendance on cases of emergency requiring in the opinion of the practitioner the immediate use of a drug or other medicament; (*c*) registered persons practising their profession in country districts in which the inhabitants are so few that they cannot support at the same time both a medical practitioner and a pharmaceutical chemist; it shall, nevertheless, be incumbent upon any medical practitioner so practising in such a country district to satisfy the General Medical Council, when called upon by that body so to do, that the people of the country district in which the practitioner is engaged in medical practice and in the dispensing of drugs or of other medicaments, are in fact too few in numbers to support both a medical practitioner and a pharmaceutical chemist: (*d*) medical practitioners employed on board of vessels other than His Majesty's ships: (*e*) any other person registered under this Act, the peculiar circumstances of whose professional work require, in the opinion of the General Medical Council, before which the facts must be brought, special consideration with a view to the exemption of such person from the action of this clause. Penalties for infringements of this clause: Any person found guilty of an offence under this clause of the Act shall for a first offence pay a fine of not less than £100, and for each later offence the offender's name shall be erased from the *Medical Register* for such time as the General Medical Council shall fix. No practitioner registered before the passing of this Act shall be liable to the application of this clause until three years from the date of this Act having become law. Dr. Burslem Rotheroe will move the following amendment to Dr. Heron's addition: "That the subject be adjourned to January 27th, 1909." (3) Further consideration of the Medical Acts Amendment Bill. Dr. Hugh Woods will move the following alterations and additions: Clause 25. That the words at the end of Clause 25, that is, "prescribed in Section XXIV of this Act," be altered to "prescribed in Clause 30 of this Act." Clause 34. That in the sentence "who does not so affix his name to public view," the words "within three months from the date of commencing so to practise" be inserted so as to read thus: "who does not, within three months of commencing so to practise, so affix his name to public view." Clause 39. That the words of Clause 39, that is, "Nothing in this Act shall apply to midwives," be altered to: "Midwives registered under the Midwives Act, 1902, shall not be liable to penalties under this Act for practising midwifery in accordance with the provisions of the Midwives Act, 1902." The full text of the Medical Acts Amendment Bill will be found in the SUPPLEMENT of the BRITISH MEDICAL JOURNAL, August 22nd, 1903. (4) To consider other business if necessary.—COMYNS BERKELEY, M.B. B.S.Cantab., M.R.C.P.Lond., 53, Wimpole Street, W., Secretary and Treasurer.

METROPOLITAN COUNTIES BRANCH: WANDSWORTH DIVISION.—A dinner will be held at the Worple Hall, Wimbledon, on Thursday, February 25th, at 7.15 p.m. Tickets 6s. each (wines extra). Dr. Still will read a paper at 9 p.m. on the Diagnostic Significance of some Signs and Symptoms in Diseases of Children. Members are entitled to bring guests, and are asked to book places for the dinner by February 17th if possible, as a certain number have to be guaranteed.—E. ROWLAND FOTHERGILL, M.B., Torquay House, Southfields, S.W., Honorary Secretary.

METROPOLITAN COUNTIES BRANCH: KENSINGTON DIVISION.—A meeting of this Division will be held on Tuesday, February 9th, at 5 p.m., by consent of the Guardians of the Fulham Infirmary, Fulham Palace Road (close to Hammersmith Railway Station). Dr. H. Campbell Pope in the chair. Dr. Morten will lecture on Treatment by Roentgen and Radium Rays (with demonstrations). Dr. Parsons, Medical Superintendent, has kindly consented to show some clinical cases in the infirmary. Tea and coffee.—C. CRAWFORD THOMSON, M.D., 111, Sinclair Road, West Kensington, Honorary Secretary.

NORTH WALES AND SHROPSHIRE BRANCH: NORTH CARNARVONSHIRE AND ANGLESEA DIVISION.—A meeting of the above Division will be held at the Infirmary, Bangor, on Wednesday, February 10th, at 4.45 p.m., Dr. Emyr O. Price, Bangor, in the chair. Agenda: (1) To read the minutes of the last meeting of the Division; (2) to read letters of apology; (3) to elect a vice-chairman; (4) to read report of last Council meeting; to consider draft model rules to regulate procedure in ethical matters; (6) to consider draft of Medical Acts Amendment Bill. The following papers will be read:—R. H. Mills Roberts, C.M.G., F.R.C.S., Llanberis: (1) Amputation at the Hip-joint for Advanced Disease; (2) Trephining for a Punctured Fracture of the Skull in a child aged 5; the cases will be shown. H. Jones Roberts, M.R.C.S. (Penygroes): (1) The Consequences of an Undetected Case of Scarlatina; (2) Severe laceration of the Hand (case shown).—H. JONES ROBERTS, Penygroes, Honorary Secretary.

PERTHSHIRE BRANCH.—A clinical meeting of this Branch will be held in the Station Hotel, Perth, on Friday, February 26th, at 4 p.m. Business: (1) Minutes; (2) appointment of Joint Secretary; (3) report of Council on the Medical Acts Amendment Bill; (4) cases, etc.—Dr. Stirling: Abdominal Cases; Dr. Taylor: Antitoxin in Diphtheria. Dinner after the meeting in the hotel, at which a presentation will be made to Dr. Urquhart. The Honorary Secretary will be obliged by members informing him of their intention to be present.—WILLIAM A. TAYLOR, 10, Marshall Place, Perth, Honorary Secretary.

STAFFORDSHIRE BRANCH.—The next meeting of this Branch will be held at Stafford on Thursday, March 3rd, instead of Thursday, February 25th, as one of Sir Oliver Lodge's lectures occurs on the latter date.—E. PETGRAVE JOHNSON. Stoke-on-Trent, Honorary General Secretary.

INTERNATIONAL CONGRESS OF DERMATOLOGY.—The fifth International Congress of Dermatology will be held at Berlin from September 12th to 17th, 1904, under the presidency of Professor E. Lesser. The following questions are proposed for discussion: (1) Skin affections in anomalies of metabolism; (2) syphilitic diseases of the circulatory organs; (3) epithelioma and its treatment; (4) (*a*) the state of matters as to the distribution of leprosy and its repression since the first Leprosy Conference held in 1897; (*b*) the present state of knowledge as to anaesthetic leprosy. All communications should be addressed to the General Secretary, Sanitatsrat Dr. O. Rosenthal, Potsdammerstrasse, 121 g, Berlin.

SPECIAL CORRESPONDENCE.

SYDNEY.

The Use of Preservatives in Food.—The Sydney Abattoirs.—The Queen Victoria Homes for Consumptives.—Prince Alfred Hospital Appointments.

As I mentioned in a former letter, a Select Committee was appointed by the Legislative Assembly to inquire into and report upon the use of preservatives and coloring matters in foods. This Committee took a considerable amount of evidence, chiefly upon the use of boracic acid in food, and they have confined their progress report to this substance. Dr. Ashburton Thompson, the President of the Board of Health, Dr. Tidswell, the Microbiologist to the Board of Health, Dr. W. G. Armstrong, the City Health Officer, and Mr. Hamlet, the Government Analyst, all gave evidence against the use of boracic acid as a preservative in milk, butter, etc., and in support of the regulations recently adopted by the Board of Health. This evidence was based partly upon scientific reasoning, partly upon practical experience, and partly upon the information on the subject derived from a study of the writings of experts. The Committee also called as witnesses four medical men in practice in the city, who were emphatic upon the innocuousness of the use of boracic acid in the quantities commonly used for preservative purposes. This evidence was based, it was stated, upon their practical experience. The Committee, composed entirely of laymen, considered the latter evidence of much more weight than that of the health officials, and without calling any medical evidence in support of the opinions of the health officers, proceeded to draw up the following conclusions:

1. That, as regards butter, there can be no question as to the necessity or the harmlessness for the use of up to 35 gr. of boracic acid to the pound, since this amount is recommended by the English Departmental Committee, and is the amount fixed as permissible by the regulations of the Boards of Health both in New South Wales and Queensland.
2. That as regards milk, if there is sufficient care in handling and rapidity in distribution, chemical preservative is unnecessary.
3. That, as regards condensed milk, of which there are two varieties, sweetened and unsweetened, the use of sugar in the former, and the sterilization of the latter, combined with hermetically sealing in air-tight tins, render the use of a chemical preservative unnecessary.
4. That as regards concentrated milk, which your Committee recognize as a trade name applied to a further description of condensed milk, the use of 35 gr. of boracic acid to the pound is necessary.
5. That as regards cream for consumption as such, for the proper maintenance, expansion, and development of the trade, and to bring this nutritious article of food within the reach of every householder at a reasonable price, the use of 18 gr. of boracic acid to the pound is necessary.
6. That the use of 35 gr. of boracic acid to the pound of butter, and 5 gr. of boracic acid to the pound of concentrated milk, and 18 gr. of boracic acid to the pound of table cream will cause no injury to health, and should be permitted.
7. That, having in view the right of people to know what any food stuff consists of, vendors of these articles containing preservatives should include on the label on the package, tin, or containing vessel, and in conformity with the rest of the label, a statement setting forth the nature and quantity of the preservative contained therein; and, in cases where a label is not ordinarily fixed, then a special label to that effect should be affixed. The Committee also recommend that the regulations made under the Public Health Act should be amended, and brought into conformity with the above conclusions.

It is hoped that the Board of Health will do nothing of the kind, and that in the interests of the public health they will adhere to the regulations adopted after the most careful consideration of the whole subject.

There has just been laid upon the table of the Legislative Assembly a report from another Select Committee appointed last July, "to report upon all matters appertaining to the inspection of meat at Glebe Island, and the general conduct and management of the affairs at the abattoir." This report is highly condemnatory, specially of the present buildings, and the present antiquated system of sending part of the meat out to sea. The system of inspection of the meat is also said to be very defective.

The Committee recommend to the Government that a new abattoir, complete and modern in arrangement, be erected; that it be placed under the control of a special board, and managed as a business concern; that no slaughtering be allowed within a radius of 14 miles of the City of Sydney, except at such abattoir: that the whole of the by-products be treated by the Government; and that the present system of inspection and management be improved so as to obviate the defects pointed out in this report, and ensure to the public of the city and suburbs that the meat which they consume is dealt with under the very best possible conditions.

The Queen Victoria Homes for Consumptives, founded as a memorial of the Diamond Jubilee of Her late Majesty Queen Victoria, have not received the amount of financial support needed to enable the Committee to deal effectually with the number of pressing claims for admission to these institutions. Apart from the necessity which exists for additional accommodation, especially for female cases at Thirlmere, the ordinary income is not sufficient to meet the annual expenditure in maintenance. A meeting was recently held at the State Government House, under the presidency of His Excellency Sir Harry Rawson, to consider what steps should be taken to increase the annual income, and to extend the interest of the general public in the movement. It was eventually decided to hold a ball early next season, and in the meantime the mayoresses of the suburbs are to endeavour to enlist the sympathies of the ladies in their respective districts. Mr. T. A. Dibbs generously offered £1,000 to endow a bed in one of the homes. While these institutions are doing what they can for the early and curable cases of this disease, the Government are "still considering" the question of making some provision for the advanced cases, for whom there exists at present no suitable accommodation.

Miss McGahey, the Matron of Prince Alfred Hospital, has resigned her appointment after twelve years' service, during which she has worked very hard and done an inestimable amount of good for the hospital and the training of nurses generally. The Committee has placed on record its sense of the value of Miss McGahey's services and its regret at the severance of her connexion with the hospital. Applications are being invited from persons suitable to fill this position in Great Britain and America, but it is generally recognized that it will be a matter of extreme difficulty to fill the vacant post. When the new pavilions are completed and furnished there will be accommodation for nearly 500 patients. Dr. C. B. Blackburn has resigned his appointment as Medical Superintendent and Dr. A. H. Macintosh has been appointed his successor. Drs. Blackburn and E. W. Fairfax have been appointed additional assistant physicians, Dr. H. C. Taylor Young assistant gynaecologist, and Dr. Russell Nolan assistant surgeon in the department for the diseases of the ear, nose, and throat at this hospital.

MANCHESTER.

Deaths from Burning.—Flannelette: New Agent for Fireproofing It.—Causes of Enteric Fever in South Africa.—Aberdeen University Club Dinner.

Several inquests lately have directed fresh attention to the dangers of clothing children in cheap and inflammable flannelette. A non-inflammable variety has been on the market for four years, but the manufacture has not extended to the cheap 3d. a yard flannelette in favour with the poorer classes. The process of rendering the material uninflammable adds to the cost one eighth of a penny a yard as royalty, and one halfpenny for the extra finish required.

In this connexion may be mentioned some recent observations on the application of titanium compounds. It is now possible to manufacture titanium compounds for commercial purposes. They are used as mordants for silk and vegetable fibres, and as a dye in conjunction with tannic acid. It has also, however, been found that titanic acid renders wearing materials uninflammable, and that they remain so even after dyeing and boiling.

Colonel J. Lane Notter delivered on January 28th the second of the course of public health lectures at the University on "The Spread of Typhoid Fever, Dysentery, and Allied Diseases among Large Communities, with special reference to Military Life in Tropical and Subtropical Countries." Enteric fever was a disease, he said, which took a leading position in mortality statistics all over the world, and its spread was limited neither by degrees of heat nor by atmospheric states. Reviewing matters in the light thrown on them by occurrences during the South African war, Colonel Notter said that it was probable that both dysentery and enteric fever were essentially filth diseases. Only the complete removal and destruction of filth could lead to fewer deaths and less sickness in an army in the field. In the lecturer's opinion, the water supply played a comparatively insignificant part in the spread of enteric fever in South Africa. Notwithstanding the greatest care, it was practically impossible to prevent completely the occurrence of these diseases in any army, hastily mobilized, operating in a country in which water was scarce, and whose ranks were

largely filled with young men at an age notoriously liable to be affected by diseases of this nature.

The annual dinner of the Aberdeen University Club was held on Friday, January 29th. Dr. Angus Fraser of Aberdeen was the guest of the evening.

[In the paragraph upon the subject of the proposal for the compulsory notification of phthisis in our Manchester letter published last week, it should have been stated that the proposal was abandoned in deference to the representations made by the Council of the Medical Guild.]

NEWCASTLE-UPON-TYNE.

The Housing Question.—Newcastle-upon-Tyne Lying-in Hospital.—Hospital for Diseases of Women.—Dinner of Past and Present Students of the College of Medicine.—Proposed Laboratory Extension of the College of Medicine.—Royal Victoria Infirmary.

At a recent public meeting in Newcastle the housing of the working classes formed the subject of addresses by the Lord Bishop of the diocese, Councillor Adams, and Professor T. Oliver. The Bishop dealt with the subject from the Christian Social point of view; Mr. Adams showed the desirability of municipal interference, and of making provision for the 33 per cent. of the population living in unsuitable homes; while Dr. Oliver pointed to the necessity of rebuilding houses for the displaced working classes, especially the casual labourers, not too far away from the sphere of their labour, to the need for open spaces in the town, and to how overcrowding and its attendant dangers were often a consequence of the high rents charged from the poorer working classes. Dwellings are at present being built on the Walker Estate of the Newcastle Corporation for the working classes ejected in consequence of improvements in the city. A few days ago these were inspected by members of the City Council. The visit was on the whole satisfactory. In one block of dwellings the rent will be from 2s. 3d. to 2s. 9d. for single rooms and 4s. 6d. for two rooms. Other houses in Walker Road are being built in flats and for these the rents will be 5s. 6d. to 6s. 6d. per week. Only the better paid artisan can live in the houses with the higher rental, for to the cost of rent must be added the train or tramway fare. The excellent tramway system is no doubt doing much to take the people away from the centre of the town, thereby relieving congested areas, but this circumstance alone will not solve the problem of the housing of the working classes.

At the annual meeting of the Lying-in Hospital, Alderman Goolden in the chair, it was reported that the number of patients treated inside the institution for 1903 was 144, and at their own homes 530, making a total of 674 as against 380 for 1902. A staff nurse has been appointed to assist the matron. The hospital, which is recognized by the Central Midwives' Board as a training school for midwives, affords excellent opportunities to students of acquiring an extensive and varied knowledge of practical midwifery.

At the annual meeting of the Hospital for Diseases of Women on January 29th, Lord Armstrong, in proposing from the chair the adoption of the annual report, alluded to the excellent work done by the hospital, and of the urgent need for beds. The number of patients has increased from 561 in 1901 and 901 in 1902, to 1,003 in 1903. Dr. T. M. Allison has been promoted to the full staff in succession to Dr. Calthrop, who has left Newcastle, and to the vacancy thus created on the junior staff Dr. H. I. Mathews has been appointed.

The annual dinner of the past and present students of the College of Medicine took place on Friday, January 29th, at the County Hotel, Professor Page in the chair. Among those present, in addition to some of the lecturers, were the Warden of the University of Durham (Dean Kitchin), the Earl of Durham, Sir George H. Philipson, President of the College of Medicine, etc. One of the pleasing circumstances connected with the banquet was that a great part of the speaking was done by students at present in residence and by recent graduates. To Mr. Fred. Stoker was entrusted the toast of "The University of Durham," which was responded to by the Warden of the University and by Sir George H. Philipson. Dr. Parkin, Senior House-Physician at the Royal Infirmary, in felicitous terms proposed "Our Guests," a toast which drew from the Earl of Durham one of those humorous speeches for which his lordship is so well known. "The one thing," he told his audience, "they all desired and welcomed was free trade in brains. He did not care how many brains or how much raw material was dumped down into the College of Medicine. He hoped it would be turned out a thoroughly and a highly finished article, and that they would be able to hold their own with any other college or any other institution similar to this, and that in the course of life they would be able to do honour to their old College. "The Honorary Staff of the Infirmary" was proposed by Mr. T. H. Openshaw and replied to by Mr. Hume; "The Past and Present Students" by Dr. James Smith and responded to by Mr. Wilkie Ridley. The Chairman's health was proposed by Mr. Sewell.

The legal difficulties having been overcome in regard to the utilization of one of the bequests to the College of Medicine by the late Professor Heath, plans are about to be prepared for the new wing, in which will be housed the physiological laboratories and those connected with bacteriology and comparative pathology.

The new buildings of the Royal Victoria Infirmary are now progressing rapidly. Three of the large pavilions are roofed over, the exterior of the nurses' home is all but finished while the central and administrative block is nearing completion externally. At present from 400 to 500 men are daily employed on the grounds and in the buildings. It is proposed to place pictures of nursery tales and rhymes in coloured tiles in panels on the walls of the four children's wards. The expense of panelling one of the wards is being undertaken by the present honorary staff of the Royal Infirmary. The working men governors have agreed to contribute the money for similarly decorating another of the wards, while the expenses of thus furnishing the other two wards are being generously undertaken by the Misses Stephenson, daughters of Sir W. H. Stephenson, the ex-Mayor, and by Mrs. Albert Lord, daughter-in-law of Sir Riley Lord, who, during his mayoralty of Newcastle, was instrumental in raising £100,000 for the new Royal Victoria Hospital.

CORRESPONDENCE.

THE REPETITION OF PRESCRIPTIONS CONTAINING DANGEROUS POISONS.

Sir,—In reference to letters appearing in the British Medical Journal as to repetition of prescriptions and the easy way in which poisons can now be obtained to any amount by the public I think I may be allowed to say that in drawing up a sessional programme for the Wandsworth Division during the past summer, the committee arranged for a debate on the whole matter to be held at Clapham on Thursday, March 24th; any resolutions then passed going on to the agenda of the Representative Meeting at Oxford. I am sure we shall welcome Dr. Danford Thomas, Dr. Sutherland, and any others who would like to attend, and I will see they get due notice if they will communicate with me.—I am, etc.,

E. Rowland Fothergill,
Hon. Sec., Wandsworth Division.

Southfields, S.W.

Sir,—May we, on behalf of pharmacists, fully endorse the remarks of Drs. Outterson Wood, Danford Thomas, and Sunderland? We are constantly requested to give copies of prescriptions, but invariably politely refuse by asking the patient to give us the written permission of the prescriber, a course followed by all pharmacists of whom we have personal knowledge.

We should be only too glad to co-operate with the prescriber by not dispensing a prescription more than a specified number of times; this could easily be regulated if on the prescription the desired number of repetitions and dates were given. At present there being no note we pharmacists feel compelled to dispense any properly-written prescription that may be presented, no matter how old.

The ease with which patients read prescriptions containing compressed drugs and other proprietary medicines, especially when the name of the maker is given, is an important point to the medical profession; it occurs almost daily that patients, reading from a prescription, ask for So-and-so's Tabs, No. —, etc., often ordering five or six times the quantity prescribed, frequently of most powerful drugs or chemicals.

Far more stringent measures are needed for the protection of the public. At present most deadly poisons can be obtained from photographic suppliers and drug stores without question. We trust this matter will be noted by the General Medical Council, who can greatly help the Bill to be pre-

ed in the next session of Parliament, and which aims at ing more rigorous the present Pharmacy Act, and which ssed will have great bearing on the loose sale of potent poisonous preparations, benefiting the public and ical profession alike.—I am, etc.,

Croyden and Co.
(John D. Marshall, Directing Manager.)

don, W., Jan. 30th.

,—Dr. Outterson Wood's letter in the British Medical NAL of January 23rd cannot be too actively endorsed by nedical profession and commended to the careful con- ation of every pharmaceutical chemist. It is a matter nich the reputation of the medical profession is at stake in which its responsibility is very great. Few of us, I ose, pass many days without seeing the harmful effects e drug-taking which is so prevalent among the better of the community, and no one can deny that the facility which many potent drugs can be obtained by the public root of the evil. Phenacetin, sulphonal, calomel, Dover er, and many other highly active drugs can be obtained mpressed form for a small sum and to any extent without scription from many drug stores, and the patient who ves a prescription for such drugs often considers he has very little for his money, inasmuch as he already has in his possession and uses them as he pleases.

to the repetition by the chemist of prescriptions without xpressed directions of the prescriber or other medical no one will deny that such a practice is highly deplor- in the case of drugs which are known to induce a drug . But few will, I suppose, go so far as to say that, as in ital out-patient practice so in private practice: no pre- tion shall be lawfully dispensed on more than one ion unless a dated and signed repetition appear on it. one think that such a practice would be to the great atage of the patient, and lest the medical man run the of appearing desirous of a frequent visit he should add e direction the number of days during which he wished rescription to be used from the date of each repetition.

many issues are involved in the question that it would ll if a joint committee of representative medical men hemists could be appointed. Their report might then bmitted to the proper authorities and made the basis of slative Act.—I am, etc.,

S. Henning Belfrage.

don, W., Jan 26th.

,—The suggestion that prescriptions given to patients ld be marked "Not to be repeated" only, in my opinion, omes part of the difficulty. Having served a four years' nticeship at a pharmaceutical chemist's, I know to what tent the evil of repetition and copying of prescriptions ried, and I can think of a particular instance where six s of a prescription were made at one time.

ely the following would be better than the instruction sted:

dispenser to keep this prescription.
prescription is not to be repeated.
opy is not to be given to the patient.

ne or all of these is likely to give offence to the patient, scholar might be found to translate them into easily lateable Latin. This raises the question of ownership of scription, but I think this is settled by telling the nt that the chemist will keep the prescription.—I am,

uary 1st.

House Surgeon.

,—The letter from Dr. Outterson Wood is of considerable rtance, as those of us can testify who have much expe- e of the treatment of morphine *habitués*. In a large per- ge of these unfortunate cases the patients have in the place had morphine prescribed for them for the relief n and have continued to obtain a supply of the drug eans of the original prescription. In one instance a who came under my care for the cure of this habit was at ime of her admission obtaining morphine with a pre- ion dated fifteen years previously; and it is therefore us that chemists do not hesitate to supply members of ublic with morphine, etc., even when the antiquity of rescription must clearly show them that it is being used purpose other than that for which it was originally .

prevention of this abuse may be brought about in a much simpler way than by an alteration of the law as suggested by Dr. Outterson Wood, namely, by medical men being careful never to allow their prescriptions containing this class of drug to fall into the patient's hands. In so important a matter as this, it is surely not too much trouble for the medical man personally to order the supply of the drug from the chemist, and direct him not to repeat it without his personal sanction. This is a very much safer plan than to give a patient the prescription with "Not to be repeated" written across it, as it is comparatively easy for any one to copy the prescription, omitting the prohibition as to repetition, and get it redispensed by a chemist who is not familiar with the doctor's signature. So long as doctors, for the sake of saving themselves a little time and trouble, continue to place in the hands of patients prescriptions for drugs which may induce a habit, so long will it be practically impossible to prevent the victims from obtaining a regular supply of their poison.—I am, etc.,

London, W., Jan. 27th. J. Henry Chaldecott.

Sir,—The profession should be grateful to Dr. Outterson Wood for calling attention to this important subject; but I venture to suggest that the remedy he proposes would scarcely be effective, as a person determined to obtain a large supply of a poisonous drug would not be deterred by anything written across the face of the original prescription. He would simply make as many copies of it as he required for his purpose. This is amusingly illustrated by Dr. Sunderland's story of Dr. Edis's prescription. If that patient could make one hundred copies for friends she could make them for herself.

But apart from the danger to their patients, I have often wondered that the profession has not taken some precaution against the well-known evil of repeated and copied prescriptions in their own interests. I would suggest as a remedy for both the evils that no prescription of any kind should be given to a patient. It would be a very simple matter to give prescriptions from a perforated double voucher book. On one slip the prescription should be written and, after obtaining the name of the patient's druggist, it should be posted to him direct, while the patient would receive the counterfoil voucher authorizing him to have the prescription dispensed, which would be indicated by a duplicate number. I believe if this precaution were adopted the profession at one stroke would save their patients from a serious danger and very considerably benefit themselves.—I am, etc.,

January 30th. M.

LIFE INSURANCE EXAMINATIONS.

Sir,—In view of the letters and articles that have recently been appearing in the British Medical Journal with reference to the habit certain insurance companies have of expecting medical examinations to be performed for a reduced fee when the insurance is for sums under a certain amount, it may be of interest to record the fact that all the medical men in this city formed themselves some few years ago into a local association for the purpose of determining upon united action in several matters touching the interests of the profession generally. Among other things, they unanimously agreed that in all cases where a fully detailed examination (including an examination of the urine, etc.) was required by such companies, that they would not accept a less fee than one guinea, and in practically every instance where any insurance company has been written to upon the subject a modified and superficial examination has been accepted, or the full fee has been paid. Where arguments have been required to enforce our position, it has been pointed out that—

1. It is immaterial to the practitioner what the sum assured may be, as the full examination is just as lengthy and exhaustive in any case, while a reduced fee means that the practitioner is making the insurance company a present of the difference.

2. It is unfair that the medical profession should be "sweated" in order that these companies may make a substantial profit upon their first year's premium.

3. If a proposer insures for a small figure, there is nothing to prevent his increasing this after the examination provided that it is done within the next few days, and in such cases a further examination is not required nor a full fee paid.

It may be further of interest to record that we have unanimously agreed upon the Scotch oath as a sanitary measure; that we have agreed not to accept less than one guinea for examination of lunatics, whether under Poor Law or otherwise; and that we have adopted a uniform tariff of fees

based upon that drawn up by the Shropshire Branch.—I am, etc.,

F. M. ROWLAND,
Honorary Secretary, Lichfield Medical Practitioners Association.

Lichfield, Jan. 30th.

THE CAUSES OF HIGH INFANT MORTALITY.

SIR,—A short time ago you inserted a letter on this subject in which I suggested that one of the causes of high infant mortality among poor people was the want of proper medical help in the early stages of illness. The tables which I now forward certainly show that as a general rule in those town unions which give very little out-relief—which, it should be understood, includes all medical relief outside the workhouse, etc.—the infant mortality is higher than in those which give a fair amount of out-relief. I possess some other evidence tending in the same direction. Of course high infant mortality arises from a great variety of causes, but I think the facts here stated make it well worth while for the sanitary authorities in every district where a high death-rate for children prevails to inquire whether the poorest class have sufficient facilities for obtaining medical relief for them.

London.

Name of Union.	Infantile Mortality.	Policy of Administration of Poor Law.
1. Strand	226	Strongly indoor.
2. Stepney	196	Very strongly indoor.
3. St. George's-in-the-East ...	182	,, ,, ,,
4. Whitechapel	173	,, ,, ,,
5. London City	171	Neutral.
5A. Shoreditch	168	Very slightly indoor.
6. St. Saviour Southwark ...	166	Strongly indoor.
7. Holborn	164	Slightly ,,
8. Westminster	163	Strongly ,,
9. Fulham	161	,, ,,
10. Chelsea	160	,, ,,
11. Bethnal Green	157	Indoor.
12. St. Olave Southwark	156	Outdoor.
13. St. Giles	154	Indoor.
14. Kensington	154	Strongly indoor.
15. St. George Hanover Square ...	153	,, ,,
16. St. Pancras	153	Rather ,,
17. Marylebone	148	Strongly ,,
18. Poplar...	148	Very slightly indoor.
19. Greenwich	147	Outdoor.
20. Mile End Old Town	146	Slightly indoor.
21. Lambeth	145	Outdoor.
22. Islington	144	,,
23. Paddington	143	Very slightly indoor.
24. Camberwell	143	Outdoor.
25. Wandsworth	141	,,
26. Hackney	137	,,
27. Woolwich	124	,,
28. Lewisham	121	,,
29. Hampstead	117	Indoor.
The Six Large Towns.		
Liverpool	219	Indoor.
Manchester	193	Very strongly indoor.
Sheffield	176	Strongly outdoor.
Birmingham	174	Indoor.
Leeds	174	Strongly outdoor.
Bristol	156	,, ,,

In the table I have called a union "indoor" which treated more than half its legal poor by means of indoor relief, and the other unions I have called "outdoor." Under the heading "infantile mortality" are given the number per 1,000 births who died under 1 year of age, taken from the Registrar-General's tables for the ten years 1881-90. The proportions of indoor and outdoor relief are estimated from the figures given in the Local Government Board Returns for 1892.—I am, etc.,

J. THEODORE DODD,
Councillor and Guardian for the City of Oxford.

Oxford, Jan. 19th.

AXIS TRACTION FORCEPS.

SIR,—I have read with interest the review of Dr. Clarence Webster's *Textbook of Obstetrics* which appears in the BRITISH MEDICAL JOURNAL for January 23rd. Apart from some lines devoted to the commendation of Dr. Webster's attainments as an anatomist, a histologist, and an embryologist, the review is occupied by an adverse criticism of the practical teaching of the book. The reviewer attributes this defective teaching partly to a want of practical experience on the part of the author and partly to his ignorance of the writings of certain British obstetricians, from Burns to Braxton Hicks. While I venture to think that more than one of yo viewer's statements are open to further review, I ask lea traverse only one of them. The statement I refer to is which, although entirely in the teeth of demonstrable is unfortunately held by others besides your reviewer.

After quoting Dr. Webster's statement that compressi the fetal head by axis-traction forceps is less than tha duced by the ordinary long or short forceps, the rev proceeds:

We think it is exactly the reverse. The main objection to th traction forceps is that the handles have to be screwed togethe thus the head is continuously compressed. With the ordinary f it is not necessary to compress the head with the forceps at all, pointed out by Dr. Robert Barnes; all that is wanted is to pul pelvis will do all the compression that is needed, and no more t needed, and the pelvis will keep the blades applied to the head.

Of course, we all know "the dangerous compression o head caused by the fixation screw" is the perennial obje to the axis-traction forceps which is brought forth every it is discussed and compared with the older instrum But it has been shown to be absolutely fallacious many t and I am safe in saying that it is never now referred to e by one who belongs to one of three classes:

1. Those who have neither used the instrument nor have tak trouble to give its principles an intelligent study.
2. Those who may have used the instrument in a way in which never meant to be used.
3. Those who have used (once or many times) an instrument of construction.

I do not presume to suggest to which class your rev belongs.

Now, on the other hand, I do not hesitate to assert tha fixation screw of a properly constructed and properly ap axis-traction forceps not only exerts no injurious compre of the fetal head, but it exerts no appreciable compressi the head whatever.

A brief consideration of the action and use of the fix screw will make that evident. The purpose of this scr simply to keep the handles from falling out of position.

Its application is as follows. When the blades have applied and locked, and the upper traction rod brought to its proper position, the handles are held, preferably bet the finger and thumb of the left hand, while the fixation is brought into position with the right. The nut is t on the screw, so that when the latter is placed in fork projecting from the upper handle the bearing face of the nut just rests on the upper surfac the fork. After this it is only necessary to give nut one half turn to prevent it falling out of place. This at the same time keeps the handles in pos and prevents them becoming unlocked. Now consider has happened. When the nut is placed in the for handles are held in such a way as to keep the blades in tact with the head. There is not the smallest amount of pression applied to the head. After the nut receive one-half turn, which is all that is required to fix it, wha happened? The screw has a quick thread, about ten tu the inch, so that the half-turn of the nut brings the ha nearer each other by one-twentieth of an inch. Will an assert that the approximation of the handles to this e will exert an injurious compression of the child's head? suggestion is ridiculous.

It is apparently assumed by those who do not realize th pose of the fixation screw that its object is to clam blades rigidly on the child's head, and so secure a rigi of it. As I have stated, it is simply to keep the two hal the instrument from falling apart. The compressing necessary to keep the instrument in position is provide the walls of the canal which, during the passage of the and forceps downwards, keep the blades firmly applied t head. This is further supplemented by the slight inward of the traction rods, if properly constructed. Any on doubts this can be shown that when the head is fairly and the blades are entirely inside the genital canal, the tion screw can be removed altogether during traction forceps being prevented from slipping on the head or u ing by the forces I have indicated. As the head reache floor and the lower end of the blade escapes, the screw be put into position in the way described above.

It must, at the same time, be kept in mind that these ments apply only to forceps correctly constructed and pro used. They do not apply to instruments in the con tion of which every principle of axis-traction is ignor regret to say that many instruments are being "dumpe the market in this country and, I am informed, in A

ustralia, the incorrect construction of which makes them
ng else than "lethal weapons."
. the proper construction of axis-traction forceps has
determined long ago, and no one has any excuse in not
ing any instrument before applying it.
se of us who have been using and teaching the use of
raction forceps are quite willing to discuss their virtues
ices with any one who has taken the trouble to discover
inciples of their construction and their proper use. But
of us are tired of discussing and disproving that outrage
mmon sense—the dangerous compression produced by
g to "screw the handles together."—I am, etc.,

burgh, Jan. 25th. R. Milne Murray.

CTION WITH PERCHLORIDE OF IRON IN THE URINE OF GRAVE CASES OF HEPATIC CIRRHOSIS.

—In regard to the reaction to which I referred in the
sh Medical Journal for January 2nd, 1904 (p. 13), I
o admit I did not take into account that all the patients
time or another received a drug containing salicylic
namely, diuretin—which is a sodio-salicylic compound
bromine. Yet, in the urine of one of the cases, by the
on of perchloride of iron, I have certainly repeatedly
ed a well-marked tawny, brown-red colour reaction, when
rine was concentrated and highly coloured, and when
tient was neither taking any salicylic compound, nor
rophen. The nature of this reaction, which I think will
me more or less distinct in many concentrated and
-coloured urines, not necessarily from cases of hepatic
sis, requires further investigation. It is not due to the
ce of aceto-acetic acid in the urine. I may here men-
hat in patients taking citrophen a colour reaction can
ained by adding perchloride of iron to the urine, practi-
dentical to that obtained in the case of patients taking
in or other salicylic compounds, excepting that the
develops much more slowly after the addition of the
t. I would here, likewise, express my opinion that for
eason or other, at all events when comparatively small
are being taken, it is not always possible to distinguish
these reactions (merely by the resulting colour) from
ue to the presence of diacetic acid (Gerhardt's reaction)
urine of diabetic patients.—I am, etc.,

n, W., Jan. 21st. F. Parkes Weber.

DOCTORS IN PARLIAMENT.

—The suggestion that the medical profession should
t medical members for Parliament by subsidizing
rom a general fund is excellent in theory, but, in my
n, incapable of being carried out practically as far as
ry constituencies are concerned. Every candidate for
nentary honours must appeal to his would-be con-
ts either as a Conservative or Radical, a Protectionist
ee Trader, and would stand no chance of election if he
appealed for votes as a medical candidate. In no
y constituency are there sufficient medical voters to
purely professional candidate to the head of the poll.
neral run of voters, whether belonging to the Govern-
arty or the Opposition are not sufficiently interested
ical politics to waste their votes upon a medical candi-
a medical practitioner, and unless we can educate the
to a sufficient interest in our affairs this will always be
e. No amount of medical party funds would enable us
y a single seat, I fear, in any borough or county in the
Kingdom. Where a candidate, himself a medical
as succeeded in gaining election, the result has been
d from the fact of his belonging to one or
of the great factions in politics. It is true
he National Union of Teachers has carried at
wo of its candidates into Parliament; but in
cases the candidates have been successful on
oad issues of Radicalism or Conservatism *plus*
estion which appeals to all voters, namely, educa-
It appears to me, therefore, that it would be a waste of
trength, and money to attempt to place medical men
h in Parliament through the ordinary electorates.
would venture to suggest, however, as the best course
t in order to gain medical members would be to work
n our medical graduates of the various universities
arry seats in Parliament, and to contest every such seat
ing forward candidates from our profession who will,
lected, work in our interests, and not sink the medical
oner when elected as M.P. I do not wish to reflect harshly upon the representatives of the universities in Parliament at present existing, but I would venture to ask what assistance as a profession have we gained by their election? It is possible that before long we may find an opportunity of voting in a Parliamentary general election, and I would suggest that suitable candidates be selected for the university seats, and that all medical graduates should vote only for those chosen who will look after our best interests.—I am, etc.,

London, W., Feb. 1st. A. G. Bateman.

Sir,—The majority of us agree, I believe, with the views of Dr. W. Gordon and others as to the need that exists for more doctors in Parliament and on other governing bodies. It would be a twofold gain to the country, strengthening the influence (for good) of the profession, and directly increasing the weight of trained and well-considered opinion behind public health progress.

The combination of a highly scientific education with the exceptional insight into human nature afforded by a medical life must in the course of time increase the prestige of our profession, but our brethren in the colonies and on the Continent are ahead of us in this one respect at least. They mix more in public affairs, and numberless instances of a nation's gain could be named by such activity.

On no account does this detract from the enormous value of strictly scientific work, which will always attract some minds to the exclusion of all else. Yet such public activity must surely help such stores of knowledge to become common property?

In the provinces we learn that medical men are incompetent to join in public affairs; as if, forsooth, commerce, law, or what-not were the "chosen" occupations; or, again, we hear that secretaries of medical institutions must be "business" men, the training of the medical man having unsuited him for such posts, etc. This is a relic of the past and is mere superstition. As to the possible influence on the national physical welfare that the profession could bring to bear, the circular letter on "the need of elementary scientific instruction in health subjects, including temperance, in schools," that we are now receiving is a case in point.

May I reiterate the opinion that, in order to translate our several pious sentiments into lasting action, we should crown our present State Department and Service with a Minister of Health?—I am, etc.,

Plymouth, Jan. 25th. F. Bushnell.

Sir,—I also am glad that your correspondents (for the correspondence columns of the British Medical Journal are a useful and interesting portion of our journal) do not intend the topic of doctors in Parliament to prematurely drop; and, as Dr. Gordon observes, "more medical men are certainly required in the House of Commons for the sake of our country; they are greatly needed as well as for the profession."

That they are needed your recent articles on our "physical degeneration" convincingly prove. Not only "the housing of the people," but the alcohol question and its abuse, and effects upon our soldiers, sailors, police, and others in official life, ask a solution to a query that only the experienced medico is able to give efficiently.

Such public bodies as have doctors on their corporations or Boards know how useful they are and how much they are needed in similar capacities, and how often and gladly they are appealed to for various special information that may both guide and influence discussion; as a guardian I have felt and not infrequently observed the respectful attention that is generally given to a medical speaker, and this will become more frequently the case *pari passu* with the development of science.

I opine with your correspondent ("Observer," January 9th, p. 107) that the Local Government Board did not act wisely in demanding that Section E of the Midwives Act should not apply to midwives under the Poor Law, and too many midwives are appointed by our guardians.

I remember many years ago when I attended the practice of the South London Ophthalmic Hospital and also a still more distant time when I was House-Surgeon at the West London Hospital, the frequency of infantile ophthalmia and its dire results, and I learn that this serious infantile disease is responsible for one-third if not half of our many blind poor. Ergo, I think the Section E is of importance in the case of the lying-in poor mother, and should have been retained, and

my private practice of forty years confirms this belief. Who can doubt among those who encourage in their cultured leisure the habit of reflection, that more doctors are needed to help to make our laws, so that they may be more useful, more health-giving, and more disease and poverty-preventing. The crux is, as our direct representative on the General Medical Council, Mr. George Jackson, writes to me in a recent letter, "How can we get candidates? Sir Victor Horsley says he is too busy; and perhaps is not a *persona grata* to every one."

I would like to suggest that the British Medical Association and the *Lancet* should invite the names of those medical men who would be willing, if elected, to accept the honourable dignity of a legislator, and to state whether able to pay a part or any of the expenses of election; the names need not be made public of those who for various reasons would prefer for a time to consider their chances of success and the time that would be occupied by Parliamentary duties.

We do not wish to copy the practice of France and to pay our members, yet it has been mooted that a certain number of skilled professional stipendiary members might with advantage be elected, and I am inclined to believe that if a dozen or a score of medical men were elected members of Parliament and paid, it would not be a useless expenditure of public funds. I submit this proposition with much reserve; so please accept it *pro tanto*.

Medical men are wanted in Parliament and would prove valuable, and until we have them we shall never obtain increased direct representation on the General Medical Council, With an election in view, now is perhaps a fitting time to ventilate the subject. Apologizing for length of letter.—I am, etc.,

Bournemouth, Jan. 25th. FREDERICK H. ALDERSON, M.D.

THE METROPOLITAN STREET AMBULANCE ASSOCIATION.

SIR,—May I be allowed to bring the above Association, of which Mr. Reginald Harrison, F.R.C.S., is President, to the notice of those London medical men who have not yet joined, and to ask them to do so soon, as we wish the Society to become as representative and as powerful as possible in order that success may be assured?

As no more funds are required no subscription is necessary, and no member need do more than give his passive support unless he wish.

The Association is composed entirely of medical men, and was formed with the view of getting an efficient street ambulance system adopted for London. The urgent need for such a system, although so well recognized by our profession, is not sufficiently understood by many of those outside it.

The forthcoming London County Council elections will afford an excellent opportunity for bringing the question before the public, who must necessarily be both the providers of, and gainers by, such a scheme. All candidates for election, irrespective of party, will be asked whether they will forward the adoption of an efficient system of street ambulances for London, and whether they will bring the matter forward at their meetings. In the event of any of them not wishing to do so, the Association will endeavour to interest the electorate of the particular district in the matter.—I am, etc., ARTHUR JAMES, M.D., D.P.H.,

69, Gloucester Terrace, W., Feb. 2nd. Honorary Secretary.

THE INQUEST ON MR. WHITAKER WRIGHT.

SIR,—On Tuesday last I was called in to attend Mr. Whitaker Wright at the time of his death, and I naturally expected to receive an intimation as to the time and place of the necropsy. On Wednesday at 1.45 p.m., as I had received no such information, I telephoned to Mr. Troutbeck, who referred me to Dr. Freyberger, adding that the necropsy was already completed, or, at any rate, still in progress. I can quite understand that the demands on the coroner's time are very great; but, at the same time, I cannot but feel that it is in the interest of the public as well as due to our profession that this courtesy should be extended to us.—I am, etc.,

King's College Hospital, W.C., Jan. 31st. OLIVER ATKEY.

MEDICAL APPLIANCES FOR ALPINE CLIMBERS.—It is announced that during the coming Alpine season all the mountain huts will contain a new medicine belt. According to the *Daily Chronicle* three deaths occurred last season while the doctor, who was waiting for bandages and instruments to arrive from the valley, stood helpless by the patient whose life was ebbing away.

OBITUARY.

MAJOR A. E. GRANT, I.M.S.

MANY friends will hear with great regret of the death of A Ewan Grant, which took place at Bournemouth on Decem 13th, at the early age of 41 years. His health began to fa the Malaria Conference held at Nagpore two years ago, w he discovered he had glycosuria. Shortly afterwards came home to England and did not again return to In Though he put himself through the very stric course of dieting and studied in his own person with usual scientific accuracy the various other resources therapeutics for his disorder, he gradually lost weight strength, but he kept to his work till the end of Novem when he was compelled to take to bed, after which the came quickly. One more has been added to the long ro medical men who have fought to the last and continue minister day after day to those very often in a much parlous condition than themselves.

Major Grant was born on August 17th, 1862, in India, father, James Murray Grant, afterwards Major-General, b at that time Major in the Indian army in Madras. belonged to the Glenmoriston branch of the clan. mother was a Cameron. His early associations were with the army in India, in which he afterwards found career. He was educated at various schools but chief Tonbridge, from which he proceeded to Edinburgh Un sity, where he took his degree in 1886. Characteristicall a student he struck a more or less independent line, adhe to routine to the minimum degree possible, but rea widely in many directions. He was then, in the days of old high bicycle, an enthusiastic cyclist, and the membe the University Bicycle Club from 1882-6 will remember n a good race he rode. This interest in cycling and ir athletic and outdoor exercises he retained all his life. Edinburgh he entered the Indian Medical Service in and from old associations chose Madras as his preside After doing rather less than the usual two years in mil duty partly in India but chiefly in Burma, at the base of Chin Lushai expedition, he was appointed to act as Se Physician at the General Hospital, Madras, and Profess Hygiene at the Medical College. This post, in which he afterwards confirmed, he held for ten years, and it was that he established his reputation as an erudite and ac plished physician and a scientific and active hygienist. his lectures at the College he devoted the greatest care, his clinical teaching in the wards was most systematic.

Incidentally, whilst learning medicine, his students l also from him the high standard of ethics in relation to patients and each other up to which he himself always a because he was essentially a gentleman in the best use o term. It was whilst lecturing on hygiene that he set hi to revise King's *Madras Manual of Hygiene* the first volu which he published in his own name as the *Indian Manu Hygiene*; the second volume, a large part of which exis manuscript, he unfortunately did not live to complete. wrote much besides in the form of articles for journals societies, etc., and amongst other things published, as set to music, some of the music he himself composed, being one of the favourite relaxations of his versatile

For some time before he finally left India on sick lea was Acting-Deputy Sanitary Commissioner and when he Acting Sanitary Commissioner with the Governme Madras. Skilled as he was as a physician his tastes strongly in the direction of hygiene and it was his gradually to disencumber himself of the practice of phys so that he might be free to devote his whole time thoughts to hygiene. He was an ardent advocate of or research and was watching with the deepest interest th velopment of the Tata scheme in India.

The independence of character displayed in his st days he retained throughout his life. A man of s character it was inevitable that his individuality s sometimes stir up opposition. Such opposition was spur to him to fight on for what he thought right. B same character which made him ardent in war made hi staunchest friend in peace, and many are the patient will long remember the sympathy, kindness, and he quietly added to the skill he brought to bear upon cases.

With his students he was popular, and he readily g both their trust and respect. He had also in a very m degree that quality which has been so often exemplif

edical services, and has done so much to strengthen dministration in India—the quality of readily obtaining nfidence of his native patients. His life's work has red the cause of medicine, of hygiene, and of British n India, and all are the poorer by his loss.
is survived by a widow and four children.

HENRY ROBINSON, L.R.C.P., L.R.C.S.Edin.

e death of Mr. Robinson the medical profession in erfield loses its oldest member, and an interesting link en the past and the present is broken.

Robinson was essentially a "son of the soil." Of erfield he came, in it he lived, in it he died. He was a er of a family well known and highly respected, which ade its mark beyond the limits of his native place. He redestined to succeed in whatever career he should n to choose. He chose medicine; and as in those days still the custom to enter it by way of apprenticeship, s bound accordingly to an old practitioner, Dr. Holland, ter his death to his successor, Dr. Charles Booth, who quently became his brother-in-law.

n this apprenticeship Mr. Robinson passed to the Uni- of Edinburgh. Of his teachers there Mr. Robinson had much to relate. Of Spence and Simpson, of ison and Hughes Bennett, of Syme and Lister, he had n anecdote to tell. Scarcely less interesting were his f his contemporaries and fellow-students, notably of n Tait and Milner Fothergill, his intimate associates.

estic causes, unfortunately, deprived Mr. Robinson of dance of graduating in his university. Taking instead plomas of L.R.C.P. and S.Edin., he returned to his town, where his professional ability, his gentle and g personality, and his family connexions speedily d to him a busy and lucrative practice. Despite the his incurred, he yet found time for occasional contri- s to medical literature. Notably, he was one of the call attention to Laburnum Poisoning in a communi- to the British Medical Journal in 1883.

r local medical records he was a perfect mine, and his ctions were always at the service of his younger n, in spite of the fact that, during his later years, his ed health enforced on him an almost complete retire-

HS IN THE PROFESSION ABROAD.—Among the members medical profession in foreign countries who have y died are Dr. Vassili Afanasieff, Professor of Patho- Anatomy in St. Petersburg, aged 55; Dr. Peypers of dam, founder and editor of *Janus*, aged 48; and Dr. monier, a general practitioner, of Vernoil-le-Fourrier, nown as a botanist, and author of a work entitled *dans ses rapports avec l'art héraldique*, aged 64.

L NAVY AND ARMY MEDICAL SERVICES

ROYAL NAVY MEDICAL SERVICE.

ce which appeared in the *London Gazette* of December 11th, 1903, o the restoration to Mr. George McGregor of his commission on is cancelled.

llowing appointments have been made at the Admiralty: F. Mackay, Surgeon, to the *Hermes*, January 26th; Sydney , Surgeon, to the *Excellent*, for the *Hero*, January 28th; William legge, M.D., B.A., Fleet Surgeon, and Alfred W. Iredell, to the *Cornwallis*, February 9th; Edward Cooper, Staff to the *Fire Queen*, for the *Nelson*, February 11th; James Mowat, geon, to the Hong Kong Hospital, February 20th; Cecil E. C. rgeon, to the *Ocean*, February 20th; Thomas F. O'Keefe, M.B., to the *Tamar*, February 20th; Maurice T. Male, M.B., Surgeon, *oris*, February 20th; William N. L. Cherry, Surgeon, to the bruary 20th; Frederick C. Robinson, Surgeon, to the *Hood*, 20th.

ractitioner Joseph P. Falls has been appointed Surgeon and Talin Head and Malinmore, January 30th.

ROYAL NAVY VOLUNTEER RESERVE.

D. Marshall, F.R.C.S., has been appointed Sub-Lieutenant, 25th.

ROYAL ARMY MEDICAL CORPS.

. Will has been appointed Principal Medical Officer in the ean and Uganda Protectorates.

H. E. Thurston has been appointed Deputy Assistant-Director- Army Medical Service, at head quarters.

Robert Dalkeith Jepson died from an accident at Rawal January 9th, aged 32. He had gone out in the morning shooting, in the day was found shot through the head. It is not known accident happened. He joined the department as Surgeon- nt, July 28th, 1897, and became Captain, July 28th, 1900. He was udan campaign in 1898, and was at the battle of Khartoum, receiving the British medal and the Khedive's medal with clasp. He was also in the South African war in 1899-1900.

The following gentlemen were successful at the recent examination in London for commissions in the Royal Army Medical Corps, and for which fifty-eight candidates entered:

	Marks.		Marks.
G. F. Rugg	590	W. Wiley	509
D. S. B. Thomson	588	R. B. Hole	508
A. S. Arthur	562	A. L. Otway	506
J. Fairbairn	555	W. F. H. Vaughan	503
R. G. Anderson	542	M. F. Grant	500
L. Bousfield	542	H. Harding	500
J. H. Douglass	540	D. P. Johnstone	495
D. Le Bas	537	E. H. M. Moore	489
R. R. Lewis	532	F. J. Garland	480
C. H. Turner	527	M. D. Ahern	478
F. H. Noke	526	H. B. Connell	472
G. E. Cathcart	520	G. S. C. Hayes	468
E. C. Whitehead	519	S. C. Bowle	462
T. C. Lucas	518	A. A. Meaden	461
J. A. Turnbull	511	R. J. Cahill	457

ARMY MEDICAL RESERVE.

Surgeon-Major G. H. Darwin, M.D., and Surgeon-Captain W. P. Peake, having resigned their Volunteer appointments, cease to belong to the Army Medical Reserve.

INDIAN MEDICAL SERVICE.

Lieutenant-Colonel W. A. Sykes, D.S.O., Bengal Establishment, Administrative Medical Officer North-West Frontier Provinces, is appointed to officiate as Administrative Medical Officer in Beloochistan.

Lieutenant-Colonel P. A. Weir, M.B., Bengal Establishment, Agency Surgeon in Bhopal and Administrative Medical Officer in Central India, is appointed to officiate as Administrative Medical Officer, North-West Frontier Provinces.

Major J. R. Roberts, M.B., Bengal Establishment, Residency Surgeon at Indore, is appointed to officiate as Administrative Medical Officer in Central India.

Memorandum.—Colonel A. M. Branfoot, C.I.E., M.B., retired pay, India Medical Service, is granted the temporary rank of Surgeon-General, January 13th.

VOLUNTEER RIFLES.

The undermentioned Surgeon-Lieutenants are promoted to be Surgeon-Captains, dated January 22nd: C. K. Bowes, M.D., 1st Volunteer Battalion the East Kent Regiment (the Buffs); B. Addenbrooke, M.D., 1st Volunteer Battalion the Worcestershire Regiment; D. L. Thompson, 1st Volunteer Battalion the Hampshire Regiment.

The undermentioned officers have resigned their commissions, from February 3rd: Surgeon-Captain W. G. Galletly, M.B., 4th Volunteer Battalion the Norfolk Regiment; Surgeon-Captain F. Ward, M.D., 1st Volunteer Battalion the Suffolk Regiment; Surgeon-Lieutenant B. H. Woodyatt, 3rd Volunteer Battalion the Cheshire Regiment.

Surgeon-Lieutenant J. G. Andrew, M.B., 1st Lanarkshire, to be Surgeon-Captain, February 3rd.

Mr. Ernest R. Hunt to be Surgeon-Lieutenant, February 3rd.

ROYAL ARMY MEDICAL CORPS (VOLUNTEERS).

Lieutenant D. Waterston, M.D., is appointed to command the Edinburgh Company, under para. 55A, Volunteer Regulations, January 22nd.

Lieutenant A. H. Lister, M.B., the Aberdeen Company, to be Captain, February 3rd.

VOLUNTEER INFANTRY BRIGADE BEARER COMPANIES.

The following is substituted for that which appeared in the *London Gazette* of January 1st under the heading "East Surrey Company": Surgeon-Captain (Honorary Captain in the army) E. W. St. V. Ryan, from the 16th Middlesex Volunteer Rifle Corps, to be Captain, East Surrey Company, January 2nd. [The announcement cancelled was to the effect that Surgeon-Captain Ryan was appointed "Surgeon-Captain" to the company cited.]

Captain H. G. Mallam, Sussex and Kent Company, resigns his commission, January 22nd.

Captain C. J. Jacomb Hood is appointed to command the Sussex and Kent Company, under para. 55A, Volunteer Regulations, February 3rd.

THE "PRIOR CLAIM" TO EMPLOYMENT.

A correspondent propounds the following question:—A. is in civil practice, and held appointment as recruiting medical officer. B., also in civil practice, having succeeded to a death vacancy in a neighbouring village about three miles away, is a Captain R.A.M.C. (Vol.) Army Medical Reserve. On December 30th A. received official letter from principal medical officer of the district saying that "as B. had volunteered for service," he would take up duty as recruiting medical officer on the 1st of the following month, vice A., whose appointment was thus to terminate at forty-eight hours' notice. A. has had official assurance that this action was in accordance with War Office regulations, and was not due to any complaint as to his ability, or to the strict performance of his duties. Apart from War Office regulations, is B., a civil practitioner, justified in volunteering for duty well knowing that A. was holding the appointment, and that his offer of service will deprive A. of the same?

*** This question of supersession is not new or isolated, but is happily rare; it cannot well be viewed apart from War Office regulations. "B." in volunteering was strictly within his rights, as an officer of the Army Medical Reserve, in accordance with Instruction 6 of the Royal Warrant, February 18th, 1888, constituting that Reserve (*vide* British Medical Journal, March 17th, 1888), which gives him a "prior claim" to War Office employment in the district in which he resides, both over other medical officers of the auxiliary forces and civil medical practitioners. Both the constitution and ethics of this Warrant were very trenchantly and adversely criticized in the Journal at the time of its

issue; and in the JOURNAL of October 6th, 1888, will be found a mock heroic "lay," in which, among other points, the "prior claim" is ridiculed. The ethics of "B." in claiming his strict rights, as indeed the assertion of these rights in general, must be viewed as a matter of taste, feeling, and policy, in which personal opinions may differ, without moral obliquity. We think that the supersession of "A." at forty-eight hours' notice was a piece of amazing want of courtesy and consideration, and that he has very legitimate grounds of complaint; it would surely have been possible to have given him a month's or even a quarter's notice of the change contemplated.

MEDICO-LEGAL AND MEDICO-ETHICAL.

LECTURES ON MEDICAL JURISPRUDENCE.

THE third of the series of lectures under the auspices of the Council of Legal Education was delivered on January 28th at the Old Hall, Lincoln's Inn, by Dr. Waldo, Coroner of the City of London, the subject being "Death in its Medico-legal Relations." The possibility of live burial was dismissed shortly by the lecturer with the statement that from a scientific point of view it might be stated that no recorded case bore the scrutiny of inquiry. It was often of considerable importance, both in civil and in criminal cases, to determine the exact moment of death. Of the signs of death no one could be taken as absolutely conclusive of the precise moment at which somatic or general cessation of life took place. Putrefaction could not be taken as a precise index of the time that had been taken up in the process. Thus it would be impossible to say in many instances whether a given body was that of a person who had been dead one or six months. Putrefaction might be considerably delayed in the case of persons who had been confirmed alcoholics or who had been poisoned with antimony, or whose bodies had been immersed in water. The lecturer concluded by various practical recommendations as to desirable reform in the present system of death certification. One of the chief points was the registration of all stillborn children by a duly qualified medical practitioner. Otherwise the body of such an infant should be buried only upon the order of a coroner. Other suggestions were made as to the cases that should be investigated by the coroner.

BREACH OF A COLLIERY CONTRACT.

ON January 23rd a case of a somewhat unfortunate character was heard at the Flint County Court, the parties represented in the proceedings being Dr. Lunt of Mold on the one side, and Dr. T. Forcer Williams and the Phoenix Collieries on the other, with the owner of the colliery as nominal defendant in the middle. The particulars of the case, as derived from the *Liverpool Mercury*, are as follows: Dr. Lunt of Mold after a preliminary period of some nine months' work as Surgeon of the Phoenix Colliery, in succession to the late Dr. Roberts of Leeswood, asked for the signature of a definite contract, of which one clause stipulated for six months' notice on either side. At a meeting of the men this proposition was accepted, and the underground manager was authorized to sign such a contract with Dr. Lunt on behalf of the men. This he did. Meanwhile, however, the men seem to have altered their minds for some reason, and a ballot was taken, which resulted in Dr. T. Forcer Williams being elected in place of Dr. Lunt. Thereon the men's committee sent Dr. Lunt a fortnight's notice, which he refused to accept. Eventually he claimed from the mine owner a sum of some £30, which the latter had in his hands as treasurer of the men's sick fund payments. This sum Dr. Lunt claimed to be due to him in lieu of the stipulated notice. On the other hand Dr. Forcer Williams also claimed it on the ground that he was the duly-elected surgeon of the colliery. The colliery owner paid the money into court, and in the event the judge ordered it to be paid over to Dr. Lunt without costs. To the colliery owner, for whom he said he was sorry, he allowed the costs of the day, but he refused them to Dr. Forcer Williams.

CORONERS AND MEDICAL WITNESSES.

MEMBER sends us a cutting from the *Dorset and Somerset Standard* with an account of an inquest held concerning the sudden death of a man aged 41. On the evening of his death he was in excellent spirits, talking and laughing and joking. He had his supper and afterwards went to the closet in the back yard of the house in which he lived. Shortly afterwards he was found there by a friend, and bleeding from his nose and face caused by a fall from the seat. He was carried into the house, where he died almost at once. A doctor who had attended him previously for sciatica and lumbago was called and pronounced life extinct, and very properly declined to certify as to the cause of death. No medical evidence was called, and in a somewhat prolonged and contradictory speech the coroner said "that he did not propose to call any medical evidence, and that in his large experience he never called a doctor as a witness unless it was absolutely necessary, as he knew he could always depend upon an intelligent jury coming to a satisfactory conclusion. It was simply absurd for medical men to require a fee to tell them what they already knew, and that they must consider economy and not waste guineas and pounds." It was given in evidence that the deceased had suffered from sciatica and lumbago. The coroner, in summing up, said there was no doubt that in consequence of deceased's illness he had become much debilitated; that the blood was caused by the fall; and that in his opinion the deceased had died from syncope or heart failure. The intelligent jury agreed, and the inquest was concluded.

*** It seems on this occasion that the coroner acted as judge, medical witness, and jury, and settled the cause of death in a manner which we can only characterize as haphazard. We consider that he should have summoned the medical man who had attended the deceased, and should have ordered a necropsy, which would have revealed the true cause of death, when a certain instead of an uncertain result would have been obtained.

SURGEON R.A.M.C. writes to inform us that he was suddenly called from a military hospital to see a child who had been run over in the street. He went at once, rendered temporary assistance, and sent the child on to the civil hospital, where it died the same afternoon. An inquest was held, and our correspondent is surprised that the house-surgeon of the hospital was called to give medical evidence in preference to himself, he having been called first to see the deceased.

*** It is within the power of the coroner to call such medical wit as he may consider advisable to give the necessary medical evide In the present case he probably selected the house-surgeon who attended the deceased child until the time of its death; the jury b satisfied no further medical evidence was required. There is no law rule requiring the coroner to summon the first medical man who have been called to see a case, and in this case the coroner ado the usual course in summoning the medical man who last attended deceased previous to death.

QUALIFIED MEDICAL PRACTITIONERS AS DENTISTS.

L.D.S.—In the columns of the *Birmingham Daily Post* a correspon raised the singular contention that a qualified medical practitioner no right to practise dentistry, and as his letter elicited no reply we asked for an opinion.

*** Medical practitioners always have, and unfortunately always under certain conditions of practice do, dental work, and a cer number of medical practitioners have devoted themselves to this bra of practice as a speciality. The modern development of dentistry how undoubtedly requires special training, and we should think it mu very exceptional for a medical practitioner who has not had special t ing to attempt filling or the supply of artificial dentures. In the complained of a medical practitioner is said to 'perform extracti sometimes followed by supplying artificial teeth which he has mad Birmingham or elsewhere." It is absurd to raise any question a extractions, but the supplying of artificial teeth, "made in Birming or elsewhere," is unusual for a medical practitioner; still, a me practitioner may specialize as a dentist if he chooses to do so. tion III of the Dentists Act, 1878 (41 and 42 Vict., cap. xxxiii), w penalizes the assumption of the title of dentist by unregistered per expressly exempts qualified medical practitioners.

OPTICIANS AND EYE-TESTING.

A CORRESPONDENT sends us a cutting from the *Standard* giving account of the Livery dinner of the Spectacle Makers' Company. regret to see that the Master, Mr. Alban Gibbs, who presided, annou that in future there will be two forms of examination—one for ficiency in general optics and the other in sight-testing. After al professions made by the company, we regret to see that it has g way to the clamour of what we believe to be the less educated po of the trade. We can only express the hope that no qualified me practitioner will give his sanction to this encouragement of quac by the Spectacle Makers' Company, or assist as an examiner upon terms.

MEDICAL TESTIMONIALS IN TRADE ADVERTISEMENTS.

F. G. P.—The general rule is against giving letters or testimonials used for purposes of trade advertisements, although this would perhaps apply to the limited use of the letter for circulation am medical practitioners only in the immediate neighbourhood, but correspondent must take care that this limit is not exceeded.

A QUESTION OF FEES.

DR. JAMES MURPHY (Sunderland) writes: Some months ago a brought me her son to have my opinion as to the advisability operation on him. I recommended an operation and explained it would be, the risk, etc., and the lady said she would think the m over and let me know, and left without paying the fee. Not he anything further from her, I sent her a reminder a few days ago she called to-day and said, "I do not owe you any money; I did follow your advice and the boy is dead, therefore I derived no b whatsoever from the consultation." N.B.—The fee is in my poc present.

THE KEELEY INSTITUTE.

DR. JAMES EDMUNDS (Kemp Town, Brighton) writes: In an advertis of the Keeley Institute I see an extract from a letter by me in *H* September 23rd, 1892. That letter was written by me at the requ Dr. Andrew Wilson, and I have nothing to correct in it from subse experience of the treatment of these inebriate cases. But the was written strenuously in presence of what I believed to untruthful and malicious attack upon Dr. Keeley—an attack which I desired to emphatically dissociate myself. The lette given offence to the profession, and in deference to professional I have asked the Keeley Institute to favour me by not again q any part of that letter. I shall be in Italy and I shall not see any next eight or nine numbers of the BRITISH MEDICAL JOURNAL.

RELATIONS OF MEDICAL OFFICERS OF HEALTH TO THE PROFESSIONAL COLLEAGUES.

W. W. H., referring to our note under this heading on p. 112, re that we made no comment on what he regards as the "most s part of the offence—namely, the calling in of another practi without the knowledge of the medical man in charge."

*** As the medical officer of health had already expressed reg having done this on the spur of the moment we did not think it sary to say any more about it.

THE TITLE OF "DR."

W.D.C.—A Bachelor of Medicine of the University of Cambridge m tainly put "Dr. ....." on his visiting cards.

PRIVATE HOSPITAL FOR OUT-PATIENTS.

A CORRESPONDENT draws attention to a private hospital for out-p which is being carried on in the Harrow Road, London. W referred the matter to the Ethical Committee.

MEDICAL ETIQUETTE.

AX.—As a general rule a practitioner who has attended a case as *m tenens* for a medical neighbour is not free to supersede him. In present case the patient had left the town, and so ceased to be a ent of her original medical attendant. Something would depend n the duration of the interval, which our correspondent does not e. If this has been more than a year we think he would be free to the case.

ANUS asks if it is unprofessional, and whether the General Medical ncil has power to prevent a medical man writing a medical book he laity? He refers to the advertisements of the *Dietetic Cure of ity* and of the *Origin and Nature of Man* in the *Daily Mail* for January

* It is desirable that the public should be better informed upon y questions relating to individual and public health, and yet there many pitfalls to be avoided in the writing of such works if the ior is to escape being charged with a desire to advertise himself er than to benefit the public. If such books are written in such a as to avoid these grounds of complaint they may be advertised in -professional newspapers, but the practice of advertising distinctly ical books in lay newspapers has been formally condemned by the l College of Physicians in a resolution passed on June 9th, 1873.

states that he was called in to a patient during the absence of the lar medical attendant and was asked to meet him in consultation is return. It was then arranged that our correspondent was to see atient in consultation two or three times a week, but he complains he had no further communication about the case. He heard after weeks that the patient was convalescent, and wrote to the nt's medical attendant to protest against the way in which he had treated, and to say that he should send in his account to the nt instead of allowing his previous attendance to count as work as a substitute. He asks whether he has acted rightly in the er?

* Our correspondent has a perfect right to charge for his services h were not rendered at the request of the regular medical attend- It very frequently happens that arrangements as to future con- tions come to nothing, although they may be made at the express of the patient and are concurred in at the time by the medical dant. We may suspect the cause, but it is obviously impossible to lain, as the patient can, if he pleases, insist upon the arrangement carried out.

COST OF SANITARY ALTERATIONS IN A HOUSE.

ether the owner or the leaseholder is responsible for the expense red by redrainage depends entirely on the terms of the lease. The r can, we believe, recover from the leaseholder if the latter has a similar to the majority of leases, stating that "all expenses and ings are to be paid by the tenant." It is improbable that there is pecial clause exempting the drainage or that part of the drains nder the house from the conditions of the lease.

We cannot say what view the General Medical Council would take the case brought before them; everything would depend on the unding circumstances.

UNIVERSITIES AND COLLEGES.

UNIVERSITY OF OXFORD.

e Days.—Hilary Term: Thursday, March 17th. Easter Term: ay, April 28th; Thursday, May 19th. Trinity Term: Thursday, 6th; Thursday, June 23rd; Saturday, July 9th.

rs.—B.M., B.Ch.: H. W. Kaye, Magdalen College; D. R. Pike, Jesus ; F. P. Nunneley, Brasenose College; F. L. Golla, Magdalen ; C. M. H. Howell, Trinity College; P. N. B. Odgers, Lincoln : A. G. Gibson, Christ Church.

liffe Travelling Fellowship.—As announced in the BRITISH MEDICAL AL of December 19th, 1903, p. 1626, the examination for this Fellow- ill commence on Tuesday, March 1st. Names of intending candi- must be sent in to the Radcliffe Examiners, University Museum, , on or before Tuesday, February 9th.

UNIVERSITY OF CAMBRIDGE.

Visit.—His Majesty the King has graciously announced his inten- visiting the University on March 1st, on the occasion of the open- he new buildings for the Medical School, the Sedgwick Geological n, the Botanical Laboratory, and the Law School and Library.

pointment.—Dr. H. K. Anderson, Caius, has been appointed Uni- Lecturer in Physiology, in succession to Dr. Langley, appointed Professorship.

cal Medicine.—The regulations for the establishment of an exam- and diploma in Tropical Medicine and Hygiene were approved by ate on January 28th.

ees.—The following degrees were conferred at the Congregation on y 28th: *M.D.*—J. R. Garrood, St. John's; E. M. Light, Clare. . K. Murphy, Caius. *M.B. and B.C.*—Q. L. V. Foster, King's; W. mmanuel. *B.C.*—C. F. Hardie, Queens'; H. R. Fisher, Emmanuel; ward, Downing.

UNIVERSITY OF BIRMINGHAM.

COURT OF GOVERNORS.

rth yearly meeting of the Court of Governors of the University of gham was held on January 28th, the Chancellor (the Right Hon. Chamberlain) presiding.

l Report.—In moving the adoption of the report, the Pro-Vice- llor (Alderman F. C. Clayton) reviewed the work of the past year. tioned that a professor of education had been appointed, and ere had been instituted a Huxley lecture; the first of these lectures would be given by Sir Michael Foster in the Town Hall on March 16th. He also referred to the new buildings of the University, and said that great progress had been made in them during the year, and that there was hope that there would be some regular work done there as early as October next. The income of the University, as compared with the previous year, showed an increase of £4,600, most of which was due to grants of money from local authorities. The expenditure, on the other hand, had increased by about £3,500. The gifts to the endowment fund up to the end of last September, exclusive of land promised, amounted to £390,000, of which about £17,000 was still outstanding. Already £80,000 had been spent on the new buildings, and a sum of £183,000 was invested in properties and other securities.

The Principal, Sir Oliver Lodge, in seconding the adoption of the report, said that it had been contemplated that a large and influential deputation, which should represent all the universities of the United Kingdom, should wait on the Chancellor of the Exchequer for the purpose of getting a sum voted every year to be devoted to higher education. He thought that possibly one to two millions would be required. He explained that the duties of the new chair of education were not to be confined to the ordinary educational work which was carried on in the University, but the education of a much wider district. He commended the idea of Bishop Knox, who suggested that the country should be divided into a sort of educational heptarchy, each province being presided over by its own university. The establishment of a system of inspection and examination of secondary schools seemed to him to be necessary.

The Chancellor of the University said that it would be a great pity if, in any application which was made to the Government, any idea that would dispense individuals from their personal duty in the matter should arise. He pointed out that if any attempt were made to throw the whole charge upon the Government, they would thereby lose for themselves all that they gained by the local patriotism which was being evoked, by the local self-denial and earnest interest which followed upon it.

Both the Chancellor and the Principal in their speeches made reference to the desirability of providing residental hostels for the students and of obtaining more land for athletic purposes.

VICTORIA UNIVERSITY.

MESSRS. E. M. ASHCROFT AND H. THORP obtained the Diploma in Public Health at the Examination held in January, 1904. In future two examinations will be held annually instead of one as heretofore.

ROYAL COLLEGE OF PHYSICIANS OF LONDON.

THE ordinary quarterly comitia was held at the College on Thursday, January 28th, the President Sir W. S. Church, Bart., in the chair.

The Horace Dobell Lecture.

The President announced that Dr. Klein, F.R.S., would give the first Horace Dobell Research Lecture on November 22nd, 1904, and that Dr. Payne had been reappointed FitzPatrick lecturer for the ensuing year.

The College Seal was set to a "Declaration of Trust" accepting on the part of the College a sum of £500 Consols in trust to endow, for a term of years, a lectureship at the College, to be called "The Dr. Horace Dobell Research Lectureship" the conditions having been already agreed upon.

Members.

The following gentlemen were admitted as Members: S. J. Aarons, M.D.Edin., D. Forsyth, M.D.Lond., L.R.C.P., A. E. Jones, M.D.Lond., L.R.C.P., L. M. Scott, M.A., M.D.Aberd.

Licences and Diplomas.

The Licentiateship of the College was granted to 112 gentlemen.

In conjunction with the Royal College of Surgeons the diploma in public health was awarded to the following gentlemen: J. F. E. Bridger, L.R.C.P., M.R.C.S., A. Caddy, M.D., B.S.Lond, L.R.C.P., M.R.C.S., A. G. Caldwell, M.D., B.Ch., R.U.I., J. W. E. Cole, B.C.Cantab., L.R.C.P., M.R.C.S., B. H. Comerford, L.R.C.P., M.R.C.S., A. S. David, L.R.C.P., M.R.C.S., A. S. Downton, L.R.C.P, M.R.C.S., L. W. Dryland, L.R.C.P., M.R.C.S., G. Elliott, L.R.C.P., M.R.C.S., A. R. Falconer, M.B., B.Ch., New Zeal., E. C. Freeman, Major R.A.M.C., L.R.C.P., M.R.C.S., G. D. Freer, M.B.Lond., L.R.C.P., M.R.C.S., D. A. Hughes, L.R.C.P., M.R.C.S., M. A. Ker, Major I.M.S., M.B., C.M.Edin., J. E. Linnell, M.B., B.C.Cantab., B. R. Lloyd, L.R.C.P., M.R.C.S., S. I. Pritchett, L.R.C.P., M.R.C.S., C. Ryley, L.R.C.P., M.R.C.S., A. E. Smithson, Major R.A.M.C., M.B., B.C.Cantab., L.R.C.P., M.R.C.S., P. T. H. Stedman, M.B.Lond., L.R.C.P., M.R.C.S., A. H. Thomas, L.S.A., G. S. Wallace, M.B., Ch.B.Glasg., E. C. Watts, M.D., C.M.Edin., F.R.C.S.Edin.

Oliver Foundation.

Dr. George Oliver offered to present £2,000 to the College in trust to endow a lectureship or prize, with a view to encourage the application of physiological knowledge to the prevention and cure of disease and the prolongation of life.

The offer was accepted, and a cordial vote of thanks to Dr. Oliver for his generous gift was passed with acclamation.

Class Experiments on Animals.

A communication was received from the Home Secretary asking the opinion of the College on the question whether experiments on living animals before classes are necessary for the adequate teaching of pharmacology.

A committee was appointed to consider the question and to report further to the College.

Physical Deterioration Committee.

In response to a request from the Secretary of the "Physical Deterioration Committee" of the Privy Council asking the College to nominate a physician to give evidence, Drs. Eustace Smith, Ashby, and Robert Hutchison were nominated to give evidence on the questions of the nutrition of young children amongst the poor and the deleterious effects arising from the use of artificial foods It was left to the President to further nominate a physician to give evidence as to lunacy amongst the poorer classes.

A further report, dated December 17th last, was received from the Committee appointed July 2nd, 1903, "On the Physical Disability of Army Recruits."

After carefully considering the supplementary matter thus furnished the Committee adopted the following resolutions, and suggested to the College that they should form the substance of the reply to be sent to Mr. FitzRoy's communication:

"The Committee of the Royal College of Physicians appointed by the College July, 1903, having taken into consideration the further documents submitted to them, are of opinion that an inquiry into the present extent and causes of the alleged physical debility for military service of certain classes of the population is desirable."

"In their former report the Committee considered that sufficient data were not available for forming a judgement on the extremely complex question of the occurrence or not of progressive degeneration in the classes from which recruits are mainly drawn, and the supplementary matter now brought before them does not suggest any modification of their former opinion."

"(Signed) W. S. CHURCH, President."

The General Medical Council.

A letter was read from the President of the General Medical Council asking the opinion of the College on certain questions raised by the report of the Visitors on the whole series of first examinations of the licensing corporations inspected.

The matter was referred to the Committee of Management to consider and report to the College.

Reports.

The following reports were received and adopted:

1. From the Council recommending as Councillors Drs. E. Markham Skerritt, Samuel H. West, Abercrombie, J. Kingston Fowler in the places of Sir George Philipson and Drs. Goodhart, Hall, and William Ewart, who retire by rotation, and that Dr. Pye-Smith should remain on the Council for a second period of two years. The Council intimated also that they had appointed Dr. Thomas Morison Legge, D.P.H., one of H.M. Inspectors of Factories, to be Milroy Lecturer for 1905, and that the subject of his lectures would be Industrial Anthrax.

2. From the Committee appointed October 29th, 1903, to consider a Norwegian report on beri-beri occurring on board ships submitted by the Board of Trade. General agreement was expressed with the conclusions of the Norwegian report.

3. From the representative of the College on the General Medical Council on the proceedings of the Council affecting the College at their session in November last.

4. The quarterly report of the College Finance Committee.

5. From the Committee of Management, dated December 7th, 1903, recommending that the Municipal Schools, Gloucester, be added to the list of institutions recognized by the Examining Board in England for instruction in Chemistry, Physics, and Practical Chemistry.

6. From the Laboratories Committee, reporting (*a*) that during the three months ending December 4th, 1903, 7,075 doses of diphtheria antitoxin, each containing 3,000 units, have been supplied to the hospitals of the Metropolitan Asylums Board, making a total of 21,225,000 units.

7. That during the quarter further batches of antitoxin supplied by Messrs. Parke, Davis, and Co., have been tested in the Laboratory, and a certificate granted showing its strength, sterility. and freedom from excess of antiseptic.

Library.

Books and other publications presented to the Library during the past quarter were received and thanks returned to the donors.

Examinations.

The annual return by the examiners of the results of the examinations for the Licence in the year 1903 was received.

TRINITY COLLEGE, DUBLIN.

THE following candidates have passed Section A of the Final Examination:

G. MacG. Millar, H. English, C. R. Morris, B. Johnson, G. E. Nesbitt, M. D. Ferguson, W. R. Galwey, W. G. Harnett, H. J. Knox.

The following candidates have passed the previous Medical Examination as undernoted:

Anatomy and Institutes of Medicine.—W. G. Harnett, W. C. Mac Fetridge, J. H. Elliott, R. E. Dunn.

Physics and Chemistry.—W. F. Casey, W. F. Samuels, H. J. Knox.

Botany and Zoology.—J. C. C. Hogan, R. Magill, R. L. Lee, D. J. Stokes, A. K. Cosgrave, J. H. Morton, J. A. L. Hahn, W. F. Casey.

CONJOINT BOARD IN SCOTLAND.

THE quarterly examinations of the above Board, held in Edinburgh, were concluded on January 29th with the following results:

First Examination: Five Years' Course.—Marguerite Alice Christian Douglas, A. McKendrick, W. Taylor, G. E. Nash, A. E. James, H. P. B. Tait, C. A. Paterson, F. Thompson, W. Riddell, A. M. Davie, J. W. M. Hunter, and W. C. Malone.

One passed in Physics, 3 in Biology, and 1 in Chemistry.

Second Examination: Four Years' Course.—R. Holt and J. K. Lindsay.

Second Examination: Five Years' Course.—J. Clarke (with distinction), W. O. S. McGowan, A. F. Garrand, Nena Beatrice Ievers, J. S. R. Weir, T. E. Flitcroft, C. C. Fitzgerald, H. Stokes, and G. H. Powell.

One passed in Anatomy and 2 in Physiology.

Third Examination: Five Years' Course.—W. Longley, J. Murphy, R. H. Crombie, C. H. A. Alderton, Ida Margaret Guillaume, D. C. McNair, P. De Mello, J. Roberts, B. B. Westlake, R. Wearing, J. S. De Souza, W. M. MacIlraith, and M. M. Fitzgerald.

Final Examination.—Edith Serjeant, W. A. Dorion, J. S. Cooper, A. B. H. B. Pearce, H. L. Pavey, R. B. Anderson, R. A. C. Rigby, J. D. Nicolas, J. J. Andrews, Ida Margaret Guillaume, L. F. Bianchi, W. J. Purves, H. M. Agnew, W. Rotheram, J. Stark, W. B. Hendry, J. MacGregor, H. M. Madden, S. J. Mathewson, I. Campbell, H. R. Leonard, P. Shaw, J. J. Anthony-Pillay, S. Nizam ud Din, E. R. Langrill, R. S. Varma, A. M. Walsh, J. H. Yearsley, J. M. Huey, D. C. Woods, T. S. Pearse, Eulalia Sisley Richards, C. H. A. Alderton, W. L. Hodge, J. Watson, H. S. Rasaiah, K. D. Khambatta, and S. P. Joseph.

Eleven passed in Medicine and Therapeutics, 1 in Surgery and Surgical Anatomy, 4 in Midwifery, and 3 in Medical Jurisprudence.

SOCIETY OF APOTHECARIES OF LONDON.

PASS LIST, January, 1904.—The following candidates passed in:

Surgery.—R. S. Dollard, Royal College of Surgeons in Ireland and Westminster Hospital; P. Elias (Sections I and II), Amsterdam; B. C. Ghosh (Section II), Cambridge; F. W. Higgs (Sections I and II), St. George's Hospital; W. G. Kinton (Section I), Manchester; J. Watson (Section II), Manchester.

Medicine.—W. V. Braddon (Sections I and II), Cambridge and M chester; F. H. Hand (Section I), St. Mary's Hospital; J. D. K (Section II), St. Mary's Hospital; W. G. Kinton (Section I), M chester; E. H. Price (Sections I and II), Birmingham; A. Rog (Section II), Cardiff and St. Mary's Hospital; A. Turner (Secti I and II), Charing Cross Hospital; S. Zweiback (Section Konigsberg.

Forensic Medicine.—F. H. Hand, St. Mary's Hospital; W. G. Kint Manchester; A. Turner, Charing Cross Hospital.

Midwifery.—H. Archer, Leeds; C. H. J. Fagan, St. George's Hospit W. S. Lewis, Birmingham; P. B. Whittington, London Hospital.

The diploma of the Society was granted to W. V. Braddon, R. Dollard, P. Elias, B. C. Ghosh, J. D. Keir, W. S. Lewis, and Turner.

PUBLIC HEALTH AND POOR-LAW MEDICAL SERVICES.

THE REGISTRAR-GENERAL'S QUARTERLY RETURN.

[SPECIALLY REPORTED FOR THE BRITISH MEDICAL JOURNAL.]

THE Registrar-General has just issued his return relating to the bi and deaths during the fourth quarter of 1903, and to the marriages du the three months ending September last. The marriage-rate during period was equal to 17.1 per 1,000, and was 0.3 per 1,000 in excess of mean-rate in the corresponding quarters of the ten preceding years.

The births registered in England and Wales during the quarter en December last numbered 230,007 and were equal to an annual rate of per 1,000 of the population, estimated by the Registrar-Genera 33,378,338 persons in the middle of last year. This rate was 1.2 per below the average rate in the fourth quarters of the ten preceding y The birth-rates in the several counties ranged from 20.9 in Sussex an Rutlandshire, 21.0 in Westmorland, 21.1 in Cornwall, 21.6 in Bedfords and 21.7 in Herefordshire, to 30.3 in Northumberland, 31.2 in South W 31.6 in Staffordshire, 31.8 in Nottinghamshire, 33.5 in Monmouthshire, 33.9 in Durham. In seventy-six of the largest English towns, inclu London, the birth-rate last quarter averaged 28.6 per 1,000, being slig in excess of the general English birth-rate. In London the rate was per 1,000, while it averaged 29 1 per 1,000 in the seventy-five large vincial towns, among which the birth-rates ranged from 17 9 in Hast 18.2 in Bournemouth, 18.5 in Hornsey, and 19.2 in Halifax, to 35 Smethwick, 36.7 in Merthyr Tydfil, 38.3 in Rhondda, and 39 9 in St. He

The births registered in England and Wales during the quarter u notice exceeded the deaths by 94,033; this represents the natural inc of the population during that period. From returns issued by the B of Trade it appears that 84,360 emigrants embarked during the months for places outside Europe, from the various ports of the U Kingdom at which emigration officers are stationed. Of these emigrants 36,774 were English, 7,641 were Scottish, and 7,930 were while 32,015 others were of foreign nationality. Compared with the ages in the corresponding quarters of the three preceding years the portion of emigrants to the population showed an increase of 13 cent. in England, of 48.5 per cent. in Scotland, and of 13 4 per ce Ireland.

During the fourth quarter of last year the deaths of 135,974 persons registered, equal to an annual rate of 16.2 per 1,000 persons living rate was 1.1 per 1,000 below the average in the ten preceding quarters. The lowest county death-rates last quarter were 12 3 in S 12 6 in Rutlandshire, 12 7 in Hertfordshire, 12.8 in Sussex, and Dorsetshire; while the highest rates were 18.0 in the West Rid Yorkshire, 18.7 in Lancashire, 19.1 in Northumberland, and 20 2 i ham. In seventy-six of the largest towns, with an aggregate popula more than fifteen millions, the death-rate averaged 17.3 per 1,000; smaller towns, containing in the aggregate upwards of three and millions, the mean rate of mortality was 15.5 per 1,000; while in the re ing, and chiefly rural, parts of England and Wales, the death-rate w per 1,000. In London the rate was 16 6 per 1,000, while among the se five large provincial towns the rates ranged from 7 5 in Hornsey, King's Norton, 10.3 in Leyton, 11.6 in East Ham, 11.7 in Walthamstow 12.3 in Handsworth (Staffs), to 22.0 in Merthyr Tydfil, 22.8 in Warri and in Middlesbrough, 23.0 in York, 23.3 in Wigan, and 23 5 in Presto

The 135,974 deaths from all causes registered in England and Wale quarter included 12,023 which were referred to the principal infe diseases; of these 4,155 were attributed to diarrhœa, 2 207 to me 1,999 to whooping cough, 1,454 to diphtheria, 1,157 to "fever" (princ enteric), 989 to scarlet fever, and 62 to small-pox. The mortality small-pox corresponded with the average; that from diarrhœ slightly in excess; while the rate from each of the other principal tious diseases showed a decline. Of the 62 fatal cases of small-pox tered last quarter 9 belonged to Gateshead, 4 to Morpeth, 4 to Warri 3 to London, 3 to Tynemouth, and 3 to Carlisle.

The rate of infant mortality in England and Wales last q measured by the proportion of deaths among children under 1 age to registered births, was equal to 154 per 1,000, against an avera of 149 per 1,000 in the corresponding quarters of the ten preceding In the several counties the rate of infant mortality ranged fro Oxfordshire and in Huntingdonshire, 91 in Wiltshire, 93 in Somerse and 97 in Sussex and in Hertfordshire, to 181 in Staffordshi in the West Riding of Yorkshire, 184 in the North Rid Yorkshire, 189 in Northumberland, and 208 in Durha seventy-six of the largest English towns the mean rate was 1,000; in London the proportion was equal to 154 per 1,000, w averaged 173 in the seventy-five large provincial towns, among whi rates ranged from 96 in King's Norton, 101 in Croydon, 102 in Ho 103 in Wallasey, 106 in Leyton, and 108 in Bournemouth, to 225 in ham, 230 in Stockton-on-Tees, 238 in Middlesbrough, 240 in Burnl 251 in Preston.

The mortality in England and Wales during the three months notice among persons aged between 1 and 60 years was equal to an rate of 7 8 per 1 000 of the population estimated to be living at thi of ages, and was 1.2 per 1,000 below the mean rate in the ten pr

fourth quarters. In the seventy-six large towns the death-rate at this group of ages averaged 8.9 per 1,000; in London this death-rate was 8.7 per 1,000, while among the seventy-five large provincial towns the rates ranged from 3.3 in Hornsey, 4.5 in King's Norton, 4.9 in Leyton, 5.2 in East Ham, and 5.3 in Walthamstow, to 12.3 in Middlesbrough, in Wigan, and in Preston, 13.1 in York, and 14.2 in Warrington.

Among persons aged 60 years and upwards the death-rate last quarter was equal to 66.5 per 1,000 of the estimated population at this age-period, being 13.4 per 1,000 above the average. In the seventy-six towns the death-rate at this age-group was 70.7 per 1,000: in London the rate was 66.8 per 1,000, while among the seventy-five other large towns the rates ranged from 41.6 in Hornsey, 43.7 in Leyton, 49.8 in Grimsby, 53.1 in King's Norton, and 55.6 in Tottenham, to 93.4 in Wigan, 93.5 in Blackburn, 95.2 in Bootle, 96.5 in Bradford, and 97.0 in Burnley.

The mean temperature of the air during the quarter was above the average in all parts of England, except the North-West district, where no departure from the average was observed. The amount of rainfall measured in London was 8.7 in., being 1.7 in., or 24 per cent., more than the average. The duration of bright sunshine in London during the quarter was 128 hours, being 16 per cent. of the possible amount, and 22 hours less than the average.

HEALTH OF ENGLISH TOWNS.

In seventy-six of the largest English towns, including London, 8,512 births and 5,669 deaths were registered during the week ending Saturday last, January 30th. The annual rate of mortality in these towns, which had been 20.3, 19.0, and 18.1 per 1,000 in the three preceding weeks, rose again last week to 19.4 per 1,000. The rates in the several towns ranged from 6.4 in Hornsey, 8.6 in Hastings, 9.4 in King's Norton, 10.4 in Wallasey, 11.4 in Willesden, 12.0 in Northampton, and 12.2 in Leyton, to 22.8 in South Shields, 23.2 in Warrington, 24.0 in Walsall, 25.0 in Swansea, 25.4 in Manchester, 25.8 in Preston, 27.0 in Great Yarmouth, 32.1 in Bury, and 38.0 in Merthyr Tydfil. In London the death-rate was 19.5 per 1,000, while it averaged 19.3 per 1,000 in the seventy-five other large towns. The mean death-rate from the principal infectious diseases last week was 1.7 per 1,000 in the seventy-six large towns: in London this death-rate was 1.5 per 1,000, while among the seventy-five large provincial towns the rates ranged upwards to 3.8 in West Hartlepool, in Rhondda, and in Swansea, 3.9 in Warrington, 4.0 in Great Yarmouth, 4.5 in Bury, 4.6 in Walsall, and 7.3 in Preston. Measles caused a death-rate of 1.2 in Rochdale and in Leeds, 1.5 in Cardiff, 1.6 in Blackburn, 1.8 in Bury, 3.1 in Warrington, and 5.4 in Preston; scarlet fever of 1.1 in Walsall and 1.4 in Devonport; diphtheria of 1.1 in Walsall, 1.3 in East Ham and in Aston Manor, and 1.8 in St. Helen's; whooping-cough of 1.8 in Bolton, in Bury, and in Gateshead, 2.0 in Great Yarmouth, 2.1 in Coventry, 2.2 in Merthyr Tydfil, 3.0 in West Hartlepool, and 3.8 in Swansea; "fever" of 1.1 in Walsall, 1.3 in Rhondda, and 1.4 in Devonport; and diarrhoea of 1.4 in Preston. One fatal case of small-pox was registered last week in Manchester, and 1 in Gateshead, but not one in any other of the seventy-six large towns. The number of small-pox patients under treatment in the Metropolitan Asylums Hospitals, which had been 26, 26, and 24 at the end of the three preceding weeks, had further declined to 21 at the end of last week; 4 new cases were admitted during the week, against 6, 4, and 3 in the three preceding weeks. The number of scarlet fever patients in these hospitals and in the London Fever Hospital at the end of the week was 1,651, against 1,659, 1,660, and 1,677 at the end of the three preceding weeks; 168 new cases were admitted during the week, against 201, 195, and 180 in the three preceding weeks.

HEALTH OF SCOTCH TOWNS.

DURING the week ending Saturday last, January 30th, 901 births and 608 deaths were registered in eight of the principal Scotch towns. The annual rate of mortality in these towns, which had been 23.2, 20.2, and 19.8 per 1,000 in the three preceding weeks, further declined last week to 18.4 per 1,000, and was 1.0 per 1,000 below the mean rate during the same period in the seventy-six large English towns. Among these Scotch towns the death-rates ranged from 11.2 in Greenock and 14.3 in Aberdeen, to 18.8 in Leith and 31.3 in Dundee. The death-rate from the principal infectious diseases in these towns averaged 1.9 per 1,000, the highest rates being recorded in Dundee and Leith. The 272 deaths registered in Glasgow included 3 which were referred to small-pox, 6 to measles, 1 to scarlet fever, 5 to diphtheria, and 8 to diarrhoea. Seven fatal cases of diarrhoea, 3 of measles, and 3 of whooping-cough, were recorded in Dundee: 4 of whooping-cough in Aberdeen; 3 of whooping-cough in Edinburgh; 3 of whooping-cough in Leith; and 2 of measles in Paisley.

HEALTH OF IRISH TOWNS.

DURING the week ending Saturday, January 30th, 467 births and 399 deaths were registered in six of the principal Irish towns, against 509 births and 434 deaths in the preceding period. The mean annual death-rate of these towns, which had been 26.1, 24.7, and 26.9, per 1,000 in the three preceding weeks, fell to 20.5 per 1,000 in the week under notice, this figure being 1.1 per 1,000 above the mean annual rate in the seventy-six English towns during the corresponding period. The figures ranged from 15.1 in Londonderry to 27.3 in Limerick. The death-rates from the principal zymotic diseases during the same period and in the same six towns, averaged 0.7 per 1,000, or 1.0 per 1,000 less than during the preceding week, the highest rate, 1.9, being registered in Dublin, while Londonderry, Limerick, and Waterford registered no deaths under this heading at all. No deaths in any of these towns occurred from scarlet fever, small-pox, typhus, diphtheria, or simple continued fever. From whooping-cough 11 deaths occurred in Dublin, and 10 in Belfast; while in the same towns 1 death each from measles and enteric fever were registered.

VACCINATION REGULATIONS.

A. J. R.—Subsection 5 of the Vaccination Contract reads: "In every case in which he has performed vaccination he will, not less than six days nor more than fourteen days after the operation, attend at the place where the vaccination was performed, or, in the case of a revaccination, at such other place as may be arranged, *and inspect the result of such vaccination*; and will thereafter do such acts, and give such direction, and otherwise treat the case as may be necessary."

In view of the possible occurrence of cases where inspection was impossible within the period specified, owing to absence of the person vaccinated when the attendance for inspection was made, a question was addressed to the Local Government Board and elicited a reply, which is printed in Greenwood's *Law Relating to Poor-law Medical Officers and Vaccination*, p. 82. It runs as follows: "A public vaccinator is not entitled to the fee payable under Article 3 (1) (*b*) unless the vaccination has been inspected by him or his duly-qualified deputy *within fourteen days* from the date of vaccination. If, however, a visit has been made for the purpose of inspection within that period and the public vaccinator has failed to see the child, the Board are not prepared to say that the public vaccinator would not be entitled to the fee if the actual inspection is made after the end of fourteen days."

The ultimate responsibility for the interpretation of this clause is therefore thrown upon the courts, but the Local Government Board has admitted the possibility of the interpretation we put upon the clause in the BRITISH MEDICAL JOURNAL of January 9th. The subsection taken in its ordinary sense would imply that actual inspection must be within fourteen days, just as attendance for the purpose of inspection is to be within fourteen days, but in the absence of a definite legal decision on the question, we feel that "Metol" is entitled to the benefit of the doubt.

THE LOCAL GOVERNMENT BOARD AND VACCINATION FEES.

THE Local Government Board recently applied to the clerks to the guardians throughout the country for a return giving statistics as to vaccination fees and expenses in each vaccination district of their respective unions, and also particulars as the remuneration of and amount of work done by such public vaccinators as were district medical officers in their pauper practice. The return has caused much friction in various districts, and in some cases medical men have refused to supply the information to the clerks to the guardians on the ground that they were not personally responsible for the duty, nor had any communication been made to them by the Local Government Board, but that the clerk to the guardians in each case was the person charged with the duty of obtaining and fowarding the required information. We regret that such a difficulty should have arisen. It is the duty of a district medical officer to give reasonable information in regard to his work to the guardians, and the vaccination contract says that the public vaccinator "will perform any other duties in regard to vaccination which may be imposed on him by the Vaccination Acts, 1867 to 1878, or by any order of the Local Government Board under these Acts." The return demanded by the Local Government Board is not really affected by either of these provisions, and yet some of the information required could be obtained only by application to the medical man, and involved in some cases considerable expenditure of time, and perhaps temper, to collect. We feel that in such cases the medical man should do everything in his power to help the clerk of the guardians, but would suggest that when the Local Government Board desires information on a large scale within a short time, and thus at high pressure, it would be well to provide for a definite money payment for the information thus supplied. Certainly some of the friction and annoyance would be removed by such a course.

SANITARY INSPECTION OF SCHOOLS.

DR. BUTLER-HOGAN, the Medical Officer of Health for Tottenham, applied on January 28th for a justice's order to inspect the Drapers' Schools in his district, to which the sanitary officials had been refused admission, in the first place by Miss Beggs, the head mistress, and afterwards by Mr. Riley, the surveyor to the company. The medical officer explained that the application was made under Section 111 of the Public Health Act, 1875, the wording of which was, in his opinion absolutely clear upon this point, the words being: "The local authority or any of their officers shall be admitted into any premises for the purpose of examining as to the existence of any nuisance thereon." It was most important that there should be the same right of entry and inspection with regard to the most lordly premises as there was to the poorest hovel in the district: this was even of still greater importance when the premises were schools. One-sixth of the population of Tottenham, and probably the most important sixth, consisted of school children. Did the company's lawyer seriously contend that any firm or company, fraternity or guild, who chose to appoint a private surveyor, should thus be relieved from all sanitary inspection? If that was so there would be a good number of private surveyors appointed. The mercy of a private surveyor might be very tender or it might be the reverse. Were the sanitary conditions, including measures for the prevention of infectious diseases, to be left in the hands of any layman whom the company might choose to appoint, and the schools to enjoy freedom from all sanitary supervision? He thought not, otherwise the Public Health Acts and the Local Government Board Orders were dead letters. This company, which rejoiced in the rather long and—at this stage of history—rather deceptive title of "The Masters and Wardens and Brethren and Sisters of the Guild or Fraternity of the Blessed Mary the Virgin of the Mystery of Drapers of the City of London," had been treated with every courtesy by him; he had offered to have the inspection made during the Christmas holidays so as not to interfere in the slightest with the work of the school, but the officials of the company had perhaps calculated that he might be too lazy or too cowardly to carry this matter through the Law Courts, or else they felt that they had something to conceal. He hoped the bench and the press would take particular notice of this case as a bad example, which proceeding from those who ought to know better, deserved the severest reprobation from the magistrates and the public. In no other school in the district had there been the slightest opposition to the sanitary officials in the discharge of their duties.

Mr. Nairne, on behalf of the company, opposed the application on the grounds that the Medical Officer of Health had arbitrarily refused to specify any particular grounds of complaint, and had claimed a general right of inspection at any time. He deprecated the Medical Officer's remarks regarding the company, who were quite satisfied that their Surveyor (Mr. Riley) took every possible care of the sanitary condition of the schools. The drainage had been seen to some five months ago, and he believed it was right now. He thought the Medical Officer should be called upon to particularize any complaint he had received, and submitted that unless this were done the Justices were not entitled to grant an order, and he quoted the case of Vyne, under the Public Health (London) Amendment Act, as being on a similar footing.

Dr. Butler-Hogan, in reply, said that he did not wish now to discuss any Act which did not apply to his own district, and that under no circumstances would he disclose information received in confidence by him; the words of the Section were, he again reminded the Bench, "for the purpose of examining as to the existence of any nuisance"—not for the purpose of verifying or corroborating the existence of such.

In the result the Bench granted the Medical Officer the order applied for.

THE APPEAL TO THE COW.

The so-called appeal to the cow, or practice of offering for analysis a sample of milk drawn in the presence of a magistrate, with the knowledge or belief that it will prove equally poor with that on which a conviction had been obtained, with the expected result of the reversal of the decision, has of late years fallen into disuse, as magistrates have been brought to understand that the milk of such an animal is not likely to be sold alone, and that its peculiarities disappear when it is mixed with others. It would, however, appear that, in one part of the metropolitan area at any rate, a cow may be kept by one petty dealer for the purpose of being lent, or more probably let on hire, to others who may have been convicted of adulteration. Such, at any rate, has been the experience of one medical officer of health in the East-end. A conviction for milk with 2 per cent. of fat having been quashed on the production of a cow whose milk contained only 1.5 per cent., the medical officer recognized the cow as the same as had been put forward for the defence by another tradesman who had been convicted of adulteration to nearly the same extent.

OYSTERS AND TYPHOID FEVER.

In consequence of the scare as to contaminated oysters last year a great many places, to which the trade in shellfish is of importance, have seen the necessity of setting their houses in order and the financial folly of leaving undone those things which they ought to have done many years ago. Emsworth, which supplied the oysters to the now famous mayoral banquets at Winchester and Southampton, is a case in point. Long before the possibility of acquiring enteric fever by eating oysters was a proved and accepted fact, the faults in its sewerage arrangements were duly pointed out to it by competent authority. It turned, however, a deaf ear, and even, when after the civic feasts just mentioned the place sprung into unaccustomed notoriety, it was some time before the Medical Officer of Health (Dr. Lockhart Stephens) with a medical member of the District Council (Inspector-General Turnbull, R.N.), as an ally, could persuade it to take the obviously necessary steps. The oyster and shellfish influence upon the Council was too great for it to be readily admitted that the sewerage was at fault and the oyster beds a real source of danger. Later the tide turned, for the town found its oysters refused, the shellfish trade at a standstill and in danger of entire destruction. Thereon the passive resisters of sanitary reform became the active agitators for immediate removal of dangers previously alleged to be non-existent. Not content with argument only, the head of a leading firm effectually hurried matters up by commencing legal proceedings against the District Council, claiming enormous damages for losses caused to him by default of the Council. Meantime he moved his storage pits and oyster beds out of the estuary to unexceptional beach at Hayling Island. "Emsworth" oysters therefore have now returned to favour, and the town is to have a new drainage system. The town, therefore, in the future will have no cause to bemoan its financial losses in the past, and already appears to have gained something considerable in point of health. For the active general measures initiated by the scare have resulted in only three cases of enteric being recorded during 1903, while in the three previous years they had slowly risen from 10 to 21, in a small population of about 3,600 souls.

THE EYES AND TEETH OF SCHOOL CHILDREN.

Reference was made in the British Medical Journal for January 9th, p. 112, to an endeavour about to be made by the Birkdale Area Educational Authority to obtain the gratuitous services of medical men and dentists for the work of visiting schools and undertaking any treatment which might prove necessary. It did not, however, prove very successful. One dentist in Birkdale was ready upon certain conditions to look after the children in the four elementary schools in that place, and the oculist of the Liverpool School Board was ready to do for Birkdale, and for a small fee, the same work as he does for Liverpool, but apart from this the effort was unsuccessful. Those to whom application was made answered for the most part that the duties would be too exacting for gratuitous performance. It is intended now to ascertain whether public funds can legally be spent in carrying out the scheme of supervision.

RESIDENCE WITHIN DISTRICT.

A correspondent writes that he is thinking of commencing practice in a certain place where the guardians have appointed as district medical officer and public vaccinator a non-resident practitioner. He asks whether, if he takes up his residence within this area, he can claim to hold the above appointments as being the only resident practitioner within the said area.

*** District medical officers not residing within their own district can only be appointed temporarily, except under certain conditions (within the metropolitan area). When so appointed the reasons for their appointment have to be transmitted to the Local Government Board, which may or may not sanction the same. The Board has also reserved to itself the right of determining such temporary appointments when it thinks fit. When, however, it has sanctioned such appointment, it does not follow that it will exercise this power directly a medical practitioner becomes resident in the district. The local Board of Guardians no doubt could cancel the appointment if it so desired and appoint the resident practitioner, but the latter has no legal claim. The office of public vaccinator is not an appointment in the same sense as that of district medical officer, but merely a contract which the guardians may make or determine at will, and there is no obligation to give it to a resident practitioner.

VACCINATION NOTICES.

Enquirer writes: The public vaccinators in this town are sending out notices to parents when the children are only 2 months old, and repeating this notice weekly till the children are vaccinated. Will you kindly inform me: (1) Is this permitted by the Act, which says after the child is 4 months old? (2) If this is not legal, to whom must complaint be made? I have written to the Local Government Board, but they have refused to answer.

*** The public vaccinator may be requested by the parent or guardian to call and vaccinate a child before it is 4 months old, and may then send a notice as to the time of his visit, but, with this exception, he should issue no notice of his intention to call and vaccinate the child until he receives information from the vaccination officer that the child has reached the age of 4 months and 7 days, and is not yet vaccinated. This information he gets on his H List. Our correspondent does not state what kind of notice is being periodically issued in his district. We shall be glad if he will forward one to us. The action, while not illegal, may yet be open to adverse criticism in a professional respect.

ANTITOXIN AND CLUB PATIENTS.

W. M. C. asks for an opinion as to a statement made by a member of a sanitary authority (whose medical officer of health recommended that the authority should provide antitoxin free for use in poor cases) "that this was equivalent, in the case of a club patient, to asking the ratepayers to provide that which presumably the club doctor had agreed to find, namely, necessary medicine." The authority in question does not isolate diphtheria.

*** There can be no doubt in our opinion that the Local Authority is justified in expending money in supplying diphtheria antitoxin for the treatment of diphtheria among the "poorer inhabitants of their district." This is clearly set out in Section cxxxiii of the Public Health Act, 1875.

> "Any Local Authority may, with the sanction of the Local Government Board, themselves provide or contract with any person to provide a temporary supply of medicine and medical assistance for the poorer inhabitants of their district."

The use of antitoxin as a prophylactic is justified as an ordinary expenditure on the prevention of the spread of infection. We think that expenditure in its use as a curative agent, particularly when as above there is no isolation hospital, is equally justified, but the matter could at once be set right by an appeal to the Local Government Board.

THE PHTHISIS DEATH-RATE OF ENGLAND AND WALES, 1902.

P. L. B.—The phthisis death-rate for England and Wales in 1902 was 1.233 per 1,000.

MEDICAL NEWS.

Public Health in Italy.—Statistics recently published by the Italian Minister of Public Health show that the general death-rate of Italy, which in 1887 was 28 per mille, had fallen in 1902 to 22 per mille. The diminution in the death-rate from contagious diseases was particularly striking.

Opening of a Nursing School at Bordeaux.—On January 25th the Prefect of the Gironde Department, accompanied by the Mayor of Bordeaux and the members of the Administrative Committee of Hospitals, formally opened a school for nurses in connexion with the Hôpital Saint-André in that city.

Dr. George Thin, of Harley Street, who died at Nice on December 27th, leaving estate of £29,795, has bequeathed to the Royal Society of London and the Royal Medical and Chirurgical Society £100 each, and, on the death of Mrs. Thin, £100 each to the Middlesex Hospital and the Edinburgh Royal Infirmary.

The Accident in the Recent Wrestling Match.—Mr. F. G. Lloyd, L.R.C.P., M.R.C.S., has sent us the following account of the injury suffered by Madrali in the recent wrestling match: I was present at Olympia on Saturday evening when the championship wrestling match took place between Hackenschmidt and Madrali. After the first bout, lasting in all forty-four seconds, it was evident that Madrali, the Turk, had met with an accident to his right elbow, as his arm bore evidence of injury and his face bore signs of pain. I examined his arm both on the platform and also in his dressing room, and I formed the opinion that he was suffering from a severe sprain and incomplete partial dislocation of the right elbow-joint, in which the radius was dislocated somewhat forwards and the ulna slightly backwards, with a severe straining and slight rupture of the ligaments of the elbow-joint. I could detect no crepitus in or about the joint. The dislocation and sprain appeared to me to be the result of a sudden and heavy "throw" on the left shoulder, in which the right wrist and arm were brought to the ground with great force, and for a moment sustained the weight of both wrestlers, accompanied by severe rotatory movements. It is of course very difficult to say exactly how long an injury of this nature will take to heal perfectly, but I am of opinion that, if his arm progresses favourably, Madrali will be quite well in six weeks and fit to wrestle in two months' time. It is unnecessary to state that the accident, occurring as it did in so short a time (under forty seconds), was most unfortunate, as it prevented the wrestlers giving an exhibition of their skill. Madrali bore both the pain and the disappointment with great fortitude, and, one might add, with quite Oriental reserve.

At a meeting of the Pharmaceutical Society on Tuesday next at 8 p.m., Messrs. E. H. Farr and R. Wright will read papers on the distribution of the alkaloids in *Conium maculatum*, and a note on the disputed presence of a mydriatic alkaloid in *Lactuca virosa*. The new oils of eucalyptus recently described by Messrs. Baker and Smith, together with herbarium specimens of the plants and specimens of the wood and bark of the trees yielding such oil, will be exhibited.

Medico-Psychological Association.—A general quarterly meeting of the Medico-Psychological Association of Great Britain and Ireland will take place at the Warneford Asylum, Oxford, on Friday next, February 12th, at 3 p.m., under the presidency of Dr. Ernest W. White. Dr. James Neil has invited members to luncheon at 1.30. Dr. Lloyd Andriezen will read a paper and give a lantern demonstration on the problem of heredity, with special reference to pre-embryonic life. Dr. Robert Jones will read a paper, if time permits, on the psychology of Jane Cakebread; and microscopic specimens of the trypanosoma of sleeping sickness will be shown by the courtesy of Sir Patrick Manson. Members will dine together at the Randolph Hotel at 6.45.

MEDICAL VACANCIES.

This list of vacancies is compiled from our advertisement columns, where full particulars will be found. To ensure notice in this column advertisements must be received not later than the first post on Wednesday morning.

BIRKENHEAD UNION.—Resident Assistant Medical Officer for the Infirmary, Workhouse, and Sanatorium. Salary, £120 per annum.

BIRMINGHAM: QUEEN'S HOSPITAL.—(1) Two House-Surgeons (2) House-Physician, salary £50 per annum. (3) Obstetric and Ophthalmic House-Surgeon, salary £40 per annum.

BRISTOL ROYAL INFIRMARY.—(1) Resident Junior House-Surgeon and Anaesthetist. (2) Resident Casualty Officer. Both resident. Salaries at the rate of £50 per annum.

CAMBERWELL HOUSE ASYLUM.—Assistant Medical Officer; resident. Salary commencing at £150 per annum.

CANCER HOSPITAL, Fulham Road.—Surgical Registrar. Honorarium, £26 5s. per annum.

CARMARTHEN: JOINT COUNTIES ASYLUM.—Junior Assistant Medical Officer. resident. Salary, £150 per annum.

CENTRAL LONDON OPHTHALMIC HOSPITAL, Gray's Inn Road, W.C.—Assistant Surgeon.

CHARING CROSS HOSPITAL.—(1) Medical Officer for the Electrical Department; (2) Assistant Physician to the Dermatological Department.

COVENTRY AND WARWICKSHIRE HOSPITAL.—Assistant House-Surgeon, resident. Salary, £60 per annum.

DUDLEY: GUEST HOSPITAL.—Senior Resident Medical Officer. Salary, £100 per annum, increasing to £120.

GLOUCESTER: BARNWOOD HOUSE HOSPITAL FOR MENTAL DISEASES.—Junior Assistant Medical Officer; resident. Salary, £150, rising to £170.

GLOUCESTER: GENERAL INFIRMARY.—Assistant House-Surgeon; resident. Salary at the rate of £30 per annum.

KETTERING AND DISTRICT GENERAL HOSPITAL.—Resident Medical Officer. Salary, £80 per annum.

LIVERPOOL: ROYAL SOUTHERN HOSPITAL.—Junior House-Surgeon. Salary, 60 guineas per annum.

MACCLESFIELD GENERAL INFIRMARY.—Junior House Surgeon, resident. Salary, £70 per annum.

MANCHESTER: ANCOATS HOSPITAL.—Resident House-Physician. Salary, £80 per anuum.

MANCHESTER HOSPITAL FOR CONSUMPTION AND DISEASES OF THE CHEST. (1) Honorary Physician; (2) Honorary Assistant Physician.

METROPOLITAN HOSPITAL, Kingsland Road, N.E.—Assistant Surgeon.

MUTFORD AND LOTHINGLAND URBAN DISTRICT COUNCIL.—Medical Officer of Health. Salary, £80 per annum.

NATIONAL HOSPITAL FOR THE PARALYSED AND EPILEPTIC, Queen Square, W.C.—House-Physician; resident. Salary, £50 per annum.

NORTH RIDING INFIRMARY, Middlesbrough.—Assistant House-Surgeon; resident. Salary, £75 per annum.

OXFORD: RADCLIFFE INFIRMARY.—(1) House-Physician. Salary, £80 per annum. (2) Junior House-Surgeon, Salary, £40 per annum.

PADDINGTON GREEN CHILDREN'S HOSPITAL.—Surgeon to Out-patients.

TOTTENHAM HOSPITAL.—House-Physician. resident. Salary, £60 per annum.

WALWORTH: ROBERT BROWNING SETTLEMENT.—Honorary Assistant during absence of Medical Superintendent.

WIGAN: ROYAL ALBERT EDWARD INFIRMARY AND DISPENSARY.—Junior Housekeeper, resident. Salary, £80 per annum.

WORCESTER GENERAL INFIRMARY.—House-Surgeon; resident. Salary, £70 per annum.

MEDICAL APPOINTMENTS.

Bonney, W. Victor, M.S., M.D.Lond., F.R.C.S., M.R.C.S., Lecturer in Practical Midwifery in the Middlesex Hospital Medical School.

Corner, Edred M., M.B., B.C.Cantab., F.R.C.S., Assistant Surgeon to St. Thomas's Hospital.

Dyer, Sidney R., M.D.Brux, L.R.C.P., M.R.C.S., Principal Medical Officer of Dartmouth Convict Establishment,

Eason, H. L., M.D., M.S.Lond., Dean of Guy's Hospital Medical School, *vice* John Fawcett, M.D., F.R.C.P., resigned.

Harmer, W. D., M.C.Cantab., F.R.C.S.Eng., Surgeon to the Metropolitan Hospital, Kingsland Road.

Heilborn, W. E., M.R., B.C Cantab., Honorary Assistant Medical Officer to the Bradford Children's Hospital.

Holgate, Percy, M.B., B.S.Durh., Medical Officer to the Tynemouth Township of the Tynemouth Union, *vice* Dr. H. Bamber, deceased.

Jowers, L. E., F.R.C.S.Edin., L.R.C.P.Lond., Assistant Surgeon to the Hastings, St. Leonards, and East Sussex Hospital.

Mander, Percy R., M.D.Durh., M.R.C.S.Eng., Medical Officer to H.M.Prison, Stafford.

Meade, Norman G., M.R.C.S., L.R.C.P.Lond., Honorary Assistant Medical Officer to the Bradford Children's Hospital.

Pattullo, W., L.R.C.P. and S.Edin., L.F.P.S.Glasg., District Medical Officer of the Durham Union.

Phillips, James, F.R.C.S.Edin, L.R.C.P.Lond., Honorary Medical Officer to the Bradford Children's Hospital.

Porter, W. George, M.D., M.R.C.S., F.R.C.P., Clinical Assistant to the Chelsea Hospital for Women.

Pratt, J. Dallas, M.D.Dub., B.Ch., F.R.C.S.I., Certifying Factory Surgeon for the Dublin District.

Rouw, R. Wynne, M.R.C.S., L.D.S., L.R.C.P.Lond., Dental Surgeon and Lecturer on Dentnl Surgery at Guy's Hospital,

Rowe, Joseph Hambley, M.B., C.M., Anaesthetist to the Bradford Children's Hospital.

Scott, Sydney, B.S.Lond., F.R.C.S.Eng., Honorary Surgeon to the Westminster General Dispensary. London.

Smith, William Robert, M.D., B.S.Lond., F.R.C.S.Eng., Assistant Surgeon to the Hospital for Women, Nottingham.

Waring, H. J., M.S.Lond., F.R.C.S.Eng., Consulting Surgeon to the Metropolitan Hospital, Kingsland Road.

Watson, C. Gordon, F.R.C.S.Eng., Assistant Surgeon to the Metropolitan Hospital Kingsland Road.

Williams, E. Lloyd, M.B., C.M.Edin., Medical Officer and Public Vaccinator for the Llanrwst District and Workhouse of the Llanrwst Union.

DIARY FOR NEXT WEEK.

MONDAY.

Quain Society, Anatomical Theatre, University College, W.C., 5 p.m.—Sir Victor Horsley: On the Termination of the Fillet in the Optic Thalamus. (Illustrated with photographs and lantern slides)

Medical Society of London, 11, Chandos Street, Cavendish Square, W. 8.30 p.m.—Clinical cases.

TUESDAY.

Medico-Legal Society, 20, Hanover Square, W., 8.15 p.m.—Mr. J. H. Targett: Homicide by Introduction of Foreign Bodies: specimens. Professor A. Bostock Hill: A Case of Abortion by Drugs. Dr. F. J. Smith: Notes on Employers' Liability. Mr. Stanley B. Atkinson: Live-birth—in Theory and Practice.

Royal Medical and Chirurgical Society, 20, Hanover Square, W., 8.30 p.m.—Drs. J. H. Drysdale and Hugh Thursfield: On Anaemia Pseudo-leukaemia Infantum.

WEDNESDAY.

Dermatological Society of London, 11, Chandos Street, Cavendish Square, W., 5.15 p.m.—Demonstration of Cases of Interest.

Hunterian Society, London Institution, Finsbury Circus, E.C., 8.30 p.m.—Dr. J. F. Woods: The Hunterian Oration on the Psychic Side of Therapeutics.

South-West London Medical Society. Bolingbroke Hospital, Wandsworth Common, S.W., 8.45 p.m.—Sir Felix Semon: Some Desultory Remarks on Topics of Professional Interest.

THURSDAY.

Harveian Society of London, Stafford Rooms, Titchborne Street, Edgware Road, W., 8.30 p.m.—Mr. Edmund Owen: On Appendix Abscess in the Recto-vesical Pouch. Mr. E. W. Roughton: On a Case of Intestinal Obstruction with Gangrene of the Caecum—Recovery.

British Gynaecological Society, 20, Hanover Square, W., 8 p.m.—The President, Professor John Taylor, will deliver his Inaugural Address. Papers will be read, and specimens shown by Dr. Gelston Atkins, Dr. William Duncan, Dr. Macnaughton-Jones, Dr. Snow, and Mr. Spanton.

Ophthalmological Society of the United Kingdom, 11, Chandos Street, Cavendish Square, W., 8 p.m.—Cases by Messrs. A. Ogilvy, S. Stephenson, etc. 8.30 p.m., Papers: Dr. A. Bronner: Notes on a Case of Gonorrhoeal Conjunctivitis in an Adult Treated with Peroxide of Hydrogen. Mr. J. H. Parsons: On Congenital Anterior Staphyloma. Major H. Smith, I.M.S.: (1) Night-blindness; (2) Lens Couching.

FRIDAY.

Incorporated Society of Medical Officers of Health, 9, Adelphi Terrace, Strand, W.C., 7.30 p.m.—Dr. Lockhart Stephens: On Physical Culture in Elementary Schools.

Clinical Society of London, 20, Hanover Square, W., 8.30 p.m.—Dr. Sidney Phillips: A case of Fibroid Disease of the Pancreas with Calculi. Dr. Norman Dalton: Two cases of Malignant Anaemia. Mr. J. Jackson Clarke: Note on a case of Ankylosis of Both Temporo-maxillary Joints. Mr. Edred M. Corner: Cases of Primary and Secondary Tuberculosis of the Thyroid.

POST-GRADUATE COURSES AND LECTURES.

Charing Cross Hospital, Thursday, 4 p.m.—Demonstration of Surgical Cases.

Hospital for Consumption and Diseases of the Chest, Brompton, Wednesday, 4 p.m.—Lecture on Abscesses of Brain in Relation to Chest Disease.

Hospital for Sick Children, Great Ormond Street, W.C., Thursday, 4 p.m.—Lecture on Some Problems in Connexion with Hernia.

London Temperance Hospital, Hampstead Road, N.W., Wednesday, 4 p.m.—Lecture on Diseases of the Stomach.

Medical Graduates' College and Polyclinic, 22, Chenies Street, W.C.—Demonstrations will be given at 4 p.m. as follows: Monday, Skin; Tuesday, Medical; Wednesday, Surgical; Thursday, Surgical; Friday, Eye. Lectures will be delivered at 5.15 p.m. as follows: Monday, On the Treatment of the Haemic and Mechanical Factors in Cardiac Failure; Tuesday, Intermediate and Secondary Anaemias: Wednesday, The Treatment of Congenital Club-foot; Thursday, The Pathology of Uraemia.

Mount Vernon Hospital for Consumption and Diseases of the Chest, 7, Fitzroy Square, W., Thursday, 5 p.m.—Lecture on The Relation of Pulmonary Tuberculosis to other Diseases.

National Hospital for the Paralysed and Epileptic, Queen Square, W.C.—Lectures will be delivered at 3.30 p.m. as follows: Tuesday, Remissions and Relapses in Disseminated Sclerosis; Friday, Surgery of the Nervous System.

North-East London Post-Graduate College, Tottenham, N., Thursday, 4.30 p.m.—Lecture on Gynaecological Examination.

Post-Graduate College, West London Hospital, Hammersmith Road, W.—Lectures will be delivered at 5 p.m. as follows: Monday, Examination of the Stomach and Gastric Contents; Tuesday, Types of Insanity accompanied with Microscopic specimens; Wednesday, Practical Medicine; Thursday, Practical Surgery; Friday, Beri-beri.

Samaritan Free Hospital for Women, Marylebone Road, N.W., Thursday, 3 p.m.—Lecture on Pelvic Pain.

BIRTHS, MARRIAGES, AND DEATHS.

The charge for inserting announcements of Births, Marriages, and Deaths is 3s. 6d., which sum should be forwarded in post-office orders or stamps with the notice not later than Wednesday morning, in order to ensure insertion in the current issue.

BIRTH.

Jackson.—On January 31st, at The Lings, Radcliffe-on-Trent, the wife of Arthur M. Jackson, M.D.Oxon., of a son.

MARRIAGE.

McGinn-Vaughan.—On January 26th, at St. Mary's Church, Newport, Mon., by the Rev. Father Butcher, Patrick J. McGinn, L.R.C.P. and S.I., L.M., Chepstow Road, Newport, Mon., to Violet M. Vaughan, second daughter of Alderman D. A. Vaughan, J.P., Dan-y-Rhiw, Maindee, Newport, Mon.

DEATHS.

Clarke.—The wife of Fielding Clarke, M.R.C.S.Eng., etc., at Tunbridge Wells, of typhoid, on January 16th.

Wright.—On January 27th, at his residence, 153, Upper Kennington Lane, S.E., after an illness of short duration, John Sydney Albert Wright, L.R.C.P., L.M.Edin., L.S.A., aged 64 years. Deeply regretted. No flowers.

LETTERS, NOTES, AND ANSWERS TO CORRESPONDENTS.

☞ *Queries, answers, and communications relating to subjects to which special departments of the* BRITISH MEDICAL JOURNAL *are devoted will be found under their respective headings.*

QUERIES.

POST-SCARLATINAL RHEUMATISM.

SUFFERER asks: Could any member suggest treatment for a case of post-scarlatinal muscular rheumatism? The patient had an acute attack in November, and during convalescence the muscular pains have been gradually getting worse. The urine is free from albumen, but contains uric acid and phosphates. The patient is otherwise feeling and looking well. He would also be glad to learn of any recent works referring to the condition.

PRACTICE IN CANADA AND NEW ZEALAND.

COLONIAL would like to receive advice as to the prospects for a general practitioner in Canada and New Zealand respectively, and as to the disabilities, if any, attaching to a graduate of a British university.

*** In New Zealand legal permission to practise may be obtained upon proof of identity with a person admitted to the *Medical Register* in England. In Canada the laws are various and at the present moment in a state of transition. At present the regulations in most of the provinces are similar to those in New Zealand. In others the local authorities have a certain liberty of action in refusing or according permission to an applicant on the strength of registration in England, Scotland, or Ireland. Of the two countries, Canada probably offers the best chance for new-comers, as immigration is going on rapidly and new towns are springing up. The fact of being a graduate of a British university would be no disadvantage provided no airs were assumed upon the strength of it.

UNSETTLED asks: (1) The conditions of practice in Canada; (2) in what part he should settle; (3) the fees received by a *locum tenens* there and whether easily obtained; (4) if it is advisable to buy a practice in Canada from an agent in England; (5) the best time of the year to commence work; (6) the name of the standard medical journal of Canada.

*** (1) See the answer to "Colonial"; (2) in the back lands now being opened up; (3) no information; (4) certainly not, except in the case of a man of experience in general practice added to experience of Canadian life and habits; (5) no information, but Canada not being a health resort it can scarcely be a point of importance; (6) there are several excellent Canadian medical journals, such as the *Montreal Medical Journal*, Montreal, the *Canadian Practitioner and Review*, Toronto, the *Canadian Journal of Medicine and Surgery*, Toronto, the *Canadian Lancet*, Toronto.

ANSWERS.

DR. G. STEELE PERKINS (London) writes in answer to "Y." to recommend electrolysis as the best way of getting rid of permanently dilated capillaries.

E. M. F. could, we believe, obtain the instruction in *x*-ray, Finsen-light, and high-frequency current work by joining the post-graduate classes at the West London Hospital, Hammersmith. Further information can be obtained from the Dean of the Post-graduate College at the hospital.

SPUTUM FLASKS.

M.O.H.—Carbolic acid solution (1 in 20) is a suitable and efficacious disinfectant to put in the pocket sputum flask. Plain water is, however, sufficient if the contents of the flask are burned or mixed with disinfectant before being emptied down the drains. The flask should be cleansed with boiling water.

CARE OF MICROCEPHALIC CHILD.

J. O.—If the case referred to be certifiably imbecile, that is, of abnormally weak intellect, the best course would be to send him for training to Earlswood or to the Midland Company's institution at Knowle, near Birmingham. If much crippled special payment arrangements would probably have to be made, but 60 guineas per annum is the full payment rate at either of the above institutions. There is no private school where a microcephaloid crippled child would be received.

THE MIDDLE-EAR TEST OF LIVE BIRTH.

W. B. C.—Wredin in 1868 and Wendt in 1873 stated that the gelatinous mass which fills the middle ear in the fetal state becomes replaced by air when respiration has taken place fully. Schmalz, however, in 1887 stated that the mass begins to disappear during fetal life, and that though the influence of respiration on it is recognizable, the absence of the mass is no certain sign that respiration has taken place, he often found the mass in infants that had breathed, and sometimes it was absent in the fetal state. Lesser in 1879 stated that in premature children the fetal condition of the middle ear may persist for more than twenty hours after birth. The test is of value, but only in conjunction with other signs.

LEPROSY IN THE BRITISH EMPIRE.

With reference to the request of Mr. George Pernet, Assistant to the Skin Department, University College Hospital, and English editor of *Lepra*, for information as to leprosy to be laid before the International Dermatological Congress in Berlin, we are asked to state that the data it is desired to collect are as follows:

I.—Statistics:
(*a*) According to official reports (Government).
(*b*) Leper asylums, settlements, missions. Details as to these. Race, sex, and age of inmates. Type of disease.

II.—Methods employed to cope with leprosy between 1897 and 1903 (inclusive):
(*a*) Government laws as to leprosy.
(*b*) Means taken by Governments, municipalities, parishes, private societies, etc., for the suppression of leprosy.
1. Number of leper asylums, hospitals, or settlements.
2. Number of beds, etc.
3. Fluctuations in the number of patients, and so forth.
4. Occupation of lepers in institutions, settlements, etc.
5. Transport (railways, steamers, ambulances, etc.).

III.—Lepers in general hospitals, infirmaries, lunacy asylums, prisons, etc.

Communications may be addressed to Mr. George Pernet, 77, Upper Gloucester Place, London, N.W.

NOTES, LETTERS, Etc.

THE ROYAL MASONIC INSTITUTE.

IN April next there will be an election for admission to the Royal Masonic Institute for Boys, and we have been requested to bring the case of Patrick Trevor Webster to the notice of medical men who are Freemasons. His father, Dr. Trevor Webster, was in practice at Bewdley, Worcestershire, and died on October 28th, 1902, leaving a widow and seven children without any adequate provision. Dr. Webster was a member of the Lechmere Volunteer Lodge, No. 1874, and his son Patrick Trevor Webster is believed to be the only candidate for admission at next election who is the son of a medical man. Votes will be thankfully received by Mrs. Trevor Webster, 52, Dovey Road, Moseley, Birmingham.

ERRATUM.—In the paper by Dr. Richard Jones on A Case of Puerperal Septicaemia treated with Antistreptococcus Serum in the BRITISH MEDICAL JOURNAL of November 7th, 1903, p. 1210, the evening temperature of the case on October 25th should have been given as 108°, and not as printed.

LETTERS, COMMUNICATIONS, ETC., have been received from:

A D. J Armour, M.B., London; Dr. H. Ashby, Manchester; Another Observer. **B** Dr. F. E. Batten, London; Dr. S. H. Belfrage, London; Dr. T. E. B. Brown, C.I.E., London; Miss M. S. Beard, Manchester; Dr. W. Broadbent, Brighton; Dr. C. G. H. Baumler, Freiburg; A. G. Bateman, M.B., London; G. Birt, M.B., Stourbridge; Mr. H. Bigg, London; Mr. D. Biddle, Kingston-on-Thames; Dr. P. L. Benson, Winslow; Mr. L. A. Bidwell, London; J. Burnet, M.B., Edinburgh; Dr. J. F. Butler-Hogan, Tottenham; Messrs. Bailliere, Tindall and Cox, London. **C** Dr. E. W. Clarke, Chesterfield; Mr. J. H. Chaldecott, London; Mr. A. H. Coleman, London; Clymont; J. R. Currie, M.B., Birmingham; Mr. J. S. Cotman, London; C. J.; M. Collier, M.B., London; Dr. J. M. Clarke, Clifton; R. J. Coulter, M.B., Newport, Mon.; Dr. G. Crichton, London; Collusion. **D** Dr. L. G. Davies, Pelsall; Mr. P. L. Daniel, London; Dr. P. S. Dinson, Marburg; Dr. R. Davidson, Bournemouth. **E** Dr. J. J. Evans, Birmingham; E. M. F.; Mr. G. Y. Eales, Torquay; Mr. F. Evy, Penzance; Dr. J. Edmunds, Brighton. **F** Mrs. B. Fenwick, London; Dr. J. Farrar, Gainsborough; E. R. Fothergill, M.B., London. **G** Mr. W. R. Gould, London; Mr. E. Greville, Edinburgh; Glyn-heath; Mr. T. W. H. Garstang, Altrincham; Dr. J. Galloway, London. **H** Dr. T. J. Horder, London; Dr. J. S. Hooker, London; M. Henry, M.B., Belfast; Halifax; A. S. Hedley, M.B., Rothbury; Dr. J. Hamilton, London; Mr. R. Harrison, London; House-Surgeon; F. R. Hill, M.B., Carlisle. **I** India Office, Military Secretary of, London; Ignorant. **J** J. O.; Janus; Dr. R. Jones, Woodford Bridge; Junior. **K** D. C. Kirkhope, M.B., Belfast; S. Khan, M.B., London; H. R. Kenwood, M.B., London. **L** Lex; Mr. H. P. Lunn, Harrow-on-the Hill; Dr. R. Lee, Bexhill-on-Sea; E. R. Lyth, M.B., London. **M** Mr. A. B. R. Myers, London; Mr. J. D. Macdonogh, Bettwys-y-coed; R. M. Murray, M.B., Gullane; Dr. E. D. Mapother, London; Mr. S. W. Macilwaine, Bromley, Kent; Dr. J. Murphy, Sunderland; Mr. W. L. Muir, Glasgow; Mr. H. May, Birmingham; Mr. J. D. Marshall, London; Dr. J. McFarland, Philadelphia; Dr. J. Metcalfe, Bradford; Dr. E. J. McWeeney, Dublin; Mr. W. E. Meads, Bexhill-on-Sea; Member; Mr. T. B. Murray, Glasgow; Mr. U. W. N. Miles, Bewdley; Mr. F. Mayhew, London; Man of Kent; D. D. F. Macintyre, M.B., New York; J. T. J. Morrison, M.B., Birmingham. **P** Dr. F. G. Proudfoot, Oxford; Dr. E. F. Potter, London; Pupil; Mr. J. J. Pickles, Leeds. **R** Rusticus; Mr. P. Rendell, Ewell; Dr. W. Robertson, Leith; Mr. J. Robertson, Edinburgh; Dr. F. M. Rowland, Lichfield; Mr. R. Rauschke, Leeds. **S** Sputum Flask; Rev. J. Stratton, Wokingham; Dr. G. A. Sutherland, London; Dr. W. C. Stevenson, Dublin; Dr. J. O. Symes, Clifton; Dr. R. Stockman, Glasgow; Dr. S. Sunderland, London; Dr. G. C. Steele-Perkins, London; Sir T. Stoker, Dublin; Dr. G. H. Simmons, Chicago; Sufferer; P. Smith, M.B., Birmingham. **T** Dr. P. Thomson, London; Dr. L. Turner, Edinburgh; P. Smith, M.B., Birmingham. **T** Dr. P. Thomson, London; Dr. L. Turner, Edinburgh; Traveller; Dr. H. Tilley, London; Mr. J. Taylor, Glasgow; Mr. B. B. Thomson, London; Miss H. Todd, Bournemouth; Dr. F. J. Tresilian, Enfield; Dr. E. F. Trevelyan, Leeds. **U** Dr. A. Urquhart, Shepperton-on-Thames. **V** F. J. de C. Veale, M.B., Mumbles. **W** Dr. S. West, London; W. C. B.; Dr. F. J. Waldo, London; Mr. C. H. Whiteford, Plymouth; Dr. F. J. Wethered, London; Dr. F. Willcocks, London; Mr. W. R. Williams, Clifton; A. Westlake, M.B., Great Grimsby; Mr. T. M. Watt, Goxhill. **X** X. Y. Z.; X-Rays.

BOOKS, ETC., RECEIVED.

Functional Diagnosis of Kidney Disease. By Dr. Leopold Casper and Dr. Paul Friedrich Richter. Translated by Dr. Robert G. Bryan and Dr. Henry T. Sanford. London: Rebman Limited. 1903. 7s.

Mammalian Anatomy, with special reference to the Cat. By Albin Davison, Ph.D. London: Rebman Limited. 1903. 7s.

Evidence for a Future Life. By Gabriel Delanne. Translated and edited by H. A. Dallas. London: Philip Welby. 7s. 6d.

Frondes Caducae. By Montagu Lomax. London: H. J. Glaisher. 1903. 3s. 6d.

The Treatment of Fractures. By Charles Locke Scudder, M.D. Fourth edition. London: W. B. Saunders and Co. 1903. 21s.

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N.B.—It is against the rules of the Post Office to receive letters at *Postes Restantes* addressed either in initials or numbers.

An Address
ON
PUERPERAL SEPSIS.

Delivered before the Oldham Medical Society.

BY PETER HORROCKS, M.D., F.R.C.P.,
ior Obstetric Physician and Lecturer on Midwifery and Diseases of Women, Guy's Hospital.

excuse is necessary for selecting the subject of puerperal sis, because it is one of ever-present interest to the practi- ners of medicine. In spite of all the advances made in knowledge of disease, and in our knowledge of how to vent it and how to treat it, every accoucheur is still glad en the third day of the puerperium is over without any of temperature.

ooking back in order to see how we compare to-day with past, no one can read the records without being convinced t there has been a vast improvement, and that this im- vement has followed upon the application of modern anti- tic and aseptic principles.

ut as I hope to prove to you, we have by no means ived at a perfect method, and much has to be done, and ch can be done, by further minute and conscientious estigation.

hundred years ago parturition was so often followed by er of some kind that Nisbet defined pregnancy "as a tain inflammatory disposition of the body, or nearly proaching to it." In those days it was quite the exception a woman to have a child without some amount of pyrexia ring the puerperium. It was looked upon as unavoidable, l due to the great increase in the inflammatory tendency, o which the blood was supposed to get during pregnancy.

n 1676 Willis grouped the different kinds of pyrexia under term "puerperal fever" a term which is still largely used, hough it has been abandoned officially in the *Nomenclature Diseases* by the Royal College of Physicians. They adopted term "puerperal septicaemia" and no doubt every case of erperal fever is due to sepsis of some kind in the blood. t the term puerperal septicaemia embraces several different nds of fever just as the term puerperal fever did, and yet smuch as the Royal College of Physicians made a distinc- n between puerperal septicaemia and puerperal sapraemia, thought it best to call my paper puerperal sepsis so as to brace both kinds. I notice in the latest published work obstetrics (Webster, 1903) he calls it puerperal infection.

Now, as you know, a woman may become feverish after she s had a child from any cause that will produce fever in a n-puerperal or a non-pregnant woman. Thus she may get y of the ordinary continued fevers such as small-pox, scar- ina, typhoid and the like. She may get influenza, pneu- nia, pleurisy, acute tuberculosis and the other well known eases which cause pyrexia, none of which are included der the term puerperal sepsis. Hence in any given case of ver in childbed it is necessary in the first place to eliminate possible causes other than those peculiar to that state; in t to distinguish between fever of the puerperium and fever the puerperium.

If I am asked what is included under the term puerperal sis I should reply that strictly speaking it included the lowing:

1. Puerperal fever, or puerperal septicaemia of the worst and generally tal type.
2. Puerperal sapraemia which is usually accompanied by an offensive charge and which is generally recovered from.
3. Puerperal pelvic cellulitis, also generally recovered from.
4. Puerperal pelvic peritonitis, non-fatal usually.
5. Puerperal pyaemia, often a late stage of any of the preceding. ality depending on virulence of sepsis.
6. Phlegmasia dolens. This is now believed by most to be due to sepsis.
7. Milk fever. Inflammatory; often transient; probably septic; non-tal.

It would take me beyond the limits of this paper if I were go into the diagnosis between the different forms of pyrexia the puerperium, that is, which are peculiar to it, and the ms of pyrexia in the puerperium, that is, which might occur a non-puerperal or even non-pregnant woman. Nevertheless it is most important to distinguish carefully between the o classes, and it is only human nature to be biassed in favour calling a puerperal septic case by some such name as in- enza, which implies no blame, which involves no necessity notification, and hence no trouble in the necessary disin- tion. I shall tell you later that it is my own practice, and one which I teach and recommend, to notify any doubtful case as one of puerperal sepsis simply for the protection of others.

If it be not a case no harm is done by notification, whereas great risk of doing harm, and spreading the disease to others, is run by not notifying a doubtful case which proves subsequently to be septic.

About milk fever, phlegmasia dolens, pelvic peritonitis, and cellulitis I shall have very little to say. They are not any of them fatal as a rule, and much of their interest lies in the fact that they may be mistaken for the remaining two, namely, puerperal sapraemia and puerperal septicaemia. The latter is very often, and the former very seldom, fatal. They may occur together, and this mixed form is still more frequently fatal, and is very disappointing to all concerned, inasmuch as it is generally looked upon as a simple sapraemic case, which will get better, but the prognosis unfortunately proves in too many cases quite erroneous.

With your permission, therefore, I shall devote my remarks to these two forms of puerperal sepsis, which include practically what is commonly understood by the term "puerperal fever."

PATHOLOGY.

The study of the history of puerperal sepsis leads you to recognize that in the past it has been attributed to many different causes, and though our predecessors knew nothing about bacteriology they knew a great many clinical facts, and God knows they had plenty of clinical material.

One of the most striking things was the contagiousness of the disease from one woman to another. If a doctor had one case he was very liable to have another or several more. If the woman got the disease in a lying-in institution others in the same institution were almost sure to get it, and sometimes the mortality was so high that the place was decimated and they were obliged to close it.

They thought this dreadful result was caused by vitiation of the atmosphere, hospitalism, and the like, whereas we know now that it was due to actual contagion, the virulent material being conveyed from one woman to another by the hands of the nurse or doctor. In other words, it is not infectious but only contagious.

Numerous examples could be given if it were necessary to prove this never-to-be-forgotten contagiousness of puerperal sepsis. The following case will not only illustrate the contagiousness of puerperal sepsis but will also emphasize the necessity of notification:

I saw a lady in consultation with her doctor, many years ago, and she was suffering from puerperal fever of some sort. At first she was not so very ill, but the signs and symptoms all pointed to the fatal septicaemic type. I advised notification, but the doctor was greatly opposed to it, on the ground that he thought the diagnosis was still doubtful; that perhaps it might be some other form of pyrexia that did not require notification; that, maybe, the patient would get better; that it was such an upset in the house to have everything disinfected, etc.; and that, finally, he was sure the blame would be attached to him of having caused it. Hence he suggested calling it metritis. I did not agree, although no doubt the poor lady had plenty of metritis. I persuaded the doctor to notify the disease as puerperal septicaemia. The lady died about the tenth day of the puerperium. Some three weeks later I met the doctor again in consultation, but not in a puerperal case, and he said, "I feel under a very deep obligation to you for the advice you gave me in that case of puerperal fever," and then he proceeded to tell me the following story.

The nurse who was in attendance was told by the doctor, after I had persuaded him to notify it, that it was a case of puerperal fever, and that he had notified it, and that she herself must when she left the case get thoroughly disinfected before she went to another. As a fact she did nothing of the kind, but went straight to another case with another doctor. This lady developed puerperal fever and died, and the doctor asked the nurse if her last case had done well, and she replied in the affirmative. Inquiring where the last case was she give him the name and address of the last but one of her cases, which as a fact had done well. He went to this address, and found that the nurse had attended this lady, but he was informed that she had gone from there to attend another patient with Dr. N., giving the name of the doctor who was telling me the story. He came straight on to this doctor and found out the whole truth; the nurse was confronted with this, and was obliged to admit it. I do not know if she was ever punished, but the first doctor said to me

that supposing he had not notified his case of course the nurse would have said she had gone to the other case not knowing that there was any danger, considering that the doctor in attendance had not considered it to be necessary to notify it.

Another well-recognized cause of sepsis of the severe type is erysipelas, and as this disease is now known to be due to a certain microbe, namely, the streptococcus, which is believed to be the cause also of puerperal fever, pathology explains what clinical experience has proved for a long time, namely, that erysipelas is an undoubted cause of puerperal sepsis.

Certain purulent discharges will cause it if the genital organs become contaminated. I do not suppose all purulent discharges are pathogenic, though I do not know of any that would be perfectly safe if they got into the parturient passages of a woman during or just after labour. But I will relate to you the story of one of our externs at Guy's, who, wishing to finish certain appointments in a short time, obtained the post of "dresser in the surgery" at the same time that he was holding the appointment of "extern" in the lying-in department. This latter appointment was for a month, but he was suspended from further attendance upon women in labour, because one of his cases developed puerperal fever. Unfortunately he had already attended a few more cases before the first one became ill, and so before he was suspended. The first case and two others died from puerperal septicaemia. He had been dressing some suppurating wounds in the surgery.

Details of this occurrence will be found in the sixth report of the Guy's Hospital Lying-in Charity which I wrote, and which is published in the *Guy's Hospital Reports* (vol. xlv, 1888). My colleague, Dr. Frederick Taylor, was then Dean of the School, and it was at once decided that in future no extern should hold any other appointment during his term of office.

Of course, as I hope to show in my remarks on prophylactic treatment, it is quite possible for a doctor so long as he takes the proper measures to attend surgical cases and to dress suppurating wounds, and to go on successfully with his midwifery practice, but just now I am merely affording evidence that purulent discharges are a cause of puerperal sepsis.

In connexion with this point is the very important relation which vaginitis—gonorrhoeal or other—in a parturient woman bears to puerperal sepsis. As a fact vulvitis, vaginitis, and urethritis are dangerous conditions for a woman in labour. Every one has seen cases do well in spite of their presence, but in the light that bacteriology has thrown upon all kinds of inflammation and upon the actual cause of puerperal sepsis, the presence of this condition ought to be regarded as dangerous.

The handling of dead bodies is another undoubted cause, whether by the conveyance of ptomaines or of microbes I will not stop to inquire, but the classical story of Semelweiss and the medical students in Vienna must come into all your minds. It has been my experience to see many cases of puerperal sepsis in butcher's wives when confined in some room not far from the shop where the dead meat is. With regard to bad smells, bad drains, and bad sanitary conditions generally, I do not think the evidence is quite so good. I am not prepared to say they might not cause puerperal sepsis, but I confess that in most cases of puerperal fever which it is alleged have been caused by a bad drain I find, as a rule, insufficient evidence of a bad drain, and hence I go on investigating to try and find some other and better recognized cause.

The *coup de grâce* has been given to scarlatina as a cause of puerperal sepsis. A parturient woman may become affected with scarlet-fever poison, but it has been shown conclusively that when the poison that produces puerperal sepsis is eliminated the scarlet fever breeds true, and so produces its ordinary well-known effects, which are quite distinct from those of puerperal fever.[1]

Stinking discharges as from a diseased bone will also cause puerperal sepsis.

Now all these causes produce the grave, generally fatal, form of puerperal sepsis to which the Royal College of Physicians gave the name of puerperal septicaemia. The condition called puerperal sapraemia is due to the absorption of the products of decomposition.

If a piece of placenta is left behind in the uterine cavity, it generally decomposes and a stinking discharge is the result. The patient is ill, but if the offending piece be removed and the uterus be washed out with some antiseptic lotion, improvement and recovery rapidly follow. The same thing happens if the decomposing stuff is made up of clots, or of bruised tissues and the same good result is generally observe when proper steps are taken to remove them and to cleans the parts with antiseptic douches. Hence a stinking di charge is an indication of a tractable form of puerperal sepsi Sometimes, however, these patients will die in spite of con plete clearance of all offending particles and then it become a question whether the case is not a mixed form of infectio there being pyrexia due not only to the absorption of pr ducts of decomposition (sapraemia) but also pyrexia due t infection by other and more virulent poisons (septicaemia).

According to some, you may have sapraemia in cases eve where there is no stinking discharge. In other words tha you may have products of decomposition that have no odou offensive to the nostrils. I cannot vouch for this myse though I can quite believe it. At the same time where th lochia are not offensive but scanty, the prognosis is muc worse than where they are abundant and offensive.

At all events, I think we may say that puerperal sapraemi is quite a different and distinguishable disease from puerper septicaemia. Puerperal sapraemia produces pyrexia con mensurate with the amount of poison absorbed. The bacteri of decomposition are said not to multiply in living tissue Puerperal septicaemia is said not to be a specific zymoti disease. I am not sure that it ought not to be included unde the same heading as other specific zymotic disease. It is tru it has no specific rash, but I think it has a fairly definite incu bation of two or three days, and continuous pyrexia averagin seven days.

The microbes that have been found and which are said to b the actual cause of the septicaemia are the streptococcu pyogenes, the staphylococci pyogenes, aureus, albus, an citreus, the bacillus coli communis, which may act by pene trating the bowel wall, particularly during distension, and s infect the peritoneum. The gonococcus and pneumococcu are said to be virulent under certain conditions.

Streptococci have been found in the tissues in so many case of death from puerperal septicaemia that they are looked upo as by far the most dangerous form of microbe in a puerper woman, May be many of these differently named microbe are mere varieties of the same germ, and hence it is of n great moment trying to fix upon one particular coccus as bein the only cause of puerperal septicaemia.

What I wish to draw your attention to most particularly i the fact that the streptococcus is looked upon as the mos usual originator of puerperal sepsis, and that it is one of th most abundantly distributed microbes known. It exists o the hands and indeed on skin everywhere, and can be cult vated from almost any article of clothing, bedding, etc., s that it is extremely difficult to get rid of.

Contrast this with the fact that Krönig in 1894 by ver careful investigation found that the vagina was aseptic in a cases of pregnant women not contaminated by digital o instrumental examinations nor by coitus.

Later Krönig introduced germs into the vagina and foun that they were speedily killed in two or three days, and tha antiseptic douches weakened or destroyed this natural ant septic action.

Menge confirmed Krönig. These conclusions of Krön have been disputed, but I think clinical experience shows tha the parturient canal (cervix uteri and vagina) are in the va majority of women either aseptic or at all events witho pathogenic germs, so long as the patient is not examine digitally or with instruments.

TREATMENT.

From what has been already stated you will doubtless hav gleaned that one of the very best methods of treating a woma in labour in order to prevent puerperal fever is to let h alone.

When you fully realize the causes at work in producin this disease you are not in the least degree surprised that near every woman who had a child in olden times had pyrexia some sort. Indeed any surprise that one has is that th mortality was not much higher. How women escaped fro fatal puerperal sepsis can only be explained on some hyp thesis such as that even in those days some accoucheurs we unconsciously aseptic, and that others used not to examin their cases much, if at all. At any rate even they were struc by the fact that women delivered in the gutter, by which w meant, of course, in any out of the way place where no he could be obtained, generally did well. It was not because gutter, or a ditch, or a barn, were better places for a woma in which to be delivered, but simply because she was alo with nothing but her own natural forces to wo

it the labour. There was no examination and conse ently no introduction of microbes of any description. oubtless you have all known of cases where a wretched girl, ith absolutely no experience, has crept into some hiding ace, such as a barn, to conceal her shame, where, in the dark, ithout help, without any previous instruction, she has de- vered herself of a living child and of the placenta, and has one it so safely that she has been able to get up and leave ie child alive and well, and go back to her work in order to y and prevent any one from suspecting that she has had a ild at all. Such cases are not so very uncommon, and the oint I wish to draw your especial attention is that they most invariably do well, they very rarely suffer from yrexia, and this is, I fully believe, because they are never xamined or syringed.

Parturition is a physiological act like respiration, defaeca- ion, and micturition, and it requires no assistance whatso- ver in the vast majority of cases—namely, in considerably ver 90 per cent. So that more than 90 women out of every o would deliver themselves safely if they had no assistance hatsoever.

I see cases not infrequently with medical men who tell me ey cannot understand how it is that the patient has de- eloped puerperal fever, because everything was perfectly traightforward and they used every antiseptic precaution. nd yet the patient is ill, and she is ill with a fever that has een caused by a poison which got into her genital tract at he time of her confinement, and the question arises, where id it come from and how did it get there? The doctor ssures me that he is not attending any other puerperal eptic case nor any case which could be reasonably supposed ould be contagious, and to clinch the matter he may say he as attended one or more other cases since this unfortunate atient was confined and that they are progressing perfectly atisfactorily.

Well in such cases as these it is often difficult to place ne's finger on the exact spot and say here is the fault. But feel strongly that there is a fault, whether one finds it or ot, and that it is avoidable. I am convinced that there are ases of puerperal sepsis; both of the non-fatal sapraemic ind, and of the fatal septicaemic kind, that arise from no ault of the doctor, or of the nurse, or indeed of anybody. A oman might suffer from these conditions who had never een examined, or assisted at all by anybody, but who had elivered herself naturally; and in such a case of course he doctor could not be held responsible.

But why is it that in spite of all our increased knowledge f sepsis, of antiseptics, and of the attainment of asepsis, ow is it that the mortality from puerperal sepsis is still so igh?

My answer to this question is that there is too much in- erference with the natural course of labour, too much louching and examination of the parturient woman, and that ven yet the majority of medical men have not fully realized hat on the one hand, in making a vaginal examination of a oman in labour, or just after labour, or doing any manipu- ative work that may be needful, the process of hand steriliza- ion should be as elaborate as if they were about to an abdo- ninal section, and on the other that unless they take the reatest care after such hand sterilization they will get the xamining finger soiled by germs from their own clothes, the edclothes, or from the patient herself.

During the evolution of asepsis an effort was made to pre- ent puerperal fever by the intrauterine douching of every oman as soon as the third stage of labour was over. A solu- ion of perchloride of mercury was used, and it was done o thoroughly that in some cases the patients showed signs f mercurial poisoning. But the results, so far as the rime object was concerned, were grand. For puerperal ever was practically eliminated, and it was believed—and, ndeed, it is still so believed even now by some—that it is he proper practice to pursue. It seemed to be a splen- lid achievement for these lying-in institutions to go from ne extreme of such a high mortality that they occa- ionally had to be closed altogether to the other ex- reme, when they practically never lost a single case from uerperal sepsis. It was a very natural conclusion to arrive t—namely, that the result was due to this routine uterine yringing immediately after labour. But during the time his experience was being acquired scientific investigations were slowly but surely proving that puerperal septicaemia was caused by microbes introduced into the parturient canal by the hands of those in attendance. The accoucheurs and nurses were therefore beginning to pay especial attention to the surgical cleanliness of themselves and to make vaginal examinations in the cleanest possible way then known to them. The good results obtained in these lying-in hospitals might therefore be attributed, in part at least, to this increased cleanliness and not solely to the intrauterine douching with germicides. At that time asepsis could not be attained as perfectly as it can be to-day, and no doubt some germs were introduced by the examining finger, and so the perchloride of mercury solution would do good in killing these germs. But obviously, if this be the case, it would be unnecessary to give this intrauterine douche if no germs were introduced, at all events in healthy women. The advocates of intrauterine douching went further, for they syringed the vagina with a lotion before labour, and this I believe is still carried out by some.

Now, when you come to consider, does it not strike you as very odd that this physiological act of parturition should require the washing out of the womb by an antiseptic lotion as soon as the work is done? It certainly would be unique in the whole history of physiology in either the vegetable or animal world so far as I am acquainted with it. As I hope to prove to you, however, this syringing is quite un- necessary, and not only so but is itself fraught with some risk.[2]

In my own lying-in ward at Guy's Hospital I allow no syringing of the vagina nor of the uterus either before or after labour in ordinary natural cases, which, of course, include the great majority. Unfortunately the reports of all the cases have not been kept, but the obstetric tutor at Guy's Hospital, Mr. Hicks, has kindly taken out of the records for the purpose of this paper notes of all the cases that he could find detailed that were not douched. A small percentage had a slight but transient rise of temperature, only two of them being douched during the pyrexia, but the great majority had a normal puerperium, and the mortality has been *nil*.

I do not think the advocates of routine douching can give better results than these.

Would it, then, not be as well to give up all routine exa- minations of patients in labour? For the purpose of avoid- ing puerperal sepsis, I should answer decidedly in the affirm- ative. An ideal labour is one which is managed entirely by natural efforts. Any puerperal sepsis occurring in such a case could obviously not be due to the introduction of germs from without by the accoucheur or the nurse. It might be due to the introduction of germs from without by the patient herself, for it occasionally happens that a woman during or after labour will for some reason or other introduce her own finger into the vagina, and so carry in, not merely the germs on her finger, but those that lie in and upon the vulva itself.

The custom of examining the patient to find out if every- thing is going on all right is so universal that it is now done not only by the doctor but sometimes also by the nurse. The advantage of doing it is, of course, that any abnormal condi- tion is at once discovered, and sometimes the failure to find it early in labour would be dangerous to both mother and child. If, however, you will seriously ask yourselves how often such a condition arises without some indication which would lead you to suspect that something was wrong showing the necessity of examination, you must admit that it would be very rare indeed. There is scarcely a single condition requiring help that is not accompanied by some sign or symptom indicating that labour is not normal. Consider- ably more than 90 per cent. of cases are quite normal. Of the remainder the majority give good evidence of the presence of something that wants seeing to, leaving a very small propor- tion, where at first there is no sign and no symptom, and yet which could be found out by digital examination.

When you consider the highly absorbent surface of the raw placental site after the third stage of labour, the numerous lacerations in the cervix uteri, vagina, and perineum that are inevitably caused by the delivery of an averaged-sized child, particularly amongst primiparae, in whom puerperal sepsis, probably for this very reason, is commonest, you ought to consider it just as dangerous to put your finger or an instrument into the vagina or uterus as into the peritoneal cavity.

Hence, if you think it wiser to make a vaginal examination when you are called to a woman in labour to find out that everything is progressing satisfactorily, let your examination be undertaken with the same careful precautions as if you were about to put your finger into the peritoneal cavity during an abdominal section. And when you have satisfied yourself that everything is normal, leave it then to Nature and make no further examinations. To make a vaginal examination.

during labour (or just after) requires elaborate preparations. The hands should be thoroughly scubbed with soap and an aseptic nailbrush—for example, a nailbrush boiled and kept in a solution of lysol—in hot water, paying particular attention to the finger nails; they should then be scrubbed with an aseptic nailbrush in a 2 per cent. lysol solution or some similar antiseptic; and, finally, should be placed and kept immersed for not less than two minutes in a solution of perchloride of mercury (1 in 1,000) or of formalin (also 1 in 1,000), or in some equally potent germicidal liquid. Of course there are other ways of attaining a fairly perfect asepsis, but after doing the above I have had my fingers tested on several occasions by our bacteriologist at Guy's Hospital, and he has never been able to discover any streptococci, though he has always by scraping the nail been able to cultivate non-pathogenic staphylococci.

Stich[3] says the very best way is not only to disinfect the hand as thoroughly as possible but also to wear an india-rubber glove which can be boiled and made absolutely aseptic. The objection to it is, of course, that it impairs the sense of touch, though I believe now they are made of such thin material that this impairment is very slight. On the other hand when the material is very thin there would be the risk of germs passing through the substance of the glove. Certainly such gloves by being boiled ten minutes can be rendered aseptic, and they might be used for the ordinary routine examination of a woman in labour to find out if all is normal, and if later any operation be required that demand perfect tactile sensibility, then trust may be put in hand sterilization alone without gloves.

The question of trying as far as possible to disinfect the vulva before examination is one of great importance. It is because this is not done at all or done imperfectly that cases arise sometimes where the doctor cannot see how his patient has fallen ill after the care he has taken in all his examinations. Probably he has been as aseptic as was necessary or possible and yet his finger had become contaminated with germs from the vulva just in the act of introducing it into the vagina. In the same way a nurse may be otherwise quite clean surgically and yet in using a syringe she may contaminate the vagina from the vulva. At all events it is a difficult thing to sterilize the vulva, indeed it is practically impossible. But if the nurse is reliable she may be allowed to wash the vulva with soap and water and with some antiseptic lotion.

In making an ordinary examination to find out if labour is going on normally the patient should be on her left side, with the breech at the edge of the bed; then after hand sterilization, with the left one, the right labium majus can be raised, and the wall of the vagina can be seen and its condition noted, particularly the presence of any vaginitis. The right hand can now be taken out of the basin of perchloride of mercury or other antiseptic, and, without allowing it to touch anything *en route*, the right forefinger can be passed into the vagina (held open by the left hand), without even touching any part of the vulva.

If everything is found to be normal, no further examination will be required in nearly all cases. Should anything arise during the course of labour necessitating further examinations then exactly the same precautions should be repeated.

Some advocate shaving the vulva, but I think this would be resented by most patients in an ordinary confinement, and by adopting the above method it is unnecessary; but if things are found to be abnormal and an operation becomes necessary, then I recommend shaving the vulva entirely, or, at all events, the posterior half or as much as comes into the field of operation.

If a nurse or midwife is allowed to examine a case she ought to adopt just the same stringent measures. If I were attending a case I should tell the nurse she must not examine at all. I know some doctors get the nurse to examine and not to send for them until the labour has reached a certain stage, so as to save their time. Such practice is fraught with risk to the patient.

Again, after the child is born, some men always make a vaginal examination to see if there is another child or any lacerations. It is far better not to do so. You can tell by her appearance and by the pulse whether she is losing too much blood. You can even see the red stream flowing over the left thigh, and you know if it is only the usual quantity. You can place your hand on the abdomen and feel by the size of the uterus whether there is another child or not. You need not rub up the uterus to try and get it to contract, even if it be relaxed, so long as there is no undue haemorrhage. I have shown elsewhere[4] that this is not only unnecessary but that it interferes with complete retraction. If you adopt the method of expressing the placenta, let it be done entirely from without: and if you twist the membranes into a rope do not pass the finger into the vagina to break this rope off at the os uteri or within the uterus. They will come away clean without much help with a little patience, and, even if some break off, they usually give rise to no trouble, but come away in the lochia. When uncontaminated by pathogenic germs, such bits of membrane are practically innocuous.

The perineum should be carefully examined to see if it be much lacerated, and this can be done by raising the right buttock and the right labium majus with the left hand, and, if need be, drawing the left labium towards the left side with the right hand. Should it be found necessary or advisable to put in sutures, this should be done with just as great aseptic and antiseptic precautions as sewing up the incision after an abdominal operation.

Personally I have not used or recommended a binder for many years. A clean aseptic warm diaper, prepared with some antiseptic or simply sterilized, may be applied to the vulva. No syringing of any kind should be allowed, neither into the uterus nor into the vagina, neither directly after labour, nor soon after, nor during the puerperium at all so long as everything is going on satisfactorily. I find it difficult in practice to prevent nurses syringing; they have been so thoroughly imbued during their training with the necessity for syringing in a routine way that they have come to the conclusion that a woman must have puerperal fever unless she is syringed. I am glad to say, however, that this difficulty is less than it was owing to the spread of further knowledge on the subject.

You will, of course, examine the placenta and membranes to see that all is there, and if you are satisfied there is no need at all to explore the uterine cavity to feel if there be anything left. Placentae succenturatae are rare, and when they occur you can successfully deal with them later on, and there is nothing else likely to be left if you find the placenta and membranes all right.

So far, I have been discussing the management of normal labour with a view to the prevention of puerperal sepsis. In abnormal labour, where it becomes necessary not merely to make examinations but also to perform operations, manually or instrumentally, or both, everything should be done with as strict aseptic and antiseptic precautions as if it were an intraperitoneal operation. The vulva itself must be as thoroughly disinfected as possible, but for practical purposes the vagina and uterus may be looked upon as already aseptic unless, of course, there be any disease present such as vaginitis. After such operations, if they are carried out aseptically, it is not necessary to douche, though considering that there is no known method of attaining perfect asepsis of one's hands nor of the vulva, it may be justifiable then to use an antiseptic intrauterine vaginal douche immediately after the labour is over with the object of killing any possibly introduced germs.

Again, where it is known that a woman is suffering from a vulvitis, or urethritis, or vaginitis, gonorrhoeal or simple, active measures should be taken to cure this before labour begins; and if labour is already in process when the doctor is called in, and he finds out the inflammatory condition, he should do his best by copious syringing before the child is born to wash away as much as possible. Some say syringing the vagina is very little use, but that it should be wiped all over with swabs, aseptic, and wrung out in some antiseptic lotion. Perfect asepsis of the vaginal walls in such cases cannot be expected, but, at all events, a very large number of the microbes will be removed or rendered *hors de combat*. Syringing in such cases after the labour is over is dangerous owing to the probability of washing the germs into the uterine cavity. Probably swabbing out the vagina through a Sim's speculum would be more efficient and less dangerous, and the vagina even may be packed with iodoform gauze wrung out in formalin 1 in 750, only, owing to the lochial discharge, the gauze must be removed and fresh gauze inserted twice a day during the first day or two, and then once a day until no further required.

When a case of puerperal sepsis arises, the question of how to treat it is, of course, of the highest importance. The first question arises is, Is it a case of sapraemia or of septicaemia? If with pyrexia there be plenty of milk, plenty of lochia, and if the latter be offensive, it is probably sapraemic.

In such a case it is much the best practice to give an anaes-

netic, and to feel all over the interior of the uterus with the disinfected finger, and to remove any piece of placenta, membrane, clot, or other decomposing matter, and to follow this up by a copious intrauterine douche of some antiseptic, such as perchloride of mercury solution 1 in 1,000, formalin solution 1 in 1,000, or tr. iodi. ℥ij ad Oj, in any case using at least a quart, and finally washing out this strong lotion with some milder antiseptic, such as boracic acid lotion or salt and water (℥ij ad Oj). This washing out of the uterus should be repeated if the discharge is still foul the next day, or if the temperature remains high.

Some practitioners are content, in a sapraemic case, just to wash out the uterus, without this digital exploration, under an anaesthetic, and no doubt many cases rapidly improve and get quite all right with such simple treatment. But I have seen cases which after all required the uterine exploration, and in which a removable mass of decomposing material was found in the uterus, and in some instances unfortunately it was only discovered *post mortem*.

If the milk is getting scanty or suppressed, if the lochia, too, are diminishing or suppressed, and not offensive, but quite sweet, and the temperature is high, it is probably a grave case of puerperal septicaemia.

In such a case, again, if seen early enough, and of course the doctor knows of the rigor and fever probably soon after they begin, the patient should be put under an anaesthetic and the interior of the uterus should be explored digitally to find out if there be any decomposing mass. Probably nothing will be found. The uterine cavity can be thoroughly syringed with the same lotion as before-mentioned, though unfortunately, as a rule, without the same good result following. In such cases where there is no good effect on the temperature it is often found to be very exhausting to the patient to continue to syringe her, and so it should not be done. Some use glycerine solution, with or without antiseptics like formalin.

I am not at all sure that curetting the uterus is not a good plan, especially if done early, say about the fourth or fifth day of the puerperium. I have done this in several cases with good results, and recommended it as far back as 1890.[5] Of course one gives the patient various antipyretics, such as quinine, antifebrin, antipyrin, and the like, but not one of them is a specific. Some authorities recommend packing the uterine cavity with gauze wrung out in some such strongly germicidal solution as formalin 1 in 500. Webster[6] recommends crenasol as the best antiseptic to use. It consists of pure creolin *minus* soda, and is of oily consistence, and is said to kill pathogenic organisms in two minutes.

Of antistreptococcus serum, I have had a large experience, and in some cases it seems to act wonderfully well, but it so often fails that I fear at present one must admit that it is unsatisfactory. Possibly before long a really reliable serum will be obtained which will enable us to snatch these unfortunate patients from the grave danger into which they have got.

In using the serum we give 20 c.cm. at a time injected subcutaneously on the anterior surface of the body, generally the abdomen, with, of course, every aseptic precaution. This should be repeated so that she gets 60 c.cm. within the first 24 hours and then give 20 c.cm. twice a day afterwards. Any wounds in the parturient canal, ruptured perineum, lacerations of the vaginal wall or of the cervix uteri should be made out and carefully washed with antiseptic lotions. Iodoform powder may be dusted on them.

With regard to the removal of the uterus by hysterectomy, vaginal or abdominal, for these cases I have no experience; such a procedure would only be successful, I imagine, when done quite early, and it is precisely in these cases that we cannot tell whether they will be fatal or not. Hence I do not think it is likely to become a recognized practice. The same remarks apply to opening the peritoneum and washing it out and draining it, I have only done it once, but the patient died.

There are two other questions which commonly arise and which have been frequently asked me.

The first one is Should a doctor who gets a case of puerperal septicaemia continue his midwifery practice?

The answer is decidedly in the negative. So long as he is in active attendance on a septic case so long is he dangerous to a woman in labour. Sometimes I am told, Oh, but I am engaged to attend Mrs. B. and she would be greatly annoyed if at the last moment I failed to attend. My advice is to write to her husband and tell him you have a case of blood poisoning on hand, and that it would be highly dangerous for you to attend his wife, and that he had better have your assistant, or *locum tenens*, or your partner if you have one, or some other doctor. If you do this I am sure you will get no discredit but just the opposite; you will be known as a careful and conscientious doctor.

Think of your own feelings if the case of puerperal septicaemia you were attending died, and the other case developed it and died too. How could you say that you had not conveyed the disease?

There is, however, another alternative and that is to give up attendance on the septic case and place it in other hands and get aseptic in order to go on with midwifery practice.

And this leads me to the second question, namely, How soon after ceasing to attend upon a puerperal septic case is it possible to resume practice? The reply is, in about fifteen to twenty minutes. In other words just as long as it takes to get your hands aseptic. The clothes can be covered over by means of a sterilized overall and the hands can be made aseptic by the method already mentioned.

I have myself digitally explored the uterus of a woman moribund from the most virulent type of puerperal septicaemia and within an hour or two done a Caesarean section, mother and child doing perfectly well.

Of course as a rule a medical man would take longer than this, but please let me say that however long he takes, he must go through the same process with regard to his hands in rendering them aseptic. He must not think that a week or two away from practice will render him aseptic unless he uses the other measures also.

His clothing can be rendered aseptic by sterilization with superheated steam, but in all cases when examining or delivering a woman in labour, he should have his coat off and his shirt sleeves rolled up, and if possible should wear a sterilized overall, certainly in operations; and at other times, when he cannot obtain one, he can cover his clothes with a clean towel, and avoid touching even that.

And now I have done. May be I have spoken somewhat strongly, but, if so, it is because I feel strongly on what I believe to be a prolific cause of puerperal sepsis.

My message to you is to avoid examination as much as ever you can. Whenever you have occasion to examine during or just after labour do it as if it were a peritoneal operation. I know this takes time—not less than fifteen or twenty minutes—to prepare the hands and the patient, and many a time a doctor is too busy. In such a case it is better not to examine at all. Patience is a greater virtue than usual in midwifery practice. Moreover, if you spare this fifteen or twenty minutes to make one satisfactory examination you can if you find everything normal go away quite happy about the result, and you probably will not have to examine again.

Do not allow the nurse to examine. If she has already done so syringe the vagina with a germicidal lotion. Do not allow any syringing before or after labour in ordinary cases. If sepsis occurs attack it with all the weapons at your disposal.

May be you will not agree with all I have said, but I feel sure you will, at all events, allow that I am animated by the same desire as yourself to find out the truth, and to discover if possible a surer way of avoiding puerperal sepsis, and a more certain cure in case it should arise.

REFERENCES.

1 Boxall, *Obstet. Trans.*, vol. xxx. 2 Horrocks, On Routine Syringing after Labour, *Practitioner*, 1897. 3 *Zeits. f. Geb. u. Gyn.*, Band. xlv. 4 No. 1 of the *Journal of Obstetrics and Gynaecology of the British Empire*. 5 Hunterian Society's *Transactions* for 1890-91. 6 Op. cit.

A MEMORIAL has been placed in Glasgow Cathedral to a medical worthy, Dr. Thomas Menzies, who died from an accident some seventy-two years age. A Highlander from Perthshire, Dr. Menzies studied medicine in Glasgow, and in due course was appointed Lecturer on Surgery at the University of that city. At the same time he carried on a very large practice, having "doctor's shops" as they were then called, in various parts of the city and suburbs, wrote for the *Glasgow Chronicle*, practised hydropathy, began a book on botany, and assisted Chalmers of Free Church fame. His was a strenuous life, and worth recording, for it was full of hard work and constant endeavour; one, too, which ended in somewhat typical fashion, for, though stricken with typhus, he insisted on trying to answer the summons of a poor patient suffering like himself, and in his effort fell down stairs, with results that proved fatal.

A Clinical Lecture
ON
FIFTY CONSECUTIVE INTRA-ABDOMINAL OPERATIONS ON THE OVARIES, FALLOPIAN TUBES, AND BROAD LIGAMENTS.

Delivered at the Bristol Royal Infirmary.

BY JAMES SWAIN, M.S., M.D.LOND., F.R.C.S.,
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I PROPOSE to speak to you to-day about some operations which you have frequently seen me perform on the uterine adnexa, and for this purpose I have looked up the notes of the last fifty intra-abdominal operations in this region, because by so doing you will be better able to appreciate the general results of such procedures and obtain some idea of the nature of the diseases met with and the methods of dealing with them.

In the period covered by these cases I find I have performed about 500 abdominal sections, so that the importance of the present topic is shown by the fact that the cases under discussion form about one-tenth of the abdominal operations which have come under my care.

The material from which these cases is derived comprises 22 ovarian adeno-cystomata, 2 parovarian cysts, 2 extra-uterine pregnancies, 2 dermoid tumours, 4 malignant growths of the ovary, 7 broad ligament tumours, 10 tubo-ovarian inflammations or abscesses, and 1 fibroma of the ovary. Only 2 deaths occurred in the whole series.

Ovarian Adeno-cystomata.

Of the ovarian adeno-cystomata 16 were on the left side and 4 on the right, and in 2 cases both ovaries were similarly affected. In 5 cases the opposite ovary was sufficiently diseased to demand its removal by salpingo-oöphorectomy. In 1 case there was a parovarian tumour shelled out from the opposite side, and in another case a dermoid tumour was removed from the affected side. In 1 case the patient returned a year later for the removal of an adeno-cystoma of the apparently healthy ovary left at the first operation.

Of the parovarian tumours one was on the right side, and in the other the cyst was universally adherent, and its position could not be determined. This case occurred in an old lady of 75 years, and it was considered better to treat it by drainage—this being the only example of an "incomplete ovariotomy" in the series.

Both dermoid tumours occurred on the left side. Of the malignant growths 3 occurred on the left side and 1 on the right; 3 were adeno-carcinomata, and 1 was a papilloma which infiltrated the deeper tissues. This last was associated with a myo-fibroma uteri which was treated by myomectomy and with a cystic condition of the opposite ovary necessitating salpingo-oöphorectomy. Two of the cases subsequently recurred.

All the above cases may be classed together, as the treatment—by ovariotomy—is the same in all. There was only one death, which occurred in a simple case of ovarian adeno-cystoma from the continuation of a peritonitis which commenced before operation.

The case in which a dermoid tumour was found in association with an ovarian adeno-cystoma of the same side is worth recording, for such a condition must be of great rarity, and it occurred in a girl 15 years of age (who was sister to a patient of 20 years of age from whom I had previously removed an ovarian adeno-cystoma), which is the earliest age at which I have been called upon to operate for these conditions.

CASE I.

The patient had menstruated regularly for two years. Gradual enlargement of the abdomen had been noticed for twelve months. In the left iliac fossa, close to the anterior iliac spines, a rounded elastic swelling the size of an orange could be felt, and apparently connected with this was another fluctuating swelling, which reached to just above the level of the umbilicus and to the outer edge of the right rectus muscle. On opening the abdomen in the median line, a large multilocular cyst presented, which when tapped was found to contain a white glairy fluid (220 oz., neutral reaction, specific gravity 1014). Attached to this was the "lump" which was felt before operation in the left iliac fossa, and this proved to be a dermoid tumour containing a yellowish-brown grumous fluid (28 oz., neutral reaction, specific gravity 1006), a good deal of long light hair (much the same colour as that of the patient's head), and a large plate of bone about 2 in. long and 1 in. broad, bearing some teeth and what appeared to be tooth-sacs attached by pedicles. The parovarium was unaffected. The tumours and the left uterine appendage were removed after tying with an interlocking stitch. Two small cysts in the right ovary were snipped and a portion of their walls cut away, the ovary being conserved.

One of the most common and serious complications of ovarian tumours is produced by rotation of the pedicle. This occurrence is signalized by pain, collapse, and vomiting and such symptoms should make us operate without delay. If the case is left it may end in complete stoppage of the circulation in the pedicle, resulting in sloughing of the cyst wall and death from peritonitis. Even in the less acute cases peritonitis generally follows and the subsequent operation is rendered more difficult by the presence of resulting adhesions. Strangulation from torsion is more likely to occur in tumours possessing a long pedicle: the twisting is probably produced by peristaltic movements of the intestine or by the alternate contraction and relaxation of the abdominal muscles acting on the part of the cyst nearest to the median line. As an example of this condition we may take the following:

CASE II.

The patient had had two attacks of violent pain in the right side of the abdomen, accompanied by vomiting. When first seen she was pale, rather collapsed, and constantly complaining of pain in the right iliac fossa and shooting down the leg. The temperature was 99.2°. A tumour about the size of the closed fist was found below and to the right of the umbilicus, and it was so freely movable that it could be placed in almost any part of the abdomen below a line joining the cartilages of the ninth ribs. It could also be pressed down into the pelvis to the right side of the uterus, which was normal in size. Operation showed the tumour to be a right-sided ovarian adeno-cystoma with a long pedicle which was twisted for one complete turn. Some of the cysts contained clear yellow fluid, but here and there the contents were turbid. The cyst wall contained dark scattered patches from haemorrhage.

In another case with similar symptoms a peculiar friction rub could be felt and heard on the right side of the abdomen during respiration, and this corresponded to a patch as large as the open hand in the cyst wall, of a dull white colour, devoid of vessels, and with a slightly roughened surface—the commencement of sloughing of the cyst wall.

Ovariotomy, as soon as the diagnosis is made, is the only rational treatment of the various tumours of the ovary which we are now discussing. Malignant disease is much more common than is usually supposed, and by early operation we not only give the patients the best chance of freedom from recurrence if the tumour should prove malignant, but we also save them from many risks and much anxiety.

In the performance of ovariotomy a median incision is made between the umbilicus and pubes, rather nearer to the former than the latter, and sufficiently long to admit two fingers. In malignant cases, and those in which the contents of the cyst are not easily evacuated, it is necessary to have a larger incision.

The evacuation and delivery of the cyst are accomplished by pushing a large trocar into a part of the cyst wall which is free from vessels, and as the fluid escapes the wall is caught in successive pairs of forceps and drawn to one side out of the abdominal wound. As soon as it has been delivered a large sponge is placed in the abdomen to protect the intestines and to collect any fluid or blood that may escape. If there are several large loculi the trocar may be pushed into them in turn to help the delivery of the cyst. In malignant cases which bleed freely, the cyst should be dragged out as speedily as possible and a large pair of forceps placed on the broad ligament forming the pedicle in order to control the haemorrhage. In these and other cases where evacuation is difficult it may be necessary to make a large incision in the cyst wall and to empty it rapidly by withdrawing its contents by handfuls as rapidly as possible.

Adhesions should always be dealt with after the evacuation of the cyst. In some cases they are so extensive as to prevent the delivery of the cyst. In dealing with anterior adhesions it is important to recognize the plane between the cyst wall and the parietal peritoneum, or the latter may be inadvertently torn away from the subperitoneal tissue. Where the adhesions are particularly dense a portion of the cyst wall should be left behind rather than that the peritoneum should be lacerated. The same remark applies to the denser form of adhesions to intestines where particular care must be taken lest the bowel be torn. The omentum when adherent may be freely cut away.

After the complete delivery of the cyst it is wrapped up in

rilized towel while the ligation of the pedicle is pro-d with. This procedure is carried out by passing two or threads through spaces which can be seen to be clear of ls as the pedicle is held up. I generally use No. 4 silk ie with what is known as a Bantock's knot, supplement· nis with a further ligature after the cyst has been cut . The particular form of ligature is perhaps un-rtant, but there is often so much shrinkage after the nas been cut away that I never rely upon a single liga- The ligature should be placed sufficiently far from the ur to allow of from $\frac{1}{2}$ in. to $\frac{3}{4}$ in. of tissue being left d the ligature after the cyst has been removed.

e opposite ovary should then be inspected, and if edly diseased it should be removed; but, whenever ble, a portion of the ovary should always be conserved, ou may often have seen me do this by snipping out a on of the walls of the smaller oöphoritic cysts which are quently present.

y fluid which may have escaped into the pelvis is then ged out and the abdomen closed. Before this is done all zes and forceps should be counted so as to avoid the bility of leaving any of them in the abdomen.

Tumours of the Broad Ligament.

the next class, that of tumours of the broad ligament, treatment is essentially different, and has been greatly oved during the past few years. It is, unfortunately, customary with many operators in dealing with tumours ie broad ligament to regard salpingo-oöphorectomy as ssary for the removal of these conditions, with the result normal tubes and ovaries are frequently—and quite lessly—sacrificed.

these conditions it is nearly always possible to conserve varies and Fallopian tubes, and we thus avoid the dis-ing phenomena which so frequently accompany a meno-e artificially induced, and allow of a possible future con-on. It is in the manner of dealing with these growths there is so much need of further knowledge and improve-t, for their encapsulation has not been fully appreciated, we should have a smaller number of "incomplete ovario-es," and of hysterectomies for "fibroma" of the broad nent if the existence of a definite capsule was rightly rstood.

is desirable to consider exactly what is meant by the sule" which exists in these cases, but to prevent con-on reference must first be made to a "false capsule" h is not uncommonly found associated with ovarian ours. This latter consists of adherent mesentery or ntum, or of inflammatory deposit. It is simply treated n adhesion, and requires no further mention. The real ules are provided primarily by the broad ligament, and rasp their anatomical arrangement accurately we must rstand the structure of the uterine appendages.

ove the level of the ovary the two layers of the broad ment form a mesentery for the Fallopian tube (which is ated at the top of this portion of the broad ligament), and nown as the mesosalpinx. It is in this portion that cysts found, whether they originate primarily in the broad ment or burrow into it secondarily from the ovary. It tains the parovarium and cysts arising in this structure n the commonest tumours enclosed in a capsule derived n the mesosalpinx.

elow the level of the ovary the two layers of the broad ment are more widely separated, and here constitute the ometrium. It is in this part of the broad ligament that mata or myofibromata will be found, whether they have eloped *in situ* or represent a part of a myofibroma spread-out from the uterus. It is from the mesometrium that capsule is derived in tumours of the lower part of the d ligament.

ne cellular tissue of the mesometrium is continuous with retroperitoneal connective tissue, so that large tumours burrow extensively behind the peritoneum. which then titutes a part of the containing capsule. Cysts origin-g in the mesosalpinx may invade the mesometrium and burrow widely in the retroperitoneal tissue, as in one of cases cited below.

the process of expansion, tumours of the mesosalpinx be found with the Fallopian tube stretched across the of the capsule, as in the ordinary parovarian cyst, reas in tumours encapsuled in the mesometrium the rs of the mesosalpinx will be found to be unaffected on top of the tumour.

the right understanding of the various anatomical forms of capsule lies the secret of conservative surgery of the uterine appendages. The capsule is opened and the tumour is shelled out of its connective tissue bed, and thus ovary and Fallopian tube can be preserved intact. In the larger cysts a preliminary tapping is necessary.

After the enucleation of the tumour the treatment of the capsule is sufficiently simple; if healthy it may be dropped back into the pelvis with or without sewing up the cut edges of the capsule. There is nothing to fear from the exudation of fluid or blood into the resulting cavity provided all vessels have been properly secured, and there is no need to cut away redundant parts of the capsule, which soon contracts. On the other hand, if the capsule is infiltrated with inflammatory deposits in association with a tumour which has suppurated, it will be wiser in some cases to attach the cut edges of the capsule to the abdominal incision and to drain the cavity. The need for this latter course is, however, extremely infrequent.

Broad ligament tumours are more or less fixed and closely applied to the side of the uterus, and they are sessile because of their being enclosed between the layers of the broad ligament.

These remarks are well illustrated by the following series of cases:

CASE III.

Cyst of Mesosalpinx.—The patient, aged 27 years, had complained of pelvic pain for the past eighteen months, and during the past five weeks it had been so severe as to necessitate the daily use of opium. The abdominal muscles were tense, and the patient indicated the left ovarian region as the site of greatest pain and tenderness. The uterus was normal in size and position. In the left broad ligament was a smooth globular swelling the size of an orange. The tumour allowed of a certain amount of movement but it always retained the same relation to the uterus, and could not be moved out of the pelvis. On opening the abdomen in the mid-line the swelling was found to be a smooth-walled, whitish cyst encapsuled in the upper part of the left broad ligament, with the Fallopian tube running over the top of it. The ovary was free. The mesosalpinx was incised over the tumour, which was cut into to allow of the escape of a clear, transparent fluid. The cyst wall was then completely enucleated from the capsule formed by the mesosalpinx, and the hole in the broad ligament was closed with a few silk sutures. No vessels were tied, and the ovary and Fallopian tube were preserved intact, except that a few small oöphoritic cysts were incised.

CASE IV.

Myofibroma of the Mesometrium.—The patient, aged 34, had suffered from vaginal tenesmus and a sense of "weakness" for six years. For the past eighteen months sickness and pain had occurred at the menstrual periods. Three months ago there had been a very severe attack of hypogastric pain, and she had never been well since. To the left of the uterus, and independent of it, a firm nodular swelling could be felt running out to the pelvic wall and more or less fixed. The tumour was the size of an egg, and a portion of it projected into Douglas's pouch. Some pain was produced when the tumour was firmly pressed upon. The uterus was normal in size and position. The right ovary was normal, but the left ovary could not be distinguished. On opening the abdomen in the mid-line the tumour was found to be a myofibroma encapsuled in the layers of the mesometrium. The Fallopian tube, supported by an intact mesosalpinx, ran across the top of the tumour. After incising the broad ligament the tumour was easily enucleated, and the hole in the mesometrium was closed with three silk sutures. The ovary and Fallopian tube were preserved.

CASE V.

Cyst Commencing in the Mesosalpinx and burrowing in the Mesometrium and behind the Peritoneum.—Three weeks before I saw her the patient, aged 42 years, had noticed a small tumour on the right side of the abdomen. A week later she went for a cycle ride, and afterwards felt very uneasy. Two days after this she was seized with great abdominal pain, chilliness, and retching, and the temperature was 103°. In about five days the pain had ceased and the temperature had come down to normal, but the tumour rapidly increased in size, and she frequently complained of faintness. The abdomen was distended, more on the right side than the left, by a smooth-walled, globular, fluctuating tumour which reached from the pelvis to half way between the umbilicus and ensiform cartilage. The uterus was rather fixed and some small myofibromatous nodules were felt in the cervix. A 4-in. incision was made in the mid-line between the umbilicus and pubes, and on separating a good many omental adhesions a cyst with red inflamed walls was disclosed. The tumour involved the right broad ligament, and reached up nearly to the liver by burrowing behind and between the mesentery and mesocolon, so that the intestines were implanted on the cyst and seemed part and parcel of its walls. On tapping the cyst about half a gallon of almost black fluid (altered blood) escaped, together with much soft brownish fibrin loosely adherent to the walls of the cyst. At first it appeared impossible to remove the cyst wall, but the lower part was found to be closely applied to the uterus and to have originated in the broad ligament. The peritoneum and capsule of broad ligament were therefore divided over the tumour and the whole cyst wall was then completely enucleated from its bed. In doing this it was necessary to tie off many vessels and

adhesions; but the ovary and tube were preserved intact. The cyst wall was one-third of an inch thick and much inflamed. The abdomen was completely closed.

This last was an extremely complicated case, and well illustrates the extensive retroperitoneal burrowing of which many of these tumours are capable. Like the simple cyst in Case III, it probably originated in the parovarium, but other cases appeared to be of inflammatory or lymphatic origin, and were multiple and bilateral.

In another case of double multiple broad ligament cysts the walls of the cysts contained a large quantity of unstriped muscle, and the inner surface was lined with columnar epithelium, forming papillomata in one instance. Their situation in the broad ligament, and the absence of ovarian tissue in the wall which contained so much muscular fibre, suggest that the cysts probably arose in some tubular structure, such as Gaertner's duct.

In this group five of the tumours were unilateral and two were bilateral. One case was associated with appendicectomy and one with myomectomy. There were no deaths.

Cases treated by Salpingo-oöphorectomy.

I shall now speak of a third division of our cases—namely, those treated by salpingo-oöphorectomy. This group includes chronic inflammatory conditions of the tube and ovary, abscess of tube and ovary or both, and fibroma of the ovary. Five of the cases were bilateral and six were unilateral. One was associated with hysterectomy, and four with appendicectomy. The only death in this series occurred a month after operation in a case of double tuberculous ovarian abscess.

The performance of salpingo-oöphorectomy in cases of chronic tubal and ovarian inflammation, pyosalpinx, and other allied conditions is often one of great difficulty from the complexity of the adhesions, and there are few abdominal operations requiring greater judgement in deciding on the need for operation and in dealing with the difficulties of its performance than those associated with tubo-ovarian inflammation.

Many cases of pus formation in tubes and ovaries are due to gonorrhoeal infection or to a streptococcal infection after parturition or abortion, but the baneful effect of appendicitis upon the female generative organs is perhaps not so fully recognized as its importance deserves. From the appendix the bacillus coli communis may easily travel to the ovary and tube and produce abscesses or chronic inflammatory mischief in these structures, or give rise to inflammatory cysts in the broad ligament. Fortunately the pus in many cases of abscess of the tube and ovary is sterile, or we should get less favourable results than we commonly do in these cases.

The enucleation of these abscesses after abdominal incision is best carried out in the Trendelenburg posture, but should there be any rupture of a large abscess during the necessary manipulations, the patient should at once be let down to the horizontal position.

At first it is often quite impossible to distinguish the uterus, which is overlapped by the inflammatory condition on either side. Enucleation is best effected, as a rule, by commencing behind and below the ovary, and this with the tube can be gradually brought to the surface and tied off. These cases should be aspirated before the enucleation is commenced, if a soft spot can be found, and the aspiration puncture closed with a point of suture.

In some acute cases of tubal and ovarian abscess the abscess may burst into the vagina, rectum, or bladder, and the patient may spontaneously recover. In other cases it may burst into the general abdominal cavity and is then best treated by abdomino-vaginal drainage.

Abdomino-vaginal drainage has a wide field of application in "pelvic abscess" in the female, whether the abscess is a result of a burst tubo-ovarian abscess, appendicitis, or other cause; and in cases where an abdominal section discloses the existence of a large abscess deeply burrowing among the pelvic viscera I cannot speak too highly of its value.

Whether abdomino-vaginal drainage is adopted or not, the head of the bed should be raised in all cases associated with a widespread septic peritonitis, for by this means there is a tendency for the inflammation to be confined to the pelvis, where its effects are less serious than when the upper part of the peritoneal cavity is affected.

I do not wish you to suppose that every case of abscess of the tube and ovary is treated by abdominal section and enucleation; some, perhaps, are better treated by vaginal incision, but of these I am not now speaking; nor do I wish you to suppose that every case of chronic inflammati ovary and tube requires the operation of salpingo-o ectomy. We must in the more chronic cases be guided severity and frequency of the attacks of pelvic inflamn which the condition causes, for though it is not desira perform salpingo-oöphorectomy in every case of cl inflammation of the tubes, we must remember that, appendicitis, the attacks tend to recur as long as the fo mischief remains in the abdomen.

As an exemplification of some of the operative difficul which I have referred the following may be quoted:

CASE VI.

Double Pyosalpinx: Appendicitis.—For the past ten months t tient had had recurrent attacks of inflammation in the right abdomen, which were supposed to be due to appendicitis. weeks before I saw her she had an attack of pain in the right iliac with a temperature of 103°, but for the past week the temperatu been normal. Menstruation had been regular and painless. time of examination a swelling was felt in the right iliac region, s ing out half-way along Poupart's ligament from the middle lin reaching upwards to a point about two-thirds of the distance fro middle of Poupart's ligament to the umbilicus. Pressure McBurney's point did not elicit tenderness. The uterus was fixe its fundus apparently reached to 1½ in. above the pubes. The vaginal fornix was depressed by a swelling which appeared to be broad ligament, close to the uterus, and cystic in nature. The left ligament was densely infiltrated, but no fluctuation could be det The patient was put in the Trendelenburg posture, and a median in 4 in. long was made between the umbilicus and pubes. All the tures in the pelvis were found to be densely matted. On the ri the uterus (which could not be defined at this stage because of sions) was a fluctuating swelling occupying the right broad liga Above and to the inner side of this were the caecum and app densely adherent, and the latter bent on itself. In attem to enucleate the fluctuating swelling on the right, abscess sac burst, and a fetid pus escaped. The p was at once put down from the Trendelenburg posture, the intestines walled off with iodoform gauze. As pus was esc the enucleation was proceeded with as rapidly as possible, and a the size of an orange was delivered and cut away after a pedicle posed of part of the broad ligament and the Fallopian tube had tied off. The caecum and appendix were freed from their rema adhesions, and then, for the first time, the uterus was definable. left ovary and tube (containing an abscess cavity) were then enucl from the mass of dense adhesions in which they were embedded salpingo-oöphorectomy performed as on the right side. In doing the peritoneal covering of the bladder was torn over an area of 2 in. by 1 in. This was sewn up and the appendix (which thickened and inflamed and contained faecal matter) was then rem in the usual manner. The pelvis was sponged out and gauze and drainage placed behind the uterus. The rest of the parietal wound closed, and the head of the bed raised to confine the exudate t pelvis. The gauze and tube were removed on the second day, reco was rapid and complete, and the patient was able to travel within weeks of the operation.

Extrauterine Pregnancy.

The last operations we have to deal with are those for tured tubal pregnancy. Of these there were two, and bot them were successful.

Extrauterine gestation is almost always primarily tu and when diagnosed in the earlier months prompt surg treatment is called for; and should rupture occur—wh generally takes place between the fourth and twelfth week any needless delay adds greatly to the danger of the mot

Diagnosis before rupture is by no means easy, but w rupture has occurred the existence of attacks of abdom pain and collapse in association with irregular vaginal haem rhages warns us of the probable nature of the case and demand for operative interference. The following exam is sufficiently typical of the symptoms and necess treatment.

CASE VII.

Ruptured Tubal Pregnancy.—The patient had been married tw years, but had not been pregnant. The last menstruation ceased November 5th. On December 6th and 7th, and again on December 2 she was seized with severe pain in the hypogastrium. From Janu 9th to January 19th some irregular vaginal haemorrhage occurred. February 1st there was another severe attack of abdominal pain and sc swelling of the lower abdomen. The temperature was practic normal throughout. When I saw her on February 7th she evidently in great pain in the lower abdomen, and complained of m vaginal and rectal tenesmus. The hypogastrium was very ten Under chloroform a well-defined swelling (displaced uterus), like large end of an egg, could be felt above the inner third of Poupa ligament on the right side. Extending from this across the lower domen to the left iliac fossa was an ill-defined swelling (contain fetus) reaching to a point about one-third of the distance from symphysis pubis to the umbilicus. Per vaginam the uterus was pus to the right and wanting in mobility, the os uteri pointing backwar

ouglas's pouch and extending across the pelvis, but more to the than the right, was a doughy swelling, the abdominal limits of h have been described. A median incision was made between the ilicus and pubes. On opening the peritoneum a bloody fluid ed. Occupying the left side of the pelvis and lower abdomen was ft swelling shut off by adherent intestines and blood clot. On ing the fingers into this swelling, there was a gush of liquid blood blood clot. A fetus and placenta were rapidly brought to the sur- from the centre of this blood-containing cavity, together with a ed and ruptured left Fallopian tube, which had formed sac of the products of conception. Large Spencer Wells ps were placed on the left uterine appendages to control aemorrhage, and the pelvis thoroughly cleared of blood clot by ing in normal saline solution. The left broad ligament was then off, and the distal portion, with the fetus, placenta, and ruptured , cut away. After a final washing of the pelvis with saline solution, bdomen was closed without drainage.

is not always necessary, as in this case, to sacrifice the . Provided the tube is patent into the uterus, the rent be sewn up, if it is not irreparably damaged. It is ex- lingly difficult to get rid of the blood clot in these cases, nothing is so expeditious and efficacious for this purpose ne pouring in of saline solution, as was done in the above .

General Remarks and After-treatment.

the performance of abdominal sections you may have ced that I do not allow any sponge or swab to be passed ctly from an antiseptic solution into the abdomen. Anti- ic solutions are irritating, and by damaging the peritoneal helium they hinder the absorptive power upon which we end for the removal of the exudation which necessarily ows upon operation. On the other hand, I consider it r not to dispense with antiseptics altogether, and there- it is my custom to pass all sponges and swabs through a tion of 1 in 5,000 of biniodide of mercury, and then to them washed in a normal saline solution before being l in the wound.

word may be said in conclnsion as to the after-treatment hese cases. If there is pain, which usually is not great, odermic injections of morphine may be given for the first nty-four hours. After that no morphine is allowed. Unless case is going wrong, pain at this period is nearly always to flatulence, and the best remedy for this is a turpentine na. The relief from pain and distension is so marked the administration of a turpentine enema that it may be regarded as the "sheet-anchor" of the after-treatment bdominal operations. It may be repeated night and ning if necessary. In any case, it is desirable to give an na on the second morning and a purgative by the mouth he third day after operation if the bowels have not pre- sly acted.

ould there be any signs of the onset of peritonitis, a dose alomel may be given, followed by the administration of hm doses of sulphate of soda every two hours as long as be necessary to keep the bowels acting about twice a

ot water may be given by the mouth whether there is iting or not. It relieves the thirst which nearly always rs after abdominal section and helps to stop vomiting er than any other remedy. It should be given very hot, in tablespoonful doses, three or four times an hour, if ssary. In cases of extreme thirst half a pint of warm r may be given once or twice a day by the rectum, and ned.

there is vomiting nothing but hot water should be allowed ne mouth, but in prolonged cases this may sometimes be ntageously supplemented by small quantities of dry apagne. Under these circumstances the strength should pported by the administration of nutrient enemata con- ng of half an ounce of brandy, a teaspoonful of some essence, and made up to four ounces with peptonized . These should be given every four hours, and before enema is injected the rectal tube should be worn for a ter of an hour to allow of the expulsion of flatus. One ne best signs of recovery from shock is the power of lling flatus voluntarily, and where this has been gained, s practically always do well.

the anaesthetic vomiting passes off quickly, water gruel wed by Benger's food or peptonized cocoa may be given ng the first twenty-four hours. No raw milk should be ved; it forms a coagulated mass which upsets the rity of patients. On the second day tea, bread and er, toast, custard pudding, junket, and grapes may be ved, but the quantities should be limited. On the third n little fish may be given, and thereafter the diet may be ually improved in quantity and quality. The patient's feelings serve as an excellent guide to the amount and quality of the food taken, and in the early days it is unwise to force food upon an unwilling patient.

REMARKS ON FIVE SUCCESSFUL HYSTERECTOMIES FOR FIBROID DISEASE IN ONE FAMILY.

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I PURPOSE calling attention in this paper to a series of cases characterized, I venture to think, by facts of sufficient interest to warrant them being placed on record. Although the success attending surgical intervention in these cases may afford legitimate ground for gratification, let me say that it is not upon their surgical aspect that I wish to dwell.

I have here drawn up in tabular form a list of nine sisters and their respective diseases, who in their organic morbid propensities betray a similarity that is really remarkable, if not unique.

Name.	Age.	M. or S.	Children.	Disease.	
J. S.	52	M.	8	Cataracts	
E. T.	50	M.	3		
E. D.	47	S.		Cataracts	
A. D.	45	S.		Cataracts; fibroid tumour	Hysterectomy (in London).
S. D.	43	S.		Fibroid tumour	Hysterectomy.*
R. C.	41	M.	4		
B. D.	39	M.	0	Cataracts; fibroid tumour	Hysterectomy.*
M. C.	37	M.	2	Cataracts; fibroid tumour	Hysterectomy.*
A. B.	35	M.	0	Fibroid tumour	Hysterectomy.*

* Author's cases.

For a family of nine sisters to furnish five examples of fibroid disease and five of cataract is a morbid consensus sufficiently suggestive to invite further investigation. Referring to my brief notes of these cases:

CASE I.

Mrs. D., aged 35, consulted me on September 12th, 1899, for a gradually increasing abdominal swelling. Periods regular; no children. On examination I found a large, more or less globular swelling reaching to the level of the umbilicus. Sound passed 5½ in. She was advised to delay any operative measures.

On January 7th, 1902, the patient returned; she was four months pregnant, and suffering great discomfort. Subsequently she was seriously ill with a miscarriage, and was strongly advised to submit to operation. On June 8th, 1902, subperitoneal hysterectomy was performed. Uninterrupted recovery.

CASE II.

Mrs. C., aged 37, consulted me on February 11th, 1902, complaining of her periods being very excessive and lasting too long (seven days), and that she passed large clots; also of "bearing down." She had had two children, the youngest 7 years old. Examination revealed a large fibroid tumour; sound passed 5 in. On September 14th, 1902, the tumour was removed by subperitoneal hysterectomy. Uninterrupted recovery.

CASE III.

Mrs. B., aged 34, consulted me on October 24th, 1902, for a very large abdominal swelling; much haemorrhage and pressure symptoms—pain, backache, "bearing-down," bladder troubles, etc. She was weak and anaemic. No children. On examination, a large tumour was found occupying the whole of the abdominal cavity. Its uppermost limit was the costal margin. Operation was advised. On April 14th, 1903, subperitoneal hysterectomy was performed. Extensive adhesions made the operation difficult and prolonged; it occupied 2½ hours. Patient collapsed at end of operation; elevation of bed, strychnine hypodermically, rectal injections of brandy, and transfusion were employed. The patient did well, and left the hospital in a month.

CASE IV.

Miss D., aged 44, consulted me on February 27th, 1903, for an abdominal swelling and "floodings." Pressure symptoms, irritability of bladder, "bearing down," etc. Her symptoms dated back eight or nine years. On examination, a large irregular tumour was found, reaching to the costal margin. On the right side there was extreme tenderness. The sound passed nearly to the hilt. On June 19th, 1903, I found the tumour had been getting steadily larger. Metrorrhagia and pain very severe. The patient had great trouble in passing water, and was extremely anaemic. On June 23rd, 1903, she underwent operation. On opening the abdomen, a large fibroid tumour was exposed, occupying the greater portion of the abdomen, and complicated by an ovarian tumour on the left side. The fibroid tumour was removed by subperi-

toneal hysterectomy, and the ovarian tumour in the usual way. Ten days after operation a rise of temperature was followed by a discharge of pus per vaginam; the temperature then dropped, and the patient made an excellent recovery.

Case v.

Miss A. D., a fifth sister, was successfully operated upon for uterine fibroids at St. Thomas's Hospital, London, by a well-known surgeon.

Returning to my list of nine sisters and their maladies, and looking at this family group of pathological portraits, the question arises, What is the explanation of the peculiar predominance of the two common features—uterine fibroids and cataract? The pathogeny of fibromyomata of the uterus, as well as of tumours in general, is a subject about which little is known. With regard to cataract, we know that impairment of nutrition of the lens increases with advancing age, and that these nutritive defects are apt to manifest themselves earlier in some families than in others. In other words, there is an inherited predisposition to that failure of repair which leads to the formation of opacities in the lens, that is, idiopathic or so-called senile cataract, this form of cataract, however, not being necessarily an expression of senility. Is hereditary influence a factor in the causation of uterine fibroids? Are the two apparently dissimilar diseases in this family the co-effect of one cause? Are they the expression of two well-defined and independent morbid tendencies manifesting themselves in the members of the same family? Is the association a purely accidental one?

Is there any relation, even a remote one, between the uterus and the lens of the eye that might have any bearing on the pathological changes in these organs? The only connexion I know of is a developmental or embryonic one; the capsule of the lens (not the body) is developed from the same layers of the blastoderm as the uterus. The lens is mainly the offspring of mesoblastic elements, and is therefore in direct histogenic relation with muscular, fibrous, vascular tissues, etc. I just mention this point as one of interest, although hardly, I think, of such practical importance.

I am inclined to think that the frequent occurrence of cataract and fibroids in this family is not due to any association other than an accidental one. I am not acquainted, at any rate, with any clinical records drawing attention to the fact that these two diseases are commonly met with in the same person. In the consideration of pathological problems of this kind, I think, as a rule, we are too apt to spring to hasty conclusions, and to attach special significance to what on mature reflection would prove to be merely chance associations. My series of cases furnishes *prima-facie* evidence which justifies the suspicion that hereditary influence may be a causative factor in the pathogenesis of uterine fibroid tumours. With the object of strengthening or dispelling this suspicion, the literature of the subject has been looked into for clinical records bearing upon this question. The theory of "heredity" does not receive much support from the majority of authorities and writers on the subject. Moreover, considering the extent of the researches into the records of fibroid disease of the uterus, the evidence in favour of hereditary influence (if evidence there be) is by no means of an overwhelming or convincing character.

Dr. F. de Ranse,[1] dealing with the subject of heredity in the etiology of uterine fibroids, mentions two sisters (one married, with two children) who both had fibroids. Although the local disease in the married sister called for operation, her general condition was too bad to risk it. Eighteen years later, after the menopause, her uterine tumour underwent slow shrinkage and atrophy, as was also the case with her elder sister. Her daughter, aged 37, single, had a fibroid on the right side of the uterus, of three or four years' duration. This author remarks that most writers ignore "heredity" as a factor in the causation of these uterine tumours.

Dr. C. H. Bixby[2], recording a case of uterine fibroid treated by electrolysis, states that a sister of his patient died of an operation for this disease, and her mother of cancer of the breast. Otto Engström[3] has observed 530 cases of uterine fibroids, and among them were thirteen families in which two or three sisters were the subjects of this disease. He thinks this coincidence is not an accidental one.

Dr. Kidd[4] relates an example of fibroid tumours in two sisters; he operated on both of them several times. Dr. F. W. Haultain[5] in his article on Benign Growths of the Uterus, in Allbutt and Playfair's *System of Gynaecology*, says, "The uterus is undoubtedly the most common seat of new growths in the human body." This writer quotes the statistics compiled from the Vienna *Hospital Reports* by von Curlt, who found that in 15,880 cases of tumours females exceeded males in the proportion of 7 to 3; of this large majority in t former, uterine growths accounted for 25 per cent. He al refers to the variety of its tissues, its periodic engorgement and the enormous hypertrophy during pregnancy. Ea circumstances seem especially to be associated with t development and growth of uterine fibromyomata, in contr distinction to the preponderance of uterine cancer in the po and badly nourished. Among the cases recorded by T. Keith[6] Cases 69 and 99 each had a sister affected with uteri fibroids.

Engström[7] again calls attention to the fact that heredi seems to play some part in the etiology of fibrous growths the uterus, as shown by an analysis of the histories of h cases, and as had been previously pointed out by Wincke Carl Braun, and Gusserow, a fact which seemed to pro Cohnheim's theory of their embryonal development. D H. D. Beyea[8] has recorded the occurrence of fibroid tumou in four sisters, mother, grandmother, and aunt.

In illustrating the different ways in which uterine myom kills, Lawson Tait[9] speaks of two sisters (38 and 36) who su cumbed to this disease, the elder by exhaustive bleedings, t other by the rapid growth of a malignant tumour.

Alban Doran[10] has removed the uterus of two sisters f fibroid disease; in a third sister the tumour, originally th largest, remained quite stationary for four years. The sam writer,[11] in his Harveian Lectures on "Fibroids of the Uter and its Ligaments," when dealing with the family history fibroids, remarks: "According to my own experience, a famil history of fibroids is more interesting than important. find, like others, that a strong history is to be detected on ir quiry in some families. In one remarkable instance th mother underwent hysterectomy for a fibroid, while thre daughters are subject to fibroid disease. In two it has re mained stationary for several years, while in the third th tumour suddenly increased, and I recently removed it. Th mother's sister died of uterine cancer, and so did a fourt daughter, whilst there remains a fifth from whom a fibroi polypus was removed; there is at present a small growth i the cervix."

J. Knowsley Thornton[12] records a case of removal of th uterus for fibromyoma; her sister was known to have a simila tumour. A patient of Dr. Shaw Mackenzie,[13] with a fibroi tumour of the uterus, had a mother and two sisters who wer stated to have suffered from fibroids.

Dr. A. E. Giles has kindly given me permission to make us of the following cases, which will afterwards be published and which relate to three sisters.

1. E. C., aged 45, single, operated on at Chelsea Hospital for Wome on September 26th, 1898. Increasing disability and increasing size o the tumour called for radical treatment. She had been under observa tion for three years.

2. L. C., aged 40, single, operated upon on August 6th, 1901, at th Tottenham Hospital. Leading symptoms, menorrhagia and retention o urine.

3. E. C., aged 45, single, operated upon on November 28th, 1901, a the Tottenham Hospital. Pain and menorrhagia; also ovarian (right cyst.

All three fibroid tumours were of the hard solitary type the patients made excellent recoveries. No other sisters i the family; no history of any other growths.

In adding my series of cases to the published records jus briefly surveyed, I am inclined to regard it as furnishing th most remarkable family history of uterine fibromyomat hitherto noted. Before we can gauge the importance of thi family history, however, we must ask ourselves a very im portant question, What is the frequency of this disease i women? This is differently estimated by different authori ties. According to Bayle's figures, 20 per cent. of all wome over 35 are the subjects of fibroid disease; whilst Klob places the percentage of women of 50 so affected as high as 4 per cent.

Now if Klob's computation (that four women in every ten have fibroids) is more or less roughly accurate, the occurrenc of five in nine (allowing for the law of averages) ceases to cause us any astonishment. The reply to the question whethe 40 per cent. is not rather too high an estimate must be lef to the decision of pathologists constantly engaged in *post mortem* work.

A very large percentage of uterine fibromyomata unques tionably cause no symptoms, and consequently are unsus pected during life. In my cases it is not merely the fre quency of this uterine affection that is worthy of note but th character of the tumour, which caused symptoms such a rendered operation imperative in each of my patients. I publishing these five hysterectomies for fibroid disease i

sisters I am, I believe, establishing a record from an rative point of view.

am much indebted to Dr. E. B. Hulbert for helping me h the literature of this subject.

LITERATURE.

. de Ranse, De l'Hérédité dans l'Étiologie des Corps Fibreux de érus, *Gazette Médicale de Paris*, 1898, pp. 186 et seq. [2]G. H. Bixby, A e of Submucous Uterine Fibroid treated by Electrolysis. [3]Otto ström, *Finska Zakaresallskapets Handlingar*, December, 1899. [4]Kidd, *tin (Quarterly) Journal of the Med. Sciences*, vol. lxxiv, 3rd series, y-December, 1882, p. 225. [5]F. W. Haultain, *System of Gynaecology*, utt and Playfair, 1896, pp. 561-610. [6]T. and S. Keith, *Contributions to Surgical Treatment of Tumours of the Abdomen*, Part II, pp. 173 and 240. d. *Anzeiger z. Centralbl. f. Gyn.*, August, 1890. [8]H. D. Beyea, The Occurce of Fibroid Tumours in Four Sisters, Mother, Grandmother, and t, *American Journal of Obstetrics*, vol. xliii, p. 703. [9]Lawson Tait, TISH MEDICAL JOURNAL, vol. ii, 1885, p. 287. [10]Alban Doran, Ibid., ii, 1900, p. 714. [11]Alban Doran, Harveian Lectures on Fibroids of the rus and its Ligaments, Lecture II, *Lancet*, February 14th, 1903, p. 417. . Knowsley Thornton, *Lancet*, November 6th, 1886, p. 859. [13]J. A. w-Mackenzie, ibid., April 4th, 1903, pp. 958, etc. [14]Klob, *Path. Anat. weibliche Sex.-Organ.*, p. 173.

OVARO-HYSTERECTOMY (PORRO).

SIES ON TWELVE CASES PERFORMED DURING THE LAST SEVEN YEARS IN THE ISHWARI MEMORIAL HOSPITAL, BENARES.

LIEUTENANT-COLONEL T. H. SWEENY, I.M.S., F.R.C.S.I., Civil Surgeon.

The east is east, and the west is west," and to those who ve experience of both peoples this saying summarizes a st amount of divergent habits, customs, thoughts and lings, but in nothing is this divergency more marked than connexion with marriage and childbirth. To the general ractitioner at home it would be impossible to realise the very ge proportion of women who out here lose their lives in ildbirth, largely from the liberal way in which oriental stoms provide facility for sepsis, and in a lesser gree from the various contractions of the pelvic bones nich make natural labour impossible. My notes, however, lving reference solely to pelvic contraction, I will say thing about the weird and awful customs practised by e native midwife or dhai when attending even an ordinary se of midwifery.

I think I considerably underestimate when I assert that 1 every 1,000 pregnant women in India dies in consequence contracted pelvis. This contraction in more than half the ses is the result of osteomalacia, and in the remainder is used by rachitis.

In order to realize how this large percentage of distorted lves comes about, one must understand the fundamental inciples relating to marriage in India (as regards Hindus), at, first, every girl must be married before she menstruates else disgrace attaches to her family, and various religious ins and penalties are believed to ensue, not only to her rents, but even to her ancestors for several generations ck; secondly, such girl must be sent to begin sexual relaons with her husband as soon as menstruation first takes ace.

Among Mohammedans, if a girl be not married about her th or 16th year, her parents are believed by their fellow ohammedans to be guilty of a serious social crime.

With such ideas the alternative is, where weakly or deformed rls exist in a family, to assign a more than usually large rriage portion to such, and a husband invariably comes rward. To the parents the girl's death in childbirth weighs t a shadow compared with the disgrace attendant on celibate e. To the husband the wife's death can be easily corrected another marriage; in neither case does affection weigh uch. Hence we have girls becoming mothers before they e themselves mature, and the offspring must necessarily be ore liable to rickets than those of parents who are fully veloped.

The injury to the pelvis in the young mother from frequent nfinements, coupled with the weakening influences of pidly-recurring pregnancies and of prolonged lactation, toether with, in many cases, poor and deficient food and bad nitary surroundings, generate the changes producing osteoalacia, while the offspring growing up rachitic will, if a male, provide in herself another subject of deformed lvis.

In the twelve cases noted below, the deformity was so exeme that no question as to the operation necessary occurred. was at once apparent that nothing but Caesarean section uld save both mother and child. I selected ovaro-hysterectomy rather than simple Caesarean section with removal of portion of the Fallopian tubes for the following reasons, namely, first, as most of the cases were caused by osteomalacia, the supposed curative effect on the disease of the removal of both uterus and ovaries was taken into consideration; secondly, and chiefly, as all the cases had been a long time in labour before arrival at the hospital, and as such cases had been considerably handled by the native dhais, the risk of sepsis was very great. The native midwife or dhai, always a woman of the lowest caste and filthiest habits, is accustomed in cases of prolonged labour to place filthy rags steeped in irritant oils, etc., into the vagina, and also dilates and handles the mouth of the womb with considerable violence, so that I considered it safer to remove the uterus and keep the stump outside the abdominal cavity.

The operations were performed as follows under strict aseptic precautions: A 6-in. incision was made in the abdominal walls and peritoneum, which incision was subsequently prolonged up and down sufficiently to allow the uterus, when tilted on its side, to be lifted out. The incision was then protected by sterilized muslin sponges, which were also packed round the neck of the uterus; a piece of thick drainage tubing was also placed round the neck of the uterus to be tightened in case of much haemorrhage; but it is astonishing how little bleeding occurs even when the uterine incision goes right through the placenta. A free longitudinal incision was then made through the uterine wall and the child extracted. After removing the placenta and membranes, two knitting needles were passed at right angles through the neck of the uterus, care being taken to leave the stump sufficiently long, as it retracts a good deal during the process of involution. In the first ten cases I then merely tied a strong whipcord ligature below the needles; but after my experience with Case X I have since used the *serrenoeud*; the uterus was then cut off above the needles. The peritoneum covering the neck of the uterus just below the ligature was carefully stitched to the parietal layer by four stitches which included the abdominal muscles; the remaining portion of the incision being closed in the usual way by silkworm-gut sutures. The stump generally dropped off on the fourteenth or fifteenth day.

The result of the 12 operations was that 9 mothers and 11 children were saved, which, considering the condition of most of them on arrival at the hospital, may be deemed satisfactory. In the tenth case only do I consider that greater care could have saved the mother; in the other fatal cases—namely, I and IV—no blame can be attached to the operation. I have frequently seen many of the women since and they assert that they enjoy excellent health in every way. An interesting point is that many were able to suckle their infants for considerable periods, in some cases even up to twelve months. To economize space I merely give very brief notes on each case:

CASE I.

M. S., aged 30 years.

History.—A blind, rachitic dwarf; first pregnancy; extreme distortion. Operated on May 6th, 1903, and a living child removed. Mother died suddenly next day when talking to the lady doctor in charge, but whether from syncope or embolism I cannot say, as no examination was allowed after death.

CASE II.

M. B., aged 22 years.

History.—First child removed by embryotomy nine years ago when 13 years of age. No other pregnancy until now. Pelvic distortion so extreme that even embryotomy would not now be sufficient. Operated on August 30th, 1896, and a living child removed. Discharged cured on October 4th.

CASE III.

M. A., aged 30 years.

History.—Two children born naturally ten and eight years ago; was treated for a considerable time in a mission hospital for lameness as she called it—probably osteomalacia. Operated on February 28th, 1898, and a living child removed. Discharged cured on March 30th.

CASE IV.

M. L., aged 24 years.

History.—First and second children delivered by craniotomy, and wasadvised to have Porro done if again pregnant. Came to hospital when labour had commenced, and in addition to extreme pelvic distribution a thick cicatricial band had formed right across the vagina almost completely closing the passage. While preparations for the operation were being made violent labour pains set in, and the uterus ruptured. The operation was at once commenced, and a living child removed, but owing to her collapsed state the operation could not be satisfactorily completed. After removal of the uterus and ovaries all meconium, amniotic fluid, etc., was washed out of the abdominal cavity, and the rent, which extended right down into the vagina, was sewn up as far as possible, but could not be thoroughly completed owing to her

collapsed state; we had to content ourselves with plugging the vagina with iodoform gauze. As might be expected, peritonitis set in, and she died on April 5th.

CASE V.

M. R., aged 25 years.

History.—First child, craniotomy three years ago; when five months pregnant asked to have Porro done at full term, as had been do to M. A., her friend (Case III). Came to hospital when labour had commenced. Operated on May 14th, 1900, and a living child removed. Discharged cured on June 6th.

CASE VI.

M. B., aged 34.

History.—First child born naturally 17 years previous; no subsequent conception until the present. Had been thirty-six hours in labour when brought to hospital. Operated on May 28th, 1900, and a living child removed. Discharged cured on July 1st.

CASE VII.

M. W., aged 40 years.

History.—Four first children born naturally; fifth and sixth born dead at full term; seventh born dead at seven months; eighth miscarriage at four months; ninth born dead at full term. For her tenth confinement she was brought to hospital after forty-eight hours in labour. In addition to extreme pelvic distortion her thighs were flexed on the abdomen and ankylosed in this position, and considerable difficulty was experienced in performing tho operation, so close were the knees on the abdomen. However, a living child was extracted, and both left hospital in perfect health on July 6th. The operation was performed on June 13th, 1900.

CASE VIII.

M. B., aged 20 years.

History.—A typical rachitic dwarf, with a conjugate of under 2 in. Operated on December 5th, 1900. The incision in the uterine wall went right through the placenta. Mother and child left hospital in January, 1901, in excellent health.

CASE IX.

M. B,, aged 17 years.

History.—A typical rachitic dwarf with extreme pelvic distortion. Four days in labour before arrival at hospital; extremely collapsed, but fetal heart audible, though sounds very weak. Operated on February 12th, 1901. Discharged cured on March 8th.

CASE X.

M. I., aged 27 years.

History.—Two children eleven and nine years previously. For last five years had constant pain in back and hips (evidently osteomalacia); was brought to hospital at midnight on December 7th, 1901. Operation performed in indifferent light. The ligature being applied not sufficiently tight, the stump was found live and bleeding next morning. A second ligature was applied, but this must have interfered with the adhesions already formed, and opened the door to septic material, and she died of peritonitis on the fifth day. The child only just breathed, so is the only one of the twelve children which was born, one may say, dead. In all subsequent cases the *serrenoeud* was used, and this life would have been saved had it been used.

CASE XI.

M. S., aged 25 years.

History.—One child born naturally; one miscarriage; osteomalacic pelvis. Operated on May 8th, 1903, and a healthy child born. Discharged cured on June 5th, 1903.

CASE XII.

M. M., aged 36 years.

History.—First confinement: extreme contraction of outlet barely admitting two fingers. Operated on August 22nd. Child, 8 months, had to be wrapped in cotton wool, but got on well. Discharged cured on September 30th.

It will be noticed that in the cases of the nine women who recovered the period spent in hospital averaged only thirty days.

A NOTE ON PORRO'S OPERATION AND A SUGGESTED MODIFICATION.

BY WILLIAM H. HORROCKS, F.R.C.S.ENG.,
Honorary Surgeon, Bradford Royal Infirmary.

PORRO'S operation is fortunately a rare occurrence, but it is an undertaking which may fall to the lot of any surgeon, so that any method which simplifies the procedure is of interest to the profession. The lines of the operation carried out in this method were suggested by the treatment of uterine fibroids, and in the case which is now recorded gave most satisfactory results.

Porro's operation was first undertaken in 1876, and is thus described:

After the uterus has been emptied, as in an ordinary Caesarean section, it is drawn out of the abdominal wound and surrounded by a wire at its lower segment. The uterus with its appendages is then cut away.

In 1878 Müller modified the operation by tilting the opened uterus out of the wound, and then surrounding neck of the uterus near the internal os with a loop of wi or, still better, with an elastic tube. Only after this had b done was the uterus incised. The evacuation of the uter contents was completed as quickly as possible, and the elas tube was not taken off until the uterine wound was complet closed by sutures.

With some slight modifications this has been made t method of operation until the present time. In consider the choice of operation between Caesarean section and t modification proposed by Porro there are certain poi which are greatly in favour of Porro's operation. Broadly may be said that one or other of these operations is indicat when the deformity of the pelvis is so great as to ren delivery without craniotomy impossible, where so tumour growing from the cervix uteri or the sacrum blo the pelvic cavity. In the choice between the two operatio the question of leaving the uterus as in Caesarean secti has always seemed a doubtful point, although cases a recorded by French surgeons in which several operatio have been performed on the same woman. Of late it h been the custom in the Caesarean section to sterilize t patient by dividing the Fallopian tubes. Another drawba to Caesarean section is the suture of the uterine wall. T sutures necessarily passing through tissues undergoing rap disintegration in close proximity to a part very liable septic infection.

The time of operation for Porro's modification may selected at any time when the child is viable without allowi the onset of uterine pains to exhaust a patient who has undergo a formidable operation. The length of incision the middle line should be such as to allow the uterus, wi its contents, to be drawn outside the abdomen, as in this w it is more satisfactorily handled, and it may be packed rou so as to prevent the uterine contents soiling the general pe toneal cavity.

Before drawing out the uterus it may be necessary to lig ture in two places the broad ligaments on each side and divi between the ligatures. The uterus is then drawn out and t peritoneum stripped from its two sides until the neck of t uterus is reached with the finger. The uterine artery is fe for on each side, and a Macewen's needle armed with silk passed through the tissues so as to command the artery. O one side this ligature is tied; on the other side it is left loos but can be easily tied, if necessary, to control haemorrhag The anterior wall of the uterus is now examine and its peritoneal covering divided, avoiding as fa as possible visible uterine sinuses. The muscular tissue torn through with a blunt director until the outer surface the membranes is exposed. The membranes are now opene and the opening enlarged so as easily to draw out the chil As soon as natural respiration is established the cord clamped between two Spencer Wells's forceps and divided an the child handed over to the care of the bystander. Th uterine cavity is now emptied of fluid, the cord with th forceps is returned into the uterine cavity but no attempt made to remove the placenta or membranes. A flat spong is packed into the uterine cavity and the opening drawn to gether. A second ligature is now tightened round the uterin artery and the uterus drawn well up and divided as low dow as possible. Any oozing points in the stump are thus liga tured and the two flaps of uterine tissue brought togethe with buried catgut sutures through the uterine wall and silk stitches through its peritoneal covering. Be fore forming the uterine stump care should be take to define the extent of the bladder by passing th sound into the bladder. The stump should be s shaped that the flaps are capable of a good broad adhesiv surface, one flap fitting the other as far as possible. An loose membrane inside the cavity of the neck may be scrape away and the raised mucuous membrane touched with strong carbolic solution. All clots are now cleared away, and th pelvis carefully dried. The question of drainage is one o which operators will differ. On the whole it seems safer t place a Keith's tube in Douglas's pouch, as there may b some oozing from the uterine tissues, and the possibility o soiling the pelvis by some oozing from the remaining seg ment of the uterus must be considered. The abdominal wal is thus brought together with deep and through stitches, sup ported with strips of aseptic strapping and a firm bandage applied over a large dressing of antiseptic wool. The case o which this method of operation was practised is as follows:

A. B., a weaver, aged 43, was sent into the Bradford Royal Infirmary

ne 20th, 1903, by Dr. Gray, who was of opinion that she had a
t tumour which would prevent the passage of a child by the
al way. She was in fairly good health, and had no symptoms of
orrhage or pressure from the pelvic tumour. The examination of
bdomen showed the top of the uterus well above the umbilicus.
terine walls showed prominent nodules at the top and upper part,
arts of the fetus could be felt in utero. The pelvic examination
ed a rounded mass in Douglas's pouch which was firmly wedged
xtended to the pelvic wall, displacing the uterus forwards.

ration.—On June 23rd chloroform was administered and the abdo-
n wall divided by a long median incision extending from above the
licus almost to the pubes. On exposing the uterus a large fibroid
ur was found on its anterior wall, which was pedunculated and
somewhat freely on attempting to bring out the uterus. A thick
of omentum was adherent to the upper part of the uterus. The
tum was first divided between ligatures; the broad ligaments on
side were tied in two places and divided between the ligatures.
loose tissue on each side of the uterus was then separated with
finger, and the uterine arteries felt low down on each side.
wen's needle threaded with thick silk was passed round the
ies, and on the right side this ligature was tied, but the left
are was not tightened. The uterus was then drawn out at the
minal cavity and packed round with flat sponges and towels. An
cion was made in its anterior wall about 5 in. in depth, and the
ular wall torn through to the same extent. The membrane was
carefully opened and the finger passed in, to find the position of
placenta.

e opening in the membranes was then enlarged, and the child
ly withdrawn. Respiration set in at once, and the cord was cut
een two pressure forceps.

e liquor amnii was drained over the side to avoid soiling the peri-
um. The cord with the forceps was returned, and a flat sponge
ed in the uterine cavity, while the margins in the opening of the
s were pressed together. The uterus was then drawn forwards,
with some difficulty the fibroid tumour was drawn out of the
is. Both uterine arteries were now tied securely, and the uterus cut
ugh low down, so as to make two flaps of uterine tissue. There was
little haemorrhage from this stump, which was brought together
buried catgut sutures and silk sutures through the peritoneum.
pelvis was then cleared of clots, etc., and a Keith's drainage tube
rted in the pelvis, with its upper end projecting from the lower
a of the wound. The abdominal wall was brought together with
vorm-gut sutures, the separate layers being united with buried
ut sutures. The operation lasted one hour, and at its termination
pulse was 80 and good in character.

ter-history.—The patient made a good recovery, the only incident to
oted was a small collection of pus in the pelvis which necessitated
reintroduction of a drainage tube for some days.

he special point in the operation was the small amount of
ck which the patient suffered, in fact, the pulse was better
n after the termination of an ordinary labour. This was
chiefly to the small amount of haemorrhage which was
ily controlled by the ligatures. The question of tightening
second ligatures on the uterine artery before extracting
child is one for future consideration.

CASE OF VESICULAR MOLE OF UNUSUAL SIZE.

By THOMAS SLATER JONES, L.R.C.P.Lond., M.R.C.S.Eng

s. C., aged 48 years, had had eight children. Five years
o she passed a similar mole, but much smaller. Two years
o she had a child at full term. This child is distinctly
philitic. She had an attack of rheumatic fever about
hteen months ago. Menstruation had ceased for seven
nths. The patient told me that for a month she had a
re or less bloody discharge, with uterine pains off and on.

On August 15th, 1903, when I saw her, she had strong
bour pains, a copious, weak sanguinous discharge in which
uld be seen an occasional cyst of the hydatidiform mole. On
ternal palpation the uterus was felt to be very much dis-
nded; it extended up to the ensiform cartilage. No fetus
uld be felt (as she was thin this would have been an easy
atter to make out). The os was fairly dilated, and masses
the cysts, which felt soft and peculiar to the finger—not
e the feel of placenta praevia at all—but with a sensation
the finger quite characteristic of the condition, presented.

After the patient had been put under chloroform, I intro-
ced my hand into the uterus, and got the whole of the
sses of cysts away without much difficulty. This was
tunate, as frequently in these cases there are considerable
hesions to the interior of the uterus, whose wall may be
ry much thinned in places. Haemorrhage, too, is often ex-
ssive, but by keeping one's hand well over the uterus and
injecting ergotine hypodermically, this anxious complica-
on did not occur. Subsequently the patient made an
neventful recovery.

The mass of cysts weighed 5 lb. 4 oz. The cysts presented somewhat the appearance of grapes; the largest measured about 1½ in. longitudinally, the smallest being smaller than a pin's head. They contained a gelatinous material slightly

Fig. 1.—Photograph of a very small portion of the mole.

tinged with red enclosed in a translucent, glistening, ovoid envelope. Each cyst was attached by an independent peduncle, which did not arise from a common stalk as in grapes, but apparently one from another.

Report from Clinical Research Association.

This section exhibits chorionic villi in various stages of mucoid degeneration. Masses of epithelium have resulted from proliferation of the syncytium covering the villi, and some of these are also degenerating. There is no definite growth like "deciduoma malignum."

SOME DECEPTIVE ABDOMINAL CONDITIONS AND THE QUESTION OF OPERATION.*

By A. H. TUBBY, M.S., F.R.C.S.,
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When I was honoured by being asked to read a paper before this Branch of the Association, it appeared to me that I could not enlist your interest better than by choosing this subject, because it is common ground to all of us, and the questions of operation and of no operation are constantly arising. The maze of symptoms in these abdominal cases is sometimes so tangled that we welcome any clue, however slight, to guide us in our difficulties. It must be admitted that the method of settling the diagnosis by making an exploratory operation in all doubtful cases is one which is certainly not feasible in private practice, and it cannot be justly said to be in the best interests of any patient if constantly employed. It is indeed strongly to be deprecated, because it savours merely of the art of surgery, and not of the science. He is a poor surgeon who finds himself compelled to cut the Gordian knot of his difficulties by acting on the formula: "Let us open the abdomen and look inside." The risks of a simple section are, it is true, small, but they are appreciable, and no patient

* Read at a meeting of the East Surrey District of the South-Eastern Branch of the British Medical Association.

should without the most careful investigation be advised to undergo what may still be considered a capital operation. In private practice we are called upon to give our reasons before we operate, and thanks to the large amount of medical literature found in the lay press, patients and their friends are becoming more and more insistent on hearing the reasons for an operation; they wish to hear the pros and cons, and not infrequently prefer to judge for themselves as to its advisability.

The subject that has been chosen is a large one, but I propose to deal with it under three headings:

I. Abdominal conditions after injury.
II. Perforative conditions.
III. Suppurative conditions.

Giving illustrative cases, and the reasons why operation was or was not performed, and then to briefly discuss the value of the various leading symptoms.

I.—ABDOMINAL CONDITIONS AFTER INJURY.

I will first quote the following cases:

CASE I.

Patient Run Over: Collapse; Fracture of the Lower Ribs on the Left Side; No Operation.

G. M., aged 30, was admitted under my care into Westminster Hospital on February 18th, 1903, at 12.45 p.m. At 11.30 a.m. he was crossing the roadway, when he was knocked down and run over by a hansom cab. One wheel went over his abdomen, passing from the left side to the right, and obliquely across from the level of the umbilicus upwards and to the right. He was pale, and suffering from shock, and was sick in the surgery, but there was no haematemesis. When seen in the ward he lay in bed, with his knees drawn up, and said he felt easier in this position. His face was pale and his lips white. His pulse-rate was 72 per minute, regular, very easily compressible, and small. The respirations were 28 to the minute, and shallow. He complained of a stabbing pain on his left side when he breathed. The abdomen moved in respiration and was fairly soft all over, and there was a tender spot in the left lumbar region, and the muscles there were rigid.

My colleague, Mr. Arthur Evans, was sent for to see him with a view to operation, it being feared that he was bleeding internally, but it was decided, on the following grounds, to await events: (*a*) The absence of any blood in the vomit, thus excluding stomach injury; and the fact that the accident occurred at 11.30 a.m., some hours after he had taken breakfast, made it less likely that rupture had occurred either by direct violence or by a thrust from a fractured rib; (*b*) the absence of blood in the urine, and of effusion into the flanks negatived injury to the kidneys; and (*c*) careful and repeated percussion of the abdomen negatived the existence of haemorrhage from a rupture of the spleen or liver.

On these grounds we waited, and the case finally resolved itself into one of haemorrhage into the left pleural cavity, associated with fracture of the eleventh rib on the left side.

CASE II.

Traumatic Rupture of the Intestine.

Dr. J. J. Buchanan[1] reports the case of a young man, aged 18 years, who was struck on the abdomen at 5 o'clock one morning by an iron implement. When seen five hours afterwards he was unable to say where he had been struck. No ecchymosis, or sign of contusion, or area of tenderness was present. His general condition was good, and his pulse of good volume, regular, and 88 to the minute. The temperature was 98° F. There was no abdominal distension or excessive rigidity of the muscles, but the abdominal wall had not its normal soft condition. He had vomited after the accident, and once after admission to the hospital. Dr. Buchanan, on examining him, noted that peristalsis was almost absent, and on this symptom, taken with the slight rigidity and the fact that he had vomited twice, abdominal section was decided upon, and was performed at 11 a.m. (six hours after the accident). On opening the peritoneum, thickened and congested bowel presented itself and sero-purulent fluid escaped. On further examining the bowel a rupture of the small intestine about a third of an inch in length was discovered, with faecal matter exuding. This was sewn up, the peritoneal cavity was douched with saline solution, a drainage tube was put in, and the patient ultimately recovered.

In this case a casual observer might readily have underestimated its gravity. In the absence of ecchymosis, signs of contusion, and tenderness, his general aspect might well have been deemed to warrant delay. But a careful examination of the case showed nearly entire absence of peristalsis, with rigidity and vomiting, and these were sufficient signs, taken with the history of the accident, to make Dr. Buchanan feel that exploration was necessary; a proceeding amply justified.

CASE III.

Bruising and Sloughing of the Great Omentum: Death.

This case occurred when I was a dresser at Guy's Hospital in the year 1886, and I remember it well, because it impressed me at the time with the subtlety of the symptoms in abdominal injuries. The outline of the case is briefly as follows: It was that of a middle-aged man who w knocked down in the street by an omnibus, the front wheel passing o him obliquely from the pubes to the left lumbar region. He was mu collapsed when brought to the hospital, but there were no distinct sy ptoms. After three or four days he apparently recovered, and it w thought that he might be discharged; but that experienced surgeo the late Mr. Davies-Colley, preferred to watch the case, and on t eleventh day after the injury the patient was suddenly seized with acu symptoms of peritonitis, and he died in a few hours. On examinati it was found that a portion of the great omentum was inflamed a sloughing.

This is one of those cases in which even the ablest surgeo might well be at fault, and, considering the severe nature the injury, it is a remarkable fact that no more serious syn ptoms were present from the first. It is true that an abd minal section and very careful examination might have r vealed thrombosis of some of the vessels in the great ome tum, but, considering the patient was a very fat man, this improbable.

CASE IV.

Traumatic Rupture of the Mesenteric Arteries: Haemorrhage: Death.

A very heavy man, aged 53 years, slipped and fell, and sustained fracture of the bones of the leg and some symptoms of shock wer noticed. There was no pain in any other part of the body. On th following day the patient seemed weak but was easy and cheerful. Hi temperature was 99.5° F. and the pulse was 99; the urine was scant but contained no abnormal constituents. On the following day hi condition had altered for the worse, and it continued to do so durin the next four or five days, but no definite diagnosis could be mad There was some slight distension of the abdomen, but careful percus sion revealed no localized dullness or undue resonance. He wa extremely pallid and breathed irregularly; his temperature was sub normal and his pulse was 160, and it was thought that he was dyin from internal haemorrhage. On the seventh day after the accident h died, and on opening the abdomen a large quantity of blood was found which came from the ruptured walls of several of the mesenteri arteries. The mesentery contained an enormous amount of fat, an there can be no doubt that, in the pull exerted upon this structure b the violent fall, it and its vessels were lacerated. In this case th latency of the symptoms may have been due to the slow haemorrhage and absorption of the liquid portions of blood in the early stages of th case by the peritoneum.

The criticism, which appears to be a fair one in this case is that repeated examinations of the blood as to its specific gravity would have shown that on account of the draining away of the fluid from the systemic vessels into the peritoneal cavity, the specific gravity of the blood was raised, and on this fact, taken with the scantiness of the urine and the rapid pulse, an abdominal exploration should have been made.

II.—PERFORATIVE CONDITIONS.

A good example is furnished by a case of perforative gastric ulcer which I was asked to see by our friend Dr. Dalton.

CASE V.

Perforating Gastric Ulcer: Operation: Recovery: Recurrence of some of the Symptoms Eight Months Later: no Further Operation.

On October 28th, 1898, I saw Miss C. with Dr. Dalton. She had previously had dyspepsia, but had not at any time vomited blood. Late in the evening of October 27th she was seized with pain and cramp in the stomach. She took some hot tea, the pain immediately became worse, and she attempted to vomit. She was seen by Dr. Dalton that night and again early next day. He then found that the liver dullness had disappeared, and diagnosed gastric perforation. She was then seen in consultation with Dr. Newton Pitt, who was of the same opinion, and agreed in recommending immediate operation. I saw her at 9 p.m. on October 28th. Her pulse was 108, temperature 99°, respirations quick and feeble, mostly costal. She complained of pain over the upper segment of the left rectus. There was no marked abdominal distension; the facial aspect was somewhat typical. The operation was begun about 11 p.m., and a thickened patch was seen on the anterior wall of the stomach of the size of half-a-crown. It was situated 1½ in. below the cardiac orifice and 1 in. below the lesser curvature. The affected area was dull and opaque, and from a spot at the upper part of it gas bubbled out. The thickened area was so large that it was impossible to fold it inwards without encroaching too much on the lumen of the stomach, and so an omental graft was applied. She recovered.

The sequel of the case is striking. On September 20th, 1899, I was called to her again by Dr. Knapp, who was seeing Dr. Dalton's patients during his holiday. The day before she had been in town all day, and, coming home hungry, had eaten some sandwiches. About 1.30 a.m. she woke up suddenly in pain and vomited three times. She was found collapsed, with pain on the right side. When I saw her on September 20th the collapse had disappeared, the abdomen was not distended, the pulse was 81, temperature 99.2°. There was no tympanites and no vomiting, but there was still pain, and this time over the upper segment of the right rectus. The liver dullness was normal. I decided not to operate then because the acute symptoms appeared to have passed away, the liver dullness was present, and I was aware that some of these cases of gastric ulcer occasionally have attacks which are

remely like those of perforation except for signs showing the ence of free gas in the abdominal cavity.

CASE VI.

Perforating Ulcer of the Intestine.

This case is recorded by Dr. A. B. Johnson.[3] A man, aged 27 years, s admitted to the Roosevelt Hospital with a history that four days fore admission he was seized with colicky pains about the umbilicus, t there was no vomiting. His pains were not severe, and his bowels wed daily, and he remained at his work. At 1.30 a.m. on the day of s admission he was seized with severe abdominal pains, followed by a ill. On admission the abdomen was not distended; it was markedly ader, and was rigid throughout. Eight hours after admission the domen was opened, and a good deal of cloudy, bile-stained fluid, th flakes of coagulated lymph, escaped. The vermiform appendix as examined, but was found to be healthy, and ultimately upon the terior surface of the descending portion of the duodenum a small rforation was found, forming the floor of an ulcer. The perforation as closed, and the patient recovered, and six weeks afterwards he was the best of health.

This is a striking instance of what I have previously described in the *Lancet* of May, 1902, as an instance of that ceptive condition which is found in many abdominal cases, id is called the "latent condition" or "the quiescent eriod."

III.—SUPPURATIVE CONDITIONS.

In acute gastric ulcer the complication is more often peration, whereas in the chronic form of ulcer it is not unusual find suppuration occurring, which tracks about and ves rise to subdiaphragmatic abscess. Such a case is the llowing:

CASE VII.

Chronic Gastric Ulcer: Secondary Abscess.

In 1887, when clinical assistant to the late Dr. Moxon, a girl, aged out 20, came under care. She was anaemic, and looked extremely ill, id had an intermittent temperature. There had been no previous istory of dyspepsia. Beyond the fact that there was some dullness of e base of the left lung, and some cough, no definite symptoms could elicited, and various diagnoses, including that of phthisis, were ade. She died eventually, and at the necropsy a chronic gastric ulcer the posterior surface of the stomach was found, with pus lying etween the stomach, spleen, and diaphragm.

This case occurred many years previously to the routine examination of the blood in obscure clinical states. But now he existence of leucocytosis and an excessive percentage of olynuclear cells would at once have led to an exploratory peration.

CASE VIII.

Double Pyosalpinx.

This case is quoted in the *Practitioner* for March, 1903, page 304, by r. Herbert French, and I give it verbatim, together with the remarks n it: F. A., aged 23, having been ill ten days with headache, feverishess, anorexia, and obscure abdominal pain, was sent to Guy's Hospital s suffering from typhoid fever, and admitted under the care of Dr. lale White. Her temperature was 101.8° F., her pulse 95, and her espirations 16 per minute. At the same time that blood was taken for Durham-Widal test, a blood count was made, and 24,000 leucocytes er c.mm. were found. The differential count showed:

Polymorpho-nuclear cells	...	...	...	80.0 per cent.
Small lymphocytes	...	...	...	9.0 ,,
Transitional forms	...	...	...	1.5 ,,
Large lymphocytes	...	...	...	9.0 ,,
Coarsely granular eosinophile cells	...	...	...	0.5 ,,

he conclusion, therefore, was that the condition was not one of nterica, but rather of deep-seated suppuration. There were no pelvic ymptoms, and the patient was unmarried, but there was considerable bdominal pain, and, following the lead given by the total and differenial leucocyte counts, laparotomy was performed in the middle line. Double pyosalpinx was found, and the patient made a complete recovery fter removal of the tubes.

CASE IX.

Remote Pelvic Cellulitis.

Mrs. C., aged 28, was seen by me in consultation with Dr Mack, of anonbury, with pain in the left loin, thickening about the left kidney. our months previously she had been confined, and had a difficult conlinement. Since then she had had an occasional rise of temperature to 00°, and no thickening or fullness could be felt in the pelvis, but there vere some in the loin. She was admitted into Westminster Hospital, nd the question arose as to the presence or absence of pus. The eucocyte count was 22,500, and it was decided to operate. After an exensive search to my disappointment no pus was found, so a drain was eft in the wound. But one week afterwards there was a sudden and opious discharge of pus, and with this the leucocyte count fell to 15,625.

In no form of abdominal inflammation is there so much difficulty as in appendicitis, and, as a surgeon, one approaches the subject with awe, because experience has made me look upon the disease as absolutely protean in its possibilities. In an acute attack it is impossible to fortell what will be the outcome. For example, a patient commencing his illness in a quiet way and apparently doing perfectly well may suddenly develop acute symptoms and die in a few hours. Or an attack may begin in a most violent manner and then subside and the disease run a perfectly controllable course. Or, again, and these are the distressing cases, an attack commences acutely, and then there is a rapid subsidence of symptoms and the patient appears to be fairly well; but a violent lighting up follows and nothing more can be done. Some cases are so acute from the first as to preclude all hope of successful treatment. An example of this recently came to my knowledge. A middle-aged man, hitherto perfectly well, woke up one night with acute pain and collapse, the pain being localized to the right iliac fossa. A physician was called in and gave a guarded opinion. But the acute distension and collapse with which the illness commenced persisted and a surgeon was sent for, who, twelve hours after the onset of illness, found the appendix gangrenous and general peritonitis setting in, for which nothing could be done. The subtlety of the disease is extraordinary, and it is recorded that septic peritonitis from appendicitis has run its course with a flaccid abdomen and scarcely any tenderness, and in one instance a man spent some hours applying massage to his own abdomen. In another case a patient drew attention to the absence of tenderness by slapping the abdominal wall.[4]

When a case of appendicitis commences with symptoms of intense collapse, which are comparable to those present in a case of deadly poisoning by a mineral, such as arsenic, it is quite certain that the proper thing to do is to operate immediately and to remove the appendix, which is undoubtedly the focus of septic infection. It is absolutely futile to wait for limiting adhesions, because the patient is dead before they have time to form, poisoned throughout by an ulcerated or gangrenous appendix. The difficulty, however, comes in more frequently when we have to decide the question of operation in a case, for example from the fourth to eighth day, where the general symptoms doubtfully point to pus being present, and we are not quite certain whether we are justified in a long search for pus or not. In these instances the leucocyte count, and more particularly the proportion of polynuclear cells, is decisive, and I may instance the case of male patient who was admitted under my care to Westminster Hospital in 1901 suffering from appendicitis. His temperature was 99.4°, his pulse 104, and he was in severe pain, with a large mass in the right iliac fossa. This was the fourth day of illness. The leucocyte count was 11,562 per c.mm., very little above the normal, and on this ground operation was deferred. This case subsided without suppuration and did well. But in patients in whom the general symptoms are severe, the local abdominal condition of appendicitis is persistent, and the leucocyte count is over 12,000 or 14,000, I should not hesitate to operate. The significance of a persistently high leucocyte count cannot be disregarded, although it should be taken in conjunction with the general symptoms. It is of such importance that in doubtful cases it is the determining factor as to operation or otherwise, and it may decide the question in the following class of case which has come under my notice. A patient with appendicular abscess has been operated upon. For a time he does well, and then his general symptoms return. We therefore suspect that there is a secondary abscess, probably deep-seated in the pelvis, or, what is still more formidable, a subdiaphragmatic abscess. If the patient is to be saved, pus must be found and evacuated. But, to justify a prolonged search, some data more certain than general symptoms are required, and these will probably be found in the examination of the blood. I can recall one such case in which, after I had opened an intra-abdominal abscess, the patient did well for a time. But afterwards the symptoms returned, and a secondary abscess formed deep in the pelvis, and burst into the peritoneum with a fatal result. If during the accession of the second attack of fever the blood had been carefully examined, I do not doubt that ample reason would have been shown for another and severe operation.

In the instances I have quoted we are confronted with these difficulties: (1) The fact that many abdominal lesions are latent in their symptoms for a time, and then suddenly become acute; (2) that cases, commencing acutely, subside, and are apparently going on well, and then break out with increased virulence and end fatally, the favourable opportunity of the "latent" period not having been grasped; (3) that when the general symptoms of suppuration are present it is sometimes impossible to say with which organ it is connected, and we have no data on which to commence our exploration, which may be of a very severe character; and

(4) the fear that, if we do find the focus of suppuration, we may not, in evacuating it be able to limit and prevent its spread to the general peritoneal cavity. However, once it is clear to the surgeon that pus is present it is his duty, by a careful discrimination of symptoms, to attempt to localize it and to evacuate it.

The great safeguard and the guide in all these cases is a thorough and careful examination from day to day, and even from hour to hour, in an individual case, and I am disposed to say that one positive sign, such as altered relation of pulse-rate and temperature, rigidity, absence of peristalsis, persistent tenderness, or excessive leucocytosis, must outweigh the absence of all other unfavourable symptoms. There are certain symptoms which we cannot neglect, even in obscure cases. These I may briefly discuss under the following headings in their order of importance, and I place above all:

1. The ratio of the pulse and temperature. Then follow:
2. Leucocytosis.
3. Rigidity.
4. Vomiting.
5. Distension.
6. Diarrhoea and constipation.
7. Local tenderness.
8. Haematemesis and melaena.
9. Increasing abdominal dullness.
10. Effusion of blood beneath the abdominal walls.
11. Chest symptoms, such as dullness, signs of consolidation, etc.

1. *The Pulse and Temperature.*—These may rise together in due proportion, or there may be a slightly elevated temperature with an entirely disproportionate pulse-rate; or the temperature may be subnormal when taken on the surface, while the pulse may be greatly accelerated. But be it noted, if the temperature is taken in the rectum it is almost invariably above normal. The conditions of gravity are two: First, a normal temperature with a pulse-rate of 100 or over; and, secondly, a condition of still greater gravity, a subnormal temperature with a rising pulse. In all abdominal cases the pulse and temperature should be frequently taken, at least every three hours, although the disease appears to be quieting down. If the case is to have a successful issue, this inverse relationship of temperature and pulse should be observed at the earliest possible moment. If the abnormal ratio has been established for a day or longer the prospects of surgical interference are extremely unfavourable, because the altered ratio is significant of the absorption of septic products.

2. *Leucocytosis.*—I may venture to remind you that the number of leucocytes per c.mm. present in the blood is normally 5,000 to 7,000, the count rising to 12,000 at the height of digestion after a good meal. In purulent appendicitis the number of leucocytes varies from 14,000 to 58,000, the average being 17,000 to 20,000. In perforative appendicitis there is a very rapid rise in the number of leucocytes, and counts of over 20,000 indicate either pus, gangrene, or peritonitis; but, as showing that even this sign is not absolutely to be relied upon, the gravest kinds of appendicitis, attended with the acutest form of poisoning, do not show an increase of leucocytosis. Thus it is not advisable to divorce the leucocyte count from the clinical condition of the patient. Leucocytosis is absent in enteric fever but it is present in ovarian abscess and other forms of intra-abdominal suppuration. It is absent also in uncomplicated gastric ulcer, but if perforation occurs the number rises. It is important not only to ascertain the number of leucocytes but the ratio of of polymorpho-nuclear cells. If these are increased from the normal rate of 65 per cent. to over 70-75 per cent. then pus formation is certainly present.

3. *Rigidity*, which is almost always associated with some tenderness, is a symptom to be carefully watched, particularly if it be persistent. Even in the absence of other abdominal signs, such as vomiting and severe pain, rigidity, with some tenderness, as in Case VI of perforating duodenal ulcer, was sufficient ground for operation, although the patient was apparently well and had remained at his work for four days. The operation was, as I have said, abundantly justified.

4. *Vomiting* is a very variable sign; most acute abdominal conditions commence with it. It often ceases after the administration of sedatives, or if the stomach has been emptied of its contents by the initial sickness, and it is frequently absent in the latent period. But if it recurs, in spite of careful feeding and after the administration of sedatives, it is not to be under-estimated.

5. *Distension.*—This is often absent in the early stages, even in so serious an illness as a perforating gastric ulcer. But in the later stages of abdominal disease the fatal significance is only too well known. Distension which persists for longer than twenty-four to thirty-six hours, and is unrelieved by treatment, such as a turpentine enema, is of grave moment. Before any marked degree of distension has taken place it is possible to ascertain the existence of normal liver dullness. But, when distension is well marked, the coils of intestine may override the edge of the liver, and so mask it.

6. *Constipation and Diarrhoea.*—The former may be due either to obstruction or to the administration of sedatives, but diarrhoea, occurring in the course of acute appendicitis, is generally significant of septic absorption from a non-evacuated abscess.

7. *Local tenderness* is always of value as a guiding point to the site of the lesion. Its persistence at the upper part of the rectus may determine the site of incision in a suspected case of perforation in gastric ulcer, and localized tenderness at McBurney's spot is one of the determining signs of the presence of appendicitis.

8. *Haematemesis and Melaena.*—The persistence of these after an injury, or in association with a suspected gastric or duodenal ulcer, may be such as to determine the question of operation or otherwise.

9. *Increasing Abdominal Dullness.*—The presence or absence of this is an important factor in those doubtful cases of injury where it may be that a solid viscus has been ruptured, and blood is being poured out into the peritoneal cavity, or the dullness may be due to effusion of pus or fluid, or to matted intestine with adhesion, as in appendicitis.

10. *Effusion of Blood Beneath the Abdominal Walls.*—This in itself is not a symptom to be relied upon, and should only be taken into consideration with other symptoms, such as shock, collapse, and haematemesis, as indicating the possible extent of laceration of the parts beneath.

11. *Chest Symptoms.*—In a patient who begins an illness with symptoms referable to the abdomen and remains ill although the symptoms in that region have apparently subsided, a careful examination of his chest, and the detection of either a pleuritic rub or the presence of fluid in either of the pleural cavities, may serve as an indication that mischief is going on in the abdominal cavity, and that an exploratory operation is called for. The association of pleurisy and perigastric abscess is well known, and so, too, is the existence of subdiaphragmatic abscess secondary to appendicitis, and the presence of fluid at the right base. The point lies in the persistence of chest symptoms preceded by a history of abdominal trouble.

REFERENCES.
[1] *Annals of Surgery*, vol. xxxii, p. 673. [2] Ibid., March, 1902. [3] Ibid., vol. xxx, p. 634. [4] Treves, Perityphlitis.

MEMORANDA:

MEDICAL, SURGICAL, OBSTETRICAL, THERAPEUTICAL, PATHOLOGICAL, ETC.

DRUG RASH COMPLICATING ENTERIC FEVER AND SIMULATING SCARLET FEVER.

T. G., male, 17 years of age, consulted me on September 27th, 1903, about an extensive erythematous rash very closely resembling scarlatinal erythema. The rash covered his face, body, arms, and legs. He gave a history of not feeling very well for a week or so, backache interfering with his work in the stable; the rash had been out two days. He now had a sore throat, and felt very weak. His pulse was 100, his temperature 103,2° F. The pharynx was inflamed, the tonsils enlarged and angry, and the tongue furred with enlarged papillae and red edges. He had vomited once or twice, and felt sick. Here was a clinical picture resembling scarlatina. The throat symptoms did not seem severe enough, or pulse quick enough, however, and the tongue not quite typical. I told him that but for his temperature I should say it was a drug rash. He then told me that he had taken several Doan's pills for the backache, and previous to them some opening medicine, which had worked freely. He said his bowels were loose, but it was due to a seidlitz powder. He had no abdominal pain or tenderness. Thinking he had caught a chill, and ascribing the rash to the pills, I ordered him to bed and gave him a saline mixture.

On September 28th his temperature was 104° and pulse between 110 and 115. He had not vomited, his bowels had not acted, there was no abdominal pain or tenderness.

On September 29th the temperature was 103.5°, the pulse as on the previous day; one motion described as light in

olour had been passed. I now gave him quinine sulphate gr.) every four hours, and left instructions to preserve any otion, Had I had the facility I should have tried the lood reaction.

On September 30th the morning temperature was 103°, ulse 110; the evening temperature 104°. The bowels had ot acted. There was no abdominal tenderness; there was me gurgling in the right iliac fossa and slight tympany. o typhoid rash was to be observed.

On October 1st the temperature was 103.5°, and the pulse 10. Three motions of typical pea-soup character had been assed. All this time he complained of nothing but weakness. I reported the case as enteric, and he was removed to the ever hospital. He was evidently in the second week of the lisease.

Here was a beautiful example of the uselessness of the ublic treating symptoms with patent medicines, even granting there be virtue in the latter.

A fortnight later a young man 20 years of age came to see ne in a very depressed state, thinking he had fever. He presented a similar rash to the above. His temperature and ulse were normal; urine, specific gravity 1025, showed no lbumen. His tongue was flabby and pale, and he complained f backache. At first he said he had taken no medicine, but n asking him to think again his sister, who was with him, aid, "Yes, doctor; his sister gave him two pills." On asking what pills, "Doan's" was the reply. I ordered seidlitz powder nd gave a hepatic stimulant; he was soon himself again.

London, N. G. W. R. SKENE, M.B., Ch.B.Edin.

ADRENALIN IN PULMONARY HAEMOPTYSIS.

THE note by Dr. A. C. Bird on this subject is particularly interesting to me, as I have quite recently had a parallel case to his.

My patient, a young clergyman, was sent to this district about two years ago, suffering from pulmonary phthisis. In September of last year he had a rather severe attack of haemoptysis, which, however, readily subsided under the ordinary treatment—absolute rest in bed, application of ice, etc. On December 6th he had a second attack—a very severe one—and in spite of ergot and opium (both internally and hypodermically), sulphuric acid, hazeline, terebene, ice locally and in the mouth, and absolute rest of body and voice, the copious coughing up of blood continued until the patient's pulse began to show signs of collapse.

On December 19th I prescribed a teaspoonful of 1 in 5,000 solution of suprarenalin (Armour) three times daily, and from the giving of the first dose the condition of the expectoration changed, the bright red gave place to a "foxy" colour, and after the third dose of suprarenalin all trace of blood in the sputum had gone and has not reappeared as yet.

I have still more recently used suprarenalin in a second case of haemoptysis with equally rapid result, and also in a case of fairly severe *post-partum* haemorrhage again, so far as one can tell, with excellent effect.

Rothbury. ARTHUR S. HEDLEY, M.B.

BLEEDING IN PNEUMONIA.

THE report of the following case may interest those who have read Dr. Lees's paper and Dr. Barr's comments thereon.

O. P., a boy aged 14 years, who had had bronchitis in childhood; had left-sided empyema two years ago. This was drained and part of rib resected. The scar and physical signs of thickened pleura remain. His present illness began with typical signs and symptoms of acute pneumonia at the right base. On the third day the temperature reached 107° F. for a short time. On the fifth day the temperature was 105°, the pulse feeble (about 180), respirations 65; there was marked cyanosis and much distress from feeling of suffocation. Four leeches were applied over the region of the right auricle, and withdrew some 2 oz. of blood; for two hours longer the bites were encouraged to bleed freely, so that I am sure not less than 4 oz. in all were abstracted. At the end of the two hours the patient was comfortable, the cyanosis was gone, the temperature was 103°, the pulse 125, and the respirations 60. For two more days the temperature continued between 103° and 105°, but the pulse never exceeded 130, nor was cyanosis again marked. The case terminated favourably by lysis.

During the last twenty years I have occasionally bled in certain cases of pneumonia (twice in one alcoholic patient), but I have never before seen such marked evidence of the value of this procedure.

Southampton. S. HUGHES, M.B., etc.

THE TREATMENT OF MYIASIS.

WITH reference to the very interesting "Notes on Myiasis" by Captain P. S. Lelean, F.R.C.S.Eng., R.A.M.C., in the BRITISH MEDICAL JOURNAL of January 30th, may I point out that larvae can be at once got rid of by the following method? The tip of an ordinary probe is lightly smeared with vaseline and pressed on to a little calomel so as to take up about 1 gr. of the drug. It is then passed into the cavity containing the larvae and gently moved round it. The calomel kills the larvae in a few minutes. They can then be removed by gentle pressure, or, better still, by syringing the cavity which contains them with a little warm boracic lotion.

The other drugs, such as turpentine, which have been recommended for destroying maggots, are uncertain, irritating, and very painful. On the other hand, calomel acts rapidly, certainly, and without causing the slightest pain or discomfort. It also seems to destroy or neutralize the excretory products of the larvae, which are often sufficiently irritating to excite considerable local inflammation and high fever.

Calomel is also fatal to most of the lower forms of life, and I have used it successfully to get rid of a leech which had accidentally entered the nasal fossa.

G. H. YOUNGE, F.R.C.S.I.,
Lieutenant-Colonel R.A.M.C. (retired pay).

REPORTS
ON
MEDICAL AND SURGICAL PRACTICE IN THE HOSPITALS AND ASYLUMS OF THE BRITISH EMPIRE.

SOUTH WIMBLEDON AND MERTON COTTAGE HOSPITAL.

SPONTANEOUS RUPTURE OF THE UTERUS: LAPAROTOMY: RECOVERY.

(By MARTIN RANDALL, M.D.Lond., F.R.C.S.)

CASES of spontaneous rupture of the uterus occurring early in labour are so uncommon that this one may be thought worthy of record:

History.—E. S., aged 36, at full term in her tenth pregnancy. Her previous confinements, save the first, second, and ninth, have all been normal. In the first she was confined of twins prematurely at five months. The second was a transverse presentation, and the ninth child was born deformed, at eight months, and lived eight days. She is a healthy woman, but works hard and is somewhat ill-nourished. On October 19th, 1903, she went to bed as usual and slept. She woke at 2 a.m. on October 20th, and found she was losing a little blood. An hour later pains came on. She voluntarily states that they were only six or eight in number, and that she experienced something different from what she had suffered in her previous confinements. The pains ceased altogether. She was not sick, and no history of shock or collapse could be obtained. She was seen by a midwife, who told her to send again. There was no history of a fall, blow, or strain.

State on Examination.—She was seen in the morning of October 20th by Dr. Arthur Edgelow, who asked me to see her with him later in the day. She still had slight loss. She was sitting with her buttocks on the edge of the bed and her feet resting on the floor. She complained that she could not lie down, because the attempt to do so took her breath away. She also complained of cramp in her back and sides, passing down the thighs, and made worse on movement. There were no uterine pains. Colour was good, facial aspect anxious. Respiration short and gasping, as in pneumonia. Pulse 120, regular, of fair quality. Temperature normal. After much persuasion she was induced to lie on her side, with shoulders and thorax propped up by pillows. Her movements were like those of a person suffering severely from lumbago. On vaginal examination a ring-like space was felt, in which lay part of the placenta. No part of the fetus was palpable. A loss of 2 or 3 oz. of dark blood followed the examination. Dr. Edgelow then gave chloroform, and after external cleansing I introduced my hand with a view to clearing the uterus. It entered the abdominal cavity through a tear in the posterior and left part of the uterus, and thus the nature of the case became clear.

Operation.—She was removed as soon as possible to the Cottage Hospital, the abdomen cleansed, and the vagina douched. Dr. Brice Poole administered chloroform, and Drs. Edgelow and Gerrard kindly assisted at the operation, at 9 p.m. Under chloroform the child could be felt lying transversely above the uterus, with its head on the left. On opening the abdomen the first thing seen was a bulging, yellowish, bladder-like object. This was the intact amnion. The child was seized by the buttock, which presented, and removed, head last, care being taken to exclude the liquor amnii from the abdomen as far as possible. The amnion did not appear to be unusually tough or thick. The child, a fully-developed male, of quite average size, was dead.

The cord having been clamped was followed to the placenta, which was found plugging the rent in the uterus. It was removed, the chorion peeled off the uterine wall, and the uterus drawn out of the abdomen. There was little bleeding. The rent was just behind and parallel to the insertion of the left broad ligament. It was jagged and extended from the fundus into the vaginal fornix. It was closed by interrupted silkworm gut sutures inserted as in a Caesarean section and a fine continuous silk peritoneal suture. This could not be applied over the last two stitches closing the vaginal fornix. The insertion of the sutures caused very free bleeding. A drainage tube was passed down on the left of the uterus, after clearing away clots and blood, of which the peritoneum had contained very little. The wound was then closed, save for the drainage tube space, and dressed in the usual way. The operation was well borne.

Progress.—Progress was good for the first six days, the tube being removed on the fifth. The temperature then began to rise to 101° at night, and tenderness developed in the left iliac fossa. On the fourteenth day a deep lump could be felt just above the outer part of Poupart's ligament. No sign of effusion in the pelvis could be detected per vaginam. On the sixteenth day an incision was made through the abdominal wall immediately above the outer half of Poupart's ligament, and a collection of pus evacuated from under the iliac fascia. One or two small stitch abscesses formed in the abdominal wound. After this progress was steady, but slow, and the wounds were soundly healed by December 25th. She had just completed a normal menstrual period. I regret that the placenta was not minutely examined.

Remarks.—The special features of interest are, the early period of labour at which rupture occurred, the absence of serious shock and haemorrhage, and, most noteworthy of all, the fact that the amnion was not ruptured. The mode of treatment to be adopted was obvious. The history of the onset of loss, followed by "six or eight" pains was most definite, and there can be little doubt that the rupture occurred at this time—about 4 a.m. on October 20th. The operation was performed about seventeen hours later, and during this period there were no uterine pains. Cases occurring thus early in labour are exceedingly rare. A very good example is recorded by Dr. Milne Murray.[1] In his case rupture apparently took place between four and five hours after labour began. Operation revealed a tear almost identical with the one found in my case, but the amnion was ruptured. Convalescence was complicated by the formation of a pelvic abscess which discharged per vaginam. Dr. Murray refers to records of three somewhat similar cases, and gives references to them. The complaint that she could not lie down was very puzzling. The first idea was that she had pneumonia, which the breathing suggested, and when this was excluded, that she had lumbago. The symptom was fully explained by the position of the fetus, which evidently embarrassed the thoracic organs less in the erect than in the recumbent position. The absence of severe shock I attribute to the small amount of haemorrhage, probably due to the placenta plugging the rent, and to the fact that the amnion was intact. That the placenta may thus act in arresting haemorrhage is proved by a case recorded by Dr. Dakin,[2] in which after delivery of the child per vias naturales, the uterus was found ruptured, with the placenta in the tear. Its removal was followed by such severe haemorrhage that the patient died in about ten minutes. As regards the condition of the amnion, it has been said that the uterus cannot rupture without the membranes being ruptured. Dr. Murdoch Cameron, in a most interesting case that he records,[3] points out that this is a fallacy. In Jewett's *Obstetrics* reference is made to two cases of ruptured uterus in which the membranes were intact. One died and one recovered. In such instances the uterus must be actually burst. It is not torn by undue pressure on a certain spot but gives way at its line of least resistance, just as an overdistended bladder or cycle tire yields where weakest. Whether in this case there was a transverse presentation or a placenta praevia is uncertain. Nothing in the previous history pointed to the latter, but I cannot too much regret having omitted to examine the after-birth from this point of view. The suppuration that occurred was annoying but not surprising to one who saw the room where she was when first seen, and the ablutions which were requisite and necessarily somewhat hurried before operation. There was never any indication of peritonitis, and the abscess which was opened appeared to be in the cellular tissue under the iliac fascia. Finally, it is open to question whether the uterus should have been removed. This procedure adds greatly to the shock of the operation, but this would have been as favourable a case for its adoption as could be obtained. The general opinion now appears to be that the uterus should not be amputated if simpler and less severe methods of dealing with the tear are practicable.[4] But it might have been a better mode of treatment to leave the lowest inch of the tear, which was in the vaginal fornix, unsutured; to have used a gauze drain passed into Douglas's pouch through this opening, and to have completely closed the abdominal incision.

References.

1 *Journal of Obstetrics and Gynaecology of the British Empire*, 1902, vol. i, p. 142. 2 *Trans. Obstet. Soc. Lond.*, vol. xl, p. 30. 3 British Medical Journal, October 14th, 1899, p. 972. 4 Proceedings, Obstet. Soc. Lond., British Medical Journal, January 13th, 1900, p. 78.

MANCHESTER UNION HOSPITAL.

A CASE OF PANCREATIC CYST: LAPAROTOMY AND DRAINAGE.

(Reported by Arthur H. Burgess, F.R.C.S.Eng., M.B., M.Sc.Vict., Visiting Surgeon.)

J. W., aged 45 years, was admitted to the hospital on May 20th, 1903, complaining of severe diarrhoea of about ten days' duration. He appeared extremely emaciated, and stated that he had been getting steadily thinner for the previous six months. On examination of the abdomen a smooth, elastic swelling was discovered, deeply placed in the epigastric region, exhibiting no tenderness to pressure, uninfluenced by the respiratory movements, and not capable of being moved in a lateral direction. Indistinct fluctuation was obtainable, percussion yielded a dull tympanitic resonance, auscultation revealed no *bruit*, nor was the swelling pulsatile. On inflating the colon with air the tumour was noticed to be well above the transverse colon, and on distending the stomach with carbonic acid gas that viscus lay across the front of the swelling, completely obscuring it. There was no excess of fat or undigested muscle fibre in the stools, and on one occasion only was the presence of a small quantity of a Fehling-reducing substance noted in the urine. A diagnosis of probable pancreatic cyst being made, laparotomy was performed on June 25th, 1903, through a median incision in the epigastrium, to which at a later stage was added a transverse cut partly throught the right rectus. On tearing through the layers of the small omentum a tense, thin walled cyst was exposed, firmly connected with the head of the pancreas, the remains of which were spread out over its lower portion, the tail of the organ not being involved. The cyst was aspirated, and 27 oz. of fluid withdrawn. Owing to the thinness of its wall and its close incorporation with structures around, enucleation of the cyst was out of the question and from the depth of its situation it was impossible to bring it up to the abdominal wound. A glass tube was therefore introduced through an enlargement of the trocar aperture, the margins of which were tied closely round the tube with a stout silk ligature, the tube itself being surrounded with sterilized gauze. The rest of the incision was sutured.

The fluid withdrawn was of a reddish-brown colour, glisten- with crystals of cholesterine, specific gravity 1036, alkaline, contained albumen but not sugar, and gave the guaiacum reaction for blood pigment. By some error, the fluid was unfortunately thrown away before it could be specially investigated for the presence of ferments.

After the operation the general state of the patient markedly improved and a rapid increase in weight was noted. The glass tube was removed on the sixth day, the discharge, never very profuse, gradually diminished, and the fistula finally closed on November 4th, 1903. The man is now in excellent condition.

Medical Wills.—The estate of the late Dr. Samuel Woodcock, J.P., has been valued by his executors at £8,662 gross, and £4,476 net.—The will of the late Dr. Theophilus W. Trend of Southampton has been proved at £18,382 15s. 5d.—Colonel Sir George Thompson, K.C.B., I.M.S., who served in Afghanistan in 1878, and with the Chitral Relief Force in 1895, has left £3,329 18s. 10d.

Mortality among American Practitioners.—From statistics compiled by the *Journal of the American Medical Association* it appears that the number of medical practitioners who died in the United States and Canada during 1903, was 1,648. This is probably within 5 per cent. of the total mortality in the medical profession in North America, the number of which is estimated at about 120,000. The time the deceased doctors had been in practice varied from one to seventy-five years. The greatest number of deaths occurred in the twenty-fifth year of practice, in which 51 were recorded. Of the entire number 209 had practised more than fifty years, and two had been in practice seventy-five years at the time of death.

ritish Medical Association.

LINICAL AND SCIENTIFIC PROCEEDINGS.

BIRMINGHAM BRANCH.

JORDAN LLOYD, F.R.C.S., President, in the Chair.

Birmingham, Thursday, January 14th, 1904.

raumatic Neurosis.—Dr. JAMESON EVANS showed a woman, l 23, with symptoms of the hystero-neurasthenic type owing a blow on the right eye in 1900. There had n persistent conjunctivitis, with reduction of vision and traction of the field in both eyes, but more so in the t eye than in the left. She had had globus, aphonia, t pains, blepharospasm, and a right-sided roseolar rash ntervals during the last three years. At present vision RV $=\frac{6}{60}$, LV $=\frac{6}{24}$. Right field contracted to about 10°; field to about 40°. She suffered from dysmenorrhoea and plessness, and her patellar reflexes were exaggerated. She had conjunctivitis, blepharospasm, and a roseolar rash he right side of the face.

ongenital Deficiency of Pigmentation in Negresses.—Mr. IRRISON showed photographs of three negro sisters, the ngest of whom, aged 13, was under his care in the Queen's spital for tuberculous peritonitis. On each of the three re were areas of skin devoid of black pigment, and giving trangely piebald appearance. The condition, which was genital, tended to be symmetrical, and occurred on the k, head, and limbs. The patches were not quite white, en in ordinary leucoderma, but resembled in tint the h of a blonde European. The mother was similarly marked so were six other children out of her family of fifteen; no other example had been heard of amongst the coloured ple known to them at their home in Louisiana, U.S.

nlarged Prostate.—The PRESIDENT showed a prostate sucsfully removed by Freyer's operation from a man aged years, who was suffering from retention of urine with ematuria of two months' duration.

Decapitation in Impacted Shoulder-presentations.—Dr. C. E. RSLOW read a paper, of which the following is a synopsis: lications: operation seldom required, not once necessary over 5,000 cases under writer's care in Queen's Hospital ternity; methods of separating and extracting head—ich should be preferred? Notes of three cases; in each e all signs of life in the child had ceased for some time ore operation was commenced.—Dr. THOMAS WILSON, Dr. RTS, Mr. A. FREER, Dr. BIRT, and the PRESIDENT took part the discussion; and Dr. PURSLOW replied.

Medico-legal Aspect of Injuries to the Eye.—Dr. JAMESON ANS read a paper on this subject under the following headgs: The object of the Workmen's Compensation Act; facts upon which the wage-earning capacity of the workman pends; the estimation of the wage-earning capacity after uries to the eye; binocular *v.* monocular vision; factors ich decide the degree of recovery after loss of one eye; mparative value of remaining eye; attitude of employers d insurance companies towards one-eyed workmen; simulation and its detection.—The paper was discussed by Mr. IESTLEY SMITH, Dr. WOOD WHITE, Dr. STEPHEN, Mr. ORRISON, and the PRESIDENT; and Dr. JAMESON EVANS plied.

PATHOLOGICAL AND CLINICAL SECTION.

FRANK MARSH, F.R.C.S., President, in the Chair.

Birmingham, Friday, January 29th, 1904.

Sarcoma.—Mr. E. N. NASON showed specimens of sarcoma the toe and enlarged inguinal glands.

The patient, a male, aged 44, was admitted into the Nuneaton Hospital in November with a history that six years previously the toenail had split down the centre while he was cutting it. A deformed and ist nail displaced the split one and a discharge continued to come m its base for two years. Eighteen months ago the toe began to enlge after a "blood blister" had formed spontaneously. Since then e toe had already exploded. Eight months ago the inguinal glands gan to enlarge, and on admission to hospital had reached the size of orange. The toe and glands were removed; the former had a elanotic appearance, and in it the bone of the first phalanx had parently been entirely replaced by growth. The glands were cystic d slightly pigmented

A discussion followed as to the exact nature of the growth. The specimens were referred to the Microscopic Investigation Subcommittee of the Section.

Hemiplegia.—Dr. SHORT showed the brain from a case in which there was a history of right hemiplegia five years ago practically recovered from, and a recent left hemiplegia of two months' duration followed by coarse tremulous movements somewhat resembling the tremors of disseminated sclerosis, which affected not only the arm and leg on the left side, but also the arm on the right side. Thrombosis of the longitudinal sinus preceded death, and at the necropsy a small patch of haemorrhagic softening was found in the middle of the right optic thalamus. No obvious lesion could be seen with the naked eye in the left half of the brain to account for the past hemiplegic condition of the right arm.

Hydatid Mole.—Dr. SMALLWOOD SAVAGE showed a specimen of hydatid mole with microscopical sections.

It was removed from a patient aged 50, who had had eight children, the last seven years before. Menstruation had been irregular and scanty until nine weeks ago, when for six weeks she had had a continuous loss. Three weeks ago there was a profuse loss. She did not regard herself as pregnant. The breasts were enlarged, but contained no fluid. The uterus reached nearly up to the umbilicus. A *souffle* was heard all over it.

Under an anaesthetic the uterus was emptied, about four or five pints being removed. She had improved considerably since the operation. The microscopical sections showed the typical conditions met with in such cases.

Joint Disease.—Dr. DOUGLAS STANLEY showed a knee-joint and elbow-joint taken from a child admitted under his care with congenital syphilis. There was swelling and disorganization of the joints from extension from the epiphyseal line; the articular surfaces were unaffected. The lungs showed lesions suggestive of syphilitic pneumonia, and there was a gumma in the mediastinum. In the discussion which followed it was suggested that the joint lesion was tuberculous. Dr. Stanley believed that the whole process was syphilitic.

Septicaemia.—Dr. FOXWELL showed specimens taken from the body of a man, aged 24, who died from septicaemia following ear disease.

Two years before his death the patient had suffered from influenza; ever since he had been subject to attacks of pain in, and discharge from, both ears on exposure to cold. Three weeks before death one of these attacks began with discharge from both ears; in a week he had to give up work on account of the headache; abdominal pains also arose, and he took to bed. On the morning of January 18th a rigor occurred. He was sent into hospital as a case of enteric on January 21st, the temperature during the interim varying between 101° and 103°. At that time he was drowsy but quite intelligent; his liver and spleen were large, and both very tender; he had rhonchi throughout both lungs, and in patches slight dullness with sub-bronchial breath sounds. The right membrana tympani was perforated, the left not; secretion taken from the right ear showed streptococci and staphylococci. That from the left was not examined. No paresis or other localizing symptom. On January 24th another rigour; there had been delirium, and he was more drowsy; pupils contracted and inactive; definite optic neuritis; tenderness and rigidity of neck muscles; Kernig's sign well marked, with ankle-clonus on both sides; right plantar slightly extensor, left slightly flexor; knee-jerks absent; definite double pneumonia. Lumbar puncture showed considerable pressure; fluid almost clear, containing a very few small uncapsuled diplococci. No leucocytosis (count on 20 degrees —7,500 on 23 degrees 6,000). In the evening the mastoid was cleared out; the bone was much thickened, but its roof gave no sign of meningeal involvement. Death on 27th. *Post mortem* there was enormous congestion of brain and meninges, but no general meningitis. On the right lower surface of the cerebellum near the flocculus was a small patch of purulent meningitis, three-quarters of an inch by half an inch in area; here the dura was adherent to the arachnoid directly over a part of the sigmoid sinus, which contained purulent clot and had a softened and greenish wall, which was contiguous to a spongy and pus-containing portion of the petrous bone. The lungs had many small abscesses. The liver and kidneys were large and intensely fatty; the spleen weighed 13 oz., and was extremely soft. Cultivations of staphylococci were freely obtained from the spot of local meningitis, from an abscess of the lung, and from the general lung tissue; from an indifferent point of the brain (R. Sylvian fissure), and from the blood in the left ventricle, two or three colonies were grown; none could be obtained from the spleen.

When seen on the 22nd it was evident that the diagnosis of enteric fever could no longer be maintained. Indeed, the man's fate appeared already sealed, as septic pneumonia had arisen. But even then the absence of any localizing sign and the presence of both pain and ear disease on both sides made treatment difficult. Later the existence of optic neuritis without leucocytosis, of Kernig's sign in both legs, and of neck rigidity, suggested the possibility of a cerebro-spinal meningitis quite apart from ear disease. However, the fact that the ear disease was more marked on the right side indicated exploration in that locality; but, on finding the roof of the mastoid quite healthy, the existence of brain infection was thought to be not sufficiently probable to justify opening the meninges in a man in the patient's desperate condition.

Specimens.—Mr. JAMESON EVANS: Three specimens of tumours of the optic nerve.—Mr. THOMAS WILSON: (1) A specimen myoma of the broad ligament, with epithelium-cased cysts; (2) two specimens of von Recklinghausen's adenomyoma of the uterus.

METROPOLITAN COUNTIES BRANCH: ST. PANCRAS DIVISION.

Thursday, January 21st, 1904.

WM. WYNN WESTCOTT, M.B., in the Chair.

Consumption and Sanatoria.—Dr. SYKES opened a discussion on this subject. Pathologically pulmonary tuberculosis was dependent upon the access of a specific microbe to the human subject in a suitable bodily condition, due to predisposition, partly innate but mainly acquired by deficient quality of air supply, insufficient nourishment, or exhaustive work. The specific microbe might be expelled with the sputum in expectorating or with droplets or spray in coughing and forcible expiration, and either pass directly from a suffering person to a predisposed person or else find a temporary and intermediate nidus in the interior of an inhabited building and ultimately gain access again to a permanent or temporary inhabitant of the building. In France stress was laid upon the difference between the communicability of *la tuberculose ouverte* and *la tuberculose fermée*, and preventive treatment in France aimed at converting the *ouverte* into the *fermée* condition. In other words, it was recognized that in the non-expectorating types of tuberculosis there was little risk of communicability. This differentiation simplified the position, as then one had to deal only with pulmonary tuberculosis accompanied by expectoration, to which four injunctions were applicable, namely, (1) do not breathe forcibly into the face of another person, but when sighing, yawning, hawking, or coughing do not fail to hold the hand before the mouth; (2) do not swallow the sputum, and do not spit upon the surfaces of an enclosed or covered place; (3) if consumptive, spit only into a proper receptable specially reserved and prepared for the purpose, and, (4) if consumptive, do not sleep with another person. Passing on one had to consider the question of diagnosis, notification, disinfection, and sanatoria. Diagnosis: The first desideratum was the earliest recognition of the disease, and this must depend upon the highly-trained skill of the medical attendant, but it was evident that if expectoration were present it became a matter for the protection of the public that he should be assisted in making a correct diagnosis, and so the first conclusion was arrived at (1) that every sanitary authority should provide facilities for the bacteriological examination of sputum for tubercle bacilli. The discovery of the tubercle bacillus would practically amount to the voluntary notification of expectorating pulmonary tuberculosis for those cases in which the sputum was examined at public expense. Notification: To voluntary notification the objection raised was the infringement of professional confidence between patient and medical attendant; but in the interests of the patient and the family and friends that could not be advanced against a second proposition, (2) that the expectoration of a person suffering from a pulmonary disorder suspected to be tuberculous should be examined bacteriologically at public or at private expense. To obligatory notification the objection made was that the intervention of the sanitary authority was likely to be of a kind to raise the opposition of both patient and medical attendant. On the other hand, the obligation exonerated the medical attendant from exceeding his duty, and might be so framed as to avoid interfering between doctor and patient in the words of a third proposition, (3) that it was desirable that cases in which tubercle bacilli were found in the sputum upon bacteriological examination should be notified under statutory obligation, and the precautions required should be prescribed by the registered medical practitioner in attendance. Disinfection: Upon the foregoing followed a fourth proposition, (4) that, after removal, on account of change of residence, or of entry into a sanatorium, hospital, or home, or of death, the medical attendant should require the sanitary authority to disinfect the room previously occupied by the patient. Sanatoria: In regard to the treatment of expectorating pulmonary tuberculosis away from home, there were three classes of cases to be provided for—incipient, confirmed, and advanced cases. This meant—for the incipient cases sanatoria proper, for the confirmed cases consumption hospitals, and for the advanced cases homes for incurable consumptives or homes for the dying. The provision might be made either in separate institutions or within the precincts of the same institution in separate structures, as was now being done in connexion with some workhouse infirmaries. In the homes of the poorest the advanced cases were by far the most dangerous, the confirmed were intermediate, and for the incipient cases sanatoria afforded the most promising and permanent results. In addition, it would also be desirable, in connexion with sanatoria, to enlist the co-operation of local dispensaries and medical institutions in discovering cases of threatening consumption in order that the benefits of existing charities and convalescent homes might be extended to them so to render the sick more resistant to the disease, and to re-establish their health Whilst this was relieving the pressure upon sanatoria at one end, at the other end it would be necessary to organize a system of directing those discharged from sanatoria and convalescent homes to such forms of occupation in the open air as would prevent recurrence of the disease and conduce to the maintenance of bodily health. The last-mentioned—namely, the organization of the provision of suitable occupations for patients on leaving—was yet to be realized, but might best be undertaken in conjunction with sanatoria as well as the co-operation of dispensaries and other medical institutions in selecting patients most fit for admission. At present the only resort for advanced cases of incurable consumption amongst the poorest was the workhouse infirmary and no doubt special separate provision would, sooner or later, be provided for them in all these institutions, as they would not willingly be admitted to sanatoria, where the period of residence would doubtless be restricted. The sanatorium was being regarded more and more as a place where for a limited period the consumptive might be cared for with a view to isolation, regimen, and education. The isolation would be temporary until the education was complete as to the necessary methods of personal hygiene requisite to prevent communicating the disease to others and the regimen would be devised to endow the individual with greater resistance and to teach him how to maintain that resistance. On these views of the value of sanatorium treatment in its possibilities of reducing the incidence of pulmonary tuberculosis, Dr. Sykes moved the following resolution:

That the St. Pancras Division recommends the Metropolitan County Branch and the British Medical Association to urge the Metropolitan Asylums Board to utilize the unused hospitals at Darenth as sanatoria for the consumptives of the metropolis, and that this Division also commends the General Council of the British Medical Association to make a similar representation to local authorities with regard to kindred institutions in other parts of the kingdom.

The resolution was carried unanimously.

Specimens.—Dr. CARR: Specimens of cerebellar tumour.—Mrs. SCHARLIEB: Specimens of extrauterine fetation and blood clot.—Mr. EVANS: Cases of pityriasis rubra.

REPORTS OF SOCIETIES.

ROYAL MEDICAL AND CHIRURGICAL SOCIETY.

ALFRED WILLETT, F.R.C.S., President, in the Chair.

Tuesday, February 9th, 1904.

ANAEMIA SPLENICA INFANTUM.

DR. J. H. DRYSDALE and Dr. H. THURSFIELD communicated a paper on this subject. The chief interest in connexion with this disease, known on the Continent as anaemia pseudo-leukaemia infantum of von Jaksch, was whether it was to be regarded as a disease *sui generis*, as was maintained in the paper or as a mere complication or sequel of any severe anaemia occurring in infancy. A summary of the clinical features of the disease was followed by a detailed account of the symptoms which appeared to be characteristic of the complaint. The principal of these were a profound anaemia of gradual onset and chronic duration; an enlargement of the spleen, such as was met with in no other form of anaemia of infancy, except in the rare cases of true myelogenic leukaemia, a tendency to petechial haemorrhages, and a constant and peculiar change in the condition of the blood. The precise changes in the blood were explained and summarized on the basis of a considerable number of examinations made in cases of this type, and the results contrasted with those obtained from infants suffering from severe anaemias of other types. The relation of the disease with some of the other anaemias commonly met with in infancy were considered, and stress was laid on the fact that this type had never under observation developed from any of the other varieties.

Dr. Robert Hutchison could not feel at all sure that the ndition was *sui generis*. The blood was a doubtful criterion which to classify diseases, and he was not in any case rtain that the blood picture was characteristic. In severe kets and congenital syphilis it approximated very closely pseudo-leukaemia infantum. The anaemia was certainly t secondary to rickets, both were probably due to bad giene and insufficient feeding. There was no constant orbid anatomy. It was probably a secondary anaemia due an unknown specific cause, but its exact classification was certain.

Dr. Baumann in the main agreed that the disease formed entity. The average of 21,400 leucocytes was large; an sence of leucocytosis he had considered one of the features the condition. The polymorphous appearance of the blood this disease was in itself a distinctive character. In his ses congenital syphilis was much more frequent.

Dr. G. Newton Pitt was not convinced that the process ould not be looked on as a stage of reaction to a poison ther than a distinct entity. The degree of leucocytosis ing so variable rather supported this view.

Dr. Norman Moore referred to the possible connexion tween the rickety condition and this anaemia. A large leen occurred sometimes in rickets, and it was possible that such cases the condition was an early stage of anaemia lenica infantum, both being due to some dietetic or other use.

Drs. Drysdale and Thursfield replied.

OYAL ACADEMY OF MEDICINE IN IRELAND.

Section of Anatomy and Physiology.

Friday, January 29th, 1904.

E. H. Taylor, M.D., F.R.C.S., President, in the Chair.

The Pelvic Fascia.

R. R. Atkinson Stoney read a paper entitled The Anatomy the Pelvic Fascia, with Special Reference to its Surgical nportance. He described a new method of demonstrating ie connexions of the visceral pelvic fascia, by hardening the ibject in formalin, and then having made a mesial section the pelvis, dissecting the prostate and bladder out of their scial envelopes. By means of specimens dissected in this ay, and drawings and diagrams made from them, he showed at the visceral layer of pelvic fascia, instead of dividing ito three layers as usually described, really gave off three mplete sheaths, two in a downward direction surrounding ie prostate and rectum, and one in an upward direction rrounding the bladder; and that each of these was complete itself, and in no place did one layer of fascia enter into ie formation of more than one of these three sheaths. He so pointed out that the visceral layer of pelvic fascia met ie urogenital apparatus at the vesico-prostatic junction and ie alimentary canal at the junction of the rectum and anal nal.

Sir Thomas Myles, the President, Professor Fraser, and rofessor Dixon spoke.

A Confirmation of Pawlow.

Dr. Harold Pringle exhibited a dog on which he had erformed Pawlow's "gastric fistula" operation. Some lan- rn slides were shown illustrating the operation, and others iving the results of experiments, which showed that the uice secreted by the stomach pouch varied in amount and ate of secretion, corresponding with the results already pub- ished by Pawlow.

The President and Professor Thompson spoke.

Blood Films.

Dr. Henry M. Johnston gave a demonstration on the aking of blood films by a new method and with a new pparatus, a complete account of which will shortly be pub- ished.

Pathological Section.

This Section met on January 15th, its President, Dr. Earl, eing in the chair.

Paraffin Method of Embedding.

Professor McWeeney showed an adaptation of the paraffin nethod of embedding tissues suitable for class purposes. The sections were cut in chains, floated off in convenient engths as usual, and taken up on thin sheets of mica, to vhich they were caused to adhere by capillary attraction. The mica sheets were cut up, and the divisions, each bearing a section, given out to the class. After removal of the paraffin as usual the students stained and mounted the sections, which adhered throughout to the mica and were mounted in balsam along with it. The exhibitor owed his acquaintance with this useful method to his friend, Professor Coffey, who had acquired it in Held's laboratory.

Ringworm.

Sections of ringworm hairs prepared in the above way were shown. The microsporon spores in the Irish cases which Professor McWeeney had studied gave notably larger measurements than those usually recorded—4 to 6 mikra instead of 2 to 3 mikra as generally given. He also showed young microsporon plants grown from single spores on "French proof agar," as well as in epidermic scales. The acladium form of branching and ectospore formation were well seen in the hanging drop cultures. For staining he had found Heidenhain's iron-haematoxylene after formol-vapour fixation, most useful. The nuclei of the young mycelium were well seen under high powers. He had it in contemplation to undertake a comparative study of Irish skin fungi by the methods he now outlined—namely, isolation of individual spores and culture on French proof agar.

Exhibits.

The President and Dr. Travers Smith: Tuberculous suprarenal bodies and a horseshoe kidney from a case of Addison's disease.—The President: A liver with a deformity ascribed to tight lacing; a portion of the right lobe was turned up so as to come in contact with the upper surface of the liver.—Dr. Neville: Photographs made by Dr. Wigham of various varieties of endometritis, also macroscopic and microscopic sections of cancer of the ovary.

OBSTETRICAL SOCIETY OF LONDON.

Edward Malins, M.D., President, in the Chair.

Wednesday, February 3rd, 1904.

Unruptured Tubal Gestation.

Mrs. Scharlieb showed a specimen of unruptured tubal gestation. It had been removed from a 6-para, aged 30, who was quite well and regular up to July, 1903.

The patient at that time, during what appeared to be a normal period, had an attack of severe pain which lasted three or four hours. During the next three days the patient felt ill and vomited frequently. From July to October there was constant but not profuse haemorrhage, unaccompanied by pain. On examination, a smooth, globular tumour about the size of a billiard ball was found close to the uterus, but separate from it. Diagnosis lay between a tubal gestation and a small ovarian cyst. The patient underwent operation on October 29th, 1903. A spherical dilatation of the inner third of the right Fallopian tube was found. The bladder was adherent to its anterior surface, and coils of intestine to the posterior. There was no paratubal haemorrhage.

The specimen consisted of the right Fallopian tube and ovary. The outer two-thirds of the tube were normal with a patent ostium abdominale. A probe could be passed through it down the tube, but did not enter the swelling. The globular portion consisted of the dilated tube, containing blood clot permeated by degenerated chorionic villi. In the centre was a smooth cavity lined by the amnion, and containing a perfect embryo of twenty-four to twenty-eight days development. The umbilical vesicle was a prominent object. No decidua were expelled from the uterus before or after operation. Mrs. Scharlieb thought it probable that the haemorrhage occurred when the patient experienced the severe pain in July.

Dr. Cullingworth said that the number of cases of tubal gestation operated upon before rupture, though increasing, was still so small that it was most desirable that every case should be placed on record. Mrs. Scharlieb's specimen was very beautifully preserved and mounted. The diagnosis of unruptured tubal pregnancy was always attended with difficulty, but that difficulty was much increased when, as in the present case, the gestation was too early for there to be a history of missed menstruation. Under such circumstances, a certain diagnosis must be almost impossible. He understood Mrs. Scharlieb to describe an outer peritoneal covering of the affected portion of the tube, and, beneath that, the muscular layer of the tube wall, covering a quantity of blood clot, with which damaged chorionic villi were irregularly mixed up. Was there any evidence of the chorionic villi having invaded the muscular coat, and did Mrs. Scharlieb's examination of the specimen throw any light upon the question of whether the ovum in tubal gestation was or was not outside the lumen of the tube?

Mr. Alban Doran believed that as a large number of tubal abortions were known to occur about the second month, it was highly probable that a still larger proportion of tubal

pregnancies terminated even earlier and without symptoms. Perhaps, however, this was not the case, the tube being competent to bear an ovum until it attained a certain size. Much was known about the early stages of tubal gestation, but its clinical features required more study. The discharge of dark blood known to older writers, but not accurately interpreted by them, had been correctly indicated as a cardinal symptom by Dr. Cullingworth. Pain, associated with a pelvic swelling and disturbance of the catamenia, was sometimes absent, haemorrhages probably never.

Dr. Ethel Vaughan also discussed the case.

Specimens.

Dr. Blacker showed a specimen of deciduoma malignum, and Dr. Briggs one of primary carcinoma of the Fallopian tube. The latter specimen was discussed by Mr. Alban Doran and Dr. Heywood Smith.

President's Address.

After the reports of the Treasurer, the Honorary Librarian, and the Chairman of the Board for the Examination of Midwives had been read and adopted, the President (Dr. Edward Malins) delivered the annual address.

Honorary Fellows.

Dr. Pozzi and Sir John Williams were elected Honorary Fellows of the Society.

Officers and Council.

The following list of officers for the ensuing year was announced:—*President:* Edward Malins, M.D. *Vice-Presidents:* A. H. Freeland Barbour, M.D. (Edinburgh); Amand Routh, M.D., B.S.; William Japp Sinclair, M.D. (Manchester); and Herbert R. Spencer, M.D. *Treasurer;* George Ernest Herman, M.D. *Chairman of the Board for the Examination of Midwives:* W. R. Dakin, M.D. *Editor of the "Transactions":* Herbert R. Spencer, M.D. *Honorary Secretaries:* Montagu Handfield-Jones, M.D., and Robert Boxall, M.D. *Honorary Librarian:* Arthur H. N. Lewers, M.D. Eighteen members of Council were also elected.

GLASGOW OBSTETRICAL AND GYNAECOLOGICAL SOCIETY.

J. Nigel Stark, M.D.Edin., President, in the Chair.

Wednesday, February 3rd, 1904.

The *X*-ray Treatment of Cancer.

Dr. Samuel Sloan read a note on the *x*-ray treatment of three cases of cancer. (1) Vaginal cancer. Bleeding ceased, and pain was diminished, but the size of the growth was not influenced. (2) Cancer of the right breast with destruction of the breast tissue; involvement of the axillary glands and swelling of the arm. Under the influence of the *x* rays the ulcerated surface healed over, but the malignant tissue in the breast and the axillary glands remained as before treatment. When treatment was stopped ulceration began again. (3) Cancer of the caecum. Three applications were made, and each was followed by great pain.

Some Conditions of the Fallopian Tubes.

Dr. A. Louise McIlroy read a paper on some pathological conditions of the Fallopian tubes. Dr, McIlroy grouped the cases into three classes: (1) Hydrosalpinx; (2) haematosalpinx; (3) tubal gestation. (1) Hydrosalpinx was defined as a distension of the tube by watery fluid, caused in every case by an inflammation of the walls of the tube—that was, a salpingitis. It was rarely the result of a pyosalpinx, as most of the cases contained no evidence of pus formation and no micro-organisms had been found. It might be secondary to haemorrhage from a tubal pregnancy or the result of peritonitis sealing a healthy tube, and causing retention of normal secretion. In illustration Dr. McIlroy showed a hydrosalpinx of the left tube. The dilated outer end of the tube formed a cyst the size of an orange. The cyst contained blood-stained fluid. The portion of the tube between the cyst and the uterus had twice undergone rotation. It was separated from the cyst by necrotic tissue, and in its middle third was filled with blood clot. Dr. McIlroy was of opinion that a hydrosalpinx had formed at the outer end of the tube, and that at a later stage torsion of the inner portion of the tube had taken place. The parovarium and ovary were distinct from the other structures. (2) Haematosalpinx: The causation of this condition was discussed and the following specimens shown by Dr. McIlroy: (*a*) A tube containing blood; there was nothing to suggest pregnancy; the blood was probably the result of an acute inflammation of the tube. (*b*) Two tubes from the same patient; there was no evidence of pregnancy in either of them; the uterus was myomatous; the haemorrhagic condition was believed to be the result of pressure from the enlarged uterus. (3) Tubal gestation: In illustration the following cases were shown: (*a*) Incomplete tubal abortion with haematocele. (*b*) Incomplete tubal abortion; the non-pregnant tube of the opposite side was distended with blood. (*c*) Tube enclosing fetus; rupture had taken place into the broad ligament. (*d*) Unruptured tubal pregnancy.

MIDLAND MEDICAL SOCIETY.

Professor Saundby, M.D., President, in the Chair.

Wednesday, February 3rd, 1904.

Otitis Media.

Mr. Billington showed a case of recovery after operation for cerebral abscess following upon prolonged otitis media.

The patient was a man, aged 27, who for many years had had a chronic purulent discharge from both ears. Three weeks before operation he began to suffer from pains in the head. He then had a "fit" while at work, became drowsy and stupid, and presented evidences of intracranial pressure. These increased, and at the time of operation patient was deeply comatose with Cheyne-Stokes respiration. The skull was trephined without anaesthesia, and a large abscess containing 2 oz. of fetid pus discovered in the left tempero-sphenoidal lobe. This was opened and drained. A week later Stack's operation was performed on the left side. The patient made an uneventful recovery, and two months later was quite well and back at work. His hearing was distinctly good, a watch being heard at a distance of 6 in. from the left ear, he suffered from no mental of physical disablement.

Obstructive Suppression of Urine.

Mr. George Heaton showed a man who had recovered after complete suppression of urine from impacted calculi for a period of 8½ days. He was a blacksmith, aged 40, who had had occasional attacks of obscure lumbar pain for fifteen years.

Three months previously he had a severe attack of renal colic, with haematuria. This was followed by the passage of 20 small calculi. Urinary suppression took place quite suddenly four days before his admission to hospital. It was ushered in with severe abdominal pain, which soon passed off. During 8½ days while he was under observation absolutely no urine was passed or was found in his bladder. During this period he showed no uraemic symptoms whatever until the seventh day, when he began to suffer from muscular tremors, and became slightly delirious. There was no vomiting, no perspiration, no pain, and no loss of consciousness. An exploratory operation was performed in the left loin, but owing to the patient's great size the kidney could only just be reached with great difficulty, and appeared to be atrophied. On the eighth day the urinary flow suddenly returned. He passed during the next ten days a very large quantity of urine, 173, 178, 136, 126 oz. being passed on successive days. The urine was pale, clear, sp. gr. 1008, and it contained only a trace of albumen. A few weeks afterwards he passed three small calculi. At the present time he was back at work, and was in his usual health.

Mr. Heaton was disposed to think that the left kidney—the one explored—had been rendered functionless by old disease, and that the obstruction had taken place in the ureter of the right kidney. The man was enormously stout, and it was quite impossible to feel any tumour through the parietes.

Cases, etc.

Other cases shown were as follows: Dr. Duncan Lawrie: A boy with paralysis of both lower limbs due to acute anterior polio-myelitis. The point of interest was the ingenious method the patient had of interlocking his legs and moving about with a swinging motion supported on his hands. He could in this way mount and descend from a chair.

Dr. Douglas Stanley (for Dr. Perry): A case of favus in a boy 8 years old. The disease had been present for six years. It was pointed out that favus was rare in Birmingham.

Dr. Kauffmann read a paper on a series of cases of cerebral degeneration in children in which he pointed out the relationship between diseases such as Friedreich's ataxia, cerebellar ataxia, and Little's disease.

OTOLOGICAL SOCIETY OF THE UNITED KINGDOM.

Monday, February 1st, 1904.

Thomas Barr, M.D., President, in the Chair.

Introductory Address.

The President, reviewing the work of last session, remarked that a very large proportion of the communications

ad dealt with suppurative diseases of the ear and their complications, and suggested that the Society might well devote a art of its time to a study of chronic non-suppurative diseases hich did not endanger life but made it almost unbearable. t would be of great advantage to otologists to have authoritative guidance as to the comparative utility of the various ethods of treatment in vogue.

Atresia Auris Congenita.

A specimen taken from a stillborn child was shown by Mr. . H. Fagge in which there was bilateral absence of the tymanic membrane, ossicles, mastoid antrum and osseous eatus.

Dr. Tilley remarked on the possible absence of the ntrum in adult ears which were otherwise anatomically ormal.

Labyrinthine Suppuration.

Dr. Milligan read a paper on this subject. The invasion i the labyrinth from the middle ear and antrum generally ook place through the foramina ovale and rotundum and the xternal semicircular canal. Extensions from the labyrinth ere most frequent to the cerebellar fossa by way of the nternal auditory meatus and the cochlear and vestibular anals, but might reach the middle cerebral fossa by erosion f the anterior wall of the superior semicircular canal. acial paresis, vertigo, loss of hearing by bone conduction, nd deep-seated pain occurring in a case of middle-ear supuration would arouse suspicion of labyrinthine suppuration. lixed cases of labyrinthine and intracranial disease (especially xtradural abscess, cerebellar abscess, and suppurative mengitis) were not uncommon. The differential diagnosis would epend largely upon examination of the external labyrinthine alls. Mere brain pressure symptoms might be caused by imple meningeal exudation excited by the labyrinthine disase; on the other hand, the presence of optic neuritis and ocal symptoms would favour intracranial complications. he paper was illustrated by cases and by lantern slides of he temporal bone.

Discussion of it was adjourned to the next meeting.

Cicatrized External Meatus.

Dr. W. H. Kelson showed a case of cicatrized external neatus resulting from prolonged suppuration of the middle ar. The ear being free from suppuration and the other ar normal, several members advised leaving it alone.

Exhibits.

Mr. Hugh E. Jones: A portable surgical hand motor.—Mr. W. C. Bull: Temporal bone from a case of cerebellar abscess; purulent torrhoea twenty years; no intracranial symptoms; facial paralysis ourteen days; complete postaural operation; opening into Fallopian anal discovered; death third day after operation.—Mr. Hunter Tod: A sarcoma of the external meatus removed from a woman of 67.

Medical Society of London.—At a clinical meeting on February 8th, Dr. C. E. Beevor, Vice-President, in the chair, Mr. W. G. Spencer showed, on behalf of Dr. de Havilland Hall, President, a case of ascites, presumably due to chronic peritonitis following puerperal fever, treated by abdominal incision and drainage.—Mr. V. Warren Low showed a case of extreme atrophy of the testicles due to syphilis; Dr. F. Parkes Weber one of neurotic alopecia of the scalp and face attributed to shock; and Mr. R. Lake, a case with Ménière's symptom complex.—Dr. F. Carre Coombs showed a case of cerebellar disease of rather sudden onset with gradual improvement. There was ataxy, reeling gait, tremor, nystagmus, slight weakness of the left face, excessive kneejerks, and extensor plantar reflexes, with little or no headache or vomiting, and no optic neuritis; the condition was thought to be probably due to thrombosis.—Mr. G. Gask showed a case of ossification of tendons of the leg; Mr. J. K. Murphy a case of parietal meningocele, and one of congenital deformity of the extremities in an infant; Mr. H. J. Waring, a patient with a deficiency in the skull 2 in. in diameter, due to a gunshot wound, through which projected an arachnoid cyst, which was excised, and the aperture closed by a gold plate fixed with gold nails; Mr. Edmund Owen, a case of ischaemic palsy in a man aged 38, due to the treatment of a fracture of the ulna with a too tight plaster-of-paris bandage. In addition to muscular wasting, paralysis, and sclerosis there was adhesion in the joints and impaired sensibility of the hand, the pathology being probably a myositis with implication of the nerves of the forearm.

Ophthalmological Society.—The Colour Vision Committee handed in its report at the meeting on January 28th. The Committee were of opinion that Holmgren's test was sufficient for the detection of a large number of colour-blind cases; but they agreed with Dr. Edridge-Green that some cases of colour-blindness could not be detected by Holmgren's test however skilfully and fully used; and that other cases which satisfied Holmgren's first test (pale green), and would therefore be passed as normal in most ordinary routine examinations, were exposed by the careful use of Holmgren's second test (rose test colour). They further agreed that some cases were only to be detected by the use of the lantern. The discovery of the defect could, as a rule, be made with certainty by Dr. Edridge-Green's modification of the wool test. They also drew attention to the importance of the shortening of the red end of the spectrum in some patients and to the necessity of having a test that would detect such cases. Shortening of the violet end was also important when violet or purple lights were used.

Society of Anaesthetists.—At a meeting on February 5th, Mr. C. Carter Braine, President, in the chair.—The President read a paper on "Waterlogging" of the Lung, and reported a fatal case. Waterlogging was barely mentioned in the textbooks on anaesthetics and was generally due to the injudicious administration of ether when there were obvious signs that chloroform or a mixture should be substituted. The causes were (1) inhalation of fluid vomit, (2) inability to get rid of bronchial secretion, (3) a combination of (1) and (2). Washing out the stomach was not a reliable remedy for the first cause as regurgitation still continued. The condition occurred in feeble people of advanced age with bronchitis and emphysema and was slow in its onset; the term should be confined to those cases in which there was inability to get rid of bronchial secretion. The case reported was an old lady of the type just mentioned who had suffered from strangulation of the intestine for three days. Chloroform was administered and the operation performed while the patient lay in the lateral position. Free vomiting occurred during the first thirty minutes, then the helix of the ear was noticed to become very blue, the pulse became feeble, respiration, wheezing and cyanosis increased, and the patient gradually died. The chest appeared "waterlogged" as no air could be driven out or inhaled. There was no necropsy, but in Mr. Braine's opinion death was due to the choking of the tubes by gradual accumulation of bronchitic secretions and not to inhaled vomit, which always escaped freely.—The Junior Secretary read (for Dr. Luke of Edinburgh) notes of a Case of Great Danger during administration of nitrous oxide; Dr. McCardie reported one in which death occurred. In both cases the anaesthetic was administered for extraction of teeth.

Erratum.—In the report of the proceedings of the British Laryngological, Rhinological, and Otological Association, which appeared in the British Medical Journal of January 29th, the word "sepsis" was printed instead of "asepsis." The meaning of the passage, however, was clear from the immediate context as well as from the account given of the methods adopted by Mr. Stuart-Low to check his results and his description of the bactericidal properties of kelvolin vapour.

REVIEWS.

GYNAECOLOGY.

Diagnosis can only be learnt by careful clinical study, but there are other essentials besides the patient. A fair knowledge of anatomy, physiology, and pathology is recognized as needful for the learner—that is to say, for the dresser, clinical clerk, and assistant in an out-patient department. As a rule the student is fairly educated in these sciences. A modicum of general and systematic medicine and surgery is likewise needful, and the teachers in our medical schools are rarely behindhand in instructing their classes in the elements of those branches of their professional studies. Granted that the learner is fairly educated in the sense just explained, there remains much difference of opinion as to what is understood by the direct teaching of diagnosis. In Mr. Bishop and Dr. Melland's *Essentials of Pelvic Diagnosis*[1] a specified form of diagnosis is taught directly. Some authorities

[1] *Essentials of Pelvic Diagnosis, with Illustrative Cases.* By E. Stanmore Bishop, F.R.C.S.Eng., Author of *Uterine Fibromyomata, their Pathology, Diagnosis, and Treatment*, Honorary Surgeon, Ancoats Hospital, etc. And an *Appendix on Examination of Blood, etc.* By C. H. Melland, M.D.Lond., M.R.C.P., Honorary Physician, Ancoats Hospital. Bristol: John Wright and Co. 1903. (Demy 8vo, pp. 297. 9s. 6d.)

may hold that with a basis of general education all that the student of diagnosis requires is that which Mr. Bishop rightly indicates when speaking of bimanual palpation in the female. "The secrets of success in bimanual examination," he says, "are a warm hand, a gentle touch, and patience. Any hurry is fatal. It is well to distract the patient's attention if possible by questions the answers to which require some thought, or by directing her to count aloud." Excellent advice, without doubt. For diagnosis, however, certain instruments are requisite. The authors' pages on their use are of value, but a little more caution about gaining dexterity, and making sure about a correct interpretation of appearances revealed by such appliances would have been advisable. The learner is warned about the dangers of the uterine sound. "It is not wise to use a sound except with the patient in bed, where she can lie quiet for the remainder of the day." Unfortunately this precaution is often disregarded. Again, Mr. Bishop, in treating of Mr. Hurry Fenwick's urethroscope, quite properly reminds his readers that the dilating of the urethra with air requires certain precautions lest very ugly accidents should follow. But cystoscopes and urethroscopes demand a considerable amount of practice before their bare application can be learned, and a great deal more before the beginner can make a sound diagnosis with their assistance. Such an acquirement can only be learned by attending the practice of an expert. The special system of this work remains to be considered. Dr. Melland's appendix is easily judged; his directions for the examination of the blood, tubercle bacilli, and gonococci are clear, and quite suited to their purpose. Mr. Bishop's method is less easy to explain and criticize. He divides the main part of his treatise into "Lines of Diagnoses" and "Diagnostic Tables." In the former certain general symptoms under a heading—abdominal walls, prostate, bladder, etc.—are printed in italics, and under them are paragraphs explaining the special symptoms of each special disorder which lies in the limits of the heading. All these paragraphs are numbered. The tables are arranged in paragraphs, in which the subdivision of symptoms is carried out more minutely than under "Lines of Diagnosis." Lastly, there is an index of names of diseases, each disorder bearing numbers referring the reader both to the "Lines" and the "Tables." "Illustrative Cases" are appended, some of which were accurately traced by the "Lines" and others by aid of the "Tables." Altogether this manual, though hardly suitable for the student, is likely to aid the clinical teacher, while it will prove of value to the practitioner.

A formidable array of short papers, monographs, and clinical notes on the hot-steam treatment of uterine disease has been placed at the disposal of the profession during the past few years, and now at last we have a textbook. Dr. PINCUS has prepared his *Atmokausis and Zestokausis*[2] with all the care and thoroughness familiar to the reader of German works of this type. The references are, as usual, very complete and carefully entered. When we speak of this work as a "textbook" we do not mean to employ that word in an educational sense, as when it is applied to a publication on general pathology or anatomy. It is only to the experienced who were much in need of such a manual that it can serve as a textbook, but they will find it of the highest value, and it deserves a place in every medical library. The author has for some years been known as the apostle of atmokausis. Its pioneer and establisher, Snegirev of Moscow, first employed it systematically as a haemostatic in the Eighties, and first made public his results in 1894. But as Dr. Blacker, whose labours are duly recognized in this work, has pointed out, Ludwig Pincus has done more than any one else to establish vaporization of the uterus on a firm and scientific basis. Dr. Blacker's views on the advantages of this treatment, which he holds to be definite but limited, will be found in the papers published respectively in the first and third volumes of the *Journal of Obstetrics and Gynaecology of the British Empire*. It is to be regretted that the second, entitled "The Effects of Vaporization, as shown by a Uterus removed by Vaginal Hysterectomy fourteen days after the operation of Curetting and Steaming had been performed did not appear until Dr. Pincus's work was about to be issue The subject is too complicated for review in detail. Moreove those of our readers who take an interest in atmokausis a well acquainted with the author's views and methods. T them this work will be very grateful. Needless to say, D Pincus defends vaporization with great vigour. He, might be expected, stoutly opposes Dr. John Campbel opinion that atmokausis is an unnecessarily severe and da gerous proceeding (words spoken at the discussion on metrit and malignant disease at the Cheltenham meeting of t Association, and quoted by Dr. Pincus from the BRITIS MEDICAL JOURNAL, vol. ii, 1901, p. 966). Quite as natural our author approves of Dr. Blacker's opinion that if in a one case total extirpation of the uterus were avoided by t use of atmokausis, that alone would be sufficient to justi our retaining the operation as an approved surgical measur Will the general surgeon adopt it extensively? That is wh remains to be seen, but now he has the advantage of this wo to guide him.

In *Arteria Uterina Ovarica*,[3] Dr. BYRON ROBINSON writes o the working of his problem in full, perhaps almost mo minutely than was absolutely required for its clear demo stration, but he will thereby convince the profession anatomist all the more thoroughly. "Byron Robinson circle" must be well known to all who study contempora anatomical literature. The author is correct when he insis that the uterine and ovarian arteries of textbooks are prope one vessel derived from the abdominal aorta ("ovarian") t internal iliac ("uterine") and deep epigastric (artery of t round ligament). Fig. 3 shows this threefold origin ve clearly. The anastomoses around the cervix, we known to operators, are partly derived from the ute ovarian arteries, partly direct from the internal ilia Hence a double circle exists for the benefit of t internal genital organs: one is the author's "straig segment" consisting of the aorta, common and internal ilia and their cervical anastomoses, whilst Dr. Robinson ter the other the "spiral segment." The latter is formed by t utero-ovarian arteries and their cervical anastomoses. T "spiral" character of this circle represents the necessity a very varied amount of blood supply during childho menstruation, pregnancy, parturition, the menopause, a senility. The author summarizes very well the anatomy the cervical loop and of the "oviducal segment" of the ute ovarian artery. For clinical and surgical purposes a kno ledge of the cervical anastomoses and the relations of vess around the cervix to the ureters is of the highest importan Dr. Robinson analyses this subject thoroughly. We are gl to find that the author makes use of the old process of inj tion and corrosion so serviceable in the investigation a demonstration of the course of vessels. He employs paraf or celloidin with an acid for this purpose. The drawings of varying merit though on the whole clear. Their mul plicity is an advantage when it is borne in mind that th serve for demonstrative purposes. The terminology is op to criticism, transatlantic Anglo-Saxon being as ill suit for the assimilation of Graeco-Latin words as is "the dial of English still spoken in Europe." The English of the t is, we must note, excellent both for style and for clearne but we cannot understand why "pueritas" and "senescenc should be employed. Again, "oviducal" as an adjective the Fallopian tube is bad, *ducal* being from *dux*, *ducis*, from *ductus*, *ductus*; it is also superfluous, as tubal has lo been mentioned and adopted, so that "ducal pregnanc would sound very unfamiliar to us. We therefore suggest the author a little simplification of many of the terms whi he employs. For his extreme painstaking, already familia us in his standard work, *The Peritoneum*, Dr. Byron Robins deserves the highest praise, which should be extended to assistants, whose services he gracefully acknowledges in preface.

The value of Dr. GALABIN'S *Diseases of Women*[4] is s evident, its author being a teacher who has gained w

[2] *Atmokausis und Zestokausis: Die Behandlung mit Hochgespanntem Wasserdampf in der Gynaecologie. Nebst einem Anhang: Atmokausis und Zestokausis in der Chirurgie und Rhinologie, als typische Heilmethode. Monographisch-klinisch dargestellt.* Von Dr. Ludwig Pincus. [Atmokausis and Zestocausis: The Use of Steam at High Pressure in Gynaecology. With an Appendix on Atmokausis and Zestokausis in Surgery and Rhinology as a Definite Method of Treatment.] Wiesbaden: J. F. Bergmann. 1903. (Demy 8vo, pp. 410. 35 illustrations. 10s. 9d.)

[3] *Arteria Uterina Ovarica. The Utero-Ovarian Artery or the Genital Vasc Circle:* Anatomy and Physiology, with their Application in Diagnosis Surgical Intervention. By Byron Robinson, B.S., M.D.Chicago. Aut of *Practical Intestinal Surgery, etc.* Chicago: E. H. Colegrove. (Demy 8vo, pp. 182; 117 illustrations. $1.)

[4] *Diseases of Women.* By Alfred Lewis Galabin, M.A., M.D., F.R.C Consulting Obstetric Physician to Guy's Hospital, etc. Sixth edit London: J. and A. Churchill. 1903. (Demy 8vo, pp. 695, 284 illustrati 16s.)

perience in a great medical school. That experience plies to knowledge of the morbid physiology of the male genital tract as well as to the imparting of instruction others. The third edition has not only been extended to ible its original size, but 149 new figures have been added, luding 23 photomicrographs. Many gynaecologists may nk that more of the older drawings with the corresponding terpress might well have been rejected; thus, certain tiquated metrotomes for the division of the internal os still represented. And though the author strongly warns reader of the dangers attending their use, it would, we lieve, have been better to have omitted them entirely. the other hand, some of the new dilators represented this edition are, speaking plainly, formidable things teach: but the treatise is meant for the qualified well as for the student. Two or three woodcuts instruments might advantageously have been withawn in favour of a few sketches illustrating the pair of a damaged ureter during operation, described, in int only, at p 97. The newly added drawings are very od. Dr. Worrall's photomicrographs are superior to the erage of such productions in modern textbooks, and it is tisfactory to find several drawings from Dr. Hubert Robert's ndard work included in Dr. Galabin's new edition, since for monstrating morbid anatomy and "coarse" appearances, ey are up to the present unequalled, except perhaps by oward Kelly's publications. We look with interest for the rdict of so well recognized an authority as Dr. Galabin on veral stock subjects. We need not dwell on the after-treatent of abdominal cases, since with careful surgery and nursing tients do well under very different methods and lines of eatment. Dr. Galabin is cautious about morphine, whilst any experienced operators reject it even as a subcutaneous jection. It is satisfactory to find that early opening of the wels is recommended. Dr. Galabin declares after due conderation of the subject, that there are no statistics available dicating the real mortality of fibroid tumours. He rather vours operative treatment.

Any patient who has a fibroid tumour which renders her an invalid, produces anaemia, or who has a growing tumour of considerable ze and is not very near the menopause, will be wise to choose the ternative of operation if she is prepared to face the slight immediate sk instead of the more remote dangers of the future.

r. Galabin, as before, teaches the intelligent use of the essary. The abuse of that instrument before the days of ynaecological surgery is familiar to us; one bad result is the xcessive practice of plastic operations of doubtful permanent enefit among specialists; and another is an underrating of he evils, and above all of the discomforts, caused by displacements, among practitioners and general physicians and surgeons. Every medical man should know how to introduce a Hodge's pessary, which is justly rated by Dr. Galabin as practically of far more value than all other pessaries put ogether. The judicious treatment of displacements, based n a truly scientific knowledge of their nature, is well understood by Dr. Galabin, and those who learn from him will void losing the confidence of their patients by speaking of a prolapse as "nothing" on the one hand, and will not on the ther hand be over-eager to do a hysteropexy whenever they letect a symptomless flexion. Turning to the subject of ruptured perineum, the author, we find, distinctly gives preference to the old operation over flap-splitting, and there can be ittle doubt that the former is the better to teach, although lexterous experts may make as sound a new perineum when hey practise Tait's procedure. Dr. Galabin's later views on leciduoma malignum—a subject which should always be kept before the attention of the general practitioner—are explained n this new edition. He shows that there are clinical grounds for the theory of a causal relation between vesicular mole and this newly-discovered, terribly malignant malady. The substance of the author's opinion on this question was summarized in his remarks during the discussion on Dr. Teacher's paper on Chorion-epithelioma, which took place in June, 1903, before the Obstetrical Society.

The popularity of the *Practical Textbook of the Diseases of Women*[5] has long been recognized, and Dr. LEWERS as a gynaecologist of repute rightly keeps his new editions up to date. It is an excellent manual for the practitioner and for young medical officers of hospitals, as well as for experts too busy to read up the original records of new methods of treatment. For that purpose the clinical reports and the argumentative passages about operative treatment are of definite value. The chapter on carcinoma of the cervix will be read with interest and profit, as the author is on his own ground. Such a chapter is not by any means so suited to the student. In the preface to this edition the author dwells on drainage as a practice which is getting out of favour with authorities in abdominal surgery. This question is very serious; the observations at page 446 are perhaps a little too meagre, considering the importance of the subject; but Dr. Lewers is right in preferring gauze to glass tubes.

DR. PRYOR'S *Gynaecology*[6] is written in an intelligent manner, and his method of printing all distinct aphorisms in small capitals is commendable in a book meant to be educational. He declares in the preface that his manual is chiefly notable for the absence of bacteriology and minute anatomy, and for the prominence given to non-operative as well as operative treatment. No doubt a smattering of knowledge about germs is worse than useless to the beginner, whilst the principle about treatment is excellent; but, as in nearly all current literature on the same subject, the student glancing through the pages of this work will naturally conclude that gynaecology largely means major surgery. The author admits, however, that "by no means does the discovery of a myoma indicate a surgical operation," and this opinion is printed in small capitals. Dr. Pryor, it must further be noted, is not over-sanguine about the results of hysterectomy for cancer, and takes care to remind his readers that both the reported low mortality and the alleged immunity from recurrence, never very high at the best, are confined to the published records of operators who are thorough masters of technique. He prefers abdominal hysterectomy to the vaginal operation, and when the former appears to be dangerous, he prefers high amputation of the cervix, for reasons already advanced by Sir J. Williams and others. In inoperable cancer he advocates ligature, through an abdominal incision, of the ovarian iliac, and obturator arteries, in order to reduce the nutrition of the malignant growth, a procedure too bold and too uncertain as to its results to be taught dogmatically. Dr. Pryor in the preface deprecates loading the pages of a work on diseases of women with general surgical questions, but he is right in waiving this rule when he treats of haemostasis. The question of ligatures is most serious, not only as regards slipping and fatal haemorrhage, which is not very common, and oozing with the development of big clots on pedicles, sources of dangerous adhesions, but also in respect to distant infection from the bowel and migration of the ligature into the cavities of hollow viscera. Hence his tables of the relative virtues of catgut, chromic kangaroo tendon, silk, silkworm gut, and wire are worth the reader's consideration. The illustrations are good, and those which show operative measures—a very large proportion—are fairly clear.

DR. NORSTRÖM'S *Manual Treatment of Diseases of Women*[7] is described as a supplement, in English, to a book in French, published in Paris in 1892, and reviewed in our columns of June 4th, 1892, p. 1198. The author has been applying the methods of Thure-Brandt for the last twenty-five years. The cases upon which this work is based have been mostly observed in the St. Louis Hospital in Paris, in the service of Dr. Péan, and comprise those which that eminent operator did not wish to treat surgically. Those who know anything of Dr. Péan and his work will be well aware that in any case for which anything surgical was to be done Dr. Péan was not the man to leave it undone. The cases that remain, with which Dr. Norström has mainly dealt, are cases of chronic pelvic pain: adhesive perimetritis without appreciable enlargement of tubes or ovaries, parametritis, chronic metritis, chronic ovaritis, and ovarian pain. Now, these are the cases the symptoms and prognosis of which depend largely upon the patient's idiosyncrasy and general health. Perimetritis and parametritis, when there is no encysted collection of pus, tend naturally to recovery. In chronic metritis, ovarian pain, menstrual irregularities, etc., strong women after undergoing some ineffectual treatment often make up their

[5] *A Practical Textbook of the Diseases of Women.* By Arthur H. N. Lewers, M.D.Lond., F.R.C.P.Lond., Senior Obstetric Physician to the London Hospital, etc. Sixth Edition. London: H. K. Lewis. 1903. (Crown 8vo, pp. 533. 10s. 6d.)

[6] *Gynaecology: A Textbook for Students and a Guide for Practitioners.* By William R. Pryor, M.D., Professor of Gynecology in the New York Polyclinic Medical School, etc. New York and London: D. Appleton and Co. 1903. (Demy 8vo, pp. 380, 163 illustrations. 15s.)

[7] *The Manual Treatment of Diseases of Women.* By Gustaf Norström, M.D., of the Faculty of Stockholm. London and New York: G. E. Stechert. 1903. (Demy 8vo, p. 230. 10s.)

minds to take no notice of their local pain. Weakly, anaemic, neurasthenic women drift from doctor to doctor, and undergo cure after cure; and with each fresh treatment the excuse their amiability often leads them to give for discontinuing the previous one is that they feel so much better. For these reasons it is not a scientific inference to conclude that because such a patient improved, or said she improved, under a particular treatment, therefore the treatment was the cause of the improvement. Now, this elementary caution is not present to Dr. Norström's mind. All the improvement that he has seen accompany massage he attributes to it. He says he has tried to ascertain the after-history of his cases, but has only been able to do so in a small proportion. We gather that pelvic massage is no trifling matter. The author "defies the physical strength of midwives to reach pelvic exudates that are high up." "When a strong muscular man practises pelvic massage a number of times in an afternoon he becomes tired, and his tactile sense is blunted." Dr. Norström is an enthusiast—and, we believe, an honest enthusiast—but we have not gathered from his book a conception of any class of case that can be cured by massage, in which the same benefit cannot be attained in any other way. Till such cases have been defined the position of pelvic massage must remain doubtful.

Dr. SCHENK'S book on sterility in women[8] is one which we cannot commend. To say that it has been written and published for the sake of advertising the writer is to impute a motive; we will, therefore, only say that we know not why it has been written. It adds nothing to our stock of knowledge, for the author has nothing new to bring forward. It is a compilation from the writings of other people. It is not a good compilation, for it gives a very incorrect view of the condition it professes to describe. The greatest of all causes of sterility, age, is not alluded to. Nor, on turning to the index, do we find anything about incompatibility. The consequence is that the book gives a greatly exaggerated idea of the frequency with which sterility can be cured by treatment. Many conditions are dragged in as causes of sterility without there being the least evidence of their effect, such, for instance, as vaginal cysts, inflammation of Bartholin's gland, ovarian cysts. Of scientific investigation of the subject we find not a trace. Such influence as the book may have upon practice—fortunately, we think, not much—will be bad.

INDIAN REPORTS.

BOMBAY HOSPITALS AND DISPENSARIES.

THE report for the year 1901 submitted by Surgeon-General G. Bainbridge, M.D., represents the detailed statistics of that year, and takes cognizance also of the transactions of the two preceding years. It includes both metropolitan and provincial institutions. It is very properly prefaced by a brief summary of the climatic features and state of public health of the triennium. The period was emphatically unhealthy. The provincial death-rates of 1899, 1900, and 1901 were 35.7, 70.1, and 37.1, against a preceding decennial mean of 30.8. Cholera, small-pox, and bowel complaints were very deadly in the famine year 1900. Dr. Bainbridge's report is concise and interesting, but too arithmetical. Administrative questions relating for example to construction, fittings, and appliances, separate accommodation for women, infectious, and moribund cases, attendance, nursing, etc., which might be looked for in a triennial review, are conspicuous by their absence. On December 31st there were 627 institutions open, of which 60 were State-supported, 188 State-aided, 65 supported by municipal and local funds, and 314 private. The statistics of all these are shown severally, but those of the first two classes in greater detail. These underwent an increase of 16 during the three years, and the municipal and local fund institutions of 30. The total number of patients treated was, in 1901, 2,649,360—a decided increase as compared with preceding years. There was some decrease in indoor patients owing to a healthier year, and the death-rate per cent. among those treated was 10.6 as compared with 15.6 and 13.5 in the two preceding years. There was an increased number of cases of malarious fever, but a great decrease in small-pox, cholera, and bowel complaints. Although 153,685 cases of plague occurred in the Presidency, only 104 were treated in dispensaries. The record of surgical operations is satisfactory; it includes 709 extractions of lens, 370 lithotomies with 32 deaths, 64 lithotrities with 5 deaths, and 773 litholapaxies with 32 deaths, 34 operations for radical cure of hernia with 1 death, and 11 ovariotomies with 3 deaths. The total income of the year was Rs. 10,95,528 and expenditure Rs. 10,85,038; Government contributes 62 per cent. of outlay. Subscriptions and donations are decreasing. There are four State-aided leper asylums and seven hospitals and dispensaries for females supported in part or whole by Government.

CHARITABLE HOSPITALS AND DISPENSARIES IN ASSAM.

Colonel C. W. Carr-Calthorp's triennial report prefixed to the returns of 1901 shows an increase of institutions from 108 to 131: the latter figure including 18 State and State-aided, 106 municipal and 6 private dispensaries. The attendance of both indoor and outdoor patients increased during the same period by 18 per cent., the figures for 1901 being 734,682. The death-rate among indoor patients was 12.11, or, excluding paupers and destitute coolies, a large proportion of whom are received in a moribund state, 9.87. These rates are a great improvement on preceding years and it is noted with satisfaction that the gardens are making better hospital arrangements for coolies; 947 "waifs and strays" were admitted into charitable dispensaries in 1901 of whom 240 died or 25.4 per cent. Malarial fevers as usual were most numerous. The disease known as kala-azar is said to be on the wane. Worms, skin diseases, and bowel complaints give large totals. The admissions from cholera and small-pox during the triennium were comparatively few. The number of important operations performed shows a tendency to rise. The total of 15,689 includes 16 cases of lithotomy, 3 of litholapaxy and 29 of extraction of lens—very small numbers as compared with other provinces. The financial condition of these dispensaries is sound. The income has increased during the triennium. Government pays about 40 per cent. of the whole cost and local funds most of the balance. Subscriptions are declining in amount. The statistics of the year 1902 indicate further progress in every respect. The Principal Medical Officer writes regarding the provision of separate accommodation for females as follows: "Our measures for providing separate consulting rooms, with separate entrances for females have not altogether proved a success. In some of the hill districts the women object to enter them and will not even sleep in the wards set apart for them. They do not mind in the very least the proximity of men of their own race, but they are sure they won't sleep apart in rooms by themselves."

CHARITABLE DISPENSARIES IN THE HYDERABAD ASSIGNED DISTRICTS.

The details of these institutions undergo little variation from year to year. There are 47 dispensaries in the six districts, and the important civil hospital at Secunderabad is included in the report, but its statistics are given separately. We have received a triennial report for the years 1899, 1900, and 1901, and some brief notes on the statistics of 1902, both prepared by the Inspector-General of Dispensaries, Lieutenant-Colonel C. L. Swaine, M.D. The report and notes are very bald, and do little else than summarize the appended tables. The attendance of 1900 was depressed by the famine, and of 1902 by the prevalence of plague. The subject of the kind of diseases treated is presented thus: "Of the 3 groups of diseases treated, 29 show an increase and 10 a decrease compared with the previous year." This sort of thing is a veritable *reductio ad absurdum* of the arithmetical method. The record of surgical operations is satisfactory. There were 29 extractions of lens done in 1902 and 38 removals of vesical calculi—34 by cutting and 4 by crushing. The absence of litholapaxy indicates backwardness. The financial condition of these dispensaries is satisfactory from the point of view that they save money yearly. Rs. 7,300 were invested in 1901, and 4,900 in 1902. Government contributes about 60 per cent. of income, and local and municipal funds about 20 per cent. Subscriptions in 1902 amounted to Rs. 1,752. The sale of quinine by post offices and forest officers is on the increase. The Lady Dufferin Hospital for Females at Amraoti is reported to be doing good work. There is a Lady Curzon Maternity Ward attached to the Secunderabad Hospital which was built by Set Ram Gapal at a cost of Rs. 10,000.

[8] *Die Pathologie und Therapie der Unfruchtbarkeit des Weibes* [Pathology and Treatment of Sterility in Women]. Von Dr. Ferdinand Schenk, Assistent der k. k. deutschen Universitäts Frauenklinik Prag. Berlin: S. Karger; and London: Williams and Norgate. (Demy 8vo, pp. 128. 3s. 6d.)

LEWIS LEWIS, M.D. Dunelm, formerly in practice in Plymouth and in Brixton, was called to the Bar at the Middle Temple on January 20th, 1904.

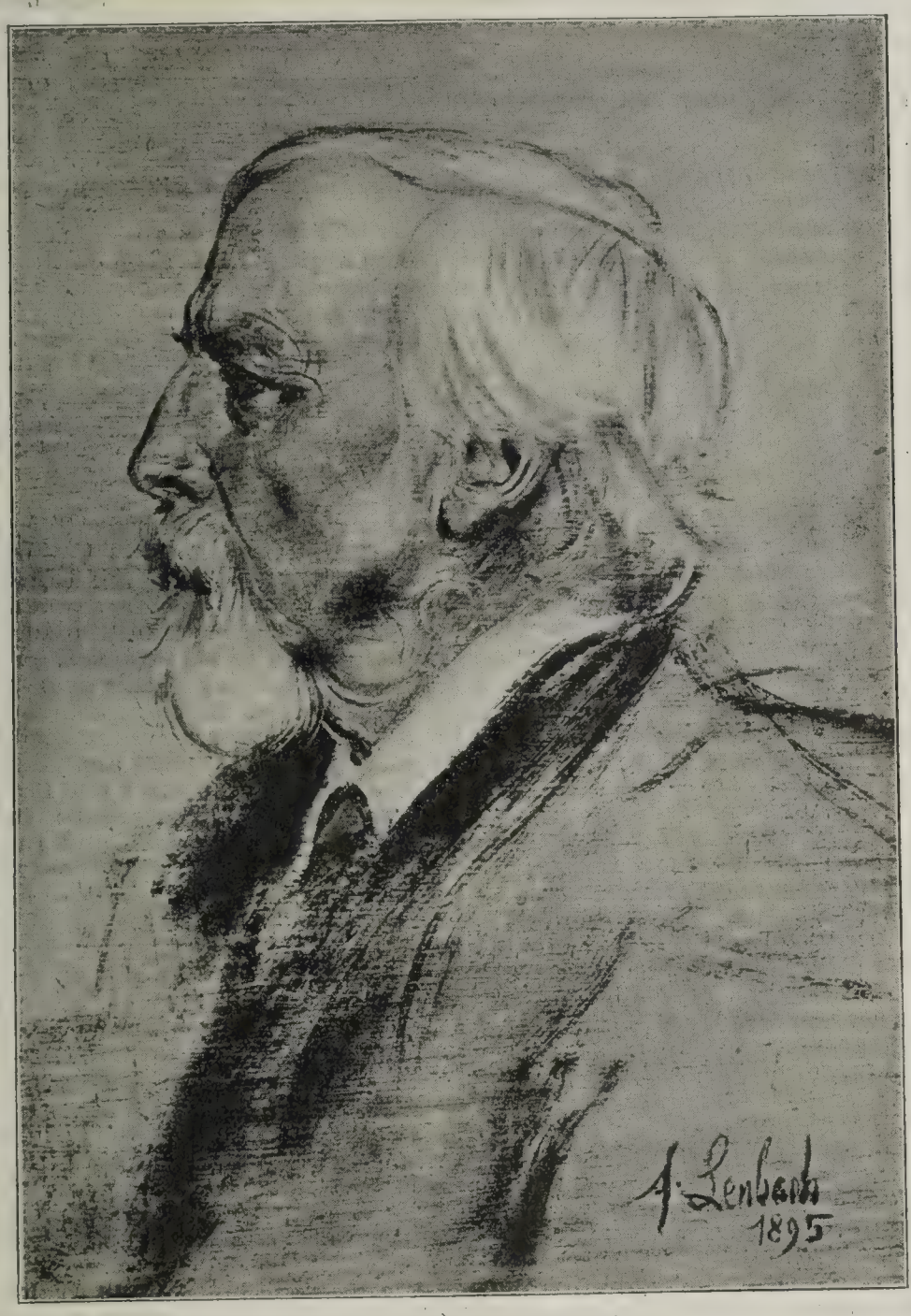
NOVA ET VETERA.

PROFESSOR KUSSMAUL'S REMINISCENCES.

During the last quarter of the nineteenth century there was hardly a physician on the Continent with a higher clinical reputation than Professor Kussmaul. He was equally distinguished by his shrewd power of observation and by his genial good nature. When he had brought his fruitful professional career to a close, he employed his leisure in stringing together the random reminiscences of his early years, and recounting them in popular form. The book[1] is written in an easy, unaffected style, and enlivened by many passages of genuine if somewhat ponderous humour.

Adolph Kussmaul was born in 1822, the eldest son of a country practitioner, a career which he himself desired at first to follow. The name Kussmaul signifies Kiss mout, and afforded much amusement to its owner's fellow students and teachers. One of the latter, however, the great Naegele, came out with the suggestion that this must be derived from Oribasius, the famous physician of Julian the Apostate. Unfortunately a more learned philologist pointed out that Oribasius was derived not from Os, the mouth, and basium, a kiss; but from the Greek ὄρος, mountain; and βαίνω, I walk; so that the Germanized form would have been Bergmann. As a matter of fact, though Kussmaul does not refer to this, the Swabian aborigines when conquered by the Germans had no names at all (the same is the case in Bosnia to this day), and had to put up with the sobriquets conferred upon them by their victors. Hence medical science has been enabled to rank among its greatest exponents the bearers of such distinctive appellations as Rindfleisch, Nothnagel, Gussenbauer, and a host of others.

Kussmaul's grandfather was officially entitled Chirurgus, although he had received no medical training. He had most of the practice in his native village; the real doctor only came two or three times a year, and then the folk used to gather together and inquire who was going to die, for it was only in such circumstances that his aid was sought.



Professor Adolph Kussmaul.

Adolph Kussmaul's father spent some time after he had qualified in Schoenlein's clinic in Würzburg. His son has transcribed some of the notes taken from the lips of the great professor. Here is one:

> Liver and spleen are two opposite poles, as also are iron and mercury. Iron is the hardest and firmest, mercury the softest metal. Iron is as valuable in diseases of the spleen as mercury in those of the liver.

These words were uttered hardly more than eighty years ago by a clinician far in advance of his time.

Adolph Kussmaul's first schoolmaster was an old soldier, whose qualifications were service in the dragoons, together with a knowledge of reading, writing, and the first four rules of arithmetic, in addition to which he possessed a hearty hatred of the peasantry, which eventually led him to murder his son-in-law, and so end his own days in prison. Kussmaul's next experience, and a much more pleasant one, was in the home of a kindly country parson, who not only taught him some book learning, but encouraged him to devote himself to the study of natural history, especially botany. Later on he went to various schools, where he does not appear to have been specially distinguished in any way. He assisted in plaguing his French master and spent much time in learning to mend quill pens.

In 1838, he went to the Heidelberg Lyceum, which was much inferior to those he had previously attended. Such little learning as was imparted, and some of the professors seem to have been almost phenomenally ignorant, was not to the liking of Kussmaul's younger brother, who ran away and enlisted as a soldier. Many years afterwards he took part in the war between the United States and Mexico and had his arm shattered by a bullet. After a prolonged illness he recovered, and on returning to Germany was at once asked by the medical member of his family what he had done with the splinters.

"Oh," he replied, "they are in all sorts of places, in the lake by Mexico City, in the Gulf of Mexico, in the Mississippi and Ohio, some in the Atlantic Ocean and North Sea, and the last in the Rhine and Neckar." "Why have you scattered them so?" "Well you see," he replied, "When the last trump sounds we have all to appear whole; now I have been a big sinner, so I want them to take as long as possible collecting me."

In 1840 Kussmaul went to the University of Heidelberg, of which the medical faculty was just beginning to acquire distinction. Ackermann had been Professor of Anatomy, Physiology, Medicine, and Surgery until his death in 1815. In the following year Tiedemann was appointed Professor of Anatomy and Physiology, and Chelius of Surgery and Ophthalmology. Tiedemann was a distinguished anatomist, but a remarkably dull teacher, reading all his lectures in a monotone, as indeed did most of his colleagues. It is recorded of him that one of his colleagues showed him some verses he had composed, in which among other things he remarked that "his heart was full to the brim," to which Tiedemann replied, "My dear fellow, the heart is not shaped like a washhand basin." Among Kussmaul's fellow-students at this time almost the only one to acquire subsequent distinction was Moritz Schiff, the physiologist, who was even at this day possessed by the insatiable thirst for knowledge which retained its hold upon him to the last.

Tiedemann had two assistants, both of whom have left names memorable in anatomical science. The one, Kobelt, was an excitable little man; the other, Bischoff, afterwards the famous embryologist, was of massive build and calm disposition. Their characters were as incompatible as their appearance, and they quarrelled so persistently that eventu-

[1] *Jugenderinnungen eines alten Arztes* [Youthful Reminiscences of an Old Physician]. By Adolf Kussmaul. Second edition. Stuttgart. 1899. (Pp. 495, with portrait.)

ally both had to leave Heidelberg. The teacher to whom Kussmaul owed his first introduction to clinical medicine was Puchelt, to whom he always referred in terms of the highest esteem. Puchelt was a man of exceptional industry, learned in his profession and a keen clinician into the bargain; he was one of the first to employ anatomical data in the establishment of his diagnoses. He devoted considerable time to the study of inflammations in the right iliac fossa, and was the actual inventor of the word perityphlitis. Unfortunately, like most of his colleagues, he was a dry lecturer, and was thrown completely into the shade when Pfeufer came from Zurich in 1844 to assist him in the charge of the medical clinic. Pfeufer appears to have fully imbibed the newest doctrines of that time, but except in the matter of personality to have been inferior to Puchelt as a physician. He used to lay great stress on the cultivation of the senses as aids to clinical investigation. He laid particular stress upon that of taste; it is hinted that it was owing to his resolute practice in this direction that he became a martyr to gout, although he was always upholding the example of Sydenham to his class in proof that this was a disease of intellectual people.

The Heidelberg professor of surgery was Chelius, a fine operator, but somewhat lucky in his results, considering that many of his operations were performed immediately after he had given his demonstrations of operative surgery upon the cadaver. The most distinguished member of the Heidelberg medical faculty, however, was the obstetrician, Naegele, who was not alone a brilliant teacher, but a genial, courteous, and witty gentleman. His personal influence over Kussmaul was always very great, and he took the warmest interest in his distinguished pupil, who records that in his day the science of gynaecology was entirely unknown in Heidelberg. Naegele, though extremely successful in private practice, did not shine so much therein as in hospital work, being, it appears, somewhat over-anxious.

Next to Naegele the greatest ornament of the faculty was Henle, who does not, however, appear to have excited the same feelings of reverence in Kussmaul. Of his brilliancy no question is made; he was, however, of an imaginative disposition, prone to theorize and to defend his views with vigour, if not violence. He quarrelled especially with Tiedemann, and indeed had no patience with most of the old professors, whom he described as a pack of antiquated bores. Coming as he did fresh from the influence of the great Johannes Müller, he was perhaps inclined to underrate the work of sound if less brilliant men of science and of clinicians, but at the same time it must be confessed that he was far greater than any of his colleagues; the result was that he selected his friends, not from them, but from the distinguished professors of other faculties, among whom Jolly and Gervinus were perhaps the most famous. Both Henle and Pfeufer had to leave Heidelberg owing to their political opinions in 1852, and Jolly was soon afterwards compelled to follow. This expulsion of professors was by no means unusual in those days; it happened, as every one will remember, to Virchow, and had previously occurred to Schoenlein.

Kussmaul's fellow students appear to have been a singularly undistinguished set; only Schiff and Moleschott among them have left names which will be remembered for scientific work. Some of them, however, distinguished themselves in other ways. One of them, whom from his appearance his fellow students dubbed Abd-el-kadr, excelled in lightning diagnoses. One day a dull peasant came into the clinic with a swollen face, sat down, and said nothing. Chelius asked what was the matter. Quick as thought Abd-el-kadr after one glance proclaimed malar abscess and prescribed immediate incision. The patient was alarmed, spat out a plug of tobacco, whereupon the swelling in his cheek disappeared, and explained that he had come not on his own behalf but to get news about his sick boy. Of another fellow student Kussmaul tells a story which seems almost too good to be true. Soon after this youth commenced practice he was one day startled when setting forth on his rounds by meeting two funerals. Stopping one of the followers of the second, he asked whose they were. "Oh, don't you know, doctor?" was the reply. "These are your two patients." "Ah!" was the answer, "But I have three"

Having finished his course, Kussmaul presented a thesis for the annual prize. The subject set was an investigation of the various colours seen in the pupil apart from those due to changes in the media. His essay won the prize, and, in connexion with it, he devised an apparatus which was intended to investigate the appearance of the retina. This attempt to forestall the ophthalmoscope had only one defect, so its author asserts—namely, that nothing could be seen with it. Many years afterwards he told his experiences to Helmholtz, who had in the meantime perfected his own apparatus, and who consoled him with a catalogue of authors who had tried upon the same lines, and had also failed in this one respect.

In 1845 Kussmaul left the University of Heidelberg with the highest honours which the Medical Faculty could bestow. As he had not yet passed the State examination he was not qualified to practise, and he had yet to pass through many experiences before he resumed university life.

THE POLLUTION OF TIDAL WATERS,

WITH SPECIAL REFERENCE TO THE CONTAMINATION OF SHELLFISH.

This important question forms the subject of an interim report (the fourth) of the Royal Commission on Sewage Disposal. The report sets out that the investigations on which the report is based were inaugurated in consequence of the representations of various local authorities and of the importance which has recently been attached to the question of the discharge of sewage into tidal waters.

The Law as to Pollution of Tidal Waters.

The report first sets out the chief statutory provisions bearing on the question. Section xvii of the Public Health Act, 1875, declining to permit any local authority to discharge sewage into any watercourse, has unfortunately not been interpreted as applying to tidal waters. For some reason or other the Local Government Board does not appear to have acted widely on the power which it possesses to extend the operation of the Rivers Pollution Prevention Act, 1876, to such portions of tidal waters as it may on sanitary grounds deem necessary.

Section ii of the Sea Fisheries Regulations Act, 1888, authorizes Sea Fisheries Committees to make by-laws "for prohibiting or regulating the deposit or discharge of any solid or liquid substance detrimental to sea fish or sea fishing." By the definition in the Act "sea fish" includes "shellfish." It is, however, provided in Section xiii of this Act that "nothing in this Act shall authorize a local Fisheries Committee to make any by-law.....affecting any power a sanitary or other local authority may possess to discharge sewage in pursuance of any power given by a general or local Act of Parliament, or by a Provisional Order confirmed by Parliament." By-laws under this Act require confirmation by the Board of Trade, and the Board has taken the view that "the proviso of Section xiii renders such by-laws inapplicable to the discharge of sewage by local authorities, on the ground that the authorities are 'acting under the Public Health Act.'" The report of the Royal Commission goes on to say that although the interpretation adopted by the Board of Trade as to the scope of these by-laws is possibly the right one, the point has not been decided by the Courts, and as there does not appear to be any section in any general Act of Parliament giving power to local authorities to discharge unpurified sewage into tidal waters, "we are not entirely satisfied that the proviso has the effect which has been attributed to it." It further points out that although the Rivers Pollution Prevention Acts do not prohibit the discharge of sewage into tidal waters, "the absence of a prohibition would scarcely seem to be equivalent to the giving of a power."

The matter would appear to stand thus. There is discharge of sewage into tidal waters which admittedly causes contamination of shellfish and much disease among the consumers of the shellfish. The Local Government Board has power to remove the exemption of tidal waters from the operation of the Rivers Pollution Act, but it has not exercised this power. Another Government Department—the Board of Trade—interprets a doubtful clause of the Sea Fisheries Regulation Act in such a manner that, owing to the inaction which is the natural consequence of this interpretation, injury is caused to an important industry and to the public health. It is true that the remedies capable of being adopted in these two directions are shown in the report of the present Commission to be but partial and incomplete: but they would, if they had been adopted, at least have improved matters. And no one seems to have the power to compel these two Government Boards to test the points in doubt in the interest of health and trade. Meanwhile a Royal Commission sits on the subject, and, as we shall shortly see,

rmulates a scheme for a new Government Department and w local authorities to administer the law on the matter.

The Royal Commissioners report that sewage and trade fluents from towns in tidal rivers and on the coast are ually discharged in an unpurified condition into tidal aters, and have satisfied themselves that "injuries to health id to fisheries may be caused by the discharge of unpurified wage into tidal waters, and that some alteration of the law required. A change of the law is especially needed in the se of tidal waters in which shellfish are laid, but there are her evils besides the contamination of shellfish to be arded against, amongst which may be mentioned the fol-wing:

1. Offensive putrefaction.
2. Reduction of oxygen to such an extent as to render the water incapable of supporting fish life.
3. Destruction of fish by poisons or the clogging of their gills by suspended matters.
4. Washing up of faecal matter on the shores.
5. Formation of sludge banks.
6. Objectionable contamination of bathing places.

Possibility of Disease from Shellfish.

It is pointed out that not only is there cumulative evidence f the causation of enteric fever, etc., by contaminated shellsh, but that the representatives of the shellfish industry do ot now seriously contend that this view is unsound. The llowing expression by the late Professor Huxley is worthy f requotation in this connexion. It is a very clear as well as n early statement of the conditions of the case:

> I do not see how it can be doubted that oysters taken from a bed rrigated with dilute sewage and eaten uncooked would be dangerous rticles of diet. Does anybody pretend that it would be safe to take rinking water (unfiltered and otherwise unpurified) from a body of esh water, of similar dimensions to any estuary which may be under onsideration, at a point equally near a sewage discharge? If such a roceeding is safe, our sanitary authorities are taking a great deal of rouble in vain; if it is not safe, neither is it desirable to eat oysters, ne juices of which are impregnated with sewage, in however dilute a ondition.

After having heard the evidence of different medical fficers of health the Commission "are satisfied that a conderable number of cases of enteric fever and other illness re caused by the consumption of shellfish which have been xposed to sewage contamination; but in the present state of nowledge, we do not think it possible to make an accurate umerical statement, at any rate as regards the whole ountry." They add "there can be no doubt that the evil is ufficiently grave to demand a remedy."

In thus stating the case, we think the Commission has listinctly under-assessed the risk. Were the matter one nerely of academic interest this would not signify, but as it s one in which action is imperatively required, there is a possibility of less pressure being brought to bear in favour of reform, owing to an understatement of the case arising from personal unfamiliarity with the great extent of the evil.

Need of Further Measures.

But, as is pointed out in the report, the Government by their Bill of 1899 has already admitted the necessity for reform. The remedies recommended come under three general classes: (*a*) Purification of the sewage before its discharge into tidal waters; (*b*) seizure and destruction of unwholesome shellfish exposed for sale; (*c*) the setting up of a competent authority to deal with all tidal waters, with power to control foreshores, to close dangerous beds, pits, ponds, and layings, and in certain circumstances to require treatment of sewage.

Purification of Sewage.

Of these remedies the purification of sewage before discharge is shown to be an inefficient remedy. In a previous interim report of the Commission (July 12th, 1901) it was pointed out that effluents from sewage farms as well as from artificial purification processes usually contain large numbers of micro-organisms, many of them apparently of intestinal derivation. Their further investigations have not altered their opinion as to the dangerous character of such effluents. Dr. Houston has found that B. pyocyaneus when added to sewage in large numbers passed freely through sewage purification works, consisting of (*a*) septic tank and contact bed; (*b*) continuous filter, about 10 ft. in depth. The Commission concludes that, although there may be hope for the future, at present the treatment of sewage "cannot be relied on so to alter its character as to allow of its discharge in the immediate neighbourhood of shellfish layings without incurring appreciable risk of disease being communicated by the consumption of shellfish taken from such layings. In such cases either the sewage outfall must be removed or the layings closed." They add that in other cases, as where the layings are at a considerable distance from the outfall and the sewage would be largely diluted before it reached them, treatment of the sewage might be of value in diminishing risk.

Seizure of Unwholesome Shellfish.

The second suggested remedy is that of seizure of unwholesome shellfish under Section CXVI of the Public Health Act. On this point the report states: "We are bound to say we agree with Dr. Newsholme in thinking that the provisions are practically useless for preventing the sale of contaminated shellfish."

Control of Waters, Pits, etc.

The remedy recommended by the Commission is the setting up of a special authority to control waters, pits, ponds, layings, and beds. They consider that the power of this authority should be elastic, the case of each river and estuary constituting a problem by itself.

In the Oyster Bill of 1899 the Local Government Board was proposed as the central authority and the councils of every county and of every borough as the local authorities. The Commission cannot recommend that the local authorities should be these, as they "would not command the confidence alike of sewage authorities and of the fishery trade"; nor can it recommend the authority recommended by the House of Lords Committee—namely, the Sea Fisheries Committees—as these are in no sense sanitary bodies, and their interests are in the main bouud up with the fishing industry.

River Boards.

The Commission recommends the formation of large river Boards and a central authority. The latter would in essence be a department of the Local Government Board, and would be part of the new supreme rivers authority which has already been recommended by the Commission. The local river Boards would be joint Committees of county councils, "possessing for the combined areas the same powers which the individual councils might have exercised in their respective districts." They would, however, in the opinion of the Commission, be of much greater value for the protection of rivers and streams than the separate councils acting independently, inasmuch as they would be expressly created to enforce the provisions of the Rivers Pollution Prevention Act, and would have jurisdiction over practically the whole of a watershed. They would furthermore have a sufficiently large area to secure the appointment of skilled officers.

Duties of Proposed Controlling Authority.

The report of the Royal Commission then proceeds to indicate the main duties of the officers of the proposed Rivers Boards. First would come a careful survey of all tidal waters within their jurisdiction. It is recommended that the Act giving effect to the recommendations of the Commission should provide for the registration of all beds, etc., from which shellfish are taken, the registration being subject to revocation or suspension. It is pointed out that such registration would not be suitable for places not owned by private persons from which shellfish—for example, mussels—are taken. In these instances it is recommended that the Rivers Board should define areas from or within which shellfish may, in its opinion, be safely taken for food. Such an arrangement would not be effective, unless it were made a punishable offence to gather shellfish from other places than those defined by the Rivers Board. It is further recommended that the sale of shellfish for human food from unregistered places or from prohibited areas of foreshore or waters should be illegal.

It is proposed that the admission of oyster layings, beds, etc., to the register should depend on the report of the inspecting officer of the Rivers Board. A copy of this report, if unfavourable, should be sent to the owner or occupier, who then has a right of appeal to the Board, who would then appoint a committee to hear the appellant. The Commission also considers it desirable that any local authority having reason to consider any registered bed or unprohibited area subject to contamination should be empowered to represent the matter to the Rivers Board, and this representation should be dealt with by the Rivers Board in a similar manner to that recommended in the case of applications for registration. It is also recommended that provision should be made for the

temporary closing of foreshores, etc., in the event of special dangers arising, and that it should be the duty of the medical officer of health of any district to report outbreaks of infectious disease, failure or alterations of sewage works or other causes increasing the danger of contamination of shellfish. Similar powers to report should also be conferred on the Fisheries Committee; but all the same "the responsibility for securing that shellfish are not taken for human consumption from any dangerous place would rest" still with the Rivers Boards.

In all the preceding cases it is proposed that provision should be made for appeal to the Central Authority, whose decision should be final. In cases of temporary closing, the closing should be effective pending the result of the appeal. In certain cases the Rivers Board should have the power to require treatment of sewage before it is discharged into tidal waters; and the consent of the Rivers Board should be required to the construction of any new sewage outfall or drain into tidal waters.

The Closing of Oyster Layings, etc.

Attention is drawn to a number of instances in which bacillus coli was not detected in the interior of oysters which had been exposed in high degree to sewage contamination; and the conclusion is drawn that the closing of a foreshore laying or pond should not depend, as a matter of routine, on the results of a bacteriological examination. On the other hand, the evidence before the Commission made it clear that in the majority of instances topographical evidence of pollution by sewage would have sufficed alone to condemn oyster layings of which complaints had been received. And the Commission concludes that if the oyster layings, etc., which are obviously liable to pollution, "were closed, or else freed from chance of pollution, the greater number of cases of disease due to the consumption of contaminated shellfish would be eliminated."

On the other hand, bacillus coli has been found in 10 c.cm. and sometimes in 1 c.cm. of samples of the purest waters in which native oysters are fattened; and the same is true of the oysters themselves. But such oysters have not been shown to have caused outbreaks of disease. Hence in the opinion of the Commission, the foreshores having obvious pollution should be first dealt with, action in regard to the more doubtful cases being "deferred until more complete and exact knowledge has been obtained." This is the very essence of common sense.

Bacteriology as Applied to the Examination of Shellfish, etc.

Dr. Klein stated in evidence before the Commission that he had not found that the normal oyster harboured within its shell or within its body the B. coli communis or other B. coli closely allied to it, and that he regarded the presence of the B. coli as indicating sewage contamination when found "in considerable numbers of oysters in a series of samples from a particular locality." The Commission instructed Dr. Houston to investigate the premiss on which Dr. Klein's method was based. Dr. Houston examined over 1,000 oysters, some from the purest waters in which oysters are grown or fattened in this country, and some from layings, etc., obviously liable to pollution. The results show that nearly all the oysters so examined, from whatever laying they were taken, contained B. coli communis or other B. coli closely allied to it. The results as to deep-sea oysters are not quite decisive, but "point strongly to the conclusion that not only typical B. coli, but even coli-like microbes, are absent from them." In view of what has previously been said in regard to cases in which the B. coli failed to be found, no great stress can be laid on this result.

The Commission expresses its opinion that notwithstanding the doubts which the above observations raise, "we are not without expectation that further inquiry may show that a quantitative test by aid of these or other micro-organisms may prove of considerable value." Dr. Houston found that in oysters taken from different layings the number of B. coli varied in an oyster from 10 to 10,000. As a rule, taking the whole oyster, a very much smaller number of B. coli is found in oysters stored in pure than in oysters stored in polluted waters. The Commissioners express the opinion that the mere presence of B. coli in an oyster does not constitute a justification for the wholesale condemnation of oysters; and that, furthermore, a single examination of a chance sample of oysters may be most misleading. Generally speaking, comparative examination of samples of water from the different layings gave results similar to those furnished by the oysters from the same layings, except that generally the water was generally purer than the oysters themselves, the oysters seeming to collect and retain within their shells these micro-organisms.

Observations were also undertaken to determine whether B. coli and B. enteritidis sporogenes, the first of which was commonly, and the second occasionally, present in estuary waters in which oysters are grown, were always present in pure sea water. Samples of deep-sea water were collected at various points on the north-west coast of Scotland within sight of land, but remote from possible contamination. None of these contained B. enteritidis sporogenes in 10 c.cm., and none B. coli in 100 c.cm. of water. It is well ascertained that B. coli rapidly disappears in pure water, whether salt or fresh.

It is interesting to note that, as judged by the B. coli test, the River Thames at Mucking, about 20 miles below the Barking and Crossness Outfall Works, is at times as pure as the river near Sunbury and Hampton, above the intakes of some of the London waterworks companies.

The whole matter is summed up by the Royal Commission as follows:

"We accept the view that, for the present, results of bacteriological examinations must be interpreted in the light of topographical observations. As a corollary it would seem that the bacteriologist can at present do little more than urge that results he is obtaining point to the need of a further and more careful examination of the local conditions of the shellfish or water samples submitted to him; that for the present topographical observations must determine whether any laying or pond is or is not to be considered as free from risk of objectionable contamination."

It follows from the above that, in the opinion of the Commission, attempts to condemn shellfish, by the aid of bacteriological evidence as regards B. coli alone, must be useless. Further bacteriological researches are needed on the subject of a quantitative character. The opinion is further expressed that, while appreciating their efforts in doing bacteriological work, the efforts of the Fishmongers' Company would have been of greater service had more weight been attached to topographical examination of foreshore, etc.

Foreign Shellfish.

It appears that in this country no outbreaks of enteric fever or other illness have been clearly traced to the consumption of directly-imported foreign shellfish. The Royal Commission recommends that a guarantee should be required in regard to all foreign shellfish from each Government concerned, to the effect that all oysters or other shellfish imported into this country for human consumption had been procured from localities where they were not liable to be contaminated by sewage or other objectionable filth.

THE PRUSSIAN VACCINATION LAW OF 1835.

Mr. Arnold Lupton of Leeds recently wrote thus to the *Yorkshire Daily Observer*:

Now, the facts are that Germany has been vaccinated and revaccinated since the year 1834; that about the year 1871 Dr. Seaton, of the English Local Government Board, said to the Committee on Vaccination - "I know Prussia is well vaccinated"; and that almost immediately after these words were uttered there began the terrible small-pox epidemic of 1871-2, in which the Prussian death-rate was double that of England, notwithstanding its thorough system of vaccination. Since that time the Prussian authorities, recognizing the inadequacy of vaccination, have gone in for a very vigorous system of sanitation, good drainage, good water supply, and for the isolation of all small-pox cases, with the result that the amount of small-pox in Prussia is now comparatively small.

The letter goes on to contrast Berlin during the seven years ending 1901 with twenty-two large towns of England as regards small-pox. The towns are not named.

To this letter Mrs. Garrett Anderson replied that there was no "Germany" as a political unit till the year 1872. In Prussia there was no law enforcing infant vaccination till April 8th 1874, though recruits for the army had been vaccinated since 1834. The fact that the small-pox mortality per million in the Prussian nation, not in the army, was more than double that in England in the epidemic of 1871-2 is an illustration of the value of infant vaccination, for England had then a compulsory vaccination law, though it was not perfectly worked, and Prussia had none. The small-pox mortality of the Prussian nation, exclusive of the army, from 1865 to the end of 1874 averaged each year 755.4 per million; after the law of 1874, enforcing infant vaccination and revaccination at school age, the average per million yearly for the next ten years was 22.2.

Mr. Lupton then asserted again that
Prussia there was a vaccination law passed in 1835, and a Royal Pro-
mation, enforcing the law, on pain of fine or imprisonment, on
ery one within the whole extent of the monarchy. In the Prussian
ny revaccination was compulsory. The law was passed in 1834, and
ery male citizen had to serve in the army, and thus Prussia was
mpulsorily vaccinated throughout and its male citizens were revac-
ated.

General Phelps wrote in the same strain.

We think it will interest Mr. Lupton, General Phelps, and
r readers if we give a literal translation of the Prussian
nitary Regulations of 1835 so far as they relate to vaccina-
on, together with a translation of some of the comments on
ese regulations by the Imperial Health Office. These com-
ents are taken from the official handbook entitled, *Blattern
d Schutzpockenimpfung* [Small-pox and Vaccination], third
dition, 1900.

The Prussian Vaccination Law, 1835.

The first six sections of the law, which are §§ 44-49 of the "Regula-
ns," relate to notification; the affixing a tablet on invaded houses;
sinfection; burial; and the inclusion of "varioloid" under "variola."

§ 50. Experience has proved that vaccination is the most certain
eans of protection against small-pox. Every one is therefore strongly
commended not to deprive himself, his children, and those under his
re, of vaccination, without sufficient reasons—as recognized by those
10 understand the subject; on the contrary, the active participation
all sensible people is expected in furthering this general measure by
ample and precept.

Officials, and especially district councillors and district surgeons, as
30 all sanitary officials, must consider it their duty, on every occasion,
procure the further extension and general adoption of this so certain
d so harmless protective measure.

§ 51 (ordains that only medical men may vaccinate).

§ 52 (provides for public vaccinations yearly).

§ 53 (certificate of vaccination to be given, after inspection).

§ 54. If, notwithstanding this, children remain unvaccinated without
tisfactory reason to the end of the first year of life, and in consequence
come attacked by natural small-pox, their parents or sponsors shall
punished for the neglect of vaccination, in view of the danger of
fection caused thereby.

Schoolmasters and manufacturers and other employers will do well to
tisfy themselves that those under their teaching or in their service
e vaccinated. Persons who seek admission for their children or wards
to public State institutions, or stipends, or other benefices shall be
fused unless proof of vaccination is produced.

§ 55 If small-pox breaks out in any house, careful examination
ust be made as to whether any susceptible individuals reside there,
id if so, they must be vaccinated as soon as possible.

If the disease spread all the remaining inhabitants (Einwohner) must
e warned of the threatening danger, and are required to have vac-
nated at once all susceptible persons belonging to them; to which
id the medical police will adopt the necessary arrangements, and if
ecessary compulsory vaccinations must be effected.

§ 56. Also generally, and especially under the aforesald circumstances,
ie revaccination of indivfduals who have been vaccinated a long time
revious, even though successfully, is to be recommended, on account
f the greater security thereby effected.

§ 56. Reception into boarding-houses connected with public schools
or colleges) shall not take place before the pupil has shown that vac-
ination, or revaccination, has been done within the previous two
ears.

§ 57. As regards the army, the soldiers of the standing army as well
f those belonging to the Landwehr and the Reserve must be carefully
xamined as to their vaccination at the time of entrance; those who
elong to the standing army and are not vaccinated and require vaccina-
ion, shall be vaccinated at once, in accordance with the Cabinet Order
f May 30th, 1826; those of the Landwehr and Reserve are referred to
he civil authorities, so that their vaccination shall be done without
elay, and if the individual refuses, by the use of compulsory means.
t their next call the same must present a certificate that vaccination
as been really performed.

Those recruits in whom unmistakable cicatrices from a previous
mall-pox attack are not present and those who, though vaccinated,
annot show by certificate that their vaccination occurred not more than
wo years before entry, shall be revaccinated within six months of their
ntry into the army, in accordance with the Cabinet Order of June 16th,
834 (confirming Order of April 6th, 1834).

§ 58. The inoculation of human small-pox is forbidden, under penalty
f three months' imprisonment.

The Imperial Board of Health, Berlin, in the handbook
fficially published on small-pox and vaccination (third
dition, 1900), comment on the above law, as follows:

"By these regulations no one was legally bound to be
accinated or to have his children vaccinated ..... In non-
epidemic times there was no legal or police punishment pro-
vided for the neglect of vaccination, such punishment being
only over those parents whose children contracted small-pox
while unvaccinated, without an evident reason."

The sections 54 and 56 did not apply to schools in general, because we find, from the comments of the official *Handbuch* that schoolmasters were only recommended to see that their pupils were vaccinated. This was extended first in 1871 to all schools attendance at which was not obligatory, after which a vaccination certificate was required on entering into such schools. Compulsory measures could only be adopted, in Prussia, when an outbreak of small-pox occurred. Previous to 1874, the date of the Imperial Vaccination Law, revaccination was not obligatory in school age in the nine old provinces of Prussia.

Lastly, a Ministerial Order issued on May 28th, 1841, contains the words "because there exists no legal compulsion to vaccinate." It is therefore plain that the Sanitary Regulation of 1835 did not make vaccination compulsory, and that Dr. Seaton was mistaken when he said in 1871 "that he knew Prussia was well vaccinated." No doubt Prussia contained more once-vaccinated persons than Austria or Russia, but that is all that could have been said with accuracy. We hope, therefore, that Mr. Arnold Lupton, General Phelps, and other opponents of vaccination will at last give up asserting that Prussia has had a compulsory vaccination law since 1835.

LITERARY NOTES.

The Hungarian Minister of the Interior offers a prize of 2,000 crowns for the best essay on the pathology or treatment of trachoma. The prize, which will be awarded by a jury appointed by the Minister, will be given only for an original work, constituting a real advance of the question. Competitors may use their native language. Essays must be sent in on or before December 31st, 1904.

On January 15th a one-act play in verse, by Dr. Gabriel Montoya, entitled *Le Frisson de la Gloire*, was played with success at the Odéon Theatre, Paris.

The *Vaccination Enquirer* hears "with great pleasure" that "an important statistical work" by Dr. Alfred R. Wallace, entitled *A Summary of the Proofs that Vaccination does not Prevent Small-pox, but really Increases it*, is, or will shortly be, in the press.

La Gazzetta Medica is the title of a monthly Italian journal published in New York. The first number was issued in December, 1903. It contains eight large double-columned pages of reading matter, and is edited by Dr. Giuseppe Lapenta.

We learn from the *Gazette Médicale de Paris* that M. Salomon Reinach recently informed the Académie des Sciences that Professor Hertzog of Göttingen, in the course of excavations at the side of the Asklepeion of Cos, has discovered an inscription of great historical importance and a number of letters from cities of Crete thanking the authorities of Cos for sending them physicians. This would seem to prove that the School of Medicine founded on the island of Cos by Hippocrates continued for a long time to enjoy the reputation of a scientific centre from which physicians were sent to various parts of Greece.

On February 15th Messrs. Kegan Paul and Co. will issue a new monthly journal, entitled *Our Hospitals and Charities Illustrated*, which will endeavour, "by real and living illustrations, combined with bright and telling reading matter, to awaken and stimulate interest in the work of our hospitals and charities, particularly amongst men and women of moderate income." It will be essentially a journal for the public, and all matters of controversy and technicality will be studiously avoided.

We are reminded by our excellent contemporary, *American Medicine*, that the work of Dr. Robert Fletcher, the editor of the lately revived *Index Medicus*, is entirely a work of love, and has been so for many years. Dr. Fletcher has not received one dollar of compensation for all his editorial work, which involves the personal reading of the proof three times over, a labour which only those who have dealt with the unusual foreign languages represented in the *Index Medicus* can appreciate. We are pleased therefore to learn that a number of his friends and admirers have combined to have his portrait presented to the library of the Surgeon-General's office, where, in the scene of his labours it will always remind later generations of his splendid work. A committee has been appointed, which is actively engaged in collecting funds for this purpose.

It is well known that the famous French playwright, M. Victorien Sardou, began life as a student of medicine. He recently recalled the fact in an interview with a representative of the *Figaro*, to whom he revealed the unsuspected fact that he was the discoverer of hypnotism. He said, "When I was a medical student I paid, in conjunction with fellow students

who long before Charcot had had a glimpse of that unknown country, hypnotism, much attention to suggestion, and to what has since been called *la grande névrose*. These phenomena are sufficient to explain what the Middle Ages called sorcery. I was passionately drawn to the study of those things, and I took as much interest to the persons accused of sorcery as in those who condemned them. Both were mad. The idea came to me of showing that everything before attributed to the devil belonged to the domain of hypnotism and was one of the phenomena of *la grande névrose*. There never were sorcerers or sorcery; there never was anything but people accused of sorcery. This is absolutely scientific, and from that idea came *La Sorcière* which is now being played in Sarah Bernhardt's theatre."

The first recorded specimen of primitive trephining found in America was (according to *American Medicine*) taken from the Yucay cemetery, in the Valley of Yucay, Peru. American experts pronounced the specimen to be of (at least) precolumbian date. The skull was afterwards forwarded to M. Broca. The result of his examination was that one is "authorized to conclude that there existed in Peru—before the European epoch—an advanced form of surgery." Dr. Robert Fletcher, in discussing the subject, observes that "the numerous specimens which have been found in Michigan suggest several inquiries. Many more prehistorically trephined skulls have been found in Michigan than in any other State of the Union." Illinois and Ohio come next in order in the number of such discoveries. The conclusion arrived at is that either these States have made more explorations than the others, or that the valley of the Great Lakes contained a race of people who practised trephining, as the Kabyles of Northern Africa do at the present day, while the surrounding tribes did not. Michigan appears to have fewer mounds than the other States of the Union. But although the mounds have been everywhere examined, there have been very few trephined skulls found outside this region. The artificial openings in all the American skulls have been found near the vertex. "They have rarely shown any evidence of cicatrization, and for those reasons are generally believed to have been trephined for religious rather than for surgical purposes." The result of the investigations hitherto made has been to lead to the conclusion "that the valley of the Great Lakes once contained a people who practised surgical trephining." It has been critically observed that the incisions found in the wall of the "Inca skull" from Peru appear to have been made with some cutting instrument "something like an engraver's burin, and not with a saw." In a discussion which recently took place on this subject in London, Sir Victor Horsley showed photographs of three American specimens of skulls so treated. He regarded the traces as those of saw-cuts. They were all in the frontal region; and the conditions, taken in connexion with the other evidence now available, gave, according to this observer, "reasonable ground for believing that the Peruvian operation was probably done for headache." The fact that trephining practices, such as appear to have been used in prehistoric times, are at present commonly carried out in far-off Pacific and South Sea islands, has recently been demonstrated before the Anthropological Institute of Great Britain and Ireland. In New Britain, the instrument is formed from a piece of shell or a flake of obsidian, and the operator is the wizard or "tena-papait" of the tribe or district. A blow of a sling stone is the usual cause of the fracture which calls for the operation, the sling being the most formidable weapon used by the natives in their tribal fights, and "a smooth stone as large as a pullet's egg being thrown with moderate accuracy but considerable force." Death almost invariably ensues in cases which are not promptly treated. Injury caused by the stone-headed club is almost instantly fatal, but the flat two-edged club is not so deadly, and permits of an occasional operation. The following is the procedure: A V-shaped or Y-shaped incision is made over the seat of fracture, and while assistants hold back the scalp, any loose fragments are picked out with the finger-nail. The other portions involved in the fracture are then scraped, cut, and picked away, leaving the brain exposed to the size of half a crown, then, all loose pieces having been removed, the scalp is carefully laid down, and the wound bandaged with strips of banana stalk about 4 in. wide. These strips are, when dry, of a spongy nature, the water which formerly filled the cells being replaced by air; moreover the inner surface is silky to the touch, and forms an admirable dressing for tender surfaces. It is astringent in its action, and non-absorbent, all discharge escaping below the bandage. Sometimes a few bruised leaves are applied before bandaging. The patient is generally insensible from the time of the injury, and if consciousness returns during the operation, soon faints away again. In five or six days the bandages are renewed, and in two or three weeks a complete recovery is the result. The number of deaths is about 20 per cent., most of these resulting from the first injury, and not from any complication after the operation. Nearly all the deaths take place during or immediately after the operation, and if a patient once becomes conscious he is said never to fail to make a good recovery. In New Ireland the operation is also performed in cases of epilepsy, and for some cases of insanity which are attributed to pressure on the brain. On Gerrit Demp Zealand, and in the central part of New Zealand, the usual form of operation—often performed for throbbing headache—consists of cutting two or three channels, in a vertical direction, on the frontal bone, each 3 in. or 4 in. in length.

Dr. C. W. Saleeby (London) writes: In your Literary Notes of January 10th, you cite Herbert Spencer's last book, *Facts and Comments*, in order to demonstrate his hostility to vaccination. It seems the antivaccinators are doing likewise. But surely you, Sir, can make some allowance for arterio-sclerosis if they cannot. In his *Study of Sociology* (1873) Spencer imagines a future historian of this people, who says, in sufficiently pregnant words:

> Their distribution of monumental honours was, indeed, in all respects remarkable. To a physician named Jenner, who, by a mode of mitigating the ravages of a horrible disease, was said to have rescued many thousands from death, they erected a memorial statue in one of their chief public places. After some years, however, repenting them of giving to this statue so conspicuous a position, they banished it to a far corner of one of their suburban gardens, frequented chiefly by children and nursemaids; and in its place they erected a statue to a great leader of their fighters—one Napier, etc. The reporter does not tell us whether this last had been instrumental in destroying as many lives as the first had saved.

Arterio-sclerosis may cover a multitude of intellectual sins, though we hardly think that Spencer would have felt grateful to our correspondent for the suggestion. But we cannot honestly say that we find any evidence of arterio-sclerosis in the other essays gathered together in *Facts and Comments*. Nor does the passage quoted by Dr. Saleeby from the *Study of Sociology* by any means convince us that Herbert Spencer was a believer in vaccination in 1873 any more than he was in 1902. The point made is rhetorical rather than logical; it is an *argumentum ad hominem* which is not necessarily to be taken as expressing the opinion of him that uses it. That Spencer was not, in fact, uttering his own belief seems to be shown by the words "was *said* to have rescued," etc. Spencer like ordinary men of mould, had his limitations. This truth he appears to have found it difficult to admit; hence he sometimes talked nonsense. He was also constitutionally disposed to be "agin the Government," and the fact that vaccination was compulsory was sufficient to make him regard it with the dislike that he showed to every kind of interference with the free play of individualism. This attitude of mind is not philosophic; but does not Cicero say that there is no kind of absurdity which has not been taught or defended by some philosopher?

PREVENTION OF CONSUMPTION.

SUSSEX.

With the view of preventing the spread of consumption the Uckfield Urban Council on February 5th authorized the inspector to disinfect all houses in which consumptive people had died when application was made for this to be done. This decision followed a report of the inspector, who had declined to disinfect a house at the cost of the ratepayers, because consumption was not scheduled as an infectious disease.

SOUTH AFRICA.

According to the *South African Medical Record*, Durban has the distinction of being the first town in South Africa to found a branch of the National Association for the Prevention of Consumption and other Tuberculous Diseases. This has been largely due to the enthusiasm of Dr. Murray Grey of the town. The branch consists of both lay and medical members. The experience of medical practitioners, as well as the evidence of statistics, tends to show that consumption and other tuberculous diseases are on the increase in most towns in South Africa. Our contemporary therefore expresses the hope that the good example of Durban will be followed generally.

BRITISH MEDICAL ASSOCIATION.

bscriptions to the British Medical Association for he year 1904 are now due and should be forwarded y postal order or cheque to the amount of 25s. o the General Secretary, 429, Strand, London, W.C., r, in the case of Colonial members, to their Branch reasurer.

British Medical Journal.

SATURDAY, FEBRUARY 13TH, 1904.

THE MEDICAL SERVICE OF THE ARMY.

the last issue of the BRITISH MEDICAL JOURNAL reference s made to the absence of any mention of the medical rvice of the army in the scheme for the reconstitution of e War Office proposed by Lord Esher's Committee. On rd Esher's attention being called to what seemed an explicable omission, he replied that the position of the edical service under the new scheme was receiving e serious attention of the Committee. The matter is deed one that demands the most serious attention, and is makes it all the more remarkable that the members of e Committee should have approached its consideration parently as an afterthought. With the immense loss of e from preventable causes during the South African war sh in the public memory, it might have been supposed at in any scheme of reform of army administration the edical service would have occupied a prominent place. vitally important to the efficiency of the army and the fety of the nation is the matter felt to be that the ritish Medical Association, as representing the medical ofession, lost no time in placing its views before the cretary of State for War. The scheme for the reconstitu- on of the War Office was carefully considered at a special eeting of the Royal Naval and Military Committee eld on February 8th, and as the result certain commendations, the text of which will be found p. 395, were forwarded to Mr. Arnold-Forster. egret was expressed at the absence of any provi- on for the direct representation of the Medical Service n the proposed Army Council, and it was strongly urged at steps should be taken to repair this omission. The ply of the Secretary of State for War was to the effect at the new Army Council is in no way a representative ody, and that in these circumstances it is not considered ecessary that the Army Medical Service should be irectly represented.

It is necessary to speak plainly on this matter, and we ay at once that we cannot accept Mr. Arnold-Forster's de- cription of the proposed Army Council as "in no ay a representative body" as being accurate in any ut a non-natural sense. As the Schoolman would ave said, the Council, though it may not be re- resentative *formaliter* is so *materialiter*. It is to onsist of seven members, each of whom, with the xception of the Secretary of State, represents a definite roup of army duties and requirements. These are sum- narized in the report of Lord Esher's Committee under he heads of "Operations of War," "Personnel," "Supply," Armament," "Civil Business," and "Finance." Under hich of those heads is the medical service to be placed? Ve confess we cannot guess, unless it be under the con- eniently elastic head of "Civil Business."

We may be allowed to recall to the mind of the Secretary for War that it was as the outcome of the bitter experience of the South African war that Mr. Brodrick's Committee gave the medical service direct representation on the Army Board. The Director-General was thus placed on a footing of equality with other chiefs of departments. This change was far more than a matter of mere rank and dignity; the greater official position given to the head of the medical service made it impossible for the military authorities to treat his recommendations and demands as the utterances of a Greek chorus to which no regard need be paid. It is beyond question that the spirit of military pedantry and jealousy which found characteristic expression in Lord Wolseley's remark in the *Soldier's Pocket Book*, that "medical advice is a good thing—when it is asked for," has been responsible for a vast amount of preventable disease and great and needless loss of life in our recent wars. Experience has abundantly shown that medical advice, if it is really to be useful in a campaign, must be given whether it is asked for or not, and that commanding officers who refuse to take it must be held responsible for the consequences. The reforms introduced by Mr. Brodrick gave the Director-General not only the right to advise, but the authority to enforce. It would seem that Mr. Arnold-Forster intends to undo the good work of his predecessor.

We gather from his letter that he thinks the system of administration of the medical department of the navy applicable to the corresponding service of the army. Yet it requires no long experience or particular insight to see that the practical problems with which the latter has to deal are vastly more complex than those which the former has to face. The difficulties of transport and supply, field hospitals, sanitation of moving columns, and distribution of officers over a vast area are for the most part non-existent in naval warfare.

It is pretty clear, too, that Mr. Arnold-Forster has not taken the trouble to make himself acquainted with the history of the relations between the War Office and the medical service. A little time spent in the study of the long struggle for the recognition of the very important part which it plays in the organization of the army would be well bestowed, for it could scarcely fail to teach him that, in matters which touch the medical arrangements, military reformers must always reckon with the medical profession.

It is disappointing to find that the lessons of an experience so dearly bought are to be thrown away with a lightness of heart like that with which M. Ollivier entered on the fateful war of 1870. We warn Mr. Arnold-Forster that the medical profession will not tolerate a reversion to the bad old system which has been the cause of so many misfortunes to the army and such terrible cost—not in money only but in lives—to the country. Without direct representation on the Army Council the medical service is relegated to a subordinate position which checks initiative, paralyses intelligent activity and tends to make the service shunned by the very men most fitted to make good officers. All this makes for inefficiency; and without an efficient medical service the army is doomed sooner or later to disaster.

VACCINATION, ISOLATION, AND SMALL-POX IN GERMANY.

IN a recent issue[1] attention was called to the curious change of front of antivaccinists regarding small-pox in

[1] BRITISH MEDICAL JOURNAL, October 24th, 1903, pp. 1078 and 1091.

Germany. For many years the attitude was that German, or Prussian, experience proved revaccination to have been valueless as a preventive of small-pox. It was alleged that revaccination had been compulsory in Prussia since 1835, and the large share which that country bore of the small-pox epidemic of 1870-3 was pointed to as demonstrating the failure of thirty or forty years of national revaccination. Like ordinary antivaccinist argumentation, this contention was quite independent of fact. Revaccination, except in the army, which remained correspondingly free from small-pox, had not been compulsory since 1835, but only from 1874, since which time Germany has been the envy of every European country in respect of its wonderful immunity from epidemics of variola. Lately, as we showed in the article just referred to, a new view has been developed. It may be the case that history is often an effort of the imagination, but the year 1835 is too recent, and Prussian Government records are too precise, to enable imagination to take the place of fact with regard to so definite a question as whether there was or was not a law of compulsory revaccination there from 1835 onwards. We do not for a moment deny that an imaginative story might be quite acceptable to leading professors of the antivaccination cult. If we may be allowed to parody Tertullian's famous saying, *Credo quia incredibile* may indeed be taken as the motto of their faith and practice; and the nonsense concerning the year 1835 has made excellent material for their newspaper letter-writing ring. But since we took the trouble to translate and publish the exact terms of the Prussian Regulations of 1835,[2] antivaccinists in the innermost circle have begun to see that even a very gullible public can no longer be taken in by fables which any medical man possessed of a copy of the British Medical Journal translation could straightway refute. And so, the bubble being burst, a new one had to be blown. The leaguers felt convinced that they had plenty of gas left to fill another hundred, and so one of the editors of the *Vaccination Inquirer* became responsible for a new effort to prove that absence of small-pox in Germany is not due to prevalence of vaccination and revaccination there. He is, however, an angry man to-day. His bubble has been pricked just as his predecessor's was, but more quickly, and once more we are regarded as the wicked spoil-sport. Instead of holding that revaccination had been made compulsory in Prussia in 1835, he advanced the new and original view that isolation had been the subject there dealt with. But as isolation-without-vaccination is the latest quackery advocated by the Antivaccination League, we felt compelled to call attention to what he had carefully hidden out of sight, though it had bulked so large in the previous legend—Prussia's terrible experience of small-pox in the early Seventies. It surely does not say much for police measures of isolation to which antivaccination now appeals if, after thirty years' experience of how to work them in Prussia, there came a small-pox epidemic in which the mortality was double that of England, trusting only to infantile vaccination. Thus once more the bubble has collapsed.

But the *Inquirer* has got into a third difficulty. Mr. Arnold Lupton, of Leeds, is an antivaccinist who is also to be a Parliamentary candidate when a general election comes, and so is a man whom the organ of the League naturally desires to propitiate, not only by publishing a beautiful picture of him, but also by helping to haul him out of a nasty bog into which he has unfortunately tumbled. Mr. Lupton, being filled more with zeal than with knowledge, lately opened his mouth on the subject of vaccination, and straightway put his foot right into it. He somehow got on to the subject of German small-pox, and, being merely a child in such deep matters, he seems to have foolishly accepted as gospel truth the old antivaccination myth about a compulsory revaccination law of 1835, and so was led to declare "the facts are that Germany has been vaccinated and revaccinated since the year 1834." It was in the columns of the *Yorkshire Daily Observer* that he perpetrated this *faux pas*, and he still further blundered by failing to distinguish between Germany and Prussia, assuming that regulations or laws made by the latter were applicable to the former. Mrs. Garrett Anderson was unkind enough to reply and to point out that there was not even a really compulsory law of infantile vaccination in Prussia until 1874, there being previously a penalty only in the event of an unvaccinated child's attack by small-pox. It thus appeared, in effect, that Mr. Lupton knew nothing at all about the subject into which he had so lightheartedly plunged.

Then at once in antivaccination headquarters there was a rushing to the rescue. A possible M.P. must not be shown up in the public press because he had been foolish enough to believe that old antivaccination myth. So not only did Mr. Lupton get some illumination as to the true inwardness of things, to help him in his own apologetics but the President of the League, and the author of the new German theory, also came to the aid of their protégé. Now the whole thing has been mixed and messed into an extra ordinary hotchpotch which is served up to the readers of the *Vaccination Inquirer*. In defence of Mr. Lupton the *Inquirer* is evidently strongly tempted to go back to the old romance about a revaccination law of 1835. But just saves itself. It declares that it was rash on Mr Garrett Anderson's part to challenge Mr. Arnold Lupton's statement, and as there can be no rashness in denying an easily demonstrable untruth, the unwary reader is left to assume for the nonce what the *Inquirer* does not venture specifically to declare, namely that vaccination and revaccination have been compulsory in Germany since 1834. Seeing that the old legend seems to be considered not yet quite dead and buried, or at least not incapable of being taken out of its coffin for an emergency like Mr. Lupton's, we once more give in the course of another article in this issue, a translation of the Prussian Vaccination Regulations of 1835, and we ask our readers to note the article for reference should they chance to meet in newspaper letters, or elsewhere, with any further attempts to "resurrect" the corpse.

[2] British Medical Journal, November 24th, 1894, p. 1213.

THE ACTION OF RADIUM RAYS ON TISSUE, EGGS, AND ANIMALS.

The action of the Becquerel rays emitted by radio-active bodies has, owing to their effect on the skin, attracted the attention of the medical world. Walkhoff, in 19 showed that those who worked with radio-active substances were liable to suffer from a form of dermatitis like that produced by the Roentgen rays. Becquerel describes how he suffered from carrying in his vest pocket for two hours a very active preparation of radium. Fourteen days afterwards the skin corresponding to the position of the radium showed signs of inflammation; the area gradually increased, and ultimately a large and deep ulcer formed and did not heal for months.

Danysz found that the action of radium on the skin is ver immediate. At first nothing is felt, but on the hth, fifteenth, or even twentieth day there is some con-stion. This long latent period is one of the most inter-ing and mysterious facts about the action of Becquerel ys on living tissues. A sample of barium chloride con-ning about 50 per cent. of pure radium is, according to Curie, 500,000 times more powerful than metallic anium, and produces an appreciable congestion the skin in a few minutes. If placed in ntact with the skin of a guinea-pig for twenty-ir hours, it causes complete destruction of the idermis and dermis. Contact for forty-eight hours es not produce any deeper ulceration. The deeper nnective and muscular tissues are little affected. the radium be placed under the skin a relatively feeble ect is produced on the epidermis, and even less on the nnective tissues and muscles. The epidermic tissues em to absorb the rays that produce the pathological ects. The skin of the guinea-pig is much more sensitive an that of the rabbit; indeed an exposure that produces pecia in the guinea-pig may cause a growth of hair in e rabbit. A tube of radium placed for one to four nths in the peritoneal cavity produced no lesions com-rable to those on the skin, and the intestines and serous embranes seem to be very slightly sensible to these diations.

The nervous system is much more sensitive than the idermis. A tube of active radium placed under the in over the vertebral column and part of the cranium of young mouse 1 month old caused at the end of three urs paresis and ataxia after seven to eight hours, tetani-rm convulsions and death in twelve to eighteen hours. ice, 3 to 4 months old, died with the same symptoms three to four days, and those 1 year old in six ten days. Guinea-pigs, 8 to 12 days old, similarly eated for twenty-four to forty-eight hours, but with e tube applied to the lumbar region, suffered one to three days from complete paralysis of e hind-quarters and tetaniform convulsions. Death sued in six to eight days. Adult guinea-pigs and rabbits eated in the same way did not show any nervous troubles mediately, but died with skin lesions some weeks or nths afterwards. An adult rabbit in which a tube was aced under the dura mater for eight hours showed nothing normal for two days, but on the third it had hemiplegia. would seem, therefore, that the nerve centres sensible these rays are very effectively protected by the bone in lults, while the cartilaginous tissues of young animals do t afford much resistance to the passage of the rays.

The larvae of insects kept in a tube with radium for enty-four hours died in two or three days; in them, o, the nervous system was most affected. When luble salts of radium are dissolved in distilled water the anations are dissolved by the water, and act on insect rvae much like the substance itself. They also make the ticle brown on its dorsal surface.

Becquerel's rays affect microbes in varying degrees. In development is interfered with, but some—and notably ose that produce proteolytic autodigestion—are killed der certain conditions. The bacilli of anthrax fail to velop if they are placed for twenty-four hours in contact th these emanations.

The effects on animals so far described were produced close range, but the rays emitted by radium can also ll at a distance. London has found that if 30 mg. of radium be placed over a cage of mice for one to three days the animals become ill on the third day, and die on the fourth or fifth. The first effects are redness of the ears and blinking of the eyelids; then follow drowsiness, refusal of food, slowness of movement, and feeble response to mechanical stimuli. At the fourth day there is coma with paralysis of the hind legs. In deepest coma the spinal reflexes may be exaggerated and the respirations slow and even scarcely appreciable. There is thus marked depression of the cerebral nervous system and exalted excitability of part of the cord. The respirations finally cease, and death occurs. After death the hairs on the back could be pulled out in masses, and often the epidermis came with them. The subcutaneous tissue was greatly congested. The chief histological changes were produced in the skin and cortex cerebri.

The effects of radium on the blind are interesting. Blind persons slightly susceptible to light get a sensation of light when radium is placed over one or other eye. Persons who can just distinguish light from shade, but cannot distinguish form, when placed in a dark room, can distinguish the outlines of an object projected on or placed in a screen illuminated by radium.

Radium rays exert a marked influence on the eggs of sea-urchins, which in the course of development pass through the three stages—ciliated blastula, the hollow gastrula, and the pluteus larval stage. If blastulae are exposed to radium rays for forty minutes the gastrula is not formed, though the ciliary movements become more intense. If gastrulae are exposed, the pluteus is small and atrophied. Spermatozoa are rapidly enfeebled and killed by these rays, while ova may be more readily fertilized. Ova exposed to radium rays may develop irregular embryos by parthenogenesis without the action of a spermatozoon. These results may be due to the action of the rays on the chromatin of the nuclei, augmenting its activity or destroying it according to the length of exposure—that is, the rays kill the spermatozoid, a mass of chromatin, but excite the ovum protected by its protoplasm, and cause parthenogenesis.

They do not seem to have a specific action on definite tissues. They act on the ectoderm of tadpoles and on the endoderm of gastrulae of sea-urchins, probably because the cells are in a state of evolution and differentiation. In man the skin, which is always being renewed, is attacked, not the muscle.

The causes of these remarkable changes in normal and pathological tissues are not fully ascertained. Whether they be caused by ultra-violet light rays, by Roentgen or Becquerel rays, there is always a primary cell degeneration, followed by secondary inflammatory reaction. Professor O. Giesel states that paper in which radium preparations have been preserved for a long time becomes brown and brittle, the celluloid loses its solidity, and it is obvious that radium rays cause molecular disturbance. This may explain the results in animal and vegetable tissues.

G. Schwarz has made some experiments which show that the rays have a special effect on lecithin. He fixed a capsule containing 2. cg. radium on the shell of a fresh egg of a fowl for 144 hours in a dark protected place. The surface of the shell became brown in colour, but there was neither coagulation nor gelatinization of the egg white. The yolk, however, became greenish grey in a limited area, and more rigid, and had a peculiar taste and odour; the embryo did not develop. The rays seemed to decolorize

the organic body lutein both in the absence and presence of oxygen. The odour and taste of the altered and putrefied yolk was due to the decomposition of lecithin setting free trimethylamin. The importance of this action on lecithin is wide-reaching, for this substance is found in all rapidly-growing tissues, normal and pathological.

THE WAR IN THE FAR EAST.

IN anticipation of the outbreak of war we gave some weeks ago a brief sketch of the general medical arrangements for the care of the sick and wounded in the Japanese and Russian contending forces in the Far East, together with a slight forecast of the occurrences that might be expected. We have since learnt that it is the intention of His Majesty's Government to appoint a medical attaché to each belligerent in order that full information on the medical aspects of the struggle may be obtained. One of these officers is already close to the scene of action, and the other may possibly have started before this number of the BRITISH MEDICAL JOURNAL is published. The observations made on the Japanese side are most likely to be of special interest; for whereas in the combatant departments of their land forces the Japanese have followed the system of the German army in their medical arrangements, they have taken as a model the British Army Medical Department. The present war, therefore, will be an object lesson to us in the probable working of our own arrangements in the event of a war with a Continental Power; it will also show how they are likely to compare in practice and results with the corresponding arrangements of other nations. Nowhere during the past thirty years have the medical arrangements of two highly-organized forces been subjected to the test of actual trial under the very circumstances they were primarily designed to meet. Although there have been wars in plenty the conditions have either been very special—as in South Africa—or one side has had an immeasurable advantage over the other, as in the Spanish-American war. Now, however, we have two armies not very dissimilar in numbers meeting upon practically equal terms, for though the Russians will be fighting at a much greater distance from their final base, they have had plenty of time to accumulate vast masses of medical stores in the Far East. To that extent they are in a better position than the Japanese, who, though their base is much closer, have necessarily not yet landed a single dressing in the country in which they will fight. Nevertheless, we anticipate that the Japanese arrangements will work well, judging from what they did in the war with China. The medical attaché upon that occasion, Sir William Taylor, now Director-General of the Army Medical Service, gave a very favourable account of the way in which the Japanese army medical officers carried out on active service what they had practised in peace. A few quotations from his report may be interesting. He says: "I saw nine wounded men brought into one dressing station in ten minutes, and in turn all properly attended to and sent ....Everything in the way of equipment....for antiseptic surgery after the most approved methods was there.... The tallies were always examined first....in one or two instances they told of good work having been done in the fighting line and lives saved by....There was no confusion or hurry....in short there was evidence of that efficiency which can only be the result of the most careful and complete training. As for the way in which the medical department is likely to behave, the following instance may be quoted: A regiment suddenly and unexpectedly found itself exposed to fire from some Chinese ships at a distance of 400 or 500 yards, and was quickly mown down. The remainder crawled for shelter into a ravine. "Before the men had reached the shelter....the medical officers one by one, and at some distance from one another, accompanied each by two or more stretchers and some attendants, were seen to walk....across the beach in the face of an incessant hail of bullets....and in twenty minutes, walking coolly and quietly away, had remove every dead and wounded officer and man from the beacl the Chinese ships having kept up a continuous and terrif fire upon them all the time.... It was done as a matte of course....and we who saw it, and could not resi shouting 'Bravo,' have never heard it referred to or spoke of...."

THE PRELIMINARY GENERAL EDUCATION OF MEDICA STUDENTS.

ALL who recognize the great importance to the professic of an adequate standard of preliminary general educatic for medical students will rejoice to see that the Council for medical students has decided to mem the British Medical Association has decided to mem rialize the Board of Education on the subject. Tl Board of Education is at present considering the poss bility of substituting in England a single schoc leaving examination in general education for the va ous preliminary examinations now existing for entran to the different professions. The Council of the Ass ciation has decided to send to the Board of Educati a memorial embodying the views which the Associati has arrived at with regard to the minimum requiremer for medical students. It will be remembered that the include an age-limit of 17, a standard suitable to that a and not lower than that of the senior Oxford or Cambrid local examinations, and a scope more in conformity wi what may be called a good education than that which is present most unhappily admitted. This proposed sco would make a decent knowledge of English, of history, a geography compulsory, and would limit the choice "modern languages" to "French or German." It is s cerely to be hoped that the requirements in gene knowledge of all the professions will not be brought do to the lamentably low level now accepted by the Gene Medical Council.

THE ARCHIVES OF THE MIDDLESEX HOSPITAL.[1]

THE staff of the Middlesex Hospital is to be congratula on the sustained excellence of the first number of their n publication, the *Archives of the Middlesex Hospital*, which l just made its appearance. The *Archives* are publish with the object of recording work done in the wa laboratories, and special departments of the hospi and will deal with clinical medicine and surgery, can investigation, clinical and pathological research, and work of the special departments. No fewer than f volumes will be issued annually at a nominal subscript of half a guinea per annum. The present number op with a paper by Drs. J. K. Fowler and A. G. R. Fouler on two cases of haemorrhagic typhoid fever. Both ca were markedly haemorrhagic, bleeding occurring from mouth, nose, urethra, bowel, and under the skin. B terminated fatally about the fourth week, and in neit case was a definite Widal reaction obtained. In one B. typhosus was the only organism found, thus show that the mixed infection observed in other case haemorrhagic typhoid is not an essential feature. authors think that the haemorrhages are probably to changes in the blood and vessels, produced either the infective or the toxic activity of B. typhosus both combined, and are not invariably due to change the blood resulting from secondary infection. If no W reaction can be obtained, it will prove, the authors maint that the case is either not typhoid or else typhoid of ex tional severity in which a fatal result is probable. A the treatment of such cases, the administration "curative" antityphoid serum is recommended when plete or partial failure of the specific agglutina reaction indicates an incomplete reaction to stimulus of infection. Mr. Bland-Sutton contrib an interesting paper on dermoids of the testis and scro and Dr. R. J. Gladstone writes upon two cases of s bifida, its etiology and its association in these cases a naevoid condition of the spinal cord. The autho lieves that this latter is a much more frequent comp

[1] *Archives of the Middlesex Hospital.* Vol. I. 1903. London: Macn Pp. 131.

han is customarily recognized, thus accounting for ecurrence of trophic changes and other nerve lesions ese cases. This is a point of importance, as the pre- of cavernous tissue necessarily affects the prognosis eration. A case of excision of the Gasserian ganglion scribed by Mr. Andrew Clark, and Mr. N. Bishop Har- discusses the relative frequency of knee-jerk phe- na in interstitial keratitis, the result of inherited ilis. Drs. Lang and Casey Wood stated as the result of investigations that in about 30 per cent. of all cases nterstitial keratitis the knee-jerk is decidedly sub- nal, and that in about 10 per cent. of all cases it is ely absent. Mr. Harman, on the other hand, as the result of the careful examination of cases "no noticeable difference between the ition of this phenomenon in the subjects of con- tal syphilis and in healthy folk." It is plain that an rtant question of this kind requires extended investi- n. Notes on 4 cases of duodenal ulcer by Dr. Essex ter, the comparative histology of the urethra by Dr. Goodall, an account of radiotherapy by Dr. C. R. C. er, cancer of the liver and pancreas by Mr. W. T. ier, and a communication on the relation of the size shape of the head to mental ability by Dr. R. J. Glad- e, which will find more extended mention in another mn, complete this excellent number.

THE PREVENTION OF MALARIA.

a recent meeting of the Liverpool Chamber of Com- ce it was announced that letters had been received n the Lord Mayor of Liverpool, the Lord Mayor of Man- ster, the Town Clerk of Liverpool, the Glasgow Corpor- n, and the Glasgow Chamber of Commerce, signifying r agreement to co-operate in pressing upon the ernment the necessity of taking concerted measures the prevention of malarial fever in our tropical colonies. as stated that the Liverpool School of Tropical Medi- had also been communicated with, and that the ol had drawn up recommendations which they thought, rried out, would meet the case. The school suggested a conference of all parties interested would take place Liverpool, and that the school, if desired, should prepare ractical programme to lay before the conference. It her suggested that the matter should be deferred a month or two until the results of the recent scientific editions were made known. The Chamber adopted suggestion, and postponed the matter for two months. etter received by the Honorary Secretary of the Liver- l School of Tropical Medicine from the Booth Steam- b Company states that its steamers trading to Iquitos e been for several years regularly provided with mos- to nets for the use of the crew, with the most satisfactory ults. Formerly cases of malaria were frequent, sometimes ulting fatally; but since the general adoption of mos- to nets by all members of the crews, these steamers e enjoyed a wonderful immunity from sickness. In w of this, the company has latterly provided mosquito s for the crews of all of its steamers in the Para and naos trade, and there is reason to suppose that it will equally satisfactory, as it is some months since they rd of the last case of yellow fever; and, so far as they w, not one has occurred on any steamer after the intro- tion of the mosquito nets.

THE SPITTING NUISANCE.

E by-law of the London County Council forbidding tting on their tramcars and making the offence punish- e by a fine of forty shillings, has not, as far as we e observed, had much practical effect. If the penalty re enforced a few times the nuisance would soon stopped. Conductors, however, do not treat the tter seriously, and it is probable that in this atti- le of *laissez faire* they are tacitly supported by ir official superiors. It is this indifference on the rt of those charged with the carrying into effect of orms in matters concerning the public health that so en makes laws and ordinances mere dead letters. What n be expected from conductors when they see the police committing the offence which they are instructed to check? A writer in the *Daily Chronicle* states that the other day he watched a policeman at Piccadilly Circus, standing in a crowd of ladies and regulating the omnibus traffic, spit a dozen times in the course of five minutes with the most unpleasant results. We invite the serious attention of the London County Council and the police authorities to this matter. We commend to them as a wholesome example the action taken by some of the leading cities of the United States. The Health Department of Baltimore has recently had 50,000 cards printed calling attention to the law prohibiting spitting on the floors of street cars and in public buildings. These cards will be distributed among car conductors and custodians of public buildings for proper display. The Health Commissioner, Dr. Bosley, is determined that the public should know that there is an anti-spitting law. Dr. Darlington, the new Commissioner of Public Health of New York, on his appointment communicated with the Commissioner of Police, requesting him to aid the Board of Health in enforcing the ordinance against spitting on the pavements. The result was that on January 12th the police arrested ten persons for spitting in violation of the sanitary regulations. Of the defendants, seven were fined 1 dollar each, and three were discharged. We are glad to see that legal enactment is to be supplemented by private effort. A Progressive Health Club has recently been founded in New York, which, among other objects, aims at the imposition of increased fines and penalties for people who expectorate on sidewalks and in public conveyances. All the society's energies will, it is stated, be directed toward the abolition of a habit which, in its opinion, has spread more disease and discomfort in centres of population than any one other. The club proposes that special officers be stationed in street cars and on the main thoroughfares to arrest spitters. A few examples of the punishment of offenders would, it is thought, suffice to bring about a general cessation of the habit, for people would be shamed or frightened into desisting from a revolting practice which constitutes an offence against social decency and a danger to the public health.

THE SAMARITAN HOSPITAL FOR WOMEN.

We are asked to publish as an "item of fashionable intelligence" the fact that the Committee of Management of the Samaritan Hospital for Women has decided to hold a "Leap Year" festival dinner at Prince's on Thursday, May 5th, in aid of the building fund for the new out-patient department and accommodation for nurses which is so urgently needed. A "novel scheme" for the dinner which we suppose is thought likely to appeal to the fashionable public has been devised. The tables are to be classified as follows, and a "distinguished lady hostess" will preside at each: (1) Peeresses; (2) House of Commons; (3) Army; (4) Navy; (5) Auxiliary Forces; (6) Drama; (7) Press; (8) American; (9) India; (10) Colonies; (11) Art and Music; (12) Stock Exchange; (13) Lloyd's; (14) Legal Profession; (15) Hospital Committee; (16) Sport. *Quidquid agunt homines* is represented in the scheme—with one trifling exception: the medical profession is conspicuous by its absence. It would seem that the Committee of Management thinks, as is the way of such bodies, that the medical profession is sufficiently honoured in having conceded to it the privilege of doing the real work of the hospital. With this it must fain be content without seeing its image in the glass of fashion by the side of the social luminaries of the Press and the Stock Exchange.

INSANITY IN THE UNITED STATES.

Dr. William A. White, Superintendent of the Government Hospital for the Insane at Washington, has recently made a statistical study of the distribution of mental disorders in the United States. His figures show that New England has more insanity in proportion to population than any other part of the country, and that the proportion grows steadily less as one goes either South or West, with the one exception that the Pacific Coast States show a pro-

portion almost as high as that of New England. Leaving out of account this exception, Dr. White finds that the cause of the greater prevalence of insanity is to be sought in density of population and in the stress of the struggle for subsistence, together with the predominance of mental work in the more populous regions. The people of the West are, as a rule, hardy, and commonly free from the exciting causes of mental disorders, and in the South the negroes are relatively exempt from such affections. To explain the apparent exception in California to the general rule, Dr. White suggests that the Pacific Coast has not yet fully recovered from the gold fever of '49; that it also suffers from the effects of immigration, and that the effects of intemperance and vice are particularly conspicuous in that part of the country. Dr. White believes that the subtle causes of mental disorder are so far below the surface that it is not easy in the present state of knowledge to arrive at definite conclusions on the subject.

THE CARE OF THE FEEBLE-MINDED.

A MEETING of the Oxford branch of the National Association for Promoting the Welfare of the Feeble-Minded was held at Oxford on February 6th, the Rev. L. R. Phelps, Fellow of Oriel College, in the chair. Lady Frederick Cavendish read a letter from the Queen, in which it was stated that Her Majesty has been much interested in reading the report of the Oxford Branch of the National Association for Promoting the Welfare of the Feeble-minded and of the work done. Lady F. Cavendish, in speaking of the work carried on by the Association, said she thought the State ought to deal with the feeble-minded as it did with lunatics and prisoners. Dr. Francis Warner pointed out that the feeble-minded were not confined to any social class. There was not the slightest evidence that they were more frequent amongst the poor than among the wealthy classes. Miss Dendy of Manchester gave an interesting account of the work that was being carried on in that city and Liverpool.

THE CONTROL OF CONTAGIOUS DISEASES OF ANIMALS.

THE statistics relating to outbreaks of contagious diseases of animals in Great Britain during recent years demonstrate the fact that whilst some diseases are being eradicated, others remain stationary and a few are even increasing; and it further appears that where the Board of Agriculture has had control success has been achieved, but where the local authorities have held sway little or no progress has resulted. The following facts are adduced by the *Times* as proving this statement: In 1890 legislation conferred upon the Board of Agriculture increased powers with regard to pleuro-pneumonia, and in 1891 a sum exceeding £113,000 was expended by the Board in operations against the disease. In 1889 the cattle attacked had numbered 1,646; but since 1898 no case has been notified. In regard to foot-and-mouth disease the decrease is also most marked. The local authorities formerly administered the law, and during the great epidemic of 1880-84 some 336,000 cattle, 370,000 sheep, and 37,000 swine contracted the disease. Subsequently, under that Board, when strong measures were taken to suppress the epidemics, they became much less serious. Thus, the outbreak of 1892-94 affected only 5,000 animals, and the cost of its suppression was less than £17,000; while in 1900 a still better result was achieved. The decline of rabies is equally encouraging. In 1895, when the Board undertook its supervision, there were 727 cases in Great Britain; but now no case has been reported for a year past. The result as to swine-fever is less decisive, but still satisfactory. In 1894, when the Board started its operations, there were 5,682 outbreaks, and 6,305 occurred in 1895; also the cost of the Board's operations was £166,000 in the former year and £189,000 in the latter. In 1902 and 1903 the outbreaks were reduced to 1,688 and 1,478 respectively, and the total expenditure of the two years was only £45,500. But other diseases—glanders, anthrax, and sheep-scab—left in the control of local authorities (county councils and town councils of borough with a population exceeding 10,000) show no dim nution. In 1869 glanders was made the subject c legislation, since when the number of horses attacked i any single year has rarely exceeded the figures recorded i 1902, namely, 2,040; whilst in 1903 the number was sti higher, namely, 2,499. Anthrax shows a worse record; i 1902 there were 678 outbreaks, the highest number the recorded, but exceeded in 1903, when the reported outbreak were 761. Of sheep scab it is reported that although th 1,833 outbreaks recorded in 1903 were higher than th figures in the two preceding years, yet the disease "is no more prevalent than it was as far back as 1888." Thes several facts render it evident that the single control ove the diseases in question possessed by the Board is fa more efficient than the divided control of the 300 loc authorities.

PREMATURE BURIAL.

A CERTAIN portion of the press is agitating itself on more upon the time-worn subject of premature buri The majority of alleged occurrences by which such fea are bolstered up prove upon examination to be either o wives' fables, or stories from dubious American source and in both cases to be evidence of a character whi would scarcely be quoted in support of any serious pr position. The majority of the public, therefore, is n greatly impressed, and probably even as regards t minority the point which lends the idea its most acu interest is the conception that a person may not only unintentionally buried alive but become conscious of t fact and struggle for release. Such notions, so far they do not depend upon mere supposition, rest up alleged cases in which coffins have for some reas been opened and the contained body found to ha altered in attitude. If there really be any we authenticated instance of such an occurrence, it is far-fetched idea to explain it by a supposition of stru, gle; in fact, the latter is almost inconceivable. person enclosed in a coffin would die almost as quick and just as surely as one thrown, bound hand a foot, into the depths of the sea. Nor would the proc of death be such as to produce struggles. Rat would it be one in which the apparent passed rapi into the real sleep of death much as an animal d when placed in a lethal chamber, or a miner caug by choke-damp in a mine. For the rest the subject divi itself into one of probabilities and possibilities. As the former, even if it be granted that no single c of the early phenomena of death is in itself absolute proof of the cessation of life, a sufficie number of them are usually present to make dea readily distinguishable from life even by an unskilled a inexperienced person; while in this country at any r bodies are almost always left unburied sufficiently long the development of that which is a certain proof of dea namely, decomposition. As for possibility, that is anot question. It is, of course, possible for an unconsci person to be put into a coffin and buried, and however probable it may be that this ever takes place, the po bility will always remain until a reform of the law w regard to death certification has been effected. It i reform for which medical men have been calling for m years past, but one of which, like so many others initia by the medical profession, the public has been slow appreciate the importance. Hence it has neglec hitherto to direct its representatives to force it upon consideration of the Legislature and the authorities.

AN EFFICIENT AMBULANCE SERVICE FOR LONDON.

REFERENCE was made last week (page 327), to the forma of the Metropolitan Street Ambulance Association, wh is seeking, in the first place, to interest candidates at approaching election for the London County Council in need for an organized system of street ambulances London. The great progress already made by the Am

e Association proves clearly that most members of the lical profession take a keen interest in the project. local secretaries of the Association in various parts of don send in very satisfactory reports of the work e, and the staffs of most hospitals are already well resented, though the Association is only a fortnight old. ny candidates at the approaching election have mised to do all they can to forward the scheme if they successful at the elections. The Ambulance Associa- n hopes to induce every medical man in London study the question himself, and to interest his nds and patients, and also the candidates the matter, and to point out what is really needed. It most important that members of this Ambulance sociation should be careful to distinguish the suggested ension of the excellent work by the Metropolitan lums Board to include the removal of non-infectious well as infectious cases of illness occurring in houses m the Ambulance Association's proposal to deal only h street casualties, which that Board has definitely ided is beyond their province. The metropolitan police ve decided that they cannot do more than they do at sent; they would gladly be relieved of the necessity of ving to take accidents, sometimes several miles, to the arest hospital. They would of course continue their ellent services in "first aid" as now. The work done the Bischoffsheim service, the St. John Ambulance sociation, and the police is deserving of all praise, when little they have at their disposal for dealing with 12,000 to 15,000 street casualties requiring removal the metropolis each year is remembered. The schoffsheim service consists of about 56 ambulances ced in various parts of London ready to be used by any- e who will fetch them. More than 2,000 cases, or about per cent. of the whole are thus dealt with. The St. hn Ambulance Association has about 25 stations where etchers or litters are available for any one who knows ere to find them, besides their three stations where icials are on duty. The police keep at each station one more ambulances or litters to be used by them, when ched, for drunken people or for casualties. They also ve three horse ambulances, but these are not available a moment's notice. With such arrangements, not en aided by telephone communication, it is not surpris- g to learn that in nearly 70 per cent. of the accidents in ndon the sufferers have to be conveyed to hospitals to their homes in cabs or carts, usually without the liceman on duty having any idea of the nature of e injury. No doubt in many cases loss of life or rther injury is caused in this way. What is wanted first of all one recognized and responsible public body collect evidence and establish a thoroughly efficient rvice for the whole of London, so that police and public ay be able to procure an ambulance in the shortest ssible time whenever necessary. It would not be diffi- lt to arrange a scheme which would have plenty of room r such philanthropic work as has been done so generously Mr. H. L. Bischoffsheim. The cost would be less than usually supposed, as all that is good in the existing rangements could be retained; the Post Office could no oubt be induced to give the use of the telephones free, nd the Fire Brigade could be supplemented and utilized it is at Birkenhead. It is said that Mr. H. L. ischoffsheim "is prepared, as he has always been, to pply every requisite, even horse or motor ambulances, nd indeed to do anything in reason to secure to London properly-equipped and perfectly-organized ambulance rvice." Hitherto he has had the greatest difficulty in ducing the public to allow him to have stands for his xisting ambulances, as there is no recognized authority to ive the necessary sanction and consideration.

LEPROSY IN THE UNITED STATES.

CCORDING to the *Journal of Cutaneous Diseases* the centres f leprosy in the United States are, in the order of their umerical importance, as follows: Lousiana, New York, alifornia, Florida, Minnesota, North Dakota, Texas, Iississippi, Illinois, Missouri, Wisconsin, Massachusetts, Alabama, Pennsylvania, Georgia, Ohio, Iowa, Maryland, Montana, Nevada, Oregon, and South Dakota, making twenty-two known foci of possible infection. Louisiana alone has a leper home, and, excepting in California, New Jersey, North and South Dakota, no attempt is made to provide for the care of the sufferers. A Bill aimed at the control of leprosy was introduced at the last Congress by Senator Platt, of New York, but it has so far been buried in Committee. The important features of this Bill are the following: A leprosy commission; one or more national asylums; the appropriation of 50,000 dollars for buildings for the habitation of lepers, not including the Hawaiian Islands, Porto Rico, Anam, or the Philippines; provisions for the transportation of lepers; the injunction against the importation of lepers; supervision of suspected immigrants of leprous families. The Public Health and Marine Hospital Service is to have full charge of such homes if established.

LEPROSY FROM A SANITARY STANDPOINT.

AT the fifty-fourth annual meeting of the American Medical Association[1] Dr. Isadore Dyer, of New Orleans, dealt with the subject of leprosy from a sanitary standpoint. He is a contagionist, and has ample opportunities of seeing the disease in Louisiana, where it is endemic. His statements as to finding the bacillus in the earth of the graves of lepers and in rooms where lepers have lived requires corroboration. He discusses prophylaxis from the points of view of individual private isolation in the family home, and of public segregation. He holds also that nerve cases should be kept apart from the nodular or skin type, as he sees no reason why a patient suffering from the former should not acquire fresh bacillary infection from cases of the latter. This is a point worth investigation by those situated in favourable positions for observation, and will appeal also to those having tuberculous patients under their care in institutions. In the discussion Dr. Swarts, of Providence, referred to an unsuspected case of leprosy which found its way into the chief hospital of that city. An intelligent resident physician thought of leprosy, and confirmed his suspicion by discovering the bacillus in the nasal secretion. The patient, getting wind of his true condition, asked for his clothes and disappeared. He has not been traced since. Such a case tends to throw doubt on the contention that, because there is no history of contact with a leper, leprosy arises *de novo*. How many people in Providence, where this man lived, would admit such a history, before the nature of the malady of this man became known? Dr. Bracken of Minneapolis stated that there was no record of any American-born leper in Minnesota until within the past two years, but he now knew of three, all of Scandinavian parentage. This is another point which will have to be considered by the upholders of the fish and *de novo* theories, as will also Dr. Traill Skae's revelations as to the Orkney Islands.

LEPROSY IN RUSSIA.

SINCE April, 1902, we learn from Dr. Isadore Dyer,[2] Russia has defined the status of the leper in his relation to the public. Commissions composed of a medical inspector and not less than two medical men, having special knowledge of leprosy, are appointed to investigate the patient, both as to his physical and social conditions. Domestic segregation is allowed under Government inspection and regulations. Full powers are given to the Commission to determine the contagiousness of each case. A patient detained in a leper asylum, believed to be no longer infectious, may return to his home after examination and discharge by the Commissioners. For the purpose of explaining the present state of things, Professor Dehio, of Dorpat, in a recent number of *Lepra*, relates the work done in the leprous centres of Russia by Muench, von Wahl, Wellburg, Paulson, Hellat, and von Bergmann. Von Bergmann carefully demonstrated about 60 per cent. of

1 *Journal of the American Medical Association*, November 7th 1903, p. 112
2 *Journal of Cutaneous Diseases*, February, 1904.

recorded cases as having lived or intimately associated with lepers. V. Riessen related that 19 cases had originated in an almshouse at Riga from 4 who were admitted as lepers. At Oesel, Lohk ascertained the restriction of leprosy to centres more densely populated. A very interesting point is brought out by Dehio, who relates that of 48 cases of nodular leprosy, in 36 probable contagion could be traced, from which other cases had spread; in 13 cases, 2 mixed and 11 anaesthetic, not a single case of infection could be traced. Hansen and Looft were quite explicit in declaring that the maculo-anaesthetic forms have less bacilli than the nodular, and that they carry no bacilli in the secretions, while in the nodular form the bacilli are nearly always present in the secretions. On this point Professor Dehio states his position very clearly: "Nodular leprosy," he says, "is an infectious disease, whereas maculo-anaesthetic leprosy is caused by infection through the bacillus leprae or the leprosy virus, but is not itself, or only in slight degree, contagious." He goes on to say: "The higher a nation stands in intellectual and material respects, the sooner it will be possible to leave the lepers to home supervision and nursing; the dirtier and less civilized a nation is, the oftener will it be necessary to remove lepers from among their fellows and to segregate them in leper asylums to check the spread of infection among the masses."

HYPERTROPHY OF THE BREAST AND PREGNANCY

AN instructive discussion recently took place at a meeting of a French society after the reading of a paper by M. Routier[1] on a case of unilateral mammary hypertrophy and pregnancy. His patient was 22, and in the fourth month of her first pregnancy. Puberty had set in very rapidly, the first period appearing at the age of 14, and within a month the breasts and the fat over the nates developed in a most conspicuous manner. A little swelling then appeared in the right nipple, it grew together with the breast slowly, steadily, and painlessly, so that eight years later, when she married, the right breast was double the size of its fellow. After conception it began to enlarge with great rapidity. This change was associated with marked anaemia. Morphine was given subcutaneously for two days, then the breast was amputated. It weighed nearly 15 lb., and microscopically showed the characters of an adeno-fibroma. Pregnancy was continuing uninterrupted a month after the operation. Pinard, discussing this case, agreed with Routier as to the advisability of administering morphine before operation to avoid the excitation of contractions of the pregnant uterus by the necessary manipulations of the operation. Monod noted that this was another case which showed that removal of the breast could be practised during gestation like abdominal sections, without causing premature labour. Pinard replied that operations on the breast were much more likely to excite uterine contractions. The association of the innervation of the uterus and of the breasts has long been recognized. We may add that a valuable monograph on this subject by Temesvary of Buda-Pesth was published last year.[2] He dwelt on the probable main object of this physiological phenomenon, the excitation of uterine contraction after labour by the first attempts at suckling, which Pfister has carefully studied. He also pointed out that on the death of a fetus during pregnancy without its expulsion from the uterus, symptoms appear on the breast such as are seen after normal delivery, the glands becoming more full and hard and secrete true milk instead of colostrum. Legueu in the discussion on Routier's case reported an ovariotomy where the tumour had developed in the right ovary. The right breast at once underwent atrophy, so that when pregnancy occurred the left gland seemed as though the seat of a tumour. The atrophied right gland did not return to its former bulk till after delivery. Amputation of a breast undergoing acute hypertrophy during pregnancy is probably of urgent necessity, as it appears to exercise a prejudicial influence on gestation. Statistics on the results of removal of the breast during pregnancy based on a large series of cases, are much needed. Hypertrophy of the breast also calls for the attention of pathologists and clinicians, as it is a most disfiguring condition especially in youth, and tends to impair the health. At present there seems to be no known remedy but amputation, involving another repulsive kind of disfigurement. Perhaps uterine medication might check the hypertrophy.

[1] *Comptes Rendus de la Soc. d'Obstét. de Gynéc. et de Pédiat. de Paris*, November, 1903, p. 189.

[2] The Connexion between the Female Breasts and Genitals, *Journ. of Obstet. and Gyn. of British Empire*, June 1903, p. 511.

A MEDICAL MAN AS DELEGATE OF THE AUSTRALIAN COMMONWEALTH.

MANY of our readers will doubtless learn with interest that the Australian Commonwealth selected a member of the medical profession to represent it at the jubilee celebrations of the foundation of the French colony of New Caledonia. Major Reuter Emmerich Roth, D.S.O., Principal Medical Officer of the Commonwealth Military Forces of New South Wales, was received by the French authorities with the greatest marks of distinction. He was provided with an official residence, a staff of servants and carriages, and an escort of mounted gendarmerie. The Governor, M. Picanon, received Major Roth officially, surrounded by his staff and officials in full dress, and many functions were given in his honour. He inaugurated the first railway in New Caledonia. A special reception was given him by the Military Club; a dinner and ball by the Municipality of Nouméa. The Military Hospital—which contains 200 beds—was specially decorated when Major Roth visited it. Everywhere the French and Australian flags were draped together. This is the first occasion on which Australia has sent a delegate to a foreign nation. It is therefore peculiarly interesting that the Commonwealth should have chosen a medical man as its representative. Major Roth was accompanied by Dr. Rougier, the representative of the Pasteur Institute in Australia, who went on behalf of the French colonists in Australia.

PRACTICE IN THE UNITED STATES.

WE have been favoured by Dr. George H. Simmons, editor of the *Journal of the American Medical Association*, with a pamphlet containing a reprint of a number of articles which appeared in its columns on the "Laws Regulating the Practice of Medicine in the States and Territories of the United States." The number of different codes thus dealt with is fifty-two, and a short readable extract or summary of each is given so far as they affect the conditions under which medicine may be practised. With the exception of two or three States, the passing of an examination after a definite course of study is a necessary preliminary to practice, and any one who is qualified to practise in any part of the United Kingdom or its colonies is eligible to present himself for such examination. In the general effect it may be said that the laws throughout the different States tend to be at once more stringent and more lenient than those in force on this side of the water, more stringent than in Great Britain because the laws are so worded as to make practice by an unqualified or unregistered person very much more difficult and more dangerous and more lenient than in Great Britain because the gate into the fold of qualified persons is a very wide one. Provided they have pursued the prescribed courses of study, "eclectics" of all varieties are free to enter it by examinations specially arranged to meet their various views of what the art of medicine should be.

UTERINE AFFECTION AND CONSTITUTIONAL DISEASE.

FORTY years ago much was heard about the abuse of "uterine therapeutics," a term often used in no other sense than contempt. The "stick and speculum" era of gynaecology involved one profound error—the assumption that any affection of the uterus necessarily meant primary uterine disease. Some of the appearances taken for signs of a local malady were not even morbid, whilst the interpretation of erosion of the cervix, taken as ulcer

, led to grave abuses. At the present day the gynaecist is more of a surgeon than a physician, and owing to perfection of abdominal and vaginal surgery he can at t see what he is about. The most satisfactory way of ting chronic inflammatory disease of the uterine endages and interrupted ectopic gestation remains ettled; still operative surgery has thrown much light salpingitis and tubal pregnancy where the vaginal culum is useless. Yet, though operative gynaecology made prodigious strides in relieving very urgent dis-es, the same cannot be said of minor, but distinct, rine affections. What does chronic metritis precisely nify? What is the best way of treating it? What is ometritis? May not both be local signs of general ealth rather than purely local diseases? Gottschalk[1] ently read a most instructive report of a case of endotritis exfoliativa at a meeting of the Obstetrical and naecological Society of Berlin. He exhibited sections m the uterus of a woman who had suffered during life m endometritis exfoliativa. She had at the same time tinct cardiac weakness, and there was oedema of the er extremities without albuminuria. The report does state the actual cause of death. Two conditions were arly demonstrated by the sections of the diseased rus. Free haemorrhages were to be seen under the mbrane, evidently the immediate cause of its detachnt. Numerous thrombi were noted in the veins of the dometrium. They were due to greatly diminished ce of the blood current, which also caused the walls of veins to yield, accounting for the haemorrhage. Hence that, and probably in many other forms of endometritis, stitutional treatment is indicated rather than intrarine medication. Good diet and digitalis may do more vice than the curette.

HYDATID CYSTS IN ABDOMEN AND PELVIS.

YDATID disease of the liver has for long been a well-own affection, and abdominal surgery has thrown light hydatids developing lower in the abdomen and in the lvis. Franta's important treatise on *Hydatid Cysts in egnancy, Labour, and the Puerperium*, reviewed in our ges two years ago,[2] showed that the disease in question is important to the obstetrician. We take the opportnity, now that the decease of Mr. Knowsley Thornton s brought the name of that distinguished surgeon forard, to recall his remarkable case of Removal of ydatids of the Omentum, published over twenty-five ars ago,[3] where the patient was in the sixth month of egnancy when the operation was undertaken. Preature delivery occurred on the eighth day, the abdominal ound had given way on the seventh, and opened once ore on the thirteenth; nevertheless, the patient reovered, and lived for nearly two years, succumbing at ngth to the effects of the parasite in the lungs.. In those ays, now ancient in the history of abdominal surery, such an operation was considered a great feat skill. Since 1878 many operations for abdominal ydatids have been recorded, and Franta collected a ries. Quite recently Savariaud and Reboul[4] have added ases of some interest. The former relates an instance here the parasite had invaded the great omentum as in Knowsley Thornton's patient. Savariaud operated upon a oman, aged 30, for a tense cystic tumour which rose a ttle above the pubes; as usual, the operation proved to e much harder than expected, the tumour, full of daughter ysts, lay mainly in the right broad ligament. The uterus, losely associated with the cyst, had to be removed; in deaching the lower part of the cyst wall, which was as clear s glass, the right ureter could be seen through it; 4 in. f that duct had to be dissected off the cyst. A few months later another tense cyst had developed entirely above the pelvis. It contained over a pint of the usual crystalline fluid, and was taken away with two smaller cysts, all from the great omentum. The patient was convalescent when the report was published. Reboul of Nîmes records a case of interest for obstetrical reasons. A girl aged 17 was delivered normally at term. At the age of 10 she had an attack of abdominal pain and a tumour was detected; at 16 another attack occurred. After delivery the abdomen remained large, and there was a rise of temperature on the fifteenth day, followed a week later by violent pelvic and abdominal pains. At the end of three months Reboul detected a multilocular cyst which filled the entire right side of the pelvis and extended a little to the left of the umbilicus. It reached inferiorly into the right side of the pelvic cavity, which was remarkable under the circumstances. Reboul operated, removing hydatid cysts from the right broad ligament (one held six pints and a-half of crystalline fluid) and pelvis. Daughter cysts came away in abundance, and the main wall of the largest cyst could not be removed entire, though its fertile inner membrane was detached and the remainder touched with camphorated naphthol. Not a single cyst had suppurated. Thus delivery may occur at term in a woman the subject of an abdominopelvic hydatid tumour without rupture of the walls of any of its cysts, and without subsequent inflammation, although there may be puerperal rise of temperature. The danger of attempting to push up a pelvic tumour of uncertain nature in a pregnant subject is evident when we remember the physical characters of a tense hydatid cyst. It was, perhaps, fortunate that in Reboul's case the tumour was overlooked until after delivery.

[1] *Zentralbl. f. Gyn.*, No. 49, p. 1467.
[2] BRITISH MEDICAL JOURNAL, vol. i, 1902, p. 902.
[3] *Medical Times and Gazette*, November 16th, 1878. The specimen is preserved in the Museum of the Royal College of Surgeons of England, Pathological Series, 2,371.
[4] Savariaud, Kystes Hydatiques du Ligament Large et du Grand Epiploon, *Rev. de Gynéc. et de Chir. Abdom.*, November-December, 1903, p. 905. Reboul, ibid., p. 1045.

ACCIDENTS TO WORKMEN.

THE Association Médicale des Accidents du Travail is the name of a Society founded in Belgium on December 19th, 1903. The objects of the Association are (1) to study all questions relating to accidents occurring to workmen; (2) to supply answers to general questions submitted for its consideration; (3) to make known to its members the laws, royal ordinances and regulations concerning accidents to workmen; (4) to centralize the work of compiling statistics in the different towns of Belgium; (5) to propose for discussion among the members questions of an exclusively scientific character; and (6) to publish periodically a Bulletin containing (*a*) original communications, (*b*) a review of periodicals, (*c*) official documents, (*d*) bibliographical notes, (*e*) materials for statistics, and (*f*) legal points relating to accidents to workmen. The head quarters of the Association are at Brussels.

INSTRUCTION IN CHARITY ADMINISTRATION.

AN institute of social science has been established in Chicago, for the purpose of supplying instruction in methods of philanthropic work. The institute will supply the need of an opportunity for systematic training in charity administration. The institute is organized as a branch of the extension division of the University of Chicago. The administrative work will be in the hands of the staff division, and the instructors may have university standing.

A MUSEUM OF SECURITY.

THERE is a museum of security at Charlottenburg, near Berlin, which owes its existence to the joint efforts of public authorities and private citizens. The State provides the building and funds necessary for maintenance, while private enterprise has collected the exhibits. The museum grew out of an exposition, held in 1889, of the various devices for the prevention of accidents in manufacture, a subject important in Germany to every manufacturer, as the system of joint State and employers' insurance renders the owner liable to a pension for those who are injured in his works. The general interest in this subject has led to an appropriation in Germany of £28,400 in 1900, with appropriations of £23,600 in the two following years. The

maintenance of the museum costs £1,500 to £2,000 a year. The museum supplies examples, representations, models, drawings, and information in regard to every possible appliance by which life is protected and accident less likely in all forms of manufacture. A museum of security on the same lines is being planned by the Philadelphia Institute of Social Science.

THE CARE OF THE INSANE IN THE PHILIPPINE ISLANDS.

ACCORDING to the Manila correspondent of the New York *Medical Record*, a Board has been appointed to investigate the question of the care of the insane in the Philippine Islands, and submit plans and estimates for that purpose. Under the Spanish rule, a single asylum in Manila, with accommodation for 270 patients, was the only institution for the care of lunatics throughout the islands. Ordinarily, the insane were cared for by friends or relatives, but dangerous lunatics have generally been incarcerated with prisoners in the provincial gaols, where they received little attention, and were placed under conditions far from conducive to recovery. The Board, which has the matter in hand, is making a census of the insane in the islands, with the object of obtaining definite information as to the number of patients for whom hospital accommodation is required. It is conducting its work with the dual object of arranging for the necessary number of permanent institutions, to be modern in every respect, and at the same time to make temporary accommodation to relieve present necessities. The establishment of such temporary institutions in convents near Manila is now being considered.

A BILL providing for State registration of nurses has been prepared by the Maryland State Society of Graduate Nurses. It is to be introduced during the course of the present meeting of the State Legislature.

The Senatus Academicus of the University of Edinburgh has awarded the Cameron Prize in Practical Therapeutics to Professor Niels R. Finsen, M.D., of Copenhagen, in recognition of his pioneer work in connexion with the application of light rays to the treatment of disease.

SIR PATRICK MANSON will read a paper on Tropical Diseases at the West India Committee Rooms on Tuesday, March 8th, at 3.45 p.m. The paper will be illustrated by limelight lantern slides. The Duke of Marlborough will occupy the chair. The lecture will be the second of a series to be given under the auspices of the West India Committee.

WE may remind readers, who have not yet signed the petition calling attention to the need of elementary scientific instruction in health subjects, including temperance, in schools, which was published in the BRITISH MEDICAL JOURNAL of January 23rd, that the list will shortly be closed. We venture again to express the hope that every member of the medical profession will without delay sign the petition.

THE Milroy lectures before the Royal College of Physicians will be given by Dr. W. Williams on February 25th and March 1st and 3rd. The subject will be "Deaths in Childbed: A Preventable Mortality." The subject of the Goulstonian lectures, which are to be given by Dr. R. Hutchison on March 8th, 10th, and 15th, is, "Some Disorders of the Blood and Blood-forming Organs in Early Life." The Lumleian lectures, on "Some Disorders of the Spleen," will be given on March 17th, 22nd, and 24th by Dr. F. Taylor.

WE are indebted to the courtesy of the Registrar of the General Medical Council for a copy of the completed and indexed minutes of its proceedings during the year 1903, together with those of its various Special Committees an Branch Councils. Twenty-seven appendices are boun with the work, the majority of which are reports sul mitted to the Council by the Examination Committe These, it should be noted, contain the replies mad by the various bodies interested to the comments of th Council's Visitors upon the fashion in which their dutie are performed.

THE paper on Prostatectomy, by Sir William Thornle Stoker, published in the BRITISH MEDICAL JOURNAL (January 30th, was read before the Surgical Section of th Royal Academy of Medicine in Ireland on January 2n We are asked to say that Fig. 2 should be referred t Case I, and Figs. 1 and 3 to Case II. The subject of th third case died on the fifteenth day from the failure of weak heart, his progress in regard to the bladder sympton up to that time having been perfect.

MEDICAL NOTES IN PARLIAMENT.

[FROM OUR LOBBY CORRESPONDENT.]

The Ballot and Private Members' Bills.—The chances of th ballot did not this year favour members interested in medic Bills. Sir John Tuke had the best luck, and he only can out eighteenth on the list. The Revaccination Bill, of whic he was in charge, was consequently unable to get a bett place than Monday, April 25th, which, under ordinary cond tions, does not promise much progress, as Monday is not private members' day. Music this year won the first plac and so Mr. Mount, the lucky drawer, put down his Bill amend the law of musical copyright for Friday, February 26t The Bill to provide compensation to the owners of anima slaughtered by order of a magistrate on account of tube culosis was put down by Mr. Price for Friday, April 15th, a will have a good chance of getting a second reading. S Francis Powell was lucky enough to secure the followi Friday, April 22nd, for his Bill to Prevent the Pollution Rivers. The Bill is supported by Sir Wilson Todd, M Henry Hobhouse, Sir John Dorington, Dr. Farquharson, M Brigg, Sir John Brunner, and Sir Walter Foster. The Medic Act (1886) Amendment Bill was again brought in General Laurie, and has been put down for February 19t but as the Deceased Wife's Sister Bill stands before it on th day the probabilities are that it will not be reached. T Bill seeks to facilitate the admission of Colonially-train registered medical men to practise in Great Britain and hold appointments in the imperial service, and is backed Sir Walter Foster, Sir John Tuke, Mr. Rothschild, Sir Howa Vincent, and Sir M. Bhownaggree. Two other Bills ha some medical interest, namely, the Coroners Inquests (Ra way Fatalities) Bill and the Shops Bill, but neither placed favourably for obtaining adequate discussion. Th were over forty private members' Bills on the paper at the e of last week, but only some half-dozen have any chance o second reading.

Government Bills.—Mr. Graham Murray, as Secretary Scotland, has given notice to introduce the Scotch Educat Bill at an early date. The President of the Local Governm Board has given notice to introduce a Bill to amend the L with respect to valuation authorities, and the effect of, a procedure for making, valuation lists. Mr. Long has a given notice of his Bill to amend the Public Health A which will include general and special amendments of the of public health. The Board of Agriculture will introduce an early date the Sale of Butter Bill which was only drop at its last stage at the close of last session.

The Physical Condition of Children.—Sir John Gorst placed a notice of motion on the paper as follows: move that a select committee be appointed to inquire and port as to the best method of keeping a record of the phys condition of children attending schools which are aided Parliamentary grants. The discussion on this motion necessarily raise the grave question of the deterioration national physique, but the terms of it unless modified not enable the committee, if appointed, to inquire into larger question. A date for the discussion will have to secured in the ballot taken weekly for Tuesday evenings.

Constitution of the Local Government Board.—On ay last Mr. D. A. Thomas asked the Chancellor of the equer if he could state what progress had been made by ommittee appointed to consider the position and duties Board of Trade and Local Government Board, and to t on the desirability of alterations in the constitution tatus of these offices, and of a rearrangement of duties en these departments and other Government depart-s; and when such report was likely to be in the hands of ers. The Chancellor of the Exchequer, in reply, after ing to the constitution of the Committee appointed on 18th last year, said that the Committee met very shortly its appointment, and adjourned to give time for infor-n to be supplied by the two Boards concerned. The sary reports had only recently been obtained, and conse-ly the Committee had been unable to complete their ry and report. He named the Local Government Board ing the last to supply the information required by the nittee, and said he was not in a position to name a date e presentation of the report.

Sanitary Condition of the House of Commons.—On uary 5th Mr. Wylie asked the honourable member for ey, as representing the First Commissioner of Works, had been done during the recess for improving the lation and sanitary arrangements of the House of nons, and also if it was intended to do anything further. Balcarres replied that during the recess the improve-of the Committee rooms and of the lavatories had been nued. The fittings of the lavatories over the members' rooms, in the library corridor, and the lower waiting nd elsewhere had been renewed. Sums would be taken e Estimates for 1904-5 for carrying on these improve-s to completion. Immediately after the report of last s Committee on Ventilation, experiments were instituted e purpose of determining details incidental to power of velocities of air passing through washing screens, etc., he result of these experiments had only recently been ded. The improvements decided upon could now be d out, and would be provided for in the Estimates. The us works would be proceeded with during this year, but was difficulty in doing much while the House was in on.

re Beer.—Sir Cuthbert Quilter asked the President of ocal Government Board last week whether his attention been called to the confirmation by the Royal Commission rsenical Poisoning of the opinions expressed in the rity Report of the Beer Materials Committee issued years ago, prior to the outbreak of the beer-poisoning mic, that legislation or other provision was necessary to ent the use of deleterious substances in the manufacture er, and that a court of reference, as recommended by the mittee on the Adulteration of Food Products (a recom-dation since endorsed also by the Food Preservatives mittee), should be established for fixing standards of y for the purposes of the Sale of Food and Drugs Acts; if so, would he say what action it was proposed to take to effect to the recommendations of the Royal Commission, especially as regards the protection of the public against se of injurious ingredients in beer, and the fixing of a dard of purity. Mr. Long answered that he had, before ssue of the report of the Royal Commission on Arsenical oning, had under consideration the expediency of promot-egislation with a view to the constitution of a court of fence for the decision of certain scientific questions in ion to food of the kind referred to in the question, and ad been in communication with the Board of Trade and Board of Agriculture on the subject. He was continuing ve attention to the matter, but having regard to the large important recommendations of the Arsenical Commission, ought it would be necessary that a conference should be of representatives of the Government Departments con-ed before a decision as to the course to be adopted could rrived at.

e Registration of Nurses.—There is some activity on the of the promoters of a Bill for the Registration of ses and Nursing Homes. Dr. Farquharson has under-n to introduce the measure, and Mr. Claude Hay, Lord el Manners and Mr. Halsey are mentioned as supporters. Bill is to provide for the registration of nurses and to ent any one practising as a registered nurse unless stered, under a penalty of £10. Existing nurses are to be registered on production of evidence of training, and so are Colonial nurses under certain conditions. It is proposed to constitute a Central Board consisting of medical practitioners and nurses to control and regulate the nursing profession and publish the Register. The Board will also have power to register and inspect private nursing homes. The promoters do not expect to carry their Bill this session, but will seek to get a Select Committee appointed to consider the whole question.

Street Accidents and Covered Vehicles.—Sir Thomas Dewar asked the Home Secretary on Monday if he would state the number of accidents caused by covered vehicles in the streets of the metropolis during the year 1903, which had resulted in personal injuries, and how many had proved fatal. Mr. Secretary Akers-Douglas replied that during 1903, 1,425 accidents resulting in personal injuries had been caused by covered vans in the streets of the metropolis, of which 29 were fatal.

Factory Inspection in the Potteries.—Sir Charles Dilke asked the Secretary of State for the Home Department on Monday whether he could inform the House at what date it was his intention to establish in the Potteries one of His Majesty's Inspectors of Factories from the women's department, in pursuance of the strong recommendation made by the umpire at the arbitration last year. Mr. Secretary Akers-Douglas answered that he had already taken the steps best calculated in his opinion to meet the demands of this case. As he had informed the right honourable baronet last year, he had arranged for special attention to be paid to the Potteries by the lady inspectors; and now one of them had been selected and given instructions to make the Potteries the centre of her duties for some time, and she was at present stationed there.

At the examination for sanitary inspectors under the Public Health (London) Act held in January, 26 candidates were successful. Of these 11 received instruction from the National Health Society, 8 from the Sanitary Institute, 6 from King's College, and 1 from the Bedford College (for Women).

Folkestone Medical Society.—The annual meeting of this Society was held on January 8th, when the following officers were elected for 1904:—*President:* Dr. Tyson. *Vice-Presidents:* Dr. T. Eastes, Dr. J. Hackney, Dr. C. Perry. *Committee of Management:* Mr. Thornton-Gilbert, Mr. J. R. Phillips, Mr. H. A. Powell, Dr. E. Sworder, Dr. L. Wainwright. *Library Committee:* Mr. A. Randall-Davis, Mr. J. Keay, Mr. F. B. Madden. *Honorary Secretary and Treasurer:* Dr. J. E. G. Calverley. It was decided to make the following donations from the Society's funds:—The Epsom College, £2 2s.; Kent Benevolent Society, £1 1s.; the Folkestone District Nurse, £1 1s.

The Birth-rate in Germany.—According to the Berlin correspondent of the *Standard* there has been a steady decrease in the number of births in Germany during the last few decades. From 1870 to 1880 the number of births was 40.7 for every thousand inhabitants; during the following decade it fell to 38.2 per mille; and from 1890 to 1900 it was not more than 37.4 per mille, or about as much as during the Fifties. This decrease, however, has hitherto been compensated by the decrease in mortality. From 1890 to 1900, for instance, the death-rate decreased by more than 2 per mille. In Berlin the decrease in the birth-rate has been especially marked; the total number of births in the capital being 1,700 less in 1903 than two years ago. The actual number of births in Berlin was 49,000 in 1903, 52,259 in 1901.

Medical Sickness and Accident Society.—The monthly meeting of the Executive Committee of the Medical Sickness Annuity and Life Assurance Society took place on January 29th, at 429, Strand, W.C., Dr. de Havilland Hall in the chair. This being the first meeting of the year the Committee had presented to it special reports on all the claims of the apparently permanently incapacitated members, to the number of twenty-four. Their contents left little hope that any permanent improvement can be expected in the great majority of the cases. The Society pays these members an allowance—usually 100 guineas a year—until the age of 65. The accounts for the year 1903 showed that the Society had increased both in numbers and in financial strength. Prospectuses and all particulars can be obtained from Mr. F. Addiscott, Secretary, Medical Sickness and Accident Society, 33, Chancery Lane, London, W.C.

Ireland.

A Viceregal Slight.

The Lord-Lieutenant of Ireland, the Earl of Dudley, has informed the Presidents of the Royal Colleges of Physicians and of Surgeons respectively that the privilege of the private entrée to the levées and drawing-rooms at present enjoyed by them *ex-officio* will not be extended to their successors. The Colleges have replied, expressing their surprise and regret at the unmerited slight, but His Excellency remains firm. The reason assigned for this proceeding is that it is not possible otherwise to find accommodation for the many heads of Government departments. The reason is entirely inadequate. The Presidents of two great Colleges, representing a large body of educated gentlemen, are certainly as much entitled to enjoy this convenience and privilege as the numerous chiefs of small so-called "departments." Indeed, they have a greater claim than a number of the well-salaried gentlemen who rejoice in large incomes and easy duties. We assume that the same rule is to be applied to the future Provost of Trinity College, the Presidents of Queen's Colleges and of various professional corporations. Of course they will resent such a breaking of old custom, but His Excellency is not inclined to alter his decision, and there is no appeal. There can be no doubt that a grave mistake has been made, which will not help towards popularity.

The Irish University Question.

On February 6th, at a public meeting representing the Roman Catholic residents of the city and county of Cork, held for the purpose of urging on the Government the claims of higher education for Roman Catholics, Mr. Maurice Healy, solicitor, proposed:

That, while pressing for the settlement of the Irish University question, we wish also to represent that Cork has now been for over half a century the seat of a university college; that the existing college is already provided with splendid collegiate buildings and an ample enclosure, and in its general equipment is well fitted for the highest educational purpose; that we desire to strongly urge the claims of the city of Cork that in any settlement which may be arrived at the continuance of a local university college shall be secured to the city; that it is of the greatest importance, not merely to the city and county of Cork, but to nearly the whole province of Munster, affecting a population of over a million of persons, that local facilities for university education entailing no sacrifice of conscience should be provided; that we are satisfied that the existing institution could be reconstituted on a basis which would enable Catholics to avail of it, while doing no injustice to our Protestant fellow countrymen, thereby securing equality for all; and that we trust the Government and the Irish members of Parliament will take care that in this matter the special claims of Cork shall not be overlooked.

Dr. Cotter, in supporting the resolution, said he hoped there would be no such settlement of the university question as would deprive the south of Ireland of the college which they had in the city of Cork. Mr. Stanley Harrington, M.A., also supported the resolution, and pointed out they were not asking for a separate university or any great expenditure of money, but for a university college. What they wanted was that when the proper time came the existing college should be remodelled in such a way as would enable Catholics as well as their countrymen of other persuasions to avail of it without any violation of conscience, and that the various faculties which are essential to a proper university course should be suitably provided for.

A New Branch of the Irish Medical Association.

A meeting of the medical practitioners of the South Riding of Tipperary was held recently at Clonmel for the purpose of forming a Branch of the Irish Medical Association. Dr. O'Connell, of Fethard, in the absence of Dr. O'Brien owing to illness, was unanimously elected chairman. Among the resolutions passed were the following:—Proposed by Dr. Laffan, seconded by Dr. Hennessy, and resolved unanimously:

That we adopt the articles and by-laws of the co. Wexford Branch of the Irish Medical Association, but that the question of salaries and fees of workhouse medical officers be postponed to another meeting.

It was further unanimously resolved:

That the members of the South Riding Branch of the Irish Medical Association approve of the ideas set forth in the January issue of the *Journal* of the Irish Medical Association with reference to the retaining of the appointments of medical officers by the local bodies.

The meeting also tendered its best thanks to Mr. Tobin, of St. Vincent's Hospital, and to Sir Lambert Ormsby, President of the Royal College of Surgeons, for their fearless advocacy of the claims of the Poor-law medical service.

Irish Medical Association.

The following resolution was passed at a meeting of the Council of this Association on February 3rd:

That we are of opinion that the conversion of the Irish Poor-Medical Service into a civil service would be most injurious to the terests of Poor-law medical officers, and give rise to far more griev abuses than those at present oppressing such Poor-law medical offic

It was unanimously agreed to assist the Kildare Branch the Irish Medical Association in subsidizing Dr. Barry to amount of £52 10s. a year so long as the Branch consid itself justified in retaining him in Ballymore.

A Roentgen-ray Burn.

Mr. Justice Gibson and a special jury have been enga for a week in Dublin in trying a case in which the plain suing by his father, seeks to recover damages for a b inflicted by Roentgen rays. The defendants are the presid and professors of Queen's College, Galway. The plaintiff supposed to have a needle in his knee-joint, and his med attendant sent him to the College to have a skiagraph tak The professor (Professor Anderson), in whose charge apparatus is, has been in the habit of allowing his assist a man named Haire, to take skiagraphs for the conveni of practitioners, but the calls became so frequent that it suggested that Haire should receive some small fee for cost of materials and his services. The allegation was on the first occasion the tube was held close to the knee twenty minutes, that a burn was in consequence produ and that later on there was a second application. resulting ulcer took a long time to heal, but it ultima cicatrized, and the plaintiff sought damages for the inju inflicted.

The defence was a denial of the acceptance of any emp ment as to the treatment of the plaintiff, or that there any negligence. Counsel further stated that Haire was a servant whose duty it was to keep the instruments c and argued that the plaintiff was not entitled to expec same amount of skill from him as if the child had been tr by a specialist. As to the best means of using the people were only groping in the dark at present, and o fifty experiments by this particular apparatus no evil re had occurred to any one.

Dr. W. Haughton and Dr. Lane Joynt were examine the plaintiff. For the defendants Dr. H. L. Jones, Bart mew's Hospital, Dr. Hall-Edwards, Birmingham, Sir C. and Sir Thornley Stoker were examined. Dr. Jones an Hall-Edwards, as experts, swore that they had examine apparatus. The minimum distance from tube to skin wou 8 in., and the exposure 10 minutes. To obtain the skiag produced the distance must have been more than 2 in.

The National Association for Prevention of Consumption.

The Cork Branch of this Association is still actively pu its object of trying to avail itself of the free site offere sanatorium by Mr. Barter. During the past week deput from the Association, consisting of medical and lay me have been busy at work visiting the various district cou laying before them the advisability of establishing th posed sanatorium, and urging upon them the neces levying a rate for the upkeep of the institution, wher proposed to treat 160 patients in the year, the average ment of each case to extend over three months. Befo Midleton Board Dr. Ashley Cummins, Professor of Me Queen's College, Cork, expressed the feelings of the d tion, and pointed out the absolute necessity which exis the construction of the proposed sanatorium, and t check the terrible and increasing mortality from consu in Ireland. Other countries, he said, had been full to the necessity of such hospitals, and it was hig that in this country, where consumption was incre rampant and where people were so largely emigrants, v and practical measures should be taken to stem the table mortality arising from consumption. The Board mously agreed with the resolution passed by the Cor District Council in favour of the formation of a district, embodying the various urban and rural d in the country, and that the Midleton Rural Council should be included as a contributory are agreeing to levy a tax not to exceed 1d. in the pound Atkins (Cork), Woodroofe, and Williams (Fermoy) a before the Fermoy District Council. Dr. Atkins ga and detailed explanation of the urgent necessity of gi with the appalling death-rate in the population, o 40 per 10,000 died in 1896, while from all ot

tious diseases only 10 per 10,000 died in the same ar. The Council agreed to be taken into the united trict, and also to levy the necessary tax of 1d. in the und. The Bandon District Council was next approached Drs. Cremen (Cork), Welply and Reid (Bandon). The putation advocated the necessity of the situation, and the ard agreed to join the United District and levy the rate of . in the pound. At Queenstown Drs. O'Connor (Cork), H. Townsend, Hodges, and Keane appeared as the deputation, d the Council unanimously agreed to fall in line with the her bodies. Clonakilty District Council has also been proached, and agreed to join the Union, and there now only mains Skibbereen and Castletownsend to follow the example t by the other districts. It is thought that altogether the come derived from this united district will be between ,000 and £5,500 a year.

Queen's College, Belfast.

At a general meeting of the Ulster Medical Society on ebruary 4th a motion was proposed and carried in support the resolution of the Council of Queen's College, Belfast, hich was sent to His Majesty's Government and advocated larger endowment and better equipment of the College.

A Gift of Radium.

The Lord Mayor of Belfast, Sir Otto Jaffé, has promised to esent a 60 mgr. tube of radium to the Queen's College quipment Fund, with the stipulation that the tube should available for use in the Royal Victoria Hospital. Much terest has naturally been aroused by the prospect of being ble to study directly the effects of the wonderful drug in ncer.

The Isle of Arranmore.

At a meeting of the Glenties Rural Council, held on February h, Dr. McCarthy, Medical Inspector of the Local Govern- ent Board, again brought under the notice of the Council the ondition of many of the houses in the island of Arranmore. he island lies a few miles off the Donegal coast and has a opulation of about 2,000. Some severe epidemics of typhus ave broken out in the last few years; in one of which, it ill be remembered, the late Dr. William Smyth, of urtonport, lost his life. The Congested District Board ow owns the island, and has made most generous ffers to the inhabitants to improve their dwellings: ree sites for decent houses, slates, corrugated-iron doors, nd windows free, a bonus of £10 to those who erect a hatched house, and of £15 if a slated house. The sanitary fficer of the district council was instructed to visit the island nd report. After long delay the report was submitted to the ffect that all the houses were in a perfectly sanitary con- lition; yet Dr. McCarthy said that ten minutes on the sland would reveal the fact that many houses were dirty and nsanitary in every way. One house was only 9 ft. square, and ontained a mother, three sons, and a donkey; there was no uthouse. The next house was approached through a quag- nire of filth, and inside was the filth of the inhabitants and f the animals kept there. In another house a family of nine ived in a single room 12 ft. by 10 ft. Other houses had no indows. Dr. Eardley, medical officer of the district, also eported in a similar strain on some of the houses. Finally t was decided to serve notices on the cases reported to have heir houses placed in proper condition, and if they failed to lo so to prosecute. It was also decided to urge the in- abitants to avail themselves of the offer of the Congested District Board.

Health of Belfast.

The Belfast medical officer of health has reported that 86 cases of scarlet fever, 58 of erysipelas, 27 of typhoid, and 14 of small-pox have been notified during the last month; 1,034 births and 869 deaths were registered, and the death-rate was 25.3. Since the outbreak of small-pox 35 cases have been treated, with so far only 1 death—that of a little girl aged 5, who had never been vaccinated. Owing to the prevalence of measles and whooping-cough an arrangement has been made with the medical officers of health to notify cases of these diseases as well as phthisis voluntarily, and to give the necessary school certificates in the case of the poor. These officers will receive an increase of salary. By this means not only will valuable information be given to the public health officers so that houses could be disinfected, but no child would be allowed to go to school until it was quite free from infection. The city analyst, in a lengthy report to the Health Committee, drew attention to the increasing number of cases where milk was found of so poor a quality as to render the vendors liable to prosecution. One city councillor said it was due to the apathy of those magistrates who would not convict or would only inflict a very ineffectual fine.

Scotland.

Honorary Degrees.

The Senatus Academicus of Edinburgh University has resolved to confer the honorary degree of LL.D., at the Spring examination in April next, on Professor Alexander Macalister, F.R.S., Cambridge; and on Dr. Hannis Taylor, Alabama, U.S.A.

The Senatus Academicus of St. Andrews University has resolved to confer the honorary degree of LL.D. on Sir Charles Gage Brown, M.D., K.C.M.G., London; Professor A. H. Keane, late of University College, London; Dr. John Newport Langley, M.A., D.Sc., F.R.S., Professor of Physiology in the University of Cambridge.

Carnegie Trust Endowment Scheme.

The Executive Committee of the Carnegie Trust has framed for this year its scheme of endowment of post-graduate study and research. The details are understood to be similar to those of last year.

The New Superintendent of Statistics for Scotland.

Dr. James Crauford Dunlop has been appointed Superintendent of Statistics in the office of the Registrar-General for Scotland, in place of the late Dr. Blair Cunyngham.

Small-Pox in Edinburgh.

At a meeting of the Town Council held on Tuesday, February 9th, Mr. Lang Todd, the Convener of the Public Health Committee, reported that they had up to that day 55 cases of small-pox in the hospital. About twelve patients were just ready to be discharged. During the week ending mid-day, Saturday, February 6th, 17 new cases of small-pox were reported to the authorities, and there was one death. Almost all the cases received during the last fortnight were reported by Mr. Lang Todd to have been of a mild type. It was found impossible to get the inmates of the lodging-houses to be vaccinated, so he proposed that they should follow the example of some other municipalities, and offer 2s. 6d. to induce these people to be vaccinated or revaccinated. This was started on Saturday night, and the rush for vaccination was quite remarkable. Supposing they were to vaccinate all these people he thought it would cost £300 or a little more. He believed it would be more economical and cheaper in the end, for the simple reason that these were the people who were moving about the country, and in that way coming in contact with many people. He would like also to impress on the general public the need for properly protecting themselves by revaccination where that was necessary. As a matter of urgency Mr. Lang Todd asked for power to the Committee to erect on the site to be ultimately occupied two pavilions slightly larger than those at present in use. This was granted.

THE CONSUMPTIVE POOR OF LONDON.

The problem of the prevention of consumption is no longer one for mere academic discussion; it has reached the stage of practical measures. That the disease is preventable is no longer doubted even by the majority of the public, and for some years practical measures for its prevention have been adopted in many parts of the country. Amongst these measures the sanatorium treatment of the early cases of the disease holds a prominent place. In London, which certainly cannot boast any immunity from the disease, we are still asking why no general organized attempt at prevention is made. Various local authorities in the metropolis have, indeed, organized prophylactic measures, but little headway can be made without some general scheme embracing the whole of London.

Means of Prevention.

The general consensus of opinion points to the following as essential:

1. The education of the public.
2. The recognition of cases of the disease as early as possible, so as (*a*) to instruct the patient and his friends how to prevent infection and (*b*) to cure the patient.

3. The isolation of advanced and dangerous cases.
4. The disinfection of infected materials and houses.

These objects are in part carried out by the distribution of leaflets, by lectures, by public notices (on the dangers of spitting), by the examination of suspected cases, and by the provision of sanatorium and hospital accommodation.

It is evident that the above requirements, with the exception of the first, cannot be fulfilled until the existence of cases of the disease is known, but a comprehensive scheme is needed, for notification without hospital and sanatorium accommodation is of little value, and this without notification would be insufficient. Let us take the requirements in order:

1. *Education of the Public.*

This is already proceeding rapidly. The National Association for the Prevention of Consumption, etc., distributes leaflets and notices. In railway stations, trains, 'buses, and trams notices against spitting are prominently displayed, not only by the Association but by the Corporation of London and by various local authorities. The prevention of consumption forms a prominent subject of instruction in the health lectures of the School Board Evening Continuation Schools. The printed and verbal instructions given to out-patients at the various chest hospitals and the practical experience of the precautions observed in a chest hospital which the in-patients take away with them have a wide-reaching educational value.

2. *The Early Recognition of Cases of Consumption.*

This is chiefly a medical concern; but the patient must be examined before his condition can be determined, and many early cases, especially amongst the poor, do not seek advice. At hospitals and public dispensaries many patients coming for anaemia or "debility" are found to have early tuberculosis of the lung, but where can they be sent for proper treatment? These cases, however, form an undetermined proportion of the early cases in London, and some further means of finding cases is required. Those who are constantly exposed to infection, whether at home or in the workshop, should be examined from time to time. Notification is of advantage, not only in finding sources of infection and giving the opportunity of advising those exposed to this infection to be examined, but in bringing the early cases to the notice of those who can offer sanatorium accommodation for their treatment. The notification of an advanced case may bring to light several early cases, who could then be removed to a sanatorium whilst their disease was still curable.

3. *Isolation of Advanced and Dangerous Cases.*

This is to some extent carried out by their admission to the Poor-law infirmary. The very poor consumptive, when his disease has advanced so far that he is past work, must almost of necessity gravitate to the workhouse infirmary. It is, however, desirable that power should exist to remove an advanced case from surroundings which make him a danger to others.

4. *The Disinfection of Infected Materials and Houses.*

This is now carried out to some extent. It is undoubtedly valuable, but its full value can only be obtained where all cases are notified to the sanitary authority.

SANATORIUM AND HOSPITAL ACCOMMODATION.

The treatment of early cases and the isolation of dangerous cases imply the provision of accommodation for these patients. In this respect there is a great deficiency in London. The existing consumption hospitals do not provide nearly enough accommodation, even were they to limit admission to patients from London. At one at least of these institutions patients have had to wait six months between acceptance and admission, and the disease will not remain stationary because the hospital is full.

Sanatoria for the poorer classes of the community hardly exist within easy reach of London. The Poor-law infirmaries are doing their best for the pauper, but the early cases rarely seek admission. The clerk and the artizan require accommodation as well as the pauper, and where can they find it? More accommodation is urgently needed both for the treatment of early cases and for the isolation of advanced cases. The requirements for the early and for the advanced cases are not identical. The early case needs removal from the impure air and unhygienic surroundings of the town to some place where he can spend most of his time in the open. His absence from home is temporary, and he can therefore do without the frequent visits of friends. The advanced ca probably leaves home for good, and as his time is short will want to see his friends frequently; at any time t friends may be summoned urgently to take farewell. F these reasons it would be undesirable to remove the advanc consumptive out of reach of his friends, who cannot affo the expense of frequent railway journeys to visit him. T advanced case also requires a greater amount of nursing th the early case.

It would seem, then, that for the advanced consumpti whose circumstances make preventive precautions at ho uncertain, the infirmary is the most suitable haven; here can be medically treated, well nursed, and within reach of friends. For the early cases, on the other hand, accommo tion out of London is desirable.

It has been suggested—and there are obvious reasons the suggestion—that if sanatoria for consumptives are to provided for London as a whole, the Metropolitan Asylu Board is the proper body to provide and control such insti tions. It has also been pointed out that the Asylums Bo possesses hospital accommodation for small-pox cases larg in excess of what is at present required, and that one of unused small-pox hospitals might be utilized for consumpti if suitable for their treatment.

Two hospitals in particular have been named, notably Dr. Orme Dudfield, the Orchard Temporary Hospital at Jo Green, and Gore Farm Hospital. The former is, howe out of the question, for not only has it been defini included by the Board in its scheme for small-pox provis but its situation on low-lying ground surrounded by ma lands is altogether unsuitable.

A recent visit to the hospital enables us to give the foll ing details:

Gore Farm Hospital, which is at present practically occupied, is from its situation well suited for the treatme consumption, and could with comparatively little expendi be adapted to the requirements. It is placed on the slop a hill on a dry soil, in undulating country about two m from Dartford, facing south and south-east. The grou cover an area of 160 acres, and include woods as wel farm land. It is sheltered by trees on the north. upper hospital consists of brick buildings, compri twenty blocks to accommodate 1,000 patients, and necessary provision for the medical and nursing laundry, destructor, and offices. There are six isola blocks to accommodate 40 patients, and the staff accomm tion is sufficient for 350 persons. The patients' wards windows on both sides, and would make excellent "fresh wards. The lower hospital, almost invisible from the u consists of huts with accommodation for over 800 pati The water supply is good and ample, and is drawn fron adjacent Darenth Asylum wells, whilst as a reserve the pital is attached to the Kent mains. The drainage on t sewage farm is satisfactory. There are recreation ground the patients, and walks could easily be made in the w where also shelters could be erected. Verandahs and co courts could be provided for wet weather. The cost of additions has been estimated at about £10,000, and, whe borne in mind that the lowest cost of erecting a sanato is from £250 to £300 a bed, the advantage of utilizin existing hospital is evident. The 60 acres of farm land be used to train a certain number of the patients in agricul work, and enable them on leaving the sanatorium to s healthy occupation, and thus prevent the necessity of re ing to their old dangerous trade in town. It might b sirable to have male nurses for the male patients.

There is, then, at Gore Farm suitable accommodati some 2,000 patients; for since the early consumptive do require the same amount of nursing as the small-pox pa fewer nurses would be needed, and more accommod would be available for patients.

The Metropolitan Asylums Board, if it undertook addition to its present responsibilities, may safely b trusted to work out details as to the terms of admissio the allocation of beds to various classes of the comm and different kinds of cases. Some blocks might ev available for paying patients. If the Metropolitan As Board should undertake the provision of sanatorium a modation for the consumptive poor of London, it rest the Board to decide upon the most suitable means of ca out these requirements. The Board might prefer to some other of their existing hospitals for the accommo of consumptives, or even consider it desirable to e special sanatorium, but whatever details may be arran

Asylums Board, we have in the Gore Farm Hospital a
is of at once supplying one serious deficiency in our pro-
m for combating consumption in the metropolis. The
to the public health would be considerable. the economic
ntage to the community in the cure of the early con-
ptive worker could hardly be over-estimated, whilst the
consumptive himself would have the possibility of cure
ght within his reach.

SH MIDWIFERY NURSES AND THE CENTRAL MIDWIVES BOARD.

g,—Will you kindly insert the following correspondence,
h has taken place in reference to the examination of
wifery nurses to be held under the direction of the Central
wives Board?—I am, etc.,

E. Hastings Tweedy, F.R.C.P.I.

unda Hospital, Dublin, Feb. 8th.

[Copy.]

Rotunda Hospital, Dublin, Jan. 25th, 1904.

ar Sir,—I shall feel much obliged by your bringing the following
er before your Board, as it is obviously of such importance that a
ite pronouncement should be obtained as to the position our mid-
y nurses trained in the Rotunda Hospital will occupy in respect to
State examination to be held under the direction of the Central
vives Board.

e training of our midwives is strict and full, including everything
is requisite for making a good nurse. They reside for a period of
months in the hospital; they watch the progress of over two hundred
inements; of these they personally conduct at least two; they have
ake not less than ten vaginal examinations; they palpate many
es of abdomens; they attend the lying-in woman from the time of
admission to the hospital to her discharge on the eighth day; each
e takes entire charge of three lying-in women daily, with their
ective children during the puerperium; they take the records of
peratures and pulses, under the supervision of the master of the
pital and the assistant masters; they receive constant instruction in
art of midwifery, are systematically trained in asepsis and anti-
ics; they pass catheters, give enemas, are taught to distinguish
veen normal and abnormal labours, and, finally, do not receive our
ificate until a stringent examination has been passed.

he rules that at present seem to preclude them from qualifying are
ollows:

orm III.—A woman must have "attended and watched the pro-
s of not fewer than twenty labours, making abdominal and vaginal
minations during the course of labour, and personally delivering
patient."

orm IV.—A woman has "to my satisfaction nursed twenty lying-in
nen during the ten days following labour."

t would be impossible for our resident nurses to follow the course
he puerperium for ten days, as Irish women will not remain in hos-
l for more than eight days. In this connexion it may be mentioned
t the Scottish universities and Conjoint Boards require a student to
duce evidence that he has personally conducted twelve cases of
lour, or that he has taken out a three-months course in a recognized
titution, in which case the personal conduction of six cases is suffi-
nt. Durham University requires a student to have personally con-
ted twenty cases of labour, or to have attended the indoor practice
a lying-in hospital for three months. Dublin University, London
iversity, and the Royal University of Ireland compel a student to
e a six-months course in a lying-in hospital, but they do not specify
e necessary number of personal conductions, and they refuse
ogether to recognize instruction received or labours attended else-
ere than in a lying-in hospital.

may summarize by saying that the Licensing bodies and Uni-
sities regard a six-months course of instruction in a recognized
ng-in hospital as the ideal training in practical midwifery for a
dent; that some of them accept a three-months course, with the
dition of a small specified number of personal conductions; and that
ly those who do not require any proof of attendance at a recognized
stitution require even a medical student to personally conduct as
ny as twenty labours.

It will thus be seen that a course of six months' instruction in the
ternal department of a lying-in hospital is regarded as the ideal
ining for the medical student, and as being much preferable to a
nger course of instruction from a non-hospital practitioner, and that
e reasons which render this course much better in the case of the
edical student are still more cogent in the case of the midwife, who
mittedly is best trained when trained in a hospital.

Taking all these facts into consideration, and having regard to the
ndoubted spirit of the Bill which was framed in the interests of the
ng-in patient, I trust that your Board will be able to accept our curri-
lum as an equivalent, or to make such exception or modification in
e present rule as will enable our nurses to qualify for the State exami-
ation in midwifery.

I remain, yours faithfully,

E. Hastings Tweedy,
Master, Rotunda Hospital.

To the Secretary,
Central Midwives Board.

Central Midwives Board,
16, Suffolk Street, Pall Mall, London, S.W.
February 1st, 1904.

Dear Sir,—Referring to your letter of January 25th, I have to inform you that the subject raised therein was taken into consideration by the Board at their meeting on January 28th. I am directed to point out that the rules were approved by the Privy Council on August 12th, 1903, for a period of three years, and to forward you a copy of the resolution, which, having regard to that fact, the Board passed unanimously.

I remain, yours faithfully,

G. W. Duncan,
Secretary.

The Master of the Rotunda Hospital,
Dublin.

Copy of a resolution moved and carried at the meeting of the Central Midwives Board, held on January 28th, 1904:

That having considered the letter addressed to them by the Master of the Rotunda Hospital, the Board regret that the suggested alterations were not brought to their notice before the rules were sent to the Privy Council, as having been now approved by that body, it is impossible for the Board to alter them.

THE RECONSTITUTION OF THE WAR OFFICE.

A meeting of the Royal Naval and Military Committee of the British Medical Association called for the purpose of considering the report of the War Office (Reconstitution) Committee, published in the *Times* of February 1st, was held on February 8th, Mr. Andrew Clark, Chairman of Council, in the chair.

The following resolution was passed:

That this Committee, having carefully considered the new scheme of War Office reform as published in the *Times* of February 1st, is of opinion that the following recommendations should be forwarded to His Majesty's Secretary of State for War:

While the British Medical Association would welcome any measure which will tend to increase the efficiency of the military organization of the Empire, such as it outlined in the new scheme of War Office reform, it regrets to observe that notwithstanding the experience gained in the South African war, after which Mr. Brodrick's Committee gave to the Army Medical Service direct representation on the Army Board, no such similar provision appears to have been made for the direct representation of the Medical Service of the army on the now proposed Army Council.

The British Medical Association considers the absence of direct representation on the Army Council of so important a branch of the military service a retrograde movement, and one that can only tend to handicap the efficiency of this branch of the service. It would, therefore, respectfully urge on His Majesty's Government to take such steps as will insure the direct representation of the Army Medical Service on the Army Council, or whatever the central governing body of the War Office may be designated.

In pursuance of this resolution the recommendations were forwarded to the Secretary of State for War by the General Secretary of the Association. The following reply has been received from Mr. Arnold-Forster:

War Office,
February 9th, 1904.

Dear Sir,—I am desired by Mr. Arnold-Forster to acknowledge receipt of your letter of the 8th inst. forwarding certain recommendations of the British Medical Association, and to say that the new Army Council is in no way a representative body, but is constituted in the same manner as the Admiralty. Under these circumstances it is not considered necessary that the Army Medical Service should be directly represented.—Believe me, yours faithfully,

H. Shute.

Guy Elliston, Esq.

CONTRACT MEDICAL PRACTICE.

Miners.

Dr. William Gosse (Sittingbourne) writes: It was with deep regret I saw in the British Medical Journal of February 6th that the miners in the Aberdare district were considering a new scheme for the remuneration of their medical officers, for of all contract practice the system in vogue in South Wales has worked longest without friction, first, because to a liberal profession the principle of payment by a percentage of earnings is most fair. Under the new scheme what provision is there for the time when the colliers are out of employment and their earnings are *nil* and their food supply short, and therefore sickness increased, and no doctor to relieve their sufferings? The new scheme cuts both ways, for if the doctor is not allowed to share their prosperity he cannot be expected to share their adversity.

Again, the principle of fixing the responsibility on one man is the most conducive to the efficiency of the medical service; and, moreover, it is of great advantage nowadays to have a professional expert to select suitable assistants, especially as I note the new scheme does not offer increased salaries. I made special inquiries into the system when at the annual

meeting at Swansea last year, for I have the honour of being on the Committee appointed by this district to investigate the conditions of contract practice, and it does not seem much when a man is earning £100 a year that he should pay 25s. for medical and surgical attendance on himself and family. This includes everything from a major operation to a dose of castor-oil, for there are usually no chemists in the colliery districts.

THE PLAGUE.

PREVALENCE OF THE DISEASE.

INDIA.

DURING the weeks ending January 9th and 16th the deaths from plague in India numbered 17,344 and 21,302 respectively. The high mortality is due to a marked increase of the disease in the Bombay Districts, in Bengal, and the Punjab. In 1903 the death-rate from plague corresponding to the latter week was 17,231, so that the annual recrudescence seems to be slightly earlier this year. During the week ending January 9th the principal returns were: Bombay city, 169; Bombay districts, 6,605; Calcutta, 15; Bengal districts, 938; North West Provinces and Oudh, 3,291; Punjab, 1,394; Central Provinces, 1,574; Kashmir, 21; Hyderabad State, 972; Central India, 855; Madras districts, 740.

At Cawnpore, on January 15th, Nurse Walden, of St. Katherine's Hospital, died of plague after two days' illness. Miss Marvel, a girl compounder at the same hospital, also died of the disease. The hospital has been temporarily evacuated.

CAPE COLONY.

Port Elizabeth.—During the week ending Jan. 9th, no fresh cases of plague were found; during the week ending Jan. 16th, 2 fresh cases of plague were discovered; both died.

East London.—During the weeks ending Jan. 9th and 16th, the fresh cases numbered 1 and 0, and the deaths from the disease, 1 and 0 respectively; 2 cases remained under treatment.

In no other town in South Africa was plague reported in man. At Port Elizabeth, East London, and Kynsa plague-infected rats continue to be found, but at no other town are rats infected.

MAURITIUS.

During the weeks ending Jan. 21st, 28th, and Feb. 4th, the fresh cases of plague in Mauritius numbered 16, 28, and 17 respectively; during the same period the deaths from the disease numbered 12, 18, and 14 respectively.

ASSOCIATION NOTICES.

NOTICE OF QUARTERLY MEETINGS OF COUNCIL FOR 1904.

MEETINGS of the Council will be held on Wednesdays, April 20th, July 6th, and October 19th, in the Council Room of the British Medical Association, 429, Strand, London, W.C.

ELECTION OF MEMBERS.

ANY candidate for election should forward his application upon a form, which will be furnished by the General Secretary of the Association, 429, Strand. Applications for membership should be sent to the General Secretary not less than thirty-five days prior to the date of a meeting of the Council.

LIBRARY OF THE BRITISH MEDICAL ASSOCIATION.

MEMBERS are reminded that the Library and Writing Rooms of the Association are fitted up for the accommodation of the members in commodious apartments, at the office of the Association, 429, Strand. The rooms are open from 10 a.m. to 5 p.m. Members can have their letters addressed to them at the office.

GUY ELLISTON, *General Secretary.*

BRANCH MEETINGS TO BE HELD.

BORDER COUNTIES BRANCH: WEST CUMBERLAND DIVISION.—A meeting of this Division will be held at Workington on Tuesday, March 1st. The Secretary will be glad to receive a communication from any member who intends to read notes on cases or to exhibit specimens, etc.—T. G. MATHEWS, 6, Scotch Street, Whitehaven, Honorary Secretary.

METROPOLITAN COUNTIES BRANCH: CENTRAL DIVISION.—The adjourned special general meeting of this Division will be held at the rooms of the Medical Society of London, 11, Chandos Street, W., on Wednesday, February 17th, at 5 p.m. Agenda: (1) Minutes of the last meeting. (2) Dr. Heron's addition to the Draft Medical Acts Amendment Bill: After Clause 27 insert as follows, and number as Clause 28: "No person registered under this Act, excepting only as hereinafter indicated, shall dispense or supply drugs or other medicaments to any one." Exceptions: (*a*) Medical officers of His Majesty's navy or army not engaged in private practice in the United Kingdom; (*b*) registered practitioners while in attendance on cases of emergency requiring in the opinion of the practitioner the immediate use of a drug or other medicament; (*c*) registered persons practising their profession in country districts in which the inhabitants are so few that they cannot support at the same time both a medical practitioner and a pharmaceutical chemist; it shall, nevertheless, be incumbent upon any medical practitioner so practising in such a country district to satisfy the General Medical Council, when called upon by that body so to do, that the people of the country district in which the practitioner is engaged in medical practice and in the dispensing of drugs or of other medicaments, are in fact too few in number to support both a medical practitioner and a pharmaceutical chemist; (*d*) medical practitioners employed on board of vessels other than His Majesty's ships; (*e*) any other person registered under this Act, whose peculiar circumstances of whose professional work require, in the opinion of the General Medical Council, before which the facts must be brought, special consideration with a view to the exemption of such person from the action of this clause. Penalties for infringement of this clause: Any person found guilty of an offence under this clause shall for the Act shall for a first offence pay a fine of not less than £100, and for each later offence the offender's name shall be erased from the *Medical Register* for such time as the General Medical Council shall fix. No practitioner registered before the passing of this Act shall be liable to application of this clause until three years from the date of this Act ing become law. Dr. Burslem Rotheroe will move the following amendment to Dr. Heron's addition: "That the subject be adjourned to January 27th, 1909." (3) Further consideration of the Medical Acts Amendment Bill. Dr. Hugh Woods will move the following alterations and additions: Clause 25. That the words at the end of Clause 25, that is, "prescribed in Section XXIV of this Act," be altered to "prescribed in Clause 30 of this Act." Clause 34. That in the sentence "who does not so affix his name to public view," the words "within three months from the date of commencing so to practise" be inserted so as to read thus: "who does not, within three months of commencing so to practise, so affix his name to public view." Clause 39, That the words of Clause 39, that is, "Nothing in this Act shall apply to midwives," be altered to: "Midwives registered under the Midwives Act, 1902, shall not be liable to penalties under this Act for practising midwifery in accordance with the provisions of the Midwives Act, 1902." The full text of the Medical Acts Amendment Bill will be found in the SUPPLEMENT of the BRITISH MEDICAL JOURNAL, April 22nd, 1903. (4) To consider other business if necessary.—C. BERKELEY, M.B., B.S.Cantab., M.R.C.P.Lond., 53, Wimpole Street, Secretary and Treasurer.

METROPOLITAN COUNTIES BRANCH: WANDSWORTH DIVISION.—A dinner will be held at the Worple Hall, Wimbledon, on Thursday, February at 7.15 p.m. Tickets 6s. each (wines extra). Dr. Still will read a paper at 9 p.m. on the Diagnostic Significance of some Signs and Symptoms in Diseases of Children. Members are entitled to bring guests, and are asked to book places for the dinner by February 17th if possible, as a certain number have to be guaranteed.—E. ROWLAND FOTHERGILL, Torquay House, Southfields, S.W., Honorary Secretary.

NORTH LANCASHIRE AND SOUTH WESTMORLAND BRANCH.—A meeting of this Branch will be held at Barrow-in-Furness on Wednesday, February 24th, at 3.30 p.m.—A. S. BARLING, High Street, Lancaster, Honorary Secretary.

PERTHSHIRE BRANCH.—A clinical meeting of this Branch will be held in the Station Hotel, Perth, on Friday, February 26th, at 4 p.m. Business: (1) Minutes; (2) appointment of Joint Secretary; (3) report of Council on the Medical Acts Amendment Bill; (4) cases, etc.—Dr. Stirling: Abdominal Cases; Dr. Taylor: Antitoxin in Diphtheria. Dinner after the meeting at the hotel, at which a presentation will be made to Dr. Urquhart. The Honorary Secretary will be obliged by members informing him of their intention to be present.—WILLIAM A. TAYLOR, 10, Marshall Place, Perth, Honorary Secretary.

STAFFORDSHIRE BRANCH.—The next meeting of this Branch will be held at Stafford on Thursday, March 3rd, instead of Thursday, February 25th, as one of Sir Oliver Lodge's lectures occurs on the latter date.—GRAVE JOHNSON, Stoke-on-Trent, Honorary General Secretary.

SOUTH WALES AND MONMOUTHSHIRE BRANCH: MONMOUTH DIVISION.—The quarterly meeting of this Division will be held at the County Asylum, Abergavenny, on Friday, February 26th, at 3 P.M. Members wishing to read papers or show cases are asked to notify the Honorary Secretary on or before February 16th.—W. J. GREER, M.D., Honorary Secretary.

AT the annual general meeting of the Liverpool Medical Institution, the following officers were elected for the ensuing year: *President:* Dr. J. Barr. *Vice-Presidents:* Dr. Briggs, G. W. Steeves, J. R. Logan, and J. Wigle. *Treasurer:* Dr. T. H. Bickerton. The following Secretaries were also elected: *General Secretary:* Dr. F. C. Larkin. *Secretary to Ordinary Meetings:* Dr. R. W. Murray. *Pathological Secretary:* Dr. W. P. Warrington. *Editor of the Journal:* Dr. F. H. Barendt. *Librarian:* Dr. A. S. Grünbaum. Seven members of Council were also elected. With the exception of Drs. Briggs, Steeves, and Mr. Bickerton, none of the gentlemen named held the same position last year.

WE learn from the *Dumfries and Galloway Standard* that a life-sized portrait which the patients of Dr. John Smith determined to present to him on his retirement last year has now been finished, and is considered to be excellent. It was forwarded to him in London on New Year's Day this year, but the letter which accompanied it contains repeated expressions of the regret which is felt by his patients that they can no longer receive at his hands the skilful kindness which he had accustomed them. Dr. Smith was formerly President of the Border Counties Branch of the British Medical Association, and at one time its very active Secretary.

SPECIAL CORRESPONDENCE.

MANCHESTER.

"Light" Treatment in Skin Diseases.—The Merging of Owens.

e annual meeting of the Manchester and Salford Hos- for Skin Diseases it was stated that the total number of dances of patients was 64,130 of whom 29,948 patients for the "light" treatment. There was a deficit 7 in the year's work. The sum available for building the hospital is now £25,271, leaving £10,000 yet to be ob- d. The report stated that—

he "Light" department the results have been most satisfactory. nber of cases of lupus and other tuberculous affections of the which have hitherto defied treatment, have been discharged ; but in no condition is the success more marked than in the ent of rodent ulcer—a slow-growing form of superficial cancer, was previously, in many cases, inoperable and beyond medical In addition to the new and very effective Finsen-Reyn lamp (a r modification of the original Finsen lamp), we have recently be- work with radium, which has been found to influence some of varieties of cancer which have been but slightly affected by the en rays.

February 4th a special meeting of the Court of Governors vens College and a special meeting of the Victoria Uni- ty of Manchester were held to obtain the consent of both College Court and the University Court to a Bill which is promoted in Parliament for the purpose of merging the oration of Owens College in the Victoria University of chester. The officials of the Victoria University remain fice in the Manchester University. Lord Spencer will in Chancellor. The President of the College, the Duke vonshire, will become President of the University if His e is willing to accept office. The Faculty of Medicine was tituted by the following, in addition to the professors of ubjects taught in the Medical School and the assistant rers (Mr. J. Grier, Dr. I. Walker Hall, Mr. J. E. Platt, Mr. Sidebotham, and Dr. R. T. Williamson): (1) Professors n, Hickson, Perkin, Schuster, and Weiss; (2) Dr. H. Ashby, G. W. Mould, Mr. J. Collier, Mr. W. Thorburn, Dr. C. E. cott, Dr. Lloyd Roberts, Dr. J. Niven, Dr. H. A. G. ke, Dr. A. Hodgkinson, Dr. W. Milligan, Dr. E. S. olds, Dr. A. K. Gordon, Dr. T. Harris, Dr. Graham ll, Dr. J. S. Bury, Mr. W. P. Montgomery, Dr. J. Scott, two members to be nominated by the Dental Committee; r. F. C. Moore, Dr. A. W. W. Lea, Dr. W. E. Fothergill. Vice-Chancellor said it had been arranged that the public tings of the University should now conclude with a n formula, which would show that the business was . The words suggested by the new Professor of Latin : "Salva sit Universitas nostra Mancuniensis: hoc antes consurgamus."

CORRESPONDENCE.

"DOCTORS IN PARLIAMENT."

R,—May I point out in reply to Dr. Bateman's letter on subject in the British Medical Journal of February 6th, the suggestion of a fund for defraying wholly or in part election expenses of medical members of Parliament in way entails the idea of their being returned as medical by their constituencies. Members of other professions returned as members of Parliament to the advantage of r professions, but not as soldiers, sailors, lawyers, or try gentlemen. There is nothing, except poverty, to vent medical men from coming forward in larger numbers andidates for election to Parliament. There is nothing revent their being returned to Parliament by any con- uency if their politics happen to be those of the majority he electors. Also, there is nothing to prevent any body ersons sufficiently interested from defraying their expenses whole or in part.

o give definiteness to the suggestion which I made in r issue of January 23rd, may I further propose:

That a central committee representative of the best ns in our profession be formed—if possible—to collect ds to defray in whole or in part the election expenses of lical candidates for Parliament.

That no fixed subscription be asked for, but that each lical man be asked to help, so far as he is able, an under- ing which it is obviously his interest to help.

3. That to this committee be entrusted the task of approaching those members of the profession most likely to undertake parliamentary duties and the responsibility of deciding on the sum to be devoted to any individual election.—I am, etc.,

Exeter, Feb. 8h. W. Gordon.

THE FALLACY OF PROSTATECTOMY.

Sir,—Whenever I have listened to a discussion on the treatment of enlarged prostate, I have been struck with the almost unanimous opinion on certain points:

1. That the symptoms which render prostatectomy necessary are almost invariably due to sepsis and infection.
2. That operation is not necessary or advisable when catheterization is satisfactorily performed.
3. The firm belief of all in the impossibility of a practical method of sterile catheterization.
4. The unconscious misrepresentation of the mode of origin of the symptoms so often accompanying enlarged prostate.

If the acknowledged cause of the symptoms calling for operation is sepsis, how does it originate? The common answer given is that it is a direct sequence of enlarged prostate which produces first retention of urine, and then decomposition (or septic contamination of the retained urine). But how do the germs which must necessarily be present gain access? This is the crux of the question. They are, as is freely acknowledged, almost invariably introduced by a bacteriologically dirty catheter, and from thence do the symptoms of sepsis arise, the symptoms in brief of cystitis, not of enlarged prostate.

Careful inquiry and close examination of the history of some of the cases recorded plainly indicate that only since a catheter was passed have the symptoms of sepsis (that is, the symptoms which usually call for prostatectomy) appeared. Not, perhaps, in their full force to begin with, but increasing with each act of catheterization, or, in bacteriological terms, increasing with each added dose of micro-organisms. Logically, under these circumstances, the demand for instrumentation increases rapidly, not necessarily because of the prostatic enlargement, but because the cystitis increases in virulence and effect.

Granted this, when the catheter is wanted for the first time, what is to be done? The answer is simple. Pass a sterile catheter! But one is told it is impossible. This is not a fact. From my experience and that of others, with a sound reliable method of sterilizing both catheter and lubricant by boiling, there is ample evidence that it is possible; and, if possible, then, I maintain, all the symptoms due to enlarged prostate, *per se*, may be relieved by catheterization—a method of treatment acknowledged by all to be efficient in the absence of sepsis. Prevent cystitis and those symptoms now attributed to enlarged prostate disappear, and with their disappearance also the operation of prostatectomy in a large majority of cases. It is also urged that a patient cannot keep himself clean. I say, without hesitation, give him a suitable, simple sterilizing apparatus, teach him the method and how to be clean, and he will then keep himself free from sepsis, and with that freedom he will, with properly regulated catheterization, remain well and comfortable without surgical interference.

The next point is in regard to patients who have already developed symptoms of infection; people who are worn out by fever, the incessant use of the catheter, or have, perhaps, indications of renal trouble. Is not prostatectomy imperatively called for then? I would earnestly suggest a trial should be given to sterile catheterization—thereby cutting off the constant dosage of micro-organisms—associated with suitable means for cleansing the bladder, before resorting to more serious measures. There is abundant proof of the satisfactory results of this line of treatment. Again, it is said that the symptoms of a prostatic patient are always progressive. Certainly they are if he is constantly dosed with micro-organisms, but not otherwise, any more than the symptoms increase in those cases of enlarged prostate which do not require instrumentation.

Although sepsis and infection are recognized as the chief cause of symptoms, I do not think their effects are sufficiently appreciated. Leaving out of the question the part they play in producing increased retention of urine by swelling of the mucous membrane, the irregular contraction and distortion of the bladder by cicatricial tissue, the formation of sacs and pockets, there remains an important point—namely, the effect they have on the prostate gland itself. At

present it has not been determined whether prostatic enlargement is true hypertrophy (prostatitis) or the result of benign new growth, which is an unknown occurrence in other organs at the time of life prostatic enlargement occurs. In either case inflammation, the result of infection or sepsis in and about the gland, must act as a strong stimulus to its rapid increase in size. Moreover, this suggestion is borne out "to some extent" by the fact that a very large gland has not yet been observed when the organs have been free from infection.

The conclusions I draw from the foregoing are, that on account of the present technique employed in passing urethral instruments, treatment by catheter is not only aborted and rendered inefficient as a method of relieving the few symptoms attributable to prostatic enlargement, but it is actually the means of introducing into the bladder micro-organisms which set up most urgent symptoms and induce a condition of the utmost gravity for which the prostate is unjustly blamed; and further, that prostatectomy, with an acknowledged mortality of 10 per cent., is too frequently undertaken, and should be reserved for exceptional cases.—I am, etc.,

London, Feb. 8th. HERBERT T. HERRING.

TOTAL EXTIRPATION OF THE PROSTATE.

SIR,—It has been increasingly evident to most surgeons, as it must have been long a matter of definite knowledge to anatomists, that the claims put forward by Mr. Freyer and his friends regarding the so-called total extirpation of the prostate could neither be scientifically supported nor demonstrated in fact.

Much credit is therefore due to Mr. Cuthbert S. Wallace, B.S., F.R.C.S., for his altogether convincing and lucid demonstration of the real facts of the case in the admirable paper published in the issue of the BRITISH MEDICAL JOURNAL for January 30th, 1904.

In the November number of the *Glasgow Medical Journal*, 1902, I took the opportunity to abstract, from an able and elaborate paper by Albarran and Motz (de la Clinique de M. le Professeur Guyon à l'Hôpital Necker) contributed to the July issue of the *Annales des Maladies des Organes Génito-Urinaires*, the following, amongst other points of interest, with regard to the relations of "true" and "false" capsules.

Very probably the paper referred to may have come under the notice of Mr. Wallace, but the demonstration these authors give of the erroneous nature of many of the views so loosely put forward is so convincing and their statements so well borne out by the numerous plates which illustrate their paper, that I feel I am abundantly warranted in drawing attention thus publicly to their work.

The extract I specially desire to draw attention to is as follows:

"This 'false' capsule, which is apt to deceive the inexperienced operator, is formed much as follows: When practically the whole prostate is made up of adenomatous nodules, the glandular tissue interposed between the several new-formed lobules is found compressed and flattened, showing here and there atrophied or dilated *culs-de-sac*. The peripheral part of the gland is found compressed externally, and flattened between the new-formed nodules and the capsule (true) (an arrangement well shown in diagram by the authors). If in such a case the capsule (true) is very deeply incised, one will cut, at the same time, the *atrophied* glandular tissue (peripheral), and will be able to make a very easy line of separation underneath it" (a separation, however, of what is merely a central adenomatous mass, from the atrophied and compressed glandular tissue externally, which will be left behind), but one which will perforce amount to but an incomplete operation; believing that *only* prostatic capsule (*true*) is left the operator will in reality leave a more or less considerable portion of the actual gland substance of the prostate."

This is, it seems to me, a clear and definite statement of the case. Mr. Wallace admirably corroborates it. From my own observations, both microscopical and macroscopical, of a now fairly considerable number of specimens I agree most emphatically with MM. Albarran and Motz, and can fully homologate the conclusions of Mr. Wallace. To the latter, it seems to me, much credit is due for his interesting and convincing paper.—I am, etc.,

Glasgow, Feb. 5th. ARCH. YOUNG.

MEDICAL DEFENCE.

SIR,—I was much interested in reading in the SUPPLEMENT to the BRITISH MEDICAL JOURNAL of January 30th an account of the meeting of the Medical Defence Committee held on November 12th, 1903. I fail quite to see that sufficient benefits are to be gained by going to the expense and trouble of absorbing the Medical Defence Union and the Counties Protection Society into the British Medical Association unle it can be done on a cheaper scale to make it worth whi doing.

The two first-mentioned societies have already and amp proved their usefulness to all thinking members of the med cal profession and have gained the respect of the legal pr fession, so much so that sometimes when patients wish prosecute a medical man, solicitors, on hearing that t medical man belongs to one of the defence societies, advi their clients not to proceed further with the case.

The British Medical Association, we learn, has had duri the last five years a balance of £5,000 a year. Of course it obvious a representative society of a learned profession to influential must be wealthy, and I suppose all members the British Medical Association wish it to be influential, a they take pride in seeing their society gradually raising its to the high position that the British Medical Association attaining; but surely the society has now sufficient capit together with their income of £45,000 per annum, not to w to have such a large balance at the end of each year.

Again if the British Medical Association takes up medi defence I should think it would do the work more chea than the smaller societies; for instance over a period fourteen years the legal expenses of the Medical Defe Union worked out at 4s. 10d. a head, and general expenditu including all office and working expenses of 4s. 3d., to 9s. 1d., but the British Medical Association already has offi and staff of clerks, and although it would be necessary get, perhaps, some extra clerks, and an office set apart medical defence work, the general expenses would proba be considerably less than the Medical Defence Union. Ag the British Medical Association, being a larger and more fluential body even than the Medical Defence Union, bably the legal profession will soon gain so much respect the society that they will only occasionally take ac against members belonging to this great defence society, so the legal expenses would have a tendency to become per capita.

It is impossible to spend the money belonging to a soc on a definite object unless all members of the society be by that object, but if every member has an opportunit receiving that benefit, but some refuse to take advanta it, surely then it is quite justifiable to spend the money. the above reasons I should have thought it possible fo British Medical Association to have taken up defence charged an annual subscription of 30s. I believe that members would pay it. The great difficulty I see in the is how to arrange for our brothers across the sea, so as to them with absolute fairness.—I am, etc.,

Peterborough, Feb. 5th. ARTHUR PA

SIR,—In the SUPPLEMENT of January 30th is publish scheme for a medical defence fund. I think it time the ciation took up the matter, and I was glad to see that headway was being made towards this end. One poi think, in the published scheme could be improved upo the advantage of the fund as well as the members joinin refer to the proposal of a "guarantee fund." I see no great culty in making this a "cash" guarantee, instead of a "pa guarantee fund, if the members on joining were asked to 20s., half as a yearly contribution and half to the "guar fund." This sum should be returnable to the member, wi interest, on his ceasing, by resignation or otherwise, entitled to the advantages of defence, provided he is cle the books at the time of resignation, and that the guar fund has not been called upon during that year, and th has not derived any benefit from the defence fund durin two preceding years. In case the guarantee fund is upon, the member resigning should be entitled to the po of his contribution remaining.

Should the guarantee fund be called upon, the sum s rowed should be returned out of the contributions for th year, and if this prove inadequate the amount could be up out of a "levy" on the members.

Let me briefly point out the advantage of this over th posed scheme of a "paper" guarantee fund. Members be in no worse position financially, as on ceasing to be bers the sum of 10s. is returned to them, less such s may have been "called up" out of the guarantee fund the previous financial year. The defence fund can borro repay any sum it may temporarily require from the gua fund without the expense that would otherwise be inc The guarantee fund, in the bank at interest, would be a of income to the defence fund; no interest being paya

ıe members for the "loan" on the same being returnable. I ıve suggested 20s. in cash, as that would mean as many 1,000 as members joining, half of which would form the ·fence fund and half the guarantee fund.

I think the above proposition worthy of the consideration the members of the Association that are likely to become embers of the defence section.—I am, etc.,

Ramsgate, Feb. 2nd. A. F. Meredith Powell, M.B.

AN EFFICIENT AMBULANCE SERVICE FOR LONDON.

Sir,—Referring to the article headed "An Efficient Ambuıce Service for London," which appeared in the British EDICAL Journal of February 6th, I beg to point out that ou have erroneously stated that the Asylums Board have deded not to utilize its ambulances for the transport of persons ıffering from non-infectious diseases. On the contrary, the oard, on November 28th last, passed the following resolun on the subject:

That in the opinion of the managers it is desirable and practicable to tend the operations of their ambulance service so as to include the ansport of medical, surgical, and mental cases, for which application ay from time to time be made by any authority or person within the etropolis, provided that such extension of the ambulance service all not be held to include the removal of cases of street accident, nor patients to and from the several lunatic asylums under the control the London County Council, unless by special sanction of the Ambuıce Committee, or, in emergency, of the Chairman of that Committee, the Clerk to the Board.

That, upon the necessary legal authority being obtained for the anagers by the Local Government Board, the work be immediately ıdertaken, and a charge of 7s. 6d. made in respect of each removal, d in addition a mileage of 1s. 6d. beyond the boundary of the etropolis.

The question of granting the Asylums Board the power it ks for is still under the consideration of the Local Governent Board.

For your information I enclose a copy of the Ambulance ommittee's report to the Board on the subject.—I am, etc.,

T. Duncombe Mann,
Clerk to the Board.

Metropolitan Asylums Board, Embankment, London, E.C., February 10th.

AXIS TRACTION FORCEPS.

Sir,—Will you allow your reviewer to point out, in reply to ıe long and interesting letter of Dr. Milne Murray, that the ·view from which he quotes said nothing about *dangerous* mpression of the head? The words used were "*continuously* mpressed." Whether such continuous compression is ıjurious or not is fair matter for discussion. Dr. Milne urray admits that under certain conditions it may be. But r. Murray's contention is beside the point. Professor ebster asserts that the head is more compressed with the dinary forceps than with the axis traction forceps. Your viewer says that with the ordinary forceps, properly used, ıe compression is done by the pelvis, not by the forceps, and therefore no more than is necessary and no longer than is ecessary, whereas with the axis traction forceps the comression is continuous. In this he still thinks he is right.—am, etc.,

February 6th. The Writer of the Review.

PROHIBITION OF DISPENSING BY DOCTORS.

Sir,—I bought a practice in a poor neighbourhood, the rivate receipts from which are about £150 per annum. In ldition to this I have in contract or Friendly Society work ur clubs; they are my mainstay, they pay £300 per annum, ive little trouble; some members pay 4s., some 5s. yearly. his makes my practice worth about £450 per annum. It ok me four years to work this up, and competition is keen. ow, if I were not allowed to dispense I should be hopelessly ined, for very few of my private patients could afford to pay edical man and chemist; and, as regards contract work, I iscussed the above question with the secretaries of the clubs. offered medical attendance on the members at a reduced te conditionally that they would obtain from and pay the hemist for medicines. The answer I got was they would ther get medicines and attendance from me as hitherto; if ot possible, they would unite with three large clubs belongıg to my neighbourhood and form a Friendly Societies' edical Institute, put all their families in, and get a surgeon give his whole time to the work. This means that the opulation of the place would be well depleted by the instite, and four of us would be swamped.

This is only one instance in which a general practitioner like myself *plus* three brother practitioners would be hardly hit or else ruined. I hope and pray that the advocates of this cruel and absurd idea will be frustrated in their attempt to legalize a scheme which would mean the absolute ruin of hundreds of hard-working conscientious medical men who attend the poorer section of the community—I mean those able and willing to pay a small fee and who would otherwise go to the hospital, central or branch provident dispensary which exists now in every provincial town; or worse perhaps, still go to their dispensing chemist for his advice and bottle of medicine.

To the rank and file of the general practitioners, I say "wake up" and strenuously oppose the Bill for prohibition of dispensing by doctors.—I am, etc.,

February 9th. L.R.C.P.

THE INFLUENCE OF SKIN GRAFTING ON THE RECURRENCE OF MORBID GROWTHS.

Sir,—The influence of skin grafting on the recurrence of morbid growths is a subject of great interest. I have found in cases of lupus that if the affected skin be excised, and skin grafting of the raw surface be employed, there is no tendency for the disease to recur; whereas, if the wound be stitched up there is a marked tendency to the formation of tuberculous nodules in the stitch-holes and scar. The same observation applies to keloid scars. I have also reason to believe that skin grafting exercises an inhibitory influence on the recurrence of sarcomata of the skin. I have not yet been able to satisfy myself that carcinomata are affected in the same way. I think the question is one which is worthy of investigation.—I am, etc.,

Belfast, Feb. 6th. Robert Campbell.

MEDICAL UNIONS AND THE BRITISH MEDICAL ASSOCIATION.

Sir,—In the British Medical Journal of November 21st, 1903, you publish some interesting correspondence by Dr. Jepson, of the County of Durham Medical Union, and Mr. J. S. Whitaker, regarding the action that should be taken by the existing medical unions in the matter of amalgamating with the British Medical Association. It may be of interest to your readers to know the steps which have been taken in this direction by the Fifeshire Colliery Surgeons' Association and the Fifeshire Branch of the British Medical Association.

The Colliery Surgeons' Association was formed in November, 1899, with the main object of securing a uniform fee of 6d. a fortnight (exclusive of medicines) throughout the collieries in Fife. Before the formation of the Association the fee in many districts stood at 4d. a fortnight, and in some of the small collieries this even included medicine. As this fee had been fixed over half a century ago, when the wages of the miners could not stand comparison with those enjoyed at present, it was natural that the medical men, handicapped as many were by increased salaries for assistants, and the much greater expenditure for instruments, etc., should feel that they were not asking too much in making the demand for a minimum fee of 6d. a fortnight.

A deputation of the Colliery Surgeons' Association met the executive of the Fife and Kinross Miners' Association, and, after they had expressed their views and met with a most courteous reception from the men's representatives, the latter unanimously agreed that the doctor's proposal was a fair one. Later on, in one district where there was some wobbling on the part of a practitioner of recent local standing, a public meeting of the colliers was held and addressed by representatives of the medical combination, and the matter was satisfactorily settled. The Colliery Surgeons' Association was also active in various other directions, constantly keeping an eye on the special interests of its members.

At the last meeting of the Fifeshire Branch of the British Medical Association it was agreed to form a Colliery Surgeons' Committee of the Branch, and the existing Committee of the Colliery Surgeons' Association were nominated for the duty. This Committee will exercise the same vigilance as hitherto in the special interests of members, and, where concerted action on the part of the profession may be required, will report to the Branch Council, and have the additional benefit of their backing and advice—practically the full weight of responsible professional opinion in the county. Naturally, in the case of any attempted "blacklegging" in a colliery district, this opinio would be of no small value.

Now, Sir, could a similar process not be carried out in the English and Welsh colliery districts, and in the other colliery districts of Scotland? At the annual meeting, representatives of such special committees could meet and discuss matters peculiar to their work, and perhaps in time (as the conditions of colliery work vary little in different districts), a uniform scale of fees might be arranged for colliery practice all over the kingdom. The collier is freely migratory, and when he comes into a district where a higher fee prevails than he is accustomed to, his voice is heard at the street corners and in his favourite public-house denouncing the latest pressure put on the downtrodden son of toil.—I am, etc.,

D. ELLIOT DICKSON,
Honorary Secretary of the late Fifeshire Colliery Surgeons' Association.

Lochgelly.

LIFE INSURANCE EXAMINATIONS.

SIR,—Dr. Rowland's interesting letter in the BRITISH MEDICAL JOURNAL of February 6th shows the excellent businesslike and commonsense view taken, and acted upon, by the medical practitioners in Lichfield.

Why cannot the same action be taken universally in various town and country districts, and thereby bring certain life insurance companies and other sweaters of the medical profession to reason? Doctors are always objecting to sweating, but they will only rarely take any joint action to check it. How different from the legal profession which has admirable laws to protect its members!

It is a curious coincidence that only yesterday did I try to persuade the members of the local medical society here to so amend a rule (twenty-four years old) as to permit such an important subject being discussed and joint action being taken for our mutual benefit and support. The result was a majority against such a reasonable proposition, notwithstanding statements published in the JOURNAL to the effect that two of the "cream of the profession" in this important town with a large medical school accept fees of 1s. 6d. or 2s. 6d. from one insurance company, and another company pays only 10s. 6d. for a full medical examination and answers to about 70 questions!

No wonder benevolent institutions for necessitous widows and orphan children of medical men are required when the husbands and fathers neglect the protection afforded them by simply combining to insist on adequate remuneration for such services rendered.—I am, etc.,

Cambridge, Feb. 7th. J. CHRISTIAN SIMPSON, M.D.

UTERINE VENTRIFIXATION.

SIR,—In reference to your leader on uterine ventrifixation in the BRITISH MEDICAL JOURNAL of February 6th I should like to state my experience.

I have had 17 cases in private practice, and of these I have been able to keep in touch with 9. Of the 9, 5 were operated on seven years ago and 4 five years ago. Of those done seven years ago, 2 patients have been twice pregnant. They each went to full term, and delivery was accomplished without the aid of chloroform or forceps. The children are still alive and healthy. Of the other 4 patients, 3 have been once pregnant and gone to term. Two required chloroform and forceps, by reason of the want of expulsive pains. This, in my opinion, was not consequent on the operation, as the uterus in each case had expanded and enlarged in the usual direction during pregnancy, and contracted firmly after the birth of the child. These 2 patients made a speedy recovery, and were able for their ordinary duties at the end of a fortnight.

I think the after-history of these cases is long enough to show that they may fairly claim to be "cured," and that the operation, in competent hands, is not, as a rule, followed by bad results.—I am, etc.,

Glasgow, Feb. 6th. JAS. W. WALLACE.

BALCONIES AT SANATORIA.

SIR,—I am much pleased to see that my old friend, Dr. Rufenacht Walters, has entered the lists as champion of the sanatorium without balconies.

Dr. Walters thinks my arguments in favour of balconies are too sweeping, but it is a question of balconies or no balconies, and the arguments I used are based on personal observation in countries where there are hotels with and hotels without balconies, and where the balcony is becoming steadily more generalized, and in the most modern first-class hotels is furnished to every room.

If Dr. Walters admits that the floor of the balcony reflects light at all, I do not see why it should reflect a less proportion in dull weather than in bright.

That less of the sky can be seen from a room with a balcony above is obvious, but how much less depends on many factors, and as you do not want to see the sky within a few degrees of the zenith, it is of little consequence that you cannot do so.

As a protection against rain the balcony unquestionably protects the face of the house. The room in which I am sitting has a balcony one metre wide, and the balcony above is at least 12 ft. away, and somewhat narrower, yet I can leave furniture on my balcony and it remains dry even in wet weather, unless the rain is driving straight towards the house.

I do not suggest that patients should sit on their balconies and get wet, but in driving rain the protection afforded by a balcony enables them to keep windows open which, in the absence of a balcony, would have to be shut.

I have no experience of glass roofs to balconies. The dining room at the Grand Hotel at Territet is cooled in summer by a revolving water-jet on the roof, but I have never heard this quoted as a drawback to the room. An awning may be rolled up when desirable.

I do not see why a bed should be regarded as a fixture. I should suggest that beds be supplied with large rollers so that they might be wheeled not only close to the windows, but actually out on to the balcony at suitable times.

I do not think that Dr. Rufenacht Walters's contention that a balcony which cuts off boisterous wind must deprive the patient of needful air in still weather is tenable, for, apart from the facilities for sitting out on the balcony, exchange of air in a room takes place by diffusion as well as by convection, and the balcony would not interfere with the former process.

I am quite alive to the hypothetical objection to balconies as cutting off light from the room below, but as this is not an actual objection in my experience of balconies as constructed here, I did not allude to it.

With regard to the "barrack" form of hotels and sanatoria, I did not perhaps fully express my meaning. I was not thinking of the question from an aesthetic, but from a sanitary point of view. The crowding of a large number of people into a single building is, in my opinion, most insanitary on account of infection of all kinds, and I foresee the generalization of hotel and sanatorium villages with properly-ventilated public rooms.

As Dr. Walters says, "Montreux is not England," but I have spent some thirty years in my native land, and do not consider its climate, in comparison with others, so bad as it is sometimes painted. On the whole, however, I consider that in the majority of cases of phthisis the best results are obtained at high altitudes, which provide dry, dust-free air, plentiful sunshine, and, in the majority of cases, balconies.—I am, etc.,

Montreux, Jan. 24th. STUART TIDEY.

LUMBAGO.

SIR,—The correspondence on lumbago must be of interest to many members of the profession from the fact that they know it by personal experience; and if some who have had it would give the conclusions they have reached as to its cause or even the course it runs, from their own personal observation, progress might be made in its prevention or treatment. As to my experience, the first attack occurred when over 30 years of age. I expect I must have been in my usual health, for I had been cutting a terrace with the lawn mower on a warm day in Whitweek. Having finished, I was washing just before dinner, about 1 p.m., and as I raised my head from the basin I was seized with a sudden pain in the back. I walked downstairs and sat through dinner, eating as usual, still the back did not feel right, and I lay down on the couch to rest it. After lying an hour or two I could not rise and had to be helped on to my feet, my legs feeling as if they were paralysed, and to move even a big toe was almost impossible. Three days in bed enabled me to get about again. That is a type of all the attacks I have had, and they have been many. Almost always they begin when making some effort that tries the back. The pain is over a spot that the point of the thumb can cover, on the joint between the sacrum and left ilium. I have found that when I wish to move, if I rub the gluteal regions (where there is always more or less tenderness to touch), I can do so with less, or even no pain, and I have come to regard such an attack, which I believe to be true lumbago, or what ought to be called so,

cross between a sprain and a neuralgia. It runs
ı families, it is very apt to recur, and there can be
ttle doubt it is dependent on the same cause which
roduces gout or rheumatism. From my own personal
bservation I believe that it arises from autointoxication.
cold east wind, checking the action of the skin, upsets
ıe system, and on the slightest provocation on the third day
·om the initial upset, if not sooner, the lumbago will begin.
have had cases to treat which were struck down as suddenly
ne day, get quite well the next by some simple means; but
ıat has never been my personal experience, and I am inclined
› think they must be of an entirely different nature, probably
ıuscular rheumatism, which true lumbago is not. Those
ho once have had this true lumbago are almost sure to have
repeatedly, unless they change their mode of living, and by
bstinence in eating, more especially in cold weather, prevent
ıat autointoxication which is its cause.—I am, etc.,

Hawick. JOHN HADDON, M.D.

CERTIFICATES FOR SCHOOL CHILDREN.

SIR,—When children are absent from school it is the
ustom in this district for the school attendance officer to
ave a blank certificate form at the homes of the absentees
ith instructions to take the same to their medical attendant
› be filled up, but the members of the local medical society
ave declined to fill up the same unless paid for by the
ducation Committee, who do not sanction any payment.
Iedical men here do not care to charge the parents for cer-
ficates which they do not want, nor are they inclined to give
ıem for nothing.

Although the onus of proof rests with the parents that a
hild is unfit to attend school, yet that does not necessarily
nply that such must be supported by professional evidence
hich might reasonably be reserved in the event of a prose-
ution, the cost of which would fall on the losing side. The
ıedical officer of health has been appointed medical officer to
he Education Committee, and the children are requested to
ttend at his office for examination. It is considered that
uch a condition is a liberty taken with the patients of general
ıedical practitioners, and it has been decided to ask the
Education Committee to pay the practitioners 2s. 6d. for pri-
ate cases, and 1s. for hospital and Poor-law cases, like the
ees under the Infectious Disease Notification Act.

I should be greatly obliged if the secretaries of medical
ocieties would inform me of fees paid in their districts for
chool certificates.—I am, etc.,

JOHN W. WELLS, M.D.,
Blackburn, Feb. 5th. Prov. Sec., Blackburn Medical Society.

YERBA MATE.

SIR,—In the BRITISH MEDICAL JOURNAL of October 24th, 1903,
our article under the heading of "An apparently harmless
timulant" was exceedingly interesting to me, and consider-
ng I have had something like fourteen years' experience in
bserving the therapeutical effects of Paraguayan tea or
erba, I think the few remarks I have to make may be
nteresting.

I can fully endorse all your correspondent has written with
egard to the beneficial results of maté drinking. There is
ıot the slightest doubt that to get the full benefit of Para-
uayan tea it is necessary to suck it through the metal tube
r "bombilla" according to South American custom, and if
ıot taken to excess it is one of the most sustaining and
timulating of beverages.

As your correspondent says, it is the *sine qua non* of all
outh American workmen; and it is astonishing the amount
f hard work a "gaucho" can stand if he is allowed to have an
ccasional suck at his maté pot. Many years ago I was
truck by the effect Paraguayan yerba had on the bowels; and
now consider it is one of the very best aperients existent. I
ıave records of many cases of chronic constipation in which
ascara sagrada and all the well known laxatives were tried
vithout effecting any permanent relief: maté, I may say, has
een my sheet anchor in such conditions, and it is something
o be able to affirm that I have never so far seen it fail in its
ction in producing a normal evacuation of the bowels. Again,
n cases of bilious dyspepsia with vomiting, with all its con-
omitant symptoms of headache, lassitude and chronic
onstipation, Paraguayan tea has simply worked wonders,
ınd I am almost convinced, after prolonged observation, that
Paraguayan yerba, apart from increasing intestinal secretion
ınd peristalsis, has a decidedly powerful action on the liver.
For Paraguayan tea to have its full effect, it is necessary that
it should be taken in the early morning on an empty stomach
and as hot as possible.

My directions to my patients are to rise every morning
about sunrise and suck some dozen matés, after which I
advise a glass of warm milk to be drunk, on the top of which
another dozen matés are consumed, in the meantime the
patient takes walking exercise; and I cannot remember a
single case which has not benefited.

Of course it is absolutely essential that the patient should
continue his maté drinking for some two months or more,
but it is hardly ever necessary to urge this, as the beneficial
results become so self-evident.

Paraguayan tea, like everything else in this world, does
more harm than good when taken in excess, and the custom
amongst the camp population of Uruguay of yerba drinking
the whole livelong day is one of the most fruitful causes of
chronic flatulent dyspepsia; nay, I firmly believe that the
abnormally frequent occurrence of cancerous stricture of the
oesophagus in this Republic may be laid at the door of the
pernicious habit many people acquire of continually pouring
boiling hot fluid down the oesophageal tube.

But I think I have said enough to prove that Paraguayan
tea, taken as I have pointed out, is of inestimable benefit to
that large class of patients whose lives become an actual
burden to them on account of the sluggish action of their
bowels; and I feel convinced that if English doctors will
only give Paraguayan yerba a trial, they will become as
enthusiastic in their belief of its beneficial action as yours,
etc.,

HERBERT J. WALKER, M.B.Edin., M.D.Uruguay,
Surgeon, Aguas Buenos Hospital, Durazno, Uruguay.

HONOURS FOR MEDICAL OFFICERS OF COLONIAL CONTINGENTS IN SOUTH AFRICA.

SIR,—None of the colonies can complain of the Mother
Country's want of appreciation of the services of the com-
batant officers of the various Colonial contingents; in fact, the
wholesale—and almost, it might be said, indiscriminate—
bestowal of C.B.'s, etc., on this branch of the Colonial
military services only serves to emphasize the astonishing
way in which the services of the medical officers of the con-
tingents have been passed over. I think I am not far wrong
in saying that, with the exception of New South Wales,
the other States of the Australian Commonwealth have
received nothing, and New Zealand has been entirely
ignored. When it is remembered that the majority of these
officers—who were every one of them carefully selected men—
mostly doing large practices, cheerfully exchanged the same
for, to say the least, the discomforts of active service, the
way in which they have been overlooked by those in authority
is the more difficult to understand. The only conceivable
reason appears to be that the Colonial troops, being mostly
mounted, were continually on trek, and consequently were
hardly ever under the eyes of the staff authorities. The good
work done, however, by these officers is well known in the
Colonies, and the troops themselves will not soon forget it.

It seems somewhat unjust that there should be no official
recognition of the work done and the sacrifices made by these
officers, simply because the purely military tactics did not
always turn out as successfully as might have been desired.—
I am, etc.,

COLONIAL.

PHYSICAL DEGENERATION.

SIR,—My attention has recently been drawn to an article on
physical degeneration by your Commissioner in the BRITISH
MEDICAL JOURNAL of November 28th, 1903, in which I am
stated to have said "that statistics for 1901 showed that,
where 25 women suckled their children, 200 fed them on the
bottle," etc.

Unfortunately, at the Conference referred to, I was very
badly reported, and had to write next day to the paper and
have the statement corrected.

What I did say was that, out of 317 children under 6 months
who died of summer diarrhoea in 1901, 25 were fed at the
breast only, while 292 were fed on cow's milk and other
prepared foods.

I urged the teaching of hygiene and instruction in the feed-
ing of infants to girls in the elementary schools as one means
of combating the ignorance which prevails on such matters.

It may interest you to know that out of 535 visits recently
paid to houses of the working class within a week after the
registration of a birth, 423 infants or 79 per cent. were found

to be fed on the breast only, 76 or 14.2 per cent. were having the breast and other food, while only 36 or 6.7 per cent. were being fed with a bottle.

This proves that the number of married women who work out of their homes in Sheffield is very small indeed, and yet there is an exceptionally high infantile mortality; the mischief is done later when all sorts of improper food are given to the infants coupled with other very insanitary conditions.

I am, etc.,

(Mrs.) FLORENCE J. GREENWOOD.
Sanitary Inspector.

Sheffield, Feb. 6th.

CANCER AND ITS ORIGIN.

SIR,—Although not a medical man I have for a long time taken a great interest in the question of the possible cause or causes of malignant growths. For various reasons it occurred to me some time ago that possibly such growths might in some way have relation to abnormal conditions of the essential reproductive glands. The remarkable papers on the subject recently published by Messrs. Farmer, Moore, and Walker, and also by Drs. Bashford and Murray, seem, to a certain extent, to point in the same direction. These observers have discovered that the earliest phenomenon that can be seen in incipient malignant growths is the replacement of the mode of division characteristic of the body cells by that which occurs normally in the case of reproductive cells. In order that this may take place either some influence leading to such mode of division must have come into play, or, on the other hand, some inhibitory influence must have been withdrawn. It is, I believe, very generally admitted that the testes and ovaries, in addition to the formation of the sexual cells, produce some internal secretion or secretions which have a considerable influence on the constitution generally. This being so, it appears to me just possible that either excess or deficiency of some such secretion may lead, if not actually to cancerous growths, at least to such a condition of the somatic cells that when they are subjected to some adverse circumstances—as, for example, continued irritation—such growths may be started. I merely venture to suggest that possibly it may be worth while for those working on this most important question to make some investigation along the lines indicated. The remarkable results attained by the use of thyroid extract in cases of myxoedema show at any rate the great importance of internal secretions, and a detailed study of the secretions of the sexual glands would no doubt be of great value even if it were found that they are without effect in the particular manner referred to.—I am, etc.,

CHAS. W. ANDREWS, D.Sc.Lond.

London, S.W., Feb. 4th.

SIR,—In the recent Bradshaw lecture on this subject, Mr. Henry Morris makes the following statement: "From nothing that we know up to the present time of the action of micro-organisms could the microbe theory throw the least light upon the causes of alleged direct inoculation of cancer from one person to another," followed by the question, "How can we, on the microbic theory, explain a glandular-celled carcinoma producing in another person a squamous-celled carcinoma, or a squamous-celled carcinoma of the tongue giving rise to a spheroidal-celled carcinoma of the mamma, or to a columnar-celled carcinoma of the stomach or rectum?"

So far I have not seen any reply made to these statements, and as it must not be supposed that the believers in the microbic theory are either wanting in courtesy or unable to answer them, I have ventured to reply, in the absence of a more able exponent.

Belief in the exogenesis of cancer naturally involves the belief in the existence of an infective agent—a micro-organism, either a microphyte or microzoon (which for conveniency may be called a microbe)—which exists either free or, what is practically the same thing, encapsuled in a dead epithelial or connective tissue cell, or which is encapsuled in a living cell.

In perfect health the organism may be considered immune from attack by this infective agent, but when a condition precedent has been established by continuous irritation, traumatism, chronic disease, degeneration of tissue from any cause, such as senility or obsolescence, by congenital susceptibility, etc., vulnerability is induced.

The action of the microbe consists in originating malignant proliferation either of the invading cells themselves or of the cells of the tissue invaded, epithelium or connective tissue, as the case may be, this being followed later on by metastatic dissemination and constitutional intoxication.

The pathognomonic feature of cancerous metastases is their formation by deportation of the proliferated infective cells themselves, and not of the infective microbes only, as occurs in other diseases such as tubercle, the new colonies increasing by farther proliferation of these immigrant cells and not of the cells of the invaded structures. This accounts for a columnar-celled cancer of the rectum, for example, having a metastasis in the liver composed of columnar rectal epithelium and not of hepatic tissue.

This peculiar feature of cancerous metastases is quoted as an argument against the microbic theory on the ground of absence of analogy to other microbic diseases disseminated by metastasis; but, apart from the absurdity of presuming that pathogenesis can be fettered by analogy, it must be remembered that analogy is entirely worthless for the purposes of proof, since at the best it can afford only probability.

The variety of cancerous tumours is certainly very considerable, but this variety wholly and solely depends on the tissue of origin and the accident of environment. Whatever the variety and wherever situated, malignant neoplasms one and all behave exactly alike, tending to ulcerate, forming metastases, constitutionally infecting the organism, and ultimately destroying it. One micro-organism only, therefore, is necessary to originate malignant action in any situation, the tissue attacked determining the variety of tumour.

If the microbe is in a free state or encapsuled in a dead cell, which amounts to the same thing, the resulting cancerous growth will consist of the proliferated elements of the tissue attacked. Thus the free microbe from a glandular-celled carcinoma will originate a squamous-celled carcinoma in another individual if it attacks such tissue; or the free microbe from a squamous-celled carcinoma of the tongue, for example, will give rise to a columnar-celled carcinoma of the stomach or rectum, or to a spheroidal-celled carcinoma of the mamma, or to any other variety of carcinoma according to the tissue attacked. Such infection is of course mediate or fortuitous.

If, on the other hand, the microbe is encapsuled in a living cell the tumour resulting from its malignant influence will be of the same nature as the invading cell itself, for it will be formed by the proliferation of the invading cell in its new situation, and not of the cells of the invaded tissue. Thus the microbe-laden living cell from, for example, a columnar-celled carcinoma will originate another columnar-celled neoplasm by the proliferation of the immigrant cell, quite irrespective of the structure of the tissue attacked. Such infection is immediate, and corresponds to autoinoculation by metastasis.

Doubtless the great majority of malignant neoplasms are due to mediate or fortuitous infection, but others also arise from immediate transmission, of which the following, recorded by Behla, is a notable example: A man presented himself at Tross's clinic suffering from cancer of the glans penis. This neoplasm was removed, examined microscopically, and found to consist, not of penile tissue but of uterine cervical elements, and it was further discovered that the man's wife was suffering from an ulcerated uterine cervical carcinoma. The long arm of coincidence cannot be successfully invoked here, and the only logical deduction to be drawn is that this was a case of undoubted direct transmission of cancer from one individual to another, and as such it must be accepted as proof of the transmissibility and external origin of cancer. Nor is this a solitary example, for Behla has the records of many exactly similar cases.

So great are the activity and vitality of malignant germ-bearing cells that even one single cell, left behind after operation for the excision of a malignant neoplasm, will produce it. Thus the infection of invaded tissue by microbe encapsuled in a living cell with subsequent proliferation of the latter, corresponds to what occurs after an unsuccessful operation.

As yet the infective agent of cancer has not been isolated, but neither have those of many other diseases admitted microbic, so that this must not be used as an argument against the theory of the exogenesis of cancer as so many are fond of doing. Non-discovery and non-existence are not synonymous.

In concluding his lecture Mr. Morris deprecates the pessimism of Katz, who deplored the acceptance of Cohnheim's theory, inasmuch as the fatalism underlying it would result in a standstill, and I must say that I consider Katz to be amply justified in his belief.

Mr. Morris, however, sees no occasion for such a pessimistic w, because, he assures us, the "tumour-germ" theory at st convinces us of the local origin of cancer, and its positive ability if removed completely and sufficiently early. Now fact is, or can be, proved by a theory; indeed, it is the ier way about; and that cancer is at the outset a purely al disease is an established fact which no theory can affect e way or the other.

Nor is there any comfort to the unfortunate individual who the subject of internal and inaccessible disease, however alized, in the fact that early and complete removal will cure al cancer; and absolute pessimism is inevitable, on Cohnim's theory, in cases where the disease has spread by tastasis and a state exists of general carcinomatosis.

It is a truism that no theory can be established or disproved mply by opinion; but were it possible that optimism could tablish one, it would be that of the exogenesis of cancer, for ile any other theory of the origin of cancer, if established, ust undoubtedly induce the most profound pessimistic alism, the establishment of the exogenesis of cancer would, the contrary, be a source of joy and relief to all mankind; it alone of all theories promulgated suggests the possility of thoroughly scientific and successful treatment of all ms of cancer, internal as well as external, and even of adnced constitutional intoxication, and also, which is even re important, it would afford a perfect system of prophyxis.

For my own part I believe that before very long the ogenesis of cancer will be proved to the satisfaction of all, t because the wish is father to the thought, but because the inical evidence in its favour is becoming daily more and ore abundant and convincing.—I am, etc.,

Driffield, East Yorks, Feb. 8th. A. T. BRAND, M.D., C.M.

THE ANGLO-AMERICAN MEDICAL ASSOCIATION OF BERLIN.

SIR,—The Anglo-American Medical Association of Berlin esires you to inform the profession of its organization and urposes. Realizing the difficulties which beset the path of ne stranger, the Association places its services at the disposal of physicians who intend to study in Berlin. They are ordially invited to attend the meetings which are held eekly, and any information concerning the work to be had ere will be gladly given to any member of the profession ho will communicate, on his arrival in Berlin, with Dr. J. H. onan, President, Lützowstrasse, 78, or with the undersigned ommittee.—We are, etc.,

ALBERT G. MAYER, M.D.,
Secretary.
DAVID SHANNON, M.D.Glasg.,
WM. W. GRAVES, M.D.

22, Albrecht strasse, Berlin, Feb. 3rd.

ISOLATION HOSPITALS.

SIR,—Dr. Moore's letter in the BRITISH MEDICAL JOURNAL f January 9th on this subject has not drawn many correspondents, but I venture to say it is not for want of agreement with his charges and conclusions.

We all recognize the value of small-pox isolation hospitals, ut scarlet-fever hospitals as instruments for suppressing the atter complaint must be acknowledged to be failures. They re no doubt useful, like general hospitals, for housing awkard cases, or as conveniences for the poor, but they do not, s far as my observation goes, tend to check the disease, but ather the contrary.

It would be interesting to know how often a scarlet-fever solation hospital, after once being established in a district to ope with an epidemic, is able to close its doors and rest from ts labours. I am afraid the rule is for it to feed itself with atients in the way pointed out by Dr. Moore and thus convert an epidemic disease into an endemic one. In my opinion he carting away, like social lepers, of patients discovered to be "skinning," and with no other signs, is, in the light of results, an official mistake. Dr. Moore's letter was worthy of much more response.—I am, etc.,

Birmingham, Feb. 2nd. BUCKLEY POGSON.

A NEW SANATORIUM AT DAVOS.—A meeting was held at Davos on January 18th, under the presidency of Dr. W. R. Huggard, British Vice-Consul, in furtherance of a scheme for the erection of a sanatorium in that place, to be known as the Queen Alexandra Sanatorium for Consumption. The chairman reported on the acquirement of a site and other matters. After several speakers had pleaded in favour of the project a sum of about 6,000 francs was collected in aid of the funds.

OBITUARY.

EDMUND ANDREWS, M.D.,

Professor of Surgery, North Western University, Chicago.

WE regret to announce the death of Dr. Edmund Andrews, the distinguished surgeon of Chicago, which took place on January 22nd. On January 17th he underwent an operation for stone in the bladder, and bore it well, but five days later symptoms of paralysis of the heart became manifest, and he speedily expired.

For forty-eight years Dr. Andrews had been engaged in the practice of surgery in Chicago; he retired from active work only two or three years ago. He was born at Putney, Vermont, in 1824, and received his literary education in the University of Michigan. He then studied medicine, and in 1852 took his doctor's degree at the same University. He then migrated to Chicago, where in 1857 he was appointed a Professor in Rush Medical College. He occupied that Chair three years. At that time only a two years' curriculum was required for graduation in medicine.

Dr. Andrews, who was strongly in favour of a longer course of training, in conjunction with five other men who held similar views, founded Lind University. That University was the first in the United States to require a four years' course. In 1860 it was absorbed by the North-Western University, and Dr. Andrews was appointed Professor of Surgery in the Medical School of that University.

Dr. Andrews served as a surgeon in the Civil War. In 1854 he founded the Chicago Academy of Sciences, of which he was for many years one of the most active supporters.

DAVID THOMSON PLAYFAIR, M.D.EDIN.,

Bromley.

THE news of the sudden death of Dr. David Playfair, of Bromley, Kent, which occurred on the 1st instant, will be heard with great regret by many members of the profession, and be deplored by the large circle of friends who knew and valued his sterling qualities of heart and mind. He was only 48 years of age—"dead ere his prime"—and gone in the midst of a busy and useful life. He had been in bad health since August, and during his holiday in Scotland in September alarming heart symptoms developed, and terminated in his sudden death when at Bournemouth.

Dr. Playfair was the eldest son of the Rev. David Playfair of Abercorn, N.B. The Playfair family has been a distinguished one in science and medicine for generations. His great-grandfather was Professor of Mathematics in the University of Edinburgh in 1785, and later occupied the Chair of Natural Philosophy. His cousin, the late Lord Playfair, was Professor of Chemistry in the same University, and the late Dr. W. S. Playfair—brother of Lord Playfair—was the well-known Professor of Obstetric Medicine at King's College.

David Playfair was educated at Blair Lodge, N.B., and went to Edinburgh University in 1870. He first attended some of the arts classes, and then matriculated as a medical student. He distinguished himself in botany, and gained the gold medal for the best herbarium. In medicine and surgery he took first-class honours. After graduating in 1877 he went to Paris, Tübingen, and Leipzig. On his return he became assistant to Dr. Hunter of Linlithgow, and then Assistant Medical Officer to the Royal Albert Asylum, Lancester. At the end of 1880 he settled down in practice in Bromley, Kent. His practice rapidly increased, and he was made Honorary Medical Officer to the Bromley Cottage Hospital.

He was an excellent surgeon, skilful and dexterous in manipulation. In medicine his knowledge was sound, and he endeared himself to his patients by his tact and kindliness. His contributions to medical literature were few but admirable, both in matter and style. He was a man of many talents, being an enthusiastic botanist, and his collection of British sedges was practically complete. He was a Fellow of the Linnaean Society, and of the Royal Botanical Society of Edinburgh. As well as being an excellent amateur photographer, he was a first-rate wood carver and carpenter, also a cultured musician, and a Member of the Bromley Musical Society, of which he was one of the original founders. His prowess with gun and rod is evident from the numerous carefully-stuffed specimens to be seen in his house. He was a genial and true friend, and his death has left a blank in many hearts.

During Dr. Playfair's illness he was under the skilful and

assiduous care of his friend and colleague Dr. Scott, and was devotedly nursed by his wife, with whom much sympathy is felt.

JOHN WHITE KEYWORTH, M.D.LOND., M.R.C.S., L.S.A.,
Adelaide.

WE regret to record the death of Dr. John White Keyworth, formerly of Birmingham, which occurred at Adelaide in South Australia on December 24th, 1903, at the age of 77. He commenced his professional studies in London at St. Thomas's Hospital in 1847. He distinguished himself as a medical student by the very large number of prizes he won, carrying off practically every honour that was possible. When he was a student he also showed considerable literary gifts, as he obtained three prizes at St. Thomas's for essays, two prizes for the Physical Society's Essay, and the Newman Smith Prize, for which he presented an essay on neuralgia. He became M.R.C.S. and L.S.A. in 1850, and took the degree of M.B. of the University of London in 1851 and the M.D. in 1857. He was Resident Surgical Officer to the Marylebone Infirmary for a short time, and then went to Birmingham. He was Lecturer on Physiology at the old Sydenham College in that city, and District Medical Officer and Public Vaccinator to the Aston Union.

Dr. Keyworth will be well remembered by the older generation of practitioners in Birmingham, where he enjoyed a large general and club practice in one of the poorer districts of the city for many years. Scholarly in his attainments, with a reserved manner of the old school, he was long an active member of the local medical societies, in which he took a leading part in the discussion of matters affecting the professional care of the industrial and poorer classes.

He went to Australia about twenty-three years ago, when advancing age and infirmities prevented him from fulfilling his hopes as to better health and extended work.

WE regret to record the death of Dr. WILLIAM DONALD, of Hazledean, Banff, who died recently after a long illness accompanied by much pain, which was only partly relieved about two months ago by an operation. Dr. Donald was the eldest son of Dr. William Donald, of Bogside of Eden, King Edward and graduated M.B., C.M. at Aberdeen University in 1873. He then became Resident Surgeon at Chalmers Hospital, and subsequently accepted a Civil Service appointment at Colombo, Ceylon. This post he held for some years, but. having married a daughter of the late Captain H. Deane, of Banff, he returned home and settled at Banff. There he very quickly acquired an extensive practice, and eventually occupied a variety of municipal and other official appointments, in addition to being Visiting Surgeon of the Chalmers Hospital. At one time he took a large part in the public affairs of the locality, and was a Justice of the Peace, a Member of the School Board, and an Elder of Banff Parish Church. More recently, owing to the increasing claims of his professional work, he found it necessary to give up active participation in the administrative affairs of the town. and for the same reason was led to take into partnership Dr. J. Hector Stephen. He was a member of the Aberdeen Branch of the British Medical Association, and in the district round Banff he was as highly respected as he was widely known. He will be greatly regretted by many people, and not the least by the poor of Banff, to whom he was ever a ready friend in time of trouble. He leaves behind him a widow and several children. His eldest son—a young medical man of much promise—died some four years ago in Cairo.

WE regret to have to record the death on January 29th of Dr. JOHN GEORGE NEVITT, of Brunswick Place, Leeds, and at one time of Chapel Allerton, a suburb of the same town. Dr. Nevitt was a student of the Leeds Medical School and after taking the diploma of M.R.C.S. England in 1867 he started practice in the same town and remained there all his life. He threw much energy into all that he did and as a practitioner had so much success as to be enabled to enjoy life in many ways outside of purely professional limits. At one time he used to put in a regular appearance in the hunting field and he continued to the last to take a keen interest in cricket. Cycling also had an attraction for him and he was an excellent and enthusiastic rider. He belonged to the British Medical Association and was also a very popular member of the Leeds and County Conservative Club. He leaves a wife, two sons and four daughters.

WE regret to have to record the death, on January 23rd, of Dr. WILLIAM HUTCHISON of Brightlingsea. Dr. Hutchison received his professional education at Glasgow, where he took the qualification of L.F.P.S. and L.M.Glasg. in 1854. Early in his career Dr. Hutchison volunteered for medical service with the army in the Crimea, where he saw much fighting, being present during the siege of Sebastopol and at the battles of Alma, Inkerman, and Balaclava; while on his return home and before finally settling down he went for a long cruise round the world. Finally, he took the degree of M.D.St. Andrews, and settled in practice at Loughboro', in which town he remained until some thirteen years ago, when he disposed of his practice, and for a time lived at Folkestone. Subsequently, however, he gave up practice altogether, and retired to Brightlingsea, where he spent the rest of his life. While at Loughboro' he was honorary surgeon of the Loughboro' Infirmary and Dispensary, and at the time of the Franco-Prussian war, he, with the assistance of Mrs. Hutchison, was instrumental in interesting the district in the work of the Red Cross Society, and in furnishing it with clothing, blankets, and money for dispatch to the seat of war. His death took place at his own residence at Brightlingsea, but his remains were removed to the house of one of his sons at Loughboro', and thence to their final resting place in the family vault in the cemetery of that town. Dr. Hutchison left a widow, two daughters, and two sons, one of the latter being a medical man.

A WELL-KNOWN and much respected medical practitioner in Salford has passed away in the person of Mr. WILLIAM CROSBY, who was born 78 years ago. He studied at King's College and obtained the diploma of M.R.C.S. in 1847. Few knew more of the life of the borough for the last half-century. He took a great interest in music, and indeed officiated as an honorary organist in one of the local chapels.

ROYAL NAVY AND ARMY MEDICAL SERVICES

ROYAL NAVY MEDICAL SERVICE.

PENROSE J. BARCROFT, formerly in His Majesty's navy, having been placed on the list of Volunteers for Service in the event of War or Emergency, is restored to the rank of Staff Surgeon, dated September 30th, 1888.

The following appointments have been made at the Admiralty: WILLIAM R. D. BRETON, Surgeon, to the *St. Vincent*, lent, February 6th; ROBERT D. JAMESON, Surgeon, to the *Racer*, lent, February 15th; HENRY B. BEATTY, Fleet Surgeon, to the *President*, for three months' course of hospital study, February 10th; ALBERT X. LAVERTINE, Surgeon, to the *Katoomba*, February 8th; ALBERT O. BOBARDT, M.D., to the *Euryalus*, for the *Wallaroo*, and for the medical dépôt at Sydney, February 8th.

Civil Practitioner CONRAD T. GREEN has been appointed Surgeon and Agent at Birkenhead, February 4th; and ERNEST E. ELLIOT to the same position at Dover, February 4th.

ROYAL NAVY VOLUNTEER RESERVE.

ALFRED C. E. HARRIS, M.B., has been appointed Staff Surgeon, February 3rd.

The undermentioned gentlemen have been appointed Surgeons, namely: JOHN N. D'ESTERRE, January 29th; CHARLES S. BREWER, L.R.C.S.; JOHN E. GEMMELL, M.B., and ARTHUR J. EVANS, M.R.C.S., February 3rd.

SCOTS GUARDS.

SURGEON-MAJOR W. C. BEEVOR, M.B., C.M.G., from the seconded list, to be Surgeon-Major, January 14th.

ROYAL ARMY MEDICAL CORPS.

LIEUTENANT-COLONEL T. ARCHER, M.D., retires on retired pay, February 6th. He was appointed Surgeon, February 5th, 1881; Surgeon-Major, February 5th, 1893; and Lieutenant-Colonel, February 5th, 1901. He was in the Soudan campaign in 1898, receiving the British and Egyptian medals, and in the South African war in 1899-1900.

The undermentioned Captains are promoted to be Majors, dated January 30th: H. D. MASON, E. M. PILCHER, M.B., D.S.O., H. P. JOHNSON, W. G. BEYTS, H. A. STALKARTT, M.B., H. N. DUNN, M.B., S H. WITHERS, M.B., E. M. MORPHEW, E. C. ANDERSON, D S.O., N. TYACKE, L. A. MITCHELL, M.B., C. C. FLEMING, M.B., D.S.O., J. HENNESSY, M.B., C. B. MARTIN, M.B., G. J. BUCHANAN, M.B., C. B. LAWSON, M.B., J. F. M. KELLY, M.B., G. S. CRAWFORD, J. D. ALEXANDER, M.B. Of these officers Major Mason joined the Department as Surgeon-Captain, January 31st, 1891; all the rest were appointed Surgeon-Lieutenants, January 30th, 1892, and made Surgeon-Captains January 30th, 1895. Their war records are as follow: H. D. Mason, South African war, 1899-1900. E. M. Pilcher, North-West Frontier of India in 1897 8 with the Tirah Expeditionary Force (medal with two clasps); South African war, 1899-1900, including relief of Ladysmith (mentioned in dispatches, D.S.O.). H. P. Johnson, North-West Frontier of India in 1897-8 with the Tochi Force (medal with clasp). W. G. Beyts, North-West Frontier of India in 1897 with the Kohat and Kurram Valley Force, including the engagement of the Ublan Pass (mentioned in despatches, medal with two clasps). H. N. Dunn, Dongola Expeditionary Force in 1896, including engagement at Firket and operations at Hafin (mentioned in dispatches, British medal, and Khedive's medal with two clasps); and with the expedition in 1898, including the battles of the Atbara (mentioned in dispatches) and

Khartoum (mentioned in dispatches, 4th Class of the Medjidie, two clasps); and in operations in 1899 (clasp). S. H. Withers, North-West Frontier of India in 1897-8 with the Tirah Expeditionary Force (medal with two claps); South African war, 1901. E. M. Morphew, North-West Frontier of India in 1897-8 with the Tirah Expeditionary Force (medal with two clasps); South African war, 1899-1900, including relief of Ladysmith (mentioned in dispatches). E. C. Anderson, South African war, 1899-1900 (mentioned in dispatches, D.S.O.). N. Tyacke, North-West Frontier of India in 1897-8 (medal with clasp); South African war, 1899-1901, including relief of Ladysmith, actions at Spion Kop and Vaal Kranz, and numerous subsequent operations (mentioned in dispatches, Queen's medal, with five clasps). L. A. Mitchell, North-West Frontier of India in 1897-8, including operations on the Samana Range, and afterwards with the Tirah Expeditionary Force (medal with three clasps); China Expedition, 1900 (medal). C. C. Fleming, campaign in the Soudan in 1898 as Senior Medical Officer during the operations on the Upper Atbara and in the engagement at Gadaref; afterwards in the defence of Gaderef and subsequent operations in the neighbourhood (mentioned in dispatches, D.S.O., British medal, Khedive's medal with clasp); South African war, 1902. J. Hennessy, South African war, 1899-1900. C. B. Martin, Chitral Relief Force in 1895 (medal with clasp); South African war, 1899-1901, including relief of Ladysmith (mentioned in dispatches). G. J. Buchanan, North-West Frontier of India in 1897-8 (medal with clasp). C. B. Lawson, South African war, 1899-1900. J. F. M. Kelly, Chitral Relief Force in 1885 (medal with clasp); North-West Frontier of India in 1897-8 with the Malakand Field Force (clasp); South African war, 1899-1900, including relief of Ladysmith and actions at Spion Kop, Vaal Kranz, etc. G. S. Crawford, North-West Frontier of India, 1897-8, with the Tirah Expeditionary Force (medal with two clasps); South African war, 1899-1900. J. D. Alexander, North-West Frontier of India in 1897-8 with Tirah Expeditionary Force (medal with two clasps); South African war, 1899-1900, including relief of Ladysmith, action at Colenso, relief of Mafeking, and subsequent operations in the Transvaal (mentioned in dispatches).

Lieutenant R. McK. SKINNER, to be Captain, January 2nd. His first commission dates from January 2nd, 1901.

INDIAN MEDICAL SERVICE.

THE following are appointed Lieutenants: FRANK P. CONNOR and GEORGE H. L. WHALE, September 1st, 1902; ROBERT KELSALL, M.B., JOHN H. BURGESS, M.B, JOHN McC. A. MACMILLAN, M.B., CLIFFORD A. GILL, WILLIAM E. J. TWOHY, TERENCE F. OWENS, RICHARD F. STEEL, M.B., GEORGE F. I. HARKNESS, ARTHUR C. INGRAM, M.B., GORDON W. MACONACHIE, M.B., ERNEST W. C. BRADFIELD, M.B., ALEXANDER W. M. HARVEY, M.B., CHARLES I. BRIERLY, JOHN B. D. HUNTER, M.B., and EDWARD T. HARRIS, August 31st, 1903.

The retirement from the service of Lieutenant-Colonel H. ALLISON, M.D., Madras Establishment, which has been already announced in the BRITISH MEDICAL JOURNAL, has received the approval of the King.

Major I. P. DOYLE, D.S.O, Madras Establishment, has also retired from the service from December 31st, 1903. He was appointed Assistant-Surgeon, September 30th, 1886. and became Major, September 30th, 1898. He was with the Burmese Expedition in 1888-9, was mentioned in dispatches, and awarded the Distinguished Service Order; he was also in the operations in Burma in 1891-2.

Lieutenant-Colonel H. K. MCKAY, C.I.E., Bengal Establishment, is granted the temporary rank of Colonel, from December 22nd, 1903, while officiating as Principal Medical Officer Presidency District.

ROYAL ENGINEERS. SUBMARINE MINERS (VOLUNTEERS).

SURGEON-LIEUTENANT J. E. WILSON, M.B., the Clyde Division, resigns his commission, February 6th.

VOLUNTEER RIFLES.

THE resignation of Supernumerary Surgeon-Captain W. P. PEAKE, 1st Volunteer Battalion the Leicestershire Regiment, which appeared in the *London Gazette* of January 5th, is cancelled.

Surgeon-Lieutenant W. CURTIS, 1st Volunteer Battalion the Prince of Wales's Volunteers (South Lancashire Regiment) is promoted to be Surgeon-Captain, February 6th.

ROYAL ARMY MEDICAL CORPS (VOLUNTEERS).

HENRY WADE, M.B, to be Lieutenant in the Edinburgh Company, February 6th.

Mr. ARTHUR E. JERMAN, to be Lieutenant in the Woolwich Companies, February 6th.

R.A.M.C.(VOLS.) LONDON COMPANIES.

PRESENTATION OF PRIZES.

THE COUNTESS HOWE presented the prizes to this corps at the Head Quarters, Calthorpe Street, on Saturday, February 6th. On the platform to support Lady Howe were Mrs. Squire, Sir Wm. Church, K.C.B., etc., President of the College of Physicians; Surgeon-General Evatt, C.B.; Colonel Sloggett, C.M.G., Principal Medical Officer, Home District; Lieutenant-Colonel Wilson, C.B., C.M.G., D.S.O., Assistant Director-General, A.M.S.; Major V. Matthews, and Major Gibbard, R.A.M.C., Adjutant.

Colonel J. E. Squire, in presenting the report of the preceding volunteer year, referred to the diminution in numbers which the corps had suffered, in common with many other volunteer corps. The resignations since the last prize-giving numbered 160, and in most cases the reason for leaving the corps was stated to be the difficulty in fulfilling the regulations as to attendance at camp. The work of the R.A.M.C.(Vols.) required intelligence and education, and men who were in permanent employment, like the class of men from whom the corps recruited, were unable to take their holidays exactly when they wished, as the men in receipt of daily or weekly wages generally could do. The recruits joining during the year numbered 57, the small number being probably due to the uncertainty and unrest in the volunteer force which the report of the Royal Commission now sitting would probably remove. Though the number had diminished, the efficiency of the corps was as good as ever it had been, and in some respects better than at any previous time.

Colonel Squire referred to his impending retirement from the command of the corps, with the formation of which he was actively concerned, and in which he had served since its commencement.

The prizes having been presented, Colonel Squire asked Lady Howe to unveil a memorial tablet recording the names of 86 officers, non-commissioned officers and men of the corps who had served in the war in South Africa. The tablet is of oak, the names being incised in five panels, above which are the title and arms of the corps, and the words "Active Service Roll, Boer War, South Africa, 1899-1902." On the flags which had hidden the tablet being withdrawn, the buglers sounded the Corps' Call and the Advance.

A vote of thanks to Lady Howe was proposed by Major Matthews, seconded by the Chaplain (Sir Borrodaile Savory), and carried by acclamation.

Lady Howe, in a few well-chosen words, expressed her pleasure in coming to give prizes to a corps which had furnished 46 men to the Imperial Yeomanry Hospitals and Bearer Company. It was the men who worked in the Yeomanry hospitals who had made them so successful, and those who had come from the R.A.M.C. Volunteers had been most highly spoken of by the officers under whom they had served. In conclusion, Lady Howe asked to be allowed to present to the corps a cup as a prize for efficiency in hospital duties, the conditions of the competition to be decided by Colonel Squire.

The evening concluded with dancing, Lady Howe taking part in the opening set of lancers.

VOLUNTEER INFANTRY BRIGADE BEARER COMPANIES.

SUPERNUMERARY SURGEON-CAPTAIN W. P. PEAKE, from the 1st Volunteer Battalion the Leicestershire Regiment, to be Captain, and to command the Leicester and Lincoln Company, January 6th.

THE "PRIOR CLAIM" TO EMPLOYMENT.

BRIGADE-SURGEON-LIEUTENANT-COLONEL P. B. GILES (Bletchley) writes: However sore A. may feel by being superseded by B., B. is strictly within his rights when he applied for what he had been promised. Under a Royal Warrant, the emolument derived from local recruiting is one of the inducements to join the Army Medical Reserve. When I gave evidence before the Duke of Norfolk's Commission, I tried very hard to drive home the fact that the general dissatisfaction throughout the Volunteer Medical Service was attributable to so many promises made to the service being ignored. I also tried to point out the only absolute justice of giving priority of appointment to surgeonships to gaols, post office, police, and recruiting to those who are volunteer medical officers as a recognition of the duties they perform gratuitously for a public service, and as an inducement for young practitioners to join a service that requires them not only to devote quite a considerable amount of time, but also to spend money at a period of their career when patients are scarce. *Res angusta domi*, from my expeience as Senior Medical Officer of the Volunteer Ambulance School of Instruction alone prevents many most desirable aspirants from joining the service. Make the Volunteer Medical Service a reality, and you have a body sufficient and efficient enough to supply any national emergency.

SURGEON-MAJOR REGINALD SLEMAN, A.M.R. (London, W.), writes: I write with reference to your remarks on p. 341 of the BRITISH MEDICAL JOURNAL for February 6th. As you say, the notice given to A. terminating his engagement was very short; on the other hand, it may be asked why he did not take steps to obtain a commission in the Army Medical Reserve of Officers and so qualify for the appointment? The regulations are very clear on the subject. Para. 379 of the Royal Warrant says that these engagements of civilian practitioners are of a temporary nature, and for however long a period they may have been held are terminable according to the exigencies of the service and without any previous notice. As to B., all volunteer medical officers will recognize his prior claim to employment in accordance with Para. 54, Army Medical Regulations, and considering the amount of gratuitous professional work which these officers do, and their expenses in attending camp, corps subscriptions, etc., surely it is only fair that when a chance occurs they should be selected for employment in charge of the King's troops. Some people sneer at "contract rates"; I consider them generally reasonable, and any special duties outside the range of ordinary medical attendance are, by a recent Army Order, to be considered for higher remuneration.

THE VICTORIA CROSS.

M.D. draws attention to some statistics of the Victoria Cross which lately appeared in the *Daily Telegraph*. The number of awards since the institution of the coveted decoration in 1856 is given at 519, but in the analysis which follows of the various branches of the services in which it has been conferred the total is 524, including three Indian civilians. The curious part of the analysis, however, is that under "Medical Corps" the number "8" is given, with an explanation in brackets, thus ("26 doctors altogether"). Our correspondent naturally asks, What does the compiler mean? We cannot say, unless the "doctors" are already included in the various branches of the service in which they chanced to be serving when they were awarded the decoration. As the total is inaccurate, so are probably some of the items What the compiler means by "8" under Medical Corps we cannot say, or whether that should be added to or substracted from the "26 doctors." At page 113 of *Whitaker's Almanack*, 1904, the names of 17 surviving officers and men of the medical services who wear the Victoria Cross are given.

MEDICAL OFFICERS OF THE AUXILIARY FORCES.

THE annual dinner of the medical officers of the auxiliary forces will take place at the Imperial Restaurant, Regent Street, London, on Friday, April 15th, at 7.30 p.m. The chair will be taken by Lieutenant-General Lord Grenfell, G.C.B., G.C.M.G., Officer Commanding King's Royal Rifle Corps. Tickets 10s. 6d. each, may be had from Lieutenant Montgomery-Smith, 36, Abbey Road, N.W.

THE RED CROSS SOCIETY IN AMERICA.

MR. DANIEL, of Virginia, has introduced a resolution in the United States Senate directing the Secretary of State to inform the Senate whether or not the Department of State has made the following or similar inquiries of foreign Governments respecting the Red Cross Society, and, if so, what replies, if any, have been received: What financial support, if any, does the Government give to the Red Cross Society? Does the Government appoint any of the officials or directors of the Red Cross Society? How

is the society organized in respect to its equipment for active field work? How is the executive and office staff organized? What sources of income and revenue other than the Government provides? How are its accounts kept and audited? What check, if any, is provided to protect the funds of the society against carelessness and dishonesty on the part of its agents in the field? What is the extent and character of Government supervision respecting the organization, finances, and work of the society? Has the society the confidence of the leading people of the country? Does it receive valuable money contributions from private sources?

MEDICO-LEGAL AND MEDICO-ETHICAL.

THE PLEA OF INSANITY.

ON February 4th, Mr. Justice Ridley, sitting at the Oxford Assizes, heard the case of R. *v.* Bond, in which the plea of insanity was raised in somewhat unusual circumstances.

Mr. T. Mordaunt Snagge appeared for the prosecution; Mr. Cecil Walsh for the defence.

According to the case for the prosecution, the defendant, who was 63 years of age, was charged with having committed indecent assaults upon a number of little girls. Only two charges, however, were proved against the prisoner, and the facts alleged were substantially admitted.

In the course of his address to the jury Mr. Walsh stated that the prisoner's father had suffered misfortune, with the result that Mr. Bond had a considerable struggle to educate himself. He obtained a high degree at Dublin University. He then took orders and became a master at various schools, and finally was appointed mathematical master at an important public school. Eventually he was appointed chaplain of a county lunatic asylum, a position which he occupied until he retired voluntarily after twenty-seven years' service. After this he accepted a small living, and about this time symptoms of mental affliction, which led him to commit acts of the nature complained of, began to manifest themselves. A charge having been brought against him of an act of indecency with a little girl, it was dismissed by the magistrate; but the accused resigned his living, and went to live near Oxford with his wife, who was 72 years of age and very infirm. The evidence of experts would be called to prove that the prisoner was unable to exercise any will at all when these attacks came upon him, that he had no moral judgement in the matter, and that he was the victim of incurable mental disease.

Dr. Theophilus Berkeley Hyslop, M.D., Senior Physician at the Bethlem Royal Hospital, London, etc., called on behalf of the defence, said that he had visited and examined the accused on February 2nd. In his view the accused was suffering from senile brain decay, with incompetency to manage himself. He was suffering from vascular degeneration of the body and brain, as evidenced by the actual state of the arteries, attacks of giddiness with temporary confusion and loss of memory, and numbness of his limbs which had progressed during the last eighteen months. In his (the witness's) view the accused was undergoing progressive deterioration. When questioned as to the acts complained of, he was not able to verify or deny them. His will power was defective, and he suffered from constantly recurring ideas of a perverse sexual character which were imperative and uncontrollable. He was aware of the immorality and illegality of the acts attributed to him. He (the witness) doubted whether the law could relieve him from his misery or clear his mind of the abhorrent ideas which kept recurring. The accused was in such a state that he required medical supervision and treatment. He would grant a lunacy certificate in such a case.

Charles Mercier, M.B., M.R.C.P., F.R.C.S., gave evidence to the like effect, and stated that he would probably have granted a lunacy certificate in the circumstances.

In submitting that the above evidence was sufficient to show that the defendant was not responsible for his actions, Mr. Walsh contended that the opinions of the judges in Macnaghten's case were not to be taken as constituting a binding rule applicable to every case, and that the advance of medical science, together with the more recent dicta of criminal lawyers, had modified what was formerly regarded as the strict rule of law on the subject. Mr. Justice Stephen was quoted as having laid down in his *General View of the Criminal Law* that "no act is a crime if the person who does it is at the time when it is done prevented, either by defective mental power or by any disease affecting his mind (*a*) from knowing the nature and quality of his act, (*b*) from knowing that either that act is illegal or that it is morally wrong, or (*c*) from controlling his own conduct, unless the absence of the power of control has been produced by his own default."

Mr. Justice Ridley, however, ruled that the real question was whether the state of the prisoner's mind was such that he was unable to distinguish right from wrong.

In the course of his summing-up Mr. Justice Ridley said, the question you have to answer is whether prisoner was responsible for his actions at the time he committed those actions. I wish to speak with great respect for the doctors called, but it is your duty to follow such evidence with a critical mind and judge it. The question is whether the prisoner knew the offence was wrong at the time it was committed. If he did not know it was wrong he is entitled to a verdict which will consign him to a lunatic asylum. I entirely repudiate the idea that mere decay of the faculties is evidence of insanity, or that a person suffering from senile decay is not responsible for his actions. I ask you to exercise your common sense as men of the world.

The jury, after a short deliberation, found the prisoner guilty, and the learned judge passed a sentence of six months' imprisonment with hard labour.

LECTURES ON MEDICAL JURISPRUDENCE.

ON February 4th Dr. F. J. Waldo, Coroner for the City of London, delivered the fourth of his series of lectures before the Council of Legal Education, at the Old Hall, Lincoln's Inn. The subject was Insanity in its Medico-Legal Aspects.

The lecturer first described at some length the various types of "medical-insanity" from the modern point of view, namely, mania, melancholia, delusional insanity, general paralysis, dementia and idiocy. One practical fact insisted upon was the necessity of a medical examination of persons of previously blameless lives who suddenly committed some offence. It not infrequently happened that the prisoner was the unhappy victim of general paralysis, and therefore not responsible for his actions. The interesting subject of "police court insanity" was also illustrated.

The legal attitude with regard to insanity was discussed, chiefly in its particular application to the criminal responsibility of the insane. The history of English law bearing upon this point was briefly sketched out. Prior to 1843 the law pertaining to criminal responsibility from the time of the Romans underwent a gradual and progressive evolution. Lord Hale, in 1675, ushered in the first great advance in ruling that "if a traitor become *non compos mentis* before conviction, he shall not be arraigned; if after conviction he shall not be executed." In 1843 the Lords laid down a number of rules after the well-known Macnaghten case. They repudiated the old test of sanity as an abstract knowledge of right and wrong, and substituted a knowledge of right and wrong as regards the particular crime of which a person is accused. Numerous authorities and cases were cited in illustration of the various points raised by the lecture, which was closely followed by a large and attentive audience.

MEDICAL WITNESSES' FEES IN CRIMINAL CASES.

EXPENSES.—Neither our correspondent nor the prosecuting solicitor in the case appears to have been guided by the new regulations of the Home Secretary, an abstract of which was published in the BRITISH MEDICAL JOURNAL of January 2nd, p. 30, and which are at present the only legal scale. Under these regulations our correspondent, living more than three miles from the court-house, would be entitled to 2 guineas a day for each day on which he was four hours absent from home in order to give evidence, making for the two days, if four hours away on each day, 4 guineas, with, in addition, the railway fares actually paid. If not detained four hours from home, the allowance per half day under Regulation 7 would be 1 guinea, with, of course, railway expenses. As to any subsequent rectification of any mistake in paying either too much or too little, that appears, from the evidence given before the Departmental Committee at the Home Office last year, to be legally impossible. The certificate given for the payment of witnesses cannot be gone behind or disputed, even by a Local Government Board official auditor. In the *Appendix* to the *Evidence* given before the above Committee, a correspondence is published in which the attempt had been made, where a medical witness had been paid a guinea instead of 10s. 6d., the supposed right fee; but the Board decided against the auditor, and cited the Acts of Parliment on which it based its decision. If the prosecuting solicitor should, as he threatens, take the matter into the county court, our correspondent should procure through his bookseller a copy of the *Evidence* referred to, and he will find at p. 56 of the *Evidence* and p. 142 of the *Appendix* the matters referred to. (*Evidence before Departmental Committee on Allowances to Prosecutors and Witnesses in Criminal Prosecutions.* London: Eyre and Spottiswoode.)

PROFESSIONAL CONDUCT.

COLLUSION writes to ask what view the General Medical Council or the Law Society would be likely to take of the conduct of a medical practitioner and solicitor who acts in what he calls "collusion," giving as an instance that if the medical man is in attendance upon a case of accident or injury he passes the patient on to a solicitor, who sets the law in motion, and in the event of success the solicitor and doctor retain a large proportion of the damages over and above their costs. He states that in one case the patient was dissatisfied, and on appeal to the High Court a large sum had to be refunded.

*** There is nothing to prevent a medical practitioner recommending a particular solicitor to his patients any more than there is to forbid a solicitor recommending a medical practitioner. This is often done out of friendship or relationship, and cannot be called collusion; but if the medical practitioner has a bargain with the solicitor to have some share in the profits of cases recommended by him it might come within the terms of the recent Act for the Prevention of Corruption. Where a solicitor takes up an action on behalf of an impecunious client he no doubt frequently considers himself entitled, if successful, to obtain a considerable proportion of the damages. We have heard that this is done by firms of quite respectable standing. It is, however, a matter of legal ethics upon which we can express no opinion here. The client has his remedy if he considers that he is being unjustly treated.

CLUB PRACTICE.

JUNIOR.—A. and B. are practitioners in a country town where A. has the bulk of the practice and keeps four assistants, while B. has lately started and is single-handed. A patient who pays club subscriptions to both consulted B., who offered to perform a minor operation for 2 guineas, but he subsequently learnt that A. had performed the operation for nothing. On being asked for an explanation, A. said that it was not his practice to charge club patients an extra fee for any operation which he could do with the help of his assistants, and that he had as much right, having assistants, to do the operation for nothing as B. had to do it for 2 guineas with the help of another practitioner. B. asks whether A. is justified in his action, and how far his general contention is right?

*** If we understand A.'s argument correctly he implies that the 2 guineas would not have gone to B., but to some outside practitioner who would have assisted him; therefore B. would have performed the operation for nothing, and there was no actual difference so far as A. and B. are concerned in the rate of payment. Such reasoning is over subtle. It seems to us that A. has nothing to do with the way in which B. might deal with the fee. The real point is whether one practitioner is justified in performing for nothing an operation which his neighbour has offered to do for a fee. The answer must depend upon the circumstances of the patient. If underselling is always wrong, this is certainly underselling, and therefore wrong, but we cannot lay down any such absolute rule. If A. had taken his ground upon his right in suitable cases to give his services for nothing, and claimed that this case was suitable, we do not think there would have been anything more to be said, but if the club rules except operations from the services covered

the club subscription, and if the patient in question was quite able pay the moderate fee asked, A.'s action was unfair and contrary to e interests of the medical profession.

QUALIFIED MEDICAL PRACTITIONERS AS DENTISTS.

.—That the exercise of a statutory right can constitute a breach of ofessional ethics is an idea hardly to be entertained. Medical men usually very chary of undertaking the treatment of cases in those partments of practice in which it is recognized that special knowge and special aptitude are called for, but it is no more possible to down that a medical man ought not to undertake dental practice an it would be to lay down that he ought not to undertake ophthalmic ses, or aural cases, or abdominal operations unless he has more or s become a specialist in those directions. The propriety of his doing must be left to his own feeling as to his competence, and cannot made subject to any ruling as to ethics or etiquette.

ADVERTISEMENT OF MEDICAL WORKS IN THE LAY PRESS.

—The case has been referred to the Ethical Committee.

NEWSPAPER NOTICES OF MEDICAL PRACTITIONERS.

IPLAY.—It is scarcely reasonable to complain of a newspaper account a complimentary banquet with the usual accompaniment of flatter- speeches.

CLUB COLLECTORS.

N NEATH.—While there may be no objection to the employment of a lector to receive club subscriptions, yet where such men are paid a mmission on the amount they collect they are apt, in their own erests, to become canvassers and thereby to infringe ethical rules.

UNIVERSITIES AND COLLEGES.

UNIVERSITY OF OXFORD.

THE PHILIP WALKER STUDENTSHIP IN PATHOLOGY.

UDENTSHIP in Pathology has just been founded in the University by Philip Francis Walker for the furtherance of original research in ology. The studentship is to be of the annual value of £200, and may creased, if at any time the income of the endowment fund exceeds , to any sum not exceeding £300. Prizes or grants may also be made the fund under similar circumstances to persons engaged in patho- al research. The studentship is not confined to members of the Uni- ity and is open without limitation of age or sex. It is to be awarded e managers of the fund upon the report of the Reader in Pathology he respective qualifications of the candidates, and is tenable for three s from election, with a possible extension on the recommendation of Reader for a further period of two years.

uring his tenure of the studentship the student is prohibited from owing any business or profession, or engaging in any educational or r work which in the opinion of the managers of the fund would in- re with his original inquiries. The place and nature of the studies he student are to be subject to the approval of the Reader in Pathology, ided that the student shall be bound to pursue his studies within the versity during at least three terms of this tenure of the studentship, ss this requirement be dispensed with for special reasons. The full ils of the Decree of Convocation and the regulations governing the entship are published in the *Oxford University Gazette* of February 2nd iversity Press, 116, High Street, Oxford. Price 3d.).

RESEARCH FELLOWSHIP.

. John's College will shortly proceed to elect as an Ordinary Fellow a on whose attainments in literature, science, or art shall in their gement qualify him to be a Fellow, and who shall undertake, if re- ed, to perform some definite literary, scientific, or educational work the College, or in the University, or (under the direction of the College he University) elsewhere.

plications (together with any evidence of qualification which the can- ate may desire to submit) may be sent to the President before Feb- ry 20th, 1904, and may include a statement of the work which the can- ate proposes to perform, if required.

UNIVERSITY OF CAMBRIDGE.

ards of Electors.—The following have been appointed electors to the fessorships indicated: *Chemistry*, Professor J. J. Thomson; *Anatomy*, M. Foster; *Botany*, Professor Clifford Allbutt; *Jacksonian (Chemistry)*, William Ramsay; *Downing (Medicine)*, Sir M. Foster; *Zoology*, Mr. J. Clark: *Physics*, Professor R. B. Clifton; *Physiology*, Professor Clifford utt; *Surgery*, Sir Frederick Treves, Bart.; *Pathology*, Professor R. r.

UNIVERSITY OF LONDON.

The Physiological Laboratory.

T physiological laboratory of the University of London has been uded in the list of institutions where scholarships granted by the al Commissioners for the Exhibition of 1851 can be held.

Preliminary Scientific Examination.

e fees for the Preliminary Scientific Examination for the external dents have been revised as follows: Every candidate entering for the liminary Scientific Examination must pay a fee of £5 to the External istrar. This fee covers the whole examination, whether taken gether or in sections. If a candidate withdraws his name before the day of entry the fee shall be returned to him; if he withdraws ween the last day of entry and the commencement of the examination, shall be admitted to the next similar examination for half the amount he fee paid for the first entry. If he fails to pass the examination, or er section of it, he shall be allowed to enter again on payment of £5 the whole examination, or £2 for each subject in which he failed.

Recognition of Teachers.

r. C. S. Myers has been recognized as a teacher of psychology at King's lege; Dr. R. G. Hebb as a teacher of pathology at the Westminster Hospital Medical School; and Mr. J. H. Fisher, Dr. Percy Flemming, Dr. Arnold Lawson, and Mr. C. Devereux Marshall as teachers of ophthalmology at the Royal London Ophthalmic Hospital.

ROYAL COLLEGE OF PHYSICIANS OF EDINBURGH.

A QUARTERLY meeting of the Royal College of Physicians of Edinburgh was held on Tuesday, February 2nd; Dr. Clouston (President) in the Chair.

Introduction of New Fellows.

James Taylor Grant, M.B., C.M., F.R.C.P.Edin.; Charles Cromhall Easterbrook, M.D., F.R.C.P.Edin.; Edwin Bramwell, M.B., C.M., F.R.C.P.Edin.; and John Malcolm Farquharson, M.B., C.M., F.R.C.P.Edin., were introduced and took their seats as Fellows of the College.

Admission to the Fellowship.

Stuart M'Donald, M.B., C.M.Edin., M.R.C.P.Edin., Edinburgh, was admitted by ballot to the Fellowship of the College.

Admission to the Membership.

On a ballot the following candidates were admitted to the Membership of the College after examination: William Leslie Mackenzie, M.D.Aberd., Edinburgh; Clarence Brian Dobell, M.B., C.M.Edin., Edinburgh; and Francis Lionel Provis, L.R.C.P.Lond., M.R.C.S.Eng., F.R.C.S.Edin., London.

Admission to the Licence.

The Registrar reported that since the last quarterly meeting thirty-nine persons had obtained the Licence of the College by examination.

Parkin Prize.

It was announced that the Council had resolved to offer the Parkin Prize for competition during the current year, the subject to be, in terms of the deed, "On the curative effects of carbonic acid gas or other forms of carbon in cholera, for different forms of fever and other diseases." Essays to be received by the Secretary up to December 31st, 1904.

Mason Donation for Research.

It was announced that Mr. J. Francis Mason, Woodstock, Oxfordshire, had intimated the continuance of his donation of £200 to the laboratory for the purposes of research on the ductless glands.

Appointment of Representative of the Royal College of Surgeons on the Laboratory Committee.

The Secretary announced that Dr. James William Beeman Hodsdon had been appointed as Representative of the Royal College of Surgeons on the Laboratory Committee.

Sanitary Institute Congress.

It was remitted to the Council to nominate delegates to the Congress of the Sanitary Institute, to be held in Glasgow in July, 1904.

ROYAL COLLEGE OF SURGEONS OF EDINBURGH.

AT a meeting of the College on February 3rd the diploma of Licentiate of the College held by Mr. Thomas Richard Allinson, of 4, Spanish Place, Manchester Square, London, W., was unanimously recalled and declared void, whereupon he ceased to be a Licentiate of the College.

TRINITY COLLEGE, DUBLIN.

CANDIDATES have passed examinations as under:

Final in Midwifery.—C. J. Coppinger, K. R. C. Hallowes, R. C. Hallowes, H. M. Crawford, W. M. Wade, Rev. R. B. Bryan, C. J. Wyatt, D. C. Pearson, O. J. Parry-Edwards, M. FitzFibbon, H. T. Marrable, T. Wilson, H. Stewart.

Section B.—J. Cunningham, R. Magill, J. A. Sibthorpe, J. H. C. Thompson, W. L. Myles.

Final in Surgery.—W. M. Wade, T. C. A. Sweetnam, R. Bailey, C. E. Moore, W. S. S. Berry, W. P. Tate, J. C. Hall, H. Stone.

ROYAL COLLEGE OF PHYSICIANS OF IRELAND.

AT the monthly business meeting of the College on February 5th the thirteen successful candidates in the Final Examination of the Conjoint Board in Ireland (see below) were admitted to Licences in Medicine and Midwifery.

CONJOINT BOARD IN IRELAND.

CANDIDATES have passed examinations of this Board as undernoted:

Second Professional Examination.—First Trial: E. F. Gilligan, H. M. Harrison, R. Martin, H. S. Moorhead, S. McCausland. Second or Subsequent Trial: C. J. A. Corby, J. B. Kelly, J. J. Murphy, O'C. J. O'Reilly, R. J. Smallman, J. Smith, E. C. Wallace.

Third Professional Examination.—All Subjects: M. Campbell, C. L. Browne, G. Thomason, C. H. Twells. Completing: A. C. Adams, M. Antony, F. L. Bradish, W. C. Carson, E. Duffy, J. C. Heelan, Miss Lardner, J. Roberts, P. P. Ryan, R. H. Smythe, W. Tobin.

Final Examination.—All Subjects: C. L. Browne, G. Thomason, C. H. Twells. Completing: R. G. Allen, F. W. Brunker, J. Cuffe, M. W. Kelly, T. Kelly, J. Quirke, J. W. Rutherford, M. C. Sage, W. W. Stuart, Miss A. Taylor.

Diploma in Public Health.—J. P. Dee, M.B., R. J. George, M.B., C. A. Johns, M.B., J. M. S. Levis, L.R.C.P.&S.I. (Honours), T. J. Nicholl, L.R.C.P.&S.I., E. M. J. O'Farrell, F.R.C.S.I., T. Rhind, M.R.C.S., L.R.C.P., A. W. Sampey, L.R.C.P.&S.I., Lieutenant R.A.M.C. (Honours), E. J. Tynan, F.R.C.S.I.

SOCIETY OF APOTHECARIES OF LONDON.

THE Gillson Scholarship in Pathology of the annual value of £90 has been awarded to Mr. Leonard Stanley Dudgeon, M.R.C.P.Lond.

EDINBURGH ROYAL INFIRMARY RESIDENTS' CLUB.—It has been arranged to hold a last kitchen concert in the kitchen of the old infirmary (the late City Hospital) on Friday, March 11th, at 8.30 p.m. As the accommodation is very limited those who wish to be present should make early application to Dr. Claude B. Ker, the City Hospital, Colinton Road, Edinburgh.

PUBLIC HEALTH
AND
POOR-LAW MEDICAL SERVICES.

EPIDEMIC MORTALITY IN LONDON.

[SPECIALLY REPORTED FOR THE BRITISH MEDICAL JOURNAL.]

THE accompanying diagram shows the prevalence of the principal epidemic diseases in London during the fourth, or autumn, quarter of 1903. The fluctuations of each disease, and its relative fatality as compared with that in the corresponding periods of recent years, can thus be readily seen.

Small-pox.—Three fatal cases of small-pox were registered in London last quarter, against 5, 2, and 3 in the three preceding quarters. Of these 3 fatal cases, 2 belonged to the City of Westminster and 1 to Stepney. The number of small-pox patients admitted into the Metropolitan Asylums Hospitals during the quarter was 94, against 39, 161, and 120 in the three preceding quarters; 26 cases remained under treatment at the end of the quarter, against 13, 57, and 21 at the end of the three preceding quarters.

Measles.—The deaths from measles, which had been 671, 759, and 247 in the three preceding quarters, rose again to 376 during the three months ending December last, but were 162 below the average number in the corresponding periods of the ten preceding years. Among the various metropolitan boroughs, measles showed the highest proportional fatality in Kensington, Hammersmith, Fulham, St. Marylebone, Shoreditch, and Wandsworth.

Scarlet Fever.—The fatal cases of this disease, which had been 109, 82, and 91 in the three preceding quarters, declined again last quarter to 90, and were less than one-half of the corrected average number. This disease was proportionally most fatal in St. Marylebone, Finsbury, the City of London, Shoreditch, Bethnal Green, and Poplar. The number of scarlet fever cases in the Metropolitan Asylums Hospitals, which had been 1,704, 1,614, and 1,849 at the end of the three preceding quarters, had declined again to 1,606 at the end of last quarter; 2,416 new cases were admitted during the quarter, against 2,705, 2,681, and 3,006 during the three preceding quarters.

Diphtheria.—The deaths referred to diphtheria in London, which had been 241, 175, and 147 in the three preceding quarters, rose again to 189 during the three months under notice, the average number in the fourth quarters of the ten preceding years being 661. Among the various metropolitan boroughs the greatest proportional mortality from this disease was recorded in St. Marylebone, Stepney, Poplar, Battersea, Deptford, and Greenwich. The number of diphtheria patients under treatment in the Metropolitan Asylums Hospitals, which had been 903, 781, and 671 at the end of the three preceding quarters, had risen again to 734 at the end of last quarter; the number of new cases admitte during the quarter was 1,438, against 1,761, 1,495, and 1,464 in the thr preceding quarters.

Whooping-cough.—The fatal cases of this disease, which had been 7 445, and 217 in the three preceding quarters, further declined to 209 duri the quarter ending December last, and were 102 below the correct average number. Among the various metropolitan boroughs whoopi cough was proportionally most fatal in Stoke Newington, Shoredit Bethnal Green, Battersea, Deptford, and Greenwich.

"*Fever.*"—Under this heading are included deaths from typhus, fr enteric fever, and from ill-defined pyrexia. The deaths referred to th different forms of "fever," which had been 91, 49, and 87 in the th preceding quarters, further rose last quarter to 169, but were 93 bel the average number in the corresponding periods of the ten preced years. No death from typhus or from ill-defined pyrexia was record during the quarter under notice. Enteric fever mortality was highes Fulham, St. Marylebone, Hackney, Holborn, Bethnal Green, and Sou wark. The Metropolitan Asylums Hospitals contained 246 enteric fe patients at the end of last quarter, against 92, 88, and 247 at the end of three preceding quarters; 506 new cases were admitted during quarter, against 213, 149, and 379 in the three preceding quarters.

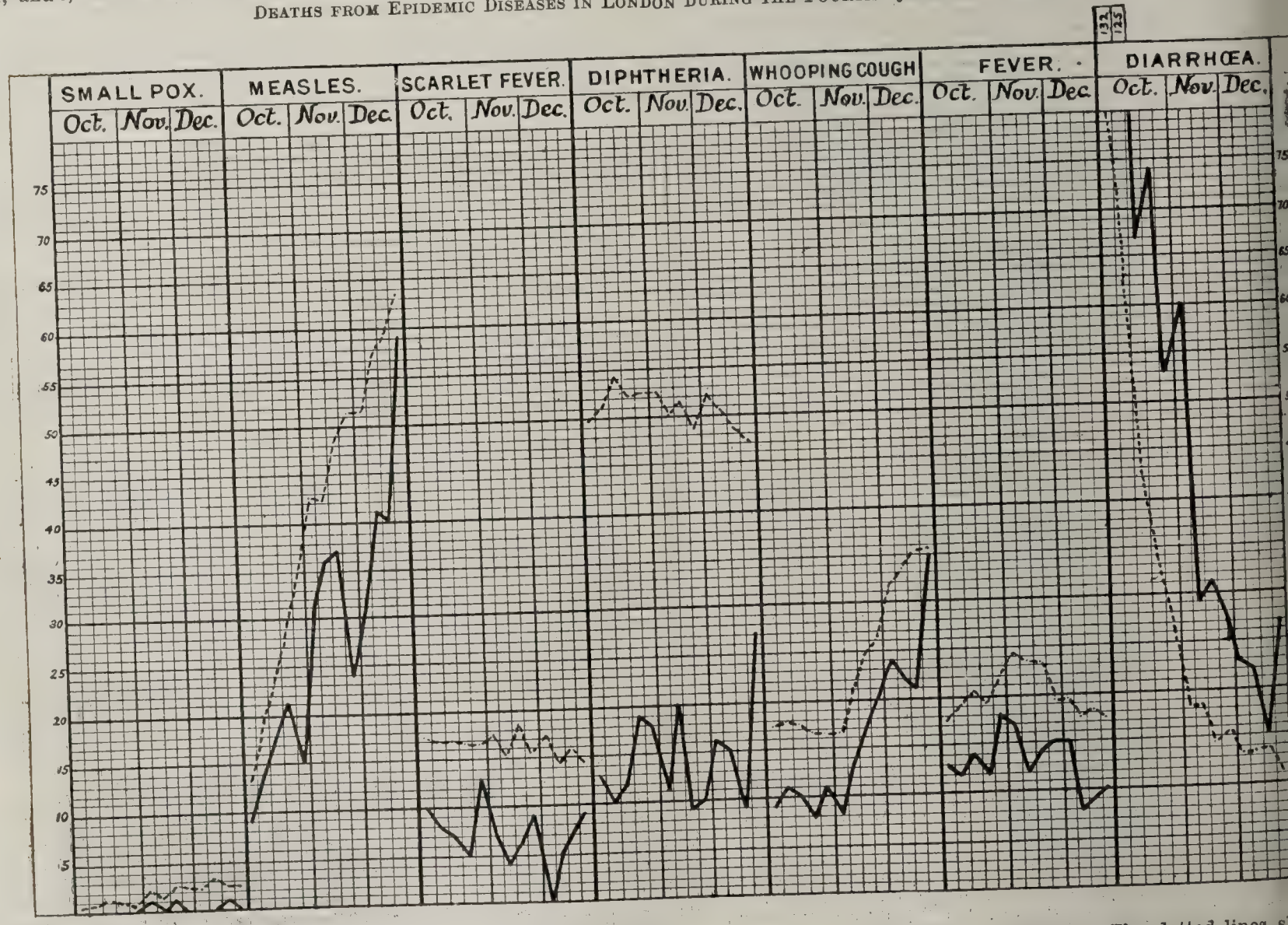
Diarrhoea.—The 685 deaths from diarrhoea in London last quarter w 321 in excess of the average number in the fourth quarters of the preceding years. Among the various metropolitan boroughs this dise was proportionally most fatal in Fulham, Finsbury, Bethnal Gre Stepney, Poplar, and Southwark.

In conclusion, it may be stated that the 1,721 deaths in London a buted to these principal epidemic diseases during the quarter en December last were more than 27 per cent. below the corrected ave number in the corresponding quarters of the 10 preceding years. lowest death-rates from these diseases last quarter were recorde Hampstead, St. Pancras, Islington, the City of London, Lewisham, Woolwich; and the highest rates in Fulham, Shoreditch, Bethnal Gr Stepney, Poplar, and Wandsworth.

HEALTH OF ENGLISH TOWNS.

IN seventy-six of the largest English towns, including London, births and 5,049 deaths were registered during the week ending Satu last, February 6th. The annual rate of mortality in these towns, w had been 19.0, 18.1, and 19.4 per 1,000 in the three preceding weeks, dec again last week to 17.2 per 1,000. The rates in the several towns ra from 6.0 in Aston Manor, 6.4 in Hornsey, 7.4 in Tottenham, 7 Walthamstow, 10.5 in Barrow-in-Furness, 10.7 in East Ham, 10 Leyton, and 11.0 in King's Norton, to 21.8 in Wolverhampton a Burnley, 22.2 in Rhondda, 22.6 in Newport (Mon.), 22.9 in Merthyr T 23.1 in Liverpool, 24.1 in Bury, and 26.6 in Wigan. In Londo death-rate was 17.4 per 1,000, while it averaged 17.2 per 1,000 i seventy-five other large towns. The death-rate from the principal tious disease averaged 1.4 per 1,000 in the seventy-six large town

DEATHS FROM EPIDEMIC DISEASES IN LONDON DURING THE FOURTH QUARTER OF 1903.



NOTE.—The black lines show the *recorded* number of deaths from each disease during each week of the quarter. The dotted lines s *average* number of deaths in the corresponding weeks of the ten preceding years 1893-1902.

this death-rate was equal to 1.3 per 1,000, while among the five large provincial towns the rates ranged upwards to 3.0 in and in West Hartlepool, 3.2 in Preston, 3.5 in Handsworth , 3.8 in Swansea, 4.0 in Gateshead, 4 5 in Bury, 4.6 in Warrington, in Merthyr Tydfil. Measles caused a death-rate of 1.2 in Willes- ; in Cardiff, and 2.7 in Preston and in Rotherham; scarlet fever in Oldham, 1.4 in Merthyr Tydfil, and 1.5 in Warrington; ria of 1.4 in Merthyr Tydfil; whooping-cough of 2.1 in Bolton, Warrington, 2.4 in Rochdale, 2 5 in Bootle, 3 0 in West Hartlepool. Swansea, and 4.0 in Gateshead; and diarrhoea of 1.6 in West ich. The mortality from "fever" showed no marked excess in the large towns. One fatal case of small-pox was registered last k Newcastle-on-Tyne, but none in any other of the seventy-six wns. The Metropolitan Asylums Hospitals contained 25 small- ients at the end of last week against 26, 24, and 21 at the end of e preceding weeks; 8 new cases were admitted during the week, 4, 3, and 4 in the three preceding weeks. The number of scarlet ases remaining under treatment in these hospitals and in the t Fever Hospital, which had been 1,660, 1,677, and 1,651 on the receding Saturdays, had increased again to 1,657 on Saturday last, ry 6th; 169 new cases were admitted during the week, against and 168 in the three preceding weeks.

HEALTH OF SCOTCH TOWNS.

the week ending Saturday last, February 6th, 856 births and 611 were registered in eight of the principal Scotch towns. The rate of mortality in these towns, which had been 20.2, 19.8, and 1,000 in the three preceding weeks, rose again last week to 18 5 00, and was 1.3 per 1,000 above the mean rate during the same in the seventy-six large English towns. Among these Scotch he death-rates ranged from 16.0 in Edinburgh and 17.5 in Glasgow Leith to 23.1 in Perth and 23.3 in Dundee. The death-rate from ncipal infectious diseases averaged 1.3 per 1,000 in these towns, ghest rates being recorded in Aberdeen and Greenock. The 267 registered in Glasgow included 2 which were referred to small- o measles, 2 to scarlet fever, 3 to diphtheria, 2 to whooping-cough, to diarrhoea. Nine deaths from whooping-cough and 4 from ea were recorded in Aberdeen; 3 from diarrhoea in Edinburgh; whooping-cough in Leith; and 1 from small-pox in Greenock.

HEALTH OF IRISH TOWNS.

the week ending Saturday, February 6th, 527 births and 461 deaths gistered in six of the principal Irish towns, against 467 births and ths in the preceding period. The mean annual death-rate of these which had been 24.7, 26.9, and 20.5 per 1,000 in the three preceding rose to 25 8 in the week under notice, this figure being 8.6 per ove the mean annual rate in the seventy-six English towns the corresponding period. The figures ranged from 11 3 in Lon- dry to 32.1 in Dublin and 33.1 in Waterford. The death-rates from ncipal zymotic diseases during the same period and in the same ns, averaged 1.1 per 1,000, or 0.4 per 1,000 higher than during the ing week, the highest rate, 2.2, being registered in Belfast, while derry and Waterford registered no deaths under this heading at here were no deaths in any part of Ireland from either small-pox, s, scarlet fever, typhus, or simple continued fever, and with the on of 3 deaths from enteric at Belfast, 1 at Dublin from the same , and 1 death each at the same towns from diphtheria, almost the ymotic death-rate throughout Ireland was due to whooping-cough.

THE NOTIFICATION OF DISEASES IN AMERICA.

hiladelphia Department of Public Health and Charities has under eration the enlargement of the group of diseases notifiable by l practitioners. As a result of conferences with committees of iladelphia County Medical Society and the College of Physicians of elphia, it is proposed to add pneumonia, chicken-pox, whooping- tuberculosis, and measles to the list of such diseases. In New neumonia has recently been added to the list of diseases which e reported to the Bureau of Contagious Diseases as communicable. tep has been taken in consequence of the marked increase in the itv from that disease which has taken place of late years.

MEAT CASE AT KING'S LYNN.

ve received particulars of the recent meat case at King's Lynn in a conviction was obtained by the sanitary authority against John er, a naturalized German, carrying on business in the town as a e skin manufacturer. It appears that this person obtains inferior uts it up into small pieces, adds preservative, and transmits it in s to the London market. The medical officer (Dr. Plowright) was furnish facts to the court which reflect great discredit upon this and clear evidence as to the diseased condition of the meat. The lant was sentenced to six weeks' imprisonment and ordered to pay sts. On appeal, which was heard in January, the imprisonment anged to the maximum fine of £20, as it was shown that lant was suffering from illness which would be greatly aggravated risonment.

SEWAGE-TESTING APPARATUS.

COTT-MONCRIEFF'S sewage-testing apparatus can now be seen in the s Museum of the Sanitary Institute. The apparatus has been de- for the purpose of obtaining exact information upon which acterial sewage disposal schemes, particularly as to (1) the depth of equired to produce the necessary standard of purity in the effluent; quantity of air necessary for the life processes of the organisms in ter; (3) the correct rate of flow per unit of filter-bed surface in to obtain the best results; and (4) the best period of rest between ischarge to prevent gelatinous growths in the filtering material.

ON OF SANITARY AUTHORITY ON RECEIVING NOTIFICATION.

—The medical practitioner is required to notify "forthwith, on oming aware that the patient is suffering from an infectious dis- " to which the Act applies. His responsibility towards the sanitary ority under the Infectious Disease (Notification) Act end there. e sanitary authority and its officers do not act upon the notification responsibility for the consequences is theirs.

APPOINTMENT OF CERTIFYING SURGEON.

VICTORIA.—Our correspondent should write to H.M. Chief Inspector of Factories, Whitehall, S.W., for a form of application, at the same time giving the name of the district where the vacancy is expected and his qualifications for the appointment. He need not wait for the actual occurrence of the vacancy, which we are informed will not be advertised. Though the Chief Inspector makes the appointment, it is as well to obtain as much Parliamentary influence with the Home Secretary as possible.

INDIA AND THE COLONIES.

THE STRAITS SETTLEMENTS.

Annual Report of Medical Department.—The Report of the Medical Department of the Government of the Straits Settlements, which was issued last autumn, deals with the occurrences of the year 1902. Owing to the fact that the colony is made up of three distinct and very widely-separated settlements, it is perhaps natural that the report should consist chiefly of a large number of appendices drawn up by different officers doing Government work of various kinds and in various places, but this fact makes it impossible to extract many important facts of general application to the whole colony. The only points which stand out clearly are that the birth-rates and death-rates are remarkably low and high respectively. That the death-rate on a total population of 501,219 persons should equal 42.96 per 1,000 is not, perhaps, very notable, considering that the Straits Settlements lie almost on the equator and that the population is of a very mixed character, though chiefly Asiatic. But it is remarkable that under the same conditions the total birth-rate should be lower in some places even than in France, and throughout the Colony almost 4 per 1,000 less than in England. As it would appear that this remarkable excess of the death-rate over the birth-rate has been going on for a long time, it is difficult to understand how the Colony keeps up its numbers. Very free immigration may, of course, explain it, but on this point no information is supplied. It is true that the death-rate in Singapore and Dindings was greater in 1902 than usual, but though means of precise comparison are lacking, it is obvious from various figures given that the increase cannot be sufficient to lessen the force of the foregoing remarks. Steady attempts are made to carry out vaccination, and the ratio of success of operations is high, but the extent of the vaccinations performed only appear to equal about one-half the births in each of the three settlements. In Singapore itself cholera appears to have been, in the year under notice, somewhat heavy and severe in character, since out of 842 known cases, 759 deaths occurred. Perhaps the most notable point of all brought out in the report is that, in spite of the proximity of the settlements to India, only four cases of plague occurred, and although the patients resided in different parts of the town the disease does not appear to have spread. The quarantine work in each of the different Settlements throws a very heavy burden upon the medical officers, but it is probably thanks to the care which they exercise in dealing with all suspicious cases that the freedom of the Colony from epidemic plague is chiefly due.

MEDICAL NEWS.

DR. HENRY CORBY has been appointed by the Lord Lieutenant a High Sheriff for the City of Cork.

A GENERAL meeting of the London Licentiates' and Members' Society will be held at the Wimpole Hotel, 63, Wimpole Street, W., on February 23rd, when the chair will be taken by Dr. Frederick J. Smith, at 4 p.m.

A WARD in the Clapham Maternity Hospital has been named the "Frances" Ward, in remembrance of the late Miss Hickman, who was house-surgeon at that institution for nine months.

THE EDUCATION OF DEFECTIVE CHILDREN.—The annual report on the special schools in which the education and training of mentally and physically defective children under the direction of the London School Board has just been published. The Hon. Maude Lawrence (Chairman of the Schools Committee) points out that the training of defective children must be comparatively costly. She expresses the belief, however, that apart from fitting the subnormal child to grow up as far as may be a self-supporting member of the community, the majority of people would agree that money spent on making the life of the afflicted child more endurable had not been wasted.

A SCHISM AMONG THE PECULIAR PEOPLE.—Something in the nature of a schism has lately, we learn from the *Essex Weekly News*, taken place among the Peculiar People of the Stanford-le-Hope district. For some time past a certain number of the members have felt that in cases of sickness amongst the children of Peculiar parents a medical man should be called in, thus obeying the law and avoiding the prosecutions which follow non-compliance with it. Such views have been strongly resented by the strict members, and the more advanced party, which is said to have the larger following, has severed its connexion with them.

SOUTHPORT MEDICAL SOCIETY.—The following officers were elected at the annual meeting:—*President:* Dr. J. C. Russel. *Vice-President:* Dr. Reinhardt Anderson. *President-elect:* Dr. G. C. Walker. *Committee:* Drs. Baildon. Barwise, Stanley Gill, E. Harris, A. W. Popert, and J. J. Weaver. *Honorary Treasurer:* Dr. Mewburn Brown. *Honorary Secretary:* Dr. R. M. Littler.

Dr. JOHN ROBERTSON, who was until recently medical officer of health of Sheffield, and who now holds a similar appointment at Birmingham, was entertained recently at dinner by members of the medical profession of Sheffield and by his late colleagues on the staff of University College in that city. On the termination of the dinner, Professor Pye-Smith presented him with a silver James I tea tray on behalf of the Council and staff of University College, and spoke in enthusiastic terms of Dr. Robertson's services to that institution while holding the posts of Professor of Public Health and Lecturer on Bacteriology. A corresponding presentation of a silver rose bowl was made on behalf of the medical profession in recognition of Dr. Robertson's services as medical officer of health. In making the presentation, Councillor Dr. E. Hargreaves alluded to the high esteem in which Dr. Robertson's work had been held by the City Council, and also to the cordial relationships which had always existed between him and the medical profession throughout the city and district.

PRIZE ESSAYS ON TROPICAL DISEASES.—The prizes in the gift of the *Journal of Tropical Medicine* for essays on subjects connected with tropical diseases have been awarded as follows: The Belilios Prize of £10, presented by the Hon. E. R. Belilios, C.M.G., for the best essay on "The System of Drainage and Sewerage (Domestic and Municipal) best suited for Tropical Climates," has been awarded to Major F. Smith, D.S.O., R.A.M.C., and Captain J. W. Cornwall, I.M.S., who divide the prize between them, the papers being adjudged of equal merit. The Lady MacGregor Prize of £10, presented by Lady Macgregor for the best article on "A Critical Examination of the Practical Value of Antityphoid Inoculation," has been awarded to Major F. Smith, D.S.O., R.A.M.C. The Sivewright Prize, presented by the Hon. Sir James Sivewright, K.C.M.G., LL.D., for the best essay on "Intestinal Affections in Warm Climates," was not awarded. The judges were Sir W. Roe Hooper, K.C.S.I., Colonel Kenneth MacLeod, LL.D., Sir Patrick Manson, K.C.M.G., F.R.S., LL.D.

MEDICAL VACANCIES.

This list of vacancies is compiled from our advertisement columns, where full particulars will be found. To ensure notice in this column advertisements must be received not later than the first post on Wednesday morning.

BIRKENHEAD UNION.—Resident Assistant Medical Officer for the Infirmary, Workhouse, and Sanatorium. Salary, £120 per annum.

BIRMINGHAM AND MIDLAND EYE HOSPITAL.—House-Surgeon, resident. Salary, £75 per annum.

BIRMINGHAM AND MIDLAND HOSPITAL FOR SKIN AND URINARY DISEASES.—Clinical Assistant. Honorarium at the rate of 52 guineas per annum.

BIRMINGHAM: GENERAL HOSPITAL.—(1) House-Physician, resident. (2) Casualty Officer; non-resident. Salary, £50 per annum each.

BIRMINGHAM: QUEEN'S HOSPITAL.—(1) Two House-Surgeons (2) House-Physician, salary £50 per annum. (3) Obstetric and Ophthalmic House-Surgeon, salary £40 per annum.

BRADFORD CHILDREN'S HOSPITAL.—House-Surgeon, resident. Salary, £100 per annum.

BRISTOL ROYAL INFIRMARY.—(1) Resident Obstetric Officer. Salary, £75 per annum. (2) Honorary Anaesthetist.

CANCER HOSPITAL, Fulham Road.—Surgical Registrar. Honorarium, £26 5s. per annum.

CARMARTHEN: JOINT COUNTIES ASYLUM.—Junior Assistant Medical Officer, resident. Salary, £150 per annum.

CARMARTHENSHIRE INFIRMARY.—Resident Medical Officer. Salary, £100 per annum.

CHARING CROSS HOSPITAL.—Assistant Physician to the Dermatological Department.

CHELTENHAM GENERAL HOSPITAL.—Junior House-Surgeon, resident. Salary, £70 per annum.

CROYDON GENERAL HOSPITAL.—(1) Senior House-Surgeon. (2) Junior House-Surgeon. Both resident. Salaries, £105 and £60 per annum respectively.

DUDLEY: GUEST HOSPITAL.—Senior Resident Medical Officer. Salary, £100 per annum, increasing to £120.

GUILDFORD: ROYAL SURREY COUNTY HOSPITAL.—Resident House-Surgeon. Salary, £100 per annum.

HOLLOWAY AND NORTH ISLINGTON DISPENSARY.—Honorary Medical Officer.

HOSPITAL FOR WOMEN, Soho Square.—House-Physician. Salary, £30 for six months.

ISLE OF SKYE: GESTO HOSPITAL.—Resident Medical Officer. Salary, £200 per annum.

KETTERING AND DISTRICT GENERAL HOSPITAL.—Resident Medical Officer. Salary, £80 per annum.

LANCASHIRE COUNTY ASYLUM, Winwick.—Assistant Medical Officer, resident. Salary, £150 per annum, increasing to £250.

LIVERPOOL CHILDREN'S INFIRMARY.—Assistant House-Surgeon, resident. Salary, £32 10s. for six months.

MACCLESFIELD GENERAL INFIRMARY.—Junior House Surgeon, resident. Salary, £70 per annum.

SHEFFIELD CORPORATION.—Second Assistant Medical Officer at the City Hospitals for Infectious Diseases, resident. Salary, £150 per annum.

WAKEFIELD: CLAYTON HOSPITAL AND WAKEFIELD GENERAL DISPENSARY.—Junior House-Surgeon, resident. Salary, £80 per annum.

WIGAN: ROYAL ALBERT EDWARD INFIRMARY AND DISPENSARY.—Junior House-Surgeon, resident. Salary, £80 per annum.

CORRECTION.—In the notice of the vacancy at the Royal Albert Edward Infirmary, Wigan, published last week, the words "Junior House-Surgeon" were by a printer's error printed "Junior Housekeeper."

MEDICAL APPOINTMENTS.

ATKINS, S. E., L.R.C.S.I., L.S.A., Certifying Factory Surgeon for the Hatherleig District, Devonshire.

BLACKBURN, C. B., M.D., Ch.M.Syd., Assistant Physician to Royal Prince Alfred Hospital, New South Wales.

BLETCHLEY, George P., M.B.Lond., M.R.C.S.Eng., L.R.C.P.Lond., Medical Officer a Public Vaccinator for Third Division of the Stroud Union, and Certifying Factor Surgeon for the Nailsworth District.

CANDLER, G., M.R.C.S., L.R.C.P.Lond., District Medical Officer of the Holswort Union.

DAVIES, F. A., M.B., District Medical Officer of the Hexham Union.

FAIRFAX, E. W., M.B., Ch.M.Syd., Assistant Physician to Royal Prince Alfred Hospit New South Wales.

GOLDSMITH, A. F., M.R.C.S., L.R.C.P.Lond., District Medical Officer of the Bedf Union.

HEASMAN, Frank, M.R.C.S.Eng., L.R.C.P.Lond., Assistant Physician to the Ro Boscombe and West Hants Hospital.

JOHNSON, L. Capper, M.B.Lond., M.B., Ch.B.Vict., M.R.C.S., L.R.C.P., Medical Offi to the Central Home for Children, Leeds Union.

LANCASTER, Ernest Le Cronier, B.A., M.B., B.Ch.Oxon., M.R.C.S.Eng., Physician to Swansea General and Eye Hospital, *vice* F. Knight, M.D., resigned.

MACINTOSH, A. H., M.B., Ch.M.Syd., Medical Superintendent to Royal Prince Alf Hospital, New South Wales.

MILWARD, F. Victor, M.B., B.C.Cantab., F.R.C.S.Eng., Medical Referee under the Wo men's Compensation Act for Birmingham and for Bromsgrove, Redditch, Solihull.

NUTHALL, A. W., F.R.C.S., Surgeon to Out-patients to the Birmingham and Midl Free Hospital for Sick Children.

PALMER, C. A., M.R.C.S., L.R.C.P.Lond., Medical Officer of Health for the Newbold Dunstan Urban District.

PEARSON, F. J., M.R.C.S., L.R.C.P., District Medical Officer of the Gainsborough Un

PICTON, L. J., M.B., B.Ch.Oxon., District Medical Officer of the Congleton Union.

PRINGLE, J., M.D., B.Ch.Dub., Certifying Factory Surgeon for the Manche S.W. District.

WATSON, J. F., M.B., M.Ch.Melb., Assistant Medical Superintendent to Hospital for Insane, Toowoomba, Queensland, *vice* A. Campbell, F.R.C.S., resigned.

WILSON, H. M., M.B., B.C.Cantab., Assistant Medical Officer to Wellington Hosp New Zealand.

WILSON, J. Clark, M.D., C.M.Edin., D.P.H.Camb., Pathologist to Friedenheim Hosp Upper Avenue Road, N.W.

DIARY FOR NEXT WEEK.

MONDAY.

Royal College of Surgeons of England, 5 p.m.—Professor T. English: On the After-effects of Head Injuries. (Hunterian Lecture I.)

Medical Society of London, 11, Chandos Street, Cavendish Square, W., 9 p Mr. C. B. Lockwood: Aseptic Surgery in Theory and Practice. (Lettso Lecture II.)

TUESDAY.

Pathological Society of London, 20, Hanover Square, 8.30 p.m.—Dr. Savill will open a discussion on Arteric-Sclerosis, and Professor T. Clifford Al Mr. C. A. Ballance, Sir William Broadbent, Dr. J. H. F. Broadbent, Dr. Herring Dr. Mott, Dr. G. Oliver, Dr. W. Russell, Dr. Batty Shaw, Dr. Bezly Thorne, an Parkes Weber will take part in the discussion. Card specimens by Dr. J. Broadbent and Dr. J. R. Lunn.

WEDNESDAY.

Royal College of Surgeons of England, 5 p.m.—Professor T. English: On the After-effects of Head Injuries. (Hunterian Lecture II.)

FRIDAY.

Royal College of Surgeons of England, 5 p.m.—Professor T. English: On the After-effects of Head Injuries. (Hunterian Lecture III.)

Epidemiological Society, 11, Chandos Street, Cavendish Square, 8.30 p.m. Myer Coplans: On the Etiology of Scurvy.

POST-GRADUATE COURSES AND LECTURES.

Charing Cross Hospital, Thursday, 4 p.m.—Demonstration of Medical Cases.

Hospital for Consumption and Diseases of the Chest, Brompton, Wednesday, 4 Lecture on Non-Tuberculous Apical Diseases of Lungs.

Hospital for Sick Children, Great Ormond Street, W.C., Thursday, 4 p.m.—Lect Cretinism.

London Temperance Hospital, Hampstead Road, N.W., Wednesday, 4 p.m.—Lect Diseases of the Stomach.

Medical Graduates' College and Polyclinic, 22, Chenies Street, W.C.—Demonstr will be given at 4 p.m. as follows: Monday, Skin; Tuesday, Medical; Wed Surgical; Thursday, Surgical; Friday, Ear. Lectures will be delivered at 5 as follows: Monday and Tuesday, Albuminuria and Neurasthenia at Pu Wednesday, Some of the Newer Remedies in Eye Disease; Thursday, Er Refraction, their Diagnosis and Treatment.

Mount Vernon Hospital for Consumption and Diseases of the Chest, 7, Fitzroy W., Thursday, 5 p.m.—Lecture on Principles and Practice of the Sanatorium ment of Consumption.

National Hospital for the Paralysed and Epileptic, Queen Square, W.C.—Lectu be delivered at 3.30 p.m. as follows: Tuesday, Cases in the Wards; Friday Dorsalis.

North-East London Post-Graduate College, Tottenham, N., Thursday, 4.30 p.m.— on Interpretation of Symptoms.

Post-Graduate College, West London Hospital, Hammersmith Road, W.—Lectu be delivered at 5 p.m. as follows: Monday, Practical Surgery; Tuesday, Displacement of the Uterus; Wednesday, Practical Medicine; Thursday, U the Cornea, their Varieties and Treatment; Friday, Skin Cases.

Samaritan Free Hospital for Women, Marylebone Road, N.W., Thursday, 3 p.m.— on Movable Kidney.

BIRTHS, MARRIAGES, AND DEATHS.

The charge for inserting announcements of Births, Marriages, and D 3s. 6d., which sum should be forwarded in post-office orders or sta the notice not later than Wednesday morning, in order to ensure ins the current issue.

BIRTHS.

BRIMACOMBE.—On the 7th inst., at Colebrook Lodge, Putney Heath, the wife of William Brimacombe, M.D., of twin daughters.

COOKE.—On February 6th, at 17, Lansdown, Stroud, the wife of Martin A M.R.C.S., L.R.C.P., L.S.A., of a daughter.

CROSS.—On February 4th, at The Limes, Wallwood Park, Leytonstone, the Ernest W. Cross, M.R.C.S.Eng., L.R.C.P.Lond., of a son.

GALLOWAY.—On the 7th inst., at 54, Harley Street, London, W., the wife Galloway, M.D., of a son.

HEY.—On the 3rd February, at 1, Princess Terrace, Ripon, the wife of Sam M.R.C.S., L.R.C.P., of a son.

DEATHS.

O'SULLIVAN.—On February 4th, at 56, Charleville Road, West Kensingto Cecilia, fourth and dearly-loved daughter of Daniel A. O'Sullivan, L.R.C.P and Mrs. O'Sullivan. R.I.P.

SUTTON.—On February 4th, at 114, Golden Hillock Road, Small Heath, Birm Frederick Sutton, M.R.C.S., L.S.A., aged 63; youngest son of the late Rev Sutton, Marton, Lincs.

LETTERS, NOTES, AND ANSWERS TO CORRESPONDENTS.

NICATIONS respecting Editorial matters should be addressed to the Editor, 2, Agar , Strand, W.C., London; those concerning business matters, advertisements, non-ry of the JOURNAL, etc., should be addressed to the Manager, at the Office, 429, d, W.C., London.

NAL ARTICLES and LETTERS *forwarded for publication are understood to be d to the* BRITISH MEDICAL JOURNAL *alone, unless the contrary be stated.*

RS desiring reprints of their articles published in the BRITISH MEDICAL JOURNAL quested to communicate with the Manager, 429, Strand, W.C., on receipt of proof.

PONDENTS who wish notice to be taken of their communications should authenti-hem with their names—of course not necessarily for publication.

PONDENTS not answered are requested to look at the Notices to Correspondent following week.

SCRIPTS FORWARDED TO THE OFFICE OF THIS JOURNAL CANNOT UNDER ANY MSTANCES BE RETURNED.

er to avoid delay, it is particularly requested that ALL letters on the editorial busi-of the JOURNAL be addressed to the Editor at the Office of the JOURNAL, and not private house.

RAPHIC ADDRESS.—The telegraphic address of the EDITOR of the BRITISH ICAL JOURNAL is *Aitiology, London.* The telegraphic address of the MANAGER e BRITISH MEDICAL JOURNAL is *Articulate, London.*

HONE (National):— GENERAL SECRETARY AND MANAGER,
DITOR, 2631, Gerrard. 2630, Gerrard.

Queries, answers, and communications relating to subjects to which special ments of the BRITISH MEDICAL JOURNAL *are devoted will be found their respective headings.*

QUERIES.

ts to be referred to books which discuss the question of free will n the biological standpoint.

R. wishes to hear of a home or institution which would take an -bodied youth of weak intellect. He is cleanly in habits. £1 per k is all that can be paid.

AL OFFICER would be greatly obliged for information as to furnish-and lighting a small-pox hospital (30 beds), with nurses' quarters; niture of most recently-approved sanitary type, lighting to exclude electricity, and acetylene.

R. W. wishes to know whether there is any institution where a d, aged 11, suffering from favus, and at present an inmate of a on infirmary, would be educated at the expense of the Board. She been under treatment for three years with very little improvement.

IVS writes: Can you or any of your readers give me any information o the general efficiency of an *x*-ray apparatus worked from accumu-rs? I have not got the electric light in my house, but there is a rging station in the town. I should be much obliged if any one ld tell me the approximate cost of working, apart from the initial lay.

* The efficiency of a coil for *x*-ray work is greatest when worked n accumulators. Twenty-four volts should be used on the primary the coil and a "mercury break" employed, which will require ther battery of twelve volts, or the "break" can be worked from a nt. The above and a 10-in. coil with a good condenser will ble the best class of *x*-ray work to be done both with fluorescent een and photographic plates. With a charging station at hand the t of maintenance ought to be trifling.

WD asks to be referred to any book containing information as to suitability of County Washington, U.S.A., and also Vancouver, B.C., a residence for a medical man, aged 50, who has suffered from laria.

** We are not aware of any work which would precisely meet our respondent's requirements, and his best course would perhaps be write to the Secretary of the American Climatological Association, iladelphia. A good deal of information about the climate of Wash-iton will be found in the fourth volume of *Physiologic Therapeutics* bman, Limited, 129, Shaftesbury Avenue). In this Washington, ided into two by the Cascade Mountains, is credited with having two tinct climates. The western half is densely wooded, and has a mate much like that of the Channel Islands. The eastern half is irie land, with light rainfall, and irrigation employed. It is said to much drier and colder in winter and warmer in summer than the stern half, and to be free from mosquitos. There are several British istered practitioners both in Washington and Vancouver Island, d possibly they would be ready to give the desired information.

NEURASTHENIA AND NERVOUS BREAKDOWN.

GENERAL PRACTITIONER asks for opinions on the following: Is it usual possible to have a normal pulse and healthy heart action and respira-n in a case of nervous breakdown, the result of a recent accident? In a case of neurasthenia, is it usual or possible to have a normal lse and healthy heart action and respiration? In fact, is healthy art action and respiration compatible with nervous breakdown?

SALIES-LES-BÉARNS.

SPECTRUM would be glad of any information as to the suitability of lies-les-Béarns as a health resort for a boy aged 8 with persistent ulus following excision of the hip; general condition good.

** Salies-les-Béarns, with its mineral waters rich in common salt, is eful for many children suffering from tuberculous bone affections; t if the climate of any English seaside resorts suits the child in ques-on, one can hardly, as far as the patient is concerned, urge removal om England.

THE INDIAN MEDICAL SERVICE.

A. asks (1) for advice as to the best books to read for the Indian edical Service examination, particularly in chemistry and biology; and (2) whether it is possible for a lieutenant in the service to live upon his pay without the assistance of private means.

*** (1) In chemistry and biology the examination is not of a very severe nature, and only a sound knowledge of general principles and more material facts is required. "A. H." might therefore read with advantage *Chemistry, Organic and Inorganic*, by C. L. Bloxam, and *Outlines of Biology*, by J. A. Thomson, bearing in mind the limitations of the subject. In the other branches of the examination the knowledge required is greater, and the best book to read on each subject will probably be a recent edition of any good textbook with which the inquirer is already well acquainted. (2) It is believed that with economy a lieutenant can live upon his pay.

CHOICE OF AN ANAESTHETIC.

X. Y. Z. writes: A man, aged 60, suffers from slight albuminuria, with hyaline and granular casts in urine, with a faint reaction with Fehling's solution, specific gravity 1014. He has a large fatty tumour on shoulder. Is there any special risk for him in an anaesthetic, and which is preferable, ether or chloroform?

*** There is an increased risk, but it is so slight as to be practically negligible. From the point of view of the renal trouble chloroform is slightly to be preferred, but if the operation to be done can be completed within a few minutes as seems probable, gas followed by ether would answer well. If the patient is fat and plethoric, with a short neck, or if bronchitic or "wheezy," the A.C.E. or chloroform should be selected.

TREATMENT OF CHRONIC RHEUMATISM.

DR. GEORGE CRICHTON (London) writes: I should like to know if urosine—said to be a quinate of lithia—has received an extensive trial. In a few cases which I could completely observe it appeared to be most useful. The characteristic of the complaint is stiffness and want of power of the muscles, or at least of alertness. It is but reasonable to suppose that the intestinal muscles are similarly affected, with, of course, constipation. As soon as under treatment the pains begin to disappear the bowels act well and the muscles respond freely to the mental impulses. In the treatment of acute rheumatism thirty years ago, after a calomel purge the bowels and the involuntary movements of the voluntary muscles were kept at rest by small doses of tr. opii, while alkalis and perhaps colchicum were given as eliminants. Antidotes were as yet unknown. This plan of treatment was not bad, but the tools were not just what the workman thought. The advance in therapeutics in these few years, though remarkable, mainly serves to show how much is to be accomplished and the lines along which there will be progress.

PHARMACOLOGY AT LONDON UNIVERSITY INTERMEDIATE M.B.

PHARMACOLOGY writes: Can you inform me whether there is at present published a book which just covers the ground in materia medica and pharmacology (not therapeutics) as required for the Intermediate M.B.Lond. Univ., or on pharmacology alone, giving the results of the work done in this science.

*** The textbooks by Hale White and by Mitchell Bruce are usually employed. Cushny's *Textbook of Pharmacology* gives more detailed information. In all three the subject of therapeutics is considered in separate paragraphs.

ANSWERS.

EQUITY.—(1) We are unable to supply the information asked for as to the proprietary food in question. (2) We are advised that a fee of 25 to 50 guineas would be reasonable; the precise amount would depend on the presumed income of the patient's husband.

GLYN-NEATH AND W. C. B.—Either of the following works might meet the requirements of our correspondents: *Hypnotism: Its History, Practice, and Theory.* By J. Milne Bramwell, M.B., C.M. (London: Grant Richards. 1903. 18s.); *Hypnotism and its Application to Practical Medicine.* By O. G. Wetterstrand (London: G. P. Putnam's Sons. 1897. 10s.).

H.—We are informed, by the courtesy of the Secretary of the Royal College of Surgeons of England, that there is no clause in any of the charters of the College conferring upon Members the right to use the title "Esquire;" but it is perhaps worthy of remark that, in the charter of incorporation, the first master, governors, examiners, and members of the Court of Assistants are all so styled. As regards the absence of any mention of this matter in the charter, it is assumed that it never occurred to those who framed them to include a provision with respect to a title which, through general use—or abuse—has long since lost the distinction it once had.

R. D.—Barcelona certainly does not stand in high repute as a health resort for phthisical patients, nor should we have thought in any health repute at all. It is a large commercial seaport with a population of about half a million. Certainly it is well spread out, contains plenty of open spaces, and as compared with many Spanish towns is well looked after from a sanitary point of view, and doubtless to dwellers inland seems a desirable place in the summer. Though it lies further south, the climate is in many ways like that of Marseilles; it is one of those places where one saunters down one street in warm sunlight to be faced at the corner by a bone-piercing wind. Mean January temperature 47°. August 77°. Rain 22 in. Alternations of temperature are very sudden.

SALIVATION.

CLYMONT.—In a person specially susceptible to the action of mercury the effect might easily be produced by the doses mentioned; in fact, there are persons who show slight but distinct signs of salivation after a single dose of blue-pill. In Taylor's work on *Poisons* several cases of susceptibility are cited; amongst others, one in which five grains of calomel induced fatal salivation in an adult.

NOTES, LETTERS, Etc.

THE TREATMENT OF PNEUMONIA.

DR. A. HURRELL STYLE (London) writes: May I add my testimony to that of Dr. Whitby with reference to the use of oxygen inhalations? A year

ago I had a bad attack of double pneumonia. Oxygen was administered to me when there was an increasing cyanosis apparent, and when the respiration was becoming difficult. The relief and comfort derived from the inhalation was so striking and so immediate that I should be very sorry to follow Dr. Barr's advice during the treatment of my patients. "*Experientia docet.*" The only remark I have to make on its use in pneumonia is that it is postponed too long and looked on as a last resort.

THE REPETITION OF PRESCRIPTIONS CONTAINING DANGEROUS DRUGS.

DR. T. D. NEWBIGGIN (Abingdon, Lanarkshire) writes: In reference to letters appearing in the BRITISH MEDICAL JOURNAL *re* repetition of prescriptions, the great question is how to avoid this. I would say, let every medical man dispense his own drugs, that would cure the evil. It would give the doctor more interest in his patient and free the whole profession from the tyranny of pharmacists. I believe it is proposed to so "amend the Pharmacy Acts" as to prevent medical men dispensing their own drugs. This is indeed pharmaceutical tyranny. Protect the chemist from the doctor dispensing what he knows is best for that patient, but let the "prescribing chemist" alone. It is very funny, and where will it end? Shall I be prevented from using my hypodermic; must I send (after the Act is "amended") for a chemist when I find myself confronted with a case, say, of chloral poisoning and decide on injecting strychnine? The nearest chemist is twelve miles away. And the chemists ask the General Medical Council, "who can greatly help the Bill" (see letter of Mr. John D. Marshall) to take note of the matter. I hope they may.* As for myself, I cannot help repeating the words of the Yankee at Mugby Junction, in Dickens's story of that name: "I tell yew what 'tis, ma'rm, I la'af. Theer! I la'af. I dew," although I should not be a bit surprised to see the General Medical Council assist the pharmacist in thus crippling its own profession. After the passing of this Bill I shall look for one from the cutlers to prevent surgeons doing operations.

THE SWEATING OF MEDICAL MEN.

A SUFFERER writes: The letter on the above subject in the BRITISH MEDICAL JOURNAL of January 16th, signed by "One of the Crushed Doctors" appeals most forcibly to me and to my sympathy. Casual reading suggests a caricature of our lives, but between the lines one sees the pathos of a disappointed life, energy and skill not appreciated, and the death-knell of hopes bright at the commencement.

Thank God, there are men in our profession who place medicine before money and integrity before financial consideration, yet our position is deplorable.

The other day my groom asked me for a day's holiday saying he would get a gentleman to take me round; the same day I called at a dirty neglected house to see a baby, tended I was told by the lady next door, said lady being more dirty and more drunk than usual and whose husband came to my consulting room the same evening to see me about himself. He commenced the consultation as follows: "I say 'Jones,' I want you to give me a bottle for my 'indigestion,'" without giving me time to make a diagnosis, in fact he had beforehand done this in his own mind, and if I had shown any doubt of the correctness of his opinion he would have labelled me a fool and confided this view to his mates.

One way to a person's confidence is to appear to fall in with his view of the case and sink your individuality. If a case recovers it is because "the patient is strong somewhere" or "he has good healing flesh," if fatal the doctor is blamed and they wish they had called in some one else.

After a hard day's work, and the much longed rest is being indulged in, a messenger is sure to call us to a case which has been bad for several days; if the call is not responded to at once we are met with the reproach, insolent in its tone, "I thought you were never coming.' For what return? One shilling a month, less 10 per cent. for collection

My boy is at a public school. Is it for this he is being educated? gilded poverty accentuated by insults.

In my public capacity I flatter myself that I have been the means of stopping an epidemic of a dangerous infectious disease, but I did not receive a vote of thanks even, but was mulcted in a good sum of money towards the expenses of a medical man to take charge of the hospital. A town clerk will have £1,000 a year whilst the medical officer of health will be paid at the most £500, yet we have a longer curriculum to serve, more examinations to pass, and heavier expenditure to secure the qualifications. A tramway manager is paid much more than we are and ours is a "noble profession." We are told it is only the ignorant lower class which does not recognize us and our profession. This is not so; the so-called educated higher grade is just as deficient in this respect. Recently I was called in to report on the sanitary arrangements of a house. This I did in a most thorough manner, and a few days after a registered plumber with a sanitary science certificate was sent to the same house for a similar purpose; this on the instruction of the "Lady Bountiful" of the place.

Two things are lacking in our lives—more recognition socially and pecuniarily. Instead of this we are sinking lower and lower; eventually we shall be compelled to keep open shops and have certain hours for seeing our patients at their homes, during which patent medicines are making millionaires, and the inventor of a cure for baldness is created Baron Baldpatch.

THE LATE DR. THIN.

WE are requested to mention that the late Dr. George Thin received his medical education at Edinburgh, and not at Aberdeen, and that he received his degree of M.D. from the University of St. Andrews.

RAISED SCARS AFTER VACCINATION.

DR. JAMES C. HOYLE, D.P.H. (late Health Officer, Rangoon, Burmah) writes: A keloid condition of the scars resulting from vaccination is extremely common among Asiatics. I have seen numbers of cases, both among Burmans and natives of India, in Rangoon, where calf lymph has been used extensively for many years. My impression is that these cases have been somewhat fewer since the lymph has been prepared with glycerine. It must be remembered that Asiatics are very prone to dress vaccination sores with all sorts of irritating applications, and that, apart from this factor, it is difficult to maintain complete asepsis in tropical countries. I do not remember a case occurring among Europeans. It would be interesting to know if the keloid condition is as common in Burmah as it was, say, eight or ten years ago.

LETTERS, COMMUNICATIONS, ETC., have been received from:

A Mr. F. Addiscott, London; Mr. A. H. Allen, Sheffield; Dr. J. L. Atkinson, London. Dr. J. W. Byers, Belfast; Dr. C. E. Beevor, London; W. Billington, M.B., Birmingham; Miss M. B. Bruce, Rome; Dr. W. Broadbent, Brighton; Dr. J. Barr, Liverpool Dr. T. E. B. Brown, C.I.E., London; W. C. Burns, M.B., Bury; Mr. B. Bird, Cefn; Mr G. H. Broadbent, Manchester; S. T. Beggs, M.B., Belfast; Mr. P. B. Bentlif, Jersey Mr. A. W. Bodger, London; Mr. L. A. Bidwell, London; Bore; Mrs. Boyd, London B. P. H. **C** Dr. W. Collingridge, London; Dr. W. T. Cocking, Sheffield; Mr. E. Clay London; M. Collier, M.B., London; Mr. W. R. E. Coles, London; Mr. C. Castle Glasgow; Dr. L. Colborne, Beckenham; Mr. A. Campbell, Derby; J. H. Clayton, M.B Birmingham; R. Campbell, M.B., Belfast; Country Doctor; Colliery Surgeon **D** Director-General A.M.S., London; Mr G. W. Duncan, London; Mr. W. F. Dearden Manchester; Mr. H. Dawson, Birkenhead. **E** Equity; Expenses: Mr. G. Evans Plumbridge; E. W. R. **F** F E R. Fothergill, M.B., London; Messrs. Findlay, Durham and Brodie, London; Mr. T. Fisher, Garstang; Dr. T. Fentem, Bakewell; Mr. J. M Fry, Cranleigh; Dr. H. Fraser, Aberdeen. **G** Dr. W. W. Graves, Berlin; Mr. H Gordon, Manchester; Mr. C. A. Gillig, London; Mr. P. B. Giles, Bletchley, Mr. W. Greer, Newport, Mon.; Glasgow Obstetrical and Gynaecological Society, Secretar of, Glasgow. **H** Dr. T. J. Horder, London; Mr. W. Hutchison, Loughborough; D J. Hill, Renfrew; Miss A. J. Hobbs, London: J. C. Hoyle, M.B., Bishops Waltham F. G. Haworth, M.B., Darwen; Dr. M. Handfield-Jones, London; A. C. Houston, M.B London; N. C. Haring, M.B., Manchester; Dr. W. W. Hall, London; Messrs. Hickso Ward, and Co., London; H. T. Herring, M.B., London; Mr. W. Hammond, Liskear **I** F. W. Inman, M.B., Seacombe; Dr. A. Inglis, Maybole. **J** Mr. W. Jackso Northampton; Mr. H. Jones, Liverpool; Mr. G. J. G. Jensen, London. **K** Dr. Kein, London; Kidderminster Medical Society, Secretary of, Kidderminster; Mr. R. G. Kar. Edinburgh. **L** Dr. T. G. Lyon, London; Mr. J. S. Lloyd, Sheffiel Lecturer; Mr. R. Logan. Ashby-de-la-Zouch; L. D. S.; L.R.C.P.; Mr. C. B. Lockwo London; Liverpool Medical Institution, Secretary of, Liverpool. **M** Mr. W. Morton, London; Mr. J. MacMunn, London; Mr. J. Y. W. MacAlister, London; M. Dr. R. Morton, London; J. R. Morison, M.B., Newcastle-on-Tyne; Mr. W. L. Mu Glasgow; Mr. N. Macdonald, London; Dr. A. J. Mayer, Berlin; Messrs. S. Maw, S and Sons, London; M.R.C.S.; Mr E. D. Marriott. Nottingham; Dr. D. W. K. Moc London; F. C. Madden, M.B, Cairo; Dr. E. J. McWeeney, Dublin: Dr. E J. Macle Cardiff: Midland Medical Society, Secretary of, Birmingham; Dr. T. G. Mathe Whitehaven; W. J. McCardie, M.B., Birmingham. **N** J. Niven, M.B, Manches **O** Mr. D. Owen, Manchester; E. Owen, M.B., London; Obstetrical Society, Secret of, London. **P** A. F. M. Powell, M.B., Minster; Dr. B. Pogson, Birmingham; Dr H. S. Pullin, Sidmouth; Pharmacology; Mr. A. Pain, Peterborough; Dr. W. Parker, Kendal; Mr. J. H. Potter, Pollock. **R** Mr. R. Raushcke, Leeds; Mr Rayner, South Wigston; Mr. J. Ross, Bowmore; Dr. A. Rankin, Glasgow; Mr. J. Rollings, London; Dr. H. C. Rose, London; Dr. R. R. Rentoul, Liverpool. **S** Suffe S. Stephenson, M.B., London; Messrs. G. Street and Co., London; Dr. G. Sutherland, London; Miss M. Shaxby, London; Mr. W. Seatter, Falkirk; Sanit Publishing Co., Manager of, London; Sir J. Sawyer, Birmingham: Dr. J. Sh London; Dr. E. H. Snell, Coventry; Sequestrum Dr. J. C. Simpson, Cambridge; E. F. Stephenson, Dunmore East: P. Smith, M.B., Birmingham; S.; Mr. R. R. Slee London; Dr. G. F. Still, London; A. Shillitoe, M.B., London; Scarlet. **T** Mr. T Tunstall, Southport; Tweed; Dr. C. C. Thomson, London; W. A. Taylor, M.B., Pe Dr. W. S. Tebb, London; Mrs. G. Thin, Edinburgh; Dr. H. Tilley, London; Mr. E Tweedy, Dublin. **V** Victoria. **W** H. J. Waring, M.B., London; Messrs. W Limited, London; Messrs. F. Williams and Co.; London; Dr. A. O. Ward, London J. W. Wells, Blackburn; Mr. E. D. White, London; Dr. F. Willcocks, London; W. Wallace, Glasgow. **Y** A. Young, M.B., Glasgow.

BOOKS, ETC., RECEIVED.

Textbook of Diseases of the Eye. By Howard F. Hansell, A.M., M.D., and William Sweet, M.D. London: Rebman Limited. 1903. 17s.

Studies in Heterogenesis. By H. Charlton Bastian, M.A., M.D.Lond., F.R.S. London: Williams and Norgate. 1903. 31s. 6d.

The Food of the Gods: A Popular Account of Cocoa By Brandon Head London: Brimley Johnson. 1903. 3s. 6d.

The Principles and Practice of Hydrotherapy. By Simon Baruch, M.D. Second edition. London: Baillière, Tindall and Cox. 1904. 16s.

Introduction a l'Etude de la Médecine. Par G. H. Roger. Deuxieme édition. Paris: C. Naud. 1904.

Das Eindringen der Tuberculose und ihre rationelle Bekampfung. Von Dr. Hugo Beckmann. London: Williams and Norgate. 1904. 1s.

The Local Government Annual and Official Directory, 1904. Edited by S. Edgecumbe Rogers. London: "Local Government Journal" Office. 1904. 1s. 6d.

A Scheme for the Provision of Nursing Homes at Moderate Prices for the Middle Classes. By J. R. Benson, F.R.C.S.Eng. London: The Scientific Press, Limited. 1904.

Manual of Surgery. By Alexis Thomson. M.D., F.R.C.S.Edin., and Alexander Miles, M.D., F.R.C.S., Edin. Vol. I. General Surgery. Edinburgh and London: Young J. Pentland. 1904.

A Study of British Genius. By Havelock Ellis. London: Hurst and Blackett, Ltd. 1904. 7s. 6d.

A Revision of the Anophilinae. First su ment to the second edition of "A book of the Gnats or Mosquitos." Lieutenant-Colonel G. M. Giles, F.R.C.S., I.M.S. (Ret.) London: Bale, Sons, and Danielsson, Lim 1904. 2s. 6d.

Technique du Massage. Par Le Profe J. Zabludowski. Traduit sur la ième édition allemande par A. Z mann. Paris: G. Steinheil. 1904.

Nouvelles Consultations, Médicales. H. Huchard. Paris: J. B. Bailli Fils. 1904. Fr 10.

La Migraine: Traitement par le Ma Par le Dr. G Norström. Paris: Baillière et Fils. 1904. Fr.2.

Les Rayons de Röntgen et le Diag des Maladies Internes. Par A. B Paris: J. B. Baillière et Fils. Fr.1.50.

The Life-History of British Lizards Gerard R. Leighton, M.D., F Edinburgh: G. A. Morton. 1903.

Adeno-Myome des Uterus. Von Tho Cullen. Berlin: August Hirsc 1903.

Hope in Shadowland. By T. J. Bass mingham and Leicester: Midlan cational Co. 1s.

The Management of Lateral Curvat the Spine, Stooping, and the D ment of the Chest in Phthisis. Noble Smith, F.R.C.S. Edin. London: Smith, Elder and Co. 2s. 6d.

A Manual of General Patholog Sidney Martin, M.D., F.R.S., F London: John Murray. 1904. 15

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Remarks
ON
HOUR-GLASS STOMACH.

Y BERKELEY G. A. MOYNIHAN, M.S., F.R.C.S.,
Assistant Surgeon, Leeds General Infirmary.

hour-glass stomach ("hour-glass contraction of the mach," "bilocular stomach," "*Sanduhrmagen*," "*l'estomac biloculaire*") is understood that condition in which the mach is divided into two portions by a constriction at any nt between the cardiac and pyloric orifices. In one rare, act unique, case under my care the stomach was trilocular the result of a narrowing, due to old ulceration and tricial healing, at two separate points, distant about . from one another. In another, also unique, there were ee points of narrowing, one in the body of the stomach, at or near the pylorus, and one about 1½ in. beyond the orus, in the duodenum. In this case they were four sacs. a rule the cardiac complement is larger and has thicker ls than the pyloric. It dilates and becomes hypertrophied reason of the great obstruction met with at the scarred narrow isthmus, which connects it with the distal portion of the stomach.

he forms of hour-glass stomach are many. As a rule the striction is near the middle of the organ, or near the oric end. The isthmus may be very much indurated, or may be tubular with very little or no induration, but with ne thickening. In most instances the greater curvature ms to be pulled upwards to the lesser, but in one case I e seen the lesser tucked down to the greater.

ETIOLOGY.

Hour-glass stomach is usually described as being "congenital" and "acquired." Of these forms the congenital is d to be more frequent. Thus Fenwick, in his work, writes: n about 45 per cent. of the cases which have been recorded ther ulcer nor scar could be detected in the stomach, while the great majority of cases where an ulcer was present it s obviously of more recent formation than the stricture." d again, "That the deformity is a rare result of ulceration proved by the fact that only one case of the kind is mentioned in the records of the London hospital for forty years, whereas several instances of the congenital form of the disease were encountered during the same period of time."

Meckel considered that a congenital hour-glass stomach ght result from an imperfection of development, and uveilhier and others have suggested that the sacculation an instance of atavism, and that there is an analogy between such a deformity and the normal bifid stomach of tain rodents and the pouched stomachs of ruminants.

On examination of specimens of hour-glass stomach there n occasionally be seen two crossing bundles of muscular res on each surface of the organ. These were first noticed Mariotti, but were more fully described by Saake. The ndles are generally half an inch or more in width, and oss at the point of narrowing in the stomach. Traced from e upper side of the cardiac complement, a bundle is seen pass to the lower side of the pyloric, and from the lower le of the cardiac complement to the upper part of the loric, the fibres crossing like the widely opened blades of a ir of scissors. It has been suggested that these outstanding bands of muscle by their contraction determine e hour-glass form of the stomach, and their existence is ld to be proof of the "congenital" origin of the deformity. the only example I have seen of this muscular arrangement the hour-glass stomach was clearly the result of an cer whose edges were immensely thickened and whose base d perforated. In this case the bundles of fibres followed e lines of puckering produced by the contraction of the cer, and were therefore clearly the result, and not the cause, the deformity.

Cumston and other writers have said that in congenital ur-glass stomach the two pouches are connected by a tube or linder showing no scar or ulceration, and free externally m all adhesions. One such case I have dealt with by eration. I slit up the channel connecting the two sacs, d found a perfect example of "bridle" stricture, the result healing in an ulcer which, from the mucous surface, was sily seen and felt.

An example of congenital hour-glass stomach is said to have en recorded by Sandifort; the specimen was obtained from a fetus. This case is referred to by every writer as being a well-marked example of congenital hour-glass stomach. I have read Sandifort's description, and have seen the figure drawn from his specimen. I should certainly decline to admit that there is any warrant for considering this an hour-glass stomach; the very slight contraction seen near the middle of the stomach is nothing more than the result of a slight irregular muscular contraction. The appearance of hour-glass deformity may be mimicked with remarkable accuracy by a condition of dilatation of the stomach and of the upper part of the duodenum as the result of a congenital narrowing of the duodenum at or near the bile papilla. Such a case is recorded by Wyss.

In all the recorded examples of hour-glass stomach where a full examination of the viscus has been made, ulceration has been found. For those who believe that the deformity is congenital, the theory that the ulcer is secondary is sufficient. Thus Cumston writes: "These ulcers are secondary, and are probably produced by the pressure of the food passing through the strictured part of the organ."

Roger Williams in 1883 described ten examples of "congenital" contraction of the stomach. The account of one of the cases is based on the examination of a wax model; of another, on the inspection of an "inflated dried" specimen; and of a third, on the appearance of a dried stuffed specimen. It is doubtful whether one of the examples can be accepted as an hour-glass stomach. In all the others pathological conditions, ulceration, puckering, thickening, or adhesions were found.

Hochenegg, Carrington, Maier, Saake, and many other writers who describe their examples as "congenital" mention thickening, old ulceration, adhesion to the pancreas or to the abdominal wall, localized perforation, and other conditions which are indubitably the result of chronic ulcer of the stomach, Doyen, in his work on the diseases of the stomach and duodenum, refers to a case in which at the isthmus of the stomach an adhesion to the anterior abdominal wall was found; on breaking through this a gastric fistula was exposed, showing unmistakably that an ulcer had been present, which had been prevented from perforating into the peritoneal cavity only by the anchoring of the organ to the anterior abdominal wall. This is said to be "congenital."

Mazotti relates a case of "congenital" hour-glass stomach in a woman of 50; he believes the deformity to be due to "an unusual development of the transverse muscular fibres in a certain part of the wall of the viscus."

An examination of several specimens and an earnest search through the literature of this subject has convinced me that there is no proof whatever of the existence of an hour-glass stomach due to a congenital deformity. The absence of any observation of hour-glass stomachs in the fetus or the young child is very striking. When those who have been describing their specimens use the word "congenital" they seem to do so without thought or hesitation, accepting, it would appear, the mere existence of the deformity as unquestioned evidence of its congenital origin. So far as I am aware, there is not a single specimen or an accurate record in existence which can be accepted as evidence of the congenital origin of this disease.

The causes of acquired hour-glass stomach are:

1. Perigastric adhesion.
2. Chronic ulcer,
3. Malignant disease.

1. Perigastric adhesions may arise from many causes. Most commonly they are due either to ulcer of the stomach or to gall-stone disease.

2. Chronic ulcer may cause hour-glass stomach in one of two ways. In the first there is a gradual deepening of the ulcer. As the ulcer approaches the serous coat of the stomach a few adhesions form, binding the viscus to the anterior abdominal wall, preventing the bursting of the ulcer into the general peritoneal cavity. If the ulcer be on the posterior surface, a soldering to the pancreas may result, as in one case I have recently seen. When the stomach is anchored in its middle, the pouches on each side, but more especially on the cardiac side, show a tendency to sagging, and this, with the cicatricial contraction taking place in the ulcer, results in hour-glass form of the stomach. In one of my cases a malignant mass in the anterior wall had formed an extensive adhesion to the body wall. Doyen, Steffan, and Finney have recorded similar examples.

In four recorded cases (Siewers, Brown, Thomsen, Leonard Bidwell), and in one of my own, an ulcer at the isthmus of an hour-glass stomach has perforated into the general peritoneal

cavity. In the second form the chronic ulcer in its healing has caused much contraction and induration. The stomach at the point of ulceration becomes markedly puckered and its lumen narrowed. But there is, I believe, in addition to the cicatricial contraction, another factor of chief importance in determining the narrowing of the organ. I refer to spasm. On several occasions during the last few years when operating for chronic ulcer, I have watched the stomach intently for several minutes, and have seen the onset, the acme, and the gradual relaxation of a spasmodic muscular contraction in its walls. Quite gradually the stomach narrows, and the wall becomes thicker and almost white in colour; when taken between the fingers the contracted area feels like a solid tumour. The spasm may be so marked as to prevent a finger being invaginated through the segment affected. The appearance presented is very striking. I have seen it in the body of the stomach and at the pylorus, but never at the fundus. As slowly as it comes on the spasm quietly relaxes, and the stomach assumes its usual form. In one patient I watched four such spasmodic seizures at the pylorus in a few minutes, and the tumour formed by the tightly-contracted muscle was so large that in a very thin subject it should have been felt on palpation of the abdomen. Such constantly-recurring attacks of spasm must lead to hypertrophy of the circular muscular fibres, and this thickening, together with the cicatricial contraction and the induration of the cavity, will amply account for the extreme narrowing of the stomach, with the dense thickening of the walls, met with in many of the examples recorded.

The extent to which spasmodic contraction, invoked by ulceration, is responsible for the narrowing found in hour-glass stomach is not capable of being measured, but my observation of the cases I have seen during the last few years makes me ready to believe that it is not inconsiderable.

The occurrence of rings of contraction in the stomach was first observed by Sir Everard Home in 1807. He refers to an observation of Perrault, published in 1676, in which a narrowing in the middle of the stomach was observed in a lion. The condition, found only on one occasion in the examination of four stomachs—two from lions, two from lionesses—is illustrated by a drawing. Sir Everard Home considered that the contractions found by him were entirely due to muscular action.

SYMPTOMS.

The symptoms and the signs of hour-glass stomach enable a positive diagnosis to be made in the great majority of cases. In my first 6 cases only one was diagnosed; in my last 9, 7 were diagnosed with certainty. The following are the signs:

1. If the stomach tube be passed and the stomach washed out with a known quantity of fluid, the loss of a certain quantity will be observed when the return fluid is measured. Thus, if 30 oz. be used, only 24 oz. can be made to return. Woelfler, who called attention to this sign, said that some fluid seemed to disappear "as though it had flowed through a large hole"—as, indeed, it has, in passing from the cardiac to the pyloric pouch (Woelfler's "first sign").

2. If the stomach be washed out until the fluid returns clear, a sudden rush of foul, evil-smelling fluid may occur; or if the stomach be washed clean, the tube withdrawn and passed again in a few minutes, several ounces of dirty, offensive fluid may escape. The fluid has regurgitated through the connecting channel between the pyloric and cardiac pouches (Woelfler's "second sign.")

3. Paradoxical dilatation. If the stomach be palpated and a succussion splash obtained, the stomach tube passed, and the stomach apparently emptied, palpation will still elicit a distinct splashing sound. This is due to the fact that only the cardiac pouch is drained; the contents of the pyloric remain undisturbed and cause the splashing sound on palpation. For this phenomenon Jaworski has suggested the appropriate name of "paradoxical dilatation." Jaboulay has pointed out that if the cardiac loculus be filled with water, a splashing sound can still be obtained by palpation over the pyloric pouch. The sign of paradoxical dilatation is best elicited after washing out the stomach in the ordinary manner. When the abdomen is examined at the completion of the washing, and when the stomach has been apparently drained quite dry, a splashing sound is readily obtained, for some of the fluid used has escaped into the pyloric pouch through the connecting channel.

4. Von Eiselsberg observed in one of his cases that on distending the stomach a bulging of the left side of the epigastrium was produced; after a few moments this gradually subsided, and concomitantly there was a gradual filling up and bulging of the right side.

5. Von Eiselsberg also called attention to the bubbling, forcing, "sizzling" sound which can be heard when the stethoscope is applied over the stomach after distension with CO_2. If the two halves of a seidlitz powder are separately given and the stomach be normal or dilated, no loud sound is heard anywhere except at the pylorus; if a constriction is present in the stomach, a loud, forcible, gushing sound can be easily distinguished at a point 2 in. or 3 in. to the left of the middle line.

6. I first called attention, two years ago, to a sign which I have since found of great service in establishing a diagnosis of hour-glass stomach. The abdomen is carefully examined and the stomach resonance is percussed. A seidlitz powder, in two halves, is then administered. On percussing, after about twenty or thirty seconds, an enormous increase in the resonance of the upper part of the stomach can be found, while the lower part remains unaltered. If the pyloric pouch can be felt, or seen to be clearly demarcated, the diagnosis is inevitable, for the increase in resonance must be in a distended cardiac segment. If the abdomen be watched for a few minutes the pyloric pouch may sometimes be seen gradually to fill and become prominent.

7. Schmidt-Monard and Eichhorst have both seen a distinct sulcus between the two pouches inflated with CO_2. In Case x in my list the two pouches, with a hard—a I thought malignant—mass between them, could readily be seen. When both pouches were distended with CO alternate pressure upon them showed unmistakably that they communicated through a very narrow orifice, for the one could be emptied slowly into the other, and the fluid could be felt to ripple gently through. The diagnosis in such a case simplicity itself. In Case VIII a distinct notch was seen the lower border of the inflated stomach.

8. Ewald has called attention to two signs which he considers of value in establishing a diagnosis. When the stomach is filled with water and examined by gastro-diaphan the transillumination is seen only in the cardiac pouch; the pyloric pouch remains dark.

9. The deglutable indiarubber bag of Turck and Hemmet is passed and distended. The bulging caused thereby limited to the cardiac pouch, which lies to the left of the middle line.

The two aids to diagnosis of greatest value are, it will be se the washing out of the stomach and its inflation with gas the administration of a seidlitz powder in two portions. T fluid used for the washing must be carefully measured bef use; the tube is then passed and the stomach emptied, contents set aside in a separate dish, and the washing co menced. All the fluid now returning is collected in a separ vessel and carefully measured. The two signs of Ewald ar little importance; a correct diagnosis can always be m without them.

CASE I.—August, 1899; female, aged 39. Ten years ago the pat had an illness characterized by profound anaemia. Seven months there were clear symptoms of ulcer of the stomach, but neither nor at any time any acute illness suggestive of perforation. Now vom after all ordinary food, and more often than not even after small q tities of fluid food. Pain after food was exceedingly severe. On mination of abdomen a dilated stomach could be felt. At one poi little to the left of the middle line, and slightly below the ensiform tilage, was an area 2 in. in diameter, which was markedly tender offered increased resistance on palpation. This area was found a operation to correspond precisely with the area of stomach adhe The patient had lost weight and deteriorated seriously in general h during the last few months. At the operation an hour-glass sto was found. The narrow constriction was near the middle o stomach, and adherent to the anterior abdominal wall over an equal to a crown piece. On each side of this the stomach dilate seemed to be anchored by the adhesion. On separating the sto from the abdominal wall an opening into the viscus was exposed the stomach contents escaped. The opening was enlarged transv and the wound and fistula were stitched up vertically. An or graft was brought to cover in the sutured area in order to guard a future anchoring. The patient recovered. For a month after the ation there was pain at times and loss of appetite. Since the has been free from pain and in excellent health. Appetite and tion are good. The patient was seen with Mr. Bailey, Horsfort February, 1902, her condition was still perfectly satisfactory October, 1903, the patient was reported to be in perfectly good he "in excellent condition."

CASE II.—April, 1900; female, aged 27. There was no hist gastric ulcer. The patient had complained of irregular attacks o in the epigastric region for eleven months, always associated w taking of food, and coming on about one hour after a meal. Vo was occasional and irregular, in rather large quantities; there

od. On examination, the stomach was distended and splashy; con-ctions were seen when distended. Medical treatment had proved i wailing. At the operatien an hour-glass stomach was found. The istriction was about 4 in. from the pylorus; the passage between the o sacs equalled a No. 12 catheter in diameter. There were marked iluration and puckering, but no adhesion to the abdominal wall or ewhere. The strictured neck was divided by an incision about 2½ in. lg in the transverse direction and stitched up vertically, the mucous mbrane with a continuous catgut suture and the serous with a con-uous silk suture. Two additional interrupted sutures were applied each end of the wound. The patient recovered. There was vomit-for five days after the operation, blood-stained. Since then per-tly well. The patient was seen with Dr. Waugh, Skipton. In March, 03, she was reported to be in complete health.

ASE III.—January 24th, 1901; male, aged 45. Had been ailing for ee years. Pain in the epigastrium, radiating to the left chest. Was rse after food; coming on "within half an hour," and lasting for m two to four hours, unless relieved by vomiting. Frequently vomit-g about an hour after food; never any blood. Lately the pain had en almost constant, aggravated by food, and eased by vomiting. Had t 2 st. 12 lb. Dilated stomach. On distending with CO_2 a notch was ticed at the upper border of the stomach and a tentative diagnosis of ur-glass stomach was made. Free HCl. A trace of lactic acid and a v rod-shaped bacilli. At the operation an hour-glass stomach was ind. The scar of the ulcer was equal in size to a florin; was situated se to the lesser curvature and nearer the cardiac orifice than the loric. There were much puckering and induration of the surface. ere were no adhesions. The index finger entered but could not pass e stricture. An incision 3½ in. long was made transversely, and tched longitudinally in two layers. A slender adhesion of gall adder to the pylorus was divided (gastroplasty, gastrolysis). The tient recovered. Before leaving hospital he could take ordinary diet thout any discomfort. Weight before operation was 7 st. 6 lb.; has ined 1 st. 8½ lb. The patient was seen with Dr. Trevor Pritchard, tford. In March, 1902, he was reported to be quite well.

CASE IV.—March 6th, 1901; female, aged 28. Symptoms of gastric cer for more than five years. Was under treatment at the beginning her illness at the infirmary. Had been gradually getting worse. mited now after every meal; pain and vomiting came on from about lf an hour to one hour after food; vomit was very "sour." On amination, hour-glass stomach. On distending with CO_2, the rdiac half increased considerably, forming a very large lymphatic ea. The pyloric half was distended but little; the division was early seen. On auscultation, a forcing, gurgling sound was dis-ctly heard. On operation, an hour-glass stomach was found. The rdiac side of the constriction was much dilated and larger than a rmal stomach. Rather beyond the middle of the organ was a con-riction that would just admit the forefinger; round the constriction ere much induration and many adhesions; especially noticeable was ie thick cord-like one coming from the liver. This was divided tween ligatures. The liver was slightly torn on separating wide-read adhesions along the lesser curvature. Below it on each side e stomach sagged, and between the cavities an anastomosis was made hich readily admitted three fingers (gastro-gastrostomy, gastrolysis). ie patient recovered. March, 1902, perfect result. He eats well and artily and has no discomfort. The patient was seen with Dr. Waugh, ipton.

CASE V.—March 9th, 1901; male, aged 55. Stomach troubles for xteen years. At first pain after food and occasional vomiting. Five ars ago an acute attack of haematemesis, melaena, and general swell-g of the body, which it was feared might prove fatal (? perforation). o ease in the stomach since then; constant vomiting, pain after every eal, and great wasting. Now looked thin, pinched, and shrivelled. or three weeks had had no food, only sips of water and nutrient emata. On examination, dilated stomach. Free HCl. At the opera-on an hour-glass stomach was found. At first it was thought to be a lated stomach. On tracing the stomach towards the pylorus, an ex-emely-narrowed isthmus (barely as thick as the little finger) was come which was supposed to be narrowed pylorus, but on tracing beyond stomach was still found. On invaginating a finger from each side of onstriction no opening could be felt. Many adhesions were separated ntil all was clear and free. Then incision into stomach or cardiac side the isthmus, and a probe-director was passed through constriction, hich it fitted snugly, the opening being no bigger than a No. 4 or o, 5 catheter. Gastroplasty was performed. On the pyloric side of ie stricture was a column of mucous membrane forming a bridle stric-ire. This was ligated, divided at both ends, and removed. The atient recovered. The patient was in the infirmary under Mr. Little-ood, and was operated upon by me in his absence.

CASE VI.—April 6th, 1901; male, aged 46. Symptoms for twelve onths; pain, heaviness, discomfort after meals; loss of weight and eneral deterioration in health. At Christmas had an attack of acute ain and haematemesis, and was very ill for several days: since then as never taken any food (solid or liquid) without pain. Has noticed on everal occasions that the stools were "black as ink." Vomits now very day. At the operation two ulcers were found near the pylorus, ne on gastric, one on duodenal side. A mass equal in size to a walnut as found at the pylorus. Pylorus was very narrow, adherent to liver nd gall bladder by dense bands. At the middle of a hugely dilated omach was a constriction that would admit four fingers. Posterior gas-o-enterostomy to pyloric pouch. At the necropsy two ulcers (duodenal nd gastric) were found, the former very adherent to the gall bladder; ie latter had perforated into a mass of adhesions, its base being partly rmed by the pancreas. The patient died. The patient was sent by Dr. Crawford Watson, Harrogate. All went well for three days; then a large prolapse of rectum (from which he had previously suffered) came down during the night, and was not discovered for four hours. When I saw him the prolapse was livid and oedematous, and could not be reduced until ether had been administered. From this time patient became gradually worse; the temperature ran up up to 104° and 105°, and he died four days later. The following is an abstract from the necropsy record, written by Dr. Maxwell, Telling: "The stitches are quite sound, the opening good, and surgical technique perfect. No peritonitis. The haemorrhoidal and inferior mesenteric veins are full of disintegrating clot (septicaemia)."

CASE VII.—May 24th, 1901; male, aged 48. For many years has vomited after food, and is eased by vomiting. In November, 1899, and May, 1900, had severe haematemesis. Three years ago was in the infirmary, and a diagnosis of "cancer" was made. On examination, an irregular dilated stomach. On inflation a distinct notch was seen in the lower border; just above this a very loud, forcing, gushing sound heard. Hour-glass stomach diagnosed. Signs 1, 3, 5, and 6 present. At the operation an hour-glass stomach was found. The cardiac pouch was much dilated, pyloric small and not dilated. The constriction was about 3 in. from the pylorus. At the upper border of the isthmus a hard mass, equal to a walnut in size, with puckering of stomach, and lesser omentum (posterior gastro-enterostomy). The patient recovered. The patient was sent by Dr. Isaac Taylor. His weight before operation was 8 st. 2 lb.; weight on January 15th, 1903, was 10 st.

CASE VIII.—May, 1901; female, aged 50. Ailing many years; the symptoms dating from an illness in which "gastric ulcer" was diagnosed. A diagnosis of "hour-glass stomach" was made by Dr. McGregor Young. Signs 1, 3, and 6 present. At the operation an hour-glass stomach was found, the isthmus being about 2½ in. from the pylorus. The stomach and all the intestines were thin and translucent and seemed almost devoid of muscle. On exposing the posterior wall of the cardiac pouch a second ulcer was seen. Posterior gastro-enterostomy was performed. After the operation regurgitant vomiting of such severity and persistence that a second operation was undertaken, and the proximal and distal segments of the jejunal loop were united (jejuno-jejunostomy). The patient recovered. The patient was seen with Dr. McGregor Young. The result of the operations has been most satisfactory; the patient is much better than she has been for many years.

CASE IX.—June, 1901; male, aged 39. Has had stomach troubles for nine or ten years. Then began quite suddenly to have great pain after food and to vomit two or three times a day; no haematemesis. The pain usually came on about an hour and a-half after food. Seen four years ago by a consulting physician, who diagnosed dilated stomach, and advised lavage, which has been done ever since. Relief at first very great, but lately, a serious relapse and no relief from washing. Hour-glass stomach diagnosed. Signs 1, 2, 3, and 6 were present. At the operation an house-glass stomach was found. The constriction just admitted the end of the forefinger; and was situated about 3 in. from the pylorus, and a point where loud gushing sounds were heard before operation. The cardiac complement was enormous, the pyloric a little dilated (posterior gastro-enterostomy; pylorodiosis). The patient died. The patient was sent by Dr. Ellis, of Halifax. After the operation the patient had suppression of urine; in four days secreted only 11½ oz., tinged with blood. Pulse became very rapid and of poor volume. Five pints of saline solution infused. Urine was secreted almost at once. Gradual improvement then for nine days; then suppression for forty-eight hours, and death. Both kidneys diseased; the left small and granular and cirrhotic, the right granular. Operation area normal. The urine before operation had been frequently examined, and nothing abnormal discovered.

CASE X.—June, 1901; female, aged 25. For three years has suffered from vomiting, pain after food, inability to take ordinary diet. Has never vomited blood, but has seen vomit which "resembled tea." Vomiting now almost continuous. Has lost 3 st. in weight. On examination a hard mass above and to the left of the umbilicus. On distending the stomach with CO_2, a distinct swelling on each side of tumour. Hour-glass stomach clearly seen. At the operation an hour-glass stomach was found. A large mass, 4 in. in diameter, was found at the junction of the two pouches, densely hard, immovable, and adherent firmly to the pancreas. Several enlarged glands. Supposed to be malignant. Stricture between the two pouches dilated freely. The patient recovered. The patient was sent by Dr. Crawford Watson, Harrogate. Her weight before operation was 5 st. Vomiting ceased at once, and food was freely—almost greedily—taken. The tumour quickly disappeared. Patient looks ruddy and well. Her weight is now 7 st. 7 lb. In October, 1903, she was reported to be over 8 st. in weight, and quite well.

CASE XI.—April, 1901; male, aged 40. About six months ago was suddenly seized with acute, intolerable pain in the upper part of the abdomen. Constant stomach troubles since; pain, weight, "dragging sensations." Has lost flesh quickly. On examination, a smooth globular swelling between mid-line above umbilicus and left costal margin; soft and fluctuating. At the operation, the stomach was found to be of hour-glass shape; the constriction was adherent to the anterior abdominal wall. On separating the adhesion, the stomach was opened and gastroplasty was performed. The tumour pushed the stomach forward. The great omentum below the stomach was torn through and the finger passed into the lesser sac. A smooth globular cyst was found projecting into the cavity and springing from the pancreas. The patient recovered. The patient was sent by Dr. J. Exley, Wortley. A

pancreatic fistula remained for several months. Health and weight fully regained. In October, 1903, reported to be quite well.

Case XII.—July, 1901; female, aged 28. Had six years' history of increasing indigestion, dating from an illness described by the doctor as "ulcerated stomach." Pain comes on one hour after food, worse when lying on the right side. Vomits after nearly every meal. Is getting steadily thinner. Signs 1, 2, 3, 4, 5, 6, and 7 all present. At the operation an hour-glass stomach was found and very tight pyloric obstruction. Gastroplasty and posterior gastro-enterostomy into the distal pouch. The patient died. The patient was seen by Dr. Baxter-Tyrie of Keighley. Death from pneumonia on the fifth day. The anaesthetic was badly taken, lividity and rigidity of abdominal muscles being present throughout.

Case XIII.—April 22nd, 1902; female, aged 42. Has had chronic indigestion. The symptoms came on gradually—pain after food, vomiting, and constipation. Eighteen months ago had haematemesis, and since then the symptoms have been greatly increased. Signs 1, 2, 3, 5, and 6 present, and a diagnosis of hour-glass stomach made. At the operation an hour-glass stomach (a perfect example) was found. The constriction in the body admitted the little finger snugly. In the narrowed isthmus, on the posterior surface, a densely hard indurated area, at least ¾ in. in thickness; the lesser and greater omenta both puckered up. Gastroplasty—a scar of the ulcer seen on mucous surface of posterior part. A very tight stricture found at the pylorus, the pyloric pouch being dilated also. Posterior gastro-enterostomy from pyloric pouch. The patient recovered. The patient was sent by Dr. H. H. Greenwood. A very rapid pulse for four days after operation. Report in October, 1903:—"Quite well; six months pregnant."

Case XIV.—November 29th, 1902; female, aged 27. Nine years' history. Pain after food and vomiting were the symptoms first noticed. Soon all solid food caused pain, and was rejected. The food became "sour," and the gas belched up smelt putrid. On several occasions blood has been vomited. The signs and symptoms of hour-glass stomach were elicited, and a confident diagnosis made. The two pouches of an hour-glass could be distinctly seen on inflation. Signs 1, 2, 3, 5, and 6 present, and an hour-glass stomach diagnosed. At the operation an hour-glass stomach was at once exposed, but on tracing the stomach up to the cardiac orifice another stricture and another pouch were found. There were thus two annular constrictions in the stomach and three pouches. The first pouch was the largest, the pyloric the smallest, being only of the size of a lemon. Gastro-gastrostomy and gastro-enterostomy were performed. The stomach was scarred almost universally. The patient recovered. The patient was sent by Dr. Knowles, Newstead, Halifax. She made a most excellent recovery. In October, 1903, she had gained 1½ st., and was taking food well.

Case XV.—January 20th, 1903; female, aged 34. Nine and a-half years ago vomited a "great deal" of blood. Dr. Mackenzie then diagnosed ulceration of the stomach. Since then has always been ailing, especially after a moderate meal. Five years ago was very ill; had acute abdominal pain, severe vomiting, and haematemesis. Was in Manchester Royal Infirmary with "ulcer of the stomach." One year and a-half ago had haematemesis. For several years has taken no solid food, and has never had an ordinary meal. Has lived on milk, custards, porridge. On examination an hour-glass stomach was diagnosed. Woelfler's two signs; paradoxical dilatation; increase in subcostal tympany; gurgling sound at left end of stomach, all well-marked. At the operation an hour-glass stomach and an hour-glass duodenum were found. There were two large stomach pouches, united by a narrow isthmus, at the lesser curvature. Tight constriction at the pylorus; the first portion of the duodenum was dilated to form a sac the size of a lemon; beyond this another constriction. The pyloric pouch of the stomach was more densely scarred than any stomach I have seen: its texture was almost wholly fibrous. On its posterior surface also many scars were seen. Gastro-gastrostomy and posterior gastro-enterostomy to the pyloric pouch. The patient recovered. The patient was sent by Dr. Mackenzie, Burnley. Within three weeks of the operation she ate solid food heartily and had taken all the vegetables in season.

Case XVI.—July 14th, 1903; female, aged 35. For the last six years has had abdominal pain, to the left side of the epigastrium chiefly, especially after food. Has vomited every week during this time; and six years ago, three years ago, and in February, 1903, had haematemesis. Since February has had constant pain and vomiting; is unable to take any solid or semi-solid food, and but little fluid. Is wasting rapidly, and looks thin, haggard, and very wasted. At the operation an hour-glass stomach was found. A deep pucker on the anterior wall and upper surface, pulling the lesser curvature down to the greater. From the centre of the dense indurated stenosing ulcer, a thick band and a web of adhesions passed up to the liver. The posterior surface of the stomach also was very adherent, so that a posterior gastro-enterostomy was performed with great difficulty. The patient recovered. The patient was sent by Mr. Jessop, and operated upon in his absence. Her recovery was most satisfactory.

Malignant Cases.

Case XVII.—March 3rd, 1901; male, aged 54. Vomiting of fluid if taken in quantities exceeding an ounce. At the operation an hour-glass stomach was found. Narrowing close to cardia due to malignant disease which had invaded the stomach everywhere (jejunostomy). The patient recovered. The patient was seen with Dr. Sykes, Cleckheaton. Died April 9th.

Case XVIII.—July, 1901; female, aged 38. At the age of 17 had a gastric ulcer; vomiting and haematemesis for several weeks. Since then has always had gastric uneasiness. Ten years ago "an ulcer burst" after a long walk. She suddenly experienced acute pain in epigastrium and fainted; during the subsequent night she vomited "chamber utensilful" of blood, and latter coffee grounds material. Since this attack has never enjoyed a hearty meal. For last few months has lost flesh rapidly; for the last three years she has been in bed, and has not been able to take anything but milk and water, and has returned most of that. Gastric tetany in limbs. Free HCl present. At the operation an hour-glass stomach, nearer the cardiac than the pyloric end, was found. The stomach was adherent over an area about 2½ in. in diameter to the anterior abdominal wall and liver. On detaching the stomach was opened. The opening was about 1¼ in. in diameter, the edges over ½ in. thick, and the mucous membrane greatly thickened and pouting. At the point of adhesion the stomach was markedly narrowed. The ulcer and a surrounding mass of stomach were excised and gastroplasty performed. Pylorus would only admit the passage of a director, and pyloroplasty was therefore performed. The patient died. The patient was sent by Dr. Cheetham, Guiseley. She seemed to be going on well until the fourth day when the pulse rapidly failed. The examination of the excised mass showed malignant disease to be present. The lower margin of the ulcer was greatly thickened by heaped-up granulation tissue, which, on microscopic examination proved to be carcinomatous.

Treatment.

In many cases of hour-glass stomach there is a narrowing not only in the body of the stomach, but also at the pylorus. This illustrates the undoubted fact that gastric ulcer is often multiple. The result, so far as the treatment of the condition is concerned, is that in many of the cases no single operation will suffice to fulfil all the requirements. If gastro-enterostomy is performed from the cardiac pouch, the pyloric pouch remains undrained. Symptoms of stasis are then observed, as in a case recorded by Terrier, and a second operation is necessary. An anastomosis from the second pouch is obviously futile. A gastroplasty which relieves the obstruction in the body of the stomach does not deal with the pyloric narrowing. In many cases it will be necessary to perform a double operation—gastro-enterostomy from both pouches, gastroplasty combined with gastro-enterostomy from the pyloric pouch, gastro-gastrostomy with gastro-enterostomy, or gastroplasty and pyloroplasty.

Thus I performed—

Gastroplasty alone in Cases, I, II, III, V, XI.
Gastro-enterostomy alone in Cases VI, VII, VIII, IX.
Gastroplasty and gastro-enterostomy, XII, XIII.
Gastro-gastrostomy alone in Case IV.
Gastro-gastrostomy and gastro-enterostomy in XIV, XV.

CONGENITAL NARROWNESS OF THE PYLORIC ORIFICE A CAUSE OF CHRONIC GASTRIC DISEASE IN THE ADULT,

ILLUSTRATED BY SEVEN CASES SUCCESSFULLY TREATED BY OPERATION.

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In operating upon various cases of chronic gastric derangement I have met with a condition of the pyloric orifice that seemed to me not only sufficient to explain the symptoms which existed, but to suggest that the condition itself was probably of congenital origin.

I shall possibly best introduce the subject by first narrating the history of the cases upon which the subsequent observations are based. It might be reasonably contended that the fullest details of every case should be given in order to eliminate all causes that might be considered, were they present to offer an explanation other than that which I shall venture to give. But I am compelled, in order to bring my contribution within reasonable limits, to introduce only such salient features in each case as appear to me fairly to support the views I hold.

Case I.

Mrs. A. B., aged 31 years. Gastric symptoms commenced when 2 years old; were of a simple dyspeptic character. Later the symptoms were those of chronic gastric catarrh; much mucus present both in vomit and in motions; much emaciation, and relief only obtained by lavage; food generally caused pain. Dilatation occasionally present. No history of haemorrhage. Patient in good station of life and unable to account for the early appearance of her symptoms.

Operation.—On May 14th, 1902, in private home. Direct external examination of stomach negative. Internal examination, mucous membrane livid and coated with much mucus. Pyloric orifice with rather tight ring admitting index finger with difficulty. Posterior gastro-jejunostomy performed. Eighteen months after patient in excellent health, in every way a different woman.

Case II.

B. C., aged 46 years. Gastric symptoms as long as she can re-
r, chief symptom being occasional attacks of vomiting after food
ompanied with pain, but food causes a sense of weight in the
rium. Dilatation takes place if careful attention is not paid to
.d lavage practised. Patient much emaciated and in general
health. No history of haemorrhage, nor can any reason be
d for the commencement of her early symptoms. In a comfort-
sition in life.
tion.—On June 5th, 1902, in private home. Direct external
ation of stomach and pylorus negative; internally a uniform
e constriction of pylorus admitting about a No. 12 urethral
r. Posterior gastro-jejunostomy. Fifteen months after con-
le and continued improvement.

Case III.

C. D., aged 20 years, one of a very healthy family. Gastric
ms commenced when 14 years old in the way of ill-defined indi-
—the tolerance of certain foods and not of others. Latterly
by food and relieved by lavage. Any indiscretion in diet
t on symptoms and caused gastric dilatation. No history of
rhage, or any other cause to explain why she should differ
her members of the family, who were all healthy. She lived in
station of life.
tion.—On October 20th, 1902, in private home. Direct external
ation of stomach negative; internal examination, pyloric orifice
ted by a uniform ring-like constriction which would only admit
x of the index finger, Posterior gastro-jejunostomy. Twelve
s after in good health.

Case IV.

D. E., aged 27 years, one of a healthy family. Gastric symptoms
as she can remember; a feeling of weight and general discom-
ter food; no pain or vomiting, but attention to diet and occa-
lavage always gave relief. The food took, as she said, about six
o pass out of her stomach. Dilatation marked. No history of
rhage, or other cause to account for the onset of her symptoms.
good position in life.
tion.—On October 30th, 1902, in private home. Direct external
ation of stomach and pylorus negative; internal examination
orifice a uniform narrow tense ring which only admitted tip of
finger. Gastro-jejunostomy performed. Twelve months after,
ement continuing but so far not so marked as the other cases.

Case V.

.., aged 21 years. Gastric symptoms commenced when 16 years
d consisted of pain and vomiting an hour after food. Dieting
ed her condition, but return to ordinary food brought on the
. Treatment never produced more than temporary improve-
t No history of haemorrhage, or other cause to account for onset
yptoms. A dressmaker by occupation.
tion.—On November 7th, 1902, in Victoria Infirmary. Direct
al examination of stomach and pylorus negative; internal exami-
c pyloric orifice uniformly contracted, admitting only the apex of
dex finger. Posterior gastro-jejunostomy performed. Twelve
s after never better in her life, and back to her work.

Case VI.

E. F., aged 27 years; gastric symptoms commenced a year and
go, mostly with pain after food. She found that by limiting
s to milk and fluid diet she was freed from any discomfort, but
empt at a return to ordinary solid diet caused a recrudescence
symptoms. She always noticed that small quantities agreed with
ch better than large. Dilatation was occasionally present. No
of haemorrhage or of other cause to explain onset of symptoms.
good complexion and fairly well nourished. In good social
n.
tion.—On November 27th, 1902, in private home. Direct ex-
examination of stomach and pylorus negative; internal examina-
yloric orifice uniformly contracted to a narrow ring which
admitted the apex of the index finger. Posterior gastro-jejun-
performed. Twelve months after, in excellent health.

Case VII.

.., aged 27 years. Gastric symptoms commenced nine years ago,
re mostly of a simple dyspeptic character. Pain and vomiting
mes present. Can only take milk and soups; solids, as butcher's
etc., caused pain and were vomited. Test breakfast showed free
hloric acid, and inflation marked distension. She is of a fresh
, and fairly well nourished. No history of haemorrhage, or
ause to account for onset. Is a shop assistant by trade.
tion.—On September 15th, 1903, in Victoria Infirmary. Direct
al examination of stomach and pylorus negative; internal ex-
ion revealed a tight and uniformly ring-like constriction of the
orifice which the index finger could not enter without force.
kening or irregularity present to suggest old ulceration. Pos-
gastro-jejunostomy performed. Two months after was in a con-
nt home showing marked signs of improvement.

Operating upon these, and in most of my other gastric
I have to acknowledge the kind and valued assistance
friend, Dr. J. Grant Andrew, Assistant Surgeon to the
ria Infirmary.

The first point to which I should like to draw attention is
articular character of the constricted orifice met with in
cases; and before doing so I ought perhaps to state what may be considered the normal condition of the orifice as met with by the surgeon on the operating table. Under complete anaesthesia the gastric parietes are more or less flaccid; the pylorus externally presents a line of somewhat deeper colour than the neighbouring parts; only the faintest constriction is visible, the duodenum often passing so imperceptibly into the stomach that it is only by the tactile sensation offered by the sphincter that the exact seat of the pylorus is detected.

There is no constancy in the amount of induration—if I may so express it—which the pylorus presents; a fact which seems to suggest that though the patency of the canal may be quite normal, there may be great differences in the developmental condition of the sphincter—differences possibly dependent upon the same physical causes which may naturally affect other parts of the body. I have little doubt that this variation has led to the difficulty experienced by some of determining whether the greater thickness met with in one case as compared with another was or was not due to some undue hypertrophic or inflammatory cause. I am, however, convinced that this variation is quite normal and may exist within considerable limits. Regarding the calibre of the pyloric orifice I have always found that, while the index finger passes easily, it has conveyed to it the sense of a uniform narrow elastic ring which feebly embraces and seems to roll over the finger as it is gently pushed onwards. I should consider from 12 to 15 mm. as the normal calibre of the canal during life and under relaxation (see Fig. 1). If one looks at a section of the pylorus, such for instance as is given in Quain's *Anatomy* by Allen Thomson, a sensation such as that above described is what might be reasonably expected. A uniform ring-like projection of mucous membrane is seen containing within its folds of reduplication circular bands of muscle fibre.

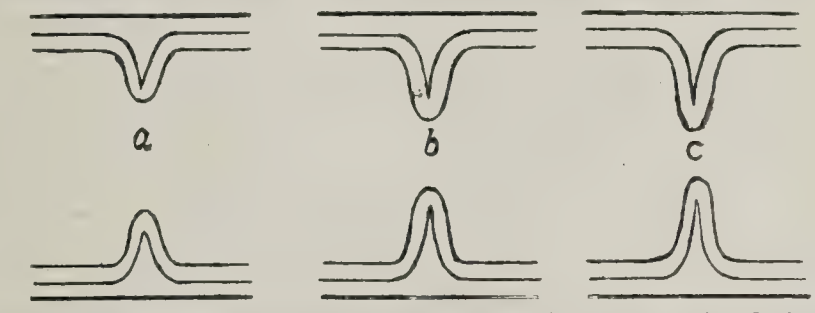


Fig. 1.—Diagrammatic longitudinal section of pylorus (natural size). *a*. Normal diameter of pyloric orifice—12 to 15 mm. *b* and *c*. Abnormal diameters—7 and 3 mm.

When in my earlier cases I first met with the abnormally narrowed condition of the canal I was inclined to believe that, if not due to chronic spasm, it was the direct result of the introduction of the finger into the pylorus; that such a solid substance as the finger within the stomach cavity was certainly likely to stimulate contraction of the pylorus, whose very function is to resist the passage of such indigestible objects as my finger presented. However, I had on one occasion when operating a very striking illustration of what both the stomach and pylorus is like under contraction. I had the stomach partly withdrawn from the abdomen with the pylorus in view; the patient seemed suddenly to come out of the anaesthetic when an almost violent contraction of the gastric parietes took place, causing a little of the clear fluid within the stomach to be forcibly spurted out. Immediately there followed contraction of the pylorus, which assumed the appearance of a rigid structure about 2 in. in length and about the circumference of the ring-finger. Pressing the anaesthetic soon relaxed the parts, and it was under this relaxed state that I felt a narrow uniform ring-like constriction at the pyloric orifice incapable of admitting the apex of the index finger.

It was the information gained in the observation of this particular case that led me first to doubt that these narrowed orifices were spasmodic in character; rather that they owed their existence more to some abnormality in development than to any acquired cause.

As to the nature of this abnormality, I am inclined to regard it as due to an excess of reduplication of the pyloric fold, whereby the valve width is increased but the orifice correspondingly diminished; that it is, therefore, purely anatomical and congenital in its origin. Such a definition entirely fits in with the facts revealed in the various cases above narrated; for the obstruction was always perfectly uniform and simply gave the impression that it was abnormally small, and the smaller it was the greater the resistance

it offered to the introduction and passage of the finger. Further, it may be noted that resistance was in no sense like that of non-giving cicatricial tissue. That, as is well known, rarely gives way except with laceration, while in most of these cases—with the exception possibly of the most extreme—the ring gradually gives like an elastic band over the advancing finger. If I have been right in the construction which I have ventured to put forward regarding the nature of this obstruction, then it is possible to conceive how we may have solely as the result of development any calibre of the pyloric orifice between that which we consider as normal and that which will admit only a small-sized—say No. 6—ordinary urethral catheter.

Before passing on to the more clinical aspect of the subject, I ought perhaps to indicate that these cases of pyloric obstruction in the adult in no way come under the category of that form of obstruction occasionally met with in earliest infancy. The so-called "congenital hypertrophic stenosis" of that period is of the nature of a very definite thickening of the pyloric region, and so quite distinct from the condition at present under discussson. While much has been written about this form of obstruction at the earliest period of life, very little appears to be mentioned of the particular kind specially referred to here. That this "hypertrophic" form may in some modified degree exist in the adult and be the cause of chronic gastric trouble I have very little doubt. Indeed, its existence has, I think, been fully established by Maier, whose cases I shall refer to later.

I should say, before proceeding further, that although ignorant of the fact when I first met with the condition that I have just described, subsequent investigation into the subject has brought to my notice the description of this same appearance of the parts by others. Landerer, quoted by Maier,[1] seems to have been the first to draw attention to this simple narrowing of the pylorus unassociated with any marked thickening or other changes connected with the part. Maier discusses this same congenital abnormality, and also indicates very clearly other appearances equally of a congenital origin. Maier's cases numbered 21, and were necropsies upon patients who had died mostly from other causes than those connected with the gastric condition. In some a definite history of stomach trouble was known to exist during life. While Maier's paper deals essentially with the anatomical and pathological conditions, it is also intended to indicate the clinical symptoms which may be present during life, and to suggest that due regard be had to their possible significance in this particular connexion. For some years, therefore, the possibility of chronic gastric disturbance in the adult dependent upon an abnormal narrowing of the pylorus has been recognized; but it is only comparatively recently since surgery has attacked the stomach during life that the cause and its effect have come to be more exactly noted and still further treated. The subject is briefly referred to by Mayo Robson and Moynihan in their work on *Diseases of the Stomach*, a very typical case illustrative of the condition being described. The patient was a male, aged 24 years, who had suffered from indigestion for five years, which had commenced gradually and painlessly. When operated upon, his symptoms were typically those of obstruction at the pylorus, and it was for this that he was treated. But the peculiarly simple and uniform nature of the obstruction, admitting only with difficulty the little finger, seems to have led the authors to regard this case as one of congenital narrowing of the pyloric orifice.

The simplest way, it seems to me, of considering the clinical aspect of the subject is to view the matter from the point of view of an obstruction at the pylorus; for the symptoms which arise from this must depend not only upon the calibre of this orifice—whether it is only slightly contracted or very markedly so—but upon the very build and constitution of the patient. Given the same amount of abnormal development of the pyloric valve in two persons, there may be the utmost difference as to the time of appearance of the earliest symptoms and their special character and severity. The stomach of a well-developed constitutionally healthy patient would probably overcome the obstruction and be free from symptoms to a much later period in life than one not so physically robust; and then, when symptoms did appear, in each case they might be totally distinct. I merely mention these matters in a general sort of way to show how extremely difficult must be the question of

Diagnosis.

In reviewing the cases I have briefly narrated there are not two that can be said to have presented symptoms of any marked similarity either in the initial or the later stag the disease. It is no doubt due to this variableness o symptoms that has served to mask the true cause of t As an illustration of this I may instance the first of my c that of Mrs. A. B. She was a patient of Dr. Alexander Si of Glasgow, who asked me to see her with him in cons tion. Her symptoms were solely those of chronic g catarrh from what cause it was not possible to ascertain. amount of mucus discharged from the stomach was at so large that it clogged the tube used for gastric lavage. thing but the very simplest and most meagre diet coul stomach stand. As seen at this time she was in a wre state of health, and although in a position to have al means could supply, no permanent improvement had been attained by treatment.

We discussed the case very fully and I must own to a of reluctance at the time either to propose or accede to tion. Would the performance of a gastro-jejunostomy the stomach rest sufficient to enable it to recover fro chronically inflamed condition? Dr. Shiels seemed s in his own mind that it was the right thing to do; his op being based on the success which he had seen follow tive treatment of a similar condition. Strange, therefo it may appear to some, the physician and not the surgeo the one who advised operation. I accordingly perfor gastro-jejunostomy. Improvement was not immediat at the end of about six months progress, which had been became rapid; and, without going further into detail lady at the end of eighteen months was almost in wha might term robust health. The chronic catarrh in thi was evidently the result of many years of irritation, depe upon the detention of food in the stomach by the nar pylorus.

The symptom of dilatation is a very variable one, times present, sometimes not. What is usually found so long as the stomach is systematically washed out an fluids and easily-digested substances taken no dilatation place; but any liberty in diet or relaxation in trea dilatation becomes manifest.

A sense of weight in the epigastrium is often a s symptom after food, and in some instances no relief w tained until the contents of the stomach was either arti or naturally removed. In one case the patient said h usually took about six hours to digest.

There is nothing really pathognomonic about thes ptoms, but the most suggestive I would consider t lowing:

1. The existence of obstinate gastric symptoms young adult life, not to be accounted for by any of the recognized causes, functional or organic. Often the p are in a fairly good social position, where neither exc deficiency in the necessities of life exist; and often, t sufferer is one only of a family otherwise healthy in branches.

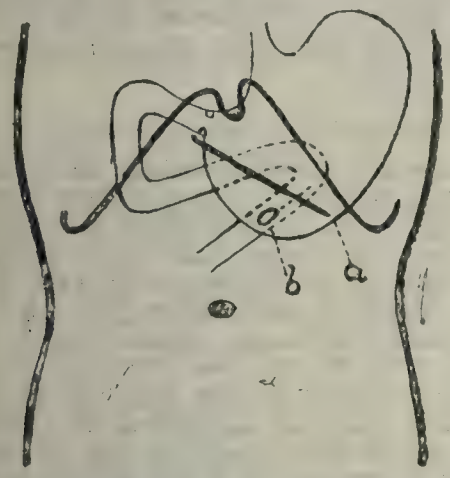
2. The patients are mostly women under the standard both in stature and build. It is only so natural to suppose that this is likely to be so, beca amount of development of the fold, which in a vi naturally large size might not be sufficient to prod struction, would certainly do so in one of less dime My cases were all women of comparatively small bui on account of the usually smaller stature of the fe compared with the male, we may reasonably suppo the former are more likely to suffer from any undue na of the pyloric orifice than the latter.

3. Another feature of diagnostic significance is th improvement it is always possible to effect by dieti the certainty with which any return to a normal living will call forth a renewal of the symptoms. T most strikingly borne out in my cases.

Treatment.

As has just been stated, it is possible to greatly the patient by attention to all those means usually e for the same symptoms arising from other causes. I must be that owing to the improvement it is thus po effect, many men have been led into the erroneous be a cure has been attained where really nothing more th porary relief has resulted. Dissatisfied after a tim being permanently cured, the patient seeks advice el and so leaves his or her original attendant in the e position of believing he has effected a cure. Certain some of my patients had seen as many as hal separate medical men; and, as I personally know, som

lemen have been indignant at hearing the patient has
operated upon for symptoms which they considered
ectly curable by the ordinary medicinal measures.
peration is, of course, the only means of cure. It is not
olutely necessary in all cases, as a patient may, by careful
ntion to diet, doubtlessly live for years, and eventually
—as they did in some of Maier's recorded cases—of diseases
e unconnected with the stomach trouble. In nearly every
, however, it must be more or less an invalid existence.
the three operations which may be performed—pyloro-
ty, pylorodiosis, and gastro-jejunostomy—I have little
tation in saying that the last is the proper one to adopt. It
successfully employed in my 7 cases. Relief may be more
ss immediate, but often it takes months to effect a cure.
re the stomach has been deranged for years careful treat-
t must be carried out for some time after the opera-
d. So important and so frequently executed in this
ation, that I should like just to add a few remarks with
rd to it. What is frequently and quite properly asked is—
ou may perform your operation quite successfully and
ve the symptons, but what about the new relationships
blished? Are they of themselves ever likely to cause
ble?" I say that it is quite a proper question to ask
use, unless we can honestly feel that the artificial and
atural connexions we are establishing can, of themselves,
o way interfere with the future welfare of our patients,
ought probably to limit our practice to cases of necessity
not employ it where the question is one merely of
diency. It would take far too much time to discuss the
y points in connexion with the performance of this
ation; but after trying many methods and variations in
il, all aimed at procuring the most perfect, immediate
remote ends, I regard the following as the best. It is
d solely on the attempt to leave the parts after operation
uch as possible in their normal anatomical relation.
oblique incision is made through the skin commen-
about 1 in. below the right costal margin and 1 in.
the right of the middle line, and extending for from
4 in. across the middle line downwards and outwards
distance of about 1 in. from the left costal margin (see
2). By this incision the right rectus is divided for about



2.—Position of the parts after the performance of posterior gastro-jejunostomy. *a*, Skin incision. *b*, Orifice of bimucous fistula, with union of gut above to under surface of stomach.

and the left for 2 in. or 3 in. The pylorus is exposed
an easy examination of the stomach afforded. The divi-
of the rectus muscle I consider of no importance. What,
ever, I do think necessary towards the attainment of a
ect cicatrix is the union of the anterior and posterior
rs of the rectus sheath by separate lines of suture. I have
failed once in obtaining a perfectly sound and non-giving
trix by this method.
e posterior operation by simple suture is the one, with
exceptions, practised. After withdrawing and turning
ards the stomach and transverse colon, the mesocolon is
ed through and its edges secured by three or four stitches
e posterior wall of the stomach, which is made to present.
jejunum is picked up, closed to the duodeno-jejunal bend,
ied to the stomach, and stitched to it for about 3 in., the
ction being such that when the stomach is replaced it
the united bowel still occupy much the same relation
efore union (Fig. 2). The opening of communication
but 1½ in. long is made close to the great curvature, so
it comes to occupy the most dependent part of the
us, and has also an inch or two of stitched surfaces above
. Thus it will be seen that no "angulation" of the gut is
ible; there is no long loop of proximal bowel to become "waterlogged," and possibly cause trouble in the remote future; there is no need for an entero-enterostomy; and as the bile and pancreatic juices very soon mix with the gastric juice, there is little fear of the formation of peptic ulcers in the distal limb. The ejection of bile into the stomach never takes place, because the method of attachment adopted causes it and the pancreatic juice to be shot past the opening into the more readily accessible channel below. The method, practised now for more than a year, has been followed by an entire absence of all untoward symptoms, and I believe ensures against any complications in the future.

In conclusion, let me sum up my remarks by saying:

1. That there exists a considerable class of patients in young adult life who owe their chronic gastric trouble to a congenital narrowness of the pyloric orifice.
2. That this "narrowness" is due in many cases to an undue development of the pyloric valve lessening the calibre of the orifice to anything between the normal of 12 to 15 mm., and 2 or 3 mm.
3. That the proper treatment is gastro-jejunostomy performed with due regard to the normal disposition of the parts after operation.

REFERENCE.

1 *Virchow's Archiv*, Band cii, p. 413.

THE SUBSEQUENT HISTORY OF EIGHTEEN PATIENTS UPON WHOM GASTRIC OPERATIONS HAD BEEN PERFORMED.

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ONE of the most important points in connexion with the surgery of the stomach upon which definite information is lacking is the ultimate condition of cases in which it has been considered advisable to perform gastro-enterostomy or some similar operation. The immediate results are well known, and are excellent. What is wanted is the after-history—what happened later, after the patients returned to work and to their ordinary diet and mode of life; whether they were permanently relieved, or whether the improvement that immediately followed the operation may not have been only of a temporary character, due perhaps quite as much to the rest in bed, the quiet and good feeding, as to the operation itself. In the hope of obtaining some information upon this point, I asked Mr. Hugh Lett, the Surgical Registrar at the London Hospital, kindly to collect for me a few particulars with regard to all the cases upon which I had operated before the end of 1902, excluding cases of perforated ulcer (in which operation is compulsory, no matter what may be the ultimate result) and cases of carcinoma. The result, as usual in such inquiry, cannot be called satisfactory. Many of the patients could not be traced—a larger proportion, in fact, than is usual, because the majority of them were young women; but still I have been able to obtain a record of 18 altogether.

The questions asked were the same in all alike. Have you any pain after meals? If you have, is it severe? Are you often sick? Have you ever brought up blood since the operation? Is your general health better than it was?

The number of these cases is, of course, far too small to justify the formation of any general conclusions; but they illustrate a few points which appear to me to be worthy of attention. One of these is concerned with the haemorrhage from what are often called erosive ulcers of the stomach, but which for reasons I have already given elsewhere I cannot help thinking would be better described as recurrent. There is no difficulty in arresting the bleeding. The base of the ulcer may be ligatured or it may be excised (in one or two instances in which there was a considerable number of bleeding points simple exposure to the air seemed to be sufficient); and in cases in which the amount of blood lost is becoming dangerous, such an operation may be, and in some of these cases I believe has been, the means of saving the patient's life; but it must always be borne in mind that the operation deals merely with one of the consequences of the ulceration, not with the cause, and that it cannot in any way prevent other ulcers forming subsequently, or bleeding taking place from them if they do form. And this no less true of gastro-enterostomy; I have known recurrent ulceration follow this operation in just the same way, in spite of the fact that the artificial communication was acting in a perfectly satisfactory manner. In two of my cases (Nos. 2 and 13) in each of

No.	Name.	Sex and Age.	Date.	Condition, etc.	Remarks.
1	A. H.	F., 42	Nov., 1899	Numerous erosive ulcers on posterior wall, ligatured. Haematemesis for six years. Recently very severe	Free from pain. Has been sick twice since discharg and on each occasion brought up small amount blood. General condition much better.
2	A. A.	F., 34	March, 1900	One erosive ulcer on posterior wall, near lesser curvature, ligatured. Haematemesis eight times in five days. very anaemic	No pain, bleeding, or sickness since operation. Gener state about same.
3	J. C.	M., 42	May, 1900	Chronic ulcer 1½ in. in diameter near cardiac end of lesser curve. Ligatured en masse. Haematemesis, pain, and vomiting five years; recently much more severe	No pain or haematemesis. Two attacks of vomiti since operation, each following exposure to wet a great cold. General health much better.
4	J. M.	M., 50	June, 1900	Tight annular stricture at pylorus, with dilated stomach. Pain, vomiting, and haematemesis six years before. Pyloroplasty	No pain or sickness since. General health "first-rate."
5	G. S.	M., 19	March, 1901	Tight annular stricture at pylorus. Pain and vomiting for four years. Very ill-developed, only weighs 3 st. 8 lb. Pyloroplasty	No pain or vomiting. Has more than doubled weight.
6	E. B.	M., 23	April, 1901	Perigastric adhesions around pylorus. Pyloroplasty. Pain and vomiting off and on for seven years. Haematemesis once recently	Still has occasional attacks of pain at night time; relation to food. Not often sick; never brings food. No haematemesis. General condition go when not in pain.
7	G. B.	M., 19	June, 1901.	Pain and vomiting after food. Gastrotomy. No cause found	Condition much the same. Apparently atonic dyspeps
8	A. G.	M., 39	Sept., 1901.	Pain and vomiting beginning three years before. Four attacks of haematemesis; last two very severe. Haemoglobin 48 per cent. Gastrotomy. Nothing found	Has had no pain, vomiting, or haematemesis sin General condition better, but still anaemic. Has proved his business position considerably.
9	H. A.	F., 20	April, 1902.	History of haematemesis. Persistent vomiting, one small erosion ligatured	Relieved for some months; vomiting returned and c tinued. General condition excellent. Red blood c puscles 4,800,000. Hysteria (?).
10	A. M.	F., 23	April, 1902.	Pyloric obstruction due to swallowing corrosive acid. Gastro-enterostomy	Married since. In perfect health. Absolutely no dig tive trouble.
11	E. A.	F., 29	May, 1902.	Very severe pain for last two years. Perigastric abscess opened. Blood and pus vomited	No trouble of any kind. Never felt better.
12	S. P.	F., 26	May, 1902.	Very severe pain for years. Haematemesis four months before, and also seven times in last five days. Chronic ulcer on lesser curvature excised	No pain or sickness since. General health much bette
13	C. A.	F., 30	May, 1902.	Indigestion twelve years. Severe haematemesis many times in last few days. Seriously anaemic. One erosive ulcer found and ligatured	Occasional indigestion, but not severe. Never sick. never brought up any more blood. General hea about the same.
14	H. S.	F., 54	June, 1902	Indigestion all her life. Haematemesis once. Pain extreme Old ulcer on anterior wall near lesser curvature. Anterior Gastro-jejunostomy	No pain or sickness since operation. General hea very much better.
15	F. G.	F., 30	June, 1902	Haematemesis on many occasions in last three years. Severe pain after meals, Pylorus rather tight; no ulcer found. Mucous membrane deeply congested. Anterior gastro-jejunostomy	Haematemesis once since. Was in hospital at the en 1902. Noted that there was nothing abnormal; took food well, and there was no vomiting.
16	H. M.	F., 47	July, 1902	Very severe haematemesis two years ago and again recently. Collapsed. Chronic gastric ulcer on posterior surface ligatured en masse	No pain or vomiting since. General health very m better.
17	M. C.	F., 25	July, 1902	Haematemesis, vomiting and pain at intervals for last two years. Numerous erosive ulcers and also blackened patches found. Ulcers ligatured	Immediate recovery perfect, but since has suffered f attacks of haematemesis as frequently as before op tion.
18	J. A. F.	M., 48	Sept., 1902	Epigastric pain and vomiting for 16 years. Many attacks of haematemesis. Very anaemic. Anterior gastro-jejunostomy. Chronic ulcer near pylorus	No pain. Never sick. General condition very much proved.

which only one of these erosive ulcers was found, no further trouble has followed; and as one of them is of nearly four years' duration, the patient may reasonably be considered to have been cured; but in several others, after an interval of apparently perfect recovery, the haematemesis occurred again. Whatever may be the exact pathological condition underlying this particular affection, it is most essential that patients who are suffering from it should be carefully distinguished from those in whom the ulceration is chronic and persistent. In the one case operation is only required when the bleeding is so profuse as to place life in danger; in the other haemorrhage is an indication that the ulcer is extending, either in depth or breadth or both, and therefore requires a different method of treatment from that which it has hitherto been receiving. As a rule, the two can be distinguished from each other without any difficulty by the fact that a patient, who is suffering from recurrent ulceration, is perfectly well and free from pain in the intervals between the formation of these erosions; while, though not altogether unknown, an interval of perfect ease, lasting for any length of time, is certainly exceptional in thase who are suffering from chronic ulceration.

Another point is connected with the presence of adhesions. If these are left, whether gastro-enterostomy is performed, or the ulcer is excised or ligatured, the patient will always be liable to suffer more or less from pain after taking food, owing to the stomach in its movements dragging upon the parietal peritoneum which is so abundantly supplied with sensory nerves. It seems reasonable to think that this would be less liable to occur after gastro-jejunostomy than after excision of the ulcer. The artificial communication has no sphincter, and consequently the stomach can empty itself with greater speed and against less resistance; but I am unable to form an opinion as to the relative merits of these two methods in this respect from the present series of cases, as unfortunately all the early ones of gastro-enterostomy, these in which there had been sufficient time to judge, failed to answer my letters and cannot be traced.

Simple division of gastric adhesions in the majority of stances is of little or no use. They nearly always form aga The only way in which it is possible to avoid recurrence pain arising from this cause with anything like certainty to excise that portion of the stomach wall to which th adhesions are attached, and bring the cut edges toget carefully by means of sutures. The sero-muscular coat al is concerned, and there is no need to touch the mucous me brane or lay the stomach cavity open; but it is evident t such a proceeding can only be carried out thoroughly so l as the area to which the adhesions are attached is limit and therefore it is imperative, if the patient is really to obt relief, that exploration should be undertaken before a co tion that is incurable has been reached.

In three of my cases no cause could be found that was ficient to account for the symptoms. One of these (No. 9 think there can be no doubt from the subsequent histor the patient, must be classed among what are called, for w of a better term, hysterical cases. The patient was relie for a time, but has been in hospital on several occasi since. She nearly always gives a history of haematem while out of the hospital. In the hospital there has n been any bleeding, but there have been pain and vomit and the latter is of a very peculiar character, very small q tities of food being brought up at intervals of a few minu without any apparent effort or nausea, just as with ani when they are ruminating. Meanwhile the patient keep excellent condition, with rather a high colour; and a b count gives 4,800,000 red corpuscles to the millimetre.

Of the other two, one was in all probability an instanc atonic dyspepsia with some dilatation of the stomach, would most likely have derived relief if gastro-enterost had been performed. The other (No. 8) is very perplex The patient was a man 39 years of age, who had had attacks of haematemesis with melaena in the last two y The two last attacks, the second of which occurred abou months before admission, had been very severe. The stor was opened by an incision parallel to the curvatures,

ing was found to account for the symptoms. He recovered lly from the operation, and since then (September, 1901) been free from pain, is never sick, has never brought up more blood, and though still anaemic (as he was before peration) has been able to do his work and improve his ion in his business as clerk of the works in a building . I fully expected in this case to find a chronic ulcer of stomach, and there may have been one which I over- ed, or there may have been an ulcer in the duodenum beyond the pylorus; but the result, whether there was as not an ulcer, is equally difficult of explanation. The ition of the symptoms after the operation (the pain for the months previous, since the latest attack of haematemesis, been very severe and continuous, though made worse by) may have been simply a coincidence, but, if so, it must dmitted that it was a singularly happy one. The explana- which has been advanced to account for the undoubted that the haemorrhage from erosive ulcers not uncommonly es as soon as the stomach has been opened and the ous membrane exposed to the air—namely, that the effect ie to the influence that such a proceeding must have the vasomotor nerves of the stomach—will hardly hold here. The cessation of the pain cannot be accounted for is way. With greater probability, it seems to me that ovement was due to the free division of the circular mus- fibres of the stomach near the pylorus which such an ion involves; for the opening made was free, sufficient to duce a large vaginal speculum. This would ensure that portion of the stomach at least was kept at rest for some derable time, long enough, perhaps, to enable it to ver and regain the power of performing its functions in a nal manner.

E CONSECUTIVE CASES OF PERFORATED GASTRIC ULCER TREATED BY EXCISION.

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e of the five cases were young anaemic women, and the was a delicate, tuberculous-looking man. All had red from symptoms of gastric ulcer for a year or up- s, and in each the evidences of perforation were unmis- able. In each case the rupture occurred in the anterior of the stomach, and the opening was in the centre of a h of thickened, inelastic, and friable stomach tissue. In e instances the walls of the stomach immediately ounding the perforation were at least $\frac{1}{2}$ in. in thickness. ll there was extensive fouling of the peritoneum, the ach contents having in each case reached the pelvis. ough gas was found in the peritoneal space in every in three only was the normal hepatic percussion note nt.

E I.—E. B., a woman, aged 24 years, operated on in the Sheffield Infirmary on May 9th, 1902, ten hours after perforation had taken Appeared to progress favourably for three weeks, then began to rigors, irregular pyrexia and sweating attacks. Died at the end of eeks from multiple hepatic abscess secondary to a small collection s behind the stomach.

E II.—A. H., a girl, aged 18 years, operated on in the Sheffield Infirmary on December 12th, 1902, twenty-eight hours after per- on. Made an excellent recovery.

E III.—F. D., a girl, aged 19 years, operated on in the Sheffield Infirmary on January 6th, 1903, twenty hours after perforation. an excellent recovery.

E IV.—W. F., a man, aged 31 years, operated on in a surgical home uary 15th, 1903, thirteen hours after perforation. Appeared to do or twelve days, then had repeated attacks of profuse haematemesis, which he died on the fifteenth day. A few hours before death -enterostomy was performed under cocaine anaesthesia.

E V.—H. E., a woman, aged 26 years, operated on in the Sheffield Infirmary on May 22nd, 1903, seven hours after perforation. Made but satisfactory recovery.

cision of the ulcer was practised in each of these cases. esulting wound in the stomach was closed by two rows ntinuous sutures, an inner of fine catgut through the us membrane only, and an outer of silk through the ulo-peritoneal coats. The line of suture was strengthened itching over it a strip of adjacent omentum. Vigorous prolonged flushing with warm salt solution followed, ning in the spaces between the liver and diaphragm, working down towards the pelvis. The period occupied shing varied from ten minutes to half an hour, and the e peritoneal surface was systematically gone over at twice. Towards the end of the process the shoulders of the patient were raised so as to allow the fluid to gravitate into the pelvis. While the flushing was proceeding, an assistant, with the aid of pieces of gauze, detached flakes of lymph from the surfaces of the stomach and intestines, but in no case was anything like a complete removal of the lymph accomplished. The final flushing concerned the pelvis, and was kept up until all the stitches had been inserted. A glass drain tube was passed through a small suprapubic wound down into the pelvis, and retained for two or three days. Fluid collecting in the pelvis was aspirated through it every six hours. Severe shock existed at the end of the operation in every case, and was combatted by hypodermic injections of strychnine, warmth to the skin, and rectal injections of hot water and brandy. The amount of strychnine exhibited varied with the gravity of the shock, but was always much in excess of the pharmacopoeial dose. Nothing whatever was permitted by mouth for the first four days. Every four hours half a pint of warm salt solution was slowly injected into the rectum, and half an hour later 4 oz. of a nutrient enema were administered.

The fact that two of the five cases died long after recovery from the immediate effects of the perforation and subsequent operation is disappointing, and is evidence of how formidable the sequelae to the condition may be.

In both cases the fatal result was the outcome of ulceration of the mucous membrane along the line of suture. In Case I quite 2 in. of the silk suture that had been used for joining the musculo-peritoneal coats was found hanging free in the stomach cavity.

Where the ulcer is easily accessible its excision, together with the surrounding indurated and thickened tissue, secures a far better closure of the perforation than merely bringing together the peritoneal surfaces, and with the use of the continuous suture takes up very little additional time.

Much discussion has taken place respecting the relative merits of flushing and mopping for cleansing the peritoneum in cases of perforated gastric ulcer, and experience has shown that success may follow either method. If the fouling is strictly limited to the immediate neighbourhood of the perforation mopping alone is sufficient; indeed, flushing in these cases might be injurious by disseminating the escaped stomach contents. In many cases, however, the contents of the stomach will be found to have spread over a large area of the peritoneum, and in these flushing, if not absolutely necessary, is at least expedient. Speaking generally, it may be said that flushing is required in cases where the perforation has taken place in a full stomach, and in those in which a long interval has elapsed between perforation and operation. On the other hand, mopping should suffice in cases operated on very soon after perforation, especially in those whose stomachs at the time of perforation were not distended. Many surgeons insist on the supreme importance of operating at the patient's home regardless of environment. They very properly contend that all movements of the patient after perforation has taken place tend to increase the area of peritoneal fouling. It would be foolish, however, to adopt this course in every case, as the houses of many of the poor are utterly unsuitable places for performing a laparotomy; and where this obtains it is better, I think, to remove the patient to a hospital, and to operate immediately on his arrival.

Various causes have contributed to the gratifying improvement in the recovery-rate after operation within recent years, but by far the most important of these has been the more widely-spread recognition that early diagnosis followed by immediate operation robs the catastrophe of most of its dangers to life.

A Cancer Hospital in Moscow.—A clinical hospital for cancer cases has recently been established in connexion with the University of Moscow. The buildings are said to have cost 400,000 roubles.

The Oldest American University. — Dr. Charles W. Dulles, a graduate of the University of Pennsylvania, claims to have established the fact that his Alma Mater is the oldest university in America. The University is not the oldest college, though it was established in 1740, but it was the first to take steps towards the enlargement of the curriculum by the addition of a separate department for graduate study, the school of medicine having been founded in 1765. This was the first actual realization of the university idea in the Colonies, but the idea of a university was in the minds of the founders as early as 1755, when the College of Philadelphia was given the power to grant "the usual university degree."

The Lettsomian Lectures
ON
ASEPTIC SURGERY IN THEORY AND PRACTICE.

Delivered on February 15th, 1904.

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LECTURE II.

DISINFECTION OF THE SKIN.

THE literature of skin disinfection has already reached large proportions. One author has published an excellent volume of two hundred and odd pages upon the subject.[1] So far as can be judged no one can yet claim that his method is perfect. Much depends upon the stringency of the test applied. It seems clear that the use of soap and mechanical means cannot disinfect the skin.[2] It merely diminishes the amount of infection.[3] This is an important point, because some surgeons seem to rely solely upon mechanical methods and soap and water for the disinfection of their hands. There is no room for doubt that when the mechanical scrubbing with brushes and pumice stone and abundant soap and water is followed by absolute alcohol or rectified spirit the chances of sterility are greatly increased. Next when, as in Fürbringer's method, these are followed by immersion in sublimate lotion, 1 in 500, a still further improvement ensues. However, both of these are forbidden to the consistent aseptician.

Fürbinger's method consists in:

1. Cleansing the nails.
2. One minute, scrubbing with soap.
3. One minute, alcohol.
4. One minute, 1 in 500 sublimate lotion.

I find, personally, that sublimate makes the hands rough and inflamed. Alcohol is undoubtedly one of the most valuable aids to disinfecting the skin. After the work of Fürbringer, Ahlfeld, Schaeffer, Leedham-Green,[4] and of many others, its most valuable qualities, when used as an adjunct, are fully established. Alcohol has the great virtue of overcoming the fatty matter which impermeates the skin. The alcohol may be used by itself, or in a solution with soap, or in conjunction with chemical disinfectants.

In order to simplify the process and render disinfection easier, I have for some years used a mixture of alcohol, water, and biniodide of mercury for disinfecting the skin; presently the results will be given. I have always been accustomed to test the disinfection of the hands by snipping off a scrap of skin down to the dermis and placing the scrap in broth. Several other methods can be used such as (1) scraping with bits of wood, bone, or toothpick; (2) rubbing upon sterilized material such as silk; (3) dabbling upon culture media.[5] My own way seems quickest and easiest. A small quantity disinfectant clings to the skin, and this I hope in the future to be able to get neutralized.

I have tried to get this done with the help of Mr. Rose, and so far our attempts at neutralization have not revealed any serious error in the past.

We assume at present that skin which does not infect culture media will not infect wounds. But as asepsis is our aim we ought some day to learn how to disinfect the skin with absolute certainty. Sometimes the question is asked whether, when a scrap of the skin of the hand is sterile, the whole hand is sterile. Here we are face to face with a much-debated point, the possibility of a perfect induction. Personally I cannot conceive a perfect induction when bacteriological problems are concerned, and it is to be doubted whether any one will be so self-sacrificing as to offer the whole of the skin of the whole of both of his hands for bacteriological examination. Fürbringer's is perhaps the most stringent test. He scrapes the backs and palms of the hands, the fingers, and about the nails with pieces of sterilized wood. These are then put into the culture media. I myself could not afford the time which this method demands. Thus absolute certainty being out of the question, we must content ourselves with relative certainty. The method of hand disinfection by the spirit and biniodide of mercury method has of late given a proportion of 3 septic tests i total of 111.[6]

It is interesting to note that in each case it was the s geon's own skin which was septic. Once it was some form micrococcus, once staphylococcus pyogenes albus, once t exact nature of the growth was unknown. This marks advance upon previous results. In 1898 the skin of the har was septic 7 times in 70. In 1900 it was septic twice in So that there has been a continuous and marked improvem from 1 in 10 to 1 in 15, and then to 1 in 37. I attributed t improvement to the efficiency of the spirit and biniodide mercury lotion, and also to the additional care and precisi with which it is applied. This continuous improvement results may also be advanced as evidence in favour of t method of testing. It is most difficult to get any hum being to keep looking at the clock, but, nevertheless, t hands must be soaked in the lotion for not less than t minutes by the clock. Also, it is not at all easy to get t hands properly prepared for disinfection. Some are reluct to trim their nails quite close. Hot soap and water and a s scrubbing brush should be used for at least three minu before the spirit and biniodide.

There seems to be some misconception abroad as to i composition of spirit lotion. For instance, my colleague, F. W. Andrewes, says:[8] "It is a common practice to use perchloride or biniodide of mercury dissolved in spirit inst of in water, as, for example, in the sterilization of the skin of ligatures." But at his own hospital the lotion consist biniodide of mercury in methylated spirit (1 part in 5 75 per cent.; and water 25 per cent.[9] The latter has to added because, as we all know and have known for ye disinfectants are inert in solution in pure alcohol. Som the methods of hand disinfection are so elaborate and t so long that they are impracticable for ordinary surgical w If the short and simple spirit and biniodide method pro the best, after extended trials, surgical work will simplified.

During the course of an operation the hands are freque rinsed with biniodide of mercury lotion to free them f blood and atmospheric germs. The usual strength of lotion is now 1 in 4,000. For operations about the face eyes the strength is usually 1 in 10,000, for if it were stron the eyes might suffer, and I am inclined to think that ke is likelier to grow after strong lotions have been u Doubtless in the near future an isosmotic antiseptic lot will be found to take the place of biniodide. In addition, hands of the surgeon and of his assistant are continu bathed in lotion whilst the sponges are being rinsed out. no one is allowed to touch them except the surgeon or assistant.

It is probable that these measures are efficacious cause the skin of the hands was tested eight times at the of the operation, and was sterile on each occasion. I anxious to use sterilized salt solution instead of the di antiseptic solution, but I am doubtful whether the exp ment is justifiable amidst the present surroundings organization.

GLOVES.

Those who are distrustful of the disinfection of the h advocate the use of cotton, leather, or indiarubber gloves suppose we may dismiss cotton and leather gloves from question; of leather gloves I have no experience. Wh assisting I have had experience of sterilized cotton glo It seems very difficult to see how they can be expected to tect the wound from contaminated hands; but thin rub gloves come in a different category and I have given the fair trial, and, to begin with, found, as might have expected, that rubber gloves are easily sterilized with They were tested on seven occasions and were always ste No chemicals were used before this test. But, like Mr. Thomas[10] and others, I have found it practically impos to complete an operation without tearing or puncturing fingers of the gloves. This, of course, entirely vitiate experiment, but in our case it did not matter much so f any danger to the wound was concerned. Before the g were put on the hands were sterilized with the usual pre tions, and on five occasions the skin was sterile when gloves were taken off at the end of the operation in spi numerous holes in the thin rubber. But, in addition to vulnerability, the gloves seriously impair the sense of t Indeed this, to my mind, is one of the chief objectio their use. Probably we all place a varying degree of rel upon our sense of touch, but I myself am accustome place great reliance upon the sense of touch, especially i

nance of abdominal operations, such as those for the
al of the vermiform appendix or uterine appendages.
I could not do to my own satisfaction if the sense of
were hampered with gloves. For radical cure of hernia,
oval of the breast, and such like, they can be worn
it any real inconvenience, but for operations upon
cases gloves ought to be worn, especially if other
ions are impending. I have seen very severe cellul-
llow an operation when a few hours before the surgeon
d to operate upon a very septic case. He did not wear
but took every precaution to disinfect his hands.
were other circumstances in the case which suggested
ne cellulitis might have been a coincidence, as before
eration the patient had had an occasional rise of tem-
ire. Had the operator worn gloves at the septic opera-
e could, at all events, have claimed to have taken every
ble precaution. If some one could invent gloves which
uld be sterilized by heat, (2) which did not tear, and
hich did not impair the sense of touch, the objections to
se would fall to the ground.

The Disinfection of the Patient's Skin.

ing the operation a piece of the skin of the patient is
ed off and dropped into broth. The piece includes the
depth of the skin, and in most regions has in it many
follicles and also sudoriferous and sebaceous glands.
, together with the epidermis, as is now well known,
ur all sorts of bacteria, and in considerable numbers.
of these bacteria have very peculiar characters and
ise to pigments and bodies with strange and penetrating
s. I ascertained some years ago that they had lethal
s on mice and rabbits,[11] and without any doubt some of
are the cause of the slighter forms of sepsis and suppura-
not always of the kind to make the patient ill, but almost
n to lead to the extrusion of buried sutures. Now, it is
imagined that the skin bacteria must be most difficult
lodge from their hiding places in the ducts of the sweat
s, in the sebaceous glands, and in the hair follicles. But
removal and destruction are rendered still more difficult
e presence of the cutaneous grease and oil. Any method
in disinfection must aim at the removal and penetration
e cutaneous grease. We have attempted to accomplish
by mechanical efforts, aided by soap, turpentine, ether,
alcohol, and by using spirit and biniodide of mercury
n. I wish to say at once that I am exceedingly dissatisfied
the result of our efforts. The skin was tested 55 times,
nfected the broth on 14 occasions. But two of the infec-
were due to bacillus subtilis, and may have been acci-
l. In one of these tests the skin was from the abdomen,
e other from the pubes.
e degree of certainty with which the skin of the patient
oe disinfected depends upon the region. I would put
e in the following order, beginning with that which is most
in: (1) Limbs, (2) abdomen, (3) breast, (4) neck, (5) the
(6) the groin and axilla, (7) scrotum, and (8) scalp.
e patient's skin is much more difficult to disinfect than
ands of the surgeon or of his assistants. Many of the
gns upon which we have to operate are furnished with
eous and sweat glands both large and numerous. More-
e the piece of skin which is cut off the patient and put
the broth is larger than that from the hand, and includes
hole depth of the skin. It affords, therefore, a more
gent test. In previous years the skin of the limbs has
n very high proportion of sterility. Recently we have
tested it twice, and found it sterile both times. The
of the abdomen was tested twenty-one times, and was
e thrice; the skin of the breast six times, and was septic
; the skin of the groin twenty-two times, and was septic
times; the skin of the neck and of the axilla were each
e when tested once; and the skin of the pubes and of
crotum were each septic when tested once.
haps when more stringent tests are tried the proportion
psis may be greater, but the results of skin testing
ighout all these years have been so uniform and consis-
that I do not think the above order will need revision.
inly wounds made in the extremities heal remarkably
and better at a distance from the groin and axilla than
to those localities. The high proportion of sterile
minal skin is also reassuring. Working with sterile skin
upon peritoneum which fraternizes with silk the
minal surgeon ought to get good results.
w, taking these results as a whole, they show that the
ods of skin disinfection are still far from perfect. Pro-
, as much depends upon the application of the methods as upon the methods themselves. This is clearly shown by the records of the different house-surgeons by whom the skin was prepared. One gentleman had five septic out of eight; another five septic out of fourteen; whilst another had only one septic in ten.

In hospital practice, the skin of the patient is usually prepared the night before the operation. This is now mainly done for convenience, and the spirit and biniodide of mercury methods probably give the same results when efficiently applied immediately before the operation. This is a great advantage, especially when children and nervous women are concerned. We tested the patient's skin after it had been prepared on the table on three occasions and on each it was sterile. The skin was taken twice from the groin and once from the abdomen. It seems reasonable to suppose that if one can disinfect the skin of the hands one hundred and eight times out of one hundred and eleven, the same methods ought to give good results with the skin of other regions. Outside the hospital I always prepare the skin myself after the patient has been anaesthetised and, judged from a clinical point of view, the results are better than in hospital practice.

Silk.

On the whole there is no better material than twisted silk for buried sutures and ligatures. Twisted silk is very tough and does not break at the knot. Formerly it was used too thick, but most of us have now learned that oo is sufficient for ordinary ligatures, and that No. 3 or 4 is seldom necessary.

The boldness with which a surgeon buries silk is a very good indication of his proficiency in asepsis. Those who are distrustful fall back on catgut and kangaroo tendon, both of which are most difficult to sterilize and do not hold long enough for the security of some wounds. For instance, when laparotomy has to be done upon a very stout person the wound is nearly always extensive. Owing to the thick layer of subcutaneous fat it is almost impossible to close the abdomen with a single row of sutures, and absorbent ones might disappear prematurely. In such a case buried silk is an invaluable aid, and is, in my experience, tolerated exceedingly well by the tissues of the very stout. And here I would interject that the very stout do not always get such prompt and satisfactory surgical aid as the spare. Although healthy stout patients bear operations well, and recover quickly, some surgeons seem rather afraid of operating upon them. Provided that diabetes is not present the stoutness adds to the difficulties, but not to the immediate dangers. But even the difficulties disappear when the incision is a large one. A large incision is made without hesitation when it can be securely closed again with rows of buried silk. Fine silk, too, is the best material I know for peritoneal sutures. Indeed, the peritoneum tolerates silk in a remarkable way. The behaviour of the different tissues to suture materials, such as silk, is almost an unwritten page in surgical literature. Judged from the clinical standpoint, I should say that the peritoneum tolerates silk sutures better than any other tisue; that tendon, aponeurosis, ligament, and the fibrous tissues come next in tolerance, but with nerve as good, if not better; whilst muscle is most intolerant.

The tolerance of the peritoneum for silk is shown by the behaviour of the omentum. For in 25 consecutive cases of inguinal and femoral epiplocele[12] the omentum was ligatured with from one to nine silk ligatures. None of them had the slightest trouble from the presence of the silk, and I cannot recall any instance, out of a very large number, in which there has ever been the slightest trouble. In the earlier days of antiseptic surgery the possibility of sepsis about omental ligatures had to be taken into consideration.[13] Minute precautions are necessary in both the preparation and the application of the silk. To begin with, it is to be wished that manufacturers would wind their silk upon plain, uncoloured bobbins. They are addicted to the use of black bobbins, which impart their colour to the silk after a few hours' soaking in lotion.

The processes of manufacture tend to render the silk sterile, but, before use, the reel is boiled in water for half an hour. After this it is either used forthwith or preserved in 2.5 per cent. carbolic acid lotion. Now, I have noticed that this carbolic-acid silk has a very irritating effect upon the skin. When it is used for skin sutures, each needle hole is surrounded by a ring of inflammation, and it is to be supposed that, when used for buried sutures, it has the same effect upon deeper structures. This effect is explained by the experiments of von Zeignek,[14] who discovered that when

silk was kept in sublimate solution it attracted to itself nearly all the chemical, so that at last the lotion contained nothing but a faint trace of mercury. Rubber drainage tube and catgut had similar effects upon sublimate solution. But I have found that after immersion in carbolic acid lotion the sterile silk must be boiled in water for not less than fifteen minutes, otherwise it still inflames the skin. Generally it is easy to have the silk boiled just before use, and I carry about with me for this purpose a small metal vessel and spirit lamp.

My own attempts to bury silk in the abdominal wall are not without instruction. The last time that I gave the results[15] ten appendectomy wounds had been closed with silk, and three of these had suppurated with extrusion of some if not all of the buried sutures. Rather disconcerted by 30 per cent. of failure, I ceased for a time to use buried silk. But to my mind there is something thoroughly unsatisfactory in the closure of the oblique appendectomy wound with a single row of silkworm-gut sutures. Inasmuch as the muscles are all split in the direction of their fibres a single row cannot bring them properly together. The only accurate way is by a row of sutures in the peritoneum, another in the internal oblique and transversalis, another in the external oblique, and another in the skin.

A great deal depends upon the way in which the silk is tied. I can remember being taught to tie sutures with enough tightness to bring the cut together without strangulating the tissues. This was in the early days of antisepsis. Now we oftentimes see sutures pulled very tight, without harm of any kind. Theoretically one would suppose that the tightness of the ligature could not matter in an aseptic wound. But when we consider the atmosphere of rooms and operating theatres and the ever-present risk of skin infection, it is difficult to believe that no bacteria enter; and, if this be conceded, one cannot imagine that all that enter are killed by the antiseptics. So that the tightly-tied suture and the tissues which it strangulates are a suitable soil for the germs to grow in. But this is not all. As I have already said, the different tissues behave differently to silk sutures. However tightly a sterile silk suture is tied in the peritoneum, it will be tolerated; but this is not the case with muscular tissues. I am quite sure that my ill-results in my early cases of buried silk suture after appendectomy were mainly attributable to the tightness with which I pulled the sutures that held together the muscular fibres of the internal oblique and transversalis. It is probable that these tight sutures not only strangulated and killed some of the muscle, but were also constantly pulled upon by the contracting fibres.

Now in the operation of appendectomy, by selecting the cases and by rejecting those in which pus was seen or in which septic appendix contents came in contact with the wound, 52 consecutive cases healed by first intention. But one of these, which was tuberculous, afterwards had suppuration and parted with some sutures; and another subsequently parted with some sutures weeks after a small haematoma had subsided. In this case the wound was, as I suspected at the time, probably infected by appendicular contents. Each of those 52 wounds was closed with four sets of silk sutures; in (1) the peritoneum, (2) the internal oblique and transversalis, (3) the aponeurosis of the external oblique, (4) the skin. The skin suture was continuous, and so oftentimes was that in the peritoneum; the rest were interrupted.

A great deal of silk is buried in the radical cure of hernia. In fact, the repair of the abdominal wall in the radical cure of hernia is guided by the same principle as in other abdominal wounds—namely, the closure of the wound in layers. Thus the peritoneal sac is first tied, then the arching fibres of the internal oblique and transversalis are fastened to Poupart's ligament; then the aponeurosis of the external oblique is sewn together; and lastly, the skin. Out of 89 cases of inguinal hernia, inguinal varicocele (a similar proceeding), and of femoral hernia, 84 healed by first intention and 5 had suppuration. In 4 cases the suppuration was of the most mild type, and only led to the extrusion of one or two pieces of silk. Once (for case see Lecture III) the suppuration caused anxiety, but oddly enough none of the silk sutures were ever seen in the pus. I propose hereafter to refer to these cases again when the question of environment is discussed.

Now it will be conceded that about 5 per cent. of mild suppuration is not very high, but it ought to be less. The septicity of the silk, of the hands, of the skin, of the sponges, and the germ-laden atmosphere are more than enough to account for it. It is quite clear to my mind in what direct improvement can be looked for.

In my own very limited experience silk ligatures and bur silk sutures are well tolerated by the thyroid body. In 9 ca the cavity left by the enucleation of an adeno-cystoma was clo with from three to six buried silk sutures, and all healed first intention. Another was closed with catgut and healed the same way, as did also 2 cases of excision of parenchym ous goître in which a very large number of silk ligatures w applied. The tissues of the mammary glands likewise tole buried sutures of fine silk, for I habitually use them for obliteration of the cavity left after the removal of cysts adenomata, and have never seen them reappear.

The tests of the silk can hardly be said to be vitiated by presence of chemicals. The silk is boiled in water for at le half an hour and then a bit is cut off and put into nutri broth. At times the silk may have been immersed for a minutes in carbolic lotion 1 part in 60. On a previ occasion the silk was sterile eighteen times before and times after use. I have now to report that it was sterile fo four times out of fifty. Three out of the six septic pieces silk had been prepared by the same house-surgeon. Some the tests—I know not exactly how many—were made at end of the operation. Once the infection was due to mo and cocci, and probably came from the air. In the otl some variety of white staphylococcus grew in subcultu some of these cocci without doubt came from the skin of surgeons or of the patient. I am not here to throw a g over our results and therefore confess that these are extren bad.

CATGUT AND SILKWORM GUT.

In spite of the efforts of numerous investigators inventors catgut still remains an object of suspicion. is to be deplored, because it is an admirable substance variety of surgical purposes. I invariably use catgut septic wounds. To my mind it is invaluable for operat about the rectum and perineum. Likewise it is best to catgut when there is reason to suppose that the woun tuberculous. When tuberculous pus or caseous mat escapes into the wound silk ligatures are apt to bec infected and keep open the wound until withdrawn extruded. In operations for the removal of growths f the urinary bladder catgut can be safely applied to blee vessels and for the closure of wounds in the mucous coat habitually use it in cases of appendectomy when pus is with or the wound is obviously septic. For certain wo in infants and children—such as circumcision—it m excellent material for ligatures and sutures. The rem of cutaneous sutures from a nervous frightened child troublesome business.

Speaking generally it is advisable to use catgut for control of haemorrhage in all septic wounds in prefer to materials which do not speedily soften and disap Who has not seen a sinus persist for months because it a septic silk ligature in its depths? A scrap of silk has infrequently formed the nucleus of a vesical calculus. would hardly think it necessary to lay any stress upon propriety of using catgut for septic wounds and silk aseptic if one did not occasionally see the reverse put practice.

But there are probably other reasons why catgut is lo at askance. Although some specimens may contai infective organisms, they may contain ptomaines whic up a localized suppuration. Besides, catgut is not pa larly good material to work with. It may have irregula upon it which render it difficult to thread through the ey small needles; next, it is sometimes rather brittle; lastly, when tied upon a bleeding point is apt to sli This last difficulty can be overcome by the usual s device of encircling the bleeding vessel with a stitch, transfixing the pedicle if there be one; the others can bably be overcome in the process of preparation. Mr. kindly made xylol catgut for me to use. Our tests sh that it did not infect culture media, but it was deci brittle, and the strong odour of the xylol was unpleasant.

We have a simple method of preparing raw catgut. it is well scrubbed with soap and water; next, it is s for forty-eight hours in methylated ether; and, lastly, pnt into a solution of biniodide of mercury in water— in 250. It may remain for months in this solution wi any apparent alteration, but it is not used until it has s for seventy-two hours. The methylated ether removes a quantity of oil and fat from the catgut. Pieces of th

it were put into broth on fourteen occasions, and did not fect. Obviously this catgut was full of a potent antiseptic nen it was placed in the broth; but are we to assume that tgut which does not infect the broth does not infect the ound? It is possible that spores or bacteria do actually ass from the catgut into the broth, but are unable grow in the presence of the minute trace of niodide which the catgut has given up to the oth. But, if this be so, the same process must go in wounds with possibly this difference, that the anti-ptic which escapes from the catgut does not stop in its cinity but passes away into the lymph spaces and vessels. ll this is quite speculative, but, judged from the clinical andpoint, this biniodide catgut is excellent and reliable aterial for ligatures and for some kinds of sutures. I should oubt whether ordinary raw catgut can be relied upon to hold uch longer than five days; at all events, that is about the me when skin sutures begin to loosen, therefore, it has to e used with circumspection in places where the strain of idden and violent muscular contraction has to be met. I metimes insert catgut sutures after laparotomies in which is is encountered, but care is taken to put in reinforcing itures of silkworm gut.

Mr. Moullin has recently published the results of a brilliant ries of operations upon the stomach. His remarkably low ortality would have been lower had not the xylol catgut iled to hold one of the abdominal incisions.[16] I also used ylol catgut for a case of appendectomy which was done uring the acute stage. The appendix and the omentum hich enveloped it were acutely inflamed and septic. There as slight suppuration of the wound. This case is omitted om the St. Bartholomew's statistics because it was known be septic at the operation, and because it was being ed as a test for xylol catgut.

The more frequent use of buried silk sutures has led to the artial abandonment of silkworm gut. This smooth, supple, rong material has very great advantages for abdominal ounds which have to be brought together with a single row removable sutures. I have occasionally seen silkworm gut sed for buried sutures. For this purpose it has certain dis-dvantages; owing to its thinness it probably cuts through ne tissues in its grasp; next, the ends of the suture stick out, nd being rather bristly can be felt by the patient who com-lains that they prick; and lastly, silkworm gut is not very asy material to sterilize, in spite of the fact that it bears oiling well. On more than one occasion I have been called pon to remove buried fishing-gut sutures because they were ainful. Some time ago[17] silkworm gut which had been oiled for over twenty minutes was sterile thirty-five times ut of thirty-seven. This is rather a high proportion of epsis for a material which bears boiling so well. Latterly ineteen pieces which had been boiled for not less than half n hour were all sterile. It is obviously very important to ecognize that silkworm gut is difficult to sterilize, and ought be boiled for at least half an hour.

Silver Wire.

Allured by the account given by Dr. Jos. C. Bloodgood[18] of ne use of silver wire and silver foil in the radical cure of ernia, I tried those substances in 15 cases. Metallic sub-tances had already been tried by others and found wanting, ut they had not been tried in quite the same way. The llowing is Dr. Bloodgood's succinct statement.[19]

> Clinically, the results in the healing of the wounds have been much etter since the introduction of silver wire and silver foil. Before the ntroduction of silver wire 116 cases of hernia had been closed with lk; in 28 of these cases (24 per cent.) there was more or less sup-uration. Since silver wire was first used (June 2nd, 1894, Case LXXIV, roup 1) there have been 330 operations, with 14 suppurations (4.2 per ent.).
>
> Since the wearing of rubber gloves in hernia operations by both perator and assistants, in February, 1897 (over two years) there have een 226 cases of hernia (including recent cases), with only 4 suppura-ons (1.8 per cent.).

Clearly methods which gave these results were worth a rial.

I myself could hardly look for such a striking altera-ion because, although working with silk, I had had about per cent. of suppuration.[20] The 15 cases which I did with ilver wire and silver foil were in no sense considered test of any particular kind of operation, but only f the materials. Thin rubber gloves were worn throughout he operations by both surgeon and assistant. The inguinal anal was opened, and the neck of the sac secured with a piece of twisted wire; then the back of the inguinal canal was restored by fastening the arciform fibres of the internal oblique and transversalis to the inner edge of Poupart's ligament, after the manner of Bassini; and, next, the aponeurosis of the external oblique was sewn together again, so as to close the canal, leaving the external abdominal ring the right size. By this time about nine pieces of silver wire had been buried. The skin was closed by a silver suture, which began at one end and then ran subcutaneously from one side of the wound to the other. This suture gave a great deal of trouble. If the two ends were left exposed, we found the pain was considerable when it had to be pulled out. Then we buried the wire altogether, to see whether or not the tissues would retain it. The silver leaf or foil is the kind which is used for gilding things like picture frames. It is put into a flat metal box and sterilized with dry heat until the thin paper between the leaves is slightly charred. We ceased the use of silver wire after fifteen cases of inguinal hernia had been done with it, because it proved to be troublesome and inconvenient. Whatever pains we took to cut the ends of the wire short, and turn them down, nevertheless they altered their position and hurt the patient.

The first case was that of a youth who had an inguinal hernia of the right side, complicated with retention of the testis in the inguinal canal. Two pairs of rubber gloves were spoilt over the operation by the wire and needles piercing the fingers. This was a real aseptic operation, for our tests showed that every thing brought in contact with the wound was sterile, and likewise the wound itself when dressed on the ninth day. Close upon a year afterwards the youth returned with a small superficial abscess, and the house-surgeon opened it, and pulled out the skin suture. In four others the wire is known to have caused trouble, and had to be removed.

The results as regards immediate union were fair, but one youth had slight suppuration, which was caused by necrosis of the skin edge. The suppuration, however, was slight, for my note says that the wound was healed on the fourteenth day.

The trouble taken to make this essay with silver was not thrown away. I was much impressed with the character of the wounds, which were singularly devoid of any trace of inflammation, and their course was with difficulty traced. It seemed clear that this was attributable to the layer of silver foil. According to Bloodgood the silver foil has germicidal properties, although not to the same degree as copper or brass. But however this may be it seemed an ideal substance for the exclusion of air, and for protecting the wound from the layers of dry antiseptic gauze which I was then in the habit of using. Hence I have continued to use the silver foil in conjunction with silk and have been most gratified with the dryness of the wounds and the entire absence of any trace of redness or of oedema.

The Sponge Question.

Ought we to continue to use sponges? Many have already answered this question in the negative, and resort to sterilized swabs of cotton wool. But swabs are not very satisfactory for cleansing the wound of blood. Besides one hears of cases in which they have been left in the abdomen. Clearly there is more danger of losing one swab out of many, than one sponge out of three or four. No one seems to dispute the superiority of marine sponges in all respects save that of asepticity. This is a fundamental objection, and if marine sponges cannot be sterilized they must be discarded.

I have hitherto thought that because our sponges did not seem to infect broth that therefore they could be relied upon. But here again what Lord Bacon would have called the "idol of the chemical" has to be reckoned with. It is probable that in each test enough chemical is conveyed into the broth to render it antiseptic; but when we treated sponge with sulphide of ammonium we still saw nothing grow. I am by no means convinced that sponges prepared by the sulphurous acid method[21] are infective.

Our last series of fifty sponges treated in this way were all sterile with the exception of one which grew some moulds and bacilli, supposed to have originated from the atmosphere. A sponge tested at the end of an operation was infected with skin bacteria. These results are the same as those which have gone before. We greatly need a thorough investigation of disinfected sponges by the most rigorous and recent bacteriological methods. The sponges which we use are either new ones recently prepared or sponges which have been used for aseptic cases. A sponge which has touched anything in-

fective is at once destroyed. Attempts have been made to obtain artificial sponges which could be sterilized by heat. But those which have been tried have been hard and harsh and deficient in absorptive properties.

NOTES AND REFERENCES.

[1] Carl S. Haegler, Basel, 1900. *Handereinigung, Handerdesinfection und Handeschutz*, gives a complete bibliography up to date. [2] See Haegler, p. 27. Also a valuable essay by Kronig and Blumberg, *Beiträge zur Handesdesinfection*, Leipzig, 1900. Also Poten, *Die chirurgische Asepsis der Hände*, Berlin, 1897. [3] Sarwey and Paul, *Arch. f. klin. Chir.*, 1900, p. 463, etc. [4] This excellent paper is in the BRITISH MEDICAL JOURNAL, October 17th, 1896, p. 1109. See also Lauerstein, *Munch. med. Woch.*, July 29th, 1902. Abst., EPITOME of BRITISH MEDICAL JOURNAL, October 25th, 1902, par. 253. [5] See Sawey, p. 465. [6] The house-surgeons were Messrs. Jennings, Pinker, Scott, Farncombe, Rose, and Wenham. I am much indebted to these gentlemen for their help. [7] See reports in BRITISH MEDICAL JOURNAL. [8] *Lessons in Disinfection and Sterilization*, p. 93. [9] As given in *Aseptic Surgery*, 2nd ed., p. 177. [10] J. Lynn Thomas, On the Value of Gloves in Operative Work, BRITISH MEDICAL JOURNAL, January 21st, 1899, p. 140 [11] BRITISH MEDICAL JOURNAL, May 28th, 1892. [12] From March, 1900, to December, 1903. [13] Lucas-Championnière, *Cure Radicale des Hernies*, Paris, 1892. [14] *Wien. klin. Woch.*, October 1st, 1896. Abst., see EPITOME of BRITISH MEDICAL JOURNAL, December 5th, 1896, par. 460. [15] An Address on the Organization of Aseptic Operations and some of the Causes of Failure, BRITISH MEDICAL JOURNAL, February 24th, 1900, p. 429. [16] *Lancet*, January 9th, 1904, case iv, p. 93 [17] BRITISH MEDICAL JOURNAL, September 17th, 1893, p. 802. [18] *Johns Hopkins Hospital Reports*, vol. vii. Nos. 5-9, Baltimore, 1899 [19] Loc. cit., p. 225. [20] *The Radical Cure of Hernia, Hydrocele, and Varicocele*, by C. B. Lockwood, Edinburgh and London, 1898, p. 158. [21] New sponges are (1) shaken and beaten to get rid of sand; (2) soaked in solution of hydrochloric acid and water to remove shell and coral (1 drachm of strong hydrochloric acid to 1 pint of water); (3) washed out in alkaline water, and subsequently in sterile warm water (1 drachm of washing soda to 1 pint of water); (4) twelve hours in cold solution of sulphurous acid (1 in 5), which is washed out with sterile water.

THE TREATMENT OF APPENDIX-ABSCESS IN THE RECTO-VESICAL POUCH.

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In the autumn of last year some interesting and valuable lectures were published upon inflammatory disease of the appendix, in the course of which special reference was made to the treatment of those cases which were complicated with intra-pelvic suppuration.

It was affirmed in one of the lectures that it was always better to drain a localized pelvic abscess from the rectum or vagina. That by either of these methods the patients were well in a fortnight, and never in the hospital more than three weeks; and, moreover, that they thus ran no risk of ventral hernia. But that if, on the other hand, the abscess were drained by a suprapubic incision the wound took six weeks at least to heal, and often much longer.

The object of this paper is to call into question the propriety of this teaching, and to affirm that the safest way of dealing with an intrapelvic appendicular abscess is by abdominal section. I will briefly cite an illustrative case which was lately under my care:

A gentleman, aged 45 years, was sent to me on August 17th, 1903, with a history of intermittent trouble with defaecation and of a feeling of fullness and weight about the neck of the bladder. His doctor, who is a most competent practitioner, wrote that last May the patient had been treated by some one else (he did not say where, or by whom) for obscure abdominal pains which were centred in the hypogastric region. At that time, he said, no rectal examination had been made, but when the practitioner had introduced his finger into the rectum he had found a tumour which felt like an enormously enlarged prostate gland. The patient told me that he had constant pain on micturition and defaecation, and that occasionally there was a "discharge" from the urethra. He denied all possibility of venereal infection. For several years he had had obscure abdominal pains, and he had become dyspeptic to such an extent that he was afraid to eat meat. Three months previously he had had severe pains in the hypogastric region, for which he was kept in bed. He told the doctor who was attending him that he thought he must have got "appendicitis," so great was his distress. But the doctor, finding that there was neither swelling nor tenderness in the right iliac fossa, put down the distress to the after-effects of influenza. He applied fomentations over the hypogastric region. In due course the acute attack passed off, and the patient was able to resume work. But he was very miserable and depressed, and was steadily losing weight. He also told me that he felt as if he had a cricket ball near the rectum, and that he could never obtain a proper faecal evacuation.

The finger introduced into the bowel at once came upon a hard, tender swelling at the base of the bladder. It was about the size of a small hen's egg. It was not prostatic, but it was so close to the prostate gland, and so intimately attached to it, that there was little wonder that it had recently been likened to an enlarged prostate. No lymphatic glandular invasion was anywhere discoverable, but I was afraid lest the tumour might prove to be malignant. In the course of a consultation a surgeon hazarded the speculation that the tumour might be hydatid, but we agreed that it was impossible to be sure of its nature without operation, and that the case most certainly needed operation.

I therefore opened the abdomen in the middle line, and, working cautiously amongst coils of closely-adherent intestine, found at the very bottom of the recto-vesical pouch a tightly-filled abscess, the walls of which were composed of the rectum behind, the prostate below, and the bladder in front, whilst a kinked piece of the colon formed its roof. To the right side of the abscess, and firmly glued to the base of the bladder, was the end of the appendix, inflamed and ulcerated. Having removed the appendix, and having thoroughly wiped out the abscess cavity with dry swabs of absorbent wool, I passed a very large drainage tube down into the recto-vesical pouch and brought the other end out a little below the umbilicus. Though the peritoneum showed itself proof against infection by the bacilli coli, the surface-wound became infected about a fortnight after the operation, and so severe was the attack of cellulitis caused thereby that some large branches of artery in the epigastric region burst out bleeding on two occasions, and the patient was near dying from secondary haemorrhage. As it is, however, he is now in the North of Africa completing his convalescence.

He was fully apprised of the fact that we had been throughout in uncertainty as to the diagnosis, and was entirely in agreement with us that he had better be operated on. After the operation, when we told him that the outlook was quite cheerful as the tumour had proved to be an abscess in connexion with a diseased appendix, which we had also removed, he said, "Ah, when I was so bad I told the doctor that I believed I had appendicitis"! But, inasmuch at the present time everybody—lay and professional—talks familiarly about "appendicitis," I am afraid that I cannot award this patient full credit for the correctness of his diagnosis. Nor would I blame his doctor who apparently had declined to accept it, for, so far as I can ascertain, the pain and tenderness had never been in the right iliac fossa, but always in the pelvic and hypogastric region. My explanation of the case is that, some indefinite time ago, he had probably had a milk attack of inflammation, which fixed the tip of a long and wandering appendix in the depths of the pelvis, and that a few months ago there was recrudescence of the inflammation with severe hypogastric pains, and with the formation of the abscess. Had he been operated on just after his first attack (whenever that was), he would, I feel sure, have been spared a large amount of suffering, and would have avoided the very serious risks which were inseparable from the more serious operation.

In the case of suppuration in connexion with an inflamed appendix there is no telling in what direction the exigencies of the operation may not lead the surgeon. He may explore the iliac fossa and be disappointed at finding that it contains neither appendix nor caecum, and it may take him some time to discover any part of the large intestine. Eventually, maybe, he comes across a piece of large intestine which he takes to be the right colon, and, guided by one of its muscular bands, he looks onwards for the appendix, which he may discover in due course but after much delay. Sometimes he finds the appendix—as in this case—in the depths of the pelvis. Not infrequently he has to continue the abdominal wound up to the costal region, and may then discover it hidden away behind the liver with which it had formed an illicit connexion. There is no organ in the body which is so regardless of anatomical proprieties as the appendix. Man ought to be for ever grateful that it is not one of a pair!

There are two grave objections to opening an appendicular abscess through the vagina or rectum. The first is that the operator cannot tell exactly what he is doing. He is operating in the dark, as it were, and for aught he knows the instrument which he is using in his attempt to reach the pus may be traversing a piece of small intestine which has been emptied by pressure, softened by inflammation, and glued by adhesions in a faulty position. The second objection is that his operation may be followed by a faecal fistula which absolutely refuses to close. It would be a real calamity if by chance a wounded piece of small intestine persisted in draining its contents off into the rectum or vagina, or if, the large intestine being implicated, faecal evacuations continued to take place through the vagina. Of course there is a risk of faecal fistula following a straightforward suprapubic opening of a pelvic abscess. But in this case the surgeon would probably see exactly what was amiss when he had the abdomen open and the piece of bowel between his fingers, and he could deal with the condition then or later on. Supposing that he thought it advisable to defer attempting to close the intestinal perforation, he could at least bring it up to the abdominal wound and fix it in a position where it would at any time be readily accessible.

Another strong argument in favour of the abdominal rou

that, by adopting it, the surgeon may be able not only to ear out the abscess, but to remove the diseased appendix. would by no means follow that because an abscess had en evacuated by a blind, vaginal puncture there would be further suppuration; and it would be quite easy to believe the probability of the existence of oft-recurring suppuration connexion with the continued presence of the diseased ppendix: and no operator, I should imagine, would propose section of the appendix by the vaginal route. Then if, as ften happens, the chief purulent focus is associated with condary abscesses amongst the adherent coils of intestines ey can all be thoroughly dealt with by abdominal section, ailst a rectal or vaginal operation would leave them touched. The question of the length of stay in hospital as argument in favour of the vaginal or rectal operation is t worthy of consideration by the side of the great ques- ons of thoroughness and safety. Indeed, it appears to me at the recommendation to treat an appendicular intrapelvic scess by the rectal or vaginal route is as unsound as it uld be to advise that a pyosalpinx should be dealt with in at manner.

Having thus made a very definite recommendation in con- xion with the treatment of appendicular intrapelvic scess, I now venture to proceed to draw a moral in con- xion with the subject of inflamed appendix, which cer- inly is not foreign to the subject of this paper. It is this: at if an individual has had one unmistakable attack of ppendicular inflammation the appendix had better be sected as soon as the inflammation has quieted down. is recommendation comes under the head of the prophy- ctic treatment of intrapelvic abscess. If the appendix had t been in the pelvis there would have been no abscess ere. The appendix was not there originally. It was pro- bly dragged there by the adhesions which formed about it the time of its first inflammatory attack, and, if it had en resected as soon as that attack had passed off, there uld have been no intrapelvic abscess, and the man would ve been saved an enormous amount of risk and worry.

I am quite prepared to find that a good many surgeons e ready to maintain that it is rather precipitate to operate ter a first attack, which may have been only a transient tarrhal affair. If one could but look into the abdomen and certain the exact state of the appendix, it would be an easy atter to say that one should not advise operation after a rst attack. This is, of course, equally desirable and impos- ble; without making an opening into the abdomen, it is solutely impossible to know in what condition the attack inflammation has left the appendix. It may have left it one the worse, all pain, tenderness, and swelling having assed entirely away, in which case its removal would, of urse, be superfluous. But, in my experience, this happy ate of things is not of frequent occurrence, one attack being enerally the precursor of other attacks.

One definite result of the inflammation may be that when e attack passes off it leaves the appendix permanently lued to adjacent or neighbouring viscera—the caecum, colon, ladder, or ovary. This may, by chance, give rise to no in- onvenience whatever, but if the tip of the appendix happen be fixed whilst the rest of it up to the base is free, it is pt at any moment to occasion an acute intestinal strangula- ion. The presence of an appendix which is fixed only at the xtremities is a most dangerous object in the abdomen, and needs but a slight attack of inflammation to cause the tip f it to acquire firm adhesions. If the appendix contracts dhesions in its entire length this element of danger does not rise. Constantly, when operating in the abdomen for con- itions other than those which are due to an inflamed ppendix, one has come across the results of an antecedent, and erhaps long-forgotten, attack of inflammation, the appendix eing closely adherent to some serous surface. But as this is oing no harm the surgeon passes by it without further heed. ut neither is this, in my experience, the way in which the linical history of an attack of inflammation of the appendix nds. As I have said, one attack is generally the precursor of ther attacks, and if only the appendix could have been taken way after the first of them, how much suffering and risk ould have been saved the patient and how much anxiety the riends.

Supposing that a first attack of inflammation quiets down, nd the appendix is not then resected, there may be no urther trouble from it whatever, and the individual may be s useful and vigorous a member of society as he was before. r, after a certain time, there may be a recrudescence of the isease, on the happy subsidence of which, few surgeons, I should think, would willingly fall in with the desire expressed by the patient or his friends that operation should be still further postponed. If, however, the resection is not only deferred but altogether declined, attack may follow attack; and if, by good fortune, the patient is not carried off by some unlooked for complication, at least he may have his activity and comfort materially interfered with. Then, at last, when there is obviously no chance of further escape from operation, the surgeon's work is possibly rendered extremely difficult, whilst the risks of the operation, the length of time needed for convalescence from it, and the chance of a weakened abdominal wall in the future are all increased.

Many of us, I suppose, have had friends, patients, or acquaintances whose lives have been sacrificed, or whose happiness has been clouded, or whose prospects in life have been seriously damaged, by the dyspepsia, symptoms, by the aches and pains, or by the downright distress which have been caused by the continued presence of an appendix which has been the subject of recurring attacks of inflammation.

The more that I see of appendicular disease, of the danger of delay in operating, of the comparative slight amount of risk which the early operation involves, and of the great sense of relief and freedom from anxiety which it affords, the more fully am I convinced that the patient had best take his courage in both hands and submit to a prompt resection even after a first attack.

THE DIMINISHING BIRTH-RATE AND WHAT IS INVOLVED BY IT,

BEING AN ABSTRACT OF THE INAUGURAL ADDRESS DELIVERED BEFORE THE BRITISH GYNAECOLOGICAL SOCIETY.

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The address was divided into four parts.

I.

The first was devoted to a critical study of the statistics of the subject during the last twenty-five years. The birth-rate of the United Kingdom was compared with that of other countries both east and west, and it was shown that during the last twenty years no other nation had sustained so great a loss as we have in this definite period of time.

The marriage-rate in the United Kingdom was then considered, and found to be slowly rising, so that the birth-loss must be due to causes operating in the married life of our population.

The value of the population of to-day was then compared with that of twenty years ago, and it was found that in juvenile criminality, in mental disease and brain weakness and in alcoholism, the restricted population of the present day compared unfavourably with the freer population of a former generation.

A tentative effort (over a limited field) was then made to compare the general culture of the more intellectual classes of the two generations, and this (so far as it went) was found to work out disadvantageously to the present generation.

The work of Professor Karl Pearson on heredity was then considered, and found to point to a similar conclusion.

All this, it was urged, tended to show that the marriages of to-day were not only relatively infertile, but either:

1. That the children born of such marriages were weak, neurotic, specially liable to alcoholism, criminality, and insanity, and so far unfit for the battle of life; or

2. That marriages of the middle and better classes were now so sterile that quite an undue and dangerous proportion of the rising generation was recruited from the lower, the more ignorant, the more vicious, and semi-criminal population.

II.

The second part dealt with the cause and life-history of these relatively sterile marriages. The cause was traced to the deliberate prevention of conception, and reasons were brought forward supporting the view that this was not only destructive of the future life of the nation, but seriously injurious to those who practised it, and to such children as were "arranged" for and produced. The prevalence of neurasthenia was increased by the practice, and the absence of sexual restraint encouraged by it had an evil effect on the moral character which was liable to be transmitted to the children. In addition to this, the child of the relatively sterile marriage suffered from a debased and stunted educa-

cation. Reared in greater comfort or comparative luxury, with no brothers or sisters of similar age to rub off its angles and selfishness, it was ill prepared for every step of the succeeding battle of life, and it was very generally the child of the larger family and poorer parents who pushed his way in front of him, and elbowed him to the wall.

III.

The third part dealt with the prognosis of "prevention." Attention was drawn to the present condition and statistics of France, where for 50 years the birth-rate had been falling, until the population has become stationary, or even less than stationary.

During the last 50 years criminality had trebled itself in France, that of children and young people being specially remarkable, and particularly so regarding crimes of lust and prostitution. During the last 20 years the consumption of alcoholic drinks had trebled, and France had passed from the seventh place in order of consumption of alcohol to the first. Insanity was steadily increasing, and the ratio of suicides had risen from 112 per million in 1880 to 205 (or nearly double) in 1885.

It was pointed out that after half a century of trial, with an increasingly limited population, France showed more and more a lowered and still-falling moral average, a lessening virtue or strength, and an increasing natural neurasthenia, which seemed to crave and to need the help of constant stimulation in order to face the ordinary routine of life. The future danger of this under a democratic form of government was considered and insisted on. So long as the race progressed the people could be trusted with the powers of government, but when decadence had been going on for years, or even for ages, what could be the final outcome of such democracy but anarchy and confusion?

IV.

The fourth part dealt with the treatment of this national evil, apportioning to the Church, the State, and the profession of medicine, their proper share in the re-creation of a healthier moral standard and practice. The birth loss in the United Kingdom must be due to causes operating in the married life of its inhabitants. Therefore there was no reason to fear any high ideal of chastity or continence, and especially when this was associated with the care of those forces which go for the defence of the nation and that child life which was its future hope.

On the other hand, there was every reason to fear that debased ideal of married life which was secretly and insidiously working for the ruin of the nation's power and the destruction of its hope.

National decay or degeneration was by no means the inevitable consequence of age. The history of Japan was one evidence of this, and it was worthy of notice that the present power of Japan was directly associated in the mind of the Japanese with the knowledge of their own racial strength and increase; indeed it was that which gave them youth. Insisting on the necessity of arousing the public conscience and of aiming at a truer and braver conception of life, Mr. Taylor concluded his address as follows:

I must confess, when I hear of thoughtful men among the Boers in South Africa, military authorities in St. Petersburg, and Japanese in far Japan noticing and counting on their own racial increase, and comparing this (kindly or unkindly) with our own comparative stagnation, I would like, if I could, to sting my fellow-countrymen into some proportionate sense of shame and duty. My voice is weak, but in the responsible position in which you have so generously placed me, as the temporary head of a great British society which may well claim to be the greatest British authority on such questions, I am surely not overstepping my province if I ask for the grave interest of every Fellow in this important subject—if I ask, not so much for any following of my leadership as for the fullest independent investigation into all the facts, figures and arguments I have brought before you. For with us lies a great responsibility, and ours will be to a very large extent the blame if in after years the lamp of the Anglo-Saxon is found to be burning dimly.

Cancer Research in Portugal.—By a decree dated January 21st the Portuguese Government has appointed a Commission to investigate cancerous diseases. The members of the Commission are Dr. Ferraz de Macedo (President), Drs. Curry Cabral, Oliveira Feijao, Custodio Cabeca, and Azevedo Neves (Secretary).

MEMORANDA:

MEDICAL, SURGICAL, OBSTETRICAL, THERAPEUTICAL, PATHOLOGICAL, Etc.

A CASE OF PERFORATED GASTRIC (OR DUODENAL) ULCER; RECOVERY WITHOUT OPERATION.

The patient, an anaemic nursemaid, was seen by me, in consultation with Mr. J. J. Blagden of Horrabridge, on July 10th, 1903.

Previous History.—Fourteen months previously she had symptoms of gastric perforation. Coeliotomy was at once performed in the South Devon Hospital, the only abnormality found being an oedema of the posterior peritoneum, which was attributed to a retroperitoneal leak from the duodenum. Recovery ensued after three days' coffee-ground vomiting.

Present Illness.—For the past three days she had been confined to bed by epigastric pain and vomiting after food. At 8 a.m. on the fourth day, July 10th, she was seized with intense epigastric pain, and was seen by Mr. Blagden, who found her in acute pain, with pulse 120. She was given morphine ($\frac{1}{4}$ gr., subcutaneously). On account of her semi-collapsed condition Mr. Blagden declined to sanction her removal to hospital, a distance of twelve miles. I saw her with Mr. Blagden at 1 p.m., with a view to immediate operation. She was then much easier; pulse, 104; temperature 99°, with tender spots in the epigastrium, right hypochondrium and left iliac region. The abdominal walls moved fairly with respiration. There was slight rigidity of the upper portions of the recti. We decided that operation was not immediately called for, although it might become necessary later; that she was suffering from a leak from the stomach (or duodenum), and had recovered sufficiently to stand the journey by road to the South Devon Hospital. Prior to starting a quarter of a grain of morphine was injected hypodermically. She stood the journey well. Her history after arrival at the hospital—for the account of which, and also of her previous illness, I am indebted to Mr. R. H. Lucy—was that of uneventful recovery, except that for the first week after admission her temperature fluctuated between 98.4 and 100°.

Remarks.—The well-marked peritonism decided the diagnosis of perforation of either the stomach or duodenum, the latter being suggested by the condition found at the operation fourteen months previously. The uncomplicated recovery indicates that the leak was small and localized. Moynihan,[1] in quoting two cases illustrating recovery from perforation without operation, says: "There can be no doubt that recovery by medicinal treatment alone is possible both in the acute and subacute forms of perforation." It is not sufficiently recognized that immediate operation, although usually imperative, is not invariably called for in the case of a viscus which has leaked. In the above case if the attack of pain recur an operation such as gastro-jejunostomy, to give the ulcer a chance of healing, will probably be necessary.

Plymouth. C. Hamilton Whiteford, M.R.C.S., L.R.C.P.

A SIMPLE METHOD FOR THE ADMINISTRATION OF ETHYL CHLORIDE.

In the British Medical Journal of December 26th, 1903, Dr. E. H. Kitchin describes under the above heading a device for utilizing a Clover's ether inhaler for the administration of ethyl chloride either alone or as an antecedent to ether by spraying the liquid through a perforated cork into the ether chamber.

This method, though admirable for the administration of ethyl chloride alone, seems to me to have one drawback if it is intended to follow up the ethyl chloride by ether, namely that it is necessary to suspend the administration for a short time whilst ether is poured into the chamber; and with a fleeting anaesthetic like ethyl chloride this is a matter of importance.

A simple and satisfactory method that I have used for some time past is the following: The ether chamber being filled with ether, a little cotton-wool or gauze is put into the aperture at the top of the Clover's apparatus. The facepiece being then adjusted and the patient being instructed to breathe, some 2 c.cm. to 3 c.cm. of ethyl chloride are gradually sprayed on to the gauze. After a few breaths the bag may be put on, and the warm expired air rapidly volatilizes the frozen liquid. As consciousness is lost, the eth

[1] *Lancet*, August 29th, 1903, p. 603.

amber is gradually rotated, the pointer hitherto having
u opposite the zero mark. In this way there is no break
all in the administration. It is not essential to put on
bag at all in an early stage of the anaesthesia; but in
ing so there is a saving of time and of the amount of ethyl
loride used. If this is done, however, it should be remem-
red that one is administering a very volatile and rapidly-
ing anaesthetic by a closed method, and therefore due
e must be observed.

uildford. H. F. PARKER, M.D.Cantab., M.R.C.S.

CITES DUE TO PRESSURE ON THE PORTAL VEIN BY ENLARGED SPLEEN.

SES of ascites due to enlargement of the spleen are so
e that I think the following may be of interest:

. L., a man aged 41, came under my care about the
ginning of September last. He had been ill for about
hteen months. He complained of loss of appetite,
ling of a load in the stomach after eating, gradually
reasing distension of the abdomen—a distension which
ver subsided completely but which was always worse after
ing food.

His previous health had not been good. There was a
story of a cough—especially in the mornings—for several
ars. He had pleurisy about three years before the onset of
present illness, and he also had had three or four attacks
haemoptysis.

When I examined him first the temperature was
rmal; the tongue was clean but raw-looking; the pulse
s good; the heart was normal; dullness and fine cre-
ant *râles* could be heard at the apices of both lungs.
e abdomen was distended, and percussion elicited a
mpanitic note all over, except in the left hypochondrium,
ere there was dullness. This dullness extended beyond
e margin of the costal arch, and the anterior border and
tch of the spleen could be felt quite distinctly. The liver
llness was normal. There was no albuminuria, and there
s no oedema.

The spleen continued to enlarge until the dullness extended
far down as the umbilicus, and across towards the middle
e until it became continuous with the hepatic dullness.
wards the end of October symptoms of obstruction of the
rtal circulation became evident. Hitherto there had been
stinate constipation, and now uncontrollable diarrhoea de-
loped; haemorrhoids also became very troublesome, and
adually fluid accumulated in the abdominal cavity. The
id increased very rapidly, and in a few days was so great,
d the breathing embarrassed so much, that the patient
uld not lie down. The abdomen was tapped on November
1, and 180 oz. of serous fluid drawn off—much to the relief
the patient. The breathing became better, the haemor-
ids almost disappeared, and the diarrhoea was not so
ublesome. However, the fluid rapidly accumulated again,
d the patient died suddenly on November 7th.

Post-mortem Examination.

With the assistance of a neighbouring practitioner I made a necropsy
out ten hours after death. The body was very emaciated.

On opening the thorax, extensive adhesions were found in both
ural cavities. So firm were the adhesions at both apices that it was
ficult to separate them without tearing the lung substance. There
re cavities in both apices. The heart was normal.

The abdomen contained about 70 oz. of serous fluid. The omentum
s adhering to the intestines, but was easily separated. The coils of
e small intestine were matted together by adhesions, evidently of very
ent date as they were very easily broken up. The omentum and the
estines were studded with numerous miliary tubercles, apparently
very old as they did not penetrate deeply, but were all superficial,
t under the peritoneal covering. The spleen was found to occupy
e whole of the upper part of the left side of the abdominal cavity.
om the left side it extended in front of the stomach, under the left
e of the liver and under the edge of the right lobe. The portal vein
s pressed between the spleen in front and the posterior part of the
er behind. The spleen had practically retained its normal shape.
measured 13 in. in length, and 8 in. in breadth at its broadest part.
weight was 5 lb. 13½ oz. There was no evidence of tubercle or any
w growth except simple hypertrophy. A section was examined
roscopically, and was found to resemble normal spleen in structure.
e liver, kidneys, and other abdominal organs were normal.

The chief interest of this case seems to me to consist in
e fact that although the case was undoubtedly of a tuber-
lous nature, yet the more urgent symptoms in the later
ages of the illness, and death itself, were due not directly
tuberculosis, but to the enlargement of the spleen.

Renfrew. JAMES HILL, M.D.

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REPORTS
ON
MEDICAL AND SURGICAL PRACTICE IN THE HOSPITALS AND ASYLUMS OF THE BRITISH EMPIRE.

HULL ROYAL INFIRMARY.

A CASE OF PRIMARY QUADRUPLE AMPUTATION: RECOVERY.

(Under the care of E. HARRISON, M.A., M.D.Cantab., F.R.C.S.Eng., Honorary Surgeon to the Infirmary.)

P. B., aged 29, a fisherman, was admitted into the Hull Royal Infirmary at 3 a.m. on May 28th. He had been found lying on the railway near the Albert Dock with all four limbs terribly mangled. He must have fallen across the metals in such a way that the wheels of one side of the train passed over his wrists, while those of the opposite side cut the lower extremities.

State on Admission.—He was almost pulseless and was naturally suffering greatly from shock though not perhaps to the extent which might have been anticipated considering the magnitude of the injury. When seen by the house-surgeon (Mr. Carter) his injuries were as follows. The right leg from 6 in. below the knee downwards to the toes the limb was actually reduced to ribands and presented a most sickening appearance. The left thigh was hopelessly crushed at the junction of the middle and lower thirds, while both forearms were terribly mangled at the level of the wrist joints.

Operation.—A subcutaneous injection of $\frac{1}{10}$ gr. of strychnine was administered and a telephone message sent to Dr. Harrison. When he arrived the patient was in the operating theatre being anaesthetised and an intravenous infusion of normal saline fluid was being given by Dr. Eve (house-physician). This was continued during the operation. Four pints were infused in which was ♏x of adrenalin. The preliminary cleansing of the limbs and the operations were performed as rapidly as possible, Dr. Harrison amputating the lower extremities while Mr. Carter simultaneously operated on the forearms. The right leg was amputated about 4 in. below the knee; the left thigh about the junction of upper and middle third, while both forearms were amputated about 2 in. above the wrists. There was but little bleeding and only the main vessels required ligature. The four amputations were completed in twenty-five minutes and in a little over the half an hour the patient was in his bed. The pulse at the conclusion of the operation was much better than at the commencement.

After-progress.—The subsequent treatment consisted of hot bottles, elevation of the foot of the bed; ♏v adrenalin every half hour for twelve hours. At 5 a.m. he was given $\frac{1}{12}$ gr. of morphine subcutaneously, which was repeated at 10 a.m. Later in the day phenalgin gr.x was administered to relieve pain with a satisfactory result. The reaction from the shock was vigorous and sustained. He had a flushed face, a full bounding pulse, and a temperature of 101°. Calomel and mist. alba were prescribed. On May 30th the right arm was dressed; the dressings when removed were quite dry, and union by first intention was taking place. On the 31st the right leg was dressed, and found to be suppurating; it was irrigated with izal and dressed with aristol, and made a good recovery, healing by granulation. The left arm and left thigh were dressed on the eighth day, and were found healed by first intention.

REMARKS BY DR. HARRISON.—This is as far as I have been able to ascertain the only successful case of primary amputation of the four extremities which has been published. A case is recorded in the *Lancet*, 1870, ii, p. 397, where the four limbs were amputated for gangrene in a woman, the legs at one operation, and the arms three weeks later. The case is narrated in Mr. Heather Bigg's book on artificial limbs. He fitted her with limbs by means of which she was able to earn her living by knitting. The patient is now dead, and her artificial limbs are in the Royal College of Surgeons Museum. Allen of Grimsby reports a case in *Lancet*, 1889, i, p. 730 of triple primary amputation which was successful. It was a railway injury in a boy aged 8. Right leg amputated below knee, left leg a Syme; left arm through elbow joint. Another triple amputation is reported by Ashurst,[1] in which amputation through left leg, right thigh, and

[1] *Med. Surg., Reports*, January, 1888.

right forearm was successful. At the Hull Royal Infirmary during the past few years we have had several cases of double amputation of lower extremities. I have heard, however, privately of a case in which Dr. J. T. Williams, of Barrow-in-Furness, operated successfully on a similar case due to railway injury in 1898. Both arms were amputated $3\frac{1}{2}$ in. above the elbow-joints and the lower extremities by Syme's and Chopart's operations respectively.

For the accompanying photograph I am indebted to my colleague, Dr. Pigeon. The case has excited considerable public interest. The Surgical Aid Society is now engaged in fitting him with artificial limbs free of cost, and some £230 has been subscribed, by means of which the committee responsible for it intends to set the patient up in some business. The man could give no account of the accident, and no one actually witnessed it. His ship was to sail at 5 a.m. He had been

twice during the night warned off the dock by a policeman owing to his intoxicated state. He must have attempted to crawl between the trucks of the train, which was possibly moving slowly, or, if at rest, must have started while he was between the trucks. This is proved by the fact that the engine and first truck had no blood marks on the wheels; further, the space between the firebox and the ground was not sufficient to allow of the engine clearing him. Eighteen trucks must have passed over his limbs. The infusion with saline fluid and administration of adrenalin, together with rapidity in operating, were doubtless important factors contributing to a successful issue; and Mr. Carter suggests that his inebriated condition also assisted by minimizing the shock due the injury.

TUBERCULOSIS IN GERMANY.—Statistics recently published by the German Central Committee on Consumption show that the number of male patients treated for tuberculosis in 1902 at the expense of German district insurance societies was 12,187, and of female patients 4,302. Seventy-eight per cent. of the total number were temporarily restored to health. Excluding cases discharged at the end of a fortnight, the proportion of recoveries is given as 81 per cent. Taking the two half decades from 1894 to 1902 and from 1898 to 1903, 31 per cent. of all patients treated were found to be permanently cured in the second half decade, against 27 per cent. in the first half decade. The decreasing mortality from tuberculosis is confirmed by statistics from other sources.

British Medical Association.

CLINICAL AND SCIENTIFIC PROCEEDINGS.

HONG KONG AND CHINA BRANCH.

Hong Kong, January 6th, 1904.

Colonel W. E. WEBB, R.A.M.C., in the Chair.

Adrenalin Chloride.—Dr. F. O. STEDMAN read a paper on the use of adrenalin chloride. Having sketched the method of preparation, formula, and dosage of this drug, he explained the difficulty of understanding how it acted in the arrest of internal haemorrhage, unless it was brought in contact with the bleeding points, because if given internally it constricted the vasomotor system all over the body, and thereby raised the blood pressure, a result which was undesirable in a case of haemoptysis, for example. He referred to its use in Addison's disease, gastric, intestinal, and renal haemorrhages. For operations on the eye, a few drops of 1 in 2,000 might be instilled previous to an operation on the lids, or for cataract. In operations on the nose—for example, for polypi—a weak solution was effective in stopping any haemorrhage and clearing the field of operation. He (Dr. Stedman) had found the drug of use in both eyes, nose, and tongue operations. In one of the latter he removed a small epitheliomatous growth from the anterior half of the tongue, having first injected 3 minims into the tongue, where his incision was going to be. Having tied the lingual, any oozing was quickly checked by cotton wool soaked in adrenalin chloride solution.—The PRESIDENT (Colonel Webb) had no experience of this drug, but thought it would be useful in in some cases of splenic anaemia, also in cases of Mediterranean fever.—Dr. HALL WRIGHT found the drug of benefit in two cases of haemorrhage following dental extraction.—Dr. O. MARRIOTT stated he used adrenalin chloride in a case of haematemesis with good result.—Dr. ROCH used the drug with benefit in the following cases: Haemoptysis, punctured wound of the kidney, chronic nasal catarrh, conjunctival congestion, and found it of excellent use in collapse during the administration of chloroform by placing a few drops on the tongue.—Dr. E. A. R. LAING had tried adrenalin chloride in a case of haemorrhage in enteric fever, also in a case of purpura haemorrhagica with good results. In the latter case the patient passed fifteen stools of pure blood in one night and this after all the usual astringents had been tried. A hypodermic injection of adrenalin chloride miij of 1 in 1,000 solution stopped the haemorrhage in a few hours.—Dr. F. O. STEDMAN replied.

BIRMINGHAM BRANCH: COVENTRY DIVISION.

Coventry, Tuesday, February 2nd, 1904.

JOHN ORTON, M.D., in the Chair.

Suppurative Diseases of the Ear.—Mr. FAULDER WHITE read a paper on this subject. He began by stating that after a laborious study of these diseases for nearly twenty years he was not in entire agreement with the teaching of some otologists with regard to treatment. The causes of the admitted failure of otologists to cure chronic suppurative otitis by intrameatal treatment were discussed. Inefficient lotions and the use of dry dressinge or absolute alcohol before the ear had been disinfected were condemned. Frequent irrigation by means of a Higginson's syringe with hot solutions of the silico-fluorides were efficacious in many cases of otorrhoea when there was a large perforation. Mr. White then described the operation of "otectomy" by which he cleared a way for irrigation. This consisted of the complete removal of the membrane, the malleus, and incus, with any granulations and polypi that might be present. Drawings of the middle ear and attic were shown illustrating the difficulty of disinfecting these cavities without such removal. The operation was well borne, and was not usually followed by pain or other disturbance. By its means many cases had been cured that had previously been under skilled treatment without relief. In nearly all the cases improvement in hearing had accompanied the cure. One case of temporary facial paresis was reported. The author read notes of a case that had been under treatment for nine months at a special hospital and for four months at a general hospital. She was deaf and in a very anaemic and debilitated condition, ears very offensive. Double otectomy was performed, and the ears irrigated twice daily. A month later the ears had quite recovered, and s

ould hear conversation well. She gradually regained perect health. The condensed notes were then read of all he cases then in the Coventry Hospital in which this peration had recently been performed (16 otectomies). Some f these patients were shown. These cases showed general mprovement in hearing, and the temperature charts witessed to an absence of any serious disturbance after operaion. Allusion was next made to the radical operation, hich owed its rise in specialist favour to the failure of the ulty methods so often adopted for the cure of otorrhoea. very variety of a radical operation might be said to involve anger to life and to hearing, and too often failed to cure. t was a severe ordeal for the patient. Broca's work was uoted in support of these contentions; for instance:

The lateral sinus is often wounded by the surgeon; and when the cial nerve is cut in its descending portion it is rare to see any melioration.

ven in cases of undoubted extension of disease to the bone, artial operations were to be preferred combined with tectomy and irrigation. Four cases were then shown: (1) A se of recovery after otectomy, in which the hearing was bove the normal; (2) a case of complete recovery after a artial operation on the bone; (3) a case of recurring otorhoea with severe pain, six months after Stacke's operation ad been performed at St. Bartholomew's Hospital; (4) a case double otorrhoea with intracranial suppuration that reovered after a partial operation and otectomy. A special rm of attic cannula with probe was exhibited. By means of is cannula Mr. White directly irrigated the attic cavity. he probe was introduced into the attic cavity through the nnula. The lecturer concluded by saying that he had ceived little support at the Otological Congress of 1899 in his rotest against unnecessary resort to the radical operation -called, but in 1904 he claimed to have shown and proved by sults that chronic suppurative otitis was curable by intraeatal treatment—by antiseptic irrigation with or without ectomy—and that such drastic interference as a radical peration should rarely be required.—A discussion followed, which Messrs. Iliffe, Callaghan, W. E. Bennett, G. Eaton, and Drs. Hawley, Orton, Phillips, and Snell ined; and Mr. Faulder White replied.

Specimens.

Mr. Bankes-Price showed several appendices, and made observations the differences of the symptoms in the several cases, and the pecurities met with in the several operations.

REPORTS OF SOCIETIES.

EDINBURGH MEDICO-CHIRURGICAL SOCIETY.

Professor John Chiene, C.B., President, in the Chair.

Wednesday, February 3rd, 1904.

The Glycogen Reaction of the Blood.

R. G. Lovell Gulland read a paper on the subject of the ycogen reaction in the blood and its application in diaosis, which will be published in full.

Streptothrix Infection.

Dr. Stuart McDonald read a paper on a case of general reptothrix infection, which occurred in Sir Thomas Fraser's ards. He gave a brief note of the clinical history of the case; e *post-mortem* report, with description of the histology of e lesions; a description of the particular species of streptorix concerned, with results of the experimental inoculations rabbits, guinea-pigs, rats, and mice; and finally made servations on the similarity of the condition to tuberculosis, and on the importance of more careful bacteriological amination of the sputum in doubtful cases.

Glaucoma.

Dr. James V. Paterson read a paper on glaucoma and aucoma theories, with lantern demonstrations. Slides were own to illustrate the paths by which fluid was eliminated m the eyeball, and the experimental results obtained by iel and other recent observers in this field were described d commented upon. In the monkey's eye (freshly enueated) Dr. Paterson found that Chinese ink injected into the terior chamber penetrated freely into the tissue of the iris well as into Schleman's canal, and the veins at the filtran angle. For estimating the amount of fluid which can w through the eyeball under different conditions of pressure, c., he had employed an apparatus somewhat modified from at used by Priestley Smith, the graduated tube carrying the air bubble being of finer calibre, so that the readings could be taken every minute. The question of intraocular tension was then discussed, and its intimate relations to the blood pressure, arterial and venous, emphasized. In discussing the various theories of glaucoma, Dr. Paterson was inclined to favour the view of a retention theory with blocking of the filtration angle as best explaining the acuter forms of the disease. The more chronic forms of glaucoma he thought probably depended on local and general vascular changes which might influence the blood pressure and intraocular secretion. As regarded Priestley Smith's theory, Dr. Paterson had never seen any pathological evidence that the circumlental space had been blocked in any of a series of glaucomatous eyes examined by him.

All three papers were illustrated by microscopical demonstrations, and the two latter by lantern demonstrations also.

Patients were shown by Mr. Dowden, Mr. Alexis Thomson, and specimens by Mr. Scot Skirving.

CLINICAL SOCIETY OF LONDON.

Frederick Taylor, M.D., F.R.C.P., President, in the Chair.

Friday, February 12th, 1904.

Disease of the Pancreas.

Dr. Sidney Phillips reported this case. The patient, a married woman, aged 26, at Christmas, 1901, began to suffer with epigastric pain. In February, 1902, jaundice appeared with absence of bile from the stools. There was no history of biliary colic. An exploratory operation was performed at St. Mary's Hospital by Mr. Edmund Owen on April 3rd, when a great enlargement of the pancreas, judged to be non-cancerous, was found. On June 14th 8 per cent. of sugar was present in the urine, and six months later the jaundice disappeared, but the diabetic symptoms progressed. On January 26th, 1903, she died at her home from diabetic coma. A partial necropsy was obtained. The pancreas was much enlarged, and presented considerable fibroid change throughout, with numerous small calculi, so that the organ cut grittily. Microscopically, there was almost complete replacement of pancreatic tissue by fibrosis, and destruction of the islands of Langerhans. The occurrence of the jaundice was explained by obstruction of the common opening into the duodenum of the pancreatic and bile ducts. The glycosuria was of the type usual in "pancreatic diabetes."

Dr. N. Dalton remarked that such a pancreas might diminish in size, as did a cirrhotic liver.

Mr. L. A. Bidwell said that in chronic pancreatitis the gall bladder was usually distended. In none of 4 cases upon which he had operated was glycosuria present after the operation. In Dr. Phillips's case the parts were simply explored at the operation; he thought it preferable to drain the gall bladder for two or three weeks after the operation.

Dr. W. Pasteur remarked that obstruction of the pancreatic duct led ordinarily to cirrhosis of the pancreas, but referred to a case of the kind under his care in which, although obstruction had lasted a considerable time, no cirrhosis of that organ was found after death.

Dr. S. Phillips, in reply, said that there was no trace of a gall stone. It did not seem necessary in all cases to drain the gall bladder, as some recovered without any operation at all, and pancreatic calculi were capable of producing jaundice.

Malignant Anaemia.

Dr. Norman Dalton narrated two cases, due, apparently, to defective formation of red corpuscles, and associated with caries of teeth and suppuration of upper jaw.

The first case was that of a man, aged 21, suffering from debility, pallor, anaemic *bruits*, epistaxis and other haemorrhages, and vomiting. The disease lasted only eight months, and there was no necropsy. There was no enlargement of the spleen or lymphatic glands. The interest centred in the urine, in the suppurative lesions, and in the blood. The urine was never high-coloured. The teeth were carious, and there was an alveolar abscess, which, after incision, left a sinus in the hard palate. Otorrhoea was also present. The blood showed progressive oligocythaemia, the red discs falling from 1,200,000 per c.mm. on admission to 393,720 per c.mm. three months later. The haemoglobin was also diminished, and there was marked leucopenia, the lymphocytes being in excess of the polynuclear cells. The second case was that of a girl, aged 17, who had lived in extreme poverty. She had been ailing for some time, but the illness only became acute three weeks before she was admitted to King's College Hospital, where she died five days later. The urine was pale, the teeth were carious, and there was an abscess in the upper jaw from which pus was constantly oozing. The blood only contained 816,000 red cells per c.mm., and 17 per cent. of haemoglobin. The leucocytes numbered 3,500 At the necropsy there were subserous and submucous haemor-

rhages. There was no free iron in the liver, and the red marrow was fatty. In neither case could surgical treatment be undertaken on account of the tendency to haemorrhage. Dr. Pasteur had described an exactly similar case, but there was no suppurative lesion.

Dr. W. Hunter remarked that the cases resembled those which he had styled "septic anaemia," and were distinguishable from cases of pernicious anaemia by the intense degree of anaemia present, and occasional presence of megaloblasts, associated gastric or intestinal disturbances, the absence of haemolytic changes in the urine, the presence of a low type of pyrexia, deep-seated infection of the tongue, absence of the bone-marrow changes found in true Addisonian anaemia, and by the grave prognosis attached thereto, unless the cause of the sepsis could be removed. There seemed, in fact, to be an absence rather than an excess of blood formation. Sepsis alone would not produce haemolytic changes.

Dr. W. Pasteur referred to a case reported by him to the Society in November last, in which haemolysis was excessive but there was no suppurative lesion. He concluded, therefore, that for the present his case must stand alone. The cases quoted by Dr. Dalton seemed to be instances of septic anaemia.

Dr. Parkes Weber thought that something more than sepsis was necessary to change mere ill-health into profound anaemia.

Dr. Dalton said that persons with carious teeth ran great danger because the intervention of a factor (at present unknown) might produce a rapidly fatal anaemia.

Ankylosis of the Jaw.

Mr. Jackson Clarke described the case of a woman, aged 35, in whom ankylosis of the jaw followed an infection, probably gonorrhoeal. Four years ago he had excised the neck of the lower jaw on each side; and she could now separate the edges of the incisor teeth ¾ in., and masticate with comfort.

Mr. T. H. Openshaw described a case in which, after the failure of milder measures, he had eight years ago excised both condyles with good results.

Tuberculosis of the Thyroid.

Mr. E. M. Corner read notes of two cases of tuberculosis of the thyroid gland; and stated that localized tuberculous deposits in the gland were extremely rare.

Exhibits.

Mr. T. H. Openshaw showed two patients with severe fractures of the lower limbs, both of whom had been able to walk on the ninth day after treatment by Hoefftcke's apparatus and a modified Hessing's splint case respectively.

PATHOLOGICAL SOCIETY OF LONDON.

W. Pavy, M.D., F.R.S., Vice-President, in the Chair.

Tuesday, February 16th, 1904.

Arterio-sclerosis.

A discussion on this subject was opened by Dr. T. D. Savill, who stated that three forms might be recognized—intimal, medial, and adventitial. Atheroma—a patchy fibro-cellular infiltration of the intima—must be regarded as quite distinct from these. He dealt almost exclusively with the changes in the muscular coat; these were of chief interest, and the other forms were of no serious importance provided that the media were relatively intact. The morbid changes which might be met with in the media were atrophy, cloudy swelling, granular degeneration, necrosis, calcification, and lastly hypertrophy. It was with the last-named lesion that the paper particularly dealt. This arterial hypermyotrophy, as it was designated by the speaker, was to be regarded as primarily a true overgrowth. The fact of degeneration having commenced by the time a case reached the *post-mortem* room did not negative the existence of hypertrophy. It was very often antecedent to medial degeneration. Clinically, arterial hypermyotrophy constituted a distinct pathological condition of prolonged course, capable of recognition during life by careful investigation, sometimes, but not necessarily, associated with chronic renal disease, and constituting in itself one of the main pathological conditions on which cerebral and other haemorrhages depended. The 30 cases which formed the chief basis of this communication were divided into two groups. In Group A (17 cases) arterial hypermyotrophy was relatively uncomplicated by other arterial disease, and these represented some of the earlier phases of the disorder. Group B (13 cases) were more or less complicated with intimal and adventitial sclerosis and degenerations; these probably represented the final stage. Microscopic sections of the arteries and arterioles were examined, measured, and compared with normal specimens. Typical cases were described. One case was met with while searching for a normal standard. Another was that of a man aged 56, who exhibited numerous circulatory symptoms during life, and who died of cerebral haemorrhage; the urine, kidneys, and other organs were normal, but the heart and arteries presented hypermyotrophy. The average increase of the tunica media amounted to $\frac{5.7}{2.5}$ of normal in the lower extremities, $\frac{4.1}{2.5}$ of normal in the abdomen and upper extremities, and $\frac{2.6}{2.5}$ of normal in the cerebral arteries; the tunica intima was practically normal; the tunica adventitia was very slightly increased. In the 17 cases in Group A, measurements showed an average increase in the media amounting to about 50 per cent., the greatest being $\frac{1}{5}^2$, and the smallest $\frac{1}{8}$. Among the causes of arterial hypermyotrophy, its relationship to chronic renal disease was discussed. That it resulted from chronic renal disease was admitted. But that it might also occur independently of renal disease was evidenced by the fact that of 30 cases submitted, chronic renal disease existed in only 4 of Group A, and in 5 of Group B, the remaining 21 presented no urinary changes during life nor evidence of renal disease after death. Objection was taken to the term "chronic Bright's disease" being applied to a generalized condition, consisting of high tension and various circulatory and nutritional defects with fibrosis of organs, unless there were definite evidences of chronic renal disease during life and after death. It was suggested that such a generalized condition was in reality a condition described clinically as senile hyperpyesis by Professor Clifford Allbutt, or anatomically as arterial hypermyotrophy, with their concomitant circulatory and nutritional defects. Hypertrophy of the heart existed in all of the 17 cases in Group A and in all but 2 (Cases 62, 66) of the 13 cases in Group B. The average weight in Group A was 13.9 oz., in Group B 12.5 oz. It might be regarded either as a cause or as a result of arterial hypermyotrophy, or as a product of a cause common to both. High blood pressure was observed in all cases of arterial hypermyotrophy seen during life before a final stage supervened. The causes of high arterial tension could generally be revealed in their history and evidently played a leading rôle in the causation of arterial hypermyotrophy. Heredity, age, and other causes were also discussed. The consequences of arterial hypermyotrophy somewhat resembled those of high tension. Among the more serious was cerebral haemorrhage, which occurred in 4 out of 17 cases in Group A.

The following members took part in the discussion: Professor Clifford Allbutt, Dr. J. H. F. Broadbent, Dr. Parkes Weber, and the Chairman.

OPHTHALMOLOGICAL SOCIETY OF THE UNITED KINGDOM.

John Tweedy, P.R.C.S., President, in the Chair.

Thursday, February 11th, 1904.

Gonorrhoeal Conjunctivitis and Hydrogen Peroxide.

Mr. Bronner read notes of a case in which a woman aged had had her eye inflamed for two days before being see The lids were swollen, and a profuse discharge was prese in which gonococci were found. Perchloride of mercury w used as a lotion, as well as protargol (5 per cent.) to the li and drops of 3 per cent. hydrogen peroxide instilled ev four hours. On leaving off the peroxide the cornea rapi became ulcerated, but on recommencing it the ulcer at o ceased spreading and healed, leaving remarkably little s behind. Excellent vision was obtained, and Mr. Bronner never seen so bad a case make so remarkably good a recove This he attributed to the peroxide.

The President had used hydrogen peroxide in cases hypopyon ulcer, but had not tried it for purulent ophthalm The ulcer cases did very well indeed.

Mr. Hartridge said that years ago all cases of purul ophthalmia at Moorfields were treated with peroxide, but for some reason or other it had been given up. He thou protargol of weaker strength than 20 per cent. was of little use.

Mr. Holmes Spicer said that some years ago he publis

large number of cases of purulent ophthalmia treated at Moorfields, and he found that those treated with silver did much better than when treated only with peroxide.

Mr. Bronner, in reply, said that he did not at all advocate the use to the exclusion of silver and other remedies, but in combination with them he was much impressed with its utility.

Congenital Anterior Staphyloma.

Mr. J. Herbert Parsons read a paper on the case of a girl, aged 3 days, admitted at Moorfields under the care of Mr. Fisher, with an anterior staphyloma of the left eye.

The condition was noticed at birth. The mother was healthy and the confinement was normal; the child was born immediately after rupture of the membranes; there was no other deformity. There was a very slight mucous discharge, and a complete anterior staphyloma with no anterior chamber. The iris was adherent to the pseudo-cornea, which was very thin and almost transparent. Pathological examination showed the usual features of an anterior staphyloma, the lens being *in situ*, and the whole eye in an early stage of panophthalmitis. The posterior chamber was full of polymorphonuclear leucocytes, which were also present in the vitreous. The true cornea at the sides showed dense infiltration; the epithelium and Descemet's membrane were present here only. The anterior capsule of the lens was ruptured; the lens was cataractous, but there was no anterior capsular cataract.

Nine previous cases of congenital anterior staphyloma with pathological examinations had been reported. All the cases showed exactly the same features which were found when the condition developed in the usual manner after birth. It was probable that the intrauterine cases were due to the same cause—namely, perforation of the cornea. Traumatic perforation of the cornea under these circumstances was very improbable. Could intrauterine ulceration of the cornea occur? Endogenous infection was improbable, owing to the absence of blood vessels in the fetal cornea; at the same time it might be brought about by toxins. Exogenous infection through the amniotic fluid was more probable, and accounted for the frequency of bilateral disease. There was no doubt that intrauterine transmission of infection—for example, anthrax, tubercle, etc.—could occur. Infection per vaginam at birth could be definitely eliminated in some cases—for example, Hirschberg and Birnbacher's, and Runte's, in which the children were seen half an hour and half a day respectively, after perfectly natural confinements. It was improbable in the case cited, seen on the third day. It was almost impossible to explain the cases on the theory of mal-development, and even then the inflammatory condition would require explanation.

Mr. Treacher Collins, who had seen the specimens, thought failure in the development of the anterior chamber was the original cause of the condition. The inflammatory changes might easily have occurred in the three days following birth; and, as there was a gap in the anterior capsule, he thought that there had been a perforating lesion caused most probably by the finger of the accoucheur.

Mr. Nettleship referred to two cases that he had seen; and Mr. Parsons replied.

Card Specimens.

Messrs. A. Ogilvy and Sydney Stephenson: Specimens of epithelioma of the ocular conjunctiva.—Mr. Arnold Lawson: Traumatic aniridia.—Mr. Bishop Harman: Nose-blinking movements.—Mr. Hartridge: Unusual opacity of posterior part of lens and capsule.—Mr. G. V. Thompson: (1) Double kerato-iritis in an infant; (2) peculiar changes of and around the disc.—Mr. Mayou: Two cases of cerebral degeneration in the same family associated with macular changes.—Mr. Jessop: Epibulbar tumour.—Mr. L. Werner: (1) Lymphoma of the conjunctiva; (2) congenital defect in the ocular movements, combined with peculiar associated movements of the eyes.

LIVERPOOL MEDICAL INSTITUTION.

James Barr, M.D., F.R.C.P., President, in the Chair.

Thursday, February 4th, 1904.

Hot-air Cautery.

Dr. Grossmann gave an account of the hot-air cautery introduced into surgery by Dr. Hollander, of Berlin, a modification of which he had employed with satisfactory results in angioma of the eyelid and in corneal ulcers and similar affections. He considered it particularly valuable in cases of conical cornea. The different degrees of heat could be easily regulated, and he had found the results superior to those obtained by the actual cautery.

Chronic Antimony Poisoning.

Dr. Leslie Roberts exhibited a patient, a compositor by occupation, suffering from chronic poisoning by antimony and lead.

The symptoms were sweating, tenderness of the palms and soles, and pains in the muscles of the arms and back. The patient had been forced to give up work on account of the tenderness of the fingers. The palms were of a pinkish-red colour and drenched with perspiration. Scattered all over the palms were small flat smooth papules. Microscopic examination showed the rete to be hypertrophied, the sweat ducts much dilated, and the capillaries congested. The condition of the palms was not to be distinguished from that seen in some forms of arsenical poisoning.

The urine was free from albumen, but contained lead. The tremors and muscular weakness might be attributed to this latter metal. The man had not suffered from colic. The plumbism seemed to have been modified by the presence of antimony.

Intravesical Separation of the Urine.

Mr. Robert Bickersteth read a note on the separation of the urine coming from the right and left ureters. After giving a history of the previous attempts made, and contrasting the method with its only alternative—namely, catheterization of the ureters—he showed the "separator" introduced by Dr. George Luys of Paris. He had used this instrument for the last six months, and proved the method to be of the greatest utility. The shape of the instrument rendered its introduction into the bladder somewhat difficult, but after a little practice this difficulty was overcome. The bladder was washed out and emptied before passing the "separator." In from fifteen to twenty minutes sufficient urine could be collected from each ureter to estimate the relative efficiency of the kidneys. During the examination it was not necessary or advisable to administer a general anaesthetic, for after the introduction of the instrument the patient should be placed in the sitting posture.

Mr. Paul related several cases under his care in which Mr. Bickersteth had by means of the "separator" furnished him with most valuable information. In one case in particular he had decided to operate upon the right kidney, but fortunately the "separator" clearly demonstrated that this was the better kidney of the two, and so a possible surgical disaster was avoided.

Mr. George Hamilton thought that in certain cases, owing to the blood clotting, the utility of the instrument might be limited.

Puerperal Septicaemia.

Dr. Nathan Raw read a paper on the Pathology, Bacteriology, and Treatment of Puerperal Septicaemia, with special reference to the value of antistreptococcus serum, based on an observation of 61 cases. He characterized the disease as in no way differing, either in origin or symptoms, from any other infective and septic process, and said that it was not peculiar to the lying-in state. The micro-organisms found in his series were as follows:

Streptococcus pyogenes in	27 cases
Staphylococcus aureus in	6 ,,
Mixed infections in	13 ,,
B. coli communis in	11 ,,
B. diphtheriae in	1 ,,
No growth of organisms in	3 ,,
	61

Before antistreptococcus serum was employed it should be demonstrated beyond doubt that the infection was streptococcal. The serum was of the greatest possible value in pure streptococcal infections if employed early in the disease. The dose he employed was 20 c.cm. twice or thrice daily and continued for several days. He had never known any harm or bad symptom arise from its use if obtained from a reliable manufacturer and with a guarantee of its purity. Of the 61 cases reported, 32 recovered, 29 died, giving a death-rate of 48 per cent. Of the 37 treated with serum, 24 recovered, 13 died, giving a death-rate of 36 per cent. Of 24 treated without serum, 8 recovered, 16 died, giving a death-rate of 60 per cent. Several patients of the third class were admitted in an advanced stage of the disease, when obviously no treatment would be of avail.

Dr. Gemmell had not felt confidence in the serum treatment mainly because of the difficulty of being sure that the germ it was intended to kill was present in the blood.

Dr. Briggs had frequently used the serum but had grave doubts as to its real utility.

Dr. Llewellyn Morgan thought that as no harm had come to any patient through the use of the serum, and as in many cases undoubted good had followed its use, every case of septicaemia should be given the chance of the possible benefit.

Dr. Grünbaum thought that, in spite of the relative feebleness of antistreptococcus serum, it should always be given when the clinical symptoms pointed to puerperal septicaemia,

whether streptococci were found or not. Recent improvements in the manufacture of the serum made its use much more hopeful.

GLASGOW PATHOLOGICAL AND CLINICAL SOCIETY.—At a meeting on February 8th, A. E. MAYLARD, M.B., B.S.Lond., President, in the chair, Dr. MUNRO KERR showed as a fresh specimen a uterus which he had removed on account of malignant disease complicating a pregnancy of about eight months. The tumour was excised per vaginam, to avoid possibility of septic infection of the peritoneum, the uterine arteries secured, and then Caesarean section was performed, delivering a living child; finally the whole uterus was extirpated through the abdominal wound.—Mr. GRANT ANDREW showed a large single hydronephrotic kidney which during life gave rise to symptoms simulating those of appendicitis. The illness started somewhat suddenly with pain in the right iliac region and constipation. Fullness and tenderness in that region and the occurrence of rigor suggested abscess. At the operation (after about three weeks) it was discovered that the swelling was a large hydronephrotic kidney, the contents of which were somewhat purulent; it was simply drained. Acute suppression of urine followed, and the patient died two days later. *Post mortem* it was found that there was only one kidney of large size and of shape which suggested fusion of the two kidneys. The patient had contracted gonorrhoea a week before the onset of the illness; this was regarded as the source of infection which converted a hydronephrosis, previously giving rise to no symptoms, into a pyonephrosis simulating an appendical abscess. Gonococci were not found in the contents of the kidney.—Dr. JOHN ANDERSON demonstrated naked eye and microscopical specimens of the prostate gland extirpated by Dr. R. H. Parry by Freyer's method. In three specimens which were received entire a portion of the membraneous urethra was present, and right out to the surface of the removed masses prostatic tissue could be recognized.—Dr. NAPIER showed a patient suffering from cerebral tubercle who improved greatly after treatment by repeated lumbar puncture, and read notes of other cases treated in a similar way.—Dr. JOHN ANDERSON showed microscopical sections of the colon from Dr. Parry's case of faecal concretion in the ascending colon reported at the December meeting. The specimens demonstrated the absence of malignant disease.

LARYNGOLOGICAL SOCIETY OF LONDON.—At a meeting on February 5th, Mr. J. CHARTERS SYMONDS, Vice-President, in the chair, Dr. E. S. YONGE showed Professor Meyer's apparatus for demonstrating the laryngeal image and intralaryngeal manipulations. The apparatus was examined by those present and considered to be suitable for the purposes mentioned. He also showed microscopical sections from a case of early polypus, which showed that the subjacent bone was perfectly healthy, and that there were no signs of either caries or necrosis.—The following cases were shown: Mr. A. H. BURT, a man, aged 49, with possible mild glanders.—Dr. H. L. LACK, (1) a case of malignant disease of the tonsils in which he had operated with good results; (2) a microscopical section of endothelioma of the maxillary antrum; (3) a microscopical section of endothelioma of the larynx and the patient; (4) an osteoma of the ethmoid with nasal polypi.—Dr. F. POTTER, a case of recurrent papilloma of the larynx.—Mr. A. THORNE (1) a case of immobile left vocal cord in a man aged 35; (2) a man aged 35 with severe paroxysmal pain starting from the larynx; (3) a tumour of the right side of larynx in a woman of 45. This latter case gave rise to discussion, the general opinion of those present being that the tumour was of tuberculous origin.—Mr. H. W. CARSON, a case of laryngeal ulceration in a phthisical patient for diagnosis.—Mr. R. LAKE, a case of subglottic thickening.—Dr. J. DONELAN, a youth with fractured septum and a depressed nose improved by operation and paraffin injection.—Dr. D. GRANT: (1) A woman, aged 45, with fixation of the vocal cord and extreme pain on swallowing. The question was raised as to whether it was a case of tuberculous perichondritis; (2) a case of chronic oedema of the larynx (shown previously) in a middle-aged woman; greatly improved under mercurial inunction; (3) a case of ulceration of the pharynx after cervical fistula and oedema of the right half of the larynx in a middle-aged woman. The question of specific perichondritis of the arytenoids was raised.—Dr. W. HILL showed a skiagraph from a male, aged 48, showing a pin which had been in the larynx for four and a-half years, and which had been removed subsequently by lateral laryngotomy.

BRISTOL MEDICO-CHIRURGICAL SOCIETY.—At a meeting on February 10th, Mr. J. PAUL BUSH, C.M.G., in the chair, the following cases and specimens were shown:—Dr. WALDO: A recent specimen of a lung from a boy who had died of haemoptysis, a caseating gland having ulcerated into both trachea and oesophagus.—Dr. J. MICHELL CLARKE: A patient with a lesion of the cauda equina, and another with a lesion of the lumbar cord.—Dr. F. H. EDGEWORTH: A case of cretinism improving under thyroid treatment.—Dr. WALTER SWAYNE: A calcareous mass removed from the broad ligament.—Mr. G. MUNRO SMITH: A specimen of a scrotal tumour with microscopic section; also a skiagraph showing numerous foreign bodies in the hand.—Mr. A. W. PRICHARD read notes of three cases of vesical calculus that he had had within as many weeks, and showed the stones removed.—Mr. J. DACRE related two unusual cases of pneumothorax.—The cases, specimens, and papers were discussed by the members present.

REVIEWS.

ANATOMY.

MR. CECIL H. LEAF'S translation of the volume on *The Lymphatics*,[1] which constitutes a portion of the *Treatise of Human Anatomy* published under the editorship of Professors Poirier and Charpey, leaves but little to be desired, and this was almost to be expected, for the subject is one upon which Mr. Leaf has himself done excellent work. The volume would have been more readable had the translator dealt more freely with the original text, and had he avoided expressions such as "We will now consider," "We will now study," and "We find," which, whilst not altogether objectable in a lecture, become extremely tedious if often repeated in the pages of a book. The first 110 pages are devoted to the general anatomy of the lymphatic system and in this section, written by Dr. Gabriel Delamere, are included short historical surveys of previous work, accounts of methods, a detailed consideration both of the fluid and the corpuscular portions of the lymph, descriptions of the structure both of the lymphatic vessels and the lymphatic glands, accounts of the phylogenetic and ontogenetic development of the lymphatic system, and a very complete bibliography of the subjects dealt with. The various corpuscles of lymph are fully described, opinions concerning them are discussed, the number of each kind usually met with in the blood is given, and the conditions under which they are increased are mentioned. Taken as a whole this section is an excellent summary of the present knowledge of the general anatomy of the lymphatic system, and cannot but be a great help to anyone who wishes to make further investigations. In the second, and larger, part of the volume Professor Poirier and Professor Cuneo describe the lymphatic vessels and glands in the human body, and their descriptions include the results of their own investigations. This portion of the volume fully sustains the high reputation previously gained by the other volumes of Poirier's *Anatomy*. Very full accounts are given of all the vessels and glands, but more especially so of those which are particularly important to the physician and surgeon. The figures are numerous, elaborate, and excellent, and they illustrate not only the results obtained by the old methods of mercury injection, but also those gained by the utilization of Gerota's method. The lymphatics of the tongue, pharynx, nose, mamma, liver, and generative organs are particularly well described, and the whole section is worthy of the highest praise. There is, however, no detailed index, a deficiency which should certainly be remedied in subsequent editions.

Just as in the case of vol. i, the third edition of vol. ii of Professor CUNNINGHAM'S *Manual of Practical Anatomy*[2] is a great advance upon its predecessor the second edition, for, although the number of pages has been reduced, the number of figures has been considerably increased, and many of the old figures have been replaced by new and more satisfactory successors. Colours have been freely introduced into the figures, and the facility of reference to the various parts has

[1] *The Lymphatics.* General Anatomy by G. Delamere. Special study of the Lymphatics in different parts of the body, by P. Poirier and B. Cuneo. English edition translated and edited by Cecil H. Leaf, M.A., M.B. F.R.C.S. London: Archibald Constable and Co. 1903. (Demy 8vo, pp. 301; 117 illustrations. 18s.)

[2] *Manual of Practical Anatomy.* By D. J. Cunningham. London and Edinburgh: Young J. Pentland. 1903. (Demy 8vo, pp. 607; 225 illustrations. 10s. 6d.)

herefore been greatly increased. The reduction of the pages the text has not been gained by the sacrifice of completeess, but by condensation of statement, and a somewhat oser packing of the portion of the text dealing with the ethods to be adopted for the display of the various organs id parts. Of the two sections dealt with in this volume, the horax, and the head and neck, the former has been most nproved by the addition and substitution of figures, and we e glad to see that, at last, a figure of the relations of the arts in the roots of the lungs has been given which is an ccurate representation of the facts, although it will not dapt itself to the requirements of the crammer. The ositions of the structures in the upper and back part f the pericardium are also beautifully shown in Fig. 14, in hich the relation of the right branch of the pulmonary artery the serous layer of the sac is clearly demonstrated. Indeed, o exception can be taken to the figures which represent organs s seen in the body, or organs which have been removed from eir original situations after having been hardened *in situ*, but nprovements are still possible in some of the diagrams which ave been retained. Thus, in the diagram on p. 218 the subavian artery appears to be springing from the innominate n front of the common carotid instead of behind it; in ig. 83, on page 233, the course of the facial artery in the neck s misrepresented; and Fig. 106, on page 307, gives an rroneous notion of the relation of the external to the internal arotid artery. It is true that the figures noted are only inerted as diagrams, but it cannot be forgotten that it is gures of simple and striking outline frequently make he most permanent impressions on the eyes and minds of he student, and the value of more complicated figures, which ccurately represent the true relationships of the various arts, is seriously discounted, if they are, to a greater or even ess extent, contradicted by more simple but more rapidly mpressive figures. We are particularly sorry to miss from his edition the plate showing the relations of the fissures nd convolutions of the brain to the skull wall, for we cannot ut think that anything which conduces to the application of natomical knowledge to clinical purposes is to be looked pon as of great value.

The *Handbook of Surgical Anatomy*,[3] which Professor Wright and Dr. Preston have produced, differs from similar works in one important respect, for it contains an excellent account of the formation and development of the teeth, which cannot but be extremely useful to the medical student, who does not usually receive much satisfactory information on this important subject. Beyond this the book contains, as the authors themselves state in the preface, nothing original. The contents are, however, well arranged, and the marginal headings which have been adopted are a decided convenience. It is no doubt difficult in a book of small dimensions to know what to include, but unless the statement that the book is intended for junior students means that it is intended for those who have not been through the course which ought to precede attendance at a hospital, it seems a pity that so much space should be given to the repetition of incomplete, and in some cases misleading, if not incorrect accounts of such elementary anatomical knowledge as the position and relations of the brachial artery, etc., to the exclusion of what must be considered more valuable surgical information.

Almost eight years have elapsed since the appearance of the first section of Professor Spalteholz's *Hand-Atlas*[4] of human anatomy, and now, the last section of the last volume, with the exception of a supplement dealing with the lymphatic vessels, is before us. It contains figures of the spinal cord, the brain, the nerves, and the sense organs, and fully maintains the high standard of illustration, and the conciseness of text which characterized the earlier volumes. The more elaborate figures, which depict the exact conditions, are accompanied by excellent outline diagrams which obviate any obscurity that might arise from a lengthy description, and the precise positions and planes of the sections which show the internal appearances of the various parts of the brain are indicated on the surface views. There are, in addition, several semi-diagrammatic figures which demonstrate, most clearly, the courses of the fibres of the cranial nerves before they leave or after they enter the brain. It is unfortunate, however, that the sensorimotor area of the cortex is represented as extending over the ascending parietal as well as over the ascending frontal convolution, and that the terminal fibrils of the pyramidal fibres of the cord are shown terminating round the motor cells of the anterior cornua. Possibly these figures were prepared some time ago and it has not been possible to alter them. At the most this is a comparatively small drawback, and Professor Spalteholz is to be heartily congratulated on the completion of a most excellent piece of work.

The thirteenth volume of the *International Catalogue of Scientific Literature*[5] deals with human anatomy, and includes general histology and embryology. It contains a catalogue of the literature published in 1901, together with a part of that published in 1902, with the exception of the literature published in Austria, for which the material will not be available till a later date. The volume is divided into three parts: (1) Schedules and indices in four languages—English, French, German, and Italian; (2) an authors' catalogue; (3) a subject catalogue; the latter is divided into sections which deal with (*a*) general subjects, such as philosophy, history, biography, periodicals, reports of institutions, etc., general treatises, etc., addresses and lectures, pedagogy, institutions, museums, collections, etc., economics, and nomenclature; (*b*) methods and instruments of research, preservation, and preparation, both for macroscopic and microscopic purposes; (*c*) cytology and histology; (*d*) development in general, including general works, and papers dealing with the theory of descent, heredity, degeneration and regeneration, experimental embryology, growth and senescence, and malformations; (*e*) systematic anatomy, subdivided into sections dealing with the literature of different systems; (*f*) topographical anatomy. The work has been well done, little or nothing has been omitted, and the volume includes a vast amount of information arranged in a most easily accessible form. It will certainly greatly facilitate the work of those who wish to consult the literature on any anatomical subject which was published during the period covered by the catalogue.

NEUROLOGY.

Another instalment of a useful series of medical monographs is a small book on smell and its disorders.[6] M. Collet, Professeur Agrégé in the Lyon Medical Faculty, has given, in less than a hundred pages, a valuable sketch, likely to be useful to a busy man, of this perhaps the least specialized of the special senses, even if it be not, in a measure, undergoing in man a process of a devolution. He describes in a clear, succinct way the nerve apparatus of smell, tracing it with as much definiteness as the present state of knowledge admits from the nasal mucous membrane to the limbic lobe. He then gives a classification of odours, and describes the conditions of normal smell, distinguishing very clearly, for example, between that nasal olfaction which is inspiratory and that gustative olfaction which is popularly called taste in regard to flavours, and is expiratory. An interesting section follows on the rapidity and rate of fatigue of the smell mechanism. After the physiological side of the subject has been dealt with anosmia in general is discussed, and then its various etiological varieties—senile, traumatic, post-operative, toxic, functional, and other—are described in order. The concluding chapter on treatment is as hopeful as a rather depressing subject from the therapeutical side can probably be made. The book is not in any sense exhaustive or profound; it is not, indeed, a work of reference so much as a good starting-point for detailed study. It tells something about the more important matters connected with the olfactory sense, but in reference to some matters it is, and, as we think, in good proportion, distinctly curt. For example, all it gives bearing on the subject of "colour smell" is a statement that it may occur, that Mendoza collected 20 cases, a few facts of a case recorded by Halbert, and an allusion to the production of colour sensations by mechanical stimulation of the nasal mucous membrane.

After a two years' interval a fourth edition of *Nervous and*

[3] *Handbook of Surgical Anatomy.* By G. A. Wright, B.A., M.B.Oxon., F.R.C.S., and C. H. Preston, M.D., B.S.Lond., F.R.C.S., L.D.S.Eng. London and Manchester: Sherratt and Hughes. 1903. (Crown 8vo, pp. 220. 4s. 6d.)

[4] *Hand Atlas der Anatomie des Menschen* Mit unterstützung von Wilhelm His. Bearbeitet von Werner Spalteholz. Dritter Band, 2 Abtheilung. Leipzig: S. Hirzel. 1903. (Demy 8vo, pp. 252; 354 illustrations. M.13.)

[5] *International Catalogue of Scientific Literature*, Vol. XIII, June, 1903. London: Published for the International Council by the Royal Society of London by Harrison and Sons. (Demy 8vo, pp. 212. 10s. 6d.)

[6] *L'Odorat et ses Troubles.* Par le Dr. Collet. Paris: J. B. Baillière et Fils. 1903. (Crown 8vo, pp. 95, 4 figs. Fr.1.50.)

Mental Diseases[7] by Dr. CHURCH and Dr. PETERSON has been called for which is evidence of the value of the work recognized in respect of the third edition in the BRITISH MEDICAL JOURNAL of April 12th, 1902, p. 906. The illustrations have been increased by 16 and the pages by 53. The most valuable addition is a critical review, extending to 37 pages, of recent problems of psychiatry with especial reference to such workers of the German school as Kraepelin, Ziehen, and Wernicke. Important neurological additions include matter on the healing of nerves, intermittent limping, herpes zoster, and recently recognized clinical signs of nervous disease. As an up-to-date and sound work the new edition may be cordially recommended.

In a little book entitled *Polyphase Currents in Electrotherapy*,[8] Dr. GEORGE HERSCHELL has described the apparatus, technique, and therapeutical employment of the alternating dynamo current, the currents having a threefold relationship and being carried by three conductors in definite time sequence. Such a three-phase relationship is said to be the most advantageous in treatment, and the physiological effects of the application of such triphase currents to the human body are said to be an increase in the tension and amplitude of the pulse tracing, an increase in the excretion of urea, and a contraction effect on the muscular wall of the gastro-intestinal tract. On these grounds the triphase current is recommended in cases of neurasthenia with low blood tension, in cases of muscular atony of the stomach, and in the treatment of constipation. It is also recommended by Dr. Herschell for "loss of memory and the power of concentration," for "morbid fears," for headache, nervous indigestion, and neuroses of sensation. For obstinate constipation it is said to be necessary to give five or six sittings a week for six weeks. The dynamo current has been in regular therapeutic use in at least one London hospital for several years, and as far as we are aware it has not manifested any appreciable advantages over other electrical methods. If, however, the involuntary muscular mechanisms of the internal viscera can be powerfully stimulated by the polyphase currents, it is obvious that the method may have a wide sphere of usefulness; it is, however, equally obvious that it must be employed with caution and common sense.

The book on *Electro-Diagnosis*,[9] by Dr. J. M. MOSHER, of the Albany Medical College, New York, includes a scheme for the differential testing of nerves and muscles. It is short, and contains the root of the matter. On both counts it is to be warmly recommended. The book contains a classification of the different nerves and muscle groups and the charts of the motor points for each. It must, of course, always be borne in mind that the representation of motor points can be nothing more than a composite picture, but we are inclined to think that Dr. Mosher's charts approach nearer the average positions than many of their predecessors. The individual motor points for the nerves are marked by coloured stars, and of the muscles by circles in corresponding colours. The section on the technique of electrical testing is thoroughly good, and the variations in electrical excitability—from simple quantitative variations to such as the myotonic, myasthenic, and neurotonic reactions—are well brought out. The book deserves to be widely known.

ACID AUTOINTOXICATIONS.

DR. MOHR'S monograph on *Diabetic and Non-Diabetic Autointoxications*[10] which has been translated into English by Dr. A. C. Croftan and published in New York, forms the fourth part of the Treatise on the Pathology and Treatment of Disorders of Metabolism and Nutrition issued under the supervision of Professor von Noorden. It deals with certain aspects of the interesting subject of acid autointoxications, that is to say, of such morbid states as are associated with the production in the organism of beta-oxybutyric acid and its derivatives aceto-acetic acid and acetone. The occurrence of these three closely related substances, the "acetone bodies" of Gelmuyden, in the urine, has long been recognized as characteristic of certain types of diabetes mellitus and further as being the chief, if not the sole, manifestation of perverted metabolism in some other morbid states either of manifest or recondite origin. The precise significance and the genesis of these substances in the organism have been the subjects of numerous investigations, to an excellent summary of which the first portion of the work is devoted. The writers accept at once the view that many clinical phenomena associated with the excessive production of beta-oxybutyric acid are manifestations of a dealkalization of the blood and tissue fluids, resulting from the excessive excretion of the basic constituents in combination with the acid metabolites. The possibility suggested by Kraus that the whole complex of such conditions may depend on some ulterior intoxication is dismissed readily, too readily in our opinion. The vexed question of the genesis of beta-oxybutyric acid and its derivatives is dealt with at once concisely and clearly, the varied significance of the experimental work of this direction is critically discussed, and the conclusion drawn in favour of the synthetic origin of beta-oxybutyric acid from products of fat katabolism. In seeking for the cause of this anomalous metabolism, the writers on the basis of Hirschfeld's work consider that the essential and only factor is defective carbohydrate assimilation. The appearance of "acetone bodies" in the urine of healthy subjects deprived of carbohydrates, in inanition, in the various morbid states classed by von Jaksch as "acetonurias" and in severe types of diabetes mellitus, is in one and all merely the expression of defective carbohydrate assimilation. On the basis of this view they recommend in a final section devoted to therapeutic indications, first the administration of carbohydrates in an easily assimilable form with the idea of preventing the further production of beta-oxybutyric acid, and, secondly, the exhibition of alkalies by the mouth and intravenously to neutralize the acid already formed, and to conserve and add to the diminishing store of alkali in the blood and tissue fluids. Of the two parts into which the work is divided, the first, dealing with beta-oxybutyric acid autointoxication from the pathological standpoint, is by far the more complete and interesting. The second part, in which the condition is considered from the clinical standpoint, is somewhat disappointing; the various types are hurriedly dismissed when their relation to carbohydrate disassimilation has been pointed out. In fact, it constitutes merely a running exemplification of the view of the genesis of beta-oxybutyric acid to which the writers have become attached; and its permanency is accordingly dependent on the maintenance of this particular hypothesis. The work is none the less a welcome addition to a subject pregnant with interest and importance, the modern literature of which is scattered and difficult of access. The American translation, also before us, needs no further comment than in respect of its manner of presenting the sense of the original. We may say at once that it might have been better; it strikes one as being hurried; in places we note exact transposition of the original sense, and typographical errors are more numerous than admissible.

PATHOLOGY.

IN the review of the last edition of Dr. COATS'S *Manual of Pathology*[11] (BRITISH MEDICAL JOURNAL, vol. ii, 1900, p. 229) was pointed out that the section on bacteriology was not up to date and that bacteriology was far too large a subject to be dealt with adequately in a volume devoted mainly to morbid anatomy and histology. The omission, in the new edition, of the chapter on bacteriology is a wise step on the part of the present editor, Dr. SUTHERLAND. The illustrations, which have been largely increased in number, will all be found useful in fulfilling the main purpose of the book, which is to give to the medical student a sound and comprehensive instruction in pathological histology and to bring the knowledge he gains by the aid of the microscope into correlation with what he sees in the museum and the *post-mortem* room. Attention is called to the revision of the section on the female generative organs. Whilst finding in this chapter much that is useful for the student, we think that it might with advantage have

[7] *Nervous and Mental Diseases.* By Archibald Church, M.D., and Frederick Peterson, M.D. Fourth edition. London: W. B. Saunders and Co. 1903. (Demy 8vo, pp. 922; 338 illustrations. 21s.)

[8] *Polyphase Currents in Electrotherapy:* with special reference to the Treatment of Neurasthenia, Atonic Dilatation of the Stomach, and Constipation. By George Herschell, M.D. London: H. J. Glaisher. 1903. (Demy 8vo, pp. 48. 2s. 6d.)

[9] *Electro-Diagnosis.* By J. Montgomery Mosher, A.M., M.D., Professor of Neurology in the Albany Medical College. Albany, N.Y.: Brandow Printing Company. 1903. (Demy 8vo, pp. 58. 1 dollar.)

[10] *Sammlung klinischer Abhandlungen.* Herausgegeben von C. von Noorden. 4. Heft. Ueber diabetische und nicht-diabetische Autointoxicationen (Diabetic and Non-diabetic Autointoxications). Von Dr. L. Mohr. Berlin: August Hirschwald. 1904. (Demy 8vo, pp. 48. M. 1.20.) American translation, New York: E. B. Treat and Co. (Demy 8vo, pp. 80. $0.50.)

[11] *A Manual of Pathology.* By Joseph Coats, M.D. Fifth Edition, revised by L. R. Sutherland, M.B. London: Longmans, Green and Co. 1904. (Demy 8vo, pp. 1,287: 729 illustrations, 2 coloured plates. 28s.)

d more attention to histological detail. Cancer of the rus, for example, is one of the most important subjects h which the clinical pathologist has to deal; the descrip- n found in the present volume is far from sufficient to ferentiate the more important types of cancer of the cervix l of the uterine body, nor is it sufficient to enable the dent to understand how the expert arrives at a histological gnosis of cancer from the fragments of cervix or uterine ettings usually submitted to him. We are glad to see that pathology of the blood is treated very fully and that ne excellent illustrations are given.

The German volume on the chemical pathology of tuber- osis,[12] edited by Dr. Ott, is a joint production by several thors, each of whom summarizes and reviews the work ich has been done in special departments of the subject. e chemistry of disease is still in its infancy, and a great al more work will have to be done before the data of mical analyses can enable us to understand the essential ture of the processes at work in producing the tissue nges peculiar to tuberculosis. Dr. Ott's book is a step in e right direction. By collecting the somewhat meagre ults which have already been attained, the gaps in our pre- nt knowledge are clearly indicated, and a stimulus is pro- ded for future research in the direction in which it is most ded. In his chapters on tubercle bacilli and tuberculin I. Jolles does not appear to think that chemical analyses yet justify any very positive conclusions as to the exact mposition of tuberculous toxin or its relationship to the cilli themselves on the one hand and to the products of eir metabolism on the other. He thinks the very high per- ntage of phosphorus found in the ash of tubercle bacilli is oint of some importance, and associates this affinity of the cilli for phosphorus containing compounds with the fre- ent presence of bacilli within the calcareous deposits found healed tuberculous lesions. Dr. Moraczewski's chapter on e chemistry of the blood is particularly interesting. viding tuberculosis into three stages, he finds in the first a minution in blood pigment, a concurrent diminution in n, a loss of serum albumen, an increase of potassium salts, increase of fibrin, and the appearance of cellulose. the second stage the amount of fibrin is still further reased, and the blood becomes more concentrated. In e third stage the amount of fibrin diminishes. As the ease nears its termination we have a steady diminution in n, potassium salts, and phosphates, and a steady increase sodium salts. In Dr. Ott's very brief chapter on milk we d that a very marked diminution has been observed in the rcentage of milk sugar secreted by tuberculous udders. But e number of chemical analyses which have been made of berculous milk appears to be extremely small, and the bject would probably repay fuller investigation. The che- stry of the urine in tuberculosis, so far as it is known, is alt with fully by Dr. Clemens, who has brought together in ery useful article a good deal of the extensive and scattered erature on urinary chemistry. Upon the extremely com- cated subject of metabolism in tuberculosis there is a ngthy contribution by Dr. May.

It may be inferred from the number of pages over which M. TULLE's description of the *Performance of Post-mortem aminations*[13] is spread that the subject is dealt with in a ry detailed manner, and this is indeed the case. The lume probably contains the most complete account, which s yet been published, of the best methods of making a satis- tory examination of the dead body and its various organs. Letulle commences with an account of the instruments itable for the work to be done; this is followed by a chap- r on general rules, and then comes a series of tables of easurements and weights, which would be a valuable addi- n to the contents of any *post-mortem* room if they were inted in large type and conspicuously displayed on its lls. In the next three chapters the points to be noted by ternal examination and the methods of procedure to be llowed to accomplish the proper removal of all the thoracic d abdominal viscera, including the pharynx and soft late, are dealt with in a very lucid manner. The re- ainder of the book, and by far the greater part, is devoted the consideration of the methods of examination to be em- oyed in the investigation of special organs and parts, parti- cular attention being paid to the best methods of removing the various portions of the nervous system, and to the re- moval and examination of the organs of the special senses. In addition, attention is directed to the points to be more particularly observed in the performance of *post-mortem* examinations on the newly-born child, and on the bodies of puerperal females. The book is illustrated by a large number of original drawings, which represent the appearances met with in the *post-mortem* room, under ordinary circumstances, in a very vigorous and extremely accurate manner. Many of the illustrations are accompanied by very useful outline maps indicating the relative positions of the more important vessels and ducts in the removed masses of viscera. The book will undoubtedly prove of great service, especially to the practitioner who has only occasionally to make a *post-mortem* examination.

The valuable *Descriptive Catalogue of the Anatomical and Pathological Specimens in the Museum of the Royal College of Surgeons of Edinburgh*[14] is now complete as far as the pathological series in the Edinburgh Museum is concerned. Dr. Theodore Shennan has concluded the work begun by Dr. C. W. Cathcart, who introduced into the earlier volumes a new method for the arrangement of pathological specimens explained in the *Edinburgh Medical Journal*, 1896; Dr. Shennan has adhered to his predecessor's method as much as possible. He has also had access to some valuable manuscript catalogues, including a description of specimens collected by Dr. Robert Knox. Another descriptive list, conveniently styled the "Biliary Catalogue," has proved of high value, as the collection of specimens of diseased liver and gall bladder is rich and—what is better still—well selected. Dr. Shennan himself has presented some valuable specimens to this series. The non-hydatid cyst, No. 38 in this series, recalls a recent discussion on this rare type of cystic tumour before the Royal Medical and Chirurgical Society, but the relations of the cyst wall are not shown, and the compiler suspects that the growth may have been associated with the gall bladder. Hepatic surgery has made such strides of late years that instructive preparations will be of great service to future students. The series illustrating disease of the genital tract includes many preparations of interest; the same may be said of the collection of diseases of the circulatory and respiratory organs, specially suitable for the student. The *Catalogue*, as a whole, is first-rate of its kind, and on that account indefinitely increases the value of the fine collection which it describes.

NOTES ON BOOKS.

A little pamphlet has reached us called the "*B.N.*" *Guide to Motor Cycling*.[15] It is primarily intended for motor cycle riders, and designed to instruct them in the management and care of the machine upon which their progress depends. It should prove, however, almost equally useful to any user of a motor who has not yet acquired a thorough knowledge of its parts, and still more, perhaps, to those who dislike being puzzled by terms which are now growing quite common even in ordinary society; of these, sparking plug, carburetters, petrol, are all fair examples. All such things, together with the general principles upon which motors work, are clearly explained both in the letterpress and by diagrams, in addition to the hints given on the diagnosis of the causes of breakdowns.

Die chemische Pathologie der Tuberculose. Herausgegeben von Dr. A. Ott. Berlin: August Hirschwald. 1903. (Roy. 8vo, pp. 538. M. 14.)
La Pratique des Autopsies. By M. Letulle. Paris: C. Naud. 1903. (Demy 8vo, pp. 546, 136 illustrations. Fr. 10.)

[14] *Descriptive Catalogue of the Anatomical and Pathological Specimens in the Museum of the Royal College of Surgeons of Edinburgh.* By Theodore Shennan, Conservator, Fellow of the College. Vol. III. Male and Female Organs of Generation, Mamma, Heart and Blood Vessels, Respiratory System and Pleura, Liver and Gall Bladder, Spleen, Lymphatic and Ductless Glands, Animal Parasites. Edinburgh: Oliver and Boyd. 1903. (Demy 8vo, pp. 662. 7s. 6d.)
[15] The "*B.N.*" *Guide to Motor Cycling.* Birmingham: The Colmore Press. 1903. (Cr. 8vo, pp. 44. 6d.)

International Antituberculosis League.—The Council of the International Antituberculosis League will meet in Copenhagen on May 27th and 28th, under the presidency of Professor Brouardel. The Council consists of 200 members in all, English, French, German, and Scandinavian, and many of them are expected to be present. The existing Danish antituberculosis sanatoria will be visited, and amongst other features on the programme is a lecture by Dr. Hillier, of London, on the danger arising from the practice of expectoration in streets and other public places.

REPORTS AND ANALYSES
AND
DESCRIPTIONS OF NEW INVENTIONS
IN MEDICINE, SURGERY, DIETETICS, AND THE ALLIED SCIENCES.

MEDICAL AND SURGICAL APPLIANCES.

A Thermometer for the Tropics.—We have received from Messrs. F. Darton and Co., manufacturing opticians, John Street, Clerkenwell, a specimen of a clinical thermometer which they have made to meet the views of Mr. F. A. Baldwin, Protectorate Surgeon, McCarthy Island, Gambia. He found a difficulty in taking the temperatures of patients when the atmospheric temperature was above that of the human body, and consequently gave instructions for the manufacture of this special thermometer. Its points are that, being 6 in. long, non-prismatic, and with an open scale, it can be read in either mouth or axilla without removal and without twisting it round. It is of wide calibre, without constriction or bend, and hence the mercury readily drops from the atmospheric temperature to that of the patient if the former is above the latter, while all the mercury if desired can be easily made to return to the bulb without the loss of time required for shaking down an ordinary thermometer. At the distal end it also has a vacuum expansion capable of taking up four or five degrees of heat, so that there is no risk of the tube being burst by a high degree of either bodily or atmospheric temperature.

NOVA ET VETERA.

AN INDIAN "SNAKE-STONE."

IN Buckland's *Curiosities of Natural History* an account is given of the apparently successful application of a mysterious local remedy to a native of India who had been bitten by a cobra. The remedy consisted of certain talismans and comprised two small round balls and a "small piece of wood-like material." These objects having come into Buckland's possession were examined for him by Mr. Quekett who could not, however, come to any conclusion as to their real nature. The small piece of wood-like material was most probably one of the objects which have been long known as "snake-stones."

The Indian snake-stone has for generations formed the centre of quasi-superstitious credulity and even now, from time to time, stories of its wonderful properties appear in the lay press, the article usually finishing up with the pious though somewhat exhausted reflection that there are more things in heaven and earth than are dreamt of in the philosophy of the modern medical man.

Indian "Snake-stone"; enlarged one-third.

In India these snake-stones are highly prized and devoutly believed in. An enlightened native gentleman of Hyderabad recently gave several hundred rupees for one. Many years ago Sir J. E. Tennent acquired one and submitted it to Faraday for an analysis. Faraday reported that it was a fragment of calcined bone which after calcining had been filled with blood and again charred.

One of these Indian snake-stones has lately been submitted to us in order that its alleged properties might be put to the test with South African snakes. The owner obtained the specimen in India, where he has resided for some years. He stated that he had witnessed the application of these talismans to natives who had been bitten, and that he was, in consequence of what he saw, a firm believer in their miraculous powers. When forwarding the stone to this laboratory he gave the following interesting account of the origin of these curiosities and of the manner in which one of them should be applied to a snake bite. He said:

> I myself should never have become possessor of a snake-stone, or even been aware of the existence of such, had it not been for the fact that the man whom I employed was obliged to use the stone in my presence to save his life; and perhaps my personal influence with the aboriginal natives of that district induced him to part with the stone and other information about it. These stones are prepared by religious hermits who live in the heart of virgin forests, and who give themselves up to vows of various kinds, in all of which charitable acts predominate. These mendicants give these stones to snake-charmers as a guard and antidote against accidents, which often happen in their dangerous calling and snake-charmers in turn may give away these stones but never sell them.
>
> The part bitten should be slightly moistened with water and the stone applied, the stone will adhere very firmly to the spot and after a time will drop off, having absorbed all the venom. If the stone be now quickly immersed in a small quantity of milk the poison absorbed by it will exude and the milk will turn blue. (*Natal Mercury*, May 2nd, 1903.)

The snake-stone sent to us was a small object of trapezoid shape, and measured 22×15×5 mm. The upper surface was regular and slightly convex, the lower somewhat irregular and slightly concave. A fragment of the shaft of an adult femur would have a similar shape and curvature. The colour was jet black, and all the surfaces were highly polished. After remaining forty-eight hours in a dry atmosphere, the stone weighed 1.02 gram, and had a specific gravity of 1.85. When applied to the previously damped skin of the back of the hand it adhered to the surface, and this adherence increased from minute to minute. This power of the snake-stone to affix itself to the skin has doubtless been an important factor in establishing the popular belief in its supposed powers; the owners of these stones have, however, carefully concealed the fact that these objects adhere to the skin of a person who has not been bitten by a snake just as strongly as to that of one who has been bitten. The smooth fragment of a long bone taken from the remains of a horse which had been cremated was found to possess a similar property of adhering to the damped skin. This fragment of horse bone, although of a more compact structure than the snake-stone, had a specific gravity of 2700; a piece of a long bone from some boiled mutton had a specific gravity of 2000.

The snake-stone was brittle, and showed a clean, smooth fracture; the interior was of a uniform, dull-black colour. A small fragment effervesced with a mineral acid, leaving a combustible organic residue. It seems reasonable to suppose that this snake-stone consists of a fragment of cremated bone, possibly a sacred memento from a burning *ghât*, which has absorbed sufficient fatty material to reduce its specific gravity below 2000; the practice of placing the stone in milk after it has fallen from the patient doubtless leads to the accumulation of fat in its interior, thus lowering its specific gravity, and giving a greasy polish to its surface.

The efficacy of the snake-stone was tested in the following manner: A rabbit, weighing 1,838 grams, was injected subcutaneously with 0.00066 of a gram of the venom of the black mamba, dissolved in two or three drops of water. This snake is reputedly the most deadly of the South African colubrine. Injected directly into a vein, this quantity of black mamba venom would have produced death in a rabbit of this weight in less than five minutes; given subcutaneously, however, it would not be quite sufficient, as a rule, to prove fatal.

Previous to making the injection the surface for a few inches round had been shaved. After withdrawing the needle, which in these experiments was inserted at right angles and to a depth only just sufficient to traverse the integument, the skin was moistened and the snake-stone applied over the puncture. The stone became fixed to the skin and remained adherent for two hours and forty-five minutes, when it fell off during a movement of the animal. Death occurred three hours and forty-nine minutes after the injection, the symptoms of black mamba bite having been developed without any modification. A control animal weighing 1,913 grams was similarly shaved and injected with 0.00068 of a gram of the same venom—that is, with a proportionately equivalent dose; no snake-stone or other reputed remedy was applied. The usual symptoms were developed, but in two hours they had passed off and the animal recovered.

A rabbit weighing 1,191 grams was shaved over the flank and injected subcutaneously with 0.00178 of a gram of puff-adder venom. This quantity of puff-adder venom injected directly into the circulation should kill a rabbit of this weight in about two hours; when injected subcutaneously, however, it is considerably less than a fatal dose. The snake-stone was applied, and at once adhered to the puncture. Death occurred forty hours after the injection, and upon examining the body the stone was found to be still firmly fixed in its original position and to require some force to remove it.

rficial layer of the cuticle becoming detached with the e. The symptoms and *post-mortem* appearances in this nal were those of puff-adder bite; in addition to the usual ptoms, however, it was noticed that the thigh over which stone was fixed was maintained immovably flexed under abdomen, passive extension could, however, be made e easily and did not cause any pain. The suggestion was e that the presence of the stone clinging to the flank pro- d a mental effect upon the animal. The rabbit used as a rol to this last experiment weighed 1,540 grams and hav- been shaved received similarly 0.0023 of a gram of the e venom; in six hours' time it had completely recovered out developing any very severe symptom.

pon both the occasions on which the snake-stone was l and immediately it left the skin it was placed, in obedi- to the ritual, "in a small quantity of milk." No visible nges occurred in the milk, and the only change noticed in stone was an increase in weight. Before use, in the first riment, the stone weighed 1.0235 gram; after it had been oved from the milk and carefully wiped dry it weighed gram heavier—that is, it had absorbed about one-ninth of wn weight of moisture.

he slight power of absorbing fluids possessed by the e-stone is doubtless due to its porous consistence and to fact that it consists in part of animal charcoal. This pro- y, feeble though it be, can be the only useful physical ity inherent in these objects. To apply suction instantly he lips to a snake-bite would probably remove more m in a few seconds than a piece of charred bone could rb in as many hours. It is more than probable, however, the exhibition of one of these mysterious objects pro- s in the patient a mental attitude of "belief" in recovery," this psychical state greatly improves his chance. In its it appears probable that the mere presence of the ging stone inspires fear rather than faith, and may thus ent rather than assist recovery.

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LITERARY NOTES.

are asked to state that the fifteenth annual issue of *lett's Hospitals and Charities, the Yearbook of Philan- py and Hospital Annual*, will shortly be published by the ntific Press, Limited, Southampton Street, Strand.

e gather from an article published in a recent number of *Journal of the American Medical Association* that some ty medical societies in the United States have a "public s committee," the function of which is to contribute to spapers articles bearing on current medical and sanitary cs likely to be of interest to the general public. The New- le County (Delaware) Medical Society has for some months such a committee, which is doing excellent service to the ession and to the public. Our contemporary goes on to that one needs only to glance at the average newspaper or ular journal to realize that there is a demand for this sort formation. "Papers have columns headed 'Talks with the tor,' 'Medical Items,' 'Department of Hygiene,' etc., and certainly to be deplored that newspapers, in their in- ty to secure this information from reliable sources, have ed their columns to the advertising quack and to the man is not only a little 'off colour,' but who is unwisely ready rnish a medical article over his own signature." It is d that instead of the antagonism, which so often exists, een the medical practitioners of a community and its spapers, there ought to be harmony and co-operation. *Journal of the American Medical Association* adds: "As dly as societies can arrange the matter, certain ones uld be designated to perform this office, and it certainly tend toward a greater harmony between physicians who n publicity and newspapers whose business is publicity." ntion has often been called in the British Medical rnal to the incalculable mischief wrought by the reckless- with which newspapers, especially those of the cheaper s, publish absurd or positively mendacious statements as cures" of terrible diseases and new medical "discoveries." we do not think that the remedy proposed by our Ameri- contemporary is either sound or practical. It is one g for a county medical society to have articles written; quite another thing for it to get them published. News- ers want sensational matter, and the sober truth must necessarily be dull. Besides, the work is hard and requires special skill, and the question must needs arise, Who is to pay? The newspapers will doubtless prefer to buy the wares which they require in the open market. Is the profession to pay for the privilege of instructing the public?

To the February number of the *Journal of the Royal Army Medical Corps*, Lieutenant J. A. Balck contributes an interesting note on a book which presents a vivid picture of the life of the army surgeon of the eighteenth century. The author is Dr. Hamilton, who in his *Duties of a Regimental Surgeon*—as to the date and place of which unfortunately Lieutenant Balck vouchsafes no information—gives the following account of the service "little more than a hundred years ago":

> Each regiment, as well Militia as Regulars, is allowed a surgeon and surgeon's mate. Their business is to attend to the diseases of the men at all times, whenever it is judged necessary. For this service the surgeon is allowed 4s. a day, the mate 3s. 6d. But out of this are levied from them considerable duties; to pay these, daily stoppages are made—for such is the custom of the army; from the surgeon 1s. and from the mate 6d. This makes their subsistence equal, so that each is limited to a guinea a week; and on this they may subsist as well as they can. . . . . The surgeon and mate are exempted from all duty, as it is called in the army—such as mounting guard, attending courts-martial, and such like, their charge alone being confined to the sick. They rank as regimental staff officers, and are considered as an appendage to the corps. In the line of actual subordination the surgeon ranks not only below the youngest ensign, but the quarter-master and adjutant; and the mate again below the surgeon. The surgeon receives a commission signed by the Secretary of War, or, if abroad, by the Commander-in-Chief there, who has authority to grant it; the mate only a warrant signed by the colonel of the regiment into which he is about to enter. This subjects him to some inconvenience . . . . in that he is liable to confinement in the same ignominious manner as a private, and this even at the pleasure and caprice of the youngest ensign of the corps. . . . . The surgeon or the mate must be present at all regimental punishments—that is, at all times when any of the privates are for certain misdemeanours sentenced to be flogged. Their business is to watch the suffering delinquent attentively, and to order him halberts whenever he is thought in danger, whether the sentence of the court-martial be altogether executed on him or not. In this the commanding officer has it not in his power to control him if he thinks it expedient to assert this right of opinion and authority. . . . . The surgeon and mate are obliged to attend field days; their business in the field is to give assistance should any accident take place . . . . . Each regiment has a hospital for its sick, provided a house for that purpose can be procured in the place where they are quartered. To defray the expense of this, Government allows about £30 sterling per annum in some regiments. I believe, indeed, this is the allowance in most. If there be any overplus it is applied to the purchase of wine for the sick, utensils for the house—such as dishes, spoons, etc. Out of this, sixpence a day is also paid to a nurse in some regiments—an indispensably necessary servant for an hospital. . . . . To supply medicines, each private pays 1d. a month, each non-commissioned officer 1¾d. The non-commissioned officers I call the drummers, corporals, and sergeants. Besides this, when the regiment is encamped, Government sends him a chest of medicines as an addition to the medicine money.

Naturally the army surgeons had their grievances. There was the question of status, as to which it is sufficient to say that a surgeon could not be presented, and the surgeon's mate was liable to be flogged like a common soldier. There were also difficulties with the combatant officers. One case is quoted in which a man was taken out of hospital and sent back to his regiment by the commanding officer, the result being that he died. Many surgeons of a more recent day will agree with the author when he says that he always found young officers who knew but little about their own duty from their short service most troublesome in this respect. He candidly adds, however, that "such are the regimental practitioners of physic that a spur, not a curb, is often wanted."

The following letter, which is translated from the original text published in *La France Médicale*, is interesting in more ways than one. It shows the position of electricity as a therapeutic agent in the early part of the nineteenth century. Moreover, it proves that Corvisart, a man of the strictest integrity, who dared to be frank with so formidable a patient as Napoleon, thought it justifiable in desperate cases to deceive sufferers under his care. Nowadays his conduct would doubtless be described as utilizing the influence of auto-suggestion. The letter is undated, but Professor Raphael Blanchard thinks the date must be later than 1810, by which time the use of electricity was fairly common in medical practice. The letter is addressed to Monsieur Le Dru fils:

> I am extremely gratified at the promptitude with which you have sought to repair a wrong of which M. Philip and I believed you to have been guilty. We recommended electricity to the patient whom we have under treatment, as we prescribe every day remedies in the efficacy of which we have no belief. In desperate cases, however, it is

our duty to practise imposition on patients (*nous devons encore abuser les malades*). This resource is based on the principles of humanity; these are the only circumstances in which I haye ever deceived those who place their trust in me. We thought, therefore, of electricity, not with the intention of bringing it into disrepute, but because we knew nothing better. All good remedies do not lose their real usefulness because they have been used to no purpose.

The rest of the letter is of a personal character.

In a note on the discovery and first use of the stomach tube by an American physician published in the *Johns Hopkins Bulletin* for September, 1903, Dr. Julius Friedenwald states that it is generally believed that two English surgeons, Jukes and Bush, are the inventors of the stomach tube. This claim, he says, is based on an article published by Jukes in the *London Medical Repository* of 1822, giving a description of "an apparatus for removing poisons from the stomach." In Jukes's experiments, first on dogs and then on himself and others, the apparatus was proved fully to answer the intended purpose. In these experiments Jukes swallowed, first, two drachms of laudanum; he afterwards gradually increased the quantity until it reached 10 drachms; after this he administered to several individuals (one of them a female) 1 oz. of laudanum with an equally successful result. Dr. Friedenwald, however, holds that the credit of the discovery is due to Physick, who published a paper in October, 1812, in the *Eclectic Repertory* (vol. iii, page 111) under the title of "Account of a New Mode of extracting Poisonous Substances from the Stomach." It appears that Alexander Monro, jun., in his inaugural thesis, published 1797, suggested the use of a tube and syringe as a suitable means of extracting poison from the stomach; it does not appear, however, that he ever employed them. There is evidence that Physick used the tube as early as 1800, and that he recommended it for many years in his lectures to his students; that by his advice his nephew Dorsey had stomach tubes made in Paris as early as 1803, and employed the tube unsuccessfully in a poisoning case in 1809; and that in 1812 Physick published the report of successful results with its use in cases of poisoning.

Dr. Toulouse, author of a physio-psychological study of Emile Zola and other works of a kindred character, has been appointed editor of the *Revue Scientifique* in succession to Professor Charles Richet.

After January 31st the Primrose Press, conducted at 168, Fleet Street, will be known as the Orient Press. The work of the firm will be mainly devoted to placing before the public a shilling series of small, attractive versions of the great Oriental religions and literatures under the title of *The Wisdom of the East*. The first volume is on *The Duties of the Heart*, translated from the Arabic of Rabbi Bachye, with an introduction by Edwin Collins. No English version of this work has yet appeared. It will be followed at short intervals by *The Sayings of Confucius*, *The Odes of Confucius*, and *The Sayings of the Brothers of Sincerity*. The latter will contain an abstract of the teachings of this interesting sect, which flourished in Persia and Arabia in the ninth and tenth centuries, and will be edited. with an introduction, by Dr. Paul Bronnle. The Indian religions and literatures will be generally edited by Dr. S. A. Kapadia, Secretary of the Northbrook Society.

The *Manchester Medical Students' Gazette* for January contains some interesting reminiscences of the days of his youth by Dr. G. W. Mould, Medical Superintendent of the Manchester Royal Lunatic Hospital, Cheadle, and Lecturer on Mental Diseases in Owens College. When dresser to Mr. Sands Cox at the Queen's Hospital, Birmingham, he had the good fortune to be sent by his chief to Leamington, to apply the continued galvanic current to a private patient. At Leamington he came across the celebrated Dr. Jephson. The patient handed a fee to the young dresser who, in his modesty, wished to return it. Jephson interposed, however, and gave him the following advice: "Now, Mr. Mould, you are a young man, and I am an old one; never refuse a fee; take it and if your patient cannot afford it give it him back again, but let him feel you have earned it." Jephson kept Dr. Mould several days with him. His house was full of beautiful and valuable pictures, and works of art. He told his young visitor how he had risen from the position of a surgery boy to that of a physician whose fame was in the mouths of all British valetudinarians, and who for several years made a professional income of £25,000. He also told Dr. Mould a story of how he had ascertained the efficiency of the acid treatment of dysentery in patients from tropical climates. Happening to have charge of an Indian officer suffering from chronic dysentery and some sore throat, he made up a chalk mixture for the dysentery, and a mineral acid gargle for the throat. By mistake he put the wrong labels on the bottles and the patient gargled his throat with the chalk mixture, and swallowed the mineral acid gargle—with the result that the dysentery was cured! Jephson was too diplomatic to tell the patient how the cure had been wrought, but he had the wit to profit by the mistake in dealing with subsequent cases.

THE FEEDING OF INFANTS.

AT a recent meeting of the Académie de Médecine, Professor P. Budin presented an interesting report, drawn up in collaboration with M. Pierre Planchon, on infant feeding. Professor Budin's *Consultation de Nourissons* at the Clinique Tarnier, in Paris, was described in the series of articles on the milk supply of large towns published last spring, but the latest views of so high an authority on the subject will be found valuable.

The report deals with the feeding of the infants brought up under the supervision of the hospital during the first two years of life. In authorizing the *Consultations de Nourissons* the Administration de l'Assistance Publique made the condition that children born in the hospital should alone be subjected to the hospital supervision.

In every case an inquiry is made to ascertain that the mother is really poor, and each mother is expected to bring her baby every Friday morning to have it weighed and examined. The results are entered in a register and noted on a chart, so that the infant's progress can be followed. Professor Budin lays great stress upon the importance of women suckling their infants; but in case of insufficiency the mother's milk is supplemented by a varying quantity of sterilized milk, which the mother fetches or sends for at the hospital every day. This is called mixed feeding. If the woman is absolutely unable to nurse her child, sterilized milk alone is prescribed. This is termed artificial feeding.

Since March, 1898, 712 children have attended the consultations of the Clinique Tarnier for two years or less, the shortest period, as shown in the following table, being one month:

Children	who	attended	for	1	month	61
,,	,,	,,	,,	2	,,	92
,,	,,	,,	,,	3	,,	76
,,	,,	,,	,,	4	,,	52
,,	,,	,,	,,	5	,,	44
,,	,,	,,	,,	6	,,	33
,,	,,	,,	,,	7	,,	31
,,	,,	,,	,,	8	,,	24
,,	,,	,,	,,	9	,,	21
,,	,,	,,	,,	10	,,	18
,,	,,	,,	,,	11	,,	17
,,	,,	,,	,,	12	,,	27
,,	,,	,,	,,	13	,,	17
,,	,,	,,	,,	14	,,	17
,,	,,	,,	,,	15	,,	11
,,	,,	,,	,,	16	,,	9
,,	,,	,,	,,	17	,,	10
,,	,,	,,	,,	18	,,	10
,,	,,	,,	,,	19	,,	10
,,	,,	,,	,,	20	,,	6
,,	,,	,,	,,	21	,,	8
,,	,,	,,	,,	22	,,	8
,,	,,	,,	,,	23	,,	3
,,	,,	,,	,,	24	,,	107
Total	...	...	...	...	...	712

The average attendance was nine months.

So many attended that it was found necessary after March, 1903, to organize a second consultation day weekly. The statistics show that about 95 per cent. of the infants were suckled or received mixed feeding, or began by being suckled and went on to cow's milk. In short, 95 per cent. have taken as much of their mothers' milk as it was possible for them to have. This fact proves that Professor Budin takes pains to encourage suckling. In fact, only 5 per cent. of the infants have been fed artificially. In these cases the quantity is carefully prescribed and the milk is analysed every day. In passing, Professor Budin and M. Planchon remark that if overfeeding is more dangerous in artificial feeding, it causes, nevertheless, serious consequences in breast feeding. They point out that in judging the effect of mixed feeding the scales are the best guide. If an infant has not gained sufficient weight or has not gained at all, supposing at the same time that there are no pathological symptoms, supposing its digestion good and its bowels in order, if the child wakes up often during the night, and if, after weighing it before and after each meal, it seems to have taken too little milk because the breasts contain little, then it is extremely probable that it is insufficiently nourished.

ometimes though the quantity is sufficient, analysis shows that he milk contains too little fat. In cases of this kind the nother's milk should be supplemented by sterilized cow's nilk.

Great stress is laid upon the danger of overfeeding. It is ess injurious to underfeed than to overfeed, for although the hild's growth may be checked digestive troubles are avoided, nd when the quantity later on is augmented it will rapidly ick up lost weight.

In supplementing the mother's milk by cow's milk care ust be taken not to give too large quantities. As the infant an take in artificial food so easily it is apt to lose the power f proper suction, and this tends to dry up the mother's reasts. Particular attention is drawn to the fact that nother's milk and sterilized cow's milk do not clash; on the ontrary, the former aids the digestion of the latter. It is iser to give the surplus sterilized milk after the mother as suckled the infant—supposing her milk is not sufficient —rather than to give it intermediately as a separate meal, for uction increases the secretion of milk.

If, for example, 120 grams of milk are necessary during the wenty-four hours, instead of giving two bottles containing o grams, it would be preferable to give four bottles of 30 rams. The authors consider that there are great risks in eeding infants during the first weeks artificially. Later on fter the first three or four months it is less dangerous, specially if the infant has not suffered from digestive roubles.

When artificial feeding is a necessity Professor Budin emloys milk supplied by the Assistance Publique containing n an average 3.8 per cent. of fat. This is sterilized in a ater bath in bottles each containing one meal and is given ure and unsweetened.

For infants of 3 or 4 months (weighing from 5 to 6 kilorammes) the infant is given about the tenth part of its eight of milk—that is to say 100 grams per kilogramme.

During the later months a little flour is recommended to e added to the milk to make light pap. This, as is proved y chart records, is quite sufficient. During the summer eats children are saved from those attacks of diarrhoea comonly attributed to microbes, but, according to the investiations of Dr. Maurel (of Toulouse), due, likewise, to the adinistration of too large quantities of milk.

Care should be taken that the milk should be neither kimmed nor watered, or the quantities indicated of 100 rams per kilog., and containing 38 grams of fat, will no nger be reliable.

It is very important, also, to watch children during the econd year of life, when the teeth are being cut, and when eaning takes place. Mortality may be less during the second ear, but much delicacy and ill-health is engendered by norance. Weaning should take place as late as possible, he child receiving, in addition to its mother's milk, food ade with flour.

The same principle applies to artificial feeding, which ould be progressive; at the end of the first year a little our, about 5 grams (one or two teasponfuls) is added; that is say, a teaspoonful to 25 grams of pure milk.

The following table shows the results obtained at the linique Tarnier:

Name.	Quantity of Milk.	Weight in Kilograms.	Final Age.
... ...	1,500 gr. in 3 meals	13.20	2 years.
... ...	1,500 ,, ,, 3 ,,	13.35	2 ,,
... ...	1,400 ,, ,, 3 ,,	10.62	2 ,,
... ...	1,350 ,, ,, 3 ,,	10.84	2 ,,
... ...	1,500 ,, ,, 3 ,,	12.85	2 ,,
... ...	1,450 ,, ,, 3 ,,	12.30	2 ,,
... ...	1,350 ,, ,, 3 ,,	11.65	2 ,,
... ...	1,200 ,, ,, 3 ,,	11.44	2 ,,
... ...	1,200 ,, ,, 3 ,,	11.26	2 ,,
... ...	1,350 ,, ,, 3 ,,	12.41	2 ,,
... ...	1,250 ,, ,, 3 ,,	8.50	1 year.
... ...	1,000 ,, ,, 2 ,,	8.90	9 months.
... ...	1,000 ,, ,, 2 ,,	8.95	9 ,,
... ...	1,000 ,, ,, 3 ,,	8.93	2 years.
... ...	1,125 ,, ,, 3 ,,	10.09	2 ,,
... ...	1,200 ,, ,, 3 ,,	10.98	21 months.
... ...	1,350 ,, ,, 3 ,,	12.79	2 years.
... ...	1,200 ,, ,, 3 ,,	10.50	2 ,,
... ...	1,005 ,, ,, 3 ,,	8.95	2 ,,

At first the inclination was to overfeed the infants, but xperience showed that the best guide was the infant self. In 55 observations the quantities of milk taken corresponded to about a tenth part of the body weight, 100 grams per kilog. So long as children are under the supervision of the hospital—that is, up to the age of 2 years—they are only given milk and food made by adding flour to milk. Meat soup is not nourishing; 1,000 grams of it are only equivalent to 100 grams of milk. It has also the disadvantage of making babies take a dislike to milk. Eggs are not given and not recommended, as in towns they are often stale, especially in winter. The average weight of the infants under the supervision of the Clinique Tarnier is at 2 years 11,500 grams. Digestive troubles and gastro-enteritis have almost totally disappeared; even during the heats of summer not one child dies of diarrhoea. Troubles due to overfeeding, such as distended abdomen, dyspepsia, obesity, rickets, eczema, etc., are not seen, and down to the present not one case of scurvy has been observed.

Since March, 1898, 712 infants have been medically supervized at the Clinique Tarnier; of these 26 have died, a proportion of 36.5 per 1,000. The general statistics for Paris are for a period of twelve months; the children have remained at the Clinique Tarnier on an average of nine and a-half months, so that the mortality-rate for the year may be estimated at 46 per 1,000. In Paris during the years 1891, 1899, and 1900, deducting from the births those infants sent to nurse outside the capital, there were 20,282 deaths under 1 year in 113,805 infants, or a proportion of 178 per 1,000. The mortality in Paris generally from affections of the digestive system was 69 per 1,000 among infants brought up by the breast and artificially; at the Tarnier Hospital the deaths were zero.

Professor Budin refutes the idea that infants attending the consultation are subjected to cold and contagious diseases, and the benefit derived is clearly proved by the fact that not one child has died of diarrhoea.

THE IMPERIAL YEOMANRY HOSPITALS.

The following letters have passed between Lady Howe as Chairman of the Editing Committee of the Imperial Yeomanry Hospitals' Report and Sir Alfred Fripp, relative to his evidence before the Commission on the War in South Africa:

February 11th, 1904.

Dear Lady Howe,—In the course of the correspondence which has passed between us you take exception to certain views relative to the book on the yeomanry hospitals expressed by me in the evidence I gave before the Committee on the War in South Africa. The statements in which these views were expressed were "that I did not think that the contents of the book should be regarded or trusted as the great authority on the management of hospitals in the field," that "it contained many misleading statements," that "the statistics in it were in many points inaccurate, and might be called, if it was a money matter and was done in the City, 'cooked' so as to make an impressive number of figures," that I knew that "a whole lot of statements as to services rendered and that sort of thing were simply and absolutely untrue," and that there was "no other word to adequately describe some of the statements and many of the inferences led up to."

From yourself and others I now know that not only was much pain caused by these statements but that my views of the facts on which they were founded has been strenuously challenged. While I must ask you to accept my assurance that I gave this evidence in perfect good faith and as the expression of opinions which I had honestly formed I also now ask you to let me say that on reflection I think my conclusions were hastily come to, and that even if they had been expressed in less sweeping language they are liable to a construction which goes beyond what was justifiable. The questions put to me were unusual, came unexpectedly, and took me by surprise. I was under the impression that I was answering a scientific question as to whether the scheme of organization of the Yeomanry Hospitals was such as I considered scientifically perfect and as such adequately described in the book. I replied hastily and I see, on looking at the words I used, that my language went beyond a mere expression of a simple opinion, and I wish as handsomely and completely as I can to express my regret for what has been construed as allegations against the good faith of some of those with whom I was associated. To begin with, my observations upon the Yeomanry Hospitals were meant to be confined to the only one of which, as the opening statement in my evidence indicated, I had practical experience, namely, that at Deelfontein. Of the working of the Imperial Yeomanry Hospitals in the Transvaal and of the Yeomanry Field Hospital and Bearer Company I had no practical experience; I expressly stated in my evidence that I did not go north of Kronstadt, and I had and have formed no opinion about them. As regards Deelfontein, I wish in justice to myself to say that I had in my possession written returns made on the spot which led me to doubt the accuracy of the figures upon the point of the entries as to patients and the occupation of beds. It was these returns which I had in my mind when I expressed myself in answer to an unexpected question. I now find, however, that these returns have been challenged by people whose integrity I did not and do not for a moment intend to question, and for whom as individuals I have much respect. It is possible that I may have been right, and that they and not I have been misled, for in such

a scene of hurry as prevailed in the early days of the hospital at Deelfontein it may well be that one or other of us was misinformed. What I hope is that my assurance will be accepted that I spoke under an impression which may have been erroneous, but which was formed on what I considered to be good grounds. I still think that, judged by purely scientific standards, the statistics used in the book would require more sifting before the whole of them could be accepted as the basis of a fully-tested scheme for an army hospital system in the time of war, With this qualification I unreservedly express my regret for statements which have given pain. If I have used language about the services they rendered which has given pain to those with whom it has been my privilege to be associated in a memorable patriotic endeavour, I trust that they will accept this explanation, and believe that what I intend is to convey to them a full expression of regret.

Yours sincerely,
ALFRED D. FRIPP.

11th Feby., 1904.

Dear Sir Alfred Fripp,—On behalf of myself and the Editing Committee of the Imperial Yeomanry Hospitals Report, I have pleasure in accepting the explanation and expression of regret contained in your letter in the spirit in which they are offered.

Yours sincerely,
GEORGIANA HOWE.

The following is the evidence referred to in the correspondence between Sir Alfred Fripp and Lady Howe as given in the minutes of evidence of the Royal Commission on the War in South Africa (vol. i, p. 508). The questions were asked by the Chairman, the Earl of Elgin:

I suppose that book of Lady Howe's on the Yeomanry Hospitals really contains all the information on the subject; I suppose it is the great authority upon the management of hospitals in the field?—It is a curious thing that you should have asked me that question. It is just because I do not think that its contents should be so regarded or trusted that I have refused to have anything at all to do with the production of the book.

I have not seen it. I only saw it mentioned yesterday in the papers, and wondered whether it contained any valuable information. You think not?—I know that it contains many misleading statements.

Is it merely an advertisement?—I think it contains—I really do not know exactly how to put it, but I regard it as a perpetuation in print of a great deal of the spirit that should never have been evoked at all in the last war, and that one would have imagined would at least have been excluded from having any weight in the management of a large hospital financed by public voluntary subscriptions. I know for a certainty that a whole lot of the statistics are not right.

I think it is very important that you should say so, because they will all be accepted?—I shall not rush into print and say it; but I know for a certainty that a lot of the statistics are simply what would be called, if it was a money matter and was done in the City, "cooked," so as to make an impressive number of figures; and I know that a whole lot of statements as to services rendered, and that kind of thing, are simply and absolutely untrue. There is no other word to adequately describe some of the statements and many of the inferences led up to.

And were you asked to verify the statements?—Yes.

And you said that you would not?—I said I would not. I went out as chief civilian medical officer and senior surgeon of this big hospital. I was responsible for its being increased from 100 to 520 beds, and I had the choosing of the medical staff, including the Royal Army Medical Corps commandant and nurses. I had in addition the responsibility of choosing, or of ratifying the choice of all the equipment, which involved an expenditure of nearly £100,000. Further, I had to plan the establishment and the working of the institution, and I was responsible for all the features in which it differed from the military hospitals, and broke new ground, and after eight months of such work I did not feel inclined to simply write my article in this book without seeing what other people who went as my juniors chose to say.

And that condition was not satisfied?—That condition was not satisfied.

THE ARMY COUNCIL AND MILITARY MEDICAL ADMINISTRATION.

THE following letter from the Chairman of Council of the British Medical Association has been published in several of the leading newspapers of the United Kingdom:

SIR,—I desire, on behalf of the British Medical Association, to point out a serious defect in the constitution of the Army Council recommended by the War Office (Reconstitution) Committee, and formally appointed by Letters Patent published on February 8th, and the Royal Warrant of February 12th, 1904. Among the most welcomed Army reforms carried out under Mr. Brodrick's administration was the appointment of the Director-General of the Army Medical Service to a seat on the Army Board. The constitution of the new Army Council without any medical representative is a retrograde step.

The outcome of the War Office Committee report is the formation (1) of a *Defence Department* working directly under the Prime Minister of the day; (2) an *Army Council* like t Board of Admiralty; and (3) an *Inspector-General* and Staff do Army Inspections. I have no remarks to make as to t first and third, but in reference to the formation of an Arn Council on the same lines as the Board of Admiralty, t British Medical Association feels considerable anxiety. the branches of the Army are to be subordinated to this Arn Council, and it forms the "*supreme administering body*" of t Army. On this supreme administering body of the Arn there is no direct representative skilled in the technical wo of the Army Medical Service able to advise the Army Coun on medical and sanitary requirements. In the various duti assigned to the Army Council, no mention is made of sanit tion, the prevention of disease, or of the care of the sick ar wounded. All reference to medical and sanitary matters thus entirely absent. In the opinion of the British Medic Association this is unsatisfactory, and it views with gra anxiety the injurious effect on military medical efficien that must result.

Although the Army Council may from its composition de efficiently with Army matters in general, and arrive at soun conclusions, it seems difficult to imagine how, in matters highly technical as medical and sanitary work, the Arm Council, without any trained expert member, can efficient discharge the work of administration in these directions. Th British Medical Association therefore feels that it would fa in its duty if it did not bring this condition of affairs to publi notice, and strongly urge that the Army Medical Servic should be represented on the Army Council by an officer that service who would personally represent the sanitar requirements and general medical needs of the Army.

The proper method of dealing with the Medical Service the Army is to give it responsibility and power. To secur these essentials the British Medical Association considers tha direct representation on the Army Council is of vita importance to the Army and to the Nation.

I am, your obedient Servant,
ANDREW CLARK,
Chairman of Council,
British Medical Association.

429, STRAND, LONDON, W.C.,
February 16th, 1904.

INDIAN REPORTS.

HOSPITALS AND DISPENSARIES IN BURMAH.

Burmah is a growing Province. The census of 1901 revealed an increase of 21.2 per cent. as compared with that of 1891. Colonel C. C. Little's triennial report gives evidence of corresponding progress in charitable medical relief. The number of institutions increased from 105 in 1899 to 115 in 1901, and indications are given that through Colonel Little's active administration a considerable addition will be made in the early future to that number. A difficulty exists in obtaining the services of satisfactory medical subordinates to take charge of outlying dispensaries. The Province ought to remedy this in time by educating Burmans for the purpose. The attendance of patients amounted to 2,576,913 in the three years as compared with 2,296,570 in the preceding triennium. The proportion of treated to the population of the Province is 10 per cent., which is held to be inadequate. The provision of hospital accommodation is more than sufficient to meet the demand. "Indian beggars" are said to use dispensaries as poor-houses. The death-rate among indoor patients was 7.3 in 1901. Colonel Little reports that improvements are being carried out in connexion with the increase of the comfort and convenience of patients. The surgical practice of the hospitals and dispensaries is active and successful. Some interesting notes are recorded regarding the operation of omento-ventral fixation for cirrhotic ascites and spleen performed by Captains Duer and Rost. Malarious fevers constitute the principal item in diseases treated. Venereal cases and injuries are more numerous than in other provinces. The income of these hospitals amounts to about eight lakhs of rupees, of which Government contribute about 19 per cent., most of the remainder being derived from municipal and local funds. The report includes statistics of private, police and railway hospitals, which also afford much charitable medical and surgical relief to the population of the province. Altogether this review of three years' work indicates success and promise, and it is disappointing to find the comment made upon it by the provincial administration so casual and perfunctory.

BRITISH MEDICAL ASSOCIATION.

Subscriptions to the British Medical Association for the year 1904 are now due and should be forwarded by postal order or cheque to the amount of 25s. to the General Secretary, 429, Strand, London, W.C., or, in the case of Colonial members, to their Branch Treasurer.

British Medical Journal.

SATURDAY, FEBRUARY 20TH, 1904.

THE ASSOCIATION AND MEDICAL DEFENCE.

FOR some twenty years the British Medical Association has had before it, in one shape or another, the question of undertaking, in addition to its work in other directions, the duties and responsibilities of medical defence. At one time dropped because the oracles of the law declared that the proposal was *ultra vires* without an alteration in the Memorandum of Association, at another because the result of a referendum on the subject was not sufficiently decisive, the project had never been definitively abandoned. The adoption of the new Constitution smoothed the way for the removal of the legal difficulties, and the question has now, as Mr. Gladstone would have said, come within the sphere of practical politics.

It is needless to recite the different phases through which the discussion of the question has passed. It is sufficient here to say that within the last two or three months it has been fully considered in all its bearings by a Special Committee, consisting of Dr. M. Beverley, Dr. Bruce Goff, Dr. G. A. Heron, Sir Victor Horsley, F.R.S., Dr. J. H. Hunter, Dr. Bateman Marshall, Mr. M. A. Messiter, Mr. W. Jones Morris, and Dr. D. Walshe, together with the President and Chairman of Council *ex officio*. A summary of the deliberations of this Committee was published in the SUPPLEMENT to the BRITISH MEDICAL JOURNAL of January 30th, 1904. The proposal that the Association should undertake medical defence was adopted in principle by the Committee on November 12th, 1903. Sir Victor Horsley and Dr. Heron undertook to prepare a draft scheme, and at a meeting of the Committee on January 9 this scheme was considered, amended, and finally adopted.

The chief provisions of the scheme may be summarized as follows. It is proposed that the Medical Defence Union, the London and Counties Medical Protection Society, the Medical and Dental Defence Union of Scotland, and other like societies should be invited to merge themselves in the British Medical Association so that one organization for medical defence may be formed. The carrying on of the work would be entrusted to a Central Medical Defence Committee, 6 members of which would be elected by the Council and 7 by the Representative Meeting. In addition to its functions as a Central Committee, this Committee would also act for England and Wales. Scotland and Ireland would have local Committees, consisting of 10 and 8 members respectively. These Committees would each elect one representative on the Central Committee, making the total number of that body 15. The Central Committee would establish a register of the names of members of the Association who wished to share the benefits of medical defence, and who for that purpose were willing to pay an annual subscription of 10s. in advance, in addition to the annual subscription to the Association of 25s. The Council would appoint a Medical Defence Secretary of the Association, and the Scottish and Irish Medical Defence Committees would each appoint a Secretary. Of these officers, the first, if necessary, would be a whole-timed salaried officer of the Association. The final decision whether the Association should take up the defence in any given case would rest entirely with the Central Defence Committee. All disputes arising between members of the Medical Defence Department of the Association and referred to the Defence Department would be decided, if necessary, by arbitration, the arbitrators to be selected by the disputants, subject to the approval of the Central Defence Committee. The Central Defence Committee would have absolute control of the funds allotted for the purposes of medical defence, and would allow the Scottish and Irish Defence Committee respectively to expend a sum not exceeding 2s. per head of the membership of the defence section of the Association in each country. Every member of the Association subscribing for Medical Defence would become a guarantor of not less than £1 for the purposes of the Medical Defence Committee; the sum total of the amount thus guaranteed would be entitled "The Medical Defence Guarantee Fund," and be subject to the call of the Medical Defence Committee. In case of emergency, the Treasurer of the Association would have power to advance money on certain conditions to the Medical Defence Committee out of the funds of the Association. Until the income of the defence department made it possible for the Representative Meeting to direct any other course, the Central Defence Committee would confine its expenditure to the purposes of the defence of individual members.

At a meeting of the Council held on January 20th it was resolved that the scheme, together with an explanatory memorandum, should be referred to the Divisions for their consideration and decision. In that memorandum it is pointed out that on commencing its deliberations the Committee found that the Association was unable under its Memorandum of Association, and on the basis of the present subscription, at once to establish a department of medical defence open to all members. It was further found that the Association is already carrying on, to a large extent through its Standing Committees, the work of general and collective defence, and that through its ethical organizations it is in part fulfilling the requirements of individual defence. The chief need to be provided for is therefore the individual defence of members, and it is with the specific purpose of meeting this need that the scheme is designed. The fact is recalled that a decision to have the necessary alteration made in the Memorandum of Association was arrived at by the Association in general meeting specially summoned, and held at Birmingham on July 13th, 1896. This decision was confirmed at Carlisle on July 28th, 1896, and registered at Somerset House on August 11th following. It is proposed that the resolutions adopted at these meetings, with such necessary modifications as may be determined upon, shall, in view of the long time they have been allowed to remain in abeyance, be again submitted to the Representative Meeting for further affirmation by the Association. If they are adopted, the permission of the High Court must be obtained for the alterations to be made in the Memorandum of Association. When this has been done the Association will have the

necessary power under the Companies Act to carry out the purposes of Medical Defence.

In regard to the proposed merging of the existing defence societies in the Association, it is pointed out that the unification of interests thus secured will obviate the disadvantages arising from the present distribution of the work of medical defence among several competing societies.

With reference to the proposed subscription, it is stated that in fixing the amount the experience of the existing societies has been taken as a guide. Tables of income and expenditure of the Medical Defence Union, with figures showing the revenues of the Association and their various sources, are published in the SUPPLEMENT to which reference has already been made. The proposals as to the taking up of cases for defence, as to disputes between members of the Medical Defence Department and as to the control of funds, are based on the experience of twenty years in the working of medical defence.

The proposals for the establishment of a Medical Defence Guarantee Fund and for the advance of money from the general funds of the Association in case of emergency are made with the object of securing for the Medical Defence Department the advantage of the support and prestige of the Association and strength from its financial stability. It is pointed out that the establishment of a guarantee fund is the system existing at present amongst Defence Societies, that no call has ever been made upon such funds, and that if the Central Committee exercises the same judgement in administration as has marked the work of existing societies it is not likely that the necessity for a call will ever arise.

In conclusion, it is pointed out that the scheme is purely an optional one, and it is for every member of the Association to decide for himself whether or not he will avail himself of the advantages of this plan of medical defence.

At a meeting of the Medical Defence Committee on February 11th, Mr. M. A. Messiter, who voted against the scheme, and Dr. Michael Beverley, who was unable to be present at the meeting when it was adopted, presented a minority report stating the grounds of their disagreement with the majority. They point out that the original intention of those who formulated a scheme at Swansea was that there should be only one society for medical defence and that this should be the British Medical Association, and they say that the proposed scheme simply originates a new body which will compete with the existing defence societies. To justify it in entering into such competition the British Medical Association must provide a better organization than those societies, and must undertake to do the work with greater efficiency, greater promptness, and at less cost. Time alone, they say, can show whether the two former conditions will be fulfilled, but in the meantime the cheapness is not apparent. They point out that whereas members of the Medical Defence Union have to pay £1 the first year and afterwards only 10s. per annum, a member of the British Medical Association must under the proposed scheme pay a subscription of 25s. a year and 10s. per annum in addition, besides subscribing to the guarantee fund, if he wishes to obtain the benefits of medical defence. Moreover, they conclude, the Committee will be merely an outside body, having only a nominal connexion with the Association, whose funds are not to be touched for the purpose of the Committee, except by way of loan. The Council and the general body of members will, unless they are individual subscribers to t Medical Defence, have no control at all over the Committ

The scheme, with the explanations of the members the Committee who drafted it, and the criticisms of t members who opposed its adoption, are now before t Divisions. It is hoped that they will consider a report the result of their deliberations without del It is unnecessary for us to dwell on the impo ance of the issue which the members of the Associati have to decide. Nor need we bespeak their serious atte tion to the considerations on both sides that have be laid before them. It is for them to say whether they a ready to give effect to the proposal that the Associati shall undertake medical defence. We may be allowed remind them further that, if this is agreed to, it will th remain for every member to decide for himself whether will avail himself of the advantages offered.

It cannot be too clearly understood that the Council not attempting to force a new policy on the general bo of the Association. The decision rests entirely with t members. In regard to the proposal that medical defer should be included in the scope of the work of the Assoc tion, the Council simply awaits a mandate, one way or t other, from its constituencies.

A DIPLOMA IN TROPICAL MEDICINE.

OWING to the fact that the British Medical Associati comprises many members resident in hot climates, matt affecting the practice of medicine in the tropics m always be of great interest to it. As our readers are w aware, great progress has been made recently in the stu of tropical diseases, and pathological discoveries ha placed in our hands the means of preventing some of t most deadly, or of greatly diminishing their ravag Many, if not most, of the most important of these d coveries have first been given to the world in our colum and it is satisfactory to find that the University of Ca bridge has given evidence of its appreciation of t importance of the new studies.

Last November[1] we were able to publish the report the special Board for Medicine recommending University to establish an examination and diplo in tropical medicine and hygiene. This report now been approved by the Senate, and the f examination will be held next August. The reasons the creation of this new diploma were fully stated in report of the Special Board, in which it was pointed that at the present time candidates possessing a diplo in public health are preferred for appointment under Colonial Office, and that efforts were being made by army authorities to ensure that military medical offi might be able to acquire special knowledge and skill in prevention and treatment of tropical diseases. Colonial Office now recommends that all medical r whose fees are paid by the Governments of tropical C nies should, before proceeding to their appointments required to pass an examination or to obtain a certifi of proficiency in tropical medicine, and Mr. Chamberl who at the time was Colonial Secretary, stated that gladly concurred in the suggestion that a special exami tion in tropical medicine and hygiene, open to all d qualified medical practitioners, should be institu by the University of Cambridge, with a view granting a diploma to those candidates who passed

[1] BRITISH MEDICAL JOURNAL, 1903, vol. ii, p. 1379.

e.mination satisfactorily. Mr. Brodrick, then Secretary o State for War, replied after the characteristic manner of t War Office that "no obstacle" would be placed in the wy of officers desirous of obtaining the new diploma. Te Board believed that the diploma would also be sought bmedical men who desire to engage in missionary work oto accompany exploring expeditions.

'he examination for the diploma will be conducted by t State Medicine Syndicate of the University, and the rulations for candidates and for the conduct of the exaination are printed at page 463. The candidate must b a registered medical practitioner, and he must have otained a registrable qualification not less than twelve nths before his admission to the examination. This wl include the methods of pathological and bacteriological irestigation in relation to the blood, to animal and vegetae parasites, to the examination of poisonous or contaminated foods and waters, and to the origin, pathology, ppagation, distribution, prevention, symptoms, diagnosis, a treatment of the principal epidemic, endemic, and o.er diseases of tropical climates, including affections cused by poisonous plants and animals, and by poisoned wapons. Candidates will also be examined with regard t the general effects on health of the climate of the tpics, on personal hygiene and acclimatization, on the gieral hygiene and sanitation of native quarters and caps, and pilgrim and coolie ships, and on the principles a methods of disinfection.

'he examination, therefore, will be comprehensive, and t syllabus appears to be sufficiently specific. We could hve wished that the regulations with regard to the criculum had been equally specific. A candidate will b required to produce evidence that he has diligently sdied pathology in relation to tropical diseases, clinical dicine and surgery at a hospital for tropical disease, a hygiene and methods of sanitation applicable to tpical climates. As the original report of the Special Bard for Medicine contained a paragraph to the ect that the University already provides facilities f the study of various branches of the subject, a that these facilities could without much difficulty be cended, we had hoped, on first reading the clause laying dn the curriculum, that it was intended that all candates should have passed through a course of laboratory a clinical instruction; but there is a rider which will pmit a candidate to produce as evidence of study and ainments either a dissertation, memoir, or other record owork carried out by himself on a subject connected wh tropical medicine or hygiene, or a certificate or dloma in public health or sanitary science obtained fm a recognized examining body. In the absence of a distinct statement that even from such candidates ctificates of special instruction will be required it apears to us that there is a risk that too much dependence my eventually be placed, in the case of certain candidates, oexamination alone.

here are already in this country two fully-equipped scools of tropical medicine in London and Liverpool repectively, and, leaving aside the question whether it isesirable that a third school should be established in Cnbridge, we cannot help thinking that the University wuld have been well advised to have required from every cndidate distinct evidence of attendance on a laboratry course in some school of tropical medicine. On the fit creation of such a diploma, and having regard also to th short time during which the schools of tropical medicine have existed, it was no doubt advisable to make provision for men who have already been practising in the tropics, and who wish to take the diploma while on leave. It might be well to excuse such men from attendance on clinical medicine and surgery, but we venture to think that it will be a mistake to excuse them from attendance on laboratory classes in practical pathology, bacteriology and parasitology.

Nevertheless, the University of Cambridge is to be congratulated on having taken the lead in this matter; we have no doubt that this diploma will be eagerly sought, and the fact that the examination will be conducted under the direction of the State Medicine Syndicate is a guarantee that it will be of a thorough and impartial character.

THE MEDICAL SERVICE OF THE ARMY.

On Tuesday last the Secretary of State for War informed the House of Commons that the patent constituting the new authority of the army was sealed on February 8th, and that the Army Council held its first meeting on February 15th. The reconstitution of the War Office is therefore an accomplished fact as far as concerns the great departments of military administration. But nothing is yet known as to the fate of the medical service beyond the fact intimated in the letter from Mr. Arnold-Forster, which was published in our last issue, that it is not intended that it shall be directly represented on the new Council. Lord Esher and his colleagues are still, we suppose, giving their serious attention to the future of the medical service, but in the meantime its actual position presents a problem of some speculative interest. The Director-General is no longer a member of the Army Board, for it has ceased to exist, and he has no place on the new Army Council. What is his position? Looking at the seven members who are, as it were, the nerve centres controlling the several functions of the complex organism of the army, he might well ask, Under which King, Bezonian? At present, as we understand the situation, he is like Mahomet's coffin, suspended between the heaven of administrative autonomy and the earth of official subordination. The anomaly is all the more striking since the official announcement made in a special issue of the *London Gazette* dated Saturday, February 13th, that in the case of the Military Members of the Council the old titles of Adjutant-General, Quartermaster-General, etc., are to be retained.

The omission in a drastic scheme of reform of any reference to a matter of vital importance to the efficiency of the army is sufficient to inspire the most serious misgivings as to the competence of Lord Esher's Committee to deal with the question. It is of ominous significance that in the chorus of acclamation which greeted the publication of the scheme no note of disapproval, or even of question, as to so serious an omission made itself heard in the lay press. It is to be feared that the terrible lessons of the South African war have been thrown away not only on the military authorities, but on those who profess to enlighten public opinion and direct popular feeling.

The British Medical Association would fail in its duty to the country and to the profession which it represents if it did not use every effort to arouse in the Secretary of State for War and in the members of the Committee on whose recommendations he has begun to act, a clearer understanding of the urgent need for an efficient medical service and a more wholesome sense of their responsi-

bilities in the matter. In our last issue we published the recommendations made by the Royal Naval and Military Committee of the Association on the subject, and Mr. Arnold-Forster's unsatisfactory reply. On February 15th the Committee held a further meeting to consider the draft of a memorandum which it proposed to circulate among members of both Houses of Parliament. The substance of that memorandum has been embodied in a letter addressed by Mr. Andrew Clark, Chairman of Council, to leading newspapers in all parts of the kingdom. This letter, the text of which will be found at p. 442, has been given wide publicity, and will, it is to be hoped, be the means of directing general attention to the impolicy of reducing the medical service to the position of crippling inferiority which it formerly held, while there is yet time to avert the evil effects of so retrograde a step.

It is now an axiom in the science of warfare that bacilli are far more deadly than bullets, and to the non-military mind it would seem to be a self-evident corollary that the protection of troops on campaign against attacks of disease is a most important element in the efficiency of an army as a fighting machine. The new Council is now the "supreme administering body" in the army. But how can the Council adequately carry out its comprehensive duties if it does not include among its members a representative who can speak as one having authority on the highly technical matters with which the Army Medical Service has to deal? They may get advice, of course; but will they care to ask for it? Or, indeed, will they know when they ought to ask for it? And what guarantee has the nation that having got proper advice they will act upon it? It was the conviction—forced upon him by the experience of the South African war—that the head of the medical service must be in a position to make his voice heard in the highest council of the army that induced Mr. Brodrick to give the Director-General a place on the now defunct Board. That reform alone went far towards soothing the discontent among medical officers which not long ago made the service so unpopular with the medical profession that the supply of candidates almost ceased. Mr. Arnold-Forster will do well to bear in mind the truth which we have had frequent occasion to impress on Secretaries of State of War, that although the medical profession can do without the army, the army cannot do without the profession.

Mr. Arnold-Forster considers it unnecessary that the medical service should be directly represented on the Army Council, because that body "is in no way a representative body, but is constituted in the same manner as the Admiralty." The fallacy underlying the first part of this contention was sufficiently exposed in the British Medical Journal of February 13th. Of the theory that the constitution of the Admiralty must in all points be taken as a model for the army, we can only say with Count Smorltork that it "surprise by himself." It is, indeed, one of the most serious defects of the medical service of the navy that the Director-General has only a shadow of authority within his own department, being subject in all things to one of the Naval Lords of the Admiralty. In regard to the medical service, therefore, the Admiralty is an *exemplar vitiis imitabile*, and the fact that Mr. Arnold-Forster can find no better defence for his action is a proof that he has very imperfectly studied a question of which he apparently fails to realize the importance.

THE VISIT OF THE KING AND QUEEN TO CAMBRIDGE.

As already announced, the King and Queen, who will b accompanied by Princess Victoria, will visit Cambridg University on Tuesday, March 1st, in order to open th new buildings of the medical and law schools, the ne botanical laboratory, and the Sedgwick Museum o Geology. The Queen and Princess will proceed direct t the Senate House, the King going first to the Universit Library, where he will join the Chancellor's procession t the Senate House. A congregation will be held, afte which their Majesties and Princess Victoria, accom panied by the Chancellor, will lunch at the Fitz william Museum. After lunch they will drive to th medical schools, where they will be received by the Regiu Professor of Physic, the Professor of Surgery, the Downing Professor of Medicine, and the Professor of Pathology and conducted over part of the building. Their Majestie will then pass through the law school and cross the cour to the new botanical laboratory, where they will be re ceived by the Professor of Botany and the Reader i Botany, and conducted over part of the building. Fron the botanical laboratory their Majesties will proceed to th Sedgwick Museum, where they will be received by th Professor of Geology, and the King will unveil the statu of Professor Sedgwick. Their Majesties will then leav and drive to the railway station.

PATHOLOGY AT OXFORD.

As already announced in the British Medical Journal, a Studentship in Pathology has been founded in th University of Oxford by Mr. Philip Francis Walker for th furtherance of original research in pathology. The student ship is to be of the annual value of £200, but this may b increased, if at any time the income of the endowmen fund exceeds £200, to any sum not exceeding £300 Prizes or grants may also be made from the fun under similar circumstances to persons engaged i pathological research. We call particular attention to th fact that the studentship is not confined to members o the University; it is absolutely open, without limitatio of age or sex. The award will be made by the manager of the fund upon the report of the Reader in Pathology a to the merits of candidates. The studentship is tenable fo three years from election. An extension may be granted o the recommendation of the Reader for a further period o two years. During his tenure of the studentship th holder is prohibited from following any business o profession, or engaging in any educational or other wor which in the opinion of the managers of the fund woul interfere with original investigation. The place an nature of the student's work are to be subject to th approval of the Reader in Pathology, but the studen will be bound to pursue his studies within the Universit during at least three terms of his tenure of th studentship, unless this requirement is dispensed with fo special reasons. Mr. Philip Walker is, we understand, brother of Mr. John Lucas Walker, the founder of th Studentship in Pathology at Cambridge which bears hi name. We congratulate the University of Oxford on thi important addition to the not too abundant endowment in its possession which are applicable for purposes o scientific research.

PROHIBITION OF DISPENSING BY DOCTORS.

A number of letters under this heading will be found i our correspondence columns this week protesting agains the proposal to introduce into the Medical Acts Amend ment Bill which has been prepared by the Medico-Politica Committee for the consideration of the Divisions an Branches a clause providing that no registered prac titioner, with certain exceptions specified, shall dis pense or supply drugs or other medicaments. W have received other letters to the same effec and employing the same arguments. The proposal which stood in the name of Dr. Heron, came up for con sideration at an adjourned meeting of the Central Divisio

d the Metropolitan Counties Branch on February 17th. l. Heron defended his proposal, resting his case largely on experience gained some years ago in general practice. e proposal was seconded *pro formâ* by the Honorary cretary of the Division, but after discussion the motion s lost by a large majority, only one person voting for it. is being so, it appears hardly necessary to continue the scussion in the JOURNAL, as we may take it that the pro- sal is dead. It was indeed, as may be seen by reference the notice of meeting published in the JOURNAL t week, page 396, guarded by so many exemptions at it would probably, even if carried, have been prac- ally inoperative. It was proposed to exempt, among ers, practitioners attending on cases of emergency, se practising in country districts in which the habitants were so few that they could not sup- rt both a medical practitioner and a pharma- utical chemist, and other registered persons whose pro- sional work was of such a character as in the judgement the General Medical Council rendered it necessary to nt them exemption. Whatever may happen in the ure it appears to be abundantly clear that the profes- n is at the present time by no means ready to support h a clause. On the contrary, we believe it would most strenuously opposed by the great majority. It ardly necessary to point out that it would have entailed repeal of the clauses dealing with this matter in the dical Acts, the Apothecaries Act, and the Pharmacy Acts.

MR. TIMOTHY HOLMES.

Mr. Holmes's recent resignation of the treasurership of George's Hospital, after a nine years' tenure of that office, was arranged by some of his friends that he should be ertained at a complimentary dinner, as an acknow- gement of the eminent services he has rendered both to hospital and the school during the past fifty years. e dinner took place on February 13th, at the Whitehall oms of the Hôtel Métropole. The Earl of Cork and ery presided, and was supported by an influential and resentative company, consisting of Governors of the pital, members of the medical staff, past St. George's n, and many distinguished members of the medical fession from other schools who had assembled to do nour to the guest of the evening. The Chairman, in posing the health of Mr. Holmes, referred in felicitous ms to his long and distinguished career, and to the eem with which he was regarded by the present Board Governors and the large number of past St. George's n who had formerly been pupils under him. The sent Treasurer of the Hospital, Mr. A. William West, Howship Dickinson, and Mr. Warrington Haward owed in similar strain. Of Mr. Holmes's career and the vices he has rendered to the surgical profession, much ld be written did space avail. After taking a brilliant ree at Cambridge, he entered St. George's as long ago as year 1848. As Surgeon to St. George's he has been, bably, a more conspicuous figure in the medical ld than any other member of that institution ce the days of Brodie. In addition to holding that ce, he was formerly Surgeon to the Hospital for Sick Children, Great Ormond Street, and for many years Chief Surgeon to the Metropolitan Police. His contributions to surgical literature are many and valuable, and too well known to need any but the barest mention. His book on the *Surgical Diseases of Childhood* was a pioneer work on the subject in this country and achieved a well-deserved success. He edited several editions of Gray's *Anatomy* and a *System of Surgery* to which most of the best-known surgeons of the day contributed. The work, however, by which he is best known is one almost entirely from his own pen on the *Theory and Practice of Surgery*. Written in a pleasant, clear, and logical style, it was for many years a formidable rival to the more voluminous work by Erichsen for favour with students for examination pur- poses. Only a few years back he published a *Life of Sir Benjamin Brodie*, a work as meritorious for its literary style as for the interest of the matter it contained. Mr. Holmes is also an excellent linguist and a Shakespearean scholar of no mean order. At the dinner, too, whilst all the speakers dilated on his scholarship and accomplish- ments, more than one laid stress upon a still more unmis- takable characteristic, his unswerving honesty and total disregard of self. Outspoken to a degree, and an ardent reformer of abuses, he could not fail to meet with opponents in many of the schemes he advanced. Mr. Holmes's services to St. George's have been many and invaluable. After he had been Consulting Surgeon for several years, and at a time of life when he might fairly have claimed a rest from responsibility, he accepted the post of Treasurer to the hospital, and filled that position with the greatest ability and success. He is one of the foremost advocates for hospital reform, and he still takes an active part in charitable work as President of the Children's Aid Society. To many successive generations of St. George's men he has been the "guide, philosopher, and friend," one to whom they could always turn for ever- ready advice and assistance in all cases of difficulty. To the younger members of that hospital he is possibly little more than the bearer of a distinguished name, and they must often wonder at the enthusiasm evoked in their elders by any recollections of "Tim" and his sayings and doings. At the dinner the wish of the chairman that Mr. Holmes might be spared for many more years was shared by every one present, and will be echoed by a wider audience out-of-doors.

ILLNESS OF SIR SAMUEL WILKS.

SIR SAMUEL WILKS has recently suffered from an attack of acute appendicitis, from which we are glad to learn he is now recovering. He was taken ill on February 5th, the early symptoms resembling those of renal colic and double sciatica. The pain soon became limited to the region of the caecum, where a swelling gradually developed. Dr. Boulting, his friend and neighbour, was first called, and Dr. Pye-Smith was subsequently in attendance. The general condition, notwithstanding his advanced age—he will be 80 in a couple of months—remained fairly good, the pulse and temperature being low. The local swell- ing, however, increased rapidly, and Mr. Charters Symonds who, like Dr. Pye-Smith, is one of his former col- leagues at Guy's, was therefore asked to see Sir Samuel with a view to operation. On February 11th (the sixth day of the illness) a small but very foul abscess was opened, and the appendix—gangrenous for its terminal inch, and containing a large concretion—was removed. For the two days following the operation the condition of the patient gave rise to a good deal of anxiety. On the third day he was stronger, and on Monday last the improvement in his general condition was most satisfactory, and this has been maintained. There is now every reason to think that all danger is over. Sir Samuel has retained almost through- out his clear mental condition, and his humour at times, even the day after the operation, has been most remark- able. He has been much gratified by the many kind inquiries made concerning his condition.

THE REVACCINATION BILL, 1904.

THE Revaccination Bill promoted by the Imperial Vaccina- tion League has been put down for second reading in the House of Commons on April 26th. Although, as our Lobby Correspondent points out, the chances are against its coming on, it is desirable that all who wish to see small- pox epidemics done away with in this country should at this moment do their utmost to promote a sound public opinion in favour of systematic revaccination at school age. A manifesto is being circulated in support of revac- cination, and it is hoped that a large number of persons of influence and of employers of labour will sign it. It is in the power of all medical practitioners to render most valuable assistance by asking persons known to them—for example, the municipal authorities in their own locality, the leading clergy of all denominations, merchants, ship- pers, manufacturers, hotel-keepers, and tradesmen—to sign the manifesto, which runs as follows: "Believing that in vaccination and revaccination we possess the best pro-

tection against epidemic small-pox, I should heartily welcome legislation making revaccination at school age obligatory on all but the children of conscientious objectors or those who may be for a time excused on the ground of ill-health." The enormous cost of small-pox epidemics presses upon every section of society, and all also suffer from the interruption to social life and the dislocation of trade which every such epidemic involves. Copies of the manifesto can be obtained (gratis) from the Secretary, Imperial Vaccination League, 53, Berners Street, London, W.

PROFESSIONAL SECRECY.

A POLICE inspector called recently upon Dr. Parsons, the medical superintendent of the Fulham Infirmary, and told him that the body of a recently-born child had been found amongst some house refuse, and that he had reason to believe that a certain woman, a patient in the infirmary, was the mother of the child. He asked Dr. Parsons whether he had examined the woman and at what conclusions he had arrived, but Dr. Parsons quite properly declined to give him any information without the consent of the patient, and this consent the patient refused to give. Later Dr. Parsons was subpoenaed to give evidence at the inquest on the child, and, by the coroner's direction, gave in the witness-box the conditions he had found on examining the woman. At the subsequent police-court proceedings, where the magistrate discharged the prisoner on the ground that he thought the evidence of identity was very weak, and that no jury would convict her, the prosecuting solicitor complained of the attitude of Dr. Parsons, on the ground that "the officials of a public rate-supported institution should afford every facility for the investigation of a suspected crime." The magistrate, Mr. Marsham, also expressed surprise, and thought that a doctor would do what he could to assist the course of justice, but admitted that "there was something to be said on both sides." Anything more feeble than the magisterial comment one could hardly conceive. It was laid down by Mr. Justice Hawkins in the case Kitson *v.* Playfair that no medical practitioner may state facts which have come to his knowledge in the course of medical examination without the consent of the patient, except in a Court of Justice and under the direction of the judge. For departing from this rule the defendant in that action was made to pay probably the largest damages that have ever been exacted for a professional indiscretion. Medical practitioners have much reason to complain of the law which imposes upon them many highly responsible duties and yet is shy of affording them proper statutory protection even where it professes to do so.

CORONERS AND MEDICAL EVIDENCE.

WE publish at p. 467 a letter from a country doctor, in which he relates some recent experiences of the manner in which the coroner in his district thinks it proper to discharge the duties of that office. As the question contained in the last paragraph of our correspondent's letter is one of very general application, it may be interesting to state here the view of the mutual obligations between the coroner and the medical practitioner which appears to us to be reasonable. In the Coroners Act, 1887, it is specially stated that the coroner shall hold inquests in all cases of death in which there is reasonable cause to suspect that such person has died either a violent or an unnatural death, or has died a sudden death of which the cause is unknown. In cases of sudden death, where the cause is known, it is open to a coroner to exercise a discretion as to whether he will hold an inquest or not, and to judge of this he must necessarily have before him all the details in connexion with the death. The general facts of the case are contained in a report in answer to a series of questions sent to him by one of his officers, who calls at the house of the deceased, views the body, and gains his information from the relatives, friends, and others who may have been present at the death, and have knowledge of the history and habits of the deceased and the circumstances attending the death. It is not unusual for some medical man in the neighbourhood to be called in at the time of the death, and he may arrive before or soon after the death. He may have some knowledge of the deceased from previous attendance, or he may never have seen the deceased before. The friends supply to the officer the name and address of the medical practitioner called in, and the officer usually interviews him and as far as possible ascertains the probable cause of death, and this completes his report to the coroner. Sometimes the medical practitioner writes to the coroner, giving him his opinion regarding the case, and then the coroner decides as to the holding of an inquest or otherwise. We know of no legal obligation resting upon the medical attendant either to communicate with the coroner or enter into conversation with his officer beyond informing him that he is unable to give the usual certificate as to the cause of death. The opinion expressed may be either correct or not, and a necropsy in such circumstances as those related by our correspondent may reveal a very different cause of death from that suspected. If it is contrary to the Registration Acts for a medical man to issue his certificate as prescribed by law unless he has attended the deceased person during his last illness, it is questionable whether he is justified in expressing opinions which are founded on conjecture only and may enable the coroner to dispense with an inquiry which, if properly conducted with necropsy, would proved the true cause of death, and thus prevent the registration of such a death as "uncertified." We may add that it is the custom for the medical practitioner to make some communication to the coroner to assist him in deciding as to the necessity of a necropsy, and the coroner as an officer of the Crown is entitled, we think, to receive every assistance to enable him to discharge the duties of his office. There is a reciprocal obligation on the coroner to treat the members of the medical profession with courtesy and consideration.

PHYSICAL TRAINING FOR A CITIZEN ARMY.

IN the series of articles on physical degeneration published recently in our colnmns special attention was directed to the fact that, in view of the very high proportion of physical unfitness among town-bred lads, it was urgently necessary that the system of physical training in public elementary schools should be thoroughly organized. The need for giving to the majority of the youths of the country some training in arms has also been recognized by many and led in the first place to the volunteer movement and more recently to the formation of boys' brigades. In a pamphlet entitled National Physique and an Idea Army reprinted from the *Army and Navy Gazette* of February 13th, Dr. Arthur H. Rideal has sought to combine these two conceptions. He argues that the standing army is unnecessarily large and costly on a peace footing, while for war purposes it is unequal to the armies of the great European Powers. He suggests that from a given date every boy of 12 or 13 should be compelled (unless physically unfit or destined for the navy) to commence a five years' course of drill and instruction to fit him for the army, and maintains that an attendance of two or three hours a week would be sufficient to turn out efficiently-trained young men. He proposes that instruction should be given by non-commissioned officers at all schools. In the first year while the boys are still at school, exercises and the rudiments of drill should be taught, while later shooting would be the chief subject. In the last year the youth should spend two or more weeks in camp. At the end of his five years' training the boy would be encouraged to attach himself to a volunteer corps for a few years more. The volunteers would be thus augmented, the cost of the further training of those joining the regular forces would be diminished, while the expenditure entailed by the present system of recruiting would cease. He would make the training free of cost to the boys; but as a large number could be trained by one man, the country need not be put to much expense, the only things required being rifles, belts, and ammunition; the classes could be held in existing drill halls or in schools and playgrounds. Deducting 40 per cent. for the physically unfit, he calculates that there are 250,00

s each year to deal with, that in eight years we should e over a million well-trained young men in case of d, and that in time every able-bodied man would be petent to take up arms at a moment's notice in defence he empire. He contends that the training would benefit youths physically, and calculates that a saving of three lions would result from bringing down the standing y to a size sufficient for all purposes except a European ; that a million a year would be saved by the abolition paid Reserve Force, and that yet another million would economized as recruits would only require a comparative rt period of drill to become efficient. He proposes that short-service system should be abolished, and that in place every recruit to the regular army should enter s a profession, and that every man in receipt of a sion should be liable to be recalled for service up to age of 45 or 50. Under the scheme the three branches he army would be: (1) A small standing army thoroughly ipped and competent to embrace (2) the volunteer es, which would become more than ever popular, and (3) he unpaid civilian reserve of which there would be tically an unlimited supply. No doubt the present is ry opportune moment for putting forward any scheme rmy reform while yet the omnipotent triumvirate has completed its policy of the clean sweep, and while the etary of State for War is pledged to retrenchments; we fear that Dr. Rideal's plan is open to rather serious ctions. In the first place he proposes that the trainings ild be compulsory; this would be all very well while boys were still at school, but by what machinery d they be forced into drill halls and camps r they had left school and obtained employment? elaborate organization of inspectors with power to ecute defaulters would be required, only less onerous conscription. Again, is it quite certain that military is the best form of physical training for boys and ? The experience of France seems rather to point in opposite direction. After the war of 1870 physical ation in that country took the form of gymnastic cises; gymnastics with apparatus were everywhere ered obligatory, and the movements in favour of itary drill culminated in the creation of military cadet s in the schools, both primary and secondary. We ar, however, from the report of the Royal Commission hysical Training in Scotland that these cadet corps, vn by the name of *bataillons scolaires*, after a brilliant ning, fell into discredit, and the last of them was ressed in 1890. The causes of failure seem to have (*a*) the cost, which was out of all proportion to the lts obtained; (*b*) many of the results were unsatis-ry—for instance, the children affected the manners language of the drill-sergeants, and imported into the ground the phraseology of the barracks, until the ioration in the manners of the children set the iers against the system; (*c*) the regular officers also me hostile, for they found that the too early specializa-for the child was a bad preparation for the recruit.

AFTER-CARE ASSOCIATION.

Bishop of London, who presided on February 11th at annual meeting of the After-Care Association, held at on House, St. James's Square, said, in opening the edings, that he was pleased, so far as he represented Church, to show its sympathy with the benevolent ts of the Association. While recognizing the vast im-ments that had taken place in the scientific and ne treatment of the insane, he was of opinion that was still much scope for the after-care of those who ecovered. What poor people just discharged from an m wanted to enable them to battle with the outside was a friendly arm to support them, and this was the After-Care Association set itself to do. He could that the sinews of war had been more liberally sup-by the benevolent public, for with an income of less £700 last year, all the work that was desirable could e overtaken. The annual report for 1903 was pre-d by the Secretary, Mr. Thornhill Roxby. It stated although the income for the year had been less than in 1902—£648 as compared with £772—the number of cases helped had been greater than in any previous year. To help such cases effectually much judicious personal service was required, and the expense of boarding-out mental convalescents in country homes was necessarily large, as experience had shown it was not desirable that more than three cases should be together in one house. The finding of suitable situations was a matter requiring much tact and judgement, and involving much labour upon the officials of the Association. No less than 250 applications for aid had been investigated by the Council during 1903. The adoption of the report was moved by Dr. Nicolson, C.B., and seconded by Sir John Batty Tuke, M.P., who, in the course of his remarks, related a pathetic story of an ex-patient of his which illustrated the need of after-care, and foreshadowed his intention of moving for a Royal Commission and so bringing the whole subject of English lunacy administration before the criticism of Parliament with a view of getting rid of what he considered two great blots—one, the obstacles to early care of incipient cases of insanity; the other, the absence of assistance for those discharged after treatment in asylums with a view of preventing relapses. Professer Ernest White, as President of the Medico-Psychological Association; Dr. Savage, and Dr. Mould, late Superintendent of Cheadle Asylum, supported the motion, which was carried unanimously. On the motion of Dr. Marriott Cooke, seconded by the Bishop of Barking, the Council and officers of the Association were re-elected, and the meeting closed with a cordial vote of thanks to the Bishop of London, moved by Dr. Rayner, and seconded by the Rev. H. Hawkins. The offices of this useful society are at Church House, Westminster.

THE DENTAL ACT OF JERSEY.

THE States of Jersey have just passed an Act, introduced by Dr. Duret-Aubin, to regulate the practice of dentistry in the island. We venture to think that its brevity and directness may not improbably be due to the fact that it was brought in by a medical man who is familiar with the inefficiency of our own more roundabout medical legislation. It does not play with any question of titles, but categorically forbids the practice of dentistry save by those who have the permit of the Royal Court, which is not to be granted except to persons in possession of a diploma recognized by the General Medical Council, or to persons actually in practice in the island on January 1st, 1904. A list is to be prepared each year of those persons who have this permit, and is to be constantly suspended in the vestibule of the Royal Court. A clause forbids dentists to make use of general anaesthesia, except with the assistance of a qualified medical man, and the penalty for a breach of these provisions is a fine not exceeding £25, or, in default, three months' imprisonment. There is a further provision that persons not possessed of the licence to practise cannot recover fees for attendance, for drugs, nor for any appliances supplied. No part of the Act applies to registered medical men. Dr. Duret-Aubin may be congratulated upon having carried an Act which, so far as it is possible to foresee, will be eminently workable.

RESTAURANT KITCHENS.

DR. COLLINGRIDGE, Medical Officer of Health to the City of London, has presented a special report dealing with the question of granting voluntary certificates as to the sanitary condition of kitchens of restaurants and above-ground bakehouses. The suggestion is that all owners of such premises should be informed that a standard of requirements has been drawn up by the Corporation, and that upon complying with them a certificate would be granted to the effect that the premises had been inspected and found in a satisfactory condition, The inspections, it is suggested, may be repeated from time to time, and fresh certificates issued. Dr. Collingridge claims that if such a certificate were granted "owners would be more willing to carry out requirements and suggestions of the authority, with the result that great benefit would accrue to the public from the consequent raising of the standard of

sanitation." The standard proposed for above-ground bakehouses and restaurant kitchens does not differ materially from that laid down for underground bakehouses under the Factory and Workshop Act, 1901, Section CI, except that in the case of restaurants the proper storage of almost every class of perishable food has to be dealt with, and it is therefore desirable that a separate storeroom should be provided for the purpose. It is also a great advantage to have a separate room as a scullery. The standards suggested by Dr. Collingridge seem to be eminently reasonable, but we are not quite satisfied that the principle of voluntary certificates is, in the long run, expedient or advisable, though perhaps it is permissible pending legislation to enforce such requirements.

THE AIR OF RAILWAY TUBES.

THE investigation and report on the condition of the air of the City and South London Railway recently furnished to the Metropolitan Borough of Southwark by Dr. Scott Tebb, the Public Analyst, is an interesting contribution to the subject, which is not an unimportant one considering the rapid multiplication of tubes. The Southwark portion of the railway consists of two iron tubes for the most part parallel, about 10 ft. to 11½ ft. in diameter, and running a varying depth from the surface of from 47 ft. to 100 ft. The tube at intervals widens out into stations. There is no artificial system of ventilation, but there is a constant interchange between the air of the tube and the external air, effected partly by air currents produced by the moving trains and partly by differences of temperature. The examinations were carried out between January 26th and February 10th, and include: (1) Estimations of carbonic acid gas; (2) bacteriological examinations. In addition, records were taken of the temperature (the average was 61° F. on the platforms and 43° F. in the street), the relative humidity (84 per cent. in comparison with 76 per cent. in the open air), and the air currents produced by the moving trains (which varied from 1 to 8 miles an hour, being greatest when the train was just about to enter the station). Dr. Scott Tebb adopted the ordinary gravity-plate method, using plates (9½ sq. in.) of nutrient agar for thirty minutes. For comparative purposes in the same series of experiments this method is a good one. It was found that the air of the street contained a larger number of bacteria than the air in the stations of the tube, in the proportion of 459 to 114. Dr. Tebb further found that the number of organisms in the street increased from 2 a.m. to 10 p.m., being at its maximum between 6 and 10 p.m. This did not hold good in the tube, where higher numbers were obtained at times of increased traffic. As the number of organisms depends most largely upon the presence of dust this is to be expected. But on the whole it is evident that the number found is not such as to be significant. The report contains no facts as to the species of bacteria isolated, or as to how far the species found in the tube were the same as those occurring in the air of the streets. The carbonic acid gas was estimated by Pettenkofer's method, with bottles of about 8 litres capacity. The air of the streets ranged from 3.1 to 4.3 parts of CO_2 per 10,000 of air. On the platforms of the tube the CO_2 reached 7.9 parts, and in the railway carriages 11.6 parts per 10,000. The amount increased from 2 a.m. to 10 p.m., being at its maximum between the hours of 6 and 10 p.m. While these amounts are not in excess of those usually found where numbers of persons are congregated, they are higher than should be permitted, and Dr. Tebb recommends that means should be taken by the Company to reduce the CO_2 in the tube to 6 volumes per 10,000, which is De Chaumont's well-known limit of permissible impurity. Tables of analysis are appended to the report.

A WINDFALL FOR LONDON HOSPITALS.

UNDER the will of the late Mr. Edmond Dresden, of Curzon Street, Mayfair, a very large sum of money is to be distributed among six London hospitals. The Great Ormond Street Hospital for Sick Children, in addition to a num of portraits and pictures, is to receive £25,000 for the ma tenance of a number of Dresden cots—if possible, in ward—and the Middlesex Hospital, St. Mary's, the Ro Free, Queen Charlotte's Lying-in Hospital, and Brompton Hospital for Consumption are each to rece £5,000 for the purpose of patients' maintenance as a from structural upkeep; while the London Hosp the Middlesex, and the Brompton Cancer Hospi are to share in equal parts the reversionary terest of the deceased in the settlement of his si for the maintenance of "Dresden beds." In addi to this, however, the hospitals which are to rec £5,000 each are also to receive each one-fifth sh of the residuary estate. The latter is estimated to worth well over £200,000, so in other words each of t hospitals, it would appear, will eventually receive f this source upwards of £40,000, a magnificent additio the funds of any hospital. It is not usual to look a horse in the mouth, but the Treasurers of the hosp benefited may be pardoned if they should be incline do so upon this occasion, for the conditions attache this residual inheritance are such as to deprive i much of its value to the institutions. At each hospit Dresden Assistance Fund "is to be formed and the in thereof is to be applied for the benefit of needy and de ing in-patients of the hospital on their being dischar Funds of a corresponding character already exist practi at every hospital under the term of Samaritan Funds though there are many reasons why they shoul maintained the work done under them does really form an intrinsic part of the duty of a hos In effect, therefore, these five hospitals—who prima are to be congratulated on a huge addition to their f —are really saddled with the administration of a sum of money which they can use only for a pu outside their direct and principal object. Any crit of so princely a benefaction may appear to be invi but it is right to draw attention to the point. To £5,000 for ordinary hospital work and five times that for a Samaritan Fund—the functions of which, ho good in themselves, are merely supplementary the is to put the cart before the horse. In effect it m said generally that it is a mistake for testators t mark their bequests, except perhaps in the w establishing and endowing cots or wards; for the mar of the hospitals best know where the shoe most pinc the time such bequests fall in, and can be trusted t any money that comes to them to the best use.

PERILS OF SUBLIMATE SOLUTIONS.

IN midwifery and operative surgery antiseptic sol and soloids are so freely used that it is important t in mind that their use requires caution. Hence it visable that all cases where toxic effects are observed be published. MM. Boissard and Coudert[1] recen ported before the Société d'Obstétrique de Paris a ba where anuria and sore mouth followed the administ of a weak solution of perchloride of mercury in the perium. On the tenth day after a normal labour at there was a rise of temperature, so 3½ pints of 8,000 solution of sublimate were injected into the the same amount of pure water being thrown up diately afterwards. Haemorrhage following, the cavity was swabbed and the intrauterine inject peated, just as before, a few hours later, except th 5 pints of pure water were injected after the sub solution. The flooding continued, and cafeine and cial serum injections were administered. Vomiti diarrhoea with tenesmus and bloody stools followe five days the patient was very ill, complete supp of urine existing throughout that space of excepting when a few drachms of highly albu urine were drawn off on the third day.

1 Un Mode Rare d'Intoxication par le Sublimé: Anurie P *L'Obstétrique*, January, 1904, p. 75.

sh the gums and buccal mucous membrane appeared ld rated, but the vomiting which had been severe until ni date ceased after free washing out of the stomach. rier appropriate treatment the patient recovered, but it a not until the tenth day that she could pass urine it out the catheter and the soreness of the mouth in- ased, the breath growing foul. The diarrhoea did not ea until the thirteenth day, and it was not until the nd of a fortnight that the patient began to rally from the ve debility caused by the poisoning. MM. Boissard and pi ert attribute the very rapid toxic effects of the weak ti mate solution to direct entrance of the fluid into the ous sinuses patulous on account of detachments of a ents of placenta. They believe that with stronger ti ions accidents of this kind are rather frequent. he evidence in this case is not very conclusive, but the ner is one which certainly exists when perchloride ti ions are imperfectly prepared. This is especially ar to be the case when compressed drugs are hurriedly so lved in boiling water, the nurse occasionally hastening th rocess by crushing the soloid with the handle of a to brush or some other appliance at hand. When an im fect solution thus prepared is thrown into the ne cavity minute solid particles of perchloride of ercury may enter the circulation, with disastrous results. Ha nuria in the above case was significant.

A MEETING of the Faculty of Medicine of the University London will be held at the University Buildings, South ensington, at 5 p.m. this day (Friday, February 19th), for the purpose of receiving a communication from His Majesty the King concerning the proposed Institute of Medical Sciences.

The annual meeting of subscribers to the British Medical Benevolent Fund was held on February 16th. On the same day £203 was voted to 19 applicants in sums varying from £5 to £18; one case was postponed for further inquiry.

The King of the Belgians has conferred upon Dr. Alfred Cobb, now of Algiers, the Croix Civique de la Première Classe, in recognition of services rendered by him as honorary Medical Officer of the Belgian Benevolent Society in London.

The Chancellor of the Exchequer received a deputation from University Colleges on February 17th to ask for increased aid from the treasury. Mr. Austen Chamberlain stated that he was prepared to ask Parliament to double the grant for the present year, and hoped that next year it might be possible to increase it by £100,000.

To commemorate his work in ophthalmic surgery a gold medal has been established by the friends and pupils of Mr. Nettleship, to be awarded periodically for work done in ophthalmology. At the last meeting the medal was handed over to the custody of the Ophthalmological Society of the United Kingdom by Sir Thomas Barlow, representing the subscribers to the fund.

The annual dinner of the medical officers of the military forces will take place at the Imperial Restaurant, Regent Street, London, on Friday, April 15th, at 7.30 for 8. The chair will be taken by Lieutenant-General Lord Methuen, G.C.B., G.C.M.G., Officer Commanding the Fourth Army Corps. Tickets (10s. 6d. each) may be had from Lieutenant Montgomery-Smith, 36, Abbey Road, N.W.

We learn with great regret that Dr. R. Milne Murray of Edinburgh died suddenly and unexpectedly on Sunday February 14th, after an operation on the chest. Dr. Murray had been in ill-health for some time. He was physician to the Royal Maternity and Simpson Memorial Hospital, Assistant Gynaecologist to the Royal Infirmary, and Lecturer of Midwifery and Diseases of Women in the Edinburgh School of Medicine. A letter from his pen, written from the country where he had gone on sick leave, appeared in the BRITISH MEDICAL JOURNAL so recently as February 6th.

WE are glad to learn that the dispute which arose a few weeks ago between the medical men practising in the district and the Oldbury Alkali Works Provident Society (Dispensary Branch) has been adjusted to the satisfaction of the medical men. An alteration in the system of payment for medical attendance upon the workmen and their families asked for by the medical men has been arranged; among other points it has been settled that in future males over 16 years and females over 18 years, earning wages, would not be included in the families entitled to medical treatment. The medical men have consented to accept a special confinement fee of half a guinea, if it be paid during the lying-in period of fourteen days. The amicable termination of the dispute is very satisfactory, and we are glad to learn that Mr. A. M. Chance, the head of the firm upon whose conduct we found it necessary to animadvert in an article published on January 2nd, has, since the facts have been more fully brought to his notice, shown every disposition to meet the views of the medical officers and to place the rates on a just footing.

MEDICAL NOTES IN PARLIAMENT.

[FROM OUR LOBBY CORRESPONDENT.

The Prospects of Private Members' Bills can now be fairly estimated from the Order Book of the House of Commons. To have any chance of its becoming law a private member must carry his Bill through the second-reading stage before Whitsuntide. The only days open to him are Fridays and the off-chances of Tuesday evenings after motions are discussed, or after midnight on any other day. This year there are only ten available Fridays before Whitsuntide, for the debate on the Address will most probably run into next week. The Musical Copyright Bill comes first for February 26th, and the Mines Eight Hours Bill is second on that day. The Town Tenants (Ireland) Bill will take up March 4th, and the Land Values, Assessment, and Rating Bill March 11th. The Railway Sidings Bill and the Hall-marking of Foreign Plate Bill have secured March 18th; while, on March 25th, the Private Legislation Procedure (Wales) Bill has first place, and the Shops Bill is second. On April 15th, after the Easter holidays, the Weights and Measures Bill has the first place, and the Tuberculosis Animals (Compensation) Bill is second. On April 22nd the Trades Unions and Trades Disputes Bill will occupy all the afternoon; but if not, the Rivers Pollution Bill may secure a second reading on that date. The three remaining Fridays are appropriated to Irish Bills connected with Local Government and the Registration of Clubs, and to a Merchant Shipping (Lighthouses) Bill, with measures dealing with Local Veto, Old Age Pensions, and Local Taxation ready to occupy any time left over. The Revaccination Bill is down on a Tuesday, April 26th, and has, consequently, only a remote chance of being discussed on that day; while the Medical Act Amendment Bill of General Laurie, which stands third to the Deceased Wife's Sister Bill for Friday, February 19th, is pretty sure to be crowded out by the debate on the Address.

The Record of Cancer Cases in Indian Hospitals.—Mr. Weir asked the Secretary of State for India last week whether the Government of India had yet arranged to have cases of cancer recorded separately in dispensary and hospital returns. Mr. Brodrick replied that the revised returns provided a separate column for cancer cases, but he could not say if they had actually been brought into operation. The Government of India had the matter in hand.

Reforms in Irish Lunatic Asylums.—Mr. Field asked the Chief Secretary to the Lord Lieutenant of Ireland last week whether he had received a copy of resolutions adopted by the Conference of Asylum Committees at a meeting held in Richmond Asylum on November 25th and 26th last;[1] and, if

[1] BRITISH MEDICAL JOURNAL, 1903, vol. ii, p. 1608.

so, would he state whether he proposed to deal with the points raised. Mr. Wyndham answered that the resolutions proposed (1) an increase of the present capitation grant of 4s. per week in respect of the maintenance of each pauper lunatic; (2) an extension of the period for, and alteration of the conditions upon, which loans were made for asylum purposes; (3) the establishment of a central laboratory in connexion with asylums; (4) the introduction of a system of boarding out of persons of unsound mind; (5) the assimilation of the capitation grant payable in the case of patients maintained in auxiliary asylums established under Section LXXVI of the Local Government Act, 1898, to that payable for patients in district asylums. In respect to (1) the amount of the grant in Ireland is the same as that payable in England and Scotland, and a proposal to increase it could only be considered in its application to the United Kingdom as a whole. Legislation would be necessary to give effect to the recommendations at (2), (4), and (5), and he was unable to undertake that such would be introduced during the present session. There were no funds available at present for the establishment of a central laboratory (3). Mr. J. P. Farrell also asked the Chief Secretary on the same day whether his attention had been called to proposals in favour of the system of taking family care of persons of unsound mind which is practised on the Continent and in Scotland, and if he proposed to legislate on the subject. Mr. Wyndham said that the resolution had been received, but that he could not give an undertaking that the Government would introduce legislation during the present session.

The Sanitary Condition of Telegraph Rooms.—Mr. Claude Hay asked the Postmaster-General last week whether the room containing the A and B Divisions Central Telegraphs had been reported as being in a sanitary condition, with good lighting arrangements, and free from overcrowding; and whether, as the officers of the Post Office Medical Department were responsible to the Postmaster-General for the safeguarding of the health of the staff, he would state when the last inspection of this instrument room took place. Lord Stanley answered that the Chief Medical Officer to the Post Office, who had visited the room in question that day, reported that it was in a sanitary condition and not overcrowded. Owing to the lofty building opposite the electric light had to be used in some parts of the room, but the arrangements made for this purpose were all that could be desired. He had received no complaints from the staff regarding the room. The last previous inspection was made a few months ago.

The Sanitary Inspectors Examination Board.—Sir Walter Foster asked the President of the Local Government Board if he could state the number of persons seeking certificates of competency as sanitary inspectors who had been examined in each year by the Board of Examination constituted by the Local Government Board under Section CVIII of The Public Health (London) Act, 1891, and the number to whom certificates of competency had been granted in each year. Mr. Long replied that he was informed that the numbers were as follows: 1899—18 applicants for certificates, 16 certificates granted; 1900—21 applicants, 12 certified; 1901—27 applicants, 24 certified; 1902—70 applicants, 57 certified; 1903—69, applicants, 46 certified.

The Cost of Vaccination.—Mr. Crooks asked the Secretary to the Treasury on Monday whether he would furnish the House with the total time lost and the cost incurred through the enforcement of vaccination in all the Government departments in England. Mr. Victor Cavendish, said, in reply, that he regretted that it was impossible to give the information, without the expenditure of an amount of time and trouble which could hardly be justified by the result.

Lunacy and the Use of Immature Spirits.—Mr. MacVeagh asked the Chancellor of the Exchequer whether his attention had been called to the resolution adopted by the Portsmouth Town Council on February 8th; and whether, in view of the increase in lunacy and crime in England consequent on the consumption of immature potable spirits, he would consider the advisability of prohibiting the clearing from bond of whisky, rum, or brandy until it had matured for three years. The Chancellor of the Exchequer replied that the subject referred to had been carefully considered by a Select Committee in 1890. It reported that it was not desirable to pass any compulsory law with regard to age. Any attempt to d with the subject by legislation would be a matter of m difficulty, and he was not prepared to make proposals suggested.

The Medical Officer of the Female Prison, Limerick.— Monday last Mr. Joyce asked the Chief Secretary if he wo explain why the services of Dr. John Holmes, medical off to the Female Prison, Limerick, had been dispensed wi what number of years Dr. Holmes had been in charge of prison, and what pension or compensation in lieu of pens if any, had been offered to him. Mr. Wyndham replied t Dr. Holmes had held the position of temporary med officer of the Limerick Prison for 13 years. His services been dispensed with upon the amalgamation of the med officerships of the male and female prisons. He was not titled to any pension or compensation.

The Treatment of the Blind in Ireland.—Mr. Nannetti as the Chief Secretary to the Lord Lieutenant of Ireland whe it was the intention of the Government to deal with the c dition of the blind in Ireland during the present sessio accordance with the finding of the Royal Commission of 1 which recommended special treatment for them. Mr. W ham answered that he could not give a pledge to deal du the present session with the condition of the blind in Ire in accordance with the recommendations of the Royal C mission of 1889.

The Constitution of the Local Government Board.— organization, duties, and pay of the Local Government B and the Board of Trade are being considered by an I departmental Committee, and Mr. Claude Hay asked Monday a question as to the number of meetings held when the report might be expected. The Chancellor of Exchequer said that there had been four meetings of Committee and a meeting would be held this week. H ferred the questioner to a reply given last week, in whic said he could not fix a date for the report.

The Nurses Registration Bill, promoted by the Societ the State Registration of Nurses, was introduced by Farquharson, and read a first time on Monday last. backed by Mr. Haldane, Sir Thomas Wrightson, Sir J Joicey, Sir John Tuke, Mr. H. C. Smith, Mr. Munro Ferg Mr. Tennant, Mr. Black, Mr. Colston, Mr. Eve, and Thompson, and the second reading was put down formall Monday next.

The New Lady Inspector in the Potteries.—In answ Mr. Coghill, the Home Secretary said on Tuesday that new lady inspector had been detailed from the existing to spend some time in the Potteries, with the obje securing the observance so far as regards the employme women and girls, of the provisions of the Factory and T Acts generally, and in particular of the special rules n force in the industry. The lady inspector would act in co with the district inspector.

Lead Poisoning.—Mr. Coghill also put a question as t relative number of deaths from lead poisoning in the and earthenware trade, and in the trade of house painte plumbers. The Home Secretary said the number of d from lead poisoning in the pottery trades in 1903 was 3. trade of house painters and plumbers was not under the tory Acts, and so returns of deaths were not required made to the Home Office. It appeared, however, from re supplied by the registrars of deaths, that there were in 1 the whole of the United Kingdom, 39 deaths of pe employed in these trades attributed directly or indire lead poisoning. He did not propose to introduce legis this session with regard to these trades.

DONATION AND BEQUESTS.—The Norfolk and Norwich pital has received the sum of £1,000 from Mr. Eustace G on the occasion of his wedding and in memory o brother, Mr. J. Nigel Gurney, for the purpose of fittin and equipping an electrical department at the hospital. late Mr. John Snelgrove, of Kensington Palace Garden bequeathed £500 each to the Middlesex Hospital an London Fever Hospital. Mr. Theophilus Marke, of S hay, Pitminster, Somerset, has left £500 to the Taunto Somerset Hospital.

Scotland.

CONJOINT MEETING OF SCOTTISH BRANCHES.

The winter meeting of the Edinburgh and other Scottish Branches was held in the Royal Infirmary, Edinburgh, on Friday, February 12th, under the presidency of Dr. Ballantyne (Ilkbank). Representatives were present from all the Scottish Branches, and the result was that a very large number of members took part in the interesting and varied programme which had been drawn up by the local secretaries, Drs. Norman Walker and Logan Turner.

Pathological Specimens.

A collection of pathological specimens had been brought together in Ward 22 of the Royal Infirmary; this was open for the inspection of the members at 3 p.m. The arrangements here were admirably carried out, and the specimens were shown in a manner which enabled the members to examine them with comfort. Dr. Bruce exhibited several sections of brains, some of which were from cases of haemorrhage, and others of gliomas. With Dr. McFie Campbell he gave a microscopical demonstration of the result of lumbar puncture in various diseases of the central nervous system. Another specimen shown by Dr. Bruce was an exophthalmic goitre where a large thymus gland had persisted. Dr. James Bittie showed cultures of the diplococcus rheumaticus from the knee-joint in a case of acute rheumatism. Amongst other specimens of his was a liver and spleen from a case of hæmochromatosis with diabetes, and is the first case recorded in Great Britain. Mr. Caird's collection of preparations illustrative of gastric and intestinal surgery attracted a great deal of admiration both on account of their pathological interest and also by the method employed in mounting them. Many of his specimens were from cases of stricture of the pylorus and intestines due to malignant or tuberculous disease. Mr. Dowden exhibited a femoral hernia where portion of the bowel had been ruptured by taxis. Amongst Dr. Fleming's preparations were several microscopical slides of changes in the optic nerve in various pathological conditions such as neuralgia changes in optic neuritis and in heteronymous hemianopsia. Dr. Gibson showed specimens of mediastinal pericarditis; in one case the heart was enormously enlarged. Dr. Gulland confined himself to a microscopical demonstration of the blood in several diseases. Dr. Fullarton was represented by a large collection of fibroid and other pelvic tumours, many of which were of great pathological interest. Dr. James and Dr. Lawson were represented by a series of *x*-ray photographs. Dr. Stuart McDonald, amongst other specimens, showed cultures, photographs, and some of the viscera of a case of streptothrix infection. The particular streptothrix differs from any yet described in some important respects, and has been demonstrated by Dr. Stuart McDonald at a recent meeting of the Edinburgh Medical Chirurgical Society. Mr. Miles and Mr. Guthers showed a large and interesting series of specimens, radiographs, and photographs illustrating Bennett's fracture. Dr. Munro Moir, of Inverness, showed a diaphragmatic hernia in a case where fracture of three ribs had occurred as the result of an accident two years ago. Sir Thomas Fraser contributed a case of complete transposition of the thoracic and abdominal viscera. Dr. Shennan's series contained examples of Zenker's degeneration of muscle, and a pretty specimen which showed rupture of the chordae tendinae of the mitral valve in ulcerative endocarditis. Amongst the tumours sent to the museum by Professor Simpson was an enormous fibroid tumour of the uterus which weighed 52 lb. Mr. Alexis Thomson and Mr. David Wallace were represented by a large number of specimens illustrative of renal surgery. Mr. Stiles showed a case where Meckel's diverticulum was present, had become adherent by its tip to a loop of small intestine, and caused acute obstruction; also an appendix which lay in the sac of an inguinal hernia and had become adherent to the testicle.

Visit to the Royal Infirmary.

The members also visited the new pavilions of the Royal Infirmary which have been recently erected for the treatment of diseases of the eye, ear, and nose. Drs. Berry and George Mackay conducted the members of the Association over the pavilion devoted to diseases of the eye. Dr. M'Kenzie Johnston had charge of those who visited the ear and throat department. At 4 p.m. the clinical meeting was held in the University Clinical Medicine Theatre, Dr. Ballantyne in the chair. About 200 members were present at the demonstration of cases. Mr. Stiles showed four, including a girl aged 7 years, who twenty-one months since had been operated on for congenital dislocation of the hip by Lorenz's method. The result had been excellent, but during the treatment the healthy leg had become adducted, and had to be abducted subsequently under an anaesthetic and splints employed to keep it in place.

Dr. Webster's two cases illustrated the benefit of physical treatment by resistance exercises and baths in angina pectoris. Mr. Wallace confined himself to the exhibition of patients after oesophagostomy. One case can now swallow food with ease, on whom previous to the operation the smallest bougie could not be passed. In Dr. Gibson's absence Dr. Boyd demonstrated his cases. Mr. Caird showed a case where owing to inoperable carcinoma complicated by adhesions he had to perform gastro-jejunostomy and also colo-colostomy, and another where he had removed the rectum under spinal anaesthesia. The operation, which lasted an hour, was quite painless, the patient demanded food immediately after the operation; the anaesthesia persisted for some hours. Dr. James showed a pulmonary case which resembled actinomycosis, and Mr. Dowden a compound depressed fracture of the skull, the result of a kick from a horse; though brain matter exuded through the wound in the frontal bones the patient recovered. Dr. Caverhill's cases illustrated the beneficial result of the open-air treatment of phthisis. Dr. Allan Jamieson exhibited two cases of lupus after *x*-ray treatment. Mr. Cathcart presented four patients, on one of whom he is obtaining good results by Bier's treatment; the patient suffered from osteomyelitis, a large abscess developed in the head of the tibia; this was opened and scraped, and the cavity is now rapidly filling up under the congestive treatment which is applied for six hours each day. Dr. Norman Walker showed two cases of lupus, a case of purpura rheumatica, and one of urticaria pigmentosa which is due to the development of mast cells, and is a rare condition and not very amenable to treatment. Mr. Alexis Thomson presented a patient on whom he had operated five and a-half years ago and removed a portion of the stomach.

After the clinical meeting the members adjourned to the electrical department of the Royal Infirmary, where Dr. Dawson Turner gave a demonstration of the properties of radium, and also of the *x*-ray and high-frequency apparatus. Dr. Bruce in another room had a large audience to witness his demonstration of the Blondlot rays. Dr. Bruce is of opinion that these rays will be of great value in locating obscure tumours of the brain.

Dinner.

The dinner was held in the evening at the North British Station Hotel. About a hundred members sat down to table. The manager of the hotel provided for the comfort of the members in every way possible. After dinner the health of "The King" was proposed by the Chairman (Dr. Ballantyne), the toast of "The City of Edinburgh," by Dr. James Ritchie, who paid a warm tribute to the ability of the Convener of the Public Health Committee of the Corporation. The Convener (Councillor Laing Tod) responded, and emphasized the importance of the co-operation of the medical profession in all matters pertaining to the public health. "The British Medical Association" was proposed by Dr. Somerville (Galashiels), and Professor Waymouth Reid (Dundee), in a very humorous speech, replied. The toast of "The Guests" was responded to by Dr. Munro Moir (Inverness). The praises of "The Secretaries" were sung by Mr. Alexis Thomson; Dr. Norman Walker replied. The musical programme was excellent; Dr. Thompson was in splendid form, and the same must be said of Dr. McDonald. Dr. Fordyce sang "McNamara's Band" in a way which highly amused the members, and Dr. James's "Tubercle Bacillus" was inimitable. Dr. Frost contributed a piano solo.

The meeting may with truth be described as the most successful ever held in Edinburgh, and this is entirely attributable to the work of the Secretaries, Drs. Norman Walker and Logan Turner. Any work undertaken by those gentlemen is characterized by thoroughness, and no better example of this could be shown than the arrangements made by them for the conjoint meeting held on February 12th. To the managers and medical superintendent (Colonel Warburton) of the Royal Infirmary the best thanks of the members of the Association are also due. They placed Ward 22 at the disposal of the meeting; they also threw open the new pavilions for diseases of the eye, ear, and throat

to the inspection of the members; and, in addition, the electrical department was opened by them for purposes of demonstration.

SMALL-POX.

The small-pox epidemic at Glasgow shows some signs of abating, although it would be rash to expect any very rapid reduction in the number of cases at this particular season. Only 30 new cases were admitted last week, as against 47 during the previous week. The number of dismissals has been so large that on February 14th the number of cases in hospital was only 176. During the last two or three weeks the numbers have always been above 200. The mildness of the illness is still a feature of the epidemic, and this is illustrated by the fact that there have been only 41 deaths among over 600 cases. The disease still retains some hold in several of the surrounding towns and burghs. This is notably the case at present at Greenock, where within the last week or so quite a large number of cases have occurred—no fewer than 49 last week. In fact, the outbreak has been so serious that it has more than taxed the hospital and isolation accommodation of the town, and for a few days a certain number of patients and contacts had to be kept at their own homes until further accommodation could be provided. One of the Roman Catholic schools has already been closed, and there is some talk of shutting all the schools in the town, and also some of the public institutions.

In the week ending midday Saturday, February 13th, 19 fresh cases of small-pox were notified to the public health authorities in Edinburgh, and 1 death was registered.

Ireland.

ROYAL COLLEGE OF SURGEONS, IRELAND.

THE annual charter dinner of the Royal College of Surgeons was held on February 13th, the chair being occupied by Sir Lambert Ormsby, the President. His Excellency the Earl of Dudley was present, and there were many guests. In reply to the toast of his health and prosperity to Ireland, his Excellency made a speech which dealt entirely with the working of the new Land Act and the future of the country. The toast of "The Navy, the Army, and the Auxiliary Forces" was proposed by Sir T. Myles and responded to by Captain Gamble, R.N., and Major-General Vetch; that of "The College of Physicians" by Sir C. Cameron, responded to by Sir A. Macan; and that of "The Guests" by Mr. Chance, Vice-President, responded to by Sir Antony MacDonnell, G.C.S.I., and Mr. Justice Ross. The Lord Chancellor proposed "The President," who replied.

THE ROENTGEN-RAY CASE.

This trial, after a hearing of seven days in Dublin, came to an end on February 12th. The judge, Mr. Justice Gibson, said that there were three things to consider on the question of negligence: First, what was the rule, the standard, of danger? Secondly, was that standard overpassed? And, thirdly, was the overpassing of the standard the result of negligence? The jury found that the College was not employed for reward to do the photograph, but that Haire was; that the sore was caused by the rays; that they were not negligently used by either Haire or Dr. Colohan; and the verdict was accordingly entered for the defendants.

The result is one that will be accepted as the common-sense conclusion. But the case again illustrates the scandalous costliness of law, and the mysterious way in which the machinery is sometimes put in motion. A child received a burn as a result of the application of *x* rays. The ulcer appears to have been about $2\frac{1}{2}$ in. by $1\frac{1}{2}$ in., involving the whole thickness of the skin. It healed slowly, as such ulcers do; but no deeper damage was inflicted, and it was sworn by competent witnesses that the child was not permanently injured. Now in order to settle the responsibility in this case, it took a judge and jury and no fewer than ten King's counsel and four juniors seven days. The plaintiff appears to have been not very affluent, for he was sent to the hospital in Galway, and afterwards to a hospital in Dublin. Yet he was able to face a very expensive fight. He had three King's counsel and a junior all to himself; the others were engaged in resisting his assault. Then there were seven experts, and a crowd of other witnesses. And now that the case has gone against him, he has to face a bill of costs which includes his own and the defendant's expenses. It will be big enough to take even a wealthy man's breath away. But this is one of the mysteries of the law, and the question to which one would like answer is, "How is it done?" The lawyers will get, or h got, their fees somewhere. They are usually more car than the doctors, and they take care not to do anything nothing. But here surely is a case in which they might part from usage. The unhappy plaintiff must go down ur such a monstrous burden of costs, unless his mute appea mercy can reach the tender corner which is said to be so where in a lawyer's heart.

PATENT MEDICINES.

In the BRITISH MEDICAL JOURNAL of January 23rd account was given of a warning issued by the Rotherh Workmen's League in a leaflet about patent medicines the harm that accrues by their sale to the working clas This leaflet mentioned that a section of the religious p was particularly active in advertising such things, and a illustration thereof a medical man at Belfast has forwar us a copy of the *Missionary Herald of the Presbyterian Ch in Ireland*. Some time ago he endeavoured to get its mana to drop this kind of advertisement, but the only defi reply he could get was to the effect that "the printers w naturally cry out were I to veto every advertisement whi might not thoroughly approve; this payment is pa secured by advertisements." The printers, it would app are *The Witness*, the official organ of the Presbyterian Ch of Ireland.

ASSOCIATION NOTICES.

NOTICE OF QUARTERLY MEETINGS OF COUNC FOR 1904.

MEETINGS of the Council will be held on Wednesd April 20th, July 6th, and October 19th, in the Council R of the British Medical Association, 429, Strand, London, W

ELECTION OF MEMBERS.

ANY candidate for election should forward his applic upon a form, which will be furnished by the General S tary of the Association, 429, Strand. Applications for m bership should be sent to the General Secretary not less thirty-five days prior to the date of a meeting of the Cou

LIBRARY OF THE BRITISH MEDICAL ASSOCIATION.

MEMBERS are reminded that the Library and Writing R of the Association are fitted up for the accommodati the members in commodious apartments, at the office o Association, 429, Strand. The rooms are open from 10 to 5 p.m. Members can have their letters addressed to at the office.

GUY ELLISTON, *General Secreta*

BRANCH MEETINGS TO BE HELD.

BATH AND BRISTOL BRANCH.—A meeting of this Branch will be h the Royal United Hospital, Bath, on Wednesday, February 24th. mens will be shown at 7.45, and the meeting will begin at 8 o'cloc Barclay Baron, President. The following communications are expec Dr. Carey Coombs: A Case of Anthrax. Mr. T. D. Ransford: O Cyst, complicated with Appendicitis. Dr. G. C. Tayler: Two Contri for Use after Colotomy (a patient to be shown). Dr. Preston King Condition of our Streets.—W. M. BEAUMONT, Bath, J. MICHELL Cl Bristol, Honorary Secretaries.

BIRMINGHAM BRANCH: COVENTRY DIVISION.—The next meeting Division will be held at the Coventry and Warwickshire Hospi Tuesday, March 1st. Mr. Milner Moore will take the chair at 8. Agenda: Dr. Hawley will show Two Cases of Epithelioma of the Fo under *X*-ray Treatment. Dr. Harman Brown will give the Notes o Cases of Cancer treated by Thyroid Extract. Dr. Phillips will read a on Old Age, with some Methods of Treating its Ailments. The Com will recommend the formation of a book section of the Division Holborn Surgical Instrument Company will exhibit a collection instruments in the out-patient room of the hospital from 8 to 8.30 E. H. SNELL, Knighton House, Coventry, Honorary Secretary.

BORDER COUNTIES BRANCH.—The next meeting of this Branch wi place at Maryport on Thursday, March 10th. Members desiring t communications are requested to inform the Secretary of the Bra their earliest convenience. Further details will be notified by c shortly before the meeting.—FRANCIS R. HILL, 62, Warwick Road, C Honorary Secretary.

BORDER COUNTIES BRANCH: WEST CUMBERLAND DIVISION.—A m of this Division will be held at Workington on Tuesday, March 15 Secretary will be glad to receive a communication from any memb intends to read notes on cases or to exhibit specimens, etc. MATHEWS, 6, Scotch Street, Whitehaven, Honorary Secretary.

ROPOLITAN COUNTIES BRANCH: WANDSWORTH DIVISION.—A dinner held at the Worple Hall, Wimbledon, on Thursday, February 25th, p.m. Tickets 6s. each (wines extra). Dr. Still will read a paper at on the Diagnostic Significance of some Signs and Symptoms in es of Children. Members are entitled to bring guests, and are to book places for the dinner by February 17th if possible, as a number have to be guaranteed.—E. ROWLAND FOTHERGILL, M.B., y House, Southfields, S.W., Honorary Secretary.

TH LANCASHIRE AND SOUTH WESTMORLAND BRANCH.—A meeting s Branch will be held at Barrow-in-Furness on Wednesday, ary 24th, at 3.30 p.m.—A. S. BARLING, High Street, Lancaster, ary Secretary.

TH OF ENGLAND BRANCH: NORTH NORTHUMBERLAND DIVISION.—e xt quarterly meeting of this Division will be held at Berwick-upon-, at the residence of Dr. Mackay, on Tuesday, February 23rd, at m. Dr. Burman will open a discussion on Pneumonia.—R. B. N, 20, Bondgate, Alnwick, Honorary Secretary.

HSHIRE BRANCH.—A clinical meeting of this Branch will be held t Station Hotel, Perth, on Friday, February 26th, at 4 p.m. Business: utes; (2) appointment of Joint Secretary; (3) report of Council on dical Acts Amendment Bill; (4) cases, etc.—Dr. Stirling: Abdominal Dr. Taylor: Antitoxin in Diphtheria. Dinner after the meeting in tel, at which a presentation will be made to Dr. Urquhart. The ary Secretary will be obliged by members informing him of their on to be present.—WILLIAM A. TAYLOR, 10, Marshall Place, Perth, ary Secretary.

H-EASTERN BRANCH: EASTBOURNE DIVISION.—A meeting of this n will take place on Thursday, February 25th, at 8.30 p.m., in the s Parlour, Town Hall, Eastbourne. Agenda: Minutes of the last g. Dr. E. Staines, Physician to the Skin Department, St. Thomas's al, will read a Paper on the Results of Treating New Growths, etc., lication of Roentgen Rays, Radium, etc. All members of the South-n Branch are entitled to be present and to introduce professional s.—W. J. C. MERRY, 2, Chiswick Place, Eastbourne, Honorary ary.

H-EASTERN BRANCH: NORWOOD DIVISION.—A meeting of this n will be held at the Queen's Hotel, Upper Norwood, on Thursday, 10th, at 4 p.m.; Mr. J. Sidney Turner in the chair. Agenda: Minutes meeting. To arrange the number, dates, and places of meetings to ace annually, and to decide when and where the next meeting be held, and to nominate a member of the Division to take the chair t. Communication from the Medical Secretary as to alteration dary of Division. Communications concerning the transfer of College Hospital to Denmark Hill. To consider the following ns referred by the Representative Meeting and Council of the ation to the Divisions: (*a*) Six resolutions as to the reforms ed in the Vaccination Laws. (*b*) Proposed Medical Acts Amend-ill. (N.B.—The text of the resolutions above referred to and of the al Acts Amendment Bill will be found in the SUPPLEMENT to the H MEDICAL JOURNAL for August 22nd, 1903, and members are d to bring their copies of this SUPPLEMENT to the meeting.) (*c*) The ility of petitioning the Privy Council in favour of direct repre-on of the British Medical Association on the General Medical il. The following papers will be read:—Mr. W. Arbuthnot Lane: rtain Abdominal Conditions. Mr. H. G. Plimmer: Diseases in d Animals caused by Trypanosomata. Exhibition of instruments n Bros. Members desirous of exhibiting specimens or reading f cases are invited to communicate at once with the Honorary ary. Dinner at 6 p.m.; charge 7s., exclusive of wine. The ary Secretary would be much obliged if members would kindly him by the first post on the Tuesday before the meeting whether tend, if possible, to be present at the meeting, and if likely to to dinner. By so doing they will very materially facilitate ements and promote the success of the meeting. All members of th-Eastern Branch are invited to attend and to introduce profes-friends, but will be unable to vote on Divisional questions.—J. PRANGLEY, Tudor House, Anerley, Honorary Secretary.

H WALES AND MONMOUTHSHIRE BRANCH: MONMOUTHSHIRE N.—The quarterly meeting of this Division will be held in the , Abergavenny, on Friday, February 26th, at 3 p.m. Chairman, W. Mulligan. Business: Minutes of last meeting at Newport. Cor-dence. Annual Report of Division to Branch Council. Report e Medical Secretary, giving the opinion of the Solicitor to the tion on the Regulations. Dr. W. D. Steel will move: That the rs of this Division approve of the Association taking up the e of its members for such additional subscription as the Defence tee may decide; that steps be taken to amalgamate such Defence with the existing Medical Defence Unions and Societies. Papers: F. Nelis: Patients suffering from Paralysis of the Insane, illus-the various stages of the disease. Mr. R. J. Coulter: The Orth-Treatment of Concomitant Squint. Mr. W. J. Greer: Surgical sia by Spinal Cocainization at the Beaujon Hospital, Paris.—REER, Newport, Honorary Secretary.

FORDSHIRE BRANCH.—The next meeting of this Branch will be held ford on Thursday, March 3rd, instead of Thursday, February 25th, of Sir Oliver Lodge's lectures occurs on the latter date.—E. PET-JOHNSON, Stoke-on-Trent, Honorary General Secretary.

BIDEXTERITY.—"The Ambidextral Culture Society for Promotion of Symmetrical, Physical, and Mental opment" has arranged a course of lectures, to be given rooms of the Medical Society of London at 5 p.m. dur-he next four months. The subjects will vary from dexterity in fly-fishing to the same accomplishment in fants' school. Further particulars can be obtained from onorary Secretary, St. Dunstan's House, Fetter Lane, on, E.C.

SPECIAL CORRESPONDENCE.

MANCHESTER.

Annual Report of the Royal Infirmary.—Feeding of Poor Children.—Joseph Priestley Memorial.—Infant Mortality.—City Grant to the Victoria University.

AT the annual meeting of the Trustees of the Royal Infirmary on February 11th the report of the Board of Management was submitted and approved. It stated that arrangements for the sale of the present infirmary site had been made with the Manchester Corporation for the sum of £400,000, and that the first instalment of £100,000 had been received. The formal conveyance of the Stanley Grove site from the Owens College to the infirmary would shortly be completed. The new site had been enlarged by the acquisition of three houses adjoining the Royal Eye Hospital in Nelson Street, the cost of which (irrespective of chief rents) was £8,000. The Manchester Southern Hospital had agreed to relinquish, upon the payment of the sum of £18,500, the land adjoining Union Chapel, which had been conveyed to that hospital by the Owens College as a site for their new hospital. A sum of £6,000 was to be paid to the Owens College in compensation for the expense involved in the removal of the Bacteriological Laboratory from Stanley Grove, and towards the acquisition of a suitable adjacent site. Arrangements had been made with the Committee of the Christie (Cancer) Hospital to provide suitable access to their buildings. The requirements for a new infirmary, containing 500 beds, with provision for 600 beds if and when required, had been carefully prepared in concert with the medical staff. Applications from fifty-six architects desiring to compete for the erection of the new buildings were received; from these a selection of twelve had been made, upon the advice of Mr. J. J. Burnet, F.R.I.B.A. The question as to whether any and, if so, what provision should be made in the centre of the city for accident and urgent cases and for out-patients would receive the consideration of the Board as soon as the plans of the new infirmary had been decided upon. The report also stated that an inquiry instituted into the circumstances of all the home and out patients showed that only 4.33 per cent. of them were unsuitable for free medical relief. The Chairman of the meeting, in reply to observations, stated that the importance of the question of provision in the city for accidents and urgent cases was duly recognized, but that it would be unwise to commit the Board at present to its future policy in the matter.

The third of the public-health lectures at the University was given on February 11th by Dr. Niven, the Medical Officer of Health, on the feeding of poor children. Where the combined earnings of a family exceeded 35s. a week children, he thought, generally received sufficient food, but much waste was due to drink and want of knowledge on the part of mothers as to how economically to select and prepare food. This knowledge should be imparted in the schools, and remedies were mainly to be looked for from improvement and extension of the machinery now in the hands of the education authorities. Girls at school should be taught the elements of domestic economy and hygiene, special attention being given to the care and feeding of infants. In this way only could there be reform in the feeding of infants. Physical exercises were admirable for well-fed children, but they were most deleterious to ill-fed or ailing children. Teachers, therefore, should be trained carefully to detect signs of illness or weakness, and to assign them to their true cause, whether disease or privation. This knowledge should be obtained by instruction given to teachers by medical experts while examining classes of children. Legislation was required enabling the education authority to enforce the provision of sufficient food and the maintenance of cleanliness in school children by the parents. The children in all the schools should be weighed, and their height measured once a term, and a record kept of their age, height, and weight. By this means it would be possible to gauge the condition of the children both collectively and individually.

On February 6th, the anniversary of his death, Warrington played its part in the celebration of the Priestley Centenary. In Warrington is the "academy" in which Joseph Priestley spent six quiet years of his life as a tutor before he went to Leeds to be minister of the Mill Hill Chapel. Upon the front of the old building of the academy, now given over to the purposes of trade, the Warrington Society has placed a bronze tablet, which was unveiled by Dr. T. E. Thorpe, C.B.,

F.R.S., Director of the Government Laboratories in London. It bears this inscription: "Joseph Priestley, Natural Philosopher, resided here from 1761 to 1767 as a tutor of the Warrington Academy. This tablet was erected by the Warrington Society on the centenary of his death, 6th February, 1904." It will be observed that the words "discoverer of oxygen" are left out. As a matter of fact, it is now known that although Priestley was an independent discoverer of oxygen, and for many years was supposed to be the sole discoverer, the actual merit of being the first person to isolate that gas was in reality the Swedish apothecary Scheele. Indeed this distinguished Swedish chemist isolated this gas, not by one method, but by three or four methods. These facts have only comparatively recently come to light.

Dr. Ashby, on Saturday evening, February 13th, addressed a large working-class audience on the subject of infant mortality. He showed what had been done elsewhere to lessen the mortality, and urged that it behoved all present to support the Corporation in its endeavours to prevent the sale of impure and dirty milk by the inspection of milk-shops and dairies and cowsheds in the town, insisting on a high standard of cleanliness in the cows and in the handling of the milk, sampling it as it arrived at the stations, and stopping the supply of impure milk or that from diseased cows. He also pointed out that a factor quite as important to a child as its surroundings and the exact character of the milk obtained for it was intelligent care on the part of its mother. This included cleanliness as regarded the storing of the milk in the house, clean bottles and victuals, the quality of the food and regularity in feeding, the cleanliness of the child, suitable clothing, fresh air, and the application for skilled advice if slight ailments occurred. He commended breast-feeding whenever possible, and urged mothers to make themselves fit for it by attention to their own health and abstention from alcohol.

The Education Committee of the Manchester City Council has unanimously resolved to recommend that a grant of £4,000 be given from the City rates in aid of the University of Manchester. Hitherto the City has given a comparatively small sum to Owens College.

LIVERPOOL.

Medical Institution: President's Badge.—Liverpool University: City Council Grant.—Royal Infirmary: Enlargement of Medical Board.—Qualifying Medical Examinations in the University.—The Infirmary for Children.—Report on Summer Diarrhoea in Bootle.

At a recent meeting of the Medical Institution an interesting ceremony took place, when the President, Dr. James Barr, was invested with the newly instituted insignia of the office, consisting of a medallion suspended by a blue ribbon. The medallion is of 18 carat gold, $2\frac{1}{2}$ in. in diameter displaying a finely modelled "liver," the bird which appears on the arms of Liverpool. On the obverse side are the arms of the institution, beautifully enamelled in colours, encircled by its motto, the first three aphorisms of Hippocrates in Greek characters. Around the arms there are spaces in which it is hoped that jewels will be inserted. The reverse side bears the following inscription: "Liverpool Medical Institution, President, January, 1904." The work, which has been executed by Messrs. Oldfields, is a beautiful example of modern art jewellery, and is greatly admired. It will be worn by the President at the meetings of the Institution, and also on public occasions when he appears in his official capacity.

The Liverpool City Council, acting on the authority of a recent Act of Parliament, has unanimously voted the sum of £10,000 to the University for the present year. It is understood that about £1,000 will be spent on scholarships. Although the grant is only for one year, it is almost certain to be renewed from year to year, so long as it is used in such a manner as commends itself to the City Council.

During the twelve years that have elapsed since the opening of the new Royal Infirmary the staff has been nearly doubled by the creation of posts for assistant physicians and assistant surgeons, and for officers to special departments. The constitution of the Medical Board, however, which is determined by the laws of the infirmary, has remained precisely as it was in 1892, except that three years ago the surgeon to the Lock Hospital was given a seat upon it. For several years proposals have been made from time to time to admit the assistant physicians and surgeons and the officers of the special departments to the Board, but until recently without any result. At the last annual meeting of the trustees it was, however, unanimously resolved that the assistant physicians and surgeons and the officers to the special departments shall become members of the Medical Board when they have been in office for seven years. The immediate effect of this change of law is to admit to the Board two out of the three assistant surgeons and all the officers of the special departments.

The first qualifying medical examination in the University of Liverpool will take place next month. Candidates for the M.B. degree are at liberty to present themselves either in Liverpool or in Manchester, according as they wish, but a graduate in the University of Liverpool or the Victoria University. All the candidates from Liverpool have signified their intention of entering for the Liverpool degree.

At the annual meeting of the Infirmary for Children a highly favourable report on the site was received from the medical officer of health. It appears that the foundations of the old building rested on solid sandstone rock, which was quite undisturbed and free from contamination. The old building has now been entirely removed, but a considerable sum of money is still required before the new building can be completed.

Dr. W. N. Barlow, medical officer of health for Bootle, acting on the instructions of the Health Committee, has issued a report on the prevalence of diarrhoea in the borough during the past summer. The number of cases of fatal summer diarrhoea in children has considerably diminished during the last few years. In 1897 it stood at 153, in 1902 it was 53, and last summer it was 85. The mean population largely consists of casual labourers at the docks and of marine firemen and others whose employment is uncertain and whose conditions of work and existence tend to improvidence and intemperance, conditions which inevitably result in more or less neglect of the children. In some cases the mortality among the children is appalling. Thus, in one family of 14 in which a death took place in no fewer than 12 children altogether have died, all from diarrhoea. In many cases the parents are intemperate, a circumstance which, as Dr. Barlow points out, has the two-fold effect of depriving the child of the attention it should receive and also of diminishing the money available for the purchase of nourishing food. The influence of the method of feeding is illustrated by the statement that of children fed from the breast alone only 7 died, of those fed from the breast and by hand 14 died, while of those fed entirely by hand 53 died. The kind of bottle employed in hand-feeding, as might be expected, seems to have had a considerable influence, bag-shaped bottles having been used in 17 instances and the pernicious long-tube bottles in 40. Dr. Barlow states that the sanitary arrangements seemed seldom to have been responsible and that overcrowding had not much influence, and he has no doubt that by far the most potent cause was improper feeding, including in this term cases where the food is both improper and insufficient. The causes which lead to improper feeding are ignorance, indifference, and poverty. Efforts have been made to educate the poor by means of printed circulars and domiciliary visits by the lady sanitary inspector, and Dr. Barlow advises that steps should be taken to educate mothers, both present and future, in the proper feeding and rearing of infants, especially by instruction in the public schools; careful supervision of the dwellings of the poor by qualified lady sanitary inspectors, and notification of cases of diarrhoea by the medical men in the borough. He suggests that legal procedings should be taken against parents who have exhibited gross carelessness in the feeding of their children, that the practice of insuring young children should be restricted or prohibited, and that the scope of the Sale of Food and Drugs Act might be extended so as to bring within its provisions all patent foods so as to insure their reaching a certain standard of nutritive value.

SOUTH WALES.

Infectious Diseases.—Tuberculosis.

The current year, as far as Glamorgan is concerned, up to the present has been more than usually free from infectious diseases, especially typhoid fever, and there has been no severe epidemic of any sort. Measles, scarlet fever, and whooping-cough have, however, been present in certain districts, necessitating the closure of several schools. The county has been free from small-pox for many months.

The Executive Committee of the South Wales and Monmouthshire Branch of the National Association for

evention of Consumption have issued their second annual port. During the past year the work of the branch has en largely of an educational character. Early in the year a cular was addressed to various bodies in the district, offering deliver addresses on the work of the Association. As a result, lectures, illustrated by lantern slides, were given under e auspices of the branch at several places. The University llege Sub-branch has been active in carrying out the objects the Association, and the College *Magazine* has periodically voted space to short articles on tuberculosis, the means of prevention; a considerable amount of literature has been ntributed by the students of the College. An interesting ent was a lecture on the Value of Fresh Air by an old dent of the College. The question of a sanatorium for the orer classes is now under consideration by the Glamorgan unty Council, whose medical officer of health (Dr. W. lliams) has recently presented to his Sanitary Committee a y interesting report on the subject. It is hoped that the uncil will be able to help local authorities to establish an titution which would do much to cure or alleviate a great al of suffering and misery. The membership of the branch 18. During the year the sub-branch established in West les was resolved into a separate branch, and is doing good rk in carrying on the aims of the Association.

CORRESPONDENCE.

PUERPERAL SEPSIS.

IR,—All who read Dr. Peter Horrocks's address on puerpal sepsis as published in the British Medical Journal of bruary 13th, p. 349, will, I am sure, feel grateful to him for h very practical and outspoken remarks on this most imptant subject. On one or two minor matters these remarks my give rise to differences of opinion, but on the main issue, th prevention of puerperal sepsis, there should be univsal agreement with his teaching—that if we interfere even much as by introducing the finger for purposes of examinatn, we must take the most stringent antiseptic precautions, qte as much as if we were going to introduce the finger into th peritoneal cavity.

r. Horrocks, however, is of opinion that in the great m ority of cases of "natural labour" no interference whatev r is called for, examination being, therefore, both unnecessary and dangerous. With all respect to so eminent an athority, I would venture to suggest that in assuming any pticular case which comes before us to be absolutely natural a aseptic, we are to a certain extent leaving matters to chce, and may find, too late, that our assumption has been unounded. Prevention is certainly better than cure in these ces, and personally I feel very strongly that we have no right in any case merely to assume asepticity when we have in our power, if we will only use them, the means "make assurance doubly sure" by a thorough and logical aplication of aseptic and antiseptic principles in all our midwifery work. Apart from the fact that the vagina and vva are frequently septic even before the accoucheur arves, in not a few cases soiling with faeces, etc., occurs at oroon after labour. A certain amount of abrasion or laceratn of the soft parts is almost inseparable from any labour, especially in primiparae, and these open wounds are equally, if ot more, liable to septic contamination than wounds elsewre. Why, then, should we hesitate to treat wounds of the peneal region like, say, wounds of the thigh or foot—that is by efficient antiseptic dressings?

In a paper which will be shortly appearing in the *Practitioner* I have outlined the actual details of aseptic or antiseptic technique which I have for some time adopted in my own midwifery practice with, I am pleased to say, the most satisfactory results. If some such plan were adopted by all medical men in their attendance upon childbirth, I am sure the present high mortality from puerperal sepsis in general practice, not to mention the large amount of morbidity, which now provides work for the gynaecologists, would be very materially reduced.—I am, etc.,

P. R. Cooper, M.D., B.Sc.Lond., F.R.C.S.Eng.

Ewdon, Feb. 15th.

R,—I have read Dr. Horrocks's paper on puerperal sepsis n the British Medical Journal of February 13th with unsual interest, and on the whole I think every one will agree vh its general tenour. But towards the close of his paper Dr. Horrocks gives answers to two self-imposed questions which entirely, to my mind, contradict one another.

Question 1. Should a doctor who gets a case of puerperal septicaemia continue his midwifery practice?—A. The answer is decidedly in the negative.

Question 2. How soon after ceasing to attend upon a puerperal septic case is it possible to resume practice?—A. In about 15 to 20 minutes, or just as long as it takes to get your hands aseptic.

If this procedure be allowed in answer to Question 2 it becomes only a matter of equally careful disinfection after each visit to a patient with puerperal septicaemia in order to attend another confinement without risk to the patient; and consequently according to this method of reasoning the necessity of giving up one's midwifery practice as stated in answer to Question 1 does not exist.—I am, etc.,

February 14th. J. M. K.

THE TREATMENT OF PNEUMONIA.

Sir,—My letter in the British Medical Journal of December 19th, 1903, commenting on Dr. Lees's lectures on the above subject has evoked a considerable amount of criticism, and the critics seem all to agree with Dr. Lees and to differ from me. My first impression was to retire from the arena, and leave the ring in the undisputed possession of Dr. Lees and his admirers; but really, the letters have afforded me such a fund of amusement that I do not like to keep it all to myself, so, just for the fun of the thing, I have the temerity to venture back to the field of controversy and there await the final knock-out blow from some of the doughty champions who appear to think that they have already pulverized me.

I may first premise that I am an advocate of blood-letting, occasionally even in pneumonia, and I hope that I employ it intelligently. I bled an old lady aged 89, when she was in the status epilepticus from a cortical haemorrhage, to the amount of 17 fluid oz. She lived till she was 95. I have seen as much oxygen in cylinders administered as cost some hundreds of pounds, and I still continue to prescribe it. Recently a young gentleman dying from phthisis used about twenty shillings' worth a day, and he averred that it gave him great relief, and the nurses asserted the same thing; his intercostal muscles were not sufficient to draw in air, and hence the advantage of oxygen driven in under pressure. Compressed air would have served the same purpose, but here expense was a matter of no concern. In analogous cases I have occasionally ordered a foot-bellows, and here the driven air can be filtered through cotton wool. None of us can get on without oxygen, and my objection is not to its use even when supplied in cylinders, but to the blind, unreasoning faith with which some men assert their "belief" in oxygen, much in the same way as they would repeat a creed. A friend of mine says that "if inhaled suddenly in large quantities the gas is excessively stimulating, and may be followed by, if it does not produce, quite a tetanic condition of muscles." This looks like a strychnine effect. Paul Bert said that animals exposed to the pressure of oxygen above six atmospheres died in violent convulsions. Recently some experimenters have shown that if in the atmosphere inhaled the oxygen tension be over 80 per cent., equivalent to about four atmospheres pressure, a condition of apnoea is engendered; here the oxidation of the blood would take place by the ordinary diffusion of gases, and the respiratory pump would be thrown out of action. Surely this would be a very undesirable thing in pneumonia, but fortunately economic laws rather prevent such free administration. There is plenty of oxygen in the atmosphere to saturate, or almost saturate, all the haemoglobin with which it comes in contact. My critics are so satisfied with their own clinical observations that I suppose it is useless to refer them on this point to the writings of Paul Bert, or to the admirable work of Dr. W. Ernest Thomson on The True Position of Oxygen as a Restorative in Carbonic-acid Poisoning, published in the *Glasgow Medical Journal*, 1893-94. I am inclined to think that the study of such good work might improve the accuracy of their observations and the value of their deductions.

In pneumonia the difficulty is usually not in finding oxygen, but in securing a sufficient aërating surface in the lungs. Zuntz calculated the alveolar surface of healthy human lungs at 90 square metres, and if this oxidation surface be reduced to a half or a third it is easy to see how impossible it is to sufficiently oxidate the blood. Here, again, men who are constantly vaunting their so-called clinical experience are not content with the reduction

effected by disease, but still further reduce it by setting up a catarrhal condition in the sound portions of the lungs by the use of drugs and bronchitis kettle, prescribed with the object of "loosening the phlegm." Clinical observations should have taught that, *caeteris paribus*, the less the expectoration the more favourable the prognosis. The maintenance of as large an aërating surface as possible is of much more importance than the oxygen tension.

Some time ago I saw a severe case of pneumonia in consultation. I found the youth lying on the sound lung—he was too ill to turn himself or to care how he lay—extremely livid, almost asphyxiated, and loud mucous *râles* in his trachea. I simply rolled him over on his back; his colour and breathing improved immediately. I also prescribed a mixture of chloride of calcium and strychnine to dry up the phlegm. He recovered. There may be an advantage in keeping the oxygen tension as high as possible in the healthy alveoli, but any hyperoxidation of the blood circulating in these alveoli must be very slight, and the quantity that can be absorbed by the blood apart from the haemoglobin is much less than what would be absorbed by the same volume of water. Any advantage that there may be in a cylinder of oxygen can be equally obtained from compressed air. In order that I may not omit anything in favour of cylinders of oxygen, I must refer to the valuable investigations of Dr. Haldane on the effects of carbon monoxide on mice and men. He uses the mouse as an indicator of the presence of poisonous proportions of carbon monoxide in the atmosphere of coal mines, as it is much more quickly affected than the human being. At a tension of two atmospheres of oxygen the poisonous action of carbon monoxide is abolished in the case of the mouse as at high tension it can obtain sufficient oxygen from the gas dissolved in the plasma of the blood. However, the oxygen does not displace the carbon monoxide from the haemoglobin, and in man the quantity of oxygen that can be absorbed by the plasma is not of much account. I have entered fully into the subject, as I do not wish to minimize any advantage which a cylinder of oxygen may possess, but I merely wish to point out, first, that it has no greater chemical affinity than the oxygen of the atmosphere; secondly, in pneumonia aërating surface is of very much greater importance than oxygen tension; thirdly, any slight benefit which may be gained by increased oxygen tension may be equally obtained from compressed air.

My preceding remarks may serve for the special delectation of Dr. Whitby, but regarding his argument about "young children eagerly and repeatedly" demanding oxygen "when the advent of air hunger and cyanosis has rendered them indifferent to all other considerations but the craving for immediate relief,"—without calling in question the accuracy of his description, I may remind him that a very important cause of death in pneumonia in young children is failure of the respiratory pump; they fail to draw air in, but the supply of oxygen from a cylinder must prove a poor substitute so far as the right side of the heart is concerned.

Next with regard to blood-letting, I may say that I quite agree with Dr. Lees that it requires no supernatural wisdom to understand that if you remove 3 oz. or 4 oz. of blood from the circulation, the quantity abstracted will not reach the right side of the heart, but I may remind him of a fact of which he is no doubt aware, but which he seems to have forgotten, that physically the right side of the heart lies at the bottom of the stream, a stream which in pneumonia contains more than half the blood in the body—say 6 lb to 8 lb.; how then will the removal of a few ounces from a rivulet at the top of the stream affect the repletion of the reservoir at its bottom? If he had carefully read my letter he would have found that I had anticipated and answered his argument.

These remarks will also apply to Dr. Green, but as he refers to paralytic over-distension of the right side of the heart, I may refer to a case which recently came under my observation.

When I was away on my holidays a youth was admitted to my ward with tachycardia, the result of a kick or blow on his epigastrium at football. His pulse was over 250, and continued so for about a week. His abdomen then was much swollen, and an exploratory operation was decided on. It was not considered safe to give him an anaesthetic, so he had a large dose of brandy and a hypodermic injection of cocaine. Before the operation was commenced his pulse had fallen to 80. A large amount of fluid was evacuated, but nothing else was found. On my return I found him quite well, and in reply to an inquiry from my house-physician I refused to express an opinion on a case which I had no seen, except that I thought the brandy caused the drop in th pulse.

On January 13th he was sent in under the care of my co league, Mr. Hamilton, supposed to be suffering from ruptu of the stomach, the result of another injury to his ep gastrium in the football field. I was asked to see him on th 16th, and found him in a very distressed condition—hea beats over 300 per minute, a small thready running pulse, L countable. With Oliver's haemadynamometer I found th the mean arterial pressure was 160, and obliterating pressu 190 mm. of mercury. The blood pressure was therefore ve high, though the very small pulse from peripheral resistan felt compressible. The right auricle extended nearly to th right nipple, and the left ventricle was contracted; th second pulmonic sound was accentuated. Over the rig ventricle the cardiac contraction looked like a quiver rath than a systole. His liver was large and tender. My di gnosis was that the injury had stimulated the inhibito action of the vagus, and this led to paralytic distension the right side of the heart, and consequent tachycardia. very little blood reached the left side the arteries co tracted down rather more than was necessary, and cons quently the arterial blood pressure rose; the high tensi extended back through the lungs, as shown by the accent ated second pulmonic sound, and the right side did not get chance of relieving itself. My house-physician suggest that I should adopt the remedy which I advocated, name bleeding from the liver; but my reply was that the patie was not now under my care, and, moreover, I thought simp means would succeed. He got 5 gr. of calomel; nitrite amyl inhalations; a hypodermic injection of $\frac{1}{50}$ gr. of atropi and $\frac{1}{50}$ gr. of nitro-glycerine every two hours. In twenty-fo hours he was practically all right, the pulse being 84, regul full, and strong. On January 23rd he was discharged qu well with a level pulse-rate of 60.

Dr. Staveley Dick says: "If you apply, it may be fo icebags from day to day to an average healthy man's chest abdomen for upwards of a week, and at the same time subj him to considerable periodical haemorrhages, you cause su a departure from his internal economy and external envir ment as must inevitably exercise a notable effect on his vi powers." This is a very novel experiment; it has certai not been recommended by Dr. Lees or myself. I hope Dr. D will first try it on himself. His blood-letting seems to h raised the arterial blood pressure, and this extraordinary eff makes me rather sceptical about the value of his observatio He puts a very limited estimate on the value of consultatio and thinks more depends on "the keenness and educa judgement of the man in hourly attendance." There may and probably is, a little prejudice on my part; but, if I w suffering from pneumonia, I should not care for an hou visit from a man whose armamentarium included a lance hypodermic syringe, a bottle of brandy, and other odds ends. I would probably ask him to come the day a to-morrow, or, if he did not mind, he might stay away after the crisis.

Dr. Stuart Tidey's explanation of the use of the iceba the abdomen is simplicity itself. He says: "My own the is that one of its most important effects is due to decreasing the volume of gases contained in the practic closed cavities of the body." He does not tell us whether intra-abdominal pressure is correspondingly diminish which is essential for any value which his vi may possess, but, while he is considering matter, we will examine his theory a little more clos Gases expand and contract $\frac{1}{273}$ of their volume for e degree Centigrade which the temperature is raised diminished. Now suppose the icebag lowered the temp ture 3° C., or 5.4° F.—a very liberal estimate—the volum the gas would be reduced $\frac{1}{91}$ of its bulk; I don't know much gas he supposes to be in the abdomen, but I do k that a reduction of $\frac{1}{91}$ of the volume is a mere bagat Moreover, I can say from personal observation that the ir abdominal pressure is not correspondingly diminis After this Dr. Tidey must excuse me refusing to discuss him the value of his experience of either blood-lettin oxygen.

I do not share Dr. McNamara's contemptuous opinio the medical student; we have got many in Liverpool could teach him not only anatomy, but also physics, if I judge from the theory he propounds. The 6 oz. or 8 oz stracted by leeches or venesection are only a small am of the blood rushing to the reservoir at the bottom o

tam. If it were merely a question of keeping a certain unt of blood from reaching the right side of the heart il it had time to right itself, then a ligature round one or th thighs would serve the purpose more effectually. The rle of the venous blood is in direct communication with h right side of the heart, and the low resistance in the rioles enables any depletion to be quickly replaced from harteries, so blood abtracted in these cases can only act by inishing the total amount in circulation.

much for Dr. McNamara's references to anatomy. arding the children who "were living in the vitiated tosphere of small, overcrowded rooms," these two re-ories must have afforded him a great amount of moral tisfaction, seeing that he had "never before seen children ilarly circumstanced recover from the condition in which und them." But in future I would advise him to put cases in the best room in the house or send them to ital.

ent this subject, I have recently had a long letter from friend and teacher, Sir W. T. Gairdner, to whose very ious and historic article on the Treatment of Pneumonia, ished in the *Practitioner* of January, 1900, I have now th pleasure in drawing attention. Sir William says in is etter: "I am, however, still of opinion that there is a gimate field for blood-letting in pneumonia, could one ure to disregard the conventional and too negative aspect odern treatment."

an cordially endorse this statement, but I think the ld is a very narrow one—and in this I believe I am echoing ir William Gairdner's views—and should be limited to the rs forty-eight hours from the onset of the disease in those xceptionally sthenic cases where there is high arterial ion. Of course great caution should be exercised to vd any serious loss of blood, especially where there may e feeble or fatty right ventricle, as such conditions are apt o ad to pulmonary oedema.—I am, etc.,

Liverpool, Feb. 1st. JAMES BARR.

LUMBAGO.

Sir,—In the interesting letters which have appeared on his subject, only one calls for a remark from me. Dr. Edgeworth, in the BRITISH MEDICAL JOURNAL for January 30th, expresses a difficulty in conceiving that the muscle-fibres within the spindle share the general contraction of the muscle, because they seem to receive no motor nerve. Now in every fibre the contraction proceeds along the nerve-supplied part of it from the nerve ending. The upper part of the sartorius of the frog is said to be devoid of nerves but contracts with the rest, the contraction of the fibres passing into them. In the fibre within the muscle spindle the contraction may pass into it from both above and below. Thus the absence of motor nerves is not the difficulty it at first seems to be.

I may add that the second of the cases of "brachial neuralgia" recorded by Dr. Distin, in the number of the JOURNAL in which my lecture appeared, is instructive. It is, I think, an illustration of the aid to discernment afforded by the conception of "fibrositis" as the pathological basis of such a condition as is described.—I am, etc.,

London, W., Feb. 16th. WILLIAM R. GOWERS.

PROHIBITION OF DISPENSING BY DOCTORS.

Sir,—In the present condition of the medical profession, the general practitioner will commit moral suicide unless he acts vigorously organizes to resist any and all legislation to limit or prohibit his power to dispense.

I cannot say I was ever a needy practitioner, as unfortunately I know many of my medical friends to have been, and some cases still are, but I honestly admit that had I been prohibited from dispensing my own medicines I should rapidly have become one. My practice, which I held from 1877 to 1896, and which my father had worked from 1841, was a very wide one, and ten miles from any town or chemist. Not only would the inconvenience to patients have been insurmountable had they by law been debarred from obtaining their medicines from us, but our pecuniary loss would have been very considerable. We calculated the profits on our dispensing paid the cost of all drugs, a dispenser, and all the horses of a stable which was as well known in the hunting fields at our patients' doors. If such was the importance of dispensing in a really first-class practice, what will be the loss of it to the struggling practitioner? It would mean absolute ruin.

It is all very well for a certain class of consultant to preach of the dignity of the profession, but does that class practise what it preaches? Talking with men in general practice, I so often am told: "Things have altered since your day. In your day, as you tell us, you could trust your consultant; nowadays we generally cannot. Patients now so often steal away and see a consultant without our knowledge, and the consultant, having the excuse of their not having been sent by a medical man, annexes them and treats them as if he were the family attendant, and often at reduced fees. If we do send them for an opinion we often only get an acknowledgement, and our patients are seized bodily and sent into 'homes,' and that now not limited to cases for operation, but in many instances the medical cases are similarly confiscated, and so we lose what we justly should have—the general care of the case."

Now, this means one of two things: either those consultants' ideas of ethics are absolutely dishonest, or, if on the staff of a teaching hospital, they admit their teaching is so bad that they cannot trust those they profess to teach and in attempting which they have risen to the position of consultants.

I am an idle man, and will gladly receive the names of any general practitioners who think as I do, and get up meetings in London, Liverpool, Birmingham, Bristol, etc., to organize locally in order that pressure may be put on members of Parliament to prevent so scandalous an injustice.—I am, etc.,

Holne Chase, Bletchley, Bucks, Feb. 14th. P. B. GILES.

Sir,—"L.R.C.P." is well within the mark when he asserts that the prohibition of dispensing by doctors would mean "the absolute ruin of hundreds of hard-working, conscientious medical men who attend the poorer section of the community." Such men already have hard work to keep their heads above water in the competition with medical institutions, prescribing chemists, etc., and the immediate result of such a change would be the transference of about 50 per cent. of their practice to such competitors. Let the so-called "leaders of the profession," who, we are told, are introducing this tyrannical measure on the grounds that it is beneath the dignity of the profession to dispense medicine, be warned betimes, lest they discover too late that they have played the part of traitors and betrayers of their less fortunate, but perhaps not less deserving, fellows.

For my part, I consider it an open question whether a man whose only relation to drugs is the writing of prescriptions is as likely to prove successful in his treatment of disease as one who is in daily touch with the remedies themselves. There are many who share my opinion. Still, the trend of evolution in these matters seems to be in the direction of a division of labour, and accordingly the time will perhaps come when doctors will have ceased to dispense and chemists to prescribe. But there is nothing to be gained and very much to be lost by an attempt to crudely forestall this result by legislation. In fact, the contemplated injustice—confiscation would be a more suitable word—is so flagrant that in my opinion the Medical Defence Union should intervene to protect the interests of the majority now menaced by the fanatical interference of a few officious busybodies.—I am, etc.,

February 13th. SUBSCRIBER TO THE M.D.U.

Sir,—I have followed with interest the discussion on the suggested prohibition of dispensing on the part of medical practitioners. I frankly admit that I do not see how a prohibitory measure can be carried into effect at the present stage. A reasonable time should at least be allowed for the evolution of opinion and in order to allow medical men who dispense to set their practices in order before they can be expected to concur in the new arrangement.

Nevertheless the object which prohibition has in view is, I believe, in the best interests alike of the public and of the medical profession. The question is not a purely financial one, but it is noteworthy that the opponents of the proposed reform have discussed it almost exclusively from this standpoint. They express fear that patients will be unwilling to pay both practitioner and chemist, that they will be driven to have recourse to hospitals, dispensaries, and prescribing chemists, and that the last mentioned class will flourish more than it ever has. I confess that to me these objections appear to have little value. In particular as to the first my experience in prescribing has been almost entirely to the contrary effect.

Another point of more practical importance has been raised, that, namely, which concerns the profit or loss to the practitioner under either system. If he have acquired, whether by purchase or otherwise, a dispensing practice and betakes himself to prescribing, he parts with his surgery and its fittings, and he sees less of some patients who consult him than previously. On the other hand, he pays no rent for a surgery, he has no drug bill to meet, no dispenser or medicine boy to pay; if he visits patients at home his fees are not lessened by a deduction for medicines, many of which in the present day are expensive; bad debts imply loss of time and of work but not of monetary outlay.

In view of these facts and of the evident unreadiness of many practitioners to discontinue the old system, I would suggest that some form of commission should be appointed by members of our profession to inquire into this disputed point of profit or loss, and to ascertain as nearly as possible what is its real significance. If the British Medical Association, or a section of it, will undertake this work, it will help materially to bring about the systematic and deliberate consideration of this whole question by reducing the present financial nebula to a more concrete form.—I am, etc.,

B. G. MORISON.

Highbury, N., Feb. 15th.

SIR,—It has been proposed by a member of one of the Divisions of the Metropolitan Counties Branch to insert a clause in the draft Medical Acts Amendment Bill to prevent doctors dispensing their own drugs to their own patients.

Such an obviously absurd suggestion, if carried out, would reduce to paupers 50 per cent., if not more, of general practitioners, many thousands of whom in our ranks are only in a position to keep themselves and their families, pay rent, etc., and one or two premiums for life assurances.

For men so situated the clause would spell "ruin," as they could neither afford to keep a dispenser or to give up their surgery practice, which, with the big Friendly Society work and contract practice, and the consequent dispensing which they entail, forms the greater part of their income.

Placed in such a situation there would be no other course that we could in any way take but to ignore that particular clause, and as so many of us would be forced by stress of circumstances "into the same boat," in my opinion, the clause would almost at once become a "dead letter."

Again, how could we give relief to our patients in sudden emergencies, in the middle of the night, on Sundays and Bank Holidays?

To propose the insertion of a clause in the draft prohibiting newly qualified practitioners from making up their own medicines for their own patients, say after January 1st, 1905, would be a little less absurd than the clause proposed, which, as it is such a drastic measure, would be found to be quite unworkable and totally uncalled-for, and as ridiculons as sending for a workman to do a job and then depriving him of his tools, but it would at any rate not beggar the present generation of general practitioners, who have invested all their capital in practices which are essentially dispensing ones.—I am, etc.,

FAIR PLAY.

February 16th.

SIR,—I read that a member of one of the Branches of the Association wishes to make a motion to prevent practitioners from dispensing except in certain specifically stated circumstances.

The most appropriate quotation to meet such a motion may be taken from a surgeon created by George Eliot in *Middlemarch:*

"But what I contend against is the way medical men are fouling their own nest, and setting up a cry about the country as if a general practitioner who dispenses drugs couldn't be a gentleman. I throw back the imputation with scorn. I say, the most ungentlemanly trick a man can be guilty of is to come among the members of his profession with innovations which are a libel on their time-honoured procedure. That is my opinion, and I am ready to maintain it against any one who contradicts me." Mr. Wrench's voice had become exceedingly sharp.

Small wonder, too, but times are even worse for the general practitioner nowadays than they were seventy odd years ago. Some men rather plume themselves upon being prescribing practitioners only, but is it not far better to make up for any patient a mixture containing a combination of drugs with the effect of which the practitioner is thoroughly conversant, rather than to prescribe incompatibles or the ready-made products of enterprising wholesale chemists, or, worse still, to have a prescription hawked about amongst the many friends of a patient who may have honoured one with but a single interview?—I am, etc.,

LIVE AND LET LIVE.

February 17th.

SIR,—May I suggest that those who are in favour of pro hibiting doctors from dispensing should do a little *locum tenens* work in or, better still, purchase, a working-class prac tice, and thus gain some practical knowledge of the subject I venture to think that at present they cannot have th slightest idea as to what the bulk of medical practices ar like. If they have any knowledge of the facts, then the must be anxious to exterminate this branch of the pro fession.

As a village practitioner in a district where there is chemist, I maintain that it is absolutely absurd to sugge such a law. Gladly would we all throw away our drugs an never dispense another bottle of medicine. Gladly would w all sit in "the seats of the mighty" and write prescriptions a 2 guineas a-piece. The one is as impossible as the other.

It is really difficult to believe that any such law has bee seriously proposed.—I am, etc.,

COMMON SENSE.

February 14th.

MEDICAL UNIONS AND THE BRITISH MEDICAL ASSOCIATION.

SIR,—I was very pleased to read Dr. Dickson's letter in th BRITISH MEDICAL JOURNAL of February 13th, p. 399, on th above subject, and to notice how harmoniously the Collie Surgeons Committee propose to work with the Fifeshi Branch of the British Medical Association.

At Hartlepool I proposed the formation of a conjoint co mittee to bring together this Union and the Association, b this was rejected. Lately, however, better counsels promis friendly arrangement which may be ultimately arrived at; that the Unions of this part of England may probably wo hand-in-hand with the North of England Branch of the Briti Medical Association.

We want a liberal policy as well as a progressive movemer we want to draw all men into the Association, and study t wants of all doctors whether in the Association or not.

As Dr. Dickson proposes, we should have a conference the Oxford meeting of representatives of unions of all sor and compare notes and exchange views—great good and couragement would come from it.

I understand that Mr. Whitaker is studying the question contract practice in some parts, but if he is going to study all over these British Isles, I think that many of our hea will be mouldy by the time he has completed his report.

Special commissioners should be appointed for this wo and allotted to large areas, to get the thing well done a without delay.—I am, etc.,

EDWARD JEPSON,
President, County of Durham Medical Union:
Member of the Council, North of England Branc

Durham, Feb. 14th.

THE SWEATING OF MEDICAL MEN.

SIR,—I think the remedy of your correspondents' grievan is a great deal in their own hands. If the medical profess would combine to accept no contract practice under a sum head per annum which would pay them for giving pro attention and medicine, we should hear no more of "sweating" grievance. If a medical man undertakes to underpaid work he should do it without grumbling, as he only himself to blame.

As regards social position, judging from observation experience, I find that if a practitioner is a gentlemar will be treated as such by all classes; but if he is not, holding of a degree or a diploma will not make him on I am, etc.,

ERNEST W. WADE, M.D., T.C.

Harleston, Norfolk, Feb. 15th.

CANCER AND ITS ORIGIN.

SIR,—Two most interesting letters on the above sub appear in the BRITISH MEDICAL JOURNAL of February 1 p. 402, the one, however, being quite opposed to the othe its line of thought. It is refreshing to have a layman's of the subject, and that so ably expressed, more especiall it so closely harmonizes with that which I think eventually prove to be correct. That one form of cancer a events—namely, scirrhus of the mamma—is closely conne with the migration of ovarian cells to that organ, is from point of view beyond doubt. That these will be enable assume a malignant tendency, however, will largely de upon the inhibition of that physiological action of t organs which control healthy cell metabolism. As I pointed out elsewhere, it is quite possible for these ova cells to remain quiescent for an indefinite period, so lon

the part retains its normal condition. On the other hand, if it be weakened by injury, then the opportunity arises for the foreign element to assert itself when in process of time its malignant tendency is developed.

That the thyroid gland not only controls healthy cell metabolism, but also inhibits the evil effects of blood contamination due to faecal absorption, which otherwise would act injuriously upon cell metabolism, is, I aver, beyond all question. Hence we observe that malignant disease is usually associated with serious changes in, and not infrequently atrophy of, this gland. Cancer—or rather the possibility of the development of cancer—therefore is largely dependent upon a deficient physiological activity of the thyroid. Moreover, I am convinced this condition of the gland is consequent upon its having been for a lengthened period overtaxed in its endeavour to overcome the evil effects of over-eating, especially when this has been associated with constipation. Malignant disease is thus enabled to assert itself and continue its ravages. These conclusions I have arrived at after a most careful study of the question extending over a period of twelve years, and after having verified what I have stated by numerous cases of scirrhus and epithelioma which have quite recovered under treatment by thyroid extract or thyroid, supplemented by dietetic and local measures.

As to the microbic or parasitic theory of the origin of cancer, there seems to be no evidence to support either.—I am, etc.,

Glasgow, Feb. 13th. ROBERT BELL, M.D., F.F.P.S.

THE MIDWIVES ACT.

SIR,—Dr. Milson Rhodes is technically correct in saying that the exemption from operation under Section E of the Rules of the Central Midwives Board is not limited to Poor-law institutions. The exact wording is:—"Nothing in this section (E) shall apply to certified midwives, exercising their calling in hospitals, workhouses, or Poor-law infirmaries under the supervision of a duly-appointed medical officer." Taken, however, with the context, it is clear that the actual meaning of Rule 21 was that the exemption should extend to Poor-law institutions only. Any other supposition would be misleading, as the fact has been published that the exemption clause was inserted at the express wish of the Local Government Board. Further, I believe no hospital has claimed exemption under this clause for the following reason —that managers are aware that if their institutions refuse to conform to the rules of the Board, pupil midwives will seek their training elsewhere. It should be noted that the Central Midwives Board need only accept for examination those candidates who have been trained "under supervision satisfactory to the Board."

Dr. Rhodes states his satisfaction that it is only in exceptional cases "that the disinfection, cleanliness, care of infants' eyes, case taking" are not enforced, and he says that where such a routine is not the rule the medical officer is at fault. On this admission from an experienced guardian I should like to say a few words, for on it hangs the serious aspect of the case, as it affects many of the most wretched and helpless of our mothers and infants, and many half-witted delicate girls requiring special care. I may add, the "equipment" of some union lying-in wards is, I know, inadequate to encourage efficiency.

The exemption was made subject to the fact that there might be a duly appointed medical officer, not, be it noted, a resident medical officer, a provision which would have confined the exemption to the larger workhouses. As, however, every small country union has a medical officer, the exemption applies to all, and the question remains, What amount of time and attention does the medical officer devote to the workhouse patients, and more especially to the lying-in cases? Till this is satisfactorily answered, I am sorry to say I am unable to share in Dr. Rhodes's optimistic spirit as to our standard of workhouse midwifery.

We are not concerned with the larger workhouses and infirmaries where modern methods are taught as a rule, but with the small unions. In any case, if Dr. Rhodes's suggested plan is carried out, that is, the issue of an order from the Local Government Board, may we hope that, before such an order is issued, the authorities at Whitehall may consult the Central Midwives Board as to what "modifications" are desirable? After all, the latter is an expert body and may be expected to deal wisely with a question which is largely technical.

May I add one word. The more numerous the "exceptions" made under any Act, the greater the danger that the good effects of legislation will be seriously diminished.—I am, etc.,

February 2nd. "ANOTHER OBSERVER."

"DOCTORS IN PARLIAMENT."

SIR,—I agree with Dr. Gordon's suggestions. I would, however, like to point out that the British Medical Association has a Committee (the Medico-Political) which might very well be asked to undertake the preliminary arrangements—that is to say, to discuss the following points:

1. The number of medical men who should be asked to become candidates.
2. To determine how the funds should be raised to pay their election expenses, either in full or in part.
3. To determine, after investigation, which constituencies would be the most likely to offer success.

I honestly believe myself that the members of the profession are now fully convinced of the necessity of having their interests properly looked after in Parliament, and are, moreover, prepared to subscribe towards the accomplishment of that desirable object.—I am, etc.,

Cardiff, Feb. 13th. T. GARRETT HORDER.

IS MYOMA OF THE UTERUS OFTEN A FATAL DISEASE?

SIR,—Some time ago I ventured to answer this question in the negative, and my reply met with a certain amount of dissent. I was then unable to make any direct appeal to the national statistics in support of my contention, because myoma was not discriminated from other utero-vaginal diseases in the Registrar-General's annual reports. In the lately issued Sixty-fourth Report, however, this discrimination is now for the first time made, so that in the future there can be no doubt as to the kind of answer that should be given to my question.

When approaching this subject, in the absence of the precise details, I adduced reasons for believing that 20 per cent. of all women over 35 years of age are subject to uterine myomata. I then went on to say:[1]

> On this basis there would be about one million myomatous women in our present population. According to the reports of the Registrar-General, about 700 women die annually of "Diseases of the uterus and vagina," under which heading myomata are included, probably furnishing most of the cases over 35 years of age, for puerperal and malignant diseases are excluded. The report for 1897 shows 745 deaths under the above-mentioned heading; 229, being under 35 years of age, may be disregarded for our purpose, very few deaths being due to myomata until later in life. Thus a balance of 516 remains, most of which may probably be ascribed to myoma. Reckoning the deaths from myomata at 500 per annum, the mortality from this cause among all the myomatous women in the community over 35 years of age would be 1 in 2,000. In the absence of more exact information, I accept this as an approximately correct estimate; at any rate, the mortality from myoma is certainly not higher than this, although it may be considerably lower.

The Registrar-General's recently published statistics afford confirmation as to the correctness of this forecast. Thus, for the year 1901, comprising a population of over 32½ millions, of whom about 17 millions were females, the deaths caused by uterine myomata numbered only 339; so that the case-mortality, on the foregoing basis, would only amount to about 1 in 3,000.

Curiously enough, the mortality from this disease in our country is almost exactly paralleled by that experienced in the United States. Thus the Twelfth United States Census Report for the year 1900 shows that in a population of nearly 76 millions, comprising over 37 million females, only 657 died of uterine myomata.—I am, etc.,

Clifton, Bristol, Jan. 16th. W. ROGER WILLIAMS.

THE CURE OF FILARIASIS BY REMOVAL OF THE ADULT WORMS.

SIR,—In a paper published by me in the BRITISH MEDICAL JOURNAL of November 4th, 1903, I narrated the case of a man suffering from filariasis on whom I had operated for lymph scrotum, and in the excised scrotal tissues were found an adult filaria and several fragments. Forty-six days after the operation he had an attack of lymphangitis in the neck, and ten days after the onset of the attack I incised the cervical swelling, and removed a mass of sloughy-looking material, in which careful search failed to detect any adult worms. Sixty-seven days after the first operation it was discovered that the embryos had disappeared from the blood. The exact date of their disappearance is unfortunately not known, as no sys-

[1] *Uterine Tumours*, 1901, p. 121.

tematic examination was made of the blood for some weeks prior to the date when their absence was first noted. We have, however, a record of the numbers present twenty-four days after the first operation, and we find that at that date they were present in large numbers in the blood. In my paper I ascribed the cure thus effected in my patient to the removal of the adult worms in the scrotal tissue excised.

Sir Patrick Manson, in a paper published in the JOURNAL of January 9th,[1] states that in his opinion the cure of my patient resulted from the attack of lymphangitis forty-six days after the operation on the scrotum, and not to the removal of the adult worms in the scrotal tissue. He comes to this conclusion because he considers the number of adult worms found in the scrotal tissue was not enough to account for the disappearance of such a large number of embryos from the blood, and suggests, also, that the embryos were present in the blood after the operation for a period longer than would have been the case had all the parent filariae been removed from the man's body with the scrotal tissue.

I would not venture to combat Sir Patrick Manson's view of the case, and in fact the arguments he puts forward in favour of the conjecture that my patient was cured at the time of the attack of lymphangitis are very convincing. My object in referring again to the case is to suggest that possibly the sequence of events in the clinical history of my patient would afford an argument in favour of operation in cases of lymphangitis where the affected tissues are accessible for operation, this procedure probably having been a factor in my case, along with the operation on the scrotum, in effecting a cure. I find on reference to my notes that I removed a mass of tissue from the neck "as large as a hen's egg," and although I failed to find parent worms there I am convinced that they were present. I have found it is by no means easy to discover and isolate parent worms from the tissues, and I was not at all sure that we had secured all the worms even from the scrotal tissue in the first operation.

In this connexion I may refer to the cases which have been recorded by Lieutenant-Colonel Maitland of the Indian Medical Service, Madras. In a paper in the JOURNAL of January 25th, 1902,[2] he records several successful operations in which he had operated for lymphangiectasis, and succeeded in curing his patients by removal of the parent worms. He recorded a case in which he had removed a number of adult filariae from the arm as early as 1894.[3] Other papers recording similar experiences are published by the same author in the *Indian Medical Gazette*.[4] I have recently received a letter from Lieutenant-Colonel Maitland, in which he states that the discovery of the adult worm in the tissues of the scrotum is a very rare occurrence. In this respect the case I have recorded will therefore be of interest.

Let me express my appreciation of the interest manifested by both Sir Patrick Manson and Dr. Maitland in my paper. One does not often get an opportunity for the study of tropical disease in this country, and it is a matter of satisfaction to know that the clinical record of my case has proved of sufficient value to attract the attention of men of such wide experience in this interesting sphere of work.—I am, etc.,

Toronto, Jan. 28th. A. PRIMROSE.

ABERDEEN ANATOMICAL AND ANTHROPOLOGICAL SOCIETY.

SIR,—A propos of your notice in the BRITISH MEDICAL JOURNAL of February 6th of the Quain Society at University College, London, it may be of interest to mention that a similar Society has been in active existence for some years at Aberdeen—the Anatomical and Anthropological Society of Aberdeen University, a society of undergraduates for the purpose of promoting the higher study of anatomy and anthropology quite apart from the ordinary work of the medical curriculum. Started in 1899 at the instigation of Professor R. W. Reid and conducted under his presidency, the Society has had much success and has shown gratifying evidence of interest in the subjects concerned, apart from the demands of examinations; about one-fourth of the members have already concluded the study of anatomy for the medical degrees. A volume of *Proceedings* is published biennially; the first appeared in 1900, the second in 1902, and the third will be issued shortly. The work has not been confined to a few but has been widely shared amongst the members. The present membership is 65.—I am, etc.,

J. A. MACWILLIAM.

Physiological Laboratory, University of Aberdeen, Feb. 9th.

CERTIFICATES FOR SCHOOL CHILDREN.

SIR,—I am pleased to see Dr. Wells's letter with reference to the above important question. The Education Act, like many other Acts, requires amendment in the direction of payment for the services rendered by medical men. I have told the Educational Committee here that as soon as they decide to grant me a reasonable fee for each certificate I shall be pleased to serve them. Meantime, open war has been declared, and I am determined to be the winner.—I am, etc.,

JOHN WISHART, M.D., B.Sc.

Dudley, R.S.O., Northumberland, Feb. 15th.

LEPROSY IN TRAVANCORE.

SIR,—With reference to Dr. H. Traill Skae's letter in the BRITISH MEDICAL JOURNAL of November 28th, 1903, regarding the controversy on the connexion of leprosy and putrid fish, and in contradistinction to the facts stated in his letter, I write to certify that in the Travancore State putrid fish is much indulged in as a diet by the peasantry here, but leprosy is quite common in the State, so much so that there is a special leper asylum here with 120 odd inmates. I do not mean to assert from this statement that this is cause and effect, as I have not completed my inquiry into the subject locally, but such are the bare facts that exist here. I hope to send a further communication on this subject at a later date.—I am, etc.,

CHAS. A. JOHNSTON, M.B., etc., Major I.M.S.

Travancore, India, Jan. 25th.

THE SAMARITAN FREE HOSPITAL FOR WOMEN.

SIR,—Many thanks for your notice of our dinner. If you have fallen into error in your remarks about the conspicuous absence of the medical profession, it is entirely my fault.

I should have explained to you that the designation "Hospital Committee" includes the whole of the executive interests of the institution. It was considered best to amalgamate them rather than differentiate them. As a matter of fact there will be six "hospital" tables, at three of which the hostesses will be distinguished ladies—wives of distinguished medical men connected with the hospital. The Medical Committee are individually and collectively giving me most generous support.—I am, etc.,

London, Feb. 15th. E. DOUGLAS WHITE,
Secretary, Samaritan Free Hospital for Women.
Special Appeal Building Fund.

OBITUARY.

GEORGE NIVEN, M.A., M.B.

ON Sunday, February 7th, at the early age of 45, Dr. George Niven succumbed to pneumonia. He was born at Peterhead, and of a family several members of which have achieved distinction. One brother is Sir William Niven, formerly Director of the Royal Naval College, Greenwich; another, Mr. Charles Niven, is Professor of Natural Philosophy in Aberdeen University; while a third is the Medical Officer of Health of Manchester. Dr. George Niven had a very distinguished career as a student at Aberdeen, where he took his M.A. degree in 1877, and at Cambridge, where he took the degrees of B.A. in 1882, and M.B. in 1886, obtaining also in the latter year the diploma of M.R.C.S. On the completion of his university studies he entered upon professional work at Didsbury, Manchester, where he built up a large practice, and was greatly respected by the community among which his labours lay. He leaves a widow and three young children.

DEATHS IN THE PROFESSION ABROAD.—Among the members of the medical profession in foreign countries who have recently died are Dr. J. A. Teyskens, of Brussels, for many years Treasurer of the Belgian Medical Federation; Dr. A. Schmidt-Monnard, of Halle, well known as a specialist in diseases of children, and as a writer on matters concerning the hygiene of infancy; Dr. Isidor Rosenthal, Professor of

[1] A Note on Dr. Primrose's paper on Filariasis, Sir Patrick Manson, BRITISH MEDICAL JOURNAL, January 9th, 1904.

[2] The Operative Treatment of Lymphangiectasis of Filarial Origin. Lieutenant-Colonel Maitland, BRITISH MEDICAL JOURNAL, January 25th, 1902.

[3] A case of "Filarial Disease" of the Lymphatics in which a number of Adult Filariae were removed from the Arm, Lieutenant-Colonel Maitland. BRITISH MEDICAL JOURNAL, April, 1894.

[4] Filarial Disease, *Indian Medical Gazette*. March, 1895; a clinical lecture on Filarial Lymphangiectasis, ibid., March, 1898; on some of the less common manifestations of Filariasis (Filaria Bancrofti), ibid., October, 1898—all by Lieutenant-Colonel Maitland, Madras.

Physiology in the University of Erlangen, author of well-known textbooks on medical electricity, the physiology of the muscles and nerves, the regulation of heat in warm-blooded animals, etc.; and of a German translation of Huxley's *Elementary Physiology*, aged 68; and Dr. A. Plumeau, Assistant Professor of Anatomy and Physiology in the Preparatory School of Bordeaux, and Deputy Mayor of that city, in which capacity he had taken a prominent part in the enactment of measures for the protection of infant life and the promotion of vaccination.

UNIVERSITIES AND COLLEGES.

UNIVERSITY OF CAMBRIDGE.

Royal Visit.—On the occasion of the opening of the new Medical School on March 1st, their Majesties the King and Queen and the Princess Victoria will be conducted over the building by the Regius Professor of Physic, the Professor of Surgery, the Downing Professor of Medicine, and the Professor of Pathology.

State Medicine Syndicate.—It is proposed to enlarge the Syndicate in view of the new duties respecting tropical medicine imposed on it, by the addition of the Professors of Surgery and Pathology *ex officio*, and of three other members of the Senate. Of the latter, some from time to time will be chosen from non-residents who are specially conversant with tropical medicine and pathology, or who are officially connected with hospitals for tropical diseases.

Medical and Surgical Examinations.—The third M.B. Examination, Part II, begins on April 26th, and lasts till May 5th. The M.C. Examination begins on April 28th. Names of candidates must be sent to the Registrary by April 14th.

Degrees.—At the Congregation on February 11th the following medical and surgical degrees were conferred:—*M.D.*: J. C. S. Rashleigh, Trinity. *M.B.*: G. T. Birks, King's. *B.C.*: A. Wylie, Pembroke; E. Bigg, Caius.

Diploma in Tropical Medicine.

The following regulations for the examination in tropical medicine and hygiene, conducted by the State Medicine Syndicate of the University of Cambridge, have just been issued:

"An examination in Tropical Medicine and Hygiene will be held in Cambridge during the year 1904. The examination will begin on August 9th, and extend over three days.

"Any person whose name is on the *Medical Register* is admissible as a candidate to this examination, provided

1. That a period of not less than twelve months have elapsed between his attainment of a registrable qualification and his admission to the examination;

2. That he produce evidence, satisfactory to the Syndicate, that he has diligently studied pathology (including parasitology and bacteriology) in relation to tropical diseases, clinical medicine and surgery at a hospital for tropical diseases, and hygiene and methods of sanitation applicable to tropical climates.

"*** As evidence of study and attainments a candidate may present to the syndicate (1) any dissertation, memoir, or other record of work carried out by himself on a subject connected with tropical medicine or hygiene; (2) any certificate or diploma in public health or sanitary science he may have obtained from a recognized examining body. Such evidence will be considered by the syndicate in determining whether he is qualified for admission to the examination, and by the examiners in determining whether, if admitted, he shall be included in the list of successful candidates.

"The examination will have reference to the nature, incidence, prevention, and treatment of the epidemic and other diseases prevalent in tropical countries. It will comprise the following subjects:

1. The methods of pathological and bacteriological investigation. The examination of the blood. The characters, diagnosis, and life-history of animal and vegetable parasites. The examination, chemical and microscopic, of poisonous or contaminated foods and waters.

2. The origin, pathology, propagation, distribution, prevention, symptoms, diagnosis, and treatment of the epidemic, endemic, and other diseases of tropical climates, including malaria, blackwater fever, trypanosomiasis, relapsing fever, dengue, yellow fever, plague, tetanus, beri-beri, dysentery and hepatic abscess, cholera, enteric fever, Malta fever, and specific diarrhoeal affections of the tropics, diseases due to cestode and other worms, filariasis, bilharzial disease, specific boils, sores, and other cutaneous affections, mycetoma, ophthalmic affections of the tropics, affections caused by poisonous plants and animals, and by poisoned weapons and sunstroke.

3. The general effects on health in the tropics of seasons and climate, soil, water, and food. Personal hygiene, acclimatization. Principles of general hygiene, with special reference to food and water supplies, sites, dwellings, drainage, and the disposal of refuse. The sanitation of native quarters, camps, plantations, factories, hospitals, asylums, gaols, pilgrim and coolie ships. Principles and methods of disinfection.

"The examination will be partly in writing, partly oral, and partly practical and clinical. The clinical part will be conducted at a hospital for tropical diseases, at which cases will be submitted for diagnosis and treatment.

"Every candidate will be required to pay a fee of 6 guineas before admission or readmission to the examination. A candidate who after being approved for admission fails to present himself at the examination will not have the fee returned, but will be entitled to present himself without further fee on one subsequent occasion.

"Every candidate who passes the examination to the satisfaction of the examiners will receive from the University a diploma testifying to his knowledge and skill in tropical medicine and hygiene.

"All applications for information respecting the examination should be addressed to Mr. G. H. F. Nuttall, Pathological Laboratory, Cambridge.

"Candidates who desire to present themselves for the examination must send in their applications on forms supplied for the purpose, and transmit them, together with the required evidence of study, and the fee of 6 guineas, to The Registrary of the University, Registry, Cambridge, not later than July 22nd. Cheques should be crossed 'Barclay and Co., Ltd.'"

ROYAL COLLEGE OF SURGEONS OF ENGLAND.

An ordinary Council was held on February 11th.

Diplomas.

Diplomas were issued to 114 candidates in regard to the Membership of the College, and to 14 in regard to the Licence in Dental Surgery; and to 23 in regard to Public Health, conjointly with the College of Physicians.

Report on the Central Midwives Board.

The following report was received and entered on the minutes:

Mr. President and Gentlemen,—I have the honour to present to you a short statement of the work of the Central Midwives Board during the past year. Twenty-two meetings have been held, and also many other meetings of Committees which were duly appointed by the Board. The first meeting of the Board was held on December 11th, 1902, and the last meeting took place on January 28th, 1904.

The preliminary business consisted in framing rules in accordance with Section III of the Midwives Act of 1902, and this important work occupied many meetings and caused considerable discussion. As soon as the report of the majority of the Board was completed it was forwarded to the Privy Council, together with another report prepared by a minority of the Board.

The present rules sanctioned by the Privy Council are the outcome of these two reports, and they are arranged in the following sections: (1) Rules regulating the proceedings of the Central Midwives Board. (2) The conditions of admission to the roll of midwives and the issue of certificates. (3) The course of training and the conduct of examinations. (4) The admission to the roll of women already in practice as midwives at the passing of the Act. (5) The supervision and restriction within due limits of the practice of midwives. (6) The conditions under which midwives may be suspended from practice.

The attention of the Board was next directed to the preparation of other important details: (1) Suggestions to county and county borough councils in reference to the duties assigned to them under the Midwives Act. (2) Special rules of procedure for the removal of a name from the roll and the cancelling of a certificate. (3) Other rules of procedure respecting the restoration to the roll of a name previously removed.

The first roll of midwives was opened in November, 1903, and it records the names of the midwives who have been accepted by the Board under Section II of the Midwives Act. The following table indicates the number of midwives certified up to date:

Women holding certificates from Institutions specified in Section II of the Midwives Act.	London Obstetrical Society	468
	Rotunda	27
	Coombe	1
Women holding certificates from Bodies not specified in Section II, but approved by the Board.	Queen Charlotte's Hospital	26
	St. Mary's Hospital, Manchester	22
	Glasgow Maternity Hospital	19
	Liverpool Lying-in Hospital	3
	City of London Lying-in Hospital	1
	Edinburgh Royal Maternity	1
	Salvation Army Maternity	2
	Manchester Southern and Maternity Hospital	—
	British Lying-in Hospital	—
Women certified as having been in bonâ-fide practice at least one year before July 1st, 1902.		1,079
	Total certified	1,649

The regulations respecting the course of training and the conduct of examinations have not yet been completed. The following training institutions have been already accepted by the Board under Section C of the Rules:

Queen Charlotte's Lying-in Hospital; Liverpool Ladies' Charity and Lying-in Hospital; Manchester Southern and Maternity Hospital; British Lying-in Hospital; Newcastle-on-Tyne Lying-in Hospital; General Lying-in Hospital, Lambeth; Glasgow Maternity Hospital; Dundee Maternity Hospital; District Nursing Association, Cheltenham; Maternity Charity and District Nurses' Home, Plaistow; National Maternity Hospital, Dublin; Edinburgh Royal Maternity Hospital; City of London Lying in Hospital.

An unforeseen difficulty has recently arisen between the Irish Training Institutions and the Central Midwives Board respecting the certificates which must be produced before a candidate can be admitted to the Board Examination. The rules under Section C make it compulsory that every woman shall have personally conducted twenty labours, and also nursed twenty lying-in women during ten days following labour.

On behalf of the hospitals, such as the Rotunda and the Coombe, in Dublin, it is stated that the medical staff of these institutions are unable to arrange that every midwife pupil should personally attend twenty cases of labour, as this would necessitate doubling the size of the hospitals and increasing the number of patients. It is also equally impossible to enable every midwife pupil to nurse twenty patients for ten days following labour, as nearly all the women leave the hospital on the eighth day and refuse to remain longer, even when the medical officers are anxious to detain them.

Now these regulations are scarcely fair to the Irish midwifery institutions, and a solution of the difficulty could easily be secured (1) by a modification of the regulations of admission to the examination; or (2) by accepting the six months' training in the wards of the hospitals, and the long course of instruction conducted by the staff, as equivalent to the three months' midwifery tutelage required by the Central Midwives Board.

At a recent meeting of the Board two important and conciliatory communications were read from the Irish hospitals, but the majority of the Board declined to consider any alteration of the existing rules; and, therefore, it is probable the matter will be referred for the decision of the Privy Council.

The appointment throughout the country of local bodies for carrying out the Midwives Act is a very hopeful and practical method, but up to

the present time very little has been reported to the Central Midwives Board to indicate the progress of the work. The supervision of midwives is everywhere in the hands of local supervising authorities; but it is quite certain that effectual supervision and the successful operation of this Act must in a great measure depend upon the co-operation and assistance of the medical men practising within the area.

I am,
Mr. President and Gentlemen.
Yours very faithfully,
JOHN WARD COUSINS.

College Triennial Prize Committee.

A Special Committee was nominated for the above prize adjudication in place of the Committee appointed in regard to the Jacksonian Essay.

Report of the Committee on Physical Disabilities.

The following report, dated February 1st, 1904, was adopted by the Council:

In pursuance of the request of the Council the Committee have taken into consideration the letter of December 6th, 1903, from the Rev. Benjamin Waugh, Director of the National Society for the Prevention of Cruelty to Children, and the tables of average heights and weights of school children compiled on behalf of the Society by Mr. C. T. W. Hirsch, M.R.C.S.

Two tables have been prepared by Mr. Hirsch—one compiled from the weights of 2,000 children at two church schools and two Board schools in Woolwich, and the other compiled from the weights and heights of 3,000 children at Church schools in Bow, Poplar, Stepney, Peckham, Bermondsey, and Camberwell.

The ages of the children range from 2 to 16, and the Committee observe that, with three exceptions, the average weights at the different ages are rather lower in the Woolwich table than in the other.

The investigation appears to have been carried out in a careful and methodical manner; but, while the Committee regard the results obtained as most valuable, they could not recommend that the Royal College of Surgeons should assume responsibility for statistics compiled from an investigation undertaken without the supervision or authority of the Council of the College.

The Committee have, however, been able to make use of Mr. Hirsch's tables for the purpose of testing the assertion, which Mr. Waugh states is often made, that the standard weights given in Tidy's *Legal Medicine*, 1882, are not a fair standard for to-day, as the race has deteriorated both in height and weight. Dr. Tidy states that his figures are deduced from the French weights and measures given in Quetelet's *Anthropométrie* (Brussels 1870), and that they are the averages of a large number of observations on Belgians, and are probably a little under the mark as regards the English.

The Committee have compared Mr. Hirsch's tables with the tables given by Dr. Tidy; and after the consideration of this comparison and of other tables, to which they have referred, they are of opinion that there is no reason to regard the standard given in Dr. Tidy's tables as too high for the present time.

The Committee would add that Mr. Waugh might be advised that, if it be the object of the National Society for the Prevention of Cruelty to Children to show that Dr. Tidy's tables are not an unfair test under present conditions, it appears to them that enough has been done in the way of investigation.

It was arranged that a copy of this report be sent to the Rev. Benjamin Waugh.

Bradshaw Lecture.

Mr. A. W. Mayo Robson was chosen lecturer for the ensuing collegiate year.

CONJOINT BOARD IN ENGLAND.

THE following gentlemen have passed the First Examination of the Board in the subjects indicated;

Chemistry.—J. H. Bulcock, Owens College, Manchester, and Technical School, Blackburn; J. H. Burdett, St. Mary's Hospital; W. Burton, Liverpool University and Technical School, Liverpool; H. Carter, Birkbeck Institution; H. R. Cotton and A. Downes, St. Bartholomew's Hospital; C. H. Douglas, Guy's Hospital; A. E. Forster and J. L. Houlton, St. George's Hospital; C. R. Gardner, Westminster Hospital; A. Da V. Gibson and J. H. Meers, St. Mary's Hospital; J. R. Liddell, University College, Sheffield; T. M. Miller, St. Bartholomew's Hospital; C. M. Plumptre and A. H. V. St. John, Guy's Hospital; G. H. Pridham and J. Startin, St. Thomas's Hospital; E. J. J. Quirk, Charing Cross Hospital; T. F. Skinner, University College, Sheffield; F. S. Tamplin, St. George's Hospital; H. S. Thomas, London Hospital; A. R. Wise, Birkbeck Institution.

Practical Pharmacy.—C. C. Austen, Westminster Hospital; A. R. Beaumont, L.D.S.Eng., L. H. Burner, and G. H. Cheyney, Guy's Hospital; W. Byam, St. George's Hospital; E. Christofferson, University College, Bristol; H. D. Clapham, private study; W. T. Clarke, University College, Bristol; J. E. Collins, London and Guy's Hospital; H. G. S. Courtney, St. George's Hospital; E. J. Dermott, University College, Bristol; H. H. Emmerson, University College, Sheffield; V. G. Heseltine, St. Bartholomew's Hospital; J. A. Ireland, University College, Liverpool; J. E. Lascelles, St. Mary's Hospital; W. Lister, St. George's Hospital and Yorkshire College, Leeds; A. H. McCandlish and G. R. Painton, London Hospital; H. A. Parker, C. T. Pellow, and H. S. Sington, St. Thomas's Hospital; J. S. Pascoe, Charing Cross Hospital; M. Remers, Owens College, Manchester; W. D. Southern, private study; M. Spotswood, Liverpool University; J. L. V. Tilley, L.D.S.Eng., University College, Bristol, and Charing Cross Hospital; W. Tregea, and H. W. Ward, University of Birmingham; W. C. A. Ward, St. Thomas's Hospital.

Elementary Biology.—H. P. Aubrey, Birkbeck Institution; H. G. Balls, Middlesex Hospital; F. Brachi, St. George's Hospital; E. F. W. Buckell, University College Hospital; H. Carter, Birkbeck Institution; C. H. Douglas, Guy's Hospital; B. C. Eskell, Merchant Venturers Technical College, Bristol; G. D. G. Ferguson, St. Mary's Hospital; A. E. Foerster and J. L. Houlton, St. George's Hospital; H. W. Gabe, Middlesex Hospital; H. W. Heasman, E. P. L. Hughes, and V. P. Hutchinson, Guy's Hospital; A. T. Jackson, L.D.S.Eng., Birkbeck Institution; G. L. H. Johnson, Westminster Hospital; H. G. Kilner and M. H. Langford, Middlesex Hospital; J. R. Liddell, University College, Sheffield; C. A. Meaden, Birkbeck Institution; R. A. Morrell, St. Thomas's Hospital; S. Mozumber, St. Bartholomew's Hospital; H. R. Mullins, Guy's Hospital; P. C. Raiment, London Hospital; R. B. N Reade, St. Mary's Hospital; J. Richards, and A. D. Rope, Middlesex Hospital; A. Samuel, University College, Cardiff.

The following gentlemen have passed the Second Examination of the Board in the subjects indicated:

Anatomy and Physiology.—J. Birch, Owens College, Manchester; W. F. Blandford, B.A.Camb., Cambridge University and St. George's Hospital; W. R. Bristow and G. W. M. Custance, St. Thomas's Hospital; B. M. Collard, London Hospital; J. F. Cutler, Guy's Hospital; F. C. Doble, King's College Hospital; H. J. Duské, St. Mary's Hospital; L. Edwards and C. A. Ellis, London Hospital; J. S. Farnfield, L.D.S.Eng., Guy's Hospital; R. Farrant, Westminster Hospital; J. R. Foster, University College Hospital; P. J. Franklin, University of Heidelberg and King's College Hospital; E. S. Goss, Middlesex Hospital; P. H. G. Gosse and H. M. Grey, St. Bartholomew's Hospital; W. R. Greening, Guy's Hospital; R. E. V. Hale, B.A.Camb., Cambridge University and St. Andrews University; A. W. Hayward, B.A.Camb., and C. C. Hickey, Westminster Hospital; R. B. Heygate, Middlesex Hospital; C. J. R. Hoffmeister, Cambridge University and Middlesex Hospital; G. Holroyde, Yorkshire College, Leeds; R. de V. King and J. J. Louwrens, St. Mary's Hospital; H. H. Leeson, St. George's Hospital; T. F. Lumb, Middlesex Hospital; J. F. McQueen, King's College Hospital; W. B. Martin, Owens College, Manchester; V. L. Matthews, London Hospital; O. Le F. Milburn, University College Hospital; W. A. Owen, St. Mary's Hospital; G. D. Perry, University of Birminghirm and London Hospital; G. R. Phillips, S. A. Piper, and J. L. Rankine, Guy's Hospital; H. J. D'A. G. Price and T. R. St. Johnston, Birmingham University; F. Rawsthorne, Owens College, Manchester; N. V. H. Riches, University College, Cardiff; H. T. Rossiter, F. O. Spensley, and R. W. Stocks, St. Thomas's Hospital; W. F. Skinner, University College, Sheffield; S. Slade, Middlesex Hospital; F. H. Stephens, St. Mary's Hospital; E. Stratford, Cambridge University; H. F. Webb-Bowen, St. Bartholomew's Hospital; N. H. Vakeel and M. D. Wadia, Grant Medical College, Bombay, and St. Bartholomew's Hospital; H. W. B. Wallings, J. A. Von W. Wieee, and R. Willan, Guy's Hospital.

Anatomy only.—J. W. Heekes, Charing Cross Hospital.

TRINITY COLLEGE, DUBLIN.

CANDIDATES have passed examinations as under:

Final in Medicine.—H. St. M. Carter, A. W. Goldsmith, W. Mitchell, O. J. Parry-Edwards, H. M. Crawford, J. C. Hall, W. Thunder, W. J. M'Iver, D. C. Pearson.

M.B.—R. Moore.

MEDICO-LEGAL AND MEDICO-ETHICAL.

SMALL-POX HOSPITALS AND AËRIAL CONVECTION.

THE case of the Attorney-General and Others *v.* the Mayor Aldermen, and Citizens of the City of Nottingham, was hear before Mr. Justice Farwell in the Chancery Division o February 10th and following days. Judgement was given o February 17th, dismissing the action with costs as betwee solicitor and client. The case raised the question of th aërial convection of small-pox.

Mr. Upjohn, K.C., opened the case for the plaintiffs.

Dr. J. C. Thresh, M.O.H. Essex County Council, gave evidence with regar to the occurrence of small-pox in the Orsett district, where he said tha with the small-pox hospital ships in the Thames there were constant dro ping cases, whereas in other districts not in the neighbourhood of th hospital ships small outbreaks might occur, but were promptly stamped ou He had been unable to trace any personal communication between th ships and the shore. When cases were admitted to the small-pox shi on the Thames in numbers, the people in the Orsett distri expected small-pox to occur in the district, and made prepar tion for it; what was expected happened, and when the nur ber of the cases on the ships rose to 130 or 150 the disease broke o at Purfleet, continued there all the time numerous cases were on th ships, and spread to the adjoining districts of West Thurrock and Gray and, to a less extent, to parishes round about. In cross-examination Mr. Asquith, K.C., M.P., the witness said that the distance from a sma pox hospital at which a person would be safe from the danger of aëri infection depended on the size of the hospital and on other factors, su as weather, wind, and so on, concerning which nothing was known. I thought that, even with a hospital used for not more than 40 patien there would be a certain amount of danger, especially near the highwa It his opinion, the zone of danger, with 40 persons in the hospital, wou on occasions extend beyond the radius of a quarter of a mile if t cases were acute and if the weather and wind were favourable; if t wind were favourable, a man working within a distance of half a mi might be infected. He thought the stipulation of the Local Governme Board that the site of a small-pox hospital must not be within a quart of a mile of a population of as many as 200 persons absurd, i asmuch as it neglected to take account of the number of patient so with regard to the stipulation that the site must not be within hal mile of the population of as many as 600, it would be right for a sm hospital, but it would be absurd for a hospital for a large town. The agg gation of numbers in a hospital constituted the real source of the dang The risk of infection was less great during a period of wind than in t period of calm, perhaps because wind scattered the organisms.

Dr. G. B. Wray, M.O.H. for the District of Basford, said that from l experience he believed that if 40 cases, with a normal proportion of acu cases, were placed in the Nottingham Hospital they would be a source danger to persons living in the neighbourhood. Mr. Macmorran in cro examination stated that the defence would prove that all the cases att buted to the hospital referred to by the witness could be accounted

otherwise than by the hospital, and asked on what ground the witness ounded his opinion that the hospital was dangerous. Dr. Wray replied hat he relied on the circumstance that the cases occurred on the same lay fifteen days after he believed the hospital began to be a source of danger to the neighbourhood.

Dr. A. K. Chalmers, M.O.H. Glasgow, was examined as to the incidence f small-pox in Glasgow, and said that in his opinion a small-pox hos-ital at a distance of 50 ft. from a road on which there was a fair amount f traffic was a source of danger to the public using that road, and to the opulation living near it. The risk to persons passing along the road as less definite than to those living in the area. In Glasgow he con-idered that the infective influence was felt for a mile or a mile and -quarter. In cross-examination by Mr. Asquith, he said that while the ode in which small-pox spread from a hospital was a matter of specula-ion, he thought the fact that it did spread in connexion with a hospital as well ascertained. While there was less risk on the whole to he public health in having a small-pox hospital than in dealing with eople in their own homes, he thought the small-pox hospital must be egarded as a source of risk anywhere.

Dr. W. Arnold Evans, M.O.H. Bradford, said that he thought the small-ox hospital ought not to be placed within 51 ft. of a public road s at Nottingham. Judging from experience at Bradford he considered hat there was a substantial risk to persons residing within 235 yards, nd that the risk was greater to those who spent the whole day and night the neighbourhood. In cross-examination, he said that his experience as that the greater the number of patients in the hospital and the reater number of acute cases the greater the danger. He thought that cases, including 15 or 20 acute cases, would be a source of appreciable anger to persons residing within a quarter of a mile, but that the risk ould be much less beyond that distance. In re-examination by Mr. pjohn, he said he agreed with Dr. Chalmers that the fluctuations in the umber of cases arising in the area around the hospital corresponded ot so much with the accumulation of numbers under treatment as with he fluctuations in the number of admissions.

Dr. Joseph Priestley, M.O.H. Lambeth, gave evidence with re-ard to his experience when holding a similar office in Leicester. He aid that he had been forced to the conclusion that a small-pox hos-ital was undoubtedly a source of danger to the surrounding district. e thought that the hospital at Nottingham containing 40 patients would ndoubtedly be a real danger to the people within a quarter of a mile, d also to those who worked within the district. In cross-examination y Mr. Asquith, he expressed the opinion that the regulations of the ocal Government Board were good working, practical rules. He agreed at the evidence showed that the infection was carried down the wind, d was disposed to think that it might possibly be carried by flies.

Dr. J. C. McVail, who had visited the site at Nottingham, said that he as of opinion that small-pox hospitals were very dangerous in dissemi-ating the infection of small-pox to the surrounding population; the egree of danger depended on the number of acute cases, not on the con-alescents. He was of opinion that the Nottingham Hospital with 40 tients would be a source of serious and substantial danger to the ighway and neighbourhood. Small-pox had always been more revalent in London than in the provinces; the excess used be as 2 to 1, but after the small-pox hospitals of the Metro-olitan Asylums Board were in working order in London, the rate ounted to six and seven-fold, and when the hospitals were cleared out London the rate fell again. Small-pox hospitals should be separated om populous parts by wide intervals of open ground, and it was equally portant that they should not be close to traffic routes. He had acted commissioner for the Local Government Board for Scotland in con-xion with the new Glasgow Hospital site; there the nearest ward to e road would be 900 ft. distant. Assuming a hospital of forty beds, he nsidered that there was really serious danger to persons within a arter of a mile, and some danger beyond that. In the present vaccinal ndition of the country small-pox hospitals were necessary evils, but uch could be done to minimize the risk; he considered that in selecting e site and erecting the present building upon it, the Corporation of ttingham had been very far from doing all that could be done to inimize the risk. In cross-examination, he said that medical inion was unanimous that a small-pox hospital might be a urce of danger to the neighbourhood, although there was rious difference of opinion as to the way in which hospitals re thus dangerous. In his view the danger from a hospital was due rtly to aërial convection and partly to personal intercourse. With gard to risk to persons passing upon the high road, he said that the fection might be derived from material that had been related to the spital at one time—dust and so forth—which found its way on to the gh road.

Mr. Asquith opened the case on behalf of the defendants, and called . Boobbyer, M.O.H. Nottingham. He gave the history of the accom-odation provided for small-pox patients in Nottingham, and said that his experience no case of small-pox had arisen through the presence the hospital. He considered the site of the hospital reasonable; the spital had been in use in August and September and since November t year. If the hospital was properly conducted there was not, in his inion, any particular danger to the health of persons in the neigh-urhood nor to those passing along the highway: the Nottingham rporation hospital was surrounded by an unclimbable fence and the te was kept locked. In cross-examination the witness said that if a all-pox hospital was badly administered it would act as a centre from ich infection was disseminated, that the proper administration of a all-pox hospital included the maintenance and absolute isolation of inmates from others.

Dr. E. W. Hope, M.O.H. Liverpool, said there were three hospital estab-hments in Liverpool for the reception of cases of small-pox, and one the Cheshire side of the Mersey which could be used if expedient. The spitals were strictly administered, and he had not been able to trace a gle case of small-pox as attributable to them; at one time he had lieved in the aërial convection of small-pox, but by very careful inves-ation, systematic inquiry, the following up of every individual case, and equent visits to the house day after day, he had been led to the opposite nclusion.

Dr. A. Newsholme, M.O.H. Brighton, said that until last year small-pox ses discovered in Brighton were isolated on the same site as her infectious diseases; no difficulty had been found in so admin-ering the hospital as to prevent the spread of disease from e set of patients to the other. He had visited the hospital Nottingham and in his opinion there was no risk to persons passing ong the road, nor to residents and to workers in the neighbourhood within a quarter of a mile limit. As editor of *Public Health* it had been his duty to receive and consider the annual reports of medical officers of health from nearly every district of the kingdom, and he found that the preponderating opinion was that the danger from a small-pox hospital properly administered was practically nil; in the case of most hospitals there was no evidence of spread. Cases in which spread had been alleged to have occurred could be counted on the fingers of one hand. Asked in cross-examination with regard to the requirements of the Local Government Board he said that they were the natural results of the Board's views on aërial convection, but he thought that rules of the kind were desirable, because the fact that the population around the hospital was sparse minimized the difficulty of administration.

Dr. George Reid, M.O.H. Staffordshire County Council, said that there were seventeen small-pox hospitals in the county, and that only one of them complied with the requirements of the Local Government Board. The only instance of a small-pox hospital acting as a centre or nucleus of infection in the neighbourhood was the one hospital which complied with the regulations; it was a temporary building, and the four cases which resulted were traced to contact. In cross-examination Dr. Reid said that while it would not be justifiable for a sanitary authority to overlook the view as to the atmospheric dissemination of infection, yet the difference of opinion was so great, the preponderance in his opinion being the other way that it ought not to weigh very heavily or involve an authority in large expenditure for that reason only.

Colonel J. J. Notter, R.A.M.C., and Dr. H. R. Kenwood also gave evidence, and stated that they had examined the site of the Nottingham Hospital, and believed that it was quite free from danger to the surrounding population.

Dr. William Collingridge was called, and stated that when medical officer for the Port of London he was well acquainted with the hospital ships in the Thames. He had observed cases of small-pox directly connected with the ships, but only on vessels which had called and been in immediate contact with the ships, not on any vessels passing up or down. In cross-examination he said that though the regulations made by the Metropolitan Asylums Board when the epidemic of 1891 broke out were very ample, they were not strict enough to prevent intercommunication.

Mr. Justice Farwell on February 17th delivered a considered judgement. He said that the action was by the Attorney-General on the relation of several owners and occupiers of land and collieries in the parish of Bestwood, and by the same owners and occupiers as plaintiffs against the Mayor and Corporation of Nottingham to restrain them from using a building lately erected and for the last six months used as a small-pox hospital from so using it, on the ground that it was a nuisance, necessarily causing serious danger to the public health and causing special damage to the plaintiffs. No actual case of injury had arisen, and the action was *quia timet*. The learned judge said, as reported in the *Times*, that in order to succeed in such an action the plaintiffs must show a strong case of probability that the apprehended mischief would in fact arise, or, to quote Lord Justice FitzGibbon in Attorney-General *v.* Rathmines, etc. (unreported), "to sustain the injunction the law requires proof by the plaintiffs of a well-founded apprehension of injury—proof of actual and real danger—a strong probability, almost amounting to moral certainty, that if the hospital be established it will be an actionable nuisance. A sentiment of danger and dislike, however natural and justified, certainty that the hospital will be disagreeable or inconvenient, proof that it will abridge a man's pleasure or make him anxious, the inability of the Court to say that no danger will arise, none of these, accompanied by depreciation of property, will discharge the burden of proof which rests on the plaintiffs or justify a merely precautionary injunction restraining an owner's use of his own land upon the ground of apprehended nuisance to his neighbours." Further, the defendants are entitled, in my opinion, to ask the Court to assume that the hospital will be properly managed, and that all the precautions that scientific skill and knowledge usually require will be taken, and they are entitled in the present case to the benefit of the observation that the hospital has been open and has received patients for the last six months, during the last half of which it has been full, and that no mischief has at present arisen therefrom. The hospital stands on a piece of ground 4½ acres in extent, roughly triangular in shape, the base of the triangle being about 350 yards long and abutting on the high road. It is enclosed on all sides except one with a close wooden fence 6ft. 6in. high, with barbed wire on the top, and there is an inside fence of barbed wire 20ft. distant. The hospital building is 51ft. from the high road. On the side where there is no fence there is a stream nearly 20ft. wide with a steep bank 15ft. or 20ft. high sloping abruptly from the hospital grounds down to the river. There are 204 residents within a quarter-mile radius from the building and 510 within the half-mile radius. There are 230 men employed on the Bestwood ironworks, part of which is within the quarter-mile radius, and 1,280 on the colliery, which is without the quarter-mile radius but within the half-mile radius; but the majority of the latter work underground, and some 45 men work at the bleach works outside the quarter-mile radius and within the half-mile radius. The hospital is some miles from the populous parts of Nottingham, and has access to the city by means of a road which has few houses on either side, and is not much used for general traffic. The nearest residence is Barrow's cottage, with five inmates, 48 yards distant, and the next nearest are six cottages, with twenty-three inmates, 157 yards distant. The plaintiffs' allegation that the hospital is a nuisance rests on the establishment as a general affirmation of the proposition that all small-pox hospitals necessarily constitute a serious danger to the health of persons resident, working, or passing by within a radius of at any rate 51 ft. This is obviously a very serious question. Having regard to the impossibility of stamping out small-pox under the existing laws and to the practical impossibility of isolating an outbreak in crowded areas, the Court ought not to come to any conclusion that would result in closing the majority of the small-pox hospitals in the kingdom unless the expert testimony is really conclusive. Now it is clear from the evidence that I have heard in this case that the medical profession are divided into two camps on this question, each containing persons of eminence and experience. The first point of difference is on the theory of aërial convection for any considerable distance—say, for more than 50ft. This is a purely scientific question, and I gratefully adopt Lord Bowen's statement in Fleet *v.* Metropolitan Asylums Board, that "it would be most dangerous to form an independent opinion on a scientific question from the smatterings of science that might be picked up during the hearing of a case." The plaintiffs do not contend that there is a consensus of expert opinion on the point, and it is enough for me to say that it is therefore not proven, and that I am not competent to form an opinion of my own on the question. If the plaintiffs could have esta-

blished aërial convection for the requisite distance, they would have had a strong case in that they would have shown the reason why danger should exist; but, failing this, they are driven to the empirical opinions of the experts. This is, of course, a legitimate and usual mode of proof; and the Court in the case of a conflict of experts may either say that the onus is on the plaintiff, and has not been discharged, or it may examine the facts and the reasoning given by the experts as the ground of their opinion; and, if and so far as that reasoning can be tested by ordinary rules independent of special scientific knowledge, I feel bound to test it, and not to state simply that the conflict is such that the plaintiffs have not discharged the burden cast on them. I will take Dr. Thresh, who is the protagonist on the plaintiffs' side, as an example of the reasoning of the plaintiffs' witnesses. His opinion is based on his experience and knowledge of a large number of cases of small-pox and of several hospitals, and is a conclusion of logic, not of medical science. His train of reasoning seeks to extend an induction founded on cases observed by or known to him to all other cases: but the induction fails, for the conclusion that all hospitals are sources of danger does not necessarily follow from the premiss that some hospitals are such; or, in other words, his cases are not sufficiently exhaustive, and his reasoning is a mere instance of the method of ancients described by Bacon as *inductio per enumerationem simplicem, ubi non reperitur instantia contradictoria*. It is a mere ascription of the character of a general truth to all hospitals, because in all hospitals known to the witness the fact is found to exist. There is the further difficulty that the cases are complicated by so many varying circumstances that the application of the methods of agreement and difference is impracticable. If the case had rested on the plaintiffs' evidence alone, I should have had great difficulty in adopting the conclusions as sufficiently proved; but the Court is in possession of a number of other cases in which small-pox hospitals have been full during outbreaks of the disease, and no case has occurred within the quarter-mile radius which could not be accounted for by some means other than the hospital. Counsel for the plaintiff attempted to minimize the force of this evidence by criticizing some of the witnesses, and suggesting that Dr. Reid's instances only were trustworthy, and asking that the plaintiffs' affirmative cases should be held to outweigh these. But this is a fallacy. The plaintiffs' case depends on the inference to be drawn from an unbroken series of facts. In all cases where A has occurred B has followed, therefore A causes B. But the conclusion depends on the universality of the premiss, and a negative instance unexplained spoils the chain. The defendants' case does not, however, rest on Dr. Reid alone. It would serve no useful purpose for me to go through the evidence in detail, but with regard to the plaintiffs' historical instances, if I may so call them, they have already figured in former actions, and very recently in the Irish Court of Appeal in the Rathmines case, and have never been accepted as sufficient. It is important to remember that the Compulsory Notification of Diseases Act came into force only in 1899, and that before that it must obviously have been far more difficult, if not impracticable, to obtain trustworthy and sufficient data from which to generalize; and indeed I may well adopt Lord Justice FitzGibbon's comment in the Rathmines case on them: "Cases such as Fulham, Sheffield, Bradford, and Nottingham may be explained by reason of the character of a neighbourhood and their other circumstances." The defendants' evidence is very strong. It is not for them to prove the negative, but their instances—especially Dr. Reid with his large experience in Staffordshire, Dr. Hope with his three hospitals in Liverpool, and Dr. Boobbyer in Nottingham—are amply sufficient to break the chain of the plaintiffs' affirmative cases, even if I were satisfied that they had proved them. There is, of course, some risk of infection wherever there is small-pox owing partly to the folly of bystanders and of friends and relations of the patients, and partly to the human fallibility of doctors and attendants, however careful. But in considering the question from the point of view of a public nuisance one must bear in mind that it is necessary for the public safety that some provision should be made for isolation, that the difficulties in the way of isolating in the case of the poor living in one or two rooms or crowded together in a single cottage are very great, and that it is (as Dr. McVail put it) a choice of evils. This consideration is mentioned by Mr. Justice Chitty in Attorney-General *v.* Manchester Corporation. "The apprehended future danger in the present case is danger to the public health. Now, undoubtedly, there are many cases of public nuisance—by interference with an unquestionable right of the public, such, for instance, as the permanent obstruction of a highway—where the Court did decline at once to permit evidence to be given of any supposed public benefit arising from the wrongful act complained of, and would refuse to balance the good alleged to accrue to some portions of the public against the mischief to the public in general. But in the case where the health of the Queen's subjects in general is concerned, it may possibly be a question whether, if the evidence shows that the maintenance of a small-pox hospital is, on the whole, balancing the good against the evil, more beneficial to the public at large, or to that portion of the public that inhabits or frequents the neighbourhood, than the leaving the persons suffering from the disease scattered in their own homes, some weight might not be properly allowed to this circumstance. If Lord Hardwicke is rightly reported in the case of Coldbathfields Small-pox Hospital—Baines *v.* Baker (Amb. 158), he appears to have entertained some such question when he stated that the hospital was a 'charity like to prove of great advantage to mankind.'" And the same consideration applies, though perhaps not to the same extent, to the private nuisance alleged by the plaintiffs. If the fact of a public nuisance were established, it would of course be no answer to the private owners to say that the hospital must be placed somewhere (see *per* Lord Blackburn in Hill *v.* Metropolitan Asylum District, 6 App. Cas., 207), but where the question is whether the nuisance in fact exists or not, all the circumstances must be taken into consideration; and, after all, the owners and occupiers of the adjacent lands have a far more effective prophylactic provided for them by medical science than any injunction of any court. I respectfully agree with the following passage in Lord Justice FitzGibbon's judgement in the Rathmines case:—"It seems probable that the dread of small-pox is to a great extent the result of tradition. That scourge of the eighteenth century retains its terrors for those who do not realize that it has been deprived of most of its dangers. Vaccination is not only a preventive but it also modifies the disease. The evidence even of Dr. Thresh is that vaccination and revaccination at proper intervals confer practical immunity. In applying the maxim *sic utere tuo ut alienum non laedas*, the duty of reasonable precaution for one's own protection is not to be ignored. An isolation hospital reduces the risk for every inhabitant of the district. It is, in fact, a necessity, and though the individual must be protected the public advantage should not be forbidden unless the danger and injury to the individual are clearly proved." In the present case I find as the result of the evidence that the site of the defendants' hospital was carefully chosen, is in a proper situation, and constitutes no appreciable danger to the public health and no nuisance to the relator plaintiffs' property. As I understand that this case is likely to go to the House of Lords, I desire to add an observation as to the evidence in the hope of obtaining some direction from a superior tribunal. Both parties concurred in asking me to accept evidence in chief of what had happened with other hospitals, and I acceded to the request in deference to the opinion expressed in Hill *v.* Metropolitan, etc., and also because the same evidence of the same cases (with the same result) appears to have been admitted in the other reported cases relating to small-pox hospitals. The result is that the case has taken a week to try; and I venture to suggest that the admission of such evidence in chief is wrong in principle, as raising a number of side issues on which it is impossible for the Court to adjudicate without injury to absent parties—for example, how can I rely on the case of the hospital ships as a proved fact in the present case without injustice to them? In Hill's case, Pollock, B., rejected the evidence as to the facts of the Stockwell and Homerton hospitals. and Lord Justice Bramwell said he was wrong in so doing, and Lord Justice Cotton agreed with him. (It is not easy to see how the point arose, as the plaintiffs who succeeded had tendered the rejected evidence.) If the assumption in Lord Justice Cotton's judgement were correct in fact, the evidence would be valuable; he says: "They might have shown what in fact was the effect in the neighbourhood of the only other hospital under the same conditions." But now there are numbers of such hospitals, and their conditions are infinitely various, and the extent and value of such differences are exceedingly difficult to estimate. In the House of Lords Lord Selborne appears to agree with Lord Justice Cotton; Lord O'Hagan dissents for reasons with which I respectfully agree. Lord Blackburn thought it unnecessary to decide the point. Lord Watson's opinion is stated at page 35, and would certainly rule out all the history that I have heard in the present case. As Lord Bowen has pointed out in the Fleet case, it is no part of the functions of the Court to qualify itself as an expert in science. The Court acts on the opinion of experts whose qualifications can be tested by cross-examination, and weighs the evidence so given and tested. The result is that the action fails and is dismissed with costs.

PROTECTION OF MEDICAL PRACTITIONERS NOTIFYING INFECTIOUS CASES.

SALISBURY v. GOULD.

IT will be remembered that a report of the action before Mr. Justice Grantham in which a verdict for Dr. Gould was given by the special jury on January 21st and judgement entered was published in the BRITISH MEDICAL JOURNAL of January 30th, p. 282. An appeal was made by the plaintiff for a new trial, and this should have been entered within eight days but for some reason was not set down within that period. The plaintiff applied to the Court of Appeal for an extension of time, and was directed to give notice to the defendant's solicitors. If the application was not opposed on behalf of the defendant it was stated that the application for leave was to be granted. Mr. Colam, instructed by Messrs. Hempson for the defendant (he being a member of the Medical Defence Union), applied on February 12th that leave should not be granted, contending that a new trial could but result in a similar verdict, and that there was no substance in the allegation that the verdict was against the weight of evidence, or that there had not been a fair trial.

The Master of the Rolls, after hearing arguments on both sides, said the application made by Mr. Colam for the defendant must succeed. The Court would never provisionally even have granted the plaintiff's application for extension of time to appeal had it been in full possession of the facts. It was quite clear now, after what Mr. Colam had said, that by refusing the application for time no injustice would be done to the plaintiff, and the indulgence she sought must therefore be refused.

The Lords Justices agreed, and the application of the plaintiff was dismissed.

LECTURES ON MEDICAL JURISPRUDENCE.

DR. F. J. WALDO, Coroner of the City of London, on February 11th at the Old Hall, Lincoln's Inn, delivered a lecture on poisoning in its medico-legal aspects.

The lecturer pointed out that neither lawyers nor medical men had an universally-accepted definition of the term "poison." It would obviously incorrect to call vitriol a poison when thrown into a person's face with intent to commit bodily injury. On the other hand, if administered internally the vitriol would be considered a poison both by lawyers and by medical men. Powdered glass, again, formed an extremely ancient method of causing death by mixing it with food. For all that it was not a poison, although it killed after internal administration. To "poison" must, in other words, not only be taken internally, but must exert some kind of chemical action upon the tissues. The Sale of Poisons of Pharmacy Act, 1868, was discussed at length by the lecturer who pointed out various ways in which its scope of usefulness might be enlarged. He agreed with Dr. Wynn Westcott in recommending the addition of the strong mineral acids, ammonia, and certain other poisons to the scheduled list. The evidence of poisoning as produced in court was then considered. The simulation of various diseases by poisoning, and vice versa, was described, as, for instance, the similarity of lockjaw and strychnine poisoning, and the clinical resemblance of slow arsenic or antimonial poisoning to typhoid fever. The important subject of the evidence of poisoning to be derived from an examination of the dead body was exhaustively dealt with. The limitations and the powers of chemical analysis were described. In the case of some powerful alkaloid the dose was so minute that it would be almost impossible to detect the presence. Fortunately both clinical and moral evidence were often available in these cases.

The lecture was followed with interest by a large audience. The first lecture of the series will be delivered next week, and will deal with Palmer and other famous illustrative cases of poisoning.

PRIVATE HOSPITAL FOR OUT-PATIENTS.

N. MACD.—We have expressed no opinion upon the manner in which this institution is being conducted, but have simply referred the complaint to the Ethical Committee.

CORONERS AND MEDICAL EVIDENCE.

A COUNTRY DOCTOR writes: During the past two years I have been called to some three or four people who had been taken ill, and on my arrival found death had taken place. In none of these cases had I attended professionally previous to death. In the first case in the series, an elderly woman had fallen out of her chair dead upon the floor in a house where she had gone to spend an hour or two with a friend. I was informed she had been recently under medical treatment and stated this fact, giving the name of the doctor to the coroner. I wrote to the latter, telling him the facts, expecting he would refer to the medical man who knew something of the deceased, and I did not give any opinion as to the cause of death. I received a somewhat abusive letter from the coroner saying "my letter was an absolute blank as regards any information which enabled him to decide whether an inquest was necessary or not." He said I should have examined the body, and told him in my letter whether there were marks of violence anywhere, etc. He held no inquest on the case.

My next case was one of sudden death in his chair of an elderly man, who had consulted a doctor recently. In this case I wrote to the coroner saying I had reason to believe that death was due to angina pectoris. I was not found fault with this time. I sent the name of the doctor who had been consulted by the deceased, but no inquest was held. Neither had the coroner the politeness to acknowledge in any way whatever my letter to him.

A case that happened the other night was this. At midnight I was called to an elderly woman who I was told had been vomiting all day and part of the previous day. Within three-quarters of an hour—she lived 1½ mile away—I saw her, and she was dead. The body was cold, except the abdomen. All vomit had been thrown away, but I was informed it smelt like "stuff out of the bowels." I examined the body, and found a small lump in the right femoral region. I wrote to the coroner saying what I had found, and, in the absence of a necropsy, expressed the opinion that death was due to exhaustion following vomiting and pain from a strangulated femoral hernia. There is to be no inquest, and again I have had absolutely no acknowledgement of my report. The policeman came to-day to ask what the cause of death was so that he could fill in his report—this was after his return from the coroner's office with an order for burial.

I wish to know, sir, if it is any part of my duty to do all this for any coroner, discourteous or not discourteous? I am rather tired of it, and would be very much indebted if you could set me right. I do not wish to do anything but my duty in these matters. If a medical man can state his opinion of the cause of death in all such cases to a coroner and that gentleman is satisfied with that alone, then I think the occasions where an inquiry is necessary must be very rare indeed.

*** See page 448.

MEDICAL CONTRIBUTIONS TO THE LAY PRESS.

J.R.C.S.—We have received a page of the *Mildura Cultivator* dated December 26th, 1903, which contains three columns of an interview with a medical practitioner who claims to treat his cases of typhoid fever by giving them merely an allowance of sterilized water without any food. We are asked to express an opinion as to the utility of the treatment, and, secondly, as to the propriety of the publication.

*** We have no experience of the treatment in question and therefore cannot speak as to its utility, but the success claimed for the treatment of this fever by albumen water or whey makes the result not altogether incredible. We regret that such a subject should be discussed in the lay press. In our opinion medical practitioners cannot be too careful in allowing themselves to be interviewed, for the modern cheap press shows no consideration for professional sentiment.

DR. H. COOPER ROSE.—The cutting from the pages of the *Morning Post* in all probability refers to a Swedish masseur.

MEDICAL ETIQUETTE.

M. P.—We are asked to express an opinion upon the following statement of facts: A. has been attending a private patient, the wife of a gamekeeper on a large estate, for two months. The owner of the estate sends B., a medical practitioner in a neighbouring town, to see her. B., without any communication with A., examines the patient. A. calls as before and is told of this, and the following day a message is sent to A. by the patient's husband that he need not call any more as B. has taken up the case. No communication from B. in any way has been received by A.

*** B. had no right to see the case except with A.'s permission, and the only justification of his conduct would be ignorance of the fact that A. was in attendance.

THE TITLE OF "DR."

L.R.B.: S.—We must refer our correspondents to the pronouncement of the Ethical Committee in the SUPPLEMENT to the BRITISH MEDICAL JOURNAL, October 31st, 1903, p. ccvii. Our correspondents will find the point discussed *ad nauseam* in the medical journals for the last twenty years.

REPUDIATION OF DEBTS BY HUSBAND.

M. writes: A patient, who is suffering from consumption, has left her husband to reside with her parents. Her husband wishes her to return, and, on her refusal, has sent a solicitor's letter, stating he will not be liable for any debts she may incur while away from his house. The practitioner in attendance on her wishes to know whether he could claim his fees from her husband under the circumstances.

*** It is the duty of the wife to return to her husband, and a practitioner having knowledge that her husband has intimated that he will not be responsible for her debts while away from him would most likely be unable to enforce payment for medical attendance—that is, for attendance after the husband's intimation had been brought to his knowledge.

MEDICAL ADVERTISING.

C. W.—We have referred the handbill sent us to the Ethical Committee.

MEDICAL TESTIMONIALS AS TRADE ADVERTISEMENTS.

J. M. F.—The report on the bread as an article of diet may be asked for in order to be utilized for advertising purposes and therefore should not be given without a very definite and clear understanding that it will not be so abused.

PURCHASE OF REMAINING SHARE.

PARTNER, who has bought a half share of a practice, wishes to know what price he would have to pay for the other half on the death or resignation of his partner.

*** This ought to be settled in the deed of partnership. If not so arranged, he should pay the market value, which would probably average from one to one and a-half year's purchase, according to the character of the practice.

ROYAL NAVY AND ARMY MEDICAL SERVICES.

CHANGES OF STATION.

THE following changes of station amongst the officers of the Royal Army Medical Corps have been officially reported to have taken place during the last month:

	From.	To.
Colonel J. J. Morris, M.D.	Bengal	Southern Dist.
,, W. J. R. Rainsford, C.I.E.	Alton	Thames Dist.
Lt.-Col P. Mulvany	Punjab	Alton.
,, J. M. Jones	Bombay	Devonport.
,, C. R. Woods, M.D.	Egypt	Cork.
,, C. G. D. Mosse	Portsmouth	Southampton.
,, F. J. Jencken, M.B.	Longmoor	Aldershot.
,, C. R. Tyrrell	Punjab	Dover.
,, J. R. Stuart, M.B.	Edinburgh	Fort George.
,, E. H. L. Lynden-Bell, M.B.	Aldershot	Longmoor.
Major J. Maher	Punjab	Jersey.
,, J. H. Greenway	Chatham	South Africa.
,, C. S. Sparkes	Aldershot	Hong Kong.
,, H. Cooks, M.B.	Madras	Dublin.
,, J. Fayrer, M.D.	Bengal	Home District.
,, D. Hennessy, M.D.	,,	Athlone.
,, D. M. O'Callaghan	Malta	Colchester.
,, R. J. Windle, M.B.	Home District	Dublin.
,, A. L. Borradaile, M.B.	Punjab	Bodmin.
Captain F. R. Buswell	R.A.M.Coll.	Bombay.
,, F. A. Symons, M.B.	,,	Bengal.
,, C. G. Spencer, M.B.	,,	Curragh.
,, T. H. J. C. Goodwin, D.S.O.	,,	R. M. Acad.
,, D. J. Collins, M.B.	,,	Dublin.
,, J. B. Anderson	,,	Dover.
,, A. E. Master, M.B.	,,	Devonport.
,, G. Dansey-Browning	,,	Alton.
,, E. S. Clark, M.B.	,,	Home District.
,, K. M. Cameron, M.B.	,,	Punjab.
,, A. E. Milner	,,	Madras.
,, C. K. Morgan, M.B.	,,	Edinburgh.
,, J. P. Silver, M.B.	,,	Devonport.
,, John M. Buist, M.B.	,,	Woolwich.
,, H. A. L. Howell	,,	Chatham.
,, D. Lawson	,,	Portsmouth.
,, E. B. Steel, M.B.	,,	D. York's Sch.
,, H. E. Staddon	,,	Bulford.
,, S. J. C. P. Perry	,,	Dublin.
,, S. H. Fairrie, M.B.	Dover	R.A.M.Coll.
,, G. T. K. Maurice	Bulford	,,
,, J. V. Forrest, M.B.	Bengal	,,
,, H. W. Grattan	Punjab	,,
,, J. H. Campbell, D.S.O.	Madras	,,
,, E. W. Bliss	Bengal	,,
,, J. C. B. Statham	Woolwich	,,
,, E. C. Hayes	Bengal	,,
,, A. H. Waring	Madras	,,
,, E. W. W. Cochrane, M.B.	Bombay	,,
,, A. H. Morris	,,	,,
,, G. B. Riddick	Punjab	,,
,, V. J. MacDougall, M.B.	Bombay	,,
,, R. W. Clements, M.B.	Madras	,,
,, M. Swabey	,,	,,
,, C. F. Wanhill	R.A.M. Coll.	Netley.
,, L. Addams-Williams	,,	Devonport.
,, M. MacG. Rattray, M.B.	,,	Dover.
,, T. H. M. Clarke, M.B., C.M.G., D.S.O.	Crete	R.A.M.Coll.
,, E. W. P. V. Marriott	Bombay	,,
,, C. H. Hopkins	Madras	,,
,, J. G. Berne	R.A M. Coll.	Aldershot.
,, E. A. Bourke	Bengal	R.A.M. Coll.
,, A. C. Lupton, M.B.	Home District	,,
,, J. S. Gallie	R.A.M. Coll.	Dublin.
,, F. J. C. Heffernan	,,	York.
,, H. M. Nicholls, M.B.	Bermuda	Cork.
Lieutenant J. Conway	Dublin	Bengal.

Lieutenant J. Riordan, M.B., retired, has been placed in medical charge of troops at Clonmel.

Lieutenant-Colonel E. L. Maunsell and W. Heffernan have been selected for increased pay under Article 362 of the Royal Warrant.

ROYAL NAVY MEDICAL SERVICE.

THE notice which appeared in the *Gazette* of December 11th last relative to the restoration of his commission to Surgeon JAMES H. DAWE, M.B., R.N., on his being placed on the list of emergency officers, is hereby cancelled.

The appointment of Staff Surgeon EDWARD COOPER to the *Nelson* has been cancelled.

The following appointments have been made at the Admiralty: JAMES BRADLEY, M.D., Fleet Surgeon, and CHARLES A. G. PHIPPS, Surgeon, to the *Essex*, undated; EDWARD COOPER, Staff Surgeon, and

EDGAR S. WILKINSON, M.B., Surgeon, to the *Astraea*, February 25th; PAUL H. M. STAR, Staff Surgeon, to the *Fire Queen*, for the *Nelson*, February 11th; RICHARD MILLER, M.B., Fleet Surgeon, to the *Andromache*, February 11th; LLEWELLYN A. BAISS, Surgeon, to the *Hearty*, February 11th; ARTHUR R. THOMAS, Surgeon, to the *Rambler*, additional, February 11th, and on recommissioning.

ROYAL ARMY MEDICAL CORPS.

CAPTAIN R. M. LE H. COOPER, M.D., retires on a gratuity, February 13th. He was appointed Surgeon-Lieutenant, January 29th, 1896, and Captain three years thereafter.

The undermentioned gentlemen to be Lieutenants on probation, dated January 30th: GODFREY F. RUGG, DOUGLAS S. B. THOMSON, M.B., ARTHUR S. ARTHUR, M.B., JOHN FAIRBAIRN, M.B., ROBERT G. ANDERSON, LEONARD BOUSFIELD, M.B., JAMES H. DOUGLASS, M.D., DUMARESQ LE BAS, ROBERT R. LEWIS, CHARLES H. TURNER, FRANK H. NOKE, GEORGE E. CATHCART, EUGENE C. WHITEHEAD, M.B., TRAVIS C. LUCAS, JOHN A. TURNBULL, WILLIAM WILEY, M.B., RICHARD B. HOLE, M.B., ALEXANDER L. OTWAY, M.B., WALTER F. H. VAUGHAN, MONTAGUE F. GRANT, HOWARD HARDING, M.B., DAVID P. JOHNSTONE, EDWARD H. M. MOORE, FREDERICK J. GARLAND, M.B., MICHAEL D. AHERN, HARRY B. CONNELL, GEORGE S. C. HAYES, SIDNEY C. BOWLE, ALBAN A. MEADEN, ROBERT J. CAHILL, M.B.

Lieutenants R. G. ANDERSON, S. C. BOWLE, and F. H. NOKE are seconded under the provisions of Article 349 of the Pay Warrant, January 30th.

Colonel W. E. SAUNDERS, C.B., Principal Medical Officer Poona District, has been appointed Principal Medical Officer Meerut and Bundelkhund Districts.

Colonel G. D. N. LEAKE has assumed charge as Principal Medical Officer Bombay and Nagpore Districts.

Surgeon-General FITZGERALD EDWARD SCANLAN died in London on January 9th. He was appointed Assistant Surgeon, April 30th, 1858; Surgeon, March 1st, 1873; Surgeon-Major, April 1st, 1873; Brigade-Surgeon, May 3rd, 1884; and retired from the service with the honorary rank of Deputy-Surgeon-General, September 10th, 1884.

Brigade-Surgeon JAMES BOWYER BAKER died in London on January 4th. He entered as Assistant Surgeon, May 28th, 1857; became Surgeon, August 2nd, 1871; Surgeon-Major, March 1st, 1873; and retired with the honorary rank of Brigade-Surgeon, May 28th, 1882. He served with the force in the north of China in 1860 (medal).

Captain P. S. LELEAN, from the Seconded List, to be Captain, December 14th, 1903.

INDIAN MEDICAL SERVICE.

MAJOR R. BIRD, M.D., Bengal Establishment, has been appointed Surgeon to the Viceroy of India, from January 1st.

Major P. CARR-WHITE, Madras Establishment, is posted as Residency Surgeon, and *ex officio* Assistant Resident in Nepaul.

Lieutenant-Colonel GEORGE DUNCAN, M.B., Bengal Establishment, died at Dera Ismail Khan, Punjab, on February 3rd, of pneumonia. He entered the service as Surgeon, April 1st, 1882, and was made Lieutenant-Colonel, April 1st, 1902. His war record comprises: the Hazara Expedition, 1888 (medal with clasp); the Hazara Expedition, 1891 (clasp); the Waziristan Expedition, 1894-5, including the action at Wana (clasp); and the Chitral Relief Force in 1895 (medal with clasp).

Major ALLAN EWEN GRANT, M.B., Madras Establishment, died on December 13th last. He joined the department as Assistant-Surgeon, March 31st, 1888, and became Major, March 31st, 1899. He was with the Chin-Lushai Expeditionary Force in 1889-90, receiving a medal with clasp.

VOLUNTEER RIFLES.

SURGEON-CAPTAIN J. C. MACALISTER, M.D., 8th (Scottish) Volunteer Battalion the King's (Liverpool Regiment) is promoted to be Surgeon-Major, February 13th.

Surgeon-Lieutenants A. G. GULLAN, M.D., and W. S. HENDERSON, M.B., 8th (Scottish) Volunteer Battalion the King's (Liverpool Regiment), to be Surgeon-Captains, February 13th.

Surgeon-Captain W. A. GRIFFITHS, 1st Volunteer Battalion the Hampshire Regiment, resigns his commission, February 13th.

With reference to the *London Gazette* of January 15th, the resignation of Surgeon-Major G. H. DARWIN, M.D., 2nd Volunteer Battalion the Manchester Regiment, should be that he retains his rank and uniform.

The transfer of Surgeon-Captain W. N. EVANS, from the 1st Volunteer Battalion the Middlesex Regiment to the 10th Middlesex (Bloomsbury), which was announced in the *London Gazette* of January 5th, bears date September 12th, 1903, and not as therein stated.

THE NEW ARMY COUNCIL AND THE ARMY MEDICAL SERVICE.

SURGEON-GENERAL (RETIRED) writes: It is to be hoped that good will result from the prompt action taken by the British Medical Association to ensure a suitable position for the Director-General, A.M.S., on the new Army Council. It is to be hoped his position will be more satisfactory even than it has been on the former central body. There he could only attend meetings when sanitary matters were being considered, but to me it is obvious that it could not always be possible to state beforehand how far any military matter discussed, such as the soldier's drills, duties, training, etc., may or may not have an important bearing on his health. Further, too, the power to exclude the Director-General from all but sanitary discussions gave to those who might not want him to attend the meetings under any circumstances (and such persons, from what is known of the War Office, must be understood to exist) to exclude him from certain meetings under the pretence that sanitary affairs were not expected to come before the Council. The Director-General should have the privilege to attend all general discussions by the War Office Council, and he could then decide whether his presence was necessary or not. It is to be hoped the new War Minister will not permit his military advisers to sit on the medical service as formerly.

THE Quarantine Board of Egypt are about to appoint five medical officers at monthly salaries ranging from £22 11s. to £28 14s. Candidates, who must be duly qualified either by a European faculty or by the State, can obtain further particulars on application to Dr. M. A. Ruffer, President of the Quarantine Board, Alexandria.

PUBLIC HEALTH AND POOR-LAW MEDICAL SERVICES.

HEALTH OF ENGLISH TOWNS.

IN seventy-six of the largest English towns, including London, 8,684 births and 5,396 deaths were registered during the week ending Saturday last, February 13th. The annual rate of mortality in these towns, which had been 18.1, 19.4, and 17.2 per 1,000 in the three preceding weeks, rose again last week to 18.4 per 1,000. The rates in the several towns ranged from 6.0 in Smethwick, 6.3 in Northampton, 8.4 in Aston Manor, 9.0 in Hornsey, 10.7 in East Ham, 10.9 in York, 11.0 in Hastings, and 11.2 in Walthamstow and in Wallasey, to 23.6 in Birkenhead, 26.2 in Bootle, 26.5 in Gateshead, 27.7 in Rhondda, 27.9 in Warrington, 28.5 in Bury, 28.8 in Swansea, and 29.2 in Newport (Mon.) In London the rate of mortality was 17.7 per 1,000, while it averaged 18.8 per 1,000 in the seventy-five other large towns. The death-rate from the principal infectious diseases averaged 1.5 per 1,000; in London this death-rate was equal to 1.4 per 1,000, while among the seventy-five large provincial towns the rates ranged upwards to 3.2 in Preston, 3.3 in Leyton, 3.7 in Ipswich, 4.0 in Great Yarmouth, 4.2 in Bootle, 5.3 in Gateshead, 7.0 in Warrington, and 8.9 in Bury. Measles caused a death-rate of 1.2 in Blackburn, 1.4 in Sunderland, 1.6 in Willesden, and 3.9 in Warrington; scarlet fever of 3.1 in Warrington; diphtheria of 1.8 in Bury and 2.0 in Great Yarmouth; whooping-cough of 1.6 in Swansea, 1.7 in Wallasey, 1.8 in Liverpool, 1.9 in Leyton, 2.2 in Newport (Mon)., 2.3 in West Hartlepool, 3.0 in Stockton-on-Tees. 3.1 in Gateshead, 3.4 in Bootle, and 6.2 in Bury; and "fever" of 1.4 in Preston. Four fatal cases of small-pox were registered last week in Gateshead, and one each in Nottingham, Hull, and South Shields, but none in any other of the seventy-six large towns. The Metropolitan Asylums Hospitals contained 24 small-pox patients at the end of last week, against 24, 21, and 25 at the end of the three preceding weeks; 3 new cases were admitted during the week, against 3, 4, and 8 in the three preceding weeks. The number of scarlet fever cases remaining under treatment in these hospitals and in the London Fever Hospital, which had been 1,679, 1,651, and 1,657 on the three preceding Saturdays, had declined again to 1,644 on Saturday last, February 13th; 162 new cases were admitted during the week, against 180, 168, and 169 in the three preceding weeks.

HEALTH OF SCOTCH TOWNS.

DURING the week ending Saturday last, February 13th, 942 births and 636 deaths were registered in eight of the principal Scotch towns. The annual rate of mortality in these towns, which had been 19.8, 18.4, and 18.5 per 1,000 in the three preceding weeks, further rose last week to 19.7 per 1,000, and was 0.8 per 1,000 above the mean rate during the same period in the seventy-six large English towns. Among these Scotch towns the death-rates ranged from 6.2 in Perth and 14.3 in Leith to 23.0 in Paisley and 24.6 in Dundee. The death-rate from the principal infectious diseases in these towns averaged 2.2 per 1,000, the highest rates being recorded in Aberdeen and Paisley. The 305 deaths registered in Glasgow included 1 from small-pox, 11 from measles, 2 from scarlet fever, 6 from whooping-cough, and 9 from diarrhoea. Nine fatal cases of whooping-cough and 4 of diarrhoea were recorded in Aberdeen; 5 of measles, 2 of whooping-cough, and 2 of diarrhoea in Dundee; 4 of measles and 3 of whooping-cough in Paisley; 2 of whooping-cough in Leith; and 2 of diarrhoea in Edinburgh and in Greenock.

HEALTH OF IRISH TOWNS.

DURING the week ending Saturday, February 13th, 457 births and 487 deaths were registered in six of the principal Irish towns, against 527 births and 461 deaths in the preceding period. The mean annual death-rate of these towns, which had been 26.9, 20.5, and 25.8 per 1,000 in the three preceding weeks, rose to 26.0 per 1,000 in the week under notice, this figure being 9.6 per 1,000 above the mean annual rate in the seventy-six English towns during the corresponding period. The figures ranged from 13.9 in Londonderry to 34.2 in Limerick. The death-rates from the principal zymotic diseases during the same period and in the same six towns averaged 2.4 per 1,000, or 1.3 per 1,000 higher than during the preceding week, the highest rate, 6.8, being registered in Limerick, while Waterford registered no deaths under this heading at all. Except for one death from measles at Belfast, no deaths were registered in any part of Ireland from measles, small-pox, scarlet fever, typhus, or simple continued fever. Diphtheria caused 1 death at Dublin and another at Londonderry, and the only death from enteric was at Dublin. The whole zymotic death-rate, in short, was practically made up by whooping-cough again.

HEALTH OF LEEDS.

DR. SPOTTISWOODE CAMERON presented a preliminary report for 1903 to the Sanitary Committee of the Leeds Corporation in the middle of January, from which it appears that the death-rate of Leeds for last year (16.6 per 1,000) was the lowest on record. The decline is attributed to the lessened death-rate from lung disease, including phthisis, and to the diminution in the number of deaths from the seven commoner zymotic diseases, exclusive of membranous croup. Small-pox caused 5 deaths in 100,000 of the population. The year 1903 was a year of low death-rates, the metropolitan rate being only 15.7, and therefore the return for Leeds is not so exceptional as might at first appear, though it stands near the top of the list of the seventy-six great towns.

THE VISION OF SCHOOL CHILDREN.

MR. J. T. T. RAMSAY, Medical Officer to the Education Committee of the County Borough of Blackburn, undertook last year an examination of the vision of all the children in the public schools of the borough. In his report he gives an account of the vision of 8,788 children in Standards II, IV, V, VI, and VII. Some 500 other children in Standard II were examined, but the results are not included because many of them seemed to have forgotten many letters altogether, and others, though they apparently could read the letters, could not write them down. The results obtained at some 42 schools are given, and the average of normal vision appears to be 70.2. The highest figure for any school is 86.9 per cent., and the lowest 50.2. The wideness of the variation thus shown may possibly to some extent be referable to the difference in the numbers of the chil

t the various schools: but, upon the whole, it would seem rather to est that the conditions under which the children are taught at some f em are unfavourable to the preservation of normal vision. The re- d includes many useful recommendations with regard to the care of h children's eyes suggested to Mr. Ramsay by his investigations, and n respect of the classes of eye complaints which should lead to child- being excused from attendance, whether in their own interest or in h of their companions. In addition to other things Mr. Ramsay has ared a register of some 2,000 children whose place in the class should e the front benches if they are to benefit properly by their attendance hool, and he recommends that the fact of the inequality of child- vision should be taken into consideration by all teachers as a matter bitual routine. Recommendations are also made as to the use of table desks and an increase in the allowance of towels and washing ratus.

THE BACTERIAL TEST OF POLLUTION.

R. KLEIN (London, E.C.) writes: It will be in your recollection that bruary 21st, 1903, in a paper by myself, the Bacterioscopic Diagnosis ewage Pollution of Shellfish," I stated from a large number of obser- ions: (1) That the B. coli communis, or the typical B. coli, is not atural inhabitant of oysters. (2) The nearer to sewage outfalls, that he more exposed oysters and cockles are to sewage pollution, the ater the percentage of these shellfish polluted with B. coli com- nis. (3) The further away from sewage outfalls, or the smaller the ount of sewage accessible to the oysters or cockles, the smaller t number of these shellfish that are found to contain in the interior eir shells the B. coli communis.

rofessor Hewlett, Dr. Buchanan, of Glasgow, and others have since ived at similar conclusions. Quite recently I received from the Mas- husetts State Board of Health a paper by Messrs. H. W. Clark and ohen De M. Gage, which in respect of clearness leaves nothing to be dired on this point, and I beg leave to enclose the essential portions eir paper bearing on the point. It no doubt will be of interest to r readers.[1]

"EXAMINATION OF SHELLFISH.

During the past three years considerable work has been done at the eriment station in examining shellfish, such as clams, oysters and haugs, for evidence of pollution. In this work tests for B. coli and the sewage streptococcus in the shellfish itself and in the water in ell have been made. Many samples of the sea water, taken at the alities in which the shellfish have been gathered, have also been ex- ned.

Enough study has been made by many investigators to show clearly t B. coli is not a normal inhabitant of the intestines of clams or ers, and that its presence in the intestines or juice in the shell t be due to contamination either by drainage and sewage flowing r the clam and oyster beds, or by careless and uncleanly handling he shellfish between the time of digging and placing upon the ket. In this work, therefore, the ability to demonstrate clearly the sence of a specific sewage organism, such as B. coli, is an invaluable in determining the question of purity or pollution."

E No. 9.—*Showing Results of Tests for B. Coli in Shell- h and Sea Water from Polluted and Non-polluted Sources.*

cter of Source.	Number of Sources.		Number of Samples.		Per cent. of Samples Positive Sewage B. Coli.*		
					Shellfish.		
	Shell fish.	Sea Water.	Shell fish.	Sea Water.	Shell Water.	Intes- tine.	Sea Water.
olluted ...	15	10	44	37	0	0	0
ful	22	19	114	80	8	6	17
lted	6	4	49	48	41	35	44

* ave reproduced in this table only the sewage or typical B. coli.. Coli- ke nd other doubtful microbes not peculiar to sewage have been mi d, since also in my own communication (February 21st, 1903) I have lis ded these as not bearing on the sewage question.

REMOVAL OF INFECTIOUS CASES IN IRELAND.

UERIST.—Section CXLI of the Public Health (Ireland) Act is that which gi s the medical officer of health—that is, the dispensary doctor or h *locum tenens*—power to have persons suffering from infectious d ase, whose surroundings may be unsuitable, forcibly removed to h pital on a magistrate's order. It is a power rarely exercised in I and and much resented. On the facts stated by our correspondent w must agree with the Local Government Board and the Board of G rdians that Section CXLI does not apply to this case. "Querist" d s not state that the habitation of these patients was unsuitable or th he obtained a magistrate's order, without which he would have no p er to remove them. He states that they were private patients, p sumably willing to pay for medical attendance, and if he informed th n that he would have them removed to an Irish workhouse fever h pital we are not surprised they called in another practitioner; when th did so our correspondent's responsibility ceased, even had they b n dispensary cases. Having reported the outbreak to the sanitary a hority and the Local Government Board he had, in our opinion, fu y discharged his duty until further directed by either of these a horities. The District Council is the sanitary authority in Ireland, a the master of the workhouse is not their servant but that of the g e body when sitting as a Board of Guardians. To inform the s tary authority that the patients should be removed and to ask the B rd of Guardians if it had room for them has a refreshing touch of Gilbertian humour. We do not think our correspondent need feel hurt at the strictures of the Board of Guardians. It would probably have been equally ready to censure him if he had removed the patients against its will or if it had to employ extra nurses to attend to them.

[1] Thirty-fourth Annual Report of the State Board of Health of Massachuetts on the Value of Tests for Bacteria of Specific Types as an Index of Pollution. By H. W. Clark and Stephen De M. Gage.

DURATION OF INFECTIVITY OF SCARLET FEVER.

SCARLET asks whether a patient in whom desquamation is complete in three or four weeks, who has no albuminuria, and no discharge from ears, needs to be isolated until six weeks have elapsed.

*** No special virtue attaches to the period of six weeks. The increasing opinion of those competent to judge is that the late desquamation of scarlet fever is little, if at all, infectious, and that the chief risk lies in nasal discharges or eczematous eruptions. If the patient is free on these points he might be released from isolation, though it would be discreet to prescribe (after disinfection) an intervening period of a fortnight before he is allowed to mix with others, especially children.

QUARANTINE AFTER WHOOPING-COUGH.

AMICUS.—*The Code of Rules for the Prevention of Infectious and Contagious Diseases in Schools*, issued by the Medical Officers of Schools Association (London: J. and A. Churchill, 1899, 1s. 6d.), states that the period of quarantine which should be insisted upon when a pupil has been exposed to an infectious disease depends chiefly upon whether the clothes have been efficiently disinfected at the beginning of the quarantine. The period mentioned for whooping-cough is twenty days. It is added that home disinfection should be supplemented by personal disinfection of the pupil, and of the clothes, books, and everything brought back by him immediately on his return to school.

HOSPITAL AND DISPENSARY MANAGEMENT.

THE GRAHAMSTOWN ASYLUM, CAPE OF GOOD HOPE.

A REPORT recently issued by the Government of the Cape of Good Hope covers the working during the year 1902 of the Grahamstown Asylum, Institute for Children, and Chronic Sick Hospital. It is excellently put together, and contains ample evidence of careful work on the part of the medical superintendent of all three institutions, Dr. Duncan Greenlees. The statistics are kept in the same form as that in use in allied institutions in England.

The average number of residents in the asylum had risen from 11.47 in the year 1875, to 340.49 in the year under notice. The number, in the same years, of the population from whom the patients are derived is not stated, so that it is impossible to say whether the increase indicates an increase in insanity, or is the natural outcome of the growth of population. The percentage of deaths to the average number in residence in 1902 was 8.81, that for the whole period mentioned being 10.74. Similarly, the percentage of recoveries to admissions throughout the whole period covered by the statistics is 30.76; higher figures being obtained in the later years, which may be taken to indicate that cases are brought earlier under treatment. Other points of interest noted are that cases of melancholia and acute mania are believed to be respectively increasing and decreasing among natives. It is stated also that dipsomania, which greatly decreased during the war, is again beginning to figure largely in the returns, and that alcohol is likely to form a grave cause of native insanity unless steps are taken to prevent drinking among the coloured population. A remonstrance is made against the current practice of keeping insane persons in gaols for observation by the district surgeon and a call made for a provision for white lunatics apart from those of the coloured races. Besides persons of British extraction, and in addition to representatives of Fingoes, Kaffirs, Hottentots, and other native tribes, the list of patients includes 26 Dutch, 12 Germans, 9 Russians, 3 French, 3 Swiss, and 1 Spaniard. This motley collection must materially increase the difficulties of treatment and administration.

The Institute for Imbecile Children, the only one of its kind in South Africa is very small. Twenty-two patients comprise the list, and complaint is made that the children are not sent in until, as a rule, nothing can be done for them.

The Hospital for Chronic Sick accommodates at present some 122 persons of various nationalities. Its administration is gradually being reorganized on the lines of an ordinary hospital, and there seems to be some intention of enlarging it sufficiently to accommodate the chronic sick of the whole colony, and to relieve Dr. Greenlees of its charge.

JOINT COUNTIES ASYLUM, CARMARTHEN.

THERE were admitted into the asylum during the year 1902 122 patients, and 57 were discharged and 63 died. The average number daily resident was 646, and the total number under treatment was 770. The recovery rate was 27.58, calculated upon the number admitted, and the death-rate was 9.79.

The asylum is full; some of the patients, however, belong to other counties, but without these there would only be vacancies for 14 men and 19 women.

Among the forms of insanity melancholia heads the list with 36, and one of the admissions was "not insane." In 42 per cent. the cause assigned was heredity of insanity or allied disorders, and in 19 alcohol. Of the admissions no less than 37 were more or less actively suicidal. One patient was admitted for the fifth time owing to the abuse of alcohol, which illustrates the unsuitability of such cases for an asylum. As Dr. Goodall very properly remarks: "In such cases the attack commonly passes off in a few days, or at most, two or three weeks, and further detention of the patient becomes impossible. The patient occupies an expensive bed and receives no treatment (for what can he be submitted to other than enforced abstinence?) which could not be administered outside under proper control. Such a case ought to be sent to a reformatory for inebriates.

Tuberculous disease was given as the cause of death in 28.6 of the cases. There were 22 private patients in the asylum, whose payments ranged from 10s. to 40s. per week.

With regard to treatment, electric baths, Swedish drill, massage, and

gymnastics are freely used with beneficial results. The Commissioners state the wards and dormitories are in a generally satisfactory state, and some important improvements have been effected, though they refer to the asylum as being overcrowded, there being 26 patients in excess of the proper number.

BRADFORD CHILDREN'S HOSPITAL.

At the twenty-first annual meeting of the governors of the Bradford Children's Hospital it was stated that in view of the growth of the work, and with a desire to bring the institution more into line with other leading children's hospitals throughout the country, it had been decided to divide the surgical from the medical cases, and to increase the professional staff of the hospital by the appointment of two honorary medical officers and an anaesthetist.

MEDICAL NEWS.

THE SMALL-POX EPIDEMIC IN SCOTLAND.—The Local Government Board of Scotland reports, under date February 17th, that the greatest incidence of small-pox in Scotland during the first fortnight of this month was in the burgh of Greenock, where the cases amounted to 6.60 per 10,000 of the population, as compared with 1.70 in Govan, 1.10 in Partick, and 1.03 in Glasgow. It is also stated that of 22 cases intimated in the last report as having occurred in Coatbridge, 18 are now regarded as not small-pox, and that no other genuine cases have since occurred in that locality.

BEQUESTS TO HOSPITALS.—Under the will of the late Mr. James Rankin, of Stonehouse, Ardnachaig, N.B., £5,000 has been bequeathed to the Glasgow Royal Infirmary, £1,000 to the Victoria Infirmary, and £500 each to the Glasgow Eye Infirmary and the Gartnavel Asylum.—The late Mr. Alfred L. Cohen has bequeathed £1,000 to Guy's Hospital for the endowment of a bed, and £100 each to the London Hospital, St. Mary's, the Middlesex Hospital, the Great Ormond Street Children's Hospital, the London Fever Hospital, and the Poplar Hospital.

MEDICAL VACANCIES.

This list of vacancies is compiled from our advertisement columns, where full particulars will be found. To ensure notice in this column advertisements must be received not later than the first post on Wednesday morning.

BELGRAVE HOSPITAL FOR CHILDREN, Clapham Road, S.W.—(1) Assistant Physician. (2) Assistant Surgeon.

BIRMINGHAM AND MIDLAND EYE HOSPITAL.—House-Surgeon, resident. Salary, £75 per annum.

BIRMINGHAM AND MIDLAND HOSPITAL FOR SKIN AND URINARY DISEASES.—Clinical Assistant. Honorarium at the rate of 52 guineas per annum.

BRADFORD CHILDREN'S HOSPITAL.—House-Surgeon, resident. Salary, £100 per annum.

BURTON-UPON-TRENT COUNTY BOROUGH.—Medical Officer of Health and Public Analyst. Salary (combined), £400 per annum.

CANCER HOSPITAL, Fulham Road.—Surgical Registrar. Honorarium, £26 5s. per annum.

CARMARTHEN: JOINT COUNTIES ASYLUM.—Junior Assistant Medical Officer, resident. Salary, £150 per annum.

CHELTENHAM GENERAL HOSPITAL.—Junior House-Surgeon, resident. Salary, £70 per annum.

CROYDON GENERAL HOSPITAL.—(1) Senior House-Surgeon. (2) Junior House-Surgeon. Both resident. Salaries, £105 and £60 per annum respectively.

DUDLEY: GUEST HOSPITAL.—Senior Resident Medical Officer. Salary, £100 per annum, increasing to £120.

EAST INDIAN RAILWAY.—Assistant Medical Officer. Salary commencing Rs.400 per mensem.

EAST LONDON HOSPITAL FOR CHILDREN, Shadwell.—(1) Medical Officer for Casualty Department. Salary at the rate of £100 per annum. (2) House Surgeon, resident. Honorarium, £25 for six months.

EDINBURGH: CRAIGLOCKHART POORHOUSE AND HOSPITAL.—Resident Medical Officer. Salary at the rate of £100 per annum.

HOSPITAL FOR SICK CHILDREN, Great Ormond Street, W.C.—House-Phyicians, resident. Salary, £20 for six months.

HOSPITAL FOR WOMEN, Soho Square.—House-Physician. Salary, £30 for six months.

ISLE OF SKYE: GESTO HOSPITAL.—Resident Medical Officer. Salary, £200 per annum.

LIVERPOOL CHILDREN'S INFIRMARY.—Assistant House-Surgeon, resident. Salary, £32 10s. for six months.

NORWICH: HEIGHAM HALL ASYLUM.—Assistant Medical Officer.

QUEEN CHARLOTTE'S LYING-IN HOSPITAL, Marylebone Road, N.W.—Assistant Resident Medical Officer. Salary at the rate of £50 per annum.

READING: ROYAL BERKSHIRE HOSPITAL.—Assistant, House-Surgeon, resident. Salary, £60 per annum.

ROYAL PIMLICO DISPENSARY, 104, Buckingham Palace Road, S.W.—Attending Medical Officer.

ST. MARY'S HOSPITAL, Paddington.—Resident Casualty House-Surgeon. Salary at the rate of £100 per annum.

SALFORD: ROYAL SALFORD HOSPITAL.—Junior House Surgeon, resident. Salary at the rate of £70 per annum.

WAKEFIELD: CLAYTON HOSPITAL AND WAKEFIELD GENERAL DISPENSARY.—Junior House-surgeon, resident. Salary, £80 per annum.

WEST BROMWICH DISTRICT HOSPITAL.—House-Surgeon, resident. Salary, £100 per annum.

WEST RIDING ASYLUM, Wadsley.—(1) Fourth Assistant Medical Officer, resident. Salary £150, rising to £180, per annum. (2) Fifth Assistant Medical Officer, resident. Salary £140, rising to £160, per annum.

WEST RIDING OF YORKSHIRE.—Bacteriologist and Assistant to County Medical Officer. Salary, £250 per annum, rising to £400.

MEDICAL APPOINTMENTS.

ACLAND, H. T. D., F.R.C.S.Eng., Honorary Surgeon to the Christchurch Hospital, New Zealand.

BOWES, J. A., M.D., B.C.Cantab., Certifying Factory Surgeon for the Herne Bay District, county Kent.

BURKITT, O., L.R.C.P.& S.I., Ear and Throat Surgeon, Perth Hospital, West Australia.

CAMPBELL, R. B., M.B., C.M.Edin., Medical Superintendent of the Inverness District Asylum.

DAVY, T. G., M.R.C.S., Physician to In-patients, Perth Hospital, West Australia.

GRANT, Lachlan, M.D., C.M.Edin., Certifying Factory Surgeon for the Ballachulish District, county Argyll.

HARRIS, Matthew, M.B.Aberd., Physician to the Wee Waa Hospital, New South Wales.

HEDLEY, A. S., M.B., B.S.Durh., Certifying Factory Surgeon for the Rothbury District, county Northumberland.

IVENS, Frances, M.S.Lond., Surgical Assistant to the New Hospital for Women.

LESCHEN, H. A., M.B., Ch.M.Edin., Physician to In-patients, Perth Hospital, Western Australia.

LOVEGROVE, F. J., M.R.C.S.Eng., L.S.A., Government Medical Officer and Vaccinator, Gunning, New South Wales.

MARSHALL, J. Cole, M.B., F.R.C., Clinal Assistant to the Chelsea Hospital for Women.

MONTGOMERY, S. H. R., M.B., B.S.R.U.I., Inspector-General of the Insane, West Australia.

MORGAN, Edward H., M.R.C.S., Health Officer for the Hamilton District, Tasmania, vice Dr. J. Stewart.

WATSON, G., M.B., Ch.M.Edin., Health Officer for the Burnie District, Tasmania, vice C. Rooke, M.R.C.S., resigned.

DIARY FOR NEXT WEEK.

MONDAY.

Royal College of Surgeons of England, 5 p.m.—Professor Arthur Keith: On the Structure and Evolution of the Auricles of the Heart. (Lecture I.)

Odontological Society of Great Britain, 20, Hanover Square, W., 8 p.m. Paper by Mr. Cornelius Robbins and Mr. J. Thornton Carter. Casual Communication by Dr. H. Bellamy Gardner.

Medical Society of London, 11, Chandos Street, Cavendish Square, W., 8.30 p.m.—Dr. T. B. Hyslop: The Progressive Paralyses of the Insane. Dr. C. W. Buck: Brachial Neuritis.

TUESDAY.

Therapeutical Society, Apothecaries' Hall, Water Lane, Blackfriars, 4 p.m. Dr. J. Burnet: On Ichthoform and Ichthorgan. Mr. W. McAdam Eccles: Some Remarks respecting Trusses and their Use.

Royal Medical and Chirurgical Society, 20, Hanover Square, W., 8.30 p.m. Dr. G. C. Garratt: Observations on Metabolism in the Febrile State in Man.

WEDNESDAY.

Royal College of Surgeons of England, 5 p.m.—Professor Arthur Keith: On the Structure and Evolution of the Auricles of the Heart. (Lecture II.)

Hunterian Society, London Institution, Finsbury Circus, E.C., 8.30 p.m.—Chairman's Evening. Exhibition of Cases.

THURSDAY.

Harveian Society of London, St. Mary's Hospital, W., 8.30 p.m.—Clinical Meeting. Patients in attendance at 8.15 p.m.

Royal College of Physicians of London, 5 p.m.—Dr. W. Williams: On Death in Childbed, a Preventable Mortality. (Milroy Lecture I.)

FRIDAY.

Royal College of Surgeons of England, 5 p.m.—Professor Arthur Keith: On the Structure and Evolution of the Auricles of the Heart. (Lecture III.)

Clinical Society of London, 20, Hanover Square, W., 8 p.m.—Exhibition of Clinical Cases followed by Discussion. Patients will be in attendance from 7 to 9 p.m.

POST-GRADUATE COURSES AND LECTURES.

Charing Cross Hospital Thursday, 4 p.m.—Demonstration of Surgical Cases.

Hospital for Consumption and Diseases of the Chest, Brompton, Wednesday, 4 p.m. Lecture on the Compressed Air Bath and its Uses.

Hospital for Sick Children, Great Ormond Street, W.C., Thursday, 4 p.m.—Lecture: The Eye Signs of Syphilis in Children.

London Temperance Hospital, Hampstead Road, N.W., Wednesday, 4 p.m.—Lecture: Diseases of the Stomach.

Medical Graduates' College and Polyclinic, 92, Chenies Street, W.C.—Demonstrations will be given at 4 p.m. as follows; Monday, Skin; Tuesday, Medical; Wednesday, Surgical; Thursday, Surgical. Lectures will be delivered at 5.15 p.m. as follows: Monday, Gonorrhoea in Women; Tuesday, The Thymus and Lymph Glands; Wednesday, Some of the Newer Remedies in Eye Disease, Thursday, Errors of Refraction: their Diagnosis and Treatment.

Mount Vernon Hospital for Consumption and Diseases of the Chest, 7, Fitzroy Street, W., Thursday, 5 p.m.—Lecture on the Treatment of Advanced Phthisis at Home.

National Hospital for the Paralysed and Epileptic, Queen Square, W.C.—Lectures will be delivered at 3.30 p.m. as follows: Tuesday, Subacute Combined Spinal Disease; Friday, Surgery of the Nervous System.

North-East London Post-Graduate College, Tottenham, N., Thursday, 4.30 p.m.—Lecture on Significance of Gynaecological Signs.

Post-Graduate College, West London Hospital, Hammersmith Road, W.—Lectures will be delivered at 5 p.m. as follows: Monday, Practical Surgery; Tuesday, Position, Displacement of the Uterus; Wednesday, Pneumonia; Thursday, Dislocation of the Elbow; Friday, Beri-beri.

Samaritan Free Hospital for Women, Marylebone Road, N.W.—Thursday, 3 p.m. Lecture on Cases from the Wards.

BIRTHS, MARRIAGES, AND DEATHS.

The charge for inserting announcements of Births, Marriages, and Deaths is 3s. 6d., which sum should be forwarded in post-office orders or stamps, and the notice not later than Wednesday morning, in order to ensure insertion in the current issue.

BIRTH.

SOUTHALL.—On the 8th inst., at 256, Monument Road, Edgbaston, Birmingham, the wife of Stephen Southall, M.D., of a daughter.

MARRIAGES.

SANDFORD—JOHNSTON.—On the 10th inst., at the Parish Church, Devonport, by the Rev. A. Malim, late Senior Chaplain to the Forces, George Calrow Sandford, youngest son of the late Rev. Wm. Sandford, Kingsland, Shrewsbury, to the youngest daughter of Colonel Moncrieff Johnston, of Stoke, Devonport.

WEIR—SKEY.—On February 13th, at St. George's Church, Penang, Straits Settlements, by the Rev. F. Haines, Colonial Chaplain, Hugh Heywood Weir, M.A., M.B., fourth son of the late Archibald Weir, M.D., of St. Mungo's, Malvern, to Mary Denison, youngest daughter of Rev. Frederick C. Skey, Vicar of Somerset, and granddaughter of the late Frederick Carpenter Skey, C.B., F.R.C.S., St. Bartholomew's Hospital.

DEATHS.

FAIRBANK.—On February 10th, at his residence, Clydesdale House, Hessle Road, Henry Samuel Fairbank, M.B., C.M.Edin., aged 59.

HIND.—On February 16th, at Blytholme, Harrogate, Annie Charlotte, wife of Hind, F.R.C.S.

MARVAL.—On January 4th, at S. Catherine's Hospital, Cawnpore, U.P., Alice M., L.R.C.P.& S.Ed. of pneumonic plague.

LETTERS, NOTES, AND ANSWERS TO CORRESPONDENTS.

UNICATIONS respecting Editorial matters should be addressed to the Editor, 2, Agar t, Strand, W.C., London; those concerning business matters, advertisements, non-ery of the JOURNAL, etc., should be addressed to the Manager, at the Office, 429, nd, W.C., London.

NAL ARTICLES and LETTERS *forwarded for publication are understood to be d to the* BRITISH MEDICAL JOURNAL *alone, unless the contrary be stated.*

ORS desiring reprints of their articles published in the BRITISH MEDICAL JOURNAL requested to communicate with the Manager, 429, Strand, W.C., on receipt of proof.

SPONDENTS who wish notice to be taken of their communications should authenti-them with their names—of course not necessarily for publication.

SPONDENTS not answered are requested to look at the Notices to Correspondent the following week.

SCRIPTS FORWARDED TO THE OFFICE OF THIS JOURNAL CANNOT UNDER ANY UMSTANCES BE RETURNED.

er to avoid delay, it is particularly requested that ALL letters on the editorial busi-of the JOURNAL be addressed to the Editor at the Office of the JOURNAL, and not its private house.

GRAPHIC ADDRESS.—The telegraphic address of the EDITOR of the BRITISH ICAL JOURNAL is *Aitiology, London*. The telegraphic address of the MANAGER the BRITISH MEDICAL JOURNAL is *Articulate, London*.

ONE (National):— GENERAL SECRETARY AND MANAGER,
ITOR, 2631, Gerrard. 2630, Gerrard.

Queries, answers, and communications relating to subjects to which special ponents of the BRITISH MEDICAL JOURNAL *are devoted will be found their respective headings.*

QUERIES.

Z. has omitted to enclose his card.

R. wishes to hear of an institution where a neurasthenic female of would be admitted for a small weekly payment.

RES will feel obliged to any member who will kindly inform him in h medical paper and on what date, there appeared a parody of ing's poem, "Her Majesty's Jolly," commencing something like :

I was walking home last night through the mud of a country lane,
net a man in a waterproof cape a-trudging along in the rain.
s pipe was out, and he hadn't a match, and I says to him, "Who are you?"
d says he, "I'm a doctor—a country doctor, surgeon, and midwife too."

RADIO-PHOTOGRAPHY.

SITOR will be obliged to any member who can supply information as to disagreeable symptoms following radio-photography of the skull. Is headache or falling out of the hair, or any other sequela likely to follow an exposure?

RESPIRATORY EXERCISES.

. (asks to be referred to a book giving directions for "respiratory ercises" for children with defective or obstructed nasal breathing; ook most suitable would be one that could be given to patients.

POST-AURAL PAIN.

P. would be glad to have suggestions as regards treatment in the lowing case: A single woman, aged 26, otherwise healthy, has bi-ral post-auricular pain of a continuous dull character, relieved by sure. It is now of five years' standing. An aural specialist's dia-sis was negative. The usual antineuralgic drugs and local counter-ir ation have been tried unsuccessfully.

INCOME TAX.

PLEXED writes: In the BRITISH MEDICAL JOURNAL of January 9th, in ly to "Assistant," it was stated that a qualified assistant was not liable ay income-tax on the value of his rooms and board, if these were ided for him in addition to his salary. May I inquire as to the unds for such opinion, and whether such exemption is considered extend to the case of assistant medical officers of asylums, bearing mind the decision in Bray *v.* Lancashire Justices, L.R. 22, Q.B.D. 484? Reason for inquiring is that for the first time I am assessed to in-e-tax in respect of rooms occupied here by me in my capacity of stant medical officer.

* The opinion given in the BRITISH MEDICAL JOURNAL of January 9th is based on the decision of the judges in the case of Tennant Smith (1892) A.C. 150, where it was held that the residence of a bank ent on the bank premises as caretaker and for the purpose of the ormance of his duties was not a perquisite or profit of his office hin the income-tax charge. The exemption extends to the case of assistant medical officer of an asylum, who, in the circumstances rred to by our correspondent, is liable to make his income-tax rn (Schedule E) on the actual amount of his salary, without adding reto the value of board and rooms for which he does not receive a ey payment. The case of Bray *v.* Justices of Lancashire establishes fferent point, namely, that the portions of a county lunatic asylum d as apartments by officers of the asylum with incomes of £150 a year upwards are chargeable with income-tax; that is, the apartments liable to be charged in the same way as a house is charged with the llord's property tax (Schedule A). This tax, however, is payable not by "Perplexed," but by the asylum authorities, and if our correspond-has received the collector's demand note in error, as seems able, he should hand it on to the treasurer or clerk of the asylum.

CANTAB writes: I bought a dying nucleus in July last; a claim for me-tax on profits has been sent in. My reply was that the takings et were not equal to the expenses, and that I was living on my ital; my income therefore is a minus quantity. The local surveyor axes has demanded to be furnished with three year's accounts, wing total receipts and details of expenses. My predecessor kept books beyond a daybook, and it would be practically impossible to ish these accounts; he last year acquainted the surveyor of taxes that his profits were nil. What am I to do, and can I be forced to pay anything?

*** The surveyor is legally correct, a medical practitioner being assessable to income-tax on the average annual profits of the practice for the three preceding years, whether such practice was or was not carried on by him during the three years referred to. As the financial year runs from April 5th to April 5th, our correspondent would be liable to pay three-fourths of the tax so arrived at, the first quarter's tax (April to July) being payable by his predecessor. If the circumstances are such that accounts for three years cannot be produced, he should request the surveyor to allow the tax to remain in abeyance until April 5th next, on the understanding that an account is produced for the period from July, 1903, to April 5th, 1904, immediately after the latter date. In the event of the surveyor's refusal to sanction this, he should ask for an opportunity of appeal to the commissioners of income-tax.

ANSWERS.

LECTURER.—It is presumed that the lectures to nurses will be on elementary anatomy and physiology, emergency treatment of haemorrhage, fits, poisoning, etc., and elementary hygiene. Much of this information in a simple form may be obtained from Warwick and Tunstall's *First Aid* (J. Wright and Son, Bristol); and for hygiene from *The Preservation of Health* (National Health Society), or *Elementary Hygiene* (St. John Ambulance Association).

J. R. W.—There are no places in Switzerland with waters like the gaseous thermal muriated waters of Nauheim, but doubtless artificial Nauheim baths and Nauheim exercises can be employed at Rheinfelden, Ragatz, and other places, if thought desirable by the resident medical men. Our correspondent might consult an article by Dr. J. McGregor Robertson on Bourbon-Lancy, published in the BRITISH MEDICAL JOURNAL of August 15th, 1903, p. 366.

DR. R. R. RENTOUL.—It is impossible to lay down any hard-and-fast scale of fees for such cases. It may be assumed that with a rental of £28 the income would not be above £300 a year. The fairest way of settling the question would be to charge the ordinary visiting fee for patients of such a class, and a-half fee in addition for the injection. No cab fare should be charged.

NOTES, LETTERS, Etc.

A WARNING.

DR. MARTIN A. COOKE (Stroud) writes to warn his brother practitioners against a man of medium height, about 25 years of age, dark, and with a small moustache, who, he says, is travelling about among the profession seeking orders for electric lamps, accumulators, etc., most plausible in manner and thoroughly understands electric matters. He passes under the name of Crawley. The police, adds our correspondent, have already had many inquiries about the man.

THE DISTRIBUTION OF CANCER.

DR. C. F. MARSHALL (London, W.) writes: In the interesting article on Cancer, by Messrs. Bashford and Murray, I note that nearly all the animals in which cancer was found were domesticated and not in the wild or natural state. Such animals are exempt from the natural struggle for existence which results in the survival of the fittest. In wild animals those which had cancer would be wiped out in the struggle for existence and hence cancer will probably not be found in them. In the case of man the tendency is for medical science to prolong the existence of those unfit to survive, and this process increases as medical knowledge increases. This may possibly explain the alleged increase of cancer; namely, that there is a fairly constant number who develop cancer, but more survive owing to increase of knowledge.

KNEE-JERK PHENOMENON IN INTERSTITIAL KERATITIS.

MR. N. BISHOP HARMAN (London, W.), writes: In your appreciative article (BRITISH MEDICAL JOURNAL, February 13th, p. 384) on the recent issue of the *Archives of the Middlesex Hospital* you refer to a paper of mine. "Mr. N. Bishop Harman discusses the relative frequency of knee-jerk phenomenon in interstitial keratitis, the result of inherited syphilis. Drs. Lang and Casey Wood stated as the result of their investigations that in about 30 per cent. of all cases of interstitial keratitis the knee-jerk is decidedly subnormal, and that in about 10 per cent. of all cases it is entirely absent." (In this investigation 60 cases were examined.) "Mr. Harman, on the other hand, finds as the result of the careful examination of 100 cases, 'no noticeable difference between the condition of this phenomenon in the subjects of congenital syphilis and in healthy folk. It is plain that an important question of this kind requires extended investigation.'" Extended investigation has already been made confirming my results. When I read the paper at the meeting of the British Medical Association, Swansea, 1903, Ophthalmological Section, two members stated that they had been engaged in a similar inquiry. In the words of your report (BRITISH MEDICAL JOURNAL, September 26th, 1903, p. 736) "Mr Doyne said he had himself recently examined 30 cases. In all cases the knee-jerk was present, though in a few it was diminished. Mr. Beaumont said that in 15 cases he had examined he had found the knee-jerks present." If further investigations be made, I should like to suggest that the method of testing the knee-jerk I advocated in this paper be tried. It has the merit of simplicity, the possibility of making a satisfactory comparative test, and it reduces the personal equation and its variation with time and place to a minimum.

THE ETIOLOGY OF LEPROSY.

W. H. LOWMAN, M.B., B.S.Lond., F.R.C.S. (Mission Hospital, Dera Ismail Khan, N.W.F. Province), writes: Apropos of the discussion that has been going on lately in England concerning the etiology of leprosy, the following case will be interesting. A native of the Shirani country, one of those tribes which inhabit the Suliman Mountains on the North-West Frontier, came to the hospital for treatment. He had well-marked signs of leprosy—anaesthesia of hands and feet, ulceration of both with loss of phalanges, and contraction of tendons to form a left "claw"

hand. He states that he has always lived with his tribe and is the only one afflicted with the disease. I questioned him as to his relations and their complaints to see if I could discover any deficiency in his statement, but he was perfectly consistent. I may say that these wild border people are not accustomed to tell fictions about their complaints, but are generally bluntly "straightforward" in this respect. He is about 30 years of age, and the disease began on the right foot. He has suffered five years. He has one child living, about 6 months old Questioning him as to fish-eating, he said he had eaten fish once in his life when he was little, and that was fresh caught. Allowing his statement to be correct, and I see no reason to doubt it, it is rather difficult to believe that in this case at any rate fish eating was the cause. He finished with a "poser" worthy of the Western mind, "Is it contagious?"

DOUBLE MONSTER: XIPHOPAGUS.

DR. J. ERNEST STRATTON (London) writes: Cases of conjoined twins being of some rarity, I thought it worth while to send you the following notes on a case occurring recently in my practice: The mother is a multipara, her previous confinements—all occurring in little over four years—having been at eight, seven, six, and six months respectively. There has been no abnormality of the fetus on any previous occasion. This time labour came on at the twenty-fifth week. Delivery was spontaneous and rapid. On rupture of the membranes a head presented accompanied by a hand, which proved to be the left hand of the second child. Delivery of these parts having been rapidly effected, they were followed by the shoulders of both children and the second head, which was over-extended and pressed deeply into the back of the trunk to which it belonged. The children were stillborn, having probably died within twenty-four hours before birth. The twins were connected by a firm fleshy bond of union, extending from just above the manubrium sterni down to the umbilicus, which was single and into which was inserted a single umbilical cord running from a single placenta. The spinal axes of the two children were completely separate, but it could not be determined to what extent the organs were connected, as it was desired to present the complete specimen to the University College Museum. The children were of approximately equal size and both of the female sex.

FORCIBLE DILATATION OF THE CERVIX IN "ACCOUCHEMENT FORCÉ."

DR. J. FARRAR (Gainsborough) writes: As I was, I believe, the originator of the method of dilating the rigid os in parturition by the direct application to it of an aqueous solution of cocaine (*vide Transactions of the Obstetrical Society of London*, vol. xxxvi, 1895, and a paper read at the Edinburgh meeting of the British Medical Association in 1898, BRITISH MEDICAL JOURNAL, 1898, p. 790), I am much interested in the suggestion made by Dr. Alexander Duke in the JOURNAL of January 23rd (p. 228) that the drug should be tried in purely gynaecological cases. I have myself often wondered whether it would not be equally successful in this latter work as it is in the former, and so supplant in a great measure direct instrumentation; but as I have no opportunity of personally experimenting in this direction—having little to do in strictly gynaecological work—I shall be glad if you will allow me to say that I should much like to see it tried by those who have. Its powers over the rigid os in parturition are little short of marvellous, and I should no more think of omitting to take with me in my bag a solution of the drug than I would ergot or the forceps. There is, however, a right way and a wrong one of applying it, the right way being a 10 per cent. solution in water, applied directly to the os by a piece of lint, or linen rag, saturated with the solution, smearing it round and round, both within and without, and finally leaving the lint lying within the os, between it and the head of the child. The wrong way is by using it dissolved in a solid menstruum, as a pessary, and then only in a strength of 2 per cent., a method I find adopted by certain of the profession, who found it in such cases a failure, and who thereupon jumped to the conclusion that it must in all cases prove useless. By the latter method, that by pessary, only a very small quantity of the drug can necessarily be applied at once; but by the former the os is at once overwhelmed and yields with surprising celerity.

DETERMINATION OF SEX.

DR. JAMES ROSS (Bowmore, Islay) writes: Dr. Gerrard's theory of the determination of sex is nothing but our old acquaintance "ardency" under a new guise. Why should persons try to evolve from their "inner man" an explanation of this interesting fact when Nature herself has opened a window in her thrums through which any one can see her mode of sexifying? She demonstrates that from the unfertilized ova of the queen bee drones are hatched, and from the fertilized ova, neuters—that is, potential females—thus announcing *urbi et orbi* that sex depends on the amount of stimulation communicated by the spermatozoon. Bees' ova are capable of developing into bees without this stimulation on account of their lower condition; but in this case the resulting insect is invariably a male. But ova of creatures higher in the scale of existence require more or less stimulation from spermatozoa before this development can take place. We are therefore entitled to conclude that when like stimulation is imparted by a weak spermatozoon the resulting sex is a male, and from a strong one a female. Medical men are evolutionists and know that Nature is one and indivisible, that she is as careful of the sex of a cow as of a countess, and that if we can ascertain how she sexifies the lowest creature we know how she sexifies the highest.

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BOOKS, ETC., RECEIVED.

Charles White, F.R.S., A Great Surgeon and Obstetrician of the Eighteenth Century. An Address by Charles J. Cullingworth, M.D., F R C P. London: Henry J. Glaisher. 1904 2s 6d.

Nurse Charlotte. By L. T. Meade. London: John Long. 1904. 6s.

Verhandlungen der physikalisch-medicinischen Gesellschaft zu Würzburg. Band xxxvi. No. 1. Beitrag zur Diagnose und Lehre vom Cretinismus Von Dr G. P. Bayon. Würzburg: A. Stuber. 1903.

Handbuch der experimentellen Pathologie und Pharmakologie. Von Dr. med R. Heinz. Erster Band. Erste Hälfte. Jena: Gustav Fischer. 1904. M 15.

Organes Genito-urinaires de l'Homme. Par Henri Hartmann. Paris: G. Steinheil. 1904. Fr.15

Zoological Record Vol xxxix. 1902. XVIII. Protozoa. By H M. Woodcock, B.Sc. London: Zoological Society's Office. 2s.

A Handbook of Ophthalmic Science and Practice. By Henry E. Juler, F R C S. Third edition. London: Smith, Elder and Co. 1904. 21s.

The Guide to South Africa Edited by A. Samler Brown and G. Gordon Brown for the Union Castle Steamship Co, Ltd. 1903-4 edition. London: Sampson Low, Marston Co., Ltd. 2s 6d

Das angeborene Kehlkopfdiaphragma. Von Dr Johann Tein. Berlin: Oscar Coblentz. 1904 M 2.40.

Bettws-y-Coed as a Health Resort. Oswestry and Wrexham: Woodall, Minshall, Thomas and Co.

Les Maladies de l'Estomac. Par Albert Robin Deuxième edition. Paris: J. Rueff 1904.

The Alternate Sex. By Charles Godfray Leland F R.L.S A. M. Harvard, London: Philip Wellby 1904. 3s. 6d.

Are We to Have a United Medical Profession? By Charles S. Mack, M D. La Porte, Indiana. Published by the Author. 1904. 25 cents.

Vortrage aus dem Gebiete der allgemeinen Therapie. Erstes Heft. Hertz-und Kreislaufstorungen. Von Dr. Th. Rumpf. Jena: Gustav Fischer. 1904. M.1.

Maladies du Cuir Chevelu. II. Les Maladies Desquamatives Pityriasis et Alopécies Pelliculaires. Par le Dr. R. Sabouraud. Paris: Masson et Cie. 1904. Frs.22.

Drugs: their Production, Preparation, and Properties. By H. Wippell Gadd. London: Baillière, Tindall and Cox. 1904. 5s.

Leitfaden der Therapie der inneren Krankheiten. Von Dr. J. Lipowski. Berlin: Julius Springer. 1904. M.4.

Progressive Medicine. Edited by Hobart Amory Hare, M D., assisted by H. R. M. Landis, M.D Volume IV. December 1903 London: Rebman, Ltd. 1903 15s

Die Errichtung Geburtshilflicher Poliklinken an Hebammenschulen. Von Dr Fritz Frank. Berlin: S. Karger, and London: Williams and Norgate. 1904 1s.

Vorlesungen über die Pathologie und Therapie der Gonorrhoe des Mannes Von Dr. W. Scholtz. Jena: Gustav Fischer. 1904. M 4.

Die Nebenhöhlen der Nase. Von Dr. Gustav Killian. Jena: Gustav Fischer. 1903 M.25.

Jahresbericht über die Leistungen und Fortschritte auf dem gebiete der neurologie und psychiatrie. Redigiert von Prof. Dr. E. Mendel and Privatdozen Dr. L. Jacobsohn. VI. Jahrgang. 190 London: Williams and Norgate. 190 M 35.

Etude Médico-légale sur les Traumatism de l'Œuil et de ses Annexes. Par Baudry. Troisième edition. Paris Vigot Frères. 1904. Fr 5.

Les Gardes-Malades. Par MM. Dr. Hamilton et Dr. Félix Regnault. Préface d Maurice Letulle. Paris: Vigot Frère 1901. Fr.3.

Prescribers' Pharmacopoeia. Fifth edition Bombay: Kemp and Co., Ltd. 1904.

Mikroskopie und Chemie am Krankenbet Von Dr. Hermann Lenartz. Vier Auflage. Berlin: Julius Springer. 190 M 8

Medical, Surgical, and Pathological Report of the Royal Southern Hospita 1902. Liverpool. Vol. ii Liverpool Rockliff Brothers, Limited. 1903

La Torsion du Cordon Spermatique Pl'Infarctus Hémorrhagique du Testicule. Par le Dr. André Lapoint Paris: A. Maloine. 1904.

Subjective Sensations of Light and Sound Abiotrophy, and other Lectures. By Sir William R. Gowers, M.D., F.R.C.P. F.R.S. London: J. and A. Churchi 1904 6s.

Dr. Otto Schmidt's Specific Treatment Cancer. By John Shaw, M.D.Lond M.R.C.P.Lond. London: H. J. Glaishe 1904. 1s.

Memoranda on Infectious Diseases. F the Use of School Teachers. By Jam W. Allan, M.B. Bristol: J. Wrig and Co. 1904. 6d.

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British Medical Association.

REPORT LXXX.

A CRITICISM OF E VALUE OF HAMMERSCHLAG'S METHOD I CLINICAL ESTIMATIONS OF THE SPECIFIC GRAVITY OF THE BLOOD.

By E. P. BAUMANN, M.D.Edin., M.R.C.P.Lond.,
rd the Laboratory of Pathological Chemistry, University College, London.

she days of venesection, numerous observations were made
n the specific gravity of the blood. Large quantities of
od were clinically obtainable, and the estimations could in
equence be made by direct weighing by means of the
nometer. As blood-letting fell more and more into disuse,
cient quantities for the application of this method could
conger be easily secured, and the subject of the density of
blood received for a time but scant attention. Hayem,
his well-known textbook, *Du Sang*, which was published at
Pas in 1889, makes a single reference to the matter, and dis-
es of it in a few words: "In reference to the question of
ific gravity there is nothing further to be said than that it
s iiefly dependent upon the number of the corpuscles." At
th period at which he wrote, the pycnometric method was
st the only one in general use, although Fano had some
ys prior to this introduced a means of indirectly estimating
th specific gravity by the suspension of a drop of blood in
solutions of gum of known density, and Roy had already im-
ved upon this method by the substitution of solutions of
glycerine in water. Soon, however, Lloyd Jones slightly
ther modified this method; Hammerschlag altered it by
suggesting the use of a mixture of chloroform and benzol;
nd Schmaltz introduced a capillary pycnometer by which
inute quantities of blood were weighed. All these methods,
ch rendered the observer independent of the use of the
nometer, quickly passed into common application,
nd the estimation of the specific gravity was now brought
within the range of easy clinical investigation.

f the methods named, the most exact is necessarily that
of he pycnometer, in which a certain quantity of blood is
ectly weighed and compared with the weight of a similar
antity of distilled water. Given careful manipulation,
rupulous cleanliness, and an accurate balance, the only
ssible error should lie in the fact that usually the blood is
ighed at body-heat whilst the water is at room temperature.
s source of error, as was shown by Schmaltz,[1] is so slight
were small quantities are concerned as to be practically
ligible, and the results obtained by the pycnometer may
regarded as correct. The method is however laborious, a
ly apparatus is required, and the quantity of blood needed
ders it inapplicable to ordinary clinical purposes.

chmaltz's capillary pycnomoter lacks the last mentioned
ection; but the other difficulties all apply, and in addition,
ve sources of fallacy appear inevitable when small quanti-
ies of blood are manipulated. Vaughan Harley in an unpub-
ished series of observations has found that results obtained
by he capillary pycnometer are inexact and variable.

he Roy or Lloyd Jones method is open to the objection
that it is very laborious and a relatively large amount of
blood is needed for its use.

Hammerschlag's method, on the other hand, is well adapted
to linical practice, for it is easily manipulated, does not ne-
essitate the employment of an accurate and costly balance,
and can be carried out with a very few drops of blood. It is for
these reasons no doubt that this method has passed so widely
into use, and is now employed in the majority of clinical ob-
servations upon the subject of the density of the blood. Such
observations have of recent years become increasingly frequent
in nvestigations into the condition of the blood in health
and in disease. Many observers attach great importance to
the investigation of this factor, some even going so far as to
assert that, owing to a close degree of uniformity between
them, the estimation of the specific gravity renders unneces-
sary the determination of the haemoglobin value or of the solids
and proteids of a particular specimen of blood. We are not, however, at present concerned in the consideration of this aspect of the subject. The object of this paper is to inquire into the value of the results obtained by the particular, widely-employed method in question.

Results obtained by Hammerschlag's method are commonly accepted as sufficiently exact for all clinical purposes, although very few reliable experimental data exist. Hammerschlag[2] himself states that figures obtained by his method are lower by 0.001 than the actual value of the specific gravity as controlled by pycnometric estimations. He appears, however, to have performed only two pycnometric control experiments, and his results—as will be seen later in the light of Levy's inquiry into the source of error in the application of this method—are open to question. Menicanti[3] and Monti[4] controlled their readings by means of Schmaltz's pycnometer, and obtained figures which corresponded closely; but the control method employed by them is itself not free from serious errors. Dieballa[5] states that on the ground of numerous control estimations he found Hammerschlag's method to yield results which were too high by 0.003 to 0.004; he gives, however, no details as to the method by which the control was exercised. The only really satisfactory records are those by A. G. Levy,[6] who controlled his results by the pycnometer and obtained readings uniformly higher than the actual values by 7° or 8° of the hydrometer scale. His observations are unfortunately few in number.

It appeared to me from these considerations that further investigations into the accuracy of the method were required before results obtained by this method can be finally accepted.

In the course of a series of experiments upon the blood of dogs[7] I had occasion in a large series of cases to estimate carefully the specific gravity of the blood and its serum. Both Hammerschlag's method and the pycnometer were employed in every case. The blood used for the indirect method was obtained from the capillary circulation of the ear, care being taken to avoid the least interruption of the venous return, and only full, freely-flowing drops being accepted. That used for the pycnometer was drawn from the femoral artery. The serum used for both methods was obtained from centrifugalized blood drawn from the same artery.

In employing Hammerschlag's method, the chloroform-benzol mixture was adjusted beforehand to the anticipated density. A drop was then carefully blown from a pipette into the centre of the fluid, care being taken to avoid imparting an impetus towards either an upward or a downward tendency. Along with occasional stirrings, small quantities of chloroform or benzol were then added accordingly as the drop tended to rise or fall. Whenever it had become stationary at at one level the mixture was filtered through fine muslin, its density estimated by means of a hydrometer, and the process repeated with a fresh drop. Generally three or four estimations were made, and the mean taken when the results differed. As a rule, however, the variations were very slight. Thus in one case the estimation of four successive drops of the same serum gave these results: 1.026, 1.028, 1.026, and 1.026. The hydrometer used was one of conveniently small size such as is generally used for this purpose. The same instrument was employed in all the observations. The reading was in each case taken at the point of lowest level of the intersection of the hydrometer scale by the fluid meniscus. I experienced no great inconvenience from the difficulties that are occasionally attributed to this method. Thus, Busch and Kerr[8] speak of the danger of the inclusion of an air bubble in the drop; this did, it is true, sometimes occur, but it was easily recognized and a fresh drop used. Askanazy[9] refers to the difficulty of stirring the mixture without breaking the drop; this I found could generally be overcome by using a small-sized drop. Von Limbeck[10] points out that the drop may break, and one portion rise whilst the other falls; this actually occurred on a few occasions as the result, no doubt, of the absorption of one or other of the constituents of the chloroform-benzol mixture. This mishap can generally be prevented by rapid manipulation, for as Zuntz has shown,[11] absorption occurs only after the lapse of some little time. When it did occur the mixture was strained and the observation repeated. On a few rare occasions, too, a portion of the drop would adhere to the sides or bottom of a glass which had not been thoroughly dried; in that case attention was confined to the portion still floating and the reading controlled by a second estimation.

The results of my observations are recorded in Tables I—IV. Thirty-three control estimations in all were made. Of these, 13 were made upon the blood of normal dogs (Table I); 12

TABLE I.—*Specific Gravity of Normal Blood.*

Experiment	1	2	3	4	5	6	7	8	9	10	11	12	13	Average.
Hammerschlag	1.072	1.069	1.068	1 065	1.067	1.071	1.070	1.070	1.067	1.069	1.067	1 069	1.066	1.068
Pycnometer	1.061	1.058	1.056	1.052	1.055	1.059	1.057	1.058	1.054	1.059	1.053	1.057	1.054	1.056
Difference	0.011	0.011	0.012	0.013	0.012	0.012	0.013	0.012	0.013	0.010	0.014	0.012	0.012	0.012

TABLE II.—*Specific Gravity of Normal Blood Serum.*

Experiment	1	2	3	4	5	6	7	8	9	10	11	12	Average
Hammerschlag	1.040	1.037	1.038	1.035	1.035	1.035	1.047	1.037	1.034	1.037	1.035	1.036	1.037
Pycnometer	1.029	1.027	1.025	1.022	1.024	1.023	1.035	1.026	1.023	1.025	1.023	1.024	1.025
Difference	0.011	0.010	0.013	0.013	0.011	0.012	0.012	0.011	0.011	1 012	0.012	0.012	0.012

TABLE III.—*Specific Gravity of Anaemic Blood.*

Experiment.	1	2	3	4	Average.
Hammerschlag	1.066	1.061	1.065	1.052	1.061
Pycnometer	1.055	1.049	1.052	1.041	1.049
Difference	0.011	0.012	0.013	0.011	0 012

TABLE IV.—*Specific Gravity of Anaemic Blood Serum.*

Experiment.	1	2	3	4	Average.
Hammerschlag	1.033	1.033	1 038	1.031	1.034
Pycnometer	1 023	1.021	1 026	1.020	1.022
Difference	0.010	0.012	0 012	0.011	0.012

upon the blood serum of normal dogs (Table II); 4 upon the blood of dogs rendered anaemic by bleeding (Table III); and 4 upon the blood serum of similarly anaemic dogs (Table IV).

On studying the tables, we find that Hammerschlag's method invariably yielded excessive readings. The error amounts on an average to a difference of 0.012 in excess of the real values. In all four series of observations the same average error is struck. On analysing the individual results, we find that in 42 per cent. of the total number of observations, the difference corresponds actually to the figure obtained as an average. In 28 per cent. it is lower by 1°, and in 18 per cent. it is higher by 1° of the hydrometer scale than the average. A difference in this connexion of a unit in the fourth place of decimals is, however, so fractional as scarcely to be worthy of serious attention, and we may consequently conclude that in 88 per cent. of the total number of observations the average error of 0 012 was actually maintained. In the remaining small percentage of cases the variation from the average was very slight indeed, surpassing it by 2° in 3 per cent. of the cases, and falling short of it by 2° in the remaining 9 per cent. The difference in the results by the two methods is thus strikingly uniform, and this uniformity is displayed in the case of anaemic as well as in the case of healthy blood and blood serum.

Since the performance of the above experiments A. G. Levy[12] has carried out an admirable research into the origin and extent of the error which occurs in the use of Hammerschlag's method. He found that the extent of the error depends upon the form and size of the hydrometer used. In order, therefore, to obtain constant results the same instrument should always be employed. The source of error depends, he found, upon the use of hydrometers which have been standardized in water or watery fluids. A mixture of chloroform and benzol, owing to its lower surface tension, exercises a less powerful traction than water upon the stem of the instrument, and the hydrometer consequently gives readings which are higher than the actual value. An error must thus always lie in the direction of an excess, and it is for this reason that we question the accuracy of the observations in which Hammerschlag obtained results that were lower than the actual value of the specific gravity. The source of the error may be obviated either by the use of a special hydrometer which has been standardized in a chloroform and benzol mixture, or by the employment of a rough method of correction, which may be applied to any hydrometer that is graduated from 1.000.[13] It is advisable that one or other of these methods should in future be adopted in order that the results of different observers—or the results obtained by individual observers at different times with different hydrometers—may be brought into line. It is particularly advisable in the case of those observers who propose to utilize their results for the determination, by calculation, of the haemoglobin value of the blood.

CONCLUSIONS.

From the consideration of the above investigations we arrive at the following conclusions:

1. Provided the same hydrometer is used, Hammerschlag's method of estimating the specific gravity of the blood is clinically easily applied, and yields, both in health and disease, results which are uniform and reliable.

2. An error is associated with the use of this method, which is always in the direction of an excess. The excess is, however, uniform and constant.

3. As was shown by A. G. Levy, the error may readily be obviated by the use of a specially standardized hydrometer or by the application of the rough method of correction suggested by this observer.

In conclusion, I wish to express my sincere indebtedness to Professor Vaughan Harley for many suggestions and much kindly advice, and to Dr. F. W. Goodbody for his valuable assistance in the labour of carrying out the control experiments.

NOTE AND REFERENCES.

[1] *Deut. Arch. f. klin. Med.*, 1891, xlvii, p. 145. [2] *Wien. klin. Woch.*, 1890, p. 1018 and *Zeit. f. klin. Med.*, 1892, xx, p. 444. [3] *Deut Arch. f. klin. Med.*, 1892, l, p. 407. [4] *Arch f Kinderheilk*, 1894-5, p. 223. [5] *Deut Arch f. klin. Med.*, 1895, lvii, p. 302. [6] *Journ. of Path. and Bact.*, 1898, p. 317. [7] *Journ. of Physiol.* 1903, xxix, p. 18. [8] *Med. News*, 1895, lxvii, p. 678 [9] *Deut. Arch. f. klin. Med.* 1897, lix, p. 385. [10] *Grundriss d. klin. Pathol des Blutes.* Jena, 1896, p. 4. [11] *Arch. f. d. ges. Physiol.*, 1897, lxvi, p. 549. [12] *Proc. Roy. Soc.* 1902, lxx, p. 171. [13] This process is described by the author of the research as follows: "The method consists of adjusting the proportions of a mixture of chloroform and benzol until a small drop of water immersed neither sinks nor floats. The mixture being thus of the same specific gravity as water itself, the reading of the hydrometer in it is its error at this degree, and in the case of a well-constructed and accurately graduated hydrometer, this error holds good with only a negligible increase throughout the scale."

A PASTEUR INSTITUTE FOR TEXAS.—The Texas State Legislature has made a grant of £1,000 towards the establishment and maintenance of a Pasteur Department for the treatment of hydrophobia in the State, in connexion with the State Lunatic Asylum at Austin and under its management.

INSANITY IN NEW YORK.—The statistics of the New York State Commission in Lunacy show that there has been an increase in the number of insane in the State during the past year amounting to about 40 per cent. above the normal. The observations of the Commissioners indicate that there is a relation between the increase of insanity and the development of industries which is sufficiently pronounced to render doubtful the popular belief that the isolation and monotony of farm life are conducive to insanity, especially among women.

REMARKS UPON TEMPERATURE.

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...r a so-called fact in physiology is but a statement of the ...ce of evidence. This must vary from time to time, for ...vidence may be obtained or old discarded evidence may ...stated and confirmed. It is useful, therefore, at times ...empt to sum up the evidence and to draw conclusions ...h can be tested by further investigations. The personal ...tion may bias the verdict, but this is a necessary con... in the examination of evidence upon all debated ...ions.

...e temperature of man and of other warm-blooded animals ... subject in which such a review may be useful. The ...ral opinion has been that the temperature is remarkably ...ant, and under physiological conditions shows but a ...w range of variation. Since the thermometer is one of ...physician's guides, it is most important that the condi... which affect the range of the temperature in a healthy ... should be carefully determined. The practical side of ...physiological question will therefore be kept in view in ...present article.

The Temperature of the Newly-born.

...e Darwinian theory leads to the conclusion that the ...n-blooded have been evolved from the cold-blooded ...mals. Physiological facts support this conclusion. The ...perature of newly-born pups, kittens, and rabbits falls ...n they are removed from the warm surroundings afforded ...their dam, and continues to fall until it reaches a ...t a few degrees above the temperature of the air. ...ly-born guinea-pigs, however, are able to maintain their ...perature if the exposure to cold be not excessive; ...y are at birth in a condition of great development, they ...well covered with fur, their eyes are open, and they ...quickly able to run about. Young warm-blooded ...mals can, therefore, be divided into two classes—those ...h at birth are blind, helpless, in some cases naked, and ...le to regulate their temperature; and those which are ...n a condition of greater development and capable of ...taining the temperature of their bodies at a fairly ...tant level. Young birds can be classified in a similar ...ner. These important observations were published by ...F. Edwards[1] in 1824. Within recent years they have been ...rmed and extended, and it has been shown that the ...ference lies in the development of the power of regulating ...perature; the first class respond to changes of external ...perature in a manner similar to that of cold-blooded ...mals; their combustion, as measured by the output of ...on dioxide, varies with and in the same direction as the ...perature of their surroundings; the second class, how..., increase their combustion when they are exposed to ...; they resemble warm-blooded animals.[2] The develop...t of this power of regulating the temperature of the body ...be traced in the developing chick.[3]

...e practical interest of the question is centred in infants. ...dnitz[4] has investigated the variations in the temperature ...fants at birth and during the first few days after birth. ...effects of affusions of cold water were observed; the rectal ...perature rose in the case of strong infants, but remained ...tionary or fell in the case of the weak. The influence of ...large cutaneous surface in relation to the mass of the ... and the loss of heat from the skin were shown to be only ...ndary causes of the irregular temperature. The chief ...se was the imperfect development of the power of regu...ting temperature. Shivering and other muscular move...ts were more marked in the strong than in the weak ...nts. Quite recently Babák[5] has made an important series ...observations upon the respiratory exchange and the produc... of heat in infants. Their temperature is low, even when ...y are fully clothed and in a room at 15° C. (59° F.); ...nfants an hour or two old the temperature may be as low ...4.0° (93.2 F.) or 33° (91.4° F.); it rises gradually during ...first day or two, but shows considerable variations; thus ...the fifth day after birth the rectal temperature varied from ...' (97.16° F.) to 33.5° (92.3° F.) in an infant weighing ...grams (approximately 5½ lb.), and kept in a room at 12.0° C. ...° F.). The conclusion drawn from numerous observa...s made at different times of the year and upon infants of ...rent ages is that the power of regulating temperature is ...mpletely developed in the newly-born. The regulation of ...loss of heat is imperfect, and this is markedly shown if the infant be insufficiently clothed when it is exposed to even moderate cold. The regulation of the production of heat by variations in combustion is also incomplete, and only within narrow limits can the newly-born respond to changes of external temperature in a similar manner to the response of the adult. The further development of these powers of regulation can be traced during the first week after birth.

The results, therefore, of observations upon infants and other warm-blooded animals agree. The evolution of the warm-blooded animal can be traced not only in the animal series, as shown by the important observations of Sutherland[6] and C. J. Martin[7] upon marsupials and monotremes, but also in the same individual at different stages of its existence.

The practical importance of the knowledge of this imperfect regulation in the newly-born is obvious; maternal instinct, however, has for long ages anticipated physiological knowledge. The mother by means of the heat of her own body fosters the helpless young. That this care is primarily for the benefit of the young, and not for the satisfaction of maternal yearnings or weakness, is shown by the fact that in many cases both the cock bird and the hen bird brood over the newly-hatched young, and that parturition does not incapacitate animals and uncivilized women from the daily routine of life. Many premature infants have been reared by proper attention to the temperature of their surroundings; the more premature and weak the more nearly do they resemble cold-blooded animals in their inability to regulate their temperature. The heat of their bodies and the combustion of their food vary with and in the same direction as the temperature of their surroundings. Cold—even moderate cold—to such premature infants is not a stimulant but a depressant, for they can regulate neither the loss nor the production of heat.

The Physiological Limits of the Temperature of the Adult.

The range of temperature in healthy men and animals has not been adequately determined. This is chiefly due to errors in the methods and the times of observation. In the case of man reasons of convenience and delicacy have led to the observation of the temperature in the mouth. Such a determination is not an exact measure of the internal heat of the body. The balance of evidence shows that Lorain[8] rightly maintained that the temperature of the rectum alone represents the internal heat of the body. It would occupy too much space to refer to the numerous observations which have been made upon the comparative values of determinations of the temperature in the mouth, axilla, groin, rectum and urine. These data have been given elsewhere.[9] It is only necessary to insist that a so-called "half-minute" clinical thermometer will not give true or even comparable values for the temperature of the body under different conditions, even if it be retained for five or ten minutes under the tongue of a firmly-closed mouth. Such a determination is unreliable owing to the cooling of the tissues which surround the buccal cavity; this is especially the case after exercise or in cold weather, but even in warm weather there is a loss of heat from the boundaries of the mouth by the evaporation of sweat. These sources of error are obviously not so marked in the case of many patients, for when the subject is lying in bed the clothes around the neck and the protection from draughts maintain the temperature of the mouth at a value more comparable to that of the rectum.

The method used by Stephen Hales,[10] the observation of the temperature in the stream of urine, gives results[11] which in point of accuracy come next to rectal determinations. Although this method is obviously limited in its application, yet it is very rapid, convenient and free from the danger of carrying infection. Haldane and Pembrey easily determined in this way the temperature of eighty-three soldiers in one hour and a-quarter.

It would be unnecessary to insist so much upon the errors of the method, were it not for the fact that some observers[12] have maintained that the temperature of the mouth is equal to that of the rectum, and many have insisted that, even if the buccal determinations be lower than the rectal, the results are comparable. Further, the observation of the temperature in the mouth has led to wrong conclusions regarding the influence of muscular work upon the temperature of man.

The internal temperature of a healthy man shows a range from 36.0° C. (96.8° F.) to 37.8° C. (100.0° F.); these are average figures for the temperature of the rectum or urine (Jaeger, Jürgensen, Mantegazza, Neuhauss, Nicol, Pembrey, and Richet), and do not include the absolute physiological

Animal.	Average Rectal Temperature.	Extremes of Observations.	Number of Observations.	Observer.[13]
	° °	° °		
Horse	37.9 (100.2)	37.2—38.6	On 150 horses	Strecker
	37.9 (100.2)	36.1—38.6	On 212 ,,	Hobday
Cow	38.6 (101.5)	37.5—39.4	On 87 cows	Hobday
	38.6 (101.5)	37.7—39.6	On 100 ,,	Singleton
Sheep	40.0 (104.0)	39.7—40.2	On more than 100 sheep	Hobday
	40.1 (104.2)	39.6—41.0	On 100 sheep	Singleton
Pig	39.6 (103 3)	38.3—40.8	169 on 4 young pigs	Siedamgrotzky
	38.7 (101.7)	38.7—39.3	On more than 100 pigs	Hobday
Dog	38.6 (101 5)	38 1—39.2	On more than 200 dogs	Hobday
	38.8 (101.8)	38.0—39.8	On 100 dogs	Singleton
Cat	38.7 (101.7)	37.9—39.7	On 41 cats	Hobday
Monkey (Rhoesus) ...	38.4 (101.1)	36.9—39.7	22 on 2 monkeys	Hale White and Washbourn
	37.7 (99.8)	35.9—38.9	1,000 on 26 ,,	Sutherland Simpson[14]
Rabbit	39.2 (102.5)	37.3—39.9	72 on 27 rabbits	Hale White
	38.7 (101.7)	37.0—40.8	31 on 10 ,,	Pembrey
	39.8 (103.6)	38.6—41 0	77 on 13 ,,	Pembrey
Guinea-pig	38.6 (101.5)	36.0—39.2	140 on 10 guinea-pigs	Eyre[15]
	37.9 (100.2)	37.0—39.2	19 on 5 ,,	Pembrey
Rat...	37.5 (99.5)	37.0—38.5	16 on 4 rats	Pembrey
	37.9 (100.3)	37.4—38.9	60 on 2 ,,	Pitts
Mouse	37.4 (99.3)	36.1—38.6	27 on 8 mice	Pembrey
Fowl (common) ..	42.8 (109.0)	41.7—43.9	On 14 fowls	Davy
	41.6 (106.9)	40.6—43.0	On 111 ,,	Hobday

These figures clearly show that the average temperature is, in all the cases, considerably above that of man. The range of variation is also great but it is uncertain, even with these numerous determinations, whether the true range has been ascertained. The lowest temperatures occur duri the hours of rest and sleep; under such conditions very few observations have been made except in the case of man.

range. It will be shown later that muscular exercise will raise the internal temperature of healthy men to 38.5° C. (101.3° F.) without causing distress or any pathological effects.

The range of temperature in healthy animals is also of practical importance. Their temperature must be determined in many physiological and pathological experiments, after the injection of tuberculin and mallein and in veterinary practice. The data are gradually becoming more numerous and complete; they show that domesticated animals also have during health a range of temperature which is wider than that generally accepted. In fact, temperatures which are within the healthy range have been recorded, the high ones as fever, the low ones as subnormal. Here may be given the average temperature and range found in the case of some of the animals in which the temperature is frequently observed. As far as possible the effects of exercise or of struggling have been excluded, but it is obvious that this precaution is not so easy as in the case of man.

THE INFLUENCE OF MUSCULAR WORK UPON THE TEMPERATURE OF THE BODY.

Upon this subject numerous observations have been made by different investigators, but the results have been conflicting. The general opinion has been, both among physiologists and physicians, that muscular work does not raise the temperature of the body; more heat is, indeed, produced, but it is maintained that the body compensates, or even overcompensates, by an increase in the loss of heat. This conclusion is based in nearly all cases upon the results obtained from observation of the buccal temperature. The determination of the temperature in the mouth, especially after exercise, is not an exact or comparable measure of the heat of the body. The data, therefore, only justify the conclusion that the temperature of the mouth does not rise, and may even fall during muscular work. Even this conclusion is not the whole truth, for if the cooling of the face be prevented by a high external temperature or by other means, the temperature of the mouth rises.

This question is of practical importance in relation not only to the general effects of muscular exercise, but also to the causation of "heatstroke" and to the modern treatment of tuberculosis.

Muscular exercise causes a marked rise in the temperature of the rectum and urine of healthy men. Thus the temperature may rise to 38.5° (101.3° F.) or to 38.9° (102° F.) without causing distress or any pathological effects. The experimental data and a critical examination of previous work upon this subject have been given elsewhere,[16] and need not be reproduced here. The question is one which must be decided by experiment, and any healthy man who knows how to properly use an accurate clinical thermometer can make such experiments. There is no evidence to show that the rise in the internal temperature is injurious; evidence is gradually forthcoming to show that it may be beneficial. It should be noted that the average temperature of most of the domesticated mammals is, apart from the influence of exercise, high as 38.5° (101.3° F.).

There is little room for doubt that heat-stroke and he exhaustion are due, not to a hypothetical germ, but to a d turbance of the nervous control of temperature, brought abo in most cases by muscular exercise in unsuitable clothes a in hot surroundings laden with moisture.[17] This view strongly supported by the nature of the best preventi measures and of the most successful methods of treatment

In the case of phthisical patients[18] the rise of temperatu after exercise would not appear to be of such diagnostic val as the reaction after exercise and the temperature duri rest. It is to be feared that many patients with a tempe ture somewhat above the so-called normal have been still f ther enfeebled by enforced rest in bed.

THE INFLUENCE OF CHANGES IN EXTERNAL TEMPERATURE

In the healthy man the nervous control of temperature so well developed that his internal temperature is practica the same whether he be living in the Arctic regions or in t tropics. Even apart from alterations in clothing a man c compensate for large differences in external temperature. the higher warm-blooded animals, man included, cold i stimulant more powerful in its effect upon metabolism th any drug. Exposure to cold will often increase the output carbon dioxide by 50 or 60 per cent. This in turn will ca an increased absorption of oxygen, a greater demand for fo a greater exchange of material in all respects. In Europe children this effect is often seen; languishing in hot s roundings in the tropics, they rapidly improve in the coo hill-country or in England.

It is probable that the exposure of phthisical patie under the modern treatment of consumption is an import factor in success; it must be useless physiologically largely increase the food unless the metabolism be a mented. The two natural methods of increasing combust are cold and exercise. On the other hand, it must be reme bered that if the natural response to a change of temperat be defective, as it is in many debilitated subjects, cold v be injurious.

The prevalent idea that adults and children should shielded from changes of temperature, that living rooms bedrooms should all be maintained at an equitable temp ture and thus the danger of "colds" be warded off, must l to deterioration. Colds are no doubt infectious diseases; arctic explorers, it is said, do not thus suffer until they ret to temperate and populous countries, where they are exp to infection. Physiological resistance can only be maintai by training; the healthy man, who takes a cold bath or is posed to cold in the winter, trains his body to react to chan of temperature and is less liable to "colds" than the m who is constantly protected, as he vainly imagines, by cessive clothing and warm surroundings. The value of door sports in maintaining this resistance, this power accommodation, is obvious; as a therapeutic agent spor recognized but not to the extent which it deserve.

The Influence of Alcohol and of Anaesthetics.[19]

Alcohol acts upon the vasomotor system and also upon the ervous control of the production of heat. The dilatation of e cutaneous vessels, the increased perspiration and the oling thereby produced are well known. The temperature the subject may be lowered although he himself feels armer; this is due to the warm blood which flushes the taneous nerves where the sensations of temperature arise. large doses alcohol paralyses the nervous control of temerature. The man who is "dead drunk" resembles a cold-looded animal; exposure to cold produces not an increase ut a decrease in combustion and his temperature steadily lls. The lowest temperatures recorded in men, who have covered, appear in drunkards who have been exposed to old.

Anaesthetics rapidly paralyse the nervous regulation of mperature. The disturbance in temperature, be it a fall or rise, which is seen after many surgical operations, appears be largely due to this cause. The convenient explanation "shock" needs further definition. The anaesthetized atient cannot regulate his temperature. The importance of arm surroundings to a patient who is deeply under an aesthetic during a long operation is generally recognized. uch patients require warmth; an anaesthetic in the case of arm-blooded animals quickly reduces the combustion of the ody to one-half its normal value; the vital resistance and e power of accommodation are concomitantly reduced. Warmth will increase, cold, even moderate cold, will diminish e combustion.

From a physiological point of view anaesthesia would ppear to be often too deep and prolonged. Pain is benefient in numerous cases; it is a natural safeguard, and brings bout appropriate responses to sensations which are too ften quenched by an anaesthetic. A drug which will so proundly disturb the nervous control of combustion can never e considered harmless. The rapid recovery of animals and avages from serious wounds is generally attributed to a reater resistance; but the question can be fairly asked hether the smaller resistance of the civilized man is not rther diminished, and often seriously diminished, by deep nd prolonged anaesthesia? The patient dies—not, it is said, om the anaesthetic, not from the operation, which was uite successful, but from "shock"—he does not rally. May ot this absence of a rally largely depend upon the fact that e combustion of the body, one of the most characteristic gns of life, has been so greatly diminished and for a time, least, has been removed from the control of the nervous stem? It is impossible by means of an anaesthetic to fluence the nervous system alone; the body works as a nit, and as such is affected by abnormal conditions.

The Limits of Bodily Temperature compatible with Life.[19]

Under pathological conditions the temperature of man nows a range of about 22° C. (approximately 39° F.), from 4° (75.2° F.) to 46° (114.8° F.). Higher and lower temperares have been observed in moribund patients; here, however, only well-authenticated cases, in which recovery took lace, need be considered. Several observers have recorded ectal temperatures as low as 24° (75.2° F.) in drunkards who ave been exposed to cold for several hours; the patients ere unconscious, but under careful treatment recovered in wo or three days. Low temperatures have also been oberved in chronic cases of insanity, and have persisted for everal weeks.

The cases of hyperpyrexia scattered throughout medical terature are exceedingly numerous. Some of the observaons appear to be unreliable, owing to defects in the thermoeter or to fraud on the part of the patient. The range above e normal temperature is less extensive than that below, and very high temperature is rapidly followed by death, whereas very low temperature is compatible with life for a relatively ng period. This would be expected on general physiological rounds, for some mammals have, under the natural condions of hibernation, a temperature only five or six degrees bove the freezing point.

The highest records in patients who have recovered appear be 45° to 46° (113° to 114.8° F.), but in these cases the high mperature appears to have been maintained for a very short me.

References.

[1] Edwards, *De l'Influence des Agens Physiques sur la Vie*, Paris, 1824. Pembrey, *Journ. Physiol*, Cambridge and London, 1895, vol. xviii, p. 363. Pembrey, Gordon, and Warren, ibid., 1894-5, vol. xvii, p. 331. [4] Raudnitz, *Zeit. f. Biol.*, München, 1888, Bd. xxiv, s. 423. [5] Babák, *Arch. f. d. ges. Physiol.*, Bonn, 1902, Bd. 89, s. 154. [6] Sutherland, *Proc. Roy. Soc.*, Victoria, 1897, vol. ix, p. 57. [7] Martin, *Phil. Trans.*, London, 1902, vol. cxcv B, p. 1. [8] Lorain, *De la Température du Corps Humain*, Paris, 1877. Tome i, p. 434. [9] Pembrey, article Animal Heat, *Textbook of Physiology*, edited by Schäfer, Edinburgh and London, 1898, vol. i, p. 824; Pembrey and Nicol, *Journ. Physiol.*, Cambridge and London, 1898, vol. xxiii, p. 386, see also references 16 and 18. [10] Stephen Hales, *Statical Essays*, London, 1731, second edition, vol. i, p. 59. [11] Pembrey and Nicol, loc. cit.; see also 16. [12] Ringer and Stuart, *Proc. Roy. Soc.*, London, 1877, vol. xxvi, p. 186. [13] The references to these authorities are given in Animal Heat, loc. cit. [14] Sutherland Simpson. *Proc. Phys. Soc.*, *Journ. Physiol.*, Cambridge and London, 1902, vol. xxviii, p. xxi. [15] Eyre, ibid., 1900, vol. xxv, p. xxiv. [16] Pembrey, Arkle, Bolus, and Lecky, *Guy's Hospital Reports*, London, 1902, vol. lvii, p. 283. [17] Pembrey, ibid., p. 261. [18] Burton-Fanning and Gurney Champion, *Lancet*, London, March 28th, 1902. [19] Numerous references are given in Animal Heat, loc. cit.

THE CAUSES AND TREATMENT OF CHRONIC RHEUMATISM.

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Acute rheumatism is an acute microbic infection, running a course of variable duration when untreated, and usually presenting certain well-defined symptoms which render its diagnosis an easy matter. One attack predisposes to others. Those cases which we are accustomed to call "subacute rheumatism" are really milder cases of the same disease, and no hard and fast line of distinction can be drawn. A case of acute rheumatism may be unusually prolonged, but never becomes chronic in the true sense of the term. That is to say, it never becomes chronic any more than enteric fever or diphtheria, becomes chronic. These diseases may leave sequelae in the form of bowel lesions or peripheral neuritis, respectively, but such sequelae are not designated chronic enteric fever, or chronic diphtheria. In the same way acute rheumatism may cause fibrous thickening of the valves of the heart, or fibrous indurations of the aponeuroses, fasciae, ligaments, and nerve sheaths, but these are results of the original disease and not an indefinite continuation of it.

Such indurations of the fibrous tissue give rise to pains referred to the muscles, joints, and nerves; but these symptoms, and the lesions causing them, cannot properly be regarded as the chronic stage of acute rheumatism, more especially as acute rheumatism is not the only condition which precedes them and is responsible for their presence. Nevertheless, the name chronic rheumatism has been so long applied to chronic painful conditions of the muscles and joints that its retention is now a matter of convenience. In the popular mind, and, to some extent, in the medical mind, the name has been long associated, specially and almost exclusively, with affections of the joints; and formerly, when so many separate and quite distinct articular lesions were classed together as "rheumatic," this idea was, to a large extent, justified. Gradually, however, the meaning of the term has become much narrowed by more accurate diagnosis, and we now distinguish rheumatoid arthritis, morbus coxae senilis, coxa vara, pulmonary osteoarthropathy, Haygarth's nodosities, septic and gonorrhoeal arthritis, and other diseases and affections implicating the joints, as things quite distinct from each other and from chronic rheumatism. It is also now recognized that the articular structures proper—cartilage, synovial membrane, bone—are not primarily affected in chronic rheumatism, but that the parts implicated are the fibrous ligaments of the joints, and more especially all the fibrous tissues of the muscles and bones. In our textbooks the condition is described as chronic rheumatism, muscular rheumatism, muscular and tendinous rheumatism, myalgia, rheumatic myositis, pain being assigned the most prominent place as a symptom and damp cold as an exciting cause. Its original causation is variously stated as a rheumatic affection, as a special infection, as a diathesis, as a neuralgia, as a manifestation of gout, and as a muscle pain from imperfect nutrition. The same indefiniteness characterizes the accounts given of its pathology. Some authors hold that there are no morbid anatomical changes, others consider it a neuralgia, or an active hyperaemia of the muscles, or of their fibrous sheaths, while only a few describe definite fibrous changes and thickenings in the connective tissues. Speaking in general terms, the treatment recommended is regarded as palliative rather than curative, and no great hope of complete and ultimate relief is held out. A consideration of its pathology and experience of the results of properly-directed and persevering treatment have led me, how-

ever, to take a more hopeful view of the prospects of sufferers from chronic rheumatism.

Pathology.

The essential pathological changes are confined to the white fibrous tissue, and as this forms so large a part of the locomotory apparatus of the body, we accordingly find that chronic rheumatism affects specially the aponeuroses, tendons, fibrous septa, sheaths of muscles and nerves, periosteum, and the fibrous structures of joints. The lesion consists in inflammation and hyperplasia of the connective tissue in patches, and this condition may be widely spread over the body, or may be confined to a certain area of it. Sero-fibrinous exudation with proliferation of the connective tissue takes place, probably as the result of irritation from microbes or a toxin. This may be wholly or partially reabsorbed, or may organize and form permanent fibrous swellings and indurations. On microscopic examination they are seen to consist of proliferating fibrous tissue and exudation (when recent), or (when older) chiefly of dense fibrous tissue. They are well supplied with blood vessels, and no leucocytes congregate about them, as happens in so many inflammations. Once these fibrous swellings form, they are liable to become swollen and painful under the influence of cold, damp, over-exertion, indigestion, and other causes, and in this manner chronic rheumatism is established. The fibrous indurations are frequently defined and circumscribed, varying in size from a small shot or split pea to an almond or half a walnut, or a whole aponeurosis, as in the lumbar region or fascia lata, may be thickened, imparting to the skin over it a hard, inelastic feel. Very frequently the thickening takes the form of a strand or cord running through the fascia, or of small periosteal nodules, or of swelling on a nerve sheath. Local injuries, such as sprains, rupture of muscle fibres, dislocations, and so on, often give rise to similar indurations of the fibrous tissue, and these often cause local rheumatic symptoms, sometimes very troublesome and intractable to treatment.

If these swellings are at all superficial they can be very distinctly felt, and are usually painful on pressure. The commonest situations for them are in the lumbar aponeurosis, calves, fascia lata and tendinous expansions of the thigh muscles, the trapezius, deltoid, inner border of biceps, intercostal muscles, the glutei, and the soles of the feet. The fibrous tissue of the neck of the bladder, of the pharynx, behind the sternum, and all along the spinal column and in the joints may also be affected. When these local indurations swell up—as they do from various causes—there follows local tension, with pressure on the filaments of sensory nerves. This gives rise to almost continual aching, pain, and a sense of muscular fatigue. Sudden muscular movement, by increasing the tension or exerting pressure on the swollen tissue, often greatly aggravates the pain or causes it to shoot excruciatingly. Owing to the implication of sensory nerves the aching and pain may often radiate over a wide area; hence also the numbness, tingling, and prinkling which are common symptoms of chronic rheumatism.

Etiology.

As regards the etiology of chronic rheumatism, it is necessary to differentiate between (1) the original causes of the fibrous indurations and (2) the causes of the exacerbations once the fibrous thickenings have become fully established, and the patient suffers habitually from his rheumatism.

In adults, as in children, it is comparatively common for fibrous thickenings to occur as accompaniments or sequelae of acute rheumatism. They may disappear, or may remain after all symptoms of the original acute attack have gone, they ache under slight exposure to cold, are painful on pressure, and often very intractable to treatment. True influenza is another cause, and slight febrile attacks, with pain and aching in the muscles and bones (often described as an "influenza cold" or a "rheumatic cold"), also bring on these fibrous thickenings. Sore throat seems to be another cause, and, as previously mentioned, local injuries to joints and muscles may have the same effect. In a certain number of cases no cause can be assigned beyond frequent exposure to cold and wet, or to extremes of heat and cold, accompanied often by hard muscular work. Chronic rheumatism is said to be a disease of maturer years, but this is hardly correct. A certain degree of it constitutes "the stiffness of age," but it is very common in adolescents and in early middle life. It is therefore not a diathesis but a local affection of the fibrous tissues, and it apparently results from several preceding causes.

Once the fibrous indurations are established, cold, damp, draughts, wet clothing, weather changes, unusual or violent muscular exercise, intestinal indigestion, and other causes have a very marked influence on their condition. Under the influence of these exciting causes the fibrous tissue formations become swollen and more tense, and give rise to pain and aching, which disappear very slowly or may suffer exacerbation from renewed exposure. Hence in some cases the patient is never quite free from muscular aching, and may have neuralgia in addition.

Symptomatology.

The symptoms of chronic rheumatism are so well known that I need only refer to them very briefly. During an exacerbation aching and pain referred to the muscles, fasciae, tendons, and joints torment the patient, there is a feeling of fatigue and tiredness, and often marked sleepiness. When the more acute stage passes off, it is succeeded by intermittent stiffness and aching, especially felt in bed in the morning, or after resting, or remaining for a time in one position. In certain patients it may recur again and again in the same part (lumbago, stiff-neck), or it may be widely distributed over the body. The stiffness and aching usually wear off on active movement or exertion, but recur again very soon. Any sudden movement which compresses a swollen induration may cause very severe and crippling pain (as in lumbago), but apart from this the affected muscles are easily tired and often ache intolerably for days after even moderately severe exertion. Some of the joints and nerves may be more or less painful and the digestion is not infrequently out of order. The general health may be mediocre or fairly good, but if there is much continuous neuralgic pain the patient may become thin, peevish, and neurasthenic.

Firm gentle pressure over the skin, which it is best to smear with liquid paraffin or some oleaginous material, reveals the presence of the indurations, nodules, or thickenings which have been previously described. These are painful or tender when pressed upon with some little force, and become less painful after a few minutes of gentle effleurage.

Treatment.

During an acute exacerbation, when the indurations swell up and cause pain and aching, relief may be given by hot baths, massage, phenacetin, Dover's powder, sodium salicylate, the local application of methyl salicylate and similar measures. But the relief thus afforded is only temporary, and often in a few hours, or as soon as treatment is stopped, the pains return to continue for days. weeks, or indefinitely, and the patient remains as before, liable to renewed attacks on every exposure to cold, wet, or fatigue.

To obtain permanent cure and complete relief from the recurrent attacks, the fibrous indurations must be completely dispersed, and in all but quite recent cases this is always a more or less tedious and troublesome procedure. The only means which I have found of any special and definite value in this respect are massage and exercises, the faradic current and the injection of solution of chromic acid into any of the fibrous indurations which are sufficiently large and defined to allow of this being done. Of the three, massage is the most efficacious.

Massage.

General massage is of no use. It must be specially directed to any nodules or thickenings which can be felt. At first they are often too tender to be rubbed with much pressure, but gradually they become more callous and more fibrous, and may then be more vigorously treated. A good deal of experience and skill is required during the early treatment, but after they begin to shrink in size, the knuckles and fists may be used for rubbing, and ultimately they disappear. The massage should be carried out daily, 10 or 15 minutes being devoted to each part. To obtain satisfactory cure the dispersion of all the indurations must be complete, otherwise relapses occur and are a source of much disappointment. The length of time required to do this varies very much. Recent soft swellings may disappear in two or three weeks, but when the indurations are old and widely spread three to six or twelve months may be required.

Exercises calculated to stretch the aponeuroses and muscles involved are of value in hastening and completing the cure. A stick, dumb-bells, Indian clubs, Sandow's exerciser, may all be called into requisition to provide suitable movements.

Faradism.

The faradic current should be applied over each region for

e to ten minutes daily. It has some effect in causing rinkage of the swollen fibrous tissue.

Injection of Chromic Acid.

This method is only possible where the nodule is sharply fined and can be penetrated accurately by the hypodermic edle. Superficial nodules should never be treated in this ay, as the solution is apt to damage the skin and cause a llegmon. Ten minims or less of a 1 per cent. solution in ater may be given. It may cause some aching, but if the odule has been accurately injected, shrinking, with great lief to the rheumatic pain, follows.

Drugs.

Where intestinal indigestion is present, and especially in mbago, a course of mild purging (grey powder, compound rhubarb powder, salines) is advisable. As regards ecific remedies, it cannot be said that any are known which use absorption of the fibrous indurations. In quite recent ses I have seen potassium iodide give relief, but in regularly chronic cases any benefit is not very apparent. Salicylic mpounds lessen pain during the exacerbations. Their tion is not curative, however, as they cannot be expected to move hard fibrous tissue. The same is true of phenacetin, enazone, quinine, and all similar compounds. Alkalies, mmonium chloride, colchicum, guaiacum, actaea racemosa no good. Iodine and local blistering are helpful, especially over joints or nerves.

Spa Treatment.

Recent cases, where the fibrous thickenings are in the early age and still plastic, may be cured by a course of hydrotherapy, but inveterate cases only obtain temporary relief om their sufferings. The drinking, bathing, and general assage promote absorption of the serous exudation in the brous tissue, and possibly some shrinking. This usually ves for a time complete relief to the pain, aching, and iffness of chronic cases, so that the patient feels much more ppy and energetic. The indurations still remain, however, nd are apt to swell and give trouble under the influence of xciting causes. The regular purgation obtained at Harrote by the sulphur water improves intestinal digestion and es much good in certain cases.

Diet.

The broad rule is to avoid gastro-intestinal fermentation nd the consequent absorption of irritant products from the owel. Indigestion certainly causes aching in many rheumtic subjects, and the best way to avoid it is to eat plainly at sufficiently of an ordinary mixed diet. Any articles hich are well and easily digested by the individual may be llowed.

Climate.

Residence in a dry stimulating climate often brings about pontaneous cure. A damp atmosphere and a seaside climate ncrease the symptoms, and seem to favour the conditions hich give rise to chronic rheumatism.

Surgical Treatment.

Certain nodules after prolonged massage remain very hard, nd refuse to be dispersed. If they cause pain and aching, ney can be removed surgically. Removal gives complete elief. It is sometimes not an easy operation, as the small nass of fibrous tissue often lies deep, and may be difficult to nd.

Prognosis.

In recent cases the prognosis is good, and even in cases of me years' standing complete, or almost complete, recovery assured, if the treatment be persevered with. It requires nsiderable resolution and determination on the part of the atient, as it takes time and trouble, relapses are common, nd he is apt to get discouraged. In severe cases, where there marked and widespread induration, and the patient is very iff and crippled, recovery is hopeless; but by stretching, assage, and manipulations, more freedom of movement may obtained. When the subcutaneous tissue is thickened nd brawny, treatment is very tedious, and recovery usually nly partial. The same is true of joints which have been long ffected.

Prophylaxis.

After rheumatic fever, influenza, muscular chills, violent ertion, sprains, dislocations, and other conditions which ring on indurations of the fibrous tissue, the patient should treated, and preferably perhaps at a spa, by massage, electricity, and bathing. After being cured of chronic rheumatism, a somewhat "hardening" mode of life should be adopted, with plenty of outdoor exercise. Any relapse should be at once treated.

A CASE OF SCURVY IN AN INFANT FED ON MUNICIPAL "HUMANIZED" STERILIZED MILK.

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In a leading article in the British Medical Journal of September 26th, 1903, p. 746, reference was made to municipal milk supplies for infants, and a note of warning sounded as to their limitations and dangers: and at the annual meeting of the Association both Dr. T. D. Lister and Dr. E. Cautley called attention to the risks attending the haphazard distribution of municipal "humanized" sterilized milk.[1]

As illustrating these remarks I am tempted to publish a case which came under my observation a short time ago. The parents were a strong and healthy couple who brought me their first infant, 10 months old. The father belonged to the higher artisan class, being an overlooker in a mill and earning good wages. The history was that the infant had been born healthy, and was nursed by its mother till it was six weeks old, but as at this time she was not satisfied with its progress, she weaned it, substituting "humanized" sterilized milk obtained from a municipal milk dépôt. The parents appear to have obtained two days' supply at a time, the milk being supplied in eight bottles in a crate. The milk was stated to be white and sweet, but there often was butter oil floating on the top after the milk was warmed. They had used this milk exclusively till the present time, apparently of the original strength, but had increased the amount, and had added some baked flour. The infant did fairly well till he was about 8 months old. He then began to cry when handled, and kept his legs still as if paralysed, instead of kicking about as he used to do. When I saw him at the age of 10 months the gums were swollen and purplish around four incisor teeth which had been cut, the roots of the finger nails were injected, both legs beneath the knees were much swollen, immobile, tender and shiny; there was tenderness of the bones of the arms. The infant was poorly nourished; there was some enlargement of the epiphyses of the forearms.

The case did not differ in any way from the cases of scurvy so often seen from the prolonged use of preserved foods, but the fact that the milk which had given rise to the scurvy had been obtained from a municipal dèpôt supplies food for reflection in several ways.

In the first place I should like to say that for every typical case of scurvy met with in either private or hospital practice at least half-a-dozen will be seen who have been fed on preserved foods which exhibit indefinite symptoms of scurvy, which may be called "para-scorbutic." The tenderness of the bones may be entirely absent, but there is anaemia, loss of flesh, distaste for food, sometimes diarrhoea of a dysenteric type, more rarely haematuria, a fine zone of pinkness in the gums around the teeth and perhaps a similar zone of pinkness at the root of the finger nails. In some cases there are herpetic-like rashes. In such cases improvement at once follows a change of food such as a milk-whey mixture and orange juice. I mention this because I feel sure the amount of mischief done by preserved foods is not to be measured by an odd case of typical scurvy.

A municipal supply of "humanized" milk cannot be provided except at considerable loss to the ratepayers; it cannot possibly be made to pay its way, assuming that fresh milk and cream of good quality are obtained from suitably-foddered and clean cows, and bottles, teats, and crates are provided. There is also the rent of the dépôt, the sterilizing apparatus, and the labour to be reckoned with. A charge of 3d. a day, or 1s. 6d. a week, cannot cover the cost. There is certainly a risk that the class who use the dépôt belong to the better-circumstanced artizan class rather than the poorest class who get their milk by the pennyworth. It is difficult to know how this is to be prevented, but it is certain that it is among the latter class that the infant mortality is the highest, and that it is they who need the greatest looking after.

I wish all the municipal authorities would get rid of the word "humanized," and substitute "modified" or any other word in the dictionary they like. Municipal milk is sold with

all the stamp of authority upon it; and, although compounded of diluted milk, cream, cane-sugar, and a pinch of salt, it is apt to be looked upon as a "fetish" for all the sick and healthy babies in the town of whatever age, and, as it is "humanized," what need is there for human milk?

Some harm has been done to these well intentioned efforts of the municipalities by enthusiastic friends who have made use of statistics in a way which I cannot think the facts warrant. Thus in one town it was reported that in the year 1900 the rate of mortality among the infants fed from the municipal dépôt was 102 per 1,000, while the infant mortality of the whole town was at the rate of 188 per 1,000; these figures have been published widely to show that municipal feeding saved the lives of children at the rate of 86 per 1,000 during that year. One would be inclined to believe that the infants who were not fed from the dépôt were veritably on the "broad road which leadeth to destruction."

But surely more facts are needed. Of those "fed from the dépôt," how long were they so fed, a week or twelve months? What was the financial position of the parents? Did this class contain any of the infants who only survived their birth a few hours or days, or are these all relegated to the total mortality class? How did the mortality of those fed at the dépôt compare with the infants fed at the breast?

What I think is wanted is a careful investigation of the results of municipal feeding by some skilled observers entirely independent of the officials, and conducted on the lines of the investigations made by a medical committee recently in New York on the work of the charities supplying sterilized milk to the poor in that city.

In writing as I have done I wish to add that it is the "haphazard" methods of administering municipal milk dépôts that I condemn; I most certainly commend the efforts made in Liverpool and Battersea to work in connexion with the medical charities and to keep a weekly record of all the infants being fed from the dépôt.

I am perfectly open to conviction as to the general merits of municipal feeding, but I think more investigations are necessary in order to judge results, and before it can be said that the important problem of how to bring pure, fresh, clean milk within the reach of the poorer classes, and teach them how to use it aright, has been finally solved.

REFERENCE.

1 BRITISH MEDICAL JOURNAL, August 29th, 1903, p. 469.

SOME NOTES ON THE URINE IN BERI-BERI.

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THE following notes are not put forward as being in any way exhaustive, but rather to attract the attention of those who may have other cases of peripheral neuritis under their care (arsenic, alcohol, diphtheria, etc.) How far such different forms of "nerve disease" may be distinguishable by the degree to which the metabolism of the individual may be upset, is a point yet to be determined. It is possible that some aid in establishing diagnoses may be obtained by attention to such matters.

It has long been known, as from the work of Scheube[1] that the excretion of urea and phosphates is much diminished in beri-beri; the figures set out in the accompanying table serve to confirm this point. It will be observed that the figures for urea are extraordinarily low in certain of the cases, so low indeed that it was not until I had made control observations on the healthy, that I was satisfied that there might not have been some error of calculation or of observation. The possibility of some tampering on the part of the patients can be excluded by reference to the proportions of other constituents.

The patients were of three races—Chinese, Tamil (Madras Indians), and Sikh. It will be observed that the Chinese controls gave figures which were comparable to the ordinary physiological standard. Such, however, is far from the case with the control Tamil cases, and it may be doubted whether these men were really in a normal condition, apart from the trivial matters for which they were under hospital treatment. It should be stated[2] that in the Malay States, as Braddon and others have insisted, the Tamil escapes beri-beri in his home life so completely that cases are but rarely seen in the hospitals. The insusceptibility, or rather non-acquisition, of the disease is even more pronounced in the Sikh, and, further, usually endures during confinement in gaol, so that beri-beri in a Sikh is most exceptional. In the case of the Tamil, it may be suggested as a possibility that for some reason their nerves are more sheltered from the action of the beri-beric poison, so that they only suffer from a disturbance of metabolism—a "beri-beri sine neuritide." Naturally the control cases are much too few in number to establish such a possibility as a fact, but if it leads to a more complete knowledge of the metabolism of the Tamil, the suggestion will be justified.

DIET.

In respect to diet these control Tamil cases were perhaps on a more liberally albuminous diet during their stay in hospital than in their life outside; for they had 4 oz. of salt fish four times, and 2 eggs three times a week, with vegetables, curry stuffs, and rice. The Chinese hospital patients have 4 oz. of dried fish or meat each day, with rice and vegetables. The diet of the prisoners contained 6 oz. of meat or fish a day in the case of the long-sentenced men, but none in the case of the short-sentenced men. Two cases with extraordinary low urea values (Table Nos. 6 and 17) had been on bread and water for the twenty-four hours during which the urine was collected. The question of malingering naturally has frequently to be taken into account in gaols, and in these two cases the signs of beri-beri were not of severe type, though the diagnosis seemed to be confirmed by the low urea figure, which is below a starvation amount.

UREA.

I did not have the good fortune to examine a case of sudden death shortly before the time of decease, but it is probably not unreasonable to conclude that an individual who is only excreting a fifth or a sixth of the proper amount of urea might be prone to the onset of the sudden death which is so commonly unanticipated in the disease; nor again is there cause for surprise that these two patients complained of not feeling well, although neither cardiac distress nor paralytic symptoms were prominent. They had no albuminuria.

The question arises whether the diminution of the urea is due to a locking up in the tissues, to a deficient removal by the kidneys, or to an actual diminution of output by the effective organs.

It may be stated here that none of the samples tested showed the slightest trace of albumen; this, coupled with the comparatively normal amounts of uric acid and kreatinin, points to the conclusion that the kidneys cannot have been seriously at fault. Moreover, the marked diminution of the phosphates and sulphates confirms the idea that the production is really at fault.

The two following direct observations are opposed to the idea of a locking up of already-formed urea in the body; though the readings are perhaps a little high, it is to be remembered that the sources were *post mortem;* and that there may have been other substances yielding nitrogen with hypobromite.

1. Residue of alcoholic extract of 100 grams of blood after removal of cholin-like bodies, etc., by means of alcoholic platinum chloride, yielded nitrogen corresponding to 0.0308 grams of urea, that is, 0.3 per mille.

2. Residue of 40 grams of pericardial fluid similarly treated gave nitrogen corresponding to 0.0112 grams of urea or 0.28 per mille. Hammarsten[2] gives the normal urea content of the blood as 0.2 to 0.15 per mille.

OTHER CONSTITUENTS.

In contrast to the urea the kreatinin, as estimated by S. Johnson's process, may be hardly decreased, indeed it is proportionately increased in nearly all of the cases.

Whilst both the sulphuric and the phosphoric acids show absolute diminution the increase proportionately to urea is more marked in the case of the former than of the latter; it will be remembered that Scheube insists that the phosphoric acid is relatively increased in the majority of cases. Mott and Halliburton have shown that during degeneration nerves lose a considerable amount of their phosphorus, but their degenerated condition can hardly be the direct cause of the diminished excretion in that the phosphoric acid obtainable from the whole of the human nervous system is estimated to be only 12 grams. (Voit.[4]), whilst that of the muscles is given as 130 grams.

The proportions of the conjugated sulphuric acids and of the neutral sulphur were not found to be affected in the first few cases, so that further estimations were deemed to be superfluous.

Several estimations of the purin bodies were made, but

Analyses of Urine.

Nationality.	Condition.	Date.	24 Hours' Urine in c.cm.	24 Hours Urea Grams.	24 Hours' Uric Acid. Grams	24 Hours' Kreatinin. Grams.	24 Hours' P_2O_5. Grams.	24 Hours SO_3. Grams.	24 Hours Conjugated SO_3. Grams.	24 Hours' SO_3 after Oxidation. Grams.	24 Hours' SO_3 of Neutral Sulphur. Grams	Ratios Uric Acid Urea.	Kreatinin Urea.	P_2O_5 Urea.	SO_3 Urea.
European	Normal (Schäfer's Textbook)	—	—	33.180	0 550	0.910*	3.160	2.010	$\frac{1}{10}$ of total SO_3	—	$\frac{1}{5}$ of total S	$\frac{1}{66}$	$\frac{1}{36}$*	$\frac{1}{10}$	$\frac{1}{18}$
Chinese	Healthy	16/10/02	1,180	30.710	0.590	1.670	2.863	1.986	0.163	2 400	0.420	$\frac{1}{50}$	$\frac{1}{18}$	$\frac{1}{11}$	$\frac{1}{16}$
,,	,,	16/10/02	1,000	26.117	0.790	1.442	2.699	1.450	0.070	1.731	0.271	$\frac{1}{37}$	$\frac{1}{18}$	$\frac{1}{10}$	$\frac{1}{18}$
,,	Recent beri-beri	4/9/02	1,280	14 660	Very little not weighed	0.770	1.740	—	—	—	—	—	$\frac{1}{19}$	$\frac{1}{8}$	—
—	,,	19/12/02	1,670	11.110	0.105	—	—	—	—	—	—	$\frac{1}{111}$	—	—	—
Chinese	,,	16/9/02	1,600	18.660	Less than 0.350	1.020	1.180	—	—	—	—	$\frac{1}{60}$	$\frac{1}{19}$	$\frac{1}{17}$	—
,,	Beri-beri ? recent	16/9/02	1,600	4.480	Less than 0 110	0.697	0 620	—	—	—	—	$\frac{1}{45}$	$\frac{1}{6}$	$\frac{1}{7}$	—
,,	Recent recurrent beri-beri; critical urination	27/10/02	4,400	15 750	0.280	1.730	0.970	1.060	0.086	—		$\frac{1}{50}$	$\frac{1}{9}$	$\frac{1}{17}$	$\frac{1}{12}$
—	,,	3/11/02	2,820	27.470	—	2.080	1.950	2.330	0.159	—	—	—	$\frac{1}{13}$	$\frac{1}{14}$	$\frac{1}{12}$
Chinese	10 months' beri-beri	31/10/02	645	8.300	0.480	0.790	0.750	—	—	—	—	$\frac{1}{20}$	$\frac{1}{7}$	$\frac{1}{11}$	—
Tamil, control	Synovitis	19/12/02	1,640	10.850	0.210	—	1.632	—	—	—	—	$\frac{1}{54}$	—	$\frac{1}{7}$	
,,	Ulcus cruris	24/1/03	1,610	9.930	1.050	1.030	—	—	—	—	—	$\frac{10}{99}$	$\frac{1}{10}$	—	—
,,	,,	24/1/03	1,590	9 350	0.920	1.280	0.860	—	—	—	—	$\frac{1}{10}$	$\frac{1}{7}$	$\frac{1}{11}$	—
,,	"Rheumatism"	24/1/03	840	6.740	—	1.020	—	—	—	—	—	—	$\frac{1}{7}$	—	—
,,	Fistula in ano	24/1/03	1,200	9.790	0.590	1.240	—	—	—	—	—	$\frac{1}{19}$	$\frac{1}{8}$	—	—
Tamil	Recent beri-beri	8/10/02	1,640	10.060	0.480	0.700	0.860	—	—	—	—	$\frac{1}{24}$	$\frac{1}{14}$	$\frac{1}{11}$	—
,,	Recent beri-beri, very oedematous	3/11/02	2,700	8.320	0.590	1.510	—	0.970	0.056	—	—	$\frac{1}{13}$	$\frac{1}{7}$	$\frac{1}{17}$	$\frac{1}{9}$
,,	Incipient beri-beri	8/10/02	1,245	4.060	0 540	0.950	0.550	0.305	—	0.410	0.105	$\frac{1}{8}$	$\frac{1}{4}$	$\frac{1}{7}$	$\frac{1}{13}$
Sikh	Recent beri-beri	2/10/02	720	9.950	0.030	0.630	0.760	—	—	—	—	$\frac{1}{30}$	$\frac{1}{15}$	$\frac{1}{13}$	—
,,	,,	8/10/02	1,140	6.110	0.110	1.020	0.580	0.760	—	0.869	0.109	$\frac{1}{60}$	$\frac{1}{6}$	$\frac{1}{10}$	$\frac{7}{8}$
,,	,,	14/10/02	940	12.080	—	—	1.880	—	—	c.828	—	—	—	$\frac{1}{7}$	—
,,	,,	27/10/02	1,630	6.650	0 530	0.790	0 590	0.530	0.023	0.633	0.103	$\frac{1}{13}$	$\frac{1}{8}$	$\frac{1}{11}$	$\frac{1}{13}$
,,	,,	7/11/02	1,600	3.890	0.040	–	—	—	—	—	—	$\frac{1}{100}$	—	—	—

* Kreatinin by zinc method. † Prisoner, long sentence. § Prisoner, short sentence. ‡ Patient in district or general hospital.

ving to various accidents the following only were brought to nclusion. Still they do not appear to be of much im-rtance in the elucidation of the disease.

Estimation of Purin Bodies.

No. (vide Table).	7	21	4	10
Ammonia soluble ...	0.067	Lost	0.037	0.059
Ammonia insoluble ..	0.032	0.009	0.008	0.005
Total	0.099	——	0.045	0.064
Uric acid	0.283	0.534	0.105	0.210

Some further inquiry was made to determine whether any her substances of interest were to be found. It is to be re-etted that the means for the estimation of the total nitrogen ere not available. Some attempts were made to get figures r the hippuric acid, but no useful figures were obtained ough the substance was readily demonstrable.

Some attempts were made to isolate bodies of a basic nature om the urine. In demonstrating the presence of cholin or olin-like substance in the blood or other body fluids it was und that the syrupy, highly alkaline residues obtained by cohol extraction yielded up a substance to benzol which ve a double salt with platinum chloride crystallizing in tahedra from 15 per cent. alcohol. Thus the difficulty of nploying sufficiently anhydrous alcohol in so moist a imate was avoided, and the presence of potassium salts uld be definitely excluded. The shake-out method with benzol was consequently applied to several urine samples both before and after alkalinization with quicklime. A number of double salts with platinum (gold salts were only made with the "cholin" of the blood, etc.) were obtained, but, like Mott and Halliburton, I failed to get any octahedra suggestive of cholin. The only substance worthy of mention was one whose platinum compound was of a brilliant orange-vermilion colour, and was soluble in strong alcohol. Marked quantities were obtained from the beri-beric cases, and but mere traces in the few controls. The quantities obtained were not sufficient for further examination. The scarlet body usually crystallized in minute octahedral crystals.

METHODS ADOPTED.

Since in the tropics conditions are not always favourable in respect to materials and apparatus, a few words on the methods employed may be added in order that the value of the estimations may be judged. In all cases the urine was measured and then filtered. It was directed to be passed directly into large stoppered bottles into which a few drops of toluol had been placed to prevent putrefactive changes; the twenty-four-hour periods were arranged from 6 a.m. to 6 a.m. to avoid delay fer the like purpose. Albumen was tested for and found absent before proceeding.

A good delicate balance was available, and gravimetric methods had to be adopted in most cases; these had the disadvantage of limiting the number of observations.

Urea was estimated with freshly-made hypobromite solution, the quantity taken being 5 c.cm. and repeated on 10 c.cm., where the read-

ing was very low; with normal urines only 2.5 c.cm. could be used on account of the size of the only available burette. The same measuring cylinder was used throughout, and after draining it was rinsed out with water into the testing tube to avoid loss. Temperature correction to 60° F. and 37.1 c.cm. nitrogen taken as equivalent to 0.1 g. of urea.

Kreatinin.—400 c.cm. of urine were treated after S. Johnson's method, about a teaspoonful of potassic acetate and 100 c.cm. of saturated corrosive sublimate being used. After the immediate filtration the mixture was stood for forty-eight hours and filtered; after this period a precipitation of crystalline flakes occurred. The figures under kreatinin (or better perhaps "Johnson precipitate") are reckoned at 19 per cent. of the mercury compound. It should be added that the figures quoted from Schäfer are the absolute kreatinin estimated by more exacting methods,

Uric acid was precipitated by Hopkins's method with excess of ammonic chloride which itself had been recrystallized to remove particulate matters; the precipitate was taken direct upon a tarred asbestos wool filter by a suction pump or syringe. After washing with saturated ammonic chloride and a little spirit, the tubes were left to stand with a few drops of 10 per cent. HCl in spirit, whereby the uric acid was liberated in crystalline form. Later the uric acid was washed with a little water and spirit, and dried eventually in partial vacuum over $CaCl_2$ and quicklime to constant weight; 100 c.cm. were used for each titration. There did not appear to be any loss in the wash filtrates, as judged by the murexide reaction.

Phosphoric Acid.—The only available mode of estimation was as magnesium pyro-phosphate. A sulphate of magnesia mixture was used, the precipitate being taken up with dilute sulphuric acid, and reprecipitated with ammonia; 200 c.cm. of urine were used in the determinations.

Sulphuric acid was taken with samples of 100 c.cm., which were boiled respectively with 5 c.cm. of acetic or hydrochloric acid (the former subsequently with HCl), and precipitated with barium chloride. The weighings were direct without incineration.

Oxidation for the *neutral sulphur* was done by cautiously adding excess of permanganate day by day until a permanent pink colour was obtained.

The *purin bodies* were doubly precipitated with ammoniacal silver nitrate after removal of phosphates and intermediate removal of uric acid with dilute sulphuric. After reduction of the silver compounds with H_2S they were classified into ammonia soluble and insoluble.

The estimation of sodium, potassium chlorides, etc., was not attempted.

My thanks are due to Drs. Travers, Gimlette and McClosky, of the Malay States Service, for the use of their cases and other help. I am also indebted to the Government of the Malay States for the use of the laboratory at Kuala Lumpur, until they behaved with such discourtesy that it was not possible to remain as a guest of such inhospitable hosts; Captain Rost kindly offered facilities in Rangoon, but unfortunately the season was not favourable for the study of beri-beri. I must also express my gratitude to Dr. F. Gowland Hopkins for much advice.

Summary.

Curtly put, the above notes show that the metabolism in beri-beri is seriously diminished. The amounts of urea, phosphoric, and sulphuric acids may be very greatly reduced; it is suggested that the contributing organs, for example, liver, are seriously disturbed in their output, which is in accordance with the fact that patients complain of illness before the onset of marked symptoms of the involvement of the peripheral nerves.

The conjugated sulphuric acids and the neutral sulphur do not appear to be proportionately diminished.

The purin bodies do not seem to be of great interest in beri-beri; as might be anticipated, they were abundant in the critical urination of a highly oedematous case.

In a number of Tamils, on comparatively liberal diet, in whom no beri-beric symptoms were detected, the excretion of urea and phosphoric acid was found to be remarkably low, though their uric acid was high.

Bibliography.

[1] Scheube, *Die Beriberikrankheit*, Jena, 1894. [2] Durham, Notes on Beri-beri, *Journ. of Hygiene*, 1904. [3] Hammarsten, *Lehrbuch d. physiol. Chemie*, fourth edition, 1899, p. 173. [4] Voit, *Hermann's Physiologie*, VI, i, p. 80.

MYCOSIS FUNGOIDES OR ALIBERT'S DISEASE.

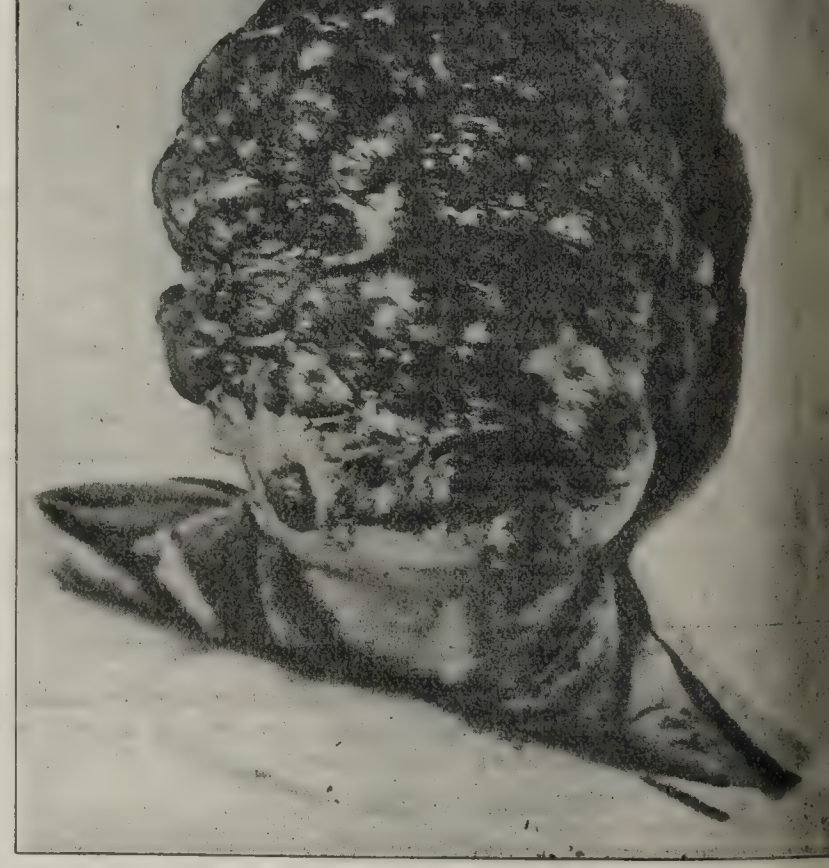
By JOHN REID, B.A., M.D.,
Bandon.

Mycosis fungoides, which was described by Alibert in 1814, is extremely rare in Ireland. The following case may therefore be considered to have special interest:

Clinical History.

The patient was 38 years old, small, stout, and fair-haired. Family history: All healthy and long-lived, but one uncle suffered from pityriasis rubra. Prior to the first stages her illness she suffered from absolute amenorrhoea for thre years. By trade she was a dressmaker, and accustomed to si sewing for hours at a time—in fact, used to spend almos twelve hours daily plying her needle. Constipation an amenorrhoea, I wish to point out, were well-marked sym ptoms before the disease manifested itself. When I wa asked to see her she presented the following phenomena o the pre-mycosic stage: Round, sharply-defined erythematou patches, with scaling, about 3 in. wide, on both cheeks, an covering anterior tragus of the ear. These patches healed i a couple of weeks. I regarded them at the time as purel eczematous. They left no marks, but shortly broke ou again, and also on front of the chest, healing in the centre and extending at the periphery, and so assuming irregula shapes which are almost characteristic of the disease. Strang to say, there was no pruritus in the area of face affected. Thi stage lasted three months.

The second stage next came on, and the patches became in filtrated plaques, with nodules over the face, head, back, an chest; they had a reddish-brown colour, and were onl slightly scaled. After changing shape for about three month a condition of infiltration of the entire skin took place, fro the level of the nipples down the skin became greatly thick ened, but not excoriated or fissured. Above the level of th nipples the skin of the chest became fissured, and well developed nodules soon appeared on face, scalp, and back o neck. The fungoid stage very quickly came on.



The characteristic tomato-like tumours appeared on the fac and scalp only. As may be seen from the photograph the vary in size from a bean to a small orange, and are sessil lobulated, and distinctly circumscribed, flat and ulcerated o the surfaces, and also on the edges where they rub togethe I noticed also that a few growths disappeared by cicatrizatio the process being helped by pressure of surrounding growi tumours. Pus was common between the tumours. One o upper lid closed the eye, and one on lower lip enlarged it i width to $2\frac{3}{4}$ in. The photographs are absolutely characteristi The tumours on the face show an almost lepra-like deformit closing the eyes with their size and weight, producing th leonine brow and the elephantiasic ear.

The variety of ways in which tumours come and go was n apparent here. None of these large tumours disappear spontaneously, some ulcerated till they became mushroo like growths, only two or three contracted to a smaller si from pressure, but never absolutely disappearing, and a articulating I might almost say, on the patient moving th muscles of the head and face.

The rest of the body was covered over with an exfoliative dermatitis showing great thickening of the skin and a generalised redness. The pruritus was confined to the lower limbs. There was no enlargement of spleen or lymphatic glands; tongue, normal; appetite, poor.

Microscopic Examination.

My friend, Professor McWeeney, of Dublin, carefully examined sections of the growth, and his report is as follows:

"The piece of tissue was sent in formalin, and consisted of a subcutaneous nodule about the size of a pea, covered with skin, which was ulcerated towards one end of the mass. The piece was embedded in paraffin and a series of thin sections cut, stained by various methods and microscopically examined with the following result:

"The tissue consists of a mass of round and oval cells very closely packed and so obscuring the details of the original structure that no trace of it is now discernible. The cells consist almost entirely of nucleus, but little protoplasm being visible. The nucleus of some is round, of others oval. They take the nuclear stain rather deeply, as a rule, so that one might almost term the cells with round nuclei 'lymphocytes,'' whilst the oval nuclei look as if they belonged to fibroblasts at an early stage of development. There are, however, no traces of any tendency to formation of fibrous tissue. At no place is there any tendency to necros s or caseation. Blood vessels are scanty scarcely to be found at all towards the centre of the cell mass. Scattered through it are patches of somewhat different looking cells, surrounded by a hyaline, structureless investment not unlike a basement-membrane. These cells bear a certain resemblance to altered, so to speak "undifferentiated" cells of the deeper layers of the overlying epidermis. I look upon them (the cell groups) as appearances caused by oblique section of deeply penetrating downgrowths of the epithelium. At one end of the surface a very distinct swelling and proliferation of the epithelium exists, with formation of many anastomosing cylindrical downgrowths, which become fused together so as to form three superposed layers of cubical and columnar cells corresponding to the rete Malpighi, and separated by oedematous tissue more or less infiltrated with round cells. There are one or two masses of laminated appearance resembling cell nests in this neighbourhood, and the aspect of this part of the tissue strongly suggests squamous epithelioma. Careful study of the downgrowths, however, does not confirm this view. The nuclei of the rete Malpighi are in the resting stage, and present no suggestion of mitotic activity. There are no isolated islands of epithelium, and the depth of penetration of the downgrowths is not great enough to support the view that the process is malignant one. About 1 mm. from this point the epidermis presents a totally different aspect, being raised up into a sort of minute vesicle containing clouds of cocci, prominent amongst which are beautiful long chains of streptococci. There are also some pus cells here and structureless débris. Another millimetre or two farther on the epidermis is partly destroyed by ulceration and covered with a crust of necrotic material (inspissated secretion?), which is simply swarming with cocci, so numerous as to form streaks visible to the naked eye when stained by Gram's method. They lie on the surface and between the layers of the crust. Beyond this again the surface epithelium gradually dies away, being replaced by a layer of granulation tissue abounding in micro organisms (cocci). This corresponds to the ulcerated part of the nodule.

"The cellular tissue which formed the main mass of the nodule seemed quite free from micro-organisms. Not a trace of leprosy or other bacilli could be detected even with the highest powers usually employed. It is conceivable that cultural methods might be more effective. They were, of course, inapplicable in the present case.

"I cannot regard the micrococci found on the surface of the ulcer and beneath the up-raised epidermis as responsible for the subcutaneous nodule (from the interior of which they are absent). They are to be looked upon as mere secondary intruders that have settled upon the undermined and devitalized epidermis, and have, no doubt, tended to exacerbate the ulcerative process.

"The film preparations sent along with the tissue represent the secretion that might be collected from such a surface. They show pus cells, red blood corpuscles, and a most various collection of micro-organisms. It seems clear to me that, taking the microscopical appearances, and the excellent photographs and lantern slides that have been enclosed that this is a beautifully-marked case of mycosis fungoides. There were no cases of anaesthesia, but the tumours were absolutely painless, and no bacilli present showing tuberculosis.

Remarks.

The four features to which I wish to call attention are:

1. Intense perspirations and exudations of a serous nature from the body. I have seen the counterpane quite stiff in the morning, and a white frost deposit on its surface after a winter's night. Flannel nightgowns after being worn for two days became so stiffened that on washing they tore in pieces and were useless for wear.

2. The appearance of the patient was repulsive, and the exhalations in the highest degree fetid, notwithstanding the great care taken in dressing the patient with different antiseptic dressings. She occupied a room on the third story, but the odour pervaded the whole house, and it was quite apparent on entering the front door.

3. There was an almost entire absence of itchiness, except on the legs; the face and scalp were never itchy. There was feeling in the tumours, as, on touching with a feather, the patient could always point out the contact spot.

4. These tumours were permanent, the microscopical report shows absence of fibrous tissue.

I need hardly say that with such extensive lesions this patient's life was a short one. This enormous discharging and fetid growth produced cachexia, on which coma supervened, followed by death.

Treatment in these cases is very unsatisfactory. I prescribed up to 15 mins. of Fowler's solution three times a day, for some months, which was exceedingly well borne; the result, nil. I also gave iodide of potash in the later stages, and various antiseptic dressings. I did not use the anti-streptococcus injections, as I considered them useless.

If it had been possible at the time, I should most certainly have tried the *x*-rays or the high frequency currents. I regret that a necropsy was not allowed.

INJURIES TO THE EYES IN RELATION TO THE WORKMEN'S COMPENSATION ACT.*

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Since the Workmen's Compensation Act has been in force, claims for compensation for injuries to the eyes have been numerous. In many cases the advice of a medical man—expert or otherwise—has been requisitioned in order to arrive at a proper estimate of the amount of injury done and, coincidentally, of the compensation due.

Any practitioner may be called upon to render his services on behalf of respondent or applicant, and it is my purpose this evening to consider what may be expected of him under such circumstances.

In the first place he should understand the main principle underlying the Workmen's Compensation Act. The Act was made so that those who receive injuries whilst at work might be compensated for the diminution in their wage-earning capacity resulting from such injuries. It follows, therefore, that the workman is allowed compensation for injury only in the event of that injury having caused a diminution in his wage-earning capacity. If a man loses one eye, and can do his work equally well and can earn the same amount of money as he did with two eyes, he can lay no claim to compensation beyond the half of his weekly wages payable during the time he is away from work. It is also necessary that the expert should have some knowledge of the trades in which the workmen are employed. It is only with the aid of such knowledge that he can form a just estimate of the vision required for the satisfactory performance of the work.

In addition to such extra-professional knowledge, the expert will naturally be expected to be thoroughly acquainted with his own professional work, that is, he must understand the value of the various functions which go to make up perfect vision, and must appreciate the effect of their limitations. It is to the consideration of these limitations that I wish to direct your attention. In the first place, I wish to state that, in my opinion, it is impossible to estimate the amount of loss of earning ability by means of mathematical formulae. Whenever such formulae are used, certain factors are arbitrarily fixed and the whole fabric is therefore indefinite and uncertain. It is therefore preferable to decide each case on its merits, giving due consideration to all that concerns the earning ability of the workman.

The workman's earning ability may be said to be dependent upon—

I. His vision—in a broad sense.
II. His knowledge of his craft or trade.
III. His ability to compete with others in his work.

I.—The Essentials of Useful Vision.

Adequate Vision.

Adequate vision, which here includes central visual acuity, visual fields, light and colour senses, and musculature and varies according to the trade in which the workman is employed. It is hardly necessary to point that what is recognized in ophthalmology as full vision ($\frac{6}{6}$ Snellen's types) is not demanded for the average workman's occupation. Indeed, such a high standard is seldom demanded of anybody in the strictest of

* Read before the Birmingham Branch of the British Medical Association.

Government services. Roughly speaking we may say that the vision required is something as follows:—

For professional men and skilled workmen (including soldiers, sailors, and post-office employés) ... ... $\frac{6}{8}$ to $\frac{6}{24}$ or less.
For unskilled workmen ... ... $\frac{6}{12}$ to $\frac{6}{60}$.

If the patient has only one eye, the minimum would need to be raised somewhat for both classes. In this matter of the limits of useful vision, the specialist must to a large extent exercise his own judgement, as even in the same trade the visual demands on individual members vary considerably. The limits also vary according to the intellect of the individual. One man may be able to do with a vision of $\frac{6}{36}$ what another finds impossible with a vision of $\frac{6}{18}$.

Further, the age at which the depreciation of vision takes place has a bearing on the man's capacity for work. Defective vision acquired in early youth may exist without interfering materially with the earning capacity. Such a defect suddenly produced, by accident or otherwise, after the age of 30 or 40 may seriously hamper the workman, and can only be overcome by prolonged and patient practice, and in some cases it may not be entirely overcome at all.

In addition to central visual acuity, the visual fields, the light and colour senses, the musculature of the eyeball must be taken into consideration in estimating the value of economic vision. A pronounced defect of any of these accessory functions may reduce the earning capacity.

Limitation of the field of vision, due to injury, is seldom sufficient in itself to reduce the wage-earning ability. Even where one field is entirely lost, the loss is only about one-sixth of the previous (binocular) field.

Light and colour senses are not likely to require consideration, except in the case of marine or railway employés. Any marked defect of the colour sense is almost invariably associated with serious organic lesion of the optic nerve, retina, or choroid; so that the patient is rendered more or less incapable of work through the primary lesion. The only exception to this rule is the deficient central colour vision (central scotoma for colours), due to tobacco-poisoning. This is quite amenable to treatment, and should hardly be sufficient to maintain a claim for compensation, though it is frequently the determining agent in the depreciation of vision which may follow an injury and its attendant period of ease.

Muscular defects often prove troublesome. If there be a distinct paralysis of one or more muscles the resulting diplopia makes it impossible for the man to use the eye for working purposes. Under the circumstances he must be regarded as having only one eye; for an eye which cannot be used to earn a living must be regarded as blind from an economic point of view. I am, however, quite opposed to Zehender's principle that "full earning ability exists only with full acuity of vision, and any diminution of the highest limits means at the same time a diminution of earning ability." This is not in accordance with everyday experience, whether in occupations requiring higher or lower visual demands.

There is the question as to how far vision can be reduced in one eye without the loss of binocular vision. This must vary in individual cases, and can only be definitely decided by testing for binocular vision. As a general rule, it will be found that a patient who has a vision of $\frac{6}{24}$, or even $\frac{6}{60}$ in his bad eye, gets binocular vision. Binocular vision, to be of sound practical value, must be of that type in which the sense of perspective or solidity is fully appreciated. The presence or absence of this faculty can be tested by means of Hering's drop test. Other tests which are less exacting and perhaps less reliable are the prism test, Berry's stereoscope test, Snellen's letters, and Priestley Smith's "red-white-and-blue" test. The prism test, being the only absolutely objective test, may in some cases turn out to be more reliable than any other. It will be described later.

II.—The Workman's Technical Knowledge.

This factor in the workman's wage-earning capacity has a greatly-varying value in the estimation of compensation. An unskilled labourer requires little or no special training by way of preliminary education, apprenticeship, etc. People occupied in such trades often voluntarily change their occupation. In the case of the skilled mechanic, on the contrary, technical knowledge is a factor of considerable importance. Injury to the eye may reduce his wage-earning capacity by limiting the quality or quantity of his work, or it may compel him to undertake less remunerative work, or work which is more onerous or distasteful to him. A man may in such a case be able to earn the same money as previously, but has to work harder or for longer hours. The importance attached to this factor varies considerably with the propensities of the presiding judge.

III.—The Ability to Compete with Others.

This factor has a more important bearing on the question of compensation than one might at first imagine. An injured workman may find that his working capacity has in no way been reduced as a result of the accident. This may be the case even when one eye is entirely lost. Still, notwithstanding the patient's entire capacity and desire to resume his former or similar employment, he may find that, for various reasons, such as the prejudices of employers and employés against a workman with any disfigurement of the eyes, this is not open to him, and he has to seek less remunerative work. Further, the injury, whether slight or severe, may set up nervous symptoms which render the pursuit of his previous occupation, and sometimes of any other occupation, difficult or impossible. In the mildest form this may be only a slight nervousness or timidity in resuming work at which the injury was received.

I believe that this is not very uncommon in some workmen who were previously free of all nervousness and are perfectly honest in their statements. Complaints on this score are, however, frequently made in order to avoid returning to work and so be able to draw compensation money. Another form in which physical incapacity for certain occupation may follow eye injuries is due to the ease with which vertigo is induced in some patients who have lost one eye. Others, again, suffer from slight asthenopia and conjunctival congestion with photophobia for some weeks.

The most severe complications may arise from comparatively slight injuries. These are included under the generic term of "traumatic neuroses," which includes types which are hysterical, neurasthenic, or hystero-neurasthenic. These are difficult cases to cure, and render the patient of little use for work. Those who are anxious to work are easily exhausted and break down under very slight exertion. It is practically impossible to give a definite prognosis in such cases, but once thoroughly established they are apt to go on for months and even years.

Binocular and Monocular Vision.

Let us consider the position of a man who has admittedly lost the use of one eye. The higher form of binocular vision—which includes the appreciation of solidity and accurate judgement of distances—is a complex act in which the following factors are concerned:

1. The formation of two images on functionally corresponding parts of the two retinae.
2. Accommodation and convergence.
3. Size, form, and shadow of objects.
4. Aërial perspective.
5. Movements of the head.

Of these factors, the first is the most important in producing the effect of solidity. It is evident that with the loss of one eye the patient's judgement of solidity and distances by the primary and most important means becomes permanently lost. The other factors concerned still remain to him and can be developed to such an extent that the loss of one eye is little, if at all, noticeable or inconvenient to him.

At first sight it might appear that convergence is not available by the one-eyed; this, however, still remains, and a man with one eye converges just as if he had two eyes projecting the retinal field into space along a line proceeding from a point midway between the two eyes as if they were united into one cyclopic eye.

Accommodation and convergence are of considerable importance when near objects are viewed, and in the one-eyed they become of increased value, as the result of a development of the muscular sense or rather of a more sensitive appreciation of the nervous impulses required for the accommodation and convergence for objects at varying distances.

The size, form, shadows, and overlapping of objects and the amount of aërial haze around them are likewise of equal value to the one-eyed as the two-eyed.

Movements of the head, and the production of what is called "monocular stereoscopic parallax" is probably the most important factor in the judgement of distances with one eye. It is a faculty which can be highly developed by practice. After the sudden loss of one eye mistakes in the estimation of distances (by a sound eye) amount to 2 cm. or 3 cm. After some practice—varying in time from one or two months to many years—and especially if the patient is employed at work in which the judgement of small distances is demanded—

ple, jewellers, dentists, ophthalmologists, the errors are ed to about ½ cm., which are nearly the same as those by individuals with two eyes. It is not easy to esti- accurately the capacity of the individual for estimating nces. Hering's drop test is not suitable for the purpose, h an instantaneous appreciation of distances can only med when the primary factor (the formation of double es) is present. Rough tests for the purpose the pouring of water into a glass, knocking a down with a penholder, and lighting a candle a long taper, etc. Pfalz has invented an instru- which he calls a "stereoscoptometer" for the pur- of measuring the capacity for estimating distances. such means seems absolutely necessary to estimate iar a patient has recovered his capacity for judging dis- s—a matter of prime importance in the estimation of eduction in the wage-earning capacity of many work-

e extent to which a patient may recover his power of ating distances, and the rapidity with which that ery takes place, varies considerably according to the nt's age at the time of the accident, the suddenness of oss, and the patient's intelligence. A child, or a man r 20, probably within a few months gets accustomed to ltered circumstances, and is only conscious of his loss far as the field of vision is limited, and which demands caution in turning towards the blind side, and more sive movement of the head in aligning with a remaining ye.

e case is very different with a workman past middle He finds great difficulty in judging small distances. He take two or three years before he recovers the faculty. e. I believe, never recover it entirely. Such a deficiency, if only of a year's duration, may be enough to compel workman to relinquish an exacting but lucrative occupa- for a less skilled and a less remunerative one. The lenness or otherwise of the loss of vision in one eye es a considerable difference in the degree of incovenience h results to the patient. A gradual loss is associated a corresponding development of the monocular faculties, gives rise to little or no inconvenience. So much is this ase that many patients never discover their loss, or only over it by accident. A sudden loss, on the contrary, cially in grown-up people, is always associated with a good of inconvenience and awkwardness in performing certain such as pouring water into a glass, lighting candles, ing of textures, etc. The workman's intelligence and assiduousness of his efforts to regain his lost facul- are likewise important factors in the extent and of recovery. It is just to expect every man to do all in power, both by way of using what intelligence he has, and patient practice, to recover these faculties. It is also timate to expect him and the employer to take every pre- ion—for example, by wearing protecting goggles and ng the machinery guarded—to avoid the recurrence of the dent which deprived him of his eye. If these precautions effectual he can hardly be expected to be exempted from ming work which, though otherwise risky and difficult at , can by these means be safely and efficiently performed r a month or two.

mparative Value of the Eye Lost.—Some authorities hold there is no difference in the comparative value of the eye . Personally, I am inclined to think that the right eye is e serviceable than the left to a right-handed man. After loss of one eye the value of the remaining eye is im- surably increased, for its loss would mean total blindness -condition which has a deep significance beyond total in- acity for work. This fact in itself may reduce the earning acity of a workman in more ways than one. The man may o afraid of losing his eye that he will shun risky though nly remunerative work and confine himself to safe but un- led and badly-paid labour. He may also be so much id of "straining" the eye that he is disposed to limit the unt of work in order to "save" the eye.

mployers and insurance companies regard the remaining as of such increased value that they are loth to accept the kman for any work which is associated with any risk of ury to the eye.

Sympathetic Ophthalmia.

ne more consideration in the estimation of compensation he possibility and probability of sympathetic ophthalmia. one can with certainty tell whether an injured eye is going et up sympathetic ophthalmia or not. But the surgeon been taught by experience to regard some forms of injury and inflammation as peculiarly liable to set up sympathetic inflammation, and can warn the patient accordingly. It is well for the surgeon in all cases to protect himself by placing the responsibility of retaining a doubtful or dangerous eye on the patient or his guardian. At the Eye Hospital we have printed forms for this purpose. If a patient refuses to have a dangerous eye removed on the advice of one or more experienced ophthalmic surgeons, I doubt if he can legitimately claim for the loss of more than one eye, as the timely removal of the injured eye would have left him with one eye in its primary condition. If he retains a dangerous eye through ignorance of the danger or through ill-judged though qualified advice, the case is different, and I suppose the employer must suffer the consequences. In any case it is a matter which would probably be decided in court.

Simulation.

Simulation has not been very unusual since the Workmen's Compensation Act has been in force. It may assume the form of simulated complete or partial blindness, in one or both eyes, after an accident; or an old or recent disease of the eye or its appendages may be ascribed to an accident; or the subjective effects of slight injuries may be exaggerated or even deliberately aggravated and prolonged so as to avoid work and continue drawing compensation money. Assumed blindness (amaurosis) in one eye is easily detected by a careful examination of fundus and media and the reaction of the pupils. It is well also to prove the existence of binocular vision by means of one or more of the tests already mentioned—namely, Hering's drop test, Snellen's letters, or the prism test. The latter, being purely objective, is preferable in these cases. It is carried out by placing a fairly strong prism—say 6°—before the affected eye. If binocular vision exists the eye will move inwards to avoid diplopia, and when the prism is removed the eye will be seen to move out again, and resume its primary position. It is well to repeat the experiment with the prism over the other eye. As a rule, it is enough to place a +10 D lens before the sound eye, and a plane or correcting glass before the supposed blind one, and to casually ask the patient to read the test types, taking care that he does not find out which eye he is using by shutting the affected eye. It is seldom that he does not fall into the trap and read all he can, thinking that he is using the sound eye. If these methods do not disclose the simulation, some of the other numerous tests must be tried.

Exaggeration of really existing defects of vision is not so easy to demonstrate; as a rule, it is disclosed by the simple method last mentioned. It is seldom that the patient does not betray himself in some way or another during an examination: and when the appearances of the media and fundus and the exclusion of organic or functional disease indicate the probability of at least moderate vision, the patient's statement that his sight is very bad should be regarded with much suspicion, and should lead one to make repeated and varied tests for distant and near vision.

It must be remembered that vision may be really reduced as the result of tobacco poisoning. This is somewhat liable to occur in this class of patient, owing to the fact that, having nothing to do, they consume more tobacco and probably more beer, and eliminate the poisonous products less freely than they do when at work. These cases are characterized by the symptoms and signs of tobacco amblyopia.

In cases where defective vision due to disease is ascribed to an injury, the surgeon will generally be quite able to decide, from the appearance of the lesion and general symptoms, how much is due to the disease and how much to the injury. Cases of traumatic neuroses, however, present many difficulties.

The natural recovery from an injury may be delayed by the introduction of foreign bodies into the conjunctival sac. In such a case the patient should be carefully though unobtrusively watched and the contents of the conjunctival sac periodically examined for evidence of soot, tobacco, bits of shell, etc. This tendency to simulation on the part of the patient is undoubtedly due to the fact that, since the passing of the Workmen's Compensation Act, the workman expects compensation for all injuries.

When he realizes that he can only get this compensation by proving a reduction in his wage-earning capacity, he tries to make a case for himself by simulating. This state of affairs could be overcome by the granting of a reasonable sum of money as compensation for any actual loss or disfigurement which the patient has suffered apart from any diminution in earning capacity. When no such loss has

occurred the patient should be compelled to resume work. It would be necessary for this purpose to have a certificate from an ophthalmic surgeon—probably from two surgeons, one representing the workman and the other the employer. There should be no difficulty on the part of the two medical men in coming to an agreement on such a matter.

The Position of the Expert.

In conclusion, I wish to draw your attention to the position of the expert with regard to fees in these cases. If a surgeon examines and reports on a patient on behalf of applicant or respondent, he may be called upon to give evidence at court on subpoena, and at the usual rate of a guinea a day at county court and half a guinea at police courts. To get any more, a private arrangement must be made with the party who desires the evidence. Should they refuse to make such an arrangement, it is in the expert's power to refuse to make the preliminary examination, or to accept the ordinary fees to medical witnesses allowed by the court.

ON REMOVAL OF THE CRYSTALLINE LENS IN HIGH DEGREES OF MYOPIA, AS ILLUSTRATED IN SIXTY CASES.*

By SIMEON SNELL, F.R.C.S.Edin.,
Ophthalmic Surgeon, Royal Infirmary, Sheffield; and Professor of Ophthalmology, University College, Sheffield.

Four years ago I contributed a paper to the discussion on the operative treatment of high myopia before the Ophthalmological Society, and which is published in the *Transactions* of that Society. I there dealt with twenty operations. Since then I have increased the number in which I have removed the crystalline lens to about sixty, and it is the experience thus gained that I purpose bringing before your notice to-day.

The deplorable results associated not infrequently with high degrees of short sight are well known. The inconveniences attendant on the use of the necessarily powerful glasses are great. Without their aid, those unfortunately afflicted with high myopia are well-nigh blind, and not infrequently having removed and deposited their glasses they are with difficulty able to find them again. To relieve such cases as here depicted the removal of the crystalline lens has been suggested and performed with success in this country and abroad during the last few years.

Donders regarded the cure of myopia as belonging to the *pia vota*. Before his day the removal of the lens had been suggested, but, writing in 1864, Donders treated the proposal with ridicule, and insisted that such a momentous undertaking "would exhibit culpable rashness." The forty years which have elapsed since Donders wrote these words have witnessed many changes in ophthalmic surgery. Asepticism, which has enabled so many operations to be accomplished with safety in general surgery, has extended its benefits, if in a less degree, to the operative surgery of the eye, and the attendant risks in careful and skilful hands are much less now than formerly.

Within defined limits the removal of the crystalline lens for high degrees of myopia may now, I believe, be regarded as a recognized and valuable method of treatment By its means the myopia will be either entirely obliterated and the eye become emmetropic or a varying degree of low myopia or a low degree of hypermetropia will result, according to the original degree of shortsight.

A consideration of my cases will bring into view several points which should be noticed. The number of patients operated upon has been 40, the number of eyes 59. It may often be well to be content with only treating one eye, and my rule has been to take the worst eye. Frequently, however, my experience is that after having undergone operation on one eye the patient has been so pleased with the result that urgent application is made for the other to be similarly treated. Domestic servants are numbered among those who have returned after one eye has been operated upon and have been desirous to have the second one done. I am always more willing to accede to such wishes in young adults. In one instance, however, a married woman, Mrs. D., aged 48, I treated both eyes four years ago with most gratifying results.

The number of operations reviewed in this article is 59. There were 40 patients; in 21 only one eye was treated an in 19 both eyes were operated upon. Of the 40 patients 11 were males and 29 were females. Of those who unde went operation in both eyes 13 were females and 6 wer males.

One patient was aged 48, but this was the only instanc over 40. Of the others, one was 37, another 35, and two 3 Those between 20 and 30 numbered eighteen, as follows three aged 30, one aged 29, four aged 28, two aged 27, thre aged 26, one aged 25, one aged 23, two aged 22, and one age 21. Under 20 there were seventeen, namely: two aged 19, fi aged 18, one aged 17, three aged 15, one aged 14, one aged 1 two aged 11, one aged 10, and one aged 9.

Of the instances in which the degree of myopia is accurate recorded I find that 28 operations were performed on ey with 20 D and above, namely, 15 for 20 D, 1 for 21 D, 2 for 22 1 for 23 D, 1 for 24 D, 2 for 25 D, 3 for 26 D, 1 for 27 D, and 2 f 28 D. The lowest degree for which removal of the lens w performed was 10 D, and this in one instance only. The was 1 eye for 11 D, 2 for 12 D, 2 for 13 D, 3 for 14 D, 1 for 15 3 for 16 D, 10 for 18 D, and 1 for 19 D. The number, ther fore, between the eyes of 10 and 19 D inclusive was 24. It w thus be seen that practically all the operations have be performed on eyes having 12 D and more degrees of myop the two exceptions being 10 D and 11 D respectively. Mo over, the greatest number of operations have been for 18 and upwards, 18 D being the degree in 10 eyes and 20 D in If the operation be limited, as I believe it should usually, to cases with a myopia of 14 D and upwards the to number of suitable cases presenting themselves must alwa be a comparatively small one. In this connexion I have tak from the casebooks of my private practice the degrees myopia in 3,162 consecutive patients or 6,324 eyes, a numb which should give a fair idea of the proportion of the differe degrees of myopia. The cases were roughly divided into tho above 10 D and those of 10 D and under. If the division had be made at a higher degree of myopia, which, strictly speaki it should have been, as, save in exceptional instances, t operation would not be performed for less than 13 D or 14 the total number of instances suitable for operation as far the degree of myopia is concerned would be decidedly less.

Of these 3,162 patients I find that in 1,159 the degree myopia was equal in each eye. In 2 003 the eyes were uneq in refraction; that is to say, that while myopia was pres in one eye it was so to a higher degree in one eye than other, or in some the second eye may have been emmetro or hypermetropic, but the greater number would be myo Of these 2.003 eyes the degree of myopia was higher in right eye in 1,029, and in the left in 974. Of the total num of eyes under review, namely, 6.324, there were 320 in wh the degree was more than 10 D, or a trifle over 5 per ce The record of my infirmary patients would, I expect, sho larger percentage of the high degrees of myopia, as those w the low degrees less frequently seek advice there than is case in private practice.

Extraction was deemed unsuitable, and in no instance it been adopted. In each case the transparent lens has b needled, and at the end of a week, sometimes more or l when the lens substance has become sufficiently broken an incision with a broad needle has been made a li distance inside the periphery of the cornea, and the softe lens has been allowed to escape, or has been coaxed out w the aid of a curette. The pupil has previously been dilated w atropine, and by keeping the situation of the corneal wo inside the limit to which it dilates, the danger of entan ment of the iris in the wound is materially lessened. T operation is similar, of course, to that frequently perfor for zonular and other forms of cataract. In all cases a wa must be kept for increased tension, which is liable occas ally to be set up by the swelling of the lens. In a few of cases glaucoma has in this way supervened. Removal of broken-up lens was, however, promptly performed, and followed by immediate subsidence of the pain and sickn and with excellent visual results.

When operating endeavour is, of course, made to remov much of the softened lens matter as will escape without due pressure on the globe. What remains, however, undergo absorption, but a further needling may be requi Needling may also be necessary for opaque capsule and therefore important to bear in mind that treatment in s cases may be somewhat prolonged. In one of my early stances I was perhaps hardly sufficiently alive to the portance of this and operated rather against time, as patient was leaving England.

* Prepared for a meeting of the Yorkshire Branch of the British Medical Association,

due regard be paid to asepsis and the use of sublimate or
e other antiseptic solution which are essential to eye
rations, the dangers attendant on this operation are trifling.
introduction of any suction apparatus is altogether un-
ssary, for by gentle coaxing the softened lens matter
ily comes away through the corneal wound. It is desir-
, however, that after the needling operation the patient
ept under close observation, for, as mention has already
n made, in some instances the swollen lens is apt to induce
reased tension as signified by pain and sickness, and the
mediate performance of the second operation for the re-
val of the broken-up lens will be indicated. A free open-
of the capsule is practised, because it is held that by per-
ting the broken-up lens to escape into the anterior
mber increased tension is less likely to be induced. This
not, however, the only period that it is necessary to be on
's guard against the onset of increased tension.

n a certain number of cases after the usual operative
asures have been completed and the pupil is free, or nearly
of lens matter, increased tension may occur. In these in-
nces atropine has very properly been used to maintain a
ated pupil whilst the remnants of the lens were under-
ng absorption. The atropine may be discontinued and
rine substituted, but it will, in my experience, fail re-
ently to overcome the glaucomatous condition. The best
n is to tap the anterior chamber, and to repeat if neces-
y the paracentesis. In the few instances that increased
sion has arisen in the circumstances just now mentioned,
racentesis has acted well, and the results in those cases
ve been among my best.

The operation performed in my cases is similar to that
actised for lamellar cataract, and the dangers are the same.
bead of vitreous may present at the wound, but this should
ry rarely occur if care has been taken to limit the tearing
the capsule to the anterior capsule, which should readily
done, and also if too great pressure on the globe is avoided
nen the lens is coaxed out by the curette.

My practice has been to indicate to a patient the advantages
nich may be gained by operative measures, but at the same
me to point out that to achieve the benefits he or she must
prepared to face the risks which, however, are not great.
e decision is left to the patient.

Some authors have alluded to the danger of detachment of
e retina resulting from removal of the crystalline lens for
gh degree of myopia. I have no experience of extraction of
e lens in these cases, and cannot therefore say whether it is
danger by that method or not. All my cases have been
eated in the manner I have described, and certainly detach-
ent of retina is not a danger of moment in my experience. I
collect only two instances; one was mentioned at some
ngth in my paper before the Ophthalmological Society.

CASE I.

The patient was a young woman, aged 25, The lens was needled,
d subsequently evacuated in November, 1897. The result up to
ay, 1898, was excellent, myopia of 22 D had gone down to 2 D, and
sion at this time was $\frac{6}{9}$. Shortly after this, however, owing to the
erious illness of a near relative, the patient had very arduous night and
ay nursing thrown upon her. Vision rapidly deteriorated, and on
une 8th in was reduced to $\frac{6}{60}$. Besides some films in the vitreous, no
ross changes were noticeable in the eye. Vision remained at this point
r a little worse for some months, but she had not been under examina-
ion for some time. It should be mentioned that when the lens matter
as evacuated a small amount of vitreous escaped.

CASE II.

The second was that of a domestic servant. Both eyes had been
perated on with excellent results. A year or more afterwards detach-
ent of retina occurred in one eye. At this time she was in very feeble
ealth. The other eye has remained good as far as I have heard.

These are the only instances of which I have either record
r recollection in the 59 eyes which have been operated upon,
nd many of my cases have been under observation more or
ess for several years. Myopic eyes—especially the high
legrees which are dealt with in this paper—are, it is well
known, prone to detached retina. They are cases in which a
sword of Damocles is always hanging over their heads.
Even, therefore, if the percentage was much larger, as it has
been in some published records of instances in which
detached retina has occurred after varying periods subsequent
to the operation, it could hardly be regarded as discrediting
the operative methods here advocated.

The results of a successful operation to the patient will be
that vision is as good or better without glasses for distance as
it was previously with their assistance. The myopia will
have disappeared or be present only in low degree, or there
may be weak hypermetropia, according to the amount of
myopia originally existing. It would be very unusual for a
patient not to express his or her gratification with the change
that has been brought about. There are few subjects in
ophthalmic surgery that elicit such expressions of gratitude
as do these operations for the relief of myopia.

I give here an extract from a letter received from a patient
operated upon some few months since. She was a teacher,
aged 28, and the degree of myopia in each eye was 28 D. The
right eye only was treated. Before operation, with correction
with -28 D, $V = \frac{6}{18}$; after operation, without the aid of glasses,
$V = \frac{6}{12}$.

The benefits received from the operations are so numerous that I
hardly know how to specify them. The operations, of course, to me
appear nothing short of a miracle. The fact that I had worn exceed-
ingly strong glasses for twenty-two or twenty-three years emphasizes
this. Prior to the operation objects a few yards distant were quite un-
recognizable; clear vision was only obtainable an inch or two from the
eye. The uncertainty of locating the outline of objects caused me great
trouble, inconvenience, and, at times, even fear. For instance, in
crossing the road the edge of the pavement was always uncertain. The
same may be said of steps to vehicles, stairs, etc. Nothing of that un-
comfortable uncertainty remains, all things are now clear. I see clearly,
distinctly, and have quite a long range of vision; not only that, but
the continual tired, aching feeling, and fearfully hot sensation have
entirely gone; and it is saying a great deal when I say that whereas
for many years my eyes have been an ever-present feeling, I now some-
times forget that I have eyes, so very natural and painless are they.

[Since this article was written I have operated on four ad-
ditional cases, all successful; three females, aged 26, 15, 9,
one boy, aged 10; the degree of myopia of each in this order
being 18 D, 14 D, 18 D, and 15 D.]

MEMORANDA:

MEDICAL, SURGICAL, OBSTETRICAL, THERAPEUTICAL, PATHOLOGICAL, ETC.

ALLEGED POISONING IN AN INDIGO DYE WORKER.

THE following case of poisoning attributable to emanations from the contents of a mixture used in the process of calico-dyeing may be of interest;

A man, aged 37 years, came to my surgery about 6 p.m. on Christmas Eve, complaining of faintness and nausea. He said that about an hour previously, while preparing a dye mixture, he was suddenly seized with nausea, followed by repeated vomiting and prostration. He did not get better when out in the open air, so he came for advice. The man was of sturdy build, but looked haggard; he was much agitated, and in dread of death.

The first thing that struck me was the changed appearance of his skin. His face was covered with a reddish rash, the mucous membrane of his mouth had a brownish discoloration, and there were two rounded black spots on the cheek. The rash extended to the general surface of the body, and scattered over the trunk, upper arms, and thighs were groups of dark spots similar in character to those on the face. They were each a little smaller in size than a shilling piece, quite round, very black in the centre, and shading off to a grey towards the circumference. They were mostly in groups of five, arranged lengthwise, but were each quite distinct—not raised, and not disappearing on pressure.

The pulse was 90 per minute, the temperature 98.8°, heart and respiration were normal. He was perfectly clear in all his statements. His wife who accompanied him told me that he was temperate and careful as to his food and habits. I could not examine the contents of the stomach as the repeated vomiting had emptied it, but was told that he had not taken anything injurious by the mouth in the shape of food or drink. His pupils reacted normally to light, the knee-jerk was slightly increased, otherwise nothing abnormal was to be noticed.

The sample of urine given me was normal. The man said he was sure he was not going to live, as some years ago a similar case happened at their works, which ended fatally.

It was evident that the attack was caused by the inhalation of some poison which emanated from the dye mixture the man prepared, but I could not make sure what particular poison it could have been.

The treatment ordered was rest in bed and an aperient of magnesium sulphate followed by bismuth. The patient improved rapidly. The rash became fainter on the following day, and he was able to retain fluid nourishment without any nausea. On the third day from the time of the onset the

red rash had disappeared, and all that remained of the black spots were a few greyish crescentic lines. The patient felt fairly well, the only anxious point being occasional periods of drowsiness and very sluggish reaction of the pupil to light. The next two days he continued to improve and seemed almost well, but he died quite suddenly on the sixth day from the onset of the symptoms.

At the inquest no fresh light was thrown on the actual cause of death. It was concluded that the man died of blood-poisoning caused by the inhaling of some noxious substance which affected the blood directly and led to heart failure. What kind of substance it was we failed to ascertain. No aniline dyes were used.

It would be interesting if any one else has met with a similar case, as I have not been able to find a description of a like group of symptoms, caused by a definite poison in any of the standard works on toxicology.

Withington, Manchester. BARNETT SAUL, B.A.Lond., L.S.A.

A NOTE ON VACCINATION IN THE INCUBATION STAGE OF SMALL-POX.

Seven families in which small-pox had broken out among the children were removed to isolation huts, and while there each family together with its sick member lived in the same hut.

Family No. I consists of a mother and two children. The eldest, aged 12, had confluent small-pox. The second day after isolating the family the youngest child was vaccinated and took well, showing typical vaccine vesicles, with fever and enlarged axillary glands on the seventh day.

Family No. II consists of a mother and four children, the youngest also with confluent small-pox. The other three children of the family were vaccinated, also on the day following isolation; two took well and one imperfectly.

All the four vaccinated children contracted small-pox, but of a very mild discrete form, the initial symptoms of small-pox appearing eight, nine, or ten days from the date of vaccination and running a typical course. The imperfectly-vaccinated boy took small-pox more severely. This boy had evidently been inoculated with small-pox direct, as while nursing his little sister with small-pox he had been scratched by her nails on the chest. Four days afterwards a sore, much resembling a vaccination vesicle but more depressed, developed on the site of the scratch, together with fever and enlarged axillary glands. He was vaccinated two days after the appearance of the sore, but as before said took imperfectly. He showed signs of small-pox nine days after the scratch.

Vaccine was taken from the arm of the child of Family I on the seventh day, and before she showed signs of small-pox, and was used to vaccinate 8 Indians not formerly vaccinated and 3 adults formerly vaccinated in infancy. Of the 8 Indians 5 developed imperfect vaccine vesicles and 3 nil. The 3 others did not take. I rather anxiously awaited to see if this vaccine might not produce small-pox, but it did not do so.

These facts are interesting as showing that:

1. Vaccination will take and run a typical course in those who are also in the incubation period of small-pox.
2. Vaccination shortly after exposure to contagion of small-pox will modify the small-pox, but may not prevent it.
3. The vaccination may run on to typical vesicles, but the vaccine will not produce typical vaccine vesicles in those vaccinated therefrom.
4. The vaccine taken from the vaccine vescicles of one who is at the same time in the incubation period of small-pox will not convey small-pox.

In the above cases the vaccine vesicles matured before the small-pox rash appeared. I have vaccinated Indians somewhat later in the incubation period of small-pox, the small-pox rash appearing three or four days after the vaccination, and even in those cases the small-pox was evidently mild and modified. I am under the impression that vaccination at any time previous to the rash will modify the small-pox.

The Gran Chaco Indians, from experience, are firm believers in the protective action of vaccination. As a rule vaccine is scarce, and a limited number only can be vaccinated at a time. They will fight furiously for precedence at the vaccinating table. This says much for vaccination, as they are chary about applying for medical aid in other diseases.

As a further proof of the protective action of vaccination (if such is needed) I quote the following:

In a family named Somez, consisting of seven children, all the children were vaccinated two years ago, but only one took. Last year, during an epidemic of small-pox, all the chi except the successfully vaccinated one contracted the dis and two died. This vaccinated child slept most of the ti the same bed with two others suffering from small-pox nevertheless escaped entirely.

In a family named Aramaya, consisting of two children was vaccinated. The unvaccinated child contracted s pox; the vaccinated one contracted measles. They both pied the same bed during their illnesses, and both recov The vaccinated child did not get small-pox.

It may be interesting to state that I have seen va cases of small-pox and measles combined. The combin is invariably fatal.

WILLIAM C. PATERSON, L.R.C.S. and P.Ed
Jujuy, Argentina. L.F.P.S.G.

THE MANAGEMENT OF THE ICEBAG IN THE TR MENT OF PNEUMONIA.

IN the Harveian Lectures for 1903 Dr. Lees points o difficulties in the use of the icebag in the treatment of monia—namely, (1) the discomfort caused when the p has to lie on the icebag when applied to the back of the th (2) the keeping of the icebag in position; (3) the preve of leakage.

To overcome these difficulties the observance of the f ing practical points will be found of use:

1. The icebag can be rendered comfortable to the pati lightly packing it inside with hair or wool, and using t finely broken mixed with this packing. The packin greatly diminish the thickness of the wool required ov skin, and thus allows of the icebag being placed closer skin. It also prevents the rubber of the icebag being i by the ice particles.

The use of the air-bed adds to the comfort of the pati being less resistant over the icebag than an ordinary be

2. The icebag can be kept in position by using a well jacket of spongio-piline provided with armholes, ar down both sides. Tapes are attached to the edges of t sides, so that they can be drawn together and fixed by the tapes. The cap of the icebag is passed through made in the spongio-piline where necessary over the ce the area to be covered by the icebag.

The division of the jacket in the sides will allow examination of the part without much disturbance patient. The spongio-piline will keep the surface war thus assist in producing derivation of the blood fro congested area. It is also absorbent. The alteration in of the icebag when applied to the side of the chest, du pendant position, may be prevented by introducing i icebag a circular piece of pliant wire material, and moulding it to the required shape.

3. Leakage is often due to a spicule of ice injuri rubber; this is guarded against by the use of the i padding of the icebag, using the ice finely broken u having an air-bed in use. By placing a piece of oil sil the aperture before screwing on the cap, so as to inc between the threads of the cap and the ring, the apertu be rendered watertight. It is a good plan to place layers of blotting paper between the icebag and the ski

There should be two relays of icebags ready for use form of icebag most suitable will vary according to t and size of area to be covered. Where a large area i covered a single large icebag is sometimes preferable to more of the ordinary icebags. Bailey's adjustable wate used as an icebag will be found useful, also the orm of made by Meinecke and Co., New York.

Belfast. S. T. BEGGS, M.B., I

CASE OF DOUBLE URETER.

THE following condition, discovered in the course of *mortem* dissection, may have its clinical as well anatomical interest. The body was that of a female 60 years of age, who had died, I was informed, of pl In the dissection of the abdomen I found the kidne larger than usual, quite healthy, and normally placed. was a very slight niche in the outer border of each, s as scarcely to indicate double kidney. From each kid two ureters with separate pelves attaching them kidneys. The pelves were situated one superiorly other, and, on making a section of the kidneys, no co cation was found between them. The blood vessels so as to give a separate blood supply to the part kidneys drained by the separate pelves. On the ri

eters ran, gradually approaching each other, and aply becoming one 5 in. from their origin. Howon dissecting them apart it was found that they ran tely in a common connective tissue sheath for a furouple of inches. Just before reaching the pelvic brim ecame one and ran in the normal course to the bladder. e left side the two ureters ran separately to near the brim; from this point they ran side by side invested common connective tissue sheath to the bladder, the of which they entered in the normal position. On g an opening in each and passing a fine probe it was that both continued separate through the bladder wall pened into this viscus by distinct openings. The ior opening corresponded to the normal one, forming that of the other side and the urethra the triangular one" of the bladder. The anterior one was placed in ne of the side of the triangle, one-third of an inch nearer rethral opening. I may incidentally mention that in ody the caecum lay in the right side of the pelvis, with rmiform appendix in the right side of Douglas's pouch, the ileo-caecal valve was in front of the right sacro-iliac ondrosis. There was also a marked sigmoid hepatic e of the colon.

ock. GEORGE C. R. HARBINSON, M.B., B.Ch.

THE INCUBATION PERIOD OF MUMPS.

sometimes asserted that the incubation period of mumps extend beyond the twenty-four or twenty five-days which ually considered to be the limit. In two cases which recently come under my notice this limit was exd.

May 6th, a week after the beginning of term, a boy was oted with mumps. On June 1st the next case appeared, on June 3rd he was joined by another. These two conited the "second batch," which was duly followed by a rd batch" of ten cases between June 18th and June 27th, f them occurring within the twenty-five days' limit. important to add that the boy who sickened with mumps une 3rd showed signs of the eruption of chicken-pox a later, and must have been incubating this complaint ng the later period of his mumps incubation.

would be interesting to know whether the incubation of infectious diseases at the same time retard their develop-t. Some time ago, in an epidemic of measles accomed by influenza, I noticed that the incubation of the sles was distinctly longer than is usual.

lborough. EDWARD PENNY.

DRENALIN CHLORIDE CUM CHLORETONE IN EPISTAXIS.

he morning of July 8th, 1903, I was hurriedly summoned visit Mrs. H., aged 72 years, whom I found suffering from use bleeding from the right nostril and through the uth as well. She had fainted before I saw her. I passed a tam of hot water through her nostril and out of the mouth, then lightly packed the right nasal cavity with aseptic ze steeped in one part of adrenalin chloride cum chloretone (Ike Davis), and two parts normal salt solution. The ding ceased at once, and there was no return; but, to be he safe side, I also administered a hypodermic of ergotine citrate $\frac{1}{200}$ gr. The patient was very prostrate for a ple of weeks, requiring very careful nursing. She made excellent recovery, and has had no return.

nchester. C. STENNETT REDMOND, L.R.C.P.

IRIDECTOMY AS A PROPHYLACTIC MEASURE IN GLAUCOMA.

I SHOULD be glad to know whether, in performing the operan of iridectomy in primary glaucoma affecting one eye, it s ever been the practice to do this operation on the affected eye also, with the object here of preventing the set of the disease. Such an operation performed on the ond eye as soon as the iridectomy wound in the affected e has healed commends itself to me for many reasons. It well known that in a large proportion of cases of monocular ucoma the patient again comes up after a variable period, ffering from the same affection in the other eye. In the jority of such cases a certain amount of damage has then en done in this eye. The visual acuity is less, and the field minished, sometimes very much so, especially when the sence of pain has caused the patient to overlook the set of the disease, or when it takes on fulminating characters, in which case the vision may be totally destroyed in a few hours.

The fact that the anatomical conditions and predisposing causes are the same for both eyes, and that it takes very little to determine the onset of the disease in the hitherto unaffected eye is grasped by ophthalmic surgeons, is evidenced by the very prevalent practice of instilling eserine into the unaffected eye when doing the operation of iridectomy for glaucoma.

It seems to me, considering the seriousness of the disease and the known safety of iridectomy in eyes with normal tension as when done as a preliminary operation, or for visual purposes, that iridectomy is a feasible operation as a prophylactic as well as a curative measure in glaucoma. The atrophy of the iris, the shallowness of the anterior chamber, and the haziness, which so often make the operation of iridectomy difficult in these cases, would be avoided, and the preservation of good vision might reasonably be expected as a result.

H. HAWARD BYWATER,
Late House-Surgeon and Refraction Assistant to the Central London Ophthalmic Hospital.

Preston.

REPORTS
ON
MEDICAL AND SURGICAL PRACTICE IN THE HOSPITALS AND ASYLUMS OF THE BRITISH EMPIRE.

SALISBURY INFIRMARY.

A CASE OF PANCREATIC HAEMORRHAGE.

(By GILBERT KEMPE, M.D., B.S., Honorary Surgeon to the Infirmary.)

ON December 11th, 1902, a nurse was taken suddenly very ill just as she was coming on duty at about 9 p.m. I was called to see her and found that she had suddenly been seized with severe pain in the upper part of her abdomen and had vomited shortly after a hearty supper at 8.30. I saw her at 9.15. She was then in a state of profound collapse, with a subnormal temperature, pale face, cold and sweating skin, and a small rapid pulse. She seemed to be in great pain, was rolling and twisting about in bed, and frequently crying out. Shortly after the onset of the attack the bowels had acted and she had been sick three times. On examination the abdomen was motionless and somewhat retracted. On palpation the epigastrium was rigid and board-like and the slightest touch here caused most acute pain. The normal liver dullness was present and there was no distension. There was no pain anywhere but in the epigastric region. A previous history of some slight dyspeptic symptoms was given. A probable diagnosis of perforated gastric ulcer was made, and an exploratory incision was deemed advisable.

After the patient had been hastily prepared she was anaesthetised, and an incision between the ensiform cartilage and the umbilicus was carried into the abdomen. There was no free gas, and the peritoneum appeared normal until the posterior surface of the stomach was reached, when a curious oedematous condition of the posterior parietal peritoneum and of the mesocolon was seen. It appeared to be caused by an infiltration of the deeper layers of the peritoneum and subperitoneal connective tissue with a clear fluid of a brownish tint. Beneath this and quite at the back of the peritoneal cavity a firm mass of the size of a large walnut was found, and this on examination proved to be a hard blood-stained tumour occupying the upper part of the head of the pancreas. A small incision was made into it, and it was found to be uniformly infiltrated with blood; a bleeding vessel was seen on the cut surface, but this was thought to be the result of the incision. The part of the pancreas involved was removed, and the stump, which seemed to be formed of healthy pancreatic tissue, was ligatured with fine silk. The abdominal cavity was then sponged dry and the parietal wound closed with silkworm-gut sutures.

The patient stood the operation well, and seemed in better condition than before. She passed a restless night, crying out and complaining of severe pain, and was sick several times. In the morning she was more comfortable, and said that she had but little pain. Her pulse was 88, temperature 98.4°, and respirations 24.

During the day (December 12th) she had severe spasmodic

pain from time to time, and was a good deal sick. In the evening her temperature had risen to 99.2°, and her pulse to 100. She was still sick, and her abdomen was slightly distended. She was given a large saline enema to relieve her thirst, and a grain of calomel every hour for four hours by the mouth. She again had a very restless night, and the vomiting continued.

On the 13th her condition was not so good. She was drowsy and apathetic, and though her temperature was 98°, her pulse had risen to 130. No flatus had been passed, and so a turpentine enema was ordered; this was retained for several hours, when part of it was returned, together with a little flatus and faecal matter. During the day she became steadily worse; the pain was more severe, vomiting more frequent, and the distension rapidly increased. In the evening her pulse had risen to 140, and her temperature was 99.8°, and the constipation was absolute.

On the 14th she had had a quieter night, and seemed better, but the improvement was only in the subjective symptoms since the abdomen was more distended; the constipation had not been overcome, and the pulse was weaker. She was constantly vomiting a bilious material.

It was now fully obvious that a general peritonitis had set it, and it was decided to reopen the abdomen for the purpose of cleansing, and, if possible, of removing the cause. The patient was anaesthetised with gas and ether, and the abdominal wound was reopened. Its edges were slightly inflammatory. The omentum was dark in colour, thickened, and contracted; the intestines were distended, reddened, and showed here and there flakes of lymph; there was no fat necrosis. A collection of semi purulent fluid was let out from around the stump of the pancreas, and seemed to have occupied the lesser peritoneal space. A small incision was made above the pubes, and here a good quantity of purulent material was let out. The whole abdominal cavity was thoroughly cleansed by washing and systematic sponging. Three of the most distended loops of bowel were punctured and the contained gas allowed to escape, and other loops were milked into these for a similar purpose. Large drains of iodoform gauze were inserted into the pelvis and down to the stump of the pancreas, and the wounds were sutured with silkworm gut. Two pints of saline solution were infused into the median basilic vein, and the stomach was washed out with sterile water, some of which was left in. Strychnine sulphate $\frac{1}{30}$ gr. was ordered every two hours.

The patient rallied well from the operation and then slept for several hours.

On December 15th she had had a good night, the bowels had acted four times, and a good deal of flatus had passed. There had been some vomiting but not so much pain.

On the 16th there was less vomiting, and the bowels had acted five times; there had been but little pain. The dressings had been changed several times as the gauze was draining well. They were now removed, the suprapubic one being dispensed with and the pancreatic one replaced by a rubber tube. The abdomen was now flat and soft, and moving well with respiration.

During the succeeding days the vomiting almost ceased, but diarrhoea became a troublesome feature, and though she was able to take and retain food by the mouth she did not seem to be gaining ground.

On December 19th her skin showed some curious vasomotor phenomena. A large black bruise appeared on the left side of the chest which faded in a few hours and was then replaced by a similar one on the left side.

A steady improvement now took place with the exception of the diarrhoea, which remained troublesome. She was able to take her food well. The diarrhoea became much worse, and some of stools contained small blod clots. Her urine, which for some days had contained a trace of albumen, became highly albuminous and contained fibrinous and granular casts and a few red blood cells. The wound showed no tendency to heal and its condition suggested that some pancreatic juice was escaping by it. From this date (December 22nd) she went steadily down hill, sleeping a great deal and much troubled by an intractable diarrhoea.

On the evening of the 23rd she suddenly became collapsed, but was rallied by a saline infusion of two pints, only for a time however, for she finally sank and died on the morning of the 24th. The Clinical Research Association reported on the portion of pancreas removed as follows: "This portion of pancreas exhibits small haemorrhages into its substance and a general distension of its veins with blood. There is no acute inflammatory change or areas of necrosis. The secreting cells are somewhat altered by *post-mortem* diges but it is not a true pancreatitis.

A partial necropsy only through the abdominal wound allowed. There were a few adhesions between the intest and the parietal peritoneum and some organizing ly patches, but no evidence of acute peritonitis or of localized suppuration. Examination of the pancreas sho a healthy-looking granulating stump. The rest of the creas was healthy. There was no fat necrosis or any stones in the gall bladder. Both kidneys showed ma cystic degeneration of the congenital variety. The weighed 17 oz., and the right, which was fully as large, not removed for examination.

REMARKS.—Cases of acute pancreatic haemorrhage sufficiently rare to excuse the publication of the pre instance. In this case the abdomen was opened within hours of the onset of the disease, and we had a good op tunity of seeing the condition at its earliest state of dev ment. I feel that prompt removal of the affected porti the gland was the best treatment that could have adopted, but I also think that much would have been avo if the affected region had been drained from the first would seem possible, from a consideration of this and of the recorded cases, that a haemorrhage is the pri event in some cases of pancreatitis, and that the extravas blood and necrotic tissue rapidly become infected from duodenum. I have recently had the opportunity of exami the parts from a similar case *post mortem*; here the pan was represented by a foul, blackish-blue slough and the peritoneal sac was distended by a turbid brownish fluid had become partly encapsuled behind and above the live large amount of fat necrosis was present in the omenta subperitoneal fat. Current theory ascribes fat necrosis t escape of pancreatic secretion into the tissues, where it splitting ferment breaks up the fat into glycerine and acids; the glycerine is absorbed while the fatty acids insoluble calcium salts. Granting that this is so, draina the affected area should prevent this complication. Dra is also indicated to remove the inflammatory products would therefore seem that laparotomy and efficient dra offer the best chance for the patient in cases of acute creatic disease, and the earlier that this can be don better the chance of success. Mayo Robson and Moyn (*Diseases of the Pancreas*) say of acute infective creatitis that its treatment "resolves itself into of peritonitis commencing in the superior abdo region; and as the only diseases which acute creatitis is likely to simulate are such as can on relieved by surgical treatment, if we can prove that tion is beneficial in this class of case we shall established the advisability of operating in all cas peritonitis starting in the upper part of the abdo The symptoms of pancreatic haemorrhage and of acute creatitis are those of any grave abdominal catastroph for any such condition we explore the abdomen without and without waiting for the development of that perit which frequently settles the case and in the class of case considering I would urge that immediate operation hol the best chance, for even should the case be one of haemorrhage into the pancreas the lesion will almost i ably become infected and then the condition will be infective pancreatitis. I venture to think that my case in spite of the fatal issue, to strengthen the idea that tive measures are the only ones likely to succeed in thi fatal class of case, for it would seem from the cond found *post mortem* that if the patient's kidneys had bee to perform their share in eliminating the *materies morbi*, s a great chance of recovery. I have to thank Dr. Ferr his notes on, and Sisters White and Ling for their tend skilful nursing of, this case.

COUNTESS OF DUFFERIN HOSPITAL, BAROD

LITHOLAPAXY IN A FEMALE: "DODI" TWIG AS NUCLEU STONE.

(By DHANJIBHAI H. MEHTA, House-Surgeon to the Hos

A BRAHMIN woman, aged 55, was admitted on June 20th complaining of difficulty in passing water, and of pain and after the act.

History.—The patient had urinary troubles for th nine years. She had tried various native remedies w any relief. About a year and a-half ago she was told th introduction of a twig of the "dodi" plant into the u

ges would relieve her, and consequently she had recourse t remedy. The result was that a part of the twig would ome out again, and being broken remained in the er.

on Examination.—Very much emaciated and nervous, and con- crying on account of the suffering she underwent. Salol was istered for a few days, and she then passed into my hands. A was then passed into the bladder. It could not be moved with gree of freedom, and gave the impression that the bladder was stones.

ation.—On the same day (June 26th), under deep anaesthesia, a oaded urethra dilator was passed into the urinary canal, and dilated until the forefinger of the left hand could be freely in between the blades. The finger easily felt one large stone ree small ones while the dilator was in position, After keeping ethra fully stretched for about three minutes, during which time ort was made to extract one of the three small stones by an ry dressing forceps, the dilator was screwed down to the closing and removed from the urethra. Before introducing the litho- however, I made another effort with success to remove one stone It was about an inch long, had three plain facets, weighed ., and in shape very much like a dry date pressed on three sides. rgest size lithotrite was then introduced, and the biggest stone aught between the blades. From the distance at which the was out I concluded that the stone was about the size of rdinary hen's egg. This and the other two stones were ed gradually one by one, and then the lithotrite being ved, the largest evacuating catheter (No. 18) was passed in and an pt at washing out the débris begun. At the very first pressure on all, however, it was found that much of the boric lotion escaped e side of the catheter, so that very little débris could flow into the bulb. An assistant was then requested to press the walls of the eus firmly against the catheter, and three or four more attempts e made, but much success was not achieved, one reason being that ladder was chokeful of the débris, and sufficient pressure could herefore, be made on the wall of the bladder to expand it to any material extent. The catheter had, therefore, to be removed, and rushed pieces were removed by ones and twos by means of ordinary ing forceps. Quite ninety pieces were thus taken out. A twig t 2 in. long was taken out, and another about 1½ in. long was found d in a piece of stone. A middle-sized lithotrite was then intro- d and some more crushing done. Several more pieces were re- d by the forceps, and some débris was now washed out by the uating apparatus. The whole operation lasted for about 2½ hours, about 3½ ounces of chloroform were administered; the total débris hed just 3 oz.

ogress (June 27th).—The temperature last night rose to 102°. She fairly well. She had passed urine twice intentionally, and more passed out of itself. Débris weighing 2 gr. came away. Fomen- ns to pubes, barley-water, and a mixture containing soda benzoas, buchu, ext. pareira liq., and pot. bromide were ordered.

ne 28th.—3 gr. of débris were passed. Temperature 100°. Treat- t continued and the bladder washed out with boric lotion.

ne 29th.—There was some pus in the urine; micturition was free, slightly painful, Treatment continued.

ne 30th.—Pain less, Temperature 99°. Bowels had not been ed since the operation, so an enema was ordered.

ly 1st.—More débris passed, and the pain was less.

ly 2nd.—Temperature 100°. The patient said she took a bath last ning, and caught a chill. Diaphoretics and strophanthus were n, with 6 gr. of quinine in the evening.

ly 3rd.—No débris; slight pus. Temperature 101°. Mixture and nine continued.

ly 4th.—Temperature 100°. The pus was very slight, and the ent felt better. Quinine (10 gr.) and bladder washed out.

fter the last entry the patient improved in every way, and was dis- rged quite well on July 9th.

EMARKS.—The number of stones, the size of at least one hem, the total weight, the presence of a twig as a nucleus t least one stone, the native belief in the efficacy of the "Dodi" twig in removing difficulty of micturition (just as other root is believed to hasten labour), the remarkably edy return of tone in the urethral walls, the very mild ack of cystitis that followed after an operation lasting for to and a-half hours, seem sufficient excuses for publishing se notes. "Dodi" is a creeper, of which the beans are en largely by the poor during famine time.

HORSE SICKNESS IN NATAL.—Dr. J. F. Elliott of Verulam (atal) recently read a paper before the Inanda Agricultural sociation, in which he advocated the employment of a nical thermometer in stables the first thing in the morning a matter of every-day routine. From practical observation had been led to conclude that fatal "horse sickness" was the main nothing more or less than acute pneumonia. he latter was commonly due to horses being worked when ly considered a bit "off colour," though really suffering m fever; or, if recognized to be ill, being foolishly exposed chills. Mosquitoborne fever, of malarial type, had been own to be common by Dr. Watkins-Pitchford, but in itself as not the immediate cause of death in horse sickness.

REPORTS OF SOCIETIES.

ROYAL MEDICAL AND CHIRURGICAL SOCIETY.

ALFRED WILLETT, F.R.C.S., President, in the Chair.

Tuesday, February 23rd, 1904.

METABOLISM IN THE FEBRILE STATE.

DR. G. C. GARRATT, in this paper, gave the results of analysis of the urine of febrile patients at the London Fever Hospital on a constant nuclein-free diet. In absence of pyrexia this diet caused no retention of sodium or chlorine, but a small loss of nitrogen. The reduced excretion of urinary water was merely the result of increased loss by other routes. Reduced excretion of chlorine accompanied nearly all acute fevers except malaria, and retention of chlorine might continue far into convalescence, and bore no relation to retention of water. Sodium and chlorine, given in combinations other than sodium chloride, were, nevertheless, retained, and the return of the one did not necessarily coincide with that of the other. No satisfactory explanation of the phenomenon had been produced, but that which assumed the chlorine to be retained in combination with albumen was probable. He had not found chloralbumens in muscle after fever. Urea and uric acid showed the usual increase from fever. No close relation could be traced between this excretion and that of phosphates. The conclusion drawn was that endogenous uric acids came from proteids rich in nitrogen and sulphur and poor in phosphorus. Ammonia excretion was considered in special relation to that of acids and bases, and the evidence that acids caused an increased production was not convincing. The excretion of phosphorus and free acid tended to run parallel; but, while there was on the average a slight increase of the latter, there was none of the former. There was no evidence that retention of phosphates occurred. Sulphuric acid exhibited an increase which was out of proportion to that of urea. Potassium was also increased, but less so than urea; it showed a certain parallelism with phosphoric and also with sulphuric acid, and played the principal part in combining with these acids. Some of the increase did not therefore appear to represent metabolism of potassium-holding tissues, and the output of phosphoric acid was a better guide thereto. The organism in these fevers appeared to possess the power of selecting what proteids it would consume, and to choose those rich in sulphur and nitrogen, and to spare those rich in phosphorus and potassium. Calcium resembled chlorine, being excreted in abnormally small amount during fever. Magnesium was much reduced at first, but increased later.

Captain STATHAM referred to the importance of eliminating the margin of error in estimating the urea by the hypobromite process in metabolism experiments, and gave comparable results from his own experiments.

Dr. E. I. SPRIGGS alluded to observations by Dr. Beddard and himself on metabolism in diabetes and other conditions, febrile and non-febrile, the results of which agreed on the whole with those in the paper, but the deductions drawn from them were not quite parallel.

Dr. R. HUTCHISON especially discussed the question of the decreased chlorides excretion in fever, and particularly in pneumonia. He had formerly thought that they were retained in the fixed tissues, but in view of the results in the paper he had changed his opinion.

Dr. GARRATT, in reply, said that much of his paper was a protest against the simple explanations that were given for such complex processes.

EDINBURGH OBSTETRICAL SOCIETY.

N. T. BREWIS, M.D., President, in the Chair.

Wednesday, February 10th, 1904.

HEBOTOMY.

A NOTE on this operation (lateral section of pubes) was read by Dr. D. BERRY HART. The object of obstetric practice was to find an operation satisfactory and safe for mother and child. In flat pelves, where forceps or turning could not be employed, symphysiotomy was resorted to, where the conjugata vera was below 3½ in., and down to 2¾ in. Failing that, Caesarean section or craniotomy only remained. It was said that asepsis was difficult in symphysiotomy, that neighbouring structures might be injured, and that there was difficulty in getting firm union afterwards. The objections to hebotomy on these points were much weaker. This operation had been recently revived by Gigli of Florence, who used a special wire saw

After describing the technique of the operation, Dr. Hart gave details of a case in which craniotomy was performed at a first confinement, and hebotomy in the second. The mother died on the third day of exhaustion, but with no local symptoms. The death-rate in hebotomy was 6 per cent. The amount of space gained was $\frac{3}{5}$ in. for 6 cm. of divergence.

The paper was discussed by Professor A. R. Simpson, Drs. R. C. Buist, A. H. F. Barbour, and F. W. N. Haultain; and Dr. Hart replied.

Some Renal Cases.

The President read notes on four renal cases.

A large pyonephrotic kidney, weighing 45 lb. The kidney substance could not be distinguished, but appeared to be converted into a loculated cyst containing liquor puris and pus cells. The main cyst was divided into several loculi which were distinct from each other, but communicated with the pelvis by small rounded openings; rough calculi were present. A large calculus obstructed the ureter. The patient was known to have a renal swelling for twenty-five years. In 1875 she was attended for floating kidney, and in 1888 a renal tumour was diagnosed and tapping recommended. The patient could neither lie nor sit on account of the great size of the swelling.

Dr. Brewis successfully performed nephrectomy in August, 1901. The tumour was universally adherent. The patient was now in good health.

The second case was one of tuberculous kidney and ureter, treated by nephro-ureterectomy.

On abdominal examination the enlarged right kidney and thickened ureter were easily felt. Both ureters were catheterized. The urine from the right ureter contained tubercle bacilli but not that from the left. The bladder was healthy except in the region of the right ureteric orifice. The freezing point of the blood was normal. Dr. Brewis, in December, 1901, removed the ureter and kidney. The former, just below the pelvis, had a circumference of 4 in., and was adherent throughout its whole extent.

When the patient left hospital the urine was free from tubercle, and the patient was now well and strong.

The third case was one of suprarenal adenoma.

The patient, aged 41, 6-para, had an abdominal swelling for seven years, and had lost 2 st. in weight during the last three years. During the last seven years she had had four attacks of haematuria. Dr. Brewis removed the tumour and kidney in January, 1903. The patient recovered. The tumour formed a nodular mass with rounded projections of varying size. Under the microscope the tumour was seen to be made up of masses of polygonal epithelial cells with rounded nuclei. Many cells possessed several nuclei.

The fourth case was one of exploratory nephrotomy for haematuria.

The patient, aged 43, 8-para. Patient first noticed blood in her urine four years before. This had recurred at short intervals. During the last four months the bleeding had been constant and frequently very profuse. The bladder was examined with the cystoscope and blood was seen coming from the left ureter, while that from the right was clear. Dr. Brewis cut down on the left kidney and found it universally adherent and uniformly enlarged. He made an incision in the middle line through the whole substance, dividing the organ into two halves. Nothing abnormal was found in the pelvis, but the section presented the appearance of chronic interstitial inflammation. The two halves were stitched together by six or eight catgut sutures, and the kidney returned.

The patient recovered and had had no haematuria since.

Specimens.

Specimens were shown by the President, Professor A. R. Simpson, Drs. Haultain and Lamond Lackie.

MEDICAL SOCIETY OF LONDON.

F. de Havilland Hall, M.D., F.R.C.P., President, in the Chair.

Monday, February 22nd, 1904.

Progressive Paralyses of the Insane.

Dr. T. B. Hyslop read a paper on this subject in which, after adversely criticizing the view that general paralysis of the insane was an entity, he differentiated the following types of progressive paralysis which were apt to be mistaken for it; toxic, such as alcoholic, syphilitic, febrile and poison cases; cases due to lesions of the cerebral cortex, as in acute dementia, stupor, katatonia; cases associated with various system lesions, as tabes, and in tumours; traumatic cases, including those due to sunstroke. Evidence was adduced to show that alcohol *per se* did not produce such a paralysis. In relation with syphilis there were differentiated terminal syphilitic, parasyphilitic, and congenital parasyphilitic cases. Syphilis alone was not accountable for the so-called parasyphilitic cases. The terminal cases did not exhibit the lesions of syphilis, specific medication was useless, and they were comparatively infrequent in females; while Chinese and negroes who were very susceptible to syphilis were almost free from tabes and progressive paralysis. Evidence was accumulating which went to show that an important f was a fault in the defensive mechanism which allowed o affection of the nervous system in the late stage of syp The rôle of stress and toxic influences as terminal infec and the paralyses due to the other causes enumerated discussed.

Dr. C. E. Beevor thought a combination of symptoms necessary for the diagnosis of general paralysis. In the stages there was a mental change but not exaltation, there might be localized fits, but probably the most im ant symptom was inactivity of the pupil to light.

Dr. Marriot Cooke thought that in the early stag general paralysis simple mania and other conditions wer to be confounded with it, but the progress of the case cleared up the doubt. Almost all true cases of general p lysis were syphilitic, but usually either alcoholism or se excess was added.

Dr. Sidney Phillips asked whether the timely treatm of syphilis with potassium iodide protected against ger paralysis.

Dr. Vincent Bell referred to cases whose onset was ma by a decay of the moral sense.

Dr. Hobson asked as to the etiology of congenital ger paralysis.

Dr. J. P. Richards protested against the use of the t general paralysis for a multiplicity of clinical and pa logical types, and referred to the possible influenc mercury discussed in the paper, when given for syphili producing progressive paralyses.

After Dr. Hyslop had replied, Dr. C. W. Buckley re general descriptive paper on brachial neuritis.

LIVERPOOL MEDICAL INSTITUTION.

James Barr, M.D., F.R.C.P., President, in the Chair

Thursday, February 18th, 1904.

Perforating Gastric and Duodenal Ulcers.

Dr. Buchanan and Mr. W. Thelwall Thomas related following case of perforated gastric ulcer:

The patient, an anaemic girl, was suddenly seized with acute ab inal pain, for which she was admitted into hospital. The diag was at first doubtful, for the continued elevation of temperature a marked leucocytosis seemingly pointed towards typhoid fever. Su quent progress of the case, however, revealed a localized peritor which was thought to be probably due to a perforated gastric u On the twelfth day of the illness Mr. Thelwall Thomas operated. stomach and the liver were adherent to the abdominal wall, an separating the adhesions a localized abscess was opened and a dis hole seen in the stomach. An unsuccessful attempt was made to the perforation with stitches, and finally the abdominal wound was open and packed with gauze. Convalescence was prolonged, but patient ultimately made a satisfactory recovery.

Mr. Damer Harrisson related a case in which he had cessfully operated upon a man 45 years of age for perfora ulcer of the duodenum:

There had been no previous gastric symptoms. The patient was denly seized with acute abdominal pain, which he referred especially to the right iliac fossa. An operation was performed 11½ h after the onset. A perforated ulcer of the duodenum close to the pyl was found and closed with sutures.

Mr. Littler Jones referred to a case in which perfora of a gastric ulcer had occurred at midnight:

The patient, finding that the pain was relieved by the knee-el position, remained in that posture all night. At the operation day there was found an anterior perforation of the stomach with if any extravasation but fair adhesions.

A discussion of these three cases followed, in which E. T. Davies, Mr. Newbolt, Mr. George Hamilton, Carter, and Dr. Macalister took part.

The Treatment of Malarial Fever.

Dr. Carter read a note on four cases of malarial fe which had come under his care during 1903, and all m or less resembled one another. Fever obstinately tinued in spite of all the ordinary remedies, and there complete breakdown of the general health and loss of weig In every case, however, complete and apparently perman relief of all symptoms had followed upon the administrat of Warburg's tincture.

Placenta Praevia.

Dr. Briggs read a paper on the Treatment of Sev Cases of Placenta Praevia. By a severe case he meant in which either one considerable, or two or more re rences of haemorrhage had taken place, and he disregar the degree of placenta praevia. With reference to treatme

ight that the comparative rarity of the use of the bag mpetier de Ribes was in a measure due to the cumbrous ance which, with its forceps, it presented. Its use e rendered easy by preliminary dilatation of the cervix by the finger or by Bossi's method in the rare instances ch instrumental dilatation was required. In exempli- n of its value he cited two severe cases. In the first, leeding, without pains and with a closed cervix, ed at the twenty-eighth week of gestation; in the there was copious haemorrhage at full term. In the , preliminary dilatation having been effected by Bossi's ment and the diagnosis confirmed, the introduction of g of Champetier de Ribes controlled the bleeding, ncited and completed labour in eight hours. In econd case labour had commenced, and was com- , with a living child in the first vertex position, in rs after the bag had been introduced. After reference conclusions of Drs. Blacker and De Paoli, Dr. Briggs his own experience in six cases, in which for grave nal conditions he had used Bossi's dilator. The great of the bag lay in its easy introduction, the facility with it could be sterilized, and its perfect control of the ng; for it formed, as Dr. Herman had stated, a better static wedge than the half-breech of the child, after g. From his own experience of 30 cases treated by ver- ie concluded that forcible delivery was rarely necessary, all his cases the bleeding had been controlled, and no on on the child was required to check it. The prospects iving child were improved by the use of the bag, and ver available it out to be used.

John Gemmell thought that as most cases of placenta ia were of the marginal type the bag was not necessary. troduction necessitated the presence of a second medical to administer an anaesthetic, and its general employ- was consequently impracticable.

Llewellyn Morgan relied upon tight packing as a e treatment in cases of severe haemorrhage.

Heatherley, E. T. Davies, Mackay, Blair Bell, and E also took part in the discussion; and Dr. Briggs re- e.

MIDLAND MEDICAL SOCIETY.

W. C. Lowe, M.D.Lond., F.R.C.S., in the Chair.

Wednesday, February 17th, 1904.

Chronic Pancreatitis.

Gamgee showed a woman, aged 46 years, with the fol- g history:

October, 1901, she suffered from a severe attack of right hypo- riac pain, accompanied by jaundice. This passed, and she was ree from symptoms for a year and ten months. During August eptember, 1903, she had numerous attacks of pain and was con- ly jaundiced, the degree of the latter varying. At the beginning ober she had great tenderness on pressure over the right rectus inis muscle about midway between the ensiform cartilage and the igus; a swelling situated deeply in the abdomen could be felt in sition. The abdomen was opened and the biliary apparatus ex- l. No calculus or obstruction to the ducts could be found. The of the pancreas was hard and markedly enlarged. The gall er was stitched to the skin and a fistula maintained for three hs.

n shown some fullness could be felt in the old position; there was no distinct swelling and the tenderness had st disappeared, nor had the attacks of pain and jaundice red. The case was presumably one of chronic inflam- ry enlargement of the head of the pancreas.

A Uterine Cyst.

J. Purslow showed a cystic tumour of uterus.

patient, 24 years of age, married, one child, was admitted to the 's Hospital on November 12th, 1903, with a swelling of the nen reaching up to 2 in. above the umbilicus, and presenting all hysical signs of an ovarian cystoma. The swelling had been first ed six weeks previously, and both she and the medical man under e care she had been thought that it was growing rapidly. Abdo- l section was performed. The cyst when exposed had the appear- of an ovarian cyst. It was tapped, and a large quantity of thin w fluid escaped from two separate loculi. On commencing to ve the cyst it was seen to be growing from the fundus uteri ding out widely into each broad ligament, with extensive sions to omentum and intestine. The operation was difficult and nged; it was found necessary to amputate the uterus at the level e internal os.

patient made an excellent recovery.

Fleshy Mole.

r. Purslow also showed a fleshy mole which had been taneously expelled after ten months' amenorrhoea. There were signs of pregnancy during the first four months. The patient then had a fall, and these signs ceased. There was no pain and no haemorrhage until a few hours before the expulsion of the mass, The latter, weighing 2½ oz., showed a thickened and tuberculated placenta with a distinct amniotic cavity. There was no trace of a fetus.

Gastro-jejunostomy.

Mr. Barling read a paper on gastro-jejunostomy in comparison with other methods. He recommended the posterior operation, the jejunum being taken up through an opening in the transverse mesocolon. He had had 18 cases, of which 16 recovered. He recommended union by suturing in preference to mechanical methods, as it provided a wider opening. The suturing recommended was in two layers: an inner suture taking the edges of the openings and going through all the coats of the stomach, and an outer sero-muscular suture.

Mr. J. W. Taylor usually employed the posterior operation, taking the jejunum over the front of the colon and through an opening in the great omentum. He advised suturing in three layers, and urged the importance of excluding the ulcer in the case of gastric ulcer.

Pathological Society of Manchester.—At a meeting on February 10th, Dr. Reynolds, President, in the chair, Dr. Rodocanachi mentioned a case of death from thyroid intoxication after removal of goitre, and showed the specimen.—Dr. Donald made a communication on the pathology of so-called "idiopathic endometritis."—In the absence of Dr. Dreschfeld, Dr. Charles Melland gave an account of a case of leucocythaemia which showed several unusual features. The case was one of the splenomedullary type and the character of the blood as well as the patient's general condition was profoundly modified by active treatment with large doses of arsenic. On one occasion within three weeks the number of leucocytes fell from 253,000 in the c.mm. to 16,000, and a month later, after he had been taking liq. arsenicalis ♏ xv three times a day for three weeks the leucocyte count actually fell to 800 in the c.mm., and at the same time his general health was better than it had been for years. At a later stage the patient developed tuberculosis, and specimens of the blood at various stages and sections of the various organs affected with tubercle were exhibited as card specimens.—Dr. Harris and Dr. Melland mentioned a case of primary epithelioma of the lung and showed specimens. Other preparations were shown as card specimens.

Harveian Society of London.—At a meeting on February 11th Mr. Edmund Owen read a paper on appendical abscess in the recto-vesical pouch, and advocated abdominal section in preference to drainage by the rectum or vagina. After the latter fistula was a very probable sequela and recovery was tedious; vesical irritation also occurred. Mr. Barnard considered the objections raised somewhat theoretical. In over ten cases of his own so drained he had met with none of the ill-effects mentioned. The drainage of pyosalpinx through the vagina was not a true analogy, and he maintained that when an abscess was strictly localized in the pelvis it should be opened by the rectum or the vagina. Mr. Lenthal Cheatle in three cases of abscess in connexion with the appendix had seen pus extend to the upper part of the recto-vesical pouch and give rise to pain, frequency and difficulty during the act of micturition, and he now looked upon this set of symptoms as indicating immediate operation. Mr. McAdam Eccles made a distinction in his treatment of localized pelvic abscess in the two sexes. In males he attacked the abscess suprapubically, in females he cleared up the diagnosis by median incision, dealt with the affected organ, and drained per vaginam, frequently closing the anterior abdominal wound. Mr. Spencer believed the best time to remove an appendix was in the first twenty-four hours, and advocated drainage by gauze in preference to tubes. The appendix in cases of suppuration should always be removed; otherwise trouble followed. He was opposed to drainage by the rectum or vagina. Mr. Jaffrey concurred as to the inadvisability of draining by the rectum or vagina. Mr. Owen replied.—Mr. E. W. Roughton read a paper on a case of obstruction with gangrene of the caecum, in which during manipulation the caecum burst and flooded the operation area with faeces; the peritoneum was effectively protected by gauze packing; and on a later occasion Mr. Legg removed a cancerous growth from the sigmoid. The latter proceeding was described by Mr. Legg himself. Mr. Paton narrated two cases of partial hernia which illustrated the anomalous symptoms to which sloughing of gut sometimes gave rise. Mr. Roughton suitably replied.

REVIEWS.

RECTAL SURGERY.

PROFESSOR TUTTLE, of New York, informs us in the preface that his *Treatise on Diseases of the Anus, Rectum, and Pelvic Colon*,[1] is the outcome of twelve years' work in a large clinic in New York for teaching and treating rectal diseases. Much space has been given to details of examination, diagnosis, and treatment, and the book may be regarded as a trustworthy and comprehensive expression of the results of both a large personal experience of rectal disease and a wide study of the best authorities on this subject. The diseases of the anus, rectum, and sigmoid flexure are very fully discussed. The chapter on examination and diagnosis, which with the rest of the volume contains many excellent illustrations, most of them original, affords a good example of the care and thoroughness with which the author has dealt with every part of his subject. Here it is shown how by recently devised methods and appliances, and by careful attention to strict though simple details of technique, the exploration of the whole of the rectum and especially its ocular examination, has of late been much improved. In a long description of the different methods of treating internal haemorrhoids, the author deprecates a systematic rejection of simple palliative measures, which often afford as much relief as the patient needs, and, in early stages of the affection, frequently result in permanent cure. In the discussion of the many different forms of operative treatment there is no exclusive advocacy of any single method. Whilst not opposed to the use of the ligature, so much favoured by many in this country, and regarding this as probably the safest method in certain cases, Dr. Tuttle, in considering the claims of the "clamp and cautery" treatment, holds that this plan, on account of its applicability to all kinds of internal pile, the ease and celerity with which it can be used, and its uniformly good results, easily stands first among the operations for this affection. The chapter on the different methods of removal of rectal cancer is instructive. Dr. Tuttle recommends wide extirpation of all malignant growths when such treatment is feasible. Many surgeons will probably question his conclusion that in the treatment of inoperable cases, just as much comfort and prolongation of life can be obtained by ordinary palliative methods as by the performance of colotomy. Dr. Tuttle describes the methods of artificial feeding by the lower part of the intestinal tract. Acknowledging that rectal alimentation is seldom required in the treatment of the affections specially dealt with in these pages, he thinks it justifiable to give a brief description of the formulae and means of carrying out of intestinal feeding, and expresses great faith in their efficacy if properly applied. Twenty days, he thinks, will probably cover the average period in which external rectal alimentation may be successfully administered.

The reputation gained by Dr. MATHEWS in the United States as a specialist in rectal surgery, and the fact that in a short time he has been called upon to prepare two fresh editions of his *Treatise on Diseases of the Rectum*,[2] claim for the latest and revised form of this work considerate attention. Nevertheless his book, though comprehensive, cannot be regarded as a very satisfactory addition to the abundant literature on this special subject. It certainly represents to a full extent the author's views, but is full of contentious matter. The general spirit of the volume is suggested by an introductory statement that "no good can come of a general acquiescence in order to be courteous." Too much space seems to be taken up by details which in a special treatise may be regarded as quite unnecessary, as, for instance, a long description of the methods of antiseptic surgery. The chapter on cancer of the rectum is unduly extended by a discussion of doubtful utility of the etiology of malignant disease. Undue prominence is given to cases which, though graphically recorded and with much realistic detail, add much to the bulk and little to the value of this book.

[1] *A Treatise on Diseases of the Anus, Rectum, and Pelvic Colon.* By James J. Tuttle, A.M., M.D., Professor of Rectal Surgery in the New York Polyclinic Medical School, etc. New York and London: Appleton and Co. 1903. (Demy 8vo, pp. 986, 346 illustrations. 25s.)

[2] *A Treatise on Diseases of the Rectum, Anus, and Sigmoid Flexure.* By Joseph M. Mathews, M.D., LL.D., President of the American Medical Association, 1898; Professor of Surgery and Clinical Lecturer on Diseases of the Rectum, Hospital College of Medicine, Louisville. Third Edition. New York and London: D. Appleton and Co. 1903. (Roy. 8vo, pp. 589. 107 illustrations. 21s).

GASTRIC ULCER.

M. AUDISTÈRE has written a useful monograph[3] on the subject of cancerous degeneration of simple gastric ulcer, and o what he calls Brunnerian ulcer of the stomach. Beside reporting in full three cases of the former that had com under his own observation, and one of the latter (which, b the way, is only the fifth on record) he gives a summary o all, or nearly all, the recorded cases from the time of Cru veilhier's *Anatomie Pathologique du Corps Humain* onwards. H discusses systematically the pathological anatomy of the cor dition, its etiology, symptomatology, diagnosis, and treat ment. Cancerous degeneration of a simple ulcer must, as h admits, be very rare; it generally attacks chronic pylori ulcers and, he maintains, in a characteristic way, startin in the mucosa at the margin of the ulcer and not in its base The second variety has its seat in what he believes to be congenital adenoma, in fact an aberrant development o Brunner's glands of the duodenum, and being aberran *a priori* more liable to cancerous transformation. The syn ptomatology of the former group at least is, for a length period, that of simple ulceration leading to the masking o its cancerous nature. But the general symptoms, includin the progressive anaemia, with the resistance to treatment an possibly more severe pain, eventually establish the diagnosi As a corollary it is suggested that what appears clinically t be primary gastric cancer may sometimes be cancerous d velopment in a simple ulcer, and if so such instances woul go to explain those cases of gastric cancer in which an exce of free hydrochloric acid is found during life with oth classical symptoms of simple ulcer. The treatment of th condition, he points out, is purely surgical, namely, gastr enterostomy for the late and gastrectomy for the early case There are seven figures, macroscopical and microscopical, an a good bibliographical index. The book may be accepted a a valuable contribution to a highly controversial subject.

DR. PLÖNIES'S book[4] on the part played by the sympathet and vagus nerves in the production of the symptoms of gastr ulcer is highly elaborate, and perhaps somewhat too the retical. He compares the symptomatology of ulcer of th stomach with a reflex neurosis having a local pathologic substratum, and includes such symptoms as pain, vomitin spasm, asthma, cough, bradycardia, palpitation, pseud angina, fainting, and a host of others. Apart from the fa that his views are based on a study of 1,200 cases—in itse entitling his work to careful consideration—he makes out good case, although he does not lay sufficient weight on th toxic element. He would hold that tetany associated wi gastric dilatation was nearly, if not quite, purely nervou while many would consider that it was principally toxic spite of the fact that it has followed the introduction of stomach tube and even the mere percussion of a dilat stomach. As a brief for the nerve theory Dr. Plönies's wo is excellent, and it is calculated to be of practical value leading to the early diagnosis of gastric ulcer before the ons of physical signs.

ANTHROPOMETRY.

DR. GODIN'S anthropometrical researches on the increase the various parts of the body[5] have been made upon a seri of 100 individuals, between the ages of $13\frac{1}{2}$ and $17\frac{1}{2}$ years, w were under his direct observation in one of the preparato military schools of France. They were examined at regul intervals of six months, and the measurements taken a most detailed and precise, all parts of the body and lim being investigated with regard to length, diameter, and c cumference. Thirty-six thousand measurements in all we made, and, in his monograph, Dr. Godin expresses the resu obtained, in numerous tables, in the form of averages of individuals. The work has obviously been done with extreme care, and forms a valuable addition to our knowledge developmental processes. It is all the more valuable in th it helps to fill a vacant space, observations on developm

[3] *De la Dégénérescence Cancéreuse de l'Ulcère de l'Estomac* [Ulcère Sim et Ulcère Brunnérien]. Par le Dr. C. Audistère. Paris: C. Naud. 1 (Demy 8vo, pp. 114, 7 illustrations.)

[4] *Die Reizungen des Nervus Sympathicus und Vagus beim Ulcus Ventri mit besonderer Berücksichtung ihrer Bedeutung für Diagnose und Thera* [Excitations of the Sympathetic Nerve and Vagus in Ulcer of the Stoma with special reference to their Indications for Diagnosis and Treatme Von Dr. Wilh. Plönies. Wiesbaden: J. F. Bergmann; and Glasgow Bauermeister. 1903. (Demy 8vo, pp. 54. 1s. 6d.)

[5] *Recherches Anthropométriques sur la Croissance des Diverses Parties Corps.* By Dr. Paul Godin. Paris: A. Maloine. 1903. (Demy 8vo, pp. Fr. 5.)

ng been largely confined, hitherto, more to pre-natal than ost-natal phenomena, although it is quite obvious that, a practical point of view, the latter are equally im- ant and much more amenable to control. The analysis he measurements discloses many interesting points, but r. Godin's observations are confined to individuals of ch nationality, it is possible that some of the conclusions ed may eventually be modified, by further series of ob- ations made in other countries. Nevertheless, as they d, they are well worthy the careful study of those who are erned with the supervision of adolescents, for they show there are certain proportional relations, between different s of the body, at yearly and half-yearly periods, which should rently be maintained in healthy individuals. From a ral point of view some of the most interesting conclusions, ced from the measurement of the limbs, are that the length ease of the long bones of the extremities proceeds by a s of periods of activity and repose, which succeeded each r with regularity and are alternated for adjacent bones, bone of the arm being in repose, whilst the bones of the arm are in a state of activity. It appears further that the od of repose of growth in length is utilized for increase iameter, the elongation and thickening of the long bones he extremities occurring alternately and not simulta- usly. These are discoveries which expand our knowledge, Dr. Godin's assertion that the acromion is at a lower level the upper margin of the sternum is a direct contradiction general belief, nevertheless the statement is fully sub- tiated by the measurements. The observations on the ease of the subumbilical height not only support previous estigations but also show that the increase is relatively st rapid between the fifteenth and sixteenth years. The iod of puberty, according to Dr. Godin, is more especially sixteenth year, but it extends into the preceding and ceeding year and a half, and in this period that the increase the body is mainly muscular, whilst in the earlier years osseous increase preponderates. Dr. Godin is to be gratulated upon having completed a most laborious and ful investigation.

VOCABULARIES.

Thesaurus of Drs. Barton and Wells[6] is a dictionary of dical terms rather superior to most publications of the ne class. It has been prepared with considerable lexico- phical skill, and the compilers are careful to include eases called after the names of medical authorities and er technical expressions which include proper names. We l, however, to find "Argyll-Robertson Pupil" between ret's Trachoma" and "Arm," nor is it placed under pupil." Effete terms are largely represented, as are popular mes—a good feature in a dictionary though bad in a text- ok; and the glossary of drugs, under the heading "Drug," useful, as Transatlantic vernacular botany is unfamiliar to us, d American physicians do occasionally speak of Wahoo and rsey tea. In the Introduction the system of reference opted by the compilers is explained, and they are careful out synonyms.

The new edition of *Hadden's Pocket Vocabulary of Medical rms*,[7] issued by a firm chiefly known for their law publica ns, is designedly and avowedly compiled for the benefit of gistrars, Poor law officials, and others who have professional alings with medical men. It seems a useful production. ere are, however, some marked oversights: thus, "sleeping kness" is omitted, whilst "African lethargy," a less frequent rm, is included. "General paralysis of the insane" is not to be und under "general," but under the heading "paralysis of e insane," where the definition is "a form of palsy affecting ersons of unsound mind." This is a distinct error; the rm "general" is almost constantly used by doctors, and reat misconception exists outside the profession owing to e word "paralysis," which the definition here given serves confirm. The general public should be informed that the isease in question is "a form of insanity." Plica polonica is more than "a matting of the hair," and "agonia" does not mean "sterility." New names for new operations like "cholecystectomy" and "nephrectomy" are well repre- sented, but we may suggest to the medical compiler that in the next edition of this useful, and in the main reliable, *Vocabulary*, he will substitute "nephrorrhaphy" or "nephro- pexy," for "necusia," which is quite obsolete, and, above all, see to the correct definition of general paralysis.

We were able to speak in terms of praise of the first edition of Dr. Dorland's *Illustrated Medical Dictionary*,[8] published in 1900, and are, therefore, not surprised to find that a third edition was called for last year. New terms have been intro- duced, and some of the tables have been modified. So far as we have been able to test the work it has been found com- plete, and the definitions, on the whole, satisfactory. The entries under narcolepsy, sleeping sickness, and trypanosoma require revision, and the last must have been incomplete even at the time it was written. The volume is of convenient shape, and well bound—points of much importance in a dic- tionary.

A Medical Vocabulary and Phrase-book in Luganda,[9] by Dr. A. R. Cook, of the C.M.S. in Uganda, will be found of great use by young medical men starting as missionaries, and for dispensers, who are often far removed from any medical assistance or help in that territory. The little book is divided into two parts—the first, the vocabulary; the second, notes on Uganda diseases. The vocabulary is fairly full, and should help any one to master the medical dialect which is always difficult. Some therapeutic hints are given, and a few useful prescriptions are inserted at the end of the book.

MATERIA MEDICA AND DISPENSING.

In his *Technique and Indications for Ordinary Remedies*[10] Pro- fessor Lemoine has covered a wide ground, somewhat arbitrarily selected. Thus under revulsive medication the use of iodine, mustard, blisters, and the actual cautery is described; in derivative medication blood-letting, dry and wet cupping, leeches, local baths, purgatives, and douches are included; while the other sections deal respectively with tapping, lavage, baths and lotions, hypodermic medication, aperients, tonics, emetics, hypnotics, and the treatment of haemorrhage from various organs. It is stated in the preface that the objects of the book are, first, to fill a gap usually left in medical education, and, secondly, to bring some useful remedies into notice which are for the moment out of fashion. Certain sections undoubtedly fulfil both objects, such as the description of the uses of leeches and cupping. Blood-letting can hardly now be said to be out of fashion, and the section which deals with its technique and indications is one of the best in the book. Not every one will agree with the author's extensive use of mustard blisters and the cautery, and many will think that promiscuous painting with iodine deserves its present lack of favour. The chapter upon aperients is well arranged and well written. Minor operations, such as trans- fusion, are described in great detail, and the book as a whole should prove useful to a man who has to begin practice with- out much previous experience.

The first edition of *Modern Materia Medica and Therapeutics*[11] by Dr. A. A. Stevens appeared nearly ten years ago, and the present edition, the third, has, as the title of the book might be considered to require, been entirely rewritten. An attempt has been made, as in other well-known works, to classify the different remedial substances on a pharmaco- logical basis. This is not, it must be admitted, invariably happy; for instance, mercury and its salts are described to- gether with the gland extracts under the heading of alter- atives, and eucalyptus, ammonium chloride, and creosote together under expectorants. The descriptions of the indi- vidual drugs are far from exhaustive, and precise references to papers and authorities are systematically omitted. A good feature of the book is the inclusion of information in regard

[6] *A Thesaurus of Medical Words and Phrases*. By Wilfred M. Barton, M.D., Assistant Professor of Therapeutics and Materia Medica and Lecturer on Pharmacy, Medical Department, Georgetown University, and Walter A. Wells, M.D., Demonstrator of Laryngology, Georgetown University. Philadelphia, New York, and London: W. B. Saunders and Co. 1903. (Cr. 8vo, pp. 524. 12s.)

[7] *Hadden's Pocket Vocabulary of Medical Terms* (with their pronunciation). By Henry Payne, M.D., M.R.C.S., L.S.A., Resident Medical Officer of the District Infirmary, Ashton-under-Lyne. Third edition, revised and enlarged by Philip Cowen, M.D. Durh., D.P.H.Camb., and Herbert Davey of the Middle Temple, Barrister-at-Law. London: Hadden, Best, and Co. (Fcap. 8vo, pp. 144. 2s.)

[8] *The Illustrated Medical Dictionary*. By W. A. N. Dorland, A.M., M.D. Third edition. London: W. B. Saunders and Co. 1903. (Demy 8vo, pp. 798. 19s.)

[9] *A Medical Vocabulary and Phrase-book in Luganda*. By Albert B. Cook. B.A.Camb., M.D., B.Sc.Lond., C.M.S., Medical Missionary in Uganda, London: Society for Promoting Christian Knowledge. 1903. (Fcap. 8vo, pp. 64. 1od.)

[10] *Technique et Indications des Médications Usuelles*. Par G. Lemoine. Paris: Vigot Frères. 1903. (Crown 8vo. pp. 544. Frs. 7.)

[11] *Modern Materia Medica and Therapeutics*. By A. A. Stevens, A.M., M.D. Third Edition, entirely rewritten. Philadelphia, New York, and London: W. B. Saunders and Co. 1903. (Demy 8vo, pp. 663. 16s.)

to many valuable therapeutic agents that have not as yet received official recognition, including some of the synthetic analgesics and hypnotics. There is a useful, although much condensed, section on the remedial measures other than drugs, such as cold, heat, light, blood-letting and lavage. Probably the best portion of the book is its later fifth, in which, under the name of applied therapeutics, are given clear, concise, and valuable directions for the treatment of the different diseases and their various complications. We feel justified in recommending this book as one likely to be useful to those engaged in the practical treatment of disease.

Mr. Joseph Ince in his *Elementary Dispensing Practice*[12] has embodied the results of observations extending over his fifty years' intimate association with pharmacy. Read in this light the book is admirable, and the diction all that can be desired, but it scarcely seems to breathe the pharmaceutical spirit of to-day. It has been specially written for students of pharmacy and medicine, but we do not consider that it will be of much service to the latter class. Broadly speaking, its style is too discursive for a textbook, and it is not likely to give a student that sure grasp of the subject which could be obtained from the clear statement of a few general principles suitably illustrated by examples.

The *Twelfth Annual Laboratory Report*, issued by Messrs. Southall Brothers and Barclay, Limited (Birmingham), contains valuable records of results obtained in the examination of crude drugs and galenicals. The abnormal state of the cod-liver oil market during the year under review is reflected in the space devoted to a critical examination of the physical constants and colour reactions of authentic specimens of the genuine oil and its probable adulterants. We also note that green extract of belladonna prepared from several tons of material yielded only 0.87 per cent. of alkaloid against 1.5 per cent. obtained under precisely similar conditions in the previous year. The great variation in potency of this preparation points to the desirability of omitting it from the *Pharmacopoeia*, and since a perfectly definite extract (ext. bellad. alcoholic.) is official, there can be no objection to such a course being followed.

NOTES ON BOOKS.

Dr. G. M. Pittock of Margate has recently issued a pamphlet entitled *Flora of Thanet*,[13] which he has prepared with the help of some friends. He took as a basis the *Flora Thanetsis* of Mr. Flower, which comprised 454 plants, including algae. Thanet is about nine miles long by four or five wide, with rivers, marsh, and various kinds of subsoil; the record now made, at the cost of much time and trouble, is valuable as showing, in the first place, the nature of the plants to be found in the district; and, secondly, as giving indications of the changes which have taken place within the time over which the records extend; the extirpation of certain plants is attributed by Dr. Pittock to the ravages of the plant collectors, and he has refrained from mentioning localities in order that the rare plants which still remain may escape the hands of these depredators. Although the preparation of the list has been a prolonged work, we have no doubt that it has been a pleasurable task, and we congratulate Dr. Pittock and his friends on the result.

The Medical, Surgical, and Pathological Report of the Royal Southern Hospital, Liverpool[14] for 1902 has just been published, and, in addition to statistics, contains a number of papers by members of the staff. Dr. William Williams details the views which he has formed as to the treatment of typhoid fever after an experience of twenty-five years. In the main his paper is an able, if not entirely convincing, defence of the "purgative-starvation" treatment. In another Dr. C. J. Macalister reconsiders the views which he formerly held as to rheumatoid arthritis. He seems disposed now to consider that the disease is not a separate entity, but is a symptom common to several diseases, and not always due to the same cause, and that however this may be it is a much more common and serious condition than it is usually deemed. Another contribution is by Mr. Robert Jones on out-patient work, which contains several clinical observations of value in respect of bone injuries, the diagnosis of hip disease, etc. As regards the former, he considers that shortening is very likely to occur unless a fractured lower limb be but very slightly and carefully used for some months after apparent perfect cure. Other papers of corresponding interest are those on cancer by Dr. A. Alexander, on urinary troubles by Mr. Newbolt, and on epilepsy by Dr. Carter. The book concludes with a paper on the *x*-ray diagnosis of aneurysms by Mr. Holland, and a useful summary of the *post-mortem* room work of the year by Mr. Lyn Dimond. It is to be observed that in the statistics no mention is made of anaesthetics whether as to the drug employed or the results. Every summary of the work of a hospital ought to contain information upon this subject.

The twentieth annual issue of the *Yearbook of the Scientific and Learned Societies of Great Britain and Ireland*[15] contains particulars of a vast number of societies, and in the case of the more important a complete list of all the papers read before them during the year. How far the book is complete it is impossible to say, but judging from the medical section it should probably be considered very complete, though possibly not always infallible in its views of the respective importance of various societies, as judged by the prominence of position accorded and extended notice given. How far, again, medicine compares with other sciences we have not ascertained, but anyhow its progress is apparently assisted by some 78 societies in London and by another 125 in the provinces.

The New Sydenham Society's Atlas.

The two last fasciculi[16] of the New Sydenham Society's *Atlas* contain many interesting illustrations of varied conditions. Fasciculus xvi opens with a short account of coxa vara from the pen of Mr. Keetley, originally communicated to the Medical Society of London. This subject is illustrated by nine plates, most of them skiagraphs supplied by Mr. Robert Jones of Liverpool. The remainder of the fasciculus is made up of miscellanea. Plate J is a skiagraph taken by Mr. F. M. Mackenzie, and represents an ununited fracture of the surgical neck of the humerus in a lady of about 65. Plate K is a skiagraph of a remarkable displacement of the bones about the elbow-joint in a case of inherited syphilis, with notes by Mr. Hutchinson, from which, however, it is not clear that the condition was syphilitic, so that the title is a little misleading. The last plate consists of four photographs relating to a case of (?) carcinoma cutis contributed by Dr. Allworthy and Mr. George Pernet to the *Transactions* of the Dermatological Society of Great Britain. The condition is a very unusual one. Mr. Pernet, who examined some of the large growths microscopically, came to the conclusion that the case was one of alveolar carcinoma of the skin originating possibly from the sweat apparatus. Fasciculus xvii deals with a variety of subjects, and is mainly dermatological. Primary chancres as a result of tattooing are illustrated from photographs supplied by Drs. Thelwall Thomas and Crossley Wright. An interesting feature is the fungating or framboesiform aspect of some, a fact due, no doubt, to secondary microbic infection from without. There is an interesting series of plates illustrating the subjects of xanthoma and xanthelasma, and arsenical intoxication and the disorders of the skin it gives rise to. A good series of photographs by Dr. A. Hall of Sheffield shows various skin eruptions, such as syphilis, dermatitis herpetiformis, etc. Plates representing radiographs of fractures and dislocations bring this double fasciculus to an end. Altogether these parts of the *Atlas* cannot fail to be valuable to those in actual practice.

[12] *Elementary Dispensing Practice.* By Joseph Ince, F.C.S., F.L.S., F.R.M.S., etc. London: *Chemist and Druggist* Office. 1903. (Crown 8vo, pp. 153. 3s. 6d.)

[13] Margate: R. Robinson and Co. 1903.

[14] Liverpool: Rockliffe Bros. 1903. (Demy 8vo, pp. 211.)

[15] *The Yearbook of the Scientific and Learned Societies of Great Britain and Ireland.* Compiled from official sources. 20th annual issue. London: Charles Griffin and Co. 1903. (Demy 8vo, pp. 304.)

[16] *An Atlas of Illustrations of Clinical Medicine, Surgery, and Pathology* compiled for the New Sydenham Society. Fasciculus xvi. 15½ in. by 11 in. Paper covers. London: H. K. Lewis. 1903. (Imp. 8vo. Fasc. xvi. 12 plates, with letterpress, 10s. 6d.; fasc. xvii, 35 plates, with letterpress, 21s.)

The Panama Canal.—The United States Public Health and Marine Hospital Service is making active preparations for the prevention and treatment of sickness among the workmen engaged in making the Panama Canal. A body of medical practitioners is receiving special training, and will work under the supervision of experts. The head quarters will be in a large hospital to be erected at Colon.

SEWAGE CONTAMINATION OF SHELLFISH.

REPORT OF THE LOCAL GOVERNMENT BOARD FOR IRELAND.

HE extent to which the shellfish of our coasts are subject to ollution with sewage and the part played by such contami- ated shellfish in the production of typhoid fever and other ss well-defined forms of gastro-intestinal disturbance are ubjects to which for years past attention has been particu- rly directed. Within the past few weeks two important con- ibutions have been made, both officially, to our knowledge f this subject. One is the Report of the Royal Commission n Sewage Disposal, an abstract of which was published in hese pages on February 13th, and the other is the voluminous Blue-book, presented to Parliament this month, in which the Local Government Board for Ireland has recorded the results f a laborious investigation, conducted by members of their cientific staff. As this is, to the best of our knowledge, the irst instance of a systematic inspection, combined with bac- eriological study of the collected material, extending round he entire coastline of one of the British Islands, we feel ustified in endeavouring to give some idea of the lines upon vhich the work was carried out. We are all the more impelled o do so by the fact that some of the results tend to produce n estimate of the value of bacteriology as a test for sewage ontamination somewhat higher than that assigned to it by he Royal Commission.

General Considerations.

The *Report on the Shellfish Layings on the Irish Coast as Respects their Liability to Sewage Contamination* contains an introduction addressed to the Lord Lieutenant of Ireland (the Earl of Dudley), and signed by Sir H. A. Robinson, C.B., Vice-President, and Mr. T. J. Stafford, F.R.C.S.I., Medical Commissioner, on behalf of the Local Government Board for Ireland.

In this it is stated that the communicability of disease, enteric, diarrhoea, etc.), through the medium of polluted shellfish being taken as definitely established, the Board deemed it advisable to direct an inquiry into the extent to which sewage pollution of shellfish occurs round the coast of Ireland, and accordingly instructed their medical inspector, Dr. T. J. Browne, to inspect the layings and send samples of the shellfish, mud and water to their bacteriologist, Prof. E. J. McWeeney. "We arranged, however, that each should pursue his own investigations independently, that is, that Dr. Browne should form his opinion after personal inspection of the possible existence or non-existence of sewage contamination, without knowledge of the results of the bacterioscopic examination of any samples sent by him to Professor McWeeney, and that the latter gentleman, in making his examination of the samples, should not have any knowledge of the conclusions which Dr. Browne might have arrived at."

In pursuance of these instructions Dr. Browne "made a complete topographical survey of the various bays, harbours, and estuaries, on the shores of which shellfish are cultivated, and furnished maps showing the situation of each laying and its relation to the nearest sewage outfalls."

As the result of his investigations Dr. Browne divides the various beds into three classes (1) pure, (2) contaminated, and (3) doubtful. It is expressly stated that this classification has only a provisional character, merely rendering it possible to distinguish those which seem to be pure from those believed to be grossly polluted. The tendency of Professor McWeeney's results is to place in the "doubtful" class a larger number of localities than might be anticipated from the outcome of Dr. Browne's inspection. To appreciate correctly the character of these localities, as regards contamination, would require the study of prolonged series of samples—more investigation, in fact, than could be given to any one locality in so extensive a survey. The classification must therefore be regarded as preliminary to more thorough examination.

In the first section of his report Professor McWeeney "gives a full account of the methods he employed in his laboratory experiments, and in the second, besides summarizing the results obtained on examination of the samples taken from each bed, he furnishes tabulated statements showing the result of the examination of each individual sample of shellfish, water, and mud. It will be seen that as a general rule he tested the specimens for B. coli communis and B. enteritidis sporogenes, and the tabulated statement readily indicates by the sign plus + or minus − whether the organism tested for was or was not found in the amount of material submitted for examination. Professor McWeeney also furnishes us with a number of photographs in illustration of the results arrived at." The presence or absence of the B. coli communis in one cubic centimetre of the samples of shellfish and water is the test applied. The introduction goes on to emphasize the importance of estimating numerically the number of coli and other test-organisms—which was not done save in a few instances—and to estimate the value of B. coli as a danger signal, increasing in gravity according as it is found, both in numerous samples and in large numbers, whilst its absence "may to some extent reassure us," as its abundance and vitality are greater than those of the typhoid bacillus. "At the same time we think it right to state that, in our opinion, bacterioscopic or chemical examination of samples taken from shellfish layings cannot be regarded as a substitute for careful and intelligent local inspection, but rather as an aid, in all but obvious cases of pollution."

The Commissioners then proceed to discuss the divergences between the reports of the inspector and those of the bacteriologist as regards the character of certain localities, and point out that "the results of labatory investigations, on the whole, very closely coincide with the conclusions arrived at after local inspection, and that, for the most part, Dr. Browne and Professor McWeeney are in substantial agreement. When it is considered that Professor McWeeney made his investigations unaware of Dr. Browne's views as to the possibility of contamination of the layings, and without any knowledge of the local circumstances (save in the case of Dublin Bay), their joint opinion as to the pollution of certain layings will scarcely be disputed." The introduction then proceeds to point out the absence, as the law stands at present, of any adequate means of protecting the public against the sale of polluted shellfish, and the necessity for the creation of a responsible authority which, whilst closing contaminated layings such as those in the estuaries of the Liffey, Lagan, and Newry River, would have the field still open for the prosecution of the industry in suitable localities. "It stands out conspicuously in the report that there is available in this country (Ireland) a great stretch of coast line with numerous bays and estuaries which, so far as freedom from sewage pollution is concerned, are ideal situations for the cultivation of shellfish. The industry would, therefore, only be transferred to larger and purer sources on the west and south coast of Ireland where there is, apparently, almost a illimitable scope for its extension under suitable hygienic conditions."

To follow in the footsteps of Dr. Browne on his tour of inspection round the Irish coast and summarize his results would, of course, be out of the question in this place. Those who care to undertake the task will find it much facilitated by the coloured maps, 34 in number, which accompany the report. From the nature of the subject Professor McWeeney's report is more compact, and it raises a number of questions of much interest to bacteriologists and hygienists generally such, for example, as the species definition of B. coli, the value of B. enteritidis as a test for sewage, and the interpretation of the results of the bacteriological analysis. We give the text of its more instructive passages.

BACTERIOLOGICAL REPORT

By Professor McWeeney.

The shellfish examined comprised oysters, mussels, and cockles, six from each laying, as well as mud and water. The standard quantity tested for coli and enteritidis was 1 c.cm. mingled body fluid and shell water, or its equivalent in body substance when fluid was not forthcoming. At first 1 c.cm. water and 3 loopfuls of mud were tested, but subsequently 100 c.cm. of the former and all the available mud were tested.

Professor McWeeney thus describes the results of his investigations:

Characteristic as the appearance of B. coli on gelatine plates undoubtedly is, there can be no question as to the necessity of always verifying the diagnosis "genuine" coli by the appropriate tests. These tests have been variously stated by various writers, and by many have, I think, been inadequately characterized. I wish to lay special stress upon the absolute necessity that every writer who concerns himself with bacillus coli should explicitly state all the characters upon which he relies when he gives that name to a given culture. Through the neglect of this precaution much of the work that has been done upon the distribution of this organism in Nature has lost its value.

Characteristics of Coliform Organisms.

The characters of every coliform organism isolated in the course of this investigation have been studied under the following heads:

1. Motility;
2. Behaviour to Gram's method;
3. Appearance of the colonies on gelatine plates
4. Power of fermenting carbohydrates;
5. Power of coagulating milk;
6. Growth on potato;
7. Power of reducing certain colouring matters; and
8. Formation of indol.

It will be necessary to say a few words on each of these points.

1. In most books the statement will be found that B. coli is a feebly motile organism. This does not always hold good. From faeces both of suckling babies and of adults I have obtained colonies of coliform appearance that consisted of extremely active organisms, and were "typical" in all other respects. Furthermore, I have isolated, direct from faeces, colonies of otherwise typical coli, the individuals of which were quite stiff, seemed spaced-out or isolated from each other in the hanging drop, so as to lead the observer to infer the existence of an abundant mucoid sheath round each, and were perfectly motionless. I have also observed cases where the organisms were motile when grown at 18° to 21°, and motionless at 37°. Many other workers have had similar experiences—for example, Stöcklin,[1] who isolated 300 strains of coli from normal faeces, and found 184 to be more or less actively motile, whilst the other 116 were motionless. The presence or absence of motility cannot, therefore, serve as a test to distinguish genuine from pseudo-coli.

2. None of the strains isolated retained the stain by Gram's method, and, as this non-retention is common to all the bacilli of the coli group, it cannot be used to differentiate coli *sensu stricto* from pseudo-forms.

3. On gelatine plates two forms of coli occur: the commoner, thin, vine-leaf, or filmy form, and the thick, opaque, discoid form. The former usually consists of short, actively motile, the latter of longer, motionless, stiff-looking individuals. I have usually termed this the aërogenes form, on account of its resemblance to, or perhaps identity with, Escherich's bacillus lactis aërogenes, isolated from suckling-faeces. Both forms occurred very generally in material which might be regarded as heavily infected with coli, and a colony of each kind was always subcultured and put through the tests, the result being that no constant difference could be found between the two varieties save the above-mentioned ones—appearance of the gelatine colonies and motility. The colon bacillus never liquefies the gelatine, and two strains which complied with the other tests but which slowly liquefied the gelatine had to be excluded. Similar strains have been obtained by other workers and received special names. I have frequently had occasion to observe the production of opacity and of masses of small crystals (of ammonio-magnesian phosphate) in the gelatine, but do not regard these appearances as sufficiently constant to serve as a basis for the separation of true coli from the outlying varieties.

4. The power of fermenting carbohydrates is an essential part of the biology of this organism. All the strains which I studied *ad hoc* fermented glucose and maltose. Most of them fermented saccharose[2] also, though not so vigorously. In accordance with the general practice I have made lactose the test-substance, using it in the form of 1 per cent. solution in agar tinted blue with litmus. The strain under examination must evolve an abundance of gas and acid when sown as a shake culture in this litmus-lactose agar. The medium must be split up by the evolution of gas, and its original blue colour must be turned to red or discharged altogether by reduction. If these changes do not occur, the organism is not classed as "genuine" coli.

This would appear to be the proper place to refer to the evolution of gas bubbles in ordinary—that is, non-sugared gelatine shake culture, which is looked upon by some as a test for genuine coli. My experience is that a great many strains isolated direct from faeces do not give this "bubbling," or produce only a very few minute gas bubbles in unsugared gelatine. At first sight the "bubbling" might appear to depend merely on the accidental presence of a small amount of fermentable carbohydrate (muscle sugar) derived from the meat used in preparing the substratum. But the matter is not quite so simple. Lepierre[3] found that the gas evolution occurred in absolutely carbohydrate-free gelatine, and that the evolved gases consisted of a mixture of one part of free H with two of free N (instead of CO_2 and H, as would be the case were they derived from carbohydrate fermentation). This curious phenomenon would appear, therefore, to depend on either (1) a more vigorous and complete destruction of the proteid molecule than the general behaviour of B. coli towards proteids would lead us to expect; or (2) the existence in the gelatine, peptone, or common salt used in making the medium, of traces of nitric acid, which is reduced by the bacillus to nitrous acid. This may then undergo further reduction to free N, or may act upon amides or amido-acids with evolution of that gas.

Whatever be the significance of the "bubbling" to which coli does undoubtedly sometimes give rise in genuinely carbohydrate-free gelatine shake culture, my experience leads me to state that it is not of sufficiently regular occurrence to justify its employment as a test reaction. The preparation of the medium is, furthermore, a source of difficulty and delay. On the other hand, if the bubbling be due to traces of carbohydrate in the medium, the proper course to take would undoubtedly be to regularize the presence of these traces by adding a definite quantity during the preparation of the medium. This I have done throughout the whole of the work, testing each batch of coliform organisms in shake culture on (1) ordinary, and (2) ½ per cent. glucose gelatine. The conclusion I have come to is that the occurrence of bubbling in No. 1 is too capricious and uncertain, and in No. 2 is too invariable to be of use. By requiring bubbling to occur in ordinary gelatine we should exclude many strains that are perfectly typical in other respects. By including all that bubble glucose-gelatine we should include a great number of strains that are in other respects (for example, effect on lactose, on milk, indol formation) quite outside the denomination "genuine." For these reasons I do not place the "bubbling" of gelatine cultures in the category of essential tests, compliance with which must be insisted on.

5. The power of coagulating milk possessed by genuine strains of B. coli would appear to be due to acid fermentation of the lactose. This character, therefore, agrees with that stated in the last paragraph as regards the behaviour of the genuine bacillus in lactose media. The coagulation must be complete, and after a few days the clot must be firm, more or less contracted, and surrounded by a clear whey. If after four days at 37° coagulation have not occurred, I do not feel justified in considering the organism to be genuine.

6. The manner in which many of these strains grew on this medium was very variable, many otherwise typical approximating to the colourless aspect of typhoid when grown on potato. In common with others who have worked on this subject, I have come to the conclusion that the character of the potato used has quite as much to do with the appearance of the culture as the character of the bacillus, and I have not, therefore, rejected any organism which was otherwise typical, on account of its behaviour on this medium.

7. The powerful reducing effect of coli on litmus is one of the most familiar properties of that organism. It extends to other colouring matters as well (methylene blue, sulphindigotate of soda); but the most striking changes would appear to be produced when neutral-red is used. This colouring matter, which was first introduced into bacteriology by Rothberger in 1898, has the advantage of exhibiting not merely reduction, but a superadded phenomenon, that of fluorescence, when acted upon by the colon bacillus. As I have never met with an otherwise typical strain isolated directly from faeces which did not comply with this test, I have made it an essential one, and required compliance with it from all strains isolated in this investigation before classing them as genuine coli. At the same time I would not suggest that some coli-like microbes responding feebly to this test may not, if typical in other respects, be significant of objectionable pollution. I have always used agar-shake cultures, tinged with neutral-red. By this method gas is not infrequently evolved as well. I cannot, however, agree with the suggestion of those who would use this test for the recogni-

[1] Recherches sur la Mobilité et les Cils du Groupe des Coli-Bacilles [*Annales Suisses des Sciences Medicales*, Berne, 1894].

[2] A comparative study of 16 coliform strains undertaken at my instance by my former pupil, W. MacCarthy, M.B. (Travelling Scholar in Pathology of the Royal University), revealed the fact that all save one fermented saccharose broth with gas evolution varying from 44 to 2 mm. in the fermentation tube. The broth had been previously freed from carbohydrate by Smith's method, and contained 2 per cent. of saccharose.

[3] Sur les Gaz produits par le Colibacille. *Comptes Rendus de la Soc. de Biologie*, 1898.

on of B. coli in bacterial mixtures.[4] Although, according my experience, genuine B. coli always produces the nange, other organisms do so as well. I do not wish to be ken as denying all value to the test when applied directly water or the like, but for the present at least I should not el inclined to rely upon indications yielded by neutral-red ubstrata unless applied to (or supported by) pure cultivations.

8. The formation of indol in liquid media containing "peptone" is, perhaps, the best evidence we possess of the ability f the colon bacillus to attack proteoses if not proteids. The eaction for indol is a delicate one, and its success depends on ne kind of culture used and the way in which the test is pplied. I have always used ordinary Witte peptone-broth ultures inoculated from the original gelatine-plate colonies btained when the organism was first isolated. The roth cultures were always incubated for two days t 37° and then allowed to stand at room temperature for three weeks or a month. They were then tested with alf their volume of a 20 per cent. solution of pure sulphuric cid (run in from a burette) and placed in the water bath at 60° or five minutes to see whether the pink coloration would ome on, in which case the organism would appear to have ormed nitrite as well as indol (assuming, of course, the Witte peptone and H_2SO_4 to be free from nitrites). This ctually did happen in about 10 per cent. of the strains, hough the amount of nitrite was never large enough to produce more than a faint rose tinge. After the lapse of five minutes at 60° C., from 1 drop to ½ c.cm. of a 0.02 per cent. solution of potassium nitrite was run in from a burette into the warm liquid. The effect was usually marked. An exquisitely delicate pink hue at once pervaded the fluids or formed a disc at their junction if they were not allowed to mix, and quickly deepened to an intense reddish purple. I had never seen such profound indol reactions until I adopted the above method of applying the test. Otherwise typical strains always gave the reaction to perfection, whilst it was often missed in otherwise atypical ones. Compliance with this test I have always insisted on as a fundamental character of genuine B. coli.

To sum up: The characters on the strength of which I have regarded a strain of coliform character as genuine coli are the following:

(*a*) Character of gelatine colony and non-liquefaction of that medium even after a long time.
(*b*) Non-retention of the stain by Gram's method.
(*c*) Fermentation of lactose with formation of gas and acid.
(*d*) Coagulation of milk within four days at 37°.
(*e*) Production of yellowish-green fluorescence in neutral-red-agar-shake-culture.
(*f*) Production of indol in liquid peptone media.

The accessory tests to which I have subjected all cultures, but on the result of which I do not lay principal stress, are:

(*g*) "Bubbling" of "ordinary" and glucose-gelatine-shake-cultures.
(*h*) Growth on potato.

Lastly, on the motility of individuals, or its absence, I hesitate to lay much stress.

In conclusion, I may say that I saw no advantage from studying the pathogenicity of the very numerous strains isolated. In the case of genuine B. coli this character admittedly varies within wide limits. Nor did it seem advisable to undertake the colossal task of studying the serum reactions, more especially in view of the doubtful and contradictory results arrived at by others.

With regard to the occurrence of pseudo-coli organisms, I have not found them of such frequent occurrence as I originally anticipated. They seemed to occur more especially in connexion with certain enrichment methods. One example of this may suffice. Five oysters sent by Dr. Browne from the Public Beds, Tralee, were tested by three several methods, namely:

1. The method of M'Conkey—culture in litmus-glucose-bile-salt-broth, with fermentation tube;
2. The method suggested by Klein (BRITISH MEDICAL JOURNAL, February 21st, 1903)—culture in litmus-lactose-peptone water, with fermentation tube; and
3. The phenol-broth method as described above.

The fluid contents of each oyster were divided into three parts, one of which was added to a culture tube of each of the above substrata. The result was that all five oysters gave gas and acid in the Klein and M'Conkey tubes, whilst only one (No. 3) gave rise to development in the phenol-broth. All were plated out, and yielded coliform colonies more or less mixed with liquefying ones, save in the case of the phenol-broth tube, which yielded coliform colonies in a state of purity.

On further testing it was found that the coliform organisms obtained from oysters 1, 2, 4, and 5 by the two fermentation-tube methods failed to react typically in litmus-lactose-agar, neutral-red-agar, and milk, and were besides very weak formers of indol. They belonged, therefore, to the category of pseudo-coli organisms. The coliform organisms obtained by the phenol-broth method from oyster 3 proved to be genuine.

The phenol broth is thus shown to have singled out one oyster, and justly so, whilst the seemingly positive results obtained in the case of the other four by the fermentation-tube methods proved on examination to be due to organisms, the genuine character of which seems at any rate open to question, and which certainly lie outside of the—perhaps somewhat arbitrary—limits which I have ventured to draw.

B. Enteritidis Sporogenes.

Turning now to the demonstration of B. enteritidis sporogenes. I proceeded at first strictly along the lines laid down by Klein, the discoverer of that organism, my only departure from his method being in the direction of more complete anaërobiosis. After addition of the standard quantity of material to freshly-sterilized litmus-milk, the tubes were heated in a water bath to 80° for ten minutes, and then placed in a large Novy's bottle, the air got rid of with H, connexion with the atmosphere cut off, and the anaërobiosis tested by spilling a little caustic alkali on the bottom of the vessel, which was strewn with pyrogallol. After two or three days' incubation the tubes were taken out, and the contents of those that seemed typically changed were tested by microscopic examination and injection into animals. Furthermore, by means of dilute stroke cultures on oblique sulph-indigotate agar in a Novy bottle under H and over pyrogallol, as well as by glucose-agar plates in a Bulloch's apparatus, the organisms producing the "typical" change were isolated, and their principal characters investigated. As the result of this work, I find myself in agreement with Klein as regards the following points: Large size, tendency to chain formation, bluntly-rounded ends, Gram-stainability, and variable motility of the organism; its tendency not to form spores in milk-culture; its capacity for liquefying blood-serum (I used Loeffler's), whilst it forms an abundance of spores in that medium; its power of slowly liquefying gelatine, with ultimate formation of a clear liquid, at the bottom of which are thick white flocculi, and at the top imprisoned gas bubbles; and its effect on guinea-pigs, which I have tested again and again with results identical with those recorded by Klein. On the other hand, I have not found it necessary to adopt anaërobic methods in order to obtain the typical enteritidis change in milk. In confirmation of this statement I submit photographs (Plate VI, Figs. 2 and 3) showing duplicate milk tubes inoculated with the same amount of material from the same cockle, and incubated one under aërobic, the other under anaërobic conditions for the same length of time. A glance at the illustrations will show that the typical change has supervened quite as often under aërobic as under anaërobic conditions. Furthermore, the contents of certain of the aërobic tubes that showed the typical change were contrasted as regards their pathogenicity for guinea-pigs and found to be fully equal in this respect to the milk cultures made in the absence of air. The explanation of the growth of this obligate anaërobe without special precaution is the existence of a layer of cream on the surface of the sterile whole-milk. When skim-milk was used comparatively few of the tubes show the typical change. Provided, then, that fairly rich whole-milk be used, I can see no advantage in adopting anaërobic methods for the demonstration of this organism, and the greater part of my results are based on the result of incubating the inoculated milk tubes without special precaution. Possibly those who advocate the test have observed the same facts, but hesitate to abandon anaërobic methods, lest by doing so some unsuspected error might arise.

I very much doubt the significance of the presence of B. enteritidis. Even when the milk tubes failed to display the change designated as typical by Klein, microscopic examination has repeatedly shown me the presence of a minority of anthrax-like, Gram-staining, non-sporing rods, evidently

[4] Cf. Makgill on the "Neutral-Red Reaction as a means of detecting Bacillus Coli in Water Supplies"; Savage on "Neutral-Red in the Routine Bacteriological Examination of Water."—*Journal of Hygiene*, vol. I, No. 4.

enteritidis, but enteritidis which had failed to get the upper hand owing to the prevalence of some other obligate or facultative anaërobic competitor. I have been obliged to conclude that enteritidis is a very frequent denizen of molluscs and the sandy mud in or on which they dwell—with the exception of deep-sea beds (cf. Wicklow and Wexford results). It appears to me to be one of a number of anaërobic saprophytes, normally occurring in putrescent organic matter, whether of animal or vegetable origin (cf. Balfour Stewart's results with corn. *Reports of Thompson-Yates Laboratories*, vol. iii, part I).

Its mere demonstration would not, therefore, appear to afford convincing evidence of faecal contamination. On the other hand, its absence may be allowed to have a certain negative value, inasmuch as, owing to its great frequency in faeces, it could hardly be absent from material contaminated to any appreciable extent with sewage. Looking at the whole subject from the broad standpoint of the general biologist, we see that the great processes of carbon-circulation and nitrogen-circulation in Nature are carried on through the agency of saprophytic organisms, mainly bacteria, some of which are anaërobic. These anaërobes may fairly be expected to occur wherever there is organic matter undergoing decomposition, that is, practically everywhere. The fact that some of them, through their toxins or otherwise, are capable of producing disease in animals into which they fortuitously obtain access, is a mere accident. The demonstration of potential pathogenicity, such as that afforded by Klein in the case of his B. enteritidis sporogenes, is no proof that the organism habitually acts in that way, or is in any sense closely or indissolubly connected with human life processes. Like tetanus, it is an anaërobic saprophyte, with a rôle of its own play in Nature, though what that rôle is we do not as yet know. Like tetanus, it possesses organs of persistence (spores), which enable it to indefinitely survive any fortuitous connexion it may have had with the human organism, and more especially to outlive the delicate non-sporing organisms, such as typhoid and coli, which have undergone special differentiations to enable them to survive in the human body, and to play their part—hostile in the case of the one, defensive in that of the other—in its life processes. The fact that these anaërobes form spores is therefore an important reason why they should not be used as a test of the hygienic quality of an article of diet.

How different is the case with coli. Here we have an organism devoid of spores, and therefore endowed with very limited powers of persistence—an organism which is a habitual denizen of the alimentary canal of men and animals, and enormous numbers of which—thousands of millions of individuals—are daily produced by every human being and higher animal; an organism which has a most important rôle to play in connexion with the digestive processes of the animals with which it is symbiotic—the prevention of putrefactive changes in the alimentary canal (Bienstock).[5] When our object is to test whether a given article of diet is contaminated with such discharges, and therefore potentially with the pathogenic forms of bacteria—typhoid, cholera—which they may contain, it is clearly to the colon bacillus we must look as the unmistakable index of such contamination. If we find this bacillus present in large numbers we are justified in inferring that the contamination has been recent in point of date and faecal in character. If the contamination has been of such old-standing that the demonstration of the colon bacillus fails, then the more delicate pathogenic forms will *a fortiori* have also died out, and the material may be regarded with high probability as hygienically unobjectionable. If we do not find coli, but do find the spores of B. enteritidis or other saprophyte, it is difficult to see what precise inference we can draw as to the existence or non-existence of faecal contamination. Accordingly, while not disposed to differ from those whose experience of the test is wider and more varied than mine, to the extent of denying to it all value in hygienic investigations, I cannot, in the light of my present experience, assign to it a value even approximately equal to that of the test for B. coli communis.

The Value of the Bacterioscopic Test.

The gravest objection to the evidence of sewage contamination based on the bacterioscopic test is undoubtedly the ubiquity of B. coli. The fact that it invariably appears in the alimentary canal within a few hours of birth is a proof of this ubiquity, and the fact that so many billions are daily liberated from the alimentary canal of men and animals serves to explain it. Can we fairly base conclusions on the presence of so widely distributed an organism? My opinion is that we can, provided that we do not base them on the mere presence or absence, but upon the degree of concentration of the colon bacillus, as was, I believe, first pointed out by Houston. Faeces afford an example of colon bacilli aggregated in the closest manner met with in Nature. And from this degree of aggregation downwards every intermediate state of concentration probably exists down to that met with in a public water supply, one or two litres of which can only supply a single colon germ. If we can establish in the case of each article of food liable to sewage contamination a maximum standard of coli-content—as has been so brilliantly attempted by Houston in the case of sewage effluents—we shall have done all that can fairly be demanded of bacteriology, unless indeed further researches show that faeces contain some still more characteristic organism (such as B. acidophilus recently found by Moro[6] in the faeces of sucklings), which is not liable to occur elsewhere.

The question arises whether the work which I have now the honour to submit to the Local Government Board does really supply such a standard. Confident as I am of its accuracy, so far as it goes, I am not prepared to assert that it does this. It tells of the presence or absence of the colon bacillus in 1 c.cm. of oyster contents; it tends to show that the bacillus is absent from 1 c.cm. of fluid when the oyster comes from uncontaminated sources; and that when the bacillus is present in several oysters from the same source, that source is usually open to grave suspicion on other grounds. In order to thoroughly solve the problem it would be necessary:

1. To ascertain whether oysters, etc., which do not contain the colon bacillus in 1 c.cm. can be shown to contain it in their entire organism;
2. Whether the colon bacillus is ever demonstrable in small quantities (1, 10, or 100 c.cm.) of sea water taken far from the shore, and therefore absolutely free from all possibility of contamination with sewage; and
3. Whether there exist in the sea water of oyster beds sources of B. coli (*sensu stricto*) other than sewage. I refer to the possibility that the intestinal contents of sea fowl and fish may contain that organism, and, under certain circumstances, liberate it into the water in quantities large enough to perceptibly affect its bacteriological character.

If oysters that do not contain B. coli in 1 c.cm. juice are found free from it altogether, then there can be no doubt that this amount will really form a convenient standard quantity from which the colon bacillus must be absent in hygienically unobjectionable molluscs.

If it can be shown that the colon bacillus does not occur in, say, 100 c.cm. of open sea-water, then its occurrence in, say, 1 c.cm. of water from an oyster bed, must surely be held to justify condemnation of that water as contaminated with colon-bacillus-containing material—in other words with sewage—provided that the other possible sources of coli, referred to in paragraph 3 above, are shown to be practically non-existent.

It is to these points that I propose to turn my attention at any subsequent work which the Local Government Board may see fit to entrust to me on this subject.

In conclusion, I would draw attention to the fact that in preparing the bacterioscopic reports which I have now the honour to submit, I have been not only uninfluenced by any local knowledge, but—with the exception of Dublin Bay and vicinity—absolutely ignorant of the local conditions. With the results of Dr. Browne's inspection of the several localities I have never become acquainted till after the bacterioscopic report was completed and sent in. I cannot but regard it as highly satisfactory, from the point of view of bacteriology, that the conclusions arrived at by Drs. Browne and Edgar Flinn, medical inspectors to the Local Government Board, as the result of examination of the several localities, have in so many cases been in agreement with the results to which I have been led by independent laboratory investigation.

[5] Untersuchungen über die Ætiologie der Eiweissfäulniss, *Arch. f. Hyg.*, 1900; Du Rôle des Bacteries de l'Intestin, *Annales de l'Institut Pasteur*, 1900.

[6] *Jahrb. f. Kinderheilk*, 1900.

ROENTGEN RAY CONGRESS.—A Roentgen-ray Congress is to be held in Berlin at Easter, 1905, to celebrate the tenth anniversary of the discovery of the *x* rays. There will be an exhibition of *x*-ray apparatus in connexion with it and with the German Surgical Congress. His Excellency Professor Ernst von Bergmann is Honorary President of the Roentgen-ray Congress, and has expressed his intention of being present at its sittings.

BRITISH MEDICAL ASSOCIATION.

uscriptions to the British Medical Association for e year 1904 are now due and should be forwarded r postal order or cheque to the amount of 25s. the General Secretary, 429, Strand, London, W.C., , in the case of Colonial members, to their Branch easurer.

British Medical Journal.

SATURDAY, FEBRUARY 27TH, 1904.

ISOLATION HOSPITALS.

have published during the last few months a large ıber of letters in which the value of isolation hospitals a been questioned. The force of the facts and argu- nts advanced has perhaps been obscured by the e mence of the language in which they have sometimes e expressed, but they are sufficiently cogent to afford ification for the suggestion that the advantages and idvantages of hospitals in which cases of infectious i ase are aggregated would be a suitable subject for n stigation by a Select Committee, if not by a Royal Commission.

ıe two diseases with regard to which it is especially lged that isolation hospitals have failed are scarlet er and small-pox. With regard to the former, there are hawkward facts as to the occurrence of fresh cases in pırent relation to persons discharged from hospital fr convalescence and disinfection, and there are allega- ics that the mere aggregation of cases under the ae roof reinforces the infection and aggravates the iase. The scarlet fever of the present day seems o e on the whole a milder disease than the scarlet er of a generation ago. How far this is due to variation n ype, how far to improved sanitary conditions in dwell- n ıouses diminishing the risk of secondary infections, and ıd far to early isolation or improved methods of treat- n t is very difficult to say. The answer must be more r ss of a guess, coloured by the personal prejudices or p ial experience of the answerer. An official inquiry vld not settle these questions, but it would ascertain h facts, and would prove whether the statements as to h evil influence of infectious hospitals were of general p ication or were generalizations from exceptional c rrences. The official opinion is that the isolation of p ents suffering from scarlet fever is desirable in the n rests of the community as preventing the spread of in- e on, and in the interest of the individual as affording a p er chance of recovery than treatment in—for example - tenement house. The validity of this opinion is not e royed by producing instances in which fresh cases may p aced to convalescent patients discharged from hospital. u cases may be inevitable, inherent in the system, r ıey may be due to faults in administration which might p emedied. What it appears necessary to ascertain for h satisfaction of local authorities called upon to spend a g deal of public money is on which side the balance of d ıntage lies. The probability is that the balance is on h side of the hospitals, and if that belief is held by those r support the erection and maintenance of such institu- ics, they may be expected to be all the more disposed to g e to an inquiry.

ıe position with regard to small-pox hospitals is different. The official opinion is that there is something about small-pox hospitals which is inherently dangerous; that careful and skilful administration may diminish, but does not abolish, the risk of infection within a circle of a quarter or half a mile, or even, according to the more extreme opinion, of more than a mile. From the hospital as a centre a subtle something, we are told, is blown by the wind or wafted by the zephyrs and dropped into cottages and coal mines, and even into the mouths of wayfarers on the public roads or engine-drivers on the railways near a small-pox hospital. The advocates of this theory are not quite agreed among themselves. Some would maintain that a stiff breeze is required to disseminate the infection far and wide, while others hold that a slight drift of air will carry a compact mass of infection which will be an overwhelming dose for a susceptible individual. The whole theory rests upon the construction of spot maps. Each spot represents a case, and it is seen that the percentage of spots to population is greatest within a quarter of a mile of the hospital, less, but still large, within half a mile, and so on. This, it is said, is to be explained by the theory of aërial convection—a bad term, because it may be taken to imply that the infection is gaseous, whereas we know it to be living and particulate. We published last week a report compiled from the official shorthand notes of the case in which the Corporation of Nottingham had to defend an action with regard to a small-pox hospital recently erected in the parish of Bulwell. The plaintiffs were the master of the village schools of Bestwood, a village within half a mile of the hospital, a farmer and miller of another parish whose house and workmen's houses are within 200 yards of the hospital, and the Bestwood Coal and Iron Company whose ironworks are within a quarter of a mile, and whose colliery is within half a mile of the hospital. The hospital adjoins a public high road from which it is separated by a high fence and lies between a main line of the Midland Railway and a branch line of the Great Northern Railway. A considerable number of people either live or work within a short distance of the hospital. The plaintiffs alleged that the maintenance and utilization of the hospital caused great danger by the spread of infection not only to residents, but to persons working on the farm or in the mine or ironworks, and also to persons passing along the high road; and the suggestion was even made that engine-drivers on the railway were not safe. The plaintiffs claimed an injunction to restrain the use of the hospital for the reception of cases suffering from small-pox so as to cause a nuisance either to the inhabitants of the neighbourhood or to persons passing along the highways. The defence stated that the site, which comprised four acres, had been carefully selected, and that both it and the buildings had been arranged in accordance with the memorandum of the Local Government Board of May, 1902, although the Corporation was under no compulsion to do so; every building to contain infected persons had been placed more than 40 ft. distant from the boundary, and the grounds, except in one place where bounded by a stream, had been enclosed by a fence protected by barbed wire and with an inner fence round the hospital buildings. It was further alleged that the hospital had been in use since August, 1903, and had not caused any nuisance or occasioned the spread of infection. The hospital accommodates between thirty and forty patients, and no question of maladministration was raised by the plaintiffs.

It is significant that counsel for the plaintiffs appears to have abandoned the theory of convection, and to have relied solely upon the empirical conclusion that in some way or other a small-pox hospital containing more than a certain undetermined number of acute cases operated to produce a disproportionate incidence of small-pox in its neighbourhood.

Dr. J. C. McVail, whose opinion on any subject connected with small-pox will rightly have great weight with the profession, does not appear to have been disposed to go further than this. He said that small-pox hospitals were very dangerous in disseminating the infection to surrounding populations, and that though there might be much difference of medical opinion as to the theory which accounted for the fact, it would be a serious thing for the health of the community if there were a difference as to the fact of small-pox hospitals being dangerous. He said further that he knew of no evidence to support the view that aërial convection to persons who worked more than half a mile away was a practical danger; he admitted the risk of infection through personal intercourse between the staff or convalescent patients and the neighbours, but he did not consider that this cause would account for the very much larger incidence of small-pox in the zone immediately around a hospital. He considered that the longer the time spent by a susceptible person in the special area the greater the risk of infection, and also that it was greater to a person in the open air than to one who remained within a dwelling. With regard to the alleged risk to persons using the highway which passed the hospital, he said that it was not necessary to assume that the infection was by aërial convection; material that had been related to the hospital at one time might find its way on to the high road—dust and so forth—and the infection might thus be mediate.

The memorandum of the Local Government Board to which reference has been made states that in view of the frequently-demonstrated liability of small-pox hospitals to disseminate that disease to neighbouring communities, and in order to lessen the risk of such occurrence, the Board requires certain conditions to be complied with in the case of small-pox hospitals provided by means of loans sanctioned by it. The first condition is that the site must not have within a quarter of a mile of it either a hospital, whether for infectious diseases or otherwise, or a workhouse, asylum, or any other similar establishment, or a population of as many as 200 persons; the second condition is that the site must not have within half a mile of it a population of as many as 600 persons, whether in one or more institutions or in dwelling-houses; the third is that even where the above conditions are fulfilled a hospital must not be used at one and the same time for the reception of cases of small-pox and of any other class of disease. This is the official view; it is not the view universally held by medical officers of health who have had experience of the working of small-pox hospitals. Dr. Hope, who has had the supervision of three small-pox hospitals at Liverpool, stated that his experience had led him to abandon the theory of the aërial dissemination of small-pox. Dr. Newsholme, M.O.H. Brighton, and Dr. George Reid, M.O. Staffordshire County Council, supported this view; and Dr. Collingridge, who while for many years Medical Officer of the Port of London had had special experience of the hospital ships in the Thames upon which particular reliance was placed by Dr. Thresh and others who maintain the view that small-pox is commonly disseminated to a considerable distance through t air, significantly said that he knew too much of the habi and customs of the people frequenting the river to acce the view that the regulations to prevent personal int course were always effective.

Meanwhile the Local Government Board enforces restrictions upon all authorities, which, unlike Nottin ham, must apply to it to sanction loans for the erection small-pox hospitals. In view of the conflict of opinion cannot but feel that it is desirable that the question shou be investigated by a tribunal better qualified than Chancery Court to review all the facts and arrive at an portant decision.

THE PHYSICIAN OF THE FUTURE.

MUCH is heard at the present day of the lowly est of the medical profession, of the neglect with whic is treated by governments, principalities and pow of the imperfect appreciation of its services sh by the public, and of the manifold wrongs whic suffers at the hands of society. That there is solid gro for dissatisfaction in respect of all these things is a t which cannot be gainsaid, and which assuredly need be insisted upon in the BRITISH MEDICAL JOURNAL. is it our purpose here to discuss the causes of this dis tent. It may, however, be pointed out that these partly to be found in the operation of economic which affect medicine in the same way as they affect other profession or industry; partly in the unce nature of the knowledge on which the healing a largely based, and the consequent defects in our t peutic equipment; partly, too, on the new conceptio the true function of the physician which is almost impe tibly being produced by the evolution of scientific med As medicine approximates more and more to the cha of an exact science its chief aim tends to change the cure to the prevention of disease. In the de of the public health its most conspicuous triumphs been won, and in that direction lies the hope of its expansion.

In the application of this principle to the conser of the health of the individual Dr. J. Héricourt remedy for most of the tribulations of the medical sion. In a chapter of a forthcoming work, entitl *Frontières de la Maladie*, which is published in *La R* February 15th, the distinguished French physicia forth the disadvantages under which the doctor of t sent day practises his profession. As a rule, he neve disease till it is near its end. Before this consumma reached the illness has passed through two phase corresponding to the onset, the other to the reactio organism against the attack. It is during these that help is most urgently needed in the s but it is just at those periods that the aid medical practitioner is scarcely ever invoked. He i in only in the third phase when the illness has alre a firm hold on the patient and treatment can have no influence on its further course. Either the doct on while the disease as it were burns itself out, o said of the Greek physicians of old, he stands at side wrapt in a "meditation on death." What inc all his art do in cases of established Bright's dise rhosis of the liver, or diabetes, beyond relieving sy and perhaps retarding the progress of the mala the third stage of tuberculosis and in most acute i diseases he has practically no control over the

nts. Much, however, could be done to prevent the de-opment of kidney or liver disease or diabetes if the ly disorders of nutrition of which they are the outcome ld be corrected; tuberculosis, as every one now recog-ies, can be cured in the early stages, and the sanitarian to a large extent strangle infectious diseases in their ile.

eing human, the physician must to a certain extent be nuenced by regard for his own interest, and Dr. Héri-crt holds that he is placed in a false position in the blic eye by the fact that he has to find his means of lihood in the sufferings of his fellow-men. This circum-nce accounts for much of the suspicion and positive cility with which the profession is regarded by many ple. This prejudice can never be removed until the tion of the physician not only to the public but to the vidual becomes normal; that is to say, until his ct and immediate interest lies in the prevention of ase. The maintenance of the highest standard of health ll members of the community within his sphere of uence should be to him a source not only of pride, but rofit. Already some classes of the medical profession in this happy position. The direct measure of the effici-y of the medical officer of the navy or army is the absence isease among the men under his care. His chief duty o detect the beginnings of disease and at once check spread of infection. He is, in short, a hygienist er than a physician or a surgeon. An accurate appre-iion of this most important truth by those who are onsible for the efficiency of our army would have d many a disaster in the past; and if similar mis-ines are to be prevented in the future, this can only be he opening of the eyes of Mr. Arnold-Forster and his sers to the folly of placing the medical service of the y under the heel of the military jack-boot.

he principle of employing medical practitioners as dians of private health is already applied to some ex-in civil life. Some railway companies and a few large ufacturing and trading companies have medical titioners whose duty it is to watch over the health he workers in their employ. The value of medi-fficers of schools is coming to be more and more ly recognized. Dr. Héricourt is strongly of opinion it would be to the advantage of all concerned if principle were extended to families. Every house-should, he says, have a doctor paid by the year to h over the health of each one of its members, in-ng the servants. His duty would be to prevent ill-; but if disease showed itself he would be in a far r position to deal with it than a stranger hastily d in when the case had already begun to look serious. pplication of the same principle would, Dr. Héricourt s, solve the difficulty of contract medical practice. nsists on the advantages that would follow the trans-ation of Friendly Societies into mutual assurance iations. If, he says, it is a good thing to get medical for nothing when you are ill, it is still better to avoid s by being safeguarded against disease. To this end, uld be worth while for these societies to engage ade-staffs of medical officers at salaries sufficient to e the services of thoroughly competent men whose it it should be to keep a watchful eye on the state of h of every member.

Héricourt points out that if the physician of the e is to fulfil the function which he assigns to him, rill need a different training from that which he now receives. His scientific knowledge must be of a higher kind, his judgement must be sure, his powers of observation sharpened by long practice and well-directed attention. He will have to act on a correct interpretation of signs, on an exact appreciation of fine shades, on a logical prevision of consequences and possibilities. When the medical profession as a whole has been educated up to this level, it will command the public respect to which a body of such importance to the common weal is entitled.

If Dr. Héricourt's ideal is to be realized, it is clear that the public will be required to be educated almost as thoroughly as the profession. But it is certain that when a knowledge of the general principles of physiology and of the laws of health is the common property of all men and women, the belief in futile remedies will cease and quackery will die a natural death. Medicine will no longer be looked upon as the art of "curing" diseases, but as the science of preventing such of them as cannot be altogether abolished. In that far time the physician will take the place that rightly belongs to him as the most important functionary in an enlightened State. Till then he must strive to live and work in the spirit of the noble words of Sir Thomas Browne:

"I feel not in me those sordid and unchristian desires of my profession; I do not secretly implore and wish for plagues, rejoice at famines, revolve ephemerides and almanacks in expectation of malignant aspects, fatal conjunctions, and eclipses. I rejoice not at unwholesome springs nor unseasonable winters; my prayer goes with the husbandman's; I desire everything in its proper season, that neither men nor the times be out of temper. Let me be sick myself, if sometimes the malady of my patient be not a disease unto me. I desire rather to cure his infirmities than my own necessities. Where I do him no good, methinks it is scarce honest gain, though I confess 'tis but the worthy salary of our well-intended endeavours. I am not only ashamed but heartily sorry that, besides death, there are diseases incurable; yet not for my own sake or that they be beyond my art, but for the general cause and sake of humanity, whose common cause I apprehend as mine own."

A practitioner who acts up to this standard of professional feeling and conduct will certainly earn the veneration and affection of the people among whom his way of life lies, even if he often fails to cure and is sometimes powerless to prevent the attacks of disease.

SCURVY AND STERILIZED MILK.

In another column is published a paper by Dr. Henry Ashby, of Manchester, the importance of which must not be measured by its length. The etiology of scurvy is not thoroughly understood. It is not fully established whether it is due to a *plus* or *minus* change, to some non-natural constituent, or to the subtraction or destruction of some natural antiscorbutic substance. It is at any rate certain that it is produced by the exclusive use of cooked preserved foods, and that, as W. H. Neale's experience in the Arctic regions proved, it may be warded off by even a small proportion of fresh food in the diet. The better opinion appears to be that scurvy is produced by some product of decomposition present in the preserved food. Dr. Ashby relates a striking case in which scurvy rapidly developed in an infant after it was fed exclusively on sterilized "humanized milk" obtained from a municipal dépôt. Dr. Ashby does not tell us anything about the history of this milk

before it was "humanized" and sterilized. The investigation made for the BRITISH MEDICAL JOURNAL last year would, however, quite prepare us to learn that it was obtained in bulk through a wholesale milk dealer from an uninspected farm, jolted for hours in an unsealed can at the tail of a slow train, and finally submitted to humanization and sterilization when it was already swarming with bacteria and loaded with poisonous scurvy-producing substances.

We believe that every one who has seen much of infants' disease will agree with Dr. Ashby that for every case of well-developed scurvy there are hundreds which present symptoms recognizable as of a scorbutic type—mild cases of scurvy, in fact, presenting the symptoms of anaemia, loss of flesh, puffiness of the integuments, loss of appetite, and diarrhoea. They recover rapidly when once the cause is recognized, but failing a correct diagnosis the whole gamut from cod-liver oil to opium may be run through without any real benefit.

A great deal has been written about the necessity for modifying cows' milk, so that it may approach in composition human milk as closely as the chemist and physician can contrive. The case for modification has been stated very fully in our columns by Dr. Rotch and others. But we do not find the arguments convincing. A baby is not a test tube. Like all other animals, the healthy human infant can digest and dispose of a diet which departs a little from the absolute standard of accurate chemical analysis. Professor Budin gives whole milk undiluted and has had most excellent results, as was shown in the article published last week, page 440. It might be better to give cow's milk diluted a little to lower the proteid, to add some cream to raise the percentage of fat, and to add also some milk sugar to increase the carbohydrates. Is not the healthy baby round and fat while the calf is long and lank? The all-essential point is that the milk should be pure, fresh, and clean. We are very glad to find Dr. Ashby lending the weight of his authority to this doctrine, which was the main conclusion drawn by our commissioner from the investigation made for us last spring into the Milk Supply of Large Towns.

Clean milk—this is really the alpha and omega of the whole matter; milk which has not been contaminated by gross dirtiness and carelessness at the farm, by unmentionable negligence in transit, by culpable manipulations at the milk factory in the town, by ignorant storage in the shops of small dealers and the tenements of the poor. As the milk trade is now conducted the sources of contamination are almost innumerable. To remedy this state of things let us begin at the beginning. Let us insist that the Orders of the Local Government Board, with regard to dairy farms, be carried into effect by the sanitary authorities of the rural districts from which nearly all the milk supplied to large towns comes. The results of a special inquiry[1] made a few months ago was to establish the fact that in most country districts the orders are a dead letter; either the model rules have never been adopted, or, if adopted, are not enforced. Next, let us ask the railway companies to encourage the use of sealed churns, and to fix reasonable rates for the carriage of milk in bottles. Apparently no serious objections would be raised by the principal companies.[2] Then let us insist upon the urban sanitary authorities taking frequent samples for analysis so as to detect deliberate adulteration.

[1] BRITISH MEDICAL JOURNAL, December 5th, 1903, p. 1488.
[2] Ibid., April 4th, 1903, p. 101.

Finally after all this, let us ask whether it is real necessary to sterilize. If it prove to be necessary, then t risk of scurvy must be taken as the lesser of two evils, a the more easily obviated by giving lemon juice or oth "antiscorbutic." But we venture to say that the necessi has not been proved. There is no question here of the righ or wrongs of municipal trading. The question is an esse tially medical one: whether it is wise and reasonable a scientific first to let milk become putrescent and then boil it to kill the bacilli and most but not all of their spor

THE KING AND MEDICAL EDUCATION.

THE King has recently given fresh evidence of the terest which he has always displayed in the medical p fession and medical education. He has, as will be se from the report of the last meeting of the Medical Facu of the University of London published at p. 512, promi a donation of 100 guineas to the fund now being raise establish an Institute of the Medical Sciences der the control of the University should the sche be carried out. It may reasonably be expec that this expression of His Majesty's approval greatly assist the efforts now being made by Butlin and his colleagues to raise the amount of mo required to make the scheme a success. Another evide of the King's interest in medical education is affor by his approaching visit to Cambridge to open new buildings of the Medical and Botanical Sch He will be accompanied by the Queen and the Prin Victoria, and will on the same occasion attend a Congr tion in the Senate House, will visit the Squire Law Libr will open the Geological Museum, and unveil the mem statue to Professor Sedgwick in that building. We sure that the King's action in these matters wil appreciated by the medical profession far beyond precincts of the Universities which they immedi concern.

DEPUTATIONS.

A DEPUTATION, representing the British Medical Associ and consisting of Mr. Andrew Clark, Chairman of Co Sir Victor Horsley, Chairman, and Drs. Heron, Greenwood, and O'Sullivan, members of the Me Political Committee, Mr. Guy Elliston, General Secre and Dr. J. S. Whitaker, Medical Secretary, accompani Dr. Bateman, representing the Medical Defence Union an interview with the Registrar-General on Feb 23rd. The deputation, which was introduced by Mr. H son, Solicitor to the Association, laid before the Regi General the recommendations of the Medico-Po Committee, which were published in the SUPPLEM the BRITISH MEDICAL JOURNAL of January 30th, 1904 The proceedings were private, but it may be state the Registrar-General gave a most sympathetic hear the views expressed by the deputation. On the sam Mr. Walter Long, President of the Local Government received a deputation from the Association, consis Dr. T. D. Griffiths, President, Sir Victor Horsley, man, and Drs. O'Sullivan and Macdonald, me of the Medico-Political Committee, and Dr. Chairman, and Mr. C. H. W. Parkinson, a m of the Public Health Committee, together wit Guy Elliston, General Secretary; Dr. J. S. Wh Medical Secretary; and Dr. Dawson Williams, Ed the BRITISH MEDICAL JOURNAL. The deputation wa duced by Dr. Hutchinson, M.P., and the intervie private. The object of the deputation was to bring notice of the President of the Local Government the views embodied in the draft Bill which was pu in the SUPPLEMENT to the BRITISH MEDICAL JOU January 30th, 1904, p. 7. Mr. Long undert convey the representations made to him to the departmental Committee now conducting an inqu the duties and relative position of different public

THE METROPOLITAN STREET AMBULANCE ASSOCIATION.

view of the approaching London County Council elec-ns on March 5th, it is hoped that all medical men who e not yet joined the above Association will communi-e with the Honorary Secretary, Dr. Arthur James, 69, ucester Terrace, Hyde Park, W. It is very desirable t candidates should understand that the whole profes-n is of one mind as regards the necessity of the Council viding an efficient street ambulance service for London. eral hundred members have already been enrolled, ongst them being: The President and many of the ncil of the Royal College of Physicians, the President, President, two Vice-Presidents, and sixteen members he Council of the Royal College of Surgeons, the Vice-ncellor of the London University, members of the fs of all the London hospitals, including Sir Thomas low, Sir T. Lauder Brunton, Sir William Bennett, Sir ed Cooper, Sir Anderson Critchett, Sir William Gowers, R. Douglas Powell, Sir E. Cooper Perry, Sir Thomas th, and Sir Felix Semon. The Metropolitan Street Am-nce Association has already sent a communication on subject to every County Council candidate, enclosing stcard for reply to the following question: "If elected e London County Council will you interest yourself in ring the establishment, by the Council, of an efficient et ambulance service for London?" A great many sfactory answers have already been received. There be little doubt that all candidates will give their sup-if the profession will point out the great advantages e scheme advocated.

E NATIONAL HOSPITAL FOR THE PARALYSED AND EPILEPTIC.

National Hospital for the Paralysed and Epileptic issued an appeal which has the approval of many nguished persons, among whom are Lord Avebury, Joseph Chamberlain, Sir William Huggins, Mr. Justice nedy, Sir Norman Lockyer, the Bishop of London and Strathcona, for aid towards the establishment of a ological research department. It is pointed out that ough the hospital was established primarily for the ment of patients, it is also intended, as stated in the , to provide opportunities for the investigation of ous diseases. The hospital has for many years main-ed a pathological department but the funds available been insufficient to enable it to carry out the work as letely as is desirable. "Under present conditions of says the Board of Management, which has issued the al, "nervous diseases are steadily on the increase and forms of paralysis are still incurable and must remain til more light has been thrown upon their origin. It us clearly to the interest of the public generally that possible means should be provided for their elucida-Those who are interested in the prevention as well e cure of disease are asked to assist in the effort which out to be made in order to provide that permanent and matic research shall be carried on on a proper scale. accounts will be kept apart from the general accounts e hospital, and every contributor will annually receive port of the work and a copy of the accounts." We ily commend this appeal to the notice of all who are ested in the discovery of means of preventing or g some of the most distressing forms of disease that n flesh is heir to. One of the characteristics of the nt age is the widespread tendency to neuroses of one or another. The National Hospital for the Paralysed pileptic already does much for the relief of sufferers nervous disorders, and the full use of the opportuni-f research which it offers cannot fail to yield results alculable advantage to mankind.

SLEEPING SICKNESS.

R the auspices of the Liverpool Biological Society el David Bruce, F.R.S., on February 14th delivered a e on Trypanosomes and Sleeping Sickness in a. After referring to the discovery of the trypano-some in India by Surgeon-Major Lewis in 1877 and to his own investigations in Zululand in 1894-5, Colonel Bruce gave an account of his investigations in Uganda last year. The areas in Uganda where the sickness was prevalent were clearly defined, and figures showed that, of the natives in these parts who went about doing their ordinary work, 28.5 per cent. were inoculated with the disease in its first stage. So deadly had the sickness become, that some districts had been seriously depopulated. The disease, which had been unknown in Uganda up to about ten years ago, was probably introduced from the West Coast, where it had been known for the last 100 years. In 1894-5, 10,000 natives were brought to Uganda from the Congo, and it was after their appearance that the sickness began to work havoc in certain districts. Dr. George M. Duncan, in the course of a lecture on sleeping sickness and malaria, delivered recently at Marischal College before the Aberdeen Natural History and Antiquarian Society, said that the ravages of sleeping sickness in certain parts of Africa were of the most disastrous character. So fatal were its effects upon the native population that in many instances villages, towns, and even complete districts had been almost entirely depopulated, and in some of the former as much as two-thirds of the people had been wiped out. The natives recognized that there was something infectious in the disease, and in consequence they shunned all contact with the afflicted person, leaving him in fact to die in solitary misery. Indeed, it was often to be feared that among the natives people who were suffering from other diseases were left to die in this manner because it was supposed they were suffering from sleeping sickness. The disease affected the western coast line of Africa and the hinterland from Senegal along the Gulf of Guinea down to Portuguese West Africa. It also extended up the Congo as far as the Stanley Falls, and appeared to be becoming more prevalent in that direction. It had also of late years begun to affect the district in Uganda along the northern and a portion of the eastern shores of Lake Victoria Nyanza. There it had only appeared within the last three years, and that outbreak had called the attention of Government to the disease. Dr. Duncan then described the symptoms of the disease and gave an account of the researches of the Commission sent out by the Royal Society. The habits of the carrier fly were being carefully studied, and no doubt in time means of prevention would be discovered. Passing to the malaria parasite, Dr. Duncan said the discovery of its life-history was almost the most brilliant piece of work performed within the last century, and was due largely to British scientists—notably Sir Patrick Manson and Major Ross. The investigation had been carried out in a very practical manner with an eye to the prevention of the disease.

THE STUDY OF TROPICAL DISEASES IN LIVERPOOL.

The annual meeting of the Liverpool Royal Southern Hospital was held on February 9th, the Lord Mayor (Alderman R. A. Hampson) in the chair. The Committee stated, in their report, that the Tropical Diseases Ward continued to justify its existence, the patients numbering 149. During 1902 and 1901 they were 137 and 131 respectively. Year by year, therefore, testimony was given to the estimation in which it was held by those who entered the port from tropical countries. The great bulk of the patients were suffering from malarial diseases alone, other affections being dysentery, beri-beri, enteric fever, bilharzia disease, craw-craw, sleeping sickness, etc. There was a growing number of students of the School of Tropical Diseases in attendance. In addition to British students there were representatives of America, Chile, Spain, Portugal, Germany, Austria, Finland, Sweden, and Norway. It was probable that the institution of a diploma in Tropical Medicine, contemplated by the Liverpool University, would still further attract students. The Lord Mayor, in moving the adoption of the report, said that nothing could be more important to Liverpool, which was so closely connected with the countries of the world, than that a ward for tropical diseases should exist in that hospital. The

Chief Magistrate also referred to the number of students associated with the School of Tropical Medicine who were attending the hospital, which was a matter for legitimate congratulation, tending as it did to justify the claims that Liverpool was making as an educational centre.

THE PREVENTION OF MALARIA AT ISMAILIA.

ON February 22nd, Sir Alfred Jones, the President of the Liverpool Chamber of Commerce, gave a luncheon in honour of Professor Rubert Boyce, who has lately returned from Egypt, where he has been inquiring into the result of the antimalarial expedition sent to Ismailia by the Liverpool School of Tropical Medicine about eighteen months ago. Professor Boyce stated that as a result of the campaign against the mosquito, which was instituted at Ismailia by Major Ronald Ross, the average number of cases of malaria had fallen from something like 2,000 per annum to 200. There had been no deaths amongst Europeans during the past year, and only four amongst the natives, as against 30 deaths in the previous year. By filling up the marshland and irrigating channels and stagnant pools near Ismailia, the European residents, he said, could now sleep in their houses without mosquito nets.

THE PREVENTION OF SYPHILIS.

IT was mentioned some time ago in the BRITISH MEDICAL JOURNAL that MM. Metchnikoff and Roux had succeeded in inoculating the poison of syphilis in the chimpanzee. The course of the disease was similar to that in man, the primary lesion being followed in due course by secondary manifestations. The attack produced immunity in regard to further inoculations of the virus. Since these experiments were published M. Metchnikoff has carried his research to a point that may prove to be of far-reaching importance. We have seen no report of this recent work in the scientific journals, but the distinguished Russian investigator appears to have given an account of his results to an interviewer, who published them in the *Journal des Débats* of February 15th. M. Metchnikoff complained that it had been reported that he had discovered a remedy for syphilis, and he asked that this should be contradicted, as he was inundated with letters on the subject. He stated, however, that he had discovered a serum which, although it could not cure, appeared to be capable of mitigating the disease. The character of the disease contracted after vaccination with this serum would, he said, be mild. His experiments had, therefore, demonstrated the possibility of obtaining an attenuation of the syphilitic poison by passage through the macaque monkey and of producing artificial immunity by means of this attenuated virus. As a result of his discovery M. Metchnikoff thinks that before long it will be possible to limit the existing sources of infection by vaccination, first, of prostitutes, and afterwards of soldiers and sailors, who are the chief distributing agencies of the disease. He went on to say that nothing would then be easier than to make such vaccination compulsory, and to insist on the production of a certificate as a necessary condition of admission to a public school. We gather that he intends this anti-syphilitic vaccination to be universal. We cannot help thinking that M. Metchnikoff is unduly sanguine of success in getting his proposal adopted, even in France, where public feeling is certainly not likely to be squeamish about a matter of this kind. It must be remembered that even vaccination against small-pox is not yet compulsory in that country. While recognizing the hygienic importance of M. Metchnikoff's discovery—if it be confirmed—we feel bound to say that there is something abhorrent to the moral sense in a proposal to vaccinate children against a disease which, as a rule, can be avoided by clean living. Having his being, however, in the rarefied atmosphere of pure science, M. Metchnikoff probably deems a sentimental objection of this kind simply irrelevant. We hope, at any rate, that no attempt will be made to apply the discovery to human beings until its truth has been definitively established by repeated experiments.

THE METRIC SYSTEM.

THE Metric System Bill was read a second time in the House of Lords on February 23rd, and although finally consigned to a Select Committee it would seem that we have advanced a stage towards the compulsory adoption of the system. It is not an ideal system, but it is a very great improvement on the antiquated and irrational systems still followed in this country. The metric system has long been adopted in England for all scientific work. The continued use by the apothecary and the trader of the present systems is likely to lead to mistakes, of which some amusing instances were given during the course of the debate by Lord Kelvin and Lord Lansdowne. We need not dwell upon the waste of time entailed upon the accountant and bookkeeper, and everybody who has to keep commercial registers of weights and prices, but we may point out that the multiplicity and confusion of the present scales, and their want of any logical relation to each other, put a wasteful tax upon the children in elementary schools. The facility with which children learn numbers varies very considerably no doubt, but, even in the case of children to whom such things present no particular difficulty, the waste of time as against that necessary for the acquirement of a uniformly decimal system must be very considerable. The majority of children, however, do not learn tables easily, and those of us in whom early memories are not entirely extinct will have no difficulty in believing that the unnecessary strain thrown upon young brains is by no means inconsiderable and decidedly harmful. It is not to be expected that the law would instantly become effective and that we should hear no more of drachms and ounces, for it needs but a glance through any commercial arithmetic book to see how many old weights continue to be used in certain trades in spite of abolition elsewhere, while even in certain parts of France, the motherland of the metric system, one or two other measures are still used in, so to speak, domestic commerce or marketing. Nevertheless the benefit as far as children are concerned would probably be immediate, for it is to be presumed that "tables," if they did not at once drop out of the curriculum altogether, would at least be relegated to the back group

THE BRITISH MEDICAL BENEVOLENT FUND.

THE annual general meeting of the subscribers to the British Medical Benevolent Fund was held on February 16th, Sir William Broadbent, Bart., the President, being in the chair. The report of the Committee stated that during the year 1903 legacies amounting to £2,860 had been received and invested in trust securities. The increased income so derived had been used to create new annuities and £2,291 16s. 8d. had been paid to 117 annuitants. The Grant Department had been a constant source of anxiety throughout the year and in October had necessitated a special appeal, in response to which £267 12s. was generously subscribed, enabling the Committee to give assistance to several distressing cases the consideration of which had been unavoidably postponed. The grants during the year had amounted to £1,658, distributed chiefly in small monthly instalments. Messrs. Deloitte, Dever, Griffiths and Co., had again consented to act as honorary auditors and as such had attached their name to the balance sheet after a most searching examination of all the accounts. Hearty votes of thanks were passed to the President, Treasurer, and other officers of the fund and to the medical press for the support kindly given by the insertion of the special appeal. The Committee pleads earnestly for continued and increased help without which many of the urgent applications made to the charity must be passed over. The cost of administration is only just over 5 per cent., and as there is no canvassing candidates are spared the pain of publicity. All legacies are invested in trust securities and thus an assured income obtained for the annuity department. The Committee confidently trusts that these considerations will recommend the fund to those benevolent persons who desire to see their gifts well administered and who hold that a charity should have its accounts audited as strictly as a business concern.

MUNERATION OF POOR-LAW DISTRICT MEDICAL OFFICERS.

V: have received a report of a recent meeting of the Board o Guardians of the South Stoneham (Hants) Union, at wich an application was made by one of the district dical officers for an increase of salary on the ground of l recent material increase of the population of the dis- t and the large number of poor within it. The quest would appear to have been most reasonable, l though it did not meet the approval of l majority of the Board, the increase of popu- on was not questioned, and several guardians ongly supported the application. The majority, how- r, opposed it to the last. It was finally decided that l applicant's salary should remain unaltered, but that a tion of his district, containing a population of 6,000, uld be transferred to one of his colleagues, and that the er should receive an increase of £10 per annum for the itional duty thrown upon him by this fresh arrange- nt of the districts. We are quite at a loss to imagine v any public body can think of offering a salary of £10 the medical care of a district containing a population 6,000 persons. We do not gather from the report of the ting before us what is the percentage of paupers therein dent, but we cannot imagine any rural district in land being so favoured in reference to pauperism as to ify the payment of a merely nominal amount as uneration for their medical care and treatment. Fur- comment on this matter is quite unnecessary. It ains to be seen whether the Local Government Board think fit, in justice to all parties concerned, to sanction proposed change on the terms offered by the guardians. can hardly regard this as possible.

THE TOXIN TREATMENT OF CANCER.

a communication made to the Paris Académie des nces the other day M. Doyen gave an account of her experimental work on the treatment of cancer. said that in papers read by him at the Académie de decine in December, 1901, and at the German Surgical gress in April, 1902, he had shown that in the growing of rapidly-developing tumours a specific microbe, ch he calls "micrococcus neoformans," could be found cultivated. The inoculation of such cultures in erent animals caused the development of lesions either mmatory or neoplastic; in the latter case they were olutely identical with what was observed in the case of ain neoplasms occurring in man. The toxins of the rococcus neoformans caused in cancerous subjects a tion similar to that produced by tuberculin in tuber- us patients. M. Doyen has cultivated the micro- us on different media, and passed the cul- s through different animal species for the pur- of determining the special conditions under h the parasite can be destroyed by normal tissues. He he states, succeeded in preparing a toxin which can be l in varying degrees of virulence according to the omical characters and the rate of evolution of any n growth. The injections may be made anywhere, but most conveniently given in the buttock. The method ld be employed with great discretion in the presence landular or visceral metastases, as an injection per- ned inopportunely may be the starting point of a rapid lopment of the tumour. M. Doyen, by observation of defensive process in the cells of the economy, was led eek for means of increasing the resistance of those l. In view of the usually long evolution of cancer, he ts out that a treatment is required which can be con- ed for many months or, if need be, for years. The ber of cases treated from January 1st, 1901, to the ent time is 126. In 58 of these no favourable effect noted; the disease was too far advanced in some, e in others the patients abandoned the treatment. Doyen has still 47 cases under observation. Of these, e regards as on the way to cure; 29 must still be l under observation for several months, although from mprovement already seen, most of them might fairly laced in the same category as the 18. In the remaining 21 cases it is impossible to find the least trace of cancer. These cases may therefore, he says, be considered as cured. M. Doyen thinks he is warranted in concluding that cancer is no longer an incurable disease, and that at the very beginning of generalization, that is to say, in cases where all treatment is at present ineffective, it is possible to stop the evolution of the disease, and even in certain cases to bring about complete cicatrization with or without operation. M. Doyen promises full details as to the method and its results in future communications. His statements are certainly interesting, but before his claim to have discovered a cure for cancer can be accepted the profession must have the fullest opportunity of forming an independent judgement on the facts, and his results must be confirmed by the experience of many other surgeons.

MORS NOBILIS.

In our plague reports a few weeks ago mention was made of the death from plague of two English ladies at St. Katherine's Hospital, Cawnpore. One of them was that of a Miss Elizabeth Walden, a trained nurse, and the other, according to the telegram received, that of a girl-compounder. Further investigation, however, shows that the latter lady was a doctor who went out to India at the instance of the Society for the Propagation of the Gospel in January, 1902, and died at her post almost on the anniversary of the day of her departure from England. Dr. Alice M. Marvall was a student of the London School of Medicine for Women, which she joined in 1896, after first matriculating at London University, and working for the Preliminary Scientific Examination at University College. Her studies were interrupted by the illness and eventual death of her brother, and she was thus led to abandon the idea of a London degree, and consequently went to Edinburgh and took the Conjoint qualification of the Colleges of that city in 1901. After qualifying, she worked for some months at the Clapham Maternity Hospital under Dr. Annie McColl, and then for a short time acted as medical officer of one of Dr. Barnardo's homes. She was about to rejoin the Clapham Hospital as Junior House-Surgeon towards the end of the year, when the call came for her to work in the mission field. This, after some hesitation as to her mental and professional fitness for the work, she finally accepted. A certain diffidence as to her own powers and fitness for the post which she occupied at the hospital remained with her to the end, but there was no room for any such feeling in the minds of those who saw her at work. With her very happy manner, and earnest, systematic way of doing her work she proved a most valuable medical officer, and her death from pneumonic plague is, like that of Miss Walden, a very great loss to the Society which they both served. In a sympathetic notice of the occurrence the *Pioneer of India* asked whether the objects in view were worthy the sacrifices that proved to be involved. This is a question as to which the personal friends of the deceased may pardonably feel some doubt, but their deaths, like those of many others in and connected with the profession of medicine, were the noble deaths of soldiers in action, and each of them is entitled to the epitaph *Morte sur le champ d'honneur.*

THE MEDICAL SERVICE OF THE JAPANESE ARMY.

Several of the American medical papers state that Dr. Nicholas Senn of Chicago is to be Surgeon-General of the Japanese army, but a press dispatch from San Francisco, dated February 5th, states that Dr. Senn arrived at that port from Tahiti and was hurrying back to Chicago to prepare himself for a call to Japan to assume charge of the Red Cross work of the Japanese army. He is reported to have said: "If my services are needed I will quickly respond, and will probably take a corps of surgeons with me. The Red Cross Society of Japan, of which I have the honour to be a member, is composed of 8,000 members, and is the strongest organization of its kind in the world. It is absolutely ready for war, and its ambulances and field corps could be called to a battlefield on the very shortest notice." Dr. Senn has, it is said, asked the citizens of

Chicago for a sum of £20,000 in order that he may equip a party of twenty-five surgeons, nurses, and orderlies for service at the front. Dr. Senn, who is close on 60 years of age, is a native of Switzerland, but has lived in America since he was 9 years of age. At the outset of his career, he was a school teacher; then inclining to surgery, he studied at the University of Munich, returned to America and became house-surgeon, and filled other hospital appointments. On the outbreak of the Spanish-American war, Dr. Senn, who had had experience of army surgery as a volunteer, was appointed chief surgeon to the Sixth Army Corps with the rank of lieutenant-colonel, and chief of the operating staff with the army in the field. He is the author of a work on the medico-surgical aspects of the Spanish-American war, and other contributions to surgical literature.

RIVAL ANTIVACCINATION PROFESSORS.

THIS month's *Vaccination Inquirer* gives much space to the subject of German small-pox. It believes itself to be going into the subject thoroughly, and in particular it calls attention to its publication of two "valuable communications" from foreign supporters of the cause. Being always willing to learn, we naturally turned with avidity to these valuable communications, and it would be wrong not to give our readers some of the benefit derivable from perusal of them. "Professor Dr. Paul Förster, Friedenau, Berlin," is the author of the first. It extends only to a column of the *Inquirer*, but in that short space the professor succeeds in making the following charmingly consistent statements: (1) "By the analogy of other infectious diseases it appears that vaccination has no influence at all." (2) "The diseases follow their own upward and downward curves, increase and vanish again, provided they are not foolishly converted from epidemic to endemic diseases, which is precisely the result of vaccination." (3) "However, the general health is not as good as it ought to be, and if there are fewer deaths from small-pox there are more from other diseases, particularly from consumption and diphtheria. Compared with these, small-pox, when properly treated, is a mild, and may even be regarded as a beneficial, disease, eliminating morbid matter. Instead of letting this process be accomplished we weaken vitality by vaccination so that the evil must seek another way of escape, or safety-valve." Thus we are told (1) that vaccination has no influence at all, (2) that it turns epidemic disease into endemic, and (3) that it weakens vitality, and substitutes diphtheria and consumption for small-pox. The second "valuable communication" begins with a statement which ought to be of interest to Mr. Arnold Lupton of Leeds: "The German Imperial Vaccination Law, which came into force on April 1st, 1875, required the vaccination of children in the first year of life, and their revaccination at 12 years of age. Before the law was passed only primary vaccination was obligatory, except for those entering the army, for whom, as recruits, revaccination was obligatory." The value of the "obligation" towards primary vaccination need not be discussed here. But the *Inquirer's* correspondent is right in holding that prior to 1874 revaccination was not obligatory, excepting in the army, and being right he is of course in direct conflict with Mr. Arnold Lupton, who asserted the opposite, and whose misstatement the *Inquirer* pronounced Mrs. Garrett Anderson to be "rash" in declaring to be a grave error. It is really very good of the *Inquirer* to present to its readers the bane and the antidote in one and the same monthly number.

THE SOUTH AFRICAN COLONIZATION SOCIETY AND THE MEDICAL PROFESSION.

THE South African Colonization Society is presumably a society formed with the patriotic object of facilitating British emigration to our South African colonies, but its circular asking medical practitioners in various parts of the country to examine intending colonists for half-a-crown has brought us a batch of protests. The examination asked for is rather more than that for life insurance, the medical examiner being asked to certify respecting sight, hearing, varicose veins, enlarged lymphatic glands, and the state of the teeth, in addition to the usual points of a life insurance form. There can be no doubt that the amount of work asked for is altogether out of proportion to the fee tendered. If the society thinks it has a claim upon the patriotism of the medical profession it should try to obtain the assistance of medical men in various parts of the country gratuitously, but we know too little of the society to feel sure that it should be accorded such assistance. In the meantime we are sure our correspondents are right in refusing to accept the payment offered.

DR. MALINS, OF BIRMINGHAM.

AT the General Hospital, Birmingham, a presentation was recently made to Dr. Malins by the governors of the hospital to commemorate his service of twenty-five years as the first obstetric officer to the institution. The subscribers were 152 in number, and Sir John Holder was Chairman of the Committee. The memorial, by the wish of Dr. Malins, consisted of a handsome stained glass window placed in the chapel. There was in addition a valuable collection of silver plate, with an illustrated bound copy of the resolution passed by the Board on the resignation of Dr. Malins. The gift also included a gold brooch set with a large opal surrounded by diamonds for Mrs. Malins. Dr. Malins, who was President of the Birmingham Branch of the British Medical Association in 1901, has also held the office of Vice-President of the Section of Obstetric Medicine at the annual meeting of the Association on two occasions.

THE NURSES' REGISTRATION BILL.

As our readers are aware, two Bills for the State registration of nurses have been prepared; one of these, that promoted by the Society for the State Registration of Trained Nurses, has been introduced into the House of Commons by Dr. Farquharson. Sir Frederick Dixon-Hartland has given notice of his intention to oppose the second reading of this Bill, and it is stated that he has taken this action at the instance of the Central Hospital Council for London. This council contains representatives of all the London hospitals with medical schools attached, and their opposition is no doubt due to a dislike to any proposal to establish a central board which would diminish the independence of their nurse-training schools. The chance of either Bill being discussed in the House of Commons this session must be very small, even if Sir Dixon-Hartland were to withdraw his opposition. The wiser course for those interested in the matter would probably be to endeavour to have both Bills referred to a Select Committee.

WE are sorry to hear that Sir Samuel Wilks is not well. His general condition is causing great anxiety, and his power and resistance are declining.

WE have to record with regret the death on February 24th of Sir Edward Sieveking, Physician Extraordinary to the King, and Consulting Physician to St. Mary's Hospital. He was in his 88th year.

AT the annual general meeting of the Royal Medical and Chirurgical Society, to be held on Tuesday next, the Council will propose the election of Sir Richard Douglas Powell as President.

THE King visited Osborne House on February 20th to inspect the alterations which have been made to convert it into a convalescent home for officers of the navy and army as described in the BRITISH MEDICAL JOURNAL of January 30th, p. 255. His Majesty expressed to Lord Windsor, First Commissioner of Works, and Sir Schomberg M'Donnell, Secretary to His Majesty's Office of Works, his satisfaction with the changes made, and also spoke some words of encouragement to Miss Haines, the matron.

MEDICAL NOTES IN PARLIAMENT.

[From our Lobby Correspondent.]

The Nurses Bill.—Dr. Farquharson's Bill for the Registration of Nurses has been blocked by Sir F. Dixon Hartland, who is said to be acting on the initiative of the Central Hospital Council for London. The Bill, which was down for second reading on Monday last, has been put down for March 2nd. Mr. Claude Hay has given notice to introduce on Thursday another Bill on this subject entitled, A Bill to Provide for the Better Training and Registration of Nurses and for the Voluntary Registration of Private Nursing Homes.

Plague at Hong Kong.—Mr. Weir asked the Secretary of State for the Colonies last week whether he had yet received from the Governor of Hong Kong a report relative to Haffkine's plague prophylactic, and, if so, would he state when that system of inoculation was brought into operation in Hong Kong, the number of persons inoculated, and how many had succumbed to plague? Mr. Lyttelton replied that in accordance with the promise given last July, the Governor was asked to embody the information desired in his next general report on plague, and no report having been received, he had been reminded by telegraph.

Dental Surgeons for the Army.—Sir Carne Rasch asked the Secretary of State for War last week whether he had any official reports upon the appointment of two dental surgeons to the First Army Corps; and whether he would state if it was proposed to increase their number. Mr. Secretary Arnold-Forster replied that owing to the satisfactory nature of the reports on the employment of dental surgeons, it had been decided to employ eight dentists with the troops serving at home stations.

Dispensary Medical Officers in Ireland.—Sir Thomas Esmonde asked the Chief Secretary to the Lord Lieutenant of Ireland last week if he would consent to the repeal of section VI of the Local Government (Ireland) Act of 1902 with a view to the settlement of the difficulty which had arisen in Ireland regarding the appointment of dispensary doctors. Mr. Wyndham replied that the necessity for this section of the Act had been explained in the Committee stage of the measure on December 12th, 1902. He could not for the reasons then stated agree to the repeal of the section.

Sewage in the Thames.—Sir Joseph Dimsdale asked the Secretary of State for War whether he was aware of the state of the sewage now being discharged into the river Thames from the military establishments at Sheerness and elsewhere, notwithstanding that the attention of the Secretary of State was in March, 1903, called to the subject by the Corporation of London as the port sanitary authority; and whether he would state what steps he proposed to take to prevent the continuance of the discharge of sewage in its present state. Mr. Secretary Arnold-Forster replied that his attention had been drawn to the matter. As a similar state of affairs existed all along the lower river in the case of the civil population, it was considered inexpedient that the War Department should take action separately from the local civil authorities affected.

Vivisection and Inspection.—Dr. Shipman asked the Secretary of State for the Home Department, on Monday, whether his attention had been called to the statement made by Mr. Bayliss, in his evidence in Bayliss *v.* Coleridge, that the inspector appointed under the Cruelty to Animals Act, 1876, visited University College on an average once a week during the period Mr. Bayliss was conducting his researches and lectures there; whether he would state the exact number of visits paid by the inspector to University College during the year 1902; whether the inspector was officially connected with University College; and how many times the inspector visited each of the other places registered for vivisection in 1902. Mr. Secretary Akers-Douglas answered that 12 visits to University College in 1902 were reported by the inspector; but he understood that owing to his constant attendance at the college he was able to pay many visits to the laboratory; all these, when he found nothing special to report, were not included in his return. The inspector is Professor of Anatomy at University College, London. During 1902 the inspector and the assistant inspector paid 106 visits to the other registered places in England and Scotland, making an average of just under two visits to each place.—On the same day, Dr Shipman also asked whether, in view of the fact that the inspector appointed under the Cruelty to Animals Act, 1876, only witnessed the whole of one and part of 11 experiments out of the total of 14,906 performed in 1902, he would consider the advisability of increasing the number of inspectors. Mr. Secretary Akers-Douglas answered that it had to be remembered that, of the 14,906 experiments mentioned in the question, 12,776 were of the character of inoculations or feeding experiments. Further, apart from the actual experiments witnessed, large numbers of the animals had been seen by the inspectors, and their condition after the initial experiment examined. He was satisfied that the inspection was sufficient to keep him fully informed as to the practical working of the Act and the observance of its provisions; but if at any time he came to the conclusion that more inspection was desirable, he should not hesitate to endeavour to obtain the necessary increase of staff.

Vivisection.—Mr. Osmond-Williams asked the Secretary of State for the Home Department whether his attention had been drawn to the fact that Professor Starling, in giving evidence in the case of Bayliss *v.* Coleridge, stated on November 13th, 1903, that on February 2nd, 1903, he performed an operation on a brown dog, and instead of killing the dog, as provided by the Cruelty to Animals Act, 1876, handed it to Mr. Bayliss for another experiment; and, if so, whether, in view of Section XIV of this Act, he proposed to take any action. Mr. Secretary Akers-Douglas answered that he considered most carefully all the facts of this case, both before and at the time of the action referred to, and that he came to the conclusion, which he saw no reason to vary, that he was not called upon to take action.

The Medical Lessons of the War.—Mr. Bromley-Davenport, in reply to Dr. Macnamara, said that as a result of the inquiry by a Royal Commission on the treatment of the sick and wounded during the South African campaign the following action had been taken on the Commissioners' recommendation:

1. The establishment of officers had been increased by 100. The Royal Army Medical Corps had been increased by 400 men.

2. The supply of surgeons and trained orderlies in the event of a great war was now receiving careful consideration. The equipment provided by the Mowatt Reserves for three army corps, one cavalry division, and line of communication troops would, it was hoped, be quite complete by the middle of 1904.

3. The supply of candidates was now sufficient, and the quality most satisfactory. A college had been established in London, through which all captains must pass before promotion. Promotion to the higher ranks would be by selection, and all must attain a high standard of qualification. Acceleration in promotion from captain to major could now be obtained by officers who showed special merit at examination. Also special professional attainments would be recognized by appointment to special posts, carrying extra pay.

4. The formation of Queen Alexandra's Imperial Military Nursing Service provided for a great increase in the establishment of women nurses.

5. Sanitary officers had already been, and were still being, appointed to important commands.

6. A new and improved pattern of ambulance wagon had been adopted.

7. Experiments were now in progress having for their object the provision of a tent of improved pattern, and more suitable for sick and wounded.

Overcrowding in Poor-law Schools.—Sir Ernest Flower asked the President of the Local Government Board if he was aware that the certificate of the Union Schools of the West Ham Guardians, which in November, 1901, was exceeded by 169 children and in November, 1902 and September 1903 was was still exceeded, was at present exceeded by over 200 children; that the boys were entirely without day-room accommodation; that 144 girls had day-room accommodation of 23 ft. 6 in. by 18 ft. 2 in. only; that 86 infants had a day-room, in which they also took their meals, of 27 ft. 2 in. by 18 ft. 2 in. only; and whether, seeing that this overcrowding made it impossible to isolate infectious diseases, and that skin and eye complaints were present in the same dormitory, he would urge on the guardians the necessity of ascertaining if all those children at present dependent on the rates were entitled to such maintenance, and of providing temporary accommodation by hiring houses in which small groups of children might be placed. Mr. Long replied that he was aware of the overcrowding at these schools, and had impressed upon the guardians the serious responsibility which attached to them in this matter. The guardians informed him that

they were endeavouring to make arrangements for boarding-out some of the children beyond the union. He was still in communication with them, and had urged them to hire homes in or near the union or to provide temporary buildings in order to remedy at once the present state of things. He had also suggested that they should have a "call over" of the children with a view of ascertaining if the numbers could not be reduced.

Ireland.

Irish Poor-law Medical Officers.

Dr. C. F. Hutchinson, M.P., has recently represented to the Chief Secretary for Ireland the steps which could be taken to improve the position of medical officers under the Poor Law in Ireland, calling special attention to (1) insufficient salary and the desire that a minimum of £200 a year should be paid; to (2) the fact that there is no superannuation allowance; and (3) to the absence of a recognized annual holiday. Dr. Hutchinson urged upon the Chief Secretary the necessity for doing something to relieve these very just causes of complaint, and, by making these officers contented, securing greater efficiency in the services of men upon whom the well-being of the very poor in Ireland so largely depended. Mr. Wyndham, in reply, has assured Dr. Hutchinson that the matter shall receive his attention.

The Viceregal Court.

There has been considerable discussion in Dublin of the new rules by which the Presidents of the Royal Colleges of Physicians and Surgeons are in future to be excluded from the privilege of the private *entrée* at the Viceregal Court. The daily newspapers have made the matter generally known, and have commented adversely upon the regulation. It is only fair to say, however, that the change does not affect the Presidents of the Colleges alone. The eldest sons of peers and others have also been excluded, and it is explained that there was no intention whatever to slight the medical profession. The privilege was granted to the Presidents so recently as 1887, and seeing that other distinguished people are to share in the prospective unpleasantness the resentment would probably not have been so keen had not the Lord Lieutenant been unwise enough to assign an inadequate reason.

To provide room for the heads of Government departments is, of course, plausible enough, but there are departments and departments. Some of them are of little importance, and those that are of sufficient dignity are certainly not greater in position or influence than the heads of the medical profession. In the official list of those who use the private *entrée* not *ex officio*, but "by custom and permission," there are dozens who could be more properly left out, and whose right to be among the sacred few could not be defended for a moment in competition with the Presidents' claims. The Colleges are not unreasonable in their dissatisfaction, and if the officials concerned had only given a little thought to what they were doing there would have been no need for protest. Perhaps even at the eleventh hour they may realize how wrong they have been.

The Ulster Medical Society and Queen's College, Belfast.

The Council of Queen's College, Belfast, adopted recently a memorial to the Government pointing out the urgent necessity which exists for largely increasing the equipment and staff of the College. This memorial stated that the departments in which extensions are immediately necessary are Natural Philosophy, Natural History, and Chemistry. It also set out that throughout the whole institution enlarged facilities were required for teaching and research, an increase in the number of Chairs, the provision of assistants to the professors, and a larger grant to the library, as well as other additions. Attention is also drawn to the fact that the scheme for the foundation of a Faculty of Commerce remained inoperative in spite of the fact that several munificent donations have been offered. Reference is also made to the need for a wide scheme of higher technical education. The "Better Equipment Fund," of which the Lord Mayor of Belfast is chairman, has, it was added, during the two years of its existence raised about £10 000, and altogether the public has bestowed not much less than £100,000 upon the College. It is contended that this is sufficient evidence of the local support which the Treasury demanded.

The memorial was considered at a recent general meeting of the Ulster Medical Society, when the following resolutions were unimously adopted:

I.

That this Society express its complete agreement with the purpose of the resolutions recently submitted to His Majesty's Government by the Council and Corporate Body of Queen's College, Belfast, regarding the necessity for the provision of increased facilities for higher scientific teaching in the College.

The Faculty of Medicine has always formed one of the most important departments of the College. The teaching of medicine must ever remain in the closest touch with the progress of investigation and research in the various physical and biological sciences. There has consequently been in recent years a great expansion, especially in practical courses in every medical school in the kingdom. If the teaching in the Belfast Medical School is to be kept up to this standard, adopted as it is by all the universities and licensing bodies, it is essential that Queen's College should now receive the extended equipment described in the resolutions already mentioned.

This Society heartily recognizes and appreciates the manner in which the College has utilized the resources at its disposal in keeping abreast of modern methods of teaching medical science. Without the foundation of the Dunville Chair of Physiology and the Musgrave Chair of Pathology, which the College owes to the public-spirited generosity of citizens of Belfast, this would have been impossible. At the same time it is obvious that the training of medical students in the subjects of zoology, botany, chemistry, and physics is certain to suffer unless more adequate facilities for teaching these subjects are now provided. This Society wishes particularly to draw attention to the necessity for providing the College with the means of taking full advantage of the generous offer of the Right Hon. W. J. Pirrie to build a laboratory for physical science at his own expense.

The absence of sufficient laboratory accommodation and staff further seriously interferes with the development of the post-graduate work in medical science which is now demanded. Not only the vitality of the School, but also the wider interests of the medical profession and the public health of the community are directly dependent on the existence of suitable means for prosecuting work of this type.

The expansion of the medical departments of the College has hitherto been accomplished without Government aid. This Society would respectfully urge that while the College remains a Government institution, His Majesty's Government cannot free itself from the responsibility for its adequate equipment.

II.

That copies of this resolution be sent to the Lord Lieutenant, the Chief Secretary, Lord Londonderry, and the members of Parliament for Belfast, Antrim, and Down.

Medical Officers' Substitutes.

The *Irish Independent* of February 11th states that Dr. Brennan, medical officer of the Castledermot Dispensary District, having been subpoenaed to private cases at quarter sessions twice recently, the guardians had to procure substitutes, whom they agreed to pay 1 guinea a day. They accordingly wrote to the Local Government Board asking if Dr. Brennan was entitled, as he contended, to have his substitute paid, and received a reply that a medical officer, being compelled to attend the courts as a witness on subpoena, was, in their opinion, temporarily incapacitated from duty by "other causes," within the meaning of Article 22 of the Dispensary Rules, and the guardians were bound to remunerate his substitute. The Local Government Board, however, could authorize a deduction to be made in certain circumstances from his salary to recoup the expense incurred, and as a medical witness in a private case could obtain adequate remuneration, they were prepared to authorize a deduction from Dr. Brennan's salary.

Compensation to Medical Men.

The Irish Government has selected a large space in Upper Merrion Street for the erection of a new College of Science. This will lead to the disturbance of a number of medical men who reside there, and their claims for compensation have just been decided by the arbitrator. The amounts awarded are as follow: Mr. J. Lentaigne, £4,772; Mr. J. McArdle £2,200; Dr. McFeely, £1,116; representatives of the late Dr. Charles F. Moore, £1,883; Dr. Coppinger, £2.183; Mr. J. Booth Pearsall, £5,091; Dr. Purefoy, £1,264. These amounts are subject to reconsideration on appeal.

A French Society of Army Medical Officers.—A Scientific Association of French Military Surgeons has recently been formed with the approval of the Ministers of War, Marine, and the Colonies. The objects of the society are to study [illegible] common medicine, surgery, and hygiene in connexion with the sanitary condition of the army, and the welfare of the soldier.

HE ARMY COUNCIL AND MILITARY MEDICAL ADMINISTRATION.

HE *Times*, in an article on the new army organization pubshed in its issue of February 18th, made the following bservations on the letter of the Chairman of Council of the ritish Medical Association, republished in the British EDICAL JOURNAL of February 20th, p. 442. "Some surprise," r contemporary wrote, "has been expressed in medical iarters that the Committee's report has so far given no incation of the place it intends to assign to the Army Medil Department; and the Council of the British Medical ssociation has protested against the constitution of the rmy Council, claiming that the Director-General of the rmy Medical Service should have a seat on it, as he had n Mr. Brodrick's Army Board."

A part of the letter of the Chairman of Council was then noted, and the following further observations made upon it: "Important as the functions of the medical departments of te Services are, they have no separate representative on te Board of Admiralty, and it certainly seems to us out of te question to give them a separate representative on the my Council; and the omission of a reference to it in the port, no doubt, indicates nothing more than that the Comttee had not yet decided to which member of the Council attach the supervision of these duties. The probability, doubt, is that the Army Medical Corps will be placed der the Adjutant-General's branch, with which it will turally come into most frequent contact in the field."

n consequence of these observations the following letter s addressed to the editor of the *Times*, and was published in issue of Monday, February 22nd:

THE PREVENTION OF DISEASE IN WAR.

To the Editor of the "Times."

ir,—The article on the New Army Organization published the *Times* of February 18th might lead the reader to assume t the British Medical Association has protested against the clusion of the Director-General, Army Medical Service, om the Army Council. This, however, is not quite the conction of the Association. It urges that the Army Council ould include an officer of the Army Medical Service who uld be able personally to represent the sanitary requirements general medical needs of the army. No member of the Council as now constituted can be competent to undertake sh special duties. The analogy of the Board of Admiralty st not be pushed too far. In the first place, its constitun became fixed at a time when the science of hygiene had yet come into being, and when sanitary administration w in its infancy. In the second place, the responsibilities fo the prevention of disease in war which fall upon the dical service of the army are far more onerous, and the oblems presented far more complex, than in the sister rice. Finally, it is notorious that the absence from the rd of Admiralty of any representative of the medical dement is a source of inconvenience, delay, and inefficiency. Perpetuate in the Army Council this cause of inefficiency w be a retrograde step.

uring the war in South Africa the number of men who lit from disease was far larger than the number of se who succumbed to wounds. The same has been r of every big war. Military history teems with nances in which the dispositions of the most skilful manders have been defeated not by the enemy but by pidemic disease. During the South African war, in cember, 1901, and January and February, 1902, and, thereon, long subsequent to the great epidemic which paralysed h army after the occupation of Bloemfontein, the admisns for enteric fever numbered 6,379 and the deaths 953. British Medical Association holds that the repetition of se serious epidemics, so costly in life and so fatal to the ficiency of an army, can only be avoided if the problem of revention is adequately studied by the supreme administerbody of the army, and if the army is organized and inistered with constant reference to its sanitary needs. British Medical Association would most strongly urge this can only be achieved if preventive medicine in its ion to military problems in war is directly represented ne Army Council in peace.

I am, Sir, your obedient servant,
ANDREW CLARK, Chairman of Council,
British Medical Association.
General Secretary's Office, 429, Strand, W.C., Feb. 18.

THE LONDON LICENTIATES' AND MEMBERS' SOCIETY.

A GENERAL meeting of the members of the London Licentiates' and Members' Society was held at the Wimpole Hotel, Wimpole Street, London, on February 23rd, with Dr. F. J. SMITH, of the London Hospital, in the chair.

Mr. F. W. COLLINGWOOD advocated that certain favourable statistics of the service examinations could be utilized to obtain the recognition of the diplomates of the Conjoint Board in London as the equals of provincial graduates and for the promotion of a union between the London Colleges and the University of London.

Mr. BLAKE said he disagreed with the last speaker's remarks, and after Mr. H. HILLIARD and Mr. E. R. DAWSON had spoken, Mr. A. H. GREENWOOD urged that the claims of the Society should be more widely brought to the notice of the London Conjoint men.

The CHAIRMAN said that to understand their position and the position of those whom they would influence it was necessary to consider broadly the position of medical education in the United Kingdom; fifty years ago, or even less, medical education was practically confined to London, Edinburgh and Dublin, with possibly Aberdeen, Glasgow and Durham, but certainly Leeds, Manchester, Birmingham, Liverpool, were not centres with universities, and in London the Royal Colleges and the Apothecaries Society were the only ordinary channels through which men qualified. With the increased facilities of communication universities with medical faculties attached had sprung up in the provinces with a result that a sound medical education had been placed within the reach of the average man at provincial centres. After passing the ordinary examinations for which and to which he was educated in his ordinary course the provincial undergraduate found himself with a medical degree carrying with it the official title of "Doctor." The public, finding so many men with a degree, began to assume that the man without one was in some way—on paper and in theory, at any rate—inferior in medical attainments to the man with one. Owing to increased competition amongst medical men themselves, rival practitioners took no pains to dispel this on behalf of a neighbour, and indeed in some cases went so far as to lead people to believe that it had a basis in fact as well as theory. They thus arrived at the position that a medical student educated in London had been obliged either to suffer under this false but fixed impression or to try to rectify his position by attempting to obtain the London University degree, to do which he had (unless some kind friend had persuaded him to matriculate at the University at an early period of his career) to go back to school studies, matriculate, pass the Preliminary Scientific Examination, and then again return to his professional subjects for the Intermediate Examination. The effect of all that on the medical schools in London had been that for the last ten years at least there had been a steady and nearly persistent increase in the provincial students with a corresponding diminution in the numbers of medical students at the metropolitan schools, a result which the teachers might have foreseen. It might be said that they had foreseen it and had taken steps to try to remedy it, but the success of their efforts had not been conspicuous. They were told that the Royal Colleges tried to obtain powers to grant a degree in medicine; that might be so, but it was impossible to believe that their efforts were really thorough and unanimous, and that they went steadily to work with the one object in view of relieving the difficulties of metropolitan students of medicine. There could be no reasonable doubt that the jealousy of the graduates of all the Faculties of the old London University was the immovable obstacle which rendered the efforts of the Colleges futile. Futile they must be admitted to be, for the reconstructed University of London seemed to have copied all the worst features of the old examining body, and had grafted on to the old constitution but little of what was useful in the metropolitan schools of medicine. The new University of London must, however, be accepted as an accomplished fact, and how harmoniously it worked under new regulations was shown by the circumstance (of which he had been informed on good authority) that of 63 candidates for the Preliminary Scientific Examination for the first time under the new regulations no less than 60 were referred. Their Society had prepared a petition setting forth the disabilities and difficulties of the Licentiates. What had been its effects? The Royal College of Surgeons received them very sympathetically; the Royal

College of Physicians hardly did so much; but the result of the two interviews was the meeting of a combined Committee of the two Colleges which declined even to approach the new University with a view to any combined examinations; the Colleges preferred to stand on their dignity, and said that the University must approach them. Their Society then appealed to the University itself, and its reply, though very courteous, was in effect a simple negative. "We cannot help you." The Chairman concluded by saying that he did not see what further steps they could take unless they could rouse the teachers of the metropolitan schools to an appreciation of their position. Their Society could, he feared, do little by itself, but amongst the teachers must surely be men of influence sufficient to induce the Colleges and University to make some practical use of By-law 134 in the statutes of the University, which was the only direction in which he could see any hope of delivery. What was it their Society asked? Surely not anything that could be called impossible. At Oxford and Cambridge men could specialize in their final examinations, thus showing that universal knowledge was not demanded. Why, then, should there be any difficulty in allowing men who had obtained a good qualification to practise to offer themselves for a final examination in professional subjects? The alleged difficulty lay in a supposition that a Licentiate of the Royal College of Physicians and Member of the Royal College of Surgeons had not done as much science as the graduate. That might be true in an examinational sense, but considering the facts relative to Oxford and Cambridge, it seemed to him to be only an excuse, and a bad one.

It was then agreed that the meeting should stand adjourned to some future date, when the further policy of the Society would be discussed.

UNIVERSITY OF LONDON INSTITUTE OF MEDICAL SCIENCES.

Letter and Donation from His Majesty the King.

The Faculty of Medicine of the University was summoned on Friday, February 19th, to "receive a communication from His Majesty the King in relation to the proposed Institute of the Medical Sciences."

Mr. Butlin, the Dean of the Faculty, who presided, took the opportunity of laying before the members a statement of the means which were being taken and the progress which had been made towards the attainment of the Institute, the establishment of which was suggested by the Faculty and accepted and approved by the Senate of the University. In the early summer of last year the Senate appointed a small Committee of Appeal, consisting of the two representatives of the Faculty, Dr. Kingston Fowler and Sir Cooper Perry, the Secretary, Dr. Lauriston Shaw, and the Dean, Mr. Butlin. Dr. Fowler and Mr. Butlin were appointed joint treasurers, the former to represent the Senate, the latter on behalf of the Faculty. The duty of drawing up an appeal for funds was entrusted to this Committee, but it was determined that in the first instance the appeal should not be made more public than was implied in sending a copy of it to every member of the Faculty of Medicine. It was hoped that some individual or individuals possessed of ample means might be induced to furnish a sufficient sum of money to build and equip, if not to endow, the Institute, so that it might not be necessary to make a general appeal. That expectation had not at present been fulfilled, probably for reasons which will presently be stated. At one time, however, it was believed that successful negotiations to this end would be carried through. In November last, on the suggestion of Dr. Fowler, the Senate determined to issue publicly through the press an appeal for funds to build, equip, and endow the Institute; and it must be pointed out that this, the first appeal of the Senate, was made for the needs of the Faculty of Medicine. The drawing up of the appeal and the manner in which it should be issued were again left to the Appeal Committee.

On December 18th the letter of appeal appeared in a large number of lay and medical papers, and was commented on very freely by both; and in every instance, so far as the Dean was aware, most favourably. In fact, no appeal of the kind had ever been better received. In January a letter in favour of the Institute was addressed to Lord Rosebery as Chancellor of the University, and signed by the treasurers or chairmen of nine of the hospitals to which schools are attached. The only names absent were those of the Treasurers of King's College Hospital and of University College Hospital, who excused themselves from signing on the ground that University and King's bear a different relation to the teaching of the science subjects of the medical curriculum to the medical schools, in so far as their teaching is not confined to medical students. On February 1st a letter was received by the Dean of the Faculty of Medicine from Sir Dighton Probyn, the Keeper of the Privy Purse, which stated that the attention of His Majesty had been directed to the defects arising from the want of concentration of the teaching of the earlier subjects of the medical curriculum in London. The letter concluded in these terms:

"As the King now learns that the University of London is making an attempt to remedy this defect by the establishment of an Institute of the Medical Sciences under its proper control, where the concentration of medical teaching will be carried out with every prospect of success, I am commanded by His Majesty to inform you that he is willing to contribute 100 guineas towards this Medical Institute should the scheme be carried out."

The Dean desired to take this opportunity of stating that the attention of His Majesty had been directed to the subject by Sir Francis Laking, Bart., whose strong interest in the welfare of the profession and in medical education were well known. The Dean begged the members of the Faculty, individually and collectively, to do their utmost to assist the Appeal Committee, for in addition to the present time being peculiarly unfavourable to any and every form of appeal for funds, this appeal was not likely, unless properly explained, to be attractive to the public. Medical education in London had always been carried on as a private enterprise, and was regarded as so profitable to those who were engaged in it that an appeal for funds seemed to many persons almost in the light of an impertinence. In spite of these difficulties a good deal had been done in the course of eight weeks by the four persons who constituted the Committee. Their appeal had been most favourably received by the lay and medical press, had been recommended by the treasurers of nine of the hospitals to which schools are attached, and had been graciously and liberally responded to by His Majesty. The Committee had received promises of donations to the amount of £8,000, including donations from the Presidents of the Royal College of Physicians and the Royal College of Surgeons. The Faculty was indebted to Dr. Fowler, not only for his own handsome subscription of £250, but for interesting Mr. Alfred Beit and Messrs. Rothschild in the project, with the result that they have contributed £5,000 and £500 respectively. If so much could be done in the face of serious difficulties in so short a time by so small a number of men, what might not be done in the course of a few months by the largest and most influential Faculty of Medicine in the world? Among its members were men who entered the houses of the richest and most powerful individuals in London and in the kingdom, and it would be an eternal disgrace to the Faculty if it could not succeed in interesting the public in this important educational scheme, and in obtaining funds, not merely to build and equip the Institute, but to endow it handsomely for teaching and research.

Mr. H. W. Page moved and Sir Felix Semon seconded:

That the Dean be requested to convey in suitable terms an expression of the gratitude of the Faculty of Medicine to His Majesty the King.

The resolution was carried by acclamation.

The Honorary Treasurers of the fund are Dr. J. K. Fowler, 35, Clarges Street, London, W., and Mr. H. T. Butlin, F.R.C.S.

CONTRACT MEDICAL PRACTICE.

The Manners of Club Patients.

Latin writes: My short experience of this deplorable condition affairs has rendered me sympathetic with those who have to suff club or contract work. I have had to undergo many forms of insu and impertinence—namely, "Come at once or you'll hear about i we pay for you and you'll need to come;" but worst of all is wh they tell you, "We can easily get another doctor," and they can, f a goodly number of men, who have no respect for themselves or a other body, are ever ready to run on the workmen's beckon. Cl work ought to be done away with entirely, say, by the passing of a l to come into force ten years hence. In some places I know the doct to accept 2d. a week per head: for this he supplies everything exce mustard and linseed meal. He also has to attend accidents at t works, for which the master ought to pay. I can also give instanc where one doctor takes work from another by doing it at 1d. les head a week. Lastly, on this point I may say that we now have forei competition. To the district I belong to a Polish doctor has been i ported. He is not required in this country.

THE PLAGUE.

Prevalence of the Disease.

India.

During the weeks ending January 16th and 23rd the deaths from plague in India numbered 21,302 and 21,103 respectively. The advance during the two weeks in question compared with the week ending January 9th when the returns showed only 17,344 deaths from the disease. The principal figures during the two weeks ending January 16th and January 23rd were: Bombay city, 184 and 195; Bombay districts, 5,803 and 6,793; Calcutta, 12 and 11; Bengal districts, 2,325 and 1,141; North West Provinces and Oudh, 3,567 and 3,959; Central Provinces, 2,388 and 2,504; Punjab, 3,080 and 2,287; Central India, 862 and 1,031; Hyderabad State, 979 and 1,054; Mysore State, 637 and 570; Kashmir, 52 and 43. High as the mortality is from plague in India it is satisfactory to record that it is less than the corresponding period in 1903 when for the week ending January 22nd the deaths from plague numbered 23,632.

Cape Colony.

During the weeks ending January 16th, 23rd, and 30th the plague returns for Cape Colony were as follows:

Port Elizabeth.—Two cases and 2 deaths from plague occurred during the week ending January 16th.

East London.—One patient suffering from plague was in the plague hospital on January 30th.

No plague cases reported from any other part of Cape Colony. At Port Elizabeth, East London, Queenstown, and Knysa plague-infected rats continue to be found.

Mauritius.

During the weeks ending February 11th and 18th the fresh cases of plague numbered 4 and 1, and the deaths from the disease 3 and 1 respectively. Plague, it is satisfactory to note, has again almost disappeared from Mauritius.

Hong Kong.

During the week ending February 13th 2 fresh cases of plague and 2 deaths from the disease were reported in Hong Kong.

China.

At Niu-chwang plague was reported in the middle of December to be increasing; at Tientsin 2 deaths from plague occurred between November 28th and December 14th.

Brazil.

During the months of November and December, 1903, the deaths from plague in Rio de Janeiro numbered 83 and 57 respectively. At Pernambuco, from September 6th to December 22nd, 1903, 29 cases of plague were reported with 12 deaths from the disease.

Argentine.

During December, 1903, at Tucuman 120 cases of plague were reported with only 2 deaths from the disease.

United States of America.

During 1903 the number of cases of plague in San Francisco amounted to 91, compared with 41 in 1902.

Japan.

On January 1st there was no plague in Yokohama or its neighbourhood. In Formosa during September and October, 1903, the cases of plague numbered 7 and the deaths from the disease 6.

THE ASSOCIATION AND MEDICAL DEFENCE.

We are requested to state that at a meeting of the Council of the Medical Defence Union held at the registered offices on February 18th, the following resolution was unanimously adopted:

That this Council resolves to do all in its power to maintain the integrity of the Medical Defence Union as at present existing.

LITERARY NOTES.

We have received an official intimation that the recently founded journal entitled *Archives Latines de Médecine et de Biologie* has "owing to administrative reasons" ceased to exist.

Professor A. Siemerling of Kiel has succeeded the late Professor Jolly of Berlin as editor of the *Archiv für Psychiatrie und Nervenkrankheiten.*

Messrs. E. B. Treat and Co., the publishers of the *International Medical Magazine* and of the *Archives of Pediatrics*, have decided to merge the two journals in one periodical.

The *National Service Journal*, which is issued monthly, is the official organ of the National Service League. This is a non-political association, under the presidency of the Duke of Wellington, and the journal has for its key-note a quotation from a speech of the late Lord Salisbury in May, 1900—"The defence of the country is not the business of the War Office or the Government but the business of the people themselves." In addition to its primary object, which is that of promoting the legislative adoption of the principle of compulsory naval and military training of all men for the purposes of national defence, the League desires to bring home to the world at large the physical, moral, and industrial benefits likely to accrue from general naval or military training, and the special advantages for such training in the case of the populations of large towns. Among its more definite proposals are that physical drill and military drill shall be made a compulsory part of the educational course of all schools, and that between the ages of 18 and 22 every youth not enlisted in the regular army or navy, or serving in the mercantile marine, or a member of some branch of the auxiliary forces in which the standard of training is higher than that proposed, shall be liable to be called on to undergo two months' training in a camp of exercise, under canvas, in the first year, followed by fourteen days' similar training in the second, third, and fourth years after, or for corresponding periods at sea, at the choice of the individual.

Dorothy Osborne, who after a long wooing became the wife of Sir William Temple, the patron of Swift, holds a high place among the writers of letters. Macaulay said of her love letters that very little of the diplomatic correspondence of her generation is so well worth reading. So much, indeed, did he find in them, that he said he would gladly have purchased equally interesting billets with ten times their weight in State papers taken at random. A convenient edition of Dorothy Osborne's letters was published not long ago by Judge Parry. In them frequent mention is made of the "spleen" from which she suffered. In one letter she expresses a wish to be "rid on.....a scurvy spleen that I have ever been subject to, and to that purpose was advised to drink the waters," probably at Epsom, where she was from August 16th to September 4th, 1652. In March, 1653, she writes to her lover:

I drink your health every morning in a drench that wd poison a horse, I believe, and 'tis the only way I have to persuade myself to take it. 'Tis the infusion of steel, and makes me so horribly sick that every day at 10 o'clock I am making my will and taking leave of all my friends. You will believe you are not forgot then. They tell me I must take this ugly drink a fortnight and then begin another as bad; but unless you say so too, I do not think I shall. 'Tis worse than dying by the half.

In April of the same year she writes:

All that I aim at is but to keep myself from growing a beast. They do so fright me with strange stories of what the spleen will bring me to in time that I am kept in awe with them like a child; they tell me 'twill not leave me common sense; that I shall hardly be fit company for my own dogs, and that it will end either in a stupidness that will make one incapable of anything or fill my head with such whims as will make one ridiculous. To prevent this who wd not take steel or anything—though I am partly of your opinion that 'tis an ill kind of physic. Yet I am confident that I take it the safest way, for I do not take the powder, as many do, but only lay a piece of steel in white wine over night and drink the infusion next morning, which one would think were nothing, and yet 'tis not to be imagined how sick it makes one for an hour or two, and, which is the misery, all that time one must be using some kind of exercise. Your fellow servant has a blessed time on't. I make her play at shuttlecock with me, and she is the veriest bungler at it ever you saw. Then am I ready to beat her with the battledore, and grow so peevish as I grow sick, that I'll undertake she wishes there were no steel in England. But then to recompense the morning, I am in good humour all the day for joy that I am well again. I am told 'twill do me good, and am content to believe; if it does not, I am but where I was.

In May she writes that "dreams are pleasant things to people whose humours are so; but to have the spleen, and to dream upon't is a punishment I would not wish my greatest enemy." In the summer of 1653 she says she had resolved not to go to Epsom lest it should be imagined that something besides her spleen carried her thither—in fact that she went there to meet her lover. In August she writes to Temple, who had just returned from Epsom:

I know not whether I told it you or not, but I concluded (from what you said of your indisposition) that it was very like the spleen: but perhaps I foresaw you would not be willing to own a disease that the severe part of the world holds to be merely imaginary and affected, and therefore proper only to women. However, I cannot but wish you had stayed longer at Epsom and drunk the waters with more order though in a less proportion. But did you drink them immediately from the well? I remember I was forbid it, and methought with a great deal of reason, for (especially at this time of year) the well is so low and there is such a multitude to be served on't, that you can hardly get any but what is thick and troubled; and I have marked that when it stood all night (for that was my direction) the bottom of the vessel it stood in would be covered an inch thick with a white clay, which sure has no great virtue in't, and is not very pleasant to drink.

Judge Parry quotes a note received from Dr. Judson Bury relative to the spleen. The distinguished Manchester physician writes:

Physicians of the seventeenth were well acquainted with the anatomy of the spleen, but knew very little regarding its functions. They were in the habit of ascribing many general conditions of ill-health to disturbances of the function of the spleen, conditions which are now known to depend on disease elsewhere. There is reason to believe that functional disturbances of the system were then as commonly put down

to "the spleen" as nowadays they are assigned by the laity to "the liver" or "the nerves."

The Epsom waters were the first of their kind in England that became famous. At the beginning of the seventeenth century the town was already a place of fashionable resort on account of its mineral waters. In 1609 a ball room was erected and avenues were planted. Towards the beginning of the eighteenth century the Epsom waters gradually lost their reputation.

ASSOCIATION NOTICES.

NOTICE OF QUARTERLY MEETINGS OF COUNCIL FOR 1904.

MEETINGS of the Council will be held on Wednesdays, April 20th, July 6th, and October 19th, in the Council Room of the British Medical Association, 429, Strand, London, W.C.

ELECTION OF MEMBERS.

ANY candidate for election should forward his application upon a form, which will be furnished by the General Secretary of the Association, 429, Strand. Applications for membership should be sent to the General Secretary not less than thirty-five days prior to the date of a meeting of the Council.

LIBRARY OF THE BRITISH MEDICAL ASSOCIATION.

MEMBERS are reminded that the Library and Writing Rooms of the Association are fitted up for the accommodation of the members in commodious apartments, at the office of the Association, 429, Strand. The rooms are open from 10 a.m. to 5 p.m. Members can have their letters addressed to them at the office.

GUY ELLISTON, *General Secretary.*

BRANCH MEETINGS TO BE HELD.

BIRMINGHAM BRANCH: COVENTRY DIVISION.—The next meeting of this Division will be held at the Coventry and Warwickshire Hospital on Tuesday, March 1st. Dr. Milner Moore will take the chair at 8.30 p.m. Agenda: Dr. Hawley will show Two Cases of Epithelioma of the Forehead under *X*-ray Treatment. Dr. Harman Brown will give the Notes of Four Cases of Cancer treated by Thyroid Extract. Dr. Phillips will read a Paper on Old Age, with some Methods of Treating its Ailments. The Committee will recommend the formation of a book section of the Division. The Holborn Surgical Instrument Company will exhibit a collection of new instruments in the out-patient room of the hospital from 8 to 8.30 p.m.—E. H. SNELL, Knighton House, Coventry, Honorary Secretary.

BORDER COUNTIES BRANCH.—The next meeting of this Branch will take place at Maryport on Thursday, March 10th. Members desiring to make communications are requested to inform the Secretary of the Branch at their earliest convenience. Further details will be notified by circular shortly before the meeting.—FRANCIS R. HILL, 62, Warwick Road, Carlisle, Honorary Secretary.

BORDER COUNTIES BRANCH: WEST CUMBERLAND DIVISION.—A meeting of this Division will be held at Workington on Tuesday, March 1st. The Secretary will be glad to receive a communication from any member who intends to read notes on cases or to exhibit specimens, etc.—T. G. MATHEWS, 6, Scotch Street, Whitehaven, Honorary Secretary.

METROPOLITAN COUNTIES BRANCH: HAMPSTEAD DIVISION.—The next meeting of the Division will be held at the Hampstead Conservatoire, Swiss Cottage, N.W., on Wednesday, March 2nd, at 4.30 p.m. Dr. Ford Anderson will preside. Agenda: 1. Dr. J. F. Woods, Medical Superintendent, Horton House Asylum, N., will read a paper on Psychotherapeutics, or the Treatment by Suggestion, with and without Hypnosis. 2. Report of Committee on British Medical Association Representative on General Medical Council. 3. General Business.—J. DILL RUSSELL, F.R.C.S., Osman House, Fortis Green, N., Honorary Secretary.

METROPOLITAN COUNTIES BRANCH: WANDSWORTH DIVISION.—An ordinary meeting of this Division will be held in the Officers' Dining-room of the 4th V.B. East Surrey Regiment, St. John's Hill (opposite Clapham Junction Station) on Thursday, March 10th, at 9 p.m. Business: 1. Resolutions for Representative Meeting referring to charges for advertisements in JOURNAL, price of JOURNAL to non-members, alterations in By-law 22 (election of members of Central Council). 2. Resolution referring to alteration in No. 4 of Branch Rules. 3 Report on Medical Act Amendment Bill. 4. Report on Midwives Act, 1902, and the Regulations. 5. Proposed Ethical Rules.—E. ROWLAND FOTHERGILL, Torquay House, Southfields, S.W., Honorary Secretary.

SOUTH-EASTERN BRANCH: CROYDON DIVISION.—The next meeting of this Division will be held at the Greyhound Hotel, Croydon, on Thursday, March 17th, at 4 p.m., Dr. P. T. Duncan in the chair. The following papers have been promised:—Mr. Herbert F. Waterhouse: On Gastro-enterostomy in Non-malignant Affections of the Stomach and Duodenum. Dr. Purves Stewart: On Lumbar Puncture in its Practical Applications. Members desirous of exhibiting or reading notes of cases are invited to communicate at once with the Honorary Secretary. Dinner at 6 p.m., charge 7s., exclusive of wine. All members of the South-Eastern Branch are entitled to attend and to introduce professional friends. N.B.—The Honorary Secretary would be much obliged if members would kindly inform him whether they intend, if possible, to be present at the meeting, and if likely to remain to dinner. By so doing they will very materially facilitate arrangements and promote the success of the meetings.—E. H. WILLOCK, 113, London Road, Croydon, Honorary Secretary.

STAFFORDSHIRE BRANCH.—The next meeting of this Branch will be held at Stafford on Thursday, March 3rd, instead of Thursday, February 25th, as one of Sir Oliver Lodge's lectures occurred on the latter date.—E. PEGRAVE JOHNSON, Stoke-on-Trent, Honorary General Secretary.

SOUTH-EASTERN BRANCH: NORWOOD DIVISION.—A meeting of the Division will be held at the Queen's Hotel, Upper Norwood, on Thursday, March 10th, at 4 p.m.; Mr. J. Sidney Turner in the chair. Agenda: Minutes of last meeting. To arrange the number, dates, and places of meetings to take place annually, and to decide when and where the next meeting shall be held, and to nominate a member of the Division to take the chair thereat. Communication from the Medical Secretary as to alteration of boundary of Division. Communications concerning the transfer of King's College Hospital to Denmark Hill. To consider the following questions referred by the Representative Meeting and Council of the Association to the Divisions: (*a*) Six resolutions as to the reforms required in the Vaccination Laws. (*b*) Proposed Medical Acts Amendment Bill. (N.B.—The text of the resolutions above referred to and of the Medical Acts Amendment Bill will be found in the SUPPLEMENT to the BRITISH MEDICAL JOURNAL for August 22nd, 1903, and members are advised to bring their copies of this SUPPLEMENT to the meeting.) (*c*) The advisability of petitioning the Privy Council in favour of direct representation of the British Medical Association on the General Medical Council. The following papers will be read:—Mr. W. Arbuthnot Lane: On Certain Abdominal Conditions. Mr. H. G. Plimmer: Diseases of Men and Animals caused by Trypanosomata. Exhibition of instruments by Down Bros. Members desirous of exhibiting specimens or reading notes of cases are invited to communicate at once with the Honorary Secretary. Dinner at 6 p.m.; charge 7s., exclusive of wine. The Honorary Secretary would be much obliged if members would kindly inform him by the first post on the Tuesday before the meeting whether they intend, if possible, to be present at the meeting, and if likely to remain to dinner. By so doing they will very materially facilitate arrangements and promote the success of the meeting. All members of the South-Eastern Branch are invited to attend and to introduce professional friends, but will be unable to vote on Divisional questions.—HENRY J. PRANGLEY, Tudor House, Anerley, Honorary Secretary.

SPECIAL CORRESPONDENCE.

PARIS.

Important Decision on the Isolation of Tuberculous Patients. Official Opening of the Information Bureau of the University of Paris.—Presentation to Professor Bouchard.—Appointment of Professor Chantemesse as General Inspector of the French Sanitary Service.

AN important step has recently been taken by M. Combes, the Prime Minister and Minister of the Interior, with regard to the treatment of tuberculosis. As long ago as June, 1901, his predecessor, M. Waldeck-Rousseau, addressed the prefects on the practical measures for fighting tuberculosis, recommending them most especially to ensure the isolation of the patients. In the great majority of hospitals this isolation is not yet an established fact; the Permanent Tuberculosis Commission took the matter up, and at its meeting on December 19th last passed the following resolutions:

1. In all public hospitals the competent authorities must forbid communication, direct or indirect, between the tuberculous patients and those who are not tuberculous.

2. Tuberculous patients should be treated in separate hospitals exclusively reserved for them, and shall not be admitted into other hospitals. Towns which possess several hospitals shall be invited in consequence, immediately to set apart for tuberculous patients one of several of these establishments.

3. In towns where it is impossible to set apart an entire hospital for tuberculous cases, separate blocks shall be reserved for their exclusive use.

4. In cases where it is impossible to set apart an entire hospital or separate block, tuberculous patients should not be treated in the same ward as non-tuberculous cases.

The Minister of the Interior has adopted these resolutions and in a circular addressed to the prefects he has ordered them to attend to the matter with the shortest possible delay. In Paris the Advisory Council of the Assistance Publique, a month previously to this Ministerial decree appointed a Special Commission to consider the practical means of isolating tuberculous cases in this city, and had even set aside 1,000,000 francs from the recent hospital loan of 45,000,000 francs to meet the expenses that such isolation might entail. M. Mesureur, in laying the Minister's letter before the Council of the Assistance Publique, while giving them all credit for their forethought, emphasized the fact that the Ministerial circular is imperative and demands immediate solution of the question. At the end of

beds for tuberculous patients will be ready at Brevannes; has also been decided to erect a special hospital at Montrency or elsewhere, with 800 to 1,000 beds; and, lastly, the departmental loans, now before the Senate, M. sureur will ask for 2,000,000 francs to provide 300 beds at Boucicault Hospital. These beds, however, will not be dy for several years, and the matter is urgent. M Mesureur in his letter calls attention to the fear of contion among the population living round any hospital which ght be selected for the exclusive use of tuberculous cases. ese fears are unjustifiable. If there had been any real ger of this kind it would be already in existence, for Paris hospitals actually house 30 to 40 per cent. of tuberous patients. The administration of the Assistance olique think it will be possible to assign one or two of the is hospitals for this purpose, but in addition it will be essary to set aside in other hospitals special blocks or ds, with separate staffs, so as to isolate all the patients seek admission to hospital. The Advisory Council of Assistance Publique has decided to begin a rapid study he question, and M. André Lefèvre has been appointed orter.

he Information Bureau of the University of Paris was ially opened on February 10th. The offices of the eau are in a large room which has been luxuriously ed up in the Sorbonne. It is under the direction of Blondel, General Secretary of the International Assoion of the Medical Press, who has under him assistants aking English, German, Russian, and Spanish, who can s advise fully any foreigners who come to study in Paris give them all information they require on every subject. Bureau has already arranged over 3,000 indexed catalues. As proof of the value of the institution, over 600 lish and American students have availed themselves of source of information since August, 1903, when the eau began its work. The President of the Bureau is Liard, Vice-Rector of the University, and it is managed large committee known as the Conjoint Committee for ommon interest of the City of Paris and of the University. the official opening the Committee of the Municipal Council the Council of the University were present, as well as erous representatives of the press, both French and gn. Speeches were made by M. Liard and M. Dusset, President of the Fourth Committee of the Conseil icipal.

February 21st the numerous pupils and friends of Prosor Bouchard, Member of the Institute, presented him with d portrait model, by the sculptor Chaplain, as a mark of sympathy and esteem. M. Chaumié, the Minister of ic Instruction, presided at the fête in the large amphitre of the medical school. Numerous speeches were e, Professors Laudouzy and Gaucher, speaking in the e of the pupils of the eminent Professor, gave an account e many scientific works of their chief, and of the general ing of his school. Dr. Le Gendre spoke of the Professor hysician. Professor Debove, Dean of the Faculty of icine, recalled the bonds of friendship which formerly d Charcot and Bouchard, and of the scientific results of collaboration. M. Chaumié, in the name of the French rnment, thanked the Professor who, as the "Ambassador ench Science," had been present at many congresses in gn countries. Professor Bouchard made a remarkable , and after thanking the numerous speakers, criticized wn scientific career, and then pointed out the lines along h medical studies should be further developed.

Professor Chantemesse, Professor of Experimental and Comive Pathology in the Faculty of Medicine, has been inted by M. Combes, the Prime Minister, to the post of eral Inspector of the Sanitary Service in France, vacant e death of Professor Proust, which occurred during the gs of the International Sanitary Conference in Paris last nn. The Chair of Hygiene, also rendered vacant by the of Professor Proust, has also been given to Professor temesse.

NEWCASTLE-UPON-TYNE.

ri of England Edinburgh University Club.—Death of Mr. Lniel R. Guns.—North of England Glasgow University Cb.

ebruary 12th the members of the Edinburgh University dined at Tilley's Rooms, Newcastle, and a most enjoyevening spent under the Chairmanship of Professor Page. teen fifty and sixty gentlemen sat down to dinner. The guest of the evening was Sir William Turner. Among those present, in addition to the above, were Sir George Hare Philipson, Drs. Hume, Macdowall, Ranken Lyle, Oliver, McCracken, Beatley, Limont, etc. After the Royal Toast had been given from the chair, that of "Alma Mater" was proposed by Dr. James W. Smith in very appropriate terms. Reviewing the history of the University the names of many men eminent in medicine and in science were mentioned. Black, Cullen, Gregory, Laycock, and Lister had in turn added to the reputation of the northern seat of learning. No one could adequately say what Sir James Simpson had done for suffering humanity. Medicine, while one of the youngest, was at the same time probably the strongest of all the faculties of the University. To-day the influence of Edinburgh as a centre of light and learning was as powerful as it ever had been. Its medical school was well equipped and its infirmary staff was second to none. Dr. Smith felt sure that Edinburgh University would go on prospering, and would still send out graduates into the world who would be faithful to the high ideals set before them, and who would continue to labour for the progress of humanity and the welfare of the human race. Sir William Turner, who had a most enthusiastic reception, said that notwithstanding the fact that 300 years had passed over it the University of Edinburgh possessed still a good constitution. It retained the power of youth, and it kept rejuvenating itself from time to time. The University had a great history to live up to, and those in office recognized their responsibilities, for they were all determined, so far as human means would allow, that the University should retain its position. All great educational institutions had difficulties, one of which was the want of money. Without money it was impossible to keep well abreast of the times. The multiplication of universities meant competition. Sir William Turner in his concluding words confided "Alma Mater" to the continued love and appreciation of her sons. Dr. Hume proposed the toast of "The University of Durham," to which Sir George H. Philipson responded, and in doing so begged to express the hope that Edinburgh would still flourish. In a few well-chosen words Professor Page proposed the toast of "Our Guest," whom he described as one of the most distinguished anatomists in Europe and a teacher of unexampled experience and success. In responding, Sir Wm. Turner said that if a teacher would be successful he must be in sympathy with his students During the forty-nine years he had taught, he took credit to himself in having had that sympathy and in having received it in return. Alluding to the Chair of Anatomy, which he had so recently vacated for the Principalship of the University, he told his audience that although the Chair had been founded as long ago as 1720, it had been occupied by only five professors. This circumstance he regarded as a proof of the healthiness of the occupation of a Professor of Anatomy. The Chairman's health was proposed by Professor Howden.

Recent graduates of the University of Durham will receive with deep regret the announcement of the somewhat sudden, tragic death of Mr. D. R. Guns, M.B. About a month ago Mr. Guns entered upon his duties as one of the House-Surgeons at the Royal Infirmary. He had hardly been there three weeks when he was seized with pneumonia. From the first his symptoms were severe, and by degrees both lungs became affected. He died on the eighth day of his illness. Mr. Guns who was only 26 years of age was a man of great promise. His death has cast a gloom over the infirmary, for Guns was a favourite with all. Fellow-students liked him and his teachers had implicit faith and confidence in him. He was laid to rest in St. Andrews Cemetery on February 15th amid a large concourse of students, teachers, relatives, and friends. Dr. Hume (Senior Surgeon), Dr. C. Limont, Mr. Orde (House Governor), Dr. Parkin, and Dr. Walker (House-Physician), and Dr. Stewart (House-Surgeon) represented the infirmary, while Professors Page and Oliver, Drs. Drummond, Clay, and Bolam represented the College of Medicine. The coffin was carried from the hearse by six of the students. As Mr. Guns belonged to the Society of Friends the service at the grave was very simple, but impressive. A hymn was very effectively sung by the ladies' singing band from the infirmary, and on the grave were placed many wreaths and floral tributes to the memory of one who, had he been spared, would certainly have occupied a prominent and useful position in the world of medicine.

The annual banquet of the North of England Glasgow University Club will be held in Tilley's Rooms, Newcastle-upon-Tyne, on Wednesday, March 9th, under the presidency

of Professor T. Oliver. Principal Story, of Glasgow University, will be the guest of the evening. Members and friends who wish to be present should communicate with the Honorary Secretary, Dr. Frank Russell, Heaton Road, Newcastle-upon-Tyne.

CORRESPONDENCE.

AERIAL CONVECTION OF SMALL-POX.

Sir,—My experience of small-pox hospitals—and I have had charge of several—is that we should hear very little of aërial convection if one important thing was attended to, that is, alteration and enlargement of the buildings when occupied, as took place in 1902 with the hospitals under the Metropolitan Asylums Board. It is not the patients, but the constant intercourse of workmen with the towns and villages which are in close touch with the hospital. All men employed should be housed on the site, nurses should not attend the parish church or chapels, visits between the staff and villagers should not be allowed, for the nurses and matron are careless if allowed; though if they are going some distance—for example, to visit relations—all precautions are taken; one never hears of friends taking the disease from the staff.

Hospitals if possible should not be built within sight of a main road; the Local Government Board limit of 40 ft. is not sufficient. It is the panic which causes the mischief by allowing everything that goes on within the hospital being retailed in the village public-house or rectory, or allowing the public to have a full view of the grounds and hospital from the roads.

As a rule no provision is made for the reception of patients until too late—quite a British custom—and then there is a rush. Workmen are sent from all parts, vaccinated or not; certain of them are immune, others are not; and they take the disease, and so incubate and develop it in remote or near parts, according to their place of abode.

The whole matter is the fault of the committees of management; and then the blame is laid at the door of the man in charge. The epidemic of 1902 and 1903 in London was due to want of preparation, for those responsible educated men in authority laid down the law that small-pox would never occur again, and it would be useless to waste money in buildings.

I could furnish you with proofs, but it would be foreign to the purport of my letter.—I am, etc,.

Dublin, Feb. 22nd. Edward Carnall.

DEGREES IN DENTISTRY.

Sir,—After reading your able editorial comment upon the question of university degrees in dentistry I am tempted to offer a few considerations, my excuse being that I have been for a quarter of a century, and still am, actively engaged in dental education. At first sight it might appear as though the mere fact of a university, whose degrees in medicine and the other arts and sciences are universally sought after and prized, would, by granting a degree in dentistry, also confer an honour on dentistry—that such a degree would dignify and ennoble our calling.

Now the British Dental Association represents the dental surgeons of this country, and largely controls their affairs. This body has recently been invited to express an opinion on the question both by a private letter addressed to each member, and by an official summons to attend a special and extraordinary meeting in London and discuss and vote upon the matter. Of those members who took sufficient interest to write, nearly 500 disapproved of the degrees, and quite a small number wrote expressing their approval, a large number pronouncing no opinion but remaining apathetic. Of those who took the trouble to attend the meeting 175 voted against and 88 in favour of the creation of degrees, a majority of 2 to 1, and this in the face of very eloquent pleading in favour of the change.

The explanation of this phenomenon is the excuse for the present letter. As one of the little world of dental surgeons who regard the granting of further degrees or titles in dental surgery with dread, I wish to make clear my grounds for entertaining this feeling, which I believe to have been shared by the great majority.

First, how would the proposed change affect dental surgeons? By multiplying titles and grades in the speciality it would certainly tend to make dentistry a self-sufficient thing apart from the general world of medicine. Many of the advocates of the granting of these degrees regard this result with equanimity, but to many of us it appears that to lop off the treatment of the teeth from the general healing art would be to reduce it to its old position of isolation, a position from which it emerged some forty years ago when it was wedded to general medicine.

The L.D.S., or licence in dental surgery, is examined for and granted by, the Colleges of Surgeons of Great Britain and Ireland. It is the only dental title that carries the privilege of registration. It is rapidly becoming recognized and understood by the general public, as well as the general medical profession. The proposed degrees would not entitle their holders to registration, and a proposal has actually been made to deal with this difficulty by the extraordinary subterfuge of giving away an L.D.S., free gratis and for nothing, with the degree! This would be an evasion of the Dentists Act scarcely creditable to such bodies as our universities. In the rush of competition for alumni and their fees which would follow such a procedure on the part of the dozen or more universities of the United Kingdom these "presented" L.D.S.'s would soon lose their meaning and value, and the man in the street would no longer distinguish the title won by years of hard work and expense from that which was given away.

If any number of people take the proposed degrees, the holders of the L.D.S. will certainly be overshadowed by the holders of the B.D.S. and M.D.S. The argument that a man's individual merit will render him unassailable is absurd; if it were so, why all this anxiety for degrees? If it is worth having and worth fighting for, it must be because it is, or pretends to be, something better, and something that will overshadow the existing diploma.

There are several fallacies in the parallel with the many existing degrees in medicine and surgery. First, general medicine is a much larger field with more room for distinctions, and moreover does not grant titles in specialities except as supplementary to general qualifications. Secondly, the added titles do not tend in the direction of severance from the general medical body. Thirdly, the multiplicity of titles in medicine and surgery is an evil, and does tend towards confusion. Fourthly, an added title inferring a wider and broader medical and surgical knowledge, while of great value for hospital appointments where the teacher should know as much as those he is teaching, does not conflict, because it does not compete with the dental title.

Lastly, there is another section of the community to be considered, namely, the public. How will a multiplicity of dental titles affect them? At present the L.D.S. is justly regarded as conveying a well-earned title to the confidence of the public, but is it likely that this safeguard would be maintained in the face of a multiplicity of titles?

This change is asked for by those who do not fully realize what it means, and are dazzled by the prospective decoration. Behind these earnest whole-hearted advocates lies an active, but I believe numerically small, body of agitators who hope to profit by the confusion, and, careless of the future of dental surgery, see only an opportunity to flood the country with "doctors and proctors of every degree."

At present the curriculum required for our L.D.S. diploma is so stringent, and the requirements and examinations so uniform and so well in advance of that of other countries that it is not at present possible to entertain applications from abroad for reciprocal recognition, but should many different bodies begin to grant varying titles of varying stringency of requirements, I do not believe this safeguard could be maintained. At present our great strength lies in our uniformity.

I do not believe that we shall allow these evils to happen. I cannot believe that the authorities of our universities will insist on presenting these honours to a branch of the profession that has emphatically stated that it does not welcome them. If we need higher or other titles, science, medicine and surgery all have plenty, too many, perhaps; but degrees in dentistry apart from medicine would be a huge stride backwards towards the anarchy from which we but recently emerged.—I am, etc.,

London, W., Feb. 15th. Arthur S. Underwood.

ST. BARTHOLOMEW'S AND THE OUT-PATIENTS.

Sir,—Will you allow me to add a postscript to a letter which you did me the honour to insert on January 2nd? The number of out-patients at St. Bartholomew's Hospital is given as 160,000, 150,000, and 130,000. From the Treasurer's speech at the Mansion House, the attendances during the first three

eks of the present year were 15,247—that is, between 800 d 900 a day, about 850. The number of working days being out 308, we find the annual attendances amount to about 2,000, or two for every patient seen. It is quite apparent w trivial are the great majority of out-patient cases—many st only be seen once. One is sceptical as to the argument m 'poverty, when only 1s. to 3s. is the yearly expenditure t would be required from each patient were the hospital literated. The statement of the Westminster Hospital just blished shows 23,270 out-patients, more than a hundred usand fewer. I fear the Governors of St. Bartholomew's ve not gone deeply into this matter.

The report of a dispensary has reached me. The figures ow 4.6 attendances (including visits) to each case, and the t of each attendance 9d.; the average cost, therefore, of h case is 3s. 6d. It is surely reasonably possible for all t paupers (who are otherwise provided for) to contribute ke sum. The doctor in the next street would thus have 6d. for each attendance, which appears to be the lowest ing wage. This particular dispensary is about to adopt provident system, and we should wish it all success.

Those with whom I have conversed on the subject of provent dispensaries regard them with dislike as well as disproval. Should we not look upon them as a less evil than eemosynary medical attendance? I am convinced that if tain serious defects of management were corrected they uld be satisfactory and in a small way profitable. But is leads me away to a large subject.—I am, etc.,

ndon, W., Feb. 21st. G. Crichton, M.D.

THE PRUSSIAN VACCINATION LAW OF 1835.

IR,—In the British Medical Journal of February 13th y have honoured me with some reference. Will you favour m with some of your valuable space for a reply?

With regard to vaccination and revaccination in Prussia, bore the great epidemic which occurred about the year 1872, D Seaton, who in his day was one of the most eminent provicinist medical men in England, when he gave evidence bore a Committee of Parliament on Vaccination, said (5 608) "I know Prussia is well protected." Why did Dr. Seaton say that if vaccination was not thoroughly performed Prussia? He was a strong believer in vaccination as the ans, and the only means, of preventing small-pox. That tement of Dr. Seaton's strongly supports my position, that vaccination was compulsory in Prussia from the year 1834. The exact wording of the laws and proclamations that made ompulsory is not material. The question is one of fact. Do those laws and proclamations have the effect of making ompulsory? No one denies that every soldier in the Prussian army was vaccinated upon entering the service, and the military service was compulsory upon every male citizen ho physically defective. It rests with the pro-vaccinists to plain the terrible mortality amongst adult males during the small-pox epidemic. The pro-vaccinists are on the horns of dilemma with regard to vaccination in Prussia and the demic of 1872. If Prussia was thoroughly vaccinated, it is vent that vaccination does not protect from a small-pox demic. On the other hand, if Prussia was not well vaccid, then it is evident that the disease of small-pox specially cts those who are vaccinated for attack, because the vast jority of those who were attacked by small-pox were vaccid. Those who defend vaccination may choose which on they like to sit upon.

am much interested to observe that the British Medical rnal regards "isolation without vaccination" as ackery," and I should very much like to know if in that tement it has the support of the bulk of the medical profession and of the medical officers of health of the United Kingdom. The idea of separating those who suffer from an inious disease from those who have not yet been infected, as eans of preventing the spread of the disease, has made t progress during the last hundred years with most practic sanitarians, and certainly that is the idea which is now valent with, I think I may say, the majority of sanitary orities in this country; but I gather from you that isolaon of itself would have no beneficial effect with regard to disease of small-pox—that it is, in fact, quackery as plied to that particular disease. I am always trying to arn (you will doubtless say I had need to), but I should need be interested to hear from you why isolation, which is generally adopted and recommended by medical authorities in regard to infectious diseases, has, in your opinion, no eficial influence upon the spread of small-pox. For myself looking at both German and English statistics, it would seem as if it had a very great influence. There is no doubt that the Germans have most stringent arrangements for the isolation of small-pox cases and of suspects, and it is also interesting to observe that since the Metropolitan Asylums Board established the hospital ships for small-pox cases, small-pox in London has been reduced in a wonderful manner.

May I say, in conclusion, that I consider that to put pus from a diseased calf into the blood of a human being is an operation that should require the most powerful and incontrovertible evidence in its support? I have no bias to guide my judgement in this matter, but, having studied the question, I have come to the conclusion of Professor Crookshank, of King's College, Dr. Creighton, and many other eminent men of science, that vaccination is a delusion and its penal enforcement a crime.—I am, etc.,

Leeds, Feb. 15th. Arnold Lupton.

*** We have taken the trouble to turn up the reference to Dr. Seaton, and find that what he says is: "You are asking me about things as to which I should like to refresh my memory, but I know Prussia is well protected." Dr. Seaton was wrong, excepting as regards the army, but Mr. Lupton prefers to mangle what an Englishman said in 1871 regarding a foreign country, and to found his case on the mangled quotation, rather than on the original published documents of 1835, of which we gave a translation last week. That is only following antivaccination precedents, of which it would be easy to give examples if it were worth while. And if our correspondent will refer even to the present month's *Vaccination Inquirer* he will learn there from a Continental writer whose authority he can hardly dispute, that, excepting in the army, revaccination was not obligatory in Germany till after 1874. For the rest we must really decline to discuss with Mr. Lupton the putting of "pus from a diseased calf into the blood of a human being," or to restate for his special benefit the evidence as to Prussia and other European countries which is so well summarized in Dr. Edwardes's little book (published by H. K. Lewis) on *Small-pox and Vaccination* in Europe. Nor need we point out to him that isolation used to be anathema to the official antivaccinist, and that even yet compulsory isolation is not admitted to be justifiable.

Lieutenant-General Phelps, the President of the Anti-vaccination League, also sends us a letter in which we are charged with having misrepresented him. In an article on the Prussian Vaccination Law of 1835, in our issue of February 13th, it is stated that Mr. Arnold Lupton had asserted that

> in Prussia there was a vaccination law passed in 1835, and a Royal Proclamation, enforcing the law, on pain of fine or imprisonment, on every one within the whole extent of the monarchy. In the Prussian army revaccination was compulsory. The law was passed in 1834, and every male citizen had to serve in the army, and thus Prussia was compulsorily vaccinated throughout and its male citizens were revaccinated.

The misrepresentation of which the President complains consists in the fact that after having quoted as above from Mr. Arnold Lupton, the article went on to say, "General Phelps wrote in the same strain." Well, it happens that the truth or otherwise of the General's charge is easily tested. In the *Vaccination Inquirer* for January, at p. 204, there is given an extract from General Phelps's contribution to the newspaper correspondence referred to. The first sentence of the extract is as follows: "The compulsory law was enacted in Prussia in 1835 for the civil population, and in 1834 for the army, which, owing to the law of conscription, means practically the male half of the population." That is what General Phelps wrote, and yet he complains that the article in our columns misrepresented him in saying that he had written "in the same strain" as Mr. Arnold Lupton in the passage quoted above. The complaint is really too preposterous for serious comment, and as for the rest of the letter, surely the columns of the League's own organ are open to such contributions from its President, whilst our refusal to find room for it will give the editors another opportunity of calling high heaven to witness how these medical journals dare not print the cogent arguments of antivaccinists lest thereby their readers should be perverted from the true faith.

ISOLATION HOSPITALS.

Sir,—Many will agree with Dr. Buckley Pogson's statement that there is much sound common sense in Dr. W. Moore's letter to you in the British Medical Journal of January

9th. Very keen and widespread discontent has been manifested of late with the results that ensue from congregating scarlet-fever patients in special institutions with a view to checking the spread of the disease from which they are suffering. Your own correspondence columns of October and November last year, and those of the *Lancet* of December and January, bear eloquent witness to this fact. The substantial nature of this discontent is demonstrated also by recent discussions at the branch meetings of the Society of Medical Officers of Health, and by editorial comments in the *Medical Press and Circular*, *Public Health*, the *Sanitary Record*, and other journals. Nor is this discontent confined to the profession. In many parts of the country intelligent laymen have brought forward the question of the ability of these hospitals to aid in checking the spread of scarlet fever, and even the Hospitals Committee of the Metropolitan Asylums Board in a public letter[1] admits that grave doubt exists in the minds of many as to the wisdom of isolation. This being so, an authoritative body should at once take in hand the question of inquiring into the evidence that exists *pro* and *con.* the present system.

In the meantime an alternative to that system may well serve as a topic for discussion. The only practicable scheme that suggests itself is that advocated by Dr. W. Moore and others, namely, home isolation. This exists at present in the case of measles, whooping-cough, and other infectious diseases that are only actually dangerous—not officially so. In the event of such home isolation being adopted, it would be eminently desirable that the local authority should be in a position to bear part of the expense in the case of the poor, and it would seem that they already have this right under the present Act. The Stourport Urban District Council appear to have contracted out of this power by contributing to a neighbouring hospital, and if they are unable to withdraw from the present arrangement they are indeed on the horns of a dilemma. It would be part of the function of a committee of inquiry to investigate cases of this kind and ascertain how their difficulties could be solved. Such an inquiry is a pressing necessity, and cannot, it seems, be long postponed, that is if those who are alive to the impotence of the present system, and to the evils that it brings in its train, will combine to urge its institution.—I am, etc.,

Eastbourne, Feb. 14th. HUBERT E. J. BISS.

THE SANATORIUM FOR CONSUMPTIVES.

SIR,—The aggregation of the infective sick in permanent hospitals has been shown to be as useless as a preventive measure as it is injurious to the individuals segregated. It is no wonder, therefore, that experience of the system of "curing" consumptives in smitten herds has led to a reaction which is pretty certain to be set down to recalcitrancy. It is a curious commentary on the manner in which the popular imagination has been inflamed by the booming of German statistics that the system is now discredited in that country, while in France it is ridiculed. In this country, where a notion appears to exist that adverse comment must be made with bated breath, many now regard sanatorium "cure," "arrest," and "economic cure" of consumption as a played-out farce. At a meeting of the Notts Association held on February 11th, Dr. Brookhouse, referring to those who had undergone the "economic cure" at the Ratcher's Hill Sanatorium, made the statement that "the majority of them die in much less time than the public has any idea of." At a recent meeting of the Austrian Tuberculosis Commission it was declared that people in whom phthisis had been dormant for many years, and whose prospects of prolonged life were good, died with startling rapidity after entering the sanatorium with the object of "completing their cure."

What is the signification of this? If it be not secondary infection, what is it? The analogy to what is constantly happening in the isolation hospital is complete.

A word as to statistics. Suspicion attaches to all statistical returns, but none are so flagrantly fallacious as those dealing with the so-called "cure" of consumption in sanatoria. We read recently that 14 out of 40 "cured" were dead, and one was dying within a year of their discharge. We are continually meeting with statements about the number of people who have been enabled "to resume work." The uninitiated will be surprised to hear that probably not 5 per cent. of those whom consumption has compelled to cease from work ever resume it. By the time that a phthisical man is forced by his disease to give up work he has developed physical signs, and to the man with physical signs the doors of the sanatorium are closed.

What excuse, Sir, can be pleaded for the excitement bordering on panic, which led to the formation of the National Association for the Prevention of Consumption? Had the tried methods of disease prevention failed in this country? We all are aware that the consumption death-rate has been lowered by 50 per cent. in fifty years—not by "the abolition of humanity by bacteriology" (Hueppe) but by establishing works of sanitation which have never yet been known to fail.

Leaving the tubercle bacillus to take care of itself, what are the chief causes of consumption? The respiration of exhausted air, defective drainage, unsuitable and insufficient food, etc., form the sum total of the conditions under which the disease thrives. Can the establishment of sanatoria combat these? Is it to be called "science" this wasting of enormous sums of money on supposed "cure" when the way to prevent lies open before us? "The prevalence of phthisis is now recognized as one of the most certain indications of sanitary defects" (Sir John Burdon Sanderson). According to Dr. Buchanan, of the Local Government Board, the laying of main drains at Bristol, Salisbury, Rugby, Ely, and Cheltenham led to a reduction of from 12 (Bristol) to 1 (Salisbury) per cent. of the previous consumption death-rate. Dr. Arthur Ransome has shown that while the death-rate from this disease amongst English soldiers quartered in Canada was 23 per 1,000 as against 10 per 1,000 of their compatriots at the home stations, the proper drainage and ventilation of the barracks reduced the consumption death-rate from 23 per 1,000 in 1865 to 9.5 in 1872 and 6 in 1874. Dr. G showed that of 104 men having less than 500 cubic feet of 13 suffered from haemoptysis and a like number from catarr of 115 who had from 500 to 600 cubic feet 5 suffered from t former and 4 from the latter trouble; of 101 men havi 600 cubic feet 4 suffered from blood-spitting and 4 from catar It is, moreover, related by Dr. Parkes that in the badly ve tilated prison, the Leopoldstadt of Vienna, the consumpti death-rate was (1834-1847) 51.4 per 1,000, while in the we ventilated House of Correction in the same city only 7.9 di from phthisis.

The direction which our efforts should take is here clear indicated. It may not commend itself to the enthusiast w is on the look-out for royal roads, but it is the only way, a so long as science is defined as the systematization of kno ledge it is the scientific way and on every account to be p ferred to tentative methods, be they ever so plausible.—I a etc.,

Nottingham, Feb. 18th. EDWARD DEAN MARRIOTT

COMPLETE PROSTATECTOMY.

SIR,—The letters from Mr. Herring and Dr. Young, in t BRITISH MEDICAL JOURNAL of February 13th, call for answer from those who differ from their conclusions.

Mr. Herring considers that practically the only conditi which calls for active surgical interference is sepsis, t this sepsis of the urinary tract is almost always due to sep instrumentation, and that by the practice of sterile cathete zation the occurrence of septic infection is prevented and t need for operative treatment of enlargement of the prost reduced to very small dimensions. Mr. Herring has co pletely ignored such conditions as vesical stone complicati prostatic enlargement, and the frequent recurrence of calcu formation in bladders with an obstructed outlet. It must remembered that stones do not always form *ab initio* the bladder, and that renal stones are trapped by an enlarg prostate, whereas they would probably escape with ease fr a normal bladder. Furthermore, these cases are complet cured by removal of stone and prostate at one operati whilst Mr. Herring will probably allow that they are amon the most unsuitable for litholapaxy.

The operation of prostatectomy is called for when haem rhage complicates catheterism, however gently performed. condition of great urgency not uncommonly results from passive bleeding which takes place from the prosta although catheterism may have been easy and the ur bright and clear.

Mr. Herring does not mention those cases in whi owing to the character of the enlargement catheterization most difficult even to a skilled surgeon, and much more the patient himself, whilst some men are naturally maladroit that they find self-instrumentation anything but easy matter, even when there is no particular difficulty t

[1] *State Medicine*, February, 1904, p. 127.

urgeon. I could elaborate this line of argument did space ermit, but let us grant Mr. Herring's postulate, and admit iat if sterile catheterization is practised the need for peration disappears. What chance have we of securing this ssential condition for success? I answer that in 90 per cent. e have no chance.

All credit is due to Mr. Herring for his insistence upon the ecessity for asepsis in urethral instrumentation. There is no oubt that all varieties of bougies and catheters can be ren-ered sterile, but when he asserts that by teaching patients ow to do this, how to pass their instruments, and by pplying them with these instruments he can secure urinary epsis an involuntary smile, I should imagine, must rise to e face of every practical surgeon who has to deal largely th such cases.

When we have to deal only with educated men of leisure e thing is possible, but the majority of people are anything t men of leisure, and even if the average working-man could ord the dozen or so instruments per annum necessary for eptic catheterism, we cannot change his essentially careless tlook with regard to such matters, any more than we can er the nature of his employment and environment which many cases forbids the successful accomplishment of what er all is a bacteriological experiment, as is every surgical eration where asepsis is attempted.

Turning to Mr. Herring's outlook upon the pathology of statie enlargement, one is struck by his apparent belief t prostatitis and hypertrophy are one and the same thing. ue hypertrophy of the prostate is excessively rare, and operation of prostatectomy is seldom performed for lammation of the gland.

Dr. Young's letter appears to be an eulogy of the recent icles of Messrs. Wallace and Albarran and Motz. The ential point in the latter article is that the cleavage takes ce between a layer of compressed gland substance on the side and the adenomatous mass within, thus leaving a ll of prostate lining the cavity. I should like to assure Young that if the operation is performed properly nothing re than a few adenomatous nodules can be found in the ity wall after operation and sometimes not even these. It is entirely a question of correct or incorrect performance of operation. But after all, the prostatectomy is sufficiently plete to satisfy any but the most captious critic, and ers entirely from the old method of piecemeal removal by cleation.—I am, etc.,

London, W., Feb. 22nd. JOHN PARDOE, F.R.C.S.

THE TREATMENT OF PNEUMONIA.

R,—"Just for the fun of the thing," as Dr. Barr expresses et me "remind him of a fact of which he is no doubt re, but which he seems to have forgotten," that if the t heart is, as he says, "a reservoir at the bottom of the am," it is a reservoir with distensible walls, and with a uous power of forcibly expelling its contents—qualities h are unusual in "reservoirs."

r. Barr cannot escape the force of Dr. McNamara's testi-y to the saving of life in two children who were dying m distended right heart by offering him gratuitous advice bit the treatment of his next case. One would have ght that after such a striking success in therapeutics r McNamara was more entitled to give advice than to ive it. And those who know something of the conditions life of many of the London poor, when they read the mmendation to "put such cases in the best room in the se," will be conscious of sharing in the amusement which pleasant to hear that Dr. Barr has found in this corre-dence.—I am, etc.,

London, W., Feb. 22nd. D. B. LEES.

Sir,—I hope my fellow-culprits are at one with me in their preciation of the honour Dr. Barr has done us in deigning reply to our effusions. I for one should not dream of be-rging him any fraction of the amusement he has derived of the controversy. On the contrary, I have read his er remarks on the subject of oxygen inhalations with derable interest and some profit I hope. Still the sub-ct is in itself somewhat serious, inasmuch as the treatment pneumonia is unhappily for the most part productive of t benefit to our patients or satisfaction to ourselves. I assure Dr. Barr that we are quite open to conviction on subject, and that when evidence is forthcoming to the t that compressed air will give the same relief to a cyanosed patient as, in our opinion, compressed oxygen gives, we shall gladly avail ourselves of the substitute.

I am, of course, aware of the fact that diminished aërating surface is a serious element in the production of cyanosis, especially in infantile cases of double pneumonia. Still, as the absorption of oxygen and its combination with haemoglobin is in part a function of temperature and of the percentage of oxygen in the inspired air, it certainly seems reasonable to infer that by increasing that percentage we can neutralize the dissociating effect of high temperature and enhance the oxygenation of the haemoglobin circulating in the sound portions of the lung. And that seems a desirable effect. It has sometimes occurred to me that the inhalation of pure oxygen may have an irritant or corrosive effect on tissues predisposed to inflammation, and I venture therefore to suggest that a mixture of oxygen and nitrogen in about equal proportions might give better results than either ordinary compressed air or oxygen alone.

However, I notice that Dr. Barr occasionally prescribes oxygen himself, and that being so the difference of opinion between us does not amount to much. That oxygen too often fails to give more than temporary relief is unhappily too true—the point is that there are so few methods of treating pneumonia that do even that.—I am, etc.,

Bath, Feb. 20th. C. J. WHITBY.

Sir,—Dr. Barr treats my clinical observations with some contempt, owing to the increase in arterial tension which was noted. The patient in question was about 11 st. in weight; about 14 oz. of blood were withdrawn, equal to about $\frac{1}{176}$ of body weight. Under the circumstances, Dr. Barr will pardon me for reminding him of a fact which he appears to have forgotten. It has been experimentally demonstrated that animals, for example, the dog, may be bled to an amount equal to $\frac{1}{37}$ of body weight without affecting the blood pressure; and further, that after a slight loss of blood the pressure may even rise (Worm Müller). The important practical deduction from such experiments is that arterial blood pressure is not directly diminished by moderate blood-letting. If Dr. Barr will take the trouble to refer to the case again,[1] he will see that strychnine and brandy were injected prior to the observations recorded.

I suggest, therefore, that Dr. Barr, unless he has other and more cogent reasons for rejecting my observations, is hardly warranted in doing so on the ground of increased arterial tension.—I am, etc,,

Manchester, Feb. 23rd. J. STAVELEY DICK, M.B. (R.U.I.).

*** It does not seem necessary to prolong this correspondence.

ROYAL NAVY AND ARMY MEDICAL SERVICES.

ROYAL NAVY MEDICAL SERVICE.

STAFF SURGEONS J. H. ACHESON, M.B., J. MCELWEE, M.B., D. HARVEY, M.B., R. T. A. LEVINGE, B.A., J. C. FERGUSON, M.B., B.A., and E. P. MOURILYAN, M.B., are promoted to be Fleet Surgeons, February 22nd. Their first commissions are dated February 22nd, 1888; as Staff Surgeons, February 22nd, 1896. Fleet Surgeon Acheson landed with the Naval Brigade for the punitive expedition against King Koko, of Nimby, the chief town of Brass, on the River Niger, February, 1895 (medal with clasp); also with the Naval Brigade at Mombasa for the punishment of Mburuk, a rebellious Arab chief, resulting in the capture of his stronghold, M'weli, in August, 1895 (mentioned in dispatches, "M'weli, 1895," engraved on rim of General Africa Medal). Fleet Surgeon McElwee landed with the Naval Brigade in the expedition up the Gambia in 1891-2, resulting in the capture of Tambi and Tomataba (medal with clasp). Fleet Surgeon Levinge served in the punitive expedition landed to punish the King of Benin for the massacre of the political expedition, ending in the capture of Benin City in 1897; on Lieutenant-Commander Pritchard being shot, Dr. Levinge took command and behaved admirably (mentioned in dispatches, medal with clasp). Fleet Surgeon Mourilyan was with Captain Bearcroft's Naval Brigade in 1900 from Modder River to Kroonstad. The other officers mentioned have no war record.

Fleet Surgeon JAMES MCC. MARTIN, D.S.O., is placed on the retired list at his own request, with the rank of Deputy-Inspector-General, February 16th. His commissions are thus dated: Surgeon, August 28th, 1882; Staff Surgeon, August 28th, 1894; and Fleet Surgeon, August 28th, 1898. He served with the expedition sent against the King of Benin for the massacre of the political expedition in 1897, and was at the capture of Benin city; he carried Dr. Fyfe when wounded off the field (mentioned in dispatches, made a Companion of the Distinguished Service Order, and received medal with clasp).

Inspector-General J. W. FISHER, M.D., is placed on the retired list at his own request, February 18th. He was appointed Surgeon, January 14th, 1868; Staff Surgeon, March 31st, 1874; Fleet Surgeon, September 2nd, 1882; Deputy-Inspector-General, May 30th, 1892; and Inspector-General, March 9th, 1898. He was present at the action against Ashantees in 1873; attached to the Naval Brigade, he was present at every action of the brigade, and was specially mentioned for services under fire at Amoaful (promoted), specially mentioned in military dispatches (medal with

[1] BRITISH MEDICAL JOURNAL, January 9th, 1904, p. 105.

clasp). He was in medical charge of the Royal Naval Hospital, Port Royal, Jamaica, during the epidemic of yellow fever, 1897; was requested to join the Central Board of Health during the absence on leave of the Principal Colonial Medical Officer, and received the thanks of the Governor of Jamaica for his services to the island during the epidemic.

The following appointments have been made at the Admiralty: James H. Beattie, Fleet Surgeon, and Robert Kennedy, M.B., Surgeon, to the *Andromeda*, March 1st; Donald T. Hoskyn, Fleet Surgeon, and Alworth E. Merewether, M.B., and William K. D. Breton, Surgeons, to the *Crescent*, February 25th; Henry W. Finlayson, Staff Surgeon, to the *Scylla*, undated; Robert L. Dickinson, Surgeon, to the *St. Vincent*, February 28th; John Martin, Surgeon, to the *Scylla*, February 17th, and to the *Terpsichore*, on recommissioning; Hugh W. Macnamara, Fleet Surgeon, to the *President*, for three months' hospital study, March 1st; Hubert Holyoak, Fleet Surgeon, to the *Resolution*, March 1st.

THE DEFECTS OF THE NAVAL MEDICAL SERVICE.

Mr. Gerald Sichel (Guy's Hospital) writes: Thank you very much for kindly enlightening me in my error as regards entry into the Royal Naval Medical Service. I have done what you advised and referred to the last quarterly Navy List—namely, October, 1903. There I find the numbers stated as follows:

Establishment.		Number actually on Active List.	
Inspector-Generals and Deputy-Inspector-Generals	19	Inspector-Generals	4
		Deputy-Inspector-Generals	14
Fleet Surgeons, Staff Surgeons, and Surgeons ...	525	Fleet Surgeons	65
		Staff Surgeons	129
		Surgeons...	274
Total	544	Total	486

This shows a shortage of, or vacancies for, 58 medical officers. For these 58 vacancies there were in May last 22 candidates for a number of commissions, which was not advertised, and of which presumably they (the candidates) were ignorant. After the examination it is stated that 15 candidates have been successful, and the public is informed that the competition is 3 candidates for every 2 posts.

I take it, as particulars are not yet published, that I am considered premature in criticizing the results of the last examination, although I see you quote them, if you will allow me to say so, to controvert my contention. The fact remains, as has so often been pointed out before, that figures may prove anything; and the above only proves to the hilt how utterly hopeless it is to effect any reform in a Government department when bare figures alone, at the discretion of red tape, are published for the benefit of the public, who after all pays the piper.

On the figures which you published, if I knew no better, I should say, "Why, if competition is so keen that three men are struggling for every two vacancies; why, I say, should their lordships consider it necessary to introduce the extensive quicker promotion scheme which they have lately done? Why should the service still be shorthanded even by ten or twenty men? Why are not the number of vacancies to be competed for advertised?"

I very much fear that the answer to my letter was dictated by one who held a brief for red tape and falsely-named conservatism. So long as conservatism deals with only the grand traditions and *esprit-de-corps* of the navy I am with it; for why else did I enter the service? But when it takes red tape (with all its obstruction to modern science) under its wing, I am—as the Irishman said—"agin" it.

The Naval Medical Service is in an unsatisfactory and discontented state. This I must ask you to accept on my own statement at present, and as a late member of the teaching staff in the Naval Medical School, Haslar, and a present unit of the junior staff at Guy's, I trust my word will be accepted.

Until thorough investigation and reform are instituted I shall continue, in season and out of season, to reiterate that to render the Naval Medical Service efficient—

1. The Medical Director-General must be removed from under the thumb of the Junior Lord, and in fact be made a Lord of the Admiralty for medical questions.
2. Medical surveys must be under the presidency of a medical officer, not an executive.
3. The question of war promotion as against professional merit promotion must be reconsidered.
4. Specialism must be instituted.

Then, when we are likewise put in control of our own affairs, the navy will know that it may depend on the medical profession in any emergency.

Personally, I would desire to record my great sense of indebtedness to Sir Henry Norbury, but as to the system under which he is as helpless as the most junior surgeon, words of mine are not strong enough to condemn.

*** We may remind Mr. Sichel that we did not state that the competition is at the present time 3 to 2. What we said was that it was so at a certain examination, that examination being the latest of which full particulars had been received, and also the latest in point of time at the date of the return made to the General Medical Council. Nor did we suggest that Mr. Sichel should try to find out what vacancies there were at the date of an examination in May by looking at a Navy List dated five months later. We merely told him that if he wished to find out what shortage there was in the Naval Medical Service—a matter about which he implied there was a great mystery—he had only to look in the last Navy List to find out. By adopting this simple plan we ourselves had been led to conclude that on the day after the last examination (November) there must have been a shortage of some 14 or 15 officers. It is not just to the naval authorities, or even accurate, to state that the public is told nothing more than that so many candidates were successful, and that the competition was so much to so much; the particulars given of the examinations are very full. Mr. Sichel is inaccurate in stating that the October list "shows a shortage of, or vacancies for, 58 officers." He appears to have arrived at that result by leaving out the officers accepted for service and at that time undergoing instruction at Haslar. The names of these are in the list, and they form an integral part of the authorized establishment of 544 officers. We may assure Mr. Sichel that the reply to his letter was not "dictated by one who holds a brief for red-tape and falsely-named conservatism." We venture to think that no cause is likely to be advanced by inaccurate statements and overcoloured pictures.

ARMY MEDICAL STAFF.

Brigade-Surgeon William Henry Harris died on February 16th, aged 7[illegible]. He was made Assistant Surgeon, March 10th, 1855; Surgeon, February 15th, 1868; Surgeon-Major, without date; and Honorary Brigade Surgeon on retirement, September 11th, 1880. He was in the Crimean war in 185[illegible], including the siege and fall of Sebastopol, the attack on the Redan on June 18th, and the battle of the Tchernaya (medal with clasp and Turkish medal); he was also in the Indian Mutiny campaign of 1857-8, being present in the operations before Calpee, the capture of Lucknow, the surrender of the forts of Ahmatee and Shunkerpore, and the subsequent operations in Oude (medal).

ROYAL ARMY MEDICAL CORPS.

The date of the promotion of Lieutenant-Colonel J. F. Williamson, M.B., C.M.G., is November 20th, 1903, and not as stated in the *Gazette* of December 22nd, 1903.

The date of the reversion from the seconded list of Captain T. H. M. Clarke, C.M.G., D.S.O., is November 23rd, 1903, and not as stated in the *Gazette* of December 15th, 1903.

Lieutenant A. C. H. Gray, M.B., is seconded for service under the Foreign Office, February 4th.

Brevet-Major A. F. Tyrrell is placed on half-pay on account of ill-health, February 11th. He joined as Surgeon-Lieutenant, July 27th, 1892, and was made Surgeon Captain, July 27th, 1895. He was in the campaign on the North-West Frontier of India in 1897-8 with the Malakand Force (medal with clasp). During the recent war in South Africa he was Orderly Officer to the Principal Medical Officer in South Africa; he was mentioned in dispatches, made Brevet Major, and received the King's medal with two clasps.

The undermentioned Lieutenants, whose first commissions date from January 29th, 1901, are promoted to be Captains, from January 29th, 1904: A. J. W. Wells, G. F. Sheehan, H. H. Scott, M.B., H. A. Bransbury, M. W. Falkner, R. N. Woodley, E. Ryan, E. E. Parkes, M.B., J. Roche, A. J. Hull, R. V. Corvey, J. Conway, J. H. Barboub, M.B., F. E. Robinson, M.B., S. Mason, J. S. Bostock, M.B., and A. H. Mc Mitchell.

Lieutenant-Colonel J. G. Harwood, who is serving in the Bombay Command, is granted the temporary rank of Colonel while officiating as Principal Medical Officer of the Poona District, *vice* Colonel W. Saunders, C.B., transferred to the Bengal Command.

ARMY MEDICAL RESERVE.

Surgeon-Lieutenant V. Graham, 2nd Volunteer Battalion the York and Lancaster Regiment, to be Surgeon-Lieutenant, February 20th.

Surgeon-Lieutenant N. P. Watt to be Surgeon-Major, February 13th.

The notification which appeared in the *London Gazette* of February [illegible] stating that Surgeon-Captain W. P. Peake ceased to belong to the Army Medical Reserve is cancelled.

INDIAN MEDICAL SERVICE.

Lieutenant-Colonel H. K. McMay, C.I.E., Bengal Establishment, appointed to officiate as Principal Medical Officer, Presidency District.

ROYAL NAVY VOLUNTEER RESERVE.

Messrs. Edward J. Reegman, M.B., B.S., D.P.H., and Herbert R. Powell, M.R.C.S., L.R.C.P., have been appointed Surgeons, and have been attached to the London Division, February 13th.

HOSPITAL AND DISPENSARY MANAGEMENT

QUEEN CHARLOTTE'S HOSPITAL, LONDON.

The report of the Committee of Queen Charlotte's Lying-in Hospital, [illegible]sented at the annual meeting of subscribers on February 22nd, shows that arrangements had been made so as fully to meet the training regulations of the Central Midwives Board. In view of the increase in the number of in-patients to 1,445, and of women attended at their own homes to 1,577, the Committee desire to enlarge the accommodation for nurses at an estimated cost of £2,000. The income for the year, including a donation of £500 from King Edward's Hospital Fund, fell short of expenditure by £995.

WARNEFORD ASYLUM, OXFORD.

This institution was established in 1826 and contains 100 beds. It is to a certain extent endowed, the chief revenue being from the Warneford Bequests, but these are unfortunately diminishing, and have now reached the amount of about £300 a year. The amount received from patients during the year 1902 was £7,306 11s. 6d., being an increase on that received in any previous year, and the year closed with a balance of £1,879 10s. in hand.

During the year 31 patients were admitted, 150 discharged, and the recovery-rate reached the satisfactory figure of 53.6 per cent., including both sexes, calculated upon the number admitted, which Dr. Neil says reached the highest number for any one year in the history of the hospital.

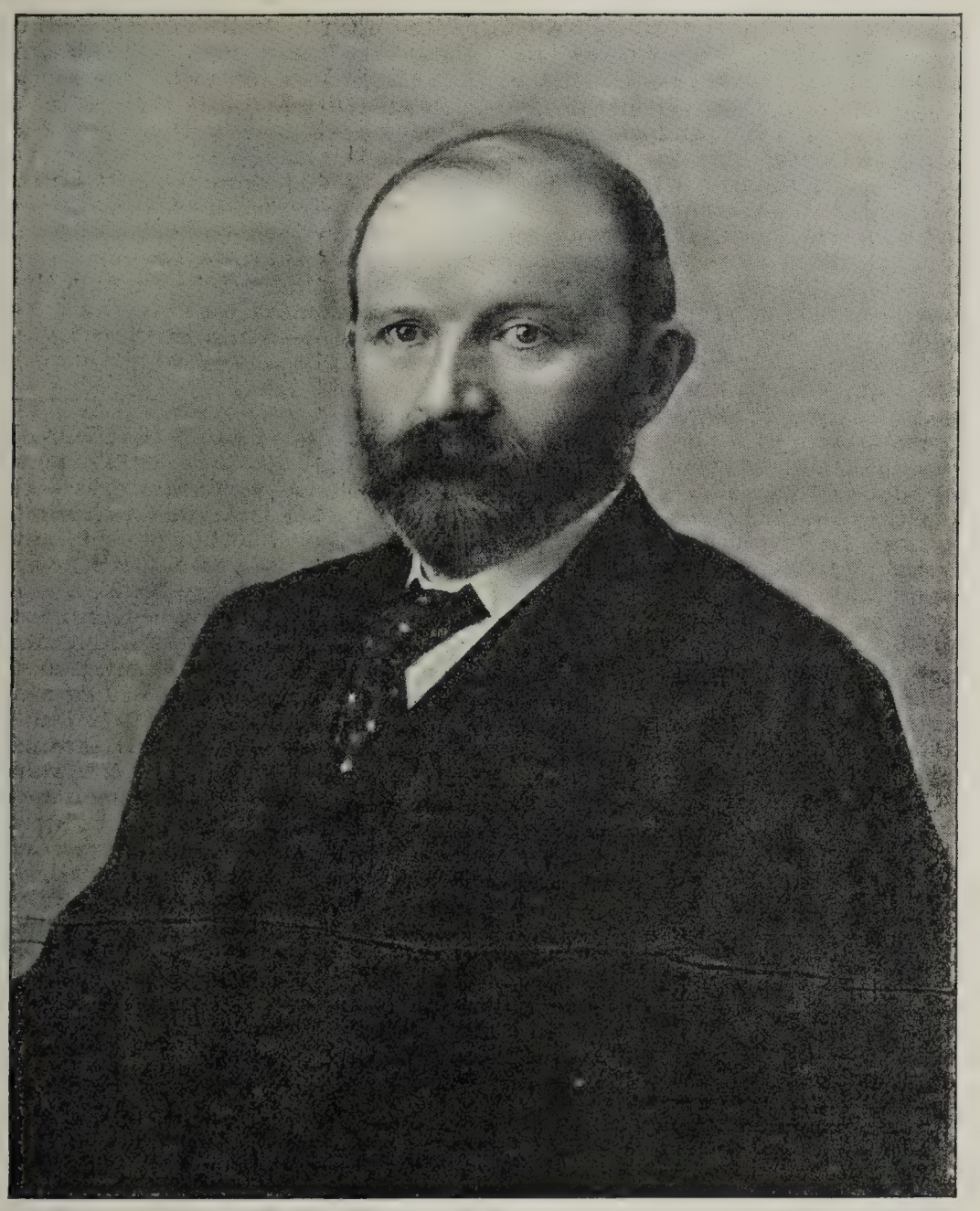
The Commissioners in Lunacy, whose report upon the hospital and its management is very favourable, state that as to the payments by patients that for 34 the payments are at or under 20s. a week, for 31 they range from that amount to 30s. a week, and for 35 they range from 30s. to 42s., the remainder paying over that sum; and they conclude their report with the satisfactory statement "it is evident that the hospital is not disregarding its functions as a charitable institution."

OBITUARY.

ROBERT MILNE MURRAY, M.A.ST. AND., M.D.EDIN., F.R.C.P.E., F.R.S.E.,

Physician, Royal Maternity and Simpson Memorial Hospital; Assistant Gynaecologist, Royal Infirmary; and Lecturer on Midwifery and Diseases of Women, Edinburgh School of Medicine.

The death of Dr. Milne Murray, of Edinburgh, at the early age of 48, was briefly announced last week. In November, while he went to see an invalid in the country, and got a chill while driving in an open carriage. Pneumonia followed. From this he rallied, though pulmonary symptoms did not disappear. He went first to the South of England, and later to Italy and Switzerland, in the hope that more genial climates might help him. He was most unfortunate in the weather at several of the places he visited, and the hope of recovery was not realised. He came home in November, but As his condition was far from satisfactory it was resolved as a last resort to resect portions of several ribs. This was done on Sunday, February 14th. He bore the anaesthetic badly, and died of heart failure some hours after. There was progressive cavity formation, in the middle and lower lobes of the right lung.



Robert Milne Murray was born at Fetteresso, Kincardineshire, on May 6th, 1855. His father was a schoolmaster—one of those highly educated and cultured men who in past days did so much for the education of Scotland. On his father's death he went to the University of St. Andrews, where, after a distinguished course, he graduated as Master of Arts in 1875. At St. Andrews he first manifested his deep interest in scientific studies, and as a student became Assistant to Professor Heddle in the department of Chemistry. From St. Andrews he went provided with a considerable knowledge of chemistry, geology, and mineralogy to the University of Edinburgh to enter on the study of medicine. After a brilliant career as a student he graduated with first-class honours in 1879. He at once became assistant to Dr. J. Halliday Croom, and thus began his devotion to obstetrics and gynaecology, and his striking success as a teacher. In 1886 he became a Fellow of the Royal College of Physicians of Edinburgh, and in the same year began to lecture on midwifery and diseases of women in the Extramural School of Edinburgh. His class soon became the largest and most successful in the school. In the session 1902-3 he reached his best class with over 130 students, but by the cruel irony of destiny he was only able to lecture for a few weeks. He was a born teacher. The best students, the most earnest, went to his class. He, along with several of his colleagues, established the New School as an integral part of the School of Medicine of the Royal Colleges.

In the department of midwifery he was most accomplished. No one could excel his manipulative skill in the use of the forceps in a difficult case. He did not at once take to operative procedure in gynaecology, though as assistant to Sir Halliday Croom he had had a long and valuable training. When he did, he at once asserted himself as a highly dexterous, skilful, and successful operator. His consulting and operative work had at the time of his illness grown to such an extent as to engross all his available time.

He was a Fellow of the Royal Society of Edinburgh, of the Obstetrical Society of London, of the Royal Physical Society of Edinburgh: he had been President of the Edinburgh Obstetrical Society, Vice-President of the British Gynaecological Society, Vice-President of the Royal Scottish Society of Arts, as well as a Member and Fellow of various other scientific societies. He was one of the Physicians of the Royal Maternity and Simpson Memorial Hospital, Edinburgh; Assistant Gynaecologist to the Royal Infirmary, Edinburgh; Examiner in Midwifery to the Royal College of Physicians of Edinburgh, to the University of Durham, and to the Indian Medical Service.

His contributions to medical literature were many. His earliest was *Chemical Notes and Equations*. It was followed in 1881 by a paper On a Form of *Post-partum* Incontinence of Urine, and its Treatment by Faradism; in 1882, A Difficult Face Case complicated with Shoulder Dystocia; Cessation of Respiration under Chloroform, and its Restoration, 1885; Physiological and Therapeutic Actions of Water at Different Temperatures, 1886; Effects of Compression on Shape of Fetal head, 1888; Treatment of Pelvic Disease by Electricity, 1890; The Axis Traction Forceps, 1896; Adjustable Axis-Traction Forceps, 1896; Deflection and Rotation of the Pregnant Uterus, 1897; Relative Advantages of Forceps and Version, 1896; and Spontaneous Rupture of Uterus in vol. i of the *Journal of Obstetrics and Gynaecology*. He had begun writing a textbook of obstetrics for Pentland's Medical Series, but his long illness prevented his making much progress, and it is doubtful whether it can now be published with the impress of his personality.

Dr. Milne Murray often said that the highest excellence in any line of life was attained only by those who cultivated other interests beyond that of their immediate profession. He was himself a living illustration of its truth. He was a many-sided and versatile man. He knew something of everything and much of many things. Reference has already been made to his knowledge of chemistry, mineralogy, and geology. But that was not all. His knowledge of electrical science, electrical apparatus, and methods of electrical treatment was so extensive and so detailed as to justify his place in the front rank of workers in that department of science. He had himself not only devised, but made with his own hands, a large number

of electrical instruments. His switchboard, for instance, for medical investigation and treatment is used throughout the kingdom. Nor is it superseded by any of the more complex and costly switchboards of France and Germany. It was like the man that he secured no patents. He was constantly consulted by the leading makers of such apparatus in Great Britain and on the Continent, and his advice was at everybody's disposal. A visit to his private laboratory in Rutland Square was an educational treat. It was full of all kinds of ingenious electrical contrivances. The managers of the Edinburgh Royal Infirmary appointed him the first electrician to that institution, and it was under his supervision that the electrical installation for lighting and medical and surgical treatment was carried out.

He was passionately devoted to music, and could play several instruments; his favourite was the flute. His taste in music was, like his taste in everything, pure and correct. He was an accomplished mathematician and a skilled draughtsman. He had a wide and accurate knowledge of the best in English literature, as well as in the literature of France and Germany. He continued to read *Horace* and *Lucretius*. He never missed on Saturday evenings the *Athenæum*, of the literary judgements of which he had a very high opinion. He used to be a keen fisher and golfer, but latterly he devoted his holidays to Continental travel.

No medical man in the city of Edinburgh was so much beloved, not only by those who were his patients, but by the members of his own profession. He loved, and was loved by, people the most various in age, in intellect, and in station. He had no enemies; and no wonder, for he was the most genial of men, he was so pleasant, so simple, so frank, so straightforward, so friendly, so sympathetic, so ready to help everybody. He disliked ostentation and self-seeking. He had no commercial instinct. Forgetful of the possibilities of his own time and strength, he gave himself without stint to all. He was a true and staunch friend. With his sympathy, his counsel, and his help he stood loyally by his friends in the time of their adversity. Guileless himself, he was unwilling to see evil in any one. He looked at the good, and ignored the corners and asperities. He often differed from men, and strongly criticized their opinions and their actions, but there was never the semblance of personal animus. His nature was full of sunshine and kindness. In his last Continental journey, ill and depressed as he was after severe and repeated haemorrhages, he yet was thoughtful enough to procure in the St. Gothard Pass a beautiful specimen of quartzite for the writer's private geological collection. The action was essentially characteristic of Murray. He thought about everybody but himself.

His unexpected death has illuminated a character noble in its self-forgetfulness, heroic in its fortitude, pathetic in its isolation from long illness, and stoic in its submission to the inexorable. He occupied a unique place in his profession and in the affection of his fellows, and his too early death leaves a vast blank. Who shall fill it?

The funeral on February 18th was an eloquent tribute to the affection in which he was held. The great mass of the medical profession of Edinburgh was present, as were men from all parts of England and Scotland. Both at the service in the house and at the grave many men well schooled in hiding their emotions found it a hard task to refrain from breaking down.

His widow, aged mother, and brother will have the deepest sympathy of a wide circle of friends.

ALEXANDER ROLLETT, M.D.,

Professor of Physiology at Graz.

WE take from the tribute paid by Professor G. Zoth, of Innsbruck, a faithful and devoted pupil of the late Professor Rollett, the following particulars of the great physiologist's life.

Alexander Rollett was born near Vienna in 1834. He entered the Vienna School of Medicine, where he had for teachers Rokitansky, Skoda, Hyrtl, Oppolzer, Arlt, Ludwig, and Brücke. He became Assistant to Brücke in 1857, at a time when the two great stars in the Vienna firmament were Ludwig and Brücke. He remained Assistant until 1863, when he was appointed to the Professorship of Physiology and Histology in Graz. He began with practically no laboratory, and only fifteen pupils. The quality of his work, and the growth of the Medical School, forced the Government to give him an Institute, which was begun in 1870. A man of great intellectual and physical vigour, admirably trained t technique, and a profound mathematician, his work bears t stamp of accurate scientific investigation, and thorou probing of the question in hand.

Rollett was a power in his adopted city. He was four tim Rector, and his influence and wise counsels did much to devel the University of the "Green Steurmarkt," as the Styria like to call their pleasant land.

Rollett's work ranges over a wide field. In the first perio 1861-81, it was mainly concerned with the blood. This wo has become classical, and is found in every textbook. ' English readers it is best known through Stricker's *Ha book*; to physiologists by his elaborate articles in Herman *Handbuch*. The famous "muscle period" covers the peri 1874-98. Few who have written on striped-muscle structu have added so much to this subject as Rollett. Anoth chapter to which he contributed largely was that of phys logical optics.

His histological memoirs are numerous, and every stude of to-day knows the nomenclature of the cardiac gast glands—delomorphous and adelomorphous cells. Perha Rollett had in his mind the story of the famous Island Delos when he coined the word. In any case, round De Delos hangs a pretty tale of the loves of a god and the jealousy a goddess. In 1876 he discovered sensory nerve-endings the tendon of the radio-sternal muscle of the frog. Roll has left a full record of work accomplished; he has form a School of Physiology, with many disciples who studied a worked under him.

Although invited to occupy the corresponding chair Prague he remained in Styria. The one event in his acaden life which cost him a severe pang was when the successor his master, Brücke, was appointed.

CHARLES GODSON, F.R.C.S.ENG.

WE regret to have to record the death of Mr. Charles Gods which occurred at Ealing on February 6th. Mr. Godson the time of his death was within a few months of his eigh fifth year, and although, as he retired from the pro sion to enjoy a well-earned rest some twenty years a he was little known to those now in active practi he was in his day highly thought of by his friends G Jenner, Ferguson, Paget, Erichsen, Pollock, and other le ing men of the past generation. Born at Heckington, Lincolnshire, in June, 1819, he was, on leaving school in 1 apprenticed by his father, Mr. Richard Godson, to William Wade, of the Westminster Dispensary, Gerr Street, Soho, surgeon apothecary and man-midwife (as h described in the indenture of apprenticeship) for the term of five years. During this time he was to reside w Mr. Wade and attend the dissections, lectures, practice of the dispensary, and in addition to receive inst tion at St. George's Hospital. In 1840, when 21 years of he received the licence of the Society of Apothecaries and diploma of the Royal College of Surgeons of England which body he was afterwards elected a honorary fell Two years later he married and settled down at Barnet wh he purchased a practice. There he held the appointment medical officer to the Barnet Union Infirmary and to Enfield Districts of the Edmonton Union, and was Divisional Surgeon of the Metropolitan Police, Med Officer to the Great Northern Railway and to the Lea Sellers' Company, and Surgeon of the Militia Battalion of 2nd Royal Middlesex Rifle Regiment.

In 1878 he sold his practice at Barnet and removed London. He continued to practise in South Kensington some years before his final retirement to Ealing, where genial character and thorough kindness of heart secured him the same affectionate esteem from all who knew which he had enjoyed throughout his career elsewhere. regards his professional work the best evidence will be fo in vol. xviii of the *Transactions of the Obstetrical Societ London* (1877), in which there is a paper entitled "Midwi Statistics of Thirty-five Years' Practice compiled by Clem Godson from the records of his father, Charles God F.R.C.S." It contains a record of 3,223 confinements ducted by Mr. Charles Godson with only 7 deaths or 1 in The way in which the details of the cases are recorded br out clearly the care and scientific acumen which Mr. Go brought to bear upon his work, and fully accounts fo position he occupied while in general practice at Ba where his opinions were highly valued not only by his patients but also by all medical men who resided within a

uit of that centre, and who constantly called upon him to t them in the diagnosis and management of difficult and tful cases.

J. SMITH TURNER, M.R.C.S., L.D.S.ENG.

he death of Mr. Smith Turner the dental profession has one of its best-known leaders—one who will long be ed, for his strong individuality was such as cannot y be matched. A fluent and effective speaker, he was led in his opinions, and fearlessly outspoken in giving ession to them. Himself always actuated by a straightrd singleness of purpose, and given to taking a wide liberal view, he was somewhat intolerant of narrowness inion in others, and more especially of anything which eemed to savour of self-seeking; and though at times he t hit somewhat hard, it would be difficult to point to ingle occasion upon which his plain speaking was prove of anything but good. His father was well known in burgh, where Mr. Turner was born and educated, as an torn-law politician. But Mr. Turner was thrown upon wn resources very early in life, and supported himself me time by doing mechanical work for other dentists. equently he entered into partnership with a Mr. Bell, as soon as his means would allow, entered at the lesex Hospital and obtained the Membership of the l College of Surgeons, taking about the same time the tiateship in Dental Surgery, which had been instituted ong previously. He was appointed Assistant Dental on to the Middlesex Hospital in 1864, and Consulting al Surgeon on his retirement after a service of nineteen a.

en the movement which resulted in the passing of the sts Act in 1878 was commenced he threw himself into rt and soul, and under the leadership of the late Sir h Tomes unsparingly devoted his time and energies to its erance. Day after day he was to be found in the lobby e House of Commons, where his obvious sincerity and of character enabled him to influence many members; d, few realize how large a debt they owe to his efforts uring the passing of the Act. Thenceforward his interest ctivity in the public life of his branch of the profession flagged, and even during his last illness he dictated a acteristic letter on the granting of University degrees to ts, to which he was opposed, and even alluded to the r within a few hours of his death.

he formation of the British Dental Association, which modelled upon our own, he took a very active part; he s first Secretary, and later was its President and Chairof its representative Board. He served the office of ident of the Odontological Society, and for many years ed upon mechanical dentistry at the Dental Hospital of on, subsequently serving upon the Managing Committee t institution; in fine, at one time or other he occupied t every position of honour and responsibility which his ofession had to offer.

. Turner was born in 1832, and first came to London 3. He was twice married, leaving by his first wife a family. Some three years ago he married Miss Agnes formerly Principal of the Grey Training College for ers, who survives him.

the last few years his health had not been quite satisy, and some months ago he met with a street accident, appears to have shaken him considerably; for st two months he had been seriously ill. Now that reer is closed his friends can in all sincerity say of it—lone.

r distinguished Dutch physician, Dr. HENDRIK FRITS T PEYPERS, whose death was recently announced in the ISH MEDICAL JOURNAL, was born in 1855 and studied dine at Amsterdam where he was a pupil of Stokvis, ans, and Hertz. He obtained the licence to practice in nd took the degree of Doctor of Medicine in 1895, with elaborate dissertation on Syphilis in the Middle Ages, it was afterwards expanded into a monograph entitled *Veterum*. While still a student he had given much ion to the history and literature of medicine and he e author of various writings on questions related to those ts. In 1895, in conjunction with Professor Stokvis, he ed *Janus*, an international periodical devoted to medical logy and tropical diseases. In *Janus* Dr. Peypers ished a series of papers entitled *Circulus Therapiæ*. He man of wide knowledge and many accomplishments; a ophic thinker and a considerable linguist.

MEDICO-LEGAL AND MEDICO-ETHICAL.

LUNACY LAWS IN SCOTLAND.

THE medical practitioners of Dumbarton, Scotland, have raised a question of much importance in connexion with the lunacy law, and desire the opinion of the profession on the subject. It appears that for fully two years the Dumbarton parish council have had their lunatic paupers, or those unfortunate poor people who through becoming mentally unsound become for the time being paupers, removed to a lunatic asylum by only one medical certificate and an emergency one, both of them granted by the same medical man. Personally the medical men following their vocation there consider this action of the parish council wrong, and however careful the medical man may be—and there is not the smallest reason to think he is otherwise than most careful—who presents these certificates, they fear its continuance in all cases is likely to be fraught with danger to the lieges. Moreover, they feel that the removal in this manner of all lunatics—ten in number during the time mentioned—is not quite in keeping with the spirit if it even be with the lawful administration of the Lunacy Act; and they consider that the time has come for more than a remonstrance with the action of the parish council. Financially the parish council of Dumbarton save no money whatever by this action, but if anything incur a few shillings more expenses.

We consider that no emergency certificate should be granted except in a case of great urgency. The question affects not only the medical profession, but also the public generally.

A PROTEST AND DISCLAIMER.

DR. ROBERT HUTCHISON (London, W.) writes: My attention has been directed to a circular advertising a proprietary medicine which has been sent out to the profession, and in which my name appears very prominently. I desire to say that this wholly unwarrantable proceeding has been carried out without my knowledge or consent, that I know nothing whatever of the preparation concerned, and have written to the proprietors requesting them to discontinue issuing their circular at once.

LIABILITY FOR ATTENDANCE ON MINORS.

A CORRESPONDENT writes that he was called to see a young gentleman staying with friends in his neighbourhood. The parents of the patient now disclaim responsibility for the fees charged for his attendance. Has he any legal claim?

*** If our correspondent was called in by the patient and the latter is a minor his father is responsible for the cost of medical attendance. If called in by the friends with whom the patient was staying, they also might be charged, unless they professed at the time to act only as agents for the patient.

PARTNERSHIP ACCOUNTS.

A. AND B. are in partnership, A. being entitled to a share of two-thirds, and B. to one-third. On January 1st last B. by payment became an equal partner with A. Can B. claim to share equally with A. all the the receipts from January 1st?

*** B. should share equally with A. all payments for work done after January 1st. With regard to payments made for work done before B. became an equal partner with A., they ought to be divided between them in accordance with the partnership terms at the time when the work was done—that is, A. would be entitled to two-thirds and B. to one-third.

NOTICES OF MEDICAL MEN IN THE LAY PRESS.

ACTINOMYCOSIS sends an account of a "successful surgical operation" cut from a local newspaper. The matter will be referred to the Ethical Committee.

NAME PLATE ON CHEMIST'S PREMISES.

W. H. F. writes: As I have rooms for the sake of convenience with a local chemist, would there be any objection to my having a plate put on the front door of the house which is quite distinct from the shop?

*** If there is a bona-fide tenancy and the front door is, as our correspondent says, quite distinct from the shop, the arrangement may be permissible, but it is not desirable that medical practitioners should associate themselves with chemists by renting consulting rooms upon their premises.

UNIVERSITIES AND COLLEGES.

UNIVERSITY OF OXFORD.

Pathology at the B.M. Examination.

THE Board of the Faculty of Medicine issues a regulation that the *viva voce* examination, in the examination in Pathology for the B.M. degree, shall no longer take place during the Practical Examination, but shall be held as a separate part of the examination.

B.M. and B.Ch. Degrees.

By a statute just passed the University has instituted changes of importance in the Final Examination for the B.M., B.Ch. degrees. Hitherto the examination in Forensic Medicine and Public Health has been conducted by the examiners in Medicine, Surgery, and Midwifery; but in future there are to be two specially-appointed examiners for these subjects, and the examination will consist of a three hours' paper and a *viva voce* examination.

These subjects have also been placed on the same footing as pathology, in that a candidate may offer them at any time after he has passed the First B.M. Examination.

It has been enacted, further, that a time table of the days and hours of examinations for the B.M. degree shall be prepared by the Board of Faculty of Medicine in each Easter term for the ensuing academic year;

and that each examination shall begin on the Thursday of the eighth week of full term (Michaelmas or Easter as the case may be).

The medical examinations have also been made subject to the same supervision as the other public examinations of the University in that the conduct of the examiners in regard to the examinations is now brought under the control of the Vice-Chancellor and Proctors.

The Question of Exemption from Greek.

By very narrow majorities in a largely-attended house Congregation has recently passed resolutions to the following effect:

"That members of the University should not be required to have satisfied the masters of the schools in Greek before presenting themselves as candidates in the Honour Schools of Natural Science and Mathematics, provided that they have satisfied the masters of the schools in the matter allowed as a substitute for Greek."

"That the matter allowed as a substitute for Greek in responsions should comprise (*a*) a mathematical subject, to be determined by the Board of Faculty of Natural Science, subject to the approval of Convocation, or a scientific subject, to be determined by the Board of Faculty of Natural Science, subject to the approval of Convocation; (*b*) a modern language, namely, either French or German, the examination in either language comprising translations and composition, and candidates being required to reach a high standard of accuracy and proficiency."

This step will now be followed up by the formulation of statutes along the lines of the resolutions carried in Congregation. But not until such statutes have been submitted and approved in Congregation and subsequently in Convocation also can the suggested changes come into effect. In view of certain statements which have been published these facts are of importance, for it is still a matter a considerable doubt whether such statutes can obtain majorities in Convocation even should they be carried in Congregation.

UNIVERSITY OF CAMBRIDGE.

Tropical Medicine.—The Examiners for the University Diploma in Tropical Medicine are Dr. G. H. F. Nuttall, University Lecturer in Preventive Medicine, Sir Patrick Manson, K.C.M.G., F.R.S., and Professor Ronald Ross, C.B., F.R.S.

UNIVERSITY OF LONDON.

The Physiological Laboratory.

THE following are the provisional arrangements for lectures in the Physiological Laboratory at the University during the summer session. A course of eight lectures on physical chemistry will be given by Dr. R. A. Lehfeldt on Mondays at 5 p.m., beginning on May 9th, and a course of lectures on cytology by Professor J. B. Farmer, M.A., D.Sc., F.R.S., on days and at dates not yet fixed.

Pass Lists.

The following candidates have passed the Preliminary Scientific Examination for Internal Students as undernoted:

Chemistry and Biology.—A. N. Leeming, Guy's Hospital.

Biology and Experimental Physics.—A. F. Evans, London Hospital; T. S. Lukis, St. Bartholomew's Hospital; J. Pryce-Davies, Guy's Hospital.

Chemistry only.—A. L. Candler, St. Bartholomew's Hospital; R. T. Williams, St. Bartholomew's Hospital.

Experimental Physics only.—R. L. Crabb, University College; S. T. Davies, St. Bartholomew's Hospital; Annie Louise Jane Kann, London (Royal Free Hospital) School of Medicine for Women; Emily Clara Macirone, London (Royal Free Hospital) School of Medicine for Women.

Biology only.—Ethel Mary Connan, London (Royal Free Hospital) School of Medicine for Women; Mary Machin Hanson, London (Royal Free Hospital) School of Medicine for Women; P. Hirschbein, Guy's Hospital; A. W. Holthusen, St Bartholomew's Hospital; W. S. Kidd, Guy's Hospital; Mary Elizabeth Parsons, London (Royal Free Hospital) School of Medicine for Women; F. C. Shone, University College.

[N.B.—This list, published for the convenience of candidates, is issued subject to its approval by the Senate.]

The following candidates have passed the Preliminary Scientific Examination for external students as undernoted:

Entire Examination.—E. F. Ballard, Merchant Taylors' School.

Biology.—R. S. Barker, Westminster Hospital; J. Capell, St. Bartholomew's Hospital and private tuition, B. I. Cohen, St George's Hospital; Nina Gertrude Cotton, University Tutorial College; F. M. Courtney, St. Bartholomew's Hospital and Dulwich College; T. B. Davies, University College, Cardiff; Violet Evangeline Fox, University Tutorial College; H. Hingston, Merchant Taylors' School; H. I. Janmahomed, Guy's Hospital and private study; O. R. Kelly, Westminster Hospital; P. Lang, St. Bartholomew's Hospital; J. S. H. Lewis, University Tutorial College; Blanche Pattie Lindup, London (Royal Free Hospital) School of Medicine for Women; J. H. Meers, St. Mary's Hospital and University Tutorial College; J. Morris, City of London College; Constance A. Mortlock-Brown, Bedford College and Alwyne Institute; D. G. S. R. Oxley, London Hospital and Dulwich College; N. Prescott, University College; E. N. Snowden, St. Bartholomew's Hospital; Alice Dorothea Sparshatt, London (Royal Free Hospital) School of Medicine for Women; H. E. R. Stephens, Owens College; A. L. Weakley, St. Bartholomew's Hospital; C. S. Wink, St. Thomas's Hospital.

[N.B.—This list, published for the convenience of candidates, is issued subject to its approval by the Senate.]

The following candidates have passed the General Intermediate Examination in Medicine for internal students as undernoted:

Pass List.—G. F. E. Allison, Guy's Hospital; E. Balthasar, St. Mary's Hospital; S. J. A. Beale, London Hospital; Ella Beales, London (Royal Free Hospital) School of Medicine for Women; F. C. H. Bennett, St. Mary's Hospital; H. O. Blanford, St. Thomas's Hospital; W. R. Bristow, St. Thomas's Hospital; J. F. Broughton, University College; Hilda Margaret Byles, London (Royal Free Hospital) School of Medicine for Women; S. W. Daw, Guy's Hospital; A. E. Evans, University College; A. T. W. Forrester, St. Bartholomew's Hospital; Elisabeth Mary Gibbon, London (Royal Free Hospital) School of Medicine for Women; E. T. Glenny, St. Bartholomew's Hospital; G. M. W. Hodges, University College; H. E. Jones, London Hospital; Ethel May Magill, London (Royal Free Hospital) School of Medicine for Women; P. D. F. Magowan, Guy's Hospital; Emily Mary Spencer Mecredy, London (Royal Free Hospital) School of Medicine for Women; Sylvia May Moore, London (Royal Free Hospital) School of Medicine for Women; R. W. Newman, Westminster Hospital; C. M. Page, St. Thomas's Hospital; J. Paull, St. Bartholomew's Hospital; Eleanor Whitworth Perkins, London (Royal Free Hospital) School of Medicine for Women; J. Phillips, University College; A. H. Pollard, London Hospital; S. Rendall, St. Bartholomew's Hospital; R. J. Reynolds, Guy's Hospital; Nora Frances Smith, London (Royal Free Hospital) School of Medicine for Women; J. H. Spencer, Charing Cross Hospital; Grace Maud Stagg, London (Royal Free Hospital) School of Medicine for Women; C. A. Stidston, St. Bartholomew's Hospital; S. Tucker, St. Bartholomew's Hospital; S. W. J. Twigg, University College; Margaret Cordelia Vivian, London (Royal Free Hospital) School of Medicine for Women; Margaret Ida Waller, London (Royal Free Hospital) School of Medicine for Women; C. G. Welch, University College; Sibyl Ibbetson Welsh, London (Royal Free Hospital) School of Medicine for Women; E. D. Whittle, University College; E. Wragg, Guy's Hospital; A. Zorab, Guy's Hospital.

Special Examination in Organic Chemistry only.—S. H. C. Air, Guy's Hospital; Alicia Pears Aldous, London (Royal Free Hospital) School of Medicine for Women; Eileen Elizabeth Allen, London (Royal Free Hospital) School of Medicine for Women; C. J. Armstrong-Dash, St. Bartholomew's Hospital; L. T. Baker, Guy's Hospital; M. Ball, Guy's Hospital; Ella Mabel Barker, London (Royal Free Hospital) School of Medicine for Women; C. A. Basker, Guy's Hospital; Lilias Margaret Blackett, London (Royal Free Hospital) School of Medicine for Women; Sylvia Rose M. Blackstone, London (Royal Free Hospital) School of Medicine for Women; Mary Alice Blair, London (Royal Free Hospital) School of Medicine for Women; L. H. Booth, Charing Cross Hospital; Ethel Mary Brand, London (Royal Free Hospital) School of Medicine for Women; S. Brook, Guy's Hospital; Kate Brown, London (Royal Free Hospital) School of Medicine for Women; G. T. Burke, St. Bartholomew's Hospital; T. W. H. Burne, St. Bartholomew's Hospital; Burrows, London Hospital; Rhoda Hicks Butler, London (Royal Free Hospital) School of Medicine for Women; Muriel Constance Bywaters, London (Royal Free Hospital) School of Medicine for Women; D. H. Caine, St. Thomas's Hospital; A. Camacho, Charing Cross Hospital; T. E. A. Carr, Guy's Hospital; H. J. Cates, St. Bartholomew's Hospital; S. E. Cathcart, Middlesex Hospital; B. Cherrett, St. Bartholomew's Hospital; A. B. Coomber, St. George's Hospital; M. M. Cowasjee, Guy's Hospital; Winifred Julia Cox, London (Royal Free Hospital) School of Medicine for Women; Croft, Guy's Hospital; H. R. Davies, London Hospital; Eleanor Davies-Colley, London (Royal Free Hospital) School of Medicine for Women; Bella Dawson, London (Royal Free Hospital) School of Medicine for Women; A. F. W. Denning, Guy's Hospital; E. De Verteuil, St. Bartholomew's Hospital; K. H. Digby, Guy's Hospital; R. L. E. Downer, St. Bartholomew's Hospital; Gladys Margaret C. Dunbar, London (Royal Free Hospital) School of Medicine for Women; M. Fawkes, St. Bartholomew's Hospital; A. Fearnley, St. Bartholomew's Hospital; A. G. C. Findlay, University College; Margaret Fisher, London (Royal Free Hospital) School of Medicine for Women; S. F. Fouracre, Charing Cross Hospital; E. G. Gauntlett, King's College; H. L. Gauntlett, King's College; Gertrude Gazdar, London (Royal Free Hospital) School of Medicine for Women; E. W. Giesen, Guy's Hospital; F. Goodin, St. Bartholomew's Hospital; H. L. Grabham, St. Thomas's Hospital; Ethel Rosaline Griffiths, London (Royal Free Hospital) School of Medicine for Women; Edith Mary Guest, London (Royal Free Hospital) School of Medicine for Women; N. L. Guilfoi, King's College; J. M. Hammond, St. Bartholomew's Hospital; H. R. Harries, London Hospital; H. J. Henderson, Guy's Hospital; Susie Eleanor Hill, London (Royal Free Hospital) School of Medicine for Women; F. G. Hodder-Williams, St. Bartholomew's Hospital; M. J. Holgate, St. Bartholomew's Hospital; H. Houwin, University College; D. W. Hume, St. Bartholomew's Hospital; W. A. M. Jack, St. Thomas's Hospital; J. Johnson, London Hospital; E. R. Jones, St. Bartholomew's Hospital; Rose Fanny Jordan, London (Royal Free Hospital) School of Medicine for Women; Elsie Marian Layman, London (Royal Free Hospital) School of Medicine for Women; Elizabeth Herdman Lepper, London (Royal Free Hospital) School of Medicine for Women; C. Lovell, University College; E. L. W. Mandel, Guy's Hospital; J. B. Martin, Guy's Hospital; C. A. L. Mayer, Guy's Hospital; Marjorie Eva Middleton, London (Royal Free Hospital) School of Medicine for Women; H. L. Morgan, London Hospital; J. G. Morgan, London Hospital; Florence Muriel Morris, London (Royal Free Hospital) School of Medicine for Women; W. P. H. Mu[r]den, Guy's Hospital; A. T. Nankivell, St. Bartholomew's Hospital; H. Nockolds, University College; Ida Guinevere O'Donoghu[e], London (Royal Free Hospital) School of Medicine for Women; C. Paris, King's College; Catherine Payne, London (Royal Free Hospital) School of Medicine for Women; H. E. Perkins, Guy's Hospital; A. F. Perl, St. Bartholomew's Hospital; Ellen Mary Pickard, London (Royal Free Hospital) School of Medicine for Women; A. M. Pollard, King's College; Hilda Margaret Pollard, London (Royal Free Hospital) School of Medicine for Women; Lily Mary Potter, London (Royal Free Hospital) School of Medicine for Women; E. J. Price, University College; M. D. Price, Guy's Hospital; M. J. Rattray, Guy's Hospital; A. H. Rich, University College; Mona Dew Roberts, London (Royal Free Hospital) School of Medicine for Women; H. C. Samuel, Middlesex Hospital; A. Sanderson, St. Thomas's Hospital; F. C. Searle, St. Bartholomew's Hospital; Marie Simpson, London (Royal Free Hospital) School of Medicine for Women; J. T. Smalley, Guy's Hospital; Eliza Macdonald Smith, London (Royal Free Hospital) School of Medicine for Women; H. J. Smith, Guy's Hospital; F. Standish, London Hospital; G. F. Stebbing, Guy's Hospital; R. W. Stocks, St. Thomas's Hospital; H. Stott, Guy's Hospital; A. J. Symes, St. Bartholomew's Hospital; A. K. B. R. W. Taylor, Charing Cross Hospital; R. E. Todd, St. Thomas's Hospital; St. J. A. M. Tolhurst, Guy's Hospital; R. S. Townsend, St. Bartholomew's Hospital; J. H. Turton, St. Bartholomew's Hospital; N. H. Walker, St. Bartholomew's Hospital; Enid Margaret Walters, London (Royal Free Hospital) School of Medicine for Women; P. I. Watkin, London Hospital; Gladys Mary Joan Watts, London (Royal Free Hospital) School of Medicine for Women; Winifred Emmeline Watts, London (Royal Free Hospital) School of Medicine for Women; Margar

Hannah Wild, London (Royal Free Hospital) School of Medicine for Women; H. O Williams, St. Bartholomew's Hospital; C. McM. Wilson, St. Mary's Hospital; Sophia Margaret V. Witts, London (Royal Free Hospital) School of Medicine for Women; C. E. Zundel, London Hospital; Clara Maria Zymandl, University College.

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The following candidates have passed the Intermediate Examination in Medicine for External Students as undernoted:

A. Alcock, Guy's Hospital and Owens College; G. B. F. Churchill, Guy's Hospital; T. Davies, University College, Cardiff; K. E. Eckenstein, University of Liverpool; H. M. Fort, Owens College; C. E. K. Herapath, University College, Bristol; R. M. Kalapesi, St. Bartholomew's Hospital and Grant Medical College, Bombay; S. H. J. Kilroe, Owens College; C. S. Rivington, University College, Bristol; J. J. S. Rowe, University College, Cardiff; G. W. Sudlow, Owens College; F. E. Taylor, King's and Yorkshire Colleges; T. W. Wade, University College, Cardiff.

Special Examination in Organic Chemistry only.—L. Ball, University of Birmingham; T. L. Bomford, St. Bartholomew's Hospital; S. H. Booth, Yorkshire College; S. Chelliah, Guy's Hospital; W. Chesters, St. Mary's Hospital and University College, Cardiff; Hilda Clark, University of Birmingham; C. Clarke, University College, Bristol; J. W. Cropper, University of Liverpool; Ethel Adelaide Douglas, London (Royal Free Hospital) School of Medicine for Women and University College, Nottingham; Clara Eglington, University of Birmingham; E. D. Ellis, Yorkshire College; P. Hamill, University of Cambridge; C. T. Hawkins, University College, Cardiff; J. A. B. Hicks, Westminster Hospital; R. de B. M. Hopkins, University College, Bristol; A. E. Iles, University College, Bristol; G. G. James, Westminster Hospital; B. A. Lloyd, University of Birmingham; S. E. McClatchey, Owens College; R. B. Nowell, Owens College; E. S. Phipson, University of Birmingham; H. R. Rawlings, Yorkshire College; E. D. Richards, University College, Cardiff; C. F. Robertson, Middlesex Hospital; W. Scarisbrick, University of Liverpool; C. J. Thompson, University of Birmingham; H. Thwaite, University of Birmingham; A. H. Turner, Yorkshire College; H. G. Webb, St. George's Hospital; J. W. J. Willcox, University College, Bristol; A. L. Yates, St. Bartholomew's Hospital.

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University College.

The annual general meeting of members of University College, London, was held on February 24th under the chairmanship of Lord Reay, who moved the adoption of the report. The report stated that the students' fees for 1902-3 amounted to £25,518 as compared with £24,086 in the previous year. The College received £3,000 from the annual Parliamentary grant, and it was a matter of congratulation that this would be doubled during the present year. Allusion was made to the death of Sir Blundell Maple, who by his gift of the new buildings of University College Hospital had conferred an immense boon on the neighbourhood and on the medical school. The Council had created a new grade of teachers in the College in the Faculties of Arts and Science corresponding in some respects to the *privat docent* of the German universities: this would enable instice to be done to a number of subjects which it was not easy to crowd into the regular curriculum. The new arrangements and regulations in the internal side of the University of London has given full satisfaction to both professors and students. The President said that he trusted that in future greater importance would be attached to teaching and less to examination. The appeal for capital funds had been so successful that only £60,000 was now wanted; an important donation of £50,000 had been received through Professor E. H. Starling and C. W. Page May, and the anonymous donor was most cordially thanked for his splendid gift. After reviewing the developments which had taken place in various departments, Lord Reay concluded by saying that if the College was to be transferred to the University, as no doubt it would be before long, it would be the transfer of a going concern.

The motion for the adoption of the report was seconded by Lord Monkswell and adopted unanimously.

University of Dublin.

At the Spring Commencements of Hilary Term, held on February 16th in the Theatre of Trinity College, the following degrees in the Faculty of Medicine were conferred by the University Caput in the presence of the Senate:

Baccalaurei in Medicinâ, in Chirurgiâ, et in Arte Obstetriciâ.—J. H. Askins (*antea Lic.*), W. S. S. Berry. M. FitzGibbon, J. C. Hall, R. C. Hallowes, C. E Moore, O. J. Parry-Edwards, D. C. Pearson, H. Stone, T. C. A. Sweetnam, C. J. Wyatt.

Doctores in Medicinâ.—J. T. Bouchier-Hayes, T. J. P. Crean, M. J. Gibson.

Royal College of Surgeons in Ireland.

Fellowship Examination.—A. T. Mulhall, L.R.C.P. and S.I., having passed the necessary examination, has been admitted a Fellow of the College.

A. Burke, S. C. Clarke, J. F. Devane, M. D. Healy, J. J. Hogan, J. Vendiville, and J. R. Tobin have passed the Primary part of the examination.

Dental Examination.—C. de Foubert and H. D. Griffith, having passed the necessary examination, have been admitted Licentiates in Dental Surgery. W. Matthews has passed the primary part of the examination.

Society of Apothecaries of London.

Pass List, February, 1904.—The following candidates passed in:

Surgery.—R. H. Cooper (Section I), Charing Cross Hospital; W. G. Kinton (Section II), Manchester.

Medicine.—J. Bromley (Sections I and II), Guy's Hospital; R. H. Cooper (Section I), Charing Cross Hospital; W. G. Kinton, (Section II), Manchester: N. O. Roberts (Section II), Cambridge and St. Mary's Hospital; S. Zweiback (Section II), Konigsberg.

Forensic Medicine.—M. B. Taylor, Guy's Hospital.

Midwifery.—G. W. Rogers, Cardiff and St. George's Hospital; A. C. Story, St. Mary's Hospital.

The diploma of the Society was granted to W. G. Kinton.

PUBLIC HEALTH AND POOR-LAW MEDICAL SERVICES.

Health of English Towns.

In seventy-six of the largest English towns, including London, 9,075 births and 5,420 deaths were registered during the week ending Saturday last, February 20th. The annual rate of mortality in these towns, which had been 19.4, 17.2, and 18.4 per 1,000 in the three preceding weeks, increased again last week to 18.5 per 1,000. The rates in the several towns ranged from 8.3 in Tottenham, 9.6 in Hornsey, 11.0 in Stockton-on-Tees, 11.4 in Handsworth (Staffs), 11.6 in East Ham, 12.0 in Northampton, 12.2 in Leyton, and 12.3 in Croydon, to 23.9 in Nottingham and in Liverpool, 24.1 in Salford, 24.3 in Oldham, 24.9 in Preston, 25.6 in Plymouth and in Warrington, 25.8 in Merthyr Tydfil, and 27.9 in Bootle. In London the rate of mortality was 17.8 per 1,000, while it averaged 18.8 per 1,000 in the seventy-five other large towns. The death-rate from the principal infectious diseases averaged 1.7 per 1,000 in the seventy-six large towns; in London this death-rate was equal to 1.6 per 1,000, while among the seventy-five large provincial towns the rates ranged upwards to 3.4 in Rhondda, 3.5 in St. Helens and in Leeds, 3.6 in Burnley and in Merthyr Tydfil, 3.8 in Stockport, 4.1 in Norwich, 4.5 in Preston, and 6.0 in Wallasey. Measles caused a death-rate of 1.0 in Leeds and in Sunderland, 1.1 in Huddersfield, 1.3 in Rhondda, 2.3 in Warrington, 2.7 in Preston, 3.2 in Stockport, and 4.1 in Norwich; scarlet fever of 2.2 in Merthyr Tydfil; diphtheria of 1.1 in Salford, 1.6 in Willesden, and 2.4 in Hanley; whooping-cough of 2.0 in Liverpool, 2.1 in Portsmouth, 2.2 in Gateshead, 2.5 in Wigan, and 4.3 in Wallasey; "fever" of 1.4 in Preston; and diarrhoea of 1.3 in Rhondda. The fatal cases of small-pox registered in these towns last week included 2 in Hull, and one each in London, Derby, Wigan, Manchester, and Gateshead, but not one in any other of the large towns. The Metropolitan Asylums Hospitals contained 29 small-pox patients at the end of last week, against 21, 25, and 24 at the end of the three preceding weeks; 9 new cases were admitted during the week, against 4, 8, and 3 in the three preceding weeks. The number of scarlet fever cases remaining under treatment in these hospitals and in the London Fever Hospital, which had been 1,651, 1,657, and 1,644 on the three preceding Saturdays, had further declined to 1,620 on Saturday last, February 20th; 143 new cases were admitted during the week, against 168, 169, and 162 in the three preceding weeks.

Health of Scotch Towns.

During the week ending Saturday last, February 20th, 963 births and 733 deaths were registered in eight of the principal Scotch towns. The annual rate of mortality in these towns, which had been 18.4, 18.5, and 19.2 per 1,000 in the three preceding weeks, further rose last week to 22.2 per 1,000, and was 3.7 per 1,000 above the mean rate during the same period in the seventy-six large English towns. Among these Scotch towns the death-rates ranged from 18.1 in Edinburgh and 19.4 in Leith to 24.7 in Greenock and 25.8 in Dundee. The death-rate from the principal infectious diseases averaged 2.3 per 1,000 in these towns, the highest rates being recorded in Paisley, Leith, and Greenock. The 360 deaths registered in Glasgow last week included 2 which were referred to small-pox, 8 to measles, 4 to diphtheria, 4 to whooping-cough, and 15 to diarrhoea. Five fatal cases of measles and 5 of whooping-cough were recorded in Dundee; 6 of whooping-cough and 2 of diphtheria in Aberdeen; 4 of measles and 2 of whooping-cough in Paisley; 6 of whooping-cough in Leith; 3 of small-pox and 2 of measles in Greenock; and 3 of whooping-cough in Edinburgh.

Health of Irish Towns.

During the week ending Saturday, February 20th, 580 births and 491 deaths were registered in six of the principal Irish towns, against 457 births and 487 deaths in the preceding period. The mean annual death-rate of these towns, which had been 20.5, 25.8, and 26.0 per 1,000 in the three preceding weeks, fell to 25.3 per 1,000 in the week under notice, this figure being 6.8 per 1,000 above the mean annual rate in the seventy-six English towns during the corresponding period. The figures ranged from 18.9 in Londonderry and 19.5 in Waterford to 30.7 in Dublin and 32.9 in Cork. The death-rates from the principal zymotic diseases during the same period and in the same six towns averaged 1.6 per 1,000, or 0.8 per 1,000 less than during the preceding week, the highest rate, 4.1, being registered in Limerick, while Waterford registered no deaths under this heading at all. Except for one death from measles at Dublin and another at Belfast, no deaths were registered in any part of Ireland from measles, scarlet fever, small-pox, typhus, or simple continued fever One death occurred from diphtheria in Dublin and 1 in Tralee, but except for these and 2 deaths from diarrhoeal disease and 5 from enteric the whole zymotic death-rate in Ireland was due to whooping-cough.

The Health of Sheffield.

Sheffield is one of those towns in which sanitary reform has been pushed forward very actively during the past few years, and hence has risen from a bad to a fairly good place in the list of the thirty-three great towns, with a comparative mortality figure for 1902 of 1,130. Its report for that year drawn up by Dr. John Robertson, now medical officer of health for Birmingham, shows that with a population of 418,765 and a density of 17.7 to the acre it had a marriage-rate of 17.5 against 15.5 per 1,000 in all England, and a birth-rate of 33.3 per 1,000 (of which 3.9 per cent. were illegitimate). This is a diminishing rate to the extent of some 17 per cent. in the last 25 years. The infantile mortality-rate was 150 per 1,000 registered births, a figure which, though a great improvement over those of former years, is mainly due to the cooler summer. What the general mortality was is not quite clear; in the summary it is mentioned as 16.9 per 1,000, but in Table XII the recorded death-rate is given as 17.7, and the corrected death-rate as 18.40. The report is profusely illustrated by tables and charts, and some of them are unusually interesting, particularly one dealing with 29 importations of small-pox which occurred between November, 1902, and June, 1903. Out of the 29 importations, 21 were certainly due to tramps; the others were of unknown origin. Nevertheless, isolation was sufficiently prompt and efficient for 16 of the tramp cases to end harmlessly. The report includes an able but abridged report by Dr. Waddy on the recurrence of scarlet fever in houses in Sheffield during 1900 and 1901, and the conclusion drawn from

it by Dr. Robertson is that, though isolation hospitals for scarlet fever are not as valuable a means of preventing the spread of the disease as they were formerly believed to be, yet have a distinct value and their use should be in no way discounted. As regards the lowered infant mortality-rate, it is pointed out that it must not be taken as an index of what Sheffield must expect under present conditions should a hot summer occur. Much has been done in the way of substitution of waterclosets for middens and privies, and of ashbins for ashpits,, but much more remains to be done in the way of keeping houses clean and surface soil free from contamination. It is as regards tuberculosis that Sheffield shows the greatest improvement, its death-rate from this cause now standing at 1.79. From 1851 to 1890 it usually stood a good deal higher than that of the rest of England, but since then has commonly been below it, and the total improvement obtained is practically a reduction of some 50 per cent. Voluntary notification has existed for a long time, and by an Act just passed will shortly become compulsory under certain circumstances. The duties thrown upon the sanitary authorities in connexion with the Factory and Workshops Act are activeiy discharged, and as the result of a deputation from the Health Committee the Home Office made special regulations of some stringency for the conduct of the file cutting trade.

PNEUMONIA IN NEW YORK.

The Advisory Board to the Health Commissioner of New York has, we learn from the New York *Medical Record*, issued a statement to the public regarding the danger from pneumonia and the best means of prevention. The greatest stress is laid upon the bacterial causation of the disease and the consequent danger of spitting elsewhere than in suitable receptacles, and of stirring up the dust in private and public buildings. In regard to this last point the statement concludes with the recommendation that "The Advi ory Board would urge upon the Health Department the desirability of instructing, in the proper methods of dust disposal, all those who have in charge the duty of cleaning public institutions, such as court rooms, police stations, hospitals, dispensaries, churches, theatres, public conveyances, etc., as well as those responsible for factories, stores, offices, and the like, and commends the matter to the attention of all householders, to whom, not less than to inmates of public institutions and places of assembly, the risks of dust infections are at this time of especial significance."

FEES FOR NOFIFICATION OF INFECTIOUS DISEASE IN PAUPERS AND OTHERS.

Reader writes to ask (1) whether a Poor-law medical officer is entitled to 2s. 6d. for notifying infectious disease in a person whose parents are in receipt of out-door relief, or whether he can only claim a 1s. fee. (2) Whether a medical officer of health is entitled to 2s. 6d. for reporting cases within the district of which he is medical officer or only 1s.

*** (1). This mainly depends on the age of the patient in question. If under 16, any child would be pauperized by the relief given to its parents, and 1s. would be the fee for notification; if over 16, the child might or might not be a pauper, and the fee payable for notification would depend upon this. (2) A medical officer of health is entitled to the same fees for notification as other medical practitioners.

THE BACTERIAL TEST OF POLLUTION.

Dr. Alfred MacConkey (Battersea, S.W.) writes: In the British Medical Journal of February 20th Dr. Klein quotes from a paper by Messrs. Clark and Gage, of Massachusetts, in which reference is made to the examination of shellfish for B. coli. Apparently Dr. Klein has only seen an abstract of the paper, and one, too, which omits some rather important remarks. As I happen to have read the complete report I venture to supply the full text, which runs as follows:

"Enough study has been made by many investigators to show clearly the B. coli is not a normal inhabitant of the intestines of clams or oysters, and that its presence in the intestines or juice in the shell must be due to contamination either by drainage and sewage flowing over the clam and oyster beds or by careless and uncleanly handling of the shellfish between the time of digging and placing upon the market. In this work therefore the ability to demonstrate clearly the presence of a specific sewage organism, such as B. coli, is an invaluable aid in determining the question of purity or pollution. In many samples from polluted sources B. coli has not been found either in shell water or intestine. This is not to be wondered at, however, as among the many bacteria normally present or finding lodgement in the intestine or in the shell water, the stronger and more numerous species may evidently destroy the B. coli before laboratory examination is possible."

In their conclusions Messrs. Clark and Gage say: "In the examination of shellfish from suspected sources, the determination of faecal bacteria, such as the colon bacillus, is of considerable importance, as showing the purity or pollution of these sources."

It would seem, then, that the failure to find B. coli in shellfish from obviously polluted sources caused them to modify their opinion. So that instead of considering the test as "invaluable," they finally concluded that it is of "considerable importance."

INDIA AND THE COLONIES.

Bengal.

The report for the year 1902, written by Major F. C. Clarkson, Sanitary Commissioner, is concise and clear. Meteorologically the year was normal, the monsoon rainfall being copious, but commencing somewhat later, and ceasing somewhat earlier than usual. Crops were good, and the price of food grains moderate. The year was, however, an unhealthy one. The birth-rate was 40.14, against 38.57 in 1901. The urban rate was 24.95, and the rural 40.93. The death-rate was 33.43, against 31.04 in 1901, and 30.59 in the preceding decennium. An increasing infantile mortality, especially in towns, is creating anxiety, but how far the increase is real or the result of improved registration is doubtful. The rate is over 200 per 1,000 births. In Calcutta, whose birth-rate was 14.29, and death-rate 37.04, 38 per cent. of male, and 35 per cent. of female infants born during the year died. Fevers, mostly malarial, contributed 69 per cent. of the total mortality; the death-rate being 23.13 against 21.72 in 1901, and 21.92 the mean of the preceding ten years. In the district of Nuddea the rate exceeded 49 per 1,000. The early cessation of the monsoon is blamed for the excess. This is consistent with the experience of the past. The rural mortality was considerably greater than the urban, which is also the rule. The amount of quinine sold was larger. Cholera was in excess, causing a mortality of 2.2, against 1.48 in 1901. The rural mortality was, as usual, lower than the urban. The disease was widely distributed, the seasonal incidence differing in different districts. Orissa suffered as usual most during the Puri pilgrimage. Inoculation was carried out on a small scale among tea coolies. The inoculated displayed a marked immunity as compared with the uninoculated. Small-pox caused an increased mortality. Some districts were severely visited while in others deaths were few. Vaccination was pushed and the Government appears to be satisfied with the system and work, but calls for facts bearing on the question of protection. The number of deaths caused by plague was 32,967, against 78,629 in 1901. Rat infection is recognized by the people as a frequent cause of spread, and in many places they spontaneously leave their houses and live in huts. The mortality caused by bowel complaints was high. The income of municipalities was considerably larger, and 43 per cent. of it was spent in sanitary work. The Sanitary Board only met once, but disposed of a large number of references regarding sanitary projects and questions by correspondence.

MEDICAL NEWS.

The Lord Chancellor has placed the name of Dr. George Fletcher, of Highgate, on the Commission of the Peace for the County of Middlesex.

Robert Bell, Esq., LL.D., M.D., D.Sc., F.R.S., Acting-Director of the Department of Geological Survey, Canada, has been appointed a Companion of the Imperial Service Order.

Evidence before the Physical Deterioration Committee was given on February 22nd by Dr. A. K. Chalmers, Medical Officer of Health, Glasgow; Dr. James Niven, Medical Officer of Health, Manchester; and Dr. G. H. Fosbroke, Medical Officer of Health, Worcester.

The Ladies' Committee of the Royal Waterloo Hospital for Children and Women, London, S.E., intend to hold a festival dinner in the new suite of rooms of the Savoy Hotel, in the Strand, now approaching completion, on the anniversary of Waterloo.

Volunteer Medical Association.—The annual dinner of the medical officers of the auxiliary forces will take place at the Imperial Restaurant, Regent Street, London, on Friday, April 15th, at 7.30 p.m. The chair will be taken by Lieutenant-General Lord Grenfell, G.C.B., G.C.M.G., Commanding the Fourth Army Corps. Tickets, 10s. 6d. each, may be had from Lieutenant Montgomery-Smith, 36, Abbey Road, N.W.

The Royal Botanic Society of London has arranged to hold next June a horticultural and gardening exhibition. The exhibition will include horticulture forestry, botany, educational methods, nature study and colonial produce. During the exhibition lectures, conferences and conversaziones will be held. Further particulars can be obtained from Mr. J. Bryant Sowerby, the Secretary of the Society, at the Gardens, Regent's Park, N.W.

The Ballachulish Quarriers and their Medical Officer.—We learn with much satisfaction that the legal expenses incurred by Dr. Lachlan Grant in his contest with the directors of the Ballachulish Slate Quarries have been paid out of the appeal fund. They amounted to nearly £400. A proof of the solid support received by the quarriers is that the public subscribed some £900 to the fund. We heartily congratulate Dr. Grant and the quarriers on the completing touch thus given to their victory in the battle so courageously fought by them against injustice and oppression.

Dr. W. J. VON WINCKLER, Government Medical Officer, guan, has been specially commissioned by the Governor of itish Guiana as a Justice of the Peace. He has also been mmended by His Excellency for valuable services rendered the strike of indentured and free coolies in that colony.

GERMAN BALNEOLOGICAL CONGRESS.—The twenty-fifth nual meeting of the German Balneological Congress will held at Aix-la-Chapelle from March 3rd to 7th, under the sidency of Professor Oscar Liebreich of Berlin. The dical practitioners and civic authorities of the town have en the liveliest interest in the preparations for the Con-ss, and are prepared to extend a hearty welcome to their dical guests. The opening reception will be held at the rhaus at 8 p.m. on Thursday, March 3rd. The Congress ns at 10 on the following morning, with speeches from rr von Hartmann, the *Regierungs-Präsident*, and other cial notabilities. The scientific work of the Congress will in with an address by Professor Liebreich. Papers will be d by Dr. Polis of Aachen on the climatic conditions of the ine Provinces; by Dr. Burwinkel of Nauheim on acute cular rheumatism; by Dr. Rothschild of Soden on the natic treatment of diseases of the heart; by Dr. Kugler of rienbad on balneophysics and climatic health resorts; by Schuster of Aix-la-Chapelle on the use of iodipin in the itment of gouty and rheumatic affections of joints, and ıy others. Several receptions will be arranged, and on last evening there will be a special performance of rdn's *Creation* in the large concert room of the Kurhaus. ther particulars may be obtained on application to itatsrath Dr. Beissel, 18, Kleinkolnstrasse, Aachen.

MEDICAL VACANCIES.

list of vacancies is compiled from our advertisement columns, where full ticulars will be found. To ensure notice in this column advertisements st be received not later than the first post on Wednesday morning.

RAVE HOSPITAL FOR CHILDREN, Clapham Road, S.W.—(1) Assistant Physi-n. (2) Assistant Surgeon.
INGHAM AND MIDLAND EYE HOSPITAL.—House-Surgeon, resident. Salary, 5 per annum.
TFORD UNION.—Medical Superintendent of Infirmary and Medical Officer of rkhouse an Schools, resident. Salary, £300 per annum and fees.
ON-UPON-TRENT COUNTY BOROUGH.—Medical Officer of Health and Public alyst. Salary (combined), £400 per annum.
RIDGE: ADDENBROOKE'S HOSPITAL.—Assistant House-Surgeon, resident. ary at the rate of £30 per annum.
SLE: CUMBERLAND INFIRMARY.—Resident Medical Officers to act as House-ysician and House-Surgeon respectively. Salary at the rate of £60 and £100 per num.
ARTHEN: JOINT COUNTIES ASYLUM.—Junior Assistant Medical Officer, ident. Salary, £150 per annum.
'ERFIELD AND NORTH DERBYSHIRE HOSPITAL.—Resident Junior House-geon. Salary, £50 per annum.
EY: GUEST HOSPITAL.—Assistant House-Surgeon, resident. Salary, £40 per um.
LONDON HOSPITAL FOR CHILDREN, Shadwell.—(1) Medical Officer for ualty Department. Salary at the rate of £100 per annum. (2) House Surgeon, dent. Honorarium, £25 for six months.
URGH: CRAIGLOCKHART POORHOUSE AND HOSPITAL.—Resident Medi-Officer. Salary at the rate of £100 per annum.
N HOSPITAL FOR FISTULA, Vauxhall Bridge Road.—Honorary Anaes-ists.
TAL FOR EPILEPSY AND PARALYSIS, Maida Vale.—Resident Medical er. Salary at the rate of £50 per annum.
TAL FOR SICK CHILDREN, Great Ormond Street, W.C.—House-Phyicians, dent. Salary, £20 for six months.
ROYAL INFIRMARY.—Casualty House-Surgeon, resident. Salary, £50 per am.
STER: COUNTY LUNATIC ASYLUM.—Assistant Medical Officer, resident. ry, £150 per annum.
: HOSPITAL FOR WOMEN AND CHILDREN.—Assistant Physician.
HOSPITAL.—(1) House-Physician. (2) Assistant House-Physician. (3) House-eon. (4) Assistant House-Surgeon. (5) Surgeon for Out-door Department.
N FEVER HOSPITAL, Islington, N.—Assistant to the Resident Medical Officer. ry. £120 per annum.
ESTER ROYAL INFIRMARY.—Resident Medical Officer. Salary £150 per m.
NG: ROYAL BERKSHIRE HOSPITAL.—Assistant House-Surgeon, resident. y. £60 per annum.
EAR HOSPITAL, Frith Street, Soho.—Clinical Assistants.
PIMLICO DISPENSARY, 104, Buckingham Palace Road, S.W.—Attending cal Omcer.
Y'S HOSPITAL, Paddington.—Resident Casualty House-Surgeon. Salary at e rate of £100 per annum.
INFIRMARY.—House-Physician, resident. Salary at the rate of £50 per m.
VARK UNION.—Public Vaccinator for the Trinity and Kent Road Sub-tration Districts.
FORD COUNTY AND CITY INFIRMARY.—Resident House-Surgeon and tary. Salary, £100 per annum.
ROMWICH DISTRICT HOSPITAL.—House-Surgeon, resident. Salary, £100 annum.
ONDON HOSPITAL, Hammersmith Road.—(1) House-Physician. (2) House-on. Both resident.
LDING OF YORKSHIRE.—Bacteriologist and Assistant to County Medica r. Salary, £250 per annum, rising to £400.

MEDICAL APPOINTMENTS.

Y, J. M., M.B.Cantab., Junior House-Surgeon to the Radcliffe Infirmary, d.
L, P. D., M.R.C.S., L.R.C.P., Medical Officer for the Stanton District of the ley Union.
. T. H., M.D., District Medical Officer of the Hartley Wintney Union.
D., M.B., Ch.B., F.R.C.S.Edin., Certifying Factory Surgeon for the Chichester ot, Sussex.
FOSTER, C. W., M.R.C.S., L.R.C.P., House-Surgeon to the Radcliffe Infirmary, Oxford.
GIBSON, A. G., M.B., B.Ch.Oxon., House-Physician to the Radcliffe Infirmary, Oxford.
GODWIN, Herbert James, M.B., B.S.Durh., F.R.C.S.Edin., M.R.C.S.Eng., L.R.C.P.Lond., Surgeon-in Ordinary to the Royal Hants County Hospital, Winchester, *vice* Thomas Langdon, F.R.C.S.Eng., resigned.
HARRISON, E. H., L.R.C.P.&S.Edin., Medical Officer of the Workhouse of the St. Neots Union.
HERLEY, Randal, L.R.C.P.&S.Irel., L.F.P.S.Glas., Junior House Surgeon to the Clayton Hospital and Wakefield General Dispensary.
LAWSON, C. W., L.R.C.P.&S.Edin., L.F.P.S.Glas., District Medical Officer of the Rothbury Union.
LAWSON, F. H., M.R.C.S., L.R.C.P.Lond., District Medical Officer of the Steyning Union.
MARSH, C. J., L.R.C.P., M.R.C.S., Certifying Factory Surgeon for the Yeovil District, Somerset.
MILWARD, F. Victor, M.B., F.R.C.S., Medical Referee under the Workmen's Compensation Acts to act for County Court Circuit No. 21 and for the Bromsgrove, Redditch, and Solihull Districts in County Court Circuit No. 22.
MILWARD, W. C., M.R.C.S., L.R.C.P.Lond., District Medical Officer of the Cardiff Union.
SMITH, M. Hamblin, M.R.C.S., L.R.C.P., Deputy Medical Officer, H.M. Prison, Manchester, transferred to H.M. Prison, Wandsworth.
SNELL, Sidney H., M.D., B.S.Lond., D.P.H., Assistant Anaesthetist to the Royal Ear Hospital, Soho.
STEWART, R. S., M.D.Glas., C.M., Medical Superintendent of the Glamorgan County Asylum, Bridgend, *vice* H. T. Pringle, M.D.Glas., resigned.

DIARY FOR NEXT WEEK.

MONDAY.

Royal College of Surgeons of England, 5 p.m.—Professor L. B. Rawling: On Fractures of the Skull (Lecture I).
Medical Society of London, 11, Chandos Street, Cavendish Square, W., 9 p.m.—Mr. C. B. Lockwood: Aseptic Surgery in Theory and Practice (Lettsomian Lecture III).

TUESDAY.

Royal College of Physicians of London, 5 p.m.—Dr. W. Williams: On Deaths in Childbed, a Preventable Mortality. (Milroy Lecture II.)
Pathological Society of London, 20, Hanover Square, 8.30 p.m.—Dr. D. Noël Paton: On the Influence of Adrenalin upon the Nitrogenous Metabolism of the Bird. Dr. A. P. Beddard and Dr. E. I. Sprigge: On the Relation of the Ammonia Nitrogen to the Total Nitrogen in some Cases of Diabetes. Dr. A. E. Garrod: A Survey of the Recorded Cases of Haematoporphyrinuria not due to Sulphonal.

WEDNESDAY.

Royal College of Surgeons of England, 5 p.m.—Professor L. B. Rawling: On Fractures of the Skull (Lecture II).
Obstetrical Society of London, 20, Hanover Square, W., 8 p.m.—Specimens by Mr. Alban Doran, Dr. Addinsell, and Mr. Walker (introduced by Dr. Addinsell). Papers:—Mr. Harrison Cripps and Dr. Hubert Williamson: Two Cases involving the question of the Site of Impregnation. Mrs. Boyd, M.D.: Two Cases of Abdominal Hysterectomy for Fibroids complicated by Pregnancy (with Specimens).

THURSDAY.

Royal College of Physicians of London, 5 p.m.—Dr. W. Williams: On Deaths in Childbed, a Preventable Mortality (Milroy Lecture III).
Roentgen Society, 20, Hanover Square, W., 8.30 p.m.—Presidential Address on Some Laboratory Notes of the Last Six Months.
British Balneological and Climatological Society, 20, Hanover Square, W., 5.30 p.m.—Discussion on Obesity, to be opened by Dr. Leonard Williams.

FRIDAY.

Royal College of Surgeons of England, 5 p.m.—Professor L. B. Rawling: On Fractures of the Skull (Lecture III).
West Kent Medico-Chirurgical Society, Royal Kent Dispensary, Greenwich Road, S.E., 8.45 p.m.—Exhibition of Clinical Cases, etc., by Drs. Toogood, Morgan Dockrell, and Leonard Williams.
Society of Anaesthetists, 20, Hanover Square, W., 8.30 p.m.—Clinical Evening.—Paper by Dr. Dudley Buxton. Communications by the President, Mr. C. Carter Braine, Dr. Flux, and others. Afterwards the annual general meeting will be held.
Laryngological Society of London, 20, Hanover Square, W., 5 p.m.—Cases, Specimens, etc., will be shown by Dr. McBride, Dr. Furniss Potter, Dr. Smurthwaite and others.

POST-GRADUATE COURSES AND LECTURES.

Charing Cross Hospital, Thursday, 4 p.m.—Demonstration of Medical Cases.
Hospital for Consumption and Diseases of the Chest, Brompton, Wednesday, 4 p.m.—Lecture on Types of Pulmonary Tuberculosis.
Hospital for Sick Children, Great Ormond Street, W.C., Thursday, 4 p.m.—Lecture on The Surgical Anatomy of the Ear in Children.
London Temperance Hospital, Hampstead Road, N.W., Wednesday, 4 p.m.—Lecture on Diseases of the Stomach.
Medical Graduates' College and Polyclinic, 22, Chenies Street, W.C.—Demonstrations will be given at 4 p.m. as follows; Monday, Skin; Tuesday, Medical; Wednesday, Surgical; Thursday, Surgical; Friday, Eye. Lectures will be delivered at 5.15 p.m. as follows: Monday, The Diagnosis and Treatment of the Common Forms of Nasal Obstruction; Tuesday, Some Common Errors in the Diagnosis and Treatment of Diseases of the Throat; Wednesday and Thursday, Cough and its Significance.
Mount Vernon Hospital for Consumption and Diseases of the Chest, 7, Fitzroy Square, W., Thursday, 5 p.m.—Lecture on Mitral Stenosis (illustrated by Cases).
National Hospital for the Paralysed and Epileptic, Queen Square, W.C.—Lectures will be delivered at 3.30 p.m. as follows: Tuesday and Friday, Cranial Nerves.
Post-Graduate College, West London Hospital, Hammersmith Road, W.—Lectures will be delivered at 5 p.m. as follows: Monday, Practical Surgery; Tuesday, High-frequency Currents (illustrated by Lantern Slides; Wednesday, Practical Medicine; Thursday, Gleet and its Treatment; Friday, Rickets and its Treatment.
Samaritan Free Hospital for Women, Marylebone Road, N.W.—Thursday, 3 p.m.—Lecture on the Treatment of "Irritable Bladder" in Women.

BIRTHS, MARRIAGES, AND DEATHS.

The charge for inserting announcements of Births, Marriages, and Deaths is 3s. 6d., which sum should be forwarded in post-office orders or stamps with the notice not later than Wednesday morning, in order to ensure insertion in the current issue.

BIRTHS.

CARTER.—On February 23rd, at Chapel-Allerton, Leeds, the wife of Eustace G. Carter, of a daughter.
FALKNER.—On February 20th, 1904, at Wellington, Nilgeri Hills, Madras, India, the wife of Captain Percy Hope Falkner, R.A.M.C., of a son. (By cable.)
MCKELVEY.—On February 17th, at 231, Inverness Place, Roath Park, Cardiff, the wife of Thomas McKelvey, M.B.R.U.I., of a daughter.

MARRIAGE.

BURNETT—VON PURUCKER.—On February 22nd, at St. Paul's, Umballa, India, Captain Sidney Harvey Burnett, M.B.Aberd., Indian Medical Service, eldest son of Robert Harvey Burnett, C.E., of Didsbury, Manchester, and grandson of the late Alexander Harvey, M.D., Professor of Materia Medica in the University of Aberdeen, to Dorothy, eldest daughter of the late Rev. Edmond von Purucker, of Geneva, Switzerland. (By cable.)

LETTERS, NOTES, AND ANSWERS TO CORRESPONDENTS.

COMMUNICATIONS respecting Editorial matters should be addressed to the Editor, 2, Agar Street, Strand, W.C., London; those concerning business matters, advertisements, non-delivery of the JOURNAL, etc., should be addressed to the Manager, at the Office, 429, Strand, W.C., London.

ORIGINAL ARTICLES and LETTERS *forwarded for publication are understood to be offered to the* BRITISH MEDICAL JOURNAL *alone, unless the contrary be stated.*

AUTHORS desiring reprints of their articles published in the BRITISH MEDICAL JOURNAL are requested to communicate with the Manager, 429, Strand, W.C., on receipt of proof.

CORRESPONDENTS who wish notice to be taken of their communications should authenticate them with their names—of course not necessarily for publication.

CORRESPONDENTS not answered are requested to look at the Notices to Correspondent of the following week.

MANUSCRIPTS FORWARDED TO THE OFFICE OF THIS JOURNAL CANNOT UNDER ANY CIRCUMSTANCES BE RETURNED.

IN order to avoid delay, it is particularly requested that ALL letters on the editorial business of the JOURNAL be addressed to the Editor at the Office of the JOURNAL, and not at his private house.

TELEGRAPHIC ADDRESS.—The telegraphic address of the EDITOR of the BRITISH MEDICAL JOURNAL is *Aitiology, London.* The telegraphic address of the MANAGER of the BRITISH MEDICAL JOURNAL is *Articulate, London.*

TELEPHONE (National):—
EDITOR. 2631. Gerrard. GENERAL SECRETARY AND MANAGER, 2630. Gerrard.

☞ *Queries, answers, and communications relating to subjects to which special departments of the* BRITISH MEDICAL JOURNAL *are devoted will be found under their respective headings.*

QUERIES.

DR. COLIN CAMPBELL (Southport), who has come to the conclusion that in dieting consumptives better fattening results are obtained when pure uncrystallized sugar is used in place of beet sugar, wishes to know whether any scientific reason can be assigned for this difference.

USE OF ELECTRO-MAGNET.

DR. T. F. HOPGOOD (Olive House, Sunderland) wishes to hear from any hospital using Haab's electro-magnet as to the cost of obtaining and fixing it. The Sunderland Eye Infirmary is lighted with electric light and he wishes to know how this is made use of for the same.

TREATMENT OF HYSTERICAL COUGH.

M.B. would be glad of a suggestion for treatment of a very troublesome cough occurring in a hysterical lady, aged about 43. No physical signs in chest; primae viae normal. She has suffered from an injury to the right knee for a long time, and has also exhibited hysterical indications. Valerian, bromides, chloral inhalations, etc., have been tried without effect; galvanism is about to be tried.

ANSWERS.

"WIDAL'S REACTION."

BEGINNER.—Full instructions as to the technique of carrying out Widal's test for enteric fever will be found in McFarland's *Textbook upon the Pathogenic Bacteria*, fourth edition (London: W. B. Saunders. 1903).

FREE WILL.

W.W.H. writes: "K." will find the free will paradox fully dealt with in an article on freedom in *Brotherhood* for February, 1904 (F. R. Henderson, 27, Paternoster Square, E.C., price 3d.).

ANTISEPTICS IN THE NAVY.

SURGEON R.N.—The disinfectant fluid supplied to His Majesty's ships for drains, latrines, etc., is izal, but this is not used for surgical purposes. Carbolic acid in crystals and soloids of perchloride of mercury are supplied for antiseptic lotions, and cyanide gauze and sal alembroth wool and gauze for antiseptic dressings. Ordinary lint, absorbent wool, and boracic lint are also supplied, and there is an emergency chest containing aseptic dressings in hermetically-sealed tins, but these are not for ordinary use.

INCOME TAX.

INCOME TAX writes: Might I mention, in reply to the inquiry of "M.D.Cantab." *re* income tax in the BRITISH MEDICAL JOURNAL of February 20th, p. 471, my experience? I purchased a practice in December, 1902. The surveyor of taxes claimed from me during the present financial year tax on the average of the last three years. I objected, and appealed to the Special Commissioners, who unhesitatingly upheld my objection, and taxed me on my estimated profit for the present year—a very great monetary saving to me.

NOTES, LETTERS, Etc.

THE AIR OF RAILWAY TUBES.

DR. R. W. LEFTWICH (London) writes to suggest that since ozone can be produced by electrical discharges in oxygen it is not unlikely that some will be found in the tube railway. He suggests that investigations in this direction might yield interesting results.

DRUG RASH.

DR. EDGAR WHALLEY (Roundhay, Leeds) writes: A short time ago I was called in to a patient suffering from nephritis who had a very well-marked rash fairly evenly distributed over all parts of the body. The eruption had the characteristics of the copaiba rash. The patient had been taking a much-advertised backache pills. Is it that these pills contain copaiba or other similar resin?

LETTERS, COMMUNICATIONS, ETC., have been received from:
A A. B. C; Mr. L. Ashforth, Glasgow; Actinomycosis; Dr. W. Atterbury, London; Messrs. Arnold and Sons, London; Mr. E. G. Archer, Brandon; Mr. K. Anstruther, London; A. A. P. **B** Dr. A. M. Buchanan, Glasgow; Mr. E. Berry, Leyland; Dr. R. Bell, Glasgow; Dr. E. G. Barnes, Eye; B. R.; Mr. L. A. Bidwell, London; Messrs. Baird and Tatlock, London; Mr. R. J. Bland, London; Dr. W. B. Bell, Liverpool; Dr. F. Bushnell, Plymouth; Dr. J. Brown, Glasgow; Mr. A. P. Brown, Horsham; Bona Fide; Mr. A. W. Bodger, London. **C** Mr. A. Crook, Norwich; Dr. J. R. Collins, Cheltenham; Mr. E. F. Coghlan, London; Mr. W. B. Cosens, Dorchester; A. Cox, M.B., Gateshead; Mr. M. J. Chevers, Huddersfield; Dr. G. Crichton, London; Mr. C. Cotton, Ramsgate; Mr. J. Collinson, London. M. Coplans, M.B., London. **D** Director General of the Medical Department of the Admiralty, London; Mr. R. B. Duncan, Harrow-on-the-Hill; Dr. E. W. Liver, Shotley Bridge; J. S. Dick, M.B., Manchester; Dr. W. Donnan, Holywood. **E** Dr. T. W. Eden, London; Dr. F. W. Edridge-Green, London; Eyesight; Mr. J. F. Elliott, Verulam, Natal; J. Erskine, M.B., Glasgow; Erythema; Dr. H. M. Evans, Lowestoft. **F** Mrs. B. Fenwick, London; S. W. Foster, M.B., Chester; Mr. A. W. Fyfe, Starcross; E. R. Fothergill, M.B., London; Mr. W. H. Fisher, Cleethorpes; Dr J. Farquhar, Marlborough. **G** Mr. E Greville, London; Si W. R. Gowers, London; Dr. M. H. Gordon, London; W. P. Gowland, M.B., Lincoln; Miss R. V. Gill, London; "Graphic," Editor of the, London; Mr. W. H. George, London; Dr. Guyot, Paris; Dr G. L. Gulland, Edinburgh; Dr. E. G. Gilbert, Tunbridge Wells; Dr. A. E. Garrod, London; Mr. T. W. H. Garstang, Altrincham; Mr. H. Grant, London. **H** Mr. C. Hubble, London; Mr. J. R. Hatfield, Shrewsbury; Mr. F. Haydon, London; Hit Back; Dr. W. W. Hall, London; Mr. R Hughes, Bala; Mr. P. H. W. Hammersley, London; Mr. T. F. Hopgood, Sunderland; Dr. J. P. Henry, London; Dr J. Houston, Belfast. **I** Income Tax; I.M.S.; Ignorant. **J** J. C.; E. L. Jenkins, M.B. Hinckley. **K** Mr. J. B. M. Kennedy, Birmingham; Dr. H. Kerr, Rotherham; A. D. Kennedy, M.B., Ballachulish; Mr. G. King, London. **L** Dr. A. Lorand, Cologne; Dr. T. G. Lyon, London; Mr. B. E. F. Lunn, Stroud; L.R.C.P.; Live and Let Live; D R. W. Leftwich, London; A. K. Landdie, M.B, Ferozepore; Lecturer; Dr. D. B Lee, London; Liverpool Medical Institution, Secretary of, Liverpool. **M** Mr. E. C. Mon gomery-Smith, London; Dr. C. F. Melland, Manchester; Mr. J. Y. W MacAliste London; Mr. W. J. Morton, London; M.D.; M.R.C.S.; Mr. E. D. Marriott, Nottin ham; Mr. L. Mackenzie, Tiverton; Dr. E. R. Morton, London; M.D.Lond.; Mr. J. Milton, Didworthy; Mr. R. D. Morgan, Ynys-y-bwl; Dr. J. C. McWalter, Dublin; M W. J. Midelton, Bournemouth; Dr J. Mason, Windermere; Dr. E. Magennis, Dublin M.B.; W. J. McCardie, M.B., Birmingham; Midland Medical Society, Secretary Birmingham; Mr. W. A. Mahon, Ipswich. **O** Observer. **P** General A. Phelp Birmingham; F. Purchas, M.B., Jackson Town, W.I.; Puzzled; Mr. A. Pain, Pete borough; J. G. Pardoe, M.B., London; Mr. H. E B. Porter, Windsor; Perplexed; M R. W. Prentice, Ringwood. **Q** Quassia. **R** Mr. J. Rose, London; Reader; Mr. Roberts, Reading; J. D. Russell, M.B., London; Dr. F. W. F. Ross, London; C. H. Robbs, M.B., Grantham. **S** Surgeon-General, Retired; Surgeon, R.N.; Mr. W. Sargant, London; Dr. L. E. Shaw, London; Mr. M. Style, Moreton-in-Marsh; Messrs. G. Street and Co., London; Scotus; Dr. E. M. Skerritt, Clifton; Mr. J. L. Stretto Kidderminster; Dr. H. Snow, London; Dr. T. Schott, Bad Nauheim; Société Nutrigene, Paris; Mr. A. Strauss-Collin, London; Dr. D. W. Samways, Mentone; T. W. Smith, Bath; Dr L. E. Shaw, London. **T** Mr. J. W. Taylor, Bristo Dr. J. G. Tomkinson, Glasgow; Mr. J. Taylor, Glasgow; Dr. L. T. Thorn London; Dr. C. L. Tuckey, London; Mr. A. F. Thomas, London. **V** Dr. F. Valentine, New York. **W** Mr. T. C. Winn, London; Mr. P. Williams, London; M Waugh, London; Mr. A. W. Wigmore, London; Dr. W. H. Webb, Kingsbridge; C. J. Whitby, Bath; Dr. F. Willcocks, London; Dr. W. Whitelaw, Kirkintilloch; F. B. Webster, Bolton. **X** X. Y. Z. **Y** Dr. G. P. Yule, Bloemfontein; Dr. E. S. Yon Manchester.

BOOKS, ETC., RECEIVED.

Matriculation Directory, No. XXXVI, January, 1904. London: University Tutorial Press. 1903. 1s.

The Public Schools Year Book. 1904. London: Swan Sonnenschein and Co., Limited. 2s. 6d.

Martin's Up-to-Date Tables. By Alfred J. Martin, F.S.I. London: T. Fisher Unwin. 1904. 2s. 6d.

Martin's Up-to Date Beginner's Table Book. London: T. Fisher Unwin. 1904. 1d.

Diagnostic de l'Appendicite. Par le Dr. Maurice Aubray. Paris: J. B. Baillière et Fils. 1904. Fr 1.50.

Scientific Memoirs by Officers of the Medical and Sanitary Departments of the Government of India. No. 6. First Report of the Anti-malarial Operations at Mian Mir, 1901-3. By Captain S. P. James, M.B.Lond., I.M.S. Calcutta: Office of Superintendent of Government Printing. 1903. 1s. 2d.

Vaginal Tumours. By W. Roger Williams. London: John Bale, Sons and Danielsson, Limited. 1904. 5s. 6d.

Midwifery for Midwives. By W. Denison Wiggins, M.R.C.S., L.R.C.P., D.P.H. London: Baillière, Tindall and Cox, 1904. 3s. 6d.

A Guide to Urine Testing. By Mark Robinson, L.R.C.P., L.R.C.S. Edin. Second Edition. Bristol: John Wright and Co. 1904. 1s.

Dispensing Made Easy. By W. G. Sutherland, M.B.Aberd. Bristol: John Wright and Co. 1904. 3s 6d.

Ailments of Women and Girls. By Florence Stacpoole. Bristol: John Wright and Co. 1904. 2s.

Roses and their Cultivation. By T. W. Sanders, F.L.S., F.R.H.S. London: W. H. and L. Collingridge. 1904. 2s. 6d.

An Atlas of Illustrations of Clinical Medicine, Surgery, and Pathology; compiled for the New Sydenham Society. Fasciculus XVIII. London: New Sydenham Society. 1903. 1 guinea.

Report of the Select Committee on Vention appointed by the House of Commons (Blue Book, 1903). London: Hicks, Ward, and Co. 1904.

Manuale dell'Igienista. Per cura del Professore Angelo Celli. Seconda edizione. Vols. i and ii. Roma-Milano: Albrighi, Segati e C. 1904. Prezzo dei 2 volumi L.30.

Compounding and Dispensing Made Easy. By H. Harold Scott. M.B.Lond., M.R.C.S.Eng., L.R.C.P.Lond., Lieutenant R.A.M.C. London: Gale and Polden, Limited. 7s 6d.

Husband's Forensic Medicine, Toxicology and Public Health. Seventh Edition. By R. J. M. Buchanan, M.D., B.Ch.Vic., M.R.C.P.Lond., M.R.C.S.Eng., and E. Hope, M.D., D.Sc. Edinburgh: E. & S. Livingstone. 1904. 10s. 6d.

Vivisection. By Edward Carpenter. London: Humanitarian League. 1904.

Précis d'Urologie Clinique. Par Augustin Létienne et Jules Masselin. Paris: C. Naud. 1904. Fr 12.

The Infectivity of Enteric Fever. By Alexander Collie, M.D.Aberd. Bristol: John Wright and Co. 1904. 1s. 6d.

Gesammelte Arbeiten zur Immunitätsforschung. Herausgegeben von Professor Dr. P. Ehrlich. Berlin: August Hirschwald. 1904. M.17.

The Thompson-Yates and Johnston Laboratories Report. Edited by Ruber Boycott and Charles S. Sherrington and others. Vol. V (New Series), Part II, December, 1903. London: Longmans, Green, and Co. 1903. 12s. 6d.

*** In forwarding books the publishers are requested to state the selling price.

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Observations

[ON

THE INCEPTION OF THE RHYTHM OF THE HEART BY THE VENTRICLE

[S THE CAUSE OF CONTINUOUS IRREGULARITY OF THE HEART.

By JAMES MACKENZIE, M.D.,
Burnley.

HIS paper seeks to explain that most puzzling of all the rms of irregularity of the heart, where the heart is never gular in its action, where seldom or never two beats of the me character follow one another. Many names have been plied to this condition, such as delirium cordis, the mitral ılse, pulsus irregularis perpetuus, a heart irregular through ss of vagus control, etc. As the result of a study of a large mber of cases where a jugular pulse was present I have en able to establish the fact that the cause of the irregu- ity is due to the rhythm of the heart proceeding from the ntricles, and not, as normally, from the great veins as they bouch into the auricles. I am also convinced that in all ıer cases of continued irregularity where there is no gular pulse to explain matters (as in old people and others ıo suffer from attacks of palpitation with irregular action of e heart) the same cause is at work, not only because of nilarity in type, but because in such people there is a great ıdency to extra-systole of the ventricles—a condition which, will be seen, often precedes the continuous irregularity.

Interpretation of a Tracing of the Jugular Pulse.

The interpretation of a tracing of an irregular pulse even h the aid of a simultaneous tracing of the apex beat is gely a matter of inference, depending on the resemblance he tracing to the results obtained by experiment. Inter- tation on such grounds is liable to error and satisfactory

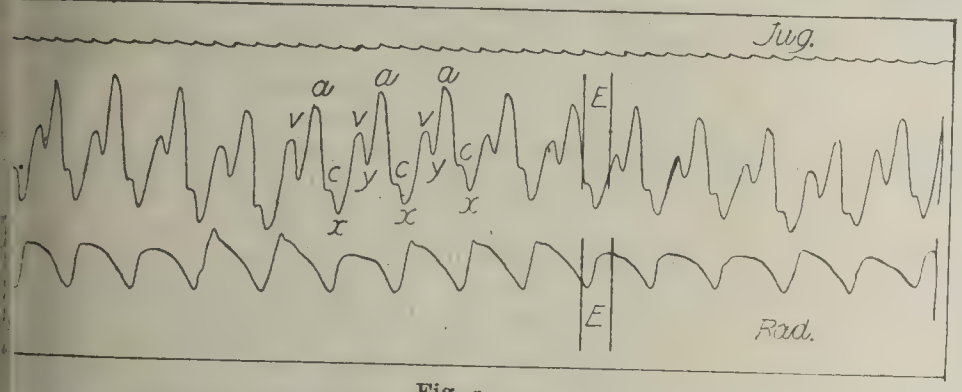

Fig. 1.

clusions cannot always be reached. With the simul- ous record of the jugular pulse and arterial pulse the ıre of many irregular pulses can demonstrated. In a tracing of the ation in the jugular even where e is but a slight regurgitation back ı the right heart, a series of waves otained whose significance, as a , can be easily recognized. In Fig. 1 radial pulse and the jugular are n together. The space *E* in this, as l the other tracings, represents the of ventricular systole during which semilunar valves are open and ı the effects of the ventricular ple would appear in any tracing, fore a little later in the radial in the jugular or carotid tracings.

Immediately in front of this period (*E*) in Fig. 1 is a wave, *a*, which from its situation in the cardiac cycle can only be due to the systole of the auricle. Immediately after the auricular wave, *a*, is a great fall, *x*, which is due to the diastolic expansion of the auricle emptying the jugular of its contents. It is important to notice particularly this fall, *x*, as its presence indicates with certainty that the auricle must have contracted immediately before it. Sometimes it happens that the wave sent back by the auricle is so small, or that the vein is so distended, that the auricular wave cannot be detected in the tracing as a separate wave, and the systole of the auricle might be overlooked, were it not for the sudden emptying of the vein due to the auricular diastole, for, if the auricle dilates, it must have contracted. Further, when the rhythm of the pulse is altered, the presence of this fall is decisive in interpreting the nature of the changes that are taking place. Following on the fall *x* in Fig. 1, there is a rise in the tracing *v*, which is due to regurgitation by the last portion of the ventricular systole. Its appearance at this late period of the ventricular systole is due to the fact that the regurgitant blood sent back by the ventricle cannot appear in the jugular until the dilating auricle has been filled. If that has happened before the end of the ventricular systole, then the overflow appears in the jugular as a distinct wave *v*. It is to be borne in mind that the tricuspid orifice readily becomes incompetent with dilatation of the right heart. One can form an idea of the degree of engorgement from the earlier appearance in the period of ventricular systole (*E*) of the wave *v*. If the auricle does not completely empty itself, then it will fill the sooner, and the wave *v* appear the earlier. Thus Fig. 2 was taken from the same patient a week after I took Fig. 1. In this patient there was marked aortic and mitral regurgitation due to valvular disease, compensation gradually failed, and there was increased dilatation of the heart. The increased engorgement is reflected in the jugular tracing by the increase in the size of the wave *v*. The patient died the day after Fig. 2 was taken, and the necropsy verified the diagnosis, the auricles being enlarged and greatly distended with blood. If the patient had lived longer, the wave *a* and the depression *x* would have disappeared, and there would have been but one large wave synchronous with and due to the systole of the right ventricle, and one large fall *y*, synchronous with and due to the diastole of the right ventricle, as in Fig. 3. That is to say, the auricle would have ceased to contract (and therefore ceased to dilate), in fact, auricular paralysis from over-distension. I have observed such changes take place in the life of a patient, and for years the venous pulse would preserve the character of Fig. 3, and never show the slightest symptom of auricular contraction, even when the heart action became very slow as in Fig. 4. Fig. 4 is from the same patient as gave Fig. 3. The shading under Fig. 4 is the representation of the sounds and murmurs heard at the time this tracing was taken. There was a systolic

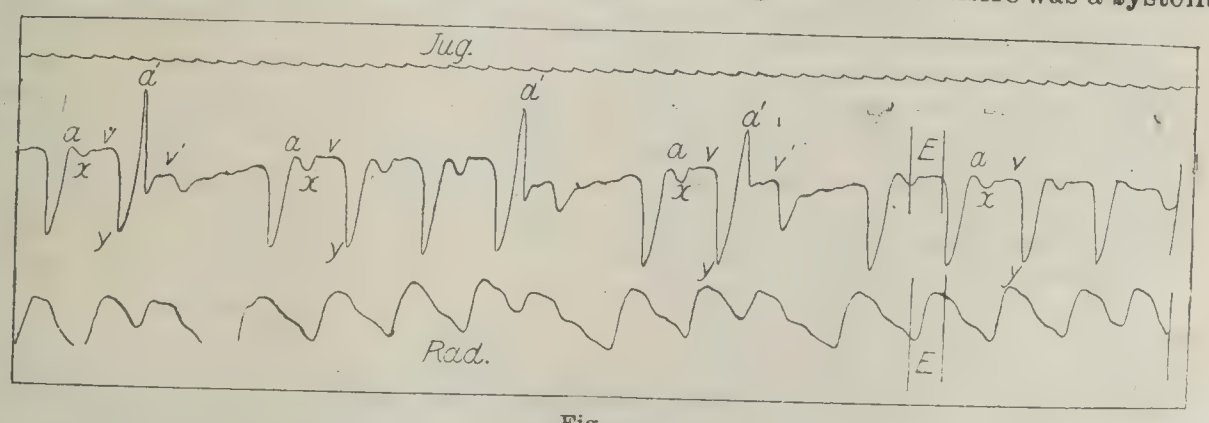

Fig. 2.

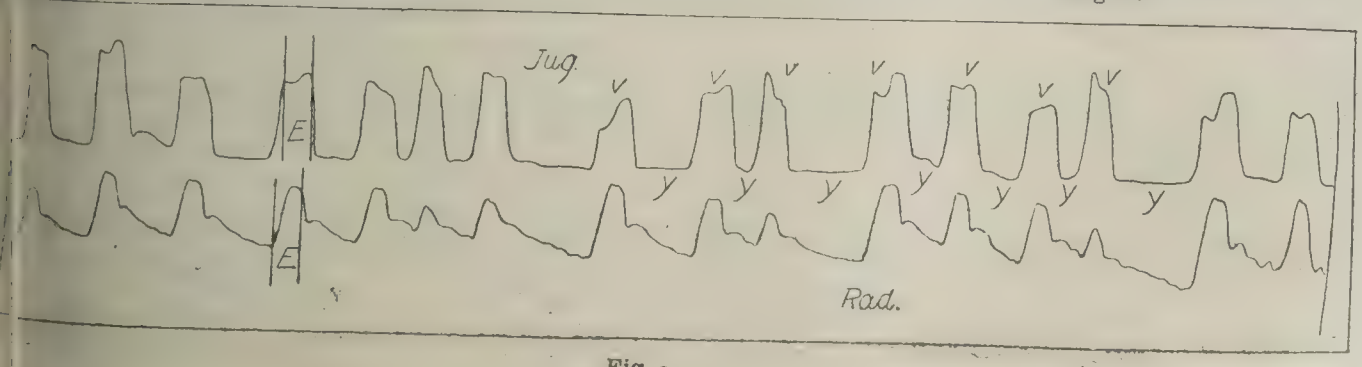

Fig. 3.

mitral murmur with the double heart beats, and during the long pause a long murmur occupying nearly the whole of diastole, stopping short, however, of the succeeding first sounds—that is to say, there was no presystolic murmur of the crescendo type. The diagnosis of the heart condition from the

nature of the murmurs and jugular pulse was mitral incompetence and mitral stenosis, with paralysis of the auricle from over-distension. This was verified at the necropsy, where, in addition, there was found tricuspid stenosis.

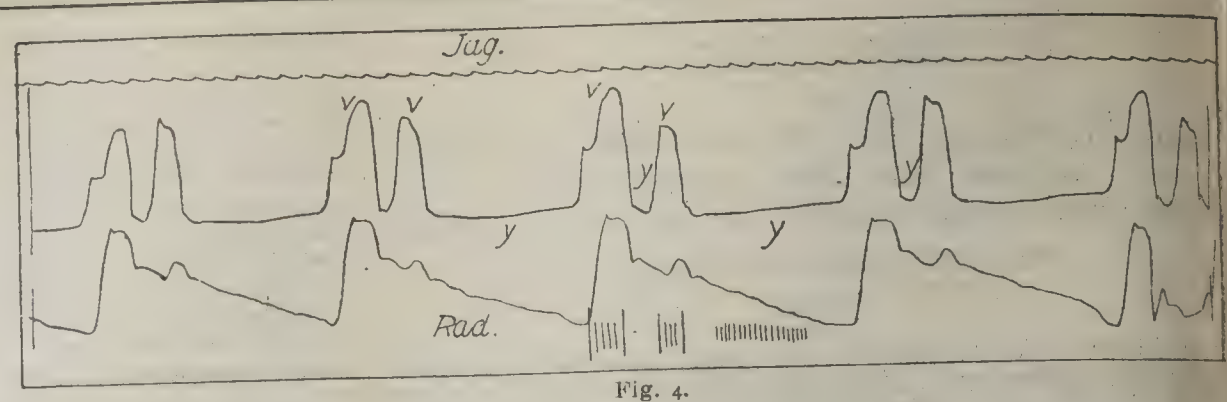

Fig. 4.

THE EXTRA SYSTOLE.

In the pulse of many people an intermission is sometimes detected, or a small beat is felt, occurring earlier than usual, and followed by a pause longer than usual. If a tracing of the radial be taken, there will often be found a small pulse wave, even when the finger failed to recognize the beat at the irregular periods, as *B* and *C*, Fig. 5. At other times there may be no sign of a beat having taken place, as at *A* and *D*, Fig. 5. It can, however, be inferred with confidence that during *A* and *D* a systole did occur, but it was not of sufficient strength to propagate a wave into the radial artery from the fact that the period, including the long pause and the preceding pulse beat, equals two ordinary pulse periods, for a reason to be explained later. If the jugular tracing be studied, a very interesting state of affairs is disclosed. The wave *a* is due to the auricular systole, as was shown in describing Fig. 1. At the time of the irregular period, *C*, the wave *a'* occurs before the usual time occupied by the other auricular waves *a*. Following this is the carotid wave *c'*—a little later than *c* usually follows *a*, but at a time corresponding with the small beat in the radial. The wave *v'* is due to the extra systole of the right ventricle appearing late, in accordance with the interpretation given in describing Fig. 1. Here we have an instance of an extra systole set up in the auricle and followed by an extra systole of the ventricle. In passing it may be pointed out that here the carotid wave *c'* follows the wave *a'* at an interval slightly longer than occurs in the normal rhythm of the heart. The reason for this may involve the question whether the conducting power of the muscular fibres between the auricle and ventricle had completely recovered from their exhaustion after the preceding ventricular systole, but need not further concern us in discussing the subject in hand. If now we examine the irregular period *B*, we find a very different state of affairs. The auricular wave *a* appears at the usual time after the preceding *v*, and is succeeded at the usual time by the following wave *a*. We can say, therefore, that here the auricle pursued its wonted rhythm; but it is not followed by the wave *c* due to the carotid pulse. If we look at the radial we find that the small wave there occurs slightly before its time; in fact, it occurs at the same time as the auricular wave *a'*—in other words, there is an extra systole which has only affected the ventricle and has occurred at the same time as the auricular systole.

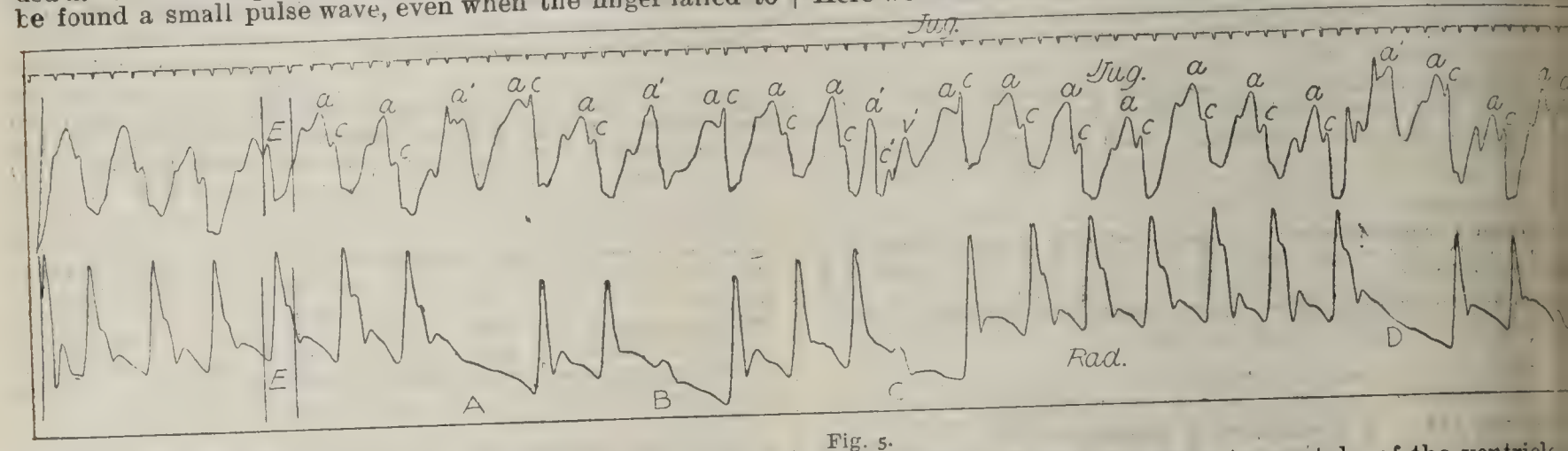

Fig. 5.

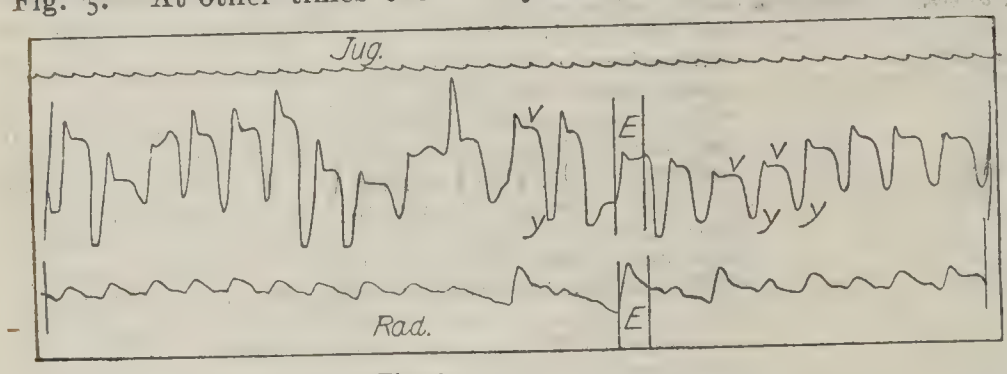

Fig. 6.

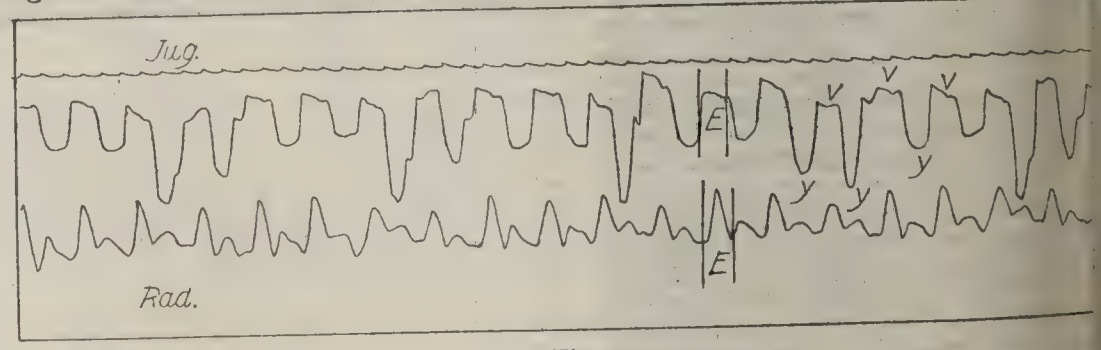

Fig. 7.

When we come to examine the character of the irregular periods *A* and *D* another character is found. Although there is no radial pulse beat, it can be inferred with certainty that an extra systole occurred from the fact that the time occupied by the long pause and preceding pulse corresponds to the time occupied by two regular pulse periods. Another evidence is found in the change in the jugular pulse. In the irregular periods *A* and *D* there is a large broad wave *a'* very different from the waves *a* in the irregular periods *B* and *C*. The explanation that I give is, that here the ventricle has

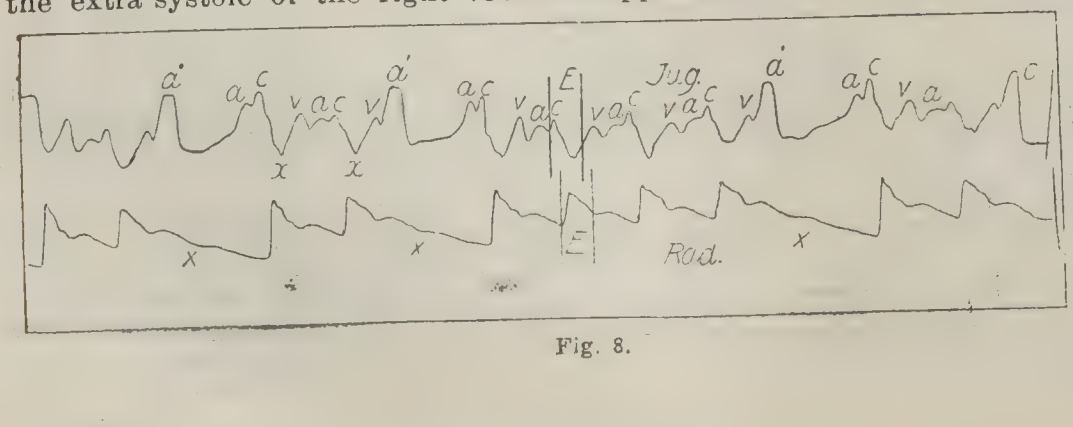

Fig. 8.

begun to contract before the auricle and that the whole of that wave is really ventricular. In favour of this explanation is the fact of the absence of the radial pulse, which indicates that the extra systole of the ventricle has occurred earlier after the preceding beat than in the irregular periods *B* and *C*. The presence or absence of a wave in the radial pulse due to an extra systole depends among other things upon the time of the occurrence of the extra systole; if it occurs near the usual time for the appearance of the normal pulse, it will be large (see Fig. 21), if it occurs just shortly after the preceding ventricular systole it may be small or absent. The fact that it is present in the periods *B* and *C* and absent in *A* and *D* points to this being the likely explanation. I find in numerous tracings from this patient taken at different times that when there is a broad wave in the jugular pulse at the time of the extra systole, there is an absence of a corresponding pulse beat in the radial, or the pulse beat is very small; whereas, when there is a large or well-marked radial beat, it has occurred late in the diastolic period, and the auricular wave *a'* is of normal duration (Fig. 21). This fact is of importance in considering the changes that take place in the veins during a sudden change in the heart's rhythm, and will be referred to again.

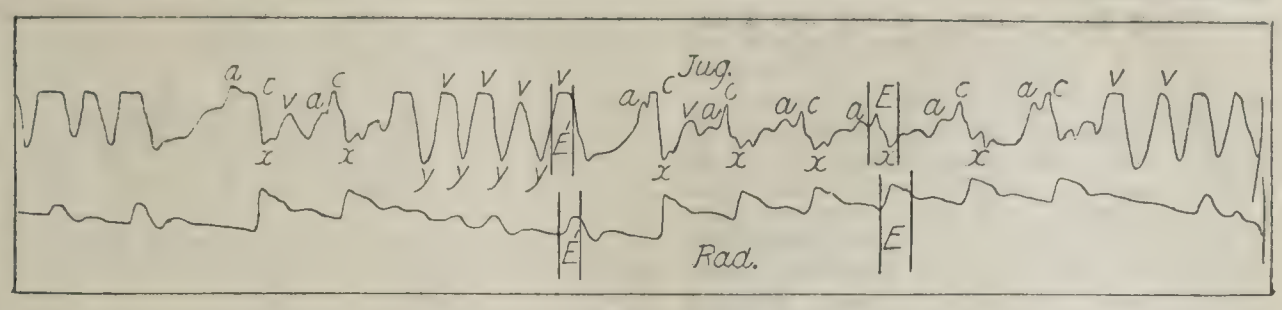

Fig. 9.

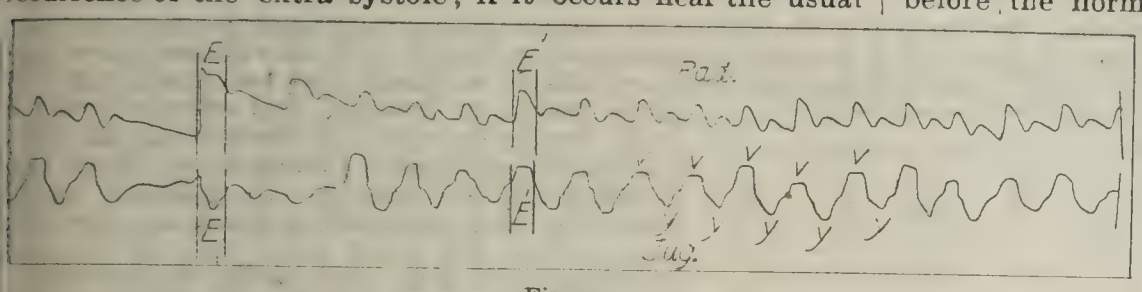

Fig 10.

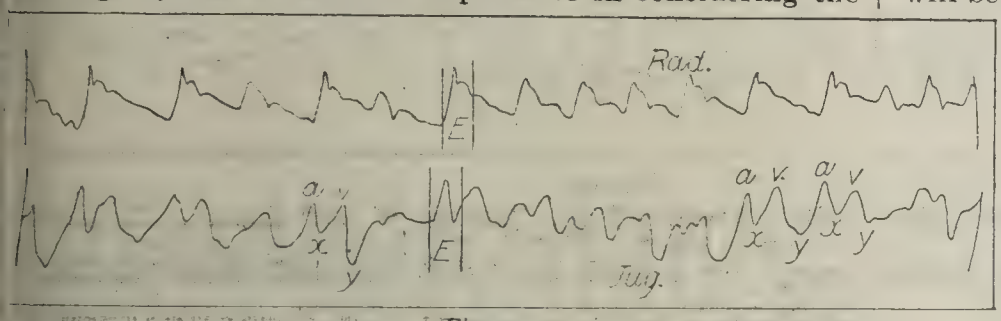

Fig. 12.

The Nature of the Extra Systole.

There is not space here to note the investigations of many observers, both experimental and clinical, to explain what the extra systole is. The salient facts are as follows: During the contraction of the muscular fibres of the heart and for a short time after, the heart muscle cannot be stimulated to further contraction—that is, it is "refractory"; hence it is impossible to set up a tetanic contraction of the heart muscle. The stimulus that normally produces contraction originates periodically at the mouths of the great veins and passes from thence downwards to auricle and ventricle. The auricle or ventricle may be stimulated to contract by some extra stimulation before the normal periodic stimulus is due, so that there arises a premature contraction of the auricle or ventricle—an extra systole. When the periodic stimulation arrives from the great veins it finds the auricle or ventricle in a refractory state; they do not respond but remain quiescent until the next periodic physiological stimulus arrives. Hence, as Engelmann has explained, there is a long pause—the so-called compensatory pause—after the extra systole, and hence also the fact that the period occupied by the extra systole and the preceding beat equals that of two pulse periods, as shown in Figs. 2 and 5.

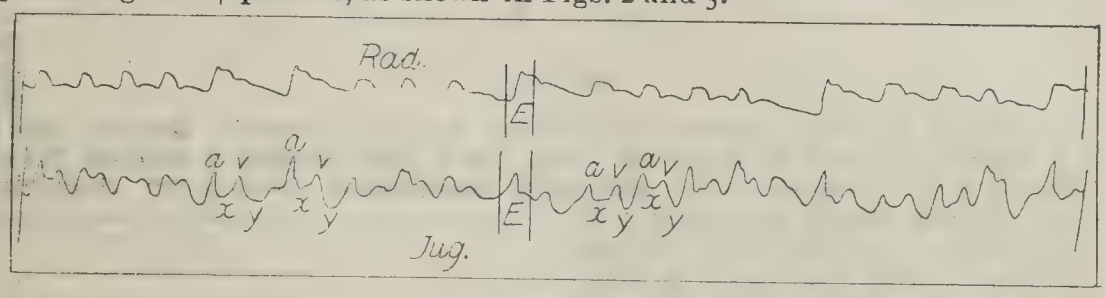

Fig. 11.

From what has been said in regard to the extra systole, it will be seen that the starting point of the heart's contraction may not necessarily be at the great veins, as they debouch into the auricles, but the stimulus may originate in either the auricle or ventricle. So far, the evidence has only shown that the ventricle can start the rhythm in isolated beats. The question arises—Can it be shown to affect the heart in a series of beats? I have proof that the ventricle can take on the inception of the rhythm of the heart, and when it does so the rhythm is almost invariably irregular—the heart staggers, so to speak. The chief exception to the heart being irregular is when the rate is very frequent—110 to the minute or over. It might seem that then the stimulus to contraction affects the heart as soon as the refractory stage has passed off.

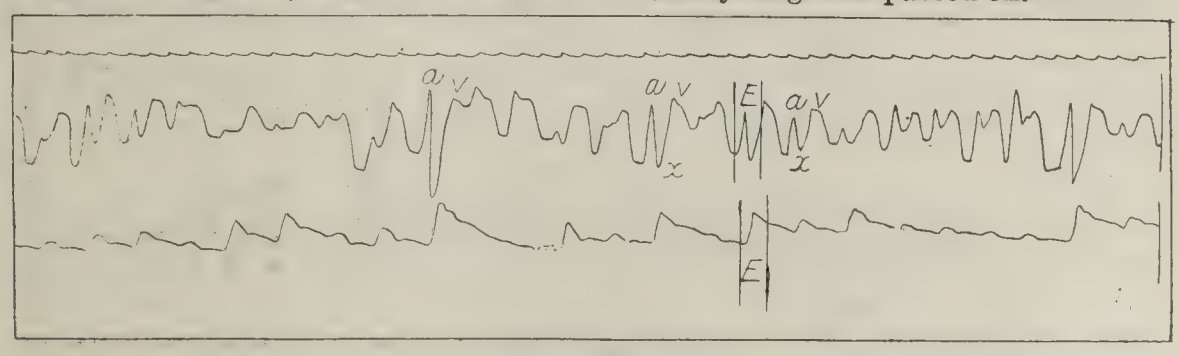

Fig. 13.

The cases I have so far studied can be grouped under three heads:

1. Those cases where there is auricular paralysis from over-distension secondary to disease of the mitral valves.
2. Those cases where there is no evidence of auricular action, but where the movements in the veins demonstrate that the rhythm of the heart is due to the ventricle.
3. Those cases where the auricle and ventricle can be demonstrated to contract simultaneously.

1. *Those Cases in which there is Auricular Paralysis from Over-distension Secondary to Disease of the Mitral Valves.*

This class has already been dealt with in

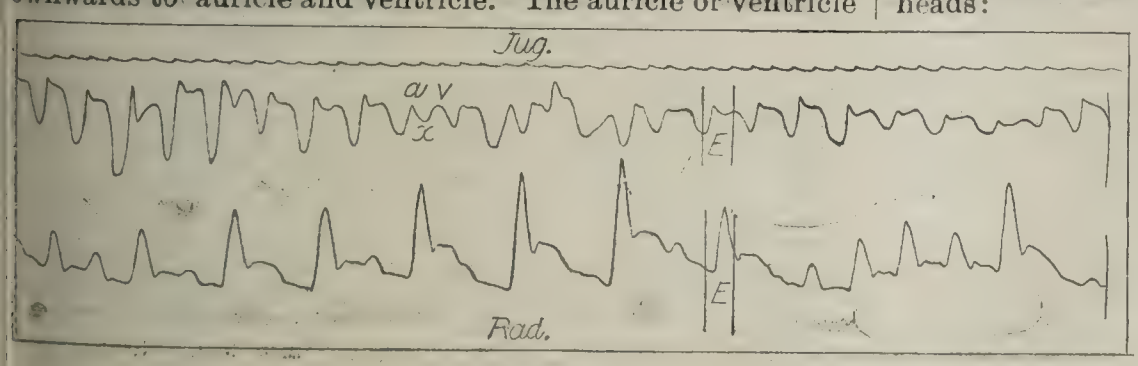

Fig. 14.

describing Figs. 3 and 4, which are good examples of the type of irregularity when the heart is acting slowly. This condition is easy of recognition if there is a jugular pulse and the movements recognized. As a rule the jugular pulse is present and is often of enormous size. In some instances I have watched the cases for six, seven, and eight years, and have taken tracings at intervals, and never found the pulse once regular after the paralysis of the auricle could be demonstrated, whilst previous to this the heart was regular in its action save for the rare occurrence of an extra systole. In Fig. 2 one can see that the heart is beginning to stagger from the presence of three premature systoles. For some months

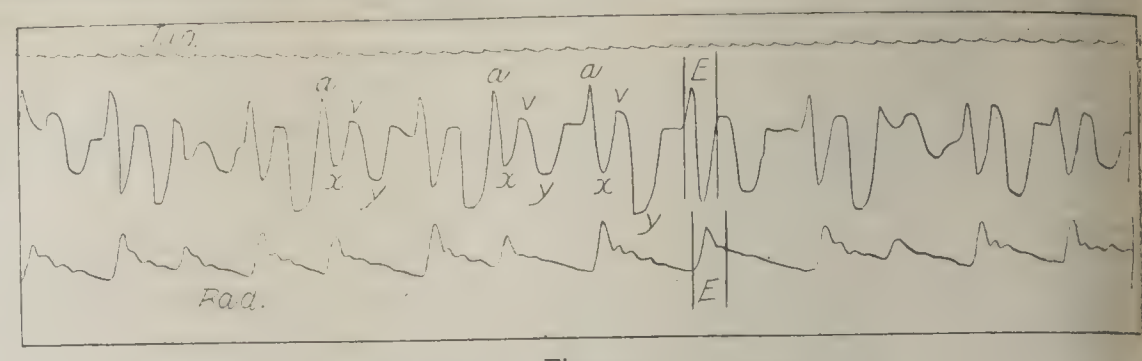

Fig. 15.

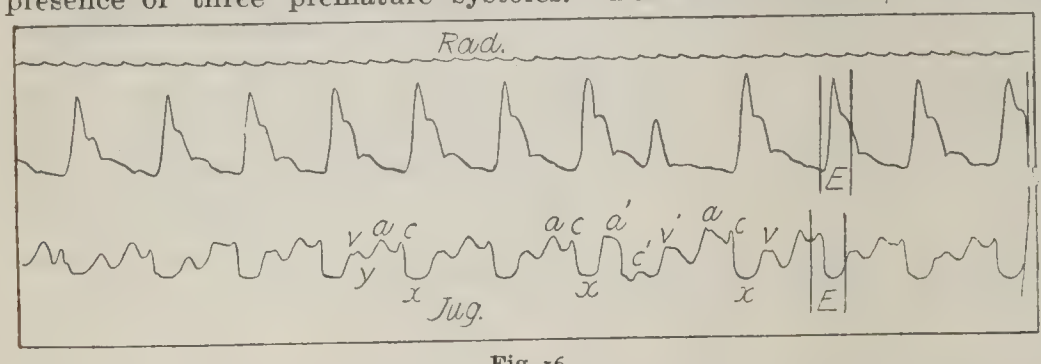

Fig. 16.

reviously I had taken numerous tracings from this patient and never once got an irregular beat. As I have already pointed out, the auricle was evidently enormously over-distended and almost paralysed. In this class of case there may be long periods of very rapid action when beats of the most varied size and duration may be present, as in Fig. 6. This is from an old-standing case of mitral disease with great enlargement of the heart, and is a good illustration of what is spoken of as the mitral pulse. It will be seen here that the wave in the jugular is synchronous with that of the radial, and the fall *y* corresponds in time with the ventricular diastole; in other words, there is a complete absence of any sign of the systole or diastole of the auricle.

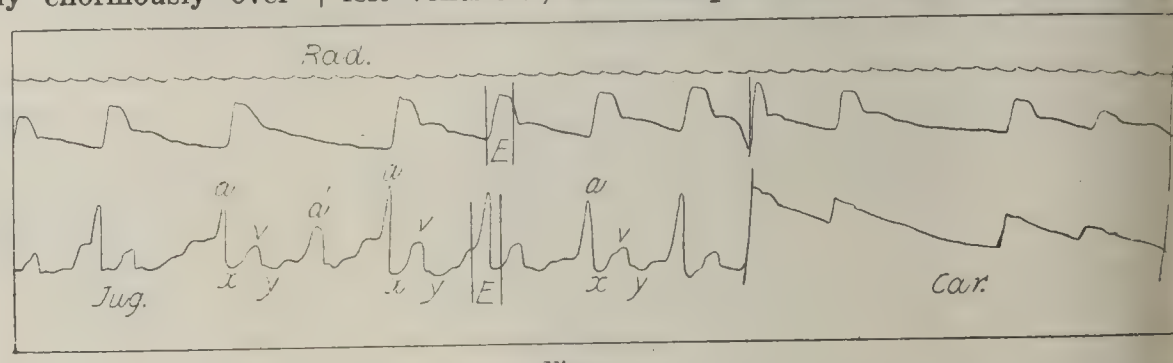

Fig. 17.

2. Those Cases in which there is no Evidence of Auricular Action during the Irregular Period, but where the Movements in the Veins demonstrate that the Rhythm of the Heart is due to the Ventricle.

This condition of heart irregularity is usually well and permanently established when the patient comes first under observation. There is then always a history of shortness of breath and attacks of weakness extending back for months or years. When once recognized, the condition persists usually to the end of life, and the fatal termination is probably due to the long-continued irregular action of the heart. Fig. 7 represents a typical tracing of this condition. There is here, as in the preceding class of cases, one large wave, *v*, synchronous with, and due to, the systole of the right ventricle, and one large depression, *y*, synchronous with, and due to, the diastole of the right ventricle. This was taken from a man aged 48 years, suffering from emphysema and bronchitis, and who had for many years suffered from attacks of weakness and breathlessness. He came under observation two months before he died. During the whole of this time the pulse was continuously irregular, though often slower than is shown in the tracing. In addition to the bronchitis and emphysema there was great enlargement of the heart (apex beat in the sixth interspace and 2 in. outside the nipple line), a systolic murmur at the apex, enlargement and pulsation of the liver, and extensive dropsy.

At the necropsy there was found emphysema of the upper part of the lungs, congestion of the bases, great dilatation of the left ventricle and auricle, the mitral valves being perfectly healthy, but the orifice permitted the passage of three fingers. The right ventricle was hypertrophied, the columnae carneae being two or three times thicker than those of the left ventricle; the tricuspid valves were healthy, but the orifice permitted the passage of four fingers. The auricles were very greatly dilated, with the walls everywhere thinned except for a thick band that stretched across between the appendix and the cavity of the auricle. As one looked at the thin-walled auricle one could easily conceive its inability to contract, but what the meaning was of that thick hypertrophied band of muscular fibres I could not divine. If it did contract—and one cannot imagine it to hypertrophy without functionating—it must have done so at the same time as the ventricle, for there was no sign of independent contraction in the venous pulse.

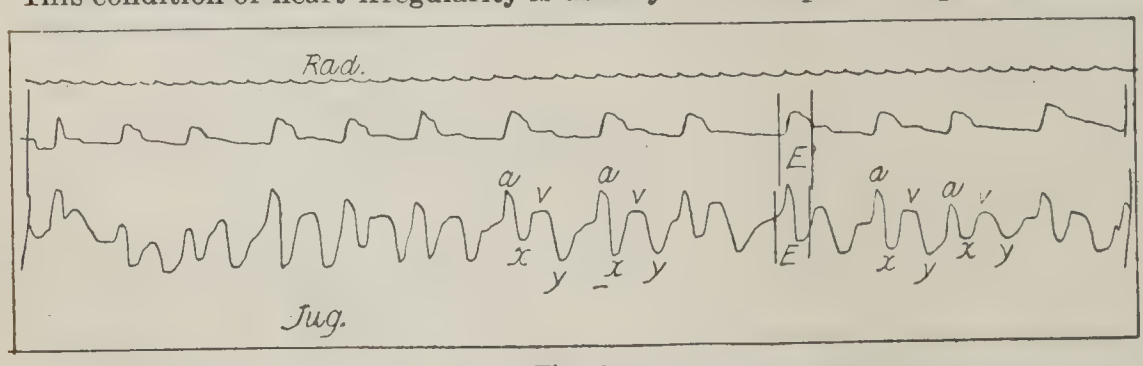

Fig. 18.

The manner in which this condition of permanent irregularity arises can be better illustrated by taking a less advanced instance, and I am fortunate in being able to give tracings from a case where the condition was only temporary and where the gradual passage from the normal to the extremely irregular and rapid action of the heart was demonstrable. In this patient, a female aged 35, eight months pregnant with her second child, the heart was usually regular

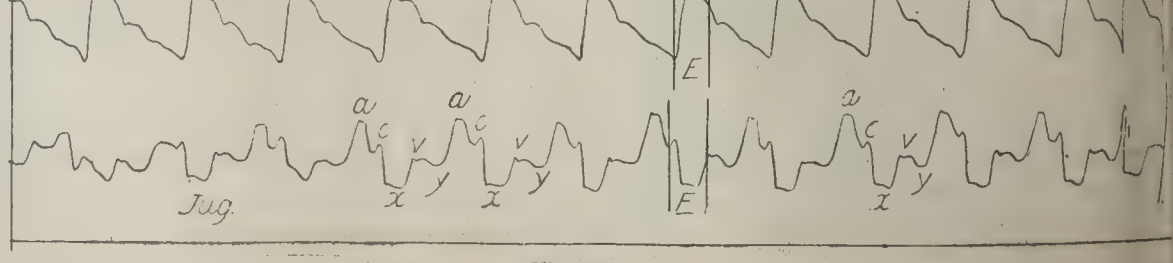

Fig. 19.

but she was subject to attacks of palpitation which distressed her greatly. I have taken numerous tracings of her pulse (radial and jugular) during these attacks. When the heart was beating regularly there was often no sign of the jugular pulse, and when present it was of very small size. When the palpitations began the heart became irregular and the veins of the neck speedily filled up with waves of blood sent back from the right heart, and good tracings were obtained of these waves. Fig. 8 shows one phase of the irregularity where the radial pulse shows intermissions at ×, after every few beats. This is due to extra systoles, as can be inferred from the fact that the long pause and the preceding pulse beat together equal the time occupied by two pulse periods. That it was a

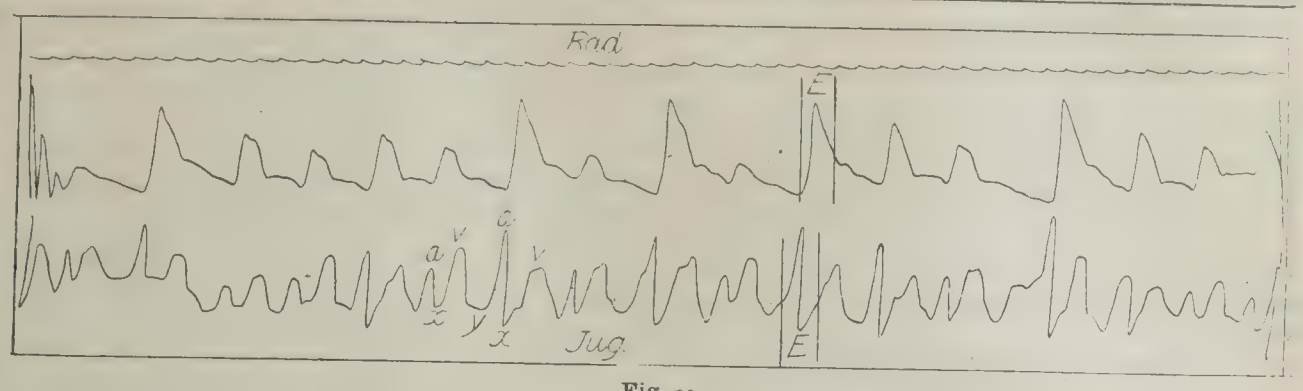

Fig. 20.

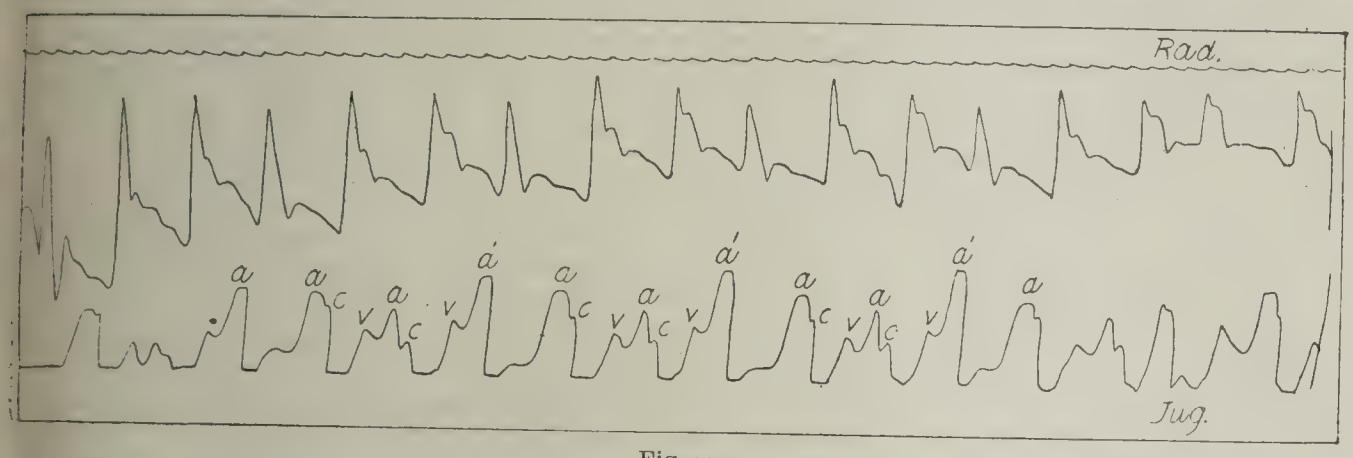

Fig. 21.

ventricular extra systole can be recognized from the jugular pulse by the fact that the auricle maintains its regular rhythm during this irregular period. The increased size of the auricular wave *a'* indicates that when it contracted the ventricle was in systole, hence a larger volume of blood was sent back by the auricle. In Fig. 9 we can observe the sudden change of the heart from the normal rhythm to one of varied frequency and strength. The normal pulse beats can be recognized always by the fact that during the period (*E*) of the ventricular systole there is always a well-marked fall *x* in the jugular tracings due to the auricular diastole. On the other hand the abnormal beats showed a rise *v*, during the ventricular systole (*E'*), indicating that the ventricle has taken on the inception of the rhythm. It will also be noted that when there is no sign of a pulse in the radial there is a well-marked beat in the jugular. In Fig. 10 we have a similar state of affairs, only that there is here but one regular pulse period (*E*), all the rest being abnormal in the sense that it is the ventricle that is giving the heart its rhythm.

The question arises what was the auricle doing during this abnormal rhythm? That it was not paralysed is evident in that it at once returns to work immediately the normal rhythm is resumed. It may be that this class of cases should not be grouped separately, some of the cases like those from whom Fig. 7 was obtained belonging to the first group, while those with irregularities shown in Figs. 9 and 11 should properly be included in the following group. Still as there is a difference in the character of the jugular pulse I provisionally include them in a separate group.

3. *Those Cases where the Auricle and Ventricle can be Demonstrated to Contract Simultaneously.*

As in the last group, the irregularity is usually permanently established when first met with, and the patient often gets gradually worse until he dies of failure of the heart. People may, indeed, go about for years with the heart acting in this disorderly manner, but they are always rather feeble, and there is a distinct limitation of the field of cardiac response. Figs 11 and 12 are from a man in comfortable circumstances who died of heart failure in July, 1897, aged 65 years. I had known him since 1879, and until the last few years of his life had looked upon him as a healthy, vigorous man. During the last few years of his life he suffered from weakness and shortness of breath on exertion. The only abnormal symptom was a pulse of continuous and varying irregularity. He had several attacks of extreme heart failure, with dropsy and oedema of the lungs, from which he made partial recoveries. Fig. 11 was taken during one such breakdown in November, 1895. Fig. 12 was taken in January, 1896, after he had made a partial recovery. In the latter tracing the pulse is slower, but still irregular. At no time after I first recognized the irregular pulse did I ever find it regular. In these two tracings the most striking and peculiar feature is the jugular pulse. Here there is no sign of an auricular wave at the usual period in the cardiac cycle, that is, before the period (*E*), nor is there a fall corresponding to the usual time of the auricular diastole, occupying the first portion of the period (*E*). During the ventricular systole (period *E*) the jugular pulse is divided into two by a depression of varying size. This fall in the tracing means that blood must have been absorbed from the veins during that time. It could not have been by the diastole of the ventricle, for the radial pulse shows the ventricle was in systole at that time. It must, therefore, have been due to the auricular diastole, and the preceding wave must have been due to the auricular systole, that in fact both chambers must have contracted at the same time. Such, indeed, is the only explanation I can suggest to explain the peculiar changes that have taken place in the rhythm of the heart. Although I was forced to this conclusion some years ago in the interpretation of the movements in the vein by applying rigidly the facts known to us of the possible causes, yet the interpretation seemed so incredible I dare not include these tracings and this interpretation in my book on the pulse, but waited till more convincing light could be thrown upon the subject. Quite recently I have had the opportunity of demonstrating these changes in a remarkable manner in another patient.

The following case I give in some detail, as the information afforded by the jugular pulse is of the most interesting and instructive character.

The patient is a widow, nulliparous, aged 57. I have known her for over twenty years as a healthy, sober, and industrious person. She keeps a small grocer's shop, works hard, and is in very comfortable circumstances. I have attended her at rare intervals for slight ailments, as quinseys and mild attacks of influenza. The only abnormalities I have found present in her case are a pulsation in the veins of the neck, and a cantering rhythm of the heart sounds when the heart is regular, an occasional intermission of the pulse, and at certain times a systolic murmur heard at the apex and at midsternum. The feature that chiefly concerns us here is the occasional irregularity of the heart as observed in its effects on the radial and jugular pulses. Until three years ago this consisted in the occurrence of an extra systole, sometimes at very rare intervals at other times more frequently, as in Fig. 5, which was taken from this patient in July, 1893. As a rule, the extra systole was of ventricular origin, but in rare instances it was of auricular origin (*C*, Fig. 5 and Fig. 16). Since 1900 she has had occasional attacks of "palpitation," in one of which attacks I got tracings of the radial and jugular pulses that agree in all particulars with the tracings obtained during the attacks about to be described.

On October 2nd, 1903, she felt weak, exhausted, and a

distressing fluttering sensation within her chest, and I found her heart's action extremely irregular, and the tracings of the radial and the jugular were similar to those in Fig. 13. This attack of "palpitation," as she called it, lasted four or five hours. On October 19th she was again seized with a similar attack, which lasted the whole of the day. The tracings (Fig. 13) of the jugular and radial convey a very true picture of the degree of arrhythmia. Next day the pulse was quite regular, and the jugular pulse presented its usual normal character of an auricular wave before the ventricular systole, and an auricular depression during the ventricular systole, as in Fig. 19.

On October 22nd the heart again became irregular. Fig. 14 shows the jugular and radial pulse during this period. This attack continued without intermission until November 1st. From October 27th the heart acted much more slowly than in Fig. 14, but still there was a distinct absence of regularity in the rhythm of the heart, as shown in Fig. 15. This slow action of the heart, with the curiously doubled beat in the jugular during the period of ventricular systole, continued until November 1st, when the heart became quite regular, with the exception of an occasional extra systole, as in Fig. 16. On November 2nd the heart became irregular, as in Figs. 17 and 18. Towards the evening of the next day, however, the heart was again quite regular except for an occasional extra systole. On November 4th the heart became quite regular, as in Fig. 19, and no extra systole was detected. The patient gradually regained strength, the jugular pulse diminished in size and gradually disappeared, but could be recalled to a slight extent when the patient held her breath. The auricular systole always maintained its normal position in the cardiac cycle during this period. On November 14th she had another attack, and the same feature was again present in the jugular pulse (Fig. 20). This attack persisted until November 19th, when the pulse again became normal with the exception of the occasional occurrence of extra systole. In Fig. 21 the extra systoles occur after every second beat, giving the appearance of a regular irregularity. This did not continue long, the extra systole appearing at much rarer intervals.

The following interpretation of the jugular pulse during irregular action of the heart seems to me the only feasible one. If we take a tracing where the heart is acting slowly, as Figs. 15 and 18, we find that during the ventricular systole there is a great fall x in the jugular tracing. This implies that at that time some great fall in pressure had taken place in the chest, which emptied the veins of their contained blood. Only two factors could produce this, the diastole of the auricle or the diastole of the ventricle. As, however, it is shown that the ventricle is in systole, it can therefore only be due to the diastole of the auricle. In that case the wave a, preceding x, must have been caused by the systole of the auricle, because the presence of a diastolic period necessitates the previous occurrence of a systole. Therefore the wave a, though it occurs at the time of the ventricular systole, is in reality due to the auricle, and here the auricle and ventricle have contracted together. It can be shown by Fig. 19 that the auricular systole lasts about $\frac{1}{10}$ sec., and the ventricular systole nearly $\frac{4}{10}$ sec. When they contract together the former systole ceases much earlier than the latter, and so the contracting ventricle speedily fills up the dilating auricle and sends a wave (v, Figs. 15 and 18) back into the veins towards the end of its systole. After that it passes into diastole, and the vein again empties itself during the fall (y). The rise in the veins after y, when the pulse is slow, is due to stasis in the veins. After this the cycle of events is again resumed. When the heart beats rapidly the period of stasis is absent, and even the fall due to auricular diastole may not be evident, as in many of the beats in Fig. 14, so that the tracing of the jugular pulse assumes the same character as in Figs. 6 and 7.

In analysing these tracings there are a great many novel and instructive points well worthy of consideration. It will be possible to deal here only with those that have an immediate connexion with the irregular rhythm. One of the most striking features is the position in the cardiac cycle of the auricular systole during regular and irregular action of the heart. When the heart beats regularly, as in Fig. 19, the auricular systole is always found to occupy the normal position in the cardiac cycle. Even with the somewhat frequent occurrence of extra systole, as in Fig. 21, the auricle maintains its rhythm. When, however, the heart acts irregularly the auricular wave in the venous pulse does not precede the ventricular systole. Not only is this the case in the rapid heart action, as shown in Figs. 13 and 14, but also when the heart is beating slowly, as in Figs. 15, 18, and 20. In other words, when the rhythm of the heart originates at the auricles, or at the auricular mouths of the veins, it is always regular. When, however, the ventricle takes on the inception of the rhythm the heart is always irregular.

The explanation for this is to be sought for in the nature of the functions of the muscular fibres of the heart. Independent of any nervous connexion, as Engelmann has shown, the muscular fibres possess, amongst other attributes, the power of creating a stimulus and the power of conducting a stimulus from fibre to fibre. During a contraction of the muscular fibres these powers are for a time abolished, and their return takes place gradually during diastole. Normally the power of creating the stimulus arises with greater rapidity in the region where the great veins open into the auricle. From hence the muscular fibres convey the stimulus from auricle to ventricle. One great characteristic of the stimulus-production of the veins is its periodicity—that is to say, the production of the stimulus is carried on with great regularity, and hence the continuous and equal rhythm in the regular pulse and the regular succession of events in Fig. 19. In such tracings as Fig. 21 the regular appearance of the wave a and a' shows that the stimulus has maintained its periodic character and the irregularity is limited to the ventricles. But as all muscular fibres possess this power of originating the stimulus, certain abnormal conditions may affect the muscle fibres of the ventricle, so that the stimulus-production arises prematurely, not only at rare intervals producing the occasional extra systole, but continuously so that the origin of the stimulus-production is in the ventricle, and not in the veins. Such, indeed, is the conclusion drawn from the study of these tracings, and from their study it can be asserted that when the ventricle gives the rhythm to the heart movement it is an irregular one—the only exception being, so far as my observations have gone, when the heart beats with great rapidity as in paroxysmal tachycardia, and for periods of rapid regularity like those represented in Fig. 10. Not only can one demonstrate in these tracings the power of creating the stimulus by the ventricle, but one can also show that the conduction of the stimulus takes place in a manner the reverse of what happens in the normal rhythm.

If one measures the time in Fig. 16, from the beginning of the auricular wave a to the appearance of the carotid wave c, it is found to be approximately $\frac{2}{10}$ sec. (The movements of the time marker represent $\frac{1}{5}$ sec.) This period we know is taken up by two events, first, the contraction of the auricle, and secondly, the presphygmic interval of the ventricular systole. The wave of contraction normally passes on without stop from the auricle to the ventricle, so that we know that the top of the wave (a) indicates the time when the wave of contraction passes from the auricle to the ventricle. The time therefore from the top of the wave (a) to the appearance of the carotid pulse (c) represents the time during which the ventricle is contracting before it opens the aortic valve (what has been called the presphygmic interval). It will be found that the auricular systole lasts $\frac{1}{10}$ sec. and the presphygmic interval also $\frac{1}{10}$ sec. In Fig. 17 the radial and jugular pulses were taken simultaneously in the first part of the tracing and the radial and carotid in the latter part of the tracing. It will be found on careful measurement that the wave (a) appears in the jugular vein exactly at the same time as the carotid pulse. We know from what has been said above that the presphygmic interval occupies $\frac{1}{10}$ sec., therefore we can infer that $\frac{1}{10}$ sec. before the wave (a) due to the auricular systole appears the ventricle had been contracting, and that it takes $\frac{1}{10}$ sec. from the beginning of the ventricular systole for the conduction of the stimulus back to the auricle. It may here be stated that there is no presphygmic interval in the auricular contraction, as the auricle has to overcome no resistance in the pressure of the veins compared with what the ventricle has to overcome in the aorta and pulmonary artery.

EXPERIMENTAL OBSERVATIONS.

There is no lack of observations in experiments on animals confirming the above interpretation. Gaskell says, "The ease with which a reversal of the beats of the heart can be observed is well exemplified in the hearts of the skate and tortoise, and in both cases it is clearly seen that the only factor requisite is to start a rhythm with a rate quicker than that of the natural sinus rhythm; that as might be expected the heart beat starts from the place where the rate of spontaneous contractions is quickest."....."Further M

William has shown that in the mammalian, just as in the cold-blooded heart a reversal of the sequence takes place when the ventricle is made to beat at a quicker rate than the great veins and auricles." More recently H. E. Hering has been able to induce ventricular extra systoles by raising the pressure within the ventricle. In these experiments he registered at the same time the movements of the four chambers of the heart and the variation of the carotid pressure. In one experiment on a rabbit he shows a continued series of contractions where the starting point of the contraction was in the left ventricle. In another experiment the heart spontaneously took on a different rhythm where the starting point was also from the left ventricle. But not only did the ventricle start contracting independently, but it also caused the auricle to contract and the time that the auricular contraction followed the ventricular practically corresponded to the time that the ventricular contraction followed the auricular when the rhythm was normal.

Conclusions.

From the foregoing considerations I think it may be considered demonstrated that the ventricle can take on the inception of the rhythm, and that when it does so the heart beats irregularly. It may further be presumed that whenever there is a continuous irregularity as distinct from occasional or rhythmic irregularity, the ventricle is giving the rhythm. Exceptions to this are rare, as in such peculiar rhythmical irregularity as is shown in Fig. 4 (due in all probability to digitalis), and in the extremely rapid action of the heart as is shown in Fig. 10. I am inclined to believe from the evidence I have at hand that in paroxysmal tachycardia the ventricle also takes on the inception of the rhythm.

The cause of the continuous irregularity is to be sought for in the exalted irritability of the heart muscle and not in the stimulation of the heart through the nervous system. So far as I know no experiment has demonstrated that stimulation of a cardiac nerve can produce a continuous cardiac rhythm where the contraction begins with the ventricle. Hering's experiments were carried out in hearts isolated from their nervous connexions. Further, Hering's experiments demonstrate that raising of the ventricular pressure can produce directly the premature contraction of the ventricle. I have had on several occasions the opportunity of observing in predisposed hearts—that is, hearts which give rise occasionally to extra systole—a continuous irregularity persists for several hours when the heart had been subjected to violent and unwonted exertion. As most cases that come under observation have this condition well and permanently established, and accompanied with considerable enlargement of the heart and symptoms of inefficient cardiac action, one has been inclined to attribute the continuous irregularity to the dilatation of the heart.

As I have had several opportunities of noting the beginning of the symptoms associated with attacks of continuous irregularity, I am convinced that the dilatation and ineffective action of the heart is secondary to the irregularity. When the irregularity begins there is uneasiness in the chest, a shortness of breath on exertion, a sense of weakness, which increases as the attack continues. Coincident with these symptoms are certain very definite changes in the circulation. The radial pulse becomes larger and very compressible, the veins in the neck become greatly engorged, the face becomes dusky, and the lips blue. The area of the heart's dullness extends beyond the right of the sternum, and the superficial structures of the chest wall become tender to pressure in the peculiar manner I have found so frequently associated with dilatation of the heart. These symptoms, which follow definitely the beginning of an attack of continuous irregularity, are those we meet with in advanced cases, and it is for that reason I suggest that it is the irregularity that is the cause of the inefficient heart action, and not the dilatation that causes the irregularity.

Treatment should therefore be directed to lessen the irritability of the heart muscle and to protect the heart from being exposed to causes that excite it to increased activity. While drugs such as opium, and the bromides do help in reducing the irritability of the heart muscle, in my experience no remedy equals prolonged rest in bed.

Explanation of Tracings.

In all these tracings the jugular and radial pulses are taken simultaneously. The space *E* represents the time of ventricular systole when the semilunar valves are open. In the radial tracings it is always calculated from the beginning of the upstroke of the radial pulse, and is always a little later than the same period in the jugular tracing, which is calculated from the time of the appearance of the carotid pulse.

The wave *a* in the tracings from the jugular pulse is due to the systole of the right auricle sending back into the jugular a wave of blood; the fall *x* is due to the emptying of the jugular by the diastole of the right auricle, and the fall *y* is due to the emptying of the jugular by the diastole of the right ventricle.

The wave *v* is due to the systole of the right ventricle. When it appears late in the period of ventricular systole, it is because it has to fill the dilating auricle before it can appear in the veins. When it occupies the whole time of the ventricular systole, the auricle then fails to contract and to dilate, or does so at an unusual period in the cardiac cycle.

The wave *c* is due to the carotid impact. It is not really from the jugular but is due to the fact that the carotid is so close to the jugular that in most cases a tracing of the jugular cannot be taken without the effect of the carotid pulse being perceptible in the tracing. It is, however, of considerable value in determining the time of the several events in the jugular pulse.

The time marked on each figure represents one-fifth of a second.

Fig. 1.—The various events in the jugular pulse show the normal time relationship. The jugular pulse is of the auricular type. Mrs. S., October 17th, 1903.

Fig. 2.—From the same patient as gave Fig. 1, taken a week later. The fall *x*, which was the greatest depression in Fig. 1 is here very small, and the fall *y*, which was small in Fig. 1, is the greater. The wave *v* fills up nearly the whole space occupied by the fall *x* in Fig. 1, and indicates greatly-increased engorgement of the right heart. The radial pulse is irregular, due to the frequent occurrence of extra-systoles. The large wave *a'* in the jugular is due to the regular occurrence of the auricular systole, and its increased size is due to the fact that when it contracts the ventricle is already in systole, and hence a large wave is sent back into the veins. From these evidences one recognizes that the extra systoles are of ventricular origin. This jugular pulse is intermediate between the auricular type as in Fig. 1, and the ventricular type as in Fig. 3. Mrs. S., October 24th, 1903.

Fig. 3.—The jugular pulse is of the ventricular type—that is, there is no sign of auricular contraction, and the wave *v*, occupies the whole period of ventricular systole and the depression *y* the whole time of ventricular diastole. Mrs. A., March 25th, 1902.

Fig. 4.—From the same patient as Fig. 3, after taking digitalis for three weeks. The pulse counted at the wrist is 30 per minute, the small wave in the radial being imperceptible. During the long pauses there is no sign of auricular action. The shading underneath represents the time of the murmurs, that is, a systolic murmur during the large and small beats, and a long murmur during the diastolic period. Mrs. A., April 12th, 1902.

Fig. 5.—The jugular pulse is of the auricular type. The tracing shows four extra systoles, three of them due to the ventricle (A, B, and D), and one due to the auricle (C). Mrs. T., July 25th, 1893.

Fig. 6.—The jugular pulse is of the "ventricular" type. From a case of advanced mitral disease. Mrs. F., October 18th, 1903.

Fig. 7.—The jugular pulse is of the "ventricular" type. From an old-standing case of bronchitis and emphysema, with irregular action of the heart. T. W., November 30th, 1903.

Fig. 8.—During irregular action of the heart. The auricle preserves its rhythm, there being a large wave (*a'*) during the premature contraction of the ventricles (compare Fig. 2).

Fig. 9.—Showing the rapid change of the jugular pulse from the auricular to the ventricular type. From the same patient as gave Figs. 8 and 10.

Fig. 10.—Showing only one beat of the auricular type (*E*), all the other beats being of the ventricular type (*E'*). From the same patient as gave Figs. 8 and 9.

Fig. 11.—The irregular rhythm is of ventricular origin, and the auricular wave (*a*) occurs during the ventricular systole (E). J. S., November 3rd, 1895.

Fig. 12.—Shows the same as Fig. 11, with a slower action of the heart. J. S., January 1st, 1896.

Fig. 13.—Rapid irregularity, with a well-marked fall *x* due to the auricular diastole during ventricular systole (*E*). Mrs. T., October 19th. 1903.

Fig. 14.—Rapid irregularity with the fall *x* only occasionally evident during ventricular systole (*E*). Mrs. T., October 22nd, 1903.

Fig. 15.—The heart is slower, but still irregular and the fall *x* is extremely well marked during the ventricular systole. Mrs. T., October 30th, 1903.

Fig. 16.—The normal rhythm of the heart has returned, and the normal sequence of events is shown by the jugular pulse. The occasional extra systole is of auricular origin. The wave *a'* is compounded of the ventricular wave *v* of the preceding systole and the premature auricular systole. This is inferred from the larger size of the wave and from the fall that succeeds it; *c'* is due to the carotid, and will be found to occur at the same time as the small pulse beat in the radial. This extra systole is of the same nature as *C* in Fig. 5. Mrs. T., October 10th, 1903.

Fig. 17.—In the latter part of this tracing the carotid is taken at the same time as the radial. The rhythm of the heart is irregular, and the wave *a* and the fall *x* show that the auricular systole and diastole occur during the ventricular systole. There is an occasional missed beat, and the wave *a'* shows at this time that the auricle contracted, but was neither succeeded nor accompanied by a ventricular contraction, as shown by the absence of waves in both radial and jugular tracings. Mrs. T., October 21st, 1903.

Fig. 18 shows the same incidents as Fig. 15. Mrs. T., November 3rd, 1903.

Fig. 19 shows a perfectly normal pulse, with all the events in the cardiac cycle following one another in a normal manner. Mrs. T., November 4th, 1903.

Fig. 20.—Inferences drawn from the radial pulse would assuredly mislead in recognizing the cause of the irregularity, as here there seem normal pulse beats followed by extra systoles. The jugular tracing demonstrates the real nature of the irregular rhythm, which shows the occurrence of auricular systole (*a*) and diastole (*x*) during the ventricular systole (*E*). Mrs. T., November 14th, 1903.

Fig. 21 shows the frequent occurrence of extra systoles of ventricular origin, and gives the clue to the explanation of the whole series of irregularities from which the patient suffered. The explanation of the extra systoles and regular appearance of the auricular waves is the same as that given from Fig. 2. Mrs. T., November 19th, 1903.

ON SOME HAEMOGLOBIN INVESTIGATIONS IN CASES OF CHRONIC HEART DISEASE.

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THE physical and dietetic treatment of chronic heart complaints in general, as well as the special treatment by baths and gymnastics, are so widespread nowadays that in the most recent literature the question is much less frequently asked whether these methods have a good effect on heart diseases, but rather in what way they act on the heart and body generally. It would lead us too far to repeat here the various opinions of the subject. The readers of the BRITISH MEDICAL JOURNAL would gain more information from the works of Bezly Thorne, Grainger Stewart, Lauder Brunton, Bowles, William Broadbent, Douglas Powell, and others.

In this short essay I only desire to set forth the results of a series of investigations which I undertook last summer with my assistant, Dr. Wolfson, for the special purpose of giving some support to my brother's opinion and my own that the combined treatment by baths and gymnastics has a tonic action not only on the heart but on the whole system. If also the patients should show when the cure is finished a more robust appearance, increased strength of muscle, especially displayed in greater ease in walking and climbing, better sleeping and improved appetite, etc., in short, greater bodily strength, yet it is not superfluous, but rather desirable to become acquainted with those clinical methods of investigation which make it possible for medical men living at a distance to get a clear idea whether such treatment is really a tonic. Besides the weighing of the patient during and after the period of treatment, my former researches, which were principally directed to the state of the heart and vessels, had included heart diagrams, sphygmograms, and blood-pressure tracings, while some other investigations, especially those relating to the composition of the blood, had not been carried out. The reason for not having made the last named was that for general purposes former methods of investigation left much to be desired; either too much time was needed for each separate investigation, or the mass of blood to be removed was so large that it must be taken direct from a vessel; in other words, such fuller investigations as would have extended over several weeks were scarcely applicable. Besides this, with most apparatus the blood had to be diluted or modified.

In the autumn of 1902 I obtained Dare's[1] haemoglobinometer. I must not allow myself to go more fully into a description of this instrument here, I only desire to describe its most essential merits; the first is that one drop of undiluted blood is sufficient for the investigation. For this purpose Dare has constructed a pipette so evenly that in an area of $\frac{1}{2}$ square centimetre one drop of blood is sufficient to fill the capillary space completely. In the apparatus there is a standard solution, the red colour of which corresponds to that of a solution of blood containing 100 per cent. haemoglobin. The drop of blood in the apparatus is compared with this standard solution. Candle light is used, so that the investigator is independent of daylight. The scale is on a revolving graduated wheel, and in that way, as the observer looks through a camera on to a white surface, the proportion of leucocytes in the blood need not be considered.

By following these directions every practitioner can in a short time learn how to make similar haemoglobin investigations within two minutes, and further so to diminish the sources of error that the differences between two observations and the readings of two observers amount eventually to only 1 to 2 per cent.

After sufficient practice on healthy people we began our observations on various forms of heart disease. Naturally care was taken that—besides the cautious manner of living which those suffering from heart disease must observe, with respect to the kind of nourishment, especially as to the nourishing power of the food taken—on the whole no essential change was made. In order to obtain correct comparisons the same hour was always chosen for the same patient for observation, but above all things care was taken that an equal time always elapsed after the last meal. Also it was made the rule that no examination of blood should take place during or after menstruation, or if it did take place it was not to be looked on as of any value as a comparison. The usual investigations of the heart with regard to heart diagrams and heart sounds, the sphygmogram, and above all successive observations with Gaertner's tonometer[2] always went hand in hand. In this way last summer 120 patients were examined under successive observations, and I permit myself to report here some of them very shortly and cursorily, reserving a more detailed description for a later time. In all cases except where otherwise stated the patients were subjected to combined treatment by baths and gymnastics.

CASE I. *Weak Heart, Ditatation of the Left Ventricle; Anaemia.*—Miss M., aged 18.

May 26th. Before the first bath, haemoglobin 69 per cent. (blood pressure 85 mm. Hg.).

June 3rd. After the sixth bath, haemoglobin 78 per cent.

June 23rd. After the eighteenth bath, haemoglobin 79 per cent.

July 9th. After the twenty-seventh bath, haemoglobin 81 per cent. (blood pressure 110 mm. Hg.).

The patient appeared much more robust after the cure, could walk for hours on level ground, and could climb hills without much difficulty. The treatment consisted of baths only.

CASE II. *Weakness of the Cardiac Muscle; Dilatation of both Ventricles; Anaemia.*—Countess St., aged 52 years.

May 25th. After the fourth bath, haemoglobin 60 per cent. (blood pressure 85 mm. Hg.).

July 13th. After the thirty-third bath, haemoglobin 75 per cent. (blood pressure 100 mm. Hg.).

This very feeble patient had taken iron at home for several weeks without result; during the first three weeks of her stay in Nauheim three bottles of haematicum (Glausch) were taken. The face was still pale at the end of the cure, though rather less so than at first, but the patient felt much stronger.

CASE III.—*Mitral Insufficiency after Acute Rheumatic Polyarthritis; Anaemia.*—Miss M. D., aged 15.

June 5th. Before the first bath, haemoglobin 53 per cent. (blood pressure 80 mm. Hg.).

June 14th. After the sixth bath, CO_2 (Spring 7.), haemoglobin 65 per cent.

June 23rd. After the twelfth bath, CO_2 (Spring 7.), haemoglobin 74 per cent.

July 3rd After the nineteenth bath, CO_2 (Spring 7.), haemoglobin 79 per cent.

July 15th. After the twenty-second bath (third effervescent bath), haemoglobin 81 per cent.

July 30th. After the twenty-seventh bath (eighth effervescent bath), haemoglobin 79 per cent. (blood pressure 105 mm. Hg.).

The patient took no kind of medicine, either for the heart or for anaemia. On leaving she felt completely recovered, and only complained of slight palpitation after climbing stairs and hills. Within the first fortnight she gained in weight 3 lb., and at the end of her stay 9 lb.

CASE IV. *Aortic Insufficiency after Acute Rheumatic Polyarthritis.*—Mr. R. F., aged 14.

June 2nd. Before the first bath, haemoglobin 55 per cent. (blood pressure 105 mm. Hg.).

July 7th. After the twenty-fourth bath (of which nine were sprudel baths), haemoglobin 78 per cent. (blood pressure 118 mm. Hg.).

The young man. who looked anaemic before, looked blooming after the treatment.

CASE V. *Mitral Stenosis.*—Miss H., aged 18.

June 9th. Before the first bath, haemoglobin 68 per cent. (blood pressure 100 mm. Hg.).

June 15th. After the sixth bath, haemoglobin 80 per cent.

June 28th. After the fourteenth bath, haemoglobin 80 per cent.

July 4th. After the sixteenth bath (one sprudel bath, Spring 7), haemoglobin 83 to 84 per cent. (blood pressure 120 mm. Hg.).

The remaining observations of haemoglobin and blood pressure all gave the last-mentioned result. Altogether twenty-four baths were taken.

CASE VI. *Mitral Stenosis and Insufficiency.*—Miss A., aged 23. Whether the condition was congenital or acquired in the first year of life could not be determined.

July 2nd. Before the first bath, haemoglobin 64 per cent. (blood pressure 85 mm. Hg.).

August 3rd. Before the first sprudel bath (Spring 7), haemoglobin 76 per cent.

September 15th. After the thirtieth bath (of which sixteen were sprudel baths), haemoglobin 81 per cent. (blood pressure 120 mm. Hg.).

The patient who had suffered much in youth from heart disease, and

in later years could hardly walk at all, when first examined was of a dark-blue colour, both in face and fingers. On departure the dark-blue colour had in a great measure disappeared, and the swelling of the liver had distinctly diminished. At the end of the cure the patient was able to take short walks of fifteen to twenty minutes, and even to make without difficulty the slight ascent of ten minutes from my house to her dwelling, whereas at first she had to be wheeled up in a bath chair.

CASE VII. *Graves's Disease; Myocarditis: Severe Anaemia.*—Mrs. A., aged 45. The patient had taken iron and digitalis before her stay at Nauheim. A short time after her arrival she had right-sided pulmonary infarct (embolism). She continued the digitalis for three days, and later for a short time took haematicum (Glausch) three bottles.

May 26th. After the fifth bath (first measurement), haemoglobin 58 per cent (blood pressure 95 mm. Hg.).

July 8th. After the thirty-second bath (of which ten sprudel baths), haemoglobin 69-70 per cent. (blood pressure 115 mm. Hg.).

CASE VIII. *Myocarditis Due to Abuse of Alcohol and Tobacco; Dilatation of both Ventricles, chiefly of the Left; Paroxysmal Tachycardia.*—Mr. F., aged 54.

July 8th. Before the first bath, haemoglobin 65 per cent. (blood pressure 115 mm. Hg.).

August 28th. After the thirty-second bath, haemoglobin 85 per cent. (blood pressure 135 mm. Hg.).

CASE IX. *Mitral Insufficiency and Stenosis; Chronic Nephritis.*—Mr. O., aged 22.

May 20th. Before the first bath, haemoglobin 68 per cent. (blood pressure 85 mm. Hg.).

June 4th. After the ninth bath, haemoglobin 75 per cent.

June 15th. After the sixteenth bath, haemoglobin 76 per cent.

June 24th. After the twenty-first bath, haemoglobin 81 per cent.

July 4th. After the twenty-seventh bath (ten of which were thermal-sprudel baths), haemoglobin 82 per cent. (blood pressure 120 mm. Hg.).

The patient, who took no medicine, and at first was very pale, looked blooming in the end, and could walk without the slightest difficulty for hours.

These few cases described here show that the treatment by baths and gymnastics is capable of increasing the formerly depreciated haemoglobin in cases of heart affection, be they cases of weakness of the heart muscle or valvular diseases (simple or complicated), Graves's disease, or chronic myocarditis, with or without kidney disease. Naturally there were many cases in which this increase was only very slight. According to my observations it seems far easier to raise the amount of haemoglobin in young and middle-aged persons than in those of riper years. Even if these latter feel much better after following the treatment, there is frequently no change to be seen in the amount of haemoglobin. The following is an example of this:

CASE X. *Chronic Myocarditis; Severe Arteriosclerosis; Angina Pectoris; Bradycardia* (pulse 30-36).—Mr. L., aged 68.

May 20th. Before the first bath, haemoglobin 79-80 per cent. (blood pressure 160 mm. Hg.).

May 29th. After the seventh bath, haemoglobin 80 per cent.

June 17th. After the twenty-first bath, haemoglobin 79 per cent. (blood pressure 150 mm. Hg.).

During the last part of the cure duplicated heart beats were sometimes noticed, but only on auscultation; not in the radial pulse. Very often there were 54 heart beats, with a radial pulse of 30 to 36.

Very instructive for medical men are these cases in which, during the treatment, a diminution of the haemoglobin is observed; and let it here be noted that severe physical overexertion and violent emotional disturbances, especially in febrile diseases, in a short time rapidly produce a diminution in the haemoglobin. Of this, in conclusion, one example:

CASE XI. *Weak Heart: Dilatation of Both Ventricles.*—Mr. S., aged 44. He had severe anaemia, for which for many years iron had been taken at home.

May 19th. After the first bath, haemoglobin 70 per cent. (blood pressure 130 mm. Hg.).

June 2nd. After the tenth bath, haemoglobin 85 per cent.

June 22nd. After the twenty-fifth bath, haemoglobin 80 per cent. The patient suffered from feverish bronchitis and had undergone severe physical exertion during a several days' journey.

June 23rd. After the twenty-fifth bath, haemoglobin 79 per cent. (blood pressure 110 mm. Hg.).

During the following eight days the haemoglobin rose gradually again to 85 per cent. and the blood pressure to 130 mm. Hg.

I am well convinced that in an investigation of the blood which in some measure lays claim to thoroughness it is necessary to count the blood corpuscles, both red and white, and to fix the amount of ash of the blood. Such experiments, however, take so much time that in practice, at any rate, investigations on a large scale are very difficult to carry out. I propose at some other time to supply what I have here omitted.

NOTES.

[1] For description see *Philadelphia Medical Journal*, September 22nd, 1900. [2] Of these tonometer measurements I give only the first and last in parentheses.

IMPROVEMENTS IN DIETETICS OF DIABETICS.

BY SIR JAMES SAWYER, M.D.LOND., F.R.C.P.,
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COMPARATIVELY successful as is the modern medicinal treatment of diabetes mellitus (glycosuria) under medical prescription and guidance, in many cases—perhaps in all—the appropriate regulation of the patient's food is a chief therapeutic indication. In the management of this difficult malady, it has been recognized by the profession for many years that abstinence from sugar and from other articles of food which are convertible after ingestion into glucose causes a great lessening in the quantity of glucose in a diabetic patient's urine, and also a marked diminution towards normal of the heightened density and quantity of the urine, and that these changes for the better are coincident with arrest of bodily wasting, even with some gain of bodily weight, and also with general improvement, in a very large proportion of those persons who are suffering from diabetes.

To meet these rational and practical indications as to treatment much care has been taken by many physicians to devise an extended, varied, and agreeable and practicable dietary. Until the researches of Mossé were published two years ago,[1] it was our therapeutic rule to withhold potatoes in saccharine diabetes. The potato contains from 16 to 24 per cent. of starch, and it used to be classed without qualification amongst food inadmissible in glycosuria in a case treated upon the dietetic principle I have referred to. His researches have led Mossé to conclude that potatoes, far from being harmful, form a useful and beneficial food in glycosuria, and that they are capable of being substituted for ordinary wheaten bread in daily proportions sufficient to maintain the alimentary ratio, that is to say, in the proportion of two and a half to three of potatoes for one of bread. Mossé found that a daily ingestion of potatoes in quantities of from 1,000 to 1,500 grams, roughly of from 2 lb. to 3 lb. avoirdupois, brought about in nineteen out of twenty cases of diabetes speedy diminution of the glycosuria, quick relief of thirst, and general improvement in the patient, and all this in all forms of diabetes. The salts contained in the potato are chiefly those of potash. Potash is contained in potatoes in much larger proportion than in wheaten bread, and Mossé attributes the superiority of potatoes in a diabetic dietary to the increased ingestion of potash.[2] My own experience in practice during the last two years is confirmatory of Mossé's conclusions.

I think it will be found in practice that the permission of potatoes in the food of diabetics is one of the greatest dietetic advances of our times. Potatoes cooked in any of the ordinary ways are a grateful food. I would point out that for the retention of the salts of the potato the vegetable should be cooked in a peculiar way. It should be cooked by steaming with its "skin" on. If potatoes be peeled and then cooked by steaming, they lose in the cooking large proportions of their potash and of their phosphoric acid, and they lose more of each of these their constituents if they be peeled and then cooked by boiling.

It has occurred to me that the beneficial results of Mossé's discovery and teaching as to the use of potatoes as a food in diabetes might well be carried much further in the dietetics of diabetics than in merely the free allowance of properly-cooked potatoes in a dietary. I propose that the therapeutic difficulty as to the prohibition of ordinary bread for a diabetic may be met advantageously by making bread, cakes, and biscuits for diabetics by using the "flour" of properly-cooked potatoes instead of the flour of grain. I find that excellent and delicious baked cakes can be made from paste composed of a kind of flour prepared by rubbing down potatoes cooked with their coats on by steaming, blended with cream and butter. With the aid of some good cooks in my kitchen I have made many experiments as to the formation of bread and biscuits from bran and the flour of potatoes. As the best results at present reached from these inquiries, I have decided upon the following details for the making of these new biscuits and bread for diabetics:

Bran and Potato Bread.—Take half a pound of flour of steamed potatoes, quarter of a pound of bran, half an ounce of German yeast, half an ounce of butter, one egg. Twenty-four hours before making the dough cook the potatoes by steaming them in their "jackets," then peel and break up into flour with the fingers. Mix all the ingredients together, and let the paste stand near the fire for an hour to "rise." Bake in greased tins for an hour and a-half.

In common with many other physicians, I have arranged and employed in practice for many years a diabetic dietary which is sufficiently strict for practical purposes, and which

is in harmony with the principle of abstinence from sugar and from all other articles of food which are convertible into glucose after ingestion, and of such a formulated dietary I have been accustomed to give a printed copy to a patient in a suitable case. My dietary rules in diabetes, as now modified, by Mossé's permission of potatoes, and by the developments I have devised of potato-made bread, biscuits, and cakes, prepared in the ways I have here described, would read:

May Eat.—Butcher's meat of all kinds, excepting liver. Pork, ham, bacon, poultry, game, potatoes steamed in their "skins." Fish, oysters, crabs, lobsters. Animal soups, not thickened, excepting by potatoes. Mutton broth, beef-tea. Bran and potato bread or biscuits, potato cakes, eggs, cream, butter, cheese, greens, watercress, mustard and cress, lettuce, mushrooms, nuts; jelly or custard, unsweetened.

May not Eat.—Any bread or biscuits but those made of bran and potato. Sugar, asparagus, broccoli, cauliflower, carrots, parsnips, French beans, peas, turnips, arrowroot, macaroni, rice, sago, tapioca, vermicelli, pastry, excepting potato cakes; puddings; fruit, fresh and preserved.

May Drink.—Water, tea, coffee, soda-water, claret, hock, spirits and water, unsweetened; bitter ale, very sparingly; milk, very sparingly.

May not Drink.—Cocoa, chocolate, champagne, porter, stout, home-made wines, liqueurs, cider, sweet wines, ale.

REFERENCES.

1 *Bull. de l'Acad. de Méd.*, December, 1901, and *Rev. de Méd.*, February and March, 1902. 2 Dr Cocking's abstract, *Quarterly Medical Journal*, of papers published by Mossé.

RECURRENT FEVER ASSOCIATED WITH SPIRILLA IN THE BLOOD IN A PATIENT FROM GIBRALTAR.

BY SIR PATRICK MANSON, K.C.M.G., F.R.S.
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THERE is a tendency with most of us when we come across an anomalous case to square diagnosis with some recognized type of disease rather than to search out and see if the case be not something altogether new. Thus it was that formerly the specific and distinct disease now generally designated Malta fever was put down either as malaria or as typhoid, and thus it is that at the present day, when we come across an anomalous case of fever from the Mediterranean we are prone to diagnose it Malta fever. I believe that in at least a proportion of these cases this diagnosis is wrong.

The accidental discovery recently of an unlooked-for organism in such a case has impressed this on me. I publish the case in the hope that others, as opportunity offers, may be induced to follow up the hint it conveys and endeavour to ascertain whether or not, under the term Malta fever, sometimes we may be ascribing to micrococcus melitensis a fever produced by the organism I refer to, or perhaps by some other germ.

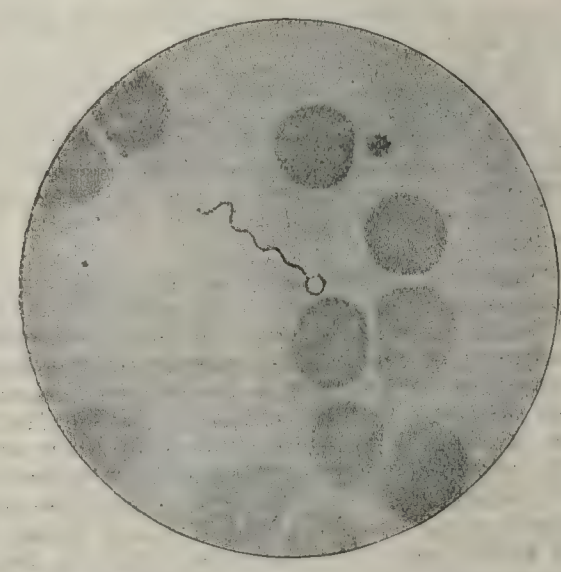
The following condensed account of the case is from notes kindly supplied to me by Dr. Macwhirter Dunbar.

A married lady, aged 30, with one child, had resided at Gibraltar for three years and enjoyed good health. After a short visit to England last summer she returned to Gibraltar on September 29th. She states that she had a bad bite, ascribed to a mosquito, on the cheek on October 18th. The bite inflamed, and on October 20th she had a rigor, followed by fever, 104° F.; after profuse sweating the fever terminated on October 24th. The catamenia, due on October 19th, did not appear. On November 3rd there was a recurrence of the fever, which lasted three days, the temperature again rising to 104° on November 4th. She went to Algeciras for change on November 10th, and whilst there had a recurrence of fever on November 11th, the attack again lasting three days. She returned to Gibraltar on November 14th and came to London on November 21st. She was seen by Dr. Macwhirter Dunbar on November 22nd. As the case had been regarded as malarial and quinine given during the attacks, this treatment was continued. Whilst under Dr. Dunbar's care she has had five recurrences of the fever, each, except that of January 11th, which was very mild, being ushered in by rigor and terminated by profuse sweating. The attacks occurred on November 24th, December 4th, December 15th, December 29th, and January 11th. They gradually diminished in severity. In the intervals she was quite well. There has been no recurrence since January 14th, although on January 24th there was evidence in headache, anorexia, and general aching of an attack threatening. There was no return of the catamenia, and she miscarried on December 13th.

I was asked to see her on December 18th. The attack of December 15th had just subsided, and she was quite free from fever. The blood films I prepared on that occasion showed neither malarial parasites nor other organism. As she had been taking quinine the negative result of the microscopic examination could not be regarded as excluding malaria. The quinine was stopped, and instructions given to forward blood films prepared during the height of the attack, should one recur. Fever recurred on December 29th, and out of six films, taken at different times, four contained spirilla; there were no malarial parasites. Films prepared the day after the abortive attack (maximum temperature, 100°) on January 11th showed no parasites. The blood was examined by Dr. Harold Spitta for Malta fever and for pyogenic organisms with negative results.

I have no doubt that this case was one of spirillum infection, but whether the spirillum was that of ordinary relapsing fever, that is spirillum obermeyeri, I am not prepared to say. I am inclined to think both on clinical and morphological grounds that it was different. According to Carter, Löwenthal, and others, fourth and fifth relapses in ordinary relapsing fever are exceedingly rare, and no mention is made by these authors of such an occurrence as six or seven relapses. In this case there were seven relapses at intervals of fourteen, eight, ten, eleven, fourteen, and thirteen days respectively.

Morphologically the spirillum differed from spirillum obermeyeri as usually represented; for whereas this well-known organism exhibits many short and abrupt flexures, the curves of the parasite I describe were few and graceful (see photograph by Dr. H. Spitta).



I would not insist too much on these points, but I consider that the case justifies further inquiry into the etiology of the Mediterranean fevers. Especially would I urge careful microscopic examination of blood in all cases in which the Widal test is negative or doubtful.

I must warn investigators that the spirillum is not easily found; possibly the paucity in this instance was owing to the fact that the infection was nearly exhausted; had the examinations been made during the earlier paroxysms, especially during the first, they might have been found in greater profusion. As stated, in four only out of the six preparations examined were spirilla found, and these contained only some three or four on each slide.

VERONAL: A NEW HYPNOTIC.

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VERONAL, di-ethyl-malonyl-urea, was introduced by Fischer and von Mering[1] as the result of a systematic investigation into the hypnotic properties of certain urea derivatives containing "ethyl" groups. It is a colourless, crystalline body, sparingly soluble in cold water, readily soluble in hot water. It has a bitter taste, but no smell. It is most conveniently given in the form of "tabloids," or in the form of chocolate tablets (prepared by E. Merck), which can be dissolved in hot milk. Both the "tabloids" and the chocolate tablets contain half a gram each (7½ gr.) of veronal.

It has already been used in a large number of cases of insomnia, and the results have been published in the case of more than a thousand patients, and in a great variety of diseases, including pure insomnia; various diseases, functional and organic, of the central nervous system; acute febrile conditions; diseases of the heart, lungs, kidneys, and liver, even in their most advanced stages.

The doses used range from 0.25 gram (3¾ gr.) to 3.5 grams (53 gr.). In most cases a dose of 0.5 gram (7½ gr.) has sufficed

to produce sleep within an hour, lasting, with perhaps one or two brief interruptions, seven or eight hours. The sleep is indistinguishable from natural sleep, and the patient awakes feeling refreshed, frequently speaking with enthusiasm.[2]

The patients never complained of any unpleasant after-effects when given in this dose. In some cases even smaller doses—0.25 or 0.3 gram (4 or 5 gr.)—were found to suffice to give the patient eight hours' sleep. This was the case in weak women suffering from heart disease with failing compensation, advanced phthisis, and diabetes mellitus respectively.[3] Again, in many cases where a patient had previously received 0.5 gram veronal, it was found possible to reduce the dose to one-half after a few days.[4]

Larger doses—1 gram (15 gr.)—were required in some cases where there was actual physical discomfort or difficulty. In these cases veronal proved equally reliable, and equally free from objection. The patients woke refreshed, and frequently with improved appetite. There were never complaints of headache or nausea, although one or two patients felt slight giddiness, lasting not more than ten minutes.

Still larger doses up to 3.5 grams (the latter in strong men only)[5] were used with good effect in certain cases of severe mental excitement—delirium tremens, general paralysis, and epilepsy. These large doses were usually followed by continued sleepiness on the following day; but this was, on the whole, an effect to be desired. In the case of epilepsy veronal induces sleep, but has no power of controlling the fits. The only cases in which veronal failed were cases of severe pain, such as occurred in acute rheumatism and in severe sciatica. In such cases morphine is to be preferred.

Occasionally, when the dose used is not a large one, and when there is pain or excitement, the patient may not fall asleep for three or four hours after taking veronal. The following two cases, under my own observation, illustrate this, and illustrate also the way in which a single dose of veronal frequently gives a patient two or more successive nights of good sleep.

N. G., 37, an engineer, subject to "migraine," took 1 gram of veronal at 8 p.m. one night while suffering from a very severe headache. He fell asleep at 12, and slept soundly till 8.30, when he was called. He woke free from headache, was able to attend to his usual duties during the day and did not feel sleepy. The following night he slept very well, far better than he is accustomed to sleep. About a fortnight later he took 0.5 gram of veronal (one tablet) at 8 p.m. while suffering from a severe headache. He again slept from 12 till he was called at 8.30, and woke refreshed and free from headache. He again slept well the following night.

Mrs. C., 60, a hotel manageress, was suffering from gastro-enteritis the result of "tippling." Vomiting and diarrhoea were very frequent; the heart was dilated, beating irregularly, the impulse weak and flapping, the apex beat in the fifth space 1½ in. external to the nipple line. She had not slept at all for three days, and not well for weeks. After a few doses of bismuth with carminatives, the vomiting and diarrhoea were diminished. At 8 p.m. on the first day of treatment she took 0.5 gram of veronal. She fell asleep about 12.30 and slept four or five hours, with a few brief intervals of wakefulness, during which she used the commode. She woke feeling a little stronger, considerably refreshed, and with some returning desire for food. The heart's impulse was less flapping. The vomiting had ceased. The following night she slept six hours and was then convalescent. The heart's apex was ½ in. internal to the nipple line, the beats regular and fairly strong.

A slight antipyrin-like rash has been observed for a short time in one or two cases.

No remote after-effects of any kind have been observed to follow the use of veronal. It has no action on the cardiac or respiratory centres, does not appreciably influence the blood pressure, and is without action on the liver and kidneys. The urine remains normal, free from albumen and blood pigment. Veronal is not a diuretic, as its chemical relationship to urea might suggest.

To this immunity from bad effects on the vital organs is due the great importance of veronal. For it can be given without hesitation and with excellent results in cases of severe heart disease with failing compensation, in cases of phthisis early or advanced, in other pulmonary diseases, and in kidney disease.

As regards the induction of a "veronal habit" Lilienfeld and others have never found it necessary to increase the dose; indeed in most cases it has been possible to reduce the dose after a few days, and frequently a single moderate dose of 0.5 gram (7½ gr.) has sufficed to procure for the patient a succession of four or five nights of good sleep. Berent,[5] however, found it necessary in some cases to increase the dose after a few days, or to substitute some other hypnotic, such as trional, for a few days. To conclude, it seems clear that veronal is proving to be a useful means of procuring sleep.

References.
[1] Fischer and v. Mering, *Therap. der Gegenw.*, March, 1903. [2] Dr. Leopold Wiener, *Wien. med. Presse*, No. 24, 1903. [3] Dr. Fritz Lotsch, *Fortschr. der Med.*, vol. xxi, No. 19, 1903. [4] Dr. A. Lilienfeld, *Berl. klin. Woch*, No. 21, 1903. [5] Dr. Walter Berent, *Therap. Monats.*, June, 1903.

ON THE USE OF OXYGEN GAS IN DISTENDING THE BLADDER FOR CYSTOSCOPY.

BEING A PART OF A LECTURE TO THE SURGERY CLASS IN ST. MUNGO'S COLLEGE, GLASGOW.

By A. GALBRAITH FAULDS,
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In diseases of the bladder and kidneys it is often expedient to get a view of the interior of the bladder with the object of ascertaining either its condition or contents, or seeing what flows from the mouths of the ureters. In my student days—not so many years ago—this was not practicable, at least we had no means of doing so, there being no cystoscope, but since then, with the development of science, and especially in the way of electric instruments, we have now at our call an instrument which, when carefully used under favourable circumstances, will give you a very good view of the vesical cavity.

To enable you to use the cystoscope you must distend the bladder in order to separate its walls; for this purpose it has been the custom to inject a transparent solution such as carbolic, boracic, or sterilized water, and their use had many advantages, but, like everything else, they have their disadvantages.

One of the advantages in using a solution is that it disseminates the heat that comes from the bright glare of the electric lamp when in the bladder, and thus saves the mucous membrane from being injured; but, unfortunately, the fluid medium allows of blood, pus, or urinary deposits which may come down the ureters to mix with it and render the medium opaque, and thus obscure the view.

Last June in Berlin I saw a cystoscope used which had what is known as a "cold lamp" fitted to it; these lamps are of peculiar construction, and give an astonishing light with little or no heat, and it struck me that if I had "cold lamps" on my cystoscopes I would discard the fluid medium and inflate the bladder with air. As soon, therefore, as I was able to procure these lamps I experimented with gases, passing them through sterile solution to purify them before introducing them into the bladder, and I am now pleased to say I can get a much better view by using oxygen gas than by any of the many media I have tried.

You saw me yesterday morning in the operating theatre in the Royal Infirmary employing, instead of boracic solution, oxygen gas to inflate a patient's bladder who had no anaesthetic either local or general, and who suffered no pain or inconvenience during the cystoscopy, and some of you had a view of the interior and saw plainly the wall with its mucous membrane and capillaries. I first drained the viscus through a soft worm catheter; from the character of the urine it was unnecessary to wash out the bladder. I had beside me a small rubber gas-bag, containing the amount of oxygen I wished to use, fitted with a vulcanite cock which fitted into the mouth of the catheter. The amount of oxygen in the gas-bag gave me an idea what the size of the bladder would be when it is distended, allowing, of course, a little for the expansion of the gas when in the warm viscus. I slowly and carefully pressed the oxygen from the gas-bag, and then withdrawing the catheter, I introduced the cystoscope.

The advantages in using oxygen gas as a means of inflating the bladder over solutions for cystoscopy are obvious. In cases where you want to be free from the invasion of pus or blood, to ascertain the conditions of the ureters, and where bleeding tumours are suspected I have found this method of advantage. I use oxygen in preference to any other gas because I have found it in cases of enlarged prostate with a quantity of foul residual urine containing muco-pus, to ameliorate the accompanying cystitis, and to have a clarifying effect on the urine. Its use must be practised with great caution. The patient must be warm and comfortable when the operation is proceeded with; the gas must be pure, and be caused to enter the bladder slowly and with great care, and if cystitis exists it will be necessary to use a local anaesthetic. The oxygen can be left in the bladder without any evil effects, and often to the patient's advantage.

The Lettsomian Lectures
ON
ASEPTIC SURGERY IN THEORY AND PRACTICE.

Delivered on February 29th, 1904.

BY CHARLES BARRETT LOCKWOOD, F.R.C.S.ENG.,
Surgeon, St. Bartholomew's Hospital.

LECTURE III.

ON THE ACCURATE CLOSURE OF WOUNDS.—SKIN FLAPS.—SKIN SLIDING.—ENVIRONMENT AND RESULTS.

WHEN the cut edges of the skin are brought together with perfect accuracy, they adhere at once and are an effectual barrier against air infection. In respect to this rapid adherence the skin is comparable to the peritoneum. But to secure this advantage the apposition must be perfect and exact. This point is well understood, but perhaps a word may be said with regard to another aid to asepsis which will, in the future, have an extensive use. I refer to the complete and accurate closure of the largest wounds by the transposition of flaps of skin, by undercutting, and by the gliding of extensive portions at the boundaries of the wound.

Many of us can remember the time when an amputation wound was sewn together with discontinuous sutures about an inch apart; and can recall the little area of raw surface which was left between the sutures. Nowadays this would be considered very poor workmanship. A number of discontinuous sutures might be used to adjust the flaps and obliterate the space between them, but every vestige of the raw surface would now be covered in by running a continuous suture of the finest twisted silk along the whole of the edges of the wound. The skin adheres with great rapidity, and is probably firmly united before any bacteria which may have survived in the sweat glands, sebaceous glands, or hair follicles could have had time to multiply and invade the deeper parts of the wound. We know how rare a perfect disinfection of the skin must be. When we come to consider the matter, it would but a short time ago have been rather rash to have aimed at such accurate apposition, because then, in all probability, it would have led to the retention of septic fluids within the wound, and to such a series of disasters as can be occasionally found recorded in the older works on surgery.

In many operations, especially in those for mammary carcinoma, a very large area of skin has to be removed, as it is now recognized that the skin over the cancerous growth cannot be saved with safety because its lymphatics are frequently the seat of cancerous infection.

The excision of the suspected skin often leaves a huge gap which can only be closed by the exercise of considerable ingenuity. When the wound is aseptic, flaps of skin and subcutaneous tissue, six or seven inches long and attached by quite a narrow base, can be dissected up and turned into the wound. These flaps hardly possess proper blood supply of their own and only survive because, owing to the asepticity of the wound, they immediately adhere to the chest wall to which they are applied. From that source they do not at first acquire new blood vessels, but are probably kept alive by the absorption of plasma. It is remarkable to observe how tight these huge skin flaps may be, and how livid they may become, and yet preserve their vitality. At the end of a few days they may appear to be upon the point of perishing, but nevertheless recover and unite firmly with all their surroundings. I have used similar skin flaps to close gaps in the chest wall. About eighteen months ago in removing a recurrent carcinoma portions of three ribs and a large piece of pleura had to be excised. A large area of the diaphragm and of the lung was exposed to view. Four or five sponges were stuffed into the gap, whilst a large thick flap was brought up from the chest and abdomen. The patient recovered without a single bad symptom. Without the aid of the flap this operation could not have been undertaken; and without asepsis the flap could not have been made.

The principles which govern the fashioning of these flaps cannot be entered upon now. The theory is simple, the practice difficult. I shall content myself with saying that there is room for a whole lecture upon this subject, which, by the bye, has been almost entirely neglected by surgical writers.

For the complete closure of gaping wounds asepsis allows us to use a further device. Besides being able to convert the surrounding skin into flaps, we can also undercut it so as to allow large pieces to slide in the direction of the wound. Doubtless this undercutting destroys in part the blood and nerve supply of the skin, but so long as the wound is aseptic no harm results.

In bringing together the wound and adjusting the edges of skin flaps a continuous suture of twisted silk is used. This has one great advantage after a protracted operation such as that for removal of the mammary gland, pectoral muscles, and the lymphatic area—it is very rapid. But the continuous suture has a disadvantage for it often strangulates the strip of skin within its grasp. As a rule, when this occurs the loss is trifling, but it is to be doubted whether the wound ever remains aseptic, and at times the ultimate healing is delayed. For this reason I have found it difficult to classify as "septic" or "aseptic" some of the amputations of the breast and operations for cancer of the lymphatics of the neck. Without an explanation it would lead to misconception if they were called septic, and yet they cannot truthfully be called aseptic. Some day, when our knowledge is more precise, we shall perhaps include them in a class labelled "secondary skin infection after necrosis of skin."

In spite of these occasional drawbacks, the complete closure of wounds by means of skin sliding and skin flaps is an enormous gain, and, when boldly resorted to, does away with the necessity for skin grafting by Thiersch's or other methods. It is a very great happiness to patients to be told, on the removal of the dressing, that the wound is entirely healed, and they seem to think less of scars which are all in one place.

DRAINAGE.

Some years ago I remember reading a paper before this Society entitled The Abuse of Drainage of Wounds.[1] About that time (1890) nearly every wound was drained. It is not unlikely but that the pendulum afterwards swung too far in the other direction. I suppose that to-day all septic wounds are drained with gauze, or tubes, or some other efficient device; also all wounds in which blood is liable to collect. I myself always drain wounds of the scrotum, and nearly always those of the axilla, merely to prevent blood collecting. Rubber tubes are the most comfortable for the patient, and can be sterilized with heat. Glass tubes are apt to hurt, and on more than one occasion have been known to break within the abdomen, but nevertheless they are so efficient and so easily sterilized that I occasionally employ them; gauze has advantages, but is painful to remove, even with the help of hydrogen peroxide solution. The introduction of a drainage tube increases the risks of infection. Doubtless infection from the skin—which, as we know, is septic in 25 per cent. of cases—can more easily enter when the lips of the wound are kept apart by a drainage tube than when they are allowed to adhere by immediate union. In addition, the wound has to be dressed for the removal of the tube. These considerations have led to the immediate closure of wounds made to empty psoas, lumbar, and iliac abscesses. At the worst, if the operation be aseptic, some pus may collect again and call for removal; but at this stage the abscess cavity is much smaller, and the dangers of sepsis are less. For the successful performance of this operation for emptying and then closing again these large tuberculous abscesses it is of the greatest importance to be gentle and restrained, so as not to start haemorrhage into the abscess cavity. The neglect of this is likely to bring an excellent operation into disrepute.

In aseptic wounds, then, drainage is unnecessary unless oozing and accumulation of blood are anticipated; but in septic wounds drainage is almost invariably required. This bald statement, however, ought to be amplified, for septic *cavities* ought also to be drained. This is very clear in the case of the urinary bladder. On more than one occasion I have closed the cystotomy wound at once, being guided by the absence of bleeding and of sepsis. It is a vast gain to the patients if the suprapubic wound heals by first intention, and that they should be able to walk about at the end of the third week. But when the bladder is septic, the immediate closure of the cystotomy wound is fraught with danger. Whenever the bladder is septic I insert a Guyon's drainage tube. This admirable device has robbed this class of case of a great many of its dangers and discomforts.

Also, when the bladder is septic I perform external urethrotomy in preference to internal, in order to provide adequate drainage. The dangers of an incised wound far from the surface of the body, and frequently bathed in septic urine, are too obvious to need pointing out. The perineal wound drains well, and merely needs the insertion of a strip of

gauze. When the urine is aseptic the perineal wound may be closed forthwith, with a good chance of immediate union.

The treatment of the gall bladder is ruled by similar principles. If, after cholecystotomy, it were known that the gall bladder was aseptic, and was destined to remain so, it might be judicious to suture the opening into it, and drop it back into the abdomen. But one must always be doubtful about the asepticity of a cavity which communicates with the intestinal tract by a comparatively short canal. No doubt so long as the cystic duct and the common bile duct are undilated and are lined with healthy epithelium, they prevent the intestinal bacteria from invading the gall bladder, the biliary ducts and canals, and the liver substance. But cholecystotomy is usually done when the gall bladder and the ducts have been altered by disease. It is probable that sepsis of the gall bladder is present in every case of gall stones. Acting upon this assumption, I have never yet ventured to suture and return the gall bladder after cholecystotomy, or in other words to perform what has been called the "ideal operation." The systematic drainage of another cavity—the rectum—after the removal of tumours, haemorrhoids, and for operations for fistula, has done much to diminish both the dangers and the miseries of this class of operation. A small ¼ in.) rubber tube with a packing of iodoform gauze is all that is needed. The gauze supports the drainage tube and stops the bleeding.

Dressings.

To my mind the essential qualities in the dressing are sterility and dryness. Working at St. Bartholomew's and elsewhere with a number of different assistants and sisters, I use plain sterilized gauze, double cyanide gauze, iodoform gauze, and alembroth. For many aseptic cases plain sterilized gauze is now being used. Double cyanide gauze and wool are used for a proportion of aseptic cases, as well as for the septic. For some of the latter iodoform gauze is used. But, as regards the various dressings, I cannot detect any difference in the healing of the wounds provided a layer of silver foil is put next to the skin. If silver foil were not at hand, I should prefer to use plain sterilized gauze and a layer of plain sterilized wool.

This layer of silver foil is supposed to retard the growth of the skin bacteria; next, it helps to exclude air infection; and, lastly, it separates the antiseptic dressing, if such a one be used, from the wound. It is exceedingly hard to trace the line of a wound which has been covered with silver foil because the skin edges are so entirely devoid of redness.

The original Listerian dressing was completed with an outside dressing, which consisted of a layer of waterproof jaconet and eight layers of gauze. The purpose of this outside dressing need not be referred to, but there can be no question but that it has of late fallen into disuse. At some nursing homes I have been told that I am the only surgeon who uses an outside dressing. Now, it may be conceded that the dryness of aseptic wounds has done away with one of the main objects of the outside dressing. Moreover, a large layer of impervious jaconet may be hot and uncomfortable, and, by preventing evaporation, be calculated to favour the collection of perspiration and the growth of skin bacteria. But in some cases these disadvantages are far outweighed by some very solid advantages. For instance, the triangular scrotal dressing which I first described to this Society in 1896[2] is not only comfortable but likewise secure, and since its use a suppurating scrotal wound has been almost unknown. It is true that this result has been attained with the aid of systematic drainage, but that would be risky unless an outside dressing was used to prevent the escaping blood from becoming infected from the exterior. In the radical cure of hernia, especially inguinal, it is difficult to prevent the exposure of the wound, and I should despair of doing so without the aid of a very well fitted and securely fixed outside dressing. It would be easy to adduce a number of inguinal and scrotal wounds in which the outside dressing had prevented the wound from being soaked with urine.

After laparotomy another danger has to be guarded against. Owing to the anaesthetic and the nature of the operation vomiting is a frequent complication. During vomiting the contractions of the abdominal muscles are extraordinarily violent and special precautions are needed to prevent the access of air to the wound, and hence an accurately-fitted and fastened outside dressing becomes a wise precaution. In hot weather it can if necessary be easily dispensed with after the first forty-eight hours. But nowadays it is unusual to hear any complaints of discomfort, and the skin is hardly ever found reddened, much less blistered. For similar reasons an outside dressing is of use in amputations of the breast and about the root of the neck. During vomiting, coughing, and breathing there is a strong probability of the entrance of air into the wound unless special precautions in the shape of an outside dressing be taken, Those which I use are all cut to pattern and carefully fitted and fastened with straps and buckles. They are afterwards secured with bandages which are sewn on or reinforced with strapping.

The Influence of Environment.

It is probable that much has to be learnt about the influence of environment upon the results of operations. The term environment is rather loose and ambiguous, but we all have a general notion that it comprises the surroundings of the patient before, during, and after the operation. The surroundings during the operation have already been discussed, and likewise some of those which are requisite before and after the operation.

In this metropolis surgeons operate in public hospitals, private hospitals or nursing homes, and in private dwellings. It is exceedingly difficult to ascertain how far these three different environments influence the results as tested clinically by the mode of healing. I possess, however, a small amount of information which will now be placed before you. The series begins March, 1900, and ends July, 1903.

I do not intend to weary you with a recital of the precautions which are taken in the organization of operations in private houses. Briefly the objects aimed at are accuracy and simplicity. Accuracy is attained by close personal supervision. I suspect that in order of danger come sponges, ligatures, and instruments, although the hands of the surgeon and of his assistants and the patient's skin are almost as dangerous. Now, every one of these is, and ought to be, under the immediate control of the operator. The utensils and towels may be left to others, and are easily sterilized with heat. But it is always advisable to make precise inquiry into the manner of their disinfection before allowing them to be used. Care is likewise taken to see that the room in which the operation is performed is light, clean, and airy, and that the sanitation is perfect. The room is cleared out and prepared the day before and its air left to settle.

We may begin with fifty-eight wounds inflicted in private houses, hotels, or flats. As regards severity these are not all comparable to those in St. Bartholomew's Hospital or in nursing homes. A very critical operation has usually, in case of some sudden emergency arising, to be done in a nursing home close at hand. The list includes cases of amputation of the breast, amputation of the breast with removal of the pectoral muscles and axillary lymphatics, radical cure of hernia, arthrotomy, appendectomy, laminectomy, one of ligature of superficial femoral artery, removal of tumours, and so forth. I have omitted from this list cases in which pus was present and wounds communicating with septic gall bladders or the urinary bladder.

A case which died of shock after a long and difficult operation for the removal of a broad ligament tumour has been omitted, and also a death from shock after amputation of the thigh for diabetic gangrene. In malignant disease of the breast the ultimate safety of the patient often necessitates the removal of very large areas of skin. I am accustomed to close the whole of the huge wound by turning up long flaps of skin from the flank, or abdomen, or chest. When the wound is apparently aseptic these flaps preserve their vitality in a very remarkable manner, but the pointed tip sometimes dies and a small part of the wound has to heal by granulation. Under these circumstances it would be impossible to include the wound amongst the aseptic, although nearly the whole had healed by first intention, and the temperature and pulse had fallen to normal after the shock and reaction had passed away. In three breast amputations some part of the flap necrosed, and a portion of the wound had to heal by granulation.

Of the remaining fifty-five, one had slight haemorrhage and haematoma after a very severe operation for the removal of a malignant mass from beneath the clavicle. The growth was adherent to the subclavian vein, so that part of that vessel had to be excised. The patient made a good recovery, and, I am informed, without suppuration. Arthrotomy was performed upon a young lady for the exploration of the knee, with removal of a slipping internal semilunar fibro-cartilage. After the operation the course of events was uneventful until the fifth day, when the temperature rose, the fauces became inflamed, and a red skin eruption appeared. The knee then became more painful, and some blood-stained fluid was

removed with an aspirator. This was examined by my colleague, Dr. F. W. Andrewes, and pronounced to be sterile. A small drainage tube was inserted, and slight suppuration occurred along its track and in the superficial part of the original wound. There followed a slight outbreak of eczema in the head and limbs which prevented the use of antiseptics other than lead and spirit lotion. Although this case was attended with great anxiety, the joint escaped without damage, and now possesses its full range of movement.

This is the only one out of numerous arthrotomies which has given me anxiety. The sanitation of the house was modern and seemed to be without a flaw, and the suppuration may have been, and probably was, caused by infection from the skin, for the patient was eczematous; but, on the other hand, the high temperature, the inflammation of the fauces, and the cutaneous eruption seemed to indicate the onset of one of the exanthemata. One would like to offer this to you as an explanation of the septic infection, but candour compels me to say that I have seen attacks of measles and of chicken-pox produce no ill-effects upon operation wounds. I can believe that sepsis might be conveyed by the blood stream from the ulcerated fauces of scarlet fever or diphtheria, but not in cases devoid of ulceration or suppuration. The rest of the cases healed by first intention. This gives a proportion of one case of suppuration and one of healing by granulation in fifty-five, or, including both, 3.63 per cent. of sepsis.

In London and its suburbs small private hospitals or nursing homes have multiplied in a remarkable manner. As yet, so far as I am aware, none has been built for the actual purposes of a hospital. All those with which I am acquainted have been started in private houses which have been altered and adapted to serve the new purpose. That they serve the purpose exceedingly well will be acknowledged on every hand, and those in charge having been, as a rule, nurses or sisters at large hospitals, are thoroughly acquainted with and devoted to their duties. A new building planned for the special purposes of a private hospital would probably be quieter and more convenient, but could hardly possess better operating theatres, or better rooms and appliances than are now available in these nursing homes.

The operations performed in nursing homes are not strictly comparable to those performed in private houses. Amongst them were some of great severity, and therefore requiring to be within range of prompt attention. The operations included radical cure of hernia, appendectomy, ovariotomy, amputation of the breast, amputation of the breast with removal of pectoral muscles and of the axillary glands, nephrectomy, nephrorraphy, excision of varicose veins, laparotomy, and so forth. Two of the patients had double operations performed on them.

Eighty-two out of ninety-two wounds had healed by first intention when the patients left the nursing home. The wound made for the removal of an exostosis of the tibia was slightly pulled apart by premature walking. Twice after removal of the breast, pectoral muscles, and axillary lymphatics, a very small portion of the edge of the skin necrosed so that a small part healed by granulation, the rest *per primam*. Seven wounds were septic, about 7 6 per cent. So far as I can tell the causes of sepsis were as follows:

1. After castration the dressing was disturbed, with exposure of the upper part of the wound; there was slight suppuration along the course of the drainage tube, but the silk sutures upon the spermatic cord and in the aponeurosis of the external oblique did not come out, and the rest of the wound healed by first intention. The inguinal canal had to be opened because a malignant growth had spread up the spermatic cord. The prevention of such an accident as the exposure of the wound ought not to be a difficult problem to either the surgeon or the nurse.

2. Laparotomy was performed to ascertain the nature of a tumour near the greater curve of the stomach. It proved to be a carcinoma involving the transverse colon, great omentum, great curve of the stomach, and the anterior abdominal wall. Some of the adhesions had to be separated. Ten days after the operation the pulse became quicker, the temperature rose, and a little pus escaped from the lower end of the wound. After this a rapid recovery ensued. The pus had a faecal odour, and I thought that its formation may have been in some way due to the separation of the adhesions. This is rendered likelier from the fact that nine months after the wound had healed I was told that another abscess formed and became a faecal leak. This is one of the perils in intra-abdominal malignant disease.

3. The wound suppurated after the removal of a very adherent vermiform appendix. The appendix burst and a quantity of faecal contents escaped into the wound. The patient made a rapid recovery, as no buried sutures had been inserted. As a rule an accident of this kind can be avoided, but, should it occur, it is better to drain the iliac fossa for the first two or three days after the operation.

4. A bursal tumour was removed from beneath the gluteus maximus, the latter being separated in the course of its fibres. The wound seemed so dry that no drain was inserted. A huge haematoma formed and had to be drained. The blood which escaped was septic, the pulse-rate was slightly increased, and the temperature was raised. After the septic clot had escaped recovery was rapid and perfect.

5. A large lipoma was removed from the back. No drain was inserted. A haematoma formed and was removed. The wound healed in part by granulation.

6. Radical cure of inguinal hernia was performed on both sides. The right side healed by first intention. A small haematoma formed on the left, followed by very slight suppuration and the extrusion of one of the deep sutures.

7. Suppuration occurred under the following circumstances after the radical cure of inguinal hernia in a patient weighing 17 st. On the right side he had an enormous scrotal hernia, which was irreducible and and liable to attacks of obstruction. It also prevented him from following his occupation and rendered his life a misery. The hernial sac contained a part of the transverse colon, nearly the whole of the great omentum, the caecum and vermiform appendix, most of the right colon, and some part of ileum. The right colon was adherent to the posterior wall of the sac and was difficult to reduce. The great omentum was excised and found to weigh 2¾ lb. The abdominal wall was repaired with silk and fishing gut and a drain inserted into the wound, which was large and deep. Next day the scrotum was distended and the right testicle was very tender and inflamed. When this had subsided the wound, which had apparently healed, became painful and some very fetid pus escaped. This was not followed by the loss of any of the buried sutures. I cannot help suspecting that the right colon may have been pierced by one of the deep sutures. The ultimate result of this formidable operation has been highly satisfactory.

You will have noted that I said that eighty-two patients left the nursing homes with their wounds healed; but I know that two of these afterwards each developed a small sinus, and lost some buried sutures. These cases have both been mentioned before when speaking about the fate of buried silk.

In one a very small haematoma formed beneath the skin of an appendectomy wound. The blood was let out, and the wound healed. The patient returned home within three weeks, but, as I have just said, a small sinus formed, and some of the silk escaped. In the other case, also, of appendectomy, the disease was tuberculous, and although the wound healed, and remained healed for some time, nevertheless a small sinus with some fungating granulation tissue formed, and I believe some silk was extruded. In this case some of the silk ligatures were placed upon tissue which was tuberculous, and it is most doubtful whether this ought ever to be done. In future I shall use biniodide catgut for tuberculous tissues. Obviously, these operations performed in nursing homes do not compare favourably with those in private houses, but, as I have already said, they are not strictly comparable.

The hospital operations were performed in St. Bartholomew's. The wards of that institution are more than 150 years old. Efforts have at various times been made to improve them by building sanitary towers, by reflooring, and by heating and ventilating. But the effort to alter and modernize old hospital buildings is hopeless, and the St. Bartholomew wards remain exceedingly inconvenient when judged by modern standards. But the time is approaching when they will be replaced by modern structures supplied with ample air-space, light, and ventilation. Out of 175 wounds inflicted in the hospital, 153 healed by first intention, 10 had some suppuration, and 12 others had necrosis of some portion of a skin flap, so that a portion of the wound healed by granulation, also a laparotomy wound which had its sutures removed too soon. Omitting these, the percentage of suppuration is approximately 6.

Amongst the wounds which healed by first intention are included two amputations of the thigh for gangrene of the leg. The circumstances were rather unusual.

An elderly woman was afflicted with a large uterine fibroid, and her left leg threatened to become gangrenous. At the request of my colleague, Dr. Griffith, I performed hysterectomy. Although this operation was followed by a good recovery, gangrene of the leg progressed and the thigh had to be amputated. The wound healed by first intention, but convalescence was slow, owing to a mental illness which supervened. The second case was that of a boy who had the knee flexed acutely after old arthritis. He came to have amputation performed, but I thought it reasonable to see whether resection could not be done. The limb was straightened with extreme difficulty, and soon the flap became gangrenous, and amputation had to be performed.

Thus we have a case in which a hysterectomy wound healed perfectly in spite of the presence of a gangrenous limb, and two wounds which healed perfectly after the removal of a gangrenous limb. The explanation is simple. The limbs were dead, but not infective. The amputations were done before the dead tissues were teeming with bacteria.

[t would be misleading to say that 5.84 per cent. of suppura-
n had occurred without giving brief details of the cases.
ppuration varies in quality as well as in quantity. Not a
tle also depends upon the selection of cases. I have only
ected operations in which pus, a septic sinus, or a septic
vity was present at the time of the operation. I venture to
ink that something is to be learnt from the brief details of
ese cases. They are as follows:

. The elbow was resected for advanced tuberculous disease, with
:ch destruction of the articular cartilages, and of the humerus and
ıa. It is believed that the whole of the tuberculous synovial mem-
ne and bone was taken away. The case did exceedingly well, although
ittle pus was discharged from the wound. The patient had had tuber-
ous caries of the spine and a psoas abscess.

Cases of this kind raise the important question of the inci-
nce of suppuration after operations for tuberculous disease.
believe that these cases would not be more liable than
hers to suppurate, provided that every vestige of the tuber-
lous disease had been removed, and that no tuberculous
ıterial had been smeared over or rubbed into the freshly-
t tissues. But in most instances it is impracticable to
lfil one or both of those requirements, and, therefore, the
ances of suppuration are increased. Should suppuration
cur, as it did in this case of resection, its onset is insidious
d unaccompanied by marked alterations in the pulse-rate
temperature. Clearly, a wound in which there is reason
suspect the presence of tuberculous infection must be
ated with special precautions. And, first, I use a drainage
be more frequently than for other cases. Next, it is inju-
ious to use silk for ligatures or buried sutures; prepared
tgut is safest. Should catgut become infected with tubercle
does not stay long in the wound. And, lastly, I believe
the virtues of iodoform as an application and as a dressing.
little finely powdered crystals of iodoform is rubbed into
e wound, and an iodoform gauze dressing is applied. Iodo-
m has to be used with great discretion, and it might be
ıdicious to put it into the cavity of a psoas abscess,
hough it may be used with safety in smaller cavities or
unds.

. Another tuberculous wound suppurated and healed by granulation.
ıumber of tuberculous glands, together with a large piece of tuber-
ous skin, were removed from a man's neck, the wound was brought
ether, but with a considerable strain upon the sutures, and in the
l it tore apart and the wound had to heal by granulation.

. The radical cure of femoral hernia was followed by slight suppura-
n and the loss of a buried suture.

. Radical cure of hernia was performed on both sides for a man with
ible inguinal hernia. The right side was a simple operation, and the
ınd healed by first intention. The left side was much more difficult
he sac contained omentum which was adherent at its neck. After
adhesions had been separated and the omentum ligatured and
ıoved some blood welled out of the abdomen. The abdominal wall
freely divided, and the omentum again secured, although it had
sed to bleed. The peritoneal muscular, aponeurotic, and cutaneous
ers of the abdominal wall were fastened together with silk sutures.
whole operation lasted two hours and twenty minutes. Ultimately
re was slight subacute suppuration on the right side and two deep
ures were lost. The things which predisposed to this sepsis were
bably: (*a*) The prolonged exposure to the atmosphere: (*b*) the bleed-
; (*c*) the insertion of silk sutures into the muscular stratum.

and 6. Laminectomy is not a frequent operation in my
perience, but the small number that I have attempted
ve been followed by a very unusual and disconcerting
ount of sepsis.

youth 3 fell from a height of 30 ft. upon his back, and became
pletely paralysed below the level of the seventh intercostal space.
ee weeks after the accident the spines and laminae of the third, fourth,
fifth dorsal vertebrae were removed, and an epidural haemorrhage
found. After being in the hospital for over a year he was discharged
h improved, with partial return of sensation and voluntary control
he bladder and rectum, and spastic condition of the muscles of the
er extremities, all of which reacted normally, though weakly, to
tric excitation. Such is the report of my colleague, Mr. Bailey, who
then surgical registrar, but he omits to say that when the dressings
e removed there was slight suppuration at one or two of the skin
ures. Fortunately this did not spread, but I certainly felt very
ious when I saw it. I think it is much to be regretted that all cases
uppuration are not recorded in the statistical tables of all of our
pitals.

aminectomy was also performed to try and find a tumour of the
al cord. The theca of the cord was bulged at the point where the
our was supposed to be, but when the theca was opened no tumour
id be seen The cord was displaced after division of nerve roots,
still no tumour was in sight. The operation was followed by slight
porary improvement, although there was some suppuration in the
rficial part of the wound and at some of the stitch holes. This
ent died a month later of ascending pyelo-nephritis and with a
otid abscess. The wound was healed except at one stitch hole.
theca was healed and there was no sepsis about or within it.
r the spinal cord had been taken out and cut across a long narrow
tumour was found in the anterior fissure, and at the exact level at which my colleague, Dr. Lewis Jones, had diagnosed it.

In the first case I doubt not that the skin of the back was the source of infection, as it may also have been in the second case. The skin of the back is exceedingly thick, almost the thickest in the whole body. Moreover, it abounds in large sebaceous glands and sweat glands. Owing to the recumbent position of the patient the wound and dressings become bathed in perspiration. In a recent case of laminectomy I did my best to avoid these pitfalls, and the wound healed by first intention in spite of the presence of a septic bedsore over the sacrum.

I have heard it said that these paralysed patients are more predisposed to sepsis than the ordinary run, but I doubt whether this be true as regards wounds. The idea probably arises from the liability of the paralysed to suffer from retention of urine, with subsequent infection of the bladder, ureter, and kidneys.

7. An operation for ventrifixation of the uterus was followed by suppuration, but, rather to my surprise, I was told that no deep sutures had come out. Before performing this operation I was aware that there had been severe sepsis amongst the cases operated upon in the same theatre and ward. This did not deter me from operating, because I was then firm in the belief that wounds only became infected by contact, and that the methods I employed were an efficient safeguard against that danger. I am beginning to attach more importance to environment.

8. The mammary gland, pectoral muscles, and axillary lymphatics were excised for carcinoma. A portion of the skin flap sloughed and there was slight suppuration beneath it. The patient was 67 years old, and suffered from asthma and bronchitis. A severe cough is a troublesome complication when the wound involves the chest wall, as the entrance of air is prevented with difficulty.

9 and 10. Double radical cure of inguinal hernia was performed upon a porter. Small haematomata formed on both sides and became septic. None of the deep stitches were extruded, and the wound speedily healed. Stitches from the wound infected culture media, but unfortunately no cultures were made at the time of operation.

It is rather difficult to classify some cases. For instance, in carcinoma of the lymphatic glands of the neck secondary to carcinoma of the tongue I have imitated Mr. Butlin, and begun by turning the whole of the skin from off the anterior triangle of the neck by a large flap.

In four consecutive cases a small portion of the flap died, and a part of the wound had to heal by granulation. Now it might be said that the death of a small portion of a flap under such circumstances was not a very great misfortune. But this, to my mind, is not the right way of thinking. The operation is not a perfect success unless all the flap survives and all the wound heals by first intention. I have tried turning the flap backwards with its attached base along the anterior edge of the sterno-mastoid muscle, and I have tried turning it forward with its base along the middle line of the neck. On the whole, I think it is best to turn the flap back. But, unfortunately, the skin of the neck is very thin, and it seems difficult to include the platysma and deep fascia in the thickness of the flap. But the survival of these long skin flaps is, as I have already remarked, not altogether a question of blood supply. When the wound is aseptic, long thin non-vascular flaps adhere and survive, whereas in the presence of infection they would inevitably have perished. The aseptic process is more akin to Thiersch's skin grafting than to any ordinary skin-flap operation.

In six cases of removal of the breast, pectoral muscles, and axillary lymphatics a small portion of the edge or tip of the extensive skin flap necrosed, and a very small part had to heal by granulation. Healing by granulation occurred in the superficial part of a laparotomy wound for gastro-enterostomy. A hasty house-surgeon removed the sutures prematurely.

Mr. Scott, to whom I am much obliged, has quite independently tabulated the results of the operations which I did during his house-surgeoncy. It is interesting to note how his estimate accords with my own, provided that the case with a pre-existing septic sinus be omitted, and, be it noted, that one of Mr. Scott's patients had two suppurating wounds.

Total wounds, 436; healed by first intention, 29 (80.5 per cent.); remaining, 7.

Of these 7 cases, 3 had some necrosis of flap without sepsis; 1 had necrosis of flap with sepsis, but in this case there was a septic sinus at the time of operation; 1 suppurated with loss of sutures: and 2 suppurated without loss of sutures, or time, one of them being a case of double radical cure in which both sides suppurated. Mr. Scott estimates the suppuration at 8.3 per cent., including the case with pre-existing septic sinus.

Some of the operations which were followed by suppuration took a very long time to perform. What influence has the duration of an operation upon the chances of infection?

Assuming that the atmospheric bacteria are harmless (an assumption which cannot for one moment be granted), then there is no reason why the wound should be infected either at the beginning, the middle, or the end of the operation. But a surgical operation is a bacteriological experiment, and what bacteriologist would expose his culture media to the atmosphere for a couple of hours, and during all that time keep stirring them up? To ensure success bacteriological experiments must be done quickly and quietly, and so must surgical operations.

I can recall a few operations which have taken more than ninety minutes, and they have been followed by a larger proportion of sepsis than those of shorter duration.

Of course, the long exposure to atmospheric infection is not the only reason for this sepsis. I have already mentioned a case of radical cure of hernia in a very stout subject. Owing to his depth of fat a very big incision was required, and during the operation the loose and oily fat became bruised and full of clotted blood. Another very stout patient had an inguinal hernia full of inflamed and adherent omentum. The haemorrhage from the omentum was very free in spite of chain sutures of stout silk. Ultimately the wound had to be enlarged. The operation lasted two hours and a quarter. The patient made good progress, and left the nursing home at the end of three weeks with the wound soundly healed. Afterwards some pus formed beneath the scar, and after it had been let out some of the buried silk separated. Here, again, the thick layer of subcutaneous fat was bruised and infiltrated with clotted blood. As no drain was inserted, some blood may have collected in the depths of the wound.

Some wounds are easier than others to protect against atmospheric infection. Most abdominal wounds are of this nature. In the removal of the mammary gland, pectoral muscles, and axillary lymphatics, it is easy to protect the greater part of the huge wound with layers of antiseptic gauze.

It is difficult to see what effect any change in environment could have had upon this series of cases. In them the escape of blood into the wound and tissues around was the usual precursor of sepsis. The human blood is a most troublesome fluid; I sometimes wonder why the vessels should be filled with so strange a mixture. I often ask—but have never yet been told why—our own blood should clot and cause our own tissues to inflame? How often we meet with a sequence of events such as this: Blood shed into a serous cavity, into a joint, or amongst the tissues; clotting of the blood, and then inflammation of the tissues in contact with the clot; and, perchance, infection of the clot followed by its conversion into matter; for, although the infection usually comes from without it may come from within, being carried by the blood stream or by the lymphatics.

These phenomena are clearly displayed in cases of subcutaneous injury, such, for instance, as a fracture of the patella. Some would ascribe the inflammation which ensues to the breaking of the bone and the tearing of the tissues, but I should ascribe it mainly to the extravasation of the blood. And acting on this belief, I take the greatest pains when wiring the patella to remove every particle of clot. In the subcutaneous operations which have been devised for fractured patella the clot is, of course, not taken away. But this is a trifling objection to that method of operation compared with another, for subcutaneous methods do not take away the piece of dorsal aponeurosis which always falls between the fragments.

The inflammatory effects of extravasated blood are very marked when it is in contact with that sensitive membrane the peritoneum. Twice I have been requested to operate for appendicitis and found instead a haematosalpinx. To my mind the error was venial. At the operation I saw the area of inflamed, engorged, and swollen peritoneum around the clots; and clinically the pain, elevation of temperature, and acceleration of the pulse had all seemed to justify the diagnosis. I suppose a physiologist could tell us exactly which element in the blood clot excited the inflammation, which raised the temperature, and which accelerated the pulse.

I have on three occasions seen the omental vessels bleed into the abdomen after radical cure of hernia. The signs of peritonitis were very marked, and once they were of the most septic type. The infection may have been introduced at the operation, but the operator had had no other cases of peritonitis. I am sure that had no bleeding occurred the fatal case would not have been recorded. But when blood clot is close to the intestines it may be infected from their interior, the intestinal bacteria finding their way through the coats of the intestines when the latter are inflamed or infiltrated with blood.

Although I have not had to tell you of a single instance of general septic infection, or even a single one of progressive suppuration, I am not contented, and fervently hope that better results may in future be obtained.

NOTE AND REFERENCES.

1 *Trans. Med. Soc. Lond.*, vol. xiv, 1891, p. 40, *et seq.* 2 Ibid., vol. xix, p. 26, fig. 2. 3 Report of Surgical Registrar, *Statistical Tables of St. Bartholomew's Hospital*, 1902, p. 194. 4 Wounds of usual character, and including radical cure of hernia, appendectomy, intestinal anastomosis, amputation of breast and thigh, excision of knee, and so forth.

MEMORANDA:

MEDICAL, SURGICAL, OBSTETRICAL, THERAPEUTICAL, PATHOLOGICAL, ETC.

POTATOES AND GLYCOSURIA.

I HAVE seen lately potatoes mentioned as being more wholesome than ordinary bread for diabetics.

A patient, aged 57, with slight alimentary glycosuria thought potatoes did not suit him. I found that after a luncheon of chop and plenty of bread there was no sugar in the urine, but an hour after a chop and plenty of potatoes there was a large amount of sugar (I did not estimate it quantitatively.)

Thinking it over lately I made an infusion of a little well boiled mealy potato in warm distilled water, and to my surprise found a large amount of grape sugar both by the copper and the phenyl-hydrazin test. Therefore potatoes, though an excellent food, are not good for diabetics.

If I have the opportunity I will see how new potatoes (when they come in) suit my patient.

Stourbridge. GEORGE BIRT, M.B.Lond.

A NEW METHOD FOR DETECTING PLAGUE BACILLI IN THE BLOOD.

IT has hitherto been held that plague bacilli only occur in the general circulation in few cases, or at most when the patient is dying. This is an error which has arisen from faulty method of examining the blood films; the bacilli can be found in all cases and at all stages, and a case can be diagnosed almost as easily as a case of malaria.

In working at malaria with Ross's method it struck me that the same method would be—as it has proved to be—as useful in filarial blood, and a happy inspiration led me to examine a case of plague in the same manner, and, to my surprise numbers of bacilli were easily found.

We—that is myself and Dr. Laing, assistant superintendent—have now examined numbers of cases, mostly on the first or second day of illness, and in every case the result has been positive. It is only necessary to make the film a little thinner and a little more spread out than in working at malaria to obtain good results.

J. BELL,
Superintendent, Government Civil Hospital, Hong Kong.

THE TREATMENT OF HAEMOGLOBINURIC FEVER.

THE treatment of haemoglobinuric fever in British Central Africa has occupied the attention of Protectorate medical officers since 1895. Owing to lack of experience of the disease no particular line of treatment was at first followed, and such cases as were not treated with small doses of quinine were treated symptomatically.

In 1895 and the year following several cases came under observation, both at Zomba and Fort Johnston, and about this time Dr. Steudel, of the German Imperial Government published a paper in which he strongly advocated the administration of large doses of quinine in the treatment of the disease—about 60 gr. per diem; supporting his recommendation of these large doses by quoting a remarkable number of recoveries in his experience on the East Coast.

In the absence of any guide to treatment his method was immediately adopted in this Protectorate, and the mortality from haemoglobinuric fever during the years 1896, 1897, and 1898, was estimated at about 33 per cent. The cases which then presented themselves appeared to be of a severe type and death from suppression of urine was the termination in the majority of the fatal cases.

Early in 1899, and after an experience of several cases

is disease, I failed to recognize the therapeutic value f quinine, more especially as I found that in cases here vomiting was a predominant feature, and in which the inine given was immediately rejected (and therefore dis-ntinued) the number of recoveries compared favourably ith these treated with quinine. I was therefore led to andon the use of this drug, and to substitute a modification the Sternberg line of treatment adopted in yellow fever.

I have now treated 18 consecutive cases of haemoglo-nuric fever without a single death, and as these recoveries nnot therefore be regarded as fortuitous, in view of the mber of cases thus successfully dealt with, the treatment bstituted appears to me to be deserving of a more ex-nded trial.

Sodium bicarbonate and liquor hydrargyri perchloridi are e drugs employed; in doses of 10 gr. of the former and 30 inims of the latter. The combined action of these two ugs being antacid, diuretic, and gastro-intestinal disin-ctant, vomiting is allayed, if not effectually checked, and uresis is freely established. Under this treatment not a ngle case of suppression of urine has occurred—a symptom hich is invariably fatal. The mixture is given every two hours r the first twenty-four hours, and subsequently every three urs until the urine is free of haemoglobin. No ill-effects hatever have been observed in the 18 cases in which it has en successfully employed, notwithstanding that in 4 of ese there were relapses, and the mixture was again con-nued.

With regard to diet, fluid nourishment consisting of milk d barley water is given frequently and in small quantities. enger's food is of great value, as it can be readily prepared d is easily digested. Brand's essence of chicken, and lentine's meat juice are also of value. As a stimulant andy is given to the exclusion of champagne, and in fact l acid drinks are prohibited. During convalescence, pecially in view of the anaemia, it is always advisable to minister ferruginous tonics, and for this purpose the scaly eparations of iron have been found most suitable.

H. Hearsey,
Principal Medical Officer, British Central Africa.

ERFORATIVE TYPHLITIS: OPERATION: RECOVERY.

E sees so few cases of typhlitis recorded that the following ms worth publishing:

On July 13th, 1903, I saw in the evening a girl, aged 20, who ve a history of having been taken with pain in the abdo-n the day before, which had since become worse with olent vomiting. Her abdomen was rigid, very tender over e caecum, pulse 106, temperature 100°, vomiting very fre-ent. She said she had had similar attacks before, but never bad enough to see a doctor for." The next morning miting had ceased, but the temperature was 103° and the lse 120.

n the evening I operated, cutting down over the appendix the usual way. On opening the abdomen there was active ritonitis, pus with faeculent odour welled up, and on nging it out I found on the outer wall of the caecum a angular-shaped slough through which pus came; in its im-diate neighbourhood were several yellow points on the itoneal covering of the caecum all more or less triangular shape which had not actually given way. The appendix elf was oedematous, but on removal was perfectly healthy. e caecum had no mesentery, so it was very difficult to ch, but the affected part of the wall was tucked in on elf with silk sutures in a double layer, a strip of iodoform ize laid over it and a Keith tube put into the pelvis, ere pus at once welled up.

or about three weeks after operation faecal-smelling pus charged, but there was never any flatus, and although all ures broke away, the wound rapidly granulated, and she is w quite well.

here was no apparent cause for the attack, and no obvious son why a small area of the outer wall of the caecum uld be alone affected. The peculiar shape of the sloughs the peritoneum suggested that the muscular fibres had ited the extension of the sloughing.

A. E. Kennedy, jun.
Honorary Surgeon Maternity Charity.

laistow, E.

ASE OF POISONING BY PHENACETIN AND ANTI-KAMNIA.

June 10th, 1903, I was called between 2 and 3 o'clock in afternoon to see a patient, who, I was told, had urgent d of me.

On arrival I found the lady, who is over 40 years of age, sitting up in bed. She seemed much alarmed, her face was pinched, pale, and anxious, her lips purple, the eyes small, the fingers and nails purple. She gave me the following history:

Feeling feverish in the morning she had sent to a chemist for 10 gr. each of phenacetin and antikamnia. The order was a written one, and failing to dot her "i," the word was read "grams" instead of "grains," so that 10 grams of each drug were sent her. Too ill to take it herself, she asked her maid to mix a half of each powder for her. This she took, remarking on the largeness of the dose, yet not suspecting any risk. She immediately vomited, bringing up a thick, whitish material. This was about 10 a.m. After several hours she began to feel ill, and so telephoned to know what dose had been sent her. Strangly enough the clerk who had sold her 10 gr. the day before, answered, and assured her that he had sent only 10 gr. A little later, still feeling ill, she caught sight of her face in the mirror, and was alarmed by the appearance I have described; and then also she noticed the colour of her hands and nails.

My astonishment was very great when I saw how little she had been affected by, as I thought, a dose of 75 gr. each of phenacetin and antikamnia. She then mentioned her having vomited, and this, along with the fact of its having been taken nearly six hours before, somewhat reassured me. Her heart and respiration were scarcely affected, the most troublesome symptoms being the feeling of cold and prostration, and profuse perspiration.

I ordered some diffusible stimulants. The result of these, together with an assurance of there being no special danger, soon restored my patient to her ordinary state.

It seems strange that having taken 5 gr. of each drug the day before she should have swallowed fifteen times that amount for the same dose. She certainly must have brought up the larger part of the dose, or the results would most likely have been much more serious,

Trinidad, B.W.I. Stephen M. Laurence, M.B., C.M.Edin.

TREATMENT OF ANKYLOSTOMIASIS.

Professor Stockman contributes to the British Medical Journal of July 25th, 1903, an interesting note on a case of ankylostomiasis in Scotland. There are, however, some misleading features in this report, which I beg Professor Stockman will pardon my criticizing.

It is by no means the experience of those who deal largely with ankylostomes that they "are readily killed by large doses of thymol." My own routine is to give 30 gr. of thymol in powder at 4, 6, 8, and 10 a.m. on an empty stomach, followed by 1 oz. of castor oil at 6 p.m.—that is, I use 120 gr. for the first treatment. Experiment has proved the inefficiency of smaller doses. About half the cases are not freed from the parasite even with this large dosage. The most obstinate cases I have met, of which I give the notes, shows that the ankylostome may be extremely resistant to thymol.

J. W., aged 27, white labourer.
July 15th. Given thymol, 30 gr. four times.
July 28th. Faeces contain ova of ankylostoma and ascaris.
July 29th. Thymol, 30 gr. four times.
August 6th. Faeces contain ova of ankylostoma.
August 11th. Thymol, 40 gr. four times.
August 31st, Faeces contain ova of ankylostoma.
September 8th. Thymol, 50 gr. four times.
At the present date the faeces have not yet been re-examined.

This dose of 120 gr. of thymol is given regardless of age; children of 3 years take it with absolute impunity.

With respect to Professor Stockman's case, it will be noticed that the worms were never found on washing the stools. He supposes they were all expelled by a single dose of 20 gr. I am confident that at most only three or four worms were passed after such a small dose. It is to be observed that ova were found on June 10th, five days after the last dose of thymol, proving that the worms were not all expelled.

The improvement of the patient is to be attributed to the fact that he was given iron. This will always happen, except in very advanced cases; the anaemia will improve as long as the patient is taking iron, but will recur again and again until the parasites are eliminated.

I would suggest to Professor Stockman to observe his case some months hence, when I expect he will find him as anaemic as ever.

C. W. Branch, M.B., C.M.Edin.
Colony Hospital, St. Vincent, B.W.I.

REPORTS
ON
MEDICAL AND SURGICAL PRACTICE IN THE HOSPITALS AND ASYLUMS OF THE BRITISH EMPIRE.

WOLVERHAMPTON GENERAL HOSPITAL.

HYDATID OF FEMUR: AMPUTATION THROUGH HIP-JOINT.

(Under the care of W. F. CHOLMELEY, F.R.C.S., Assistant Surgeon.)

S. K., aged 30, was walking along the pavement when, according to her statement, she slipped on a piece of orange peel and fell forward. She was found to have a fracture of the right femur in its upper third. This was treated in the usual manner, but at the end of twenty weeks it was still ununited. I was then asked to see the case with a view to operative interference.

State on Examination.—I found the usual signs of a fractured femur in the upper third with no attempt at union. There was also some swelling and pain at position of fracture and for a short distance above, but not much. I advised the patient to let me expose the fracture and do what I thought necessary to produce union.

Operation.—On June 17th, 1903, three days after I first saw her, the patient was given ether, and I proceeded to expose the fracture through a long incision on the outer side of thigh, beginning just below the top of the great trochanter. Just before reaching the bone the knife tapped a collection of liquid, letting out some turbid fluid containing flakes of lymph. On enlarging the opening a large quantity of the same fluid came away, and with it several small cysts like hydatid cysts. The fractured ends of the bone were felt to have been lying in this collection. The bone was broken immediately above the small trochanter. The upper fragment was in front of the lower, and on examination was found to be filled with material composed of closely-packed cysts about the size of a No. 5 shot and some larger cysts. These were held together by what appeared to be the remains of cancellous bone. It looked as if each "cancellus" was occupied by a small cyst. This material, which spread up as far as the top of the great trochanter, was carefully scraped out with a sharp scoop, leaving only a thin and expanded shell of bone, which in one place was perforated by the disease. Here a few hydatids were found in the soft tissues. I hoped that the hydatids had not spread into the cancellous tissue of the neck, as when all the soft material had been removed the remaining bone felt hard and healthy. The lower fragment was next examined. The medullary canal to within 3 in of the lower end of the femur was filled with small cysts and some material like that found in the upper fragment. This was removed in the same way and the ectocyst wall as well. The last part of the wall of the cyst was shaped like the end of a glove finger, showing that the bottom was reached. The bone of the lower fragment was not thinned or expanded except close to the fracture. The interior of both fragments was thoroughly irrigated with a strong solution of corrosive sublimate. I then drilled both fragments, and by means of a silver wire held them in fair position. Owing to the thinning and expansion of the bone, especially of the upper fragment, I could only hope that the wire might prevent them from becoming displaced, as it could not keep the fracture immobile. The wound was sewn up, a drainage tube inserted down to the wire, and the leg fixed to a long Liston splint with an interruption at the hip.

Progress.—The patient progressed fairly well for some weeks. The wound healed. all but a track leading down to the wire. About five weeks after the operation the splint was taken off and the limb moved, but the fracture was still ununited, though there did not appear to be any return of the disease. About the middle of August the patient was obviously losing ground. There was more swelling about the hip, and increased pain. There was no profuse suppuration, only slight along the track to the wire. I began to fear a return of the disease, so I obtained leave to examine the fracture, and, if I thought necessary, to amputate.

Second Operation.—On August 26th the patient was given ether and the fracture examined through the track to the wire. The wire was loose and was removed. The upper fragment was again filled up with the same material as at first, and the disease had spread to the soft parts. The upper fragmen was more expanded and the bone thinner. There was not th slightest attempt at repair of the fracture. Considering i useless to try any further to save the limb, I amputated at th hip-joint. I fully expected to find that the hydatids ha spread into the head of the femur, if not into the hip-joint Haemorrhage was controlled by a rubber band kept in positio by two long steel female bladder sounds, used as Wyeth' pins. Very little blood was lost. The upper fragment cam away in pieces, breaking off through the neck. In fact, ther was very little bone in the diseased part of the upper frag ment. The soft tissues were very carefully examined for an appearance of hydatids and suspicious places cut away. Th flaps were sewn together and drained with tubes in tw places. The patient had very little shock, the loss of bloo being so little.

Progress.—Convalescence was rather slow, owing chiefly, think, to length of time she had been ill. The wound heale quickly with only little suppuration. The patient was allowe on a couch on September 9th, and was discharged on Octobe 12th. Two months after the amputation there was no retur of the disease, and the patient was rapidly increasing i weight.

REMARKS.—On splitting open the head and neck of th femur the hydatids were seen to have spread into the cance lous tissue of the head, but not any further. The cavity i the lower fragment was more than half filled with new bon and there did not appear to be any return of the diseas Owing to the rarity of hydatid of bone, the disease did n occur to me in the first instance, or I should have obtaine leave to amputate then. I very much doubt if the bon would ever have united firmly enough to be of any use even I had been successful in removing all disease at the first ope ation. As I had not got the patient's consent to amputate, was bound to endeavour to save the limb, though I considere amputation the best treatment. The swelling felt when th patient was first seen I looked upon as callus. The fluid ob tained from some of the small cysts was examined under th microscope, and several scolices found.

WINDSOR AND ETON ROYAL INFIRMARY.

CASE OF STRANGULATION BY BAND, SIMULATING APPENDICITI

(By F. E. WOOD, B.A., M.B., B.C.Cantab, House Surgeon to the Infirmary.)

IN view of the very instructive article in the BRITISH MEDIC JOURNAL of February 28th, 1903, on Some Cases Simulati Acute Appendicitis, by Mr. Arthur E. Barker, the followi case presents some points of interest, and is an addition those given in his list.

History.—A schoolboy, 8 years old, came home from scho one afternoon complaining of feeling cold and sick, b passed a fair night. When seen next day he complained abdominal pain. There was tenderness and fullness over th caecum. The tongue was furred, and his temperature w 101°. The third day there was still some tenderness, and definite swelling could be made out in the right iliac foss There was slight pain on micturition. The bowels had be open. The temperature was normal, and there was a subs quent uninterrupted convalescence. Ten days after the fi attack the patient developed mumps. He was sick and aga complained of abdominal pain. His temperature was 10 but it fell to normal next day. The bowels acted natural nntil the fourth day; the pain in the abdomen became mo marked. being paroxysmal in nature and referred chiefly the umbilical region. There was increasing tenderness a the sickness continued from the second day, practical everything being returned. On the sixth day the patient w admitted to the infirmary.

State on Admission.—He appeared to be in very bad con tion, and complained of abdominal pain. The abdomen w tense and did not move on respiration; there was tenderne and dullness in the right iliac fossa extending across to t left side. The pulse was 120 and the temperature 101.2°. So after the patient had an attack of faecal vomiting and becam very collapsed.

Operation.—Dr. Norris, senior surgeon to the infirma made an incision about 4 in. in length over McBurney point. On opening the peritoneal cavity a quantity of bloo stained fluid escaped; following this came coils of dark r distended intestine; these were pulled to one side, and band was seen constricting a large portion of the gut. Th was severed, and the region of the appendix was explor

ut nothing abnormal was seen. An attempt was then made
) return the gut, but this failed owing to the distension.
he gut was then punctured in three places and the contents
queezed out; one stitch was put in over the largest puncture,
ien, after great difficulty, the gut was returned, and the
ound in the abdominal wall sutured, and a rectal tube was
assed.

Progress.—After the operation the patient was very col-
psed; an enema of brandy and milk was given. These were
ntinued for some time. On the day following the operation
ilk and water were given by the mouth, and as no sickness
curred feeding by the mouth was continued. The bowels
ere also moved, the motion being very thin and offensive.
rom this time onward the patient progressed steadily, and
as discharged from the infirmary six weeks after the
peration quite well.

I have to thank Dr. Norris for his kind permission to use
ie notes of the case.

British Medical Association.

CLINICAL AND SCIENTIFIC PROCEEDINGS.

BIRMINGHAM BRANCH.

Birmingham, Friday, February 12th, 1904.

Jordan Lloyd, F.R.C.S., President, in the Chair.

Actinomycosis of Face.—Mr. Leedham-Green showed a
oman suffering from actinomycosis of the face in a charac-
ristic form.

Modern Treatment of Fibromyoma of the Uterus.—Dr. Thomas
ilson read a paper on this subject under the following
adings: The frequency and clinical importance of the
ection; methods of treatment; indications for surgical
eatment; operations by the vaginal and by the abdominal
utes; differential indications; and results.—The paper was
scussed by Mr. J. W. Taylor, Dr. Purslow, Dr. S. Savage,
r. Oakes, Mr. Morrison, Dr. Vokes, and the President;
d Dr. Wilson replied.

Disinfection of the Hands.—Mr. Leedham-Green read a
per, of which the following is a synopsis: An account of a
ng series of bacteriological experiments dealing with the
eansing and disinfection of the surgeon's hands; the
ative value of the following cleansing and disinfecting
ents: permanganate of potash and oxalic acid (Kelly's
ethod); soap and hot water, followed by plain alcohol
hlfeld's method); alcohol, followed by an aqueous solution
perchloride of mercury (Fürbringer's method); "subla-
n" (mercuric-sulphate-ethylenediamine); lysol, biniodide
mercury, and other aqueous antiseptic solutions; alcoho-
solutions of biniodide and perchloride of mercury; spirit
aps.

HONG KONG AND CHINA BRANCH.

a meeting of this Branch held on January 25th, Colonel
. E. Webb, P.M.O., M.D., in the chair, Dr. F. O. Stedman
ad notes on a case of extrauterine fetation.—Dr. E. A. R.
ing read notes on a case of purpura haemorrhagica. The
se ended fatally, and a portion of the large intestine was
own thickly covered with minute ulcers.—Dr. O. Marriott
ad some notes on the treatment of phthisis by intravenous
ection of formalin. The paper was discussed by the
esident, Dr. W. V. M. Roch, Dr. Stedman, and the Hon.
. Atkinson. Dr. Marriott having replied, a vote of
anks was passed for his interesting and valuable paper.

ETROPOLITAN COUNTIES BRANCH: ST. PANCRAS DIVISION.

an ordinary meeting of this Division in the University
llege Hospital on February 25th, Dr. Wynn Westcott in
e chair, and a good attendance of members, Dr. Thiele
ve a pathological demonstration in the clinical theatre,
owing the following specimens: Hydatids of the liver, large
t in pulmonary artery, mitral stenosis with hypertrophy of
ht ventricle, tuberculous ulcers of intestine, amyloid
generation of the liver, infarct of spleen, cellulitis of the
omach. Dr. Thiele also showed some very interesting
icroscopical specimens.—Dr. Bown conducted the members through several of the wards of the hospital, explaining some cases, also showing the operation theatres.

NORTH OF ENGLAND BRANCH: TYNESIDE DIVISION.

North Shields, February 4th, 1904.

R. S. Peart, M.D., in the Chair.

Cases.—Dr. Adams showed a girl with pneumothorax. The condition had arisen suddenly during an attack of coughing. There was bulging of the third, fourth, and fifth intercostal spaces on the right side, and over this region a tympanitic note and the bell sound were clearly elicited. The apex beat was displaced outside the left nipple line. The child was improving under treatment.—Dr. A. A. Martin showed a girl with empyema of the antrum of Highmore. There was a swelling over the situation of the antrum of four years' duration, the right nostril was narrowed from bulging inwards of the inner wall of antrum. The hard palate on the right side was depressed. Dr. Martin proposed to drain the antrum through the socket of the anterior molar (which had been removed) and this treatment has since been successfully adopted.—Dr. F. C. Mears showed two cases of bow-leg and knock-knee treated by Macewen's osteotomy and cuneiform osteotomy of the tibia. The results in both cases were very good.—Dr. Lachlan Fraser showed: (1) A girl after operation for perforating gastric ulcer; (2) a boy after Phelps's new operation for talipes. This had been a case of talipes equino-varus of the third degree in both feet. The operation (division of the neck of the astragalus) was performed three years ago; the child was now plantigrade, and there was no tendency to varus; no steels had been worn. (3) A case of ectopia vesicae in a girl aged 2 years. In this case Dr. Fraser had made an unsuccessful attempt to close in the bladder by lateral skin flaps and Thiersch grafts from the mucous membrane of a dog's bladder.

NORTH LANCASHIRE AND SOUTH WESTMORLAND BRANCH.

Barrow-in-Furness, Wednesday, February 24th, 1904.

A. W. Collins, M.D., President-elect, in the Chair.

Hour-glass Contraction of the Uterus.—Dr. A. W. Collins gave a short description of two cases of hour-glass contraction of the uterus which had recently come under his notice. The causation was obscure. Ergot had been given in one case, but not in the other.

Fatal Case of Poisoning by Potassium Bromide.—Dr. J. W. Fawcitt read notes on a fatal case of poisoning by potassium bromide which had been administered by a quack to a girl suffering from *petit mal*. The patient died comatose. The amount taken could not be ascertained.

Three Cases of Erysipelas.—Dr. G. Alexander made remarks on three cases of erysipelas. In one case facial erysipelas attacked a woman four days before her confinement. The latter ran a normal course, and Dr. Alexander threw out as a conjecture that possibly the development of antitoxins in the blood acted as a protective. In another case the disease came on a few days after vaccination, but was confined to the forearm, the points of inoculation being unaffected.

Midwives Act.—Dr. J. Livingston, in an instructive paper, exposed some of the more objectionable features in the Midwives Act.—After a short discussion it was decided to leave the Furness Division to deal with the matter.

Cases, etc.—Dr. A. J. Cross showed a boy affected with typical myositis ossificans.—Dr. J. A. Reed showed a baby suffering from hydrocephalus, spina bifida, and talipes.

Specimens.—The following specimens were exhibited: Dr. A. F. Rutherford: Collection of bisected eyeballs illustrating various diseases, stereograms of ophthalmic subjects and an epithelioma of the cornea, kindly lent by Mr. Simeon Snell of Sheffield.—Dr. J. Terrell Williams: Series of vesical calculi removed by lithotomy.—Dr. J. S. Shepherd: Ruptured Fallopian tube removed by laparotomy. Dr. H. L. Munro: Sebaceous horn removed from head. Mr. A. S. Barling: (1) Cystic appendix; (2) pile-suture forceps.—Dr. W. H. Coupland: (1) Microscopic slides; (2) ankylostoma duodenale; (3) section of omentum from a case of acute pancreatitis, showing fat necrosis; (4) chloroform-Auschütz.

Visit to North Lonsdale Hospital.—Several members visited the North Lonsdale Hospital, and were much interested in the new operaton theatre. Subsequently 18 members dined together under the presidency of Dr. A. Carmichael.

SOUTH WALES AND MONMOUTHSHIRE BRANCH: MONMOUTHSHIRE DIVISION.

Abergavenny, February 26th, 1904.

J. W. Mulligan, M.D., in the Chair.

Papers.—Dr. W. F. Nelis read a paper on general paralysis of the insane. He pointed out that in this disease there was very little hope of recovery. Whilst insanity as a whole was not increasing, this disease was on the increase. In 80 per cent. of the cases a syphilitic history could be found. Continuous excitement, anxiety, alcohol must be in conjunction with other causes, and was not a direct cause in itself; injuries to the head might be an exciting cause. It was rare to find the element of heredity in the cases. The male sex was affected in the proportion of 5 to 1. The symptoms were frequently a degeneration of moral tone; the patient was restless, swaggering, boastful, extravagant, indecent. The speech became muffled and incoherent; it might be slow and deliberate, fibrillar tremor was often present during attempts to speak. The pupils might be unequal, dilated, or diminished. An epileptiform seizure might be the first sign of the disease; it was often impossible to distinguish this from an ordinary epileptic fit. Dr. Nelis showed several cases illustrating the various stages of the disease. The members were very greatly interested in the paper and demonstration. It was carried unanimously, on the proposition of Dr. Mulligan, seconded by Dr. Lloyd, and supported by Dr. W. D. Steel, That Dr. Nelis be asked to publish his paper.

—Mr. R. J. Coulter read a paper on the orthoptic treatment of concomitant strabismus, in which he referred to the various defects of vision which accompanied the obvious squint. He described the methods adopted for the curing of the amblyopia in the squinting eye: the importance of developing the power and range of fusion. He laid special stress on the fact that it was necessary to undertake the treatment of such cases at an early age, as it was impossible to get good results in children over six years old. Mr. Coulter demonstrated the use of the stereoscope in this class of case. He also showed the Worth amblyoscope, an instrument by which young children might first learn to see simultaneously two different parts of one picture, and, finally, to be able to combine two stereoscopic pictures of the same object. —The Chairman and several members thanked Mr. Coulter for his able and instructive paper.—At this stage of the meeting the Chairman had to leave, and Dr. S. H. Steel was asked to take the chair.—Mr. W. J. Greer then read a paper on surgical analgesia by spinal cocainization, in which he described the technique used at the Beaujon Hospital, Paris, by M. Tuffier, who had carried out the method in about 2 000 cases. He pointed out the vital importance of an absolutely rigid aseptic ritual in performing lumbar puncture. He said that the analgesia occurred in about fifteen minutes after the puncture, and that such extraperitoneal operations as those on the bladder, rectum, anus, perineum, vagina, uterus, urethra, prostate, etc., as well as operations for hernia, could be carried out without any pain. The phenomena which developed during the analgesia were numbness and prickings of the limbs, nausea, and a feeling of weight in the epigastrium, acceleration of the pulse; severe headache might follow, and a rise of temperature occur on the evening of the operation. He quoted a number of cases of death following the method, but believed that rachicocainization would in the immediate future find a place in anaesthesis. The paper was discussed by Dr. E. Y. Steele, Dr. W. D. Steel, Dr. D. J. Jones, Dr. McGinn, and others.

REPORTS OF SOCIETIES.

ROYAL MEDICAL AND CHIRURGICAL SOCIETY.

Annual General Meeting.

Alfred Willett, F.R.C.S., President, in the Chair.

Tuesday, March 1st, 1904.

Report of Council.

The report of Council for the past year was read by the Senior Honorary Secretary, Mr. Clinton Dent, included in which was the report of the Honorary Treasurer, according to which there was a credit balance for the year of £857. It was stated that a card catalogue of the library was nearly finished. Certain proposed changes in the by-laws were explained, the end of which was that the entrance fee of 6 guineas as heretofore, which did not include a subscription for the first year, was to be formally divided into 3 guineas entrance fee and 3 guineas first annual subscription, non-resident members to contribute the same entrance fee, and an annual subscription of 1 guinea for the first and for each subsequent year.

Presidential Address.

The retiring President delivered the annual address which included a review of the work of the Society and obituary notices of those Fellows who had died during the year.

Election of Officers and Council.

The following new officers were elected: *President*, Sir Richard Douglas Powell; *Vice-Presidents*, Dr. H. Charlton Bastian, Dr. W. B. Cheadle, Mr. H. T. Butlin, and Mr. Pearce Gould; *Honorary Secretary*, Mr. Stephen Paget; *Members of Council* Dr. Dakin, Dr. Colcott Fox, Dr. Heron, Dr. Donald Hood, Sir James Reid, Mr. Stanley Boyd, Mr. Arbuthnot Lane, Mr Lang, and Mr. Stonham.

Votes of thanks were passed to the retiring officers, and the newly elected President was inducted according to the ritual of the Society.

ROYAL ACADEMY OF MEDICINE IN IRELAND

Section of State Medicine.

Sir John Moore, President, in the Chair.

Friday, February 12th, 1904.

Public Health Problems in Ireland.

The President delivered an inaugural address on this subject. As regards tuberculosis, he recommended compulsory (1) notification; (2) verification of the diagnosis by means of bacteriological examination of the sputum, etc.; (3) removal of the patients to "hospital," using the term in its fullest sense; (4) periodic inspection of the homes of the tuberculous; (5) periodic disinfection of those homes; (6) the provision of "hospital accommodation" for (*a*) early cases, with a view to cure; (*b*) advanced cases, to provide comfort for the dying, and to secure safety for the living. [The expression "hospital accommodation" should include "isolation hospitals," "sanatoria," "consumption wards," and hospices for the dying]; (7) the vigorous and absolute segregation of tuberculous cases in workhouses, asylums, and other public institutions; (8) education of the public in all matters relating to the prevention and management of pulmonary tuberculosis; (9) improvement of the housing of the working classes and of the very poor, especially in towns. He severely criticized the Poor-law system of Ireland, stigmatizing the internal economy of the workhouses as a grave scandal and a national disgrace, and specified the lines upon which reform should go. In conclusion, he dwelt upon the very unsatisfactory state of the Poor-law medical service, particularly in relation to the sanitary organization of the country. It was a hard-worked, badly-requited body of public servants, whose efforts for the health and welfare of the community were often misunderstood, seldom, if ever, appreciated. If it were properly paid for the services it rendered under the Public Health Acts, and the suggestions for the betterment of the health of the people made by the local medical officers carried out intelligently and in a generous spirit, the dawn of a brighter day would be near at hand.

Physical and Mental Education.

Dr. R. B. McVittie read a paper on the relation of the medical profession to this question, in the settlement and control of which it did not take sufficient part. All true education should be first concrete, and the abstract should be discouraged as much as possible till the period of adolescence was fully completed, since too early a development of the psychic processes diverted the nerve energy from the control of tissue formation, which was its natural function during the period of growth.

Lieutenant-Colonel McNeece considered that if the principles implied in the paper could be carried out, they would be to the great advantage of the nation. The present system of education raised distaste and nausea in the minds of school children.

Sir John Moore reminded Dr. McVittie that the Irish universities were moving towards improving education in the direction suggested by him. He instanced the kindergarten as an example of the attention which was now given to the teaching of the concrete as distinguished from the abstract.

Dr. McVittie, in reply, said he did not sign a recent circular from London asking for the signatures of members of the profession with a view to having instruction in hygiene

nd temperance introduced into schools, as such instruction nly meant more classes and more exhaustion of the nerve entres, which would bring a desire for stimulation.

CLINICAL SOCIETY OF LONDON.

CLINICAL EVENING.

REDERICK TAYLOR, M.D., F.R.C.P., President, in the Chair.

Friday, February 26th, 1904.

CONGENITAL DEFORMITIES.

R. H. BATTY SHAW showed a mother and daughter, each of hom had the same congenital deformity of the hands and et; the index fingers were separated more than usual from ie remaining digits, and the interosseous spaces and thenar id hypothenar eminences were wasted. True apposition of ie thumbs to the remaining digits was impossible, and oduction and adduction of the digits were both greatly duced. The middle toes of the feet were depressed below e level of the other digits. The age of the mother was 20 ars and that of the child 2 months. Dr. Shaw considered e cases almost unique.

MORBUS CORDIS.

Dr. PORTER PARKINSON showed a girl, aged 19; she had had peated attacks of acute rheumatism and a number of cardiac urmurs were audible.

The case was examined and discussed, the *bruits* being riously regarded as of organic, functional, and high-tension igin.

ACHONDROPLASIA, WITH SPINAL CURVATURE.

Mr. C. R. KEYSER showed a boy, aged 15 months, with a ge head and open fontanelles. The limbs were markedly all, and had been so from birth. The fingers showed the ical appearances of achondroplasia, the two outer digits ving outwards and the two inner ones inwards. A promiat antero-posterior curve existed in the dorsi-lumbar region the spine. In this and other respects the case resembled of rickets.

PYOPNEUMOTHORAX DUE TO PHTHISIS.

Ir. E. M. CORNER showed a man, aged 32, upon whom rations on the principle of Estländer's (thoracoplasty) had n performed. The wound had healed, with an aërial ula. Orchidectomy for tuberculous testis had also been formed.

Ir. W. G. SPENCER mentioned a corresponding case. A nchial fistula resulted, and had now remained stationary three years.

PROGRESSIVE MYOSITIS OSSIFICANS.

r. W. HUNTER and Mr. S. PAGET showed a lad, aged 17, in m myositis ossificans had begun at the age of 4 years. h arms were now tied to the chest by disease around the ulder-joint, and there were bony deposits and growths in ous localities. The changes were at first fibrous, but the ntgen rays showed that they were now bony. Three of boy's grandparents had suffered from rheumatic fever.

FEMORAL HERNIA.

r. W. H. BATTLE showed a woman, aged 55, with a right oral hernia of seventeen years' standing. It extended to upper border of the patella and was half the width of the h. It was irreducible, and gave rise to attacks of pain sickness. He proposed to operate when the general con- n improved.

CASES.

e following were also shown:—Mr. F. J. STEWARD: Movable knee- three and a-half years after operation for extensive tuberculous se.—Dr. B. ABRAHAMS: Sporadic Friedreich's disease.—Dr. W. G. E: Enlargement of the bones of the cranium, jaw, and thorax, ably of syphilitic origin.—Dr. C. GOULD MAY: Multiple exostoses. . DONALD ARMOUR: Cyst connected with the organ of Giraldès.— . H. OPENSHAW: Contracture of hip and knee treated by Hessing's ance with elastic traction.

PATHOLOGICAL SOCIETY OF LONDON.

ssor W. D. HALLIBURTON, M.D., F.R.S., Vice-President, in the Chair.

Tuesday, March 1st, 1904.

THE INFLUENCE OF ADRENALIN ON THE NITROGENOUS METABOLISM OF THE BIRD.

D. NOEL PATON briefly recounted work he had undertaken, which was in progress, upon the above subject. It had long established by experiment that adrenalin was a e of glycosuria in mammals, and the author had been able to show that the same held true of the goose. The urine was obtained free of intestinal contents by diverting the latter through an artificial anus. The adrenalin used was that prepared by Parke, Davis, and Co. How far this result would follow if the pancreas were removed was a subject at present under his investigation. The administration of adrenalin in diabetes was followed by an increased amount of sugar in the urine. As regards the action of adrenalin on the nitrogenous metabolism, he was studying this upon the same birds. The uric-acid nitrogen was reduced, the urea nitrogen and the ammonia nitrogen were increased. Adrenalin appeared to inhibit the elaboration of the terminal product of the proteid metabolism.

The CHAIRMAN asked whether there was an excess of sugar in the blood after the administration of adrenalin, or whether it was only in the urine as in phloridzin diabetes. To this Dr. Noel Paton replied that there was such an excess in the blood in mammals, but he had not looked for it in the bird.

RELATION OF AMMONIA NITROGEN TO THE TOTAL NITROGEN IN DIABETES.

Dr. A. P. BEDDARD and Dr. E. I. SPRIGGS read a paper on the above subject, in which they discussed the so-called acid theory, namely, that the presence of ammonia in urine was for the purpose of neutralizing acid. This might be one cause of its presence, but it was not the only one. When the diabetic patients were placed on strict diabetic diet there occurred an absolute rise in the total nitrogen excretion. The daily administration of sodium carbonate produced a fall, however, in the nitrogen excretion.

The CHAIRMAN observed that in diabetes it become increasingly clear that the nitrogen excretion had to be investigated as well as the carbohydrate. He thought on the whole that the observations of the speaker supported the view that the increase of ammonia was to be associated with the acidosis.

A SURVEY OF THE RECORDED CASES OF HAEMATOPORPHYRINURIA NOT DUE TO SULPHONAL.

Dr. A. E. GARROD pointed out that whereas haematoporphyrinuria was usually due to the taking of sulphonal, there were a few cases on record in which similar urines, red or nearly black in tint, and rich in haematoporphyrin, had been passed by patients who had never taken that drug. He referred briefly to twelve such cases, including one recorded by Baumstark in which there was some doubt as to the nature of the pigmentation. He drew a distinction between such cases and the very common ones in which there was merely an increased excretion of haematoporphyrin above the normal trace, and in which the colour of the urine was not materially affected. It was shown that whereas haematoporphyrinuria due to sulphonal was hardly ever seen in males; of the non-sulphonal cases the majority occurred in males. Again, it was pointed out that in a large proportion of the cases not due to sulphonal the condition was of long standing, and in some had persisted for many years, whereas in others it had recurred at intervals, and had in one instance simulated paroxysmal haemoglobinuria. Except in Ranking and Pardington's cases, the grave associated symptoms which accompany haematoporphyrinuria due to sulphonal were wholly wanting, and no specially evil prognostic significance appeared to attach to the symptom. In the twelve cases discussed the patients suffered from a variety of maladies which had no obvious connexion with each other; but in three cases, namely, those recorded by Baumstark and by McCall Anderson, it was associated with a bullous eruption, recurring each summer and leaving grave scarring of the face and hands. It was mentioned that the evidence forthcoming was opposed to the view that haematoporphyrinuria implied excessive haemolysis, and rather pointed to a perversion of haemoglobin katabolism as its cause. However, although the study of the slight excesses of haematoporphyrin so often excreted in disease appeared to connect them with diffuse changes in the liver, it could not yet be definitely stated that the profound disturbance of pigment metabolism which resulted in haematopophyrinuria with dark red urine was wholly due to disease of that organ, although serious degenerative changes in the liver had been observed in some fatal cases in which the phenomenon was due to the taking of sulphonal.

THERAPEUTICAL SOCIETY.—At a meeting on February 23rd. Dr. ROSE BRADFORD in the chair, Dr. BURNETT discussed some compounds of ichthyol, especially ichthoform and

ichthargan. The former was astringent and antiseptic; it was useful in tuberculosis of the intestines and diarrhoea in doses up to 15 gr. thrice a day or as an enema; it was also of value in varicose ulcers and skin disease, such as eczema, and prepared with gauze was useful for packing cavities. Ichthargan was useful in urethritis and gynaecological affections, also in many skin diseases, and in atrophic rhinitis and diseases of the eye. Hence ichthyol had a wide sphere of therapeutic application.—Mr. MCADAM ECCLES, in a paper on inguinal trusses, dwelt on the importance of distinguishing good from bad trusses. Trusses were found even on the statuettes of Egyptian gods. A good truss should have a pad of proper size and shape fixed immovably on a well-tempered spring embracing three-quarters of the circumference of the pelvis, and be held by properly adjusted cross and under straps; its covering should be sufficiently thick and durable. Bad trusses were often insufficiently covered and were liable to fracture when straightened, their lower edges were too slightly curved, and the straps wrongly placed or movable. All such defects were injurious to the patient. He described the rat-tailed truss, with its pad prolonged into a soft band, as useful for scrotal hernia in old, stout persons; and the hinged cup truss as very valuable for irreducible scrotal hernia. Remarks on the paper were made by Dr. DENNIS VINRACE.

MANCHESTER MEDICAL SOCIETY.

J. S. BURY, M.D.Lond., President, in the Chair.

Wednesday, February 3rd, 1904.

PROCIDENTIA RECTI.

MR. A. H. BURGESS presented a communication on the treatment of rectal prolapse and incontinence of faeces by the submucous injection of paraffin, based on an experience of nine cases of prolapse, one case of prolapse combined with incontinence of faeces, and one case of incontinence, resulting from operations for the cure of an extensive fistula *in ano*. He used a paraffin melting at 111° F., and a syringe whose glass barrel was encased in rubber to retain the heat longer. No special means were taken to keep the needle hot. The chief aim of his technique was to introduce the paraffin in successive tiers, each tier consisting of three large nodules placed equidistantly around the circumference of the bowel, the tiers being so arranged that a nodule of one tier was opposite to the interval between two nodules of the tiers above and below it respectively. Usually three tiers were sufficient, but more might be required in a very long prolapse. A single stitch was placed to approximate the buttocks over the anus and prevent the prolapse from descending before the paraffin had set, this stitch being removed in twenty-four hours. The results had been excellent in all the nine cases of prolapse, not a single instance of re-descent having occurred. In the case of prolapse with incontinence of seven years' duration a cure was effected by a combination of paraffin injections with a plastic operation to narrow the enlarged anal orifice. In the case of incontinence after operations for fistula the large amount of 52 c.cm. of paraffin was injected on two occasions submucously around the lower part of the rectum, and although the patient had previously been absolutely incontinent for three years he had not soiled his linen once during the eight weeks that had elapsed since the operation.

MALARIA.

Dr. CHARLES MELLAND gave some clinical details of a series of recurrent cases of malaria recently met with in Manchester. After describing the principal points upon which a diagnosis of malaria should rest, he dilated at greater length upon the value of blood examination in clinching the diagnosis. He then demonstrated (with Dr. ORR) a series of coloured lantern slides of photomicrographs of malarial plasmodia taken from the cases referred to, illustrating the asexual life-history of the different species of plasmodia as studied in stained blood films.

COLOUR PHOTOGRAPHY.

Dr. W. J. S. BYTHELL gave a demonstration of the Sangers-Shepherd process of colour photography as applied to medicine.

BRADFORD MEDICO-CHIRURGICAL SOCIETY.—At a meeting on February 17th, Dr. ANGUS, President, in the chair, Dr. F. W. EURICH gave a demonstration of microscopical specimens.—Mr. C. F. M. ALTHORP showed specimens: (1) Round cell sarcoma of upper jaw; (2) epulis of upper jaw; (3) os calcis removed for tuberculous disease. Mr. Althorp read notes on the case of sarcoma of the jaw, upon which he had successfully operated. After describing the operation he commented on the prognosis of the disease and on various methods of operating.—Dr. H. J. CAMPBELL read a paper on the causation of cancer, in which he reviewed shortly some of the theories propounded from time to time. Amongst these were that cancer was due to (1) embryonic cell nests taking on growth and forming tumours. (2) The irritation of vegetable micro-organisms: the association of these with tumour growth was considered to be accidental. (3) The irritation of animal micro-organisms analogous to coccidia in rabbits. It was pointed out that these organisms tended to form encapsulated growths and that there was no metastasis. (4) The association of yeast growths with tumours. (5) The displacement of portions of epithelium which subsequently took on growth. (6) Various dietetic theories. (7) The suggestion of Moore, Farmer and Walker that existing cells might take on the function of germinal cells and form tumours. The distinction between germinal and embryonic cells was pointed out and the work of these investigators discussed at some length. The work of Bashford and Murray concerning the formation of new growths in different animals was described. The question why the cells of any part should take on reversion to a germinal type was discussed. It was suggested that chronic irritation might often determine the site of a tumour and also that the involution going on in certain organs—breast and uterus—at the cancer age might have some influence in this direction. Dr. ANGUS suggested that, as cancer usually came on at the end of sexual life, the cells of other parts of the body might seem to attempt to take on the function of sexual cells. Dr. RABAGLIATI considered that the question of the division of cells was of little practical interest, and that cancer was a disorder due to the ingestion of excessive amounts of nutrient material. It was useless to discuss the question of cancer houses unless the habits of the people who lived in those houses were also studied. Dr. EURICH expressed the opinion that all the circumstances attending the growth of a malignant tumour tended to point to a parasitic origin. Animals in menageries, which were certainly not overfed, often developed malignant tumours. Dr. CAMPBELL replied.

CLINICAL SOCIETY OF MANCHESTER.—On February 16 Dr. MILLIGAN, President, in the chair, Dr. A. T. WILKINSON opened a discussion on uraemia, a term which covered a group of nervous phenomena, most frequently associated with definite renal disease. It was advisable to distinguish this condition from imperfect excretion, actual or relative, of the final products of nitrogenous metabolism, urea, and its allies. In other words, uraemia was not to be regarded as the culmination of urinary failure, but a variety of toxaemia which might occur with very different degrees of renal inadequacy. This view was applied in turn to acute uraemia obtaining in inflammatory states of the kidney, in puerperal eclampsia, in acute uraemia with little or no urinary failure, and uraemia as seen in chronic Bright's disease. The key to the solution appeared to lie in the hands of those who could study puerperal eclampsia, when uraemic phenomena occurred with very varied degrees of urinary failure. The morphine treatment here found efficacious might have to be modified considerably in dosage and method before it could be applied to all cases of uraemia, as in acute Bright's disease, where the specific toxaemia was conjoined with general excretory failure. Saline injections into the tissues, which helped to dilute the poisons and aid their excretion, were frequently useful in the uraemia of organic disease; indeed general drop, if viewed as Nature's treatment, authorized this method. Dr. FOTHERGILL agreed with the distinctions drawn between the actual effects of renal inadequacy and those due to various forms of toxaemia often accompanying the latter. The term uraemia was doubtless loosely applied to both these sorts of conditions, but it should be limited strictly to the former. He agreed that the study of puerperal eclampsia might in time throw valuable light upon the various conditions known as uraemia.—Dr. E. VIPONT BROWN referred to cases which illustrated the ease with which uraemia might be overlooked owing to its protean character.—Mr. BURGESS remarked on the absence of symptoms of uraemia in cases of suppression of urine following on complete obstruction of both ureters, which seemed to indicate that uraemia depended upon some cause other than merely the arrest of the excretory function of the kidney. In uraemia associated with ac

ephritis he advocated relief of the acute renal tension neces-rily present by surgical measures—incision of the renal apsule and parenchyma with drainage.

REVIEWS.

HE APPLICATION TO CLINICAL MEDICINE OF THE THEORY OF THE FUNCTIONS OF THE HEART MUSCLE.

XPERIMENTAL inquiries into the functions of the heart uscle have made great advances during the past decade, but e application of the results so obtained to explain clinical enomena has lagged somewhat tardily behind, Now, how-er, this defect is likely to be remedied. In a work just blished, Professor WENCKEBACH[1] of Groningen has placed clinicians under a debt of gratitude. He demonstrates w many of the most puzzling of heart symptoms may be plained in a manner as convincing as it is simple. enckebach accepts with enthusiasm the teachings of gelmann, and has made himself familiar with all the tails of Engelmann's striking experiments. In his book enckebach begins with a discussion of all the facts favour of the "myogenic" theory of the heart's ion as opposed to the "neurogenic," and un-itatingly decides in favour of the view that the linary rhythm of the heart is altogether inde-ident of its nervous connexions, the muscle fibres mselves possessing all the attributes necessary for the rthmical production of the heart's work. The functions of heart muscle are fourfold, namely, the power of conduct-stimuli from muscle fibre to muscle fibre, the power of traction, the capability of being stimulated, and the er of automatically originating the stimulus. Engelmann tells us has proved experimentally that each of these func-ns may individually be affected without any corresponding erference with the remaining functions. All these func-ns are abolished for the time being during a ventricular tole, but they all gradually return and become effective ing diastole. When any one of these functions is abnor-lly affected, either negatively or positively, a variation in rhythm of the heart results. It has been found that h disturbance of function produces a distinctive and uliar type of arrhythmia.

rom a deep and close study of the result of these experi-nts, Wenckebach has been led to recognize a resemblance racings of the radial pulse taken from his own patients. results which have been obtained are so astounding as to at first sight almost incredible. As an illustration we refer to the manner in which he demonstrates a ression of the power of conducting a stimulus (*die Störung Reizleitung*). In his patient the radial tracing showed an rrhythmia with regularly-occurring groups of three beats, a group being separated by a long pause. The period upied by the middle pulse beat of the group is always shortest. He reasons from analogous tracings obtained erimentally by Engelmann that in the time occupied the three pulse beats the stimulus had originated he great veins four times, but the ventricle had only onded to three of these stimulations. Dividing the od in the radial tracing occupied by the three beats their pauses into four equal divisions, he shows that the long pause the power of stimulus-conduction restored to a normal condition. so that the ventricle onds to the stimulus at the normal time. The power of ulus-conduction being destroyed during this ventricular ole returns more slowly than normal, so that though the ulus arises at the veins at the usual period it takes a er time to reach the ventricle, hence there is a longer e before the second beat occurs. In a similar manner the ulus is delayed after the second beat. After the third of the group the power of conduction returns so slowly when the fourth stimulus comes down from the great s the ventricular muscle is still refractory, and no con-ion results. The ventricle remains, therefore, quiescent the next stimulus comes down from the veins. On ac-t of its long rest, the power of conduction has been so pletely restored that the ventricle responds to the stimulus the veins with a normal promptitude, and so the cycle of rhythmia goes on.

[1] *e Arhythmie als Ausdruck bestimmter Funktionsstorungen des Herzens. physiologisch-klinische Studie.* Von Dr. K. F. Wenckebach, Professor neren Medicin, Groningen. Leipzig: Verlag von Wilhelm Engel-. 1903.

At first sight such an explanation seemed rather far-fetched, especially as no further proof was adduced than the similarity of the rhythm of a human pulse to that of a dying frog's heart. It so happened, however, that a patient came under observation whose heart rhythm was puzzling in the extreme. There was also present a well-marked pulsation in the jugular vein due to the systole of the right auricle. A comparison of the tracings of the radial pulse in this patient with Wenckebach's case showed a remarkable resemblance. Tracings of the auricular pulsation in the jugular taken at the same time as the radial pulse showed four beats of the auricle to three beats of the ventricle. The time between the auricular pulse and the radial varied in a curious manner. After a long pause the radial pulse followed the jugular pulse at the normal period. After the second and third jugular beats the time between the jugular and radial was double. After the fourth jugular pulse no radial pulse appeared—in fact, a perfect demonstration of the correctness of Wenckebach's interpretation.

He shows also that it is a depression of the stimulus-conduction that is at fault in those cases of bradycardia where the auricle can be demonstrated to beat at a more frequent rate than the ventricle. Here the arrhythmia is due to a "blocking" of the stimulus at the fibres connecting the auricle and ventricle—a view, by the way, agreeing with that previously expressed by Clifford Allbutt, who also suggested that the fault lay at "Gaskell's bridge." In the same exact and penetrating manner he analyses tracings that demonstrate interference with the normal action of the other functions of the heart muscle fibres.

Of very great value, and of the very first importance, is his attempt to bring an intelligent discrimination to bear upon the series of allorrhythmias comprehended under the vague terms of pulsus bigeminus and pulsus alternans. As a rule writers mix up these conditions in an unintelligible jumble—what is one man's pulsus alternans is another's pulsus bigeminus, and a true conception of their distinctive nature is entirely wanting.

Taking the case of pulsus alternans, he would limit this term to those cases of alternating small and large pulse beats where the cause of the variation is due to a disturbance of the function of contractility. The stimulus in such cases arises rhythmically at the veins, but the response of the ventricle varies. After the larger of the two beats the contractility is so affected that the ventricle responds to the next beat with abnormal rapidity, but the contraction is of a shorter duration, hence a smaller pulse wave. The shorter duration of the systole permits a longer period of diastole, and in consequence of the longer rest the contractility recovers itself, and the response of the ventricle takes place in a normal manner, producing a longer and fuller pulse wave. With this larger ventricular systole the exhaustion of the heart is more complete, and the rest during diastole is not sufficient to restore the contractility, and so the next stimulus produces a smaller and more rapid ventricular systole—and so the alternating rhythm goes on. This view is supported by Engelmann's experiments, and a study of cases where there has been a jugular pulse convinces us of the great probability of this interpretation.

A large number of different conditions is included under the term pulsus bigeminus, and he would limit this term to a true bigeminal action of the whole heart as distinct from a similar form of pulse due to the rhythmical occurrence of extra systoles of the ventricle alone or of the auricle and ventricle and other forms of seeming bigeminal action. Whether such a distinction can be maintained we are not so convinced and we feel it is a matter wanting further consideration. This contention of Wenckebach's is of interest, as he stoutly maintains as correct the views of Traube, who originally described this form of irregularity and attributed to it a lethal significance. Subsequent observers have been nearly unanimous in assuming that Traube erred in fancying the irregularity to be either so rare or so grave as he supposed.

We can only briefly refer to the section dealing with nervous disturbances of the heart's rhythm. Here the ground on which he treads is far less sure, but nevertheless the section is full of interesting and suggestive matter. We would refer particularly to his penetrating analysis of the cases of Stokes-Adams disease and the light he throws upon the classical and splendidly recorded case of Webster. In this case there were very prolonged pauses of the ventricular action, often terminating in epileptic attacks. During the

pauses tracings of the radial showed slight movements due to the action of the left auricle. At the end of these pauses sometimes the pulse began to beat in the manner of Bowditch's staircase phenomenon.

In dealing with the more extreme forms of heart irregularity and with paroxysmal tachycardia we scarcely think the author has fully appreciated the facts on which other observers have based their explanations. He seems to have missed the significance of the observation that the ventricle can start the rhythm of the heart apart altogether from its nervous connexions and the periodic stimulus from the veins. Yet this fact has not only been repeatedly demonstrated by experiment, but the circumstance that a local stimulus can produce a ventricular extra systole would naturally lead one to infer that a prolongation or intensification of the condition giving rise to an extra systole would readily lead to the continuation of the ventricular rhythm.

From this notice it will be seen that the perusal of this book is of prime necessity to all engaged in the study of affections of the heart. To every one interested in clinical medicine we can recommend it as a masterpiece of acute reasoning, of penetrating insight, and of logical deduction.

NOTES ON BOOKS.

The Transactions of the Life Assurance Medical Officers' Association[1] comprise the proceedings during the years 1900 and 1901. Owing to unforeseen difficulties, its publication was delayed, but upon the whole the volume was worth awaiting. In the list of discussions we do not find any reference to that very interesting subject, "Fees paid for insurance work," while at the same time the names of the members of the Society suggest that many of their owners must have such weight with directors of insurance companies that it is a little surprising that the question of inadequate fees should ever have been allowed to become one of acute interest to the profession at large. The majority of the papers will appeal chiefly to those frequently called upon to advise the managers of companies as principal medical officers, but others have an interest for all medical men. Such are the presidential address of Dr. Theodore Williams on Race in Relation to Life Assurance, a discussion initiated by a paper by Dr. G. V. Poore on Locality and Occupation in the same connexion, and discussions on the causes of early death among persons considered to be first-class lives, founded on papers by Drs. Glover Lyon, Hingston Fox, Newton Pitt, and Colcott Fox. Another very interesting discussion was one introduced by Dr. Parkes Weber on the influence of overweight on long life. The general opinion appeared to be that it was better to be a fat Jew than a fat Gentile, and a fat woman than a fat man, or in general terms that obesity in itself was of less importance than the susceptibility to evil effects from nicotine and alcohol which accompanied it.

The Guide to South Africa,[2] edited for the Union Castle Mail Steamship Company by Messrs. A. Samler Brown and G. Gordon Brown, is, in its eleventh edition, divided into two parts. The first deals with such subjects as commonly receive notice in "Year Books," coupled with condensed information for the use of the emigrant, the miner, the mechanic, the sportsman, and the agriculturist—in short, of all those likely to be interested in South Africa, whether as a permanent or temporary home. The second part is a kind of gazetteer, compiled much upon the lines of a Murray's Continental Guide. The information, though compressed, is given in a readable fashion, and that with regard to the climate and weather to be expected in the various localities is likely to be found particularly useful by medical men. The latter, however, in reading the book, should bear in mind that, in spite of many attractions from the point of view of climate, few of the more desirable parts of South Africa are at present suitable places for such invalids as cannot to a very considerable extent shift for themselves. The preface to the guide, indeed, very properly contains a warning to this effect. The work is freely illustrated by maps, plans, and diagrams.

The earlier parts of the new edition of *Cassell's Family Lawyer*[3] were noticed in the British Medical Journal of November 7th. The subject-matter of the parts before us includes such varied topics as partnership, joint-stock companies, trades and manufactures, patents and trade marks, trade unions and Friendly Societies, workmen's compensation, railway companies, borrower and lender, inheritances and trusts, the franchise and taxation; and among this motley collection it is not difficult to find something to interest most people. The rights and liabilities of partners are stated in a concise and practical manner. Shareholders in public companies will be interested in the provisions which a paternal Legislature has found it necessary to make for their protection, while few people will pass over the sections dealing with railway rates and charges, and the position of the unfortunate passenger who loses his luggage, or travels without having prepaid his fare. Perhaps there is no branch of the law into which the amateur is more ready to plunge than that of inheritance; probably because it is a subject with which every one is brought into contact at one time or another. There are people who find a positive fascination in the frequent making of a will, and there is little objection to the indulgence of this fancy if the testator refrains from the use of technical terms, which are for him a veritable pitfall. The rules governing intestate succession are explained and graphically illustrated, though the Puzzle Chart, "Find the heir," on page 989, seems to suggest that the author recognizes the possibility of his readers experiencing some difficulty in deciding between the conflicting claims of such obscure persons as, say, the "male maternal ancestors" and "female paternal ancestors." The unpleasant subject of taxation may be dismissed with the observation that it has received adequate treatment. The index at the end of part 18 suggests that the enlargement which is advertised as a feature of the present edition consists in an additional volume with a separate index. The book would have been much more useful had a single index been prepared to include any matter now appearing for the first time.

[1] London: Published by the Association. 1902. (Crown 8vo, pp. 202.)

[2] *The Guide to South Africa*, for the Use of Tourists, Sportsmen, Invalids, and Settlers. Edited by A. Samler Brown and G. Gordon Brown. Eleventh edition. 1903-4. London: Sampson Low, Marston, and Co. (Crown 8vo, pp. 471. 2s. 6d.)

[3] *Cassell's Family Lawyer*. By a Barrister-at-Law. London: Cassell and Co., Limited. 1903. (To be completed in 27 parts; 6d. each.

REPORTS AND ANALYSES
AND
DESCRIPTIONS OF NEW INVENTIONS
IN MEDICINE, SURGERY, DIETETICS, AND THE ALLIED SCIENCES.

MEDICAL AND SURGICAL APPLIANCES.

A New Ligature.—Mr. Percy H. V. Hammersley (Leek) sends the following description of a ligature which has for some considerable time given him great satisfaction: It is made by a special process from numerous single cocoon fibres, which produces a ligature equal in every respect to silk twist and one which has the following advantages: Greater strength. Simplicity and ease of sterilization; a few minutes' boiling renders it perfectly aseptic. Good keeping properties; it will keep indefinitely unimpaired in the wet or dry states. Absence of any tendency to slip when tied on a vessel or pedicle, owing to the flat form the ligature assumes it has no tendency to slip off. Readily temporary encapsulization and perfect after-absorption; the process of manufacture, whilst resulting in one thread of any desired thickness which retains its entirety, does not compress the component fibres together, so that the plastic lymph thrown out around the seat of application is able to penetrate between and around each strand composing the ligature, and to this is due, I believe, the absence of those annoyances so common with ordinary forms of ligature—namely, stitch abscess—and the extrusion perhaps weeks or months after an operation of the deep ligatures. The use of split-eyed needles with this as other forms of ligature saves both time and trouble. The ligature can be obtained from Messrs. Maw, Son and Sons, who have provided a neat metal case containing varying sizes of the ligature, together with split-eyed needles adapted for each size, the whole being so constructed that without disturbing the contents perfect sterilization can be effected by a few minutes' boiling.

We are informed by Messrs. Baird and Tatlock that the powder to which reference was made in a note on a new razor sharpener for microscopic work on January 16th, page 140, can be obtained at 1s. a pound.

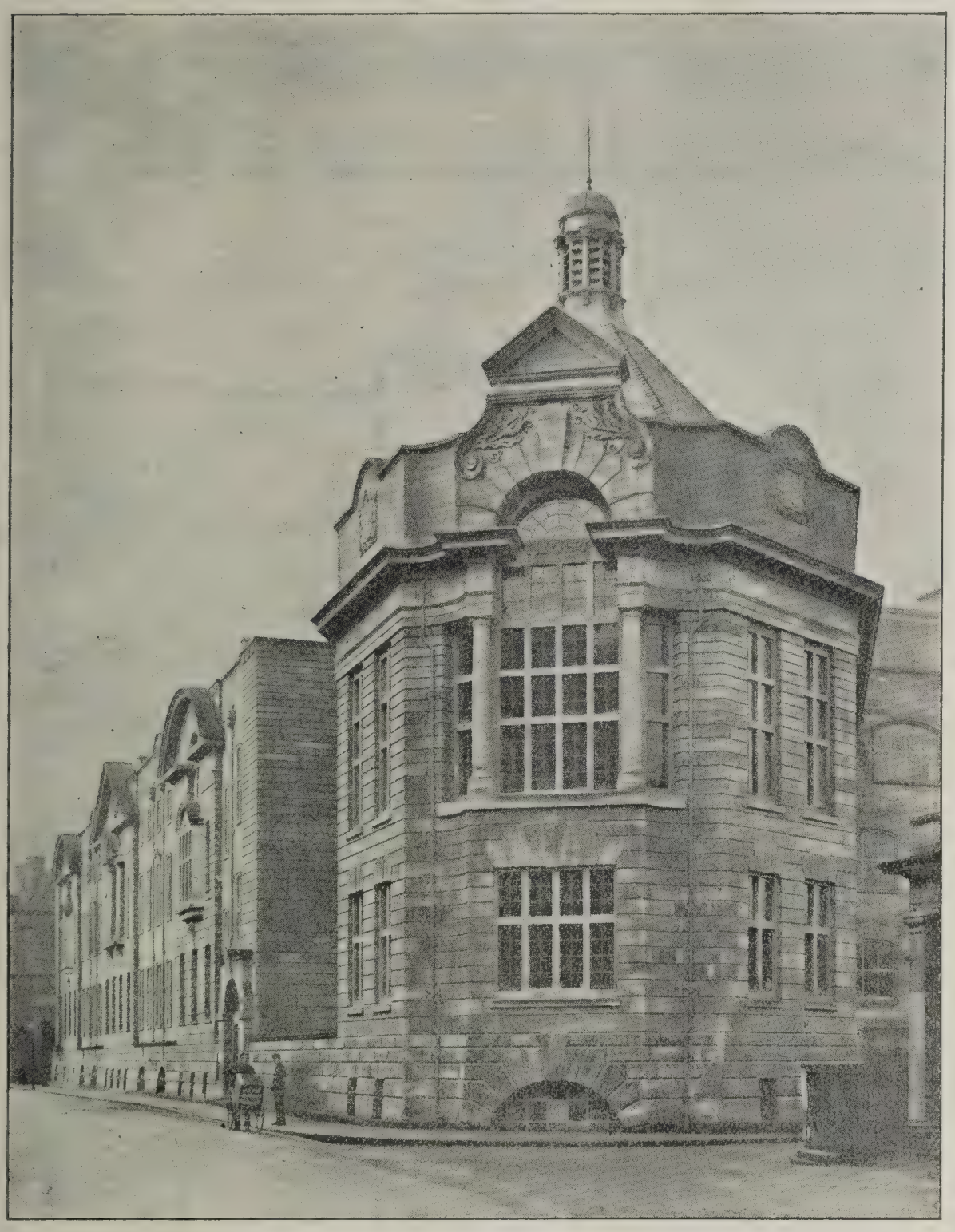
THE NEW LABORATORIES OF THE UNIVERSITY OF CAMBRIDGE.

DESCRIPTION OF THE BUILDING.

ıe reputation of Cambridge as the University of all ıgland which has best known how to combine the old ırning with the new is so firmly established that it may me as a surprise to many to learn that it has recently en found expedient to expend a sum of considerably more an £100,000 in building new laboratories and science schools. The fact is, however, evidence of the determination of ose who are the spiring leaders the Science ıculties that mbridge should t lose its pre-ıinence, and the ng showed his preciation of eir efforts and s affection for e University ıere he once ıdied by visit-g Cambridge on ırch 1st to open e new buildings. ese comprise w buildings for e Medical hool, the Botan-l Department, e Geological ıseum, and the yet incomplete w Library.

The new build-gs of the Medi- School and the w Library face ch other on her side of wning Street. e style of the dical buildings severe almost plainness, be-ening the prac-al, serious, un-entatious, but ıeficent work to done in them; legal, more ıate, show some-ng of that love outward show ch which law s never in this ıntry disdained surround the ıples and the emonies of emis.

With whatever ıvowed envy Medical Fa-ty may regard splendour of Law Library and the ample spaces of the Geological seum, there need be no hesitation in affirming that in essentials the laboratories and lecture rooms of the new ldings of the Medical School are admirably adapted to ir purpose. The site is an irregular parallelogram ending an acute angle, and in this angle (as will be seen from the otograph) the Humphry Museum has been built, jutting as one comes up Downing Street in a manner which once catches the eye, and gives a distinctive character the building. At the back the windows look out on a drangle formed by the chemistry and the engineering ools and by the physiological department, with which, en the whole scheme is completed, the new buildings will in direct connexion.



The New Medical School, Cambridge; the Humphry Museum.

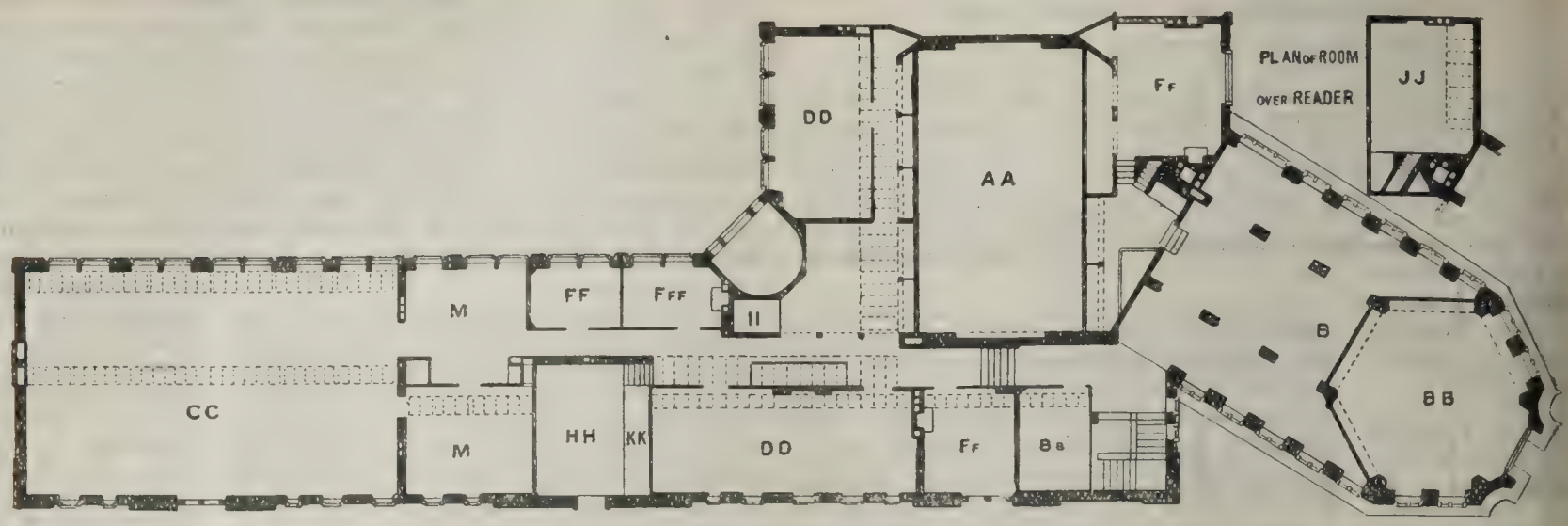
The New Medical Schools.

The new medical schools occupy a roughly triangular site at the corner of Downing Street and Corn Exchange Street. The Humphry Museum has been erected in the acute angle formed by these two streets; the façade of the main building is in Downing Street. The general position and aspect of the buildings are well shown in the accompanying photograph. At present the whole plan has not been carried out; eventually the new buildings will communicate with the physiological department in Corn Exchange Street. The part of the building not yet begun but urgently needed is designed to afford additional accommodation for pathology, and physiological chemistry and hygiene will be housed there until the University can afford to build an institute of hygiene, one of the next important requirements of the University.

The new building, as at present completed, consists of a basement and three other floors. The façade in Downing Street is faced with Ancaster weather-bed stone with sills, and ornamentations in Derbyshire sandstone; the elevation is plain but dignified, and no money has been spent on meretricious ornamentations. The arrangement of the several floors is shown in the accompanying plans. Entering by the main doorway in Downing Street the visitor finds himself in a small hall and lobby, from which the main staircase rises; beyond this is the entrance from the quadrangle, formed on the west by the physiological buildings and on the other sides by the engineering and chemistry laboratories. To the right of the hall is the entrance to the lower story of the Humphry Museum; this will be used as a type or school museum; the main Humphry Museum, a lofty and well-proportioned room, which will be open to the public, is on the first floor. It has a dome, supported by stone pillars, which projects into the second floor. The walls are ornamented with pale green tiles. On the second floor, above the main museum, the space not occupied by the dome will be utilized as a teaching museum; that is to say, in it will be collected specimens that can be handled, and suitable cases will be further illustrated by microscopic slides. Such luxuries as the building possesses are to be found in the main Humphry Museum and in the elevation of this part of the building.

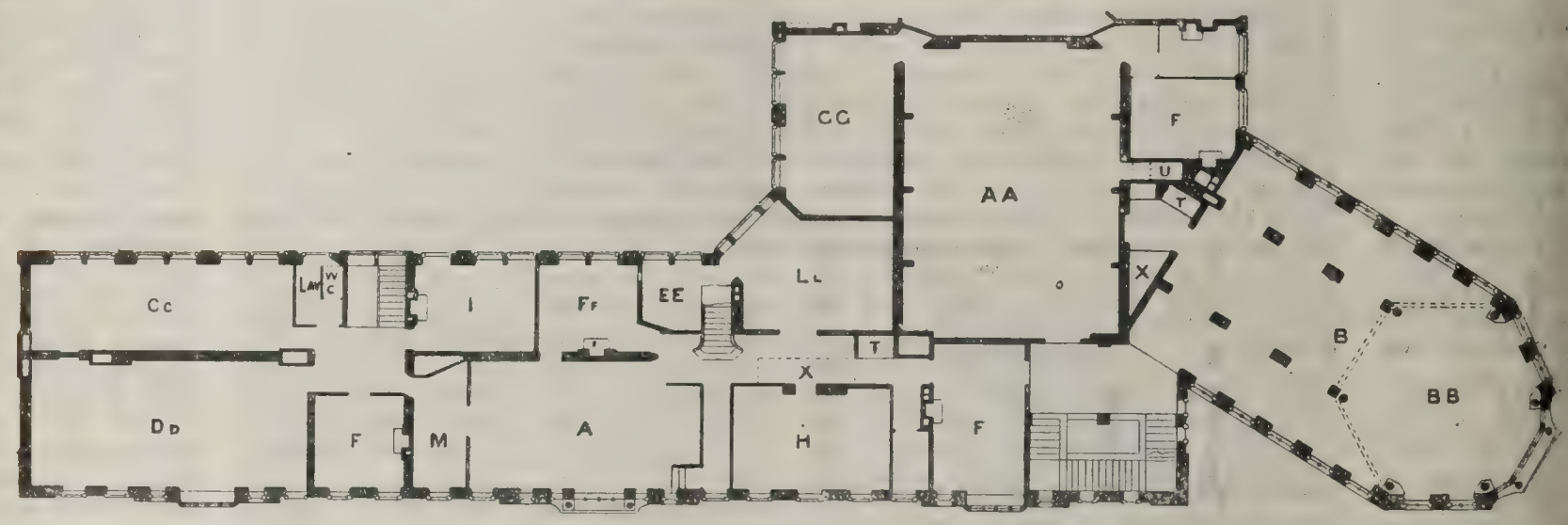
Returning to the hall on the ground floor, and proceeding eastward, we enter three small lecture rooms, which will be

PLANS OF NEW MEDICAL SCHOOL BUILDINGS.



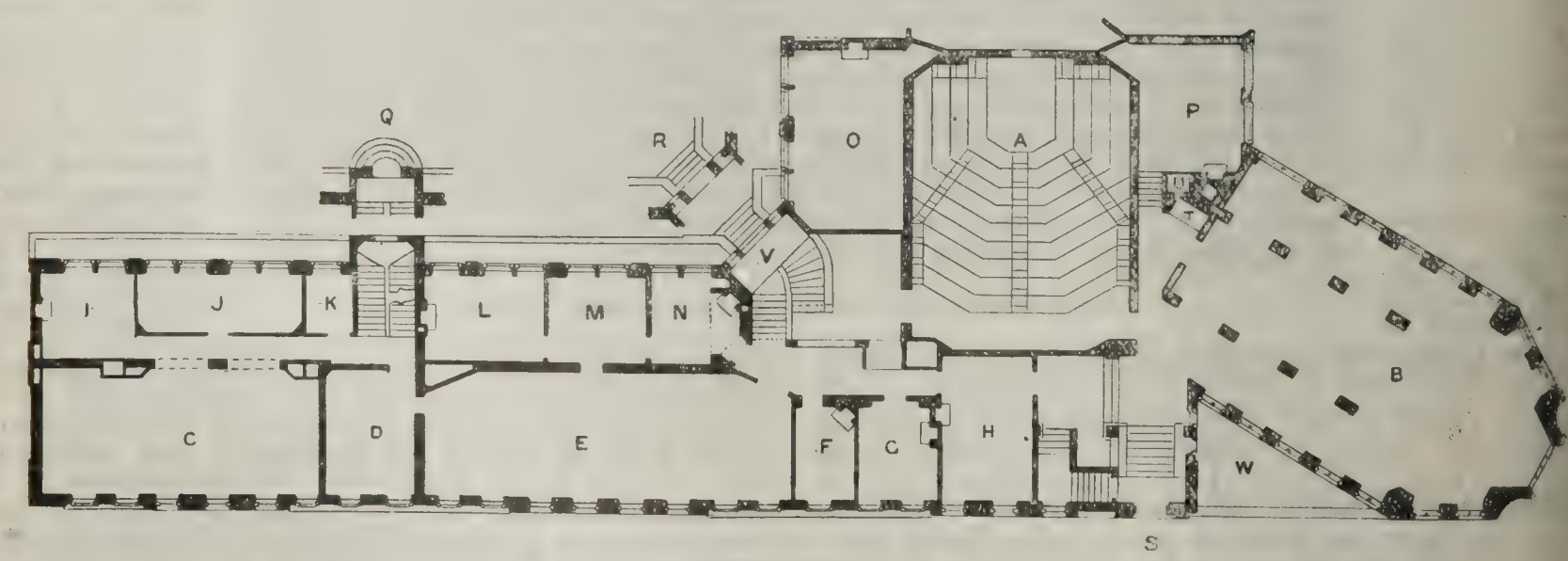
Second Floor.

A A. Library.
B. Museum.
B B. Dome.
B B. Museum keeper.
C C. Morbid histology.
D D, Experimental work room.
F F, Demonstrators,
F F. Reader.
F F F. Demonstrator.
H H. Stores.
I I. Cupboard.
J J. Photography.
K K. Incubating room.
M. Preparation room.



First Floor.

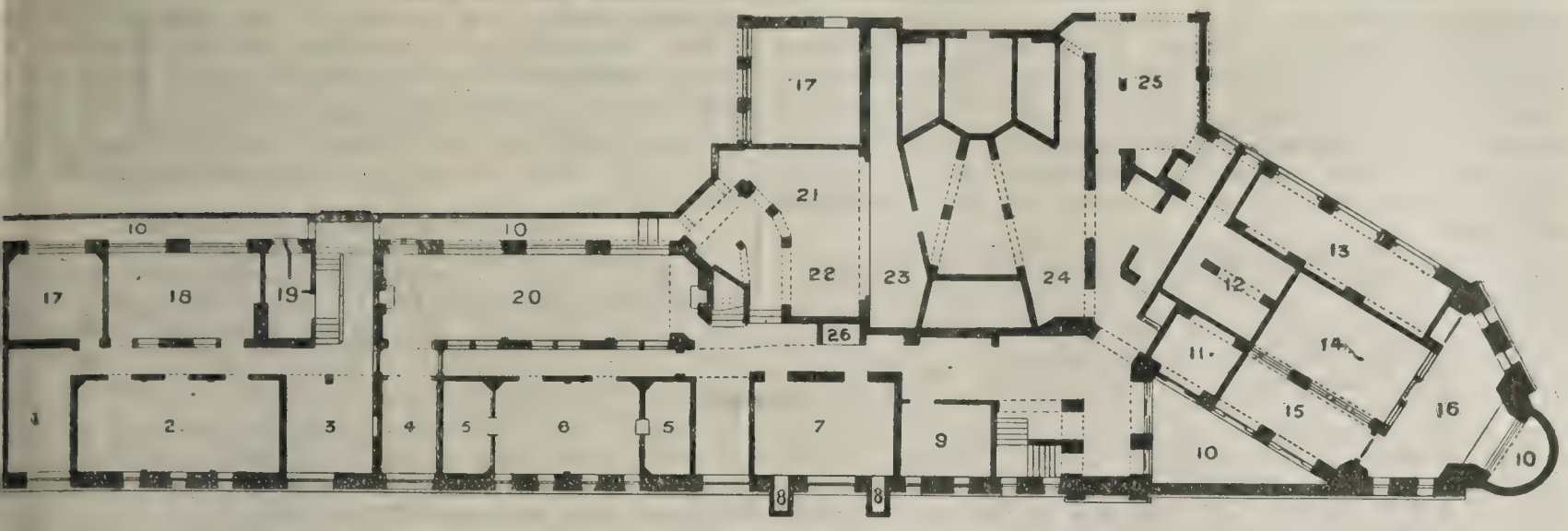
A, Lecture theatre.
A A. Library.
B, Humphry Museum.
B B. Dome.
C C, Experimental pharmacology.
D D. Pharmacology class room.
E E. Instrument room.
F. Professor.
F F. Reader.
G G. Water analysis.
H. Medicine.
I. Assistant.
LL. Operative surgery.
M. Preparation room.
T. Lift.
U. Shaft.
X. Well.



Ground Floor.

A, Lecture theatre.
B, Museum.
C, Chemical laboratory, pharmacology.
D, Pharmacology museum.
E. Surgical anatomy lecture.
F Lecturer.
G. Midwifery.
H. Medicine.
I. Assistants' work room.
J. Private research.
K. Boy.
L. Surgery demonstrator.
M. Preparation.
N. Attendant.
O. Research.
P. Comparative Pathology.
Q, R, S. Entrances.
T. Lift.
U. Shaft.
V. Landing.
W. Area.

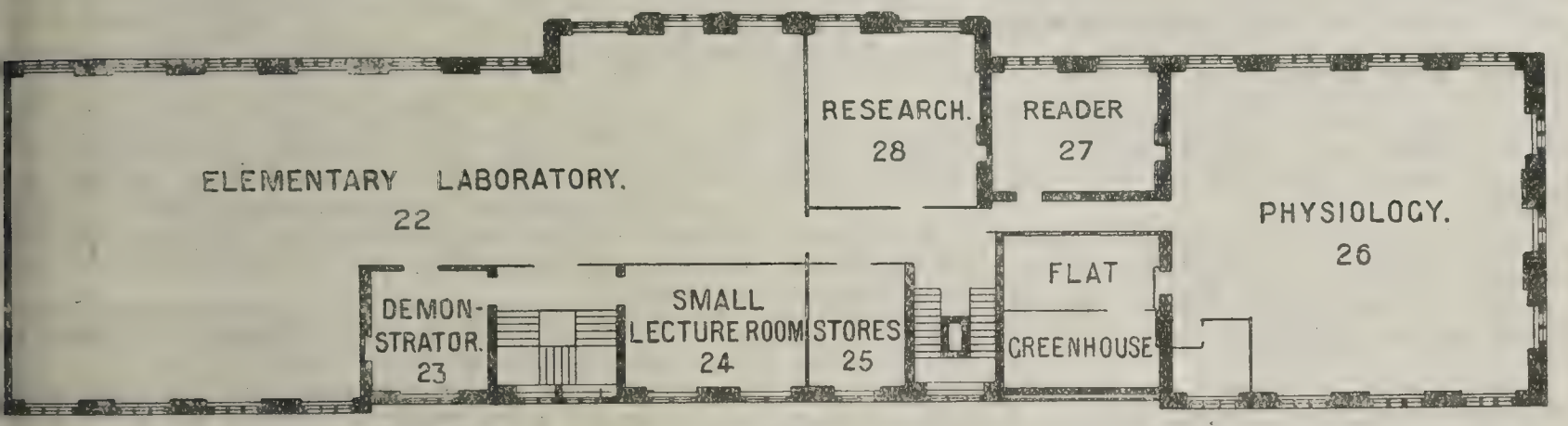
PLANS OF NEW MEDICAL SCHOOL BUILDINGS—*(Continued)*.



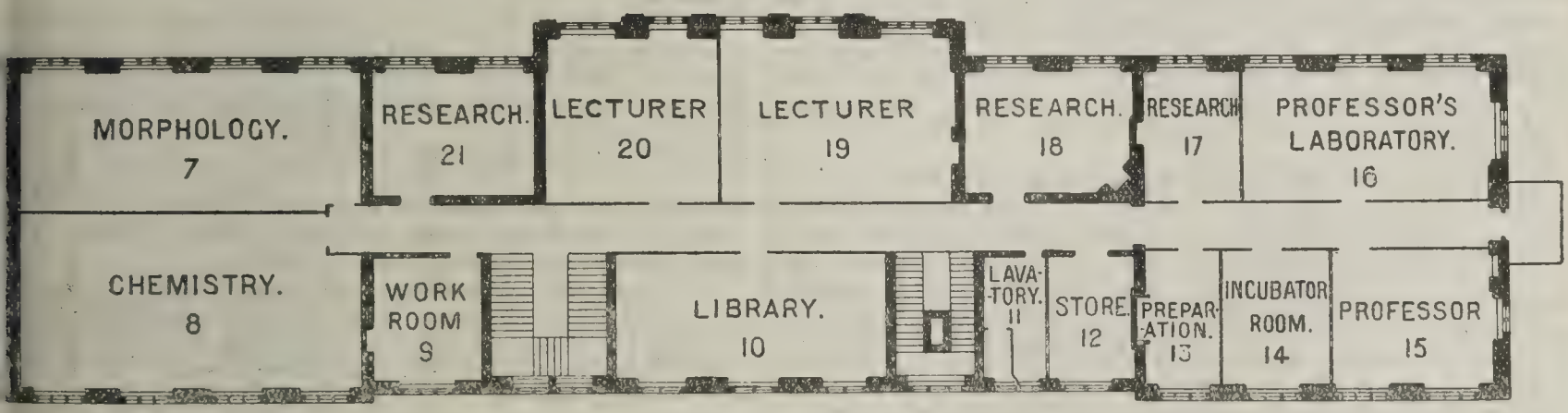
Basement.

. Installation.
. Combustion Chamber.
. Glass blowing.
. Workshop.
. Dark rooms.
. Photography.
7. Engine room.
8. Coal shoots.
9. Cellar.
10. Areas.
11. Mortuary.
12. Loose box.
13. Stables.
14. Centre room.
15. South room.
16. East room.
17. Gas analysis.
18. Bacteriology.
19. Lavatory.
20. Workshops.
21. Filtering and heating.
22. Motors.
23. Ventilation.
24. Calorifine.
25. Boiler house.
26. Lift

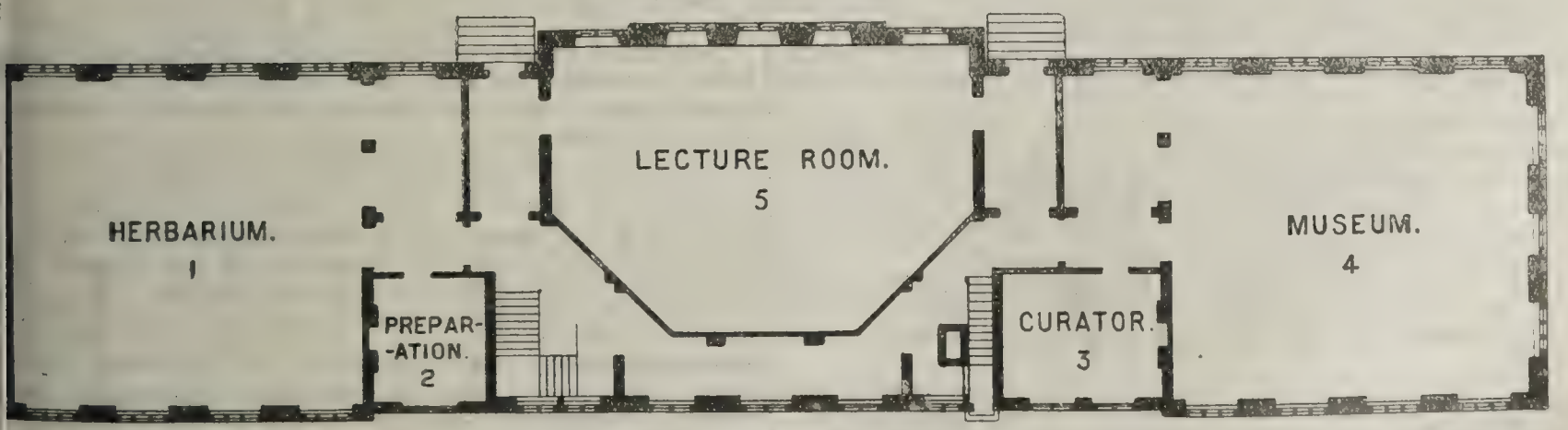
PLANS OF THE BOTANICAL SCHOOL.



Second Floor.



First Floor.



Ground Floor.

used for medicine, and beyond these a large lecture and demonstration room, with three private workrooms for the Professor of Surgery, Mr. Howard Marsh, and for the teaching of surgical anatomy. Beyond this, again, is the pharmacological department; this contains on this floor a materia medica museum for teaching purposes, and a large practical class-room for pharmacological chemistry; behind is the work-room of the professors' assistants, and a private research room as well as the room for the laboratory attendant.

There is also on this floor a pathological research room, and a room which will be temporarily given up to the department of hygiene, under the direction of Dr. Nuttall. On this floor is the chief lecture theatre: it has been built in the angle behind the Humphry Museum and the medical department, and the illumination is exclusively artificial. This theatre will seat 200 students, every one of whom will have an excellent roomy platform. On the first floor over the lecture theatre is the medical school library, where the books will be arranged on movable stack book-cases of a new pattern. At the head of the stairs leading to the laboratory, and immediately in front of it, is the private room of the Regius Professor of Physic, Dr. T Clifford Allbutt, and adjoining this is his clinical research room; behind these two rooms is a room with a skylight for operative surgery and instruction room, and the Professor of Surgery's private room, which communicates with a small theatre to hold sixty. Opening off from this small lecture theatre is a preparation room, which again communicates with the pharmacological room on this floor. The part of the pharmacological department on this floor includes the private room of the Professor, Dr. J. B. Bradbury, and the room for his assistant, while beyond is a well-lighted room fitted with benches and recording apparatus for instruction in practical pharmacology. Behind this is a research room for advanced students, while west of the library is a pathological work-room at present occupied by the Professor, Dr. Sims Woodhead.

The upper part of the library, like the dome of the Humphry Museum, projects into the second floor. Opening off the teaching museum on this floor of the Humphry block is a pathological workroom, at present occupied by the John Lucas Walker Scholar, and above this, again, is a photographic studio very completely fitted. In the main building on this floor are the following rooms: the Assistant Curator's room, pathological workroom, and experimental pathological room, an incubator room, a storeroom, demonstrator's workroom, and private room, and two preparation rooms; there is also a large practical classroom, fitted with benches and apparatus, in which some seventy to ninety students can be accommodated. It is lighted by a weaving-shed roof, and can be subdivided. On this floor another room has been provided for the temporary use of the hygiene department.

The basement of the whole building has been utilized very fully; under the museum is a preparation room for the curator; in the open yard, to the east of that, is a vivarium; here, also, are the boilers for heating and ventilation and for driving the electric dynamos. The heating is by warm air driven by electrical propulsion on the Plenum system; the air is admitted to each room by an aperture 7 to 8 ft. from the floor, and is expelled at the floor level. The chamber for the ventilation apparatus is under the lecture theatre. Air is drawn in by two fans from outside, and is filtered or warmed before being distributed. Opposite the fan chamber is the power room, which contains two 20-horse power Diesel oil engines for generating currents; they can be run separately or coupled. Each engine is connected with an electric generator; there is also a storage battery; the current is of 100 volts.

Other rooms in the basement are a workshop, photographic room for pathology, glass-blowing room, a perfusion and other rooms belonging to the pharmacological department, a storeroom, a room for combustions, a distillation room, and a room for bacteriology which will be chiefly used in connexion with the study of curative serums.

The building will be lighted throughout by electricity, and wherever necessary in each laboratory or research room there is a small electric motor driving the apparatus in that room.

Throughout the laboratories and research rooms care has been taken to avoid angles and ledges, corners are rounded, the doors are self-shutting; the material generally used is uralite and mill-board fixed on frames. The floors are of concrete or of wood block, and the walls are finished wit adamant cement, and in some of the passages with glaze brick. The tables are of slate, teak, or American whit wood, covered with linoleum or cork carpet, and when fixe supported on T irons let into iron brackets on the wall. Al pipes are carried in pipe chases which can be used fo telephone wires, etc., and all wastes end in glazed gutters i the floor. The architect of the building is Mr. E. S Prior, M.A.

The New Botanical Department.

The Botanical Laboratory, a fine building of red brick wit grey stone facings, is separated from the Law Library by gravelled courtyard, the third side of which is formed by th Geological Museum. Behind the Botanical Laboratory is grass plot. The building, which is of three stories and base ment, measures 200 ft. in length by 40 ft. in breadth. All th rooms are well lighted, and the electric light is everywher provided. The main entrance opens on to a hall, to the righ of which is the museum and to the left the herbarium. Th general arrangement of this and the upper floors will b gathered from the plans reproduced here.

The museum is a large and lofty apartment with cabinet placed transversely for specimens. It is essentially a stu dents' museum, and all the specimens, or the bottles in whic they are contained, can be handled. The arrangements fo low a natural order. Beginning at the further end we fin first of all fungi, then algae, monocotyledons, and so on up t specimens illustrating the morphology of the phanerogram On the last shelves are displayed a number of specimens c historical interest, including some prepared by Professo Henslow, who may be looked upon as the father of botany a Cambridge. Among the specimens of fungi are many inte esting examples of diseases of plants, a subject with whic the name of Professor Marshall Ward, director of the labora tory, is especially associated. The herbarium contains collection of dried plants, numbering three-quarters of million, and a special herbarium library. As will be see from the outline plan, the lecture room, which will hold a audience of two hundred, occupies the space between th museum and herbarium, and is immediately behind th entrance hall.

On the first floor there is a large microscope laborator for morphology and anatomy, botanical chemistry room laboratory, professors' rooms—which include a laboratory incubation room, preparation room, and two research room —and several other research rooms. At the end of th main corridor is a small conservatory for the use of th professor.

On the second floor a large amount of space is given up t a large laboratory with benches for 160 students for elementar practical instruction. There is also a large laboratory fo the teaching of plant physiology, a small lecture room, an several research rooms. On this floor there is also a prepara tion room and a room for the curator. On the flat roof greenhouse has been erected which is never exposed to direc sunlight, but provides the constant temperature and ligh required for certain kinds of investigation. There is also third greenhouse fully exposed to light.

The botanical department at Cambridge is exceedingl successful and attracts a large number of students, and i its new buildings, where every facility for instruction an research is provided, it may be expected to become still mor useful and popular.

The New Museum of Geology.

The geological department is a fine building fronting o Downing Street, and running back, forming a quadrangl with the law schools and the botany department. There i here a certain luxury of space which may well excite th admiration—if not the envy—of the medical department On the ground floor is a large economic museum and tw lecture rooms, one especially designed for the exhibition o large specimens. The main museum occupies practically th whole of the first floor, and is of really magnificent propor tions; it is of L shape, and at the angle has been erected th bronze life-size statue of Sedgwick by Mr. Onslow Ford which was unveiled by the King on Tuesday. The arrange ment of the specimens in this museum is systematic. I one limb of the L there is on one side specimens illustratin the invertebrates, and on the other side the flora, while th other limb is occupied by vertebrate specimens. On th second floor of this building is the museum of petrology and the workrooms of Professor Hughes and his assistant and collaborators.

VISIT OF THE KING AND QUEEN.

Cambridge was singularly fortunate in being able to show itself to the King and Queen under a bright sky. Snow came before their Majesties arrived and fell again after their departure, but during the ceremonies the day, though cold, was fine and for the most part sunny.

Congregation.

The King, who was accompanied by Mr. Gerald Balfour as minister in attendance, travelled from London and the Queen and Princess Victoria from Sandringham; they were met at the station by the Provost of King's College, representing the University, and by the Mayor and High Sheriff, representing the town of Cambridge, and the Chairman of the County Council. Addresses were presented by representatives of the town and county, and the royal party then drove through gaily-decorated streets to the Senate House. The escort was furnished by the mounted infantry of the Cambridge University Rifle Volunteers. The streets were lined by a cheering crowd, and in the neighbourhood of the Senate House itself their Majesties were enthusiastically greeted by a great concourse of undergraduates. Others had already found their way into the galleries of the House, and time was filled in the time by protesting against people who kept on their hats or read newspapers. In the eastern gallery and over it were the general body of graduates and many ladies. At the western end, on the daïs, the chairs used by Queen Victoria and Prince Consort when they visited Cambridge University some sixty years ago were set for the King and Queen, while for the Princess Victoria was placed a chair once used by Charles II.

The King and Queen, on alighting at the south-east gate coming on to the lawn of the Senate House, were received by the Vice-Chancellor and other University officials, and were conducted to the Library, where the King donned his scarlet doctor's robe. A procession was formed under the Colonnade of the Library, and passed round the Senate House Yard, entering the Senate House in the following order:

The Esquire Bedells.
The Vice-Chancellor, accompanied by the Registrary.
His Majesty the King.
Her Majesty the Queen.
Her Royal Highness the Princess Victoria.
The Representatives in Parliament.
The Heads of the Colleges.
Doctors of the Several Faculties.
The Public Orator.
The Librarian.
Professors.
Members of the Council of the Senate.
The Proctors.

On entering the Senate House their Majesties were received by cheering from the undergraduates, which quite drowned the earlier verses of the National Anthem sung from the west gallery by the choir of King's College. Owing to the absence of the Chancellor (the Duke of Devonshire) through indisposition, the address of the Chancellor, masters, and scholars of the University of Cambridge was read by the Vice-Chancellor, as follows:

"It please Your Majesties,—We the Chancellor, Masters, and Scholars of the University of Cambridge humbly offer to Your Majesties our dutiful welcome to the precincts of this ancient University. We rejoice ourselves, Sir, of Your Majesty's gracious permission to address Your Majesty that we may renew that assurance of our earnest and heartfelt devotion towards your person and your Throne which we were permitted to offer on the occasion of Your Majesty's Accession. Fifty-six years have passed since your Royal mother, Her late Majesty Queen Victoria, of whose memory we hold in abiding honour, was pleased, together with the illustrious Consort, then our Chancellor, to visit this University. During that time, as we rejoice to remember, Your Majesty has resided among us as a member of our body, and has thought well to connect us with yourself by many gracious personal ties, permitting us to share with respectful sympathy in the joys and sorrows of your Royal House. We recognize, Sir, in the presence among us of Your Majesty and of her Majesty the Queen a mark of Your favour towards this University and a proof of Your solicitude for the progress of education, on which, under the blessing of Divine Providence, the stability and prosperity of Your Majesty's Empire both at home and beyond the seas so largely depends, and in the promotion and guidance of which the national Universities are entrusted with so high and so signal a responsibility.

"We venture to remind you, Sir, that in bestowing upon us this sign of Your gracious recognition of our endeavours to fulfil our part as one of Your Majesty's ancient universities you are following in the footsteps of Kings and Princes of this realm. The University Library and this Senate House, in which we have the honour to address Your Majesties, are enduring monuments of the concern of our well-being which your royal ancestors were pleased to manifest; and, in particular, we recall with gratitude and pride the zealous patience and the far-seeing wisdom with which your august father, while he was our Chancellor, ever took thought for the maintenance and advancement among us of learning, and more especially of the study of the natural sciences. To him we owe a debt which no lapse of time will diminish or obscure.

We ask Your Majesties to-day to visit those new buildings which, through the munificence of many benefactors, we have lately been enabled to erect.

The Squire Law Library and the Law School symbolize the development among us of those older studies, not only of law, but also of divinity, of letters, of history, and of philosophy, of which, through many generations, we have been guardians.

The Faculty of Medicine from our earliest days has had an honoured place in this our University. The beneficent science of medicine, with the sister sciences of surgery and of pathology, will henceforth have a home not wholly unworthy, as we trust, of that splendid progress which in these later days has conferred on mankind inestimable blessings and is the pledge of a yet greater advance in the time to come.

The Museum of Geology, the memorial of the late Professor Sedgwick, whose honoured name it bears, and the Botanical Laboratory are fitting emblems of the growth of the physical sciences which is the chief glory of our times, and which stimulates and, we trust, will stimulate, the best energies of many of our ablest students.

The inauguration of these new schools of learning and science marks an epoch in our academic history. We are profoundly conscious how auspicious and how memorable the commencement of this new era is rendered by Your Majesties' presence in our midst, and by your gracious participation in our aspirations and in our hopes.

We assure you, Sir, that our earnest and humble prayer to Almighty God is that, as He has shielded Your Majesty from danger in the past, so He will vouchsafe to you, with your Royal Consort our beloved Queen, long to reign in undisturbed peace and happiness over a loyal, united, and prosperous empire.

To this address His Majesty, who remained seated, returned the following reply:

"I receive with much gratification your renewed expression of loyalty to my throne and person, and your sympathetic reference to my beloved mother, Queen Victoria, and my revered father, who was deeply interested in everything connected with the University of Cambridge, of which he was Chancellor. I am proud to be a member of the University, and I shall always look back with great pleasure upon the time which I spent as an undergrad of Trinity. It was a great satisfaction to me to send my dear son the Duke of Clarence to matriculate in the same ancient and splendid foundation, and I well remember with what pride and interest we saw, so shortly after our marriage, the University in which I studied. There are around us many monuments of the interest taken in the University by my ancestors; and, like them, I earnestly desire its well-being and the extension and development of all branches of study and research which are essential to the maintenance and the greatness and the welfare of my empire. I have no doubt that Cambridge will continue to occupy a foremost place in this work. To the older universities must accrue new endowments for education if my realm is to be kept up to its proper standard of efficiency. I am glad to know many munificent donations have been received to that end, and that the museums which are now being opened for the study of subjects of especial importance at the present time will serve as an example of that generosity at which friends and supporters of the University will rejoice. I heartily thank you for your welcome to Queen Alexandra and myself, and I earnestly join with you in the prayer that my empire may continue throughout my reign in peace and prosperity."

The reference to the fact that he was himself a member of the University elicited much cheering, which was again renewed at the close of His Majesty's speech.

The Vice-Chancellor then read a history of the new buildings which the King was to open in the afternoon, and the Congregation, which had lasted about half an hour, was dissolved.

The King and Queen lunched with the Vice-Chancellor and some of the heads of colleges and professors at the Fitzwilliam Museum, and a large company was entertained, at the invitation of the Chancellor, in the fine hall of King's College.

Visit to the Medical Schools.

The King and Queen were again most warmly greeted, by townsmen and gownsmen alike, as they drove from the Fitzwilliam Museum to the new buildings in Downing Street. Here they were received by the Regius Professor of Physic, Dr. Clifford Allbutt, the Professor of Surgery, Mr. Howard Marsh, the Downing Professor of Medicine (Pharmacology), Dr. J. B. Bradbury, and the Professor of Pathology, Dr. Sims Woodhead. Their Majesties were conducted to the Humphry Museum, where the bust

of Sir George Humphry was already in place. Here Lady Humphry was presented to their Majesties, and Professor Allbutt explained that the museum had been erected as a memorial to her late husband. The King and Queen then visited the library where they were shown some pathological specimens, including examples of the trypanosome of sleeping sickness, in which His Majesty exhibited much interest. The royal party then visited the pharmacological department and witnessed a demonstration of the action of digitalis on the separated mammalian (rabbit's) heart. Their Majesties then descended to the large lecture theatre, and took leave of the professors of the Medical Faculty.

The Law, Botanical and Geological Schools.

In the hall of the Squire Law Library the King and Queen were received by the Professors and Readers of Law. They then crossed the quadrangle to the botanical laboratories, where the arrangements were explained by Professor Marshall Ward and Mr. Francis Darwin, Reader. The Royal Party then entered the Sedgwick Geological Museum, and proceeded to a point opposite the statue of Professor Sedgwick, which was veiled by the Union Jack. There Miss Daphne Sedgwick, great-grandniece of the Professor to whose energy and enthusiasm the fine building in which the ceremony took place is largely due, presented a bouquet to the Queen, while Princess Victoria received one from the students of Newnham and Girton. Professor Hughes, in a brief but very comprehensive speech, related to Their Majesties something of the work of Professor Sedgwick, and with the unveiling of the monument by the King the ceremonies of the day came to an end. The King and Queen were again most loyally and cordially greeted as they drove to the station.

The arrangements throughout were most admirably planned and the University of Cambridge is to be congratulated not only on the solid additions which have been made to its teaching resources, but on the brilliancy of the ceremonies by which they were inaugurated.

LITERARY NOTES.

Messrs. Macmillan will shortly publish a life of Sir William Flower by Mr. C. J. Cornish. The late Director of the Natural History Museum was in communication with naturalists throughout the world, and the correspondence contained in the forthcoming book must give it great scientific interest and value.

The following is Messrs. J. and A. Churchill's spring list of new publications: *The Examination of Water and Water Supplies*, by Dr. J. C. Thresh; the work will be freely illustrated. *A Handbook of Surgical Diagnosis*, by Mr. James Berry. An illustrated work entitled *The Elements of Chemistry*, by Mr. M. M. Pattison Muir, of Cambridge. *Unconscious Therapeutics, or the Personality of the Physician*, by Dr. A. T. Schofield. The same firm will issue a sixth edition of *Clinical Lectures on Mental Diseases*, by Dr. T. S. Clouston; the text has been revised, and the work will contain some additional plates. A sixth revised edition of a *Manual of Anatomy, Dental and Comparative*, by Mr. C. S. Tomes, F.R.S.

The great fire which raged in Baltimore on February 7th and 8th destroyed the February issue of the *Maryland Medical Journal*—the Tuberculosis Exposition number—containing papers by Drs. Knopf, Flick, Adami, Ravenel, Thayer, Hoffman, Salmon, etc. The publishers inform us that through facilities afforded them in Philadelphia the forms have been reproduced from proofs on file outside the fire zone. We sympathize with our contemporary—one of the most interesting medical journals published in the United States—on the misfortune which has overtaken it, but we congratulate it on so promptly rising like the Phoenix from its ashes.

The Warren Triennial Prize, founded by the late Dr. J. Mason Warren in memory of his father, is awarded every three years to the author of the best dissertation, considered worthy of a premium, on some subject in physiology, surgery, or pathological anatomy. The judges are the physicians and surgeons of the Massachusetts General Hospital, Boston. The amount of the prize for this year is £100. Essays must be legibly written, and the name of the writer must be enclosed in a sealed envelope, on which must be written a motto corresponding with one on the MS. Great importance is attached to original work. Essays will be received until April 14th, 1904. Full particulars may be obtained from Dr. H. B. Howard, Resident Physician, Massachusetts General Hospital.

Several correspondents have written, in reply to a query by Mimetes which appeared in the British Medical Journal of February 20th, that the parody on Mr. Rudyard Kipling's verses on Her Majesty's Jollies was published in the *St. Bartholomew's Hospital Journal* for August, 1899. As so much interest has been manifested in the parody we think it well to reproduce it from the journal in question:

THE COUNTRY DOCTOR.

Air, "Soldier an' Sailor too."

(With apologies to Mr. Rudyard Kipling.)

As I was a-goin' 'ome to bed, through a muddy country lane,
I seen a man in a oilskin cape, a-trudgin' through the rain,
'E 'adn't a match, an' 's pipe was out, as' I ses to 'im, "Oo are you?"
An' 'e ses, "I'm a doctor, the country doctor, surgeon an' midwife too!"

Now 'e never gets paid for 'arf 'e does, an' 'e does the work of two,
An' 'e isn't one of the gentlefolks, 'an 'e ain't like me nor you,
E's a sort of a bloomin' chameleotype, surgeon an' midwife too.

An' I seen 'im again all over the shop, a-playin' all sorts of rags,
Like settin' a fractured collar-bone with a couple of touch-line flags,
An' the parsons owe 'im money, for their wives give 'im work to do,
Though 'e's only the doctor, the country doctor, surgeon an' midwife too.

An' the Poor Law Board they sits on 'im, an' tries to dock 's screw,
Though 'e 'as 's bread and cheese to git the same as me or you,
They think 'e's a 'aughty philantocrat, surgeon an' midwife too.

An' I seen 'im again with a knife an' things, and the sweat was on his brow,
'E was trying to mend the guts of a bloke as 'ad spiked 'isself in a row;
'Twas late at night an' 'e 'adn't no light, to see what 'e 'ad to do,
An' 's pal was a doctor, a country doctor, surgeon an' midwife too.

'E 'adn't got far with 'is little job, 'e wasn't but 'alfway through,
When the bloke sits up an' asks for a drink, the same as it might you;
Ho! they ain't no special anaesthetutes, surgeon and midwife too.

But there wasn't a call to do as you done when you 'ad the gout in toe,
An' you fetched 'im out in the dead of night, an' 'e 'ad six miles to,
For you've 'ad it before, and you'll 'ave it again, and you know what to do.
You don't want the pore old country 'doc,' dispenser an' staff nurse too.

You pays 'im? What? Yes, tuppence a week, an' you're early "thirty-two."
An' 'e 'as to subscribe to your football club, which you're too mean do,
Because 'e's the doctor, the country doctor, surgeon an' midwife too.

Now I never believes in them specialist thieves, what stammer, grunt, an' blow,
As 'll watch yer die with a winkin' eye for a 'undred pound or so,
An' when it's "Checks!" an' "'Oose turn next?"—which I 'ope won't be you!—
Let's stick to the doctor, the country doctor, surgeon an' midwife too.

An' when you come to the Bar of Gawd, an' 'E says "'Oo passed through?"
(For 'e 'ates Peculiar People an' the Christian Science crew)
Just mention the doctor, the country doctor, surgeon an' midwife too.

E. G. B.

An interesting and valuable addition has just been made through the generosity of Dr. George W. Norris to the library of the College of Physicians, Philadelphia. It consists of three volumes, containing the collection of colour eye-grounds made up of the original drawings and notes of Professor Eduard Jaeger, of Vienna, from which the well-known "Jaeger Atlas" was produced. The drawings were made by Jaeger himself, and each of them represents an exact and careful copy of an eye-ground appearance as seen by him. This collection was sold after Jaeger's death in order of his executors, and was purchased by the late Dr. William Fisher Norris, first Professor of Ophthalmology at the University of Pennsylvania, for £480.

The College of Physicians of Philadelphia announces that the next award of the Alvarenga Prize, amounting to about £36, will be made on July 14th, provided that an essay deemed by the committee of award to be worthy of the prize shall have been offered. Essays intended for competition may by upon any subject in medicine, but must be unpublished, and must be received by the Secretary of the College on or before May 1st.

La Revue Générale d'Histologie is the name of a new periodical which is shortly to appear under the editorship of Professor Renaut, of Lyons. Its nature and scope are sufficiently described by the title.

A Society of Tropical Medicine has recently been founded in Paris. The President is Professor Brouardel.

BRITISH MEDICAL ASSOCIATION.

Subscriptions to the British Medical Association for the year 1904 are now due and should be forwarded by postal order or cheque to the amount of 25s. to the General Secretary, 429, Strand, London, W.C., or, in the case of Colonial members, to their Branch Treasurer.

British Medical Journal.

SATURDAY, MARCH 5TH, 1904.

THE KING, CAMBRIDGE, AND THE TREASURY.

THE King, in his speech in the Senate House at Cambridge on Tuesday last, said, speaking of the University: "I earnestly desire its well-being and the extension and development of all branches of study and research, which are essential to the maintenance of the greatness and the welfare of my Empire. . . . To the older universities must accrue new endowments for education if my realm is to be kept up to its proper standard of efficiency." That these words should have been said by the Chief of the State on an occasion when their implication was so obvious marks a distinct step in advance, and the King has placed the country under a fresh obligation of gratitude and loyalty by so pointedly enunciating the moral which even that hard-worked person, the man in the street, will be able to draw from the Royal visit to Cambridge.

It was something more than an expression of sympathy with the University of which the King said that he was proud to be a member; it was an expression of the interest which the King feels in the great movement, as yet only in its earliest stage, for revivifying the fountains of knowledge and research in the United Kingdom. We may hope that the interest thus expressed by the Sovereign and the recognition by him of the significance for the future of the realm of this movement may serve to turn the thoughts of men of wealth and wise benevolence to the needs of our universities, even of the oldest and the richest of them. Mr. Carnegie is credited with having declined to subscribe to one of them on the ground that they were mediaeval institutions. The Scoto-American millionaire perhaps sacrificed his judgement for an epigram, for no one who visited Cambridge on Tuesday, or will study the plans and descriptions of the new laboratories and museums published at p. 553, can doubt that Cambridge, while not breaking with the past, has carried forward to the present day the spirit of the Renaissance, that eager love of knowledge for its own sake, that desire to possess the best of the new learning, and that determination to push further back the frontier between science and nescience.

But to the thoughtful observer it must have seemed intolerable that this great seat of learning, with all the prestige of its many centuries and great names, should have had to go out into the byways to beg for a beggarly tenth of a million to meet in part its most pressing needs, at a time when the House of Commons is voting thirty or forty millions for the Navy, and is to vote next week something like the same sum for the Army. Sir John Brunner—who from the character of his business and training knows what he is talking about—said the other day that if the State were to borrow ten millions to help science and endow its teaching it would get the money back a hundredfold within a generation. So far from the State adopting this advice, there is rejoicing that the Chancellor of the Exchequer has consented to increase the grant to university colleges from £25,000 to £50,000. We shall be curious to see how this vote will be received by the House of Commons. Will it be passed over in silence as too unimportant to afford an opportunity to even that long-winded assembly to talk? Will it be opposed by some sapient dullard on the plea of economy? or will any member have the good sense to move that it be multiplied by ten?

Sir Norman Lockyer, in his address to the British Association last autumn, declared that a sum of twenty-four millions was required for the extension of universities and the establishment of laboratories and the endowment of teaching. A university may be maintained by private benefactions or by State support, or by a combination of these two sources of endowment, for we suppose that it is no longer necessary to expose the fallacy that a university can be run as a commercial concern—so much teaching for so much money paid by the pupils in fees. Even an elementary school cannot be conducted on that principle. We have no hesitation in supporting the contention that training for the professions, including, as one of the most important to the welfare of the State, the profession of medicine, is an enterprise in which the State has the most direct concern. As Sir Victor Horsley said at Birmingham last October, to finance a university means provision for systematic education, of extensive laboratories, and of men to carry out original research in them; while to ask parents to bear the heavy expenses of professional education is unjust. Hitherto assisted higher education has been chiefly for the Church and Bar; it must be realized that these professions should no longer stand alone. The original intention with which bursaries and scholarships were founded was to assist the impecunious student, and it was a mere accident of time that they were directed to be given to lads who gave promise of excellence in classics or mathematics. The original intention of the fellowship system was the endowment of research; it was perverted to the encouragement of a kind of cultivated laziness, it was improved into a means of endowing teachers, and is now more and more, in Cambridge at least, being turned again to its original purpose.

But the protest of the older learning that it must not be deprived of all the advantages it has enjoyed for generations is just. New conditions call for new efforts, for additions to facilities for research and teaching, not for subtraction from those already existing. This has been fully recognized in Germany and in America, where the old and the new learning are held in equal honour. The total income of the University of Cambridge is, approximately, £75,000; of Oxford £70,000. The income of the Medical School alone of Harvard University is over £32,000, and of the whole University nearly a quarter of a million (sterling). It may be objected that Harvard is not a fair case to take, but Dr. T. Gregory Foster who visited the United States recently as a member of the Moseley Education Commission stated in a lecture delivered at University College on March 2nd that what a State of the Union did for the Universities was practically to make education free for people resident in the State. Sir Norman Lockyer estimated that in Germany the income of a first-class University (Berlin) was £130,000 a year; of a second-class University (Bonn, Göttingen) £56,000; of a third-class University (Königsberg, Strass-

burg), £48,000; of a fourth-class University (Heidelberg, Marburg) £37,000, chiefly provided in every case by the State. Judging by the latest figures available these amounts are rather under than over-estimated. The University of Vienna receives over £88,000 a year, nearly the whole of its income, from the State. Berlin spends over £40,000 a year on its teaching staff, and nearly £100,000 on its institutes; Marburg (a "fourth-class" University) over £15,000 on its teaching staff, and over £25,000 on its institutes; Cambridge, a first-class English University, has about £30,000 for its teaching staff and about £17,000 for its institutes; Oxford about £21,000 and £22,000 respectively. So that a fourth-class German University spends about as much on teaching and research as a first-class English University.

The claim for a large measure of State aid for British universities has been fully made out. The Chancellor of the Exchequer magnanimously promised that perhaps next year the State grant might be raised to £100,000, a third less than the German Government allows to the single University of Berlin! He says nothing about capital expenditure on laboratories, yet the German Government spent a million sterling on the buildings of Strassburg University alone.

We grievously want an Educational Minister with large views and large influence with his colleagues. A man who can and will break with the evil traditions of the past, who will not, like Sir William Anson, try to poise a pyramid on its apex, and talk about building up an intelligent population before providing the means to make them intelligent. Oh! for a Higher Education (Reconstitution) Committee of three, with one idea and ample powers!

THE MOVEMENTS OF THE HEART.

The study of the movements of the heart has proved during the last few years to have a great fascination for physiologists and physicians; and it is not difficult to see why this is so. In the history of medicine, as in the history of all natural knowledge, we find that discovery is not a product of genius alone, but of genius multiplied by time and occasion. On seasonable time it depends whether the spring of genius shall wither in blight or drought, or ripen into the summer of fruition. Had Harvey been born in the thirteenth century he, like the author of the *Opus Majus*, might now have been but a ruin in the wilderness; a relic uncovered by the spade of the scholar. Happily, the great lights of Gilbert and Galileo shone before him; and that of Newton on his setting. From Harvey's time to our own there have been men of science to see that in the sphere of the circulation the positive methods of physics may measure themselves not unequally with the mystery of life. In our own day the school of Ludwig has kept the lamp burning, and penetrated more and more deeply into the subtle mechanism of that wonderful automaton, the heart. Harvey doubtless was a good physician, but it is as a physiologist that he is great; and it is to physiologists now that we owe most of our knowledge of the circulation. By their training in method and precision the functions of the circulation are interpreted, and few physicians have their hability. Yet it is by physicians that scientific discoveries are to be turned to service in dealing with the perversions of disease and the frailties of decay, and to a few physicians who, like Dr. James Mackenzie, are skilled in physical methods, we look and do not look in vain, for transitional studies by which a bridge may be built between the researches into the science and the practice of the art of medicine.

Tracings of the pulses of the heart and vessels are often difficult to obtain by any instrument. Many are published which signify nothing except the inability of the instrument to record the movements to which it is vainly applied. Still more frequently the movements are such as the instrument might in skilled hands have recorded but most hands are unskilled. A sphygmograph needs as many dexterities as a cricket bat. In the best hands the records differ not only on different persons but also on successive applications to the same person. In his article on another page Dr. Mackenzie shows that in this technical part of his equipment there is nothing lacking. His curves tell us as much as in this way can be told. But here is the rub! What is to be the interpretation of these fragmentary registers? Dr. Mackenzie knows better than most of us that if his curves are correct his interpretations may be fallible. For example, for true interpretation we must have a *point de repère*. Thomas Coryat, whithersoever he roamed, calculated his distances from Odcombe his home in Somerset—an inconvenient benchmark no doubt, still a definite one. Now Dr. Mackenzie will admit that in many of his curves the instrument gives him no benchmark, so he has to make one—arbitrarily. He has to set down his *a* or his *v* as seems to him best, and he takes off from this; and small blame to him. But his readers must have a like benefit, and as arbitrarily fix their own benchmarks, it may be at other loci in the heart's circuit.

To take Fig. 8, for instance: "the radial pulse shows intermissions at ×. This (these?) are due to extra systoles" (not reaching the wrist?). But on the curve we might not unreasonably fix *a* to the upnotch *v*, as on Fig. 4; again we might as plausibly affix *v* to the upnotch, and *a* to the summit. In the third section of tracing 9 the positions of *v* seem also to be arbitrary. But to argue on these fixed points would lead us too far. We have touched upon them in respect especially of one of Dr. Mackenzie's propositions: namely, that certain of these curves demonstrate the supervention of an independent ventricular rhythm. Now let us turn from the curves to the heart, as revealed by experiment on animals; let us suppose the interval between auricular and ventricular contraction to be greatly delayed—say, by digitalis (the patient of Fig. 4 was taking this drug), or again by muscular deterioration, this delay may well be long enough so to alter the pause relations of auricle and ventricle that the next auricular will *seem to follow* the belated ventricular contraction. But Dr. Mackenzie suggests that in some of his cases the auricle was so full of blood as to be unable to contract upon its contents, and thus to initiate the ventricular contraction, by "Gaskell's bridge," on which, as the author says, Professor Allbutt has insisted. Readers of the review on p. 551 will note that Wenkebach, however, leans to this latter interpretation. We recommend to Dr. Mackenzie two experiments: If a striated muscular fibre be made taut and then stimulated it will be seen that even in this state it can propagate stimulus to a free fibre; and, again, if a right auricle be gorged with fluid by means of a syringe till, even by the tonometer, no contraction can be detected, and now the auricle be stimulated, it can and does propagate stimulus to the ventricle. Let it not he said that herein we are begging the question that the ventricle may have started an independent rhythm; for cut away then the venous sinus, and, although

he auricle is relaxed, all contractions will cease at once. Dr. Mackenzie admits that the behaviour of the heart in achycardia is difficult to bring into accord with his views; ut into this we have not space to enter. In such papers s we publish to-day, as in his book on the pulse, Dr. Mackenzie has proved himself a laborious, able, and inenious worker; he opens new problems and excites us to est his propositions to the utmost. We are far from sserting that his propositions are wrong, and in any case e help each other to tease out these perplexities.

One more remark, on a different subject, we must make efore concluding: In reviewing Professor Wenkebach's ook we have kept for this more formal place a remonrance which it is our duty to make on behalf of English bservers. German observers in this field, because ey have been behind us, have not recognized the iority of English work on the functions of the heart, d their neighbour Professor Wenkebach does not correct em. He, too, attributes to Professor Engelmann work ne in England twenty years ago by Dr. Gaskell and his hool,[1] and we may add by Porter also. Engelmann has aborated the detail and has invented some large technical ms for those several elements of cardiac function analysed Wenkebach and Mackenzie, but previously discrimined by Gaskell; yet to the essential solutions of the oblem Engelmann has contributed but little.

THE MEDICAL SERVICE OF THE ARMY.

the second part of the report of Lord Esher's Committee ued a few days ago it is stated that Part III, which ils, among other matters, with "the position of the ny Medical Services," will shortly be ready for submisn. Its appearance is awaited with some anxiety, not y by the officers of the Royal Army Medical Corps and young men fresh from the schools whose thoughts are ning towards the army as a career, but by the medical fession, and, indeed, by all who are interested in the iency of our military force and in the welfare of my Atkins. There is too good reason for such iety. In approaching the great problem with which had to deal Lord Esher and his colleagues seem to started from the assumption that whatever is is g; and, in accordance with this principle, they have hemselves to undo in every direction the work done Ir. Brodrick. Hence their plan for the reconstitution e War Office, as far as it has yet been revealed, is, in ay, as "thorough" as the Irish policy of Strafford.

e discussion of the proposed reforms as they affect the ly military side of army organization does not lie in our province. There is, however, another side, of ely less importance to the army and to the nation, which the medical profession is directly concerned. ave already felt it our duty to protest strongly against mission from the new Army Council of any direct rentative of the medical service. We have shown that nalogy of the medical service of the navy, with which of the army is apparently to be assimilated, is misg, inasmuch as the work of the two services differs dely in nature and in extent that they cannot fairly mpared, while the system of administration existing in aval service is wrong in principle and in many ways isfactory in practice. It is plainly intended to te the medical service to the position of a subsecf a department under one of the military members of the Council. Whether the particular officer be, as foreshadowed in one apparently inspired quarter, the Adjutant-General, or as definitely intimated in another, the Quartermaster-General, matters little. The important thing is the sacrifice of the vital principle of administrative autonomy recognized by Mr. Brodrick when he gave the Director-General a seat on the Army Board.

This alone is sufficient to condemn the scheme of Lord Esher's Committee as far as it relates to the medical service. But there are rumours of still more drastic changes. We hear of unofficial premonitions of an impending division of the Royal Army Medical Corps into three bodies, the duties of which would be respectively sanitary, hospital service, and regimental. We give this rumour for what it may be worth, but it may be pointed out that a possible confirmation of it may be found in the fact that in at least two passages of their second report the Committee speak of the "Army Medical Services." We are sorry to say that the obvious ineptitude of such a proposal does not by any means make it unlikely that it should be brought forward.

Having closely watched the history of army medical reform for many years past, and having taken a considerable part in making that history, we have had abundant opportunities of observing how incompetent the military advisers of successive Secretaries of State have shown themselves in dealing with the question. This is due to the very temper and constitution of the military mind, which necessarily, and rightly, looks upon the army solely as a fighting machine. Hence it regards the sick and wounded as encumbrances and those who minister to their needs as "camp followers"—to use the polite phrase of Lord Wolseley.

We would ask Lord Esher and his colleagues, before they proceed further in their work of reforming away the reforms of the late Secretary of State for War, to remember the advice once given by our Gracious Sovereign to an editor who is now a leading politician, not to be too strenuous. Whatever may be the case with Mr. Brodrick's other reforms, those which he made in the organization of the medical service of the army have proved to be in the main of real value. They have brought peace to a department in which, owing to the fatuous perversity of the military authorities, unrest had become chronic. They have been the means of replenishing the ranks of a service which was within measurable distance of extinction for want of fresh blood. As Dr. Tooth points out, in a letter published in the *Times* of February 25th, whereas under the old regulations it was difficult to get men to enter the service, at the last three examinations there have been nearly twice as many candidates as there were vacancies, and their quality, professional and social, has greatly improved. We earnestly deprecate any rash meddling with a system which has brought about such a transformation. The change in the attitude of the medical profession towards the army is entirely due to Mr. Brodrick's reforms, and we cannot help saying that it will be nothing less than a breach of faith with the profession, and with the public for whose benefit the army exists, if Mr. Arnold-Forster now goes back upon them.

The Committee desires it to be clearly understood that its scheme of reform has been conceived and elaborated as a whole, and that any interference with the principles on which it is based would necessarily destroy its benefits. It is not for us to inquire how the Prime Minister likes being told in this peremptory fashion that he must swallow the scheme whole. On our part, however, we say to the

[1] *Phil. Trans.*, 1882-3.

Committee that we desire it to be clearly understood that no scheme of so-called reform which reduces the medical service to a subordinate position, that will bring with it all the old disabilities of various kinds from which it was happily delivered two years ago, will be accepted by the medical profession. The Committee is impressed with the evils of civilian control over military policy and administration. We invite it to apply the sound principle underlying this opinion to the administration of the medical service, where experience has shown that military control is simply mischievous.

PROPRIETARY MEDICINES.

IT is impossible not to admire the cleverness which vendors of proprietary medicines show in making extracts from lectures and articles in the medical papers and the ingenuity with which they even try to turn definite attacks upon the proprietary medicine trade to their own advantage. It is a practice, however, which is quite indefensible, as in a recent instance to which Dr. Robert Hutchison drew attention in a note published in the BRITISH MEDICAL JOURNAL of February 27th. In this an advertisement "for private circulation among the medical profession only" makes free use of a lecture delivered by him last autumn which contained the damning results of his analysis of many of the more common proprietary remedies. Placing his name in large characters at the top, the advertisers pat him on the back and are quite patronizing to him. His denunciation of proprietary or, as they say, quack preparations and quack advertisements meets with their entire approval. Their particular remedy was not discussed by him, but his general attitude towards the matter seems to them so meritorious that they "cheerfully state" for the information of the profession what their preparation contains—a proceeding which would be still more praiseworthy if the contents were not of a character which Dr. Hutchison or anybody else interested in the matter would very readily discern for himself. Having thus put themselves, as they presumably think, on good terms with those whom they ostensibly address, they proceed to give extracts from the booklet which they issue to the public. The apparent object of this is to show how superior their way of doing business is to that of their rivals; but the net result is that while with an engaging air of candour they disclaim the character of a panacea for their remedy, they contrive to insinuate that it possesses very much the same marvellous properties as the remedies which are vaunted with less skill by rival vendors. Their medicine they confess, with a frankness which would be charming if it were not a little suspicious, is "not a cure-all, or a miracle, or a mystery"; it is simply "an honest medicine" offered with "that full sense of responsibility which every one who deals with the sick should feel." Unless they gave good value "they would not take the money of the hard-working men and women who are the principal buyers of proprietary medicines, because they are cheaper than doctors' prescriptions, and to whom for that reason a meritorious proprietary medicine is a boon." All this is too bright and good for human nature's daily food, and the laborious persons in whose welfare the vendors take so altruistic an interest will do well to adopt the attitude of Mr. Gladstone in regard to the House of Lords, and think twice, and even three times, before they spend their hard-earned savings on a remedy which is described as "a cure for indigestion and constipation," a "valuable nerve tonic," a "blood maker and purifier," a "corrective of sluggish liver and derangement of the kidneys," even though all these properties are graced with capital letters, and the remedy supplied in a dainty aluminium box for the ridiculous price of one shilling.

THE TREATMENT OF CANCER.

CANCER "cures," like March, come in like the proverbial lion and go out like the lamb. Two or three months ago the newspapers were singing the praise of Dr. Otto Schmidt, of Cologne, in whom the public was invited to see our long-awaited deliverer from the deadly scourge. As no man is a prophet in his own country, it was not surprising to learn that Dr. Schmidt's professional brethren in Germany were somewhat sceptical as to the value of his discovery. An English disciple brought his work to the notice of the profession here, and the treatment has had a fair trial at the Middlesex Hospital in a series of cases pronounced by Dr. Schmidt himself to be suitable for the purpose. The result is told in a communication from the Cancer Investigation Committee of the Middlesex Hospital which is published at p. 576. The members of the Committee, which consists of Mr. Henry Morris, Mr. Andrew Clark, Mr. Pearce Gould, Dr. Pasteur. and Dr. Lazarus-Barlow, report that they failed to observe any trace of a specific local or general reaction, and they equally failed to see any local or general improvement in the condition of any single patient. They conclude that the injections in no wise alter the course of the disease. This is further proved by the fact that in the case of those patients who died, microscopic examination revealed no differences in appearance from those usually met with in cases where the special treatment has not been used. The failure of the method is admitted by Dr. Jossé Johnson, who acted as Dr. Schmidt's representative, and made nearly all the injections with material obtained direct from the Cologne physician's laboratory. We may add that the results confirm observations which we understand were made in the case of more than one patient treated by Dr. Schmidt himself. It may be remembered that Mr. D'Arcy Power, who tried the method in three cases, reported to the BRITISH MEDICAL JOURNAL of February 6th, p. 299, described it as "ineffectual," and summarized his experience in the statement that it was "of no service at present either from a prophylactic, diagnostic, or curative standpoint." Of this cancer "cure" we may say, as Heine said of Alfred de Musset, that it has a great future—behind it. The testing of "cancer cures" is a part of the regular work of the staff of the laboratories set apart for cancer research at the Middlesex Hospital, who give much time to the matter, mostly without any corresponding advantage. It appears from the report of the Cancer Charity of the hospital, an abstract of which will be found at page 5[illegible], that 100 cases of carcinoma were treated in the course of the year 1903 with the *x*-rays, with encouraging results. At the Cancer Hospital, Fulham, radium has been employed by Mr. Plimmer in a series of cases of malignant disease; treatment with *x*-rays and high-frequency currents has also been used; the results are not stated in the report of the Medical Committee for 1903, but it is intimated that Mr. Plimmer's observations when complete will be published. It may not be out of place here to quote a passage in which reference is made to this subject from the address recently delivered by M. Lancereaux, on vacating the chair of President of the Paris Academy of Medicine: "A report on a communication by MM. Lemoine and Doumer of Lille, entitled, Treatment of a Case of Cancer of the Stomach with the *X* Rays, was presented to you by M. Albert Robin, and a fortnight later, M. Cornil communicated to you another report on a paper by Dr. Romain Vigouroux, concerning the treatment of tumours of the breast with the same rays. Neither the one nor the other of my colleagues cared to stand as guarantor for the cures brought about by the method, and at one of the subsequent sittings, Dr. Labbé rightly pointed out that, notwithstanding the favourable influence of the *x* rays on wounds resulting from cancer, the cure of that disease by those rays could not be proclaimed under cover of the name of the Academy." From all which it may be gathered that the attitude of the profession in regard to the results of the treatment of cancer by *x* rays should be one not of hasty acceptance but of "animated expectancy," if we may borrow a happy phrase attributed to Lord Salisbury by an inventive reporter. The public, too, cannot be too much on its guard against "cures" which serve only to supply sensational "copy" to newspaper scribes and then lapse into the nothingness of the *neiges d'antan*.

SPOROZOA AND DISEASE.

ıe increasing importance of the sporozoa—a group of ›tozoa parasitic in many animals and in man—has ;ome evident in recent years in connexion with the ology and pathology of various diseases affecting man. nsiderable light has been thrown on the nature of ılaria and other tropical diseases by the study of these ganisms, which are under certain conditions pathogenic man. This week Professor Minchin, of University llege, London, delivered the first of a series of eight tures on the sporozoa, which are intended to deal with biological and pathogenic aspects of the question. e first lecture, given on February 29th, dealt mainly ;h the life-history and developmental stages of a typical ›rozoon (monocystis agilis), and traced the outlines of ›rozoan biology. The sporozoa constituted a large mber of forms, said Professor Minchin, parasitic in ir habits, living within the tissues of worms, crustaceans, ects, and vertebrates (including man), and were liable certain conditions to prove dangerous and even fatal to life of their host. The parasitic life was marked by eeding fecundity; a single monocystis gave rise to ıdreds of mobile spores (swarm spores). These organisms on the blood and juices of the host by a process of ıosis, the parasitic life being accompanied by a total ence of any prehensile, masticatory, or food-ingesting ans such as were seen to be well developed in other classes protozoa. The monocystis agilis, a sporozoan of the garina class, lived in the seminal vesicles of the earth m. It lived and grew within the sperm blastophores il it attained its full size, the spermatozoa themselves eloping marginally around the parasite. Finally the er emerged from its pseudo-covering as a sporont. se sporonts were motile cells with a cuticle, and sessed of the power of vermicular movement. They jugated in pairs (gametes). Each pair of gametes eted a cyst wall, within which the nuclei and proto- m underwent division into numerous oval nucleated ses, fragments of one nucleus uniting with portions of other nucleus. The offspring thus produced were wn as zygotes. The zygotes underwent no further lopment in the earth-worm, but when the latter was lowed by birds the faecal droppings of the latter were d to be full of sporozoites or falciform bodies which been derived by further growth and division of the tes. These sporozoites were swallowed along with ı by worms within whose body further stages of lopment were passed. Other sporozoa infected man, gave rise to disease—a subject which would be dealt in future lectures.

EPSOM COLLEGE.

Treasurer of Epsom College, Dr. C. Holman, has issued er to the profession, in which, following on the altera- in the title, which was the result of a unanimous vote e governors, he calls attention to a list of distinctions by Epsom College boys within the past ten years, t in an abridged prospectus just issued. For a ol of about 230 boys the list is highly creditable both e teaching staff and the pupils themselves; it includes ›en scholarships at the Universities of Oxford and ›ridge, 81 higher certificates of the Oxford and Cam- e Schools Examination Board with 22 distinctions 276 lower certificates of the same Board. In addition oys have passed the Matriculation Examination of niversity of London, 76 of them in the first division one in honours; 35 have passed the preliminary tific examination for the degree of M.B. in the same ersity, 16 of them in the first division; 5 have passed intermediate science examination, and 73 have ıed South Kensington certificates in the art ination (drawing). We believe, however, that Epsom e from the reproach sometimes made against the schools of giving attention to the cleverer boys at xpense of the rank and file. It can boast of a very ist of boys who have left it soundly equipped mentally hysically to enter the professions, the public services, mmercial life. Further particulars with regard to the school can be obtained on application to the Bursar, 3, the College, Epsom; the London Secretary is Mr. J. Bernard Lamb, 37, Soho Square, London, W.

A HYGIENIC DECALOGUE.

Count Leo Leonovitch Tolstoi, a son of the famous writer, has recently published a book embodying the results of observations made in the course of a visit to Sweden. The impression produced on him by what he saw in Scandinavian countries was most favourable. As for Sweden in particular, he thinks it a model nation, which should be taken as a bright example by all European countries, and especially by Russia. Industrious, frugal, educated, reasonable, and tolerant, the Swedish people almost realizes the ideal of social wisdom. Sweden is, before all, the land of health, moral as well as physical. Count Tolstoi is enthusiastic about the Swedish system of physical training, which, he says, does not confine itself to strengthening the body, but gives vigour and suppleness to the mind and the soul. He sums up the Swedish rules of living in the following decalogue: (1) Live night and day in fresh air. (2) Take exercise every day in the open air by working and walking. (3) Eat and drink moderately and simply. Take water, milk and fruit in preference to alcohol, and thus increase your capacity for work and your happiness. (4) Harden yourself against cold by washing daily in iced water, and take a hot bath once a week. (5) Wear clothes neither too heavy nor too tight. (6) Live in a dry, spacious, well sunned house, and have a house to yourself. (7) Practice rigorous cleanliness in all things, even (*sic*) in the moral order; that is a safeguard against contagious diseases. (8) Regular and strenuous work is a safeguard against diseases, both of mind and body; it is a comfort in misfortune and a preservative of happiness. (9) Do not seek for rest after work in noisy distractions. Your hours of leisure belong to your family. Night is made for sleep. (10) The first condition of good health is a life made fruitful by toil and ennobled by good actions. These are, indeed, noble sentiments, which would have won the approval of Sir Peter Teazle. We may, however, be permitted to point out that there is nothing peculiarly Swedish about them. However novel they may seem to a Russian traveller, a little inquiry will show Count Tolstoi that the general principles underlying the precepts which he admires so much have been taught by philosophers and moralists from the first syllable of recorded time. They are embodied in the proverbs of all nations—with the possible exception of Russia. We are quite willing to believe that they are more generally observed in Sweden than elsewhere, but even in that privileged country there must be certain difficulties in their practical application. On those points we should be glad to have some guidance from Count Tolstoi. Will he tell us for instance how every one in Sweden contrives to live in a spacious and well-sunned house which he has all to himself? Or how he manages to get iced water for his morning tub? Does no one in Sweden ever find any difficulty in earning his daily bread, or the milk and fruit enjoined in his decalogue? Probably the economic difficulty is less urgent in Sweden than in more crowded countries where hungry generations tread each other down; but is there no struggle for life in the Arcadia of the North? Professor Ogston has lately told us that the famous Swedish system of gymnastics is now found even in the land of its birth not to do all that Count Tolstoi claims for it. Even cleanliness is to a large extent an economic question; it is impossible to practise it under the conditions in which the "submerged tenth" at present lives. Until the problems of poverty and overcrowding, with their inevitable physical and moral consequences, are solved, the hygienic decalogue preached by Count Tolstoi must for the many remain a theory of abstract perfection.

DUX FEMINA FACTI.

The Progressive Health Club, which is composed entirely of women, is, we are glad to learn, grappling seriously with the spitting nuisance in Chicago. They propose to

give the widest publicity to an antiexpectoration ordinance which was passed three years ago, but has never been enforced. They will do their best to secure the prompt arrest of flagrant offenders. Alderman Goldzier, to whose efforts the enactment of the ordinance was mainly due, has drafted a formal memorial to the Mayor and the City Council, which runs as follows: "(1) The police and health departments shall be instructed to cause the arrest of persons who flagrantly and offensively violate the ordinance by expectorating on sidewalks, etc. We are fully aware that it is not possible to arrest every offender, but an occasional arrest would call the attention of the public to the ordinance and the nuisance. (2) The present printed card in use by the Health Department is prolix and weak. (3) These notices to be given to proprietors of halls, etc., and posted on patrol boxes and other practical and conspicuous places. An ordinance to provide for their posting in public vehicles." The Committee of the Progressive Health Club was instructed again to call on the transport companies to urge the need of cleaner cars, and to secure the co-operation of the Board of Education in bringing to the attention of school children the evils of indiscriminate spitting. As we have said before the watchword of the campaign against this disgusting and dangerous habit is *Dux femina facti*. If it is ever to be put down, it will not be by ordinances, but by the education of public opinion. In this process the influence of women is the most powerful factor.

RURAL HOUSING.

A DEPUTATION from the Rural Housing and Sanitation Association, whose object is to obtain enforced improvement in the hygienic conditions under which the rural population lives, was received last week by Mr. Long, President of the Local Government Board. It admitted in the course of its statement that much improvement had been effected in the course of the past fifty years, especially in districts where the landlords were both active and willing and local sanitary authorities keen in the performance of their duties, but nevertheless made out a good case for the intervention of Government. It was shown that a very large part of the rural popnlation still lived under housing conditions which were in every way undesirable, and that owing to apathy of the poor, ignorance as to the condition of their property on the part of many landlords, and comparative poverty on the part of others, and the neglect of many local authorities to take any action in such matters at all, little material improvement was at present to be expected. By way of bringing the influence of public opinion, both local and general, to bear upon the matter, the Association pressed for the preparation and publication by Government of a return showing the condition and occupancy of all rural dwellings throughout the country of which the rentals were under £10 a year. As a direct remedy it asked for the codification of the various laws bearing upon the subject scattered throughout the Statute Book, in order that the duties, powers, and rights of house owners, house occupants, and local authorities might be better understood and appreciated by all alike. It asked also for increased activity on the part of the Local Government Board in calling upon local sanitary authorities to carry out such powers as they already possessed. Further requirements were the increase of the qualifications, powers, independence, and pay of medical officers of health, and the combination in many cases of small and poor districts into large ones and the appointment where need be of travelling inspectors. As regards medical officers of health, it was absurd to expect to get important duties efficiently performed at salaries such as some of the local authorities paid, and in addition it should not be possible for an active officer to be dismissed merely for doing his duty and without the right of appeal to the Local Government Board. The answer which the deputation received does not seem to have been very encouraging. The evils and the value of many of the proposed remedies were admitted but no action promised, while Mr. Long thought that local authorities might object to officers whom they appointed and paid being rendered independent of them. Until some sort of security tenure is obtained for all medical officers of health the is little chance of the law being carried out, at all ever in small communities where the formation and guidan of public opinion rest in the hands of the few lo autocrats who may have much to fear from any acti administration of sanitary laws and regulations. T majority of medical men will not require any argument convince them that the objects of the Rural Housing a Sanitation Association are of importance.

THE REST TREATMENT.

AT a meeting held recently in celebration of t twentieth anniversary of the organization of the Phi delphia Neurological Society, Dr. S. Weir Mitch delivered an address on the mental processes by whi the rest treatment was developed, a summary of whi was published in the New York *Medical News* of Febru 6th. Dr. Mitchell said the beginning of the chain of c cumstances which finally led to the adoption of the tre ment was laid during the Civil War. He then referred the cases of acute exhaustion occurring among the soldi after or during forced marches, this being seen particula in the Gettysburg campaign. These men remained i weeks or even months in a condition which would now called neurasthenia. It was noted, however, that comple rest and forced feeding brought them up so that in ma instances they were able to again join the ranks. So time after the war a man who was under treatment locomotor ataxia fell and broke a leg. This kept him bed for three months, and as soon as he was out he bro the other leg, this enforcing a second rest of three mont When he finally recovered the use of his legs it was se that the ataxia was decidedly improved. In 1874 Mitchell was consulted by a married woman, aged 26 yea who was exhausted primarily by much charitable wo and the bearing of children in rapid succession. Hav ample finances she had tried every known means for t restoration of health, but at the time mentioned was pitable invalid. For some time Dr. Mitchell had no bet success than had other physicians. He saw that the pati needed both rest and exercise, and recalled the benefic effect he had seen from the rubbing of people by an man, who now would be placed in the list of osteopa and similar performers. A young lady was then engag for the patient, and by personal instruction Dr. Mitch developed a system of massage which produced remarka results. Absolute seclusion of the patient, with mass and electricity, enabled forced feeding to be employed, a rapid restoration to health followed. This first case discharged in May, 1874. Others followed, and in 1875 peared the first paper describing the new method of tre ment. It was at first received with incredulity criticism that almost amounted to personal invect Dr. Mitchell then traced briefly the history of the react against this opposition, the use and advocacy of the tre ment, and finally the world-wide adoption of its princi in the treatment of suitable cases.

WATERCRESS IN THE TREATMENT OF BERI-BE

THE Foreign Office has forwarded to us a copy of a dispa on the subject of beri-beri from H.M. Consul at Noum New Caledonia, together with a comment thereon by Patrick Manson. The Consul reports that "beri-ber very prevalent on this island now among the natives o nationalities working at the mines, but it seems to h been found out quite accidentally that watercress is almost certain cure. Consequently all the mining c panies are cultivating it largely." In his comment Patrick Manson points out that similar statements regards the influence of various kinds of food on beri- have frequently been made on inadequate experience. would seem that in the endemic areas many kinds of nutrition predispose to the disease. It may be that t has been a deficiency of vegetables in the dietary at mines in New Caledonia predisposing to beri-beri, that this deficiency has been made good by watercress,

questions whether this vegetable has any specific tion on the germ of the disease in question. Nevertheis, the experience seems worth following up. To this mment little need be added. Watercress is easily grown most places where there is plenty of water, as is the se in the majority of the regions in which beri-beri is demic, and it is also pleasant to eat. An extensive trial, erefore, of this plant as a remedy for a disease for which satisfactory treatment is at present known should prove ither difficult nor expensive. There are clear precedents the specific action of herbal remedies upon parasitic sease in the case of cinchona in malaria and salix nigra rheumatism, while at one time watercress itself was held high esteem in domestic medicine as a simple remedy for ofula, pulmonary phthisis, and scaly eruptions about the dy.

AN ARCTIC HEALTH RESORT.

is stated that a health resort is to be established in pland. It is proposed to erect a sanatorium on the ores of Lake Torne, a long and beautiful sheet of water Wassijauve, near the end of the Ofote Railroad. That lroad, it may be mentioned, has only one station in a tance of 121 miles. There is no human dwelling near it station, which is on the line between Sweden and rway, and was erected solely for the requirements of the stems Office. Except for a small settlement at Wassi-ve, the only sign of human existence in the district is occasional passage of a few Laplanders with their ds of reindeer. Apart from the scenery, the inmates of Arctic sanatorium will have no external object of in-est but a scientific station which has been erected with help of private subscriptions by men of science. The rk pursued at the station includes biological, geological, anical, and entomological, and other investigations con-ted during the summer, and meteorological, magnetic, l other observations made at all seasons. The station is olidly built block-house containing seven rooms, and it roposed to build the sanatorium in the same way. The tic health resort would seem to offer ideal conditions for sons suffering from neurasthenia who require quiet and .

A CONTRAST.

ORRESPONDENT sends us the following extracts from the ond volume of Viscount Wolseley's *Story of a Soldier's* published recently. They deserve to be put side by :

> one ever fell sick [on the River expedition]. I was d to have our senior doctor noted when the expedition e to an end, but refused, be-e he had had nothing to do, e never having been any sick im to cure. (P. 208.)

> So ended the Red River expedition . . as far as fighting was concerned it was a bloodless campaign, and although great physical difficulties were encountered and manfully overcome by the troops employed, not a life had been lost. (P. 223.)

d Wolseley does not go on to say that the honours which e to him as the leader of this bloodless expedition were eserved, yet the analogy is perfect. If the senior doctor nothing to do because nobody was sick, the senior ter can have had nothing to do because nobody fought. v long will it be before military commandants and nstitution committees begin to take a rational view of iene as an integral part of military administration, iout which the most beautiful scheme with family trees new offices and new titles for old offices must come he ground when put to the actual test of war?

SIMILIA SIMILIBUS.

MOEOPATHY is a subject which in England, at any rate, thoroughly dead that it might safely be buried without of rebuke from Mr. Tebb and the Antipremature ial Association; nor have we any desire to revive it. ertheless, in response to the wish of its American hor, we give here the result of a study of a little phlet[1] entitled, *Are we to have a United Medical Profession?* Its main object is to show to the young professed homoeopathist how he "can fight for homoeopathy to the death, if need be, and can at the same time pursue rational medicine with an enthusiasm not in the least modified by his enthusiasm over homoeopathy." The means by which this object is to be attained is the narrowing of the issues that lie between rational medicine and homoeopathy by defining what the latter really is. Those who hitherto have not admitted the justice of its claims have failed to do so because, we are here told, they have not understood what the principles of homoeopathy really are. Among such are notably Drs. Stillè, H. C. Wood, F. W. Headland, and Sir T. Lauder Brunton. These gentlemen, however, need not be too distressed at their ignorance, because, according to our author, even Hahnemann himself did not understand the subject. We, however, are in a happier position, for after earnest study we understand the contention to be that the true principle of homoeopathy is that you must not rationalize at all. Whatever you do you must do blindly. You are dealing with vital processes which are "unknowable," and if while prescribing a drug you allow yourself to be influenced by any thought of causes and means of producing effects you are practising rational medicine and not homoeopathy. A "similar" is anything which experience shows to cure a system however dissimilar it may seem to the non-homoeopathic mind. Thus you may take a pinch of sodium bicarbonate for heartburn, and if you carefully say to yourself, "I take this to obtain 'immediate' substitution of a normal vital process for an abnormal one," you are practising homoeopathy, which is right; but if you allow the thought to come into your mind that you desire to remove your heartburn by neutralizing an excess of acid, you are practising rational medicine, which is wrong. Provided you bear this in mind you may treat your patient with any dose of any medicine you please; if he does not get well that is not the fault of homoeopathy, but his own—because he does not "respond." In short, it is much like the old question of luck. If you wish, when you see a piebald horse, you are all right provided you do not think of its tail. If you do think of its tail you may still get what you want, but it will not be because you wished for it. All this sounds like an intentionally humorous version of matters, but it is not. It is the serious outcome of a careful study of homoeopathy as expounded by a very honest believer therein. He is one, however, who falls a victim to his own dialectical skill, and who, in his anxiety to defend those who profess homoeopathy while abandoning its practice, draws distinctions which if materialized would require much experience with an oil immersion lens to see them at all, and which, even as possible mental conceptions, can have no proper influence upon conduct.

[1] *re we to have a United Medical Profession?* By Charles S. Mack, M.D. rte, Indiana: Published by the Author. 1904. (Pp. 44. 25 cents post)

INSANITY IN AUSTRALASIA.

The latest report of the Inspector of Hospitals for the Insane in Queensland, Dr. J. B. Hogg, suggests a comparison of the leading points of the lunacy statistics of that State with those of other parts of Australasia on the one hand and of England and Wales on the other. Taken broadly, it may be said that the statistics of Queensland, Victoria, New South Wales, and those of England and Wales together correspond with curious exactness. At the end of 1902 the total number of patients in hospitals for the insane in Queensland was 3.52 per 1,000 of the general population, and in England and Wales 3.41. At the end of 1901 the rates were in New South Wales 3.25, Victoria 3.75, New Zealand 3.34, and South Australia 2.67. The dates taken it will be observed do not absolutely correspond, but they are the latest available, and, being in no case more than a year apart, relate to periods fairly comparable. The differences shown are decidedly smaller than might have been expected, and, even in the case of South Australia, do not suggest that the incidence of lunacy is materially different in any of the places named. The position occupied by England is noticeable because the figures cover all reported lunatics and not merely those in public asylums.

They also seem to offer some support to the contention that there is no real increase in the number of lunatics in England, but merely an increase in the number of certified lunatics. Otherwise the English figure might have been expected to have overtopped the Australasian figures instead of being rather lower than the majority of them. It may be, of course, that lunacy is advancing *pari passu* both at home and in Australasia; but if that be so the causes of such increase must lie much deeper than those usually ascribed, since the superficial conditions of life are dissimilar. The correspondence in the statistics with regard to such points as the ratio of deaths to residents, recovery-rates and readmissions are not quite so close, but nevertheless do not suggest any great difference either in results, methods, or material. Perhaps the most curious point of all is that the expense of maintenance is very much the same in all the places. Thus the highest figure for the maintenance of a patient for a year in an Australasian asylum is £29 5s. 4d. (New South Wales), and the lowest £27 0s. 3d. (Queensland), while the cost of a patient in England and Wales may be taken as something less than 11s. a week, or say, £28 a year. In Dr. Hogg's report, as in those of most of the larger Colonies, a careful account is given of the nationality and birthplace of every patient. It is shown, for instance, that of all the patients remaining in the Queensland asylums at the end of the year 439 were born in England or Wales, 123 in Scotland, and 518 in Ireland. These and corresponding figures elsewhere suggest that the lunacy authorities of the Colonies might throw some light on the question of what division of the British race is most prone to mental disorder, provided that the census returns of the respective Colonies contain information as to the nationality distribution of the population.

AN EFFICIENT AMBULANCE SERVICE FOR LONDON.

The movement initiated and undertaken by the Metropolitan Street Ambulance Association with the object of enforcing attention to an important subject has succeeded so well that there is some hope that London may at length be provided with an efficient and sufficient ambulance service. The only kind of set-back that it has received has been from letters sent to the general press with the object of claiming due gratitude from the public for voluntary efforts made by sundry bodies to fill the gap in the past. Gratitude is certainly due to those bodies but the effect of claiming it at this particular moment has been somewhat to confuse issues and make it appear as if London were much better off in the way of ambulance provision than it really is. The need for a complete ambulance service is very great and London looks towards its County Council to provide one either out of its own resources or by coming to terms with the Metropolitan Asylums Board. It must be a completely organized service ready to undertake promptly and in any part of London the transport of all sick and injured other than those destined for hospitals for infectious disease. A good deal of material already exists and what is mainly required is linking up, organization, and increased facilities for "calls" in addition to the provision of stations and ambulances for the less central parts of the town.

DIPHTHERIA AND ANTITOXIN.

The Commissioner of Health for Chicago has recently published a review of the diphtheria mortality during the eight years which have elapsed since antitoxin treatment was commenced in Chicago, and the eight years which preceded it. The total number of deaths from diphtheria during the antitoxin period was 47 per cent. less than during the previous period, although the population increased 52 per cent. between the first and last years of the combined periods. Before antitoxin treatment was introduced the annual diphtheria mortality equalled 12.45 per 10,000 of population, but only 4.55 per 10,000 annually during the antitoxin period. The statistics confirm the statement that the value of antitoxin treatment varies directly as the promptness with which it is begun. In a series of 7,435 cases in which the diagnosis was verifie bacteriologically, and the treatment carried out by serur the death-rate rose steadily from 0.34 per cent. in case treated with serum on the first day, to 10.8 per cent. those in which treatment was deferred until the fourth rising to 23.1 per cent. when treatment was put off unt after the fourth day. The general mortality-rate throug out the series was 6.44 per cent.

A MEDICAL AMBASSADOR.

The United States Minister to Korea is Dr. Horace Newto Allen, formerly of Delaware, Ohio. Twenty years ago, im mediately after he had taken his degree at the Cincinna Medical College, he was appointed by the Presbyteria Board of Missions a medical missionary to Peking. H remained in China for a year and then went to Seou There he found favour with the Court by his successfu treatment of one of the princes. When the Korean Leg tion was established in the United States in 1888, Dr. Alle accompanied it to Washington, where he remained tw years. In 1893 he again returned to the United States t take charge of the Korean exhibit at the World's Fai Chicago. In 1894 he was made Secretary of the Unite States Legation at Seoul, and in 1897 was appointe Minister.

THE ROYAL SOCIETY.

The following fifteen gentlemen were recommended o Thursday, February 25th, by the Council of the Roy Society for admission as Fellows:—Dr. T. G. Brodie, Pr fessor Superintendent of the Brown Institution; Major G. Burrard, Superintendent of the Trigonometrical Surve of India; Dr. A. C. Dixon, Professor of Mathematic Queen's College, Belfast; Dr. J. J. Dobbie, Professor Chemistry, University College of North Wales; Mr. T. H Holland, Director of the Geological Survey of India; Pr fessor C. J. Joly, Royal Astronomer of Ireland; Dr. H Marshall, Lecturer on Chemistry, University of Edinburgh Mr. E. Meyrick, Master in Marlborough College (Natura ist); Dr. A. Muirhead, Electrical Engineer; Dr. G. H. Nuttall, Lecturer on Bacteriology and Preventive Med cine, University of Cambridge; Mr. A. E. Shipley, Le turer on Invertebrate Zoology, University of Cambridge Dr. M. W. Travers, Assistant Professor of Chemistry, Un versity College, London; Mr. H. Wager, formerly Lecture on Botany, Yorkshire College; Mr. G. T. Walker, Meteor logical Reporter to the Indian Government; Mr. W. W Watts, Assistant Professor of Geology, University Birmingham.

GERMAN CONGRESS OF INTERNAL MEDICINE.

The twenty-first annual meeting of the German Congre of Internal Medicine will be held at Leipzig from Apr 18th to 21st, under the presidency of Dr. Merkel of Nuren berg. The principal question proposed for debate arteriosclerosis. The discussion will be opened by Pr fessors Marchand of Leipzig and Romberg of Marburg. large number of communications are promised, amor which may be mentioned the following: Diet in the Trea ment of Gallstones, by Dr. Walt. Clemm of Darmstad Neurasthenia in Public School Pupils, by Dr. R. Wichmar of Harzburg; a New Diagnostic Sign in Disease of th Pancreas, by Dr. Ad. Schmidt of Dresden; the Cure Tabes, by Dr. Zeimssen of Wiesbaden; the Prognosis Glycosuria, by Dr. Felix Hirschfeld of Berlin; ar Dysbasia Angiosclerotica (Intermittent Limping), by Pr fessor Erb of Heidelberg. All communications relative the Congress should be addressed to the Permanent Secr tary, Dr. Emil Pfeiffer, 13, Parkstrasse, Wiesbaden.

THE TRANSMISSION OF TYPHOID FEVER BY FLIE

Professor Herbert E. Smith, Dean of the Yale Medic School, and Dr. Edward Mahl, President of the Hartfo Board of Health, in the official report of an investigation to the origin of a recent epidemic of typhoid fever in th New Haven County Gaol, state that flies carried t typhoid bacilli from dwelling houses in one of the stree

ting the gaol where there were several cases of typhoid r at the time. The germ-bearing flies entered the n gaol windows and deposited the bacilli on the food the kitchen. Of twenty-one patients who contracted hoid fever in the gaol seven died.

THE RED CROSS SOCIETY OF JAPAN.

ERENCE was made in the British Medical Journal of ruary 27th to a statement published in several American lical journals to the effect that the well-known surgeon hicago, Dr. Nicholas Senn, has offered his services to Red Cross Society of Japan during the war. We learn n the New York *Medical Record* of February 20th that Senn has received a reply from Baron Hashimoto to effect that the organization has not the power to accept offer of assistance. Dr. Senn states in explanation that Japanese Red Cross Society is one of the best in the ld, and is able to take care of all wounded for many nths to come.

E have much pleasure in announcing that the condition Sir Samuel Wilks has much improved, and that there is good ground for anticipating a favourable termination is illness.

R. George Ogilvie will deliver a lecture entitled, What Syphilitic Disease of the Nervous System? at the don Polyclinic and Medical Graduates College, on lnesday, March 9th, at 5.15 p.m.

HE Spanish Government recently submitted to the tes a Bill for the protection of children under the age o years. It includes provisions for the safeguarding of dren against physical and moral evil and regulations the supervision of infants put out to nurse, and of dren in schools, orphanages, workshops, and other in- itions. The administration of the law is entrusted to ntral council under the Minister of the Interior, and cal committees presided over by the Governors of Pro- es or the Mayors of Communes. In addition to repre- atives of the civil, medical, and religious authorities, e committees will include elected representatives of ain medical, scientific, industrial, and charitable asso- ions.

MEDICAL NOTES IN PARLIAMENT.

[From our Lobby Correspondent.]

e Sanitary Administration of the Army.—Dr. Farquharson a question on the paper on Monday asking when a further rt from the War Office (Reconstitution) Committee would resented, and whether it would deal with the sanitary inistration of the army. The hon. member said the first of his question had been answered by the official publica- of the report, but he asked for information on the second of the question. Mr. Arnold-Forster said that the point nitary administration would be dealt with in the third of the report which had still to be presented. It was so d in the earlier part of the report. Dr. Farquharson d, further, whether the report would be presented in time ts discussion on the Army Estimates. The Secretary of for War thought not, but he hoped that this report d not be debated on the Army Estimates, but would be t with by itself. He thought, in view of the importance e questions raised, that would be more satifactory to the se.

dical Officers of Health and Milk Supply.—Mr. Sharpe d the President of the Local Government Board whether as aware that a clause in the Public Health (Prevention seases) Bill, 1888, seeking to give the medical officer of h powers to demand a full list of a dairyman's customers e milk supply might come under suspicion, was struck f the Bill; and that an identical clause, introduced in Infectious Diseases (Prevention) Bill, 1890, was elimin- from that Bill; and whether the Board would in the nt Session make their recommendation to the Police Sanitary Committee that the clause in question be omitted from the various Bills dealing with the milk supply. Mr. Long answered that he was not aware that the clause referred to was struck out of the Public Health (Prevention of Diseases) Bill, 1888. That Bill did not proceed beyond first reading. The clause was, no doubt, eliminated from the Bill of 1890, and it was the practice of the Local Government Board for some years afterwards to draw attention to this circumstance in their reports on Bills for local Acts. It was found, however, that, notwithstanding this, the clause was, in a large number of cases, allowed by Committees. Moreover, a similar provision was made for Scotland in the Public Health (Scotland) Act, 1897. In these circumstances the Board in 1899 discontinued the practice of drawing attention in their reports to the action of Parliament in 1890, and he did not propose to resume that practice.

Losses During the War.—On Wednesday Dr. Farquharson asked the Secretary of State for War whether he could state the total number of officers and men killed, the number who died of wounds, and the number who died from enteric fever and other diseases during the war in South Africa. Mr. Arnold-Forster replied that the figures were as follows:

—	Officers.	Warrant, N.C.O.'s, and Men.
Killed or died of wounds	719	6,863
Deaths from enteric fever	183	7,807
Deaths from other diseases	223	4,926

The statistics do not show the killed separately from those who died of wounds, and the compilation of the figures would involve considerable labour.

The Sale of Butter Bill.—This Bill, which was introduced on one of the first days of the session, is likely to come on for discussion on an early day. It fixes a standard of 16 per cent. for water in butter, gives power to inspect butter factories to officers of the Board of Agriculture, and in its third clause makes an exception for Irish firkin butter, which is to be allowed to contain 20 per cent. of water until it is otherwise ordered by His Majesty in Council.

The Pharmacy Bill.—On Monday Mr. Lough introduced a Bill to provide for the further regulation of the sale of poisons and the compounding of medical prescriptions, and to amend the Pharmacy Acts, 1852 and 1868. One of the objects of the Bill is to put limited liability companies under the same law as private traders with regard to the sale of poisons. It is proposed that the directors, or those who have the chief control of the drug departments of large stores, or trading companies, should be qualified chemists. The second reading has been put down for March 21st, but the Bill is hardly likely to be reached on that day.

The Police and Sanitary Committee has been set up this year again to deal with all private Bills promoted by municipal or other local authorities, by which it is proposed to create powers relating to police or sanitary regulations in conflict with, deviation from, or excess of, the provisions of the general law. The Committee has large powers as regards sanitary regulations, and in some respects enables public health legislation to be advanced in local Bills beyond the limits contemplated by the Public Health Acts. The Committee consists of Mr. Bill, Sir George Fardell, Sir Ernest Flower, Mr. Graham, Mr. Corrie Grant, Mr. Layland-Barratt, Mr. Luke White, Mr. Whitley, Mr. John Wilson (Glasgow), and Mr. J. W. Wilson (Worcestershire), with Mr. Heywood Johnstone as chairman.

The Poor-law Superannuation (Ireland) Bill has been introduced once more by Mr. O'Malley, and is backed by Sir James Haslett, Mr. Haden, Mr. Joseph Devlin, Mr. T. W. Russell, Mr. Condon, Mr. Joyce, Mr. Clancy, Mr. McGovern, and Mr. Lundon. It proposes to provide superannuation allowances to certain local officers and servants in Ireland, for contributions towards such allowances by such officers and servants; and to make other relative provisions. The Bill is down for Friday in this week, but has no prospect of being considered then.

The Sale of Poisons.—Sir Thomas Dewar asked the President of the Local Government Board on Monday whether his attention had been called to a coroner's inquest, held at

Southwark on February 23rd, when the jury, in returning a verdict of death by misadventure, added a rider that the sellers of acids and all poisons should be compelled to label the vessel with the name of the substance it contained and the word poison, and that no poison should be sold to young children except in sealed bottles; and, if so, would the question of legislation on the subject receive his consideration. The Home Secretary, in reply, said that he was not acquainted with the case referred to, but as to further legislation he would refer the hon. member to an answer by the Prime Minister to the effect that legislation was only waiting for a favourable opportunity.

The Vaccination Prosecutions Bill.—This Bill, which is the same as that introduced last year, provides that no prosecution under the Vaccination Acts shall be commenced without the authority of the guardians. It was presented and read a first time on Tuesday, and is backed by Mr. Channing, Sir John Rolleston, Mr. Goddard, Mr. Brigg, Mr. Corrie Grant, Mr. Broadhurst, and Mr. Bell.

The Course of Business in the House.—The first four days of this week have been allotted to Navy Estimates. On Monday the discussion was general on the motion for getting the Speaker out of the chair; on Tuesday, Wednesday, and Thursday the Estimates were discussed in Committee, with the Chairman in the chair. Next week a similar course will be taken with the Army Estimates, and there is, consequently, not much prospect of any Government Bills of importance being considered before Easter.

Scotland.

Royal Edinburgh Asylum.

Dr. Clouston's Annual Report.

The annual meeting of the members of the Corporation of the Royal Edinburgh Asylum was held on February 29th, in the City Chambers, Sheriff Rutherford, Chairman of the Board of Managers, presided. After the Treasurer had submitted the Managers' annual report, and it had been discussed, Dr. Clouston, the Physician Superintendent, read his annual report.

General Statistics.

At the beginning of the year there were 950 patients, at the end 929. There were 411 admissions. The total number under treatment during the year was 1,361. The number discharged was 313, the number who died was 119, the average number resident was 917.2.

Admissions.

The overcrowding of the West House by rate-paid patients was a great hardship on the middle-class, who were able to pay the £30 and £42 rates. This would be remedied when the Bangour Asylum was opened. There was an unusual number of aged and broken-down people (one patriarch was 98) admitted during the year, there were a very large number of cases suffering from general paralysis, and the number of alcoholics was excessive to a degree unprecedented in the history of the asylum.

Discharges.

Of the 313 discharges, 147 had recovered, and 140 were in an improved condition. Four recovered after having been 5 years in the institution. The recovery rate on the admissions was 35.8 per cent., against 39.6 the average—a low rate.

Deaths.

The number of deaths was large, but not so large as last year. Three-quarters of the mortality resulted from four diseases—general paralysis 36, senile decay with brain disease 23, tuberculosis 16, and apoplexy and ordinary brain softening 11. Tuberculosis was now attracting an enormous amount of attention. In mental hospitals it had hitherto been about four times as common as among the general population at the same ages. In some of them it accounted for over one-fourth of all the deaths, and its mortality was in some of them in the proportion of over 40 per 1,000 inmates and 16.9 per cent. of the total number of deaths, the average of English asylums being 18.2. Taking the whole of the Edinburgh Asylum 16 per cent. of the deaths was either solely due to tuberculosis or it was a contributory cause. In 13.5 per cent. it was the sole cause. The mortality rate per 1,000 inmates was 17.5 per cent. At the Craig House, during the nine ye since its opening, there had only been 3 deaths from tub culosis, and all were imported. Thus tuberculosis was a g test of efficiency. The absence or the low rate of consun tion in any mental hospital attested the good sanitary con tions, the quality of the air, the efficiency of the ventilati the absence of overcrowding, and the abundance of the fo The opinion of the English Commissioners was quot While the Craig House had no tuberculosis the West Ho had about the average of English asylums. Its proportion 22.5 per 1,000 inmates, and 14.5 per cent. of the total deat against the English numbers of 18.2 and 16.9. During the l nine years, since the West House became distinctly ov crowded, tuberculosis had distinctly increased.

The general death-rate of the whole institution was 13 cent. on the average numbers resident, and 8.8 per cent. the total numbers under treatment. The rates of Craig Ho were very low—4.3 and 3.5, and of the West House high—1 and 10.3. Two cases of dysentery occurred on January 8 but none afterwards. Much money had again been spent drains.

General History of the Institution.

The overcrowding of the West House, and the loss of M Peter as Matron of Craig House after twenty-one years' serv were referred to.

Three Decades of Mental Disease in Edinburgh.

In 1873 there were 583 rate-paid insane persons chargeal to Edinburgh and Leith, or 1 to every 413 of the populati In 1883 there were 693, or still 1 to every 413 of the popu tion. In 1893 there were 877, or 1 to 379 of the populati and in 1903 there were 1,248, or 1 to every 315 of the popu tion. Taking Scotland all over at these four periods, t figures were 1 in 519, 1 in 429, 1 in 371, and 1 in 320. What the reason for the increase? The wage-earning classes a now less afraid of asylums, the area of what constitutes cer fiable mental disorder or defect has enlarged among t doctors and inspectors of poor, and patients in asylums li longer than they used to do in the neglect and insufficien of their own homes. That there has been an increase of certa forms of mental disease, notably alcoholic insanity and gene paralysis, there can be no doubt; but these do not expla the whole increase. When every person afflicted with men disease or weakness of mind in any and every mark form was accounted for there was still a proportion of 1 230.4 of the population of Edinburgh, and 1 to every 220.4 Scotland generally. Edinburgh thus stood better than t average, and between the extremes of the 1 to every 118.8 Argyllshire and the 1 to 344 of Dumbartonshire. Why shou the insanity of the county of Dumbarton be three times great as that of the county of Argyll? (1) Argyll sends large proportion of its sane energetic young men and wom to work in Dumbarton and Glasgow and such centres industry; (2) the insane and weak-minded are left at home be supported by the rates; (3) Dumbarton produces yea more acute insanity than Argyll in proportion to its popu tion, but a kind of insanity that either kills off its victi soon or ends rapidly in recovery; (4) Dumbarton ki off its general child life at a most culpable rate, while Arg takes good care of its children. In a county where there is low child mortality the imbecile children live on and sw the lunacy bill. In a county with a high child mortality t imbeciles are swept away with the others, and naturally in numbers out of proportion to the he a lth reason for Edinburgh's moderate lunacy-rate—not a credita one—was that the city kills off by bad environment the i becile children along with healthy children in undue p portion. Orkney and Shetland head the list for the care children, while Lanarkshire stands at the head of the destr tion of child life.

Alcohol.

During the last thirty years the recovery-rate had g down, but the death-rate had increased; the deaths fr recurrent disease had risen; senile insanity was increasi adolescent insanity had also increased out of proportion the increase of population; general paralysis was grea increasing—from 205 to 431 per decade in the thirty yea alcoholic insanity went steadily up; this year in no less th 42.3 per cent. of all the men and in 18 per cent. of the wom much the largest proportton ever experience. Excess alcohol was assigned as the cause of their insanity. In 187 the percentage of alcoholic cases was only 18.5 among the m and 10.4 among the women admitted. That had now b doubled. Dr. Clouston said it had sometimes occurred

whether one of the after-effects of the nervous lower- which the universal epidemic of influenza of 1890 doubtedly caused might not have set up the craving the stimulus of alcohol with a lessened power resistance to its effects on the brain. Since 1890 far e of the depressed forms of insanity had been sent in. ther explanation was that more money was probably ed by those who had not sufficient self-control and self- ect to use it rightly. It was a social scandal of a very ming kind that nearly one-half of the insanity of any rict should be more or less due to drink. Epileptic and rperal insanities were lessening.

Treatment.

nally Dr. Clouston urged the importance of a rational of mental disease. (1) it should be regarded simply as sease of the brain; (2) it may be mere arrestment of brain th in early life; (3) it might be an event in the natural ess of decay and retrogression; (4) it may be merely the t of poisons; (5) some brains were from the first itive and unstable; (6) heredity; (7) any one may me unsound in mind if certain causes came into ation.

Small-pox in Edinburgh.

the week ending midday February 27th, 16 fresh cases of l-pox were notified and 3 deaths were registered. At a ing of the Town Council on March 1st, the Convener of the ic Health Committee said that there were 55 patients in ital, a smaller number than last week. There had been ew cases since February 27th. One of the two new ions sanctioned by the Council had been completed and pied, and the Committee did not intend to proceed with ection of the other in the meantime.

Ireland.

Royal Dublin Society.

essor E. J. M'Weeney, M.D., lectured on February 17th e theatre of the Royal Dublin Society on Ultra-Micro- c Disease Germs. He said that many diseases were due isons, some of which were introduced as such from with- such at alcohol or lead; others were manufactured n the system, such as the gouty poison; whilst others, , were the product of parasites. After showing pro- ns of several well-known animal parasites, he traced the opment of knowledge regarding bacteria. Beginning relatively large kinds, such as the bacillus of anthrax, he upon the screen smaller ones, down to the germ of in- a, one of the smallest known. The limit of microscopic lity was set by the wave-length of white light, which 1.435 in. Particles less than half a wave-length ze could only be seen as little blurred spots ction discs), neither their true shape nor structure discernible. There had been accumulating evidence to that certain infectious maladies, the cause of which had to baffled the bacteriologists, were caused by germs too to be seen with the most powerful microscopes, and yet tly recognizable by their effects. One of these was the pneumonia of cattle—a veritable scourge till about ten ago, when it was stamped out by drastic measures. It the labours of the late Professor Nocard, the eminent veterinarian, one of whose last researches had been l out in Ireland under the auspices of the Agricultural ment, that we owed our certitude with regard to the of this disease. Other diseases due to ultra-visible es were the so-called foot-and-mouth disease of cattle, uth African rinderpest, and horse sickness. Amongst maladies, the yellow fever of the West Indies and South a had been shown by the American army surgeons, nd Carroll, to be of this nature. The invisible virus was by a mosquito, which introduced it into the blood on boscis. The virus of hydrophobia has also never been nd there was good reason to think that it also was isible. All these living viruses had this feature is n—they could pass through the pores of the Chamber- nd Berkefeld filters, which were able to stop the t bacteria. That the most widely diverse groups of things might suffer the attacks of invisible microbes own by the fact that a fatal pestilence that broke out t poultry in the North of Italy in 1900 and a disease of acco plant causing spot to appear on the leaves, were by Centanni of Ferrara and Beyerinck of Delft to be "filtrable," that is, to ultra-visible, microbes. We were evidently on the threshold of a new and unknown microcosm. The lecturer concluded by referring to the causation of cancer. He threw upon the screen photographs of plants and animals suffering from tumours which had points of resemblance to cancer, and showed the parasites of these diseases, but admitted that, despite much reasearch, no satisfactory proof was forthcoming that cancer was due to a parasitic germ, visible or ultra-visible.

Central Midwives Board.

In the British Medical Journal of February 13th, the correspondence which had passed between the Master of the Rotunda Hospital and the Secretary of the Central Midwives Board was published. The Secretary of the Board writing on February 1st informed Dr. Hastings Tweedy that the Board at its meeting on January 28th had unanimously passed a resolution regretting its inability to make the alteration suggested by the Master of the Rotunda Hospital, and Professor Byers, of Belfast, as the rules had already been approved by the Privy Council.

In the report of the meeting of the Board on that day, supplied to us by the Secretary, and published on February 6th, p. 333, it was also stated that the resolution was adopted unanimously. It will be seen, however, from the report presented to the Royal College of Surgeons by Dr. J. Ward Cousins, its representative on the Midwives Board (British Medical Journal, February 20th, p. 463), that Dr. Cousins states that the resolution was adopted by "the majority of the Board." We are unable to explain the discrepancy. We gather from Dr. Cousins's report that the matter will be referred to the decision of the Privy Council.

It would seem that in thus acting the Midwives Board has made a mistake, and has practically abrogated one of its most important functions. If, when its attention was called to the matter it realized that the rules it had prepared for the approval of the Privy Council were not properly applicable to the conditions existing in Ireland it would have done better to have so informed the Privy Council; equally in the other alternative it ought to have expressed its opinion to the Privy Council.

Consumption Hospital.

Lord Herbert presided last week at the annual meeting of the Royal National Hospital for Consumption, which was held in the College of Physicians, Dublin. The report stated that 265 cases were under treatment and discharged during the year, and 59 remained in hospital. Of those discharged, 204 were improved to a greater or less degree, many presenting no signs of disease. Eighty-five per cent. showed an average gain of 8 lb. 9 oz.; 24 per cent., 1 stone; the highest individual gain being 2 stone 5 lb. The Governors are about to add a block for women, to contain about thirty-two beds. Mr. R. O. B. Furlong, Sir Arthur Macan, Dr. Parsons, Dr. J. Magee Finny, Dr. J. B. Coleman, Dr. Steed, and Mr. Justice Barton were among the speakers.

Royal Victoria Eye and Ear Hospital, Dublin.

The annual meeting of this institution was held on February 25th, under the presidency of Viscount Monck. The report stated that £8,000 was still needed to complete the main building and the out-patient department. One thousand three hundred twelve intern patients and 7,861 out-patients had been treated during the year. Mr. Justice Andrews, Mr. Swanzy, Sir James Murphy, Mr. Furlong, and Sir Augustine Baber addressed the meeting.

The Private Entrée at the Viceregal Court.

We are glad to be able to state that the privilege of private entrée at the Irish Viceregal Court will not be taken from the future Presidents of the Royal Colleges of Physicians and Surgeons. The unpleasant incident is now closed.

"Mirus" Bazaar.

A meeting in promotion of the "Mirus" Bazaar which is intended to help the funds of the Mercer's Hospital, was held in the College of Surgeons, on February 26th. Lord Justice Fitzgibbon, presided, and there was a large attendance, Resolutions were passed setting out the claims of the hospital. and these were supported by the Solicitor-General, M.P., Dr. Ledwich, Colonel Sir John Ross, Sir Thomas Myles, Dr. Lumsden, and the Chairman. The last named stated that from the first great bazaar held at Balls Bridge for another institution there was a clear profit of £15,712 13s. 11d.

Belfast Maternity Hospital.

The 110th annual meeting of the Incorporated Belfast Maternity Hospital was held on February 25th. The annual

report showed that 326 patients had been admitted with only 1 death; 304 women had been attended in their own homes, and 458 in the extern gynaecological department. John Campbell, F.R.C.S.Eng., resigned his post of Honorary Attending Physician and has been appointed Consulting Surgeon; Mr. R. J. Johnstone, F.R.C.S.Eng., has been appointed in his place. The new building has been begun on the site in Townsend Street, which has been purchased free of all rent for £2,000; but about £9,000 is needed for the building and furnishing. The present building has been in occupation for nearly eighty years.

Conviction of a Medical Man.

At the Westmeath Assizes Dr. P. Halion Fox, of Benown House Sanatorium and Private Infirmary, Athlone, a Fellow of the Royal College of Surgeons, Ireland, and a retired officer of the Royal Army Medical Corps, was indited on a charge of maliciously wounding Thomas Bannon, on March 2nd, 1903, at Aughafin.

It appeared that the prisoner was the owner of some farms, about which there had been disputes, resulting in boycotting, and the issue of threatening notices against any persons who should have anything to do with them. Bannon swore that he and another person went into an adjacent field to get the loan of a plough. He saw Dr. Fox standing on a ditch behind a hedge, and before he (Bannon) could say anything Fox drew a revolver and fired at him. The bullet broke his arm, which was subsequently amputated. On cross-examination, he said he had no quarrel with Dr. Fox: he did not know who burned down the herd's house, nor did he see any of the sheep poisoned or the cattle hocked. He did not know that his father was trying to get Dr. Fox's farm. Prisoner did not tell them to stand back.

A police inspector testified to the threatening notices about prisoner's farm. He had applied to the police for protection. He did not consider the notices serious.

The Judge: I am surprised that this officer should consider these notices harmless. We consider them boycotting notices, and very serious.

A number of witnesses swore that Bannon had beaten Fox's cattle.

The Judge said he was sorry the prisoner could not be examined, because if ever there was a case where a prisoner should give evidence it was this.

The jury failed to agree.

The Judge suggested that they might consider the charge of a common assault.

The Foreman: Would accident be considered assault?

The Judge: Yes.

The jury found prisoner guilty of common assault.

The Judge said he hardly knew what sentence to impose. It was more negligence than intention. He would order four months' imprisonment without hard labour, and he hoped this would not have any serious effect upon the prisoner's health or future. He would have credit for the period of nearly three months that he had already been in prison. He sentenced him solely on the verdict of the jury.

Overcrowding in the Monaghan and Cavan Asylum.

At the monthly meeting of the Joint Committee of Management of the Monaghan and Cavan Lunatic Asylum an important letter was read from the office of the Lunatic Asylums, Dublin Castle, to the effect that as a considerable period of time—at least two years—must necessarily elapse before a workhouse could be adapted as an auxiliary asylum, and that as even this method of providing additional accommodation had not been decided upon, the inspectors, having regard to the seriously overcrowded condition of the institution, could not undertake the responsibility of recommending to His Excellency the Lord Lieutenant to defer enforcing the powers conferred on him by the Local Government (Ireland) Act, 1898, for such a period. It was therefore incumbent on the Committee to take steps forthwith to provide accommodation, permanent or temporary, for the number of patients in the asylum in excess of its legitimate capacity. Notice of motion was given that immediate steps be taken to have the buildings sufficiently extended.

The Epidemic in Cootehill Workhouse Infirmary.

The Local Government Board has sent to the Cootehill Board of Guardians the special report from its Medical Inspector, Dr. E. C. Biggar, relative to the recent outbreak of septicaemia. Dr. Biggar visited the infirmary on January 27th. Four patients had died from septic causes between January 1st and 24th. The patients were in charge of a trained nurse. The operations were carried out with the necessary antiseptic precautions. The wards were disinfected twice yearly. With regard to the general condition and equipment of the infirmary, Dr. Biggar stated that no sanitary arrangements were provided inside the building; the drainage and slops were carried off in an open channel situated several feet from the walls; there was no supply of hot and cold water to the infirmary; all the water had to be carried from the main boiler of the workhouse; the wards had not sufficient window space; the two main wards occupied by the patients had been relaid floored some years ago, and the boards, which were not closely joined together, were laid on the top of the old floor. To these sanitary defects Dr. Biggar was inclined to attribute the outbreak. The Local Government Board advised the enlargement of the fever hospital now occupied by consumptives and the provision of accommodation there for the infirmary patients.

Proposed Poor-law Sanatorium at Whiteabbey.

A special meeting of the Belfast Board of Guardians was held on February 22nd to confer with the two Local Government Board inspectors, Mr. Robert Agnew and Dr. E. Coey Biggar, regarding the proposed sanatorium at Whiteabbey. Several guardians spoke on the advantages of the proposed site, and reviewed at some length the evidence given before the recent inquiry. It was stated that the guardians had examined seven or eight sites, and it was only after matured deliberation that they decided to purchase Abbeylands: the examinations were not made by the Board as a body, but by individual members in company with medical men. Dr. Biggar said that before arriving at a conclusion the Local Government Board were anxious to know whether there was no other suitable site for a sanatorium in the neighbourhood of Belfast; there was a great responsibility in the matter, and he requested in the interests of the poor that the Board might see their way to advertise for a site, say 30 to 40 acres, if a better one could not be obtained then the inspector would know how to report. He was of opinion that the same sort of site with sandy soil would be better suited for consumptives. At the weekly meeting of the Board, held on the next day, the report of this special meeting was considered, and it was finally decided to advertise for a suitable site up to 50 acres.

Death of Sir James Musgrave, Bart., D.L.

The death of Sir James Musgrave removes another famous public figure in Ulster, well known for his activity in philanthropy. Sir James was born in 1829, and during his life was connected with all public movemants in Belfast. He belonged to numerous public Boards, and for the last seventeen years had been Chairman of the Harbour Commission. Sir James devoted much time and energy to the development of the County Donegal, doing much to promote the breed of cattle and sheep, the increase of fisheries, and the manufacture of home-spun cloth; and was Chairman of the Donegal Railway. One of his later acts which make him a direct benefactor of the medical profession was his gift of £5,000 to the Queen's College, Belfast, to establish the Musgrave Chair of Pathology.

At a meeting of the Council of the Queen's College, Belfast, the following resolution was unanimously passed:

That we place on record our profound sorrow at the death of James Musgrave, Bart., D.L., and our sincere sympathy with his sister and brothers in their bereavement; that we also record our sense of the heavy loss which the community has sustained by the demise of a citizen so public-spirited and large-hearted, and the College by the decease of a benefactor so thoughtful and munificent. His constant readiness to assist us in our times of need we can never forget, and the splendid help which he gave in the establishment of the "fund for better equipment of the College," and in particular by the formation of the Musgrave Chair of Pathology, rendered a service to us and to science the value of which it would be difficult to overestimate. We request the registrar to send a copy of this minute to Mr. Musgrave with our heartfelt condolences.

Destruction of Tuberculous Meat in Derry.

At a meeting of the Public Health Committee of the Londonderry Corporation Dr. Ferguson, Medical Superintendent Officer of Health, reported that he had certified the carcass of a cow which had suffered from tuberculosis as unfit for the food of man. In the discussion which arose out of the report it was stated that the butchers had sent for Dr. Ferguson; and there was a general feeling that butchers should be compensated in such cases, especially where the disease was not advanced, and consequently its detection is still very difficult. On the other hand, if it were known that compensation were granted it would soon lead to heavy expense. The matter was dropped for the time.

Erratum.—With reference to a note on patent medicines in the Editorial on February 20th, page 454, we are informed that the *Herald* is advertised as the organ of the Presbyterian Church in Ireland, is not its *official* organ of that body.

LEAD POISONING AND WATER SUPPLIES.

LOWING the thirty-first annual report of the Local Governt Board there is now issued a "Supplement in Continun of the Report of the Medical Officer for 1901-2." This me consists of the final part of the comprehensive report Dr. Houston "On Moorland Waters in regard to their ion on Lead." It forms, with the earlier papers issued by Board on the subject, an exceedingly valuable contribu- to the literature and science of public health, and the lts set forth cannot fail to be of great importance to the easingly large number of persons in this country who are plied with soft drinking-water derived from moorland or and gathering grounds.

OBJECT AND SCOPE OF THE INQUIRY.

he exhaustive inquiry now concluded commenced so long as 1890 in consequence of recurrent outbreaks of lead oning amongst consumers of moorland water in York- e and elsewhere, to which attention was forcibly called the reports of Dr. Sinclair White, of Sheffield, by the lical officer of the West Riding County Council, and thers.

ithout accepting the various, and sometimes ingenious, ories which were advanced by different observers about time, the Board's officers started their inquiry with a n slate, collecting their own facts and figures by direct ey and experiments, and following up the observations prolonged laboratory investigations, the record of which is a valuable example of scientific research conducted admirable thoroughness in every stage.

eliminary inquiry showed that in the West Riding of kshire alone some 2,000,000 of the inhabitants obtained r drinking water by public services derived chiefly from rland sources, and that cases of lead poisoning had been erous and widespread.

THE CAUSE OF PLUMBO-SOLVENCY.

e next stage was to select a typical moorland gathering nd and carry out a detailed weekly examination, for some teen months, of the principal feeders, springs, and pools eon, noting their different chemical properties and their ers of dissolving lead, and studying the results as to ons and meteorological conditions. Only one condition found to be at all parallel with the lead-dissolving ability mely, the chemical reaction of the water. Variations in "plumbo-solvency" of any particular water were always ciated with corresponding variations in the amount of in the water.

e investigation was extended to include a complete in- tion and comparative examination of all the chief moor- gathering grounds in Yorkshire and Lancashire, and as a t it was clearly proved (1) that the cause of plumbo- ncy is due to the acid in the water, (2) that the acid is ed by contact of the water with the moist peat on the -ground, (3) that the formation of the acid is due, at all ts in part, to the presence of acid-producing bacteria in peat itself. Two such organisms (designated peat bac- m O and peat bacterium Q) have been isolated and found capable, when introduced into sterile peat decoction, of ering the liquid acid and plumbo-solvent in character.

e report deals at considerable length with the power of in waters to "erode" lead when placed in contact with metal under laboratory conditions. This action, which ferent from the true solvent action of acid waters, de- s on the presence of dissolved oxygen, and shows itself e formation of a relatively insoluble compound or powder ydrate of lead) which may tend to fall away from the ce of the metal and so permit of progressive action. mately, however, erosion only takes place to any large t when the lead is bright, and, moreover, most natural s contain ingredients which prohibit this action.

utral distilled water erodes lead in vigorous fashion. It vs, therefore, that this phase of the subject, although of scientific interest, is quite secondary in practical im- nce to the question of plumbo-solvent ability with which nquiry is more directly concerned.

is impossible here to set out the long course of observa- and experiments described in the report or to give the of reasoning by which previously existing theories were oved and the real factors brought clearly to light, but llowing are a few crystallized items bearing on the prac- issues:

orland gathering grounds are usually rich in peat, and peat is invariably acid. The reservoirs receive both acid peaty water and neutral spring water, and the reaction of the mixed water depends on the relative proportion. The dry-weather flow is usually small, being chiefly neutral spring water, but during wet weather the inflow is mostly surface water drawn from peaty soil. When wet weather follows a drought the "first washings" of the peat are most acid, especially those coming from boggy and marshy patches where there had been prolonged contact with peat. It is proved experimentally that a relatively small volume of peat can render acid and plumbo-solvent a large bulk of neutral and non-plumbo-solvent water. Acid water after neutralization does not redevelop acidity.

REMEDIES.

The results of the investigation must emphasize the responsibility which rests on those water authorities who take their supplies from moorland sources, and they will naturally turn to the report for guidance in the matter of corrective treatment. Here they may be somewhat disappointed, as each case must be judged on its own merits, and it has apparently been impossible to lay down a system of "treatment" equally applicable to the complex local conditions of every supply. In vol. I an account was given of the various remedial measures adopted by different water authorities, such as the addition at the reservoirs of sodium carbonate, chalk, whiting, slaked lime, etc., or the filtration of the water through sand, with or without special neutralizing agents. On some gathering grounds measures have been taken to divert the most acid feeders and the storm washings, and by cutting ditches in some of the boggy places to facilitate the passage of the rainwater into the main streams instead of allowing it to stagnate in the peat. Dr. Houston is inclined to believe that the best method is a combination of ordinary sand filtration with the addition of some neutralizing material to the filter—for example, a thin coating of lime on the surface of the sand, with limestone underneath the sand—and the subsequent addition of a trace of sodium carbonate to the neutral filtered water.

On the question of standards, it is suggested that the treated water to be "safe" should give a neutral reaction with lacmoid solution of ascertained activity, and should also fail to dissolve an appreciable quantity of lead when filtered through a glass tube of lead shot under the conditions described in the report. Obviously, a further standard, and one which is easy of application, is that samples drawn from the leaden services under normal conditions should be free from lead in solution. Dr. Houston thinks it should be the aim of the responsible authorities to supply a water without any demonstrable action on lead—"not merely water which barely escapes condemnation by an administrative standard." Unfortunately, however, the present state of the law allows of no such condemnation, and the water authority may absolutely repudiate the moral duty of supplying a non-plumbo-solvent water. In the West Riding of Yorkshire we believe this anomaly has been seen by the county council, and at its instance penalty clauses have been inserted in some eight or nine recent Water Acts binding the promoters to supply water which will not act on lead to the prejudice of the consumer.

The final report concludes by reiterating the necessity of every moorland catch-ground being thoroughly investigated to determine the nature and relative importance of the various factors and how best to apply the remedy or combination of remedies in each particular instance. In the case of proposed new waterworks it is necessary to make a careful survey of the physical characters of the gathering grounds and to test the constituent waters in regard to their acidity and relative volume under various conditions of rainfall.

With such conclusions it is impossible to disagree, and when making the suggested investigation those authorities and their advisers will find in the reports before us much valuable help. The thanks of all interested in the vital question of water supply—and who is not?—are certainly due to Dr. Houston and the Medical Officer of the Local Government Board for what will undoubtedly take a first place among the many valuable public health reports issued by the Board.

QUEEN'S UNIVERSITY, KINGSTON.—Sir Sandford Fleming has presented Queen's University, Kingston, with one-tenth interest in a coal mine near the Rocky Mountains. The proceeds will probably be applied to the development of the medical school.

CENTRAL MIDWIVES BOARD.

We have received the following report from the Secretary of the Central Midwives Board:—

At a meeting of the Central Midwives Board, Dr. F. H. Champneys in the chair, held at the Boardroom, 6, Suffolk Street, S.W., on February 25th, the following business was transacted:

1. A letter was read from the President and the General Secretary of the Royal Academy of Medicine in Ireland setting out the difficulties that would be experienced by the Irish chartered maternity hospitals in enabling their pupil midwives to comply with the rules of the Board as to personal delivery of twenty cases and a ten days' puerperium. A copy of the following resolution of the Section of Obstetrics, adopted by the General Medical Council, was enclosed:

That in the opinion of the Obstetrical Section of the Royal Academy of Medicine in Ireland, any woman holding the nursing certificate of the Irish chartered maternity hospitals should be deemed to have complied with the rules of the Central Midwives Board regulating the course of training of pupil midwives, and should be eligible to present herself for the examination of the Central Midwives Board.

After consideration of the letter and the resolution it was resolved:

That having considered the letter addressed to them by the President and the Secretary of the Royal Academy of Medicine in Ireland, the Board regret that the suggested alterations were not brought to their notice before the rules were sent to the Privy Council, as, having been approved by that body, it is impossible for the Board to alter them.

2. Various applications for recognition by the Board in different capacities were referred to the Standing Committee.

3. After consideration of applications for certificates the names of 917 women were passed under Section 11 of the Act, and ordered for entry on the roll. Of this total 1 claimed as holding the certificate of the Royal College of Physicians of Ireland, 291 that of the Obstetrical Society of London, 9 that of the Rotunda Hospital, 4 that of the Coombe Hospital, 14 that of Queen Charlotte's Hospital, 9 that of the Liverpool Lying-in Hospital, 2 that of the British Lying-in Hospital, 3 that of the Glasgow Maternity Hospital, 11 that of St. Mary's Hospital, Manchester, 3 that of the City of London Hospital, 1 that of the Salvation Army Hospital, and 569 were admitted as having been in bona-fide practice for one year prior to July 31st, 1902.

4. The question of the payment of a registered medical practitioner sent for on the advice of a midwife in compliance with Section E, rule 17, of the rules of the Board was considered.

After discussion it was resolved unanimously:

That inasmuch as no provision is made in the Midwives Act, 1902, for the payment of legally qualified medical practitioners, the Government be requested to take the necessary steps for amending the Act, by introducing a section or otherwise, to provide for the payment of legally-qualified medical practitioners when called in by midwives in difficult cases.

The Secretary was directed to send a copy of the foregoing resolution to the Privy Council.

5. The question of framing a scheme of examinations to be instituted by the Board was referred to the Standing Committee for consideration and report.

MEDICAL DEFENCE.

London and Counties Medical Protection Society.

The eleventh annual report of the Council of the London and Counties Medical Protection Society, which is to be presented at the annual general meeting on March 11th, shows that the Society continues to make considerable progress. It has contrived to fulfil the object for which it was formed without having resort to any very costly legal proceedings, and the total expenditure fell short of income by the sum of £121 1s. 6d., while the surplus funds have reached the sum of £2,282 19s. 8d. The honorarium which it has been customary to vote annually to the honorary general and financial secretaries in return for the work done it is now proposed to pay quarterly in arrear. Donations to the funds of the Society to the amount of some £66 were received from sundry members, and owing to difficulties in regard to their adjudicating on cases brought before the General Medical Council Mr. George Jackson, Dr. James Little, and Sir Hugh Beevor have resigned their membership. Numerous examples are given of the cases in which the Society has taken action.

Medical and Dental Defence Union of Scotland.

The Medical and Dental Defence Union of Scotland, whi
was registered as a company in May, 1902, held its fi
annual meeting at the end of last year, and the report put
by the Council showed that a good beginning had been mad
Examples of the work which had been done and of the sort
troubles with regard to which advice had been sought we
included in the report. They appear to be of the comm
type. The existence of the Union as an independent instit
tion is justified in the report upon the ground that there a
fundamental differences between the laws of England a
Scotland, and that it is considered that Scottish prac
tioners will be more adequately protected by a purely Scotti
Society. The objects of the Society appear to be somewh
ambitious, as amongst other things they are "to conside
originate, promote, and support legislative measures likely
benefit the medical and dental professions, etc." The annu
subscription is 10s., with a liability to pay £1 towards a
deficit which may exist should the company be wound u
The Secretary and Treasurer is Mr. William Young, 108, We
George Street, Glasgow.

CANCER RESEARCH.

Middlesex Hospital.

The Annual Court of Governors of the Middlesex Hospit
was held on February 25th the Earl of Lathom in the cha
The report of the Cancer Charity for 1903 stated that the
had been a slight reduction in the number of in-patien
under treatment during the year, the figures standing at 1
as compared with 172 during 1902. In the former year t
average stay of each in-patient was 92 days, whilst during t
latter the period increased to an average of 96.88 days. T
total number of out-patients had risen from 141 to 173.
the out-patient electric and light department 100 cases of c
cinoma had been treated with 3,040 applications of the *x*-ra
with results which were distinctly encouraging. The resign
tion by Mr. Foulerton of the post of Director of the Labo
tories was followed by the appointment of Dr. Lazaru
Barlow. In the laboratories examinations, mainly microsc
pical, were made of the portions of tissue removed
operation, as well as of all material derived from necropsi
whilst a constant watch was kept for indications from a
other branch of science that might be laid under contributi
in the attempt to discover the cause of cancer and its cure.

Cancer Cures.

Another branch of work for which the laboratory staff
responsible is the testing of the many alleged "cancer cure
brought forward from various sources. In many instance
cursory examination provides sufficient proof of the usele
ness of these "specifics," yet in others a series of thorou
and exhaustive investigations is necessary before a confide
decision upon their merits or demerits can be arrived
The report states that a notable example of fruitless endeavo
is to be found in the case of the material introduced
Dr. Otto Schmidt, to which attention was widely drawn.
the result of experiments extending over a period of t
months, and carried out upon nine patients who voluntar
submitted to the injection, the highest commendation p
sible was to the effect that while, so long as the doses c
not far exceed those indicated by Dr. Schmidt, the action
the specific was not harmful to the subject, its value in t
treatment and diagnosis of cancer was purely negative.

The Staff and its Work.

Consequent upon the appointment of the director of t
laboratories as a foreign member of the German Committ
for the Investigation of Cancer, the Weekly Board decid
to give him the opportunity of proceeding to Berlin three
four times a year in order to attend the meetings, and th
keep the hospital laboratories in touch with the best wo
performed on the subject in Germany. One visit h
already been paid by him with satisfactory results.
Lazarus-Barlow is aided in his investigations by t
pathological assistants, and the urgency of the subj
and the accumulation of details awaiting solution wou
it is pointed out, warrant a further increase of st
and the consequent enlargement of the laborator
(in order to adapt them thoroughly for the purpo
to which they have been applied) as soon as the fun
of the charity can bear the extra strain. Owing to t
foundation of two scholarships due to the beneficence of M
Richard Hollins and Mr. Walter Emden, Dr. Lazarus-Barl

is also at his disposal the valuable assistance of Dr. Douglas d Mr. W. S. Handley, by whom these scholarships are now ld. Some further idea of the work performed by Dr. zarus-Barlow and his staff may be gathered from the fact at during the past year 280 patients and considerably over specimens have been subjected to investigation. A full d comprehensive report of each investigation is kept for ure reference, and each specimen proves not only of use in aling with the particular case from which it was derived, t is available at a moment's notice for comparative purses whenever the need arises.

Cancer Reports.

Annual reports are now issued from the laboratories. These part of the *Archives of the Middlesex Hospital*, but they self-contained, and will be numbered to form a complete ies by themselves for the benefit of those who wish to tain the Cancer Reports alone. A volume is now in the ss and far advanced, and it is hoped to bring out a further mber dealing with 1903 within the next few months. In ure an endeavour will be made to issue the volume dealing h the data for any particular year in the succeeding May.

Financial Deficit.

Finally, the attention of the Governors is drawn to the conued deficit in the cancer charity account, and the hope is ressed that the work of the charity and its urgent needs y be brought to the notice of the philanthropic public. ry facility will, it is said, be offered by the authorities to ble those interested to inspect the hospital and laboraes, and to see the work being carried out.

CANCER HOSPITAL, FULHAM.

he annual meeting of the Governors was held on February 1, Colonel T. R. Parr in the chair. From the report of Committee it appeared that during the year 1903 there e 711 new in-patients, 1,714 new out-patients, and the y average number of beds occupied was 84. Five dred and one operations were performed, with an average of mortality of 3.14 per cent. Dr. H. G. Plimmer, ector of the Pathological Research Department, presented eport, in which he stated that the department, which reconstituted at the end of 1902, had since been in full k. A more systematic form had been drawn up for reing cases, from which accurate statistical information ld be obtainable. The ordinary routine work had been ied on, and in addition continuous research work had undertaken.

Radium in the Treatment of Cancer.

November a quantity of radium was placed at Mr. mer's disposal for experimental use, one of the principal cts it was desired to attain being the knowledge of ffects on cancerous tissues. He went to Vienna to see ases there treated by radium under the care of Professor r. On his return a series of cases was referred to him ne various members of the staff, and the treatment was nenced. These cases were still under observation, and completed a full report will be published.

X-Rays and High-Frequency Currents.

e report of the Medical Committee stated that treatment ne *x*-rays and high-frequency current had been in use g the past year. With the view of securing the highest ble efficiency, two rooms were set apart for the purpose e new electrical department, and had been furnished the best apparatus and machinery procurable. Dr. J. ld Pollock had been appointed the superintendent in e, and had taken much trouble to secure the best ment.

Microscopic Examinations.

ring the year 321 cases had been examined microscopically bacteriologically for diagnostic and pathological pur; and about fifty new specimens, all preserved by the rn method, had been added to the museum. The thanks e Committee were due to Dr. David J. Morgan, the logist, and to Dr. Alexander Paine, of the Lister Instiof Preventive Medicine, for much kind help during the n Dr. Morgan's absence.

NCH OPHTHALMOLOGICAL SOCIETY.—The twenty-first l Congress of the French Ophthalmological Society e held this year in Paris on May 2nd. A report, preary to a discussion, will be presented by Dr. Sutzer on acuity in relation to incapacity for work.

PREVENTION OF CONSUMPTION.

THE NATIONAL ASSOCIATION FOR THE PREVENTION OF CONSUMPTION.

THE Earl of Derby, K.G., will preside at the fifth annual meeting of members of the National Association for the Prevention of Consumption and other forms of Tuberculosis, which will be held at 20, Hanover Square, on Thursday next, at 4 p.m.

Report of Council.

Sanatoria for Artisans.—The report of the Council records that a National Committee has been formed for the establishment of "sanatoria for workers" suffering from tuberculosis, and that it contains representatives of various branches of the Ancient Order of Foresters, the Hospital Saturday Fund, the Postal Telegraph Clerks' Association, Mutual Aid Society of the Royal Arsenal, National Deposit Friendly Society, the National Association for the Prevention of Consumption through its secretary, and a large number of friendly and other organizations. Mr. W. G. Bunn, the Secretary of the Hospital Saturday Fund, has been elected honorary secretary to the Committee, a small executive has been appointed, and has been requested to ascertain the requirements of consumptive workers, the accommodation at present existing, and also to suggest and organize a scheme for the promotion of such sanatorium accommodation as may be necessary.

Notification of Tuberculosis.—The efforts of the National Association to further the adoption of voluntary notification are related, and it is stated that owing to the strong representation made by the medical officer of health of Sheffield and one of the medical advisers to the Local Government Board, a Select Committee of the House of Commons recently sanctioned a corporation by-law for Sheffield, in which notification of tuberculosis of the lungs is made compulsory on every registered medical practitioner called upon to visit any person suffering from such disease. The clause does not, however, insist on isolation and segregation of the cases notified. This by-law was allowed by the Committee for a period of seven years, and its working in Sheffield will be watched with very close interest.

Spitting.—It is recalled that at the last annual meeting of the Association a resolution recommending that spitting in public places should be forbidden was adopted, and reference is made to the by-law adopted by the London County Council forbidding spitting on the floor, side, or wall of any public carriage, public hall, public waiting room or place of public entertainment under a penalty not exceeding 40s.

Workhouses, Asylums, and Hospitals.—The report states that steps have been taken by some few Boards of Guardians in Great Britain to deal with consumptive cases in workhouses and asylums, not only for isolation but for treatment, with good results. An appeal is made to hospital authorities, in the interests both of education and prevention, to supply patients in out-patient departments with pocket spittoons and leaflets of simple instructions.

Sanatoria.—The new edition of the sanatorium list published by the National Association showed that there were some 70 institutions in the United Kingdom, providing a total of 2,760 beds, an increase of 18 institutions and 375 beds since October, 1902. The Local Government Board is urged to utilize the small-pox hospital erected at Gore Farm, containing 1,850 beds, for advanced consumptive cases. Several of the twenty branches of the National Association in the United Kingdom had promoted the establishment of sanatoria, notably the Gloucestershire, Somersetshire, and Wilts, the West Wales and Leeds Association, the Devon and Cornwall Branch, the Cumberland Branch, and the Paisley Branch.

Membership and Finance.—The number of members of the Central Association was 935 and of the Branches 2,900, making a total of 3,835. The financial statements showed a satisfactory balance in hand on the revenue for the year ending December 31st, 1903.

AUSTRALIA.

New South Wales.—In reply to a question by Dr. Nash at a recent meeting of the New South Wales Legislative Council, the Vice-President said that he had been informed by the Chief Medical Officer that, so far as the Department of Health was concerned, certain sites to provide hospital accommodation for the consumptive poor had been inspected, but had been found to be unsuitable. The matter, however, was still receiving attention.

CONTRACT MEDICAL PRACTICE.

A COMPARISON OF WORK AND PAY.

A MEDICAL man whose work lies in a colliery district and among the industrial classes kept a careful record during 1903 of the details of his club practice, and of this the following is a summary:

He paid 2,432 visits, wrote 7,525 club certificates, did 321 surgery dressings, answered 6 "after-bed" night calls, dispensed 2,598 bottles of medicine, and gave away 281 supplies of pills and powders and 119 boxes of ointment. The "surgery dressings" included a great deal of minor surgery, such as removal of fingers, stitching-up of wounds, setting of fractures, while counted as a simple "visit" are such matters as special journeys to the collieries for serious injuries and surgery of the lower limbs at the houses of patients. In return for this work he received under contract from his clubs the sum of £479 8s. If nothing but the visits be regarded, and all the other work thrown in free, this works out at 3s. 10½d. a visit; or if, on the other hand, only the bottles of medicine dispensed be considered and all the rest thrown in, it works out at 3s. 8d. In both of these ways the sum works out to much the same as that which he charges non-club patients of the same class, but at the same time leaves unpaid a great deal of work which requires skill and causes expense, and absorbs time. He notes, moreover, that the year 1903 was an unusually light year, and his record for January, 1904, is 50 per cent higher than for the same month last year included in the foregoing particulars. In addition to contract fees and club work proper, he received from persons who were members of one or other of his clubs an aggregate sum of £51 16s 6d. for such things as confinements, vaccinations, and large operations. This sum may, it is suggested, be set off against the expenses of the contract work. Among his clubs he has some family clubs, and he does not object when his women patients join them, as though he has a large outside practice, and receives from it a very considerable sum yearly, there is a good deal of trouble in collecting it. With his club patients he gets on pleasantly, and though he has to work very hard to satisfy them he seems to be favourably disposed towards this method of work; nevertheless he considers that, taking one consideration with another, 5s. a year a head should be the minimum payment made anywhere.

The writer does not state the total number of persons for whom he is medically responsible in return for the gross aggregate payment of £479 8s., nor does he give the exact rates per caput per annum. As regards the latter, however, he says that the "average" is 5s. 10½d. for men and boys' clubs, and in family clubs 12s., which works out to about 4s. a head. He appears, therefore, to be better paid than are the majority of medical men doing contract work.

ASSOCIATION NOTICES.

LIBRARY OF THE BRITISH MEDICAL ASSOCIATION.

MEMBERS are reminded that the Library and Writing Rooms of the Association are fitted up for the accommodation of the members in commodious apartments, at the office of the Association, 429, Strand. The rooms are open from 10 a.m. to 5 p.m. Members can have their letters addressed to them at the office.

GUY ELLISTON, *General Secretary.*

NOTICE OF QUARTERLY MEETINGS OF COUNCIL FOR 1904.

MEETINGS of the Council will be held on Wednesdays, April 20th, July 6th, and October 19th, in the Council Room of the British Medical Association, 429, Strand, London, W.C.

ELECTION OF MEMBERS.

ANY candidate for election should forward his application upon a form, which will be furnished by the General Secretary of the Association, 429, Strand. Applications for membership should be sent to the General Secretary not less than thirty-five days prior to the date of a meeting of the Council.

BRANCH MEETINGS TO BE HELD.

BORDER COUNTIES BRANCH.—The next meeting of this Branch will take place at Maryport on Thursday, March 10th. Members desiring to make communications are requested to inform the Secretary of the Branch at their earliest convenience. Further details will be notified by circular shortly before the meeting.—FRANCIS R. HILL, 62, Warwick Road, Carlisle, Honorary Secretary.

METROPOLITAN COUNTIES BRANCH: CITY DIVISION.—An ordinary meeting of this Division will be held on Thursday, March 10th, at 4 p.m., at the Metropolitan Hospital, Kingsland Road, N.E. Exhibition of clinical cases.—E. W. GOODALL, Eastern Hospital, Homerton, N.E., Honorary Secretary.

METROPOLITAN COUNTIES BRANCH: WANDSWORTH DIVISION.—An ordinary meeting of this Division will be held in the Officers' Dining-room of the 4th V.B. East Surrey Regiment St. John's Hill (opposite Clapham Junction Station) on Thursday, March 10th, at 9 p.m. Business: 1. Resolutions for Representative Meeting referring to charges for advertisements in JOURNAL, price of JOURNAL to non-members, alterations in By-law 22 (election of members of Central Council). 2. Resolution referring to alteration in No. 4 of Branch Rules. 3. Report on Medical Acts Amendment Bill. 4. Report on Midwives Act, 1902, and the Regulations. 5. Proposed Ethical Rules.—E. ROWLAND FOTHERGILL, Torquay House, Southfields, S.W., Honorary Secretary.

SOUTH-EASTERN BRANCH: CROYDON DIVISION.—The next meeting of this Division will be held at the Greyhound Hotel, Croydon, on Thursday, March 17th, at 4 p.m., Dr. P. T. Duncan in the chair. The following papers have been promised:—Mr Herbert F. Waterhouse: On Gastro-enterostomy in Non-malignant Affections of the Stomach and Duodenum. Dr. Purves Stewart: On Lumbar Puncture in its Practical Applications. Dr. J. J. Perkins: On Some Points in the Diagnosis and Treatment of Chest Diseases. Mr. St. George Reid will show an automatic sounding box for testing the auditory appreciation in cases of deafness and ear diseases. Messrs Arnold and Sons will exhibit surgical instruments; Messrs. Parke Davis, pharmaceutical preparations etc.: The Trommer Company, diastasic nutrients. Members desirous of exhibiting or reading notes of cases are invited to communicate at once with the Honorary Secretary. Dinner at 6 p.m., charge 7s., exclusive of wine. All members of the South Eastern Branch are entitled to attend and to introduce professional friends. N.B.—The Honorary Secretary would be much obliged if members would kindly inform him whether they intend, if possible, to be present at the meeting, and if likely to remain to dinner. By so doing they will very materially facilitate arrangements and promote the success of the meetings.—E. H. WILLOCK, 113, London Road, Croydon, Honorary Secretary.

SOUTH-EASTERN BRANCH: FAVERSHAM DIVISION.—The next meeting of this Division will be held at Westdene, Sittingbourne, on Thursday, March 10th, at 3 p.m. Agenda: Confirmation of minutes of last meeting. Time and place of next meeting. Reconsideration of the proposed Medical Acts Amendment Bill, adjourned from last meeting (*vide* SUPPLEMENT of August 22nd). To consider and suggest a standard tariff for life assurance examinations in this district. Members should bring the scale of fees of any insurance company that is available. To consider the Draft Scheme for Medical Defence (*vide* SUPPLEMENT, January 30th, and leading article, February 20th). Dr. Grayling on The Anatomical Researches of Sir Christopher Wren. Any other business.—All members of the South-Eastern Branch are invited to attend these meetings and to introduce professional friends.—WILLIAM GOSSE, Westdene, Sittingbourne, Honorary Divisional Secretary.

SOUTH-EASTERN BRANCH: NORWOOD DIVISION.—A meeting of this Division will be held at the Queen's Hotel, Upper Norwood, on Thursday, March 10th, at 4 p.m.; Mr. J. Sidney Turner in the chair. Agenda: Minutes of last meeting. To arrange the number, dates, and places of meetings to take place annually, and to decide when and where the next meeting shall be held, and to nominate a member of the Division to take the chair thereat. Communication from the Medical Secretary as to alteration of boundary of Division. Communications concerning the transfer of King's College Hospital to Denmark Hill. To consider the following questions referred by the Representative Meeting and Council of the Association to the Divisions: (*a*) Six resolutions as to the reform required in the Vaccination Laws. (*b*) Proposed Medical Acts Amendment Bill. (N.B.—The text of the resolutions above referred to and of the Medical Acts Amendment Bill will be found in the SUPPLEMENT to the BRITISH MEDICAL JOURNAL for August 22nd, 1903, and members are advised to bring their copies of this SUPPLEMENT to the meeting.) (*c*) The advisability of petitioning the Privy Council in favour of direct representation of the British Medical Association on the General Medical Council. The following papers will be read:—Mr. W. Arbuthnot Lane: On Certain Abdominal Conditions. Mr. H. G. Plimmer: Diseases of Men and Animals caused by Trypanosomata. Exhibition of instruments by Down Bros. Members desirous of exhibiting specimens or reading notes of cases are invited to communicate at once with the Honorary Secretary. Dinner at 6 p.m.; charge 7s., exclusive of wine. The Honorary Secretary would be much obliged if members would kindly inform him by the first post on the Tuesday before the meeting whether they intend, if possible, to be present at the meeting, and if likely to remain to dinner. By so doing they will very materially facilitate arrangements and promote the success of the meeting. All members of the South-Eastern Branch are invited to attend and to introduce professional friends, but will be unable to vote on Divisional questions.—HENRY J. PRANGLEY, Tudor House, Anerley, Honorary Secretary.

SPECIAL CORRESPONDENCE.

MANCHESTER.

Children's Hospital and its Out-patient Department.—Dr. Mott's Lecture to Medical Men at Owens College on Pathology of Sleeping Sickness.—The Report of the Coroner.—Death of Chairman of Infirmary Board.—Unwholesome Condemned Food.—Victoria Dental Hospital.—The Lectureship in Laryngology.

SOME important observations on the birth rate and causes of infantile mortality were made at the annual meeting of the Children's Hospital at Pendlebury on February 19th. The medical report pointed out that during the last twenty-five years the birth-rate of the country had fallen from 36 3 to 28. If this represented improved morality and fewer improvident marriages, and were accompanied by a diminishing rate of infantile mortality and sickness, it would not be regrettable; but, with the present high rate of infantile mortality, a diminishing birth-rate means a diminution of the growth of the population, which could not be viewed without concern. While the death-rate among the general population was decreasing, the death-rate among infants was actually heavier during the ten years ending 19

. it was in the previous ten years. Sir William Banks, in ·ourse of a highly interesting address, said "that for too the gross superstition had weighed upon us that otic diseases could not be avoided, but the public were ·ning to know that it was not the will of God that those gs should come to us, and that they were breaking God's in defying His laws of nature." A physically strong man wanted to do any good in the world, and if a nation began all to one of weaklings its power was gone. There some awful slums in Manchester, Liverpool, London, and ·ingham—miles and miles of alleys, poor, mean streets, smoke and misery. "You cannot keep people going there ·ore than one or two generations. Ask all the big men of e great provincial cities, and three out of four of them ·ot men from the city, but from the country, or, at any but the first generation of city men." Regarding the llebury Hospital in particular, Sir William said that the ital itself was perhaps the finest children's hospital on the t site in Great Britain; he also said, "Your out-patients' rtment is the worst I ever saw." Owing to lack of accom- ·ation it was a hot-bed for the dissemination of zymotic se. It is to be hoped that these forcible remarks do something towards the amelioration of a state ffairs which should be remedied with all speed. number of out-patients treated during the year was o, and of in-patients 1,538 cases. The cost of treating ·atients was 1s. $4\frac{3}{4}$d; the cost of the in-patients was d. a head a day. In 1902 the cost was 3s. $8\frac{1}{2}$d. Although income for the year showed an increase of £1,295, there a total deficit of £3,171.

e Council of Owens College has invited Dr. Mott and Mr. enell Carter to give two evening lectures to the medical of Manchester and the surrounding districts. The first re was delivered on February 19th by Dr. F. W. Mott on cerebro-spinal fluid and its relation to diseases of the ·ous system. Dr. Mott regards this fluid as the nutrient of the brain and as a secretion which probably was ly formed by the cells covering the choroid plexuses. ·omposition was akin to that of sweat, and it was peculiar gard to the practical absence of proteids and leucocytes. ertain forms of nervous diseases the meninges were ked and the canalicular system around the blood vessels e brain became filled with lymphocytes. This occurred ·e late stages of sleeping sickness. Dr. Mott gave a ·ic account of the phenomena and *post-mortem* appear- ·s of this disease, and referred fully to the work of Castel- Bruce, and Manson. Although it was definitely known the trypanosome was present in the blood and sub- ·noid space of persons affected with sleeping sickness, Mott seemed to think that there were perhaps other rs in its causation. In any case, he found a diplococcus arly all the tissues of the body—specially numerous in ymphatic glands. The Portuguese observers noticed a coccus. Slave dealers, he said, would not purchase s whose glands are enlarged. There seemed, therefore, thing more to be done before the causation of this ge malady was completely cleared up. In general ysis of the insane there was a localized change, more ·ially in the front lobes of the cerebrum, and the icular system of vessels became infiltrated with a form ·lasma cell. In sleeping sickness the leucocytic ge was universal throughout the whole central nervous m.

e annual report of the Coroner for the Salford Division ncashire showed a total of 348 inquests in 1903, 227 on bodies of men and 121 of females. These were in ·ion to 468 cases originally notified to the coroner but hich it was decided that inquests were not necessary. verdicts included 132 of natural causes, 115 accidental ·s, 47 suicides, 1 murder, 1 manslaughter, and 2 legal ·tions; in 3 cases death was found to be due to want xposure and in 7 to excessive drinking, while in 38 cases ircumstances were either so suspicious or so uncertain lead to "open verdicts." Of 55 children under 1 year of) were found to have been suffocated in bed.

·sual regret is felt at the death of Mr. John Thomson, hairman of the Royal Infirmary Lay Board. His in- ·e was all for good, and under his able direction the ne for carrying out the erection of the new infirmary rapid progress. His sympathies were wide and ·lic. He did much to bring about that harmonious action ·h is so necessary when two great institutions like the in- ·ry and the college have to work together.

·ilance is necessary as regards the quality of food sup- plied in all great cities. The inspectors condemned vast quantities of food as unwholesome in 1903. Actually, 267,472 lb. of meat, several tons of fish, and thousands of rabbits were found unfit for human food. Besides the thorough inspection of the abattoirs, 10,849 carcases were examined, and 48 carcases were found unfit for food.

At the annual meeting of the Victoria Dental Hospital, which was held on February 29th, it was stated that the present number of students at the hospital is twenty-nine. During the year nineteen students passed the final examination for the diploma of L.D.S. It appears that the subscriptions from the charitable reached only £150.

Mr. Alexander Hodgkinson, M.B., B.Sc., who has held the post of Lecturer on Diseases of the Larynx in Owens College for many years with great acceptance to his numerous students, has resigned the lectureship.

BIRMINGHAM.

The Hospital for Sick Children.—The General Dispensary.—Death of Mr. Shirley Page.—Lectures by Sir Oliver Lodge.—A New Hospital at Wolverhampton.

AT the annual meeting of the Governors of the Birmingham and Midland Free Hospital for Sick Children it was reported that during the year 1903, 864 in-patients, 15,619 out-patients, and 74 casualties had been treated. These figures show a slight decrease in comparison with those of the previous year. The income of the hospital was £5,242, and the expenditure £5,476. The legacies during the year amounted to the large sum of £6,074; unfortunately there was again a slight diminution in the amount of subscriptions, which have been gradually becoming less during the last few years.

The 110th annual meeting of the subscribers to the Birmingham General Dispensary was held on February 24th. In their report the Committee recorded that there was a slight increase in the amount of subscriptions which had been received. The total number of patients admitted by ticket was 49,376, showing an increase of nearly 4,000 on the number of the previous year. There was an increase in the number of the patients at each of the branches, but there was a small decrease at the head quarters in Union Street. The General Dispensary is a most popular institution in Birmingham, and one of the chief reasons for this is that in cases of necessity nourishment as well as medicine can be dispensed.

The announcement of the death of Mr. Shirley Page on February 22nd at Solihull, in Warwickshire, will be heard with great regret by recent students of the University of Birmingham. He was a student at Mason College and took the L.S.A. in 1901. He held in succession the appointments of Resident Dresser at the Queen's Hospital and Resident Surgeon at the Birmingham General Dispensary. He was the youngest son of Mr. E. S. Page, of Solihull, and was only 30 years of age at the time of his death.

A course of lectures on physics and therapeutics is being given at the University of Birmingham by the Principal, Sir Oliver Lodge. Four of these have already been delivered, and have been largely attended and greatly appreciated by a very great number of medical men and ladies, not only from Birmingham, but also from the midland counties for a great distance arouhd.

A new hospital has been built in Wolverhampton by the Committee of the Wolverhampton and District Hospital for Women on a site which has been given by Mr. J. L. Gibbons, of Ellowes Hall, Sedgley. The hospital, which has been erected at a cost of £11,400, was opened on February 25th, by Miss Briscoe, of Chillington Hall. The new buildings are thoroughly up to date, and there is twice as much accommodation for patients as there was in the old hospital.

MARMOREK'S SERUM IN TUBERCULOSIS.—Two patients at the Notre Dame Hospital, Montreal, one suffering from tuberculosis of the lungs, the other from tuberculosis of the knee-joint, have recently been treated by injections of Marmorek's serum. The injections were made under the supervision of Dr. L. J. Lemieux, of Montreal, who has lately returned from Paris, where he states that he saw 25 cases in which consumption was cured by means of this method. He brought back with him serum sufficient for the treatment of 15 patients. This is said to be the first time the serum has been employed in Canada.

THE Turin Academy of Science has awarded one-half of the Vallauri prize of £1,200 to Professor Giovanni Battista Grassi, of Rome, in recognition of the value of his researches on malaria.

CORRESPONDENCE.

EDUCATION IN LONDON.

SIR,—I beg to enclose copies of a memorial and signatures sent in to the Board of Education with reference to the absence of men acquainted with the needs of higher instruction from the proposed Education Committee for London.

I shall be obliged if you will give the memorial a place in your columns, and trust that our contention may receive your editorial support.—I am, etc.,

NORMAN LOCKYER,
President, British Association.

London, S.W., Feb. 29th.

To

The Secretary of
the Board of Education. February 22nd, 1904.

Sir,—Having carefully considered the Scheme proposed by the London County Council for the constitution of its Education Committee, which has been submitted for the approval of your Board, we, without bias towards any political party, desire to draw the attention of your Board to certain defects in the Scheme which must seriously impair the efficiency of the Committee in its work of co-ordinating and developing all varieties of education in London.

The Education Committee will have to undertake not only the work of elementary instruction hitherto carried out by the School Board, but it will also have the more difficult task of supplying and aiding the supply of secondary, technical, and higher education, and of promoting the co-ordination of all forms of education in London. The present backward educational position of this country is especially marked in those branches designated "secondary" and "higher." To develop the resources of London in these respects, to raise the standard of secondary education, to provide for the training of teachers for both primary and secondary schools, to organize and support the facilities for University training, and finally to organize a great technical High School in the University and the more strictly technical instruction of the Polytechnics, so that the whole may be one educational edifice crowned by the University of London, will be a task of great magnitude, and will require the assistance of persons specially skilled in and acquainted with the needs and conditions of these various grades of education.

Under the Scheme sent in by the County Council, it seem to us that no guarantee is afforded that the Council will have at its disposal any sufficient number of persons of experience in education and acquainted with the needs of the various kinds of schools in London. We would, therefore, urge on the Board of Education the desirability of amending the Scheme so that the Education Committee may include persons who would be universally recognized as authorities on the needs of the University, the Technical Institutes, and the Elementary and Secondary Schools.

While trusting that the Board of Education will take all possible means to secure the improvement of the Scheme along the lines indicated above, we would earnestly deprecate any action of the Board that would lead to the postponement of the appointed day, on which, by the provisions of the Education Act, the administration of a unified system of education for London is to begin.

We have the honour to remain, Sir,
Your obedient Servants,

List of Signatories.

W. H. ALLCHIN, M.D., F.R.C.P., Senior Physician, Westminster Hospital, Member of the Senate, University of London.
HENRY E. ARMSTRONG, Ph.D., F.R.S., Professor of Chemistry, Central Institute of City and Guilds.
Right. Hon. Lord AVEBURY, F.R.S., President of the Associated Chambers of Commerce.
Sir J. WOLFE BARRY, Chairman of Executive Committee, City and Guilds Institute.
HORACE T. BROWN, LL.D., F.R.S.
Sir LAUDER BRUNTON, M.D., F.R.S.
HENRY T. BUTLIN, D.C.L., F.R.C.S., Dean of the Faculty of Medicine, University of London.
D. S. CAPPER, Professor of Mechanical Engineering, King's College.
Sir WILLIAM CROOKES, F.R.S.
HUGH L. CALLENDAR, Professor of Physics, Royal College of Science.
R. F. CHARLES, Chairman, Central Branch of the Teachers' Guild.
Sir W. S. CHURCH, Bart., M.D., President, Royal College of Physicians.
J. D. CORMACK, Professor of Mechanical Engineering, University College.
G. CAREY FOSTER, F.R.S., Principal, University College, London.
J EASTERBROOK, Head Master, Owens College, Islington.
ERNEST A. GARDNER, M.A., Professor of Archaeology, University College.
HERBERT B. GARROD, General Secretary, Teachers' Guild.
Sir WILLIAM R. GOWERS, M.D., F.R.S.
W. D. HALLIBURTON, M.D., F.R.S., Professor of Physiology, King's College.
M. J. M. HILL, F.R.S., Professor of Mathematics, University College, London.
Rev. ARTHUR C. HEADLAM, Principal, King's College, London.
Sir HENRY G. HOWSE, M.S., Member of Senate, London [U]versity.
W. P. KER, M.A., Professor of English, University Coll[ege]; Dean of the Faculty of Arts, University of London.
Sir NORMAN LOCKYER, F.R.S., President, British Associatio[n]
Sir PHILIP MAGNUS, Fellow and Member of Senate, Univer[sity] of London.
CHARLES J. MARTIN, D.Sc., F.R.S., Director, Lister Institut[e of] Preventive Medicine.
Rev. J. ARBUTHNOT NAIRN, M.A., Head Master, Merc[hant] Taylors' School.
KARL PEARSON, M.A., F.R.S., Professor of Applied Mathema[tics], University College.
Sir E. C. PERRY, M.D., Member of Senate, London Universi[ty]
JOHN PERRY, F.R.S., Professor of Mathematics, Royal Col[lege] of Science.
Sir WILLIAM RAMSAY, K.C.B., F.R.S., Professor of Chemis[try], University College, London; President, Society of Chem[ical] Industry.
Sir OWEN ROBERTS, D.C.L.
R. C. SCOTT, Incorporated Association of Head Masters.
Mrs. S. T. D. SHAW, late Lecturer, Newnham College, and [of] Training College for Secondary Teachers.
H. J. SPENSER, M.A., LL.D.Cantab., Head Master, Univer[sity] College School.
E. H. STARLING, M.D., F.R.S., Professor of Physiology, Uni[ver]sity College.
Miss L. M. STRONG, Head Mistress, Baker Street High Schoo[l for] Girls.
T. E. THORPE, C.B., F.R.S., Director, Government Laborato[ry], London.
WILLIAM A. TILDEN, D.Sc., F.R.S., Dean of the Faculty [of] Science, University of London; President, Chem[ical] Society.
FRED. T. TROUTON, M.A., F.R.S., Professor of Physics, Uni[ver]sity College.
JOHN TWEEDY, President, Royal College of Surgeons.
A D. WALLER, M.D., F.R.S., Director, Physiological Labora[tory] University of London.
Sir W. H. WHITE, K.C.B., F.R.S., President, Institute of [Civil] Engineers.
Sir H. T. WOOD, Secretary, Society of Arts.
Mrs. E. WOODHOUSE, Head Mistress, Clapham High School.

DR. OTTO SCHMIDT'S TREATMENT OF CANCER

SIR,—We beg to forward you a copy of a letter that we h[ave] received from Dr. Jossé Johnson, who has been affo[rded] facilities since November 26th, 1903, of trying Dr. [Otto] Schmidt's treatment upon cancer patients in the Middle[sex] Hospital.

The treatment was tried upon the following nine cases:

1. Female, aged 56. Cancer of cervical glands. 10 injections; m[axi]mum dose 2 cg. Death.
2. Female, aged 50. Mammary cancer. 10 injections; maxi[mum] dose 1.5 cg. Death.
3. Female, aged 71. Mammary cancer. 11 injections; maxi[mum] dose 2.5 cg. Alive at present time.
4. Female, aged 73. Mammary cancer. 11 injections; maxi[mum] dose 3 cg. Alive at present time.
5. Female, aged 56. Double mammary cancer. 10 injections; m[axi]mum dose 3 cg. Alive at present date.
6. Male, aged 60. Cancer of the rectum. 35 injections; maxi[mum] dose 2 cg. Alive at present time.
7. Male, aged 51. Sarcoma of neck. 9 injections; maxi[mum] dose 9.5 mg. Injections discontinued on account of illness o[f] patient. Death.
8. Female, aged 43. Mammary cancer, recurrent. 6 injecti[ons] maximum dose 2 cg. Alive at present date.
9. Female, aged 37. Operable supraclavicular gland; infected [by] a cancer of the breast that had previously been removed. [The] gland was subsequently removed. 7 injections; maximum [dose] 2 cg. Alive at present date.

(Cases 8 and 9 underwent a rapid exaltation of dose in order to [test] the alleged diagnostic value of the injections.)

On November 28th Dr. Schmidt visited the hospital [and] saw all the patients except Nos. 6, 8, and 9, who were [then] under treatment. He expressed himself as satis[fied] with all the cases (except No. 7) as being suitable for [his] purposes.

We have failed to observe any trace of a specific loc[al] general reaction to the injections, and we are therefore [con]vinced that the material is entirely without diagnostic va[lue]. We have equally failed to see any local or general impr[ove]ment in the condition of a patient. The injections in no [way] alter the course of the disease.

In the case of those patients who died, microscopica[l] amination of the tissues failed to reveal any difference [in] appearance from those usually met with in cases that h[ad] not undergone the special treatment.

The material used was sent direct from Dr. Schm[idt's] laboratory to Dr. Johnson, and Dr. Johnson made all

ns himself, except on two occasions. The material used Schmidt's "Killed Culture."

account of the research will be published later in the *s of the Middlesex Hospital.*—We are, etc.,

HENRY MORRIS,
Chairman of the Cancer Investigation Committee.
ANDREW CLARK,
A. PEARCE GOULD,
W. PASTEUR,
Members of the Cancer Investigation Committee.
W. S. LAZARUS-BARLOW,
Director of the Cancer Research Laboratories.

ex Hospital, W., Feb. 24th.

(Copy of Dr. Jossé Johnson's letter.)

29, Gracechurch Street, E.C.,
Feb. 4th, 1904.

Cancer Committee,
Middlesex Hospital.

ien,—I beg to thank you sincerely for granting me an opportest the value of Dr. Otto Schmidt's treatment of cancer in ital.

e experiments carried out by me under Dr. Barlow's kind and supervision have failed to demonstrate the results I had does not in any way lessen my obligation and thanks.

Believe me, Gentlemen,
Yours faithfully,
(Signed) H. JOSSÉ JOHNSON.

A DIPLOMA IN TROPICAL MEDICINE.

fy attention has been called to your gratifying article RITISH MEDICAL JOURNAL for February 20th, on "A in Tropical Medicine"; and, as a member of the Board for Medicine and of the syndicate which will he examination for the diploma, I desire to express owledgements for the cordial welcome you offer to departure. May I, however, venture to correct a missión which appears to have been created in the mind regarding the studies, evidence of which will ed of candidates before their admission to the ex- ?

nk, with you, that it would be "a mistake to excuse s from attendance on laboratory classes in practical , bacteriology, and parasitology." My point is that t propose to do so. The "rider" to which you refer ant to *override* the general regulation to which it is it is merely supplementary. Evidence of laboratory example, for the D.P.H.), or of original research, mitted to consideration *pro tanto* only. A thorough of laboratory methods, such as can be acquired laboratory, will be an essential requirement.—I

, March 2nd. DONALD MACALISTER.

OSED MEDICAL DEFENCE DEPARTMENT.

though the scheme submitted to the Central as not as yet been sent to the Divisions, it must be f surprise to many that a larger amount of corre- on it has not reached you than has been published. have admired the way in which in your editorial voured to hold the scales fairly.

in the SUPPLEMENT of January 30th, p. 11, the scheme submitted for the Central Council's and on which later we are to be asked to poll our all of us desirous to have medical defence carried ne office, and under the name of our Association, felt the whole business doomed to fail and the postponed for a very long time to come.

ppreciate the time and thought those interested in r have given, but it must fill us with amazement entral Council are wishful to put us to the expense n a scheme they should certainly have at once ck for further consideration.

o thoroughly into the matter, as no doubt many etent than myself will do, I would like to place shortly several points that on the face of the l appeal to all:

he loan of the name of the Association produce nce work or reduce cost of same?

ut the individual consent of every member we can t no clerk at present employed can give an hour of any newly-formed Defence Society.

ny single one of the various Defence Societies at existence been approached in order to find out if willing to sink their individuality? Have any do so? (We are aware that two Societies were good enough to put at the disposal of the Defence Committee valuable details; now you have in the JOURNAL for February 27th informed us that the Medical Defence Union absolutely declines to be assimilated.)

4. What guarantee will members of these various Societies have that their business will not be interfered with by members of the Association who are not members of this new Defence Society should amalgamation be consented to?

5. What inducement to amalgamate is it proposed to offer to the various experienced officials and members of the committees of these Societies? They are holding a trust for the members; I see no suggestion of offering seats on the new committee.

6. Union is no doubt desirable and gives strength; but has the Association power to lend its name and money? and can it obtain this power if it is not at present possible?

7. Is it at all likely that members of this new Defence Society will be willing, in return for loan of Association name and money, to allow their committees to be elected by the Representative Meeting and Central Council, the majority of whom may have no interest or liability whatever with regard to same (Clause 3)?

8. Seeing the funds of this new Defence Society are to be solely supplied by its members, does any one imagine they will be willing to allow the Representative Meeting of the Association to dictate to them and say, "You must now take up defence of the interests of the profession collectively seeing you have a lot of surplus funds" (Clause 11)?

9. Would any member of this Defence Society be willing that the nominees of the Central Council and the Representative Meeting should control and spend their funds (Clause 8)?

10. Why are the Central Council of the Association to appoint the clerks and officers of the Defence Society (Clause 5)?

11. Why are Ireland and Scotland to have special local committees besides a due proportion of representatives on the Central Committee, the latter seemingly being all the English members will have (Clause 3)?

12. Why are these two parts of the kingdom to have the special privilege to spend a certain amount of the funds without any control whatever from the Central Committee; and also later, no doubt, under permission to spend more (Clause 9)?

13. If disputants (already members) can at all events agree so far as to have selected arbitrators, why in the world is the Committee to have the right to veto (Clause 7)? Surely, a third could be nominated by the Committee.

14. What will be the position of members of the Association at present on the General Medical Council? Will they have to resign the former?

The members of this rival Society ought not to require loans of money from the Association at interest (Clause 10). Let each of them, rather, make a deposit of even £5 as guarantee, and draw the interest themselves. Loans would become a bad precedent. Is it overdrawing it to suggest that one of these days some members will propose departments with loans for instruments, books, clothes, or, shall we say, for funeral expenses in the event of being a member at death?

One cannot but hope that the Central Council will reconsider their decision to refer the present scheme to the Divisions. It will waste money and cause a false impression by many voting adversely who are really in favour of the idea. The scheme bristles with queries. If the decision to consult the Divisions on this scheme is upheld, I would suggest we are justified in asking for a detailed explanation from those responsible for it.

One would think the Defence Committee would have answered query 3 above before sending in their report; and if a single medical practitioner votes in favour of it, it must be in ignorance through want of taking trouble to go into the matter.

When we read of one scheme for allowing chemists, who already diagnose and treat, the sole pleasure of dispensing our quassia and sac. ust. mixtures; and now of another wherein Jones is asked to subscribe to a fund which will be spent entirely at the discretion of Brown, we may feel pride in the evident signs of the Association beginning to step out; but many of us can now sympathize with that parrot, used to the bar of an ever crowded public-house, which, escaping into a neighbouring tree and finding itself being pecked to death by inquisitive sparrows, could only cry, "One at a time, gentlemen, please."—I am, etc.,

Southfields, S.W. E. ROWLAND FOTHERGILL.

"DOCTORS IN PARLIAMENT."

SIR,—The proposals put forward by Dr. W. Gordon, of Exeter, as to raising a fund to help medical men to enter Parliament are of vital interest to the medical profession. Matters of great importance to the well-being of the nation and to medicine are being discussed in the House of Commons, and the representatives there of a profession well able to speak with authority on such questions are few.

In France a very considerable number of medical men occupy positions similar to our members of the House of Commons, and several Ministers of the Republic have been medical men. The present French Prime Minister was once a medical man in a country town. A recent President of the Swiss Republic was also a medical man.

So far back as 1886 I myself contested a parliamentary seat as a Liberal candidate. to help forward liberal ideas and so far as I could to help medical progress and efficiency, especially the Army Medical Service, then floundering in great difficulties. I received no help whatever from any medical society or organization.

I believe there is at present some difficulty in the British Medical Association in its corporate capacity taking up the work of collecting money for a Parliamentary fund to help medical candidates. Such difficulties will no doubt in the future be swept away, and a definite money reserve will be available for such Parliamentary help through a special and confidential committee.

I make the following elementary suggestions as to the formation of the separate fund proposed by Dr. Gordon.

1. A small committee, from twelve to twenty members, would be sufficient to deal with the fund. Say, twelve to sixteen chosen from the existing territorial Branches of the British Medical Association, either by an official election like a caucus, or by a general consensus of opinion of subscribers, and four co-opted members to represent army, navy, and Indian Medical Service and Colonial members to be co-opted by the full Committee.

2. No candidate to receive help towards his election expenses who has not been chosen as an actual candidate by the existing political organization of his party in borough or county, quite apart from any medical society or organization.

3. The grants to be limited to £100, £200, or £300, as the Committee may think fit. The money will have to be officially recorded with the Parliamentary agent of the candidate, and shown in the return of election expenses, with the source from whence the candidate received it.

4. No question of party, whether Conservative, Liberal, Radical, or Free Trader, etc., would in any way enter into the allotment of money help, the only question to be—Efficiency to represent national medical interests in the fullest sense.

5. A "grant in aid" to help to defray elected members' living expenses in London—say 10s. a day during the session to be considered, and to be an admitted charge against the Medical Parliamentary Fund.

6. The member receiving help to be required to join the Medical Committee in the House for the conjoined deliberations of such Committee.

7. A minimum annual subscription to be fixed, but no maximum limit to be laid down to the amount of subscription or donation. If there are to be fifteen members of the medical profession in the House, probably twenty-five would have to be helped with general election grants of, say, £200 each, which would cost some £5,000. But general elections are rare, and £1,500 a year would be enough to raise for the actual election expenses grants.

"Grants in aid" to say fifteen members at £100 a year each would be £1,500 yearly; so that the total charges would be, say, £3,000 a year.

Although I use the British Medical Association territorial Branches as units for membership of the Committee or Council, the proposal is quite outside British Medical Association organization, and hence could draw subscriptions from all medical men, whether members or not.

When the medical profession can combine to give half one day's income yearly to further its own interests the dawn of better days may come.—I am, etc.,

GEORGE EVATT,
Surgeon-General, late A.M. Staff.

Junior United Service Club, S.W., Feb. 26th.

THE LEGAL AND MEDICAL PROFESSIONS IN IRELAND.

SIR,—The spirit of friendly relationship that formerly existed between the professions of law and medicine, and the courtesy that was its natural expression, seem to have departed altogether in our times, or to be recalled only by the occasion of social functions outside the sphere of professional work.

Any one who has had experience of the system that presently obtains in the Courts cannot fail to have been struck by the unwarranted impertinence—frequently amounting to positive insult—to which medical witnesses are constantly subjected, as if it were a recognized fact that every m witness must not only be prejudiced, but prepared to s his professional honour and degrade his office in the in of whatever party employed him.

It is not an infrequent occurrence to find judges themselves upon their knowledge of petty medical tech ties, and parading it in a series of questions that shou tainly arouse indignant protest, if it did not afford con tion in the silent amusement of the doctor who happe pilloried in the witness-box.

Lectures regarding excessive fees and the unrea requirements of medical men are occasionally contri and irresistibly force one to the conclusion that the ju been a diligent student of the introductory remarks advertisements of patent medicines. The Bar, of takes its cue from the Bench, and the method of examination of a medical witness bears frequently resemblance to the Petty Sessions Court style where of a doubtful character is being sifted.

Formerly the cross-examination of medical witnes directed to minimize the injuries alleged to have take and the most vigorous investigation of facts did not p the observance of that old-time courtesy that was hon alike to both professions. Now, however, the doctor jected to every indignity, his motives are impugned, testimony regarded as, at least, not above suspicion.

That this is the actual state of things can scarcely said; the reason for it may be debatable. It does as seem that the present duty of medical witnesses is t immediately and resolutely any insulting observa insinuations addressed to him in a court of justice, they emanate from the judge or counsel—I am, etc.,

Dublin, Feb. 21st. E. MAGENNIS, M.D., I

THE DIMINISHING BIRTH-RATE.

SIR,—In the various discussions on this very im subject reported from time to time it is noticeable t speakers attribute the diminution mainly, if not ent the adoption of physical means to prevent conceptio while doubtless it would be foolish to ignore, or eve insufficient consideration to, the prevalence of this grettable cause, on the other hand it would be unwi consider the possibility, or even the probability, of and developmental agency. In other words, is the day middle-class woman as able to bear children as decessors? She is under the full influence of the civilization" which has brought in its train bicycl hockey, and other factors, which increase the siz muscles and diminish the size of her pelvis. She is tending in figure towards the male model. Is h which has hypertrophied already to the stimulus nastics, capable of further hypertrophy in response t mands of the puerperium?

There can be little doubt in the medical mind "new model" is not equal to the calls of the situatio

Under such circumstances the Anglo-Saxon r "go"—it is going fast in the United States—but so French and German, as both show a diminishing under a similar civilization. One should hesitate t too confidently the agency of the first-named ca planation of the absence or smallness of many mi families, as, to judge from my experience in my o circle of friends, such condition—to the male p least—is not a matter of rejoicing but of regret.—I a

London, E.C., Feb. 22nd. HOPE GRANT, F.R

PUERPERAL SEPSIS.

SIR,—I spent four years at one of the largest London as a student, and during that time attended 120 case wifery for the hospital. After I was qualified I sp years at the same hospital as house-surgeon, house- and assistant in the obstetric wards, attending th hospital practice in the intervals between the appo Having therefore had a fair training I determined ing private practice twenty years ago to attempt am things to minimize as far as possible the suffering o women, and to be guided by common sense rathe theory and tradition.

In my practice I have attended personally about of midwifery each year, making a total of 2,000, a this number is comparatively small, it serves as a s for argument compared with the statistics of lyi pitals with their ever-changing staff of assistants,

s had one definite line of treatment always carried same man.

y years I have only had 3 cases of puerperal fever; occurred eighteen years ago when there was an of scarlet fever in the town; not till after the l contracted puerperal fever was I informed that n had been ailing, though not under medical treat- examination showed that they were desquamating. ase occurred three years ago, and was caused by having been examined previous to my visit, and y knowledge, by a woman with a bad whitlow. ecovered, as did also one of the others, so that out es I have only had one death from puerperal sepsis, e that might not easily have been prevented had I in earlier, and thus enabled to remove the gross r risk of contagion. I think this result is due to it I use care and cleanliness, and also get each case ckly as possible. My practice is largely among the isses, many of whom live in most insanitary houses way from my house.

ng over my records I find that in 20 per cent. of my aby is born before my arrival, in 35 per cent. it is an hour of my reaching the house, and that in ing 45 per cent. I use chloroform and the forceps, asionally chloroform and turning. On arrival at a house, after removing my coat and rolling rt sleeves, I wash with the soap and water pro- use no kind of antiseptic, and, without waiting examine at once. A "patient doctor" who sits pains will probably "frighten them away," as the very correctly say; but where the doctor shows ns to be of assistance the patient also helps her- utmost. She bears down and induces a uterine , and where the os is soft it is an easy matter after he membranes to dilate it up to full size with the vagina and the fingers through the os. If after ins are strong and no progress takes place, I at loroform and put on the forceps and so terminate very shortly, but at the same time take care of the the perineum. Little ruptures of the latter must occasionally even without forceps, but these are led with one or two catgut sutures without any precautions. I have never yet had in my practice nning back to the rectum. After the birth of the surely wash my hands, and then, turning the ner back, squeeze the uterus with both hands and placenta. If it does not come away at once I y hand into the uterus, peel off the placenta and ay, following the uterus down from without with nd. I then remove all soiled clothing, put a clean underneath, apply a warm napkin, and put on a r as tightly as possible, and then give the uterus d squeeze. For this rapid, and if necessary l, delivery I claim the following advantages:

s the patient of much pain, shock, and anxiety.
the patient an immense amount of muscular exertion, luntary muscles and also of the uterus, and consequent

ether with the firm pressure on the uterus afterwards, is eason why I have never had a case of *post-partum* haemor- I never use ergot during labour.
inary care and manual dexterity there is no risk of any

on to the relief to the patient and the confidence it in- great saving of time to the practitioner.

douching before labour, and very rarely after, has been a dead child in the uterus for some discharge is very foul, and then I use plain warm annot help thinking that the meddlesome mid- ries to kill germs that Nature either provides or y cause trouble where none existed.

the bulk of general practitioners will agree with ugh anxious and willing to gain knowledge, will, , be unable to accept the ever-changing theories ogists unless they fit in with facts and expe-

h. General Practitioner.

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reading in the British Medical Journal of th the admirable paper of Dr. Horrocks on the ame difficulty as regards the apparent contradic- 353 occurred to me as to your correspondent

ing, however, shows that after attending a septic eing another without apparently changing the clothes, an aseptic "overall" is used, along with disinfectio of the hands. The question of the "overall" seems to be the crux, and unless this can be had the difficulty remains, not to speak of bag, instruments, etc. In hospital practice it is different, merely a case of having aseptic overalls at hand, and some one to tie them on carefully over the possibly septic clothing. Doubtless many practitioners, however, are well supplied for ordinary practice, and for them the ban would not obtain, according to Dr. Horrocks's reasoning.

The question of attending fresh cases with a septic puerperal case on hand is now of much medico-legal and legal interest, as already a case has been brought in the provinces within the last few years, and where the *pros* and *cons* of sufficient antisepsis were discussed in court.

Similarly trouble crops up between practitioners and medical officers of health. If a moderately definite pronouncement could be given by men of much experience, as Dr. Horrocks, with rather more detail as to this special point than in his admirable address, much confusion would be cleared away.

Perhaps Dr. Horrocks may see his way to amplify his remarks as to the point raised by "J. M. K.," as even the "twenty minutes" will become a precedent in future discussions, more especially in connexion with the propriety or legitimacy of continuing to attend a case after notifying it under the Infectious Diseases Act, and at the same time undertaking fresh cases.—I am, etc.,

February 20th. J. C.

A CASE OF PERFORATED GASTRIC (OR DUODENAL) ULCER?

Sir,—The case reported by Mr. Whiteford in the British Medical Journal of February 20th of perforated gastric or duodenal ulcer is open to another and a much simpler interpretation, which was the one generally accepted at the South Devon Hospital.

She was seen as described, and sent into hospital for immediate operation, an urgent telephonic message to this effect preceding her, and a similar one being repeated when it was learned that I did not contemplate any immediate operative procedure. She came under my care as acting surgeon for the week, and I saw her with my colleague Mr. Webber at 5.30, half an hour after admission. She was sitting up, with a good colour, laughing and joking with the nurses; temperature 100.4°, pulse 100, abdomen moving well, perfectly soft, and only a little tenderness in the epigastrium. She allowed deep palpation without difficulty. She said that since her first operation she had had several severe attacks of pain associated with vomiting, and lasting for some hours.

This present attack was similar in nature, only more severe; she had been in pain for three days, and had vomited once each day. The attacks came and went quite suddenly. Mr. Webber concurred with me that a perforation was very doubtful, and that at all events any immediate operation was absolutely contraindicated; so I sent her to bed for observation. She was kept quiet and on slop diet for a few days as a matter of precaution, but never showed the slightest sign of any abdominal trouble; her temperature only once touched 100° (its usual range was 98.4° to 99°), and she went out in sixteen days.

The view taken by myself and several of my colleagues on the South Devon staff who saw the girl while in the hospital was that an error of diagnosis had been made in attributing to a ruptured gastric ulcer the pain of a severe colic caused by dragging on the adhesions left by the previous operation. The utter absence of any grave symptom whatever while in hospital, and the history of her previous attacks of a similar nature—as to this she was positive—pointed most suggestively to this view. Recovery from an abdominal leak without operation, though possible, is exceedingly rare, and we could not find any reason to conclude that this case was one of the rarities, especially when we considered the very grave condition to which a slight leak had reduced her a year previously.—I am, etc.,

C. E. Russel Rendle,
Plymouth, Feb. 24th. Assistant Surgeon, South Devon Hospital.

THE ADMINISTRATION OF OXYGEN.

Sir,—Among the numerous references to the administration of oxygen in pneumonia and other affections, I have never seen any suggestion that the gas should be warmed.

In my practice I always insist that the gas be passed through a spiral tube immersed in hot water, as I see no

ground for supposing that a gas which on expanding after strong compression becomes icy cold, is more fit to be administered to a patient than a blast of polar air. I think that better results would be obtained when oxygen is employed if this practical and obvious point were attended to.—I am, etc.,

Mentone, France, Feb. 22nd. D. W. SAMWAYS.

THE FEEDING OF INFANTS.

SIR,—For some years now my attention has been directed to the feeding of infants. Last year our infantile death-rate per 1,000 births was 124, which compared with previous years and with many other towns is a low rate; still, when we seriously consider to how few diseases infants are susceptible, even this rate is too high. I am more and more convinced that it is not disease which kills off our infant population as much as errors of diet, and it is time we, as medical advisers, turn our attention to this important subject. Mothers and nurses naturally look to us for advice on feeding and clothing; and if we have nothing better to tell them than the old-fashioned formula—so much milk, so much water, etc.—then the time has arrived for us either to study the subject more or refuse to advise any longer.

This morning I noticed a baby "possiting" freely, and, on asking what the child was being fed on, was told "two parts of water to one part of milk, etc.," the child being seven weeks old. I was not surprised. Yesterday I heard of a medical man recommending "three parts of water and one of milk," and, when he heard the infant was receiving pure cow's milk with a little lime-water and sugar, he expressed the opinion that convulsions would inevitably follow.

Note the composition of mother's milk in regard to fat and cow's milk in the same relation, and then see how much liquid the little one has to swallow to get enough nourishment for its growth; and is it any wonder that after this extensive dilution the child is not satisfied with the proper quantity, and when enough has been drunk to furnish the proper nutriment in fat the excess is rejected.

Some years ago I formulated a diet chart for infants, in which the proteid matter was brought down to the percentage in mother's milk by dilution with water, and the loss in fat made good by adding cream. This method, although admirable in results, proving troublesome for the majority of mothers, I was forced to some other plan; then I resorted to plain pure cow's milk, to which is added 5 per cent. of lime water and the same of sugar.

On the physiological basis that the stomach capacity of an infant at birth is $\frac{1}{10}$ of its total body weight, I now start with this as a standard, and when I am in at the birth of a child I weigh it, and commence feeding with this quantity, $\frac{1}{10}$ of total weight—namely, a child weighs $6\frac{1}{2}$ lb., I give 1 oz. of milk every two hours during the daytime and eight times in the twenty-four hours for the first month; if he weighs 9 lb. I start with $1\frac{1}{2}$ oz. every two hours in the daytime, eight feedings in the twenty-four hours for the first month. The increase in the stomach capacity is, I believe, very regular; if 1 oz. at birth it will increase 1 oz. each month afterwards up to a certain age. when the increase is not so rapid, so that the quantity to be given is the number of ounces the child is months old—for example, if three months old then give 3 oz.

I have given this method an extended trial now, and the results are better than I ever anticipated; in fact. they could not be better, providing the child is fed during the day time at stated intervals—say, every two hours—he is satisfied with the quantity, does not "possit," does not wet, is good, and above all, grows. This is not the result of a few months' trial, but has extended over the last ten years, and there are very few cases in which it has not answered.—I am, etc.,

F. G. HAWORTH,

Darwen. Medical Officer of Health; Police Surgeon.

AN EFFICIENT AMBULANCE SERVICE FOR LONDON.

SIR.—I am glad to see that there is a prospect of something being done to improve the ambulance service in London, which seems to be in a very unsatisfactory state at present, especially as regards the removal of non-infectious cases to hospital.

I had occasion to send a very acute case of appendicitis to the Tottenham Hospital recently, and had some difficulty in procuring an ambulance. I got one eventually from Edmonton, but not without considerable delay. There should certainly be some provision for sending acute and urgent cases, such as a perforated gastric ulcer or appendicitis, to hospital as quickly as possible. These cases seem to be more important even than street accidents, most of which can be safely removed in a cab. There should be an ambulance in every district of London available for non-infectious cases on the application of a medical practitioner, etc.

London, N., Feb. 18th. W. ATTERBURY, M.D.R.U.I.,

THE SIMULTANEOUS INCUBATION OF TWO INFECTIOUS DISEASES.

SIR,—Dr. Penny, in the BRITISH MEDICAL JOURNAL of February 27th, writes: "It would be interesting to know whether the incubation of two infectious diseases at the same time retards their development."

The following case bears upon the point: On May 1st I was isolated with well-marked scarlet fever, his exposure to which had probably been on May 1st. It ran an ordinary course, and he was making a good convalescence till May 17th, when a full eruption of chicken-pox appeared. This was exceptionally severe, and the temperature remained above 100° for three days. The incubation period of the chicken-pox must therefore have been at least twenty-three days, and possibly thirty days, as it is probable that he received infections on the same day.

Wellington College, March 1st. H. G. ARMSTRONG.

DEGREES IN DENTISTRY.

SIR,—May I be allowed a few words in friendly criticism of Mr. Underwood's letter appearing in your last issue? Mr. Underwood does not believe that "the authorities of the Universities will insist on presenting these honours to a branch of the profession that has emphatically stated that it does not welcome them." This may apply in London, but I doubt if it does in the provinces. There are some 500 dentists who are members of the British Dental Association. At the recent meeting, held in London, 289 attended, of whom 139 were Londoners: 263 voted; 175 against granting degrees for dentists, and 88 in favour. This can hardly be called an emphatic statement on the part of the British Dental Association.

But, even if it were, we must grasp the fact that Birmingham has granted dental degrees, that Dublin University has instituted them (without any petition from the dental profession) and I am credibly informed that Liverpool and Manchester have made up their minds to do the same and are busy framing their curricula. Whether London University will not institute degrees for dentists, or whether the authorities will be influenced by the recent vote, remains unknown.

It is equally unknown whether, in the event of degrees being instituted, dental students will forsake the London colleges for provincial universities, as medical students have done, or whether the College of Surgeons will set its own.

To attribute the desire for academic training to mere snobbery or to a wish to profit by confusion, is—though most men are often very mixed—to misread the signs of the times. Surely it is an outcome of the general desire for greater efficiency and economy of all educational methods which has been actuating the more thoughtful minds of the country for years, which is gathering strength.

As regards separation from general medicine—if dentistry is an integral part of medicine, it is impossible to separate it. But we must bear in mind when comparing it with other specialities, that all the latter are eggs laid by the medical bird, while dentistry was an alien egg kindly and duly hatched after due season. Whether it will prove a swan or a duckling remains to be seen; I trust not.

I would earnestly entreat Professor Underwood to accept the inevitable, and, by his experience and counsel, help to advise the framers of these new degrees that the dire prophesies may, perchance, never arrive.—I am, etc.,

London, W., Feb. 29th. WM. RU

A FRENCH ORTHOPAEDIC SOCIETY.—The foundation of a French Society of Orthopaedic Surgery is in contemplation. Among the surgeons who are taking an active part in promoting the scheme are Professor Kirmisson, of Paris, M. Gangolphe, of Lyons; M. Gaudier, of Lille; and M. [illegible] of Rheims. It is expected that details of organization will be finally settled and the Society formally constituted at a Congress of Paediatrics to be held this year at Rouen from 5th to 10th.

OBITUARY.

EDWARD SIEVEKING, M.D., LL.D., F.R.C.P.,

Extraordinary to the King; Consulting Physician, St. Mary's Hospital.

tioned briefly last week the death, at an advanced Sir Edward Sieveking, which occurred on Feb-h.

l Sieveking was born in 1816 in St. Helens Place, in of London. His father was a merchant and came of ld North German stock, and members of the family o be found in the old home at Hamburg.

t Sieveking was educated partly in England and Germany. He studied medicine at Berlin, Bonn, y College, London, and subsequently at the Uni-f Edinburgh, where he took the degree of M.D. in r some years after graduating he practised at , chiefly among the English colony there. While in there he wrote a rk on ventilation, ed to bring about ishment of a child-ital. He returned in 1847 and passed ination for Mem-f the Royal College ians, of which Col-s in 1852 admitted In the preceding as appointed Phy-he Out patient De-of St. Mary's Hos-h which he re-ctively connected years. On his re-e was elected Con-ysician. He was time Physician to lospital and to the or the Paralysed tic.

he issued his first in England—a on nursing—and cy had much to e great develop-h had resulted in nurse of the pre-He read a paper bject before the gical Society, and, erefrom, a com-s formed, which endeavoured to tional system of poor. On more casion a deputa-l by Lord Shaftes-l on the Poor Law approved of the sed, and issued favour of them.

d was one of the f Rokitansky's great work on *Pathological Anatomy* enham Society, and afterwards, for the same slated Romberg's work, *Nervous Diseases*.

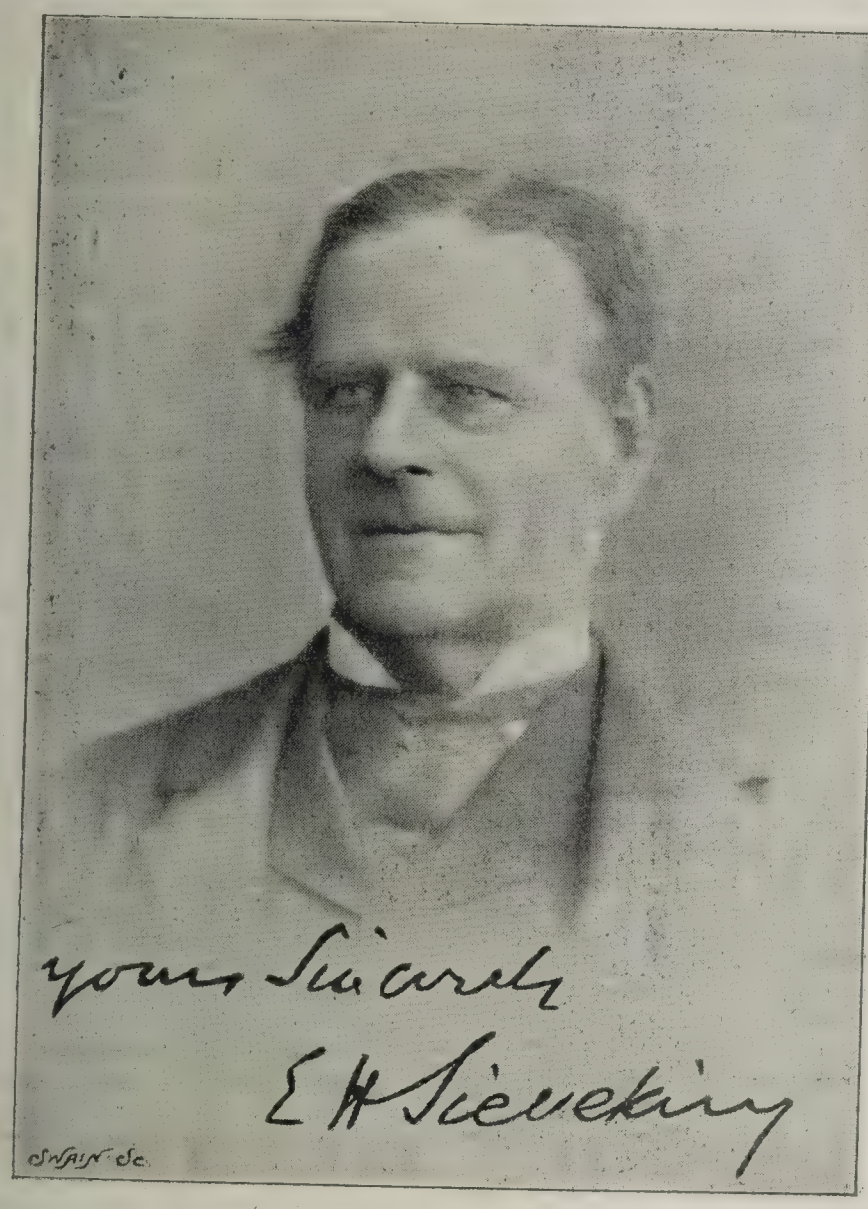
published a work on *Pathological Anatomy* written on with his colleague Dr. Handfield-Jones, he also k on epilepsy, the second edition of which ap-r. He was a Croonian Lecturer of the Royal Physicians in 1866, and the lectures were printed e entitled *On Localization of Disease*; in 1877 he e Harveian Oration before the same College. In was for some years editor of the *Chirurgical* riodical founded by one of his most intimate John Forbes.

ppointed Physician in Ordinary to H.R.H. the ales in 1863, Physician Extraordinary to Queen 870 and Physician in Ordinary in 1888. When Majesty came to the throne Sir Edward Sieve-had become in 1886, was appointed Physician y to His Majesty. At the tercentenary of the University he received the honorary degree of LL.D., he was also a Knight of the Grace of St. John of Jerusalem, and had been President of the Harveian and of the Royal Medical and Chirurgical Societies.

Sir Edward Sieveking gave valuable assistance to Mr. Propert in founding Epsom College, and was its first Honorary Secretary. He was a Vice-President of the institution, as well as a member of the Council, whose meetings he attended regularly until his health failed.

Sir Edward Sieveking married in 1849 the daughter of Mr. J. Ray of Finchley, and had a large family; one of his sons, Mr. Herbert E. Sieveking, was formerly Surgeon to the Victoria Hospital, Cairo.

Sir Edward Sieveking, who was a member of the British Medical Association, was for eight years a representative of the Metropolitan Counties Branch on the Central Council. It was largely owing to his initiative that the medal for distinguished merit was founded by the British Medical Association. The medal was founded in 1877, and is awarded to a person who has conspicuously raised the character of the medical profession by scientific work, by extraordinary professional services, or by special services rendered to the British Medical Association. The statutes and regulations were drafted by Sir Edward, then Dr., Sieveking, and approved by the Council in 1877. It was first awarded in consideration of the heroic conduct, self-denial, and humanity of the medical men at a colliery accident at Pontypridd, and was formally presented at the annual meeting in Manchester in 1877; on that occasion a gold medal was awarded to one medical man, silver medals to three, and and bronze medals to eight. In subsequent awards the medal has always been in gold. It was presented in 1879 to Surgeon-Major James Reynolds, M.B., V.C., of Rorke's Drift; it was awarded to Dr. William Farr in 1880 as an expression of the Association's high appreciation of his long and successful labours on behalf of statistical and sanitary science, and in 1886 to Dr. Edward Waters for his long-continued, self-denying, and able services in the cause of medical reform. In 1888 it was awarded to Dr. Ormerod, of Workington, for gallant services in rescuing workmen in a colliery accident; in 1890 it was awarded to Surgeon Parke, surgeon to the Emin Pasha Relief Force; and in 1896 to Surgeon-Captain H. F. Whitchurch, V.C., I.M.S., for extraordinary gallantry in the performance of his professional duties during the Chitral expedition. In 1897 it was awarded to Mr. C. G. Wheelhouse and Sir Walter Foster in recognition of their services as the first two direct representatives of the English profession on the General Medical Council. Sir Edward Sieveking delivered the Address in Medicine at the annual meeting of the Association in Sheffield in 1876.



The first part of the funeral service was held at St. Thomas's Church, Orchard Street, on February 27th. The British Medical Association was represented by Mr. Edmund Owen, a member of the Council, and Mr. Guy Elliston, the General Secretary; the Royal College of Physicians by Sir William Church, President, Sir Dyce Duckworth, Dr. Frederick Roberts, Dr. Allchin, Dr. Ferrier, Censors, Dr. J. F. Payne, Librarian, and Dr. Liveing, Registrar; Epsom College by Dr. Holman, the Treasurer, the Rev. T. N. Hart Smith-

Pearse, Head Master, and Mr. J. Bernard Lamb, Secretary; the British Balneological and Climatological Society, of which Sir Edward Sieveking was first Honorary President, by Dr. Alfred Street; the Harveian Society, of which Sir Edward Sieveking had been President, by Dr. C. Theodore Williams; the Edinburgh University Club, of which Sir Edward was the founder, by Dr. G. A. Sutherland; and the medical staff of St. Mary's Hospital by Dr. H. A. Caley, Dean; Sir Dyce Duckworth also represented the University of Edinburgh and the Royal Medical and Chirurgical Society, of which Sir Edward was a Past President, and to which he presented the presidential badge. Dr. Ferrier also represented the National Hospital for the Paralysed and Epileptic, Queen Square, of which Sir Edward was one of the founders. The interment took place in the family grave at Abney Park Cemetery.

We are indebted to a colleague of the deceased physician for the following notes on his work at St. Mary's Hospital:

Sir Edward Sieveking was the last remaining member of the original staff of St Mary's Hospital, which was elected after much thought, and with most excellent results, in 1851. His immediate colleagues were Alderson, King Chambers, Sibson, Handfield-Jones, and Markham; and, as one looks back upon this list, one can scarcely fail to be struck by its strength. For fifteen years Sieveking patiently plodded away in the out-patient department of the hospital, and for sixteen years he lectured on materia medica in the medical school, a subject which by no means lends itself to oratorical treatment. But he did the work well—as well as it could be done—and in a most painstaking manner. The lectures were given in the summer sessions, and at a very early hour in the morning. But the lecturer was invariably punctual in his attendance, and most methodical in his dealings with the matter in hand. More than this, he almost succeeded in making the lectures interesting. Materia medica was, however, the only subject on which he ever lectured; for, with Sibson, Chambers, Handfield-Jones, and Broadbent taking in turn the class in medicine, there was obviously no vacancy for him there. Probably, moreover, he would not have desired one. A physician who could lecture upon materia medica for sixteen years might deem himself unfitted for successfully undertaking the other and the less methodical work.

It was doubtless to Sieveking's disadvantage that the circumstances of his election upon the staff of St. Mary's Hospital entailed his spending fifteen long years amongst the out-patients, whilst the other physicians—men of about his own age—were pleasantly occupied in teaching from the very cases which, week after week, he was sending up from among the out-patients whom it was then the custom to attend in some dark rooms in the basement of the hospital. But when the day eventually arrived for Sieveking to be elected upon the senior staff—it was in 1856—he quickly proved himself to be as punctual and as painstaking in his work in the wards as he had been with his early-morning lectures and with his other duties. And though his bedside teaching lacked the enthusiasm and the glow which pervaded all Sibson's instruction, the depth and the learning of that of Handfield-Jones, and the perspicacity and precision of that of Broadbent, it was clear and sound, and was widely appreciated by a considerable class of students.

During the twenty years that Sieveking had charge of the wards, it was the custom for each resident medical officer to serve with each physician in turn, and he invariably looked forward to his association with Sieveking for acquiring a store of that kind of experience, which, he clearly foresaw, would help to equip him for the successful accomplishment of his future work in the profession. He knew that under Sieveking he would receive helpful instruction in the art of prescribing and of actually writing prescriptions—not that Sieveking had a wide faith in drugs. On the contrary, his extensive knowledge of them had had the effect of limiting his trust to a very few. But he took a good deal of trouble in teaching his house-physician when and how he should prescribe those few. The association of that officer with Sieveking also gave him a useful insight into the value of blistering, of hot-air baths, of venesection, of leeches, of cupping, and of various other methods of the sort which are apt to be somewhat neglected by a physician who is merely "profound," or by one who, as he sits by the side of his patient, has his mental eye resting upon the viscera as he will be demonstrating them to his students "in another place" within a very short space of time. In the thoughts of such a man, indeed, the prosaic subject of treatment must be content with a very [illegible] place. But Sieveking was not of this nature; [illegible] thoroughly sound practitioner and a well-skilled [illegible]

Yes, Sieveking was an excellent practical clinician, clearly because thinking and seeing clearly. His [illegible] free of all speculation and doubtful theorizing. [illegible] and he talked along the beaten tracks of medical [illegible] knowing that, thus proceeding, he was safe. And [illegible] knowledge his students fully shared.

He was a great friend to the students, and he [illegible] interested in the establishment of a club for the [illegible] nexion with the hospital, and it was a great source [illegible] stant satisfaction to him to see this club flourish [illegible] year to year and continuing to flourish, as it does [illegible] present day. He was a man of great energy and [illegible] ance; and having taken up an idea he made it his [illegible] see it through to a successful issue. Indeed, what [illegible] did, he did it with all his might.

Speaking as a colleague, one can unhesitatingly [illegible] Sieveking was loyal and straight. He pulled no [illegible] came to committees with an open mind, and determined [illegible] do what was right. He was no self-seeker, no time-server [illegible] though his manner was so reserved that he sometimes [illegible] his colleagues the impression of being cold and [illegible] lacking in sympathy, when it had been broken [illegible] one invariably found in him the kind and warm [illegible] gentleman and the ready friend.

We are indebted to Sir William Broadbent for the following note:

Sir Edward Sieveking was the last survivor of the [illegible] staff of St. Mary's Hospital. On the medical side Dr. [illegible] son, Chambers, and Sibson were the physicians; Dr. [illegible] field-Jones, Markham, and Sieveking assistant physicians [illegible] the physicians to out-patients were then called. [illegible] was intact when I was appointed resident obstetric [illegible] the end of 1858, and for many years afterwards. Sir [illegible] Sieveking (as he soon became), being the junior, had [illegible] spell of out-patient work from 1851 to 1866. The out-patient department was not at that time organized for [illegible] teaching, and when he was promoted to the ward [illegible] myself Out-patient Physician, so that I saw little of [illegible] actual clinical work.

As a senior colleague I found him, while peculiar [illegible] monstrative, extremely kind, and I owe much to [illegible] mark of confidence, which I esteemed as a great honour [illegible] on which I look back with satisfaction, was that he [illegible] to attend one of his sons who had typhoid fever.

The distinguishing note of Sir Edward Sieveking's [illegible] racter was thoroughness. This came out alike in his [illegible] relations, in his work at the medical school and hospital [illegible] in his investigation of disease. It made him a [illegible] influence among students and in the profession, [illegible] tributed in an important degree to the success of St. [illegible] Hospital and School. I shall always regret that [illegible] from London prevented me from taking part in the [illegible] able demonstration of the respect in which he was [illegible] shown by the attendance at the funeral service on [illegible]

ROYAL NAVY AND ARMY MEDICAL SER[illegible]

ROYAL NAVY MEDICAL SERVICE.

DEPUTY INSPECTOR-GENERAL H. M. ELLIS is promoted to be [illegible] General from February 18th. He was appointed Surgeon, Septe[illegible] 1875; Staff-Surgeon, November 18th, 1882; Fleet-Surgeon, Jan[illegible] 1891; and Deputy Inspector-General, August 23rd, 1899. He was [illegible] Battalion of Royal Marine Artillery throughout the campaign in [illegible] 1882, being present at the two engagements at Kas-assin on A[illegible] and September 9th, and at the battle at Tel-el-Kebir (mentio[illegible] patches, promoted to Staff Surgeon, medal with clasp, and [illegible] Bronze Star). Whilst Fleet Surgeon he was wrecked in H.M.S. [illegible] which was sunk off Tripoli, on the Syrian coast, in collision w[illegible] *Camperdown*, when the Admiral, 21 officers, and 350 men were [illegible] June 22nd, 1893.

Surgeon T. D. HALAHAN, B.A., M.B., has been promoted to be [illegible] Surgeon, November 14th, 1901. He was appointed Surgeon, [illegible] 14th, 1893.

Surgeon P. H. BOYDEN, M.D., has also been promoted to be [illegible] geon from the same date. His first commission, too, dated fro[illegible] ber 14th, 1893. He was present at the capture of the Sultan of [illegible] palace in 1896, and was mentioned in dispatches for his service [illegible] occasion.

Surgeons N. I. SMITH and S. H. BIRT, whose first commissions [illegible] May 16th, 1894, are likewise promoted to be Staff Surgeons, from [illegible] 1902.

Surgeon W. R. TRYTHALL is also promoted to be Staff Surg[illegible] November 12th, 1903. His appointment as Surgeon dates from [illegible] 12th, 1895.

ity Inspector-General T. J. PRESTON, retired list, is appointed to *esident*, for service in the Medical Department, April 1st.
t-Surgeon J. R. MCDONNELL, M.D., has been placed on the retired his own request, February 23rd. He was appointed Surgeon, t 21st, 1883; Staff Surgeon, August 21st, 1895; and Fleet Surgeon, t 21st, 1899. He served in the expedition against King Koko, of the chief town of Brass, on the River Niger, in 1895 (medal with in the expedition for the punishment of Mburuk, a rebellious hief, resulting in the capture of his stronghold, M'weli, in 1895 li, 1895," engraved on rim of medal); and in the expedition to the King of Benin for the massacre of the political expedition, ding in the capture of Benin City, in 1897 (clasp).
ollowing appointments have been made at the Admiralty: THOMAS IKLE, M.B., M.A., Staff Surgeon, to the *Brilliant*, March 8th; D CORCORAN, to be Staff Surgeon in charge of the Royal Naval al at Portland, April 1st; WILLIAM L. MARTIN, Surgeon, to the , on recommissioning, undated; GERALD C. CROSS, Surgeon, to dditional, and on recommissioning; CHARLES H. DAWE, Surgeon, *snipe*, additional, and on recommissioning; GEORGE H. BATEMAN, , to the *Tamar*, February 26th; CHARLES T. BAXTER, Surgeon, to *rt*, additional, and on recommissioning, undated; EDWARD R. D. , Fleet Surgeon, to the *Aeolus*, March 1st.

ARMY MEDICAL SERVICE.

N-GENERAL SIR T. J. GALLWEY, K.C.M.G., C.B., M.D., Principal Officer in India, has been granted eight months' leave to l.
y Surgeon-General WILLIAM BISSETT-SNELL died in London on y 20th, aged 73. His first appointment was dated May 6th, 1853. retired from the service with the honorary rank of Deputy Sur- neral, June 12th, 1878. He was in the campaign in North China and was at the action of Sinho, the taking of Tangku, with the at the storming of the North Taku Forts, the actions of September 1 21st, and the surrender of Pekin; he was awarded the medal clasps, and promoted for "meritorious services."

ROYAL ARMY MEDICAL CORPS.

M. T. YARR is appointed Surgeon to the Governor of Bombay, cember 12th, 1903.
nant-Colonel J. G. HARWOOD, who is serving in the Bombay Com- granted the temporary rank of Colonel while officiating as Prin- dical Officer, Poona District, from December 24th, 1903.
ndermentioned Lieutenants, appointed on probation on the dates , are confirmed in that rank from the same dates: W. F. ELLIS, er 1st, 1902; F. W. W. DAWSON, M.B., January 31st, 1903; J. H. M.B., G. W. G. HUGHES, A. C. H. GRAY, M.B., D. P. WATSON, M.B., DING, J. E. POWELL, F. M. M. OMMANNEY, O. IEVERS, M.B., R. H. L, M.B., H. H. J. FAWCETT, S. L. PALLANT, N. D'E. HARVEY, M.B., ADLEY, S. E. LEWIS, M.B., G. A. KEMPTHORNE, J. T. MCENTIRE, M. G. TULLOCH, P. J. HANAFIN, J. D. RICHMOND, M.B., E. M. L, M.B., M. C. WETHERELL, M.B., H. C. HILDRETH, G. S. MACKAY, MacD. MACDOWALL, and R. T. COLLINS, August 31st, 1903.

A VOLUNTEER AMBULANCE TROPHY.

ow, on February 25th, in the presence of the Hon. the Lord and a numerous company, the Scottish Volunteer Ambulance as formally handed over to Sir William Taylor, K.C.B., Director- Army Medical Service, for safe keeping until the termination st competition therefor, which is at present fixed for May 14th. hy, which cost £300, has been provided by the Scottish Volunteer Officers' Association, and is for annual competition among all army medical ambulance teams in Scotland. A similar trophy lished many years ago by the London Volunteer Medical Officers' on, and is open to competition to companies from the whole ingdom, but owing to distance and other circumstances the f teams from Scotland has always been limited; it was thought, that it would be useful to establish a Scotch trophy.
esentation was made on behalf of the Association by Major Chalmers, M.D., and in acknowledging it Sir William Taylor o the services rendered by the Glasgow companies during the

EDICO-LEGAL AND MEDICO-ETHICAL.

MEDICAL PROFESSION AND TRADE ADVERTISEMENTS.

UR E. BARKER sends us some further correspondence he has Messrs. C. J. Hewlett and Son respecting the leaflet adver- adrenalin-eucaine" as a local anaesthetic, and quoting from an ontributed by Mr. Barker to the *Lancet*. Messrs. Hewlett and Mr. Barker a revised copy of the leaflet in question, which is amended as suggested by him, and to which they trust he take no exception. To this Mr. Barker replies that he objects ongly to the use of quotations from his article to the *Lancet*, as form of the advertisement it is suggested that he had used Hewlett's solution, whereas, as a matter of fact, at the time the as written he knew nothing of their preparation; while his ex- with the sample submitted to him has not been of a kind to in- n to employ it again.
do not think we need add anything to Mr. Barker's protest.

POSITION OF A MEDICAL PRACTITIONER IN LEGAL PROCEEDINGS CONCERNING HIS PATIENT.

ays that he has been attending a patient for injuries received in ent, and subsequently furnished his solicitor with a statement d in legal proceedings. Some time afterwards the defendant in n applied to him also, and he furnished the same information Later the defendant's solicitor asked him to make an which apparently he did. He now wishes to know whether uct was unprofessional in giving information and swearing an for the defendant's solicitor while in attendance upon the

think our correspondent should have refused to give any certificate or affidavit for the defendant without first consulting his patient and obtaining his permission, taking care that the patient understood the effect of the statement or affidavit. If, however, the plaintiff did not call him, and the defendant chose to send him a subpœna, he would have been bound to go, and under the direction of the judge to answer all questions put to him; but except under the direction of the judge a medical practitioner is not justified in giving information as to the condition of a patient who is or has been under his care.

MEDICAL ETIQUETTE.

A. A. P.—Our answers to questions in which no names are mentioned deal with a purely hypothetical series of events. We have no means of testing the accuracy of the statements made to us. As we understand our correspondent, the questions he now wishes us to answer are: (1) If a medical practitioner understood that he was acting for another to whom he surrendered the case and gave a list of his attendances, should he make any charge for his services? (2) Should the bill for his services be sent to the patient or to the patient's regular medical attendant? To these questions we reply: (1) He has a right to do so if he wishes. (2) It should be sent to the patient.

UNIVERSITIES AND COLLEGES.

UNIVERSITY OF OXFORD.

Forensic Medicine and Public Health at the M.B. Examination.—By a Decree of Convocation it has been determined that the Statute instituting a separate examination in Forensic Medicine and Public Health as part of the Final Examination for the B.M., B.Ch. degrees (see BRITISH MEDICAL JOURNAL, February 27th, p. 523) shall come into operation in 1905.
Scholarships.—Scholarships in Natural Science have been offered for competition on the following dates: March 15th, Keble College; March 22nd, Magdalen College; April 19th, Merton College, New College, Corpus Christi College; June 28th, Brasenose College.

UNIVERSITY OF CAMBRIDGE.

Recognized Schools.—The Medical College, Lahore, and the City Hospital for Infectious Diseases, Newcastle-on-Tyne, have been recognized by the Special Board for Medicine as places of medical study.
Degrees.—At the Congregation on February 25th the following degrees were conferred: *M.D.*: R. N. Salaman, Trinity Hall. *M.B.*: G. E. St.C. Stockwell, King's; F. A. Hepworth and H. J. Robinson, St. John's; G. P. D. Hawker, Caius; P. K. Muspratt, Christ's; S. J. Steward, Downing. *B.C.*: F. A. Hepworth and H. J. Robinson, St. John's; W. B. Swete-Evans, Clare; W. Hyde Hills, Pembroke.

UNIVERSITY OF LONDON.

INSTITUTE OF MEDICAL SCIENCES.

THE following additional promises of support have been received in response to the appeal of the Senate for funds to build and endow an institute of medical sciences under the control of the University:
Mr. George Raphael, £100; Mr. Charles Maw, £105; A. Pearce Gould, F.R.C.S., £100; F. Goodhart, M.D., £100; P. Frank, M.D., £50. A large sum is needed to carry out the scheme. Donations, which may be extended over a period of three years, should be sent to the Honorary Treasurers, J. K. Fowler, M.A., M.D., member of the Senate, and H. T. Butlin, F.R.C.S., Dean of the Faculty of Medicine, at 35, Clarges Street, W.

LONDON SCHOOL OF TROPICAL MEDICINE.

Craggs's Research Prize.—A prize of £50 will be awarded to a past or present student of this school who during the current year (October to October) makes the most valuable contribution to tropical medicine. Contributions must be written in English, and essays must be sent in on or before October 1st next to the Medical Tutor at the London School of Tropical Medicine, Royal Albert Dock, E., to whom intending candidates should apply for further information.

UNIVERSITY OF BRUSSELS.

AT the recent examination for the M.D. degree five candidates presented themselves, and the following two candidates passed: Robert D. A. Douglas, L.R.C.P. and S.Edin., Coldstream, Scotland; Harry Edwin Bruce Porter, L.R.C.P., M.C.C.S.Lond., L.S.A. (with honours), late A.M.S.

ROYAL COLLEGE OF SURGEONS OF ENGLAND.

THE following gentlemen having passed the necessary examination and having conformed to the by-laws and regulations have been admitted Members of the College:
P. E. H. Adams, B.A.Oxon., Oxford University and London Hospital; R. Appleton, L.S.A.Lond., Yorkshire College and General Infirmary, Leeds; E. L. Ash and H. E. Batten, St. Mary's Hospital; L. D. Bailey, St. George's Hospital; H. H. Bashfield and A. V. Benson, London Hospital; W. B. Billinghurst, B.A.Oxon., Oxford University and London Hospital; H. J. D. Birkett, B.A.Camb., Cambridge University and St. Bartholomew's Hospital; A. J. Blaxland, University College Hospital; L. A. H. Boys, Middlesex Hospital; H. R. Burpitt, University College, Cardiff, and St. Mary's Hospital; Christopher A. Campbell, B.A., M.B., Toronto, and Colin A. Campbell, M.D.Toronto, and L.S.A.Lond., Trinity College, Toronto; N. C. Carver, Cambridge University and St. Thomas's Hospital; J. H. Chauncy and A. A. F. Clarke, St. Thomas's Hospital; G. R. H. Chell, Birmingham University; J. W. Cleveland, St. Bartholomew's Hospital; G. M. Clowes, London Hospital; P. P. Cole, L.D.S.Eng., J. B. Copland, and C. M. L. Cowper, Guy's Hospital; T. W. W. Crawford, M.D.West.Univ., Western University, Ontario, King's College and Middlesex Hospitals; M. J. Cromie, Westminster Hospital; S. T. Crump, Yorkshire College and General Infirmary, Leeds; A. Davidson, M.D.McGill, McGill College, Montreal, and University College Hospital; G. B. Davis, M.A.Camb.,

Cambridge University and London Hospital; J. J. Davis, M.D. West. Univ., Western University, Ontario and University College Hospital; A. C. Dixon, London Hospital; T. L. Drapes, B.A.Camb., Cambridge University and St Mary's Hospital; G. D. Drury, St. Bartholomew's Hospital; A. G. V. Elder, St. George's Hospital; J. W. Elliott, L.S.A.Lond., St. Mary's Hospital; H. H. Elworthy, Westminster Hospital; H. H. Emmerson, University College, Sheffield; M. Feldman, London Hospital; J. A. Ferrière, University College Hospital; J. Ferguson, H. Finzel and A. F. Forster, St. Bartholomew's Hospital; R. R. Garrett, St. Mary's Hospital; H. B. German, Guy's Hospital; M. F. Grant, B.A.Camb. and C. F. Hadfield, M.A.Camb., Cambridge University and St. Bartholomew's Hospital; R. K. G. Graves and C. J. H. Gunning, St. George's Hospital; H. A. Haig, University College Hospital; R. H. Hardwick, St. Thomas's Hospital; G. H. Harper-Smith, Cambridge University and St. Bartholomew's Hospital; D. R. Harris, Middlesex Hospital; W. L. Hawkins, King's College Hospital; V. Hetherington, St. George's Hospital; H. B. Hill, St. Bartholomew's Hospital; W. A. L. Holland, Birmingham University; W. H. Howard, Owens College and Royal Infirmary, Manchester and King's College Hospital; L. W. Huelin, St. Mary's Hospital; F. P. Hughes, University College, Bristol, and Guy's Hospital; P. R. Humphrey, St. George's Hospital; R. M. Imthurn, Cambridge University and St. Bartholomew's Hospital; F. W. Jones, B.Sc.Lond. and J. Jones, London Hospital; W. A. D. King, Middlesex Hospital; W. E. Lee, B.A.Camb. and P. A. Lloyd-Jones, B.A.Camb. and H. F. Marris, B.A.Camb., Cambridge Univ. and St. Bartholomew's Hospital; J. S. LeFevre, Sydney University and London Hospital; M. G. Louisson, Guy's Hospital; J. G. Macdonald, Otago University and University College Hospital; J. W. Manchester. M.D. C.M.McGill, McGill College, Montreal and Middlesex Hospital; J. A. Milne, London Hospital; C. W. P. Moffatt, M.A.Lond., B.A.Camb., Cambridge University and University College and Royal Infirmary, Liverpool; J. N. Morgan, University College, Cardiff, and London Hospital; R. Moyle, Guy's Hospital; J. Muirhead, M.B.Durh., Durham University; C. M. Murray, M.A.Camb., Cambridge Univertity and Guy's Hospital; J. H. Napper, King's College Hospital; T. M. Neatby, M.A.Camb., M.A.Lond., St. George's Hospital; C. H. W. Page, M.A.Camb., Cambridge University and St. Bartholomew's Hospital; J. S. Pearson, M.A.Camb., Cambridge University and St. George's Hospital; J. E. Pellow, B.C.Camb., Cambridge University and St. Thomas's Hospital; W. O. Pow, B.A., M.D.Michigan, Michigan University and London Hospital; T. C. Power and J. J. Rainforth, London Hospital; E. C. Racker, Edinburgh University and St. Mary's Hospital; W. H. Rayner, B.A.Camb., Cambridge University and University College Hospital; J. F. Rey, L.D.S.Eng., Guy's Hospital; B. B. Riviere, St. Andrews University and St. Bartholomew's Hospital; H. E. Roaf, M.B.Toronto, Toronto University, and University College and Royal Infirmary, Liverpool; R. H. Robbins, Cambridge University and St. Mary's Hospital; E. Roberts, L.M.S.Ceylon, Ceylon Medical College and King's College Hospital; J. A. Roberts, M.B.Toronto, Toronto University and University College Hospital; E. S. Routly, St. Mary's Hospital; L. W. Shadwell, St. George's Hospital; A. Shelley, B.A.Oxon, Oxford University and London Hospital; S. Smulian, London Hospital; S. J. Steward, B.C.Camb., Cambridge University and St. Thomas's Hospital; L. V. Thurston and E. F. Travers, St. Bartholomew's Hospital; G. A. Ticehurst, Cambridge University and Guy's Hospital; R. H. Tribe, University College Hospital; A. H. Turner, Guy's Hospital; E. R. von Ofenheim, M.D Leipzig, University of Leipzig and St. Mary's Hospital; J. C. Wadmore, University College, Bristol; E. L. Ward, University College, Cardiff, and Guy's Hospital; G. H. Warren, King's College Hospital; F. E. Wayte, Owens College and Royal Infirmary, Manchester; V. N. Whitamore, Charing Cross Hospital; R. K. White, St. Mary's Hospital; W. N. Whitney, M.D.Penn., Tokio and Pennsylvania Universities and London Hospital; N. M. Wilson and F. H. Wood, St. Bartholomew's Hospital; F. R. E. Wright, St. Thomas's Hospital; S. L. O. Young, Cambridge University and St. Bartholomew's Hospital.

PUBLIC HEALTH
AND
POOR-LAW MEDICAL SERVICES.

HEALTH OF ENGLISH TOWNS.

IN seventy-six of the largest English towns, including London, 8,526 births and 5,137 deaths were registered during the week ending Saturday last, February 27th. The annual rate of mortality in these towns, which had been 17.2, 18.4, and 18.5 per 1,000 in the three preceding weeks, declined again last week to 17 5 per 1,000. The rates in the several towns ranged from 6.4 in Hornsey, 8.5 in East Ham, 9.6 in Handsworth (Staffs), 10.2 in King's Norton, 10.8 in Tynemouth, 10.9 Northampton, 11.8 in Willesden, 12.1 in Derby, and 12.2 in Walthamstow, to 23.2 in Wigan, 23.7 in Stockport, 24.0 in Great Yarmouth, 24.2 in Halifax, 24.4 in Norwich, 25 1 in Merthyr Tydfil, 27.1 in St. Helens and in Warrington, and 30.6 in Plymouth. In London the death-rate was 16.5 per 1,000, while it averaged 18.0 per 1,000 in the seventy-five other large towns. The death-rate from the principal infectious diseases averaged 1.4 per 1,000 in the seventy-six large towns; in London this death-rate was equal to 1 5 per 1,000, while among the seventy-five large provincial towns the rates from the principal infectious diseases ranged upwards to 3.0 in Great Yarmouth, in Rochdale, and in West Hartlepool, 3.1 in Burnley, 3.3 in Birmingham, 3 6 in Bury, 4 5 in Norwich, and 4.6 in Warrington. Measles caused a death-rate of 1.2 in Cardiff, 1.3 in Aston Manor and in Rhondda, 1.5 in Warrington, 2.0 in Great Yarmouth, 2.2 in Stockport, 3.6 in Bury, and 4.1 in Norwich; scarlet fever of 1.1 in Walsall; diphtheria of 1.5 in Oldham, 1.7 in Bootle, and 2.4 in Hanley; and whooping-cough of 1.5 in Warrington and in Newport (Mon.), 1.6 in Wolverhampton, 1.8 in Rochdale and in Gateshead, 2.1 in Bolton and in Burnley, 2 3 in West Hartlepool, 2.5 in Wigan, and 2.7 in Swansea. The mortality from "fever" and from diarrhoea showed no marked excess in any of the large towns. One fatal case of small-pox was registered in London and one in Gateshead, but not one in any other of the seventy-six towns. The Metropolitan Asylums Hospitals contained 1 small-pox patients on Saturday last, February 27th, against 25, 24, and 29 on the three preceding Saturdays; 5 new cases were admitted the week, against 8, 3, and 9 in the three preceding weeks. T ber of scarlet fever cases in these hospitals and in the Londo Hospital, which had been 1,657, 1,644, and 1,620 at the end of th preceding weeks, had further declined to 1,587 at the end of la 150 new cases were admitted during the week, against 189, 162, in the three preceding weeks.

HEALTH OF SCOTCH TOWNS.

DURING the week ending Saturday last, February 27th, 895 births deaths were registered in eight of the principal Scotch town annual rate of mortality in these towns, which had been 18.5, 22.2 per 1,000 in the three preceding weeks, declined again last wee per 1,000, but was 4.3 per 1,000 above the mean rate during th period in the seventy-six large English towns. Among these towns the death-rates ranged from 13.0 in Leith and 18.5 in to 24.8 in Paisley and 26.2 in Greenock. The death-rat the principal infectious diseases averaged 2.4 per 1,0 highest rates being recorded in Dundee and Leith. The 344 registered in Glasgow included 2 which were referred to pox, 19 to measles, 2 to scarlet fever, 5 to whooping-cough, 3 to and 5 to diarrhoea. Four fatal cases of measles, 2 of diphther whooping-cough, and 2 of diarrhoea were recorded in Dunde whooping-cough and 2 of diarrhoea in Aberdeen; 4 of small Greenock; 4 of measles in Paisley; 4 of whooping-cough in Le 3 of whooping-cough in Edinburgh.

HEALTH OF IRISH TOWNS.

DURING the week ending Saturday, February 27th, 611 births and 46 were registered in six of the principal Irish towns, against 580 bir 491 deaths in the preceding period. The mean annual death-rate towns, which had been 25.8, 26.0, and 25.3 per 1,000 in the three pr weeks, fell to 24.7 per 1,000 in the week under notice, this figur 7.2 per 1,000 above the mean annual rate in the seventy-six towns during the corresponding period. The figures ranged fro Waterford and 20.2 in Londonderry to 28.4 in Dublin and 28.7 in Li The death-rates from the principal zymotic diseases during th period and in the same six towns averaged 1.3 per 1,000, or 0.3 less than during the preceding week, the highest figure, 2.7, being in Limerick, while Waterford and Londonderry registered no under this heading at all. As for several weeks past, the zymoti rate throughout all Ireland was chiefly made up by deaths from wh cough. In Belfast 1 death occurred from diphtheria, but except no deaths occurred in any part of Ireland from diphtheria, sm scarlet fever, typhus, and simple continued fever. From measles occurred at Dublin and 2 at Belfast.

VITAL STATISTICS OF METROPOLITAN BOROUGHS DURIN

IN the accompanying table will be found summarized the vital s of the City of London and of each of the metropolitan borough upon the Registrar-General's returns for the year 1903. The m figures relate to the deaths of persons actually belonging to the boroughs, and are the result of a complete system of distributio deaths occurring in the public institutions of London amo boroughs in which the deceased persons had previously resided.

The 130,906 births registered in London during 1903 were equa annual rate of 28.5 per 1,000 of the population, estimated at 4,613, sons in the middle of last year. This rate was lower than that r in any of the ten preceding years 1893-1902, during which the bi averaged 29.9 per 1,000; in the three years, 1900 to 1902, the rates w 29.0, 28.5 per 1,000 respectively. Among the various metropolitan b the birth-rates showed the usual wide variations, which are mai to differences in the sex and age constitution of the populations: t ranged from 13.8 in the City of London, 16.9 in the City of Westr 17.1 in Hampstead, 20.0 in Kensington, 20 5 in Chelsea, and 21.0 i Newington, to 33.3 in Shoreditch, 34.5 in Poplar, 35.7 in Bethna 37.1 in Finsbury, and 37.6 in Stepney.

The deaths of persons belonging to London registered during la numbered 69,737, and were in the proportion of 15.2 deaths per 1, sons living, against 18.6, 17.1, and 17.2 per 1,000 in the three pr years; the mean death-rate during the ten years 1893-1902 was 1,000. The lowest death-rates last year among the various metr boroughs were 10.0 in Hampstead, 11.1 in Lewisham, 12.4 in Wand 12.6 in Stoke Newington, 13.2 in Paddington, 13.3 in Greenwich, in Woolwich; while the highest rates were 18.2 in Bethnal Green Poplar, 18.4 in Bermondsey, 18.6 in Holborn, 19 4 in Shoreditch, an Finsbury.

During the year under notice 8,038 deaths were referred to the p infectious diseases; of these, 13 resulted from small-pox, 2,0 measles, 361 from scarlet fever, 740 from diphtheria, 1,627 from wh cough, 3 from typhus, 368 from enteric fever, 5 from simple co fever, and 2,925 from diarrhoea. These 8,038 deaths were equa annual rate of 1.76 per 1,000, the corresponding rates in the th ceding years having been 2.23, 2.22, and 2.21 per 1,000 respective mean rate in the ten years 1893-1902 from these principal infecti eases was 2.60 per 1,000. Among the various metropolitan borou death-rates from these diseases ranged from 0.58 in Hampstead, 0.8 City of London, 0.96 in Lewisham, 1.00 in the City of Westminster Woolwich, and 1.14 in Chelsea, to 2.24 in Bethnal Green, 2.22 in 2 32 in Finsbury, 2.36 in Stepney, 2.90 in Shoreditch, and 2.99 in Compared with the averages in the ten preceding years the mortal each of the principal infectious diseases showed a marked decli the 13 fatal cases of small-pox registered last year, 4 belonged to S 4 to Lambeth, 3 to the City of Westminster, and 2 to Poplar. The of small-pox cases admitted into the Metropolitan Asylums H during the year was 414, against 8 455 in the preceding year; remained under treatment at the end of December last, against end of the preceding year. Among the various metropolitan bo measles showed the highest proportional fatality in St. Pancras, Fi Shoreditch, Bethnal Green, Stepney, Poplar, and Battersea. fever was proportionally most fatal in St. Marylebone, St. P Finsbury, Poplar, Bermondsey, and Deptford; 10,808 scarle patients were admitted into the Metropolitan Asylums H during the year, and 1,606 remained under treatment end of December last. The greatest proportional mortalit diphtheria occurred in St. Marylebone, Hackney, Bethnal Green, Deptford, and Greenwich; the number of diphtheria patients a into the Metropolitan Asylums Hospitals during the year was 6,

Analysis of the Vital Statistics of the Metropolitan Boroughs and of the City of London after Distribution of Deaths occurring in Public Institutions during 1903.

BOROUGHS.	Estimated Population middle of 1903.	Births.	Deaths.	Annual Rate per 1,000 Living. Births.	Deaths.	Principal Infectious Diseases.	Deaths from Principal Infectious Diseases.	Small-pox.	Measles.	Scarlet Fever.	Diphtheria.	Whooping-Cough.	Typhus.	Enteric Fever.	Simple and Ill-defined Fever.	Diarrhoea.	Phthisis.	Deaths of Children under 1 year of age to 1,000 Births.
CITY OF LONDON	4,613,812	130,906	69,737	28.5	15.2	1.76	8,088	13	2,046	361	740	1,627	3	368	5	2,925	7,124	130
ington	146,032	3,303	1,928	22.7	13.2	1.31	191	—	40	10	15	54	—	7	—	65	155	119
ington	178,409	3,567	2,468	20.0	13.9	1.56	278	—	34	14	24	90	—	9	—	107	223	145
mersmith	115,803	2,989	1,634	25.9	14.1	1.60	185	—	27	8	17	30	—	9	1	93	170	141
am	147,780	4,789	2,046	32.5	13.9	2.22	327	—	62	8	24	46	—	15	—	172	204	127
ea	74,169	1,516	1,131	20.5	15.3	1.14	84	—	14	2	4	29	—	4	—	31	116	142
f Westminster ...	179,052	3,018	2,432	16.9	13.6	1.00	179	3	49	9	15	34	—	14	—	55	301	123
rylebone ...	131,234	3,984	2,148	30.5	16.4	1.60	210	—	37	17	26	56	—	13	2	59	240	96
stead	85,197	1,456	848	17.1	10.0	0.58	49	—	8	4	10	16	—	2	—	9	63	88
ncras	235,716	6,339	3,806	27.0	16.2	1.91	448	—	193	23	37	91	—	14	—	90	428	133
ton...	339,137	8,983	4,837	26.6	14.3	1.45	489	—	125	24	42	153	—	23	1	121	472	129
Newington ...	52,069	1,091	655	21.0	12.6	1.46	76	—	24	—	7	19	—	5	—	21	64	119
ney	224,082	6,182	3,099	27.7	13.9	1.78	397	—	113	21	48	67	—	36	—	112	283	119
rn	57,845	1,631	1,072	28.3	18.6	1.44	83	—	18	5	8	18	—	5	—	29	181	95
ury	99,717	3,693	2,015	37.1	20.3	2.32	231	—	69	11	11	54	—	10	—	76	227	135
London... ...	24,539	338	358	13.8	14.6	0.86	21	—	3	1	2	4	—	3	—	8	39	136
lditch	117,513	3,905	2,273	33.3	19.4	2.90	340	—	102	7	22	44	—	13	—	152	272	171
al Green	130,028	4,627	2,363	35.7	18.2	2.24	290	—	85	12	27	42	—	12	—	112	272	141
ey	302,153	11,329	5,430	37.6	18.0	2.36	712	4	173	21	58	108	—	27	—	321	633	138
... ...	169,550	5,832	3,078	34.5	18.2	2.99	505	2	161	19	60	80	—	17	—	166	294	154
wark	207,369	6,717	3,742	32.5	18.1	1.99	412	—	83	18	23	68	—	23	—	197	496	148
ndsey	129,801	4,201	2,387	32.5	18.4	2.05	265	—	51	25	18	41	—	12	—	115	225	158
th	307,711	9,080	4,659	29.6	15.2	1.73	530	4	130	23	29	126	3	23	1	194	430	125
sea	173,422	4,961	2,464	28.7	14.2	1.98	343	—	108	7	29	81	—	17	—	101	223	134
worth	249,678	6,722	3,083	27.0	12.4	1.61	401	—	107	17	44	89	—	18	—	126	237	109
rwell	265,562	7,311	3,627	27.6	13.7	1.36	359	—	81	13	34	72	—	17	—	142	323	123
rd...	112,537	3,379	1,674	30.1	14.9	2.19	246	—	62	18	45	45	—	4	—	72	152	134
vich	99,824	2,716	1,326	27.3	13.3	1.74	173	—	28	9	27	37	—	1	—	71	111	127
am	136,405	3,563	1,516	26.2	11.1	0.96	131	—	34	11	21	6	—	10	—	49	114	92
ich	121,478	3,684	1,638	30.4	13.5	1.10	133	—	25	4	13	27	—	5	—	59	176	108

mber remaining under treatment at the end of the year was 734. ing-cough was proportionally most fatal in Kensington, St. Mary- Islington, Finsbury, Poplar, and Battersea. The highest "fever" ates last year were recorded in Fulham, St. Marylebone, Stoke ton, Hackney, Finsbury, City of London, Shoreditch, Poplar, ark, and Bermondsey; 1,247 enteric fever patients were admitted e Metropolitan Asylums Hospitals during the year, and 246 cases ed under treatment at the end of December last. Diarrhoea showed atest proportional fatality in Fulham, Shoreditch, Stepney, Poplar, thwark.

eaths from phthisis in London registered during the year under umbered 7,124, and were equal to an annual rate of 1.55 per 1,000 1.74, 1 66, and 1.60 per 1,000 in the three preceding years. Among ious metropolitan boroughs the death rates from this disease from 0.74 in Hampstead, 0.84 in Lewisham, 0.95 in Wandsworth, addington, 1.12 in Greenwich, and 1 22 in Camberwell, to 2.10 in Green and in Stepney, 2.28 in Finsbury, 2.32 in Shoreditch, 2.40 in ark, and 3.14 in Holborn. Taking the five groups of districts, the death-rates ranged from 1.38 in the South, 1.39 in the West, and he North, to 2.05 in the East, and 2 46 in the Central.

mortality in London last year, measured by the proportion of among children under 1 year of age to registered births, was equal r 1,000 against an average rate of 157 per 1,000 in the ten preceding The lowest rates of infant mortality were 88 in Hampstead, 92 in m, 95 in Holborn, 96 in St. Marylebone, 108 in Woolwich, and 109 sworth; while the highest rates were 142 in Chelsea, 145 in Ken- 148 in Southwark, 154 in Poplar, 158 in Bermondsey, and 171 in ch.

SCARLET FEVER AT PORTSMOUTH AND ISOLATION.

MS of Milton (Isolation) Hospital having appeared in the press guardians having made accusations of neglect against the sani- nority apparently for not providing sufficient accommodation for s cases, Dr. Mearns Frazer, medical officer of health of Ports- has drawn up a report on the subject for the information of the committee. In this he points out that when during the last few ients have had to wait for admission, the cause has been the of scarlet fever cases and the large proportion of accommodation to this disease. Out of a total of 7,598 cases treated during the ears 61 per cent., says Dr. Frazer, have been scarlet fever, and if osed to provide for all cases of scarlet fever the accommodation to be doubled. The net annual cost of the hospital is about d if all scarlet fever patients who seek admission are taken in, on to the expenditure of from £3,000 to £4,000 per annum must be ed. Are the benefits to be expected, asks Dr. Frazer, commen- ith this great addition to the annual cost? To decide this ques- aises and answers three other questions. Of these the first two her scarlet fever is really an important disease, and whether it a character that chances of recovery are materially enhanced al treatment. Both of these questions he considers from the at of Portsmouth statistics, and answers decidedly in the nega- arrive at an estimate of the importance of the disease he the percentage of the total death-rate for which it is le with that ascribed to other common zymotic diseases and en or eight other causes of death, such as cancer, bronchitis, and heart disease, while he reaches his conclusion case-mortality in and out of hospital by comparing it with that of diphtheria and typhoid fever. His last question is whether isolation in hospital prevents the spread of scarlet fever. With reference to this he says that during the past ten years the mean proportion of cases isolated in hospital has been only 47 per cent. of all cases; but, nevertheless, except in 1893, when there were 1,176 cases in the town, there has not been an epidemic. During these ten years there have been few occasions when scarlet fever patients have been refused admission for lack of accommodation, and however much accommodation were provided he doubts if the mean percentage of all cases admitted could be raised to more than 70 per cent. He asks whether the chances of an epidemic will be affected by the difference of 20 per cent. one way or the other. He thinks it would not, so that even if the percentage of cases isolated in hospital ceuld be certainly raised to this extent, it would not be worth the additional expenditure. Doubtless if an ideal system of isolation were possible the arrest of the disease might be expected, but this is impossible; cases are often not recognized early, and even if recognized cannot be compelled to enter hospital. Moreover, when admitted no one knows how long they ought to be detained, and hence the discharge of patients to their own homes is frequently followed by infection of other members of the family. One observation that has influenced him is that when in Leicester in 1892 small-pox broke out 144 cases of scarlet fever in all stages of the disease were immediately sent to their homes without the occurrence of a single "return case." In short, so far from increasing the provision of hospital isolation he would limit its use in scarlet fever to cases in schools, tailoring shops, dairies, and the like.

OYSTERS AND ENTERIC FEVER.

IN his last monthly report the Medical Officer of Health for the City of London after mentioning certain cases in which enteric fever was attributed to eating oysters purchased in the city makes the following recommendation: The Fishmongers' Company should also be requested to urge upon the trade the necessity for a strict adherence to the terms of the resolution referred to. This observation is made advisedly, as in two instances firms who set their hands to the resolution have since dealt with contaminated shellfish. This must not be taken to imply that they knowingly did so, but as evidence that they had failed to take sufficient measures to protect both themselves and the public from an ever-present danger. It is further of the utmost importance that frequent periodical examinations of all shellfish layings, pits, etc., should be made, as it has been found by experience that shellfish taken from a place apparently beyond suspicion occasionally show evidence of marked sewage contamination due to an intermittent or new source of pollution.

TUBERCULOSIS IN DAIRY COWS.

A PAMPHLET has been issued by Dr. J. Wright Mason, Medical Officer of Health, and Mr. James McPhail, M.R.C.V.S., chief meat inspector, Hull, containing a simple statement of signs and symptoms of tuberculosis in dairy cows and the risks of this affection. The pamphlet, which is illustrated by a coloured microscopic drawing showing tubercle bacilli, is likely to be very useful for public distribution.

NOTIFICATION OF INFECTIOUS DISEASES.

M.D. writes: Last month I sent in my account to the Rural District Council, and had a letter in reply from the clerk in which he says, "I enclose Council's cheque. I am at the same time to state that they have

regarded your letter of the 28th October last to Dr. ——, the medical officer of health, containing a list of cases of infectious disease, as a certificate, but they cannot, having regard to the terms of the Infectious Diseases (Notification) Act, regard it as seven certificates, for which fees are charged in your account." Now, the Act says. "Send to the medical officer of health for the district a certificate stating the name, etc." I had exhausted my book of certificates, so wrote to the medical officer a list of seven separate cases on one sheet. This, I contend, should be regarded as notifying seven cases, and therefore reckoned as seven certificates, and not as one, as contended by the Council.

*** The Infectious Disease (Notification) Act, 1889, requires that the medical practitioner's certificate *shall* be upon the official form prescribed by the Local Government Board and gratuitously supplied by the local authority, and we are advised that payment of the authorized fee is, therefore, conditional upon each certificate being duly sent in accordance with the Act. Under the circumstances detailed in "M.D's" inquiry he is, on a strict and technical construction of the Act, not legally entitled to any fee as he did not comply with the imperative requirements laid down by the Act. Further, we are advised that a separate certificate for each case which is notified should be sent in.

HOSPITAL AND DISPENSARY MANAGEMENT.

KING'S COLLEGE HOSPITAL.

AT the annual court of the corporation of King's College Hospital held last week, the accounts for the year were passed, and showed an increase in expenditure of £673, although administrative and establishment charges had been reduced. The ordinary expenditure for the year was £22 210, against which income from ordinary sources of £15,841, and also bequests of £1,316 had been received. The Rev. Dr. Headlam stated that the preliminary sciences, and anatomy, physiology, and materia medica would continue to be taught at the College, and only teaching in medicine and surgery proper be conducted at the new hospital. Regret was expressed in the report that Lord Dillon and others should have thought it right to separate themselves from the charity on account of the decision to remove to Camberwell, and in his speech Lord Methuen, who presided for the first time, urged all present constantly to make known the claims of the hospital, and the need for its removal since those who were opposed to the decision still made their voices heard.

MIDDLESEX HOSPITAL.

THE annual Court of Governors of the Middlesex Hospital was held on February 25th, the Earl of Lathom in the chair. The Court had before them two separate reports, the one dealing with the work of the Hospital and its Convalescent Home Branch at Clacton-on-Sea, and the other that of the Cancer Charity. The purport of the latter is given elsewhere. From the former it could be gathered that the various building improvements which have been in course of construction during the last five years are now complete, and the hospital may be said to be equipped with every known appliance for the treatment of disease. The alterations during the last decade have comprised the enlargement of some of the female wards, the building and equipment of a separate department (with a special operating theatre) for the treatment of diseases of women, the erection of a new home for the nursing staff, the removal of the hospital kitchens from the basement to the top floor, the removal of the laundry from the hospital to a site in the country, the installation of a new boiler house, the erection of a cold storage plant, and disinfecting apparatus. The cost of these alterations has been considerable, and the hospital now finds itself, after having realized a considerable amount of its capital, still in debt to the bankers to the extent of £20 000. With the object of repaying this debt a festival dinner is to be held in May next. With regard to the work of last year, the statistics show that 4 095 in-patients and 48,744 out-patients, as well as 272 patients attending for the "Light" cure, were treated at the hospital, and 979 patients were sent to the hospital's home at Clacton-on-Sea.

MEDICAL NEWS.

WE are asked to state that the annual dinner of the Medical Society of London will be held at the Whitehall Rooms, Hôtel Métropole, on Tuesday next at 7.30 p.m.

A MEETING in support of the appeal for funds for the removal of King's College Hospital to a site which has been presented to it in South London, will be held under the presidency of the Lord Mayor of London at the Mansion House, on Friday, March 11th, at 3 p.m.

PRINCESS CHRISTIAN formally opened last week the medical and surgical home near Windsor, intended to serve as a memorial of her son, Prince Christian Victor, who died in South Africa during the late war. The home is intended for the use of paying patients, and is well fitted up both from a medical and surgical point of view.

CONGRESS OF EXPERIMENTAL PSYCHOLOGY.—A Congress of Experimental Psychology is to be held at Giessen on April 18th, 19th, and 20th. Among the organizers of the Congress are Professors Exner (Vienna), Hering (Leipzig), von Kries (Freiburg), Stumpf (Berlin), and Ziehen (Halle). The following are among the communications so far promised: The Chronoscope-Experiment on the Action of the Will, by Dr. Ach (Göttingen); Psychological Alimentation in Children, by Dr. Ament (Würzburg); The Law of the Energy of Sensations, by Dr. Asher (Berne); A New Proof of the Specific Light of Colours, by Dr. Benussi (Graz); and Experimental Researches on the So-called Common Sensations, by Dr. Dessoir (Berlin).

SOME time ago it was announced that evidence of the existence of radium in the deposit from Bath waters had been obtained. It is now stated that Mr. Strutt has found similar evidence of its existence in the water itself. While the most sanguine prophecies have been made as to the wonderful properties thus conferred upon the waters, we fail to see how the discovery, even if confirmed, can affect their therapeutic value, which by this time ought to be pretty thoroughly ascertained.

THE KING'S VISIT TO PORTSMOUTH.—At the naval inspection made by the King during his recent visit to Portsmouth, His Majesty was received on the parade ground by a battalion of blue-jackets. The royal salute was given, the massed bands of H.M.S. *Excellent*, H.M.S. *St. Vincent*, and the Royal Naval Barracks, played the National Anthem. After the inspection the King drove to the Officers' Mess, where he was received by Commander Christian and Fleet Surgeon Lloyd Thomas, the *Excellent* and the other officers. In the smoking room champaigne was handed round and His Majesty drank to the good health of the officers.

THE TRAINED NURSES' ANNUITY FUND.—The object of the Trained Nurses' Annuity Fund is to allot an annuity of £20 a year to women who after a definite course of training have been actively engaged in medical or surgical nursing for at least fifteen years, and are over the age of 50. The present income of the fund only permits of thirteen annuities being granted, and there are eighteen other throughly deserving cases on the books to whom no assistance can be given. There is no other fund of the same nature, since the benefits of the Royal National Pension Fund and of the pension fund of the Royal British Nurses' Association are restricted to former or present members and subscribers. The Honorary Secretary of the fund is Dr. Ogier Ward, 82, Cheapside, E.C.

MEDICAL VACANCIES.

This list of vacancies is compiled from our advertisement columns, where particulars will be found. To ensure notice in this column advertisements must be received not later than the first post on Wednesday morning.

ARMY COUNCIL.—Eight Dental Surgeons for duty with troops in the United Kingdom. Salary, £365 per annum and travelling expenses.

AYR DISTRICT ASYLUM.—Assistant Medical Officer, resident. Salary, £1[illegible] annum.

BANBURY: HORTON INFIRMARY.—House-Surgeon, resident. Salary, £8[illegible] annum.

BIRMINGHAM AND MIDLAND EYE HOSPITAL.—House-Surgeon, resident, £[illegible] £75 per annum.

BRENTFORD UNION.—Medical Superintendent of Infirmary and Medical Officer Workhouse and Schools, resident. Salary, £300 per annum and fees.

CANTERBURY: KENT AND CANTERBURY HOSPITAL.—House Surgeon, resident. Salary, £90 per annum.

CARLISLE: CUMBERLAND INFIRMARY.—Resident Medical Officers to act as House Physician and House-Surgeon respectively. Salary at the rate of £30 and £[illegible] annum.

CHESTERFIELD AND NORTH DERBYSHIRE HOSPITAL.—Resident Junior House Surgeon. Salary, £50 per annum.

DUDLEY: GUEST HOSPITAL.—Assistant House-Surgeon, resident. Salary, £[illegible] annum.

HULL ROYAL INFIRMARY.—Casualty House-Surgeon, resident. Salary, £[illegible] annum.

INFANTS' HOSPITAL, Hampstead, N.W.—Additional Physicians.

LONDON FEVER HOSPITAL, Islington, N.—Assistant to the Resident Medical Officer. Salary, £120 per annum.

MANCHESTER CHILDREN'S HOSPITAL.—Junior Resident Medical Officer, eligible for senior post after six months. Salary at the rate of £80 and £100 per annum respectively.

MANCHESTER ROYAL INFIRMARY.—Resident Medical Officer. Salary £[illegible] annum.

MANCHESTER: VICTORIA UNIVERSITY, OWENS COLLEGE.—Lecturer on Diseases of the Larynx.

METROPOLITAN HOSPITAL, Kingsland Road, N.—(1) House-Physician. (2) House-Surgeon. (3) Assistant House-Physician. (4) Assistant House-Surgeon. £[illegible] for (1) and (2) at the rate of £40 per annum, and for (3) and (4) at the rate of £[illegible] annum.

READING: ROYAL BERKSHIRE HOSPITAL.—Assistant House-Surgeon, resident. Salary, £60 per annum.

ROYAL EAR HOSPITAL, Frith Street, Soho.—Clinical Assistants.

ROYAL HOSPITAL FOR DISEASES OF THE CHEST, City Road.—House-Physician, resident. Salary at the rate of £60 per annum.

SALOP INFIRMARY.—House-Physician, resident. Salary at the rate of £[illegible] annum.

VICTORIA HOSPITAL FOR CHILDREN, Tite Street, S.W.—House-Physician, resident. Honorarium, £25 for six months.

WOLVERHAMPTON AND STAFFORDSHIRE GENERAL HOSPITAL.—Assistant House-Surgeon, resident. Salary at the rate of £75 per annum.

MEDICAL APPOINTMENTS.

ASHDOWNE, Wallace, F.R.C.S.Eng., Assistant-Surgeon to the Metropolitan Hospital.

BLAIR, Charles, M.D., F.R.C.S.Eng., Ophthalmic Surgeon to the Royal Hospital, Monmouth, Surrey.

BROWN, D. D., M.R.C.S., L.R.C.P., Deputy Medical Officer of Health for the Borough of Sunderland.

BULLMORE, C. C., L.R.C.P.&S.Edin., District and Workhouse Medical Officer, Falmouth Union.

CLIFF, M. L., M.R.C.S.Eng., L.S.A., Divisional Surgeon to the City Road Station Division, Metropolitan Police, *vice* Dr. Darrow, deceased.

DE DENSE, T. V., M.R.C.S., L.R.C.P., Surgeon to the Victoria Cottage Hospital, Falmouth *vice* C. Scott Watson, M.D., deceased.

EDGELOW, S. H., M.R.C.S.Eng., Public Vaccinator for Streaky Bay District, South Australia.

SER. Chas. R., F.R.C.S.Eng., Surgical Registrar to the Cancer Hospital.
, Charles D., L.R.C.P., L.R.C.S.Ed., Senior Assistant Medical Officer, Crichton Royal Institution, Dumfries, *vice* Dr. Robert Campbell, resigned.
TON, W. T., M.R.C.S.Eng., L.S.A. Divisional Surgeon to the City Road Station, G" Division, Metropolitan Police, *vice* Dr. Yarrow, deceased.
RNE, W. A., M.D., B.S.R.U.I., Professor of Surgery at the University of Melbourne.
SBIGD, P. H., L.R.C.P.&S.Edin., Certifying Factory Surgeon for the Saxilby District, Lincolnshire.
MOND, G. E., M.B., B.S., B.A., B.Sc.Lond., D.P.H.Camb., Demonstrator of Hygiene and Public Health at University College, London
GH, P. M., M.B., Ch.B.Glas., Certifying Factory Surgeon for the Rye District, Sussex.

DIARY FOR NEXT WEEK.

MONDAY.

al College of Surgeons of England, 5 p.m.—Professor A. W. Mayo bson: On the Surgery of the Pancreas (Lecture I).

TUESDAY.

al College of Physicians of London, 5 p.m.—Dr. R. Hutchison: On Some isorders of the Blood and Blood-forming Organs in Early Life (Goulstonian ecture I).
lsea Clinical Society, Chelsea Dispensary, Manor Street, King's Road, ., 8.30 p.m.—Annual Clinical Debate—Subject, "Internal Secretion" in isease and in Treatment. Sir Lauder Brunton, Sir Victor Horsley, Dr. H. D. lleston, and Dr. A. E. Wright will take part in the discussion.
al Medical and Chirurgical Society, 20, Hanover Square, W., 8.30 p.m.—r. William Gordon: Cardiac Dullness in Cases of Cancer. Mr. H. Betham obinson: On a Case of Properitoneal Hernia.
dical Society of London, Whitehall Rooms, Hôtel Métropole, 7.30 p.m.—niversary Dinner.
ogical Society of Great Britain, 11, Chandos Street, W., 4.30 p.m.

WEDNESDAY.

al College of Surgeons of England, 5 p.m.—Professor A. W. Mayo bson: On the Surgery of the Pancreas (Lecture II).
terian Society, London Institution, Finsbury Circus, E.C., 8.30 p.m.—Patho-gical Evening: Exhibition of Specimens.
h-West London Medical Society, Bolingbroke Hospital, Wandsworth mmon, S.W., 8.45 p.m.—Dr. Robert Maguire: On the Treatment of Aneurysm by latine Injections.
natological Society of London, 11, Chandos Street, Cavendish Square, ., 5.15 p.m.—Demonstration of Cases of Interest.

THURSDAY.

al College of Physicians of London, 5 p.m.—Dr. R. Hutchison: On Some sorders of the Blood and Blood-forming Organs in Early Life (Goulstonian cture II).
ish Gynaecological Society, 20, Hanover Square, W., 8 p.m.—Paper by . Dudley Buxton: The Vernon Harcourt Chloroform Inhaler and Exact Per-ntage Vapours of Chloroform in Surgical Anaesthesia. Specimens will be shown Dr. Gelston Atkins, Dr. William Duncan, Dr. Inglis Parsons, and Mr. Furneaux gan.
rgian Society of London, Stafford Rooms, Titchborne Street, Edgware ad, W., 8.30 p.m.—Mr. Laming Evans: The Treatment of Congenital Clubfoot ring Early Infancy. Dr. S. Vere Pearson: The Diagnosis of Pulmonary Tuber-osis in Infants and Young Children.
thalmological Society of the United Kingdom, 11, Chandos Street, vendish Square, W., 9 p.m.—Clinical Evening. Cases by Messrs. J. R. Lunn, H. msdale, A. H. Bennett, H. L. Eason, and Claud Worth. Patients will be in ttendance at 8.

FRIDAY.

l College of Surgeons of England, 5 p.m.—Professor A. W. Mayo ison: On the Surgery of the Pancreas (Lecture III).
porated Society of Medical Officers of Health, 9, Adelphi Terrace, and, W.C., 7.30 p.m.—Dr. C. Killick Millard: On the Leicester Method of Dealing h Small-pox.
al Society of London, 20, Hanover Square, W., 8.30 p.m.—Dr. Parkes per and Dr. J. H. Watson: A Case of Polycythaemia with Enlarged Spleen, pos-ly a Disease of the Bone Marrow. Dr. Pasteur and Mr. T. H. Kellock: Foreign dy impacted in Bronchus, removal by Operation.

POST-GRADUATE COURSES AND LECTURES.

Cross Hospital Thursday, 4 p.m.—Demonstration of Surgical Cases.
l for Consumption and Diseases of the Chest, Brompton, Wednesday, 4 p.m.—ure on Mitral Stenosis.
l for Sick Children, Great Ormond Street, W.C., Thursday, 4 p.m.—Demonstra-on Selected Cases of Abdominal Disease in Children.
Temperance Hospital, Hampstead Road, N.W., Wednesday, 4 p.m.—Lecture on ases of the Stomach.
Graduates' College and Polyclinic, 22, Chenies Street, W.C.—Demonstrations be given at 4 p.m. as follows; Monday, Skin; Tuesday, Medical; Wednesday, ical; Thursday, Surgical; Friday, Throat. Lectures will be delivered at 5.15 p.m. llows: Monday, Nasal Discharges their Diagnosis and Treatment; Tuesday, e Gastro-intestinal Diseases of Infancy and Childhood; Wednesday, What is ilis? Thursday, Cranial Nerve Paralyses.
Vernon Hospital for Consumption and Diseases of the Chest, 7, Fitzroy Square, Thursday, 5 p.m.—Demonstrations on Laryngeal Tuberculous Cases.
l Hospital for the Paralysed and Epileptic, Queen Square, W.C.—Lectures will elivered at 3.30 p.m. as follows: Tuesday, Neuritis; Friday, Ocular Paralyses.
ast London Post-Graduate College, Tottenham, N., Thursday, 4.30 p.m.—The v Signs and Symptoms of Phthisis.
duate College, West London Hospital, Hammersmith Road, W.—Lectures will elivered at 5 p.m. as follows: Monday, Cataract; Tuesday, Certain Symptoms sease of the Throat; Wednesday, Practical Medicine: Thursday, Dislocations e Hip, Traumatic, Pathological, Congenital: Friday, Scarlet Fever.
n Free Hospital for Women, Marylebone Road, N.W.—Thursday, 3 p.m.—ure on Broad Ligament Cysts.

BIRTHS, MARRIAGES, AND DEATHS.

rge for inserting announcements of Births, Marriages, and Deaths is ., which sum should be forwarded in post-office orders or stamps with otice not later than Wednesday morning, in order to ensure insertion in rrent issue.

BIRTH.

n February 20th, at the West Sussex County Asylum and Graylingwell Hos-the wife of Harold Andrew Kidd, Medical Superintendent, of a son.

MARRIAGE.

-LINKLATER.—On January 4th, 1904, at All Saint's Church, Tientsin, by the v. J. Brown, M.A., and afterwards at H.B.M. Consulate-General, by L. C. os, Esq., Consul-General, Gordon O'Neil, L.R.C.P., M.R.C.S., Taku, to ice, youngest daughter of the late Magnus Linklater, of Swatow.

LETTERS, NOTES, AND ANSWERS TO CORRESPONDENTS.

COMMUNICATIONS respecting Editorial matters should be addressed to the Editor, 2, Agar Street, Strand, W.C., London; those concerning business matters, advertisements, non-delivery of the JOURNAL, etc., should be addressed to the Manager, at the Office, 429, Strand, W.C., London.

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AUTHORS desiring reprints of their articles published in the BRITISH MEDICAL JOURNAL are requested to communicate with the Manager, 429, Strand, W.C., on receipt of proof.

CORRESPONDENTS who wish notice to be taken of their communications should authenticate them with their names—of course not necessarily for publication.

CORRESPONDENTS not answered are requested to look at the Notices to Correspondents of the following week.

MANUSCRIPTS FORWARDED TO THE OFFICE OF THIS JOURNAL CANNOT UNDER ANY CIRCUMSTANCES BE RETURNED.

IN order to avoid delay, it is particularly requested that ALL letters on the editorial business of the JOURNAL be addressed to the Editor at the Office of the JOURNAL, and not at his private house.

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TELEPHONE (National):—
EDITOR, 2631, Gerrard.
GENERAL SECRETARY AND MANAGER, 2630, Gerrard.

☞ *Queries, answers, and communications relating to subjects to which special departments of the* BRITISH MEDICAL JOURNAL *are devoted will be found under their respective headings.*

ANSWERS.

IGNORAMUS.—It is generally believed that gonorrhoeal matter loses its virulence when dried, so that probably there would be no risk of infection in the use of clothes used during an attack of gonorrhoea three or four years ago, but it would be as well to bake them before disposing of them.

MIMETES will find the parody of Mr. Kipling's verses on Her Majesty's Jollies, reprinted from the *Saint Bartholomew's Hospital Journal*, in the present issue of the BRITISH MEDICAL JOURNAL.

R. MCK.—Radium is used in the treatment of cancer at the Middlesex Hospital, the Cancer Hospital, Fulham, and we believe at other metropolitan hospitals.

A. T.—Chloride of ethyl is, we are informed, given at the Royal Dental Hospital of London, Leicester Square. Our correspondent might write to the Senior Anaesthetist of that hospital.

A. B. C.—For the training of bearer companies or Royal Army Medical Corps volunteers in army medical nursing and hospital ward management there is no book more suitable or better than the manual for the Royal Army Medical Corps. Section I of this manual gives just what is required.

X-RAY AND OTHER ELECTRICAL WORK.

J. R. H. would be able to obtain skiagraphs from, among others, H. W. Cox, Limited, 9, Cursitor Street, Chancery Lane, W.C.; Coxeter and Son, 4, Grafton Street, Gower Street, W.C.; W. Watson and Sons, 313, High Holborn, W.C. Excellent photographs of medical subjects have been taken by Messrs. Tutt and Co., photographers, 234, High Road, South Tottenham. It is quite possible to make an investigation of the electrical reactions of muscle in ordinary practice. All that is needed is a faradic and a galvanic battery (preferably fitted with a galvanometer), either separate or combined. The necessary apparatus can be hired from any good electrical instrument maker as above, or Messrs. Schall, of 35, Great Marylebone Street, W.

TREATMENT OF HYSTERICAL COUGH.

DR. GRIFFITH C. WILKIN (Paignton) writes: Presuming there is no laryngeal, tracheal, bronchial, or pulmonary cause for the cough, may I suggest that a careful examination of the nostrils and the post-nasal space should be made? If nothing is found in these parts, I would suggest that the following treatment should be adopted: After the patient has retired to bed at night the inhalation of benzoin should be used for about ten minutes. A small quantity of finely-powdered menthol should be insufflated every day, commencing with enough to cover a sixpenny bit, and gradually increasing in quantity. This insufflation should be done by the doctor himself, as, of course, a patient could not do it, and the laryngeal part of the upper portion of the arytenoids should be aimed at. If this treatment—with tonics, if needed—is continued about a fortnight the cough will probably yield.

NOTES, LETTERS, Etc.

THE RATIONAL TREATMENT OF DIABETES.

DR. ARNOLD LORAND (Cologne) writes: The JOURNAL of December 5th, 1903, has lately come to my hands, and I am sorry to see that in a review of my pamphlet on the Rational Treatment of Diabetes the facts have not been correctly represented. I beg you to kindly rectify according to the truth: (1) I never pretended that an average diabetic can tolerate 100 gr. of carbohydrates. I simply said: "Let us take, for example, the case of a diabetic person who can tolerate 100 gr. of carbohydrates." (2) I do not allow my diabetic patients indiscriminately the use of bread and fruits, but I allow in each case a small quantity of brown bread (Graham bread) and an apple a day. (3) I do not recommend 1½ gr. of opium a day in order to prevent traces of glycosuria, but I give 0.1 gram of opium three times or in some cases four times for one day in those exceptional cases where nervous persons, who have been free of sugar for some time, show again traces of sugar after a nervous emotion. This way I intend to check the deletary effects of nervous emotion upon diabetic persons, who besides, as is often the case, suffer of neurasthenia. In order to prove that by stating the superior effects of mineral waters I did not, as the French would say, "*prier pour ma chapelle*," may I be allowed to point out that in a recently published book on the *Origin of Diabetes* I am mentioning the favourable results of the treatment of diabetes by the bloodserum or milk of animals which have been deprived previously of their thyroid gland. With my best thanks for your kind rectification.

*** (1) If Dr. Lorand chooses a case able to take 100 grams of carbo-

hydrates to illustrate his treatment, it does not seem unfair to conclude from that that this is, in his opinion, an average case. (2) We did not use the word "indiscriminately," but Dr. Lorand admits that he gives every patient a certain amount of bread as well as fruit. He says in his letter: "A small quantity of brown bread and an apple." In his book he says (we translate the French): "We permit also fruits in certain quantities, for example, apples, pears, prunes, peaches, strawberries, raspberries, etc." We do not find that he limits his recommendation to one apple a day. (3) We understand that Dr. Lorand says that the quantity of opium he prescribes is for one day only, but he does not say so in his book. He says (again we translate the French): "One may prescribe during two weeks doses of 0.05 gram (¾ gr.) to 0.1 gram (1½ gr.) of opium to be taken three times a day (*à prendre trois fois par jour*, p. 26). In nervous diabetes, he says, the appearance of small quantities of sugar after an interval of aglycosuria always alarms neurasthenic diabetics, and therefore he desires "to relieve them of their alarm by prescribing a good dose of opium—0.01 gram (1½ grain)—to be taken three or four times during the day." This may mean, of course, during one or several days; but, in any case, it seems amply to justify the statement that he recommends opium with a freedom which savours of rashness. (4) From the concluding passage of Dr. Lorand's letter he seems to wish to throw doubt upon our statement that the "rational treatment" of diabetes to which he refers, and which gives the title to his brochure, is the treatment by mineral waters. But the passage quoted in the review, and the whole context, amply justify this conclusion. That Dr. Lorand has a new remedy to add to the list of those he mentioned in his work is not to the point, for it is after a consideration of all other means that he states that "hydrological treatment is the most rational treatment of diabetes." We do not admit that Dr, Lorand has any ground for complaint that we drew attention to the words in which he expresses this opinion, or to our dissent from his conclusion.

THE REPETITION OF PRESCRIPTIONS.

M. writes: Since my letter on this subject appeared in the BRITISH MEDICAL JOURNAL of February 6th, I have received several inquiries, which show that the idea I tried to express has not been thoroughly understood; and to make it clear I enclose herewith proof of such a prescription-book as I have devised, and which has been already adopted by some of my friends. If you can find space for it, I think it would make the idea perfectly clear.

No. 1036.

From Dr. Galen,
666, Harley Street, W.
9 Feby., 1904.

To Messrs. Pestle and Mortar.

Dr. Galen prescribes as follows for Mrs. Hypochondriac.

To be dispensed not oftener than three times at intervals of not less than four days.

℞
Sap. Cast. 3ij
Pan. 3j
M.

Sig.
One pill three times a day.

Signature, HIPPOCRATES GALEN, M.D.

No. 1036.

From Dr. Galen,
666, Harley Street, W.
9 Feby., 1904.

To Messrs. Pestle and Mortar,
500, New Bond Street.

My prescription of this date, numbered as above, may be dispensed to

Mrs. Hypochondriac,
100, Grosvenor Square,
W.

Signature, HIPPOCRATES GALEN, M.D.

It has also been objected that such a plan would be useless in urgent cases, or in cases where foreigners or others passing through town made a hasty visit to physician or surgeon. As to this, I can only say that it is beyond me to devise a plan that will fit every conceivable contingency. All that is wanted is, I take it, to improve the present confessedly dangerous and injurious condition of things, and if generally adopted there is no doubt such a plan would be effectual. For cases of urgency no rule but that of common sense should prevail, and I take it that even the President of the College of Physicians would boldly break the rule about dispensing his own medicines by taking from his private stores whatever might be wanted for an emergency.

LEPROSY.

Dr. WELLESLEY C. BAILEY (Secretary and Superintendent, Mission to Lepers in India and the East, 17, Greenhill Place, Edinburgh), writes:—I have been asked to prepare a paper for the Dermatological Congress to take place at Berlin next September, the subject given to me being British India. The condition of the spread and fight against leprosy since the first International Conference in 1897, the heads under which I am to write being the following:—

1. *Statistics:*
   (a) According to official reports (Government).
   (b) Asylums, colonies (Mission).
   (What kind of asylums—sex and age of inmates?)
2. *Methods employed to fight leprosy between 1897 and 1903 (inclusive).*
   (a) Laws of Government.
   (b) Activity of Government or of private societies for the suppression of leprosy, municipalities or parishes, etc.
   (1) Number of asylums or Colonies.
   (2) Number of places.
   (3) How the patients get about.
   (4) Occupation of lepers in asylums.
   (5) Conveying of lepers by train, steamer, etc.
3. *The condition of lepers in infirmaries and surgery wards.*

As I am anxious to have the paper as accurate as possible, it will be a great favour if any of your readers who have information on the above points and for the period indicated will kindly communicate with me.

LETTERS, COMMUNICATIONS, ETC., have been received from:

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BOOKS, ETC., RECEIVED.

Hydrotherapie. Von Dr. Simon Baruch. Autorisirte deutsche Ausgabe von San.-Rath Dr. W. Lewin. Berlin: August Hirschwald. 1904. M.12.

The General Pathology of Inflammation, Infection, and Fever; being the Gordon Lectures for 1902. By E. W. Ainley Walker, M.A., D.M.Oxon. London: H. K. Lewis. 1904. 4s. 6d.

Anleitende Vorlesungen für den Operations-Cursus an der Leiche. Von Prof. E. von Bergmann und Dr. H. Rochs. Vierte erweiterte Auflage. I Theil. Berlin: August Hirschwald. 1901. M.5.

Semiologie und Differentialdiagnostik der verschiedenen Arten von Kurzatmigkeit auf Grund der Atemkurve. Von Dr. Ludwig Hofbauer. Jena: Gustav Fischer. 1904. M.8.

St. Bartholomew's Hospital Reports. Edited by A. E. Garrod, M.D., and W. McAdam Eccles, M.S., F.R.C.S. Vol. XXXIX. London: Smith, Elder, and Co. 1904. 6s

Diseases of the Gall Bladder and Bile Ducts, including Gall Stones. By A. W. Mayo Robson, F.R.C.S., assisted by J. F. Dobson, M.S.Lond., F.R.C.S. Third Edition. 1904. 15s.

Handbuch der Urologie. Herausgege von Dr. Anton v. Frisch und Dr. Zuckerkandl. Erster Band. W Alfred Holder. 1904.

An Atlas of Human Anatomy. By Toldt, M.D., and Professor Alois D Rosa, M.D. Translated from Th German Edition by M. Eben P M.D.Brux., M.R.C.S., L.R.C.P. T Section, D, Myology. London: Rebm Limited. 1904. 8s. 6d.

Lehmann's Medizin Handatlanten. Band Atlas und Grundriss der Bakteriol und Lehrbuch der speziellen Bakte logischen Diagnostik. Teil I. Atl Teil II, Text 3 Auflage. Von Prof. K. B. Lehmann und Priv. Doc. Dr. M et Phil. R. O. Neumann. Münch J. F. Lehmann. 1904. M.16.

Diseases of the Nervous System. By Oppenheimer, M.D. Translated Edited by Edward E. Mayer, A M.D. Second American Edition. London: J. B. Lippincott Company. 21s.

International Clinics. A Quarterly. Edi by A. O. J. Kelly, A.M., M.D. Vol. Thirteenth Series, 1904. London: J Lippincott Company. 1904.

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Remarks
ON
EXTENSIVE CARCINOMA OF THE OESOPHAGUS,
WITH UNUSUAL NERVOUS COMPLICATIONS.

BY
ROBERT SAUNDBY, and JOHN T. HEWETSON,
M.D., M.Sc., LL.D., F.R.C.P., Professor of Medicine,
M.D., F.R.C.S., Assistant Curator, Pathological Museum,
University of Birmingham.

HE following case is of special interest because it appears to nstitute an exception to Semon's law. It has been care- lly worked out, and will, it is believed, be found to fulfil ie conditions which Sir Felix Semon has insisted upon as eing necessary:

Clinical History.

Francis L., aged 50, was admitted into the General Hospital on rch 13th, 1902, complaining of difficulty of swallowing solids and a less extent of swallowing liquids, and of constant vomiting with rtial loss of voice. He had also pains in the left side of the body d across the right temple at night. He had been ill two years; he ributed his illness to having got wet through, after which he had nning from the eyes and nose and swelling of both ankles. However, seems to have recovered from this, and it was only at Christmas that appetite failed. The pains had been coming on for three or four eks and the loss of voice for a fortnight. His previous health had n quite good: he had never been laid up before.

he patient was a poorly-nourished man weighing 9 st. 10 lb. There s a hard, rounded swelling on the right side of the neck, which was tender or painful, but was said to be getting larger. The left side the chest was flattened before and behind; its movement was im- red, and the percussion note was less resonant over the upper two- rds anteriorly. The breath sounds were not well heard at the base, in front were harsh below the clavicles, especially on the left side; vocal fremitus and vocal resonance were increased over the last n. The heart's apex was in the fifth interspace, internal to the ple line, its sounds were pure but faintly heard; pulse 76, regular small. The tongue was coated with a moist brown fur; the rynx looked only slightly relaxed, and a large oesophageal bougie ed easily into the stomach. The vocal cords were ad- ted imperfectly. On March 16th there is a note that he had nited most of his dinner on the previous day. The larynx was n examined; the cords were seen in a position of abduction; on thing and phonation slight adduction only took place. A similar dition was noted on the 18th, and a drawing of the position of the ds was made (Fig. 1). On the 21st the deglutition sounds were

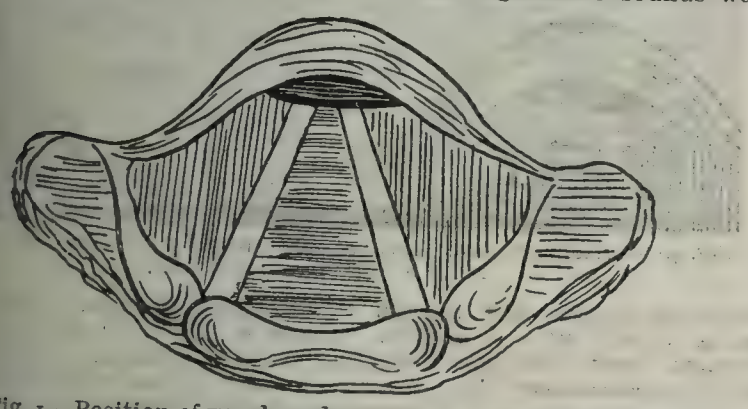


Fig. 1.—Position of vocal cords as seen on March 18th, 1902.

ved on swallowing, and appeared to be normal. In the course of nth the patient lost a good deal of flesh and continued to vomit, the area of dullness extended across from the left to the right On April 2nd it was noted that the vocal cords did not approxi- at all; on phonation the aperture remained quite wide. On April his weight was only 8 st. 4 lb., and he had become exceedingly and complained now of extreme breathlessness. On April 29th ocal cords were again examined and a drawing was made; they motionless, but were fixed in a position of rather greater adduc- than when last seen. The difficulty of swallowing food had not ased. The urine was examined repeatedly and, with the excep- of one occasion when a trace of albumen was found, it deposited s but was otherwise normal.

died on April 30th from heart failure. At the necropsy ody was found to be much emaciated; the pericardium was ly adherent, and enlarged glands surrounded the aorta, involving agi and the left recurrent laryngeal nerve. The left pleura was ly adherent and the left lung showed much oedema, with pneu- consolidation around the secondary deposits at the base. The pleura was healthy, but in the right lung there were also several des of growth the size of a hazel nut. The larynx was healthy, the lying in the cadaveric position. The upper part of the oeso- is for 6 in. was involved in a sloughing, malignant growth, which projected into the lumen and bound it to the trachea, which at one point was perforated. On the right side of the neck was a mass of malignant glands. There were some old peritoneal adhesions around the splenic flexure of the colon, but in other respects the stomach and intestines were normal. The liver was slightly fatty and the kidneys seemed fibrosed; the spleen was normal.

Naked-eye Appearances of the Dissected Specimen (Photographs 2 and 3.)

The growth occupies all that part of the oesophagus between the first ring of the trachea and a point about 2 in. below the bifurcation of the trachea, a longitudinal distance of 6 in. The calibre of the oesophagus between these two points is increased to three times its normal extent; no stricture exists at any point. The upper limit of the growth has a definite margin, exuberant in character and overlapping the healthy mucous membrane. The lower margin of the growth is less definite, being ulcerated and apparently infiltrating and spreading down into healthy tissues. Between these two points there is a soft friable growth everywhere infiltrating the entire wall of the gullet, and generally producing considerable thickening, but in certain parts—especially towards its lower limits—the

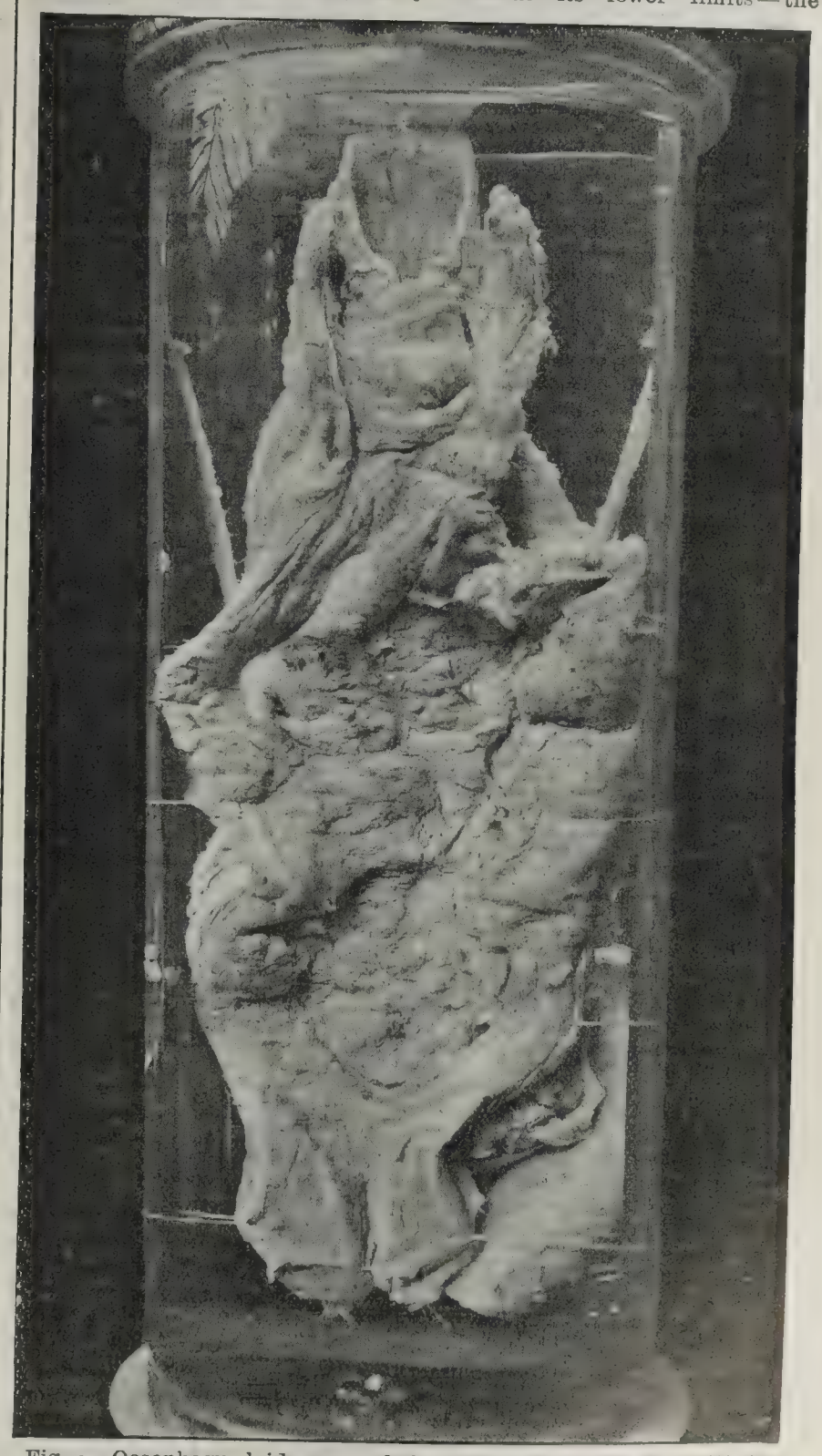


Fig. 2.—Oesophagus laid open and viewed from behind. Epiglottis is seen at the top of the specimen.

ulcerative process has been so rapid that the wall is as thin as wafer paper. On the right side, situated between the oesophagus and the trachea, is a mass of enlarged deep cervical lymphatic glands; several nerves are involved in this mass. A similar mass of deep cervical lymphatic glands exists on the left side, but is smaller in size. The bronchial lymphatic glands are also affected. The thyroid gland is normal. The trachea is densely adherent to the oesophagus during the whole extent of its course; towards its lower end there is considerable lateral compression of its walls by the two glandular masses, and, as these are not

on the same level, an S-shaped lateral curvature of the trachea has resulted, the mass of glands on the right occupying the concavity of the upper deviation, and the left mass the concavity of the lower deviation. In the mucous membrane lining the posterior surface of the upper part of the trachea there is a very minute point of growth. The bronchi are firmly bound to the oesophagus by infiltrating growth and in the upper inch of the left bronchus is a button-like mass of growth which has spread through from the oesophagus. The superficial area of this mass is about that of a sixpence. The great vessels, both arteries and veins, are not invaded or compressed by the growth. The pneumogastric nerves on both sides are free until they pass behind their respective bronchi; at this point they are surrounded by the growth and lose

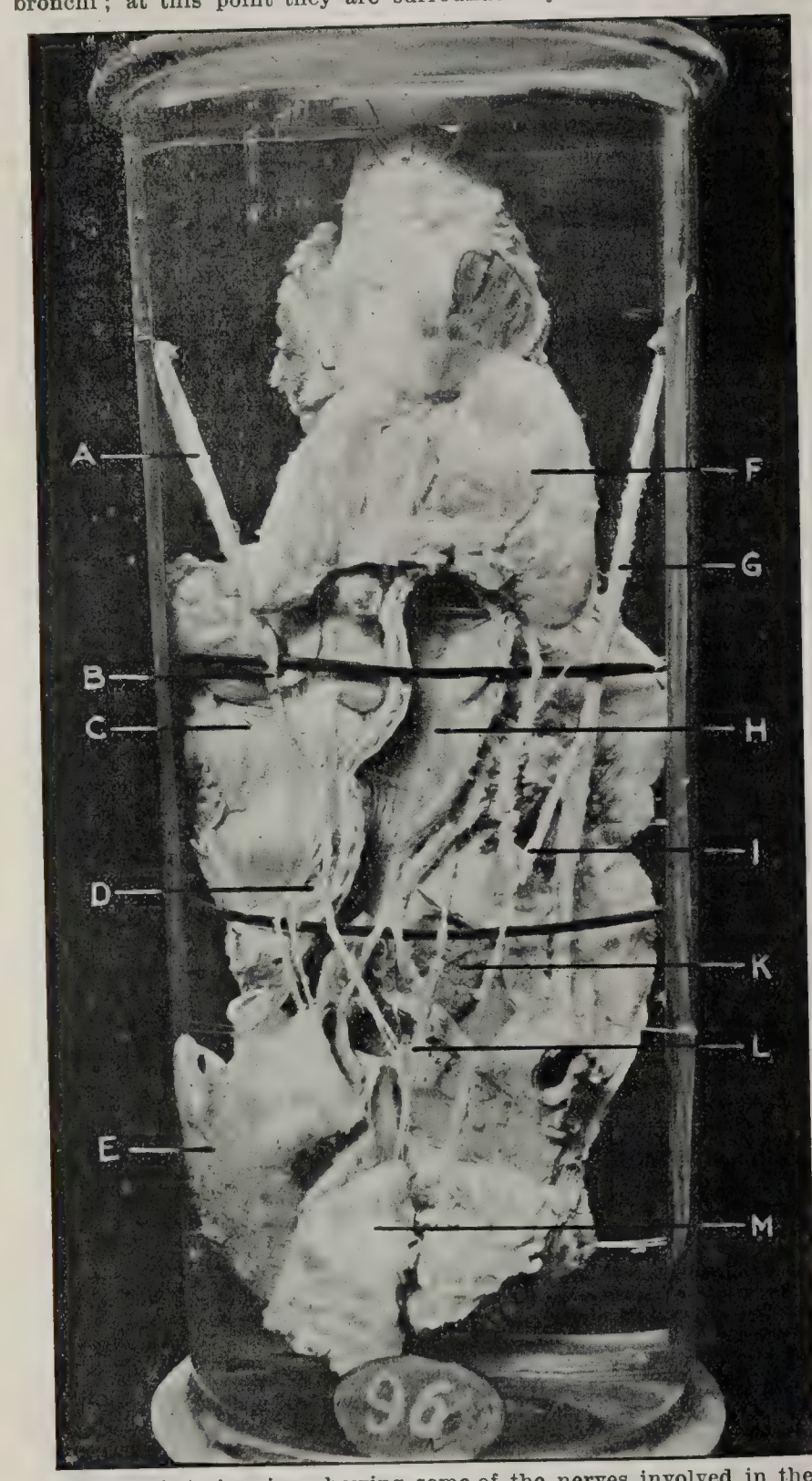


Fig. 3.—Anterior view, showing some of the nerves involved in the growth. A, Right vagus; B, right recurrent laryngeal; C, enlarged glands; D, right cervical sympathetic branches; E, aortic arch turned down; F, thyroid gland; G, left vagus; H, trachea opened; I, left recurrent laryngeal; K, growth into left bronchus; L, cardiac plexus; M, pulmonary artery turned down.

their identity in the neoplasm. The right recurrent laryngneal nerve leaves the vagus opposite the sixth tracheal ring and turning upwards and inwards around the innominate artery enters the glandular mass; on careful examination it is seen to be eroded by the growth a short distance below the point at which it disappears in the mass, it emerges at the upper part of the growth and passes below the lower border of the inferior constrictor muscle to its ultimate destination. The left recurrent laryngeal nerve leaves the vagus opposite the eleventh ring of the trachea, hooks round the aorta where it gives off a branch to the superficial cardiac plexus, and almost immediately becomes involved in the left glandular mass; at this point it becomes thickened to two or three times its normal size, is nodular in outline and very friable in consistence from infiltration by the growth. It partly buried in the mass; after leaving it it resumes its usual calib and smooth outline and passes below the inferior constrictor muscle the pharynx. The main trunks of the sympathetic nerves seem have escaped; the cervical sympathetic branches to the cardi plexuses are, however, involved; on the right side they pass throug the right glandular mass, and emerging at its lower marg pass in front of the right bronchus to the superficial cardiac plexus. C the left side the lower ganglionic supply alone is seen considerab thickened in character. It passes over the front of the left bronchus its destination in the cardiac plexuses. The phrenic nerves had escap without injury.

A dissection was made of the laryngeal muscles; the right posteri crico-arytenoid muscle was rather smaller than the left, and beyond slight pallor of their fibres these were apparently normal. The cric thyroid muscles were equally distinct on both sides and were app rently normal. The lateral crico-arytenoids and the thyro-arytenoi were about equal in size on both sides, and to all appearance health The arytenoid muscles, beyond a slight pallor in colour, were apparent normal.

Microscopical Appearances.

Oesophageal Wall.—Sections have been examined from the centre the ulceration and from several points in the growing margin. T ulcerating mass consists almost entirely of cells, arranged for the mo part in masses of large size, though smaller masses are interspers amongst the larger ones (Fig. 4). The cells are closely pack together and are not separated by any stroma. The cells are round or oval in shape, their protoplasm stains readily with Van Giesser

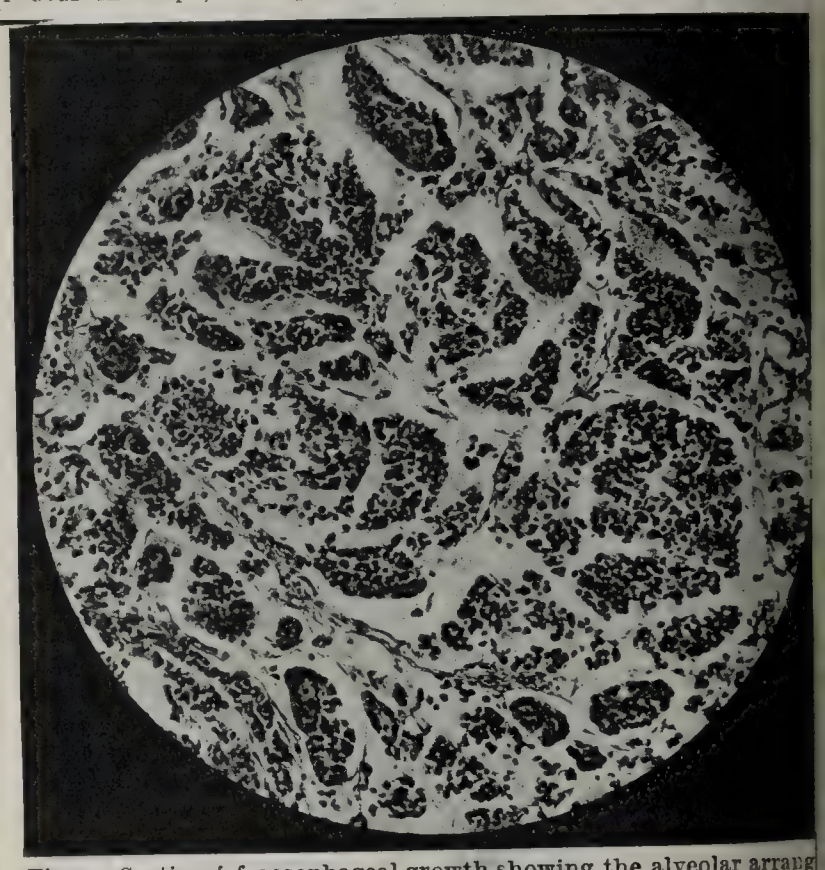


Fig. 4.—Section of oesophageal growth showing the alveolar arrang ment of the spheroidal cells.

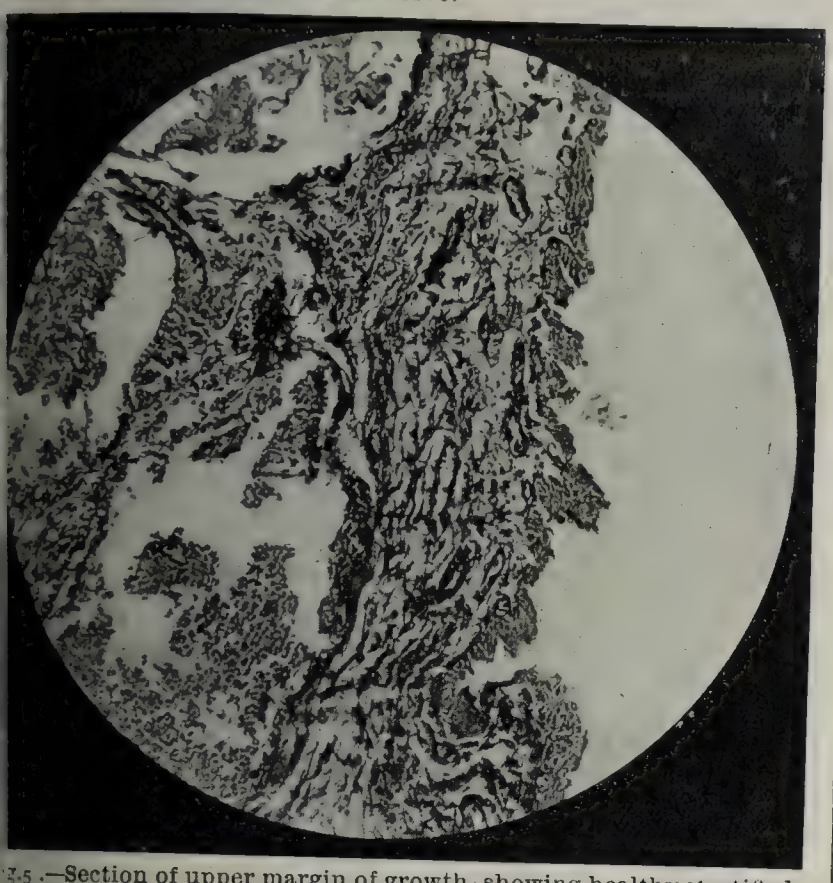
stain or eosine, and contain well-marked vesicular nuclei wh stain deeply with haematin. There is little or no increase fibrous tissue in the ulcerating masses such as one sees in scirrhus carcinoma. The heaped-up masses of cells are supported a delicate framework of connective tissue. Towards the centre the ulcerating surface, where there is rapid disintegration of the fungoid-like growth, the masses of cells are everywhere invaded round polynuclear cells, and certain parts of the section where cells have entirely lost their outlines show a process of comp necrosis. On examination of the extreme margin of the growth can easily see the healthy stratified squamous epithelium overlying masses of cells previously described. There is no evidence in th growing margins of any downgrowth of surface epithelium through own basement membrane (Fig. 5). There are no cell nests in any the sections examined. The entire thickness of the oesophageal w is invaded by this cellular growth, except in the region of its grow margins.

Lymphatic Glands.—The cervical are almost entirely replaced by growth similar to the alveolar masses described in the oesopha (Fig. 6). The bronchial glands are laden with black pigment scattered amongst the lymphoid tissue are numbers of large cells well-marked vesicular nuclei and which are without doubt extensi from the primary oesophageal growth.

Lung.—Sections through the nodules show masses of epithelial identical with those found in the primary oesophageal growth (Fig The pulmonary alveoli surrounding these metastatic deposits are fi up with fibrin or with catarrhal cells.

Nerves.—Sections made across the recurrent laryngeal ne and the trunks of the pneumogastric nerves, where they

ught in the growth, show them to be infiltrated and in places rgely replaced by masses of epithelial cells. (Fig. 8.) Sections ross the recurrent laryngeal nerves after leaving the masses of en-rged glands stained with the ordinary histological stain, such as ematin and eosine, show that many of the nerve tubules are devoid axis cylinders. These empty nerve tubules are scattered irregularly roughout the transverse section of the nerve. There is a slight in-ease of the fibrous tissue of the nerve.



3.5.—Section of upper margin of growth, showing healthy stratified squamous epithelium on the surface, with large alveolar masses of cells below.

uscles of the Larynx.—Sections were made of the muscles cutting the ular fibres in a transverse and also in a longitudinal direction—is, two sections were made of each muscle.

e Posterior Crico-arytenoids.—Right: There are many bundles of this le in a state of advanced degeneration. Many of its fibres entirely disappeared or are considerably shrunken in size, are irregular in shape. (Fig. 12). The degree of degenera-

.—Section of a cervical lymphatic gland, everywhere infiltrated with spheroidal cancer cells.

this abductor muscle is less advanced than in the adductors on ne side, and more advanced than in the corresponding abductor opposite side. Left: There is degeneration in this muscle of a te degree, many fibres are quite healthy but interspersed st them are fibres that are shrunken, irregular in outline, or have disappeared (Fig. 13). The degree of degeneration is less severe than that found in the adductor muscles of the same side.

Lateral Crico-arytenoids and Thyro-arytenoids.—Right side: Shows an advanced degeneration of the muscular tissue, a large number of the muscular bundles have entirely disappeared and are replaced by a loose fibrous framework. Even in bundles that are in a state of advanced degeneration, however, isolated healthy fibres are visible (Fig. 9). The thyro-arytenoid is slightly more degenerated

Fig. 7.—Section of pulmonary metastasis showing alveoli of cancer cells.

than the lateral crico-arytenoid. These right adductor muscles are much more degenerate than the abductor muscles on the same side, and slightly more degenerate than the adductor muscles on the opposite side. Left: The thyro-arytenoid and lateral crico-artenoid are in a state of moderate degeneration. (Fig. 10,) The thyro-artenoid is more degenerated than the lateral crico-arytenoid.

The arytenoids are in a state of fairly advanced degeneration. (Fig. 11),

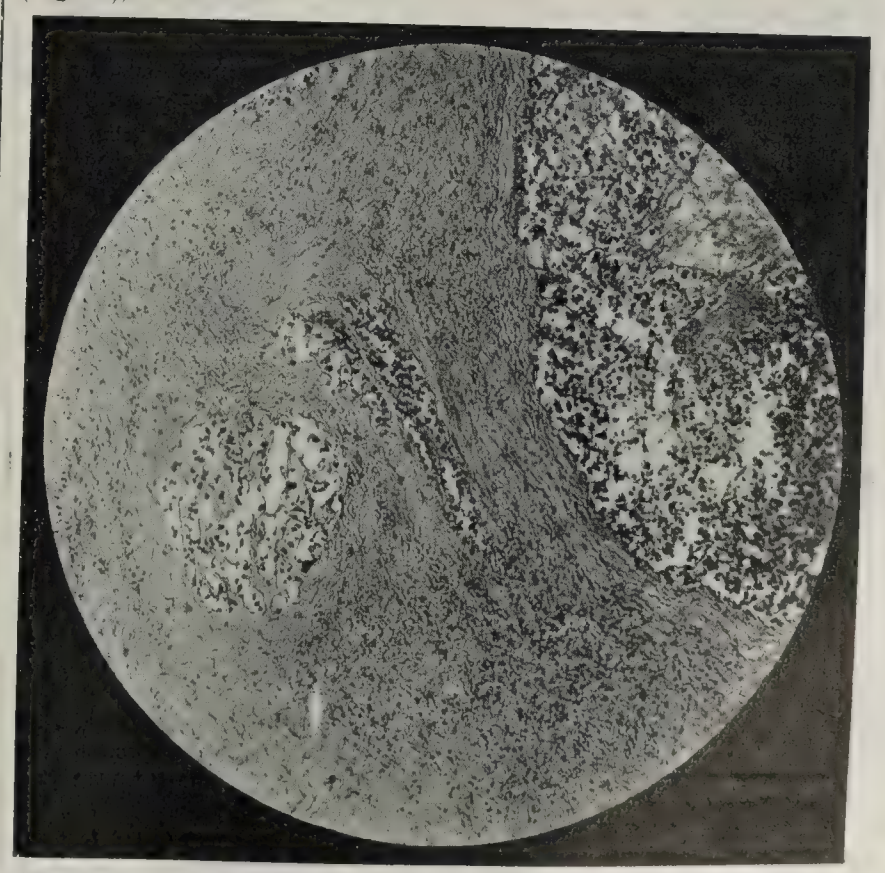


Fig. 8.—Section across the vagus nerve, where it is involved in the primary oesophageal growth, showing its infiltration by cancer cells.

Crico-thyroids.—These muscular bundles are apparently quite healthy, they stain more brilliantly, are more regular in size and shape, and in every way conform to the appearance of healthy muscular tissue.

The nature of the oesophageal growth is, in all probability, a spheroidal-celled carcinoma beginning in the oesophageal glands. This is borne out by the alveolar character of the growth which is reproduced in lymphatic glands and pulmonary metastases. One takes this view of its nature rather than that of squamous epithelioma, because in none of the

Fig. 12.—Right posterior crico-arytenoid, showing its small muscular bundles, shrinking and disappearance of fibres.

margins examined was there any evidence of downgrowth or proliferation of the surface epithelium, even where the subepithelial tissue is richly invaded by the solid alveolar masses of cells. Cell nests are entirely absent from both primary and secondary growths. We know also by experience that

Fig. 13.—Left posterior crico-arytenoid. Showing its small muscular bundles; shrinking of bundles.

secondary growths are very rare in squamous-celled epithelioma. Alveolar sarcoma is quite excluded by the absence of any stroma amongst the alveolar masses. The type of carcinoma to which this most nearly conforms is the encephaloid carcinoma which in places has undergone inflammatory and even necrotic changes.

The clinical manifestations of this remarkable growth call for special mention.

There was absolutely no diminution in the lumen of th oesophagus, and the difficulty in swallowing must have r sulted from an interruption of the peristaltic contractio which normally occurs in the oesophagus during the act deglutition. Fluids would gravitate into the stomach muc better than solids. Inasmuch as the muscular wall of t

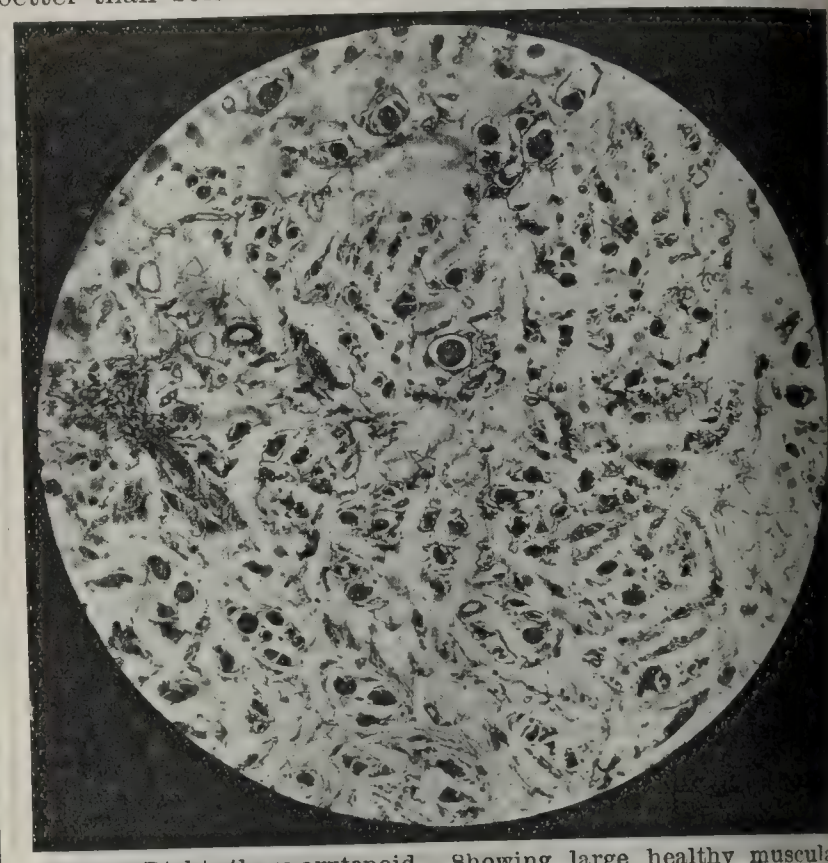


Fig. 9.—Right thyro-arytenoid. Showing large healthy muscula bundles here and there, with shrinking and disappearance of th majority.

gullet was replaced by growth for quite several inches in tent, involuntary muscular contraction of that portion m have been impossible.

The flattening of the left side of the chest, its imperf

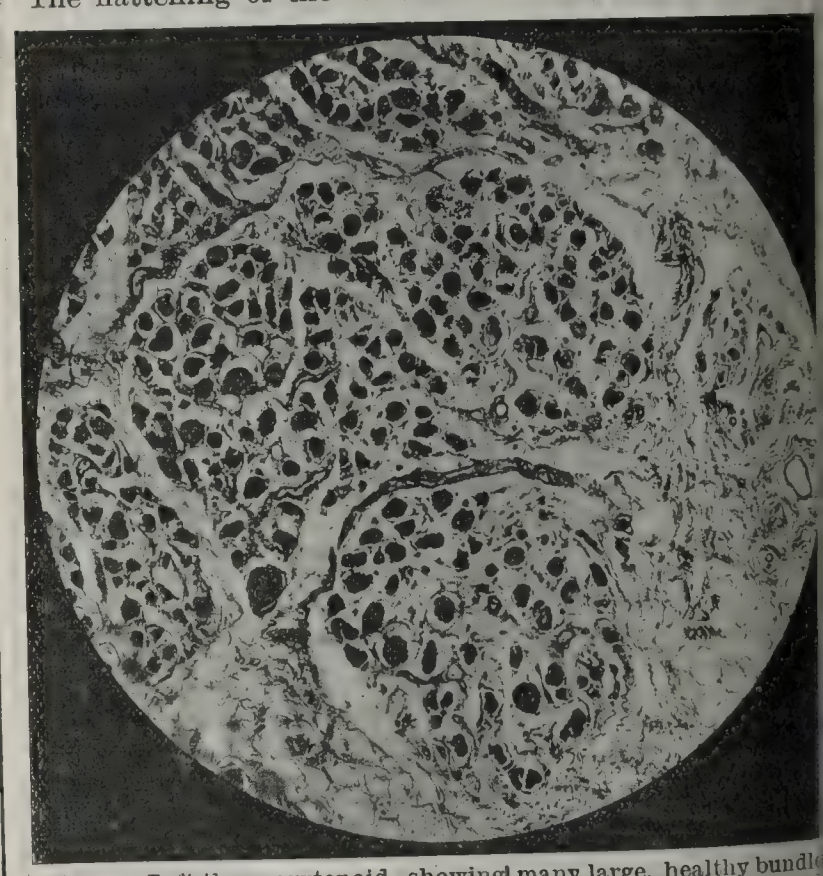


Fig. 10.—Left thyro-arytenoid. showing many large, healthy bundl the majority however, are shrunken, and many have disappeare

expansion during inspiration and the impaired percus note over that side were due to the button-like projectio growth into the left bronchus which produced a degre collapse of the left lung.

The pains in the right temple could be accounted for by pressure of enlarged cervical glands upon the trunk o small occipital or of the great auricular nerves, both of w come from the second and third cervical nerves, and fur

igs to the skin of this region of the head. The pains in the t side of the body might, in a similar way, be due to pres-e by the growth upon the anterior primary divisions of the ver cervical and upper dorsal nerves.

. II.—Arytenoideus. Longitudinal section, showing small muscular bundles, with shrinking and degeneration of its fibres.

ne sudden attacks of vomiting, which were of almost daily rrence, were probably due to the involvement of the ks of the pneumogastric nerves in the posterior media-im, causing irritation of the sensitive afferent fibres. Irri-n of this nerve in operations upon the neck of man is vn to produce dilatation of the cardiac orifice, and reflex raction of the diaphragm, abdominal muscles and ach. This explanation is much the most likely in this

It is, of course, conceivable that the vomiting was due rect stimulation of the efferent motor fibres which pass to tomach. The stomach was found at the necropsy to be hy.

e cardiac weakness with attacks of sudden dyspnoea was ll-marked feature during the last few weeks of this nt's life, and can be accounted for by the implication practically all the cardiac sympathetic branches he cervical glandular masses. This set of nerves he human subject not only bears the efferent o-motor nerves, but probably also the efferent ssor nerve of the heart, and, although in this case dis-ment of the former would most readily explain the ac weakness, irritation and stimulation of the depressor is quite conceivable. The inhibitory nerves of the heart ng by way of the vagus trunk are given off at a point r than the exact spot where the pneumogastric is ved in the growth, and thus would in all probability e injury, and continue to transmit inhibitory impulses. now too little, however, concerning the innervation of man heart to speak dogmatically upon what effect such dition of cardiac nerve involvement would mean, even ry nerve could be fully dissected out and identified.

implication of the recurrent laryngeal nerves is a r of special interest. The specimen had been left too long in formalin before coming to the museum, wise special methods of determining the exact nerve eration would have been made. The recurrent laryng-rves, however, were examined not only where involved wth, but also after leaving the glandular mass, and in atter situation they showed a very definite destruction s cylinders.

reful examination of the laryngeal muscles was made by tion and by the microscope. The patient had suffered laryngeal symptoms such as loss of voice for a little than two months. There was therefore ample time if ryngeal nerves were involved to produce considerable ion in the sarcous substance of the muscles supplied, if their bulk, at least in their histological structure. Such a change was clearly seen on microscopical examination. The muscles showed a diminution and shrinking of their muscular bundles, loss of transverse striation and of longitudinal fibrillation. The sarcous matter had a hyaline appearance and did not react well to stains. Over large areas the muscle bundles had disappeared entirely, and were represented by the fibrous tissue framework of the muscle. Naked-eye examination of small muscles such as those acting on the vocal cords must of necessity be very unsatisfactory in determining the exact amount of degeneration, especially in a nerve involvement of only two months' duration.

In this case, though little abnormality could be seen by the naked eye, a very different state of affairs was revealed by microscopical investigation. The muscles which showed the most advanced degree of degeneration were those concerned in adduction of the vocal cords, the thyro-arytenoids more particularly, to a less extent the arytenoids and the lateral crico-arytenoids. The abductors were affected to a less degree. The muscles of the right side, both adductors and abductors, had suffered more than those on the left side, a fact which is readily explained by the greater degree of involvement of the right recurrent laryngeal nerve as compared with the left. The microscopical sections of the crico-thyroid muscles formed a striking contrast to the other laryngeal muscles, showing fairly conclusively that the external laryngeal nerve had escaped damage by the neoplasm.

The clinical evidence goes to show that the adductor paralysis was an early and constant feature of the laryngeal condition during the whole of the patient's life in hospital. The abductor muscles, on the other hand, appeared to act well until a few days before death, when a slight narrowing of the previously wide open glottis was noticed. This narrowing of the glottis was probably due to the advancing paralysis of the abductor muscles causing the vocal cords to assume more nearly the cadaveric position. It could scarcely be maintained that the widely-open glottis in the earlier stage was due to spasm of the posterior crico-arytenoid induced by irritation of an early nerve involvement, in face of the fact that the adductor muscles were much more degenerate than the abductor muscles. The most reasonable explanation is that the nerve fibres going to the adductors of the vocal cords were disabled earlier and in much larger proportion than the nerve fibres going to the abductor muscles. This explanation of course takes for granted that the nerve fibres of the trunk of the recurrent laryngeal nerve are differentiated into special fibres for special muscles, though not necessarily arranged in any special position within the epineurium of the nerve.

Sir Morell Mackenzie and Sir Felix Semon have repeatedly drawn attention to the special proneness of the abductor fibres to injury as compared with the adductor fibres in chronic organic nervous diseases of either peripheral or central origin. Sir Felix Semon especially has collected a large number of cases to support this view, and he has been led to make the following statement, which has become generally known as "Semon's law": "The occurrence of an isolated paralysis of the abductor filaments of the recurrent laryngeal nerve in cases in which the roots or trunks of the spinal accessory, pneumogastric, and recurrent nerves are injured or diseased is not an isolated pathological curiosity. There is a distinct proclivity of the abductor fibres to become affected in such cases, either at an earlier period than the adductor fibres or even exclusively."

The case which has just been recorded, whatever be the correct explanation of the laryngeal paralysis, is clearly a distinct exception to this law. Both physiologically and pathologically, the adductor disablement was earlier and more intense in degree than the abductor. In conclusion, we would thank Professor Leith for kindly placing at our disposal the technique of the pathological department of the University for this investigation.

Donation and Bequests to Hospitals.—The Editor of *Little Folks* has sent £500 to the North-Eastern Hospital for Children as a further instalment towards the endowment of a ward by the youthful readers of that paper. Under the will of the late Mr. William Lee, of Higher Crumpsall, Manchester, £200 each has been bequeathed to the Salford Royal Hospital, St. Mary's Hospital, Manchester, and the Children's Hospital at Pendlebury. The late Miss Elizabeth Porter, of Halifax, has left the sum of £2,000 to the Royal Halifax Infirmary.

A CASE OF SYPHILITIC CONVULSIONS PRECEDED BY MARKED SOMNOLENCE OF LONG DURATION.

BY WILLIAM B. BENNETT, M.R.C.S.ENG., L.R.C.P.LOND.,
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THE following case of syphilitic convulsions is noteworthy on account of the remarkable tendency on the part of the patient to sleep during the five months preceding the convulsive attack. As will be seen from the history, this somnolence apparently replaced the characteristic headache, which is met with so frequently in these cases as to be almost diagnostic, and which usually produces sleeplessness. Other prominent symptoms were profound stupor and motor aphasia.

HISTORY.

The patient was a married man aged 34. On Saturday, April 26th, 1902, at 7 a.m., the patient according to his usual custom roused his wife, with whom he was sleeping; she got up, dressed, and left the room, having noticed nothing unusual about her husband. At 8 a.m. the man came down to breakfast; but, to his wife's surprise, he was quite unable to speak, although he made great efforts to do so. He then sat down, and with considerable difficulty ate a small bit of toast and drank a cup of tea. He understood what was said to him, but could make no answer. At his wife's request he then returned to bed. At about 9 a.m. his little daughter told her mother that her father was ill; the mother immediately ran upstairs, to find her husband quite unconscious, "making a snoring noise," and with some froth about his lips.

I was immediately sent for, and saw him a few minutes later. He was then lying on his back in a comatose condition, breathing stertorous, teeth tightly clenched. At 10 a.m., whilst I was standing by his bedside, he had an epileptic convulsion, which lasted two or three minutes, and resembled an ordinary epileptic fit, with the exception that the convulsions started in his right arm, leg, and side of face. He was generally convulsed, but most strongly on the right side; as a natural result, he turned over on to his left side, on which he lay throughout the fit. I threw 5 gr. of calomel and 30 of potassium bromide into his mouth, and think they were swallowed. Whilst his wife was out of the room I examined his genitals, but could find no scars or other signs of venereal disease. Between 11 and 2 o'clock he had two more similar attacks, which made three, probably four, altogether. In the interval between two of the fits he once got up, and walked about the room for a few minutes, being in a state of great excitement, but was got back to bed without any difficulty. Whilst in bed he was in much the same state as when I first saw him: eyes tightly closed, teeth firmly clenched, corneal and skin reflexes present, and quite unconscious of his surroundings. It was only with the greatest difficulty that his teeth could be forced apart for the purpose of introducing powders or fluids. In the evening I gave him 5 gr. more of calomel, having previously put him on 15 gr. of potassium iodide, with 1 drachm of liquor hydrargyri perchloridi every three hours. I also gave his relations a favourable prognosis. In the evening he got out of bed and emptied his bladder and rectum quite naturally, getting back again without any assistance, and displaying no bodily weakness. He seemed, however, quite unconscious of his surroundings, and did not attempt to speak, falling at once on his return to bed into his former heavy sleep, which continued throughout the night. At no time had he any incontinence except during the convulsions, when he passed his water unconsciously.

On Sunday morning he was in much the same condition, sleeping heavily and only waking to empty bladder and rectum. His bowels were freely moved both in the night and again in the morning. There was still great difficulty in feeding him, all medicines and nourishments having to be poured into his mouth after forcibly separating his tightly clenched teeth. In the afternoon he was distinctly clearer, and lay for a few minutes with his eyes open: he then noticed a relative whom he had not recently seen, and said to him, "Hullo, Smith," these being his first words since he rose the previous morning. He at once relapsed into his former state of stupor, from which he could, however, be partially roused. Later in the day he said "Yes" and "No" a few times when spoken to, but not intelligently: feeding was still difficult, but less so than formerly. During Sunday night he slept soundly.

On Monday morning he was distinctly clearer and could say a few words. He also endeavoured to dress himself, and seemed very disappointed at not being permitted to do so. The dose of potassium iodide was now reduced to 15 gr. with a drachm of liq. hydrarg. perchlor. four times a day.

On Tuesday he was able to carry on a conversation for a few sentences, but no more, not being able to fix his mind on anything for more than a minute or two.

On Wednesday he was much clearer and daily increased in strength so rapidly in mind and body that he was allowed out of bed on the Saturday for a short time, when he was physically weak but quite rational. Owing to his mouth becoming very inflamed and ulcerated the liq. hydrarg. perchlor. was omitted from his medicine, and for the next few weeks the iodide alone, 1 drachm daily, was given. His mouth soon recovered and in about a week was quite well.

On Tuesday, May 6th, as he seemed quite himself, he went out for a short walk, and on the following Tuesday, the 13th, went away for a week to the seaside, after which he returned to his business. Early in June he was ordered 10 gr. of potassium iodide with 1 drachm of liquor hydrarg. perchlor. thrice daily. This he was able to take without any ill-effects. He told me that he had a distinct recollection of coming down to breakfast and being unable to speak, but that after he returned to bed he remembered no more until he saw and spoke to his relative the following day, after which for a day or two only a few incidents appear to have left any impression on his mind.

The history previous to his attack, which I have since obtained, is as follows: He had always been healthy and well, never having been seriously ill before; he had a chancre in the usual position eight years ago, for which he was treated by a doctor for one month; he was not aware that it was necessary to undergo any further treatment, and had had no rash, sore throat, or secondaries of any description.

About five months before the present illness he began to feel drowsy at all hours, falling off to sleep with great ease. During the last two months this tendency to sleep had become most pronounced. He would return at 7 in the evening, eat his dinner, and then sleep before the fire till 10 when he went to bed and at once fell sound asleep, remaining so until he got up at 8 next morning. Whilst riding to his place of business after breakfast on an omnibus he felt sleepy, and during the day was often found fast asleep in his office. He never had any pain in his head or elsewhere, neither did he feel any discomfort of any kind besides this one desire to sleep. These facts were corroborated by his wife, who also told me that she noticed no change whatever in his disposition or behaviour.

The subsequent history has been quite uneventful. The drowsiness, which completely left him a few days after his convulsive attack, has never returned, and he only sleeps a normal number of hours at the proper time.

For some months his memory was a little defective. He would forget some incident, either trivial or important, which had happened the previous day or less recently, until reminded, when he at once remembered. This gave him some trouble, as it happened frequently, but it passed off completely, and in July, 1903, he was perfectly well in all respects.

I think this well-marked prodromal somnolence must be very rare, as I have not been able to find the report of any similar case. The symptom is, of course, known, since Gowers[1] writes of "considerable mental dullness or a somnolent condition lasting for weeks," as being an occasional premonitory symptom in cerebral thrombosis.

Aldren Turner[2] also writes of a "tendency to somnolency so that the person drops off to sleep while at work," as being sometimes associated with a change in the character and disposition of a patient suffering from cerebral syphilis.

Buzzard[3] has recorded several cases of prolonged somnolence associated with hemiplegia; but in his cases the somnolence did not precede, but accompanied or followed the acute attack, and, moreover, produced great mental dullness.

DIAGNOSIS.

Quite apart from the history of chancre, the gradual onset together with the complete and rapid recovery under anti-syphilitic treatment, clearly proves that the lesion was of a syphilitic nature.

NATURE OF LESION.

The most common syphilitic disease of the brain is that known as obliterative endarteritis of the cerebral arteries—a disease which slowly narrows the cavity of the vessel to

greater extent than does atheroma, but produces very similar pathological effects.[4]

Heubner is quoted by Cornil[5] as attributing the somnolency to the narrowing of a number of arteries, in consequence of which there is congestion and defective oxidation of the brain substance. Motor aphasia would be produced by occlusion of the first cortical branch of the middle cerebral artery.

According to Osler,[6] transient aphasia with perfect recovery may occur in advanced arterio-sclerosis, but the explanation of this fact is not easy.

Convulsions are very frequently caused by cerebral syphilis, and both Fournier and H. C. Wood[7] have laid great stress on the value of this symptom in diagnosis when occurring in persons over 30. They may be caused, like aphasia, by advanced arterio-sclerosis,[6] but are decidedly rare in atheroma, being more often due to meningeal growth or chronic inflammation.[8] This may, of course, have been present in the above case, in addition to the more obvious endarteritis, but had it been I do not think the patient would have been so completely free from headache of some kind or another.

I am therefore inclined to think, from the foregoing considerations, that the lesion in the above case was extensive syphilitic endarteritis of the cerebral arteries, without thrombosis or embolism, but possibly with spasm of the arteries.

The most interesting feature about this case is, of course, the preceding somnolence, but the entire absence of the more common symptoms—for example, headache and hemiplegia—together with the apparently complete recovery of the patient, is not without interest.

REFERENCES.

[1] Gowers's *Diseases of the Nervous System*, 2nd edition, vol. ii, p. 432. Clifford Allbutt's *System of Medicine*, vol. vii, p. 682. [3] *Lancet*, June 7th, 879. [4] Gowers, vol. ii, p. 429. [5] Cornil's *Syphilis*, p. 317. [6] Osler's *Principles and Practice of Medicine*, 4th edition. p. 775. [7] Ibid., p. 246. Gowers, vol. ii, p. 734.

BILATERAL NEURITIS OF FIFTH AND SIXTH CERVICAL NERVES.

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THE following case, while presenting some interesting points in etiology and localization, also shows that the results of brachial neuritis are not always so favourable as in the cases recently reported by Dr. Simon.[1] For the notes I am indebted to Mr. Edwards, House-Physician at the Nottingham General Hospital.

E. S., a coal miner, aged 29, was sent to me by Dr. Nesbitt, of Sutton-in-Ashfield, and was admitted into hospital on July 16th, 1903, having previously attended for about a month as an out-patient. He was a steady, industrious man, non-smoker, and almost a total abstainer. No evidence or history of syphilis. His previous health had been good and the family history was unimportant. For a few weeks before the illness began he had been extra hard worked, and worried about business and family matters. His appetite failed and he slept badly. He persisted in working, although his wife begged him to take rest.

Since May 25th he had complained of very severe pain in the root of the neck on both sides, spreading over the shoulders and down the arms. This still continued when I first saw him, about a fortnight later. There was much tenderness on pressure over the cervical nerves on each side of the spine. Power of abduction of the left arm was lost; the other movements of the shoulder and elbow on both sides could be performed, but feebly. Flexion of the elbow was impaired, but not lost. The loss of power was greatest on the left side, and this has been the case throughout. (He is left-handed.) Tenderness was not marked over the main nerves in the limbs. Sensation was distinctly blunted over the cutaneous supply of the left circumflex nerve (both to pain and tactile sense), and later on there was a slighter amount of impairment on the right side. The pupils were equal and reacted normally. At no time have there been symptoms pointing to disease of the brain, cord, or membranes.

After admission on July 16th pain rapidly diminished in the right arm, and power of movement returned. In the left, also, the pains gradually diminished, and sensation on the outer side of both arms became normal. Both deltoids were wasted, the left being the worst. This ultimately became extremely atrophic. The left supra-spinati and infra-spinati were somewhat atrophied. At this time all the upper arm muscles, except the left deltoid, were stated to react to faradism. In the left deltoid there was absolutely no voluntary power, and with galvanism the muscle gave reaction of degeneration. He remained in hospital about a month, and spent about a fortnight at the Cedars Convalescent Home, galvanism being persevered with the whole time.

On September 5th the right deltoid had quite recovered, while the left remained powerless. and the horizontal measurement round the body of the muscle was 1½ in. less than on the right side. The left spinati muscles were also atrophied.

On December 16th the deltoid had recovered a certain amount of voluntary power, and the difference in measurement was less than before—namely, ⅞ in. The muscular wasting, however, was now more extensive than had hitherto been noted. Besides the two spinati on left side, the right serratus magnus and infra-spinatus were completely atrophied. None of these reacted with either current. The left deltoid, notwithstanding improved nutrition and return of voluntary power, still gave the degenerative reaction, and did not react to faradism.

The etiology of the case appears to resemble that of Dr. Simon's first case, the only ascertainable causes being hard work, mental worry, and a low state of health. Possibly continued work with the arms raised above the head might cause injurious pressure on the nerves by exciting contractions in the scalenus medius muscle which they pierce. An interesting feature of the case is the bilateral distribution of the muscular paresis and wasting. In two of Dr. Simon's cases, and one of those reported by Drs. Harris and Low,[2] all like the present, spontaneous or non-traumatic cases, one limb only was involved. Falls on the shoulder, sprains, or other mechanical force are the commonest causes of neuritis of the cervical nerves. Carrying weights on the shoulder is a common cause of this affection, the nerve to the serratus being particularly exposed to pressure. Thus I lately had an out-patient under treatment with the interesting condition of bilateral wasting and paralysis of the serratus magnus, due to pressure on the nerve produced as above mentioned.

The muscular weakness at the commencement of the illness corresponded pretty closely with Erb's type of upper-arm palsy. This is dependent on lesion of the fifth cervical nerve, the muscles most commonly affected being the deltoid, supra-spinatus and infra-spinatus, biceps, brachialis anticus, and sometimes the supinators, longus and brevis.

In the case under notice the flexors of the elbow, though distinctly weakened in the first instance, rapidly regained their strength and tone, while the chief stress of the disease fell on some of the shoulder muscles. The sixth cervical nerve may also have been inflamed to a slighter extent, especially on the right side, on which the serratus magnus is atrophied. The nerve to the serratus comes from the fifth and sixth cervical before they unite to form a common trunk, and sometimes also in part from the seventh nerve. The distribution of the fifth cervical nerve has been pretty fully worked out by different observers, and a short recapitulation of what is known or surmised may prove useful. After receiving a branch from the fourth, the fifth cervical supplies the nerve to the rhomboids, probably deriving its filaments from the fourth, as these muscles were not affected on either side in this case. Then comes a branch which unites with a branch from the sixth cervical to form Bell's nerve (for the serratus). Lower down the nerve, according to Drs. Harris and Low,[3] can be divided into an upper and lower fasciculus. The former, after giving off the supra-scapular nerve to the supra-spinati and infra-spinati, joins the posterior cord of the brachial plexus, and furnishes the circumflex nerve, which supplies the deltoid, the teres minor, and the skin on the outer side of the upper arm.

The lower fasciculus forms the greater part of the musculo-cutaneous nerve, from the outer cord of the plexus, supplying the biceps, brachialis anticus, and skin of the outer side of the forearm. It will be seen that the main incidence of the paralysis in this case corresponds on the left side with the assumption that the upper fasciculus of the fifth cervical nerve was the portion chiefly affected. On the right side the only portion of this bundle of fibres which has not recovered is the nerve to the infra-spinatus, while the paralysis of the serratus magnus shows a picking out of some of the fibres of the nerve immediately after its emergence from the spinal foramen.

Paralysis of the serratus magnus gives rise to a characteristic deformity, for when the arm is moved forward the lower angle of the scapula is rotated inwards, and its posterior edge projects like a wing. As the scapula is rotated and fixed by the serratus when the arm is raised above the horizontal position, its paralysis considerably weakens this movement. This man, notwithstanding wasting of the serratus on one side and only partial recovery of the deltoid on the other, has no difficulty in elevating the arms above the head. The trapezius normally co-operates with the other elevators of the arm, and can to some extent supply their place when paralysed. The spine of the left scapula in the patient under consideration is prominent, and the supra-spinous and infra-spinous fossae unduly hollowed from wasting of the spinati

muscles; but their loss appears to occasion only trifling inconvenience.

Since the above was written two further articles on the subject have appeared in the BRITISH MEDICAL JOURNAL for January 16th, 1904, by Dr. Distin and Dr. Charles. The latter points out the frequency of brachial neuritis among miners, and confirms my own impressions that a confined posture at work is an important factor in etiology.

REFERENCES.

[1] BRITISH MEDICAL JOURNAL, July 11th, 1903, p. 71. [2] Ibid., October 24th, 1903, p. 1035. [3] Loc. cit.

DEEP ULNAR NERVE PARALYSIS AND FUNCTIONAL POWERS.

By TENNYSON PATMORE, M.R.C.S., L.R.C.P.,
London.

IT is rarely that we see isolated paralysis limited to the deep palmar branch of the ulnar nerve, hence the following is interesting:

J. H., aged about 27, a carpenter, was struck by a heavy hammer over the left lower radial region, whilst the ulnar edge of the hand sustained a counter-blow through being forced against some hard body. There was a wound over the pisiform and unciform bones.

He worked from the date of accident (September 17th, 1903) at his trade for about three months, just managing to do his work with difficulty. About two weeks after the accident he noticed that his two inner fingers were commencing to become "bent." About the beginning of December he found it impossible to continue his work properly, because, although he could grasp all larger objects, such as saw-handles, hammers, chisels, etc., with his left hand, he could not hold small objects, such as nails, brads, screws, etc.

On January 6th, 1904, I saw him in connexion with his claim under the Workmen's Compensation Act, and I found the following condition: The left hand was markedly smaller than the right, and the intermetacarpal spaces distinctly hollow; there was the usual wasting of thumb and small finger muscles, but it was more pronounced than usual. The two inner fingers were markedly "clawed," overextended at the metacarpo-phalangeal joint, and flexed at the more distal joints. The mid-finger was just commencing to show the same deformity. It was interesting to observe that when I asked him to try to extend the deformed fingers "properly," he said, "I can, sir, if you just place your finger there," indicating the back of the first phalangeal joints, showing how he missed the steadying support of the lumbricales at those joints. He had complete sensation in "ulnar" portions of the hand and fingers. The usual absence of adduction and abduction of the fingers was observed. He had strong grasp for any large object, but for pins and pens and pencils the co-ordination and power of grasp was undecided and so weak as to be relaxed by slight force on my part. In fact, he had no fine adjustment of fingers and thumb.

The following struck me as most interesting; although he had his proper thumb adductors quite paralysed and wasted, and showing marked reaction of degeneration, still I found he could adduct his thumb powerfully, so that he held it firmly against the radial border of the index finger. On examining the apparent tenseness of tendons I saw that the extensor ossis secundi internodii was in strong action, and was performing this adductor function, the obliquity of its tendon's direction from inside to outside of radius becoming very evident, and itself demonstrating its mechanical adductor application, the short flexor and the long flexor and the opponens probably helped in this action, but its power was most marked.

The conclusions which struck me most about this instructive case were: With complete deep ulnar paralysis we have still remaining a good rough hand grasp; we have the thumb-opposing powers and flexion powers (derived from median innervation), and we have the lost adductors supplanted to a useful degree by extensor and flexor muscles. Of course, if the damaged nerve is not rehabilitated, and the degenerated muscles regenerated, in time we must look for a very far worse state of things, owing to tendon and joint adhesions; but even then we must remember that we shall have the thumb performing many most valuable duties in all of its five directions. It is important to differentiate "complete" destruction of function from "incomplete," although most serious, destruction of it.

I may add that this case is to be operated on with a hope of recovering the deep ulnar nerve's function.

REFLEX DISTURBANCES ASSOCIATED WITH ADHERENT PREPUCE.

By ROBERT M. SIMON, M.D., F.R.C.P.,
Physician to the General Hospital, Birmingham.

MALFORMATION and unusual condition of the penis prac tically never come under the notice of a physician, and i is, therefore, not remarkable that one's attention can onl rarely be directed to such conditions as having a possible an an exciting influence in causing widely differing and remot disturbance of functions in other organs.

Within the last few years, however, I have seen three case in which the symptoms were due to adherent prepuce or narrowed urethral meatus. In not one of these cases wa there any reason to associate the symptoms with any troubl about the penis, nor was such trouble suspected. It was onl after every other possible cause had been considered, and th symptoms had been treated without the slightest benefit t the patient that a thorough examination revealed a conditio of the penis which, if not the cause of the symptoms con plained of, was, at any rate, so far from normal as to rende local treatment desirable.

CASE I.

A boy, aged 18 months, well made and growing rapidly, suddenly b came unable to walk. He dragged one leg, and complained of pain in th hip. Any attempt to make him walk caused severe pain, and, any rate, was resisted with screams. He was under the care of one the best known practitioners of this city who suspected, despite th absence of many signs, incipient hip mischief. One of our leading surgeo examined the child, and gave a positive opinion against the existen of hip disease but was not able to do or suggest anything whi helped to restore the child's walking power or relieve the symptom When called in to see the child I thus had the advantage of the opinio of two doctors more familiar with the subject of hip disease than m self, and of their assurance that hip disease was not present, *faute de mieux* I tried to find some cause of reflex irritation, and aft irritation by worms had been considered and negatived we examin the penis.

The prepuce was found to be long and adherent. The child was c cumcized and recovery was immediate and complete.

CASE II.

A boy, aged 14, was sent to me from a neighbouring town on accou of obstinate and severe intestinal colic. No medicines had relieved hi and I advised that he should be treated as though the colic had be due to lead poisoning. More thorough examination, after this plan h been tried and failed, revealed an adherent prepuce. This was treate no medicines being given, with complete disappearance of symptoms.

CASE III.

A boy, aged 3, had been perfectly well during infancy, but wh developing from an infant into a well-grown little boy, began to wake at night screaming and complaining of pain in the abdomen. Th occurred night after night with a regularity which resulted in great d turbance to the household, and loss of sleep to the little boy wh health began to suffer. I saw him several times and treated h unsuccessfully for night terrors and indigestion.

I found that advantage was taken of his being awake to get him to p water, but though he went to sleep afterwards I failed to associate fact with his symptoms. It was only after all efforts to help him h been futile that I examined the penis. The prepuce was found to adherent and the meatus narrow. These conditions were treated su cally and immediate and permanent cessation of symptoms followed.

It is probable that in the third case the need to empty bladder was the starting-point of the symptoms, and that call to micturate was associated with some erection of penis, any turgescence of which would be rendered painful the adhesion of the prepuce. The boy was not old enough describe his condition accurately, or locate the pain with c tainty, so that both by his parents and myself he was c sidered to be suffering from indigestion. This explanat will not apply to the second case, which like the f must have been due to some reflex disturbance of the nerv system.

In the first case, that of inability to move the leg, it wo appear that there must have been inhibition of spinal nerv due to the peripheral irritation of an adherent prepuce. It of course, a truism that we ought to examine our patie thoroughly, but these cases show how great is the necessity do so when the symptoms complained of are anomalous. inconsistent with those generally accepted causes wh underlie similar disturbances of function.

ETANY ASSOCIATED WITH MUCO-MEMBRANOUS COLITIS AND PHTHISIS.

By H. HYSLOP-THOMSON, M.D.Glasg.,
Resident Physician, Consumption Sanatorium, Bridge of Weir.

ETANY and muco-membranous colitis are somewhat rare onditions, and the occurrence of both in a phthisical person the same time, the one obviously dependent upon the her, renders the case about to be described worthy of being aced on record.

E. T., female, aged 21, and employed as a packer in a confectionery, was admitted into the consumption hospital at ridge of Weir on March 21st, 1903, with a history of cough, ith expectoration, loss of flesh and appetite, and some loss strength of eight months' duration.

Family History.—It was stated that her father and a brother had died om pulmonary tuberculosis. In connexion with the supposed relationip between colitis and the rheumatic diathesis it may be mentioned at two brothers had suffered at one time from acute rheumatism.

Previous History.—The patient's health prior to the onset of her preent illness was considered good. With the exception of an attack of eurisy a year before admission she had been free from any serious ness. Menstruation commenced at the age of 14, but had never been gular: there was a slight leucorrhoeal discharge, which increased in ount for a few days before the menstrual period. For some conderable time patient had suffered from occasional intercurrent attacks diarrhoea and shooting pains in her back and loins.

Condition on admission was good. Though thin she was not aciated; her complexion was somewhat pale, and her mucous memanes were poorly injected. Pulse, temperature, and respirations re normal. On the right side of the neck, close to the angle of the w, there was a mass of enlarged lymphatic glands, while more anteriorly were some old puckered cicatrices. The percussion resonance er the right upper lobe in front was diminished as compared with at on the left side, while the vocal resonance and tactile fremitus re increased. The respiratory murmur was harsh with the expiry portion unduly prolonged, and a series of medium-sized crepitaons was heard. Over the supraspinous and scapular regions behind sh respiratory murmur and medium-sized crepitations were audible. e left lung appeared normal. The sputum was scanty, and no bercle bacilli were found on staining by Ziehl-Neelsen's method.

Progress.—During the first three months the patient responded well treatment and gained 1 st. 5 lb. 8 oz. in weight. She was however y much troubled with constipation, alternating with attacks of rrhoea. Apart from this she remained in excellent health until the inning of July, when she began to complain of pain after food, with dache and giddiness, and in consequence was placed on modified and ordered to rest for one hour after each meal. On July 7th re was a paroxysm of acute abdominal pain. The motions as obved at this time were small and hard, occurring in round or bulleted masses, somewhat slimy, and streaked with bright red blood. A king feature at this time was the sudden change which took place in disposition of the girl. From being a happy and contented indinal she became emotional, extremely irritable, and at times erical, while tremor of the hands with slight twitching of mouth, especially marked when addressed, was observed. m this date on to the beginning of August there were periodical cks of abdominal pain varying in severity, and occurring at intervals rom a few hours to several days. The pain, which was burning in racter, was at times very acute, and was referred for the most part he regions of the ascending, transverse, and descending colon, re palpation elicited tenderness on deep pressure, and a definite ng of resistance. During the most severe paroxysms there were y eructations, and the passing of much flatus per rectum. On one wo occasions there was sickness, the vomit consisting of rejected or bile-stained mucus. The tongue was very foul, and was covered, pt at its tip and edges, with a thick yellow fur, while the breath a peculiarly disagreeable odour. The stools during this time had ged in character. They became softer and more slimy, and were nes watery, while mucus and shreds of membrane, and at intervals d in small quantity, either bright red or altered in colour, were ed. In appearance the mucus was not unlike sputum, so much so the nurse in attendance asked the patient if she had been swallower sputum. The shreds of membrane were for the most part small ze, the largest not exceeding 4 in. in length; they were light brown olour, thin, translucent, and gelatinous. The mucus and membrane occasionally passed in contact with or partially surrounding the on when formed, but more frequently they were distinctly separate it; at times following the desire to defaecate mucus alone was d. Microscopically the membrane consisted of dense layers of s containing a few round and columnar cells. The edge of the brane was sharply defined, thicker, and less translucent than the unding mucus, and here and there appeared rolled on itself. while the patient's general health had suffered; she had lost over a in weight, and was feeble and low-spirited. From the onset of ymptoms the temperature had shown a tendency to rise, averaging 100° F. in the evening, and reaching a maximum of 101.8° F.; the attack the average evening temperature had been 99.4° F. rds the end of the first week of August patient's condition comed to improve. The stools became more normal in appearance, and contained less mucus and only a few shreds of membrane. She was free from acute pain, but there remained a feeling of discomfort, described by her as a tight feeling in the upper part of the abdomen. As she complained of hunger, and appeared to be steadily improving, she was allowed a light diet, and was permitted a few days later to rise for a short time in the afternoon. On August 30th there was a return of the abdominal pain, with a little blood and an increased amount of mucus in the stool. On the following morning there were two motions containing some bright red blood. About midday a considerable quantity of blood was passed per rectum, preceded by severe abdominal pain. Immediately following the discharge of blood the girl had a severe and characteristic attack of tetany. When seen she was lying on her back with an anxious expression on her face and evidently trying to articulate something, which was subsequently found to be "I can't open my hands." The tonic spasms were severe, and affected the face as well as the extremities. The thumbs were flexed and pressed tightly into the palms of the hands, while the fingers flexed at the metacarpo-phalangeal joints were extended at their terminal joints. The hands were flexed at the wrist and the arms were crossed on the chest; occasionally they were held out in front as the patient vainly endeavoured to control the spasm. The feet were arched, and extended at the ankle-joint while the toes were crowded together, being adducted and strongly flexed. During the height of the paroxysm the patient was quite unable to articulate distinctly; the mouth was partially open and the lips pursed together as if she were trying to whistle. As the spasm lessened the angles of the mouth were retracted. The tongue, according to the patient's statement, was forcibly drawn to the right side of the mouth. The face was very pale, the extremities cold and the pulse feeble. The girl, in describing her sensations during the paroxysm, stated that she felt her limbs cold and could not stretch them out as her sinews appeared to be all drawn together; her face felt cold and stiff and her lips as if they were being drawn out and pressed together. Patient was warned of the attack coming on by feeling sick and shaky, and after the spasm had ceased there was feeling of numbness and a sensation of pins and needles in the limbs and face. There were only two severe paroxysms, the second occurring about three hours after the first, but for some days tremor of the hands and twitching of the facial muscles remained. The spasm was easily controlled by hypodermic injections of hyoscyn. hydrobrom. and considerable relief was obtained by the application of heat to the limbs. During the first few days of September the mucus passed per rectum had increased in amount, but during the second week it gradually diminished. She then commenced to improve, her appetite increased, and she was allowed a more liberal diet. Up to September 12th, the date of leaving hospital, small quantities of mucus were, however, occasionally observed in the stools. No untoward effect was manifested on the lung condition. Cough was slight, and for some weeks expectoration had been absent; physical signs, though still present, were much modified.

Remarks.

This case is certainly one of unusual interest. The association of tetany with muco-membranous colitis in a case of phthisis pulmonalis must constitute a very rare combination of diseases.

It is true that the diagnosis of phthisis was not confirmed by the presence of tubercle bacilli in the sputum, but the presence of enlarged lymphatic glands and some old cicatrices in the neck, with crepitations over the right upper lobe, and a fairly uniform evening pyrexia, were sufficient to render the diagnosis almost certain.

What the exact relationship between muco-membranous colitis and tetany may be I am not prepared to say, but the association of the characteristic paroxysm of tetany with a form of colitis which is now regarded as a neurosis of the colon presented an interesting clinical picture.

A CASE OF HEMIPLEGIA OCCURRING DURING WHOOPING-COUGH AND DIPHTHERIA.

By HENRY FRASER, M.D., D.P.H.,
Aberdeen.

The publication by Mr. Gowring in the British Medical Journal of December 26th, 1903, of a case of ophthalmoplegia occurring during whooping-cough recalls to mind an interesting case which I had under my care some time ago:

J. J., male, aged 18 months, was admitted to the City Hospital, Aberdeen, on March 31st, 1902, suffering from diphtheria and whooping-cough.

History.—Diphtheria had been diagnosed five days previous to admission; whooping-cough had been present for about six weeks.

Condition on Admission.—The tongue was slightly coated; the throat was reddened and congested; a yellowish-grey membranous deposit partially covered the right tonsil; the submaxillary glands, more especially those on the right side, were enlarged. The breathing was laboured. Examination of the lungs detected the presence of some medium *râles*. The heart sounds were weak but there was no valvular incompetence. The pulse was soft, compressible, and feeble; the

temperature was 99° F., and the urine normal. Bacteriological examination confirmed the diagnosis of diphtheria.

Treatment.—Two thousand units of antitoxin were injected, and tinct. digitalis (mj) and tinct. ferri perchlor. (miij) directed to be given every four hours.

The child passed a quiet night and next morning (April 1st) seemed better.

Onset of Hemiplegia.—At 3.30 p.m. that day he had a slight attack of coughing; no whoop was heard, but a convulsion occurred which for some minutes looked serious, then gradually subsided. Soon afterwards it was observed that the lower part of the right side of the face as also the right arm and leg were paralysed. The eyelids were now closed and resisted attempts to open them; the conjunctival reflexes were present; both eyes were turned to the left, and movements did not range beyond the middle line: the pupils were medium and reacted to light. The right angle of the mouth was not employed when the child attempted oral movements. The right arm hung limp and flaccid, the right leg was flexed, abducted, and rotated outwards; the patellar reflexes were with difficulty elicited and differed in no respect. There was hemianaesthesia of the right half of the body, with the exception of the right foot, and the upper part of the right half of the face. Later in the day and during the night there were some twelve fits of varying intensity, lasting on an average from two to three minutes. These fits were Jacksonian in character and began with turning, followed by rapid oscillations of the eyes to the right, next twitching about the right angle of the mouth, and ultimately convulsive movements of the whole body. As each attack passed off there was some coughing with expectoration, then the eyes were turned to the left and maintained there. On April 2nd right lateral hemianopsia was noted. The eyelids were now generally kept open. A number of apparently minor fits were observed, affecting only the eyes, which were turned to the right and oscillated rapidly. There were several major fits during the day, and towards evening they became more frequent. Liquid nourishment was well borne, and there were no attacks of vomiting. Ammonium bromide in 1-gr. doses was directed to be given every two hours or oftener if necessary.

After-history.—The fits recurred, though with gradually lessening frequency, until April 6th. The temperature was very erratic, at times reaching 103° F., but never for long remaining at that height. The lungs were resonant, and the urine was invariably free from albumen. The diphtherial membrane disappeared three days after admission. On April 6th the child seemed very drowsy and much weaker. The breathing was rapid and shallow, and on April 7th was of the Cheyne-Stokes type. The ammonium bromide was discontinued. On April 11th the patient seemed better. The coughing and expectoration were much diminished, but the Cheyne-Stokes breathing persisted. On the following day the paralysis of the right side of the face was no longer evident. The Cheyne-Stokes breathing was present at intervals until April 15th, after which date the child's condition steadily improved. By April 24th the hemianopsia had entirely disappeared; the right arm was at times moved from the elbow-joint, the right leg showed no signs of voluntary movement, and on feeding there was no indication of facial paralysis. Sensation had returned in both the right arm and leg; the right half of the trunk was less sensitive than the left. When the child was raised the helpless condition of the right arm and leg was very apparent. On May 3rd, thirty-three days after the onset of the hemiplegia, the child was, at the mother's request, taken home. The right leg now showed signs of returning power. The right arm was capable of voluntary movement only up to the elbow. Anaesthesia had quite disappeared. The mother informed me that prior to this illness the child could talk "wonderfully well"; on the day of discharge he could only utter an inarticulate cry. On June 7th, sixty-eight days from the date of attack, save for some weakness in the right arm, recovery was complete The child walked well, and the mother stated the power of speech was better than before the illness.

REMARKS.

That the hemiplegia was the result of intracranial haemorrhage will, I think, be readily admitted. Diphtheria had first been diagnosed six days before the onset of the hemiplegia, so that, even if we make allowance for the diphtheria bacilli having been present for a longer interval, the possibility of toxic neuritis is excluded. Moreover the onset of symptoms of, and recovery from, the paralysis were characteristic of a central and not of a peripheral affection.

Whooping-cough had been present for six weeks; during that time the recurrent paroxysms of cough must have exposed the cerebral vessels to considerable strain, which had at length resulted in a rupture, with extravasation of blood. The right hemiplegia, hemianaesthesia, and hemianopsia, coupled with the Jacksonian character of the subsequent fits, served to show that the lesion was subdural, and that the blood clot extended over a considerable portion of the left cerebral hemisphere.

The fate of this haemorrhagic effusion must remain a matter for theoretical speculation. It may have become absorbed, and the fact that the areas which were presumably pressed on by the periphery of the clot recovered first would seem to support this assumption; it may, however, have become encysted, with adaptation of the brain and skull to the presence of this unwelcome host, and thus have led to the ultimate disappearance of the symptoms of compression and irritation. I regret that I was unable to follow up this case further. It is well known that such children may in time become the subjects of epilepsy, or that their intelligence may remain impaired. Although complete idiocy has been recorded, more often there is only defective mental power or backwardness.

LESION OF POST-CENTRAL CONVOLUTION WITHOUT PARALYSIS.

BY C. BIRT, BREVET LIEUTENANT-COLONEL R.A.M.C.,
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IN C. S. Sherrington and A. F. F. Grünbaum's[1] experiments on the brains of the higher apes the electrode placed on the surface of the post-central gyrus failed to elicit movements. Large lesions also in this area caused no paralysis. Purves Stewart[2] stimulated electrically the human cortex behind the fissure of Rolando in the ordinarily assumed position of the leg centre without result. The following case proves that a focus of softening in the ascending parietal convolution is not necessarily associated with monoplegia.

A young man was progressing well, late in the course of a severe attack of enteric fever, when he had a transient epileptiform seizure, the probable date of the onset of the thrombosis. He regained consciousness, and was able to move all his limbs freely. He was observed to feed himself with his right hand. Three days later a sudden recurrence of general convulsions took place, which ended in death after three hours. The brain was removed within two hours of his decease. The veins of the pia mater were blocked on both sides near the fissure of Rolando. The cortex was unaffected, beyond congestion, except in one spot in the left post-central gyrus rather more than 1 cm. in diameter, about 7 cm. from the middle line, in what is usually figured as the arm area. Here the brain substance was blood-stained and very soft, contrasting markedly with the rest of the organ, which was unusually firm. Although the veins on either side were symmetricaliy plugged, only the group over the focus of softening was surrounded by a zone of ecchymosed pia mater, which thus suggested an earlier date for the thrombosis on the left side. The venous sinuses, veins of Galen, arteries of the base, and iliac veins, were all patent. There was no meningitis. The intestinal ulcers were all but completely repaired.

Eberth's bacillus was recovered from the spleen.

T. Fisher[3] noted swelling of the convolutions beneath the obstructed veins in three of his cases, but this was not obvious in the present instance. Meningeal thrombosis is seldom met with in necropsies of enteric fever. This is the only occasion on which I have found it in 160 necropsies of those who have succumbed to this disease in South Africa.

Eugène Dabout[4] does not appear to mention this complication in his essay on the meningeal forms of enteric fever. It seems probable that it may be the cause of hemiplegic attacks which, with great rarity, may sometimes occur. The case reported by Hödlmoser[5] of recovery after convulsions in this fever might be explained by meningeal thrombosis, since, as Fisher has pointed out, and as the above example would indicate, the veins of the pia mater can be extensively blocked without permanent brain symptoms arising.

REFERENCES.
1 C. S. Sherrington and A. S. F. Grünbaum, BRITISH MEDICAL JOURNAL, vol. ii, 1901, p. 1857. 2 Purves Stewart, ibid., vol. ii, 1901, p. 1867. 3 Theodore Fisher, ibid., vol. ii, 1901, p. 9; and ii, 1902, p. 947. 4 E. Dabout, ibid., vol. i, 1902; EPITOME (321). 5 C. Hödlmoser, ibid., vol. i, 1903; EPITOME (2).

ON THE ALLEGED INCREASE OF DISEASES OF THE NERVOUS SYSTEM.

BY JOHN MILSON RHODES, M.D.,
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THERE is a popular idea that diseases of the nervous system are increasing, and especially mental diseases; one writer describes the increase of insanity as terrible, and no doubt the rise from 87,000 to 116,000 in the number of certified insane is a very grave question for the ratepayers, and one that requires very serious consideration, both by those responsible for the legislation necessary for the proper treatment of cases of mental disease and also of those responsible for the administration of the law. The general idea is that the increase in the number in the asylums is equivalent to an

equal increase in the ratio of the insane. In the report of the Metropolitan Asylums Board we find the following figures:

Percentage of Cases of Admission to Notification.

Disease.	1890.	1901.
Scarlet fever...	42.82	78.89
Diphtheria	17.87	74 85
Enteric	22.49	45.34
Typhus	42.86	85 00
Small-pox	36 67	97.29

These figures prove that the opinion of the public has undergone a great change in regard to the treating of patients in hospitals. Again, in the sanatoria all over Europe and America there must be thousands of cases of phthisis to-day where there were hundreds twenty years ago, but no one suggests that the number of cases of phthisis has increased; the Registrar-General's returns showing that the ratio of mortality is only two-thirds of what it was twenty years ago are taken as proof of the contrary.

If the public have such an increased amount of confidence in our institutions in regard to infectious diseases, is it not probable that a similar change of opinion has taken place in regard to nervous and mental disease? There was, according to the report of the Registrar-General, an increase in the mortality from diseases of the nervous system between 1866 and 1885 as shown by the following figures:

Mortality per Million.

1886-70	1871-75	1876-80	1881-5	1886-90	1891-5	1896-1900
1605 2	1715 8	1803.4	1807.6	1779.6	1596.2	1481.4

But it will be noticed that since 1885 there has been a fall, and a reference to the last report of the Registrar-General, showing the new classification, proves that, whereas the annual mortality between 1882 and 1891 varied between 737 and 940, that between 1892 and 1901 was between 694 and 903. The following are the comparative figures for 1891 and 1901:

Disease.	1891.	1901.
Increase:		
General paralysis }	96	112
Insanity }		
Paraplegia	74	83
Other diseases of nervous system ...	127	146
Chorea	5	6
Decrease:		
Softening of brain...	113	66
Meningitis	291	217
Epilepsy	105	88
Laryngismus stridulus	28	14

A glance at the figures at once suggests the question, Has the mortality from softening of the brain fallen by nearly 50 per cent. in ten years, or is there better classification? These figures make it at least questionable if there is any increase in nervous diseases, but many, acknowledging that this may be the case in regard to nervous diseases, insist "on the terrible increase of insanity that is going on."

Before we look at the actual figures it is perhaps as well to point out the change that has taken place in the distribution of the people as regards urban and rural districts; the figures are as follows:

Year.	Rural.	Urban.
... ...	7,257,239	21,745,286
... ...	7,469,488	25,058,355
Increase	212,249	3,313,069

This exodus from the rural to the urban districts has been going on for many years, but not to the same extent as during the last decade, and this congestion of the towns has resulted in the vast blocks of working-class dwellings which are seen in London, Manchester, Liverpool, and elsewhere. A moment's consideration will show that a lunatic who could be well be provided for, or, at any rate, tolerated, as they are in some of the country districts of Scotland, Belgium, and the United States, cannot be kept at home in a city on account of the neighbours. Specially is this so in the enormous tenement dwellings of the United States. The Lunacy Commission's return shows that only the councils of Radnor, London, and Wilts have over 4 per 1,000 of pauper lunatics, but amongst the county boroughs Bath had 4.74, Brighton 4.64, Bristol 4.16, Dudley 4.19, Liverpool 4.71, Norwich 4.80, Nottingham 4.50, Southampton 4.04, Stockport 4.49, Hereford 4.49, and Wenlock 4.29. Half these places are towns or cities where a very large number of women are employed in mills. Still the fact faces us that the total number of insane has risen from 53,177 in 1869 to 113,964 in 1903. The rise, as the return shows, does not equally apply to all classes.

—	1869.	1903.
In county asylums	26,867	82,009
In metropolitan licensed houses	2,682	1,982
In registered hospitals and idiot establishments ...	2,352	4,282
In provincial licensed houses	2,114	1,614
In naval and military hospitals	209	230
In Broadmoor	461	738
In workhouses, ordinary	11,181	11,264
,, metropolitan district asylums	—	5,840
With relatives or others	7,311	6,005
Total	53,177	113,964

The ratio of admissions has risen from 4.71 per 10,000 of population in 1869 to 6.93 in 1903. The rise in the ratio of admissions is practically confined to the pauper class, for private cases have only risen 0.06 since 1889, and the criminal only 0.01.

In looking at the total increase a great many people forget the facts that every case admitted will on the average remain twelve years in the asylum. It is this low recovery-rate that throws such a serious burden on the ratepayers. Any one who will calculate what is the result of a recovery-rate on "admissions" of 38.17 per cent. and a mortality of 9.69 per cent. will be surprised at the rapidity with which the number under treatment accumulates.

The number of certified insane has increased enormously, and it is our duty to see what are the causes that throw this heavy burden upon the peoples of all civilized countries.

One of the most potent is the changed and changing conditions under which we live. No cause that I know of has a more powerful effect than that of the crowding of the population into the towns; with that crowding has come an increase of rents that makes housing a serious matter to the working classes. This no doubt is one of the causes, the serious effects of which are even better seen in the United States than here. The State Board of Massachusetts in a recent report gave a prominent position to this cause, and said that

> Home cure of the insane is the most difficult of any class of dependents because they are most likely to disturb and interfere with the rights and comforts of neighbours; but the burden of dependence in general tends to become more onerous on account of the natural increase in density of population and the more frequent migration from small to large centres. Such burden is more easily borne in country districts, where living is cheaper, separation of neighbours wider, interference more avoidable, and tolerance of eccentricities of conduct greater than in cities or large towns.

In the enormous blocks of tenement dwellings such as exist in London, Manchester, New York, Chicago, and Berlin, this cause is no doubt acting powerfully.

Another cause is the fact that year by year a larger number of women are found in the working classes, so leaving in many cases no one free to look after the lunatic at home. Still more powerful as a cause is the confidence that the public now have in the humane treatment of the cases in the mental hospitals of England; probably this feeling of confidence in institutions has been greatly increased by the general use made of hospitals for infectious diseases, with the result that the stigma of pauperism that used to be almost invariably associated with the asylum has to a very great extent disappeared, and they are now looked upon as what they really are—State hospitals for mental diseases, in which all suffering from such diseases have a right to treatment. In my opinion the State Board of Insanity of Massachusetts, U.S., very fairly stated the case when they came to the conclusion:

> 1. That the increase of registered insane does not necessarily imply an increase of incurring insanity out of proportion to the growth of population.
>
> 2. That the rate of increase of occurring insanity is certainly much less than the apparent increase of the insane.
>
> 3. That there is a marked and growing tendency to commit all classes

of the insane to institutions, especially in the case of old people, of the feeble-minded, and criminals.

In my opinion, it is for the benefit of the State that the mentally unfit should be taken care of, so that the multiplication of the unfit may as far as possible be prevented.

A CASE OF PROPERITONEAL HERNIA.*

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IN vol. lxxxii of this Society's *Transactions* my colleague, Mr. G. H. Makins, has recorded a case of prevesical hernia, and in the differentiation of that particular form reference is made to a somewhat allied condition, properitoneal hernia.

It is now my privilege to bring before you a typical case of this rather rare variety, which contrasts well with Mr. Makins's. The following are the details of my case:

History.

S. W., aged 54, a waterside labourer, was admitted into St. Thomas's Hospital on January 20th, 1901, under the care of my colleague, Dr. Acland. Of his previous history there is little to say beyond the fact that a left inguinal hernia had been present for many years, for which a truss had been worn; whether it was strictly "congenital" (that is, existed from birth) could not be stated. The hernia apparently had been kept up by the truss, and there had never previously been any trouble.

Until January 17th the bowels had been quite regular, on January 18th there had been no action, and on January 19th a very small motion was passed. From this time there had been no further passage of faeces or of flatus. The same morning he was sick for the first time and continued being so, vomiting eight times during the day, the vomit gradually becoming darker and offensive. On January 20th sickness was almost constant, and was now accompanied by severe abdominal pain. He was brought up to the hospital in the evening and admitted.

Condition on Admission.

Examination showed his abdomen to be greatly distended, but moving with respiration. The abdominal wall was fairly flaccid, and there was no definite tenderness anywhere. The percussion note was tympanitic, the liver dullness being partially encroached on by the distended intestines: there was no dullness in the flanks. Nothing abnormal could be felt per rectum. Both inguinal canals were free of any hernial tumour, and "both testes were normally placed." The tongue was furred and moist. The vomit was dark bile-stained, but not particularly offensive. The pulse was 88 and regular, without much tension, and the temperature was 99.6° F. Two enemata were given with very scanty result. As the patient was evidently suffering from intestinal obstruction, I was asked to see him and decided on immediate operation.

Operation.

After the administration of chloroform further palpation of the belly showed some increased resistance on deep pressure just above the pubes on the left side, but this had no ascertainable connexion with the inguinal canal, which seemed quite empty, although not abnormally so.

A vertical incision, about 3½ in. long, was made in the median line below the umbilicus. A loop of small gut and matted omentum were found entering through a small opening into a pouch situated behind the left abdominal wall and to the side of the bladder. As the edge of the opening constricted tightly the contents of the sac, its margin was nicked, and the congested matted omentum was able to be withdrawn, but not so the bowel; on introducing the finger into the sac by the side of the gut, the latter seemed firmly adherent in front over the situation of the internal ring. As the state of affairs present seemed related to his hernia, I opened up the inguinal canal in the usual way from the front, and found an empty peritoneal sac. On following this up to the internal ring there was seen presenting in the opening itself, but not projecting through it, bowel, which was firmly adherent, quite black, and lacerated easily on attempted separation. It was evident, then, that the bowel occupied, and was strangulated in, a pouch behind the abdominal wall; also that the loop of bowel occupying the aforesaid pouch had become gangrenous and was adherent to the sac. I then adopted what seemed the only available method. Having packed round the internal opening and further enlarged it, I separated the adherent loop from the sac, withdrew it through the internal opening, and brought it out externally through the abdominal wound. The bowel for 4½ in. was gangrenous, due to the severe constriction at the opening into the peritoneal cavity. This portion of the bowel, with its corresponding wedge of mesentery, was excised, and an end-to-end junction was made; a fine silk running stitch through all the coats approximated the ends, and a second securing row of Lembert's sutures was passed through the sero-muscular coats. As the condition of the patient did not allow of any delay, the sac itself was thoroughly washed out, but not excised; a gauze drain was placed down to the internal ring, and both the abdominal and inguinal wounds were sutured up. Infusion of normal saline was done into the median basilic vein with temporary recovery, but he collapsed about one hour after the operation, and died somewhat suddenly in the early morning of January 21st.

Necropsy.

In the afternoon of the same day a necropsy was made, and nothing was found to note beyond the local structural changes connected with the hernia; these, on careful dissection, have proved as follows, and may be seen in the specimen. The inguinal sac extends down the canal to just below the external ring; it is in the substance of the cord, the pampiniform plexus being in front and to the outer or left side of the sac, while the vas deferens, with its closely related vessels, is behind and to the inner side. The testis was normally placed in the scrotum. This ingninal sac has a comparativoly small opening at the situation of the internal ring into the sac placed behind the abdominal wall. This inner sac is of an oval form with its long axis parallel with the direction of Poupart's ligament; it is markedly convex posteriorly, and measures in its long axis 4½ in., and in its transverse axis 2¼ in. Its inner end is closely placed to the left side of the bladder, the lower and inner part of the sac being within the pelvis and in relation in front with the horizontal ramus of the pubes. In the inner third of the upper half of the sac posteriorly is a circular opening, of about 1 in. diameter, with a very sharply-defined margin; this opening corresponds in front in front with the outer edge of the lower part of the rectus. On the outer side the sac extends into the iliac fossa, resting on and just passing beyond the external iliac vessels; the deep circumflex iliac vessels are to be seen coursing round the outer pole of the sac as they make their way outwards. The sac has an opening in front through which it is continuous with the sac in the inguinal canal, the two forming a bilocular cavity. This anterior opening is placed at the junction of the outer and middle thirds of the sac and to the outside of the deep epigastric artery. Just to the inner side of the internal opening is a small fold of peritoneum passing over the sac to the side of the bladder; this does not, however, appear to be related with the course of the obliterated hypogastric artery. To the inner side of the upper part of the sac is a very small peritoneal fossa—an observation of importance bearing in mind the views of Bär, to be referred to later. From the lower part of the back of the sac another peritoneal fold is seen passing to the sigmoid loop running just external to the true brim of the pelvis.

The case just described is a well-marked example of properitoneal hernia, to which form our attention was first especially drawn in the able papers of Kronlein[1] and subsequently by Breiter.

Its important anatomical feature is that it consists of a biloculated sac, of which the lower loculus is in the inguinal canal and may or may not extend into the scrotum; the pouch at the level of the internal ring opens into a second sac, which is placed behind the transversalis fascia in the subperitoneal connective tissue. This deep sac communicates with the peritoneal cavity by a round or oval opening placed either behind the normal position of the internal ring or more frequently to the inner side of the latter.

This feature of loculation of the hernial sac is common in many forms, and has led to many terms being employed by writers, some of which denote similar conditions, while others express very slight differences; again, very dissimilar conditions have been confused and grouped together under one heading.

In dealing with cases of biloculated hernia in the inguinal region we may subdivide them into two groups:

A. *Both loculi are in front of the transversalis fascia.*

This group admits of several examples.

(*a*) The simplest form met with is when in the sac of an ordinary acquired or congenital hernia there is a constriction at the site of the external ring, and the sac assumes an hour-glass form. With a congenital hernia a modification of this may arise where the constriction is in the scrotum itself, due to a narrowing in the peritoneal sac at the junction of the funicular and vaginal portions, the indication of attempted closure between them.

(*b*) A form of sac, the outcome of imperfect descent of the processus vaginalis into the scrotum, where the peritoneal sac, after emerging from the external ring, spreads upwards and outwards over the anterior surface of the external oblique. If the testis descends it occupies this sac, but it may be retained in the abdomen; whatever the position of the testis may be the hernia will occupy this superficial sac, and it may also extend a short distance down into the scrotum. If the testis is present in the sac it gives the abdominal variety of ectopia testis. Cases of this nature have been recorded by Scarpa, Kuster, and Hulke, and I myself reported two others in the BRITISH MEDICAL JOURNAL of June 10th, 1899.

(*c*) In this form a diverticulum arises in the inguinal canal and extends upwards between the layers of the muscular wall; it represents Birkett's intraparietal inguinal hernia. Goyrand, under the term "*hernie inguino-interstitielle*," describes an exactly similar development of congenital origin, where the dilatation of the sac in the inguinal canal is associated with inguinal retention of the testis; the sac is placed anteriorly to the conjoined tendon between it and the external oblique.

*A paper read before the Royal Medical and Chirurgical Society.

B. *Second or deep sac behind the transversalis fascia.*
To this group belong the following:
(*a*) Properitoneal hernia of Kronlein, with which this paper hiefly deals.
(*b*) Prevesical hernia, hernia inguinalis antevesicalis of arise.

The essentials which determine a properitoneal hernia, hich may be either inguinal or crural, are the presence of a econd deep sac behind the transversalis fascia through hich the more superficial one in the inguinal region makes ts communication with the peritoneal cavity.

As to the origin of this hernia, Kronlein has laid particular tress upon its relationship with imperfect descent of the estis. In his statistics of 23 cases, 22 occurred in men and 1 n a woman; of these, 13 were on the right side. Of the hole, 15 were definitely congenital, and 9 of these, again, ad defective descent of the testis.

Imperfect descent of the testis, which is very likely to be resent, especially when the hernia is on the right side, is ssociated with errors in closure of the processus vaginalis. Whether the testis is normally descended, imperfectly so, or ot at all, non-obliteration of the processus vaginalis, especi-lly in the vicinity of the internal ring, is a very potent factor n the production of this form of hernia; by the attempted hutting off at the internal ring there is formed a small rigid pening, oval or rounded in shape.

It is a well-known fact that delay in closure of the pro-ssus vaginalis and imperfect descent of the testis are much ore frequent on the right side for developmental reasons. tatistics drawn from cases of hernia (only selecting those here want of proper closure of the processus vaginalis was efinitely the case) prove how much more often they are on ie right side, and Kronlein's statistics of properitoneal cases ive 13 out of the 23 on the right side.

Between the posterior surface of the transversalis fascia id the parietal peritoneum at the site of the internal ring ere is an appreciable portion of the processus vaginalis rrounded by loose subperitoneal tissue. If this last and e contracted orifice between it and the peritoneal cavity ntribute to the formation of this hernia, the question arises w do the bilocular sacs develop?

One view put forward is that the intra-abdominal (properi-neal) sac is the first to form from the distension of the tra-abdominal part of the processus vaginalis, free to do so its loose bed of subperitoneal connective tissue. This dis-nsion, moreover, is facilitated by the resistance offered by e abdominal muscles to the dilatation of that part of the ocess in the inguinal canal. If this be the case, this istance must be eventually overcome to allow of its dilata-n later to form the second sac. A factor which would me into play here is a limit to the possible distension of is intra-abdominal sac. In favour of this statement is the w put forward by Macewen that in some cases of hydro-e *en bissac* the intra-abdominal sac does form first owing to e presence of adhesions in the upper part of the funicular ocess; next from some sudden strain these give way, and id goes down to distend the patent process below, either lecting in the scrotum if the tunica vaginalis is not shut , or, if so, reaching to the scrotum and dilating the lower rt of the funicular process.

Another view taken is that one originally put forward by eubel. He maintained that there is a hernia passing wn towards the scrotum first and the properitoneal sac relops afterwards. What conduces to this formation is the constricted opening at the inner ring hinders the urn of the contents of the sac into the peritoneal cavity; the reduction of these contents, especially if pushed back ghly by the patient or crowded back by a badly-fitting ss, causes the peritoneum to be loosened about the inner and to be pushed backwards; the hernial contents then tend laterally the peritoneum in the subperitoneal tissue thus form a properitoneal sac. The value of this small er opening as a causative factor is shown by the large pre-derance of the cases showing defective closure of the pro-sus vaginalis. In an acquired hernia, where the sac is ned by a pouching of the parietal peritoneum opposite inner ring, there is always a somewhat definite propor-between the size of the opening and the extent of the ; hindrance to the return of the sac contents is not nearly likely from this cause. In any hernia of the congenital there is marked disproportion between the size of the ning and the rest of the sac. The opening is rigid and p, due to a continued attempt from earliest days to t a closure between the general peritoneal cavity and the sac. This is the condition which is most likely to cause acute strangulation, and in these cases it is recognized how very difficult it is to effect reduction.

Tessier's opinion was that there was a reduction *en masse* of sac and contents behind the transversalis fascia and secondary pouching again into the inguinal canal; this origin is also maintained by Gosselin.

Linhart and Bär drew attention to diverticula described by Rokitansky in the neighbourhood of the inguinal and crural openings. When these have reached some size they tend to pouch through the canals and form a second sac. This is the explanation that Bär gives for his "*hernie en bissac*," and Moynihan in his "Arris and Gale" lectures rather inclined to the view that these diverticula did play some part in the development of this hernia.

Several other rather far-fetched opinions have been offered on this matter, but, to sum up, nothing more definite can be said than that in the majority there appears to have been defective closure of the processus vaginalis, and in a large proportion of those there is imperfect descent of the testis.

In this patient the testis had descended into the scrotum, but we may assume that the sac was a congenital one, as it was surrounded by the elements of the cord, a common feature in these cases and most unusual in an acquired hernia.

The diagnosis in this case appeared to be an acute obstruction of not more than forty-eight hours' duration, without any very evident explanation. It is true that he was the subject of hernia which had never given him any bother in its reduction and that there was some indefinite increased resistance under chloroform behind the inner part of the os pubis, but his canal and rings were not abnormally empty, such as occurs in reduction *en masse* of the sac and contents. No doubt if his condition had not been so urgent and there had been more time to fully consider his case, we might have suspected the possibility of a properitoneal hernia. Pressure on the swelling did not, however, cause any hernial tumour in the canal. There was no puffiness of the cord about the external ring on which Richter has commented, and, as before stated, no tumour could be felt per rectum.

In a properitoneal hernia the site of strangulation may be at the inner opening into the peritoneal cavity, or at the junction of the two sacs. In this case, from the small size of the opening and the marks on the bowel from the sharp constriction of the ring, with the general condition of the bowel, there could be no doubt where the strangulation had occurred. Certainly a small amount of the lumen of the bowel which bulged into the common opening between the sacs, suggesting a Richter's hernia, was a little darker than the rest, but I think was accidental; before his acute symptoms there had been no diarrhoea, which is likely to occur. Although his obstruction was acute, the thickened and dilated bowel above the site of nipping suggested that there had been previously interference with its proper movements, in spite of no direct history supporting this.

Examination of the specimen shows the anatomical features of such a hernia very distinctly. The sac is an extensive one, and its close approximation to the bladder will be appreciated. On reference to the case of prevesical hernia described in the *Transactions* by Mr. Makins, and to those recorded by Parise, it will be seen that the differences are very great.

The only other point of note is the presence of a small diverticulum to the inner side of the sac agreeing with those described by Rokitansky, and upon which Bär has laid stress as a factor in the causation of this form of hernia.

REFERENCE.
1 V. *Langenbeck's Archiv*, Bd. xix, 1876, and Bd. xxv, 1188.

THE CHICAGO PASTEUR INSTITUTE.—The Director of the Pasteur Institute, Chicago, reports that 2,026 patients have been treated since the opening of the institute on July 2nd, 1890. Of these, 1,807 had been bitten by dogs, 76 by horses, 57 by cats, 19 by dogs, 18 by skunks, 25 by other animals, while 22 are said to have been infected by human sufferers from hydrophobia. The number of persons bitten by animals positively known to have been rabid who were treated was 988; 776 persons bitten by animals presumed to have been rabid because of symptoms of disease during life were treated, while 268 cases were cared for in which rabies was suspected. The number of deaths was 7, a mortality of 0.34 per cent. The treatment was discontinued by six persons, of whom two subsequently died of hydrophobia.

ABSTRACT OF A REPORT UPON A RECENT OUTBREAK OF ILLNESS DUE TO MILK.

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ON January 18th last I was informed of an outbreak of illness among the residents in North Finchley, Whetstone, and West Finchley. From the 16th to the 20th quite 100 cases of illness had come before the notice of the local medical practitioners. The outbreak continued for a fortnight, and there does not appear to be any clear evidence of fresh infection subsequent to January 30th. During this period some 500 persons were affected in the Finchley district, and, so far as I can gather, probably another 50 in the outlying districts of Hornsey, Friern Barnet, and Mill Hill. The main incidence of the illness fell upon the districts of North Finchley and Whetstone, and its characters were as follows:

Symptoms.

After the incubation period, which appears to be commonly twenty-four hours, but occasionally forty-eight, the sufferer complains of enlargement and tenderness of the submaxillary glands, together with a soreness of throat and marked *malaise*. Some of the cases have been comparatively mild, others have been very severe, but no death has resulted. One marked characteristic of the complaint is the frequency with which the tonsils have been inflamed and enlarged, and in the worst cases the patient's temperature has invariably been high, in some cases reaching nearly 104°. From each sufferer there has been much complaint of feeling weak and ill. In one or two patients the tonsils have suppurated, and in some cases the posterior cervical and supra-clavicular glands have also been enlarged. The complications which have been most frequent have been gland abscesses, cellulitis, and neuralgia; and it has been repeatedly observed by medical practitioners that after apparent improvement in the patient's condition there has been a recrudescence of fever and gland enlargement. In a few cases a measly eruption on the lower limbs has been observed.

As the result of my inquiries I quickly came to the conclusion that milk was the agency by which the bulk, at any rate, of the infection, was being disseminated. I think, however, that there were isolated cases which were very justly attributed by their medical attendants to influenza. In a few cases the condition was nothing more than a simple sore throat, and in one or two instances it was certainly impossible to distinguish the condition from mumps. I do not intend to imply necessarily that there was specific cynanche parotidis in these cases, but there was certainly swelling of the facial extension of the parotid gland in one or more of them. It should also be noted that a few similar cases of sore throat were to my knowledge existent in Stoke Newington at the same time, and as a matter of fact one of my inspectors in that borough was confined to the house on that account.

In dealing with the number of cases it is not necessary to divide them into primary and secondary cases for the purpose of arriving at an estimate of the magnitude of the actual milkborne infection, because, although personal infection from case to case undoubtedly has occurred, the condition cannot be regarded as very infectious.

Nature of the Infection.

The nature of the infection in the milk is an extremely difficult thing to determine. There can be very little doubt that it is due to a living organism, but the circumstance that cases were reported to me in which the infection took place after the milk had been boiled appears to indicate that the products of the organism were also capable of producing the condition. It would appear that weather conditions or "season" play some part in determining the onset of these outbreaks. I know of no record of any such outbreak which did not begin in the autumn or winter of the year. During the recent Finchley outbreak the daily ranges of temperature were excessive, and varied from 6° to 19° F. The atmosphere was frequently almost if not quite saturated with moisture, and frequent drizzly rains and mists prevailed. On the other hand, on January 15th and 16th, when many of the first cases were infected, the weather was bright and fine. The weather at the time of the outbreak was very favourable to chills and sore throats, but it does not, of course, afford any sufficient explanation of the fact that the cases were, in the first place mainly restricted to Finchley, and, in the second place, that they occurred almost exclusively amongst the customers of a particular milk supply.

In these milk outbreaks there are always a few cases occurring in households which are not supplied by the recognized infected supply. This circumstance does not necessarily prove that more than the one supply is affected; for the other cases can be accounted for by the practice amongst milkmen to borrow or purchase milk of each other on their rounds, by the householders themselves buying extra milk occasionally in the mornings, by the fact that the disease is doubtless communicable from individual to individual, and by the circumstance that there are usually at the same time cases of ordinary sore throat not due to milk (but most of which are ascribed to milk), during the prevalence of such an epidemic.

Measures taken to Trace and Prevent Infection.

The measures taken to trace the source of the infection and to deal with the danger may be classified as follows:

1. As the result of a veterinary examination of every cow supplying milk to the infected supply the veterinary expert reported that all the animals were in a condition of perfect health with the exception of two cows which had contracted a chill; the chill had affected the udders, causing their milk to become curdled, and that probably these animals had been in this condition for several days prior to his inspection on January 27th. Both these cows were at once removed from the herd.

2. The results of the bacteriological examination of numerous samples of the milk at University College were, on the whole, of a negative character; that is to say, although the samples came from different and often widely distant sources, a careful examination failed to find evidence of any micro-organism in any one sample which was not common to the other samples.

3. I satisfied myself that the employés of the infected supply had not been spreading the complaint by reason of any one of them suffering from a bad sore throat at the period when the outbreak occurred.

4. Lastly, with reference to the precautions taken for the safe storage and delivery of the milk, I find that these were quite satisfactory; indeed, they are in many repects exceptional as to care and stringency.

In my opinion the outbreak was in all probability due to the two cows which were suffering from an obscure condition of ill-health towards the middle of January. Although the evidence of the cows' ill-health was not manifest at the time, and although doubtless their milk would have been collected and distributed by any milk vendor, yet slight as the symptoms were the milk yielded by these two animals contained the material which was responsible for the outbreak. These outbreaks are very regrettable, and in my opinion nothing short of a veterinary inspection of the cows, undertaken at very short intervals, more especially through the autumn and winter months, will prevent them; and it is a singular circumstance that since I have been Medical Officer of Health for the Finchley district the only two such outbreaks which have been experienced have been in connexion with the milk supply of two large companies who doubtless take exceptional precautions to guard the health interests of their customers.

I should like to make a brief reference to the last Finchley outbreak. This occurred early in November, 1894; the only source of infection which could be traced then was three cows which were evidently out of health with slightly ulcerated teats, and one of the cows had an inflammatory condition of the udder. I ascertained in that case that the supply involved was distributed to 17 per cent. of the total houses in Church End, but of the number of houses infected it supplied 94 per cent. The conclusions which I then arrived at (ten years ago) are similar to those which force themselves upon me as the result of my investigation of the recent outbreak. The conclusions which I then came to were: That the outbreak was favoured by the excessive rainfall and variable temperature of the preceding fortnight, upon a cold, damp soil, at a season of the year when throat trouble is generally marked in evidence. Under these favourable conditions a mild infection, probably conveyed in milk, was sufficient to give rise to throat illness beyond its usual type and amount and to give it the property of infectiousness. I therefore recommended the residents in the district, by means of printed posters, to boil all milk during the ensuing fortnight, and in the meantime steps were taken to ensure that the affected cows were adequately dealt with, when the epidemic ended as suddenly as it commenced.

I was called to account in some directions for not acquainting residents of the particular milk supply concerned in the outbreak. I purposely maintained a reticence upon

oint for the reason that I could not see what good could re-ılt, and it was so easy to see the many directions in which arm might be worked; for it is a general practice among milk endors, if they run short of milk, to buy of other vendors en ɔute, so that if one supply should be infected and named ıere is no guarantee that others which would be assumed to e safe are so. All dairy supplies are liable—some, it is ue, more than others—to such a visitation of disease; the ıpply in question is, in my opinion, an exceptionally good ıe, and unless there is some very tangible advantage to be ıined, one hesitates to take a step that might mean a heavy ıancial loss to persons who take the same precautions as ɔhers, but who are less fortunate. It was therefore judged ıfer and better in the interests of all to simply advise that l milk should be boiled.

There is a further lesson that the outbreak teaches us: n epidemic occurs, we find unhealthy cows, and from other ry positive evidence we condemn the milk as the source of e infection, and after many people have been exposed to ıffering, if not death, we are able to take measures that amp out the disease. This is not as things should be. e should take the necessary steps to prevent the epidemic.) my mind, a thorough and systematic inspection of all ws in each district at regular and short intervals should be ıdertaken, and to that end a veterinary expert should be pointed by several sanitary authorities in combination. It a monstrous thing that with these milk epidemics cropping nothing whatever is done to prevent their recurrence, and at the whole of our action is based upon the lines of pre-nting the spread of the outbreak after it has already worked vast amount of harm, when it is an easy matter to proceed on those lines of true prevention that would aim at moving the possibility of future outbreak. I am aware at it falls within the duty of the sanitary inspector d myself to keep ourselves acquainted with the sanitary ndition of the dairies and cowsheds of the district. All that we d recently done before the outbreak occurred, but what is en of greater importance is that some one acting under the al authority and possessing a good knowledge of the seases of cows should inspect the animals at short intervals time and not omit to draw some milk from their udders. the absence of such a preventive measure our only alterna-e is to stand by with folded arms and await the next demic.

have only one further point to make; it affects the large ry companies; and the company concerned in the recent break has favourably received my recommendation. It is general practice to mix together the milk from several erent farms before it is distributed, and hence the milk n one farm being infected may infect the whole of the re-ınder. This fact is not only responsible for an outbreak ng distributed over a wide area, but it complicates the k and expense of tracing the source of the infection. It ıld therefore be a valuable step if in the case of large sur-s the milk from different farms were not mixed, and the ıll area of supply of the milk for each separate farm were fully recorded. I recognize that there are difficulties in ying out this recommendation in its entirety, but a tial application would be very advantageous.

must be confessed that the real cause of these outbreaks rapped in considerable obscurity. If a condition of the is really the cause, then the main symptom of that dis-e appears to be mammitis. I do not believe that ordinary mmitis can give rise to such outbreaks, but it is conceiv-that if out of a herd of cows several of them may be ering from the condition at the same time, the large ıbers of pyogenic organisms present might be capable of lucing the condition. In addition to the inspection of cows at frequent intervals (or if that valuable measure not be put into operation, then in default of it), it would great gain if the recommendation of the Royal Commis-on Tuberculosis were given legal expression to. I refer ne recommendation that notification of every disease in udder should be made compulsory (under penalty) on the ers of all cows.

ITIRABIC TREATMENT IN HAVANA.—A report by Dr. Enrique ta, published in the *Cronica Medico-Quirurgica* of Havana September, 1903, states that since the establishment of laboratory maintained by that journal in 1887 to the end 02, the total number of cases treated was 1,227. Among e there were in all 17 deaths, a mortality of 1.38 per cent. highest percentage of mortality in any one year was 4.34 in patients inoculated in 1891, the lowest 1.29 in 154 in 1890.

MEMORANDA:

MEDICAL, SURGICAL, OBSTETRICAL, THERAPEUTICAL, PATHOLOGICAL, ETC.

THE DANGER OF SUPRARENAL TREATMENT IN HAEMOPTYSIS.

FROM time to time cases of haemoptysis are reported as benefited by the administration of one or other of the many medicinal products obtained from the adrenals. This is, in my opinion, a dangerous proceeding, and I beg to cite the following case:

A man, 36 years of age, a heavy drinker, had suffered from two previous haemorrhages from his lungs, two years having elapsed since the last. He had lost a pint of blood before I saw him, and it was coming up freely. I at once gave by the mouth ♏xv adrenalin chloride solution 1 in 1,000 (Parke, Davis and Co.) in a little water, and ordered ♏ijss suprarenal liquid (Parke, Davis and Co.) with potassium bromide and tolu syrup every hour, and four hours later gave ♏v every hour and a-half; the bleeding ceased in six hours. Next day the pulse, which previously was rapid, soft, and slightly irregular, had become regular, 72 to the minute, and gave to the finger a distinct impression of high tension, wiry and not easily compressible; so I only prescribed the mixture every three hours. On the third day the pulse was still harder, 80 to the minute; at 4 p.m. a smart haemorrhage took place to the extent of half a pint. I now changed the mixture, giving adrenalin chloride solution, 1 in 1,000 (Parke, Davis and Co.) ♏j every two hours in combination with iron. The fourth day again there was bleeding, so I discontinued suprarenal treatment altogether. With the exception of about 1 oz. of blood on the two succeeding days the man made an uninterrupted recovery, and is better now, four months after the haemoptysis, than he has been for years.

In this case as soon as the suprarenal treatment was abandoned the pulse became soft and bleeding ceased.

Dr. W. E Dixon, of Cambridge, in an address delivered before the Therapeutical Society on December 22nd, 1903, showed as the result of experiment that adrenalin, the physiological active principle of the suprarenal gland, not only failed to produce contraction of the pulmonary vessels, but caused decided dilatation. Now, it is surely evident that on the general rise of arterial tension—for such does take place clinically if not experimentally, if these substances be administered by the mouth when the blood pressure is falling—the pulmonary vessels not responding are bound to dilate, and then we must anticipate danger. The conditions in haematemesis, where I have found adrenalin chloride solution (Parke, Davis and Co.), of the greatest value are entirely different; here we have the remedy brought in the first place directly in contact with the bleeding surface and dilated vessels, therefore its power is expended on the local effort, contraction takes place, without any marked systemic result such as a general rise of blood pressure. I feel certain that in cases of haemoptysis suprarenal treatment should be withheld, unless the questionable procedure of spraying a solution of one of the adrenal products from an atomizer be tried as an occasional inhalation.

Shooters Hill, S.E. J. GRAY DUNCANSON, M.B., C.M.

ERYTHEMA SCARLATINIFORME (INFLUENZAL).

I HAVE recently had a number of cases characterized by slight fever, sore throat, and painful glands in neck, and accompanied by a scarlatiniform rash, both in children and adults, during the influenza epidemic which has lately visited this district. Some of the cases caused me much anxiety as to whether I should notify them as scarlet fever or not, and I can conceive that a young practitioner might have had his future career very much damaged by forthwith notifying such cases as scarlet fever, as the hospital authorities are not very tactful or considerate when returning them to their homes. More than one case I could not have been positive about in the first instance had I not known the history. As your space is very precious I will only burden it with the history of one case:

M. B., aged 11. I saw her on Monday, December 7th. The mother stated that on the preceding Friday she was cold and shivering. On the Sunday she complained of sore throat, tenderness beneath the angle of the jaw and back of neck, and in the afternoon a rash appeared on the face, chest, and limbs. When I saw her on Monday afternoon she was the colour of a boiled lobster all over. The tonsils were con-

gested, the glands in the neck swollen and tender, and she complained of aching all over. The temperature was 100°, the tongue was yellow; smell and taste were abolished. The tongue, taste, and smell, were the only symptoms that did not point to scarlet fever, but these would hardly be enough to base a positive diagnosis on. As there were other children in the family an erroneous diagnosis might have had serious consequences. The history, however, enabled me to give a positive opinion. In April last I had sent her to hospital with scarlet fever and she had been away eleven weeks, having caught diphtheria during her stay in hospital and had (she said) peeled freely. In three days she was quite well and had only a little branny desquamation and then her mother got influenza, but without a rash.

Cases like this—and I could quote about a dozen recent ones—give us general practitioners many hours of worry and anxious thought, but I presume that until some definite sign or symptom is laid down as pathognomomic of scarlet fever we must run our risks of being prosecuted should a doubtful case turn out to be scarlet fever, or lose caste with the friends should a case be notified and returned after a week as not fever.

Chelsea. JAMES HAMILTON, M.D.Q.U.I.

RETENTION OF RUBBER CATHETER AFTER EXTERNAL URETHROTOMY.

IN the BRITISH MEDICAL JOURNAL of November 28th, 1903, Mr. Whiteford describes a very interesting and ingenious method of retaining a rubber catheter after external urethrotomy. The following is another method of retaining a catheter after this operation.

Having passed the rubber catheter so that the end shall be just inside the bladder, the perineal wound is sutured in the following way. The first suture is passed deeply so that it shall pass through the urethra and the catheter at the posterior part of the exposed urethra. This is then tied externally in the usual way. The whole of the skin wound is then sewn up, all the sutures being of silkworm gut. At the end of seven or eight days, the wound being then healed, the catheter is withdrawn after dividing and removing the deep suture. Rubber bougies are passed straight away, followed in a few days by the metal ones; the perineum being at first supported by the hand during such operation. As yet I have only followed this method in one case, which was quite successful, but I am unable to give the after-history of the case.

The advantages of this method of retaining a catheter over that of Mr. Whiteford's are, I think, (1) that it is more simple; (2) that the whole wound having healed by first intention, there is less cicatricial tissue formed, and therefore less liability to subsequent contraction; (3) that no special instrument is required; and (4) that the patient is about again in a much shorter time.

HERBERT A. MASON, M.R.C.S., L.R.C.P.

Broadbottom, Manchester.

THE ADMINISTRATION OF ETHYL CHLORIDE.

IN a communication to your issue of December 26th, 1903, Dr. E. Hughes Kitchen describes a method by which he dispenses with special apparatus and administers ethyl chloride in a Clover's ether inhaler.

I find, however, that Clover's inhaler may be used for this anaesthetic in a still more simple and convenient fashion—in fact, exactly as it is designed for use with ether.

The procedure is as follows: The apparatus having been fitted together in the usual manner, the index hand is set at the mark 0. Ethyl chloride to the amount of 1½ drachm (about 6 c.cm.), or less, according to the character of the patient, is sprayed into a small glass measure. As soon as the patient is prepared the ethyl chloride is poured into the ether chamber, which is then closed with its stopper and the administration proceeded with.

Comparatively little of the vapour escapes at first from the ether chamber, so that its pungent smell is only slightly, and by no means unpleasantly, evident whilst the index points to 0. After one or two preliminary respirations the vapour may be admitted as gradually as may be desired by small successive movements of the pointer, and it is essential that the first few movements should be very small on account of the very volatile nature of the anaesthetic. It is as well to ascertain previously and mark the point on the scale at which the air actually commences to circulate through the evaporation chamber, as its position varies in different patterns of inhalers.

The glass measure should be rapidly filled from an ethyl chloride tube of which the nozzle has a coarse bore, and the loss by evaporation during the whole of the proceedings described will be negligible. Thus, 1 drachm of ethyl chloride contained in a small glass measure and exposed in a dwelling room lost only 5 minims by evaporation in ten minutes, and an element of leisure is thus introduced into the proceedings which is certainly wanting when direct use is made of the spray.

The fluid evaporates more rapidly when introduced into the inhaler on account of the larger surface exposed, but a proportion of it still remains in a liquid state until it is volatilized by the heat of the breath; but possibly in very hot weather it may be found advisable to cool the interior of the inhaler by a short initial application of the spray.

This mode of giving the anaesthetic is not only acceptable to the patient, but is so convenient and effective that I feel sure it will commend itself to others.

Since writing the above I have further modified the method by employing a graduated glass tube cemented into a vulcanite stopper. After filling with ethyl chloride the combined tube and stopper is fitted into the inhaler in a dependent position whilst the index hand points to 0. In the act of applying the facepiece to the face the tube will be inverted and the inhaler thus charged. The administration can then be proceeded with as above described. Messrs. Barth and Co. have made for me a satisfactory stopper of this kind.

London, W. A. G. LEVY.

A CASE OF CEREBRAL ABSCESS WITH UNUSUAL COMPLICATIONS.

ON April 1st, Mrs. R., aged 27, became feverish and had a miscarriage. The placenta, which was fetid, was removed by hand, and the uterus was douched out. For eight days afterwards the temperature was normal and the patient seemed well in every way. But on April 10th symptoms of pelvic inflammation set in. An abscess formed and on April 18th opened per rectum, discharging a large quantity of fetid pus. In about a week the discharge from the rectum ceased, acute pelvic symptoms disappeared and the temperature, which had been high before the abscess opened and had fallen gradually afterwards, became normal. The patient then began to complain of frequent attacks of facial neuralgia and gradually left off reading as light hurt her eyes (her eyes always had been weak); the temperature became subnormal and the pulse slow. The neuralgia was intermittent and came on in very severe spasms; it affected the left side of the face more than the right, but the worst pain seemed to be along both eyebrows.

On April 29th I first noticed an unpleasant smell coming from the left ear, and was informed that this was an old trouble. For the past five days the temperature had been almost constantiy subnormal and the pulse slow, usually 60. There was now marked photophobia. Various remedies had been tried, but had little effect on the neuralgia, the spasms of which now seemed more frequent and more severe and were accompanied by profuse sweating. Suspecting cerebral abscess I had a consultation with a colleague, but he looked on the case as one of severe neuralgia.

Four days later, May 3rd, the patient suddenly lost consciousness, but soon recovered, and when I arrived she was quite sensible, but stammered when answering questions. There was now some ptosis of the left eyelid. None of the limbs were paralysed, but there was an increased knee-jerk on the right side. Later in the day the stammer disappeared. We could not see any optic neuritis. The pupils were equal. But we had no doubt now of the presence of a cerebral abscess, probably temporo-sphenoidal.

On the following morning, May 4th, we operated. I trephined the cranium 1¼ in. behind, and 1¼ in. above the centre of the left bony meatus. The dura mater bulged into the opening, but showed no pulsation. After the membranes were incised, the brain showed very faint pulsations, and was very firm to the touch. We explored the brain in various directions, but more especially downwards, forwards, and inwards, first with a large hypodermic needle, then with a trocar and cannula, and finally with sinus forceps, with negative results. Reluctantly, after putting in a drainage tube we closed the wound. The patient died two hours later.

Post mortem, on the left side of the brain a large abscess

as discovered. It extended from the occipital lobe, where appeared to have originated, into the temporo-sphenoidal be. It contained about 3 oz. of thick, fetid pus, and the occipital lobe, some gangrenous brain tissue. The ephine opening was over the front part of the abscess cavity. ost of our punctures seemed to have been below or in front the abscess. Sinus forceps passed backwards and inwards om the trephine opening could scarcely have failed to have ened the abscess.

Wellington, New Zealand. WILLIAM YOUNG, M.D., F.R.C.S.E.

REPORTS

ON

MEDICAL AND SURGICAL PRACTICE IN THE HOSPITALS AND ASYLUMS OF THE BRITISH EMPIRE.

DONCASTER GENERAL INFIRMARY.

A CASE OF RIGHT DUODENAL HERNIA.

(By E. W. SELBY, M.D., B.S., F.R.C.S., Honorary Surgeon to the Infirmary).

opening the abdomen in the following case of acute intesnal obstruction, I was at first puzzled to find, after the ritoneal cavity was entered, that the intestines on the right le of the abdomen were still covered by a layer of peritoneum, rough which they could be seen, and beneath which the ils of bowel moved freely about. Further investigation ealed that the greater part of the small intestine was conned in a peritoneal sac, and that the case was one of "inal hernia" of some kind or other. At the necropsy I was le to define more exactly the extent and relations of the .

History.—A man, aged 40, was suddenly seized, while asleep, with ere pain across the middle of the abdomen at 1.30 p.m. on October h, 1902 (one hour after dinner). This was followed in a few minutes vomiting. The pain continued; he vomited everything he took, and re was no action of the bowels, except a few hard lumps brought by by injections. The bowels had acted freely on the morning of ober 19th. On October 22nd, 2 oz of castor oil were given without ult. The vomit became faecal on October 23rd, and he was sent to Doncaster Infirmary. He said he had had two previous attacks of a ilar kind, but less severe, one twenty years ago, the other nine years .

State on Admission.—At 10.30 p.m., October 23rd his temperature was °. The pulse was 72, regular, and very compressible. The tongue rather dry and brown. There was not much pain. The abdomen generally distended, not rigid, and it moved with respiration. It dull in the right iliac region, but elsewhere tympanitic; the dullness ffected by change of position. There was tenderness over the dull t. The liver dullness was much diminished, possibly from its being hed up by the bowel.

Diagnosis.—Acute obstruction, possibly by a band.

Operation, at 11 p.m. on October 23rd, under ether. On opening the omen a large peritoneal sac was found occupying the right half of abdomen. The caecum was empty and contracted, coils of distended deeply congested small intestine were found outside the sac on the side of the abdomen. The orifice of the sac was found just to the t of the middle line, a little below the umbilicus, looking downwards to the left; its size was about 2½ in. by 1 in. The free anterior gin of the orifice was thick and rounded and contained vessels. A of small intestine emerging from the lower part of the orifice was ply bent over and constricted by the anterior edge of the orifice, adherent to the sac. The edge of the opening into the sac was ded between two ligatures, and a considerable length of small gut vn out; a few coils were found adherent to the upper part of the The sac was then freely opened, and a good part of it cut away. or two of the coils contained in the sac were of a deep claret ur. The peritoneum covering the distended gut was shiny but er sticky. There was no fluid in the abdomen. The operation ed three-quarters of an hour.

Progress.—The patient never rallied, and died at 8 p.m. on October , twenty hours after operation.

Necropsy.—Seventeen hours after death the abdomen alone was exned. The seat of the opening into sac was on the posterior abdoal wall just below and to the right of the duodeno-jejunal flexure. w coils of the upper jejunum were adherent to the inner surface of upper part of the sac The omentum was adherent to the outer ace of the sac above. The seat of constriction was in the small ine, 8 in. from the ileo-caecal junction. The gut was adherent to edge of the orifice of the sac at the point of constriction and for an or so above. The lumen of the ileum was considerably narrowed e point of constriction. The ileum below this and the whole of the n were empty and contracted. The ascending colon was pushed to right by the sac, and the caecum dragged upwards, so that the niform appendix appeared to spring from its anterior surface. Two -marked bands passed from the back of the caecum to the posterior parietal peritoneum, with a fossa between them admitting two fingers for about an inch.

REMARKS.—The case appears to have been one of right duodenal hernia. Presumably the whole of the small intestine, except the last 8 in. of the ileum, had been in the sac, but some coils of the middle portion had escaped, the upper part of the jejunum and the lowest part of the ileum involved being held within the sac by adhesions. The hernia had obviously been in existence some time, the adhesions mentioned being firm and fibrous. The ileum had evidently been constricted for some time at the point of emergence from the sac. In this connexion the history of previous attacks of abdominal pain and vomiting is interesting. It is possible that the hernia was congenital. What determined the final complete obstruction is not quite clear. The obstruction was relieved by the operation, but the case had been allowed to go on too long before surgical help was sought to permit much hope of recovery.

REMARKS BY MR. MOYNIHAN.—Dr. Selby has been kind enough to forward me a copy of his notes of the case of right duodenal hernia, now recorded. The details he gives make it quite clear that the hernia is of the "right duodenal" variety. The sac which contains the hernia is formed by an enlargement of the pouch, to which I gave the name "fossa of Waldeyer." The vessel contained in the anterior margin of the orifice of the sac is the superior mesenteric artery. There are two forms of right duodenal hernia. In the first the fossa of Waldeyer exists in association with an adherent jejunum. The upper three or four inches of the jejunum are fused to the posterior abdominal wall. In the second the fossa exists in the uppermost portion of the meso-jejunum, close to the duodenum. By Brösike the former variety is considered the more common. I have found, in all, 14 recorded cases, and, curiously enough, they show 7 examples of each of the two forms. For the first variety the term "hernia mesenterico-parietalis para-jejunalis" has been suggested, for the second "hernia mesenterico-parietalis para-duodenalis." Dr. Selby's case, the fifteenth recorded of right duodenal hernia, is of the "para-duodenal" variety.

WANGANUI HOSPITAL, NEW ZEALAND.

INTESTINAL OBSTRUCTION DUE TO PARALYSIS OF A LOOP OF JEJUNUM.

(By P. CLENNELL FENWICK, M.B.Lond., F.R.C.S.E., Surgeon to the Hospital).

History.—A. B., aged 26, was admitted to the hospital suffering from partial obstruction of the bowels. He had had no previous illness. Three months before he had "strained" himself lifting a heavy weight, but no subsequent effects were felt. Three weeks previous to admission he had had an attack of abdominal pain, not localized, but occasionally more severe on the left of the umbilicus. The pain became continuous and constipation occurred. He passed small diarrhoeic stools mixed with blood, but no natural motions. Vomiting commenced, at first at intervals, but for the last week it had been continuous. The vomit was biliary, never offensive or faecal. He has lost "two or three" stone in these three weeks. He never suffered from indigestion and never had jaundice.

State on Admission.—The patient was a young man with flushed pinched face. The eyes were sunken and the nose was thin. He was continually vomiting large quantities of brilliant green fluid, and had rapidly recurring attacks of hiccough. The pulse was a mere thread. The abdomen was soft, and there was no pain on percussion or palpation. The percussion note was not tympanitic except in the right iliac fossa. To the left of the middle line, just above the umbilicus, there could be felt some resistance on deep pressure. There was no abdominal distension and the hernial rings were free from any obstruction. The temperature was subnormal.

Diagnosis.—I diagnosed some obstruction in the upper part of the jejunum, and thought it possible that a portion of the intestine might be incarcerated without complete obstruction in the retroperitoneal pouch (the fossa duodeno-jejunalis). I advised operation, but the patient was vomiting so incessantly that I postponed the operation for twelve hours and gave opium and brandy per rectum. The vomiting ceased and the pulse improved greatly, and patient passed a quiet night. An enema relieved the rectum of a few ounces of foul-smelling slime.

Operation.—Next morning I made a 3-in. incision, passing through the umbilicus; the inguinal rings and the iliac fossa were examined without result. On the left of the spine

above the umbilicus I found a hard mass, so the incision was extended upwards and the tumour brought to the surface. It consisted of six or eight glands of a stony hardness, occupying the mesentery close to a loop of jejunum. This loop, measuring 14 in., was distended, purple in colour, and showed petechial haemorrhages along the anti-mesenteric border. I traced the intestine upwards and downwards, and found that the colour faded into the normal below where the gut was collapsed and empty. Upwards the intestine was darker and more distended than usual. The liquid contents of the strangulated loop could be easily pressed downwards into the collapsed portion. There was no real constriction either above or below the loop. The peritoneum over the gut was still shiny, and its whole appearance resembled that seen in a strangulated hernia shortly before gangrene occurs. I was not satisfied that this was the cause of obstruction, so I twice examined the whole length of the gut from the pylorus to the ileo-caecal valve, drawing each piece of the intestine out in turn. Dr. Reid, my colleague, suggested that the real explanation was paralysis of the loop caused by pressure of the enlarged glands on the nerve supply of the loop. The contents here becoming stagnant owing to the absence of muscular contraction, and causing a regurgitation into the stomach, I would have considered the advisability of excising the entire loop and mesentery, or of performing a rapid anastomosis between the duodenum and the collapsed gut, but the patient collapsed, and we had to devote our attention to saline infusion. He rallied, and was put back to bed, but vomiting recurred, and he died seventeen hours later.

Necropsy.—This was made six and a-half hours after death by Dr. Crawford. The wound was quite dry. The lower portion of the jejunum and the ileum was collapsed and normal in colour. To the left of the middle line above the umbilicus two coils of intestine were found distended and deep purple in colour. This was the loop seen at operation. There was no perforation, and only a slight stickiness glueing the loop together. The entire intestine was removed and spread out. From the pylorus to 14 in. below the last portion of the duodenum the colour gradually deepened from normal to purple, being increasingly distended. Below this the intestine abruptly resumed the normal colour, and was absolutely empty. The gut was slit along its anti-mesenteric border, and no signs of constriction or growth could be found. The interior of the strangulated loop was deeply congested and showed signs of commencing ulceration on the tops of the rugae. The mesenteric vessels in this loop were dilated, the veins being very large, but not clotted.

Pathological Report by the Chief Bacteriologist, Mr. J. A. Gilruth.—The growth from the mesentery has the general characteristics of a lympho-sarcoma, there being a growth of new round cells with numerous newly-formed blood vessels. I should say the growth had originated in a lymph gland, and, indeed, it looked more like a lymph gland hypertrophied than anything else, at first sight.

REMARKS.—I could only accept Dr. Reid's theory of paralysis. Whether this was caused by passive compression of the veins of the neighbouring mesentery or was due to actual compression and paralysis of the mesenteric plexus I could not determine. I venture to think this case is of some interest in adding to the possible causes of intestinal obstruction. As a surgeon I have met with a very considerable number of cases of acute obstruction. Owing to the distance many patients have to travel before reaching hospital the surgeon in this country sees such cases when symptoms have reached a stage seldom seen in England. His prognosis under these conditions is hardly hopeful. In this particular case the patient had been urgently ill for many days and his condition was most critical when seen. I should have been in a more fortunate position had I been able to operate earlier or had time to do an anastomosis. The case, although really one of acute obstruction, had the puzzling history of daily passage of faeces and occasional diarrhoea. The vomiting of grass-green fluid is a not uncommon symptom of a curious disease sometimes seen in Western Australia. I have never attended a case of this sort, but I have known instances of men greatly puzzled by this symptom. My patient presented this symptom plus a history of diarrhoea.

A UNIVERSITY FOR BRITISH COLUMBIA.—A proposal to found a university in British Columbia was put forward at a recent meeting of the Tourist Association of Victoria, and has been favourably received by the citizens of that province. The success of the scheme will probably mean the establishment of a Canadian medical school on the Pacific coast.

British Medical Association

CLINICAL AND SCIENTIFIC PROCEEDINGS.

BATH AND BRISTOL BRANCH.

Bath, Wednesday, February 24th, 1904.

BARCLAY BARON, M.D., President, in the Chair.

DR. CAREY COOMBS read notes of a case of anthrax, and the discussion which ensued Dr. G. C. TAYLER, Mr. P. Bus C.M.G., Mr. TUBB THOMAS, Mr. MONRO SMITH, and Mr. Mo joined.

Mr. T. D. RANSFORD read a paper on ovarian cyst comp cated with appendicitis.

Dr. G. C. TAYLER described two contrivances for use af colotomy, and Mr. PRICHARD showed another instrument Criticisms were made by Mr. PAUL BUSH, Mr. RANSFORD, a Mr. MOLE.

Dr. PRESTON KING read a paper on the condition of streets, and remarks were made upon it by Dr. OGIL Mr. PAUL BUSH, Dr. WIGMORE, Dr. BARCLAY BARON, a Mr. TUBB THOMAS.

GLOUCESTERSHIRE BRANCH.

AT a general meeting of this Branch held at the Gene Hospital, Cheltenham, on February 18th, Dr. E. C. CRIPPS the absence of the President (Dr. Storry), occupying chair. Dr. G. B. FERGUSON showed a case of (1) suprapu lithotomy in boy of 10, with large uratic calculus; (2) re sarcoma in woman of 46; (3) residual abscess after hys ectomy which had been done two years ago.—Mr. W. BUCKELL showed cases: (1) An oxalic acid mulberry-sha calculus removed from bladder of boy of 11; (2) p salpinx which had burst into peritoneum; operati recovery.—Mr. HOWELL showed cases of coloto for (1) cancer of upper rectum which could be removed; (2) cancer of splenic flexus which to be removed in fourteen days' time.—Dr. BRAMW showed a *post-mortem* specimen of cancer of larynx.— CRIPPS read notes of a case of hydatidiform mole.—The cussion on anaesthetics was then renewed, in the cours which Dr. ETLINGER gave an interesting demonstration local anaesthetics. Fifteen members afterwards sat dow supper at Soyer's.

REPORTS OF SOCIETIES.

ROYAL MEDICAL AND CHIRURGICAL SOCIE

Sir R. DOUGLAS POWELL, Bart., M.D., K.C.V.O., Preside in the Chair.

Tuesday, March 8th, 1904.

CARDIAC DULLNESS IN CASES OF CANCER.

DR. WM. GORDON read a paper on this subject. Some y ago he had noticed in cases of gastric cancer, in w ordinary emphysema could not be thought to exist, that cardiac dullness was greatly reduced or obliterated in th cumbent posture. Since then it had been noticed in n cases. The following was a summary of results: Reduc or loss of cardiac dullness was common in cancer cases, cially of abdominal cancer, towards their end, but it was always to be found in them. It might precede cach marked wasting, and loss of skin elasticity, but seemed al in the earliest stages. If absent at first it might slowl velop towards the end. It might be found, but appare rarely, in other diseases. It seemed not to occur in sarc cases. When present in a doubtful case its presence was suggestive of the existence of a cancer. When absent doubtful case of considerable duration it was slightly su tive that the case was not one of cancer. It was of c necessary to exclude the existence of all ordinary caus alteration of the area of cardiac dullness. The explan appeared to be that the lung margins extended thems across the front of the heart (this was found *post mortem* the fact), perhaps owing to a loss of elasticity in their stance such as was seen in the abdominal skin in many of abdominal cancer.

The PRESIDENT remarked that the paper had interest o medical and surgical sides. It was to be understood tha loss of cardiac dullness was due to an atrophous emphy

he asked if the lung had been examined microscopically if such had been found. Experience from cancer hos-ls on this point would be of interest.

r. GORDON in reply said he had not himself examined the microscopically but in one case in which microscopic nination was made it was negative. Even quiet breathing ht presumably cause overlapping of the heart by the lung ne presence of diminution of elasticity.

PROPERITONEAL HERNIA.

r. BETHAM ROBINSON described a typical instance of this lition, which is published on p. 600 of the present issue.

r. W. MCADAM ECCLES considered that properitoneal dia must be distinguished from interstitial hernia. There a great preponderance in the male subject of the former of the latter in the female, which could not therefore be ed to imperfectedly-descended testis. An imperfectly-ended testis, a pouch in the canal, and the descent of the -l tended in combination to form the bilocular properitoneal h. All such cases, he thought, should be explored. This, me cases of imperfect descent of the testis with protru-. might prevent the formation of a hernia. When on the side, no mere reduction from the scrotal sac was suffi-without care being taken that there was no strangula-

'. BETHAM ROBINSON replied.

INBURGH MEDICO-CHIRURGICAL SOCIETY.

rofessor JOHN CHIENE, C.B., President, in the Chair.

Wednesday, March 2nd, 1904.

HIGH-FREQUENCY CURRENTS.

ALEXANDER BRUCE gave (at the request of the Council) a nstration on the mode of production and on the thera-c application and uses of the high-frequency currents of icity. At the outset he referred to what he considered the regrettable position taken up by a large body of the ssion towards this mode of treatment, and to the unfor-e consequences in allowing it to fall largely into the s of ignorant and unqualified persons. He thought that ime had more than fully come for the profession them-s to study the physiological action and therapeutic of these currents. The meaning of the term "high-ency" was explained, and the steps were described gh which the present development had been attained. arious modes of producing the currents by the static ine, the Ruhmkorff coil, by the motor transformer and ep-up transformer were described, and with the excep-f the latter were exhibited. The modes in which the nts were utilized after passing through the condenser, ly, by direct application and by means of the auto-con-tion of the specially insulated couch, were also shown, and elative uses and merits were explained. At the end of the nstration an indication was given of the various pur-for which the currents were used, namely, for the ing of pain, for the stimulation of atonic muscular con-s, in the treatment of neurasthenia, and in the vement of tissue metabolism.

ANNULAR STRICTURE OF THE LARGE INTESTINE.

DAVID WALLACE, C.M.G., read a paper on chronic in-al obstruction caused by annular stricture (malign) of rge intestine. The paper was based upon a series of ases which he operated upon in his private practice g the preceding year. After defining the meaning of rm annular stricture he drew attention to the insidious and progress of the condition, and to the paucity of nitory symptoms which presented in the majority of prior to an attack of chronic, or it might even be acute, iction. After a reference to the common symptoms, con-ion—masked frequently by a spurious diarrhoea—general abdominal discomfort, which were often only symptoms of previous illness that could be d in the history, he pointed out that loss of weight, rygmic paroxysmal pain, and visible peristaltic move-were usually present in the later stages. A palpable ur was, as a rule, only detected comparatively late in the e, and this was readily understood when it was remem-that the site of the tumour was frequently at the ic or splenic flexure, and therefore anatomically so up under cover of the ribs that palpation was t impossible, even in thin people with soft ab-nal walls. In six cases abdominal obstruction was the first thing which caused the patient to seek medical advice, and in none of these was a tumour palpable through the abdominal wall. The age of the patients averaged 62 years: the eldest 82 and the youngest 47 years of age. The main thesis in the paper was to direct the attention of physicians to the importance of accurate diagnosis and the necessity for operation at an early period before the tumour had extended beyond the wall of the intestine—to treat if possible by excision during a quiescent period when the tumour was still intrinsic to the gut. That during obstruction expectant treatment might be adopted—purgatives being carefully avoided. The food by the mouth to be chiefly fluid, and while nutritious to be as little bulky as possible. That morphine should be given to relieve pain. That a careful note of increase of distension of the abdomen or quickening of the pulse should be made, and that if either occurred immediate operation should be resorted to. That even if relief to obstruction resulted from medical treatment the question of operation during a quiescent period should be considered. Surgical treatment consisted in one of three procedures—colectomy, colostomy, or short circuiting. When no tumour was palpable, and the site of the obstruction was not known, the incision should be along the side of the middle line to the right of and at the level of the umbilicus, which enabled an examination of the whole abdomen to be made, and permitted ileo-colostomy, or opening of the ascending or transverse colon, if necessary, to be done. If the tumour could be excised, and this incision did not give free access, then either a transverse incision might be made from the original vertical one, or a second incision should be made directly over the growth. If colostomy was needed at once the gut could be opened and a secondary operation performed later to remove the tumour, and an end-to-end anastomosis be done. When the gut was full of liquid faeces probably the best method was to evacuate the intestinal contents and either at once do the needed short-circuit or colectomy or at a later period (two or three days) complete the operation. Results in the series referred to: operation was performed in six cases during obstruction and in four during quiescence; two colectomies with one death; three ileo-colostomies with one death; five colostomies with one death.

MANCHESTER MEDICAL SOCIETY.

J. S. BURY, M.D.Lond., F.R.C.P., President, in the Chair.

Wednesday, March 2nd, 1904.

RENAL DECAPSULATION.

DR. WALKER HALL read a paper on the effect of decapsulation on kidneys in which a degenerative nephritis had been induced. The removal of the capsule in such conditions was always accompanied by laceration of the cortical tubules and haemorrhage. In eight to fourteen days later the kidney capsule had re-formed, and was thicker than the normal capsule. The haemorrhages and lacerations were replaced by cellular tissue. The details of capsular changes in two human kidneys after partial removal of the capsule were given, and these, together with an account of the forty specimens exhibited, will be published shortly.

GALL-BLADDER SURGERY.

Mr. E. STANMORE BISHOP attributed the recent impetus to surgical work in this region to three things—asepsis, clearer diagnosis, and improved technique. The older teaching, which laid stress upon the presence of tumour, jaundice, intermittent pain, results of exploratory puncture, the discovery of calculi in faeces, and sensations of grating in cases of biliary calculi, was shown to be insufficient and sometimes misleading. Tumour was usually absent. The gall bladder was usually contracted and deeply seated, therefore grating could not be felt and puncture was impossible; the latter was also extremely dangerous. Jaundice was frequently absent; when present, was evanescent, and in all cases depended upon the position, not the presence of a stone. Pain was dual, continuous, dull aching, and intermittent, sharp, intense; the latter left behind tenderness, which was utilized in the two tests of Robson and Murphy, both of which Mr. Stanmore Bishop had found reliable. The tenderness along Robson's line was often in his experience higher up than at Robson's point. Improvements in technique were: freer exposure of the biliary tract to sight and touch by more careful separation of adhesions, and occasionally by rotation of the liver. The danger of undue trac-

tion upon the vena cava was pointed out. Immediate and thorough clearance of all calculi, as against the earlier two-stage method. Improved methods of drainage and greater control over haemorrhage by the use of calcium chloride and adrenalin. The speaker's remarks were based upon an experience of thirty-one cases.

A Family Record.

Dr. ERNEST S. REYNOLDS mentioned a family in which the eldest daughter had died insane, the second daughter had aberrant disseminated sclerosis, the third child (male) had fairly well-marked disseminated sclerosis of the ataxic paraplegia type, fourth (female) and fifth child (male) were normal, and the sixth (male) had aberrant disseminated sclerosis. The father had recently suffered from melancholia, his first cousin (once removed) had died of disseminated sclerosis, and a distant cousin of the last had exophthalmic goître. Dr. Reynolds mentioned also the case of a girl who had both disseminated sclerosis and exophthalmic goître fully developed at the same time.

SOCIETY FOR THE STUDY OF DISEASE IN CHILDREN.—At a meeting on February 19th, Mr. R. CLEMENT LUCAS in the chair, Dr. R. HUTCHISON showed a case of cerebral diplegia with changes in the fundus oculi in an infant aged 17 months. The optic discs were atrophic, there was extensive choroido-retinitis, and diffuse opacities were present in the lenses. The condition was thought to be arrested development of the cortex cerebri, probably syphilitic in origin. Dr. Hutchison also showed a case of progressive cerebral degeneration of the family type in a boy aged 4 years.—Mr. T. HOWELL EVANS showed a case of symmetrical bilateral bronchial fistulae and helical fistulae and mis-shaped aural pinnae.—A case of vertical monocular nystagmus was shown by Mr. ARNOLD LAWSON. The affected eye showed a leucoma of the cornea due to an old perforating ulcer. Dr. C. O. HAWTHORNE referred to a case in which a similar symptom ceased when the pupil was dilated with atropine.—Mr. J. JACKSON CLARKE showed an early case of Friedreich's disease in a boy of 4 years. He advocated in such cases light instrumental guidance, and later tenotomy and tendon elongation, with massage.—A specimen of secondary sarcoma of the lung was shown by Dr. W. A. WILLS and Mr. DOUGLAS DREW. The left testicle had been removed in April, 1903, and there was no evidence of recurrence, local or general, until December, 1903, when thoracic symptoms appeared.—A case of anaesthesia and recurrent ulceration of the gluteal regions from spina bifida was shown by Dr. PARKES WEBER.—Mr. SYDNEY STEPHENSON showed a case of tuberculous disease of the lachrymal duct, with tuberculous glands in the neck.—Microscopic sections from a case of general oedema in an infant were shown by Dr. GEORGE CARPENTER. There was albuminuria, but no tube casts were found. There were no inflammatory renal changes, but exudation was present between the glomeruli and their capsules. The condition was regarded as toxaemic.—Microscopic sections of the heart and kidneys from a case of acute oedema of the lungs and sudden death were shown by Dr. CARPENTER. The heart showed well-marked degenerative changes, and the condition was probably due to diphtheria.—A paper on the treatment of hernia in young children was read by Mr. LOCKHART MUMMERY.—The organs from a case of hemi-hypertrophy were shown by Dr. ROBERT HUTCHISON. The asymmetry of the limbs was apparently due to an increase of the subcutaneous tissues of the left side, resembling a diffuse lipoma. Multiple angeiomata were present in the liver. He thought the condition must date back to embryonic life, and be, in consequence, of unequal segmentation in the ovum. Dr. HAWTHORNE referred to a case of hypertrophy limited to the lower limb, where, *post mortem*, there was found to be a tumour of the optic thalamus.

PHONOGRAPHY.—The Society of Medical Phonographers will hold its annual shorthand examination in May, 1904. Two prizes each of the value of £3 will be offered, one for first-year students and one for students of more than one year's standing. The competition will be open without entrance fee to any registered medical student in the United Kingdom who has not taken a first prize at any of the Society's previous examinations. Intending candidates should send their names before April 15th to Dr. P. G. Griffith, Villa Molitor, Green Lanes, Hornsey, N., who will supply any further information desired.

REVIEWS.

SURGERY.

SIR F. TREVES'S *Manual of Operative Surgery*[1] has been f twelve years a standard of reference for all operating surgeo in this country. The preparation of the second edition h been mainly carried out by Mr. Jonathan Hutchinson, ju The character of the book has been little altered, and it still a work to which we shall all refer for authoritative i formation. In reviewing this edition it is necessary, in t first instance, to state that we must judge the work by a hig standard. The names and the reputations of the authors e title us to look upon anything they may publish as justifyi the most stringent criticism, and if in the following remar it may seem that much is made of trivial omission or erro this must be remembered. The first volume deals wi general principles and with the operations upon arteries a nerves, with amputations and excisions, and is noticeab mainly for a brief but well-illustrated description of the ne theatres at the London Hospital. The letterpress throughor is admirable, the descriptions are clear and concise, a indeed could hardly be improved. The illustrations, thou generally good, are, however, not always of the highest mer and it is time that such figures as 132 and 98 were permanent discarded. Vol. II deals with the surgery of the abdomen a of the abdominal organs, with operations upon the head a spine, and upon the chest. It is in connexion with the surgery these regions that the modern advances have been chief made, and it is here, therefore, that interest in this editio will be mainly centred. In the section dealing with plast operations for congenital deformities of the bladder and pen there is no mention of Beck's operation for hypospadias, n of van Hook's or Nové-Jusserand's methods, nor of Cantwell operation for epispadias, nor of Maydl's method of tran plantation of the ureters into the sigmoid flexure, nor Peters's extraperitoneal operation for extroversion. It ma indeed be said that the operations which have failed us in t past are described, and the operations which are likely serve us for the present and in the future are omitted. T section dealing with "operations designed to divert t urinary passages" occupies but half a page, and opens wit the statement "the procedures merely require to be enumer ted." At the least Petersen's work was deserving of mentio It is surprising to find the following opinion expressed wit regard to the Trendelenburg position: "For my own part, have found the Trendelenburg position of no advantage e cept perhaps in the ligaturing of the iliac vessels. After careful trial I have entirely abandoned this position of t patient." And further, to be told that in making an a dominal incision "it is even possible (by dissociating t muscle fibres) to avoid cutting any of them across; this, how ever, is carrying caution to extremes." The chapters dealin with the surgery of the stomach have been brought well u to-date so far as the letterpress is concerned. We regret t see, however, that (as in figures 400, 401, 402, 405, 406, 407) t illustrations are not good. The operation of pyloroplast is very properly discredited; but mention might have bee made of Finney's and of Kocher's methods of gastr duodenostomy. The chapters on intestinal obstruction an on intestinal resection are extremely good, but we may tak exception to the statement that no resection operation shoul be entertained in instances in which the mesenteric glands ar involved. The description of the operations for gall stones are on the whole, satisfactory, though more decided opinions migh have been expressed upon the inadvisability of performin "ideal cholecystotomy," and upon the need in practically a cases of stone in the common duct of drainage of the duct b a rubber tube. It seems to be taken for granted that the duc should be sutured, whereas drainage, as a rule, is desirable The account given of the operative treatment of the variou forms of herniae suffers somewhat from lack of method. Th "operation for strangulated hernia" is first described, and general account is given; then "the operation as applied t particular herniae"; and finally "operations for the radica cure of hernia," with a separate paragraph entitled "modifie procedures adapted to cases of strangulation." All this i unnecessarily diffuse, and the figures are not good. Th time-honoured figure borrowed from Ferguson might, a least, be altered so far as the sleeves and cuffs and links o

[1] *A Manual of Operative Surgery*. By Sir Frederick Treves, Bart. K.C.V.O., C.B., LL.D., F.R.C.S. New edition, revised by the author an Jonathan Hutchinson, jun., F.R.C.S. In Two Volumes. London: Cassel and Co. 1903. (Demy 8vo, pp. 1592. 42s.)

the surgeon are concerned (Fig. 421). Fig. 423 shows the pubes half shaved for operation, and in Fig. 424 the pubes is not shaved at all. The description of the operations for the radical cure of femoral and inguinal hernia are not as clear and precise as they might be, and the addition of several good diagrams would have been an advantage. No mention is made of the "overlapping" operation for the radical cure of umbilical hernia, which in the hands of many surgeons has replaced all other methods. If the authors had put this operation to the test, their estimate of the frequency of recurrence would probably be modified. The percentage of recurrence after operation for radical cure is estimated at, for inguinal hernia 20 to 30 per cent., for femoral 30 to 40 per cent., for umbilical 50 to 60 per cent. The section on the surgery of the bladder and of the prostate is good. Plenteous extracts have been made from the writings of Sir Henry Thompson. We are glad to see that a due measure of credit is given to McGill for his pioneer work in prostatectomy. We have made these criticisms in no carping spirit. In our judgement they are flaws in an otherwise admirable work. The teaching and the methods here expounded may be taken as representing, on the whole, the best practice of British surgeons.

In the eighth edition of *Surgery: Its Theory and Practice*,[2] a work from time to time carefully revised and improved by the late Mr. Walsham, much has been done to maintain its excellence by Mr. Spencer, whose name is now associated with that of the original author on the title page. At Mr. Walsham's request he undertook the larger share in the new volume, and has added much to the number both of pages and illustrations. It is satisfactory to know that a work so long associated with the name of an esteemed surgeon is in good hands and that it promises under such auspices to retain its well-merited position in surgical literature.

Mr. Hurry Fenwick has long been recognized as one of the leading English authorities on the use of the cystoscope. In a recent publication, *The Value of Ureteric Meatoscopy in Obscure Diseases of the Kidney*,[3] he emphasizes the advantages which are to be gained by the routine examination of the ureteral orifices in all cases of renal disease. The appearances which the terminal portion of the ureter presents in renal stone, in stone impacted in the ureter, in urinary tuberculosis, are all carefully and elaborately discussed. In some few trivial instances one may feel in doubt as to the accuracy of observation or of inference, but of the immense wealth of valuable investigation displayed in the book there can be no question. Mr. Fenwick has one recurring literary vice which may be illustrated by the following quotations: "A few months ago I had difficulty in restraining an operating surgeon, who had discovered this condition (oedema of the ureteral orifice) from doing a suprapubic cystotomy for the removal of a polypus of the bladder" (p. 144), and again "I confess that in several instances the procedure did not reflect any credit upon the surgeon" (p. 3). Mr. Fenwick's work is good enough to stand by itself, it is never necessary to disparage the work of others.

DERMATOLOGY AND SYPHILOLOGY.

J. Jeanselme has been well advised in issuing his lectures on in the broad sense, tropical dermatology,[1] delivered in the Paris Institute of Colonial Medicine. The first part of the book is devoted to infectious diseases, such as leprosy, syphilis, yaws, and verruga peruana. No less than 134 pages are given up to an excellent detailed account of leprosy, especially from the point of view of its incidence and spread in hot countries in particular, though they contain also a general survey of the geographical distribution. Much of what he says in connexion with leprosy applies to French Indo-China, where he has more particularly studied it. He insists on the fact that leprosy is spread by contagion from individual to individual. True heredity he excludes as an etiological factor, but admits a predisposition, just as is the case in tuberculosis. Syphilis as it is observed in hot countries is also handled in an interesting manner. Framboesia or yaws, which Dr. Jeanselme has had ample opportunities of studying in Indo-China, he considers on clinical and histological grounds to be quite distinct from syphilis. The second part of the book consists of a study of Oriental boil and the phagedaenic ulcer of hot countries, followed by lectures on fungus diseases, such as tinea imbricata, mycetoma, dhobie itch, and so forth, and concluding with a review of animal parasitic diseases and such conditions as aïnhum, keloid, and albinism. The illustrations are very good, and a useful bibliography is given at the end of each of the subjects dealt with. In an appendix the author has compiled a synopsis of geographical distribution under the headings of the various diseases, which will prove of service in connexion with the maps with which the book is furnished. The chapter on the histological and bacteriological methods of studying tropical cutaneous diseases will also prove valuable. The great fault of the work is the absence of a full index—an unpardonable omission in a scientific work. Brillat-Savarin has said that "un dîner sans fromage est comme une belle fille avec un oeil"; he might have added, "ou comme un livre sans table alphabétique." A bon entendeur, salut.

The first part of the Danish work on diseases of the skin[5] from the pen of Dr. C. Rasch, of Copenhagen, was favourably reviewed in the British Medical Journal of June 6th, 1903, p. 1325. The second deals with the remainder of the diseases due to microbes, those resulting from chemical and physical agents, and with some of the conditions arising from various causes. As already pointed out, this etiological classification has some drawbacks. The survey of drug rashes is full; and the important subject of eczema is adequately dealt with. In connexion with erysipeloid, the erythema serpens described by Morrant Baker is not referred to; the two affections are apparently one and the same. Whether Natal sore is the same thing as Oriental boil is not yet decided; the point ought to be settled by a competent man on the spot. Natal sore and veld sore do not seem to be the same affection clinically. The Scandinavian references in the bibliography appended at the end of each article are useful. The illustrations from various sources are well selected and reproduced. Fig. 61 is upside down; the representation of Hebra's prurigo might be better. Dr. Rasch is to be congratulated on his succinct and practical presentation of his subject.

The ninth volume[6] of the Dermatological Society of Great Britain's *Transactions* contains many things of interest. In the first place may be mentioned the oration of Dr. Unna, of Hamburg, on The History of Eczema in the Last Century in England, in which he reviews the subject from the time of Willan. It will well repay perusal by all who are interested in eczema (and who is not?), for the condition is one that is met with at every turn in practice. One of Dr. Unna's remarks will bear repeating here, namely, that a deficient study of languages may be the cause of long lasting mistakes. Dr. Stowers's table of mycosis fungoides would have been more useful had he made it more complete, and given the bibliographical references to all those cases he has cited. In a short paper, Mr. Pernet calls attention to the possibility of alopecia areata and errors of refraction being connected conditions, in the same way that errors of refraction and herpes zoster may also be in the relation of cause and effect. A number of unusual cases were shown during the session, giving rise to good discussions. Altogether, the Society is to be congratulated on the active work it is doing.

The report[7] on 12,000 cases of skin and venereal diseases which have been dealt with in Professor Finger's out-patients, at Vienna, contains many interesting details apart from the merely statistical information supplied. As far as skin dis-

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urgery: Its Theory and Practice. By William Johnson Walsham, C.S.Eng., M.B. and C.M.Aber., Surgeon to St. Bartholomew's Hos-, etc. Eighth Edition by Walter George Spencer, M.S., M.B.Lond., C.S.Eng., Surgeon to the Westminster Hospital. London: J. and A. churchill. 1903. (Demy 8vo, p 1227. 622 illustrations. 18s.)

he Value of Ureteric Meatoscopy in Obscure Diseases of the Kidney: a study linical and Operative Surgery. By E. Hurry Fenwick, F.R.C.S., eon to, and a Lecturer of Clinical Surgery at the London Hospital. lon: J. and A. Churchill (Demy 8vo. pp. 230. 6s. 6d.).

ours de Dermatologie Exotique [A Course of Lectures on Exotic Derology.] Par E. Jeanselme. Recueilli et rédigé par M. Trémolières orted by M. Trémolières]. Paris: Masson et Cie. 1904. (Demy 8vo; 03, 108 figures, 5 maps. Fr.10.)

[5] *Hudens Sygdomme og deres Behandling* [Diseases of the Skin and their Treatment]. Af C. Rasch. Second Part. Copenhagen: Gyldendalske Boghandels Forlag. 1903. (Royal 8vo, pp. 175, 33 illustrations. 6 kroner.)

[6] *The Transactions of the Dermatological Society of Great Britain and Ireland.* Edited by Arthur Shillitoe and Wilfrid H. Warde. Vol. ix. 1902-03. London: H. K. Lewis. 1903. (Demy 8vo, pp. 91 5s.)

[7] *12,000 Fälle von Haut-und Geschlechts-Krankheiten.* Erstattet von Dr. Karl Pezzoli und Dr. Alexander Porges. [Report on 12,000 Cases of Skin and Venereal Disease.] Leipzig und Wien: F. Deuticke. 1903. Royal 8vo, pp. 101. M.3.)

eases proper are concerned, eczema heads the list here as elsewhere. Under eczema are included cases of trade or occupation dermatoses. The details of a case of carbamide dermatitis may be mentioned here. It occurred in a man engaged in the manufacture of acetylene gas, who presented, in addition to an eczematous dermatitis, a number of sharply punched-out suppurating ulcers, involving the whole thickness of the skin from a lentil to about a sixpence in size. The authors of the report speak well of the use of naphthalin in eczema generally, except in very acute cases. They state that in acne vulgaris they have found gastro-intestinal disturbances in the very great majority of cases—a fact well known in this country. At one time, it may be mentioned, the Viennese school rather disregarded general indications, confining treatment to local conditions only. They still refer to pityriasis rosea (so-called, they add) as acute universal herpes tonsurans maculosus, including it under ringworm. This disease is a well-defined condition, and not ringworm. The section which deals with syphilis is very interesting, and gives details of cases of extragenital chancres. It is a pity the antiquated designations psoriasis palmaris et plantaris and psoriasis mucosae oris are still employed. They are misleading, and it is time they were expunged from syphilitic nomenclature. The portions relating to treatment may be given *in nuce* as follows: Intramuscular injections of calomel answered well, and were practically without drawbacks, as was also emulsion of mercury salicylate in paraffin used in the same way. The authors think less of the soluble salts, which are milder in action than the former. They prefer the salicylate emulsion. The soluble salts, however, are practically safe. On the other hand the insoluble mercurial preparations have now and then given rise to serious complications, even in competent hands. Welander's treatment is a slow and very mild method. Good results were obtained with iodipin subcutaneously injected in tertiary syphilis. The report also includes gonorrhoeal cases. The new silver-albumin preparations, the authors found, had advantages. They used largin, protargol, argonin, albargin, etc., and gave the preference to largin and protargol and found the former the more energetic of the two; argonin, however, answered best in cases of posterior urethritis.

Like a good many other observers, Dr. MATZENAUER is not satisfied that some of the accepted views with regard to syphilis are above criticism. He has therefore tackled the whole subject of its heredity anew, and his industry and scepticism have resulted in the volume before us.[8] The task is not an easy one, especially as the author opposes stereotyped notions. He deals first with the present position of matters, and then takes up heredity from the maternal and the paternal side, with exhaustive details as to the part played by the placenta, *choc en retour*, immunity, and so forth. Some of his conclusions may be mentioned: (1) There is no exception to Colles's law; (2) Profeta's so-called law is no law at all; and (3) true heredity of syphilis by way of ovum or spermatozoön is not proven. As to the first, it must be confessed that the instances of exceptions to Colles's law break down on sifting the evidence. From time to time one sees infantile-acquired syphilis mistaken for congenital syphilis, as appears to have been the case in the instance recorded by Dr. Coutts. In another instance pemphigus neonatorum was taken for a bullous syphilide—a not uncommon mistake even now. With regard to Profeta's so-called law and immunity, he maintains there can be no syphilis of the child without syphilis of the mother. The well-known objection to this, that mothers of congenital syphilitics may be to all appearances quite healthy, does not go for much when it is borne in mind that the diagnosis of tertiary syphilis in women must frequently be made on objective signs alone, and in the face of a negative history. There is much to be said in favour of Dr. Matzenauer's attitude, and there can be no doubt as to the necessity of a revision of the subject in the light of recent work on immunity. In any case, Dr. Matzenauer's industry and pluck are much to be commended. Before concluding it may be remarked that the term congenital syphilis is apparently more in accordance with the actual facts than the appellation *hereditary* syphilis. If the monograph could be reissued with a full alphabetical index its value and usefulness would be greatly increased.

[8] *Die Vererbung der Syphilis.* [The Heredity of Syphilis.] Von Dr. Rudolf Matzenauer. Wien und Leipzig: W. Braumüller. 1903. (Demy 8vo, pp. 216.)

FERMENTS.

DR. CARL OPPENHEIMER'S book on ferments and their action is an excellent compilation. It is a concise summary of the more important theories which have been put forward as the nature of fermentation, and contains a very complete digest of the facts which have been ascertained with regard to each of the better-known ferments. It would be impossible to present this highly complicated subject in a clearer or more convenient form. Each chapter commences with a brief historical outline of the older work on the particular theory or ferment with which it deals, and then brings the subject matter thoroughly well up to date. The reference to each authority quoted is given at the foot of the page, and there is a complete bibliography at the end of the book. The peculiar difficulty about the chemistry of ferments is that it is on the borderland of so many sciences, and ought, if it is to be treated thoroughly, to be approached in turn from the standpoints of the physical chemist, the organic chemist, the physiologist, and the bacteriologist. Dr. Oppenheimer is to be congratulated on the comprehensiveness of his view which enables him to give due attention to each of these four standpoints, and to place them in their appropriate perspective. Another recommendation of the book is its general tone of impartiality and freedom from an exclusively national bias. Every writer is naturally most conversant with the literature of his own country, and is apt to ignore or disparage what has been done elsewhere; it is, therefore, a particularly agreeable feature of Dr. Oppenheimer's work that full justice is done to many valuable contributions to the science of fermentation which have emanated from France and England. Whilst mainly occupied with summarizing the work of others, Dr. Oppenheimer by no means sinks his own individuality, and, indeed, the main success of the book as a piece of clear exposition is due to his discernment of the main points at issue and his appreciation of the relative value of the results which various investigators have obtained. In dealing with unsettled problems he succeeds in holding the balance between conflicting theories without presenting them as a confused congeries of contradictory assertions. This is criticism in the best sense of the word, and contrasts favourably with the popular method of condoning for scientific incompatibles by calling them "interesting," and with the equally unsatisfactory habit of attempting to decide between conflicting theories by a process of arbitrary eclecticism. As specific features of interest in the book may be mentioned, the discussion of the catalytic properties of ferments, the "vitalistic" theories of their action, the resemblances of toxins to ferments, and the ferment-like properties of organic compounds which have been obtained from animal tissues rich in leucocytes. It is a pity there are not more scientists who are equally conversant with the work of Ostwald, Kossel, and Ehrlich. Such men are what both physiology and pathology particularly need for the solution of the problems which lie immediately before them.

DENTAL SURGERY.

MR. ARTHUR UNDERWOOD'S *Studies in Comparative Odontology* is an introductory textbook, written with the object of smoothing the path of the student in his approach to the subject and of rendering it more attractive and interesting. The aim to which the author's style is excellently adapted. Whilst avowedly elementary it is brought up to date and, with the exception of a few slips, accurate, so that it can advantageously be placed in the hands of a student. The object of presenting to the beginner something easier and pleasanter to read than more complete textbooks can be is we think a good one, and, as the book is in no sense designed to supersede these, but only to serve as an introduction to them, our only criticism is that we wish that the author had not at times been led to include too much, and to cover the field by making mention—and occasionally little more than mention— of some out of the way things and creatures which may tend to confuse the beginner. We venture to think that the aim of the book would be best carried out by a very full and interesting account of a few carefully selected forms, and by the absolute exclusion of all reference to anything which could not be treated discursively and at some length. Such a plan was pursued in Rolleston's *Forms of Animal Life*, which

[9] *Die Fermente und ihre Wirkungen.* Von Carl Oppenheimer, Dr. Phil. et Med. Zweite neubearbeitete Auflage. Leipzig: F. C. W. Vogel. (Demy 8vo, pp. 440. M. 12.)

[10] *Studies in Comparative Odontology.* By A. S. Underwood, M.R.C.S., L.D.S. London: Bailliere, Tindall, and Cox. 1903. (Crown 8vo, pp. 77 illustrations. 5s.)

its original shape was in fact a full and ample description he preparations in a small case in the Oxford Museum, ough which all beginners were set to work as a grounding biology. This is not far from what has been done in the sent work, and it is along these lines that we think in ther edition it may most usefully be developed.

thorough-going disciple of Weismann, Dr. SIM WALLACE, his *Essay on the Irregularities of the Teeth*,[11] discards heredity an explanation of the phenomena involved, and virtually rts the position that the irregularity is acquired by each ividual as a consequence of physical causes. The chief or he holds to be insufficient size and muscular weakness he tongue, the tongue having long been recognized as an ve agent in pushing the mobile growing teeth into a ular arch. Hence the employment of foods which call for le mastication influences the arrangement of the teeth. s thesis is ingeniously worked out, and the essay is of ie as presenting with ability one side, at all events, of the stion. We cannot help feeling, however, that his theory idden rather hard, and that the argument does not gain the denial, to put it briefly, of all other influences. The erhung jaws of the House of Burgundy, the pinched jaws faces, traceable back through many generations in the traits of a well-known noble English family, or the rbon nose, are not to be accounted for by the supposition imilar influences during childhood having produced them sh in each individual.

a *Anaesthesia in Dental Surgery*[12] Mr. T. D. LUKE usses the various anaesthetics used for short opera- s and the methods of their administration. Although book emanates from Edinburgh, the use of chloro- a for dental operations, except in certain cases, is ngly deprecated, and statistics indicating that the death- for dental anaesthesia in Scotland, where it is more ely employed, is at least eight times that of London, are ted. He further points out that in spite of physiological stigations, of Commissions and the like, the chloroform h-rate appears to have increased rather than diminished. thyl chloride, whether used alone or as a preliminary to r administration, he speaks highly, while he does not ear to think that Dr. Hewitt's method of administering gen with nitrous oxide presents much advantage over the ission of air. It is an excellent little book, which we can idently recommend to all interested in the subject.

perusal of *The Antrum*,[13] by Mr. LLOYD T. LAVAN, ests the idea that it is a compilation rather than outcome of the writer's own experience. Special ts, such as the relation of the infundibulum to the m maxillare, are treated with no greater exactitude than eneral textbooks, and where the writer gives his own s, as on the etiology of certain cysts, he is certainly not y. Enchondroma is, with, we believe, a single excep- , spelt "euchondroma," and myeloid appears time after as "mycloid;" whilst few surgeons will agree with the ral dictum that all malignant tumours require the removal e entire maxilla, and that large innocent ones sometimes for this radical procedure. Notwithstanding grave defects, od deal of useful information is brought together in its s.

NOTES ON BOOKS.

. BURTON BROWN in a handbook entitled *Recent Excava- in the Roman Forum*[14] has given an interesting account of operations which have taken place there between 1898 and 9. Professor Boni, the eminent archaeologist and one of most successful excavators, has contributed a preface, in course of which he states that the book is intended, by ribing the excavations, to show the light they have wn upon the religion and history of the Romans, and ugh these upon the character of the people. The goal d at is the same that Livy saw before him twenty cen-

turies ago: "To set our minds to understand the life and customs of the Ancient Romans, that we may perceive by what manner of men, and through what means, whether at home or in the field, the Roman power arose and grew." Many well-known facts contained in the books previously published upon the Forum have been omitted; still, the monuments not recently excavated have been noticed in their place, in order that the book, as a handbook, should be complete. A special chapter is devoted to the Niger Lapis, or black marble pavement, lately unearthed during the excavations. Much interest was aroused by the discovery, and much speculation as to the real date and character of what is undoubtedly a tomb. According to some it is the tomb of Romulus, or, at any rate, that which the Romans believed through many centuries to be the grave of the eponymous founder of the city, a conclusion strengthened by the evidence found in the writings of Horace and others. The discovery is of such recent date that, although at present the history of the tomb can only be a matter of conjecture, much light will without doubt be thrown on it in course of time. There are numerous illustrations and several plans, and the publication should not only prove useful to the tourist, but of interest to those who care for things classical and historical.

Roses and their Cultivation,[15] by Mr. T. W. SANDERS, is an admirable book which may be strongly recommended as a practical and instructive guide to all rose-growers and rose-lovers, and especially to amateurs who will find in its pages very clear information about the queen of flowers—the various types, how to plant, prune, propagate, and show roses, suitable soils and manures, the various enemies to look out for, and the culture of roses in pots and greenhouses. Many books have been, and are yearly being, written on roses, but we have seldom come across one which will be found more useful to those who go in seriously for rose-growing. Many of the illustrations are really beautiful, and those illustrating rose-pruning so clear, that the young amateur could easily carry his or her own pruning by studying them. For beginners there is a useful glossary of the principal terms applied to roses. At the end of the book there is a valuable list of roses which are worth growing and usually succeed on English soils. The list is arranged in tabular form, and includes the name of the rose, its section or class, date of introduction into England, colour, habit of growth, how best grown, mode and time of pruning.

In *Food for the Tropics*[16] Mr. T. M. MACKNIGHT gives an interesting account of the various foodstuffs to be found in tropical countries and how they may be used by the inhabitants. The general plan of the book is to give in a series of chapters an account of the various tropical products which may be utilized or substituted for the materials ordinarily used in temperate countries. Thus, under bread he enumerates nine substitutes for wheat flour, under butter a number of oils which may be used in cooking, and so on. A list of indigenous vegetables and the mode of cooking them is given, and there are similar lists of fruits and condiments. The book in judicious hands will be found suggestive, and probably useful also.

WE have received from the Secretary of the Institution of Mining Engineers an excerpt from its *Transactions* which contains an account of the paper read before the Institution last year by Dr. Haldane, F.R.S., on the subject of "Miners' Anaemia," and of the discussion which followed. By miners' anaemia is meant ankylostomiasis, and although there is no reason to suppose that the parasite has so far gained a footing in more than a very limited number of mines in this country, the possibility of meeting with a person suffering from the complaint is one to be borne in mind by all medical men who see anything of miners. The most obvious symptoms to which the disease gives rise are pallor, palpitations, and shortness of breath, while the Cornish epidemic was accompanied by the prevalence of irritable inflamed swellings of the skin, locally known as "bunches." Recent observations, made at home and abroad, tend to support the idea that these patches indicate the local presence of larval worms, and the route by which they reach the intestine.

ssay on the Irregularities of the Teeth. By J. Sim Wallace, D.Sc., M.D., . London: Dental Manufacturing Company. 1904. (Demy 8vo, 70. 5s.).

esthesia in Dental Surgery. By T. D. Luke, M.B., F.R.C.S.E. London: Rebman, Limited. 1903. (Crown 8vo, pp. 190. 5s.)

The Diseases of the Mouth and Teeth. By L. T. Lavan, L.D.S.R.C.S. I: The Diseases of the Antrum (Maxillary Sinus). London: Adams . 1903. (Demy 8vo, pp. 82.)

cent Excavations in the Roman Forum, 1898-1904. By E. Burton Brown. London: John Murray. 1904. (Fcap. 8vo, pp. 222. 3s. 6d.)

[15] *Roses and their Cultivation*. By T. W. Sanders, F.L.S., F.R.H.S., etc. London: W. H. and L. Collingridge. 1904. (Crown 8vo, pp. 162, 59 illustrations. 3s. 6d.)

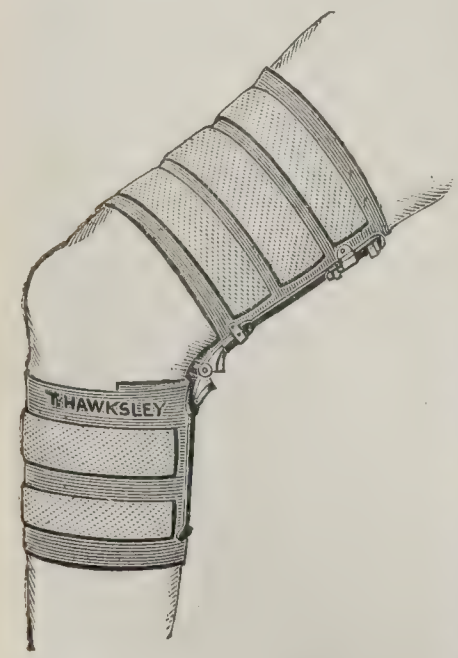
[16] *Food for the Tropics*. By T. M. Macknight. London, Calcutta, and Bombay: Thacker and Co. 1904. (Crown 8vo, pp. 126. 3s. 6d.)

REPORTS AND ANALYSES
AND
DESCRIPTIONS OF NEW INVENTIONS
IN MEDICINE, SURGERY, DIETETICS, AND THE ALLIED SCIENCES.

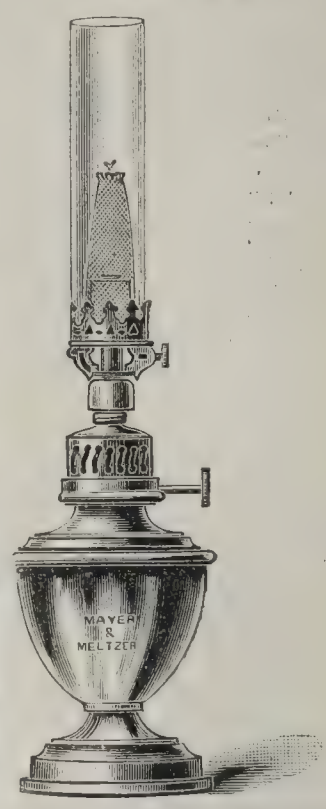
MEDICAL AND SURGICAL APPLIANCES.

Instrument for the Removal of Foreign Bodies from the Nose.—Mr. A. ROBERTS, F.R.C.S.E. (Surgeon to the Ear, Throat, and Nose Department, Royal Berkshire Hospital) writes: The accompanying illustration represents a little instrument which I have designed for the removal of foreign bodies, rhinoliths, etc., from the nose. The ordinary methods of removal are not always satisfactory, and it was after meeting with a difficult case, in which a rubber teat had been introduced into one of the cavities, that I sought for some new instrument likely to prove valuable under such circumstances. As will be seen, the end of this particular instrument is flattened and turned down, this portion being 6 millimetres in depth, and being provided with three small teeth. It can be readily passed into the nose beyond the object to be extracted, and gentle traction will lead to rapid removal of the foreign body, without laceration of the surrounding parts. Messrs. Mayer and Meltzer, of 71, Great Portland Street, W., made the instrument for me.

Splint for Transverse Fractures of the Patella.—Major CHAS. H. JOHNSTON, M.B., etc., I.M.S. (Trivandrum, Travancore, India), writes: The splint illustrated in the accompanying diagram was made by Mr. Hawksley, of Oxford Street, for me. I have found it most useful for riding, and it ought to be a boon to all huntsmen suffering from this injury; some of them in the shires are using it at the present time. It adapts itself to all the movements of the joint, has no points of pressure, is not unsightly or cumbersome, and can be worn under the riding breeches unnoticed by onlookers. If the action of the quadriceps is not desired an elastic half-knee cap can be attached over the knee, with a hole cut out of the centre to avoid direct pressure on the cap. The splint consists of a conical hinge with chocks rivetted to two separate moulded fittings of leather or poroplastic felt, to which are attached the necessary straps and buckles for securing to the leg. The hinge, with this spindle-shaped rivet, allows for the deviation of the plane of the joint in bending and straightening; as it is inexpedient that the patient should be entrusted with the means of manipulating the range of movement, two chocks are adjusted to the angle at which the limb may be bent, and as it is desirable to increase it, one or other of the chocks is filed away. The patella and sides of the knee-joint (especially the inner side) are uncovered, so that on horseback one's grip of the saddle may be in no way impeded, and it may be worn over or under the pants. The hinge movement of the head of the tibia on the condyles of the femur, in flexion, is accommodated by the steel upper part of the splint at the back fitting and sliding in a sleeve on the thighband, thus compensating for shortening at the back of the leg.



A Portable Lamp for Laryngoscopic Purposes. — Mr. E. CRESSWELL BABER (Brighton) writes: The lamp shown in the accompanying figure has proved itself very useful to me for carrying to patient's houses. It is an incandescent lamp burning methylated spirit, and a spare mantle is carried in the box in case of injury, and also a small reserve of spirit. The whole fits into a wooden box measuring $13 \times 5\frac{1}{2} \times 8\frac{1}{2}$ in., and is not at all heavy. With ordinary care there is no risk of the spirit contained in the lamp spilling. The lamp gives out a bright white light and is useful not only for examination of the throat, nose, and ear but for other surgical work. The want which exists for a portable and at the same time powerful light is my excuse for drawing attention to this simple lamp. It is moderate in price, and may be obtained of Vaast, 22, Rue de l'Odéon, Paris, or of Mayer and Meltzer, 71, Great Portland Street, W.



NOVA ET VETERA.

THE MEDICAL SERVICE OF THE NAVY IN THE EARLY PART OF THE LAST CENTURY.

THE Statistical Report of the Health of the Navy for 1902 just issued contains among other appendices one of considerable interest entitled A Report on Journals of Medical Officers examined at the Public Record Office, by Deputy Inspector General Theodore J. Preston, R.N., (retired). The period covered by the journals extends from 1793 to 1856.

THE PERSONNEL OF THE SERVICE.

During the greater part of that period the medical service of the navy seems to have been recruited principally from Wales. Ireland furnished only a few surgeons' mates. Scottish names appear after the reduction of the navy, about the year 1820. French, Dutch, and Russian medical men seem to have been given warrants, probably after the ships in which they were serving had been captured. Owing to this, occasional difficulties with the English language arose in the compilation of their journals. The returns of the *Ambuscade* (1800-2), and of the *Plumper* (in 1824) exhibit the struggles of Dutch surgeons to make themselves intelligible. One, Godfrey Baldemus, who was serving in the *Enchantress* in 1813-4, appears to have been a conspicuously ignorant Hollander, while earlier in the history of that vessel (1804) her surgeon, a German, favours the reader with much of his personal history, his education in his own country, and his superior position in the ship as an ex-professor of a university. In 1798 the surgeon of the *Wassanaer* was able to act as interpreter to the Russian troops on board; and in 1820 D. J. Hall, "formerly of the Imperial Russian Navy," and then of H.M.S. *Agamemnon*, writes his journal entirely in Latin, a fact which engenders a suspicion that his knowledge of the English language was limited.

SHORTCOMINGS OF SURGEONS' MATES.

That the Royal Navy suffered from the want of adequate medical assistance in the early part of the last century is evident from the remarks made by many of the surgeons then in charge of vessels of war. Whyte, of the *Atlas*, in 1800, complains of the want of medical education and the conduct of surgeons' assistants generally. He writes:

e third mate possessed activity, and so long as he entertained a of becoming first mate he was willing and zealous; but, his ical as well as common education had been entirely neglected, he ner understood Latin nor could he spell properly the most common ish words. . . . The present first mate . . . incompetent he performance of his duties . . . his exterior plausible . but more ignorant than the third mate. Concerning the Irish now second mate . . . he could neither perform the simple ation of venesection nor make up the most common medicinal arations." . . . Distressed me . . . such inadequate assist- . . . success of my practice and the fate of Britain's warriors nd.

UNPOPULARITY OF THE SERVICE.

ith most surgeons, except those serving in vessels cruis- in home waters, the service was unpopular. Then, as in days, the executive officers were apt to stretch their ogative. In 1798, when the surgeon arrived on board the *pis*, then in India, and produced the warrant of his intment to the commanding officer, that gentleman rked "that he was surgeon himself, and had been so four years; that no surgeon was allowed, and that he ed none." As late as in 1855 we find a medical officer plaining of "the annoying interference of the captain in ical matters making the surgeon a nonentity."

e surgeon of the *Violet* in 1810 was in an uncomfortable and writes home: "Grant me my discharge or death will put an end to my troubles;" and Dr. Gillespie, on leave the *Racehorse* in 1790, expresses his feelings in a signi- t entry in his diary as to "her house, how much prefer- to the noise, the intemperance, the dissension of a of war." At Madras, in 1804, Dr. J. W. Cowan com- s:

was with much concern I found when I came to the hospital, d of a respectable old navy surgeon, an assistant surgeon in the any's service, he may be a very clever fellow, but surely the n who appointed him could have had very little concern for the gs of the navy surgeons at the time employed on this station.

certain foreign navies the surgeon had to shave the s company, and in our own his duty seems sometimes to included the treatment of animals. In 1829 we find nedical officer of the hospital at Ascension objecting to ering professional assistance to the horses, cattle, etc., on sland. A few years later the surgeon of the *Alban* states "he has no assistance in the sick berth, and has to make wn poultices in the galley."

NELSON'S LOST ARM.

sibly from a distaste for clerical work—for assuredly it not have been from the want of material—very few re- able surgical operations are recorded, especially during period when amputations after gunshot injuries were of t daily occurrence. A case of special interest to hero nippers of every nation is recorded in the following bold by the surgeon of the *Theseus*, under date "1797, July and 25th" It may be remembered that Nelson received ound which caused the loss of his arm in an unsuccessful x on Santa Cruz, in the island of Teneriffe:

iral Nelson. Compound fracture of the right arm by a musket assing thro' a little above the elbow, an artery divided, the arm mediately amputated and the following given him ℞ Opii. gr. ij. statim, s., &c., 26 July. Rested pretty well and quite easy. Tea, and sago. Lemonade and Tamarind Drink. 31 July. One of the es came away; looks well. 1 Aug. Continued getting well very ump looked well, no bad symptom, sore reduced to the size of a g.

rther remarks upon this interesting case are found until st 20th, when in the journal of the *Seahorse* the surgeon, homas Eshelby, writes:

as appointed from the *Theseus* to attend the Admiral to d....one of the ligatures not come away. Twitching Pains at particularly at night. I gave the following: ℞ Haust. Salin. c. ii. g"xl. h. s. sumendus et rep pro re nata. Dress'd with Cerat alamin and dry Lint: he landed at Portsmo. 1st Sept. would not the ligature to be touched.

journal of Dr. Beatty, of the *Victory*, contains a list of vounded at Trafalgar, but there is no mention of n's fatal wound or of the death of the hero.

PREVENTIVE MEDICINE.

journals show that preventive medicine was not y neglected a century ago. In 1797 cinchona bark in was given to all men employed on shore in the West n Islands, and continued to be generally issued as a ntive of fever until its supersession by quinine. Nelson onvinced of the value of the bark as a prophylactic, and 3, acting on medical advice, he ordered its compulsory y all seamen of the Mediterranean Fleet, on duty wood- watering their vessels. Pneumonia was suspected to be a contagious disease in the *Aboukir* in 1808. Five years afterwards the surgeon of the *Racoon* was convinced that such was the case, and separated cases of that disease from the remaining sick. Clinical thermometry in cases of fever was used in 1811. The assistant surgeon of the *Alphoea* relates how he placed a thermometer beneath the patient's tongue, recording the temperature; and the medical officer of the *Cerberus* did likewise, making use of the axilla.

CARE OF THE WOUNDED.

The information as to killed and wounded is very meagre. It would appear that surgeons were not called upon to render any account or description of a battle, nor to take cognizance of the numbers killed. It is clear, however, that the wounded received every attention; and the details of amputations are usually complete but succinct, doubtless because such records afforded the Commissioners for Sick and Wounded Seamen evidence of the professional capacity of the writers. When the *Penelope* captured the *Guillaume Tell* off Malta in 1800 the surgeon remarks:

There were found nearly 300 killed and wounded, out of which number there were 30 capital operations . . . . several who lost their legs and arms, except a small portion of the skin by which they were suspended, remained in that state, without even the application of a tourniquet, for the space of from eight to ten hours, without haemorrhage of the least consequence taking place. This might be a great inducement to surgeons to delay operating during the time of action.

MEDICAL PRACTICE.

The contents of the earlier dated journals exhibit a more or less empirical form of practice, in which venesection and large doses of calomel hold a prominent place. As the century progressed the reports of heroic phlebotomy become fewer, the occurrence or production of mercurial salivation always induced in venereal disease, ceases to be noted, and the administration of crude cinchona bark is gradually superseded by the more elegant quinine. At a period when the surgeon was but sparsely supplied by the Crown with drugs and appliances, having to supplement his stores with articles which he was compelled to purchase from the Apothecaries' Society in London, it is not surprising to find that the commoner and cheaper remedies then in use were principally administered in His Majesty's ships. In spite of these therapeutical disadvantages, medical officers were particularly respected as "doctors," and considered apart from the remaining officers by ships' companies; this is shown by the fact that during the mutinies at Spithead and at the Nore, the surgeons and their assistants were never put on shore by the mutineers, as the other officers were. At least one of these outbreaks was followed by a demand for improved supplies of drugs, materials, and comforts for the sick and wounded, the absence of which was to the seamen clearly no fault of the medical officer.

SCURVY.

The term "scurvy" is loosely employed by some of the compilers of these journals, and it is difficult therefore always to identify the conditions of epidemic sickness which might be fairly described as of scorbutic origin. In 1808 a vessel at the Nore, but recently commissioned, is stated to have "scurvy" on board because "the purser neglected to draw lime juice and sugar from Sheerness yard"; and the surgeon of the *Albion* in 1800 attempted to cure a disease he identifies as "scurvy" by burying his patients up to the neck in earth procured from the shore. Opinions as to preventive measures also differ largely. One medical officer in 1797 advocates the administration of dilute phosphoric acid, others the use of citric acid as a beverage, and not a few the admixture of alkaline salts with the seamen's rations. Some surgeons pronounce lime juice useless and fresh meat the sole antidote, while others place their sole reliance in fresh vegetables. The *Ajax* in 1800 found lemon juice useless in the prevention of scurvy, as did the *Aurora* convict ship in 1835. The crew of the *Daedalus* in 1802 had had six weeks' fresh meat in sixteen months, but had been able to obtain unlimited supplies of fruit and vegetables; no scurvy appeared. In the *Rapid*, in 1846, this disease manifested itself, in consequence, it may be presumed, of the scarcity of fresh vegetables, the ship's company having had plenty of fresh meat. The *Rattlesnake*, one of the Arctic relief ships in 1853-4, was able to obtain fresh meat in plenty, and issued preserved vegetables only; there were no cases of scurvy on board. In 1807, in a ship serving in Indian waters, the surgeon obtained gratifying results from giving his scorbutic patients "green peas soaked in water, and allowed to vegetate." The use of

nopaul leaves as an article of diet met with many advocates early in the last century, especially among surgeons serving in ships on the Indian and Chinese stations. The issue of preserved potatoes as a preventive of scurvy is recommended in a journal from a convict ship in 1844. Ten years subsequently the surgeon of the *Miranda* urges the substitution of French compressed cabbage. Mustard as an antiscorbutic is suggested in 1797.

HOSPITAL SHIPS.

Hospital ships and convalescent vessels were, apparently, for the most part men-of-war captured from the enemy, and were stationed in the home ports; but there is evidence that some ships taken from the enemy were converted on the spot into hospitals as they floated, presumably without removal of their war stores, guns, etc. Of the latter was a vessel, unarmed, captured at Gottenburgh, in 1808; and the surgeon of the *Bellerophon*, writing in 1804, mentions the fitting up as hospitals of ships taken at the evacuation of San Domingo. The *Alkman* was a sea-going hospital ship in the Baltic Sea in 1801; the *Triton* in the Tagus in 1810; and in 1808, after the battle of Corunna, the *Barfleur* is mentioned as a sea-going vessel receiving the military wounded. In 1801 the *Holstein* was afloat; still earlier, the *Dolphin* was serving as a hospital ship at Teneriffe in 1798. In addition, the *Frederickwaren* was moored off Copenhagen, in 1807, and the *Wilhelmina* at Penang in 1811, both vessels being similarly employed. It must not be assumed, however, that these vessels were purely hospital ships in the modern acceptation of that term, for they appear to have retained their armaments, although there is no record of their having been attacked or of taking part in any engagements or of acting as transports. In addition to sea-going vessels several obsolete men-of-war seem to have been converted into convalescent ships and permanently stationed at the naval ports; they received wounded from the active fleet and served as adjuncts to the local hospital ship for the reception and treatment of minor ailments. Such were H.M. ships *Le Caton*, in 1796, and *Prince Frederick*, in 1803, at Plymouth; the *Gladiator*, in 1797, and *Le Pegase*, in 1805, at Portsmouth. As the necessity for the existence of these auxiliary vessels ceased to a great extent with the cessation of hostilities in home waters, they were used as "prisons" as well as hospitals, receiving the sick and wounded from captured French, Spanish, Danish, and American ships. The most recent mention in the journals of a vessel appropriated for purely hospital purposes is that of the *Tremendous*, which was fitted up for the reception of cholera patients at Sheerness in 1832.

KING EDWARD'S HOSPITAL FUND FOR LONDON.

THE annual meeting of the General Council of the King Edward's Hospital Fund for London was held on March 8th at Marlborough House, the PRINCE OF WALES being in the chair. The adoption of the account of receipts and expenditure and the balance-sheet for the year ending December 31st, 1903, was moved by the PRINCE of WALES, and seconded by Mr. H. C. SMITH, who pointed out that the annual subscriptions amounted to £32,834, £4,100 more than in 1902; the League of Mercy had been able to increase its contribution by £2,000; the total income from investments was £27,639, which was £16,200 more than in the previous year. The donations showed a falling-off of £25,800, this was accounted for by the fact that a special effort had been made in 1902 in connexion with the Coronation gift. The adoption of the report was supported by Sir HENRY BURDETT and carried unanimously.

The PRINCE OF WALES then moved the adoption of the report of the General Council for the year ending December 31st, 1903. He said that the accounts showed a gradual steady progress, the contributions in 1903 being £30,000 more than in 1901, the last normal year; the sum distributed—£100,000—was almost double the amount distributed in 1901; it had, however, been necessary to draw upon the reserves to the extent of over £18,000 to enable this grant to be made. The Prince said that a personal friend, who desired to remain anonymous, had written to him recently expressing the opinion that if the King's Fund had an assured income from investments and other permanent sources of £50,000, the income from subscriptions and other sources would amount to £100,000 a year, making a total of £150,000 a year available for distribution, and placing the King's Fund in a position to exercise a most beneficial influence and control over the management of every London hospital. To help towards this desirable object he had decided to anticipate a provision in his will and would hand over securities representing the capital sum required to provide one-third of the £14,000 a year, the amount by which the assured income of the Fund fell short of £50,000 a year, provided that the remaining two-thirds (£9,332 per annum) were provided before the end of 1904. The donor desired that the fund should prevent any portion of the sum subscribed for the relief of the poor being diverted to purposes of medical education. The Prince said that though reluctant to make personal appeals, in view of this munificent offer, he felt that it was his duty to invoke the support of those who were in a position to follow the example of the anonymous benefactor. The total number of subscribers to the fund was over 4,300, and to that number must be added the many subscribers to the League of Mercy; this showed that the fund was becoming understood and appreciated by the people. After thanking the dramatic profession for their frequent, substantial, and unassuming help, the Prince said that the reports of the Visiting Committee had been of the greatest assistance in determining the distribution of the fund. Many reforms, of which the public heard nothing, had been carried out in hospitals on the recommendation of the Visiting Committee.

The motion for the adoption of the report was seconded by Sir JOHN AIRD and supported by the BISHOP OF LONDON, who said that the number of beds which had been opened through the instrumentality of the fund was no less than 443.

A vote of thanks to His Royal Highness for presiding was moved by Lord MONKSWELL and seconded by the Rev. Dr. ADLER, Chief Rabbi.

The PRINCE OF WALES after thanking the meeting said he had a message from the King who desired it to be known that the interest he took in the fund was unabated, and that he congratulated the Council and all concerned on the very efficient way in which the fund was administered.

The report of the Hospital Distribution Committee expressed regret at the retirement of Lord Lister, whose place had been taken by Sir William Church. A grant had been made to the Poplar Hospital to help in opening ten more beds. The Committee expressed the opinion that one first-rate orthopaedic hospital with a country branch would be more beneficial than a number of institutions in London in rivalry with one another, and expressed regret that the City Orthopaedic Hospital had not seen its way to join in any scheme of amalgamation. A sum of £10,500 has been set aside to be drawn upon as required for the amalgamation of hospitals. A large donation of £6,500 to King's College has been made to encourage the removal of the hospital to the South of London.

LITERARY NOTES.

THE first number of *Our Hospitals and Charities* (Kegan Paul, Trench, Trübner and Co.) which has just appeared has the handsome appearance which has been described as a good letter of introduction. The new periodical is especially intended to reach the many who never receive the appeals sent out by hospital secretaries, who do not go to the fêtes, bazaars, and concerts organized for the benefit of charities and who do not contribute to Hospital Saturday Fund or to church collections. Its aim is "to give life and reality to the colourless statistics to be found in the perennnial appeals of the hospitals and charities, which too often, in spite of the skill with which they are set forth, fail to evoke the sympathy that is the object." An endeavour is to be made to interest readers in the lives and personalities of the men and women who labour for the welfare of the sick and distressed. It is not intended "to pander to the base craving for sensational details, but surely, soberly, to bring home to the hearts of ..... readers the real nature and value of the self sacrifice which this work entails on those who give themselves up to it." The number before us contains illustrated articles on St. Bartholomew's Hospital, the metropolitan convalescent hospitals, the Society for the Prevention of Cruelty to Children, and the General Hospital of Birmingham. We congratulate those responsible for the production of the periodical on the success with which they have carried out their avowed aim. The details of hospital work are here *oculis subjecta fidelibus* with a realism which has nothing in

morbid sensationalism, and which can hardly fail to excite
e interest of all who can feel for suffering, and sympathize
ith the efforts made for its relief.

A distinguished teacher has sent us the following skit
hich appeared in the February number of the *Magazine* of
e London School of Medicine for Women. He says: "It
admirably hits off the vagaries of the London University
gulations, that, I think, it deserves a wider circulation."

HIAWATHA, MEDICAL STUDENT.
OCTOBER, 1903.

AWATHA was a student
the Faculty of Medicine.
o was reading for his Inter.
ien one night he dreamed a vi-
sion—
sion awful, very mystic,
ll of deeply-hidden meaning.
r it seemed he saw a Senate,
nate of the very mighty
niversity of London
ting on the Regulations
r Internal and External
idents in the Art of Medicine.
! He saw how one demented
se, and argued much in this
vise:—
ll things change," he cried, "and
never
e we certain of the Future.
rtain of the things approaching,
the middle of the next week,
the next hour—the next mo-
ment—
d we are not Medes and Per-
sians!
ink," cried he, "Oh! Think, I beg
ou!
have had our Regulations
r Internal and External
idents in the Art of Medicine
mly fixed for several years now!"
d the members of the Senate
wed their hoary heads in sorrow
d with silent nod assented.
hink again," he cried, "I beg
ou,
erefore do we search the know-
edge
Internal and External
dents in the Art of Medicine
h our dread examinations?
t not to prove them ready,
dy at the call of Duty
meet all the many changes
a life of alterations
t a Doctor may encounter?
erefore do we fix our 'Scheme'
ien.
Curriculum of Study?
it as with bands of iron,
le brass or other metals,
er, never, to be altered?"
l the members of the Senate
edaghast upon each other,
Murmuring:—"Wherefore do we
fix it?
Are we Medes, or even Persians?"
Muttering with groans of anguish:
"Wherefore, wherefore, do we fix
it,
In this life of alterations,
Alterations all unlooked-for?"
Then it seemed to Hiawatha
That the hubbub grew tremen-
dous,
For "Anatomy" the one spake,
"Physiology" another,
"Nay! Mat. Med." a third one thun-
dered,
And the Institute walls echoed
With "Mat. Med." seven times re-
peated.
Till the very lions trembled.
Thus the Mat. Med. regulations
They re-read and quaintly altered,
"Pharmacology" they wrote there
(Not *excluding* Therapeutics,
Never mentioning Therapeutics),
"Pharmacy" they also wrote there
But they passed it over vaguely,
"For we cannot know the Future,"
So they argued very wisely.
Then they spake again: "'Tis little,
This is altering very little!
We must not be Medes and Persians.
What is left?" Then simultaneous
From all lips the words "Organic
Chemistry of Carbon Compounds!"
And the Institute walls trembled
And the lions at the entrance
Roared in unison "Organic ——"
So they slipped the word Organic
In among the Pre. Sci. subjects,
An important alteration
Born of heaven-sent inspiration.
"And its 'scheme' too shall be
altered,
Once a month or even oftener,
Since no man can know the Future
Since we are not Medes and Per
sians,
Since we need to test our students,
Proving them at all times ready,
Ready at the call of Duty
To meet all the many changes
That a Doctor may encounter
In a life of alterations,
Unexpected alterations."

* * * S. I. W.

Ir. George Grazebrook, F.S.A., has reprinted from *Mis-
anea Genealogica et Heraldica* a paper containing docu-
ntary evidence of the birth of a family of thirty-nine
ldren of one father and one mother. The records of the
llege of Heralds show that in July, 1698, Thomas Greenhill,
rurgeon, of London, petitioned the Earl Marshall that,
ng the thirty-ninth child and seventh son of his father and
ther, he might be allowed a difference in his arms to be
ne by him in commemoration of the fact. The grant was
de in the following terms:

o all and singular to whom these presentes shall come Sir Thomas
eorge Knight, Principall King of Armes, and Sir Henry S^t^George
ght, Clarenceux King of Armes, send Greeting. *Whereas* Thomas
enhill of the City of London, Chirurgion (thirty-ninth child and
nth son of William Greenhill of Greenhill in y^e^ County of Middlesex
his only wife Elizabeth Daughter of John Jones of London), has
le application to his Grace Henry Duke of Norfolk, Earl Marshall of
land, y^t^ the Arms born and used, under the hand of William Ryley,
is said Father—scilicet, Vert 2 Barrs Argent, in chief a Leopard
ant or—may be allowed and confirmed to be born by him w^th^ y^e^
rations of y^e^ Barrs from Argent to Ermine, and whereas they have
e for their Crests in seals and otherwise a Demi-Griphon, he may
llowed to bear y^e^ same Gules, powdered with thirty-nine Mullets
And forasmuch as y^e^ said Earl Marshall, being well satisfyed of the
lifications of y^e^ said Thomas Greenhill, and in consideration of his
rices of his Grace and his Family, did by Warrant or Order under
Hand and Seal of his Office of Earl Marshall, bearing Date y^e^ Eight
of August last past, Order and appoint Us to Grant Allow and
firm y^e^ said Arms and Crest so differenced as abovesaid.

Earl Marshall (Duke of Norfolk) had good ground
being satisfied of the chirurgeon's qualifications, for it
ears from another document that Thomas Greenhill had
ered professional services to him and his family.
William, the chirurgeon's father, is described in a third document as Secretary to General Monte, afterwards Duke of Albemarle. It is stated that the thirty-nine children were all at single births except one, and that most of them died young, only seven surviving in 1698. Thomas, who practised his profession in King Street, Bloomsbury, was the author of a work entitled Νεκροκηδεια, *or the Art of Embalming, wherein is shewn the right (sic) of burial, the funeral ceremonies, and the several ways of preserving the dead bodies in most nations of the world, etc.*, London, 1705. The work consists of three letters addressed to Chas. Bernard, Serj.-Surgeon to her Maty. and present Master of the Surgeons Company and one of the Surgeons to St. Barts. Hospl.; to Dr. John Lawson, sometime president of the Coll. of Physicians, London; and to Dr. Hans Sloane, Secy. to the Royal Society and F.C.P., London.

THE PLAGUE.

PREVALENCE OF THE DISEASE.

INDIA.

DURING the weeks ending January 30th and February 6th and 13th the deaths from plague in India numbered 23,203, 24,204, and 25,630 respectively. These figures approach very closely to the corresponding periods of 1903. This year the disease is even more widely spread than at any former time. In the Bombay districts there is a marked decline compared with 1903, but in Central India, whilst the deaths from plague numbered then about 15 a week, they are now about 1,000. In the City of Bombay the disease showed a tendency to spread during the first two weeks of February. In Calcutta the deaths from plague amount to only two or three daily. The City of Madras remains free from plague. During the weeks ending February 6th and 13th the deaths in the chief centres of plague were: Bombay districts, 5,989 and 5,493; North-West Provinces and Oudh, 5,593 and 5,517; the Punjab, 2,785 and 3,903; Bengal districts, 2,743 and 2,742; Rajputana, 676 and 1,352. The plague has disappeared from Belgaum.

A CORRECTION.—We are informed that the deaths which took place at the hospital at Cawnpore in January were as follows; Miss Alice M. Marval, L.R.C.P. & S.Edin., Junior Medical Officer of St. Catherine's (S. P. G.) Hospital, Cawnpore, died on January 4th; Nurse Walden died there on January 16th: and an India nurse and an Indian compounder also died from the disease. The hospital was reopened after disinfection on February 2nd. Miss Walters, M.B., B.S.Lond., went out at the end of January for six months to fill the post left vacant by Miss Marval's death.

CAPE COLONY.

During the weeks ending February 6th and 13th no fresh cases of plague were reported from any part of Cape Colony. One case of plague only was known to exist in Cape Colony during the weeks in question, namely, a patient under treatment in the Plague Hospital at East London.

At Port Elizabeth, East London, and Queenstown plague-infected rats continue to be found.

MAURITIUS.

During the weeks ending February 25th and March 3rd the fresh cases of plague in Mauritius numbered 3 and 6, and the deaths from the disease 2 and 5 respectively.

THE PHILIPPINES.

During December, 1903, there were 2 cases of plague and 2 deaths from the disease in the Philippines. During 1903 the deaths from plague numbered 176.

BRAZIL.

One case of plague was reported from Rio Grande on February 8th. During January a widespread epidemic of plague was reported to have occurred at Pindamonhangaba, a small village lying between Sao Paulo and Rio de Janeiro.

EGYPT.

One case of plague was reported at Alexandria on February 8th.

UNITED STATES OF AMERICA.

One death from plague was reported at San Francisco on January 11th and another on January 13th.

CONTRACT MEDICAL PRACTICE.

PROVIDENT MEDICAL ASSOCIATIONS: AN INQUIRY.

THE Secretary of the Southampton Provident Medical Association, Howard Road, Southampton, who is writing a paper on contract practice, would be glad to receive a copy of any agreement between a medical man and any club to which he is the medical officer.

ORDER OF ST. JOHN OF JERUSALEM.—At the recently held Chapter General of this Order, Honorary-Surgeon-General W. D. Campbell Williams, C.B., was promoted a Knight of Grace, in recognition of services rendered to the Melbourne Centre of the St. John Ambulance Association, and Dr. George Thomson, the Honorary Secretary of the Oldham Centre, also received the same honour for the energy and hard work he has contributed for many years past, both to the Association and to the St. John Ambulance Brigade. At the same time, Colonel T. H. Hendley, C.I.E., late I.M.S., was enrolled an Honorary Associate, for the very valuable work he has rendered in connexion with the institution and development of the Indian Centres of the St. John Association. All these appointments have been sanctioned since by His Majesty the King.

PREVENTION OF CONSUMPTION.

Great Britain.

Glasgow.—A meeting of the Council of the Glasgow and District Branch of the National Association for the Prevention of Consumption was held on February 15th, when Dr. Wm. Dougan, Vice-Chairman (in the absence of the Hon. the Lord Provost), presided over a full and representative audience. The meeting was convened to consider the procedure and policy to be adopted by the ward committees and their municipal representatives in promoting the crusade against consumption as resolved on at the meeting held recently in the St. Andrew's (Berkeley) Hall. "After discussion it was unanimously agreed to recommend that with the view of providing for the erection and maintenance of the proposed sanatorium for males at Bellefield, Lanark, each ward committee or subcommittee thereof should assist in the procuring (1) subscriptions for that purpose in their particular district, (2) lady collectors for each ward for ladies' auxiliary shortly to be formed, and (3) that they should arrange for district lectures and addresses on the prevention of consumption and the distribution of literature bearing upon the subject." The Chairman pointed out the very valuable results which co-operation with the ward committees on the lines suggested would ensure.

The Westmorland Sanatorium.

The fourth annual report of this institution, which was recently presented to the subscribers, shows most satisfactory results. With accommodation for twenty-four patients it has been found possible to admit a few paying patients from outside the county of Westmorland, and with the additional income derived from this source, the balance sheet for the first time shows a balance on the right side. A year ago there was a deficit of £254 9s. 10d., mainly due to the expenses in connexion with the water supply. Not only has this been wiped out, but valuable extensions and alterations have been carried out at a cost of £161. The medical report, which has been carefully drawn up, shows that during the four years of the sanatorium's existence 41 cases were admitted in the early stage of the disease; these remained in the sanatorium on an average three to four months, and almost all are now in good health and earning a livelihood. Dr. Rushton Parker, in presenting the report, drew attention to the large proportion of these cases who had no expectoration, and in whom, therefore, no examination for bacilli was possible. Fifty-four cases were in the "intermediate" stage; these remained from four to five months on the average, and the majority are now well and earning a living. Seventy-four advanced cases were admitted, of whom 32 have died. During the past year 58 patients were admitted, and comment is made on the very large proportion of these who were in an advanced stage of disease. In the discussion on the report it was suggested that more good might be done in the direction of preventing consumption if the sanatorium were used as an isolation hospital for the dangerous advanced cases, but this proposition did not find many supporters, and the report was adopted.

Canada.

British Columbia.—An Association for the Prevention of Consumption was established at a meeting held in Victoria, British Columbia, on January 20th, at which were present delegates from all parts of the province, as well as representatives of the Dominion and provincial governments. Sir Henry Jolly, Lieutenant-Governor of the province, was elected Honorary President: and Dr. Proctor (Kamloops), Secretary; Dr. C. J. Fagan (Victoria), Treasurer; and on the Committee of Management, Dr. J. C. Davie (Victoria) and Dr. R. E. Walker (New Westminster). The provincial government will be approached for a grant of £5,000.

New Zealand.

The New Zealand Government, acting on the advice of Dr. Mason, the Chief Government Medical Officer, has, says the *Australasian Medical Gazette* of January 20th, erected a sanatorium for the open-air treatment of patients suffering from pulmonary tuberculosis at Maungakawa, near Cambridge, New Zealand. It has accommodation for 33 patients. The site has an elevation of 900 ft. above the surrounding country, and commands a beautiful and extensive view of the Waikato Plains. The sanatorium, which is said to be equipped with every modern convenience, was opened for the reception of patients last month by Sir Joseph Ward. At the Science Congress recently held in Dunedin Sir Joseph Ward said he intended to ask the Hospital Boards in districts where th climate was known to be beneficial for chest ailments undertake the building of annexes for the reception of co sumptives. With thirteen or fourteen annexes capable holding 30 patients each, the Colony would be enabled house and care for all those affected by this disease. He pr posed to have these institutions established in Aucklan Hamilton, New Plymouth, Masterton, Otaki, Nelson, Chri church, Naseby, Lawrence, Queenstown, and somewhere ne Dunedin. Within these institutions every precaution wou be taken to destroy infected material. These will be in ad tion to the large sanatorium at Waikato, in which excelle results have already been obtained.

Australia.

Victoria.—It is announced that the Board of Health the State of Victoria has decided to treat consumption as infectious disease and to subject all sufferers from tub culosis to complete isolation. The department has arrang to accommodate numbers of consumptives at the quarantin station.

United States.

New York.—The new Health Commissioner of New Yo Dr. Darlington, has taken the field in force against t spitting nuisance. Officers have been sent to the fer houses, where the offence is most flagrant, and a number the law breakers have been arrested.

Pennsylvania.—It is announced that the crusade agai tuberculosis is to be carried on more vigorously than ever Philadelphia. All cases are to be registered, and infect persons will be removed to a camp which is to be establish in a mountainous region of the State. The co-operation the State authorities is to be secured, as the camp would first have to be maintained by grants, though it is believ that later it could be made self-supporting.

Indiana.—The Indiana State Board of Health recen issued an order forbidding consumptive persons from hold positions in schools. As a consequence of this order teachers have already been dismissed.

Minnesota.—The Assembly Committee on Streets has ported favourably on Dr. E. H. Whitcomb's ordinance for regulation and prevention of tuberculosis in St. Paul. H. M. Bracken, Secretary of the State Board of Health, ur the adoption of the ordinance on the ground that under provisions the city health department will be able to kee record of tuberculosis cases, and to prevent infection requiring vacated premises to be disinfected. The ordina declares tuberculosis an infectious and communica disease, and requires reports to the health commissio from physicians and managers of hospitals of all cases com under their observation. In case a tuberculous pati vacates a residence, the owner of the premises is require disinfect the same under direction of the health departm Should the owner fail to comply with this provision health commissioner is directed, after thirty-six ho notice, to placard the premises as unhealthful and unfit occupancy.

Massachusetts.—At the anniversary meeting of the N York Academy of Medicine lately held in New York, Dr. Gilman Thompson stated that "Within the past decade the State of Massachusetts alone the mortality from tub culosis has been reduced exactly one-half." In view of fact that between 1890 and 1900 the population of Ma chusetts increased from 2,093,889 to 2,855,346, a net gai 791,457, this statement was so startling as to demand ve cation. This task was undertaken by the New York *Ti* which found that between 1885 and 1902, notwithstanding increase of population, the number of deaths from consu tion in Massachusetts showed a decline from 5,955 to 4, During the period of fifty years since 1853 the death-rate 1,000 inhabitants of that State has declined from 42. 15.9. This, says the newspaper from which we have quo shows without argument the value of State medicine int gently directed.

Maryland.—During the Tuberculosis Exposition rece held in Baltimore Dr. William Osler delivered an address the History of Tuberculosis. He began with Hippocra and traced the history of knowledge of the disease dow our own day, the narrative being interspersed with graphical, critical, and explanatory comments. The Gre he said, knew the disease, but were unable to treat it, be ignorant of its cause. Galen was the first to recommend open-air life for consumptives as a means of recovery. Romans used to send consumptives on long sea voyage

ypt. Celsus was another great advocate of out-of door bitation. Coming to modern times, Dr. Osler spoke of ënnec, the inventor of the stethoscope; of Villemin, who s the first to prove by bovine inoculations that tuberculosis sses from man to cattle and from cattle to man; and of bert Koch, who discovered the tubercle bacillus. Dr. Osler ssed around several valuable and rare volumes, and, in sing, said:

robably it would be too much to hope to get rid of tuberculosis en-ly. But it has been unmistakably shown that it can be prevented, some day—who can say?—there may be a way of guarding against y vaccination. This means in a crude way has been tried on calves h some success. The best we can do is to use fully the means we command for combating the disease, such as getting control of ements and sweatshops, teaching cleanliness and care, and enforcing s of sanitation.

uring a recent visit to the Tuberculosis Exposition at ltimore, Mr. Henry Phipps of New York gave £4,000 to the hns Hopkins Hospital, through Dr. William Osler, for the rpose of establishing a separate out-patient department for berculous patients at the hospital. Mr. Phipps gave £2,000 the same institution a year ago. His gifts to the institu-n in Philadelphia founded by him and bearing his name said to amount to nearly £100,000. The work at the hns Hopkins Hospital has been carried on for several years ough the generosity of two ladies of Baltimore. Cases ve been visited in their homes, and special directions en to the families as to the management of the disease. ibrary of tuberculosis has been started.

Illinois.—At a meeting of the Illinois State Medical Society be held in Bloomington in May, a prominent place will be en to discussions on the prevention and cure of tuber-osis. The effect of different occupations on the health of berculous patients will be discussed, and statistics includ-mortality, influence of climate, topography, occupation, idence (city or country), and other data relative to the valence of tuberculosis in Illinois will be presented. The cussion is intended to be preliminary to active measures the prevention of consumption.

Portugal.

he Third Congress of the Portuguese League for the Pre-tion of Tuberculosis is to be held at Coimbra on April 21st l three following days. Among the subjects to be dis-sed are the following:—Professor Miguel Bombarda bon): The Moral Degeneration of the Portuguese People a Factor in the Spread of Tuberculosis. Professor nardino Machado (Coimbra): The Regulation of the Work linors and of Women in Factories, etc. Professors Egas niz (Coimbra) and Cassiano Neves (Lisbon): Scheme for Creation of a Law for the Protection of Infant Life in tugal. Professor Antonio de Padua (Coimbra) and Ayres ke (Lisbon): The Early Diagnosis of Pulmonary Tuber-sis. Professor Serras e Silva (Coimbra) and Silva valho (Lisbon): The Effect of General Sanitation on Tuber-sis. Dr. Candido da Craz (Ponte de Lima): Sanitary Regu-ons and Professional Secrecy. Professors Ricardo Jorge Carlos Santos (Lisbon): Marriage and Tuberculosis. ncillor Ramada Curto (Lisbon): Malaria and Tuberculosis. Joaquim Evaristo (Lisbon): Prostitution and Tubercu-s. Dr. Estevao de Vasconcellos (S. Martino do Porto): Obligations of the State in Relation to the Tuberculous r. Drs. Zeferino Falcao and Jayme Mauperrin Santos bon): School Diet in Relation to Tuberculosis. Professor elo da Fonseca (Coimbra): The Present State of the mtherepy of Tuberculosis. Dr. Lima Faleiro (Beja): ations of Alcoholism and Tuberculosis in Portugal. Lopo de Carvalho (Guarda): The Climatic Conditions of ious Regions in Portugal which seem to be suitable for the atment of Phthisis.

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edical Magistrate.—Dr. T. W. Heywood has been ap-ted a magistrate for the borough of Darwen.

he Spitting Nuisance at Eastbourne.—The Eastbourne n Council has passed a by-law forbidding spitting in any lic carriage, public hall, public waiting-room, shelter, or e of public entertainment, whether admission be ob-ed by payment or not. The by-law will come into force September 1st, and an offender will be liable to a fine not eding £2. The by-law is excellent—as far as it goes. The tations of the prohibition to the places mentioned is not, ever, the fault of the Town Council. The responsibility s with the Home Secretary, who will not sanction the pro-tion of spitting in the streets and on the parades.

INDIAN SANITARY REPORTS.

United Provinces of Agra and Oudh.

The author of this report, Lieutenant-Colonel S. J. Thomson, C.I.E., D.P.H., was on duty in South Africa—in charge of the Burgher camps in the Transvaal—during nearly the whole of the year, and the office of Sanitary Commissioner was held in his absence by Major J. Cheytor-White, I.M.S. This circumstance probably accounts for the arithmetical character of the report, which is for the most part a condensation of the statistical tables appended to it. The year seems to have been meteorologically a normal one. No account is given of crops or prices of cereals. Information on a matter so vitally affecting public health in India ought never to be omitted from a sanitary report. An excellent map of the province is given. The birth-rate was 45.84 against 41.35 in 1901, and 39.65 in the preceding five years. It is noted that the excess of births over deaths has been steadily rising since 1900. The death-rate was 32.54 against 30.30 and 32.48—an average return. As in Bengal, the high and increasing infantile mortality is commented on. The rate on births in 1902 was 243.6 against 232.7 in 1901, and 229.4 in the preceding 10 years. A special inquiry has been ordered by Government. Efforts are being made to improve the verification of registration figures, and some useful returns of death causes are being obtained from private practitioners. There was an abatement of cholera mortality. Small-pox was in excess of 1901, but below the average. The same remark applies to fevers and bowel complaints. The mortality caused by plague was serious, the number of deaths actually returned being 40,223, but there is reason to believe that many plague deaths have been included under "fevers." Females died in larger numbers than males. Some efforts have been made in places to "deal with mosquitoes and their larvae with a view to the prevention of malaria." The acting Sanitary Commissioner spent most of his time in touring through the province inspecting towns and villages and visiting "melas" (fairs). The Sanitary Board held five meetings, and appears to have disposed of a large number of references relating to sanitary work. The report of the sanitary engineer also indicates useful effort in the same direction. In the towns of Benares, Lucknow, Cawnpore, Agra, Allahabad, Meerut, Dehra, Mussoorie, and Naini Tal waterworks have been constructed and drainage works are being completed.

The Punjab.

The report on the sanitary administration of this province reveals some remarkable facts. The meteorology of the year was normal, no failure of crops occurred, the prices of food grains were moderate, the birth-rate (43.8) high, cholera rare, small-pox in no great excess, fever and bowel complaints below the average, and yet the death-rate was 44.1 per 1,000—the highest provincial rate of the year 1902. The cause of this very high mortality in a year when a low rate might reasonably have been expected was plague, which carried off 171,302 persons, or 8.52 per 1,000 of the population of the province. The disease prevailed most in the central and most populous provinces—in Ludhiana, Umballa, Sialkot, Jullundur, Gurdaspur, Hoshiarpur, and Lahore. The death-rates caused by plague varied between 71 and 10 per cent., and in some localities rates of from 20 to 40 per cent. were reached. The disease attacked small towns and villages rather than cities, and the rural mortality exceeded the urban. Dead rats were observed in villages before the outbreak, and when, under these circumstances, houses were promptly evacuated the inmates escaped. Females suffered in higher proportion than males. The disease, commencing in October, 1901, rapidly rose to a maximum in March and April, and then fell to a minimum in August. The facts relating to the disease and the measures adopted to control it have been specially reported by a special officer. Small-pox prevailed rather severely in some districts which are stated to be badly vaccinated, while well-vaccinated districts, such as Kangra, were comparatively exempt. A very important disclosure is made of the prevalence of cerebro-spinal fever epidemically in some places. In the Hissar district the outbreak was preceded by pneumonia, and was associated by Dr. Courtney, the Civil Surgeon, with previous privation. The statistics relating to respiratory diseases, which appear in the returns for the first time, are not, perhaps, very reliable, but they give a provincial rate of 2.8, against 0.33 in the United Provinces and 0.07 in Bengal. In some districts the rates were very high, and mention is made

of an epidemic of pneumonia in the Gurjar Khan Tahsil of the Rawal Pindi district. Appended to the report of Lieutenant-Colonel C. J. Bamber, D.P.H., the Sanitary Commissioner, is a report of the proceedings of the Sanitary Board, which held seven meetings and disposed of a number of important references, and a report by Mr. C. E. V. Goument, the sanitary engineer, which indicates commendable activity in sanitary work.

BOMBAY.

The sanitary report for 1902, compiled by Lieutenant-Colonel J. Clarkson, I.M.S., Sanitary Commissioner, is by no means cheerful or hopeful. It is, moreover, hard, dreary reading, being mainly a digest of statistical returns. The weather seems to have been favourable and the crops good. Famine lingered in Gujarat and the Deccan, and relief measures continued in these parts, but nearly all the camps and hospitals were closed before the year ended. The birth-rate was 34.16, against 25.19 in 1901 and a decennial mean of 33.06, and the death-rate 39.04, against 37.12 and 36.02. The City of Bombay had a birth-rate of 22.85 and a death-rate of 63.13. The large number of stillbirths reported is attracting attention. The plague mortality was higher than ever, and accounts for the high death-rate. The number of deaths registered was 184,752, giving a rate of 10 per 1,000. The disease extended its area of prevalence, and was very virulent. No mention is made of preventive measures. A great abatement of cholera mortality occurred, and the rates for small-pox, fevers, bowel complaints, and "other causes" were all below the average. The new entry of "respiratory diseases" exhibits a rate of 3.21, which is higher than that of the Punjab. No reference is made to the alleged increase of phthisis in the city of Bombay. References to sanitary work are meagre, and the proceedings of the Sanitary Board are paltry, and appear to be ridiculously unequal to the sanitary requirements of the Bombay Presidency. The Sanitary Commissioner remarks that "real sanitary progress has been at a standstill for some years past," and urges the Government to come to the rescue with gifts and loans. The reply is that "the Governor in Council cannot at present hold out any hope of any large measure of Government aid being given towards the execution of such schemes" (water supply and drainage). Lieutenant-Colonel J. Crimmin, V.C., Health Officer of the port of Bombay, is complimented on the thorough and useful work of his department. The praise is well deserved.

VETERINARY ADMINISTRATION IN BENGAL.

The report of Veterinary Major F. Raymond, F.R.C.V.S., for the year 1902-3 indicates continued progress in veterinary education and relief. Twenty dispensaries have now been started in the districts, in which were treated 903 in-patients and 21,911 out-patients. In addition 21 itinerating veterinary assistants treated 21,439 village cases, mostly of rinderpest. The 41 men thus employed were educated in the Bengal Veterinary College at Belgachia, in the hospitals attached to which 2,385 cases were treated, and 693 operations performed. Preventive inoculation is being largely practised. The total number of cattle operated on was 11,472 and 23 veterinary assistants were sent to the Imperial Bacteriological Laboratory at Muktesar for the purpose of being trained in this process. The people seem to accept the practice readily. Prefaced to the report is a photograph of the 30 students who attended the college during the year and their teachers. The youths present a smart and intelligent appearance.

MEDICAL SOCIETY OF LONDON.

THE anniversary dinner of the Medical Society of London was held at the Whitehall Rooms, Hôtel Métropole, on March 8th, with the President, Dr. F. de Havilland Hall in the chair. After the usual loyal toasts had been duly honoured the toast of "The Medical Society of London" was proposed by Professor Clifford Allbutt, who spoke at considerable length. He proved to the satisfaction of all present that the Medical Society should be held up as an example to those members of the profession who carried the specialization of the different divisions of medical science too far. They should remember that medicine was a whole and was a great comprehensive calling. The Medical Society was a great influence towards the securing of the unity of the profession. He reminded his hearers with some emphasis that, in pursuing specialism, they were apt to lose sight of the universal. He wished to protest against the division between medicine and surgery being made too absolute. In older times the distinction between the two was necessary, because if the efforts of the surgeon proved unsuccessful his failure entailed the severest penalties, one unfortunate surgeon having been flayed alive because of the untoward result of an operation. In his concluding remarks, Professor Allbutt paid a high tribute to the work of Lord Lister. The President, in replying to the toast referred with satisfaction to the prosperity of the Society; fifty-one new Fellows had been elected during the last year, and that was a record number for the last twenty years. Mr. Edmund Owen, who proposed "The Guests," asserted that though a surgeon had sometimes cause for anxiety physicians also had reason to be anxious, and did their best to keep their patients alive, dreading lest the revelations of the necropsy should not confirm their diagnosis. Sir John Wolfe Barry, in also responding to the toast, said that engineers were not without anxiety in connexion with their work, and confessed that at the opening of the Tower Bridge he felt some amount of responsibility and anxiety as to whether the calculations that had been made were correct, and whether the materials used were as good as they ought to be. Sir William Taylor, Director-General of the Army Medical Service, also replied for the toast. In his opinion reform in his department might be ascribed either to the war or to the reorganization scheme. They had certainly had enough of the war, and perhaps some of them thought that they might have too much of the reorganization. He assured those present that the officers in the Army Medical Service were deeply grateful for the friendship and consideration shown to their branch of the service by the civilian members of the profession. The toast was also acknowledged by Mr. J. W. Comyns Carr, and after the toast of "The President" had been proposed by Dr. Allchin and suitably acknowledged, the proceedings terminated at a late hour.

THE annual festival dinner of the Irish Medical School and Graduates' Association will be held at the Trocadero, Piccadilly Circus, W., on St. Patrick's Day, March 17th, at 7.15 p.m. Tickets may be obtained by members from Mr. J. Canny Ryall, 30, Harley Street, W.

MEDICAL SICKNESS AND ACCIDENT SOCIETY.—The usual monthly meeting of the executive committee of the Medical Sickness, Annuity, and Life Assurance Society was held at 429, Strand, W.C., on February 26th. It was reported that, as is usual in the early months of the year, a large number of members have made claims on the society for sickness paid, but that neither the number of claims nor the total amount paid were in excess of what was anticipated at this season. A considerable number of claims are being received on account of influenza. So far these have been light, but the books of the society contain much evidence that what may seem at the time to be a very light attack often leaves much weakness and the funds have perhaps been as much drawn upon in consequence of the sequelae of influenza as through the original attacks. Prospectuses and all particulars on application to Mr. F. Addiscott, Secretary, Medical Sickness and Accident Society, 33, Chancery Lane, London, W.C.

MIDWIFERY TRAINING.—The Society for Promoting the Training and Supply of Midwives desires that its aims and objects should be more generally known, because it would thus, it considers, be likely to receive pecuniary support. It believes that, unless special steps are taken, the effect of the Midwives Act will be that the present evil of ignorance and want of training on the part of midwives will be replaced by "a misfortune which will fall equally heavily on the poor, namely, a deficient supply of women who can attend to the wants of that very large class of the poor who are unable to pay the doctor's fee for attendance." Its object therefore is to act as a central organization to arrange for the training of widwives and also for the training of those who, already practising as such, have not been properly trained for the calling. In proof of the importance of the objects which it has in view it points to the heavy infant mortality which annually occurs and which it considers is largely due to the ignorance and carelessness of unqualified midwives. To the same cause it ascribes the "appalling increase in the number of cripples and blind" persons. It therefore considers that it is entitled to support on humanitarian, economic, and patriotic grounds. The cost of training a midwife is estimated at £20, and a home has already been established in East Ham to work in co-operation with the Plaistow Maternity Charity. Further information can be obtained from the Secretary, Hanover Chambers, 12, Buckingham Street, Strand, where donations will also be received.

BRITISH MEDICAL ASSOCIATION.

Subscriptions to the British Medical Association for the year 1904 are now due and should be forwarded by postal order or cheque to the amount of 25s. to the General Secretary, 429, Strand, London, W.C., or, in the case of Colonial members, to their Branch Treasurer.

British Medical Journal.

SATURDAY, MARCH 12TH, 1904.

MILK EPIDEMICS AND BOVINE MAMMITIS.

Professor J. Wortley Axe, Consulting Veterinary Surgeon to the British Dairy Farmers' Association, has made to that Association a report upon the relation of udder disease in cows to the epidemic of sore throat which occurred in the districts of Woking and Horsell last autumn. The report of Dr. R. W. C. Pierce, Medical Officer of Health for Guildford and Woking, on this occurrence was published in the British Medical Journal of December 5th, 1903. It will be remembered that the symptoms from which the patients in this epidemic suffered were severe sore throat, febrile and general constitutional disturbance, with enlargement of the glands of the neck, in some cases ending in suppuration. It was shown that four of the cows in a herd which supplied milk to the infected houses were suffering from mammitis, and the milk yielded from the infected udders was visibly altered to the naked eye; in fact, it was reported that the liquid yielded by two of the cows consisted for the most part of pus, such as would be obtained from an abscess. Professor Axe reports that the farmer assured him that this liquid was thrown into the hog tub and did not form part of the milk supplied to the retailers. Professor Axe further points out that it would appear that the precautions taken were not completely effective, as the retailers of the milk had a month or two previous to, as well as shortly before, the epidemic called the attention of the farmer to the fact that the milk either did not keep or gave a slimy deposit. While admitting that the presence of pus or muco-pus and streptococci in milk is "filthy, disgusting, and may prove hurtful to public health," he contends that there are not sufficient grounds for attributing to the products of the mammitis the effect of producing such an epidemic as that which occurred in and near Woking. He suggests that the infection was derived from the farmer, who had stated that he did not drink milk, but had been taken ill with sore throat and pains in the limbs in the middle of September, though he did not consult his family doctor until September 29th, very shortly before the epidemic broke out; other members of the family suffered from the disease shortly after this date. Professor Axe says that the evidence of the dairyman and his wife was sufficient to prove that opportunities were not wanting whereby the milkpans and other utensils used in the business could, and as it would appear did, become contaminated with infection from a human source. The farmer's wife and her daughter, who were waiting upon the sick farmer, washed the feeding appliances in the same sink as the plates and other articles used in the sick room. Professor Axe concludes that these circumstances point to at least possible infection of the milk from a human source. As against this view we have the facts given by Dr. Henry Kenwood in a report upon a recent epidemic of illness due to milk in Finchley published at page 602. The symptoms were similar to those in the outbreak at Woking, but of a milder type, Dr. Kenwood was able to satisfy himself that the persons employed in the dairy from which the infected supply came had not been suffering from a bad sore throat at the period when the outbreak occurred; moreover, the precautions taken for safe storage and delivery of the milk were quite satisfactory, in fact, in many respects exceptional as to care and stringency. Bacteriological examination in these outbreaks has not so far yielded a positive result beyond showing the presence of certain streptococci, the pathogenic nature of which has not been established. Dr. Kenwood states that, as the result of a veterinary examination, the veterinary expert found two cows yielding milk which became curdled, and he concludes that the milk given by these two animals contained the material responsible for the outbreak.

Dr. Kenwood concludes that the only way to prevent such occurrences is regular and frequent veterinary inspection; and, as already said, even Professor Axe admits that the presence of pus in milk is filthy and disgusting. We quite agree; and we trust that the circumstances of these two outbreaks may receive the attention of the President of the Local Government Board, in whose promised Public Health Bill provisions should be found for safeguarding the milk supply, and making the Dairy, Cowsheds, and Milkshops Orders really effective means for preventing disease. We believe that great improvements would be effected if county councils were given power to compel rural sanitary authorities to adopt and enforce the model regulations issued by the Local Government Board. That a matter of such grave importance to the public health as the purity of the milk supply should be left in the very unsatisfactory state shown by the facts published in our columns in the series of articles on the milk supply and on many subsequent occasions is a slur upon those responsible for legislation.

PRESCRIBING BY THE METRIC SYSTEM.

A brief reference was made in the British Medical Journal of February 27th to the Weights and Measures (Metric System) Bill which, if it comes back from the Select Committee in the form in which it was read a second time in the House of Lords the other day, will make the employment of the system compulsory for all purposes.

The Select Committee of the House of Commons which reported in 1895 recommended that the metric system of weights and measures should be at once legalized for all purposes, and this recommendation was carried out by the Weights and Measures (Metric System) Act, 1897. A clause in this Act empowered the Board of Trade to draft an Order in Council making a table of metric equivalents, and this Order was issued in May, 1898. The Select Committee further recommended that after a lapse of two years the metric system should be rendered compulsory by Act of Parliament, so that the measure now introduced only carries out the recommendations to the House of Commons. It may therefore be assumed that if not seriously modified by the Committee, to which it has now gone, it

will be well received by the lower house. The Colonial Premiers at the Coronation conference resolved that it was advisable to adopt the metric system of weights and measures for use within the Empire, and following on this resolutions favouring the proposals have been passed by the Federal House of Representatives of Australia, by the Cape of Good Hope House of Assembly, and the Transvaal Chamber of Mines; while in July last a Weights and Measures Act was passed by the New Zealand Parliament, empowering the Governor after January 1st, 1906, to make the metric the only legal system for use in that Colony. In standing out against the metric system the British Empire has the support of the United States of America and of Russia, but there is a Bill before the Congress of the United States to introduce the system, and Russia, it is stated, has already taken some steps in the same direction, so that it seems probable that if the Imperial Parliament passes the present Bill the Colonies will be ready to follow suit, and that very shortly the system will be international and universal throughout the world.

The metric system was introduced in a tentative way into the *British Pharmacopoeia* for 1867 and 1885, where metric weights and measures were used as alternatives in the paragraphs relating to volumetric analysis. In the *British Pharmacopoeia* of 1898 the system was extended to every official paragraph which made reference to the usual imperial weights and measures—that is to say, quantities were given on both systems; in the part of the volume relating to analysis, whether gravimetric or volumetric, however, the metric system was alone employed. The same practice has been followed for many years in some hospital pharmacopoeias, and its great convenience has been fully demonstrated.

It is still, however, extremely rare to find the new system used in the writing of prescriptions in the United Kingdom. Nevertheless, its adoption in all scientific works has had a direct influence on prescription writing, for medicaments are frequently ordered in terms of percentages or in "parts," in either of which cases the metric system is more convenient for dispensing. The process of voluntary evolution, however, appears unlikely to carry us further, and the time seems ripe for compulsory measures.

To the younger generation of the medical profession the change would be very welcome, for the metric system of weights and measures is the only one employed in chemistry, and they become thoroughly familiar with it whilst undergoing their training in that science, whereas few understand the intricacies of the imperial and apothecaries' systems. Exactly the same remarks apply to pharmacists, and it has been publicly stated on many occasions that few examination candidates have a thorough grasp of the British system whilst all follow the metric readily.

In the event of its adoption we should no doubt follow the example of France and order solids by weight (grams) and liquids by measure (cubic centimetres); the practice of weighing both solids and liquids which obtains in other Continental countries would not commend itself either to medical men or to pharmacists. Fortunately the gram unit is most convenient for medical purposes, though its smallness has led to much criticism in commercial circles.

The change in weights, measures, sizes of bottles, etc., would naturally entail considerable initial expense, but pharmacists have frequently expressed themselves in its favour, and when one reflects on the enormous amount of time spent by the youth of this country in learning tables of barleycorns, inches, ells, ounces, drachms, scruples, etc. one cannot but conclude that any sacrifice which ended such an anomaly would be abundantly justified.

THE ARMY MEDICAL SERVICE IN THE CRIMEA

The March number of the *Journal of the Royal Army Medical Corps* contains several letters written by the late Sir Thomas Longmore from the camp before Sebastopol. In the first of these, dated February 16th, 1855, he informs his correspondent, Mr. Birkett, that the deficiencies in the medical arrangements and affairs of the army which had been described in the newspapers had not been exaggerated. Shortly after the battle of the Alma he sent home a very strong letter, which an uncle of his published in the *Daily News*. He points out that in was in Bulgaria long before Alma that he and others had seen what must happen, badly appointed as they were in respect of transport and hospital equipment and subject so completely to the caprice of the military authorities under whom they were acting. It was not foreseen, however, that things would be so bad as proved to be the case in the Crimea, because they did not know that they were to be deprived of all their ordinary hospital armament, limited as it was, on landing and taking the field.

From the time they were at Devna till the date of the letter, he says, they had been constantly writing official letters, "complaining, remonstrating, warning, and in short, as the military people call it, 'making difficulties of every sort." At Monastere, Longmore wrote so strong a letter about being without medical comforts for the hospital when it was full of cholera and diarrhoea was prevailing that a "general hubbub" was created. His complaint, however, though backed by his colonel, was proved to be "frivolous" by General Airy, and shortly afterwards a friend who had been dining with Lord Raglan told him that the Commander-in-Chief had spoken about there being a "screw loose" in the medical department of the 19th regiment, of which Longmore was surgeon. There is some sharp criticism of the P.M.O., of whom Longmore says that he cannot understand "how he condescends to retain his office after the wigging he got from the Commander-in-Chief in General Orders." "I am quite certain," he adds, "that had he *insisted* on our having in the field the necessary ambulances, etc., Lord R. dared not have faced public opinion and refused the demand." Speaking of a general who, though a bulldog in courage, referred everything to the Peninsular standard, Longmore says he had always stood in the way of every sanitary improvement. In Bulgaria. This warrior was wounded in the arm, and when he saw the regiment again on his return to duty, the first question he asked was whether they had pipe-clay. The major in command replied that he had not, and explained that there was none to be got at Balaklava. "Well," said the general, "it must be got from England. Get your belts clean; then the men will think of cleaning themselves." At that time the clothes of men and officers were swarming with vermin!

In a later letter, Longmore tells his correspondent that people fancy that army doctors have much more power than they have. As an example, he mentions that for years they had remonstrated against the use of the stiff stock but without avail. The military authorities insisted on its use being con-

nued in the face of physiology and common nse. Writing in another letter of the professional aining of the military medical officer, Longmore points out at he is "a veritable sanitary commissioner." "His pro- nce," he says, "is as much to prevent disease as to cure He has to search out and neutralize its sources, to rest its progress when an outbreak occurs. Soldiers re- ire constant watching, for their own sakes as well as for at of the country at whose cost they are maintained. w of them have the necessary knowledge or care, even self-preservation, beyond the common animal instincts; ne of them have any knowledge of the many essentials be attended to in order to ensure a general safety nen they are herded together in masses. Even intelli- nt military officers who have not thought on this par- ular subject often hold very limited or mistaken ideas pecting it, and I believe it would be for the benefit of troops if the medical officers had more direct influence n they have in matters of sanitary influence. I know, ring one campaign at least, that in one division of the ny no medical officers were consulted with regard to the angements of the encampments and other points when gestions, such as ordinary sanitary science would have tated, might have been of vital importance."

The publication of these letters, which, it will be n, have more than a merely historical interest, especially opportune at the present moment. Long- re saw clearly that the true cause of the in- ciency of the medical service in his day was to found in its complete subjection to the caprice of the litary authorities. The experience of every subsequent r has confirmed his view.

The South African war opened the eyes of Mr. Brodrick, o gave the head of the service the position of independ- e necessary to prevent a repetition of the disasters of past. Military tradition and feeling were, however, d against this reform; hence the earliest opportunity been taken to re-establish the old order of things. We mend Sir Thomas Longmore's trenchant criticisms thoroughly bad system, which it is apparently intended restore, to the very serious attention of Lord Esher and colleagues.

THE PENALTY OF ADVERTISEMENT.

Daily Chronicle of March 5th contains a message from Chicago correspondent which conveys an instructive on as to the injury that may be done to a professional n by the fierce light of publicity thrown upon him by sponsible scribes. When Dr. Lorenz of Vienna per- ued his operation on Mr. Armour's little daughter, who suffering from hip disease, and had not walked from her h, he was assisted by Dr. Riblon, a local practitioner. In ture delivered to medical students on March 4th, Dr. on said that the result of the operation was imperfect, were many others of those performed by Dr. Lorenz. Riblon added that Dr. Lorenz himself admitted that ten operations out of ninety-three which he had ormed were perfect, and that he did not wish the h of a patient to become known, "because," he "the newspapers have raised me far above my rts, but if they hear of this failure they will cast far below them." We cannot, of course, vouch for the racy of the facts, which we give as we find them in our emporary. But even if they are incorrect, they serve int a moral of which the press and the public have a imperfect appreciation. The disapproval with h the medical profession regards advertising is rally attributed to no higher motive than the keen ciousness which its members have of each other's orthiness. We need not set forth to the readers of the British Medical Journal the true grounds for the attitude taken by the profession in regard to advertising. But the instance quoted above will serve to show that, from a point of view more intelligible to the lay mind, undesirable publicity must be regarded by honest practitioners as objectionable because it is detrimental to their interest. An inevitable Nemesis awaits any man or any method that is boomed as infallible. When failure comes, as come it must to the most skilful and to the luckiest, it brings an amount of discredit proportionate to the magnitude of the "boom." We think it due to Dr. Lorenz to say that we acquit him of any complicity, direct or indirect, in the sensational statements that have been so widely made about his operations. The very fact that he has been an unwilling victim of the newspaper reporter—to whom, especially in America, nothing is sacred—makes the evil wrought by such advertisement all the more flagrant.

THE ADVERTISING OF QUACK NOSTRUMS.

The charlatan is the product of human gullibility, and will no doubt continue to flourish in one form or another until a higher civilization has dispelled more of the mists of ignorance and made mankind less credulous. Ignorance and credulity are terms which, in this connexion, may almost be regarded as synonymous, and the quack is sufficiently acquainted with the nature of the soil he has to cultivate to know that it is porous enough to imbibe greedily any quantity of assertive promise and reputed achievement. Experience has taught him that the fertilizing process can best be accomplished through the medium of the advertising columns of a cheap and ubiquitous press. Advertisements are to be met with every day, sometimes in papers or journals of the highest respectability, which can only have found their way into the advertising columns through some unaccountable oversight on the part of the censor. With such advertisements we are not here concerned, though it is our firm opinion that the law ought to be strengthened sufficiently to deal summarily both with those who contribute and with those who are responsible for publishing them. But the quack remedy, which is neither indelicate nor suggestive, belongs to a somewhat different category. It is not unclean, but it is dishonest, because it professes what its proprietor well knows it cannot accomplish, and it conceals its simplicity and worthlessness under the cloak of secrecy. It is, in this respect, closely allied to its unwholesome neighbour, but at least it does not offend against the laws of social propriety and individual purity. That the practice of quackery pays, and that it brings its golden harvest through the medium of advertisement, and through that medium only, is a fact about which there can be no doubt. The sufferer, and the person to be pitied, is the dupe who is tempted to part with 1s. 1½d. for a box of "Smith's Liver Pills" that are warranted to cure every human ailment, or with 2s. 9d. for a bottle of "Brown's Mixture" which he has the testimony of countless testimonials for believing can restore health and vigour, even when these have passed hopelessly beyond the resources of legitimate medicine or surgery. In a paper read before the Sheffield Pharmaceutical Society recently by Mr. G. Squire, the question of "Advertised Quackery" was discussed from the pharmacist's point of view. The Government, the medical profession, and the press were severally lectured by the orator on the nonchalance with which they allow an admitted evil to prosper under their eyes and on the assistance, whether passive or active, which they give to its development. In his position as counsel for his own brethren it was not unnatural that he should minimize the help afforded by pharmacists themselves to the success of secret formulae, and so-called patent medicines. He urged that all chemists in the country should refuse to stock quack remedies, but he had no fault to find with proprietary medicines, the composition of many of which, be it observed, is as unknown to those who purchase them as is that of any flagrantly quack nostrum on the market. Indeed, he admitted, from the pharmacist's point of view,

that "were some of them their own they would be proud of the fact and do all in their power by fair means to increase their consumption." But surely advertising is fair means, and if it be wrong to advertise quack remedies, it cannot be right to advertise such as are classified under the less obnoxious name of proprietary. The difference between a quack remedy and a proprietary remedy of which the composition is unknown is merely one of degree. No combination of drugs ought to be offered to the public, any more than to the profession, without an accompanying statement of its integral composition. It is exceptional nowadays for manufacturing chemists of repute to become the exponents of proprietary remedies other than such as become so in virtue of some special method of preparation which adds to their convenience or palatability. Mr. Squire takes exception to the prescription by medical practitioners of "factory-made proprietaries"; but the danger to the public arises, not from the prescription of them, but from their unlimited sale by the retail chemist. Apparently the chemist holds himself no more responsible for these than for the quack remedies which he is also ready to provide on demand. Why, if he be urged not to stock the one, should he not also be encouraged to decline shelf-room to the other? Any remedy, be it quack or proprietary, will be eagerly sought after whenever it has acquired a reputation for relieving certain symptoms. If the reputation is justified, and the remedy is ordered by one skilled in its properties and in the proper method of its administration, the public requirement is honestly and scientifically supplied. But so long as the sick man is content to accept blatant assertion as proof, or to trust his interior economy to the action of medicaments whose name is their only credential, and which he buys over a counter at his own or some friend's initiative, so long will the "sweet uses of advertisement" find no more fertile field than in the domain of cures and specifics.

AN EFFICIENT AMBULANCE SERVICE FOR LONDON.

THE first part of the programme of the Metropolitan Street Ambulance Association has been accomplished with the most encouraging results. Of the 118 candidates elected to the London County Council last Saturday 104 had given satisfactory replies to the question sent by this Ambulance Association, asking each: "If elected to the London County Council, will you interest yourself in securing the establishment, by the Council, of an efficient street service ambulance for London?" Many of the answers show that the candidates themselves take a warm interest in this important question, and there is now therefore every reason to hope that the new Council will, without delay, take practical steps to establish an efficient and sufficient service. In the meantime, a detailed scheme will be prepared by a Subcommittee of the Metropolitan Street Ambulance Association for presentation to the Council, and to Parliament if necessary. A representative body like the London County Council will be greatly strengthened in its endeavour to draw up a really adequate scheme if it feels that it can thoroughly rely on the support of the whole medical profession of London. Medical men can assist the Metropolitan Street Ambulance Association not only by joining it, but also by sending evidence showing the lack of proper ambulance accommodation in their respective neighbourhoods to the Secretary, Dr. Arthur James, 69, Gloucester Terrace, Hyde Park, W. Fortunately, London has the experience of other cities to go upon, so that it may be hoped that time may not be wasted in experimental schemes. In New York the horse ambulance system, originated in 1870, proved so valuable that many, if not most, other large American cities have adopted similar methods; such a service was established in Vienna in 1881 and in Paris in 1888. There is an excellent system at work in Liverpool, and horse ambulances summoned by telephone have long proved successful at Bootle, Birkenhead, Manchester, Newcastle, Huddersfield, Bolton, Burnley, Hull, Sheffield, Leeds, Wolverhampton, and Ipswich. At a meeting of the London County Council in December, 1902, a report was presented, prefixed to which was a not by Sir W. J. Collins explaining the existing services, an making a comparison with systems in operation in othe cities. This report pointed out that the police, who i most cases have the first handling of street accidents, ar provided with hand stretchers and wheeled litters, but tha only three horse ambulances existed, and that these wer not kept in constant readiness. The St. John Ambulanc Association supplies litters and appliances at certai fixed points, the Bischoffscheim service provides at fir brigade stations and other fixed points wheeled litters an stores, while the Volunteer Medical Staff Corps rende ambulance service on special occasions. The report pointe out that there was no uniform adequate and co-ordina system for dealing with street accidents in London, r supervising authority in touch with the hospitals, and tha the telephone was not utilized. An investigation showe that nearly 70 per cent. of the ten thousand casualti carried to hospitals in London annually were taken cabs or carts, and not in ambulances. When th matter comes up again for consideration it seems probab that the County Council will have to choose betwe attaching the horse ambulance to the fire brigade orga ization, and the alternative plan of arranging for an amb lance system to be worked by the police. In Bootle t fire brigade men and horses have been utilized for t ambulance service on a system initiated by Surgeo Lieutenant-Colonel T. M. Wills as long ago as 1889. that borough the ambulance with its driver and attendan is got off within half a minute after the receipt of a ca the average time for which the ambulance is absent wh attending to an accident within the borough is twenty-fo minutes. In Liverpool a system by means of which te phonic messages may be sent from fire alarm posts h been utilized for the purpose of summoning ambulanc in the case of street casualties.

THE PHYSIQUE OF THE JAPANESE.

As is well known the Japanese are physically a sm people, yet they are capable of remarkable feats of streng and endurance, and as recent events have once more sho are full of courage and daring. The Japanese themselv attribute their high average of physical strength to a pl and frugal diet, and the system of gymnastics called *jitsu*, which includes a knowledge of anatomy and of external and internal uses of water. It is claimed t the average standard of health in Japan is much higher th in China, though the Japanese are a very much sma race. In 1899 a commission was appointed to consi whether by a meat diet or by other means the stature the race could be raised; but the conclusion arrived at that seeing that their feats of strength and enduring pow were superior to races much taller than themselves, lowness of their stature did not matter. Although dur the period of their ascendency the Samurai kept secret that their great physical superiority was due a great measure to the internal and external use water, the belief that if used liberally and intelliger water is an infallible weapon against disease is generally held. By those who go in for *jiu-jitsu* an aver of one gallon a day is drunk. Many of the springs pos medicinal properties of great value and are used, but that is really required by the people is that the water s be pure. By the copious ingestion of water the actio the bowels and kidneys is stimulated, and it is notewo that rheumatism is almost unknown in Japan; it is bable that the absence of meat from the diet, combi with the use of plenty of water, accounts for this immu Bathing is indulged in frequently even by the poo The water in the bath is heated to a temperature w would be impossible for an Englishman to endure, ge ally by a stove underneath the bath. These hot baths taken to cleanse and stimulate the skin, but cold baths are taken to invigorate and harden, and a roll in the s often follows the hottest bath. In the matter of they are frugal to a degree, rice being the st food in every Japanese house, and appearing every meal. Japanese troops have often made re

rches on a diet consisting solely of a little rice. Vege-
les and fruit are grown in abundance, and their value
a regular part of diet is realized far more than in this
ntry. Indeed, a labourer is content to work a whole
on a dinner of tomatoes, cucumbers, and salad. Salad
aten cooked as a cure for sleeplessness. Milk is scarce
ause it does not pay to keep cattle to produce milk
ne, and the meat is not eaten. Tea, poured out almost
nediately after it is made, is taken without milk. Beer
runk to some extent, but not in large quantities, and,
ugh spirits are imported, they are little cared
Cigarettes are smoked in great moderation,
es being preferred, but their bowls are small,
contain only a few pinches of tobacco, as Mr.
e has been demonstrating recently to the British
olic. The Japanese appreciate above all things the value
resh air; night and day they keep their windows open
their rooms ventilated, and they do not fear draughts
lamp air. Breathing exercises are an important part of
ir physical training—deep, careful breathing, which is
y acquired by practice. They hold that in this way the
rt and lungs are strengthened. Then follow other
rcises of *jiu-jitsu*, described in so interesting a manner
Mr. H. Irving Hancock in his book on *Japanese Physical*
ining. Nothing short of this perfection of health and
ngth, with its accompaniment of good mental balance
happiness, could have caused the Japanese to accom-
h in thirty years what it has taken other nations
uries to achieve.

PANESE AND RUSSIAN RED CROSS SOCIETIES.

the *Journal of the American Medical Association* of
ruary 20th. Dr. Nicholas Senn gives an interesting
unt of the Red Cross Society of Japan. The Society,
ch was at first known by the name of Hakuisha
iety of Benevolence), was founded in 1877, during the
rrection in the South-West provinces. After the
llion was crushed the Society made itself into a perma-
t organization. When the Japanese Government
gnized the articles of the Geneva Convention, the
ety decided to place itself in connexion with the Inter-
onal Committee of the Red Cross at Geneva, and to
r into friendly relations with similar societies in other
tries. It then, with the approval of the Ministers of
Imperial Household of War and of the Navy, changed
ame to the Red Cross Society of Japan, and adopted
s for its government. The growth of the Society
been remarkable. It has at present 800,000
bers, which means that in a country with a
ulation of 45,000,000, nearly every family is
esented. Dr. Senn attributes the growth of the
ty to the deep interest taken in it by the Imperial
ly and to their liberal contributions to its funds. An
erial prince is its honorary president, while a princess
the head of the ladies' committee. The Empress is a
ent visitor to the head quarters of the Society. Baron
guro and Baron Hashimoto, the leading medical men
pan, have been the guiding spirits in promoting the
lopment of the Society, and their efforts have been
ally supported by the profession. Popular interest is
up by a great public gathering of the members held
year at Tokio. At these meetings medical men
er lectures illustrated by magic lantern pictures
ing the work of the Society. The attendance is
m less than 200,000. Dr. Senn visited the head
ers of the Society at Tokio and was greatly im-
ed by the completeness of the preparations for the
gencies of war which he there saw. In a day
wo the Society can load a hospital ship or a
ay train and send it to the seat of war with-
ustling or confusion. The surgeons and nurses are
at all times to respond to a call, and the arrange-
s of the hospital stores is so systematic that they can
nsported in the shortest possible space of time. The
Cross surgeons and the nurses, male and female, are
military discipline and work in the hospitals behind
ghting line. The Society owns two hospital ships,
akuai-Maru and the *Kosai-Maru*, which are admirably adapted for the transport and care of the sick and wounded. The Red Cross Hospital in Tokio is the best of the many good hospitals in that city. It has 250 beds, and is attended by a staff composed of the best physicians and surgeons of the city. The central figure of the staff is Baron Hashimoto, one of the retired surgeon-generals of the army. It is in that hospital that the Red Cross female nurses receive their education and training. Instruction by lectures and demonstrations are given by members of the staff. The nurses serve an apprenticeship of three years, and on passing a rigorous examination receive certificates, which entitle them to practise their profession. In the event of war they enter the field service under military rule. The Red Cross Society of Russia is the richest in the world, having at its disposal funds amounting to £1,600,000. It was founded at Moscow in 1860, and has now 600 committees. It possesses 42 hospitals, 2 schools for nurses, 8 asylums for disabled soldiers, 1 asylum for widows, 4 homes for sick soldiers children, and 2 sanatoria for children. The society employs communities of Sisters of Charity, numbering in all more than 4,000. These "Sisters" are not under religious vows. They receive a training, which lasts a year; some go through a course which extends over three years. In 1897 the society formed a body of male nurses—the Brethren of the Red Cross—which did useful work in China. In time of peace the society is always prepared to co-operate with the medical service of the army in the care of injured or sick soldiers. It also gives help in epidemics and other public calamities, and takes care of persons injured by accidents in large towns.

BREATHING IN LIVING BEINGS.

Professor Stirling, in his lecture at the Royal Institution on March 4th, dealt with some problems in respiration. Although we classify animals as breathing in air and in water, when the question is pushed to its final issue all cells live and breathe in an aqueous medium. Our cells thus not only live in a watery medium—the lymph—but they live and breathe in running water. While oxidative processes occur in the cell—whether determined or favoured by the presence of oxydases or not—the problem arises how intestinal parasites such as ascaris, which live in a medium practically containing no oxygen, get their supply. Do they split up complex compounds to get the necessary oxygen? The experiments of Bunge on ascaris and the discovery by Weinland of the large amount of glycogen present in these worms throws some light on the question. Of course it is one also that touches the sources of muscular energy. All the energy need not come from oxydative changes. In referring to the centenary of the death of Joseph Priestley, who died in 1804, Dr. Stirling referred to experiments which Priestley called "bad experiments," those in which he found that green plants did not always render impure air wholesome and respirable. Had Priestley applied the touchstone of the "bad experiment," in all probability he would have anticipated the discoveries of Ingen-Housz and perhaps those of de Saussure, as to the relation of light and darkness—and not vegetation—to this proces. The lecturer described the remarkable way in which an insect—Donacia, one of the leaf-eating beetles—obtained air. It made two holes through the back of the plant it feeds on reached the air in the air vessels of the plant, and breathed the oxygen of the plant. Its larva breathes in the same way. Professor Stirling showed many of the classical experiments on respiration, including one on the pneumaticity of bone—a fact known to John Hunter. A lighted match was extinguished when air was forced into the end of the divided humerus of a duck.

PROTOZOA.

The Zoological Society is now issuing each volume of the *Record* in divisions, which can be obtained separately. That which deals with the literature of the protozoa for 1902 is written by Mr. H. M. Woodcock, B.Sc. It possesses, of course, a special interest for the medical profession, and there is no other record comparable with it for completeness. A large proportion of the papers, which number in

all about 450, are concerned with the malaria parasite, the trypanosomata, and the piroplasmata; they show how rapidly the group is gaining importance from a pathological point of view. As, no doubt, many of our readers are aware, the *Record* is much more than a simple catalogue of the literature, but contains the recent researches from the points of view of biology and of distribution are analyzed, and new species and new observations on known species are also arranged systematically. The discovery that trypanosomes are a cause of disease in the human subject has given to this group of the protozoa an importance second only to that possessed by the malarial parasites. Those who are carrying out research on these parasites are fortunate in the possession of the complete bibliography and summary provided by the *Record*. We note that the first discovery of trypanosomes as human parasites is ascribed to Nepveu, and the writer describes the priority discussion which has taken place on this matter as undignified. The inconclusive researches of Feinberg, Bosc, and others on the protozoan origin of cancer receive mention; and, although the analysis is not critical, the grouping of related researches enables the reader to formulate his own critical digest. The various divisions of the *Record* are provided with cross-references, which add much to its value. Among a considerable number of references, the accuracy of which we have tested, we have found no errors. The volume can be obtained from the Secretary of the Zoological Society, 3, Hanover Square, W.

SPOROZOA AND DISEASE.

In the second lecture on this subject delivered at University College on March 7th, Professor Minchin dealt with the coccidia and gregarinae—another class of sporozoa. The coccidia produced sporozoites which underwent repeated division until enormous numbers of young spores were produced, which proved fatal to the host. A similar process occurred in the case of the malarial parasite. The coccidia generally infected crustaceans, insects, and worms, but did not occur among the craniate vertebrata or the mollusca. The gregarinae, which were closely allied to the coccidia, were cell parasites like the latter. They attained a larger size and were present in the same classes of animals. In the coccidia the gametes or conjugating spores were of two kinds, namely, large quiescent cells (macrogamates) and smaller motile bodies (microgamates), a condition of the sexual life parallel to that which prevailed in the malarial parasite. The coccidia and gregarinae were present in animals as the result of casual infection of the food taken through the mouth, or occasionally through being drawn (in certain aquatic animals) into the respiratory sacs or lungs. In the case of the haemosporidia (sporozoa occurring in the blood of the human subject and causing malarial and other affections) an insect (generally a mosquito or gnat) served as the carrier of the parasite from an animal host to man, the parasite being inoculated into the human system as the result of the bite of the mosquito. Finally, certain rare skin affections have been described as occurring in South America, the cause of which was a sporozoon which was believed to be communicated from person to person by contact. Professor Minchin then described at some length the structure of various species of gregarinae, and stated that they usually infested the intestinal epithelium or the colemic (pleuroperitoneal) spaces of their hosts. They, however, were never present in man or the higher vertebrates. The coccidia, gregarinae, and haemosporidia formed one large subclass of the sporozoa.

TROPICAL MEDICINE.

At a meeting of the West India Committee, held in London on March 8th, Sir Patrick Manson read a paper on the disease problem in the West Indies, in the course of which he said that a well-equipped laboratory, under an able and experienced director with suitable assistants, should be established at some suitable point in the West Indies. He also urged that every boy and girl in every school in the West Indian Colonies should be taught the leading facts on which a rational system of tropical sanitation might be founded. The cost would be trifling, as the educational machinery—in the shape of teachers and schools—already existed. It would only be necessary to give the teachers a short course of instruction, to provide a few diagrams, and to add two or three additional pages to the current school books. He believed that if these suggestions were carried out incalculable benefits would result to the West Indies. We learn from the *Liverpool Mercury* that letters have been received from Sir William MacGregor, Governor of Lagos, and Sir Ralph Moor, K.C.M.G., late High Commissioner for Southern Nigeria, on the subject of the value of the work done in West Africa by the Liverpool School of Tropical Medicine. The Governor of Lagos writes that the work of the school should especially appeal to merchants engaged in trade in tropical countries, who look forward beyond the present hour to the profitable extension of their business. Referring to the fact that they had no Government grant, he says that this would not be so were it shown to the Imperial Government that the development of such colonies as, for example, those of West Africa must largely depend on sanitary measures suited to save the lives of multitudes of natives, to render stronger and more healthy those that are really the only producers in such colonies, which are not destined to become the home of a white race. Now that it was understood how much could be done by the knowledge acquired of tropical diseases during the last few years, it became a great national duty to extend and cultivate that knowledge, which was really only in its infancy. Sir Ralph Moor said his service in West Africa dated from 1891, when the conditions of life and general circumstances, as affecting health, were very different from those at the present day. Efforts were then made by enthusiastic medical officers of the local staffs and administrators to grapple with tropical diseases; but the time of the former was too much occupied in dealing with the actual cases of disease to make systematic scientific research as to their causes and the means of prevention; and, though the latter possibly succeeded in improving to some slight extent the hygienic and sanitary conditions, it was not until the establishment of the London and Liverpool Schools of Tropical Medicine that thorough scientific investigation could be systematically undertaken, and means provided for special study and instruction in the subject. Since that time great strides had been made, and there was a definite prospect that, with a continuance of the work in the spirit in which it was inaugurated, European life in the tropics might be guarded against its most insidious foes, and the diseases peculiar to the natives of such regions might be successfully combated. It may be mentioned that the British Cotton Growing Association has just voted the sum of £50 towards the funds of the school, as it realizes that the movement for the extended growth of cotton in tropical countries would be very much assisted if the conditions of life and health for those engaged in that industry could be improved.

THE PLAGUE OF RATS.

Dr. Harrison, Medical Officer of Braintree, has recently, it is stated, called attention to the large rats which infest the town. He has suggested the formation of a rat club, the members to pledge themselves to catch a certain number of rats or be fined. He says that he has done his best to keep the rodents down, but has not been supported. He may perhaps get a useful hint from a campaign with scientific weapons, which has recently been carried on with success in France. In the Chamber of Deputies complaint was made by the representatives of rural constituencies in certain departments of the immense damage to crops done by rats, and the Minister of Agriculture (M. Mougeot) promised to see what could be done for the determination of these vermin. In fulfilment of this promise he applied to the Pasteur Institute. It was decided to try a virus prepared by Dr. Danysz and tested successfully, on a small scale, in Paris and in Hamburg some years ago, when an account of the experiments was given in

itish Medical Journal. Accordingly, on January 28th, ne members of the staff of the Institute, under the direc- n of Dr. Roux, left Paris to conduct a campaign in the arente departments, where the rats were causing great ages. On February 24th Dr. Roux reported to the nister of Agriculture that the campaign had been npletely successful. The ground chosen for the eriment was an area of 1,200 hectares, extend- over the communes of Aigre, Oradour, and ns, which had been devastated by the rodents. all pieces of bread and crushed oats soaked with virus were placed on the ground near the innumerable -holes. The *matériel* of war consisted of 1,190 bottles of us, 4,200 kilograms of bread and 9,300 kilograms of oats. means of this ammunition 95 per cent. of the rats e slain. Their dead bodies were found in the holes heaps of 15 or 20. The following was the thod adopted to estimate the havoc wrought among rodents: In a field of 1 hectare in area, the number holes was found to be 12,484. All these were care- y stopped. Two days later, the number of fresh holes counted and found to be 1,304. The field was then treated h poisoned oats, the bait being laid down close to holes. A week later the holes were again stopped and fresh ones afterwards counted, when only 37 were found. s is taken to show the extent to which the rat population been decreased. With the object of ascertaining ther the appearance of fresh vegetation would be owed by a fresh invasion of rats, M. Metchnikoff is t to visit the scene of carnage. In reply to an inquiry M. Mougeot, M. Roux said that the virus is absolutely nless to those who handle it, and to all animals other rodents. In recognition of M. Roux's services the ister conferred on M. Roux the Commandership of the er of Agricultural Merit.

THE DISCOVERER OF THE LARYNGOSCOPE.

or Manuel Garcia, to whom belongs the credit of the overy of the practical application of the laryngoscope, on March 17th enter on his hundredth year. He was at Madrid in 1805. When he was still a child his ly were driven from Spain by the Peninsular war, and time settled in Naples. There the elder Garcia studied rt of voice production, of which his son was to become stinguished a professor. Young Garcia's fancy at first ed to the sea, but in deference to his parents' wish he trained for the operatic stage. He made his first arance in New York. It should be interesting to nts of human longevity to learn that Manuel Garcia's ique proved inadequate to the strain imposed by the of the stage. On his return to Europe, therefore, stablished himself in Paris as a teacher of sing- gaining in time so great a reputation that he appointed a Professor in the Conservatoire. has lived since 1850 in London, where he ed many of the greatest singers of the last ry. The following is his own account of the in- on which has been so fruitful of benefit to mankind in tions undreamed of by its true begetter: "Never thoroughly satisfied with my own teaching, I longed a healthy glottis exposed in the very act of singing; ow could the mysteries of an organ so well hidden be led? One day in the autumn of 1854 I was strolling Palais Royal, preoccupied with the ever-recurring when suddenly I saw the two mirrors of the laryngo- in their respective positions as if actually before my I went straight to Charrière, the surgical instru- maker, and, asking if he happened to possess a small r with a long handle, was supplied with a dentist's r. Returning home, I placed against the uvula the mirror (which I heated with warm water and care- dried), then flashing on its surface with a hand r a ray of sunlight I saw at once the glottis open before me, so fully exposed that I see a portion of the trachea. From what I witnessed, it was easy to conclude that the theory uting to the glottis alone the power of engendering was confirmed, from which it followed that the different positions taken by the larynx in front of the throat have no action whatever in the formation of sound." The discovery was made in 1854, and in the following year Garcia presented a paper to the Royal Society of London, entitled "Physiological Observations on the Human Voice." More than twenty years before him Babington had devised an apparatus similar to that used by Garcia, but he had never examined his own larynx as the Spanish *maestro* did. For several years after the date of Garcia's paper the laryngoscope was treated by superior persons as a "physiological toy." Its scientific and practical possibilities were brought home to the profession by Czermak of Buda-Pesth, who undertook a missionary expedition to the chief medical centres of Europe to demonstrate the uses of the instrument. The medical profession owes many most useful discoveries to outsiders. Among these not the least important is that of the laryngoscope, for which we are indebted to the hale and hearty centenarian to whom all will join in wishing *In plurimos annos!*

A SHORT WAY WITH "DEGENERATES."

Dr. Robert Reid Rentoul is known to all readers of the British Medical Journal as a reformer of things in general. He feels strongly that the world is out of joint, and, unlike Hamlet, he thinks it not a cursed spite but a blessed joy that he was born to put it right. The particular dislocation in the social body which he has most recently undertaken to reduce is "the appalling state of physical and mental degeneracy now existing in this country." In a booklet lately published[1] he sets forth a vast array of statistics to enforce the thesis that lunacy and degeneracy, like the royal prerogative in the eighteenth century, have increased, are increasing, and must be diminished. In proving that these evils are increasing he has an easy task. But how are they to be diminished? Nature does something to check the increase of degeneracy by impelling lunatics to suicide and making idiots and cretins frequently sterile. Instead of helping her benevolent purpose, however, we do all we can to thwart it. Dr. Rentoul comes to the assistance of Nature, and in doing so he displays the courage of his convictions, which his severest critic must admit that he possesses. Briefly, he proposes to cure the social disease by surgery. His method is not bloodless, a fact which is perhaps symbolized by the red cover of his pamphlet. It is indeed as drastic as Defoe's "short way with Dissenters." He proposes that, as we cannot well kill the offspring of unhealthy marriages—for these poor degenerates have a perfect right to live, no matter how their parents have acted—we should prevent them from propagating their degeneracy. For this purpose they must be sterilized, or in plain language spayed and gelded. Agreeing with Horace that *est modus in rebus* Dr. Rentoul does not suggest that "the essential organs of reproduction" be removed. "In a large proportion of persons—excluding cases in which these organs themselves are diseased—all that is required is to ligature or excise about 2 in. of the vasa deferentia in the male or of the Fallopian tubes in the female." A "lawfully-constituted Board" is to decide what persons are to be thus dealt with. Dr. Rentoul suggests that "those suffering from leprosy, cancer, epilepsy, idiots, imbeciles, cretins, weak-minded under restraint, lunatics, persons with advanced organic disease of the heart, lungs, kidneys, or in fact any specific disease liable to be passed from parent to offspring," should, if they wish to marry, be the subjects of the operative treatment which he thinks necessary in the interest of the community. To this comprehensive list he adds the children of prostitutes, sexual degenerates, confirmed tramps and vagrants, confirmed criminals, backward, dull, and weak-minded children, and "sensible persons afflicted with incurable disease," of whom he thinks it "reasonable to suppose that a fair number would voluntarily ask that they should be operated upon." Dr. Rentoul's sterilizing zeal would, we gather, extend to persons suffering

[1] *Proposed Sterilization of Certain Mental and Physical Degenerates.* The Walter Scott Publishing Company, Limited. London and Newcastle-on-Tyne. 1903. Pp. 26. Price 1s.

from infectious venereal disease. If his suggestion commends itself to progressive statesmen, there is evidently a fine field for the surgeon's knife as an instrument of social reform. Of course, proper safeguards must be provided against what Verneuil called the *furor secandi*. Dr. Rentoul, like General Trochu, always has his "plan." He proposes that "Parliament should empower each County Council yearly to appoint a Board composed of one person qualified in medicine, one in law, one by the Commissioners in Lunacy, one from the County Council, and one by the Commissioners of Prisons. Rules would be drawn up by these Boards, such being presented to the Home Office for confirmation or otherwise. An annual report of all operations should be presented to Parliament." As not more than two surgeons in each county would be licensed by the Home Office to operate, it is to be presumed that theirs would be full-time appointments. Thus a new order of specialists would be created whose beneficent function in the State could not fail to increase the honour in which the medical profession is already held in this country. Are we prepared to rise to the height of Dr. Rentoul's great idea, and accept the noble mission which he seeks to impose upon us? If we do, there will be only one thing left to make our position as saviours of society complete—that is, that we be entrusted with the high function of purging the body politic of toxic substances by performing the duties of the public executioner, or as the French, with a proper sense of the dignity of his office, call him, *maître des hautes œuvres*.

THE BACILLI OF DYSENTERY.

LIEUTENANT-COLONEL R. H. FIRTH, R.A.M.C., has added a useful contribution[1] to the bacteriology of those forms of dysentery which are not associated with amoebae. He has obtained from a variety of sources cultures of strains of bacilli each of which has been regarded by its discoverer as causative of dysentery. These strains Professor Firth has made the basis of a comparative study in which he has investigated their cultural characters and their pathogenic effects upon rabbits by feeding, direct inoculation into the bowel, and subcutaneous inoculation; he has also examined experimentally their toxic properties and their agglutination phenomena. He agrees with the view that in the intestinal dejecta of acute dysentery bacilli are present which can be differentiated from the coli and typhoid organisms; they are agglutinated only by the blood of men or animals either suffering from epidemic dysentery or infected by those special organisms and their elaborated toxins. In rabbits symptoms and intestinal lesions characteristic of those found in human dysentery can be produced by the subcutaneous inoculation of some of these strains of bacilli or their toxic substances, and these toxins are found to have a selective affinity for the mucous membrane of the caecum and large intestine. The intestinal lesions, however, are not produced in rabbits when the infective organisms are introduced by feeding experiments or by laparotomy and direct inoculation into the intestinal tract. Professor Firth is of opinion that the clinical entities produced by the pathogenic dysentery bacilli represent a group rather than a single class of cases. These cases, he holds, may range from the typical acute dysentery of camps, through the various degrees of ileocolitis, to the infective diarrhoeas of infants and adults.

THE MEDICAL GRADUATES' COLLEGE AND POLYCLINIC.

THE annual general meeting of the Medical Graduates' College and Polyclinic will be held at the College, 22, Chenies Street, Gower Street, W.C., on Monday, March 28th, when Dr. C. Theodore Williams will take the chair at 3.30 p.m. The annual report states that there are now 44 life members, 151 members, and 731 subscribers, an increase on the previous year. The attendances of medical practitioners at clinical demonstrations and lectures reached the grand total of 14,508; four sessions of practical classes, each of six weeks' duration, and a vacation course of three weeks in September were held. Clinical investigations were carried out in the laboratories in 314 cases; this department of college work is stated to be receiving steadily increasing support from subscribers and members. Many additions were made to the Hutchinson Museum, and the collection has been classified and arranged to permit of speedy and easy reference. In future the annual subscription of one guinea will entitle subscribers to attend both clinical demonstrations and lectures, in addition to having the use of the library, museum, and reading rooms, and to receive every month a copy of the *Polyclinic Journal*, which is now edited by Dr. C. O. Hawthorne. The financial position of the College caused anxiety, but certain economies have been instituted, and, in response to a special appeal, a sum of over £550 was received in donations, and promises of increased annual subscriptions of over £240. Further particulars can be obtained from Captain A. E. Hayward Pinch, F.R.C.S., at the College.

THE DUFFERIN HOSPITAL AT RANGOON.

IN the BRITISH MEDICAL JOURNAL of November 14th, 1903, we commented on some figures that had been sent to us representing the mortality among mothers and children in the Dufferin Maternity Hospital, Rangoon. The mortality for the years 1901 and 1902 worked out as 8.5 for the mothers and 10.5 for the children. We expressed the opinion that this was "far too high." We have now before us the detailed report for 1902, which shows 223 births, with 22 maternal deaths and 22 stillbirths, numbers which seem excessive and need explanation. On examining the report we find this explanation. Five of the patients were admitted suffering from septic poisoning contracted outside; four were cases of neglected and prolonged labour admitted in a state of collapse, one of whom died before she could be carried into the wards; one case was admitted three weeks after labour with septic purulent peritonitis; one woman was admitted in labour with cholera. One case of endocarditis died before delivery. There was one case of abortion, which had been criminally interfered with outside. Two deaths were from dysentery, one from chronic diarrhoea, one from mitral regurgitation, two from puerperal eclampsia, and one from uraemia. It thus appears that most of the mortality was in no way the fault of the medical staff, but was due to disease arising, or infection incurred, before the patients were admitted to the hospital. The only thing that in any way reflects upon the management of the hospital is the fact that one case of puerperal fever is admitted to have arisen in the hospital, and this implies a fault somewhere in the antiseptic method employed. In a hospital to which infected cases are from time to time admitted, nothing but stringent rules about antisepsis unceasingly enforced will prevent infection spreading in the hospital. Where human agency has to be depended on things will not always work with the mechanical accuracy of a machine. Those who know the difficulties of working a hospital under the conditions of the Dufferin Maternity Hospital may, perhaps, be inclined to congratulate the staff that only one case of puerperal fever arose in the hospital. The apparently large number of stillborn children is accounted for by the number of cases brought to the hospital on account of difficulty in delivery, but not until the membranes had ruptured and the child was dead. We gladly call attention to this explanation of the facts commented upon in our former note. We may remark, however, that the name Dufferin "Maternity Hospital seems now to be an incomplete one as a descriptive term, for the cases of disease of various kinds treated in the hospital were nearly twice as many as the confinements. It appears really to be a general hospital for women, with maternity wards.

THE ADMINISTRATIVE CONTROL OF TUBERCULOSIS.

THE fourth of the series of addresses given at Philadelphia, under the auspices of the Henry Phipps Institute for the Study, Treatment, and Prevention of Tuberculosis, was delivered on February 15th by Dr. Herma

[1] *Journal of the Royal Army Medical Corps*, December, 1903.

Biggs, of New York. An abstract of the address is en in the *Medical Record* of February 27th. Dr. Biggs cussed the measures to be instituted in order to secure nicipal control of tuberculosis. According to him the t essential is compulsory notification and registration all cases. Beyond their usefulness in other directions se measures had an educational value. At first resented New York and deemed impracticable and inexpedient, y have yearly increased in favour, until at present returns are fairly complete. The reports are con-ered as confidential, and action is taken by the ard of Health only when the attending practi-ner makes the request, or there is none in attendance, the patient is under the care of a public official. en necessary, instruction is given by personal visit l by printed circular as to the nature of the disease l the means of its dissemination, and also of the asures required to prevent the conveyance of infec-n. In case of death or removal appropriate disinfection st be instituted. Patients who cannot be properly ed for at their homes, or who are a danger to se about them, are removed to hospitals. In the paign against tuberculosis there is need of a dispensary ice which provides not only professional attention, but medicines and food. Visits to the homes of patients uld, Dr. Biggs said, be made by physicians and trained ses, in order that necessary aid may be given and in-nation obtained as to the relations of the patients to ers. A special hospital is required for advanced s that cannot properly be cared for in their homes; this institution, if the circumstances demand it, ents should be removed even by force. The health artment should also have at its command sanatoria the care of the less advanced cases of the disease. ong the duties of the department should be the uitous examination for tubercle bacilli of all sputum nitted. A record should be kept of houses in which s of tuberculosis occur, and when the disease occurs noteworthy density, steps should be taken to remedy underlying faulty conditions. Much has been done he New York Department of Health on the lines ated, with the result that each year an increasing ber of cases is being reported; in this way a note-hy reduction in the mortality of the disease has been ted. That this reduction is not due to an increased ality from pneumonia, real or otherwise, as has been ested, was shown by the results of a special investiga-

Dr. Biggs showed by diagrams the number of cases me houses in the congested districts of New York, and d that in certain instances properties have been con-ned on this account, while the conversion of portions me such districts into public parks is contemplated.

DENTISTS FOR THE ARMY.

s already been announced in our advertising columus the War Office has authorized the appointment of dental surgeons for duty with troops in the United dom from April 1st next. They will be required to e their whole time to army duty, and will receive an sive salary of £365 per annum and travelling ex-s. As at present arranged, the dental surgeons will ationed at Aldershot, Devonport, Cork, Edinburgh, mouth, Dublin, Colchester, and Woolwich. They will, ver, be required to give attendance as directed by the al officers in command of the various stations. cations for these appointments should be made to ecretary of the Army Council, 68, Victoria Street, not later than March 12th. Soundness of the dental atus plays an important part in efficient digestion, oldiers who on a campaign must often, like Mark ny, eat "strange food" have special need of a service-et of teeth. Moreover, modern research has shown a healthy condition of the mouth is a safeguard st many serious diseases. On these grounds the step by the War Office must be hailed as a really useful n.

ST. BARTHOLOMEW'S HOSPITAL.

The Treasurer of St. Bartholomew's Hospital has received an intimation from Lord Knollys that His Majesty the King hopes that it may be in his power to lay the first stone of the new St. Bartholomew's Hospital, and that His Majesty will probably be accompanied by the Queen. It is also intimated that the most convenient time to His Majesty would be a day about the end of June or at the beginning of July. The part of the work to be thus early and augustly initiated is the new out-patient department, the plans of which have been practically complete for a long time. The scheme upon which the main buildings will be recast still remain to be determined. A great number of different plans have been suggested, each of which has its special advocates, and the final choice will be made by the Building Committee. This body has been selected, and is deemed to be a strong one, but it remains for a general court of governors, which is to assemble this week, formally to sanction the appointments made. The collection of funds is making what must be considered satisfactory progress, since the total already received is understood to be well over £50,000.

We regret to learn that the condition of Sir Samuel Wilks again causes much anxiety; though there is no very material change, the general strength is diminishing.

Professor Guido Baccelli, of the University of Rome, who has for several years past held a portfolio in the Italian Government, first as Minister of Public Instruction and later as Minister of Agriculture, has lately resumed active work as a clinical teacher. His first lecture, delivered a few days ago, was made the occasion for a demonstration by the students in his honour.

MEDICAL NOTES IN PARLIAMENT.

[From Our Lobby Correspondent.]

A Parliamentary Committee.—A meeting of members of Parliament who belong to the medical profession was held at the House of Commons on March 8th, under the chairmanship of Dr. Farquharson, when there were present Sir Michael Foster, Sir J. Batty Tuke, Dr. Rutherfoord Harris, and Dr. Hutchinson. Sir Walter Foster was prevented from being present by a special engagement. It was determined to form a Committee to arrange for concerted action in the House to watch legislation affecting public health matters, and to obtain facilities for discussion. The Committee will invite the co-operation of other members of Parliament not members of the medical profession who are interested in public health questions; Sir Michael Foster has consented to act as honorary secretary of the Committee. It will be remembered that the formation of such a Committee was the subject of a conference on December 10th, 1903, between the Medico-Political Committee of the British Medical Association and several medical members of Parliament.

War Office Reconstitution and Army Sanitation.—In the discussion on the Army Estimates on Tuesday Dr. Farquharson said that it was of course more convenient to discuss army medical matters in Committee of Supply, but his experience was that it was above all things necessary to take opportunities in the House as they arose, and the special vote for medical services was too frequently placed, as it was last year, towards the end of July, when serious discussion was impossible. He had nothing special to urge in the way of criticism, but rather of congratulation, to the right hon. gentleman's predecessor rather more than to himself for the improvements he had introduced into the administration of the Army Medical Corps. The doctors were now quite contented with their pay, their study leave, and their present and prospective arrangements, and the best proof of that was that whereas on at least one occasion before Mr. Brodrick's plan came into operation no candidates presented themselves, at the last examination the demand for admission to the service exceeded the vacancies nearly three times, and the quality of the competitors was exceptionally high. But to congratulation he must add a word of warning. Satisfaction

had reigned in the department before now, but tinkering and worrying cheeseparing, and the withdrawal of concessions made, and the making of others in a niggardly spirit, soon introduced an element of suspicion and unrest, and the department became unpopular once more. He therefore hoped that nothing would be done to impair the present harmonious state of matters, and at this stage he would only refer with regret and apprehension to the non-appearance of the Director-General on the Supreme Council of the army. It was considered a most valuable concession to experienced professional opinion that Mr. Brodrick placed the Chief of the Army Medical Corps on the Army Board, for the difference was naturally a great one between an officer who sat as an equal among the chiefs of the military administration and one who was merely called in as a witness or temporary adviser to give his opinion as required; and, whilst waiting with anxiety for Part 3 of the Reconstitution Scheme and the opportunity to be afforded for debate, he felt it his duty to utter now this note of solemn warning.

The Medical Services and Study Leave.—Sir Seymour King asked the Secretary of State for India on Wednesday if he would state what arrangements, if any, had been made for post-commission study by seconded officers of the Indian Medical Service; and in what respects the arrangements in force or proposed were similar to or differed from those of the Royal Army Medical Corps and the medical officers of the Royal Navy. Mr. Secretary Brodrick replied that an officer of the Indian Medical Service might be granted one month's study leave for each year's service up to twelve months in all. During such leave the ordinary furlough pay would be given, with lodging allowances of 4s., 6s., and 8s. a day for lieutenants, captains, and field officers respectively. In the Royal Army Medical Corps the arrangements for post-commission study were somewhat different. All junior officers were posted to the Royal Army Medical College for six months. While there they drew their ordinary pay. The examination at the end of the course was combined with the examination for promotion to the rank of major. Medical officers of the Royal Navy were required to undergo a post-graduate course of three months once in every eight years. They received full pay, lodging allowance at the rate of £50 or £70 a year according to rank, and provision allowance at the rate of £24 a year. In addition to the extra furlough for study granted to Indian Medical Service officers, they might be seconded before proceeding to India for the purpose of holding appointments in recognized civil hospitals. During such periods they received no pay from Indian revenues.

The Royal Commission on Tuberculosis.—Mr. Batty Langley asked the President of the Local Government Board on Tuesday if he could state when the report of the Royal Commission on Tuberculosis would be available for members. Mr. Grant Lawson replied that he understood considerable progress had been made by the Royal Commission with its investigations, but that the necessity of making the report as far as possible conclusive involved a very wide series of experiments. The experiments were being carried out on an extensive scale by the Commission, and he was afraid that it was impossible to state at present when the report would be issued.

The Nursing and Private Nursing Homes (Registration) Bill was brought in at midnight on Monday by Mr. Claude Hay and read a first time. The Bill, which was ordered to be printed, is backed by Mr. Bignold, Mr. H. D. Greene, Captain Bagot, Lord Cecil Manners, and Mr. Malcolm. The second reading was put down as a matter of form for Thursday.

Vaccination.—The Revaccination Bill, which is down for second reading on Tuesday, April 26th, has been blocked by Mr. Logan and Mr. Weir. Mr. Broadhurst introduced his Bill to abolish compulsory vaccination on Wednesday. It is the same Bill as last year, and is backed by Mr. T. Bayley, Sir John Rolleston, Mr. Channing, Mr. Corrie Grant, and Mr. Levy. March 23rd is named for the second reading, but the Bill is not likely to come on.

Small-pox at Greenock.—In reply to Mr. Joseph Delvin, the Secretary for Scotland said that the hospital accommodation for small-pox in Greenock had been extended from time to time during the progress of the epidemic, and steps were being taken for the erection of another additional pavil
The circumstances attending the occurrence of every case w
reported to the Board, and there was nothing in these rep
to suggest that patients were prematurely discharged.
existing reception house was suitable for the purpose, but
not been equal to the demands arising from the epide
The Board had called upon the local authority to provide
ditional accommodation. They understood that great di
culty was experienced in acquiring proper premises.

Glycerinated Calf Lymph for Scotland.—Mr. Weir has o
more taken up the question of glycerinated calf lymph
Scotland, and on Monday last inquired whether the Secret
for Scotland had considered the proposal to establish a sta
in Scotland for the preparation of this lymph, and, if so, w
was the nature of his decision. Mr. Graham Murray rep
that so long as the general arrangements existing betw
England and Scotland remained as at present, it was not
posed to adopt the suggestion.

Obstacles to Enlistment.—Last week Mr. Sloan asked
Secretary of State for War whether a person wearing f
teeth and suffering from varicose veins was eligible for
listment in the army. Mr. Arnold-Forster answered
this was purely a medical question and a matter of deg
depending on the number of sound teeth and the extent of
varicose veins.

Dispensing at the Portsmouth Lunatic Asylum.—Sir Al
Rollit asked the President of the Local Government Bo
whether he would state what steps would be taken to c
into effect the rider of the jury in the case of the inquest
on February 25th upon the four female patients in Portsmo
Lunatic Asylum who died from the effects of careless
pensing; and whether the Local Government Board wo
cause regulations to be made requiring all dispensaries
public institutions to be in charge of persons registered u
the Pharmacy Acts. The Home Secretary replied that he
been asked by his right honourable friend to answer
question. There were several difficult points involved in
case, and for the present he could only say that he wa
communication with the Lunacy Commissioners, and that
matter should be thoroughly considered.

Enteric Fever and Inoculation.—Mr. E. Wason on Mon
asked the Secretary of State for War whether he would s
how many of the officers and men who died in South Af
from enteric fever had been inoculated against that dise
and what was the purport of the reports of the Army Med
Corps as to the success, or otherwise, of the process.
Arnold-Forster replied that the examination of the med
records of the South African War had involved enorm
labour, and was not sufficiently advanced to enable hi
give the statistics asked for. The question of anti-ent
inoculation had been referred to a special committee.
was one of great interest, and would on no account
neglected. If at a later stage he could give the hon. me
the information asked for he would do so.

The Board of Lunacy.—Sir John Tuke has given notic
his wish, on going into Committee of Supply on the
Service Estimates, to call attention to the inadequacy of
constitution of the General Board of Lunacy in England
Wales, and to move a resolution.

The Pharmacy Act and its Amendment.—Mr. O'Ma
asked the First Lord of the Treasury, on Monday, whethe
would consider the advisability of adopting for Great Bri
a measure similar to the Ordinance lately promulgated for
Orange River Colony, which prohibited a firm, co-partners
or company carrying on the business of a pharmaceut
chemist in the dispensing of medicines or the compoun
of poisons unless the directors were qualified persons.
Balfour answered that the subject was under consideratio
connexion with a Bill for the amendment of the Pharm
Act, which was in preparation.

The National Health Society has arranged a course of t
lectures on infant feeding to be given in the Lecture H
Cavendish Rooms, Mortimer Street, London, W., on Frid
March 11th, 18th, and 25th, at 4 p.m. The first and
third lectures will be given by Dr. Cautley, and the secon
Dr. Hutchison.

Ireland.

Central Midwives Board.

the British Medical Journal of March 5th, page 572, s published a report of the meeting of the Central Mid-ves Board, held on February 25th, for which we were in-ted to the Secretary of the Board. It is there stated that r considering a letter and resolution forwarded by the sident and General Secretary of the Royal Academy of dicine in Ireland the following resolution was adopted by Central Midwives Board:

at, having considered the letter addressed to them by the Presi-t and the Secretary of the Royal Academy of Medicine in Ireland, Board regret that the suggested alterations were not brought to their ce before the rules were sent to the Privy Council, as, having been oved by that body, it is impossible for the Board to alter them.

Ve are informed that when this resolution was moved an ndment was moved by Dr. Sinclair, and seconded by Dr. rd Cousins, in the following terms:

at having considered the letter received from the President of the l Academy of Medicine in Ireland, the Board regrets that the mstances of the midwifery training schools were not considered re the regulations were sent to the Privy Council; the Board, how-, sympathizes with the Irish institutions in their difficulties, and give every assistance in obtaining revision of the rules by the Privy ncil.

ne amendment having been put from the chair was ared to be lost, and the original resolution was then and declared to be carried.

correspondent writes: The resolution adopted at the last ting of the Central Midwives Board has certainly the earance of hasty and unjust treatment towards the pupil wives of Ireland. After considering the letter addressed by the President of the Royal Academy of Medicine in nd, the Board expressed regret that the suggested altera-s were not brought to their notice before the rules were to the Privy Council, as having been approved by that it was impossible for the Board to alter them. Now, ng the time that the rules were undergoing preparation *mera*, it was quite impossible for the medical men ested in the training of midwives to anticipate the acter of the certificates to be required of candidates e they could be admitted to the examinations of the Board. evident, then, that there is a grievance which, in fairness e Irish maternity institutions, ought to be reconsidered. Central Midwives Board requires pupil midwives to take only three months' instruction under a recognized er, and to attend upon twenty cases of labour. These ficates of practice can be signed by any registered prac-ner, or a chief midwife of any institution recognized by Board. This regulation will no doubt work very easily, any medical men utilize the help of women; and, by a t resolution of the Board, the cases of labour in women call in the aid of a medical man may ncluded in making up the necessary number of dances. The method carried out within the ered maternity hospitals in Ireland ought to secure ry efficient system of training. The course extends ix months, and at the conclusion of the term, the pupil ives are examined as to their competency before the r and his assistants. They are required to attend a e of lectures by the assistant master. They are taught ods of examination and the treatment of normal labours. have many opportunities of conducting cases and of hear-inical lectures delivered in the wards. They also receive l instruction in nursing and in the management of in-It is quite evident from these facts that the difficulty has arisen with regard to the Irish maternity schools to admit of readjustment. The regulations cannot be itely unalterable. The curriculum of three months pre-d by the Central Midwives Board is sufficient for sion to the Board's examination, yet six months' train-d practical instruction in the wards of an Irish nity hospital are regarded as inacceptable. There thing in the Midwives Act which prohibits training of pupil midwives in Ireland, and it ns a provision that up to April 1st, 1905, women hold-rtificates in midwifery from the Royal College of ians of Ireland, the Coombe Lying-in Hospital, and ss's Dispensary, or the Rotunda Hospital of Dublin can to be certified under the Act. It is evident that the ion of Irish candidates is the outcome of the regulations d by the Central Midwives Board and sanctioned by the Privy Council, and that this injustice was wholly unintentional and unforeseen.

Proposed Cork Sanatorium for Consumption: Local Government Board Inquiry.

On March 1st, in the Board-room of the Cork Workhouse, Dr. Browne, Medical Inspector, Local Government Board, held an inquiry into the petition presented by the Cork Rural District Council for a Provisional Order to provide a sanatorium for consumption for the City and County of Cork. Solicitors represented the Cork Rural District Council, Cork Corporation, and the Cork Branch of the National Association for the Prevention of Consumption, and deputations attended from the various urban and district councils in the city and county. Dr. Corbey, City High Sheriff, appeared as one of a deputation appointed to represent the Cork Corporation. In urging the importance of establishing the sanatorium, he said that he considered that the rates would necessarily be very largely reduced by carrying out the project. It was generally calculated that patients should be kept in a sanatorium for three months or so, and it must be recollected that commonly patients suffering from phthisis lived for two years, so that the ratepayers would have to pay only for three or four months in a sanatorium, whereas they would have to pay for two years in a workhouse. The saving, however, would not end there, for some of the patients would be cured and thereby enabled to support those who might otherwise have to depend on the ratepayers. The risk of contagion would be lessened, and this would operate for similar reasons towards a reduction of the rates.

Dr. W. Ashley Cummins, Professor of Medicine, Queen's College, Cork, and Senior Medical Officer at Cork District Hospital, said that in 1903 135 deaths from consumption occurred at the Cork District Hospital alone; he pointed out the absolute unsuitability of the District Hospital for treating such cases. He knew of cases received which if treated under proper circumstances would have been curable but rapidly developed into incurable cases there. He considered not the least of the advantages of a sanatorium would be the educative effect it would have on the people, for each cured case would be a kind of medical missionary to those about him as to the manner in which the disease might be prevented and the precautions taken with respect to it.

Dr. Donovan, Superintendent Medical Officer of Health, said that the death-rate of the city for 1903 was 19.38 per 1,000; the death-rate from phthisis was 3.66; the infantile death-rate was 2.96; while the infectious death-rate was only 0.64. The City of Cork possessed the unenviable notoriety of having a higher death-rate from consumption than any other town in Great Britain or Ireland, one-sixth of the total number of deaths occurring every year were due to this disease. Dr. Donovan considered the high death-rate to be due to the mild damp climate, while in the centre of the city a large portion of the soil was sewage-sodden and liable to periodical flooding, lying as it did between and over rivers where the high mortality from phthisis was well marked. Then there were the insanitary dwellings and overcrowding in congested areas, whilst there was the important factor of transmission of disease by heredity as well as by infection from its many foci, no provision being made for isolation, notification, and disinfection. The precautions required to be taken in the city to check the disease were:

1. Notification, either voluntary or compulsory, preferably the latter, which would lead to—
2. Isolation and disinfection.
3. A sanatorium for the treatment of incipient cases.
4. Public education amongst the poor and in the schools, where an inkling of elementary hygiene might be instilled, particularly with regard to the value of air, light, and cleanliness in everything—person, clothes, house, surroundings, food, milk, water, etc.
5. The provision of houses for the very poor, amongst whom the disease is most prevalent.
6. Systematic bacteriological examination of the city milk supply and strict supervision over meat supply.

Dr. O'Meara, medical officer of one of the dispensary districts in Skibbereen, said that he had seen whole families in his district die from the disease, and in one small part of his district it became practically epidemic—so much so that as many as fifteen houses became infected. He believed a sanatorium would be in the first place educational; secondly, curative; and, thirdly, it would remove a focus of infection from the families.

Dr. Cremen, President of the local branch of the National Association for the Prevention of Consumption, endorsed the

views of the last witness, and pointed out that alcoholism was a prolific source of the spread of the disease in the county and city. Not alone did alcoholism lower the vitality of the individual, but it prevented the person stricken down from being able to afford a better residence, better clothes, and better food.

Mr. McMullen, J.P., C.E., then entered into the question from an architectural point of view, and pointed out that Mr. Barter's generous offer of a site at Myshall, Coachford, would be open to the acceptance of the joint body formed under the scheme; it contained twenty acres, and he thought it was very suitable.

This closed the evidence. A vote of thanks was passed to Dr. Browne for the courtesy and care with which he had conducted the inquiry.

Should the Local Government Board grant the petition, twenty districts comprising the entire county of Cork will be formed into a united district with a rating power not to exceed a penny in the pound. It is believed that this will be the first occasion that such a work has been achieved in Great Britain, and it is expected other counties in Ireland will follow the good example set by county Cork.

PROFESSOR BYERS.

Some time ago a committee was formed in Belfast in order to give to Professor Byers some tangible proof of the admiration felt for the plucky manner in which he defended the lawsuit brought against him under circumstances which have already been detailed in our columns. A portrait of Professor Byers has been painted, and will be formally presented to him at a meeting in the great hall of Queen's College, Belfast, on March 18th, at 4 p.m.; the President of the College will preside, and a large attendance is expected.

ENDOWMENT OF THE ROYAL VICTORIA HOSPITAL, BELFAST.

At the fortnightly meeting of the Board of Management of the Royal Victoria Hospital, Belfast, the Right Hon. W. J. Pirrie handed over to the hospital the various funds raised by Mrs. Pirrie towards the endowment fund. It will be remembered that it was mainly through Mrs. Pirrie's indefatigable exertions that the building fund of £100,000 was both begun and completed. Not content, however, with the accomplishment of this task Mrs. Pirrie set herself to accumulate an endowment fund. The result of her labours was manifested in cash and securities to the value of more than £48,000. The announcement elicited hearty applause, and the Board passed by acclamation the following resolution:

That the Board hereby desires to place on record its sense of profound gratitude to Mrs. Pirrie for her untiring and most successful efforts on behalf of the hospital, which have to-day culminated in her handing over to the hospital cash and securities of a value over £48,000. It desires also to cordially acknowledge the services rendered by Mr. Pirrie in freely devoting so much of his time to perfecting the plans and arrangements of the hospital and in making it so many generous and opportune gifts.

FURTHER DONATION TO THE QUEEN'S COLLEGE, BELFAST.

At a meeting of the Executive Committee of the Queen's College Equipment Fund the President of the College announced that the Misses Riddel, of Beechmount, had intimated to him their intention of presenting the College with £5,000, for the purpose of founding a "Riddel Demonstratorship in Pathology and Bacteriology" in connexion with the "Musgrave Chair of Pathology." This gift will be received with the greatest satisfaction and gratitude. Excellent post-graduate work has been carried on in the pathological laboratories, but few can afford the time for original research without some external assistance. The gift will enable this want to be met, and it is hoped will prove a forerunner of other gifts to enable the College and community to have the benefit of such paid demonstratorships and assistantships. At the same meeting Sir Otto Jaffé, Lord Mayor, promised a tube of radium (60 mg.) to the College, on the condition that it should be lent for treatment of patients, when required, to the Royal Victoria Hospital and to the Samaritan Hospital.

PUBLIC HEALTH OF BELFAST.

At the monthly meeting of the City Council on March 1st the Medical Superintendent Officer of Health reported that 162 cases of zymotic diseases had been notified, including 26 of typhoid fever and 8 of small-pox. There were 788 births and 687 deaths; 52 deaths occurred from zymotic diseases, but measles and whooping-cough are not notifiable, and so do not appear in the former list. The annual death-rate from all causes was 25, due to the increase of deaths from diseases of the respiratory organs brought about by the severity of the waather. The condition of the town as regards typhoid fever is satisfactory, although a slight local epidemic, in a probability due to milk, caused considerable apprehension The Chairman of the Health Committee, Dr. King Ker called attention to the high death-rate from whooping-cough and urged the Council to give the Committee power to dea with whooping-cough, measles, and consumption as notifiab diseases. He also mentioned the carelessness and concealmer that were practised in cases of small-pox.

SMALL-POX AT ACHILL ISLAND.

We regret to hear that small-pox has appeared at Achi Island, on the West Coast of Ireland. Two villages—Ke and Dooagh—are infected and about 30 cases are under trea ment. The disease is believed to have been brought by son islanders returning from Glasgow. An isolation hospital h been opened, on the recommendation of the Local Gover ment Board Inspector, Dr. Edgar Flinn, and the cases are i charge of Dr. Croly. The disease is likely to be prompt stamped out.

Scotland.

SIR THOMAS FRASER.

THE King has been pleased to appoint Sir Thomas R. Frase M.D., LL.D., to be one of His Majesty's Honorary Physicia in Scotland.

HARVEIAN SOCIETY OF EDINBURGH.

The annual business meeting of the Society will be held the Hall of the Royal College of Physicians, 9, Queen Stree on Tuesday, March 15th, at 5 p.m., to receive nominations new Harveians, to ballot for these, to elect office-bearers, a to arrange for the Festival.

CHALMERS HOSPITAL, EDINBURGH.

After holding the appointment of Surgeon to the Chalme Hospital, Edinburgh, for well nigh forty years, Sir Patri Heron Watson, M.D., LL.D., the present President of t Royal College of Surgeons of Edinburgh, will retire from th office on October 1st next. Sir Patrick will continue h connexion with the hospital in the capacity of Honora Consulting Surgeon, and the directors have marked the appreciation of his long and eminent service by naming a b in each of the two public wards of the hospital "The Hero Watson Bed."

PROPOSED BIOLOGICAL RESEARCH INSTITUTE IN EDINBURG

At the ordinary meeting of the Royal Society of Edinbur on March 7th, Professor Geikie, LL.D., Vice-President of t Society, in the chair, communications on the need for t establishment of a research institute as an aid to biologic research were read by Sir Thomas Gibson Carmichael, Bar Professor Cossar Ewart, Professor Schäfer, and Mr. F. H. Marshall. The last named speaker read letters wishi success to the scheme from Messrs. W. Bateson, F.R.S., a Walter Heape, of Cambridge. Communications on the ne for the establishment of a research institute as an aid pharmacological and pathological research were read by Thomas R. Fraser and Dr. Ford Robertson.

THE GLASGOW CORPORATION AND THE PREVENTION OF CONSUMPTION.

At a recent meeting of Glasgow Corporation the question giving a subscription to the Bellefield Sanatorium to be co structed at Lanark by the Glasgow and District Branch the National Association for the Prevention of Consumpti came up for consideration. Considerable attention has late been given to the subject of providing for working m suffering from phthisis, and the energy of one of the even papers has been successful in raising already a sum £6,500. With this sum and the money already in hand has been decided to proceed with the erection of a sa torium and in a few months it is hoped that acco modation for 30 patients will be ready. The Corporat has consented to subscribe £5,000, which should help labours of the committee considerably. In the discussi which was practically unanimous, several of the council expressed the opinion that consumption would soon have be treated like any other infectious disease at the expens the rates, which would be very costly for the city. Pub opinion had not been educated quite up to that point but in the meantime they ought to assist handsomely philanthropic enterprise of those who were endeavouring undertake some of the work.

Proposed Hospital for Consumption at Liberton.

[n consequence of objections raised by neighbouring ıants and owners, it was decided at a meeting of Liberton rish Council on March 7th to approach the Local Govern- ent Board on the subject of a proposed tuberculosis hos- al at Liberton, representing that such a building would, m its position, seriously injure six neighbouring pro- rties.

Small-pox.

Although during the last few weeks there has been a very isfactory decline in the number of cases of small-pox in sgow, new cases are frequent in some of the surrounding vns, and recent statistics from the office of the Local vernment Board show that the disease has appeared in ny places which had up to now wholly escaped. On rch 7th the number of cases in Belvidere Hospital, sgow, had been reduced to 111, the dismissals for some ıe now outnumbering the new cases. During the sent epidemic 673 cases have been removed to Belvidere, which only 44 have been fatal.

During the week ending mid-day, Saturday, March 5th, 6 sh cases of small-pox were notified to the public health horities in Edinburgh and 2 deaths were registered.

Canada.

Conference on School Hygiene.

February 2nd a Medical Conference was held in Toronto, he request of the Minister of Education for Ontario, to sider questions of school hygiene and to report on the ıe to the Government for its guidance in legislation. The nister of Education, the Hon. Richard Harcourt, delivered opening address, and, in requesting the advice of the lical experts present, announced that he proposed to mmend their views to the people of Ontario, with its half lion school children.

r. Chas. Sheard, Medical Health Officer for Toronto, read a er on the problem of how to prevent outbreaks of infec- s diseases among school children, and suppress them n present. He called attention to the dangers of com- nication of diseases by the exchange of toys, etc., and mmended that "mouth toys" be banished from the ol; he advised the education of teachers to recognize agious diseases, and the employment of a competent ector to examine the children when infection was sus- ed or known to exist.

. P. H. Bryce, of the Department of the Interior, Ottawa, a paper on the great relative prevalence of preventable ases in children at school age, as illustrated by the stics of Ontario. Though statistics showed that the h-rate had been cut down to one-third in recent years, he ned that what was necessary was: (1) a conviction that ase was disseminated; (2) to be convinced by the results e methods that an enormous saving of disease and death possible; and (3) that they possessed scientific methods rtain, when persistently and systematically carried out, they would suppress outbreaks of epidemic diseases.

. Hodgetts read a paper on compulsory drill in public ols as a basis for the militia, pointing out the advantages would accrue to the pupils from the training and exer- and to the militia from the improved material thus pro- d. This paper evoked some discussion, not all of which favourable to the ideas suggested.

. Oldright, Professor of Hygiene in Toronto University Toronto Normal School, advocated the holding of a con- nce annually in connexion with the Annual Educational vention.

Public Health Department of Ontario.

. P. H. Bryce, who for 21 years has been Secretary of the incial Board of Health for Ontario, with head-quarters at nto, has been appointed to the position of Medical ector to the Interior and Immigration Departments of da. This appointment follows on the representations e by the Canadian Medical Association to the Dominion rnment as to the necessity of the formation of a depart- t of public health for the Dominion.

. Bryce has been for years one of the best known and painstaking officers in the Ontario civil service. He was in the county of Brant in 1853, and graduated at the ersity of Toronto in 1876 with honours. After taking his cal degree in 1880 he pursued his studies at Edinburgh. In 1878-9 he was Professor of Chemistry at the Agricultural College, Guelph, and after graduation began medical practice in Guelph. Since 1882 he has been Secretary of the Provincial Board of Health, and since 1892 Deputy Registrar-General for the Province, having charge of the vital statistics. Dr. Bryce has written many papers on medical and scientific subjects, but his greatest field of usefulness has been as Secretary of the Provincial Board of Health, where his impartiality, firmness, and decisive action have been the means of preventing the development into epidemics of many hotbeds of disease, which threatened the health of small communities. Dr. Bryce has for many years lived at Bracondale, just north of Toronto. Before leaving a dinner was given in his honour, and a presentation made by the Board of Health and the clerical staff of the Department.

Dr. C. A. Hodgetts has been appointed to the position of Secretary of the Provincial Board of Health for Ontario. He has for some years most efficiently discharged the duties of Provincial Health Inspector, and the success that has followed his efforts in the suppression of small-pox epidemics in the outlying districts give assurance of the wisdom of his choice as Dr. Bryce's successor.

The Death-rate of Ontario.

The monthly bulletin for December from the Provincial Board of Health reports a death-rate of 12.5 per 1,000, the same rate as in the corresponding month last year. The death-rate for contagious diseases was 0.131 per 1,000, more than one-half being due to tuberculosis. For the year ending with this month the death-rate was 12.6 per 1,000; 2,072 deaths were due to tuberculosis, being 8.2 per cent. of all the deaths reported.

International Congress of Tuberculosis.

Dr. E. F. Barrick, of Toronto, is President of the International Congress of Tuberculosis which is to be held in St. Louis, October 3rd, 4th, and 5th, under the auspices of the Universal Exposition. The following Canadians have received and accepted appointments:

Honorary Vice-Presidents.—T. G. Roddick, M.D., M.P., Sir William Hingston, M.D.

Presidents.—James Loudon, Hon. Senator Geo. A. Drummond.

Vice-Presidents-at-Large.—Dr. W. P. Caven, Dr. Daniel Clark, Dr. R. W. Powell, Dr. W. H. Moorehouse, Dr. John Ferguson, Rev. C. S. Eby, D.D.

Vice-Presidents of Provinces.—British Columbia: Dr. J. C. Fagan, Dr. S. T. Tunstall, Rev. Leslie Clary. North-West Territories: Dr. J. D. Lafferty, Dr. G. A. Kennedy, Rev. Dr. J. C. Herdman. Manitoba: Dr. H. H. Chown, J. A. M. Aikins, K.C., Mayor John Arbuthnot. Ontario: Dr. A. A. Macdonald, Dr. J. A. Robertson, Mayor Adam Beck. Quebec: Mayor James Cochran. New Brunswick: Charles J. Coster, Dr. Peter R. Inches, Mayor Dr. W. W. White. P. E. Island: Dr. Roderick Macneill, Dr. S. R. Jenkins, Rev. T. F. Fullerton.

The National Sanatorium Association.

The annual meeting of the trustees of the National Sanatorium Association was held in Toronto recently. Reports of the year's work in the two institutions under the control of the Association were presented, each showing a most successful year. An appeal is being made for increased financial support in order that the work for the incoming year may not suffer any curtailment. Dr. Parfitt has returned to take charge of the work in the Free Sanatorium, and Dr. Young, who has been temporarily resident, is going to Winnipeg to practise.

Christian Scientists.

A judgement of vital importance to the Christian Scientists in Ontario was given recently by the Full Court of Appeal in the case Rex *v.* Lewis. A boy, Ray Lewis, 9 years old, died of diphtheria under Christian Science treatment, and the Crown instituted a prosecution against the father, John H. Lewis, on a charge of manslaughter. The case was brought before Chief Justice Falconbridge and a conviction was rendered. The Crown intimated that it pleaded for a conviction on moral grounds only, so that no punishment followed the decision. From that decision the Scientists appealed, with the result that the conviction was affirmed. The chief point at issue was whether the word "necessary" in the Act of the Criminal Code, invoked as applying to the attention and care that a parent or guardian is required to give his children, included medical attendance in cases of serious illness. The original conviction was made on the assumption that it did, and this view has been upheld unanimously by the Court of Appeal. The effect is that a parent who neglects to provide medical attendance for his family leaves himself open, in case of death occurring, to a charge of manslaughter.

McGill University.

Dr. John W. Scane has been appointed Registrar of the Faculty of Medicine at McGill in succession to Dr. von Eberts, who has resigned the position on account of the pressure of private work, after filling it to the entire satisfaction of the Faculty for twelve months. Dr. Scane is a graduate of the class of 1893. For some years he held a position in the Royal Victoria Hospital, and has more recently been Assistant to the Professor of Physiology at McGill.

Professor Halliburton.

Professor W. D. Halliburton, F.R.S., Professor of Physiology in King's College, London, lectured at the University of Toronto, Friday, January 22nd, to the Faculty and students in medicine on the subject—Degeneration and Regeneration of Nerves, with lantern illustrations.

On Saturday evening the Dean and Faculty entertained Professor Halliburton at dinner in the University Dining Hall. The visit of this eminent scientist was much enjoyed by all who had the pleasure of meeting him.

The Toronto Pathological Society.

On the evening of December 30th, 1903, the Toronto Pathological Society was addressed by Dr. W. G. McCallum, B.A.Toronto, M.D Johns Hopkins, of the Staff of the Johns Hopkins Hospital, Baltimore, on organic insufficiency as a cause of disease.

The Hamilton General Hospital.

Dr. George McLaren has resigned the position of Superintendent of the Hamilton General Hospital, and will go to the Continent to pursue his studies. The position was offered to Dr. Langrill, City Health Officer, but the City Council offered him increased financial inducements to remain in the position he has filled so satisfactorily.

The Ontario Epileptic Hospital.

Dr. J. C. Mitchell, of the staff of the Toronto Asylum for the Insane, has been appointed Medical Superintendent of the new Provincial Epileptic Hospital at Woodstock. This institution will not be completed for some months, and in the interval Dr. Mitchell will travel for the purpose of studying hospitals of a similar character.

ASSOCIATION NOTICES.

COUNCIL.

NOTICE OF MEETING.

A Meeting of the Council will be held in the Council Room of the Association, at 429, Strand (corner of Agar Street), London, on Wednesday, the 20th day of April next, at 2 o'clock in the afternoon.

ELECTION OF MEMBERS.

Any candidate for election should forward his application upon a form, which will be furnished by the General Secretary of the Association, 429, Strand. Applications for membership should be sent to the General Secretary not less than thirty-five days prior to the date of a meeting of the Council.

LIBRARY OF THE BRITISH MEDICAL ASSOCIATION.

Members are reminded that the Library and Writing Rooms of the Association are fitted up for the accommodation of the members in commodious apartments, at the office of the Association, 429, Strand. The rooms are open from 10 a.m. to 5 p.m. Members can have their letters addressed to them at the office.

Guy Elliston, *General Secretary.*

BRANCH MEETINGS TO BE HELD.

Lancashire and Cheshire Branch.—A general meeting of this Branch will be held at 3 45 p.m. on Thursday, March 17th, in the Memorial Hall, Albert Square, Manchester. Agenda:—Dr. R. T. Williamson: Demonstration of Cases of Disease of the Nervous System. Dr. J. Gray Clegg: Cases of Disease of the Eye. Dr. Lancashire: Cases of Disease of the Skin. Dr. Eugene Yonge: Cases of Disease of the Larynx. Mr. Southam will show: (1) A Case of Removal of a Polypoid Growth from the Base of the Skull after a preliminary excision of the upper jaw; (2) a Case of Excision of the Upper Jaw for a Diffused Osteoma. Mr. E. Stanmore Bishop will read a paper on Some Unusual Gall-bladder Appearances: (*a*) Adhesion of duodenum to liver; (*b*) cicatrized ulcer of gall bladder producing hour-glass contraction; (*c*) mobile gall bladde (*d*) cystic growth of gall bladder; (*e*) ulceration and perforation of duct communis. Dr. Haring will read a communication on Facial Erysipe toid Oedema due to Intranasal Lesions, and will show two illustrati cases.—T. Arthur Helme, M.D., 3, St. Peter's Square, Manchest Honorary Secretary.

Metropolitan Branch: Wandsworth Division.—An ordinary me ing will be held in the Officers' Mess Room of the 4th Volunteer Battali East Surrey Regiment, St. John's Hill (opposite Clapham Junct Station), on Thursday, March 24th, at 9 p.m. Agenda:—Minutes. Cor spondence. Resolutions for the Representative Meeting in favour of t Association forming a department to undertake the supply of stationery, circulars, etc., required by the various Branches and Di sions; Mr. Guy Elliston, General Secretary, will speak to these. Reso tions for the Representative Meeting referring to self-treatment by t laity and the consequent great injuries done thereby; Dr. Danfo Thomas, Coroner for London and Middlesex, and others will speak these resolutions. All medical men are invited to attend. Detai agenda supplied on application to E. Rowland Fothergill, Honor Secretary, Torquay House, Southfields, S,W.

South-Eastern Branch: Croydon Division.—The next meeting this Division will be held at the Greyhound Hotel, Croydon, Thursday, March 17th, at 4 p.m., Dr. P. T. Duncan in the chair. T following papers have been promised:—Mr. Herbert F. Waterhouse: Gastro-enterostomy in Non-malignant Affections of the Stomach a Duodenum. Dr. Purves Stewart: On Lumbar Puncture in its Practi Applications. Dr. J. J. Perkins: On Some Points in the Diagnosis a Treatment of Chest Diseases. Mr. St. George Reid will show an au matic sounding box for testing the auditory appreciation in cases f deafness and ear diseases. Messrs. Arnold and Sons will exhibit s gical instruments; Messrs. Parke Davis, pharmaceutical preparatio etc.; The Trommer Company, diastasic nutrients. Members desirous exhibiting or reading notes of cases are invited to communicate at on with the Honorary Secretary. Dinner at 6 p.m., charge 7s., exclus of wine. All members of the South-Eastern Branch are entitled attend and to introduce professional friends. N.B.—The Honor Secretary would be much obliged if members would kindly inform whether they intend, if possible, to be present at the meeting, an likely to remain to dinner. By so doing they will very materi facilitate arrangements and promote the success of the meetings.—E Willock, 113, London Road, Croydon, Honorary Secretary.

South Wales and Monmouthshire Branch: Cardiff Divisio The next general meeting of this Division will be held in the Room the Cardiff Medical Society on Thursday, March 17th, at 3 p.m. agenda will include the following:—1. Adoption of standing ord 2. Report of deputation to local supervising authority *re* Midwives 1902. 3. Proposal to establish local midwives' training centre. Pap etc.:—Dr. Mitchell Stevens: Some Clinical Illustrations of the Difficu in Diagnosis of Cancer of the Liver. Mr. W. Sheen, M.S.: A Cas Revolver Bullet Wound of the Brain, in which the bullet lodged ab 12 cm. from the point of entrance, and was removed from a dept 6.5 cm. in the brain substance. Mr. W. Martin: Methods of Roentgen Localization illustrated by the above case (with apparatus and ph graphs). Members are invited by the Sanitary Institute to a discus on School Hygiene in connexion with the Duties and Responsibilitie the New Education Authorities, to be opened by Dr. Walf M.O.H. Cardiff, and to be held in the Town Hall, Cardiff, at 11 a.m Saturday, April 23rd.—Ewen J. Maclean, M.D., 12, Park Place, Ca Honorary Secretary.

West Somerset Branch.—The spring meeting of this Branch wi held at the Taunton and Somerset Hospital on Tuesday, March 22nd 3.30 p.m., when the chair will be taken by the President, Dr. David Br Agenda:—In addition to the ordinary business, the Branch will be a to express its opinion on these questions, referred to it by the Counc the Association: "Whether it is desirable that medical witnesses, eng on each side in legal cases, should meet in consultation." And: question of the advertising of medical practitioners in connexion hydropathic establishments." Clinical Cases: Mr. A. E. Josce (Taunton) will show cases treated by *x* rays: (1) chronic eczema; (2) ro ulcer. Paper: Dr. C. R. Killick (Williton) will read a paper on Sc Fever, with special reference to Septic Factors often present. Any m ber wishing to bring anything before the Branch should inform Secretary of his intention. Tea will be served after the meeting.— Winckworth, Taunton, Honorary Secretary.

Worcestershire and Herefordshire Branch.—The spring me of this Branch will be held at Worcester Infirmary on Tuesday, M 15th, at 4 p.m. Business, etc.:—Discussion as to the question of the ciation undertaking medical defence. To consider "whether advisable that the medical witnesses engaged on each side in legal should meet in consultation." To consider what fee should be ch for filling in Certificate C in the case of cremation. Clinical Cases: Gostling: Abscess of Lung following Tooth Extraction. Dr. Cr Paramyoclonus Multiplex.—Geo. W. Crowe, Worcester, Hon Secretary.

French Congress of Climatotherapy.—We are aske remind our readers that the first French Congress of Clim therapy and Urban Hygiene will be held at Nice from A 4th to 9th, under the presidency of Professor Chantem The latest date for the inscription of names in the li members is March 15th. Subscriptions (16s. 4d.) shoul sent with a visiting card to the General Treasurer, Dr. Bo 19, Boulevard Victor Hugo, Nice, Alpes Maritimes, Fr All other correspondence should be addressed to Dr. H de Bessé, General Secretary, 5, Boulevard Central, Beau sur-Mer, Alpes Maritimes.

SPECIAL CORRESPONDENCE.

PARIS.

...démie de Médecine: M. Albert Robin on the Action of a Maritime Climate in the Treatment of Pulmonary Phthisis.—Epidemic of Typhoid Fever.—The Plan for the Isolation of Tuberculous Patients in Paris.—A New Isolation Hospital.

the last meeting of the Académie de Médicine M. Albert ...in presented a new work by himself, in collaboration with Maurice Binet, on the effects of maritime climate and sea hs on the phenomena of nutrition and their therapeutic ...lication. Among the therapeutic conclusions a very im...tant section deals with the action of maritime climate in treatment of pulmonary phthisis. The authors draw the ...owing conclusions:

A stay at the seaside, considered only from the point of view of its ...ts on the organic exchanges, should be reserved more particularly ...naemic subjects with slowed organic exchanges, for the lymphatic, ...he scrofulous, for certain neurasthenic patients with feeble nutri... and for persons in whom it is necessary to increase the exchanges, ...ever ailment they may be suffering from.

It suits the rachitic and numerous bone diseases, since it dimin... mineral disassimilation and that of tissues rich in phosphorus; it ... their reconstruction by saving their reserve supply.

On principle, phthisical patients should be kept away from the ..., since the majority of them show increased activity in their ...anges. But to this rule there are the following exceptions:

First, 8 per cent. of phthisical patients have normal or slowed ...anges: these would benefit from a maritime climate.

Secondly, in the case of consumptives who, although their ...anges are exaggerated, eat, digest, and assimilate their food badly, ...the result that the excess of oxygen consumed is all spent on them...s, a temporary stimulation of assimilation will direct to the food a ...on of the oxygen which is burning up the tissues. The cure at the ...le, in these cases, should only be of short duration.

Certain consumptives whose exchanges are slightly increased will ...it from certain maritime climates if their general condition is good ...f their pulmonary lesions, even when advanced, are following an ...tion towards cicatrization, either spontaneously or else under the ...nce of the treatment to modify the exaggerated exchanges, which ...een described by the authors during the last two years before the ...mie de Médecine.

They should be advised to go to a mild and uniform climate pro...d from the wind and from the heat of the sun. They should not ...n the zone closest to the water, and they should avoid cold winds ...he change of temperature which takes place at sundown, as well ... dazzling light, which leads to a nutritive hyperexcitability.

In every case without exception the general and respiratory ex...es must be followed during the stay, so that they may be sent ...d if these become exaggerated. The above conclusions are equally ...able to persons predisposed to tuberculosis.

...n tubercle of bones and glands in which cases the exchanges ...enerally less increased than in pulmonary tuberculosis, the ...tages of sea air are sanctioned by observations which have now ...e classical.

...he same may be said of tuberculous gland cases in which the ...atory exchanges are increased, which often improve at the sea... while at the same time their exchanges diminish.

...is is threatened with an epidemic of typhoid fever, ...ng by the sudden increase in the number of cases noti... ...n the last two weeks During the third week of ...uary 45 cases were notified; during the last week of the ...h the number suddenly increased to 141 cases, and since ...n 1st 25 cases are notified daily. The Conseil d'Hygiène, ...i met on March 7th at the Ministry of the Interior, under ...hairmanrhip of Professor Debove, appointed Dr. Jules ...ult to make an inquiry as to the causes of the epidemic.

...a meeting of the Council of Supervision of the ...tance Publique, held on March 4th, M. Mesureur laid ... the members the plan for the isolation of tuberculous ...nts, which had been drawn up in accordance with minis... instructions (see BRITISH MEDICAL JOURNAL, February ... The following hospitals will be transformed into hospitals ...e isolation of tuberculous patients: the Laënnec Hos... the annexe of the Hôtel-Dieu, the Broussais Hospital and ...pital du Bastion, 27, which will give a total of 1,184 beds. ...king use of the arrangement of certain buildings, special ... will be isolated at the Tenon Hospital, Boucicaut ...tal, St. Antoine Hospital, and in an annexe of the ...uis Hospital, giving in all another 909 beds. At the ...toine Hospital the wards of Drs. Thoinot and Lenoir ...be given up exclusively for tuberculous cases. As a ... a certain number of the general medical and surgical ... will be suppressed (22 medical, 2 surgical, and 1 ...ric). This plan will be completed later by the ...g in 1904 at Brévannes of a special hospital with 500 beds. Another hospital for tuberculous cases, with 840 beds, is included in the plan. If an agreement can be arrived at with the Department of the Seine, the Rambuteau pavilion at the Salpêtrière Hospital, with 210 beds, will be occupied by tuberculous instead of mental cases. If the new law permits, a block of 300 beds will be built at the Boucicaut Hospital. Tuberculous children will be isolated at Brévannes in the convalescent home in course of construction.

The Council also approved the plan of rebuilding at Aubervilliers the hospital for contagious and epidemic disease, the present wooden construction being in a disgraceful condition. The cost is limited to Fr.1,950,000 (£78,000).

LIVERPOOL.

The Liverpool Medical Institution: History of its Foundation: Lease granted by the Corporation in 1837: The Rutter-Phillips Mineralogical Collection: Application for a New Lease in 1880: Action of the Treasury: Large Fine now Required by the City Corporation.

THE Liverpool Medical Institution is generally admitted to be one of the most thriving of the medical societies in the country. Its members and associates number 342, its library contains many rare and costly works and is constantly being added to, and the large attendance at the meetings and the high quality of the communications made thereat have often deeply impressed visitors from the metropolis and elsewhere. The affairs of this important body, through no fault of its members, are unfortunately approaching a crisis, which, if it does not terminate favourably, must seriously interfere with its prosperity, if it does not terminate its existence.

The institution had its origin about the year 1770, when the three Surgeons to the infirmary, Henry Park, John Lyon, and Edward Allanson, names some of which have become historical, laid the foundations of what soon became known as the Liverpool Medical Library. At first the books were kept at the infirmary, and in 1807 the trustees of the latter resolved to build a library over the archway which formed the patients' entrance in Shaw's Brow. In the year 1826 the land was needed for improving the town, and at the request of the Library Committee the Corporation built a new library at the public expense. A few years later another change took place in consequence of the site being required for the erection of Lime Street Railway Station, and again the municipality recognized the claims of the Medical Library, and the Corporation granted a lease of premises in Hoghton Street free of rent. For various reasons these premises and others which were proposed were not found to be available, but finally on July 18th, 1837, the Corporation gave to the trustees of the Medical Library a lease for seventy-five years of land at the corner of Hope Street and Mount Pleasant, for the nominal consideration of 10s., the only special restrictions being that the building should not be used for any other purpose than a medical library and pathological museum, and that no anatomical dissections should be made on the premises. But the generosity of the Corporation did not end here, for they also subscribed £1,000 towards the erection of the building, which received the name of the Medical Institution. Two years later the Council was memorialized by the medical profession for an additional piece of land for the purpose of erecting a house for the resident librarian, and a lease for the necessary land was granted to the trustees of the Liverpool Medical Institution on April 24th, 1840, for a term of 75 years on similar terms to the lease previously granted. This extra land was leased without payment of fine, the consideration being 21s., the Corporation being of opinion that they were justified in so applying the property because the subject of the memorial was within the terms of the Municipal Corporation Act, 1835, being for the public benefit of the inhabitants and for the improvement of the borough. It will be noted that the first mention of the Medical Institution appears in the second of the two leases. This title was adopted in 1840, the society having been formed by the amalgamation of the Medical Library with what was known as the Medical Society and with the Pathological Museum. It thus appears that the Medical Institution held its land on lease from the Corporation for 75 years at a nominal fine, and that being regarded as for the benefit of the public and for the improvement of the borough, and having adhered to the terms of the agreement there was every reason to expect that when the lease expired it would be renewed on the same

favourable terms. The Institution has deserved well of the city not only by the high standard of professional conduct and work which it has encouraged, but also by benefits of a strictly commercial value. In the year 1877 the Trustees of the Institution presented to the City Council the standard and very valuable "Rutter-Phillips" collection of minerals, which is now deposited in the William Brown Museum. It was formed by William Phillips, and comprises the actual specimens described and figured by him in his *Introduction to Mineralogy*. The collection is known to all mineralogists and is one of the most prized possessions of the museum. In the year 1877 it was valued at £1,300, and it is now doubtless worth a very considerable sum.

Such having been the relations between the Medical Institution and the Municipality it was not unreasonable to suppose that when the 75 years lease came to an end it would be renewed on some such favourable terms as those on which it was originally granted, but in order to make the position of the Institution secure, so long ago as 1880 when some 40 years of the lease had expired the trustees approached the Finance and Estate Committee of the Corporation petitioning for a renewal of the lease free of fine, and in response to the application, the Corporation resolved to grant the renewal free of fine and at a peppercorn rent. A few days later, however, the Institution was informed that the Town Clerk considered it technically necessary to get the consent of the Lords of the Treasury, and accordingly the Corporation memorialized the Lords of the Treasury for leave to grant the lease. After some further correspondence the late Lord Frederick Cavendish wrote to say that as the Institution were lessees of the premises until 1915 at a peppercorn rent, it appeared to him that no grievance could arise until then, and that in the meantime no action need be taken. It was inferred from this that the only ground for refusal was that the lease had not sufficiently expired, and that there was no doubt that at some future time the application would be granted.

It is hardly necessary to point out that the fine for the renewal of an ordinary lease increases very rapidly when the lease is nearing its end; that the trustees had prudently endeavoured to obtain a renewal at a time when the fine, if it were to be imposed, would have been comparatively light; and that if there was any possibility of a fine being imposed later, it was not the fact, as Lord F. Cavendish supposed, that the refusal to renew in 1880 could give rise to no grievance. On the contrary, it was imperative to renew the lease at the earliest possible date, unless the Institution was to be saddled with a liability in the future which it might be impossible to meet.

In pursuance of the policy indicated by the Treasury the trustees of the Institution waited twenty years, and on April 10th, 1902, made application to the Estates Committee for a renewal of the lease without fine, and received the wholly unexpected intimation that a fine of £817 4s. would have to be paid. This action on the part of the Estates Committee ignored altogether the course taken by the Corporation and by the Treasury in 1881, and the authorities of the Institution, believing that the Estates Committee had scarcely realized the circumstances, waited again by deputation on the committee and laid the full facts before them, in the assurance that the policy of the Corporation in the past would be honoured by its representatives in the present, but, so far, the municipal authorities have shown no sign of relenting.

The foregoing facts are so clear and the inference from them is so obvious that but little comment is required. The Medical Institution is not carried on for gain, but for the advance of medical skill, and its work has a direct bearing on the health and well-being of the inhabitants of the city. This relationship has been again and again admitted by the municipal authorities, and twenty years ago, when the Institution was prepared to negotiate for a renewal of the lease on such terms as the Corporation wished to offer, the latter expressed a desire to grant the renewal free. To insist on the payment of a heavy fine at this late period would be a great hardship and a serious injury, and it is believed that when the City Council realizes all the bearings of the case it will continue the generous treatment meted out by its predecessors in office.

SHEFFIELD.

The Privy Council and the Charter for the University of Sheffield: Special City Rate: Special Funds: Leeds and Sheffield.

THE letter received last week in Sheffield from the Privy Council intimating its willingness to grant a charter incorporating a University under the title of a "University Sheffield," provided there is a "substantial realization of th hopes" as to the obtaining of funds for equipment and e dowment practically means that in a short time this city wi have its own University, as there is little doubt that the co ditions of the Privy Council will without undue difficulty b met. For the purposes of the erection of the new buildin and of adding to the endowment the local committee has be engaged in raising a sum of £170,000. Towards this, at pr sent, about £110,000 has been subscribed, and an effort wi now be made to obtain the balance.

A point that no doubt had great weight with the Pri Council was the action of the City Council in unanimous voting a sum from the rates equal to a penny in the poun and approaching £7,000 yearly. This, to the credit of t City Council, was done without a dissentient voice, a though 12 months have elapsed there has been nothing b unanimity prevailing on its part towards the propos University. The support also of other local bodies mention by the Privy Council already has either been assured or w no doubt be forthcoming.

The women of Sheffield are engaged now in endeavouring raise a sufficient sum to endow a Chair, and their init efforts have met with a success which is full of encoura ment and has been surprising to many. Other bodies, such the Elementary Teachers of Sheffield and Rotherham, t Pupil Teachers, the Commercial Travellers Association, et have their own movements for the collection of subscriptio among their members towards the university scheme. T badness of trade is, of course, telling against the raising money for this or any other object, but it is not anticipat that with a new university so nearly attained there will any great difficulty in increasing the amount already raised as much as will meet the requirements of the Privy Counc

The gratification is of course unanimous at the result of t contest forced upon Sheffield by the Leeds authorities, a the decision of the Privy Council that a university situated Leeds is to be called "The Leeds University," and not c signifying proprietary rights in the county, has been very j fully received. It was strongly felt that the position assun by Leeds was unjust to a neighbouring city, its equal nearly so in population, and of no less importance than its Each had inherent county rights; both were in Yorkshi but Yorkshire was no more in Leeds than Yorkshire was Sheffield. From the outset the attitude assumed was held be indefensible and permitting of only one ending. Throu out there had been nothing but goodwill towards Leeds in endeavour to obtain its own university, and now that t matter of title has been finally settled there will only b friendly rivalry as far as Sheffield is concerned between th two great Yorkshire cities in furthering to the utmost th opportunities in the matter of university training and edu tion.

MANCHESTER.

Selection of Architects and Cost of New Infirmary.—The Spit Nuisance.—Drunkenness in the City.—Northern Hosp Finances.

THE Board of Management of the Royal Infirmary on Ma 7th decided, after report from the referee appointed to c sider the plans submitted for the new infirmary, to appr the design submitted by Mr. Edwin T. Hall and Mr. J Brooke, of London and Manchester, and these two gentlem were appointed joint-architects for the building of the infirmary. The Board, however, reserves the right to alte vary the plans. The plans also must before adoption rec the confirmation of the trustees. On the new site of Stan Grove—about twelve acres in extent—the infirmary will b a frontage of about 500 ft. It will contain 20 wards and ab 600 beds, and they are to be arranged on the pavilion syst The front will consist of three blocks, that in the centre be surmounted by a dome and clock, and the side blocks e having a tower. The building in the centre will be dev to administrative purposes; on the south will be the nur home (containing about 300 beds), and on the north the te ing department. Behind these three blocks long surgical medical corridors will run each and west, with pavilion w ranging from them. The wards are to be of two stories, will be so constructed that a third story may be adde necessary, at some future time. Attached to the surg wards are the necessary operating theatres. The rem ing portion of the irregular area will be devoted to o

portant departments of the work of the infirmary. The out-tients' department is to be a separate building, with a ntage into Nelson Street (behind the Eye Hospital). Here o will be the entrance to the casualty ward, and on this e, too, will be the eye, skin, and ear wards and the naecological wards. The pathological department will be uate on the south side of the infirmary buildings. The t will reach the sum of £324,000, with an additional £16,500 he full 600 beds are provided.

A new by-law to deal with the spitting nuisance has been omitted to the City Council by the sanitary authority. It vided that "no person shall, under a penalty not exceed-£5, spit in any public carriage, public hall, waiting room, place of public entertainment, whether admission thereto obtained by payment or not." Owing to a technical ficulty, the by-law was not passed. It will come up again another form.

Manchester, it appears, has a greater proportion of licensed ises and drunkenness to the population than other large ns in Lancashire and Yorkshire. In Manchester the nber proceeded against for drunkenness per 1,000 of the ulation is 16.19. In Liverpool it is 10.68, and in Bir-gham 6.5. This is not as it should be, and is very lerable to Manchester pride, and bad for the fair fame he city.

he Manchester Northern Hospital for Women and ldren shows no falling off in its usefulness, but it is a erent tale with regard to its income. The normal annual enditure is about £3,800, and the average annual income 300.

SYDNEY.

ectoration in Trains and Trams.—Infectious Diseases.—Vital Statistics.—Preservatives in Foods.—News.

E few months ago the Railway Commissioners passed a aw imposing a fine of £2 on any person convicted of ex-orating into any railway or tramway carriage. So far no has been punished under this by-law, but the officials rt that since its introduction there has been a marked rovement in the condition of the cars when they reach the s at night. The Commissioners have instructed the tram luctors, train guards, and other traffic officers to keep a t watch, and to report any person found acting offen-y in regard to expectoration. In order to protect the ic from this objectionable and dangerous practice, the rtment will take legal proceedings against any one nging the by-law.

e present summer has been remarkably mild, and pos-, as a result, the record of infectious diseases through-the State is very small at present. In addition to the aratively low temperatures, there has been a remarkably rainfall, which has greatly purified the water supplies of country towns. The only outbreak of typhoid fever so ported this summer has been a small epidemic at Wel-on, which is attributed by the Health Department to the l defective sanitary arrangements, and the local authori-have been urged to adopt efficient by-laws to meet the ulty. During the month of December there were only ses of typhoid fever reported in the metropolitan dis-or 25 per cent. less than the number in December of the ous year. A large number of rats and mice are still daily ined in the laboratory of the Board of Health, but no of plague infection has been discovered in them since st, 1903. A plague-infected rat was, however, caught the day in Brisbane, and the strictest precautions are still observed by the Sydney Harbour Trust and the Health rtment of the Sydney City Council against the possible rtation of infected rats or mice.

e total number of deaths in the metropolis during the 1903 was 5,913, as against a yearly average of 5,902 g the previous five years. Specific febrile diseases d 568 deaths as compared with 682, the average for the ive years. Following the same comparison, parasitic ses caused 11 deaths as against 21; dietetic diseases, 52 inst 55.2; constitutional diseases, 119 deaths as against ; developmental diseases, 475 deaths as against 437; us system, 492 as against 586; diseases of the circulatory n, 551 deaths as against 514; diseases of the respiratory n, 696 as against 714.2. The total number of births ered was 12,749 and marriages 4,771.

question of the use of preservatives in foods still con-s to occupy a large share of public and professional attention. The last two meetings of the New South Wales Branch of the British Medical Association were occupied with a discussion on some resolutions bearing on the question submitted by Dr. Wilkinson. After lengthy discussion the following resolutions were carried with only four dissentients:

1. That in the interests of the public health neither boracic acid nor borax should be used as a preservative in ordinary or concentrated milk or even in milk products.

2. That this resolution should be communicated to the State Government and the City Council through the proper channels.

At the recent meeting of the Australasian Association for the Advancement of Science Dr. Frank Tidswell, the Chairman of the Section of Sanitary Science and Hygiene, read a paper on the Hygienic Aspect of Boric Acid. This paper contained the results of some careful experiments and researches on the question of the use of boric acid as a preservative in milk, and was also extremely practical in its exposure of trade methods. An important magisterial decision has just been given in a case in which an inspector of the Sydney City Council proceeded against a dealer for disposing of some concentrated milk alleged to be unfit for human consumption on account of boric acid being mixed with it in a proportion exceeding $\frac{1}{1000}$ gr. a pint of the milk, this being the largest amount allowed under the recent regulations of the Board of Health. No medical evidence was called in this case, but the attempt was made to get a magisterial pronouncement that the regulations of the Board of Health (which practically prohibit the use of boric acid altogether as a preservative in food) are unreasonable. The magistrate in his decision quoted the well-known judgement of the late Lord Russell of Killowen, in which the question of reasonableness was fully dealt with. The magistrate did not consider the regulations unreasonable, and accordingly convicted the defendant of the offence, and imposed the usual fine of £2, or in default seven days' imprisonment. It remains to be seen what further action will now be taken by the company responsible for putting this preparation on the market. The lay press, in spite of the strong expression of opinion by the profession and the clear scientific reasoning of Dr. Tidswell, still persists in its endeavours to bolster up this "industry" by asserting that all the statements of the noxiousness of boric acid as a preservative are purely theoretical, and that no evidence has been adduced to show that it is in the least degree injurious. It seems that it is much more important to maintain an "industry" which supplies an adulterated article of food than to maintain a pure food supply and a high standard of public health!

Dr. G. T. Hankins, who has been honorary secretary of the New South Wales Branch of the British Medical Association for the last five years, has left Sydney on a six months' trip to England. It is hoped that his visit will be productive of much good as regards British Medical Association matters. Dr. Scot Skirving, Lecturer in Clinical Medicine in the University of Sydney, has also left for a short trip to England and the Continent.

CORRESPONDENCE.

PUERPERAL SEPSIS.

SIR,—The letter published in the BRITISH MEDICAL JOURNAL of March 5th under the above heading contains a statement which, in these days of strict antisepsis causes one an involuntary shudder—2,000 confinements attended, and no antiseptics used. The writer is, however, to be much congratulated on his results.

Like "Practitioner," I have attended confinements for a period extending over exactly twenty years, but unlike him, I should never care to expose the mother to unnecessary risk by avoiding the use of antiseptics. Most people will agree that the pendulum of all reforms swings with excessive momentum in the direction of that reform, and so it may have been with antisepsis; but surely it is going too far the other way to advocate *no* antiseptics in midwifery. I am always opposed to a slavish and unreasoning following of any fashion, but antiseptics in connexion with all surgical operations, obstetric or otherwise, have for so many years proved their value, theoretically and practically, that "Practitioner's" letter induces one to turn to the title page to see if a BRITISH MEDICAL JOURNAL of bygone days has come to light again unexpectedly.

Personally I have only attended 1,000 confinements, but have only had one doubtful case of puerperal fever, in

private practice, and have rarely attended without a plentiful supply of antiseptics, usually sol. hyd. perchlor., 1 in 2,000.

I quite agree with the writer that douching was much overdone at one time. I rarely order it, or administer the douche myself, except under special circumstances. The only patient I have ever lost in her confinement, during the last 20 years, was douched by a vigorous nurse, contrary to my orders; she developed peritonitis next day and died within a week. With regard to the use of forceps, I have found an early application of great benefit in a large proportion of cases, cutting short the mother's suffering, and in my experience doing no harm; especially if they are quickly slipped off the head just before it passes the labia. Unlike "Practitioner," I have had one case in which the perineum was ruptured through to the rectum; not an instrumental case, however.

Only a fortnight ago I was called about 1 a.m. to a patient who was expecting her confinement in a week or two. I found that profuse flooding had taken place, and the patient was in a dangerous state of collapse. Quickly making a 1 in 2,000 perchloride solution and washing my hands with some "surgeon's soap," I applied plenty of carbolised vaseline to my right hand, and having administered sufficient chloroform to render the patient unconscious, I inserted my hand and arm into the vagina and found the placenta right over the os. Having no Barnes bag with me, I was forced to use my fingers as dilators (the os being practically closed), and whilst performing this part of the operation my fingers acted as an efficient plug. The os was thoroughly dilated in about 15 minutes, and my fingers were cramped! I rapidly passed my hand right through the placenta, seized first one leg, then the other, and commenced traction; as much pressure as possible being applied to the abdomen at the same time. There being a deadlock for some minutes, owing to the large size of the child, and the mother's condition being serious, I passed my left hand right over the occiput in the uterus, and made double traction. This expedited matters, and the head being low enough, I applied forceps, and the child was soon born. The mother has made an uninterrupted recovery, but I have not much doubt in my mind as to what the result would have been had I used no antiseptics.—I am, etc.,

London, W., March 7th. HUBERT C. PHILLIPS.

SIR,—During the last thirteen years I have attended a considerable number of midwifery cases, but I have not the record of 2 000 which "General Practitioner," in his letter to the BRITISH MEDICAL JOURNAL of March 5th, claims to have attended with such good results; neither have I had the advantage of training as an assistant in an obstetric ward, which he informs us fell to his lot. I cannot, however, regret having missed the latter if such an experience would have led me so far astray as to manage my cases in the manner advocated in his letter.

The practice followed—quick dilatation, clapping on the forceps even before the natural efforts have properly commenced, the immediate emptying of the uterus by forcible expression of the placenta—is not only followed by the immediate danger to the patient of causing *post-partum* haemorrhage, but is the means of producing the very conditions which subject the patient to serious risks of septic infection.

I read with interest and advantage Dr. Horrocks's admirable contribution, and I feel sure that the majority of general practitioners will agree with me that the valuable advice contained in his paper should be followed as far as possible in the management of confinements if we desire to lessen the number of cases of puerperal septicaemia.—I am, etc.,

Holyhead, March 7th. T. W. CLAY, L.R.C.P.Edin.

SIR,—Before entering into this controversy it may be as well if I state my credentials for taking part. I have attended nearly 3,000 confinements during the past twenty years, and have had probably neither better nor worse results than the majority of practitioners in poor-class practice—occasionally a case of sepsis, occasionally one of haemorrhage, and so on.

It is to be regretted that "General Practitioner" has not given us in his appalling confession—that he uses chloroform and forceps in 45 per cent. of his cases—an account of those other accidents and complications apart from sepsis which every one who has seen much of midwifery knows occur under such circumstances as he describes. He says that he never uses antiseptics, and that if the child is not born within an hour of his reaching the house he ruptures the membranes dilates the os to the full size with his hand in the vagina gives chloroform, and delivers with forceps. Such treatment is occasionally necessary, but it is a well-known fact that the *accouchement forcé*, even when done in hospitals, has a mortality of 5 or 6 per cent. at the lowest computation, and one would like to know what in his cases has been the cause of death, apart from puerperal sepsis, of which he has had 1 in 2,000 cases.

His method of dealing with the placenta is bold and original in the extreme. That he has never had a case of *post-partum* haemorrhage is surely a unique experience. I probably intended to write, "I have never had a death from *post-partum* haemorrhage." It would add to the interest of his letter if this point were made clear. For my own convenience and comfort I regret to say that my conscience, teaching, and experience make me a member of the class of "patient doctors" to which he refers, and, metaphorically speaking, it is with fear and trembling that I use the forceps which I do in about 4 or 5 per cent., mostly primiparae. In the same sense I have a perfect horror of "introducing the hand into the uterus, peeling off the placenta, and bringing it away."

He does not make it clear whether this is done in all his cases, or only reserved for the 45 per cent. delivered with chloroform and forceps. I have had to do it occasionally in cases of *post-partum* haemorrhage, when the placenta was adherent; but, as regards the remainder of the cases, I am content to wait a longer time than is required for "leisurely washing the hands," and when the position of the uterus shows me that the placenta has passed into the cervix and vagina I give it a gentle push from the abdomen with the left hand, receive it in the right, and twist it round, so as to make the membranes into a rope.

I confess I have occasionally had *post-partum* haemorrhage with this management, although I usually "use ergot immediately after labour is over."—I am, etc.,

March 4th. ASEPTIC SCEPTIC

THE DIMINISHING BIRTH-RATE.

SIR,—Dr. Hope Grant holds "bicycling, golf, hockey, and other factors, which increase the size of her muscles and diminish the size of her pelvis," as being responsible for a decreasing birth-rate amongst English women.

Now I believe that the majority of medical men hold the opposite, and my own experience bears them out. A lady who had a very easy confinement informed me that she had bicycled until within two months of this event, and had taken severe exercise almost right up to the full time confinement. This experience is not startling when you consider that those races whose women live the roughest and savage life have the easiest confinements. The difficult labours and the miscarriages, too, occur much more frequently among the sedentary, housekeeping, and hysterical classes. Athletics have not yet reached the majority of women; when they do, easy labours will be commoner.

Rickets is the commonest cause of a small pelvis, and this is usually due to the mother having worn corsets and tight clothing, resulting in depressed nipples and inability to suckle.

Human life on the average having lengthened, and as natural means of reducing a surplus production being removed for the great part, the natural balance tends to be restored by the inability of clerks and professional men to afford marriage at an early age or bear the expense of large families.—I am, etc.,

Seacombe, Cheshire, March 8th. F. WILLIAM INMAN, M.D.

THE FALLACY OF PROSTATECTOMY.

SIR,—Mr. Pardoe, in his letter of February 13th, does not make it clear, I think, whether he denies the truth of the statement that sepsis and infection, arising from a faulty technique in instrumentation, are the main cause which necessitates prostatectomy. He says: "Let us grant the postulate.....What chance have we of securing this essential condition for success? I answer that in 90 per cent. we have no chance."

He cites exceptional instances in which operation should be undertaken, but even in these cases the symptoms are largely due to sepsis, and I regret that space prevents my replying in detail.

Mr. Pardoe admits that "when we have to deal only with ucated men of leisure" sterile instrumentation "is pos-ble;" but, arguing on these lines, what class of patient is ing operated upon most frequently in the present day? e rich or the poor? The leisured man or the labourer? e intelligent or the unintelligent? The educated or the terate? The patient who has been taught or has not been ght the use of sterile instruments? The man who suffers m haemorrhage and difficulty of catheterization, or the one t is worn out by fever rigors and the incessant use of the tic catheter? And, finally, does the patient belong to the er cent.—that is, those who can keep themselves clean, or the 90 per cent. who cannot?

think he will agree that a very large proportion of the es operated upon belong to the class which may be ned rich, intelligent, educated men; men who have time l who can learn the details of surgical cleanliness, but e not been taught, and who, through want of instruction, suffering from cystitis with its accompanying constitu-al disturbances. The patients, therefore, belong to the er cent. who are able to keep themselves clean. Even on se grounds the contention "that prostatectomy is too quently undertaken" appears to be overwhelmingly ved.

he following case forcibly illustrates most of the points ched upon:

gentleman, aged 71, of ample means and leisure, of good cation and ability, was troubled in the summer of 1902 a frequency of micturition. He consulted a surgeon, and informed that he would have to use an india-rubber eter three times a day to empty his bladder. The direc-s given him for passing the instrument were that he ld lubricate his catheter by rubbing boiled oil over it his finger and thumb, and then to push it gently, inch nch, into the bladder. After use the catheter was to be washed and syringed with boiled water, and put away others in a cardboard box ready for the next occasion. went well until November, 1903, when one evening he was lenly seized with a violent rigor. From this time ards his progress was markedly downwards. Severe norrhage appeared, and he had to use his catheter seven, or eight times in the twenty-four hours, often g two or three times in the night to draw off his r.

out this time, as there was difficulty in passing the -rubber catheter, it was changed for a gum elastic instru-t, but otherwise the technique remained as before. In early part of 1904 he again consulted a surgeon, who ined his prostate per rectum, passed a catheter red with a lubricant applied with his fingers, and drew me foul urine. Without questioning the patient as to nethod adopted in catheterizing himself, the surgeon gave pinion that prostatectomy should be performed at once, fering the patient the best chance of life, and based his on the ground that the disease must be progressive, and there was no possibility of his returning to his condition vember, 1902. The patient hesitated about undergoing rious an operation at his time of life, and when it was equently suggested to him that his condition would inly be improved if he would only adopt surgical liness, he readily consented to give the treatment I.

ring the first week of sterile catheterization the fre-y of instrumentation fell gradually from 7 to 6, to 5 in the 24 hours. The urine lost its smell, though the ing continued. He was therefore sounded for stone with itive result. Three days later two fair-sized phosphate li and three or four smaller ones were removed by litho-

On the fifth day after he was sitting up, used his ter at 8 a.m., 3 30 p.m., and 11 p.m., and slept through ight undisturbed. His urine now, but for an excess of s suspended in the urine holding a few stray pus cells, lthy. Thus within three weeks all his urgent symptoms peared and he returned to a better condition than that vember, 1902! I have asked him repeatedly whether he ny discomfort whatever, and whether he is now willing dergo prostatectomy to relieve him of the trouble of g a catheter three times a day. His answer is a most atic "No; I am quite content as long as I remain as I And I see no reason myself why he should not remain he carries out in future the instructions given him, I am fully convinced he will do, from the bitter experi-e has had in the past.—I am, etc.,

ou, W., March 8th. HERBERT T. HERRING.

STERILIZATION OF CATHETERS.

SIR,—The remarks of a correspondent in the BRITISH MEDICAL JOURNAL of February 13th, on the value of "personal records," and the able letters on Sterilization by Mr. Herbert Herring and Dr. Peter Horrocks, lead me to submit a few lines to your readers to emphasize the teachings of these gentlemen.

As a student under the great Robert Liston, I shuddered when I saw the silver catheter, etc., used in case after case with no other precaution than a dry wipe with the same towel carried by the nurse from bed to bed! But these were days when such terms as sepsis and antisepsis did not appear in our dictionaries.

My own case—which is but one among many—dates from April, 1900. For some months calls to micturate had become more and more frequent—six or eight times in the twenty-four hours. The prostate gland was getting enlarged. In the beginning of April, 1900, I was exposed to cold and the cushion on which I had sat in a long journey was afterwards found to be damp. Cystitis and retention followed with painful efforts to empty the bladder, once amounting to thirty times in the twenty-four hours. I now procured a new catheter (Thompson's No. 8 elastic) which passed easily, for I had never before this suffered from any bladder or urethral ailments. But I was only slightly relieved of my trouble. I was then recommended to Mr. Herbert Herring. His treatment—which may be found exactly detailed in his lately published work—ended in my being able to reduce the calls of nature to four times in the twenty-four hours. In severe weather, or when suffering from wrong diet or strong emotion, my calls may amount to five, rarely six, and seldom in the night!

Let me add (blushingly) that in 1901 I brought on cystitis and severe urinary fever which lasted forty-seven days by my own carelessness. Visitors and other disturbances caused me hurriedly to use a quite new injecting bottle of hot water without the usual boric acid and without previously washing the bottle. Further comment is needless.—I am, etc.,

February 20th. M.D. LOND.

THE MOVEMENTS OF THE HEART.

SIR,—In last week's BRITISH MEDICAL JOURNAL a writer criticizes a paper of mine on continued irregularity of the heart, which appears in the same number. The objection that the writer takes to my interpretation of the tracings is that I have arbitrarily asserted that certain waves are due to auricle or ventricle without affording material for proving whether such an interpretation is right, suggesting that I give no standard ("bench mark," "*point de rèpere*"), by which the movements of the heart can be ascertained. When I read this statement I rubbed my eyes in astonishment, and reread the article several times to see if I really understood his drift.

Before sending my paper to the JOURNAL I submitted it to one of the ablest authorities on the heart, and he remarked that the value of my tracings was greatly enhanced by the fact that I invariably gave with scrupulous care a standard by which all the events could be referred to their proper place in the cardiac cycle with certainty.

When I began taking observations of the movements of the circulation, now many years ago, I was struck by the great amount of work that had been done by other observers which was rendered valueless, because they gave no standard by which their observations could be rightly interpreted. In my earlier work I employed the carotid pulse, the apex-beat, and the radial pulse as standard times; but I soon found, for many reasons, that the radial was by far the most reliable. Its causation is so well understood and its relation to the ventricular systole is so readily ascertained, that all events that happen during a cardiac cycle can easily be allotted their proper place by considering their relationship to the time of the occurrence of the radial pulse. Hence in every tracing I give a radial tracing which is taken simultaneously with the jugular, and I also give ordinates at the beginning or end of each tracing, from which the various events can be easily recognized by measuring with a pair of compasses. This oversight on the part of my critic deprives his suggestion of the nature of the waves of any value. I may here say that I have given in the paper a large number of tracings in order to show that I am not reasoning from too limited a number of facts. These are but selections from many hundreds of others that show the same thing, some of them in as striking a manner, and it was only consideration of your space that prevented me utilizing them.

The writer suggests for my consideration two experiments showing that conductivity is a function of muscle apart from contractility. I think my critic might have given me credit for knowing this. As a matter of fact I have for many months been carrying on a very prolonged inquiry into disturbances of conductivity, for which inquiry my method of observation is peculiarly adapted. In the human subject the conductivity is judged by the interval of time between the auricular and ventricular systoles. If my critic would pay me a visit I would show him a number of cases where the interval between the auricular and ventricular systole is doubled, trebled, and quadrupled, and two cases where the ventricular systole only responds to every second or third auricular systole. I could also demonstrate to him how conductivity in the human subject is modified by exertion, fever, digitalis, and chloroform. I mention these matters so that I can satisfy him that the question of conductivity has not been overlooked in analysing these "fragments," and I can assert as well as prove that the slow pulse in Fig. 4 is not due to a depression of conductivity.

The writer further states that "Dr. Mackenzie admits that the behaviour of the heart in tachycardia is difficult to bring into accord with his views." What I said was: "I am inclined to believe from the evidence that I have at hand that in paroxysmal tachycardia the ventricle also takes on the inception of the rhythm" (p. 535). In my book I give a detailed argument to show that paroxysmal tachycardia is but a long continued series of premature beats of ventricular origin. But I put forward the suggestion somewhat diffidently, but now, with greatly extended experience, I am in a position to state positively that that is the real cause of paroxysmal tachycardia.

I am sorry that my critic should have written the last paragraph of his article, where he refers to the work of Gaskell, Engelmann, and Wenckebach. Surely it is not necessary, in rendering Gaskell a due meed of praise, to disparage the work of Engelmann. Gaskell's position in the scientific world is so high and so assured that if any writer chooses to neglect his work he only exposes his own ignorance and incapacity. In his book Wenckebach repeatedly acknowledges in terms of highest praise the pioneer work of Gaskell, but he utilizes Engelmann's work, as it indicates with more detail the various arrhythmias resulting from interference with the separate functions of the heart. Engelmann in his writings continually alludes to the work of Gaskell with appreciation.—I am, etc.,

Burnley, March 6th. JAMES MACKENZIE.

*** We have spoken in the highest terms of Dr. Mackenzie's graphic work, and we fully recognized that he gave scrupulous comparative measurements. We are still of the opinion that on the interpretation of the curves there may be a difference of opinion; and Dr. Mackenzie ought not to resent the expression of it. We disagree moreover with Dr. Mackenzie in his assertion that "Engelmann continually alludes to the work of Gaskell with appreciation." From the time of Stokes and Latham down to this of Dr. Mackenzie himself and his contemporaries the English school has been in advance of the German; if the Germans do not recognize this, there is the less reason for our own observers to quote German work incessantly in place of that of themselves and their own countrymen. Many recall, for example, the work of Roy on ventricular rhythm.

DOCTORS IN PARLIAMENT.

SIR,—There are many good suggestions in Surgeon-General Evatt's letter in the BRITISH MEDICAL JOURNAL of March 5th, and as many other letters have recently appeared on this subject, which is a very vital one to our profession at the present time, I write to say that a resolution was unanimously passed by the Penge and Upper Norwood Conservative Association asking me to stand for the Dulwich Division of Camberwell at the last by-election, when Dr. Rutherfoord Harris was subsequently chosen as candidate and elected by a good majority. As I had only three days to consider the offer and make all arrangements about agent and the many other important matters connected with an election—to say nothing of arrangements with my partners in practice—I was obliged to decline. The expenses of a by-election and the prospect of a general election some time this year also had great weight. If we medical men had some such fund as Surgeon-General Evatt suggests to help in such cases, I feel sure that many others beside myself would be ready to come forward and do their best for their professional brethren. I shall be very pleased to co-operate in any way I can to such a desirab end.—I am, etc.,

London, S.E., March 7th. J. SIDNEY TURNER, M.R.C.S., L.S.A., F.L.S., J.P.(Kent).

THE PUBLIC HEALTH ACT.

SIR,—In the King's Speech there was promised an Amen ment Act to the Public Health Act. No indication has be given of the lines of the amendments. Allow me to record few much-needed ones:

Security of tenure in their appointment to medical office of health and their inspectors.

Pensions to all public-health officers and servants wh receive appointment.

These to put the public-health service upon a substanti footing, and to bring it into uniformity with other public se vices—for example, the Poor-law Service, the Local Gover ment Board auditors, clerks to district councils, etc.

Then the lead of the Infectious Disease (Notificatio Extension Act of 1899 may well be followed; and all Ac pertaining to the public health, the Public Health Act, t Local Government Act, 1888, and others should be effective altered to read "shall" instead of "may." Adoptive Ac might be guarded by a proviso—say of population—and r left to discretion.

A standard of uniformity in position might well be n demanded amongst public-health officers. There are enou qualifications held by medical men for the efficiency of t service; and (say) two years might be granted in which inspectors should qualify by examination.

More needed is uniformity in administration by count and district councils. Some are conscientious and energet whilst their neighbours are apathetic; whilst one stamps o infections, the other keeps the materies going, and by a m terly inactivity foster them. Many representations ha been made to the Government upon this, and especially fro the annual meeting of the Association held in Cheltenha in 1902.

It is stated that the powers of local authorities are to increased. It can best be done by strengthening the officia and existing powers will suffice—as Mr. Long says. Th are rumours of a dissolution in Easter Week. This, if tr means that nothing will be done.—I am, etc.,

Colwyn Bay, Feb. 29th. J. LLOYD-ROBERTS

BLEEDING IN PNEUMONIA.

SIR,—Several of your recent correspondents are practica convinced of the benefit of bleeding in pneumonia. It wa common-place observation fifty years ago. To-day ma physicians theoretically doubt its efficacy, asking, "Ho could bleeding do such good?" May I reply?

An inflamed capillary may be seen to be dilated and stic The corpuscles pass along it with difficulty. They se adhere to the capillary wall; and thus collect together, a obstruct the vessel. By this process in pneumonia one more whole lobes of the lung are solidified, and their ca laries made almost impermeable. When this obstruct becomes more than the heart can overcome, it begins to and the right side dilates. Now, if 10 oz. to 20 oz. of bl be abstracted an enormous number of corpuscles and ot solids are removed from the blood stream. The fluid becor thinner. It passes through the capillaries more easily; a the heart is obviously relieved.

Contrariwise, a constricting band round a limb cau lymph to transude from its capillaries. The blood flow from that limb becomes actually thicker; and no perman relief could be expected.—I am, etc.,

Croydon, Feb. 25th. T. ARCHD. DUKE

THE SANATORIUM TREATMENT OF CONSUMPTIV

SIR,—The appearance of Dr. E. D. Marriott's letter in BRITISH MEDICAL JOURNAL of February 27th is to be gretted. May I, with all courtesy to him, point out:

1. That the sanatorium treatment of phthisis is pass through an experimental stage, about five years only hav elapsed since its adoption in this country, and that import facts will be brought to light in due time.

2. That secondary infection does not take place i properly-conducted sanatorium.

3. That should such have occurred in any institution, Marriott's efforts would have been better directed tow seeking a remedy for the evil without stigmatizing the wh system of sanatorium treatment, and the careful, conse

; and promising work many of his fellows in the ession are doing.

Of 25 patients treated in "Belle Vue" during the year and who left the sanatorium before the end of that year, e now living, in excellent health and following their ordi- duties; this after the lapse of three complete years. is exactly 40 per cent. No selection of cases was made, no case refused admission whatever his condition. Nine of the 25 were hopeless cases; if these be left out of con- ation the percentage of cures would be over 60. I have oubt other sanatoria will be able to show equally satis- ry results.

. Marriott says: "To the man with physical signs the s of the sanatorium are closed." Evidently his know- of the subject is very limited.

are all pleased to hear that "the consumption death- has been lowered by 50 per cent. in fifty years," but why d Dr. Marriott denounce the assistance the National iation undoubtedly is giving? One would think that eal would have prompted him to recognize the well- tioned efforts of others. Again, in "leaving the bacillus e care of itself," (which it is quite capable of doing), it l appear that a would-be reformer voluntarily incurs a responsibility.

remainder of the letter emphasizes the importance of ntion of disease. Is not the establishment of properly- cted sanatoria a valuable aid in this direction? I invite Dr. Marriott's careful consideration of the ing points:

revention can be brought about by the removal of the it from his infected surroundings, placing him under nt supervision and proper hygienic conditions, and the ection of his home (the usefulness of sanatoria in this xion cannot surely be lightly thrown aside); by the ion of the spitting nuisance, and by the vigilance of the istrators of the Public Health Acts.

ure can be effected only when the patient is placed constant medical supervision of the right kind. The t-air" sanatorium affords the best of facilities for this.

Marriott's letter would imply that sanatorium treat- s quite useless, and that the physician who is devoting e to it is a fraud! What a consolation for the sufferer! tion alone will not prevent, and it certainly cannot In conclusion, I can only say that such a letter is most rtune, and its tone indiscreet to say the least.—I am,

E. W. DIVER, M.D.

e Vue" Sanatorium, Shotley Bridge, Feb. 27th.

—I know Dr. E. D. Marriott sufficiently well to acquit intentionally wishing to misrepresent what I said at eting of the Notts Association for the Prevention of nption held here on February 11th.

say that of persons treated at sanatoria "the majority n die in much less time than the public have any idea this did not apply to the Ratcher Hill Sanatorium, as not aware that there was any evidence upon the nd indeed the time since its establishment—about n months—is far too short for any conclusion to be at.

tatistics of sanatoria to be of any clinical value must d upon the experience of years, and neither supporters nents of the method could be content with less.

e neither time nor inclination to enter into any con- as to the merits or demerits of sanatorium treat- r consumptives. But I will take this opportunity of my opinion that the principles of the method are and reasonable, and are founded in natural law. We o specific for consumption, but by rest, fresh air, e and readily assimilable foods, reasonable in quan- cramming), and general hygienic surroundings, the so improves in general health that his tissues resistant, and cure results. In a word, we assist to assert herself.

the commonly-accepted belief that the natural y of disease is to kill. It is nothing of the sort. The tendency of "dis-ease" is to ease; the natural tendency e is to get well, and the reason why sick people often et well is because they will not put themselves into g circumstances for Nature to assert herself.

a patient comes to a doctor complaining of feeling nguid, and run down, if advised to go to bed for a s the advice would be uncongenial, probably not on; but a fortnight's holiday at a fashionable seaside resort would be readily followed, though not half so good or useful.

The *vis medicatrix* is stronger than the public realize.—I am, etc.,

Nottingham, Feb. 27th. JOSEPH O. BROOKHOUSE.

BALCONIES AT SANATORIA.

SIR,—I am very sorry that I was prevented from sooner answering Dr. Stuart Tidey's charming bit of special pleading inserted in the BRITISH MEDICAL JOURNAL of February 13th. He will, I am sure, pardon me if I say that it is convincing evidence that he is unacquainted with open-air treatment as carried out in a good British sanatorium. It is not usual to shut the windows for ordinary driving rain, even without a balcony; and a patient can remain near his window without getting wet. A narrow balcony, such as Dr. Tidey describes, is harmless, but of no great practical utility. It is roughly equivalent to an umbrella held up 12 ft. above the floor and incapable of direction.

A wide south balcony is of great value to bed patients and feeble patients on the same floor, but it does cut off the light to a serious extent from the rooms below; and I maintain, therefore, that it is better placed over entrance halls and other parts not in constant use by patients. The patient's room should not in this climate be deprived of any of the direct illumination available, as the light reflected from the floor of a balcony in dull weather is by no means an equivalent.

For the room beneath, a line drawn at an angle of 45 degrees from the outside of the balcony will roughly indicate the extent of floor space which is protected against rain, but also deprived of direct illumination during the darker months about midday.

Dr. Tidey's arguments may be sound for Montreux, but a little more practical experience of British conditions would, I am sure, soon convince him of their inapplicability to this country.—I am, etc.,

Farnham, Surrey, March 2nd. F. RUFENACHT WALTERS.

THE TREATMENT OF APPENDIX ABSCESS IN THE RECTO-VESICAL POUCH.

SIR,—Mr. Owen's paper on the Treatment of Appendix Abscess in the Recto-Vesical Pouch in the BRITISH MEDICAL JOURNAL of February 20th raises some interesting points.

In the Newcastle-upon-Tyne Royal Infirmary it is nearly always the rule to open such abscesses by the rectal route, and the results are exceedingly satisfactory. During the last three years there have been fourteen cases treated in this way and of these two patients have died. Death in each case was due to general septic peritonitis, which was present before the operation, that is to say, the abscesses were residual. One boy died the day after the operation. Necropsy showed a very extensive general peritonitis, with pockets of pus and tough lymph all over. In the other case the pelvic abscess developed in a boy who was admitted with general peritonitis. The appendix was removed and the peritoneum drained on the day of admission. On the twelfth day the pelvic abscess was opened, and on his death three weeks later pockets of pus were found everywhere among the intestines, evidently a residuum from the general peritonitis. In neither case could all the pus collections have been reached from an abdominal incision.

No untoward results have occurred for which the method of operation could be blamed. The average stay of the patients in hospital has only been twelve days, and each has made a complete recovery.

The proper cases for incision per rectum or per vaginam are those which bulge into the anterior wall of the rectum or posterior wall of the vagina. Such are nearly always attended by typical symptoms and signs. There is pain in the lower abdomen, tenesmus, and passage of mucus per rectum with vesical irritability, and frequently retention of urine. Above the pubes there is a swelling exactly like the distended bladder, but resonant, and not removed by the passage of a catheter; per rectum the tender bulging mass is felt. It is important to remember that pelvic symptoms may also be present in cases in which, if there is an abscess, it does not bulge into the rectum.

With regard to Mr. Owen's objections, on referring to the pathological anatomy of the typical cases as described above, it will always be found that they are beautifully roofed-in by intestines and omentum, and that the bowel is never at the

bottom of the pelvis. It therefore follows that with a proper selection of cases and reasonable care the danger of wounding the intestine with subsequent faecal fistula is not a real one, and is certainly very much more likely to occur when the operation is performed by the abdominal route. The only real disadvantage is the impossibility of removing the appendix—a most desirable thing in every operation for appendicitis, whatever its stage. The patient must be warned that he may have further trouble with his appendix, and should be urged to come back for its removal at once should his symptoms recur.—I am, etc.,

Newcastle-on-Tyne, Feb. 29th. G. Grey Turner.

LUMBAGO AND ANGINA PECTORIS.

Sir,—May I venture to suggest that Sir William Gowers's instructive lecture on lumbago and its analogues reported in the British Medical Journal of January 16th, together with the case I am about to relate, and the well-known variations in the concomitant and *post-mortem* changes observed in different cases of angina pectoris, explains the pain, the source of which has hitherto been so mysterious in that dread disorder?

A man, aged 57, of very active habits, both physically and mentally, who had never before had any serious illness, and who could still run faster and farther than most men ten years younger, was suddenly seized one day when cycling with severe substernal pain, which obliged him to dismount and wait a few minutes by the roadside till the pain had gone. From that time, seven and a-half years ago, until one month ago that pain has returned upon exertion but with varying degrees of readiness and never except upon exertion or occasionally upon excitement. At first it was often attended by extreme irregularity and fluttering of the pulse, but this subsequently ceased. Any attempt to continue exertion made the pain so severe that persistence very soon became impossible, but there was no sense of actually impending death. At its worst, movement even in the house required care, and even washing the hands vigorously would bring it on. A small dose of nitroglycerine had a magical effect in preventing the pain. The previous general good health has continued. He was liable before to an occasional attack of lumbago, to occasional pharyngeal catarrh with muscular rheumatism of the pharyngeal muscles, and to occasional slight duodenal catarrh, of each of which he has had three or four attacks since. His pulse is slow—52 before rising in the morning—not hard, his arteries not rigid, the heart's impulse directly below the nipple, the specific gravity of his urine averages 1013, but no casts have ever been found on scores of examinations; he has not to rise at night, and has no other symptoms of "renal inadequacy."

He is an exceedingly temperate man, and has never had gout. His father never had any illness but lumbago till his final one at 72. His mother lived to 83. One of his brothers has had persistent lumbago and intercostal "fibrositis" for several years. He has seen five leading London consultants, the last of whom thought that his was "true angina pectoris." The others called it "functional" or "nervous disorder of the heart."

About five years ago I discovered that he had a villous growth in the bladder. At the beginning of January last considerable haematuria came on, and lasted three weeks (being finally checked by an injection of adrenalin chloride). During most of the last fortnight of this time he was in bed. When he got up and got about again I was surprised and delighted to find that the tendency to cardiac pain, which had before he took to bed been very troublesome, had disappeared so far as any moderate exertion was concerned, say walking three miles an hour on the level. A week in bed on previous occasions had had no good effect.

Does not this history point pretty surely to there being an over-sensitive condition of the cardiac muscle, or of some portion of it, such that it became highly sensitive to the increased tension or contraction induced in it by exercise just as the slightly-inflamed muscle or fibrous tissue in "muscular rheumatism" does in other parts, or as an inflamed bladder? There is reason, I believe, to suppose that severe pain so arising in the heart may cause secondary and very serious derangement of its action through its regulating nervous mechanism. In that case, if death should take place, it might be difficult to find any morbid condition *post mortem*. But is not such an inflammatory condition of the fibre of the heart much more likely to occur when there are diseased, perhaps inflamed, coronary arteries or other organic cardiac disease from which it may extend, or by which it may be induced in a secondary way? If so, that will account for such disease being found in the greater number of the cases of angina pectoris, especially if we add to that the greater difficulty which the heart would then have in resisting the secondary nervous derangements set up by the pain. But again, may not atheroma of the arteries, or other organic change in the heart, exist without any concomitant "fibrositis," and lead to anginal attacks or sudden death? Should we not then have "angina sine dolore"? If we consider this to be imperfect angina pectoris as a clinical entity then it seems to me that the one thing essential to the production of angina pectoris is cardiac "fibrositis." Given that, vaso-motor spasm will account for an attack of angina. That is the proximate cause of the pain has been a strong impression on my mind for the last few years.

I have tried, Sir, to be as succinct as possible.—I am, etc.,

Tunbridge Wells. Edw. G. Gilbert

LIFE INSURANCE EXAMINATIONS.

Sir,—I see in the British Medical Journal of Febru 6th and 13th two letters on the above subject from Dr. Rowl and Dr. Simpson, and as I have recently had a little co spondence with an insurance company (for which I have b medical examiner for the past two years) I think the follow particulars may be interesting.

The office for which I examine has a number of small surances, and the fees paid are 2s. 6d. up to £50 and 5s. for and over. I am generally careful what documents I sign, am informed that I have signed an agreement to do their w at the fees stated.

During the last year I have examined and insured for s of £200 and £100 respectively, and before sending in my count I wrote to the head officer asking about the fees I sh charge in these cases, being under the impression that at l I was to have 10s. 6d. for the £100 and £1 1s. for the £ but I was promptly informed that my fee was 5s. in each c I wrote again enclosing my account, in which I charged 10s and £1 1s. for these cases (respectively), but the cheque sent deducting the extra fee in each case. I wrote compl ing of this deduction, when I received a reply that this according to the agreement, and that they had a large me staff working at these fees, and if I did not like it I wa resign at once. It is quite unnecessary for me to say th resigned, and expressed my surprise that they should ha large staff of medical men so foolish as to work at ridiculous fees.

I quite agree that the sooner some unity of actio reached among medical men with regard to insurances better it would be for the profession, and there would n the necessity for those benevolent institutions for widow orphan children of medical men of which Dr. Simpson w I am informed that the large medical staff spoken of co of 200 medical men.

In conclusion, I should like to state that the question of the usual kind which practically makes the medical responsible for everything, and also includes examinati the urine for albumen, etc., and particulars as to the pre of calculus or other kidney disease.—I am, etc.,

Coventry, Feb. 23rd. Arthur Hawley, M

P.S.—I believe the usual fee most offices pay to their a for an insurance of £100 is £1 1s., and yet they offer 5s. medical man who takes all the responsibility.

ISOLATION HOSPITALS.

Sir,—In an article on this subject in the British Me Journal of February 27th, you say regarding my eviden the Nottingham Small-pox Hospital case, "He said fu that he knew of no evidence to support the view that convection to persons who worked more than half-a away was a practical danger." In the interests of accuracy will you allow me to point out that, as is sho the minutes of evidence, the question referred to p working in a colliery down-cast shaft, not to persons wo or living above ground. As a matter of fact I was not any question as to aërial convection, in the ordinary sen that distance.—I am, etc.,

Glasgow, March 7th. John C. McV

ROYAL NAVY AND ARMY MEDICAL SERV

HEALTH OF THE NAVY.

In the *Statistical Report of the Health of the Navy f Year* 1902, which has just been issued,[1] it is stated th returns for the total force serving afloat in the year 190 be considered on the whole satisfactory.

[1] London: Printed for His Majesty's Stationery Office, by Ey Spottiswoode. Printers to the King's Most Excellent Majesty. An purchased, either directly or through any bookseller, from Ey Spottiswoode, East Harding Street, Fleet Street, E.C., and 32, Ab Street, Westminster, S.W.; or Oliver and Boyd, Edinburgh; or sonby, 116, Grafton Street, Dublin.

Summary.

With a *personnel* increased by 1,190 as compared with the vious year, there is an increase in cases and deaths, but a rease in invalidings. The numbers are respectively 85,769, , and 2,985, in comparison with 84,026, 526, and 3,108 in 1. The aggregate number of cases of disease and injury rded in the year 1902 furnishes a ratio of 861.13 per 1,000, ich shows an increase of 7.3 per 1,000 as compared with ratio for 1901, but a decrease of 22.2 when contrasted h the average of the last five years. As mentioned the reports for the last four years, the ten years' o hitherto shown has been discontinued in consequence hanges in classification caused by the introduction into reports in 1897 of a new nomenclature of diseases. In present report a comparison with the average of the last years has been instituted, and a yearly increment will be pted in each future report until a period of ten years shall e been again attained. The ratio of cases per 1,000 of e shows a reduction on all stations except the home and East Indies. The invaliding ratio of the total force, ely, 29.96 per 1,000, shows a decrease of 1.62 as compared 1901, and a decrease of 1.21 in comparison with the age for the last five years. The highest invaliding rate on the Cape of Good Hope and West Coast of Africa ion.

s regards the death-rate the ratio per 1,000 was 5.92, ving an increase of 0.52 per 1,000 compared with 1901, a decrease of 0.29 when contrasted with the five years' ratio. The highest death-rate ap- s on the Pacific Station, namely, 67.42 per 1,000, to the loss of the *Condor*. There were no deaths on South-East Coast of America Station. Only two wounds ction are recorded, with one death. The prevalence of mortality from enteric fever shows a slight decrease; one of plague, the subject of which died, is reported from the Indies Station. Cholera shows five cases, with four hs, on the China Station. A decline in the ratio of cases imary syphilis is shown, but increases are shown as rds consititutional syphilis and gonorrhoea.

Ages.

e total force serving afloat, corrected for time, in the year was 99,600. Arranged according to age in decennial ds, the numbers were as under:

,270	or 59.5	per cent., were	between	15	and 25	years of age.
,700	,, 30.82	,,	,,	,,	25 ,, 35	,,
,180	,, 8.21	,,	,,	,,	35 ,, 45	,,
450	,, 1.45	,,	,,	45 years and upwards.		

Disease and Injury.

e total number of cases of disease and injury entered on ick list was 85,769, which is in the ratio of 861.13 per being an increase of 7.3 per 1,000 when compared with previous year, and a decrease of 22.2 per 1,000 as com- with the average ratio of the last five years. The ge number of men sick daily was 3,523.39, giving a ratio .37 per 1,000, and showing a decrease of 0.02 per 1,000 ared with 1901, and of 1.71 in comparison with the last years' average. The total days' sickness on board ship n hospital was 1,286,038, which represents an average f service from disease and injury of 12.91 days for each n, which is the same as the preceding year, and a de- of 0.6 in comparison with the average of the last five .

Invaliding.

total number of persons invalided was 2,985, is in the ratio of 29.96 per 1,000, and shows a decrease 12 per 1,000 when compared with 1901, and a decrease of 1 comparison with the average of the last five years.

he total number of persons invalided, 2,823 were inva- for disease and 162 for injury. The ratio of invaliding ease alone was 28.34 per 1,000, and for injury 1.62 per Of the total invalided, 2,066 persons were finally inva- from the service (200 of these refused surgical opera- giving a ratio of 20.74 per 1,000 for the whole force, or per cent. of the number invalided, thus showing a se of 1.1 per 1,000 when contrasted with 1901. The t increase—namely, 3.73 per 1,000—was on the South- oast of America Station, but a decrease amounting to per 1,000 appears in the invaliding rate of the Pacific n.

Deaths.

number of deaths was 590, which gives a ratio of 5.92 00, and exhibits an increase of 0.58 per 1,000 in com- n with the previous year, but a decrease of 0.29 per 1,000 on the last five years' average. The largest increase in the death-rate, amounting to 63.02 per 1,000, appears on the Pacific Station. Of the total number of deaths, 350 were from disease and 240 from injury. The death-rate due to disease alone was 3.51 per 1,000, and that due to injury was 2.4 per 1,000.

NAVAL ESTIMATES FOR THE YEAR 1904-5.

Lord Selborne, in his Explanatory Statement, intimates that now the Second Naval Lord is responsible for the *personnel*, including the medical branch among others; he expresses a hope that the relative rank of that branch has been satisfactorily settled; he refers also to the scheme recently introduced by which young surgeons may join the navy for four or five years, "at the end of which time they may either join the service permanently at the discretion of the Admiralty, or leave it with a substantial gratuity. There is no intention of substituting temporary surgeons for the permanent service ....."

With regard to the steps that have been taken to secure the services of civil practitioners in time of war, he states that a limited number of names have already been enrolled at home, and that a fair number of volunteers may be expected from medical men who are in the Australian Colonies. The scheme for a sick-berth attendant reserve has not proved very attractive; some 170 men have been enrolled so far. A reduction of £589 has been effected by the appointment of a new naval medical officer as "organizer" of this reserve.

There is an increase of the *personnel* of 4,000; in the past nine years there has been an increase of 45,197; the medical establishments in the same period are given as costing £293,000 for the year 1904-5, as compared with £140,767 in 1895-6.

The new block for officer patients at Haslar is expected to be completed in 1904-5, and also the new Chatham Naval Hospital; the medical staff provided for is 1 inspector-general, 1 deputy inspector-general, 1 fleet surgeon, and 5 surgeons. The new hospital at Portland should be completed this year, as also the additional accommodation at Queensferry.

Hospital buildings are progressing at Gibraltar, providing additional accommodation and improvements at a total estimated cost of £50,000, of which £3,000 is to be voted this year. At the Cape of Good Hope a general hospital and sanatorium is being built at a total estimated cost of £88,000, of which £62,000 will be required in future years. At Wei-hai-Wei hospital accommodation is being erected at a total estimate of £45,000, of which only £6,000 will have been expended at the end of this year.

Electric lighting is making slow advances in some home hospitals, but is not yet provided for Haslar.

THE ROYAL NAVAL MEDICAL SERVICE.

The medical department of the Royal Navy seems to be at the present moment somewhat more under strength than is quite natural or than its best friends would desire. From the monthly Navy List for March we gather that there are 5 Inspectors-General, 11 Deputy Inspectors-General, 141 Fleet Surgeons, 76 Staff Surgeons, and 288 Surgeons, including 30 under instructions. This makes a total of 521 officers, a number which is less than the authorized compliment by 23 officers. It is true that the date at which an examination for admission is usually held is approaching, and that the shortage will thus be abolished. The department, however, will only be temporarily up to strength, for in the course of the following months a large number of expected and unexpected retirements are certain to occur. It is inevitable under present circumstances that there should be a certain amount of shortage varying with the length of time that has elapsed since an examination for admission to the department inasmuch as officers under instruction are counted upon the strength, but under a better system this would not be the case. A complement of 544 officers is none too large for the actual work of the navy, and officers under instruction should be borne as supernumeraries and only taken on the active list as vacancies occur. In any case the shortage is unsatisfactory in itself, and the system under which it arises and under which it may be expected gravely to increase is one with which we propose to deal fully at a somewhat later date.

Inspector-General R. S. P. Griffiths has been placed on the retired list, March 7th. He entered the Royal Navy as Surgeon, November 12th, 1867; became Staff Surgeon, March 14th, 1879; Fleet Surgeon, August 10th, 1888; Deputy Inspector-General, September 1st, 1897; and Inspector-General, July 5th, 1901. He was Staff Surgeon of the *Orontes* during the Egyptian war of 1882, and has the medal and Khedive's bronze star for that campaign.

The following appointments have been made at the Admiralty: Arthur W. B. Livesay, Surgeon, to the *Leander*, for duty with destroyers, March 2nd; William H. Thomson, Surgeon, to the *Harrier*, additional, March 2nd, and, on recommissioning, undated: Herbert W. Ellis, Inspector-General, to Haslar Hospital, March 14th; Joseph H. Whelan, M.D., Fleet Surgeon, and John H. L. Page, Surgeon, to the *St. George*, on commissioning, March 15th.

THE ARMY ESTIMATES.

The Estimates for the Medical Department of the Army 1904-5 brought forward on March 7th amount to £484,000 as compared with £530,000 for 1903-4, a net decrease of £46,000. The total vote (£345,000) for the pay of the Army Medical Service remains unaltered. The vote for pay of civilian medical practitioners, militia medical officers, and the medical officers of military prisons shows a reduction of £9,500, but the payment to dentists and to the civilian members and clerical staff of the Advisory Board shows an increase from £2,500 to £6,000. The expenses of the Army Nursing Service show a reduction of £17,000 in spite of the fact that the number of nurses returned (342) is unaltered. There is a reduction of £8,500 in the vote for corps pay and extra duty pay of the Royal Army Medical Corps and pay of clerks and other subordinates; there is a reduction also of £5,000 in the costs of medicines, probably owing to the accumulated stocks; £5,000 voted last year for the China Expeditionary Force is

not required this year; and a further nominal saving of £5,000 is shown in connexion with the Somaliland Expeditionary force, for which no credit is taken.

ROYAL ARMY MEDICAL CORPS.

Majors R. J. Geddes, M.B., D.S.O., D. V. O'Connell, M.D., A. Dodd, G. Wilson, M.B., J. M. Reid, M.D., T. B. Winter, F. S. Heuston, C.M.G., G. F. Gubbin, M. O'D. Braddell, M.B., J. J. C. Donnet, and H. M. Sloggett, are promoted to be Lieutenant-Colonels, February 2nd. Their previous commissions, which are simultaneous, are dated: Surgeon, February 2nd, 1884; Surgeon-Major, February 2nd, 1896. Their war records are as follow: R. J. Geddes.—South African war in 1899-1900 (mentioned in dispatches, Queen's medal with four clasps, D.S.O.). A. Dodd.—Burmese expedition in 1885-6 (medal with clasp); campaign in the Soudan in 1898, including the battle of Khartoum (mentioned in dispatches, British medal, and Khedive's medal with clasp); South African war in 1899-1900, including relief of Ladysmith (mentioned in dispatches, Queen's medal with clasp). G. Wilson.—Ashanti expedition in 1895-6 (star); operations in Sierra Leone in 1898-9; had charge of the medical arrangements in the Karene and Protectorate expeditions (medal with clasp). J. M. Reid.—Campaign in the North-West Frontier of India in 1897-8 with the Tirah expeditionary force (medal with two clasps); China expedition in 1900 (mentioned in dispatches). T. B. Winter.—With Tirah expeditionary force in 1897-8 (medal with two clasps); South African war in 1899-1900, including relief of Ladysmith (mentioned in dispatches). F. S. Heuston.—Hazara expedition in 1888 in medical charge of the 2nd battalion Northumberland Fusiliers (medal with clasp); South African war in 1899-1900, including the relief of Ladysmith, actions at Colenso, Spion Kop, Vaal Kranz, and various subsequent operations (mentioned in dispatches, C.M.G.). G. F. Gubbin.—Nile expedition, 1885. M. O'D. Braddell.—Nile expedition in 1884-5 (medal with clasp and Khedive's star); Hazara expedition in 1888 in medical charge of the 2nd battalion Royal Sussex Regiment (medal with clasp); campaign in the Soudan in 1898, including the battle of the Atbara in charge of the British field hospitals (mentioned in dispatches) and battle of Khartoum in command of the bearer company of the 1st British brigade (mentioned in dispatches, British medal, and Khedive's medal with two clasps; South African war in 1901. J. J. C. Donnet.—Nile expedition in 1884-5 (medal with clasp and Khedive's bronze star). H. M. Sloggett.—Miranzai expedition in 1891 (medal with clasp).

Major J. Will, M.B., is seconded for service under the Foreign Office, February 20th.

Captain F. S. Walker, F.R.C.S.I., is placed on temporary half-pay on account of ill-health, February 19th. He joined the department as Lieutenant, April 25th, 1900, and was made Captain, April 25th, 1903. He was in the South African war in 1899-1900.

MEDICO-LEGAL AND MEDICO-ETHICAL.

A MATTER OF ETHICS.

Liverpool, March 7th, 1904.

To the Editor,
British Medical Journal.

Sir,

I have pleasure in submitting the accompanying correspondence for your kind insertion in the Journal.

I trust that the views expressed by the President of the Royal College of Surgeons of England will have the effect of eradicating from the minds of my *confrères* any ideas that might have existed that my action in the matter has been contrary to those ethics of the profession that I have always been most anxious to uphold, and will once and for all close an incident which has caused me no little personal anxiety,

Yours truly,
E. Luke Freer.

Royal College of Surgeons of England,
Lincoln's Inn Fields,
London, W.C.,
15th day of February, 1904.

Dear Sir,

I am desired by the President to inform you that a letter has been received at this College calling attention to an advertisement of Mr. B. Beasley's Institution for the treatment of stammering at Brampton Park, and suggesting the impropriety of the inclusion therein of what appears to be a private letter addressed by you to Mr. Beasley.

The President thinks that not improbably you are unaware of the use which has been made of your letter, and, while repudiating the suggestion of any impropriety on your part, desires to draw your attention to the matter, as he has no doubt that you will recognize that it is inexpedient that your name, with a list of your appointments and writings, should appear in the advertisement in question, and that the exclusion of these particulars will remove all occasion for offence.

I enclose a copy of the letter to which reference is made.

I am, Dear Sir,
Yours faithfully,
S. Forrest-Cowell,
Secretary.

E. Luke Freer, Esq.

School of Tropical Medicine,
Liverpool, February 23rd, 1904.

To the Secretary,
Royal College of Surgeons of England.

Dear Sir,

Your letter has been forwarded to me here, and, oddly enough, the enclosed arrived from Mr. Beasley by same post. I may say that I have been painfully aware of the matter ever since my return from service in South Africa, and have had considerable correspondence with Mr. Beasley and the Ethical Committees respecting it. I certainly gave Mr. Beasley, whom I have known for over twenty years, permission to use my letter and refer to me in connexion with his system, but directly my attention was called, after landing in England, to the (apparent) glaring self-advertisement of my appointments, medical contributions, etc., from the *Medical Directory*, I saw him and explained the situation. He, as a layman, could not be brought to appreciate the ethical point, and eventually the subject was brought before the General Medical Council, who, after the correspondence had been submitted, resolved that "no f action be taken." This, however, was very unsatisfactory for me; f correspondence ensued, and Mr. Beasley suggested that he would e his responsibility for the obnoxious features in the Journal. however, approached by the London and Counties Medical Asso and wrote to him again, the accompanying letter being the result unfortunately lost all my private property while serving for two ye the late war, and have consequently been unable to resume my c ing practice in Birmingham, I have been employed in the Army M Service since my return, so can disclaim any suggestion of attemp make professional capital out of this unfortunate incident. Still, caused me much anxiety, and, I fear, some undeserved opprobriu my confrères, which might, I think, have been averted had the G Medical Council either alluded to the correspondence more fully or upon me for my evidence. I am forwarding a copy of your letter Beasley, and trust that the matter will now be finally settled; but I be glad if either you could kindly oblige me by briefly stating Journal my bona-fides in the matter or advise me as to my maki position clear, which I am most anxious to do prior to my early ret South Africa.

I am, dear Sir,
Yours faithfully,
E. Luke Freer,
Surgeon-Lieutenant-Colonel, A.

Royal College of Surgeons of England,
Lincoln's Inn Fields,
London, W.C.
26th day of February, 19

Dear Sir,

I have submitted to the President your letter of the 24th in and the several documents sent therewith, in reference to a letter you in a circular relating to Mr. Beasley's Institution for the trea of stammering.

The President notes your explanation that, although the letter wa lished with your permission, you were not aware of Mr. Beasley's tion to include your name and address together with a list o appointments and writings, and he also is pleased to observe tha letter dated the 15th of February, 1904, Mr. Beasley announces that h given his advertising agents instructions "not to issue any more l bearing your letter upon them."

The President regards your explanation as satisfactory and reco that in consenting to the publication of your letter to Mr. Beasle acted solely with the object of assisting your friend, and witho interested motive.

In accordance with your request I return herewith the several ments sent with your letter.

I am, Dear Sir,
Yours faithfully,
S. Forrest Cowell
Secret

Surgeon-Lieutenant-Colonel E. Luke Freer.

BROKEN RIBS AND CANCER OF THE LIVER.

Claim under the Workmen's Compensation Act.

At the West Hartlepool County Court last week Judge O'Connor judgement in a case in which a widow, Mrs. Chisholm, claimed £300 pensation from Messrs. Wm. Gray and Co, Limited, shipbuilders, Hartlepool, on account of the death of her husband. Chisholm, wh worked as a shipwright in Gray's yard, met with an accident on Se ber 21st, 1901, whereby two of his right ribs—the seventh and eig were broken. He returned to the shipyard on November 26th, having received during the eight weeks he was off work the comp tion to which he was entitled. Chisholm remained in Gray's em ment until January 28th, 1902, when of his own accord he left to ta work in Sunderland. After following his employment there for months he became ill and died on August 15th, 1903, that is, n two years after the date of the injury. On September 25th, Messrs. Gray and Co. were informed of the death of Chisholm, and his wife claimed that the death of the husband was due to the acc received in September, 1901. Drs. Bruce Low and John Anders Sunderland, detailed the symptoms the patient had exhibited, and tioned that jaundice was a feature of the case. From the evidence dered by these gentlemen there is reason to believe that the man from primary cancer of the liver, followed by secondary developmen the peritoneum. In support of the claim it was maintained that th jury had in some way or other predisposed the liver to malignancy therefore the disease of which Chisholm died was indirectly a res the accident. From the evidence tendered there was nothing to us to the supposition that until the injury the man had not bee good health. Dr. T. Oliver, of Newcastle-upon-Tyne, who called for the defence, while supporting in the main the dence given by Drs. Bruce Low and Anderson, and admitting traumatism was occasionally followed by malignant disease in or nea site of the injury, stated that in the absence of a necropsy it was im sible to say what causes other than injury might have been in opera to have induced cancer of the liver. In giving a verdict Judge O'Co said that though he himself had a strong impression that there v close connexion between the injury and cancer, yet he did not think that connexion had been so proved as to justify him in awarding compe tion. He had no doubt, however, that the respondents would do s thing for the widow. Had the verdict been otherwise the conseque would have been far-reaching so far as the operations of the Work Compensation Act are concerned. The etiology of cancer of inte organs is too obscure for any dogmatic statement to be made upon relationship of injury to the ribs and cancer of the liver in the a case.

LECTURES ON MEDICAL JURISPRUDENCE.

Dr. F. J. Waldo, Coroner of the City of London, delivered on Febr 18th the sixth and last of a series of lectures on medical jurisprudenc the Old Hall, Lincoln's Inn, the chair being occupied by Sir Al Marten, K.C. The subject was the highly interesting one of crim poisoning cases. The first case discussed was the famous Rugeley poi ing case, in which Palmer, a surgeon, was convicted of the murder racing friend, Cook. The motive was clear in that case, as Palmer h in daily fear of being made a bankrupt, and of being indicted for for and embezzlement. It is likely he poisoned not only Cook, but his

rother, and three children and a friend, all of whom died suddenly is own house and under his personal medical care. The recent of Klosowski was cited as a leading antimony poisoning case. poisoning of his nephew by Lamson, a medical man, was de- ed, and the facts emphasized both of the extreme potency of tine and the absence of any definite chemical test. Fortu- y it was possible to detect the smallest quantity of the drug in the is after death by absolutely trustworthy tests of other kinds.

ARSENIC IN BEER.

rguments upon the further consideration as to damages in the in which Messrs. Bostock and Co., of Liverpool, sought to recover ges from Messrs. John Nicholson and Sons, Hunslet, Leeds, for ently and wrongfully supplying to the plaintiffs sulphuric acid not from brimstone, and not a pure chemical acid, and containing ic, were heard on February 16th and 17th, before Mr. Justice Bruce, King's Bench Division, and judgement was delivered on March 8th. ordship held that the plaintiffs were entitled to recover the whole paid by them for the impure sulphuric acid and the value of the spoilt by being mixed with the poisonous acid. As the charge of had failed the plaintiffs were to have two-thirds of their costs. mount of the damages was variously estimated at from £5,000 to .

SPONSIBILITY OF MASTER'S AGENT FOR ATTENDANCE ON SERVANTS.

writes that he was called in by the manager of a hotel to attend e of the servants. He was told that his account would be paid by proprietors of the hotel, but on sending in his bill all liability was diated. Has he any legal redress?

The manager of a hotel is placed by the proprietors in a position thority for its due conduct and management. Circumstances may under which medical assistance may be an imperative necessity he servants in the interests of the hotel itself. In such a case as, nstance, suspected small-pox, it is probable that a Court would tate to rule that authority to that end was not implied as inherent e due discharge of the manager's duty. On the other hand, it is obable that a Court would hold that it was within the general e of the authority of the manager to provide medical attendance for ervants of a hotel, and thereby bind the proprietors with liability rcumstances not affecting the interests of the hotel itself. This ion is founded on the principle that a master is not under legal ation to provide medical attendance for his servants. Unless, efore, our correspondent can show that the manager had authority the proprietors to call him in we cannot advise him to take legal edings.

UNIVERSITIES AND COLLEGES.

UNIVERSITY OF OXFORD.

HN BURDON SANDERSON, who ceased to be a member of the Board ulty of Medicine on his resignation of the Regius Professorship of ne, has now been co-opted, and has been re-elected Chairman for rent year.

UNIVERSITY OF CAMBRIDGE.

es.—At the Congregation on March 5th the following medical were conferred:—*M.D.*: S. H. A. Lambert, St. John's; W. M. ghby, Caius. *M.B.*: G. S. Haynes, King's; R. S. Drew, Pembroke; urray, Pembroke; P. Hardy, Trinity Hall. *B.C.*: G. S. Haynes,

rsity of Wisconsin.—Professor J. G. Adami, M.D., and Professor H. y, F.R.S., of Montreal, have been appointed delegates to the tion of the Jubilee of the Wisconsin University to be held at n in June, 1904.

iners.—In consequence of the large increase in the number of ates for the Final M.B. Examinations, it is proposed to increase cted Examiners in Medicine and in Surgery from three to four in se.

UNIVERSITY OF LONDON.

Physiological Laboratory.

rse of eight lectures on problems of animal metabolism will be y Mr. J. B. Leathes, M.B., B.Ch., F.R.C.S., during the summer Fridays, at 5 p.m.

The Library.

Lawrence Warrington Haward, B.A.Camb., has been appointed arily to catalogue and arrange the books of the University library e Goldsmiths Company's library of economic literature. The will be closed during rearrangement.

UNIVERSITY OF LIVERPOOL.

Diploma in Tropical Medicine.

an of the Faculty of Medicine requests us to state that the uni- grants a Diploma in Tropical Medicine (D.T.M.) to candidates who a qualification to practise medicine recognized by the university, o present certificates of attendance on the following courses of nd pass the prescribed examination:

hree months' course of study in tropical pathology and hygiene in ersity.

ourse of instruction in a hospital recognized by the university, in eds are specially reserved for tropical diseases.

xamination for the diploma is held at the end of the autumn, d summer terms, and the first examination will be held at the he summer term, 1904. Further information can be obtained on ion to the Dean of the Faculty of Medicine, the University, Liver-

well known, the university possesses a flourishing school of medicine, and it will be observed that the diploma will only be to pupils of that school.

Diploma in Veterinary Hygiene.

A diploma in veterinary hygiene has been instituted chiefly to provide training, and recognition for such training, to veterinary surgeons upon parallel lines to that required for the Diploma in Public Health, so that veterinarians may adequately co-operate with public health officers in the carrying out of hygienic reforms. The diploma is to be granted only to qualified veterinary practitioners after a thorough course of practical training under supervision in the newly established veterinary school of the University in the subjects of veterinary hygiene, comparative pathology and bacteriology, parasitology, veterinary toxicology and jurisprudence, and sanitary law, administration and reporting.

OBITUARY.

ALEXANDER DAVIDSON, M.A., M.D.EDIN. F.R.C.P.LOND.,

Emeritus Professor of Pathology, University of Liverpool.

DR. ALEXANDER DAVIDSON, whose death on March 3rd we record with deep regret, was born in Edinburgh in January, 1838. His father, the Rev. Peter Davidson, D.D., was an eminent United Presbyterian minister in that city, whose memory is perpetuated by the Davidson Memorial Church, which was built on the express stipulation that it was to bear his name. His mother was the daughter of the Rev. Alexander Young, of Logiealmond, in Perthshire, the district which is commonly believed to be the original of the Drumtochtie, familiar to the readers of Ian Maclaren. Alexander Davidson received his early education at the Edinburgh Academy, and afterwards went through the arts course at the University of his native city and took the degree of M.A. He then became a medical student at the University, and among his teachers were Goodsir, Syme, Laycock, Simpson, Christison, and Warburton Begbie. In 1863 he graduated M.B., and shortly afterwards he became resident medical officer in the fever wards of the Bradford Infirmary. During his term of office there he had the misfortune to contract typhoid fever, which was followed by phlebitis in the leg, a condition which recurred from time to time during the remainder of his life, and which was ultimately the cause of his death.

About the year 1865 he began general practice in the south end of Liverpool, and was appointed one of the medical officers to the South Dispensary and soon afterwards Assistant Medical Officer to the Infirmary for Children. He was elected Physician to the Northern Hospital in 1872, when he removed to Rodney Street and relinquished general practice. In 1876 he was elected Physician to the Royal Infirmary, where he remained till 1897, when he was appointed Consulting Physician.

Soon after he had settled in Liverpool Dr. Davidson was appointed Lecturer on "Natural History" in the Royal Infirmary School of Medicine. His class was small, as the course was only required by candidates for the degrees of the University of London, but it was characteristic of the man that although the fees practically disappeared on diagrams and preparations, the lectures were delivered with as much care as though the students had been numerous and the emoluments considerable. Thus began his long association with medical teaching in Liverpool, and he became one of an ardent band of workers, united together in close friendship by community of tastes and devotion to the medical school. After a few years a lectureship on pathology was created and his fellow-lecturers unanimously elected him to the office. At a time when a knowledge of German was less common than it is at present, he had the advantage of being able to read that language, and he made himself acquainted with the work the Germans had carried on in pathology and enriched his lectures by the knowledge which he had thus acquired. When he resigned this office after some years he was created Emeritus Professor of Pathology in University College, and quite lately in virtue of this office he was given a seat on the Medical Faculty of the University of Liverpool.

In the period of twenty-one years during which he was Physician to the Royal Infirmary, he exercised a profound influence on the policy and growth of that institution, and on the training of the minds of the students of medicine. The infirmary and all that relates to it was for a quarter of a century the subject of his deepest concern. During the years that the present building was being planned and constructed, a building which though it has been twelve years completed has probably not been surpassed anywhere in the United Kingdom, the whole of his spare time was given to it. His non-medical colleagues on the Building Committee rightly placed the greatest confidence in his knowledge of sanitary

matters, and not a little of the success of the institution may be traced to the adoption of his sound advice. By all the lay committees he was held in high esteem, and such was his influence with them that it rarely happened that when he had definitely made up his mind as to the rightness of a certain line of action any other course was adopted. His even temper, his sweet reasonableness, and his manifest sincerity have done much to bring about the harmony which has for many years existed between the medical and the lay members of the committee, and which, happily, becomes more complete as time goes on.

As a clinical teacher his strength lay not in eloquence but in thoroughness. He held cramming in utter aversion, and he aimed not so much at imparting dogmatic knowledge as in training his pupils to use their powers of observation and reasoning. Not a few who have obtained success and even distinction in the highest professional work in Liverpool have been clinical clerk or house-physician with him.

As a consultant his strong point was his judgement. He was never led away by the desire to make what is called a brilliant diagnosis; he weighed his opinion and delivered it as a judge might sum up a case to a jury; and then he stuck to it and never wavered so long as no fresh facts appeared. This it was that inspired such faith in him on the part of his fellow-practitioners. Moreover, he believed in treatment, and his kindly manner and the genuine interest he showed in his patients won their confidence and regard.

Among those who will sadly miss him will be the nurses of the training school. In all that concerned the nursing of the sick he took a keen interest, and when any of the nurses were ill he was unremitting in his attention to them.

In the earlier part of his career in Liverpool Dr. Davidson took an active part in the work of the British Medical Association, and was for some years secretary, and afterwards president, of the Lancashire and Cheshire Branch. His services to that Branch were considerable, and although with the rapid march of events they are little known to the present generation, they were largely concerned in raising the Branch to its present position of eminence. He made Branch meetings popular; he frequently convened them in the smaller country towns. The business on the programme was of moderate length, and was got through; there was always something of interest to be seen at the place, and there was a homely dinner at the country inn. In this way many members were added to the Branch, and many lasting friendships were formed. Dr. Davidson was a Vice-President of the Section of Medicine at the annual meeting of the Association in Belfast in 1884, and a Vice-President of the Section of Pathology and Bacteriology when the meeting took place in Glasgow in 1888.

Dr. Davidson was a man of good presence and of somewhat grave demeanour. In fact, his manner was at times almost severe, and those who did not know him well were apt to think him stiff and cold. But this was only the outer crust of the man, for beneath it beat one of the kindest of hearts, and many of his old friends and patients who stood around his graveside mourned for him as for one very near and dear. In a quiet unobtrusive way he acquired a wide influence in the city of his adoption, and it was always put forth on the side of what was just and what made for a high standard of professional and public life. His judgement in matters of ethics was greatly valued by his contemporaries and by younger men, and he was often consulted by his professional brethren when they were in doubt as to what course to pursue. His interest in the welfare of the Association and of the profession at large, almost till the close of his life, was strikingly illustrated a few months ago, when, in spite of failing health, he attended one of the first meetings of the Liverpool Central Division and spoke forcibly and convincingly in opposition to the suggested formation of an ethical committee of the Division, with the result that it was unanimously decided that no such committee should be formed. To the profession who knew him he will remain a model of integrity and honourable dealing; by those who knew him well he will be remembered in addition as a cultured gentleman and a staunch warm-hearted friend.

Dr. Davidson was not a voluminous writer but he made several contributions to the literature of his profession, all more or less marked with the stamp of his practical mind. He was largely concerned in life assurance work, and embodied his experience in some valuable post-graduate lectures. Since his lamented death enormous numbers of letters have been received from former students of his, speaking of th assistance they had derived from his teaching and from h encouragement and help in starting practice.

Dr. Davidson married a daughter of the late Mr. Lloy Rayner, a well-known Liverpool merchant, and he has left widow and one son who is preparing to enter the medic profession.

One of his old friends and colleagues writes of him thus The loss sustained by the death of Dr. Davidson will be fe by a wide circle of professional and private friends, while those who have known him long and intimately the bereav ment is severe and irreparable. His character was mark by strength, decision, unselfishness, and the most absolu truthfulness. There was an apparent sternness at times his speech and demeanour; but this was really a mas covering the greatest kindliness and warmth of heart. Mo men are willing to let their good deeds be seen and known; h on the contrary, was almost nervously anxious to conce them. How kind and helpful he was to those who soug his counsel many can testify. Moreover, his judgement w one to rely upon in no common degree. He was a man wh never would prophesy smooth things; he told the truth as h believed it without thought of fear or favour. No man, course, can do that in this world without exciting oppositio and even occasional unfriendliness, but if ever this existed was more than counterbalanced by the respect and affecti of those who saw through the stern outward shell to th kernel of truth, faith, and friendliness within. Professio ally he was a sound and learned physician, an excelle pathologist, and a successful teacher. His services to t Royal Infirmary and other hospitals in Liverpool are w known, and will be long remembered not only by his c leagues and the members of committees with whom worked, but by the poor, to whom he ministered with great a measure of kindliness and faithfulness.

W. M. C. writes: Will you allow me space for a short ad tional tribute to the memory of a true friend, an estimab man, and a great physician? I had the benefit and t honour of Dr. Davidson's friendship for over thirty yea and owe him more than I can tell personally and profe sionally. Besides knowing him as a consultant and as colleague in many affairs, I had the advantage of his me cal care of myself and those dear to me. Of his unwearyi kindness in long cases of illness we have ever the gra fullest remembrance.

All who consulted with Davidson had implicit confidence his judgement, and supreme faith in his loyalty and integri Was there a slight disagreement in diagnosis or treatme his opinion was so expressed as to strengthen rather th weaken the position of the attendant. Was the confli of opinion vital, he knew his duty and did it, kind but firmly. To the patient his opinion was given with no u certain sound, and the effect was definite and lasting. was a most careful notetaker, had a wonderful memory, a could refer at a moment to cases seen years before. The l time I saw him he reminded me of a ten-year-old case, a confirmed it by referring to a note-book lying by his bed. his pharmacy he was conservative; he was no admirer of n drugs of the American variety, and had a positive horror medicines to "knock down" temperature. He seldom p scribed outside the *Pharmacopoeia*, and always insist that his prescriptions should be dispensed by the b druggists.

Those of us who served with him on the Council of t Lancashire and Cheshire Branch remember a time of gr increase and prosperity, while the Secretary's work was done that the "power behind the throne" was felt, not se or heard. He was a loyal friend, grudging neither time n trouble. Often I have consulted him on some private bu ness, and days afterwards have received his further investi tions and opinion on the matter.

His death brought about from many lips the words " was my best friend," and that from many who felt they h little claim on him. His position was one of unique fluence, always for good, both in and outside the professi Even his retirement from the Royal Infirmary and from meetings of the Medical Institution (owing to his health) not seem to impair that influence, and his advice was sou upon all matters affecting them.

Alexander Davidson was a tower of strength. I can imagine such another, nor can I frame words to express sense of personal loss.

ISIDOR ROSENTHAL, M.D.,

Professor of Physiology, University of Erlangen.

ly death has been busy amongst the ranks of the physiosts. Yesterday, as it were, it was Rollett, to-day it is enthal who has passed away. Born near Bomberg in 1836, his death he had reached the ripe age of 68. After grating in 1859, he became assistant to Du Bois-Reymond in lin, where he did the best part of his early work. In 1862 ublished his famous monograph, *Die Athembewegung und Beziehung zum Nervus Vagus*, a work that forms a landmark he history of the relation of the vagus to the respiratory rements. In the same year his *Elektricitätslehre* was also lished. Called to Erlangen in 1872, he remained there king at his favourite subjects of investigation. His arches on animal heat and calorimetry are standard conutions. He was the author of many papers on electrosiology and other departments of physiology. At Erlangen lso gave instruction in hygiene, and only a few years ago ublished a work on this subject. A facile writer, a clear sitor, his writings were always readable, lucid, and logical. e also wrote much on the relation of public health to phygy, and on alcohol in its relation to health. A short time he published a well-known work on *General Physiology*, shortly before his death his last publication was issued mely, *Der physiologische Unterricht*—that is, instruction ysiology, and its importance in connexion with the edun of medical men. It contains several papers of great ral interest on the value of lectures of a proper kind, and se of physiology as a discipline and one well suited to icate" the logical powers of the student. One of the esses was given in May, 1903, when a new physiological torium was opened in Erlangen. Indeed, Erlangen was t the last of the German universities to establish a chair ysiology as distinct from that of anatomy. In 1872 Josef ach, whose name is associated with the introduction of ine as a microscopical stain, was professor of anatomy physiology. In that year the chair was divided, Gerlach ining as teacher of anatomy and histology, while nthal was called to occupy the newly-founded chair of iology.

fessor Rosenthal travelled much, was an accomplished ist; a genial, gentle, talented gentleman; a most patient uccessful investigator and a teacher, whose loss the whole ological world will deplore.

HN REUBEN BATHURST DOVE, M.B., B.S.Lond.,

Honorary Surgeon, West Herts Infirmary.

egret to have to record the death of Dr. John Reuben irst Dove, which took place at Northwood, Middlesex, nuary 27th, at the age of 67 years. Born at Thornbury, ucestershire, Dr. Dove began his medical career at the n Hospital in 1860, where he received the gold medal gery, and at the examinations for his degrees obtained lass honours in medicine, midwifery, and surgery and rs in forensic medicine. He also tied with Mr. Marcus for the University Gold Medal in Surgery. After filling cession most of the residential posts at the hospital, ling that of Medical Officer of the Cholera Wards during evere epidemic of 1866 he settled down in practt Pinner. During his thirty-four years' residence at place he held a number of public appoint, including that of Honorary Surgeon to the West Infirmary at Hemel Hempstead, and at the ime carried on a very extensive practice, at first with id of an assistant, and latterly with that of a r. In 1902, however, the incessant wear and tear busy life led to an attack of hemiplegia which hind it a certain amount of permanent paralysis. He re determined to retire, a decision which was the n of a public and remarkable expression of the esteem ch he was held by the inhabitants of Pinner and the ourhood. Upon giving up work he moved to Northand there eventually died from cardiac failure.

funeral took place at Pinner, and the concourse of old s and patients who attended the ceremony proved that rk had been by no means forgotten. Dr. Dove was held ss high esteem by his colleagues than by his patients, ere were many of them to whom he seemed to possess ose qualities which would have brought a man of somess retiring disposition to the front rank as a consultant. d especially those qualities of careful observation and ination, joined with good judgement, which are somare, and always mark out the man of ability. Personally he had a quiet, sympathetic manner which endeared him to his patients, and a dry sense of humour which had a great charm for those who knew him well. Added to these qualities he had a great love of truth and a high sense of duty—a man, in short, who was not only a Christian but a gentleman in the best sense of the word, and a fine example of the best type of general practitioner. He left a widow, two daughters, and a son, the latter being a member of the medical profession.

Dr. William Macleod, late Inspector-General of Hospitals and Fleets, who died in West Kensington, on February 17th, at the age of 84, had a distinguished career in the Royal Navy, from which he retired under the age clause some twenty-four years ago. He received his medical education at Edinburgh University, where in 1841 he obtained the degree of M.D. and in the same year became a diplomate of the Royal College of Surgeons of that city. In the following year he entered the Royal Navy as an Assistant-Surgeon, and some three years later was sent out to the China station, where he saw a considerable amount of war service. While in the *Agincourt*, the flagship of that station, he was landed in medical charge of a detachment of Royal Marines, and took part in the assault on the the forts on the River Borneo and in the capture of the city of Bruni, and subsequently was present in the boat expedition sent in pursuit of the Sultan of Borneo. During the Crimean war, having then received promotion, he was Surgeon of the *Driver* with the Baltic squadron, and two years later was with the *Madagascar* at Rio de Janeiro upon the occasion of a very severe outbreak of yellow fever. His journal during this year and his reports upon the outbreak brought him the reward of the Gilbert Blane medal. Seven years later, having reached the rank of Deputy-Inspector-General, he was appointed to the charge of the Royal Naval Hospital at Yarmouth, and remained there until his final retirement from the service fifteen years later. During this period he was specially promoted to the rank of Inspector-General in consideration of his having, for the benefit of the public service, been detained at Yarmouth when desirous of taking his turn of foreign service. Upon his final retirement the value of his services was further recognized by the award of the Companionship of the Bath, and eight years later he was given one of the two Greenwich Hospital special pensions of £100 a year available for officers of his rank. He took a good deal of interest in questions of insanity, and while still in the service wrote several papers on that subject, and notably two on general paralysis of the insane. He was a member of the Metropolitan Branch of the British Medical Association.

It is with regret that we have to announce the death of Alexander Blair, M.B., of Ashington, Morpeth. For several years past Mr. Blair had been in indifferent health. A surgical operation performed upon his jaw eight years ago left him to a large extent disqualified for the active duties of a medical practitioner. Notwithstanding the obstacles which the malady and the operation caused to his speech, Mr. Blair yet succeeded in building up a large practice, for he was a man of admitted ability and was much liked by his patients. He died on February 20th at Ashington, at the comparatively early age of 39. His body was removed to the family burial place, near Crinan, in Argyllshire.

We regret to record the death of Dr. Joseph G. Rooney, of New Jersey, who recently died at the age of 37 years a sacrifice to professional duty. He graduated at the University of New York in 1891. During a fire which occurred at Hoboken on January 18th, five firemen were injured and Dr. Rooney was summoned to their aid. The weather was bitterly cold, but the heroic doctor, who was obliged to work with bare hands and rolled-up sleeves, refused to leave his patients until he had done all that was possible for their relief. In consequence of the exposure his hands were frostbitten; gangrene supervened and ended in death.

By the death of Dr. David Kennard of Lambourn on February 17th the medical profession in South Berks has lost one of its best known and most popular members. Born in 1837, the son of an earlier David Kennard, who settled in Lambourn in 1820, Dr. Kennard was sent to his father's old medical school, Westminster, and in 1859 obtained the diploma of L.S.A., and in the year following that of M.R.C.S. He settled in Lambourn and remained in active practice there until his death, occupying the position of public vaccinator and of medical officer to the Lambourn District of the Hungerford Union. He was a man who lived every hour of the

day; and whatever he did, he did thoroughly and did well. As a medical man he was one of a type which is growing less common than it used to be, or than it might desirably continue to be, and was as well known and popular a personage wherever manly outdoor exercises were to the fore as at the bedside. To love of all kinds of sport he added an intense hatred of all sham and pretence, and such characteristics naturally gained for him much influence in local affairs, into which he threw himself with the same energy as into everything else that awakened his interest. He was Chairman of the Lambourn Gas Company, and a manager of the National Schools up to the day of his death. He also served the parish as churchwarden for thirty-four years, and his work in that capacity will be long and pleasantly remembered. He was, in short, one who combined the position and work of a medical practitioner with those of a country gentleman of the best type. His death was somewhat typical of his life, being due to an accident in the hunting field a few days before; for in spite of his somewhat advanced age—he was in his 67th year—he still followed the hounds whenever the duties of his position permitted temporary relaxation of work. His horse slipped back in a blind ditch and struck its rider, who had slipped off backwards, between the shoulder blades, causing the rupture of a large vessel in the vertebral canal, and thus almost complete paralysis. He was carried at once to the house of a friend hard by, and it was hoped at first that he might recover, but he sank a few days later. He leaves a wife, seven daughters, and a son, who, like his father and grandfather, is a medical man and an old Westminster student.

PUBLIC HEALTH
AND
POOR-LAW MEDICAL SERVICES.

HEALTH OF ENGLISH TOWNS.

In seventy-six of the largest English towns, including London, 8,203 births and 5,436 deaths were registered during the week ending Saturday last, March 5th. The annual rate of mortality in these towns, which had been 18.4, 18.5, and 17.5 per 1,000 in the three preceding weeks, rose again last week to 18.6 per 1,000. The rates in the several towns ranged from 8.7 in Handsworth (Staffs), 10.3 in Hornsey, 11.0 in Burton-on-Trent, 11.2 in Ipswich, 11.4 in Willesden, 11.7 in Walthamstow, 12.3 in Croydon, and 13.0 in Aston Manor, to 23.0 in Great Yarmouth, 23.8 in Sunderland, 24.1 in Rotherham, 24.5 in Walsall, 25.7 in Wigan, 25.9 in St. Helens, and 29.8 in Norwich. In London the death-rate was 17.9 per 1,000, while it averaged 18.9 per 1,000 in the seventy-five other large towns. The death-rate from the principal infectious diseases averaged 1.7 per 1,000 in the seventy-six towns; in London this death-rate was equal to 1.6 per 1,000, while among the seventy five large provincial towns the death-rates from the principal infectious diseases ranged upwards to 3.0 in Leeds, in Stockton-on-Tees, and in Rhondda, 3.1 in Burnley, 3.3 in Birmingham, 3.5 in Wallasey, 4.0 in Great Yarmouth, 4.3 in Swansea, 4.5 in Bury, and 8.6 in Norwich. Measles caused a death-rate of 1.2 in St. Helens and in Leeds, 1.6 in Birmingham, 1.8 in Bury and in Rotherham, 2.1 in Rhondda, and 8.6 in Norwich; scarlet fever of 1.5 in Warrington; diphtheria of 4.0 in Great Yarmouth; whooping-cough of 1.4 in Leyton, in Plymouth, and in Coventry, 2.1 in Portsmouth, 2.7 in Wolverhampton, 3.0 in Stockton-on-Tees, 3.3 in Swansea, and 3.5 in Wallasey; and diarrhoea of 1.4 in Merthyr Tydfil, 1.6 in Bournemouth, and 1.9 in Oldham. The mortality from enteric fever showed no marked excess in any of the large towns. One fatal case of small-pox was registered in Nottingham, and one in Gateshead, but not one in any other of the large towns. The Metropolitan Asylums Hospitals contained 41 small-pox patients at the end of last week, against 24, 29, and 31 at the end of the three preceding weeks; 13 new cases were admitted during the week, against 3, 9, and 5 in the three preceding weeks. The number of scarlet fever patients in these hospitals and in the London Fever Hospital, which had been 1,644, 1,620, and 1,587 on the three preceding Saturdays, had further declined to 1,578 on Saturday, March 5th; 153 new cases were admitted during the week, against 162, 143, and 150 in the three preceding weeks.

HEALTH OF SCOTCH TOWNS.

During the week ending Saturday last, March 5th, 921 births and 703 deaths were registered in eight of the principal Scotch towns. The annual rate of mortality in these towns, which had been 19.2, 22.2, and 21.8 per 1,000 in the three preceding weeks, further declined last week to 21.2 per 1,000, but was 2.6 per 1,000 above the mean rate during the same period in the seventy-six large English towns. Among these Scotch towns the death-rates ranged from 15.4 in Perth and 16.8 in Edinburgh, to 24.2 in Paisley and 24.6 in Dundee. The death-rate from the principal infectious diseases in these towns averaged 2.7 per 1,000, the highest rates being recorded in Dundee, Aberdeen, and Paisley. The 344 deaths registered in Glasgow included 111 which were referred to diarrhoea, 10 to measles, 6 to whooping-cough, 2 to diphtheria, and one to small-pox. Eleven fatal cases of whooping-cough and 3 of diarrhoea were recorded in Aberdeen; 7 of measles and 5 of whooping-cough in Dundee; 6 of whooping-cough and 3 of diarrhoea in Edinburgh; 4 of measles and 3 of whooping-cough in Paisley; 4 of whooping-cough in Leith: and 2 of small-pox in Greenock.

HEALTH OF IRISH TOWNS.

During the week ending Saturday, March 5th, 633 births and 432 deaths were registered in six of the principal Irish towns, against 611 births and 469 deaths in the preceding period. The mean annual death-rate of the towns, which had been 26.0, 25.3, and 24.7 per 1,000 in the three preceding weeks, fell to 22.3 per 1,000 in the week under notice, this figure being per 1,000 above the mean annual rate in the seventy-six English towns during the corresponding period. The figures ranged from 13.6 in Waterford and 17.8 in Limerick to 27.4 in Cork and 27.7 in Dublin. The death-rates from the principal zymotic diseases during the same period and the same six towns averaged 1.6 per 1,000, or 0.3 per 1,000 higher than during the preceding week, the highest figure, 6.8, being reached in Limerick, while Waterford, Londonderry, and Cork registered no deaths under this heading at all. With the exception of 1 death from measles in Belfast, there were no deaths in any part of Ireland from measles, small-pox, scarlet fever, typhus, or diphtheria, and only 2 from enteric fever in Dublin and 1 at Belfast. As for several weeks past, whooping-cough was responsible for the greater part of the zymotic death-rate.

MEDICAL NEWS.

It is stated that the Western Counties Dairy Farmers' Association has resolved to establish milk dépôts at various railway stations in Wiltshire, and that already farms, representing some 10,000 cows, have joined the scheme.

In view of the fact that King's College Hospital is to be removed to a site in proximity to the large estates in the South of London belonging to the Ecclesiastical Commissioners, and of the benefits which will result to the poorer residents on their property, the Commissioners have resolved to contribute a sum of £2,500 towards the King's College Hospital Removal Fund.

Among the members of the London County Council re-elected on March 5th are Dr. Beaton (North St. Pancras), Sir William J. Collins (West St. Pancras), and Dr. G. J. Cooper (Bermondsey). Dr. G. Cohen has been elected a member for the Harringay division on the Middlesex County Council. Mr. Horace Rose, Surgeon to the Royal Bucks Hospital, has been elected for the Eastern Division of Aylesbury on the Bucks County Council.

MEDICAL VACANCIES.

This list of vacancies is compiled from our advertisement columns, where full particulars will be found. To ensure notice in this column advertisements must be received not later than the first post on Wednesday morning.

AYR DISTRICT ASYLUM.—Assistant Medical Officer, resident. Salary, £120 per annum.

BELFAST: QUEEN'S COLLEGE.—Riddel Demonstrator of Pathology and Bacteriology. Salary, £150 per annum.

BIRKENHEAD BOROUGH HOSPITAL.—Senior and Junior House-Surgeons, resident. Salary, £100 and £80 per annum respectively.

BIRMINGHAM: GENERAL HOSPITAL.—(1) Resident Surgical Officer. Salary, £10 per annum. (2) House-Surgeon, resident. Salary at the rate of £50 per annum.

BIRMINGHAM AND MIDLAND EAR AND THROAT HOSPITAL.—House-Surgeon. Salary at the rate of £70 per annum.

BIRMINGHAM AND MIDLAND EYE HOSPITAL.—House-Surgeon, resident, Salary £75 per annum.

BRENTFORD UNION.—Medical Superintendent of Infirmary and Medical Officer of Workhouse and Schools, resident. Salary, £300 per annum and fees.

BRIGHTON: SUSSEX COUNTY HOSPITAL.—House-Physician, resident. Salary £80 per annum.

BRISTOL ROYAL HOSPITAL FOR SICK CHILDREN AND WOMEN.—House-Surgeon. Salary, £120 per annum.

CANTERBURY: KENT AND CANTERBURY HOSPITAL.—House-Surgeon, resident. Salary, £90 per annum.

HOSPITAL FOR EPILEPSY AND PARALYSIS, Maida Vale. W.—Resident Medical Officer. Salary at the rate of £50 per annum.

HULL ROYAL INFIRMARY.—Casualty House-Surgeon, resident. Salary, £50 per annum.

LEICESTER INFIRMARY.—Two Surgical Dressers, resident. Honorarium, £10 10s each for six months.

LONDON FEVER HOSPITAL, Islington, N.—Assistant to the Resident Medical Officer. Salary. £120 per annum.

LONDON LOCK HOSPITAL.—House-Surgeon to the Male Hospital, Soho, resident. Salary, £80 per annum.

METROPOLITAN HOSPITAL, Kingsland Road, N.E.—(1) House-Physician. (2) House-Surgeon. (3) Assistant House-Physician. (4) Assistant House-Surgeon. Salary for (1) and (2) at the rate of £40 per annum, and for (3) and (4) at the rate of £20 per annum.

ROYAL FREE HOSPITAL, Gray's Inn Road, W.C.—Assistant Anaesthetist. Appointment for six months.

ROYAL HOSPITAL FOR DISEASES OF THE CHEST, City Road.—House-Physician, resident. Salary at the rate of £60 per annum.

ST. PETER'S HOSPITAL FOR STONE, Henrietta Street, W.C.—Assistant Anaesthetist. Honorarium, £25.

VICTORIA HOSPITAL FOR CHILDREN, Tite Street, S.W.—House-Physician, resident. Honorarium, £25 for six months.

WEST RIDING COUNTY COUNCIL.—Assistant Medical Officer for the Scalebor Park Asylum, resident. Salary, £150 per annum.

WOLVERHAMPTON AND STAFFORDSHIRE GENERAL HOSPITAL.—Assistant House-Surgeon, resident. Salary at the rate of £75 per annum.

MEDICAL APPOINTMENTS.

ADAM, John, M.B., C.M.Glasg., Visiting Physician to the Cluny Hill Hydropathic Forres, *vice* G. C. Milligan, M.B., C.M., deceased.

ANDREW, W., M.B., C.M.Edin., District Medical Officer of the Launceston Union.

AUSTIN, E. C., F.R.C.S.Edin., Certifying Factory Surgeon for the Broughton Astley District, Leicestershire.

BARNES, Frank, M.B., B.S., F.R.C.S., Surgical Casualty Officer to the General Hospital, Birmingham.

BICE, F. V., M.R.C.S., L.R.C.P.Lond., District Medical Officer of the St. Austell Union.

BOWE, A., L.R.C.P.Edin., M.R.C.S.Eng., District Medical Officer of the St. Neot Union.

BOWER, E. Dykes, F.R.C.S.Edin., Medical Referee under the Workmen's Compensation Acts for the Newnham District of County Court Circuit No. 53.

CUMMINGS, H. L., L.R.C.P., M.R.C.S., Health Officer of Scottsdale, Tasmania.

ELLIOT, E. E., M.R.C.S., L.R.C.P.Lond., Medical Officer of the Dover Union Workhouse

, Francis W. E., M.D., M.R.C.S.Eng., Visiting Medical Officer to the Diamantina Hospital for Chronic Diseases, South Brisbane.
TIGAN, T. J. P., F.R.C.S.Eng., Assistant Surgeon to the Hospital for Diseases of the kin, Blackfriars.
LAY, J. E., M.R.C.S., L.R.C.P., Clinical Assistant to the Chelsea Hosptal for Women.
KAY, Wm., M.B., Ch.B.Edin., Medical Officer to the Infectious Diseases Hospital at b's Hill, near Crook.
E, G. R. R., M.R.C.S.Eng., L.S.A., District Medical Officer of the St. Thomas nion.
NY, John, D.Sc. (Public Health), M.B., F.R.S.E., Medical Officer to the Workhouse, nd Medical Officer and Public Vaccinator for No. 2 District of the Cockermouth nion, *vice* James Graham, M.B., resigned.
DEN, J. C., M.D., B.Ch.Dub., Certifying Factory Surgeon for the Alfreton District, erbysnire, and Medical Officer for the Codner Park District of the Basford Union.
GLE, G. A., M.D., B.Ch.Dub., Certifying Factory Surgeon for the Aughnacloy istrict, Tyrone.
HAN, P., L.R.C.P.&S.Edin., L.F.P.S.Glasg., District Medical Officer of the Carlisle nion.
KER, E. G., L.R.C.P.Lond., M.R.C.S., Certifying Factory Surgeon for the Clevedon istrict, Somerset.
DBRIDGE, E. W., M.B.Lond., M.R.C.S., District Medical Officer of the Barnstaple nion.
T, W. L., M.R.C.S., L.R.C.P.Lond., District Medical Officer of the Skirlaugh Union.

DIARY FOR NEXT WEEK.

MONDAY.

ical Society of London, 11, Chandos Street, Cavendish Square, W., 8.30 m.—Discussion on Acute Intestinal Obstruction: (1) Its Early Diagnosis, Dr. Hale hite; (2) The Details of its Surgical Treatment, Mr. A. E. Barker.
al College of Surgeons of England, 5 p.m.—Mr. P. J. Cammidge: the Physiology and Chemistry of the Pancreas (Arris and Gale Lecture I).

TUESDAY.

sea Clinical Society, Chelsea Dispensary, Manor Street, King's Road, W., 8.30 p.m.—Annual Clinical Debate—Subject, "Internal Secretion" in sease and in Treatment. Professor Macfadyen, Professor Hewlett, Dr. Hale hite, and Dr. Rose Bradford will take part in the discussion.
ological Society of London, Royal Army Medical College, Examination all, Victoria Embankment, 8.30 p.m.—Laboratory meeting.
al College of Physicians of London, 5 p.m.—Dr. R. Hutchison: On Some sorders of the Blood and Blood-forming Organs in Early Life (Goulstonian cture III).

WEDNESDAY.

al College of Surgeons of England, 5 p.m.—Mr. J. H. Parsons: On e Neurology of Vision (Arris and Gale Lecture II).

THURSDAY.

ological Society of the United Kingdom, 11, Chandos Street, Cavendish Square, W., 8.30 p.m.—Dr. Alfred W. Campbell: On Histological Studies in rebral Localization.
al College of Physicians of London, 5 p.m.—Dr. F. Taylor: On Some sorders of the Spleen (Lumleian Lecture I.)

FRIDAY.

al College of Surgeons of England, 5 p.m.—Mr. J. H. Parsons: On e Neurology of Vision (Arris and Gale Lecture III).
ty for the Study of Disease in Children, 11, Chandos Street, W., p.m.—Agenda: Clinical Cases. Papers: Mr. Sydney Stephenson, Congenital rd-Blindness in Children; Dr. Porter Parkinson and Mr. Douglas Drew, Notes on ase of Nephro-lithotomy.

POST-GRADUATE COURSES AND LECTURES.

al for Consumption and Diseases of the Chest, Brompton, Wednesday, 4 p.m.—ture on Pneumothorax.
al for Sick Children, Great Ormond Street, W.C., Thursday, 4 p.m.—Lecture on monary Tuberculosis in Children with Pathological Demonstration.
Temperance Hospital, Hampstead Road, N.W., Wednesday, 4 p.m.—Lecture on eases of the Stomach.
l Graduates' College and Polyclinic, 92, Chenies Street, W.C.—Demonstrations be given at 4 p.m. as follows; Monday, Skin; Tuesday, Medical; Wednesday, gical; Thursday, Surgical; Friday, Eye. Lectures will be delivered at 5.15 p.m. ollows: Monday, The Diagnosis of Ovarian Tumours; Tuesday, Some Gastro-stinal Diseases of Infancy and Childhood; Wednesday, Deformities after cture; Thursday, Abdominal Surgery.
Vernon Hospital for Consumption and Diseases of the Chest, 7, Fitzroy Square, Thursday, 5 p.m.—Demonstrations on Laryngeal Tuberculous Cases.
l Hospital for the Paralysed and Epileptic, Queen Square, W.C.—Lectures will delivered at 3.30 p.m. as follows: Tuesday, Bulbar Palsy; Friday, Hydro-alus.
East London Post-Graduate College, Tottenham, N., Thursday, 4.30 p.m.—Lecture Complications of Phthisis and their Treatment.
aduate College, West London Hospital, Hammersmith Road, W.—Lectures will elivered at 5 p.m. as follows: Monday, Cataract; Tuesday, Certain Symptoms isease of the Ear; Wednesday, Common Disorders of Menstruation: Thursday, inistration of Anaesthetics: Friday, The Legal Aspect of Insanity and Signing ificates (At the London County Council Lunatic Asylum, Claybury, Woodford ge, Essex.)
an Free Hospital for Women, Marylebone Road, N.W.—Thursday, 3 p.m.—ure on Dysmenorrhoea.

BIRTHS, MARRIAGES, AND DEATHS.

arge for inserting announcements of Births, Marriages, and Deaths is l., which sum should be forwarded in post-office orders or stamps with otice not later than Wednesday morning, in order to ensure insertion in urrent issue.

BIRTHS.

OUSE.—On the 24th inst., at The Terrace, St. Ives, Cornwall, the wife of Charles F. house, M.R.C.S., L.R.C.P., of a son.
s.—On March 8th, at 11, North Parade, Bath, the wife of George E. Bowker, , C.M.Edin., of a daughter.
S.—On March 6th, at 195, High Street, Oxford Street, Manchester, the wife of ur H. Burgess, F.R.C.S., of a son.
At 45, Osborne Road, Newcastle-on-Tyne, on March 1st, the wife of Alfred Duke, , M.B., F.R.C.S.Edin., of a daughter.
TY.—On the 5th March, at 116, High Street, Hythe, Kent, the wife of Clifford ney, M.R.C.S., of a son.
D.—On the 4th inst., at 26, St. John Street, Lichfield, the wife of Frank mer Rowland, B.A., M.D.Cantab., of a son.

DEATHS.

.—On the 28th February, at No. 32, West Allington, Bridport, Sidney James n, M.D., B.S., Mayor of Bridport, late Resident Medical Officer of Brompton ital, aged 38.
—On the 1st inst., at his residence, Courtenay House, Milverton, Leamington, in venty-second year, Edward Lister, L.R.C.P.Edin., grandson of the late Edward r, Coverham Abbey, Yorkshire.

LETTERS, NOTES, AND ANSWERS TO CORRESPONDENTS.

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CORRESPONDENTS who wish notice to be taken of their communications should authenticate them with their names—of course not necessarily for publication.

CORRESPONDENTS not answered are requested to look at the Notices to Correspondents of the following week.

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EDITOR, 2631, Gerrard. GENERAL SECRETARY AND MANAGER, 2630, Gerrard.

☞ *Queries, answers, and communications relating to subjects to which special departments of the* BRITISH MEDICAL JOURNAL *are devoted will be found under their respective headings.*

QUERIES.

E. S. R. wishes to hear of an inebriate home or institution which would take a young woman in exchange for her services. She is an excellent waitress and serving maid and was fourteen years in one situation and her failing is of only eighteen months' duration.

APHASIA AND PARALYSIS ASSOCIATED WITH MEASLES.

Dr. G. NEWTON PITT (Portland Place, W.), writes: I should be very much obliged if any members could furnish me with particulars of cases of speech or brain defect, deafness, or paralysis of either limbs or ocular muscles which developed in the course of an attack of measles.

ROENTGEN-RAY INSTALLATION.

J. H. L. A. writes: I am interested in a new installation of *x*-ray work. The current will be taken from the main at 230 volts. I should feel obliged if some of your readers would advise as to the best kind of make and break to use with a 12 in. coil, and give the benefit of their experience of any they have had in use.

DIPHTHERIA DIAGNOSIS.

W. B. C. asks us to interpret for him the following report issued from the bacteriological department of a well-known provincial university. "The secretion from the throat in this case shows diphtheria bacilli of the Loeffler and Hoffman variety." We must confess that the expression "Loeffler and Hoffman variety" is as ambiguous to us as it is to our correspondent. The term "Hoffmann variety" would have been obvious enough, but though Loeffler was fully aware of the existence of pseudo-diphtherial organisms, his name is generally associated with the true diphtheria bacillus. Physicians rightly expect that the bacteriologist shall restrict himself in his clinical reports to the terms "true" and "false" diphtheria bacilli, and reserve his conundrums for the amusement of those who have no serious interest in the clinical treatment of the case upon which his assistance in diagnosis has been invited.

ANSWERS.

THE USE OF THE ELECTRO MAGNET.

DR. H. B. W. PLUMMER (West Bromwich) writes: In reply to Dr. T. F. Hopgood's query in the BRITISH MEDICAL JOURNAL of February 27th, I can inform him that the West Bromwich District Hospital had a Haab's electro-magnet presented by Mr. S. Woodhall. The cost of obtaining and fixing it came to £33 16s., and it is used simply with a wall plug from the ordinary electric lighting current.

POST-GONORRHOEAL DISCHARGES.

I.M.S.—(1) No suggestion for treatment can well be made until it has been ascertained whether there is any ulcerated spot or allied condition to account for the discharge, and if so whether it lies in the posterior or penile urethra; (2) practical experience points to the conclusion that the very late post-gonorrhoeal discharges are not infective; this may be assumed to be the case with all the greater confidence if neither in the drop of mucus nor in the deposit from the urine after centrifugalization gonococci or pus cells can be discovered.

INSTITUTION FOR FEEBLE-MINDED BOY.

D R.—It is a pity that the case described has not had the benefit of special instruction at a school for defective children, which it is the moral—if not legal—duty of the education authority to provide under the Elementary Education (Defective, etc, Children) Act of 1899. As the boy is 14 it would probably be best to apply for his admission to the Royal Albert Asylum at Lancaster, which is now described as a "Training School for the Feeble-minded of the Northern Counties." Particulars as to payment, which varies according to means of parents, can be obtained from the Secretary, Mr. J. Diggens.

YOLKLESS EGGS.

D. B.—The abnormality of eggs without yolk is well known, such eggs sometimes being termed pseudo-eggs. As a rule they are of notably smaller size than the normal. In one case in which a hen regularly laid such, examination after the bird was killed showed the presence of an abnormally small oviduct; the abdomen was full of the yellow fluid contents of the yolks which had passed into it in place of into the duct. It is not easy to explain why the albumen and shell are formed independently of the local stimulus of the yolk. The conceivable alternatives rest between a physiological function set up in the oviduct on the formation of the ova in the ovary, (1) through a nervous reflex; or (2) a chemical reflex arising from the formation of a secretin, as the pan-

creatic secretion is brought out by the access of the intestinal secretin to the gland through the medium of the general circulation.

Income Tax.

F. C. H. H., who entered into a partnership on September 1st, 1902, was liable to pay income tax upon so much of the average annual profits of the practice during the three years 1899, 1900, and 1901, as is represented by the fractional proportion which his share bears to the total. Thus, if such average profits amounted to £500 and he is entitled to one-half of the income of the partnership, his share of the tax for the year 1902-3 would be 1s. 3d. in the £ on £250 for twelve months, or seven-twelfths of this for the period from September, 1902, to April, 1903. Similarly, for 1903-4 he would pay on one-half of the average profits of the partnership for the years 1900, 1901, and 1902. (See the British Medical Journal for October 24th, 1903, answer to "Onaero," and for February 20th, 1904, answer to "M.D.Cantab." The circumstances in which the average may be ignored are set out in the former answer.) The sections of the Acts quoted by the surveyor refer to the right of a taxpayer to appeal at the end of the year to have his assessment adjusted on the basis of the profits of the two preceding years and the current year instead of the three preceding years. Thus, for 1903-4 the profits of 1901, 1902, and 1903 would be taken instead of those for 1900, 1901, and 1902. Our correspondent should prepare accounts for the three years ending 1903, and then apply to the surveyor for an adjustment of his liability in accordance with the sections referred to. If his total income as so determined does not amount to £700 he can claim an abatement, either before payment of the tax or afterwards by way of repayment at any time within three years after the end of the year to which the tax relates. Forms of application for the abatement can be obtained from the surveyor.

NOTES, LETTERS, Etc.

Alcohol and the Medical Profession.

Dr. Arthur King, writing from South Africa, objects to a letter from Mr. Norman Barnett which was published in the British Medical Journal of January 2nd, in that it implies that properly there cannot be two opinions respecting even the moderate use of alcohol. He pleads for a reasonable attitude toward the question on the part of the profession, and urges that anything approaching fanaticism is likely to defeat its own object and bring the profession into ridicule. While favouring moderation among all men, and absolute abstinence on the part of those to whom moderation proves difficult, he considers that the terms in which alcohol is condemned are much too sweeping. The single quality not positively bad which Mr. Barnett has indirectly admitted alcohol to possess—namely, that of exalting imagination, is in itself no small virtue. It is to imagination that much of the progress and pleasure of life is due, and he asks whether an idea born of a brain unfettered for the moment from the bonds of pure reason may not eventually prove capable of conversion into solid and desirable fact.

Steel Matting.

A sample of "roll-up steel matting" has been sent to us by the concessionaire of American Industries in Europe. The retail price is 2s. a square foot, and it is claimed that the material is cheap, non-corrodible, resilient, and durable. Probably these claims are justified, and as it is easily handled it might prove useful in places such as laundries and kitchens in which it may be desired to keep the feet of workers off the floor. We do not, however, think that it would be a hygienic or desirable material to use for the purposes of ordinary doormats.

Nurses for Passenger Boats.

Brigade-Surgeon-Lieutenant-Colonel A. B. R. Myers (Ret.) writes, with reference to a letter published in the British Medical Journal of January 26th, to express the opinion that it is difficult to believe that no proper accommodation was provided. He expresses doubt whether the captain can have stated that the Board of Trade could not compel the provision of sleeping accommodation for servants. He also says that, reading between the lines, it strikes him that the nurses in question, though signing on as stewardesses, objected to do any work other than nursing, and thereby made things uncomfortable for themselves. Having had some experience of sea voyages, he does not believe that there is any need for trained nurses on board ship. The doctors are always ready to help the stewards and stewardesses in nursing if need be. It might be a good thing if stewardesses received some training in nursing, though their avocation gives them a good deal of practical experience in doing what is required; and an officer friend of his, with fifteen years' experience, has never had a case which required special nursing.

The Term "Office," "Consulting Room."

Dr. Robert R. Rentoul (Liverpool) writes: Some time ago I called attention to the terms "medical attendant" and "medical adviser," and with the result that the better educated of the profession now use the latter term exclusively. I wish now to suggest that practitioners cease to use the words "consulting room," and use the word "office." In America and Canada one is asked, "Do you do much office work?" This is the right term. Similarly they use the words "office hours" instead of our ungrammatical expression, "hours of consultation." A consultation can only take place between two or more of the same profession. Sometimes we hear people say that they are going to "consult" Dr. Blank. They should say that they are going to get "the opinion of" Dr. Blank, for how could a practitioner consult with one who is not a practitioner? It would in law be "infamous conduct in a professional respect." Let us therefore agree to use the word "office" and "office hours."

Erratum.—In the note on the Rational Treatment of Diabetes in the British Medical Journal of March 5th, p. 588, col. 1, line 18, for 0.01 gram read *0.1.* gram.

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A Messrs. Arnold and Sons, London; Messrs. Burroughs, Wellcome and Co., London; Mr. W. J. Andrews, London; Mr. F. Addiscott, London; Aseptic Sceptic; Atherton More. B Miss Bolton, London; Mr. L. A. Bidwell, London; Dr. J. W. Byers, Belfast; Mr. W. F. Brook, Swansea; Dr. F. E. Batten, London; Mr. F. H. Beckham, London; J. W. Browne, M.B., London; "Builders' Journal," Editor of the, London; N. G. Bennett, M.B., London; Mr. A. W. Bodger, London; Dr. A. T. Brand, Driffield. C Dr. H. A. Caley, London; Cumbrian; Mr. E. Cr cket , H pton Wick; "Chemist and Druggist," Editor of the, London; Colonial: Mr. S. F. Cowell, London; Cottage; Dr. P. Cremen, Cork; Dr. W. M. Campbell, Liverpool; Dr. A. Croll, Birmingham; P. Cammidge, M.B., Wakefield; Dr. W. Cullen, Glasgow; A. F. G. Codd, M.B., Bromle Kent; Mr. T. W. Clay, Holyhead; Clarendon. D D. B.; Dr. E. W. Diver, Shotl Bridge; Lady Duffey, Virginia Water; Dr. L. Drage, Hatfield. E Enquirer; E. S. E Dr. J. M. Elder, Montreal; Mr. H. Elliot-Blake, Bognor. F Mr. T. Farrow, Croydo E. R. Fothergill, M.B., London; Mr. E. L. Freer, Liverpool. G Dr. E. W. Good London; J. E. Godson, M.B., Droylsden; Mr. T. W. H. Garstang, Altrincham; Dr. S. Gubb, Mustapha; Mr. W. H. George, London. H Dr. J. Haddon, Hawick; Howell, M.B., Cheltenham; Mr. G. W. C. Hodges, Bridgnorth; Mr. F. C H. Hon Egham; Mr. T. W. Heywood, Darwen; Mr. A. Hannan, London; H. T. Herring, M.I London. I Inquirer. J Mr. M. H. Judge, London; J. R. L. K Mr. A. K nr, Fras burg, C.C.; H. R. Kenwood, M.B., London. L Dr. D. Lawson, Banchory; Mr. J. Lane, London. M Mr. W. J. Morton, London; Mr. B. Moore, Liverpool; Dr. C. Muth Wells; Dr. J. Mackenzie, Burnley; Dr. J. C. McVail, Glasg w; A. A. Macken M.B., Southampton; Rev. C. L. Marson, Hambridge; Dr. T. K. Monro, Glasgow; Macdonald, M.B., Oban; Mr. J. J. de Z. Marshall, London. N Dr. J. Niven, Manchest Dr. H. O. Nicholson, Edinburgh. O T. H. Openshaw, C.M.G., M.B., London; Mr. E. O'Duffy, Dublin. P Messrs. Paechtner and Co., London; Puzzled; Mr. H. Phillips, London; Captain A. E. H. Pinch, London. R Dr. A. Roberts, Ilkley; H. D. Rolleston, London; Rural Medical Officer; J. D. Russell, M.B., London; R. Dr. R. R. Rentoul, Liverpool; Messrs. Reinheimer and Co., Surbiton. S Dr. G. Sutherland, London; Dr. J. H. Swanton, London. T Dr. H. Tilley, London; T. W. T. C. D.; Mr. S. Thistlethwaite, Ashton-on-Mersey; Dr. L. C. T. Thorne, London; J. S. Turner, London. W Dr. F. S. Walters, Farnham; Mr. C. F. Wightman, Royst Dr. M. Watson, Klang, Malay Peninsula; W. S.; Dr. H. C. Wood, jun., Philadelph Dr. W. Wingrave, London; Mr. W. B. Winckworth, Taunton.

BOOKS, Etc., RECEIVED.

A Crusade against Rats. A proposal by Dr. E. X. Dias of a rough scheme for the destruction of rats in Poona. Poona: Israelite Press.

L'Entéro-Côlite Muco-membraneuse. Par le Dr. Froussard. Paris: A. Maloine. 1904. Fr.2.

Le Sens des Attitudes. Par Pierre Bonnier. Paris: C. Naud. 1904. Fr.3.50.

L'Arthritis, Prophylaxie et Traitement. Par le Dr. Théophile Guyot. Paris: G. Steinheil. 1904. Fr.3.50.

Practical Gynecology. By E. E. Montgomery, M.D., LL.D. Second Revised Edition. London: Rebman Ltd. 1904. 25s.

Textbook of Histology. By Dr. Philipp Stöhr. Translated from Tenth German Edition by Dr. Emma L. Bilstein. Edited by Dr. Alfred Schaper. London: Rebman Ltd. 1904. 14s.

Infant-feeding in its Relation to Health and Disease. By Louis Fischer, M.D. Third Edition. Philadelphia: F. A. Davis Co. 1903. Dol.1.50.

Die Behandlung der Lungenschwindsucht durch Bekämpfung der Mischinfektion. Von Dr. A. Menzer. Berlin: Georg Reimer. 1904. M.3.

Beiträge zur Klinik der Tuberculose. Herausgegeben von Dr. Ludolph Brauer. Band II. Heft 2. Würzburg: A. Stuber. 1904. M.4.

Beiträge zur Augenheilkunde. Herausgegeben von Prof. Dr. R. Deutschmann. 59 Heft. Hamburg und Leipzig: Leopold Voss. 1904. M.3.

Food for the Tropics. By T. M. Macknight. London: W. Thacker and Co. 1904. 3s. 6d.

Wee Tim'rous Beasties." By Douglas English. London: S. H. Bousfield and Co., Limited. 5s.

Materia Medica and Therapeutics. Answers to Professional Examination Questions set at Edinburgh University. Edinburgh: William Bryce. 1904. 1s.

Memoria de los Trabajos ejecutados por el Consejo Superior de Salubridad en el Año de 1900. México: Gobierno Federal en el ex-arzobispado. 1901.

Sehproben-Tafeln. Von Dr. Berthold Kern und Dr. Reinhold Scholz. Berlin: August Hirschwald. 1904. M.3.

Manual de Pathologie Générale et de Diagnostic. Par le Dr. Léon Moynac. Sixième édition. Par Constant Hillemand. Tome premier et tome deuxième. Paris: G. Steinheil. 1903. Fr. 12 les deux volumes.

The Eye, its Refraction and Diseases. By Edward E. Gibbons, M.D. New York and London: Macmillan and Co., Limited. 21s.

Physiology and Pathology of the Urine. By J. Dixon Mann, M.D., F.R.C.P. London: Charles Griffin and Co., Limited. 1904. 8s. 6d.

Transactions of the Epidemiological Society of London. New Series. Vol. XXII. Session 1902-3. London: Williams and Norgate. 1903.

Toxine und Antitoxine. Von Dr. Phil. Med. Carl Oppenheimer. Jena: Gustav Fischer. 1904. M.6.

Klinisches Jahrbuch. Unter Mitwirkung der Herren Prof. Dr. M. Kirchner und Dr. Naumann. Herausgegeben von Prof. Dr. Freih. v. Eiselsberg, Prof. Dr. Flügge, Prof. Dr. Freih. v. Mering, und Prof. Dr. Werth... Zwölfter Band. Erstes Heft. Jena: Gustav Fischer. 1904. M.6.

Des Humeurs Opalescents de l'Organisme. Par le Dr. André Jousset. Paris: Naud. 1901.

Les Intoxications. Par P. Brouardel. Paris: J. B. Baillière et Fils. 1903. Fr.12.

Manual of Operative Surgery. By H. Waring, M.S., M.B., B.S.Lond., F.R.C.S. Second Edition. Edinburgh and London: Young J. Pentland. 1904.

New Poems. By Ronald Campbell Macfie. London: The Bodley Head. 1904. 5s.

The Physiological Feeding of Infants. By Eric Pritchard, M.A., M.D.Oxon., M.R.C.P.Lond. Second Edition. London: Henry Kimpton. 1904. 3s. 6d.

Uber Psychosen bei Militargefangenen nebst Reformvorschlägen. Eine klinische Studie von Prof. Dr. Erich Schultze. Jena: Gustav Fysch. 1904. M.6.

Blood Pressure in Surgery. The Cartwright Prize Essay, 1903. By George W. Crile, A.M., M.D. Philadelphia and London: J. B. Lippincott Company. 1903. 18s.

The Wisdom of the East. The Duties of the Heart. By Rabbi Bachye. Translated by Edwin Collins. London: The Orient Press. 1904.

The Wisdom of the East. The Odes of Confucius. Rendered by L. Cranmer-Byng. London: The Orient Press. 1904.

The Relation of the Cervical Sympathetic to the Eye. Papers by G. E. de Schweinitz, A.M., M.D., W. H. Wilder, M.D., J. Moores Bell, M.D., and J. E. Weeks, M.D., read before the Section on Opthalmology of the American Medical Association at the Annual Session, New Orleans, May, 1903. Chicago: Press of American Medical Association. 1904.

Refrigeration in the Dairy. By London Douglas, A.M.I.Mech.E. London: William Douglas and Sons. 1904. 3s.

Traité d'Hematologie. Par Fernand Bezançon et Marcel Labbé. Paris: Steinheil. 1904. Fr.25.

On the comparative mortality among insured lives of abstainers and non-abstainers from alcoholic beverages. By Rodrick Mackenzie Moore. London: Institute of Actuaries. 1904.

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A Clinical Lecture
ON THE
TREATMENT OF SEROUS EFFUSIONS

Delivered at the Liverpool Royal Infirmary.

By JAMES BARR, M.D., F.R.C.P.,
President of the Liverpool Medical Institution; Senior Physician, Liverpool Royal Infirmary; and Lecturer on Clinical Medicine, Liverpool University.

ENTLEMEN,—I wish to introduce to you, and through you the medical profession, a new method or methods of treating serous effusions. On previous occasions I have lectured you on pleurisy, pericarditis, ascites, and hydrocephalus, ut to-day I wish to confine our attention to the marked evotion which has taken place in my views on the treatment of rous effusions since August 5th, 1902. On that day I was ked to see with Mr. Paul and Dr. Chisholm a lady on whom r. Paul had performed a short time previously an explorary operation for abdominal cancer. He found a very large sseminated and highly vascular mass which bled freely on e slightest touch. He drained off a considerable quantity ascitic fluid and then closed up the abdominal wound, ich rapidly healed. I found her right pleura full of fluid, d Mr. Paul drew off 70 ounces of serum tinged with blood. parently the cancer had extended to the pleura. Five days er that she had to be tapped again, and 64 ounces were awn off. Four days later she was aspirated again and about ounces removed. Again, after four days, she was tapped, d over 60 ounces removed. The fluid accumulated so ickly that she had scarcely a day free from distress in eathing between the aspirations, and I saw that this state matters could not continue long. I then began to think at we could do to lessen this secretion. All the fluid was od-stained, and it was evident to me there were secondary ncerous deposits in the pleura, so therefore I could not pect to do much, but it seemed to me that if we could only ke her life more comfortable a great point would be gained. er thinking the matter out as to what would be most likely essen the secretion I came to the conclusion to try an ection into the pleura of suprarenal extract, and I fixed n Parke, Davis and Co.'s adrenalin chloride, 1in 1,000, as ng a sterile preparation. I empirically fixed one drachm as amount to be injected. I mentioned the matter to Mr. kersteth, who had succeded to the surgical charge of the in the absence of Mr. Paul, who had gone away on his days. Accordingly, after the fifth aspiration, which took e four days after the preceding one, Mr. Bickersteth injected drachm of adrenalin chloride solution, 1 in 1,000; there no further secretion, consequently no further tapping, and old lady spent the remainder of her life in perfect comfort, ar as her chest was concerned. The relatives asked me she did not receive the injection after the first aspiration, I had to explain to them that this was an experiment, h, so far as I was aware, had never previously been per- ed. Since then I have used this injection after removal e fluid in a fair number of cases of pleurisy with effusion, invariably with success. The quantity injected in each has been one drachm, and there has been no second ing.

oon extended this treatment to ascites. My first cases those due to hepatic cirrhosis where the effusion is caused mechanical obstruction, and, of course, I did not expect narked result, and I was not disappointed. However, the ity of secretion was diminished, and personally I never ny ill effects from the injections of the adrenalin. The tity employed varied from two to three drachms. I may ion here a case which I saw in consultation with a al friend to whom I recommended this treatment. My l told me that after the second injection there was collapse, and he did not continue its use. I have no about the collapse, but I am very sceptical about it due to the adrenalin; in fact, I should expect it by g the blood pressure to prevent collapse in such cases. se after tapping ascites is not at all an uncommon rence in some men's practice, and if you will read their gs you will find that they expect the patient to die a eeks after the first tapping. This, in my opinion, arises delaying the operation too long. I have always ted early and frequent tapping. If you delay doing so there is an intra-abdominal pressure of ¼lb. or more to uare inch, and this extends over a superficial area of at least 400 square inches, can any one be surprised that after the removal of such pressure there should be a sudden accumulation of blood in the splanchnic area which might not only cause collapse but fatal syncope? Fortunately the regulative mechanism of Nature is better than that of the physician, and these catastrophes are not so common as might be expected. On several occasions I have injected three drachms of the adrenalin solution into the peritoneal sac with good effect on the circulation. This patient is at present under the direction of a London physician so I cannot say how he is getting on, but I expect he is progressing downwards.

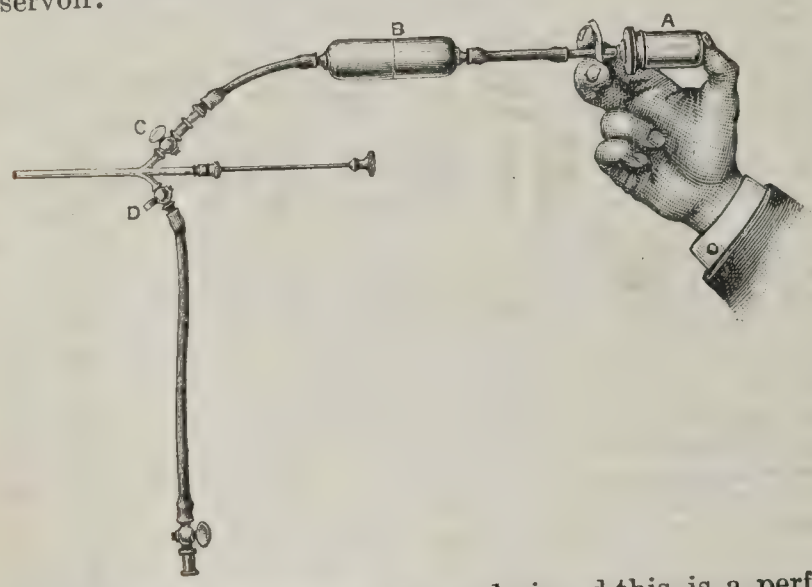
My next attack was on the pericardial sac, and this case is one of the three which I am going to show you to-day. This little fellow was admitted on June 8th, 1903, suffering from pericarditis with effusion, and on June 19th my then house physician, Dr. Lionel Picton, drew off 19 ounces of serous fluid from the pericardium. The fluid quickly reaccumulated, but I postponed as long as possible further tapping in hopes that the fluid might be absorbed. Our nurses are very enthusiastic over the adrenalin injections, and Dr. Hay told me that one of them was anxious to know why I had not injected the adrenalin into the boy, the fact of the matter was I had a certain amount of delicacy in tampering with the circulation of the heart itself. However, I determined that if further tapping was necessary I should inject the adrenalin. On the night of June 24th his condition became very critical and about 11 p.m. I went to the infirmary, accompanied by Dr. D. A. O'Sullivan, of London, who was staying with me, Dr. Hay and others. On siphoning off 20 ounces of fluid his pulse, which had been very weak, small, irregular and barely perceptible, became regular, full and strong. Then forty minims of the adrenalin solution were injected into the pericardium. I was feeling his pulse and noticed it disappear at the wrist, and the boy became of an ashy leaden hue and had a very anxious expression. The case was now very critical; it was evident that the quantity injected had been too great and the coronary arteries had been almost obliterated.

However, I never lose my head in cases of difficulty, so I immediately injected three minims of a 1 per cent. solution of nitro-glycerine and two minims of liq. atropinae sulphatis. The boy quickly rallied. If there were any further accumulation of fluid it was only very slight, and, at any rate, there was no further tapping. He next got an attack of left pleurisy, and on August 21st 10 ounces of serous fluid were drawn off and one drachm of adrenalin solution injected. There was no reaccumulation. The case was supposed to be tuberculous, there was an excessive number of lymphocytes in the pleural fluid but its injection into a guinea-pig gave a negative result. Sir W. Broadbent and Dr. Finlayson on going round my wards with me last July were much interested in this boy. He was discharged in fair condition on September 27th, 1903. On October 26th he was readmitted with his right pleura full of fluid, on October 29th 51 ounces of fluid were siphoned off, and one drachm of adrenalin solution injected. By this time I had advanced my treatment a step further. It had occurred to me that if in addition to stopping the secretion by adrenalin I substituted another fluid, say air, for that which was withdrawn I might lessen or prevent subsequent adhesions taking place. With this object in view I injected half a pint of sterilized air, and it was not all absorbed for at least ten days. I think the adhesions on this side are less than on the left. The case still appears to me to be tuberculous, and I am of opinion there is some tuberculous deposit in both lungs. However, I think you will agree that, so far as the treatment of the particular lesions is concerned, it has been wonderfully successful.

On November 14th, 1903, D. O., a joiner, aged 32, was sent to me by Dr. Jones Roberts, of Penygroes, with a diagnosis of tuberculous peritonitis and ascites. On November 17th I siphoned off 280 ounces of ascitic fluid, and I then introduced into the peritoneal cavity ℥ij of adrenalin chloride solution and four pints of aseptic air. Thirteen days later 237 ounces were withdrawn, ℥ij of adrenalin chloride and 2 pints of air injected. On December 11th 196 ounces of fluid were withdrawn, ℥iij of adrenalin chloride and 4 pints of of sterile air injected. Since then there has been no reaccumulation, and it required between three and four weeks for the complete absorption of the air. His abdomen has gradually shrunken, and the circumference now only measures 31 in. at the level of the umbilicus. At present you can feel friction fremitus in the abdomen, so there is no doubt some lymph glueing some coils of bowel together. On two occasions there has been haematuria, probably due to uric acid.

The third patient, M. C., aged 7, was admitted on January 11th. One pint of fluid was withdrawn from her pleura, ℥j of adrenalin chloride and half a pint of sterile air injected, 95 per cent. of the cells in the fluid were lymphocytes, so it is highly probable the pleurisy was tuberculous. However, there has been no reaccumulation, and she is now quite well.

Having devised new methods of treatment it became necessary to invent new appliances for conveniently carrying them out. I entrusted my design to Messrs. R. Sumner and Co., and Mr. Overton, the senior partner, entered enthusiastically into the matter and gave me every assistance. I first got rid of the aspirator as the siphon is much more convenient, does not get out of order, and can be readily sterilized. I then designed a special trocar and cannula with a side arm and a three-way stopcock, this can be used as a siphon, a syringe or aspirator can be attached and injections of adrenalin and air can be given. Mr. Overton thought that men would forget how to turn the tap and it might be a little awkward if their memory failed when the cannula was in the chest, so he designed a trocar and cannula with two arms, one to be used for the siphon and the other for the injection of the adrenalin and the air. Each arm is provided with a stopcock which can be shut when not in use, and at the end of the siphon tube you will notice another stopcock so that the tubing can be kept full of water and the siphon at once started without any risk of introducing non-sterile air into the chest. In order to sterilize the air I first designed a very elaborate apparatus, which I now show you. It consists essentially of a large Woulfe's bottle with three openings at the top and an outlet at the bottom. Each of the four openings is guarded by a glass stopcock. One opening is in connexion with a water reservoir, the second is fitted with a large thistle head filled with cotton wool for filtering the air, and the third is an outlet for the aseptic air to be driven into the pleural or peritoneal cavity. The bottle and reservoir are filled with an aseptic fluid, then the liquid in the bottle is replaced by filtered air introduced through the thistle head, next the filtered air is driven out of the bottle into the pleura or peritoneal cavity by allowing the fluid to run in from the reservoir.



For the purpose for which it was designed this is a perfect apparatus, every joint is absolutely air-tight, and there is not the slightest risk of any contamination of the air, but I soon found that it was too cumbersome for carrying about, and therefore not likely to come into general use. Mr. Overton now drew my attention to a little instrument which German veterinary surgeons use for introducing aseptic air into the udders of cows. This consisted of a small metal receptacle filled with sterilized cotton wool. I was at first doubtful whether the air driven through this cotton wool under pressure could be properly filtered, but after some experiments I found that it answered my purpose very well. Accordingly, I had a small metallic pump fitted to this receptacle, and the plug at the end of the discharge tube made to fit the cannula. The whole apparatus which I now show you, and of which I append an illustration, consists of a trocar and cannula with two arms and a siphon tube, a syringe for injecting adrenalin, and an apparatus for introducing filtered air. The whole can be boiled with the exception of the cotton wool filter, and it can be sterilized by heat as often as is thought necessary.[1]

[1] The whole apparatus is supplied by Messrs. R. Sumner and Co., 50A, Lord Street, Liverpool.

I have asked my clinical assistant, Dr. John Hay, with whose acumen and accuracy you are well acquainted, to draw up a summary of these cases for publication, in the first and most important place to save myself the trouble; and in the second place to prevent any one saying that they have been coloured to suit my views.

CASE I.

A. J., aged 9, was admitted on June 8th, 1903, suffering from pericarditis with effusion.

History.

His family history was good, with the exception that his mother suffered from rheumatism. He had been a healthy boy till March when he had an attack of rheumatism and purpura accompanied by dyspnoea. He recovered and almost immediately began to experience pain in the right side and front of the chest with some shortness of breath.

Condition on Admission.

He was a well nourished boy lying comfortably in bed, no anaemia or jaundice. Temperature 101.6° F., joints unaffected. Examination revealed the typical signs of pericarditis with considerable effusion, and also the existence of fluid in both pleural cavities more especially the left. The temperature varied averaging 101° F. to 102° F. The pulse-rate rose steadily from about 100 to 120.

After-History.

On June 19th as the patient seemed worse the pericardium was tapped and ℥xix of clear yellow fluid were withdrawn, this certainly gave relief, but the fluid rapidly reaccumulated till on the 24th it was necessary to again aspirate. On this occasion ℥xx of dark straw-coloured fluid were removed, adrenalin chloride solution (1 in 1,000) mxl was afterwards injected into the pericardial sac.

July 4th. Distinct improvement noted.

July 9th. Some general oedema of face, posterior aspect of trunk, ankles, and scrotum, with marked pallor.

July 11th. Belly much distended.

The progress of the case for the next month was rather irregular, the oedema varied considerably, the temperature was very changeable—the pulse-rate oscillated between 120 and 150. The liver increased in size and the kidneys became palpable. About the beginning of August there was a recurrence of pyrexia and a loud coarse pleural friction was heard over the left upper border of the heart.

Signs of fluid appeared at the left base, and on August 21st the left pleural cavity was tapped, half a pint of clear yellow serum being removed. Adrenalin chloride solution (1 in 1,000) ℥j was injected into the pleura. Before the tapping the limit of the cardiac dullness was 2 in. to the right of the middle line, while afterwards it was only 1½ in. After this the patient steadily improved. His temperature slowly came down to normal, and the pulse-rate dropped to about 100. He was under observation in hospital for more than a month. Subsequent to the aspiration and during that time there were no signs of reaccumulation of the fluid, either in the pericardium or the pleura. He did not, however, quite lose the cyanotic tint and the liver remained enlarged. He was discharged on September 27th.

Readmission.

He was readmitted October 27th, 1903, in a somewhat oedematous condition. Fluid was demonstrated in his right pleural cavity, there was some dyspnoea and an irritable cough. Respirations 30 to 40 and the pulse-rate varied between 120 and 140. His temperature was again irregular, 98° to 102° F. There were no rigors and his urine was normal.

On October 29th the right pleura was tapped and 51 ounces of fluid withdrawn, ℥j of adrenalin chloride solution injected and also a quantity of sterilized air. The latter was found to be only slowly absorbed.

October 30th, the pleural fluid was injected into a guinea-pig with negative results. The condition of the patient remained much the same, but the temperature tended to become steadier—pulse-rate remaining 120 to 149.

On November 21st he began to take sodium cinnamate, 5 per cent. solution in glycerine by the mouth in ℥j doses. It was decided to apply the tuberculin test, accordingly, on December 14th 0.001 gr. of tuberculin was injected with only a slight reaction (vide temperature chart, p. 651).

On January 4th sodium cinnamate, 5 per cent. solution, a ℥ss dose was injected, and this has been done every four or five days since.

Examination of the chest on January 23rd showed a marked diminution of expansion with crackling *râles* all over the right and left side of the chest. The expansion of the right side being only ⅛ in.; on the left ⅜ in. The cardiac dullness is 1½ in. to the right and 3½ in. to the left of the middle line. The heart is fixed in position, there is still distension of the veins of the neck and the liver reaches down to the umbilicus.

CASE II.

D. O., joiner, aged 32, was admitted on the 14th November complaining of a swollen abdomen.

History.

There was no history of tuberculous disease in the family. According to the patient's account he has never been a strong man, and some years ago he suffered from distension of the abdomen lasting for weeks, from which he recovered without any operative measures. He does not admit to excesses of any kind. In July, 1903, swelling of the abdomen was again noticed accompanied by a marked feeling of languor. His weakness increased so much that work of any kind

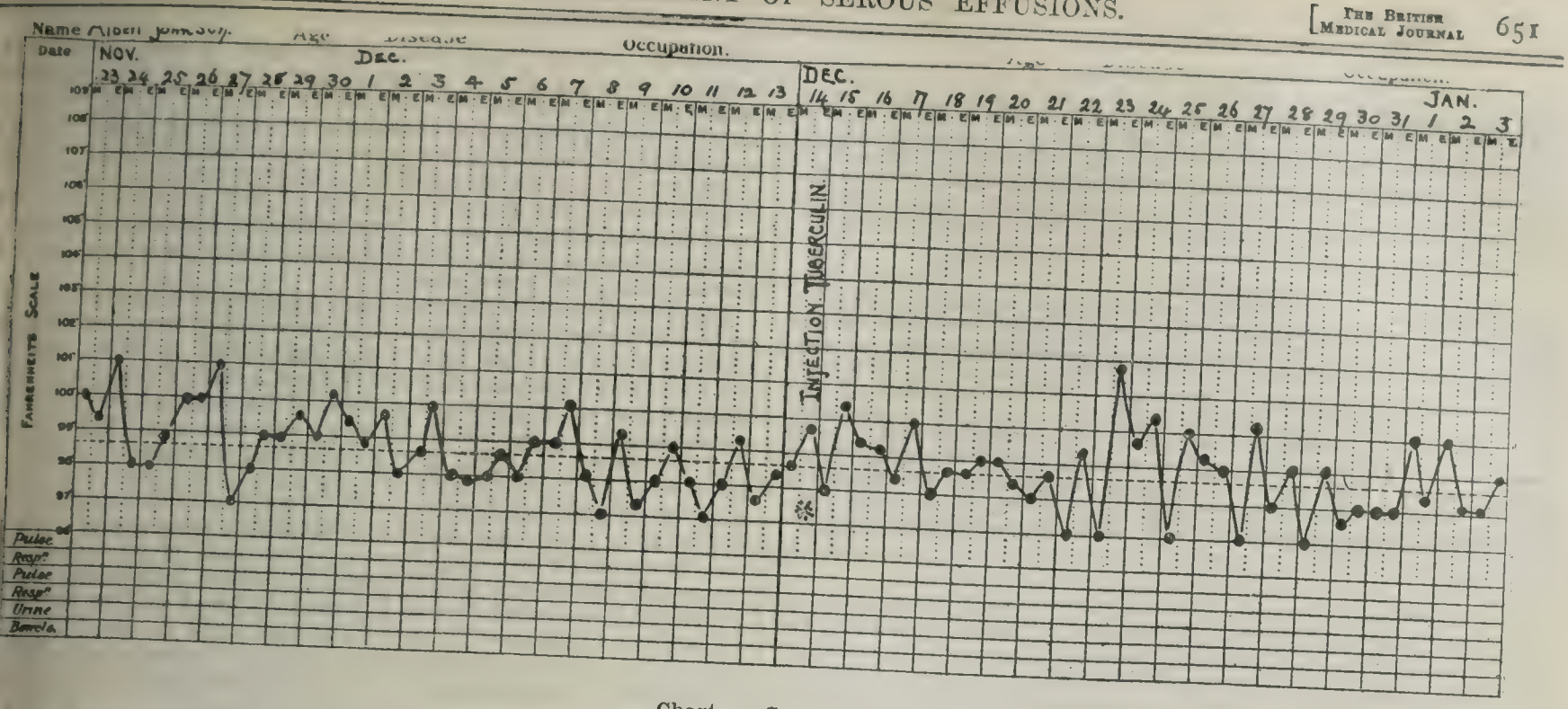


Chart 1.—Case I.

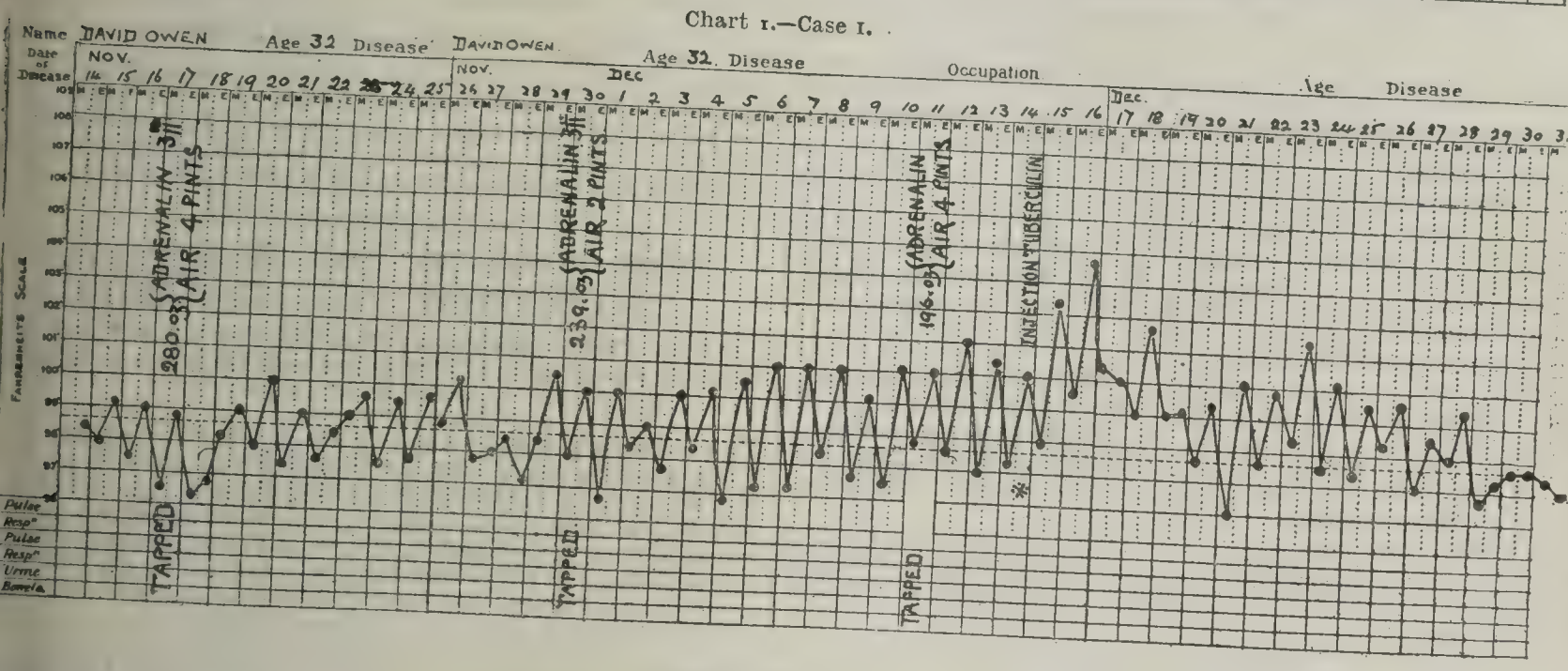


Chart 2.—Case II.

ssible. Fluid collected in the abdomen and necessitated entesis; this was performed eight times, the longest period be- any two consecutive tappings being ten days. The usual interval eight.

Condition on Admission.

tongue was clean, the teeth dirty and defective. The bowels regular. bdomen was uniformly distended and the superficial veins greatly ged. The flanks and the hypogastrium were dull on percussion, ullness changing with position, and a definite fluid thrill was nt. Owing to the tension in the abdomen the liver was pushed up, per limit of dullness being in the third right intercostal space. was no evidence of enlargement of the spleen. Pulse 100, regular ne and force, small volume, low tension. The heart was dis- upwards, not apparently enlarged, and a slight systolic murmur udible at the apex and pulmonary and aortic areas.

mination of the chest showed deficient expansion and also some ment of percussion note at the bases, but no signs of pulmonary e. The amount of urine averaged 14 ounces a day, its specific y being 1030, there was a deposit of urates, but no albumen or blood. us system normal.

After-History.

November 17th 280 ounces of fluid were drawn off from the abdo- nd immediately following this 4 pints of sterilized air introduced e abdominal cavity, together with 3 ij of adrenalin chloride (1 in olution). The ascitic fluid was alkaline, opalescent, containing a uantity of albumen and some peptone. The cells proved on exam- to be chiefly mononuclear.

een days later—November 30th—the abdomen was again tapped ounces of fluid withdrawn, 3 ij of adrenalin chloride solution ints of sterilized air were then injected. The specific gravity of d was 1005, and the fluid contained a large quantity of albumen ne peptone.

n days later, on December 11th, 196 ounces were drawn off and drenalin chloride solution, followed by 4 pints of sterilized air jected.

Since then up to the present date, January 27th, 1904, there has been no reaccumulation of fluid. It was decided in this case to apply the tuberculin test, the Berne Serum Institute tuberculin being used.

On December 14th, the fourth day after the last tapping 0.001 gram of tuberculin was injected, this was followed by a typical reaction, lasting four days—the highest temperature reached being 105° F.

By the beginning of January the temperature, which previous to the injection of tuberculin had been irregular, sometimes reaching 101° F., settled down, and has since been either a little above or below 98° F. With this improvement in temperature the abdomen became softer and flatter, and all signs of fluid disappeared. He was ordered exercises to strengthen his abdominal walls and on January 10th was allowed up.

January 18th. A large quantity of blood is noted as present in the urine. Calcium chloride and adrenalin chloride were prescribed.

January 24th. Patient still improving. Blood has disappeared from the urine. On several occasions the blood was examined, the following were the results :—

November 19th, 1903, erythrocytes 4,000,000. leucocytes 11,200, mononuclear 20 per cent., polymorphonuclear 80 per cent.

December 5th. Leucocytes 10,600, mononuclear 13 per cent., polymorphonuclear 40 per cent.

January 16th. Leucocytes 5,000. Mononuclear 7 per cent., polymorphonuclear 18 per cent.

March 7th.—D. O., reported himself at the infirmary to-day. He has gained 14½ lb. in weight since he left. In every respect he looks and feels very well. I have at present a case of tuberculous peritonitis with ascites in a hunchback, doing well under similar treatment.

CASE III.

M. C., aged 7, admitted January 11th, 1904.

History.

The history of her present illness is somewhat indefinite, but points to a probable duration of one week.

Condition on Admission.

She was a fairly well nourished child, temperature subnormal, breathing comfortably. There was a loose cough with but little expectoration. On examining the chest there were marked signs of fluid in the left pleural cavity with some displacement of the heart to the right, the deep cardiac dullness reaching 2½ in. to the right of the middle line. The heart was in other respects normal. Examination of the alimentary and nervous systems revealed nothing worthy of note.

After-History.

On January 15th her chest was aspirated and 1 pint of fluid withdrawn, following this 3j of adrenalin chloride solution was injected and half a pint of sterilized air pumped in. Immediately after the paracentesis the heart was found to be back in its normal site. The pleural fluid was clear and yellowish in colour, alkaline and loaded with albumen (5 per cent.). Its specific gravity was 1020, and on centrifuging and examining the deposit 95 per cent. of the cells were seen to be mononuclear. Following the aspiration there was a transient elevation of temperature to 100.4° F., otherwise the temperature has been subnormal. The patient progressed favourably, and on January 22nd, 1904, the following note was made. "No reaccumulation of fluid, the precordium quite resonant, the whole of the left side of the chest is resonant."

I have purposely avoided giving you any statistics as to the number of times I have employed one or both of these procedures. I recently heard a gentleman say that in order to prove anything by statistics you should have 100,000 cases. I should have thought a smaller number would have sufficed. Personally, I would rather have 100 well-observed cases than 100,000. However, some people are difficult to satisfy, and I hope you will all be qualified and in good practices long before the cases have accumulated to 100 000. I think inductive reasoning is too slow a process for those who are moving in the van of progress, and I prefer to draw my deductions from well-ascertained facts. So far I am quite satisfied with my results, and I intend to continue the treatment. I have applied these methods to the pleural, pericardial, and peritoneal cavities, and recently, at my suggestion, my friend, Mr. Damer Harrisson, has injected adrenalin chloride solution into the lateral ventricle in a case of hydrops ventriculi. If our diagnosis of cerebellar tumour be correct the adrenalin is not likely to have any permanent effect. After removing several ounces of fluid from the ventricle he left in a small drainage tube, and that night the dressings were saturated twice with cerebro-spinal fluid; the following day he injected 10 ♏ of adrenalin chloride solution on each of two occasions, and on the day after 20 ♏.

I am not going to-day to draw your attention to other methods of treatment, but I wish you clearly to understand that I do not consider these methods necessary or advisable in every case.

In a large number of cases of pleurisy and pericarditis the fluid gets gradually absorbed without any artificial means for its removal, and in certain cases of tuberculous peritonitis the surgeons have been fairly successful, but not nearly so successful as some of them would like us to believe, by free drainage. A considerable number of cases are hopeless, and there is not much to be gained by attempting the impossible. You recollect a short time ago in Ward 12 a small boy, suffering from tabes mesenterica, where the whole of the glands of the abdomen were one caseous mass. I got Mr. Paul to open his peritoneal cavity and drain away the ascitic fluid, in order to afford the boy some relief. Such was all that any of us expected or could hope for.

With ordinary care the treatment which I have recommended is easily carried out, and the instruments are fairly perfect, but I hope that every one who follows me will use all aseptic precautions. It would not be very pleasant to set up an empyena, a purulent pericarditis, or a septic peritonitis. I think the risks of doing so are small, but still the possibility of such occurrences should be borne in mind. Many cases become purulent from the nature of the infection without any interference of any kind, and therefore in every case the fluid withdrawn should be examined for fear in some cases you might blame the treatment for conditions which were in no way the result. If I found purulent or semi-purulent fluid I would inject neither adrenalin nor air, but have the cavity freely opened and drained. I have seen a few cases of localized empyema cured by aspiration alone, or by aspiration and washing out with hydrogen peroxide, but still I think the best treatment is that of free drainage. I have been asked by several medical men why I do not use oxygen. Of course there is oxygen in the air, but when a man asks you that question he means Brins's oxygen bottled up in a cylinder. Well, my objection to pure oxygen is that I think it would be absorbed too quickly, and I am of opinion that its chemical affinity is not more active than that of the air. I can conceive of certain cases, such as those where there is an excessive number of leucocytes or apparently commencing formation of pus where oxygen in the nascent state, such as that in hydrogen peroxide, would be an advantage. But this treatment would not be without risk if a large quantity of peroxide were used as the fluid might be rapidly absorbed and the oxygen too quickly liberated in the blood. I have never known such a thing happen, but I think it well to give a word of warning as to its possibility.

The injection of air has another advantage which I have not yet mentioned. You know that in elderly people with rigid chest walls, if there be a large collection of fluid and the whole of it be withdrawn there is a great risk, from the sudden diminution of pressure, of collateral hyperaemia and oedema of the healthy lung which, in not a few cases, has led to rapid death. Now this risk can be entirely obviated by the injection of air, and part of the air may be injected, say, when half the liquid is drawn off. The air rises to the surface, and hence it is very easy to re-establish the siphon and draw off the remainder of the liquid, you can then inject the adrenalin and more air. I think it will be found sufficient to inject half as much air as the bulk of the liquid withdrawn. It is just as simple to calculate the bulk of air when you know the capacity of your pump as it is to measure the liquid which you have taken away. It is worth remembering that air expands $\frac{1}{490.9}$ for each degree of Fahrenheit which it is raised. So if you introduce air at 60° F., when it has warmed up to 100° F., it will have expanded $\frac{4}{49}$ of its bulk. When the joiner had the 4 pints in his peritoneal cavity he was well blown up, but did not feel at all uncomfortable, and I suggested to him that he might play a tune on the big drum.

SOME POINTS IN THE TREATMENT OF HAEMOPTYSIS AT A SANATORIUM.

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The following remarks are based on the experience that I have gained, first, from having been a patient at a well known German sanatorium in the Black Forest, where I was cured; secondly, from having worked at different sanatoria since then; and thirdly, by treating patients making a "after-cure" in their own homes. It will be admitted that work in a sanatorium furnishes the best opportunities for studying the prodromata of haemoptysis, the relation of haemoptysis to the progress of the disease and to the idiosyncracies of the patient, the natural methods by which the bleeding is arrested, and, finally, the effects of treatment.

Haemoptysis may be classified as follows:

Class 1.—Occurring early in the disease—that is, as the first initial sign of pulmonary tuberculosis and before consolidation can be demonstrated by physical signs.

The patient may be robust and appear in good general health when without premonition haemoptysis takes place. There may be no history of either trauma or exertion, though sometimes it follows on violent exercise—that is, tennis, football, etc. This form of haemoptysis is probably due to congestion of the vessels near the tubercles, the blood escaping from the pulmonary capillaries by diapedesis.

The treatment depends on the amount of blood lost. In these early cases my experience has been that even a large haemoptysis does not endanger life to any serious extent. For cases not presenting the contraindications mentioned below, exercise most probably is not amiss; such exercise, however, must be carefully graduated by the medical man, and should be short of fatigue and breathlessness, the pace a crawl, and the walk sheltered. The view concerning the *rationale* of exercise that I hold in haemoptysis is that the blood vessels, cutaneous and otherwise, in all parts of the body, more especially those of the limbs, become dilated, and take a certain quantity of blood away from the lungs; this amply compensates for the extra amount of blood that, induced by exercise, passes through the lungs. Practical experience will bear this out, but this treatment must be applied individually and not generally. The method of exercising cases where haemoptysis is present is not original mine, I heard it first enunciated by a great German and world-known authority at whose sanatorium I was a patient.

Haemoptysis in early cases usually occurs before patient

ome to a sanatorium, but there are those with consolidation vho have it whilst at a sanatorium. With these latter my reatment is to employ exercise under the conditions men- ioned above, and to keep them on the ordinary diet. I have ad no bad results, nor any occasion to doubt the wisdom of ny treatment. The patient certainly prefers it to being kept n bed until all bleeding ceases, being emptied by saline urges, and put on a milk diet. These early cases commenc- ng with haemoptysis as a rule do well, the disease being etected from the start, so enabling the patient to undergo reatment at once. The old experience was that cases of hthisis commencing with a considerable haemoptysis fre- uently ran an acute course. There may be exceptions, but ny experience has been quite the opposite, and all such atients that I have had under sanatorium treatment from ne outset have invariably done well and become cured.

The contraindications for exercise are:

1. If fever is present previous to or after the attack, that is, the rectal temperature is 37° C. or over on awaking in the morning, and 38° C. and over at night. Then rest in bed hould be absolute with ordinary sanatorium diet, the amount which is regulated by the emaciation or not of the patient, he more emaciated or the higher the fever the more food is equired.

2. If the amount of blood lost is large and the patient is uch weakened by the loss. This requires rest in bed and as beral a diet as possible, regulated as in No. 1, with the extra nsideration that he has lost a large amount of blood. I ve never noticed that a full reasonable diet does any harm cases of this description.

3. If the patient is in a highly nervous condition, which e medical man is unable to quiet.

In these cases rest on a lounge chair in a sheltered spot out- doors or in the patient's bedroom is necessary. Sometimes r. of morphine in tabloid form placed beneath the tongue ll quiet him. The personality of the doctor, however, does much real good as anything. Exercise may be commenced the doctor's discretion, and the ordinary diet adhered to. these early cases of haemoptysis medicines, beyond a ine purge, are usually not necessary.

Class II.—When the disease has been present for some ne and the physical signs reveal a decided extent of con- idation.

The patient in these cases is in failing health, and as a rule subject to a bronchial winter cough, with expectoration, appearing generally in the summer, but now continuing, nbined with general lassitude, loss of appetite, anaemia, s of weight, and no inclination for work, which, however, patient continues to perform. These symptoms may not urgent, and he fails to recognize the seriousness of his dition until blood in the expectoration is noticed; the eding as a rule is slight, and is most probably due to erculous ulceration of the bronchial mucous membrane. presence of pulmonary tuberculosis is detected usually he second stage and tubercle bacilli in the sputum are nd.

he treatment should be directed to strengthening the ered vitality and to improving nutrition by sanatorium tment and forced dieting. Exercise, short of fatigue, the ance being regulated by the temperature. The haemo- is as a rule requires no special treatment. If fever is ent it must be treated by rest in bed if high, and by rest *chaise longue* in the bedroom if slight.

Class III.—Late in the disease, when cavitation is present. aemoptysis in this class is of more serious import, nded, as it often is, with grave risks to life, the patient any cases rapidly passing beyond the reach of treatment. haemorrhage proceeds from a branch or branches of the monary artery, and is due either to (*a*) a ruptured pul- ary aneurysm—that is, an artery either in the wall of a y or stretching across it usually becomes obliterated; if being unsupported, an aneurysm results, and any exer- such as by running or by lifting heavy weights—that is, dstone bag, etc.—causes it to rupture; or (*b*) by softening he coats of an artery by ulceration, which happens cially in the caseous forms of the disease. The amount ood lost is in proportion to the size of the vessel rup- d. The haemoptysis may came on suddenly and in large tities, or slight blood spitting may occur two or three previous to the attack. (If due regard is paid in sus- d cases to this latter symptom, by ordering absolute the greater evil may be prevented.) Where the onset is en, the quantity lost may be great. It is said that Nature provide the best treatment by causing fainting, which allows a thrombus to form of sufficient strength to stop the bleeding. It is questionable if this, however, really occurs.

Treatment.—The object to be attained is to favour the formation of a thrombus, which is gained by (1) lessening the frequency of the heart beats; (2) resting the lungs as much as possible; (3) lowering the blood pressure. The first two can be effected by seclusion and absolute rest in bed, from which the pillows can be removed, and a hot-water bottle placed at the feet, for which the patient is usually grateful. He should not talk or make any unnecessary movement, and be fed and looked after by an attendant until all danger is passed. Morphine is the drug *par excellence*, and may be given in doses of gr. $\frac{1}{4}$ or gr. $\frac{1}{3}$. The tabloid may be placed beneath the tongue, or if a quicker action be desired, it may be given hypodermically. The number of administrations must be left to the discretion of the doctor. This drug reduces the anxiety of the patient, and therefore quiets the heart beats, lessens the irritability of the respiratory centre, and allays the cough. The third object can be obtained by the administration of saline purgatives, ensuring free purgation, and so lowering the general and pulmonary blood pressure. This must also be left to the discretion of the doctor, whose judgement will be guided by the condition of the patient. Ice to suck may be given, and, as one author remarks, if it does nothing else, it produces in the mind of the patient a feeling that something is being done for his relief, and tends to diminish nervous excitement. The utility of an icebag on the sternum in this class of case, or anywhere else in contact with the chest wall, is doubtful. The diet at first should be light and unstimulating, consisting of raw eggs, milk, raw beef sandwiches, etc.; this should be gradually increased to the ordinary diet. Alcohol, unless there is collapse or high fever, should not be given. It is most important to return to a full and nourishing diet as soon as possible, especially in those cases of acute active disease, where it is so necessary for the patient to put on weight or not to lose it, as the case may be. With a haemorrhage, however, bringing a patient close to dissolution everything must be sacrificed to stop the bleeding and save life, and abundant feeding, which can be carried on in some cases, must be abandoned. If the blood clots cause obstruction in the bronchial tubes, with cyanosis and dyspnoea, the morphine, if still being administered, must be stopped, and Nature will usually remedy matters by encouraging the expulsion of the obstruction, for when the blood clots are allowed to remain they often become infected by micro-organisms, producing a septic condition with broncho-pneumonia (which complication is applicable to all cases of haemoptysis). One does not expect this, however, at a sanatorium, where the atmosphere is (or ought to be) pure and free from all such micro-organisms. The patient must remain in bed in such cases until the sputum has been free from blood for at least a week; this, however, is decided by his temperature and general condition. The personality of the doctor, if strong, has a tonic effect on the patient, especially in bad cases where it is absolutely necessary that the latter should have every reassurance of his recovery.

Class IV.—In any stage in plethoric subjects.

There is a class of patient, often with arrested disease, in whom a liberal diet has induced plethora. Usually he is very fit and able to take a lot of exercise. Owing to his plethoric condition an occasional attack of haemoptysis occurs, varying, but as a rule never great in quantity. The lung surrounding the part diseased might be described as being in an engorged condition, the blood escaping, it is to be presumed, by diapedesis from the weakest spot. In these cases the bleeding is Nature's method of relieving blood pressure, and should not be interfered with. These cases often complain of symptoms similar to those caused by an excess of uric acid for two or three days previous to an attack, that is, flushings of face, singing in ears, and fullness in the head, etc.

The treatment indicated here is: (1) To lower the blood pressure by administering full doses of magnesium sulphate or other saline purgative, followed by a seidlitz powder, or some Apenta water next morning on awaking. (2) A full amount of exercise, provided always that there is no contra-indication, such as fever. (3) A modified diet, in which vegetables, especially green ones, play a large part, a minimum amount of meat, and alcohol should be forbidden.

When the symptoms described above first manifest themselves 30 gr. of sodium salicylate, combined with an aperient, often gives relief, and prevents the haemoptysis. To give an example. I once had a patient who had a small cavity at the

right apex, and who was very plethoric in spite of careful dieting and plenty of exercise. Immediately on the presence of any such symptoms as referred to above I resorted to the treatment described, and no haemoptysis resulted, although previously without such treatment an attack resulted. Exceptions are met with, and the following case is one in point:

The patient, a man, who on arrival at this sanatorium weighed 15 st. 3 lb. (1 st. above his normal weight), and was very flabby, with a large patch of solid pleura with some disease in the adjoining lung at the right base, slight consolidation at both apices, and tuberculous laryngitis, has had, after about two months of sanatorium life, four attacks of haemoptysis, namely, on October 7th and 21st, and on November 6th and 21st. The attacks always come on at the same time—after the mid-day dinner—the quantity of blood lost has always been the same, just over 1 pint. There have been no premonitory symptoms as already mentioned, beyond a slight uneasiness felt in the chest. On the last occasion (November 21st), however, flushings and slight uneasiness were experienced, which the patient did not communicate to me until afterwards, so I was unable to follow my usual course in this case. The advent of the above symptoms, together with the regular periods of the attacks, tend to show that they are in the main determined by the blood pressure, which evidently rises to a certain point with resulting haemoptysis and then falls. My treatment all along in this case has been to reduce the weight, which is now 14 st. 6 lb.; it will be seen from this that he has had a moderate diet, and the amount, one would think, not enough to induce plethora. The patient, however, has a temperature which unfortunately prevents his taking only a small amount of exercise, consequently one of the most important details in the treatment of plethora, namely, exercise, is unable to be followed.

It must be borne in mind that the treatment described is not applicable to every case, but each one must be treated individually. For instance, where cavitation is present, and where it is suspected that the bleeding may come from the leaking of a large or the rupture of a small pulmonary aneurysm, the treatment must be modified accordingly, by lowering blood pressure and rest, with very careful exercise if given at all. In these cases experience is the main thing to rely on, together with a perfect knowledge of the case.

Wind exposure is always liable to bring on an attack of haemoptysis, and, therefore, should be avoided by having the sanatorium in a sheltered country.

TWO CASES OF LUNG DISEASE TREATED WITH THE EMANATIONS FROM THORIUM NITRATE.

BY GORDON SHARP, M.D.EDIN.,
Leeds.

ACTING on the suggestion of Mr. Frederick Soddy, M.A., contained in the BRITISH MEDICAL JOURNAL,[1] I have been employing during the past few weeks the emanations from thorium nitrate solution in the treatment of two cases of diseases of the lungs, details of which will be given presently.

500 c.cm. bottle (17.598 oz.) containing 100 grams (3½ oz.) thorium nitrate in solution. The outlet tube (the smaller) acts as a mouthpiece. The inlet (the larger tube) should be straight not bent as in the drawing.

APPARATUS EMPLOYED.

The apparatus employed consists of an ordinary gas washing bottle modified to suit the special conditions. This has been made for me by Messrs. Reynolds and Branson. Every part of the apparatus is of glass, and the inlet and outlet tubes are attached to the stopper, so as to form one continuous piece. The outlet tube is drawn in the shape of a mouthpiece, by means of which the inhalations can be made. The arrangement will be readily understood by a study of the accompanying figure.

CHARGING THE BOTTLE.

The bottle has a capacity of 500 c.cm., or, roughly, 17.598 oz., and in this quantity of water are dissolved 100 grams of thorium nitrate, or as near as possible 3½ oz. When solution has been effected drop by drop of dilute ammonia is added to neutralize any excess of nitric acid that may be contained in the thorium. As soon as the first cloud of white thorium hydroxide is thrown down no more ammonia is to be added. Later on small quantities of thorium fall to the bottom of the bottle, but this is not important. The solution having been so prepared, more water is added to fill the bottle, in order that when the stopper with the inlet and outlet tubes is in position the "dead air" space above the liquid may be as small as possible. Having stood for twenty-four hours so that gaseous emanations may have time to collect, the solution is ready for use. Two patients may inhale the emanations continuously for one hour a day each at an interval of eleven hours—that is to say, one patient could start at 9 in the morning and inhale for one hour, while the other could inhale for one hour at 9 in the evening. By observing this rule time is given for the emanations to re-collect after each exhaustion.

Mr. Soddy says a small tube of pounded caustic potash may be inserted in the mouthpiece tube to absorb moisture and to neutralize the possible presence of nitric acid vapour. I have not found any need for such a tube. In the inlet tube I place a few pieces of dry thorium nitrate. This may act as an additional help in preventing the escape of emanations when the apparatus is not in use. When the bottle is not in use the inlet and outlet tubes should be closed by glass taps or glass stoppers to prevent leakage of the accumulating gaseous contents. In my present apparatus I have no such arrangement, so I have to close the inlet tube with a strip of glass thickly smeared with white vaseline, and the narrow opening of the outlet tube I cover up with the same unguent. Carbonaceous or easily oxidizable matter must not be employed as stoppers.

For further particulars Mr. Soddy's article should be studied.

CASE I.—*Suspected Phthisis.*

A boot-fastener, aged 24, had suffered from a "neglected cold" for many weeks previous to my seeing him on November 4th, 1903. He complained of shortness of breath, persistent cough with expectoration of white frothy material, increasing weakness, and he said he had lost 6 to 7 lb. in weight within two months. I examined his chest and found on the right side behind and over the lower lobe increase of vocal fremitus, scattered patches of dullness, and soft mucous *rales*. There was no heart trouble and no kidney trouble. I thought it was a case of incipient phthisis and had his sputum examined on one occasion, but with a negative result. He was put on Begbie's mixture alternating with Easton's syrup. He also took cod-liver oil and malt extract, and he himself suggested living out of doors as much as the weather warranted, and this was carried out. At the end of six weeks he showed no signs of improvement, and at this period his chief complaint was shortness of breath on exertion and the persistent cough. I now started him with the inhalations from thorium nitrate solution, and at the end of fourteen days he felt so much improved that he went back to work and has been at work for over a week, although he comes daily to have the treatment. The chest condition is improving.

CASE II.—*Suspected Phthisis: Pleuritic Onset.*

A brickmaker, aged 23, was first seen in the beginning of September, 1903, the history being that he had spit blood two months before I saw him. He now complained of pains on the left side of the chest below in the collar bone. Distinct pleuritic rubbing could be detected over this region. He again spat blood in small quantities on five separate occasions and at intervals of two or three weeks. He says he had lost half a stone in weight. Mustard plasters were repeatedly applied over the area of pleuritic rubbing, and internally he was treated with the usual round of tonics; he was also sent to the country for one month but was hardly any better. His sputum was not examined. He had at the beginning of December, 1903, arranged to have an extended change of air, when I asked him to undergo the thorium treatment. He had altogether twenty-one sittings, and he has improved so much that he has returned to his work, and when I last examined his chest the pleuritic friction had disappeared.

Let me add I do not claim for the emanations a specific action, nor, indeed, any action at all, but I believe I am warranted in giving the treatment a further trial, and I place these results on record in the hope that others may give it a trial also. In this way we shall find out if these emanations possess any virtue in the treatment of the class of disease I have mentioned. Having watched the patients while inhaling I could perceive that, quite apart from any virtue possessed

by thorium, the breathing exercises must be good. The gas-washing bottle costs 10s. 6d. and the 3½ oz. of thorium nitrate 12s. 3d., making a total of 22s. 9d.

REFERENCE.

[1] A Method of Applying the Rays from Radium and Thorium to the Treatment of Consumption, BRITISH MEDICAL JOURNAL July 25th, 1903, p. 197.

THE THERAPEUTICS OF SEA VOYAGES.*

By MARTYN WESTCOTT, L.R.C.P.Lond., M.R.C.S.Eng.

[ABSTRACT.]

THERE is so little available literature on this subject, and it is so useful for stay-at-home medical men to know something of the nature of sea-voyaging from a therapeutic standpoint that I make no apology for introducing the subject on this occasion.

Yearly there are sent abroad on sea voyages a large number of invalids who have no chance of receiving benefit therefrom. The main idea is that a change of air is probably the one thing likely to do good, and that brings me to the first point, namely, that a perfect all-the-year-round climate is not to be found in the world. If bracing and dry, there will be much wind and dust; if equable it will necessarily be moist and to some extent enervating: there is no known climate which is dry, windless, invigorating and equable. A sea voyage gives one a good chance of a long period of equable weather, but in a steamer making for any particular place, and proceeding northwards or southwards, there is too much rapidity in the changes for most invalids. The voyage to New Zealand, one of the two commonly prescribed for febrile consumptives, running out via Cape Town and back via Cape Horn, is by no means always a desirable journey, whether on first-class liner steamers or specially-fitted sailing vessels. From my own notes of weather experienced during a round voyage to New Zealand and back, from April to September, I may summarize that the first fortnight was cold, windy, and wet, and the third week was spent in muggy heat in the tropics; that the weather then grew daily colder and less agreeable, while from April 29th to May 6th the average mid-day deck temperature was as low as 40° F. On May 19th we arrived in New Zealand n autumn time, and for a week in Port Chalmers the weather vas as variable as it is possible for weather to be in a temperate zone. At Lyttelton in June the weather strongly esembled that of an English November. Homewards, between the Colony and Cape Horn were days of bitter cold, empests, and heavy rains. Five days later we were in lmost insufferably hot weather, and two consumptives on oard became highly febrile and contracted troublesome oughs.

Now, on both steamer and sailing vessel changes of climate ust, of course, be encountered; but if on the latter they re more gradual, it is also true that, once in the tropical oldrums—a most unfavourable place for the phthisical and ebilitated—a sailer may have to wait even weeks for a favourng wind. Physiologically speaking, on a sea voyage there is lenty of open sunshine and light, and the air is uncontminated by organic particles. Passive motion takes the lace of exercise for the feeble; tissue change hurries along, nd where an increase of appetite follows all may go well; ut many invalids find ship food very unappetizing.

As a tonic, a restorative, and a sedative for worn-out or rain-fagged people a sea voyage may do wonders. For conmptives with actual slight mischief in progress or in a tent state a voyage to South Africa and back from January April will often prove an excellent measure; but to send phthisical person really febrile and subject to pleurisy on a ng sea voyage by himself is often a piece of ignorant uelty. Nor will a voyage that includes much of the tropics suitable for nervous diseases. The intense heat and damp too enervating. Cases of angina pectoris, exophthalmic itre, hypochondriasis, chronic bronchitis (unless sicca) ould never be sent to sea.

The second point is the choice of a ship. For the majority, rst-class steamer in a first-class line is too expensive; ough on the steamers of some of the second-rate lines the ins are larger and the feeding not at all unsuitable, more-r the attendance is often better in the latter. But no amers carry certificated nurses regularly, if at all; the surgeon meets with the greatest difficulty in getting invalids supplied with medical comforts and extra attention, and there is a feeling that board-ship is no place for the sick. Again, there is seldom adequate provision for cold and draughty weather; cabins are small, inconvenient, and must often be shared with some one else; and in bad weather the passengers may be "battened down between decks" in a place which rapidly grows steamy and unwholesome, and has little air or light. Three consecutive days of this weather will produce a most depressed effect on most invalids, the "racing" of the screw the continual jerky motion of the entire vessel, and the nervous dread of disaster often act disastrously on people who are out of health. *Per contra*, the duration of the voyage is definite, and the course is prearranged in a steamer voyage; the bill of fare is plentiful, so is drinking-water, and there are generally entertainments on board; moreover, there is nearly always a qualified medical man.

The contrary conditions frequently obtain on sailing ships, except those fitted up solely as invalid passenger ships. But the lack of an ice chamber is generally much felt, and handicaps the cook in his efforts to provide dainty fare. In favour of sailing ships, I may remark that the cabins are commonly well-ventilated and roomy; there is no smell or throb of machinery, no cramping of space on deck, and life, if monotonous, is peaceful and undisturbed. Where time is no object, in cases of neurasthenia and brain fag, such a voyage may well be prescribed. The treatment of sea-sickness, which is so greatly dreaded, and over-dreaded, should in my opinion be begun before embarking. Four or five days before sailing I like to bring patients under a course of sedatives such as chlorobrom or ammonium bromide, at the same time attending thoroughly to the action of the bowels, and endeavouring to remedy any dyspeptic condition. Beginning with a brisk purge of calomel and hyoscyamus, or colocynth, I prescribe gentian and soda, or bismuth and hydrocyanic acid, according to the case, and then 10 gr. or 15 gr. of ammonium bromide and a small dose of hydrobromic acid three times a day regularly until the second day out. An individual with bad circulation and flabby heart will require diffusible stimulants in addition, and either sedative or stimulant may be increased as the critical time approaches, according to the necessities of the case. A great deal may be done by judicious counsel and encouragement from the medical man attending the case, especially if he be skilled in the art of hypnotic suggestion. I have frequently improved bad cases of *mal-de-mer* by mere hypnotic suggestion as recommended by Lloyd Tuckey and others. In severe cases, whether due to cerebral or gastric disturbance, I have been well satisfied with the results of a blister, as large as the palm of one's hand, placed over the episgastrium. Of course there is no royal road to cure in all cases of *mal-de-mer*; some seem to be due even to such a trifling matter as slight astigmatism or ordinary errors of refraction, and the wearing of suitably prescribed spectacles on deck gives the relief required.

As advisers in the home circle, we doctors should remember that in sending a patient on a voyage we are isolating him from his home, and from any kind of home, and from the everyday world altogether; and that he will live among a set of more or less unsympathetic and careless strangers. We should reflect what it would mean if he were to die on board, or if it became essential that he should land somewhere abroad, far from friends and country, and remain there for a time. To some people mere home-sickness makes a voyage one prolonged discomfort. I would urge on family doctors the desirability of sending a communication to the ship's doctor in every instance. This is seldom done, and I have often been confronted, as the vessel leaves the land in the distance, with serious cases of whose technical medical history I have been told nothing. It is well-nigh impossible to make a satisfactory physical examination of a patient in the cabin of a steamer in motion. Again, the dispensary of a ship is not too well stocked, and if the doctor has no knowledge of the drugs that have been already exhibited, the patient may suffer in consequence. Only on my last voyage I had to treat a case of violently spasmodic asthma, and neither nitre nor stramonium were to be found in the medicine chest; and there was a quite inadequate supply of potassium iodide.

The routine of life on board ship has been too often described to need recapitulation here. Patients should be warned against over-eating (and this warning is by no means unnecessary, for little exercise is taken); also against sleeping on deck, especially in the tropical nights, which are very uncertain in temperature.

* Paper read before the St. Pancras Division of the Metropolitan Counties Branch of the British Medical Association.

With regard to clothing, thin flannel is the coolest wear in the hottest tropical weather, especially in a damp heat, and cotton drill and satin jean, smart though they look, should be avoided. I am strongly in disfavour of alcoholic drinks at sea, except, perhaps, in cases of atonic dyspepsia. In malarial regions alcohol is especially to be avoided. No laundry work can be done on board, so an ample supply of underclothing must needs be taken. Flannel or flannelette pyjamas should be worn at night throughout the voyage.

In conclusion, there are certain types of invalid who do no good at sea—dyspeptics, who require a specialized diet; aged, irritable, or nearly bedridden people; and those with chronic rheumatoid arthritis of the smaller joints. There are no facilities for the due treatment of surgical diseases requiring frequent antiseptic dressing, for there is no really adequate hospital accommodation on any ocean liner, however large, as far as I am aware. The only chance for an inebriate to improve at sea is on a sailing ship commissioned on teetotal principles, and such are, indeed, rarely to be found. On the whole, there are few cases of invalidism for which a sea voyage is a suitable remedial measure.

SOME GENERAL RESULTS OF AFFECTIONS OF THE NOSE AND NASO-PHARYNX.

By W. S. SYME, M.D.,
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THE effects of obstruction to nasal respiration upon contiguous structures is widely recognized, and the local changes thus caused are very marked when the obstruction occurs in early life. As a result of adenoid vegetations, for instance, we get the well-known changes in the shape of the superior maxillae and the changes in the tympanic cavities, catarrhal and suppurative, giving rise to deafness of a greater or less degree. In adults, too, the effects locally, though not so marked, are obvious enough in many cases—changes in the external appearance of the nose, excoriations of the upper lip from the discharge, dull aching or even sharp neuralgic pains in the head, changes in the pharynx, larynx, middle ear, and so on. In fact it is clear that both from the obstruction itself and from the nasal discharge which may be present as its cause or result some alteration must take place in the surrounding structures.

It is not, however, to the local results that I wish now to direct attention. The effects of nasal obstruction, and especially of nasal discharge, upon the system generally, and the position of the latter as a possible or contributory cause of certain conditions of what we may speak of in a general way as ill-health, have received until recently little attention. No doubt this is due to the lack of knowledge which prevailed to within the past very few years concerning all affections of the nose. However, it is safe to assert that in no branch of medicine or surgery have such strides been made as in the diagnosis and treatment of diseases of the nose and its accessory cavities. The danger of this rapid improvement is that the rhinologist is apt, even more than might be the case with the more slowly developing special branches, to see things through glasses tinted by his speciality, and reduce to terms of nasal affections as many diseased conditions as can by any means be gathered in. On the other hand, to avoid this danger he may take up the opposite position, and, by being hypercritical and too conservative, miss the connexion existing between some nasal affections and those of a more general character.

The accessory air spaces of the nose, situated as they are in close proximity to the contents of the cranium, are worthy of all the interest and study which can be expended on them; and when we remember the very thin partitions which divide three of them, the frontal and sphenoidal sinuses and the ethmoidal air cells, from the dura mater, it is evident what serious results may arise from disease of their lining membranes and walls. Already during the few years in which the rhinologist has directed attention to these sinuses cases have been described as diagnosed during life and found *post mortem*, in which suppuration of the brain and its membranes has been found either as a direct extension from these sinuses or indirectly through venous and lymphatic channels. When one remembers the number of cases in which disease of the mastoid antrum has resulted in cranial affections, one is driven to the belief that as our knowledge of the nasal cavities and their diseased states improves we shall be able more frequently to trace the connexion between cranial affections and nasal disease, and also, remembering this relationship, to diagnose and treat certain inflammatory and suppurative conditions of the meninges and brain which hitherto with our limited knowledge have been either overlooked or, when suspected, have been assigned a wrong cause.

However, at present I am more concerned with the general results of the more common affections of the nose and naso-pharynx. It has always appeared to me that the mere mechanical interference with nasal respiration caused by adenoid vegetations in the naso-pharynx is not sufficient to account for the general symptoms which frequently obtain in this condition. And yet that is the general teaching. Still it has no doubt happened to others as it has to me to see many cases of undoubted adenoids with marked nasal obstruction in which the only complaints were mouth-breathing, snoring during sleep, and, it may be, some degree of deafness—no general symptoms whatever.

A week or two ago I saw at the Glasgow Ear Hospital a very good example of this. The child, a little girl of 8 years, was brought by her mother because of a certain amount of deafness. Questioning the mother elicited the information that she continually went about with her mouth open, and that she snored at night; otherwise the child was most robust, well grown, plump, very bright and mentally quick, with well-shaped chest, and a good appetite. In fact those who saw her remarked on her very healthy appearance. Further examination, however, showed that there was decided interference with nasal respiration, and by the finger a large mass of adenoid growth was felt. Later this was removed, and the deafness and difficulty of nasal breathing disappeared. In my experience, and no doubt in that of many others, this is by no means an isolated case. We are constantly seeing children suffering from nasal obstruction due to adenoid vegetations in the naso-pharynx in whom the commonly taught general symptoms of mental obtuseness, or, as it is called, aprosexia, delayed growth, pigeon chest, and general ill-health are absent; while, *per contra*, frequently in those cases in which these symptoms are present we find the adenoid growth very small in amount, and causing little, if any, interference with respiration through the nose.

Take, for instance, the case of a little girl of 10, whom I lately saw. Her medical attendant sent her to me suffering from deafness and delay of mental development approaching imbecility. On examining her I found that her tonsils were somewhat, though not greatly, enlarged, and that she had only a moderate increase of adenoid tissue in the naso-pharynx. Nasal breathing was obstructed to only a slight extent. Yet after operation she improved wonderfully till now her mother says, "You would not know she is the same girl, she is so bright and cheerful;" even in two months others notice a marked change in her mental condition. It is a common example. Seemingly so little cause for the marked general symptoms, and yet such decided improvement after its removal.

That restoration of nasal breathing is not the sole cause of the improvement following removal of these growths is proved by the fact that in many cases mouth breathing persists for a long time after the operation, and yet both mental and physical improvement takes place. It is unnecessary to multiply instances bearing this out. We are constantly being told, "He is very much better, but he still breathes through his mouth and sleeps with his mouth open." He may no longer snore, as the levator palati may have regained their tone and there is no longer any obstruction to their action.

This being so, I have inquired what is the chief cause of the general results of adenoids, and the conclusion pressed upon me is that the secretion, which occurs in greater or less amount in this condition, must be given a prominent place. This varies much both in regard to its amount and to its character. It may be very small in amount or most excessive, and in character we find any gradation from ordinary mucus, odourless and even non-irritating, to very thick and bad-smelling muco-purulent discharge. In one little girl whom I saw frequently it was very abundant and very offensive to the smell, and in her the general physical symptoms were the most marked I have seen. Every morning she was sick, and vomited a large quantity of malodorous, thick muco-purulent material—the night's collection from the vegetations in the naso-pharynx. She sweated profusely during sleep, was very anaemic, had typical pigeon chest, poor appetite, and altogether her general state of health and physical development was such as to suggest tubercle, but though she was carefully examined with this in view no pulmonary

other tuberculous condition could be detected. Her parents objecting to an operation, a nasal douche was prescribed, and some improvement resulted; but later, consent having been obtained, the adenoid vegetations were removed, and this was quickly followed by decided improvement in every respect. No doubt this was an exceptionally bad case, but it is certainly common, on examining the throats of children suffering from this affection, to see copious muco-purulent discharge passing over the pharynx from the post-nasal region.

It is reasonable to suppose that this entering the stomach must tend to destroy the appetite and to derange the digestion, and in proportion to the septic nature of the discharge and the amount absorbed, to set up those conditions of ill-health which are got as a result of chronic septic poisoning. We have seen in the case quoted to what a marked degree this may occur. The secretion from the adenoids is, in many cases, reinforced by that from the concomitant rhinitis, which is often found in this condition. Indeed, even apart from this condition, rhinitis is very common in children, and the purulent change which takes place in the secretion from its stagnation, due to the inability of the child to expel it, is probably the chief cause of post-nasal vegetations.

Passing from this cause of nasal obstruction in children, let us look at the commonest cause of this same condition in adults—turbinal hypertrophy, due to chronic hypertrophic rhinitis. From the nature of things, the general results are not so usual or marked as in children. The child is naturally more liable to physical and mental developmental defects and changes. Still, there are, in many cases, other general symptoms to be found following on nasal obstruction in adults—lassitude, depression of spirits, deranged digestion, with its results, irregularity of the bowels, loss of flesh, and so on.

William Hunter has pointed out the importance of decayed teeth and other septic conditions of the mouth as the cause of many deranged states of the digestive function, and it has been recognized by many writers on diseases of the nose that chronic suppuration of any of the accessory sinuses causes in many instances deterioration of the general health both from direct septic absorption from the nasal passages and cavities, and from ingestion of the purulent material into and subsequent absorption from the alimentary tract. The constant disagreeable smell, too, which is present tends to produce loss of appetite and depression of spirits to a considerable degree in some people. In these cases, as Tilley has pointed out, treatment of the sinus disease is followed immediately by decided improvement in the general state of health. In such conditions there is no difficulty in accepting the relationship between the sinus disease and the ill-health, and it is no disproof of this that some people suffer from suppuration of one or more of the accessory nasal cavities, and yet seem little the worse, for it is well recognized that the results of septic absorption from any chronic purulent focus vary in different individuals. It may be that those cases of nasal suppuration, in which digestive disorders are got, have previously had their digestive power weakened from some other more generally recognized cause, and the amount of hydrochloric acid diminished so that it is now incapable of counteracting the effect of the ingested purulent material. No doubt in most cases there is more than one cause.

In ozaena, too, whether due to sinus disease, which I have not satisfied myself is generally the case, or to other cause, I am inclined, from careful observation of cases, to look upon the anaemia and ill-health so frequently found as the results rather than as predisposing causes of this distressing complaint. Fetid particles from the dry decomposing crusts in the nose are inhaled and some also, together with infected mucus from the pharynx, find their way into the stomach. In this disease too, if we may so call it in the present state of our knowledge, we get sometimes the same absence of general disturbance of health as in some cases of sinus disease. Lately a woman consulted me on account of deafness. Otherwise she was most robust and healthy looking, and yet examination of the nose corroborated the opinion of ozaena which, as is usually the case, had been suggested by the disagreeable smell. As far then as sinus suppuration and ozaena are concerned it is easy to understand that disturbance of health may arise, and there is a very general agreement as to the cause-and-effect relationship between the local and general conditions in certain cases. The same, however, cannot be said of the effects of chronic rhinitis and the increased secretion caused by it. The good results which have followed in many instances the nasal treatment of spasmodic asthma, and which have been ascribed to the nervous connexion between the nasal cavities on the one hand, and the lungs and bronchi on the other, might be cited in support of a probable relationship between diseased conditions of the nasal mucosa and derangement of the gastric functions, the same nervous connexion existing between the nose and stomach. However, I do not wish to press this aspect of the question. My present purpose is to show that the chronic discharge from rhinitis, whether of the simple or of the hypertrophic variety, may give rise to digestive disturbance and general derangement of health, and that these may result even when the secretion is not at any rate markedly purulent. It is no doubt true that in a large proportion of normal nasal cavities the secretion is sterile; the exact percentage is variously given by different observers. At the same time it is equally true that the anterior part of the nasal cavities, that is the vestibules, is usually the abode of pyogenic organisms, giving rise at times to small furunculi in this locality, and it is also a frequent starting point of facial erysipelas. Given, then, an increase in the secretion, and stagnation also, especially when there is obstruction from turbinal hypertrophy, we find, as we would expect, even allowing for the fact that the nasal secretion is a pure culture medium, that there is a decided tendency for it to become muco-purulent, thus adding to its irritating character the possibility of absorption of septic material.

An actual purulent rhinitis is rare; indeed its existence is denied by some. If the pus is not the result of disease of one or other accessory air space, it can usually be found to depend on a local focus of bone disease. Yet the secretion in chronic rhinitis very frequently contains a large percentage of purulent material. It is hardly necessary to point out that in this condition even when it is not purulent it is irritating, as is shown by the redness and excoriation of the external nose and upper lip so frequently got. This irritating property itself is, in my opinion, calculated to cause gastric derangement, with consequent depression of spirits and general impairment of health. The following is a case in point:

A man came under my care with what he termed a chronic cold in the head. His history was that he had suffered from this for some years; that at times the discharge increased in amount, and there was a remission for a period and so on. He suffered much from indigestion always with frequent attacks of nausea, and had been treated in various ways by diet, drugs, and by washing out the stomach. It had appeared to him that the gastric condition was worst when the nasal discharge was most abundant. Rhinoscopic examination showed a condition of general rhinitis with hypertrophy, especially of the left inferior turbinal, and with an excessive amount of secretion, not at any rate manifestly purulent. The nasal condition was treated first by douching with borax and soda, followed by an antiseptic oily spray, and later the hypertrophy was reduced by the aid of the cautery. This was followed by improvement of the gastric condition, so that, as he states, he has been freer from indigestion than he has been for years.

Quite recently I have seen a lady suffering from a similar nasal condition in whom the gastric disturbance, with nausea and actual sickness, alternates with asthmatic attacks. The connexion of the two in the light of the nasal affection is interesting, though I am aware that asthma is stated to depend frequently on derangement of the functions of the stomach.

When the discharge is distinctly muco-purulent, as it is in probably the majority of cases of chronic hypertrophic rhinitis, its general effects will approximate those produced by sinus suppuration. These effects are sometimes very decided, and yet treatment and cure of the nasal condition is followed by great improvement of the general state of the health.

A case bearing this out is that of a woman under my care at the Glasgow Ear Hospital. She came suffering from nasal obstruction, which I found to be due to a large mass of polypi. Removal of these resulted in the relief of the obstruction, and she went away feeling, as she said, much better. A week later, however, she returned, and I was struck with her look of ill-health. She complained now of a copious discharge from both nostrils, which, as she herself stated, had completely taken away her appetite and caused a continuous feeling of nausea and depression of spirits. On examination of the nasal fossae the mucous membrane was found to be profusely bathed with muco-purulent discharge, which, no doubt, had increased from the negative pressure due to the removal of the compression of the polypi. She was given a nasal douche. A fortnight later, and only a few days ago, she returned looking and feeling decidedly better. The left nasal cavity was quite healthy, but in the right there was still a small amount of pus which, on careful examination,

appeared to come from the middle meatus, and by means of the probe bare bone could be detected in the region of the anterior ethmoidal cells. This may possibly require further treatment; but the notable feature was the disappearance of the gastric symptoms and the general improvement alongside the diminution of the nasal discharge.

In considering the general results of excessive or purulent discharge from the nose, we cannot, of course, leave out of count the nervous or mental element. It can easily be understood that in people of neurotic temperament, the sensation of secretion passing over the pharyngeal wall and the constant hawking to rid themselves of it may give rise to effects on the general health. Add to this the troublesome pharyngitis and laryngitis which is so frequently got as a result of nasal affections, with, in many cases, a certain degree of dysphagia, and we have a local condition which is calculated to set up a state of mind favouring abnormal instrospection, giving rise to depression of spirits, loss of appetite, insomnia, and the general ill-health caused thereby.

It would appear, therefore, advisable in cases of chronic ill-health, associated or not with gastric derangement, to include among the possible causes certain affections of the nose and naso-pharynx, and especially those giving rise to a discharge of a muco-purulent or purulent character. The patient himself may make no complaint of this—indeed, he may be unaware of the existence of anything wrong with his nose, and the condition may only be revealed by careful rhinoscopic examination. As I have already stated, it is probable it will be found in most cases that the nasal affection is of the nature of a contributory cause, and that there has previously existed some digestive weakness which makes the patient more liable to the evil effects of the entrance of purulent material into the stomach; and that, while treatment directed to the nose is necessary to enable a cure of the more general state of health to be brought about, it must be looked upon rather as a reinforcement of, than as an alternative to, the more usual methods.

NOTE ON HAEMOSOZIC SERA.

BY

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IN a preceding note,[1] we gave an account of experiments made to produce an antihaemolytic (haemosozic) serum by injections of ox bile into rabbits. We were only moderately successful, for unless added to bile in very large doses the serum delayed, but did not prevent, haemolysis. In our opinion this result was due partly to the fact that it was impossible to produce a high degree of immunization owing to the cachexia caused in rabbits by repeated injections of bile, and partly to the great variety of substances which the serum of animals injected with bile might contain.

Preliminary experiments[2] having shown us that the bile contained not only two haemolytic substances at least, but also one haemosozic substance, it seemed probable that on the introduction into the animal organism of such a complex fluid, reactions similarly complex might follow. We therefore endeavoured, in the first instance, to separate roughly the different substances present in bile, and to prepare sera by injecting each substance separately into different animals.

Our *modus operandi* was as follows: Ox bile taken aseptically shortly after slaughtering the animals was dried in vacuo over sulphuric acid. When completely dried it was finely powdered and repeatedly extracted with ether. This was decanted off, and the dried residue left after evaporation was suspended in physiological salt solution. This emulsion we call the ethereal extract. The same powdered bile was now extracted for 24 hours with absolute alcohol in the cold, the precipitate collected on a filter, washed with absolute alcohol and dried in vacuo. This precipitate when suspended in water we call the aqueous extract. The residue left after evaporation of the alcohol was dissolved in water and formed the alcoholic extract.

We had therefore: First, the substances soluble in ether (ethereal extract); secondly, the substances soluble in alcohol (alcoholic extract); and, thirdly, the substances insoluble in or precipitated by these two reagents (aqueous extract).

1. *The ethereal extract* is insoluble in water, and contains cholesterin, lecithin, and the fatty substances which are soluble in ether. The extract can be suspended in water only with difficulty, and though not toxic in itself when injected intravenously, it proves fatal by causing emboli. The subcutaneous injection of the extract of 300 c.cm of bile is followed by no particular symptoms, even when such large doses were repeatedly injected. Temperature and weight remained normal, or the animals increased in weight even, and no inflammatory symptoms were noticed at the point of inoculation. This extract is undoubtedly haemosozic when added to bile, for it diminishes though it never completely neutralizes the haemolytic properties of bile. The serum of animals repeatedly injected with this extract has no special haemolytic or haemosozic properties and indeed does not differ in its action on bile or blood from normal serum.

2. *The alcoholic extract* is very soluble in water; 0.20 gram injected intravenously kills a rabbit weighing 1,000 to 1,200 grams; death supervening in the majority of cases only after a few days. The temperature rises two or three hours after the injection, but the fever is of short duration. In one of our rabbits 0.10 gram gave rise to a profuse haemorrhage of the ear on the injected side lasting two days. Subcutaneous injection was followed by intense inflammation ending in necrosis of the skin at the point of inoculation. When injected under the skin of the ear, dry gangrene was the result. The part in contact with the liquid became parchment-like and thin, and finally fell off.

Phlebitis was the rule after intravenous injection. In short, the alcoholic extract produced all the lesions of the skin generally following on the injection of bile. Repeated injections, even of small doses, produced cachexia. The animals lost their appetite, diminished in weight, suffered from diarrhoea, and died, the temperature falling for some time before death. The necropsy showed no macroscopic lesions. A 2 per cent. solution was slightly, and a 5 per cent. solution very, haemolytic; but if heated to 100° C. for thirty minutes such solutions lost their haemolytic properties. The serum of animals repeatedly injected with small doses of this extract was haemosozic, that is, it prevented the haemolytic action of the alcoholic extract and of bile, but had no action on the ethereal or watery extracts. The serum of animals which had received three or four injections was more haemosozic than the serum of animals which received larger doses. Some of these sera when mixed with bile in equal proportions altogether prevented haemolysis, a result which we had seldom been able to obtain with the sera of animals injected with bile. The serum when mixed with bile in a test tube gave rise to a very fine precipitate, which did not settle down altogether at the bottom of the tube, but which did not pass through a paper filter. When heated to 56° C. for thirty minutes the serum completely lost its haemosozic properties.

3. *The aqueous extract* was not wholly soluble in water. A filtered solution of 0.10 gram injected intravenously caused death in 8 to 10 hours. The same dose injected subcutaneously without previous filtration produced a hard tumour surrounded for some days by an inflamed area. This tumour was sometimes as large as a walnut, and enclosed an encysted abscess, containing very thick, cheesy, but aseptic pus composed almost exclusively of more or less degenerated mononuclear wandering cells. The poisonous properties of this extract were marked therefore, and one had necessarily to proceed very slowly when injecting animals with it.

Moreover immunization was rendered very difficult by the fact that the animals appeared to become more susceptible to the poison. Very small doses of the extract were borne well as a rule at first, but when such doses were repeated, the fever not only increased, but lasted longer after each injection. The animal's weight diminished and cachexia supervened after the fifth to seventh injection. The aqueous was less haemolytic than the alcoholic extract, and the haemolytic power diminished when the extract was heated to 100° C. for half an hour. The serum of animals injected with the aqueous extract was haemosozic when red corpuscles were suspended in aqueous extract or bile, but less so than the preceding extract in the case of bile. It had no haemosozic effect on red corpuscles suspended in alcoholic extract, and had no effect on the ethereal extract. The serum mixed with bile produced a precipitate in the latter, which, though it did not settle at the bottom of the tube, did not pass through a paper filter.

In our first note we pointed out that, occasionally, the serum of animals injected with bile was not haemosozic but haemolytic. We now found that, occasionally, the serum of animals injected with alcoholic or watery extract was haemolytic instead of being haemosozic as is the rule. In some cases

the serum of animals injected with alcoholic extract was haemolytic when acting alone or mixed with alcoholic extract but unmistakably haemosozic when mixed with aqueous extract. Similarly, in some cases, the serum of animals injected with aqueous extract was haemolytic when acting alone or mixed with aqueous extract, but unmistakably haemosozic when mixed with alcoholic extract. The same serum, therefore, was both haemosozic and haemolytic.

Lastly, a mixture of our two haemosozic sera was not more haemosozic for red corpuscles suspended in bile than the more potent of the two sera.

Note and Reference.

[1] British Medical Journal, July 18th, 1903, p. 130. [2] These experiments will be described shortly in the *Journal of Pathology*.

CAPSULE FORMATION BY DIPLOCOCCUS PNEUMONIAE IN CULTURE;

A POINT POSSIBLY OF USE FOR THE IDENTIFICATION OF THAT MICRO-ORGANISM IN PRACTICE.

By M. H. GORDON, M.A., M.D., B.Sc.Oxon.
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Before a given micro-organism can be identified with diplococcus pneumoniae, one of the chief points to be determined is the presence of its capsule. For instance, as is well known, it is especially by dint of its capsule formation that the pneumococcus is distinguished from other virulent streptococci with which it is liable in other respects to be confused. But the pneumococcus forms its capsule only under certain conditions; and while the capsule can readily be demonstrated around the diplococci when they are present in sputum, blood, or animal exudation, it is rarely exhibited in cultures. Capsule formation, however, has been stated to sometimes take place in cultures of the pneumococcus in media containing tracheal mucus, and also in cultures in serum and in milk.[1] Be this as it may, in actual practice when capsules cannot be demonstrated around the diplococci in the original material, it is necessary before a given diplococcus can be satisfactorily identified with the pneumococcus to inject the micro-organism into a mouse and to demonstrate the presence of capsulated diplococci in the blood or exudation of the mouse *post mortem*.

The pneumococcus showing capsules in culture.

A few months since, when examining a specimen of the pneumococcus, I happened to make a subculture in gelatine and to incubate it at 37° C. On examining the culture next day microscopically after suitable staining I found that undoubted capsules could be seen around the diplococci. After seventeen to twenty-four hours at 37° C., the gelatine in the case of the pneumococcus becomes generally, but not always, uniformly turbid. To demonstrate the capsules the following procedure is used:

The gelatine used was 12 per cent. gelatine made as follows:—1 litre of distilled water is added to 1 lb. of minced beef. Boil for thirty minutes. Filter, add 12 per cent. of yellow-gold table (not bronze-gold or pale) gelatine, 1 per cent. peptone, and ½ per cent. salt. Make faintly acid to alkaline litmus paper with liq. potassae (*B. P.*) Add white of egg and steam for thirty minutes. Filter, pour into tubes, and sterilize in the steamer for thirty minutes on two successive days.

A drop of the fluid gelatine culture is removed with a loop and spread over a cover-glass, dried over the flame, allowed to stand in alcohol for a minute, and then without drying transferred film downwards to a watchglass containing ordinary Ziehl's carbol fuchsine. The film is allowed to stain in the carbol fuchsine for from a half minute to three minutes at the ordinary room temperature. The cover-glass is then lightly dipped in a beaker of water, and after removal of the moisture from its upper side by means of a piece of filter paper (so as to enable a drop of oil to be placed on the cover-glass), the preparation is mounted on a drop of water on a slide. On examining the specimen with an oil immersion (one-twelfth or one sixteenth) clearly outlined, stained capsules can be seen around a good number of the diplococci.

It is important only to dip the stained coverglass lightly and rapidly into the beaker of water. If the specimen is washed in the usual way—that is to say, until all excess of stain is removed, the stain goes out of the capsules and they are invisible.

If several preparations are made it is advisable to renew the carbol fuchsine, which is much more efficient when first used.

While I have succeeded in demonstrating capsules in a one-day culture in gelatine at 37° C. in the case of five successive virulent specimens of the pneumococcus from different sources, six virulent streptococci which have been examined under the same conditions have failed to show capsules.

I believe, therefore, that this property of the pneumococcus of forming capsules in gelatine at 37° C. in one day may be applied for the identification of the micro-organism, and for its differentiation from specimens of streptococcus pyogenes. The point suggests itself as likely to be of use to those who are unable to make the animal experiment.

It should be added that it is difficult to get permanent specimens of pneumococcus showing capsules in gelatine at 37° C., as the capsules are less obvious in Canada balsam than in water, and tend rapidly to fade. The accompanying photograph, however, was made from a permanent specimen which was obtained by deeply staining with carbol fuchsine, only slightly dipping in water, and then, after drying, passing through xylol and mounting in balsam in the usual manner.

Reference.

[1] Washbourn, Croonian Lectures, 1902.

ABSTRACTS OF
The Hunterian Lectures
ON THE
PATHOLOGY AND SURGERY OF CERTAIN DISEASES OF THE PANCREAS.

Delivered before the Royal College of Surgeons of England.

By A. W. MAYO ROBSON, F.R.C.S.,
Hunterian Professor.

LECTURE I.—SYMPTOMS AND DIAGNOSIS.

[After some preliminary observations, Mr. Mayo Robson dealt with some anatomical, histological, and physiological considerations bearing on the pathology of the pancreas, and then went on to discuss the symptoms and diagnosis of diseases of the gland.]

Difficulties of Diagnosis.

As our knowledge of the functions of the pancreas both with regard to digestion and metabolism is becoming fairly well established, it would seem probable that any departure from the normal would lead to such considerable disturbance of function that the symptomatology of any of the diseases of the pancreas would be so marked as to make the diagnosis easy. But this is far from being the case for several reasons:

I. It is seldom the case that the pancreas is diseased without other organs participating. For instance, the relations between cholelithiasis and pancreatitis, between gastro-intestinal catarrh and catarrh of the bile and pancreatic ducts, between ulcer or tumour of the stomach and extension to the pancreas, between affections of the liver, colon, lymphatic glands, and duodenum and pancreatic disease.

II. Every function performed by the pancreas may be vicariously taken up by another organ except the glycogenic function, and that we are not yet certain about. The stomach can digest albumen, the salivary and intestinal glands have the power of digesting starches, and the bile and intestinal secretions can emulsify fats.

III. A considerable portion of the gland may be necrosed and cast off or otherwise disabled, and yet the portion remaining may apparently be sufficient to carry on the functions of the gland. For instance, in a case of my own, a patient who is now perfectly well, had necrosis of the pancreas, which I removed at operation. As may be seen, a good pro-

portion of his pancreas is on this table, and I will show a photograph on the screen.

IV. In some cases the true cause of the disease may lie in the pancreas and yet all the symptoms be caused by implication of another organ. For instance, cancer of the head of the pancreas produces intense jaundice and distension of the gall bladder, giving the appearance to the uninitiated of disease of the liver or bile ducts, a symptom to which I drew attention in a paper at the Clinical Society of London in 1885. Again, a tumour of the pancreas may compress the intestine and produce intestinal obstruction or lead to pressure on the neighbouring ganglia and cause most violent pain that may be referred to spinal disease, to aneurysm, or to anything but the real cause.

Thus it will be seen that very conflicting combinations of symptoms may arise and lead to great difficulty in diagnosis.

DIGESTIVE SYMPTOMS.

Steatorrhoea or Fatty Stools.

Experiments on animals and clinical observations on man do not altogether harmonize; but we may, however, derive assistance in the diagnosis of pancreatic disease if we bear in mind the following conclusions:

(*a*) Fat occurs in the stools in three forms.
(1) As fat driplets.
(2) As fatty acid crystals.
(3) As soap crystals.

(*b*) The capacity for digestion and absorption of fats is limited; if, therefore, fat be taken in large quantities, it is found in the stools.

(*c*) Steatorrhoea occurs in some cases of jaundice, in some cases of enteritis, and in some affections of the pancreas, but in none of these constantly.

(*d*) When jaundice and interstitial pancreatitis coexist, there is a great excess of fat in the stools.

(*e*) The presence of an excess of fat in the motions in the absence of jaundice and diseases of the intestine is suggestive of pancreatic disease.

(*f*) If the pancreatic reaction (to be described later) be found in the urine along with steatorrhoea, some affection of the pancreas is almost certain.

(*g*) If azotorrhoea be found along with steatorrhoea, it is almost certain that the pancreas is diseased; and if the pancreatic reaction in the urine, diabetes, and an epigastric tumour be present, the diagnosis is certain.

My own experience in a large number of pancreatic cases has been the almost universal presence in the motion, which if normal should not contain more than 5 per cent. of an increased amount of fat either in the shape of oily particles or of solid fat or of fatty crystals.

The characteristic white stools often seen in pancreatic disease in the absence of jaundice owe their pale colour entirely to the solidification of the fat when the motions cool, although there may be a normal amount of bile present; the greasy, bulky motions so often seen in pancreatic disease with or without jaundice are often coated with almost pure oil.

This is frequently remarked by patients as floating on the surface of the urine passed at the same time.

I have often noted steatorrhoea in acute haemorrhagic, necrotic, and suppurative pancreatitis, in calculus of the pancreas, in cancer and in some cases of cyst, where jaundice had accompanied the cyst formation. I have also seen an almost entire disappearance of the fat in some of these cases after the administration of the gland substance by the mouth as well as a complete disappearance in many cases after surgical treatment.

Azotorrhoea or Faulty Digestion of Albuminous Foods.

The conclusions we may form concerning this symptom are:

(*a*) The digestion of nitrogenous foods is not solely the function of the pancreas.

(*b*) As the normal stools of meat eaters contain a small proportion of undigested muscle fibres, and as in febrile conditions, in disorders of the stomach and in enteritis they may be found in excess, their presence in the motions is no proof of disease of the pancreas.

(*c*) If azotorrhoea be found along with liporrhoea the presence of pancreatic disease should be suspected.

(*d*) If azotorrhoea and liporrhoea be found associated with diabetes or with tumour of the epigastrium, pancreatic disease is extremely probable.

(*e*) If azotorrhoea and liporrhoea be found associated with the pancreatic reaction in the urine, pancreatic disease is certainly present.

My experience of azotorrhoea is that it is not so readily noticed as steatorrhoea, and my attention is hardly ever drawn to this symptom by the patient, though a careful naked-eye examination of the stools in nearly all diseases where the digestive properties of the pancreas are interfered with has shown the presence of muscular fibres and microscopic examination has confirmed the observation. This, when taken with other symptoms is an important point to notice.

Excessive Pancreatic Secretion.

This has been referred to Senn, who suggested a causal relation between hypersecretion of the pancreas and the diarrhoea which is sometimes associated with cysts and degeneration. Actual salivation has been noticed in the case of cysts. Personally I have not seen salivation in any of my cases of pancreatic disease, and I do not consider it of importance from a diagnostic point of view.

Diarrhoea Pancreatica.

The exceedingly, bulky, soft, greasy, pale motions, evidently due to the patient's want of digestive power and the passage onwards of the bulk of the food taken are characteristic; they contain manifest unaltered fat and muscle fibre and are extremely offensive. Patients frequently describe them as diarrhoea, but this is usually an incorrect designation, the motions being bulky and soft and not liquid in consistency. They are due not only to the increased amount of fat and nitrogenous matter passing away undigested, but to the bulk of hydrocarbonaceous food being parted with, some unaltered. The symptom is very noticeable, and when it occurs in cases of jaundice it may nearly always be taken as an indication that the pancreatic functions are being interfered with, either by an interstitial pancreatitis or some other form of disease. I have more frequently noticed these symptoms in chronic inflammatory conditions than in cancer, the reason being that the appetite is more interfered with by the latter than the former disease; hence also the symptom is more apt to be noticed in the earlier than the later stage of the disease, unless large amounts of milk be given, when the bulk of it may pass away in this form of spurious diarrhoea. Blood may be noticed in the motions occasionally, but it is not a regular symptom until the haemorrhagic tendency occurs later in the disease, or unless there happens to be an ulcerating malignant growth present. In some cases constipation exists, the motions being still very bulky and as a rule pale.

Dyspepsia and Alteration of Appetite.

I have found dyspeptic disturbances to be anorexia, pain and fullness after food, flatulency with offensive eructations, heartburn, nausea, distaste for fats and for meat, constantly associated with affections of the pancreas.

Emaciation.

Ever since pancreatic diseases have been recognized, emaciation has been regarded as a well-known symptom. The disturbance of digestion may afford a sufficient explanation in some cases, but in the malignant and in the atrophic cases the interference with the metabolic function of the pancreas must also be partly responsible for the rapid emaciation. Alone, emaciation would not of course justify a diagnosis of pancreatic disease, but if with rapid loss of flesh, fat, and muscle fibres be found in the faeces and pancreatic crystals in the urine the diagnosis of disease of the pancreas may be confidently made.

Nausea and Vomiting.

These symptoms are frequently associated with acute pancreatitis, and I have seen the vomiting so violent as to suggest acute intestinal obstruction, but in the other forms of pancreatic disease it is not a common symptom, and when present it is often due to the neighbouring organs, stomach or duodenum, participating in the trouble or being pressed on. In acute pancreatitis altered blood, so-called "black vomit" is seen at an earlier stage than in any other peritoneal condition.

Jaundice.

The now well-recognized relation between pancreatic and gall-stone trouble would lead one to suspect that jaundice would be a frequent accompaniment of pancreatic disease, but this symptom is by no means constant. The relation of the common duct to Wirsung's duct and to the head of the pancreas is generally the determining factor of deep jaundice though in nearly all inflammatory affections an extension of the inflammation takes place, and sets up a more or less severe catarrhal jaundice. If, as is the case in 38 per cent. of bodies (Helly), the common duct passes behind the head of the pancreas, either an acute or chronic pancreatitis, or even a cancer of the pancreas, may run its course without the appearance of jaundice, but if the common duct lies in a deep groove, or is embedded in the head of the pancreas, either pancreatitis or growth of the head of the pancreas, must necessarily compress the bile duct and lead to jaundice of greater or less intensity. It may, perhaps, only be a coincidence, but Dr. Cammidge tells me that in all the specimen

of urine that he has examined for me from patients suffering rom pancreatitis bile has been found in just over 60 per ent. If common duct cholelithiasis be the cause of pancreat- tis jaundice will, of course, be present. Deep jaundice, ssociated with distended gall bladder, is significant of ancer of the head of the pancreas, whereas if the cause of the aundice be gall stones in the common duct the gall bladder s nearly always contracted, and not capable of being felt.

Physical Signs.

Tumour.

The situation of the pancreas behind the stomach and in ront of the spinal column places it in almost the worst ossible place for palpation, and under normal circumstances, f the patient be at all stout, it can only be indistinctly felt; ut where the patient is thin, and in cases of gastroptosis, it an readily be defined when the muscles are relaxed and a arm flat hand is applied firmly to the epigastric region.

It is commonly stated in textbooks that acute and chronic nflammation and even abscess rarely if ever cause a per- eptible enlargement of the organ; in this view I do not gree, for I have over and over again felt enlargement of the ancreas in these conditions, and I think further experience ill show that in many cases a distinct swelling may be felt, hich in the acute cases is made up of the swollen pancreas ith surrounding effusion of blood and inflammatory fluid, gether with matted omentum; in the subacute cases it is ue to suppuration, and in the chronic cases to a tumefaction the gland itself. In cancer of the head of the pancreas the ly tumour that is ordinarily felt is the swelling caused by enlarged gall bladder, which can be readily palpated in a nsiderable proportion of cases.

In tumour of the body or tail, as well as in some cases of ncer or sarcoma of the head of the pancreas, palpation adily discovers the swelling, and by distending the stomach th gas the relation of the stomach to the tumour can be adily made out. Resonance on percussion owing to the sition of the stomach, unless the stomach be empty, com- unicated non-expansile pulsation, and very slight move- nt on deep inspiration are characteristic of swellings of pancreas. In cystic disease of the pancreas, tumour is at t frequently the only symptom, the position depending on part of the organ from which the cyst springs.

t will thus be seen that the absence of a tumour does not gative serious disease of the pancreas, though the presence a swelling when taken with other symptoms, especially urine test, affords valuable evidence of disease.

Fever.

n increase of temperature is, as a rule, associated with te and subacute pancreatitis, but only rarely with any of more chronic forms of inflammation, and, as a rule, it is ent in cystic disease, in calculus, and in new growths.

acute pancreatitis the temperature may be high; but in er cases, as in the haemorrhagic form, it is usually sub- nal. In suppurative pancreatitis I have seen the tem- ature assume a hectic form, but in one case coming under notice it was subnormal, and in another it was persistently to 102° or 103° F., and associated with rigors. In cancer he head of the pancreas the temperature is generally sub- nal.

will thus be seen that fever as a symptom is extremely able and alone is no guide, though when associated with stive, metabolic, and certain physical signs it is a ptom of the greatest importance in making a differential nosis.

Pain and Tenderness.

experience has been that both pain and tenderness are rule absent in malignant disease of the head of the pan- , though on the other hand in some exceptional cases of er or sarcoma both of the head, body, and tail of the pan- the pain may be excruciating; it depends either on sure on or involvement of the great sympathetic ganglia, pressure on or invasion of the neighbouring viscera, ially the stomach or duodenum. Small scirrhus urs are as a rule characterized by the absence of pain, large growths are often marked by constant and ex- agony.

the various forms of pancreatitis, pain and tenderness e epigastrium are as a rule well marked, and the more inflammations are characterized by excessive tender- on pressure, rigidity of the recti, and pain of an agoniz- haracter. In chronic pancreatitis pain and tenderness, h usually present, may be little marked, but in some cases the pain is paroxysmal and severe and epigastric tenderness well pronounced. Cysts may be quite painless and free from tenderness, but in some cases I have seen both pain and tenderness well marked. Even in abscess of the pancreas pain may be absent, as has been reported by Stibler, though in the cases that I have seen pain and tenderness were both pronounced.

Calculus of the pancreas may exist for years undetected and unsuspected without causing any pain, but in one case that I operated on the patient pointed to a tender and painful spot on the left of the middle line, which she begged of me, before operation, to examine specially, and at which exact spot I found and removed by operation a pancreatic calculus. If a calculus reaches the orifice of the pancreatic duct or gets into the ampulla of Vater, severe pain occurs in paroxysms, resembling a gall-stone seizure, and will then be associated with jaundice. The pain may be continuous or paroxysmal, and may be limited to the epigastrium, or radiate round either side of the thorax. I have found pain in the back, under the left scapula, or between the scapulae, to be more frequent than pain beneath the right scapula, thus serving to distinguish it from gall-bladder pain. Caeliac neuralgia was a term long ago applied to epigastric pain, such as is associated with some form of pancreatic disease, and such pain may pass to the cardiac region and resemble angina pectoris, both in its intensity and in its effect on the circulation.

It will thus be seen that, while pain is a guide to diagnosis, it is not pathognomonic of any special disease except acute pancreatitis.

Pressure Symptoms.

The presence of ascites owing to involvement of the portal vein is seen at times in the later stages of cancer of the pancreas, when at the same time there may also be pressure on the inferior vena cava and oedema of the lower limbs. Where the duodenum is surrounded by the head of the pancreas—an extremely rare condition—or where the gland partly surrounds the bowel any growth or even inflammation of the head of the pancreas may lead to obstruction to the passage of the stomach contents, to gastric dilatation, and to vomiting as in pyloric stenosis. The duodenum and the colon may be pressed on both by cysts and new growth, such as cancer or sarcoma, and the viscera contiguous to the pancreas may be seriously displaced—the stomach, for instance, being pushed upwards beneath the diaphragm or downwards below the umbilicus.

Distension of the gall bladder and jaundice are frequently found in cancer of the head of the pancreas, and in some cases of chronic pancreatitis the same sequence of events may occur, the presence or absence of this sign being dependent on the relation of the common duct to the head of the pancreas. Pressure on or involvement of the solar plexus may give rise to agonizing pain. In some cases the hepatic duct may be pressed on when the common duct is free. The pressure of a pancreatic cyst passing upwards to the under surface of the diaphragm may cause dyspnoea from interference with the functions of the heart or lungs, and in case of inflammatory effusion in the lesser peritoneal sac there may be pressure on the pericardium through the diaphragm, leading to distressing cardiac symptoms.

Haemorrhage.

Besides the local haemorrhage that may be known as pancreatic apoplexy and the form known as haemorrhagic pancreatitis, there is in many pancreatic affections a tendency to general haemorrhage from wounds or from mucous surfaces, and to petechial haemorrhage in the skin or to more extensive bleeding in the subcutaneous tissues.

It is well recognized that a haemorrhagic condition coexists with cancer of the head of the pancreas. This tendency may be due to an altered condition of the blood both in its tissue elements and chemically. In cases in which the blood has been examined for me a very marked diminution in the number of blood plates has been found, and the coagulating period has always been seriously delayed. Further, it is well known that a diminution in the lime salts leads to a tendency to haemorrhage, and we have found that there is in nearly every case of pancreatitis a profuse excretion of lime in the shape of oxalates. In urine containing bile, calcium oxalate crystals are not generally found microscopically, because the bile takes up the lime salts; but, after the jaundice has been relieved by operation, an examination of the urine will, as a rule, show oxalate crystals so long as any pancreatic trouble continues. In several cases of cancer of the pancreas

on which I have operated the bleeding has been the immediate cause of death.

Before operating on these cases I now always administer calcium chloride in 30 to 60 gr. doses thrice daily for from twenty-four to forty-eight hours previous to operation, and by enema in 60 gr. doses thrice daily for forty-eight hours afterwards; this is usually successful in correcting the haemorrhagic tendency.

Metabolic Symptoms.

Diabetes and Glycosuria.

It is believed that the absence of an internal secretion which recent researches have apparently traced to the islands of Langerhans leads to diabetes. The classical experiments of von Mering and Minkowski, who showed that the total removal of the pancreas in dogs regularly resulted in diabetes, and the important discovery of Eugene L. Opie that hyaline degeneration of the islands of Langerhans was present in a girl of 17 who had died from diabetes, followed by other observations, that diabetes is only present when the islands of Langerhans are involved as in the interacinar type of chronic interstitial pancreatitis, has now apparently established the fact that in diseases of these islands we have the origin of pancreatic diabetes. This explains many anomalies, and renders it quite easy to see why glycosuria should be present in some diseases of the pancreas and not in others. For instance, in chronic interstitial pancreatitis of the interlobular type there is no glycosuria and microscopic specimens made by Dr. Cammidge demonstrate that in this condition the islands of Langerhans are quite free from disease.

In extensive malignant disease the whole gland may be destroyed and then diabetes will be present, but if part of the gland remain unaffected in malignant or other tumours or cysts, diabetes does not occur. Out of a large number of cases of disease of the pancreas that I have seen I have only occasionally found glycosuria present, and in such cases, if well-marked, I have not recommended operation, though I am not prepared to say that benefit might not arise by drainage in some cases of interacinar pancreatitis if caught early. It will thus be seen that glycosuria is not common and cannot be relied on as a diagnostic symptom in diseases of the pancreas, but when it exists along with other signs it is extremely serious, and in fact as a rule indicates an incurable condition.

Other Changes in the Urine.

In consequence of the indefinite character of the symptoms in various diseases of the pancreas, a want has been long felt for some distinctive signs by which affections of the pancreas may be diagnosed. From the important metabolic functions of the gland, attention was naturally given to the urine, and in turn indicanuria, maltosuria, pentosuria, lipuria, and glycosuria have been advanced as of diagnostic importance in pancreatic troubles.

As the result of a large number of observations on a considerable number of cases, I hope—in conjunction with Dr. P. J. Cammidge—to be able to adduce proofs that a certain reaction may be obtained from the urine in the greater number, if not in all diseases of the pancreas, which affords considerable help in diagnosis; but, further than this, our experience leads us to believe that it may be possible to distinguish between acute and chronic inflammation and between simple and malignant disease. The presence of glycosuria does not prevent the pancreatic reaction being obtained, but the sugar must first be removed by fermentation. In this way, therefore, it may be possible to make the diagnosis of pancreatic diabetes.

At first, when the method was crude and incomplete and our experience in its employment was small, the conclusions, though helpful, were not so certain that one dare venture to assert more than a hope that it would be a help in diagnosis, and this I announced in an address before the American Surgical Association in Baltimore in May, 1901. Since then the test has been applied in every case that has come under my care where the pancreas was suspected, and in a large number of control cases where there was no suspicion of pancreatic disease.

The control experiments led to the discovery that certain allied crystals were obtained in some other diseased conditions, such as cancer and chronic inflammation, where marked tissue changes were taking place; but, fortunately, the difference in the shape of the crystals and the increased time they took to dissolve in sulphuric acid and other tests enabled them to be differentiated.

There is still a great deal of work to be done on the subject, which may have other important issues, but we think the time has come when a further announcement should be made, so that the utility of the method may be tested by other observers.

Of the manner in which these crystals were found, of the method of their preparation, and of their significance, my friend Dr. Cammidge will have much more to say in his Arris and Gale Lecture; of their diagnostic importance I will now give my experience.

Although I have operated on over 100 patients for pancreatic disease of one kind or another, in my earlier cases the urinary pancreatic reaction was unknown, and it is only during 1900, and since, that we have been employing the test systematically; but during that time several hundred analyses have been made, and the diagnoses have been confirmed by operation in 56 and by necropsy in other cases.

In a considerable number of cases of cancer of the head of the pancreas, with jaundice, the test has been applied, and either confirmed the diagnosis made from the clinical signs or proved the presence of malignant disease in the face of irregular symptoms which rendered the diagnosis doubtful, so that one has been able to advise non-operative treatment with confidence instead of having to recommend an exploratory operation, which could do real good.

In several cases suspected from the clinical signs and symptoms to be cancer, the disease has been proved by this test to be an inflammatory affection, and curative operations have been performed.

Different diseases of the pancreas it will be seen, as one would expect, present very various grouping of symptoms, but in nearly if not in every case since Dr. Cammidge and I have been working together at the subject we have found most valuable help from the pancreatic reaction. Although we must not yet say that this sign is absolutely pathognomonic, yet it is safe to make the assertion that if the test be skilfully carried out it affords most valuable, positive, or negative evidence when taken with other symptoms, in not only establishing the presence or absence of some disease of the pancreas, but in assisting in the differentiation of simple from malignant disease, a most important matter when surgical treatment is in question.

Symptoms of Diagnostic Importance Produced Artificially.

Alimentary Glycosuria.

Minkowski has shown that if only a part of the pancreas be removed, diabetes does not result, but the ability of the organ to perform its normal function on carbohydrate metabolism is impaired; for if, to animals in which the pancreas has been partially removed, sugar be given in large quantities, temporary glycosuria results.

Wille has observed the symptom in man in association with disease of the pancreas. He gave 2 oz. to 3 oz. of sugar before breakfast to 800 patients, the urine being tested before the sugar was taken and later at intervals of two hours. When the test was positive, glycosuria usually occurred at the end of two hours. Of 15 patients exhibiting alimentary glycosuria who subsequently came to necropsy, 10 presented grave pancreatic disease, chronic interstitial pancreatitis or cancer. Although this symptom may occur under other conditions, as in exophthalmic goître or chronic alcoholism, its presence has considerable value as an aid to diagnosis.

Sahli's Symptom.

If iodoform be enclosed in a gelatine capsule hardened in formalin, and given by the mouth, it is almost unaffected by gastric digestion, but is readily dissolved by the pancreatic secretion. If pancreatic digestion is normal, iodine should appear in the urine in from four to eight hours. The absence of the reaction or its delayed appearance, if the motor function of the stomach be normal, indicates according to Sahli an impairment of pancreatic digestion.

Fat Necrosis.

By fat necrosis is understood a disintegration or necrosis of the living fatty tissues in the neighbourhood of the pancreas or in small spots diffused widely over the peritoneal cavity, even in the pericardium or pleura or subcutaneous fat. It is associated with a splitting up of the fat into fatty acids and glycerine; the latter is absorbed, but the acids being insoluble remain in the cells either as crystals, or uniting with the calcium salts of the blood they form yellowish-white patches of various sizes. As the result, however, of clin

observation and experimental evidence we may now accept the fact that fat necrosis is always the result of the penetration of the fat-splitting ferment of the pancreas first into the tissues in the neighbourhood of the gland, and when more extensive to the diffusion of the ferment either through continuity of tissue or by means of the lymphatics. Fat necrosis may be present and yet not be visible to the naked eye, although it may be discovered by a method suggested by Bender, the application of a solution of acetate of copper to the tissues. The recognition of fat necrosis by the surgeon who opens the abdomen to relieve symptoms associated with peritonitis in the upper abdomen is of the utmost importance, as it indicates a grave lesion of the pancreas, probably haemorrhagic, gangrenous, or suppurative pancreatitis. It is said not to occur generally with suppurative inflammation, but in one case I found a most extensive fat necrosis in association with subdiaphragmatic abscess of pancreatic origin. It has also been said that the presence of extensive fat necrosis is a fatal sign, but a case of my own disproves this, as a patient under my care made a complete recovery after an operation undertaken for acute pancreatitis in which the fat necrosis was well marked and diffuse. Truhart has also been able to collect 10 cases in which the diagnosis was made and yet an immediately fatal issue did not occur.

As the ferment causing fat necrosis may be excreted by the kidneys, it would form an important diagnostic sign if it could be found in the urine, but this has not yet been determined, although in one case of acute haemorrhagic pancreatitis Opie obtained a suggestive reaction by means of ethyl butyrate as suggested by Castle and Loevenhart.

Haemorrhage (so-called Apoplexy).

It is well known that local haemorrhage into the pancreas may occur apart from injury and apart from any general haemorrhagic tendency, and that, although it may be recovered from, as shown by the remains of extravasated blood in the gland in persons dying from other diseases, yet such spontaneous haemorrhage may lead to death from collapse either immediately or after some hours. This may occur in persons apparently in good health and without any premonitory signs on which a diagnosis can be based, the only symptom at the time being those of collapse, with dyspnoea and feeble pulse. In this way severe pancreatic haemorrhage apart from pancreatitis forms a disease in itself.

The causes of pancreatic haemorrhage are:

1. Vascular disease, such as atheroma and fatty degeneration, or alcoholic or syphilitic arteritis.
2. Injury.
3. Fatty degeneration of the gland cells and deposit of fat in the pancreas, the result of alcoholism or of general adiposity.
4. Fat necrosis in the gland or its vicinity has been suggested by Fitzer, who related several cases in support of his views.
5. Disintegration of neoplasms such as cancer or sarcoma may be the cause of extensive haemorrhages.
6. Haemorrhage from embolism of a pancreatic artery is reported by Opie.
7. Other causes such as heart disease, lung disease, cirrhosis of liver, hemorrhagic diathesis, scurvy, purpura, the exanthemata, phosphorus poisoning, etc., may all give rise to pancreatic haemorrhage.
8. Pancreatitis may undoubtedly lead to haemorrhage.

Large pancreatic haemorrhages are of great interest clinically and are probably more common than is usually thought; the blood may occur into the substance of the gland and disintegrate it, or on to the surface and lead to extensive effusion under or beneath the peritoneum or into the lesser sac, as in the case I have related.

Symptoms.—A great variety of symptoms may occur, from slight attacks of colic in the epigastric region, soon passing off, to violent and persistent pain followed by collapse and rapid death within a short time; or if recovery from the first attack should occur, the attacks may be repeated, and ultimately symptoms of acute pancreatitis may supervene. The seat of the pain may be precordial or dorsal, but it is usually epigastric, and is often accompanied by vomiting. The abdomen soon becomes distended and tympanitic, and if inflammation occurs fever of an irregular type may supervene, or if the disease assumes a rapid ultra-acute form the temperature may be subnormal throughout. At first the diagnosis will be obscure, but with the onset of pancreatitis the group of the symptoms I have related will be found, and an examination of the urine for the pancreatic reaction will afford valuable help.

Treatment.—In the very acute cases, where death rapidly occurs, even if the diagnosis could be made, specific treatment would probably be useless; but if the diagnosis could be detected before a fatal result had occurred, abdominal section and gauze packing would seem to be indicated. In the later stages the treatment is that of acute pancreatitis, and in this case a diagnosis can be made both from the symptoms and physical signs as well as from the discovery of the pancreatic reaction in the urine.

MEMORANDA:

MEDICAL, SURGICAL, OBSTETRICAL, THERAPEUTICAL, PATHOLOGICAL, Etc.

CASE OF PNEUMONIA TREATED BY ANTIPNEUMOCOCCUS SERUM.

On January 15th I was called to see a man, F. B., aged 36, who had a hectic appearance, rapid pulse and breathing, temperature 101 2° F., and all the physical signs in the right lung of acute pneumonia. He told me that for two days he had had fever, pain in the side, and blood spitting. His sputa were seen to be loose and mucoid and uniformly mixed with bright red blood. That afternoon I had him removed, in a closed conveyance, from the cottage where he lodged to the Cottage Hospital at Epsom.

The day after admission his pulse was 124 and respirations 54, and a subcutaneous injection of strychnine was given with marked benefit. Full doses of cardiac tonics and expectorants were exhibited, and the chest enveloped in large linseed poultices. The body and limbs were sponged with hot water, and that night some troubled sleep obtained by two cachets of trional (gr. xv). Pleurodynia was a troublesome symptom, though partial relief was obtained on the second and fourth day by the application, in each instance, of four leeches. An icebag was applied to his abdomen, but after some hours it had to be discontinued, as it seemed harmful and had produced no good effect upon any urgent symptom.

On the fourth day after admission, though he was taking liquid food fairly well, together with ℥v of brandy in the twenty-four hours, he seemed to be sinking. Delirium was increasing, voice faint, anxious expression, eyes staring, cyanotic tinge creeping over lips and cheeks; pulse 132, respirations 56, temperature 104°. At 5.30 p.m., therefore, I injected ℥ ij of Prof. E. de Renzi's, *siero anti-pneumonico* Pane. This serum, after careful disinfection of the skin, etc., was introduced between the integument and the chest wall, in the anterior axillary line at the level of the sixth rib on the right side.

As the needle was withdrawn a piece of cyanide gauze soaked in collodion was used to seal the puncture. This subcutaneous injection seemed to cause him no pain either at the time or subsequently. Within 4 hours both the pulse and respiration began to fall, and the expectoration to lose the bloody tinge. Curiously enough, however, the temperature still remained as high, but as the man was obviously better I repeated over the fifth rib the serum injection (℥ ij) at 11 a.m. on January 20th, with similar precautions; at 11 p.m. the temperature had sunk to 100° F. By January 21st it was 99° and the sputa bronchitic in appearance; pulse 84, respirations 28. His after-convalescence was uneventful.

I am convinced these injections saved his life, and I shall not hesitate to repeat them in any suitable future case, though I cannot close without expressing my indebtedness to the matron and nursing staff at the Epsom and Ewell Cottage Hospital for the careful and efficient way in which they gave practical effect to all my suggestions.

Ewell, Surrey. Percy Rendall, M.D.

A SIMPLE METHOD FOR THE ADMINISTRATION OF ETHYL CHLORIDE.

As pointed out by Dr. E. H. Kitchin in the British Medical Journal of December 26th, 1903, and Dr. H. F. Parker in the same Journal of February 20th, 1904, no special form of inhaler is needed for administration of ethyl chloride, the ordinary Clover ether inhaler answering admirably. Dr. Kitchen pours the ethyl chloride into the reservoir of the inhaler through a perforated cork, covering the perforation afterwards with his finger, and Dr. Parker sprays the anaesthetic on to cotton wool or gauze placed in the aperture at the top of the body of the inhaler. For induction of anaesthesia it is immaterial whether the ethyl chloride is sprayed on to a sponge in the facepiece into the body or into the bag of the inhaler. On the ground of convenience I have been for nearly a year in the habit of spraying the anaesthetic into the bag, and find that, contrary

to what is sometimes stated. the rubber of the bag is in no way injured by the ethyl chloride.

I have recently employed ethyl chloride alone for operations lasting not longer than half an hour. For prolonged administration of ethyl chloride none of the above methods are very convenient. A simple and efficacious method of continuous administration is to take a piece of rubber tubing, 10 in. in length, and attach one end to the nozzle of a clover inhaler, in place of the tube from a nitrous oxide bottle, passing the other end over the nozzle of the ethyl chloride tube. The rubber tube must have thin walls so as not to interfere with the action of the cap of the ethyl chloride tube. By simply raising this tube and lifting the cap, the ethyl chloride is easily run into either the bag or top of the inhaler, according to the type of Clover employed, as often and in such amounts, usually 1 c.cm. to 2 c.cm. every few minutes, as are called for by the state of the patient. Frequent breaths of air are given to the same extent as when maintaining anaesthesia with ether. If the clover inhaler has no nozzle for attachment of a nitrous oxide tube, or if it is thought preferable to pass the anaesthetic directly into the reservoir of the inhaler, this can be done by using a cork perforated by a metal tube, to the outer end of which is attached the rubber tube from the ethyl chloride bottle. I find that ethyl chloride, thus administered, is followed by much more rapid recovery and less vomiting than is chloroform or ether given for a similar period. So small is the amount of ethyl chloride required for maintaining anaesthesia, that my chief difficulty has been to avoid giving an over-dose, which has on several occasions shown itself by asphyxial symptoms, the result of inhibited respiration. In these cases the pulse is usually strong and regular, and appears to be slowed only in the later stages of over-dosage. As an instance of the small amount of ethyl chloride required, in a boy aged 11 years the amount of anaesthetic used in inducing and maintaining anaesthesia for twenty minutes was only 12 c.cm. The boy vomited once at the end of the operation, and after ten minutes was wide awake. The advantages of the above method of prolonging ethyl chloride anaesthesia are:

1. The extra apparatus required is limited to a piece of rubber tubing at a cost of 1s.

2. The supply of the anaesthetic is derived direct from the glass tube in which it is supplied by the manufacturer, and is regulated by the cap and spring attached to this tube.

C. HAMILTON WHITEFORD, M.R.C.S., L.R.C.P.,
Senior Honorary Anaesthetist, South Devon and East Cornwall Hospital; Honorary Anaesthetist, Plymouth Dental Hospital.

BRACHIAL NEURALGIA.

IN connexion with the communications which appeared in the BRITISH MEDICAL JOURNAL on July 11th, 1903, by Dr. Simon, and on January 16th by Dr. Distin, upon the above subject, the following case may be of interest.

A lady, aged now about 70, whilst walking in her sleep thirty-five years ago, fell against the edge of a bed (she thought her forehead struck the bed). Upon being lifted up she felt violent pains down both arms. The pain became most intense, especially from the elbows to the fingers, the sensations being "as though the skin were being torn off."

Several medical men abroad, where she was staying at the time, applied chloroform, opium, blisters, etc., without any relief, and finally ice, which gave most relief. But the pain still continued to be severe. On coming to London she saw Sir James Paget, who prescribed rest and time as the only cure, and told her that she would recover, but that it would take years. She suffered more or less pain and impairment of movement in both arms for ten years.

Nine months ago, without any apparent exciting cause, she was attacked by sharp neuralgic pains over the region of the brachial plexus, over the right shoulder, about the insertion of the deltoid, down the forearm, and back of the right hand. The pain was very sharp, and the arm almost useless, great pain being caused by the least movement. I prescribed sedatives, bromides, etc., blistering to the back of the neck, but the pain was still severe, especially at night, which induced me to try guaiacum, with potassium iodide and bicarbonate, with a liniment of aconite, belladonna, chloroform, and menthol.

The pains became much less severe but the impairment of movement was still troublesome. For this I recommended bathing with hot water, massage, and electricity applied to neck and down arm. This she said relieved her greatly and she is now practically well, only feeling a reminder upon any sudden movement occasionally. There was no muscular atrophy, or only what would be caused by the non-use of the arm for some time. Her constitution was remarkably good; she was not a neurotic subject, hypochondriacal, or hysterical.

I was struck with the inveteracy of the attack at the time and the small effect that sedatives appeared to have. As guaiacum appears to relieve nocturnal rheumatism, it struck me it might be of benefit, and I think in combination with the iodide it was of decided benefit. The electricity and massage she said gave her great relief, but this was in the subacute stage.

Bettws-y-Coed. DOUGLAS MACDONOGH, L.R.C.P., etc.

VENESECTION IN OPIUM POISONING.

IN the treatment of cases of opium poisoning no mention is made in the textbooks of venesection as a last resource. When all efforts—such as the application of friction, cold affusion, the battery, etc., have failed to rouse the patient from a comatose condition, venesection may restore the patient to consciousness by the abstraction of some of the poison circulating in the blood, thereby preventing its reabsorption, and relieving in some degree the paralysis of the nervous system.

This idea was suggested and adopted in the case of a young lady who had swallowed more than an ounce of laudanum, and who, when discovered some hours afterwards, was unable to be roused by any of the methods recommended, with the result that she recovered from an almost hopeless condition.

The report of this case may induce others with greater opportunities to try venesection in cases of opium poisoning, when other methods have failed to restore consciousness.

Glasgow. WILLIAM A. CASKIE, M.A., M.D.

REDUCTION OF DISLOCATIONS IMMEDIATELY AFTER THE ACCIDENT.

IT does not seem to be generally known with what extreme ease a dislocation may be reduced if tackled immediately after the accident, if the opportunity occurs.

Sixteen years ago I dislocated my shoulder in a fall from a tricycle and I got a gentleman to put it in for me the moment I rose from the ground. Three weeks ago I had a similar accident, from a side slip when on a bicycle, to the same arm. Once again on asking a bystander to hold me firmly by the wrist while I gave a good pull, the head of the humerus was instantly replaced.

On each occasion the reduction was quite painless and could have been effected by a fairly strong child of 10 or 12. On each occasion I had very little subsequent pain after the bandage had been applied, and I recovered the full range of movements of my arm in three weeks.

London, N.W. WALTER G. WALFORD, M.D.

OBSERVATIONS ON TEMPERATURE.

THE Remarks upon Temperature published by Dr. Pembrey in the BRITISH MEDICAL JOURNAL of February 27th interested me very much. I would be glad if any one could give me information as to whether observations on the rectal and axillary temperatures at death have been published. The following table of 9 cases observed by me while a house physician may be interesting:

Record of Axillary and Rectal Temperatures immediately after Death.

Initials.	Sex.	Age.	Disease.	Axillary Temperature.	Rectal
				°	
A. C.	M.	49	Psoas abscess, septicaemia	104.8	10
H. H.	F.	71	Morbus cordis	98.6	10
A. P.	M.	14	Morbus renum, cerebral haemorrhage	99.8	10
J. S.	M.	64	Bronchiectasis, gangrene of lung (L)	97.0	10
J. J.	M.	49	Carcinoma ventriculi	102 2	10
A. W.	M.	78	Cystitis, calculus vesicae	98.6	9
P. C.	M.	17	Cerebellar tumour	96.0	9
W. T.	M.	26	Phthisis pulmonalis	99.6	10
J. S.	F.	26	Phthisis pulmonalis	97.0	10

Previous to the simultaneous observations made the thermometers were tested and proved to be accurate.

Ibrox. A. WHYTE CASSIE, M.B., Ch.B., M.A.Aber

REPORTS
ON
MEDICAL AND SURGICAL PRACTICE IN THE HOSPITALS AND ASYLUMS OF THE BRITISH EMPIRE.

GUY'S HOSPITAL.

A CASE OF GENERAL PNEUMOCOCCAL INFECTION: ACUTE PLEURISY: LOBAR PNEUMONIA: PERICARDITIS: ENDOCARDITIS: PERITONITIS AND COLITIS WITH DELIRIUM: FATAL IN LESS THAN FOUR DAYS.

(Under the care of G. NEWTON PITT, M.D., Physician to the Hospital.)

A MALE, aged 17, was suddenly seized with acute pain in the left chest on August 26th, 1903. He was confined to his bed and rapidly became worse. On the 28th he was admitted in a state of wandering delirium, mortally ill with intense dyspnoea and severe thoracic pain. He was very noisy, with a temperature of 103.2°, and a feeble pulse of 120. His respiration was feeble, noisy, and shallow. On the 29th he was semi-conscious only, and this became more marked. There was no dullness, but the note at the left base was slightly deficient. A widespread loud rub was audible over the greater part of the chest, most marked at the left lower portion. There was no approach anywhere to bronchial breathing; in parts it was deficient; the voice sounds were transmitted normally. The pulse was 140, and no abnormal cardiac sounds could be detected on account of the noisy breathing.

At this time it was noticed that the abdomen was distended, immobile, and rigid, and there was evidently commencing peritonitis. There was no dullness, no evidence of fluid, and the region of the appendix did not appear to be different from the rest of the abdomen.

It was clear that there was peritonitis with pleurisy, but the relation of the two to one another was uncertain. It was thought possible that the primary condition might be an appendicitis with a secondary peritonitis and pleurisy. The history was most imperfect, as the man could not answer questions, but apparently the pleurisy preceded the peritonitis.

A general pyaemic condition and a pneumococcal infection were also discussed, but no positive diagnosis was arrived at, Dr. Pitt only saw the man once. The coma increased, and he died, without definite evidence of any consolidation, early in the morning of the 30th.

At the inspection, seven hours after death, there was general *post-mortem* discoloration of all the tissues. The glands at the bifurcation of the trachea and above the diaphragm were greatly swollen. There were 10 oz. of turbid fluid in the left pleura, and the whole of the surface of the lungs was covered with a layer of lymph which was an eighth of an inch thick in places. The surface when the lymph was scraped off had not lost its lustre. There were subpleural haemorrhages. There were haemorrhages into the lung substance, the lower lobe on the left side was compressed, and there was very slight commencing consolidation at the apex of the left lower lobe. There was early pericarditis, with a few flakes of lymph and some haemorrhages. There were small acute vegetations on the mitral valve. There was acute membranous colitis for 12 in. from the ileo-caecal valve. There was very slight peritonitis, with a small amount of exuded lymph. There was no obvious meningitis, but the ventricles contained slightly bloodstained fluid. Cultivations from the peritoneum, the pericardial fluid, and the heart blood all showed pneumococci.

The case was a typical one of pneumococcal septicaemia, in which the poison overwhelmed the patient before there was time for consolidation of the lung to occur, a condition which is very rare in man, though common in animals, when they have been inoculated.

The condition of universal bilateral pleurisy, which causes the lungs to collapse, and inhibits respiration to such an extent that it proves rapidly fatal, has been met with by the writer on two occasions previously, and in neither had consolidation of the lung developed.

BLACKBURN AND EAST LANCASHIRE INFIRMARY.

GASTRIC ULCER: PERFORATION TWICE IN FIVE MONTHS.

(By ROBERT Y. AITKEN, M.D., F.R.C.S., Assistant Surgeon to the Infirmary.)

As Mr. Moynihan, of Leeds, has remarked, "the perforation of a gastric ulcer is one of the most serious and overwhelming catastrophes that can befall a human being." An individual who has twice within five months successfully undergone laparotomy and suture of the perforation may be considered fortunate, especially when the fact is considered that seventeen hours on the first occasion and twenty-five hours on the second had elapsed before the abdomen was opened.

History.—B, S., female, aged 29. Had suffered from symptoms of ulcer of stomach for years, and had been treated medically. She had not had haematemesis. At 5 p.m. on February 20th, 1903, she ate a "parkin," and soon afterwards complained of great pain in the upper part of the abdomen, and became collapsed. She was admitted to Blackburn and East Lancashire Infirmary at 11 a.m. next morning.

State on Admission and Operation.—The diagnosis was clear, and considering the fact that seventeen hours had elapsed since the perforation she was in good condition for operation. The abdomen was rapidly opened for about 6 in. in the middle line above the umbilicus. The perforation, which was near the middle of the anterior surface of the stomach, was easily found, as the stomach contents were seen escaping as soon as the edges of the wound were retracted. There was a considerable amount of thick lymph round the perforation, which was surrounded by an indurated area of stomach wall. This area was doubled in by eight or ten Lembert sutures without difficulty. The abdominal cavity was filled with hot saline solution after a suprapubic opening had been made. The flushing was continued till the returning fluid was clear, the hand being meanwhile moved about in the abdomen to ensure thorough distribution of the fluid. The greater part of the fluid was then removed by sponging. Large rubber drainage tubes, with a wick of wet gauze in each, were then inserted into each loin, and to the seat of suture, and another through the suprapubic opening to the bottom of the pouch of Douglas. The operation lasted under an hour, most of the time being taken up in cleaning the peritoneum.

Progress.—There was no great shock after the operation. The tubes were removed on the third day and replaced by gauze drains. The patient seemed to be doing well except that a parotid abscess formed about the seventh day. On March 14th—twenty-one days after operation—pneumonia of a septic type developed, and, getting rapidly worse, the case seemed hopeless. The pulse-rate at one time was never below 140 for four consecutive days. After fourteen days the condition cleared up and the wounds entirely healed at the end of six weeks. She went to a convalescent home and came back able to eat any ordinary food.

Second Admission.—On Saturday evening, July 18th, 1903, the same patient was readmitted and as she had had ½ gr. morphine hypodermically a short time before, the diagnosis was not at all apparent. She had not had pain in the stomach but had been feeling out of sorts generally for about a week. Acute pain came on at 5 p.m. on July 18th, after which she walked a mile and drank some hot soda water on getting home. I saw the patient at 11 a.m. on the following day and could not be quite certain that a perforation had occurred. The temperature was 97° F., pulse 108 and respirations 33. I saw her again at 6 p.m when she was evidently rapidly getting worse, and I decided to operate at once. It was then twenty-five hours after the supposed time of perforation.

Second Operation.—The operation resembled the first in the ease with which the perforation was found, but the application of the sutures meant at least fifteen minutes' work, as, even after cutting the left rectus across, the perforation was very difficult to reach, the chest being flat, and having a very acute epigastric angle. The perforation was smaller than the first, and the stomach contents which had escaped seemed to be mostly mucus. Thick flakes of lymph were adherent to the adjacent stomach and liver. The character of the extravasated material decided me on sponging instead of flushing the abdomen, and, as several ounces of dirty fluid were swabbed from the suprapubic opening, I put in drainage tubes as before, and finished the operation as quickly as possible, with serious misgivings as to the result. Very soon they were relieved, and, without a bad symptom, the patient recovered. The wounds were finally healed on the twenty-ninth day.

REMARKS.—The interesting point in the case is the fact of two perforations having taken place within such a short interval—namely, five months. Many recorded cases have died of another perforation within a few days or weeks of an operation for perforating ulcer, but two distinct perforations and operations, with recovery, cannot be of frequent occurrence. The flushing on the first occasion and swabbing on the second teaches nothing, although I think I will swab rather than flush in future. By setting about it methodically and carefully there should not be much septic material left anywhere. If one thing more than another contributed to success it was the suprapubic drain, as shown by the amount of discharge from it. I have operated six times for perforated gastric ulcer since March 7th, 1902, and the only case in which there seemed much hope of recovery died a week after operation with a collection of pus in the pelvis. A drain at the time of operation would almost certainly have saved the patient, as the upper part of the abdomen was quite clean.

British Medical Association.

CLINICAL AND SCIENTIFIC PROCEEDINGS.

METROPOLITAN COUNTIES BRANCH: CITY DIVISION.

AN ordinary general meeting of this Division was held at the Metropolitan Hospital, Kingsland Road, on March 10th. The CHAIRMAN (Mr. Frederick Wallace) was in the chair. Mr. M. Cursham Corner, of the Stratford Division, was unanimously elected a member of the Division. The members of the medical and surgical staff of the hospital exhibited a number of cases, as follows: Dr. HAIG: (1) Chronic rheumatoid arthritis, improving with aspirin; (2) Bright's disease, in which the heart's action had been altered from slow to fast. Drs. DAVIES and Dr. LANGDON BROWN: A case of pneumococcal pyaemia. Dr. CAUTLEY: (1) Locomotor ataxia with gastric crises; (2) a case for diagnosis; probably degeneration of the cerebral arteries. Dr. LANGDON-BROWN: An anomalous case of muscular atrophy. Mr. GOODSALL: (1) Carcinoma of rectum treated by left iliac colotomy and subsequent removal of lower part of rectum; (2) villous tumour subsequently becoming carcinomatous. Mr. HARMER: (1) Arthropathy of shoulder joint associated with syringomyelia; (2) excision of elbow for displaced fracture of the lower end of the humerus. Mr. DANIEL: Cutaneous actinomycosis. Mr. GORDON WATSON: (1) Two cases of osteitis deformans; (2) congenital dislocation of hip; (3) unusual case of congenital syphilis. The meeting terminated with hearty votes of thanks to the Committee of Management, the medical and surgical staff and the matron of the hospital, to the kindness of all of whom a very successful and interesting meeting was due.

REPORTS OF SOCIETIES.

CHELSEA CLINICAL SOCIETY.

ANNUAL CLINICAL DEBATE.

T. VINCENT DICKINSON, M.D., M.R.C.P., President, in the Chair.

Tuesday, March 8th, 1904.

"INTERNAL SECRETION" IN DISEASE AND IN TREATMENT.

SIR LAUDER BRUNTON, in opening a discussion on this subject, briefly outlined the history of the growth of knowledge of secretions and the ferments they contained. He then passed on to the general question of ferments. It was, he said, about the beginning of the last century that it was definitely determined that germinating barley yielded a watery extract which would convert starch into sugar. About twenty years later the chemical substance diastase was separated from this watery extract, which also had the power of converting starch into sugar. Similar substances were separated from the saliva, from the gastric juice, and from the pancreatic juice. It had recently been shown that the pancreas of a dog would adapt itself to the food upon which the animal fed, secreting a glycogenic ferment when the animal fed upon starch, a proteolytic ferment when fed upon meat, and a ferment which would split up fats when the animal fed upon fats. A question had arisen as to the fate of these ferments, but it had been shown that they were not preformed in the glands, but that substances were present in the stomach and in the pancreas which would split up and yield active ferments. It seemed from recent researches that these ferments which were excreted into the intestine, after their absorption, met with certain antibodies, and became recombined to form zymogens. It would sometimes seem that these antibodies might really be active ferments, and that in the case of the pancreas, while it was pouring out into the duodenum a secretion which would convert starch into sugar, was pouring out through the lymphatics into the blood another ferment which would destroy that sugar and allow it to undergo combustion in the body. Apparently those two secretions depended upon different parts of the pancreas; the external secretion depending on the ordinary follicles of the pancreas, which were constructed upon the same plan as those of the salivary glands, and the internal secretion from the so-called islets of Langerhans which were scattered through the substance of the pancreas. Diabetes seemed to be a disease depending upon failure of the internal secretion, which in ordinary cases tended to break up the sugar in the blood and to allow it to become oxidized. Continuing, Sir Lauder Brunton said that the most striking of all the internal secretions was that of the thyroid gland. The experiments first of all of Schiff, and later of Kocher, Horsley, and others, showed that that gland was of great importance to the life of the animal. As showing that poisoning actually occurred from excess of thyroid secretion, he described a case in which he had seen all the symptoms of exophthalmic goitre except exophthalmos and enlargement of the thyroid brought on by too prolonged use of thyroid for myxoedema. The kidney was another organ which seemed to have an internal secretion as well as an external one. The internal secretion here was one which deserved a great deal more attention, and it required a great deal more research than it had yet received, because the kidney consisted o two parts, the cortical and the medullary, and it was not known whether these both secreted an enzyme or whether they secreted the same form of enzyme. Other questions which would require to be settled were how far these enzymes were actually reconverted simply into innocuous bodies in the blood, and how far were they re excreted by the gland by which they had been originally formed? The bile which was secreted by the liver consisted of two parts; it consisted of bile which had been freshly formed by the liver, and of bile which had been absorbed from the duodenum, and which was being again excreted by the liver. It seemed highly probable that all glands had the power not only of forming enzymes, but of re-excreting them. Probably the enzymes which they excreted into the intestines were reabsorbed, converted into enzymogens, passed to the gland again, and decomposed into enzymes again. He raised this question because he thought that any one who could answer it would add greatly to the power of treating disease.

Sir VICTOR HORSLEY said that for a long time he had been anxious to discuss in a medical society the question of internal secretion—almost entirely from the point of view of the thyroid gland—from a rather different aspect to that in which it was most familiar. When thinking of internal secretion and its alterations by disease its banishment was perhaps the most prevalent idea. He wanted to suggest that there was not merely this negative side of internal secretion, but that the positive side was as important clinically. They must not only think of those internal secreting glands when diseased as no longer able to furnish the useful ingoing ferment, but that in the process o becoming diseased there was poured into the circulation aberrant and poisonous substances. In certain well-known conditions like simple goître, there was ample clinical evidence of such poisoning going on. He was glad Sir Lauder Brunton had dealt with the subject from the point of view o the pancreas, because there was a close parallelism between the thyroid gland and the pancreas. Sir Lauder Brunton had referred to the capability of the pancreas to adjust itself to the requirements of the organism chemically. Prevention of that adjustment occurred in the thyroid gland in disease, especially in the formation of new growths. It was now recognized that in exophthalmic goître the thyroid gland was responsible for certain nerve symptoms. The clinical treatment of exophthalmic goître was based at present upon an attempt to treat the external secreting part of the gland. If examined microscopically, the thyroid gland in exophthalmic goître of every degree showed total disappearance of colloidal substance in the acini, its replacement by a watery excretion, and change in the shape of the acini; instead of being of the well-known more or less circular type they became racemose the cells tending to be more columnar. Clinically, how was such a condition treated? The first method was the electric treatment. There were few cases of exophthalmic goître which could not be cured by systematic treatment by the faradic current. It was a curious fact that in exophthalmic goître the removal of the isthmus by a surgical operation would stop the disease. How could such an operation possibly effect such an alteration in the gland as to change its secretion, and so to prevent its poisoning the body? The only explanation which could be offered was that the lobes of the gland underwent cicatricial fibrosis after the operation and it could be supposed that a great deal of the hyperaemia which was part of the pathological change, was thereby arrested. An exact parallel was found in the surgical treatment of acute pancreatitis: drainage of the gall bladder would stop the apparently fatal progress of acute pancreatitis in a certain number of the cases. These were facts which at the present moment they were unable to explain. So far as i

ternal secretion was concerned, an exophthalmic goître patient was suffering from two conditions, a negative and a positive—he was suffering from acute poisoning and also from athyroidism. In a so-called simple adenomatous goître in which there was an encapsulated tumour in the gland, symptoms of toxicity would be found when it was well advanced. That the patient was really being poisoned could be proved by the simple operation of removing the tumour. Sir Victor then went on to speak of supplementation of internal secretion of the thyroid gland. Clinically cases of sporadic cretinism and of myxoedema showed the wonderful therapeutic effect of thyroid extract. At the present time thyroid extract was frequently given in goître, but it could not have any supplementation effect in a case where the new tissue was poisoning the patient already. There was one condition of goître in which undoubtedly it produced a beneficial effect for some time, and that was parenchymatous goître. In malignant disease of the thyroid gland, however localized, it was absolutely essential to remove the whole gland, and he (Sir Victor) had been much struck in these cases by the fact that, although the gland was completely removed, these patients required exceedingly little thyroid extract to cure them in health. He did not believe that clinically sufficiently notice had been taken of work done in Professor H. Munk's laboratory on the relation of the animal proteid in food to the secretion of the thyroid. Many patients with adenoma of the thyroid, and especially of parenchymatous goître, did not like meat, and it they were given meat they became depressed and suffered from headache and so forth. Milk could be tolerated to any extent. So with a thyroidectomized dog; it would have symptoms of an acute toxic nature when fed on meat, which disappeared when it was fed on milk. The speaker then related the history of two anomalous cases of myxoedema in which he removed the thyroid gland.

Dr. Rolleston said that their knowledge of diseases due to disturbance of the internal secretions was very incomplete. It was known that in myxoedema the thyroid gland showed definite anatomical changes and that administration of thyroid extract, or the internal secretion of the thyroid counteracted the morbid manifestations and kept the disease in check. But in other diseases the evidence was far less complete; in acromegaly the pituitary body was constantly enlarged, but the relation between this anatomical change and the characteristic features of the disease was really unknown, and the administration of pituitary extract was in no way comparable to the effect of thyroid extract in myxoedema. In Addison's disease it was by no means established that the disease was solely due to suprarenal insufficiency, for if it were, the treatment should be as simple and successful as in myxoedema. Was it not possible that some of the diseases assumed to be due to disturbance of the normal internal secretion of one ductless gland were more complex in their nature? What were the conceivable nature of these complex conditions, and how were they related to each other? In acromegaly glycosuria was not uncommon, and had been known to depend on changes in the pancreas; were these pancreatic changes secondary, or were they two concomitant changes? Again, acromegaly might be combined with exophthalmic goître, and there was some superficial resemblance between acromegaly and myxoedema. The want of success in the treatment of exophthalmic goître and acromegaly might possibly depend on the fact that two or more glands, instead of one only, were in each case in an abnormal condition. A deficient supply of thyroid secretion (benign hypo-thyroidism) was probably common enough, and it was widely recognized that thyroid extract was a valuable tonic for many of the ills to which female flesh was heir. The important influence of the thyroid on metabolism raised the interesting question as to the relation between thyroid insufficiency on the one hand and premature senile changes, and arterio-sclerosis on the other. Arterio-sclerosis and its renal manifestation, granular kidney, were common in myxoedema. In conclusion, Dr. Rolleston referred briefly to the therapeutic uses of suprarenal extract. Schäfer and Oliver had shown that the active principle was not destroyed by gastric juice *in vitro*, and there was no doubt that when given by the mouth to patients with Addison's disease it raised the blood pressure. Preparations of the active principle were now available for hypodermic injection and that method was probably more effectual. The effect of treatment in Addison's disease by suprarenal extract or its active principle, epinephrin, was disappointing as compared with the effects of thyroid extract in myxoedema. Improvement often occurred temporarily, but it was only in rare instances that that good effect was maintained, and that anything like a cure was effected. The statistics of 105 cases of Addison's disease treated by suprarenal extract (Adams) were quoted, and an example of a toxic effect of the extract was given.

Professor A. E. Wright said that the secretions he would speak about were those which were not elaborated by any gland; they did not know where they were produced in the body, but they knew that they were created and that they were present in considerable quantities in the blood. He took as the most familiar example of an internal secretion diphtheria antitoxin. But all the protective substances which were involved in the cure of disease were to be regarded as produced by internal secretion. When a person was invaded with an acute disease it might, he thought, be said that that person was suffering from want of a particular secretion, just as a person suffering from myxoedema was suffering from the want of his thyroid secretion. When the blood of a man affected with acne was investigated and compared with normal blood it was found defective in a certain internal secretion which affected staphylococci and rendered them subject to phagocytosis. When a patient was suffering from a defective thyroid gland they could go to a normal animal and get thyroid juice, and give to the patient as much as he required, but in the case of a patient who was suffering from boils, or from acne, or tuberculosis, by reason of the fact that his blood was deficient in protective substances, they could not obtain ready made those protective substances which were required; but they could, if they knew the laws by which such substances were produced, call forth a production of those substances in the person with whom they had to deal. Of some 30 cases—boils, and acne and sycosis—which he (Professor Wright) had treated by inoculation, there had not been one of them in which there had not been produced enough of that internal secretion to enable the body to kill off the staphylococcus. In dealing with tuberculosis the same principle had a wide range of application. Patients with tuberculosis recovered if they produced enough of the internal secretion to render their bodies uninhabitable by the tubercle bacillus. The customary treatment of tuberculosis aimed not at directly calling forth an elaboration of protective substances. It contented itself with placing the patient in the open air in the hope that he would elaborate them. But knowing the laws under which protective elements were produced, it was possible in many cases to call forth the necessary internal secretion in the patient who was the subject of tuberculosis to enable him to overcome the disease. Broadly speaking, in the case of disease of chronic character, or in the case of a disease which was liable to relapse but which was not immediately dangerous to life, there was an interval during which those secreting tissues in the body might be induced to secrete the protective substances required. Professor Wright then went over briefly what was known about immunization, about the way in which those internal secretions developed, and how those matters had been tested in the case of man. He related in connexion with antityphoid inoculation how he had made very long series of investigations on the conditions in which an antidotal substance was produced; and how he had done the same in connexion with staphylococcus invasion, and how for the last year or two he had been working out continuously the laws in connexion with the production of protective substances against tuberculosis. In every laboratory in Europe experiments had been done on immunization, and the general law of the production of immunity under those protective substances might be taken as well established. He mentioned some results in connexion with the treatment of lupus and tuberculosis of the bladder by the inoculation of a tubercle vaccine (Koch's new tuberculin) in which he had seen extraordinarily good results. Professor Wright concluded by saying that it should be recognized that chronic or local infection was a symptom of defective internal secretions, and that these secretions could be elaborated in the body when there was youth, strength, and health, by the application of the appropriate stimulus given in proper quantities and given always in the light of careful and systematic examination of the effects produced on the blood.

The meeting then adjourned.

The Johns Hopkins Hospital, Baltimore.—The Johns Hopkins University Hospital suffered severely in the recent terrible fire at Baltimore by the destruction of a house property from which a considerable portion of its revenues were drawn. Mr. J. D. Rockefeller has given £200,000 to make good the loss caused to the hospital.

PATHOLOGICAL SOCIETY OF LONDON.

Meeting at the Royal Army Medical College, Examination Hall.

Lieutenant-Colonel FIRTH, R.A.M.C., in the Chair.

Tuesday, March 15th, 1904.

NOTES ON SOME EXPERIMENTS CONCERNING BACILLARY DYSENTERY.

LIEUTENANT-COLONEL R. H. FIRTH, R.A.M.C., read a communication on this subject. The author observed that while there could be no doubt as to the existence of bacilli in the intestinal dejecta from cases of acute dysentery which were capable of differentiation from the common colon and enteric micro-organisms, all the bacilli which had been described as being the specific cause of bacillary dysentery were probably not so. In the course of a detailed examination of a considerable number of these dysentery bacilli, derived from a variety of sources, it was possible to divide them into those which were pathogenic and those which were not. Pathogenicity had been determined in the rabbit, and although both varieties presented morphological resemblances in common, the distinctive cultural features of the non-pathogenic group seemed to be an ability to split maltose, galactose, and mannite with the formation of acid, but without production of gas, also to produce indol; these characteristics were wanting in the pathogenic varieties. The non-pathogenic forms were apparently the "pseudo-dysentery bacilli" of some authors, but whether they represented degraded or transitional forms of the pathogenic type he was unable to say. As representative of the true bacilli of dysentery he mentioned the organisms associated with the names of Shiga, Vaillard, and Kruse. After demonstrating the cultural reactions of the two types, he pointed out that, from the point of view of their agglutination reactions, the two groups presented marked differences. Whereas the serum derived from animals immunized with one or other of the pathogenic varieties was capable of reacting upon the other members of the same group in high dilutions, it had little or no effect on those of the non-pathogenic group; moreover, there was no concordant interaction between members of this latter group and sera resulting from immunization with similar non-pathogenic strains. The same experiments had shown that, in the rabbit, although a serum had developed marked agglutinating functions, it had no antitoxic action. While in rabbits no ill-effects followed when the dysentery organisms or their toxins were administered either by the mouth or by direct injection into the intestinal tract, as exposed by a preliminary laparotomy, lesions characteristic of those found in human dysentery could be produced by subcutaneous inoculation. Examples of these were exhibited, showing ulcerated and sloughing areas in the caecum and large intestine, also sections of some of the affected parts in which the bacilli seemed to be primarily affecting the subcutaneous layer of the bowel. The lesions could be caused not only by injections of living bacilli but also by cultures killed by heating to 60° C. for half an hour; the same effects followed inoculations with a sterile filtrate derived from a four-day-old broth culture and also with the filtrate obtained from a sterile autolyzed maceration in water of bacilli which had been killed by chloroform. The existence of a toxic broth filtrate had been denied by some, but provided care were taken to see that the broth in which the dysentery bacilli were grown was definitely alkaline, no difficulty was experienced in obtaining a highly toxic filtrate. The dysentery bacilli and the toxic substances elaborated by or contained in their bodies appeared to have a selective affinity for the caecum and large bowel, as it was remarkable that in all these cases of dysentery the blood and organs and mesenteric glands were sterile. Recognizing the apparent elective affinity which the pathogenic strains had for certain parts of the intestinal tract, when injected subcutaneously, and also the failure to bring about the same effects when the bacilli or their toxins were introduced directly into the alimentary canal, some interesting observations had been made as to the possibility of there being some toxin-fixing or neutralizing substance in the epithelia of the intestinal tract of the rabbit. Emulsions in salt solution were made, under antiseptic precautions, of a virulent culture of the dysentery bacilli with tissues from various organs of a healthy rabbit, such as the spleen, liver, kidney, voluntary muscle, and the epithelium scraped from some 10 in. of the caecum and large bowel. After centrifugalization, 5 c.cm. of the clear liquid were injected into five rabbits, a sixth being taken for a control injection with an emulsion of the bacilli alone. The control died on the third day; the rabbits which had received the bacilli with emulsions of spleen, liver, kidney, and muscle died on the fourth day with characteristic lesions; while the animal inoculated with the mixture of bacilli and emulsified intestinal epitheiia survived until the eighth day. In a second experiment, the antitoxic influence of the intestinal epithelia was more marked, the animal surviving. Some facts had been established as to the viability of these dysentery organisms outside the body, indicating that, desiccated in soil or on rags, the bacilli could survive some twenty-one days, while from tap water kept at 22° C. they were recoverable up to fifty-five days, and at 37° C. up to twenty-eight days. If spread on ordinary bread these bacilli survived a week. The inquiry justified the conclusion that the dysentery bacilli were a specific group, capable of producing definite lesions in the caecum and large bowel of varying degrees of severity such as catarrh, simple petechial patches, punctiform ulcers, large erosions, and even complete sloughing of large areas of the mucous membrane. In accordance with these lesions, the clinical entities, called dysentery, produced by these pathogenic bacilli represented a group rather than a single class of cases, and might range from the infective diarrhoeas of infants and adults through the various degrees of ileo-colitis to the typical acute dysentery of camps and the tropics. There was still something to be done to explain the precise antecedents essential to infection, as, arguing from these experiments on the rabbit, it was difficult to explain the epidemiological facts by the orthodox channels of polluted drink and food only, without premising some condition which antecedently either inhibited or lessened the apparently normal defence against infection, inherent in the intestinal mucous membrane.

DEEP CHROMATIN STAINING IN MALARIA.

Major W. B. LEISHMAN, after alluding to the advances in knowledge of the structure and development of the parasites of malaria, due to the specific coloration of the chromatin by the method of Romanowsky, and its numerous modifications, proceeded to describe the effects of deep chromatin staining on the different varieties of malaria parasites, with special reference to the changes which this intense staining demonstrated in the red corpuscles infected by these parasites. By means of diagrams and stained blood films Schüffner's dots in the cells invaded by benign tertian parasites were demonstrated and it was pointed out that a very moderate grade of intensity of staining sufficed to show them and that their presence was constant and was diagnostic of this variety. In quartan malaria, on the other hand, he, in common with other observers, had failed to demonstrate any changes in the red cells by the most intense staining. As regards malignant tertian or tropical malaria the work of Stephens and Christophers, of Maurer and of Argutinsky, was described and contrasted, and stained films were shown demonstrating, first, the dots in the red cells infected by young malignant shizonts, and, secondly, the deep-stained capsules surrounding the mature gametes or crescents as described and figured by Maurer. In view of the apparently contradictory results obtained by Maurer and Argutinsky and of his own failure, except in a few instances, to demonstrate Maurer's dots and capsules, Major Leishman suggested that these discrepancies might be due to there being more than one variety of tropical or crescent malaria, and that the differentiation of this fever into malignant tertian and quotidian, although largely abandoned, except by the Italian and American schools, might prove to be correct. The existence of two or more distinct species of malignant parasites would account for the difference in the results obtained, and he suggested that the systematic investigation of these malignant parasites by means of deep Romanowsky staining should be undertaken with a view to settling this disputed point. In showing some sketches of the capsulated crescents Major Leishman called attention to some forms which appeared to him interesting as indicating the probable mode of development of the characteristic crescent from a circular intracorpuscular parasite somewhat similar to the gametes of benign tertian and quartan malaria. Specimens were also exhibited of the sections of brain from a case of malarial coma to show the effects of Major Leishman's stain as applied to sections.

The other communications made were upon Various Forms of Trypanosoma, by Captain D. S. HARVEY, and Perforation of Bronchus by Aortic Aneurysm, by Dr. T. J. HORDER.

MEDICAL SOCIETY OF LONDON.

F. de Havilland Hall, M.D., F.R.C.P., President, in the Chair.

Monday, March 14th, 1904.

Discussion on Acute Intestinal Obstruction.

Dr. Hale White, in opening the discussion, confined his remarks to the point of early diagnosis, the responsibility and value of which had been increased largely by modern surgical developments. Conditions which had been mistaken for it were acute appendicitis, acute peritonitis (especially as confused with volvulus), acute haemorrhagic pancreatitis, perforation of a hollow viscus or cyst, thrombosis and embolism of the mesenteric vessels, intestinal colic, biliary and renal colic, ulcerative colitis, and various gynaecological conditions leading to peritonitis. Illustrative cases were quoted and the differential diagnosis under various circumstances discussed. In reference to the form of obstruction, it was pointed out that it was the strangulation and not the obstruction which chiefly was responsible for the symptoms. Internal strangulations were by far the most important to diagnose early. The causes referred to were gall stones, bands, malignant growths, volvulus, and others.

Mr. A. E. Barker limited his remarks to the principles of the surgical treatment. There were three important factors which had to be met in obstruction: (1) mechanical or anatomical, (2) physical, (3) vital. The mechanical factor was less dangerous if promptly relieved. The physical factor, induced by strangulation, consisted in congestion of the bowel, thrombosis, and effusion, conditions which were very serious if neglected. The vital changes, due to the action of toxins stored up under pressure in the bowel, formed the greatest danger. It was essential to obtain quick evacuation of this putrid material, either by an artificial anus or better by resection of the bowel. Illustrative cases were quoted. The chief details in operative treatment to be observed were given. Local analgesia was advocated in preference to general anaesthesia in most cases and washing out of the stomach.

The President alluded to a case of mistaken diagnosis of renal colic for intestinal obstruction. If there were doubt a few hours' delay was indicated. It hardly seemed to him that the seat of the obstruction, high up or low down, in relation to the severity of symptoms was of so much importance as the amount of strangulation. He also would advocate the use of the stomach tube.

Mr. Carter Braine referred to local anaesthesia in operations for intestinal obstruction, and described the anxiety attendant on the administration of general anaesthetics in these cases. Even washing out the stomach for fifty minutes in one instance was not sufficient to empty it—the method could not always be relied on.

Dr. Vincent Bell described cases from his own experience.

Mr. H. J. Waring discussed the differential diagnosis of acute intestinal obstruction from hysteria, based chiefly on the character of the pulse. The colour of the intestine was an important guide to the seat of the obstruction. The rectum should be carefully investigated in every case.

Dr. Hale White and Mr. Barker replied.

OTOLOGICAL SOCIETY OF THE UNITED KINGDOM.

Monday, March 7th, 1904.

Thomas Barr, M.D., President, in the Chair.

Labyrinthine Suppuration.

The discussion on Dr. Milligan's paper—the Etiology and Treatment of Labyrinthine Suppuration—was resumed.

Mr. Cheatle did not think vertigo necessarily pointed to invasion of the labyrinth, and erosion of the inner wall of the antrum and tympanum did not always imply fistular openings into the labyrinth. Cases often recovered from these conditions without exploration of the labyrinth and without serious loss of hearing. He recommended operating by stages. Exploration by the posterior limb of the external semicircular canal was less likely to cause injury to the facial nerve or jugular bulb than that by the anterior limb or by the inner wall of the tympanum.

Mr. Whitehead referred to 691 cases of mastoid disease operated on in thirteen years at the General Infirmary, Leeds: 7 had suppuration of the labyrinth. Of these, 14 had facial palsy; 5, vertigo; 11, no special symptoms; 11 died, 6 from cerebellar abscess, 3 from meningitis, and 2 from marasmus.

Professor Urban Pritchard supported the views expressed by Mr. Cheatle, and suggested the use of 1 per cent. solution of nitric acid for decalcifying large sequestra.

Dr. Dundas Grant discussed the difficulty of exploring supposed fistulae in the labyrinthine walls without producing the very disease whose existence was feared.

Mr. Fagge agreed with Mr. Cheatle as to the method of exploration.

Mr. Lake referred to the frequent causation of deaf-mutism by necrosis of the labyrinth, especially in scarlet fever.

The President spoke of the frequency of extension of suppuration from the labyrinth to the cerebellar fossa. He drew attention to the fallacies of Weber's test for nerve deafness, instancing a case in which the sound of the tuning fork was referred to the affected ear though the labyrinth was destroyed.

Dr. Milligan replied.

Cases.

Dr. Dundas Grant reported a case of thrombo-phlebitis of the sigmoid sinus in which recovery took place after removal of the suppurating clot without ligation of the internal jugular vein.—Mr. Lake showed four patients, and also drawings, one of undoubted herpes of the membrana tympani, and three of conditions "nearly allied to, if not actually, herpes."—Dr. Potter showed a patient with signs of hereditary syphilis in whom appreciable improvement of hearing had followed a course of subcutaneous injection of pilocarpin. Mr. Cheatle, Professor Pritchard, and Dr. Horne thought pilocarpin of less value than repeated blisterings. Dr. McBride and Mr. Lake thought pilocarpin the most valuable remedy which was known for labyrinthine deafness. Dr. Grant thought it was valuable in hyperaemia of the labyrinth and the reverse in anaemia.

Exhibits.

Mr. Hugh E. Jones, Dr. Tilley and Dr. Pegler: Temporal bones with apparently small antra mastoidea, or with the cavity replaced by diploë or sclerosed bone.—Mr. Cheatle: Temporal bones showing some fallacies of Macewen's triangle as a guide to the antrum.—Dr. Jobson Horne: Preparations illustrating the surgical and morbid anatomy of labyrinthine suppuration.

It was announced that the next meeting of the society would be held at Glasgow.

LEEDS AND WEST RIDING MEDICO-CHIRURGICAL SOCIETY.

C. Richardson, M.R.C.S.Eng., President, in the Chair.

Friday, March 4th, 1904.

Rupture of the Intestine.

Mr. Lawford Knaggs read notes of two cases of rupture of the intestine, which will be published in full.

Dr. Christy Wilson (Doncaster) gave the details of a case of a man, aged 25, who had been struck by a tramcar on the left side of the abdomen and been knocked down. There was severe pain in the abdomen and collapse. No bruising was to be observed, but there was some percussion dullness and tenderness over the left half of the abdomen and flank. As the collapse did not lessen and there was vomiting, the abdomen was opened and a rupture sufficiently large to take the finger was found in the ileum. A tapeworm was seen in the intestine; 15 ft. of it was drawn out, but unfortunately without the head. The rupture was closed by a continuous silk suture and Lembert sutures. The abdominal cavity was flushed. The patient made a good recovery.

Mr. Walter Thompson read notes of the following case: A. C., aged 20, was admitted into the Leeds Infirmary on January 14th last, having been kicked on the abdomen by a horse thirteen and a-half hours previously. The abdomen was evenly and slightly distended and rigid all over. The loins were dull to percussion. There was much abdominal pain. Pulse 140, weak. The abdomen was opened below the umbilicus. There was odourless gas in the peritoneal cavity and signs of peritonitis with fluid. A rupture $\frac{3}{4}$ in. long was found (probably in the jejunum) with much bruising. The part was excised well wide of the injury and end-to-end anastomosis effected. The patient left the infirmary on March 11th.

Mr. Moynihan discussed the paper, and Mr. Knaggs replied.

Inversion of the Uterus.

Dr. E. O. Croft (with Mr. R. Muschamp) related a case of acute inversion of the uterus in which reduction was successfully effected on the eighth day after labour. The patient had been attended by a midwife and the history suggested

that the condition had originated during the third stage of labour.

The PRESIDENT, Dr. SELKIRK, Dr. HELLIER and Dr. EDDISON, took part in the discussion; and Dr. CROFT replied.

THE CAUSATION OF CANCER.

Dr. JOHNSTONE CAMPBELL discussed the views of recent investigators who thought that the development of cancer was the result of the degenerative reversion of epithelial cells to a germinal type in association with local conditions which ensured an abundance of nourishment. He himself attributed some importance to a hereditary factor in the tendency of epithelial tissues to early degeneration, and also to a special environment which he thought would account for the existence of cancer areas, streets, etc. He considered that if, with the epithelial cells ripe for a degenerative reversion to a germinal type, there was also present an irritant—mechanical, chemical, or biological—and at the same time an abundant blood supply, then the development of an abortive asexual generation under the name of cancer would be inevitable.

SOCIETY OF ANAESTHETISTS.—At a meeting held on March 4th, the PRESIDENT, Mr. C. Carter Braine, in the chair, Dr. FLUX read notes on a case of post-anaesthetic coma in a patient, aged 40, who was anaesthetised by A.C.E. preceded by ethyl chloride. Death occurred on the fourth day. The urine contained a trace of albumen and many granular casts. *Post mortem* the kidneys and heart were found to be diseased, and in the brain were the remains of old embolisms.—The PRESIDENT communicated a case of goître in which nitrous oxide was given and subsequently ethyl chloride. During deep anaesthesia for tooth extraction the patient became asphyxiated without apparent cause, but recovered on being laid horizontal; an engorged goître which had been concealed by the macintosh apron was then observed. Subsequently ethyl chloride was given most successfully. He suggested that the neck should always be exposed as far as the suprasternal notch in all administrations.—Miss CLAPHAM, M.B., related a case of post-anaesthetic coma; death after four days after administration of A.C.E. for an hour, followed by ether for three-quarters of an hour. The coma lasted till death occurred from bronchitis and dilated heart. A necropsy showed old mitral disease, old infarcts in the kidney, and a narrow cortex, great cerebral congestion and three small cortical haemorrhages.—Dr. A. G. LEVY showed an arrangement for administering ethyl chloride by Clover's ether inhaler. A graduated glass tube was cemented into the vulcanite stopper of the inhaler, the dose was then sprayed into the tube, which was at first dependent and then inverted. The ethyl chloride vapour was gradually mixed with air by rotating the inhaler. Ether could afterwards be added.—Dr. DUDLEY BUXTON read a paper entitled, Reflex Dangers in Early Narcosis. Discussion of it was adjourned.—Afterwards the annual general meeting was held. The reports of the Council and of the Treasurer were read and adopted. The following officers were then elected for next session:—*President:* Mr. C. Carter Braine. *Vice-President:* Dr. J. F. W. Silk. *Treasurer:* Dr. R. J. Probyn-Williams. *Members of Council:* Mr. Harvey Hilliard, Dr. Luke (Edinburgh), Dr. Blumfeld. *Hon. Secretaries:* Dr. McCardie and Mr. Crouch. *Hon. Auditors:* Miss L. B. Aldrich-Blake, M.D., M.S., and Dr. C. J. Woollett.

OPHTHALMOLOGICAL SOCIETY OF THE UNITED KINGDOM.—At a clinical meeting on March 10th, Sir ANDERSON CRITCHETT, F.R.C.S.E., Vice-President, in the chair, Mr. J. R. LUNN showed an elderly man with compression of the retinal veins by thickened arteries in one eye, the vessels in the other eye showing also some degeneration. A large area above the macular region was occupied by a haemorrhage. Owing to the serious view of such cases taken by Mr. Gunn, he proposed to bleed the patient, while Mr. Nettleship had suggested purging him as well. Mr. GUNN said that although he looked upon such cases as grave, yet that as in this case there was no albuminuria he thought it rather a favourable one.—Dr. H. GRIMSDALE exhibited a man, aged 24, who had suffered from gonorrhoeal ophthalmia a year ago, resulting in a dense leucoma in one eye. When light was allowed to shine on to the good eye the pupil contracted, while the other eye rotated distinctly upwards; and when light was withdrawn the reverse took place, the affected eye rotating downwards. This condition had been previously noticed after head injuries, but had not before been described as occurring in such a case as the present one.—Mr. H. L. EASON showed a case of what he took to be a persistent hyaloid artery. The right eye had defective vision and nystagmus. The vessels were seen emerging from the lower border of the disc, one branch running forwards and opening in a funnel-shaped aperture against the ciliary body below the iris. Should it be considered as an inflammatory condition or as a developmental condition, namely, a persistent hyaloid artery? Mr. TREACHER COLLINS saw no reason for doubting that it was really a persistent hyaloid artery, and that, in addition, there had been atypical development of the vitreous.—Mr. EASON also showed a patient with albuminuric retinitis, who, three years before, had acute nephritis, anasarca, and detachment of both retinae. His general condition had greatly improved and the detachment in both eyes had subsided.—Mr. CLAUD WORTH showed a member of a family in which congenital dislocation of the lens was present in five generations. Twenty-four years before Mr. Stanford Morton had described the family in a paper in the *Royal London Ophthalmic Hospital Reports*, and since then two more members had been born, both with the same condition. The CHAIRMAN thought that such a series of cases was most important as bearing on the subject of heredity. Mr. NETTLESHIP thought that possibly a slight luxation of the lens in young children might account for the high degrees of myopia which were occasionally seen and which did not get worse as time went on.—Mr. A. H. THOMPSON showed a girl, aged 10, who had a congenital coloboma of the iris downwards in one eye. Near the periphery of the fundus and well below the macula was a white patch with indefinite edges and a band of healthy choroid crossing it. In view of the condition of the iris he took it for a coloboma, otherwise he would have been inclined to regard it as a patch of choroidal atrophy. The vision was $\frac{6}{18}$, and the left eye was normal.—Mr. BISHOP HARMAN showed a child, aged 5 years, with the following abnormalities: The anterior fontanelle was not closed; a coloboma of each upper lid; a coloboma of the iris and choroid on one side; two dermoids of the globe on the right side; very tortuous retinal vessels; an imperfect mouth; a depression over the sacrum representing the tail (fovea sacralis); two ears on the right side and four on the left. The child was unable to walk or say more than a few words.—Mr. A. H. BENNETT showed a girl, aged 9 years, who when first seen in October, 1903, had keratitis punctata in the right eye; she was not again seen until she attended as an out-patient under the care of Mr. Claud Worth at the West Ham Hospital on February 18th last. The right eye had been red for a month, and the sight had failed without pain. With this eye she could only see hand movements; the vision of the left was $\frac{6}{9}$. The right eye was inflamed with gross oily-looking patches of keratitis punctata. The iris was yellowish and the pupil was occluded. There were five tuberculous-looking masses growing near the angle of the anterior chamber, varying from the size of a shrivelled barley-corn to that of a No. 6 shot. These appeared to be fluffy as though covered with exudation. The eyeball was not tender and there was no fundus reflex. The left eye was normal except for slight ciliary redness. Atropine was applied and hyd. c creta and syr. ferri phosph. co. were given internally. Two weeks later the exudate had mostly disappeared, and small blood vessels were seen on the surfaces of the growths. The left eye now showed typical pyramidal keratitis punctata; the vision remained the same; the lungs were healthy, but the cervical glands were enlarged. The family history disclosed nothing either specific or tuberculous.—Mr. R. MARCUS GUNN showed a drawing of an eye with mal-development of the suspensory ligament. The patient complained of symptoms suggestive of a refractive error, but after the use of atropine the upper edge of the lens, instead of being convex, was roughly speaking horizontal. At two or three places some fibres of the suspensory ligament came down and were attached to it, thus giving rise to elevations along this edge; there was also a coloboma of the lens downwards.

INTERNATIONAL DERMATOLOGICAL CONGRESS.—The fifth International Congress of Dermatology will be held at Berlin this year from September 12th to 17th. The following questions are proposed for discussion: (1) Skin affections in anomalies of metabolism; (2) syphilitic diseases of the circulatory system; (3) epitheliomata and their treatment; (4) *a*, the state of the questions of the spread and prevention of leprosy since the date of the first leprosy conference held in 1897; *b*, the present state of knowledge concerning anaesthetic leprosy.

REVIEWS.

PULMONARY TUBERCULOSIS.

DR. HUGO BECKMANN has written a pamphlet[1], apparently to draw attention to the tonsil and lymphoid tissue round the pharynx, etc., as the chief path of entry of the infecting micro-organism in tuberculosis. He points out, that it is only after many years of inhaling air in which carbon particles are suspended that such particles are found in the lung; they are not found in children's lungs nor in those of young adults, yet it is the young adults who chiefly suffer from pulmonary tuberculosis. If the ciliated epithelium of the air tubes can keep carbon particles from reaching the alveoli he argues that they would be equally efficacious in keeping out inhaled bacilli. On the other hand, there are anatomical grounds for looking to the lymphoid tissues round the fauces and pharynx as the most probable sites of entrance of the tubercle bacillus, as of the pneumococcus and other organisms. Though the slow development of tubercle bacilli renders it difficult to trace their course by evident pathological changes such as mark the passage of more rapidly developing organisms, yet the known course of the lymphatic vessels show the possibility (and probability) of tuberculosis of the cervical glands, or of the bronchial glands from infection through the tonsils. So also pulmonary tuberculosis and meningeal tuberculosis may be similarly caused. On this conception of the actual seat of infection preventive measures should be based, and such measures are discussed in the latter part of the pamphlet. Removal of the tonsils is recommended as one of the most important.

Drs. PLICQUE and VERHAEVEN in the compass of 152 pages[2] give the main details of the sanatorium treatment of consumption as carried out in the sanatoria of France and Algiers, a list of which institutions is given at the end. The authors' divide their subject under the headings: The air cure, the rest cure, overfeeding, antiseptics, and organization of sanatoria. They insist upon the importance of climate in the fresh-air treatment, and do not agree with those who would consider pure air to be equally valuable in the treatment of consumption in whatever locality it may be procurable. Change of air, in the sense of a change of climate, is, they consider, an important factor in the treatment. Full weight is given to the influence of complete rest moral as well as physical; and one of the chief drawbacks of home treatment is the difficulty of ensuring complete repose of mind, as well as of body, when amongst friends and relations. In common with many Continental and some English writers, the authors attach primary importance to overfeeding (*suralimentation*), but they recognize the necessity of diminishing the quantity of food when dyspepsia occurs. The importance of attending to imperfect or decayed teeth is not overlooked. A table giving a full dietary for the week is valuable, though some of the constituents, such as veal, ham, cucumber, would perhaps astonish English patients. Cheese in some form is given daily. Antisepsis and the proper disposal of the sputa receive due attention, and in a chapter devoted to the organization of sanatoria, questions of construction, furnishing, heating, etc., are discussed. An interesting feature of each chapter is the short historical sketch showing for each essential of the treatment of consumptives, as now practised, the landmarks in the evolution of the views now generally accepted. The last fifty pages are devoted to a description of the French sanatoria. According to the list given of these institutions, there are 12 sanatoria for paying patients and 18 for the poorer classes. Those for paying patients contain in all 392 beds, and a further 100 beds are in preparation. The sanatoria for the poor provide altogether 1,105 beds, with a further 615 in contemplation, chiefly accounted for by the fact that 5 out of the 18 institutions are not yet unfinished. The total provision for the sanatorium treatment of consumption would thus appear to be unduly small for the size and population of the country. A classification of the sanatoria according to the altitude and climate of the different localities gives occasion for some valuable remarks upon the effects of altitude, sea air, etc., upon consumption in its different stages and clinical varieties. The numerous illustrations add greatly to the interest of the book.

[1] *Das Eindringen der Tuberkulose und ihre rationelle Bekampfung.* [The Invasion of Tuberculosis and its Rational Prevention]. Von Dr. Hugo Beckmann, Berlin: S. Karger; and London: Williams and Norgate, 1904 (8vo, pp. 47. 1s.

[2] *La Cure de la Tuberculose dans les Sanatoriums Francais.* Par les Docteurs Plicque et Verhaeven. Paris. C. Naud. 1903. (Crown 8vo, pp. 152. 5.)

THE WONDERFUL CENTURY.

THE second edition of Mr. Wallace's book *The Wonderful Century*[3] is really a remarkable production. It is an extremely comprehensive epitome of modern science, and we can quite envy any educated though unscientific person who in its pages may for the first time be introduced to scientific facts. All the most interesting scientific advances are described therein — telephony, the Hertzian waves, with Marconi's applications of them, photography, light and heat, the kathodic and Roentgen rays, the wonders of radium, the liquefaction of gases; chemistry, electricity, and astronomy; geology, physiology, and evolution. Excellent summaries of most of these subjects will be found, and all are described in a simple and telling fashion. Though Mr. Wallace has expunged his objectionable chapter on vaccination, about which neither his practical studies nor his actual experience qualified him to write, he mourns very hopelessly over neglected phrenology—it is about as extinct as the dodo, in our opinion—and he evidently believes in clairvoyance; whereas he disbelieves in the efficacy of our lunacy laws and of our prison system, and he would stop starvation by forced contributions from the rich. That might be very good for the rich, but we wonder how much the poor would work under that system; and even riches themselves are valueless when they cannot command labour. On the other hand, we may sympathize with his lamentations over the dominant militarism of the time, over the loss of six million workers every year, and in respect of all that is expended on national armaments. If the good sense of nations would only abolish one-half of that waste, what a fund would it not leave for the poor and aged. Mr. Wallace calls our prison system utterly unchristian and a hell upon earth; but what would he have us do when even now we read of foreign criminals hailing their sentences with contentment, and when a prison surgeon can say that he knows no healthier and more comfortable place for a few weeks of peace, quiet, and reflection than one of His Majesty's prisons?

A charming chapter is that on dust, and from it we imagine that most will acquire much information. Mr. Wallace is well known to have thought out independently the theory of the survival of the fittest, and he tells his story in Chapter xvii with admirable taste and in the most self-restrained manner. We must warn our readers, however, that though we hope that most of them will read and enjoy Mr. Wallace's pages, they must not accept all his assertions without verification. It would take too long to analyse the whole of the volume, but we may be permitted in a medical journal to direct special attention to the chapter on physiology. Personally, we should have said that the first result of reproductive cell division was a morula and not a gastrula, as Mr. Wallace says; but let that small carping pass. The next objection is more serious. Mr. Wallace says that the white blood corpuscles are produced in the spleen. If he had consulted any modern work on the blood, say, that of Ehrlich and Lazarus—he would have seen that the spleen is just where they are not produced, unless, perhaps, in disease. More remarkable still, he affirms that the white cells are smaller than the red—an assertion which every medical student will know to be open to qualification. Then he speaks of their phagocytic power as their most important function, though it has been shown by Fodor and Nuttall how much more powerful is the germicidal action of the serum, and by Denys how leucocytes in a hanging drop will take not the slightest notice of pneumococci until some antitoxic serum has been added. Metchnikoff, indeed, himself has abandoned his phagocytic theory, and now only claims for his phagocytes that they give off a specific and digestive ferment inimical to bacteria. So all the argument of page 390 falls to the ground.

Again, we can assure Mr. Wallace that we do not wash our surgical instruments in a solution of corrosive sublimate (p. 393), nor do we (whatever we did twenty-five years ago) operate nowadays in a copious spray of carbolic acid. We are willing to believe that most of Mr. Wallace's statements are more trustworthy than those just mentioned; but those errors show how cautious we must be in accepting without verification the *ipse dixit* of any man, however eminent, when he travels outside the confines of his own special studies and experience. The statement as to the ubiquity of bacteria is exaggerated. They are not as a rule found more than 3 ft. below the surface of the soil, and not at

[3] *The Wonderful Century: The Age of New Ideas in Science and Invention* New edition by Alfred Russel Wallace. London: Swan Sonnenschein and Co., Limited. (517 pages and 107 illustrations.)

all in the pure air of the oceans or of the mountain heights. Neither are the majority of the bacteria pathogenic or capable under ordinary circumstances of injuring us; and as regards the strictly pathogenic organisms, no amount of personal or municipal hygiene will save us if we drink water infected with typhoid, or if, being unprotected by past small-pox or by the "Jennerian rite," we should make a practice of visiting small-pox patients.

We cannot believe that the present epoch will be spoken of hereafter as of "almost incredible narrowness and prejudice" because it taboos the old phrenology. Have we not the new phrenology of Ferrier and Hitzig, of Horsley and Schäfer, and is it not far better? Thanks to the investigators above mentioned, and to Golgi and Ramón y Cajal, to Sherrington and to a host of others, we have great hopes of the new phrenology; but the old is dead and buried, along with the theory of phlogiston and with the cycles and epicycles of Ptolemy. As regards psychical matters, there can be no doubt that hypnotism can abolish pain, but it is an uncertain treatment and therefore inferior to nitrous oxide and ether, and it may be injurious in its after-effects on patients. As regards clairvoyance, is not trickery possible and likely? And if there is truth in it, why do not the clairvoyants make fortunes on the Stock Exchange, which would be much more practical than collecting a few sparse guineas from the credulous? Why does Mr. Wallace grudge to Harvey the honour of a discovery of the first class? Can it be because he utilized living animals? The Italians at least do not consider his discovery as of second-class importance, for they have claimed it with little reason but with much effusion and persistence for their own Caesalpino.

Mr. Wallace's mind is an extraordinary one—extraordinary in its scope and originality, as also in its occasional and somewhat annoying archaic one-sidedness; and we should be false to our trust if, in admiration of his great attainments, we should gloss over or pass by what we know to be his honest but believe to be his mistaken opinions. His latest book, however, like most of his books, is one to have and to hold, and we shall be pleased if this review should induce many to add to their library *The Wonderful Century*.

PUBLIC HEALTH.

THE first edition of Dr. SAMUEL RIDEAL'S book on disinfection[4] was published in 1895. The author states that the third edition issued recently has been thoroughly revised, and in the new text is incorporated the result of added experience and recent researches. The volume deals with the whole subject of disinfection and disinfectants. The latter are subdivided into non-metallic, metallic, organic substances, and compounds related to the alcohols. Sterilization by heat is also fully dealt with, and details and particulars are inserted respecting the chief apparatus now in common use in this country or on the Continent of Europe. The chapter devoted to a discussion of the practical methods of disinfection will, to many readers—particularly those whose business it is to carry out disinfection—prove of most utility. The question of personal disinfection, the preservation of food, the law as it concerns disinfection, and methods of analysis, all receive attention. The book contains an immense body of facts on the subject of which it treats. If we have any criticism to make it is a general one to the effect that throughout the work the reader does not feel the guiding hand of the author as much as he would wish. Large numbers of experiments, for instance, are quoted, but there is too little of the author's ripe opinion respecting them. Great discrimination is needed in quoting experimental researches, particularly in the realm of bacteriology, and in few departments of knowledge more than in that region of bacteriology which deals with the testing of disinfectants. Comparable results and comparable methods are essential before conclusions are drawn. But in the book before us, as the author would be the first to admit, large numbers of experiments are quoted respecting which there is little or no evidence that they are actually comparable or sufficiently authentic and reliable to be of permanent value. Dr. Rideal has himself contributed so largely to our knowledge of disinfectants and their properties that we look to him and others in a similar position to elucidate or eliminate in such a way as to place disinfection upon a sound basis. The standardization of disinfectants in respect of their bactericidal properties is greatly needed, and one of the most useful parts of Dr. Rideal's book is that dealing with this subject, in which he suggests that the examination of disinfectants should include a consideration of the following factors: Time of exposure, age of culture, medium used, incubation temperature, temperature of medication, variations in vital resistance of same and different species, and proportion of culture to disinfectant. This is excellent, though perhaps not exhaustive, and our only regret is that this standard is inapplicable to many of the experiments quoted in the book. The section dealing with food preservation is an amplification of the author's well-known views as to the practical necessity of adopting chemical methods of keeping perishable articles of food. Under the milk section, we observe that he states that "several epidemics have been traced to this cause" (milk infection), which is a curious under-estimation. The discussion on the milk preservation question, as also that on butter, condensed milk, and cheese is scarcely worthy of the book, and the section incorporated on law might well have been left out or made much more adequate to the occasion.

We have before us the third edition of a *Manual of Practical Hygiene*,[5] by M. GUIRAUD. It has been revised and enlarged since the second edition appeared four years ago in order to keep pace with scientific discovery and progress. In the introduction M. Guiraud tells us that the vulgar definition of hygiene is "that part of medicine which has for aim the preservation of health." But for him its meaning is infinitely wider, and he would follow Bouchard and Rianz in adding to the definition the word *amelioration*, thus extending considerably the horizon of the science. Hygiene then would embrace all that concerns the material and moral bettering of man, taken individually or collectively; in other words, the progress of humanity. And it is to meet this definition that the author has written. He has classified his subjects according to the old Latin scheme. Thus, under the head Circumfusa are ranged climate, soil, atmosphere; under Ingesta, alimentation; under Applicata and Gesta, or Hygiene of the Body, clothing, personal cleanliness, and physical exercises; while to Percepta correspond what in the present day we term intellectual and moral hygiene. These subjects are dealt with exhaustively in over 1,000 pages, and in a very interesting manner. There is a table of contents at the end of the volume, which renders it easy to grasp M. Guiraud's scheme, and also an index.

Mr. POLEY'S *Guide to the Housing Acts*[6] is intended for the use of local authorities, councillors, surveyors, solicitors, and others engaged in carrying out the administration of the Housing Acts. The general effect of the important statutes is stated in the first part of the work, and the meaning of the various provisions of these Acts is explained in notes which refer the reader to decided cases. Not content, however, with a mere epitome, the author has very wisely set out the text of the various statutes in the appendix. Those portions of the work which relate to the powers and duties of the medical officer of health are particularly clear and concise. This official, upon whom the proper administration of these Acts so largely depends, will here find a statement of his duties as inspector of insanitary areas and dwellings, and references to the statute which prescribe the limits within which he may exercise jurisdiction. A good index concludes a handy volume which we can confidently recommend to all who desire to understand an obscure but important branch of the law relating to the administration of public health.

IN the fourth edition of his little book on *Water Analysis*[7] Dr. THRESH has included a description of a process for determining the free ammonia by distillation. We are glad to see that he points out that his "simple method" is to be coupled with an examination of the source of a water supply, and we trust that attempts to simplify and shorten the systematic examination will not lead to slovenliness in an important branch of public health work.

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[4] *Disinfection and the Preservation of Food.* By Samuel Rideal, D.Sc. London: The Sanitary Publishing Company. 1903. (Demy 8vo, pp. 504.)

[5] *Manuel Pratique d'Hygiène.* Par le Docteur Guiraud. Troisième edition. Paris: G. Steinheil. (Demy 8vo, pp. 1,068. Fr. 12.)

[6] *A Guide to the Housing Acts*, with Appendices containing the Statutes affecting Housing, 1882-1903, together with the forms and circulars of the Local Government Board. By A. P. Poley, Barrister-at-Law. London: Eyre and Spottiswoode. (Crown 8vo, pp. 424. 3s. 6d.)

[7] *A Simple Method of Water Analysis, especially Designed for the Use of Medical Officers of Health.* By John C. Thresh, M.D.Vict., D.Sc.Lond., D.P.H.Camb. Fourth edition. London: J. and A. Churchill. 1903. (Fcap. 3vo, pp. 62. 2s. 6d.)

NOTES ON BOOKS.

Mr. BENHAM'S book, *The Law of Scientific Hand Reading*,[1] mes to us from the other side of the Atlantic. It would be kind to express a wish that it had remained there, for the thor appears to have expended a considerable amount of me and money on its production; but our British conserva- m is such that, in spite of the lengthy dissertation and ish supply of illustrations provided for our conversion, we main unconvinced of the truth of the conclusions drawn by n. Mr. Benham tells us that a marking on the hand in the m of a large star, "with deep red lines, and a deep dot the centre.....is the explosion which destroys..... the Life line it means sudden death, on the Head line it ans an explosion in the mental faculties, or insanity....." ain, we read that there are a number of lines on the hands noting the influence of relations on the life of the possessor he markings. A star on the end of a line of Influence icates the ceasing of that influence. Worry lines denote uble and difficulties. If a Worry line cutting a "rising nch from the Life line cross the hand and cut a line ich is forked" the horrors of divorce are threatened. "If a rry line start from a star on the end of an Influence life cut a rising line from the Life line, it indicates that the th of a relative caused the trouble." To the unsophisticated d these utterances sound uncommonly like nonsense.

he twenty-second annual issue of *The Medical Annual*[2] serves all the well-known characteristics of a work which eals chiefly to those who are engaged in busy general tice, and who have little time to read widely. It is a e of fresh ideas culled from the medical literature of the of all nations. The ideas may not always be sound, and book requires to be consulted with discretion, but with qualification it may be recommended to all those who re to keep in touch with contemporary thought and prac- The pathology and etiology of disease receive a cer- amount of notice, but are subordinated to therapeutics practical treatment. There are a number of excellent ured plates in illustration of small-pox and other eruptive ases, but the most noticeable feature in this direction is ies of 12 stereographs illustrating the surgical anatomy of ear. To view these an effective stereoscope is supplied he publishers for 2s.

e *Medical Register*[3] for 1904 was received by the courtesy e Registrar on March 14th. The total number of names ined is 37,878, a net increase of 646 as compared with last The number added by registration during the year was which is considerably below the average both for the ive years (1,305) and for the last twenty-four years (1,324). number of persons removed on evidence of death was 546, o less than 151 were removed under Section XIV, which orizes the Registrar to remove a name if no answer is ned to a letter of inquiry within a period of six months. number of names on the Colonial list—that is to say, s of practitioners registered in respect of qualifications ed in British colonies—is 133, as compared with 123 in the ssue; the number of practitioners on the foreign list— s to say, registered in respect of degrees of foreign uni- ies—is 9; the universities represented are Padua, Pisa, na, Turin, Genoa, and Naples; the address of the person ered is in England in the case of five, in one case in a h colony, and in three in Italy.

have also received the *Dentists' Register*[4] for 1904. The er of names registered without a diploma as being those rsons in the bona-fide practice of dentistry at the nted date still constitute the majority, although this ity has now come down to 1.41. The total number of on the *Register* is 4,676, including three registered with al diplomas, and twenty-four with foreign degrees.

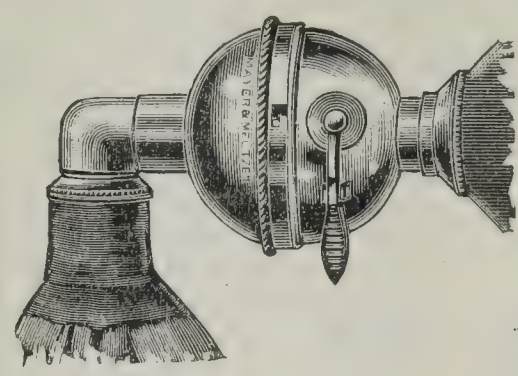
Laws of Scientific Hand Reading: A Practical Treatise on the Art ly called Palmistry. By William G. Benham. London: G. P. 's Sons. (Pp. 644; 800 illustrations.)
edical Annual. 1904. Bristol: John Wright and Co. (Crown 8vo, pp. 926, 71 illustrations. 7s. 6d.)
[3] London: Spottiswoode and Co., Limited. 10s. 6d.
[4] London: Spottiswoode and Co., Limited. 3s. 4d.

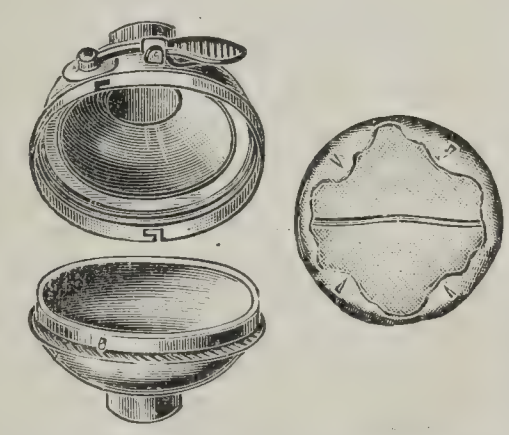
ISTRATION OF NURSES IN AMERICA.—The nurses of the of Massachusetts are urging the passage of a law similar se already existing in New York, New Jersey, North na, and Virginia, by which an official register of pro- qualified nurses has been established.

REPORTS AND ANALYSES
AND
DESCRIPTIONS OF NEW INVENTIONS
IN MEDICINE, SURGERY, DIETETICS, AND THE ALLIED SCIENCES.

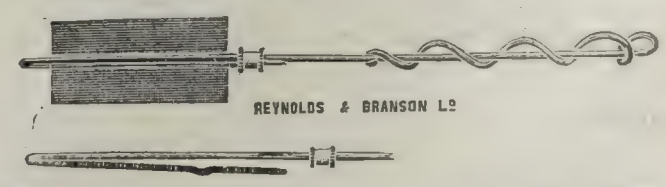
MEDICAL AND SURGICAL APPLIANCES.

An Ethyl Chloride Somnoform Inhaler.—Mr. HOTTEN GEORGE, Senior Anaesthetist, National Orthopaedic Hospital and Central London Throat and Ear Hospital, writes: I should like to draw attention to a new universal ethyl chloride or somnoform inhaler. It consists of a hollow metallic ball about the size of a small orange; it opens at the centre, and is fixed, when closed, by a bayonet catch. A movable disc of lint or flannel is fastened on a wire frame resting against a ledge which keeps it in position in the middle of the inhaler when the cup-shaped segments are united. At one end of the apparatus is a tube fitting any ordinary facepiece, and at the other, one which takes the usual angle-shaped tube of a Clover's ether bag, so that it is only necessary to add the extra part above described to the ordinary armamentarium of the anaesthetist. The somnoform or ethyl chloride can be sprayed on to the lint either through the facepiece before it is applied, or — preferably afterwards—through an opening in the spherical part of the inhaler. This opening is closed by a flute-key-shaped stopper with strong spring, easily worked by the thumb of the hand which holds the facepiece. Of the making of new inhalers there is no end; but I venture to suggest that this one supplies a long-felt want by doing away with a great deal of special apparatus, and I claim for it the following advantages: (1) Its universal adaptability; (2) its great simplicity and portability; (3) the greater distance of sprayed vapour from patient's face than in ordinary inhalers; (4) the ease with which anaesthetic may be introduced after the application of the facepiece; (5) that an extra dose can be added also without removal of the facepiece. This inhaler has been carefully made according to my suggestions by Messrs. Mayer and Meltzer of Great Portland Street, and is not only a useful but an elegant piece of apparatus. It may be electroplated if desired.





Uterine "Flag Mop." — Mr. E. SOLLY, M.B.Lond., F.R.C.S., showed at the meeting of the Yorkshire Branch of the British Medical Association recently held at Scarborough, a uterine "flag mop," which he believes will be found useful as a substitute for the instrument known as Playfair's probe. In Mr. Solly's instrument it is quite easy to replace the lint, wool, or gauze by a clean piece in a moment; in fact it is the application of the principle of ordinary sponge-holder to



an instrument which is intended to be used in cleansing out or making applications to the interior of cavities, for which the ordinary sponge-holder is too bulky. Mr. Solly writes: "The instrument has been made for me by Messrs. Reynolds and Branson, of Leeds, in aluminium, and either strips of lint or pieces of bandage or ribbon gauze can be used with it very conveniently; they may be inserted either in the

form of a broad strip placed between the serrated portion, so that the metal grips the material like the midrib of a leaf, or by the edge, so as to make a flag. Turning the instrument round in the hand, the material is easily rolled around to make a convenient mop, and equally easily undone and replaced when soiled by use. If it is thought advisable to protect the tip of the instrument (which, however, is blunt), a narrow strip of gauze or lint can be inserted between the serrations near the top, carried over the top, and then wound spirally round as in bandaging a finger, and fastened off where required by the movable collar, which brings the serrated surfaces together. The instrument is sufficiently rigid for use, but can be bent in easy curves to suit the shape of the uterus or any other cavity; and as there is a little projection at $2\frac{1}{2}$ in. from the point, it can be used as an ordinary uterine sound if desired.

A New Uterine Forceps Applicator.—Dr. P. J. Macnamara, M.D., F.R.C.S., of Kilmallock, writes: Having been worried for years by the removal of the dossil of wool from the ordinary Playfair probe I availed myself of the first improvement which appeared, namely, roughing of the probe, and doing away with the bulb ending. I found that while the roughing continued good the removal of the wool was not facilitated, and when the roughing had worn off the facility with which one left the dossil in a strongly contracting uterus, after strong topical applications, became a fresh difficulty. It then occurred to me to try a forceps applicator without any roughing or bulb end. As will be seen from the illustration one of the blades is a plain conical probe, with the usual uterine curve. It is accurately received into the second blade, which is concave, and about 3 mm. longer than its fellow, terminating in a blunt end. When tightly closed the instrument is not much thicker than an ordinary Playfair probe, and when a piece of cotton wool is grasped between the blades, and firmly wound round both, there is no danger of leaving it *in utero*, and very little difficulty in subsequently removing it, on gently dilating the blades. The instrument also acts as a dilator in the first degree; the catch is extremely simple, and it is easily kept aseptic. The instrument was made for me by Messrs. Fannin and Co., Limited, Grafton Street, Dublin.

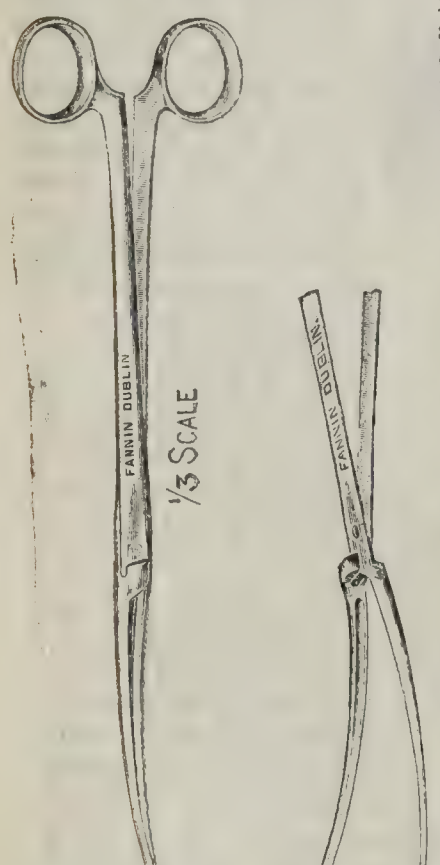


Figure Weights.—Mr. R. Rauschke, Park Lane, Leeds, has made at the suggestion of Dr. Percy Edwards, of Liverpool, some weights for use in dispensing which are likely to be found convenient. Everbody knows the loss of time which may arise in handling the small weights for grains usually issued with balances. The idea of the new weights is that they are shaped to figures, $\frac{1}{2}$, 1, 2, 3, 4, 5, 6 grs., $\frac{1}{2}$, 1 and 2 scruples, and 1 and 2 drachms. The $\frac{1}{2}$ scruple and $\frac{1}{2}$ drachm look as if they might break rather easily, otherwise the weights appear to be thoroughly practical. They are supplied in sets, at 2s. 6d. unstamped and 4s. 6d. stamped.

The Healing Art in Italy.—According to a recent census the results of which have just been published by the Italian Minister of Agriculture, there are in Italy at the present time 22,168 practitioners of medicine and surgery, of whom 29 are women. The number of dentists is 813, of whom 18 belong to the gentler sex. There are 13,887 midwives, 2,500 veterinarians, 16,740 pharmacists, among whom there are 140 women (this number includes assistants as well as principals), 696 phlebotomists, masseurs, etc., of whom 42 are women, and 13,109 nurses, of whom 6,342 are male and 6,767 female. These figures taken together show a grand total of professors and parasites of the healing art in Italy of 69,913, of whom 49,030 are men and 20,883 women.

FEEDING IN RELATION TO THE HEALTH OF THE YOUNG.

An interesting lecture on feeding in relation to the health of the young was given recently by Dr. James Niven, Medical Officer of Health, Manchester, as one of the post-graduate course now being delivered in connexion with the Public Health Laboratory of Victoria University, Manchester.

The lecture was devoted mainly to a consideration of the feeding of children in the poorest class of the community, the subject being treated chiefly from the public health point of view.

I.—Physical Condition as Indicated by Death-rates.

In his opening remarks he said: "There is a widespread belief that children are degenerating owing to the increasing aggregation in towns and to the loss of that simplicity in living which was practised in former days. There are, unfortunately, no measurements of height and weight at different ages on a scale to give us any exact information on the subject, and we are compelled, therefore, to fall back on the statistics of mortality."

Dr. Niven then gives such statistics from 1838 to 1901 founded on the Reports of the Registrar-General, in groups of ages for England and Wales, and for Manchester. He points out that at all the earlier ages there had been a great advance, especially in the case of females, attributable to such factors as sanitary administration, factory legislation better housing, etc, but if the course of the decline were followed it became clear that some other general causes must have been operative, and that the decline must be ascribed to increasing prosperity, to improving wages, and to cheapening food.

The relative lowering of the death-rate of women and children to that of men was in itself a proof of growing prosperity. The years 1870-4 were years of overflowing trade and to the increasing prosperity might have been attributed the lowered death-rate; but as a matter of fact the prices of food increased, so that while improved wages affected only part of the people, another part suffered from the increase prices.

It is easy to realize how the least difference in wage or in the prices of food, or in the capacity of wages to obtain food, must be reflected in the death-rate. "We may assume," he says, "that the death-rate is a measure of physical condition generally, though, doubtless, the improvement in the former is greater than in the latter." Tables following showing the annual average death-rates for 1891-1900 in Manchester in age-groups and from certain diseases.

II.—The Feeding of Adults and Children.

In the discussion of diets Dr. Niven used Attwater's dietary, as he considered it approximated more nearly that Playfair's to that freely chosen by persons of the requisite means. The amount of food required by various members of the family as given by Attwater is as follows:

A child under 2	requires	0.3	the food of a man doing moderate work			
,, of 3 to 5	,,	0.4	,,	,,	,,	,,
,, of 6 to 9	,,	0.5	,,	,,	,,	,,
,, of 10 to 13	,,	0.6	,,	,,	,,	,,
A girl of 14 to 16	,,	0.7	,,	,,	,,	,,
A boy of 14 to 16	,,	0.8	,,	,,	,,	,,

Dr. Niven next gave a table of the ordinary foods with the current prices, in order to construct dietaries on the scale given above, and square the price with the means of the family. With regard to milk he said:

As a source of proteid milk is expensive, and children over 3 years of age get very little of it in the poorest class. Dr. Ashby says should be used all through childhood. It is especially rich in lime and phosphates, and when it can be got fresh is a valuable addition to the diet.

An effort should be made to supply milk up to the age of It should be given without fail up to the end of the third year. After touching upon various items of diet, Dr. Niven went on to the care of the teeth and the intestine, regularity of meals, variations in diet, and diet appropriate to different ages. He then gave tables of diets regarded from the economical point of view, and expressed the opinion that the inclination to choose tasty expensive articles of food in towns went far to explain the inferior physique of the town man. It was, he considered, very essential that instruction should be given in the properties of food, holding that the town child, if properly fed and cared for, would have nearly as good a physique as the country child.

III.—The Feeding of Infants.

In the third part of the lecture the feeding of infants was ouched upon, and it was pointed out that while diarrhoea aused an increased infantile mortality, the infant rate, as a hole, had declined, in Manchester at all events. This ncreased mortality from diarrhoea was attributed to the minution of maternal lactation, a tendency ascribed by me to lower vitality and by others to disinclination to give their accustomed pleasures.

On the other hand diminution in the infantile death-rate in anchester in 1891 to 1902, other than diarrhoeal, might be cribed to public instruction in infant feeding since 1895. r. Niven next discussed the factors which have been believed exercise an influence on the diarrhoea death-rates, such as e annual mean temperature, the mean rainfall, geological nditions of the soil, insanitary conditions such as over-owding and dirt, defective methods of storing and removing creta, defects in the milk supply, and defective methods of fant feeding.

We quote in full his scheme for improving the physical ndition of school children and the summary.

V.—Scheme for Improving the Physical Condition of School Children.

The scheme which I have in view is something like the llowing, which is, indeed, only an extension of that of the nchester Education Authority, in administering their Free od Fund:

The trained teacher is of opinion, let us suppose, after serving a child at his studies and during exercise, that he not receiving sufficient nourishment. He would reupon communicate with the director of elemen-y education, who would instruct the school at-dance officer to ascertain the income of the ily, and the expenditure per week other than on food ch is absolutely necessary, also the age, sex, and condi-s of work of each member of the family. These particulars returned to the director, who refers them back to the head her to determine whether the parents can provide a iciency of food, and on what scale of diet. For this pur-e the teacher might be furnished with a set of model diets, all necessary particulars guiding him in the determina-of a suitable diet for the family and the amount which be expended. He or some member of his staff must be to work out the diet required, and special training for purpose is required. The parent is then to be informed a sufficient diet can be procured for his family on the ey available, and required to see that the child is pro-y fed. If, after some weeks, it is found that the child is insufficiently fed the parent is to be compelled to furnish food necessary or to defray the cost of feeding him. For purpose powers are to be conferred on educational author-by Parliament, and they are to be required to carry them effect. If the powers were carried into effect in one dis-and not in another the results would not be satisfactory. arly in cases of doubt or difficulty the medical officer of School Board would have to determine the doubtful s and advice as to proceedings, or where the education ority does not possess a medical officer, the medical r of health. Is the school attendance officer quite the ble person for such delicate inquiries, and what are the iries which might be supposed to be necessary?

addition to the inquiries above named, the food alleged given to the child would form matter for investigation. iency might arise from ignorance, and therefore I der that the first step which must be taken is ace within the reach of every family in the community uch knowledge of dietetics as will enable the parents to heir means to the best advantage, in such a shape as if they cannot themselves utilize the information given, may readily get assistance in doing so. The utilization family income to secure, where possible, a sufficiency triment to the growing child is of such far-reaching rtance that where a child appears to be suffering from ency of food this must override the reluctance of the tional authority to interfere further with the affairs of ies.

question then narrows itself to this: Are the school dance officers persons who are suitable for such in-s? But that is merely a detail of administration which eceive due attention. Especially at the present time e as to the wise expenditure of money in food is of im-e importance to the population, and I am of opinion that bject should be well discussed by all those gentlemen who have taken a special interest in these questions. In a very large number of instances, at present at all events, it would become clear that the means of the parents, when fully utilized and stretched to the utmost limit of their buying capacity, are inadequate to find the children in food.

We are then brought face to face with the question, "Is the educational authority to rely on charity for the funds required, or should these be supplied out of the heavily-burdened rates?" The Scottish Commission has answered this question in the sense that charity must be relied upon. On the whole, I am inclined to think otherwise, though I quite realize the difficulties. If the burdens of parents are removed, it may be said, you are making them so much better off, and you are thus giving an impulse to the increased production of children. Is it so? Does the birth-rate increase or decrease with increased well-being?

If you look at the birth-rates in our richer and poorer districts we find that the birth-rate amongst well-to-do people is smaller than amongst the poor. In accord with this is the reduction in the birth-rate as the circumstances of the nation have improved. I will not stay to discuss the reasons for this apparent anomaly, though I think it is quite explicable. Suffice it to say that the birth-rate reaches a maximum amongst moderately well-to-do artisans, and declines therefrom in both directions. We must conclude, then, that this argument is not without some foundation.

On the other hand, you are not lifting the burden to an extent materially to affect the birth-rate. There still remain the children under school age, and in those families in which there are no such children, in most cases the older children will have begun to earn wages, and assistance will not be required. The gain in wealth to the community by passing school children on to the working period in a condition of physical efficiency would be so enormous as to quite justify, in my opinion, the additional immediate burden on the rates. How is the necessary assistance to be given by one, two, or more school meals? It is useless entering on a course of feeding of children if it is not to effect the purpose.

Suppose, for example, one meal of porridge with sugar is supplied to a child aged 7, what relation does this bear to the 62.5 grams of proteid and 1,750 calories of energy which he requires for full efficiency? Let us suppose that at such a meal he gets 2 oz. of Scotch oatmeal and 2 oz. of sugar.

Take the analysis: Oatmeal, P. 14 5, fat 10; carbohydrate, 65 per cent.; beet sugar carbohydrate, 92 per cent.

First Meal.- The total proteid in this meal = 8.16 grams; fat = 5 62: calories = 287.57. The proteid, then, without deductions = one-eighth of that required for a day's diet, and the total energy = one-sixth of that required.

Second Meal.—Suppose, at another meal, he gets one pint of pea soup without bone or meat (½ lb. of peas per quart) and ½ lb. of bread.

Peas: P. 21, C. 55 4, fat 1.8 per cent.

Bread: ½ lb. = P. 15, C. 116.2, fat 2, in grams (not per cent.).

The total proteid = 38.6 grams, the total fat = 4 grams, and the total calories = 987 5.

From this meal he gets 59 per cent. of the total proteid required and over 56 per cent. of the total calories required.

Third Meal.—Suppose, before leaving school, he gets ½ lb. of bread and 1 oz. margarine, he gets 15 grams of proteid and 804.6 calories.

By these means he will have got a practically complete diet, though one poor in fats.

It is evident that if it is desired to give a sufficient amount of food an arrangement must be made to supply breakfast, dinner, and a sort of tea, but that one good meal in the middle of the day will go far. It is further evident, on grounds of economy and for educational purposes, that the educational authority should cook the meals.

In providing the means of cooking, regard should, of course, be had to the habits of the people, and the cooking appliances should approximate as nearly as possible to those which they are accustomed to and can afford, except that cheap and necessary additions may be made, such as a pan-steamer.

V.—Summary and Enlargement.

1. It is of supreme importance for the welfare of the nation that the children should be adequately fed so as to develop, as far as heredity and environment will permit, sound minds in sound bodies.

2. It is the duty of parents to provide adequately for their offspring, and this duty they should not be relieved of further than is imperatively demanded in the interests of the State.

3. There is a great surplus of unskilled labour, and the wages of unskilled labour are thus depressed to such a point that, in a high percentage of instances, say 5 to 10 per cent.,

it is impossible for the parents continuously to provide for their children. It has been suggested that a minimum wage of 25s. per week for an unskilled labourer should be provided. The proposal is impracticable, and it is not certain that if it were practicable the result would not be to lead to increased waste.

4. If, however, children during school life were adequately fed so that they could profitably receive instruction, and if that instruction were such as to educate them, as far as practicable, so as to make them fit for skilled work, wages would be more equalized, and a higher standard of living would result.

5 There are at present various sources of enormous waste going on, of which two stand out very clearly: (*a*) Drink. If the amount of alcohol consumed in this country could be diverted to the feeding of children it would maintain 20,000,000 in food, and if reckoned only as beer and spirits it would maintain 11,000,000, at a charge of 6d. per day, which would be an ample allowance. It may be said broadly, therefore, that the amount of alcohol consumed is the chief cause of deficiency of food for the young. The remedy is bound to be slow and a long process of education is required. (*b*) But a great waste also occurs from want of knowledge on the part of mothers of how economically to select, buy, and prepare food. This knowledge should be imparted in the schools. In association with this is the waste due to want of knowledge of the elementary principles of health in relation to breathing, clothing, exercise, cleanliness, and so forth.

6. The education authority possesses machinery which, when improved and extended, will enable it to detect illness and innutrition amongst children, and to apply remedies.

7. Teachers should be trained to look after the physical conditions as well as after the mental instruction of their scholars, and that training should be practical.

8. Legislation is required enabling the educational authority to enforce the provision of sufficient food and the maintenance of cleanliness in school children by parents.

9. The educational authority should also be empowered to obtain from the rates sufficient provision for the free feeding of children under certain definite conditions. In all schools kitchens should be provided for instruction in the elements of cooking.

10. In all schools children should be weighed and their height measured once a term, and a record should be kept of the age, height, and weight. By this means it would be possible to gauge the condition of the children, both collectively and individually. These observations might usefully be made more frequently in cases where a deficiency of nutriment or disease was suspected.

11. A prolonged and practical course of domestic economy and hygiene should be compulsory for girls. It should include cooking, construction and criticism of diets, management and feeding of infants, methods of cleanliness, sewing, mending, and washing. I am fully aware of the excellent work which has been done by the education authority in their evening continuation classes, and which is already bearing fruit; but, in my opinion, such instruction should be a necessary part of education.

12. The poorer population generally should be instructed as to the diet requisite and the means by which it may be most cheaply obtained.

The lecture has been published under the title of Food and Drink in Relation to Disease, Feeding in Relation to the Health of the Young. (Sherratt and Hughes, London and Manchester). Price 1s. 6d. We strongly commend it to the notice of all those interested in the welfare of the children of the labouring classes.

CONTRACT MEDICAL PRACTICE.

Rates for Mixed Club.

A correspondent inquires what would be a reasonable charge per annum for the members of a large club, where the wives and two children were included, confinements being excluded, and the area for visiting was the whole of a large city.

*** Where women and children are taken, the data on which to base a calculation are insufficient. Under the circumstances a rate of 12s. per annum might be tried, but it is questionable whether our correspondent would find the work remunerative.

MEDICAL DEFENCE.

London and Counties Medical Protection Society.

The annual general meeting of the London and Counties Medical Protection Society was held at 31, Craven Street, Strand, on March 11th, when the chair was taken by the President (Mr. Jonathan Hutchinson).

Dr. G. A. Heron, Treasurer and Chairman of the Council, in moving the adoption of the report of the Council, gave a short account of the successful work that had been carried through by the Society during the past year, and in explaining the increase in the accounts for legal expenses, took the opportunity of thanking the Solicitors of the Society, Messrs. Le Brasseur and Oakley, for the manner in which they had assisted the efforts of the Council.

After being duly seconded, the resolution for the adoption of the report was carried unanimously.

In reply to a request for information about the new scheme for Medical Defence put forward by the British Medical Association, Dr. Heron said that the Council of the British Medical Association had received a strong expression of opinion from its Branches asking the Association to take up medical defence. For some time that request was not dealt with; but it was put forward again and again by various members of the Association at the general meeting. As an outcome of the agitation, the Council of the British Medical Association appointed a Committee to consider the matter and suggest, if possible, a reasonable scheme by means of which the question of medical defence might be laid before the members of the Association, so that their opinion might be taken upon the matter. The scheme suggested by the Committee was now being sent out to the various Divisions of the Association for the consideration of the members. The scheme might be altered or it might be rejected, and until the Council of the British Medical Association received an explicit answer to the questions submitted to the members of the Association, the subject of medical defence would remain, so far as the action of the Association was concerned, in abeyance. The Council of the British Medical Association had not expressed any opinion on the matter. It had simply consented to the Divisions of the Association being asked if they did or did not approve of the scheme of medical defence submitted to them. Dr. Heron considered that for the London and Counties Medical Protection Society to discuss a scheme which was under the consideration of the Divisions of the British Medical Association, would be premature, because it was not known in what shape the scheme would be returned by the Divisions. It had further to be remembered that after the Council of the British Medical Association had received the answers from the Divisions the matter must go before the Representative Meeting of the Association at Oxford.

By special request of the Chairman, Mr. Andrew Clark, Chairman of Council of the British Medical Association, then made a few remarks on the subject. He said that though he had accepted the post of Chairman of the Medical Defence Committee of the Association, he would like it to be clearly understood by the London and Counties Medical Protection Society and by the Medical Defence Union that his taking up that office was not with the slightest idea that the Council of the British Medical Association wished to force medical defence on its members. Many members of the Council thought that to take up medical defence would be injudicious, and he was for some time among them, the idea, indeed, was thought to be impracticable. Owing, however, to the exertions of Sir Victor Horsley, Dr. Heron, and others, the conclusion had been arrived at that it was possible for the Association to undertake medical defence without running any risk to its funds, and he believed that the proposed scheme of medical defence was workable, and could be carried out if the members wished it. He with many others desired to see one strong Medical Defence Society, and regretted that the two existing societies had not succeeded in effecting an amalgamation; he would be sorry to see the British Medical Association making a third, but he was still without hope that though at the present time, as evidenced by the memorandum recently issued by the Council of the Medical Defence Union, that body did not look with favour on the British Medical Association's scheme, it would in the event of the Divisions expressing a desire for the Association to take defence up, change its present opinion. As for the London and Counties, he did not think that they need discuss the matter until the decision of the Association had been arrived at. In one sense he would be sorry to see

successful undertakings as the existing Medical Defence eties broken up, but if it meant that there would be large society for medical defence he would be inclined to ider that the most advantageous plan. However, as ers stood he thought they should wait until the Divisions he British Medical Associaton had expressed their ion.

e meeting concluded with a vote of thanks to Mr. than Hutchinson for taking the chair moved by Mr. REW CLARK and carried with acclamation.

MEDICAL DEFENCE UNION.

e have received from the President of the Medical Defence n, through the Secretary, a copy of the following memo- um issued to members of the Union, with a request for ublication:

Medical Defence Union, Ltd.,
4, Trafalgar Square, W.C.

e Council of the Medical Defence Union desires to call ttention of the members to a scheme formulated by a nittee of the British Medical Association, by which it is sed to create, in connexion with it, a Medical Defence rtment.

e full details of this scheme will be found in the SUPPLE- of the BRITISH MEDICAL JOURNAL of January 30th, 1904, lso in an editorial in the JOURNAL dated February 20th n which is incorporated also a minority report signed r. Messiter, J.P., President of the Medical Defence , and Dr. Beverley, J.P., a member of the Council, who nembers of the Committee.

Council, after carefully considering the scheme in all etails, decided unanimously, at a meeting held on ary 18th last, to do all in its power to maintain the ity of the Medical Defence Union as at present existing, usts that it will receive the full support of its members doing. The reasons that have led to the Council passing esolution are as follows:

hat the Medical Defence Union, existing, as it does, as pany limited by guarantee, cannot under any circum- s merge or amalgamate itself into any other company iety, but must exist as a separate entity, unless wound untarily or compulsorily under the Companies Acts.

hat to wind up and liquidate a financially sound and sful company, which has done for nineteen years, and dily doing, excellent and valuable work, not only for mbers, but also for the medical profession generally, be a waste of the funds of the subscribers, involving, ould, large expenditute and a needless sacrifice of the terests of its members.

hat the Union includes numerous practitioners who are mbers of the British Medical Association who, if the l Defence Union were wound up, would either be cut n defence and protection, or would have to regain the ion now afforded them by becoming members of the Medical Association and of its Medical Defence De nt at a cost of 35s. per annum.

at the Medical Defence Union is open to all members profession upon election irrespective of membership of ociation.

at the reason given for the new department of the Medical Association is that there should be one ation only for medical defence instead of, as at present, more. This, the Council of the Union desires to ut, would not necessarily follow even if the scheme rried out, as it would not prevent members of the pro- dissentient to the present scheme from again forming organizations outside the Association.

at the proposed new department can only indirectly ded as connected with the British Medical Associa- its funds are to be kept apart from the Association nd the officers appointed by it are not to be officers ssociation. The work done by the department would ned entirely to the subscribers to the department, and ot be part of the organized work carried out by the commitees at present existing for the whole Associa- l which is done in the name of the British Medical ion.

t the success of the Medical Defence Union has been lt of the long experience of its Executive, and that department taking up the work of defence would start afresh, and could only obtain that experience rs of practice.

t the proposed new department will only defend its members; that is to say, limit its work to individual defence whereas the Medical Defence Union has for many years done good work in collective defence, such as the prosecution of unqualified practitioners and the like. The method of election to the Committee appears open to criticism as involving no continuity of office.

9. That it must be remembered that there are according to the last returns in Great Britain and Ireland 30,409 registered practitioners, of which number only about 14,851 are members of the British Medical Association.

10. That for subscribers to the Union the proposed new scheme presents no advantages over those which they possess by their present membership.

The Council of the Medical Defence Union, consisting as it does entirely of members of the Association and numbering many members of the Council of the Association, is not inimical to anything which would tend to increase the welfare of the Association. It feels, however, from its knowledge of the work of defence, that it would be wiser for the Association to avoid, for the present at least, the undertaking of medical defence even in the minor degree involved in the scheme.

The Council of the Medical Defence Union therefore urges upon the members, who are also members of the Association, that they should fully consider the scheme when it comes before them at the various divisional meetings in the Association, and weigh carefully the advantages they already possess by their membership of the Union, and act in accordance with their best interests.

March 3rd, 1904.

SCHEME FOR AN AMBULANCE SERVICE FOR LONDON.

THE Committee of the Metropolitan Street Ambulance Association has made the following suggestions as the basis of a plan for providing London with an efficient street ambulance service:

1. That there should be one controlling authority responsible for a uniform and well-organized ambulance service, and that the London County Council, as the representative body for the metropolis, is the one best fitted to undertake the work.

2. That London should be divided into districts or "accident areas" and a properly-organized ambulance service arranged in each. This would necessitate the establishment of horse or motor as well as hand ambulances.

3. That the fire brigade and the ambulance services could be most advantageously carried out conjointly.

4. That it is desirable that some of the ambulances under the control of the London County Council Fire Brigade should be stationed at or in immediate connexion with the principal London hospitals.

5. That the police should be kept efficient in first-aid training, and should be available, as at present, for rendering first aid to the injured, for summoning an ambulance, and for taking charge of the patient until the ambulance and attendant arrive, but should not necessarily be expected to accompany a patient to home or hospital.

6. That the 800 fire-alarm telephone posts now existing and all other telephones should, if possible, be made available for calling the ambulances, and the police should be instructed in their use.

7. That the experience gained in working such services for many years in New York, New Orleans, Chicago, Sydney, Copenhagen, Vienna, Paris, Liverpool, Bootle, Birkenhead, Manchester, Newcastle, Huddersfield, Bolton, Burnley, Hull, Sheffield, Leeds, and Wolverhampton is more than sufficient to justify the London County Council in undertaking the work in the metropolis on a scale large enough to provide adequately for the 13,000 to 15,000 street casualties requiring removal each year.

8. That there should be no charge for the use of the ambulance.

This plan would involve no new organization, but merely an extension of the existing highly efficient fire brigade service, and would not entail, as at present, the withdrawal of the policeman from his beat. The Secretary of the Association is Dr. Arthur James, 65, Gloucester Terrace, Hyde Park, W.

MAJOR CATHCART GARNER, R.A.M.C., Inspector in the Sanitary Department of the Egyptian Government, has been granted the Imperial Ottoman Order of the Osmanieh 3rd class, in recognition of valuable services rendered to the Egyptian Government.

MEDICAL NEWS.

Two distinguished physiologists, Professor Luigi Luciani (of the University of Rome), and Professor Angelo Mosso (of the University of Turin), have been named Senators of the Kingdom of Italy.

IT is stated that the third and concluding part of the report of Lord Esher's Committee on War Office Reconstruction will very shortly be issued. It deals among other things with the position of the Army Medical Service.

THE SPITTING NUISANCE.—The Medical Society of Butler County, in the State of Missouri, at its January meeting unanimously passed resolutions recommending the enactment and enforcement of an ordinance making expectoration on sidewalks a punishable offence.

A MEETING of the Committee of the British Medical Benevolent Fund was held on March 15th, when twenty-six applications for help were considered. A sum of £280 was voted to twenty five of the applicants; the other case was postponed for further inquiry. In addition, three annuitants of £20 were elected.

INTERNATIONAL CONGRESS OF HYDROLOGY AND CLIMATOLOGY.—The seventh International Congress of Hydrology and Climatology will be held at Venice in September, 1905. The Italian Minister of Public Instruction, Professor V. E. Orlando, is President of the Honorary Committee; and Professor De Giovanni, of Padua, is President of the Organizing Committee.

AN examination in biological chemistry, with special reference to the chemistry and bacteriology of foods, water, sewage, and effluents, and to the practical applications of biological chemistry to industries, will be held by the Institute of Chemistry in October next. Further particulars can be obtained from the Registrar and Secretary, 30, Bloomsbury Square, London, W.C.

LEPROSY IN THE UNITED STATES.—At the second annual conference of State and Territorial Health Officers with the United States Public Health and Marine Hospital Service, a committee on leprosy was constituted as follows: Dr. Charles B. Cooper, President of the Territorial Board of Health, Honolulu, Chairman; Dr. J. F. Smith, Secretary of the Superior Board of Health, San Juan, Porto Rico; and Dr. J. C. Nolte, Secretary of the Louisiana State Board of Health.

MEDICAL WORK IN VIENNA.—During the months of May and June this year a number of special classes will be held at Vienna by the Professors of the University and their chief assistants. The list of them is not yet complete, but it is anticipated that they will embrace a large number of special points of general medicine and surgery, together with the specialities commonly so called, and demonstrations of and instruction in some of the newer methods of clinical research. The fees for each class of twenty-four hours' work or twenty-four lectures will vary between £2 and £4.

SMALL-POX IN SIBERIA.—The whole region of North-Eastern Siberia, from the Yakutsk territory down to Mongolia, is said to be suffering from a visitation of small-pox. Medical men are few and far between in the affected districts; in many cases the district surgeon has to visit settlements which are distant one hundred miles and even more from his house. The Mongolians gladly allow themselves to be vaccinated, but there is a difficulty in procuring vaccine, and much of what is obtained is said to be rendered useless by the cold to which it is exposed in transit.

INTERNATIONAL RED CROSS PRIZES.—It was announced at the Seventh International Conference of Red Cross Societies held at St. Petersburg in May, 1902, that the Dowager Empress Marie Feodorovna of Russia has established a fund for the encouragement of inventors and others in the endeavour to devise improvements in the means of dealing with the sick and wounded in the field. The sum set apart for this purpose amounts to about £11,000. The interest of this money is to be expended every fifth year in prizes to be awarded at each succeeding International Red Cross Conference. The competition is open to the world, and competitors will be required to place their inventions on exhibition at the quinquennial exhibition of ambulance material to be held every five years in connexion with the International Conference of Red Cross Societies. The prizes to be given at the first competition which will occur in 1907 are three in number, and will be awarded to competitors who submit the best complete or partial solutions of the problems connected with rendering aid to the wounded on land or sea. The following are the points with which competitors are invited to deal: (1) The surest and quickest means of searching for and removing the wounded from the field of battle; (2) the best type of litters or vehicles for moving the wounded to the dressing station with the greatest rapidity, and with the least degree of suffering; (3) the means of saving lives at sea; (4) the best installations in movable hospitals, wagons, ships, etc., for the final evacuation of sick and injured.

AMERICAN NURSES FOR THE JAPANESE ARMY.—Dr. Anita Newcomb McGee, who organized a corps of nurses which did duty in Cuba in 1898, and afterwards in the Philippine Islands, has, says the *Medical Record* of New York, offered to fit out a nursing staff for service with the Japanese army. This offer has been accepted by the Japanese Minister at Washington, and Dr. McGee will leave early in March with ten or twelve nurses to establish a field hospital with the army in Japan. Committees of women are to be formed in various parts of the United States for the purpose of raising money for the support of the nurses. If the movement receives adequate public support other nurses will be sent out later.

AT a meeting of the Wandsworth Division (Metropolitan Counties Branch) of the British Medical Association to be held on Thursday next, at 9 p.m., in the Officers' Mess Room of the 4th Volunteer Battalion East Surrey Regiment, St. John's Hill (opposite Clapham Junction Station), a discussion will be raised with regard to the abuse of drugs by the laity and the responsibility which rests upon those members of the medical profession who recommend certain drugs or preparations of such drugs to their patients. By so doing it is contended that medical men not only allow themselves to be used indirectly as touts for wholesale druggists, but also help their patients to form serious habits of drug abuse. Any member of the medical profession who may desire to attend will be welcomed.

LIVERPOOL SCHOOL OF TROPICAL MEDICINE.—The fifth annual report of the Liverpool School of Tropical Medicine, which has recently been issued, states that the attendance of students has been very satisfactory; as formerly, they have generally been medical officers holding appointments of responsibility. During the past year 143 cases have been admitted into the tropical ward attached to the school. A new laboratory has been built, and equipped with the necessary apparatus. Testimony is said to be constantly arriving from West Africa and other unhealthy regions in the tropics to the effect that where the recommendations of the school have been followed the health conditions have been much improved. Since the foundation of the school twelve expeditions have been dispatched to the tropics for the study of malaria, yellow fever, trypanosomiasis, and sanitation.

SURGICAL CONVALESCENTS.—A semi-public meeting was held at Lord Lytton's house on March 7th in furtherance of a scheme which has for its object the raising first of a sum of £30,000 as an endowment and then of £5,000 as a building fund for the erection of a "recovery hospital." In the course of speeches made by Lord Lytton, the Duchess of Somerset, Lord Hugh Cecil, Mr. Asquith, M.P., and others, it was claimed that the realization of the scheme would fill a gap which at present existed in the arrangements of hospitals. Convalescent homes in great number were to be found all over the country, but they did not meet the requirements of patients who, although they had been the subject of successful surgical operation, nevertheless could not be described simply as convalescents; beyond and above good air, good food and change of scene they required a continuation of special surgical attention for the completion of their cure; in default of it all the care previously bestowed upon them was in many cases thrown away. It was for such patients that the "recovery hospital" proposed to cater, and it was estimated that the sum mentioned would suffice for twenty-one free beds together with three or four private rooms for those who could pay. The Treasurer of the fund to be raised is Mr. R. Martin, M.P.

BRITISH MEDICAL ASSOCIATION.

ubscriptions to the British Medical Association for the year 1904 are now due and should be forwarded by postal order or cheque to the amount of 25s. to the General Secretary, 429, Strand, London, W.C., or, in the case of Colonial members, to their Branch Treasurer.

British Medical Journal.

SATURDAY, MARCH 19TH, 1904.

THE MEDICAL SERVICE OF THE NAVY.

I.

their scheme for the reorganization of the army, Lord her and his colleagues have avowedly taken the Royal vy as a model. The administrative perfection of that anch of His Majesty's forces is apparently regarded by e Committee as an axiom. How far this may be e case in other respects is a question which we are t called upon to discuss. In regard to the medical partment, however, we are by no means prepared to cept the system now existing in the navy as an ideal ndard. We have it on the authority of the Secretary State for War that in one point of vital importance it intended to assimilate the organization of the medical vice of the army to that of the navy. In the letter olished in the BRITISH MEDICAL JOURNAL of February h, p. 395, Mr. Arnold-Forster, in reply to a communi- ion from the Royal Naval and Military Committee of British Medical Association, stated that the new Army ncil was to be constituted "in the same manner the Admiralty," and that in these circumstances it s not considered necessary that the medical service uld be directly represented. It has already been nted out by us that the model followed in this matter is ad one, inasmuch as the subordinate position of the ector-General of the Medical Department of the Navy is ost serious defect in the organization of that service. fact that the Committee should have so utterly mis- ceived the nature and scope of one of the most portant of the problems with which they had to deal es an examination of the state of the medical service he navy especially opportune at the present time.

e have been at considerable pains to ascertain the t state of things. This has not been an easy matter, he iron discipline of the navy makes officers willing er to bear the ills they have than fly to others that know not of by breathing their grievances into the orial ear even *sub sigillo*. We have learnt enough, ever, to convince us that if the discontent of the naval ical officer is not so loud as that of his brother in the y was until lately, it is was not less deep. And it may be at once that, notwithstanding the reforms recently e in certain directions, there is still much solid ground lissatisfaction.

will help to make the actual position clear if, before rring in detail to the grievances complained of, a brief unt of what has been done for the improvement of the ice is given. In March, 1902, a Consultative Board, isting of Mr. Makins, Dr. Allchin and Dr. Rolleston, the Director-General as chairman, was appointed. Board stands in the same relation to the Admiralty d as the Advisory Board to the Secretary of State for War. By the new regulations promulgated on October 31st, 1903, promotion was materially accelerated, rank as staff surgeon being granted to surgeons at the expiration of eight years from the date of their entering the service, and rank as fleet surgeon to staff surgeons at the expiration of eight years from the date of promotion. Special promotion to both these grades is made in cases of distinguished service or conspicuous professional merit. The recognition of professional merit as a ground for promotion is a proof of enlightenment on which the naval authorities may fairly be congratulated.

Another excellent innovation is the encouragement in the shape of earlier promotion given to men who have held resident posts in recognized hospitals to enter the service. They may be granted from six to twelve months' seniority. Again, candidates holding or about to hold such posts are allowed to serve out the term of their appointment while retaining the position on the list which they obtained on entry. The time so spent is counted for increase of full and half-pay while they are on the active list, and for retired pay or gratuity, or withdrawal. Formerly, men who felt drawn to a naval career were almost debarred from gaining the priceless experience which a resident post in a large hospital can give, because the loss of seniority entailed thereby, together with the slowness of promotion which formerly existed, made it impossible for them to rise to administrative rank before cruel age had clawed them in his clutch.

With the object of removing obstacles to the regular flow of promotion retirement has been made compulsory for inspector-generals and deputy inspector-generals at any age after three years of non-employment in any one rank, or after four years' continuous non-employment in any two ranks combined. Fleet surgeons, staff surgeons, and surgeons are also compelled to retire after like periods of non-employment. This arrangement, besides opening the way for the promotion of capable officers, provides an automatic machinery for the elimination of the unfit.

A feature in the new regulations which seems likely to make the service attractive to young men who might hesitate to engage for a term of years that would carry them beyond the usual age of entering on civil practice is the permission to withdraw at the end of four years. The prospect of a gratuity of £500, after enjoying an opportunity of seeing the world under exceptionally favourable conditions, is an inducement to young men of spirit such as is scarcely likely to present itself in the ordinary course of civil life.

On withdrawal from the service the young officer joins the reserve for a term of years during which his name still appears in the Navy List and he is entitled to wear uniform under the regulations applying to officers on the retired and reserved lists. He may elect to enter the reserve for eight years with power to resign on giving six months' notice, or he may engage himself for four years receiving a retaining fee of £25 per annum, with power to renew the engagement on the same terms for a further period of four years. Officers of the reserve, if called up for service in time of war or emergency, will immediately receive the rate of pay—17s. a day—to which they would have been entitled after four years' service. If during the period of their re-employment they are injured on duty or lose their lives from causes attributable to the service they come under the same regulations as regards compensation for themselves or pension or compassionate allowances for their widows and children as officers of the same rank on the permanent Active List.

The pay has been increased, and now compares not unfavourably with that of corresponding ranks in the army. In respect of allowances, however, the medical officers of the navy up to the selective ranks are far from being so well off as those of the sister service. Another point in which the naval officers formerly were less favoured than those of the army was charge pay. Under the new regulations charge pay, from 10s. to 2s. 6d. a day according to rank, is granted to officers in charge of hospitals and sick quarters at home and abroad, and of hospital ships. Flag allowance is also paid to the senior medical officer of ships flying the flag of a Commander-in-Chief and to the senior medical officer of ships carrying the flags of flag officers or the broad pendants of commodores not commanding stations.

Study leave to the extent of three months in each grade is granted. Officers are allowed to pursue courses of instruction in prescribed subjects at post-graduate schools in London, Edinburgh, or Dublin. The Admiralty pays the fees for all the courses, and during the periods of study leave officers receive the full pay of their rank, in addition to sustenance money amounting to £27 and an allowance of £50 in lieu of lodging. An arrangement whereby naval officers are enabled to keep their knowledge up-to-date without loss of seniority and without any expense to themselves cannot fairly be called illiberal.

That the service is not unpopular is shown by the fact that there is now no difficulty in getting candidates. The total establishment is 544 officers, and the Navy List for March shows that the number actually in the service is only 22 below that figure. From statistics as to the examinations supplied to the General Medical Council it may be gathered that the number of candidates last November was, with one or two exceptions, larger than it had been the last twenty-five years. Nor is the increase in the number of candidates to be explained by laxity in the examinations. On the contrary, these have been made at once considerably more stringent and more practical, with the object of weeding out the incompetent and securing men of good professional quality. The service is still undermanned for the needs of the navy, and from an Order in Council dated January 29th, 1904, it appears to be intended to increase the establishment to a strength of 590.

It would be ungracious and unjust not to acknowledge that the Admiralty has made an earnest effort to make the medical service of the navy attractive to young men of a good professional stamp. That it has to a considerable extent succeeded in this aim is shown by the fact that the service is attracting more men than it did until recently. What manner of men they are is shown by the testimony of the Marryat of our modern navy. In the *Bearers of the Burden* Major W. P. Drury describes a naval surgeon whom he introduces into the story as follows: "A thoroughly up-to-date, hard-reading, painstaking young medico was this ex-house-surgeon of Bartholomew's—a fair type of the doctors who as a rule tend the sick and wounded of our fleet to-day."

Nevertheless, we should be false to the trust placed in us by the profession if we allowed it to be inferred from what has been said that we believe that the medical service of the navy is everything that it should be. One radical defect has already been referred to, but there is much else that urgently calls for drastic reform. We propose to deal fully in a further article with the many serious grievances which form the subject of reasonable complaint on the part of the medical officers of the navy.

FOOD VALUES.

In the course of an address on the dietetic value of patented foods recently delivered before the American Chemical Society,[1] Professor Halliburton, of King's College, made a powerful appeal for a closer union between physiological chemists and medical practitioners, so that the value and relation of chemistry and physiology to one another might be better understood and the public be more fully instructed in the true value of different articles of diet and in the proper meaning of the term nutrition.

Patented foods are as eagerly bought as patented medicines, usually with little more inquiry into their intrinsic merits than a mere perusal of the virtues which their vendors claim for them. A blind acceptance of articles of diet on inadequate knowledge does not involve the same risk of positive bodily injury, neither is it beset by the like possibilities of hopeless inefficiency which come from a credulous belief in all that is claimed for patented medicines; for it may be assumed that no form of food is likely to be unreservedly inimical to the maintenance of health, while the sustenance value, though probably overestimated to secure commercial success, can seldom be a wholly negative quantity. Many of them possess valuable properties. The dangers accompanying their use, or the failure which ensues upon a too wholesale dependence upon their sustaining powers, consists in an imperfect appreciation of their limitations and of the fundamental laws of assimilation and nutrition. This cannot be better illustrated than by a reference to the multitude of farinaceous products which are widely advertised for the feeding of infants. The prevalence of rickets and of intestinal disturbances among the children of the poor is in a large measure due to the fact that the public has not yet arrived at a full recognition of Nature's elementary lesson that milk is the natural and necessary form of food for the infant, whose alimentary canal is no more fit to grapple with starch than with beef.

But apart from the aspect of the subject as it concerns children, Professor Halliburton performs a signal service to adult humanity by calling attention to the inadequacy from the nutritive point of view, of many patented articles which command an extensive sale. Meat extracts are specially commented upon, and it will at once be admitted that the time has more than arrived for disabusing the public mind of the delusions entertained in regard to these preparations. A strong cup of beef-tea—and the stronger the better—has been an heirloom of the sick room from time immemorial, and to the present day it retains its reputation as the best means whereby the strength of the patient may be maintained when his loss of appetite resents the ingestion of ordinary food. Its greatest advantage consists, in the public view, in the practicability of its concentration, so that a minute quantity may be regarded as equivalent to an ordinary meal. This widespread belief in the universal suitability of concentrated beef-tea is frequently responsible for increasing the patient's discomfort and is even capable, in conditions of kidney inefficiency, of producing positive harm.

Popular opinion has, of late, been played up to by the preparation of many varieties of meat essence for most of which it is claimed that they contain something like the equivalent of an ox in a small jar of the extract. Solutions of these extracts are useful stimulants, but have little or no nutritive value.

1 *New York Medical Journal*, vol. lxxix, No. 4.

The erroneous impressions which prevail on this subject eceive an unpleasant but much-needed correction from rofessor Halliburton, who says "instead of an ox in a eacup, the ox's urine in a teacup would be much nearer he fact, for the meat extract consists largely of products the way to urea, which much more nearly resemble in nstitution the urine than they do the flesh of the ox."

Exception is also taken to some of the modern desiccated eparations of milk, many of which consist simply of the parated casein, and possess little or no real dietetic use- lness. There are besides in the market an abundance of real preparations for which special virtue is claimed on count of their preponderance of nitrogenous constituent, t the excess of cellulose they contain interferes with eir perfect digestion, and, on account of the large pro- rtion of their proteid which passes through the intestinal nal without being absorbed, their nutritive possibilities much less than is suggested by their chemical alysis.

The food customs of mankind may be regarded as the come of an experience accumulated through countless erations of men, and dating from the earliest days of man evolution, when an unerring instinct was re- nsible for the selection of such nutrient materials as e within reach and best met the necessities of well- ng and existence. Gradually food customs be- e established in accordance with the requirements the human economy, and these varied according to , climate, and environment. In proportion as a became successful it acquired greater facilities for ety in its food, and, *pari passu*, with the advance of lization, the demand for more elaborate supplies in- sed until, at the present day, cheap transit and open kets have brought within reach of all classes of the munity a selection of diet which, however gratifying the point of view of national prosperity and race ominance, carries with it to those nations of the ern world by which the freedom of choice has been cipally achieved, a twofold danger—one arising out of nwise departure from simplicity and an undue indul- e in complex and over-stimulating food; and another result of commercial enterprise that, by lessening cost, brings within the reach of almost every class stibles which find a ready sale from the appeal they to the appetite, but which are, in many cases, ded with risk to health either because of their meagre tive value or of their inferior quality.

remedy is to be found in the better education of the c in the knowledge of food values. With a view to, it is more than ever necessary that greater atten- should be given to the instruction of medical prac- ers in chemical physiology. In most of our univer- and schools the subject of dietetics is imperfectly t, if taught at all; while the close relationship which istry bears to physiology is becoming so rapidly pped that, in the near future, more elaborate educa- in the interdependence of the one science on the and in all that this connotes in the preservation of and the treatment of disease will became a para- t necessity. What to eat and what to drink will s be decided by national custom and individual ence, so far as the public is concerned, but both may fluenced in the right direction by the guidance of l medical opinion.

greater variety and lessened cost of our food supplies s the gratification of individual appetite more and more a question of inclination or convenience. This is not devoid of a risk to the health of the community, which can only be minimized by the dissemination of a scientific knowledge of food values, especially in regard to such articles of daily consumption as are in most universal use and by diet regulation, so far as regulation in such a matter is possible, in accordance with human assimilative capacity. As regards the sick it may safely be said that their dietetic management is, for the most part, conducted by rule of thumb, and is utterly wanting in that scientific precision with which the details of treatment otherwise are carried out. Patented foods are not the only source of error; the whole subject of dietetics demands more attention both as to theory and practice.

THE "SUPPLEMENT."

The Supplement published this week contains several communications to which we venture to ask the particular attention of members of the Association. One is the report of a meeting of medical practitioners at Bradford at which the Medical Secretary of the British Medical Association delivered an address on medical organization with special reference to the question which has arisen not only in Bradford but in other centres, as to the possibility of concentrating the work of the profession by amalgamating local medical societies with the British Medical Association. As Sir Victor Horsley pointed out about a year ago, the growth of local medical societies in England during the last twenty years of the past century was very rapid, no doubt in response to a need felt by the profession for local organizations to deal with local questions. This work was within the scope contemplated by the founders of the British Medical Association, but the increase in the numbers of the profession, the multiplication of subjects, both social and scientific, with which the profession is called upon to deal, and the very growth of the Association itself had rendered its organization from this point of view out of date. The new Constitution of the Association, which has now been at work for over a year, was designed in part to remedy defects of this kind by supplying through its Divisions the necessary units of local organization, while binding them together for general action in a central federation. We may follow Dr. Whitaker in classifying the work done by the Association under the heads of social, scientific, and medico-political. There are many who, while in full sympathy with those members of long-established local societies who deprecate any undue haste, yet believe that the organization of the British Medical Association now affords a satisfactory means of dealing both with the social and scientific side of the work of local medical societies, while it seems quite clear that in medico-political matters a strong central organization collecting and giving effect to opinions formed first of all in the local units, will afford to the profession a far more effective means of making its views known to the public and of influencing legislation than by the independent action of isolated societies. Both local action and general action are necessary, and it is this combination which the British Medical Association affords.

Another matter to which we would direct attention is the report of the Committee of the Norwich Division on the subject of medical examinations for life insurance. From time to time during the last few years many letters

have been published in our columns protesting against the system upon which insurance companies fix their scales of fees, and pointing out that in some cases this scale, never liberal, has recently been still further reduced. Many companies have established a sliding scale in which the amount of the fee to be paid for a medical examination of candidates for insurance depends upon the amount insured. While some of our correspondents appear to hold the opinion that a sliding scale, if it acted both ways and if the number of policies for the larger sums bore a satisfactory ratio to those for smaller amounts, might conceivably be substantially just, it would appear, unfortunately, that the notion which the companies have of a sliding scale is that it shall slide down and not up.

The report of the Norwich Committee objects to this system altogether; it urges that the fee of the medical examiner, who is acting in the interest of a company, which, according to its own statements, is generally in a highly prosperous condition, should not be dependent on the financial condition of the candidate for insurance; it states, further, that there is no reason to suppose that a less thorough examination is required when the fee given is half a guinea than when it is a guinea. Some companies are content with a shortened form of report when the amount insured is under a certain amount; in these cases, however, the fee is generally less than half a guinea, and in some drops as low as half a crown. The Committee considers that the amount paid to the medical examiner should be proportionate to the amount of work done by him; that for every full and careful report he should receive one guinea; and that if the fee tendered is only half that amount, the examination should entail less work and the report required be shortened. The Committee proposes that the Division shall communicate the facts and arguments to all the insurance companies trading in Norwich, but should not take any further action until the subject has been thoroughly investigated by other Divisions of the Association.

It has been thought well to republish, in this SUPPLEMENT, the scheme of medical defence remitted by direction of the Council to the Divisions, together with the explanatory memorandum adopted by the Medical Defence Committee at a recent meeting. The opportunity has also been taken to print the report of the minority of the Committee drawn up after the meeting at which the scheme was originally adopted. In order to prevent a misapprehension which appears to exist in the minds of some, it seems proper to remind members that the scheme as it at present stands must not be taken to be the final pronouncement of the Association on this important matter. The scheme has been drafted in order that a definite proposition should be before the Association. It has now been referred to the Divisions, which will, no doubt, hold meetings at an early date for its consideration, and it will subsequently be discussed by the annual Representative Meeting at Oxford.

THE JAPANESE RED CROSS SOCIETY.

THE *Sei-I-Kwai Medical Journal* publishes an address in which H.I.H. Prince Kan-In, President of the Red Cross Society of Japan, on the outbreak of the war reminded the nurses employed by the Society of the grave responsibilities laid upon them by their position. The document is of especial interest as showing the spirit of enlightened humanity that now animates the foremost men of a nation which until a comparatively recent time was Asiatic in practice as in sentiment. After reminding those whom he addressed that the Society is an association established under the special auspices of the Emperor and Empre he pointed out that in the discharge of its functions time of war it must depend on its nurses. He recalled t fact that the Society assisted in the work of the Ambula Corps in the war of 1894-5, and received on that occasi "gracious edicts" from the Emperor and Empre During the disturbances in North China in 1 the Society rescued and tended the sick and wounc on both sides. The Imperial Ordinance of 1901, wh promulgated the regulations of the Society and gave nurses the right to be treated as military officers, h increased its responsibility as much as it had enhan its glory. Owing to the application of the Red Cross C vention to naval warfare, the scope of the Society's w had been greatly extended. Proceeding to lay dow scheme of duty for the guidance of the nurses, the Pri called upon them "following the principles of the Soci inspired by the humanitarian views of Their Majesties the Emperor and Empress," to do their work with c gence. He summed up the principles that should actu them as follows. In assisting the military and n ambulance service, the regulations and discipline app able thereto should be observed, and such virtues obedience and respect never be lost sight of; in attenc patients, no matter to which side they belonged, kindı should be a guiding principle; the successful discharg such duties should be aimed at by adhering to upr conduct, maintaining discipline, and enduring privations want; the attainment of the Society's ultimate aim sh be striven for, each adhering to his or her assigned du and acting in harmony and co-operation with the ot His Imperial Highness concluded with the expression hope that all the nurses would alway keep in mind rules and principles set forth above, and endeavou increase the prestige of the Red Cross Society of Japa devoting themselves to the cause which they served genuine earnestness. Mr. E. F. Knight, in an interes letter to the *Morning Post* dated Tokio, February 18th, s "Our first Japanese port of call was Kobe. Here, too preparations for war were manifest. Lying alongsic at the quay was a liner of the Nippon Yusen Ka which was being converted into a hospital ship. To j from all that I have seen, the Japanese medical arra ments for the war are very complete, and the Red C Society of Japan is excellently organized and strongly ported by the patriotic people."

THE TEACHING OF SANITATION IN SCHOOL

IN a recent issue of *Climate* some extracts from a dis addressed by the Governor of Lagos, Sir William Gregor, K.C.M.G., M.D., are published which supp excellent illustration of the practical value of the tea of the elements of hygiene in schools. Sir William Gregor's testimony to the success of such teachi especially interesting in view of the strong confirm which it affords of the soundness of the recommend to educational authorities as to the need of eleme scientific instruction in health subjects in schools recently by the Council of the British Medical Associa Having determined to introduce the teaching of sani into the schools of Lagos, Sir William MacGregor say the first step that had to be taken was to educate the Board, which is composed of certain officials and repr atives of the different denominational schools whi ceive subsidies from the Treasury. It is not alway Sir William drily, an easy matter to get over thi liminary stage, but it is highly necessary that the authorities should be won over from the beginning next thing was the preparation of a scheme to car the Governor's idea of giving school grants on the b results in sanitation which in this respect was pla the same footing as the "three R's." A preli and preparatory course of lectures on hygien delivered in Lagos by Dr. Best; then followed, months later, a more elaborate course by the Pr Medical Officer, Dr. Strachan, C.M.G. These cours well attended by the teachers of the subsidized

[1] BRITISH MEDICAL JOURNAL, January 23rd, p. 212.

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Western Folklore 44(1985) 301-17

ospital nurses, and attendants, and by the public, audiences arying from about 150 to 250. Then followed examinations. eachers that obtained first and second-class certificates ere deemed fit to teach sanitation in the schools. Twenty-ght teachers received certificates at the first and second xaminations; 98 scholars were presented for the first ex-ninations; they were between 13 and 20 years of age. In May st, 276 scholars entered for examination in sanitation, id of these 170 were successful. All lectures were illus-ated by lantern slides and by practical demonstrations. s an example of the teaching given, Sir William MacGregor entions the method adopted to teach the development the mosquito. He found that in the previous year, not-thstanding all that had been done by Celli, Grassi, and hers in Italy, he could not convince the railway employés at mosquitos were hatched out of the black wriggling rvae he showed them on the water receptacles in their rdens. He came to the conclusion, therefore, that the y to teach that branch of the subject was to provide each acher with a certain number of larvae in a clear glass ttle which he produced to his class daily, making the pils count the larvae and pupae once a day till all were ched out into the fully-developed insect. In a week or one met pupils with bottles at every corner in Lagos, nting for mosquito larvae that they might watch for mselves the wonders of their development. This sub-t, adds Sir William, is now better known by the school ldren of Lagos than by the trained and experienced vants of the Italian railways. The result of this eriment has convinced the Governor of Lagos that itation can be successfully taught in primary and ondary schools.

MEDICAL INSPECTION OF SCHOOLS IN PHILADELPHIA.

LOWING the example of Boston, New York, and other s the Department of Public Health of Philadelphia appointed assistant medical inspectors to the number orty to make daily examinations of all pupils in the lic schools with the object of preventing the spread ntagious disease, and placing sick children under the of the family doctor. All children found to be ering from acute disease or showing symptoms of ss will be sent to their homes, and a systematic nination will be made daily into the physical con-n of each pupil until a complete record is ob-ed of all pupils. Principals and teachers are every day et apart in a different room all pupils who in their ion require medical examination and aid. It will be luty of the medical inspectors to instruct teachers, as s possible, in the symptomatology of disease. They urther enjoined to recommend that all children suffer-from defects of hearing, deformities, and chronic ses shall be referred for treatment to the family r or to the district medical officer or to a dispensary spital.

GRAPHIC RECORDS OF EXPERIMENTS ON IMMUNITY.

E. F. Bashford has recently described[1] an interest-ethod of graphically and permanently recording n haemolytic and agglutination phenomena which ell known to workers on immunity. The author has for his purpose the serum of rabbits immunized st bullock's blood. Following the usual procedure, quantities of a suspension of bullock's blood are l in a series of test tubes, and the effect of adding ated quantities of the rabbit's serum is observed. The y of Dr. Bashford's method consists in removing each tube a small measured quantity by means of a pipette, and placing this upon white paper. The hus removed dries and forms a permanent record of nount of change which has taken place in the test In some of the experiments recorded the drop was ed immediately after shaking the test tube, and was placed upon blotting paper. The red corpuscles never spread so far as the fluid, but remained localized about the centre, whence diffusion had taken place. The two limits reached produced a circular zone on the blotting-paper. This zone was coloured if the fluid had contained free haemoglobin, and its outer margin became more distinct owing to the accumulation of blood pigment there. The marginal zone became less definite as the amount of free haemoglobin increased, and the number of suspended erythrocytes diminished. When there had been complete haemolysis it disappeared altogether. The erythrocytes naturally diffused uniformly, but if they had been clumped together their diffusion was proportionately irregular. The main advantage which is claimed for this method is that it can be utilized for the purpose of demonstrating the leading phenomena of immunity to those who are not conversant with the involved and confusing terminology usually employed in the description of these phenomena. As a popular demonstration of this highly complicated and technical subject Dr. Bashford's article is both interesting and successful.

[1] *Journal of Hygiene*, January, 1904, p. 31.

ILLEGITIMACY AND INFANT MORTALITY.

The Hon. C. K. Mackellar, M.B., C.M., M.L.C., President of the State Children Relief Board, made out in his last report a strong case for the introduction into New South Wales of an Act for the protection of illegitimate children. He showed first of all that the infant mortality among such children was almost three times as high as among those of legitimate birth, and secondly, that the percentage of illegitimacy in Sydney in particular and in New South Wales in general was unduly high. He ascribed the latter fact to the absence of an effective affiliation law, and supported his argument by showing that in South Australia and New Zealand, the only Colonies in which an effective Act had been in force for any any length of time, the rates of illegitimate to all registered births were only 3.76 and 4.42 per cent. respectively, against 10 per cent. for the metropolitan area of Sydney, and over 7 per cent. for the whole State of New South Wales. The extremely high death-rate among the children who were thus born he ascribed to the neglect of the putative father to recognize his parental responsibility by contributing either to the expenses incidental to birth or to the subsequent maintenance of the child. The mother as a rule did not compel him to assist her by police-court proceedings, owing to the exposure of her shame which such a course entailed. The sole burden therefore fell upon her, and as a result she had recourse to the baby farmer. As a remedy primarily for the heavy mortality, and secondarily for the extent of the illegitimacy, he brought in an Act based upon the principle that the best way to protect the children was to ensure protection and monetary support for their mothers. Under its clauses it was provided that a mother might take legal action against the father of her prospective child before its birth, and that, further, she might bring such action before a special court, from which the presiding magistrate could exclude all persons not directly interested in the case under trial. Other clauses made it possible for the court to compel the payment of the expenses incidental to the child's birth, and for the maintenance of the mother for one month before confinement and for six months after, and for the maintenance of the child for an indefinite period. Finally, provision was made for the control and supervision of any place established or used for the reception of infants. There does not seem to be anything not strictly logical and just in these provisions, and it can scarcely be doubted that when the possibilities of the Act became thoroughly known it would do much towards removing both the evils which led to its proposal.

A MEDICAL ORDINANCE.

Great though the benefits we derive by living under the Mother of Parliaments, the comprehensive and stringent measure recently enacted in the Orange River Colony (see page 702) appears to prove that there may not be wanting advantages in having a simpler legislative machinery. If such a measure could have been passed at all through the

Imperial Parliament, it would have taken years, and would probably have been emasculated in the process. We congratulate Dr. Pratt Yule, the Medical Officer of Health at Bloemfontein, on his success in piloting this measure through, and would at the same time call attention to those respects in which home experiences have been utilized to improve upon home legislation. Whilst the use of medical and dental titles is expressly protected, the act of practice is itself also forbidden to the unqualified in terms which will be difficult to evade, for the evidence of a person treated, always very difficult to procure, will not be essential. The company form of evasion also is dealt with so far as dentists and chemists are concerned, but it is to be regretted that no mention is made of medical companies; perhaps they have not yet invaded the Colony. The requirements of the home Medical Council are set down as the standard by which qualifications which it is sought to register are to be judged, and whilst the Colonial Medical Council has not the absolute power to strike a name off the *Register*, but must submit its finding to the Governor, it has by statute another power which our home Council would on many occasions have found very useful. It can by statute censure a person brought before it, and inattention to this censure may subsequently become a ground for removal of the name, whereas our own Council has no means of reprimand short of the extreme penalty; it can only strike a name off, or postpone its judgement, or acquit of infamous or disgraceful conduct. The power given to the President of the Colonial Council to administer an oath will doubtless be of great service. There is, however, no power to compel the attendance of a witness, so the difficulty of procuring evidence may arise in the colony as at home. In general terms we may say that the lines of legislation in the mother country have been followed, but that in those respects in which it has been found wanting stronger clauses have been inserted. We venture to hope that our own columns have been of some assistance to those who drafted the Act in pointing out wherein the elements of weakness lay. In bringing chemists, midwives, and trained nurses under the control of the same Council a large amount of work will be imposed upon it, but there is the advantage that there is a general uniformity of scheme little likely to be attained by any piecemeal legislation.

MEDICINAL PLANTS IN AMERICA.

The *American Journal of Pharmacy* for December contains an article by Dr. Kraemer on the Conservation and Cultivation of Medicinal Plants, in which he predicts an early extermination of the principal medicinal plants of the United States unless measures are taken for their protection and cultivation. Some well-known plants as spigelia, serpentaria, and senega, which in the time of Linnaeus were found in abundance in Maryland and other Atlantic States, are already becoming scarce. It is well known that some plants have been improved by cultivation, and it may reasonably be supposed that all can be when the peculiar requirements of each have been ascertained. Dr. Kraemer urges a study of these plants in their natural surroundings in order that they may be successfully cultivated and conserved. Many of the medicinal plants now in use are being cultivated in the United States. It is stated that 40,000,000 lb. of peppermint are produced annually near Kalamazoo, Michigan. Castor beans, from which castor oil is obtained, are grown in the west and middle States. Valerian is produced in Vermont. Digitalis purpurea, atropa belladonna, sanguinaria canadensis, cimicifuga racemosa, and many equally valuable plants have been raised experimentally in America, and, in Dr. Kraemer's opinion, could be grown successfully with the proper cultivation. He urges the further cultivation of certain plants—such as senna, colocynth, gentian, poppy, etc.—which have been introduced into the United States and grown there to some extent. He believes that three-fourths of all medicinal plants are grown either wild or in cultivation in the United States, and that fully one-half of the remaining fourth could be successfully raised there. He points out that Americans must realize the necessity of protecting their forests and plants, and must consider their care and preservation a duty both to themselves and to future generations.

SPOROZOA AND DISEASE.

The third lecture delivered by Professor Minchin at University College on March 14th dealt with the special class of the coccidia, a class of sporozoa which had great reproductive power, so that they multiplied to a dangerous extent in the body of the "host" which they infected. Coccidiae were parasitic in vertebrates, molluscs, and worms. The name coccidium has been long misused by pathologists for many forms of so-called "cell inclusions" met with in cancerous and other neoplasms. Coccidia generally occurred in the epithelium of the infected animal, the alimentary canal and liver being the usual seats of infection, but occasionally coccidia were found in the kidney (for example, mouse). A coccidium fatal to the mole was recently discovered and described by Schaudin. The coccidia reproduced by fission (schizogony), the young being called merozoites. The merozoites infest the alimentary canal and tissues of the animal in whom they dwell (for example, the rabbit) in such large numbers as to cause denudation of the epithelium, diarrhoea, and general prostration or lethargy. After a period of generations of non-sexual reproduction, the merozoites produce two kinds of spores or gametes, namely, large quiescent macrogametes and small motile microgametes. These by conjugation give rise to zygotes or fertilized cells within each of which the protoplasm and nucleus divides into four spores. Each such spore divides later into two sporozoites which begin the cycle of life anew as described above. This latter method of sexual reproduction by microgametes and macrogametes takes place when the tissues of the host prevail over the parasites, and the latter are in danger of being overcome by the phagocytic and defensive mechanisms in the body of the host. The spores formed as the result of this sexual conjugation are at first enclosed in a tough coating or cyst wall, and may be evacuated into the faeces. These spores are then ready for the "casual" infection of a fresh host, as has been proved experimentally in the case of the rabbit by Metzner. In some coccidia the male gametes are elongated and spiral in form, and without flagella, a condition which is also represented in the malarial parasite. Professor Minchin concluded this lecture by classifying the coccidia into four classes according to the spore formation, namely, Asporocystidea, Disporocystidea, Tetrasporocystidea, and Polysporocystidea.

THE ANTIMALARIA CAMPAIGN AT ISMAILIA.

Mention has already been made of the success of the campaign against malaria at Ismailia conducted under the auspices of the Liverpool School of Tropical Medicine. In the fifth annual report of the school, which has recently been issued, it is stated that Professor Ronald Ross has received from the General Secretary of the Compagnie Universelle du Canal Maritime de Suez, Paris, a letter informing him that as a result of numerous works of drainage, filling up of ditches, oiling cisterns and pits, and suppressing marshes and pools of water, etc., at Ismailia the number of fever cases has very sensibly diminished. The *Anopheles* has not yet been completely exterminated, but insects recently captured were found to be not infected. The mosquitos called *Culex* have, however, been almost completely suppressed, so that in the hottest period of the year it had been possible to abandon the use of mosquito nets. A detailed account of the campaign is given by Professor Rubert Boyce in a memoir entitled The Antimalaria Measures at Ismailia. It is there stated that early in 1902 the Suez Canal Company, through their chairman, Prince d'Arenberg, approached Sir Alfred Jones, Chairman of the Liverpool School of Tropical Medicine, with a request that Professor Ross might be allowed to proceed to Ismailia and advise upon a method to rid the town of mosquitos and to prevent the very serious annual sickness and mor

y from malarial fever. The committee of the school ng readily given permission, Professor Ross proceeded mailia, where he arrived on September 17th, 1902, in any with Sir William MacGregor, who wished to in- gate for himself the malaria problem at Ismailia. *Anopheles* had already been discovered by Drs. at and Dampeirou, the medical officers of the com- Professor Ross confirmed their observations and eded to make a careful examination of all possible ing-places and to suggest a plan of campaign. His mendations have been carried out with great suc- Mosquitos are now rare, and the number of malaria has been reduced from 2,284 in 1900, to 209 in 1903, in a ation of 9,000. For the first time on record there in 1903 no deaths from malaria amongst the Euro- On February 7th, 1904, sixteen months after Major visit, Professor Boyce was invited by "the courteous man of the Company," Prince d'Arenberg, to see for lf "what the directorate hope will very shortly become torium and a healthy inland sea-bathing resort for the es out of what was, until two years ago, a mosquito- d town and a nest of malaria." In filling in marsh nd cleaning out drains the Company has spent The "Drain Brigade" costs £200 and the leum Brigade" £520 a year. The result of the should certainly be highly satisfactory to the Company, which owes a deep debt of gratitude English men of science on whose advice carried out. This makes it all the more table that the "courteous Chairman" afore- hould, on March 14th, have given to the Paris nie des Sciences an account of the campaign in no mention whatever is made of Major Ross or the ol School of Tropical Medicine, but the whole f the great sanitary victory that has been gained to M. Laveran. Prince d'Arenberg expressed gratification at the fact that the success of their was due to the labours of a French investigator. parently did M. Laveran think it necessary to dis- he honour thrust upon him. He did indeed remind ers of the fact that Havana had shown the way to and he alluded to the measures of prevention in Italy. But, if we may trust a lengthy report of ting published in the *Journal des Débats* of March English workers were from first to last simply The gratitude of the courteous Chairman of the mpany would seem to be shortlived; such a senti- owever, is perhaps scarcely to be looked for in a man. But it is surely deplorable that a scientific M. Laveran should show a spirit of such petty ism.

RATS AND RIBBONS.

entioned last week that Dr. Roux had been made nder in the Order of Agricultural Merit in recog- his services in organizing a campaign for the on of rats in agricultural districts. In connexion same achievement honours have also been con- the principal members of M. Roux's staff. Dr. land, formely a member of the Chamber of Depu- Danysz, inventor of the virus used with such ect on the rodents, and head of one of the labora- the Pasteur Institute, and Dr. Metchnikoff, chief the departments of the same institute, have been cers of the Order of Agricultural Merit, while valier and Arthaud-Berthon, *préparateurs* in the have been created Knights of the Order. The that the President of the French Republic is as rewarding services rendered "in the field" as rshal Lord Roberts was in the South African

THE SANITATION OF PANAMA.

nittee on Medical Legislation of the American ssociation, consisting of Drs. C. A. L. Reed of , Wm. L. Rodman of Philadelphia, and Wm. H. Baltimore, has addressed a memorandum to Roosevelt, making strong representations as to the need of vigorous measures being adopted to prevent as far as possible outbreaks of disease among the labourers employed in the construction of the Panama Canal. They urge that a representative of the medical profession should be appointed a member of the Canal Commission, and that Colonel William C. Gorgas, Surgeon United States army, should be chosen for the purpose. The Committee points out that "under both of the French administrations at the isthmus, the engineering problems themselves, to the chagrin of the medical profession of the world, failed of accomplishment largely through the frightful mortality among officers and labourers consequent upon lack of authority on the part of medical officers entrusted with the work of sanitation; that the same conditions of insalubrity exist now that existed then, and that consequently the sanitary problems are to be recognized as second in importance, if second at all, only to those connected with the engineering department." The Committee, therefore, urges that the technical skill involved in the solution of medical and sanitary problems be likewise invested with highest administrative authority through actual representation in the *personnel* of the Commission. It is added that the Committee fully recognizes that the Commissioners, to carry out the objects of their official existence, must possess administrative ability of the highest order; and that no person, whatever his technical qualifications, ought to be appointed who does not possess personal integrity, a knowledge of men, familiarity with affairs, acquaintance with values, the faculty of organization, and executive ability backed by courage, both of the highest order. It is pointed out that these qualifications exist in the medical profession as well as out of it—a truth which might be regarded as a truism did not Governments and official authorities, as we on this side of the Atlantic know too well, so often need to have it pressed upon their attention.

THE DECORATION OF WARDS.

COMMENTING upon a fresco which Mr. H. L. Raphael has recently had painted on the wall of the nurses' dining hall at Guy's Hospital, a lay contemporary recently lamented the incompatibility between high art and sanitary science, and took as evidence thereof the ordinary hospital ward. Of course if "high art" be truly and justly only represented by the Chinese fan and corner bracket—arrangements so dear to the housewife of the proverbial suburban home—it can have no place in a properly-managed hospital ward. Fortunately, however, there is another kind of "high art" and beauty which is not seldom seen in a hospital ward, and that is the art which consists in securing beauty by just proportions of length, breadth, and height, an air of space and brightness, and the constant repetition of simple lines such as those given by windows and orderly beds. It is a very real form of beauty, and it is a pity that attempts are so often made to improve upon it by the hanging of engravings, oleographs, and other similar decorations. Similar objections do not apply to frescoes nor to decorations or pictures in tiles; but, from a sanitary point of view, ward "decoration" by framed pictures hanging from the walls might desirably be very much less prevalent than it is. Every projection, such as a picture frame, is a dust trap, and all dust traps are sources of danger and of additional work. In the atmosphere of London very few hours are required for the collection on any fixed object of quite a thick layer of dust, and thence a myriad microbes may be at any moment hurled into the atmosphere by a gust of wind from an open window or door, and possibly just at the moment that an important "dressing" is in progress. The additional labour, too, involved by every dust trap when recognized to exist is no small drawback. Every additional dusting means so much time deducted from the total available for the personal nursing of the sick, not too much even in the most judiciously managed wards. It is indeed probable and in some hospitals certain that, quite apart from pictures and such things, too much attention is paid to the mere appearance of wards. The time of the nurses is so much taken up in polishing and preserving an appearance

of unblemished smartness that the sick do not receive quite as much personal service as their comfort really requires. Increase, therefore, in the decoration of wards by framed pictures, or the attempt to beautify them by dust traps, should be replaced by cleanliness, just proportions, space, air, and orderliness. Nor is the sentiment that leans to the advocacy of meritricious decorations admirable. Sickness and suffering are hard facts which cannot be banished by decorations, but may be materially lengthened by the kind of sentiment which aims at them. In not a few wards what is required is less sentiment and more sanitation.

LEPROSY RESEARCH AT MOLOKAI.

The Board of Health of Hawaii some time ago formulated a plan for the systematic study of leprosy at the settlement of Molokai. The plan included a request for an appropria- from Congress for suitable provision for a bacteriological laboratory at the leper settlement, and for residences for investigators. The territory of Hawaii would provide maintenance and assistance, and an invitation would be sent to the leading institutions and societies in the world which provide for original research into such subjects, to send capable investigators. In pursuance of this object, Surgeon-General Wyman has, we learn from the *Medical Record*, invited Dr. Charles B. Cooper, of the Board of Health of Hawaii, Dr. J. F. Smith, Secretary of the Superior Board of Health of San Juan, Porto Rico, and Dr. J. C. Nolte, of the State Board of Health of Louisiana, to become members of a committtee to undertake an exhaustive investigation and study of leprosy. It will be the duty of this committee to suggest lines of investigation to competent observers willing to undertake the work, to collate the results of experiments and observations, and to report at suitable times on the progress of the work.

SIR LAUDER BRUNTON.

We learn that Sir Lauder Brunton has just resigned the office of physician, and has been appointed consulting physician and a governor of St. Bartholomew's Hospital. Although he has only just completed his 60th year, he has served St. Bartholomew's Hospital for thirty-three years, four as casualty physician, more than twenty as assistant physician, and nearly nine years as full physician. Recognizing that there are many young men at the hospital who are in the same position as he was fifteen years ago, and who would willingly devote a large proportion both of energy and time to hospital work and teaching, and being conscious that for the last five or six years the claims of practice have tempted him to diminish the time spent in the hospital, he has taken the step now announced. Sir Lauder Brunton has expressed to us the opinion that the system of age tenure as applied to the medical staff of St. Bartholomew's Hospital is bad, and nearly though not quite as bad as that of life tenure against which Abernethy inveighed after having been twenty-eight years assistant surgeon. We learn that before he was appointed full physician Sir Lauder Brunton suggested that the tenure of office should be altered to a time tenure of ten or twelve years as assistant. and ten or twelve years as full physician or surgeon, but this suggestion has not hitherto been adopted. We believe that but for accidental vacancies caused by the appointment of Dr. Southey to be a Commissioner of Lunacy, and by the creation of the appointment of a fifth physician to the hospital Sir Lauder Brunton would only have become full physician about six months ago; this is a *reductio ad absurdum*.

THE SPECTACLE MAKERS' COMPANY.

We understand that the Spectacle Makers' Company has in contemplation the appointment of a registered medical practitioner to take part in the examination held by the company, as the result of which it grants a diploma to opticians. It may be well to inform members of the Association that the company has not yet communicated to the Medico-Political Committee of the British Medical Association assurances which are regarded as satisfact- by that Committee in connexion with the matter to wh the Committee called the attention of the Company l October.

We understand that there has been no material cha in the condition of Sir Samuel Wilks.

Dr. Marmorek will give an address on the nature a use of his antituberculous serum at a meeting to be h at St. George's Hospital on Wednesday next at 8.30 p.m.

MEDICAL NOTES IN PARLIAMENT.

[From Our Lobby Correspondent.]

Tuberculosis and Milk Supply.—On Thursday last w there was an interesting debate on the second reading of London County Council (General Powers) Bill. Sir Edw Strachey moved an instruction to insert provisions to safeg the owners of cows suspected to be suffering from tubercul of the udder. The milk, he urged, should be submitted bacteriological examination before the cow was slaughte and in the event of slaughter proving the animal to free from tubercle, special damages not exceeding 50 per c of the full value, should be given for the loss of the cow. the disease was proved to exist, provisions were proposed compensation and payment of half the costs by the co council, and that the valuation should be made by a va appointed by the Board of Agriculture. Sir Herbert Max speaking as Chairman of the Royal Commission on Tu culosis of 1895, pointed out that tuberculosis of the udder one of the rarest forms of the disease in cows, that it usu appeared only when the tuberculosis was generalized, could be readily recognized. He further said that it was to assume from Professor Koch's change of front that t was no danger of infection of human beings from bo tuberculosis. A very small percentage of cows exhi tuberculosis of the udder, and as the disease was very e recognized there was small risk of mistaken slaughter. Burns defended the proposals of the county council as n sary for the discharge of their sanitary obligations to public, and Sir C. Rasch also opposed the instruction. Walter Foster appealed to the House to decide the que on public health grounds. He pointed out that the P and Sanitary Committee would be able to take expert ence if necessary, and so be able to settle the matter adequate consideration. It was a remarkable fact, as po out by the late Sir R. Thorne-Thorne, that while tubercu generally was on the decline, in this country it was incre among young children. This was inferred to be due t fected milk supply used in artificial feeding. Wherever t culosis of the udder existed, there was need for prompt a to prevent danger to the consumer. As regards Koch's v he said that while the matter might be still regarded a *judice*, it would be wise to proceed on the assumption bovine tuberculosis was communicable, as indeed he th the evidence inclined in that direction. After some fu remarks by Mr. Gray and Mr. J. W. Lowther, the instru moved by Sir E. Strachey was rejected by 195 votes to 5

The Commission on Tuberculosis.—Mr. Long informe Field last week that the Commission did not propose to an interim report.

The Local Government (Scotland) Act (1894) Amen Bill.—Under this title Mr. Cathcart Wason has introd measure to place outdoor medical officers in Scotland same position as the medical officers of Poorhouses cannot be removed from office without the consent Local Government Board of Scotland. A clause was duced into the Local Government (Scotland) Act, 1894, t tect outdoor medical officers against parish councils fering with their duties or emoluments without the c of the Local Government Board, but it did not protect from arbitrary dismissal from office. By a slight addit Section li of the Act this Bill proposes to assimilate t of Scotland to that of England and Ireland, and ma consent of the Local Government Board necessary for t missal of medical officers. The second reading is do this week, but is not likely to be reached. The Bill is by Sir William Arrol, Mr. Weir, Sir Andrew Agne

ene Wason, Mr. Alexander Cross, Mr. Harmsworth, nel Denny, Mr. Ainsworth, Mr. James Reid, Mr. John ar, and Sir John Batty Tuke.

e Departmental Committee on Physical Degeneration.—ohn Gorst asked the Secretary to the Board of Education would state what were the terms of reference to the rtmental Committee now sitting on physical degenera-

Sir William Anson answered that the original reference ged the Committee with a preliminary inquiry into the ations concerning the deterioration of certain classes of opulation as shown by the large percentage of rejections nysical causes of recruits for the army and by other evi-, especially the report of the Committee on Physical uction in Scotland, and to consider in what manner the cal profession could best be consulted on the subject a view to the appointment of a Royal Commission, and rms of reference to such a Commission, if appointed, his reference was subsequently explained to imply the (1) to determine, with the aid of such counsel as the al profession were able to give, the steps that should en to furnish the Government and the nation at large periodical data for an accurate comparative estimate of alth and physique of the people; (2) to indicate gener-e causes of such physical deterioration as does exist in n classes; and (3) to point out the means by which it most effectually diminished.

ue in India and Inoculation.—Mr. Weir asked the ary of State for India last week if he could state the er of persons who died of plague in Central India and ana respectively during the month of January last, and e figures compared with the month of January, 1903. odrick stated that the numbers were—

	January, 1903.	January, 1904.
Central India	92	3,721
Rajputana	10	716

eir also asked the Secretary of State of India if he tate what percentage of persons inoculated with plague in India subsequently died of plague. To this Mr. k replied that, calculated on the figures of inoculations aths in the several provinces given by his predecessor in reply to a question asked by the honourable mem-June 11th, 1903, the percentage of deaths was 0.24. no later information on the subject, but the Govern-India had lately taken steps to secure a more accurate or the future.

f Public Vaccinators.—Mr. Weir asked the President ocal Government Board, on Monday, if he would state amount of fees paid to public vaccinators by the Boards of Guardians since the passing of the Act of mpared with the cost of vaccinations prior to the of that Act. Mr. Long answered that according to rmation, the total number of vaccinations and re-ions performed by public vaccinators in the four ded at Lady Day, 1899, was 1,370,897, and the average of the fee per case was 2s. 2d. In the four years ended Day, 1903, the total number of vaccinations and re-ions performed by public vaccinators had risen to , and the average amount of the fee per case was ss than 5s. 10d. The substitution of the system of ary vaccination under the Vaccination Act, 1898, ination at fixed stations, and the requirement that ation should be performed with antiseptic precautions tly increased the demand upon the time of the public ors, and higher fees had consequently to be paid. A ental Committee was, however, at present inquiring subject of vaccination fees.

pidemics.—Dr. Farquharson asked the President of Government Board whether his attention had been the report of the medical officer of health for on a recent outbreak of disease due to milk similar hich occurred in Woking last autumn; and whether ed to introduce legislation this session with a view nting such occurrences in the future. Mr. Long hat he had seen the report referred to in the He had taken note of the suggestion for legisla-could not promise to make proposals on the subject e present session.

yment of a Locum Tenens in Fermanagh.—Mr. ked the Chief Secretary to the Lord Lieutenant of Ireland if his attention had been called to the action of the Local Government Board in refusing to sanction payment of half-fees of medical practitioners acting as *locum tenens* in the Hollywell Dispensary District of the Enniskillen Union, county Fermanagh, during the enforced absence of Dr. Tate, the medical officer of the district, because of a serious accident; would he say what were the grounds on which said refusal was based; and whether, in view of the amount of the sum and the poverty of the division, he would instruct the Local Government Board to sanction the payment of the amount in question. Mr. Wyndham answered that there was no statutory provision enabling the Board to allow recoupment to the local authority in respect of this service, and the Board was unable, therefore, to sanction the payment.

Royal Commission on Feeble-Minded and Imbeciles.—Mr. Charles Hobhouse asked the First Lord of the Treasury on Monday, in view of the petition presented to His Majesty's Government by various persons and authorities interested in the case of imbeciles and defective or feeble-minded persons that a Royal Commission should be appointed to consider the provisions now made for these classes, whether he was now in a position to reply to the further letter presented to him in July, 1903, in support of the petition by members of Parliament on both sides of the House. Mr. Balfour replied that he understood that this question had for some time past been engaging the attention of both the Home Office and the Local Government Board. These departments had not yet decided upon the best form of inquiry to meet the particular problems referred to, and it might be necessary to extend the scope of the reference. A decision would be reached, he hoped, at an early date, which would be communicated to the honourable member if he would put down another question in a week's time.

Miners' Phthisis in the Transvaal.—Mr. Haldane asked the Secretary of State for the Colonies whether any steps had been taken to carry out the recommendations of the Miners Phthisis Commission appointed for the Transvaal in 1902. Mr. Secretary Lyttelton answered that Lord Milner informed him that a great deal had been and was being done to improve the sanitary condition of the mines generally, and to minimize specific danger in the dusty parts of the mines. The question if any, and if so what, preventive measures could be legislatively enforced was still under consideration. Medical opinion was not agreed as to specific preventives such as respirators, of which no completely satisfactory type had yet been discovered. The Chamber of Mines had offered a prize for the invention of best means of preventing dust in mines, and it was hoped that competition might throw further light on the subject. The medical officer of health reported that the number of deaths from miners' phthisis among the whole population of Witwatersrand, both white and coloured, was eight last month.

Fees for Medical Witnesses.—Dr. Rutherfoord Harris asked the Secretary of State for the Home Department whether he was aware that although the allowances to medical witnesses in criminal cases in courts throughout England and Wales had, in accordance with the recommendations of the Departmental Committee which reported on the subject last year, been considerably increased, there was no such increase in the fees allowed to medical witnesses in the metropolitan police-courts. Mr. Akers-Douglas answered that he thought the question was based on a misapprehension. The old regulations under the Criminal Justice Administration Act, 1851, had been revoked and the new regulations, which increased the fees allowed to medical witnesses, had been fully brought into force in the metropolitan police-courts. There was no difference between their application in the metropolitan police-courts and their application in other courts. The Act of 1851, however, did not provide for the payment of fees to witnesses in all cases; but only where the prosecution was for certain defined offences (including all felonies and the more serious misdemeanours). In the case of minor misdemeanours the law made no provision for the payment of witnesses. In those minor cases for which the law did not provide it had been the practice for many years in the metropolitan police-courts to pay certain fees to medical witnesses from police funds. These fees were not affected by the new regulations under the Act of 1851, and continued to be regulated by a different scale from that governing the statutory fees.

Scotland.

THE MEDICAL INSPECTION OF SCHOOL CHILDREN.

THE *Edinburgh Evening Dispatch* of March 9th publishes an interview with Dr. Leslie Mackenzie, Medical Inspector for the Local Government Board of Scotland, who with Professor Hay, Medical Officer of Aberdeen, made a medical inspection of 600 school children in Edinburgh and a similar number in Aberdeen, for the Royal Commission on Physical Training (Scotland). It is said that Dr. Mackenzie will embody the results of his inquiries and observations in a book to be entitled "The Medical Inspection of School Children." Dr. Mackenzie said that by racial degeneration he understood the transmission of weakness and disease from one generation to another, whereas the results of his inquiries had been that, in the great proportion of cases, there was nothing which would have prevented the children from growing up healthy and fit had they been reared in a better environment. Few of them were hereditarily weak or diseased. There was, however, great need for the medical inspection of school children, particularly with reference to physical training. Dr. Mackenzie contended that no systematic exercise ought to be enforced without a preliminary medical examination of the vital organs, to ensure that irreparable damage should not result, and that exercises should be organized strictly in accordance with health, physical development, and vigour. He would like to see instituted in this country a system of medical inspection similar to that in force in Zurich. There provision had been made for a careful medical examination of the children as they came forward for admission to the schools. Those who were found to be fit were passed; for the others special provision was made. The result of our system, according to Dr. Mackenzie, was that children were at school who were not fit to be there, and many of them were so affected as to have their condition greatly aggravated by the course of training. As illustrating the benefits of a regular medical inspection, Dr. Mackenzie said that he had discovered at school four pupils suffering from bronchitis who ought to have been kept at home, and two children suffering from acute phthisis, whose parents were totally unaware of the fact, were profoundly grateful for the information, and at once took steps to place the children under medical treatment. The medical inspection should be under the direction of the public health authorities, which had full power over the schools with regard to general sanitation and infectious diseases. If the powers of public health authorities were slightly extended a system of medical inspection could be organized under the direction of the existing authorities. This was especially desirable in view of forthcoming educational legislation, and with regard to the probable reconstruction and enlargement of educational areas; for the facilities available in a large county area were not so adequate as in a city such as Edinburgh, Glasgow, Aberdeen, etc. In the latter places, the School Boards were in touch with specialists in every trouble, but the position of county educational authorities was different, and it would in his opinion be necessary to have the county medical officer responsible for the medical examinations, and in charge of those appointed to carry out the actual work.

THE LATE DR. MILNE MURRAY.

The fifth ordinary meeting of the session of the Edinburgh Obstetrical Society was held on March 9th. The chair was taken by Professor A. R. Simpson, who gave a warm eulogy of the late Dr. Milne Murray, and concluded by moving that the Society should adjourn for a month as a tribute to his memory. Sir J. Halliday Croom seconded in a single word. Dr. Freeland Barbour moved that a letter of sympathy be sent to Mrs. Milne Murray; Dr. Proudfoot, who began the study of medicine along with Dr. Milne Murray and had continued his life-long friend, seconded.

CHALMERS HOSPITAL, EDINBURGH.

Mr. Harold J. Stiles, M.B., F.R.C.S.E., Surgeon to the Royal Edinburgh Hospital for Sick Children, has been appointed Acting Surgeon to Chalmers Hospital as from October 1st next, in place of Sir Patrick Heron Watson, who retires at that date.

EDINBURGH CITY HOSPITAL.

At a meeting of the Treasurer's Subcommittee of Edinburgh Town Council held on Friday, March 11th, it was agreed to recommend that, as the city has no further use for the Fever Hospital (the old Royal Infirmary) in Infirmary and the old hospital in the Cannongate, they should posed of. The Town Clerk was instructed to prepare a on the subject, and it was agreed to communicat the University authorities respecting the Infirmary buildings, as they had previously indicated their willi to acquire the buildings in question for laboratory pur

EDINBURGH UNIVERSITY PHYSIOLOGICAL SOCIETY

The inaugural address of the recently-formed Edi University Physiological Society was given by Pr Schäfer on March 10th, when there was a large atter The subject was "The Building-up of Physiology," and treated historically. The address was illustrated. S the early and rare works on physiology from the Uni Library were exhibited. Professor Schäfer was thanl his lecture.

EDINBURGH ROYAL MEDICAL SOCIETY DINNER.

Sir William Turner, K.C.B., Principal of the Unive Edinburgh, was the guest of the evening at the annual of the Royal Medical Society. In the absence—from illness—of Dr. Shaw, the senior President of the Socie chair was taken by Dr. Fitzwilliams, and he wa ported by Dr. T. B. Hamilton and Dr. H. D. She the other Presidents of the Society. After the loy patriotic toasts were given, the Chairman proposed th of "The Guest," who replied, and gave also the t "The Royal Medical Society." Dr. T. B. Hamilton r Dr. H. B. Shepherd gave the toast of "The Universi the Associated Medical Corporations." Professor Simpson, Dean of the Faculty of Medicine, replied University, Sir John Batty Tuke for the Royal Col Physicians, and Mr. P. H. McLaren for the Royal Col Surgeons.

INTERNATIONAL HOME RELIEF CONGRESS IN EDINBU

The fourth International Home Relief Congress will in Edinburgh, from June 7th to the 10th, under the dency of Lord Balfour of Burleigh, K.T. The Chair the Edinburgh Executive Committee is Sir John S The Congress will be divided into five sections—ch old-age pensions; labour colonies, the inebriat criminal, and the compulsory detention of pauper organization of the home treatment of pulmonary tu losis, the relation between hospital and home relief poor, etc.; and, lastly, epileptic colonies, the care of less patients discharged from asylums, the best metho family care of the insane and their supervision, as well of children who are imbecile, feeble-minded, and back

THE GLASGOW HOSPITALS.

Considerable progress is being made with the schemes of extension in connexion with several of the G hospitals. A special effort is being made to raise the necessary for the complete rebuilding of the Royal Infi Some £90,000 was subscribed as a memorial fund for t Queen Victoria's Diamond Jubilee. Now the first list scription to the supplementary fund is issued, and reac handsome sum of nearly £98,000. This leaves about £ still to be raised, but it is hoped that further genero scriptions will be received, so that the managers may s way to go on with the work without much delay. It years since the Royal Infirmary was originally bui much of it is now very different from what would modern ideas of medicine and surgery.

Another stage has been reached in the extension Western Infirmary. The plans have been passed erection, at a cost of over £20,000, of a new wing. Th tion will form the north portion of a block which it is i to add at the western end of the present infirmary. give ward accommodation for 59 beds, and will inc wide staircase, examination rooms, and rooms for r medical officers. The new dispensary building is completed, and it is hoped that by the time this nor wing is ready the managers may be in a position to with the larger scheme, which, with the present ad will cost about £100,000. In the plans for the tw wings of the block, which it is intended ultimately t arrangements are made for having two large op theatres, four spacious wards with 22 beds in each, efficient gynaecological department with attached op theatres.

The annual meeting of the Glasgow Maternity H was held last week, when an important announcem

in connexion with the proposed large extension of the ution. It has long been recognized that the present ings are quite inadequate for the important work that hospital does, it being the training school in practical ifery for the large number of medical students and s in Glasgow and the West of Scotland. Arrangements practically completed for the erection of large new ings at a total cost of about £60,000. Ground has acquired on three sides of the present institution, fter careful study of similar departments in this country n the Continent the plans of the new hospital have been red. The directors hope to erect a hospital and training which will be equal to any in the kingdom. Already 17,000 has been privately subscribed for the purpose, public appeal is now being made for fully £40,000.

SMALL-POX.

Scottish Local Government Board has issued a circular, March 11th, to Governors of Poorhouses, directing ion to the importance of the routine examinations of apers on admission to such houses, with a view to ining the adequacy of their protection against small- hat infants found unvaccinated should be vaccinated, vaccination should be done on all who do not exhibit tory marks of primary vaccination. During the week mid-day of Saturday, March 12th, 6 fresh cases of pox occurred in Edinburgh, and one death was regis-

Ireland.

MEDICINE IN THE MODERN UNIVERSITY.

NIS J. COFFEY recently delivered an address on the medicine in a modern university at the University St. Stephen's Green, Dublin. He said the science of e now bore the same relation to medicine before the the nineteenth century as the present means of ion and communication between European countries those of the Middle Ages, or as the Gothic cathedral hirteenth century to the Irish beehive cell of the The growth of chemistry and physics was the starting- the history of medicine as a science. Academies and corporations existed which were endowed with the confer diplomas, but were frequently under no obliga- each. The development was most forward on the Con- elped, no doubt, by the political conditions which made ek in organized education the means by which the of the nation could be assured. Countries under ule were far behind in those early days of scientific Although hospital work was essential for the train- Coffey proceeded to point out that the science of could not grow in the hospital alone. As Newman pointed out, the true value of the university system it brought into relation with one another all the of knowledge by which an atmosphere was created, nowledge was seen as a whole, and from which the took away a culture which was called "liberal." then proceeded to show the special need for the nition of all branches of medical knowledge in a system. Eminently skilful as were their physicians ons, their knowledge was that of a craft, their learn- econd-hand. The older universities had, to a large mained in the groove of education to which they mitted centuries before. The newer universities, ith the example of London, had largely been estab- a set-off to the wealth and residential character of made to distribute knowledge, but always narrow cope. It was of the very greatest importance to n the readjustment and the settlement of the ques- her education in Ireland were to be dealt with, that, g all the circumstances of the country, the equip- rganization of the medical faculties in the univer- ld be such as to ensure that Ireland, which had much from the want of education in the past, given the opportunity of thoroughly modern sys- e public had generously provided ample means al instruction, and all that was required for the patient was accomplished; but in relation to tions of medicine, professional skill had to wait on oments which were made in other countries.

QUEEN'S COLLEGE, BELFAST.

Lectureship in Medical Jurisprudence.

Much general satisfaction will be felt at the appointment of Dr. Thomas Houston to the Joint-Lectureship of Medical Jurisprudence (with Professor Lorrain Smith), not only on account of his personal popularity, but also because the vacancy has been filled by a student of the college and a graduate of the Royal University. Dr. Houston was Gold Medallist at the M.D. examination, and subsequently was University Student in Pathology in the Royal University and Research Scholar of the British Medical Association.

Dunville Health Lectures.

The last of the four Dunville Health Lectures was delivered by Professor Milroy on the evening of March 12th. These lectures are public, and are delivered annually by the Dunville Professor of Physiology. Dr. Milroy chose this year the interesting and important subject of the mental development of the child. The first two lectures were devoted to the development of the senses; the second two to that of the higher faculties. In the last lecture Dr. Milroy dealt with the Froebel system of education, and showed the scientific basis of evolution on which this system is built.

HEALTH OF CASTLEREAGH RURAL DISTRICT.

At the monthly meeting of the rural council of this district the Medical Superintendent Officer of Health (Dr. Chas. O'Neill) reported that reference had been made to the pollution of rivers in the district, but he was glad to be able to say that the water supply, being chiefly obtained from pumps and wells, was good. The public analyst had certified that samples taken from pumps was pure and quite safe for domestic use. No epidemic had occurred in the district. There were 136 births and only 62 deaths during the last three quarters. Regarding the foreshore nuisance, an agreement had been arranged by which the Belfast City Corporation would contribute £250 for one year, while the District Council would have the duty cast upon it of keeping the foreshore clean. The Commissioners of Holywood had undertaken to cleanse the foreshore in front of that town and so were omitted from the agreement.

Canada.

EXTIRPATION OF THE GASSERIAN GANGLION.

DR. HARVEY CUSHING, of Baltimore, in a lecture on the extirpation of the Gasserian ganglion for trifacial neuralgia, delivered before the Montreal Medico-Chirurgical Society, said that he would exclude all cases of simple neuralgia of local nature, which were usually quite amenable to medical treatment. The operation was a serious one, and only to be attempted when all ordinary measures have failed.

Three methods of approach had been tried, the low or maxillary route of Rose; the high or temporal route of Horsley and Krause; and the direct sphenoidal zygomatic route, which he had adopted. Rose's method, though improved, had not been generally accepted, and Krause's operation had superseded it, but throughout there had been a tendency to make the low operation higher, and the high operation lower, so that the direct approach had come into being by a natural process of evolution.

In the low method it was found that owing to the depth of the wound, the confined incision, and the bleeding, it was hard to remove even parts of the ganglion, and impossible to remove it all. Even by the temporal method it could scarcely be managed, and the shock occasioned by lifting the brain to expose the field of operation was considerable. In consequence of this difficulty the root had been cut behind the ganglion in the hope of permanently relieving the symptoms. Fraser and Spiller investigated the results of this method, and many observations tended to show that there was regeneration with return of pain. This, however, was not yet definitely settled. In New York an attempt had been made to divide the nerves in front of the ganglion, and interpose rubber tissue between the cut ends. In the first place this would not prevent regeneration, if regeneration could occur and in the second place the division was in no way superior to extracranial severance, and it was an invariable rule that it was better to leave things alone than do a primary operation which would cause deformity.

In the spring of 1900, at Philadelphia, the direct method was first reported. The opening was much lower than in the

high operation, as it extended into the temporal fossa through the zygomatic arch, and through the skull below the meningeal artery, which was so often troublesome in the high operation. If statistics could be at all relied upon, the method was much less serious than either of the other two. Tiffany calculated that there was a mortality of 22 per cent. by Rose's method. The high operation had been accompanied by 10 per cent. of deaths. The lecturer had operated upon 25 cases with one death, and 50 more had been reported with a total death-rate of 5 per cent.

In reference to the steps to be taken in the actual operation, Dr. Cushing insisted upon preliminary practice upon the fresh cadaver. Dissecting-room specimens were of little or no value on account of the difference in sensation and resistance of the parts. The incision was made in a horseshoe shape over the temporal fossa, with the convexity upwards and the base upon the zygoma.

The temporal fascia was divided in the same curve, and the zygoma shelled out and removed. After detaching the temporal muscle, an opening 3 cm. in diameter was made in the skull with rongeur forceps. The meningeal artery was then seen running across the dura, and, on pressing back the latter with a retractor, the ganglion came into view, and nothing further was required than "patience and a blunt dissector" to remove it completely. The zygoma was not replaced, and no osteoplastic flap attempted. Leaving the zygomatic arch only accentuated the deformity due to muscular wasting. Haemorrhage was in certain cases very severe, but could be controlled by packing. Drainage was only used in a few cases, and the wound healed rapidly. Age was no contra-indication to operation. The result of cutting the motor root of the fifth nerve naturally rendered mastication somewhat awkward, but all the patients were able to chew their food remarkably well before they were discharged.

The areas of anaesthesia were carefully mapped out in each case, and found to correspond very accurately with the accepted distribution. The anterior part of the auditory meatus was quite insensitive, and, as far as could be explored, a similar condition existed in the Eustachian tube. The eye symptoms were not touched upon, owing to lack of time, but nutrition was not materially affected, and no permanent disability resulted from the operation. Taste was not affected in any case. Each ganglion was carefully examined by neurological experts, but no pathological lesions could be found.

TESTIMONIAL TO PROFESSOR OSLER.

A testimonial fund has been started among the medical graduates of McGill University for the purpose of honouring their most famous fellow-graduate, Dr. Osler of Johns Hopkins, Baltimore. He has, since leaving Montreal for Philadelphia and Baltimore, kept in touch with his old school in no ordinary way. Through his influence an annual interchange of students and graduates takes place between Johns Hopkins and the Montreal hospitals connected with McGill, and the two institutions are being drawn closer every year. It is the purpose of the Committee in charge of the fund to procure an oil painting of Dr. Osler for the Medical Faculty Room. A replica is to be given to Mrs. Osler, and each subscriber is to receive a photogravure reproduction. The response has been immediate, and although medical graduates alone are permitted to subscribe the success of the scheme is already assured.

NURSING FEES.

The Canadian Nurses' Association has raised the tariff of charges for private nursing, and has issued a number of regulations concerning the hours of work and recreation, which are supposed to be adhered to by those who employ its members. The Montreal Medical Society was requested to uphold the new regulations, and was asked to advise any alterations which seemed necessary. The Council of the Society very wisely refrained from taking any definite action, and replied to the effect that it was not its place to interfere with the rulings of the Association. The main contention of the nurses was that the cost of living had increased, and that of necessity the fees should advance *pari passu*. In reply to this statement, one of the members of the Medical Society pointed out that as the families employing a nurse had to pay for her board and lodging, the argument might well be used on the other side. Further, he said that the value of nursing varied greatly both in regard to the nature of the case and the capacity of the nurse, and in consequence no two cases were alike, and the remuneration should be in proportion to the work done. The tax would fall heavily upon the middle classes, who already found difficulty in paying the usual fees. He did not wish any one to understand that he consi the charges too high, as this could only be found out perience, and the matter would soon right itself.

UNDESIRABLE IMMIGRANTS.

Public opinion in Canada has become alarmed abo number of immigrants suffering from trachoma and who are allowed to enter the Dominion every year, an Government has now taken action. Last year a small was rented in Quebec as a temporary hospital in wh many as 220 immigrants suffering from these disease huddled at one time. It is proposed to erect a det hospital in Quebec where such persons can be cared fo they can be sent out of the country.

THE UNIVERSITY OF MANITOBA.

Lord Strathcona has given £4,000 to be applied to t tension of the science department in Manitoba Univ By the time the sum is exhausted, the disposal of a larg tion of lands held by the University will provide a revenue adequate for all pressing purposes.

ALCOHOL IN PROPRIETARY MEDICINES.

The Ontario Council of the Royal Templars, at a meeting in Toronto, discussed the amount of alcoh medicines, which has been shown by analysis to be fro 40 per cent. On the ground that several of the prepar which show the higher percentages of alcohol are pur purely for the liquor in them, it was decided to ask for lation prohibiting the sale of all medicines which co greater percentage of alcohol than is necessary for preservation.

THE CANADIAN MEDICAL ASSOCIATION.

The Canadian Medical Association will hold its meeting this year at Vancouver, British Columbia, on A 23rd, 24th, 25th, and 26th, under the presidency Simon J. Tunstall. This will be the first meeting of the ciation held in the most western portion of the Domin Canada. British practitioners who may wish to atte meeting will be welcomed. Application should be m the General Secretary, Dr. George Elliott, 129, John Toronto, by correspondence with whom it might be p to arrange special ocean rates to Montreal or through t couver. The rate at present arranged from Montr Vancouver is between £9 and £10 return. The St. Lou hibition could be visited on the return journey.

LITERARY NOTES.

THE *Mémoires* of Baron Percy, which have recently published in Paris, should make interesting reading. was Surgeon-in-Chief to the armies of the first French lic, one and indivisible. Afterwards he was Insp General in the time of the great Napoleon. In conju with Larrey he reorganized the medical service French army, and in recognition of his work he was Baron by the Emperor. At the Restoration he was dis because he had taken part in the campaign which en the field of Waterloo.

The endowment of medicine has supplied a text for eloquent appeals during the last few years. As far as aware, however, the endowment of medical authors h yet been advocated. It is interesting, therefore, to lea the St. Petersburg Military Medical Academy annually priates a sum of about £160 for distribution among t fessors of the institution who during the year have pr textbooks on subjects connected with their special ment of medical science. This year the money was between Professor Bechtereff for a book on the funct the brain, and Professor Kravkoff for a manual of p cology.

The Craig Colony Prize of £40 is offered by Dr. Fr Peterson for the best original essay on the etiology, pat and treatment of epilepsy. The paper must show research work; the subject matter must be original; paper must be accompanied by a sealed envelope con the name and address of the author, and bearing outside a motto or device, which is also to be inscri the essay. The manuscript must be in English and to Dr. Peterson, 4, West 50th Street, New York, September 30th, 1904.

The *Illustrated Review of Physiologic Therapeutics* of sum of £300 in cash prizes for the best essays on medicine and surgery, the first prize being £20

eons, physicians, and hospitals interested in any branch ray work should write to the *Illustrated Review of Physio-Therapeutics*, 19, East Sixteenth Street, New York City, nformation concerning the time allowed and the condi- s of the competition.

PREVENTION OF CONSUMPTION.

NATIONAL ASSOCIATION FOR THE PREVENTION OF CONSUMPTION.

fifth general meeting of the members of the National ciation for the Prevention of Consumption and other s of Tuberculosis was held under the Chairmanship of Derby, at 20, Hanover Square, London, on March 10th. nteresting letter was read by the Secretary, Dr. Alfred er, from the Postal Telegraph Clerks' Association, saying the consent of the Postmaster-General, Lord Stanley, been obtained for the establishment of an arrangement ise funds for the endowment of 100 beds for postal oyés suffering from tuberculosis. The sanatoria in n it was proposed to endow the beds were those erected e National Committee for the establishment of sanatoria orkers. Lord Stanley had consented to permit the col- n of subscriptions from those employed in the Post by means of periodical stoppages from salaries.

he course of the remarks made by Lord Derby in moving doption of the report of the Council, he referred to the ainful duty thrown on Boards of Management of sana- of refusing admission to very advanced cases of phthisis se it was felt that it was not right to expend upon those tely hopeless cases means which otherwise would t a large number of patients who would be restored to and work if their treatment were undertaken in an tage of the disease. He advocated that Homes of Rest nexion with the sanatoria should be established for the ss cases.

William Church, President of the Royal College of ians, in seconding the motion, deprecated the un- ing and unreasonable dread that some people seemed e of the infectivity of tubercle. Though it was happily se that in this country and climate the population had er resisting power to the action of the tubercle bacillus t had to the action of the morbific poisons of the other ous diseases, still it was to be hoped that the medical ion would devise some means whereby tuberculosis e more efficiently prevented. He was glad to see that *Journal* of the National Association for the Prevention umption it was strongly urged that sanatoria should pensive buildings. Vast sums of mon yshould not be n bricks and mortar when cheaper buildings would not lfil the same object, but would do it very much better. Malcolm Morris, the treasurer of the Association, said less money were forthcoming the Association would an end in a few months.

ionel Weatherly gave some encouraging details of the ne at Bath, and Dr. Theodore Williams related his nces in the early days of his work at the Brompton l for Consumption and Diseases of the Chest. He account, also, of the way in which the King of Sweden vided accommodation for a limited number of advanced eless cases of phthisis.

the report had been formally adopted, Dr. Hector zie moved the re-election of the auditors, and Dr. udfield, in seconding this, advocated that the buildings l by the metropolitan authorities in case of an s of small-pox should be utilized as sanatoria.

rbert Maxwell moved a vote of thanks to the Chair- hich was seconded by Sir William Broadbent; and rby, in reply, made special reference to the desira- utilizing the beds provided for a possible small-pox e in the manner suggested by Dr. Dudfield.

ROPOSED SANATORIUM FOR POSTAL EMPLOYÉS.

thur Latham, in the *Civil Service Magazine* for March, nts out that though the postal employés are selected percentage mortality from pulmonary consumption them is higher than that among-t the general popu- This points to serious hygienic defects in the con- nder which they work, and calls for measures to he excessive incidence of this disease on the Post ff. For the treatment of those who become infected t present no special provision, and many of them ission into the consumption hospitals. The em- emselves are unable to deal adequately with the prevention of the disease, but they are making a praiseworthy attempt to establish a sanatorium for the treatment of those of their number who contract pulmonary consumption. The scheme which Dr. Latham's article seeks to encourage has been already referred to in the BRITISH MEDICAL JOURNAL, and has the sympathy of the Postmaster-General. If, as is suggested, the postal employés' scheme is affiliated with "the National Committee for the Establishment of Sanatoria for Workers suffering from Tuberculosis," formed under the auspices of the Hospital Saturday Fund, it will probably be advantageous to both bodies.

ASSOCIATION NOTICES.

COUNCIL.

NOTICE OF MEETING.

A MEETING of the Council will be held in the Council Room of the Association, at 429, Strand (corner of Agar Street), London, on Wednesday, the 20th day of April next, at 2 o'clock in the afternoon.

LIBRARY OF THE BRITISH MEDICAL ASSOCIATION.

MEMBERS are reminded that the Library and Writing Rooms of the Association are fitted up for the accommodation of the members in commodious apartments, at the office of the Association, 429, Strand. The rooms are open from 10 a.m. to 5 p.m. Members can have their letters addressed to them at the office.

GUY ELLISTON, *General Secretary*.

BRANCH MEETINGS TO BE HELD.

BORDER COUNTIES BRANCH: NORTH CUMBERLAND DIVISION.—A meeting of this Division will be held at Penrith on the afternoon of Friday, March 25th, when a discussion on Intestinal Obstruction will take place. Members wishing to read papers or show specimens on this or any other subject should kindly communicate with NORMAN MACLAREN, Honorary Secretary, Portland Square, Carlisle.

BORDER COUNTIES BRANCH: WEST CUMBERLAND DIVISION.—The annual general meeting of this Division will be held at Whitehaven on May 17th. The Secretary will be pleased to receive communications from any member who wishes to read a paper or show cases or specimens.—T. G. MATHEWS, 6, Scotch Street, Whitehaven, Honorary Secretary.

EAST ANGLIAN BRANCH.—The spring meeting of this Branch will be held at the White Hart Hotel, Manningtree, on Thursday, April 14th. Members wishing to read papers or show cases or specimens should kindly communicate as soon as possible with Dr. NICHOLSON, East Lodge, Colchester, Honorary Secretary.

EDINBURGH BRANCH: SOUTH-EASTERN COUNTIES DIVISION.—A meeting of this Division will be held in the Station Hotel, Newtown St. Boswells, on Friday, April 8th, at 3.45 p.m. Business: To consider the Medical Defence scheme of the Association. To consider the following recommendation of the Ethical Committee: "That the question of the advertising of medical practitioners in connexion with hydropathic establishments be referred to the Divisions." To consider the recommendations of the Medico-Political Committee: "That the Divisions be asked to consider whether it is advisable that the medical witnesses engaged on each side in legal cases should meet in consultation." The Secretary will be glad to receive intimation of cases to be shown or papers to be read as soon as possible previous to the meeting.—W. HALL CALVERT, Honorary Secretary, Melrose.

METROPOLITAN COUNTIES BRANCH: ST. PANCRAS DIVISION.—An ordinary meeting will be held at St Mary Islington Infirmary, Highgate Hill, Upper Holloway, on Thursday, March 24th, at 4.30 p.m. Dr. Sturge: Case of Albino. Dr. A. H. Robinson: (1) Cases of interest from the wards; (2) demonstration of Dowsing Radiant-heat Treatment; (3) demonstration of cases by *X*-ray Apparatus. Tea by kind invitation of Dr Robinson. —R. C. M. POOLEY, Honorary Secretary, 35, Highbury Grove, N.

METROPOLITAN COUNTIES BRANCH: RICHMOND DIVISION.—The next meeting of this Division will be held on Wednesday, March 23rd, at the Greyhound Hotel, Richmond, when papers will be read by Dr. G. E. Shuttleworth and Dr. F. Graham Crookshank.—J. R. JOHNSON, Honorary Secretary.

METROPOLITAN COUNTIES BRANCH: WANDSWORTH DIVISION.—A meeting will be held in the Officers' Mess Room of the 4th Volunteer Battalion East Surrey Regiment, St. John's Hill (opposite Clapham Junction Station), on Thursday, March 24th, at 9 p.m. Agenda:—Minutes. Correspondence. Resolutions for the Representative Meeting in favour of the Association forming a department to undertake the supply of all stationery, circulars, etc., required by the various Branches and Divisions: Mr. Guy Elliston, General Secretary, will speak to these. Resolutions for the Representative Meeting referring to self-treatment by the laity and the consequent great injuries done thereby; Dr. Danford Thomas, Coroner for London and Middlesex, and others will speak to these resolutions. All medical men are invited to attend. Detailed agenda supplied on application to E. ROWLAND FOTHERGILL, Honorary Secretary, Torquay House, Southfields, S.W.

SOUTH-EASTERN BRANCH: ISLE OF THANET DIVISION.—The next meeting of this Division will be held at the St. Mildred's Hotel, Westgate, on Tuesday, March 22nd, at 4.15 p.m., Dr. A. F. Street in the chair. Tea will be served at 4 p.m. Agenda: Matters referred to the Division for consideration by the Council of the Association: (*a*) Scheme of medical defence prepared by the Medical Defence Committee of the Association (see SUPPLEMENT and leading article, BRITISH MEDICAL JOURNAL, February 20th); (*b*) advisability of consultations between medical witnesses; (*c*) the question of the advertising of medical practitioners in connexion with hydropathic establishments. Mr. J. B. Berry will show a case of Lupus treated by the ultra-violet lamp. Dr. Fisk will read notes and show a specimen of a case of Ruptured Thoracic Aneurysm in a woman. Mr. Burton Nicol: The treatment of Adenoid Growths in the Naso-pharynx. Mr. Sutcliffe: Some practical points in cases of Acute Appendicitis. Dinner will be served at 7 p.m. in a private room of the hotel; 5s. each, exclusive of wine. Members wishing to dine are requested to inform the Secretary at the commencement of the meeting. All members of the South-Eastern Branch are invited to attend these meetings and to introduce professional friends, but will not be entitled to vote on Divisional questions.—HUGH M. RAVEN, Barfield House, Broadstairs, Honorary Divisional Secretary.

SOUTH-WESTERN BRANCH.—The next intermediate meeting of this Branch will be held at the North Devon Infirmary, Barnstaple, on Wednesday, March 30th, at 3.30 p.m., the President, Dr. W. T. Thompson, in the chair. The following communications have been promised: Dr. W. Gordon: The Influence of Posture on Cardiac Physical Signs. Mr. Russell Coombe: Notes on a case of Hydrocele of the Canal of Nuck. Mr. Lucy: Uterine Fibroids. Dr. Davy: The occurrence of Fever in Children caused by the Ingestion of certain kinds of Carbohydrate Foods. Mr. Wilkin: Oesophageal Cancer with Laryngeal Complications. Mr. W. Woollcombe: The post-operative history of two cases of Malignant Disease, Stomach, and Superior Maxilla. Dr. Dyball: Notes on a fatal case of Secondary Parotitis. Mr. Roper: One form of Appendicitis. Tea will be provided after the meeting. Gentlemen desirous of joining the Branch are requested to communicate with Mr. G. YOUNG EALES, 1, Matlock Terrace, Torquay, Honorary Secretary.

WEST SOMERSET BRANCH.—The spring meeting of this Branch will be held at the Taunton and Somerset Hospital on Tuesday, March 22nd, at 3.30 p.m., when the chair will be taken by the President, Dr. David Brown. Agenda:—In addition to the ordinary business, the Branch will be asked to express its opinion on these questions, referred to it by the Council of the Association: "Whether it is desirable that medical witnesses, engaged on each side in legal cases, should meet in consultation." And: "The question of the advertising of medical practitioners in connexion with hydropathic establishments." Clinical Cases: Mr. A. E. Joscelyne (Taunton) will show cases treated by *x* rays: (1) chronic eczema; (2) rodent ulcer. Paper: Dr. C. R. Killick (Williton) will read a paper on Scarlet Fever, with special reference to Septic Factors often present. Any member wishing to bring anything before the Branch should inform the Secretary of his intention. Tea will be served after the meeting.—W. B. WINCKWORTH, Taunton, Honorary Secretary.

SPECIAL CORRESPONDENCE.

BIRMINGHAM.

Gift to the University.—Lecture by Sir Oliver Lodge.—The General Hospital.—Birmingham District Nursing Society.—Health of Erdington.

THE University has received a very generous gift from Mr. Joshua Williams of Birmingham, who has assigned to the council of the University the remainder of the lease, for seventy-two years, of his house in Edgbaston. It is situated near the site of the new buildings of the University, which are now being erected, and, as it stands in grounds extending to about $3\frac{1}{2}$ acres, it should prove very valuable. The donor has not hampered his present with any restrictions, and has given full permission for the house and land to be utilized in any way the University may find most serviceable.

Sir Oliver Lodge, in his concluding lecture to medical practitioners on physics applied to medicine at the University on March 10th, suggested that persons struck by lightning should be treated in a similar way to persons rescued from drowning. He thought that artificial respiration should be continued for at least four hours, as the person struck might in certain cases merely be suffering from a temporary paralysis.

The report for the year 1903 presented to the 124th annual meeting of the Board of Management of the General Hospital, Birmingham, showed that the number of in-patients was 5,366 and the number of out-patients 64,926. Of the in-patients, 1,128 were children under twelve years of age. The number of surgical operations which were performed amounted to 2,137, which is a slight decrease when compared with the previous year. The expenditure of the hospital in 1903 was £25,298, including the sum of £332, which was handed over to the Jaffray Branch Hospital to meet the deficit of that institution. The amount received in subscriptions and extra tickets was £8,002, which is only a slight increase upon that of the previous year. The donations amounted to £402 and the special congregational collection to £57; £6,715 was placed to the credit of the current account as the moiety of legacies received during the past year. The adverse balance of £11,423 which was brought forward from 1903 has been redu to £7,302, and this reduction has been chiefly brought ab by the proceeds of the musical festival, and by the unusu large sum received in legacies. A considerable increase the income is regarded as a necessity owing in part to the gre increased expenditure due to the growing demands of med and surgical work, and in part to the steadily increasing n ber of patients who apply for treatment. During the year a legacy was received from the late Henry Pearce the purpose of dedicating beds, and a sum of £1,250 was gi by the Aston Villa Football Club for the dedication of a and a similar amount by Mr. and Mrs. Jenkins to comm orate their golden wedding.

The thirty-second annual meeting of the subscribers to Birmingham District Nursing Society was held in the C cil House on March 7th. The reports and statistics s that the society's work has increased during the past yea 143 cases and 2,442 visits paid by the nurses; but the c mittee state with regret that it is unable to increase staff of nurses on account of the lack of funds. The mem of the committee have come to this decision because they that if the salaries of the nursing staff are not adequate character of the work must suffer. The subscriptions for year only amounted to £741, while the expenditure £1,942. It has been decided to admit a certain numbe probationers to the homes, on the payment of a suitable mium, who will visit with the regular nurses for the pur of gaining experience.

Dr. Bostock Hill's ninth annual report on the healt Erdington shows a birth-rate of 25.78 and a death-rate of for that area. Dr. Hill states that out of 30 cases of typ fever which were reported during the year 3 were undoubt associated with the consumption of oysters or other sh fish, and he points out the urgent need for protecting oys and shellfish beds from sewage pollution.

NEWCASTLE-UPON-TYNE.

North of England Glasgow University Club Banquet.—De tion of a Pulpit to the Memory of the late Thomas Ant Dodd.—Death of James Deighton Dixon, M.B.—Outbrea Glanders at a Northumbrian Colliery.

THE members of the North of England Glasgow Univer Club dined at Tilley's Rooms, Newcastle-upon-Tyne, on M 9th, when sixty-five sat down to dinner. The chair was o pied by the President of the Club, Professor T. Oliver, was supported by the guest of the evening, Principal Stor Glasgow University, Lord Armstrong, the Mayor and She of Newcastle-upon-Tyne, the Warden of the Universit Durham (Dean Kitchin), Dr. Hume, Dr. Murphy (Sun land), Professor Howden, Drs. Gordon Bell, Inglis, Jas. Dr mond (South Shields), and others, while the vice-chairs occupied by Drs. Farquharson and Frank Russell. After loyal toast from the chair, that of "The Navy, Army, Imperial Forces" was submitted by Dr. Bain (South Shie and responded to by Dr. Drummond (South Shields). very happy speech Dr. Farquharson proposed the "Ho of Parliament," to which Lord Armstrong responded. toast of the evening, "Our Alma Mater and Guest," was g by Dr. Gordon Bell in felicitous terms. He dwelt upon higher functions of universities and what such institut ought to be, compared the work done in the past by the versity of Glasgow, with its aspirations and adaptation the requirements of an age in which education had come so general and competition keen. Principal St health was drunk with great enthusiasm. In a sp as gracefully rendered as it was pregnant with inte ing material, Dr. Story stated that so far as gow University was concerned there was no stan still; that notwithstanding her great age she still reta the vigour of youth, and was putting forth renewed efforts only to maintain her past reputation, but to equip even still better qualified, if possible, for all branche human life and activity. By his own efforts he had succe in raising, thanks to the liberality of Glasgow mercha £76,000 for the required extensions at the University, wh when completed, would enable them to teach with gre facility and to accommodate a larger number of stude He thought that Mr. Carnegie had begun at the wrong e he should have endowed the teachers. With the £50,0 year which was being expended on the fees of students, 9 cent. of whom were able to pay their own fees, more lectu could have been appointed and greater benefits would

rued all round. There was still, Principal Story thought, reat future before the University of Glasgow. "The Land Live In" was proposed by Dr. Frank Russell, and responded by the Mayor of Newcastle-upon-Tyne and the Sheriff. "The iversity of Durham" was proposed by Mr. James Thomson, A., and in the absence of the Warden (Dean Kitchin), who s obliged to leave to catch a train, was suitably responded by Professor Howden. Dr. Hume, in a neat and cha- teristic speech, proposed "The Glasgow University Club," ich was acknowledged by Dr. Inglis. "The Health of the airman" was proposed by Dr. Murphy. On all hands it s admitted that a most pleasant evening had been spent. ially the reunion was a great success. The songs con- uted by Dr. Farquharson, Messrs. Gibson and London, by Messrs. Roland Cunningham and Montagu Williams, o fortunately happened at the time to be in Newcastle ging in the opera, considerably enhanced the pleasure of evening.

n memory of the late Thomas Anthony Dodd, M.R.C.S., se untimely death through a carriage accident was the ject of a brief note in the British Medical Journal six nths ago, his brothers and sisters have erected a pulpit in chapel of the Workhouse, an institution of which the late Dodd had medical charge for fifteen years. The Bishop Newcastle consecrated the gift, and in kindly and most ropriate terms alluded to the sympathetic services ren- d by Mr. Dodd to the sick and suffering poor during his re of office.

d Newcastle students of the latter part of the Seventies have noticed with regret the death of James Deighton n, M.B., at the age of 50. For several years Dr. Dixon pied the post of Senior House Surgeon to the Royal mary, at a time when the post was very largely that of ident medical official with administrative duties as well. Dixon was an uncommonly good officer, and was a great rite not only with the honorary staff and the Committee vith the students and nurses as well. For the last few s his health had not been satisfactory. On account of nalady he had been obliged to relinquish a select and ing practice which he had succeeded in making. He at Southsea on February 22nd, and is buried there.

one of the Northumberland collieries glanders recently e out among the pit ponies, and eleven have had to be Very unfortunately, one of the horsekeepers at the man aged 65, contracted the disease and succumbed to ew days ago. The symptoms observed were those of an cal pneumonia with septic arthritis, sanious discharge the nostrils, and enlargement of glands. Although a riological report has not yet been received, the appear- of the internal organs at the necropsy and the history e case leave no doubt as to the illness having been ers.

CORRESPONDENCE.

MPROVEMENT IN DIETETICS OF DIABETICS.

—I have been much interested in the communication James Sawyer on Improvements in Dietetics of Dia- in the British Medical Journal of March 5th, but I vish to draw his attention to what seems to me a his- l error. He says: "Until the researches of Mossé published two years ago it was our therapeutic rule to old potatoes in saccharine diabetes."

y many years ago the late Dr. Dujardin-Beaumetz mended potatoes in diabetes, as will appear from the ing quotation:[1]

g for my basis the analyses of Bousingault and of Mayet, I was he first to propose the substitution of potatoes for gluten bread. nalyses, in fact, show us that while the best gluten bread gives y 100 grams 20 to 30 grams and more of sugar, potatoes give only cent. of saccharine material. But some practitioners, making utic deductions from these analyses, have sanctioned a too free otatoes by their diabetic patients. You must remember that it ual weights that you should compare gluten bread with potatoes. sized potato when boiled will weigh more than 100 grams. If ent eat several of these potatoes at a meal he will lose all the of this dietary, for 100 grams of bread will perfectly suffice for ls. It will be necessary, then, to limit to one potato, boiled or nd well buttered, the usage of this vegetable as a substitute for the dietary of diabetes.

e the publication of Dujardin-Beaumetz's article I have the habit of permitting diabetics to have a limited t of potatoes, and I think with advantage. In my opinion, by far the best way to cook potatoes is by roasting them in their jackets, and serving with plenty of butter. Roasting is rather an expensive method so far as fuel is concerned, but then it does not require any skilled cook, and those who once enjoy this luxury will not grudge the expense. Moreover, all the salts of the potato are preserved. In the same number of the British Medical Journal there is a memorandum on potatoes and glycosuria, where in a case of "slight alimentary glycosuria" Dr. George Birt found that potatoes largely increased the amount of sugar, but in his case the patient got "plenty of potatoes." Probably the subject requires more experimental investigation than it has yet received.—I am, etc.,

Liverpool, March 12th. JAMES BARR.

[1] *Therapeutic Gazette*, Philadelphia, October 15th, 1890.

SIR,—I am sure that I only express a feeling common to all your readers when I say that I have read with warm appreciation Sir James Sawyer's communication of March 5th on the diet of diabetics. The subject is, however, of so great importance to us all, and to many of our patients, that I beg leave to criticize, in no carping spirit, two secondary but not unimportant details.

The first is as to the addition of bran to the potato-flour which will unquestionably be a boon to diabetics. It could scarcely be designed by Sir James, and others who recommend its use, to introduce additional nitrogen into a diet already so rich in that element, more especially as the greater part must inevitably pass undigested through the alimentary canal. I presume, therefore, that the intention is to ensure regular action of the bowels. But a very large proportion of glycosurics are the subjects of gastro-duodenal catarrh of which one indication is the condition which Dr. Cheadle has denominated acholia. That condition, as I stated in one of your medical contemporaries in April last, I hold to be the pathological basis of the uricaemic diathesis of which glycosuria is so often the ultimate expression. But, however that may be, gastro-duodenal catarrh must involve more or less obstruction to the admixture of the biliary and pancreatic juices with the chyme. I submit, therefore, that bran, and any other alimentary substance which is capable of exercising mechanical irritation on the mucous membrane, should be excluded from the diet of the class of patients under consideration.

The other point is the admission of soda water to the list of permissible beverages. Allow me to point out that immersion in an effervescing bath is demonstrably rubefacient, although there is no impediment to the free escape of the gas. Can it be doubted that gas emitted in the stomach, and only partially liberated by occasional eructation, exercises a similar and more decided influence on the mucous membrane; and that distension of the gastric walls interferes with the peristalsis which is essential to normal digestion?—I am, etc.,

London, W., March 13th. W. BEZLY THORNE.

PUERPERAL SEPSIS.

SIR,—My object in writing on this subject is to help by the aid of facts to combat teaching which is apt to bring into disrepute the modern system of strict cleanliness by going too far and advocating impossibilities. Thus, to mend a torn perineum aseptically or antiseptically is an impossibility. With the vulva and anus, neither of which can be made aseptic, and a sanguineous discharge that no dressing can keep from the air, is there any common sense in doing otherwise than inserting one or two catgut sutures which always are effectual?

Then to compare the vagina with the peritoneal cavity is not logical. The peritoneal cavity is shut off from the air and never intended by Nature to be opened. We have to open it for disease and accident, and only with great cleanliness can we do so safely. The vagina, on the other hand, is placed in the most septic part of the body, is open to the air, and is the natural hostess of an organ that never since the world began has been made aseptic before introduction, and this introduction often takes place quite on the eve of parturition. Undoubtedly it would be wrong and even criminal to go from doing a *post mortem* or from handling a case of erysipelas with uncleansed hands to a confinement, but my experience has been that puerperal sepsis has never been set up by my clean but not aseptic fingers.

Dr. Phillips quotes a case in which he acted with skill and promptitude, and no doubt saved his patient's life, but why give the credit to his antiseptics when the most rabid bacteriologist would never agree that dipping his hands in

corrosive sublimate solution for a second or two and using carbolized vaseline would render his hands aseptic?

I wish to repeat for the information of one of your correspondents that I have never had a case of *post-partum* haemorrhage, and I believe the reason is that I never allow the uterine muscle to get exhausted. Where there is any delay or difficulty I put on the forceps. When the placenta does not come away immediately with firm pressure I introduce my hand into the uterus, and almost always find some slight adhesion or an irregular contraction of the uterus which is easily overcome. The placenta having been removed I squeeze the uterus down to almost the size of a cricket ball, and repeat this proceeding again before leaving the house, ten minutes after the birth of the child.

In answer to your correspondent, I may say that I have no accidents beyond the occasional slight rupture of the perineum, that in all cases except the most difficult I give chloroform myself as well as deliver the woman, and that the deaths I have had out of 2,000 cases have been as follows: One from puerperal fever (infected by a child with scarlet fever), two from pulmonary embolism, and two from puerperal eclampsia. In these latter cases, which occurred sixteen years ago, I was not allowed to use the forceps, and this I regret in view of a case I had last year. This woman was at full time, and was in a fit on my arrival. Labour had begun, but the os would only admit my forefinger. I administered chloroform at once, and dilated the cervix with my hand. This is a very cramping proceeding, and requires one to change hands occasionally, but the fingers are better for the purpose than any instrument yet invented. I put on the forceps, and delivered the woman, who had no more fits and made a good recovery.

I get a case of white leg occasionally, as every one does, but I think this is due to some faulty condition of the blood, and not to bacteria; and from my small experience of it I am inclined to think it runs in families.

In conclusion, I think that when a case, such as an abdominal section, can be performed aseptically, and that results have proved it safe and successful, we should by all means carry out the treatment thoroughly. In all other cases let us remember that cleanliness, quickness, and dexterity give the patient the best chance.—I am, etc.,

March 13th. GENERAL PRACTITIONER.

THE DIMINISHING BIRTH-RATE.

SIR,—I think there are many members of the profession who, like myself, hold very different views to those put forth by Dr. Hope Grant in the BRITISH MEDICAL JOURNAL of March 5th.

Dr. Grant speaks of the present day middle-class woman as "under the full influence of the higher civilization, which has brought in its train bicycling, golf, hockey, and other factors which increase the size of her muscles and diminish the size of her pelvis. She is gradually tending in figure towards the male model." "There can be little doubt in the medical mind that 'the new model' is not equal to the calls of the situation."

I differ entirely from Dr Grant. I believe that the hypertrophy of the thigh muscles attached to the pubic arch tends to increase the circumference of the outlet of the pelvis, and so make parturition less difficult.

In my opinion the gymnastic training not only develops the whole physique, but also fits women to be the mothers of children able to quit themselves like men in the battle of life. As for the assertion that she is tending towards the male model, I think a visit to any good gymnastic school for girls or women will show that there is no tendency that way. As a matter of fact, the well-trained hockey or golf woman gets through her confinements better than the untrained Lydia Languish type. The causes of the diminution of the birth-rate must be looked for elsewhere than in the gymnasium and on the golf grounds. That artificial means are used to diminish the birth-rate is only too apparent from certain shop windows both in London and the provinces; but there are other causes at work.

One cause that can be looked at with satisfaction is the steady fall that has taken place in illegitimate births. In 1852 they numbered 68 in every 1,000 births. In 1901 they only numbered 39, not half the percentage of illegitimacy in the other great countries of Europe. Another reason is the more mature age at which women now marry. The number of women marrying under age has steadily fallen from 220 in 1882 to 160 in 1901. This must have an influence on the birth-rate of the country, as Körösi showed by his table of natali per 100 wives:

Mother's Age.	Ratio of Births.	Mother's Age.	Ratio of Births
15—19 ...	49	35—39 ...	22
20—24 ...	47	40—44 ...	10
25—29 ...	37	45—49 ...	1
30—34 ...	29		

There is a fall in births of no less than 10 between the a periods 20-24 and 25-29. The Registrar-General's retur prove that in England a very great change has taken place the age for marriage. In the 57th and 64th Reports t figures are as follows:

Year.	Ages of Wives.										
	15	16	17	18	18	20	21	25	30	35	4
1894...	19	143	1,268	6.136	13,780	19,502	89,409	52 665	17.953	8,411	5.0
1901...	15	145	1,129	6,113	13,658	20,416	103,564	65,666	21,907	10,231	5,8

Bearing in mind the fact that this population increased two and a-half millions during this period the figures a very striking, for under 20 years every age, except 16, shows fall in the gross number of marriages —I am, etc.,

Didsbury, March 8th. JOHN MILSON RHODES.

GASEOUS *VERSUS* FLUID MEDIA IN CYSTOSCOPY

SIR,—In the BRITISH MEDICAL JOURNAL of March 5th M Galbraith Faulds recommends oxygen gas as a distendi medium for cystoscopy, but does not make it quite pla whether all the advantages he claims for oxygen depend up its chemical properties, or upon its gaseous nature. The re question is whether a gaseous or a fluid medium is mo suitable for cystoscopy.

Most cystoscopists have, I think, at one time or other tri air or some gas in place of fluids, and will agree with M Faulds that until the introduction of the "cold lamp," t use of a gaseous medium was impracticable on account over-heating.

It is said that a fluid medium allows blood and pus issui from the ureters to diffuse through the medium and obscure field. I cannot say I have found the field obscured with su rapidity as to prevent a thorough examination of the ureters a bladder, and even a demonstration to one or two onlooke In a gaseous medium, however, the ureteral contraction h not sufficient force to throw the jet of bloody or purule urine away from the orifice. The fluid wells up and colle around and upon the ureteral opening, and in a very sho time the view of this, the point of interest in such a case, obscured.

There are, however, other advantages in a fluid mediu The activity of the ureter is more readily appreciated and t strength of the jet estimated, but, above all, slightly mur urines and those containing shreds are at once recogniz when projected into a fluid medium, but not when pump along the floor of a gas-filled bladder.

In the cases in which the disease is located in the bladd itself a fluid medium has again advantages. The majority diseases of the bladder for which cystoscopy is practised somewhere in or immediately around the trigone at t bladder base. In aërocystoscopy the bladder base very so becomes filled with urine, which in itself, even without t admixture of blood or pus, interferes very materially with t examination. We have not only refraction of the differe media, but also concentration of the abnormal fluids to i pede the view. Further, the view of, say, a papilloma much more perfect in a fluid medium than in a gaseous. Th can only be compared to seaweed floating in water and lyi on a bare rock.

It is necessary in very many cases to wash out the bladd before proceeding to cystoscopy in any medium. What cou be easier than to examine in the fluid at the end of t washing? Delicate manipulation in the passage of instr ments and if necessary a wash of weak silver nitrate adrenalin will allow of a bloodless view in the great majori of cases.

Again, the carriage of cylinders, if a gas is to be us instead of air, must in itself militate against this mediu If air is chosen, there arises the question of sterility. Althou air may be utilized with impunity in the female bladder practising Kelly's method, one hardly feels the same securi in dealing with the male, the more so that a case is report in which the air, by some means unexplained, found its w into the renal veins.

Ir. Faulds apparently suggests a therapeutic advantage in use of oxygen, but this must be considered apart from main question. He seems to overlook the mechanical ue of fluid washing in such bladders. The mechanical on may be combined with the valuable properties of gen by using a solution of peroxide of hydrogen for nsing the bladder.—I am, etc.,

ndon, March 14th. J. W. Thomson Walker.

E SANATORIUM TREATMENT OF CONSUMPTIVES.

R,—I accept Dr. Brookhouse's correction that his interesting statement which I quoted in the issue the British Medical Journal of February 27th, p. 518, was not intended to apply to Ratcher's ; the wider application of it suits my purpose er. When I read that statement the conclusion I came vas that his keen intelligence had apprehended the true ificance of the fact that "many of the discharged patients more quickly than the outside public has any idea of." are now told that the new method of treatment is still in experimental stage. I take exception to this. The ers of this in no sense whatever "popular" movement at the beginning the most explicit assurance that the rimental stage was already passed, quoting German stics which have since been proved to be fallacious. om no other standpoint would they have dared to suggest icipalization; for as everybody knows when once a em has been municipalized it has been immortalized—a affair which the officials who have been called into ex- ce always attend to. I restate my main thesis which is —the aggregation of the infective sick in large, permanent itals is bad at all times and under all conditions. I n that this is the scientific view, that it is supported by ragable evidence furnished by experience, that it is ned by the findings of bacteriology and demonstrated and hourly in the wards of the "isolation" hospitals. nce the passing of the Public Health Act almost the sole eption of preventive methods has been the devising of and systems by the operation of which the infective sick t be herded like "dumb driven cattle" in pest houses alled "isolation" hospitals. Grossly wanting in humanity system deserved to fail, the estimate of human nature altogether too low. There has been no height to which ublic health enthusiast has not been prepared to climb, o depth to which he was not ready to sink; and I am t all surprised to find one of them now boldly coming rd with a proposition to geld and spay five-sixths of the 's population in order that one-sixth may lead healthy You, Sir, satirize the proposition, but it must not be tten that it is cousin-german to a great deal that has before. Some such proposal was bound to be made r or later as the natural outcome of the pernicious doc- that the individual must be sacrificed for the benefit of hole community. Signs are not wanting that the aggre- n fad has had its day, and the wisest thing that we can do speed the departing guest with the best grace possible.— etc.,

ingham, March 14th. Edwd. Dean Marriott.

"PROPOSED STERILIZATION OF CERTAIN DEGENERATES."

—In your review of the above treatise your critic devotes o much time to "Dr. R. R Rentoul." Have we met ? He refers to me as "a reformer of things in general." is an untruth. He says I "feel strongly that the world of joint, and, unlike Hamlet, he thinks it not a cursed but a blessed joy, that he was born to put it right." is but poor fun, and not criticism. But, as Pope says, an must serve his time to every trade, save censure; all are ready-made." And, I fear, they often suffer mental dyspepsia. It is a pity your critic does not know ent to make him take a serious view of degeneracy. He only to my proposal—sterilization. But if he will take ouble to read my treatise he will find out that already blic recognize that there are both natural and artificial zations; natural, where degenerates are sterile, and ial, where the ovaries, uterus, or testicles are removed geons. Some thousands must be so sterilized yearly. it does your critic mean by his crass statement "that Rentoul thinks it, not a cursed spite, but a blessed joy" e world is out of joint and that he—Dr. Rentoul—"was o put it right?" Has degeneration prostituted the of criticism?

But your critic is also somewhat unfair in neglecting to notice that I devote a chapter to "boy and girl marriages," where I point out that it is fearful for us to allow a child of 12 years old to marry, and that this age-limit should be increased to 18 years. He also neglects to call attention to the Act of the State of Minnesota, where a fine of 1,000 dollars, or imprisonment for three years, is imposed upon degenerates who marry and upon those who conduct the marriage ceremony.

This question of degeneracy is a sad one. It is becoming sadder still by the fact that a large number of female imbeciles are yearly bringing forth illegitimate imbecile infants; and that a large number of lunatics are allowed out of asylums, either to marry or to resume conjugal relations.

These are a few of the points I have referred to in the above treatise. It takes a man of rather a strong nerve to tackle such a subject. I have done so, knowing that in so doing I expose myself to severe criticism. But I ask for honest, manly criticism, and not stuff such as that above noted.—I am, etc.,

Liverpool, March 12th. Robert R. Rentoul.

THE DESTRUCTION OF RATS ON BOARD SHIP.

Sir,—In the British Medical Journal of October 31st, 1903, on pp. 1164-5, you have an article on this important matter.

I can bear testimony to the efficacy of carbon dioxide and carbon monoxide in destroying these mischievous disease carriers, having employed it exclusively and extensively when Port Health Officer to this town during the plague scare in 1900.

My method of generating the gases has been fully described by me in the Journal of February 1st, 1902, p. 295, and I claim for it the following advantages: Efficacy, convenience, and cheapness.

1. Efficacy.—I never failed to destroy every rat that was in the ship, and on one occasion an unfortunate cat that had been left below succumbed to the noxious fumes.

2. Convenience.—Under the influence of the burning charcoal, the rats leave their hiding places in the lockers and between the skins of the ship, and are found dead around the site of the fires. I have not been able to satisfactorily account for the cause of this, but the fact I can testify to. The dead animals can thus be easily removed, and do not remain in hidden places to become hereafter a nuisance. My experience of the gas introduced by tubes was not so happy. I permitted it to be done on one occasion at the request of a firm of engineers here, who were anxious to try the experiment. We were successful in killing the rats, but they died in their hiding places to become a future nuisance.

3. Cheapness.—Dr. Haldane states that the installation of a plant for a large harbour would be £2,000, and the cost of clearing each ship from £3 to £4. The cost of the plant for my method would be infinitesimal, and the cost of clearing the largest ship afloat would not exceed—exclusive of labour—10s.

One great advantage in the use of carbon dioxide and monoxide is that the most delicate goods are unaffected by it, and that the nautical instruments, as the chronometers and aneroids, are not injured, as is the case with sulphur, mercury, and other agents that have been recommended and employed, and, further, the carbon oxides are more certainly efficacious. —I am, etc.,

Fred. de Lisle, L.R.C.P., D.P.H.,
District Health Officer, Hawkes Bay, N.Z.

CANE SUGAR AND BEETROOT SUGAR.

Sir,—I have long been satisfied that with consumptives and children the nutrient—fattening—power of ordinary grocers' sugar is *nil*. On numberless occasions I have noticed improved results when real cane sugar—preferable I think in the uncrystallized state—was used instead; chemically they are said to be "identical," just as potato spirit and malt whisky; practically they are as different. A recent inquiry in the British Medical Journal has evolved the following interesting communication from an expert, which speaks strongly in support of my experience:

I have had a long experience of cane and beet sugars. I have no interest in upholding the former, but the result of my experience has convinced me of the superiority of cane sugar over beet.

Chemically so far as our scientific knowledge goes—and it is not very far yet—both sugars, when pure (and in the case of beet this is a rarity) are alike. Chemistry in this branch is wanting; there is a difference

chemically in my opinion which will be discovered soon; physically there is a big difference.

Cane sugar is easily purified, and even if it were not the impurities unarrested would not have a prejudicial effect on the human system. Beet is very difficult to clear, and in this case the impurities are such as to disturb the system and interfere with its normal functions. Low beet sugars or treacle cannot be used with satisfactory results even as a cattle food! Bees refuse to feed upon even the good grades of grocery beet sugars, they turn it out of their hives. There are cases where serious injury has been done to hives. I know of a case in the north where the bees, having nothing else, partook of some, and suffered from severe diarrhoea in consequence, many dying of it.

Persons wishing to have cane sugar should buy from their grocers under guarantee. The country just now is flooded with foreign refined sugar, got up to please the eye, but only imperfectly refined.

—I am, etc.,

Southport, March 13th. COLIN CAMPBELL.

THE TREATMENT OF PNEUMONIA.

SIR,—In your issue of January 16th the following sentences occur in my letter under the above heading—namely, "With the expansion of gases in the abdomen there is increased abdominal tension;" and, again, "The pressure exerted by abdominal distension on the thoracic organs is reduced." Hence, I think Dr. James Barr will admit that his criticism to the effect that "he (Dr. Tidey) does not tell us whether the intra-abdominal pressure is correspondingly diminished" is not justified.—I am, etc.,

Montreux. STUART TIDEY.

THE TRANSMISSION OF SLEEPING SICKNESS BY FLIES OF THE GENUS *GLOSSINA*.

SIR,—As soon as Dr. Aldo Castellani discovered the presence of trypanosomes in the cerebro-spinal fluid of sleeping sickness patients, the possibility of the transmission of the disease by means of a tsetse fly suggested itself to many on account of analogy with nagana, a deadly trypanosome disease of cattle which has long been known in South-East Africa as the "fly disease." But the suggestion of a *Glossina* as a possible carrier of sleeping sickness, based on the life-history of trypanosoma brucei, was not supported by the natural history of other trypanosome diseases in other parts of the world where there are no tsetse flies. The rat trypanosome (trypanosoma lewisi), which has a distribution almost as cosmopolitan as that of its mammalian host, is transmitted from rat to rat by the fleas peculiar to these rodents. The trypanosome of dourine (trypanosoma equiperdum) is believed to be transmitted chiefly, if not solely, by direct contact. Besides, the passive mode of transmission suggested by Colonel Bruce in the case of nagana, did not exclude the possibility of the propagation of the disease by means of other blood-sucking insects or even ticks; and, indeed, several authors suspected various flies of the genus *Stomoxys* as likely carriers of the disease in East Africa, because living trypanosomes have been found in the proboscis or in the mid-gut of these flies. Moreover, the Indian surra, a disease strikingly similar to nagana, if not identical, is said to be transmitted by certain *Tabanidae*, and not by *Glossinae*, which, so far as we know, do not exist outside Africa.

The mere presence of living trypanosomes in the proboscis or mid-gut of a blood-sucking fly by no means proves that the latter is capable of transmitting the disease. Any blood-sucking arthropod feeding upon the blood of a trypanosoma-infected animal would naturally suck up some of the parasites with the blood.

Having studied somewhat carefully the epidemiology of sleeping sickness, the bionomics of the *Glossinae* and the best known trypanosome diseases of animals, I became convinced that the trypanosome discovered by Castellani must be a primary factor in the causation of sleeping sickness, a disease which shows many points of likeness to the various trypanosome diseases of cattle in its distribution, in its course, in its symptoms, and in its lesions. And I found that the epidemiology of the disease could not be satisfactorily explained in any other way than by admitting a most intimate and necessary association between sleeping sickness and certain flies of the genus *Glossina*.

In a lecture delivered in May, 1903, at the Livingstone College, and subsequently published in the *Journal of Tropical Medicine*, July 1st, 1903, I said:

> The heretofore limitation of sleeping sickness to West Africa, the peculiar patchy distribution of the disease along the large river valleys, its failure to spread in the West Indies, in South America, and in other countries, though frequently imported with negro slaves, and the probability that, like nagana, it is caused by a trypanosome, suggest a fly of the genus *Glossina* as the carrier. The genus *Glossina* comprises several species, some of which have a wide distribution in West Afri The carrier of sleeping sickness should be sought amongst the latter.

In the article in question I figured *Glossina palpalis* becaus so far as it was then known, the geographical distribution this species seemed to correspond more closely with t endemic area of sleeping sickness and because its life habi and its stations, carefully investigated by Mr. E. Austen Sierra Leone, are in complete accordance with the peculi features of the endemic. However, while inclined to i criminate more especially *Glossina palpalis*, I did not want exclude other species. This can only be done by means appropriate experiments.

I further discussed the mode of transmission:

> Taking into consideration that an animal suffering from naga does not communicate the disease to other animals in places void of tsetse flies, and that both the distribution of the disease a the distribution of the tsetse flies show the same striking peculiariti it may be reasonably surmised that other blood-sucking ecto-parasi are, as a rule, unable to convey the nagana flagellate. So far very experiments have been made to settle this point, and the various spec of the genus *Glossina* have not been tested . . . . If the tsetse fly act merely in the way suggested by Major Bruce, it would be difficult understand why the disease is not spread by other blood-sucki animals, such as mosquitos, fleas, and ticks, all of which are known be capable of transmitting blood parasites.
>
> I am inclined to believe that *Glossina morsitans* acts as a definite h to trypanosoma brucei, just like *Anopheles costalis* acts as a definit host to haemamoeba laverani. Two important facts suggest this theo First, the limitation of nagana to the so called "fly belts"; second the probability of a double alternating cycle in the life-history of trypanosome.
>
> The probability of a dual life-cycle in trypanosomes is not only s gested by the analogy of other parasitic protozoa, but by a very gene law which limits the continuancy of growth by asexual reproducti and, indeed, under certain conditions the trypanosomes are known assume peculiar forms which may be the representatives of a sexual resting stage . . . . The method of reproduction in the tsetse flies is l that of the *Hippoboscidae*, the eggs hatching, and the larvae develop and moulting within the body of the parent, so that when extru they have practically reached the pupa stage. In fact, the extru larva becomes almost immediately a pupa, the larva skin becomin hard puparium . . . . . This peculiar mode of development suggest think, the possibility that the transmission of nagana may take pl not directly by the fly that imbibes the blood of an infected animal, by its progeny.
>
> Lately, I have had the opportunity of examining large nu bers of trypanosomes from cases of sleeping sickness, an have been able to study the morphology and development the various forms. These observations I will publish v shortly together with numerous drawings. Meanwhile, I m state that there can be no further doubt as to the presence sexual forms such as I mentioned in my previous pape The large, stumpy, macrogametes with short flagellu numerous dark-staining granules and sometimes vacuol can be easily distinguished from the small, hyaline, slen microgametes, with large deeply-staining nucleus, la micronucleus and long flagellum, and from the far m numerous asexual forms, which multiply by longitudi division. Besides each form exhibits peculiar nuc changes.
>
> Quite recently Professor Fritz Schaudinn, a great aut rity on *Haemosporidia*, has worked out the life-hist of the bird parasite generally known by the name "halteridium." He has found that the halteridium the owl represents merely a stage in the complicated l history of a trypanosome which he proposes to call "trypa soma noctuae." Schaudinn's masterly study of this paras of the Little owl (*Athene noctua*) has shown that the male a female halteridium forms copulate within the stomach *Culex pipiens* and give rise to male, female, and asexual t panosoma forms which multiply within the mid-gut of mosquito and subsequently pierce through the stomach w pass into the circulation, and reach, some the lacunoma s rounding the pumping organ, others the ovaries. Th which agglomerate round the pharynx pierce the delic membrane between the chitinous plates and pass into blood of the avian host during the feeding process of mosquito. Those which have reached the ovaries penetr into the vitellus and finally into the embryo, thus produc the infection of the progeny.
>
> Schaudinn's observations bring a most interesting anal in support of the suggestions I was able to make in co quence of my researches on sleeping sickness and nagana.
>
> The difficulty of procuring infected tsetse flies has preven me from actually demonstrating the development of the panosomes of either sleeping sickness or nagana in the b of the insect host. Mr. E. Austen very kindly procured me female specimens of *Glossina palpalis*, and Dr. G. C. Low

ed these flies with his usual care, but the specimens e in a bad condition and proved useless. I am surprised no one else has so far attempted the study of the ques- by a direct examination of the fly.

olonel Bruce and Dr. Nabarro made very numerous experi- ts to ascertain whether the tsetse flies of Uganda had hing to do with the propagation of the disease, and their ex- ments have been repeated by Drs. Dutton and Todd in bia. Unfortunately, these experiments have not led to any ite conclusion. At present, therefore, our knowledge e rôle of the tsetse flies in the transmission of sleeping ness rests solely on the reasons I mentioned in my lecture ished in July, 1903: First, the limitation of the disease he tsetse fly stations; secondly, the presence of sexual s amongst the trypanosomes of sleeping sickness.

alogy with other *Haemosporidia*, and especially with nosoma noctuae, prove further that the tsetse fly cannot garded merely as a passive carrier of the disease, but is, uggested in previous papers, a true alternative host.— etc.,

LOUIS W. SAMBON.

don, N.W.

DOCTORS IN PARLIAMENT.

—The best and least costly plan would be to approach fferent party organizations, and ascertain whether each ive a seat to the medical profession. That would obviate otherwise will occur, that apart from medical measures member must belong to and vote for a party. There is House no such thing as a "non-partizan." Personally, Tory, and I would not support any man to augment ting powers of the Opposition, neither am I singular in -I am, etc.,

hley, Bucks, March 13th.

P. B. GILES.

L NAVY AND ARMY MEDICAL SERVICES.

ROYAL NAVY MEDICAL SERVICE.

SURGEON L. H. KELLETT, M.D., M.A., is promoted to be Deputy-In- -General from December 5th, 1903. He was appointed Surgeon ber 30th, 1876; Staff Surgeon, September 30th, 1888; and Fleet Sur- pril 27th, 1893. He served with the Royal Marines in the defence n in 1884-5, and was Principal Medical Officer with the battalion the operations in the Eastern Soudan in 1885, being present at the at Hasheen and the Tofrek zareba and the destruction of Temai with clasp, and Khedive's bronze star).

llowing appointments have been made at the Admiralty: MOYLE , Surgeon, to the *Fire Queen*, March 7th; MICHAEL FITZGERALD, Deputy-Inspector-General, to Jamaica Hospital, March 11th; PHER PEARSON, Deputy-Inspector-General, to Haslar Hospital, 5th.

ARMY MEDICAL SERVICE.

SURGEON GENERAL JAMES LEITSCH, M.D., died at Edinburgh on y 12th, aged 79. He was appointed Assistant Surgeon, January 6; Surgeon, May 1st, 1855; and Surgeon-Major, January 23rd, 1866; from the service with the honorary rank of Deputy Surgeon- January 19th, 1876.

ROYAL ARMY MEDICAL CORPS.

R. E. KELLY, M.D., from half-pay, retires on retired pay, March e joined the department as Surgeon-Captain, July 28th, 1886; was jor, May 10th, 1899; and was placed on half-pay, February 6th, e was in the South African war in 1899-1900.

ARMY MEDICAL RESERVE.

-LIEUTENANT A. A. MACKEITH, M.B., 1st Hampshire Royal Artillery (Volunteers), to be Surgeon-Lieutenant, February

INDIAN MEDICAL SERVICE.

dermentioned Captains, whose first commissions date from 30th, 1892, are promoted to be Majors from January 30th, 1904: ON, Bengal Establishment; R. H. ELLIOTT, M.B,, R. K. MITTER, d W. E. A. ARMSTRONG, Madras Establishment

llowing Lieutenants, first appointed January 29th, 1901, are pro- be Captains, from January 29th, 1904: C, W. F. MELVILLE, M.B., RRISON, M.B., J. MASSON, M.B., N. S. WELLS, M.B., W. M. ANDER- ., E. H. B. STANLEY, W. H. LEONARD, A. W. C. YOUNG, M.B., WAN, M.B., P. MCL. DALZIEL, M.B., J. J. ROBB, M.B., R. B. B. M.B.

ant-Colonel W. P. CARSON, M.B., Bombay Establishment, has om the service, from January 28th. He joined as Assistant September 30th, 1878, and became Lieutenant-Colonel, September He was in the Afghan War in 1880 (medal), and with the Bur- edition in 1885-7 (medal with clasp).

-General D. SINCLAIR, M.B., C.S.I., Surgeon-General with the ent of Madras, is granted privilege leave for three months from h, and furlough to Europe in continuation, till October 11th.

STUDY LEAVE.

that the India Office has decided that a medical officer in civil ent may be granted study leave without his services being t the disposal of the military authorities. The leave will count from the commencement and finishes at the conclusion of the course of study at the hospital selected, and a lodging allowance of 6s. a day will be granted in addition to furlough pay; the period of study leave will count towards a pension.

ROYAL ARMY MEDICAL CORPS (MILITIA).

LIEUTENANT M. A. CHOLMELEY resigns his commission, March 12th.

IMPERIAL YEOMANRY.

SURGEON-CAPTAIN H. WILLIAMS, Nottinghamshire (Southern Nottinghamshire Hussars), resigns his commission, March 5th.

VOLUNTEER RIFLES.

SURGEON-CAPTAIN A. E. LARKING, M.D., 1st Volunteer Battalion the Buffs (East Kent Regiment), resigns his commission, February 27th.

Surgeon-Lieutenants E. J. CROSS and W. F. FISHER, M.B., 4th (Hunts) Volunteer Battalion the Bedfordshire Regiment, to be Surgeon-Captains, February 27th.

Surgeon-Captains R. MITCHELL, M.D., A. P. NUTTALL, M.D., and J. W. COOK, M.B., 1st Volunteer Battalion the Lancashire Fusiliers, are borne as supernumerary whilst doing duty with the Lancashire Fusiliers Volunteer Infantry Brigade Bearer Company, February 27th.

The initials of Surgeon-Captain MACALISTER, M.D., whose promotion was announced in the *London Gazette* of February 12th, are C. J., and not J. C., as therein stated.

DAVID E. DICKSON, M.B., to be Surgeon-Lieutenant in the 6th (Fifeshire) Volunteer Battalion the Black Watch (Royal Highlanders), February 20th.

Surgeon-Lieutenant J. SCOTT, M.D., the Queen's Rifle Volunteer Brigade the Royal Scots (Lothian Regiment), is promoted to be Surgeon-Captain, March 12th.

Mr. WILLIAM R. E. WILLIAMS is appointed Surgeon-Lieutenant in the 1st (Pembrokeshire) Volunteer Battalion the Welsh Regiment, March 12th

VOLUNTEER INFANTRY BRIGADE BEARER COMPANY.

THE appointment of Captain C. J. JACOMB-HOOD to command the Sussex and Kent Company, which was announced in the *London Gazette* of February 2nd, is cancelled, and the following substituted: Captain C. J. JACOMB-HOOD is appointed to command the Sussex and Kent Company, under Paragraph 55A. Volunteer Regulations, *vice* Major J. Turton, appointed Senior Medical Officer, Sussex and Kent Volunteer Infantry Brigade, February 3rd.

ROYAL GARRISON ARTILLERY (VOLUNTEERS).

THE undermentioned gentlemen are appointed Surgeon-Lieutenants in the 1st Dorsetshire: THOMAS A. WALKER and TELFORD TELFORDSMITH, February 20th.

Mr. JOSEPH GRANT-JOHNSTON to be Surgeon-Lieutenant in the 7th Lancashire.

ROYAL ARMY MEDICAL CORPS (VOLUNTEERS).

LIEUTENANT-COLONEL AND HONORARY COLONEL J. E. SQUIRE, M.D., the London Companies, resigns his commission, retaining his rank and uniform, March 5th.

Captain D. CHRISTIE, M.B., from the Argyll and Sutherland Highlanders, to be Captain in the Glasgow Companies, March 5th.

The undermentioned gentlemen to be Lieutenants in the Manchester Companies, dated March 5th: WILFRED E. ROTHWELL, M.B., ALFRED F. THOMPSON, M.B.

Surgeon-Lieutenant-Colonel J. CANTLIE, M.B., 7th Middlesex Volunteer Rifles, to be Honorary Lieutenant-Colonel Commandant, the Maidstone Companies, March 5th.

MEDICAL OFFICERS OF THE ROYAL NAVY ON THE RETIRED LIST.

R. N. writes: Medical officers of the navy, on retiring from the service on pension at their own request, are, in accordance with the King's regulations, liable to be recalled for service, in case of emergency, until they reach the age of 55. As a rule, these officers, on leaving the service, retire into private life, give up all medical work, and consequently become in a very short time what might be called rusty, and not up to date in either surgical or medical work. I would therefore suggest that the attention of the Admiralty should be called to the great necessity of granting all medical officers on the retired list liable to recall a post-graduate course on full pay and allowances for at least six weeks every year. The cost of this would be trivial, but the benefit to the suffering humanity which they may be called upon to treat would be very great. When officers of the executive department of the service retire they get periodical courses of instruction at the gunnery and torpedo schools on full pay and allowances. If their Lordships think it necessary to grant these courses of instruction to the executive department to keep them abreast of their work, I think it still more necessary that medical officers should be granted a post-graduate course to keep them also abreast of their work, otherwise it is not fair to the medical officers nor the suffering humanity which they may be called upon to treat.

THE MEDICAL DEPARTMENT OF THE UNITED STATES ARMY.

THE medical department of the United States, like our own, is now in the Medea-caldron of reorganization. A Bill on the subject has been approved by the Secretary of State for War, and has been forwarded by him for the sanction of Congress. The Bill provides for an increase in the number of medical officers sufficient to enable them to perform in time of peace all the duties laid upon them by the army regulations. It is pointed out that so far is this from being the case at present that the regular medical corps has to be supplemented by the employment of about 200 contract surgeons.

The Bill also contains a provision for the remedy of an injustice done to the medical corps by an Act for the reorganization of the army passed in 1901. By the terms of that Act the proportion of officers in the higher grades was, without proper consideration for the needs of the medical department, greatly reduced, and the prospects of promotion were consequently much impaired. As a result it has been found impossible to fill the vacancies in the grade of lieutenant created by that Act, notwithstanding every effort to attract candidates. There have been eleven

resignations among the younger officers, as compared with one in the same period of time before the passing of the Act. The Surgeon-General therefore asks for a proportionate number in each grade corresponding to that given by Congress last year to the medical department of the navy; this would produce a rate of promotion corresponding fairly to that which existed in the army before the Act.

Another important provision of the Bill is for the establishment of a reserve medical corps in which the contract surgeons now employed will be commissioned. These reserve officers will, while in active service, have the rank and allowances of first lieutenants in the Medical Corps The Surgeon-General wishes to attract to the reserve corps capable young men who have recently graduated from the best medical colleges and to give them military experience and as far as practicable, a course of instruction at the Army Medical School, so that when they return to civil life to establish themselves and build up a practice they will constitute an eligible list of trained medical officers available for service in time of war. These reserve officers will not be ordered to active service except on their own application, and will be eligible for appointment to positions in the medical service of the organized militia and as United States volunteer officers with higher rank.

This Bill—as is now the case in regard to all measures concerning the army—was considered by the general staff, a body in which the medical corps alone of all the great staff departments has no representation. It was, however, approved in all respects by that body, except that the general staff recommended a reduction in the number in the grades of colonel and lieutenant-colonel. In these two grades they were far less liberal to the medical corps than to the engineer corps, for the increase in which they considered a Bill at the same time.

Secretary Root was not convinced of the wisdom and justice of this reduction, and one of his last official acts was to refer back the Bill to the general staff for reconsideration of this point. A compromise between the view of the general staff and that of the Surgeon-General, we learn from the *Journal of the American Medical Association*, has been approved by Secretary Taft. This allows the full number asked for by the medical department in these grades, but, by reducing the number of colonels and increasing the number of lieutenant-colonels, makes a proportion corresponding to the other staff corps in the army rather than to the medical department of the navy. This is said to be acceptable to the Surgeon-General. This Bill, if adopted unchanged by Congress, will, in our contemporary's opinion, immensely increase the efficiency of the medical corps, and, by means of the reserve corps, its methodical expansion for war. It also, by substituting for the anomalous and little respected status of the contract surgeon medical officers of positive military rank, secures to the representatives of the profession in the army a dignified and satisfactory position in the military body.

Another Bill relating to the medical department of the army has also been approved by the Secretary of State for War and submitted by him to the consideration of Congress. It provides for the appropriation of a sum of £8,000 for the purchase of land and the construction of a general hospital for the army at Washington. It is proposed to make the new hospital a handsome modern structure with sufficient space about it to allow of great extension by the erection of temporary wards in time of war. The hospital will also be the home of the Army Medical School, which now occupies inadequate quarters in the Army Medical Museum.

MEDICO-LEGAL AND MEDICO-ETHICAL.

DAKHYL *V.* LABOUCHERE.

ON Monday, March 7th, the Lord Chief Justice, sitting with a special jury in the King's Bench Division of the High Court, commenced the hearing of the action of Dakhyl *v.* Labouchere, in which the plaintiff sought to recover damages from the proprietor of *Truth* in respect of an alleged libel.

Mr. Rawlinson, K.C., and Mr. Hansell appeared for the plaintiff; Mr. Shee, K.C., Mr. Eldon Bankes, K.C., and Mr. Fraser for the defendants.

According to the statement of claim, the plaintiff, Dr. Hanna Nassif Dakhyl, claimed to be a Doctor of Medicine, Bachelor of Science, and Bachelor of Arts of the University of Paris. At the date of the alleged libel he was in practice at 178, Holland Road, Kensington.

The alleged libel was published in *Truth* for April 2nd, 1903, and was in the following form: "Sundry inquiries have reached me during the last week or two respecting one Dr. H. N. Dakhyl, of 178, Holland Road, Kensington, who appends to his name the symbols 'B.Sc., B.A., M.D.Paris, etc.', and describes himself as a specialist for the treatment of deafness, ear nose, and throat diseases. Possibly this gentleman may possess all the talents which his alleged foreign degrees denote, but of course he is not a qualified practitioner, and he happens to be the late 'physician' to the notorious 'Drouet Institute for the Deaf.' In other words, he is a quack of the rankest species. I presume that he has left the Drouet gang in order to carry on a 'practice' of the same class on his own account, and probably he is well qualified to succeed in that peculiar line." The plaintiff alleged that this paragraph implied that he was an impostor carrying on a disreputable and sham practice, without skill or knowledge, and that he was deluding or attempting to delude the public into consulting him as though he were a qualified person, and was thereby attempting to obtain money by false pretences. The defendant, by his defence, pleaded (*inter alia*) that his words were true in substance and in fact, and that he had merely made comments in good faith and without malice upon matters of public interest.

In the course of his opening speech counsel pointed out that although the practice of diagnosing by correspondence might not be the most satisfactory, yet the plaintiff had been very successful. He would prove that the plaintiff was a skilful and competent practitioner.

Colonel Kenny Herbert was called on behalf of the plaintiff. He stated that he had consulted the plaintiff about his wife, who had suffered from deafness for a number of years. He found the plaintiff most satisfactory and intelligent, and an enthusiast in his business.

Mrs. Kenny Herbert, who could only hear counsel with difficulty, stated that her hearing had been much improved by the plaintiff's treatment. She had derived no benefit from any one before she consulted the plaintiff.

A number of other witnesses gave evidence to the like effect.

The plaintiff, Dr. Dakhyl, said he was educated in Jerusalem, and subsequently became Director of the free school at Beirut. In 1878 he was appointed Professor of Greek, and subsequently of French and Arabic in the College of Beirut. While at Beirut he had studied medicine priva and in 1891 he became Clinical Assistant to Dr. Martin at the Ge Hospital at Mount Carmel. After studying in Paris he was given a pensation for the degrees of B.Sc. and B.A. In 1893 he studied fo M.D., which he took in Paris in 1898. He received several certificat honour, and began to practise on his own account in Paris. After se the advertisement as to the Drouet Institute, and a M. Callé in Pari accepted the post of Consulting Physician at the Institute. He there in June, 1901, and remained for thirteen months. Then he s for himself. At the Institute questions were sent out for patien answer, and according to their answers he diagnosed the cases. He since practised in Holland Road. He varied his prescriptions acco to the nature of the case, and as a rule he made up his own medic He had a large number of prescriptions, and the drugs he used useful drugs, recognized for the purposes for which they were used. now had one or two patients with whom he dealt by correspondenc the Institute he had nothing to do with the letters written to the pa All he had to do was to make the diagnosis and initial the prescrip His prescriptions were proper prescriptions for the ailments whi had diagnosed.

In cross-examination witness said he never heard that the Ins was criticized in the Paris newspapers. He never heard anything the Institute. When he saw the advertisement he made inquiries the Institute. He was to get £32 a month and so much for each pa He was at the Drouet Institute from June, 1901, to July, 1902. H then head physician. He did not know that the second phys at the Institute was connected with the "Sovereign Rem Another doctor was working there; witness did not know wh was working at. Witness's hours there were from 2 to 4. was a clerk called Smith, and another called Hart who acted as trea Most of one clerk's time was occupied in taking down prescrip Some days he would have to write as many as one hundred prescrip The medicines came from Paris; he was told they were sent by a qua gentleman. He did not know how the drugs came from Paris. He that the Drouet Institute was being criticized while he was con with it. He knew that an English qualification was not sufficie France. He would prefer his patients to see him personally inst by correspondence. The majority of the patients he dealt with by spondence. While there he did his best to make the patients treatment by correspondence would not be dangerous if the docto careful. There would be some cases which he would not atten treat by correspondence. He saw an advertisement in a daily pa the effect that 103 cases had been cured in two months. He did not how much the Institute was spending a year in advertisements. the features of the advertisements was free advice by corresponden

The Lord Chief Justice: It is plain that the large proportion of th ness was carried on by correspondence.

Continuing, witness said that he did not know what proportion patients were of the humbler class. He could not point to any m in the advertisements of the fact that he was only qualified in Pari he had never signed any prescription without the words "M.D after his name. He had not always found that patients had co described their symptoms. While he was at the Institute the Wilkinson was discussed in *Truth*. That was a case of a domestic s He heard that Wilkinson had paid the Drouet Institute £12. He know whether her case was said to be curable or not. He remem prescribing for Binnie, a gardener. He had never written a presc without seeing a report. In Binnie's case he had not seen the which accompanied the prescription. His prescription would describe how the medicines were to be used. He did not use th ingredients for his plasters as those which were used by the Drouet tute. No one else was writing prescriptions while he was in office.

The Lord Chief Justice: It is suggested that the remedies you pr were useless in Binnie's case?—I say he cannot prove it.

Continuing, witness said the patient was suffering from perfora the drum of both ears. He had prescribed for a Mr. Bon Buckingham. He prescribed a medicine for clearing the nose patient had rhinitis. There were many microbes which might c A polypus might cause it. It would be better in such a case to patient in order to prescribe. He always read the patient's ans questions. He had a number of persons to help him in writing scriptions, but they were always inspired by the witness. He know what kind of polypus Bonner suffered from. If he had s nose he would have known whether it was a pediculated or sp polypus.

The Lord Chief Justice: In this case it is clear that the plain the patient that a personal interview was advisable.

Continuing, witness said he left the Drouet Institute because not satisfied with their methods. The patients had complained fees were too high. With regard to his degrees, he did not know read the paragraph in *Truth* that he was not entitled to use h The Manager of the Drouet Institute had come with him to the Holland Park.

Cross-examined as to his qualifications, witness produced a ce from University College to the effect that he had attended a co vaccination at the University College. He had evolved a mode ment for deafness entirely his own. Most of the writers of the had written from the surgical point of view; he treated it medical point of view as well. He did not know that he woul allowed to dispense poisons, or medicines with poisonous ingr unless he had an English qualification.

An advertisement in the *Standard* of November 4th, 1903, was p which a Mr. Rudy said he was so grateful to his doctor that h send his name to any one who wrote for it. This advertisement to the paper by his secretary, but witness did not know anything This patient was treated in 1897. Mr. Rudy had no interest in practice.

In re-examination, plaintiff said that a full page advertisemen Drouet Institute appeared in *Truth* in 1897.

By the Court: "Ear lotion," "gargle," and "snuff," is it co use all these at one time? There is nothing inconsistent in these at once.—No.

In further answer to his Lordship, the plaintiff said that the treatment of a patient was of the greatest importance.

Dr. Rudy, a Doctor of Medicine of the University of Paris, called. He kept a home where doctors sent their patients. H troduced to the plaintiff by Professor Tierney. He studied the p treatment. He was well satisfied with the treatment. A recomm from Professor Tierney was sufficient.

ie Court: The plaintiff used to prescribe generally; he was not a ist.

hee, in opening the case for the defendant, said the gravamen of arge made against the plaintiff was that he represented that treat- y correspondence was practically as good as treatment after con- on. It was clear, in spite of what the plaintiff said, that he knew it the Drouet Institute when he entered it. He would submit that thods of that Institution and the methods of the plaintiff were er to the public. This was a full-fledged M.D. of Paris, as sneering by advertisement at his professional brethren. edecessor in office of the plaintiff at the Drouet Institute was d of his diploma by the Royal College of Surgeons. These sements were addressed to the poor. Coming into the hands of a rson, an advertisement of this kind would create an impression ew religious order had been sent down for the universal benefit ind. The methods now adopted by the plaintiff were similar to the Drouet Institute. It might be that the plaintiff was com- o cure deafness in persons who went to consult him; but the nts would call evidence to show that some of the persons treated espondence had not been benefited in the least. It was sig- that no witnssses had been called on the part of the plaintiff to they had been cured by the correspondence method. He would jury to say by their verdict that they discountenanced this f imposing upon the humbler classes.

nner, a solicitor's managing clerk, who had suffered from nose- , made an application to the Drouet Institute for a set of s. In answer he received a letter dated May 28th, 1902. They ended medicines costing 19s. In June he felt a certain amount of d wrote to the Institute to that effect. The improvement did inue, but the irritation became worse. He then discontinued ment for a time. He recommenced and got no benefit. After ent to see a doctor, who operated twice This cured him.

s point the Lord Chief Justice declined to allow evidence of which took place after the plaintiff left the institute.

xamined: The witness said he had suffered from rheumatic e had been given a spray with which to clear his nose. In a itten after he had been operated upon he had told the Institute id not blame them, but that he knew they could not treat him without a personal examination.

elch, residing at Hastings, near Buckingham, said that in April, had a discharge from ears and nose. She wrote to the Drouet which was advertised in the papers. She could not use the s quite as directed. She could not gargle. She went on with nent until June. They then stopped the medicine which was good, and gave one which made her worse. It made no differ- er ears. She spent £6 from her savings for it. She then got her neck which she had not had before the treatment. The om she saw gave her medicine and syringed her ear. In cross ion she said she told them she could not do it.

ined: "I had an invalid husband, and if I had followed the I could not have done anything else."

ghan Pendred, practising at Buckingham, said that he was by Mrs. Welch. She had facial erysipelas, caused by a discharge ar. He examined ears and nose, and found that the drum ated. Under the usual surgical treatment she recovered, and healed. He then cleared the Eustachian tube, which improved g. He saw the various documents received from the Institute. otitis media. A gargle was no use for the Eustachian tubes, as behind the tonsils. There was congestive rhinitis, which was a ld. "Chronic oligosmia," from which Mrs. Welch was alleged to g, was a disease unknown in the medical profession. He had r. Bonner. He had polypi, which he removed with a wire ne of the drugs would have had any lasting effect on the hey were, perhaps, six months old. In cross-examination he was no drug which was any use for absorbing a polypus. Drugs nnin or menthol might give temporary relief by reducing on.

ew Binnie who was also called said that he wrote to the Drouet fter seeing an advertisement. He filled up their report, and ly received medicines to the value of £10. These did him no had had deafness in the left ear since infancy. There was a rom this ear. When syringing his ear with a lotion supplied let some of the liquid came into his throat, shewing that the had not healed. As he derived no benefit from the Drouet e consulted a local doctor (Dr. Crombie) who sent him to an specialist. In the result both ears were completely cured.

mined by Mr Rawlinson, K.C.: He came into communication bouchere by advice of his local doctor, between 1901 and 1902. w Dr. Dakhyl. He went to the specialist about November 12th, ly saw him once.

ed by Mr. Eldon Bankes: Before going to the Drouet Institute ischarge from both ears.

Frank Crombie, practising in North Berwick, examined Fraser, said that Andrew Binnie consulted him in Oc- . He was deaf and had discharge from the left ear discharge from the right. There was large per- he left tympanum and a small one in the right tympanum. bed an antiseptic to syringe, a nasal douche, and on. He recommended Mr. Binnie to a specialist and d with the latter on the case. Binnie improved very greatly. Drouet diagnosis. He was suffering from otorrhoea and He had never heard of eruptive Eustachitis as a medical was, as a matter of fact, a slight catarrh of the Eustachian rouet diagnosis was merely Binnie's own statement in bad

hief Justice: All doctors' Latin is bad Latin. Do you really doctors' Latin is classical?

me of it. Continuing, he said the medicines were intel- he gargle—salt and water—was useless. The box of sedative In the prescription of September 14th, 1901, the boric gargle

ined by Mr. Rawlinson: In the medical profession catarrh on as a mild type of inflammation. Eustachitis might be flammatory condition of back of pharynx caused, say, by . The gist of his own treatment was to wash out the dis- ming the Drouet antiseptic to be real, it was partly a good fe never used plasters behind the ears, not knowing the The salt and water gargle was not harmful, but was not re- at the present day. The Drouet prescription of boric acid gargle was no use. Gargling as a general rule was not of much use, it did not reach the back of the throat. There were, however, a few exceptions. Politzer's bag acted on the Eustachian tubes.

Re-examined by Mr. Eldon Bankes, K.C.: In his opinion the Politzer method was right and was successful. It could not be applied by the patient himself. There was chronic catarrh of the Eustachian tube.

Dr. Prichard, F.R.C.S., aural surgeon to King's College Hospital, and Consulting Surgeon to the Royal Ear Hospital, said that in his view it was absolutely impossible to make a correct diagnosis by correspondence. In many cases it would not be safe. He would decline to advise without seeing the patient. The patient might answer correctly, but the subjective symptoms were the same in many diseases of the ear. In a number of cases operation was necessary. The plasters prescribed by the plaintiff were useless.

In cross-examination witness said he had respect for the degree of M.D. Paris. In certain cases of deafness counter-irritants were sometimes useful.

Mr. Cheatle, F.R.C.S., Assistant Aural Surgeon to King's College Hospital, etc., and Mr. Macleod Yearsley, F.R.C.S., etc., were also examined on the part of the defendants, and a number of other witnesses were called to speak as to the results of the plaintiff's treatment

Mr. Shee, in summing up the defendant's case to the jury, said that in all the cases of patients who had been called on the part of the defendant the treatment had been futile and useless, and in some instances dangerous to the patients. It was quite possible that the plaintiff was a skilful aurist, but that was not the question. What the defendant sought to expose was the danger of the practice of prescribing for patients without seeing them. That was dangerous and dishonest treatment. The plaintiff had had his warning, but was still carrying on his practice in the old way. He would ask the jury to say that *Truth* had a right to express an honest opinion upon this which was a matter of public interest.

Mr. Rawlinson, replying on behalf of the plaintiff, called attention to the words of the libel, and pointed out that it was absolutely untrue to say of the plaintiff that he was not a qualified medical practitioner. Having the degree of M.D. of Paris, his qualifications were as high as those of the most eminent practitioner in this country. During the year that the plaintiff was connected with the Drouet Institute 400 patients had written to say they were cured. This was a testimonial to the plaintiff's skill. He submitted that this attack was really an attack on the Drouet Institute, with which the plaintiff had now nothing whatever to do.

In the course of his summing-up the Lord Chief Justice said: Gentlemen with foreign qualifications are allowed to practise in this country, and that is one of the grievances of the medical profession. There are two distinct issues, namely, the skill and competence of the plaintiff, and the question whether the defendant has exceeded the bounds of fair criticism. So far as he used strong language in commenting on that system you must not condemn him; but fair comment must not be made the opportunity for personal attack. A quack has been defined to mean "a boastful pretender to medical skill which he does not possess." Unless you come to the conclusion that it was true that he was a quack of the rankest species, as the defendant has stated, the plaintiff must succeed on this part of the case. Then there is the other part of the case which involves the other issue—namely, the dealing with patients by correspondence, which the eminent specialists who have been called to give evidence so strongly object to. There is an immense deal to be said against this system, but it is a remarkable fact that the defendant has not adduced a single instance of improper or unskilful treatment on the part of Dr. Dakhyl since he started private practice. Although you may think it unprofessional and ungentlemanly to advertise, it is not against the law to do so. Some of the advertisements are couched in terms which cannot altogether be justified; but it is to be observed that eleven cases of persons who were treated by the plaintiff with wonderful efficacy, some of whom had been in the hands of other aurists without benefit, were brought before you. If the plaintiff was a party to the advertisement in the *Daily Telegraph*, and if that advertisement was nonsense, it is for you to say whether you think this was a sufficient justification for calling the plaintiff a quack. You will have some difficulty in coming to the conclusion that the plaintiff knew nothing of this advertisement, as he was consulting physician at the Drouet when it was published. Medical witnesses have stated that it was not only improper, but dangerous, to prescribe for patients by correspondence. There is much to be said for this view, but because another man takes a different view that does not make the plaintiff a quack. If you think that advising by correspondence is so dangerous that no competent man ought to practise it, this will affect the question of damages, but you must remember that no case has been brought before you in which any harm has been done by the plaintiff by that treatment. As to damages, they must be considered up to the moment when the verdict is given. If the defendant has not justified his description of the plaintiff that should enhance the damages.

The jury found a verdict for the plaintiff for £1,000. The defendant has appealed.

THE ETHICS OF ANTIVACCINATIONISTS.

DR. E. HAUGHTON (Upper Norwood) has submitted to us a portion of a correspondence which has taken place between himself and the Honorary Secretary of the National Antivaccination League. We gather that Dr. Haughton had been a Vice-President of the National Antivaccination League, and at some time antecedent to November, 1902—apparently about two years before that date—he withdrew from the League "in great measure on the ground of the censorship exercised over liberty of speech in the *Vaccination Inquirer*." Dr. Haughton has shown us papers issued by the National Antivaccination League in connexion with its eighth annual meeting held at Caxton Hall, Westminster, on March 15th, from which it appears that the League still published his name as a Vice-President. From the facts before us it appears that Dr. Haughton has very serious ground of complaint against the officials of the National Antivaccination League, in that they are retaining his name after he has requested them to withdraw it.

PURE FOOD AND PURE DRUGS IN AMERICA.

THE Senate Committee on Manufactures, which recently reported favourably on the McCumber Pure Food Bill, is now dealing with the Hepburn Bill, which has already passed the House. This Bill provides that a drug shall be deemed to be adulterated if, when it is sold "under or by a name recognized in the United States *Pharmacopoeia* it differs from the standard of strength, quality, or purity, as determined by the test laid down in the United States *Pharmacopoeia*, official at the time of the investigation."

The McCumber Bill contains a saving clause "that no drug shall be deemed to be adulterated under this provision if the standard of strength, quality, or purity be plainly stated upon the bottle, box, or other container thereof, although such standard may differ from that determined by the test laid down in the United States *Pharmacopoeia*." In the further provisions regarding the adulteration and misbranding of foods and drugs the McCumber Bill takes the specific definition found in the Hepburn Bill, as, for example, "if any valuable constituent of the article has been wholly or in part abstracted," and adds to each such clause the words "so that the product when sold or offered for sale shall deceive or tend to deceive the purchaser."

MEDICAL WITNESSES' FEES IN CIVIL CASES.

OUR correspondent, who was asked to examine a patient as to his capacity to make a will, should have stipulated either then, or when giving proof of his evidence to the solicitor, as to the fee he would expect if called upon to give evidence in the Probate Court. As he did not do so on either of those occasions, nor when served with the subpoena to attend, but only after two days' attendance at the court, he must now be content to accept the 5 guineas a day and expenses, which the taxing master allows. The tariff of the Manchester Medico-Ethical Association is merely meant as a guide to its members, and has, of course, no legal authority. The fact that another medical witness at the same trial secured by previous arrangement £100 a day, shows at once the importance of medical men being well informed on these matters.

A PROTEST AND DISCLAIMER.

CUMBRIAN.—We share our correspondent's regret at the helplessness of members of the medical profession in regard to the unauthorized use of their names in trade circulars. So far, however, legal proceedings have not given much ground for hope that the law will afford adequate assistance. Although an injunction might be obtained to prevent the further use of a name, it would be impossible, if we may judge from the cases already tried, to recover substantial damages without proof that actual loss and injury had been suffered. Such proof would be difficult to obtain, and juries appear to be unwilling to believe that the use of a doctor's name in an advertisement can do him any harm.

NOTICES OF MEDICAL MEN IN THE LAY PRESS.

FLEET SURGEON BRICE, R.N., writes to say that he is in no way responsible for the paragraph in *Modern Society* for January 16th, which contains a story purporting to be told by "Surgeon Brice." He thinks it necessary to make this disclaimer as he is the only officer of the name in the Royal Navy List.

PROFESSIONAL SECRECY.

W. H.—(1) It was perfectly right to refuse information without being assured of the patient's (the wife's) consent. If the lawyer was instructed to obtain information from her he could have brought a letter authorizing our correspondent to answer questions put to him. (2) We do not think any fee could be charged if the information was refused, but if this particular piece of information was only part of the interrogatory our correspondent should charge his usual fee for a consultation.

THE RELATIONS OF MEDICAL PRACTITIONERS TO ADVERTISING ELECTRO-MEDICAL INSTITUTIONS.

ATHERTON MORE.—In our opinion no qualified medical practitioner should connect himself with an institute which advertises for patients in the manner shown by the documents submitted to us.

THE POSITION OF A MEDICAL PRACTITIONER IN LEGAL PROCEEDINGS CONCERNING HIS PATIENT.

PUZZLED.—(1) If subpoenaed again our correspondent must when directed by the judge answer all questions as to the patient's condition to the best of his knowledge. (2) We believe an action for damages would lie against a medical practitioner for giving information by which a patient in any way suffered pecuniary loss or injury to his reputation.

MEDICAL REFEREES UNDER WORKMEN'S COMPENSATION ACT.

MEDICAL REFEREE states that he has examined, at the request of the sheriff, two workmen injured and claiming damages under the Workmen's Compensation Act, and asks what fee he should charge. The cases were seen at the referee's residence.

*** The schedule attached to the Workmen's Compensation Act, 1897, lays down the fees payable to medical referees as follows: (1) For a first reference, to include examination of the injured workman and written report, 2 guineas. (2) For any further report not covered by the original one, 1 guinea. (3) For a second or subsequent reference to the same referee, 1 guinea. If the referee travels more than two miles from his residence he is entitled to charge 5s. for each mile.

A.D.—So far as we are aware the point has not been raised in any reported case.

UNIVERSITIES AND COLLEGES.

UNIVERSITY OF OXFORD.

Board of Faculty of Medicine.—Dr. J. F. Payne and Dr. G. J. Schorstein, whose term of office on the Board of Faculty of Medicine had terminated, have been again co-opted members of the Board.

UNIVERSITY OF CAMBRIDGE.

Degrees.—At the congregation on March 10th the following degrees were conferred: *M.B.* and *B.C.*: R. M. Ranking, Pembroke. *M.B.*: H. Ackroyd and J. H. Donnell, Caius. *B.C.*: T. H. E. Watts-Silvester, Caius. The honorary degree of Doctor of Science is to be conferred on Dr. W. Ostwald, Professor of Chemistry at Leipzig.

UNIVERSITY OF GLASGOW.

THE Senate have announced the honorary degrees which it is proposed to confer at the spring graduation ceremony on April 19th. Amongst the recipients of the degree of Doctor of Laws (LL.D.) are Dr. William Stirling, Professor of Physiology, University of Manchester, and Sir William Taylor, K.C.B., the Director-General of the Army Medical Service. The United States Ambassador, London, the Hon. Joseph H. Choate is to be similarly honoured.

UNIVERSITY OF ABERDEEN.

HONORARY DEGREES.

AT a meeting of the Senatus of the Aberdeen University held on Wednesday, March 9th, it was resolved to confer the honorary degree of Doctor of Laws upon Dr. Chas. J. Cullingworth, Obstetric Physician to St. Thomas's Hospital, London. A similar degree is also to be conferred upon the Right Hon. C. T. Ritchie, M.P.; Mr. Wm. Watson, the poet; Dr. George Watt, the officer in charge of the Industrial Museum, Calcutta; Professor W. R. Dunstan, F.R.S., Director of the Scientific and Technical Department of the Imperial Institute; the Rev. Thomas Davidson Christie, Principal of the College of Tarsus, Asia Minor, and Geo. Robert Elsmie, C.S.I. The graduation ceremony is provisionally fixed for Wednesday, April 6th.

VICTORIA UNIVERSITY, MANCHESTER.

Court of Owens College.

WHAT will perhaps prove to be the last meeting of the Court of Governors of Owens College took place on March 11th. From the report presented thereat we learn that the number of medical students during the present winter session is 344 (including 10 women). Last year the number at the corresponing period was 330 (including 9 women). Additional accommodation for the botanical department is urgently needed, and an appeal is being made for the necessary funds.

The Bacteriological Laboratory.

Owing to the fact that the new infirmary will be built on Stanley Grove, the bacteriological and public health laboratory at present situated there has to be removed. A new site in York Place in close proximity to the proposed new infirmary has been purchased by the College. Plans have been prepared for the new laboratories, which will cost several thousand pounds. Even with the money in hand, the deficiency amounts to £3,000. It was intimated at the Court meeting that a donor who did not wish his name mentioned had given £1,000, and had also promised to make himself responsible for another £1,000 which he would collect. It was also stated that it would afford the Court great gratification to carry the wish of the Corporation of Manchester that some part of their gift should be devoted to the purpose of the public health department of the new laboratories.

Degree Ceremonial.

On the same day a degree ceremonial was held, at which a large number of Associates—nearly 100—of the College were admitted graduates of the University. In the charter granted recently to the Manchester University it is provided that persons who were Associates of the Owens College at the date of the new charter, and who were not already graduates of the University, should be offered Bachelors' degrees of the University.

The Vice-Chancellor stated that "similar power was conferred by the charter of 1880, but it was a curious defect of the enactments then made that the stipulation that they could only confer degrees upon those who were Associates at the date of the charter had practically the effect of excluding some of the most distinguished students of the College from becoming graduates. The reason for this was that there were many students who at that time were pursuing courses either for London or other degrees, and of course could not change suddenly so as to take degrees of the Victoria University. There was a large number of former students of the College who dated from that period, and who became Associates immediately after the time when the old charter was granted. As to those who had been Associates after the University was in working order, nearly all had been graduates of the Victoria University.

A large number of medical Associates were included amongst those who received the degree of Bachelor of Science.

ROYAL COLLEGE OF SURGEONS OF ENGLAND.

AN ordinary council was held on March 10th, Mr. Henry Morris, V.P., President, in the chair.

Physical Deterioration.

A report from the Committee on Physical Deterioration was received and adopted by the Council:

"In pursuance of the request of the Council the Committee have taken into consideration the scheme for an anthropometric survey of the United Kingdom submitted to the Physical Deterioration Committee sitting at the Privy Council Office by Professor D. J. Cunningham and Mr. J. Gray, President and Secretary of the Anthropometric Committee of the British Association, together with the *précis* of Professor Cunningham's evidence before the Physical Deterioration Committee.

'Having regard to the fact that no trustworthy statistics or other data are available for the purpose of comparing the physical condition of the nation at the present time with that which obtained in the past, or as forming the basis of a comparison with that which may obtain in the future, the Council of the Royal College of Surgeons are of opinion that the adoption by Government of a scheme for an anthropometric survey of the United Kingdom, such as that proposed by Professor Cunningham, is greatly to be desired.

"The scheme appears to the Council to be well calculated to elicit the facts of which a knowledge is essential to the formation of any opinion as to the physical improvement or deterioration of the race, and they moreover believe that the results of the investigation would be of great scientific value and interest.

"With regard to the measurements and tests to be used, the Council approve those recommended by Professor Cunningham. They think, however, that the value of the investigation would be increased by the addition of the measurement of the lower extremities from the crest of the ilium."

General Medical Council.

Mr. Henry Morris was elected the representative of the College in the General Medical Council in the vacancy occasioned by the retirement of Mr. Thomas Bryant, the appointment being for five years from March 12th, 1904. The best thanks of the Council were given to Mr. Bryant for his services in this capacity, which extended over a period of 13 years.

ter was read from the Registrar of the General Medical Council re-
g the following resolution adopted by the Executive Committee of
ouncil, namely:
at the Executive Committee learns with regret that Mr. Bryant
ot contemplate an extension of his tenure of office as representa-
the Royal College of Surgeons of England after March 12th, 1904;
esire to place on record their high appreciation of his services in
capacities since his appointment in 1891, and in particular as
rer of the General Council and Chairman of the Examination
ttee."

Donation to the Museum.

best thanks of the Council were given to Staff Surgeon C. Marsh
ll, R.N., M.R.C.S., for a donation of thirteen Filipino skulls
ed from the battlefields of Luzon, Philippine Islands.

Sanitary Institute.

ohn Barlow, F.R.C.S., was appointed delegate of the College to the
ss of the Sanitary Institute to be held at Glasgow in July.

Congress of School Hygiene.

Henry Morris was placed upon the list of Vice-Presidents of the
Organizing Committee for the International Congress of School
e to be held at Nuremberg in April; and Dr. Clement Dukes was
ed delegate of the College to the Congress.

Examinership in Dental Surgery.

er of March 5th was read from Mr. Henry Morris resigning his
rship of the Board of Examiners in Dental Surgery, in anticipa-
he expiration of his period of office on May 11th.
acancy will be filled up at the Council meeting of May 12th.
is the last day for applications.

PITAL AND DISPENSARY MANAGEMENT.

KING'S COLEGE HOSPITAL REMOVAL FUND.

NG was held at the Mansion House on March 11th in support of
al for funds for the removal of King's College Hospital to South

rd Mayor in a few words introduced the subject. He pointed
the population near Drury Lane and the Strand had been re-
nd said that a large proportion had gone to the South of London,
y in and about Camberwell.
F. D. Smith, M.P., entered into statistical details showing that
ital was not adapted to modern requirements and that it was
le to extend the building on the present site. Further, the
f the last half-century had altered the character of the neighbour-
d the hospital was now a comparative failure as a local charity.
oposed to prepare plans for 600 beds in the new hospital to be
he South of London.
chbishop of Canterbury, in moving a resolution that the meeting
approved of the scheme to remove King's College Hospital to
ndon, described how his earliest work had been amongst the
he slums on the site where the Royal Courts of Justice now
he new hospital in the South of London would stand on a site of
lve acres, and would meet a need that had been felt for some
reference by the Archbishop to the fact that the site of the hos-
a gift from Mr. W. F. D. Smith was greeted with tremendous
rom the audience, especially from the students at the back of

olution was seconded by Mr. C. E. Tritton, M.P., and was sup-
the Bishop of Rochester, who mentioned that the district to be
y the hospital stretched from Wandsworth to Woolwich.
rrier," as the representative of the Medical Staff of King's
spital, said that hospitals such as King's College Hospital,
imarily for the sick and poor, were as necessary for the rich
o-do; because every case of sickness or injury treated in such
was an object lesson to the students who in a few years would
e guardians of the public health, and to whom at one time or
e rich and well-to do would have to entrust their own lives and
f those nearest and dearest to them. It was, therefore, a matter
t vital importance to the community that those who had to
such serious responsibilities should be fully trained and well
he important duties they had to perform. He emphasized the
it was only in great hospitals, which were also educational
s, that the training by practical experience in the methods of
nd treatment of disease which the public expected, and rightly
n the part of medical practitioners, could be received. King's
spital had deserved well of the public. It had for many years
to the sick of a large and poverty-stricken district, and it had
any thousands of men who were discharging their duties
rt of the globe. The hospital had been the nursery, if not
, of some of the most important advances in medicine of
nes. Not very many years ago Lord Lister was there
and teaching the details and principles of his anti-
hod which had conferred such great benefits on mankind.
ne did not stand still with the discovery of new methods and
es. Every day medicine was becoming more complicated, and
l was to be in the forefront it must adapt itself to modern re-
. It was impossible on the present limited site to provide the
buildings and appliances for the comfort and treatment of
hich were requisite in the present day, and there was the
int that the hospital in its present position was no longer so
as it had been. The Medical School had been injuriously
ause the students were deprived of the chance of studying the
ith which it was so essential they should be familiar. The
d surgical staff had on due consideration unanimously de-
it would be in the interests of the poor and of the Medical
the hospital should be transferred to a more populous dis-
as Camberbell. He concluded by cordially supporting the

Watson Cheyne, senior surgeon to the hospital, dealt with
n of the want of room on the present site of the hospital, and
d out that the institution ought to be near its poor patients.
to the question of the want of room the advance of science
vy demands to be made upon the hospital authorities. The
Lord Lister had revolutionized surgery so that a hospital
built under the old *régime* was at the present time wanting in many respects. New operating theatres were required; departments for bacteriology and pathology were indispensable. Then there were the numerous modern methods of investigation, which required special rooms and special officers, and the electrical advances in medicine also entailed further accommodation. It would be recognized that on the present site it was impossible to meet these needs. On the other hand, with the twelve acres of ground on which the new hospital was to be built they would be able to erect an institution in every sense well up to date and capable of expansion as science advanced. Mr. Cheyne then went on to show that the sudden severe illnesses and sudden severe accidents spoken of as casualty cases required that the hospital should be placed in the immediate neighbourhood where such cases occurred. In consequence of the changes that had taken place round King's College Hospital the number of severe casualty cases had become very few, whilst in Camberwell such cases had to be transported to great distances in order to reach relief. The staff of the hospital were unanimously of opinion that the removal of the hospital was necessary, not only for the treatment of the patients, but also for the education of those who will afterwards have the charge of those who are not hospital patients.

After the resolution had been put and carried unanimously, Mr. C. Awdry announced that the sum of £106,762 had been promised for the fund.

A vote of thanks to the Lord Mayor for presiding was moved by Lord Methuen, seconded by Sir John Cockburn, and acknowledged by the Lord Mayor.

ST. THOMAS'S HOSPITAL, LONDON.

The Samaritan Fund.—The report for 1903 of the Samaritan Fund of St. Thomas's Hospital recently published shows an expenditure of £1,592 and receipts of £1,672. The latter were derived partly from ordinary donations and partly from the income of sundry trust funds, each hedged about by special limitations as to expenditure. The available monies were expended chiefly on the maintenance of patients at convalescent homes, but partly also on the payment of the fares of patients to and from such homes, on surgical and optical appliances, on washing, and on clothing, and fares for indigent patients on their discharge from hospital. As St. Thomas's Hospital has no convalescent home of its own, the calls upon its Samaritan Fund are very great. The Secretary of the Fund is Mr. Sydney Phillips, Steward of St. Thomas's Hospital.

ROYAL DENTAL HOSPITAL, LONDON.

AT the annual general meeting of governors of the Royal Dental Hospital, Leicester Square, held on March 10th, it was reported that 97,830 cases had been treated during the year, being over 8,000 more than in 1902. Anaesthetics were given in 35,619 cases, being an increase of over 4,000. To meet the increased work in this respect two paid "house anaesthetists" have been appointed in addition to the nonorary staff. Increased efforts on the part of friends of the institution were necessary in order to keep up the payments towards the interest and sinking fund of the debt incurred by rebuilding. It was stated also that the new operating chairs had not yet been completely paid for, and that each donor of 15 guineas to the Chair Fund would have his name affixed to a chair, in addition to enjoying the usual privileges of a life governor. The Secretary of the institution is Mr. J. F. Pink.

THE NEW HOSPITAL FOR WOMEN.

THE report presented to the thirty-second annual meeting of the New Hospital for Women, held on March 8th, showed that the popularity of the hospital with the public was steadily increasing, and that though the accommodation had been augmented during the past few years there was still a call for further developments both of the in- and out-patient departments. Certain legacies had been received, but apart from these the expenditure for the year exceeded the income by the sum of £389. There had been 612 in-patients and 7,679 new out-patients, the total attendance exceeding 35,000. Of the out-patients over 1,000 came from places outside the metropolitan counties. It was stated that Mrs. Garrett Anderson had decided to retire from the Managing Committee, but had accepted a position upon the consulting staff. Her place on the Committee will be taken by Mrs. Scharlieb, M.D. The great regret felt at the retirement of Mrs. Garrett Anderson, who has done so much for the hospital, was expressed on behalf of the meeting by the Duchess of Bedford, who presided, and by Sir William Broadbent.

TOTTENHAM HOSPITAL.

ACCORDING to the recent annual report of this hospital, which has been developed during the last four years from a suburban into a metropolitan institution, the number of patients has more than doubled during that time, the out-patient attendances for the year reaching over 60,000. Extensions in the way of a new operating theatre and new wards are in progress as part of a larger scheme. A successful system of post-graduate teaching has been organized, and Branch meetings of the British Medical Association and meetings of the North-East London Clinical Society are held at the hospital, making it a centre of medical life for an extensive and densely-populated neighbourhood.

ROYAL PORTSMOUTH HOSPITAL.

THE fifty-fifth annual meeting was held at the Town Hall, Portsmouth, on February 23rd, Sir John Baker presiding. The total number of in-patients and out-patients treated during the year was 11,784, as compared with 11,564 in 1902. It was stated that, owing to the energetic efforts of the ex-Mayor, Major Sir W. T. Dupree, donations amounting to £2,672 8s. 7d.—thus wiping out a bank overdraft of £1,921 5s. 6d. and adding £751 3s. 1d. to the income for the year—and new and increased subscriptions amounting to £616 4s. 6d. had been received. Notwithstanding these amounts obtained through the Mayor's Fund there was a deficit of £637 on the working during the year. A proposal was made to proceed with the rebuilding of the hospital by the erection of a new block of wards.

HERTFORDSHIRE COUNTY ASYLUM.

THIS new asylum, which is situated at Hill End, St. Albans, contains beds for 268 males and 308 females—total, 576—and this accommodation is fully occupied, there being 591 patients recorded as being on the books on March 31st, 1903—the fourth year covered by the report. The administra-

tive buildings, however, are sufficiently large to extend the asylum to 800 beds.

During the year 1902 there were 186 admissions, 84 discharges, and 33 deaths; the percentage of recoveries was 28.18 on the total admissions. The death-rate was 5.72 on the average daily number resident—33 patients died, and of these the cause of death was in 5 from general paralysis, 5 from phthisis, 3 colitis, and 3 cancer. The general health of the patients was satisfactory; no cases of notifiable infectious disease occurred. Four cases of colitis are recorded in this new asylum, which points to the disease having been imported, and Dr. Norman Bycott reports some cases of influenza early in 1903. The Isolation Hospital has been furnished, but there has been no necessity to isolate any cases.

BRADFORD EYE AND EAR HOSPITAL.

AT the forty-seventh annual meeting of the Bradford Ear and Eye Hospital accounts were presented which showed that the balance of the debt upon the building had been paid off, but that the total expenditure of the institution for the year had exceeded its income by the sum of £214. The number of both in- and out-patients was shown to be increasing, and a new plan for distinguishing cases unsuitable for free treatment had been introduced.

EDINBURGH ROYAL INFIRMARY.

THE following appointments have been made for the period of six months from April 1st to September 30th, 1904: Resident Physicians—Cameron R. Gibson, M.A., M.B., Ch.B., to Professor Sir T. R. Fraser; William Cuthbert Morton, M.A., M.B., Ch.B., to Professor Greenfield; J. M. Kirkness, M.B., Ch.B., to Professor Simpson; R. W. Craig, M.B., Ch.B., to Professor Wyllie; Thomas Nicol, M.A., M.B., Ch.B., to Dr. Smart; R. G. Gordon, M.B., Ch.B., to Dr. Byrom Bramwell; D. Halliday Croom, B.A., M.B., Ch.B., to Dr. Gibson; Duncan Lorimer, M.B. Ch.B., to Dr. Bruce. Resident Surgeons—W. Sibbald Robertson, M.B., Ch.B., to Professor Annandale; D. D. Paton, M.A., M.B., Ch.B., to Professor Chiene, C.B.; R. D. A. Douglas, M.D., L.R.C.P., to Dr. Berry Hart; A. N. Fell, M.B., Ch.B., to Mr. Caird. Non-resident House Physician—C. M. Pearson, M.B., M.R.C.P.E., to Dr. R. W. Philip (Ward 6). Non-resident House Surgeon—L. C. Peel Ritchie, M.B., Ch.B., to Mr. Wallace. Clinical Assistants—J. W. Keay, M.B., Ch.B., to Professor Sir T. R. Fraser; Angus Buchanan, M.B., Ch.B., to Professor Wyllie; Robert Veitch, M.B., Ch.B., to Professor Chiene, C.B.; R. Murdoch Matheson, M.D., to Dr. James; Hugh S. Davidson, M.B., Ch.B., to Dr. Byrom Bramwell; R. W. Johnstone, M.A., M.B., Ch.B., to Dr. Gibson; J. Allan Anderson, M.B., Ch.B., to Dr. Bruce; William M'Lachlan, B.Sc., M.B., Ch.B., to Dr. William Russell; Arthur J. Brock, M.B., Ch.B., to Dr. Murdoch Brown; Frederick Porter, M.B., C.M., to Dr. Lovell Gulland; John Sullivan, M.B., Ch.B., to Dr. J. J. Graham Brown.

INDIA AND THE COLONIES.

HEALTH OF THE CITY OF BOMBAY IN 1902.

THE report of the Health Officer, Dr. John G. Turner, D.P.H., is very elaborate, covering, with appendices, 111 folio pages. The orders issued by Lord Curzon for the abbreviation of reports do not apparently include the chief cities of India, the tomes issued by the governing bodies of which are of alarming dimensions. Registration is still very imperfect in Bombay as regards the number of births and deaths—much more so as regards death causes. Nevertheless, the faulty statistics collected are displayed with an elaboration which indicates much redundant ingenuity. For example there is a return, covering 18 pages, showing deaths from different causes in different occupations, commencing with "His Excellency the Governor," who happily did not die, the interest and use of which it is difficult to conceive. The statistical part of the report wants very ruthless pruning. The birth-rate of the year was 22.67 and death-rate 62.38. The former figure, though considerably in excess of 1901, seems very low, but females constitute only 38 per cent. of the population of the city, and a large proportion of them is unproductive. The same remark applies to many large Indian towns. The mortality was lower than that of any year since 1897, the first year of the plague. This disease caused 13,820 deaths—64 per cent. of the whole—against 18 736 in 1901. The plague administration is now entirely in the hands of the health department, and all compulsory measures have been stopped. Evacuation, isolation, and disinfection are the preventive means employed, but evidently most imperfectly. Inoculation is unpopular; only 1,182 operations were performed during the year. The cholera mortality was small, but that of small-pox considerable. Measles was also in excess. Deaths from "remittent" and relapsing fever were reduced by half. Probably many plague deaths find a refuge under these heads, because the seasonal prevalence of remittent fever follows that of plague. Eighty-nine deaths from enteric fever were registered. Infant mortality is terrible, deaths under 1 year of age constituting 537 per 1,000 of births. The numbers living under the age of 1 year was, according to the census of 1901, 9,930, against 25,291 in 1891. No satisfactory explanation is given of this extraordinary discrepancy. Deaths by phthisis numbered 3,957, or 2,502 less than the average of the previous five years. The cause of reduction seems to be the starting of an inquiry giving rise to concealment. The sanitary administration of the town appears to be active. A crusade has been started against the *Anopheles* mosquito.

INDIA.

Drugs and Licences in India.—The Medical Society of Ahmedabad, Bombay Presidency, has sent a petition to the Government praying for withdrawal or amendment of an order according to the terms of which licence has to be taken out at the price of one rupee a year by medical man who desires to dispense cocaine for the use of his patients. While entirely approving of any effort on the part of the Government to put down the practice of cocaine eating, the Society points out that medical men use more than 15 or 20 gr. of cocaine a year in the course of their work and that they obtain this quantity from retail druggists who have already paid for and obtained the necessary licence. It is also pleaded that medical men have been exempted from a corresponding regulation with reference to a much more important drug—opium—and that to bring the profession under the cocaine order is to put men, many of whom hold high English qualifications, upon the footing of common bazaar drug vendors without effecting any really good object. The complaint of the Ahmedabad Medical Society seems to be well founded and the activity of the Government to be beginning at the wrong end. That there is grave need for activity we have no doubt, for from the plaint of an English officer in the Indian Medical Service recently received, it would appear that quackery in India is an even more rampant and pronounced evil than it is elsewhere. The quackery question is not merely the unqualified practice of native "hakims" carried on in the same sort of way as in England and in India as at home mainly dependent on newspaper advertisement. It would appear that if there be any Poisons Act at all no attempt whatever is made to render it an efficient instrument for the protection of the public and the commoner poisons can be freely bought by any one in any quantity.

ORANGE RIVER COLONY.

New Medical Ordinance.—With the advice and consent of the Legislative Council the Lieutenant-Governor has enacted an ordinance making provisions for the regulation and registration of medical practitioners, dentists, chemists and druggists, midwives, and trained nurses in the Colony. Persons alone are eligible for registration as medical practitioners or dentists who have (1) obtained a certificate under the terms of a proclamation issued in 1902, or (2) hold a diploma registrable in the United Kingdom, or granted in a colony on terms not lower than those prescribed by the General Medical Council, or (3) hold a diploma which entitles them to practise in a foreign country provided that the standard of requirements be not lower than those prescribed by the General Medical Council, and that the foreign country grants reciprocity to British registered practitioners. Persons who are not registered in this Act are subject to a penalty not exceeding £100, or in default six months imprisonment, if they make use of titles implying or calculated to make people infer that they are qualified and registered, or if they practise for gain, or by any means whatever profess to practise or advertise that they give advice. All of these provisions apply to dentists. Dental companies or other plurality of persons are subject to them too, wholly consisting of registered dentists. A Medical Council is instituted which consists of seven medical men, four to be elected by a poll, and the other three to be nominated by the Governor. To them are added one dentist and three chemists, but these additional members will only be entitled to vote on questions affecting the interests which they represent. The functions of this Council are, on the whole, similar to those exercised by our own, but they also have to discharge the duties of a Midwives Board, and their punitory powers are somewhat more restricted. The President has power to administer an oath, and it is perjury to give false evidence before the Council when on oath; the Council can reprimand in the first instance, and if this reprimand be disregarded or if the Council shall find that a person has been guilty of infamous disgraceful conduct in a professional or any other respect, the Governor may direct the erasure of his name. Persons accessory to such conduct may be dealt with under the same provisions, and persons removed from the *Register* cannot practise without being subject to the fine, etc. The Council can also, subject to the consent of the Governor, strike off the name of a chemist, a trained nurse or midwife (on proof of incompetency in the two latter cases). Nurses and midwives are subject to a penalty of £20 for breach of the provisions of the Act. Medical men may dispense but they are not allowed to keep open shop unless they have done so prior to the promulgation of this order. The regulations as to chemists do not concern us greatly, but there are points of interest in respect to the sale of poisons. It has been found necessary to allow general dealers where there is no chemist within six miles, to sell poisons, but they must each year obtain a certificate from the resident magistrate, and keep a poison book. The poison schedule includes a number of Dutch and English patent medicines, such as Winslow's soothing syrups, Pond's balsam of aniseed, etc. The question of death certification appears to be met by a clause which declares no certificate required by law to be valid unless signed by a registered practitioner.

NEW ZEALAND.

Public Health.—The annual report of the Chief Health Officer of New Zealand (Dr. Malcolm Mason) for 1902-3 consists of the reports of the medical officers of Auckland, Hawkes Bay, and Wellington Districts, introduced by a covering letter of a general nature from Dr. Mason. The report shows a considerable advance in sanitation including the provision of isolation hospitals, the establishment of sewerage works and drainage, the treatment of sewage by bacterial processes, and the commencement of sanatoria for consumptives. An interesting report is appended on sanitation and social progress among the Maoris. It evidently has not yet been possible to reduce the vital statistics of the Colony to the usual forms adopted in this country, but it appears that the death-rates are low, that for Auckland being stated as 15.2 (as against 11.8 in 1901), for Hawkes Bay as 13.8, and for Wellington as 9.8 per 1,000. The age and sex distribution are not stated. Most of the work carried out during the year has been of a pioneer character and has dealt with necessary sanitary works. A considerable amount of time has been devoted to quarantine precautions and the stamping out of plague which has more than once been introduced. Routine inquiries are made respecting the common channels of infection in the zymotic diseases, and the facts obtained in several districts have been of interest and value.

PUBLIC HEALTH AND POOR-LAW MEDICAL SERVICES.

DISTRICT MIDWIVES.

e invitation of the Lady Mayoress an influential and well attended ng of those interested in Miss Alice Gregory's proposed National ing School for District Midwives was held at the Mansion House on h 14th. The chair was taken by the Countess of Stamford.

Bishop of London described how midwives were trained and super- in France, Belgium, Holland, Austria, Germany, Norway and en. and Switzerland. This country was almost alone in doing ng in the matter, though of course the new Midwives Act had taken ubject in hand and provided that after 1910 it will be penal for alified people to act in the capacity of midwives. But in the mean- what was to be done? The country had undertaken a great respon- y in passing the Act. The plan suggested was that there should be ol for the training and teaching of midwives. It was considered here should be a grant from the State in aid of this institution and before a woman received a certificate enabling her to practise fery she should have passed through at least eighteen months' ng.

Annie McCall said that a supply of district midwives was a necessity. istrict midwife must be a hybrid between a doctor and a nurse, standing when a medical man should be called in and capable of ng out the duties of a nurse. By means of the plan proposed by Alice Gregory there would be a hospital where suitable women be trained for district midwifery. It was estimated that only 5 per f the women who secured the licence of the Obstetrical Society d as district midwives. The status and standard and tone of the t midwife must be improved.

Alice Gregory said that it was a mistake to suppose that poor were unwilling to pay an adequate fee for district midwives. women would find plenty of scope for work in an honourable call- he great difficulty was the absence of a training school which ive women such a training in district midwifery as would make ully equipped for the work. It was open for every one to go for ears to a general hospital and then attend a maternity hospital, t required much time and money. She considered three months o short a time for properly training a midwife and explained how school she wished to see founded provision would be made for an n months' course of instruction in midwifery and district .

Cullingworth, in moving a vote of thanks to the Countess of rd for taking the chair, said that one of the objections urged the proposed National Training School for District Midwives, was e Central Midwives Board should look to the training and supply ives, but that was outside the scope of the business of that Board, ad quite enough on its hands. By the new Midwives Act provi- s made for the enrolment of midwives, provided that they should t any rate, some minimum of elementary instruction in mid- and it further provided that, when in practice, midwives shall be ome sort of supervision. Before the Act came into operation as nothing of the sort. There was no necessity for a midwife e any training at all, and there was no machinery for ing her except such as was provided by the meshes of the l law. By the wisdom of Parliament the supply of trained es had been left to voluntary effort, and it was therefore essary, as the new Midwives Act had come into operation, that ary effort should be warmly supported by the nation. This move- s for the benefit of the inarticulate masses of the community. It essary for some one to speak on their behalf, and it was a good r the country that Miss Gregory had taken the matter up. t other objections to Miss Gregory's scheme that he had heard it was far too small. He had also heard that it was far too large ibly unwieldy. When objections were so contradictory it could n for granted there was much to be said for the scheme. He that out of Miss Gregory's scheme the most valuable institution row. There were some very obvious defects in the present of training midwives. They would be better trained if they had vious knowledge of general nursing, for much of the time of the raining as midwives was taken up with details of general nursing ht to have been learnt before the midwifery training was com- The training given to the midwives in the present training insti- as lamentably short. It was a question of money. On account of the sm of the women they were able to teach them much, and it was ing what these women could learn in three months' time. They to become fairly well equipped with an elementary knowledge oundwork of midwifery, but it was well known that the standard edge was far below that which ought to be aimed at and which ted on in other countries. Then there was the third difficulty e was no systematic arrangement by which these women could again for what might be termed post-graduate teaching. There rangement by which the midwives could keep in touch with ution in which they had received their training, and to which d turn for help and guidance. It was in these particulars that gory's scheme aimed at improving midwives, and it was because so that he gave his very hearty approval to her scheme.

untess of Stamford acknowledged the vote of thanks, and the ended with a collection.

HEALTH OF ENGLISH TOWNS.

ty-six of the largest English towns, including London, 8,908 d 5,577 deaths were registered during the week ending Saturday h 12th. The annual rate of mortality in these towns, which had 17.5, and 18.6 per 1,000 in the three preceding weeks, further week to 19.0 per 1,000. The rates in the several towns ranged n Tottenham, 9.6 in Hornsey, 10.3 in Walthamstow, 11.7 in New-), 11.8 in Leyton and in Tynemouth, 12.0 in Smethwick, and ading, to 23.2 in Birkenhead, 23.4 in Swansea, 23.5 in Brighton, rwich, 24.8 in West Hartlepool, 24.9 in Wigan, and 25.8 in Preston. n the rate of mortality was 20.1 per 1,000, while it averaged ,000 in the seventy-five large provincial towns. The death- the principal infectious diseases averaged 1.7 per 1,000 in the seventy-six towns; in London this death-rate was equal to 1.9 per 1,000, while among the seventy five other large towns the rates ranged upwards to 3.0 in Bolton, in Rhondda, and in Swansea, 3.8 in West Hartlepool, 4.0 in Gateshead, 4.1 in St. Helens, 5.9 in Norwich, 6.0 in Swansea, and 6.2 in Warrington. Measles caused a death-rate of 1.0 in Birmingham, 1.2 in Rochdale, 1.3 in Aston Manor, 1.6 in Stockport, 1.8 in Rotherham, 1.9 in Oldham, 2.4 in St. Helens, and 5.0 in Norwich; scarlet fever of 1.5 in Warrington; diphtheria of 1.0 in Sunderland, and 1.1 in Portsmouth and in Walsall; whooping-cough of 1.1 in Wolverhampton and in Birkenhead, 1.2 in St. Helens, 1.3 in Gateshead 1.4 in Birkenhead, 1.7 in Handsworth (Staffs.) and in Bootle, 1.8 in Bolton and in Bury, 3.0 in West Hartlepool, and 5.4 in Swansea; "fever" of 1.0 in Nottingham; and diarrhoea of 1.6 in Middlesbrough. Three fatal cases of small-pox were registered in Nottingham, 1 in London, 1 in Warrington, and 1 in Gateshead, but none in any other of the seventy-six large towns. The Metropolitan Asylums Hospitals contained 54 small-pox patients at the end of last week, against 29, 31, and 41 at the end of the three preceding weeks; 21 new cases were admitted during the week, against 9, 5, and 13 in the three preceding weeks. The number of scarlet fever patients in these hospitals and in the London Fever Hospital, which had been 1,620, 1,587, and 1,578 on the three preceding Saturdays, had risen again to 1,601 on Saturday last, March 12th; 192 new cases were admitted during the week, against 143, 150, and 153 in the three preceding weeks.

HEALTH OF SCOTCH TOWNS.

DURING the week ending Saturday last, March 12th, 993 births and 710 deaths were registered in eight of the principal Scotch towns. The annual rate of mortality in these towns, which had been 22.2, 21.8, and 21.2 per 1,000 in the three preceding weeks, rose again last week to 21.5 per 1,000, and was 2.5 per 1,000 above the mean rate during the same period in the seventy-six large English towns. Among these Scotch towns the death-rates ranged from 11.2 in Greenock and 15.4 in Perth to 23.5 in Glasgow and 31.6 in Paisley. The death-rate from the principal infectious diseases averaged 2.1 per 1,000, the highest rates being recorded in Dundee, Aberdeen, and Paisley. The 359 deaths registered in Glasgow included 2 which were referred to small-pox, 10 to measles, 3 to diphtheria, 3 to whooping-cough, and 5 to diarrhoea. Six fatal cases of measles, 2 of scarlet fever, and 3 of whooping-cough were recorded in Paisley; 8 of whooping-cough and 2 of diarrhoea in Aberdeen; 4 of measles, 3 of whooping-cough, and 3 of diarrhoea in Dundee; 3 of small-pox in Greenock; 3 of whooping-cough in Leith; and 2 of diarrhoea in Edinburgh.

HEALTH OF IRISH TOWNS.

DURING the week ending Saturday, March 12th, 519 births and 445 deaths were registered in six of the principal Irish towns, against 633 births and 432 deaths in the preceding period. The mean annual death-rate of these towns, which had been 25.3, 24.7, and 22.3 per 1,000 in the three preceding weeks, rose to 25.8 per 1,000 in the week under notice, this figure being 6.8 per 1,000 above the mean annual rate in the seventy-six English towns during the corresponding period. The figures ranged from 19.9 in Cork and 22.4 in Belfast to 29.3 in Dublin and 31.2 in Waterford. The death-rates from the principal zymotic diseases during the same period and in the same six towns averaged 1.5 per 1,000, or 0.1 per 1,000 lower than during the preceding week, the highest figure, 3.8, being reached in Londonderry, while Waterford, and Cork registered no deaths under this heading at all. Measles caused 3 deaths in Belfast, scarlet fever 1 each in Dublin and Londonderry, and diphtheria 3 in Belfast and 1 in Londonderry. The rest of the rate was chiefly due to whooping-cough which, however, shows some diminution.

ENGLISH URBAN MORTALITY DURING 1903.

[SPECIALLY REPORTED FOR THE BRITISH MEDICAL JOURNAL,]

IN the accompanying table will be found summarized the vital statistics of the seventy-six large towns dealt with in the Registrar-General's weekly returns. During the fifty-two weeks ending January 2nd last, 446,329 births were registered in these towns, equal to an annual rate of 29.7 per 1,000 of their aggregate population, estimated at 15,075,011 persons in the middle of last year; this rate was 0.3 per 1,000 below the mean rate in the preceding year. In London the birth-rate was 28.5 per 1,000, while it averaged 30.2 per 1,000 in the seventy-five large provincial towns, among which the rates ranged from 17.8 in Bournemouth, 18.3 in Hastings, 20.3 in Hornsey, 21.1 in Halifax, 22.7 in Bury, 23.3 in Bradford, 23.8 in Huddersfield, and 24.0 in Rochdale, to 35.1 in Sunderland, 35.5 in Wigan, 35.8 in Gateshead, 36.2 in Warrington, 36.6 in Middlesbrough, 38.4 in Merthyr Tydfil, 38.8 in St. Helens, and 41.1 in Rhondda.

During the period under notice 244,468 deaths were registered in these seventy-six towns, corresponding to an annual rate of 16.3 per 1,000, which was 1.1 per 1,000 below the rate in the preceding year. In London the rate of mortality was 15.7 per 1,000, while it averaged 16.5 per 1,000 in the seventy-five other large towns, and ranged from 7.9 in Hornsey, 10.0 in Kings Norton, 10.4 in Handsworth (Staffs.), 10.8 in Leyton, 11.0 in East Ham, 11.2 in Walthamstow, 11.8 in Croydon, and 12.1 in Willesden and in Bournemouth, to 19.0 in Bootle, 19.1 in Merthyr Tydfil, 19.2 in Burnley and in Newcastle-on-Tyne, 19.7 in Manchester, 19.9 in Sunderland, 20.5 in Liverpool, 21.5 in Middlesbrough, and 22.2 in Wigan.

The 244,468 deaths from all causes in these towns last year included 28,309 which were referred to the principal infectious diseases; of these, 415 resulted from small-pox, 5,486 from measles, 2,160 from scarlet fever, 2,971 from diphtheria, 4,922 from whooping-cough, 1,742 from "fever" (principally enteric), and 10,613 from diarrhoea. The death-rate from these diseases averaged 1.89 per 1,000, and was 0.23 per 1,000 less than the corresponding rate in the preceding year. In London the death-rate from the principal infectious diseases was 1.79 per 1,000, while it averaged 1.93 per 1,000 in the seventy-five other large towns, among which the rates ranged from 0.40 in Bournemouth, 0.55 in Burton-on-Trent, 0.68 in Hornsey, 0.69 in Hastings, 0.72 in Halifax, 0.75 in King's Norton, 0.76 in Handsworth (Staffs.), and 0.80 in West Hartlepool, to 2.86 in Salford, 2.94 in Rotherham, 2.97 in Middlesbrough, 3.08 in Hanley, 3.09 in Preston, 3.10 in Sheffield, 3.29 in Warrington, and 4.18 in Wigan. The 415 fatal cases of small-pox were equal to an annual rate of 0.03 per 1,000, the death-rate from this disease in the previous year having been 0.12; among the large towns small-pox was proportionally most fatal in Hanley, Leicester, Liverpool Bootle, Bury, Oldham, Burnley, Gateshead. The 5,486 deaths from measles corresponded to an annual rate of 0.36 per 1,000, against 0.49 per 1,000 in the preceding year. In London this disease caused a death-rate of 0.47 per 1,000; while in the seventy-five large provincial towns the

Analysis of the Vital Statistics of Seventy-Six of the Largest English Towns during 1903.

Towns.	Estimated Population middle of 1903.	Births.	Deaths.	Annual Rate per 1,000 Living. Births.	Deaths.	Principal Infectious Diseases.	Deaths from Principal Infectious Diseases.	Small-pox.	Measles.	Scarlet Fever.	Diphtheria.	Whooping-Cough.	Fever.	Diarrhoea.	Deaths of Children under one year of age to 1,000 Births.	Rate per cent. of
76 Towns	15,075,011	446,329	244,468	29.7	16.3	1.89	28,309	415	5,486	2,160	2,971	4,922	1,742	10,613	144	
75 Provincial Towns	10,461,199	315,423	172,359	30.2	16.5	1.93	20,143	402	3,432	1,798	2,219	3,291	1,346	7,655	149	
London	4,613,812	130,906	72,109	28.5	15.7	1.78	8,166	13	2,054	362	752	1,631	396	2,958	131	
Croydon	141,157	3,708	1,666	26.3	11.8	1.08	153	2	25	2	17	62	5	40	108	
Willesden	127,077	4,059	1,535	32.0	12.1	1.97	249	1	84	13	10	69	8	64	117	
Hornsey	78,386	1,589	614	20.3	7.9	0.68	52	—	14	1	9	21	—	7	84	
Tottenham	109,749	3,532	1,426	32.3	13.0	1.90	207	—	78	4	18	58	9	40	124	
West Ham	281,894	9,479	4,291	33.7	15.3	2.65	746	—	139	19	73	167	37	311	146	
East Ham	110,451	3,798	1,207	34.5	11.0	1.62	177	—	40	13	14	37	15	58	111	
Leyton	107,153	3,267	1,154	30.6	10.8	1.64	177	—	39	13	27	43	12	43	103	
Walthamstow	106,290	3,495	1,177	33.2	11.2	1.91	201	—	53	7	18	34	19	70	113	
Hastings	66,194	1,208	851	18.3	12.9	0.69	45	—	11	1	6	12	1	14	106	
Brighton	125,405	3,046	1,784	24.3	14.3	0.85	106	—	6	—	32	13	5	50	114	
Portsmouth	194,960	5,431	2,867	27.9	14.7	1.50	291	—	17	27	75	34	23	115	114	
Bournemouth	63,132	1,119	762	17.8	12.1	0.40	25	—	—	1	8	3	4	9	81	
Southampton	110,120	3,102	1,513	28.2	13.8	1.31	145	—	1	10	28	28	20	58	116	
Reading	75,082	2,021	952	27.0	12.7	0.94	70	—	6	2	15	17	4	26	121	
Northampton	89,863	2,187	1,272	24.4	14.2	1.54	140	—	10	25	21	32	7	45	139	
Ipswich	68,818	1,943	1,046	28.3	15.2	1.41	97	—	48	—	8	11	5	25	140	
Great Yarmouth	51,851	1,422	939	27.5	18.2	2.59	134	—	12	26	44	13	6	33	122	
Norwich	114,351	3,179	1,737	27.9	15.2	1.13	129	—	1	15	12	8	7	86	150	
Plymouth	112,022	2,847	1,844	25.5	16.5	1.16	130	—	5	14	14	27	15	55	144	
Devonport	73,815	2,088	1,040	27.4	14.1	0.94	69	—	15	10	8	8	2	26	118	
Bristol	338,895	9,257	4,825	27.4	14.3	1.07	364	3	11	50	118	67	21	94	116	
Hanley	63,205	2,199	1,178	34.9	18.7	3.08	194	7	1	6	77	16	9	78	173	
Burton-on-Trent	51,450	1,362	632	26.5	12.3	0.55	27	1	3	5	2	7	1	8	93	
Wolverhampton	96,947	2,944	1,502	30.5	15.5	1.97	190	—	54	15	9	7	18	87	141	
Walsall	89,878	3,046	1,474	34.0	16.4	1.83	165	4	3	25	9	37	17	70	150	
Handsworth	57,557	1,460	597	25.4	10.4	0.76	44	—	7	11	3	3	—	20	100	
West Bromwich	66,558	2,299	1,116	34.6	16.8	2.36	156	—	42	25	19	11	9	50	159	
Birmingham	533,039	16,897	9,449	31.8	17.8	2.33	1,230	12	193	141	136	93	67	588	159	
Kings Norton	63,717	1,753	633	27.5	10.0	0.75	48	1	7	16	5	6	2	11	98	
Smethwick	58,787	1,978	790	33.7	13.5	1.08	63	1	5	6	11	16	9	15	140	
Aston Manor	79,417	2,271	1,100	28.7	13.9	2.26	179	4	25	18	6	20	8	98	161	
Coventry	72,684	2,160	1,172	29.8	16.2	1.99	144	1	57	4	32	15	1	34	122	
Leicester	220,272	6,015	3,122	27.4	14.2	1.46	319	21	74	15	28	36	14	131	160	
Grimsby	65,772	1,889	931	28.8	14.2	1.94	127	—	—	9	9	27	19	63	167	
Nottingham	245,985	6,945	4,152	28.3	16.9	2.01	495	2	96	35	64	95	35	168	165	
Derby	118,707	3,215	1,609	27.0	13.6	0.87	102	2	5	8	3	32	7	45	128	
Stockport	95,709	2,794	1,761	29.3	18.5	2.34	223	2	41	27	8	52	14	79	185	
Birkenhead	113,598	3,489	1,899	30.8	16.8	2.06	235	5	9	20	11	41	15	134	156	
Wallasey	58,258	1,605	805	27.6	13.9	1.28	74	1	3	18	3	10	5	34	115	
Liverpool	716,810	23,906	14,642	33.4	20.5	2.51	1,790	137	129	191	162	309	162	700	159	
Bootle	60,761	1,999	1,154	33.0	19.0	2.71	164	7	2	27	7	15	13	93	165	
St. Helens	87,259	3,373	1,541	38.8	17.7	1.88	164	—	—	27	22	32	15	68	142	
Wigan	62,165	2,201	1,374	35.5	22.2	4.18	259	1	100	26	13	32	10	77	180	
Warrington	66,370	2,395	1,236	36.2	18.7	3.29	218	4	96	8	11	30	2	67	153	
Bolton	173,401	4,669	3,019	27.0	17.5	1.99	343	3	47	58	37	8	34	156	152	
Bury	58,313	1,322	1,007	22.7	17.3	2.16	126	7	27	9	21	7	5	50	165	
Manchester	553,486	17,704	10,886	32.1	19.7	2.55	1,406	25	349	96	135	213	94	494	169	
Salford	226,480	7,284	4,284	32.2	19.0	2.86	647	7	131	56	86	96	49	222	167	
Oldham	138,786	3,545	2,577	25.6	18.6	2.34	323	23	38	30	54	108	12	58	160	
Rochdale	84,824	2,029	1,451	24.0	17.1	1.36	115	6	4	13	20	42	7	23	141	
Burnley	99,469	2,701	1,901	27.2	19.2	2.82	281	10	17	24	20	56	15	139	217	
Blackburn	131,218	3,288	2,058	25.1	15.7	1.49	194	2	54	14	26	13	17	68	157	
Preston	114,404	3,466	2,131	30.4	18.7	3.09	354	2	103	15	21	62	33	118	161	
Barrow-in-Furness	59,009	1,962	749	33.3	12.7	0.85	50	—	5	—	7	8	14	16	97	
Huddersfield	94,963	2,252	1,584	23.8	16.7	0.84	80	2	—	15	14	16	8	25	120	
Halifax	106,754	2,244	1,599	21.1	15.0	0.72	76	4	6	7	10	19	13	17	122	
Bradford	283,412	6,596	4,633	23.3	16.4	1.36	387	12	15	29	55	90	41	145	148	
Leeds	443,559	12,996	7,325	29.4	16.6	1.76	773	22	123	109	65	119	57	278	153	
Sheffield	425,528	14,091	7,903	33.2	18.6	3.10	1,317	3	337	95	40	258	45	539	182	
Rotherham	57,212	1,969	1,006	34.5	17.6	2.94	167	3	30	9	12	37	10	66	181	
York	80,186	2,340	1,301	29.3	16.3	1.97	158	5	42	12	8	37	5	49	156	
Hull	249,639	7,800	4,212	31.3	16.9	2.19	546	6	104	8	76	23	18	311	162	
Middlesbrough	95,013	3,466	2,040	36.6	21.5	2.97	282	1	72	7	30	16	22	134	186	
Stockton-on-Tees	51,965	1,644	829	31.7	16.0	1.29	67	—	—	14	10	10	7	26	137	
West Hartlepool	67,201	2,274	958	33.9	14.3	0.80	55	1	11	7	12	11	4	9	129	
Sunderland	149,572	5,233	2,974	35.1	19.9	2.37	352	3	121	34	31	50	24	89	157	
South Shields	105,325	3,625	1,805	34.5	17.2	1.09	115	1	13	14	16	3	10	58	131	
Gateshead	115,531	4,118	1,928	35.8	16.7	1.87	217	19	4	37	11	36	5	105	159	
Newcastle-on-Tyne	222,241	6,897	4,259	31.1	19.2	1.24	271	9	12	27	37	51	7	128	165	
Tynemouth	52,531	1,725	952	32.9	18.2	1.42	74	4	9	10	12	11	4	24	162	
Newport (Mon.)	70,217	2,271	1,100	32.4	15.7	1.73	122	—	28	6	9	33	10	36	146	
Cardiff	172,598	5,250	2,408	30.5	14.0	1.32	227	3	27	29	35	38	16	79	123	
Rhondda	119,652	4,897	1,976	41.1	16.6	2.46	293	—	8	37	41	51	44	112	158	
Merthyr Tydfil	71,651	2,744	1,363	38.4	19.1	2.66	190	—	33	29	22	30	28	48	154	
Swansea	95,489	3,049	1,770	32.0	18.6	2.30	218	—	95	12	21	33	11	46	165	

n rate was 0.33 per 1,000, the highest rates being recorded in Totten-, Coventry, Wigan, Warrington, Preston, Sheffield, Middlesbrough, lerland, and Swansea. The 2,160 fatal cases of scarlet fever were equal annual rate of 0.14 per 1,000, which was 0.05 per 1,000 below the rate ortality from this disease during 1902; in London the death-rate butable to this disease was only 0.08 per 1,000, while it averaged 0.17 he seventy-five other large towns, and was highest in Great outh, West Bromwich, Wallasey, Bootle, St. Helens, Wigan, Bolton, shead, Rhondda, and Merthyr Tydfil. The 2,971 deaths from heria gave a death-rate of 0.20 per 1,000, or 0.06 per 1,000 less the rate in the preceding year; in London the rate was per 1,000, while it averaged 0.21 in the seventy-five large pro- al towns, among which the greatest proportional mortality from dis ase occurred in Portsmouth, Great Yarmouth, Bristol, Hanley, ury, Oldham, Bury, and Salford. The 4,922 fatal cases of whooping- n corresponded to an annual rate of 0.33 per 1,000, which was slightly than the rate in the preceding year; in London the death-rate this disease was 0.35 per 1,000, while among the seventy-five other towns the highest rates were recorded in Willesden, West Ham, port, Oldham, Burnley, Preston, Sheffield, and Rotherham. The leaths referred to different forms of "fever" corresponded to an al death-rate of 0.12 per 1,000, against 0.15 per 1,000 in the preceding the "fever" death-rate in London was 0.09 per 1,000, while it ged 0.13 per 1,000 in the seventy-five large provincial towns, among "fever" was proportionally most fatal in Grimsby, Liverpool, e, Bolton, Salford, Preston, Barrow-in-Furness, Middlesbrough, lda, and Merthyr Tydfil. The 10,613 fatal cases of diarrhoea were to an annual rate of 0.71 per 1,000, the rate in the previous year been 0.54; in London the death-rate from this disease was 0.64 per while it averaged 0.73 per 1,000 in the seventy-five other large towns, which the greatest proportional mortality from diarrhoea occurred nley, Aston Manor, Bootle, Wigan, Burnley, Sheffield, Hull, and esbrough.

nt mortality, measured by the proportion of deaths among en under 1 year of age to registered births, was equal to 144 per 00 last year, against 145 in the preceding year. In London the pro- n during the year under notice was 131 per 1,000, while it averaged the seventy-five other large towns, among which the rates ranged 31 in Bournemouth, 84 in Hornsey, 93 in Burton-on-Trent, 97 in -in-Furness, 98 in King's Norton, 100 in Handsworth (Staffs), 103 in , and 106 in Hastings, to 173 in Hanley, 180 in Wigan, 181 in Rother- 82 in Sheffield, 185 in Stockport, 186 in Middlesbrough, and 217 in y.

causes of 2,788, or 1.1 per cent., of the deaths registered in these -six towns last year were not certified; in London the proportion per cent., while it averaged 1.5 per cent. in the seventy-five other owns. All the causes of death were duly certified in Croydon, y, Southampton, Great Yarmouth, and Derby; while the largest tions of uncertified deaths were registered in Liverpool, Bootle, gton, Barrow-in-Furness, Rotherham, South Shields, and Gates-

THE MANCHESTER GUARDIANS AND CREMATION.

would appear to be a movement on foot at Manchester for the n by the guardians of crema ion as the ordinary means of disposal bodies in their charge in default of any special objection on the relatives of the deceased. It has been brought about partly by a y in obtaining any addition to the area of the ground which has been used by the guardians for interments, partly by a feeling part of some persons that funerals so conducted would be of a emly character than those which it has hitherto been possible to to the bodies in question. Apart from these considerations, and n the sanitary aspects of the question, it would appear that it be possible to conclude with the Manchester Crematorium ies an arrangement by which pauper funerals would cost no more y do at present, and considerably less than they are likely to do stem of ordinary interments is maintained.

LAMORGAN AND CARDIFF BOROUGH LABORATORY.

eting, held on February 26th, of the Joint Committee of the an and Cardiff Borough Laboratory, a report was put in by the s, Drs. W. Williams and E. Walford, which showed that the on is duly fulfilling the purposes for which it was established. other work done investigation of the circumstances connected ase of typhoid fever had shown that it was not referable, as to contaminated shellfish, and samples of sewage and tin-plate tory effluents had been examined for the county medical officer . Fluids from a case of suspected plague at Swansea had been d, with negative results. Six medical men were following the ogical course intended for candidates for Public Health s.

THE BUILDING BY-LAWS REFORM ASSOCIATION.

rt presented to the first annual meeting of the Building By-laws Association showed an income of £128 and a balance of £13. nd Verney, Lord Hylton, Mr. Read (Hon. Sec.), and others spoke rt of the objects of the Association which are to secure that ntrol of private buildings shall not extend beyond the demands health and safety, and that encroachment on individual liberty revented. Various specific amendments on law and adminis- re suggested. The Association is properly constituted under nd appeals for public support.

ES OF MEDICAL OFFICER OF HEALTH IN RESPECT TO SMALL-POX.

R is entitled to charge for vaccination work, and if he is not re- for the treatment of infectious cases in the isolation hospital f his duties as medical officer of health he is also entitled to r his treatment of the patients, but not for visiting contacts.

LAXIS OF CONTAGIOUS DISEASES IN ITALIAN SCHOOLS.

t of regulations for the prevention of contagious diseases in as not long ago promulgated by the Italian Government. For tic purposes contagious diseases are divided into two classes, nd acute. In the former category are placed trachoma, ring- h, impetigo, alopecia areata, and certain forms of tuberculosis affecting the skin, the bones, etc. Children suffering from such diseases are allowed to attend school subject to the condition of presenting a medical certificate every fortnight and occupying separate benches in school. Children suffering from acute diseases are not allowed to attend school. In this category is included pulmonary phthisis. In notifying cases of contagious diseases in children medical practitioners are required to state whether the child is attending any school. If there are in the household any school children or tutors or governesses employed in a school, this must also be stated and such persons are to be forbidden to enter any schools.

NOTIFICATION OF PNEUMONIA IN AMERICA.

FROM January 1st health officers in the State of Michigan have been required to make reports of pneumonia in the same manner as consumption, diphtheria, typhoid fever, measles, whooping-cough, meningitis, and small-pox are reported.

REMUNERATION OF POOR-LAW DISTRICT MEDICAL OFFICERS.

DR. HARRY GREY (Kingsbridge, Devon) writes: The action of the South Stoneham Guardians, as reported in the BRITISH MEDICAL JOURNAL of February 27th, p. 507, is on a par with that of the guardians in this union. Two or three weeks ago one of the medical officers wrote to the Board commenting on the increase of his work caused by the lavish distribution of orders to persons who had erstwhile been his private patients, and asking whether the Board, if intending to persist in this course, were prepared to augment his salary. This doctor had been a parish medical officer for a quarter of a century and enjoys (!) now the same salary as fixed fifty years ago for his predecessor. This week another of the parish doctors in the union writes after a year's experience of his work, pointing out that his work barely pays for the extra horse he has to keep for the work. All the medical officers in this union are paid about a quarter of the remuneration they would get for private work, and that, as they know well, is low enough (see letter on Departmental Sweating in the JOURNAL of October 24th, 1903, p. 1095). Yet the answer of the guardians to these two doctors is the same—"they have no observations to make." Underlying this reply is the strongly-felt and frequently-expressed opinion that as there is never any difficulty in filling a vacancy at ever so inadequate a salary, why should the guardians not accept the lowest tender? more especially as, dealing with honourable professional men, they have no fear of the contract not being carried out both in letter and spirit. As for the Local Government Board, that is a broken reed for us to lean upon: the duty of the Local Government Board as regards local administration appears to be to prevent increase of expenditure, rather than to see that the servants of the local bodies get a living wage. It is becoming increasingly evident to me that commercialism can be met only by commercialism, and appeals to fairmindedness, generosity and justice, (which Boards of Guardians and club members are conspicuously wanting in), are only met with derision.

The Editor of the *Kingsbridge Gazette* says this week, "it is becoming increasingly evident that the question of the revision of the medical officers' salaries will have to be undertaken by the local Board of Guardians at no distant date.....We should be the last to advocate extravagance in the administration of public affairs, but we have an equally strong feeling against that style of niggardliness which means inadequate payment for work honestly done," but we have little hope that even public opinion will alter the determination of the Board to buy in the cheapest market, and our help must come from our own profession, if we could only trust them not to undersell us when the struggle begins.

OBITUARY.

DR. AUGUSTUS BROWN, of Horsham, passed peacefully away on February 17th after many months of painful illness patiently endured. Born in the year 1828, the late Dr. Brown was approaching the end of the 75th year of a life which so long as physical health was permitted was devoted to the hard and successful practice of his profession and the relief of suffering. His early career as a student was of decided distinction, for in the years 1853 and 1854 he gained a certificate of honour, and both the gold and bronze medals for anatomy and physiology at "Lane's," otherwise the Grosvenor Place School, which formed the eventual nucleus of the present St. George's Hospital Medical School. He remained there as a demonstrator for some years and amongst other medical men who passed through his hands and afterwards rose to distinction was Mr. Ernest Hart, the late Editor of the BRITISH MEDICAL JOURNAL. The first qualifications that Dr. Brown received were those of M.R.C.S. and L.M. in 1855, to which in the same year he added the licence of the Society of Apothecaries, while some seven years later he took the degree of M.D.St. Andrews. For some years after giving up his appointment at the school he practised in London, and was surgeon to the General Omnibus Company. Later on he went to Sidcup, in Kent, and finally to Horsham, where he remained until his death. There he did not engage in ordinary practice, but so long as his health permitted him to get about at all he was always ready to assist professionally any really poor and deserving person. He was an early member of the Pathological Society, and continued to take an interest in medical matters in spite of ill-health. He retained his membership of the South-Eastern Branch of the British Medical Association up to the day of his death. He is survived by his wife, who during his

last and many previous illnesses was his untiring nurse and devoted companion.

IN Mr. GEORGE ARCHER, of Feltwell Brandon, Norfolk, who died recently, the profession has lost one of its oldest members and a practitioner who, so long as he remained in harness, retained the fullest confidence of his patients and colleagues. Born as far back as 1811 at Barton Mills, Suffolk, Mr. Archer became a student at Guy's Hospital, and in due course received the licence of the Society of Apothecaries. Establishing himself in the country, he contrived to combine with his practice the successful cultivation of his great hobby—farming. He was a Poor-law medical officer, and in 1889 he was awarded a long service pension of £50 a year. Ever taking a keen interest in local affairs, his opinion and views thereon were greatly valued, and he was mainly instrumental in bringing about the construction of the great high road through the fens, a piece of work which was opposed by many at the time, but the value of which is now recognized by all. A natural lover of an open-air existence, Mr. Archer lead a very healthy life and was a good judge of a horse, well known in the hunting field, and an excellent shot; thanks probably to these instincts, he remained an active man to a much greater age than is common, and having lost none of his skill as an obstetrician successfully conducted, at the age of 83, a difficult case of childbirth, involving turning, far away from help of any sort. Though during the last few years of his life he lost the use of his eyes, his other faculties remained unimpaired nearly to the last. His memory in particular was remarkable, and those who conversed with him were much impressed by his keen recollection of bygone incidents.

WE regret to announce the death of Dr. EDWARD GEORGE DUTTON, formerly of Kingsteignton, Devon, and of Plymouth, and quite recently of Clapham, where his death occurred. In entering the medical profession Dr. Dutton was following in the footsteps of his father who was for many years a well-known practitioner in Hammersmith. By him he was sent first to Epsom College and afterwards entered as a student at Guy's Hospital and at the University of Durham. In 1876 he received the licence of the Society of Apothecaries and in the same year became a Member of the Royal College of Surgeons of England and in the course of time settled down in practice at Plymouth. In that town he carried on a large practice for many years and at the same time entered largely into the public life of the place. He was a member of the School Board and being an active politician of Conservative principals he three times offered himself as a candidate for municipal honours and once with success. He was also a prominent Freemason. Some two years or more ago his health began to fail and in consequence he made over his practice to his brother-in-law, Dr. Bate, and went on a voyage to the Cape. Returning in somewhat improved health he started in practice again at Kingsteignton, Devonshire, but not very long afterwards again had to relinquish work and this time went out to Australia. On his return he settled down at Clapham; he was believed to be growing stronger and his death was somewhat sudden and unexpected. Dr. Dutton was a kind-hearted man and particularly considerate to his poorer patients, amongst whom he was especially popular; the news, therefore, of his death has been received with much regret by many people and particularly at Plymouth where he was so very well known. He was for many years a member of the British Medical Association, and early in his career contributed a few papers to the medical journals, publishing also a small pamphlet upon quackery and consumption. He leaves behind him a widow and a son and daughter, both of them young.

DR. AMBROISE AUGUSTE LIÉBAULT, of Nancy, the founder of treatment by hypnotic suggestion, died a week or two ago at the age of 80. Born at Favières, in the Meurthe Department, on September 16th, 1823, he studied medicine at Strassburg, and took his Doctor's degree in 1850. The subject of his inaugural thesis was Femoro-tibial Disarticulation. He soon abandoned surgery and devoted himself to the study of hypnotism. After practising for a year at Pont-Saint-Vincent he settled in Nancy, where he opened a clinic for the gratuitous treatment of poor patients by suggestion. In this way he soon secured a large field for observation, and he published the results of his researches in 1866 in a work entitled *Sleep and Certain Analogous States*. He was the precursor of Charcot in the investigation of these phenomena. For many years he was generally looked upon as an impostor it was not indeed till in the early Eighties, when Bernheim Beaunis, Liégeois, and others, inspired by his teaching founded what is known as the Nancy School of Psychotherap that his work obtained any public recognition. In 1891 number of his pupils subscribed to present him with an inte national token of respect in the form of a work of art. 1902 a commemorative tablet was placed on the house i which he was born. His method of treatment by suggestic is used to a greater or less extent by many practitioners. addition to the work already mentioned, Dr. Liébault was th author of a treatise on treatment by suggestion (1891) and a number of papers on that and related subjects. He w Honorary President of the First and Second Congresses Hypnotism. Whatever the real value of his life-work ma finally prove to be, there can be no doubt of his absolu honesty of purpose and sincerity of conviction.

WE regret to record the death of Mr. GEORGE WELFORD, Co sulting Surgeon of the Sunderland Infirmary, which took pla on March 11th in the eighty-ninth year of his age. Born the year 1816 Mr. Welford turned very early towards medicir being apprenticed to Dr. Craudace when he had only reach his fourteenth year. In 1847 he was admitted to the membe ship of the Royal College of Surgeons of England, and th went to Sunderland as House-Surgeon of the Infirmary. few years later he obtained the diploma of L.S.A. and th began practice in partnership with Dr. Watson. At a lat date Dr. E. A. Maling became his partner and the practi which they carried on between them was one of the large and most successful in the North of England at that da So long as he remained in practice Mr. Welford enjoyed great and deserved reputation as a Surgeon, and he w indeed one of the first in England to carry the operation ovariotomy to a successful conclusion. He gave up practi a great many years ago and underwent an operation for doul cataract; nevertheless his reputation as a medical man p sisted and his advice from time to time continued to sought both by members of the profession and by the publ While a very young man Mr. Welford became a Freemaso and passing through various offices celebrated the jubilee his admission to that fraternity in the year 1887, being then Past-Master. He was also the first surgeon appointed to t Sunderland Artillery Volunteers. He was a member of t Sunderland Division of the North of England Branch of t British Medical Association, and upon the occasion of t general meeting held in Newcastle some forty years ago all in his power to make that meeting a success.

WE regret to announce the death of Dr. CARL GENT Königlicher Sanitätsrath, of Bad Langenschwalbach, G many, which took place on December 31st, 1903, at Wi baden. He studied at the Universities of Würzburg, Berl Prague, and Marburg, took his M.D. degree in 1868, and sett down in his native town, where his professional skill soon rais him to a leading position. He was a man of great learning all branches of medical science, and his name was well kno far and near as an able physician. He wrote a work on H Schwalbach as a watering place, an article published in *Year Book* of the Natural Science Society of Nassau on effect of iron on the digestive organs, and in conjunction w his friend Professor Pagenstecher compiled an *Atlas of Pathological Anatomy of the Eye*. He was the possessor several distinguished orders bestowed on him in recognit of his merits. Dr. Genth was widely known in England, will be regretted by all who knew his kindness of heart have had the privilege of his advice and ever-ready gener help.

DEATHS IN THE PROFESSION ABROAD.—Among the memb of the medical profession in foreign countries are Dr. J J. Flores, formerly Minister of the Interior of the Repu of Costa Rica and sometime Dean of the Medical Fac of San José; Dr. Liétard, of Plombières, for many ye Mayor of that town, a Corresponding Member of the P Academy of Medicine, and an authority on Indian medi and anthropology, aged 70; Dr. Passaut, President of French Society of Hygiene and founder of the Night Med Service of Paris; Dr. Emminghaus, sometime Professo Psychiatry in the University of Freiburg; and Dr. Blix, fessor of Physiology in the University of Lund, Swe aged 55.

MEDICAL VACANCIES AND APPOINTMENTS.

VACANCIES.

list of vacancies is compiled from our advertisement columns, where full rticulars will be found. To ensure notice in this column advertisements st be received not later than the first post on Wednesday morning.

AST: QUEEN'S COLLEGE.—Riddel Demonstrator of Pathology and Bacteri ogy. Salary, £150 per annum.
KENHEAD BOROUGH HOSPITAL.—Senior and Junior House-Surgeons, sident. Salary, £100 and £80 per annum respectively.
INGHAM AND MIDLAND FREE HOSPITAL FOR SICK CHILDREN.—(1) esident Medical Officer. (2) Resident Surgical Officer. Salary, £60 per annum ing to £80 each.
GNORTH AND SOUTH SHROPSHIRE INFIRMARY.—House-Surgeon, resident. lary, £100 per annum.
HTON: SUSSEX COUNTY HOSPITAL.—House-Physician, resident. Salary 0 per annum.
TOL ROYAL HOSPITAL FOR SICK CHILDREN AND WOMEN.—House-rgeon. Salary, £120 per annum.
TON: DEVONSHIRE HOSPITAL.—(1) House-Surgeon. Salary, £100 per annum. Assistant House-Surgeon. Salary, £70 per annum. Both resident.
ERBURY: KENT AND CANTERBURY HOSPITAL.—House Surgeon, resident lary, £90 per annum.
HESTER: ESSEX AND COLCHESTER HOSPITAL.—Honorary Assistant rgeon.
INA HOSPITAL FOR SICK CHILDREN, Southwark, S.E.—(1) Assistant House-rgeon, resident. Salary, £70 per annum. (2) Eight qualified Clinical Assistants in Out-patient Department.
INGDON GENERAL DISPENSARY, 17, Barlett's Buildings, E.C.—Honorary ysician.
GOW EYE INFIRMARY.—Resident Assistant House-Surgeon. Salary, £75 per num.
ESEND HOSPITAL.—House-Surgeon, resident. Salary, £100 per annum.
TAL FOR CONSUMPTION AND DISEASES OF THE CHEST, Brompton.—ident House-Physicians. Honorarium, £25 for six months each.
UNION.—Assistant Medical Officer for the Workhouse, Schools, and Infirmary, dent. Salary, £130, rising to £150 per annum.
LN COUNTY HOSPITAL.—Junior Male House-Surgeon, resident. Salary, £25 six months.
ON HOSPITAL, Whitechapel.—Ophthalmic Surgeon.
HESTER NORTHERN HOSPITAL FOR WOMEN AND CHILDREN.—House-geon, resident. Salary, £80 per annum.
HESTER: CHORLTON UPON-MEDLOCK DISPENSARY.—Resident House-geon. Salary, £120 per annum.
RTHOLOMEW'S HOSPITAL, E.C.—Physician.
ARYLEBONE GENERAL DISPENSARY, Welbeck Street, W.—Honorary sician.
N'S HOSPITAL SOCIETY (DREADNOUGHT), Greenwich, S.E.—Junior dent Medical Officer. Salary £40 per annum.
SET AND BATH ASYLUM, Cotford, Taunton.—Assistant Medical Officer, ient. Salary, £160, rising to £200 per annum.
AMPTON: ROYAL SOUTH HANTS AND SOUTHAMPTON HOSPITAL.—se-Physician, resident. Salary, £100 per annum.
NHAM HOSPITAL, N.—Honorary Anaesthetist.
RSITY COLLEGE HOSPITAL.—Assistant Surgeon to the Ophthalmic Depart-t.
RN GENERAL DISPENSARY, Marylebone Road.—Second House-Surgeon, ient. Salary, £80 per annum.

APPOINTMENTS.

T, Wilfrid, M.B., B.S.Lond., M.R.C.S., L.R.C.P., Honorary Ophthalmic Surgeon e Warneford Hospital, Leamington.
, Donald, M.B., M.R.C.P.Lond., F.R.C.S.Eng., Surgeon in charge of the Nose, at, and Ear Department, Belgrave Hospital for Children.
RD, A. C., M.R.C.S., L.S.A., District Medical Officer of the Poplar Union.
S, A. J., M.B., Assistant Medical Officer to the Bethnal Green Parish nary.
NG, Percy, B.S., F.R.C.S., Professor of Ophthalmic Medicine and Surgery in rsity College and Surgeon to the Ophthalmic Department of University College tal.
TON, J., M.B., M.S.Glasg., District Medical Officer of the Lancaster Union.
S., M.B., B.C.Cantab., Certifying Factory Surgeon for the Hastings District, x.
E, Harry, M.R.C.S., L.R.C.P., Junior House-Surgeon to the Croydon General tal, *vice* D. M. Mackenzie, M.B., Ch.B.Aberd.
N, T. Herbert, M.R.C.S.Eng., L.S.A., Medical Officer and Public Vaccinator for averhill District of the Risbridge Union.
H, James De Burgh, M.B., Ch.M.Dub., Physician to Out-patients, Perth Public tal, West Australia.
JM, Otto, M.B., B.C.Cantab., D.Sc.Lond., M.R.C.P., Assistant Physician to the ave Hospital for Children.
, Thomas, M.D.R.U.I., Joint Lecturer on Medical Jurisprudence in the 's College, Belfast.
Barty, M.A., M.D., M.R.C.P.Lond., Honorary Physician to Queen Alexandra's for Officers' Widows and Daughters.
F. H., M.R.C.S., L.R.C.P.Lond., Certifying Factory Surgeon for the Steyning ct, Sussex.
Charles J., L.R.C.P., M.R.C.S., Medical Referee under the Workmen's Com-ion Act for the Crewkerne, Wincanton, and Yeovil Districts in County Court t No. 35, *vice* Dr. Garland, deceased.
Cyril William, M.R.C.S.Eng., L.R.C.P.Lond., Honorary Consulting Surgeon to ttingham General Dispensary.
ETTI, H. H., M.B., B.Ch.Oxon., Medical Officer of Health for the Minehead District.
. C. B., M.R.C.S., L.R.C.P., Senior House-Surgeon to the Croydon General al, *vice* J. F. Robinson, F.R.C.S.
, Henry Martyn, M.B., Ch.B.Edin., Police Surgeon to the Amble District of rthumberland County Constabulary.
avid, M.A., M.D.Edin., Honorary Assistant Gynaecologist at Brisbane General al.
K, H. B., M.B., B.Ch.Vict., District Medical Officer of the Chorlton Union.

BIRTHS, MARRIAGES, AND DEATHS.

e for inserting announcements of Births, Marriages, and Deaths is which sum should be forwarded in post-office orders or stamps with ce not later than Wednesday morning, in order to ensure insertion in ent issue.

MARRIAGE.

—ROBINSON.—On March 9th, at Christ Church, Gateshead, by the Rev. F. C. ald, M.A., John Dobson Wardale, M.B., B.S., youngest son of John Dobson e, Esq., J.P., M.Inst.C.E., Gateshead, to Annie Georgina Robinson, eldest er of J. W. Robinson, Esq., of Gateshead and Haydon Bridge.

DEATH.

—On March 1st, at Foulden Lodge, Upper Clapton, Annie Watson, wife of k Wallace, L.R.C.P.Lond.

DIARY FOR NEXT WEEK.

MONDAY.

Royal College of Surgeons of England, 5 p.m.—Mr. E. M. Corner: On Acute Infective Gangrenous Processes in the Alimentary Tract (Erasmus Wilson Lecture I).

TUESDAY.

Royal College of Physicians of London, 5 p.m.—Dr. F. Taylor: On Some Disorders of the Spleen (Lumleian Lecture II).

Royal Medical and Chirurgical Society, 20, Hanover Square, W., 8.30 p.m.—Mr. J. W. Thomson Walker: The Surgical Anatomy of the Normal and the Enlarged Prostate and the Operation of Suprapubic Prostatectomy. Dr. W. Aldren Turner: The Mental Condition in Epilepsy in Relation to Prognosis.

WEDNESDAY.

Royal College of Surgeons of England, 5 p.m.—Mr. E. M. Corner: On Acute Infective Gangrenous Processes in the Alimentary Tract (Erasmus Wilson Lecture II).

Hunterian Society, London Institution, Finsbury Circus, E.C., 8.30 p.m.—Dr. Paul Franze of Nauheim will give a description of the Nauheim Treatment, which will be followed by a discussion.

THURSDAY.

Royal College of Physicians of London, 5 p.m.—Dr. F. Taylor: On Some Disorders of the Spleen (Lumleian Lecture III).

FRIDAY.

Royal College of Surgeons of England, 5 p.m.—Mr. E. M. Corner: On Acute Infective Gangrenous Processes in the Alimentary Tract (Erasmus Wilson Lecture III).

Clinical Society of London, 20, Hanover Square, W., 8.30 p.m.—Dr. E. W. Goodall: Two Cases of Intestinal Obstruction immediately following an Attack of Typhoid Fever. Mr. W. G. Spencer: A Case of Severe and Fatal Haematuria of Unknown Origin. Mr. Cuthbert S. Wallace and Mr. H. J. Marriage: A Case of attempted Division of the Eighth Nerve within the Skull for the Relief of Tinnitus.

POST-GRADUATE COURSES AND LECTURES.

Hospital for Sick Children, Great Ormond Street, W.C., Thursday, 4 p.m.—Lecture on The Use and Abuse of Artificial Foods in Infant Feeding.

London Temperance Hospital, Hampstead Road, N.W., Wednesday, 4 p.m.—Lecture on Diseases of the Stomach.

Medical Graduates' College and Polyclinic, 92, Chenies Street, W.C.—Demonstrations will be given at 4 p.m. as follows; Monday, Skin; Tuesday, Medical; Wednesday, Surgical; Thursday, Surgical; Friday, Eye. Lectures will be delivered at 5.15 p.m. as follows: Monday, On Neurotic Children; Tuesday, Spa Treatment and some of its Indications; Wednesday, On Neurotic Children; Thursday, Some General Principles of Treatment in Dermatology.

National Hospital for the Paralysed and Epileptic, Queen Square, W.C., Tuesday, 3.30 p.m.—Lecture on Chorea.

North-East London Post-Graduate College, Tottenham, N., Thursday, 4.30 p.m.—Lecture on Ulcerative Endocarditis.

Post-Graduate College, West London Hospital, Hammersmith Road, W.—Lectures will be delivered at 5 p.m. as follows: Monday, Stricture of the Urethra; Tuesday, The Relationship of Insanity to Inebriety; Wednesday, Common Disorders of Menstruation: Thursday, Administration of Anaesthetics; Friday, Clinical Forms of Insanity.

LETTERS, NOTES, AND ANSWERS TO CORRESPONDENTS.

COMMUNICATIONS respecting Editorial matters should be addressed to the Editor, 2, Agar Street, Strand, W.C., London; those concerning business matters, advertisements, non-delivery of the JOURNAL, etc., should be addressed to the Manager, at the Office, 429, Strand, W.C., London.

ORIGINAL ARTICLES and LETTERS *forwarded for publication are understood to be offered to the* BRITISH MEDICAL JOURNAL *alone, unless the contrary be stated.*

AUTHORS desiring reprints of their articles published in the BRITISH MEDICAL JOURNAL are requested to communicate with the Manager, 429, Strand, W.C., on receipt of proof.

CORRESPONDENTS who wish notice to be taken of their communications should authenticate them with their names—of course not necessarily for publication.

CORRESPONDENTS not answered are requested to look at the Notices to Correspondents of the following week.

MANUSCRIPTS FORWARDED TO THE OFFICE OF THIS JOURNAL CANNOT UNDER ANY CIRCUMSTANCES BE RETURNED.

IN order to avoid delay, it is particularly requested that ALL letters on the editorial business of the JOURNAL be addressed to the Editor at the Office of the JOURNAL, and not at his private house.

TELEGRAPHIC ADDRESS.—The telegraphic address of the EDITOR of the BRITISH MEDICAL JOURNAL is *Aitiology, London.* The telegraphic address of the MANAGER of the BRITISH MEDICAL JOURNAL is *Articulate, London.*

TELEPHONE (National):—
EDITOR, 2631, Gerrard.
GENERAL SECRETARY AND MANAGER, 2630, Gerrard.

☞ *Queries, answers, and communications relating to subjects to which special departments of the* BRITISH MEDICAL JOURNAL *are devoted will be found under their respective headings.*

QUERIES.

BLEEDING IN PNEUMONIA.

DR. ARTHUR TODD-WHITE (Leytonstone) writes: I see Dr. T. A. Dukes advocates bleeding in pneumonia. I once tried it in a case in which the circulatory organs seemed overloaded, but it was a last effort to save the patient and unfortunately failed. Do I understand that Dr. Dukes would bleed at the commencement of the attack?

MOSQUITOS.

B. G. W. writes: In the introductory remarks (p. 29) in the work *From Kulja Across the Tian Shan to Lob Nor* (1879) it is stated that the people of Lob "wear clothes of a coarse strong material called luf, the fibre of a plant which has a flower and a pod like the wild liquorice. It protects the wearer from the attacks of gnats and mosquitos, which never alight on the cloth." Is anything known at the present day of this plant, which would seem to be of a very valuable nature with respect to protection from mosquitos?

COUGH IN PHTHISIS.

COUGH writes: A man, aged 49, suffering for at least the last ten years from pulmonary phthisis, complains that whenever he commences to read either book or newspaper he is compelled to desist after a few

minutes by uncontrollable coughing. Cough sedatives seem to have no influence, but the paroxysms soon cease when he puts the book down. His friends assure me that there is no doubt about the fact, but I have never heard of such a reflex, nor can I obtain any information on the matter.

HEROIN.

DR. HARRY M. ROBERTS (Stevenston, Ayrshire) writes: The frequent prescribing of heroin in the treatment of irritable cough of phthisis and various forms of laryngeal irritation, and the zeal with which proprietary owners circulate literature concerning this drug amongst members of the medical profession make the following extract from a recent number of the *Chemiker Zeitung* interesting and instructive. The reference is on p. 101 of February 3rd last, and is translated as follows: "A. Böhning has proved that heroinum hydrochloricum decomposes easily into acetic acid and morphine hydrochloride. The substance is especially unstable in aqueous solution, and temperature exercises an important influence. A solution decomposes at 15° C. in three days, at 33° C. in eight hours, and at 70° C. in a few minutes. I shall be glad to learn from members who, like myself, are in the habit of using this drug if they have found a mixture to lose its efficacy after three days.

PRIMARY VESICAL TUBERCULOSIS.

T. W. B. has under his care a girl, aged 16. Otherwise quite healthy, she has slight pain in the bladder region relieved by micturition, the latter being followed by a drop of blood. Corresponding symptoms occurred two years ago, but passed off. The urine is faintly acid, specific gravity 1016, and contains a little albumen and a trace of blood. Under the microscope are seen a little pus, cells from the deeper layers of the vesical epithelium, minute crystals of calcium oxalate, and tubercle bacilli in small number. His diagnosis is primary tuberculosis of the bladder. This being a rare disease, he asks how it could have originated and for suggestions as to the best line of treatment; he would also like to hear of other cases.

INCOME-TAX.

LEO writes: My income from all sources, after deducting expenses of practice, is £612. The surveyor states I am only entitled to a reduction of £60 on the above amount. After deducting life insurance premiums and private income (derived from stocks from which income-tax is already deducted), I find my income is £450, and consequently I claim a deduction of £160. Who is right?

*** The surveyor is right, but the amount of abatement allowable is £70 and not £60. This amount is determined by the total income of the claimant from all sources: and as our correspondent's total income is £612, he is only entitled to the abatement applicable to incomes between £600 and £700—viz. £70. In order to arrive at the amount of the total income for the purposes of abatement life insurance premiums may not be deducted. See the BRITISH MEDICAL JOURNAL for June 20th, 1903, article "Income-tax Assessment," where the question of abatement is fully dealt with.

ANSWERS.

ROENTGEN-RAY INSTALLATION.

DR. GEORGE B. BATTEN (Dulwich, S.E.) writes: "J. H. L. A." does not state whether current from main at 230 volts is constant or alternating. For constant current the best interrupters are Mackenzie Davidson's, made by Cox, or the "Wodal," by the Sanitas Electrical Company, or my dipping break. If alternating current is supplied a transformer with my rectifying interrupter does very well, as described by me in *Medical Electrology and Radiology*, April, 1903, a copy of which I will send if "J. H. L. A." will send me his address. For large hospital work a rotary converter is best; or there is now a system of coil without interrupters at all recently introduced by Schull.

DIABENE.

W. C.—According to a letter published by *Truth*, quoted in the BRITISH MEDICAL JOURNAL for October 17th, 1903, p. 1003, the essential ingredient is extract of jambul, a drug the use of which appears to be followed in certain cases by the diminution or disappearance of sugar. Many references to the alleged utility of jambul are given by Martindale in the *Extra-Pharmacopoeia*, tenth edition, p. 313.

NOTES, LETTERS, Etc.

THE REPETITION OF PRESCRIPTIONS.

DR. DUNLEY OWEN (Barrydale, Cape Colony) writes: For some years I have been in the habit of writing "Not to be repeated" at the head of prescriptions I considered dangerous, for example, containing morphine, etc. That this does not help I have by experience found, as I have a neatly traced prescription in my possession done by a patient who found repetition of the original impossible. In the tracing, needless to say, the obnoxious sentence was omitted. Now I always add, "This prescription to be retained by the chemist," and have found it answer my purpose.

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BOOKS, ETC., RECEIVED.

La Rhinoplastic. Par Ch. Nélaton et L. Ombrédanne. Paris: G. Steinheil. 1904. 15 frs.

Eléments de Pathologie et de Clinique Chirurgicales. Par le Dr. Léon Minac. Huitième édition. Tome premier: Chirurgie des Tissus; Tome deuxième; Chirurgie du Crane, du Tronc et des Membres; Tome troisième: Chirurgie Speciale. Paris: G. Steinheil. 1903.

Laboratory Manual of Physiological and Pathological Chemistry for Students in Medicine. By Dr. E. Salkowski. Translated from Second German Edition by W. R. Orndorff, A.B., Ph.D. First Edition. New York: John Wiley and Sons. London: Chapman and Hall, Ltd. 1904. 10s. 6d.

Directions for Laboratory Work in Physiological Chemistry. By Holmes C. Jackson, Ph.D. Second Edition. New York: John Wiley and Sons. London: Chapman and Hall, Ltd. 1903. 5s. 6d.

Lectures on Diseases of the Lungs and the Heart. By James Alexander Lindsay, M.D., F.R.C.P.Lond., M.A. London: Bailliere, Tindall, and Cox. 1904. 9s.

Les Frontières de la Maladie. Par Dr. J. Héricourt. Paris: Ernest Flammarion. 1904. Fr. 3.50.

Modern Nursing in Private Practice. By Sir William Bennett, K.C.V.O., F.R.C.S. London: Scientific Press, Ltd. 1904. 6d.

The Australian Baby. By J. E. Fergusson-Stewart, M.B., C.M. Third Edition. Midland Junction (W.A.): Swan Express Office.

Guy's Hospital Reports. Edited by J. H. Bryant, M.D., and F. J. Steward, M.S. Vol. lviii. London: J. and A. Churchill. 1904.

Diseases of the Eye. By L. Webster Fox, A.M., M.D. London: Sidney Appleton. 1904. 18s.

A Textbook of Gynecology. Edited by Chas. A. L. Reed, A.M., M.D. Second Edition. New York and London: D. Appleton and Co. 1904. 21s.

Blood Immunity and Blood Relationship. By George H. F. Nuttall, M.A., M.D., Ph.D. Including Original Researches by G. S. Graham-Smith, M.A., M.B., D.P.H.Camb., and T. S. P. Strangeways, M.A., M.R.C.S. Cambridge: University Press. 1904. 15s.

Pharmaceutical Formulas. A supplementary volume. London: The Chemist and Druggist Office. 1904. 10s.

Annales Médicales et Bulletin de Statique de l'Hopital des Enfants Hamidiye. Publié au jour anniversaire de l'avènement au trône de S. M. I. le Sultan. Sous la direction du médecin en chef, IV Année. Constantinople: Imprimerie Osmanié. 1903.

The Still-Room. By Mrs. Charles Rounthwaite and Harry Roberts. London and New York: The Bodley Head. 1903. 3s.

Insomnia: Its Causes and Cure. By James Sawyer. Birmingham: Cornish Bros. 1904.

Contributions to Practical Medicine. By James Sawyer. Fourth Edition. Birmingham: Cornish Bros. 1904.

Transactions of the American Gynecological Society. Volume 28. For the year 1903. Philadelphia: Wm. J. Dornan. 1903.

Die Neutrophilen weissen Blutkörperchen bei Infektions-Krankheiten. Von Joseph Arneth. Jena: Gustav Fischer. 1904. M. 10.

Scientific Memoirs by Officers of the Medical and Sanitary Departments of the Government of India. New Series. No. 7. Some Observations on the Poison of the Banded Krait (Bungarus Fasciatus). By Captain George Lamb, M.D.Glasg., I.M.S. Calcutta: Office of the Superintendent of Government Printing. 1904. 9d.

The "Nauheim" Treatment of Chronic Diseases of the Heart in England. By Leslie Thorne Thorne, M.D., B.S. Durham, M.R.C.S.Eng., F.R.C.P.Lond. London: Bailliere, Tindall, and Cox. 1904. 2s. 6d.

Medical Monograph Series, No. 8. Insanity in Everyday Practice. By E. Younger, M.D.Brux., M.R.C.P.Lond., D.P.H., etc. London: Bailliere, Tindall, and Cox. 1904. 2s. 6d.

The "Model Engineer" Series, No. X. X Rays Simply Explained. By E. Howgrave-Graham. London: Percival Marshall and Co. 6d.

Stretcher Drill, illustrated. By Major de Zouche Marshall. Second Edition. Teddington: Published by Author. 1904. 3s.

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REPORT LXXXI.

IE COAGULATION TIME OF THE BLOOD IN PREGNANT AND PUERPERAL WOMEN SUFFERING FROM ALBUMINURIA AND ECLAMPSIA.

By CARSTAIRS DOUGLAS, M.D., B.Sc., F.R.S.Edin.,
fessor of Medical Jurisprudence and Hygiene, Anderson's College Medical School; and Pathologist, Maternity Hospital, Glasgow.

HOUGH a study of the coagulability of the blood in pregcy is one deserving attention, it is not my purpose to l with it in this paper. It is being investigated at present another worker at the Glasgow Maternity Hospital, and results when published will, I trust, be a useful addition our knowledge of the haematology of pregnancy and the rperium. My own attention has been directed primarily consideration of the coagulation time of the blood in gnant and puerperal women who were the subjects of mpsia and albuminuria, and the investigation was undern for the special purpose of determining whether there or was not on the part of such subjects a tendency for blood to clot more rapidly than in health—whether, in t, such patients had a shortened coagulation time.

April, 1901, Dr. Hey Groves read a communication re the Obstetrical Society of London in which he gave ils (clinical and *post mortem*) of a case of eclampsia, and ussed in some fullness his own views as to the pathosis of the condition. He held that the essential lesion isted in the formation of minute capillary thrombi, with morrhagic infarcts and necrosis of the surrounding cells. se thrombi occurred most frequently in the liver, the eys, and the brain, and by their presence gave rise to the nd the coma. Dr. Hey Groves attributed the more ready ation of thrombi in eclampsia to an increased coagula- of the blood, this alleged increase in its turn being due e presence of toxins which originate in the placenta, the , and the alimentary canal.

at thrombi might be found at the necropsy in cases of mpsia, and that these thrombi were situated chiefly in iver, has been known for some time, attention having directed to them a number of years ago by various vers, among whom may be mentioned Schmorl,[1] pf,[2] Gerdes,[3] Klebs, and Dührssen.[4] By some, how- their existence was attributed to the bruising of the which it undergoes during pregnancy and under the at efforts of delivery. Klebs indeed inclined to the on that thrombi composed of multiple liver cells had thing to do with the onset of the convulsions, and in he was supported by Schmorl; he held, however, that arose, not from an increased coagulability of the blood, s already pointed out, from a bruising of the liver tissue

r, although I am at one with Dr. Hey Groves in regardpsia as due to a toxaemia, I am not prepared to support heory that multiple thrombi are very common in the e, and that they are to be regarded as a causal factor in oduction of convulsions and coma alike. I have had portunity during the past four years in my capacity as logist to the Glasgow Maternity Hospital of seeing a large er of cases of eclampsia patients, and of making the psy in seven or eight fatal cases. In most of these cases scopical examination of the liver or kidneys or both was and I cannot say that the results obtained support the tion that in general thrombi occur as part of the patho- changes in eclampsia. The organ I have usually found altered is the liver, and besides the macroscopic altera- which have frequently been very striking, various micro- changes have been noted, such as thrombi (occasional), rrhages, fine granular degeneration in the hepatic cells nlargement of the nuclei, and areas of necrosis. These s I am inclined to refer to the direct action of a toxin blood, just as the changes met with in the kidney in instances are those of a toxic nephritis. There is, however, a clinical method which one may employ in a matter of this kind, and that is the determination of the coagulation time of the blood during life by some such instrument as Wright's coagulometer. This has been done in the present instance, but before giving details of the method and the results obtained, it may not be out of place to consider briefly the general changes in the blood of the pregnant and puerperal woman.

In general terms it may be said that the total quantity of blood is raised in pregnancy; that the leucocytes, fibrin, and probably the haemoglobin are increased in amount, while the red cells are if anything diminished. Regarding some of these points the following are some of the results obtained by more or less modern observers:

1. The volume of the blood is increased during pregnancy. In 6 non-pregnant animals it was 7.8 per cent. of the body weight, while in 10 similar animals but pregnant it was 9 per cent. (Spiegelberg and Geschleiden[5]).

2. There is sufficient evidence from recent work to indicate that the old idea of poverty of haemoglobin in pregnancy is untenable. Fehling,[6] Winckelmann, and Reihl (quoted by Buist[7]) all found that in the majority of pregnant women the haemoglobin was fully up to the average, while in a considerable number of cases it surpassed it. Schroeder[8] actually found, out of 34 women examined during pregnancy, that over 70 per cent. of them gained in haemoglobin.

3. Observations recently carried out point to the fact that there is not nearly so great a diminution in the red cells as is frequently stated in textbooks; and, indeed, the ordinary pregnant woman has not much less than her full complement of erythrocytes. Bernhardt,[9] for example, in healthy non-pregnant women found the average red-cell count to be 4,450,000 per c.mm., while in 32 pregnant women examined *ante partum* he had no average under 4,500,000, and even *post partum* the figures did not fall below 4,360,000. Henderson,[10] working in this hospital, in 45 cases (during and just after delivery) obtained counts varying from 2,260,000 to 5,000,000 per c.mm., and having an average of close on 4,000,000. In the Edinburgh Maternity Hospital, Elder and Hutchison[11] obtained very similar figures from 16 women at parturition, their average being 3,978,000.

4. The leucocytes are normally increased in pregnancy, especially towards the latter months. Henderson[12] in 36 normal cases obtained at term figures ranging from a little over 10,000 to 36,600 per c.mm., the average being 21,365. Elder and Hutchison[13] give figures varying between 8,000 and 25,000, with an average of 14,500, which is 33 per cent. lower than Henderson's.

5. The density of the blood was studied a good many years ago by Nasse,[14] who found it always somewhat lowered in pregnancy, though not to any great extent. It receded most from the normal between the sixth and eighth months. The fibrin he found increased by nearly 4 per cent. The water and fat he also found increased, and the salts of the blood diminished. Nasse's observations would bear repetition.

6. The coagulation time in normal pregnant and puerperal women has hardly been worked at at all. As mentioned already this paper deals specially with the question of the alleged tendency of the blood in eclamptics to form thrombi readily, and the means adopted to try to settle the point clinically is by a determination of the coagulation time.

Procedure.

The instrument employed was the latest form of Wright's coagulometer, as made by Hawksley, London, which consists of a numbered series of glass tubes, each being in calibre approximate to the measuring tube in the ordinary Gowers haemoglobinometer, and each having a mark of 5 c.mm. The observations should be made with the tubes at a temperature of 67° F., or that of an ordinary room on a summer day. In cold weather the tubes can be raised to the requisite temperature by standing them in a water bath, the entrance of water into the tubes being prevented by a small rubber cap drawn over the end of each.

In using the tubes the finger or lobe of the ear is pricked. I prefer the latter region. It is necessary that the blood should come somewhat freely, hence the puncture should be made with a fine sharp-pointed bistoury rather than with a needle. As the blood is flowing, tube after tube is filled in order up to the 5 c.mm. mark, though it does not signify if a little more or less is drawn in. Each tube should be wiped clean at the end after filling, and the column of blood should be aspirated up a little way from the end of the tube. This prevents early clotting of the blood, and the cushion of

air also serves to prevent the entrance of water and its touching the blood in case the tubes require to be replaced in the water bath (thus obviating the need of putting on the caps again).

The time of filling of each tube is carefully noted by the watch, and I have made it a point throughout to fill at intervals of a quarter or half minute, avoiding intermediate times and odd seconds. After, let us say, ten tubes are filled, the observer may remove them from the bedside and complete the matter at a window, table, or other convenient place. An effort is now made to blow the blood out of each tube in succession, noting carefully the time between filling and blowing, till at length a tube is found from which the blood cannot be expelled. The time that has elapsed between filling and blowing out of this particular tube gives the "coagulation time."

We begin, for example, with No. 1 after 5 minutes (the time always being counted from the moment of filling), and we find the blood slips out easily. We next try No. 2 at 6 minutes, and again we can readily dislodge the blood. A third attempt is made with No. 3 after 7 minutes, and noted that partial clotting has commenced. Accordingly No. 4 is tried at $7\frac{1}{2}$ minutes, and clotting is found to be complete. But it may be that $7\frac{1}{4}$ minutes is the time and not $7\frac{1}{2}$, so we go on forward a tube or two, and try one at $7\frac{1}{4}$, when we find clotting complete. We finally try another at the same interval, and obtain a like result, from which we state that the coagulation time is $7\frac{1}{4}$ or possibly a little less, but not so short as 7 minutes. I have regarded intervals of one-quarter of a minute as small enough. In the instance I have given, if we tabulate our results in the way I usually do, we get the following statement:

Example.—Mrs. M., 1-para, aged 26. Severe eclampsia third day of puerperium. Fits *ante-partum*, and *inter-partum*, none *post-partum* Albuminuria marked. Examined March 27th, 1902.

No. of Tube.	Time of Filling.	Interval.		Time for Blowing Out.	Coagulation.
1	11.5 a.m.	+ 5	=	11.10	Negative.
2	11.5¼ a.m.	+ 6	=	11.11¼	Negative.
3	11.5½ a.m.	+ 7	=	11.12½	Partial,
4	11.5¾ a.m.	+ 7½	=	11.13¼	Complete.
*5	11.6 a.m,		=		
6	11.6¼ a.m.	+ 7¼	=	11.13½	Complete.
7	11.6¾ a.m.	+ 7¼	=	11.14	Complete.
8	11.7 a.m.	+	=		
9	11.7½ a.m.	—	=		

* No. 5 is not used, as $7\frac{1}{4}$ added to its time of filling would give the same time for blowing out as No. 4, namely, 11.13¼ minutes.
Coagulation time = $7\frac{1}{4}$ minutes.

It does not always happen, of course, that the observation is ended so quickly. One or two precautions have to be observed.

1. The tubes must be quite dry inside when used otherwise the coagulability appears to be diminished. Drying of the interior of the tubes is accomplished in the usual way by first washing them through with absolute alcohol, then with ether, and then aspirating air through.

2. The tubes should be as near the temperature of 67° F. as possible; if much below this, for example, at 44° F., the coagulation time I found was delayed; if a little above it, for example, at 81° F., there was little difference.

3. The personal equation bulks largely in the use of a clinical instrument of this sort, and therefore in any given set of observations the same person must always perform the "blowing out" part.

4. After use the tubes must be cleaned at once by means of fine wire and then dried. If old blood is allowed to harden inside the tubes it is difficult to remove it sometimes. It may be got rid of by peptonization—done by placing the tube in a test tube of warm water containing a little liquor pepticus, acidulated by hydrochloric acid.

With these preliminary remarks we may now proceed to the consideration of the results obtained. Between 300 and 400 observations were made, and on the following groups of cases:—(1) Cases of albuminuria (pregnant and puerperal); (2) cases of eclampsia (pregnant, parturient, and puerperal); (3) cases of healthy puerperae; (4) cases of healthy pregnant women; (5) cases of healthy non-parous women. Unfortunately, the detailed reports of a considerable number of the earlier cases were lost through the accidental destruction of a notebook, but a large number still remained for arrangement. I have not given the figures for individual observations, but have collected the results of each group in a more condensed form.

I.—*Cases of Albuminuria (Pregnant and Puerperal).*

There were in all 16 cases observed, 6 in pregnancy (near full time) and 10 in the puerperium. Some of them were very severe. Of the 6 undelivered cases, the average coagulation time was 5.6 minutes, being the shortest found in any group of cases; the limits ranged from 4.7 to 7.5. Of the 10 albuminurics examined after delivery, the average period was 7 minutes, the numbers varying between 5.6 and 10. None of these patients developed eclampsia.

In looking over my notes of these cases I observe that one, a 2-para examined in the puerperium, suffered from eclampsia in her first confinement eighteen months previously. In another case of albuminuria with mitral stenosis it was noted at the time that the blood looked very watery. On two occasions in this the coagulation time was protracted to 9 minutes. I shall have occasion to refer to this group again.

II.—*Cases of Eclampsia (Pregnant, Parturient, and Puerperal).*

Of these no fewer than 22 were examined in the course of a little over two years. Many of them were very severe, and several proved fatal; 5 cases were obtained before delivery, and the average coagulation time obtained was 7.4 minutes, the figures extending from 4.5 to 9 minutes. In one of these with *ante-partum* fits and a contracted pelvis, the coagulation time on admission was 4.5 minutes. A Porro operation was performed. The blood time on the second day of the puerperium was 4.7 minutes, while on the fourth it was 5 minutes. In addition to the 5 cases examined before delivery there were 17 where the first observation was possible only in the early puerperium. Of these the coagulation time varied from 4.5 minutes to 9.5, the average being 7. Some of the cases are worthy of short comment. That with the longest time (greatest diminution of coagulability) was a primipara of 18, who had severe eclampsia, *post partum* in incidence. She was transfused with 2 pints of normal saline solution. On the third day of the puerperium the time was 6.5 minutes, on the fourth day 8.75, on the sixth day (by which time she had developed jaundice) it was 8.5, and on the ninth day it was 9.5. In another case, where no fewer than 6 pints of saline solution had been given subcutaneously the coagulation time was only 7.5 minutes, though one might reasonably have supposed it would be longer. We see from this not inconsiderable number of cases that there is nothing here to support the view that the blood clots more readily in eclamptics.

III.—*Normal Puerperae (Non-albuminuric).*

A large number of these were examined, and the average time was found to be 7.3 minutes, the shortest being 4.75 and the longest 9.5. Of three cases showing this lengthened time, one was a case of accidental haemorrhage, one had had severe bleeding at her last confinement, and the third was a normal case. In another case, a 2-para, aged 22, with a period of 7.25 minutes, bled freely at labour, while another, also 2-para, bled freely *post partum*, the coagulation time being extended to 9.25 minutes. Two other cases of *post-partum* bleeding were found to have a lessened coagulability, the times being 8 and 9.25 minutes respectively as maxima. As a rule, it was found that the coagulation time lengthened in the early days of the puerperium, attained a maximum, and then shortened again. This is what one would have expected, the loss of blood at labour being compensated for by lymph from the tissues (coagulating more slowly than normal blood), and this in its turn becoming more dense as regeneration of the various elements takes place.

IV.—*Healthy Pregnant Women.*

Seven cases were examined in this group, with the result that the coagulation time was found to average 7.4 minutes, the figures ranging from slightly below 5 in a full-time 1-para to 9 in a seven-month 3-para. Only one case showed anything of special interest, and that was a 2-para, aged 30, the subject of phlebitis; her coagulation time was 7.5 minutes, showing no shortening.

V.—*Healthy Non-pregnant Women.*

In addition to the examination of 7 healthy pregnant women, observations were made on 10 healthy non-pregnant females, with the result that an average period of 7.75 minutes was obtained, the shortest and longest times being 5 and 10 minutes respectively. The last is a prolonged coagulation time, and no explanation can be given as to why it should have occurred in this case, the subject being a healthy unmarried woman.

If we arrange these different groups in a table and compare

the coagulation times, we observe that in the main there is very little difference between them:

Group.	Average Congulation Time in Minutes.	Shortest.	Longest.
I. Albuminurics:			
(*a*) Pregnant	5.60	4.70	7.5
(*b*) Puerperal	7.00	5.60	10.0
II. Eclampsias:			
(*a*) Pregnant	7.40	4.50	9.0
(*b*) Puerperal	7.00	4.50	9.5
III. Normal puerperal	7.30	4.75	9.5
IV. Healthy pregnant women... ...	7.40	5.00	9.0
V. Healthy non-pregnant women ...	7.75	5.00	10.0

Looking at the last six lots, we see that the average, the shortest, and the longest coagulation times are very near one another, the average periods being 7.0, 7.4, 7.0, 7.3, 7.4, and 7.75 respectively. A healthy pregnant woman and a pregnant woman with eclampsia show almost identical times, and there is not much difference between either of them and the healthy, non-pregnant women. There is nothing at all, so far, to support the theory of an increased coagulability in this special class of cases. When we turn, however, to the albuminurics in pregnancy, we do find that the the time is shortened as compared with the other groups, being only 5.6 minutes on an average. But when the 6 cases that make up this class are scrutinized more carefully, it is found that 2 are cardiac cases and 1 hemiplegic, leaving only 3 as possible albuminurics of pregnancy and possible eclamptics. As a matter of fact, none of these 3 did develop convulsions.

I think, therefore, that we are entitled to say from these observations that there is little difference in the coagulation time of healthy pregnant and puerperal women and of eclampsia before and after delivery, and that there is nothing, so far as a study of the coagulability of the blood goes, to support the contention that the thrombi found in certain organs in fatal cases of eclampsia are due to an increased coagulability in these cases.

In conclusion, I should like to express my indebtedness to Mr. Robert Jardine and Dr. Munro Kerr, the Visiting Physicians of the hospital, for their kindness in permitting me to examine their cases.

References.

1 Schmorl, Untersuchungen über Puerperal-eklampsie, *Berl. klin. Woch.*, No. 44. 1891. 2 Stumpf, Ueber Puerperal-eklampsie, *Verhandl. der deutsch. Gesellsch. f. Gynaek Münch.*, 1886. 3 Gerdes, Zur Aetiologie der Puerperal-eklampsie, *Centralbl. f. Gynaek.*, No. 20, 1892. 4 Dührssen, Uber Eklampsie, *Arch. f. Gynaek.*, Bd. xlii, 1891. 5 O. Spiegelberg and R. Geschleiden, Unter-suchungen über die Blutmenge trächtiger Hunde, *Arch. f. Gynaek.*, Bd. iv, 1872. 6 Fehling, Ueber Blutbeschaffenheit und Fruchtaussermenge u. s. w., *Verhandl. der Gyn. Congress. Münch.*, 1886, S. 51. 7 R. C. Buist, The Influence of Pregnancy in the Blood, *Scot. Med, and Surg. Journ.*, vol. x, 1902, 52. 8 R. Schroeder, Untersuchungen über die Beschaffenheit des Blutes von Schunngeren und Wöchnerennen u. s. w., *Arch. f. Gynaek.*, Bd. xxxix, S. 306, 1891. 9 Bernhardt, *Münch. med. Woch.*, 1892, S. 512. 10 J. Henderson, Observations on the Maternal Blood at Term and during the Puerperium, *Journ. Obstet. and Gynaec. Brit. Emp.*, vol. i, p. 174, 1902. 11 W. Elder and R. Hutchison, Observations on Maternal and Fetal Blood at Birth, *Trans. Obstet. Soc. Edin.*, vol. xx, p. 156, 1895. 12 J. Henderson, op. cit., p. 179. 13 W. Elder and R. Hutchison, op. cit., p. 159. 14 Nasse, Das Blut der Schunngeren, *Arch. f. Gynaek.*, Bd. x, S. 315,

Leprosy in South America.—In a report from the United States Minister, Mr. Beaupré, from Bogotà, under date November 5th, 1903, reference is made to the prevalence of leprosy in Colombia. He says this is one of the gravest questions now confronting that commonwealth. The disease has invaded the country to an alarming extent, and extraordinary measures have become necessary to check its spread. He encloses a copy of a law enacted by Congress, under which lazarettos are to be established in each department of the republic, in which all the lepers are to be confined. Various other provisions are made, but the central idea is to isolate those who are suffering from the malady. The department of Antioquia already has a lazaretto which has been erected at an expense of more than 3,000,000 pesos, and much other good work has been done in various districts by private efforts and contributions.

TWO CASES INVOLVING THE QUESTION OF THE SITE OF IMPREGNATION.

BY

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In spite of the careful and valuable work which in recent years has been done upon the early history and development of the fertilized ovum, and in spite of the light which Peter's observations have thrown upon many previously obscure pathological conditions, we are still in ignorance of the site at which impregnation normally occurs and of all details of the journey of the ovum from the ovary to the uterus. The following two cases, which have occurred in the practice of St. Bartholomew's Hospital, have some bearing upon these points and are therefore worthy of being placed on record.

Case I.

Tubal Gestation after Complete Removal of the Ovary on the Same Side.

B. D. was admitted into St. Bartholomew's Hospital on January 10th, 1903, under the care of Dr. Champneys, complaining of pain in the lower part of the abdomen and haemorrhage from the vagina. She had previously had five pregnancies, four children (the last of whom was born in January, 1902), and one miscarriage in 1898. Menstruation had always been regular; the periods commenced when she was 14 years of age; they recurred every 28 days, lasted four days, and the amount lost was not excessive. The last period ceased on November 9th, 1902. The patient stated that she underwent an operation in 1899, when Mrs. Scharlieb removed an ovarian tumour.

History of the Present Condition.—After the cessation of menstruation in November, 1902, there followed a period of six weeks' amenorrhoea. In Christmas week of that year the patient commenced to suffer from pain situated chiefly in the right iliac fossa; this pain came on suddenly, but without any symptoms of collapse; at the same time she noticed haemorrhage from the vagina. The pain and haemorrhage have persisted since that date, the haemorrhage being sufficient to necessitate the use of six diapers a day.

Condition on Admission.—A scar was seen reaching from the pubes to the umbilicus. On the right side of the hypogastrium, situated 2½ in. above the pubes, was a fixed indurated mass the size of an orange. On vaginal examination the cervix was found to be displaced downwards, forwards, and to the right, so as to lie a fingerbreadth behind the right pubic ramus; behind this and occupying the rest of the pelvis was a fixed tumour partly solid, partly fluid and elastic. On bimanual examination the uterus could be felt lying behind the right Poupart's ligament, and not appreciably enlarged. The tumour itself reached to a point midway between the pubes and umbilicus. On examination by the rectum the tumour was observed to lie entirely in front of the bowel. The uterine sound passed, with its concavity forwards, for a distance of 4 in. in front of the tumour.

Operation.—On January 21st abdominal section was performed by Mr. Harrison Cripps. An incision 5 in. in length was made, nearly in the middle line and just to the right of the scar of the previous incision. A quantity of old blood clot was found in Douglas's pouch, and the right Fallopian tube was expanded and ruptured. No trace of the right ovary could be seen. The tube was drawn up into the wound (after separating adhesions) and the broad ligament transfixed and secured as a pedicle. The distended tube was then cut away. Nearly a pint of old blood clot was removed from Douglas's pouch. Careful search failed to reveal any trace of a right ovary.

After-history.—The patient made an uninterrupted recovery and was discharged on February 21st, 1903.

Microscopical Examination.—Sections of the tube wall and of portions of the clot found in the tube show the presence of numerous well-formed chorionic villi, so that there can be no doubt whatever that the case was one of tubal gestation.

Note by Mrs. Scharlieb.—I removed from Mrs. D. a right-sided ovarian tumour on May 9th, 1899. It contained much grumous material and a little coiled up hair. It was the size of a fetal head at full term. The uterus and appendages of the left side were healthy. The patient made a good recovery and went home on June 2nd.

The chief interest in this case centres in the fact that it affords clear proof of the possibility of gestation in a Fallopian tube after the ovary of the same side has been removed.

At the operation described above a careful search was made, but no trace of the organ could be discovered; further, the condition found at the previous operation—a dermoid cyst—renders it very improbable that any portion of the oöphoron could have been left behind. What was the source, then, of the ovum which gave rise to the tubal gestation? Was there an accessory ovary on the right side? This is improbable; the presence of a third ovary is one of the rarest abnormalities met with in the human body, if indeed it ever occurs. Cases have been recorded from time to time, but of

those which have been subjected to thorough examination very few have stood the test. Small pedunculated tumours attached to the surface of the ovary, small fibro-myomata of the ovarian ligament, and corpora fibrosa have all been described as accessory ovaries, until submitted to microscopical examination, when their real nature became revealed. A very interesting case has been recently reported by Baldwin.[1]

On July 15th, 1893, he removed both ovaries and tubes by abdominal section from a woman, aged 32. She had for some years suffered from menorrhagia, but the reasons which led him to perform this operation are not very clearly given. He states, however, that no adhesions were encountered, and that the recovery from the operation was uneventful.

In spite of this treatment the menorrhagia persisted, and eleven months later the patient was curetted, but without benefit. "In November, 1894, careful examination revealed a small mass of tissue to the left of the uterus. When this was pressed upon a sensation was experienced similar to that caused by pressure upon an ovary." The abdomen was again opened, and "this mass of tissue, which was between the layers of left broad ligament and apparently just below the remains of the ovarian ligament, was identified and removed. It was about the size and shape of a small lima bean, and presented all the characteristics of ordinary ovarian tissue."

The situation of this structure "just below the remains of the ovarian ligament" suggests very strongly that the ovary was not completely removed at the first operation. Doran has pointed out that this is precisely the spot at which removal is likely to be incomplete.

Thumin[2] has recently fully reviewed and criticized the recorded cases of third or accessory ovaries, and he gives instances which apparently must be admitted; but in these cases there has been present a third Fallopian tube in communication with the uterus.

Doran[3] has examined a number of instances in which pregnancy has occurred after double ovariotomy. In all the cases he has investigated the operation was undertaken either for cystic disease or for inflammatory conditions of the ovary, and under circumstances which rendered it extremely probable that portions of ovarian tissue had been left behind. This could be demonstrated in some instances by examination of the specimens, whilst in others the description of the operation indicates the impossibility of absolute certainty of the removal of the whole organ. Where, however, we have to deal with a dermoid, a clearly circumscribed and pedunculated tumour, its complete removal is a much easier matter, and it seems improbable that any oöphoretic tissue would be left. We are therefore driven to the conclusion that the ovum was derived from the ovary of the opposite side.

It is not easy to understand how the ovum after its escape from the Graafian follicle finds its way into the tube. The fimbria ovarica is the only portion of the abdominal ostium which is in close anatomical relation with the ovary, and it is impossible to imagine that it can apply itself to each successive portion of the surface which presents a ripe follicle. It seems that the discharged ovum must pass directly into the peritoneal cavity, and subsequently through some agency imperfectly understood as yet, be directed into the tube. There is experimental evidence in support of the theory that the active agents are the cilia of the epithelium upon the abdominal ostium, that by their action they give rise to currents in the capillary layer of fluid between the pelvic viscera, and that by these currents the ova are wafted towards one or other tube.

Lode[4] injected the ova of ascarides into the peritoneal cavity of animals and found that they made their way to the pelvis, enter the tubes, traversed the uterus, and eventually appeared in the vagina. Whitridge Williams[5] states that this experimental evidence is reinforced by the fact that in certain amphibians large tracts of the peritoneum become covered by ciliated epithelium shortly before the time of ovulation.

The possibility that an ovum may enter the Fallopian tube of the side opposite to the ovary from which it was shed was long ago suggested; and to this journey of the ovum across the peritoneal cavity the term "external migration" has been applied. The case we have just recorded appears to be of this nature. Two similar cases are on record; one is reported by Küstner,[6] the other by Howard Kelly.[7]

Küstner operated upon a woman for tubal gestation on the right side, and after he had removed the tube, finding that the left ovary was cystic he removed that organ also. Two years later the patient again became pregnant: the pregnancy on the occasion was intrauterine. Küstner subsequently performed the same operation upon several rabbits, removing the ovary on one side and the tube upon the other; these animals repeatedly became pregnant after the operation but the pregnancy was always intrauterine.

Kelly's case was very similar. He found it necessary upon one occasion to remove a diseased left ovary and a diseased right tube. Six months afterwards the woman became pregnant, and was delivered at term of a healthy child—seventeen months later pregnancy occurred in the left tube, and rupture necessitated its removal by abdominal section.

Further proof of the external migration of the ovum is furnished by the study of the situation of the corpus luteum of pregnancy. Whitridge Williams[8] has examined six cases in which the corpus luteum was found in one ovary, and the pregnancy in the opposite tube, and Opitz[9] in eighteen cases of tubal pregnancy found the corpus luteum in the opposite ovary in three. We have ourselves found this condition in one out of the three last cases operated upon at St. Bartholomew's Hospital.

Although the matter does not admit of positive proof, there can be little doubt that we have here an instance of external migration of the ovum, but in what part of its course the ovum became impregnated we cannot say; possibly, as suggested by Sippel,[10] impregnation occurred in the abdominal cavity, and the subsequent gestation was tubal, because the development of the trophoblast had reached such a stage that the ovum was able to bore its way into the tubal mucosa and gain an implantation before it reached the uterine cavity.

CASE II.

CASE OF PREGNANCY AFTER REMOVAL OF A PORTION OF BOTH TUBES.

History.

In 1884, being then 24 years of age, the patient commenced to suffer from palpitation of the heart, and from attacks of breathlessness. She noticed that these symptoms were always worse at the time of her monthly periods, indeed not infrequently on the first day of the flow she was obliged to keep her bed on account of the violent beating of the heart.

In 1888 she became pregnant; for the first part of the pregnancy she remained in her usual health, but towards the end of the fourth month the palpitation and breathlessness became much more marked; in due course she was delivered, and after the birth of the child the symptoms rapidly abated.

Between 1889 and 1893 she became pregnant three times; in each of these pregnancies the same course of events occurred, but with each succeeding gestation the exacerbation of the symptoms appeared earlier and was more severe.

In 1893 enlargement of the neck and prominence of the eyeballs were noticed, and the patient came to St. Bartholomew's Hospital.

In 1895 she again became pregnant, and on October 9th of that year was admitted as an in-patient under the care of Dr. Champneys. Previous to this there had been amenorrhoea for four months. On admission the pulse was 120, the cardiac impulse and pulsation of the carotids were very forcible, the eyes were prominent, and the thyroid was markedly enlarged. The hands were tremulous, but neither Von Graafe's nor Stellwag's sign was present. There was marked dyspnoea, so much so that at first it was difficult for the patient to lie down in bed. The physical characters of the uterus corresponded with a four months' gestation. After ten days complete rest in bed she showed a decided improvement, and left the hospital much better in every way.

On February 5th, 1896 (in the eighth month of her pregnancy) she returned, and her condition at this time was so grave that labour was at once induced. This procedure was followed by immediate recovery, the improvement being marked within 24 hours. At the end of a fortnight she left the hospital, only to return again in November, 1897, this time two and a half months pregnant. The symptoms were so severe as to call for the immediate emptying of the uterus, and therefore a tent was put into the cervix and abortion induced. The same rapid improvement followed.

In July, 1898, she was again admitted, six weeks pregnant; at this time in a state of great distress, quite unable to lie down, and suffering intensely from the beating of the heart and throbbing of the arteries. The uterus was again emptied, and Dr. Champneys expressed the opinion that steps should be taken to prevent further pregnancies.

Ligature of Fallopian Tubes.

Mr. Harrison Cripps ligatured the Fallopian tubes on September 7th, 1898. The abdomen was opened in the middle line by an incision 1½ in. in length situated midway between the symphysis pubis and the umbilicus. The left tube and broad ligament were then drawn up into the wound, a silk ligature passed by means of a pedicle needle through the two layers of the broad ligament immediately beneath the tube, and the tube ligatured near its fimbriated end; the right tube was then dealt with in a similar manner, excepting that the ligature was passed nearer to its uterine extremity. The patient made an uninterrupted recovery, and left the hospital on September 24th.

Subsequent Pregnancy and Further Operation.

She was readmitted on June 25th, 1899, and stated that after leaving the hospital she was in good health, and her menstruation was perfectly regular until April, 1899. Since that time the catamenia had been absent, and the train of symptoms from which she had suffered in her former pregnancies had returned. On examination she was found to be two months pregnant, and abortion was again induced.

On October 6th (in the absence of Mr. Cripps) a second operation was performed by Mr. Bruce Clarke. The abdomen was reopened in the middle line, and the left tube drawn up into the wound; at the site

where it had been previously ligatured the tube was completely divided, and the two ends separated by a distance of about ¼ in. No trace of a ligature could be seen. The right tube was then drawn into the wound; it appeared in every way natural, there was no solution of continuity and no trace of the ligature. A loop of each tube in turn was drawn up into the wound, a ligature passed through the mesosalpinx between the two sides of the loop, and the whole tied as a pedicle with a Staffordshire knot. The knuckle of tube on the distal side of the ligature was cut away. The abdominal wound was then closed. The recovery was uninterrupted.

Subsequent Pregnancy.

In January, 1901, the patient was again admitted suffering from an incomplete abortion. The cervix was dilated and the uterine cavity explored with the finger. Portions of placenta were removed.

Cases of pregnancy after ligature of the Fallopian tubes have been from time to time reported, and the following instances throw some light upon the method of passage of the ova along tubes whose lumina have been apparently occluded:

A case is reported by Horrocks[11] "in which a patient had been sterilized after Caesarean section by ligaturing the Fallopian tubes. In spite of this she became pregnant again, and the uterus ruptured along the line of incision when near full term, the child and a portion of the placenta escaping into the abdomen. Dr. Galabin removed the uterus, and the specimen is now in the Guy's Hospital Museum. The ligature on one side had cut through the tube, and the severed ends lay about half an inch apart. On the other side the tube and ligature looked as if the tying had only just been done, but on experimenting it was impossible to force a coloured liquid through the tube. Still, it was thought that in all probability the ovum, which had become impregnated, had got past the constriction produced by the ligature, and had so entered the uterus."

Galabin[12] reports a case in which, after performing Caesarean section, he tied the tubes with kangaroo tendon, and the patient became pregnant again within a year or so.

Taught by the experience of these cases, he continues, I have since then adopted the plan of cutting a piece out of the tube between the two ligatures, then pulling out the stump on each side as far as possible and cutting it off, so that the open lumen was left at the bottom of an inverted case of cellular tissue. None of the patients so treated have become pregnant again, and I am inclined to regard this as a reliable method.

That removal of portions of the tube wall alone, however, is not a reliable method is shown by the case we have just recorded.

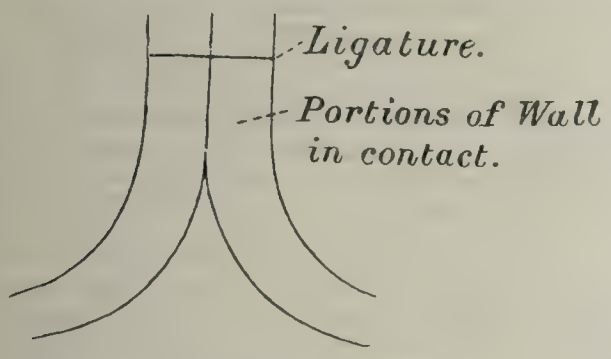

Fig. 1.

Doran has suggested that the ligature may perhaps ulcerate through the tube, which then heals behind it without causing stricture of its canal. It is well known that sometimes a ligature which has been applied to the cut end of the ureter after nephrectomy, may subsequently be passed from the bladder, and the following case shows that the same thing is possible in a Fallopian tube.

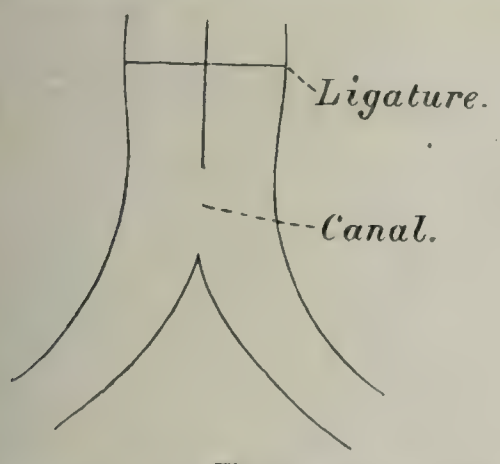

Fig. 2.

In 1898 Bland-Sutton removed an ovarian cyst, its slender pedicle was tied with thin silk; the recovery was uneventful, but for many weeks afterwards the patient complained of cramp-like pains on the side from which the cyst had been removed. The pains gradually passed away and ten months later, during menstruation, the patient accidentally noticed on her napkin, a tiny loop of silk. This proved to be the loop of silk used to secure the Fallopian tube; it had ulcerated into the tube, and had been very slowly conducted into the uterus and so escaped.

The occurrence of pregnancy after removal of portions of the tubes is more difficult to understand. It can hardly be that the severed ends of the tube have become reunited, and the canal again patent; but it is possible that a process of absorption may have occurred in the walls of those parts of the tube which were in contact with one another. The process ultimately leading to the formation of a fistula between the two portions, so that the continuity of the canal once again becomes established.

There is another point of both clinical and pathological importance to be noticed; in all the cases quoted the lumen was either completely obstructed or narrowed—in Horrocks's case coloured fluid could not be made to pass the obstruction—yet in none of them was the subsequent pregnancy a tubal one.

These two cases taken together may perhaps add something to our knowledge of the causation of tubal gestation. In Case I we have an instance of tubal gestation with external migration of the ovum, but with no occlusion of the lumen of the tube; in Case II the lumen of the tube on one side was completely obliterated, and on the other must have been considerably narrowed, but the pregnancy was uterine.

We wish to tender our thanks to Dr. Champneys for permission to mention these cases.

References.

[1] Baldwin, *Amer. Jour. Obstet.*, December, 1902. [2] Ueberzählige Eierstöcke *Arch. f. Gyn.*, 1898. [3] *Obs. Soc. Trans.*, 1902, page 231 et. seq. [4] *Wien. klin Woch.*, 1891. [5] *Obstetrics*, page 79. [6] "Ueber Extrauterinschwangerschaft' *Volkmann's Sammlung klin. Vorträg*, N. F., 1899, Nos. 244, 245. [7] *Operative Gynaecology*, vol. ii, 189. [8] *Obstetrics*, page 80. [9] "Ueber die Ursachen der Ansildlung des Eies im Eileiter, *Zeit. f. Geb. und Gyn.*, 1890. [10] Zur Kenntniss und Behandlung der Jubasschwangerschaften, *Monats. f. Geb. und Gyn.*, 1897. [11] *Obs. Soc. Trans.*, 1900, page 243. [12] Ibid, 1902, page 246.

ON VENTRIFIXATION OF THE UTERUS.

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In a large proportion of the cases of old standing chronic backward displacement of the uterus our ordinary methods of treatment do not give satisfactory results. When the body of the uterus has become considerably enlarged after backward displacement, or when even the slighter tubal and ovarian complications exist, what could be expected from more or less forcible turning forward of the body, and the insertion of a pessary, in the consulting room? There is an element of levity in this method of dealing with a flexion producing symptoms.

When the patient is persuaded to take to bed, and remain as long as if she had to undergo an important operation, some good can usually be done. The congestion of the body of the uterus can be relieved by tampons and douches, the amount of relief being measured by the diminution of the tenderness to touch and certain changes in the visible portion of the uterus. When the uterus has been restored by tampons almost or altogether to its normal position, then is the time for the introduction of a pessary. In some uncertain proportion of even old chronic cases this treatment gives sufficient relief to satisfy the patient, and a small number of cases are actually cured in time. As a general rule it may be stated that the older the patient the more suitable the palliative treatment.

But in married women at the child-bearing time of life, and in many single women who cannot, or will not, lead restful lives, the treatment by mechanical support is unsatisfactory in many ways; and something more must be done.

Schultze's process may be dismissed with a word or two. It has never done positive harm to any patient of mine as far as I know, but upon the whole it has given no satisfaction.

Schücking's operation and similar timid and dangerous proceedings I have never tried, and never will.

Alexander's operation of shortening the round ligaments obtained great favour for many years, and still holds its place as a valuable method of treatment in a certain limited class of cases. The eagerness with which it was adopted by gynaecologists throughout the world was a fair measure of the universal dissatisfaction with the mechanical treatment of displacements of the uterus. We may also now consider

the number and variety of the recent modifications of Alexander's operation as a fair indication of the disappointment of operators who have applied it without sufficient discrimination as to its limitations. For my own part, after operating on 45 cases I abandoned the method of treatment altogether, as the result of certain experiences, to detail which would be too much of digression considering my present object. In one case I could not find the round ligament at all on one side; that of course would be explained by my ignorance of anatomy. In another case the ligaments were pulled out of their sockets, as it were, at six months' pregnancy, and the patient had complete prolapse after her confinement. My troubles suggested to my mind serious objections to the operation in private practice, owing to an element of uncertainty as to the possibility of its satisfactory completion.

The modifications of Alexander's operation which have been most pressed upon the attention of gynaecologists appear to have all the weaknesses of the original operation, or to be more extensive and presumably more dangerous than ventrifixation. This objection attaches, for example, to the proceeding of opening the vagina behind the uterus in order to break down adhesions before dealing with the round ligaments, themselves also probably involved in the inflammation which produced the adhesions. And the objection on account of its formidable character applies to Goldspohn's modification which involves all the details of abdominal section with two wounds instead of one as in ventrifixation. The formidable array of modifications involving hooking and turning and twisting of the ligaments from a wound in the vagina either in front of or behind the uterus, or by means of more or less formidable wounds in the inguinal regions, seem hardly worthy of serious attention, at least from the practical therapeutic point of view.

The operation of ventrifixation appears to me to be the best for the treatment of chronic retroflexion of the uterus in women at the child-bearing time of life. It was suggested, I believe, by Olshausen in 1886, when he fixed the uterus very slightly as an incident in an operation undertaken owing to other indications than displacement. The operation has been much practised with a defective technique in Germany, and, what implies much in its favour, it has been taken up in France, on its merits, although originating in Germany.

My first operation was done in September, 1890, and I have gradually evolved a method of operating which has fulfilled all my hopes and expectations. As an operation of choice it had to comply with certain requirements or to stand condemned on its demerits. It does not seem to me to deserve condemnation. The tests which such an operation must stand appeared to me to be (1) it must be devoid of danger when the ordinary care is exercised; (2) it must be easy to perform and the operator must know in recommending it to a patient that he can undertake it with absolute certainty of being able to finish it as planned; (3) it must relieve the symptoms which it was undertaken in order to relieve; (4) it must not produce any new symptoms that will even remind the patient for any considerable time that she has undergone an operation; (5) it must leave the patient free from any danger and permanently in a condition for active exertion and for all the duties of life indistinguishable from her original normal state of health; (6) it must stand the strain of pregnancy and parturition and the puerperium, as if the operation had never been done; and (7) the uterus must afterwards continue to maintain the position it was placed in by the operation. An operation which complies with all these conditions has many merits, whatever *a priori* objections may be raised by armchair gynaecologists, or whatever may be the terms employed to justly condemn an operation labelled "ventrifixation" by those who have met with the unfortunate experiences which were only to be expected from a defective method of operating.

In order to obtain the desired results certain principles must be kept in mind and complied with in every case. In the first place, *the fundus uteri and the round ligaments must be strictly safeguarded*, so that if pregnancy occurs it will run a perfectly normal course. Some time ago, in a discussion on Alexander's operation at a meeting of a gynaecological society, I expressed this opinion, and was hardly surprised at the shout of derisive laughter with which the statement was received. However, the confidence derived from long experience of the operation was not likely to be shaken by the adverse opinion of men who obviously did not know the essentials of an efficient operation, or who accepted and applied defective surgical methods without criticism and without endeavouring to account to themselves for their failures.

Another important point is to effect complete and permanent adhesion of a sufficient area of the anterior surface of the uterus to the abdominal wall. The ideal ventrifixation is that which results from Caesarean section, when the wound is longitudinal, involving about the middle third of the uterus, and complete adhesion takes place between the uterine and abdominal wounds. In these cases when pregnancy occurs again—as I have known it to do repeatedly—there are absolutely no abnormal symptoms, either functional or mechanical, and the operation may be repeated almost or altogether without opening the peritoneum. I have only once had occasion, apart from Caesarean section, to open the abdomen in a patient who had undergone ventrifixation in the manner which I am advocating, and I took the opportunity of examining the relation of the uterus to the abdominal wall. The uterus appeared to be completely incorporated with the anterior parietes in its middle third, and yet the patient had never experienced any unpleasant symptom referable to the uterus or bladder during the years that had elapsed since the operation. If this can be true in one case, why not in all? Firm attachment is not in itself troublesome or dangerous.

Before going into the details of the operation, let us consider what we should avoid. We can, perhaps, best do this by looking at the descriptions of the operation in some of the manuals and textbooks to which beginners in abdominal surgery naturally look for guidance.

Dr. Howard A. Kelly's method of operating has been much followed by gynaecologists abroad, and to some extent, I believe, in this country; but it is extremely faulty in several respects. The introduction of sutures "through the posterior surface of the uterus" should be in itself sufficient to condemn it. In what respect is it better than that worst of all important operations practised on women at the child-bearing time of life, vagino-fixation, to wit? The operation is suspension of the uterus, not fixation; and to the extent to which it fails, owing to stretching of the adhesions, it benefits the patient only by relieving the fundus from its misplaced attachment, while perhaps it adds to her danger from ileus owing to the presence of adhesion strings or bands between the fundus and the abdominal wound. No wonder that a large proportion of Dr. Kelly's patients who became pregnant experienced suffering from abnormalities. But suspension injuriously affects all cases, whether pregnancy occurs or not. It causes dragging upwards of the uterus instead of supporting it, prevents it from firmly contracting, and makes it into an atonic bag, with resulting menstrual anomalies and troubles.

This is the operation of which Dr. Clarence Webster of Chicago says, in his textbook, it "may be recommended." I have looked through most of the American manuals of gynaecology, and it may be stated generally that the authors follow Kelly, or do worse. Dr. E. C. Dudley of Chicago, whose work is deservedly held in high esteem in the United States, "uses two formaldehyde catgut sutures, one on each side of the posterior wall of the corpus uteri."

Among the books which are read for guidance in England is *Diseases of Women*, by Dr. G. E. Herman. If I understand the author's meaning in the paragraph headed "How to Perform Ventral Fixation," I must say, with deep regret, that I regard his method as defective and faulty in almost every detail, even down to the "blunt" volsella. The first suture is made to enter close to the Fallopian tube; the muscle, not the peritoneum, is depended upon for adhesion and suspension of the uterus; catgut is the material employed to fix the fundus in the wound, and a silk thread is inserted still further back. Silk sutures passing through the skin and uterus are allowed to remain *in situ* for eight days. The patient is kept in bed only a fortnight.

The defects of the operation, described by Sutton and Giles, are in the material "fishing gut," which is referred to as if it stood on the same level of suitability with silk, and in the fewness of sutures. The operation may be completed with one suture through the uterus and peritoneum only. "If desirable two or more sutures may be introduced."

Exercising such judgement as I am capable of, I cannot see why such operations should be designated ventral fixation, or why they should ever be expected to give more than temporary relief from the symptoms due to retroflexion.

The operation, which was performed by Laroyenne, of Lyons, complied with all the requirements necessary to

confer permanent benefit. Instead of using the volsella in the fundus to steady and manipulate the uterus, Laroyenne employed a stem in the uterine canal, which was manipulated by an assistant, a detail of the technique, with obvious disadvantages. But the operation produced permanent adhesion of the uterus to the parietes above the bladder.

Some of the German operations appear to be worthy of imitation with modifications. Olshausen's method is defective in as far as it fixes in the wound the cornua of the uterus. The method associated with the names of Leopold and Sippel appears to be a good operation, but it is not even mentioned by Küstner, who writes the chapters on malpositions of the uterus in Veit's *Handbuch der Gynäkologie*. Küstner makes much of the "*Beweglichkeit*" of the uterus as a condition necessary for success, but the need for mobility is a pure *a priori* assumption. He cannot find a shred of support for his objections in the practice of any one who does an efficient operation, producing firm "fixation."

In performing the operation of ventrifixation I have discarded all suture material except catgut and the finest silk thread which can be conveniently manipulated. At first I used to try to close completely the vesico-uterine fold, but now for years I have introduced for this purpose only two catgut sutures, one at each side, well below the lowest point of the abdominal wound, while the uterus is firmly pulled upwards by means of an ordinary volsella inserted in the centre of the fundus and manipulated by an assistant. This is quite sufficient practically to close the fold without interfering with the distension of the bladder, and it is more of a preventive to any possible insinuation of intestine than shortening of the round ligaments, to the extent practised by most operators, can be. The next step is to suture the peritoneum at the edge of the wound on each side. The fine silk sutures are introduced from the outside surface of the parietal peritoneum, passed through the peritoneum, and after taking a good hold of the uterus low down and near its margin, they are brought back through the peritoneum and firmly tied. The knot is thus always extraperitoneal. Two of such sutures are, as a rule, introduced on each side. The same process is now continued, with the addition that the sutures include the fascia as well as the peritoneum on each side. The transverse sutures are next introduced. These are two or three in number, consist of fine silk, and include fascia and peritoneum at the sides, and each takes a fairly extensive hold of the anterior surface of the uterus. The highest of the sutures is placed about half-way up from the isthmus to the fundus. In complicated cases, and when the prospect of pregnancy is very remote, the sutures have been placed occasionally a little higher, though not often. All the sutures that penetrate to any part of the uterine tissue are buried sutures at the finish; or if any suture includes skin as well, it is never left for more than three days, usually only forty-eight hours. There must never be suppuration in the track of this suture. The highest transverse suture should always be buried. The abdominal wound is closed in the usual way, and it is an advantage to suture separately the edges of the fascia with catgut. The last step in every case is the introduction of a glycerine-pad pessary into the vagina to press forward and support the uterus during the formation of adhesions. The patients are kept in bed for a month or six weeks, and they are advised to lead invalid lives for several months.

There is hardly ever the slightest reaction after operation in simple cases. The pulse and temperature remain normal. No case has given rise to even momentary anxiety.

This operation has stood the tests of efficiency already mentioned in nearly one hundred cases. The details of these cases I hope to find an opportunity of publishing before long. Many of the operations have been done on account of prolapse of the uterus in comparatively young women, but I do not propose to complicate matters by considering the treatment of prolapse on the present occasion.

In only one case has the treatment of ventrifixation been alleged to have failed. The medical practitioner, who sent the case to the Southern Hospital, when applied to a year or so after for information returned a discourteous reply, alleging that the operation was a failure; but he has given no information, and he has never complied with the request for the address of the patient, so that the details of the after-history could be obtained. The patient was perfectly well when she left the hospital.

A considerable proportion of the patients have borne one or more children since the operation. There have been some abortions and one or two cases of malpresentation, but not, I believe, to an extent greater than might be expected among the same class of women, apart altogether from operations. The after-history of every private patient has left nothing to be desired.

Sometimes there has been some bladder discomfort for a time, but it is remarkable how seldom any complaint is made even temporarily.

Efforts have been made to get at the present state of health of the patients, but it is often difficult or impossible to trace them and obtain information. As far as I can learn, there has been no case of relapse, even after labour. In one woman of the poorest apathetic class, ventral hernia has occurred owing to premature hard work and leaving off her abdominal belt.

I have entire confidence in the future of ventrifixation if an efficient method of operating is generally adopted, while joining in the condemnation of ventral suspension of the uterus, designated improperly by so many operators as ventral fixation.

A WARNING SIGN OF DANGER TO THE CHILD DURING LABOUR.*

By FREDERIC E. DANIEL, M.R.C.S., L.R.C.P.,
Honorary Secretary, Furness Division of the North Lancashire and South Westmorland Branch of the British Medical Association.

In an ordinary breech presentation, after the birth of the body, there is generally some delay, especially in a primipara, before the head follows. During this time a certain amount of compression of the cord is inevitable, and, if this is prolonged too much, the child's life is threatened from deficient aëration of the blood. While the child is in this position the practitioner is generally cognizant of any attempts it makes at respiration. In fact, the movements of the child are the only indications that we have that the cord is being compressed.

Now, I believe it is not very generally known that during the second stage of labour in an instrumental case with the head presenting, when from any cause the placental circulation is interrupted, the same movement can be felt by the surgeon, communicated through the handles of the forceps. This movement is an indication of a pressing desire on the part of the child to breathe, and can only be brought about by interruption to the free circulation through the umbilical cord. It is quite different to an ordinary kick, and is distinctly characteristic of an inspiratory effort.

Cases.

Before describing it further I will briefly narrate four illustrative cases that have occurred in my practice since February, 1902. I had during that year a run of bad luck, and was unfortunate enough to lose four firstborn children, all of fairly well-to-do people, who had looked forward with lively satisfaction to becoming parents. The mothers were all primiparae, and the four children were fine, healthy, well-developed babies, and at the commencement of labour were undoubtedly alive and, literally, kicking, yet were all from an unavoidable cause stillborn.

Case 1.

The patient was about 34 years of age. The presentation was normal, and everything promised well, and the mother was told that everything was straightforward. All went well until the full dilatation of the os, when progress stopped, though pains continued regularly. After waiting some time, I administered chloroform and applied the forceps. Dilatation was slow, and a good deal of traction during the pains was necessary. Before the head reached the perineum, during the intervals between several pains, I noticed that I could feel a fetal movement through the handles of the forceps. It was quite different to the ordinary kick, and I am sure it was not the first time I had felt it, but it occurred to me for the first time that it might be caused by the child attempting to take an inspiration. This was repeated several times, and eventually ceased.

It was an hour or more before I was able to deliver the child, as the perineum was very rigid, and required a great amount of patience; but delivery was effected without any rupture. Unfortunately, however, the child was dead. The umbilical cord was round the neck, and in a state of great tension, and I was unable to get it over the head, and was obliged to ligature it where it was, and divide, before extracting the body. I, of course, adopted the usual resuscitating methods, but they were of no avail. I had not, however, much expectation of being able to resuscitate, as the pulsation of the heart had clearly stopped. Now the mother had felt the child strongly up to the time of administering chloroform, so that there was no doubt that it had died during the second stage of labour. On thinking the matter over, I came to the con-

* Read at a meeting of the Division.

clusion that the cause of death was stoppage of the circulation through the umbilical cord and consequent asphyxiation. In order to verify this, I measured the cord, and found that it was only 16 in. long. I then measured the distance from the child's navel, round the neck and back again to the navel, and found that it took up 15 in. out of the 16 in., only allowing 1 in. for downward travel. In point of fact the child was tethered by the neck to the wall of the uterus, and even a slight amount of traction would be quite sufficient to stop the circulation through the cord. Further, it seemed probable to me that the death of the child had occurred at or about the time that I felt the peculiar movement communicated to my hand through the handles of the forceps.

CASE II.

This patient was also a primipara, of about 23 years of age. The presentation was occipito-anterior, and there was sufficient pelvic space. All went well till the os was fully dilated and the head began to descend, but before reaching the perineum it seemed to be arrested; at any rate, there was no progress for some time, and the forceps were applied. The succeeding stages were somewhat prolonged, as the soft parts dilated slowly, and I experienced the same movement of the child that I have referred to in the preceding case. At the time I wondered whether it had any real significance, or whether I had imagined the connexion between it and the death of the child; on that account I noticed most particularly the character of the movement. On delivery of the head I found the cord twice round the neck of the child. I had no difficulty in pulling it over the head before extracting the body, which showed no signs of life, the heart's action having ceased; and, though I tried hard and perseveringly, I could not bring it round. The cord in this instance measured 22 in.

The fact that I had clearly felt what I will call "the inspiratory movement" during the second stage of labour, and that the child was found on delivery to be dead, considerably strengthened my view that I had formed a correct conclusion as to the cause of death in the first case related.

CASE III.

This patient was the wife of a small tradesman, also a primipara, aged about 21; a fine strapping young woman, with whom I had not anticipated much trouble. The presentation was face to pubes, and was clearly a forceps case from the beginning. I was with the woman the greater part of a day, and had great difficulty throughout. At one stage I felt most distinctly and strongly the inspiratory movement through the handles of the forceps, and this time I took the precaution to tell the friends that the probability was that the child could not survive. As I expected, the child was dead, but to my surprise the cord was no less than four times round the neck. I omitted to measure the cord in this case, but the length was ample if it had not been wrapped so many times round the neck of the child.

CASE IV.

The patient was a healthy young primipara, and all seemed straightforward, but progress was very slow, and, as the patient was getting exhausted and the pains were becoming inefficient, I decided to expedite matters with the forceps. I did not have more difficulty than is quite usual with primiparae. During the descent of the child I again most distinctly felt the inspiratory movement, and took the precaution to apprize the friends of the danger to the child. I found on delivery as I anticipated, that the heart's action had ceased and the child could not be resuscitated. In this case the cord was 24 in. long, and was once round the neck. It would appear that there could not have been much tension on the cord in this case, and the cause of death is not quite so clear as in the other cases: though in my opinion the feeling of the inspiratory movement, followed by the child being born dead, points very strongly to some interruption to the free circulation through the cord. Possibly the placenta may have been attached at or near the fundus, which would to a certain extent account for the discrepancy.

NATURE OF THE MOVEMENT.

I will now try to describe more particularly the movement I have referred to in the foregoing cases, and to which I attach much importance as a warning sign of great value. It will generally be noticed that the first efforts of respiration are what may be called double or duplicated movements; that is to say, are repeated twice in quick succession. I have repeatedly noticed that the first efforts of respiration differ, according to whether the child is born in a normal manner, and there is no interruption to its supply of oxygen till it is free to take its first breath; or, whether it is born in a condition of suspended animation. In the former case the child is conscious, and both the diaphragm and the more purely voluntary muscles of respiration act in harmony, and the result is a full breath followed by a lusty cry. In the latter case the chain of events is entirely different. The child, when progress has perhaps been delayed at the vulva, finds its supply of oxygen diminished by the contracting uterus arresting, to a certain extent, the free circulation in the placenta; or there is, perhaps, a short cord stretched tightly round its neck. The child attempts to breathe while still unborn, and after several attempts passes into a state of unconsciousness from carbonic acid poisoning. I believe it to be quite possible for this condition to pass on into death, but in the majority of instances the child is born, and measures are taken to restore life. The first inspirations are purely diaphragmatic, and of spasmodic character. As the child is unconscious the voluntary muscles are quite inactive. This may easily be verified by noticing that the sternum and ribs, instead of expanding, are actually drawn in, until the voluntary muscles come into play, and the respirations become more complete. (I do not mean to infer that the diaphragm is an involuntary muscle, but I am of the opinion that its action in the case under consideration is more automatic than the intercostals, pectorals, etc.)

I wish to lay particular stress on the fact that these first diaphragmatic contractions have a characteristic peculiarity in being duplicated, and that this peculiarity is capable of being recognized by touch. It is sudden and spasmodic, and is easily communicated to the head of the child, and through it to the forceps, if they happen to be embracing the head. We often feel a movement of the child communicated through the forceps; it may be a kick; but such movements are quite distinct from that which accompanies an attempt to breathe.†

If immediate delivery is impracticable the movement is repeated, strongly at first and with short intervals, which gradually become longer and the movement weaker, until it finally ceases with the death of the child. In objection to my conclusions it may be said:

(*a*) That the child was dead before labour began. In answer to this: with the exception of Case 1, where I had the absolute assurance of an intelligent patient that the baby was living, I satisfied myself in each case that the child was alive, and I must ask you to trust to my personal observation.

(*b*) That the child died from causes other than interruption of the umbilical circulation—for example, too continuous pressure on the child's head or unjustifiable traction on the head. This objection alleges incompetence on the part of the accoucheur. I think I am not below the average in manipulative skill; I have had nearly a quarter of a century's experience in midwifery; I have delivered many hundreds of patients with forceps, with safety to mother and child; I never tie the handles of the forceps tightly together, as I have seen done sometimes, and I always conduct labours with great patience.

(*c*) That the movement is not characteristic enough to be always recognized. This I emphatically deny. I affirm that the movement is absolutely characteristic, but, from the nature of the case, I can only convince you by asking you to refer to your own experience and to be on the look-out for cases in your own practices, and I have no doubt that you will agree with me. Further, I have very little doubt that the majority of those present are familiar with the movement, and I shall be interested to know whether they appreciate its significance.

TREATMENT.

I now come to the most important consideration, What is to be done? If the patient is a multipara the answer is easy: Hurry on the delivery and you will in all probability be able to resuscitate the child. If a primipara (as all my cases have been) the matter is very different. In a great number of cases it would be a physical impossibility to do this without rupturing the perineum. Are we justified in doing this? In the cases related it was not until the expiration of from half an hour to an hour and a-half after the death of the child that I was able to sufficiently dilate the soft parts to effect delivery without any rupture.

It might be possible to introduce the hand, and ascertain whether the cord was round the child's neck, and if so, liberate it. But, in the first place, it might even then be too late; and in the second, there would be the practical certainty of producing a prolapse of the funis. This might be avoided by placing the patient in the knee-chest position, but it would not be very practicable if she was under the influence of an anaesthetic.

It seems that the main indication is to deliver as speedily as possible, even at the risk of a moderate amount of perineal rupture, though I should prefer to sacrifice the child to producing a very extensive rupture. At the worst, there is always the opportunity of preparing the patient's friends for the disappointment involved in the baby being born dead.

† Since reading this paper one of my medical friends tells me that he has once or twice felt it, and that, as he graphically puts it, the sensation resembles the "bite of a fish, communicated to the hand through the line.

In the discussion which followed, the paper was subjected to much hostile criticism; the senior members especially being very sceptical about the possibility of any movement of the child sufficient to communicate itself to the handles of the forceps taking place while the head is wedged in the maternal passages. In reply, I pointed out that the movement I had described could only be felt during an interval between two pains, when the head always receded slightly; and that the presenting vertex being more or less wedge-shaped, such recession must of necessity involve a certain amount of freedom of movement, not very much, certainly, but quite sufficient for vibration to be felt, and even enough to cause visible movement of the handles, as I have myself seen.

One member suggested that the best plan for dealing with such a contingency, assuming that it was possible to tell that the child was in danger, which he was not at present prepared to admit, was, to turn.

Since reading the paper, I have received the following interesting letter from a member who was not at the meeting:

Dear Dr. Daniel,—At the last meeting of the British Medical Association in your Division, I am told by Dr. Barling that you read a paper on A Point in Obstetrics; the point being a certain movement of the handles of the applied forceps caused by convulsive efforts at respiration by the still unborn child. The indication, I understand you made out, was for rapid delivery to avoid suffocation of the child, as the convulsive movements were evidently a sign of obstruction of the placental circulation. I am writing to you because of a case which I attended last month, in which, having applied forceps in a primipara, having had them on for five or ten minutes, I noticed the handles (I used axis-traction forceps) give two distinct movements forwards to the pubes and back again. I at once thought of what Dr. Barling had told me about your paper, and decided that if there were anything in it, I had better deliver at once—which I did, not sparing the perineum. In the result it was most fortunate I did so, because on delivery the child was not breathing, was black in the face, and the cord was twisted over the shoulders. It took me nearly five minutes to bring the child round by artificial respiration.

I must acknowledge myself much indebted to you for your hint, and think you will be interested in this case. I had never noticed the movement before, or if so, had paid no attention to it.

I am, yours sincerely,

Jas. A. Gibson.

Addendum.

On February 21st, 1904, I had a most instructive experience, this time with a multipara.

I had been sent for a month previous to the confinement for prolapse of the cervix. I found an enlarged and oedematous cervix protruding from the vulva about the size of a small orange. I replaced it, and advised patient to keep in the recumbent position during the remainder of the pregnancy. There was a history of a ruptured perineum at the first confinement.

I was sent for again on the above date and told that labour had commenced, and on examination found the abdomen enormously distended, a widely dilated os, and the membranes protruding. I could not make out the presentation, as I was unable to reach any part of the fetus with my finger; so ruptured the membranes, when a very large amount of liquor amnii escaped, and with it, unfortunately, a loop of the funis. I now found that the vertex presented, with the face anteriorly, the os was drawn very much forward and embraced the head, nipping the cord. I quickly applied the long forceps, though with some difficulty, owing to the position of the head, which was lodged above and almost in front of the os pubis; and though I apparently got them satisfactorily in position, I could not have done so, as when I applied traction, I felt them slipping. I should have said that I attempted to replace the funis as soon as it came down, but, as will be understood by those who have met with these cases, with no success. As the forceps seemed inclined to slip, and as there was no time to be lost, I quickly decided to turn. But, while the forceps had been partly embracing the head, the convulsive movements on the part of the child were most plainly to be seen and felt.

After sterilizing and introducing my hand I with some trouble brought down a leg. While my hand was in the uterus I could *feel* the child gasping for breath, and if confirmation were wanted as to the cause of the movement felt through the forceps, here it was.

I delivered the body and shoulders without much trouble, but it was a long time before I effected delivery of the head. The cause of the delay was afterwards apparent in a large hydrocephalic head. The child was, of course, dead.

This case proves beyond the possibility of a doubt that the gasping of a child for air occurs *in utero*, that it is caused by the suspension of the supply of aërated blood, and that it can be felt by the practitioner through the forceps.

South African Lepers.—It is stated that the possibility of removing the leper settlement from Robben Island to the mainland, and of some relaxation of the regulations at present in force with regard to leprosy, is under the consideration of the Cape Government.

CLINICAL NOTES ON THE USE OF BOSSI'S DILATOR.

By W. B. ARMSTRONG, M.B., C.M.,
Kirkintilloch.

During the past year I have on several occasions made use of Bossi's dilator. The ease, safety, and rapidity with which the cervix can be dilated by it give me confidence in recommending its use to the medical profession. There is no doubt that the instrument can be misused, but the same may also be said of the use of forceps. The method adopted by me is as follows: Chloroform is administered to its full surgical extent, and the patient placed in the left lateral position.

If the os be only slightly dilated the cervix is carefully pulled downwards with vulsellum forceps and the dilator, with the sheaths removed from the points, is introduced with a gentle screwing motion. Dilatation is begun and gradually maintained until the os is the size of half-a-crown. The dilator is withdrawn and reintroduced with the sheaths adjusted to the points. Dilatation is very gradually continued, the blades are frequently relaxed and their position changed circularly so that all parts are uniformly pressed upon. When the os is fairly well dilated the finger is used to assist in the dilatation. It is well to remember that the index of the instrument gives only very approximately the amount of the dilatation. When dilatation is complete the membranes are ruptured and the child delivered in whatever manner is indicated.

The following cases, which under ordinary circumstances would have been, to say the least, worrying ones, will illustrate the use of Bossi's dilator.

Case I.

Mrs. A., aged 30, a multipara, and pregnant a little over eight months. The membranes had ruptured some hours before I was called. There were no pains. On examination the cervix was found to be soft and patulous, it was dilated to the size of half-a-crown and the vertex was presenting. The patient was tired and nervous, and in a weak condition generally. I sent her to bed and gave an opiate, etc. In about ten hours I saw her again. The condition had not improved, the pulse was quick, and the patient showed signs of collapse. I determined to deliver at once. Chloroform was administered, and the os gradually dilated with Bossi's dilator, the dilatation taking fully twenty minutes, then by means of forceps the patient was delivered of a still-born child.

She made a perfect recovery, and on subsequent examination I found the cervix in a normal condition with, it is true, a slight laceration but nothing more than one would expect in any multipara who had been delivered several times with forceps.

Case II.

Miss B., aged 18. Primipara. I was asked by Dr. W. T. Blakley to see this case in consultation. She had had four convulsive seizures in the three hours previous to my seeing her, and there was a history of albuminuria. The patient was in a very weak condition, the pulse was rapid, and there was a complaint of severe abdominal pain. The cervix was found to be in a softened condition, but there was only very slight dilatation.

We agreed that she should be delivered at once, and as Dr. Blakley was suffering from a dislocated thumb I was asked to operate. Chloroform was given, the cervix was pulled down with vulsellum forceps, and the bare points of the dilator introduced in a screwing fashion. There was considerable difficulty in the introduction of the dilator, and it was slowly accomplished. Very gradually and with great care, the parts being kept in view with the vulsellum, the cervix was dilated sufficiently to allow of the sheaths being put on to the points. Dilatation was continued until complete, the time taken being about an hour. The membranes were ruptured, and a full-time living child was delivered with forceps. The mother made a splendid recovery. There were no more eclamptic manifestations, and Dr. Blakley reports that the patient is in perfect health.

Case III.

Mrs. C., multipara. I was called to this case on account of her having labour pains accompanied with severe haemorrhage. I found that she had lost a great quantity of blood, she was pale and nervous and in great fear of the return of a pain with its accompanying haemorrhage. The cervix and surrounding parts were in a soft patulous condition, the os was dilated to about the size of a five-shilling piece and the placenta was presenting.

After giving chloroform I detached as much as possible of the placenta from the lower uterine segment, and, introducing the dilator, quickly dilated up to almost full extent. The membranes were then ruptured at the margin of the placenta, version was performed and a full-time living child delivered. The uterus contracted well and the placenta was expelled easily. The whole time occupied was about twenty minutes and the patient made an uninterrupted recovery. There was no laceration of the cervix.

CASE IV.

Mrs. D., aged 35, a most nervous and hysterical patient, had been in labour some hours before I saw her, the membranes having ruptured early. The os was dilated to the size of a shilling and the vertex was pressing on the lower uterine segment. The patient complained of great pain and the uterine contractions were of little or no use as regards further dilatation.

I administered chloroform to a slight extent and waited for three hours. The condition did not improve, and as the patient was worn out and in an exceedingly nervous state I pushed the chloroform, gradually dilated the os and, applying forceps, delivered her with difficulty of a large stillborn child. The patient made a splendid recovery.

A CASE OF TUBAL GESTATION:

PRIMARY INTRAPERITONEAL RUPTURE: OPERATION: RECOVERY.

BY BRENNAN DYBALL, M.B., B.S., F.R.C.S.,
Exeter.

ON November 18th, 1903, I received a message from Dr. Arthur Bird, of Sidmouth, asking me to come over at once to see a patient with him with a view to operation. On arrival I found the case to be as follows:

The patient, Mrs. M. M., was aged 42.

Family History.—No bearing on the case.

Previous History.—She had had three children and two miscarriages. Was strong and healthy up to 1897, when her second miscarriage occurred (at Pietermaritzburg), and was followed by a slight attack of peritonitis, and apparently by some endometritis, as the uterus was soon afterwards curetted. Her youngest child was 14 years old.

Present Illness.—On November 17th, while at lunch, she was seized with sudden sharp abdominal pain, which speedily became very severe, was most marked in the lower half of the abdomen, and seemed to her like labour pains. She went to bed, and as the pain continued sent for Dr. Bird, who found her rather pale, with normal temperature, and a pulse of 120. She complained of feeling sick and faint, but there had been no vomiting. Later in the evening Dr. Bird saw her again, and made a vaginal examination, without detecting anything abnormal, but with a speculum a little blood-stained mucus was seen to be coming from the os. The patient complained of bearing-down pains, and again said she felt as if in labour. It was then found that her last period had occurred seven weeks previously. She was put on fluid diet, hot opium and belladonna fomentations were applied to the abdomen, and a quarter of a grain injection of morphine was given on account of the pain. She passed a fair night, but the following day was found to be much worse: very blanched, with small rapid pulse which could hardly be counted; the abdomen much distended, tympanitic above the umbilicus, dull below and in the flanks. She was given an injection of one-twentieth of a grain of strychnine, and shortly afterwards one-quarter of a grain of morphine, and was then removed to the private ward of the Cottage Hospital. Dr. Bird having diagnosed internal haemorrhage probably due to a ruptured tubal pregnancy. (The above notes were kindly furnished me by Dr. Bird.)

Operation.—When I saw the patient at 4.30 p.m. her condition was much as described above. There could be no doubt as to the correctness of the diagnosis, but the patient's condition was so bad that one feared she would not be able to stand an operation. Her lips were almost colourless, and her pulse could only just be felt, but not counted at the wrist. In the carotid it was made out to be 130. It was therefore determined to see if infusion would improve her condition, and two pints of normal saline, with liq. strych. mv and brandy ʒss were thrown into the right median basilic vein, effecting an immediate and marked improvement, the pulse at the wrist being easily felt and counted afterwards, and its rate diminished somewhat. The patient's limbs were then enveloped in cotton wool, and she was taken to the operating theatre, where A.C.E. was administered by Dr. Leon. With Dr. Bird assisting me, I opened the abdomen below the umbilicus by a median incision large enough to admit a hand, and found the lower left quadrant of the peritoneal cavity occupied by blood clot, which was scooped out in handfuls. While doing this the uterus could be felt pushed over well to the right of the midline. After removing all clots it was found that the innermost inch of the left Fallopian tube was enlarged, and was ruptured nearly across close to the uterus. There was no bleeding at the seat of rupture. The left ovary contained a corpus luteum of pregnancy ½ in. in diameter. Silk ligatures were placed round the tube and ovarian artery on each side of the rupture, and the distal portion and the ovary were ligatured off and removed. A few small clots which had slipped down from among the intestines were removed. The pelvis was sponged out, the abdominal wound closed in layers, and a dressing of cyanide gauze and wool applied. No drainage was employed. There was no sign of old peritonitis on the tube removed; the abdominal ostium was patent, and a probe could be passed down it to within a ¼ in. of the situation of the pregnancy.

After-history.—The patient's condition during the operation (which occupied a little over half an hour) necessitated injections of strychnine (one-tenth of a grain in all). She was quickly put back into bed, the foot of which was raised on blocks, but her pulse was so bad that it was thought wise to give another infusion of one pint of normal saline with half an ounce of brandy. This again had a most excellent result, and on seeing her a couple of hours later the pulse at the wrist was 100, and very fair in quality. She passed a good night, and the next morning her pulse was 90, and her general condition most satisfactory. Her recovery, thanks to the care of Dr. Bird, was uninterrupted; the incision healed by first intention; she was able to get up a month after the operation, and has now quite regained her usual good health.

TREATMENT OF PUERPERAL ECLAMPSIA BY A COMBINED METHOD.

BY JOHN LITHGOW, M.D.,
Cleland.

SOME time ago I had occasion to report two cases of puerperal eclampsia, in both of which the fits ceased after the delivery of the child, the women recovering, and in one of which the child also was saved. In that article I commented on the evident good results obtained by delivery of the child, and had resolved that my next case should at once be subjected to that treatment.[1]

On January 6th I had another and most severe case of this dreadful condition, which I venture to put on record for the following reasons—namely, the large number of fits which the girl suffered from; the method used to dilate the os in the operation of *accouchement forcé;* treatment adopted; and the presence of urea being demonstrated in the blood.

An unmarried woman, aged 19½ years, sent for me by telephone message about 4 p.m. on January 6th. Being out visiting I did not see her till nearly 6 p.m., and was then informed she had taken six fits. I waited for a few minutes in order to ascertain the nature of the fits; another seizure soon confirmed my suspicion that they were eclampsia. I found she was about full term, the cervix being obliterated and the head presenting. The os was felt as a depression, and as there were no labour pains I proceeded to perform *accouchement forcé.* With difficulty I passed my forefinger through the os, and ruptured the membranes with a wire, but was unable to make further progress with my fingers. During this time she had another fit. I drove home for my midwifery bag, etc., and on my return found that she had had four more fits. Before proceeding to sterilize my instruments, I pressed a piece of lint saturated with a solution of cocaine through the os. The cocaine solution was made up by sprinkling a few grains of cocaine powder on the lint which was wet. I then tried to make out the fetal heart sounds and movements, but could get neither. The patient was put under chloroform, which was administered by a neighbour woman, then with a two-pronged dilator (Stevenson's?), with the greatest ease, I stretched the os that I could apply the forceps. The forceps applied, a few minutes sufficed to bring the head through the os. There was more difficulty from this stage till the child was delivered, a fairly strong pull being required; altogether about thirty minutes elapsed from the time I introduced the cocaine till the child was delivered, and during that time the patient had three fits, which, owing to the administration of chloroform, were not severe. The child—a full-term, well-formed male—was stillborn. There was no laceration of perineum or of os requiring attention. Before I left the house at 8.30 she had 3 more seizures, and from this time till my return again at 12 she had 16; altogether from the commencement at 4 p.m. till 12 p.m. she had 34 fits; 12 before, 3 during, and 19 after delivery. It was evident that in this case something more than delivery of the child was required if the patient was to be saved. She had been unconscious for several hours. I thought that if there was any abnormal ingredient in the blood which was acting as a poison, the treatment now would be to remove that poison, and, if necessary, the blood. Fortunately I had my pocket case with me, which contained a saline injection needle, and having obtained permission, opened a vein in her arm, from which I allowed blood to flow till it ceased spontaneously; the quantity removed I did not measure, but it was considerable. Then with a Higginson's syringe I injected into the cellular tissue underneath the breast over two pints of normal saline solution. During the time I was there—till 1.30 a.m.—she had six fits. From this till 8 a.m., when they ceased, she had twenty-nine seizures. She remained unconscious for two days. Owing to incontinence of urine, I was unable to obtain a specimen for testing till the second day, when I drew off some with a catheter; this showed presence of albumen, and also gave 9 gr. of urea to the oz. I tested a portion of the serum from the blood withdrawn, and found it contained 2½ gr. of urea in the oz. For several days she complained of severe headache, ultimately making a good recovery, and is now quite well.

In discussing this case I would desire to draw attention to:

1. The survival of the patient after the extraordinary large number of eclamptic fits; altogether she had sixty-nine severe seizures. There was every condition present in this case to make the prognosis extremely grave. The fits appeared before labour had commenced, were violent, with short intervals, and the patient was unconscious. As to the number of fits, it is said as a rule the occurrence of ten fits constitutes a severe case. In a recent article by Dr. Munro Kerr, when discussing the effect of dilators, he mentions that in one of his cases where death had followed the dilators

ere not in the slightest degree to be blamed for the unfor- nate termination as the patient had had forty fits.[2] I take from this that as Dr. Munro Kerr is an authority after aving forty eclampsic fits the patient is not expected to cover.

2. I had previously practised forced delivery on three occa- ons. The first on a multipara who was dying from heart isease; in that I introduced through the undilated os a piece lint saturated with cocaine solution, and by the time my struments were prepared the os was so dilated that I could mediately apply them without any previous manipulations; is patient was at full time. The second was multipara ffering from accidental haemorrhage about full term, and here I was able to pass my hand into the uterus, turn, and liver. The third case was one of eclampsia in a full-term ultipara, in whom there was no difficulty in introducing my nd into the uterus through an easily-dilated os and effect- g delivery by turning. These three cases being multiparae had no difficulty in dilating the os. In the first case, in hich the cocaine solution was used, there was no manipula- on by the hand required. Forcible dilatation in *accouche- nt forcé* is generally carried out by means of metal lators, or by the more tedious method of dilating by the nd. I might put it that, as a rule, forcible dilatation in ultiparae can be carried out by the hand, whereas in primi- rae this method is either too tedious or fatiguing to be actical, and metal dilators have to be resorted to. In the se recorded above dilatation by the hand was attempted, but led owing to the rigidity of the os. This was evidently a se where an efficient dilator was necessary. Judging from e contributions and discussions at a recent meeting of the asgow Obstetrical and Gynaecological Society on the sub- t of *accouchement forcé*, it is evident that the dilators which d favour with gynaecologists are those of Bossi and ommer.[3]

t is admitted that the use of these instruments is not hout danger, and several cases are reported with varying cess. Not that there could be any doubt of these instru- nts being able to allow the operator to attain the object in w, that is, to get into the uterus, but the extent of preser- ion of the cervix from lacerations seem to vary. Dr. Alex. ke, in a letter to the British Medical Journal on the ject of *accouchement forcé*, remarks that Bossi's dilator at t sight appears "more like a veterinary surgeon's instru- nt," and suggests the local application of cocaine "before ng the brutal-looking dilator."[4] I had previously used solution of cocaine as recommended by Dr. Farrar, of nsborough,[5] in rigid os of primipara in labour, and also, as ady stated, in *accouchement forcé* performed for heart dis- e with the most gratifying result. In this case I think we discount any aid received from the use of the dilator loyed, as upon the slightest resistance the blades of ch possess so much spring that the handles can be roximated without separating the points, and I am certain an equally good result would have been attained by g the hand after the application of the lint saturated cocaine solution. I would therefore venture to suggest in the primary step of *accouchement forcé*, dilatation of os, a solution of cocaine should be applied on lint to the . The time occupied I find is about equal to that of ting by Bossi or Frommer's dilators—about thirty min- . The dangers of lacerations are avoided, and the lts in the two cases I have tried it satisfactory. I may tion that in both cases the cervix was obliterated.

Authorities seem to be well agreed that eclampsia ue to the retention of some deleterious matter in the d. It has also been proved that saline solution can replace he moment) blood lost. When the fits continued after delivery of the child I considered the most rational treat- t would be to get rid of the deleterious matter as soon as ible, and there was evidently no time to eliminate it by natural outlets. If the deleterious matter was to be re- ed from her system the blood also must be taken. The tity of blood removed was not measured, the bleeding llowed to cease of its own accord, by which time the girl well drained. The infusion needle was not placed in the I had opened as I was afraid that in her struggles the y might be injured.

m aware that venesection has often been employed as s of treatment of eclampsia. Oftener, perhaps, with the t of removing tension, than with the object of deliber- removing from the system a large quantity of toxin- blood, replacing that loss afterwards by normal saline ion. I am also aware that normal saline solution is often used to produce diuresis or dilute the poison. The combined method of venesection for removing blood laden with deleterious matter and replacing blood lost by normal saline solution is mentioned by Fehling.[6]

4. The subsequent testing of the liquor sanguinis, which gave $2\frac{1}{2}$ gr. of urea to the ounce may be of some importance.

References.

[1] British Medical Journal, 1903, p. 1211. [2] Ibid, 1904, p. 67. [3] Ibid, 1904, p. 78. [4] Ibid, 1904, p, 228. [5] Ibid, 1898, p. 790. [6] Fehling, Eclampsia, its Pathogenesis and Treatment in the Light of Present Opinions, *Halle Med. Soc.*, Feb. 8th, 1899.

ABSTRACTS OF

The Hunterian Lectures

ON THE

PATHOLOGY AND SURGERY OF CERTAIN DISEASES OF THE PANCREAS.

Delivered before the Royal College of Surgeons of England.

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LECTURE II.—INFLAMMATORY AFFECTIONS OF THE PANCREAS.

Pancreatic inflammations may be catarrhal, the inflammatory trouble being in the ducts, or parenchymatous, the substance of the pancreas being involved.

Catarrhal Inflammations.

(*a*) Simple catarrh, acute and chronic.
(*b*) Suppurative catarrh.

Parenchymatous Inflammations.

Acute.

(*a*) Haemorrhagic pancreatitis.
1. Ultra-acute, in which the haemorrhage precedes the inflammation, the bleeding being profuse and both within and outside the gland.
2. Acute, in which inflammation precedes the haemorrhage which is less profuse and is distributed in patches through the gland.
(*b*) Gangrenous pancreatitis.
(*c*) Suppurative pancreatitis (diffuse suppuration).

Subacute.

Abscess of the pancreas (not diffuse suppuration).

Chronic.

(*a*) Interstitial pancreatitis.
1. Interlobular.
2. Interacinar.
(*b*) Cirrhosis of pancreas.

Etiology.

The etiology of pancreatitis may be classified under predisposing and exciting causes.

Predisposing Causes.

(*a*) Obstruction in the ducts, the result of gall stones, duodenal catarrh, pancreatic calculi, cancer of the papilla or of the head of the pancreas, ulcer of the duodenum, followed by cicatricial stenosis of the papilla, ascarides, and lumbrici.
(*b*) Injury either from a bruise, as by manipulation in operating, or from a crush as by a blow in the epigastrium, or from wounding by a sharp instrument.
(*c*) Haemorrhage into the gland.
(*d*) General ailments, such as typhoid fever, influenza, mumps.
(*e*) Certain anatomical peculiarities in the pancreas or its ducts.
(*f*) Atheroma or fatty degeneration of blood vessels.

Exciting Causes.

1. Infection, conveyed either
(*a*) From the blood, as in syphilis or pyaemia.
(*b*) From the duodenum as in gall-stone obstruction or gastro-intestinal catarrh.
(*c*) By extension inwards from adjoining organs as in gastric ulcer or cancer eroding the pancreas.
2. Irritation, as in alcoholism (?).

Gall stones in the common duct are a frequent, in fact by far the most frequent cause of the various forms of pancreatitis, but acute pancreatitis may occur apart from cholelithiasis. Any gall-stone or stones impacted in the pancreatic portion of the duct or even filling the ampulla of Vater may be efficient causes of the trouble. It may be asked why should not every case of common duct cholelithiasis be complicated by pancreatic inflammation? This is readily explained by the fact that in a certain percentage of cases the common bile duct and the pancreatic duct open by certain orifices into the duodenum, while in another percentage the duct of Santorini

is either the principal outlet for the pancreatic secretion or is of such a size that it can act as an efficient outlet even if Wirsung's duct becomes obstructed. Besides gall stones, other factors may lead to obstruction of the pancreatic ducts, to infection of the pent-up secretion, and to the different varieties of pancreatitis. It is possible also that infection may extend upwards from the duodenum without preliminary obstruction, apparently by continuity of mucous membrane, catarrhal pancreatitis being then a sequel of gastro-duodenal catarrh.

In injury, however inflicted, it seems not unreasonable to think that the soft, glandular substance will readily yield and so set free the auto-destructive secretion of the gland, which, by dissolving the walls of the blood vessels, will lead to further haemorrhage and then to the collection of a quantity of easily decomposable material that only needs infecting to become acutely dangerous. The contiguity of the stomach and intestines furnishes the possibility of infection, though, if infection does not take place, the injury may be repaired, as in other organs. This probably explains acute pancreatitis supervening, not immediately, but some days after an injury.

Haemorrhage into the pancreas, so-called apoplexy, arising from diseased vessels or in other ways, by disrupting the gland may lead in the same way to pancreatitis, but, as haemorrhage occurs at times without exciting inflammation, as shown by old blood stains in the pancreas in cases dying from other causes, it seems reasonable to argue that the exciting cause—infection—has been wanting. In general ailments, such as typhoid fever, influenza, etc., the well-known predilection of typhoid bacilli for the biliary passages would afford an easy explanation of their access to the pancreas, and, though it is difficult to prove, I have in several cases of catarrhal inflammation of the pancreas obtained a history pointing strongly to influenza or to typhoid fever as the cause. In one case, under the care of Mr. Moynihan, the relationship was proved by the discovery of typhoid organisms.

MUMPS AND PANCREATITIS.

There seems to be some peculiar and intimate relationship between the salivary glands of the mouth and the abdomen, and, in one case of mumps in an adult friend, it seemed highly probable that a metastasis occurred about the third day of the disease, when the pain and distress almost completely left the face, and were followed by violent epigastric pain and alarming symptoms of depression, accompanied by sickness and fever, which then rapidly passed off, after three days' anxiety, and were followed by orchitis.

H. Simonin[1] found. in 652 cases of mumps treated in the military hospital of Val de Grâce, that in ten cases, or 1.3 per cent., there were symptoms of pancreatitis, which occurred from the first to the twelfth day of the disease and lasted from two to seven days. Among the blood infections have to be mentioned pyaemia, which presents no special peculiarity in the pancreas, and syphilis, which may affect the pancreas either as a tertiary affection, in the shape of gumma, or as a congenital affection, as first described by Birch-Hirschfeld. It produces an interstitial pancreatitis of the interlobular type, and the islands of Langerhans are unaffected.

That the spread of ulceration inwards from the stomach may produce an indurative or even suppurative pancreatitis can be readily understood, for the ulcer must be constantly bathed with septic matter, and the eroding action, when once it has passed through the stomach wall, may assume great activity.

Whether alcohol can act directly in producing cirrhosis is a matter of great doubt, the probability being that it sets up a gastro-intestinal catarrh which by extension gives rise to the chronic infective process; another explanation may be found in the fact that alcohol causes vascular degeneration, a well-recognized cause of chronic interstitial pancreatitis. The cause of cirrhosis, the most chronic form of inflammation of the pancreas, which is, though slow in its progress, almost necessarily fatal from diabetes, is probably a long-continued catarrh setting up interlobular and interacinar pancreatitis originally due to infection. Vascular degeneration is ascribed as a cause in old or in prematurely aged persons.

CATARRH OF THE PANCREAS.

From the foregoing remarks on the etiology of inflammation of the pancreas it will be seen that I hold that catarrh of the pancreas is a disease as well worthy of recognition as catarrhal jaundice, which in the same way is dependent on catarrh of the bile ducts. The diagnosis can usually be made from digestive and metabolic signs and swelling of the gland, which can in some cases be recognized by palpation through the abdominal wall, but in others only by manipulation of the pancreas through the opened abdomen.

Just as catarrh of the bile ducts may, and usually does, pass off if the cause be removed, so may pancreatic catarrh entirely clear up under appropriate treatment. Should the cause continue the catarrh will become chronic and an interstitial pancreatitis ensue which may end in cirrhosis or atrophy of the gland, a condition which probably always has a fatal termination from diabetes.

As chronic interstitial pancreatitis is in many cases simply a sequence of pancreatic catarrh, it is of the utmost importance that we should recognize catarrh at any early stage, and if in a short time it fails to yield to medical treatment that we should perform an exploratory operation with a view to removing the cause, whether that be gall stones or some other removable condition; but if the cause be not discovered, or if when found it proves to be incapable of removal then drainage of the bile ducts, either by cholecystotomy or cholecystenterostomy, will nearly always afford relief (*a*) by removing the infected bile and thus ridding the system of poison which tends to deteriorate the blood, and (*b*) by removing the pressure of pent-up bile from the pancreas thus relieving tension. Still another beneficial effect will result in some cases where the obstruction is at the papilla, for the pancreatic ducts will then also be drained indirectly through the bile-ducts. In three cases of my own as well as in two occurring in the hands of other surgeons, a mere manipulation of the gland without drainage has been followed by recovery. An explanation of this result may possibly be that an obstruction in the shape of concretions or adhesions may have been inadvertently removed during the manipulation; but in one of my own cases thus treated glycosuria has subsequently developed, which possibly might have been prevented by drainage.

I do not propose to occupy time in considering the symptomatology of acute and chronic catarrh of the pancreas as the symptoms and signs, though less in degree are practically the same as those of chronic pancreatitis, under which subject I shall consider the matter more fully.

SUPPURATIVE CATARRH.

This disease bears the same relation to simple pancreatic catarrh that catarrhal jaundice does to suppurative cholangitis.

In all the cases I have seen gall stones have been the cause. The disease tends towards death from septicaemia or pyaemia, or if the process be less acute or the vital powers more resistant it may possibly end in a localized abscess. Suppurative catarrh of the pancreatic ducts is generally, if not always, combined with suppurative cholangitis.

Four cases of suppurative cholangitis on which the lecturer had operated were then related, illustrating one of the dangers of cholelithiasis which might be avoided by the removal of gall stones before the onset of deep jaundice and infection of the bile and pancreatic ducts, an operation which with due care and in skilful hands is almost devoid of danger.

Suppurative catarrhal pancreatitis is quite as serious as acute phlegmonous pancreatitis, and unless treated surgically must, I think, be almost necessarily fatal.

ACUTE PANCREATITIS.

Symptoms.

Acute pancreatitis is usually ushered in by a sudden pain in the superior abdominal region, accompanied by faintness or collapse and followed sooner or later by vomiting. There is usually some epigastric swelling with tenderness from the first, and if the warm flat hand be placed over the epigastrim and retained there without movement for a time, it will be found that the swelling is diffuse and not simply dependent on a distended stomach or colon, though later, when peritonitis is established, the hollow viscera become inflated.

It is almost constantly accompanied by constipation, so that it is quite usual for these cases to be mistaken at first for intestinal obstruction. The obstruction, however, is not absolute, flatus passes, and a large enema may secure an evacuation; if the patient survive for several days diarrhoea may supervene. The pain may be so severe as to produce syncope or collapse, and though it does not quite pass away, it has a tendency to be paroxysmal and to be increased by movement; it is associated with well marked tenderness just above the umbilicus and between it and the ensiform cartilage. The pain is soon followed by distension in the superior

ominal region, which may become general and usually s in the later stages, and by vomiting, first of food then ile, and soon of black altered blood. The vomiting may be ere, and each attack of sickness aggravates the pain. Rarely niting may not be a prominent symptom. Slight jaundice, n associated catarrh of the bile ducts and pressure, is usually sent, and deepens the longer the patient survives. As the oaction of a gall stone in the ampulla of Vater is probably most frequent cause, the jaundice may become intense m a complete stoppage of the passage of bile into the odenum. The aspect is anxious and the face is pinched, embling the facies of peritonitis, which in fact is usually sent. The pulse, which is rapid and small, is a better de than the temperature, which may be normal, subnormal, gular, or high. In the ultra-acute cases the temperature sually subnormal, but in the cases that survive for several s the temperature becomes irregular and may be excessive. irium comes on in the later stages. The distension and derness may prevent an exact examination of the pancreas, ch would otherwise be found enlarged. Death usually ervenes from the second to the fifth day, from collapse, pro- ly due to absorption of virulent matter, though in the less te cases life may be prolonged and recovery may possibly ur. Acute pancreatitis thus takes the form of acute peri- itis starting in the superior abdominal region.

life be prolonged, the condition may become one of sub- te pancreatitis, the onset in such a case being usually less ve, though often equally sudden. It is even possible for trouble to resolve, apparently completely and then for a pse to occur, this sequence being repeated on several asions. The preceding description refers to acute pan- titis generally, and applies to the haemorrhagic, gan- nous or suppurative varieties, which are phases of the same ctive conditions, though the morbid appearances differ so ch.

Diagnosis.

he diagnosis of acute pancreatitis is at first difficult, as symptoms are only characteristic of peritonitis, starting he upper part of the abdomen. Fitz's rule is worth bearing ind:

ute pancreatitis is to be suspected when a previously healthy person ufferer from occasional attacks of indigestion is suddenly seized violent pain in the epigastrium, followed by vomiting and collapse, in the course of twenty-four hours by a circumscribed epigastric ling, tympanitic or resistant, with slight rise of temperature.

cute pancreatitis and intestinal obstruction may co-exist. he swollen pancreas may embrace and strangle the denum, or a collection of inflammatory material may ously compress it. The swelling will, however, be usually general in pancreatitis than in obstruction, and, even if bowels will not move, flatus can generally be passed. In of doubt, exploration may reveal fat necrosis. In per- tion of a duodenal or gastric ulcer there will generally e been premonitory symptoms pointing to the disease re the perforation actually occurs, and almost imme- ely an absence of liver dullness will usually be found. In e ptomaine poisoning the history, the more general acter of the pain, and the presence of diarrhoea will lly help the diagnosis.

phlegmonous cholecystitis the symptoms are usually eded by a swelling and well-marked tenderness beneath ight costal margin, at first distinctly localized, and only extending to the epigastrium and umbilical region, e the tenderness is generally found in acute pancreatitis. over, the history of gall stones or typhoid fever will be ed. In gangrenous appendicitis the tenderness below to the right of the umbilicus and the swelling in that n usually remove the difficulty created by the pain in appendicitis and pancreatitis, being frequently felt at just above the umbilicus. In acute pancreatitis the ciating pain, at first epigastric, but later general, the mely rapid loss of weight, and the irregular temperature sually characteristic.

e urinary test for the pancreatic reaction should not be cted, as a positive reaction has been obtained in all the of acute pancreatitis in which it has been employed. suria is usually absent, but in two out of forty-one cases emorrhagic and in three out of forty gangrenous pan- itis cases Korte found it present.

Treatment.

pain at the onset is so acute as to necessitate the nistration of morphine, and the collapse will probably nd stimulants which, on account of the associated ing, may have to be given by enema. In the early stages the symptoms are often not clear enough to warrant operation, but as soon as acute pancreatitis is proved, as it may be by the combination of symptoms, together with the urinary test, the surgeon must not wait until the collapse has passed off as that may be dependent on septic absorption which can only be relieved by operation.

Just as in perforative or gangrenous appendicitis an early evacuation of the septic matter is necessary to recovery, so in this equally lethal affection, an early exploration from the front through the middle line above the umbilicus or from behind through the left costo-vertebral angle is indicated, in order if possible to relieve tension, evacuate septic material, secure free drainage and arrest the haemorrhage which leads to disintegration and necrosis of the pancreas. The after-treatment will be chiefly directed to combating shock and keeping up the strength until the *materies morbi*, both local and general, can be thrown off. Even if no pus be found no harm should accrue by such an exploration, which can be made in a few minutes through a very small incision in the middle line above the umbilicus, if necessary with the aid of cocaine. After establishing the diagnosis by the discovery of fat necrosis, a posterior incision in the left costo-vertebral angle will enable the diseased organ to be freely examined and, if necessary, drained for the evacuation of pus and gangrenous material without risk to the general peritoneal cavity and with little danger of retained septic matter, as the drainage will be dependent. If, however, the inflammatory collection or the tensely-distended and inflamed gland be incised from the front, as is advisable in certain cases, gauze-packing and gauze-drainage may usually be relied on to prevent general infection of the peritoneum.

If there are signs of obstructed common duct the gall bladder should be drained, and if gall stones be discovered they should be removed, if this can be done, without seriously adding to the length of the operation or imperilling life by adding to the shock, otherwise they may be left and removed on a subsequent occasion if free drainage of the bile passages can be secured. I have had six cases of acute pancreatitis under my care and have operated on four, of which two recovered. Of the two cases in which operation was not consented to and where medical treatment alone was carried out, death occurred in the first case on the third day and in the second after a week's illness attended in both with great pain and incessant vomiting.

The argument that the percentage of mortality will be less if the surgeon waits for the formation of a local abscess is fallacious, as it takes no consideration of the large percentage of those who die before such a favourable result is presented; and in the second place, many patients never develop a local abscess, the process being diffuse from the onset. The high mortality of an early operation in acute cases is due to the fact that in many intestinal obstruction was suspected and the collapsed patients were subjected to a prolonged search for the seat of the supposed lesion. Of fifty-nine reported cases of operation (including my own) during the acute stage, twenty-three recovered. Although this is a large mortality it must be borne in mind that the disease usually ends in death if not treated surgically.

The lessons one may learn from recorded cases is not to wait until the system is overweighted with absorbed poison before operating and not to spend too long over the operation.

SUBACUTE PANCREATITIS.

Although no hard-and-fast line can be drawn between acute and subacute pancreatitis, yet the less acute onset, the longer course, the limitation of the suppurative process by lymph barriers and the much more hopeful outlook as the result of treatment present so many differences that I think such a division is desirable both from the point of view of diagnosis and treatment.

Subacute pancreatitis may have a more or less sudden onset with acute pain and vomiting and may be associated with constipation, but collapse is not a marked symptom and is as a rule absent. The upper abdominal region does not become so rapidly distended and vomiting is less severe and less prolonged.

At other times, and this is generally the case, the onset is more gradual, though the symptoms may be similar. As gall stones are the usual cause, a history of intermittent attacks of spasms, at first without and later accompanied by jaundice, will be elicited and before the onset of pancreatic trouble, the symptoms of infective cholangitis in the shape of rigors with deepening of jaundice and with intermittent fever will generally be found. Tenderness over the pancreas is well

marked, and as the tympanites is less than in the acute form it may be possible to feel the swollen gland, especially under an anaesthetic; as the case progresses a definite tumour often develops.

Constipation gives place to diarrhoea, and pus or blood may be noticed in the stools, which have a very fetid odour and usually contain fat and undigested muscle fibres. The pulse is not so seriously affected as in the acute form, and the temperature is more irregular. I have seen the temperature reaching to 104° and 105°F. and yet the pulse to vary between 90 and 110. The morning temperature may be normal and the evening temperature high for several days or even weeks. Rigors or chills usually occur and may be repeated from time to time. The pain occurs in paroxysms, but there is also a constant dull pain at the epigastrium. The patient may lose the more urgent symptoms and appear to be really improving, but the loss of flesh and feebleness continue and relapses usually occur, leaving the patient each time more and more feeble until death supervenes from asthenia. Albuminuria is pretty constant, but glycosuria is rarely present. The pancreatic reaction in the urine is as a rule well marked.

If an abscess develop, the pus may form a tumour, projecting in the superior abdominal region and forming a tender swelling behind the stomach, or, perhaps, coming to the surface above or below that viscus; or it may burrow into either loin, forming a perirenal abscess, or, passing under the diaphragm, it may form a subphrenic abscess. Occasionally the pus may follow the psoas muscle and form a subperitoneal abscess in the iliac region, or even passing over the brim of the pelvis it may collect in the left broad ligament. Sometimes the abscess bursts into the stomach and is vomited, or into the bowel and is voided per anum, after which diarrhoea may continue and pus may be seen from time to time as any fresh collection forms and bursts. With the evacuation of the abscess relief occurs for a time, and the temperature improves; but relapses usually take place and a mild form of septicaemia persists, with a hectic temperature. Death is the usual termination unless an operation be done, though spontaneous recovery may possibly occur after a tedious and prolonged illness, should the abscess burst into the bowel or be otherwise safely evacuated.

Treatment.

As in the acute condition morphine may be required to relieve the pain and lessen the collapse. Distension may have to be relieved by lavage of the stomach and turpentine enemata, or by the administration of calomel by the mouth. Calomel is also of benefit as an intestinal antiseptic, given in small repeated doses, followed by a saline aperient. As soon as the constipation is relieved diarrhoea is apt to supervene, when salol and bismuth, with small doses of opium, may be given. If surgical treatment is decided on, a median incision above the umbilicus will enable the operator to palpate the pancreas and locate any incipient collection of pus, which, if practicable, should then be evacuated by a posterior incision in the left or right costo-vertebral angle. If the posterior incision be thought impracticable, the collection of pus may be removed by aspiration and the cavity opened and packed with gauze, which may be brought forwards through a large rubber tube; this procedure will in the course of from twenty-four to forty-eight hours establish a track isolated from the general peritoneal cavity.

In abscess of the pancreas, which we must distinguish from the acute suppurative pancreatitis, where the pus is diffused through the gland, or where the abscesses are small and multiple, the suppurating process is limited by a pouring-out of lymph, so that, should the patient survive the initial more acute stage and discovery of the pus-containing cavity be made, the condition is one decidedly amenable to treatment by drainage. It is important to see that the cause is removed, if that be possible; for instance, gall stones or pancreatic calculi, so that, if recovery occur, there may be nothing left to lead to a recurrence of the trouble.

I have had eight cases of abscess of the pancreas under my care, one of which was mentioned under acute pancreatitis. Six were operated on, with recovery from operation in five, though in one of the cases the relief was only for a few weeks, and in another for a few months. In the eighth case, which was not operated on, the abscess burst into the bowel and was discharged, the diagnosis having been made by an examination of the tumour under an anaesthetic and by the presence of the pancreatic reaction.

When inflammation of the pancreas has ended in abscess, chronic interstitial pancreatitis will also probably be present. It is possible that in some cases the interstitial change m be local, though I suspect in others it will be general, a may then lead to atrophy of the gland and to glycosuria.

A search through literature reveals a considerable num of pyaemic abscesses of the pancreas, but those resulti from subacute pancreatitis are not common. Including own seven operations for abscess of the pancreas, with t deaths, there have been seven others recorded, with th deaths. Thus, of fourteen cases, five died, giving a mortal of 35.6 per cent.

CHRONIC PANCREATITIS.

Chronic pancreatitis may be interlobular, in which case exerts pressure on and causes atrophy of the true glandu substance and interferes with its digestive function, or int acinar, in which case the fibrous tissue invades also the islar of Langerhans and leads, not only to an interference with t digestive but also with the metabolic functions of the gla and so to glycosuria.

In cystic disease of the pancreas some interstitial pancre itis is usually present and, in many cases, the chro inflammatory process is the true cause of cyst formation. an advanced condition the gland may be atrophied, small a cirrhotic, almost like true cirrhosis of the liver.

Chronic interstitial pancreatitis may be primary, as in the cases recovering from the acute or sub-acute forms of pa creatitis, or from acute or chronic or suppurative catarrh, o may be secondary as in syphilis, alcoholism and arter degeneration, and in the zymotic diseases such as typh and influenza. The inflammatory process may be gene throughout the gland or limited to certain portions, especia the head.

The most frequent cause of chronic interstitial pancreati is cholelithiasis, which causes obstruction to the pancrea ducts and thus leads to an infective process which extends the parenchyma, but anything causing duct obstruction, su as pancreatic calculi, stenosis from ulceration or growth, m act in the same way. It may also follow catarrh extendi upward from a duodenal catarrh or from a cholangitis, or may be due to the extension of an inflammatory process fr the stomach, as in chronic ulcer eroding, or an acute ul perforating into the pancreas.

In the primary stages of a catarrhal inflammation t swelling, which depends on an increased supply of blood the part, and on engorgement of the excretory ducts, a which may be readily felt and recognized by the operati surgeon may after death almost entirely disappear, so that t pathologist may be unable to recognize any lesion except microscopic examination, and even the microscope may in t early stages only show an excess of leucocytes in the tissu Hence chronic pancreatitis was until recently only recogniz when extreme, and was looked on as a mere pathologic refinement of no practical importance except in certain cas of congenital syphilis and alcoholism.

The surgeon has considerable advantages over the path logist in cases like those under consideration, for he has t opportunity of examining and handling the living pancre and after some experience he can tell the difference betwe the feel of the normal and the diseased gland as well between chronic pancreatitis and cancer. In interstitial pa creatitis the pancreas is uniformly swollen and harder th usual, and the lobules give the feeling of being mapped o and differentiated in a manner very different from their sta in the ordinary healthy gland and also very different from t hard, nodular character presented by cancer of the head body of the pancreas.

The symptoms of pancreatic catarrh passing on to inte stital pancreatitis present great varieties according to t cause; for instance, if it be due to gall stones there will be history of painful attacks in the right hypochondrium ass ciated with jaundice and possibly accompanied by fever of intermittent type. Tenderness at the epigastrium wi some fullness above the umbilicus will usually noticed; loss of flesh soon becomes marked, and if the pa creatic symptoms predominate the pain will pass from t epigastrium round the left side or through to the renal a scapular regions. Fat and muscle fibres may be noticed the motions as soon as the obstruction to Wirsung's duct complete, and the pancreatic reaction will be found in t urine.

If gall stones be not the cause, there may be merely aching or painful attacks not at all pronounced, or t symptoms may come on painlessly, associated with dyspeps and with slight jaundice soon becoming more marked; such cases the gall bladder may dilate and give rise to a su

cion of cancer of the pancreas, which the rapid loss of flesh ll tend to confirm. In the later stages, pale or white and lky motions may be passed and a haemorrhagic tendency ll be noticed. The liver is usually enlarged when the mmon bile duct is tightly gripped, and in several cases I ve found cirrhosis of the liver, doubtless due to long con- ued stagnation of septic bile in the ducts. I have seen ll-marked enlargement of the spleen on four occasions. examination of the urine in all my cases gave the aracteristic pancreatic reaction. In 60 per cent. bile was esent in the urine. In 40 per cent. calcium oxalate crystals re found. In 4 per cent. only the oxalate crystals were ociated with bile. In none of my cases was glycosuria nd, though in two cases it developed several years later; only occurs as a very late symptom. Death may occur from henia due to long-continued jaundice or from diabetes or m haemorrhage.

Although gall stones in the common duct are often the se of catarrhal or other inflammatory trouble in the ncreas, it does not follow that the sequence always occurs. r instance, if the gall stone be too large to pass into the er end of the duct, jaundice will be unaccompanied by ncreatic disease. It will also be unlikely to occur:

) If the duct of Santorini freely communicates with Wirsung's duct is able at the same time to discharge the secretion of the pancreas ly into the duodenum.

) If the duct of Wirsung and the common bile duct open by separate ices and the ampulla of Vater be absent.

) If a gall stone should pass rapidly into the bowel, so that the ruction is only of short duration.

he treatment of catarrhal inflammation of the pancreas of chronic interstitial pancreatitis will at first be by eral and medical means, aiming at the cause, whether that gall stones, pancreatic calculi, duodenal catarrh, gastric er, alcoholism, or syphilis; but if after a fair trial of dical treatment, not too long continued, the jaundice and of weight continue, and the signs of failure in pancreatic estion and metabolism are manifesting themselves, the stion of surgical treatment should be seriously considered, the condition is one that, if not relieved early, will cer- ly lead to serious degeneration of the gland. When ration is undertaken before the process has advanced to -marked pancreatitis or to the interacinar form, my erience is that complete cure is effected in a very great portion of cases; but if interstitial inflammation has me well marked, an arrest of the process is all that can ooked for. Thus, in some cases, apparently well several s after operation, a pancreatic reaction can be obtained in urine, while in two cases glycosuria has developed, thus ving that inflammation of the pancreas, if at all advanced, es abiding changes.

rgical treatment will vary, according to the cause and ptoms. Where there is evidence of obstruction, whether he pancreatic or common bile ducts, the cause, in the ter number of cases (twenty-seven as compared with nty-four) will prove to be concretions, which should, if ible, be removed. At the same time, the bile ducts ld be drained, either by means of cholecystotomy or ecystenterostomy. Where no obstruction, in the shape ll stones or pancreatic calculi, can be found, I would still se drainage of the bile ducts by one of these operations. nage of the bile ducts acts, not only by removing one ce of irritation, in the shape of infected bile, but at the time it relieves tension and allows the infected pan- ic secretion to escape, besides also freeing the blood from son which seriously damages it and the system at large. many cases also the cause of obstruction is removed. ther advanced chronic interstitial pancreatitis will be pletely cured by operation it is difficult to say, for in of the severer cases a pancreatic reaction is found long operation and after all other symptoms have cleared up; n several cases that have been tested years after opera- the pancreatic reaction has entirely disappeared, thus, rently, proving that the case is cured. Moreover, I ect that the operation arrests the process of disorganiza- even if it cannot alter changes that have already red. Doubtless, in some the disease was a catarrhal mmation of the pancreas, which was arrested either e interstitial inflammation had actually developed or e it had advanced too far, and probably in none of the had the interstitial change advanced so far as to become acinar, or to present the advanced stage of atrophy or osis, as in none of the cases was sugar present in the at the time of operation, though the metabolic functions e pancreas were impaired, as shown by the presence of the pancreatic reaction, and the digestive functions were affected, as shown by the condition of the faeces.

Statistics of Operation for Chronic Pancreatitis.

In order to ascertain the after-results of the operations letters were recently addressed to the friends or medical attendants of all the patients who had not been recently heard of. In one case where the cause was due to pancreatic calculi these were removed both from Wirsung's and Santorini's ducts with complete recovery, and the patient is now well.

In twenty-seven cases of catarrhal or interstitial pancreatitis, where gall stones were found obstructing the pancreatic portion of the common duct, choledochotomy in nineteen, cholecyst-otomy in five, and cholecyst-enterostomy in three, were followed not only by immediate recovery but, as ascertained by recent reports, these patients are now well, except one case that has since died of acute bronchitis, one who is suffering from cirrhosis of the liver, and one patient who, eight years and a-half subsequent to operation, is apparently well, though sugar has recently been found in the urine. In twenty-four cases where obstruction to the common bile duct was due to an inflammatory condition of the pancreas compressing the bile duct, though probably in many of the cases originally due to gall stones, yet where gall stones were not actually present at the time of operation, the bile ducts and thus indirectly the pancreatic ducts were drained in twelve cases by simple cholecystotomy and in nine by cholecyst-enterostomy. In three cases adhesions were separated, and no drainage of bile ducts was performed. Of these twenty-four cases twenty-two recovered. Two out of fifty-one patients died as a direct result of the operation, one a cholecystotomy, undertaken in a patient reduced to the last stage of exhaustion before a surgical opinion was sought, and where at the necropsy a cirrhotic condition of the head of the pancreas was found. and a second in which a cholecyst-enterostomy was undertaken in the presence of adhesions that appeared too formidable to deal with con-sidering the poor condition of the patient, who succumbed a few hours later. In this case necropsy revealed a stone in the pancreatic portion of the common duct which would have been discovered had the patient's condition permitted a thorough exploration. From four the letters were returned as "gone, no address." The remaining sixteen have completely recovered.

Of three patients where the pancreas was found enlarged at operation, nothing beyond separation of adhesions and manipulation being done, all recovered. In one of these cases glycosuria has supervened and is still present, though the patient seems to be well. The after-history of one cannot be traced. Of the third, word has been received to say that she is well, fourteen years after operation.

Thus I have no hesitation in advocating operation in this class of cases after general and medical means have had a fair but not too long a trial, and the results I have given will, I think, justify my conclusions.

A search through the literature of the subject has revealed the facts that (apart from my own cases—fifty-one in number with two deaths, or a mortality of 3.9 per cent.) there have have been sixty-two operations for chronic pancreatitis re-corded, of which eight died, yielding a rate of mortality of 12.9 per cent. These cases have all been verified for me by Mr. Clark, of the Royal Medical and Chirurgical Library.

Reference.

1 *Bull. de la Soc. Med. des Hôp*, July 30th, 1903.

French Congress of Alienists and Neurologists.—The fourteenth annual meeting of the French Congress of Alienists and Neurologists will be held this year at Pau from August 1st to the 7th. Among the questions to be discussed are motor localization in the medulla, and the measures to be taken in regard to criminal lunatics. All communications relative to the Congress should be addressed to the General Secretary, Dr. Girma, Médecin-Directeur de l'Asile Public des Aliénés, Pau.

The Cause of Small-pox.—The investigations of Dr William T. Councilman, of Harvard, on the etiology of small-pox—an account of which was given in the Epitome of the British Medical Journal of May 23rd, 1903—are to be supplemented by further researches in the Philippines. Two of his assistants. who have worked for some years on the subject, Drs. W. R. Brinckerhoff and E. E. Tyzzier, are about to proceed to Manila for the purpose. They will endeavour to determine the relations of these protozoa to others and the mode of infection of man. Other tropical diseases may also be studied as they are met with.

MEMORANDA:

MEDICAL, SURGICAL, OBSTETRICAL, THERAPEUTICAL, PATHOLOGICAL, Etc.

A HYDATID CYST IN THE OVARY.

On reading a paragraph on hydatid cysts in abdomen and pelvis in the British Medical Journal of February 13th, it occurred to me that the following notes of a case of hydatid disease of the left ovary might be of interest:

The patient, aged 28 years, unmarried, was sent to Professor Simpson by her medical adviser. She complained of swelling of the abdomen and general weakness and pain across the bowels, the latter of which had extended for a period of four years. There was nothing of special interest to note in her menstrual history. On examination a tense fixed swelling was found occupying the left iliac region and bulging down into the left fornix, the uterus not being enlarged but pushed over to the right side.

On opening the abdomen a cyst was exposed occupying the left side of the abdomen and nearly covered by adherent omentum. Great difficulty was experienced in removing the tumour owing to its adherence to omentum and bowel, especially the sigmoid flexure, uterus, and left Fallopian tube. The cyst was attached to the left side of the uterus by a small pedicle, which was duly ligatured and divided. No trace of the left ovary could be found. The right ovary was found to be quite normal in size and appearance, and the uterus was not enlarged. The abdominal wound was closed up in three layers, and, apart from a temporary retention of urine after operation, the patient made an uninterrupted recovery and went home within six weeks. On examination after removal the cyst had all the external appearances of a dermoid tumour, and it was only after cutting into the cyst that a crystalline watery fluid escaped freely along with a large number of daughter cysts. The somewhat thick cyst wall was composed of fibrous tissue, dense on one aspect, more cellular and loose on the other, while between the bundles of fibres were seen degenerating cells. The fluid on boiling showed a slight milkiness, which disappeared on the addition of nitric acid. It contained hydatid hooklets and scolices. The walls of the daughter cysts were composed of laminated translucent material, corresponding exactly to the hydatid ectocyst. Their contents were similar to those of the mother cyst, but no hooklets were discovered.

G. F. Barbour Simpson, M.B., F.R.C.S.E., M.R.C.P.E.
Edinburgh.

A CASE OF ILIAC ABSCESS FOLLOWING GONORRHOEA.[1]

The following note is of interest mainly as illustrative of the untoward effects of gonorrhoeal infection:

W. S., aged 21, clerk, had gonorrhoea last August, and for about six weeks had quack treatment. At this time there was still some urethral discharge and there were several small ulcers on the glands and inner surface of the prepuce. He had also a large bubo in the left groin. This was lanced and treated in the usual way.

On December 8th, there were two large tender glands on the right side as well. Hot fomentations and belladonna were applied and they did not suppurate. The patient also complained of a deep-seated aching pain in the right iliac region, near the anterior superior iliac spine. There was no swelling, but only tenderness on deep pressure. He felt ill generally and unfit for work, and the temperature rose slightly. There was no evidence of appendicitis, psoas abscess, etc.

On January 5th, 1904, the swelling was quite apparent, dull on percussion, tender, but not fluctuating. On January 7th, after disinfecting in the usual manner, 1½ drachm of 5 per cent. eucaine β was injected under the skin covering the swelling. An incision was then made about 1½ in. long opposite the anterior superior spine and about 1 in. from it. With two dissecting forceps the abdominal muscles and fasciae were torn apart, and the finger was pushed down by the side of the swelling towards the iliac fossa, so as to keep outside the peritoneum. With the other hand an artery forceps was passed along the finger and forced into the swelling, and the blades widened. There was a gush of pus amounting to about 6 oz. The cavity was then irrigated with an ear syringe and rubber tube, and packed with iodoform gauze and covered with absorbent wool. On the eighth day the patient was able to return to work. This case of course reminds one of the anatomical connexion between the two sets of glands.

The eucaine was quite sufficient as an anaesthetic, but with young children or nervous and exhausted persons it cannot take the place of a general anaesthetic.

Bootle. Robert Turner, M.D., F.R.C.S.Edin.

[1] Read before the Bootle Division of the Lancashire and Cheshire Branch.

A NON-TOXIC PREPARATION OF IODINE.

Being specially interested in the supplemental treatment of enlarged glands and adenoids with iodine, about seven years ago I made several experiments with preparations of that drug with the object of finding one which could be given internally in large doses for considerable periods without causing any symptoms of iodism, while exercising its specific effects on lymphatic enlargements.

The late Mr. Martindale and the manager of Messrs. Morson and Sons were good enough to try several formulae for me in their laboratories, and finally succeeded in producing an easily-made compound in which iodine was loosely combined with an organic substance, rendering it fit for ready absorption without causing any irritation of the digestive canal, and affording a high physiological activity without producing any evidence of intolerance.

This preparation I have prescribed ever since both in hospital and private practice, and having watched the effects have come to the conclusion that it has fully confirmed my first estimate of its value.

The formula which I am now using has been perfected for me by Mr. W. H. Martindale, is easily prepared, and very palatable. The iodine is in loose chemical combination with tannic acid, and though none can be demonstrated as free, yet it is sufficiently free to be readily given up to the tissues after absorption, and consequently there is no fear of any local gastric or intestinal irritation so often associated with the administration of free iodine. Such combination is of a nature similar to that of oxyhaemoglobin.

Formula.

Syrupus Iodo-Tannici.

Iodine, grams 2½.
Tannic acid, grams 4.
Alcohol (90 per cent.), c.cm. 38.
Syrup, q.s. to c.cm. 75.

Dissolve the iodine in the alcohol: add the tannic acid and 30 c.cm. of the syrup: heat to just below boiling point until the solution affords no evidence of free iodine with the starch reaction (about twenty minutes). Cool and add the remainder of the syrup with flavouring. Each drachm contains 2 gr. of iodine. It may be given in doses of ½ to 2 drachms in water or wine before meals, according to age.

I have found that children tolerate it well and it has proved specially useful in cases of chronic lymphadenitis associated with, or independent of, adenoids, etc., enlarged faucial tonsils, particularly when the cervical glands persist after tonsillotomy. It is further indicated in those children who possess but slightly enlarged faucial and pharyngeal tonsils in whom operation is contraindicated or objected to. In atrophic rhinitis it has afforded very gratifying results, especially when combined with arsenic; also in simple bronchocele supplemented by the use of iodine oleate (1 in 10 of oleic acid) as a pigment.

Such an organic combination of iodine is by no means new as it was introduced many years ago as a wine "Vin Nourry," but so far as I know no definite or simple formula suitable for prescribing purposes has been available. It is for this reason and for the very satisfactory results which it has afforded in a prolonged trial that I venture to recommend it.

London, W. Wyatt Wingrave, M.D.
Physician, Central London Throat and Ear Hospital.

HALLUX RIGIDUS.

Having been much interested in the various articles and letters on the subject of hallux rigidus that have appeared recently in the British Medical Journal, I should like with your permission to give my experiences in connexion with this complaint, as my conclusions differ somewhat from those that have been set forth.

I daily see many telegraph messengers, and it is amongst these, and these members of the staff alone, that the complaint occurs. Amongst the boys the complaint is not uncommon—advice is applied for on account of pain in the great-toe joint, which interferes with their walking powers, and the complaint is called "stiff toe" by the sufferers. The ailment prevails between the ages of 13 and 17. I have no experience of the boys at an earlier age than this, but after

the age of 18 the complaint disappears, and the adults, such as postmen, do not suffer from it. The condition presents itself in all sorts and conditions of feet, well-shapen and misshapen; it may be found associated with flat-foot, but, in my opinion, it is not in any way due to this. Recurrences of the complaint are common, all pain and disability disappearing in the intervals. The attack generally incapacitates the boy for about four or five days. The complaint varies in intensity from tenderness made manifest when the joint is pressed between the thumb and forefinger, to a distinctly swollen and inflamed joint, with an erythematous blush on the skin, on which joint the slightest palpation gives pain.

Pathology.—In my opinion the condition is due to an inflammation of the epiphysis which caps the first phalanx of the great-toe joint at the proximal end. On several occasions I have found the epiphysis loosened, and palpation of the joint shows that this part, and this only, is the seat of the pain and inflammation. Complete ossification of this epiphysis with union to the shaft occurs at the age of 17 to 18. When this has taken place there is no further trouble. My experience of twenty years has allowed me many opportunities of verifying this, as well as that the ailment does not result in any stiffening of the joint, though an enlarged joint and is perceptible.

Causation.—In my opinion this ailment, in the form I have described, is due to much walking in boots made with strong unyielding soles. I am the more inclined to think this correct as I find that it prevails more when the boys are wearing new boots.

Treatment.—Rest without boots, and iodine paint daily, for four or five days, results in an alleviation of the condition, so that the boy is able to go to work.

REMARKS.—It would hardly seem that the complaint I have described is identical with the form of the ailment described by Mr. Tubby, judging from the article on p. 976, vol. ii, 1903, yet his account of the case of the youth aged 17 in the same article appears to me to indicate a complaint very similar in character to that which comes under my observation so frequently.

JOHN SINCLAIR.

Medical Department, General Post Office, E.C.

POTASSIUM BROMIDE IN INFLUENZA.

I HAVE often felt surprised that so little mention has been made of this valuable drug in the literature of influenza. Those of my medical friends to whom I have spoken of it have, for the most part, turned a polite but deaf ear to my eulogies, doubtless dreading the effect of such a depressing agent in an illness sufficiently so in itself. But I have often found it to have a sedative and even tonic action in neurotic and hysterical cases. It is most valuable in the treatment of acute mania, alcoholism, etc., and in cerebro-spinal meningitis, and why not in a disease like influenza, in which the nerve tissues are probably in a state of inflammation, or at least of great irritability? I have found it specially useful in cases in which aching in the head and limbs was a prominent symptom given in doses of 10 gr. or 15 gr. every two or three hours and during convalescence (in spite of the apparent therapeutic incompatibility) have found tr. nucis vomicae go very well with it as a tonic. It should be given with care to old or bronchitic patients and to those with valvular disease of the heart, though in all such cases the ammonia salt may usually be given with safety.

GEORGE A. BALLINGALL, M.D.Brux., etc.

St. Leonard's-on-Sea.

MESENTERIC EMBOLISM.

THE following case presents certain points of interest:

W. C., aged 78 years, a farmer, had for some few years had mitral disease and markedly atheromatous arteries.

On December 22nd, 1903, an attack of cerebral embolism, unaccompanied by loss of consciousness, resulted in partial paralysis of the left side.

On January 5th, 1904, having then been convalescent and sitting up for some days, he had an egg for breakfast, got up, and during the morning had some milk to drink. About noon he had a sudden attack of acute pain centreing in the umbilicus, vomited, and had an urgent desire to defaecate. He passed a copious motion, but the abdominal pain continuing to be very acute I was sent for and saw him at 4.15 p.m. He was in bed and suffering, so much so that he could hardly sit still for me to examine him and had difficulty in telling me his symptoms.

He referred the chief pain to the umbilicus, but said that it extended from that point across to both sides. The abdominal wall moved fairly freely with respiration, but was rather hard, tender upon pressure, and tympanitic upon percussion, without marked distension. His skin was cold, and the face had a pinched look, and denoted great suffering. The pulse was small, irregular, and slightly increased in rate. I gave him two hypodermic injections of morphine sulphate (¼ gr.) at an interval of twenty minutes, and after that ⅛ gr. every three hours by the mouth. The pain, however, was not relieved, and he suffered intensely during the night. He also vomited several times what was described as "a dark reddish-brown fluid, just like blood." It clotted in the vessel into which it was received, but, unfortunately, was thrown away, so that I did not see it myself.

I diagnosed mesenteric embolism, and gave a very bad prognosis, borne out by his death at 10.30 a.m. on January 6th. Having obtained permission to do a partial necropsy I opened the abdomen 29 hours after death, noting beforehand that putrefactive changes were evidently taking place rapidly, the smell very bad, the abdomen distended, and its walls in many places purple. On opening the peritoneum much gas and bloody serum escaped, and the transverse colon presented in the upper half of the incision. The whole of the colon looked congested, but especially the transverse part, which was very dark purple in colour; here there were three spots, about 1 in. in diameter, where the peritoneal coat had given way and the inner coats were bulging through. Some parts of the small intestine were congested, but only very slightly as compared with the colon. The peritoneal cavity contained a large quantity of blood-stained fluid, but no lymph or pus was present, while the stomach and appendix were both normal in appearance. Beyond what I have noted I could find nothing further abnormal in the abdominal cavity.

Taking the history of the case, the recent attack of cerebral embolism and the sudden onset of the abdominal attack, without other obvious cause, one was justified, I think, in diagnosing embolism of a mesenteric artery, and this diagnosis appears to me to have been borne out by the necropsy, so far as it was possible to perform it, the superior mesenteric probably being the vessel occluded.

Culmstock, Devon. W. HORTON DATE.

BILHARZIA IN PERSIA.

IN looking up the distribution of bilharzia I have been unable to find any mention of the disease as occurring in Persia. Dr. Powell, in the BRITISH MEDICAL JOURNAL of February 28th, 1903, mentions the fact that Major Childe, I.M.S., has seen a few cases in Bombay, his patients being Persians. Dr. Sturrock, of the Church Missionary Society, has pointed out the prevalence of the disease in Mesopotamia. The Persians, being Shia Mohammedans, annually visit Kerbela in large numbers on a religious pilgrimage; so that it is quite possible some might contract the disease whilst making the journey. The case I now wish to report is that of an officer in the Persian army. He has travelled much in Persia, but has never been outside the country. His only symptom is a painless haematuria. The ova are easily found on microscopic examination of the urine. Stone and ankylostomiasis are also common in Fars, the district in which the patient lived. It would be of interest to know what part of Persia Major Childe's cases came from.

JOSEPH SCOTT, M.B., C.M.Glasg.,
Medical Superintendent Government Indo-European Telegraph Department, Teheran, Persia.

DISSEMINATED SCLEROSIS AND EXOPHTHALMIC GOITRE.

IN the case of such diseases as disseminated sclerosis and exophthalmic goitre, in which the causation is so little known, all information is important. Last year a lady consulted me who was suffering from disseminated sclerosis and exophthalmic goitre, both fully developed. In January of this year I saw a young lady with well-marked exophthalmic goitre, and on making inquiries (because of similarity of surname) I found she was related to a family, three of whom (out of six children) I had seen with aberrant disseminated sclerosis. A fortnight ago I found that one of these last mentioned three had developed a goitre, but had no other signs of Graves's disease.

Of course, I know full well that such cases may be the merest coincidences, but I should like to ask your readers if they have seen any connexion between these two conditions, and if so, whether it is possible to suggest a common cause.

Manchester. ERNEST S. REYNOLDS, M.D.Lond., F.R.C.P.

REPORTS
ON
MEDICAL AND SURGICAL PRACTICE IN THE HOSPITALS AND ASYLUMS OF THE BRITISH EMPIRE.

ROCHDALE INFIRMARY.

RUPTURE OF THE MIDDLE MENINGEAL ARTERY BY CONTRE-COUP.

(Under the care of A. Jefferson, M.D., B.S.Lond.)

[By William C. Burns, M.B., Ch.B.Glasg., late House-Surgeon to the Infirmary.]

A. O., female, aged 34, was admitted to the Rochdale Infirmary at 8.30 a.m. on December 12th, 1901, having been found in the street in an unconscious condition. On admission she was somewhat collapsed, her temperature being 98° F, her pulse rapid and thready, her face very pale and her extremities cold. She was in a state of muttering delirium and any attempt to gain information from her regarding her identity resulted only in increased restlessness and muttering. She had a scalp wound over the right parietal eminence of about ¾ in. in length extending through all the tissues of the scalp and exposing the bone for about ⅜ in. The wound was not clean cut but showed on its upper edge two short cuts at right angles to its length and about ⅛ in. to ¼ in. in length. No depression or fracture of the skull could be seen or felt through the wound.

There was a superficial wound over the right eyebrow as well as a bruise on the right side of the nose over the prominent part of the nasal bone. The right shoulder was dislocated and there was bruising of the right elbow. (An attempt was made to reduce the dislocation but this failed and at the necropsy the dislocation was found to be an old one.) Both pupils were contracted equally. There was no bleeding from the nose, ear, or mouth, and no subconjunctival haemorrhage.

Examination of the chest revealed marked dullness at the right base with diminished respiratory murmur while higher up pneumonic crepitation was easily heard as well as bronchial breathing. Some crepitation was also heard over the left lung towards the base but there was no dullness.

The catheter was passed and several ounces of urine were drawn off. This had an acid reaction; specific gravity 1020; albumen present in a marked amount; no sugar was present. Ophthalmoscopic examination revealed albuminuric retinitis, but there was no marked swelling of the optic discs. The patient was delirious all day, but was able to swallow some fluid nourishment even as late as 7 p.m. The temperature rose gradually throughout the day, and at 8 p.m. it registered 101.8° F. The pulse had improved during the day, becoming less rapid and regaining tension, without registering, however, less than 110 per minute. The respirations averaged about 30 per minute during the day. After 8 p.m. the patient became more unconscious, and the breathing became more rapid and laboured, the pulse increased in rapidity, and the face became slightly cyanosed. There was now general muscular relaxation; hitherto there had been no difference in the tone of the muscles on either side which could act as a guide to the localization of cerebral pressure. At 9 p.m. the respiration and pulse were both much increased in frequency, and the patient died suddenly on being raised slightly on account of the onset of pulmonary oedema.

Necropsy (December 13th, 5 p.m.).—The body was that of a fairly well-nourished female. There was a fair degree of *post-mortem* rigidity. The wound over the right parietal eminence was as already described in the clinical report. On reflecting the scalp a fine fissured fracture was seen, commencing somewhat in front of the anterior limit of the scalp wound, and extending forwards and downwards to the junction of the parietal with the frontal and sphenoid bones. There was extravasation of blood through the fracture into the temporal muscle. On opening the skull the fissure was seen to extend through both tables, and to traverse the base of the skull for about 1¼ in. in a transverse direction along the posterior limit of the anterior fossa. On this, the right, side there was no subcranial haemorrhage. On the left side of the skull cavity a very large subcranial haemorrhage had taken place from a small rupture in the anterior branch of the middle meningeal artery. The clot covered an area of quite 3 in. square, and was situated in the middle fossa, extending upwards and backwards. There was slight subarachnoid haemorrhage over the same region (left lateral), but no extravasations in the cerebral cortex. Careful search revealed no fracture on the left side of the skull, nor was there any evidence of injury in the tissues of the scalp covering that region. The right lung presented the condition of red hepatization in its lower and middle lobes. The right pleural cavity contained a quantity of sero-purulent fluid (about 6 or 8 oz.), and there were flakes of lymph over the pleural surfaces. The lower lobe of the left lung was engorged in places, but there was no consolidation of it. The pericardium contained more than the normal amount of fluid. The heart was normal both as regards its walls and valves. The liver was enlarged. Spleen normal. The kidneys were both acutely congested, smaller than normal, and the capsule of each was for the most part adherent to the cortex, and could not be stripped off without in places tearing off the underlying cortex. The alimentary tract was normal as were the uterus and ovaries.

Remarks.—The presence of acute pleuro-pneumonia, associated with serious renal trouble in a patient simultaneously with a severe scalp wound and other evidence of injury to the head, rendered anything like an accurate idea of the amount of intracranial mischief almost impossible. Total muscular relaxation did not take place until about one hour before death, and there never was sufficient difference between the tone of the muscles on the two sides to justify one in arriving at a certain diagnosis of compression, let alone a diagnosis of its situation. The principal point of interest in this case is, however, the occurrence of rupture of the middle meningeal artery on the side opposite to the injury inflicted on the skull. The entire absence of witnesses of the accident renders it impossible to say with certainty that no injury was inflicted on the side of the ruptured artery, but all the positive evidence of injury is in favour of the woman having fallen violently on to the right side of her head and body, while the entire absence of any trace of injury to the left side of her head and body, even on dissection of the scalp, forms negative evidence of some weight (in an alcoholic subject especially) that no injury was received on the left side of the head. It is of course possible, as Dr. Jefferson suggested, that an injury on the side of the haemorrhage might have been sustained by the woman colliding with some object, for example door-post, off which she fell headlong on to a stone and thereby received the scalp wound and fracture. The balance of the evidence, however, is greatly in favour of the artery having been ruptured by a blow on the opposite side of the skull, in other words, by *contrecoup*. Several of the modern textbooks which I have consulted do not mention the possibility of such an occurrence, but Erichsen gives two cases and Druitt's *Surgeon's Vade Mecum*, as early as 1887, quotes Bergmann as having seen it three times in 99 cases. In conclusion, I beg to tender my thanks to Dr. Jefferson for kindly permitting me to publish the notes of the case.

REPORTS OF SOCIETIES.

CHELSEA CLINICAL SOCIETY.

Annual Clinical Debate.

T. Vincent Dickinson, M.D., M.R.C.P., President, in the Chair.

Tuesday, March 15th, 1904.

"Internal Secretion" in Disease and in Treatment.

Professor Hewlett, in resuming the adjourned discussion, said it was neeessary to distinguish three varieties of disturbance of internal secretions: the normal secretion of an given gland might be excessive, or diminished, or perverted and act as a poison, the effect of which would not be neutralized by the normal gland or by gland extract. The administration of gland or gland extract could only be of service when the secretion of the gland in question was diminished, and possibly in some cases in which secretion was perverted. The administration of a gland or extract would do harm if the secretion was in excess. In the case of the pituitary body and the suprarenal capsule, acromegaly, and Addison's disease, the failure or comparative failure of the use of the extracts of the glands in question in those conditions might be due to the fact that the internal secretion was not simply diminished but perverted. With regard to the thyroid, the distinction between the parathyroids and the thyroid proper needed further elucidation. In the treatment of cases in

vhich internal secretions were supposed to be diminished it vas a most fortunate fact—considering the extremely delicate nature of many of the substances produced in the living body nd their great proneness to undergo great alteration, if not lestruction, in the gastric digestion, or by heating—that the hyroid gland extract might be given by the mouth, and that drenalin, for example, might be boiled and still retain some f its physiological properties. At the same time, those con-iderations suggested that possibly some simple extracts of he gland could be prepared so that the extract was in as un-ltered a condition as possible, and if the extracts could be njected better results in some cases might be obtained than was possible to get at present. They might also hope for me practical outcome in the direction of the preparation f antisera: an antithyroid serum, for example, for disturb-nce of the thyroid, an antiadrenal serum for disturbances of e suprarenals, and so on. The method of preparation of ch a serum would be to inoculate animals with unaltered tracts of the glands in question. After a course of treat-ent the serum of the injected animal acquired antipro-rties towards the gland with which it had been injected. ch antisera, it might be conceived, would be of consider-le service in cases in which the secretion of the gland was excess. That mode of treatment had already been applied some extent in exophthalmic goître, and, it was stated, th benefit. Experimentally it had been found that anti-ra prepared by injecting animals with extracts of thyroid or e adrenals were possessed of very powerful physiological operties. It was interesting to note that when using anti-yroid serum the parathyroids were unaffected, pointing to distinction of function between the thyroids and para-roids.

Dr. Hale White confined himself to clinical and *post-rtem* points in connexion with internal secretion. He said t inasmuch as many cases of diabetes had been most care-ly examined after death, and no change had been found in pancreas, there was rather a tendency to belittle the ncreas, and not to assign to it its full share in the produc-n of diabetes. In order to test that matter by *post-mortem* perience he had gone through the *post-mortem* records of y's Hospital from the year 1884 to 1897, fourteen consecu-e years. During that time the number of necropsies in hospital was 6,708, and the pancreas appeared to the ed eye of the morbid anatomist diseased or injured in 142 ances. The most frequent disease met with in these 142 ances was primary malignant disease of the pancreas in 31 ances, and 26 instances of what the morbid anatomist ribed as a cirrhotic, congested, or hard pancreas. The t most frequent condition was the small atrophic pancreas, hich there were 19 cases. Some of those 19 pancreases, ch were described in the words of the morbid anatomist as phic, weighed 1 oz. On looking back at the clinical rts, and contrasting them with the necropsies, it was d that no fewer than 16 of those 19 people had diabetes. fully confirmed this experience of Guy's Hospital; he idered it proved that although one cause at least of etes was disease of the pancreas, yet that organ might be ctly healthy as far as the microscope could discover, and that the pancreas might be totally destroyed by disease out there being any diabetes. Haussmann, of the Berlin ological Institute, found in ten years that they had es of diabetes without pancreatic disease, 6 without any tion of the pancreas in the *post-mortem* report, 40 cases disease of the pancreas, and 19 cases where pancreas was considerably diseased, but where was no diabetes. Among the 40 cases in which they l disease of the pancreas 36 were simply atrophy (prac-y the same thing as at Guy's). Therefore, in Dr. Hale e's opinion it was proved that pancreatic disease was un-tedly important in the production of diabetes, but that were some cases in which no pancreatic disease was nt. They were still a long way off from understanding tes, and they were still very liable, when a new dis-y was made, to rest and not look forward any further. In xion with this, it was true that disease of the pancreas hyperglycaemia, but he thought they were inclined to n too great importance to that as a symptom of diabetes. had not got very far in the interpretation of diabetes so as they only thought about the sugar; there were so other metabolic perversions in diabetes. For instance, was the excess of ammonia, the presence of oxybutyric and other metabolic phenomena; and it was tous to attach all the importance of the disease gar rather than to those other conditions. It was not the sugar that killed—patients died from diabetic coma, and it was not the sugar which made the person comatose. Was it possible that under the term diabetes they were dealing with many different diseases? He thought some of those present might live to see diabetes separated up into different diseases; and the study of the internal secretion of the pancreas would help in that direction. They had now got as far as diabetes with no pancreatic lesion and diabetes with a pancreatic lesion. It might be possible that the failure of pancreas in treatment was because some of these cases had no pancreatic lesion. Dr. Hale White then briefly touched on the question whether chlorosis was not a perversion of the internal secretion of the female organs of generation? It was a peculiar disease, practically confined to women at a particular age, and almost always associated with amenorrhoea. Passing on to exophthalmic goître Dr. Hale White said it had been pointed out in the debate already that it was probably an auto-intoxication from internal secretion of an abnormal gland. There were some features about exophthalmic goître which that would not explain. It was known that any large collection of cases would show an association with rheumatic fever. Out of a thousand women who had had rheumatic fever and a thousand women who had not had it, those who had had it were more liable to exophthalmic goître than those who had not had rheumatic fever. Then, too, possibly there was a mental association, because it was certainly commoner in women, and most common in women who were unstable mentally. There was no doubt that exophthalmic goître was slightly hereditary, and the relatives of an exophthalmic goître patient were liable to have diabetes, and future research should be directed to show whether it was diabetes proper, or merely glycosuria. An interesting fact in connexion with the view that exophthalmic goître was an auto-intoxication from an abnormal thyroid was the undoubted influence of shock. He agreed with Professor Hewlett that it was necessary to know a good deal more about the parathyroids in connexion with the thyroids, for it was possible that they were the key to the situation. In concluding, Dr. Hale White suggested that they were still very much in the dark about the suprarenals, in spite of the discovery of adrenalin and its powerful action. Valuable and interesting as was the discovery of adrenalin, they must not jump to the conclusion that they knew what was the precise cause of Addison's disease. He also suggested that the symptoms of cirrhosis of the liver might be due to a perverted internal secretion of the liver, and he threw out the suggestion that it was possible that Hodgkin's disease was a perversion of internal secretion of the lymphatic glands.

Dr. Rose Bradford, F.R.S., in summing up the debate, said he felt that the previous speakers had really said all that there was to be said on the subject, and therefore he would try to summarize, as shortly as possible, their present knowledge. The subject of this discussion had been looked at from a very broad standpoint indeed, especially by Dr. Wright, who had embraced practically the whole question of immunity. If they restricted their remarks to the internal secretions which were produced by those aggregations of tissue elements which they called glands, they might look at the subject first of all from the physiological side, where it perhaps might be permissible to say their knowledge was more definite at the present time, or at any rate in a more concrete form, than when dealing with the pathology of the subject. Sir Lauder Brunton and Dr. Hale White had pointed out that the earliest internal secretions to be recognized by all were those of the generative glands and that of the liver; and it was interesting, with reference to the generative glands, to observe the complete confirmation, if such confirmation were wanted, which was afforded by Mr. Shattock's exact experiments with regard to the different effects produced by castration in animals, and those produced by ligature of the vas deferens, particularly his observations conducted on a certain breed of horned sheep, in which he showed that the ligature or excision of a portion of the vas deferens in the young male in no way prevented the development of the horns; whereas removal of the whole gland produced, both in mammals and birds, the production of a form which was somewhat similar to the female. The glycogenic function of the liver was of great interest from the point of showing how very definite a substance was produced by that gland, and it was interesting to correlate with this the fact that in the other glands, such as the thyroid and suprarenal, there also the secretion or product of the activity was a very definite chemical substance which could be isolated, weighed, analysed, and its exact nature determined. The state of knowledge with regard to

the internal secretion of the pancreas, however, was unsatisfactory, since, although there could be no doubt as to its existence, its exact nature had not been determined. Another physiological point was that the glands, which apparently sometimes produced an internal secretion only, at other times seemingly had an external secretion as well. A group of glands appeared to provide either an abundant external secretion only, for if they produced any other there was no evidence of it. Among such glands were the salivary glands, and the kidney must also be included amongst them, because, although there were various grounds for thinking that the protoplasm of the kidney was in some way concerned with metabolism, there was yet no very conclusive proof of the existence of internal renal secretion. Passing from this very definite and concrete knowledge to the facts observed in pathology, Dr. Bradford thought that only in regard to myxoedema were the facts really clear. In myxoedema they were quite clear, inasmuch as the disease had been produced and arrested, and the condition had been found to be due to anatomical changes present in the gland. So that in the case of myxoedema, at any rate, it could be asserted that the disease was undoubtedly due to an arrested internal secretion. The other two hypotheses, with reference to internal secretion, from a pathological point of view—namely, that it might produce disease by mere increase in the amount, or by an abnormal character of the secretion—were all pure theory. In the case of exophthalmic goître the facts were extraordinarily complicated owing to the relationship of the parathyroid to the disease. The facts with reference to this were that first of all from the negative side if the whole of the thyroidal tissue were removed and the parathyroids left, the animal did not die. The explanation of the survival of the rabbit after thyroidectomy was that the parathyroids did not lie with the thyroid in that animal, and hence removal of the thyroid was not followed by death. Edmunds's experiments on the dog were much more remarkable. He removed both lobes of the thyroid and in some instances almost all the parathyroidal tissue, and yet the animal survived that operation for a long period. In the monkey and in man that operation could not be done, inasmuch as parathyroidal tissue was scattered in the midst of the thyroidal. A still more difficult fact, with reference to exophthalmic goître was that the changes which were present in the hypertrophied gland were closely similar, if not identical, with those which were produced by the partial removal of the thyroid. Mr. Edmunds himself said some years ago that if he were shown a section of exophthalmic goître tissue, and a section of a thyroid which had undergone hypertrophy after partial removal he might not be able to distinguish one from the other. Further, if the parathyroid were removed and the thyroid tissue left, the thyroid tissue then underwent the same curious change. There was the fact that in exophthalmic goître the enlargement of the gland was of such a character as to produce abnormal tissue; secondly, that the same kind of tissue was produced experimentally by the removal of portions of thyroid; and thirdly, that the same kind of tissue was produced experimentally in the thyroid by leaving the thyroid alone and removing the parathyroids. That showed that the question of the nature of the enlargement of the thyroid in exophthalmic goître was an extremely complex one, and it showed that it was impossible to accept the view that exophthalmic goître could be due to a mere hypersecretion of the normal thyroid juice. There was, perhaps, something to be said for the view that had been advanced by many, that in exophthalmic goître the enlargement of the gland was secondary, and not primary. That sufficed to show that the position with regard to the pathology of exophthalmic goître was not a satisfactory one at the present time, although, of course, it was true that many symptoms of exophthalmic goître could be produced by the administration of large doses of thyroid juice, as Edmunds himself showed, and as Dr. Hale White mentioned. But that apparently was not the sole explanation. In considering the pathology of the other ductless glands, the suprarenals or pituitary, associated with disease, the same problem was encountered, inasmuch as disease of those glands was associated with certain definite diseases—Addison's disease and acromegaly. There were many sources of fallacy, but all pathologists would agree that there was a definite association between lesions of the suprarenal and Addison's disease, as there was between the pituitary body and acromegaly. The point of resemblance in both these diseases was that a material was elaborated by the particular gland which would explain some of the symptoms of the disease. The material that was produced by the suprarenals caused increased tension, and the fact that the suprarenals in Addison's disease did not contain that substance afforded a fairly satisfactory explanation of the circulatory weakness of Addison's disease. The marked diuretic action of the pituitary extract might afford some illustration of the copious urinary secretion that was sometimes correlated with acromegaly. But in both diseases all pathologists would agree that the whole mechanism of the disease, or the pathology of it, could not be explained on the simple hypothesis of the suppression of an internal secretion. It must be remembered that in the case of the suprarenal the internal secretion was only produced by one portion of the gland, and that physiology was at present silent with regard to the function of the cortex in connexion with the suprarenal. Dr. Bradford agreed with what Dr. Hale White had said with regard to the pancreas in diabetes, that diabetes was only a name for a number of different diseases, and that not only must they recognize pancreatic but hepatic, and possibly renal forms of diabetes. With reference to the point raised by Dr. Rolleston as to the association of two or more ductless glands, Dr. Bradford thought that received interesting confirmation in the *post-mortem* room in the frequent association of enlargement of the thymus, not only with exophthalmic goître, but also with Addison's disease. With reference to what Sir Victor Horsley had said, cases were occasionally seen which were really mixed cases of myxoedema and exophthalmic goître. In many cases of enlarged thyroid, possibly even in some cases of exophthalmic goître, they might have to deal with a mixed condition in which there was amongst other things partial suppression of normal secretion and elaboration of abnormal secretion. The heredity of exophthalmic goître was an undoubted fact; and was sometimes seen in man. He had known of a father and son who both had exophthalmic goître, the man at the age of 50 and the son at 22. Dr. Bradford concluded by saying that although a number of observers had described beneficial results in the treatment of certain urinary diseases, and even in the treatment of uraemia, by the administration of renal extract, he thought at the present time, both from the physiological standpoint and from that of pure pathology, that there was no real evidence of the existence of internal renal secretion, and there was certainly no evidence as to this treatment being in any way beneficial. They had thus come back to the point at which they started, namely, that the one crucial instance where the physiology and pathology and the treatment were thoroughly satisfactory was in the case of myxoedema and cretinism.

ROYAL MEDICAL AND CHIRURGICAL SOCIETY.

Sir R. Douglas Powell, K.C.V.O., President, in the Chair.

Tuesday, March 22nd, 1904.

The Prostate and Prostatectomy.

Mr. J. W. Thomson Walker read a paper on this subject in which he discussed the anatomy of the normal prostate and its surroundings in relation to prostatectomy; the changes in the prostate and its surroundings in enlargement of the organ; the parts left behind after prostatectomy; the structures removed in prostatectomy; and, lastly, made some general observations on the operation. In four specimens of the parts after suprapubic prostatectomy the prostatic urethra was left behind entirely in one, partly in another, and was completely removed in two. In seventy-three specimens from operations by Mr. Freyer the urethra was in some entirely removed with the prostate, in some completely left behind, but much more frequently than either the upper part alone was removed. The investigation supported the contention that the prostate was removed within its capsule and the sheath left behind, and that the operation was a complete prostatectomy.

Mr. Reginald Harrison spoke purely from the surgical standpoint. Was the operation an entire prostatectomy or a shelling out of adenomatous lobules alone? His specimens illustrated both these operations.

Dr. Cuthbert Wallace was in perfect accord with the anatomical points in the paper. The organ completely surrounded the urethra. Many enlarged prostates could not be enucleated; they had to be cut out. But if the contention of the paper were true, they should come out easily. If the adenomatous change were uniform, there would not be easy shelling out, but if it were local there would. The question was, How far was it possible to remove the adenomatous growths and yet leave the urethra intact? When small they might be thus removed, but not when large.

Mr. Swinford Edwards said that some cases of enucleation ere no doubt extracapsular, and some were intracapsular, epending on what plane the surgeon entered; but in either ase great relief was given from the obstruction to micturi- on. In properly-selected cases the operation was highly to e recommended.

Mr. Pearce Gould also thought the surgical distinction etween an extracapsular and an intracapsular prostatectomy as unimportant. The nature depended on the exact plane hich the surgeon happened to hit. He had had in his own xperience examples of both types of operation. The value f the operation was extreme.

Mr. Pardoe thought the chief difficulty in accepting the mpleteness of the operation was because nodules were left ehind; but this was not remarkable when it was remembered at the adenomatous mass might burst its way through its verings and come to lie directly under the mucous mem- rane alone.

Mr. P. J. Freyer thought the question in dispute was irely of academic interest; but he maintained still that in s operation the whole of the prostate was removed, the true psule being a part of the gland itself and distinct from the cto-vesical fascia. There were muscular fibres outside the psule which were sometimes removed; these might come om the sphincter of the bladder or the recto-vesical fascia.

Mr. Thomson Walker replied.

YAL ACADEMY OF MEDICINE IN IRELAND

Medical Section.

Sir J. W. Moore, President, in the Chair.

Friday, March 4th, 1904.

Milk, Human and Bovine.

. Walter Smith made a communication upon milk, and monstrated some chemical tests which have been recently posed. One of the most curious facts in regard to the mposition of milk was the presence in it, in measurable ount, of citric acid, which might be considered a ecific product of the mammary gland. It had been shown t cow's milk included from one to three times as much ric acid as woman's milk, and the amount might be koned as equivalent to about 0.25 per cent. of calcium rate. To distinguish between human and bovine milk a mple test had been advanced by Unikoff of St. Petersburg. consisted simply in treating the milk with half its volume ordinary liq. ammonia, and keeping the mixture at a mperature of 60° C. for about twenty minutes. Human k assumed a violet-red colour, the shade being deeper ording to the puerperal age of the milk. Cow's milk ned faintly yellow. This test was valid and satisfactory. Saul had proposed a test to distinguish raw milk from lded or boiled milk. To 10 c.cm. of milk was added 1 per t. of a recently prepared aqueous solution of "ortol" (used photography), and then one or two drops of H_2O_2. A vivid p red colour was produced. Boiled milk was unaffected. detect formaldehyde added to milk as a preservative a ple test had been proposed by Manget and Marion. A few stals of "amidol" (another photographic developer) were nkled on the milk, slightly diluted. Fresh milk quickly med a pink or salmon colour. Milk which contained a ry small trace of formaldehyde slowly assumed a canary- ow colour.

r. Langford Symes strongly endorsed the opinion as to futility of giving lime to children as a medicinal measure. only use of lime added to cow's milk was to modify the sical properties of the curd in the stomach. Too little absorbed from the digestive tract to render lime of use in ting rickets. He believed that it was not fully under- d to what extent sterilization altered the properties of k, and expressed the opinion that a diet of sterilized milk capable of producing rickets and scurvy in children. It open to question whether human milk was secreted olutely sterile or not.

r. Travers Smith asked if the citric acid in milk was cted by boiling, for if such were the case an explanation afforded of the powers of sterilized milk to produce vy.

r. Coleman and Dr. Cranny also spoke.

r. Walter Smith, in reply, stated that calcium citrate g less soluble in hot than cold milk, some was removed in scum of boiled milk.

CLINICAL SOCIETY OF LONDON.

Frederick Taylor, M.D., F.R.C.P., President, in the chair.

Friday, March 11th, 1904.

Chronic Polycythaemia with Enlarged Spleen, probably a Disease of the Bone Marrow.

Drs. F. Parkes Weber and J. H. Watson contributed this case:

The patient, a cabinet maker, aged 58, a native of Holland, who had long resided in England, had formerly been ruddy in complexion, but for six or seven years a variable amount of cyanosis in face and extremities had been noticed. In 1903 he fractured some ribs, and afterwards had delusions of persecution. The peculiar symptom-complex of chronic cyanosis with splenomegaly and polycythaemia was observed at the German Hospital at the end of 1903. At Colney Hatch Asylum, to which he was removed, he remained bodily and mentally feeble, and during an attack of greatly increased cyanosis died suddenly on February 4th, 1904. Apart from the mental symptoms, the chief features of the case were: (1) Chronic cyanosis, not to be accounted for by the condition of the heart and lungs. (2) Chronic enlargement of the spleen, though the splenic substance appeared little altered at the necropsy. (3) Polycythaemia, the blood containing about double the normal amount of red corpuscles and the haemoglobin value being about 170 per cent. of the normal. (4) Increased arterial blood pressure. (5) Extreme distension of the small veins and venules with blood, well seen during life in the retina by ophthalmoscopic examination and after death in the viscera. (6) Relative dryness of the skin and tissues in spite of there being an absolute plethora of blood in the blood vessels. (7) Urine diminished in amount, highly coloured, and containing a little albumen. (8) Frequent digestive disturbance and chronic constipation. (9) Tendency to vertigo and to feeling of prostration. (10) The changes discovered after death in the bone marrow of the shafts of the long bones, the red transformation and disappearance of fat, indicating doubtless increased activity in the production of blood corpuscles.

They thought that injuries to bones might increase the polycythaemia (*a*) by exciting the bone marrow to increased activity; (*b*) by rendering rest indoors necessary, and thus diminishing the destruction of red blood corpuscles. In the treatment of cases, drugs (such as iron compounds) and foods supposed to increase the erythrocyte-forming functions of the bone marrow ought as far as possible to be avoided. The authors suggested that a permanent increase of the osmotic tension of the blood would probably account for the main symptoms of the case, but the presence of such increased osmotic tension could only be confirmed or negatived by the investigation of similar cases. By experiments in Professor J. McFadyean's laboratory with fresh horse's blood, in which coagulation had been prevented by the addition of potassium citrate, the authors, using glass thermometer tubing, had succeeded in proving that, other conditions being similar, increase in the proportion of corpuscles to plasma decidedly raised the "viscosity" of blood.

Dr. Herbert French thought the increase of blood corpuscles should have increased the oxidation processes, whereas the patient was cyanosed. Probably the difficulty was primarily in the tissues, the blood corpuscles being increased to augment the oxidation.

Drs. N. Dalton, L. S. Dudgeon, W. Pasteur, and G. H. Russell (Manchester) also discussed the case.

Dr. Weber, in reply, said that the retinal veins were particularly distended; the arteries less so: asthenia was one of the most marked symptoms; the spleen was enlarged all the time the man was under observation. There was no thrombosis. The pituitary body and thyroid were normal macroscopically. There was no heart or lung disease. The cyanosis might be partly accounted for by the fatigue of the circulation, the blood passing with great difficulty through the capillaries.

Epileptiform Neuralgia of Superior Maxillary Nerve.

Mr. J. Hutchinson, jun., read notes of a case. The operations devised for the relief of the disease, he said, usually failed to prevent recurrence of the neuralgia. In his case he trephined the temporal fossa, and, raising the brain, resected the nerve for nearly half an inch near the foramen rotundum. The neuralgia had not returned a year after the operation. The scar was quite hidden in the scalp.

Mr. Stanley Boyd mentioned the case of a woman, aged 69, upon whom he had done three operations in different years, but pain had recurred after each. Lastly, he had done the operation now recommended by Mr. Hutchinson, and a year afterwards there was only slight recurrence of pain, and over it the usual drugs had better control.

Foreign Body Impacted in Bronchus.

Dr. W. Pasteur and Mr. T. H. Kellock communicated this case.

The patient was a boy, aged 5, who swallowed a glass stopper. Four days later physical signs at the apex of the left lung appeared. On deep respiration a stridulous wheezing sound could be heard. The temperature was 102.8°. Signs of obstruction in the left bronchus existed; and *x*-ray examination showed an indefinite shadow in the same region. Tracheotomy was performed, and a foreign body felt with a probe passed down the trachea. Attempts to dislodge it with this instrument or with the forceps failed, but the stopper was recovered by the aid of a rather stiff loop of wire. The wound in the trachea was closed after cleaning away some pus which had come up with the foreign body. Four days later the wound had practically healed, and shortly afterwards the physical signs in the chest became normal.

The President referred to a case in which pulmonary symptoms resembling those of tuberculosis were present, until the patient expectorated a piece of broken tooth, after which the chest trouble, which had persisted for months, disappeared.

Mr. G. Eastes remarked that the upper part of the body might be depressed in such operations, so that the foreign body might tend to escape by the wound.

Mr. G. H. Makins said that glass objects sometimes threw definite shadows under *x*-ray examination. He recalled the case of a child with urgent dyspnoea, in which the presence of a foreign body was suspected. After death the obstruction was found to be due to a caseating bronchial gland which closed the air tube.

Mr. J. Hutchinson, jun., remarked that the glass stopper, though said to be "quite clean," was not aseptically pure, hence the formation of pus which its presence caused. The wire loop succeeded in removing the foreign body whilst the forceps failed; the loop was also the best instrument for the removal of foreign bodies from the ear or nostril.

Mr. Kellock and Dr. Pasteur replied.

OBSTETRICAL SOCIETY OF LONDON.

Edward Malins, M.D., F.R.C.P., President, in the Chair.

Wednesday, March 2nd, 1904.

The Site of Impregnation.

Mr. Harrison Cripps and Dr. Herbert Williamson read a paper on two cases which involved the question of the site of impregnation. It is published in full at page 711.

Mr. Alban Doran considered that the existence of ovarian tissue in Case I on the same side as the Fallopian tube would explain the subsequent pregnancy. External migration seemed to him impossible. As regards Case II, it was unnecessary to assume that the entire tube must be restored before it could resume its functions. Published reports of authentic cases of pregnancy after double ovariotomy supported this opinion. Apart from a case of his own, Stansbury-Sutton, Baldwin, S. C. Gordon, M. M. Morris, and Anderson Robertson had reported cases where both ovaries and tubes were amputated for cystic or inflammatory disease, yet the patients bore children afterwards. Ligatures seldom closed mucous canals securely, and thus, the stump of one tube becoming patent, an ovum from remains of ovarian tissue was conveyed to the uterine cavity.

Dr. Williamson, in reply to Mr. Doran's remarks, said that they had been dealing in Case I with a smooth, rounded, pedunculated dermoid tumour; in removing it there had been no difficulty, and it was improbable that any had been left behind. Such a possibility was borne in mind in the second case, and a careful search failed to reveal anything like either ovarian tissue or an ovary either at or after the operation. He thought that migration of the ovum must be regarded as an established fact, and that it was reasonable to believe that it had occurred in this case.

Dr. Herman thought there was abundant evidence that the ovum might traverse the peritoneum from one ovary to the opposite tube. There was also some evidence that an ovum might traverse the uterus and get from one tube into the other. When endeavouring to sterilize patients after Caesarean section he removed the tubes altogether.

The President had experienced the difficulty of securing sterilization by ligaturing the Fallopian tubes; even cutting out a piece of the tube had failed. The best method was to excise a wedge-shaped piece of the broad ligament including the tube, near to the cornu of the uterus.

Dr. Galabin thought that external migration of the ovum was much the more probable explanation of the first case described in the paper. This view was really supported by the cases quoted by Mr. Doran. If a stump without any fimbriated extremity could produce enough ciliary current in its neighbourhood to pick up the ovum, it was still more likely that when the fimbriated extremity was intact, it might readily attract an ovum of the opposite side which had escaped just beyond the range of the ciliary current of the tube of its own side.

Dr. Boxall found no difficulty in believing that with the pelvic organs and intestines closely applied in what was under ordinary circumstances during life merely a potential cavity, the ovum, floating about like a drop of oil, might find its way from one ovary to the abdominal ostium of the Fallopian tube of the opposite side, and so be swallowed; or for the matter of that, find its way into an opening in the tube which had resulted from its severance.

Dr. Cullingworth, remembering that in inflammatory disease the appendages of the two sides were found united to each other behind the uterus, would go even further than Dr. Boxall, and say that the ovaries and abdominal ostia of the Fallopian tubes not only lay within a much more contracted area than appeared to be generally supposed, but were not infrequently in actual contact. Writers, in speaking of the ovum travelling across the peritoneal cavity, conveyed the impression of a long and almost inconceivable journey, whereas the ovum might merely have to step in next door.

Mr. Harrison Cripps replied.

Fibroids Complicated by Pregnancy.

Dr. Florence Boyd reported two cases. In one a Porro Caesarean section was performed; a living child was delivered, but the mother died after two days' satisfactory progress, marked acceleration of the pulse, and abdominal distension preceding death. Local peritonitis was found at the site of an intestinal adhesion, but blood and peritoneal fluid proving sterile, death was ascribed to hampering of the heart's action by over-distension of the intestine above the adhesion. In the other, a case of multiple fibroids, the uterus was removed entire by supravaginal amputation between the fourth and fifth months. The patient made a good recovery. The posterior uterine wall was thinned out, and the placenta implanted low down in an intramural fibroid, suggesting the probability both of rupture and haemorrhage had labour occurred spontaneously.

A discussion followed the reading of these notes, and revealed much difference of opinion among the members present as to the propriety and necessity of operating in early cases of pregnancy on account of the coexistence of fibroids.

Tubal Gestation.

Dr. Handfield-Jones showed two cases; in both rupture occurred at about the seventh week; in one death occurred from severe haemorrhage into the peritoneal cavity; in the other the escape was only slight, but in both much blood clot was found in the distended tube surrounding the ovum.

EPIDEMIOLOGICAL SOCIETY OF LONDON.

A. Whitelegge, C.B., M.D., F.R.C.P., President, in the Chair.

Friday, February 19th, 1904.

The Etiology of Scurvy.

Dr. Myer Coplans read a paper on the etiology of scurvy based on the records of an outbreak of the disease in the Eastern Transvaal towards the close of the Boer war in May, 1902, and lasting up to the end of March, 1903. At this time the entire population subsisted on rations supplied by the Government, and with one exception the outbreak was confined to natives, and chiefly among those attached to various camps near Standerton. The camps were separated, but the dietaries varied. The incidence of the disease was as follows: Of 900 mule drivers in the Repatriation Department 50 per cent. were affected. They were perhaps the best fed, but their camp was dirty and overcrowded. In men attached to other corps, such as the Army Service transport scavengers, the rates varied from 16 per cent. to 76 per cent. One European soldier was alone attacked, a man attached to the scavenger corps. The incidence and intensity of the disease bore no relationship to the food supplied, which was of a uniformly excellent character, and supplemented in many cases, when the outbreak first began, by the fresh vegetables which could then be obtained easily. The prevalence of the disease varied inversely with the extent to which the natives were under European control, and directly with the sanitary conditions under which they lived; if the latter were bad the incidence was heavy. No natives acting as servants to Europeans were affected. Clinically the dis

ase commenced in a definite manner with inflammation at he edge of the gums, near which were aggregated particles of ood. This zone of hyperaemia rapidly spread over the emainder of the gums, and in a few days the gums showed he characteristic soft, spongy, swollen appearance. Deep lown in the sulcus between gum and tooth could be found mall cheesy-whitish masses of micro-organisms and food ébris. In early cases the obtaining of buccal antisepsis was ufficient to effect cure without alteration of diet. Attention o dietetics was necessary in the advanced cases, but if ttention was paid to dietetics alone the cases dragged on. n the clinical and epidemiological evidence Dr. Coplans ased the opinion that the scurvy was a specific infection, equiring for its propagation close contact of individuals and bsence of precautions in the way of mouth and body cleanli- ess; that the infection occurred through the mouth and ums, and possibly the swallowed saliva; and that food might ct, under conditions of dirty storage, as a vehicle for con- agion. The method of treatment should consist primarily in olation of the affected individual, coupled with vigorous uccal antisepsis. In those collections of individuals in hich scurvy was likely to break out regular mouth cleanli- ess should be insisted on, and this could only be enforced by gular medical inspection.

Professor Wright could not agree with Dr. Coplans's views, nd thought his methods of treatment of no real value except delaying the actual onset of the disease. In his opinion e disease was due to reduced alkalinity of the blood.

Colonel Lane Notter, who had been at Standerton, con- med the statements as to the filthy habits of the natives at at place.

Dr. Newton Pitt was not inclined to support the view of rofessor Torup of Copenhagen—that ptomaine poisoning was the root of the disease.

Dr. Bulstrode quoted Lind, who had long since come to e conclusion that the absence of fresh vegetables from the etary played no part in the disease.

Dr. Willoughby thought that the experience of Arctic peditions pointed to ptomaine poisoning as the cause of the ease.

Professor Kenwood, on the facts shown in the paper, ought that Dr. Coplans's conclusions were perfectly justi- d. He remarked on the change of front that had taken ace lately with reference to several other subjects. fantile and adult scurvy were not the same thing.

Mr. Goadby had seen on the *Dreadnought* no cases of scurvy, t many cases of pyorrhoea alveolaris from the West Coast Africa and elsewhere. Perhaps Dr. Coplans's cases were of e same character.

Lieutenant-Colonel Firth, Lieutenant-Colonel Davies, A.M.C., and Dr. Nash also spoke.

Dr. Coplans, in reply, said that the death-rate among the n admitted to hospital was 12 per cent. None of the dical officers who had seen the cases had any doubt as to diagnosis. The dietetic conditions at the time of the first break were better than they had been for months before. e diet of the affected and unaffected was the same; dirt s the chief feature of the condition under which the former ed.

MIDLAND MEDICAL SOCIETY.

Professor Saundby in the Chair.

Wednesday, March 2nd, 1904.

Rupture of the Axillary Artery.

. Albert Lucas showed a man, aged 51, with the following tory:

e was admitted to the General Hospital on November 14th with a e swelling of the right shoulder. He stated that he had fallen on shoulder the night before when mounting a tram car. The shoulder also been dislocated on two previous occasions. When seen by Mr. as on November 15th there was a very considerable swelling of the ılder, some pulsation could be felt beneath the clavicle and on deep sure in the axilla. The pulse could not be felt at the wrist. Under naesthetic the subclavian artery was exposed in its third part and ut loop of catgut passed round it. The artery was then compressed he finger against the loop. An incision was then made from just w the middle of the clavicle through the pectoralis major into the a following the line of the axillary artery. The artery was found through just below the level of the coracoid process, the ends were d and ligatured with catgut. A quantity of clot was removed from ath the deltoid and from the axilla. The pectoralis major was red and the wounds closed.

patient made a good recovery, and when shown had ost as good an arm as before. At first there was complete alysis of the arm, but this had cleared up. No pulsation could yet be felt in the vessels of the arm. Mr. Lucas laid great stress on the advantage in these cases of a temporary ligature in the subclavian artery.

Right Hemianopia.

Dr. Emanuel showed a man, aged 51, with the following history:

He had been the subject of chronic nephritis, and eighteen months before had a "stroke." After a period of unconsciousness lasting twenty-four hours he was found to be paralysed in the left face, arm and leg, and to have numbness and a sensation of pins and needles throughout the paralysed parts. From this left-sided hemiplegia he had gradually recovered, and at the present time showed only a little weakness of the left side of the face, a weakened grip of the left hand, and some persistent numbness in the fingers of that hand. Eight months ago he had another attack in which he lost consciousness for about an hour, and ever since he has been unable to see things to the right of him. This second attack was associated with numbness in the right hand, but was not accompanied by any motor paralysis of the right side. The following is a note of the patient's present condition: Pupils unequal, the left of medium size, the right small. Both pupils contract to light and accommodation. The contraction to light is very sluggish and best obtained by central illumination. The peripheral parts of the retina respond so feebly that no definite statement can be made with regard to the presence of a hemiopic pupil.

Vision.—Right eye, $\frac{6}{9}$; left eye, $\frac{6}{9}$ partly; both eyes together, $\frac{6}{9}$ full.

Fundi.—No neuritis or retinitis. Some opaque nerve fibres at upper and lower margins of left disc.

Fields.—The perimeter tracing shows complete right homonymous hemianopia with a peripheral contraction of the left fields of about 15°.

Hearing, smell and taste are unaffected on either side, and except for the numbness in the right hand there is no paralysis of motion or sensation in the right side.

Dr. Emanuel was of opinion that eighteen months ago the patient had had a haemorrhage into the posterior limb of the right internal capsule, and that the attack eight months ago was due to a second haemorrhage into the extreme posterior limit of the left internal capsule.

Otitis Media.

Mr. George Heaton showed three patients upon whom he had operated for intracranial complications occurring in the course of middle-ear disease:

1. A girl, aged 19, operated upon in June, 1903, for a cerebral abscess in the right temporo-sphenoidal lobe. The lateral sinus had been inadvertently opened a few days previously without any ill-results following.

2. A man, aged 31, who had been successfully operated upon two years ago for infective thrombosis of the lateral sinus and a large abscess on the brain. An ounce and a-half of pus was evacuated.

3. A man, aged 30, who had been successfully operated upon five years previously for infective thrombosis of the lateral sinus. The jugular vein was not ligatured.

The first patient had made a good but slow recovery. Lately she had had a small abscess re-form on the scalp over the site of the old operation, due to a small piece of necrosed bone. The second patient was in perfect health, and had no pain or inconvenience. There was occasionally a little discharge from the affected ear. The third patient was in robust health, and had had no pain or discharge since the operation. The hearing of that ear was entirely destroyed. After demonstrating these cases Mr. Heaton read a paper on the Diagnosis and Treatment of the Intracranial Complications of Middle-ear Disease.

Glasgow Obstetrical and Gynaecological Society.—At a meeting on March 9th, J. Nigel Stark, M.D., President, in the chair, Dr. G. Balfour Marshall read a paper on Intraperitoneal Haemorrhage and Haematocele arising from Tubal Abortion or Rupture, with illustrative cases. Emphasizing the necessity for early diagnosis, he pointed out that in some cases the patient had the ordinary subjective signs of an early uterine pregnancy, and was unaware that anything was wrong until seized with sudden pain in the lower abdomen. The usual symptoms in over half of all cases of tubal gestation were irregular uterine haemorrhage with cramp-like pains in one or other iliac region. Tubal abortion was much commoner than tubal rupture. The glandless tubal mucosa hypertrophied only slightly, and did not form a decidua such as was found in the uterus. The trophoblast and chorionic villi of the growing ovum readily perforated this thin layer and opened into the enlarged tubal vessels. This gave rise to haemorrhage which partially or completely separated the ovum and ended in the majority of cases in an incomplete or complete tubal abortion between the fourth and twelfth weeks. The tube might rupture spontaneously as the result of perforation of the wall by the growing villi from sudden distension by haemorrhage or by violence.

Schroeder explained the formation of haematocele in two ways: (1) The pelvic cavity had previously been shut off from above by adhesions; (2) a quantity of blood escaped into Douglas's pouch, irritated the peritoneum, and formed adhesions among the bowels above. The latter was the most generally-accepted explanation. The symptoms of intraperitoneal haemorrhage, free and encysted, were then enumerated. If expectant treatment were adopted, the mass gradually became hard, nodular, and less sensitive. It might take months to absorb, and during this time the patient was an invalid. The uterus ultimately became densely adherent to the rectum and posterior pelvic wall. It was generally accepted that an ectopic pregnancy, as soon as it was diagnosed, should be promptly removed. There was, however, a difference of opinion as to whether expectant or operative treatment should be adopted when a haematocele had formed. If seen at the onset of intraperitoneal haemorrhage operation should be performed at once, as all cases could not be expected to end in haematocele. If the haematocele were large it should be operated on whether seen recently or some weeks later, since to leave such a case to Nature was to condemn the patient to a very prolonged period of invalidism with the formation of dense adhesions. If operation were performed it should be by abdominal section. The affected tube or tubes, all blood clot, and as much as possible of the fibrinous sac should be removed. Drainage, if necessary, was best carried out by the vagina.

REVIEWS.

OBSTETRICS.

THE modest title of *The Practice of Obstetrics*[1] of Dr. EDGAR'S book might seem to imply that the author does not aspire to instruct his fellow-teachers and specialists, nor expect his book to interest them or to alter their opinions. The student may suppose that it is a mere digest to help him to pass his examination, and the practitioner that it is a handy guide in the common emergencies of practice. It is in reality the most comprehensive treatise on the science and practice of midwifery that has yet appeared. It is distinguished from all previous works on the subject by its extraordinary wealth of illustration. The illustrations are not all of equal merit; some are borrowed woodcuts that have done duty many times before. But many are original and of high artistic merit. Everything that could possibly be made clearer or plainer by means of illustrations is so illustrated.

The section on examination during pregnancy is excellent. The strictest antiseptic precautions are inculcated. The ideal method of conducting labour, in Dr. Edgar's opinion, is that that the accoucheur shall wear sterilized rubber gloves. Abdominal examination is fully described and illustrated. There is, however, one simple instrument, the utility of which might be pointed out; we mean the tape measure. Pelvimetry, both external and internal, is carefully described. Dr. Edgar gives a method of direct internal pelvimetry with the closed fist, which he says he has practised for a number of years, and which, he adds, "when applicable is the most positive and satisfactory of the internal means for determining the available space at the inlet." We agree with Dr. Edgar in his estimate of the superiority of manual measurement to measurement with any pelvimeter. But he must surely know that a method of pelvimetry identical in principle with his own, but slightly more systematic and precise, was described in the eighteenth century by an Englishman, Mr. Robert Wallace Johnson; and Johnson's method has been quoted in recent English books. Dr. Edgar frequently couples proper names with much smaller matters than this. Methods of "cephalometry" are described, and its importance pointed out. In describing how to press the head into the brim, the author does not lay stress on the position of the patient, a point which experience has taught us is important. The head enters the brim more easily if the patient is so placed that the long axis of the uterus is vertical and at right angles to the plane of the brim.

Then comes a section on "the hygiene and management of pregnancy," which, on the whole, is sound and good, except that we think the advice which is recommended as to sexual intercourse during pregnancy is—except for reasons spec to a very few cases—unnecessary, and likely to do more ha than good to practitioner as well as patient.

More than 200 pages are devoted to "pathological pr nancy." This is treated in a very comprehensive w Hardly any morbid condition that has been observed w pregnancy is omitted. Many very rare conditions are treat with a wealth of detail somewhat out of proportion to th importance; and, valuable as the book is, it would be s more valuable if it contained references to the evidence the statements made in it. Thus Dr. Edgar lays it down t tuberculosis is made worse by pregnancy; from which follows that the induction of abortion in such cases is g treatment. We know that this statement has often b made—but so has its converse, that the progress of tuberlous disease is retarded by pregnancy. Up to 1890, when subject was discussed at the Obstetrical Society of Lond there was no decisive evidence either way; and we know nothing conclusive that has since been published.

Dr. Edgar would have written a better account of vomiting of pregnancy if he had read Dr. Giles's paper that subject. Dr. Edgar is not very clear in his account the mechanical forces which produce the shape of the pel The heads of the femora he says press upward and *inwa* then he says, the resistance of the symphysis pubis coun acts the tendency of the ilia to flare out. A little further "Litzmann observed a case of split pelvis in which there no union at the symphysis pubis, so only the two for acted—body weight and counter pressure of the femora. resulting pelvis was very wide," etc. Why did not the ward pressure of the femora press the two pubic bones gether? We commend to Dr. Edgar's notice Dr. Champne paper on "The Pressure of the Femora" in vol. xxv of *Transactions of the Obstetrical Society of London*. In describ the fetal head, Dr. Edgar does not bear in mind the princi that only those diameters of the fetal head which are maximum diameters in certain planes and positions of head are important. Hence the suboccipito-bregmatic the cervico-bregmatic are unimportant: and the suboccip frontal should be measured, not from the root of the nose Dr. Edgar says, but from the point on the frontal suture m distant from the nape of the neck.

The author advises against the practice of passing the h into the uterus to rotate the occiput forwards in occip posterior cases. In this we entirely agree with him; but know of no one in this country who either preaches practices this manœuvre. Rotation of the back forwa early in the first stage of labour Dr. Edgar speaks of "theoretical refinement." It is in most cases an easy th and the best possible treatment. He advocates forceps w the head is high up, in order first to pull it down into pelvic cavity and then to turn the occiput forwards. I probably better to leave such cases alone in the early pa labour, knowing that in most cases the resistance of the pe floor will turn the occiput forwards when it gets low eno to meet that resistance. Dr. Edgar has experiment demonstrated that this is the case. When the head is down in the pelvic cavity and the occiput is behind, Edgar advocates rotation with forceps. There are objecti to this which do not apply to the practice of manual rotat

Dr. Edgar is exceptional among American obstetrician that he has used Ramsbotham's sharp hook and found how superior it is to Braun's decollator. He is not a rea of the *Transactions of the Obstetrical Society of London*, he is not acquainted with subcutaneous symphysioto which was discussed at that Society in 1900. The met Dr. Edgar describes as the subcutaneous or "Americ method is almost impracticable. We are sure that if he re the account given in the English paper we have referred and then tries the "American" method, he will soon de and use the right instrument. We do not call it an "Engli method, because there ought to be no nationality in mat of science; the description of this or that as "Americ methods is Chauvinistic.

The author distinguishes between primary and secon uterine inertia, and between them and tonic contractio the uterus, which he calls "continuous or tetanoid acti We do not see why a new name need be coined, nor the s riority of "tetanoid" to tonic; nor a resemblance betw tonic contraction of the uterus and the spasms of teta One dictum is cryptic to us. The author says that contin action of the uterus may be seen in simple inertia (p. How the uterus can be not acting and yet continuously ac at the same time is to us unintelligible. This is, however

[1] *The Practice of Obstetrics*, designed for the use of students and practitioners of medicine. By J. Clifton Edgar, Professor of Obstetrics and Clinical Midwifery in the Cornell University Medical College; Attending Obstetrician to the New York Maternity Hospital. London: Rebman, Limited. 1903. (Demy 8vo, pp. 1111, 1,221 illustrations. 30s.)

k, mainly a verbal slip, for the author gives a true ure in his clinical description. But he is loose in his use ords in other places. Thus he gives "uterine exhaustion" synonym for secondary uterine inertia, and with this we e no fault to find. But in his description of "continuous etanoid" contraction of the uterus he says, "the pheno- a of exhaustion," etc. The use of the same word, in the ription of these two totally different conditions, would e been better avoided. The author also speaks of "so- d uterine retraction," as if retraction were a myth, and ibly failure to grasp what uterine retraction is underlies statement that continuous contraction may be present uterine inertia; for we find no reference to "retraction" he index.

ut the book is a great work, the most notable addition to etric literature that has appeared in recent years. The e points that we have taken the liberty of criticizing are small flaws in a great mass of good work for which we t heartily thank the author.

DISEASES OF WOMEN.

ROGER WILLIAMS is of opinion that the analytical hod in pathology has been overdone, and that much more marizing and much less minute detail is called for, cially for the purpose of teaching the nature of disease. *nal Tumours*[1] is a very systematic work, and at the same readable, whilst the references are so placed and nged as to save the book from being physically and in- ctually bulky; the foreign names are given accu- y: thus the author does not linger under the com- impression that Gartner is a German surname. The ymous hero of a duct deserves to have his name properly . The chapter on cancer is very good, and Mr. Williams is in placing amongst the scanty illustrations a drawing of e of vaginal sarcoma in an infant. This rare disease les the practitioner when he comes across it, hence it is that he should be aware not only of its existence, but of its extreme gravity. Even the specialist's memory require an occasional reminder about this grave malady, h is too unusual to force itself very prominently upon ttention. The chapter on cysts is very creditable, and uthor rightly turns attention to another rare yet serious of tumour, the non-ovarian pelvic dermoid.

e essay on the pathology of the mucous membrane of the of the uterus,[2] by Dr. LÖFQVIST, assistant physician in ssor Engström's clinic at Helsingfors, undoubtedly sents very solid labour. No less than 100 cases of ne disease from the hospital practice of the Finnish pro- are published in full, with clinical history and micro- cal appearances of the diseased endometrium complete. urette and the operation of hysterectomy have supplied uthor with the material for his *Pathologie der Mucosa ris Uteri*. The subject is unfortunately not so popular ought to be, and is also very difficult to treat, for it ot show operative triumphs, and it deals with a structure to certain normal histological variations which are at nt far from evident to us. Dr. Löfqvist is right in ing a chapter to the normal anatomy of the endome- . Another interesting department of this treatise deals the important question of the changes in the endome- in cases of uterine myoma. Above all the author has med at drawing conclusions, and has therefore avoided ading his readers. The notes of the different ideas of al contemporary workers in the same field are instructive ng. Some express very definite opinions, which, how- are not, we expect, based on patient work on 100 cases. öfqvist's method is the more likely to lead to conclusions may prove reliable.

s issue, in the German language, of Dr. CULLEN's mono- on adeno-myoma of the uterus[3] was published, according ell-known German custom, as part of a "Festschrift" nour of Professor Orth's jubilee. The matter, beyond istory of the pathological condition in question, is based on the author's work in the wards and laboratories of the Johns Hopkins University. With the work of that famous institution British gynaecologists must be very familiar; the illustrations in this work are of the kind which abound in the pages of Kelly's *Operative Gynecology*. Art could hardly produce anything more perfect, as representing naked-eye appearances of a diseased condition, than Figs. 4, 17, and 20. Relatively speaking, the microscopic drawings are less satisfactory, but they are all plain, and sections of myoma do not show their histological elements very clearly. Still they, like the other illustrations, are a model for European artists. The author includes adeno-myoma of the round ligament and dwells on the relation of this form of uterine tumour to cancer. The essential value of the author's studies lies in their indication of the possibility that "fibroid" means clinically several diseases, which might explain many of the clinical peculiarities of this well-known affection and might even be an important guide to treatment.

Dr. ROSENLEW's thesis[4] consists of a painstaking analysis of over seventy cases of inflammatory diseases of the Fallopian tubes in the gynaecological clinic of Professor Heinricius. The "cystic" and "non-cystic" classification of Martin and other contemporary writers is adopted by Dr. Rosenlew; it is convenient, but has the disadvantage of replacing a clumsy but accepted single name like "pyosalpinx" for a clumsier double new one, "sactosalpinx purulenda." The photomicrographs are of good quality, but it is difficult to demonstrate salpingitis by their aid. The clinical histories indicate somewhat too active surgical interference, according to British views. The last word has not been said about tubal inflammation; but this thesis is a good contribution to the subject, and deserves translation.

There can be no doubt that Dr. TOD GILLIAM knows how to teach, so that his *Textbook of Practical Gynaecology*[5] is a favourable example of a type of medical literature highly familiar to us. The pages are not crowded with references to authorities, engravings of instruments, and diagrams of several methods of performing the same operation do not cumber the text, and the illustrations are original, so that we miss many old acquaintances by no means indispensable. The phraseology is often original. Thus in speaking of the perils of operation in the middle stage of ectopic pregnancy, the author remarks that

> a coiled rattlesnake in the peritoneal cavity would scarcely be more obnoxious to the surgeon or more dangerous to the patient than an unfavourably-planted living placenta of advanced gestation.

The author is of the modern school, yet moderate. He seems to underrate the importance of pelvic cellulitis, just as too much was written about it by the last generation of gynaecologists, who were very little acquainted with the pathology of the Fallopian tube. In a teaching book more space should have been allowed to this subject. We must admit that Dr. Gilliam takes pains to demonstrate the distinction between haematocele and haematoma, and the drawings prepared for that purpose (Figs. 248, 249) are well suited for the student. There are fashions in gynaecology as in other things, and somehow haematoma, like pelvic cellulitis, has grown unpopular of late, and some authorities seem to take it as a personal offence if any opponent declares that a pelvic haemorrhage is not necessarily intraperitoneal. Although the drawings are artistically inferior to Kelly's, they are as a rule instructive, the first aim in a textbook. The illustrations of ectopic gestation are particularly good in this respect, especially Fig. 251, which shows what should first be done when operative interference is demanded; clamps are represented fixed to the ovarian vessels and to the uterine end of the tube. We may also award honourable mention to the diagrams of ascites. ovarian cyst, and broad ligament cyst. They are original and suited to their purpose. The sketch showing the concluding steps in that operation, which we regret to say is called appendicectomy, is clear and teaches what ought to be taught. Lastly, Dr. Gilliam was wise in making a frontispiece of a coloured diagram explaining the arterial supply of the genital apparatus, a subject with which the practitioner cannot be too familiar.

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inal Tumours, with Special Reference to Cancer and Sarcoma. By W. Williams, F.R.C.S. London: John Bale, Sons, and Danielsson. Demy 8vo, pp. 92. 5s. 6d.)

Pathologie der Mucosa Corporis Uteri. Akademische Abhandlung eguel Löfqvist. Berlin: S. Karger. 1903. (Demy 8vo, pp. 238, 2)

no-myome des Uterus. Von Thomas S. Cullen, Hülfs Professor der ologie an der Johns Hopkins Universität u. s. w. Berlin: A. wald. 1903. (Demy 8vo, pp. 91, 45 illustrations. M.2.40.)

[4] *De inflammatoriska Tubaraffektionernas Patologiska Anatomi* [Pathological Anatomy of Inflammatory Diseases of the Tubes]. Akadmisk Afhandling af Wilhelm Rosenlew, Assistentläkare. Helsingfors: Tidnings and Tryckeri. 1903. (Demy 8vo, pp. 230.)

[5] *A Textbook of Practical Gynaecology for Practitioners and Students.* By D. Tod Gilliam, M.D., Professor of Gynecology in Starling Medical College, Columbus, Ohio, etc. Philadelphia: F. A. Davis Company. 1903. (Demy 8vo, pp. 634; 357 illustrations. 4 dols.)

NEUROLOGY.

DR. FRANCIS HARE'S pamphlet, entitled the *Mechanism of the Paroxysmal Neuroses*,[1] consists of a reprint of four articles which appeared in the *Australasian Medical Gazette* last year. The first is devoted almost entirely to a consideration of migraine and its causation and an endeavour to prove, both from the author's experience and from bibliography, that there is "in all cases vaso-dilatation at the seat of the pain, and that the vaso-dilatation is the proximate cause of the pain," such local vaso-dilatation being accompanied by vaso-constriction in other areas. In the second and third papers asthma, angina pectoris, and epilepsy are considered from a similar vasomotor causative aspect, while a summary of the pathological and physiological relationships of the paroxysmal neuroses occupies the final paper. Dr. Hare has given considerable force to his arguments by reference to illustrative cases, and as regards migraine he has no doubt made a strong case, arguing that the derangement of nervous action in sensory centres depends primarily upon a derangement in the blood supply to those centres. Though equally able in his presentation of the theory that asthma is due to vasomotor changes setting up a swelling of the mucous membrane, and that angina and epilepsy are due to similar changes reacting respectively upon the heart and brain, it will require more exhaustive observations before existing ideas upon these maladies become seriously shaken. The frequently observed interchange whereby any one of these affections is capable of being replaced by any other is strongly in favour of their explanation upon a vasomotor theory, and in the last paper Dr. Hare emphasizes this transformation, and calls attention to those composite cases where two or more of the paroxysmal neuroses may become mingled symptomatically. Furthermore, he would extend this conception of an inter-related mechanism to many other recurrent allied affections, for example, tic doloureux, paroxysmal gastralgia, spasmodic croup, Raynaud's disease, hay fever, recurrent oculomotor paralysis, recurrent temporary amblyopia, paroxysmal vertigo, etc. Finally, he considers that menstruation is brought about by an essentially similar vasomotor process as that occurring in such paroxysmal neuroses as migraine, asthma, and gastralgia, and accounts for the haemorrhage upon anatomical grounds as being analogous to that which may terminate any of the paroxysmal neuroses when the vaso-dilatation encroaches upon a mucous membrane. In this connexion the value of amyl nitrite in reducing the menstrual flow suggests a possible medical treatment for all internal haemorrhage, and cases are recorded of its beneficial use in haemoptysis.

DR. CASSIRER'S thesis on *Tabes and Psychosis*[2] does much in the way of raising highly interesting questions, but not much in the way of answering them. It will probably appear to some that a better, or at any rate a more accurately descriptive, title would have been Psychoses in Tabetics, for those described include not only such well-recognized psychiatric types as mania, melancholia, and circular insanity occurring in individual cases of tabes, but also abnormal mental manifestations following on poisoning with lead, alcohol, and morphine. Dr. Cassirer's classification is not, in fact, rational; but we neither imagine that he considers it to be so, nor think that a complete and rational classification is at the present time possible; it is, however, no more rational than the classification of fixed stars according as they fit into the shapes of the ram, the bull, the heavenly twins, and the rest, and yet there are not wanting glimmerings of a more scientific system, none, perhaps, more distinct than those emanating from the English school. Psychoses of all kinds may, of course, occur in tabetics as in other people, but the inclusion of some of them in a systematized representation of the abstract questions involved tends to obscure the issues. The principle underlying Dr. Cassirer's monograph, which, however, as far as we have seen, he does not formulate, would seem to be that in tabetics, from some cause or other, there is a special vulnerability of the nerve tissues, including their supporting framework, to the action of syphilitic and other toxins. But whether the occurrence of melancholia, for example, in the course of tabes—a very rare event, we should think—is the direct result of a simultaneous toxic influence on the brain and cord, or a secondary toxic result, or of the nature of a reaction at a distance, there is but little in th present volume to indicate. No doubt an important part scientific method is the collection of facts having only remote bearing, it may be, on some principle—facts fro which deductions may be drawn, and as such, but only such, the present volume is of value.

A review of Dr. G. NORSTRÖM'S booklet, entitled *The Trea ment of Migraine by Massage*,[3] may well be short and at th same time explicit. Migraine is usually considered to be purely central neurosis, and to treat it by massage would b as effective as to treat epilepsy by massage. But the autho explains that by migraine he does not mean migraine, bu headache associated with a myositis of the muscles of th neck. If he can remove the local results of such a myosit by massage, no harm would probably be done, with the pr viso that no hope should have been held out to the trustf patient that his migrainous nerve storms would thereby b cured or even alleviated. A degree of restraint in expressin opinions in regard to the author's methods is appropriate, fo has he not massaged the ganglia of the sympathetic, and quit systematically, the large nerve trunks? And has he n written a book on massage of the uterus and another on ma sage in affections of the annexa of the uterus? Yet, to b explicit, the book, in our opinion, is a foolish commerci book.

[1] *Mechanism of the Paroxysmal Neuroses.* By Francis Hare, M.D., Consulting Physician, Brisbane General Hospital, Inspector-General of Hospitals, Queensland. Sydney: W. E. Smith. 1903. Pp. 33.

[2] *Tabes und Psychose.* 'Eine klinische Studie. Von Dr. R. Cassirer. Berlin: S. Karger; and London: Williams and Norgate. 1903. (Demy 8vo, pp. 124. 4s.)

[3] *La Migraine: Traitement par le Massage.* Par Dr. G. Norström. Pari J. B. Baillière et Fils. 1904. (Crown 8vo, pp. 152. Fr. 2.)

NOTES ON BOOKS.

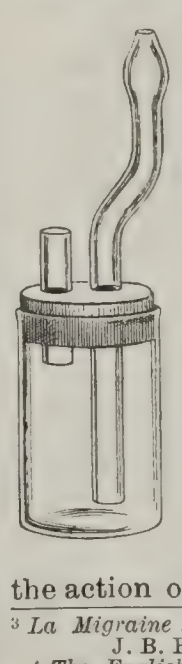
The Englishwoman's Year Book and Directory[1] which ha been published for several years past by Miss EMILY JANE the organizing secretary of the National Union of Wome Workers, is not half as well known as it ought to be. I should be acquired by every one who has more daughte growing up than they expect to be able to dower, by all wome who are on the outlook for an occupation for themselves, an by every one who is ever called on to give advice to those wh want to work but do not know what to do. It is most car fully compiled and contains information of the most recer description upon every occupation in which women engag whether from the point of view of earning their own livin of philanthropy, or of amusement, and also a directory of th various societies and institutions which cater specially f women and girls of all classes.

[1] *The Englishwoman's Year Book and Directory, 1904.* Edited by Emil Janes. Sixth year of new issue. London: Adam and Charles Blac (Crown 8vo, pp. 352. 2s. 6d.)

REPORTS AND ANALYSES AND DESCRIPTIONS OF NEW INVENTIONS

MEDICAL AND SURGICAL APPLIANCES.

An Inspiratory Nasal Irrigator. — Dr. DUNDAS GRAN (London, W.) writes: The central idea in this simple appa ratus is the more effective employment of the action "snuffing" in the irrigation of the nasal passages. Th



apparatus consists of a cylindrical glass recep tacle—a neckless bottle—of about 2 oz. capacity, fitted with a cork bung, throug which pass two tubes, one of which reaches t the bottom of the receptacle, the other for very short distance below the cork. The lon tube has at its upper extremity a flattened bulbous expansion adapted to fit the nostri The mode of employing the irrigator is ex tremely simple. It is filled with the necessar liquid, and held in the hand of the side o which it is to be used. The bulbous tip i placed in the nostril, and the alae nasi of bot sides are compressed by means of the thum and fingers of the opposite hand. The patien then, by a vigorous snuffing action, draws th liquid up his nose into the naso-pharynx. Th instrument ought then to be removed from th nose while the fluid in the naso-pharynx i hawked and spat out through the mouth. Th advantages claimed for this irrigator are tha the action of the *vis a fronte* reduces the risk of invasion o

e Eustachan tubes, that the stream is drawn upwards as ll as backwards, and thereby reaches the middle turbinal d middle meatus, while at the same time the forcible spiration forms a gymnastic exercise for the breathing me- anism which in many cases is of great value. It need hardly said that in cases of very special weakness the inspiratory ort required may contraindicate its use, but, with the exer- e of ordinary caution, it will be found a safe and effective tergent apparatus. It has been made for me by Messrs. use of Wigmore Street.

BERANECK'S TUBERCULIN.

a meeting of the French Académie des Sciences at Paris in vember last, Edmond Béraneck, a bacteriologist of Neu- tel, gave an account of a tuberculin to the perfection of ich he has devoted some time. He limited himself upon s occasion to a description of the method of its prepara- , but promised to detail later on the results which had n obtained by physicians who had employed it at his uest, he himself not being a physician. To this serum, Dr. isty Wilson drew attention in January, at a meeting of Leeds Medico-Chirurgical Society, in a paper which was ed partly upon Béraneck's original communication, and tly upon observations which he had himself been in a ition to make from a number of visits paid to Neuchatel to Béraneck's laboratory, and in other ways.

éraneck's claim was that he had discovered a tuberculin ch was innocuous, and convenient for use in tuberculosis. aim was to obtain active immunization during the pro- s of the disease by the hypodermic introduction of toxins wo kinds. He had found that the products of growth of uberculosis varied considerably according to the constitu- of the medium, and that the reaction of the culture ed with the stage of the growth. Veal broth rendered ntly alkaline with calcium hydrate gave the most constant lts. It was kept at a temperature of 37° to 38° C. for from to two and a-half months, and then evaporated *in vacuo* he cold to the consistency of syrup and filtered. From he derived what he called "basitoxin" (B.T.); while a her toxin to which he gave the name "acidotoxin" (A.T.) extracted from the bacilli themselves. For this purpose bacilli were washed and dried *in vacuo*, then treated for hours in a water bath at a temperature of 70° C. with r cent. of orthophosphoric acid (300 c.cm. of acid to ms of bacilli). The final tuberculin consisted of equal s of Toxin A.T. and Toxin B.T. Experiments had proved it was much less toxic than Koch's tuberculin. Of neck's tuberculin 1 c.cm. could be injected into a tuber- s guinea-pig, and instead of killing the animal within ty-four hours, as was the case with much weaker s of Koch's, in two-thirds of the experiments the guinea- lived on for several weeks. In the human subject it was ed that by daily injections phagocytosis was increased, he soil rendered unfavourable to the multiplication of li. It was further stated that though the tuberculin was slightly toxic, nevertheless the patient should be only ually brought under its influence by commencing with a l dose. There was usually a slight febrile reaction, with ing of *malaise*, lassitude, and loss of appetite, but these omena soon diminished, and disappeared in from fifteen enty days.

lupus a local reaction had been observed, and in pul- ry tubercle there was a temporary increase of broncho- onary secretion. The sputa never became bloodstained the influence of this tuberculin, and the presence of optysis was no contraindication to its use. Febrile often did as well as non-febrile, though the reaction nore pronounced, and lasted longer. The temperature e case seen by Dr. Christy Wilson reached 104° F. amount of tuberculin injected was small in bulk, at there was scarcely any induration of the skin ved, even though continued daily until the tuber- foci had been completely cicatrized. As regards dura- f treatment Béraneck had stated: "I cannot too strongly upon the necessity of continuing the injections for a time if a lasting curative result is to be obtained. In weeks or months it is impossible to secure cicatriza- f lesions which have taken many months or years to

mode of application varied according to the seat ne disease. In pulmonary tuberculosis hypo- c injections could alone be employed, but if the disease were accessible, as in the larynx, bladder, skin, or articulations, local applications could be used in addition. The larynx had been painted with pure tuberculin for several weeks without inconvenience. During the two or three years that the treatment had been tried an improvement in 60 out of 90 cases had been noted, both as regarded the patient's general condition, the number of bacilli, and of local symptoms. Two-thirds of the cases mentioned presented evidence of softening or of cavities before the treatment was commenced. In early cases the curative effect was more marked and rapid than in those of pronounced cachexia and rapidly-advancing disease. In such the improvement would be either temporary or none at all. As an illustration of the method of employing the tuberculin in actual practice the following case was cited from notes placed at Dr. Christy Wilson's disposal by Dr. Roulet of Colombier:

Fernand Zeuba, aged 16 years, a student in the Neuchatel College of Agriculture, had a severe attack of haemoptysis on June 25th, 1900.

Family History.—His paternal uncle had tuberculosis of lungs, his father suffered from eczema, and a sister died, aged 12, of meningitis.

Patient's Own History.—In 1897 he was in hospital on account of an abscess of right knee. This was freely incised and scraped out, the result being a good cure. He had a cough for two months prior to the haemoptysis of June 25th, 1900. This was copious, and came on after the exertion of carrying some hay. Dr. Roulet found him feeble, pale, and haggard. Pulse, 116; temperature, 100°.

June 27th. No more haemoptysis. Blowing respiration, coarse crepitations and rhonchus were found at the left apex. Some tubercle bacilli and many streptococci.

July 8th. Thirteen days from the haemoptysis, the local signs were still more marked, with the addition of dullness and friction. Commenced injection of tuberculin 0.001 c.cm. Next day there was a considerable amount of muco-purulent sputum with bacilli. Temperature 101° F.

July 14th. Nineteenth day. Dose increased to 0.002 c.cm., and continued daily. Slight local reaction. Temperature 102.5° F.

Two weeks later the temperature was normal. The injection was increased to 0.003 c.cm., no reaction, and one week later to 0.004 c.cm.

On August 4th 0.005 c.cm. caused strong reaction, with rigors and vomiting.

September 5th. Eight weeks after the first injection no crepitations or *râles* could be found, and he had gained 6 lb.

On October 10th, or at the end of three months, nothing abnormal could be found. There was no cough and no sputum, and the injections were stopped. He returned to work and continued well.

On October 5th, 1903, three years after the injections had been discontinued, Dr. Christy Wilson examined the patient himself, and found him with the appearance of perfect health—well built, erect, muscular. Expansion equal. No dullness. Hyper-resonance the size of a florin between the second and third ribs on left front. Slight increase of vocal resonance the size of sixpence. There had been neither cough nor sputum for the past three years.

Dr. Christy Wilson also mentioned the case of a medical student, a Cambridge football "Blue," who became infected with tubercle, probably in the out-patient department of a London hospital. For nearly two years he had been under special treatment and in sanatoriums in England and Switzerland, without and marked improvement in his physical signs, and with from one to two ounces of heavy sputum daily and many bacilli. Fifteen months ago he was placed under Dr. Roulet, of Colombier, for Professor Béraneck's treatment. He had a slight febrile reaction for two weeks with increased sputum, but in another week the sputum diminished to a teaspoonful a day. For the last three months no bacilli had been found, and he seldom coughed.

In conclusion, Dr. Christy Wilson stated that Béraneck's tuberculin was not yet on the market, but that he was very anxious that its efficacy should be thoroughly tested by a few physicians who had special opportunities, and for this purpose he was willing to provide from his own laboratory a limited quantity without any pecuniary profit.

The Sanitation of Vera Cruz.—The Mexican Government is said to have decided to make a serious attempt to rid its Gulf Coast of the yellow-fever scourge. The Supreme Board of Health has at its disposal £1,400,000 which can be applied to the sanitary regeneration of Vera Cruz, and the greater part of the money will be devoted to sewerage and drainage work. The town is divided into four districts, each in charge of a medical officer. Each of these officers has under him a large corps of sanitary inspectors. All districts suspected or known to be infectious are thoroughly inspected every day, and each evening the number of cases in each district is reported. Oil is being used freely. Every possible effort is made to diminish the number of mosquitos coming from the marshes by which Vera Cruz is surrounded.

MEDICAL NEWS.

Lieutenant-Colonel W. G. Macpherson, C.M.G., R.A.M.C., has been attached to the Japanese army to report upon the medical arrangements.

Medical Magistrate.—Dr. Denis Walshe, a member of the Council of the British Medical Association. has been placed on the Commission of the Peace for county Kilkenny.

Dr. R. H. Fuller, personal physician to His late Royal Highness the Duke of Cambridge, had the honour of being received by His Majesty on March 23rd, and was invested with the Fourth Class of the Royal Victorian Order.

At the last meeting of the Metropolitan Asylums Board the Chairman of the Children's Committee reported that it had addressed a circular letter to the guardians calling attention to the fact that the Millfield Home was now ready for the reception of early cases of pulmonary tuberculosis.

At the suggestion of Dr. Chervin, President of the French Statistical Society, the Superior Statistical Council has appointed a committee to prepare a scheme for the unification of the system of nomenclature of causes of death in the army, navy, and Colonial service.

The Legislature of Porto Rico has appropriated the sum of £1,000 to defray the expenses of an investigation into the prevalence of ankylostomiasis in the island. The investigation is to be conducted by Captain Ashford, of the Military Hospital.

Colonel H. Cayley, F.R.C.S., C.M.G., Honorary Surgeon to H.M. the King, I.M.S.(Retired), died at Weybridge on March 19th, at the age of 70. Colonel Cayley, who was for some time Professor of Military Medicine at Netley, and served with the Scottish National Hospital in South Africa, had a distinguished career, of which we shall hope to publish some notes in our next issue.

Milk and Mortality.—At the annual meeting of the Leeds Sanitary Aid Society held on March 17th, it was stated that it was hoped to be able to establish this summer a dépôt for the supply of milk suitable for the feeding of infants. The scheme was initiated last year, but although the Corporation made a grant of £500, the funds at the disposal of the Society did not then permit of the plan being carried out.

Medical Women.—In the fourteenth annual report of the Scottish Association for the Medical Education of Women, presented at a meeting on March 18th, it was stated that the Medical College for Women continued to be prosperous and useful. The number of students had risen to 126, and the Carnegie Trustees had promised to pay the matriculation fees of all students for four years in addition to giving assistance in several other directions.

Small-pox.—During the past two months there has been a considerable recrudescence of small-pox in some localities in the Midlands and Northern counties. In London the number of cases had fallen to a low ebb until about three weeks ago, when the number of notifications began to increase. In the last fortnightly return to the Metropolitan Asylums Board it was shown that there were 66 cases altogether under treatment, or some 35 in excess of the previous period.

The Friday evening lectures at the Royal Institution of Great Britain will be resumed after Easter, on April 15th, when Monsignor de Vaya will speak on Korea and the Koreans; on the following Friday Colonel David Bruce, R.A.M.C., F.R.S., will give a lecture on sleeping sickness in Uganda; on May 6th Dr. Chalmers Mitchell will lecture on anthropoid apes; on May 20th Professor Ernest Rutherford, on the radiation and emanation of radium; and on May 27th the Prince of Monaco will lecture on the progress of oceanography.

Suture of the Heart.—According to the *New York Medical News* of March 12th, a coloured man, 30 years of age, was operated upon for a stab wound of the heart at the Jefferson Hospital on February 29th by Dr. Francis T. Stewart. The man walked some distance to the hospital after receiving the wound, and was operated upon forty-five minutes after the injury was inflicted. The wound was found to be near the base of the left ventricle, the external opening being about 1 in. in length. This was closed by means of six sutures. The patient has since done fairly well, with the exception of having a rapid pulse.

In a paper on the phenology of the year 1903 read recently before the Meteorological Society, Mr. E. Manley showed that although, owing to the abnormal mildness of the winter and early spring, wild flowers flowered in advance of the average date, the usual spring immigrants such as the swallow, the cuckoo, and nightingale did not reach England until later than in any year since the phenological reports were first instituted in 1891. After May everything was backward, and though the general yield seems to have been primarily good, the year upon the whole was disastrous, especially as regards fruit production. Other crops were greatly damaged by excessive rain.

The International Congress of Ophthalmology.—In response to numerous requests, the Executive Committee of the International Congress of Ophthalmology at Lucerne has resolved that the proceedings shall commence on September 13th and terminate on September 17th, and not on the dates previously announced. Only those papers will be discussed which have been handed to Professor Dr. Mellinger, Bâle, before May 1st. They will be printed and sent out to all members at the same time as the tickets and receipts for the subscription (25 francs). There will be an exhibition, and any object, either historical or practical, will be gladly received up to July 1st. Further information respecting the Congress can be obtained from the correspondents for the United Kingdom and Canada. Mr. W. Jessop, 73, Harley Street, London; Dr. G. Mackay, Drumsheugh Gardens, Edinburgh; Dr. H. R. Swanzy, 23, Merrion Square, Dublin; Dr. Coote, Quebec, Canada; Dr. Alfred Osborne, Alexandria, Egypt, will also answer inquiries.

School Teachers and Physical Degeneration.—Dr. David Lennox, Medical Officer of the Public Gymnasium, Dundee, has recently concluded a course of lectures which, at the request of the Dundee School Board he gave to the teachers. From the syllabus which we have received we gather that the lectures covered a great deal of ground, anthropometric standards, food constituents and economics, nutritive values, the calculation of diets and of contained energy, ventilation and diseases caused by impure air, water supplies, clothing, hours for work and sleep, dentition, psycho-physics, motor and sensory exercises, eyesight, hearing and throat defects, mental and physical fatigue, and the care of defective children all received attention, and apparently in a very detailed fashion. The syllabus in fact contains some 60 or 70 headings. It is of course better to aim high than aim low, but we are not disposed to think that the standard of hygiene knowledge to be expected from teachers in Board and other schools should be placed very high, that it is worth while to endeavour to instil more than a appreciation of general principles and a sound knowledge of the practices which should be their outcome.

French Congress of Colonial Hygiene.—A Congress of Colonial Hygiene is to be held in Paris from May 29 to June 6th, under the presidency of Professor A. Chantemesse, Professor Brault, of the Medical School of Algiers, is Vice-President, and M. Alizaky, Secretary of the Islam Committee. Among the subjects on which communications have been promised are the following: International prophylaxis and its relations with microbic diseases; pilgrimages to Mecca from the hygienic, religious, and economic points of view; the hospital as a factor in colonization; quarantines; the sanitary police; camp settlements in cases of epidemics; the sanitary defence of the metropolis in its relation to colonies; the feeding of natives and its influence on their sanitary condition; the part played by climate on general hygiene; the influence of atmospheric electrical phenomena on tropical hygiene and pathology; the hygiene of the European in the tropics; the general prophylaxis of syphilis and venereal diseases; hygienic measures against malaria; prophylaxis of relapsing fever; prophylaxis of leprosy; prophylaxis of cholera; prophylaxis of plague; prophylaxis of tuberculosis; prophylaxis of dysentery; hygiene and pathology of the natives of Algeria; medical aid in Algeria; the prevention of diseases of the eyes, especially in Algeria; medical aid in Cochin China; medical aid in West Africa; hygiene of the natives of Madagascar; hygiene of the Chinese; hygiene and pathology in Melanesia and Polynesia, particularly the New Hebrides. The French Government has given facilities to officers of the Army, Navy, and Colonial Service to attend the congress. Entertainments are being organized in honour of those who take part in the Congress.

BRITISH MEDICAL ASSOCIATION.

Subscriptions to the British Medical Association for the year 1904 are now due and should be forwarded by postal order or cheque to the amount of 25s. to the General Secretary, 429, Strand, London, W.C., or, in the case of Colonial members, to their Branch Treasurer.

British Medical Journal.

SATURDAY, MARCH 26TH, 1904.

THE POOR-LAW MEDICAL SERVICE IN IRELAND.

the SUPPLEMENT to the present issue of the BRITISH DICAL JOURNAL we publish a report from a Special Com-sioner who has, at our request, made a careful and austive inquiry into the whole question of the dispen-y system as administered under the existing Poor-law in land. The subject is by no means new to readers of the RNAL, as the grievous defects inherent in the system l the gross abuses arising from its maladministration e over and over again been exposed in our pages. The tish Medical Association has in the past made strenuous rts to secure a thorough reform of the organization of Irish dispensary service, which, as things are, is at once pressive to the medical officers and cruelly unjust to the r. Thirteen years ago a large amount of evidence on ry aspect of the subject was collected by Mr. (now William) Thomson for the Parliamentary Bills Com-tee, and an endeavour was made in conjunction with Irish Medical Association, to co-ordinate such political es as were available to bring pressure on the Govern-nt. A general conference of medical officers was held Dublin, and a representative deputation was, after con-erable difficulty, received by Mr. Jackson, then Chief retary for Ireland and *ex-officio* President of the Irish al Government Board. Mr. Jackson's reply was of the al official type. He said nothing could be done; there e always plenty of applicants for vacancies, and he ld not consent to the breaking of contracts which had n regularly made.[1]

Ir. John Morley, who succeeded Mr. Jackson as Chief retary, was even less sympathetic. He bluntly refused receive a deputation, on the ground that the time of liament would be occupied with questions of superior portance. A second conference was called, and it was ided to promote Bills providing for the pensioning of erannuated medical officers and for the prevention of ses of various kinds. Promises of support were ained from a number of members of Parliament, the pathy of influential Irish newspapers was secured, and lic opinion in Ireland was favourable to reform in the ections indicated. Yet, although during the past ten rs modifications have been made in the administra-of the Irish Poor Law, the state of things, as as the medical officers of the dispensary service are cerned, has changed only for the worse. The abuses grievances justly complained of before still remain bated and unredressed; while under the present con-ons of election and superannuation the dispensary dical officer is the bondsman of guardians who for most part represent the political feelings of the people by whom they are chosen. How can these men understand the needs of the sick poor, the importance of sanitation, or the aims and methods of scientific medicine? They are apt to judge the medical officer and his work by his political belief, making of religion itself a mere party badge. Ground under the heel of such an assembly, or rather its great toe—which, as Menenius Agrippa says, being the lowest, basest, poorest, goes foremost—the dispensary doctor, however keen he may be in the first flush of professional enthusiasm to do his duty to the sufferers who claim his help, soon has all pride in his work, all energizing ambition, and all intellectual interest crushed out of him; his knowledge gradually fades owing to the want of opportunity of keeping it polished, and even hope, which is said to spring eternal in the human breast, dies at last in his for want of anything to feed upon.

Those who wish to understand the practical working of the dispensary system under the Irish Poor Law cannot do better than study the report of our Special Commissioner with the care which the importance of the subject deserves. Here we can only direct attention to a few salient points, but we commend the whole document to the serious notice, not only of all members of the medical profession who are interested in the dignity and prosperity of their craft, but more especially of political Alexanders eager for fresh worlds of evil to conquer, and of statesmen who really have at heart the welfare of the people and the future of a vital part of the empire. It is not merely as a matter of professional interest, but still more as one of public importance that we wish to deal with the question. In the case of the Irish dispensary system, as in those of the medical services of the navy and army, it happens that the interests of the people and of the profession are at one.

The dispensary system came into existence as a consequence of the Medical Charities Act of 1851, which authorized the Poor-law Commissioners of Ireland, acting through the local Boards of Guardians, to divide Ireland into districts and to appoint medical officers to take care of the sick poor within these areas. The choice of the medical officer and the selection of cases suitable for medical relief were entrusted to dispensary committees consisting of local guardians, magistrates, and others who, being resident in the district, knew the circumstances of the poor within its boundaries, and had a personal interest in the efficiency of the medical officer. As a result of the Act of 1898 local government in Ireland was placed on a purely democratic basis, the landlord element being practically eliminated from the district councils.

From the point of view of political evolution the change may be an advantage, but in regard to the medical relief of the poor, which is one of the most important parts of local government, there can be no doubt that the effect of this administrative revolution has been far from satisfactory. For reasons which need not be discussed here, medicine, the most truly democratic of the professions, is apt to be regarded with suspicion, and treated at best with what may be called malevolent neutrality by bodies in which the democratic element is preponderant. The election of the medical officer is in the hands of the whole body of the guardians of the Union in which the dispensary is situated. The local needs of the district in which he has to work are not known to the majority of the electors, and are hardly taken into account in the selection of candidates. The professional merits of the applicants

[1] BRITISH MEDICAL JOURNAL, February 4th, 1893, p. 256.

are too often of no particular importance in the eyes of the guardians. Nor do the interests of the sick poor seem to weigh much more with them. The man himself matters little; what the electors look to is the politico-religious faction to which he belongs. This principle — or rather, want of principle—is professed with cynical frankness and acted on throughout the length and breadth of Ireland. Indeed, the election of a dispensary medical officer appears to be made the occasion for a trial of strength between contending factions; and guardians who attend at no other time will gather from the remotest corners of a vast electoral division to vote, as the case may be, for a good Catholic or a true blue Presbyterian as to whose fitness for the post which he seeks they take little or no trouble to inquire.

The work which the dispensary medical officer has to do is harder and worse paid than is to be found in any other field in which medical practitioners exercise their beneficent activity. The average size of a dispensary district is 42 square miles, with a population of 6,000 scattered over that wide area. Many districts are much larger, and it is no uncommon thing for a medical officer to have charge of two or more branch dispensaries with a sphere of work extending over 60 or 70 or even 100 square miles. Twice a week he must see and prescribe for patients who come to the dispensary; he has to visit at their own homes those too ill to attend, a laborious duty for which a horse and trap are required; he has to send to Dublin for drugs, and to do not only the clerical but the menial work involved in the receipt of the packages, the checking of the contents, and the return of empty bottles; he has to dispense all medicines with his own hands; he has to send out samples of each consignment of drugs to be tested; he has to keep a number of registers and to draw up reports of one kind or another; he has to advise as to sanitary improvements, and to devise and superintend the execution of measures for the suppression of epidemics. He has an exacting and vexatious taskmaster in the Local Government Board and often feels, when the Board and the guardians are at war, that

> 'Tis dangerous when the baser nature comes
> Betwixt the pass and fell incenséd points
> Of mighty opposites.

He has to see his patients and dispense his medicines in squalid hovels destitute of the commonest conveniences for medical examination, and too often wanting in rudimentary hygienic decency. He has frequently to live in a miserable house, or in a village inn. He has to drive many miles in different directions every day, climbing hills and going down into valleys where there are no roads, crossing bogs and maybe arms of the sea, passing the night perhaps by a dying patient or a woman who in her hour of need has no help but him, and returning worn, wet, famished, and heartsore, to begin the same weary round again the next day.

And what is his reward? A pittance for the most part, of less than £100 a year, out of which he has to pay for his horse and trap, and for the boat which he often needs if his district is on the coast. There is here scarcely a question of a living wage. The medical officers do indeed contrive to live somehow, eking out their beggarly salaries by private practice, and by acting as public vaccinators and registrars of births, deaths, and marriages. In the large majority of districts, however, the little private practice there is does not come to the dispensary medical officer, whose skill is valued by the public at a rate corresponding to that at which they see it estimated by the guardians.

We have said that in the struggle for life under the conditions even hope which sustains men through difficulties and hardships often abandons the dispensary medical officer. Too often, indeed, he has nothing to look forward to but a life of unceasing toil to the bitter end. For him there is, as a rule, no prospect of an increase of salary or a change of district. He has no chance of getting out of the rut into which he sinks, for he cannot afford to buy books or journals to keep himself abreast of the advance of science; and if he had them he would have no time to read them. His mind becomes subdued to the work it works in, and he lives without a thought beyond the trivial round of daily drudgery. In the matter of an annual holiday he is wholly at the mercy of the guardians. So he must stagger on under the growing burden of years till he dies under the yoke. If he is fortunate he may, when he is past work, get a superannuation allowance just sufficient to keep together for a little while the body and soul which he has spent in the service of people often not so poor as himself. But he has no right — and he is often made to feel it — to a pension, and by a refinement of cruelty he must actually resign his appointment before he can apply for it. The fear of a possible refusal makes men of fourscore continue to do, as best they can, work that taxes the strength of the most robust.

A system which thus grinds men to dust in the wheels of its machinery stands self-condemned before the tribunal of humanity. But the "thin official person," scorned by Carlyle, may say the question is purely an economic one and the conditions of the service must be regulated by the laws of supply and demand. To this we reply that it is surely a false economy which places the worker under the worst possible conditions and directly encourages him to do his work in the most perfunctory manner. "Sweating" is condemned by an enlightened economy, and the Irish dispensary doctor are "sweated" by the guardians in a manner of which there is, perhaps, no other example in the medical profession. The Local Government Board, which should in the public interest protect them against the tyranny of the parochial "sweaters," only adds unreasonable exactions and a multitude of petty annoyances to the burden they have to bear.

The case for reform of the Irish Dispensary Service rests however, not on what politicians may choose to regard as sentimental considerations, but on the solid ground of the interest of the people. It is for the benefit of the people that the service exists, and it is in the interest of the people that it should be thoroughly efficient. It is simply impossible for men to perform efficiently the multifarious duties that fall to the lot of the dispensary medical officer under the conditions of distance, want of necessary appliances, want of skilled assistance and in many cases of the most elementary requirements of medical practice imposed on him by his employers. Our Special Commissioner shows clearly how inadequate is the number of officers, how unworkably large and inconveniently arranged are the districts and how futile must be the fight, with such weapons as the public authorities place in the hands of the medical officers, against sickness and death among people often destitute of the bare necessaries of existence, and living in surroundings which from

ry point of view are scarcely above the level of ntal savagery.

almost hopeless to look to the guardians for any ; nothing at all adequate could be done by them ut placing an intolerable burden on the rates. Our l Commissioner pleads strongly for a liberal grant he Imperial Treasury, and certainly we know of no purpose to which Imperial funds could be applied he promotion of the health of the Irish peasantry he sanitation of the small towns and rural dis- of Ireland. It is vain to hope for any im- nent in the dispensary service itself until the ions are materially changed. At present it is manned, overworked, and underpaid. The essen- oints in any scheme of reform, therefore, must st the levelling up of the scale of pay to imum representing a living wage—that is to ot less than £200 a year; secondly, the granting nsion as in other public services by an automatic s based on a limit of age and period of service; and , an increase in the number of the officers and a redis- on of districts that shall make effective medical ision possible. Lastly, the medical officer should be o claim an annual holiday of not less than four on full pay, which means that the guardians must substitute during his absence.

e will not allow us here to discuss in detail the scheme m suggested by our Special Commissioner, and per- ie time is not yet ripe for this. The existing state gs tends to the physical and moral deterioration of h race, and is thus a source of weakness to the . Every effort that has so far been made g about an amendment has dashed itself in pray against the solid rock of Government opposi- Both the great parties of the State have shown them- equally deaf to warnings about the manifold dis- ages of the system as a means of providing medical and equally indifferent to what they doubtless re- as merely a doctors' grievance. British Govern- and Oppositions have always behaved as though uring of a small party advantage was a matter itely greater importance than anything relating health of the people or the efficiency machinery provided for its maintenance. rely a scandal that successive Governments should system so unsound in itself and so mischievous in ts to be perpetuated, and should leave the adminis- of a public service of the greatest importance to l-being of Ireland to a department which does in a spirit of the narrowest official pedantry. nce has proved that it is worse than useless to politicians to take up the cause of reform in matters public health unless it is made plain that to do so will lose them votes. Let the medical on show that it is in earnest in demanding a radical of the Poor-law dispensary system in Ireland, and such organization as it possesses to impress on rs that the question is within the sphere of practical and this most desirable reform will be achieved.

YSICAL DEVELOPMENT AND INFANT FEEDING.

atifying to find the views propounded by our Com- r in the articles on the milk supply and on physical ation confirmed and supported by experienced sanitarians such as Dr. Niven, medical officer of health for Manchester, and Dr. F. G. Haworth, medical officer of health for Darwen. Never can the importance of careful feeding and care during earliest childhood be too much taken to heart, and it stands to reason that only in this way will general fitness be obtained. It is refreshing to find that both Dr. Niven in the lecture abstracted last week, and Dr. Haworth in the letter published elsewhere, agree with the view so often expressed in these columns during the last twelve months, the common-sense view, that the period of infant life must not be passed over in considering these questions, and that it is folly to begin to apply measures for the improvement of their physique to school children already stunted and diseased owing to neglect in infancy. The scientific basis on which Dr. Haworth would establish the feeding of infants is no doubt sound; but still more valuable would be a scientific plan to ensure clean milk. The most carefully drawn out scheme for the feeding of infants upon milk is of small use if the only milk to be procured by the labouring classes is "putrescent." "Pure unmixed cows' milk" is a consummation devoutly to be wished, but one, under the present state of milk production in Great Britain unfortunately impossible of realization. The first thing to be faced is the means whereby the milk supply may be improved. As we have said over and over again, until county councils are given power to compel the rural authorities to enforce the rules framed by the Local Government Board with regard to dairy farms, no general improvement can be expected in the physical condition of the labouring classes. Dr. Haworth's suggestion that the feeding of children should at any time be charitable is one which we find it difficult to accept. Promiscuous charity of this kind tends to demoralization. The parents are responsible, and should not be relieved of the burden. Lectures to teachers are greatly to be encouraged, and as we have frequently pointed out, an adequate system of medical inspection in schools is essential.

Another point to which attention was directed in our recent articles on physical degeneration is, we are glad to see, likely to be taken up. It will have been noticed that a report was presented[1] at the last meeting of the Council of the Royal College of Surgeons of England expressing strong approval of the scheme brought before the Physical Deterioration Committee, sitting at the Privy Council office, by Professor D. J. Cunningham and Mr. J. Gray, President and Secretary respectively of the Anthropometric Committee of the British Association. As our Commissioner pointed out, there are at present no satisfactory data with regard to the height, weight, and other physical conditions of the children of this country. It is a reflection upon the manner in which the School Boards have understood their duty that no systematic steps were taken by them to obtain such data. The Council of the Royal College of Surgeons has now expressed its opinion that the adoption by Government of a scheme for an anthropometric survey of the United Kingdom, such as that proposed by Professor Cunningham, would be well calculated to elicit those facts a knowledge of which is essential to the formation of any sound opinion as to the physical improvement or deterioration of the race. Further, all will agree with the view that the results of the investigation would be of great scientific value and interest. We would,

[1] BRITISH MEDICAL JOURNAL, March 19th, p. 700.

however, point out that continuous investigation is necessary, and that the data required would not be supplied by a single survey. We have no doubt that this point has been considered by Professor Cunningham and his colleagues, and we hope that the Physical Deterioration Committee may make a strong recommendation upon the subject, and will be able to support the suggestion made in our columns that systematic anthropometric observations should be carried out with the sanction of the education authorities. It is important to enlist the interest of teachers in the work, it will help them to understand that the physical education of their pupils is as much a part of their duty as their mental training; until the whole teaching profession is permeated with this idea we fear that no really satisfactory results can be expected from anything that is done in the elementary schools. In conclusion, we would again point out that attention must, in the first place, be directed to the earliest years of life; it is then that the body develops most rapidly; it is then that, owing to defective control of the milk supply, physical evils are produced which training in after-years cannot be wholly expected to eradicate.

UNIVERSITY COLLEGE AND THE UNIVERSITY OF LONDON.

ABOUT a year ago an agreement was come to between the University of London and University College by which the incorporation of the College in the University was arranged upon certain conditions. The College agreed that the Senate of the University should have the control of the buildings and property of the College, while the University undertook as far as possible to maintain and develop the College, and to give it representation on the Board of Advisers appointed for the election of professors. The University, however, was not willing to take over that part of the medical school which dealt with advanced medical studies, nor University College School, and would not accept any responsibilty with regard to the hospital and its funds. The two contracting bodies consented to promote a Bill in Parliament to carry out the scheme of incorporation, but hitherto financial difficulties have stood in the way, the chief being the inability of the College to make adequate provision for the school of advanced medical studies. Sir Donald Currie has now come forward in a most munificent manner to meet this difficulty. In response to the appeal issued two years ago the College had already received enough to enable it to pay off its debt and to purchase the site required for the new medical school buildings. Sir Donald Currie has now presented it with £80,000 to erect the required buildings for the school of advanced medical studies. The subjects of preliminary and intermediate medical study—that is to say, anatomy, physiology (including pharmacology), biology, chemistry, and physics—will continue to be taught in University College proper, but the remaining subjects of the medical curriculum will be provided for in the new buildings to be erected with the gift now made by Sir Donald Currie. As there are funds available for the purchase of a new site for the boys' school, and for the erection of the necessary buildings, the last obstacle has been removed, and it will now be possible practically to complete the incorporation of University College in the University of London, thereby making the University the possessor of a property worth, it is estimated, nearly half a million sterling. Sir Donald Currie has given a further sum of £20,000 to provide a suitable nurses' home in connexion with University College Hospital upon a site already secured; in the same building quarters will be provided for the medical students attending the maternity department. Sir Donald Currie has further offered the sum of £2,500 as a gift from his daughters, Mrs. Mirrielees, Mrs. Molteno, and Mrs. Wisely for the furnishi and provision of a library, etc., for the nurses' home. acknowledging and accepting Sir Donald Currie's gift Lo Rosebery, the Chancellor of the University, and Lord Rea the President of University College, expressed also th sense of the timely nature of the gift, and added that t donation would be valued not merely as a help in t immediate difficulties of these two institutions, but directing their course along the line of development which London may be made the seat of a university worth of the metropolis of the empire. The University has al accepted the offer of the Goldsmiths' Company to prese to the University, for the purpose of promoting its work South London, the Polytechnic Institute established by t Company at New Cross twelve years ago. The value of the s —seven acres—and of the buildings, with their equipme is estimated at not less than £100,000, and if the Sena has a free hand in devoting the site and buildings to t extension of university education in South London, t benefits which may be conferred upon this somewh neglected district can hardly be estimated in money.

THE FUTURE OF THE ARMY MEDICAL SERVICE

THE third part of the report of the War Office (Reconstitution) Committee has not been made public at the ti we go to press, although rumour asserted very positive that it would see the light on Monday last. Its ter are awaited with much curiosity and by those interest in the Army Medical Service with some apprehensi The reorganization of that Service, as yet hardly co plete, has so far given promise of working well; Service has begun to attract a very good class of candida for commissions, and a healthy scientific and professio spirit has been rapidly developing. Now all is again certainty: the Army Council does not contain any rep sentative of the Army Medical Service, and hygiene is th excluded from the supreme council of the army; Director-General is apparently to be a subofficer of one the departments. There is no certainty that the inte gence branch will contain a medical officer, and important work of the organization and equipment military hospitals has been taken from the control the Army Medical Service, and given to a special Bo with a civilian chairman which reports direct to the Se tary of State, and has only an indirect association w the Advisory Board. This change appears to conf with the spirit of the first and second parts of the W Office Committee's report, which is that soldiers sho manage their own affairs. Rumour asserts that scheme to be recommended in the third part of the rep will involve important changes in the *personnel* at h quarters. It is said that the present Director-Gene whose term of office would not in ordinary course exp until next December, will be retired, and that his pl will be filled by an officer considerably junior in ra Upon this we have no observations to make, feeling co dent that as the appointment must be made with advice of the Advisory Board the best interests of Service will be considered. It is said, howe that there is also a proposal to appoint to be dep director-general an officer of comparatively junior ra passing over a large number of seniors, among whom some of the ablest officers in the corps who command resp both as tried administrators and men of science. We derstand that, with regard to this appointment, the visory Board need not be consulted, and the rumour n therefore be regarded with the greater apprehension, especially as the selection is attributed to considerat other than those which have to do with professi fitness.

NEW MEDICAL RESEARCH LABORATORY IN PARIS.

ON March 21st, without very much ceremony, Profe Charles Richet, acting as the spokesman of the Facult Medicine, opened the new laboratory of experime medicine, which has been erected at the Port de Va

within the line of the old fortifications of Paris. The ratory is intended for special researches involving ex- ments on animals, and is so fitted up that the animals nselves can be kept under the best hygienic conditions. laboratory consists of a two-story building about ft. long and 30 ft. wide, situated in a large area of open nd behind the fortifications, and placed on the site of rmer bastion. It is fitted up in a simple but perfectly tical style. There are specially-heated wards for animals operated on. Outside there is a long row of s for horses and goats, and open-air cages for dogs and its. The laboratory is under the direction of the ulty of Medicine of Paris, and there is a specially- inted Préparateur, M. Lassablière. The City gave the nd, the Faculty paid a part of the cost of the building outfit, while generous donors found the rest of the ey required. Some of these have their names placed the doors of the various rooms—Salle Chantemesse, Gérard, Salle Carvallo, Salle Louis Ollivier, and Salle rd.

PARLIAMENTARY PUBLIC HEALTH COMMITTEE.

Public Health and Medical Committee of members he House of Commons met on Tuesday, with Dr. uharson in the chair. A deputation of ladies, ng whom were Lady Helen Munro-Ferguson, Mrs. ord Fenwick, and Mrs. Tennant, attended to con- with the Committee as to the best means of fur- ng legislation for the registration of nurses. It was ar- ed that the Prime Minister should be approached with a to obtaining the appointment of a Select Committee to der the two Bills now before Parliament. Sir Michael er reported that he had given evidence before Lord y's Committee on the Local Government Board in ur generally of the views promoted by the British cal Association. Some little discussion took place t the ventilation of the House, and it was considered able that the Committee of last session should be ointed further to improve the ventilation and watch the sanitary condition. It was thought that the riological experiments of last session on the air of Chamber should be continued and extended.

SCALE OF FEES FOR MEDICAL WITNESSES.

working of the scale of fees in criminal cases, which into force at the beginning of this year, requires ul watching, and we shall be glad to receive reports of cases where difficulty has been experienced in ning the increased allowances sanctioned by the e Office under it. As the answer of the Home Secre- to a question addressed to him in the House ommons last week shows, and published in the SH MEDICAL JOURNAL of March 19th, p. 687, there n the metropolitan police district certain rules regulations, made so far back as July 31st, 1875, are still in existence, in spite of the revocation ne order establishing the new scale of fees of such rules and regulations respecting any of the said matters." Under these old regulations the fee edical evidence in certain police-court cases is half a a instead of a guinea as recommended by the Depart- al Committee, and the net result of retaining this in force, and of the new regulation halving the a fee unless the witness is detained four hours home, will be that half a guinea, which the Depart- al Committee considered too little, will still be the fee for medical evidence at police courts and petty ns. We understand that these and other points on the recommendations of the Departmental Com- have not been fully carried out are at present under leration by the members of Parliament who served t Committee.

A FRENCH PROVINCIAL MILK DÉPÔT.

teresting paper on the infant milk dépôt at Saint r-Mer was contributed by Dr. A. L. Peyroux of uf to *La Pédiatrie Pratique* of March 15th. The Gouttes de Lait at Saint Pol-sur-Mer may be classified among the best-managed infant milk dépôts of France, and typical of institutions of the class. Whereas, when it started in October, 1902, only 22.4 per cent. of infants were suckled by their mothers, on September 30th, 1903, 35.2 per cent. were suckled; and in February the proportion had risen to about 50 per cent. Of 130 infants attending the dépôt and under the vigilant inspection of the village midwife who sees them every day, and of Professor Ausset who examines them every week, half are exclusively breast-fed, while the other half are fed either altogether or in part artificially. The great aim of the organ- ization is to encourage suckling, and it is only in cases of absolute necessity that artificial feeding is allowed. Only when the weight has persistently de- creased for two or three weeks does M. Ausset consent to the substitution of pasteurized milk. By his firmness and kindness he persuades many women, who in a rough seafaring town like St. Pol would not otherwise have seen the duty they owed their babies, to nurse them. Unfortunately, in many of the dépôts organized in the provinces of France under the name of Gouttes de Lait, the sole object has been to sell sterilized milk to mothers. Their real object should be to urge mothers to suckle their infants, and only when it is absolutely necessary should sterilized or pasteurized milk be sold; in either case the health of the infants should be carefully watched over, and their feeding regulated under medical super- vision. The institution started by Professor Budin in Paris, and to which he has given the happy title of "Con- sultation de Nourissons," should be the ideal aimed at, and all institutions carrying out this wise aim of encouraging mothers to suckle their infants and only to resort to cow's milk in cases of absolute necessity might be allowed to call their establishments by that name as distinctive from the "Gouttes de Lait" or dépôts simply for the purpose of selling sterilized or pasteurized milk.

THE DUKE OF CAMBRIDGE AS A PHILANTHROPIST.

IN no sphere of public usefulness will the late Duke of Cambridge be more missed than in connexion with medical and other charitable institutions, for he associated himself with all useful and philanthropic movements, and never spared himself in the cause of charity. Only last year we remember him figuring, in spite of great weakness, at the ceremony of the opening of the new wing of the London Hospital by the King and Queen, a hospital of which he was President for many years. He was President also of King's College Hospital, of the German, the Royal West- minster Ophthalmic, the City Orthopaedic, and the Royal Dental Hospitals. He was a patron of the Charing Cross, Royal London Ophthalmic, the Royal Eye, and the National Orthopaedic Hospitals, and a vice-patron of the Hospital for Consumption and Diseases of the Chest, Brompton. In other charitable undertakings also he showed a great interest; thus for sixty-two years he was a member of the Court of the Corporation of the Sons of the Clergy. In 1850 he became President of the Royal Female Orphan Asylum in succession to his father, who had become President in 1806, so that father and son held the office for nearly a century. In the year of the Diamond Jubilee he opened the Centenary Hall and new wings of the Jews' Hospital and Orphan Asylum, an institution for the support of the aged, and the maintenance, education, and employment of youth. He was always ready to plead the cause of the charities with which he was associated, and many hospitals have to thank the suc- cess of his efforts as Chairman at its festival dinners for substantial additions to their funds. Although the Duke was no lover of innovations he always had a kindly feeling for those who fell by the wayside in the modern struggle for existence. For instance, on two occasions he presided at the annual festival of the Printers' Pension, Almshouse, and Orphan Asylum Cor- poration, and his efforts resulted in the raising of consider- able sums whereby aged and infirm printers, their widows and children, are assisted. He was intimately associated with the great school of Christ's Hospital; he became a

governor in 1841, and had he lived a few days he would have celebrated his jubilee as its President. He took a most lively interest in the institution, was a regular attendant at the meetings of the governors, and a short time before his death studied the report of the treasurer relating to the purchase by the Post Office of the site of the old buildings. As was natural, perhaps, the charities closest to his heart were those associated with the army, especially those which seek to help the wives and children of soldiers. Beyond all this he was always a willing and zealous helper in social and philanthropic movements for the amelioration of the condition of the people, and the strong common-sense, earnestness, and kindness of heart which shone through his utterances, made him a most effective speaker. The Duke of Cambridge was deservedly loved by the people, and the great concourse which witnessed his funeral on Tuesday is an evidence of the keenness with which his death is felt by those to whom he had attached himself by his kind deeds and ready sympathy.

SCHOOLS FOR MIDWIVES.

A pamphlet[1] on the establishment of out-door maternity departments in connexion with schools for midwives; its importance for the training of midwives and for general hygiene, published recently by Dr. Fritz Frank, of Cologne, contains rather more than is implied in its title. It contains first what the title leads us to expect—an argument in favour of the establishment of outdoor maternities in connexion with lying-in hospitals. The author urges first that by an outdoor as well as an indoor department the clinical experience of the pupils is much increased. In a well managed hospital the pupil finds everything needed ready to her hand, with the frequent result that when she goes into private practice, is called to a bad case, and finds nothing ready, she loses her head. In an outdoor maternity she learns how to adapt herself to circumstances. Then also the benefits of skilled attendance during labour are by such a maternity department given to a large number at a very small cost. The cost of each poliklinik patient to the charity the author estimates from 2 to 3 marks. The outdoor maternity has a valuable influence as a teacher of hygiene and antisepsis, not only among the poor patients, but also on the charitable ladies of higher social position who visit them. And it helps to preserve family life and strengthens family ties, while the hospital has the reverse effect. Besides this argument, Dr. Frank's pamphlet contains a full description of the working of the Cologne outdoor department, every detail of the management of which has been well considered and arranged. He gives a numerical summary of the results attained. Few who are concerned in the management of outdoor maternity departments can read this book without interest and without deriving profit from it.

SPOROZOA AND DISEASE.

Professor Minchin's fourth lecture at University College dealt with haemosporidia, a group of sporozoa which live parasitically on the red blood corpuscles of vertebrate animals, including man. Some of the haemosporidia are of interest, owing to the diseases (forms of malaria fever) which are produced by their presence and growth within the human body. The haemosporidia resembled the coccidia in being parasitic, but the latter class of parasites only infected the epithelial tissues of the alimentary canal. The haemosporidia multiplied within the "host's" body by the process of schizogony, but part of the life-cycle was passed in the body of an "intermediate host"—usually a mosquito in the case of the malarial parasite. Although much of the life-history of haemosporidia, and particularly of the malarial parasite (haemamoeba of Laveran) was known from the researches of Laveran and others, it is only quite recently (1902) that a flood of light has been thrown on the whole subj their life-history by the researches of Schaudinn. observer, from his studies of halteridium—a parasite in the red blood corpuscles of birds—has shown t flagellate stage exactly like that occurring in the try soma of sleeping sickness occurs in halteridium. haemosporidia are divided into two classes—namel haemamoebae and the haemogregarinae. The l amoebae include the following forms: the plasmo malariae of quartan ague, the plasmodium vivax of t ague, and the plasmodium immaculatum (Grassi) o nicious malaria, all of which are pathogenic to man proteosoma praecox of birds; the plasmodium which is pathogenic to apes; the halteridium, occurs in birds; the piroplasma of Texas (cattle) and the piroplasma of a form of malignant disease i and horses. The haemogregarinae comprise gregarin (not amoebiform) parasites, which are met with only blood of cold-blooded animals. They include such as Lankestrella (drepanidium) ranarum, the h gregarina of the water tortoise, and the karyolysus infests lizards. All the various species of haemam are transmitted to the human body by the agenc mosquito or gnat. Proteosoma and halteridium occur in birds are conveyed by a species of gnat or while the piroplasma of Texas cattle fever is carri ticks which feed on the skin of oxen and gorge them with blood. The eggs of the tick are infected with plasma, and when hatched the little ticks get on the and attach themselves to the muzzle and limbs of t and thus infect it when they pierce the skin of the c drink its blood. The piroplasmata pass into the bl the ox, and multiplying there in large numbers pr the symptoms of Texas fever.

[1] *Die Errichtung geburtshilflicher Polikliniker an Hebammenschulen:* ihre Bedeutung für die Ausbildung der Hebammen und für die allgemeine Hygiene. Von Dr. Fritz Frank, Director der prov. Hebammenlehranstalt in Köln. Berlin: S. Karger; and London: Williams and Norgate. 1904. (Demy 8vo, pp. 46. 1s.)

ST. PATRICK'S DAY.

On the evening of March 17th United Ireland laid as schisms, and as represented by the Irish Medical So and Graduates' Association foregathered in the E Rooms of the Trocadero, there to do honour memory of St. Patrick and exchange the reminisce a varying number of years. It was a mighty gathe between two and three hundred persons, graced presence of a large number of Erin's daughters a many sons who have won distinction in science public services or both. Of the presence of the for an excellent and constant feature of these festi various speakers gave various explanations. Non necessary. The gallantry of the race is as proverbial hospitality, and the Saxon who has been happy eno associate with it well knows that wherever Irishm gathered together there will he hear the rustle of fe skirts, or the rattle of bangles in lands where the ring and the waistbelt are the height and depth of fa In most of the speeches, some of which did n upon the side of brevity, there was that d admixture of wisdom and humour which one c in an Irish speech, but perhaps the most Irish about the whole entertainment was that the speech evening was made by one who, a Saxon by birth, c to be an Afghan by naturalization and an Irishman by aspiration to the Parliamentary representat Galway, to wit, Sir Salter Pyne. The formal event evening, however, was the presentation of the Medal to Mr. P. J. Freyer, who was introduced Macnaughton-Jones in a very eloquent oration. O speakers, the Chairman (Surgeon-General C. Sibt made a happy and applauded reference to the ho second visit of the King and Queen to Ireland; Ins General Dick, in returning thanks for the Navy, all a gift of plate from the people of Donegal to the war mess of the ship of that name; while Surgeon-G Evatt, speaking for the army, made an earnest against the medical department being deprived of a voice in the chief council of the army. General Si Prendergast, V.C., one of the guests, described th assistance he had always received from

ers, and especially from Surgeon-General Sib-
pe, in the Burmese campaign. The proposal of
e Health of the Guests" fell to Dr. Gilbart-Smith,
acquitted himself of his task in a racy speech,
h included some clever word-pictures of the careers of
e of those present. Among them were Mr. E. R.
ry, C.S.I., of Scotland Yard, and Sir Robert Anderson,
B., of criminal investigation fame—representatives of
and order whose presence at a collection of wild Irish-
Dr. Gilbart-Smith considered as remarkable as it was
ome. Mr. Kendal Franks was another speaker, and
ned the burgher camps in South Africa, of which he
one of the travelling inspectors, as one of the greatest
uments of humanity which the world had ever seen.
detailed some of his personal experiences at great
h, and was much applauded when he sat down. The
t report of the Association which was placed upon the
shows that it is exceedingly flourishing, and num-
between 800 and 900 members. Of these, 244
in London, 341 in Great Britain outside London,
45 in Ireland. The rest are either abroad, of unknown
ence, or on the active list of the army or navy.
Arnott Memorial Medal, awarded to Lieut.-Colonel
Freyer this year, is a medal placed in 1900 at the dis-
ion of the Council of the Irish Medical Schools' and
uates' Association by Mr. David Arnott, in memory of
ather, the late Sir John Arnott. It may be awarded
ally for any of the following achievements during the
previous years (*a*) an act of heroism or distinguished
e or an act performed in the discharge of medical
s either in civil life or in one of the Services, or (*b*) an
vement in medicine, surgery, or medical research.
who have hitherto received it are Captain Charles
n, R.A.M.C., Captain T. J. Crean, V.C., R.A.M.C., and
rendan MacCarthy.

THE PARIETO-OCCIPITAL FISSURE.

e examination of a number of aboriginal brains
Froude Flashman[1] was struck by the fact that the
tion of the external parieto-occipital fissure differed
that regarded as typical of the European brain—a
fissure bounded laterally by an arc of cortex, the
parieto-occipitalis. This formation is not constant
ropean brains, but in the Australian aborigines it is
ever present, though it contains all the factors for
oduction of the European condition, and is, in fact,
edecessor. Cortex which in the aboriginal is on the
surface of the brain becomes in the European dis-
to the medial aspect, and with this there is an
ion of the intraparietal sulcus well down on to the
surface. This is illustrated by excellent photo-
s of the brains of three aborigines and one adult
ean which have been selected as demonstrating the
s stages in the morphological development of the
l area surrounding the parieto-occipital fissure.
ashman's observations have great intrinsic value,
e also interesting in connexion with recent work on
orphology of this fissure by Professor Elliot Smith[2]
y Kohlbrugge and Zuckerkandl.[3] Professor Elliot
and Dr. Flashman agree that it is the anterior limb
primitive parieto-occipital fissure which becomes
ief element of the fossa parieto-occipitalis of most
brains.

THE INFLUENCE OF MEDICINE IN THE DEVELOPMENT OF JAPAN.

KAMINE, a Japanese physician living in New York,
en "interviewed" on behalf of an American paper.
ather from the *Journal of the American Medical
ation* that he expressed the opinion that Western
ne played a very important part part in bringing
under the influence of modern civilization. Even
the old order of things, when the only intercourse
between Japan and the outer world was through a few Dutch traders, Western medicine had to some extent gained an entrance into the country and exerted a certain influence, not only in the direction of sanitary reform, but in tincturing the Japanese mind with Western modes of thought. Dr. Takamine made the interesting statement that the members of the Ministerial Cabinets which have governed Japan under the Mikado during the last thirty years have all been to a greater or less extent influenced by Western medicine. A large proportion of them—estimated by Dr. Takamine at 40 to 60 per cent.—have either been doctors or the sons of doctors, or had been in direct contact with medical practitioners from the West. The Marquis Ito, the Grand Old Man of Japan, belongs, it appears, to a family almost every man of which has been connected with the medical profession. The fact has often been pointed out, but it will bear repetition, that in the expansion of our own Empire medicine has played a most important part. The humble dispensaries at outlying stations are great civilizing agencies, and the Western doctor's pills and portions often do more to bring wild tribes into subjection than bullets and cold steel. It is interesting to recall the fact that Dr. Takamine's name is closely associated with the preparation of adrenalin, which is coming to be more and more generally recognized as one of the most powerful haemostatics at the disposal of the surgeon. It is curious that Japan, which seems likely to give us some new ideas in the art of war, should have placed in our hands a substance that may be of service in mitigating its horrors.

PREGNANCY WITH DEFICIENT TUBES AND OVARIES.

THE interesting article on "Two Cases Involving the Question of the Side of Impregnation" which we publish this week is highly suggestive. The authors, Mr. Harrison Cripps and Dr. Herbert Williamson, raise questions of great importance, and an active discussion followed the reading of this communication at the March meeting of the Obstetrical Society. It is certain that external transmigration of the ovum is a phenomenon by no means rare. Thus in several cases of tubal pregnancy the corpus luteum has been found in the opposite, not in the corresponding ovary, and it has been detected, in cases of pregnancy in a uterus unicornis, on the ovary corresponding to the undeveloped and uncanalised side of the uterus. The ovum may certainly stray into the peritoneal cavity and be taken up by the opposite tube. The first case detailed by the authors of this paper was an instance of gestation in a right tube nearly four years after the right ovary had been removed for dermoid cystic disease. The authors contended that the ovum was derived from the left ovary, and since external migration of the ovum has been detected under other conditions it might well explain this case. The authors, however, admitted another possible explanation. There might have been ovarian tissue on the right side, an accessory ovary according to their view of the theory. They contended that an accessory ovary is very rare, and most pathologists will agree with them; at the same time they did not believe that any portion of the true ovary remained in the pedicle of the dermoid cyst. Baldwin's case, where under other circumstances ovarian tissue was detected in connexion with the ovarian ligament after removal of an ovary, that is to say, of the anatomical structure known as the ovary, offers stronger support to this second explanation, which was strenuously defended by Mr. Doran in the discussion on this paper. He removed a burrowing oöphoritic cyst on the right side many years after Dr. Robert Barnes had removed a similar cyst of the left ovary, together with the left tube, and noted that Dr. Barnes's pedicle was in a state of extreme atrophy, not a trace of tube or ovary remaining. Mr. Doran left a great part of the right tube. The tumour was easily removed entire; the patient bore a child two years later. There can be little doubt that the ovarian tissue lay in the ovarian ligament close to the uterus and far from the anatomical ovary, a condition which the same surgeon has detected in other subjects. The fact that an ovarian tumour has a long

[1] *...s from the Pathological Laboratory of the Lunacy Department, New ...th Wales Government.* Vol. I, Part I. Sydney: W. A. Gullick. 1903. ...o, pp. 57. 4s. 6d.)
[2] *Journal of Anatomy and Physiology*, January, 1904.
[3] *Schwalbe's Zeitschrift für Morphologie und Anthropologie.*

pedicle, so that all ovarian tissue within the limits of the ovary proper is removed at an ovariotomy, does not signify that no such tissue is left behind in the stump of the ovarian ligament. Baldwin[1] amputated a pair of ovarian cysts, each having a long and narrow pedicle. There was no doubt that both ovaries were extirpated, nevertheless the patient bore two children within nine years afterwards. The case of pregnancy after excision of a portion of both tubes, reported by Mr. Cripps and Dr. Williamson, is further evidence that such a procedure often fails to ensure sterility. The continuity of the canal of a tube simply ligatured may be restored by the ligature ulcerating through it, the tubal tissues healing behind without causing stricture: the authors noted that this had happened in one case under Bland-Sutton, and that a similar change had been recorded in relation to a ligatured ureter. However, clinical and surgical experience has amply proved that there is no necessity for the continuity of the tubal canal to be restored at all in order to allow of the passage of an ovum from ovarian tissue into the uterus. Several operators have recorded pregnancy years after they had amputated both ovaries and tubes for chronic inflammatory disease. They do not deny that they may have left small pieces of the ovary proper behind, but they had certainly amputated both tubes, and ligatured the stumps of those ducts together with the rest of the pedicle. Their experience proves that the fimbriae and abdominal ostium are not essential to the transmission of the ovum. The short stump of a tube may free itself somehow from its ligature, and its canal, rendered patulous, may take up an ovum from the stump of an ovary, or from ovarian tissue left in the ovarian ligament. Thus, when we turn to the study of the site of impregnation, we have ample evidence showing what may not prevent that physiological process. It would seem as though the site is not identical in all cases, even under normal conditions.

SMALL-POX AT THE LONDON HOSPITAL.

THE circumstances of the outbreak of small-pox at the London Hospital, out of which some newspapers have made a good deal of capital, are as follows: On February 8th a boy named Buvier visited the receiving room with symptoms deemed to be those of chicken-pox. According to instructions he came again two days later and the diagnosis was reaffirmed. A fortnight later, or on February 23rd, Buvier's father was admitted to George Ward as suffering from acute rheumatism. Four days later he developed a rash which was diagnosed as that of chicken-pox. He was therefore sent to Davis Ward and kept there in one of the small rooms annexed until March 12th, when he was discharged free from the symptoms both of the rheumatism for which he was admitted and of those which supervened. On March 15th, three days after the discharge of Buvier senior, a man in George Ward developed distinct signs of small-pox, and was handed over to the sanitary authorities. On the same day two patients in the adjoining Baker Ward developed suspicious rashes, and were put into the isolation ward for observation. One of these cases turned out to be small-pox, and was sent away; but the other still remains in the observation ward, and the rash is deemed to be an iodide rash. On March 16th another patient in Baker Ward definitely developed small-pox, and was also sent away, and in the afternoon of the same day a case was found in Davis Ward, and was treated in the same fashion. Since then no other cases have occurred, but the following precautions are still in force: Baker, George, and Davis Wards are all kept in strict quarantine, and cases are neither admitted nor discharged. The house physician in charge of the wards keeps himself isolated, as also do the nurses; while the visiting physician visits no other wards. The nurses, porters, and patients belonging to the wards have been vaccinated, and the only patient who refused vaccination was discharged, and his name given to the medical officer of health. If no other cases occur in the infected wards it is considered that quarantine may be raised a the end of this month. Special instructions have given to the receiving-room officers to keep a sharp out for any other cases which may present themselves a the casualty patients, and a hut has been prepare the instant isolation of any case which may be recogn while Dr. Thomas, the medical officer of health for Ste has promised to attend at once and inspect any case may seem to be merely suspicious. As a result o investigation which he made upon being apprized o first case identified in the wards, Dr. Thomas visite Buvier family and found reason to send to the sma hospital Buvier senior, his son and daughter, his br (who has since died) and the landlady of the hou which they all lived.

[1] Pregnancy after the Removal of Both Ovaries, *Amer. Journ. Obstet.*, vol. xlvi, 1902 (Case 1).

PLAGUE IN JOHANNESBURG.

THE announcement that plague has broken out in ce quarters of Johannesburg has caused much alarm, it cannot be said that the occurrence was unexpected, n we believe the Transvaal sanitary authorities had in way relaxed their vigilance against possible in ation of the disease. Plague has existed in Cape C for some four years, and although in no town or di except, perhaps, Port Elizabeth, has plague ass any considerable proportions, yet the continued pre of the disease in both men and rats in several tow Cape Colony and in Durban, Natal, rendered the possi of a serious outbreak, either within the infected area adjacent towns or districts, an ever-present ca anxiety. Plague has visited the following towns in Africa since it first appeared: Capetown, Port Eliz East London, Queenstown, King William's Town, Ki Lady Grey Bridge and Durban. According to th report, however, dated Capetown, February 1904, no cases of plague existed in Cape Col a quite exceptional circumstance. The last p patient was discharged from the hospital at East L on February 25th. Rats, however, are still report being infected by plague at Port Elizabeth and London; so that although no case of plague in h beings actually exists for the moment, the probabi recurrence in one or other of these towns has to b templated. During the year 1903 the total numb deaths from plague in Cape Colony amounted t during the first half of the year, 117 died of p but during the latter half only 18, so that evident plague has been gradually disappearing Cape Colony, until on February 27th the Colon quite free of the disease. We are accustomed to per recurrences of plague, so that the lull may be only t rary. In January, 1903, there were no deaths from p in Cape Colony during four weeks, and it was no April that the disease showed any marked tend increase. The period of recrudescence may be ag hand, and the fact that in Port Elizabeth and East L plague-infected rats are being found would appear to the anticipation. How plague reached Johannesburg known; it is unlikely to have been carried by h beings, seeing that at the moment no plague in known to exist in adjacent districts. In all prob the infection has been conveyed by animals. So h rats are infected, not only the immediate neighbou but any place in communication with the rat-infecte is in danger. Rats travel in grain or other merch conveyed by railways, and they become ready sou infection. We would wish, however, to draw attentio fact that, although rats are especially liable to contract almost all, if not all, of the domestic animals are sus plague. Pigs, fowls, ducks, turkeys, cats, and do instance, contract plague, and, unlike the rat, pi fowls show no signs or symptoms of the disease unti a late period of infection. Professor W. R. Si showed that pigs and fowls may be suffering from for weeks, and yet continue to eat their food and g as in health. They are, however, by their excretio taminating the soil over which they walk or the pl which they are housed, and become foci

to other animals and possibly to man. In Africa. as elsewhere, great attention has been rat infection, but the inquiry into the infection of animals seems to have been neglected, and it is ary before giving an opinion in regard to the possible on of plague in Johannesburg to ascertain if the ic animals are infected with plague or not. If they ague will continue; if they are not, plague can be ted with something like certainty. The medical of health for Johannesburg is Dr. Porter, who gained reputation in this country as a sanitary worker, and mentioned in the House of Commons that Professor n had offered his services and was willing to pro- Johannesburg. In addition it may be pointed out ere are several medical officers at the Cape who ad special experience of plague, and that if their s could be lent to the Transvaal Government they robably be of the greatest value. The information d indicates that the disease is chiefly of the onic variety, in which the contagious character is ronounced than in the bubonic form, and even adly.

THE WATER SUPPLY OF PARIS.

GH some of the newspapers have fallen into the d by the nomenclature often used in France, and enerally in Germany. and have announced that an k of typhus fever has occurred in Paris, the fact is, ioned by our correspondent early this month, that reak is one of typhoid fever. It began apparently the third week of February, and the latest returns at the number of cases under treatment is steadily ng. The occurrence has given rise to a lively attack e of the Parisian journals on the body responsible administration of the water supply of Paris; one of spapers has announced its intention to placard the districts with a notice advising the inhabitants to drinking water. On the same day the Municipal adopted a unanimous resolution blaming those ble for administrating the water supply for not the people of the risk they ran. This had been by an announcement from the Prefect of the the effect that the recent torrential rains "had the régime of the water," and recommending all nts of Paris to boil all water used for drinking. logical examination of the water collected in areas is stated to have shown that it contains which, though not enteric, are of a suspicious r.

HE LATE DR. ALEXANDER DAVIDSON.

bituary notice of Dr. Alexander Davidson pub- March 12th we omitted to mention that he was y Local Secretary of the Annual Meeting of the Medical Association held in Liverpool in 1883. eting was exceedingly successful, and much of cess was attributed to the energy and zeal with . Davidson devoted himself to the organization of ing and to making arrangements which would e to the convenience and advantage of members . At a meeting on March 17th of the Liverpool Institution, of which Dr. Davidson was a trustee, a was passed in which the members expressed se of the loss which the institution had sustained ath, and placed upon record their appreciation of principle he had always shown in the perform- rivate and professional duty.

ret to see the announcement of the death of Renaud, the historian of the Manchester Royal , with which he became connected in 1848.

informed that Mr. Gilbert Barling, Surgeon to ral Hospital, Birmingham, and Professor of Sur- he University of Birmingham, intends to offer s a candidate at the next election to the Council yal College of Surgeons of England. Mr. Barling Member of the College in 1879, and Fellow in 1881. The late Mr. Oliver Pemberton was, we believe, the last representative of the Birmingham School on the Council of the College.

WE understand that, at the instance of the Advisory Board of the Army Medical Service, a committee of experts is about to be appointed to report upon the subject of anti-typhoid inoculation.

DR. GEORGE OLIVER will deliver the Oliver-Sharpey lectures before the Royal College of Physicians of London on April 12th and 14th at five o'clock. The subject of the lectures is recent studies on the tissue lymph circulation.

WE are asked to remind those interested that the annual dinner of the medical officers of the auxiliary forces arranged by the Volunteer Medical Officers' Association will take place at the Imperial Restaurant, Regent Street, London, on Friday, April 15th, when it is expected that the chair will be taken by Lieutenant-General Lord Grenfell, G.C.B., G.C.M.G. Further particulars can be obtained from Lieutenant Montgomery-Smith, 36, Abbey Road, N.W.

AT a meeting of citizens held at Leeds on March 22nd to consider the best means of promoting financially the scheme of a university for the city, it was stated that donations of £39,938 had been promised towards the £100,000 which the Privy Council has stipulated must be raised before a charter for the foundation of the university can be issued. It was estimated that the necessary extension of the existing College buildings would cost some £70,000 and that at least £50,000 should be collected for purposes of endowment. Annual grants towards income amounting to about £12,000 have been promised by sundry public bodies.

MEDICAL NOTES IN PARLIAMENT.

[FROM OUR LOBBY CORRESPONDENT.]

Plague in the Transvaal.—Sir Walter Foster asked the Secretary of State for the Colonies on Wednesday whether he had any official report as to an outbreak of plague in the coolie location at Johannesburg; and, if so, whether he would state the number of cases and the number of deaths up to March 19th, among the coolies, Kaffirs, and whites. Mr. Lyttelton said in reply that the latest telegrams from Lord Milner on this subject were as follows:

March 20th, No. 1.

Bubonic plague has broken out in the coolie location here. It is a virulent outbreak, 30 deaths having occurred out of 38 cases within a few days. Though the nature of the disease was only recognized yesterday, steps have been already taken to remove all patients to a special camp to the north of town. Owing to the fact that the possibility of outbreak has been foreseen for some time, the site of the camp was already chosen and necessary arrangements made, while tents are ready and will be erected immediately. There will be thus no difficulty about isolation and proper treatment of all suspect cases. Outbreak confined to coolie location, which forms part of insanitary area recently expropriated by municipality. Town Council is thus in position to clear the location at once, to transfer the coolies to a new site outside the town, and to disinfect the whole space. It has all necessary legislative powers, and administrative arrangements have as far as possible anticipated the need which has arisen. There is thus every reason to hope spread of disease may be promptly checked. Mining area so far quite unaffected.

March 22nd.—No. 2.

Your telegrams of March 21st—No. 2 and No. 3. Present position of plague is as follows: Suspected cases reported, 47 coloured, 6 white; deaths, 40 coloured, 2 white. Outbreak appears to be well in hand, and I do not think it necessary to engage services of Professor Simpson, especially as I have a first-rate bacteriologist and excellent medical staff on the spot, and the public here have complete confidence in them.

Plague in India.—Last week Mr. Weir asked the Secretary of State of India, in view of the fact that there were 3,721 deaths from plague in Central India last January as compared with 92 in January, 1903, would he state what steps were being taken to check the spread of the disease. Mr. Brodrick replied that all possible care was taken to prevent the spread of plague throughout India. Speaking generally the State

Medical Officers of the Native States forming the Central India Agency applied in the territories of their respective States the preventive and remedial measures which were employed in British India. These comprised (1) the provision of hospitals and medical aid for the sufferers; (2) disinfection of infected houses; (3) evacuation of infected quarters in towns and villages; (4) refuge camps for the uninfected; (5) inspection posts and observation huts at railway stations and on main routes; (6) inoculation where desired. The Epidemic Diseases Act of 1897 was in force in the Indore Residency Bazaars, and in the Cantonments of Mhow, Neemuch, and Nowgong, and sanitary rules made under it were enforced in those localities. Mr. Weir also asked if in view of the outbreak of plague at Allahabad the approaching University Examinations could be held elsewhere, but Mr. Brodrick said he had no doubt all possible measures would be taken to secure the safety of the students.

The Sale of Poisons.—Sir Thomas Dewar asked the Secretary of State for the Home Department, having regard to the fact that attention had been called by the coroner for the City of London, and other officers holding similar positions, to deaths through misadventure arising from the sale of poisons in unlabelled vessels, would he consider the expediency of adding poisons such as phosphorus, cocaine, and chlorodyne to the Schedule of the Pharmacy Act, 1868, and arranging for the prohibition of the sale of corrosive mineral acids and ammonia unless in vessels bearing the word poison; and would the sale of poisonous preparations to young children be prohibited. Mr. Akers-Douglas replied that it did not rest with him to take any such measures as were suggested; but he might refer to the answer given previously by the First Lord of the Treasury to the effect that a Bill to amend the Pharmacy Acts would be introduced in another place after Easter.

The Payment of a Locum Tenens.—Mr. Jordan returned to this subject again last week, and asked the Chief Secretary to the Lord Lieutenant of Ireland if his attention had been called to the action of the Local Government Board auditor, in surcharging three members of the Enniskillen Board of Guardians in the sum of two guineas, part of an amount paid by the guardians to Dr. J. E. Johnston for two weeks, as *locum tenens* for Dr. Tate, in the Hallywell division of the Enniskillen Union; whether he was aware that, after advertising and making other efforts, the guardians were unable to procure the services of any medical man at four guineas a week, and were compelled to pay five guineas rather than deprive the poor of medical attendance, and that, owing to letters from the Local Government Board, the guardians refused to pay the full amount agreed on until legal proceedings were initiated; and whether, seeing that no other action was open to the guardians under the circumstances, he would take steps to remove the surcharge. Mr. Wyndham replied that the Local Government Board could not express an opinion in respect of the legality or equity of this surcharge until the matter came before it in the manner prescribed by statute, namely, on appeal from the persons aggrieved.

Anthrax.—Mr. Cripps asked the hon. member for North Hunts, as representing the President of the Board of Agriculture, whether his attention had been directed to the circumstances attending a recent outbreak of anthrax at Levenshulme, which resulted in the death of the owner of the affected animal, and the serious illness of the butcher by whom it was dressed; and what steps, if any, had been, or could be, taken to prevent any such occurrence in the future. Mr. Ailwyn Fellowes answered that the lamentable circumstances referred to were brought under the notice of the Board of Agriculture, and a special inquiry was at once instituted with respect to them. The serious results, not only to animal but to human life, which attend the slaughter in the ordinary way, and the dressing of the carcasses of animals infected with anthrax, were well known, and upwards of 360,000 copies of a leaflet calling attention to the danger had been distributed. Circular letters on the subject had been addressed to the various local authorities. It was proposed now to issue a further special notice to stockowners, cautioning them against the dressing of the carcasses of animals which had died suddenly until the cause of death had been ascertained. This notice would be issued to local authorities for posting on walls, and for direct distribution to farmers and others concerned.

Glanders.—In reply to Captain Norton, Mr. Ailwyn Fellowes, as representing the President of the Board of Agriculture, said that the regulation of the manufacture and import of mallein would be attended with difficulty and would require legislation. The deaths from glanders for the last three years had been 2, 4, and 5 respectively, and the Registrar-General reported that there had been no in... for the last three years.

Death Certification.—Sir Thomas Dewar asked the Secretary of State for the Home Department last Monday whether the Government had yet considered the recommendations contained in the Death Certification Report of 1893; and, if so, would he state whether he contemplated the introduction of legislation on the subject. Mr. Akers-Douglas replied that the report referred to had been considered by the Government with a view to legislation; but, as the President of the Local Government Board had stated on previous occasions, it had not yet been found practicable to bring forward a Bill on the subject.

Rabies and Quarantine.—Mr. H. D. Greene asked whether the Board of Agriculture would reduce the six months' quarantine of dogs from abroad to three months, and, if so, when such order would take effect; and whether he would state how many dogs were quarantined in 1903; and whether the Board had any reason to believe that any of them had since shown signs of rabies. Mr. Ailwyn Fellowes answered that it was already the practice of the Board to release an imported dog after three months' quarantine in cases where the dog had been under the direct personal control of its owner during the three months preceding its importation. It would be dangerous to extend this relaxation to cases where no supervision was wanting. Three hundred and sixty-seven dogs were landed from abroad in 1903 and detained in quarantine. In none of these had any signs of rabies been detected.

Uncertified Deaths in Scotland.—Mr. Weir on Tuesday asked the Secretary for Scotland, having regard to the fact that the last report of the Registrar-General for Scotland shows that 80,107 deaths were registered in Scotland during 1901, would he state how many of these deaths were uncertified, and when he proposed to introduce legislation on the subject. Mr. Graham Murray replied that the number of deaths uncertified in Scotland during the year 1901 was 3,... He added that he was not in a position to give any pledge to legislation on this subject.

Expenditure on the Sanitation of the House.—Mr. Ellis asked the honourable member for Chorley, as representing the First Commissioner of Works, what sums were voted and spent respectively on works of sanitation or improvement in the House of Commons, its precincts, and Committee Rooms during the financial years 1901-2, 1902-3, and 1... and what amounts of such sums had been attributable to recommendations of any committee of the House. Mr. Balcarres answered that the amounts were as follows:

Years.	Voted. £	Expended £
1901-2 ...	250	1,333
1902-3 ...	6,400	4,057
1903-4 ...	850	830

In the case of the last-mentioned year the amount of expenditure could only be given approximately. The expenditure of £1,120 in 1901-2 and £3,445 in 1902-3 might be attributed to the recommendations of the House of Commons Accommodation Committee of 1901, and the sum of about £600 to the Committee of 1902 and 1903.

The Meath Hospital, Dublin.—On Monday Mr. Clancy asked the Chief Secretary to the Lord Lieutenant of Ireland whether any appointments had been made to the staff of the Meath Hospital (the County Dublin Infirmary) since the passing of the Local Government Act, 1898; and, if so, how many appointments had been made and by whom. Mr. Wyndham replied that since the passing of the Act two appointments of Visiting Surgeons had been made by the Joint Committee constituted according to the provisions of the Act.

Vivisection.—On Tuesday evening Sir Frederick Banbury had a notice on the paper to call attention to the vivisection of dogs, and to move "That, in the opinion of this House operation for the purposes of vivisection should be performed on dogs." The motion was not reached.

Scotland.

THE OLD ROYAL INFIRMARY OF EDINBURGH.

Transfer of the Buildings to the University.

eeting of the Town Council of Edinburgh on Tuesday, 22nd, it was agreed to sell to the University authorities hospital buildings and grounds in Infirmary Street sum of £15,000. It is understood that the University struct laboratories and research rooms on the site of oric building.

The Last Kitchen Concert.

g advantage of the fact that the old buildings are g empty, owing to the removal of the Fever Hospital ton Mains, the Edinburgh Royal Infirmary Residents' March 11th held a concert in the kitchen of the Old House. The kitchen concerts, which were such a in the Royal Infirmary for nearly forty years, were a rs ago prohibited by the managers of that institu- nd great interest was manifested in this revival. 200 medical men, of whom fully 150 were past ent residents, attended the function, at which Sir Banks, the President of the Club, presided. The was as far as possible left in its former condition, and the guests were accommodated on the long dressers ne the walls. The present house-physicians and sur- the infirmary were responsible for the decorations, ng chiefly of mock coats of arms for the prominent of the school, most of whom were present. The me, as designed by Mr. Caird, indicated in the form glyphic writing the history of the medical school of gh, and will prove a valued memento of a most ng gathering. The present residents presented eaux, the first a reduction of a dislocated hip in e of Charles the First, and the second a modern n. Both were very cleverly described by Dr. Camp- o was responsible for some excellent fooling. The idents contributed to the success of the evening by a Toy Symphony, and none of the audience appeared the fact that most of the toys were considerably out Dr. James conducted with great effect, and promi- ong the players were Mr. Cotterill, Mr. Caird, rge Berry, Dr. Logan Turner, and Dr. Lovell A word of praise should be given to Dr. aylor's weird performance on an instrument which rstood to be a trombone. One of the present resid- Thomson, added greatly to the success of the even- is admirable singing, and few who heard him will e effect of the well-known song the "Yeomen of " which he gave when still in the dress of a nurse, had assumed for the second tableau. Dr. Kennedy med the audience with his old Scottish songs, and kwater was as amusing as of old. Dr. Ballantyne, es, Dr. Gulland, and Dr. Geddes were all greatly d, and the Secretary as usual had to deliver his well- tation.

course of the evening the Secretary proposed the the Chairman, and Sir William Banks made a most speech in reply. The Chairman then proposed the ir Robert Cranston who, as Lord Provost of the city, *fficio* Chairman of the Infirmary Managers, and was he three laymen present, the others being the of the city, through the kindness of whose e the use of the buildings was granted to the d Mr. Lang Todd, the Convener of the Health e. The Lord Provost replied. Among the old and guests present were Dr. David Christison resident in 1854, Sir Thomas Fraser, Sir bald, Professors Wyllie, Simpson, Chiene, and Drs. Argyll Robertson, Bramwell, Smart, McBride, ston, and Colonel Warburton, the Superintendent of nary. On breaking up at midnight it was acknow- all sides that the evening had been a most striking nd was a credit to those particularly concerned in ement, the Secretary, Dr. Claude Ker, the Treasurer, e Taylor, and Dr. Allan Sym, as well as to the pre- ents of the infirmary, without whose aid the whole ould have fallen somewhat flat. It may be added cordance with tradition a cask of beer stood in one the kitchen and churchwarden pipes were supplied ent.

Appointment of Gynaecologist.

eekly meeting of the managers of the Edinburgh Royal Infirmary on Monday, March 21st, Dr. F. W. Haultain, F.R.C.P.E., was appointed an Assistant Gynaecologist to that institution. There were eight candidates for the vacancy, due to the lamented death of Dr. R. Milne Murray. The appointment of Dr. Haultain meets with the almost unanimous approval of the medical profession in Edinburgh. He is a most successful lecturer on midwifery and gynaecology in the Extra-mural School. He had, last winter session, the largest class (159 students) on record in that school.

ROYAL EDINBURGH HOSPITAL FOR SICK CHILDREN.

The Directors have appointed Dr. George A. Berry Ophthalmic Surgeon, in place of Dr. Argyll Robertson. They have also elected Dr. John W. Simpson one of the Extra Physicians to the hospital.

SMALL-POX.

During the period from March 1st to March 15th inclusive, 236 cases of small-pox were intimated to the Local Government Board. These were distributed in 14 of the 32 counties of Scotland. In regard to the actual number of cases Glasgow Burgh heads the list with 50 cases, Greenock Burgh stands second with 33 cases, and Edinburgh third with 15. The local incidence of the epidemic during the period in question was still greatest in the burgh of Greenock, where the cases amounted to 12.10 per 25,000 of the population, as compared with 7.15 in Grangemouth. During the week ending mid-day, March 19th, 8 new cases were reported to the Public Health authorities in the city of Edinburgh, and one death was registered.

SCARLET FEVER IN EDINBURGH.

It had appeared that the scarlet fever epidemic, which has been going on for some months, was abating. There seems, however, to be a recrudescence, since in the week ending mid-day, March 19th, 37 cases were notified, and in the preceding week 21 cases. In neither week was any death registered from this cause.

Ireland.

THE NEW PROVOST OF TRINITY.

SINCE the death of the great Provost of Trinity College, Dublin—Dr. Salmon—expectation has been on tiptoe as to the successor to be appointed. The patronage does not lie in the hands of the Irish Government, but in those of the Premier, who submits the name for the approval of the King. Rumour supplied many candidates, and some distinguished men outside the University were mentioned as in the running. But prominent and capable as some of these were—and any one irrespective of profession or religion or scholarly eminence may be appointed—the interests of the junior Fellows had to be counted with. The only action that could result in a move upward along the whole line was the choice of a senior Fellow, and satisfied in this, the juniors were otherwise divided. The Irish Government, as represented by the Lord Lieutenant and the Chief Secretary, were notoriously favourable to different candidates, but the Premier has nominated a gentleman who was not either of those.

Dr. Anthony Traill, the new Provost, was born in 1838, and is a descendant of Colonel Traill, one of Cromwell's soldiers, who settled in the County Down when resistance was overcome in Ireland. Entering Trinity College at an early age, he proceeded to the degrees of B.A. and LL.D. Later on he took a medical course, and he now holds the degrees of M.D. and M.Ch. He never practised, we believe, and his name does not appear on the *Register*. His arts course had been so distinguished, particularly in mathematics and experimental science, that he was persuaded to read for a fellowship, and he was successful in competition with excellent scholars. Since then he has followed the usual course; has filled professorial chairs, and passed on into the senior group, of which the juniors say the members never die. His college life has been of the character of the man—a forceful teacher, a good example to workers with an emphatic stinging tongue for the idlers—and behind his blunt speech a kindly heart that attracts confidence. The new Provost's energies, however, have found other fields for their exercise. He enjoys the distinction of being one of the few promoters of the first electric railway in the world—that at the Giant's Causeway. When the Irish Church was disestablished and disendowed he rendered important service on financial questions, and since then he has been a valued member of the Church Representative Body. He has served

as a member of the Educational Endowments Commission in 1885-92, and of the Fry Commission on the Irish Land Acts, 1897-8.

He has carried his abundant energies outside the walls of Trinity, and has probably often startled some of his sedate colleagues. A man of strong political and theological convictions, he has thrown himself into the forefront of modern Irish politics, and has stated his views clearly and oftentimes with vehemence. By pen and tongue he has waged the defensive war of the landlords with all the strength of a born fighter. His diction does not affect the elegancies of scholastic rhetoric—it is plain, clear Saxon, full of force and character. He believes in Trinity College and her glories, in her traditions, her virtues, and her failings. To follow such a rare genius as George Salmon in the Provostship will prove a serious undertaking, but Dr. Traill will be at least vigorous and true in the service of his College. The position is worth about £3 000 a year, including a fine old residence.

Professorship of Botany in Trinity College, Dublin.

Dr. Percival Wright has resigned the Chair of Botany in Trinity College, Dublin. He graduated in medicine in 1858, and in 1865 and 1866 was substitute for Professor Harvey. Dr. Wright was then Professor of Zoology; and in 1867 he joined an exploring expedition to the Seychelles, and returned with a rare collection of plants and animals. On the election of Dr. Dickson to the Chair of Botany in Glasgow Dr. Wright became his successor in Trinity, and his resignation after thirty-six years' service has been received with great regret. He has consented, however, to continue to act as Keeper of the Herbarium.

Dublin Sanitary Association.

The report of the Dublin Sanitary Association submitted to the annual meeting on March 21st refers to the insanitary state of many of the national schools, and suggests that part of the equivalent grant might be allocated for the improvement of these places. The Council also complain of the number of private slaughter-houses in the city. They regard them as debasing to the inhabitants and as frequently the source of disease. They urge that the Corporation should frame by-laws under the Act. Tuberculosis is by far the most fatal of illnesses to the people of Ireland. It was the cause of more deaths annually in this country than could be attributed to small-pox for the past fifty. The infant mortality of Dublin continued to be a scandal to the community. For the 13 weeks ending January 2nd, 1904, out of a total of 108 deaths registered of persons, the cause of whose deaths were uncertified, 69 were of children under five years of age—that is, 63.9 per cent.; for the five weeks ending February 13th, 1904, out of 50 uncertified deaths, 27—that is 54 per cent.—were of children under one year, causes of death uncertified; for the three weeks ending February 13th, 1904, out of 34 uncertified deaths, 21—or 64.7 per cent.—were of children under five years, causes of death uncertified. The report was adopted unanimously. Among the speakers were Sir Arthur Macan, P.R.C.P., Mr. Chance, V.P. R.C.S., Dr. McWeeney, and Sir J. W. Moore.

Presentation of Portrait to Professor Byers.

A very interesting ceremony took place on the afternoon of March 18th in the large hall of the Queen's College. Some little time ago a number of friends of Professor Byers initiated the movement which was brought to so happy a close by the unveiling and presentation of his portrait. The Right Hon. Thos. Andrews, D.L., Rev. Professor Todd Martin, Professor Thos. Sinclair, F.R.C.S.Eng., and Mr. J. Theodore Richardson were appointed Secretaries of the Executive Committee; and Sir James Henderson, D.L., Honorary Treasurer. The Committee entrusted the commission to Mrs. Ernest Normand (Miss Henrietta Rae). Dr. Byers is represented in his professorial gown, wearing the red hood of Doctor of Medicine and the purple hood of Master of Obstetrics—an honorary degree conferred upon him by the Royal University of Ireland. The portrait is life-size, three-quarter length, and depicts the figure in an easy sitting ttitude. A replica was presented at the same time to Mrs. Byers.

The President of the College, Rev. Dr. Hamilton, occupied the chair. He described the origin of the movement, and gave an account of Dr. Byers's very successful collegiate, university, and post-graduate training. As Physician to the Hospital for Sick Children, of which he is now Consulting Physician, as Gynaecologist to the Royal Victoria Hospital, as examiner in the Royal University, and obstetrician Maternity Hospital, Dr. Byers had always displayed th high skill, energy, and ability; while in private prac same qualities and his kindness and tact had gained hi friends in his many patients.

Sir James Henderson then read the following addr reply from Dr. Byers:

Address to

Professor JOHN W. BYERS, M.A., M.D., M.A.O., Hon. C *Queen's College, Belfast.*

Dear Dr. Byers,—The tribute of friendship which we as accept from our hands to-day is more than the assurance and our personal attachment. We can sincerely offer it as indica widely and how highly your worth is esteemed. With an en rarely equalled the opportunity of sharing in it was welc representatives of all classes and professions and creeds.

An Ulsterman by descent, and an appreciative observer o tinctive genius of Ulster, you have kept closely in touch people, and exemplifying their best qualities in your stren honourable life, you have laid a firm hold on your confidence will. But yours is a reputation not merely provincial. We with satisfaction and pride the position attained by you in y profession as a specialist in the front rank.

You and your distinguished colleagues have enhanced tha the Belfast Medical School, and have contributed in no small to its acknowledged eminence in science and skill. As one of fessors of our Queen's College you have not spared pains bring the latest discoveries and the most advanced knowled in the training of your students.

By such services, and by the ready help you give to the b and educational work, and recently by your labours in conne the erection and equipment of the Royal Victoria Hospital, laid all interested in the welfare and happiness of the peo obligation. But it is in the homes of your patients and fri your finest qualities are most fully appreciated. There young alike are bound to you by the ties of affectionate regard.

It is our desire that your Portrait, executed by an emin should have a place among those of the illustrious teache great school of learning. It seemed to us to be fitting that st after days should be reminded by this fine work of art of or student, practitioner, and professor has reflected lustre on his

In conveying to you our feelings of admiration and frien very heartily associate with you your wife. Be assured most earnest desire that you may both long live to enjoy the and esteem of your many friends.

(Signed on behalf of the Subscribers)

Thomas Andrews,
W. Todd Martin,
Thomas Sinclair, F.R.C.S.E.,
J. Theodore Richardson,
James Henderson, Hon. Tre

Belfast, March 18th, 1904.

Reply.

My Dear Friends,—Will you accept my sincere and heartf for the words of this most beautifully executed address, as w the very valuable gifts with which it is accompanied?

To say that I am quite unworthy of all the kindness you la to-day is, I assure you, a totally inadequate expression of m feelings. I would rather thank you not merely by words but diligent attention to duty, and by trying in some measure to far too appreciative and flattering address the ideal at whic aim in the future.

The portrait so faithfully painted by the well-known lady a the Committee selected speaks for itself, and testifies to her ar painstaking care, and vigorous technique.

I assure you the gift is greatly enhanced in value by the fa the request of the donors, and by the kindness of the Pre Council of Queen's College, the portrait is to occupy a place portraits of distinguished men who have shed lustre on this C to whose teaching I have been deeply indebted.

I have never regretted that the greater part of my educatio was pursued in Queen's College and in the Belfast Medical know my friends were glad when I was called to a Chair in th and to-day I have another very pleasing and remarkable te the large-hearted kindness of patients, friends, and medica in Belfast and Ulster.

While thanking you warmly on my own behalf, my wife des give you her sincere thanks for associating her with me in you tribute of friendship. I appreciate your remembrance of he than any kindness shown to myself.

Again with profound gratitude I thank you all for these s marks of your surpassing goodness, and remain,

Yours very sincerely,
JOHN W

Dreenagh House, Belfast,
March 18th, 1904.

The Right Hon. Thomas Sinclair, after a speech plimentary to Dr. Byers, then unveiled the portra was accepted by the Chairman on behalf of the Colle

The Right Hon. Thomas Andrews then unv replica for Mrs. Byers.

essor Byers, in replying on behalf of Mrs. Byers, said he l to return her most grateful thanks. He felt his s had done him an honour of which any one might be ; and that such kindness on their part ought to prove eatest stimulus to him to try to rise to the standard r far too complimentary words. Professor Byers then d to a number of former professors, and said how much ed to their teaching, and to the influence of their ter and life-work. He also referred to the Belfast l School, and the advances lately made in it.
ral speakers, including Dr. Redfern, added remarks, rdially joined in the congratulations of the occasion.
te of thanks to the artist and to the Chairman brought oceeding to a close.

QUEEN'S COLLEGE, CORK.

ne opening of the Spring Commission of Assize for the f Cork, on March 18th, the Foreman said that the Jury had passed a resolution in reference to the Queen's , Cork, which they wished to submit to His Lordship, ght Honourable the Lord Chief Justice, namely:
ve, the Grand Jurors of the City of Cork assembled at the Spring of 1904, are strongly of opinion that the intellectual and material of the city demand that Cork shall continue to be a university that the more highly trained the intelligence of a community tter fitted that community is to participate in the administra- ustice: that as there is at present such keen competition in nd commerce, it is an absolute necessity that the citizens of uld have ample facilities for obtaining the highest intellectual in order that they may be in a position to successfully compete various commercial nations of the world.
Lord Chief Justice said that he could not receive the re- n, though he had heard it read with great respect. It was tely outside the sphere of his duties and his influence, precluded by judicial etiquette from interfering in tter. He appreciated and, if he might say so, agreed ne abstract considerations that were involved in the on, but he could go no further.

QUEEN'S COLLEGE, BELFAST.

nnual dinner of past and present students was held on 7th, St. Patrick's Day, and was largely attended by s of all faculties. The President of the College d the chair. Dr. Symington, the Registrar, responded toast of "The Queen's College." He said that the must look for its prosperity not to the support of any ment, but to the liberality of the province in which it ed; all that they as officials and as a College could do tate plainly and definitely, both to the Government he people of the province what they considered really y properly to equip the College, and to enable it to do that was urgently required. It was the duty of the ment and of the provinces in general to respond to mands. Professor Lindsay, M.D., proposed the toast Sister Colleges of Cork and Galway," which was ed to by Mr. O'Shaughnessy, K.C. The toast of "The College Clubs and Societies" was proposed by Dr. ; and Dr. Lowry proposed that of "The Chairman."

PROFESSOR MARMOREK'S SERUM.

er read on March 23rd at St. George's Hospital, Pro- armorek stated that in the battle against tuberculosis hygienic measures must occupy the firing line until means of preventing the disease was discovered, and t mankind at present looked for from those who were in the study of Koch's bacillus was the discovery of r those already diseased. The natural human resist- ards tuberculosis was great, but in many individuals ither imperfect or entirely absent. The successful t of the latter was impossible, but the resisting the former could be reinforced in various ways, and be of immense utility if the varying bactericidal the blood serum of such individuals could be y determined. It was impossible at present to know e into what category of resistance any given case of ell. He was convinced that tuberculin was not the ause of the pathogenic symptoms of tuberculosis, it was merely a reactive which caused the bacilli to nother and hitherto unknown toxin; the toxin, in which the bacilli attacked and undermined the , and he detailed an experiment which seemed to ove this view.
rapeutic use of this reactive tuberculin was thus an attempt to produce an active immunization, but it commonly failed to be of use because the reaction was so great that there was no time for the formation of antitoxins. It was therefore passive immunization which must be sought, and his aim had been the production of a serum in which ready-made antitoxins already existed.[1] Having discovered this serum and ascertained that even in large doses it did no harm to healthy animals and that it cured diseased ones, he had put himself into a position to try it on the human subject. He had intentionally selected cases of great gravity because in a disease like tuberculosis it was impossible to be sure whether the cure of an early case should be ascribed to natural resistance or to the measures adopted. In other words to argue from the less to the greater in connexion with tubercle remedies was wrong, but if in any advanced case it could be established that a serum produced not perhaps a cure but at least such a retrogression of symptoms as could not be explained by any natural factor, the utility of that serum and the probability of its possessing absolutely therapeutic and prophylactic power might be considered established likewise.

By experimenting in this way Professor Marmorek claimed to have proved that though there were certain individuals who could not support the serum, in the great majority of persons the latter produced no unpleasant reaction whatever, but was a distinctly curative agent the prompt effect and efficacity of which varied directly with the acuteness of the disease and the earliness of the attack. As an example of the former Professor Marmorek detailed the case of a nun seized by acute miliary tuberculosis and deemed he stated to be hopeless, but in whom a cure was nevertheless brought about by 47 injections of serum, aggregating 720 c.cm., in three months. In another case detailed, one of acute infection of three months' standing and with extensive excavations, it was claimed that much improvement took place and that death only occurred finally because the outpour of toxin from the cavities was too great for the antitoxin in the serum, that the disease in short was too advanced.

Taking tuberculous meningitis as the most acute and fatal form of tuberculosis, he said he had never succeeded in producing a cure, because owing to the difficulty of early diagnosis it had been impossible hitherto to commence treatment before the anatomical lesions and cerebral intoxication were far advanced. Nevertheless he had established the fact that the serum in these cases was not only absolutely harmless, but caused a distinct amelioration of symptoms. As a means by which the early diagnosis of tuberculous meningitis might be established in future, he suggested the evidence given by the reaction in tuberculous guinea-pigs produced by the injection of spinal fluid drawn from suspected cases.

It was, however, pulmonary phthisis that the public and the profession meant by tuberculosis and to the question whether his serum was a specific cure for that disease he was prepared to give an unhesitating affirmative answer. After treating practically hopeless cases he had proceeded to the treatment of the ordinary run of cases of phthisis. Subduction of the fever and reduction of the extending zone of the disease to its original focus were the results of the use of the serum. The entire healing of cavities necessarily of course took a long time, and when the hectic fever was due to a mixed infection of tubercle and streptococci, the use of antistreptococcus serum simultaneously with his own was advisable and necessary to reduce it. In proof of these statements a number of charts were exhibited and some cases quoted.

Dyspnoea partly due to mechanical causes but largely also to intoxication was a symptom which constantly yielded to the serum and this result was one of the earliest proofs of its beneficial action.

Experience was not yet sufficiently extended to determine positively the effect of the serum on the amount of the sputum. In some cases this seemed to be increased but in the vast majority of cases, persistence in the use of the serum led to progressive and constant diminution of the amount of sputum and of contained bacilli. After severe and prolonged bronchial irritation it was not unnatural that expectoration should persist long after the disappearance of other symptoms and the cure of the general conditiou upon which it originally depended. If tubercle bacilli also persisted it was possible that these were merely in a saprophytic state; any evil from them, however, might properly be guarded against by the occasional injection of serum.

A curious result, which could not be ascribed to the direct action of the serum, was that haemoptysis had occurred only

[1] For method of preparation see BRITISH MEDICAL JOURNAL, November 28th, 1903, p. 1434.

in one of all the cases treated, although in many it had previously been a prominent symptom.

To the general amelioration in a patient's condition he attributed importance only because in his cases it occurred without resort to those measures—such as rest, food, and air—which might be expected to produce it, temporarily at any rate, in almost any case. The treatment of any case of tuberculosis and its final cure must necessarily take a long time, and he was not prepared to say that all his cases were absolutely cured, but many of them certainly were, and as regarded the rest everything pointed towards a successful termination. This was the more remarkable, because it was not the most favourable cases which he had selected for treatment. The virtue of the serum being, he considered, established by the results of its use in severe cases, it was right now he thought that it should be extensively used in those which were only slightly advanced.

His experience in the use of the serum in surgical tuberculosis was not very extended, but a number of photographs and other records of advanced cases were exhibited, the results of the treatment of which seemed to Professor Marmorek to be distinctly encouraging. As regards the technique of the injections, that which experience had induced him now to adopt was a series of daily doses for four or five days, with an interval of three or four days between, and followed after each two or three series by an interval of a week or a fortnight. In chronic cases the dose should be 5 c.cm., but in the acute ones doses of 20 c.cm. to 30 c.cm. were well borne even by children. The serum as now prepared never gave any unpleasant reaction other than a slight passing and unimportant erythema.[2]

THE USE OF THE METRIC SYSTEM IN PRESCRIBING.

IN response to requests from correspondents we give below a few notes which we hope may be of use to those desirous of familiarizing themselves with the metric system of weights and measures as applied to the writing of prescriptions.

In prescribing by the metric system [3] the unit of weight is the gram, which is equal to about 15 gr., and that of volume the cubic centimetre equal to about 17 minims.

The relation of the two systems stated more accurately is :[4]

1 gram (g.) = 15.432 grains.
1 decigram (dg.) = 1.5432 ,,
1 centigram (cg.) = 0.15432 ,,
1 milligram (mg.) = 0.015432 ,,
1 cubic centimetre (c.cm.) = 16.9 minims.

The fluid drachm is roughly equivalent to 4 c.cm., and the fluid ounce to 30 c.cm., and the drachm and ounce to 4 g. and 30 g. respectively.

Gram and cubic centimetre signs will alone be necessary in prescriptions, the smaller weights and measures being expressed as decimal fractions; thus 0.1 gram = 1 decigram, 0.01 gram = 1 centigram, 0.001 = 1 milligram, etc.

If we take an ordinary prescription and write the two systems side by side in exactly equivalent quantities, the difficulties involved in the adoption of the metric system are greatly magnified ; for example :

℞ Ferri sulph. gr. ij = 0.1296 gram.
Quin. sulph. gr.j = 0.0648 gram.
Ac. sulph. dil. mij = 0.118 c.cm.
Glycerini ʒj = 3.552 c.cm.
Aquam ad ʒj = 28.417 c.cm.

This is the manner in which the opponents of the change frequently support their arguments. Such difficulties would not arise, however, were the new system actually adopted. The doses of pharmacopoeial and other remedies would then be given in grams and cubic centimetres ; and instead of having, say, "ferri sulph., dose 1-5 gr.," we should have "ferri sulph., dose 0.05-0.25 g." In the same way the dosage of mixtures would be altered somewhat. Thus simplified the prescription becomes :

℞ Ferri sulph. gr.ij. = 0.1 gram.
Quin. sulph. gr.j. = 0.05 gram.
Ac. sulph. dil. mij = 0.1 c.cm.
Glycerini ʒj = 4 c.cm.
Aquam ad ʒj = ad 20 c.cm.

[2] For the experiences of Paris physicians with this serum see BRITISH MEDICAL JOURNAL, December 19th, 1903, p. 1621.
[3] It would be more logical to use the millimetre, which is nearly equivalent to the cubic centimetre, but it is not customary.
[4] Other equivalents were published in the SUPPLEMENT to the BRITISH MEDICAL JOURNAL of March 19th, p. 42.

The most convenient dose for mixtures would probabl 20 c.cm. It is somewhat less than a fluid ounce, but ha advantage of being divisible by 4 to give a whole num which would not be the case with 30 c.cm. (more n equivalent to the fluid ounce).

Too great concentration in mixtures is a fruitful sour incompatibility, and 20 c.cm. would most generall ordered ; when necessary, doses of 10 c.cm. or 5 c.cm. be prescribed. Such doses do not accord with the spoo common use, but the introduction of the new system w be a fitting opportunity to break with this inaccurate me of measuring. The most convenient bottles to use woul those with a capacity of 200 c.cm., 100 c.cm., or 50 c.cm., during the transition stages 8 oz., 4 oz., and 2 oz. bo could be used to contain these quantities. In dispe ten doses all the calculation necessary would be a shift each decimal point one place to the right. Bearing in what has already been said the following prescriptions, approximate equivalents in the metric system, may be wri

℞ Tinct. nuc. vom. miv = 0.25 c.cm.
Ac. hydrochlor. dil. mx = 0.5 c.cm.
Aquam ad ʒj = ad 20 c.cm.
Mitte ʒviij Mitte 200 c.cm.

℞ Magnes. sulph. ʒj = 4 grams.
,, carb. gr.x = 0.6 gram.
Aq. menth. pip. ad ʒss = ad 10 c.cm.
Mitte ʒiv Mitte 100 c.cm.

℞ Oxymel. scillae mxxiv = 1.5 c.cm.
Tinct. camph. co. mxij = 0.75 c.cm.
Vin. ipecac. mvj = 0.4 c.cm.
Syrupum ad ʒj = ad 5 c.cm.
Mitte ʒij Mitte 50 c.cm.

Lotions, liniments, and all liquid preparations wou dealt with in a similar manner. In the same way pills 5 gr. would become 0.06 to 0.3 g. (6 to 30 cg.) in size. dose of potent extracts, instead of ¼ to 1 gr., would bec say, 0.015 to 0.06 g. (15 to 60 mg.), thus :

℞ Podoph. res. gr. ½ = 0.005 gram.
Quin. sulph. gr.j = 0.06 gram.
Ext. belladon. gr. ¼ = 0.015 gram.
,, aloes gr.j = 0.06 gram.
Mitte xii, vel. xxiv. Mitte x, vel. xx.

It will be gathered from what has been said that it is less to endeavour to write equivalent formulae in th systems, and the coming change must be a radical one doubt pharmacopoeial formulae will be modified still fu in the direction of simplicity of dosage. Those who wish to gain some practical idea of the new system wou well advised to purchase a set of metric weights and mea (which can be obtained at a trifling cost), and by wei and measuring a few substances they will soon become a tomed to thinking in metric quantities.

PREVENTION OF CONSUMPTION.

TUBERCULOUS CHILDREN IN NEW YORK.

AT the last meeting of the Association for Improvin Condition of the Poor a sum of £3,000 was appropriate the maintenance at the seaside of 50 children suffering non-pulmonary forms of tuberculosis. According to Dr man Biggs, there are in the New York Tenements alone 3,000 to 4,000 children under 15 years of age suffering tuberculosis of the bones, joints, and lymph glands. culosis of the lungs affects but a relatively small numb children under 15.

GERMANY.

The Imperial Statistical Bureau, Berlin, has recently lished the results of a statistical inquiry by Dr Maye the causes of death in the German Empire during the tw five years 1877-1901. The statistics relating to tuberc show in a striking manner the decrease of the disease that period. The following figures, based on the retur towns with a population of more than 15,000, show the rate from tuberculosis per 10,000 inhabitants :

1887-1881	357.7
1882-1886	346.2
1887-1891	304.0
1892-1896	255.5
1897-1901	218.7

BOHEMIA.

A Society for the Cure of Consumptives in the v countries of the Austrian Empire has been formed in V It is thought that to make the war against tuberc

cessful the establishment of sanatoria is not sufficient. The iety, therefore, will make the safeguarding of children inst tuberculous infection its principal aim. The Governnt has promised substantial help. In Bohemia tubercus is more prevalent than in Austria. The Austrian Society o co-operate with a Bohemian Society in the erection of atoria. As a preliminary step accurate statistics of the usion of tuberculosis in Bohemia are to be collected.

INDIAN SANITARY REPORTS.

MADRAS.

report for 1902 is submitted by the Sanitary Board, prefaced by a brief account of the proceedings of body; the reports of the Sanitary Commissioner utenant-Colonel W. G. King, Indian Medical Service) Sanitary Engineer (Mr. J. A. Jones) being appended to it. Madras Government publishes an appreciative and useful ment on these three documents. Colonel King's report s usual, concise, able and eminently practical. He uses es sparingly and with discretion, and trusts more in per- observation than in returns. Whole paragraphs may ad without encountering a single numeral—a very rare rience in Indian reports—and, nevertheless, there is nt a keen appreciation of sanitary requirements, an desire for sanitary reforms and a correct knowledge of ost scientific and hopeful means of accomplishing them. esults of registration of births and deaths in the Madras dency are very imperfect, and both the Sanitary Comoner and the Government are quite conscious of this t and most anxious to remedy it. A better agency is d but its cost is at present prohibitive. Colonel King done good work in teaching and training sanitary inors for employment by municipalities and district s, and perhaps an extension of this effort may in time re more accurate returns. The birth-rate of 1902 was nd death-rate 20.2. In municipalities the rates were r, but in these registration is compulsory and a special y is employed. The special representation in this re- f the condition and sanitary administration of munici- es, which must constitute the nuclei of sanitary ce, is worthy of commendation. Cholera was severe ne districts, but on the whole not in excess. Small- as worse than in recent years, but not nearly so s in the past. Figures are given to indicate the nent of this disease and of cholera and bowel ints, the decrease of the latter following imnents in water supply. The year was a normal d the prices of food grains were moderate. The pre- e of fever was average, but 10,795 deaths from plague registered. The death-rate per 1,000 attributed to tory disease is 0.1. Colonel King considers that is is more common in the Madras Presidency than is lly realized. He mentions the prevalence of dengue udes to outbreaks of enteric fever.

sanitary engineer's report indicates good work in pre- schemes for water supply, drainage, and conservancy. is needed to carry these out, and the Government somewhat despondent as to the supply of funds for urposes. The Sanitary Commissioner deplores the ient need of piecemeal and patchwork efforts, but that progress is being made in "minor" sanitation.

ASSAM.

tration is still very imperfect in this province, but are being made to improve it. The birth-rate of 1902 21 and the death-rate 29.01, figures which compare bly with preceding years. Assam is fortunate in its ion from famines, but climatic influences affect the health profoundly for better or for worse. Malaria fewer deaths than usual, and kala-azar is declining in hmaputra valley, but on the increase in the Surma especially in the Sylhet district. The number of attributed to this disease was 6,319. A "mosquito " was organized by Captain Willmore at Kohima, and o have caused a diminution of mosquitos and of cases The province retains its bad reputation for cholera. as a severe outbreak in the districts of Cachar and The disease was more prevalent among the general ion than in tea gardens in the Surma valley, the being the case in the Brahmaputra valley. There cholera than usual among coolies in transit. Small- ted Cachar and Sylhet severely; this is attributed to ion. Plague broke out at Dibrugarh in May, causing 36 attacks and 27 deaths. It appeared among grain dealers, and the discovery of dead rats was the first indication of its presence. Strenuous efforts were made to prevent its spread. No sanitary work of any magnitude was undertaken during the year, but useful work was done by local Boards in improving the water supply, etc. The Sanitary Board met twice during the year. The report is drawn up by Colonel C. W. Carr-Calthrop, M.D., Ch.D., Principal Medical Officer and Sanitary Commissioner.

BURMAH.

Colonel Little's report for 1902 is mainly an elaborate commentary on statistical returns which are confessedly of very little value. The year was a healthy one. The birth-rate of Lower Burmah was 31.57 and the death-rate 21.16. In Upper Burmah registration is partial, and the corresponding rates were 38 07 and 29 95. These figures compare favourably with those of previous years. Deaths from malarious fevers were below the average. Some efforts are being made by drainage and filling up pits and pools to reduce the number of mosquitos, but the methods of rice cultivation are favourable to the breeding of these insects. Cholera and small-pox were unusually light, and this accounts largely for the low mortality of the year. No indigenous case of plague occurred, notwithstanding that 308 deaths were returned under this head. Three imported cases were isolated with success. Sanitation is actively attended to in the larger towns of the province, and the municipalities spend about half of their income on sanitary works. The report of the sanitary engineer shows that water supply and drainage projects are either in progress or prospect, and the proceedings of the Sanitary Board, which held three meetings during the year, indicate sanitary progress, though it is stated that "local authorities do not at present regularly consult the Board" on questions of local sanitation.

HYDERABAD ASSIGNED DISTRICTS.

By means of careful inspection of registers by officials and the imposition of fines on defaulters the returns of vital statistics in these districts are considered to be fairly complete and accurate. The report presented by Lieutenant-Colonel C. L. Swayne for the year 1902 indicates a marked improvement in the public health. The one blot in the record is the invasion of plague. The birth-rate was 56.9, the highest recorded during the past thirty-one years, and the death-rate 32.8—13.9 less than the quinquennial mean. The officiating commissioner calculates that if this excess of births over deaths is maintained, the reduction of population caused by famine will be wiped off in three years. Only one small outbreak of cholera occurred causing 48 attacks and 16 deaths. Small-pox accounts for 327 deaths or 0.1 per 1,000. Plague appeared in two districts early in the year, and in a third in December causing 4,188 deaths or 1.5 per 1,000. The disease was imported from adjoining portions of the Bombay Presidency and was thought to be associated with contaminated grain and infected rats. Evacuation of tainted villages and houses was found to be the most effectual remedy; 924 persons were inoculated. Monkeys contracted the disease and gipsies (Banjaras) who live in the open air escaped. Fevers and bowel complaints were less fatal than usual. An antimosquito crusade has been started. Municipalities spent 40 per cent. of their income on sanitation. The Sanitary Board met at the head quarters of each district once and took into consideration local conditions and requirements.

CEYLON.

The report for the year 1902 submitted by Dr. Allan Perry, D.P.H., Principal Civil Medical Officer and Inspector-General of Hospitals, gives full information regarding the public health and sanitary and medical administration. The year was a fairly healthy one. The birth-rate was 39 and death-rate 27.4, against 37.5 and 27.6 in the preceding year. Malaria, which is the principal cause of sickness and mortality, was not in excess. The people of the island are being instructed as to the prevention of malarial disease by destruction of mosquitos and improved sanitation. Cholera was repeatedly imported from India, and caused 179 cases and 116 deaths. Small-pox mortality was moderate. It is said that the population of Ceylon is well protected by vaccination. The number of vaccinations performed during the year was 149,901, being in excess of registered births. Glycerinated calf lymph is used. Dysentery caused 999 deaths, and enteric fever 63; the number of lepers in the island is 560. Ankylostomiasis and paranghi continue to be rife; 257 deaths were caused by the

former and 10 by the latter. Sixty-seven hospitals and asylums were open during the year. In addition to these a large number of dispensaries exist. It is difficult from the report to obtain a clear view of the number and work of these institutions. A tabular return including all would be useful. The Boer camps constituted a feature of interest in the medical history of the year. Their sanitary condition was satisfactory. The Ceylon Medical School continues to flourish, and the De Soya Bacteriological Institute under Dr. S. C. Paul has supplied a long-felt want.

PROPOSED HOLMAN TESTIMONIAL FUND.

AT a meeting held on March 23rd, at Sir William Broadbent's house, it was unanimously resolved that a testimonial should be presented to Dr. Constantine Holman; that the fund raised should be devoted to an art and reading room at Epsom College, to be called the Holman Art and Reading Room; that Dr. John Galton, of Norwood, be appointed treasurer, and Mr. W. A. Berridge, of Oakfield, Reigate, secretary to the fund.

The following have promised subscriptions: Lord Rosebery, President of Epsom College; the President of the Royal College of Physicians, the President of the Royal College of Surgeons, the President of the British Medical Association, the President of the South-Eastern Branch of the British Medical Association, the Treasurer of the British Medical Association, the Chairman of Council of the British Medical Association, the President of the British Medical Benevolent Fund, the President of Council of Epsom College, the Head Master of Epsom College, the Secretary and Treasurer of the Surrey Medical Benevolent Fund, the Proprietors of the *Lancet*, the Editor of the BRITISH MEDICAL JOURNAL.

A first list of subscriptions will be published shortly.

THE PLAGUE.

PREVALENCE OF THE DISEASE.

INDIA.

DURING the weeks ending February 20th and 27th the deaths from plague in India numbered 26,537 and 27,858 respectively. The increase is even more marked than during the week previously recorded, when the numbers amounted to 25,630. During the two weeks ending February 20th and 27th the principal figures are: Bombay city, 652 and 772; Bombay districts, 6,870 and 6,741; Calcutta, 75 and 120; Bengal districts, 2,436 and 2,869; North-West Provinces and Oudh, 5,487 and 6,121; Rajputana, 607 and 487; Punjab, 4,520 and 5,256; Kashmir, 362 and 351; Central Provinces, 1,954 and 1,955; Central India, 1,267 and 942; Hyderabad State, 812 and 942; Madras districts, 961 and 763.

SOUTH AFRICA.

Cape Colony.—No fresh cases of plague occurred in any town or district of Cape Colony during the weeks ending February 20th and 27th; nor was there any patients in the plague hospitals on February 27th. Plague-infected rats are still found at Port Elizabeth and East London, but in no other towns.

The Transvaal.—A telegram dated Johannesburg, March 20th, announced that plague had broken out in the coolie quarters, and that 8 deaths from the disease had occurred. Up to the evening of March 23rd the total number of plague cases recorded in Johannesburg was reported to be 70 and the deaths from the disease 50. Seven of the cases occurred in Europeans; a case of plague is reported from Pretoria.

MAURITIUS.

During the weeks ending March 10th and 17th the fresh cases of plague in Mauritius numbered 3 and 0, and the deaths from the disease 2 and 0 respectively.

HONG KONG.

During the week ending March 12th the fresh cases of plague in Hong Kong numbered 2, and the deaths from the disease 2.

INFANT MORTALITY IN BELGIUM.—The Central Section of the Belgium Chamber has unanimously adopted the suggestion of Dr. Delbastée forbidding the insurance of the lives of infants. Dr. Delbastée proposed that no child should be insured under the age of 5 years, but the Chamber lowered the limit to 3 years.

THE STUDY OF CRIMINOLOGY.—A Bill providing for the establishment of a laboratory for the study of the criminal, pauper, and defective classes has been read twice in the New York State Legislature and referred to the Committee on Finance. According to the terms of the Bill the laboratory is to be established in the office of the State Commission of Prisons, and the work is to include not only laboratory investigations, but the collection of sociological and pathological data, especially such as may be found in institutions for the abnormal classes, and generally in hospitals and schools. The work is to be carried on under the direction of an official to be appointed by the Governor at a salary of £600 a year. The sum of £1 000 is appropriated for the equipment of the laboratory.

ASSOCIATION NOTICES.

COUNCIL.

NOTICE OF MEETING.

A MEETING of the Council will be held in the Council Room of the Association, at 429, Strand (corner of Agar Street), London, on Wednesday, the 20th day of April next, at 2 o'clock in the afternoon.

ELECTION OF MEMBERS.

ANY candidate for election should forward his application upon a form, which will be furnished by the General Secretary of the Association, 429, Strand. Applications for membership should be sent to the General Secretary not less than thirty-five days prior to the date of a meeting of the Council.

GRANTS FOR SCIENTIFIC RESEARCH.

THE Council of the British Medical Association desires to remind members of the profession engaged in researches for the advancement of medicine and the allied sciences that it is prepared to receive applications for grants in aid of such research. Applications for sums to be granted, which must reach this office not later than 31st of May, must include details of the precise character and objects of the research which is proposed, and must be made on forms to be had of the General Secretary, at the office of the Association, 429, Strand, London.

Every recipient is expected to furnish to the Committee on or before 31st May following upon the allotment of the grant a report (or, if the object of the grant be not then attained, an interim report to be renewed at the same date in each subsequent year until a final report can be furnished) containing (*a*) A brief statement for the Report of the Scientific Grants Committee, showing the results arrived at, or the stage which the inquiry has reached; (*b*) a general statement of the expenditure incurred, accompanied, so far as is possible, with vouchers; (*c*) and references to any Transactions, Journals, or other publications in which the results of the research have been printed.

RESEARCH SCHOLARSHIPS.

The Council of the British Medical Association is prepared to receive applications for three Research Scholarships which become vacant, of the value each of £150 per annum, tenable for one year, and subject to renewal by the Council, provided the whole term of office has not exceeded three years.

The scholarships exist for the encouragement of research in Anatomy, Physiology, Pathology, Bacteriology, State Medicine, Clinical Medicine, and Clinical Surgery.

Applications for Scholarships must be made on forms to be had of the General Secretary, and returned on or before May 31st.

ERNEST HART RESEARCH SCHOLARSHIP.

The Council of the British Medical Association is also prepared to receive applications for the Ernest Hart Memorial Scholarship of the value of £200 per annum, tenable for one year, but subject to renewal by the Council for another year. The Scholarship is for the study of some subject in the department of State Medicine.

GUY ELLISTON, *General Secretary.*

429, Strand, March 25th, 1904.

BRANCH MEETINGS TO BE HELD.

BORDER COUNTIES BRANCH: WEST CUMBERLAND DIVISION.—The annual general meeting of this Division will be held at Whitehaven on May 1st. The Secretary will be pleased to receive communications from any member who wishes to read a paper or show cases or specimens.—T. MATHEWS, 6, Scotch Street, Whitehaven, Honorary Secretary.

EAST ANGLIAN BRANCH.—The spring meeting of this Branch will be held at the White Hart Hotel, Manningtree, on Thursday, April 14. Members wishing to read papers or show cases or specimens should kindly communicate as soon as possible with Dr. NICHOLSON, East Lodge, Colchester, Honorary Secretary.

EDINBURGH BRANCH: SOUTH-EASTERN COUNTIES DIVISION.—A meeting of this Division will be held in the Station Hotel, Newtown St. Boswells, on Friday, April 8th, at 3.45 p.m. Business: To consider the Medical Defence scheme of the Association. To consider the following rec-

ation of the Ethical Committee: "That the question of the tising of medical practitioners in connexion with hydropathic lishments be referred to the Divisions." To consider the recom- ations of the Medico-Political Committee: "That the Divisions ed to consider whether it is advisable that the medical witnesses ed on each side in legal cases should meet in consultation." The tary will be glad to receive intimation of cases to be shown or s to be read as soon as possible previous to the meeting.—W. HALL ERT, Honorary Secretary, Melrose.

CASHIRE AND CHESHIRE BRANCH: ALTRINCHAM DIVISION.—A l meeting of this Division will be held on March 30th at the Board of the Altrincham Hospital to discuss matters remitted from the al Council, and for other business.—T. W. H. GARSTANG, M.A., D.P.H., Mount, Altrincham, Honorary Secretary.

CASHIRE AND CHESHIRE BRANCH: CHESTER DIVISION.—A meeting members of the above Division will be held at the Chester General ary in the Board Room at 4.30 p.m. on Tuesday, March 29th. da: To receive the Committee's report, etc., upon the Draft Medical Amendment Bill (*vide* SUPPLEMENT, BRITISH MEDICAL JOURNAL, t 22nd, 1903). To consider "the question of the advertising of al practitioners in connexion with hydropathic establishments." sider a "scheme (enclosed for your perusal) of Medical Defence."— KING, 26, Nicholas Street, Chester, Honorary Secretary.

ROPOLITAN COUNTIES BRANCH: HAMPSTEAD DIVISION.—The next g of this Division will be held at the West Hampstead Town Hall, hurst Gardens, N.W., on Friday, April 8th, at 4.30 p.m. Dr. Ford son will preside. Agenda: (1) Minutes; (2) notices of motions for l Representative Meeting; (3) the advertising of medical practi- s in connexion with hydropathic establishments (Ethical Com-); (4) is it advisable that the medical witnesses engaged on each legal cases should meet in consultation? (Medico-Political Com- : (5) the scheme of medical defence (Medical Defence Committee). l business.—J. DILL RUSSELL, Osman House, Fortis Green, N., ary Secretary.

ROPOLITAN COUNTIES BRANCH: LAMBETH DIVISION.—The next g of this Division will be held at the Camberwell Infirmary, Bruns- Square, Camberwell, on Thursday, March 31st, at 4 p.m. By the t of the Medico-Political Committee, the meeting will be asked to er: "Whether it is advisable that the medical witnesses engaged on ide in legal cases should meet in consultation." By the request of thical Committee, the meeting will also be asked to express an n on "The question of the advertising of medical practitioners in tion with hydropathic establishments." A paper will be read by D. Wilson on General Practitioners and their Grievances, and a by Mr. A. M. Hickley on Questions of Ethics as they concern the l Practitioner. After the meeting members will be taken round s departments of the infirmary by the superiniendent, Mr. W. J. C. —W. H. B. STODDART, Bethlem Royal Hospital, S.E., Honorary nal Secretary.

ROPOLITAN COUNTIES BRANCH: WALTHAMSTOW DIVISION.—A meet- his Division will be held at Woodford Hospital on Tuesday, March t 4 p.m., Dr. Wise in the chair. Business: (1) Resolutions for entative Meeting. (2) To consider a recommendation of the l Committee that "the question of the advertising of medical ioners in connexion with hydropathic establishments be referred Divisions." (3) To consider, on the recommendation of the Medico- al Committee, "whether it is advisable that the medical witnesses d on each side in legal cases should meet in consultation." eral business. The following papers have been promised: Mr. Warner: Notes of a Case of Dilated Stomach (and will show a en of appendix). Dr. Edwards: Case of Congenital Absence of ls. Dr. G. Basil Price: Notes on a Case of Haemorrhage into Omentum. The Secretary will be obliged if members who desire papers or propose resolutions will communicate with him before eting. The remaining ordinary meetings of the session will be Walthamstow Hospital on April 26th, at 4 p.m. (paper by Dr. Hale and at Brooke House. Upper Clapton, on May 12th, at 8.30 p.m. stration of cases of skin disease by Dr. Sequeira): both conjointly e City Division.—C. J. MORTON, 56, Orford Road, Walthamstow, ary Secretary.

HERN BRANCH: PORTSMOUTH DIVISION.—The next meeting of this n will be held at 5, Pembroke Road, Portsmouth, on Tuesday, th, at 3.30 p.m. Members wishing to show cases or to read papers communicate before April 5th with the Honorary Secretary, J. G. IAN, Poplar House, Kingston Crescent, Portsmouth.

HERN BRANCH: SALISBURY DIVISION.—The next meeting of this n will be held at the Infirmary, Salisbury, on Wednesday, 30th, at 8.15 p.m. Agenda: Minutes of the last meeting. Con- ion of communications from the Medical Secretary of the Associa- 1) medical witnesses; (2) hydropathic advertising. Communica- m the General Secretary—Scheme of medical defence. Subject cussion. "Appendicitis"—Dr. Kempe, Mr. Luckham. Cases. The g will be preceded by dinner at the County Hotel at 7 p.m. Mem- tending to be present at dinner are requested to inform the ary Secretary not later than March 26th. Members wishing to ny cases at the meeting are requested to communicate with the ry Secretary as soon as possible.—J. E. GORDON, 52, Endless Salisbury, Honorary Secretary.

H-WESTERN BRANCH.—The next intermediate meeting of this will be held at the North Devon Infirmary, Barnstaple, on day, March 30th, at 3.30 p.m., the President, Dr. W. T. Thompson, chair. The following communications have been promised: Gordon: The Influence of Posture on Cardiac Physical Signs. ssell Coombe: Notes on a case of Hydrocele of the Canal of Mr. Lucy: Uterine Fibroids. Dr. Davy: The occurrence of n Children caused by the Ingestion of certain kinds of Carbo- e Foods. Mr. Wilkin: Oesophageal Cancer with Laryngeal Com- plications. Mr. W. Woollcombe: The post-operative history of two cases of Malignant Disease, Stomach, and Superior Maxilla. Dr. Dyball: Notes on a fatal case of Secondary Parotitis. Mr. Roper: One form of Appendicitis. Tea will be provided after the meeting. Gentlemen desirous of joining the Branch are requested to communicate with Mr. G. YOUNG EALES, 1, Matlock Terrace, Torquay, Honorary Secretary.

SPECIAL CORRESPONDENCE.

PARIS.

Académie de Médecine: M. Laveran on the Prophylaxis of Malaria in Madagascar: M. Pinard on the Extinction of Infantile Mortality in the Commune of Villiers-le-Duc.—Académie des Sciences: the Fall in the Number of Cases of Malaria in Egypt by Measures Adopted by Suez Canal Company.—Complimentary Dinner to Professor Cornil.—Typhoid Fever Epidemic.

AT a recent meeting of the Académie de Médecine, on the proposal of M. Laveran, the following resolution was unanimously carried:

The Académie de Médecine, considering the excellent results already obtained in a large nnmber of countries from the point of view of the fight against malaria by means of the mechanical protection of houses against mosquitos, expresses the wish that this prophylactic measure may be applied in the army, especially in the military barracks in Madagascar, where mosquitos which propagate malaria abound.

In the interesting report on the diseases prevalent in different French colonies, M. Kermorgant called attention to the gravity of the endemic malaria in Madagascar. In 1900 the mortality among the French soldiers in Madagascar was 33 per 1,000, while in New Caledonia, a colony free from malaria, the mortality was only 5.5 per 1,000. The preventive use of quinine has already given good results, but other prophylactic measures are needed. M. Laveran has examined several thousands of culicides from Madagascar. In one lot captured in December, 1903, in the military hospital at Tamatave, he counted 44 per cent. of *Anopheles* (*A. costalis*); in the barracks at Tananarive there were 60 per cent. of *Anopheles* (*A. squamosus* and *A. coustani*); in the native hospital among ten culicides captured all were *A. squamosus*. As the majority of the patients in hospital suffer from malaria, it was easy to understand how the *Anopheles* became infected and spread malaria among the men hitherto free. The methodical protection of houses by wire netting would render great service in the army, whereas the mosquito net prevented the circulation of air, and to feel cooler the soldier, unless watched, removed it. Those obliged to pass the night on guard in the open air could also be protected; the face and neck could be protected by a net veil fixed to the helmet, the hands by cotton gloves, and the ankles by gaiters; the men should also take a preventive dose of quinine. The hospital wards should be protected to prevent the *Anopheles* from entering and biting the malarial patients, and thus spreading the infection.

M. Pinard read to the Académie de Médecine the results obtained in the commune of Villiers-le-Duc by the Mayor, Dr. Morel de Villiers, in the prevention of infantile mortality. The means adopted were very simple and most effective. Every pregnant woman in needy circumstances who declared her condition at the mairie at the seventh month was assisted by the commune, which provided a midwife and, if necessary, a medical man. After the confinement she received 1 fr. a day, provided she stayed in bed for ten days. If the child was not breast-fed, each woman was required to possess an apparatus for sterilizing the milk. The children were inspected every fortnight, either at the mairie or in their homes, and the notification of any illness in an infant was obligatory within twenty-four hours. Every nursing woman who showed her child in good health at the end of one year was allowed 2 fr. per month for this period. These measures had been in force for ten years now, during which time no mother had died either during confinement or as a result of it. From 1884 to 1893 the mortality among infants under 1 year was 22 per cent. on the average, while during the last decennial period, 1893 to 1903, the mortality fell to zero.

At the last meeting of the Académie de Sciences Prince d' Arenberg described the methods employed by the Suez Canal Company suggested by Major Ronald Ross for suppressing malaria. By filling the latrines with petroleum, suppressing stagnant water, unceasing watchfulness, and the use of quinine on a large scale, the success has been complete and rapid. From 1897 to 1902 there were more than 2,000

cases of malaria annually, whereas in 1903 the total fell to 200 cases.

Professor Cornil, Professor of Pathological Anatomy in the Faculty of Medicine in Paris, was on March 8th the recipient of a gold plaquette portrait from his numerous friends and pupils. A banquet was offered to him on the occasion, at the end of which the presentation was made. The Senators MM. Franck-Chauveau and Labbé, who have been his colleagues in the Upper House, spoke first. Dr. Blondel spoke in the name of the International Association of the Medical Press, of which M. Cornil was the founder. M. Debove, the Dean of the Faculty of Medicine, spoke of his scientific work in the Rue Christine, where in an extramural laboratory he worked with Ranvier at pathological histology. M. Cornil, in reply, recalled the fact that he was the author of the reform which made practical work compulsory in the Faculty of Medicine.

The number of cases of typhoid fever notified in Paris during the week ending March 12th rose to 147. It would seem that the majority of the cases are in the north-western parts of the city, which largely derives its water supply from the river Avre. The number of cases under treatment in the Paris hospitals was 221 on February 28th, rising to 249 on March 6th, and reaching 310 on March 12th.

MANCHESTER.

Physiology in Education.—Fate of Stray Dogs.

Mr. Brudenell Carter, at the invitation of the Council of Owens College, lectured, on the evening of the 15th inst., on the subject "Physiology in Education"—a subject that interested a large audience of members of the medical and teaching professions. If education, in the words of Paley, should comprise every preparation that was made in youth for the rest of life, then physiology was the science which must be called upon to elucidate the problems of education, and the art, properly so-called, was a branch of applied physiology. The increased control over national education, which had been brought within the reach of the public by the recent Act, furnished an opportunity of which it was the duty of the members of the medical profession to avail themselves. Dealing with the decadence of certain portions of the community, supposing it to exist, Mr. Carter discussed the question how far such decadence might be attributable to improper selection and improper preparation of food. Next what was the influence of school work upon under-fed children? What school is doing for the thousands of children in the schools, and through them for the community, was not known. If an underfed child be taught without sustaining injury from the process, the State might properly insist upon the teaching; if it could not, the State had no right to inflict the injury. It would then be a question for moralists as well as politicians whether the child should be fed as well as taught, or whether it should be left to take its chances of growth and of survival. The physiological or medical aspect of the question should take precedence of the moral or the political. Mr. Carter dwelt especially on the importance in elementary schools for the working classes of early and systematic development of the senses so as to lay the foundation of skill, and so as to cultivate acuteness of sight, of hearing, and of perception, together with manual dexterity and general alertness. Passing on to the requirements of the higher classes of society—the importance, in the case of girls, of leading them to the gradual attainment of the power and habit of self-control, and of subordination of emotional impulses to the dictates of the judgement was insisted on.

Over 4,000 stray dogs were captured during the past year in Manchester, and of these over 3,000 were relieved from any further participation in life's troubles, and less than 1,000 found new masters. All purchasers of these dogs were required to sign a declaration stating for what purpose the dog was required, and that it would not be used for physiological, pathological, or toxicological experiments.

BIRMINGHAM.

The Huxley Lecture.—The Queen's Hospital.—The Moseley Hall Convalescent Home for Children.

It has already been announced that a Huxley lecture, which is to be given annually, has been established in the University of Birmingham. The first of these lectures was delivered by Sir Michael Foster, K.C.B., F.R.S., in the Town Hall, on March 16th, in the presence of the Vice-Chancellor, the Principal, and other dignitaries of the University, and before a very large and appreciative audience. Sir Michael Foster took as the subject of his lecture "The Work and Influence of Thomas Henry Huxley," because he felt that the anonymous founder would wish the first lecture to be devoted to the man himself, as he had expressed a desire that it should be entrusted to some one who knew Huxley personally. Sir Michael said Huxley's dominant note was the love of knowledge, "an ever present, never satisfied desire to know," and he went on to speak of his method of teaching, the goal of which was that the learner should know something of everything and everything of something. He described Huxley's zeal for the education of the people, including old and young, rich and poor, and entered into the feelings and convictions which brought him into conflict with what might collectively be described as the church. The lecturer showed how Huxley retired from scientific inquiry and research, to become the untiring champion of the claims of natural knowledge. The lecture was highly appreciated by the large audience.

The annual meeting of the governors of the Queen's Hospital, Birmingham, was held in the Council House on March 18th. The sixty-third annual report stated that, during the year 1903, the in-patients numbered 2,120, and the out-patients 28,956, a slight increase in the numbers of patients when compared with those of the previous year. The hospital did a very large amount of work in proportion to its size, and administered to the wants of a district containing a population of about 70,000. That 2,050 cases from outside Birmingham were treated at the institution, and that of these 421 were in-patients and 1,628 were out-patients, were facts which should make more residents in the out-lying districts contribute to the maintenance of the hospital. The income last year amounted to £10,311 and the expenditure to £11,788, so that there was an adverse balance of £1,477. The Hospital Saturday and Sunday Funds were the principal contributors to the hospital and they sent the institution about £3,600 a year. With the exception of about £1,100 derived from investments the hospital was entirely dependent upon voluntary contributions. The legacies received during the year amounted to over £11,000 and £230 was given by Mr. George Stanley, being 5 per cent. of the gate money taken at the National Engineering and Trades Exhibition, held in Birmingham in 1903, being the sixth year in succession that Mr. Stanley had presented the hospital with money from this source; the total amount already received being £1,372. Great improvements had been made at the hospital lately, such as developing and rebuilding the pathological department and the installation of machinery in the laundry.

At the twelfth annual general meeting of the governors of the Moseley Hall Convalescent Home for Children, the report showed that the number of children admitted into the institution during 1903 was 845, as compared with 820 in the previous year. Of these children, 205 were transferred from the Children's Hospital, 250 from the General, Queen's, and other hospitals, and from the District Nursing Association, etc., and 300 were admitted on the nomination of subscribers. The ordinary expenditure for last year was in excess of the income by nearly £300, and the accumulated deficiency amounted to £522. The Lord Mayor of Birmingham said that the usefulness of the institution as a convalescent home to the large general and children's hospitals in the neighbourhood was not the only benefit received from it, for a stay of a month in such a home gave many children a fresher and purer view of life, which was of incalculable benefit to the district in which they lived.

Medical Inspection of Schools in Chicago.—The Chicago Board of Education has appointed twelve medical practitioners to act as Inspectors of the Public Schools in that city; the salary is £10 per month. Teachers must keep an account of the general health of their pupils, and bring to the notice of the inspectors any child whose physical condition seems to be below par.

Smoke Abatement.—At the fifth annual meeting of the Coal Smoke Abatement Society held on March 22nd, Sir Thomas Barlow moved a resolution to the effect that the pollution of the air by coal smoke was injurious to public health and vitality, destructive to works of art and vegetation, and directly demoralizing to the inhabitants of a great city. It was passed. It has been stated elsewhere that a commercial trust has been formed with the special object of promoting the domestic use of anthracite, so there seems to be a valid possibility that the wishes of the Smoke Abatement Society may thus be partially realized.

CORRESPONDENCE.

HE ASSOCIATION AND MEDICAL DEFENCE.

—As a member of both the British Medical Association e Medical Defence Union I should like to be permitted e a few remarks on the subject of the Medical Defence of the Association, with particular reference to the issued by the Council of the Medical Defence Union. at once say that the latter is a great disappointment The Union has been so efficiently officered, and had ch excellent work, that one expected better things executive than an effusion which reads as if it came en much more concerned for the interests of a com- ly small society, than for those of the profession as a Surely the Council of the Union have mistaken the the times! We have been engaged during the last rs in a most arduous work—that of adjusting the ry of the British Medical Association, in order that it e made into a body to which every reputable medical uld feel it is his duty and privilege to belong. What d now is a powerful and successful Association, com- ive in its scope and equally comprehensive in its ship. This, however, will never be attained if men looked to as leaders raise peddling difficulties as to tion of this, that, and the other society. We must ger views if we are ever to be a well-organized and profession.

nsider the circular of the Medical Defence Union

aph 1. The invitation extended in the scheme is ough. It is a candid and friendly suggestion that arious defence societies should sink their individual- themselves up and come into the Association after themselves that there is no fear that the fruits of all rk will be lost. Surely this is not too much to ask n supposed to be concerned with the interests of the ofession rather than with a section however powerful ul.

aph 2 deals with the supposed difficulty and expense ary winding up. This we are told would involve xpenditure and needless sacrifice of the best interests mbers." No proof whatever is given of the latter , and I am curious to know how large the expendi- ld be. I venture to think that it would be a trifle with the gain secured by unification.

aph 3 deals with the injury inflicted on those mem- he Union who are not members of the British Association. I frankly confess I would do anything ompel every man worth having to come into the edical Association, and I consider the winding-up edical Defence Union would be a distinct step in tion. Very few men who have once experienced l satisfaction of being professionally insured would main outside *some* defence organization, and I should now what likelihood there would be of the establish- another defence association if both the Medical Union and the London and Counties Protection oth merged themselves in the British Medical Asso-

phs 3, 4, and 5 deal still further with those mem- e Medical Defence Union who are not members of iation. I suppose the officers of the Union must into consideration, but if the merging of the Union le on other grounds, is it wise that its separate should be maintained for the sake of what is a ng minority? It is estimated that about two-thirds mbers of the various defence societies are already of the British Medical Association, and we know ssociation is gaining steadily in membership.

ph 6. To this I must take serious exception as er disingenuous or written by men who have not trouble to understand the scheme they are criticiz- y say: "The proposed new department can only be regarded as connected with the British Medical n." Now in the scheme it is proposed that the e of Management shall be elected in precisely the as existing committees of the Association are; artly by the Council and partly by the Represent- ting. It is trifling with the matter to say that pointed by such a committee (or, as alternatively by the Council) would not be officers of the Asso- Again, the earmarking of certain funds for purposes solely cannot seriously be held as a reason why medical men should not put their subscriptions for defence into such a fund.

Paragraph 7 must be quoted.

> That the success of the Medical Defence Union has been the result of the long experience of the Executive, and that any new department taking up the work of defence would have to start afresh and could only obtain that experience after years of practice.

I simply refuse to believe that this expresses the spirit of the men who tell us later that

> The Council of the Medical Defence Union, consisting as it does entirely of members of the Association, and numbering many members of the Council of the Association, is not inimical to anything which would tend to increase the welfare of the Association.

If this latter sentence is not simply a platitude it means that if the Association encouraged by the desires of its members decides to start a defence department, it will receive the loyal support of those who have done such excellent work for a section of the profession. I am satisfied from my personal knowledge of the Council of the Medical Defence Union that if they were persuaded that the work they are doing in that society would continue to be done with the greater weight and prestige of the British Medical Association they would place their invaluable experience at the disposal of the Association.

Paragraph 8 is also misleading. It states that the proposed new department would only defend its members, whereas the Union has for years done good work in collective defence. The first paragraph in the explanatory memorandum affixed to the scheme furnishes a good answer to this statement. We are there told that at present the Association is doing through its Standing Committees much collective defence, but that it is hampered by deficiencies in the Memorandum of Association, which it is proposed to alter. As a past member of the Medico-Political Committee and a close student of the work of the Ethical and Public Health Committees, I consider that the Association is doing at present much more than any Defence Society in what may be termed collective defence. It rests with the Divisions and Representative Meeting to enable it to do much more. To speak, therefore, as the circular does later of the Association "undertaking ..... medical defence ..... in the minor degree involved in the scheme" is, not to put too fine a point on it, understating the case.

Paragraph 9. A little more care might have been taken in presenting the figures given here. The circular says that there are in Great Britain and Ireland 37,232 practitioners, of whom only about 14,500 are members of the British Medical Association. Turning to the last *Medical Directory*, I find that the number of practitioners in England, Wales, Scotland, and Ireland is 30,413. The larger number given by the Medical Defence Union includes the members of the services and those practitioners resident abroad. It would have been more correct to say that out of 30,413 practitioners about 14,500 are members of the British Medical Association.

Paragraph 10 says that no advantage is shown in the scheme to those who are at present subscribers to the Union. True that there is no immediate monetary gain, although I think it is almost certain that after the new department gets into working order it will be seen that less than 10s. a head will suffice. But, apart from the probability that concentration will lead to economy, I should suggest that there is the certainty that if medical defence can be carried out as well by the Association as it is now by several societies (and it would not be difficult to point out several ways in which it might even be bettered) all concerned would feel the advantage of unity of interests in the place of the division created by competing societies.

Members of the Medical Defence Union should notice the very different attitude taken up by the London and Counties Medical Protection Society. It has resolved to wait until the scheme has been before the Divisions (where it may be altered), and to see what encouragement is given to it by the individual members of the Association. This is sound business, and while safeguarding the interests of its members the Society apparently takes a broader view of the situation than the executive of the Medical Defence Union.

The circular, in closing, "feels that it would be wiser for the Association to avoid *for the present* at least the undertaking of medical defence" (italics mine). Will any member of the Council of the Defence Union point out any single direction in which the difficulties would be lessened by delay? Would not the present vested interests obtain a still further hold? Will it be for the benefit of the Association or of the profession that any delay should occur in the process of making the Association all-sufficing for the needs of the

practitioner? Every canvassing member of the Association knows of men who would join it if it included in its advantages that of defence. It is no use pointing out to these men that they can get all they want by joining two or three separate societies. They want one Association with one subscription, and so do I.

In conclusion, let me urge Secretaries of Divisions in particular not to lose sight of the fact (which is not set forth as plainly in the scheme as it might be) that it is essential to the efficiency of the Association that the Memorandum of Association should be altered as suggested. The work of the Association is at present hampered, particularly in the Medico-Political and Ethical departments, by the want of a free hand, and whether individual members of the Association want the scheme of individual defence or not, Division Secretaries should see that it is clearly placed before their members, who should instruct their representatives that the Memorandum of Association must be altered, and that without delay.—I am, etc.,

ALFRED COX,
Honorary Secretary, North of England Branch, and
Gateshead, March 22nd. of the Gateshead Division.

MILK EPIDEMICS AND BOVINE MAMMITIS.

SIR,—I should be glad if you would allow me a little space in which to criticize the report of Professor J. Wortley Axe on the outbreak of sore throat at Woking, which he made to the British Dairy Farmers' Association, and which you quote in the BRITISH MEDICAL JOURNAL of March 12th.

According to the history Professor Axe obtained from the farmer and his aged cowman on December 21st, it would appear that no milk from the four cows who were affected with mammitis gained access to the common supply. The unreliability of this account is, however, admitted by Professor Axe, in view of the complaints that had previously been made by the retailers as to a slimy deposit in the milk. When the cows were examined on November 13th the farmer admitted he knew nothing of the affection of one of the cows, and this one, moreover, was the one yielding the purest pus.

That the cowman himself knew of the disease is extremely doubtful; that the cow was being milked was not denied. In addition, there is the evidence afforded by the examination of the mixed supply as taken at the dealers. Single loopfuls of the milk gave numerous colonies of streptococci. Whatever may be the value of the account given to Professor Axe five weeks later as to the history of the cows—an account, by the way, which differs in several particulars from that given earlier to Dr. Brind and myself—I do not think there can be the slightest doubt that pus in considerable quantities daily found its way into the milk supply. This pus contained large numbers of streptococci, which, as far as I have been able to make out, are indistinguishable from the streptococcus pyogenes. Moreover, mice fed on the pus have died in four days, and a pure culture of a streptococcus has been recovered from their organs by Dr. Mervyn Gordon.

In his report on two specimens of milk received from Professor Axe on December 22nd—that is, five weeks after the disease was discovered—Dr. Andrewes found in the milk (the cows had evidently greatly improved in the meantime) "some excess of leucocytes and a very large number of streptococci in long chains which are probably of a pathogenic species." He was, however, at that time unable to isolate this streptococcus. I have offered Professor Axe a specimen of the pus taken from the same cow on November 13th, from which this long streptococcus can still be readily isolated, but he has not taken advantage of the offer.

In spite of the daily heavy pollution of the milk by pus from the cows, Professor Axe clings to the possibility of an infection of the milk vessels in the house. The farmer had a sore throat in the middle of September; his two sons were attacked on October 2nd and 4th, and his wife and two daughters were very slightly affected about October 21st. The outbreak began probably during the last week in September and cases continued to arise up to the time the milk from the farm was stopped on November 14th. The cleansing of the milk vessels was entirely done by the wife and two daughters, but the outbreak began a month before they were affected and continued for three weeks later. It appears to me to be unreasonable to suppose that persistent contamination of the vessels took place in the house and that too during the process of cleansing, during the whole seven weeks of the epidemic; especially when it is known that streptococci in abundance were being poured into the milk itself. I, at any rate, will not believe it until these organisms are prov to be the streptococcus pyogenes. The only argumenta the infectivity of the pus that seems to me to be of any is the comparative rarity of these outbreaks as cont with the frequency of mammitis. The answer to this in the case of these cows the character and extent pollution were exceptional. It is probably rare that co milked into the common supply whilst suffering from mitis in the acute stage.—I am, etc.,

R. W. C. PIERCE, M.D.,
March 21st. Medical Officer of Health for W

THE FEEDING OF INFANTS.

SIR,—I have been very much interested in reading BRITISH MEDICAL JOURNAL an account of the lecture above subject by Dr. Niven, in the Public Health Labo Victoria University, Manchester.

In my opinion it is very important to have a med spection of all the scholars in the elementary sch regard to development as revealed by the weight and of the children, the teeth, eyesight, hearing, skin in re diseases, and the mental condition. My short experi medical officer to the Education Committee has another matter to my notice, the prevalence of aden school children. It is my intention when we reop schools after Easter to ask the head masters and mis to furnish me with a return of the number of childr are slightly deaf and are mouth-breathers, so as to idea of the work to be done in that direction. A few ago I gave a lecture to all the teachers on "Inf diseases, how to detect them, and what should be The careful attention which the teachers gave to my convinced me that this was a step in the right directi

In Dr. Niven's remarks on the feeding of infants, tions diarrhoea and its causes. I find the temperatur earth a very good guide, and I am convinced the liberated at a given temperature to be the cause diarrhoea, also that the majority of the children wh are bottle-fed, thus indicating that the milk is the of the infection; only a careful attention to the mil and to the utensils used for its storage will overco mischief.

The importance of attending to the feeding during of the child before he goes to school is evident if we the question of development. An infant at birth m in height 19 in., and at 5 years of age he should b showing he has increased in height much more than or 2.16 per cent. his original height; if this increa tinued until he reaches 21 years his height would be 7 whereas the average height is only 5 ft. 7½ in. A infant averages at birth 6½ lb. in weight, and at 5 yea has reached 40 lb., thus increasing growth more t times; if this were continued until 21 years he wou giant, whereas from 5 years to 21 years his increase 3.6 times. This shows how necessary it is during five years of life to lay a healthy solid foundatio education is commenced.

The practice is too common of sending children at e years to school, not with a view to them being taugh be nursed so that the mothers may go out to wo should be made impossible. I think, with Dr. Niven far as proteid matter is concerned milk, after the b been weaned, is too costly, and a more mixed diet s introduced as he recommends; pea soup and lentil s both cheap and nutritious, but during the feeding t unmixed cow's milk, where mother's milk is unava the best, as I have pointed out in a previous letter the first month I advise the parent to give the chil hundred part of its body-weight of milk every two h ing the day time; during the second month one si part of this weight; the third month one fiftieth p fourth month one forty-second part; the fifth mo thirty-sixth part; and the sixth month one thirty-s total body weight. This forms a scientific basis on feed our infants, and I never get a case in which it d

The addition of cooking centres is an admirable i should be carried out in all towns with this except in smaller towns one cooking theatre would be en each district or ward, as the case may be; this is The question arises, Who should undertake this w ordinary run of teachers do not understand the phys infant life. This difficulty, however, is not insurm There is one thing only in which I do not agree Niven, and that is the source of the income necessar

of the children. I am quite certain the ratepayers submit to be further bled, and to put it on the rates ablish a precedent difficult to remove, and also to esponsibility from the shoulders of the parents which one should bear. At first it should be a charitable and when at last the responsible ones can bear the let them do so.—I am, etc.,

March 21st. F. G. HAWORTH.

A good deal has been written lately on the home tion of cow's milk for the purpose of obtaining foods nts which approximately correspond to the modified nt out from milk laboratories; in other words, in procure milk on what is commonly known as the n or percentage method, a milk in which the funda- constituents—the proteids, fats, and carbohydrates— ombined in any required proportions. Holt, who is he leading advocates of this method, urging it with eight of his great authority in his well-known work *ses of Children*, claims that although no plan of home tion secures more than approximate accuracy in the ges, yet if the directions which he gives are carefully ut, a degree of accuracy sufficient for all practical can be secured. To illustrate the point to which I all attention, a point which seems to me of great im- I will take one of his actual set of figures.

er to obtain a milk in which the ratio of fats to is 3 to 1, he starts with a mixture of equal parts of gravity cream (16 per cent. fat) and milk (4 per cent. is mixture will obviously contain 10 per cent. fat, e proteids in milk and cream are practically iden- percentage of proteids is 3.5, or about one-third at. With this combination, then, of cream and have to start with a mixture containing l proteids in the proportion of 3 to 1. e of this calculation rests on the assumption that contains 16 per cent. fat. According to Holt[1] New m contains fat in percentages varying from 8 to 40— t. is simply the average of gravity cream. Hutchi- the amount of fat in London cream varies from 20 to 65 per cent. In nine samples analysed in Hove, was 45 per cent. to 54 per cent. (These were all lized cream—it is difficult here to obtain gravity Now, if we prepare our mixture according to Holt's with the lowest of these samples, the 8 per cent. get a mixture in which the ratio of fats to proteids ; if with the highest of these samples the ratio is —that is, one contains nearly six times the fat of —the whole principle of constant ratio of fats to non-existent, it varies with the specimen of cream proteids are constant, the fat is an inconstant and the only way to obtain even approximate s to have the cream you intend to use analysed, and afraid, is in the majority of cases out of the ques- herefore a system, fascinating in theory, in practice lmost impossible. It is useless to order mixtures sition of which is quite unknown to us, on the sup- atwe have obtained a food prescription of constant —I am, etc.,

L. A. PARRY, M.D., F.R.C.S.,
Assistant Surgeon. Royal Alexandra Hospital
ex, March 18th. for Children, Brighton.

HE TENURE OF OFFICE OF M.O.H.

connexion with Dr. Lloyd Roberts's letter of 9th, I have been a victim to the caprice of a dis- il. I was medical officer to an urban district for appointed annually. At the end of the fifth year edical officer was appointed in my stead, with no gned and without my being informed of the pro- issal, nor of its consummation. I was allowed to ut from the local press.

treatment of responsible public servants tend to age of the administration of the Public Health my experience (that of nineteen years) the present of tenure does of necessity cramp the action of cal officers; and I will add that, in my opinion, uld promote more the benefits to be derived by the om the Housing of the Working Classes Act, or by from the Factory Act, than freeing the hands of icers by ensuring them security of the tenure of their appointments, that advice may be given and insisted upon, undeterred by the risk of giving offence in influential quarters.

My districts, a rural and urban, also suffer from the "masterly inactivity" of a neighbouring district, which keeps infection going by declining to close schools to diminish epidemics; while we have to struggle by such means to stamp out the imported infections, and our school children have to suffer illness, death, or loss of education. The position of the local medical officer should be strengthened, or the county medical officer should undertake the responsibility of closing the schools, irrespective of local opinion.—I am, etc.,

March 13th. W. R.

THE DIMINISHING BIRTH-RATE.

SIR,—The opinion expressed by me that the "higher civilization" tended to a diminished female fecundity has not obtained acceptance from those gentlemen who have criticized my remarks. Drs. F. W. Inman and J. M. Rhodes totally disagree with me.

In respect to what may be called the athletic side of the question, it is undeniable that the diminution is most marked in that very class in which athleticism is most worshipped—the middle class. I say worshipped advisedly, as that moderation to which there could be no objection is apparently unattainable. In my experience, the multipara of eight or ten children is a person who knows very little about athletics, and cares less.

As regards the effect of gymnastics on the pelvis, it appears to me that traction on the abdominal muscles above, and on the muscles of the thighs below, must tend to make it more funnel-shaped and massive—more malelike. But the term "higher civilization" implies a great deal more than cycling and athletics, and that of a character which, as it must mainly be expressed in vague generalities, is more suitable for oral discussion than for written, when space is a desideratum. —I am, etc.,

London, E.C., March 18th. HOPE GRANT, F.R.C.S.E.

PUERPERAL SEPSIS.

SIR,—The discussion on puerperal sepsis shows that the profession has not yet made up its mind on the cause and prevention of the disease. But it is important to notice that there is no such doubt on the part of the public. It has been taught to believe by the specialists and by the medical and lay press that, if a case goes wrong, it is solely due to neglect on the part of the medical attendant.

Theoretical authority, as represented by the teaching of the schools, is quite dogmatic on the point. Its position is that the responsible cause is the direct introduction of germs by the examining finger, and that, therefore, any internal examination is dangerous. Its dictum—"no handling, no septic infection"—is at once disproved by the fact that some cases become septic in which no internal examination is made. And it does not account for those that do well after prolonged manipulation, even without antiseptics. The letter from a "General Practitioner" in the BRITISH MEDICAL JOURNAL of March 5th, giving 2,000 confinements, most of them perfect examples of so-called "meddlesome midwifery," with only 3 septic cases, is a good instance of this.

Moreover, the statistics of the teachers' own maternity hospitals disprove it. In these there is as much septicity as in ordinary private practice, where antiseptics are used, and the published hospital statistics of cases where external palpation alone has been employed are practically the same.

Occasional cases do occur with our present means of prevention. Antiseptics do not prevent, even "obstetrical asepsis" does not, and "no handling" is not "no septic infection." The teaching, therefore, must be wrong, and, in view of its effect on public opinion, if it is wrong it is quite unwarrantable.

That there is some overlooked factor seems to be evident. The germs we have always with us and ready to develop under certain unknown conditions. Surgery tells us that a soil in addition to germs is required for the production of sepsis. The uterus is generally accepted as the required soil, and is called an incubator at a suitable temperature. But the normal puerperal uterus is a vascular, smooth-walled, freely-drained, and contractile organ that no surgeon would be afraid of. The presence of putrescible matter in addition to the germs would account for septicity. Some time ago I made an investigation in over 100 cases on this point, the results of which were read before the East London and South

[1] *Diseases of Children*. Second Edition, p. 148.
[2] *Food and the Principles of Dietetics*, p. 129.

Essex District, and a brief note published in the BRITISH MEDICAL JOURNAL of April 25th, 1903. My theory was that retention of portions of placental tissue was the missing factor, and in these cases I explored the interior of the uterus with the fingers as soon as the placenta was expelled.

The results were that in more than half appreciable portions requiring scraping or picking off for their removal were found. In comparatively few was the uterus entirely free from tags and the tenacious clots adherent to them. As regards the patients, the results were better than with the use of antiseptics only. Notes of temperature, etc., were taken throughout the puerperium. Only one—a case of placenta praevia—developed a septic temperature, which lasted from the second to the eighth day. All the others had perfectly normal recoveries. The only precautions used were washing the hands in soap and water and introducing directly out of lysol solution. Douches were not used, nor perchloride of mercury with soap, which is inert, nor washing for twenty minutes, which is impracticable. Besides, we know that nothing short of boiling will make the hand aseptic. This method of prevention is, of course, directly contrary to the present teaching. It is also opposed to the generally-accepted opinion of the general practitioner, who has a horror of interfering after delivery, but holds it to be permissible and necessary to make frequent examinations before.

But if it is as safe as my results show, and is used in all cases where the placenta is, or seems to be, in the slightest degree torn, it is the best preventive that we have at present. And if it does not convince the teachers, it will to some extent satisfy the public, to whom, if septicity means "neglect," neglect means that "something has been left behind."—I am, etc.,

Walthamstow, March 16th. C. J. MORTON, M.D.

SIR,—When I hear a man telling me that he never uses antiseptics, I always ask him if he ever uses soap in washing before he examines a case. I am one of those who believe that there is scarcely any agent more capable of making the hands thoroughly aseptic than good old-fashioned soap. I find, however, that if to the water a pellet of hydrarg. perchlor. is previously added, it has the effect of hardening the water and prevents a good lather. It is always better, I think, to have a solution of the perchlor. ready made to dip the hands in after washing. But a man in a country practice may be called to a case when on his rounds, and perhaps many miles from home, and he may have no perchloride with him. Well, all I can say then is, "Use plenty of soap." Dip your nails into the soap and allow as much lather as you can to cling to your fingers, and I believe that you will be quite safe. Wash the genitals thoroughly with soap and water, and see that all blood is thoroughly cleansed away, and have dry clean cloths placed under the patient.

Whatever we do, some of the cases will go wrong. I am glad to learn that some medical men are able to attend 2 000 or 3,000 cases of confinement without a single death. They are exceedingly lucky, and it must be luck and nothing else. I have been in practice here for the last twenty-three years, and had seen a considerable amount of practice before coming here, and have I suppose attended over 2,000 cases of confinement, yet I must admit that I have had many deaths, some from "accidental haemorrhage," one in consultation from placenta praevia, one from secondary *post-partum* haemorrhage, and one from eclampsia.

There is no space at my disposal to give the particulars of all these cases, but I will give the particulars of the case of eclampsia. I was called to the case out in the country, and I found the head of the child on the perineum quite soft and putrid. The stench was almost unbearable. I delivered the child and the placenta almost immediately followed. There was no haemorrhage to speak of. The uterus was firmly contracted but the pulse was extremely rapid. I kept my hand on the uterus and had beef-tea and brandy given to her. She wanted me to go downstairs to have something to eat as she felt all right. I, however, stayed with her and in a little time she complained of feeling sick and turned round in bed in order to vomit, had one slight convulsion and immediately expired.

Previous to that I had a case of eclampsia, the woman in all having thirty most severe fits, foaming at the mouth, biting her tongue, etc. She was kept under chloroform for hours and forcibly delivered, she had many fits after being delivered, but eventually recovered completely. With regard to antiseptics, my advice is, use them by all means, but however thoroughly you use them be prepared to expect some cases of sepsis. Whether the theory of Barnes with regard o autogenetic and heterogenetic forms of puerperal se finally exploded or not I cannot say, but this I can st there is not the least doubt that some women are mor to develop sepsis than others. In some you can do anything and they recover without a single bad sy whereas others will develop sepsis where not a single examination has been made and where the genitals ha thoroughly washed.—I am, etc.,

W. MICHAEL WILLIAMS,

Bettws-y-Coed, March 14th, 1904.

SIR,—I cordially agree with your correspondents as excellence of Dr. Horrocks's recent address on p sepsis. During the last twenty years I have attende 2,000 cases of midwifery, and latterly about 150 cas nually; of that number I have been fortunate enough lose 1—that is, to have had but one death directly co with parturition.

This patient suffered from a severe attack of influenz a week before she was delivered. She subsequently de puerperal septicaemia, and in spite of all that we c she died. I was not in attendance actually at the birth, but almost immediately after the child was b of course took all responsibility. Up to this time I syringe my cases unless there was a rise in temperatu days later, but since then I have syringed almost ever have attended immediately after the birth of the chi a 1 in 4,000 solution of perchloride (over 500 cas pudenda having been washed at the same time w same solution. I have never in any one of these ca the slightest indication of mercurial poisoning which of from time to time, but I have always observed cert cautions. The left hand is kept firmly on the fund and the uterus is felt to be well contracted before the is used.

On the whole, I am satisfied with this treatment a my judgement goes, as it is seldom necessary to i with the case afterwards. I should say I use t enema syringe, which is worked with the right hand, being engaged with the uterus. I rarely get a rise perature after this is done, and the patient is almos ably able to leave her bed on the tenth day (unless o richer class who do not need to do so). If the tem does go up, however, I generally syringe the uterus w same solution and a Buden's double channel catheter is passed up to the fundus.

Another matter which perhaps one often overlooks hurry of practice is that the bowels should be open day if possible; and Mr. Jellett, in his excellent litt reminds us of this when he says: "An aperient sh administered every second day during the puerperi bowels do not move of themselves." A free purge ha siderable influence in lowering the temperature. Th tion, too, in the uterine cavity of a clot frequently s temperature up a degree or so. The cases that w practitioner most are those in which influenza within about a week after delivery, and produces ma ptoms which point to septic trouble; but the dis sweet, and there is no pelvic pain on pressure. I ca with your correspondent, "Aseptic Sceptic," t is with fear and trembling I use the forceps, I do in about 15 per cent. of the cases.

If the placenta is retained and cannot be expresse one hour's time, I never hesitate to pass my hand uterus and peel it off, but deep anaesthesia before necessary in these cases. The cause, in my experien tention, is in most cases hour-glass contraction of the and while on this I may add that Dr. Galabin say *Manual of Midwifery* that which most completely the name of hour-glass contraction and the commone that in which the internal os contracts the circul around which form a sort of sphincter, and he goes o

It is probable that many observers describing hour-glass c have not realized to what a height the internal os is raised, the elongation of the cervix by stretching, and accordingly posed the constriction to be at a higher level in the bo uterus.

I am a thorough believer in antiseptics, and in an never examine a woman without washing my hand soap and water first. I have had my share of *pos* haemorrhage, but I have always managed to get it un digital compression; I find that the rectal injectio and water is very efficacious in these cases, and it

how quickly the, perhaps, barely perceptible pulse ck after it is given.
ason probably that I have had such a low mortality henever anything goes wrong with a case, I take the as far as possible, into my own hands, so to speak. e is not allowed to syringe unless very rarely and e case is at some distance.
sual, after the bowels are open on the third day, I diet, and last, if not least, visiting friends are not ed.
re the rules I have followed; there is nothing very bout them, but they have stood by me in many an ime, and I do not hesitate to recommend them to I am, etc.,

., March 16th. ROWLAND POLLOCK.

DEGREES IN DENTISTRY.

lay I make a brief reply to one or two of the points Mr. Underwood's letter? I fully agree with him as eat desirability of in no way weakening the bond nedicine and dental surgery. But the speciality has a separate profession, by law established, for many s relationship to medicine is based upon natural is proved by its recognition by the various Colleges ns. The creation of a degree in the medical faculty rsity would afford an almost exact parallel to existicns, and would thereby emphasize the relationship ning. It would seem as though the logical conclur correspondent's views should involve a desire for on of the L.D.S.
to point out that those who first raised the ques- solely in connexion with London University, and rcular sent round to members of the B.D.A. was an tatement by those who object to university recogogether. One provincial university already grants nd another university with a great reputation has do so; it is practically certain that others will . Such localization of teaching and examining is e outstanding features of recent educational pro- it is most unlikely that dentistry will not be inone or other of the faculties. Under these circum- is felt that it would be wise for London to lead follow, and, by granting a degree of high standard ical faculty, set an example whose force would not Such a degree would not necessarily carry the f registration; indeed, it would be preferable that ot do so.
rrespondent suggests that "holders of the L.D.S. vershadowed by holders of the B.D.S." Is there xplanation here of the two-to-one majority polled ial meeting? It would be no discredit to the voters o, but it would be extremely natural and perhaps example of one of the dangers of a too strictly control of educational matters.
ing necessary to make a dental surgeon is peculiar ntiates the speciality from all others. We hold the after consideration your correspondent rejects, at a degree given by a university of prestige would d ennoble our calling. We think that, besides the aspiring student an opportunity of taking a e in his own subject but on lines which would ther than diverge from the medical curriculum, it a means of attracting to the profession men of s who would otherwise enter the already overedical profession; and we believe, further, that it ulate original research into the many important the realm of dental pathology which await solur which workers in this country are so sadly lack- etc.,

, March 5th. NORMAN G. BENNETT.

ATORIUM TREATMENT OF CONSUMPTIVES.

Marriott has honoured me by making indirect one or two points in my letter, to which, with ssion, I would make brief allusion. I maintain ium treatment is still in the experimental stage try.
ree that "the aggregation of the infective sick in nent hospitals is bad;" but surely such a remark pplied to the open-air sanatorium, where, owing and open conditions of life, the most practical tion is brought into operation.
iott's remarks were doubtless the outcome of "honest doubt" as to the efficiency of the sanatorium treatment of phthisis, and I venture to say that a month's residence in a properly conducted sanatorium would convince him of the libellous nature of the term "farce" in association with the system. Dr. Marriott is evidently enthusiastic in reform, and for this he is entitled to our respect. And as a fair-minded man, he could not fail to be favourably impressed by evidence humbly submitted by myself (an equally enthusiastic reformer) of the real good which can be and is done by sanatorium treatment. As he passes over such important facts in silence, however, I have allowed myself to foster the impression that his gratification is too great for words.—I am, etc.,

Shotley Bridge, March 19th. E. W. DIVER.

RETENTION OF RUBBER CATHETER AFTER EXTERNAL URETHROTOMY.

SIR,—In the BRITISH MEDICAL JOURNAL of March 12th Mr. Herbert Mason refers to a method of retaining a catheter in which the perineal skin wound is sewn up at the time of the operation, a single deep suture transfixing the urethra and catheter. This plan would probably be effective provided that the urine was healthy, that the skin wound healed by first intention, and the catheter did not become blocked. If Mr. Mason finds, on further experience of his method, that suturing the skin results in a perineal abscess due to leakage of infected urine from the divided nrethra, this will necessitate reopening the perineum, in which case the use of some such appliance as my "perineal stop" will be found a convenience to the surgeon and a comfort to the patient. As regards the simplicity of the two methods, the fixation of the catheter by a "perineal stop," although it takes some little time to describe in writing, in actual practice is easily performed in two minutes. Some surgeons are in the habit of treating cases of external urethrotomy without a catheter, but of this method I have had no personal experience.—I am, etc.,

Plymouth, March 17th. C. HAMILTON WHITEFORD.

THE ADMISSION OF PURE AIR INTO SEROUS CAVITIES.

SIR,—With regard to Dr. Barr's procedure of injecting pure air into the pleural and peritoneal cavities after aspiration, may I be allowed to remark that it is difficult to see what is gained by it in the case of the peritoneum, because the abdominal wall, being collapsible, is pressed upon by the whole weight of the atmosphere, and additional support can be given if desired by the simple expedient of bandaging. The pleural cavity with its rigid walls is different, and cases are met with in which during aspiration acute distress is caused by the atmospheric pressure within the lung expanding some portions of it while others are bound down by adhesions. It is in these cases that relief is immediately afforded by the admission of pure air into the pleural cavity. But in such cases it is unnecessary to inject it. Air is drawn in to the exact amount requisite to equalize the pressure on both sides of the visceral pleura as soon as it is allowed to do so. For this purpose no elaborate apparatus is required. All that is necessary is to clip with artery forceps the tube between the cannula and the aspirator, to remove the aspirator, place several layers of aseptic gauze over the end of the tube to act as a filter, and then removing the clip to allow air freely to enter the pleural cavity. In the *Edinburgh Medical Journal* of November, 1886, I reported a case in which this was done with the best results.—I am, etc.,

Wigton, March 20th. THEOBALD A. PALM, M.D.

TRANSPLANTATION OF THE PANCREAS IN DIABETES: A CORRECTION.

SIR,—In the article, Diabetes, in the *Medical Annual* for this year, Professor Saundby says: "Dr. J. W. Allan has urged transplantation of the pancreas in diabetes. He speaks of a case in which he was going to try it, but although his communication appeared as long ago as last February, *the result has not been made known.*" The words which I have put in italics contain an error. The result was made known in the BRITISH MEDICAL JOURNAL for March 21st and March 28th, 1903. The operation was carefully performed by Dr. Barlow, my corresponding surgeon in the Glasgow Royal Infirmary. The attempt failed. The insertion of this explanation will oblige.—I am, etc.,

Glasgow, March 18th. JAMES W. ALLAN.

THE ANTIMALARIA CAMPAIGN AT ISMAILIA.

SIR,—We are much obliged to the BRITISH MEDICAL JOURNAL for its kind notification of the omission in the *Journal des Débats* to refer to the mission of the Liverpool School of Tropical Medicine in connexion with Ismailia. May we say that we are convinced the omission was merely an accidental one? Prince d'Arenberg has already so clearly expressed his acknowledgements to the School, and Dr. Laveran is so well known to be one of the most scrupulous of scientists in these respects that it is impossible to think otherwise. We must join every one in congratulating both the distinguished discoverer of the parasite of malaria and the President of the Suez Canal Company on what you rightly call the "great sanitary victory that has been gained."—We are, etc.,

RONALD ROSS, Professor, } Liverpool School of
RUBERT BOYCE, Dean, } Tropical Medicine.

University of Liverpool, March 21st.

*** The omission in the *Journal des Débats* may be as suggested accidental, but on turning to the verbatim report of Prince d'Arenberg's speech as officially published in the bulletin of the Suez Canal Company, we find that although he mentioned Major Ross and the Liverpool School of Tropical Medicine, it was only to say that after the publication of the works of Dr. Laveran and Major Ross of the Liverpool School of Tropical Medicine the medical officers of the company took up the question of mosquito destruction, and that in consequence Major Ross was asked to study the conditions to be dealt with on the spot. On the other hand, Prince d'Arenberg began his speech with the statement "that after the magnificent labours of Laveran there was no longer any doubt as to the part played by mosquitos in the causation of malaria," and concluded by saying that his pleasure in announcing the results of the operations at Ismailia was all the greater because they had been achieved thanks to a French man of science.

ROYAL NAVY AND ARMY MEDICAL SERVICES.

ROYAL NAVY MEDICAL SERVICE.

STAFF SURGEON H. B. HALL, M.B., has been allowed to withdraw from the Service with a gratuity, March 18th. His commissions were dated: Surgeon, May 11th, 1892; Staff Surgeon, May 11th, 1900.

The following appointments have been made at the Admiralty: JAMES L. SMITH, M.B., M.V.O., Fleet Surgeon, to the *Exmouth*, on commissioning; JAMES C. DOW, M.B., Fleet Surgeon, and ALEXANDER MCCLOY, M.B., Surgeon, to the *Revenge*, undated; D'ARCY HARVEY, Fleet Surgeon, to the *Queen*; HAROLD R. OSBORNE, Fleet Surgeon, and NELSON J. ROCHE, Surgeon, to the *Russell*, April 7th; JOHN MOORE, M.D., Fleet Surgeon, and MONTAGU H. KNAPP, Surgeon, to the *Prince of Wales*, undated; ELIJAH R. L. THOMAS, Surgeon, to the *Exmouth*, undated; GODFREY TAYLOR, M.B., B.A., Surgeon, to the *Perseus*, additional, and on recommissioning; FRANCIS J. L. P. MCKENNA, M.B., Surgeon, to the *Anticlope*, March 25th.

ROYAL ARMY MEDICAL CORPS.

LIEUTENANT-COLONEL G. T. TREWMAN, M.B., is placed on temporary half-pay on account of ill-health, March 17th. He was appointed Surgeon, July 30th, 1881; Surgeon-Major, July 30th, 1893; and Lieutenant-Colonel, July 30th, 1901. He was in the Soudan campaign in 1885, for which he has the medal with clasp and the Khedive's bronze star.

Captain HERBERT ERNEST WESTON died on February 21st at Sialkote, Punjab, aged 26. He was appointed Lieutenant, May 30th, 1900, and made Captain, May 30th, 1903. He was in the South African war in 1901-2, and had received the Queen's medal with five clasps.

INDIAN MEDICAL SERVICE.

LIEUTENANT-COLONEL T. H. POPE, M.D., Madras Establishment, is permitted to retire from the service, from March 1st. He joined the department as Assistant Surgeon, March 30th, 1878, and was made Surgeon-Lieutenant-Colonel, March 30th, 1898. He was in the Afghan war of 1878-80, receiving the medal granted for that campaign.

Lieutenant-Colonel L. A. WADDELL, C.I.E., Bengal Establishment, has been appointed Principal Medical Officer and Antiquarian with the Thibetan Mission and Escort.

Major H. E. DRAKE-BROCKMAN, Bengal Establishment, is posted as Residency Surgeon in Cashmere.

Captain V. G. DRAKE-BROCKMAN, Bengal Establishment, is appointed Agency Surgeon, Eastern Rajpootana States.

IMPERIAL YEOMANRY.

THE undermentioned gentlemen are appointed Surgeon-Lieutenants in the corps specified, dated March 19th:—GEORGE S. WARD, Herts; HAROLD THORP, Duke of Lancaster's Own.

ROYAL GARRISON ARTILLERY (VOLUNTEERS).

SURGEON-CAPTAINS G. A. LANG, M.B., Highland, and P. WOOD, 3rd Middlesex, have resigned their commissions, March 19th.

Surgeon-Lieutenant A. Y. PRINGLE, 1st Suffolk and Harwich, to be Surgeon-Captain, March 19th.

VOLUNTEER RIFLES.

SURGEON-LIEUTENANT J. SCOTT, M.D., Queen's Rifle Volunteer rip the Royal Scots (Lothian Regiment), is promoted to be Surgeon ap March 12th.

Mr. WILLIAM R. E. WILLIAMS to be Surgeon-Lieutenant 1st (Pembrokeshire) Volunteer Battalion the Welsh Regiment, Ma

Mr. GEORGE W. T. CLARKE, to be Surgeon-Lieutenant in the 2 Vo teer Battalion the Duke of Cambridge's Own (Middlesex R March 19th.

ROYAL ARMY MEDICAL CORPS (VOLUNTEERS).

MR. HERBERT J. ROBSON, to be Lieutenant in the Leeds (np March 19th.

Lieutenant E. B. DOWSETT, the Woolwich Companies, resigns mission, March 19th.

MEDICO-LEGAL AND MEDICO-ETHICA

THE RESTRICTION COVENANT.

A CASE which was recently heard in the Court of Appeal illus importance of the restriction covenant which is generally inse agreement under which a practitioner employs an assistant. It that in August, 1890, the plaintiff, who was a medical man pra Fazeley and Tamworth, employed an assistant at a certain salar a term of the agreement that after the determination the defendant would not at any future time thereafter, without the consent in writing of the plaintiff, his executors," etc., "practi enter into the business or businesses of a physician, surgeon, a or accoucheur, or any or either of them, either on his own acc assistant to any other person or persons, public body, or co (other than the plaintiff, his executors, etc.), or establish any o or other place for the businesses aforesaid, or any or eithe within the towns of Fazeley or Tamworth, or within a dista miles therefrom, on any pretence whatever." In 1891 the agre determined in the manner provided for. The defendant the district to practise elsewhere. In 1903 he returned to the d commenced to practise, when the plaintiff went to the Co injunction to restrain him.

Mr. Justice Grantham granted an injunction, and the appealed. It was argued on his behalf that the restrict unnecessarily wide, inasmuch as it would endure for the defen time, and that in any event the Court should not grant an inju leave the plaintiff his remedy in damages. The Master of refused to take this view, saying "the agreement was entered man of full age, and was perfectly intelligible. By it the defend took to serve the plaintiff upon certain terms, one of which was debarred during his natural life from practising within a tance of two towns. It has already been held that a restriction over a man's life is not on that ground unreasonable."

In the case referred to by the Master of the Rolls, a man emp hardware manufacturer agreed that he would not after the det of his service enter into the service of any other hardware ma within 25 miles. This was held to be reasonable, although it defendant for the rest of his natural life. The strict enforceme covenants may seem to be unreasonable at times, but it is ob they are essential in every agreement of service where the requires to be protected against those who may at some time become his rivals. Similarly in the case of the sale of a medic the covenant is essential for the protection of the purchaser.

GRATUITOUS SERVICES TO MEDICAL MEN.

EQUITY is at perfect liberty to charge for his services if he thin under the circumstances we agree that it is fair to do so.

PROFESSIONAL SECRECY IN AMERICA.

A BILL has been introduced into the Assembly of the State of which provides that "a person duly authorized to practise surgery or a professional or registered nurse shall not be disclose any information which he acquired in attending a pa professional capacity, and which was necessary to enable him that capacity." It is, however, provided that in the exam medical practitioners or professional or registered nurses as these may, upon a trial or examination, disclose any informa the mental or physical condition of a patient who is deceased, acquired in attending such patient professionally, except c communications and such facts as tend to disgrace the me patient.

PURCHASE OF PRACTICE.

A CORRESPONDENT wishes to know how the conclusion of a for the sale or purchase of a practice is usually completed: is either party to the transaction to be assured that a sale o is effected prior to the signing of the agreement.

*** The conclusion of such a negotiation is completed parties have come to a definite agreement. In order to be and enforceable by either party, such agreement must be ev writing. A letter may be quite sufficient, for example, if A offer to buy B.'s practice for a certain sum, and B. accepts writing, there is a binding agreement.

EXAMINATIONS UNDER THE WORKMEN'S COMPENSA

A. G. writes: A lad was injured by a fall from a wagon, and wa the local hospital by Surgeon X. The parents of the boy are s the Workmen's Compensation Act for damages on account of The boy is taken to Surgeon Y. on this account. The insu pany wish their medical referee, Surgeon Z., to examine t report on his condition. The solicitor for the injured lad a Y. insist that the latter shall be present at the examination pany's referee, and that, before such examination be permitt Y. be paid a guinea for being present. Is this attitude of t

rgeon Y. correct? Would there have been anything unethical in on Z. seeing and examining the boy without the presence of on Y?

In this case the insurance company are justified in wishing their al referee to examine the boy. A refusal to submit to this exa- on would debar the parents from taking any further proceedings. uld certainly be invited to be present at the examination, but he t insist on demanding a fee from the insurance company. The ver for whom the insurance company is acting is not liable for edical expenses except the fee due to his own medical referee for amination. If Y. refused to be present, Z. would be justified in and examining the patient without him.

MEDICAL ADVICE IN THE LAY PRESS.

draws attention to an article on lumbago, its nature, causes, and ent in the *Weekly Telegraph* for March 5th, under the heading of th Notes," by Dr. Andrew Wilson, F.R.S.E. He asks whether al men ought to discuss the treatment of disease in a lay news-

he name of Dr. Andrew Wilson does not appear in the *Medical r* or in the *Medical Directory*. Unquestionably, for very good s, it is undesirable for people to doctor themselves, and such as that given in these notes does probably more harm than good.

LATION OF A PRACTITIONER TO A PATIENT WHOM HE HAS SEEN IN CONSULTATION.

rule which has been laid down is that a practitioner who has lled in consultation may not take over the sole management of e, but this applies to that particular illness only. If the patient 's, and in a future illness chooses to consult the practitioner who w him in consultation, the latter is at liberty to take charge of se. Where consultants exist as a specialized class it is to be ed that they do not take sole charge of cases, unless under onal circumstances, either with the full concurrence of the l attendant or where none exists.

NIVERSITIES AND COLLEGES.

UNIVERSITY OF OXFORD.

—At the congregation on March 17th the degree of D.M. was con- on Herbert S. French, Christ Church.

UNIVERSITY OF EDINBURGH.

ity Court.—The Edinburgh University Court met on March 14th, the recommendation of the Senatus, the following applications nition for purposes of graduation in medicine were granted:— or R. S. Yapp, M.A., University College, Aberystwyth (botany); or Robert Broom, B.Sc., M.D., Victoria College, Stellenbosch, ogy (zoology); 3. Professor B. de St. J. Van der Reit, M.A., Ph.D., College, Stellenbosch (chemistry), provided that attendance is the organic, inorganic, and practical departments of the

UNIVERSITY OF LONDON.

THE SENATE.

ldsmith Institute, New Cross.—At a meeting on March 23rd the solved, subject to satisfactory settlement of certain administra- s, to accept the offer of the Worshipful Company of Goldsmiths er the whole of the site of the New Cross Polytechnic Institute, even acres, together with the buildings, equipment, and appa- plete to the University for the purpose of promoting its work in don.

ld Currie's Gift.—The Senate also adopted a resolution placing its cordial appreciation of the public spirit which has found n in Sir Donald Currie's act of timely beneficence in presenting f £100,000 towards the expenses of the scheme for the incorpo- iversity College in the University.

ical Laboratory.—The Physiological Laboratory Committee a report of the first two years' work of the laboratory, as established to provide facilities for original work in y and experimental psychology, and to publish by means of advanced students the result of recent work in this branch of even courses of eight lectures each have been delivered, and ents have been made with Mr. John Murray to publish under rity of the University such of these courses as may be from ne approved. The first volume, containing Dr. Waller's lectures ns of life, has already appeared. The laboratory is being used s researches by twenty post-graduate or otherwise qualified and 23 communications from persons working in it have been in the *Proceedings* of the Royal Society and other scientific Mr. W. L. Symes, M.R.C.S., has been appointed scientific n physiology.

—Mr. John Herbert Parsons has been awarded the degree of Science in Physiology as an external student.

ry Science.—The Senate has resolved to establish a degree in science in the Faculty of Science.

r Institute.—Dr. P. H. Pye-Smith, F.R.S., has been reappointed of the Council of the Lister Institute of Preventive Medicine.

SOCIETY OF APOTHECARIES OF LONDON.

T, March, 1904.—The following candidates passed in:

—L. F. Cope (Sections I and II), St. George's Hospital; A. C. ge (Section II), Manchester; P. F. Howden, Bristol; R. alds (Sections I and II), Bristol; R. H. Rigby (Section II), s; F. J. Waldmeier, London Hospital; T. R. Waltenberg ion I), Manchester.

—R. H. Cooper (Section II), Charing Cross Hospital; L. S. geon (Sections I and II), St. Thomas's Hospital; J. M. S. an, London Hospital; J. A. Kilpatrick (Section I), King's College Hospital; J. A. Renshaw (Section II), Manchester; R. H. Rigby (Sections I and II), Leeds; T. R. Waltenberg (Section I), Manchester; J. W. Watson (Section II), Manchester.

Forensic Medicine.—P. S. Cooke, Charing Cross Hospital; L. S. Dudgeon, St. Thomas's Hospital; J. M. S. Duncan, London Hospital; W. S. Gibson, Manchester and Middlesex Hospital; F. W. Higgs, St. George's Hospital; M. C. Vivian, Royal Free Hospital.

Midwifery.—M. O. Dollie, University College Hospital; L. S. Dudgeon, St. Thomas's Hospital; C. D. E. Forbes, St. George's Hospital; R. C. Richards, University College Hospital; C. A. Sampson, Charing Cross Hospital; F. A. K. Stuart, Cambridge and St. Mary's Hospital.

The diploma of the Society was granted to A. C. George, R. Reynalds, R. H. Rigby, and J. W. Watson.

OBITUARY.

HERBERT ARTHUR KENT,

M.R.C.S.ENG., L.R.C.P.LOND.

IT is with great regret that we have to record the death of Mr. Herbert Arthur Kent, which occurred at his residence, Carlton House, Ringwood, Hants, on March 4th.

Mr. Kent was the fourth son of the late Rev. Geo. Davies Kent, B.D., Rector of Stratford Tony, Salisbury, and Fellow of Corpus Christi College, Oxford. He was born at Stratford Tony on August 19th, 1859, and educated at Cheltenham College, and St. George's Hospital. In 1884 he took the L.R.C.P. Lond., and M.R.C.S.Eng., and subsequently spent a year as Surgeon to the P. and O. Steamship Company. In 1886 he settled down in Ringwood, where he continued to practise up to the time of his fatal illness.

Quiet and unassuming in manner, he devoted his life to ministering to the wants of others, instead of aspiring to take a prominent place in the public life of Ringwood; so that whilst his death leaves no great gap in official circles, his loss will be deeply felt by all classes, and especially by the poor, amongst whom he performed countless acts of kindness in his daily work. He was a member of the British Medical Association and of the local Lodge of Freemasons, but has always shrunk from taking any prominent part in local politics.

In May last he had trouble with his tongue, originating, apparently, in the irritation caused by carious teeth, and later it became certain that extensive epithelioma was present, but with characteristic consideration for others, he made no mention of the fact until last November, when he consulted Mr. A. J. Pepper, and subsequently, on Mr. Pepper's advice, Mr. H. T. Butlin. It was then too late for operative interference, and although treatment by radium was tried and appeared to check the progress of the disease for a time, he was compelled to relinquish his practice in December, and death ultimately occurred on Friday, March 4th, after a period of suffering which was borne with uncomplaining bravery.

The funeral took place on Wednesday, March 9th, at Ringwood, when a very large number of friends attended. Mr. Kent leaves a widow and one daughter.

WE regret to announce the death of Dr. EMIL ALEXANDER DE SCHWEINITZ, of Washington, Chief of Division in the United States Department of Agriculture and a well-known bacteriologist. Within the last few years he had been Dean of the medical school of the Columbian University. Dr. de Schweinitz was born at Salem, North Carolina, in 1866, and took his doctor's degree at the University of North Carolina in 1882, afterwards receiving the degree of Doctor of Philosophy at Gottingen, Germany, and that of Doctor of Medicine from the Columbian University. He was United States delegate to the Fourth International Congress on Tuberculosis held in Paris in 1898, at the Conference on the same subject held in Berlin in the following year, and again at the International Medical Congress and the Congress of Hygiene in Paris in 1900. Dr. de Schweinitz was the author of many papers on bacteria, disinfectants and hygienic problems, on various antitoxins, and on tuberculosis, a subject to which he gave special attention. He was a member of various scientific, chemical, and bacteriological societies, both American and foreign.

INTERNATIONAL CONGRESS OF MILITARY SURGEONS.—An International Congress of Military Surgeons is to be held at the World's Fair, St. Louis, on October 10th to 15th, 1904, on the occasion of the thirteen annual meeting of the Association of Military Surgeons of the United States. The diplomatic representatives of the United States at the capital of every country have been instructed to request, in the name of the American Government and the Universal Exposition, the nomination of suitable delegates to attend the meetings.

PUBLIC HEALTH
AND
POOR-LAW MEDICAL SERVICES.

HEALTH OF ENGLISH TOWNS.

IN seventy-six of the largest English towns, including London, 8,706 births and 5,781 deaths were registered during the week ending Saturday last, March 19th. The annual rate of mortality in these towns, which had been 17.5, 18.6, and 19.0 per 1,000 in the three preceding weeks, further rose last week to 19.7 per 1,000. The rates in the several towns ranged from 8.3 in Hornsey, 10.1 in Bootle, 11.8 in Hastings, 12.2 in Leyton, and 12.5 in East Ham, in Devonport and in Grimsby, to 25.0 in Rotherham and in Stockton-on-Tees, 25.3 in St. Helens, 25.9 in Bury, 27.4 in Wigan, and in Manchester, 29.4 in Hanley and in Derby, and 30.1 in Warrington. In London the rate of mortality was 18.8 per 1,000, while it averaged 20.1 per 1,000 in the seventy-five other large towns. The mean death-rate from the principal infectious diseases was 1.8 per 1,000 in the seventy-six towns; the rate in London was also equal to 1.8 per 1,000, while among the seventy-five large provincial towns the rates ranged upwards to 4.0 in Walsall, Stockton-on-Tees, and Gateshead, 4.3 in Wallasey, 5.4 in Warrington, 5.9 in St. Helens, 6 0 in Great Yarmouth, and 7.7 in Norwich. Measles caused a death-rate of 1.4 in Salford, 1.5 in Warrington and in Leeds, 1.6 in Blackburn, 1.9 in Walthamstow, 2.0 in Great Yarmouth, 2.1 in Burnley, 2.4 in Rochdale, 2.7 in Bury, 3 5 in St. Helens, and 6.3 in Norwich; diphtheria of 3.0 in Great Yarmouth; whooping-cough of 1.8 in Portsmouth and in Birmingham, 2.0 in Stockton-on-Tees, 2.1 in Bolton, 2.2 in Swansea, 2.3 in Warrington, 2.4 in St. Helens, 2.7 in Rotherham, 2.9 in Walsall, and 3.5 in Wallasey; "fever" of 2.0 in Stockton-on-Tees; and diarrhoea of 1.6 in West Bromwich. The mortality from scarlet-fever showed no marked excess in any of the large towns. Of the 5 fatal cases of small-pox registered in these towns last week, 3 belonged to Gateshead, 1 to London, and 1 to Leicester. The Metropolitan Asylums Hospitals contained 74 small-pox patients on Saturday last, the 19th inst., against 31, 41, and 54 at the end of the three preceding weeks; 26 new cases were admitted last week, against 5, 13, and 21 in the three preceding weeks. The number of scarlet-fever cases in these hospitals and in the London Fever Hospital, which had been 1,587, 1,578, and 1,601 at the end of the three preceding weeks, had further risen to 1,624 at the end of last week; 176 new cases were admitted during the week, against 150, 153, and 192 in the three preceding weeks.

HEALTH OF SCOTCH TOWNS.

DURING the week ending Saturday last, March 19th, 958 births and 762 deaths were registered in eight of the principal Scotch towns. The annual rate of mortality in these towns, which had been 21.8, 21.2, and 21.5 per 1,000 in the three preceding weeks, further rose last week to 23.0 per 1,000, and was 3.7 per 1,000 above the mean rate during the same period in the seventy-six large English towns. Among these Scotch towns the death-rates ranged from 18.5 in Edinburgh and 20.1 in Leith, to 26.0 in Greenock and 28.1 in Dundee. The death-rate from the principal infectious diseases averaged 2.6 per 1,000, the highest rates being recorded in Dundee and Greenock. The 373 deaths registered in Glasgow included 15 which were referred to measles, 9 to diarrhoea, 6 to whooping-cough 6 to "fever," and 4 to small-pox. Eight fatal cases of whooping-cough, 6 of diarrhoea, and 4 of measles were recorded in Dundee; 5 of whooping-cough in Aberdeen; 2 of whooping-cough and 2 of diarrhoea in Edinburgh; 3 of small-pox in Greenock; and 2 of whooping-cough in Leith.

HEALTH OF IRISH TOWNS.

DURING the week ending Saturday, March 19th, 497 births and 498 deaths were registered in six of the principal Irish towns, against 519 births and 445 deaths in the preceding period. The mean annual death-rate of these towns, which had been 24.7, 22.3, and 25.8 per 1,000 in the three preceding weeks, fell to 24.9 per 1,000 in the week under notice, this figure being 5.2 per 1,000 above the mean annual rate in the seventy-six English towns during the corresponding period. The figures ranged from 12.6 in Londonderry and 21.4 in Waterford to 30.8 in Belfast and 32.2 in Cork. The death-rates from the principal zymotic diseases during the same period and in the same six towns averaged 1.6 per 1,000, or 0.1 per 1,000 higher than during the preceding week, the highest figure, 2.8, being reached in Dublin, while Waterford and Londonderry registered no deaths under this heading at all. Whooping-cough was again the chief zymotic cause of death everywhere. From measles 4 deaths were recorded in Dublin, and 2 in Belfast. None were recorded from small-pox or typhus, 1 from scarlet fever in the small town of Wexford, 1 from diphtheria at Dublin, and from enteric 1 at Dublin and 2 in Belfast.

INSPECTION OF EDUCATIONAL WORK IN POOR-LAW SCHOOLS.

THE Local Government Board in England has given notice that on and after April 1st next the duty of inspecting educational work in Poor-law schools will be transferred to the Board of Education. The transfer will not affect the control of the Local Government Board over other matters connected with Poor-law schools, and for the present at least grants in respect to the remuneration of teachers will be certified by the Local Government Board on information supplied by the Board of Education.

REMUNERATION OF POOR-LAW DISTRICT MEDICAL OFFICERS.

DR. E. H. O. SANKEY (Baschurch) writes: Dr. Grey's letter on the subject of the salaries of Poor-law medical officers points out the difficulty in getting these raised to a satisfactory sum very clearly; this difficulty is that there are plenty of men willing and indeed anxious to take the appointments at the present absurd salary. This argument was used on both occasions when we discussed this matter at the Board of Guardians of which I am a member (Ellesmere). It seems to me to be a perfectly legitimate argument, although it did not convince me that the salary in question is, or was, sufficient. The matter lies in the hands of medical men residing in any particular district; if they do not offer to take these insufficient salaries the Boards must give more, but no one can blame the Boards for not paying more when they get perfectly satisfactory medical officers at the present price. It seems to be forgotten that we are dealing with other people's money, and must therefore be extremely careful to buy in the cheapest market so long as the go[o]ds are as good as they are at present. It is also impossible for me [to] tried) to get these salaries raised while the medical men are wi[lling] take the appointments as they are. I repeat it lies in the hand[s] local medical men.

OPERATIONS BY POOR-LAW MEDICAL OFFICERS IN COTTAGE HOSPITALS.

N. F. D. asks for an opinion on the following case. A Poor law [district] medical officer, who is also honorary surgeon to a cottage hospi[tal] called to a man whose hand was so severely injured as to neces[sitate] partial amputation. The patient had been in receipt of parish[-relief] but was not so at the time of the accident. As the case was urg[ent] medical officer, without waiting for a medical order, took hi[m to] cottage hospital, where, with assistance, he operated, and the [patient] made a good recovery. The guardians subsequently declined t[o pay] fee for the operation on the ground that no formal order had bee[n given] for medical attendance, and that the removal of the patient to [the] tage hospital relieved them of all responsibility in reference to [the case.] Our correspondent asks whether in such a case the surgeon "o[ught] be deprived of his fee."

*** We are advised that, as the district medical officer attended [the case] without a proper medical order, he cannot enforce a claim for a f[ee from] the guardians for the operation he performed. This is a strict inte[rpreta]tion of the rules. Our correspondent does not state whether the [cottage] hospital to which the patient was removed was situate with[in the] medical officer's district; if such was the case, and a medical or[der has] been granted, it is probable that the usual fee allowed by regulat[ion in] pauper cases could have been claimed, but, on the other hand, [if the] patient had, by removal to the cottage hospital, become locat[ed in a] different Poor-law medical district, this might be assigned [by the] guardians as a reason for refusing to pay for any form of work [done] of the district for which the operator had been appointed [by] (the guardians) to act as one of their medical officers.

INDIA AND THE COLONIES.

NEW SOUTH WALES.

The Pathological Laboratory of the Lunacy Department.—We have [received] from the Inspector-General of New South Wales Part I of the first [volume] of Reports from the Pathological Laboratory of the Lunacy Depart[ment] of New South Wales Government (Sydney: W. A. Gullick, 1903, De[my 8vo] pp. 57, 4s. 6d.). The department was opened in 1900, Dr. J. Froude[s Turner] man, B.A., B Sc., M.D., being appointed Pathological Director. [The] laboratory was modelled on that of the London County Council [at Clay]bury and the Scottish Asylums laboratory, and like these its [work is] purely scientific. The papers now published are the record of th[ree] completed up to this date and will be the first of the series, to [be pub]lished yearly or at shorter intervals as material offers. In addi[tion to] the paper on the parieto-occipital fissure referred to elsewhe[re] Flashman contributes a note on the external features of the bra[in in a] microcephalic idiot, showing absence of corpus callosum. In t[his] most marked abnormalities were the presence of convolutions [across] along the great longitude of the fissure, the apparent absence of [the] callosum, and marked uncovering of cerebellum and insula. [It is] intended to embed and cut the brain, and a description of the s[ame] will be included in the next number. Mr. Quaife, a student [in the] laboratory, describes some modifications of the Golgi method [in] rapidity with which Golgi sections spoil in Canada balsam is well [known] and Mr. Quaife claims for these modifications that this drawb[ack is] removed. Time is wanting in which to test practically their perma[nency] but the stable nature of the substances which form the final dep[osit] sulphide of mercury, metallic gold, sulphide of silver, and m[etallic] silver—make this probable, whilst the clearness of definition [is not] injured. For details the original should be consulted.

SOUTH AUSTRALIA.

Health of Adelaide.—In the report of Dr. T. Borthwick, medical [officer] of health for the city of Adelaide, South Australia, for the year [ended] September 30th, 1903, there is little of general interest beyond the [fact of] the steady and serious decline in the birth-rate, which now stands [at] 22.28, and which has dropped over 18 per cent. in the last five [years.] During the same period the general death-rate has fallen from 20[.5] 1,000 to 16.25 per 1,000. The infant mortality rate for the year was [150] 1,000 registered births, by no means a remarkably low rate for [a well] laid out city with a population of less than 40,000 inhabitants, and [which] had no deaths from measles or scarlet fever, and only 4 from diph[theria] and 8 from whooping-cough. The phthisis mortality was 1.69 per [1,000.] local branch of the National Association for the Prevention of Con[sump]tion has been formed, and a law against spitting in public places [has been] duced. The mean temperature of the year was 62.5, the minimu[m in] the relative humi dity 61 per cent., and the number of wet days [was] a total rainfall of 25.975 in.

HOSPITAL AND DISPENSARY MANAGEME[NT]

EDINBURGH ROYAL INFIRMARY.

AT the weekly meeting of the managers on Monday, March 21st, M[r.] Porter, M.B., Ch.B., was appointed Clinical Tutor to Mr. Charles Ca[ll] wards for the ensuing summer session. The following appointmen[ts] made for six months as from April 1st next: Resident Physician—[J.] A. Paulin, L.R.C.P.&S.Ed., to Dr. Alex. James's wards. Resider[t Sur]geons—C. R. P. Mitchell, M.B., Ch.B., to Dr. C. W. MacGillivray; [J.] M'Lean, L.R.C.P.&S.Ed., to Mr. Cotterill; Hugh N. Fletcher, M.B., [C.M.] to Mr. Cathcart. Non-resident House-Surgeons—J. H. Yearsley, [M.B.,] L.R.C.P.& S.Ed., to Dr. George Mackay. Clinical Assistants—John [Wm.] Duncan, M.B., C.M., Senior Clinical Assistant to Dr. M'Kenzie Jo[hnston] in the Ear and Throat Department; R. J. Johnston, M.B., C.M., [Junior] Clinical Assistant to Dr. M'Kenzie Johnston in the Ear and Thro[at De]partment; Lewis Beesly, L.R.C.P.&S.Ed., Clinical Assistant to Dr. [W.] MacGillivray; Henry Curwen, M.B., Ch.B,, Clinical Assistant

erill; J. J. M'Millan, M.B., Ch.B., Clinical Assistant to Mr. Cathcart. Matthews, M.B., Ch.B., was appointed Resident Medical Officer to Convalescent House.

ROYAL ORTHOPAEDIC HOSPITAL.

Royal Orthopaedic Hospital vacates its old premises in Hanover re at Lady Day and pending the receipt of the Charter of Incorporawith the National Orthopaedic Hospital it will carry on its work at olsover Street, W. The new hospital, which is to be built on the nt site of the National Orthopaedic Hospital and on adjoining land, which when complete will represent the two old institutions, will ide 200 beds and also have a branch of 100 beds in the north of on, or a total of 300 beds against the 110 which at present exist in the hospitals combined.

EDICAL VACANCIES AND APPOINTMENTS.

VACANCIES.

ist of vacancies is compiled from our advertisement columns, where full ticulars will be found. To ensure notice in this column advertisements t be received not later than the first post on Wednesday morning.

ORD COUNTY HOSPITAL.—(1) House-Surgeon. Salary, £100 per annum. House-Physician. Salary, £60 per annum.

FORD ROYAL INFIRMARY.—House-Surgeon; resident. Salary, £100 per num.

NORTH AND SOUTH SHROPSHIRE INFIRMARY.—House-Surgeon, resident. ary, £100 per annum.

TER: COUNTY ASYLUM.—Third Assistant Medical Officer, resident. Salary, 0 per annum.

ERN DISPENSARY, Leman Street, E.—Physician. Honorarium, £50 per num.

NA HOSPITAL FOR SICK CHILDREN, Southwark, S.E.—(1) Assistant House-rgeon, resident. Salary, £70 per annum. (2) Eight qualified Clinical assistants in Out-patient Department.

ES END HOSPITAL.—House-Surgeon, resident. Salary, £100 per annum,

TAL FOR CONSUMPTION AND DISEASES OF THE CHEST, Brompton.—ident House-Physicians. Honorarium, £25 for six months each.

TAL FOR EPILEPSY AND PARALYSIS, Maida Vale, W.—Resident Medical cer. Salary at the rate of £50 per annum.

RN DISPENSARY, 13, Kilburn Park Road, N.W.—Two vacancies on Honorary dical Staff.

LN COUNTY HOSPITAL.—Junior Male House-Surgeon, resident. Salary, £25 six months.

LN GENERAL DISPENSARY.—Resident Medical Officer. Salary, £170 per um, rising to £200.

POOL STANLEY HOSPITAL.—(1) Assistant Physician. (2) Senior House-rgeon, resident. Salary, £100 per annum.

N COUNTY ASYLUM, Claybury.—Junior Assistant Medical Officer, residenit ary, £150 per annum.

HESTER: CHORLTON-UPON-MEDLOCK DISPENSARY.—Resident House-rgeon. Salary, £120 per annum.

HESTER NORTHERN HOSPITAL FOR WOMEN AND CHILDREN.—House-rgeon, resident. Salary, £80 per annum.

OLK AND NORWICH HOSPITAL.—Assistant House-Surgeon, resident. Honoum, £20 for six months.

OW ST. MARY'S HOSPITAL FOR SICK CHILDREN.—Assistant Resident ical Officer. Salary at the rate of £80 per annum.

ON ROYAL INFIRMARY.—Assistant House-Surgeon, resident. Salary, £60 per um.

NG: ROYAL BERKSHIRE HOSPITAL.—Assistant Physician.

WATERLOO HOSPITAL FOR CHILDREN AND WOMEN, Waterloo Road. sident Medical Officer.

ARYLEBONE GENERAL DISPENSARY, Welbeck Street, W. — Honorary sician.

N'S HOSPITAL SOCIETY (DREADNOUGHT), Greenwich, S.E. — Junior dent Medical Officer. Salary, £40 per annum.

SET AND BATH ASYLUM, Cotford, Taunton.—Assistant Medical Officer, lent. Salary, £160, rising to £200 per annum.

AMPTON: ROYAL SOUTH HANTS AND SOUTHAMPTON HOSPITAL.—se-Physician, resident. Salary, £100 per annum.

ONDON HOSPITAL, Hammersmith Road, W.—Assistant Physician.

APPOINTMENTS.

L, Harold, M.B.Lond., F.R.C.S.Eng., Honorary Surgeon for Throat and Ear ases to the Cripples' Home for Girls, Northumberland House, Marylebone.

RK, C. C., L.R.C.P. & S Edin., L.F.P.S.Glasg., Certifying Factory Surgeon for the outh District, Devonshire.

M, Lucy B., M.B.Lond., reappointed Assistant Anaesthetist, New Hospital for en, Euston Road.

Francis G., F.R.C.S., Divisional Surgeon for V Division Metropolitan Police, ston-on-Thames and Surbiton.

, Henry, M.R.C.S., L.R.C.P., Clinical Assistant to the Chelsea Hospital for en.

N, T. Herbert, M.R.C.S.Eng., L.S.A.Lond., Certifying Factory Surgeon for rhill and District.

K, W. Ilbert, F.R.C.S., Assistant Surgeon to the Central London Ophthalmic ital.

Ivon, M.B., B.S.Durh., Junior House-Surgeon, Royal Infirmary, Bristol.

H. D., M.D., B.S.Durh., Certifying Factory Surgeon for the Hornsea District, shire.

J., L.R.C.P.& S.Edin., L.F.P.& S.Glasg., additional District Surgeon of Wode-e, Cape Colony, Medical Officer to Indwe Land, Railway, and Collieries Co., ed, and Medical Officer to the Indwe-Maclear Railway Construction (Cape rnment Railways).

, H. M., M.B., B.Ch.R.U.I., District Medical Officer of the Wokingham Union.

DLE, J. Doig, M.B., C.M.Edin., Assistant Medical Officer for the Birmingham Council.

GALL, William, M.A.Aberd., M.B., Ch.B.Edin., Principal Medical Officer to the tmas Island Phosphate Company and Government Medical Officer to Christmas d, Indian Ocean.

H. J., M.B., Ch.B.Birmingham, M.R.C.S.Eng., L.R.C.P.Lond., Medical Officer ea th to Klerksdorp, Transvaal, South Africa.

E. M., M.R.C.S.Eng., L.R.C.P.Lond., Honorary Anaesthetist, Royal Infirmary, ol.

, Allan C., B.A., M.B., B.C.Cantab., M.R.C.S., L.R.C.P., D.P.H.Camb., Deputy al Officer, H.M. Prison, Liverpool.

N, W. B., M.B., B.Ch.Vict., Resident Assistant Medical Officer of the Chorlton n.

. H., M.R.C.S.Eng., L.R.C.P.Lond., Casualty Officer, Royal Infirmary, Bristol.

, G. A. C., M.A., M.B., B.C.Cantab., M.R.C.S., L.R.C.P., Surgeon, Grantham ital, Lincolnshire.

, G. W., L.R.C.P., M.R.C.S., Honorary Consulting Medical Officer to the ham Hospital.

SON, C. S., M.B., Ch.B.Edin., District Medical Officer of the Darlington Union.

. J. H., M.B., Certifying Factory Surgeon for the Banff District, Banffshire.

, J. S., M.B., Ch.B.Glasg., District Medical Officer of the Dore Union.

T., M.R.C.S.Eng., L.R.C.P.Lond., Resident Obstetric Officer, Royal Infirmary, ol.

DIARY FOR NEXT WEEK.

MONDAY.

Medical Society of London, 11, Chandos Street, Cavendish Square, W. 8.30 p.m.—Mr. E. Hurry Fenwick: The Treatment of Urinary Tuberculosis.

Medical Graduates' College and Polyclinic, 22, Chenies Street, W.C., 3.30 p.m.—Annual General Meeting.

Odontological Society of Great Britain, 20, Hanover Square, W., 8 p.m.—Exhibit by Mr. J. Howard Mummery. Paper by Mr. Douglas E. Caush.

TUESDAY.

Therapeutical Society, Apothecaries' Hall, Water Lane, Blackfriars, 4 p.m.—Mr. W. Chattaway on Photography in Natural Colour, illustrated by lantern slides.

POST-GRADUATE COURSES AND LECTURES.

Hospital for Sick Children, Great Ormond Street, W.C., Thursday, 4 p.m.—Lecture on Operations for Cleft Palate.

London Temperance Hospital, Hampstead Road, N.W., Wednesday, 4 p.m.—Lecture on Diseases of the Stomach.

Medical Graduates' College and Polyclinic, 22, Chenies Street, W.C.—Demonstrations will be given at 4 p.m. as follows: Tuesday, Medical; Wednesday, Surgical. Lectures will be delivered at 5.15 p.m. as follows: Tuesday and Wednesday, On Tick and Tick Fever.

BIRTHS, MARRIAGES, AND DEATHS.

The charge for inserting announcements of Births, Marriages, and Deaths is 3s. 6d., which sum should be forwarded in post-office orders or stamps with the notice not later than Wednesday morning, in order to ensure insertion in the current issue.

BIRTHS.

BEATH.—On March 9th, at 9, Dunsford Place, Bath, the wife of David Leslie Beath, M.R.C.S., L.R.C.P., a son. (Australian papers, please copy.)

EASTERBROOK.—At 3, Albert Terrace, Edinburgh, on March 20th, the wife of Alexander M. Easterbrook, M.B., C.M., Gorebridge, Midlothian, of a daughter.

MAILER.—On March 11th, at Hillside, Palace Gates Road, Wood Green, the wife of William Mailer, M.B., C.M., a son.

MARRIAGE.

BRADSHAW—GLYNN.—March 12th, at St. Luke's Church, Liverpool, by the Right Rev. the Lord Bishop of the Diocese, assisted by the Venerable the Archdeacon of Warrington, Vicar, Thomas Robert Bradshaw, M.D., of Liverpool, younger son of the late John Webb Bradshaw, of Dublin, to Rose Mary, eldest daughter of Thomas Robinson Glynn, M.D., of Liverpool.

DEATHS.

COLBORNE.—On March 14th, at Edith Lodge, Ramsgate, Mary Ann, widow of the late W. H. Colborne, M.D., F.R.C.S., of Chippenham, Wilts, aged 75 years.

ECCLES.—On March 11th, at 3, Holyrood Terrace, Plymouth, Alfred Eccles, F.R.C.S.Eng., in his 83rd year.

GRANT.—On March 15th, Alexander Grant, M.A.Aberd., M.D.Edin., 370, Commercial Road, London, E., aged 66.

WILSON.—On March 15th, at Flowergate, Whitby, John Wilson, M.R.C.S. and L.S.A., aged 69 years.

LETTERS, NOTES, AND ANSWERS TO CORRESPONDENTS.

COMMUNICATIONS respecting Editorial matters should be addressed to the Editor, 2, Agar Street, Strand, W.C., London; those concerning business matters, advertisements, non-delivery of the JOURNAL, etc., should be addressed to the Manager, at the Office, 429, Strand, W.C., London.

ORIGINAL ARTICLES and LETTERS *forwarded for publication are understood to be offered to the* BRITISH MEDICAL JOURNAL *alone, unless the contrary be stated.*

AUTHORS desiring reprints of their articles published in the BRITISH MEDICAL JOURNAL are requested to communicate with the Manager, 429, Strand, W.C., on receipt of proof.

CORRESPONDENTS who wish notice to be taken of their communications should authenticate them with their names—of course not necessarily for publication.

CORRESPONDENTS not answered are requested to look at the Notices to Correspondents of the following week.

MANUSCRIPTS FORWARDED TO THE OFFICE OF THIS JOURNAL CANNOT UNDER ANY CIRCUMSTANCES BE RETURNED.

IN order to avoid delay, it is particularly requested that ALL letters on the editorial business of the JOURNAL be addressed to the Editor at the Office of the JOURNAL, and not at his private house.

TELEGRAPHIC ADDRESS.—The telegraphic address of the EDITOR of the BRITISH MEDICAL JOURNAL is *Aitiology, London.* The telegraphic address of the MANAGER of the BRITISH MEDICAL JOURNAL is *Articulate, London.*

TELEPHONE (National):—
EDITOR, 2631, Gerrard.
GENERAL SECRETARY AND MANAGER, 2630, Gerrard.

QUERIES.

MILK FOR INFANTS.

R. P. writes: In the BRITISH MEDICAL JOURNAL of March 5th appears a letter on the feeding of infants, by Dr. F. G. Haworth, in which he recommends plain pure cow's milk, to which is added 5 per cent of lime water and the same of sugar; I should like to know if he means milk sugar or cane sugar.

*** We have communicated with Dr. Haworth, who writes: I generally advise ordinary cane sugar if the bowels are constipated. I use the Demerara (brown) sugar. I have to deal with the ordinary working class—in many cases ignorant, in nearly all careless, to whom the proper mixing of milk food in the proportions of fat and proteid matter to resemble mother's milk is too much trouble. Where I have the most difficulty is in persuading mother or nurse to take up the child every two or three hours in the daytime, when the baby is asleep. To these people it seems wrong to disturb a child out of its sleep. The district maternity nurse is the greatest help to me; she advises this feeding at every house where she attends, and speaks in the highest terms of the results.

THE ACCUMULATION OF CERUMEN.

M.D. writes: I should be greatly obliged if some of your specially experienced readers would tell me how I can best prevent cerumen accumulating in the meatus. I have a constitutional tendency to it. I am healthy and elderly, and inherit gouty tendencies, take a fair amount of

exercise, and live well but plainly, little alcohol. Every two or three years one or other ear becomes blocked, and requires long syringing.

THE TREATMENT OF SEROUS EFFUSIONS.

DR. STUART TIDEY (Montreux) writes: I have read with much interest Dr. James Barr's lecture under the above heading, which appeared in the BRITISH MEDICAL JOURNAL of March 19th. I should like to ask Dr. Barr if it has occurred to him to use nitrogen gas for injection into the body cavities. This gas is non-irritant and is absorbed less rapidly by serous membranes than either oxygen or air. Notes of its employment by Professor Forlanini for the production of artificial pneumothorax may be found in the *Gazetta Medica di Torino*, Nos. 20-21, 1894, and No. 44, 1895.

ANSWERS.

CORRESPONDENTS are reminded that no notice can be taken of anonymous communications.

V. P. G.—The Indian Medical Service is open to natives of India, and we therefore do not understand to what appointments our correspondent refers.

R. P.—Sodium hydrosulphate is used as a depilatory in conjunction with quicklime and starch. It is the crystallized sodium hydrosulphate —also known as sodium sulphhydrate=NaSH—that is used. It is prepared by passing H_2S into a concentrated solution of NaOH=NaSH $+H_2O$. It could be freshly prepared by any chemist with the apparatus for making H_2S, and should be readily obtainable from any firm of wholesale druggists.

PRIMARY VESICAL TUBERCULOSIS.

MR. R. H. JOCELYN SWAN, M.S.Lond., F.R.C.S. (Resident Medical Officer, St. Peter's Hospital for Urinary Diseases, W.C.) writes: In answer to "T. W. B.", I append an outline of treatment which has been found frequently successful at St. Peter's Hospital in cases of vesical tuberculosis, verified both by microscopic detection of tubercle bacilli in the urine and by the cystoscope. In the first place I should suggest a complete cystoscopic examination of "T. W. B."s patient to ascertain not only the extent of the disease, but also the appearance of each ureteric meatus, any change in which gives an important indication of ascending disease in the ureter or renal pelvis. The patient should then rest, preferably in bed, for at least a fortnight, during which time a series of hypodermic injections of Koch's tuberculin (T.R.) is given, commencing with a dose of $\frac{1}{10}$ mg. and gradually increasing the dose every alternate day until $\frac{1}{2}$ mg. is reached (about 8 injections), provided always that no reaction is produced. A dose of $\frac{1}{2}$ mg. is then given each week for some three months. At the same time, medicinal treatment with urinary disinfectants, such as urotropine or sandal-wood oil, with alkalies and tr. belladonnae or chloral hydras in 4-gr. doses to relieve the frequency of micturition. The usual treatment for tubercle, hygienic and seaside, should of course be carried out, I shall be pleased to communicate further with "T. W. B." if he will send me his address.

TREATMENT OF CHRONIC RHEUMATISM.

T. D. supplies the following particulars of two cases of chronic rheumatism successfully treated with urosin, in reply to Dr. Crichton's query published in the BRITISH MEDICAL JOURNAL of February 13th, p. 411: A female, aged 30, suffered from intercostal rheumatism for eighteen months; no treatment gave her relief until I tried urosin; in two or three days the pain left her, and she tells me whenever she has a return two or three doses quickly relieve her pain. The other case, a female, aged 32, had suffered from chronic rheumatic arthritis for the last five years. She has undergone treatment by several medical men, as well as myself, and been to Bath and Buxton. Six weeks ago I saw her. She was unable to walk, joints swollen, painful, and immovable. She was put on urosin, and sent into the country. On her return I was surprised to see her walk into the room; she had put on flesh, and lost her pale anaemic look; she had no pain, joints less swollen, soft, and movable. The day before she had walked four miles without fatigue or any bad result.

NOTES, LETTERS, Etc.

MASONIC BENEVOLENT INSTITUTIONS.

THE Honorary Secretary (Mr. H. S. Sington, 44, St. Mary's Mansions, Paddington), of the St. Luke's Medical Lodge of Instruction, asks for the influence of medical men in obtaining votes for the election of certain candidates for admission to Masonic benevolent institutions. They are, we are informed, the only medical candidates; their cases have been examined, and have been found to be instances of genuine distress, and their candidature has the unanimous support of the executive council of the lodge, which is formed of representatives from each hospital lodge. The candidates are as follows: Mrs. Georgina Skinner, widow of a late medical officer of health for Willesden: election in May for the Royal Masonic Benevolent Institution for Aged Freemasons and Widows of Freemasons. Patrick Taylor Webster, son of the late Dr. Trevor Taylor, of Moseley, Birmingham: election on April 8th for the Royal Masonic Institution for Boys. Irene Mabel Sewart, daughter of the late Dr. John Hunter Sewart, of Lostwithiel: election on April 7th for the Royal Masonic Institution for Girls. Votes for any of the above will be thankfully received either by the honorary secretary of the lodge or by the treasurer, Dr. John Eyre, Wandle House, Wandle Road, Upper Tooting, S.E.

ADENOIDS AND VARICOCELE.

DR. A. TODD WHITE, of Leytonstone, in asking for opinions as to the effect upon adenoids of the practice of giving young children dummies to suck, suggests that the forcible inhalation of air through the nostrils which results may give rise to irritation of the lymphoid tissue, and thus produce adenoids. He also suggests that varicocele is one of the penalties of civilization. Wearing trousers, and thus "dressing right or left," causes one testicle to lie over the other, and compress its vessels. The greater prevalence of left varicocele may, he thinks, be due to "dressing left" being the common practice.

*** As regards adenoids the practice of nasal respiration is one of the accepted methods of prevention and treatment.

LETTERS, COMMUNICATIONS, ETC., have been received from:

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BOOKS, ETC., RECEIVED.

Legal Medicine (in India) and Toxicology. In two volumes. By Major Collis Barry, I.M.S., F.R.S.E., F.I.C., etc. Vol. I. Second Edition. Bombay: Thacker and Co.

Traitement Chirurgical des Néphrites Médicales. Par Dr. A. Pousson. Paris: J. B. Baillière et Fils. 1904. Fr. 1.50.

Diseases of the Appendix Vermiformis and their Treatment. By F. G. Lloyd, M.R.C.S.Eng., L.R.C.P.Lond. London: John Bale, Sons and Danielsson, Ltd. 1904.

Medical Monograph Series. No. 2.—The Bacteriology of Every-day Practice. By J. Odery Symes, M.D (State Med.) Lond., D.P.H., etc. Second Edition. London: Baillière, Tindall, and Cox. 1904. 2s. 6d.

Anaesthetics in Surgery. By C. Hamilton Whiteford, M.R.C.S., L.R.C.P. Bristol: J. W. Arrowsmith. 1904. 1s. 6d.

Philosophical Transactions of the Royal Society of London. Series A. Vol. 203. Pp. 53-86. Mathematical Contributions to the Theory of Evolution. XII.—On a Generalized Theory of Alternative Inheritance, with special reference to Mendel's Laws. By Karl Pearson, F.R.S. London: Dulau and Co. 1904. 1s. 6d.

Football Injuries. A paper read before the Medical Officers of Schools Association in 1903. By R. H. Anglin Whitelocke, M.D., F.R.C.S.Eng. London: J. and A. Churchill. 1904. 1s.

The Life of Frederick William Farrar, sometime Dean of Canterbury. By his son, Reginald Farrar. London: James Nisbet and Co., Ltd. 1904. 6s.

Some Surgical Aspects of Appendicitis. By G. Grey Turner. Newcastle-upon-Tyne: "Daily Journal" Office. 1903.

Manuel de la Garde-Malade. Soins Généraux a Donner aux Malades. Par Eva Luckes. Traduit sur la Troisième Edition Anglaise par Mme. J. H. Caruchet et Dr. Félix Regnault. Paris: Vigot Frères. 1904. Fr. 3.50.

Du Rôle des Leucocytes dans l'Absorption et l'Elimination des Substances étrangères a l'Organisme. Par le Dr. Jaques Carles. Paris: Vigot Frères. 1904. Fr. 6.

The Volunteer Annual (Metropolitan Corps), 1904. Second Edition. Edited by A. E. Johnson. London: Adam and Charles Black. 1s.

A Manual of Medical Jurisprudence for India. By J. B. Gibbons, Lt.-Col. I.M.S. Calcutta: G. W. Allen and Co. Rs. 12.8.

British Weather Chart, 1904. By R. H. Jenkins, F.R.A.S. London: R. Mack. 6d.

Encyclopaedia Medica. Vol. XIV.—Index Volume. Edinburgh and London: William Green and Sons. 1904.

Festschrift zum sechzigsten Geburtstage von Robert Koch. Herausgegeben von seinen dankbaren Schulern. Jena: Gustav Fischer. 1903. M. 20.

The Diagnosis and Management of Doubtful Cases of Diphtheria. By F. W. Caiger, M.D., F.R.C.P.Lond. London: J. and A. Churchill. 1904. 1s.

Burdett's Hospitals and Charities. By Sir Henry Burdett, K.C.B. London: The Scientific Press. 5s.

Des Kindesernahrung, Ernahrungsstörungen und Ernahrungstherapie. Von Professor Ad. Czerny und Keller. Fungte Abtheilung. Leipzig und Wien: Franz Deuticke. 1904. M. 4.50.

Trachoma (Granular Conjunctivitis). By Robert Reid Rentoul. Liverpool: Cornish and Sons. 1904. 2s.

Sewage Disposal in Berkshire. By Trew Cattell, M.D., D.P.H.Cantab. London: Phillimore and Co. 1904.

A History of the Daubeny Laboratory, Magdalen College, Oxford. By R. T. Gunther, M.A., F.L.S. London: Henry Frowde. 1904. 5s.

The Medical Annual, 1904. Twenty-second Year. Bristol: J. Wright and Sons. 7s. 6d.

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A Clinical Lecture

ON

HE DETECTION OF EARLY TUBERCLE IN THE LUNGS.

Delivered at St. George's Hospital.

By Sir ISAMBARD OWEN, M.A., M.D., F.R.C.P.,
ysician to, and Lecturer on the Principles and Practice of Medicine at, the Hospital.

the year 1901, the last for which the Registrar-General's turns are available, there died in England and Wales 5,997 persons over the age of 20, of whom 35,526, or about one every nine, were stated to owe their death to "phthisis" or pulmonary tuberculosis." And these deaths are not deaths old people, whose course was in any case nearly run. The tim of pulmonary tubercle is nearly always cut off in what ould have been the most active period of his life, and ually after years of more or less complete disablement. Of s mass of suffering and premature death, repeating itself as loes year after year, much, perhaps the greater part, may be arded as preventable, if proper treatment of the case be orted to in time. But the condition of time is all important. ery month during which active tuberculous disease remains detected and untreated lessens appreciably the prospect recovery. I think, therefore, I am not exaggerating in ing that nothing in the art of medicine is of greater portance to acquire than the power of detecting with pre- on the early presence of this dangerous growth in the g. For the means of doing so you have still chiefly to rely he now old-fashioned means of physical examination. Bac- ology has supplemented, but cannot replace them. Even he bare question of the presence or absence of tubercle in ng it often fails us; on questions of the age, extent, ribution and histological character of the tuberculous ns it can tell us little. The Roentgen ray is the latest tion to our implements of exploration. Though it is at ent in its infancy it bids fair to render us valuable stance; but, so far at least, we have little reason to think it will ever rival the fingers and the ears for delicacy and titude of diagnosis.

e tuberculous lesions you have to look for are often of l size; they are not always on the surface of the lung; the s they afford frequently involve such fine distinctions of ds as only a well-trained ear can appreciate. You have nly to detect their presence when they exist; you need which is the more difficult, to make sure of their nce when they do not. Such training of the ear as is red can only be gained by constant practice; practice not e wards alone, but in the ampler field of experience shed by the receiving-rooms and out-patient department. that will avail you little unless you pursue your study of ubject in the *post-mortem* room as well, and familiarize elves with the actual histological conditions, manifold arious as they are, of which the physical signs you er should afford you a mental picture. *Post-mortem* vation will in the first place guard you from the ion, but incorrect and misleading, use of the word e" in reference to *cases* of pulmonary tubercle. One case, metimes hear it said, is "in the stage of grey granula- another "in the stage of caseation," a third "in the ot breaking down" or "in the stage of cavitation." The mens of tuberculous lungs which I am about to lay you will, I think, show you the inadequacy of such a ology. The morbid process is seldom one that ces along a continuous and uniform course in all parts lung affected, even though the area of affection be very d. The morbid histology of nearly all these specimens you will see, a mixed one; and few can be said, even minantly, to represent any single "stage" of the s. The word "stage," in fact, belongs to the local, not general, histology of the disease. I will ask you then to s the idea of definite clinical "stages" of pulmonary is from your minds, and will in its stead invite your ion of another idea which may possibly appear more as it is seldom adequately brought out in the literature erculosis. I mean the idea, or the fact, as I will claim it, that pulmonary tuberculosis in most of its ordinary is a disease of essentially intermittent or remittent ter. That it is not so in all cases I admit. In a ty of instances it runs a steadily progressive course from onset to fatal termination; but in the majority, if only you have the opportunity of watching them from the beginning, you will find at first a frank intermittence of the active process, and to a very late period a spontaneous tendency to fluctuations or remissions of its severity.

Whether the *materies morbi* obtains admission to the lung by the air passages, as is generally held, or, as some pathologists believe, by the lymphatic channels, the primary attack of tubercle upon the lungs is, in most cases, at first a narrowly localized one, and the infected area does not extend with any great rapidity. The bacillus seldom enters the blood stream; the disease in its earliest period advances by the propagation of successive broods or by the slow passage of the germs in the adjacent lymph spaces; extension even by the air passages is a phenomenon belonging rather to a later period of the case. The tubercle bacillus, if we may judge by clinical observation, is not exempt from the rule so commonly applying to pathogenic germs, that in attacking the human tissues they breed the means of their own destruction; so that the individual attack of tubercle, if it be of limited extent, comes spontaneously to an end after a given space of time, just as an attack of scarlatina or measles would. Upon the destruction of the *materies morbi* and the consequent cessation of the active morbid process, the granulation tissue which is the main element of the grey nodules, supposing it to be only grey nodules that the disease has yet produced, follows the usual course of such tissue and becomes converted into fibrous scar. Puckered scars, now fully recognized as the handiwork of tuberculosis, though they contain no trace of the specific germ, are frequently found in the apices of the lungs of persons who have never been known to have suffered from pulmonary disease. In such cases, it is now generally admitted, a tuberculous process must have taken place at some unknown time of life, possibly in early childhood, though the germ has entirely disappeared and the attack has resulted in nothing but a harmless and non-infectious scar. This spontaneous arrest of the disease in its early period is by no means exceptional. Taking necropsies of bodies which presented no other evidence of tubercle, the proportion in which the scars of healed tubercle are found is stated by some authors at even so high a figure as 30 per cent. If we take it at only a third of this figure, recovery from early pulmonary tubercle would seem to be as frequent a result as death.

When tubercle attacks a serous membrane, and the patient survives the immediate attack, the tendency of the new growth towards permanent arrest is evident. Tubercle of the pleura is far from being a rare form of disease. In the majority of cases the patient recovers with a pleura firmly adherent and generally thickened. The subject of tuberculous peritonitis also frequently recovers with an adherent peritoneum. Neither in these cases, nor in the rarer cases of survival from meningeal tubercle, is there often seen a relapse or a recurrence of the malady.

In the loose tissue of the lung, on the other hand, tubercle, even of the firm grey variety, tends to aggregate into larger nodules which coalesce to form continuous areas of consolidation prone to degenerate and become caseous at their centres. The products of tuberculous broncho-pneumonia, a form of tuberculous process seldom altogether absent from a case of the disease, caseate with even greater readiness. Caseous matter is unorganizable; in large masses it is unabsorbable; and when an accumulation of a certain size has been formed complete cicatrization is no longer possible. Fibrous organization, if it occurs, takes place only at the uncaseated periphery of the mass, and the caseous material, or some part of it, remains permanently embedded in a tract or capsule of fibrous tissue and suspended thereby in the midst of the loose pulmonary web. Now caseous material (it is one of the earliest experimental observations on the disease) remains permanently infectious. Though the tubercle bacillus can rarely be detected in it by a microscope it can be readily cultivated from it in the body of a susceptible animal. In the human lung, hemmed in by its cicatricial capsule, caseous matter may remain for a longer or shorter period without harming its surroundings; but, unless by good fortune it should become calcified, it retains its power of reinfection, and sooner or later, under circumstances not at present traceable, it does, in the majority of cases, reinfect the neighbouring tissue. What determines the reinfection we can only guess. Clinically it often appears connected with a depressed state of the general health. Possibly a loss of power of resistance is the determining circumstance; possibly some failure of nutrition of the fibrous tissue, by relaxing the

ure the capsule normally exerts on the caseous mass, ows it to absorb the degree of moisture necessary for the active life of the germ. In serous membranes, no less than in the lung, tuberculous tissue may caseate; it is the common tendency of tubercle wherever it occurs; but the individual caseous masses are smaller in size and, even if encapsuled instead of being absorbed, are left embedded in firmer fibrous tissue than is the case with the caseous matter remaining in the lung.

The fresh tuberculous tissue formed in the lung by re-infection, and even that formed in several successive reinfections, may follow (I am again inferring from clinical observations), the same course of growth, caseation, arrest and peripheral cicatrization as the original lesions. Between each successive attack, as long as the lesions remain of small extent, the symptoms may entirely subside and definite intermissions be established. In these intermissions the bacilli may entirely disappear from the fauces; in some cases they are still to be detected in small numbers. If the attacks continue, a time comes when the tuberculous formations have reached such an extent that their progress is no longer uniformly synchronous; active processes are always present in one part or another of them, and the clinical course of the case becomes remittent rather than intermittent. In many cases the remittent character is more or less traceable almost to the end, and in not a few cases complete intermissions, as far at least as symptoms are concerned, appear at a surprisingly advanced period of the case.

Large as is the proportion of cases in which the intermittent onset of tubercle, as I have described it, is actually observed, it is a fair clinical inference that it would be much larger had we more often the opportunity of watching tuberculosis of the lung from the beginning. Except in cases where early haemoptysis draws attention to the lungs it is doubtful if we often really see the initial attack at all. A slight attack of tubercle may cause either no symptoms or none that will lead the patient to seek medical advice. As I have already said, scars of healed tubercle are found in the lungs of persons who were never known to have suffered from pulmonary disease. Early haemoptysis, when it occurs, often reveals the real nature of an illness that would otherwise have passed for a temporary indisposition. In some cases, indeed, there has been no perceptible symptom whatever before the haemorrhage appeared. Such cases, thanks to the haemorrhage, are brought, and generally kept, under medical observation. Failing the blood spitting they would have escaped professional notice till long after the real onset, perhaps not till one, two, or more periods of intermission had passed by. Let me instance a patient at present under my care in the William King Ward, who presents a small area of consolidation, apparently quiescent, in the right apex, evidenced by harsh breathing and comparative dullness in the subclavian fossa and first intercostal space. He has had, he tells us, three slight attacks of haemoptysis, if not four, in the course of the last four years; each of them, he says, was accompanied or followed by a slight cough; but the cough never lasted more than two or three weeks, and his general health was so little affected that he served in the army through the greater part of the South African war. Except in the first attack of haemoptysis he never laid up or sought medical advice on his case. But though it is largely, it is by no means exclusively these haemorrhagic cases in which the frankly intermittent onset is actually seen. If the lungs of young people should ever become the object of as much solicitude as their teeth, and be habitually subjected, like them, to periodic precautionary examination, the detection of tubercle in its earliest period will doubtless be much more frequent than it is at present, and the prevalence of intermittent onset be more generally recognized.

The essential intermission and remission of pulmonary tubercle would probably, indeed, have attracted more attention already than has actually been the case were it not for our inveterate tendency to attribute any improvement that may occur in a case of serious disease to the effects of treatment. Pray do not imagine that I wish to decry the importance of treatment in tuberculous disease. Were treatment of no avail it would be waste of labour to speak of early diagnosis. Judicious management, there is reason to think, may both limit the extension of tubercle during the attack and shorten its duration. What is more certain and more to the point is that good treatment may prolong the period of intermission so as to enable cicatrization to become more complete and to acquire a greater likelihood of permanency; but intermission and remission, I am anxious to impress upon you, are among the natural features of the disease; they may be observed even in cases placed under unfavourable circumstanc in cases subjected to almost any reasonable treatment, a in persons who have received, like my soldier patient, particular treatment at all.

The result of this is that in most cases of chronic tubercle the lungs that actually come under the physician's hands ev for the first time we have already a mixed morbid anato present; we may have some fibrous scar tissue and we m have some caseous material, and both of these may inclu portions of different date. If the case is seen during the per of activity, we probably have also some recent grey granu tions, with which more or less broncho-pneumonia is likely be associated. If there is much fibrous scar there w presumably be some compensatory emphysema. In additi though rarely in such early cases as those we are speaking there may be one or more cavities, and if the tubercle, s often happens, has been partly superficial, the pleura will in places adherent and greatly thickened. There are, course, exceptions. In very early cases grey nodules alone may be present. In some cases, particularly in children, the en lesion is broncho-pneumonic from the first, and cases rapidly without producing either grey granulation or fibro scar. Broncho-pneumonic cases, let me say in passing, likely to be exceptions to the rule of intermission remission, and to run a continuous course from the first.

The whole of the above-named lesions, cavities and emphysema apart, may for the initial purposes of physical diagnosis be summed up in the single word "consolidation." Chron partial consolfdation of the apical portions of the lungs is seldom anything but tuberculous, and the preliminary search for signs of tubercle is, to a large extent, a search for signs consolidation. According to the time-honoured tradition physical examination the search should commence w inspection, should proceed to palpation, then to percussion and last of all to auscultation. May I be so unconventional as to say that the traditional order of procedure savours more of pedantry than of practical convenience? There cases in which the signs furnished by the fingers are clear and more definite than those obtained by the stethoscope; there are also cases in which the reverse obtains, and latter class of cases far outnumbers the former. On the wh therefore, a considerable economy of time is effected by method I usually pursue of commencing, after a cursory inspection, with a thorough stethoscopic exploration of upper parts of the lung, and following it up with percussion and with a more detailed inspection and palpation. I h more than once, in a clinical examination, seen a candi spend nearly the whole of his allotted time in attempting settle the relative dullness of two apices, the tubercu condition of both of which was obvious the moment stethoscope was applied. Prolonged percussion, too, is lik to cause a certain amount of suffering to the patient, whi best avoided when not really necessary. The direct sign consolidation, I need hardly remind you, are the presen what is called "tubular," "bronchial," or "harsh" breath of changes in the voice sounds which may vary from r exaggeration to nasal "bronchophony," and of dullness on cussion as compared with the opposite side. In their typ form these signs are the A.B.C. of physical examination in the search for tubercle we find them in so many diffe degrees, combinations, and doubtful forms that I will ask attention to a few preliminary considerations before cussing the detailed interpretation of them.

Tubular breathing (I prefer "tubular" to "bronchial," involves no theory) is a sound which may be fairly imit by blowing or, rather, by drawing air in and blowing it through a narrow straight pipe, such as the tube of a wo stethoscope. It may be more nearly simulated by breat through the mouth while the back of the tongue is r towards the soft palate, so as to reduce the faucial apertu a narrow horizontal slit; and by slight changes in the pos of the tongue the simulated sound may be made to follo the variations of pitch which tubular breathing assumes u different circumstances. It is generally recognized tha actual sound of tubular breathing is produced, not i chest, but in the larynx or its near neighbourhood, and it is conducted downwards by the column of air in the tra and bronchial tubes. Generally speaking, it is not heard the surface of the healthy chest, being intercepted by the face stratum of pulmonary tissue, which contains no tube some persons, even in health, it may be more or less disc in the interscapular region or over the main bronchi in f but it is not correct to say, as some authors do, that

entical with the sound heard when the stethoscope is placed er the trachea; there is an important difference, to which I all allude later. The sound, then, as I have said, is con- cted by way of the trachea and main bronchus to the root the lung, and thence along the lesser bronchi to within a tain distance of the surface, but in the healthy lung does t reach the surface. The hearing of well-marked tubular eathing over the chest wall implies that over the area vered by the stethoscope the superficial layer, at least, of e lung is sufficiently consolidated to conduct the sound to surface from the point it normally reaches in the tubes i at the same time to abolish the natural vesicular murmur. ry superficial consolidation which does not reach as far as deeper layer of the lung cannot carry forward the tubular nd. Consolidation of the deeper part of the superficial er, not extending to the surface, may carry the vibrations vard so far as to convey a faint or "distant" tubular nd; a chain of consolidated points, leaving some per- ible lung in the area covered by the stethoscope, brings a of diluted tubular breathing to the ear, a mixture of a t tubular breathing with the normal vesicular murmur, ch is generally called "harsh" breathing. Though other es than consolidation in rare instances convey a tubular harsh character to the breath sounds, the distinction veen true and false tubular breathing is easy, if the ratory part be taken as the criterion. If the expiratory d, having the tubular or harsh character, is found to eed with uniform pitch and intensity through the whole ratory act, the breathing is truly "tubular" and is ence of consolidation. If it does not satisfy this criterion, varies in tone, or "tails off" towards the end, it only ates some trifling bronchial change. Mere prolongation he expiratory sound, without the tubular or harsh acter being manifest, does not constitute evidence of olidation at all; the expiratory sound is equally pro- d in some forms of false tubular breathing, in puerile hing, and in the clear "blowing breathing" which is so met with over healthy or merely emphysematous apices, which is probably of bronchial origin also. These sounds not be confounded with the true consolidation signs, he use of the vague term "prolonged expiration" in ibing physical signs is, therefore, in my opinion, not to commended.

ill ask you now to note that the pitch of the harsh or ar breathing heard in early tubercle of the apex is nearly s low—much lower than is commonly heard in pneu- consolidation of the apex or over lung compressed by l effusion. The pitch of tubular breathing is a subject ch little attention has been given, but you will find it a of some practical value. Several considerations, which ld be too long to enter on here, have led me to believe igh-pitched tubular breathing is only produced when s a continuous tract of consolidation between the point ch the stethoscope or ear is applied and the neighbour- f the root of the lung. This seldom happens in early le; the existence of high-pitched tubular breathing, if ere found, would, on this view, be of serious import as s the extent of the lesion. In speaking of the "pitch" ular breathing, you will, of course, understand that, as produced in the throat nor as heard over the lung, lar breathing ever a definite musical note. It is always "noise," compounded of vibrations of indefinitely lengths, some of which are better conducted under ircumstances and others under other circumstances. king of tubular breathing "pitch" must be taken to he average pitch of those elements of the sound that viously impress themselves on the ear.

the actual depth may be of the layer of the lung that scribing as "superficial" is difficult to say. There is to think that it does not exceed half an inch. Con- on entirely below this depth, whatever the depth may e, will bring no tubular or harsh breathing to the ear. not therefore follow that the breath sounds give us mation at all as to the existence of deeper consolida- If consolidation exists in large amount it hinders he expansion of the apex of the lung or the access of s more superficial parts, and its presence at a deeper accordingly often evidenced by diminution of the ounds or by an irregularity of the inspiratory rhythm breathing"), even though the actual character of the may be quite normal. You need, therefore, to com- breath sounds on the two sides for intensity and as well as for character.

nsolidation signs derived from the voice sounds are not always uniformly coupled with those derived from the breath sounds. Bronchophony is a natural sound produced, like tubular breathing, in the larynx, modified into articulate speech by the upper air passages, and carried by conduction along the column of bronchial air; but the superficial layer of lung does not cut it off so entirely as it cuts off the tubular breath sound. The vocal sounds, as might be expected from their relative loudness, are more readily transmitted than the respiratory murmurs, and instead of being stopped by the superficial layer are merely transformed into the inarticulate "buzz" that we know as "vocal resonance." Deeply-seated consolidation may augment the transmission of voice sounds without preventing their normal transformation, and thus we get "increased vocal resonance." Increased loudness of the normal vocal resonance may therefore result from consolidations which are too deeply seated to give even "distant" tubular breathing; and we may obtain from it an indication of a deep consolidation even when the breath sounds fail us. On the other hand, we so frequently come upon patches of harsh breathing which are unassociated with any change in the voice sound that we must conclude a more extensive or more complete consolidation to be needed to bring bronchophony to the surface than suffices to transmit the tubular breath sound. You will therefore regard harsh breathing associated with voice changes as of more serious import than harsh breathing without such changes, and understand that well-marked bronchophony must indicate a rather extensive tract of consolidation. Genuine bronchophony without associated change in the breath sounds is very rarely met with. I need hardly remind you of the allowance to be made for the normal excess in vocal resonance of the right chest as compared with the left. As this is an uncertain quantity, great caution must be used in drawing conclusions from an apparent increase of voice sound at the right apex, unless its character be changed or other signs concur. Vocal fremitus is also normally more marked, often greatly more marked, at the right apex than at the left, but the value of vocal fremitus in the diagnosis of early lesions is practically nil, and it need not detain us.

Percussion for the detection of tuberculous consolidation requires to be practised with great care and its results to be interpreted with judgement. To percuss the apices satisfactorily, it is desirable to have the patient standing before one. In no other posture is it equally possible to plant the plessimeter finger in a corresponding position on the two sides. But in merely placing the plessimeter finger in a similar position on the two sides there lies a snare, for, if the shape of the two sides is not quite alike, the result is vitiated. See therefore that you are percussing over corresponding points on the two sides, that you are using, as far as you can judge, the same percussive force, and that you are percussing upon exactly the same spot of the plessimeter finger, but otherwise vary the precise attitude and the degree of pressure of the latter until you are sure that you have elicited at each spot the best note that is to be got under the conditions, and compare the best notes thus obtained.

The results of percussion in many cases appear to correspond but ill with those of auscultation. In some cases we find little or no loss of resonance where auscultatory signs of consolidation are well marked, and in others marked dullness where little or no change in the breath or voice sounds has been found. In the former of these cases the presumption is usually that the resonance of the affected part is due to compensatory emphysema, which argues that the consolidation consists largely of fibrous scar. In some such instances the affected, or the more affected, apex is actually the more resonant of the two. In the latter case there are several hypotheses to be considered. "Deep" percussion gives indications of consolidation at a level too deep for it to furnish stethoscopic signs, either respiratory or vocal. In the first place, therefore, there may be consolidation deeply situated. Secondly, the presence of abundant scattered grey tubercle may affect the percussion resonance of the lung without making the breath sound harsh or increasing the conduction of the voice, these being effects which need continuous consolidation to produce them; and, thirdly, the pleura at the spot may be greatly thickened. Now comes in the value of systematically practising both light and deep percussion and comparing the results. If the dullness is more marked with the light than with the deep percussion, it is probably a thickened pleura that causes it; if the reverse obtains, it suggests a rather deeply-seated patch of consolidation. In the case of scattered grey tubercle the results of the two kinds of percussion will vary little.

To return to the subject of compensatory emphysema in the

neighbourhood of fibrous scars; you may be puzzled now and again by the curious changes in the physical signs that sometimes take place from day to day or from week to week in apices that are the seat of quiescent tubercle. One day you may find a distinct patch of dullness, associated with clearly defined harsh breathing and possibly some increase of vocal resonance. The next time you listen, neither dullness nor harsh breathing are to be found. Or, which is more embarrassing, the change may be in the reverse direction without any symptom whatever to suggest the onset of fresh tuberculous disease. The most plausible explanation of this seems to be that the change is due to variations in the degree to which the emphysematous lobules are at the moment distended with air. On one day more active respiratory movements may have caused them to become fully distended, so that the conductivity of the lung for sound is lessened and the percussion note improved. On another day partial collapse may reduce the percussion resonance and allow consolidation sounds to penetrate. The explanation is merely hypothetical, but the occasional occurrence of these changes is a fact you will do well to remember.

To determine the existence and superficial extent of a limited tuberculous consolidation is something; but it is equally important to know what it really means. How far does it consist of grey granulations; of fibrous scar; of broncho-pneumonic products? Is it wholly quiescent, or anywhere actively advancing? How far can physical examination help us to answer these questions? The advance of tubercle at a given spot may take place by the formation of outlying grey granulations or by the extension of a broncho-pneumonic area. In the former case, provided that the granulations are sufficiently near the surface, the determination of an active condition is comparatively easy; for each active granulation is surrounded by a zone of congestion with some localized fluid exudation into the alveoli or small bronchi that generally gives rise to "moist" sounds during the inspiratory expansion of the lung. Do not fall into the common error of supposing that moist sounds in a tuberculous lung necessarily indicate "breaking down." The smaller moist sounds do not in the least necessarily do so; they equally accompany the very earliest stage of grey tuberculous nodule. They may be equally found where only scattered granulations exist and where older lesions are extending by grey granulations at their edges. Two kinds of small moist sound may attend advancing grey granulations, the crepitation that shows the localized exudation to be merely serous or oedematous, and the sharp, sticky click that bespeaks it inflammatory or bronchopneumonic. Crepitations need to be distinguished from the friction sound of tuberculous pleurisy—a matter of small importance—and from the dry, dull crackle of apical emphysema; a distinction of serious consequence, but one which practice enables one easily to make. Clicks at the end of inspiration are formally diagnostic of tubercle; but they may occur at the commencement of "breaking down" as well as around active granulations. The interpretation will depend on their situation. If they are heard over a patch of definite consolidation, they are probably due to disintegration; if at the edges of such a patch or at a distance from it, they indicate an early stage of an advancing lesion. Both the crepitations and the clicks are high pitched, and neither, as may easily be demonstrated, are conducted far from their seat of origin. Granulations more than a short distance below the surface, it may therefore be inferred, do not reveal themselves in this manner. "Large" *râles* which possess a low pitch, such as the larger mucous *râles* of general bronchitis, are, on the contrary, well conducted through lung tissue, and may be heard on the surface, though actually formed in the larger bronchi.

Tuberculous crepitations may be accompanied by light, dry wheezing rhonchi. In some cases the rhonchi may be heard even though crepitations are not audible. The conductivity of the lung for rhonchus is much greater than for crepitations; perhaps in some of these cases the seat of origin of the rhonchi is too deep for crepitations to be heard from it. Tuberculous rhonchi need to be distinguished from those produced by bronchial catarrh or asthma. The criterion is that they are localized and that the localization is persistent. Bronchitic or asthmatic rhonchi may be localized, but only temporarily. They rapidly disappear from one part of the chest to appear in another; tuberculous rhonchi are constantly detected in the same limited region. It may chance that an advance guard of scattered grey granulations are the offshoot of a focus of infection situated too deeply to afford any direct signs of its existence. In such a case crepitations or clicks, or crepitations with rhonchi, or even rhonchi alone, persistently localized to the apex, may be the only physical evidence of the disease until the multiplication of the granulations is sufficient to impair the percussion note. The importance of not neglecting localized rhonchi is manifest. You will not forget, of course, to make the patient cough before deciding on any question of moist sound. The cough effects two ends: it brings out the moist sound that indicates alveolar exudation and it eliminates moist sounds due merely to bronchial catarrh. When seeking for evidence of tuberculous advance you will, of course, not limit your exploration to the edges or surface of the consolidated patches. The germs may have been carried by the air passages to more distant parts. You will search the entire chest for evidence of isolated granulations, and particularly the special seats of election of the disease.

Even if no moist sounds or rhonchus can be found, it does not altogether follow that the consolidation is in an inactive state. In a small number of cases the lesion is purely bronchopneumonic from the outset; in a further number the more recent advances may be purely broncho-pneumonic; and tuberculous broncho-pneumonia is capable of advancing slowly without giving rise to any moist sounds at all. The diagnosis between an advancing bronchopneumonic phthisis of small extent and a quiescent fibrous patch is, therefore, difficult to make by the physical signs alone. Inspection and palpation and another method of examination that is often neglected—the measurement of the apices—may assist us here. If on a small patch of consolidation, without any suggestion of cavity, the chest wall is found to be flattened and the inspiratory movement limited, and if the diminution of girth at the apex as compared with the sound side can be shown by measurement, and if at the same time we find no definite symptoms of active tuberculosis, no rise of temperature, no loss of flesh, no recent history of haemoptysis, for example, the presumption is that it is a mere scar and not a recent lesion that is present. But in all such cases the safest plan is to keep the patient under observation for at least a month until you are satisfied that the patch is not extending and that no overt symptoms are about to declare themselves. You will, of course, in such a case make a bacteriological examination of the sputum, if there is any, or of the faucial secretions if there is no expectoration; but as I have already said, the absence of bacilli is not absolute proof that there is no active lesion, and their presence, even in large numbers, does not exclude the possibility of the lesion being at the time quiescent and mainly fibrous. Neither physical signs nor bacteriological results, let me warn you in passing, must blind us to the importance of symptoms in cases of doubtful diagnosis. A daily rise of temperature and a progressive loss of body weight, otherwise unaccounted for, are almost formal evidence of the advance of tubercle in a person who has already suffered from the disease, even though the physical signs give no indication of active growth. For reasons I have already entered into, none of our methods of physical examination can completely explore the lung beyond a certain depth, and, owing to accidents of topographical position, extensive advance may be going on without affecting the surface signs in any degree. I do not mean to say that this is common, but it is sufficiently rare that the possibility can be neglected.

The physical signs of large cavities hardly come within the scope of our present subject. Vomicae which produce amphoric breathing, echoing voice and cough, metallic tinkling and marked pectoriloquy belong to a more advanced period of the tuberculous invasion than that which we are discussing. Small cavities, nevertheless, may exist in cases in which the superficial area of tubercle yielding physical signs is but small. In some cases of rapid tuberculous invasion cavitation may ensue at an early stage, before the consolidation signs have extended far; in others, a large smooth-walled cavity may exist in an apex which is otherwise fibrotic and contracted from cicatrized tuberculous lesions. In others yet, a vomica may be a part of a deeply-lying mass of which only a small area comes near the surface. In such cases the detection of the cavity is most important, since its existence increases the gravity of the case. It is also less important not to mistake the signs of consolidation than those of cavitation, and so to diagnose a vomica where none exists—an error by no means uncommon.

The laws which govern the conduction of the breath and voice sounds indicating consolidation apply equally to those indicating cavities. A cavity covered by a certain depth of healthy or emphysematous lung is dumb; no sign of

e reaches the ear; a cavity connected with the surface by inuous consolidation may, and probably will, give evie of itself by a peculiar modification of the breath sounds, t of the voice sounds also, that indicate consolidation. cavities of less than a certain size you must not expect to the true "amphoric" breathing, the sound as of the breath ing over the mouth of a vase, any more than "metallic ing" or "echoing cough"; but even over small cavities breath sound has a definite and readily recognizable liarity, which entitles it to the name of "cavernous hing." Now cavernous breathing is sometimes difficult ake sure of unless you are provided with a definite rion by which to distinguish it from the tubular breathf which it is really a modification. Such a criterion is not to und in the inspiratory part, which differs little, if at all, that of tubular breathing, but it is furnished by the atory part, and the distinction involves a question of . In tubular breathing due to consolidation the exory sound is invariably of a slightly lower pitch than the ratory; while over a cavity the difference is reversed. ously, the distinction of pitch does not strike every one . The expiratory sound of cavernous, as of tubular, hing is a "noise" made up of vibrations of very various hs, and some ears appear to be more sensitive to the r and some to the lower vibrations among them. The r convey the general impression of a relatively high ed, the latter that of a relatively low-pitched sound. authors, you will accordingly find, represent comive lowness of pitch, instead of comparative acuteness, as cteristic of the expiratory part of cavernous breathing. I several times brought the question to a practical test in my s in the wards, and every time with the result that to ajority, as to myself, the cavernous expiratory sound rs to have a higher pitch than the inspiratory. Whichway the difference impresses your individual ear, you ind it constant for nearly all cavities. In most persons, ls of the character I have described as cavernous may be if the stethoscope be applied over the trachea. This sts a caution in interpreting dry cavernous breathing either above the clavicle or over the back near the ipe. In either case it may chance to be only tracheal ing conveyed through consolidated lung. Error is best ed by comparing the supposed cavernous breathing with tual tracheal sound.

toriloquy is of less value as a sign of cavitation than ous breathing. It is not always heard over small cavind it is occasionally heard when no cavity exists. I will e a few words to the definition of this term, as it is not uently quite misused. Normal vocal resonance, as I have y said, is a confused "buzz" conveying a general ssion of the vocal sounds uttered, but no distinct idea of ticulation. Vocal resonance may be augmented or may become bronchophonic without becoming distinctly late. In this case it should not be called pectoriloquy; rm is intended to imply the distinct conveyance of late speech to the listener's ear. Pectoriloquial conducs more easily detected when the whispered is substifor the spoken voice, but the mere conduction of the ered sound, as long as it is in the "buzz" form, does onstitute pectoriloquy, or even furnish evidence of e. It often takes place through healthy lung. The sign ich many years ago I gave the name of "post-vocal" I mean the faint short expiratory puff which is someheard when articulation has ceased and the lips of the have flown open to give exit to the compressed air in achea, is of no value as a diagnostic mark of a cavity. It imes occurs over a cavity, but quite as often over consolidated lung in the apex.

o this point I have had young subjects, the most usual s of tubercle, mainly in mind. But tuberculosis of the ay break out at any age. In the elderly its first onset quently to be recognized by a somewhat different set of After a certain age the disease is more commonly the of a chronic non-tuberculous bronchitis. The itis may have existed on and off for many years, ing under the guise of a "winter cough" and dising in the spring, and the early signs of tubercle have recognized among those of a generalized bronchitis may have become familiar by repetition. The earliest e be discerned is usually neither dullness nor harsh ing, nor alteration of voice sound, but a local change in aracter of the bronchitic rhonchus. The pitch of a itic rhonchus in the upper part of the chest, whether tory or expiratory, does not usually vary much throughout the individual inspiration or expiration, whichever it be. If the inspiratory rhonchus at one or other apex become broken in the middle, the latter part becoming markedly high pitched, so as to give to the ear the impression of a creak, it should arrest attention. "Creaking" rhonchus (the creak is more often inspiratory than expiratory) in the adult should always convey a strong suspicion of tubercle. If, in addition, the inspiration should bring out sharp clicks, or even small *râles* of a higher pitch than is found over the rest of the lung, the proof is almost formal. I am speaking, you will remember, of the adult, and practically of the elderly, subject. In children these signs have no such significance; they are quite common in ordinary bronchopneumonia. In the elderly I have never, to my recollection, heard them at the apex except in lungs which were subsequently proved to be tuberculous, either by bacteriological examination or by the subsequent progress of the case.

THE EARLY DIAGNOSIS OF TUBERCULOSIS OF THE LUNGS.

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With the progress of our knowledge of pulmonary tuberculosis the desirability or rather the necessity of recognizing in patients the very first changes has greatly increased, more especially since a more hopeful view as regards the curability of the disease has replaced the former despondency. We now know, to a certain extent at least, the way and the means by which the organism gets rid of the changes which the tubercle bacillus brings about, at first quite locally, in the tissues. Local inflammatory reaction and the formation of connective and, further on, of fibrous tissue, which means the replacing the diseased lung-substance by a cicatrix, are the prominent features of this healing process in which, by reactive functions of various kinds, the whole organism is more or less involved. In many cases the original strength of the body is sufficient to fight the battle even amidst unfavourable surroundings, but in the majority of patients in whom already a certain degree of debility had been the cause that the disease could have taken root, or could have been developed, assistance by external means gives the only chance of recovery. Brehmer and Dettweiler, Spengler, Sir Hermann Weber, and other pioneers on the line of the climatic treatment of tuberculosis of the lungs have shown the way by which this external support can best be offered to the patient, and by which unexpected results have already been obtained in ever increasing instances.

But this, no less than other measures—in fact, the whole modern crusade against tuberculosis—can, apart from prophylaxis, only be successful, if patients get under appropriate treatment as early as possible, when only few and small foci of disease are present, and as long as the destruction and replacement of them by fibrous tissue does not materially interfere with the normal action of the lungs or unfavourably react on the whole organism.

If by the progress in our knowledge of the disease and of the possibility to battle against it, the power of the physician has been greatly extended, his responsibility also has enormously increased, involving, as it does, the paramount duty, if possible, to recognize the very beginnings of the disease. These being at first purely local, and remaining so for various lengths of time, to make out the signs of these local changes will be of special importance.

In the majority of cases a somewhat persisting cough is the only symptom which induces a patient, or more often compels his friends, to seek medical advice. Very commonly, however, other symptoms, subjective as well as objective, are already present, which, in connexion with cough or even without it, may raise a suspicion that tubercles may have formed in the lungs. Foremost among these are febrile symptoms, lassitude, pallor, slight shiverings, night sweats, loss of appetite and weight.

Whenever such symptoms are complained of or suspected in a patient, they have to be carefully investigated, being of great value for the diagnosis, and very often even more still for the opinion which we shall form of the prospects for recovery and of the further progress of the case. Increased attention should be paid to these general symptoms,

whenever the examination of the lungs gives at first no positive results.

Of first importance in this respect is a careful observation of the body heat, the temperature being measured for a number of days three times a day, noticing also the effect of rest and exercise on its range. If the temperature be raised ever so little above the normal standard, the observations must be continued for a certain period and at the same time, the diet being carefully regulated, the body weight ought to be taken at regular intervals.

A continuous, even slight, elevation of temperature, or a loss of weight, if not explained by other discoverable disease, is extremely suspicious of pulmonary tuberculosis, which then, sooner or later, will become apparent by distinctive local signs. In childhood, and at the age of puberty, tuberculosis of the lymphatic glands in the chest and abdomen may be the cause of such a general decline, to which, by-and-bye, lung symptoms are superadded. As in cases of this kind the spleen generally is somewhat enlarged, a suspicion may arise that the case might be one of typhoid fever of a lingering type. But the spleen hardly ever reaches the size it attains in typhoid fever, and typical rose spots never appear, whereas miliaria crystallina (sudamina), which so commonly appears in typhoid fever after the middle of the third week, may be present in either case when profuse perspirations occur. To distinguish typhoid fever from such a case of glandular, or, maybe, of latent pulmonary tuberculosis, the examination of the blood for the typhoid bacillus, the counting of the leucocytes, which in typhoid fever are diminished in number ("leucopenia"), and the Widal test ought to be employed, and will generally decide the diagnosis. Diazo-reaction of the urine may be, for a time, present in either case.

The local signs of pulmonary tuberculosis vary according to the kind of change which the disease brings about. Alveolar and lobular infiltration and bronchial catarrh being the coarse anatomical basis of the disease, diminished or altered resonance on percussion, and altered breath sounds on auscultation will be the chief signs that have to be looked for in the beginning, more especially over the apices of the lungs, which in the overwhelming majority of cases are the first parts to be affected. A careful comparison of the two sides and of corresponding points will lead to the discovery of very slight changes. Regard, however, must be had to the differences which are normally present, in somewhat varying degrees, between corresponding places of the two sides. Generally the percussion note is slightly louder on the right than on the left side, above as well as below the clavicle, unless the muscles are unequally developed on the two sides, those on the right side, at least in men, frequently showing a somewhat better nutrition.

The places which ought to be most carefully compared are the supraclavicular region and the lateral portions of the first and second intercostal spaces, a diminished percussion note at the apex generally showing itself not only above, but generally, in a slighter degree, also below the acromial portion of the clavicle. A marked dullness of the percussion sound in these parts of course already signifies a somewhat extensive infiltration, involving a good many lobuli, and distinct auscultatory signs, to be discussed hereafter, will then also not be wanting.

At the back, in the supraspinal region, the percussion note may be in such a case the same as on the other side, if the diminution of air in the apex of the lung by infiltration is confined to its anterior parts. The percussion sound may then even be somewhat hyper-resonant and slightly tympanitic in consequence of relaxation of the otherwise normal lung tissue.

A marked difference on percussion may, however, be present without any lung disease in the apices, when the two sides of the chest are not perfectly symmetrical. Slight asymmetry is very common, and is generally due to rickets having been passed through in infancy.

There need, in such a case at first sight, not be any very marked irregularity of shape, especially of the front aspect of the chest, but a more careful comparison of the two supraclavicular regions, and the inspection of the back and the examination of the vertebral column, will reveal more or less marked signs of scoliosis and its influence on the position of the ribs and the shape of the chest. The vertebral column, as judged by the spinous processes, may appear quite straight, although the upper ribs on one side are more curved and on the other somewhat flattened, which may be due to slight rotation of a number of vertebrae; or the normal kyphosis of the dorsal portion is more or less abolished with secondary diminution of the cervical and lumbar lordosis, not to speak of pronounced lateral curvature. All these deviations react on the position and shape of the ribs, and thereby influence the shape of various parts of the chest.

Even very slight deviation of the vertebral column from s normal shape causes a difference in the height of the t supraclavicular regions and in the sagittal diameter of t upper part of the two sides of the chest, the supraspi region on one side being at the same time more rounded th on the other. Percussion on this somewhat more convex s will produce a less resonant note than on the more flatten one. In the same manner does the altered shape of the sup clavicular space influence the percussion sound. Genera the supraclavicular space appears larger and higher on t side on which the supraspinal region is more convex. Th the percussion sound may differ both in front and at the ba in an opposite sense without there existing any disease of t lungs at all, and the loudness of the respiratory murmurs likewise thereby affected.

Even a slight deviation of the vertebral column, especia an abnormal lordosis of its dorsal portion, which may react at all on the front aspect of the chest, but only produ a certain widening of the middle intercostal spaces, m also materially influence the position of the heart, e shape and size of the heart's dullness on percussion, a the place and quality of the apex beat. The ster vertebral diameter of the chest being diminished, the he generally slides somewhat to the left, and is less covered the anterior borders of the lungs. In consequence thereof e heart's impulse may be somewhat displaced to the left, a the heart's dullness increased. If the intercostal spaces e wide, the apex beat may appear abnormally extended and v strong, although the heart itself is quite normal. Gr errors of diagnosis, as regards both the lungs and the he may result from not paying due attention to these things.

As not only the air capacity of the alveolar tissue of e lungs, but its tension also is affected by tuberculous infilt tion, the percussion sound may, in places and at tim become hyper-resonant, and of a tympanitic quality. Th however, is much more frequently the case when infiltrat of a more extensive area occurs in the lower regions of e lungs, especially below the scapula, or in front and t the sides in the lower intercostal spaces. At e apices a well-marked tympanitic resonance ge rally signifies not the commencement of an infiltration i a more advanced stage, the lung tissue being, in fact, qu deprived of air. Through such a homogeneous airless tis the vibrations of percussion reach the bronchial tubes a cause the air column contained in them to vibrate, wher tympanitic resonance with Wintrich's sign—namely, chang pitch on opening and closing the mouth or the nostrils-s produced. The cracked-pot sound may also appear un such circumstances on strong percussion. The same phys causes obtaining when cavities have formed within an i filtrated apex of a lung, either by softening and ulceration by dilatation of affected bronchial tubes, these signs generally, but, I venture to say, very often wrongly, attribu to cavities. They may be, and frequently are, due to cavit but solid infiltration down to the larger bronchial tubes, a acute pneumonia of an upper lobe, causes exactly the sa signs on percussion. In order to be justified to refer then cavities, auscultatory signs must be called in aid. But si such as occur over cavities never belong to the first but to more advanced stages of pulmonary tuberculosis, and ne therefore, not be gone into further.

As already mentioned, tuberculosis of the lungs does invariably commence in the apices, and what one obser sometimes clinically favours the view first brought forw on the strength of pathological investigation, by Bi Hirschfeld,[1] that tuberculosis, as a rule, commences wit local affection of the mucous membrane in one of the la bronchi of the upper lobe. In such a case infiltration of surrounding lung tissue will be caused by the tubercul process spreading beyond the walls of that bronchus and by inflammatory changes which may be started in the are lung tissue to which the affected bronchus leads. By a l swelling and ulceration of the mucous membrane bronchus the passing in of the air in inspiration, but n especially its passing out in expiration, will be interf with. Collapse (atelectasis) of air vesicles and lobules, as as emphysematous inflation of parts of this area, may be consequence. As soon as ulceration takes place in bronchus, infection, not only by the tubercle bacillus but by other bacteria of the septic class, may occur both spreading along the lymphatic channels, as by particle pus and cast-off tissue being sucked in with deep inspirati

ıch as will follow a fit of coughing, or they may be pushed rward by the increased intrabronchial pressure in the act of ıughing.

Auscultatory signs, of which we shall have to speak pre-ntly, and the occurrence of signs of a lobular pneumonia, rst showing itself in the second or third intercostal space wards the axilla, may possibly be due to such a primary ronchial localization of the disease. In two cases that have me under my observation the first signs of lung disease in ell-built and well-nourished young girls appeared quite utely in the form of a lobular pneumonia in the third left tercostal space, spreading gradually towards the axillary gion, the apex being apparently unaffected in one case, hilst in the other one slight signs of apical infiltration were esent. In another case I have seen the first distinctive gns of a tuberculous infiltration to show themselves below e right scapula.

Generally in these, as in fact in a great number of cases of e ordinary apical commencement of the disease, it is not rcussion, but auscultation, which yields the first suspicious well-marked signs. In cases such as those alluded to epitation or a coarse *râle* caused by the bursting of one or few bubbles of mucus, taking place especially at the first spiration after a cough, are sometimes the very first local gns. As a locality where *râles* ought to be sought for, the edial end of the scapular ridge, in fact the upper part of the ıole interscapular space, may be pointed out. Not infre-ently this locality, and more often on the right side, the only one where *râles* can be found on deep inspira-n, and more especially after having induced the patient to ıgh. With such *râles*—a kind of crackling—however, an scultatory sign very similar in Nature, must not be con-ınded—namely, the bubbling or crackling noise which is ısed by swallowing frothy saliva, and which may be acci-ıtally heard on auscultation of the interscapular region. it only appears in the act of swallowing, and not with piration, an error can easily be avoided.

ersistent and strictly localized *râles* of various kinds, re especially in the upper parts of the lungs, are among most important signs of commencing as well as of already vanced tuberculous disease of the lungs.

Not so certain in their significance, but more common and ays suspicious, are deviations of the respiratory murmur m its normal character in the various parts of the chest, more especially over the apices. The respiratory murmur ying considerably in different individuals, it is chiefly a rked difference between corresponding parts of the chest ich is of diagnostic value. The normal vesicular murmur ng generally a little louder in the right than in the left raclavicular and infraclavicular region, and an expiratory rmur over the right apex being audible in many cases of loubted soundness of the lung, the reverse condition must considered suspicious. A marked diminution of the in-ratory breath sound on one side, and more especially so on right side, if persistent on repeated examination, must se a suspicion that this part of the lung contains less air. s may mean that its inspiratory inflation is somewhat im-ed by narrowing of some bronchioli leading to it, or that umber of lobuli are imperviously infiltrated.

prolonged expiratory murmur, especially on the left side, be caused by catarrhal or other narrowing of small nchial tubes, or it may be also, by changes in the lung ring the influence which the vesicular lung tissue in its mal condition has in modifying or extinguishing the mur-produced by the respiratory movement of the air at the tis and in the larger bronchi. If this influence is entirely lished by complete infiltration of an area of some extent, the breath sounds, as generated at the glottis and at the sions of the bronchial tubes, are conducted to the surface ost unmodified, so that tracheal or bronchial breathing be the result.

ery frequently the breath sounds appear coarser than nor-ly, and evidently not so uniform as regards the succession ibrations causing them. They lack more or less the acteristic vesicular (*breecy*, *schlürfende*) quality of the mal breath sound. If weaker, they may resemble the muring noise which is heard on auscultating a large cle in the act of contraction: if stronger, they are of a her quality than normal breath sounds, though quite rent from and less sharp than, the harsh vesicular breath d heard in chronic dry bronchitis of elderly people, as sometimes in the very first stage of acute pulmonary tration preceding, and in many places intermixed with, crepitation.

There are, however, such manifold graduations from the normal vesicular breathing of young and quite healthy people to this very coarse respiratory murmur of an acute or chronic bronchial catarrh, and to the bronchial breathing of infiltration, that a description of all the forms becomes very difficult. It is therefore not to be wondered at that a term like indeterminable (*unbestimmtes Atmen*) could have been introduced into auscultatory terminology. No distinct changes in the lungs can be looked at as the equivalent pathological substratum of every one of the various deviations from the normal breath sounds. A reduction of the air contained in a portion of lung or an altered capacity of the air vesicles, and catarrhal or other narrowing of bronchial tubes are their chief causes.

A difficulty which may render auscultation quite fruitless sometimes arises in nervous persons, especially women. When asked to draw their breath they produce forcible movements of the chest, closing, however, at the same time, the glottis, so that actually no air can enter the lungs, and no breath sounds, of course, can be heard. In such a case of disturbance of the normal co-ordination of the various muscles acting together in inspiration one may, by patient instruction, gradually overcome the nervousness and get the patient to breathe properly. If this fails, in some rare instances together with the goodwill of the patient, it is well to make him cough. The forcible expiration thereby caused compels him afterwards involuntarily to draw air into his lungs.

The reverse—namely, very much louder and harsher breath sounds than should be expected from the other circumstances of the case—is sometimes observed when nervous patients, by narrowing the glottis, instead of widening it on inspiration, or by contracting their isthmus faucium, produce a noisy stridor in the throat, which, not only by the loudness with which it is transmitted through the air, interferes with auscultation, but overshadows also the breath sounds in such a manner that their character becomes more or less bronchial. The same may occur in patients in whom a thyroid swelling or other diseases, including paralysis of one or both vocal chords, cause a narrowing of the upper air passages.

The limits of a focus of tuberculous disease in the lung are sometimes marked by a zone of very sharp, distinctly vesicular breathing, which not infrequently shows interruptions—"cogged breathing," "*saccadiertes Atmen*"—due probably to limited narrowing of bronchial tubes, allowing the air in inspiration to pass on towards the vesicles only when the suction exercised by the widening of the chest acquires a certain strength.

The velocity with which the air enters into those alveoli which are quite normal, and into adjoining ones which are partly or wholly infiltrated, and with which it passes through normal or narrowed bronchioli, must, of course, vary considerably, and it is chiefly this velocity of the air current on which, to a great extent at least, the character of the breath sounds depends.

Of very great importance for diagnosis may be very fine crepitation, of greater importance still when heard only for a limited period on the same spot, then disappearing or being replaced by coarser *râles*. This would indicate that the changes causing the crepitation have gone on developing into more complete infiltration or even into softening. Such a change would indicate advancing disease. If, however, very fine crepitation be heard on one and the same spot for weeks or even months, it is evidently due to chronic changes, and may be a sign of very slight importance or of none at all, as an indication of tuberculous changes. It may simply be due to collapse of a number of air vesicles or lobuli, the inflation of the alveoli by deeper inspiration causing this fine and equable crackling noise. In support of this view it may be mentioned that such crepitation is commonly heard on the borders of the lungs, especially the lower ones, as also along the pericardium, more especially on the left side, in some rare instances over a clavicle, when old cicatricial changes are present in the apex.

Along the border of the left lung adjoining the heart fine inspiratory crepitation is often heard in cases of heart disease, in which no question at all can arise as to tuberculosis of the lungs. Over and over again it has occurred to me to see patients which had been considered to be cases of lung disease, and had been given creosote and other drugs in vogue at the time, in whom, however, a careful examination and prolonged observation showed that actually no lung disease was present, but that occasional slight haemoptysis, which had first caused a suspicion of tuberculosis of the lungs, was due to valvular disease of the heart. It had been

chiefly this haemoptysis which had led to an erroneous interpretation of crepitant *râles*, heard along the border of the left lung adjoining the heart. Haemoptysis frequently occurring in cases of mitral stenosis, quite apart from embolism and infarctus of the lung, and being simply caused by congestion due to failure of the left ventricle, it is very natural that, when cough also is complained of and crepitant *râles* are heard in the neighbourhood of the apex of the lung, tuberculous changes are thought of, especially when the valvular disease is overlooked. This may easily occur, for of all valvular diseases of the heart mitral stenosis has, as is well known, the most varying auscultatory signs—a murmur, in fact, at times being quite absent—whereas at the next examination, or if the heart's action gets accelerated by exercise or nervous influence, a loud characteristic presystolic murmur may be heard. If the heart is not very carefully examined and only whilst the patient is standing, the very loud first sound at the apex, which is generally present in these cases, may be taken for an increased second pulmonary sound and explained by an assumed narrowing of the pulmonary circulation in consequence of chronic changes in the lungs due to tuberculosis. A comparison of the heart sounds with the pulsation of the carotids and a careful examination of the heart, the patient being in a recumbent position, as well as of the lungs, will easily correct any erroneous presumption which may at first have been formed.

In such a case the temperature, unless raised by other causes, is of course quite normal, and in the sputum, by repeated and careful examination, tubercle bacilli are not found, and no distinct signs of a really tuberculous disease in the lungs can be discovered.

As regards the discovery of tubercle bacilli in the sputum, it need hardly be mentioned that their absence on repeated careful examination in a given case is no proof that a disease of the lungs, which, by its clinical symptoms, might be taken to be due to tuberculosis, is really not due to it. Their absence in the sputum only proves that at the time no destruction of a tuberculous focus is taking place. They may appear with the further progress of the case. Of greatest importance, on the contrary, for the diagnosis in a given case may prove their discovery, when all the other symptoms are very slight and when no focal disease can be made out in the lungs. In such a case there must be a focus somewhere, but so much surrounded by normal lung tissue, that neither percussion nor auscultation yield any positive sign of its existence. There may be very little cough and only occasionally a little expectoration of purulent sputum. This may come from a central, perhaps originally bronchial, focus in the lung, or from perforation of a softened tuberculous bronchial gland into a bronchus.

Frequently-repeated careful examination of the sputum is particularly desirable in cases in which the good general health and aspect of a patient who is troubled with cough seems to negative the idea that a tuberculous disease might be its cause. Patients of this kind are generally beyond middle age, rather stout than the reverse, and at first sight look more like being affected with emphysema and chronic bronchitis, or with heart disease. But the examination of the lungs reveals considerable changes at one or even both apices. There is a history of haemoptysis some time in early life, after which, however, perfect general health had soon been established and maintained. There had at first been but slight cough, which only lately somewhat increased. The changes found, which chiefly consist in induration, including sometimes small cavities, are the remnants of an old attack of tuberculous disease from which the patient had recovered, but where quite recently fresh changes were taking place. These are the cases in which haemoptysis occurs, at times when by catarrhal or other causes congestion of the bronchial and pulmonary blood vessels is induced.

Should there exist an aneurysmatic dilatation of a branch of the pulmonary artery lying in the wall of a small cavity, profuse, even fatal, haemorrhages may occur in a patient who, as regards his general condition, does not in the least rouse a suspicion that he might be affected with tuberculosis. Considerable haemoptysis in cases of this kind sometimes also ushers in an acute attack of multiple broncho-pneumonia, caused by the aspiration of the bacillary contents of a cavity. Several cases in which before the fatal illness the patients had appeared perfectly healthy, but were carried off in a galloping consumption within a few weeks, have come under my own observation.[2] The initial haemoptysis may be a symptom of the commencing inflammation, sometimes, however, when brought on by violent exercise, its very cause, the dyspnoea which accompanies profuse haemorrhage from the lungs leading to aspiration of blood and of the contents of a cavity into all parts of the lung.

Haemoptysis, with very trifling quantities of blood, but frequently repeated, is sometimes the first and only symptom that raises a suspicion of tuberculosis of the lungs. In such a case the percussion may give normal results, but the breath sounds are harsher than normally, and there may be slight catarrhal rhonchi at the base of both lungs. The scanty sputum contains no tubercle bacilli. There is no elevation of temperature and the general health is unimpaired. All that can be found on repeated careful examination is hypertrophy of the tonsils and chronic pharyngeal catarrh. This is really the cause of the haemoptysis. I have repeatedly seen cases of this kind in which for years afterwards, no signs of tuberculosis were developed.

Another throat affection, also, may sometimes be a source of erroneous diagnosis or of a suspicion, at least, that tuberculous lung disease might be present. This is enlargement of the thyroid gland or of one of its lobes pressing on the trachea, but not yet causing any noticeable impediment to respiration, unless a respiratory effort be made by heavy work or violent exercise. In such a case there arises, sooner or later, a tendency to local congestion and catarrh in that part of the mucous membrane where the trachea is slightly pressed on by the thyroid gland. This causes cough and generally a scanty and purely mucous expectoration. If from various causes this catarrh attains a greater intensity, the expectoration may even be tinged with a little blood. On auscultation rather rough breath sounds are heard all over the lungs, more especially also at their bases, and a prolonged expiratory murmur is heard everywhere. Where this condition of things has existed for some time there is generally some emphysematous enlargement of the lungs. In cases of this kind all the other symptoms which may be of importance for diagnosis have to be carefully gone into and weighed before a decided opinion can be given.

Recurrent slight or somewhat profuse haemoptysis may also be caused by an aneurysm of the aorta pressing on the trachea or a large bronchus. All other symptoms or signs of an aneurysm may be wanting, but its existence will be disclosed by tracheoscopy.

Whenever all diagnostic methods spoken of give no decisive result, there remains the tuberculin test as a most valuable means for settling the question. This is best employed according to the method observed at the Institute for Infectious Diseases at Berlin.[3]

The normal course of the temperature of a patient having been carefully established by measuring it for two days every two or three hours, a subcutaneous injection of 1 mg. of the old tuberculin is made under the skin of the back in the evening between 6 and 8 o'clock, as the active rise of temperature generally begins after twelve hours. In children the dose must be smaller. After one or two days 5 mg. and if necessary, after another one or two days, 10 mg. are injected. A rise of temperature of at least 0.5° C. (1° F.) is considered a positive reaction. The solution of tuberculin should always be freshly prepared. Patients that are feverish should not be injected.

The serum test of Arloing and Courmont, which is based on the agglutination of a pure culture of tubercle bacilli by serum produced by blood serum from patients affected with tuberculosis is, even with the improvements introduced by Koch,[4] no method suitable for every day practice.

Many things, therefore, as will have been seen from the foregoing remarks, must be taken into consideration and carefully examined before we can arrive at a sure diagnosis in cases of commencing tuberculous lung disease. Diagnosis gets more difficult when no very positive lung signs can be discovered and when there is no expectoration in which tubercle bacilli can be looked for. In such a case a most searching examination must be made over and over again to get at a decision, upon which the gravest issues may depend. But if, on the one side, it is a matter of greatest responsibility not to have diagnosed really existing tuberculous disease, and thereby to have allowed the most favourable time for recovery to pass by unused, it is on the other no less a fault to take away any one, especially youths, from their work and, may be, from their family and put them on the path of health-seeking invalids, if such a course is not really necessary. But what course had best be taken when the first signs of a pulmonary tubercular have been actually made out, whether sanatorium or home treatment, whether at a high altitude or on the sea-level or at an intermediate station—all these and other questions have to be carefully considered and must be decided according to all the circumstances of each individual case.

References.

1 *Deut. Arch. f. Klin. Med.*, Bd. lxiv, 1899, p. 58. 2 Über eine besondere, durch Aspiration von Cavernenneninhalt hervorgerufene Form acuter Bronchopneumonie bei Lungentuberculose, *Deut. med. Woch.*, 1892. Max Beck, Über die diagnostische Bedeutung des Koch'schen Tuberkulins. *Deut. med. Woch.*, 1899, No. 9. 4 *Deut. med. Woch.*, 1901, No. 48.

ABSTRACTS OF

The Hunterian Lectures

ON THE

PATHOLOGY AND SURGERY OF CERTAIN DISEASES OF THE PANCREAS.

Delivered before the Royal College of Surgeons of England.

By A. W. MAYO ROBSON, F.R.C.S.,
Hunterian Professor.

LECTURE III.—CYSTS, INJURY, NEOPLASMS.

Calculus, Neoplasm, Pancreatic Cysts.

The surgery of cystic disease of the pancreas is much in advance of pancreatic surgery as a whole. All authorities are agreed as to the wisdom of simple drainage, which is usually sufficient to bring about relief or cure. Experience has shown that the patient's interest is best considered by a limitation of the incision to a size sufficient to empty and drain it, and not sufficiently large to satisfy pathological requirements. Hence it is highly probably that many reported cases of operations for pancreatic cyst have been for cysts of other origin, and it is an undoubted fact that quite a number of cysts originating from the neighbourhood of the pancreas are really pseudo-cysts, as in two of my own, where in one a collection of blood and serum filled the lesser peritoneal sac as a result of injury; and in another a pseudo-cyst formed rapidly around a necrotic pancreatitis, and from the cavity a slough of the pancreas was removed.

The symptoms produced by a pancreatic cyst vary according to the size and seat of the tumour. They are at first dependent on the disease leading to the cystic formation, and later to the pressure exercised by the tumour on neighbouring viscera; so that we find digestive disturbance, with loss of flesh and epigastric uneasiness, or some pain, quite early, these being followed in certain cases by very intense pain recurring in paroxysms, by vomiting, constipation, jaundice, rapid wasting, and later by the presence of a tumour. Fatty stools, azotorrhoea, bulky pale motions, and glycosuria will be present or absent, according to the amount of degeneration present in the gland. In all the cases I have observed recently there has been a well-marked pancreatic reaction in the urine, indicating catarrh of the pancreatic ducts or interstitial inflammation; and if this test holds good for cystic disease of the pancreas generally, as I believe it does, it will, I think, form an important diagnostic sign in any case of tumour suspected to be pancreatic.

The most frequent cause of cyst development is chronic interstitial pancreatitis, in which compression and constriction of the ducts result from a new formation of connective tissue with consequent stagnation of secretion. The Roentgen rays may also form a useful help in diagnosis in certain cases, as they will establish the presence or absence of pancreatic calculi, which are quite opaque to the *x* rays.

It is to be borne in mind that there have been cases of pancreatic cyst presenting very few symptoms except the presence of a tumour which has been under observation for a long time and has needed no active treatment, but these cases are exceptional.

Treatment.

Occasionally excision of the cyst may be performed, as in a case of my own, in a woman aged 38, where the tumour recurred after drainage, and where the patient made a complete recovery after the second operation; but the greater difficulty of performing excision, the impracticability of doing it always and the greater mortality attending it, as compared with the simple operation of incision and drainage, renders it quite clear that the lesser operation should always be tried first unless the circumstances be very exceptional. Aspiration and other methods of tapping are antiquated and ineffective methods attended with more danger than the operation of incision and drainage, and therefore not to be recommended even for diagnostic purposes; this also applies though in a lesser degree to operation *à deux temps* which is now rarely performed.

As to the situation for drainage, that must entirely depend on circumstances; the cyst will usually be attacked from the front, where it is manifestly nearest the surface. Occasionally it may be drained from the loin as in one of my cases.

Fistula does not as a rule follow the drainage of pancreatic cysts, but in some cases a small fistula may persist, and I have known a fistula to go on for years without hurt to the patient, and with very little discomfort.

In the cases I have operated on a cyst was enucleated on one occasion, recovery following; drainage was carried out in 9 other cases of true cyst, and was followed by recovery in 8, whereas of 2 pseudo-cysts, one due to traumatic haemorrhagic pancreatitis and the other to necrotic pancreatitis, 1 recovered. These I shall hope to report more fully before one of the London societies, as the time will not permit me to dwell longer on them now.

An extensive search through literature, in which I have been assisted by Mr. A. Clarke, who has verified the references for me, reveals the following facts:

160 cases of operation have been recorded.

In 140 recovery took place, or is presumed to have taken place. In 4 cases the ultimate issue was doubtful.

In 8 out of the 140 of reported recovery after operation the patients died subsequently: 1 from diabetes, four months later; 1 from tuberculosis, three months later; 1 from haemorrhage, a year and a-half later; 1 from concomitant peritonitis, 7 weeks later; 1 from epidemic fever, a few weeks later; 3 from causes not stated, a few weeks later. Death is recorded as the result of operation in 20 cases. In 5 of these the cause and time after operation are not given. One patient died in collapse; 1 before operation could be completed (the next day); 1 from "ileus"; 1 eighteen days after operation (cause not stated); 2 from shock; 1 from gangrene of the pancreas; 8 from peritonitis. Of these 8 dying from peritonitis 1 died at interval not stated, 1 after ninety-six hours; 1 after six days; 1 after an exploratory incision; 2 after two days; 1 on eighth day; 1 on second day.

In 138 incision and drainage were performed, with 16 deaths, equal to a mortality of 11.6 per cent.

In 15 excision was performed, with 3 deaths, equal to a mortality of 20 per cent.

In 7 partial excision was done with 3 death, equal to a mortality of 14.3 per cent.

Although larger numbers have been reported by others the above figures are as nearly correct as appears to be possible, for on verifying the records sometimes the same case had been reported twice, in others wrong dates had been given, and in a few the details were so meagre that even the nature of the operation was not given. The evidence is clearly in favour of drainage, but the mortality should certainly be reduced by one-half.

As to the frequency of cysts of the pancreas, Dr. Hale White has recorded that in nearly 6,000 necropsies at Guy's Hospital (1883 to 1894) pancreatic cysts were only found in 4 cases, and one of these was a hydatid cyst.

Injuries of the Pancreas.

It is quite clear that injury to the pancreas is not necessarily fatal, as shown by the development of cysts the result of accident, and their successful treatment. The indications for operation depend on the severity of the symptoms and on the presence of either haemorrhage or inflammation, which may demand operation. If, therefore, after an injury in the superior abdominal region, there be increasing anaemia, the signs of free blood in the peritoneum, or peritonitis, the surgeon will be called on to operate without delay.

Severe injuries of the pancreas not operated on terminate fatally in nearly every case. Out of 45 cases of pancreatic injury collected by von Mikulicz, 21 were perforating, 12 were gunshot, and 9 were stab wounds. Of the gunshot injuries 5 were operated on, 3 recovering; the 7 not operated on all died. Of the stab wounds all were operated on, and 8 out of 9 recovered. Of the 24 subcutaneous injuries 13 were not operated on and all died. Of the 11 operated on 7 recovered.

No hard-and-fast rule can be formulated as to the method of treatment; the injured part must be exposed and either ligature of vessels or suture of surfaces adopted, but gauze tampons and drainage form important features in any of these operations, and where the peritoneum has been generally soiled with blood and pancreatic effusion, lavage with hot saline fluid affords the double advantage of relieving shock and cleansing the abdomen.

In view of the favourable results obtained by operation and the lethal effects of non-operative treatment, the only lesson that can be drawn is that we should make an exploratory laparotomy whenever there is a question of severe pancreatic injury.

PANCREATIC CALCULUS.

The subject of pancreatic concretions can never assume the importance that attaches to cholelithiasis, but as they are associated with serious and usually progressive disease of the gland, and as they can be removed by operation their recognition and treatment is a matter that demands some consideration.

I believe that calculi never form in a healthy pancreas and it seems highly probable that like gall stones, pancreatic concretions are the result of catarrh of the ducts with stagnation of secretion, which generally if not always results from infection. Instead of calculi being formed, the ducts may actually be lined with calcareous material that may accumulate so much as to completely or almost completely close the lumen. A convenient term for this disease may be pancreolithic catarrh.

As a rule the calculi are numerous, and in only three known cases has a solitary calculus been found. The composition of pancreatic calculi is important from the diagnostic point of view, for they contain lime, either in the form of carbonate or phosphate, or as in one found in a cyst reported by Mr. Shattock, of oxalate.

In examining the urine of cases suffering from chronic pancreatitis, oxalate of lime crystals have been found by Dr. Cammidge in over 40 per cent. In jaundiced cases, in which the bile acids take up the lime salts they have been found only in 6 per cent. of cases. It would be interesting to know if this fact has any bearing on the composition of pancreatic concretions, for it is a well-known fact that the normal pancreatic secretion contains no calcium carbonate. The consequence of this chemical composition is that pancreatic calculi are opaque to the *x* rays, and in this way we have a means of diagnosing their presence and of differentiating them from gall stones, which are not seen in a skiagraph. So far as I know this method of diagnosis is here suggested for the first time. I feel confident that in future it will be employed regularly, and I believe also that by means of the urinary pancreatic reaction we shall also be able to confirm the diagnosis by demonstrating the associated chronic pancreatitis.

The symptoms depend on the associated condition, whether that be cyst, abscess, chronic inflammation or other pathological state; doubtless in some cases symptoms are vague or even wanting, and in some pancreatic calculi have only been discovered *post mortem*. Glycosuria was recorded by Lancereaux in 12 out of 40 cases.

Pain at the epigastrium, radiating towards the inferior angle of the left scapula, often agonizing and associated with vomiting, may be present, and the attacks may be brought on by exertion or may be irregular, coming on at any hour, day or night. Dyspepsia and flatulence are usually associated. Liporrhoea and azotorrhoea, as well as bulky pale motions, are present when there is well-marked interstitial pancreatitis, and in some cases where the interstitial changes have advanced to atrophy or fatty degeneration of the whole gland glycosuria is found. The pancreatic reaction in the urine was well marked in a case on which I operated, and I think it will be generally found. If a calculus descends into the ampulla of Vater, jaundice will ensue, and the case will probably be diagnosed as one of gall stones in the common duct, but the urinary pancreatic action and the use of the *x* rays should enable a differential diagnosis to be made.

Medical Treatment.

The treatment by sialagogues, such as injections of pilocarpin, it seems to me must be useless and mere waste of time. Relief to pain may be given by sedatives, and other treatment must be adopted as occasion arises, but as soon as pancreatic stones can be diagnosed they should be removed, as destruction of the pancreas is otherwise certain, and it is quite clear that medical treatment can do no real good in these cases.

Surgical Treatment.

Some years ago I pointed out that the pancreatic duct could be readily explored by an incision in the second part of the duodenum, and by then laying open the biliary papilla, when the opening of Wirsung's duct can be seen. In this way I have passed a probe 2 in. along the duct of Wirsung to explore it, and have removed a pancreatic calculus from the duodenal end of the duct.

The Operation of Pancreo-lithotomy.

For the purpose of removing calculi from the pancreas an incision 1 or 1½ in. to the right of the middle line will be found the most convenient, as the fibres of the right rectus can be split and the incision lengthened upwards ar downwards without unnecessarily weakening the abdomin wall. A sandbag under the lumbar spine will bring tl gland several inches nearer the surface. If the opening the duct of Wirsung has to be explored, the second part the duodenum may be incised and the papilla common to tl bile and pancreatic ducts laid open, when the edges of tl opened diverticulum of Vater can be seized with small cat forceps and drawn to the surface; a probe or fine forceps c then be readily passed into Wirsung's duct and any conc tion removed. If the calculi are more deeply placed in tl ducts, the pancreas may be exposed either through the gast hepatic omentum by drawing the stomach downwards, or lifting the stomach it may be reached through a slit in t meso-colon. The calculi may be then cut down on and e tracted by a scoop or forceps. Any bleeding must be arrest by ligatures. The duct can be sutured and the incision the gland must be brought together by buried sutures, t peritoneal covering being coapted by a continuous sutu If leakage is feared a gauze drain may be applied; but t position may be difficult for this, and if it has to be done t gauze must be surrounded by a rubber drainage tube, a brought through it to the surface. In my case of pancr lithotomy I felt the closure of the gland was so secure as r to require gauze packing, and the result justified my r using it.

When the duodenum is opened it must be closed in t usual way by a muco-muscular and a serous suture, t latter being of fine celluloid thread. The incised papi need not be sutured. If a calculus be felt in the head of t gland but not in the duct of Wirsung, it may be reached incising the peritoneum over the duodenum and separating gently from the head of the pancreas; or, if more deep placed near the back of the gland, the reflexion of peritone from the duodenum to the abdominal wall may be incis and the duodenum may then be displaced inwards, when t back of the pancreas will be exposed, and, if thoug advisable, it may be incised and treated as in the incisi from the front.

NEOPLASMS.

It is quite impossible in a short course of lectures even touch on all the diseases of the pancreas. I must theref under this heading confine myself simply to cancer and s coma, leaving for another occasion the study of adenon lymphoma, and the granulomata, tubercle, and syphilis.

Carcinoma.

Carcinoma is the most common of the neoplasms found the pancreas. Out of 53,000 necropsies gathered from vari sources where necropsies were presumably carefully ma there were 226 cases of primary malignant disease of the p creas (Roswell Park), but as these include Remo Segré's ca from the Ospedale Maggiore, Milan, in which the primary a secondary growths are not separated, the proportion of p mary growths is probably not so large. Secondary grow are much more common—for instance, in Eppinger's a tistics, of 1,314 necropsies, there were 308 cancers in vari organs, of which 19 were in the pancreas, but of these o 2 were primary.

The tumour may take the form of scirrhus or encephal cancer, columnar epithelioma or colloid cancer, and these given in their order of frequency.

Cancer usually occurs after 40 years of age, though I h operated for cancer of the head of the pancreas at 32, rarely it has been known to occur in childhood.

The typical clinical picture of malignant disease of pancreas may thus be drawn: a patient suffers for a time f indefinite symptoms of digestive disturbance, then jaun appears, coming gradually, but persistently increasing; gall bladder is usually distended, the liver normal or sligh enlarged, A tumour may be found in neighbourhood of pancreas. Cachexia rapidly develops and in some cases p disturbs the patient's rest. There is soon a feeling of int prostration and weakness. The faeces are massive, con fat or fat-acids, and an undue proportion of undigested mu fibre. The urine contains albumen frequently, and sugar fat rarely. The whole clinical course is run, as a rule, wi twelve months, and after the appearance of jaundice, wi six to eight months.

Differential Diagnosis.

In malignant disease of the pancreas the symptoms are constant. The cases may be divided into three chief type

1. Where the tumour extends to the right and compre or occludes the common bile and the pancreatic ducts.

2. Where it takes an upward and forward direction, and besides compressing the bile duct leads to pyloric stenosis. In this case, to the typical symptoms are added those of dilated stomach.

3. Where the extension is backwards, causing compression of the vena cava and of the portal veins, thus leading to an early onset of ascites, and later to oedema of the lower extremities.

When the body and tail of the pancreas are involved the symptoms are atypical, and the development of a tumour, with steady loss of strength and increasing anaemia, are such as might be due to any malignant tumour outside the pancreas. In the differential diagnosis of cancer of the head of the pancreas we must consider common duct cholelithiasis, interstitial pancreatitis, cancer of the common bile duct, cancer of liver, cancer of the pylorus, and chronic catarrh of the bile ducts.

Whenever, in a patient at or past middle age, jaundice comes on painlessly and becomes absolute, at the same time that the gall bladder gradually enlarges so as to form a perceptible tumour, and the patient rapidly loses flesh and strength, a diagnosis of cancer of the head of the pancreas will probably be correct. The diagnosis will be made more certain if there is an absence of tenderness below the right costal margin associated with a tumour opposite to or above the umbilicus, having communicated pulsation and not moving with respiration. On distending the stomach with CO_2 it will be found that the tumour, at the best rather indefinite, becomes hidden behind the resonant stomach, and that the distended gall bladder becomes pushed to the right. If cholelithiasis has preceded the onset of cancer, the gall bladder will not be enlarged, but the rapid deterioration of health and the presence of anasarca and ascites will, as a rule, leave no doubt of the nature of the disease. In common duct cholelithiasis there is practically always a preliminary history of gall stone attacks, though it may have been years previously. The jaundice will have come on after pain and is probably never absolute, for some bile nearly always escapes past gall stones in the duodenum. The bile soon becomes infected and the ague-like seizures follow and an irregular temperature, at times almost resembling pyaemia. In place of distended gall bladder a rigid right rectus will be felt which often makes it difficult to examine the parts beneath. A tender spot will usually be found 1 in. above and to the right of the umbilicus, and the pain will be found to pass backwards to the midscapular region or to a spot beneath the right shoulder blade. Whereas in cancer of the head of the pancreas the disease is only a question of months, in cholelithiasis it may be one of years. Pancreatic catarrh or chronic pancreatitis frequently accompanies gall stones in the common duct and clears up after their removal, but it may persist after the cause has passed away. Whenever a tumour of the head of the pancreas is felt during a gall-stone operation, especially before middle life, hope may always be felt that the disease may be simple and clear up by the drainage of the ducts. A long history is in favour of the simple disease, as are the presence of adhesions, the history of painful attacks, and the presence of tenderness above the umbilicus.

In chronic pancreatitis it is not uncommon to find enlarged glands in the free border of the lesser omentum, but they are discrete when the disease is simple and generally confluent in cancerous affections. The jaundice may be absolute, but as a rule, it is not complete. Infective cholangitis and infection of the pancreatic ducts are commonly present, as shown by high temperature and by ague-like seizures.

Although the loss of flesh is marked, it is less evident than in cancer of the head of the pancreas, and until the disease has existed for a longer time than cancer gives its victim, there is no sign of anasarca or ascites or of enlarged abdominal veins. The gall bladder is seldom distended, though this is not an absolute rule, as I have seen it much enlarged on several occasions.

The distinction between gall stones in the common duct and chronic pancreatitis (which frequently coexist) it is often difficult to determine, but this is of no moment from a practical point of view, as surgical treatment is, as a rule, demanded in both conditions. Anaemia is much more marked in cancer of the head of the pancreas than in chronic interstitial pancreatitis.

Cancer of the common duct is rare and is usually associated with gall stones; if the disease involves the papilla the symptoms are indistinguishable from those of cancer of the head of the pancreas (as shown by the photograph on the screen); but if it be situated above the opening of the pancreatic duct it will not interfere with the functions of the pancreas, and therefore the loss of flesh will not be so rapid.

In one case on which I operated suppurative cholangitis was present, but this is not a constant event. Cancer of the liver is distinguished by the jaundice being absent or much less intense, and by the enlargement of the liver with irregular nodules on its surface and edges. In simple catarrhal jaundice the symptoms are almost negative, except for the jaundice and loss of appetite, and the way in which it yields to treatment shows the slighter nature of the ailment.

In cancer of the pylorus the predominance of gastric symptoms and the dilatation of the stomach, with absence of free HCl and presence of blood in the vomit, usually enable a diagnosis to be made, but it should not be forgotten that cancer of the pylorus and of the head of the pancreas frequently coexist. In all these cases the urinary test affords most valuable help in diagnosis.

Treatment.

Medical treatment must be purely symptomatic. Morphine, if needed, for the relief of pain; calcium chloride for the prevention of haemorrhage; pankreon tablets or liq. pancreatici for the digestion of food and other remedies for symptoms as they arise.

Surgical treatment is not very hopeful, and has usually been undertaken under the idea that the cause of the jaundice might be a removable one, or that drainage of the bile ducts might afford relief to the jaundice, but increased experience has shown me that if the disease has involved the head of the pancreas it is hopeless, however treated. Treatment may be radical or palliative.

Pancreatectomy can only succeed where the growth is not involving the head of the gland; cases, however, clearly demonstrate that a tumour of the body or of the tail of the pancreas may be removed with equal chances of recovery; and should the disease be primary and no secondary growths or glandular involvement have occurred, great prolongation of life is quite possible. Of the palliative operations, cholecystotomy and cholecyst-enterostomy for the relief of jaundice in cancer of the head of the pancreas I can speak about very decidedly, as I have operated on twenty-eight cases, all the patients being extremely ill at the time of operation. Many of these cases occurred when there was a difficulty in making a diagnosis between cancer of the head of the pancreas and gall stones in the common duct, or between cancer and interstitial pancreatitis, difficulties which have been overcome recently.

Of the 15 cases in which the gall bladder was drained, 8 recovered from the operation, the longest survival being eight months, but the average survival being about four months; of the 6 cholecyst-enterostomies, 2 recovered and the duration of life was only a few weeks. Even a simple exploratory operation in these cases is attended with danger, for out of 6 cases 4 only recovered from operation.

Dr. Murphy of Chicago was kind enough to furnish me with a report of his statistics of cholecyst-enterostomy up to 1897. Of 67 non-malignant cases there had only been 3 deaths, but, of his 12 malignant cases, 10 died, giving a mortality of 83.3 per cent. Thus it will be seen that any palliative operation for the relief of cancer of the head of the pancreas associated with jaundice is useless, as, even if recovery occurs, life is not prolonged to any great extent.

Sarcoma.

Primary sarcoma of the pancreas is undoubtedly rare, though secondary disease, especially of the melanotic type, seems to be less uncommon. I have found examples of sarcoma in several of the museums.

Operation for sarcoma of the pancreas is uncommon, though the few cases operated on prove that, if the tumour be in the tail of the pancreas, the case is one amenable to surgical treatment. I explored the abdomen in one case of the kind, but found the disease too extensive for removal. Kronlein in 1894 removed a tumour the size of the fist, but the patient died seven days later. A tumour, which was successfully removed by Briggs, proved to be sarcomatous degeneration of an echinococcus cyst.

Owing to the death of the Duke of Cambridge, patron of the Royal London Ophthalmic Hospital, the centenary festival dinner in aid of the funds of that charity has been postponed till Tuesday, May 10th. Sir Charles Wyndham will preside, and, to enable him to do so, will close his theatre on that evening.

ABSTRACT OF

The Arris and Gale Lecture

ON

THE CHEMISTRY OF THE URINE IN DISEASES OF THE PANCREAS.

Delivered at the Royal College of Surgeons of England.

BY

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IN the course of his lecture Dr. Cammidge made the following observations on the urinary tests referred to by Mr. Mayo Robson in his Hunterian Lectures.

On carefully considering the symptoms that may be associated with the various forms of inflammation of the panereas one is struck by the fact that a number of the more typical of them are obviously dependent on alterations in the chemistry of the body. Among such may be mentioned the tendency to haemorrhage, apart from the presence of jaundice, the occurrence of fat necrosis, the discovery of undigested fat and muscle fibre in the stools, the appearance of sugar in the urine, and the marked wasting seen in many cases. The association of these symptoms in acute cases, and the frequent occurrence of several of them in the subacute and chronic inflammations, suggests that the chemical changes that give rise to them are directly or indirectly dependent on perversion of the pancreatic functions. The most characteristic and striking of the signs I have mentioned is undoubtedly fat necrosis, and whatever view of its ultimate causation is held there can be no doubt that it is almost invariably associated with obvious disease of the panereas. Although it is most typically met with in acute and gangrenous pancreatitis, it is not improbable that similar but less evident changes accompany all forms of pancreatic inflammation, and it is to these changes that the haemorrhagic tendency which is so characteristic of the affections is due. It is now admitted by most authorities that the masses of free fatty acids, or the combination of them with lime, which constitute the lesion, are directly derived from the fat of the affected part by the fermentative action of the pancreatic secretion, and that the other constituent of the fat molecule, namely, the glycerine, is absorbed into the circulation. Bearing in mind the effects produced in animals by the subcutaneous injection of glycerine, it occurred to us that in man the continued action of minute doses, such as fat necrosis would give rise to, might produce such a blood state as is met with in pancreatitis, especially when to the action of the glycerine on the blood there is added the effects of the removal of calcium salts from the circulation.

Starting on the theory that there was some such connexion between fat necrosis and the haemorrhagic tendency we commenced our investigations of the chemical pathology of pancreatitis by examining the blood of several cases for glycerine and glycerine derivatives. But, as we quickly realized that such direct proof was impossible owing to the small amounts of blood available at the bedside and to the relatively minute quantity of glycerine likely to be present in it, we turned our attention to the urine in the hope of there finding indirect evidence in support of our hypothesis. The well-known selective power of the kidneys by which they detect and excrete abnormal constituents of the blood favoured the view that the soluble products of fat necrosis, or their derivatives, might cause changes in the composition of the urine which, owing to the large bulk of material easily available for examination, could be satisfactorily detected. Further, although glycerine, when introduced into the circulation, is stated to be oxidized and to increase the secretion of carbon dioxide, Catillon has demonstrated it in considerable quantity in the urine after administration by the mouth, and from 50 to 60 per cent. of the quantity given has been shown to be thus excreted in dogs. Even a larger percentage than this might reasonably be expected to escape destruction in patients suffering from pancreatic affections, for in them the metabolic processes are abnormal, and there is apparently a tendency to defective oxidation.

Lewin has suggested a method of detecting glycerine in the urine which depends upon the fact that oxalic acid breaks up in the presence of glycerine into formic and carbonic acids. On distilling a sample of urine from a case of pancreatitis in the way he describes, indications of the presence of a formate in the distillate were obtained which, although not very marked, were still sufficiently pronounced to encourage further investigation. Several other methods for detecting the presence of glycerine were afterwards employed, and among them that which depends on the formation of glycerose when a solution of glycerine is heated with nitric acid. In carrying out this test we employed phenylhydrazin as the means for detecting the glycerose, and were struck by the exceedingly well-marked deposit of crystals given by pancreatic urines. Control experiments carried out with normal urines, and with specimens from cases of catarrhal and obstructive jaundice, intestinal obstructions, gastric ulcer, etc., were found to be uniformly negative, so that we hoped that we had not only obtained evidence in support of our theory but also had succeeded in finding a method of distinguishing pancreatitis from at least some of the clinical conditions with which it is liable to be confused.

A more extended experience showed, however, that the matter was not quite as simple as it at first sight had appeared, for although all pancreatitis urines gave a reaction, a similar result was obtained in a certain number of other diseases in which there was no reason to believe that the pancreas was diseased, but which were characterized by rapid tissue change and defective oxidation. It had also to be borne in mind that the reducing power of most urines is increased by boiling with mineral acids, and although it was found that either hydrochloric or sulphuric acid could be substituted for the nitric acid originally employed, a series of careful experiments carried out for the purpose failed to demonstrate that the reaction obtained in pancreatic urines was due to the so-called animal gum from which the reducing substance of normal urine is said to arise. As the success of the test appeared to depend on the presence of some abnormal constituent in the urine, the examination of a large number of specimens from cases of known or suspected pancreatic disease was next undertaken, and it was found that when taken in conjunction with the clinical symptoms the reaction was of considerable assistance in diagnosis. The strength of the acid employed, the kind of acid used, the time of boiling and other details of the experiment appeared, however, to exert considerable influence on the result, and as a consequence of numerous experiments a method of procedure was finally evolved which proved to be generally satisfactory. This I shall now describe, and call for convenience of reference reaction "A."

The specimen of urine to be examined is filtered, and 10 c.cm. of the filtrate poured into a small flask. One c.cm. of strong hydrochloric acid is added, and a funnel having been placed in the neck to act as a condenser, the flask is placed on a sand bath and gently boiled for ten minutes after the first sign of ebullition is detected. A mixture of 5 c.cm. of the filtered urine and 5 c.cm. of distilled water is then poured into the flask, which is afterwards cooled in running water. The excess of acid is now neutralized by slowly adding 4 grams of lead carbonate, and, after standing for a few minutes to allow of the completion of the reaction, the urine is filtered through a moistened filter paper, and the flask washed out with 5 c.cm. of distilled water on to the filter. To the clear filtrate is now added 2 grams of powdered sodium acetate and 0.75 gram of phenylhydrazin hydrochlorate, and the mixture boiled for three to four minutes on the sand bath. The hot fluid is then poured into a test tube and allowed to cool undisturbed. After the lapse of a period, varying with the severity of the case from one to twenty-four hours, a more or less abundant flocculent yellow deposit is found at the bottom of the tube, and this, when examined under the microscope with a $\frac{1}{6}$ in. objective, is seen to consist of sheaves and rosettes of golden yellow crystals. As the presence of sugar in the urine would obviously vitiate the results thus obtained, it is necessary before proceeding to test to make sure that the untreated urine does not give reaction with phenylhydrazin. This may roughly be done with Fehling's solution, or some similar test, but it is better to carry out a control experiment with phenylhydrazin hydrochlorate and sodium acetate in the manner I have just described, omitting the preliminary boiling with hydrochloric acid. Should the control experiment reveal even a trace of sugar it must be removed by fermentation, with subsequent boiling to expel the alcohol formed, before the investigation is proceeded with. The presence of albumen in the urine is also liable to cause trouble, and it is best got rid

ther by treatment with ammonium sulphate, or by acidifying with acetic acid, heating, and filtering.

The results obtained by this method were found not to be solutely reliable, although a useful aid in diagnosis, since a sitive reaction was also obtained in patients suffering from rtain other diseases where active tissue change was taking ace, such as cancer, adenitis, pneumonia, etc. For a long ne the positive reaction given by these non-pancreatic cases minished the practical usefulness of the test, but eventually means by which the pancreatitis cases might be distinished was devised, and we now believe that by combining results of the two it is possible in the large majority of es to make a reliable diagnosis from the examination of urine alone. The differentiating test depends upon the t that the formation of the crystals described in reaction " is interfered with in inflammation of the pancreas by a liminary treatment of the urine with perchloride of mery, while such treatment does not affect the appearance of crystals in cases of cancer of the pancreas and the er conditions which give rise to a positive reaction. The cedure, which I shall refer to as the "B" reaction, is as ows:

wenty c.cm. of the filtered urine is thoroughly mixed with f its bulk of a saturated solution of perchloride of mery. After standing for a few minutes it is carefully filtered to 10 c.cm. of the filtrate 1 c.cm. of strong hydrochloric l is added. The mixture is then boiled for ten minutes on and bath, and subsequently diluted with 5 c.cm. of the ate from the mixed urine and perchloride of mercury tion, and 10 c.cm. of distilled water. After cooling it is tralized with 4 grams of lead carbonate and the succeedstages of the operation carried out as in reaction "A."

xperiments were next set on foot with a view still furto differentiate the various forms of disease to which the creas is liable, especially chronic inflammation and malig- disease, for as I have already mentioned the accurate nosis of these two conditions is a matter of the utmost ortance to the patient. Careful observation of the crystals ted from the urines of various types of pancreatic disease ved that while there was a general resemblance, variations rm occurred. On classifying the crystals from a considernumber of cases it was found that those obtained in gnant disease were as a rule coarser and broader than e seen in simple inflammation, and that in the simple mmations again the crystals from acute cases were, on whole, somewhat finer than those seen in most instances hronic inflammation. The lines dividing these types not hard and fast, however, and although to the experi- eye a suggestive difference was discernible, great nce could not be placed on a differential diagnosis based e microscopical characters of the crystals alone. In the e of our further investigations a character of much er value was discovered, and this was the differing rate ubility of the crystals in dilute sulphuric acid. It was st thought that this difference depended on the varying of the crystals, but more extended experience proved this was not the case; for although the coarser crystals as a rule longer completely to dissolve than the finer exceptions were met with and the time of solution ared to be directly dependent on the intensity of the mmatory changes in the gland.

the crystals obtained in reaction "A" be observed the microscope whilst a one in three dilution of g sulphuric acid is being irrigated under the cover- they will be seen to turn brown when the acid es them, and then to dissolve. In acute pancreatitis the val which elapses between the first appearance of the n colour and the complete solution of the crystals under vation varies from a few seconds to half or three-quarters minute; in chronic pancreatitis it extends from half to nd a-half or rarely to two minutes; while the crystals lignant disease as a rule do not completely disappear om three to five minutes. To form a reliable opinion, dvisable to take the mean of several observations, so light variations unavoidably present in the conditions e experiment may be neutralized and comparable s obtained. The crystals met with in non-pancreatic turn brown and dissolve in dilute sulphuric acid in a ar way to those obtained in pancreatic affections, and most closely resemble those of chronic pancreatitis in time of solution, which generally ranges round one e. Phenylglucosazone crystals, with the strength of mentioned, only slowly assume the brown coloration, ake five minutes or more to dissolve.

The time limits mentioned are the result of the comparison of a large number of observations, and will as a rule be found to be correct. The exceptions, which are in most instances cases of malignant disease of the pancreas, I shall consider in detail when dealing with the examinations I have made of specimens from cancer cases. The practical results of the examination of the urine by the methods I have described may be briefly summarized as follows:

1. If no crystals are found by either the "A" or the "B" method, the pancreas is not at fault, and some other explanation of the symptoms must be sought.

2. If crystals are obtained by the "A" method, but not by the "B" reaction, active inflammation of the pancreas is present and surgical interference is generally indicated.

(*a*) The crystals obtained by the "A" method will in acute inflammation dissolve in 33 per cent. sulphuric acid in about half a minute.

(*b*) In chronic inflammation the crystals obtained by the "A" method will take one or two minutes to disappear.

3. If crystals are found in preparations made by both the "A" and the "B" methods there may be:

(*a*) Malignant disease of the pancreas, when the crystals will, as a rule, take three to five minutes to dissolve, and operation is inadvisable.

(*b*) A damaged pancreas due to past pancreatitis, when the crystals will dissolve in one to two minutes.

(*c*) Some disease not connected with the pancreas, when the crystals dissolve in about one minute.

In the two latter—(*b*) and (*c*)—the urgency of the symptoms and the condition of the patient must decide the need for an exploratory incision, but there is generally not much difficulty in referring the case to one or other of the groups when the clinical history is considered in conjunction with the result of the examination of the urine.

Other aspects of the examination of the urine in diseases of the pancreas may now be mentioned. The most important of these from a diagnostic point of view is the microscopical investigation of the centrifugalized deposit. This in nearly 30 per cent. of the specimens from cases of pancreatic inflammation that I have examined has shown calcium oxalate crystals, and if those urines in which bile was present be excluded, the proportion is more than doubled. The significance of oxalate of lime crystals has long been debated, but the marked tendency to increased oxalate excretion in diabetes and its frequent rise simultaneously with a decrease in the output of sugar has suggested that it is associated with the incomplete oxidation of carbohydrates. The remarkably frequent occurrence of these crystals in pancreatitis lends support to this view, for it is only in the comparatively early stages of the lesion that they are found; and when, as sometimes occurs, the disease progresses and glycosuria occurs, the formation of calcium oxalate appears to cease. Further, their presence seems to indicate that a stage antecedent to diabetes, and closely related to it, is reached in most cases of pancreatic inflammation, whether they ultimately develop into the typical condition or not.

Dextrose has only been met with in a very few of the urines examined, and in all instances where it has been detected the case had been either one of acute inflammation or advanced cirrhosis of the pancreas. The ordinary forms of infective subacute and chronic inflammation do not appear to give rise to dextrosuria in the stages where they come under the observation of the surgeon.

As Kulz and Vogel have detected a pentose in the urine in diabetes, and Hammarsten has demonstrated a similar substance in a nucleoproteid obtained from the pancreas, the possibility of pentoses being present in the urine in pancreatitis had to be borne in mind, but I have been unable to experimentally verify the fact.

Acetone and diacetic acid were also sought for in a considerable number of cases, but no evidence of their presence could be found, excepting in a few instances of advanced pancreatitis with typical diabetes.

In view of the fact that inflammation of the pancreas is in a considerable number of cases associated with more or less jaundice, it is not surprising to find that bile pigments were discovered in 60 per cent. of the urines examined. In some only a faint trace was detected with difficulty, while in others there was a very large quantity. All the specimens but one derived from cases of malignant disease of the pancreas showed a considerable amount of bile in the urine. No special significance can be attached to the quantity present, as in many cases with chronic catarrh the urine is as deeply

coloured as it is in most cases of malignant disease. The removal of any obstruction of the common duct that may exist is generally followed very shortly by the disappearance of bile from the urine, but in a few cases where the condition is of long standing, bile pigments may be found, although in much diminished quantity, several weeks, or even months, after the operation.

In the course of our observations over 300 specimens of urine have been investigated, but of these about 100 were only employed as controls. The remainder may be divided into an earlier series, on which the preliminary investigations were carried out, and a succeeding series of 170 specimens derived from 111 cases of suspected pancreatic disease where the diagnostic value of the methods described were put to the test.

As I have already sketched the lines along which the investigation proceeded it will not be necessary to refer further to the first series, excepting to state that all the cases were under Mr. Mayo Robson's care and had been found at operation to be suffering from some disease of the pancreas.

In the second series specimens of urine were sent to the laboratory for examination without any indication as to the nature of the report expected, and in many of the earlier ones the condition of the pancreas was ascertained while the examination was being made. By thus separating the clinical and experimental investigations any unconscious bias on the part of the surgeon or the pathologist was avoided, and a true estimate of the reliability of the tests formed.

SCIENTIFIC GRANTS COMMITTEE

OF THE

British Medical Association.

REPORT LXXXII.

ON THE ADAPTATION OF THE PANCREAS.*

BY F. A. BAINBRIDGE, M.A., M.R.C.P.,

Research Scholar to the British Medical Association.
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I.—INTRODUCTION.

THE brilliant investigations of Pawlow and his pupils have greatly extended the range of physiological knowledge of the normal mechanism of gastric and pancreatic secretion. One of their most interesting discoveries has been the observation that the pancreas, like most other organs of the body, possesses the power of adaptation to varying conditions, and that the composition of pancreatic juice is not constant, but can be modified by differents diets, particularly with respect to the amounts of the enzymes which it contains. Pawlow's work has been dominated throughout by the conception that pancreatic secretion is controlled entirely by a nervous mechanism, whose efferent fibres run in the vagus, and whose afferent fibres have their origin in the duodenal mucous membrane. This view naturally led him to the supposition that the adaptation of the pancreas was also dependent on a nervous mechanism; and Pawlow holds that the intestinal mucosa contains nerve-endings which have a specific excitability, such that they react only to the stimulus of definite substances and call forth a secretion of the pancreas in a specific fashion. Fat, for example, stimulates certain nerve endings in the intestinal mucous membrane, thereby evoking the secretion of steapsin in large amount by the pancreas.

However, the recent work of Bayliss and Starling on secretin has shown that pancreatic secretion does not depend upon a nervous reflex action, but is normally produced by a chemical substance—secretin—acting as a specific stimulus to the cells of the pancreas. The discovery of secretin has not merely rendered it possible to study the work of the pancreas without recourse to the production of a permanent fistula; it has proved that Pawlow's interpretation of his own results can no longer be accepted. Moreover, the fact that the normal mechanism of pancreatic secretion is chemical naturally raises the question as to the nature of the adaptation of the pancreas to food, and throws doubt on the nervous theory maintained by Walther; the results of an investigation of this subject are embodied in the present thesis.

The majority of the observations on the adaptation of the pancreas have been made on the enzymes normally present in pancreatic juice, and considerable difficulties arise in the estimation of the amount of enzyme formed in response to different diets, since the amount of enzyme secreted varies inversely with the rate of secretion of juice, and the rate of secretion is different for each food stuff. For this and other reasons it was found more satisfactory to follow Weinland and work with lactase, which converts lactose into galactose and dextrose. This enzyme is absent from the pancreatic juice of adult dogs, though it is present in extracts of the pancreas of most young animals; consequently, the mere appearance—even in small amount—of lactase in pancreatic juice as the result of a diet containing lactose furnishes conclusive evidence of adaptation on the part of the pancreas. Moreover, lactose has the advantage of being a normal article of food in early life, and can be readily added to or excluded from the diet of animals.

HISTORICAL.

The investigations of Weinland not only furnish an important contribution to our knowledge of lactase, but supply convincing evidence that adaptation of the pancreas does occur. Weinland used chloroform-water extracts of the pancreas (of dogs), added a known quantity of lactose, and some toluol, and kept the mixture at 37° for twenty-four hours. The solution was then acidified and boiled, and the proteids removed by means of potassio-mercuric iodide; the calcium filtrate was examined polarimetrically.

He found that, with one or two exceptions, the pancreas of dogs fed on a diet free from milk contained no lactase. On the other hand, extracts of the pancreas of dogs fed on milk for several days, sometimes with the addition of lactose, invariably contained lactase in considerable amount; in some experiments he obtained conversion of 50 per cent. of the lactose added to the pancreatic extract. In one experiment an extract of the pancreas of three sucking puppies three weeks old contained lactase.

In a second paper Weinland attempted to ascertain how milk diet caused the formation of lactase by the pancreas. He found that the pancreas of dogs fed on meat, with the addition of milk-sugar, contained lactase, whereas lactose injected subcutaneously for several days in succession was ineffective. He also fed a dog for several days on meat, with the addition of galactose, but found no lactase in the pancreatic extracts. From these experiments Weinland concluded that the formation of lactase was not dependent on any direct chemical action exerted by lactose or its products on the pancreas; he therefore accepted the view that the adaptation of the pancreas to milk-sugar was brought about by a nervous mechanism.

METHODS.

The discovery of secretin has made it possible to obtain pure pancreatic juice in large quantities; and the majority of my observations have been made with pancreatic juice. Occasionally chloroform-water extracts of the pancreas were used. The animals used were almost invariably dogs; a few experiments were made on cats. They were fed either on milk or on biscuits. The dogs fed on milk received about two pints of milk daily for two or three weeks as a rule, sometimes for as long as two months. In some experiments a little of pure lactose was added to the milk each day for a week. The animals were kept without food during the twenty-four hours preceding an experiment, in order that the pancreas might be in a "resting" condition.

At the beginning of each experiment one-half to 1 gram of morphine was given subcutaneously, and the animal was anaesthetised with A.C.E. mixture. The abdomen was opened, a small metal cannula was placed in the main pancreatic duct, and the abdomen was then closed by ligature clips. A cannula was also placed in the jugular vein for the purpose of injecting secretin. As a rule, the blood pressure was not taken. A certain amount of pancreatic juice was collected, and then the animal was killed while still anaesthetised.

When an extract of the intestine was made the gut was opened and washed with water; the mucous membrane was scraped off, ground up with sand in a mortar, and extracted with chloroform water and filtered through muslin. If the extract was to be used for injection into animals no further filtration was made; but if the presence of enzymes was being investigated the extract

*This paper formed part of a thesis offered for the M.D.Cantab.; the expenses of the research were partly defrayed by a grant from the Royal Society.

filtered through filter paper. Extracts of the pancreas e made in a similar manner.

reat care was taken throughout the course of the research prevent any dogs from having milk, unless they were on a diet. The biscuit-fed and milk-fed dogs were kept in rate compartments, and it was impossible for the biscuit s to obtain any milk.

ne occurrence and degree of conversion of lactose into ctose and dextrose by the enzyme lactase was estimated metrically with Pavy's solution in all the experiments. method has been shown by Croft Hill to be extremely rate, provided that the experimental conditions are kept orm, and I have found that it yields very constant and ble results. In a considerable number of experiments method was checked and the results controlled by the aration of osazones and by the fermentation method.

Results.

I.—*The Reaction of the Pancreas to a Milk Diet.*

the first place a number of experiments were made on dogs fed on biscuits. The pancreatic juice from such never contained lactase.

E I.—*Pancreatic Juice of Biscuit-fed Dogs. (The figures resent the number of c.cm. of the solution, which reduced c.cm. Pavy's solution.)*

eriment.	Pure Lactose Solution.	Control. Lactose + Boiled Juice.	Lactose + Pancr. Juice Incubated at 37°.
VI.	6.40 c.cm.	—	6 50 c.cm.
VII.	7.50 c.cm.	—	7.50 c.cm.
VIII.	8.35 c.cm.	—	8.35 c.cm.

he next place, adult dogs were fed solely on milk for s varying from two weeks to two months in different ments. When the milk diet was only given for a short (say a fortnight) lactose was sometimes added to the an ounce of lactose being added daily for a week. The atic juice was then collected in the usual way and ex- d for lactase, which was found to be present in every

II.—*Action of the Pancreatic Juice of Milk-fed Dogs on ose. (The figures represent the number of c.cm. of lactose ion which reduced 50 c.cm. of Pavy's solution.)*

Duration of Feeding on Milk.	Lactose Solution.	Control Lactose + Boiled Juice.	Lactose + Pancr. Juice.	Degree of Conversion.
				Per Cent.
1 month	5.5 c.cm.	—	5.0 c cm.	20.0
2 weeks milk + 8 oz. lactose	7.3 c.cm.	7.2 c.cm.	6.6 c.cm.	18.9
1 month	9 4 c.cm.	—	8.8 c.cm.	14 6
2 weeks	8.6 c.cm.	—	7.8 c.cm.	21.0

e experiments given in Table II, Pavy's method was ed by the preparation of osazones and by the fer- on method. Both these methods yielded positive in each case.

ertain number of experiments the pancreatic extracts g suckling puppies and kittens were examined and nd to contain lactase; and there is every reason to that lactase is a normal constituent of the pancreatic young animals, and gradually disappears when they live on a milk diet.

experiments show clearly that lactase is absent from reatic juice of adult dogs, unless they are fed on a et, when it invariably makes its appearance in the hey furnish satisfactory evidence that the pancreas pt itself to differences of diet by modifying the com- of its secretion as regards the enzymes; and pro- e formation of lactase in response to a milk diet may as typical of the reaction of the pancreas to all forms

II.—*The Specific Nature of the Reaction.*

made a number of experiments with extracts of the membrane of the small intestine of dogs, usually g it simultaneously with pancreatic extracts or juice same animal. Some experiments were also made alimentary mucous membrane of puppies and kittens calf. In all cases lactase was present even in adult dogs fed on biscuits. One or two observations were made on the mucous membrane of milk-fed dogs, but the amount of lactase was not noticeably larger than in biscuit dogs.

The question whether lactase passed from the duodenum into the blood stream, and was simply picked out and secreted by the pancreas had therefore to be considered. The fact that no lactase occurs in the pancreatic juice of biscuit-fed dogs, although it is abundant in the intestinal mucous membrane is strongly opposed to such a view. But it seemed possible that on a milk diet the amount of lactase in the mucous membrane might be increased to such an extent that some ferment entered the blood stream and appeared in the pancreatic juice. However, this does not occur as is shown by two sets of experiments.

In the first place, extracts of the intestinal mucous membrane of biscuit-fed dogs were injected subcutaneously into other biscuit-fed dogs on one or more days in succession. The juice of the latter was then collected and examined for lactase, but invariably with a negative result. Such extracts always contained lactase, and in all probability the enzyme entered the circulation; yet the pancreas did not pick it out of the blood and secrete it in the juice.

In a second set of experiments, pancreatic juice from milk-fed dogs, and therefore containing lactase, was injected subcutaneously into a biscuit dog, and on the following day the juice of the latter was collected and examined; in such experiments, the pancreatic juice of the injected dog contained no lactase.

From the results of these experiments it may be concluded that the lactase of the pancreas is not derived from the lactase of the intestinal mucous membrane, but is formed by the pancreas itself in response to a milk diet. On *a priori* grounds one would naturally expect that lactose was the particular constituent of milk, which actually evoked the production of lactase by the pancreas. This has been shown to be the case by Weinland, who fed a dog for some days on biscuits and lactose only, and found that the pancreas contained lactase. Weinland suggested the pessibility that the production of lactase might be due not directly to the milk sugar, but to the products of the conversion of milk sugar. It is obvious that dextrose has no influence on the formation of lactase, and Weinland showed by experiment that galactose given by the mouth was quite ineffective. I have confirmed his observation as regards galactose.

There is therefore no doubt that lactose itself is the particular contituent of milk which leads to the production of lactase by the pancreas; but a further point of great importance must be discussed. Weinland raised the question as to whether lactose was absorbed as such from the intestinal canal into the circulation, and exerted a direct influence on the pancreas, or whether it only acted indirectly. In order to decide this point he injected lactose subcutaneously into a dog for several days, keeping the animal during that period on a diet free from milk; he found that the extract of the pancreas contained no lactase. I have confirmed this observation, which demonstrates very clearly that lactose, when introduced into the circulation, has no direct action on the pancreas, but is only effective in producing lactase when given by the mouth. Such a result is entirely in harmony with the facts that lactose introduced into the circulation is rapidly eliminated by the kidneys, and that it is not normally present in appreciable quantity in the blood.

Consequently, the formation of lactase by the pancreas is a specific reaction to a diet containing lactose, a reaction which takes place only when lactose is given by the mouth.

III.—*The Influence of Secretin.*

The important part played by the intestinal mucous membrane in the adaptation of the pancreas to food was recognized by Vassiliew and Walther, and was still more strongly emphasized by Weinland, to whose experiments reference has just been made. All these observers, however, considered that the mechanism of adaptation was purely nervous, and, apart from one or two experiments by Weinland, the possibility of a chemical mechanism was not even raised.

My first observations as to the mechanism of adaptation were made on the assumption that secretin was not a perfectly definite chemical substance, but that secretins made from animals kept on different diets might differ to some extent as regards the character of the pancreatic juice to which they gave rise. It seemed possible that variations in diet modified the kind of secretin produced, and thereby altered both the nature of the chemical stimulus reaching the pancreas and the characters of the juice secreted.

Secretin made in the ordinary way from the duodenal mucous membrane of milk-fed dogs was injected into biscuit dogs, and the pancreatic juice of the latter was collected and examined for lactase. The results, however, were entirely negative. Negative results were also obtained when the mucous membrane was incubated with solutions of lactose, or partially converted lactose, for some hours before making the secretin. Secretin from a milk dog was injected subcutaneously into a biscuit dog on two successive days, and the pancreatic juice of the latter collected; it also contained no lactase.

Finally, it was found that when secretin from biscuit-fed dogs was injected into milk-fed dogs, the juice of the latter contained lactase as usual. There is, therefore, absolutely no evidence that secretin takes any part in the adaptation of the pancreas to food. On the contrary, the facts show that the action of secretin is always the same: it stimulates the pancreas to secrete a juice containing all the enzymes present in the gland at that moment. The amount and nature of the ferments, which are present in and secreted by the pancreas at any moment depend not on the action of secretin, but on the previous diet of the animal and are quite independent of secretin. This view is fully in accordance with the conclusions arrived at by Bayliss and Starling as to the chemical nature of secretin.

IV.—*The Mechanism by which Adaptation is Effected.*

An attempt was next made to determine whether unboiled extracts of the intestinal mucous membrane had any influence on the production of lactase. Extracts of the small intestine were made from milk-fed dogs and from biscuit dogs. In both cases some lactose was thoroughly mixed with the extract, the mixture allowed to stand for twenty-four to thirty-six hours in the cold, and then filtered through muslin. Such an extract was injected intravenously into a biscuit dog, and after waiting for an hour or two ordinary secretin was injected and pancreatic juice collected. These experiments also yielded negative results.

It then occurred to me that even if the formation of lactase were due to a chemical stimulus arising in the intestinal mucous membrane, the methods of experiment just described did not allow sufficient time for the pancreas to manufacture an enzyme which was not normally present in the juice of adult dogs. Consequently I made chloroform-water extracts of the entire mucous membrane of the small intestine of several kittens fed only on milk, and injected such extracts subcutaneously for two days in succession into a biscuit dog. The pancreatic juice of the latter was then collected and examined for lactase. In subsequent experiments the intestine of milk-fed dogs was used for making the extracts; with two exceptions, the pancreatic juice of the injected dog invariably contained lactase. As a rule, two injections only were given on two successive days, the dog being anaesthetized and the juice collected on the third day. The extracts were made with as little water as possible, and the bulk of the extract could be injected in each experiment. In spite of the inevitable presence of micro-organisms in such extracts, the chloroform seemed to inhibit their growth, and the dogs showed no signs of infection or illness except in two cases in which injections were made on five days in succession. In those two cases the dogs were unwell, although the local inflammatory reaction was not severe; and these were the only experiments in which the results were negative.

In several experiments Pavy's method was controlled by the fermentation and osazone methods, which gave confirmatory results.

TABLE III.—*Pancreatic Juice of Biscuit-fed Dogs Injected with Extracts of the Intestinal Mucous Membrane of Milk-fed Dogs. (The figures represent the number of c.cm. of lactose solution which reduced 50 c.cm. Pavy's solution.)*

Experiment.	Solution of Lactose.	Lactose + Pancr. Juice Boiled.	Lactose + Pancr. Juice.	Degree of Conversion.
				Per Cent.
I.	7.40 c.cm.	—	6.80 c.cm.	18.1
II.	8.20 c.cm.	8.2 c.cm.	7.60 c.cm.	16.5
VII.	4.10 c.cm.	—	3.75 c.cm.	20.8
VIII.	9.25 c.cm.	—	8.20 c.cm.	25.9
IX.	4.60 c.cm.	—	4.60 c.cm.	0
X.	4.30 c.cm.	—	4.30 c.cm.	0

The last two experiments were those in which the dogs received four and five injections respectively, and were n normal condition.

Although the degree of inversion produced in these ments is not large, yet in some of them it is as large a obtained with the juice of milk-fed dogs. Moreov constancy of the positive results gives them an add reliability, particularly as this was the only means from a milk diet) by which the appearance of lactase creatic juice could be produced; the other method yielded uniformly negative results. In addition, the di of obtaining sterile extracts of the mucous membrane the number of injections which can be made, and quently, it is impossible to obtain a marked cumulativ on the pancreas. It is very probable that the most factory mode of treating the mucous membrane has ye found, but beyond the fact that the action of the ex destroyed by boiling and by standing for some days, has been ascertained in regard to it. Moreover, the amount of ferment formed is of little importance, sin appearance of enzyme even in small amount is quite su evidence that adaptation has taken place.

The experiments described in an earlier section s me to negative the possibility that the lactase secre the pancreas is in any way derived from the lactase in the extracts used for injection. It must therefore cluded that extracts of the intestinal mucous memb milk-fed dogs contain some substance which stimul pancreas to produce lactase. This substance, which formed in the mucous membrane as the result of a di taining lactose, is normally carried in the circulation pancreas, upon which it exerts a specific action, givi to the formation of lactase by the latter. The nature substance is as yet absolutely unknown. The proc sents an obvious analogy to the action of secretin, b more complex in that it evokes the production of ferment, whereas secretin merely causes the secretion existing ferments.

The production of lactase by the pancreas as a resul subcutaneous injection of intestinal extracts mad milk-fed dogs conclusively shows that adaptation invariably dependent on a nervous reflex originating duodenal mucosa, since the adaptation may be produ dog to which no lactose at all has been given.

Moreover, if lactose is injected into the duodenu dog during life and left there for some hours, no la present in the pancreatic juice subsequently collect that dog. I made several such experiments, all o yielded negative results.

On the ground of these experiments, I hold that the tion of the pancreas to a diet containing lactose is about by a chemical mechanism; by the action of la the intestinal mucous membrane some substance is p which acts as a specific chemical stimulus to the p causing it to form lactase; the reaction is produced and reaches its maximum gradually.

The existence of a chemical mechanism for the ad of the pancreas is merely a natural corollary to the mechanism of normal pancreatic secretion; since it discovery of secretin which provided the means of out these experiments, and indicated the lines alon investigations should be made. But the mechanism, in each case chemical, is not of exactly the same nat stimulus of secretin calls forth an immediate respon part of the pancreas, whereas the specific stimulu food stuff has a slower, but more prolonged effect.

Hence, secretin evokes the secretion by the pancre the different enzymes present in the pancreas at the ti the actual composition of the juice as regards its ferm any given meal depends mainly on the previous di animal, and little if at all on the nature of that p meal, except in so far as the nature of the food de the amount of hydrochloric acid secreted by the ston

The influence of diet in modifying the nature an of the enzymes secreted by the pancreas has some be the time of appearance of the ferments after birth. Ap lactase is not present in the pancreas at birth, alt makes its appearance certainly within ten days, a probability earlier. I have made one experiment pancreas of a newborn child which had received no m also on three puppies taken away from the mother a almost immediately after birth; in both cases extrac pancreas contained no lactase, although it was prese intestinal mucous membrane of the puppies. Her the secretion of lactase by the pancreas occurs in re

milk diet, and the presumption is that the adaptation place in the same way as in adult dogs. If this proves the case, it is possible that the same process may occur gards the amylolytic ferment, and that the absence of enzyme in early life is due to the lack of an adequate ical stimulus for its secretion.

BIBLIOGRAPHY.

liss and Starling, *Journal of Physiology*, 1902, vol. xxviii, p. 325; 1003, xx, p. 61. Croft Hill, *Journ. Chem. Soc.*, 1898, p. 634. Jablousky, *des Soc. Biologiques (St. Petersburg)*, 1896. Vassiliew, ibid., 1893. er. ibid., 1899. Pawlow, *The Work of the Digestive Glands* (Thomp- 02). Weinland, *Zeitschrift f. Biologie*, 1899, vol. xxxviii; 1900, vol. xl.

MEMORANDA:

ICAL, SURGICAL, OBSTETRICAL, THERAPEUTICAL, PATHOLOGICAL, ETC.

SE OF ADIPOSIS DOLOROSA (DERCUM'S DISEASE) IN A MALE.

ase, which I exhibited before the Huddersfield Medical y on January 5th, affords many points of interest. The t, aged 75 years, is a gentleman of independent means. dy back and front, the arms to the wrists, and the legs knees only, are one mass of typical lipomata. The began at the age of 40 years. Before each growth ap- he had an aching sensation at the spot which lasted shotty papule made its appearance. Some of the rs are as big as a child's head. In fact there are repre- ons of all stages of development. He has no pain on ulation of the growths nor on either active or passive ent of the underlying muscles. There is not a single on the hands, feet, or face; this is, I believe, charac- of this disease. There have never been any haemor- in connexion with the tumours. His father had the , and died a hale and hearty old man; one of his sisters has the disease. Two of his sisters and one have been subject to fits ever since they were 10 years ere there seems to be a marked hereditary tendency, a hich I have not seen previously raised with regard to ease. This gentleman is otherwise perfectly healthy. s no sign of asthenia.

meeting of the Clinical Society of London, held last (BRITISH MEDICAL JOURNAL, October 31st, 1903) Dr. l Williams exhibited a case in a male, and made note act that there was only one other recorded case in a If this is correct then the case now reported makes d. In Professor Osler's *Medicine* he states that the is characterized by irregular symmetrical deposits of sses in various portions of the body, preceded by or l with pain, and that it is an affection of women, g at the middle period of life. In my patient the nly preceded the appearance of each growth. Pro- sler also says that in a case of Burr's and in one of s the thyroid gland showed atrophic changes. There nce of no such changes in my case.

tient has a very large scrotal hernia, and for which I sulted in the first instance, but owing to the asym- condition of the buttocks and the friction caused by ths I cannot get a truss to act.

ite, Huddersfield. MARTIN J. CHEVERS.

THE TENDON REFLEXES IN URAEMIA.

CHELL STEVENS's note on the condition of the deep n some cases of acute uraemia emphasizes a point well worthy of clinical recognition. The remarkable tion of reflexes which he has noted is not limited to ses, but may also occasionally occur in cases of uraemia also. The differential diagnosis is then y difficult.

ention has been directed to these alterations in the ince 1892, and my connexion with St. Thomas's Hos- afforded me many opportunities of observing the non. In the *St. Thomas's Hospital Reports* for 1896 ed a short paper dealing with the subject, and my erience has only served to corroborate the conclu- re formulated.

ot, however, attach much weight to the value of the s in the differential diagnosis of such cases as Dr. mentions. Increase of the reflexes in the earlier certain cases of cerebral haemorrhage, and also in vulsive affections, is not very rare. In the earlier stages of cerebral embolism it is remarkably common. In all these conditions it may be bilateral.

The note also suggests another point—that of the use of morphine in uraemic states. I am inclined to think that the dangers of the use of morphine in convulsive and maniacal uraemia are exaggerated. I should say that, judiciously used, it is of almost equal value with venesection. I am certain, however, that its danger in comatose uraemia is very real.

London, W. CHARLES R. BOX, M.D.

ADRENALIN IN PULMONARY HAEMOPTYSIS.

A REPORT of the successful administration of the above preparation in haemoptysis by Dr. Arthur C. Bird, of Sidmouth, in September last, which appeared in the BRITISH MEDICAL JOURNAL of January 23rd, reminds me of a like success which followed immediately the administration of two suprarenal tabloids (Burroughs, Wellcome, and Co.), in a case under my observation in March, 1902.

In the early part of that month a young man, whose father had some time previously succumbed to phthisis, suddenly suffered from a somewhat alarming attack of haemoptysis. The usual methods were adopted with a view to control the bleeding, such as absolute rest, the application of ice over the apex, the internal treatment by gallic acid, ergot, hamamelis, turpentine, and small doses of morphine to allay the cough, but all with not much success, as fresh bleeding seemed to recur, when it occurred to me to try the suprarenal extract. I gave four of the tabloids, directing that one was to be crushed, placed on the tongue, and washed down by means of a little water, a second to be taken likewise in four hours. After the second tabloid the bleeding entirely ceased. In a few weeks the patient had sufficiently recovered to resume his out-of-door employment, and on only one occasion since has there been any return of the haemoptysis, for which he immediately took, as before, a couple of the tabloids, which he asked me to let him have in his possession.

He always now keeps a couple of the tabloids in case of emergency, being convinced of their great efficiency. I have also found the tabloids most effective in a persistent case of epistaxis which baffled usual treatment.

Liverpool. O. BOWEN, M.R.C.S., etc.

RECURRENT HERPES ZOSTER.

As I have seen it stated lately that herpes zoster recurs in the same patient more frequently than is generally supposed, it may be worth while to place on record my personal experience. I have had three attacks in seven years—November, 1896, November, 1898, and June, 1903, all in South China.

The first attack was on the right side, affecting the cutaneous lateral branch of the last dorsal nerve. There were three erythematous patches, with vesicles on them later, two just below the crest of the ileum, which appeared first and were also the largest, the third on the abdomen just above the groin. The inguinal glands were swollen and painful. There was the usual smarting pain, and the scars of the vesicles were visible for many months afterwards.

The second attack, in November, 1898, showed itself by an erythematous patch about an inch above the left elbow-joint on the ulnar side; there were ten or twelve papules, of which two first, and afterwards all, became vesicular. In the axilla was a smaller patch. Next day a large patch was observed on the back, midway between the spine and axilla, and just under the spine of the scapula—three patches in all. The pain was slight. The lesion was connected with the second dorsal nerve. I had been taking small doses of arsenic and nux vomica for a week. On the appearance of the herpes arsenic was discontinued. The third attack in May, 1903, was of the terminal branches of the first and second divisions of the trigeminal nerve on the right side, and occasioned some alarm on its appearance. On May 29th I felt a little burning pain at the outer canthus of the right eye; next day it was more painful, and the eyelid was swollen, while red streaks appeared on the forehead above the eyebrow, below the eye, in front of the tragus, and near the nose. On the third and fourth days the eye was nearly closed with moderate swelling; the surrounding skin was hot, swollen, and extremely painful if touched. A few vesicles then appearing, made the diagnosis certain. Fortunately the eyeball itself was not affected, there being only slight conjunctivitis. The vesicles were all small and aborted quickly, but in November the scars left were visible, and for several days after the scabs had dried up the right eyelid still felt stiff.

The Chinese suffer from herpes zoster about as frequently as people in England; and although one or two have told me they have had a previous attack, I have not yet come across a recurring case in my practice except in my own person as detailed above.

LEOPOLD G. HILL, M.R.C.S., L.R.C.P.
Church Misssion Hospital, Pakhoi, S. China.

A CASE OF ACUTE TRAUMATIC TETANUS.

THE following case will, I think, prove both interesting and instructive: I was called to see a boy, aged 13, who complained of pain in his back and "a stiff jaw."

The history of the case as given by the patient's mother was as follows: Eight days prior to my attendance a small rabbit bone pierced the palm of his right hand and was removed. Two days later he went to a hospital, his hand being painful and swollen. A boracic fomentation was applied and the wound healed in a day or two. Seven days after the accident, however, he complained of a pain in his back and "a stiff jaw." At 10 o'clock on the same night he went to a hospital and was examined by the medical officer on duty, who found a slight stiffness of the jaw, and prescribed a liniment with which to rub the muscles of the neck and jaw.

On examination I found the following condition: Well-marked trismus, masseters and temporals hard and contracted, abdominal and other muscles flaccid, a cold profuse sweat all over his body, tonic spasms, knee-jerks exaggerated; temperature, pulse, and respiration normal, mind clear, other conditions normal with the exception of a small dirty wound, with much induration around, on his right palm.

Having excluded hysteria, I diagnosed traumatic tetanus and sent him at once to the hospital, where he died within ten hours of admittance—that is, within forty hours of the first symptoms and eight days after the injury.

I think the case is one of interest for the following reasons: (1) The short period of incubation—seven days; (2) the short period between the first symptoms and death—forty hours; (3) the flaccidity of the abdominal and other muscles; and (4) the increased knee-jerks.

I should like to know whether the condition of the patellar reflex is usual.

London, E. CECIL JOHNSON, M.B., Ch.B.Vict.

REPORTS
ON
MEDICAL AND SURGICAL PRACTICE IN THE HOSPITALS AND ASYLUMS OF THE BRITISH EMPIRE.

HIGH WYCOMBE AND EARL OF BEACONSFIELD MEMORIAL COTTAGE HOSPITAL.

CASE OF VILLOUS TUMOUR OF BLADDER: SUPRAPUBIC CYSTOTOMY: RECOVERY.

(By L. W. REYNOLDS, M.R.C.S., L.S.A., assisted by J. C. W. GRAHAM, M.A.Cantab., M.R.C.S., L.R.C.P.)

History.—W. N., aged 60, was admitted to the hospital on September 2nd, 1902. All his relatives were said to be healthy, and there was no history of previous illnesses. In June, 1900, when lifting a heavy plank, he felt a sudden pain over the left lower ribs anteriorly. On micturating afterwards he noticed his urine was red, and ever since the urine has contained more or less blood, the blood appearing at the end of micturition, the first portion of the urine being clear. Occasionally a little blood was passed at the beginning of the act, but never any clots; at times at the end of micturition clots were passed with the blood. No pain over the bladder was experienced or any discomfort on walking, but sitting on a chair or other seat was uncomfortable. The area of discomfort was between the posterior portion of the scrotum and the anterior border of the anus. There was never any pain before, during, or after micturition or defaecation. The patient has been feeling weaker and getting thinner during the month before admission, but his appetite remained good.

State on Examination.—He was found to be of medium height, squarely built, evidently anaemic, complaining of haematuria. Nothing abnormal was discovered in the heart, lungs, abdomen, or nervous system. The pulse was 64; his general condition was fair, although he was somewhat weak. Urine: On making the patient micturate into a serie three vessels blood appeared in the third vessel at the er micturition. No increased frequency of micturition was plained of. The urine was smoky, with a dark red dep which contained small clots. On one occasion a whitish of membranous material about ½ in. square was seen to from the penis at the end of micturition (this proved to portion of a growth; see below). Its specific gravity was and it was feebly acid. There was a trace of albumen some mucus. Microscopically coffin-lid crystals of ammo magnesium phosphates, stellar phosphates, leucoc numerous red blood corpuscles, and bacilli were fo The fragment of growth was translucent with fine streaks. Under the microscope it showed papillary tu varying size, and delicate capillaries filled with bo forming loops; around the blood vessels was sparse nective tissue supporting cylindrical epithelium. T appearances were considered consistent with an anatomi benign soft or villous papilloma of bladder. Per rectum slight prostatic enlargement was discovered, but othe nothing abnormal. A No. 8 silver catheter was passed, some resistance at the neck of the bladder, into the bla cavity. The usual smoky urine was drawn off with blood small clot at the end of the process; on rotating the e the instrument over the bladder wall nothing very de could be detected in the nature of roughness or tumour.

Operation.—On September 9th suprapubic cystotomy performed, ether being administered by Mr. G. B. T for an hour and a half. The bladder having been distel with 1 in 4,000 mercuric perchloride lotion a supra incision was made and the bladder opened. Scat generally over the mucous membrane of bladder felt several velvety prominences partially pedunculated, two larger growths were situated in the region of the tri With Thompson and Guyon's forceps these various growths removed, and the inside of the bladder was finally curetted a sharp uterine curette. Two villous growths the size of s and large walnuts and about a dozen smaller pieces (cubes) were removed. The haemorrhage ceased after a 4,000 mercuric perchloride douche at 118° F. The u portion of the incision into the bladder wall was unite interrupted sutures of fine silk. The upper part of the incision was united by interrupted sutures of silkworm Into the lower angle of the wound a ½-in. indiarubber dra tube was inserted into the bladder, and a dressing of cya gauze and wood wool was applied. The patient rallied from the operation.

September 13th. Tube removed; the bladder is washed out every day with 1-4,000 mercuric perchloride lo

September 17th. Stitches from the external wound rem The wound is healed except for fistula in lower end w drainage tube was.

September 21st. Under ether the edges of the fistula freshened and approximated by a stitch.

September 28th. Stitch removed.

October 11th. Fistula again freshened and stiched.

October 18th. Stitch removed; pinhole fistula. passed naturally.

October 22nd. Dressing now keeps dry; wound compl healed. Patient's condition fair, but inclined to syn attacks, for which he is having strychnine hypodermically haemorrhage since the operation. Urine, specific gr 1020, acid, no albumen, clear. Patient getting up an ho an hour and a-half daily.

Since October 11th, when washing out of the bladde discontinued, urotropine—gr. xij, t. d. s., ex aqua—has given, and occasionally omitted for sandal-wood oil, mxv

October 28th. Patient discharged well.

The temperature did not become normal until October up to then it had varied 97.2° or 98° in the morning to or 100 8° in the evening. From October 10th to 14th it v from 98.8° in the morning to 101.4° in the evening. October 15th it became normal, and remained so.

June 15th, 1903, nine months since the operation. patient has had no return of the haematuria; he dese himself this morning as "quite well."

REMARKS.—Attention may be drawn to the following po the length of the history of haematuria and the general condition of the patient, although anaemic; the absen the symptom of frequency of micturition; the late 60 years—for an apparently benign tumour. In view of microscopical evidence of cystitis and the frequent supe tion of severe cystitis and pyelonephritis after operatio such cases: (1) the adoption of 1 in 4,000 $HgCl_2$ douches

ntil the suprapubic wound closed; (2) the administration urotropine after the washing out of the bladder was scontinued.

SOUTHWARK INFIRMARY.

SURGICAL EMPHYSEMA SECONDARY TO TUBERCULOUS PNEUMOTHORAX.

nder the care of P. C. P. Ingram, M.R.C.S., Second Assistant Medical Officer to the Infirmary.)

E patient was an old man of 72, the subject of chronic thisis, who at the time he came under observation had ns of a large cavity at the apex of his right lung, and much nsolidation of the rest.

le remained bedridden and in an apparently stationary ndition for some weeks, until an ill-defined swelling was iced on the upper part of his chest, which on examination s found to be due to subcutaneous (surgical) emphysema. ere was no evidence of history of any injury to the chest l, or account of any violent fit of coughing, and he seemed, act, unaware of its existence.

Then first observed, the amount of subcutaneous tissue olved was an area from the chin to the nipple, and later- as far as the axillae, and in the course of the next few days radually extended, until by the fourth day after its first earance the anterior surface of his body, from his forehead is knees, was distended by a varying amount. With this e increasing discomfort, and two days later he died lenly.

ropsy.—The subcutaneous tissue of the body was seen to be dis- ed by air over an area extending above to the scalp and below to the s. The amount of distension varied, being greatest over the front e chest, where the distended tissues were over 1 in. in thickness. ight pleurae were thickened and the pleural cavity distended with little pus being also present), while what was left of the right lung tough and airless mass adherent to the lower half-dozen ribs. the pleural cavity an opening could be traced into the eparterial hus, which would just admit a probe. The connective tissue of the stinum was emphysematous. The left lung showed much compen- emphysema, and contained a small caseous mass in its upper lobe. achea and larynx were normal, with no evidence of any ulceration. ver showed some lardaceous changes, and the heart and kidneys erative lesions, the result of old age.

MARKS.—It is curious that no opening could be found in arietal pleura by which the air could have got into the taneous tissue. It is possible, of course, that an open- as overlooked, but it would appear to be more probable he air got beneath the pleura at the root of the lung and spread through the mediastinum to the root of the neck. disorganized condition of the lung and bronchi would to make such a course possible. From its distribution is no doubt that it became subcutaneous at the root of ck, though, owing to the patient having a long beard, it ot noticed until it had spread to the upper part of the

itish Medical Association.

NICAL AND SCIENTIFIC PROCEEDINGS.

LANCASHIRE AND CHESHIRE BRANCH.

ERAL meeting of this Branch was held in the Memorial Albert Square, Manchester, on March 17th, the chair occupied by the President, Mr. Alex Hamilton er), and over 200 members being present.—Dr. R. T. MSON demonstrated the following cases of disease of rvous system: (1) Amyotrophic lateral sclerosis; (2) paralysis of the arm: in addition to the paralysis of s usually affected (deltoid, biceps and supinator the extensors of the fingers and wrists and the triceps lso paralysed; (3) tabes commencing at the age of 22, hypotonus; (4) tabes with joint affection (Charcot's isease), *x*-ray photograph; (5) ? hereditary tabes; (6) is of the trapezius; (7) spinal syphilis, ? early stage of yphilitic paralysis; (8) cases of disseminated sclerosis. . Gray Clegg demonstrated the following cases of of the eye: (1) aberrant retinal artery; (2) separation retina; (3) neuro-retinitis; (4) calcareous cataract in erior chamber.—Mr. Southam showed the following sur- ses: (1) a case of removal of a polypoid growth from the the skull, after a preliminary excision of the upper jaw; e of excision of the upper jaw for a diffused osteoma.—Dr. Eugene Yonge showed, by means of Professor Meyer's demonstration apparatus for the larynx, the following cases; (1) papilloma of the larynx; (2) tuberculous laryngitis; (3) catarrhal laryngitis; (4) paralysis of the left vocal cord; (5) a case showing the method of demonstrating intralaryngeal operations to a class.—Dr. Lancashire demonstrated a series of cases of disease of the skin.—Mr. E. Stanmore Bishop read a short communication upon some unusual gall bladder appearances, referring to the following conditions: (1) adhesion of duodenum to liver; (2) cicatrized ulcer of gall bladder, producing hour-glass contraction; (3) mobile gall bladder; (4) cystic growth of gall bladder; (5) ulceration and perforation of ductus communis.—Dr. Haring read a short communication on facial erysipelatoid oedema due to intranasal lesions, and showed two illustrative cases.—Dr. T. Arthur Helme read notes of a case of puerperal convulsions in which a new method of treatment had been adopted.

SOUTH-EASTERN (IRELAND) BRANCH.

At a meeting of this Branch held at Kilkenny on March 23rd, the President in the chair, Dr. Wynne read a paper on the prevalence of tuberculosis in the South of Ireland, and also produced statistics showing the increase during the past ten years as compared to England and Scotland.—Drs. Morris (Waterford), Walsh, James, Carey, Hackett, and Mackesey having discussed various points on the subject, Dr. Wynne replied.

SOUTH WALES AND MONMOUTHSHIRE BRANCH: CARDIFF DIVISION.

At a meeting held on March 17th Dr. Garrett Horder and Dr. Rhys successively in the chair, Dr. Mitchell Stevens read a paper on some clinical illustrations of the difficulties in diagnosis of cancer of the liver.—Mr. William Sheen described a case of revolver-bullet wound of the brain, in which the bullet lodged about 12 cm. from the point of entrance, and was removed from a depth of 6.5 cm. in the brain substance. The patient was shown.—Mr. William Martin gave an excellent demonstration of methods of localization of foreign bodies by *x* rays; (1) Webster Fox's (Philadelphia) quadrant wire localizer for foreign bodies in the eye; (2) Mackenzie Davidson's thread localizer; (3) *x*-ray photographs (lateral and antero-posterior views) of bullet in centre of brain (Mr. Sheen's case); (4) stereoscopic view of bullet in centre of brain in living subject. This, Mr. Martin stated, was as yet rare; (5) plastographic view of bullet in the brain. Mr. Martin said this was probably the first time this method had been used to give stereoscopic Roentgen pictures, and expressed the opinion that there was a future in store for it.

YORKSHIRE BRANCH.

Harrogate, Wednesday, March 9th, 1904.

J. W. Martin, M.D., in the Chair.

Cases.—Mr. Nimmo Watson (Harrogate) showed a case of splenic enlargement.—Dr. Sinclair White (Sheffield) showed an unusual specimen of prostatic enlargement, and a gall stone that had formed round a catgut ligature.—Drs. Solly and Daggett (Harrogate) read notes on a case of malignant obstruction of the oesophagus for which gastrostomy was successfully performed.

Bacteriology in General Practice.—Dr. Cammidge (Wakefield) gave a demonstration of the uses of bacteriology in general practice. After pointing out the lines along which research in histology, chemistry, bacteriology. and other branches of science had in recent years opened up new methods of accurate diagnosis, Dr. Cammidge considered in detail the chief diseases in which bacteriological methods might prove useful in practice. Anthrax, enteric fever, tuberculosis, diphtheria, actinomycosis, septicaemia, and other microbic infections were each in turn dealt with, and the distinctive characters of the particular micro-organisms concerned in each were briefly described. In connexion with diphtheria particular stress was laid on the necessity for repeated bacteriological examinations during convalescence in order that the patient should not be prematurely discharged to act as a carrier of infection. The probability of the frequent spread of typhoid fever through the urine was insisted on and the need for careful bacteriological examination before the discharge of the patient was pointed out. Reference was made to ptomaine poisoning and to the symptoms associated with the various forms of this condition. In the course of his remarks

Dr. Cammidge gave the results of his experience in the West Riding County Laboratory, where nearly 4,000 specimens had been examined for the diagnosis of diphtheria, over 700 samples of blood had been submitted to the Widal reaction, and some 1,500 examinations conducted for tubercle bacilli in sputum during the past three years. The demonstration was profusely illustrated by lantern slides, cultures, and specimens, and the large gathering of members present showed the interest the subject had created. Regret was expressed that the speedy departure of Dr. Cammidge to London would not permit of his dealing in greater detail with the subject on some future occasion.

Baths.—Dr. D'OYLEY GRANGE and others kindly showed the members round the Royal Baths, and gave demonstrations of the high-frequency and light and ozone baths.

New Members.—The following gentlemen were elected members of the Association: J. Blyth, M.D. (Sheffield), A. Drury, M.B. (Halifax), W. J. Gray, L.R.C.S. (Doncaster), G. G. Oakley, M.R.C.S. (Halifax), J. H. Waddington, L.R.C.P. (Bradford), and C. R. Willans, M.B. (Ovenden).

Dinner.—The meeting closed with a vote of thanks to Dr. Gibson. After the meeting twenty-three members dined together at the Hotel Majestic.

REPORTS OF SOCIETIES.

MEDICAL SOCIETY OF LONDON.

F. DE HAVILLAND HALL, M.D., F.R.C.P., President, in the Chair.

Monday, March 28th, 1904.

TREATMENT OF URINARY TUBERCULOSIS.

MR. HURRY FENWICK read a paper on this subject, in which he advocated the use of Koch's new tuberculin in cases where the mucous membrane of the bladder was alone affected by the disease. He had used this remedy since its introduction in 1896, and found that in many instances it afforded real relief to the pain in the lower urinary passages. It must not be administered unless tubercle bacilli were found in the urine by a competent observer. Its exhibition had to be carefully watched, for it was liable to light up trouble in one or other kidney latently affected by tuberculosis. In a large number of cases of urinary tuberculosis the cystoscope enabled the clinician to decide whether the kidney was affected or not, for the chronic form of the disease was almost always unilateral, and the kidney implicated early in the course of the disorder. When the kidney was shown by the cystoscope to have a ureter condensed and choked by periureteritis, he advocated its removal. A list of twenty-five nephrectomies for tuberculosis with one death was given. Evidence was advanced that a single kidney in a tuberculous patient could bear the stress of pregnancy. The heavy death-rate of nephrectomy for tubercle of the kidney depended on delayed operation; the cystoscope enabled earlier interference and a more judicious after-treatment. Should the cystoscope show a single ulcer in the bladder (the condition was rare) it should be cut away suprapubically instead of using tuberculin. The same lines were employed in the male affected by genito-urinary tuberculosis. The affected testes, vasa, and seminae vesicales must be sacrificed if any good was to be effected. Should, however, the deposits be many and widespread, or should a history of tuberculosis of parts other than the genito-urinary tract be obtainable, operation and tuberculin were useless, and the best that could be done consisted of hygienic, dietetic, and therapeutic measures.

Dr. A. E. WRIGHT thought it was a great result that new tuberculin injections had been found on the whole satisfactory. Consisting as it did of the protoplasm of the tubercle bacillus, it came into line with other vaccines. He had lately inoculated many cases of tubercle, including one of the the urinary organs, with this vaccine, and had found a marked improvement in nearly every case. The occurrence of tubercle immunity was recognizable by changes in the blood.

Mr. F. SWINFORD EDWARDS had made a fair number of trials of the new tuberculin in tuberculosis of the bladder, and in all there had been great improvement so that symptoms came to be completely in abeyance. The treatment marked a great advance. Why was the tuberculin not to be used in the presence of a single ulcer of the bladder?

Mr. PARDOE had not found the tuberculin useful in six cases of advanced tuberculosis of the kidney. In doubtful cases he had seen the speedy onset of new symptoms. In his experience the single ulcer was usually near the trigone and hence probably not easy to remove.

Mr. THOMPSON WALKER recounted favourable experience of the use of tuberculin in tubercle of the bladder. In one case of early primary tubercle of the kidney he had seen improvement.

The PRESIDENT asked if a moderate degree of pulmonary tuberculosis would contraindicate its use, what was the ordinary course of other treatment, and if urinary antiseptics were used?

Mr. HURRY FENWICK, in reply, said that the lungs were rarely affected in urinary tuberculosis; latterly he had used in addition guaiacol, creasote, fatty foods, etc.; there did not seem to be any indication for urotropine, santal oil seemed preferable. He preferred to excise the single ulcers, because they were of a very dense type.

LIVERPOOL MEDICAL INSTITUTION.

JAMES BARR, M.D., F.R.C.P., President, in the Chair.

Thursday, March 17th, 1904.

RADIUM AND TUBERCULOUS ULCERATION.

DR. COLIN CAMPBELL related two cases of tuberculous ulceration of the mouth and of the pharynx which he had treated with radium rays.

The first case was that of a young man suffering from advanced phthisis, who also had extensive ulceration of the pharynx and a painful ulcer just inside the mouth. The rays were applied by a lead tube and the ulcers healed, but the patient died of phthisis. In the second case, that of a lady with a tuberculous ulcer between the pillars of the fauces, application of the rays for twenty minutes twice daily had also followed by sound healing.

X RAYS AND MALIGNANT DISEASE.

Dr. THURSTAN HOLLAND read a note on the value of *x* rays in the treatment of malignant disease. In a case of recurrent mammary carcinoma quoted a large spreading ulcer healed entirely, and numerous outlying cancerous nodules disappeared. Enlarged glands had since appeared in the axilla and neck. but had not appreciably increased in size for some weeks. He thought the results obtained must largely depend upon the efficient application of the rays. It was difficult to say what class of case would derive most benefit from the treatment, but he had obtained the best results in cases of cutaneous cancer; deeply-seated growths had not responded to the treatment. He suggested that all cases after operation for malignant disease should be treated with *x* rays.

INFANT MORTALITY AND MILK.

Dr. E. W. HOPE read a paper on the above subject. He described the investigation into the causes of infant mortality which had been carried on by himself and other members of the Medical Institution for many years. and which had established the fact that amongst artificially-fed children before three months of age the mortality in the summer and autumn months from digestive disorders was fifteen times as great as it was amongst breast-fed infants, namely, approximately 300 per 1,000 instead of 20 per 1,000. He detailed the close and rigorous attention given to the milk supply in Liverpool not only that from cows within the city, but under a special Act of Parliament, to milk brought into the city from country cowsheds, he described the methods of sterilizing and humanizing the milk, the food being distributed in baskets of nine bottles, containing a sufficient supply for 24 hours, each bottle being used twice. He strongly emphasized that the milk was intended solely for the use of those infants whose mothers were unable to suckle them or who could only partially suckle them. This fact was stamped upon every card of instructions and brought into prominence at every opportunity. The problem of finding a complete substitute for the milk of a healthy mother had not been solved, and probably never would be. There was doubtless some variation in the quality of the mother's milk which specially adapted it to the growing infant's need, niceties which could not be approached artificially. The infants fed upon the milk supplied up to December 31st numbered 6,295. A study of their cases showed that over 50 per cent. were ill when the milk was first issued to them. In 4,453 cases kept under close observation there had been a mortality-rate of 78 per 1,000. The cause of death showed no peculiarity, being certified to be due to bronchitis, pneumonia, whooping-cough, convulsions, etc. This was a favourable rate compared with the ordinary infantile mortality of the city, especially as so many of the children

lready sick when they first came upon the books. The edu-ational value of the method was also considerable. Com-aring these results with those obtained at the Clinique arnier, he showed that there the infants, all of whom had been orn in the institution, were under constant medical supervi-on, and much fewer in number (712, with a mortality-rate 36.5 per mille). They were selected infants; large numbers them were only very partially fed on sterilized, humanized ilk, whereas in Liverpool there was no selection, and a rge proportion were already ill.

Dr. Peter Davidson thought the strength of the milk ould be modified to suit infants of different ages, and that kets and scurvy were likely to follow the prolonged use of manized milk.

Dr. Mussen said the system was of decided educational lue.

Dr. Macalister suggested that milk prescriptions should made up at the dépôts on forms supplied to the hospitals d to medical men working in the districts.

Dr. Hubert Armstrong objected to the term "humanized" encouraging mothers to utilize what was, after all, only odified cows' milk, in place of suckling their infants them-ves.

Drs. F. W. Inman, A. C. Rendle, Littler Jones, A. G. LLAN, and F. H. Barendt also made remarks.

Dr. Hope, in replying, said that the necessity for obtaining lk quite fresh to start with was recognized, but it could not done until the Corporation had its own dairy. This system, n if perfected, would never relieve the mother from her igations, but the results obtained were such as to en-rage the Corporation to persevere in its efforts.

EPIDEMIOLOGICAL SOCIETY.

WHITELEGGE, C.B., M.D., F.R.C.P., President, in the Chair.

Friday, March 18th, 1904.

Enteric Fever in Hamburg.

PAPER on the etiology of enteric fever and cholera in mburg, by Dr. Reincke, medical officer of health to that and the port sanitary authority, was read by the RETARY. Hamburg, the population of which had drupled in fifty years, had now, with the adjacent but ependent municipalities of Altona and Wandsbek, over a lion inhabitants, and extended for many miles along the t bank of the Elbe. This, like most of the coast, was ned of a plateau of drift rising 100 ft. to 150 ft. above the vial foreshore which was rendered habitable only by ns of dykes, and embankments. A larger dyke, the Wet-ng, ran parallel with the shore, and the wells in it, gh exposed to pollution, were much used by the dairy ers and market gardeners on either side. During the ies systems of sewerage and water supplies were n by Lindley and Hawksley respectively. Wandsbek ined its water supply from lakes in Holstein, and Ham-had removed its intakes higher up the river beyond any the highest springtides, while Altona still pumped its ly from the Elbe, polluted with the sewage of both s, but submitted it to a most effective filtration. Owing casional failures in the latter followed by explosive out-ks, deep wells were being gradually substituted for the r. There was, however, a large floating and riverside lation which frequently carrying infection, polluting the with dejecta, and drinking the unfiltered water, consti-d a standing danger. Such being the conditions, it was resting to note the results. Prior to 1893, when the water ly was in an imperfect state, epidemics of enteric fever frequent in Hamburg, and spread over six months with wly rising and falling curve, while in Altona they were but burst out with appalling rapidity, disappearing again st; since that date there had been no epidemic, only the luum, which it seemed impossible to avoid, even in towns ining their supplies wholly from deep wells. Several of had a higher average mortality than Hamburg, a fact h must be referred to food and personal infection. era seemed governed by the same conditions, but the rkable contrast in its incidence in Hamburg and Altona 93 seemed explicable only by the better filtration of the rally inferior water of Altona and possibly to some nt by the different density of the population. From geographical position, Hamburg could not be ex-d to escape cholera whenever it visited Germany, but mortality from enteric fever was trifling, 3 to 4 cases per 10,000 inhabitants, with one-tenth that number of deaths, or less than in many English towns.

Mr. Shirley Murphy thought that the large part played by water was clearly proved, as was the risk of using contaminated supplies even though filtered; of course an unimpeachable supply would not necessarily secure immunity as the disease, might be carried by vegetables, shellfish, etc.

Dr. Seaton held that water had little to do with the prevalence of the disease, which was higher in Glasgow, Liverpool, and Manchester, with their pure mountain water, than in London.

Dr. Parsons maintained that it was owing to the great general improvement in water supplies that the part played by water was apparently less, and that other causes were attracting attention.

Dr. C. Childs pointed out the contrast between the relations of the movements of the ground water to the fever in Munich and in Hamburg. Pettenkofer began as an enthusiastic believer in the English theory, but found that it was not applicable to the conditions of Munich.

Colonel Notter said that in South Africa flies, dust, and overcrowding of young men, ill-fed and filthy, were the factors, water being often absent altogether, but the experience of Maidstone and Lynn showed that no cause could be more powerful than specifically contaminated water.

Royal Academy of Medicine in Ireland.—At a meeting of the Section of Obstetrics on March 11th, Professor A. J. Smith, President, in the chair, Sir Arthur V. Macan showed a series of eight plaster casts of fetal heads, by Professor E. Winternitz of Tubingen, illustrating the changes in the child's head due to the several presentations; also an enlarged (six diameters) cast of the fetal heart. He also demonstrated an obstetric phantom (Dr. Sellheim's), and a *papier-mache* fetal head, by Dr. Hugo Gloeckner. A "lay figure" of a fetus designed by Dr. Ludwig Knapp and several plaster casts of deformed pelves were also shown.—Dr. A. Dempsey (Belfast) read a brief report of his operative work in the gynaecological wards of the Mater Hospital, Belfast, during the year 1903. There were 107 operations, 25 being intraperitoneal, with only 1 death. In cases of metritis and endometritis he regarded curettage alone as not sufficient to cure all cases. He referred to the hot, dry-air treatment, and apparatus introduced by Reitter of Vienna for ovarian and vague pelvic pain, and for the absorption of cellular exudates in the pelvis. He had found it satisfactory in both classes of cases. Temperatures of 120° to 130° C. could be obtained by it. The treatment was not applicable in the presence of active inflammation. Among the laparotomies were 11 ovariotomies, 9 retroperitoneal hysterectomies, 2 extrauterine fetation cases, both diagnosed before rupture; 1 case of gastric and intestinal adhesions, 1 appendicectomy, and 1 intraperitoneal abscess drained through the abdominal wound. The report was discussed by Sir Arthur Macan, Dr. W. T. Smyly, Dr. Tweedy, and the President; and Dr. Dempsey replied.—Drs. Jellett and Earl read a paper on sarcoma of the vagina, and showed a specimen.

Glasgow Medico-Chirurgical Society.—At a meeting on March 4th, Dr. Newman, President, was in the chair. Dr. A. K. Chalmers, Medical Officer of Health for Glasgow, introduced a discussion on infant mortality, which remained persistently high. It might have been assumed that the reduction of the general death-rate, and more particularly of that of children under 5 years, would have been associated with a corresponding reduction in infant mortality. To some extent this was the case, but investigation brought into prominence one feature of the infantile rate which was refractory, and by reason of its volume tended to obscure the other changes which had occurred. Comparison of the death-rate of infants under 12 months in the years 1871 and 1902 showed that there had been little or no reduction in the death-rate of infants under 3 months, but a marked improvement in the rate in infants over that age. The high death-rate in infants under 3 months was due mainly to deaths grouped under immaturity, and the proportion of deaths from immaturity was as high in the very healthy districts as in the most unhealthy areas.—Professor Glaister said that during the last thirty years there had been a progressive decline of the general death-rate in civilized countries, but no such diminution of the death-rate of children under 1 year. All causes of infant mortality might be divided into (*a*) unavoidable, (*b*) preventable. Unavoidable included (1) premature birth, (2) injury at

birth, (3) congenital defects, etc. Some of the above causes were the result of the marriage of people in poor health. Preventable causes were chiefly (1) insanitary domestic surroundings; (2) vicious and objectionable habits and modes of life of parents; (3) effects of parental poverty; (4) occupation of mothers during the early months of child nursing; (5) wilful or compulsory abstinence on the part of mothers to nurse their offspring; and (6) physical unfitness of mothers for that duty. As preventive measures, he recommended that child-bearing mothers employed in certain industries should not be allowed to resume work until the completion of a full month after delivery. Mothers should be supervised by women inspectors in poorer districts. This had been adopted with advantage in some English towns. Municipal *crèches* should be established, also municipal dépôts for the supply of good milk.—Dr. Jardine said that in 1866 the average weight of 100 consecutive children born in the Glasgow Maternity Hospital was 7 lb. 3½ oz.; in 1904 the average was 7 lb. 9½ oz. He gave figures which seemed to prove that rickets had increased in prevalence during the past twenty-five years.—Dr. Niss said that to increase the number of healthy infants we must diminish tuberculosis, syphilis, and alcoholism. To diminish the infant mortality he suggested the following:—(1) Improvement of dwelling houses for poor people; (2) taking greater care of women during the latter months of pregnancy and during their confinement; (3) encouraging mothers to nurse their children; (4) constant supervision of infants in the poorer districts; (5) supply of pure milk; (6) admission to hospital; (7) establishment of municipal *crèches*.

Glasgow Pathological and Clinical Society.—At a meeting on March 14th, Mr. A. E. Maylard, M.B., B.S., President, in the chair, the following cases were shown or reported: Dr. J. Crawford Renton: (1) A patient who had suffered from right facial paralysis, caused by mastoid disease. After clearing out the mastoid Dr. Renton had intended to graft the facial into the spinal accessory nerve; but this proved unnecessary, for within a few weeks of the mastoid operation the paralysis had disappeared (see British Medical Journal, January 16th, 1904). (2) A case of Kraske's operation. The patient, a female, aged 35, had in the rectum a carcinoma movable and limited in extent. After removal the two ends of the rectum were stitched together, the anus not being touched. The patient when shown ten months after the operation was in perfect health.—Dr. A. N. M'Gregor: (1) A case of venous naevus of the thigh treated by subcutaneous ligature, which was shown October 12th, 1903. Cure was now practically complete. (2) A case of post-typhoid varix of the superficial epigastric veins, which was shown January 11th, 1904. Since then the vein had been ligatured at the left saphenous opening, and material relief thus obtained.—Dr. T. K. Monro and Dr. A. N. M'Gregor reported the sequel of a case mentioned at a meeting in March, 1903, and characterized by paroxysms of pain, swelling, and haemorrhage in various situations. The symptoms continued and the patient eventually died during an attack of severe pain in the neck, supposed to be of the same sort as before. Necropsy, however, revealed no lesion in the neck, nor any lesion elsewhere which would account for the symptoms. There was fairly advanced tubercle in the left lung and intestines, and the remains of haemorrhages in various places. No changes were made out in the nervous system; no microbes were found. The nature of the condition remained unknown. (For the early history of this case see vol. ix of the Society's *Transactions*.)—The President: A case of wound of the abdomen caused by a Martini bullet; evidence of haemorrhage being present laparotomy was performed. The intestine was untouched, but the mesentery pierced in three places and an artery of considerable size severed. This was secured and the patient made a good recovery.—The Pathological Subcommittee reported that the tumour of the humerus shown by Dr. Rutherfurd on January 11th was a mixed-celled sarcoma of central origin.—Dr. Workman reported that the tumour of the eyeball accompanying carcinoma of the mamma, shown by Mr. Henry Clark on January 11th, was so necrotic that a definite decision as to its nature was impossible, but he was inclined to regard it as an alveolar sarcoma. Mr. Clark, however, remained of the opinion that the growth was rather to be regarded as a metastasis from the mammary carcinoma. There was recurrence in the scar of the breast operation.

Specimens: Dr. A. N. MacGregor: A neuroma removed from a nine years' stump on account of pain and tingling of one year's duration.—Dr. J. Crawford Renton: Two cysts of the thyroid body and periosteal sarcoma removed from the orbit behind the eyeball.

Harveian Society.—At a meeting on March 10th Dr. S Vere Pearson read a paper on the diagnosis of pulmonar tuberculosis in infants and young children, considered unde four heads: (1) Broncho-tracheal gland affection; the differe tiation and classical symptoms were described; the differe tiation from persistent cough following whooping-coug depended upon the exclusion of the too common causes c such persistent cough, namely, adenoids and habit, combine with a tendency to repeated catarrhal attacks; appropriatel treated, this cough usually soon disappeared unless tubercu lous glands were present within the chest; (2) miliary tube culosis of the lungs; the diagnosis of this form depended upc a study of the general features, the history and course of th case, not upon any special local signs; an insidious and pr gressive wasting without adequate cause should arouse su picion; the state of the skin, especially the presence in it small haemorrhages or of subcutaneous tubercles, the cond tion of the hair, irregular pyrexia, quiet demeanour, enlarge spleen, and the variety of anaemia present, were important the wasting had to be distinguished from simple marasmu and that due to septic infection, etc.; (3) tuberculous bronch pneumonia; certain peculiarities of this type we described, and its differentiation from the simple for with its complications was reviewed; (4) rarer typ of pulmonary tuberculosis: their varieties, the tim of occurrence, and nature were dealt with briefly.- Mr. Laming Evans read a paper on the treatment of co genital club-foot in early infancy, and showed a number cases. He advocated manipulation soon after birth, followe if necessary, by early tenotomy, first of the tibials to ove come the varus, and then of the tendo Achillis to overcom the equinus, the case being kept under prolonged observatio and the foot kept in a fixed apparatus. Mr. Noble Smit concurred with Mr. Evans on the importance of maintainir fixation of the heel until the inversion of the foot had bee entirely overcome, supported early treatment, and drew atte tion to the difficulty of treating neglected cases. Exte sive operation and everything which tended to destroy th natural movement of the foot was to be avoided. Lately h had practised Lorenz's method, which differed from th former forced manipulation by the persistency of the su geon's efforts at the time of operation. He showed son casts and photographs illustrating excellent results obtaine by the improved method of treatment. Mr. Jackson Clark agreed with Mr. Evans's method of treatment, which h thought was now followed at all the orthopaedic hospitals i London. In a few exceptional cases other methods we necessary to obtain a perfect result. That of manipulatio and fixation in plaster-of-paris, as practised by Lorenz, wa in Mr. Clarke's experience the most valuable, but should n be undertaken until the child was able to walk. In perform ing it, sterility should be aimed at, on account of possib rupture of the skin during manipulation.

Laryngological Society of London.—At a meeting o March 4th, Dr. P. McBride, President, in the chair, the fo lowing cases were shown:—Dr. Furniss Potter: (1) A yout aged 19, with an immobile right vocal cord; he was believe to be suffering from tubercle, but no definite signs we present. (2) A man aged 60, with infiltration of the laryn involving both crico-arytenoid joints and an indurated ulce on the tongue; the glottic aperture was much diminishe and tracheotomy had been performed on account of seve dyspnoea; no glands could be felt in the neck; the diagnosi rested between syphilitic and malignant disease.—Dr. F Tilley: Three cases in which radical operations for empy mata of the accessory sinuses had been performed; th symptoms in all three cases had been severe, and the fin result of operation in each case was good.—Dr. D. Grant (1) A young woman with a syphilitic ulcer of the tonsil an well-marked cutaneous syphilides; the former was regarde as a primary sore. (2) A man with extreme laryngeal oedem believed to be syphilitic; under treatment by mercuria inunction and local incision much improvement ha occurred.—Mr. Atwood Thorne: A man aged 32, wit adhesions of the soft palate to the posterior pharyngeal wall when first seen there was a mere pinhole aperture, bu without operative interference the aperture got larger montl after month, apparently by contraction of the adhesions toward their fixed fronts at the periphery.—Mr. R. Lake: (1) A

case of chorditis tuberosa; (2) a woman with tuberculous ulcer on the left vocal cord.—Dr. H. W. Kelson: A girl with a sinus situated about an inch from the tip of the nose in the midline.—Dr. F. Powell: (1) A man, aged 34, with a swelling of the right ventricular band and a small papillomatous-like growth on the anterior margin of the right cord; (2) a patient, aged 28, who had suffered from what he considered to be necrosis of the premaxillary bone; this diagnosis was contested by Dr. W. Hill, who considered that the sequestrum was not the premaxilla itself, but the Stensonian portion of the premaxilla.—Dr. H. J. Davis: A patient with a large swelling between the arytenoids and an oedematous mass resembling a large mucous polypus and extending below the cords. It was doubtful whether the case was one of acute oedema resulting from syphilis alone or one of mixed tuberculous and syphilitic infection.

Exhibits:—The President: A knife for slitting up lacunae in the tonsils and a special pair of forceps for removing the stumps of polypi.—Dr. Smurthwaite: A specimen from a case of rapid tuberculosis of the larynx and trachea in a man aged 67 years.

Association of Registered Medical Women.—At a meeting on March 1st, Miss Webb, M.B., President, in the chair, Miss Alström, M.B., B.S.Durh., read a paper on Lateral Curvature of the Spine, and demonstrated its treatment by ...ing's system and exercises. The two chief theories as to the ...ctual cause of the curvature—the myopathic theory and the ...eory of superincumbent weight—were discussed. It was ...pointed out that in cases of incipient lateral curvature the ...symmetry of the body was often seen more plainly when the ...unk was looked at from the front, and that therefore this ...ew should not be omitted, and the hips should always be ...covered during examination. It was urged that more ought ... be done for the prevention of this deformity, and that ...ildren should be taught to sit in a correct attitude and also ...w to stand while at school. Suitable desks should be pro...led and sufficient light falling in the proper direction ob...ined. The discovery of deformity ought not to be left, as ...s so often the case, to the dressmaker or the tailor, but should ... discovered early or prevented entirely by the regular ...edical inspection of schools. The tendency of to-day was ... treat lateral curvature rationally—the days of torture in...uments had passed—and those surgeons who considered ...nal supports in some cases advisable, almost invariably ...pplemented that treatment by exercises, massage, and ...ct hygiene.

...radford Medico-Chirurgical Society.—At a meeting on ...rch 15th, Mr. C. T. M. Althorp, Vice-President, in the ...ir, Dr. T. W. Hime showed Nocard's harpoon for removing ...agment of the deeper part of a tumour for examination. ... also made observations on the use of humanized and ...ilized milk for the feeding of infants. He animadverted ...ngly on the growing practice among women of the well-...o classes of refusing to suckle their children and of re...ing to artificial feeding. In regard to humanized milk, ...r comparing analyses of human and of cow's milk, he said ... though the chemical composition of human milk might ...more or less closely imitated by the removal of casein ...n cow's milk and the addition of cream, yet it was ...able that the resulting product differed widely from ...hers' milk in its vital constitution. Allusion was made ...icularly to the antiseptic action of the serum-albumen ...human milk on the B. coli, a quality which ...d no counterpart when humanized milk was used. ...regard to the sterilization of milk by heat, he ...ted out that in most cases many hours elapsed ...re the milk came into the hands of the consumer, and ...notable chemical and bacteriological changes might often ...place in this time, so that, even though the milk might ...erilized, toxins had been formed which could not be got ...f. He said that if sterilization were to be of any use ... care must be taken to avoid the gross contamination of ...ilk at its source, and that the sterilization must be per...ed earlier. Drs. Evans, Mercer, Rabagliati, and Bell ... remarks; and Dr. Hime replied.—Dr. Eurich, who ...r in the evening gave a demonstration of microscopic speci... read notes on the treatment of gonorrhoea in the male. ...lied exclusively on the demonstration of the gonococcus ...e criterion of the presence of gonorrhoea, and he advo... the use of protargol injections. In internal remedies ...d little faith. In cases which had become chronic he ...oyed irrigation with protargol under a pressure of about ...tre of water, and said that it was important that the patient should make an effort to micturate while the irrigation was going on, in order that the whole urethra might be exposed to the action of the antiseptic.

Midland Medical Society.—At a meeting on March 16th, Mr. J. T. J. Morrison in the chair, Dr. Herbert Perry showed a case of infantile scleroderma. When first seen the infant (a male) was aged 2 months. The scleroderma was best marked over both gluteal regions and the external aspect of both thighs; there were also scattered circumscribed patches over both arms and forearms. The face and hands were not affected. The differential diagnosis between this condition and sclerema neonatorum was pointed out; it was also noted that Dr. Radcliffe Crocker had stated that the youngest case of infantile scleroderma recorded was aged 13 months. The treatment was discussed. In addition to inunction with cod-liver oil, Dr. Perry proposed to give small doses of thyroid extract.—Mr. W. Duncan Lawrie showed a case of coxa vara of adolescence in a boy aged 18. A subtrochanteric osteotomy was performed and the limb put up in an abducted position with the eversion corrected, on the abduction frame recommended by Mr. Jones, of Liverpool. This frame was simply a double Thomas's hip splint with one limb abducted. There was now 1 in. of real and $\frac{1}{2}$ in. of apparent shortness. This was a gain for the patient of $1\frac{1}{2}$ in. Abduction was still very limited, rotation both inwards and outwards being limited, and outward rotation more limited than inward rotation. It was important to note that a few weeks after recovery from the operation, as the result of a slight exposure, the patient suffered from haematuria. He had, however, a history of scarlet fever with some subsequent renal trouble. The point was interesting because albuminuria had been described in connexion with late rickets. A rachitic or softened condition of the bones was not, however, necessary for the production of coxa vara. It was only necessary that the bones should be growing and overweighted.—Dr. Stacey Wilson read a paper on some varieties of nerve irritation causing neurasthenic symptoms.

Pathological Society of Manchester.—At a meeting on March 9th, Dr. Reynolds, President, in the chair, Dr. A. W. W. Lea made some observations on the etiology and diagnosis of tuberculous disease of the Fallopian tubes, and showed specimens.—Dr. Orr showed a series of lantern slides illustrating the distribution of an acute lesion of the posterior columns of the cord in a general paralytic. By Marchi's method the lesion was found to occupy the areas usually affected in tabes dorsalis, and was found to have its starting point where the sensory fibres entered the cord.—Other preparations were shown as card specimens.

REVIEWS.

DISEASES OF THE LUNGS.

Dr. Tendeloo's volume on the causation of diseases of the lungs[1] is divided into two parts. The first is a physiological study of the lungs and respiration, with special reference to the nature of the distribution of the force A D, where A represents the atmospheric pressure, and D the contractility of the lungs, and to the effect of this force on the degree of distension of the pulmonary alveoli during respiration, for they do not all share alike, those towards the caudal and lateral parts of the lungs being much more expanded during inspiration than those which are situated near the hilus and apex. Another point discussed is as to parts of the lung in which the movement of inspired or expired air reaches its maximum; it appears that air enters the lateral and basal parts more freely than the apices. Further, it appears the bases receive a larger blood supply than the apices. Considerable importance is attached to the freedom of circulation of the lymph, especially when it is remembered that the lymphatics play so great a part in the spread of infective agents. Dr. Tendeloo generalizes his consideration of the study of the lymphatics in the following propositions: the respiratory movements are of great importance in supplying the necessary kinetic energy to the lymph stream; there is a maximum energy during expiration and a minimum energy during

[1] *Studien ueber die Ursachen der Lungenkrankheiten* [Studies in the Causation of Diseases of the Lungs]. By Dr. N. Ph. Tendeloo. Wiesbaden: J. F. Bergmann; and Glasgow: F. Bauermeister. (Royal 8vo, pp. 480, 9 illustrations. 12s. 9d.)

inspiration. He devotes considerable space to the consideration of these physiological problems, preparatory to their application in the explanation of various pathological processes. The second part, dealing with studies of various forms of lung disease, treats first of emphysema. Amongst the better known theories of the cause of chronic emphysema are Villemin's view that it is due to an atrophy of the connective tissue of the lung. Eppinger and others consider that the connective-tissue element at fault is the elastic tissue. Other pathologists have attributed emphysema to changes in the blood vessels, to disturbances of the pulmonary circulation, to inflammation of the pulmonary tissues and to increased rigidity of the costochondral structures (Freund). Considerable attention is given to the popular view that the elastic tissue of the lung is primarily at fault. Basing his opinions on his own anatomical investigations Dr. Tendeloo agrees with Sudsuki who is indisposed to accept this view; atrophy of elastic tissue to whatever degree it is present is a mere accompaniment of an expansion of the pulmonary alveoli and the cause of this expansion must be looked for in some disturbance of the mechanism of respiration. That part of the volume which deals with infection of the lungs, contains a very complete analyses of the various views held as to paths and modes of infection. The author propounds a series of questions as to the causation of fibrinous pneumonic infection, broncho-pneumonic infection, atypical infections, and the various forms of tuberculous infection of the lung, proliferative and exudative. What is the original seat of the infection? Is such infection primary or secondary, using these terms in a broad pathological rather than a clinical sense? Is it a mere development of pathogenic characters of an organism already present as a harmless inhabitant, or is it secondary and due to a spread from some other focus of disease; or again, does an organism already present as a mere saprophyte pave the way for the attack of a more pathogenic microbe? The rehearsal of these problems, which the author has set himself to consider, will give some idea of the scope of the volume; many other similar questions are raised in the book, which is a most welcome contribution to the study of lung disease.

Professor NOTHNAGEL'S system of medicine consists of a number of very exhaustive monographs which, with but one exception, have been handed over for translation and publication in English to Dr. Stengel and an able group of subeditors. Dr. Musser is responsible for the translation of the volume on diseases of the bronchi, pleura, and lungs.[2] The first part deals with diseases of the bronchi, and with emphysema and collapse of the lungs. Professor Hoffmann has paid great attention to the pathology of various bronchial affections, and we are indebted to him for one of the most exhaustive analyses of cases of foreign bodies in the bronchi, to the list of which Dr. Musser has added further examples. Hoffmann's method of treatment of bronchitis is very simple, and is largely by hydrotherapy; the American editor, however, supplies a number of useful drug prescriptions. Bronchiectasis is shown to be mostly associated with some stenosis of the more proximal part of the tubes affected, either by reason of the presence of a foreign body, changes in the bronchial wall or, in the case of bronchiectasis combined with marked fibrosis of the lungs, with constriction applied outside the bronchus. The subject of emphysema has always been, and promises still to be, one of considerable difficulty; beyond a full historical account of the study of this subject little will be found in this section dealing with the pathology of the condition which is not already familiar to the English reader. Professor Aufrecht is responsible for the discussion of inflammations of the lung; and this particular part of the volume will prove of very great interest because of the originality of much of the writer's views and statements. According to the observation of Aufrecht, and also of Heitler, the first stage of croupous pneumonia is not one of capillary engorgement. There is an antecedent change in the alveolar epithelium, as shown by swelling and cloudiness of the cells. The statement made by Aufrecht as to his researches in the organisms found in cerebrospinal meningitis needs revision in the light of Weischselbaum's observations on the diplococcus intracellularis meningitidis, and the more recent work of Dr. G. F. Still on the organism found in posterior basal meningitis: possibly Aufrecht has confused these organisms with Fraenkel's diplococcus. Dr. Musser warmly advocates the extreme view that croupous pneumonia is not merely a local affection of the lung, but is simply a local manifestation of a general disease—a view which is very much in harmony with experimental results, but which, at present, needs a great deal more confirmation from an extended series of blood examinations of patients in whom the pneumococcus has been found, say, in the lungs, meninges, or joints. According to Röhmann the chlorides of the body in cases of pneumonia are not retained in the fixed tissues, but are combined in the plasma with the proteids which have been derived from disintegration of tissue cells. It is a very strange statement to read in a modern treatise of this kind that in the delay of resolution in pneumonia "chronic consolidation or a caseous pneumonia will develop which may lead to phthisis." Dr. Musser's alertness corrects any mistaken ideas which might be held as a result of this statement, and denies that tuberculosis follows croupous pneumonia. On page 545 there is a most useful tabulation of cases of pneumonia treated by antipneumococcus serum. One of the most interesting sections contributed by Professor Aufrecht is the one dealing with cases of atypical pneumonia; these are not cases of croupous pneumonia; the disease is highly infective, is often lobular in distribution; the spleen is constantly enlarged, nephritis is almost always present, and the cut surface of the lung is non-granular. From the accounts given of this most serious disease, it would appear to be what we in England have met with so often in the periodic visitations of epidemic influenza. Then, again, physicians of large experience must recognize a familiar, if not frequent, experience, in what Aufrecht calls "desquamative pneumonia"—a name first suggested by Buhl for another and very mixed group of cases; the individuals attacked suffer from haemoptysis, not merely rusty sputum; there are very obvious signs of apical consolidation which entirely clears up in favourable cases; in cases that have been examined *post mortem* desquamative proliferation of the alveolar epithelium has been observed; unfortunately we have no information as to what organism or organisms are found in connexion with this disorder. The volume concludes with Professor Rosenbach's account of the various pleural affections. Here, again, we meet with the same want of sympathy with modern bacteriological investigations that we have already noted, and Dr. Musser has again to intervene with extracts from the great modern *Traité de Médecine* in support of the view of the close association of simple pleural effusions with present tuberculosis of the organ. Netter found 40 per cent. of all primary pleurisies were tuberculous, inoculation tests being used; Eichhorst with the same method of procedure, but using a larger quantity of fluid, found that 62 per cent. were tuberculous; and finally, Le Damany, inoculating animals with a total 300 c.cm., found that about 85 per cent. were tuberculous. The vexed question of the treatment of pneumothorax is dealt with very fully: 15 per cent. of all cases recover, 80 per cent. die in less than a year, and 10 per cent. live over five years; the cases which recover are practically all cases in which serous effusion also occurs, but they generally die later of pulmonary tuberculosis (Morse). In cases of pneumothorax complicating pulmonary tuberculosis it is best not to interfere surgically. Incision should only be performed, provided the lungs and the general condition of the patient are not absolutely unfavourable, when there is a very large exudate, when the pus discovered by exploratory puncture proves to be thin or putrefying. A few words remain to be said of the volume as a whole. All serious students of this branch of medicine should study it. Amongst much which needs emendation there will be found an immense store of observations, and quite original views are promulgated, especially by Aufrecht. We can hardly feel that the original German edition represents modern views, notably in the case of the influence of micro-organisms in pulmonary disease; the writers appear to belong to the older school, which was obliged to limit itself to clinical and purely histological methods of investigation. That this is not an unmixed disadvantage is shown by the excellent clinical accounts given by the writers. However, Dr. Musser has done his task very satisfactorily, and where the German writers have failed to give a broader and more liberal view of modern advances in bacteriological investigation of lung disease, he supplies the deficiencies; a little more weeding out would have reduced the size of this bulky volume, and spared the reader the unnecessary perusal of material which

[2] *Diseases of the Bronchi, Pleura, and Lungs.* By Professors F. A. Hoffmann, E. Aufrecht, and O. Rosenbach (Nothnagel's System). Edited with additions by John H. Musser, M.D. Authorized translation from the German under the general editorial supervision of Alfred Stengel, M.D. Philadelphia and London: W. B. Saunders and Co. 1903. (Royal 8vo, pp. 1029. with coloured plates and illustrations. 21s.)

though interesting, has no great value in the elucidation of pathological or therapeutical problems. The original writers have written monographs of extreme value, and to Dr. Musser great credit is due for having made these weighty discussions palatable to the practical physician.

Professor FRAENKEL's volume on the special pathology and therapeutics of diseases of the lungs[3] is actually the second volume of his treatise on diseases of the respiratory system. The first volume, dealing with diagnosis and general symptomatology, was published some years ago, and in explanation of the long delay in issuing this companion work, the author remarks upon the immense strides made recently in our knowledge of his subject; also upon the need for a comprehensive study based on a uniform system and from one pen. Most readers will be ready to agree that a knowledge of pathological anatomy is of paramount importance for correct diagnosis and proper treatment; they will therefore not be surprised to find that therapeutics hardly receives the share of attention foreshadowed in the title page. Throughout the book the descriptions of both macroscopical and microscopical appearances are given with minuteness and accuracy, and are excellently illustrated. On debatable ground, as for example the pathology of infarction of the lung and its relationship to embolism, or the essential causative factor in asthma, the author contents himself with a concise statement of the views of most authorities, contributing himself very little to the elucidation of obscure points. It is to the account of lobar pneumonia that one most naturally turns, and we find the claims of the diplococcus to unique specificity clearly maintained. In support of the author's own clinical observations, the experiments of Klemperer, Goldenberg, Koch, and Kitasato are adduced. Thus we are told that in the first stage of every typical case of the disease (die genuine fibrinöse Pneumonie) Fraenkel's diplococcus alone is to be found; all other organisms are secondary invasions, or related to complications; all cases of lobar inflammations owning other bacterial origin are swept into the category of the atypical. That pneumokoniosis may and does arise independently of tuberculosis is now well known; the importance of the physical characters of the particles inhaled as a determining factor, however, should not be lost sight of, and is here insufficiently insisted upon. The gradual intrusion of surgery into the practical therapeutics of pulmonary disease is indicated throughout, but a very necessary warning is given as to the great danger of haemorrhage after exploratory puncture of the lung in suspected new growth. The figures provide the best evidence of the value of radiography for diagnosis in cases of abscess, hydatid, and malignant disease. There is little doubt that Professor Fraenkel's aim will be attained, and that his handbook will be the standard work for some years to come.

NOTES ON BOOKS.

THE number of new textbooks on organic chemistry is continually increasing, but we gladly welcome the latest comer, which is a translation of Dr. HOLLEMAN'S[4] work. It is called *A Textbook of Organic Chemistry*, and the hand of the practised teacher can be felt throughout. The general scope of the book does not differ much from what has become customary in this subject, but only such compounds are described at length as will exemplify modern theoretical views. A special feature is the thorough manner in which proofs of the structure of substances mentioned are given. Where all is good it is difficult in a short notice to mention any part in particular, but we must single out for high praise the masterly treatment accorded to the sugars. The translation is from the second Dutch edition, and has been revised and added to by the author and translator, so that it is quite up to date.

The second series of lectures on diseases of the nervous system by Sir WILLIAM GOWERS[5] will be welcomed by those interested in the more recondite problems of neurology. The first of the series is on subjective visual sensations, being the Bowman Lecture delivered before the Ophthalmological Society in 1895; the second on subjective sensations of sound formed the Bradshaw Lecture delivered the Royal College of Physicians in 1896; the fourth, sixth, and ninth on myopathy and a distal form, on syphilitic diseases of the nervous system, and on myasthenia and ophthalmoplegia were published in the BRITISH MEDICAL JOURNAL shortly after they were delivered. Of the rest, the third entitled abiotrophy, diseases from defect of life; the fifth, on metallic poisoning; the seventh on inevitable failure, a study of syphilitic arterial disease, and the eighth on syringal haemorrhage into the spinal cord were delivered at the National Hospital for the Paralysed and Epileptic, and the last on the use of drugs was an address delivered before the Harlesden Medical Society in 1895. The lectures are therefore well known to many already who will be doubtless glad to have them collected between the covers of one volume, and to others it is not necessary at this time of day to descant on the soundness of the matter or the character of the style of one of our leading neurologists.

One rises from the perusal of Professor CAPPELLETTI's work of nearly 500 pages on neurasthenia,[6] with the conviction, that the author is a thorough master of his subject. Limits of space necessarily make it incumbent upon him to compress his material, but in spite of that the literary style is good and in a condition presenting so multiform an aspect, he steers his way methodically and clearly through the sea of symptoms over which he has to sail, nor does he fall into the trap of seeing neurasthenia everywhere and in everything. For him as for the best authorities on the subject, the essential symptom is of a psychical character, namely, a perennial state of doubt, and in accordance with his view one of the longest and most important chapters in the book is that which deals with the psychical symptoms of neurasthenia; of the various theories which have been put forward as possible causes, he finds, after discussing three or four of the leading views, most satisfaction in that which supposes the disease to be essentially based on a primordial disturbance of the nerve cells. He draws an important distinction between primary and acquired neurasthenia, and compares it to primary and acquired syphilis; the prognosis in the former case being distinctly more serious than in the latter. There is an excellent bibliography containing as many as 1,131 references, arranged in chronological order from the time of Hippocrates down to 1903.

Mr. A. J. MARTIN'S compact little volume is worthy of a more pretentious title than that of *Up-to-Date Tables*.[7] To open a book with such a name and to find it quite pleasant to read is surprising. It is a mine of information upon every point connected with weights and measures, official and unofficial, ancient and modern, in use throughout the British Isles, India, and the Colonies. Their relations to one another, their history, the laws regarding them, all receive adequate notice; and all sorts of outside matters, such as measurements used in electricity and in various field sports, find a place. Not the least interesting and instructive parts of the work are those sections which deal with the metric system and its possibilities. The innumerable advantages which would accrue from its introduction into the every-day life of the land are clearly shown, and no opportunity is missed throughout the book of proving how easily the metric system could be substituted for present systems of mensuration in many cases and adjusted to requirements in others. A short penny abstract for the use of children is supplied gratis with the volume.

DR. W. HANNA published recently in the *Quarterly Journal of Microscopical Science* a paper on Trypanosoma in Birds in India, in which he gave a description of a trypanosome which he found in the blood of domestic pigeons in India, and also of another he found in blood slides of Indian crows which Major Ross allowed him to examine. Measurements of both are given, and show that the trypanosomes are much larger than those found in mammalian blood. Both parasites appear not to have been described before, and if this is so they will require to be named. A coloured plate shows the appearance very well.

[3] *Spezielle Pathologie und Therapie der Lungen Krankheiten.* Handbuch für Aerzte und Studierende. Von Professor Dr. Albert Fraenkel, Direktor der dritten Abteilung des städtischen Krankhauses am Urban in Berlin. Berlin: Urban und Schwarzenberg. 1903. (Roy. 8vo, pp. 996, 71 illustrations. M.25.)

[4] *A Textbook of Organic Chemistry.* By Dr. A. F. Holleman, Professor Adinarius in the University of Groningen, Netherlands. Translated from the Second Dutch Edition by A. Jamieson Walker, Ph.D., B.A., assisted by Owen E. Mott, Ph.D. New York: John Wiley and Sons; and London: Chapman and Hall. 1903. (Demy 8vo, pp. 573; 73 figures. 10s.2.50.)

[5] *Subjective Sensations of Sight and Sound, Abiotrophy, and other Lectures.* By Sir William R. Gowers, M.D., F.R.C.P., F.R.S. London: J. and A. Churchill. 1904. (Demy 8vo, pp. 250. 6s.)

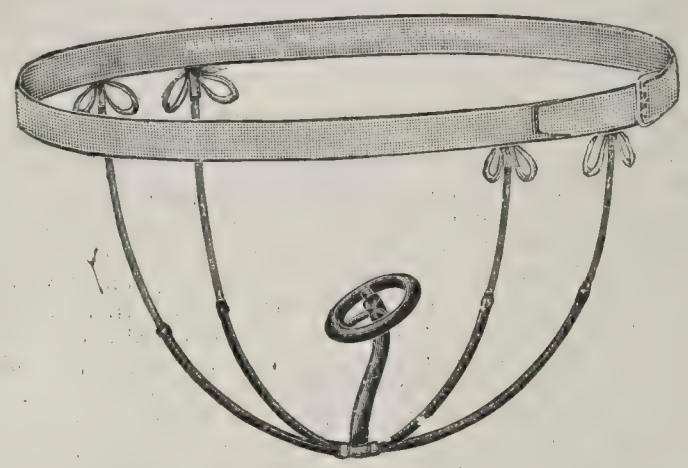
[6] *La Neurastenia.* [Neurasthenia.] Per Dott. Luigi Cappelletti, con proemio de Prof. C. Bontigli. Milan: Ulrico Hoepli, 1904. (Fcap. 8vo, pp. 510. L. 4.)

[7] *Up-to-Date Tables.* Compiled and written by Alfred J. Martin. London: T. Fisher Unwin. 1904. (Fcap. 8vo, pp. 255. 2s. 6d.)

REPORTS AND ANALYSES
AND
DESCRIPTIONS OF NEW INVENTIONS
IN MEDICINE, SURGERY, DIETETICS, AND THE ALLIED SCIENCES.

MEDICAL AND SURGICAL APPLIANCES.

A Pessary for Prolapsus Uteri.—The annexed figure represents a pessary and waist-belt which Mr. DERHAM-REID of Manchester has had made for the treatment of pronounced cases of prolapsus uteri. In watching the descent of the uterus when attempts were made to prevent it by an ordinary elastic ring pessary he observed that the anterior margin of the ring inclined downwards, and was followed by the anterior wall of the vagina and the floor of the bladder, while



the posterior margin of the ring retained its position in the posterior *cul-de-sac*, occasionally even after the whole uterus was expelled. His object, therefore, was to reinforce the anterior resistance of the ring. This he thinks he has attained in this pessary by a spring extending from the central stem to the anterior margin. Like other stem pessaries it requires a waist-belt for its attachment, but differs from them in that the stem is merely supplementary to an ordinary elastic ring. It is claimed that its introduction is easy. It has been made for him by Messrs. Arnold and Sons of West Smithfield, under the name of the "Derham-Reid pillared pessary."

THE REVACCINATION BILL, 1904.

THE following manifesto in support of general revaccination at school age has been extensively signed by influential individuals and by representatives of public or corporate bodies:

"Believing that in vaccination and revaccination we possess the best protection against epidemic small-pox, we should heartily welcome legislation making revaccination at school age obligatory on all but the children of conscientious objectors or those who may be for a time excused on the ground of ill-health."

Among the number of corporate bodies or representative individuals who have signified their intention of supporting the Bill are the following:

Chairmen of County Councils.—Cheshire, Lincolnshire, and Northants.

Chairmen of the Health Committees of Bath, Grantham, Holborn, Liverpool, Macclesfield, Northants, Sunderland, Manchester, and Stoke-upon-Trent.

Boards of Guardians.—Ormskirk, Swindon, Toxteth Park (Lancs), Wharfdale, Chelsea, Hammersmith, Holborn, Lewisham, Paddington, St. George's Hanover Square, St. Marylebone, Whitechapel, Woolwich, Ashton-under-Lyne, Barrow-in-Furness, Calne, Daventry, Epsom, Fylde, Hardingstone, Hungerford, Leighton Buzzard, Lichfield, Louth, Macclesfield, Mansfield, Morpeth, Pontefract, Ringwood, Strood, Tendring, and Truro.

Mayors.—Chelsea, Cheltenham, Croydon, Deptford, Finsbury, Fulham, Hanley, Holborn, Ipswich, Islington, Kensington, Macclesfield, Reigate, Shoreditch, Stepney, Stoke Newington, Stoke-upon-Trent, Sutton Coldfield, Torquay, Wakefield, Wandsworth, and Workington.

Heads of Colleges.—At Oxford: Balliol, Brasenose, Jesus, Keble, Magdalen, New, Oriel, Pembroke, Queen's, Wadham, and Worcester. At Cambridge: Christ's, Clare, Corpus Christi, Downing, Emmanuel, King's, Pembroke, St. Catherine's, Queens', Selwyn, Sidney Sussex, and Trinity: Girton, Newnham, Somerville, Lady Margaret Hall, Westfield, Holloway.

Head Masters.—Eton, Harrow, Rugby, Marlborough, Fettes, Sedburgh, Cheltenham, Dulwich, Repton, Westminster, Malvern, Tonbridge, Radley, Epsom, Bradfield, Merchant Taylors, Christ's Hospital, Lancing, Leys School (Cambridge), Dover College, Mill Hill, Wakefield, Framlingham, Eye, King Edward's School, Birmingham, etc.

Head Mistresses.—Queen's College, Church of England High School, Baker Street, Notting Hill, City of London, Roan's School, Skinners' School, North London Collegiate School, Ipswich, Wycombe Abbey, Winchester, Ladies' College, Guernsey; Southampton, etc.

Medical Officers of Health.—By 157 medical officers of health in charge of towns, each containing not less than 40,000 inhabitants.

Other Medical Men.—By 27 members of the Council of the British Medical Association; by 4 of the London coroners; Dr. Barnardo.

Others.—The Chief Rabbi, Sir Richard Farrant (Rowton Houses), Messrs. Maple and Co., Mr. William Whiteley, Messrs. John Barker and Co., the Army and Navy Stores, Messrs. Jay's, Marshall and Snelgrove, and Debenham and Freebody,

MEDICAL NEWS.

THE annual dinner of the Pharmaceutical Society of Great Britain will take place at the Whitehall Rooms, Hotel Métropole, on Tuesday, May 17th.

SUCCESSFUL VACCINATION.—Dr. S. H. Rentzsch, of Week St. Mary, Cornwall, has received for the third time in succession the Government grant for successful vaccination.

CHICKEN-POX NOTIFICATION.—In consequence of the increase of small-pox in London, the London County Council decided on March 29th to make an order for the notification of chicken-pox during the next four months.

A PRESENTATION.—Dr. William Odell, of Torquay, who has been giving ambulance instruction at the Central Technical School, has been presented by his pupils with a writing-case, bearing an inscribed silver shield.

POST-OPERATIVE PHLEBITIS.—A prize of 500 dollars is being offered by a Fellow of the Rhode Island Medical Society for an essay by any member of the medical profession on the subject of post-operative phlebitis. Particulars of the competition will be found in our advertisement columns.

SMALL-POX IN LONDON.—During the past ten days the number of small-pox notifications in London has continued to increase, chiefly in the East End, and at the beginning of the week it was stated that there were 124 patients under treatment at the small-pox hospitals, against a total of 66 on March 19th.

FLANNEL SHIRTS.—The Flannel Shirt Club is a society, the working members of which each subscribe 1s. annually, and undertake to provide at least one flannel (not flannelette) shirt during the same period. The honorary members subscribe 2s. 6d. a year, and undertake to provide at least two shirts annually. Gifts of flannel or money, to buy the same and to pay for its conversion into shirts by paid workers, are also sought. When received or completed the shirts are given to the sisters of hospitals for distribution to such poor patients as may stand in need of them on their discharge from hospital. The utility of such a society is obvious. Its secretary is Miss Gethen, Stanley House, Bow Road, London.

DEFECTIVE AND EPILEPTIC CHILDREN.—At a conference of the after-care committees of Birmingham, Leicester, and Nottingham, held at the former town on March 24th, Miss Dendy, Secretary of the Lancashire and Cheshire Society for the Permanent Care of the Feeble-minded, read a paper in which she urged that the Act of 1899 should be amended so as to compel every school authority to provide suitable accommodation for defective and epileptic children; manual training only should be given, book learning being perfectly useless. At the afternoon sitting papers were read which advocated the provision of further accommodation for non-pauper imbeciles, and the transference to the county councils of all authority over the feeble-minded.

FACTORY GIRLS.—The Factory Girls' Country Holiday Fund sends factory girls into the country for a holiday at such times as they can best afford to leave their work. Most of them go for a week; others who have been ill are allowed to stay longer. Last year 3,600 girls and women were sent away, while the amount they contributed themselves rose to nearly one-third of the total expenditure of the fund. The little holiday is of immense benefit to the girls, who save all the money they can towards it. Once they have been in the country they try to save money to go again, so the outing has a good educational a well as a good physical influence. The fund is at present overdrawn. The Honorary Secretary is Miss Paget, 28, Campden Hill Square, W.

BRITISH MEDICAL ASSOCIATION.

scriptions to the British Medical Association for e year 1904 are now due and should be forwarded postal order or cheque to the amount of 25s. the General Secretary, 429, Strand, London, W.C., , in the case of Colonial members, to their Branch reasurer.

British Medical Journal.

SATURDAY, APRIL 2ND, 1904.

RD ESHER'S COMMITTEE AND THE ARMY MEDICAL SERVICE.

EWHERE we publish extracts from the final report of Esher's Committee on War Office Reconstitution, ed at the end of last week, touching the points which ern the medical service of the army. The first thing will probably strike most readers in the new scheme s vague and sketchy character. Lord Esher and his agues seem to be aware that their whole scheme is to this criticism. They endeavour to meet it in cipation by insisting that they claim only to have ed the machinery which will enable the pro- of the reorganization of the military forces the Crown to be worthily solved. They say it has been their object to avoid details as s possible, and to "erect a strong and well-knit fabric h can be elaborated by others." They appear to have he nebulous character of their scheme most in regard e medical service; nor is this to be wondered at con- ing that not one of the triumvirate can have any spe- nowledge of the medical requirements of the army. have doubtless done their best, but their single idea s to have been to make the medical service of the as far as possible an exact replica of that of the navy. ave already pointed out more than once that in ng this their aim they have followed a model which is ood in itself and is likely to prove disastrous if applied vastly more complex conditions under which the Medical Service has to work.

s clearly the mistaken idea that everything is for the n the best of all possible navies which has inspired port; in regard to the medical service in particular as been frankly admitted by Mr. Arnold-Forster in ply to the representations of the Royal Naval and ry Committee of the British Medical Association. t is notorious that the weakest point in the adminis- n of the medical department of the navy is the sub- te position of the Director-General, who is simply a t in the hands of the Naval Lords of the Admiralty. service be efficient in which an officer, who et his heart on a particular billet which he good and sufficient reasons refused by the or-General, has only to go behind his superior 's back to get the wires pulled as he wishes? Can a e be efficient in which the responsible head has no unity of impressing his views, founded on expert edge, on the First or even on the Second Lord? His on matters with which he is specially conversant be filtered through a subordinate official who may or ot be a satisfactory medium for the purpose. This system which Lord Esher's Committee has taken as el

In reply to criticisms founded on undeniable facts the Committee virtually say with Falstaff, "I deny your major." They cannot accept the view "that a place on the Army Council ought to have been provided for the Director-General of Army Medical Services," who, as they recall with something rather like a chuckle, "was a member of the defunct War Office Council." They are good enough to point out that the Royal Army Medical Corps "exist to serve the army in a most important capacity." They repudiate the principle of representation as tending to destroy the character of the Council. As on their own showing, the function of the Army Council is to create and to maintain an army, it would certainly seem that the more completely the representative principle is accepted, that is to say, the more completely special knowledge of all arms and branches of an army is in a position to make its influence practically felt, the more efficiently will the Army Council discharge its functions.

We are not, however, concerned about a word. By all means let the character of the Army Council be saved by making it, as the Committee would have us believe, absolutely non-representative. The principle for which we contend—let it be called representation or by any other name—is that in the administration of the medical, which is also the sanitary, service of the Army the Director should have no authority over him in his own sphere but the Army Council of which he should be a member. Lord Esher and his colleagues seem to have persuaded themselves that, under the arrangements which they propose, the status and the power of the Head of the Medical Services of the Army will not be lowered; they profess to believe on the contrary "that his position will be considerably strengthened in peace and war." The reason for this seems to be that the Council as a whole is now responsible for the welfare of the soldier. "It has full powers over the whole range of military administration, and there should be no danger that sanitary considerations will be neglected." The Adjutant-General, it is stated, as a member of the Council, occupies a far stronger position than his predecessors, and it is asserted that he will be able to represent effectively the medical needs of the personnel of the army with which he is especially charged. On this the obvious comment is: Could not the Head of the Medical Services represent these needs far more effectively than an officer whose mind must surely be sufficiently occupied with the multifarious duties—of less importance, indeed, than medical matters to the welfare of the army—which fall within the province of the Adjutant-General? We do not doubt the plenitude of the power of the Army Council, and we quite agree that there should be no danger that sanitary considerations may be neglected, but if the Adjutant-General should be an officer of the type with which the medical service has been painfully familiar in the past, it is pretty certain that they will be neglected. The only security against such neglect is that the Director-General shall be on the Council, not merely to recommend but to enforce his recommendations.

As will be seen by a note in another column (page 814) the Royal Naval and Military Committee of the British Medical Association held a special meeting on March 29th, and passed a resolution reaffirming its opinion that the Medical Service of the army now occupies so important a position in safeguarding the health and life of the soldier in peace and in war, that in

order to secure the highest state of efficiency it is essential, in the best interests of the army, that the medical service shall be administered by an army medical officer who shall have a seat on the Army Council. This resolution was adopted after considering fully the arguments adduced by Lord Esher's Committee in the contrary direction.

The plan proposed by Lord Esher's Committee is so retrograde that we can account for its adoption by three earnest and able men only by the supposition that it is the outcome of a compromise between conflicting influences and ambitions. We venture to predict that if the proposal is adopted by the Government, the attitude of the medical profession towards the service, which had become favourable under the influence of the reforms instituted by Mr. Brodrick, will once more be changed to one of at least negative hostility.

For the rest, as presented in the report, the scheme invites no particular criticism except in regard to the mistiness of its outlines. But, as the logicians say, *dolus latet in generalibus*, and the innocent-looking definition of the duties of the Director-General may conceal ulterior intentions of the most mischievous kind. The issue of the first part of the Report was hailed by the public as indicating the birth of a new order of things at the War Office. The "old gang," to use Lord Randolph Churchill's phrase, was to be eliminated; jobbery was to be stamped out; social influence was to be no more. A Saturnian reign was to be established in which Napoleon's maxim, *La carrière ouverte aux talents*, was to be taken as the guiding principle, and the whole machinery of administration was to be framed and worked out with a single eye to efficiency. It was a beautiful idea, but alas! for the somewhat sordid reality. Before the ink of the signatures to the Report could well have been dry, there come whispers of jobbery and social influences to mar the fair dream of reform. We know not what truth there may be in these rumours, but there is unfortunately nothing in them that is intrinsically impossible. We of course acquit Lord Esher and his colleagues of any conscious tampering with the unclean, but the very shadowiness of the system of administration which they propose lends itself to possible abuses in its practical working. Before, therefore, a final judgement is expressed on the matter, it will be well to watch for some time the development of the new organization of the service.

In the meantime, attention may be called to a curious feature of the report. Reference is made to an Army Hospitals Committee the existence of which is simply assumed without any information being vouchsafed as to how it came into being or who are its members. In the last issue of the Army List there is no mention of such a Committee. We are sure that the profession and the public would be interested to know more about this little mystery, which is suggestive of the Venetian Republic rather than of our stolidly straightforward Britain. Like the man at the Circumlocution Office—we want to know; and our curiosity is all the greater since the Hospitals Committee, as far as we can make out, is altogether independent both of the Director-General and of the Adjutant-General. Yet its duties, which are said to be to advise the Civil Member of the Council as regards the designs, sites and sanitation of barracks and hospitals might be supposed to have a somewhat close relation to the "medical and sanitary questions" which are within the province of the Director-General.

The Army Sanitary Committee is suppressed but the Advisory Board is allowed [to survive, though instead g giving counsel to the Secretary of State for War direct t is required to bestow its advice on the Army Coun The Nursing Board has also escaped the iconoclastic ha of the reformer.

There we must leave the matter for the present. T scheme, as far as it has been revealed to the public, has, we have pointed out, one fundamental defect which itself must tend to make it hopelessly ineffective a therefore unacceptable to the medical profession. system under which the head of the Army Medical Serv is subordinate to an officer who represents the pur military element of the army, and an *imperium in impe* is set up in the medical service itself, may be said combine the maximum of confusion with the minimum efficiency.

THE PHYSIOLOGY AND PATHOLOGY OF THE PANCREAS.

TWENTY years ago the pancreas and its diseases we omitted altogether from our standard works on the pr tice of medicine and even ten years ago they were d missed in a few pages, The progress which has sin been made and the knowledge which has been acqui respecting the functions of this gland, its relation metabolism, its morbid conditions and the clinical sy ptoms caused by them we owe in the first place to phys logical researches carried on by means of experiments animals and in the second place to the surgery of t abdomen.

Unquestionably the clinical importance of the pancr was greatly increased by the discovery of its relation glycogenesis by von Mering and Minkowski, but we h to thank abdominal surgeons like Mr. Mayo Robson working out in detail the distinctive features of t various pathological affections of the pancreas and laying the foundations of their diagnosis. The work von Mering and Minkowski has been followed by a serie confirmatory researches, but a new line was struck out Pawlow in his study of the conditions under which t pancreas secretes the ferments which play, as we n know, such an important part in digestion. It was Pawl who first drew attention to the singular adaptability the glands concerned in the secretion of digestive flu to special foods. Thus, a dog fed on flesh secre pancreatic fluid rich in trypsin, while one fed bread secretes a fluid relatively rich in starch ferme and again a third animal fed on milk secretes fluid rich in fat-splitting ferment. The study of t function of the pancreas has been greatly facilitated the discovery of Starling and Bayliss that the secretion pancreatic juice may be stimulated by introducing i the circulation the chemical substance to which they h given the name of "secretin," obtained by them from intestinal mucous membrane. In the communication publish by Dr. Bainbridge, one of the Research Scholars the Association, he details some very interesting resu obtained by the study of the pancreas on the lines in cated by the investigators to whose work we have allud He selected lactase, an enzyme normally absent from pancreatic secretion of adult dogs, as this ferment conve lactose into galactose and dextrose, and its effect may readily determined by estimating by means of Pavy's so tion the quantity of dextrose formed with a given amou of pancreatic juice. His experiments showed that dogs on biscuit secrete no lactase, while those fed on milk secr

every instance. As traces of lactase are found in the tinal mucous membrane, he desired to answer the ion whether this passed into the blood and was taken y the pancreas. He found that a watery extract of se injected into the circulation did not cause a secre- of this ferment unless the injections were kept up least two days, while lactase injected into the duo- n of living dogs was not found in the pancreatic He believes, therefore, that the effect on the eas is due to some substance other than lactase, stimulates its production, and that it is a chemical ot a nervous action. In support of the conclusion he production of the ferment is the ultimate but he immediate effect of special feeding, he states he pancreatic juice secreted by newborn puppies ns no lactase, but in the course of a few days, nly within ten days, it makes its appearance. These ches show the remarkable adaptation of the pancreas ecial foods. The influence of the nervous system s the pancreas to secrete whatever enzymes may be t in it: the production of special enzymes is the of the specific chemical stimulus.

Mayo Robson, in his very valuable discussion of the osis of pancreatic diseases, by no means hides the he difficulty still attending the question. He out that this is largely due to the vicarious possessed by other organs to perform the ons of the pancreas, so that the suppression of one er of these may give rise to no symptoms. The unction which cannot be supplied is glycogenesis, s relations are still obscure, and so long as a portion of the gland is intact that seems able to per- the whole of the work. He attaches considerable stic importance to the presence of fat in the stools, order to elicit this symptom it may be necessary to sort of test meal in which fat is in excess; when it ciated with evidence of imperfect digestion of meat, ly only ascertainable in many cases by micro- l examination of the faeces, the presumption in of pancreatic disease is very strong. He also lays upon the so-called pancreatic diarrhoea, but points t it is not true diarrhoea, as the stools are not but bulky, soft, and greasy. Great interest s to the so-called "pancreatic reaction" discovered Cammidge in his work upon Mr. Mayo Robson's and described by him in his Arris and Gale e (page 776). This reaction depends upon the e of glycerine in the urine, which in its dependent upon the fat necrosis so characteristic reatic disease. The reaction is a somewhat compli- rocess, depending upon the formation of glycerose solution of glycerine is heated with nitric acid and ection of this body by the formation of characteristic e crystals by a special adaptation of the phenyl- n test. Any sugar present must, of course, be re- from the urine by fermentation and the alcohol d by boiling before this reaction is looked for. By fication of the method, and by the careful deter- n of the length of time required for dilute sul- acid to cause the disappearance of the crystals watched under the microscope, Dr. Cammidge s it is possible to distinguish between various pan- affections, and in particular to differentiate acute hronic inflammation, and either of these from ant disease.

emarkable, or at least noteworthy, that out of the very large number of cases of pancreatic disease seen by Mr. Mayo Robson he has only found a few in which glycosuria was present. This result justifies the failure of older clinical observers to connect the two conditions, and it was not until experiments on animals had shown that total extirpation of the pancreas in dogs is regularly followed by diabetes that closer attention to the matter proved that any such connexion existed. As Mr. Mayo Robson points out, it is only when the entire gland is destroyed, as in extensive malignant disease, or when the islands of Langerhans are involved in the interacinar type of chronic interstitial pancreatitis that diabetes supervenes. In the interlobular type of chronic interstitial pancreatitis there is no glycosuria, and microscopical examination has shown that the islands of Langerhans are quite free from disease.

Unquestionably it is too early to express a final opinion of the value of the rather intricate methods employed by Dr. Cammidge, but that a very real advance has been made by Mr. Mayo Robson by his work upon the pancreas there can be no doubt. He has been ably assisted on the chemical and bacteriological side of these researches by Dr. Cammidge, and from this happy association we see great reason to hope for fresh and valuable additions to our knowledge of a department of pathology which only a few years since was almost blank.

PLAGUE AT JOHANNESBURG.

WHEN confirming by telegram last week the report of the outbreak of plague at Johannesburg, Lord Milner was at the same time able to give an assurance that suitable measures were being taken to check the prevalence of the epidemic. A good deal of light upon the foundation for this assurance is afforded by a report dated November, 1903, but dealing with the year ending June 30th, 1903, by Dr. Charles Porter, medical officer of health to the municipality of Johannesburg, which has lately been received in this country.

It would appear that in December, 1902, the medical officer of health conferred with Dr. Turner, medical officer of health for the Transvaal, and afterwards with the Colonial Secretary, as to the measures to be taken on the Natal border and in Johannesburg in view of the occurrence of plague at Durban, and the possibility of its extension to the Transvaal. The Public Health Committee of Johannesburg, acting on the advice of the medical officer, resolved on December 18th, 1902, to prepare a plague camp at Rietfontein, seven miles east of Johannesburg, for the reception of any cases which might arise either in Johannesburg or the surrounding districts. The Colonial Secretary and Dr. Turner placed all the existing stores at the lazaretto at the disposal of the municipality. As a temporary measure the old leper asylum was cleaned out and furnished for the reception of plague patients, and the ground around it cleared and prepared for tents. A large pavilion formerly used for small-pox was fenced in with barbed wire, and held in readiness for coloured patients: at the same time a number of preparations for the establishment of a plague camp were undertaken, a space measuring 300 ft. by 900 ft. on high ground, about 200 yards south of the old leper asylum, and half a mile east of the lazaretto, was enclosed with galvanized iron and divided into two parts for whites and coloured, each part being further subdivided for sufferers and contacts. In the white division

six cemented sites for marquees were prepared, and for both parts storerooms, baths, latrines, and kitchens were erected; the marquees, tents, and tarpaulins were lent by the Government. The water supply was attended to; furniture, bedding, disinfectants, and other necessary stores for the immediate reception of 25 patients were sent out to the camp; provisional contracts made for the requirements of 75 additional inmates, arrangements for nurses were made with a Nursing Association and a list kept of available cooks and attendants, while the use of two army ambulance wagons was secured. A supply of both Yersin's serum and Haffkine's prophylactic were obtained from the medical officer of health for the Transvaal, and a list of persons willing to act as inspectors, disinfectors, rat-catchers, etc., was compiled. An offer of 3d. a head for every rat was made, and in any suspicious cases the animals were forwarded to the Government bacteriologist for examination, but in no instance was the plague bacillus then found.

In January, 1903, a notable mortality was observed among rats; the bodies of several were examined bacteriologically with negative results. In February a circular was sent out to every medical man in Johannesburg transmitting the official description of plague issued by the English Local Government Board, and pointing out its tendency when first invading a district to simulate other diseases. Directions for sending material for bacteriological examinations were also supplied. In April, 1903, it was observed that rats were dying in large numbers in the Market Buildings. A local reporter published what is characterized as a false and alarming statement to the effect that the rats were infected, and some 53 rats were sent to the Government bacteriologist, but they were in too decomposed a condition for examination. Meanwhile certain cases had occurred which were suspected to be plague. On February 9th a Jew bookkeeper in a large forage store, living in a crowded tenement, sickened, three days later he had a large bubo in the right groin, but eventually recovered; bacillus pestis was not found in the blood and no bacteria were detected in stained sections of the groin glands. On March 21st a Dutch mason died suddenly from pneumonia after an illness of fourteen days, and his wife miscarried and died on the same day: a bacteriological examination afforded no indication of plague, but the pneumococcus was found in both cases. A week later a native died suddenly with a large bubo in the right armpit and congestion of both lungs; here again the pneumococcus but not the plague bacillus was found. A fortnight later a native employed at the hospital was found with a large abscess in the right armpit; he recovered, but on April 19th a boy died suddenly and his death was ascribed by the medical man who attended him to plague; *post-mortem* and bacteriological examination revealed nothing suggestive of plague. On April 28th a Zulu, who had arrived from Natal sixteen days before, was found to have a large abscess and brawny swelling in the right axilla; was removed to the plague camp on April 29th, and died on the following day, the medical man who attended him had no doubt that he was suffering from plague. The *post-mortem* appearances were apparently typical of the disease, but the plague bacillus was not found in the affected glands or in the spleen, although a very virulent pneumococcus was identified. At the same time a native sickened with a large bubo in the right groin and other symptoms of plague. He was removed to the plague camp. The results of the necropsy and bacteriolo examinations were almost identical with those observ the previous case, and death was ascribed to pneum This patient had not been out of Johannesburg for months.

It would appear that the preparations made than a year ago for meeting an outbreak of pl were very complete and well-considered, so that u they have been allowed to get into disorder, Milner's assurances were less rather than forcible than the circumstances warranted. At date of the publication of the report to which have referred, November, 1903, the authorities appe have been satisfied that all was well. Neverthele sudden occurrence of so many cases at the very b ning of the existing outbreak is, in itself, a cir stance which throws distinct suspicion on the real hi of the preceding months. It gives ample groun the belief that cases among the coloured folk may been occurring unobserved, and, apart from other cir stances, fully justifies the doubts which Sir Walter F expressed in the House of Commons in the remarks wh addressed to the Colonial Secretary on March 29th. T is certainly room too for the theory that the suspi cases which occurred last spring were in reality pl and that the disease has since been lying dormant, a often been the case elsewhere. The features of so those cases which we have quoted resemble will be observed, those of fatal plague case a very striking extent, and it is not to be f gotten that the identification of the plague ba in an undoubted but late case has often found difficult. Nor did the answer which Sir W Foster received from Mr. Lyttelton, though tended to be reassuring, materially detract from force of this conception. He made it plain that Milner is relying entirely upon the negative results bacteriological examinations made last year, and generally recognized by physicians that a failure t the plague bacillus cannot be accepted as concl evidence that the clinical diagnosis is erroneous. Fu Lord Milner's telegram reveals a fact which is no closed in the report, namely, that during the la months the plague bacillus has been identified in thirteen of the rats which have been examined.

The insanitary area of Johannesburg, to which refe has recently been made in telegraphic reports South Africa, and in which the outbreak has occu comprises some 172 acres of land. It co some 1,400 houses, huts, and habitations of one and another, and is partly occupied by gasw brickfields, and the coolie location. Its popu towards the end of last year was estimated about 5,600 persons of whom 2,000 were Asiatics, Kaffirs and Cape Boys, and the rest poor Dutch and whites. The medical officer of health reports that of this area, especially the coolie location, is in a d ously insanitary condition, and is a great and co menace to the health of the town. The ratio of popu to acreage in the area is quite small, and its insa condition and heavy disease and mortality-rates ar not to overcrowing, but to the dirty customs of its in ants, coupled with the absence of drainage and of eff means for the disposal of refuse. An improvement sc estimated to cost over a million sterling has long under consideration.

HE PRINCE OF WALES AND THE ASSOCIATION.

Saturday last His Royal Highness the Prince of Wales ceived personally from the hands of the Chairman of uncil the certificate of Honorary Membership of the itish Medical Association. This certificate was suitably uminated and inscribed on vellum, and was signed by e President of the Association, the Chairman of Council, e Treasurer, and the General Secretary. It will be thin the recollection of members that at Swansea a olution was unanimously passed electing His Royal ghness an Honorary Member of the Association, and it l been hoped that the Prince would have attended the nual meeting at Oxford and there receive the certificate of norary Membership at the hands of the President. Owing, wever, to other pressing engagements during the last week July the Prince was unable to carry out such an arrangent. In accepting the certificate from the Chairman of the uncil, His Royal Highness said that he observed that the ng was Patron of the Association, and added that he him- was pleased to be an Honorary Member; the Prince evinced considerable interest in the aims of the Asso- tion, making special inquiries as to the scientific work ried on under the auspices of the Association and with financial assistance; he appeared especially interested the work of the Scientific Grants Committee, and ired to know if the Association had taken up any cial investigation into the causes and cure of cancer. All members of the British Medical Association will, we sure, be gratified by this evidence that the Prince of les shares the King's interest in the medical profession in the work of the Association.

THE COUNCIL OF THE ROYAL COLLEGE OF SURGEONS OF ENGLAND.

publish in another column a letter from a Fellow of Royal College of Surgeons of England, suggesting that ould be to the advantage of the College were a Fellow aged in general practice elected to the Council. We do know what proportion of the twelve hundred odd ows are general practitioners, but it must be very conrable, and it is surprising that the Council contains no of their number. Moreover, the last general practier who had a seat upon the Council was, we believe, late Mr. Sibley, who was elected as long ago as 1886. correspondent, passing from the general to the parlar, suggests that Mr. George Eastes, for many years surer of the Metropolitan Counties Branch of the ish Medical Association, and once its President, would suitable person to be elected. He is engaged in ral practice in London, and his work on the Council he Association and its Committees has made his acter and business capacities well known to many bers of the profession outside London, among whom t be not a few Fellows of the Royal College of eons of England. The suggestion will no doubt have sympathetic consideration.

ISCRETION," IN THE PAYMENT OF MEDICAL WITNESSES.

mmenting on the new scale of fees in criminal courts tioned by the Home Office from the commencement is year, we pointed out[1] that possibly a short Act of ament might be required to enable the Home Secres intention of increasing those fees to be carried out aces where, owing to the "discretion" allowed to the strates, no fee had hitherto been allowed for medical nce at police-courts or petty sessions unless the case committed for trial, on the ground that the regulations such fee "may be," not "shall be," allowed. A case rating in another way the need for legislation in the er has just occurred at Birmingham (see page 808), e a medical witness, who was entitled to two guineas under the new regulations, was paid only one guinea at the "discretion" of the clerk of the court, and was that two guineas, being the maximum, was intended for such people as the President of the College of Physicians or of the College of Surgeons, and that the limit of three miles, fixed in the regulations as entitling to the higher fee, applied only to those coming from a long distance. When this is the sort of "discretion" exercised by clerks of the peace who control these payments, and from whose decision there seems to be no appeal, it becomes necessary that the attention of Parliament should be called to the fact that the new regulations "considerably increasing the allowances to professional witnesses," as the Home Secretary declares, are not being given effect to in the criminal courts generally. It will greatly assist those members of Parliament who are moving in the matter, if all medical witnesses in England and Wales will procure through their booksellers a copy of the new *Regulations as to Allowances to Prosecutors and Witnesses in Criminal Prosecutions*[2] (Eyre and Spottiswoode), price 1d., and in any case in which they are not allowed the full fee named therein, get a question asked by their representative in the House of Commons. At present it seems incredible to members of that House that so little discretion, not to say common sense, should be exercised by clerks of the peace in a matter of such importance to criminal procedure.

[1] British Medical Journal, January 2nd, 1904, p. 34.

THE MANCHESTER ROYAL INFIRMARY.

Among the objections raised to the transfer of the Manchester Royal Infirmary to the new site at Stanley Grove was that founded on the fear that cases of accident or illness arising in the centre of Manchester requiring prompt treatment would be at a disadvantage if they had to be removed to Stanley Grove. The advocates of removal met this objection with a constructive promise that the needs of those requiring prompt surgical assistance should be duly considered. In what way these needs should be met has recently been the subject of a long letter to the *Manchester Guardian* from Mr. William Thorburn, Deputy Chairman of the Medical Board of the infirmary. In it he indicates that he at first favoured the idea of building a central "urgency" hospital, but that he now thinks the need of the situation could be met in another and much better way. An emergency hospital of twenty beds would probably suffice for real needs, but he points out that, apart from the expense of building, such an establishment would require a very comprehensive staff and equipment, and that its relative expense would be enormously greater than that of the parent institute, whose funds, moreover, would be seriously burdened by the initial and permanent outlay. Besides this, it would prove difficult in practice really to restrict the use of the beds to their ostensible purpose of the reception of cases of such urgency as to be incapable of transport; twenty beds would therefore prove too few. If, however, the number were materially increased it would amount to the perpetuation of the city hospital plan, which it was the general desire to abolish, with the added disadvantages and expense of dual administration. Besides, the public would certainly suffer in one way, even if it gained something from the existence of such a hospital in another. Many cases would certainly be taken to the urgency hospital as the nearest, only to be sent on a second journey after removal from the vehicles in which they arrived and the examination necessary to determine the precise gravity of the injury. He thinks, therefore, that instead of building such a hospital it would be much better that Manchester should decide upon the alternative which is that of improving its existing ambulance system. Motor or horse-drawn ambulances should be kept in constant readiness at the infirmary, and should be sent out in charge of a medical officer of the rank of a junior house-surgeon, and driven by a policeman, receiving the same right of way as that accorded to fire engines and escapes. The infirmary should be connected with every police-station and every police-station if possible with every policeman's beat. In this way sufferers would receive almost instant and skilled first-aid, and would be conveyed to the infirmary

[2] An abstract of these regulations was published in the British Medical Journal of January 2nd, 1904, p. 30.

under circumstances which would make ten minutes more or less on the road a matter of small moment. A useful but not essential addition to the scheme would be the provision of dressing stations, equipped with first-aid appliances, in connexion with the police stations, and in charge of a senior medical student or a retired non-commissioned officer of the Royal Army Medical Corps; in outlying parts of Manchester such stations might have ambulances as well. This, briefly, is the scheme propounded by Mr. Thorburn. It seems to us perfectly sound, and if administrative and executive details are carefully arranged it will result in a system which, while safeguarding the interests of individual patients, will assure the greatest good of the greatest number more amply than any plan of an urgency hospital in a great and spreading city such as Manchester.

CENTRAL AFRICAN NATIVES IN THE TRANSVAAL.

A PARLIAMENTARY paper issued on March 25th contains a dispatch from Lord Milner in which he gives an account of the health of the natives recruited in the British Central Africa Protectorate for employment in the Transvaal. Up to the date of the report three batches had arrived as follows: 385 in June, 345 in August, 88 in September, or altogether 818. The total mortality among them was very high, being 67, or nearly 82 per 1,000. The heaviest mortality occurred in the first batch, amongst which influenza broke out directly after its arrival. Some 20 died from this cause within the first six weeks. Amongst all the batches there had been a great deal more sickness and mortality than there ought to have been, but it was the heavy initial death-rate, equal to nearly one-third of the whole, among the first batch which makes the total mortality-rate appear so very high. The great mistake which had been made, Lord Milner says, was that of bringing the natives of hot low-lying regions to the high-lying plateau of the Transvaal right in the middle of the South African winter. They should have been brought down during the hot season and so enabled to get acclimatized gradually to the cold weather as the winter came on. An additional source of sickness was the incredible carelessness of these natives in the matter of health, and especially their disregard of the most elementary precautions with regard to change of temperature. The men, he thought, seemed now to have a better appreciation of how to take care of themselves, and were passing on their knowledge to newcomers. Lord Milner's conclusion is that this unfortunate experience with the early experiment of importing Central African natives should not at present put a stop to the enterprise altogether, but that it indicates that further results must be watched with great care.

THE SERUM-THERAPEUTICS OF TETANUS.

IN an article on the scientific and practical aspects of serum immunization against tetanus,[1] Professor E. von Behring collects some statistics which illustrate the reduction of the mortality in this disease when tetanus antitoxin is administered. Previous to the introduction of antitoxin treatment, out of 716 cases recorded, there was a mortality of 631, or 88 per cent. In cases treated by antitoxin, Professor Behring finds that the mortality has been reduced to from 40 to 45 per cent. For successful treatment early administration is obviously of the greatest importance; the dangers of delay advance progressively, in terms measurable not merely by days, but even by hours. Other factors of importance are age, individual susceptibility, the virulence of the infective material, the amount of virus inoculated, the site of infection, and the accessory pathogenic elements in the lesions which predispose to the spread of the infection. Some of these differences in the pathological effects following inoculation with tetanus bacilli Professor Behring endeavours to explain in the theoretical part of his article, which deals with the action of tetanus toxin. Comparing the modes of action of bacterial poisons to those of hydrocyanic acid and its compounds, he holds that the molecules which contain the toxic nucleus peculiar to tetanus are acte upon in different ways by the different bodily fluids an cellular elements of different types of animals, and th similar differences occur between animals of the sam species, but of different age or general condition. Th modifications thus produced upon the toxin-bearing com pound bring about a corresponding modification in i pathogenic activity when it arrives at its seat of electio in the central nervous system.

[1] *Beiträge zur experimentellen Therapie*, Heft vii, P. 1. Berlin: August Hirschwald. 1904. (Demy 8vo, pp. 30. M. 12.)

PLAGUE IN QUEENSLAND.

A REPORT recently presented to the local government b Dr. Burnett Ham, Commissioner of Health for the Sta of Queensland, gives an account of the small epidemic plague which occurred in 1903, and lasted from Februa to May. A number of interesting details are include but the report in general does not throw any fresh light upo the epidemiology of the disease. The epidemic is t fourth in consecutive years, and was confined to 26 cas with a mortality-rate of 53.8 per cent. It is noted th during the hot months the plague wards swarmed wi mosquitos and that nurses and patients were constant bitten. No member of the staff, however, contracted t disease, although at the time there were three patien with B. pestis constantly present in their general circu tion. It is related, however, that two years ago a nur appeared to have been infected through a mosquito b on her face. A high opinion seems to be held of the val of Yersin serum as a curative agent, but as the view safeguarded by insistence on very early treatment a very large doses, and septicaemic and pneumonic cas are specially excepted, there is room for a good deal f discount.

POST-MORTEM DELIVERY IN HOSPITAL AND IN PRIVATE.

A NOTE on a case of *post-mortem* Caesarean section was cently read by Blau before the Vienna Obstetrical Societ The patient was an undersized, strumous girl, 20 years f age, a victim to old disease of the left hip; the thigh w flexed, abducted and rigid, and there were numerous sc on the buttock and also cicatrices on the neck. Valvu disease was advanced and hydrothorax present. The pr nancy, her first, ended about term by feeble pas followed by dyspnoea, cyanosis, spasms of the fac muscles and death. Within two minutes the child was livered by Caesarean section. It was asphyxiated, l recalled to life by appropriate measures. It measu $18\frac{4}{8}$ in. and weighed $6\frac{3}{4}$ lb. The necropsy on the mot showed even more advanced visceral disease than w suspected during life. The child was saved and no stetrician will deny that the infant should always rescued if possible, but Blau operated in a hospital. Th are great obstacles in the way of success in private case any kind. The disadvantage of Caesarean section practice is evident: the mother is dead, the infant has voice or feelings, but the relatives have both and must taken into account. Dr. Walter Cockle's paper on a C of Eclampsia with *post-mortem* delivery by forceps[2] reac Dublin last spring dwells on this question. In instance the patient's heart failed suddenly as Dr. Coc was preparing to apply the forceps. He made use of t instrument on the dead patient and delivered a w nourished child, which had all the appearance of rec vitality with asphyxiation. Artificial respiration persisted in for a considerable time, but in vain. I fair to bear in mind that the complication which ki the mother would have endangered the child eve delivered spontaneously. Dr. Cockle observed that the physician who has decided upon trying to save life of the child after the mother's death the metho Caesarean section is always open, while forceps deli is only possible under certain circumstances. Yet w the os fully dilated and the head well down in a nor

[1] Sectio Caesarea in Mortua mit lebendem Kinde, *Zentralbl. f. Gyn.*, 1904, p. 304.

[2] *Trans. Royal Acad. of Med. in Ireland*, vol. xxi, 1903, p. 307.

lvis the forceps can be used with great advantage and eed. It is, in Dr. Cockle's opinion, as rapid and sure as esarean section and is much cleaner, being practically oodless. It leaves behind no disfigurement of the mother, d is on that account less repugnant to the minds of the atives. If the infant be found dead already when tracted by an incision into the parietes and uterus, the eration might appear to the mother's friends in the light an experiment. This last point, Dr. Cockle urged, is no small importance, as the relatives are often the termining factor as to whether the doctor may interfere all. Lastly, Dr. Cockle observed that in private practice e obstetrician is more often armed with the forceps than th a scalpel.

HOMOEOPATHIC STATISTICS.

GOOD deal of irritation seems to have been caused locally a speech made by Dr. Madden at the annual general eeting of the Phillips Memorial Homoeopathic Hospital Bromley in Kent. According to the report published in e *Bromley and District Times* Dr. Madden said: "All over rope the death-rate in homoeopathic hospitals was ver than in allopathic hospitals. In London in the omoeopathic Hospital for Children the death-rate was tween 19 and 20 per cent., while in the Great Ormond reet Hospital for Children the death-rate was between and 70 per cent. The cases dealt with were of a precisely nilar character, the only difference was in the medicine ven." Dr. Madden wrote at once to correct this statement so far as to say that the statistics referred only to ses of broncho-pneumonia in children under 5 years of e, but in a subsequent letter to the same paper he further modifies his statement, and apologizes to the Great mond Street Hospital for having given figures which re "by no means correct." However, he still endeavours support his main thesis by comparing the mortality om simple pneumonia and broncho-pneumonia in the omoeopathic Hospital for Children with those at Shadll and at Great Ormond Street. We think no useful rpose can be served by attempting to compare statistics llected from such disparate material. Our hospitals ve to deal with the great mass of the poor in which class lief in homoeopathy is comparatively rare, and the lower e goes socially the less frequently do we meet with parents o hold these opinions. Moreover, the facility of admission hospitals influences their statistics, and for this reason ose hospitals which do the greatest amount of good must ways show a relatively high mortality.

RADIO-ACTIVITY AND MINERAL WATERS.

a paper read before the Royal Society on March 10th e Hon. R. J. Strutt detailed some studies which he had de with a view to determining the nature of the radioive constituents of certain minerals, and whether any herto unknown radio-active body were present. He nd that when dealing with any radio-active body which e off emanations, it was better to test for the emanation her than look for activity in the solid, irrespective of ether the amount of material available were small or at, and thus take advantage of the fact that each emanan had a definite rate of decay and could thereby be ntified. His method was to heat a definite weight of crude material in a combustion tube sealed at one end, lect the gases over mercury, break off the sealed end, l make up the volume of gas to a fixed quantity by the mission of the requisite amount of air; then, after iting a certain time, he estimated the radium present by rate of leak due to the accumulated emanations against that due to a known quantity of radium. sted in this way, samarskite, fergusonite, monazite, l zircon, all gave radium emanations in varyquantity. His studies had not revealed any anations other than those of radium and thorium. eral varieties of monazite, though markedly radio-active, tained little radium, but a considerable amount of ium. It was suggested in explanation that helium ght possibly result from the decomposition of thorium not less than from that of radium. The minerals mentioned were found for the most part to retain nearly all their emanations when not submitted to heat. In the same paper Mr. Strutt narrated his experiments with Bath, Buxton, and other mineral waters and the deposits therefrom. No emanations could be obtained either from the natural deposits or dissolved salts of any of the waters tested other than those of Bath and Buxton. The deposits from the latter were estimated each to contain about the same amount of radium, the amount existing in the deposits being relatively very much greater than that in solution. The gas which rose from the Bath spring contained helium, and this no doubt owed its origin to the same store of radium as that which supplied the water. The paper concluded by an interesting estimate of the annual output of radium by the Bath spring. The whole of it was ascribed to the disintegration of radio-active minerals and the total amount considered to be not more than one-third of a gram each year in addition to about 1,000 litres of helium. In this estimate the dissolved radium was alone considered, since although the radio-activity of the deposit was relatively great its total amount was infinitesimal.

SPOROZOA AND DISEASE.

PROFESSOR MINCHIN in his fifth lecture on the sporozoa, delivered at University College, dealt with the life-history of halteridium, and gave an account of the flagellate or trypanosoma-like forms exhibited by the haemosporidia. Halteridium was a curved parasite which grew within the red corpuscles of birds, partially enclosing the nucleus. MacCallum, of Toronto, some years ago showed that a process of fertilization of the halteridium occurred in which flagellate forms played a part. Mosquitos which bite birds infected with halteridium are in turn infected by the parasite, which in the mosquito's stomach multiplies largely, the final resultant forms being motile flagellate trypanosomes. These pass into the blood vessels and assume the non-motile stage after attaching themselves to the red corpuscles, which they penetrate and enter (endoglobular form of halteridium). Other halteridia, however, remaining free in the blood plasma maintain their flagellate condition (trypanosome form). The full-grown male trypanosome has an elongated and slightly sinuous body provided with four chromosomes, a long terminal flagellum, a narrow vibratile band continuous with the flagellum along the length of the body, and several myonemes, or contractile fibres, attached to the band longitudinally. Besides male trypanosomes, neutral and female forms (Schaudinn) are also met with in the mosquito. Of the three forms—male, female, and neuter—the females are best fitted by their constitution to survive periods of "famine" in the stomach of the mosquito—that is, when the latter has not had a meal for some time. The male gametes usually die under these circumstances, but the female gametes pass in between the epithelial cells and hold on, and when the mosquito gorges itself with food they swarm back to the blood and go on multiplying afresh. The neutral forms wander into the blood and lymph spaces, and finally enter into the pharynx and ovaries of the mosquito. From the pharynx they pass, via the proboscis of the mosquito, into the blood of a bird or other animal bitten by the mosquito, while those in the ovaries infect the next generation of mosquitos (hereditary infection). In these ways the life-cycle of halteridium is kept up. Schaudinn anticipates that a trypanosome-like stage will be found in the human body as a stage in the development of the malarial parasite, and is preparing for publication a monograph on the subject.

FRENCH ANATOMICAL CONGRESS AT TOULOUSE.

THE Sixth Congress of the Association of French Anatomists took place at Toulouse from March 27th to 31st, and was attended by a large number of anatomists and histologists. The "Congressites" were received in state by the Mayor on the afternoon of March 27th in the Capitole. In the evening the Rector of the University gave a dinner in his official residence. On Monday, March 28th,

the reading of communications commenced in the new buildings of the Faculty of Medicine, which were opened in 1891, and were largely subsidized by the municipality. M. Tourneux, who holds the Chair of Histology, was President of the Congress. Nearly fifty communications were read, and in addition there were nearly twenty special demonstrations, most of which were histological. Most of the members belonged to the universities of France. Amongst those present from beyond the limits of "la belle France" were Waldeyer, Ramon y Cajal, Van Gehuchten, Van der Stricht, Eternod, Romiti of Pisa, and Stirling of Manchester. A large number of the communications were histological, and several dealt with interesting developments in comparative histology. A specially interesting series of skulls showing the "*deformation toulousaine*" or Toulousian skull, was exhibited by Professor Charpy. It is hoped that the various anatomical societies, of which there are many in Europe, may be brought together some time next year on neutral ground, most probably at Geneva. After the Congress a day was spent at the interesting old town of Carcassonne.

SIR MICHAEL FOSTER has given notice that on April 12th, the day on which Parliament reassembles after the Easter recess, he will ask the First Lord of the Treasury whether opportunity will be given to discuss in the House of Commons, before action is taken, the portion of the report of the War Office (Reconstitution) Committee which bears on the health of the army.

MEDICAL NOTES IN PARLIAMENT.

[FROM OUR LOBBY CORRESPONDENT.]

The Plague in Johannesburg.—Last week, on the second reading of the Consolidated Fund (No. 1) Bill, Sir Walter Foster took the opportunity of calling attention to the serious outbreak of plague at Johannesburg. The number of deaths occurring in the first few days indicated the virulent type of the malady, and the fact that it was pneumonic in character added to the gravity of the situation. He said he was not without some suspicion that the high mortality which had occurred in the mines might be due to a mild form of plague preceding the present outbreak. He specially asked the Colonial Secretary to search out the causes of the outbreak, so as to find out whether it had been introduced by recent additions to the Indian population, or whether it had come in through rats or other animals. He pointed out the danger of its introduction by pigs, fowls, and even dogs and cats. The steps taken to isolate all the people in the Indian location and the removal of between 300 and 400 Indians to a site eight miles away, he commended and urged equally stringent isolation of all other suspected persons. As regards the importation of Chinese and Indian coolies, he pointed out the special susceptibility of these races to the malady and the danger inherent in the importation of labour from ports like Hong Kong, which was the *fons et origo mali* as regards this disease in modern times. Chinese labour must only be imported from uncontaminated ports if South Africa was to be kept free from the disease. He also urged the isolation of all newly-arrived Asiatics for at least six days before they were allowed to enter the mines or join gangs of workmen. Dr. Hutchinson supported the views advanced, and gave striking testimony from his own personal experience of Chinese coolies as regards their susceptibility to disease and small resisting power. He spoke strongly of the insanitary condition of Johannesburg and the urgent reasons, in face of the epidemic, for taking the most careful precautions as regards the introduction of Chinese labour. Mr. Lyttelton, in his reply, said that each coolie would be medically examined in China before he was embarked, that a surgeon-superintendent would be on board each ship, and that a medical examination would be again made before disembarkation. He was unable to say anything on so difficult and obscure a point as the origin of the outbreak. The insanitary condition of Johannesburg was aggravated by the scarcity of labour, which prevented the municipality from carrying out its sanitary works; but, as regard the plague, complete measures for isolation had been taken In reference to the importation of Chinamen, he said tha they would not be shipped from insanitary ports, or port infected with plague. The discussion then turned to othe matters. On Tuesday Sir Walter Foster again drew attentio to the plague at Johannesburg, and said that he felt bound t impress on the Colonial Secretary the urgency of insisting o full information being given as to the progress of the disease His suspicion that the present outbreak had been preceded b plague in some less evident form was confirmed by the repor of the medical officer of health of Johannesburg, which de scribed cases undoubtedly of plague occurring betwee February and April last year. Rats were also dying in num bers at Johannesburg in April, 1903. Yet the rumours o plague had been denied by telegram in May last. He strongl condemned any concealment of such conditions in the in terest of public health, and said the present outbreak was th nemesis of keeping the matter so dark last year. Mr Lyttelton said that in consequence of what the hon member said the other day he had sent a telegram to Lor Milner asking him for information. Lord Milner, in repl telegraphed on March 26th that it did not seem to be realize that extensive Government laboratories existed and that bacteriological laboratory under first rate specialists, witl skilled assistants, had been on the look out for the plague fo months. Great numbers of dead rats had been examined During six months 13 rats had been found to have died of plague Each of these cases was specially investigated, and no possibl connexion could be traced between any two of them. The conclusion was that the rats were transported individuall from the coast. The Government laboratories had also de voted the greatest attention to pneumonia, which was a ver common disease there among mine workers. Many scores o cases had been bacteriologically examined, but no trace o plague was found in any one of them. It was impossible tha the same specialists who were on the look out for plague studying all these cases of pnenmonia, should have failed t detect the plague bacillus in a single case, if what had beer thought to be pneumonia had really been plague. This wa all the more certain because it was only bacteriologica examination which revealed the plague when it arrived. Th present epidemic had so far only appeared at Johannes burg, at Pretoria, where there was one case in th hospital, and in one other place. Machinery was read for taking measures immediately on the notification o cases of plague. The place in which the epidemic ha occurred was surrounded by a cordon, and natives were bein removed as quickly as possible. During the eight days sinc the outbreak of the epidemic only three fresh cases had oc curred among the inhabitants of the cordon area. A Com mittee was giving its attention to the matter, and strongl recommended that the old Indian location, which formed par of the insanitary area, should be burned to the ground. Th disinfection of all compounds was being thoroughly carrie out. All rats were being killed as quickly as possible, an stray dogs and cats were being exterminated. Lord Milne was perfectly satisfied that the precautions which were bein taken were as comprehensive as possible. The gentleman wh was acting as medical officer had a number of excellen medical assistants, the majority of whom had had experienc of the plague. This telegram, he thought, made any addi tional statement unnecessary.

Exemptions from Vaccination.—Last week Mr. Weir aske the President of the Local Government Board if he woul state how many certificates of exemption from vaccinatio were granted during the year ending December 31st, 1903 Mr. Long replied that the returns made to him showed th number of certificates of conscientious objection received b the vaccination officers during each year, and the numbe might be taken as substantially agreeing with the numbe granted during the year. The returns for the year 1903 wer not quite complete, but the number of certificates of the kin referred to received during the year might be stated approxi mately as 37,200. This week Mr. Long, in answer t Mr. Corrie Grant, said that the number of certificate of conscientious objection to vaccination received sinc the passing of the Vaccination Act, 1898, might b taken as approximately 387,000. By far the larges number were given between the passing of the Act an the end of the year 1898—namely, 203,413. This was du to the fact that certificates could be obtained during the fou

months after the passing of the Act in respect of all children born prior to that date, whilst in respect of children born after that date the certificate must be obtained within four months from the birth of the child. He had no means of ascertaining how many of the exempted children had been attacked by small-pox, but several such cases had been reported to him.

Vaccination in Scotland.—In reply to Mr. Weir, the Lord Advocate said that he was informed that the object of the circular letter issued recently by the Local Government Board in Scotland was to secure that all the inmates of poorhouses should be vaccinated, but the circular did not enjoin the compulsory vaccination of the classes of children referred to. It recommended but did not require that medical officers of poorhouses should examine paupers on admission with regard to the inadequacy of their protection against small-pox. It did not require compulsory revaccination. The Local Government Board had not instructed the medical officers of poorhouses to keep a record of the number of inmates examined and the number revaccinated, and it preferred to leave this to the discretion of poorhouse committees.

Death Certification in England and Wales.—Sir Walter Foster asked the President of the Local Government Board last week if he could state the number of deaths registered in England and Wales for the last five years for which he had official returns, and the number certified and uncertified for each of the years. Mr. Long answered that he had obtained the following figures from the Registrar-General on this subject:

Year.	Number of Deaths.			
	Total.	Certified by Registered Medical Practitioners.	Inquest Cases.	Uncertified Deaths.
... ...	552,141	507,541	34,159	10,441
... ...	581,799	534,446	36,608	10,745
... ...	587,830	539,712	36,861	11,257
... ...	551,585	504,818	36,781	9,986
... ...	535,538	490,091	35,793	9,654

The proportions per 100 deaths were as follows:

Year.	Certified by Registered Medical Practitioners.	Inquest Cases.	Uncertified Deaths.		
			Total.	Reported to Coroners.	Not reported to Coroners.
... ...	91.92	6.19	1.89	1.44	0.45
... ...	91.86	6.29	1.85	1.45	0.40
... ...	91.81	6.27	1.92	1.57	0.35
... ...	91.52	6.67	1.81	1.50	0.31
... ...	91.52	6.68	1.80	1.54	0.26

The Physical Condition of Children.—On the third reading of the Consolidated Fund Bill on Monday Sir John Gorst drew attention to the fact that 12 per cent. of the children attending London Board schools were suffering from insufficient nutrition. He referred to the Committee now sitting on the question of national deterioration, and said the causes had been known for years to be want of proper food and fresh air. He said the question was urgent and it was the duty of the Government to prescribe remedies or to authorize local authorities to do so. Mr. W. Crookes made a remarkably forcible speech in favour of the views expressed by the previous speaker. Sir William Anson admitted that it was the most heartbreaking subject of the education question. The Committee of Inquiry referred to had been appointed to consider whether a Royal Commission should not be appointed to consider the question of national deterioration. The reference implied a plan for collecting periodically a national set of facts on the physical condition of the people with a view to indicating the causes and treatment of the deterioration. The Committee had evidence from Professor Cunningham, chairman of a similar Committee appointed by the British Association, and his evidence had been sent to the Royal Colleges for consideration. The College of Surgeons had approved of an annual survey of the population, agricultural and working, and of the children. The survey, it was hoped, might be completed every ten years. The Committee had gone carefully into the question of the nutrition of the children and their ailments, and he hoped the report would be presented at no distant date. The subject then dropped.

Experiments on Animals.—Sir John Rolleston asked the Home Secretary whether, in view of the 14,906 experiments upon living animals in 1902, he could obtain from the institutions or persons to whom certificates were granted, a statement of the practical results in scientific knowledge or in the improvement of medical treatment which could be traced to those experiments. Mr. Akers-Douglas answered that certificates were not granted under the Cruelty to Animals Act, 1876, to institutions. Persons holding certificates under the Act published in considerable numbers in books, journals, and the proceedings of learned societies reports of the experiments performed by them. He thought that these reports enabled those who were interested and qualified to judge the results which the experiments had yielded or were likely to yield in the advancement of scientific knowledge or the improvement of medical treatment. By far the most of the experiments quoted in the question were inoculations, many of which were performed either for diagnosis or in connexion with the preparation and standardizing of drugs and curative sera, of which the practical utility was well known.

The Treatment of Whites and Blacks at Johannesburg.—In answer to a question of Mr. MacNeill's last week as to the flight of white inhabitants from Johannesburg and the alleged retention of the black population, the Colonial Secretary said that he had no official information bearing upon the assumed differential treatment of the two classes of the population. He had no reason to believe that any distinction was made between the white and black population, or that the blacks generally were being prevented from leaving the town. The measures being taken by the Government were, as he understood, only what were necessary, in the opinion of Lord Milner's medical advisers, for the purpose of controlling the outbreak by temporary aggregation of those within the infected area.

The Woking and Finchley Sore-throat Epidemics.—Mr. Weir asked the President of the Local Government Board, having regard to the epidemic of sore throat at Woking last autumn, and at Finchley early this year, attributable to milk taken from cows out of health, if he would consider the expediency of taking such steps as might be necessary to ensure the occasional examination by a veterinary surgeon of all cows kept for the purposes of a public dairy. The President of the Local Government Board replied that legislation would be necessary to give effect to the suggestion made. He had caused the suggestion to be noted, but he could not promise to introduce legislation during the present session.

The Easter Recess.—The House adjourned on Tuesday night till Tuesday, April 12th. On that day Navy Estimates will be taken so far as shipbuilding, ordinance, victualling, and clothing are concerned. On Wednesday the Licensing Bill may be taken, and on Thursday Army Estimates will come on.

The Prevention of Malaria in the Roman Campagna.—The results of the four campaigns against malaria in the Campagna may be summarized as follows: In the first campaign, in 1900, there were found 3,751 cases, of which 27 were of the pernicious type; this is equivalent to 31 per cent. of the population. In the campaign of 1901 the number of cases dealt with was 2,366, of which 9 were pernicious; the proportion to population was 26 per cent. In the campaign of 1902 the number of cases was 2,591, of which 9 were pernicious, but the proportion to population was only about 20.5 per cent. In the last campaign the total number of cases had fallen to 1,547, of which 3 were pernicious. This gives a ratio of malaria cases to population in 1903 of about 11 per cent.

Scotland.

THE BIOLOGICAL SIGNIFICANCE OF MALIGNANT GROWTHS.

On March 22nd Professor J. Bretland Farmer, F.R.S., Examiner in Botany in the University of Edinburgh, delivered a lecture illustrated by lantern slides in the lecture hall of the Royal Botanic Gardens, Edinburgh, on the Biological Significance of Malignant Growths. Professor Bayley Balfour introduced the lecturer, and there was a large attendance. The lecture was based on the results of the investigations mainly conducted by Professor Bretland Farmer and Mr. J. E. S. Moore. These investigations went to show that in a malignant growth what really took place was the conversion of ordinary cells into a type of reproductive cells, which in the new generation were parasitic on and destructive of the old, and were characterized by very definite nucleolar and other cellular characters from other body cells. It was upon the recognition of these nucleolar divisions that the present view largely rested. They had been led to their conclusions by an extensive comparative study of the reproductive tissues in plants and animals. The lecturer emphasized the importance of a general training in such facts of organic life as could be elucidated by the study of plants and the lower animals. Professor Bayley Balfour moved a vote of thanks to the lecturer.

CLOSE OF THE WINTER SESSION, GLASGOW.

The winter session of the Glasgow University and the medical schools was brought to a close at the end of last week, and the students and examiners are this week in the throes of professional examinations. The university graduation ceremony this year is to take a new form. A "commemoration day" has been instituted, which will be an annual function. It is to be held this year on April 19th, and an elaborate programme has been arranged. After divine service there will be an oration by Sir William Ramsay, the distinguished chemist, and then the capping of the recipients of the honorary degrees. The same evening a university banquet will take place in the Bute Hall. It is proposed to confer the ordinary degrees on the previous day—the 18th. This will thus be more exclusively a students' ceremony.

The Anderson's College Medical School brought a very successful winter session to a close on March 24th. There was a large turn-out of the Governors, the staff, and the students, and Lady Ure Primrose, the wife of the Lord Provost, presented the prizes and certificates. The Lord Provost himself gave a short address, urging the students to take some interest in the great social problems of the nation and the cities in addition to their own special work.

The St. Mungo's College Medical School also held a closing meeting for the session on March 24th, when the various prizes were presented to the successful students.

CHEMICAL DEPARTMENT, GLASGOW UNIVERSITY.

In connexion with the extensions that have recently been made in the chemical department of the University, the Glasgow University Court have just made an important appointment. Mr. Frederick Soddy, M.A.Oxon., has been appointed Lecturer on Physical Chemistry for five years from October 1st next. Mr. Soddy has been engaged for some time with Sir William Ramsay, of University College, London, in a research on the gases produced by radium. Prior to this he had been working with Professor Rutherford at McGill College, Montreal, and it was in the course of this work that the brilliant theory of radio-activity associated with the names of Rutherford and Soddy was evolved.

ABERDEEN ROYAL INFIRMARY.

Annual Report.

The report of the Infirmary submitted to the annual meeting of the Aberdeen Royal Infirmary and Royal Lunatic Asylum Incorporation was of a most satisfactory nature, as the accounts showed a surplus of £819, a condition of affairs almost unique in the history of the institution. The appointment of an organizing secretary to supervise the systematic collection of funds for the Infirmary has had much to do with this result, as the income has largely increased, and though the annual income does not by any means balance the annual expenditure, and permit of all legacies going to capital, still this desirable condition has been more nearly attained than in the past. A very gratifying feature is the large increase in the subscriptions from the class who most directly benefit by the Infirmary, and indications are not wanting that this source of income is still capable of further successful development. The total number of patients treated in the wards during the year 1903 was 2,743, an increase of 78 over the previous year, and the average number of occupied beds has risen from 211 in 1902 to 217 in 1903. The cost per bed for the year was £51 0s. 6d., being £1 13s. 11d. over the previous year—this figure including provisions, wages, salaries, fire, light, and all ordinary repairs to the fabric of the hospital, such as pointing, plumber work, painting, etc., and the additional repairs last year ran into 12s. of the above sum, so that great care in the management is clearly indicated. The question of erecting a sanatorium is still under consideration, and already an offer has been made by two bodies of trustees to find money sufficient for the building of a sanatorium to contain forty patients and the necessary staff. The chief difficulty has been regarding a site, and this has not been got over yet, but those in charge are still giving the matter their attention, and collecting information regarding sanatoria in other parts of the country, so it is hoped the matter may be gone on with in the near future.

The Chairman, in moving the adoption of the report, referred generally to the state of the Infirmary finances, showing that during his three years of office they had improved by £60,000, this sum including the munificent gift of £25,000 given by Lord Mount Stephen to clear off the debt on the hospital. He also referred to the building of new operating theatres, one for each surgical ward, as being likely to be gone on with very soon. A very important announcement was made by Dr. Ferguson, of Kirmundy, one of the trustees of the late Mr. Thomas Primrose. During the past year these trustees have given £447 to the Infirmary; £300 went to meet the cost of six beds for the year, £100 was spent in providing easy-chairs and large wheel-chairs for the use of the patients, and about £50 went to provide a general library for the nursing staff. Dr. Ferguson then announced that the trustees had now decided to give £10,000 to the Infirmary on condition that the money should not be used for the ordinary expenditure of the institution, but should in time coming be available permanently for the upkeep of the establishment. The managers of the Infirmary were much gratified at this announcement, and the Lord Provost suitably voiced this feeling.

Changes in the Surgical Staff.

During the past six years the senior surgical staff of the Infirmary has been completely changed. In 1898 the Infirmary lost the services of Professor Ogston, who resigned after many years of valuable work. Three years later this was followed by the resignation of Dr. R. J. Garden, whose death was noticed in these columns some months ago. The early weeks of this year again saw the resignation of the Senior Surgeon, when Dr. McKenzie Booth was compelled to demit office owing to ill-health. For over twenty years Dr. Booth had been connected with the Infirmary, and had done much for its welfare. The directors accepted his resignation with much regret, and a strong tribute was paid by the Chairman to the excellence of his work on behalf of the institution, and he was unanimously appointed a Consulting Surgeon to the Infirmary. Dr. Booth's departure will be much regretted by the students, by whom he was held in high estimation as a teacher, particularly in the department of ear and throat diseases, in which he held the post of University Lecturer. All past and present students will unite in hoping that the release from active duty will bring about an improvement in his health. The directors have appointed Mr. J. Scott Riddell, M.A., M.B., to the post of Senior Surgeon; Mr. John Marnoch, M.A., M.B., to that of Second Surgeon; and Mr. H. M. W. Gray, M.B., F.R.C.S.Edin., Third Surgeon; and Mr. T. S. Slessor, M.A., M.B., was appointed Third Assistant Surgeon.

THE NEW BANGOUR ASYLUM.

The buildings for the new asylum being erected at Bangour by the Edinburgh District Lunacy Board have been so delayed that they are not likely to be completed for a year or two. Meanwhile the demand for increased asylum accommodation for the district has become so urgent that it has been necessary to make immediate provision for a certain number of patients. It has, therefore been decided to build houses of wood and iron to receive 192 patients. These will be erected on a site meant for homes for male working patients, to which purpose they will eventually revert. Provision had to be made for patients of both sexes, for administrative offices, staff residence, store, kitchen, laundry, nurses' home, electric light instillation, etc. These buildings are all but completed

and will be ready for the reception of patients early in April. There are five houses in all, in addition to the temporary building for the laundry and the electric installation. One of these is arranged to serve as a residence for the medical superintendent, the matron, the nurses, and also to be the general store. The other four will each accommodate 48 patients. The total cost of the buildings is £17,175, an average of less than £90 for 192 patients, while, including the staff of about 30 persons, the cost is £77 per bed.

Small-pox and Scarlet Fever.

During the week ending midday of Saturday, March 26th, 5 fresh cases of small-pox were notified to the Edinburgh Public Health Authorities, and 2 deaths were registered. During the same period 10 fresh cases were notified in Leith. During the same week 24 new cases of scarlet fever were notified, and 2 deaths were registered as due to that disease.

The trawler *Strathisla* arrived in Aberdeen from Lerwick having on board a man suffering from small-pox. The patient and the rest of the crew were removed to the fever hospital. His wife had already been removed to the hospital suffering from the disease. The man and his wife had attended a wedding in Shields about a week earlier, and developed the disease after returning to Aberdeen. The contacts are to be kept under observation for some time, and measures were taken for the disinfection of the vessel.

Ireland.

Royal Victoria Hospital, Belfast.

Generous Gift by the Right Hon. W. J. Pirrie.—Cost of the Building.

The annual meeting of the hospital was held in the Out-patient Department on March 22nd. This was the first annual meeting in the new building, and as the final statement of accounts of the building fund was announced as ready the attendance was large. As Mr. Pirrie had taken the chair at the initial meeting of the movement it was happily conceived that Mrs. Pirrie should preside at the first meeting after completion. The annual report stated that the transference from the old to the new building was carried out in September last. Up to the present only 204 beds of the 300 have been opened, as it was decided only to open as many beds as the estimated income would support. This is really an average of about 50 more than formerly if the old fever block is excluded. Already the attendance in both intern and extern departments is considerably in excess of the previous year. The medical report showed 2,298 new intern and 24,255 new extern cases. Of the intern, 888 were medical and 1,410 surgical. There were 859 surgical operations, with 27 deaths. "The medical and surgical staff desire to express," this report says, their great satisfaction with the new hospital, which is fully answering their highest expectations."

At the beginning of the meeting Mr. Alexander McDowell, on behalf of the Construction Committee, made a final statement as to its history and duties. The committee had been in operation seven years. It had held its first meeting in 1897 and its last on the previous evening. Mr. Pirrie had been the chairman and had worked indefatigably. All the work that could properly be done in Belfast was executed locally, and it reflected the utmost credit on the contractors. As regards the financial aspect, Mr. E. Bailey had acted as honorary auditor; £100,050 had been promised but £98,092 17s. 3d. had been received; interest had been received from the bank and several subscribers, which brought the total receipts to £108,994 9s. 3d; the valuable site was a free gift of the City Council. The expenditure included the following items—the purchase of an adjoining public-house and some land, £4,269 2s. 5d.; the building, including laying out the ground, plumbing, etc., £84,217 5s. 2d.; electric lighting, gas fitting, electric bells, telephones throughout the hospital, £2,262 2s.; boilers, engines, pumps, fans, laundry machinery, hot and cold water service, pipes, filters, and kitchen appliances, £10,247 2s. 10d.; sterilizing apparatus and dispensary fittings, £424; furnishings (including ward furniture), surgical appliances, beds, equipment of medical officers', nurses', and servants' apartments, kitchens and pantries, £13,135; miscellaneous including architects' and surveyor's fees, advertising, stationery, etc., £11,406; making a total of £125,961 18s. 5d. This left a deficiency of £16,967, a portion of this had been paid off by Mr. Pirrie as the work progressed, in addition to the exceedingly handsome donation at the outset; but on the previous evening, they had found there was still a debit balance of some £11,000; and as some subscriptions had been received on the understanding that the hospital would be opened free of debt, it was a grave responsibility to appeal to the public so soon for such a large sum. However, the trouble was surmounted in splendid style, as Mr. Pirrie had promised to defray this remaining debt.

A resolution of deep gratitude and heartfelt thanks to Mr. and Mrs. Pirrie was proposed by the Chairman of the Board of Management, Mr. W. Crawford; it was seconded by the Rev. Dr. Hamilton, President of Queen's College, supported by Professor Byers, and passed with acclamation. Mr. Pirrie returned thanks.

Mrs. Pirrie then in an eloquent and most sympathetic speech proposed the adoption of the annual report.

Sir William Whitla, M.D., in proposing the adoption of the medical and surgical report said that although they had an increase of 300 patients in their wards already over last year, yet patients were constantly being turned away; and all joined in the hope that very soon the whole wards would be available for patients. It was the unanimous feeling of the medical and surgical staff that they had one of the best equipped hospitals in the United Kingdom, and one of the most perfect of its size. He testified on behalf of the staff how grateful they were to Mr. and Mrs. Pirrie, not only for their munificent financial aid, but also for their time, ability, and experience, so ungrudgingly given.

The ordinary routine business was then transacted.

CENTRAL MIDWIVES BOARD.

We have received the following report from the Secretary of the Central Midwives Board:

A meeting of the Central Midwives Board was held at the Board Room, Suffolk Street, S.W., on Thursday, March 24th, Dr. F. H. Champneys in the chair, when the following business was transacted:

1. On consideration of applications for approval of certificate as a qualification under Section 11 of the Act, the certificate of the following institution was approved:

National Maternity Hospital, Dublin.

2. The following institutions were approved for the training of midwives under Section c of the Rules, subject to an undertaking to comply with the requirements of Section e of the Rules:

Birmingham Workhouse Infirmary.
Bristol Royal Infirmary.
Brownlow Hill Workhouse Hospital, Liverpool,
Essex County Cottage Nursing Society.
Gloucester District Nursing Society.
Hull Lying-in Charity.
Ipswich Nurses' Home.

3. The following registered medical practitioners were approved as teachers under Section c 1 (3) of the rules:

A. B. Batley, M.R.C.S.	Wilfrid Kingdon, M.B.
A. B. Calder, M.R.C.S.	E. J. Maclean, M.D.
John Gutch, M.D.	Thomas Pimley, M.B.
E. S. Hoare, M.R.C.S.	Penrose L. W. Williams, M.R.C.S.

4. The following certified midwives were approved under Section c 1 (2), for the purpose of signing certificates of attendance (Forms III and IV).

Eleanor Heatley.	E. S. Tate.
E. S. Sibery.	Bessie M. Worrall.

5. After consideration of applications for certificates, the names of 849 women were passed under Section 11 of the Act, and ordered for entry on the Roll. The following table shows the separate numbers of the various qualifications at present entered on the Roll:

Royal College of Physicians of Ireland	1
Obstetrical Society of London	953
Rotunda Hospital	43
Coombe Hospital	12
Queen Charlotte's Hospital	52
Liverpool Lying-in Hospital	15
British Lying-in Hospital	2
Glasgow Maternity Hospital	32
St. Mary's Hospital, Manchester	53
City of London Lying-in Hospital	6
Royal Maternity Hospital, Edinburgh	5
Salvation Army Maternity Hospital	3
Women in bona-fide practice July, 1901	2,238
Total enrolled	3,415

ROYAL ARMY MEDICAL COLLEGE.

IN the BRITISH MEDICAL JOURNAL of February 6th (p. 314) a general account was given of the proposed buildings of the Royal Army Medical College, together with a description of the instructional portions of the buildings, illustrated by a view of the north elevation of the laboratory building and the ground plans of all its floors. In continuation of that account, we now give a sketch of the mess and officers' quarter block as it will finally appear. It will lie on the river side of the laboratory block, and follow the same style of architecture as that of the other buildings within the enclosure. Practically it may be said that this block is formed of three buildings of which the larger one at the back is joined by a somewhat narrower portion to the front building, somewhat smaller than that at the back, which is seen in the foreground of the sketch. In looking at the latter, it should be understood that it is being viewed as it will be seen from the river, from which it is only divided by the Grosvenor Road.

Its northern side, if regarded as a single block, measures 175 ft. and its eastern side 150 ft. Practically including the basement it will have five floors, namely, three elevated floors and an upper and a lower ground floor in addition to the subways, cellarage, and boiler rooms; and thus will give ample accommodation to all the officers in residence, including the Commandant. The lower ground floor, in addition to a well-arranged kitchen and domestic offices of all characters, not forgetting a day room for mess waiters, has in the front part a billiard-room, a visitors' and reception room, a large hall fitted with telephones and and an office for the mess secretary. On the upper ground floor are the messman's living rooms in the south portion of the main block, while the Commandant's house occupies that to the north. In the centre of the block are two quarters for senior officers. On this same floor in the front portion of the building commences the mess room, ante-room, and smoking room; each of these will be two stories high. The measurements of the mess room will be 50 ft. by 35 ft., and those of the ante-room 45 ft. by 35 ft. These rooms will communicate by broad folding doors, so that practically it will be possible to throw the two rooms into one. The mess room is provided with an alcove for the band, while separated from the ante-room by the balcony, which projects over the entrance, is the smoking room, and over the balcony a card room. All these three rooms face the river, and will thus have a very fine view. Part of the space in the first upper floor is taken up by the projections of the mess room, ante-room, and smoking room, which as already stated have a height of two stories. The rest is given up to officers' personal quarters. The second and third upper floors are identical in the way they are planned, and together with the rooms on the lower stories afford accommodation for a total of seventy-five officers, not including in the calculation the house or quarters provided for the Commandant. All the quarters are well arranged; they vary to a certain extent in size, and some are laid down as for senior officers and others for juniors. All, however, are roomy and all have more than one window. The bulk of the building is to be warmed by means of hot-water pipes, but in addition there is in each officer's room a fireplace. The lavatory accommodation is sufficient, and bath rooms for hot and cold water baths ar provided in the proportion of one to every six quarters. O each landing also will be found a room for the brushing an cleaning of officers' clothes—an excellent idea. The whol building will be light and well-ventilated, since throughou the long axis of every floor runs a long corridor from end t end except on the first upper floor where the corridor ends i a stairway.

Altogether it appears as if the future inhabitants of thi building are very much to be congratulated. It will be place of study and residence thoroughly worthy of the corps and it is to be anticipated that it will form a centre of attra tion for the purposes of scientific or social intercourse to a officers of the Royal Army Medical Corps who come to Londo whether on leave from home stations or on return from tou of foreign service.

Royal Army Medical College (Mess and Officers' Quarter) Block from the North-East.

CONTRACT MEDICAL PRACTICE.

THE ATTITUDE OF FRIENDLY SOCIETIES.

AT the annual conference of the Friendly Societies of th United Kingdom which assembled in Caxton Hall, Westmin ster, on March 24th, medical matters as usual received som attention. The President in his opening address pointed t the Medical Acts Amendment Bill, the progress of whic required to be watched closely by the societies. It was n many years ago, h said, that an attemp was made to induc the General Medica Council to strike o the *Register* for "i famous professiona conduct" a medica man whose so crime was that h acted as doctor to Friendly Societie medical aid associa tion. That effo failed, but in th interim there ha been developed stronger feeling i the medical profe sion against suc associations, an there had arisen a objection to the co tinuance of the o dinary contract pra tice with the variou Orders, unless r vised on terms whic would include wage limit. Th disturbing element were to be found n so much within th ranks of the doctor already engaged by the Friendly Societies as amongst other se tions in the profession. The medical benefit, however, was on one of many benefits of Friendly Societies, and it was positiv nonsense for medical men to urge, as they did, that persons particularly those in good circumstances—joined Friendl Societies simply to obtain the medical benefit at cheap rate He was in full sympathy with any reasonable effort to im prove the conditions of service of their medical men, wher the need could be pointed out; but he desired to make very clear that they would not have any interference fro medical men with the internal management of their associa tions. There were no express terms in the Bill which woul enable the General Medical Council to declare acceptance service under Friendly Societies as infamous conduct, but th Bill was very vague, and this vagueness had concealed danger against which they must carefully guard themselves. It wa essential, therefore, to secure the introduction of amendment explicitly framed so that the Bill, if it became law, could no be converted into an instrument whereby medical men coul be compelled to cease to be officers of Medical Aid Associa tions, or even take up ordinary individual contract practice He concluded by suggesting that the societies should conside whether they had not better invite the Committee of the Trade Union Congress to co-operate with them in opposing the Bil

STATE REGISTRATION OF NURSES.

have received the following manifesto, dated March, 4, which is signed by a number of chairmen of hospitals, mbers of the medical profession, and matrons of hospitals London and the Provinces :—

Ve, the undersigned, feel called upon to make the following tement in view of the steps that are being taken to obtain, Act of Parliament, a State Registration of Nurses.

he objects claimed for such registration are:

(A) The benefit to the public, who would, it is said, be enabled to ascertain from the Register the competency of the nurse employed, and would be protected from unskilled and incompetent persons.

(B) The benefit to the "trained nurses" themselves, who are alleged to be placed at a disadvantage by the employment of imperfectly-trained persons.

Ve believe that these claims are mistaken, and that any em of State Registration would be detrimental to the lic and harmful to the nurses themselves, for the following ons :

Inasmuch as any system of registration must be based he results of testing by examination the technical capaies of a nurse, it of necessity raises to a predominant tion this side of her work, and leaves entirely uncon- red those personal qualities upon which her main value nds, such as good temper, manner, tact, discretion, nce, and unselfish womanliness. It is these character- s which cannot be ascertained by examination, and h no system of registration can include.

e experience of those concerned in the training of nurses supplying them to the public shows that it is the want of qualities in a nurse which gives rise to complaints on art of patients and their friends. It is seldom that a of adequate technical training is the ground of fault- ng.

reover, it is the difference in the comparative value of echnical skill and the personal qualities in the making of rse, which constitutes the essential difference between nd a doctor as regards the applicability of a system of ration, and renders the analogy, so often made, entirely ious. A doctor's technical knowledge takes many years uire, and his education is tested at various stages by rized bodies, and, however important his personal cter may be, it is for his skill and knowledge primarily e is consulted. But, without desiring to underrate the tance of the technical knowledge of the nurse, it is n that—apart from a speciality such as midwifery—the t of this knowledge is secondary in importance to her al character.

well known to many of the signatories that not a few n who have done extremely well in examinations have failed to make good nurses, or such as could with confi- be sent into private families.

one would engage a governess, or even a domestic t, simple because her name is on a register, without ing into her character as distinct from her ability to n her specific duties. *A fortiori*, the same inquiry be made before engaging a nurse. No register would er case furnish the requisite information.

State Register of Nurses, far from being a security to blic, would be an actual source of danger, since an unsuitable woman, simply because she has passed an ation, would be entitled to be on the Register, which imed would certify to the nurse's fitness.

reat difficulty, personal odium, and possibly the e of defending an action for libel, would attend any eking to have a nurse's name removed from the r even if she were notoriously bad. Shortcomings, nt to disqualify her as a nurse, would be almost sure assed over, and a really bad nurse might, and many be going about "hall-marked" as fit to be employed. blic would be lulled into a false sense of security, ed to believe that the Register would protect them ncompetent and undesirable nurses.

our opinion it is not advisable that there should be a training made compulsory on all nurses, such as a egistration would require. To supply the manifold f patients, and to meet the very different conditions hich nursing of all sorts and kinds has to be done, a of nursing knowledge and experience is requisite, rge number of women, trained only in certain direc- nd who would not comply with the conditions im- posed by registration, satisfactorily supply what is wanted. To exclude such from following their occupation, as a State Register more or less aims at, would be as unjust as it would be impracticable.

5. If nurses are to be registered on their technical qualifications (and it is conceded even by the advocates of registration that nothing else can be "registered") it is inevitable that they will concentrate their efforts on the attainment of the technical knowledge, which is thus made the *first* essential. From the beginning of their training they will deem the passing of examinations to be of primary importance. Those who realize that the ultimate success of a nurse must depend upon her personal suitability for her work, already deprecate the growing tendency to attach undue importance to the passing of examinations at the expense of the cultivation of those qualities of power of observation, of sympathy, cheerfulness, and self-control, without which the services of a technically-trained nurse can never be acceptable to a patient.

6. A State Register, such as is proposed, would tend to lower the status of the best nurses, partly from their association thereon with those persons who, from defects of character or performance, ought to be removed from the Register, but have not been so for the reasons stated. Further, if by the imposition of an unduly high standard of examination, the nurses able to pass such an examination may be said to be protected, this would be attained by the exclusion from the nurses' calling of a large number of women who could perfectly well fill many situations for which their services were suitable. If, on the other hand, an unduly low standard be set, the women most competent at examinations would be placed on the same level as the less capable, and those best qualified would lose most.

When in 1893 a scheme for the registration of nurses was promoted, a similar protest to this was issued, signed by Miss Florence Nightingale and representatives of almost all the large London nurse training schools as well as most of those in the provinces, and we know that to-day Miss Nightingale's opinion remains the same as it then was, that as the personal qualities, which are of first importance in a nurse, cannot be registered, it would be misleading to allow nurses or the public to imagine that any scheme of State Registration would indicate the fitness of any woman registered to act as a desirable attendant on the sick.

It should not be forgotten that all important hospitals give to the nurses trained in their wards, and whose work has been well done, certificates of service after the ordinary term of three or four years has elapsed. These certificates are sufficient testimony of technical knowledge and experience, and would not be improved upon by a registration or examination by persons who have had no experience of the actual conduct of the nurse during her period of service.

The preliminary list of signatures includes the following :

Chairmen of Hospitals and Others.—Mr. Sydney Holland, Chairman of the London, Poplar, and Tilbury Hospitals; Mr. Charles Burt, Chairman of the Royal Free Hospital; Lord Sandhurst, Chairman of the Weekly Board, Middlesex Hospital; Lord Methuen, Chairman of King's College Hospital; Mr. Henry Lucas, Chairman of University College Hospital; Mr. J. Danvers Power, Chairman of the National Hospital for the Paralysed and Epileptic; Mr. Arthur Lucas, Chairman of the Hospital for Sick Children, Great Ormond Street; Mr. J. G. Wainwright, Treasurer of St. Thomas's Hospital; Mr. H. Bonham-Carter, Secretary to the Committee of the Nightingale Fund; Mr. J. G. Talbot, M.P., Chairman of Westminster Training School; Mr. W. L. Saunders, General Superintendent of the Manchester Royal Infirmary (on behalf of the Committee and Medical Board); and others.

Members of the Medical Profession.—Lord Lister, Sir Thomas Barlow, Bart., Sir James Reed, Bart., Sir Dyce Duckworth, Sir William Bennett, Sir Patrick Manson, Sir Isambard Owen, Sir Anderson Critchett, Professor Watson Cheyne, Mr. Bowlby, Dr. Norman Moore, Dr. Sharkey, Professor McCall Anderson, Dr. Ferrier, and others to the number of fifty-one altogether.

Matrons of Hospitals in London.—The matrons of twenty-three hospitals in London, the matrons of seven metropolitan Poor-law infirmaries, the Matron of the Westminster Training School for Nurses, and a few others.

Matrons of Provincial Hospitals.—The Matrons of the Royal Infirmary, Bristol; the Norfolk and Norwich Hospital; the Cumberland Infirmary; the Royal Infirmary, Dundee; the Worcester General Infirmary; Addenbrooke's Hospital, Cambridge; Lincoln County Hospital; Derbyshire Royal Infirmary; Royal Southern Hospital, Liverpool; Edinburgh City Hospital for Infectious Disease; Radcliffe Infirmary, Oxford; General Infirmary, Gloucester; the Lady Superintendents of the Newcastle-on-Tyne Infirmary; the General Hospital, Northampton; the Leith Hospital; the Workhouse Hospital, Liverpool, and the Worcester Nursing Institution, the Superintendent of Nurses, Edinburgh Royal Infirmary, with others to the number altogether of sixty.

ASSOCIATION NOTICES.

COUNCIL.

NOTICE OF MEETING.

A MEETING of the Council will be held in the Council Room of the Association, at 429, Strand (corner of Agar Street), London, on Wednesday, the 20th day of April next, at 2 o'clock in the afternoon.

ELECTION OF MEMBERS.

ANY candidate for election should forward his application upon a form, which will be furnished by the General Secretary of the Association, 429, Strand. Applications for membership should be sent to the General Secretary not less than thirty-five days prior to the date of a meeting of the Council.

LIBRARY OF THE BRITISH MEDICAL ASSOCIATION.

THE Library will be closed on Thursday evening, March 31st, and reopened on Tuesday morning April 5th.

GRANTS FOR SCIENTIFIC RESEARCH.

THE Council of the British Medical Association desires to remind members of the profession engaged in researches for the advancement of medicine and the allied sciences that it is prepared to receive applications for grants in aid of such research. Applications for sums to be granted, which must reach this office not later than 31st of May, must include details of the precise character and objects of the research which is proposed, and must be made on forms to be had of the General Secretary, at the office of the Association, 429, Strand, London.

Every recipient is expected to furnish to the Committee on or before 31st May following upon the allotment of the grant, a report (or, if the object of the grant be not then attained, an interim report to be renewed at the same date in each subsequent year until a final report can be furnished) containing: (*a*) A brief statement for the Report of the Scientific Grants Committee, showing the results arrived at, or the stage which the inquiry has reached; (*b*) a general statement of the expenditure incurred, accompanied, so far as is possible, with vouchers; (*c*) and references to any Transactions, Journals, or other publications in which the results of the research have been printed.

RESEARCH SCHOLARSHIPS.

The Council of the British Medical Association is prepared to receive applications for three Research Scholarships which become vacant, of the value each of £150 per annum, tenable for one year, and subject to renewal by the Council, provided the whole term of office has not exceeded three years.

The scholarships exist for the encouragement of research in Anatomy, Physiology, Pathology, Bacteriology, State Medicine, Clinical Medicine, and Clinical Surgery.

Applications for Scholarships must be made on forms to be had of the General Secretary, and returned on or before May 31st.

ERNEST HART RESEARCH SCHOLARSHIP.

The Council of the British Medical Association is also prepared to receive applications for the Ernest Hart Memorial Scholarship of the value of £200 per annum, tenable for one year, but subject to renewal by the Council for another year. The Scholarship is for the study of some subject in the department of State Medicine.

GUY ELLISTON, *General Secretary.*

429, Strand, March 25th, 1904.

BRANCH MEETINGS TO BE HELD.

BORDER COUNTIES BRANCH: WEST CUMBERLAND DIVISION.—The annual general meeting of this Division will be held at Whitehaven on May 17th. The Secretary will be pleased to receive communications from any member who wishes to read a paper or show cases or specimens.—T. G. MATHEWS, 6, Scotch Street, Whitehaven, Honorary Secretary.

EAST ANGLIAN BRANCH.—The spring meeting of this Branch will be held at the White Hart Hotel, Manningtree, on Thursday, April 14th. Members wishing to read papers or show cases or specimens should kindly communicate as soon as possible with Dr. NICHOLSON, East Lodge, Colchester, Honorary Secretary.

EDINBURGH BRANCH: SOUTH-EASTERN COUNTIES DIVISION.—A meeting of this Division will be held in the Station Hotel, Newtown St. Boswells, on Friday, April 8th, at 3.45 p.m. Business: To consider the Medical Defence scheme of the Association. To consider the following recommendation of the Ethical Committee: "That the question of advertising of medical practitioners in connexion with hydropathic establishments be referred to the Divisions." To consider the recommendations of the Medico-Political Committee: "That the Divisions be asked to consider whether it is advisable that the medical witnesses engaged on each side in legal cases should meet in consultation." Secretary will be glad to receive intimation of cases to be shown or papers to be read as soon as possible previous to the meeting.—W. HALCALVERT, Honorary Secretary, Melrose.

METROPOLITAN COUNTIES BRANCH: HAMPSTEAD DIVISION.—The next meeting of this Division will be held at the West Hampstead Town Hall, Broadhurst Gardens, N.W., on Friday, April 8th, at 4.30 p.m. Dr. Edward Anderson will preside. Agenda: (1) Minutes; (2) notices of motions for annual Representative Meeting; (3) the advertising of medical practitioners in connexion with hydropathic establishments (Ethical Committee); (4) is it advisable that the medical witnesses engaged on each side in legal cases should meet in consultation? (Medico-Political Committe); (5) the scheme of medical defence (Medical Defence Committee). General business.—J. DILL RUSSELL, Osman House, Fortis Green, N., Honorary Secretary.

SOUTHERN BRANCH: PORTSMOUTH DIVISION.—The next meeting of this Division will be held at 5, Pembroke Road, Portsmouth, on Tuesday, April 12th, at 3.30 p.m. Members wishing to show cases or to read papers should communicate before April 5th with the Honorary Secretary, J. BLACKMAN, Poplar House, Kingston Crescent, Portsmouth.

SPECIAL CORRESPONDENCE.

LIVERPOOL.

Presentation to Alderman Dr. T. Clarke, late Chairman of the Hospitals Committee.

DR. THOMAS CLARKE, who has been a member of the City Council and chairman of the Port Sanitary and Hospitals Committee for the past eleven years, has resigned his office as alderman, and with it his seat on the Council. He has well served well of the community by the manner in which he has superintended the important work of the committee and the great advance which has been effected in the hospital administration and accommodation during his term of office. When he became chairman there was only accommodation for between 300 and 400 infectious cases in the city, and there is now accommodation for about 1,000. Dr. Clarke's late colleagues on the Council have presented him with a handsome silver tea-and-coffee service as a mark of their high esteem and personal regard, and in recognition of his valuable services to the city.

The presentation was made on March 23rd by the Lord Mayor, who was accompanied by the Lady Mayoress. The Lord Mayor said that Dr. Clarke had served the city with ability and zeal which had won not only the confidence of the public, but also the admiration and regard of his colleagues. They had all learned to appreciate the firmness and yet with the courtesy and consideration with which he had handled the business which he had had charge of in the Council. The gift, which is a richly chased solid silver Georgian tea-and-coffee service, bears the following inscription:

> Presented to Alderman Thomas Clarke, J.P., from his colleagues in the City Council, as a mark of their high esteem and personal regard upon the occasion of his retirement, November, 1903.

The service was accompanied by a beautiful silver tray.

Dr. Clarke, in accepting the gift, said that when he undertook the Chairmanship of the Hospitals Committee he found that Liverpool was not adequately provided with hospital accommodation for isolation of infectious disease, and that in the interests of the general community and of the trade of the port that accommodation should be increased. Fifteen years ago the health of the city so far as infectious diseases were concerned was not much thought of by foreign nations; but during the last few years they had, through their consuls in this port, been paying very special attention to the efforts made to cope with infectious diseases in Liverpool. It would have been a serious matter if the city had failed to provide the necessary accommodation. As a medical man he saw it was absolutely impossible for the working classes to provide accommodation at home for the isolation of the infectious sick. He thought the Council was now in a position, or shortly would be, to meet all possible requirements, and that Liverpool would stand perhaps first among the cities of the empire in regard to the ample accommodation provided for dealing with infectious disease.

BIRMINGHAM.

Birmingham Medical Institute.—Care of the Feeble-minded. The Ear and Throat Hospital.—National Trades Exhibition.

annual meeting of the Birmingham Medical Institute held on March 24th. The report showed that the past had been a most successful one for the institute. The ber of members was 219, of whom 183 were ordinary bers and 36 life members. During the past year, 24 bers had resigned or removed from the district, and one ember had died; 41 new members had been elected, so here was an increase of 16 on the total number. The nt of the subscriptions had also increased, since in 1903 £194 10s. and in the previous year £180 2s. The income e year was £497 and the expenditure £479, so that the s of income over expenditure was £18. A canvassing ittee has been formed, which has already done good by obtaining more members. The library now consists 93 volumes, and of these 168 were added during the past The library is largely used by the members, as is seen fact that 1,158 volumes were issued to 125 borrowers. ading-room is supplied with 83 periodicals, of which 37 gularly bound and added to the library. At the annual ng the following gentlemen were elected officers for the g year: *President*, Mr. Arthur Oakes; *Vice-Presidents*, D. Kirby and Dr. J. W. Russell; *Honorary Secretaries*, . R. Jordan and Mr. C. Leedham-Green; *Honorary ians*, Mr. J. T. J. Morrison and Dr. Douglas Stanley.

nference, organized by the After-Care Committees of ngham, Leicester, and Nottingham Education Depart- was held in the Council House on March 24th with ect of discussing the problems and difficulties which ith regard to the care and treatment of feeble-minded s. The conference was largely attended, and it seemed the general feeling that the only satisfactory way of with the question was by the permanent care of the minded in residential homes. The following ions were adopted:

t in the opinion of this conference it is necessary that the pro- f the Elementary Education Defective and Epileptic Children's , should be made compulsory; 2, that an inquiry should be onsider whether, and if so what alteration of the law is neces- that harmless pauper and non-pauper lunatics, epileptics, and inded persons could be confined in suitable establishments upon nt certificate to that now required; 3, that Boards of Guardians eceive a grant of 4s. per week for every harmless lunatic, , or feeble-minded person sent to homes provided by them to faction of the Local Government Board.

ifty-ninth annual meeting of the governors and sub- of the Birmingham and Midland Ear and Throat l was held on March 23rd. The report for 1903 showed e total ordinary income for the year was £2,225 and nary expenditure £2,323, leaving a deficit of £98, not- nding the fact that the in-patient department was or about four months of the year owing to building ns. The subscriptions amounted to £1,421, which ight increase when compared with those received in ious year. Owing to the large structural alterations ensions which have been going on during the past e number of patients treated at the hospital was than in previous years. The number of out-patients 2 and the in-patients 781, as compared with 8,122 and pectively in 1902. Of the in-patients, nearly 36 per ere admitted from districts outside Birmingham and rbs, so that the work of the hospital is distributed rge area of the Midland counties. The committee with regret that the donations towards the hospital n fund amounted only to £2,015, whereas the sum of vas asked for. Partly to meet this deficiency the ee authorizeed the trustees to realize the Corporation ngham gas and water annuities. The alterations and ns have now been completed, and enable the work of itution to be carried on in a much more efficient and giving the city a hospital of which it may well l. The authorities are trying to prevent the charity ng used by any but those who are unable to pay for advice, and their determination to accomplish this by the large number of patients who were refused t at the hospital during the past year.

ueen's Hospital should be greatly benefited by the Trades Exhibition, which was opened at Bingley March 24th by the Lord Mayor of Birmingham, as ital receives 5 per cent. of the gate money. The exhibition promises to be even more successful than any of its predecessors, but even if it should not be so, the institution is bound to receive a considerable sum. As the result of former exhibitions the hospital has obtained £1,372 from Mr. George Stanley, who is the general manager.

CORRESPONDENCE.

THE ASSOCIATION AND MEDICAL DEFENCE.

SIR,—The letter signed by Dr. Cox in your last issue is too long and too diffuse to permit of a full answer on all points raised. With reference to his correction of the number of practitioners in the United Kingdom, as representing those within and without the charmed circle of the British Medical Association, had he read his JOURNAL of the week ending March 19th carefully he would have noticed that the clerical error was already corrected in the published copy of the circular issued by the Council of the Medical Defence Union.

Perhaps I may be allowed to point out the exact position of the Medical Defence Union, on whose Council I have had the honour to have a seat since its inauguration. In 1885 it originated medical defence—such defence never having been accomplished previously—and it is, in spite of competing societies which have sprung up since its foundation, the leading and most powerful society in this respect: it has never spared expense when its members were attacked, employing the highest and best legal talent in the courts regardless of cost. It is to this generosity, added to promptness, that it owes its present position. Other societies may have more money in reserve per head, but such reserve can only be obtained by cheeseparing policy in relation to costs at law, and such a policy has never obtained in the Medical Defence Union as being contrary to the interests of its members.

More than one quarter of its total membership consists of practitioners who have not for various reasons joined the British Medical Association, and to wind up a going concern and cease to protect and defend such members is, in the opinion of the Council, an uncalled-for action. In addition to these members there are many others who have written to say that they would sooner cease their membership of the Association rather than permit the Union to be wound up for mere sentimental reasons. The British Medical Association has taken seventy-three years to raise a membership of about 15,000; the Union in nineteen years has obtained members to the extent of 6 000. Now the Association, after many years' sleep, has awakened to a sense of its position and suddenly presents a pistol at the head of other societies which have been doing excellent work, and invites them to commit the "happy dispatch" and to cease to exist.

The Medical Defence Union has received no call from its members to commit suicide, and is quite ready and willing to continue its work as long as confidence is shown in it. The Council has no objection to healthy competition. It has the greatest possible objection to monopoly. Trusts and combines are un-English, and America has not justified their existence.

The ultimate issue lies in the hands of the members of the Medical Defence Union, and when the time comes, if they cease to have confidence in their Society, the Council will respect their wishes. Such want of confidence, judging from the numerous letters received, has no existence at the present time, and therefore the work will be continued without injury to either the Union or the Association.—I am, etc.,

M. ARDEN MESSITER,
Dudley, March 28th. President of the Medical Defence Union.

SIR,—I must dissent from Dr. Cox in his severe criticism of the recent action of the Medical Defence Union on the above subject. He forgets that the first duty of the officers of the present medical defence societies is to look after their interests, and not to risk them in favour of schemes, the chief recommendation of which is that they may possibly increase the membership of the British Medical Association, and benefit in some not very clear manner the whole profession.

If the present societies were to wind up to-morrow, and transfer their business as far as possible to another society to be carried on within the Association, according to the proposed scheme, is it certain that the latter would attract

a larger number of members than those belonging at present to the Medical Defence Union and the London and Counties Medical Protection Society? I think not, and if the number were less a loss and not a gain to the profession would result from the scheme.

I disagree, too, with Dr. Cox that such a defence society would be anything more than "indirectly connected with the Association." As only such members as paid towards the new Society would be entitled to benefit, and these probably but a small minority of the Association, how could it be fairly said, when an action arose, that the member was being defended by the British Medical Association?

The only link between the Society and the Association would be the officers elected under the scheme by the Council and the representative body, and it is incomprehensible to me how any officer of the present medical defence societies could ever consent to such an arrangement. Why should the Council and representative body elect all the officers? Because the funds of the Association are in certain cases to guarantee the solvency of the new Society?

Such cases have never yet occurred in the experience of either of the present societies, and would only be likely where action was being taken on matters affecting the whole profession; and it is specially stipulated in the proposed scheme that only individual defence should be undertaken at first.

On the Council and representative body there might possibly be no member of the new Society, and yet it is to have the right of electing all the officers. Surely, in common fairness, the officers should be elected by the members for whom they are to act. I can see no reason for such a system of election, except to make it appear that the proposed Society is an integral part of the Association, when, as a matter of fact, it is nothing of the kind—in other words, to throw dust in the eyes of the profession.

In my opinion, no scheme of medical defence by the British Medical Association would be worthy of support unless every member were included in it, and only under such circumstances could it be truly said that medical defence was being conducted by the British Medical Association.—I am, etc.,

London, N.E., March 26th. MAJOR GREENWOOD.

SIR,—Dr. Cox is anxious lest the members of the Medical Defence Union should refuse to accept the scheme of the British Medical Association. I am anxious lest the members of the Association should refuse to reject it. For twenty years the great body of its members have looked forward to the time when the Association would provide a scheme of medical defence, compulsory on all its members and included in the general work of the Association, and covered by one annual subscription. Instead of this the Council has produced a scheme, optional in its operation and grotesque in its details. The funds are to be provided by the individual members of the Association who desire to accept this scheme, and are to be under the absolute control of a central committee, which is to be elected by the Representative Meeting and the Council of the Association jointly, many of whom may not be contributors to its funds. Although the scheme is not to be an integral part of the Association, its funds are to be drawn upon in the case of urgency, and the Treasurer of the Association is to advance money on "terms approved by the Council" on the guarantee of the medical defence fund.

One of the arguments against making a compulsory scheme of medical defence has been that it would be "inconsistent with the constitution of the Association that any member should be called upon to contribute towards any object in which he has no share." I can see nothing in Article VII, or By-law 14, to justify this contention, but it appears to me to be equally inconsistent to advance money belonging to all to benefit only some of the members, as is proposed under the new scheme. In any case the Articles of Association will have to be altered, and I feel confident that a Council which could transform an organizing secretary of a more or less temporary character into a permanent medical secretary without the sanction of the members of the Association, would be able to produce a satisfactory scheme of medical defence, compulsory in its character, an integral part of the Association, and not merely an outgrowth from it, and at one inclusive annual subscription. Then it might truly be said to be under the "organization, prestige, and help of the British Medical Association," and this, I trust, will be the decision of the next annual meeting.—I am, etc.,

Salford, March 28th. R. H. WOLSTENHOLME.

SOME GRIEVANCES OF THE WEST AFRICAN MEDICAL STAFF.

SIR,—In the beginning of 1902 the six various Col medical departments in the West African possessions were consolidated into one service under the name of the African Medical Staff, other much-required reforms granted at the same time. Considering that the death-ra this service is normally nearly twice that of the active vice rate in the Cape war, it would appear that deserving of every privilege it could be granted. Allow as I think the first to come out under the new rules, to grievances that still exist; for those serving at present to do so without the risk of complaining and being consid to be giving "trouble," it also in official etiquette being no duty of a head of a department to fight his subordin battles except they complain in official form.

1. *Gratuity.*—Some years' acquaintanceship with the sury in Crown Colonies makes me say that, unless a resigned either at nine years or twelve and a-half, as the might be, under the present wording he would get not (his heirs or executors) if he deceased after serving be those periods.

2. *Quarters.*—We were promised free furnished quarte allowance in lieu thereof. In my last spell in Ashanti one room found, with three articles of furniture out of two dozen authorized. A letter pointing this out, and as for modified allowance was not even answered, as far remember. The officers of the Gold Coast Regiment receiving allowances for living under the same condit When I left Cape Coast hospital there were three me officers in it, the quarters they occupied being two sp rooms, and two wards with only a few of the autho articles in each.

3. *Special Duty.*—This has always been the great stumb block; it has amounted to pure sweating. The last Gove Sir Matthew Nathan, tried to abate it, but found th vicious system could not be altered all at once. Soon he assumed office there were six doctors doing duty as a commissioners in six out of thirteen Supreme Court dist representing a saving to the Colony of £250 a month. one of the six, my work was increased by 200 per cent., income by 10 per cent. Under the regulations you ca refuse such duty, nor is it desirable that such right sh exist; but such a devolution of work should only be requ in emergency. The practice has been to save the Trea at the expense of the doctors, a legal Commissioner been at Elmina perhaps twelve months in the last six y Ada and Kwitta must have been getting on to half their in those years under medical acting commissioners. In northern territories one medical officer was for six mo away from his station without any other European, acti a tax-gatherer; another was for four months recently a man of works, erecting public buildings in Salaga. All is very disheartening to men keen on their profession. find their time taken up with other than medical duties, yet are told in a circular that promotion will largely de on original research and special professional work. This stant sweating led up to most doctors resigning if they c hence there was a permanently undermanned staff; in first five leaves I was on an average over two mo overdue.

4. *Extra Duty.*—The worst feature of this extra duty not the duty itself, but the conditions under which it done. It might be because the Commissioner was ill; then had this extra duty with increase of medical w Doctors in West Africa have to be nurses as well. T might be no Commissioner; after being ill yourself had to go back to work too soon, to clear off arrears. became responsible for every department in your dist being as open to adverse criticism as if specially traine that duty. The Treasury held you as financially respons as a fully trained member of that department. Membe the secretariat, clerks of a few months' standing, would c cize your local knowledge, although of several years' stand I knew one doctor made an Acting Commissioner with month of his first landing, within a fortnight he was gra censured for a mistake in legal procedure; he left after first leave.

5. *Breach of Contract.*—After signing you find that you only bound yourself as against the Crown, that the Cr cannot be forced to observe its share. Those of us who joined with the right of private practice were suddenly to 1901 that it was a right the Governor could withhold. In

ors who had drawn pay for attending to imperial troops, being private practice, were ordered to refund the unts, although the War Office had agreed to the charges.

Seniority.—There is no settled system by which seniority a claim to the best stations for private practice. To do duty as an Acting Commissioner was to court being sent he smaller districts. I have known of doctors who purly made a muddle of such work being rewarded by being to the larger stations where there was rarely any extra but plenty of extra practice.—I am, etc.,

G. ROME HALL, M.D.,
Late Senior Medical Officer West African Medical Staff.

swick, W., March 17th.

THE PROPOSED MINISTRY OF HEALTH.

—The British Medical Association is engaged in the valuable work possible in advocating the extension of powers vested in the health departments of the civil, l, and military populations on a scientific basis.

cently I had the honour to forward to you a commentary our valuable memorandum dealing with a proposed reruction of the Local Government Board, which was aped by the British Medical Association. May I be allowed view briefly the main features of that commentary?

The Bradford meeting of the Sanitary Institute in 1903, Brussels Congress of Hygiene 1903, and many other ings have approved of the formation of a health stry.

The British Medical Association would model the Local rnment Board upon the system of the Admiralty.

Noting a closer analogy between the army and public n, it is probable that the new army scheme offers a more priate standard, provided that it be adapted to public n requirements.

A comprehensive and elastic scheme in outline is as fol- (It is seen that there is an alternative proposition to inister of Health being an expert, but there is no doubt is title should be as set forth. A critical analysis of the nd cons regarding an expert head in State medicine no valid contraindication. Thus it is expedient on the ds of progress merely, to propose such an alternative.)

I. MINISTER.

t Minister of Public Health and (separate) Cabinet Minister of Local Government.

expert Cabinet Minister presiding over Health Ministry. A Cabinet Minister of Local Government Office.

or, as an alternative,

Cabinet Minister of Public Health and Local Government (non-expert).

II. HEALTH MINISTRY.

1. *Public Health Committee (Advisory).*

(*b*) presiding over a Public Health Committee (advisory), which inking, collating, initiating, and recording body, advising the r on all matters relating to public health in the Empire.

2. *Public Health Council (Administrative).*

(*b*) presiding over a Public Health Council (administrative), a nent to administer the public health (civil) services; including ls, sanitary works, vaccination, pathological and public health ories, etc. The duties allocated to each member to be defined e organization of the health services.

3. *Inspection Department.*

spection Department, to be the eyes and ears of the Council, a ment of the present system of inspection.

4. *Public Health Services (Civil, Executive, Local).*

III. LOCAL GOVERNMENT OFFICE.

(*b*) presiding over a Local Government office (for business other blic health, but not defined here).

estions as to the constitution of these bodies are given commentary on your valuable memorandum in the of the Secretary of the Medico-Political Committee, to I hope to be allowed to refer at a future date.—I am,

uth, March 26th. F. BUSHNELL.

THE FEEDING OF INFANTS.

—In a letter published in the BRITISH MEDICAL AL on March 26th, Dr. L. A. Parry calls attention to the at in the home modification of milk for infants, as recommended, it is necessary to have a cream of a specific gravity. He points out how difficult it is to accurate results unless the cream is analysed. This is serious objection to the system of percentage feeding, rocess of home modification, if absolute accuracy is al to success. To a certain extent the objection does not hold good in London, for some of the dairy companies will supply a 16 per cent. cream when ordered; and sometimes this is a gravity cream. Such devotion to accuracy may be useful or even necessary occasionally, and no doubt impresses the public. Nevertheless I am of opinion that a simple method of home modification is all that is usually required and that this can be carried out quite easily as long as it is possible to get a good supply of mixed milk. A great deal too much importance has been attached to the pseudo-scientific method, the so-called percentage method of feeding. It is rarely necessary. It is frequently disadvantageous. It condemns the infant to a succession of meals of the same quantity, taste, and composition—a diet which I have called the *toujours perdrix* diet. It may give rise to malnutrition, anaemia, and scurvy. And it can hardly be called scientific, seeing that it starts on a purely empirical basis. We can no more assert that a given percentage mixture will suit a particular child than will an empirical mixture, home-made, of roughly the same composition. The simplest methods will in the end survive and prove the most useful. Of these, the one I recommend in my book on *The Natural and Artificial Methods of Feeding Infants and Young Children*, page 182, second edition, has proved most satisfactory.

In this method it is necessary to obtain, morning and afternoon, a supply of good mixed milk. For practical purposes we may regard the percentages of the different constituents in such milk as—proteid 4, fat 4, sugar 4.4. Let the milk stand for a definite period, say four hours, in a refrigerator, covered up, and surrounded by ice in hot weather. Then siphon off the top half or top third. The top half of such milk will usually contain the same proportions of proteid and sugar, but double the amount of fat. I am not concerned with minute accuracy in the percentages. In addition, a sugar solution must be made of 1 oz. of milk sugar or cane sugar, 1 oz. of lime water, and 19 oz. of water. This solution is alkaline and contains 5 per cent. of sugar. It must be made fresh twice a day and kept in the refrigerator. In order to start with a weak mixture and gradually to increase the strength, it is only needful to take 5 oz. of the top-milk and enough sugar solution to make the total quantity 20 oz., and to gradually increase the amount of top milk up to 10 oz., while the amount of the sugar solution is reduced in proportion, the total bulk of the mixture remaining at 20 oz. By this means the percentage of proteid is gradually increased from 1 to 2, of fat from 2 to 4, and of sugar from 6 to 7. Should it be desired to have a higher proportion of fat without any increase in the proteid, the top-third milk must be used instead of the top half. The percentage of sugar can be reduced by using a weaker sugar solution. Using this method it is quite simple to start with a very weak mixture and to alter its composition according to the necessities of the case. The weak point in the method is that it does not enable us to increase the relative amount of albumin as compared with caseinogen. If albumin is required in preference to caseinogen it can be added in the form of egg albumin. The essential points in this process are good mixed milk, the composition of this varies little from day to day; it must be kept under the same conditions and for the same length of time; and the sugar solution must be fresh. The variations in the composition of the feeds will be slight, and probably less even than in mother's milk at different times of the day. Such variations are most probably advantageous.—I am, etc.,

London, W., March 28th. EDMUND CAUTLEY, M.D., F.R.C.P.

POOR-LAW MEDICAL SYSTEM IN IRELAND.

SIR,—I have read your excellent report on the above, but cannot understand why medical men in the twentieth century undergo "voluntary slavery" so willingly. If the medical men in Ireland would take a leaf out of the miners' book they would unite, ask redress, and, if need be, go on strike. I am certain their medical brethren in England and Scotland would not prove "blacklegs."—I am, etc.,

JOHN WISHART, M.D.
Dudley, R.S.O., Northumberland, March 26th.

THE DIMINISHING BIRTH-RATE.

SIR,—The subject of the diminution in the birth-rate has undoubtedly brought to light some ingenious theories, particularly as regards the case of the middle class. But why muscularity in the poor woman should produce such totally different results as the same condition amongst the more refined is not explained. Is it not probable that any attempt at an explanation would demolish the theory entirely? I feel some diffidence in coming forward with yet another

hypothesis. But since I have for 25 years practised exclusively amongst the professional class—having neither poor nor wealthy patients—and having since boyhood moved in that society alone, I cannot help thinking that I may have had peculiar advantages of forming an opinion regarding them.

The question I opine is entirely an economic one. There is, as far as I have observed, no loss of virility or fecundity, but children are now universally undesired, mainly from the increasing difficulty in educating them and placing them in life.

To find a girl a suitable husband with a home, or a boy with an avocation suited to a gentleman, will in the near future tax the ingenuity of the most capable mother or father.

When we have realized that we are being made to pay, in order that our coachman's sons may be able to compete against our own sons for daily bread, the contemplation of the situation in front of us must give us pause. Thus it is that many men dread matrimony (notably amongst the clergy) and almost all practise Malthusian methods.

It is my solemn conviction that the professional class, as a distinct order, is being obliterated. In the past the upper class depended on its estates (funded or real), the merchant class upon its capital, the poor on their labour, and the professional class upon its education. The new education legislation has robbed the latter of its patrimony, and there is therefore no sure living for its children.

This is a saddening prospect, for the old refined ways of thought and living, of which this class were the custodians and examplars, are passing away. England will become Germanized or Americanized by this process alone, and the English gentleman, apart from the *jeunesse doré*, will become as extinct as the British yeoman.—I am, etc.,

March 28th. HAMPSTEAD.

THE SITE OF IMPREGNATION: PREGNANCY AFTER DOUBLE OVARIOTOMY.

SIR,—In the report of my observations in the discussion on Mr. Cripps and Dr. Williamson's paper[1] I am made to say that external migration seemed to me impossible. I really contended that it was less probable than the opposite explanation. Baldwin's experience, related in the annotation in the same number of the JOURNAL (p. 743-4) on Pregnancy with Deficient Tubes and Ovaries, requires no external migration theory. He removed a pair of large ovarian cysts, and the pedicles were so long that the entire anatomical ovary was extirpated without difficulty on either side. The stump of one tube and a trace of ovarian tissue (not of ovary) in the stump of the corresponding ovarian ligament were sufficient to allow of two subsequent pregnancies. But granting that in Baldwin's case transmigration occurred from ovarian tissue in the stump of one ovarian ligament to the stump of the Fallopian tube on the opposite side, such a transmigration would have been impossible in my case. For I found Dr. Barnes's pedicle, fourteen years old, in a state of complete atrophy, which involved the tip of the uterine cornu itself. The right tube, which I left more or less intact, must have received the ovum from some ovarian tissue in the stump of the right ovarian ligament. I had no difficulty in drawing up the base of the tumour during the operation, so that no portion of the anatomical ovary was left behind.

Of course transmigration was possible in Mr. Cripps's case, but the experiences which I have related make the other explanation far more probable. Should a piece of the anatomical ovary be left behind in a case like Baldwin's or my own, recurrence of the cystic disease would be more likely than pregnancy.—I am, etc.,

London, W., March 26th. ALBAN DORAN.

[1] BRITISH MEDICAL JOURNAL, March 26th, p. 730.

THE COUNCIL OF THE ROYAL COLLEGE OF SURGEONS OF ENGLAND.

SIR,—In the BRITISH MEDICAL JOURNAL of March 26th you notify the fact that Professor Barling of Birmingham will be a candidate at the next election to the Council. Well and good. But the object of this letter is to suggest that it is highly desirable that the interests of *general practitioners* should again have representation at the College. The late Mr. Sibley was, I believe, the last representative there of this important element amongst the Fellows of the College. I do not know, but I am willing to believe, that the services of a good Fellow engaged in general practice would be welcomed by the Council, and I am bold enough to suggest that Mr. George Eastes, F.R.C.S., a general practitioner of l character and of wide information, is the man for the p I cannot say whether he would accept nomination, f have had no communication with him or with any frie upon the subject; but we all know that he is not a ma shirk a burden if he thinks its acceptance is a duty—

am, etc.,

March 26th. F.R.C.

THE INTRODUCTION OF PURE AIR INTO SER CAVITIES.

SIR,—In his communication on the above subject in BRITISH MEDICAL JOURNAL of March 26th, Dr. Theobal Palm says:

> It is difficult to see what is gained by it in the case of the peritoneum, because the abdominal wall, being collapsible, is pressed on by the whole weight of the atmosphere, and additional support can be given if desired by the simple expedient of bandaging.

Well, I am very sorry if I have not made my meaning c but I thought I had written so plainly that a wayfaring could not err therein; however, I shall now try and let Palm have the loan of my spectacles for a little. My obje to maintain a positive intraperitoneal pressure, and I h Dr. Palm will not consider it necessary for me to exp that the atmosphere cannot do that, nor can any am of bandaging, apart from raising the intra-abdominal press which is not quite the same thing. Moreover, there are s who ascribe the undoubted benefit which often follows d age of the peritoneal cavity in cases of tuberculous perito to the introduction of oxygen. Be that as it may, suffic success has already attended the operation to make anxious to continue it. Regarding the pleural cavity object is to prevent adhesions, and obviate colla hyperaemia which is apt to occur in the aged with r chest walls, as well as to relieve the acute distress w often follows aspiration. To accomplish these purposes chest is not a sufficiently good aspirator to draw in requisite amount of air. I recommend the injection volume of air equal to half the bulk of fluid which has siphoned off.

In some of my earlier experiments I allowed the che suck in the air filtered through cotton wool in a glass th head, but I soon gave over this ineffective method. Palm recommends "several layers of aseptic gauze ove end of the tube to act as a filter." No doubt as a rule tha contains very few pathogenic organs, and so in the majo of cases unfiltered air might be introduced with impur but what would we think of a bacteriologist who "several layers of aseptic gauze" as an air filter, and the life of me I cannot see why practising physicians sh be more careless in their methods than bacteriologist surgeons.

In reply to Dr. Stuart Tidey, I may say that I atmospheric air in preference to oxygen, from the fact th contains nearly four-fifths of its volume of nitrogen, hence is more insoluble. In tuberculous lesions the ox may be of advantage, and at any rate the one-fifth volu not sufficient to interfere with the mechanical advanta the nitrogen.—I am, etc.,

Liverpool, March 27th. JAMES BA

PROPOSED STERILIZATION OF CERTAIN DEGENERATES.

SIR,—In view of the serious proposal made by Dr. Re that certain "degenerates" should be sterilized, may I him, or any other of your readers, what is meant "degenerate," and what is the definition of "degeneracy I am, etc.,

London, S.E., March 18th. CHAS. MERCI

MEDICO-LEGAL AND MEDICO-ETHICAL.

FEES TO MEDICAL WITNESSES.

A CASE which has recently been brought to our notice serves to show in spite of the new regulations which were made in November, 1903, regard to the allowances payable to medical witneeses in criminal p cutions, members of the medical profession are still unable to o adequate remuneration in all cases. The facts of the case were sh these: A medical practitioner was subpoenaed to give evidence fo prosecution in a case at a court of quarter sessions which was at a tance of more than three miles from his residence. He was c to prove that a material witness for the prosecution was fering from pneumonia, and was on that account unabl attend the court. Owing to the state of the business at sessions the practitioner was compelled to attend on two days, on of which he was kept away from his practice for over four hours.

case was over he called at the treasurer's office to receive payment of fees. He was allowed on the pay sheet the sum of two guineas for two days, together with one shilling on account of travelling enses. He refused to allow the sum of one guinea which had been d to him by the solicitors for the prosecution when he was served h the subpoena to be deducted from the fees so paid. On his making mplaint to the clerk of the peace, whose business it is to settle the wances within the limits prescribed by the rules, our correspondent informed that "the allowance of £2 2s. a day to which you claim to be tled is the maximum allowance which the clerk of the peace could e if, for example, the President of the Royal College of Physicians or al College of Surgeons were to be summoned to give evidence at the sessions. The actual allowance which the clerk of the peace shall e is left entirely to his discretion upon the lines suggested by the e Office Order which you brought us." In the event our corre- dent had to be satisfied with the amount awarded by the clerk of peace, and he was compelled to return to the solicitors for the pro- tion the sum of one guinea which had been paid to him with the oena.

reference to Paragraph I of the Regulations made by the Secretary ate, governing the allowances payable to prosecutors and witnesses iminal prosecutions, shows that the rule is certainly capable of the ruction put upon it by the clerk of the peace. It is provided that: here *may* be allowed to practising members of the.....medical pro- on for attending to give professional evidence, but not otherwise, ances not exceeding the sums stated in the following scale: For ding to give evidence elsewhere than in any town or place where itness resides or practises, whether in one or more cases, not more two guineas per diem."

this regulation 'town' means municipal borough or urban dis- and 'place' means the area within a radius of three miles from the at which the witness attends to give evidence." The regulations rovide that where evidence is given in the town or place where the ss resides or practises, a fee of not more than one guinea per day for ase may be allowed.

clerk of the peace thus has a "discretion" in making these allow- Nevertheless, the reasons stated by the clerk of the peace in the nder review are manifestly absurd. The three-mile limit is laid by the Home Secretary in the regulations which he has drafted for ry purpose of providing that adequate remuneration shall be paid edical man who is compelled to travel more than a reasonable ce from the place where he practises.

AN ILLEGAL OPERATION.

rch 25th, Bertha Baudach, a German aged 53, was, according to the *g Advertiser*, indicted at the Central Criminal Court for the man- ter of the wife of a working tailor. From the evidence given it s that the prisoner attended the deceased in August and December d on each occasion performed an illegal operation. After the last ion blood poisoning set in, and the patient died. On being ques- by the police, the prisoner left her house, and ultimately went to ny. After the inquest was completed she returned, and was d. The jury having found the prisoner guilty, it was announced e had already undergone a sentence of five years' imprisonment milar offence, and was tried again only last year upon a corre- ng charge. On that occasion she was acquitted, but was severely ed for her conduct by Mr. Justice Lawrance. On the present occa- Mr. Justice Grantham, on receiving the verdict of the jury, ed upon the gravity of the offence, and sentenced her to seven enal servitude.

MEDICAL TESTIMONIALS IN TRADE ADVERTISEMENTS.

ESPONDENT sends a copy of a pamphlet, entitled *Woman*, issued by Chemical Company of New York, which contains a number of nials purporting to be given by British medical practitioners. We ferred the matter to the Ethical Committee.

PROFESSIONAL SECRECY.

—Where a medical practitioner is employed by a Government de- ent or a company to take charge of the health of its employés it a breach of professional secrecy for him to make all necessary re- upon cases which come before him, as the employés submit elves to examination by him on the understanding that such re- will be made. On the other hand, he has no right to examine any er of the staff without his or her consent, and he ought to explain will be necessary for him to report the result of his examination. osition of the medical practitioner in these cases is analogous to f an examiner for an insurance company, and no breach of sional secrecy is involved.

MEDICAL AID SOCIETIES

SIS.—The resolution passed by the General Medical Council on th, 1899, on the subject of the association of medical practitioners nedical aid societies is as follows: "That the Council strongly roves of medical practitioners associating themselves with l aid associations which systematically practise canvassing and ising for the purpose of procuring patients."

THE USE OF "MR." IN OFFICIAL ANNOUNCEMENTS.

ELITENSIS.—In English official announcements by the Govern- nd Court it is customary to use the form "Mr. A B C, M.D.," so e Malta Government has authority for the practice.

HORSE HIRE.

l C. are equal partners, and by the partnership deed it is agreed ch shall find and pay for the horses he requires to do the work irm. A. will not have his horses out at night, or go long dis- and hires in consequence. Ought this horse hire to be paid by the firm?

rictly speaking A. would have to pay, but if the hire were neces- owing to his own horses being overworked, or on account of ional work at a time when it was practically impossible for him his own horses, then it would be usual for the expense to be by the firm.

UNIVERSITIES AND COLLEGES.

UNIVERSITY OF OXFORD.

Examination in Preventive Medicine and Public Health (D.P.H. Examination).

THE examination for the Diploma in Public Health will commence on Tuesday, November 22nd, at 10 a.m. in the schools.

The examination is in two parts, conducted partly in writing, partly viva voce, and in each subject partly practical.

The first part comprises the application of chemistry and physics to general hygiene.

The second part comprises the following subjects: General pathology, with special relation to infectious diseases, the laws relating to public health, sanitary engineering, vital statistics.

Both parts may be taken together at the same examination, or they may be taken at separate examinations; but no one is deemed to have satisfied the examiners in Part II unless he has satisfied the examiners in the subjects of Part I.

The fee for admission to each part is £5.

A diploma is issued to every candidate who has passed in both parts of the examination, but no diploma or certificate is given under any other circumstances.

Candidates (who are not necessarily members of the University) must have their names on the *Medical Register*, and must have satisfied all the rules of the General Medical Council of the United Kingdom relating to the admission of candidates for Diplomas in Public Health which are in force at the time.

Candidates must send in their names by letter to the Secretary to the Board of Faculties at his office in the Clarendon Building, Broad Street, not later than 10 30 a.m. on Tuesday, November 8th, at the same time enclosing the statutable fee and full evidence of having satisfied the above requirements.

ROYAL COLLEGE OF PHYSICIANS OF LONDON.

AN extraordinary Comitia was held at the College on Monday, March 28th, the President, Sir William Church, being in the chair.

President's Address.

The President delivered an address dealing with the chief events of the collegiate year, and gave brief obituary notices of the following eight Fellows of the College who had died during the year: Dr. Lloyd Birkett, Dr. W. S. Playfair, Professor Corfield, Dr. John Tatham, Dr. A. Sangster, Dr. John W. Hill, Sir Edward Sieveking, and Dr. Alexander Davidson.

On the motion of Dr. J. Pollock a cordial vote of thanks was passed to the President for his address.

Re-election of President.

Sir William Church then vacated the chair, and voting took place for the office of President for the ensuing year.

After a first ballot the numbers recorded were—for Sir William Church 44, Sir William Broadbent 42, Sir R. Douglas Powell 35, Dr. Pye-Smith 29; a few votes were given also to Dr. Howship Dickinson, Professor Clifford Allbutt, Sir Dyce Duckworth, Dr. Barnes, Dr. Payne, and Dr. Pavy. A second ballot was then taken for the two names with the highest number of votes, and it resulted in Sir William Church being placed first with 91 votes, and Sir William Broadbent second with 69 votes.

Sir William Church then thanked the Fellows for electing him for a sixth time to the office of President, and intimated that this was the last time he could consent to accept it.

Licence.

A licence to practise physic was granted to Colin Alexander Campbell, M.B.Toronto.

Oliver-Sharpey Lectureship.

The College Seal was set to a "Declaration of Trust" accepting a sum of £2,000 from Dr. George Oliver for the endowment of "The Oliver-Sharpey Lectureship or Prize" on the terms agreed to at the last meeting.

Official Communications.

Communications were received from:

1. The Colonial Secretary, moving the College to establish an examination and diploma in tropical medicine. The question was referred to the Committee of Management to consider and report to the College.

2. The Clerk of the Privy Council, asking, on behalf of the Physical Deterioration Committee, observations from the College on a scheme for establishing a permanent anthropometrical survey of the United Kingdom. This was referred to the Committee already appointed to deal with the question of the physical deterioration amongst recruits.

3. The Secretary of the Royal College of Surgeons of England, reporting certain proceedings of their Council on February 11th and March 10th.

4. The English Committee of the International Congress on School Hygiene, to be held at Nuremberg, April 4th to 9th, inviting the College to appoint a representative on the Committee, and send delegates to the Congress. Dr. Warner was appointed a representative of the College on the Committee, and Sir Lauder Brunton was nominated as delegate to the Congress.

5. The Secretary of the Sanitary Institute, inviting the College to send delegates to the Annual Congress to be held at Glasgow, July 25th to 30th. The invitation was accepted, and it was left to the President to nominate delegates at the next Comitia of the College.

6. The Secretary of the Midland Medical Union, Nottingham, forwarding a memorial praying the College to adopt a form of academical costume for its diplomates. It was resolved that an answer be sent pointing out that as nearly all the diplomates were also Members of the College of Surgeons, and as such entitled to wear a distinctive gown, any further addition in this direction from the College would seem unnecessary and undesirable.

THE VICTORIA UNIVERSITY OF MANCHESTER.

Appointment of Lecturer.—At a meeting of the Council on March 24th Dr. S. Moritz was appointed Lecturer on Diseases of the Throat and Nose.

ROYAL COLLEGE OF SURGEONS IN IRELAND.

Fellowship Examination.—The following candidates, having passed the necessary examination, have been admitted Fellows of the College: J. H. Barrs, L.S.A.Lond., and W. F. Law, M.D., B.Ch., Univ. Dub. The next examination is fixed for May 16th.

OBITUARY.

FRANK RENAUD, M.D.,

Consulting Physician, Manchester Royal Infirmary.

WE regret to announce the death, in his 85th year, of Frank Renaud, M.D., M.R.C.S., L.S.A., F.S.A., which took place at Alderley Edge, on Tuesday, March 22nd.

Dr. Renaud was one of the oldest medical men in Manchester and its neighbourhood. He came of an old Huguenot stock, and was born on July 24th, 1819, in Hanover Street, Hanover Square, London. After a preliminary education in England Renaud studied medicine at Edinburgh, where he took his degree of Doctor in 1844 with a thesis on "The Ovaries, their Anatomy and Physiology. Comparative and Human." On account of his interest in his studies and his scientific attainments he was elected Senior President of the Royal Medical and of the Hunterian Societies of Edinburgh whilst he was a student. In 1844 he also obtained the diplomas of M.R.C.S., and L.S.A., and next year was appointed Honorary Physician to the Ardwick and Ancoats Dispensary, an institution situated in one of the most crowded districts of Manchester. At this time there was much sickness in the town, in consequence of the potato famine, and Renaud and his colleagues found typhoid fever, scurvy, and dysentery very prevalent in the patients under their care. In 1845 he wrote a paper in the *Monthly Journal of Medical Science* on the human female ovary, with reference to corpora lutea, both true and false, and this was published in book form of 50 pages in Edinburgh.

In 1848 he was elected Honorary Physician to the Manchester Royal Infirmary on the death of Dr. James Davenport Hulme. In those days the election of an honorary medical officer of the Infirmary created as much excitement in the town and was nearly as costly as a political election, for all the trustees of the hospital—and there were several hundreds of them—had votes. The result of the poll was, as Dr. Renaud tells us in his *Short History of the Royal Infirmary*, that he and his opponent received an equal number of votes, and the treasurer of the hospital, who had a casting vote as chairman of the election, decided in his favour. Nowadays such elections are by a committee of about forty.

Shortly after being appointed to the Infirmary staff Renaud joined in the teaching of medical students at the Pine Street School of Medicine, the forerunner of the Owens College School, taking medical jurisprudence as his subject in 1850, but changing in a short time to pathology and morbid anatomy, a branch of medicine he was specially interested in and to which the few papers he published belonged. In 1848 he wrote an article on the Literature and Probable Pathology, etc., of Cauliflower Excrescences of the Uterus for the *London Medical Gazette*, publishing it the same year as a small pamphlet of 12 pages. Another paper was entitled Observations on the Placenta. He also took considerable interest in the Pathological Section of the Manchester Medical Society, communicating several papers to its meetings. At this time Renaud undoubtedly was one of the most scientific medical men in the town, and he gained a great reputation which brought him consultations among many of the best families of the district.

In 1859 he arranged the books in the valuable library of the infirmary, and made a classified catalogue of them, for which he received the thanks of the committee. He always maintained his interest in the library, serving on the hospital subcommittee which dealt with its concerns when he was elected to the Board of Management in later years.

His bibliophile tendencies also led him at this time to prepare a catalogue of the Manchester Portico Library, a valuable collection of books of general interest; and to defend his work when criticized adversely by writing a pamphlet in 1858—a reply to Mr. Edward Edward's strictures.

After serving eighteen years on the infirmary staff, Dr. Renaud in 1866 voluntarily sent in his resignation owing to ill-health, and adhered to his resolution, he tells us in his book on the Infirmary, though asked to reconsider it. Some time after severing his connexion with the active staff of the hospital complete recovery supervened, at any rate he always looked robust and led an active, busy life. On retiring from the post of Honorary Physician he was appointed Consulting Physician. In 1892 he was elected by the trustees of the charity to the Board of Management of the infirmary, and continued to serve until 1902. Devoted to the interests of the hospital, most regular and punctual in his attendance at committee meetings, he gained the esteem and respect of his colleagues, who looked to him for guidance in questions before them about which he had special medical knowledge, for at this time the rules of the hospital did not provide for any direct representation of the Medical Board on the Board of Management.

When the question of the removal of the Infirmary from its present site came up about 1877, it was probably a letter of Dr. Renaud's, vigorously opposing removal, published on the day of the poll, which influenced the trustees by a small majority to retain the hospital in its central position, and when the same question was discussed a few years ago he again opposed removal and drew up a plan of his own for extending the accommodation on the present site by adding wings without rebuilding. Such a scheme would doubtless have been costly, but it had obvious disadvantages, and did not find favour with the majority of the trustees of the hospital, who, as is now generally known, decided to move to the Stanley Grove site. When he retired from the Board of Management in 1902 his colleagues, as a mark of respect, commissioned an artist to paint his portrait in oils, and the excellent picture thus obtained now hangs in the Board Room of the Infirmary.

In addition to his connexion with the Infirmary and its associated charities—the Fever Hospital and Lunatic Hospital—he was Consulting Physician to the Ancoats and Ardwick Hospital, Henshaw's Blind Asylum, Chetham's Hospital, the Warehouseman and Clerk's Schools, the Haydock Clifton Hall, and Cotton Hill (Stafford) Lunatic Asylums.

No account of Dr. Renaud would be more than half complete did it not refer to his great love for antiquarian research. In his leisure moments he wrote many papers which he read before the Chetham and the Lancashire and Cheshire Antiquarian Societies and published in their journals. He was also a member of the "Rosicrucian Brotherhood," composed of a few kindred spirits brought together by their tastes for things antiquarian. He contributed many papers to the *Transactions* on the history and genealogy of East Cheshire, some of which he made use of afterwards in writing his *History of the Ancient Parish of Prestbury*, published by the Chetham Society in 1876. Of other papers of similar nature the most important were On the Suppression of Religious Houses, the Use and Teaching of Encaustic Tiles, and papers on the ecclesiastical, manorial, and genealogical history of Cheshire. He also edited the *Architectural History of the Cathedral Church of Manchester*, written by his friend Mr. Crowther, and Canon Raines's *Lives of the Fellows of the College of Manchester*. For this good work he was elected to the Fellowship of the Society of Antiquaries of London.

His interest in the history of the Infirmary was shown in two small books; the one *A Short History of the Hospital for Recovery or Fever Hospital in Manchester from 1796 to the Present Time, 1885*, and the other *A Short History of the Rise and Progress of the Manchester Royal Infirmary from the Year 1752-1877*.

He only gave up his consulting rooms in the summer of last year, and until the beginning of March his well-known intellectual face, clean-shaven except for a fringe of whiskers, was frequently to be seen in the town. Whilst short in stature and somewhat bowed in recent years, his active habits and bright appearance and manner made it difficult to realize that he was an octogenarian.

Dr. Renaud's position was unique in the medical life of the town. His 84 years formed a connecting link between the medical student of to-day, for whose journal he recently wrote a paper, and the men who in 1783 first began to deliver public lectures in Manchester to the eighteenth-century apprentices. Not that he ever knew Charles White, Thomas Percival, or Thomas Henry; they were all dead before he was born, but he must have known intimately Edward Holme and Samuel Argent Bardsley, who in their turn were closely acquainted with these men, and who handed down the traditions of the medical world of their time, and left behind them interesting stories of their great predecessors. Many of these Dr. Renaud knew and was fond of retelling. It was a great treat to hear them from his lips, his delightful manner of speech, his venerable appearance and old-world courtesy, the very nature of the stories, called to mind previous generations, and the atmosphere thus created was further "old worldified" by a habit of taking snuff, which he always retained.

He married Emily Anne, daughter of Thomas Legh, of Adlington, and widow of Mr. John Lawton, but leaves no children. Mrs. Renaud died only a few years ago, while

s himself severely ill. He was buried on March 26th at cclesfield Church, in the district he loved so well.

Ir. Walter Whitehead, Consulting Surgeon to the Royal irmary, Manchester, writes:

rom a personal intimacy, both as a friend and a colleague, ing back for upwards of forty years, I feel a deep and ere gratification in being allowed to add a few lines to r obituary notice of the late Dr. Renaud.

n more respects than one Dr. Renaud stood conspicu- y alone in the ranks of the profession in Manchester, he was the last typical representative of the old school nedical men in that district. It would be difficult to over by his accent the place of his origin, as he spoke ect English, but with a peculiar post-oral intonation. was deliberate both in his speech and his movements; est and retiring, and always expressing his views slowly precisely.

ntil quite recently he bore his age with a singular vigour freshness, but the activity of his mind and the brightness is personality appeared to receive their first check a le of years ago, when his connexion with the Lay Board e Manchester Royal Infirmary—which had previously ed a large share of his public usefulness—came to an His failing powers were further observable when about e months ago he decided to abandon his consulting ice; another instance of the mistake professional men ently make who relinquish work whilst still retaining an e capacity, and who find out, when too late, how rapidly pass in consequence into the deep waters of discontent egret.

ng before pathology had secured in Manchester a definite on as a scientific study, Dr. Renaud was diligently ng and collecting fresh evidence, and devoting his skill artist to richly illustrating any unusual specimens he ble to secure. He possessed a most accurate and reten- nemory, and he had stored up in his mind facts and es of bygone history long since forgotten by most of ntemporaries. He was endowed with a love for anti- n literature, and had contributed many articles dealing he history of our churches, colleges, and other institu- n the Lancashire and Cheshire counties.

ngst other attractive and lovable qualities which drew wards him was the thorough kindliness of his nature, made him more quick to think of others than for him- nd his art of doing kind things in the kindest manner. as incapable of entertaining for a moment a single t inimical to the best interests of the profession; free alousy and from any kind of ungenerous thought. He ost punctilious on matters of professional etiquette, as held in the highest esteem by his professional en, to whom he set a perfect example of integrity and .

now that his blameless life is at an end, and he om his fifty years of active labour, he has left behind sting evidence of a well-spent and useful life, and dead he will long live in the memory of his numerous and patients.

Through all his tract of years
Wearing the white flower of a blameless life.

JAMES STUART, M.D.,

a; ex-President of the North of Ireland Branch of the British Medical Association.

ws of the death of Dr. James Stuart, of Ballymena, n received with the deepest regret. Dr. Stuart had ill-health for some time, and last year had sought the is many medical friends in Belfast; he remained for weeks in one of the private hospitals till the tuber- nature of the affection was clear, and subsequently nt the open-air treatment in the Rostrevor Sana- but the disease early showed signs of dissemination, lied in London on March 23rd.

uart obtained the M.D. of the late Queen's University d in 1877, and soon settled in Ballymena, co. Antrim, e rapidly gained a large practice, and was consulted y miles around by all classes. He was elected t of the North of Ireland (now Ulster) Branch of ish Medical Association for the year 1895-6, and ly entertained the members to luncheon in Ballymena casion of the annual meeting of the Branch; he was llow of the Ulster Medical Society.

uart was one of the most popular and respected medical men in the North of Ireland; both in the profession and amongst the public he was looked upon as a friend; his skill in medical work and his kindliness and sympathy with every one gained for him affection and high esteem.

Dr. Stuart was interested in country life, and on a farm of his own bred a special valuable variety of small horse from an Arab stock.

He was unmarried. Much sympathy is felt for members of the family in what must be considered the untimely loss of one still in his prime.

Deputy-Surgeon-General H. CAYLEY, F.R.C.S., C.M.G.,

Honorary Surgeon to the King.

The unexpected death of this distinguished and popular officer has occasioned surprise and regret to a large circle of friends. His well-known vitality and vigour gave promise of a prolonged enjoyment of the arrangements which he had recently made for his declining years. Symptoms of paralysis of the upper extremities—sensory, vaso-motor, and motor—consequent apparently on an injury of the cervical spine caused by a bad fall from horseback some four years ago, became manifest somewhat insidiously, and during the last month progressed and extended rapidly, and ended in fatal exhaustion. The traditional three-score and ten years were nearly completed, and they were replete with industry and success. The life cut short was a full and fertile one.

Henry Cayley belonged to an old Yorkshire family, the present representative of which is Sir George Everard Arthur Cayley, Bart., of Brompton, Yorks. He was descended collaterally from Sir William Cayley, first Baronet, who was knighted by Charles I in 1640, and created Baronet April 26th, 1661, for his services in the civil war. He was the fourth of six sons of Edward Cayley, banker, of Stamford, co. Lincoln. He was born in the year 1834, and studied medicine in King's College, of which he became an Associate, being admitted to the Membership of the Royal College of Surgeons of England in 1855. He obtained the Fellowship of the College in 1886.

He entered the Indian Medical Service by competition, in which he obtained the first place. His commission as Assistant Surgeon was dated January 29th, 1857, and he landed in Calcutta on April 28th of the same year. He saw no active service during the Indian mutiny; but was on duty with the 53rd Foot, and had medical charge of a detachment of the 37th and 38th Regiments at Benares and Allahabad, and of Major Anderson's troop of Royal Artillery, and other details in the Fort of Rajghat. For these services he obtained the mutiny medal. He was appointed Civil Surgeon of Gorakpur, a district of the North-Western Provinces on the Nepal frontier, and placed in medical charge of the 2nd Sikh Police Corps in March, 1858. He held this charge till March, 1864, with an interval of fourteen months, during which he was compelled to proceed to England on sick furlough. He was then appointed joint Civil Surgeon of Simla—a coveted post—and retained it till March, 1866, when he obtained the Civil Surgeoncy of Burdwan in Bengal, and afterwards of Howrah, an important district and town on the right bank of the Hooghly, facing Calcutta.

In May, 1867, he was placed on special duty at Ladak, a mountainous district of Kashmir. His head quarters were at Leh, a town on the Indus river, situated at an elevation of

11,000 ft. His duties here were commercial and political. The appointment was the first in this place, and his status was that of Resident and Joint Commissioner. The Punjab Government, recognizing the delicacy and tact which were necessary in dealing with an alien native Government, corrupt and hostile officials, and suspicious and turbulent merchants and tradesmen, obtained sanction for the deputation of a British official on condition that he was a medical officer. This tribute to the powers of conciliation and management possessed by members of the Indian Medical Service was justified by repeated experience of the humanizing influence of medicine and the popularity of medical men on the Punjab frontier. The objects of the appointment were to develop the trade to Central Asia and Eastern Turkestan, of which Leh was an emporium and channel, to protect merchants from oppressive imposts, and to report on the commerce and political condition of these regions. The country was accessible by bad roads and high passes, and was only open during the months of June, July, and August. Dr. Cayley resided during the remainder of the year at Simla. He spent four seasons at Leh, and submitted elaborate reports of his observations and proceedings, which were favourably received by the Governments of the Punjab and India, and acknowledged approvingly by the Secretary of State for India. Immediately on his arrival at Leh he opened a dispensary, which was at first viewed with suspicion, but was soon resorted to by patients of all grades and classes. In an interesting paper on the medical topography and prevalent diseases of Ladak, published in the *Indian Medical Gazette* of November, 1867, and January, 1868, he thus describes the opening of his dispensary:

> I had with me a hospital compounder as an assistant and a small supply of the most necessary medicines and instruments. Two of my small tents were soon converted into a hospital. A grove of poplar trees served as an operating theatre, and for surgical assistants numerous Ladaki amateurs were always at hand, who took great interest in the proceedings.

This part of his work was highly appreciated by Government. On relinquishing his post in 1871 he received a letter from the Punjab Government conveying an expression of appreciation of the zeal and ability with which he had conducted his official duties at Ladak. It was thoroughly merited. His work had been done with rare energy, thoroughness, tact, and humanity.

After thirteen months' furlough he returned to Bengal and served as Civil Surgeon of the 24th Pergunnahs and then of Cuttack, both important districts. He acted also as Deputy Superintendent of Vaccination for a short time. During his furlough he had, like most Indian medical officers, striven by attendance on lectures, societies, and hospitals to improve his knowledge of his profession, and had specially studied ophthalmology at Moorfields. He devoted particular attention to this branch on his return to India. Accordingly, on the retirement in March, 1872, of Surgeon-Major N. C. Macnamara, he was appointed Superintendent of the Eye Infirmary at Calcutta and Professor of Ophthalmic Surgery in the Calcutta Medical College. He also obtained the appointment of Surgeon-Superintendent of the Mayo Hospital for natives and its affiliated dispensaries. He retained these charges, which involved service as Presidency Surgeon, during the remainder of his Indian career, extending, with an interval of one year's furlough in 1877-8, over twelve years. These were years of steady hard work. His practice was extensive, and all the time not required for official and hospital duties was devoted to consultatory and general practice. His skill and kindliness earned for him remarkable popularity among both Europeans and natives. He devoted all his time and energy to his work.

The pages of the *Indian Medical Gazette*, and the *Transactions of the Calcutta Medical Society*, of which he was President for two years, attest the great interest which he took in his profession. His fame went abroad, and his services as an ophthalmic surgeon were in extended request; he attained success in every sense of the term. He finally left India on April 12th, 1884. He was appointed member of the Medical Board at the India and War Offices on January 20th, 1885, and while holding this office was suddenly called upon in May, 1889, to complete the course of lectures on military medicine at the Army Medical School, Netley, interrupted by the sad breakdown of Dr. D. B. Smith, the professor of that subject. His disposition and ability obtained for him the permanent occupancy of the chair which he held from August, 1889, to July, 1897. His work at Netley was conscientious and painstaking, and many generations of "surgeons-on-probation" belonging to both Indian and home services retain pleasant recollections of the man and his work.

On retirement from this office he settled at Weybridge, but on the outbreak of the South African war he sought employment and went to the front, with the rank of colonel, in command of the Scottish National Red Cross Hospital, which was stationed at Kroonstadt. He performed this duty with unwonted zeal and ability. His services were mentioned in despatches; he obtained the South African medal with clasps, and was created C.M.G. In 1891 he had been appointed Honorary Surgeon to the Queen. He also received the Coronation medal, and was appointed Honorary Associate of the Order of the Hospital of St. John of Jerusalem in England. These tokens of recognition of his valuable services, extending over a period of forty-three years, were well deserved.

Surgeon-General Cayley was a man of slender physique, but endowed with vivacity and activity, both physical and mental, which were almost phenomenal. His power of work was prodigious. In Calcutta he was on the move from early morning till late evening, and by way of refreshment he would take a smart gallop on the racecourse. Everything he did was done with heart and energy, and he never showed signs of flagging or fatigue. In disposition he was even tempered and kindly, staunch and honourable. In all relations of life he was eminently sound, and in professional life diligent, skilful, and humane. He was accordingly esteemed highly as friend and physician. He had no enemies, and was ever ready to spend and be spent for others, and though absolutely correct and sincerely religious he was tolerant and thoroughly imbued with the grace of charity. His intellectual abilities were of a high order. He was keen in inquiring and sound in judgement. On most questions he was well informed, and his opinions were clear and strong. He had a facile pen, and though not eloquent, was fluent in speech, plain, practical and intelligible. He had studied his profession well, and up to the last continued to familiarize himself with scientific and medical progress. Though he made ophthalmic surgery his speciality, he was an excellent general surgeon and a well informed physician.

In Calcutta his position brought him into close contact with native medical practitioners and students, with whom his relations were always friendly and agreeable. With his colleagues and fellow officers he was most popular. The writer of this notice had known him intimately for about a quarter of a century and never heard an unkindly or disparaging word spoken by or of him. His career in the Indian Medical Service gave evidence of that breadth of capacity and fitness for various employment which has been so characteristic of many distinguished members of that great guild. Though for many years employed in political work he retained his professional aptitudes and instincts, continued to relieve the sick and suffering, and was prepared to resume his special vocation with avidity and success. With all his earnest devotion to his life-work he was a keen sportsman, fond of hunting and boating, and while at Netley he kept a small yacht in which he loved to sail in all weathers. From beginning to end he lived a most energetic, useful, and fruitful life, and he leaves behind him the savour of goodness and faithfulness.

He is survived by a widow and eight children—six sons and two daughters. One of his sons has followed his father's profession, and is Assistant Health Officer of Bombay; two are in the army and one in the navy, one is a coffee planter in Madras, and the youngest a solicitor in Calcutta.

WILLIAM FINDLAY, M.A., M.D.ABER.

MANY will hear with deep regret of the death of Dr. William Findlay, which occurred at the residence of his father, Fountainhall Road, Aberdeen, on March 23rd, at the early age of 37. Though he was known to be in somewhat different health for some years, yet his death came as a shock to his medical brethren in the city, for only some three weeks ago he was performing his duties as usual, and it was not generally known that his health was in a serious condition. After a distinguished career at the Aberdeen Grammar School, of which he was Gold Medallist and *dux* in the Latin class in his last year, he entered the Arts Faculty of the University as Second Bursar in 1884. Here his record was excellent, and he took the M.A. degree in 1888 with honours in Natural Science. Proceeding to medicine he had a most brilliant career, gaining among many other dist

ons the Shepherd Gold Medal in surgery, and graduating .B., C.M. in 1891 with highest honours, carrying off the ohn Murray Medal and Scholarship as the best student in a ery strong class. In the same year he gained the George hompson Travelling Fellowship and with it proceeded to erlin, where he worked under Virchow and in the women nd children's clinics. Thereafter he spent some time in ondon in general clinical work.

In 1893 he settled in Aberdeen with every prospect of a uccessful future. In 1894 he was appointed assistant to the rofessor of Medicine in the University, and ever since had one excellent work in this appointment and also in the Dis-ensary, to which he became physician in 1895. He also gaged for some time in research work in the Pharmacolo-cal Laboratory of the University, and a year or two ago ok the degree of M.D. with honours, presenting a thesis on e pharmacology of the alkaloids of conium maculatum.

At the time of his death he was Treasurer, and had for some ars been Librarian, of the Medico-Chirurgical Society. In ivate practice he had a considerable and growing con-xion, and was well known for his thorough work, and dily gained the esteem and confidence of his patients. s death is a distinct loss to the institutions he so well ved, and to his medical brethren in the city, by whom he s universally respected.

To his colleagues on the Dispensary and Junior University ffs his early demise is a matter for much regret. To them was not merely a respected colleague but a staunch friend, r ready in his quiet and unassuming way to advise and e practical help out of his wide knowledge and experience. ose who enjoyed his friendship most admired the man o, in spite of the heavy burden of ill-health, fought on h never a complaint, and with a calm courage.

His funeral at Allenvale Cemetery on Saturday, March 26th, s largely attended by members of Senatus, medical men, junior staff of the University, students, and many pro-nent citizens of Aberdeen.

YAL NAVY AND ARMY MEDICAL SERVICES.

WAR OFFICE REFORM.

The Medical Service of the Army.

are indebted to the personal courtesy of Sir Edward rd, K.C.B., Permanent Under-Secretary of State for War, a copy of the third part of the report of the War Office constitution) Committee, consisting of Lord Esher, niral Sir John Fisher, and Colonel Sir George Clarke. this, the concluding part of the report, the dical service of the army is dealt with. In a letter ressed to the Prime Minister with which the ort is prefaced, Lord Esher and his colleagues nt out that Part III "contains no new principle, but is criptive and explanatory of the nature and the duties of es already created by the act of His Majesty's Govern-nt, of principles already accepted and of a scheme already ome operative." They add that the Sections of the Report ing with the duties of the several branches of the War ce "have in every case been drawn up in consultation the head of the branch concerned."

The Duties of the Adjutant-General.

ne "Army Medical Services," as they are called in the ort, constitute one of the four main groups into which the utant-General's Branch is divided. The duties of the utant-General, who is the second Military Member of the Army Council, are summarized in the word "Personnel." functions are described as—

ising and organizing the military forces.
intenance of the army abroad in officers and men.
tribution of units.
gulations for placing units on a war footing.
rsonal questions.
dical and sanitary matters.
cipline, ceremonial matters.
ministrative arrangements connected with training and education.
ection and administration of the Adjutant-General's staff.

he Committee devotes several paragraphs to what seems e intended as an explanation of the inclusion of the rvision of "medical and sanitary matters" among the ifarious and heterogeneous duties assigned to the utant-General. It appears advisable, therefore, to quote part of the Report textually. The following passages r in Section I of the third part of the Report, which is ed "The Adjutant-General":

"9. Too much importance cannot be attached to the Sanitary service of the Army in peace and in war, and it has been represented to us that a place on the Army Council ought to have been provided for the Director-General of Army Medical Services, who was a Member of the defunct War Office Council.

"10. We cannot accept this view. The Army Council is not and cannot be a representative body as regards the several Arms and Departments. The Royal Army Medical Corps exists to serve the Army in a most important capacity; but the first object must be to create and to maintain an Army, and this is the function of the Army Council. To admit the principle of representation would destroy the character of the Council.

"11. Sanitation in war and in peace is closely bound up with discipline, and we, therefore, consider that the proper position of the Director-General of Army Medical Services is, as we have laid down, under the Adjutant-General, whose duties are specially connected with the person of the soldier.

"12. We do not admit that, under this arrangement, the status and the power of the Head of the Medical Services will be lowered. We believe, on the contrary, that his position will be considerably strengthened in peace and in war.

"13. The Council as a whole is now responsible for the welfare of the soldier. It has full powers over the whole range of military requirements and there should be no danger that sanitary considerations will be neglected. The Adjutant-General, as a Member of the Council, occupies a far stronger position than his predecessors, and will be able to represent effectively the medical needs of the *personnel* of the Army with which he is specially charged. Morover, the Director-General, if necessary associated with a civil representative of the Army Medical Services Advisory Board, should be summoned to the Council whenever his advice and specialist knowledge are required.

"14. We consider, however, that it is desirable to strengthen the hands of the Director-General as regards the control of his expenditure. A case was brought to our notice in which inexcusable delay occurred in supplying necessary stores for hospital use, the apparent cause being the involved paper arrangements entailed by the alteration of a schedule. The requirements of hospitals cannot be stereotyped like those of barracks, and if all special hospital stores were placed in a separate subhead of the Vote, as we understand might be done, the Director-General could be given discretionary powers of purchase, which he does not now possess, to enable him to meet a pressing need."

We make no comment on the arguments, if such they can be called, and statements contained in these paragraphs. The whole subject is discussed in a leading article which will be found at p. 791.

The Duties of the Director-General.

The position of the Director-General of Army Medical Services is, as has been stated, that of head of a "group" under the Adjutant-General. There are four such "groups," the other three being Recruiting and Organization, Personal Services, and Auxiliary Forces. It this list the Director-General occupies the third place, the fourth in order being the Director of Auxiliary Forces. The functions of the Head of the Medical Services are comprised in the following summary:

Medical and sanitary questions.
Administration of the Royal Army Medical Corps.
Supply of medical stores.

Army Hospitals Committee.

Under Section IV, which deals with the duties of the Civil Member of the Army Council, it is stated that the proposals of Lord Esher's Committee on the Construction of Barracks, 1902, for the formation of a new barrack department, have been approved, and preliminary steps have already been taken to give them effect. It is recommended that this department, charged with the duty of constructing all new barracks and hospitals costing more than £2,000, be placed under the Civil Member. The Director of Barrack Construction, it is urged, should occupy a position analogous to that of the Director of Works at the Admiralty, with the powers assigned by Lord Esher's Committee, the Army Hos-

pitals Committee (a body of which no mention is made in the foregoing parts of the Report, and which finds no place in the *Army List* for February)[1] should, it is recommended, advise the civil member as regards the designs, sites,and sanitation of barracks and hospitals.

It is recommended (Section XI, "The Quartermaster-General," par. 6) that the Sanitary officer now attached to the Quartermaster's branch should be transferred to the new Barrack Construction Department.

From a paragraph considerably further on in the Report (Section VII, entitled "Committees") we gather that the Army Hospitals Committee was formed to undertake "among other duties" that of "reporting upon all plans for new hospitals and standard plans for barracks and standing camps, and of selecting sites for new hospitals." It is recommended that this "important Committee," should be brought into touch with the New Works Branch, and should send a civil representative to attend the Army Council when required. As far as can be gathered from the Report, the Army Hospitals Committee is altogether independent both of the Director-General of Army Medical Services and of the Advisory Board, but is responsible solely to the Civil Member of the Army Council.

Army Sanitary Committee.

The abolition of a number of permanent committees is recommended. Among them is the Army Sanitary Committee.

Advisory and Nursing Boards.

Among the permanent committees stated to be required is the Army Medical Services Advisory Board, "which has already done invaluable work in relation to the whole question of Army hygiene, and which forms an essential link between the Civil and the Military Medical Professions."

The Committee advises that the Nursing Board be retained.

Both the Army Medical Services Board and the Nursing Board will advise the Army Council on the subjects allotted to them and will send a representative to attend the Council when required.

Under the head of "Committees" it is stated that "where specialist knowledge not available at the War Office is required, the temporary association of experts with officials may be beneficial."

Medical Stores.

In the field the hospitals and sanitary arrangements, the supply of medical stores, and accommodation and rest camps are among the duties of the Adjutant-General.

Medical Intelligence Work.

In Part II of the Report (Section IV entitled "The Chief of the General Staff," par. 26) it is stated that there is at present a great lack of information as regards technical military progress. Among other recommendations to remedy this is one to the effect that an officer of the Royal Army Medical Corps should be attached to the section of the Director of Military Operations which deals with Intelligence. It should be the duty of this officer to supply the Director-General of Army Medical Services with information in regard to new developments of military hygiene. This officer should be enabled to travel when necessary.

ROYAL NAVAL AND MILITARY COMMITTEE OF THE BRITISH MEDICAL ASSOCIATION.

At a special meeting of the Royal Naval and Military Committee of the British Medical Association held on March 29th the report of the War Office (Reconstitution) Committee in so far as it affects the Medical Service was considered and the following resolution unanimously adopted:

> That notwithstanding the arguments adduced in support of the proposals set out in the War Office (Reconstitution) Committee Report, Part III, the British Medical Association still adheres to its opinion that the Medical Service of the Army now occupies so importing a position in safeguarding the health and life of the soldier in peace and in war, that in order to secure the highest state of efficiency it is essential in the best interests of the army that the Medical Services shall be administered by an army medical officer, who shall have a seat on the Army Council.

[1] Messrs. Eyre and Spottiswoode inform us "that the issue of the *Monthly Army List* will be suspended: the No. for March will not be published, and also, probably, that for April."

ROYAL NAVY MEDICAL SERVICE.

Inspector-General A. B Messer, M.D., Honorary Physician to the King, has been awarded the Greenwich Hospital pension of £100 a yr. vacant by the death on February 17th of Inspector-General W. Macl C.B. Inspector-General Messer entered the Royal Navy as Surg July 30th, 1859; became Staff Surgeon, February 12th, 1864; Fleet geon, December 7th, 1876; Deputy Inspector-General, February 1885; and Inspector-General, April 27th, 1892. He retired from the vice May 20th, 1896. As Assistant Surgeon of *Curaçao* he had med charge of the naval brigade at the battle of Rangariri, New Zealand, (mentioned in dispatches for attendance on wounded under fire, and "proceeding under heavy fire to rescue Midshipman Watkins, who mortally wounded under enemy's works," specially promoted, medal). is the author of Exhaustive Inquiry into the Nature of Poisoned Arr for which he received the special thanks of the Medical Director-Gen and his report was published by order of the Admiralty; also of Re on the Fiji Islands, incorporated in the High Commissioner's re which led to the annexation of those islands by Great Britain (awa Sir G. Blane's Gold Medal, and promoted to Fleet Surgeon). He appointed Honorary Physician to Queen Victoria, August 15th, 1899.

The following appointments have been made at the Admiralty: Geo M. Levick, Surgeon to the *Queen*, April 7th; George S. Davidge, Surg to the *Perseus*, additional, and in recommissioning, March 2 Alastair F. Mackay, M.B., Surgeon to the *Research*, April 7th; Rob H. Atkins, Surgeon to the *Triton*, April 7th.

The appointment of Surgeon G. Taylor to the *Perseus* is cancelled

ARMY MEDICAL RESERVE.

Surgeon-Majors J. G. Saville and F. H. Appleby are promoted to Surgeon Lieutenant-Colonels, March 15th.

Surgeon Lieutenant C. W. Marshall, M.B., 1st Volunteer Battalion Princess Louise's (Argyll and Sutherland Highlanders), to be Surgeon-Captain, March 26th.

ARMY MEDICAL STAFF.

Surgeon-General W. F. Burnett, Principal Medical Officer, Ben officiates as Principal Medical Officer in India during the absence furlough of Surgeon-General Sir T. J. Gallwey, M.D., K.C.M.G., Colonel R. de la C. Corbett, M.D., D.S.O., Royal Army Medical Cor Principal Medical Officer, Oude and Rohilund Districts, will officiate Surgeon-General Burnett, and Lieutenant-Colonel A. W. P. Inman, M Royal Army Medical Corps, for Colonel Corbett.

INDIAN MEDICAL SERVICE.

Colonel C. W. Carr-Calthrop, M.D., Bengal Establishment, is mitted to retire from the service from April 2nd. He was appoin Assistant-Surgeon, April 1st, 1869, and became Surgeon-Colonel, A 2nd, 1899. He was in the Afghan war in 1879-80, being present at action of Ali Khel and in the operations at and around Kabul in Dec ber, 1879 (medal with clasp): and during the Dongola expedition in he was Principal Medical Officer at Suakin (Britith medal and Khedi medal).

A telegram from India announces the death of Lieutenant-Col Edward Ferrand, M.D., Madras Establishment, at Peshawur, Pun aged 53. He joined the department as Assistant-Surgeon, September 1875, and was made Brigade-Surgeon-Lieutenant-Colonel, September 1895. He was with the Burmese expedition in 1886-9 (medal with cla in the campaign on the North-West Frontier of India in 1897-8, includ the operations on the Samana and in the Kurram Valley during Au and September, 1897, and the relief of Gulestan (medal with two clas and with the Tirah expeditionary force in 1897-8 (clasp).

APPOINTMENT OF ARMY DENTAL SURGEONS.

The undermentioned gentlemen have been appointed Dental Surgeon the troops from April 1st, 1904, under the conditions already announc C. De Foubert, L.D.S.R.C.S.I.; A. Rice, L.D.S.R.C.S.Eng.; H. G. H. Cow L.D.S.R.C.S.Edin.; H. C. Toone, L.D.S.R.C.S.Eng.; J. B. Gill L.D.S.R.C.S.Eng.; C. W. Randall, L.D.S.R.C.S.Eng.; A. F. A. Ho L.D.S.R.C.S.Eng.; J. K. Clark, L.D.S.R.C.S.Eng.

PUBLIC HEALTH AND POOR-LAW MEDICAL SERVICES.

HEALTH OF ENGLISH TOWNS.

In seventy-six of the largest English towns, including London, 8 births and 5,469 deaths were registered during the week ending Satur last, March 26th. The annual rate of mortality in these towns, which l been 18.6, 19.0, and 19.7 per 1,000 in the three preceding weeks, decli again last week to 18.7 per 1,000. The rates in the several towns ran from 8.7 in Willesden, 9.4 in Walthamstow, 9.6 in Hornsey, 9.9 in Leyt 11.8 in Bootle, 11.9 in Croydon, 12.0 in East Ham, and 12.2 in Mert Tydfil, to 23.3 in Birmingham and in Burnley, 23.5 in Salford, 24.1 Plymouth, 24.3 in Manchester, 24.5 in Birkenhead, 24.8 in Warrington, in West Bromwich, and 30.0 in Stockton-on-Tees. In London the dea rate was 18.4 per 1,000, while in the seventy-five large provincial tow it averaged 18.8 per 1,000 The death-rate from the principal infecti diseases averaged 1.8 per 1,000 in the seventy-six towns; in London t death-rate was equal to 1.7 per 1,000, while among the seventy- other large towns the rates ranged upwards to 3.0 in Gr Yarmouth and in West Hartlepool, 3.1 in Leeds, 3.3 in Manches 4.2 in Wolverhampton, 4.4 in Gateshead, 4.6 in Salford, 4.7 Burnley, 5.4 in Norwich, and 6.5 in St. Helens. Measles cau a death-rate of 1.3 in Rhondda, 1.4 in Salford and in Oldha 1.5 in Leeds, 1.6 in Manchester, 1.7 in Brighton, 2.1 in Sunderland, 2.2 Stockport, 2.6 Burnley, 4.1 in Norwich, and 5.3 in St. Helens; diphthe of 2.0 in Great Yarmouth; and whooping-cough of 1.5 in Cardiff, 1.6 Burnley, 1.9 in Birmingham, 2.0 in Salford, 2.6 in Aston Manor, 2.9 Walsall, 3.0 in West Hartlepool, and 3.7 in Wolverhampton. The mortal from scarlet-fever and from enteric fever showed no marked excess

f the large towns. Of the 6 fatal cases of small-pox registered in the nty-six towns last week, 1 belonged to each of the following towns, ely, London, West Ham, Nottingham, Birkenhead, South Shields, Tynemouth. The Metropolitan Asylums Hospitals contained 110 l-pox patients at the end of last week, against 41, 54, and 74 at the of the three preceding weeks; 54 new cases were admitted during eek, against 13, 21, and 26 in the three preceding weeks. The num- f scarlet fever patients in these hospitals and in the London Fever ital, which had been 1,578, 1,601, and 1,624 on the three preceding days, had declined again to 1,585 on Saturday last, March 26th; ew cases were admitted during the week, against 153, 192, and 176 in hree preceding weeks.

HEALTH OF SCOTCH TOWNS.

NG the week ending March 26th, 1,003 births and 737 deaths were tered in eight of the principal Scotch towns. The annual rate of ality in these towns, which had been 21 2, 21.5, and 23.0 per 1,000 e three preceding weeks, declined again to 22 3 per 1,000, but was r 1,000 above the mean rate during the same period in the seventy- rge English towns. Among these Scotch towns the death-rates d from 15.6 in Leith and 20.0 in Perth to 28.1 in Dundee and 31.6 in y. The death-rate from the principal infectious diseases averaged r 1,000, the highest rates being recorded in Aberdeen and Greenock. 24 deaths in Glasgow included 2 from small-pox, 15 from measles, 2 scarlet fever, 3 from diphtheria, 4 from whooping-cough, 2 from r." and 8 from diarrhoea. Seven fatal cases of whooping-cough recorded in Edinburgh; 3 of measles and 4 of diarrhoea in Dundee; hooping-cough in Aberdeen; 3 of whooping-cough in Paisley; 1 of -pox and 3 of whooping-cough in Leith; and 4 of small-pox, 3 of es, 2 of whooping-cough, and 2 of diarrhoea in Greenock.

SUICIDE IN THE UNITED STATES.

RDING to statistics recently published, the number of suicides in nited States during 1903 was 8,597, as compared with 8,290 in 1902, n 1901, 6,755 in 1900, and 5,340 in 1899. Carbolic acid was the most on poison used, and poisoning was the most common method. alls attention to the ease with which carbolic acid may be pro- and gives emphasis to the agitation for the lessening of this pos- y. Altogether 4,050 persons took poison, 3,627 killed themselves by ng, 370 by hanging, 185 by railroad trains, 54 by jumping from win- nd roofs, 15 by fire, 18 by stabbing, 7 by dynamite, and 4 by starving. 8,597 cases of suicide in 1903, 5,385 were men and 3,212 women. g professional men, physicians headed the list, numbering 35, ers 5, lawyers 4, artists 4, college professors 2, bank officials 12. The of suicide were as follows: Despondency 4,561, unknown 1,454, in- 401, ill-health 384, domestic infelicity 628, liquor 519, disappointed 9, business losses 351.

A MUNICIPAL *CRECHE*.

cton Improvement Bill, which is at present under the consideration lect Committee of the House of Commons, contains clauses which e authorities of Acton power to establish a municipal *crèche*. There laundries in the district, and a great number of the women red are mothers. The average infant mortality in Acton is higher other parts of the country, and this fact is believed to be due to rs leaving their babies during working hours to the care of young n. The proposal made is to establish a day home for 60 children, charge about 4d. a day for each child. It is estimated that the authorized, would necessitate the addition of ¼d. to the rates. lect Committee, however, refused to pass the clauses, and this, ntly, on the somewhat unsatisfying ground that the contained idea vel from a legislative point of view.

ACANT APPOINTMENT OF DISTRICT MEDICAL OFFICER.

writes that when a vacancy was recently occasioned in a pro- l union by the resignation of a district medical officer, the chair- f the Board moved that at the next meeting "the guardians pro- o fill up the vacant appointment." In accordance with this notice n of the previous medical officer became appointed to succeed his r, the vacancy in question not having been advertised. Our spondent asks us whether this form of procedure was "legal."

As formal notice was given at a certain meeting of the Board of lians that they would proceed at their next meeting to fill up the cy in question, it was not necessary to advertise such vacancy by urther intimation. The method of election appears to have in accordance with the regulations of the Local Government l.

VACCINATION RETURNS IN SCOTLAND.

ends us copy of a correspondence he has had with the Local nment Board of Scotland with reference to payment for half- vaccination returns which he has to furnish to that Board. He lers that as these returns have to be certified on soul and con- e he should receive a guinea for each return. He states that his salary as public vaccinator is 50s., and that for that sum he has o a station 8 miles distant twice a year. He is allowed to charge crown for each vaccination, but as sometimes only one or two s meet him this does not amount to much. The Local Govern- Board, in their reply, referred A. M. to Section XXI of the Vacci- Act, which places on parish vaccinators the duty of furnishing ard periodically with returns as to cases vaccinated, and as to eration, they state that this is a matter of arrangement between and his parish council.

We are advised that as the returns to the Local Government of Scotland are statutory, no special fee can be charged, even they have to be certified on soul and conscience. The parish ll should take into consideration in fixing a salary that these s have to be supplied, and should give an adequate one. In view small salaries given in Scotland to parish vaccinators, we con- that a special fee should be given for these returns, but this we not be made compulsory without an alteration in the Act.

MEDICAL VACANCIES AND APPOINTMENTS.

VACANCIES.

This list of vacancies is compiled from our advertisement columns, where full particulars will be found. To ensure notice in this column advertisements must be received not later than the first post on Wednesday morning.

BEDFORD COUNTY HOSPITAL.—(1) House-Surgeon. Salary, £100 per annum. (2) House-Physician. Salary, £60 per annum.

BIRMINGHAM GENERAL HOSPITAL.—(1) House-Physician; (2) House-Surgeon; (3) House-Surgeon for Special Departments. Appointments for six months. Salary at the rate of £50 per annum each.

CHESTER: COUNTY ASYLUM.—Third Assistant Medical Officer, resident. Salary, £160 per annum.

EAST LONDON HOSPITAL FOR CHILDREN, Shadwell.—Assistant Physician.

GREAT YARMOUTH HOSPITAL.—House-Surgeon, resident. Salary, £90 per annum.

HOSPITAL FOR CONSUMPTION AND DISEASES OF THE CHEST, Brompton.—Resident House-Physicians. Honorarium, £25 for six months each.

HULL: VICTORIA HOSPITAL FOR SICK CHILDREN.—(1) Lady House Surgeon; (2) Lady Assistant House-Surgeon. Both resident. Salary, £50 and £30 per annum respectively.

IPSWICH: EAST SUFFOLK AND IPSWICH HOSPITAL.—Second House-Surgeon, resident. Salary, £80 per annum.

LIVERPOOL STANLEY HOSPITAL.—Senior House-Surgeon, resident. Salary, £100 per annum.

MAIDSTONE: WEST KENT GENERAL HOSPITAL. — House-Surgeon, resident. Salary, £120 per annum,

MANCHESTER ROYAL INFIRMARY.—Resident Medical Officer at the Convalescent Hospital, Cheadle. Salary, £160 per annum.

NEWPORT AND MONMOUTHSHIRE HOSPITAL.—Junior Resident Medical Officer. Salary, £70 per annum.

PLAISTOW ST. MARY'S HOSPITAL FOR SICK CHILDREN.—Assistant Resident Medical Officer. Salary at the rate of £80 per annum.

PORTSMOUTH: ROYAL PORTSMOUTH HOSPITAL. — Assistant House-Surgeon; resident. Salary at the rate of £50 per annum.

PRESTON ROYAL INFIRMARY.—Assistant House-Surgeon, resident. Salary, £60 per annum.

READING: ROYAL BERKSHIRE HOSPITAL.—Assistant Physician.

ROYAL WATERLOO HOSPITAL FOR CHILDREN AND WOMEN, Waterloo Bridge Road.—Resident Medical Officer.

ST. PANCRAS AND NORTHERN DISPENSARY, Euston Road, N.W. — Honorary Surgeon.

SOCIETY OF APOTHECARIES, Blackfriars, E.C.—Examiner in Surgery.

STIRLING ROYAL INFIRMARY.—Resident House Surgeon. Salary, £80 per annum.

APPOINTMENTS.

BURTON, Charles N., L.R.C.P.Lond., M.R.C.S.Eng., Anaesthetist to the Gordon Hospital, Vauxhall Bridge Road.

CLEARY, M. R., F.R.C.S., L.R.C.P.Irel., Certifying Factory Surgeon for the Hospital District, co. Limerick.

COLCLOUGH, W. Frank, M.D., B.C.Cantab., Medical Officer to Out-patients, Yeatman Hospital, Sherborne.

COOK, A. H., M.B., M.R.C.S., L.R.C.P., Honorary Medical Officer to the Infants' Hospital, Hampstead.

GOODMAN, T. H., M.R.C.S.Eng., L.S.A., Certifying Factory Surgeon for the Haverhil District, Suffolk.

HACKWORTH, Stuart, M.D.Lond., D.P.H.Camb., M.R.C.S., L.R.C.P., Medical Adviser to the Hanley Education Committee.

KELYNACK, T. N., M.D., M.R.C.P., Honorary Physician to the Infants' Hospital, Hampstead.

LAIDLAW, J. H., M.D., Clinical Assistant to the Chelsea Hospital for Women.

LONGHURST, Frederic W., L.R.C.P.Lond., M.R.C.S.Eng., Anaesthetist to the Gordon Hospital, Vauxhall Bridge Road.

MORITZ, S., M.D.Wurzburg, M.R.C.P.Lond., Lecturer on Diseases of the Throat and Nose at the Victoria University.

O'DOWD, John Austin, M.B.Lond., M.R.C.S., District Medical Officer and Public Vaccinator of the Dudley Union.

PIRIE, W. R., M.B., Ch.B. D.P.H.Aberd., House-Surgeon to the Royal Aberdeen Hospital for Sick Children, *vice* T. S. Slessor, M.A., M.B., resigned.

RAYNER, Percy C., M.B., Ch.B.Edin., Medical Officer and Public Vaccinator for the Brailsford District of the Ashbourne Union.

ROBERTSON, Eva A., M.B., Ch.B.Edin., Resident Medical Officer for the Craiglockhart Poorhouse.

TELLING, W. H. Maxwell, M.D., B.S.Lond., M.R.C.P., Assistant Physician to the Hospital for Women and Children, Leeds.

TENNANT, J., M.B., C.M.Edin., Medical Officer of Health for the Brumby and Frodingham Urban District.

DIARY FOR NEXT WEEK.

WEDNESDAY.

Obstetrical Society of London, 20, Hanover Square, W., 8 p.m.—Lieutenant-Colonel Sturmer, I.M.S.: Short communication on 41 cases of Puerperal Eclampsia treated by Thyroid Extract. Dr R. Hamilton Bell: Torsion of the Pedicle in Hydrosalpinx, and other Morbid Conditions of the Fallopian Tube. Specimens by Dr. W. W. H. Tate, Dr. Horrocks, Mr. Bland-Sutton, and Dr. Handfield-Jones.

THURSDAY.

Roentgen Society, 20, Hanover Square, W., 8.30 p.m.—Exhibition evening.

FRIDAY.

West London Medico-Chirurgical Society, Hammersmith, W., 8 p.m.—Clinical evening. Cases will be shown by Dr. Seymour Taylor, Dr. Ball, Dr. Saunders, Mr. Lunn, Mr. Paton, Mr. Pardoe, and others.

Incorporated Society of Medical Officers of Health, 9, Adelphi Terrace, Strand, W.C., 8 p.m.—Dr. J. Howard-Jones: On the Control of Measles Epidemics.

BIRTHS, MARRIAGES, AND DEATHS.

The charge for inserting announcements of Births, Marriages, and Deaths is 3s. 6d., which sum should be forwarded in post-office orders or stamps with the notice not later than Wednesday morning, in order to ensure insertion in the current issue.

BIRTHS.

BEEGLING.—On March 22nd, at Cooinda, Huddersfield, the wife of D. H. Beegling, B.A. Sydney, M.B, C.M.Edin., of a son.

DEANESLY.—On March 25th, at 7, Waterloo Road, Wolverhampton the wife of Edward Deanesly, M.D., F.R.C.S., of a son.

FAIRRIE.—On March 24th, at 59, Cleveland Road, South Woodford, London, N.E., the wife of Captain S. H. Fairrie, R.A.M.C., of a son.

LANDER.—On March 22nd, at Hathersage, Derbyshire, the wife of H. W. G. Lander, M.B., of a son.

DEATH.

RICHARDS.—On March 22nd, at 6, Freeland Road Ealing, ., Joseph Peek Richard M.R.C.S., L.R.C.P., L.S.A., aged 63.

LETTERS, NOTES, AND ANSWERS TO CORRESPONDENTS.

COMMUNICATIONS respecting Editorial matters should be addressed to the Editor, 2, Agar Street, Strand, W.C., London; those concerning business matters, advertisements, non-delivery of the JOURNAL, etc., should be addressed to the Manager, at the Office, 429, Strand, W.C., London.

ORIGINAL ARTICLES and LETTERS *forwarded for publication are understood to be offered to the* BRITISH MEDICAL JOURNAL *alone, unless the contrary be stated.*

AUTHORS desiring reprints of their articles published in the BRITISH MEDICAL JOURNAL are requested to communicate with the Manager, 429, Strand, W.C., on receipt of proof.

CORRESPONDENTS who wish notice to be taken of their communications should authenticate them with their names—of course not necessarily for publication.

CORRESPONDENTS not answered are requested to look at the Notices to Correspondents of the following week.

MANUSCRIPTS FORWARDED TO THE OFFICE OF THIS JOURNAL CANNOT UNDER ANY CIRCUMSTANCES BE RETURNED.

IN order to avoid delay, it is particularly requested that ALL letters on the editorial business of the JOURNAL be addressed to the Editor at the Office of the JOURNAL, and not at his private house.

TELEGRAPHIC ADDRESS.—The telegraphic address of the EDITOR of the BRITISH MEDICAL JOURNAL is *Aitiology, London.* The telegraphic address of the MANAGER of the BRITISH MEDICAL JOURNAL is *Articulate, London.*

TELEPHONE (National):— EDITOR, 2631, Gerrard. GENERAL SECRETARY AND MANAGER, 2630, Gerrard.

☞ *Queries, answers, and communications relating to subjects to which special departments of the* BRITISH MEDICAL JOURNAL *are devoted will be found under their respective headings.*

QUERIES.

VENTRIFIXATION OF THE UTERUS.

DR. ALEXANDER DUKE (London, W.) writes: The interesting account of Dr. Sinclair's new plan of operation for ventrifixation of the uterus contains this paragraph, p. 715, in the BRITISH MEDICAL JOURNAL of of March 26th: "The last step in every case is the introduction of a glycerine-pad pessary into the vagina, to press forward and support the uterus during the formation of adhesions. The patients are kept in bed for *a month or six weeks* (italics mine), and they are advised to lead invalid lives for *several months.*" May I ask why in bed? Surely, the recumbent position, prone or semiprone, should be quite as effective. I presume the unfortunate patients are not informed of this "last step" beforehand, or I imagine very few would submit to the operation; when more than likely the month or six weeks' recumbent position (at first), with appropriate local treatment as well, would enable them to dispense with a cutting operation altogether! May I ask, does retroflexion (chronic or otherwise) take place if the uterus is healthy? My own impression is that it does not, and if the time and treatment given after operation were adopted beforehand, there would be fewer cases of ventrifixation with the chance, however remote, of ventral hernia in addition, or the continual trouble of wearing an abdominal belt as preventive of that lesion.

INHABITED HOUSE DUTY.

TAXES writes: Ought the inhabited house duty to be assessed on a higher sum than the actual rent paid because the tenant does inside repairs?

*** Yes, the assessment to inhabited house duty should be made on the full annual value of a house, for example, the rent that a tenant would pay for it if the landlord agreed to do both outside and inside repairs.

TEST FOR ALCOHOL.

SADDUCEE asks what value is placed nowadays on the potassium bichromate and sulphuric-acid test as evidence of the presence of alcohol (or a derivative) in the urine, and consequently of excess in its consumption. I have seen the test performed, he writes, by underlaying a column of the suspected urine with the reagent. In Hilton Fagge's textbook it is described differently, and mentioned as one means of diagnosing acute alcoholic intoxication; but is it of any use or certainty in founding an opinion as to habitual surreptitious excess where other positive evidence is very hard to obtain?

CAPILLARY VARICOSITIES.

J. A. N. L. asks for information as to the best treatment for dilated capillaries, occurring in patches about the size of a pea, on the cheek of a young lady. He writes: I have applied the actual cautery to several spots with apparent benefit at the time, but later fresh patches have arisen in the surrounding skin. Weak lead lotion with zinc oxide in suspension has also been tried. Is electrolysis the only treatment? With regard to this I should like to ask (1) for details of the method employed, (2) whether chloroform is necessery, (3) whether the cure can be guaranteed as certain and permanent.

HYPODERMIC INJECTIONS OF SOLID MERCURY.

HYDRARG asks: (*a*) The mode of preparation; (*b*) the frequency of administration, of the injections mentioned in a review of a report by Pezzoli and Porges of 12,000 cases of skin and venereal diseases (March 12th, p. 609). He also inquires (*c*) whether any untoward results were observed.

*** (*a*) The prescriptions are as follows: (1) Calomel vapor. parati 2.00; ol. olivar. 20.00; (2) hydrarg. salicyl. 1.00; olei paraffini 10.00. (*b*) One c.cm. is injected once a week. (*c*) Abscesses were never observed. Some infiltration of tissues occurred. There was some pain at seat of injection. The authors insist on following the directions of Smirnoff—namely, to make the intramuscular injection above a horizontal line, uniting the two greater trochanters, and about 10 cm. behind the greater trochanter. The needle must be of sufficient length to go through the fatty layer of the buttock. Trouble may result when the injection occurs in the fat instead of in the muscular tissue. In one or two instances of ill-nourished patients there was some colic and diarrhoea, and in another patient a generalized scarlatiniform erythema, as a result of the mercury salicylate. It should be added that in two cases a fit of coughing occurred after an injection, accompanied by frothy bloody sputum. Lung embolism was never observed. The authors found the salicylate emulsion the best preparation to employ. Although the authors never observed complications, the fact must be insisted on that such have occurred after the intramuscular injections of insoluble mercurial salts. Their use needs to be watched very carefully; and not more than six injections at intervals of a week between each should be given followed by an interval of rest of some length, say a couple of months. With insoluble salts, once the mercury is introduced there it must remain and become absorbed into the system, whatever the reaction in any particular case.

ANSWERS.

RAISED SCARS AFTER VACCINATION.

CAPTAIN E. BLAKE KNOX, R.A.M.C., M.D. (Simla, India) writes: In reference to a note on this subject by Dr. Rentoul in the BRITISH MEDICAL JOURNAL of February 6th, p. 304, I have noted several such cases. Among fifteen vaccinations I successfully carried out on board a troopship proceeding to India early last year, in which I used glycerinated calf lymph supplied from the Alderley Military Calf Lymph Institute, in one case a keloid condition arose and still exists in *one* of the scars at the site of vaccination. All these patients were vaccinated from the same lymph, which was between glass plates, and full antiseptic precautions were taken. In no other case did a keloid scar form. The lady just mentioned, although the first vaccinated, was the last to take. She had a very bad arm owing to sepsis ensuing from fibres of a silk blouse she was wearing getting into the wound one evening while dancing. Only one vaccination mark was thus infected, and a keloid condition with a raised red scar still persists and causes a feeling of itching at times, but otherwise gives no trouble of any kind and is not increasing.

LETTERS, COMMUNICATIONS, ETC., have been received from:

A Anti-tuberculin; A. M. Adams, M.B., Broughton-in-Furness; Mr. G. Allen, London. **B** Mr. E. A. Boxer, Edinburgh; Dr. J. Brown, Glasgow; J. E. Blomfield, M., Sevencaks; Dr. A. Bonner, Bradford; H. L. Barnard, M.B., London; Dr. C. Butt, London; Dr. F. Bushnell, Plymouth; Dr. J. W. Byers, Belfast. **C** Colonial; Cox, M.B., Gateshead; Dr. A. J. Chalmers, Colombo; Dr. G. W. Crowe, Worcester; E. M. Corner, M.B., London; Mr. G. Christy, London; Dr. E Cautley, London; E. Corner, M.B., London. **D** Mr. A. A. Deighton, London; Dr. S. Davies, Woolw; Mr. G. W. B. Daniell, Edinburgh; Dr. A. Duke, London; Mr. G. W. Duncan, Lond. **E** Dr. J. W. H. Eyre, London. **F** N. S. Fraser, M.B., St. John's, Newfoundla; F.R.C.S.; Dr. T. Fisher, Clifton; Fair Play; Mr. E. P. Furber, Oxted; C. H. Fo, M.B., Ardrahan. **G** Dr. J. H. Galton, London; Mr. W. H. George, London; Mr. J. Greer, Newport, Mon.; Mr. V. P. Gonsalves, Harwich. **H** Mr. J. Hutchin, jun., London; Mr. J. Housten, London; Mr. J. I. Halstead, Barrow-in-Furness; B. Hollander, London; Dr. J. Haddon, Hawick; G. E. Herman, M.B., Lond, Hampstead. **I** Mr. P. C. P. Ingram, London. **K** Kandy. **L** Mr. H. S. Lane, Lond; Late House-Surgeon; Dr. A. Latham, London; F. H. Low, M.B., London. **M** Mr. H. Milne, Liverpool; A. Murchison, M.B., Uig; Dr. E. J. Maclean, Cardiff; H. McLa, M.B., Glasgow; Dr. C. J. Morton, Walthamstow; Dr. E. Mozourelli, Mytilene; T. H. Moorhead, Cootehill; Mr. J. MacMunn, London; Mr. J. R. McGee, Bradf; Mr. M. A. Messiter, Dudley; Dr. T. McIlroy, Newtownards; Mr. R. Matheson, Dlin; Mr. W. J. Morris, Portmadoc. **O** Mr. R. W. Orpen, Bagenalstown; One of Rank and File. **P** Pharmaceutical Society of Great Britain, Secretary of, Lond; Messrs. L. Paechtner and Co., London. **R** Dr. W. Rosenthal, Erlangen; Mr. Rigden, Canterbury; Dr. J. B. Rankin, London; Mr. J. Robertson, Edinburgh; E. H. Richards, London. **S** Dr. D. Stanley, Birmingham; Mrs. Sheldon, Hes; Dr. D. W. Samways, Mentone; D. L. Smith, M.B., Bowdon; Dr. J. Sinclair, Lond; Mr. H. C. Smith, London; C. E. Sparks, M.B., Walton-on-Thames; Dr. H. Sm, London; Dr. E. C. Seaton, London; Dr. J. Swain, Clifton; Sadducee. **T** Taxes; Taylor, M.B., Dublin; Dr. W. E. F. Tinley, Whitby. **W** Mr. J. H. Williams, Avon; Dr. T. J. Wood, Bradford; J. D. Wynne, M.B., Clonmel; Mr. W. B. Winworth, Taunton; W. E. Williams, M.B., Portmadoc; Dr. A. McC. Weir, Rochdale; M. S.; Dr. W. B. Warrington, Liverpool; Mr. R. H. Wolstenholme, Salford; Dr. Wishart, Dudley; etc.

BOOKS, ETC., RECEIVED.

Natural Mineral Waters: their Properties and Uses. Eleventh Edition. London: Ingram and Royle. 1904.

On Passing Off. By John Cutler, M.A. London: Gay and Bird. 1904. 1s.

Alcohol: its Place and Power in Legislation. By Robinson Souttar, M.A., D.C.L. London: Hodder and Stoughton. 1904. 3s. 6d.

International Catalogue of Scientific Literature. Second annual issue. R., Bacteriology. London: Harrison and Sons. 1903. 21s.

North London or University College Hospital: Reports of the Surgical Registrar, Resident Medical Officer, and Pathologist for 1901. London: H. K. Lewis. 1904.

*** In forwarding books the publishers are requested to state the selling price.

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IENTIFIC GRANTS COMMITTEE
OF THE
British Medical Association.

REPORT LXXXIII.

IE EXPERIMENTS ON ENTERICA, SCARLET FEVER, AND MEASLES IN THE CHIMPANZEE.*

[A PRELIMINARY COMMUNICATION.]

ALBERT S. GRÜNBAUM, M.A., M.D., F.R.C.P.,
r on Experimental Medicine, University of Liverpool; Director of the Liverpool Cancer Research; late Ernest Hart Memorial Scholar, British Medical Association.

acillus described by Eberth in 1880 and isolated by in 1884 has been very generally accepted as the causal of enteric fever, although it was not then possible to Koch's third postulate, and to produce with the bacillus in animals similar to those resulting from the disease n. Additional evidence was forthcoming as to the le responsibility of the Eberth-Gaffky bacillus for en- ver in 1896, when I was able to show that the serum of beings, in either the acute or the convalescent stage disease, was often able, even in considerable dilution utinate emulsions of the bacillus. But this observa- es not amount to actual proof, as Balthazard[1] thinks, now that the serum of patients suffering from typho- (paratyphoid) fever, while agglutinating the typho- bacillus in, say, 1 in 2,000 dilution, may nevertheless nate the typhoid bacillus in 1 in 100 dilution—that is, ter dilution than the serum of many patients with e enterica. It does not therefore follow, although it probable, that a bacillus agglutinated in considerable by the patient's serum is the causative agent of the ; but it is certainly a corroborative fact when other ons point that way.

us investigators have tried to produce the typical in- lesions in animals; but in those cases in which suc- results have been obtained it has been necessary to essive doses of the bacillus. Thus Remlinger[2] fed and rats for four to ten days on cabbages contamin- h B. typhi abd.; of eight animals, four showed no ns. The other four had the typical variations in ture accompanied by the serum reaction and intest- ons characteristic of enterica. Chantemesse con- hese experiments and obtained similar results in .

inary monkeys I have not seen any effect beyond a y diarrhoea and the subsequent appearance of the action follow the administration of a single dose of bacilli by the mouth, even when accompanied by streptococci. Nor indeed has infection occurred organisms were introduced directly into the small , or under the dura mater, or into the knee-joint. not lay much stress on these negative results.

Macacus Rhesus ♀

, 1901.—B. typhi abd. given in milk. Blood – no agglutination

h.—Blood agglutinates 1 : 8 in 30 minutes.
h.— " " 1 : 16 "
h.— " " 1 : 32 "
h.— " " 1 : 8 "
h.— " " 1 : 16 "
h.— " " 1 : 32 "
h.— " " 1 : 16 "
h.— " " 1 : 20 "
d.— " " 1 : 40 "
h.— " " 1 : 100 "
h.—Killed under $CHCl_3$. No evidence found of enteric

was examined daily, with few exceptions.
tion in strength corresponds with what is also seen in man.

eriments on enterica were made in part during my tenure est Hart Memorial Scholarship. To my regret the Scientific mittee did not see its way to letting me extend them to id" fever. The investigation of scarlet fever and measles was with the aid of the Research Scholarship of the Grocers'

Chimpanzee A. ♀ (Fig. 1).

July 15th, 1901.—1 c.cm. 24 hours culture in broth of B. typhi abd. (Laboratory culture, unknown origin) given in milk. Blood; no reaction, 1 : 2.

July 21st.—Blood reacts slightly, 1 : 10 in 60 minutes.
July 25th.—Blood reacts slightly, 1 : 20 in 30 minutes.
July 27th.—Necropsy. Peyer's patches enlarged and swollen. Mesenteric glands and spleen enlarged. B. typhi abd. obtained from broth culture of spleen.

Fig. 1.—Chimpanzee A; lower portion of ileum.

Chimpanzee B. ♂ (Figs. 2, 3, and 4.)

May 21st, 1902.—1 c.cm. culture of B. typhi abd. per os. Blood reacts 1 : 10 in 30 minutes.
May 24th.—Blood reacts 1 : 30 in 30 minutes.
May 29th.—Blood reacts 1 : 30 in 30 minutes.
May 31st.—Blood reacts 1 : 60 in 30 minutes.
June 1st.—Blood reacts 1 : 80 in 30 minutes.
June 2nd.—Necropsy. Appearances as above.

The chimpanzee, although not every individual, is susceptible to B. typhi abd., but the virulence of my cultures was not sufficient to produce a fatal result in the two instances in which they were given the opportunity of so doing. In the other two cases the animals were killed under chloroform on the twelfth day after infection. The clinical symptoms were but slightly marked; a dirty tongue and diarrhoea were the most prominent. In one instance general *malaise* was fairly evident; headache was apparently not present. No rose spots were seen nor was the spleen felt. The initial dose is often

followed, both in the chimpanzee and in the lower monkeys, by a slight and temporary rise of temperature accompanied by diarrhoea. The temperature curves were not very characteristic. One of the charts is appended. I am not inclined to lay much stress on the atypical character, because the temperature of the chimpanzee is normally subject to rather wide variation partly according to the surrounding temperature. The serum reaction did not always become strong although it almost always appeared. Before infection the blood generally did not agglutinate B. typhi abd. at all.

The chief evidence of infection is found in the characteristic intestinal lesions (of which photographs are given) and the recovery of the bacillus from the spleen tissue after death.

The lesions are more advanced than in man at the corresponding date; perhaps on account of the larger infecting dose.

Fig. 2.—Chimpanzee B; lower portion of ileum.

Various modes of infection by scarlet fever were tried; by clothes, skin peelings, swab from throat of patient, culture of streptococcus conglomeratus, and the heart blood removed shortly after death with a syringe. With the last only rhesus monkeys and rabbits were infected. The streptococcus isolated proved very fatal to the latter; in the monkey it merely caused suppuration. Some of the material was from a very malignant case described by de Boinville.[3] In the chimpanzee the only positive result was obtained when the throat was rubbed with the swab from a patient's throat.

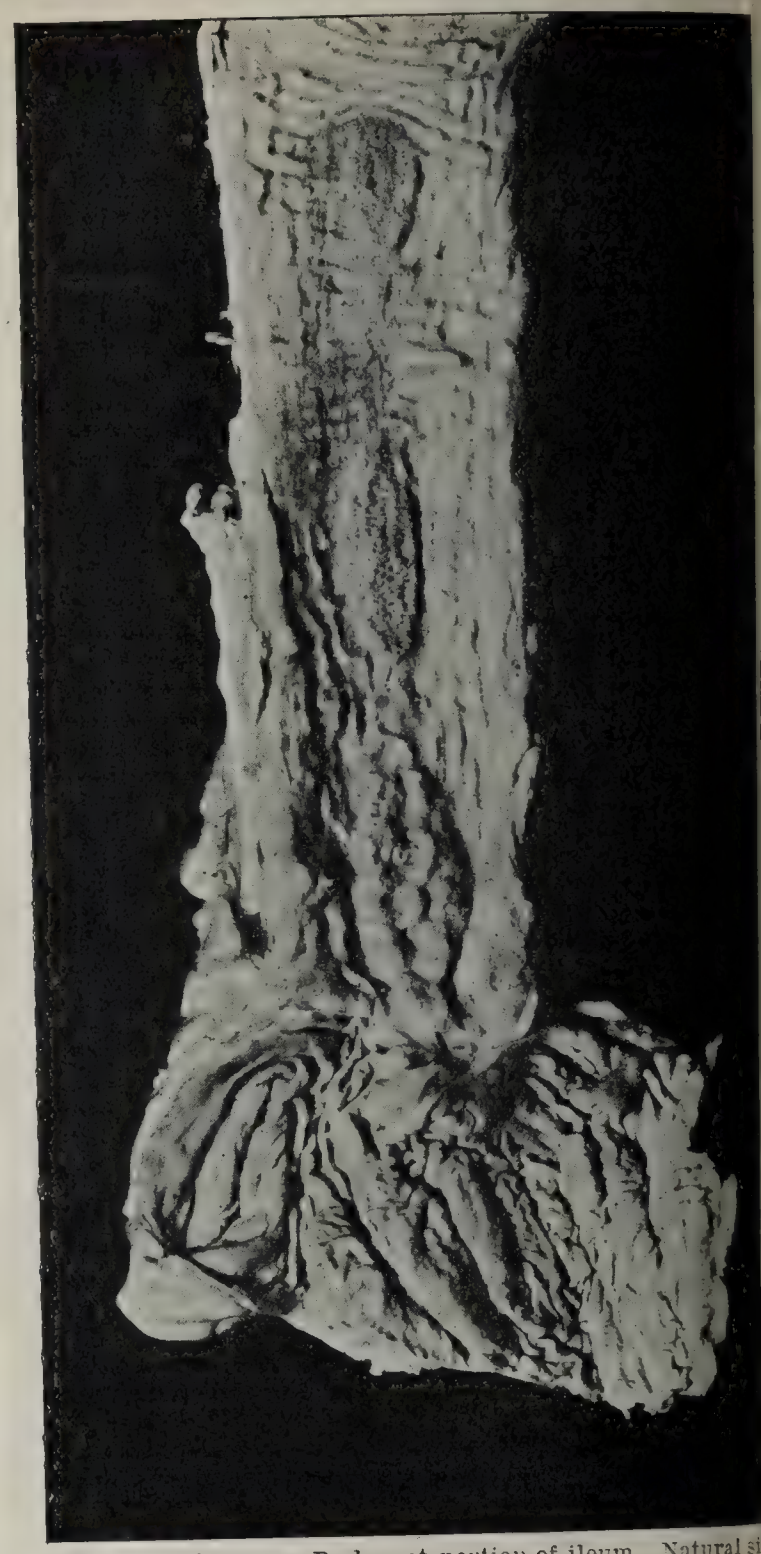

Fig. 3.—Chimpanzee B; lowest portion of ileum. Natural si

Fig. 4.—Chimpanzee B; section through lowest Peyer's patc

scarlatinal tonsillitis ensued, but no rash or extensive squamation.

Chimpanzee C. ♀ (Chart 1).

January 4th, 1903.—1 loop agar culture B. typhi abd. (Fisher). Blood: no action, 1:2.

January 8th.—Blood reacts trace 1:30.

January 14th.—Blood reacts well 1:30.

The blood never reacted in higher dilution. This animal died 13 months later on February 20th, 1904, of pneumonia.

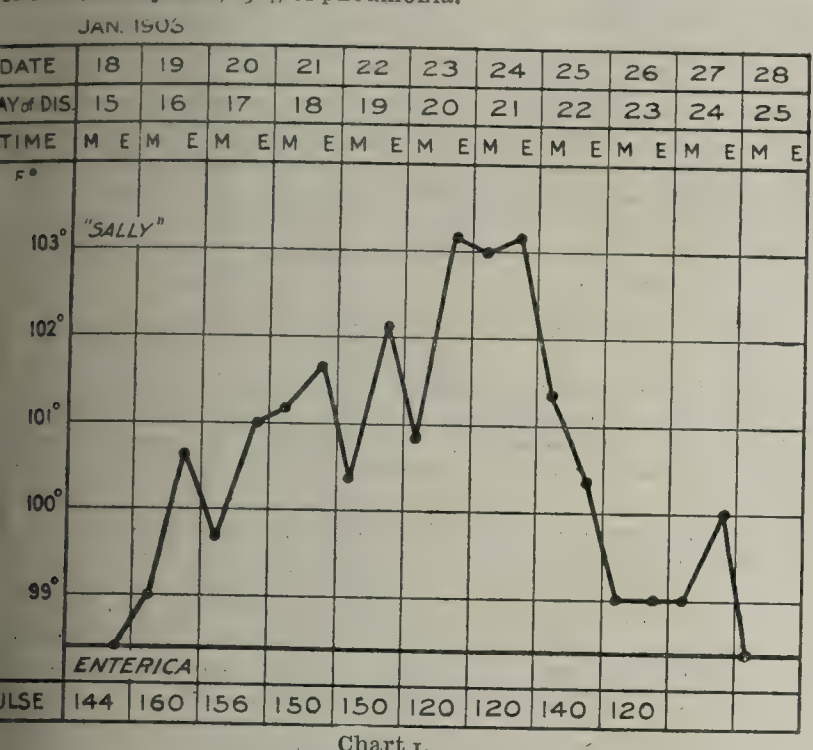

Chart 1.

Chimpanzee D. ♂.

May 21st, 1903.—Portion of typhoid stool given in water. (B. typhi abd. could not be isolated.) Blood gave no reaction; nor did it at any time later.

June 4th.—Distended abdomen. Yellow stools.

June 8th.—Since there has been no rise of temperature some culture of typhi abd. is given in milk.

June 22nd.—The temperature curve has been quite erratic, and has come down to normal.

This animal was probably not infected. It died on August 10th, 1903, of diarrhoea, due to colitis—a common and fatal disease of the chimpanzee. From the faeces was isolated a bacillus closely resembling B. dysenterica (Y).

Chimpanzee. ♀ (Chart 2.)

June 25th, 1902.—Clothed in nightgown from scarlet fever case. No effect.

July 6th.—Swab from case of scarlet fever applied to throat.

July 10th. Doubtful roseola.

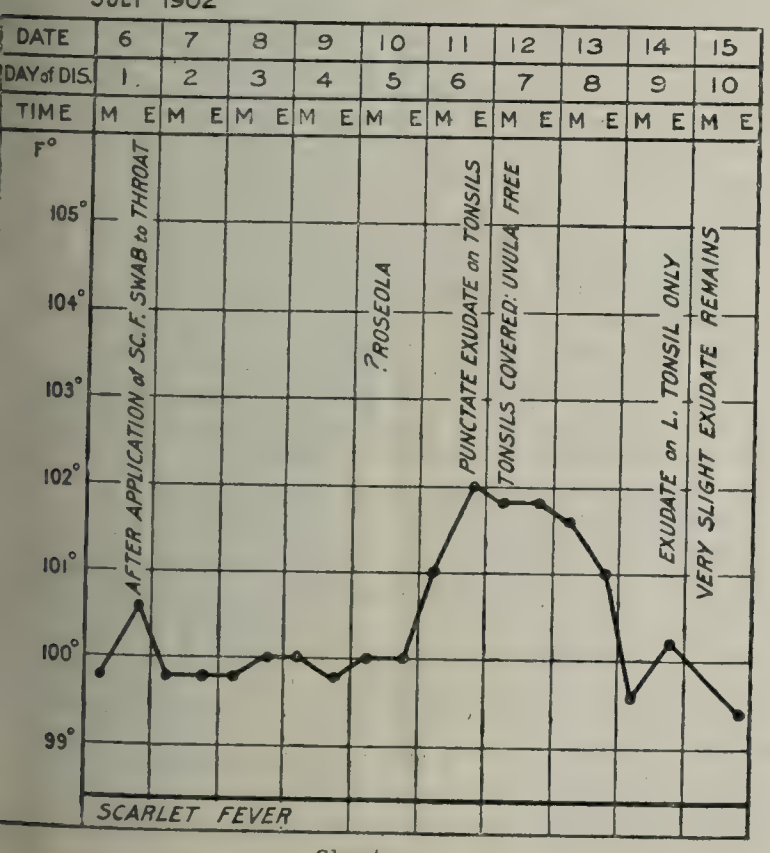

Chart 2.

July 11th.—White specks on both tonsils; not on uvula.

July 12th.—Exudate covers both tonsils. The roseola, mostly on abdomen, has not a scarlatiniform appearance.

July 14th.—Still exudate on left tonsil only. (The temperature chart is given below.)

Streptococcus conglomeratus was isolated from the throat. Own blood agglutinates it.

Similar methods of infection were tried for measles and also the injection of blood taken direct from the median basilic view of measles cases. It had no effect: it may even have conferred immunity rather than conveyed infection.

Chimpanzee. ♀

May 22nd, 1902.—Clothed in nightgown from case of measles. No effect.

June 5th.—Swab from case of measles applied to nose and throat Temperature, 100 2° F.

June 7th.—Coryza. Temperature, 99.6° F.

June 11th.—Slight roseola. Temperature, 102° F.

June 15th.—Rash gone. Temperature, 99.2° F.

It remains doubtful whether this animal was really infected with measles. Coryza is not uncommon in the chimpanzee, although here it seemed to have a causal relation to infection.

Chimpanzee. ♂

January 29th, 1902.—Injected 2 c.cm. measles blood. No effect.

February 8th.—Injected 4 c.cm. measles blood. No effect.

February 22nd.—Clothed in measles nightgown. No effect.

Of these experiments I think that those on enterica assist in fulfilling Koch's third postulate as applied to Eberth's bacillus.

I have called these remarks a preliminary communication to indicate my sense of their incompleteness; but anthropoids are scanty and costly, so that the completion of the investigation may be a matter of years.

It only remains for me to acknowledge my indebtedness to the British Medical Association and to the Grocers' Company, who to a large extent made the investigation financially possible, and to thank many friends and colleagues who, often at much trouble and inconvenience to themselves, provided me with material (21 cases of scarlet fever and 25 cases of measles) and laboratory facilities.

REFERENCES.

[1] Balthazard, *Toxine et Antitoxine Typhiques*, p. 2. [2] Remlinger, *Ann. de l'Inst. Pasteur*, 1897, p. 829. [3] De Boinville, *Lancet*, 1902, vol. ii, p. 359.

REPORT LXXXIV.

EXPERIMENTAL NEPHRITIS FOLLOWED BY DECAPSULATION OF THE KIDNEY.

BY

I. WALKER HALL, M.D., Assistant Lecturer in Pathology, The Victoria University of Manchester; Honorary Pathologist to the Salford Royal Hospital.

and

G. HERXHEIMER, M.D., Prosector to the Stadtisches Krankenhaus, Wiesbaden.

WHEN Edebohls first suggested the decapsulation of the kidney as a reasonable method of treatment in chronic nephritis, he based his proposal upon the urinary and general improvements which followed the fixation of a movable kidney by the removal of its capsule. In one of his cases which died four months after decapsulation, he observed "enormously dilated and enlarged blood vessels which penetrated from the fatty capsule through the capsule proper into the kidney substance." This access of additional blood he considered would provide increased nutrition, stimulate an extensive regeneration of the secreting cells, and consequently produce a more efficient excretion of waste products. Whether decapsulation yields better results than the simpler reni-puncture of Reginald Harrison, which has been so widely and successfully employed, is a question which the available clinical data have not yet satisfactorily answered. We must wait from two to five years before making any definite conclusions as to the value of this operation. Meanwhile, we may with advantage investigate the anatomical aspect of the procedure, and thus the present inquiry has for its main object the observation of the tissue changes which follow the decapsulation of kidneys in which nephritis has been induced.

Claude and Balthazard, and Albarran and Bernard already in 1902 published short notes on the changes following renal

decapsulation in healthy rabbits, and Harold Johnson, during the progress of our experiments, communicated the results of similar experiments upon normal dogs. As our observations on normal animals agree in the main with these workers, we may here shortly dismiss this part of the subject by stating that when the capsule is removed from healthy kidneys it reforms early, and at the end of ten to twenty-one days is represented by a fibrous covering thicker than the original capsule. Johnson was unable to detect any vascular anastomoses between the cortical and perirenal vessels in dogs, Emerson observed vascular connexions with the adjacent organs, but not with the fatty tissue. In rabbits Claude and Balthazard, and Jaboulay state that a slightly increased vascularity may occur, while Emerson was unable to demonstrate such conditions in these animals. After decapsulation of the kidney in some thirty-five rabbits, we also have not observed, either by ordinary or by serial sections, any marked formation of new blood channels between the kidney and the adherent tissues.

After the preliminary experiments we directed our attention to the production of an acute degenerative nephritis and to subsequent decapsulation of the kidney in order to more nearly approach the conditions under which the operation has its practical application. Of the numerous irritants employed for the experimental production of nephritis, few, if any, incite exactly the tissue changes which result from those auto-intoxications and hetero-intoxications which affect the human kidney. The majority of the available bacterial toxins are somewhat variable in their action, and cantharides is open to the same objection. Metallic irritants offer more advantages than even vinylamine, with which Lindeman has recently produced glomerular and tubular changes, and of these lead, for instance, is known to act directly upon the cells of the convoluted tubules, producing a coagulated necrosis; as its action is slow we decided to use one of the more rapidly-acting chromates, and ultimately selected the neutral ammonium chromate. This substance has been previously employed by Burmeister[1] in his work on the acute inflammations of the kidney.

From a number of experiments we found that a dose of 0.5 to 0.75 c.cm. of a 2.5 per cent. solution of neutral ammonium chromate injected into rabbits weighing 1,500 to 2,000 grams produced very intense acute congestion, a coagulative or degenerative necrosis of the cells of the convoluted tubules, a large number of hyaline casts, and the appearance of albumen in the urine within twenty-four hours. Glomerular and interstitial changes other than congestion were at first, as well as later, distinctly absent; but in those animals who survived for over twenty days small cell infiltrations were visible around the medium-sized blood vessels. The effects of the irritant varied in different animals. In some, 4 in 1,000 albumen (Esbach) appeared in the urine during the first twenty-four hours, and these as a rule died in convulsions or coma within three to ten days. In one animal there was even 8 in 1,000 albumen; in others the albumen was only $\frac{1}{2}$ to 2 in 1,000, and this quantity was present at death or disappeared within sixteen to eighteen days, when the animal lived so long. The urine always contained hyaline casts.

The normal capsule of the kidney consists of two distinct layers of fibrous tissue—an inner, thin, dense, and reticular, closely connected with the connective tissue surrounding the cortical cells, and an outer, broad, lamellated, and of loose texture, in some places covered by peritoneum. Forty-eight hours after the injection of neutral ammonium chromate the capsule is swollen, its fibres are separated by oedematous fluid, and its capillaries are congested and dilated. As a rule nephritis was first induced and decapsulation performed three days later, but in a few cases the capsule was first removed and the neutral ammonium chromate injected three days afterwards. The results observed were practically the same in each set of cases.

THE OPERATION.

Two different routes were followed in the operation; in one the peritoneal cavity was opened, the intestines retracted, the kidney brought to the wound, and the capsule incised and removed; in the other an incision was made along the external edge of the erector spinae muscles, the fascia separated anteriorly from the muscle, and the kidney approached from behind. The latter method was more generally employed. The wounds healed rapidly, and suppuration was only observed in one animal whose kidney was injected with milk for another purpose. In all 55 experiment rabbits were used, and the operations were performed in Germany; 17 of the chromicized animals were decapsulate on both sides, and 8 on one side. The remainder were on injected with neutral ammonium chromate and used controls.

When removing the capsule it was impossible to alwa detach both the layers. The outer layer peeled off qui easily, but the inner layer came away in fragments, ar during its removal the underlying tissues were lacerate Thus in the latter case haemorrhages were large and focal, ar the capsular changes were delayed by the absorption an organization of the clot; in the former the haemorrhage w slight, the capsule showed early signs of new formation, an adhesions were frequent and extensive. Speaking generall the formation of fibrous tissue was the same in both instance any difference being due to the rate of progress only. Th protocols and detailed reports of the operations and th clinical data will be elsewhere stated, and in a later paper w hope to record the regenerative changes which occurred i the renal tubules.

MACROSCOPICAL APPEARANCES OF THE DECAPSULATED KIDNEYS.

After twenty-four hours there was little trace of the cap sule, and small clots of blood were visible on the surface o the kidney. At the end of four days the kidney was covere by a thin, whitish film, whose density varied in differen areas. In some instances the kidneys were adherent to th liver or adjacent tissues. The blood clots disappeared, an the filmy covering increased in opacity and in density, unti at the end of ten days it was as thick as the normal capsul of the other non-decapsulated kidney or of those of the con trol animals. To the end of the experiments the capsule con tinued to increase in thickness, and to become closel adherent to the neighbouring structures.

MICROSCOPICAL APPEARANCES.

The first animal was killed at the end of twenty-four hours and the following appearances noted: In places where th outer layer of the capsule is absent there is a thin layer o blood and exudation; where the inner layer is missing, man of the tubules are ruptured, and there is considerable haemor rhage. The convoluted tubules show necrosis in patches many of them contain hyaline casts, and such are also pre sent in the collecting and straight tubules of the medulla The glomeruli are intensely hyperaemic, and all the bloo vessels are engorged.

During the operative procedures hairs from the skin becam sometimes attached to the decapsulated areas; and, althoug from a surgical standpoint the occurrence was regrettable yet their position amongst the newly-formed tissue was a times helpful in defining the exact amount of capsule whic had been removed.

After forty-eight hours the haemorrhagic areas, which as a rule extend into the cortex, are but slightly changed. A those places where the outer layer of the capsule is alon missing, adhesions are being formed and the right kidney i often attached loosely to the liver. Four days after the opera tion there are distinct evidences of newly formed fibrou tissue where the inner layer of the capsule persists, and th intracortical haemorrhages contain round cells and also cell resembling fibroblasts. Many of the tubules are necrotic and between them there is an increase of cellular elements The casts and hyperaemia remain as before. On the ninth day the necrosis is well marked and the casts are numerous but the hyperaemia is less intense. The capsule is now muc thicker than normal and consists of loose cellular fibrou tissue. Adhesions to the surrounding fat and muscles ar frequent, but the capsule is forming under the adhesions The haemorrhages have practically disappeared, and thei seats are indicated by patches of connective tissue which ar visible between the atrophied tubules. The kidneys of thos animals killed on the tenth to the fourteenth days exhibit a progressive thickness of the newly formed outer layer. Th position of the lacerated areas is now only distinguishable b the cellular tissue, and their surface is covered by a thin laye of fibrous tissue. The new capsule contains numerous smal vessels, collections of round and fusiform cells and smal pieces of hair surrounded by giant cells. The glomeruli ar still hyperaemic, but the necrosis is not so marked and fe casts are visible.

From the fourteenth to the twentieth day the most eviden changes are those connected with the disappearance of th hyperaemia and of the casts and the regeneration of the rena cells. The capsule is irregular in extent and in thickness

der the adhesions it is dense and thin; where the organ is e there are frequent nodules of fibrous tissue, the inter- ning parts being composed of loose, vascular, and somewhat nellated fibres, almost devoid of cell elements. Up to the enty-eighth day the specimens examined show a practically rmal renal cortex, save that the capsule is much thicker an normal, and the intertubular strands of cellular tissue well defined.

n addition to the ordinary haematoxylin and rubin and nge, Weigert's iron haematoxylin and Van Gieson, the tions were stained for fibrin and elastin. The former did yield any noteworthy results. By the latter the relations he blood vessels were determined. It was apparent that en distinct adhesions occurred, small arteries and veins e present in the tissues immediately surrounding the ney, but these were always separated from the cortex by thick, newly-formed capsule. When serial sections were de, it was found that these vessels still maintained their ra-renal position. The only route by which the vessels ld definitely pass into the cortex was along the strands of ular tissue, but although the capsule covering those areas less dense than elsewhere, blood vessels large enough to tain elastic tissue were not present. Neither was there evidence to show that the capillaries which passed from capsule into the cortex were more numerous than those ch are normally present.

Post-operative Changes.

these experimental observations we may append a ription of the post-operative capsular changes which rred in two human kidneys which we have had the ne to examine.

one which had been incised with the object of removing culus, and which came to the *post-mortem* table sixteen later, we observed some capsular changes near the t of incision. The capsule had retracted, and in its e there was extensive cell infiltration, with but little ation of fibrous tissue. In neighbouring areas, where ibrous investment had been partially removed, the cap- was thickened, and the newly-formed tissue was richly lar.

another we were able to examine the capsular ges two years after an operation for movable kidney. posterior portion of the capsule had been removed in that the organ might become adherent and fixed to ent structures. The kidney was adherent to a narrow on of the psoas muscle for about 4 in., and the muscle were absent in the plane of adhesion, and atrophied e side of it. The renal cortex was covered by a thick capsule of connective tissue of a stronger and r type than that of the normal capsule, and in places it was distinctly puckered. Microscopic- the newly-formed capsule consisted of thick fibrous containing a few nuclei, the underlying tubules were what atrophic, and the interstitial tissue was slightly ased both in extent and in cellular constituents. These es occurred, as a rule, in scattered areas. Some of the ruli were entirely hyaline. Deeper in the cortex collec- of small cells were here and there visible, but otherwise he cortex and medulla were normal.

are now in a position to consider what renal decapsula- eally means. It consists of the removal of a portion of psule, or of the entire capsule, with more or less lacera- f the cortical tubules, of haemorrhage, and of the ex- e of a "raw" absorptive surface. It has been shown by on that while immersion of a kidney in a solution of ium iodide before decapsulation does not develop the in the urine, after decapsulation a similar immersion o its early appearance in the urine, so that the removal e capsule accelerates the absorption of any local

eight to fourteen days after renal decapsulation in ls in which degenerative nephritis has been induced, dney is covered by a thick, strong connective tissue e, and the haemorrhages and marked necrosis are ed by cellular tissue, which in some instances is con- with the capsule, and which persists after the tic changes have resolved. When the capsule is ed in the first instance, the normal passage of capil- rom the capsule into the superficial areas of the cortex, hown during renal infarction, will be broken; and, is afterwards fully regained, it is all that may be ed. In addition, the laceration of the stellate veins rtially obstruct the return of blood to the intertubular vessels, and new anastomoses will be here necessary. Neither in the former nor in the latter instances have we observed any new formation of vessels, but Emerson found that in normal dogs vascular connexions were formed with the pancreas, liver, and intestines, but not with the surrounding fatty tissue, and that these vascular channels were associated with the production of connective tissue, apparently penetrating into the parenchyma from the new capsule, and so marked as to present the picture of a commencing interstitial nephritis. He also states that the renal substance was free from lesions except around the new blood channels. The latter, however, are only described as small capillaries, and the injection of coloured gelatine employed for the demonstration only reached the capillaries and smaller vessels of the liver, although the oozing from the cut surface of the adherent organ was not inconsiderable.

Observations.

While we must clearly admit that artificial animal nephritis cannot be too closely compared with nephritis in a human subject, yet we submit that the changes produced by metallic poisons are somewhat similar in each case, and the experiments provide at least some grounds for the probable occurrence of like processes in the human kidney.

We must of course for the moment only deal with the forms of degenerative nephritis, as it is yet impossible to induce an interstitial nephritis in animals. From the anatomic standpoint yielded by our experiments and those previously reported, decapsulation does not appear to offer any advantages. And if there exists no anatomical basis for the operation in acute degenerative nephritis, it is surely impossible that in chronic nephritis the capsular changes will be less marked. If indeed the changes are at all analogous, we should imagine that the laceration, the haemorrhage, and the new formation of the capsule would rather tend to accelerate the interstitial inflammation; while in the event of any concomitant arterio-sclerosis there would be no possibility of much vascular anastomosis or even of a satisfactory replacement of the channels ruptured during the removal of the capsule.

But if there is no anatomical basis for the operation, there may be another explanation of the rapid flow of urine—the increased excretion of urea, the disappearance of the albumen and casts which have been observed to follow decapsulation. By some the results are ascribed to the relief of congestion, but in our experiments the intense hyperaemia persisted after the capsule had reformed. Pel, Jaboulay and others suggest that the improvement is due to the action upon the sympathetic ganglia, and that the decapsulation should be considered in the same light as those operations which, undertaken to remove a renal calculus, lessen the pain and improve the general condition of the patient, although no calculus is found.

If the latter be the correct explanation, the question naturally then arises as to the necessity for the entire denudation of the renal cortex. Would not reni-puncture, or one longitudinal and several transverse incisions, while avoiding the main anatomical disadvantages, afford a sufficient stimulus to the sympathetic centres? We cannot at present offer any experimental evidence upon this point. That it would provide a sounder anatomical basis is probable; at all events, it would more locally limit the interstitial and capsular processes in kidneys the seat of chronic nephritis.

Guiteras has recently compiled the results of some 120 cases in which the diagnoses of chronic nephritis were fairly well established before decapsulation and their post-operative courses followed for some months. Regarding the results from their most favourable standpoint, 16 per cent. of the total number may be said to be "cured," 40 per cent. thought to be improved, 11 per cent. unimproved, and 33 per cent. followed by early death. Suker reports 15 cases of nephritis in which retinal changes had occurred and which were submitted to decapsulation; 14 died within the "two-year" period and the history of the remaining one was somewhat questionable.

The value of these statistics is, however, minimized by several considerations. First, the operation has been necessarily restricted to the latest stages of the disease, and has often been only performed as a last hope; secondly, the exact stages and extent of chronic nephritis do not permit of accurate diagnosis; thirdly, chronic nephritis is as a rule characterized by acute exacerbations and frequent remis-

sions, its anatomical course is in the main a progressive one, and the remittent stages often occur under treatment other than that of decapsulation.

Of the above 33 per cent. mortality, 26 per cent. died from chronic interstitial nephritis; and of the remainder, in 25 per cent. death occurred from the so-called chronic parenchymatous nephritis, and in 75 per cent. "diffuse" (?) nephritis was assigned as the cause.

In acute nephritis, anuria, haematuria, puncture and decapsulation of the kidney is said to yield relief and to favourably affect the function of the other kidney. In these cases it is suggested that the improvement is due simply to the relief of tension.

From the standpoint of pathology we may not make an excursion into the field of surgery, and therefore we must not discuss the possibilities of the operation. We feel, however, that the purpose of the paper would not be served unless we mentioned that while many American and some French surgeons regard the procedure as one that has come to stay and as possessing much promise in the treatment of degenerative and interstitial nephritis, such operators as Israel, Nicolayson, and others have already abandoned the method in chronic conditions. It is, of course, a matter of common knowledge that the simpler reni-puncture relieves tension and promotes renal functions, so perhaps the description of the changes observed after decapsulation may give more prominence to the method of simple incision, may emphasize the probability of rapid local reparation when the temporary obstruction is removed, and may suggest the earlier surgical treatment of those post-febrile and acute renal manifestations, which, when unrelieved, often terminate fatally.

Since the completion of our experiments Boncz-Osmolowsky has published a paper on "the changes in the kidney after removal of its capsule." He used rabbits for his experiments, and found that six days after decapsulation the leucocytes and connective tissue were increased between the tubules and that the cells of the superficial tubules showed granular changes in the protoplasm. Twelve days after the operation the superficial tubules and glomeruli were slightly compressed by the connective tissue elements, and there was atrophy of renal cells. He did not observe any new formation of blood vessels in the reformed capsule.

[Some portions of this paper were communicated to the March meeting of the Manchester Medical Society.]

REFERENCE.

1 *Virchow's Archiv*, Bd. cxxxvii.

BIBLIOGRAPHY.

Claude and Balthazard, Effets de la Décapsulation du Rein, *Comptes Rendus de la Société de Biologie*, 1902, p. 239. Albarran et Bernard, Régéneration de la Capsule du Rein après Décapsulation de l'Organe, *Société de Biologie*, June 21st, 1902, p. 756. H. A. Johnson, Results of Decapsulation of the Kidney, *Annals of Surgery*, 1903, p. 592. B. Boncz-Osmolowsky, Die Veränderung der Nieren bei Entiernung ihrer Kapsel. *Russky Wratch*, 1903, No. 21, *Münch. med. Woch.*, 1904, S. 2066. Jaboulay-Gayet et Bassam, Du Traitement Chirurgical des Néphrites, *Arch. Gén. de Méd.*, 1903, p. 2904. H. Emerson, Studies upon the Capsule of the Kidney, *Medical Record*, 1903, vol. i, p. 917, and *Transactions of the Association of American Physicians*, vol. xviii, p. 194. Cavaillon et Trillat, Du Traitement du Mal de Bright, *Presse Méd.*, 1904. January 9th. G. Edebohls, the Treatment of Chronic Bright's Disease. *Medical Record*, 1901, December 21st, 1902, p. 651. 1903, p. 476, etc. J. Ferguson, the Surgical Treatment of Nephritis. *Journ. American Medical Association*, 1903, No. 1. R. Guiteras, 120 Cases of Bright's Disease Treated by Decapsulation (with full Literature), *New York Med. Journ.*, 1903, November 7th, p. 881. R. Harrison, the Treatment of Some Forms of Albuminuria by Reni-puncture, *Lancet*, 1896, January 4th, BRITISH MEDICAL JOURNAL, 1896, October 17th, p. 418. I. Israel, Uber den Einfluss der Nierenspaltung auf akute und chronische Krankheitsprozesse des Nierenparenchyms, *Mitteil. aus den Grenz. d. Med. und Chirurg*, 1899, Bd. v; Nierenkolik, Nierenblutung, und Nephritis, *Deut. med. Woch.*, 1902, p. 145; *Nierenkrankheiten*, 1901, p. 389. Korteweg, Die Indikationen zur Entspannungsincision bei Nierenleiden. *Mitteil. aus den Grenz. der Med. und Chirurg.*, 1901, Bd. viii, p. 596. R. Lepine, Sur l'Opportunité d'une Intervention Chirurgicale dans la Néphrite Chronique, *Sem. Méd.*, 1902, No. xlix, p. 397. G. Lennander, *Mitteil. aus dem Grenz. der Med. und Chirurg.*, 1902, vol. x, Nos. 1 and 2 Ch. Mongour, De la Nephrotomie dans les Néphrites Chroniques Médicales. *Journ. de Méd. de Bordeaux*, 1902, February 9th. Pel, *Mitteil. aus den Grenz. der Med. und Chirurg.*, 1901, vol. x, No. 2. W. H. Porter, Rational or Dietetic Treatment of Bright's Disease contrasted with Surgical Intervention. *Medical Record*, 1902, p. 483. Rovsing, Wann und wie mussen die chronischen Nephriten operirt werden? *Monats. f. Urologie*, 1902. Oscar Rumpler, Der gegenwärtige Stand der Lehre der chirurgischen Behandlung der Nierenentzundung. *Dissertation, Strassburg*, 1903. J. A. Schmitt, Surgical Treatment of Chronic Bright's Disease, *Medical Record*, 1902, September 13th. A. Pousson, De l'Intervention Chirnrgicale dans Certaines Néphrites Médicales—Quatr. Session, de l'Association Française d'Urologie, Paris, 1899, *Monats. f. Urologie*, 1902. L. Stricker, The Ocular Complications of Bright's Disease, *Journ. Amer. Med. Assoc.*, 1904, p. 514. G. F. Suker, Decapsulation of the Kidney and Intraocular Complications, *Journ. Amer. Med. Assoc.*, 1904, vol. xlii, No. 9. Tyson, *Medical Record*, 1903, p. 629. Tyson and Frazier, A Case of Decapsulation of the Kidney for Chronic Parenchymatous Nephritis. *Transactions of the Association of Amer. Physicians*, vol. xviii, 1903; *Med. Record*, vol. i, 1903, p. 917; *New York Med. Journal*, 1903, October 10th.

REPORT LXXXV.

SOME FURTHER OBSERVATIONS ON THE LIFE HISTORY OF FILARIA IMMITIS, LEIDY.*

BY THOS. L. BANCROFT, M.B.EDIN.

I COMMUNICATED to the Royal Society of New South Wales in June, 1901, a paper entitled "Preliminary notes on the intermediary host of Filaria immitis, Leidy," since then I have had the opportunity of following up several points in the life-history of this parasite, which remained to be elucidated.

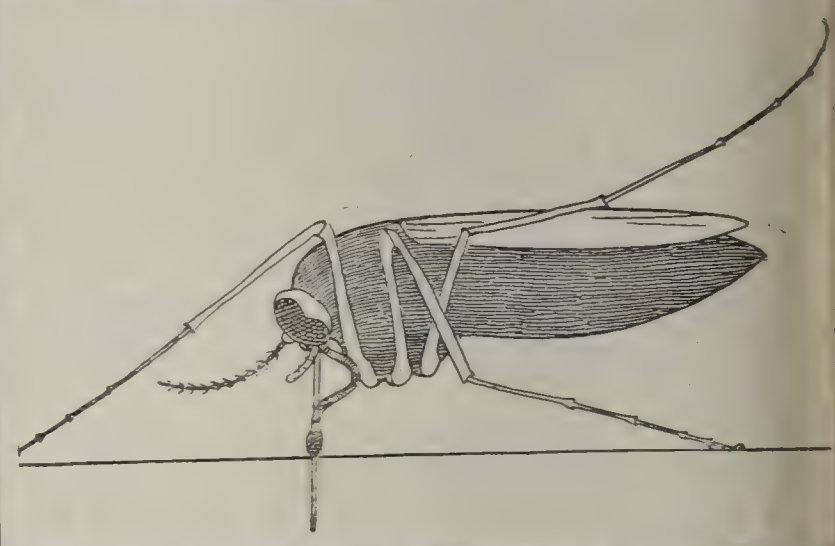

Fig. 1.—Diagram of a "house mosquito" (*Culex fatigans*), Wied, in the act of imbibing blood, drawn from photomicrographs.

It was evident that the young or larval filariae, arrived at maximum development, as far as their life in the mosquito was concerned, passed out, in some way or other, into the final hosts, but the exact manner of exit was a disputed point. I had myself[1] suggested that the worms passed down the proboscis into the wound inflicted by the mosquito; I did not think it possible for such helpless creatures to swim against the blood stream entering the mosquito's stomach by the epipharynx. Afterwards,[2] whilst examining labia of filariated mosquitos, mounted in water and with a cover-glass, it was observed how readily the worms escaped from the apex of the proboscis or labium, and it was suggested that they naturally thus made their exit. Dr. Geo. C. Low considered it probable that the young filariae passed out of the labium at its base; Grassi however could not believe it possible for larval worms, without any special mechanism for boring their way, to pierce the integument of the labium he had an idea of his own to explain the exit from the labium. It is well known that when a mosquito imbibes blood, the

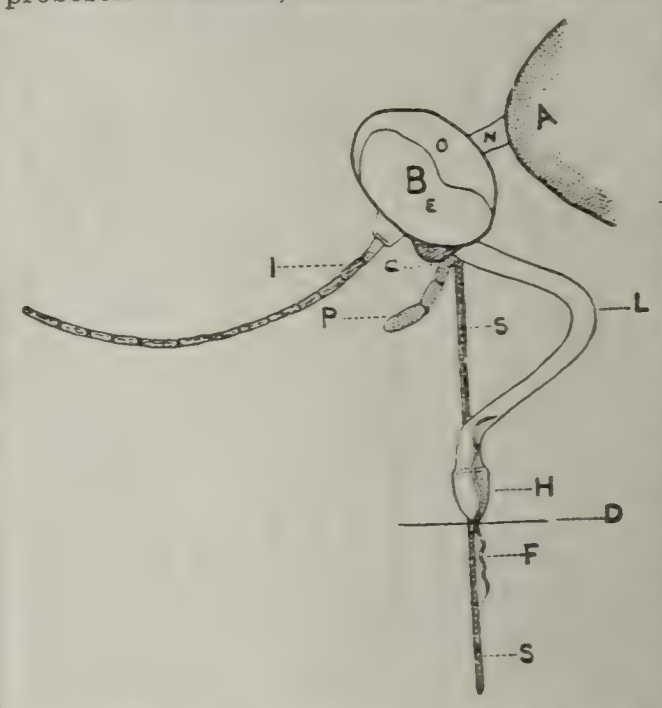

Fig. 2.—Diagram of the head of a mosquito imbibing blood, depicting the escape of a young filaria into the skin alongside the stylets. A, thorax; B, head; C, clypeus; D, skin; E, eye; F, filaria; H, labellae; I, antenna; L, labium; N, neck; O, occiput; P, palpi; S, stylets.

labium or sheath of the stylets is bent upon itself whilst the stylets are thrust deep into the skin; Grassi considered that when a labium containing filariae was thus buckled up it would be ruptured and the worms extruded. This hypothesis was easily disproved, upon microscopic examination of the labia of filariated

* The expenses of this investigation have been met in part by a grant of £58 from the British Medical Association, London, July 25th, 1901.

mosquitos, which had bitten and relieved themselves of parasites, one or more openings were seen in the labellae, often very apparent owing to the escape of pigment and granular matter; there were no openings elsewhere.

It remained to be proved by actual experiment, that filariated mosquitos could infect dogs, and it was important to ascertain how long a time would elapse before embryo filariae could be detected in the experimental dog's blood. The time taken from the bite of the mosquito until the embryos can be found in the blood is about nine calendar months; in one instance it was only eight and a-half months. One dog, which had been filariated, was stolen at eight months, up to which time there were no embryos in its blood. To fix the time as accurately as possible, this experiment was made: a puppy, bred from non-infected parents, was kept away from filariated dogs; on December 30th, 1902, it was put into the mosquito house and 183 filariated mosquitos, three weeks old, were liberated; the next morning it was found that 70 mosquitos had bitten; that was the only infection the dog received. After seven months had elapsed its blood was examined weekly, but it was not until October 1st, 1903—that is, nine months—that the embryos were detected; the dog was then killed and the heart and lungs examined. There were 32 fully-developed filariae (16 males and 16 females) in the right ventricle and pulmonary artery.

I was desirous of ascertaining (although the chance of doing so was very slight), where in the dog's body the young filariae lived before betaking themselves to the heart. I had on several occasions, whilst dissecting filariated dogs, found half-grown forms in the lungs. One dog, which had been bitten by 103 filariated mosquitos and in whose body there would be at least fifty worms, was examined three months afterwards; the tissues were sliced with a knife or cut into small pieces with scissors in hope that, were a worm cut, it might move or its body protrude and thus attract the eye; nothing, however, was seen. Mature filariae scarcely move when cut across, and might readily be overlooked, so it can be understood how such delicate bodies as young filariae might easily escape detection. It is probable that the young filariae live in minute arteries in the lung. Another filariated dog was examined seven months after infection, full grown filariae, both males and females—the females 10 in. long, which is the maximum length they attain to—were found in the heart; the uterine tubes were devoid of embryos however. The parasite is at this date probably sexually mature, but a month or two must elapse before embryos are developed.

Two dogs used as a "control" in this investigation, lasting over a period of two years, remain free from filariae.

References.

[1] *Proceedings of the Royal Society of N. S. Wales*, vol. xxxiii, p. 62. [2] Ibid., vol. xxxv, p. 44.

DIGESTION AND ABSORPTION OF HAEMOGLOBIN.

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Some years ago, when Bunge's theory of the part played by inorganic iron preparations in the relief of anaemic conditions was exciting interest, it occurred to me as important to determine whether haemoglobin was capable of absorption. For among organic preparations of iron, haemoglobin is sometimes prescribed for the cure of chlorosis and allied disorders.

Pressure of other work at the time caused me to leave my investigation in an unfinished condition, and I never took it up again, and in the meantime numerous other researchers had taken up the question and published their results.

The main trend of this work has been to show that numerous preparations of iron, both inorganic and organic, including haemoglobin, are really absorbed, though probably in small quantities, and do not, as Bunge taught, merely remain in the alimentary canal, to be the ready prey of bacteria, so protecting the normal haematogen (iron-nucleo-proteid) contained in small quantity in numerous food stuffs.

The evidence adduced by these investigators in favour of the absorption hypothesis may be briefly summarized in the following way:

1. Animals fed on the preparations added to their food, rendered as iron free as possible, increase in weight, and thrive better than the control animals.

2. Their red corpuscles increase in number and in their richness in pigment. This by itself might, however, be equally well explained by Bunge's theory.

3. By macrochemical methods the amount of iron in their spleen and other organs increases more than can be explained by the small amount of iron in the haematogen of their food.

4. By microchemical methods the granules containing iron can be detected in these organs as well as in the intestinal epithelium. Of the microchemical methods, that with ammonium sulphide has been shown to be more trustworthy than that involving the use of potassium ferrocyanide.

5. The duodenum appears to be the situation where most absorption takes place; the spleen the principal situation for storage; the reappearance of the iron reaction in the colon, and to a certain degree in the kidneys, appears to indicate excretion rather than absorption.

I may say briefly that my experiments, as far as they went, supported on all these grounds the hypothesis that haemoglobin given with comparatively iron-free food is really absorbed, and may thus lead to blood formation. Looking through my old notes, I have determined that it is quite worth while to publish the results, not because they now contain anything which is absolutely new, but as confirming the observations of others just alluded to. Moreover, in one or two directions the methods adopted have been somewhat different from those used by others. Particulars, for instance, concerning the action of the digestive fluids on haemoglobin I do not remember as having seen in previous publications.

Action of Artificial Digestive Fluids on Haemoglobin.

It appeared to me first to be important to determine what changes haemoglobin undergoes when subjected to the action of the various digestive juices. For this purpose I prepared a large quantity of crystalline oxyhaemoglobin from dog's blood and divided it into several portions:

1. On keeping it at body temperature for some days it underwent no change.

2. On adding saliva to it and keeping the mixture at 40° C. there was also no change in twenty-four hours, except that the crystals underwent solution.

3. On adding to a solution of these crystals an equal volume of 0.4 per cent. hydrochloric acid the solution showed almost immediately and in the cold the bands of acid haematin. On keeping this at 40° C. a swollen amorphous precipitate of acid haematin settled out gradually, though twenty-four hours later a good deal still remained in solution. Menzies[1] states that the first effect of dilute acids on oxyhaemoglobin is to form methaemoglobin; this I have confirmed if a few drops only of the 0.4 per cent. solution of hydrochloric acid are added to the solution. But with the amount of acid present in gastric juice this stage, if it occurs, is too transitory to be caught. The spectroscopic bands of acid haematin and of methaemoglobin are very similar, but the two can be readily distinguished by careful measurement, and even more readily by the following test. If a reducing agent like ammonium sulphide is added, the absorption bands of methaemoglobin are replaced by those of oxyhaemoglobin and reduced haemoglobin; whereas the bands of acid haematin are replaced by the perfectly characteristic bands of haemochromogen. I sought for haemin after treatment with hydrochloric acid of this strength, but was never successful in proving it to be present.[2]

4. In the next experiment pepsin solution was added to the mixture with hydrochloric acid, and the resulting appearances were just the same. On keeping the mixture at 40° C. the acid haematin gradually separated out as a precipitate, the appearance of which closely resembled that of "coffee grounds." In this case the digest within a few hours gave evidence of the presence of albumoses and peptone derived from the hydrolysis of the proteid component of the haemoglobin. These did not appear when the acid alone was employed; the dissolved proteid in that case was simply acid albuminate. So far, we have learnt that the effect of gastric digestion is not only to form hydrolytic products from the proteid constituents of the haemoglobin, but the iron-containing portion is converted into acid haematin, which, as it mainly separates out as a precipitate, is not very likely to be available for purposes of absorption.

5. Sodium carbonate was next added to another portion of the haemoglobin solution until 1 per cent. was present. To half of this a solution of trypsin was added; the result in both cases was the same so far as the iron-containing portion of the pigment was concerned. In the specimen where trypsin was added there was naturally in addition the formation of proteolytic products. No immediate change in the pigment was produced, but on keeping at 40° C. the fluid became reddish-brown and showed the absorption spectrum of alkaline

haematin, which on the addition of ammonium sulphide was replaced by that of haemochromogen. No precipitation of the haematin occurred as in the acid preparations. We thus see that pancreatic digestion *in vitro* yields a product which remains in solution, and so presumably one better adapted for absorption. The normal sequence of events in the alimentary canal is that gastric is succeeded by pancreatic digestion; this I sought to imitate in my next experiment.

6. The insoluble brown residue which follows gastric digestion was washed with water, and placed, part in artificial pancreatic juice, and the rest in a 1 per cent. solution of sodium carbonate. In both cases the precipitate rapidly dissolved at 40° C., giving rise to a reddish-brown solution with a green dichroism which showed the band of alkaline haematin. Pancreatic juice *in vitro*, and therefore probably *in vivo*, has no difficulty in converting the insoluble haematin compound formed in the stomach into a soluble modification.

The next point to see was whether such a solution is diffusible, for although we must admit that diffusion is not the sole factor in absorption, it is evidently an important one, for the whole object of digestion is to render materials diffusible which are naturally not so. Accordingly, the digests from the gastric and pancreatic products were dialysed in parchment paper tubes against distilled water; the result was that no acid haematin came through, but the alkaline haematin diffused fairly rapidly into the outer fluid; but diffusion ceased when all the alkaline carbonate had passed out into the water; under these circumstances the haematin was precipitated within the dialysing tube.

The same series of experiments was repeated with haemoglobin purchased from Grübler, and in all cases with the same result.

Shortly after this I had the opportunity of examining three specimens of blood vomited from the stomach in hospital cases. The first case was that of vomiting which occurred soon after epistaxis; the blood was bright red and showed the oxyhaemoglobin bands with a trace of the characteristic methaemoglobin band in the red. The other two were cases of haematemesis in which the vomit showed the typical coffee grounds appearance. The material was extremely insoluble, but by means of ether, acid haematin was dissolved out and gave its typical reactions. The results thus accorded were those obtained by artificial digestion.

FEEDING EXPERIMENTS WITH HAEMOGLOBIN.

Rats were selected for these experiments, a certain number being fed on bread and milk, a diet which is poor in iron, and the remainder on the same diet over which powdered haemoglobin was freely sprinkled. In all cases they took the food quite readily. My intention was to make observations on the weight, blood corpuscles, and haemoglobin during life, and after death to examine the different organs microchemically and macrochemically for iron, and, where possible, to estimate it. As will be seen, these experiments were never completely carried out, but, so far as they went, they ndicate that haemoglobin is really absorbed, and is utilizable for blood formation. Two series of rats were taken, and in each batch of 10 or 12, 5 or 6 were used for controls, ond the others had haemoglobin added to their food. The following are the results of typical experiments:

Increase in Weight.—The animals were kept alive for three weeks. The increase of weight per week in the bread-and-milk rats were respectively 22, 32, 21, 31, and 44 grams. The large increase in the last-mentioned animal was found after death to be due to pregnancy. In the haemoglobin rats, the weekly increase of weight was respectively 19, 17, 27, 24, and 25. It will be seen that there is not much to choose between the two sets so far as increase of weight is concerned.

Red Corpuscles and Haemoglobin.—I was met with a difficulty in making these observations because it was not possible to obtain a sufficient amount of blood for analysis from the skin, even over a superficial vessel, by a needle prick. I therefore selected two of the best-nourished animals from the batch at the beginning of the experiments, killed them, and examined the blood from the heart, letting this serve as a standard for the remainder, which were killed after three weeks' feeding. The red corpuscles were counted by the Thoma-Zeiss instrument, the haemoglobin estimated by Gowers's haemoglobinometer. The following were the results obtained; the numbers represent percentages taking normal human blood as 100 per cent.:

Rats killed before feeding experiments commenced

No.	Oxyhaemoglobin.	Red Corpuscles.
1	80	44.4
2	90	60.0

Rats after feeding for three weeks on bread and milk:

No.	Oxyhaemoglobin.	Red Corpuscles.
3	88	50.0
4	82	56.0
5	85	44.0
6	88	46.0
7	85	50.8

Rats killed after feeding for three weeks on bread, milk, and haemoglobin:

No.	Oxyhaemoglobin.	Red Corpuscles.
8	102	67.2
9	95	65.8
10	102	67.2
11	100	72.0
12	95	77.8

The distinct improvement in the last set of animals is clearly seen and needs no comment.

EXAMINATION OF THE ORGANS OF THE ANIMALS.

The method adopted was that recommended by W. S. Hall.[3] Two solutions of ammonium sulphide were prepared; the first had the composition, ammonium sulphide solution 30 parts, and absolute alcohol 70 parts; this is the best solution for spleen and liver. The second solution gives the best results with intestinal epithelium, and has the composition ammonium sulphide solution 5 parts, absolute alcohol 70 parts, and distilled water 25 parts. Pieces 2 to 4 cm. thick are placed in these solutions for twenty-four hours. The iron reaction, when marked, is quite visible—by the darkening produced—to the naked eye. The FeS, however, partly bleaches on the surface after standing, and the black granules become yellow owing to the formation of $Fe(OH)_2$, which are difficult to detect in microscopic sections. The pieces are therefore hardened in alcohol, embedded in paraffin, and sections cut; the sections are freed from paraffin and placed in the ammonium sulphide solution once more before being finally mounted. I placed the whole alimentary canal, slit open, in the alcoholic ammonium sulphide solution, next day made notes of the naked-eye appearances observed, and subsequently selected portions for embedding and section cutting.

The difference between the alimentary canals of the two sets of animals was very pronounced. In those fed on bread and milk only there was faint darkening at the extreme pyloric end of the stomach, which was somewhat deeper in the duodenum. The rest of the canal was unaffected, except the caecum, where again slight darkening appeared. The liver usually showed a slight reaction, the spleen one rather more intense, and the kidney either none at all or a very faint reaction.

In the animals who had received haemoglobin the liver was rendered pale green, the spleen was intensely dark, and in the kidney little or no reaction was observable. In the alimentary canal the reaction commenced at the pyloric end of the stomach. The duodenum showed an intense reaction for 2 in. or 3 in., and then this gradually faded away, disappearing altogether about 5 in. from the pylorus. No further reaction was seen until the caecum was reached, when once more there was coloration, fading away and disappearing about 1 in. to 2 in. beyond the commencement of the large intestine.

On microscopical examination of a number of typical specimens the darkened granules in the epithelial, liver and splenic cells, so well described by Hall[4] and others, could be easily seen. Increase in their number and the intensity of their colour coincided with the situations where the colour was deepest to the naked eye. In some cases the staining was diffuse and not limited to granules. Unfortunately, the estimations of iron in the organs which I intended to make were omitted.

GENERAL CONCLUSIONS.

1. The administration of iron in the form of powdered haemoglobin to rats leads to an increase in the number of their red corpuscles, and the amount of haemoglobln in their blood.

2. There appears every reason to suppose that the haemoglobin is actually absorbed; the intensity of the ammonium sulphide reaction is much greater than in animals kept on a diet poor in iron. The main situation for absorption, as judged by this reaction both to the naked eye and to the microscope, is the extreme pyloric end of the stomach and the first few inches of the duodenum. The spleen appears to be the principal organ for storage.

3. Haemoglobin in the stomach is converted into acid haematin. This is the pigment of what clinical observers call "coffee grounds" in the vomit of cases of haematemesis. Acid haematin, after it is formed, is slowly precipitated, and is indiffusible through parchment paper. It therefore seems unlikely that much of it is absorbed.

4. By the pancreatic juice, however, it is rapidly dissolved, and forms alkaline haematin, which diffuses through parch-

ment paper. This will account for absorption in the first part of the duodenum. Lower down, where the reaction once more becomes acid, absorption ceases. It is well known in many animals that the reaction of the intestinal contents becomes alkaline owing to ammonia formation in the large bowel, but in the rat I found that the contents of the caecum and first part of the colon were still acid. Alkalinity does not occur till the last part of the colon is reached.

Notes and References.

[1] *Journal of Physiology*, xvii, p. 415. [2] In spite of Gherardini's statement that blood in the stomach is converted into haemin (*Bull. dell Sci. Méd.*, 1890, p. 456). [3] *Du Bois-Reymond's Archiv* 1896; *Physiol. Abth.*, p. 142. [4] Loc. cit. On account of the incompleteness of my work I have not attempted to enumerate the very numerous published papers on iron absorption. A recent paper by Tartakowsky (*Pfluger's Archiv*, 1903, vol. c, p. 586) gives reference to the most important. Hall holds that the reappearance of the iron reaction in the beginning of the large intestine, and to a certain extent in the kidney, is an indication that iron is excreted here. I have not pursued this line of inquiry, but see no reason to doubt the grounds on which this hypothesis is founded. I find, however, that Tartakowsky, whose experiments were made with inorganic iron compounds principally, regards the caecum and colon as situations where absorption and not excretion occurs.

NOTES ON RECENT CANCER MORTALITY IN THE THAMES VALLEY.

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The south-eastern division of England has long been regarded as showing a high death-rate from cancer, and the Thames valley in particular has had this unenviable reputation. Many years ago Haviland, in an investigation into the matter, stated that the high cancer mortality and the Thames floods were closely related to each other. In the Thames counties, where there are frequent floods over considerable areas, the alluvium is deposited on what is for the most part a clayey, tenacious soil; and a clay soil has been regarded by some as more favourable to the growth of parasites, which may have a connexion with cancer, than carboniferous or chalky soil. It is doubtful, however, whether much influence is exerted on the cancer death-rate in England by the geological formation, as, in the low mortality areas, strata are found similar to those existing in the counties and districts showing the highest rates. I have recently collected certain statistics of cancer mortality in the Thames valley with the view of ascertaining whether it still maintains its reputation as a high cancer mortality area. The statistics are taken from the annual and decennial reports of the Registrar-General for England, and I have more especially compared the decennium 1881-90 with 1891-1900.

The Thames riparial districts (by which is meant those which immediately skirt the river or are traversed by its headwaters), have been divided into groups, each of which comprises a number of registration districts. The groups which form the Thames valley are roughly:

1. From Oxford to Wokingham.
2. ,, Cookham (Maidenhead) to Wycombe.
3. ,, Eton to Kingston.

The counties in which the various riparial districts in the Thames valley are situated are Middlesex, Bucks, Oxford, Surrey, and Berkshire.

Comparing the decennia 1881-90 and 1891-1900 in these counties in relation to cancer mortality, I find the following:

Table I.

1881—1890.

	Total Deaths from all Causes, at all Ages.	Cancer Deaths, all Ages.	Percentage of Cancer Deaths to Total Deaths.
England and Wales ...	5,244,771	161,920	3.16
Surrey	79,002	3,115	3.94
Berks	41,736	1,604	4.05
Middlesex (Ex. Met.)..	77,089	2,616	3.39
Bucks	26,874	932	3.46
Oxfordshire	31,081	1,233	3.98
1891—1900.			
England and Wales ...	5,575,374	332,178	4.16
Surrey	92,639	4,846	5.23
Berks	42,005	2,361	5.62
Middlesex (Ex. Met.)..	100,872	4,611	4.57
Bucks	25,611	1,307	5.10
Oxfordshire	29,792	1,663	5.58

All the counties show a cancer death-rate higher than for England as a whole in each decennium. In all the counties also there is an increase in the latter decennium over the former varying from 1.64 per cent. in Buckinghamshire to 1.18 per cent. in Middlesex (Ex. Met.).

Table II.

Surrey	= 1.29 per cent. increase
Berks	= 1.57 ,, ,,
Middlesex (Ex. Met.)	= 1.18 ,, ,,
Bucks	= 1.64 ,, ,,
Oxfordshire	= 1.60 ,, ,,

For registration purposes each county is divided into a number of registration districts. Of these districts I have taken first those which are riparial (as defined above). The cancer mortality occurring in these in the two decennia 1881-1890 and 1891-1900 has been summed up and compared.

Following the course of the river upwards, the riparial districts in the Thames valley on the south bank are Richmond, Kingston, and Chertsey in the county of Surrey; Windsor, Maidenhead, Reading, Bradfield, Newbury, Wallingford, Abingdon, and Faringdon in the county of Berkshire.

On the north bank of the river the districts which are riparial are Brentford and Staines in the County of Middlesex; Eton and Wycombe in Buckinghamshire; Henley, Thame, Headington, Oxford, and Witney in Oxfordshire.

The results arrived at, put in tabular form, are the following:

Table III.

Registration District.	Per Cent. Cancer Mortality. 1881-1890.	1891-1900.	Increase Per Cent.
Surrey:			
Richmond	3.89	5.81	1.92
Kingston	4.72	5.76	1.04
Chertsey	4.50	5.56	1.06
Berkshire:			
Windsor	4.59	5.52	0.93
Maidenhead	4.51	6.22	1.71
Reading	4.51	5.96	1.45
Bradfield	4.03	6.69	2.66
Wallingford	3.57	5.34	1.77
Abingdon	4.30	4.64	0.34
Newbury	4.59	5.63	1.04
Faringdon	3.24	5.72	2.48
Middlesex (Ex. Met.):			
Brentford	3.43	4.83	1.40
Staines	4.10	4.33	0.23
Bucks:			
Eton	3.68	5.34	1.66
Wycombe	2.72	4.74	2.02
Oxfordshire:			
Henley	4.16	5.81	1.65
Thame	3.90	5.00	1.10
Headington	4.72	6.60	1.88
Oxford	3.51	4.48	0.97
Witney	3.33	4.70	1.37

When the cancer mortality in the riparial districts is contrasted with that in the non-riparial districts in each of the above counties, it is found that the average cancer mortality-rate to total mortality from all causes was:

Table IV.

	Riparial Districts.	Non-riparial Districts.
1881—1890.	Per Cent.	Per Cent.
Surrey	4.37	3.51
Berks	4.16	3.94
Middlesex (Ex. Met.)	3.76	3.02
Bucks	3.20	3.72
Oxfordshire	3.92	4.04
1891—1900.		
Surrey	5.71	4.75
Berks	5.71	5.53
Middlesex (Ex. Met.)	4.58	4.56
Bucks	5.04	5.16
Oxfordshire	5.30	5.85

It will be seen that the average cancer mortality-rate has increased in the latter decennium in all the riparial and non-riparial districts; also that in both decennia in the counties of Bucks and Oxford the non-riparial districts show a slightly higher rate than the riparial. With these exceptions the rate in the riparial districts is higher than in the non-riparial.

I have compared the cancer mortality in the two decennia in each of the above registration districts with a view to

ascertaining (1) whether there has been an increase or a decrease during these periods; (2) what proportion the increase or decrease bears to other districts in the Thames valley similarly compared. The result shows that the cancer mortality has increased in all the districts, the increase varying from 0.23 per cent. (Staines) to 2.66 per cent. (Bradfield).

In each of the counties and districts the total deaths from all causes at all ages have been taken, and the total number of deaths from cancer at all ages occurring in each decennium. The figures are computed from the annual reports of the Registrar-General for England during the twenty years. The percentage of cancer deaths to total deaths is thus obtained. This is naturally a crude method and can give only approximately accurate results, but the conditions in regard to age and sex distribution in a given district vary but slowly, and there is less liability to error in comparing the cancer death-rates of the same district or town at the different periods.

The above statistics seem to justify the conclusion that the Thames valley is still associated with a relatively high mortality from cancer. All the districts immediately bordering on the river show a rate in the decennium 1891-1900 above the average rate for the whole of England, the excess varying from 0.15 to 2.53 per cent. This uniform high rate along both banks of the river suggests that there may be a connexion between the river floods and the incidence of cancer, but what that connexion is it is not easy to explain. If we presume that cancer is a parasitic disease, the drying vegetation on the river banks after the floods have gone down may form a favouring nidus for the growth of the parasite. The fact that the majority of the riparial districts show a higher cancer mortality than the non-riparial seems to support this view of probable parasitic infection, seeing that districts nearest the river are most prone to suffer from cancer. This, however, does not explain the cause of the increase of cancer which is everywhere apparent, but given the other unknown predisposing factors which lower the vitality of the human organism to a non-resistant degree, we may have along the banks of the river a more or less constant manufactory of the *materies morbi*, ready to attack the already weakened host, and thus, with the additional risk of infection, there is higher mortality.

The above facts and figures taken as a whole and collectively are not only not inconsistent with the parasitic theory, but they seem to find their best explanation on this hypothesis. They are a contribution to the statistics of the disease whose etiology is at present the vexed question of medicine.

ON THE ACTION OF THE BLOOD SERUM FROM CASES OF ACUTE MENTAL DISORDER ON B. COLI COMMUNIS.

BY

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AT the meeting of the British Medical Association at Swansea in 1903 we made a preliminary communication upon the agglutinating power of the blood serum from 25 cases of mental disease upon B. coli. Having since examined a further series of cases, raising the number to 100, we now give the results obtained and the conclusions drawn.

TABLE I.—*Showing the Agglutinative Power of Serum from 100 Cases of various Acute Forms of Insanity upon 25 Mixed and 75 Single Strains of B. Coli Communis:*

Form of Insanity.	No. of Cases.	Good Agglutination.	Partial Agglutination.	No Agglutination.
		Per Ct.	Per Ct.	Per Ct.
Acute melancholea ..	29	5 = 17.2	12 = 41.3	12 = 41.3
Acute mania	53	2 = 3 7	22 = 41.5	29 = 54.7
Delusional Insanity ...	9	2	2	5
General paralysis	6	1	1	4
Alcoholic insanity... ...	2	0	2	—
Acute dementia	1	1	0	—
Total	100	11.0 per cent.	39.0 per cent.	50.0 per cent.

90 dilutions of 1-100 were used, 7 of 1-30, and 3 of 1-50.

39 controls were made, of which { 1 gave a good agglutination = 2.5 p.c. / 5 gave a partial agglutination = 13.0 p.c. / 33 gave no agglutination = 84 6 p.c.

TABLE II.—*Showing Duration of Disease, Degree of Dilution of Serum Used, and Agglutination Results in 29 Cases of Acute Melancholia.*

No. of Case.	Duration.		Dilution.	Result.
1	1 month	1—3 months	1—30	Good agglutination.
2	1 month		1—100	
3	6 months	3—6 months	1—100	
4	8 months	6—12 months	1—100	
5	2 years	over 12 months	1—100	
1	2 weeks	1—3 months	1—100	Partial agglutination.
2	1 month		1—100	
3	2 months		1—100	
4	2 months		1—100	
5	3 months		1—100	
6	4 months	3—5 months	1—100	
7	4 months		1—100	
8	7 months		1—100	
9	7 months		1—100	
10	8 months	6—12 months	1—100	
11	9 months		1—100	
12	10 months		1—100	
1	1 week	1—3 months	1—100	No agglutination.
2	4 weeks		1—100	
3	5 weeks		1—100	
4	6 weeks		1—100	
5	2 months		1—100	
6	2 months		1—100	
7	2 months		1—100	
8	3 months		1—100	
9	4 months	3—6 months	1—100	
10	4 months		1—100	
11	6½ months	6—12 months	1—100	
12	2 years	over 12 months	1—100	

TABLE III.—*Showing Duration of Disease, Degree of Dilution of Serum Used, and Agglutination Results in 53 Cases of Acute Mania.*

No. of Case.	Duration.		Dilution.	Result.
1	2 weeks	1—3 months	1—100	Good agglutination.
2	10 weeks		1—100	
1	3 days	1—3 months	1—100	Partial agglutination.
2	10 days		1—100	
3	3 weeks		1—100	
4	3 weeks		1—100	
5	3 weeks		1—100	
6	4 weeks		1—100	
7	4 weeks		1—100	
8	4 weeks		1—30	
9	6 weeks		1—100	
10	7 weeks		1—100	
11	8 weeks		1—100	
12	8 weeks		1—100	
13	8 weeks		1—100	
14	9 weeks		1—100	
15	9 weeks		1—100	
16	10 weeks		1—100	
17	10 weeks		1—100	
18	10 weeks		1—50	
19	12 weeks		1—100	
20	14 weeks	3—6 months	1—100	
21	5 months		1—100	
22	5½ months		1—100	
1	3 days	1—3 months	1—100	No agglutination.
2	1 week		1—30	
3	1 week		1—100	
4	3 weeks		1—100	
5	3 weeks		1—100	
6	3 weeks		1—100	
7	4 weeks		1—100	
8	4 weeks		1—30	
9	5 weeks		1—100	
10	5 weeks		1—100	
11	6 weeks		1—30	
12	6 weeks		1—100	
13	8 weeks		1—100	
14	9 weeks		1—100	
15	10 weeks		1—50	
16	10 weeks		1—100	
17	10 weeks		1—100	
18	11 weeks		1—100	
19	12 weeks		1—100	
20	12 weeks		1—100	
21	12 weeks		1—100	
22	16 weeks	3—6 months	1—100	
23	16 weeks		1—100	
24	17 weeks		1—100	
25	5 months		1—100	
26	6 months		1—100	
27	6 months		1—100	
28	11 months	6—12 months	1—100	
29	20 years	over 12 months	1—100	

Taking cases of any period up to six months' duration as recent" cases, Tables II and III show that 71 out of the tal 82 cases of acute mania and melancholia were recent, at with but few exceptions the cases giving no agglutination ere recent, and that consequently the failure to agglutinate es not depend upon chronicity of the disease.

Conclusions.

From the tables the following conclusions are drawn:

1. In 50 per cent. of the total cases of acute insanity there as agglutination, whereas this was present in only 15.5 per nt. of the controls.
2. The agglutination was partial in the great majority of e cases (39 per cent.).
3. In those forms of the disease in which the cases were fficiently numerous to permit of percentages being taken ania and melancholia), the preponderance of partial over od agglutination was also obvious.
4. The percentage of agglutination (good and partial) was eater (58.5) in the cases of melancholia than in those of ania (45.2).
5. The percentage of good agglutination was greater in elancholia than in mania.
6. Even when the disease is quite recent in duration there as often as not a failure to agglutinate.

Our thanks are due to Dr. J. H. W. Eyre, of Guy's Hospital, for kindly supplying cultures for the purpose of this rk.

CASES OF LATERAL SINUS PYAEMIA.*

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urpose relating to you my experiences in certain cases of eral sinus pyaemia associated with middle-ear disease ich have been under my care. By this term I mean an tension of the inflammatory processes which we so comnly speak of as mastoid disease to the interior of the eral sinus, thence to the jugular bulb and the internal gular vein, and thence, if not arrested, throughout the culation. My chief reason for this communication is to ge the necessity for prompt and radical surgical interence in these cases, which belong to the class of great rgical emergencies. I will commence with a brief summary the cases:

ase I.—Girl, aged 10, admitted to Cardiff Infirmary in 1895. Left stoid disease. Rigors, headache, and pyrexia for four or five days. rum and middle ear cleared out; lateral sinus opened behind stoid and internal jugular in neck; septic thrombus removed. nporary remission of symptoms. Death on third day. Necropsy—ondary abscesses in lungs.

ase II.—Girl, aged 10, admitted Cardiff Infirmary January 2nd, . Right otorrhoea three years following measles. Acute symptoms week; vomiting, mastoid pain, pyrexia, rapid emaciation; child ill. Antrum only opened. Death twelve hours later. Necropsy—stoid portion of lateral sinus filled with septic clot, small extra-dural ess over roof of tympanum, septic infarcts in lungs.

ase III.—Male, aged 13, admitted Cardiff Infirmary, February 2nd, . Left otorrhoea of long standing, following measles. Radiating toid pain for last six weeks, with four shivering attacks. Ear disge ceased for a week. On day following admission severe rigor; perature 105°, pulse 178, respirations 38. Meatus occupied by poly-. Double optic neuritis. February 4th. Antrum and middle ear red out; much foul pus; temporo-sphenoidal lobe and cerebellum ored with negative results; extradural abscess found in sinus ve; sinus pulsated feebly, and was not opened. Temperature hed normal. Recovery uneventful. Permanent sinus left behind In good health now (April 22nd, 1903).

ase IV.—Male, aged 42, admitted Union Hospital, June 30th, 1902. standing deafness in, and intermittent discharge from, right ear. exia, which subsided after syringing, but returned on July 7th with vere rigor. Seen by me at request of Dr. Alfred Sheen, Medical er to Union Hospital. "Complete" mastoid operation performed uly 14th. Patient died thirty-six hours later. *Post mortem*, septic mbus in lateral sinus reaching from genu to jugular bulb. Organs ndition which accompanies acute septic infection. No secondary esses.

se V.—Male, aged 24, admitted Cardiff Infirmary, August 5th, 1902. t otorrhoea three years. Discharge ceased a month before admis-, and pain commenced in and around ear. Daily vomiting for a ; no rigors. Temperature 104°; very ill. First operation: um and middle ear cleared out. Temperature came down to 99°, but later rose to 103°, and patient had a rigor. Second operation, twenty-four hours later: Lateral sinus exposed and freely opened, and much foul thrombus cleared out. Convalescence interrupted by attacks of pyrexia with rigors; temperature fell after 10 c.cm. of antistreptococcus serum. Now (April 21st, 1903) is well and strong; still has sinus behind ear.

Case VI.—Male, aged 15. Private patient, under Dr. Mulligan, Abersychan, Mon. Operation at patient's house on November 12th, 1902. Left otorrhoea of ten years' duration following scarlet fever. "Polypus" removed from left ear a year ago. Four days before operation taken suddenly ill with left mastoid pain, fever, and rigors. Pain extended down neck. On day before operation five severe rigors; temperature 106°. Operation in small country house; bad light. Assistant, the village barber, who fainted at an early stage of the proceedings, his place being taken by the patient's father. Antrum and middle ear cleared out; lateral sinus exposed in its groove; foul thick pus surrounded it, and it did not pulsate; sinus opened freely, and septic breaking-down clot removed. Internal jugular opened in neck, the incision having to be extended low down to get below clot. Venous channel washed out. Recovery interrupted by febrile attacks and rigors, pain in the right side of the chest, and cough. Temperature fell after antistreptococcus serum, and after acetanilide (8 gr.), given by Dr. Mulligan. Formalin inhalations and urotropine internally were also used for a time. Boy eventually recovered, and was in good health on April 21st, 1903.

I have used the term "pyaemia" in the title of this paper in order to emphasize the general infective nature of the process which we are considering and the necessity of isolating the source of general infection to bring about recovery. Three of the cases (half the total number) died, and of these three, two had secondary abscesses in the lungs, while the third was the victim of an acute toxaemia, and might possibly have been saved by earlier intervention. Of the three cases that recovered, one was in an early stage, and the thrombus in the lateral sinus was probably only partial in character, while the symptoms of the other two showed that some general infection had taken place before the local source was cut off. They are, however, encouraging cases, as showing that recovery may follow even advanced conditions.

History.—In cases of lateral sinus pyaemia the history usually shows that the middle-ear trouble is of old standing, being a sequel of scarlet fever or measles in the younger patients; and in the older, as we have learnt latterly, of influenza. The patients are usually young adults, but they may be children, or, more rarely, older people.

Onset.—As a rule a patient who is going about his everyday occupations, accustomed to his deafness and his aural discharge, all at once finds himself the victim of a serious malady; rigors, sickness, and fever, with severe pain in and around the ear, are leading features of the onset. Less commonly, the onset is more gradual; increasing pain and fever leading up to a kind of crisis, signalized by vomiting or rigor. A cessation of the ear discharge (not really a cessation but a lessening) is not infrequently met with.

Symptoms.—In addition to the above points there is great prostration, loss of appetite and strength, with a characteristically rapid emaciation. The temperature usually remits, but may intermit: with the high fever there is a rapid pulse, coated tongue, foul breath and earthy complexion: constipation is more frequent in the earlier and diarrhoea in the later stages. There may be delirium, but the more usual mental condition is one in which the patient when roused answers questions sensibly and then sinks back into a condition of lethargy which may be interrupted by attacks of restlessness. The local symptoms consist of pain and tenderness over the affected mastoid process and over the corresponding side of the head: pain and stiffness in the muscles of the neck: sometimes oedema over the mastoid process. There is a diffuse swelling in the upper part of the neck and the cervical glands are enlarged and tender; later the internal jugular may be felt as a hard cord-like swelling. The superficial veins are sometimes greatly dilated. This was particularly noticeable in Case VI in the superficial temporal and its continuation, the external jugular. Optic neuritis is often present, but is in my opinion due more often to associated localized meningitis over the tegmen tympani and tegmen antri than to the inflammation around the sinus itself. Examination of the meatus shows a perforated or entirely destroyed tympanic membrane with thick curdy pus occupying the middle ear, or that cavity and the meatus may be filled with the infected granulation masses commonly known as polypi. If unrelieved by surgical intervention, later symptoms arise which indicate general infection. As might be expected, the lungs are first involved, and there is a teasing cough with intermittent

* Paper read before the South Wales and Monmouthshire Branch of the British Medical Association.

pains in the chest; accompanying these there are at first no physical signs, but later there is evidence of broncho-pneumonia, or of pus in the thorax; the expectoration is haemorrhagic and purulent, and contains abundant micro-organisms. Other seats of abscesses are the liver, kidneys, joints, and cellular tissue. The later stages of the toxic process are not infrequently accompanied by an enteritis—a typhoid condition with offensive diarrhoea. At other times the systemic invasion takes the form of an acute septicaemia rather than pyaemia; this is illustrated by Case IV of my series. By local spreading of the process or the attacking of different areas at once, the symptoms of brain abscess, of meningitis, or of both may be added to those of the sinus affection. The thrombosed jugular in the neck may break down and an abscess form there.

Diagnosis.—This is arrived at not from any particular symptom but from the association of symptoms, and in many cases lateral sinus pyaemia can only be diagnosed with certainty at operation. In acute local suppuration in the mastoid process, like acute local suppuration anywhere else, the usual local signs may be accompanied by headache, fever, vomiting, and even rigors; and if, as not infrequently occurs, a little basal meningitis over the anterior face of the petrous bone be present in addition, optic neuritis will also be observed. Where the prostration and general symptoms are severe, where the rigors are marked and repeated, where there is tenderness along the course of the sinus prolonged into the neck, and swelling in the neck, with perhaps a cord-like jugular; and, still more, when there is evidence of systemic infection, lateral sinus pyaemia can be recognized with certainty. Extradural abscess in the sinus groove occupies symptomatically as well as anatomically a midway position between mastoid disease and sinus thrombosis, and could be even less easily differentiated; direct signs of jugular involvement would, of course, be absent. In extradural abscess over the tympanic roof—the other frequent situation—eye symptoms are more likely to be marked; not only neuritis, but paralyses of ocular muscles. In advanced cases of extradural abscess symptoms of cerebral compression will present themselves. The typical symptoms of cerebral abscess are, as is well known, different from those of sinus pyaemia. The commencement of an abscess is usually signalized by pain, vomiting, some rise of temperature, and one or two rigors; but the rigors are not repeated, and the patient soon settles down into the characteristic condition, with fixed headache, subnormal temperature, slow pulse, vomiting independent of food, constipation, and lethargy. Differentiating symptoms for cerebellar abscess are occipital pain, giddiness, ataxia, and yawning. Meningitis, again, by which I include all forms of meningeal inflammation, presents the usual symptoms of cerebral irritation—acute pain in and retraction of the head, photophobia, squint, optic neuritis, restlessness, and convulsions. It is where the various lesions complicate one another that the greatest difficulties in diagnosis occur. When the meningeal symptoms overshadow the others it may be impossible to tell whether they originate in extradural abscess, cerebral abscess, or sinus thrombosis. Infective processes around the sinus, in the sinus, and in the cerebellum may all occur together from the spreading of the infection backwards. In this class of cases operation alone can decide the actual condition or complication of conditions present. In my third case I was led quite unnecessarily to explore the cerebrum and the cerebellum before I found the real seat of the mischief in the sinus groove. I have had experience in other cases of such negative brain exploration happily without ill results. The possibility in advanced cases of the primary source of infection being altogether overlooked must not be forgotten. The regular occurrence of the rigors has led to a diagnosis of ague or the predominance of the abdominal symptoms to one of typhoid fever. One reads even of the secondary infection of the joints being treated as rheumatism, and of a secondary abscess in the cellular tissue being opened as an ordinary cellulitis.

Pathology.—Under the heading of pathology I can only say a few words. In children, as Macewen has pointed out, the non-development of the mastoid cells and the non-union of the squamo-mastoid suture further a ready exit of purulent material, and sinus thrombosis is uncommon. The infection may reach the sinus in one of two ways, either by destruction of the bone, so that there is direct communication between the antral cavity and the sinus groove, or by means of minute infected thrombi forming in the small veins which traverse the bone. In either case the next stage is usually suppuration around the sinus, which may form a definite extradural abscess, or more commonly exist as a periphlebitis, the sinus being covered with pus and infected granulations. The contiguity of this inflammation brings about stasis of the blood in the sinus, and a thrombus forms in it, the thrombus forms through the actual pressure of the extradural abscess stopping the blood current in the sinus. This thrombus may be partial at first, parietal or mural as it is called, and it is not at first infected; in a short time, however, micro-organisms reach it through the sinus wall, it becomes infected and breaks down into pus, some destruction of the sinus wall also occasionally taking place. When operation exposes the sinus at this stage it does not pulsate, is greyish in colour, and has a somewhat shrunken appearance. The thrombotic and infective processes extend in the direction of the blood current down the sinus and the jugular vein; an arrest may now take place, the blocking thrombus organizing and abscesses forming behind the mastoid process or in the neck; obliteration of the jugular without external abscess is even recorded. The thrombus may spread to other venous channels, particularly the superior and inferior petrosal sinuses. Although I have spoken of arrest, the more common and more serious course is for systemic infection to take place, micro-organisms or minute particles of infected thrombus being carried by the blood stream to the right side of the heart and thence to the lungs, where small subpleural abscesses form; or, getting through the pulmonary circulation, the infection may reach other parts of the body, forming abscesses in the viscera, around the joints, in the cellular tissue or elsewhere, each fresh abscess formation being accompanied by a fresh outbreak of symptoms. Although I have described the infection as reaching the sinus via an extradural suppuration, yet occasionally the minute infected thrombi, which form in the veins traversing the mastoid, may extend direct into the interior of the sinus; in such cases the protective thrombus is less likely to form, and systemic infection is of early occurrence. Indeed there may be in certain cases no thrombus formation at all. The general infection may at other times take the form of a septicaemia rather than a pyaemia, no secondary abscesses being formed. The effective micro-organism in these cases is almost always the streptococcus pyogenes. Into the details of the morbid processes which accompany such secondary complications as brain abscess or meningitis I cannot enter.

Prognosis.—It is almost superfluous to say that in this class of cases the prognosis is grave, but cases apparently *in extremis* have been saved by radical treatment; neither does the evidence of secondary infection, even when this has gone through the lungs and reached the body, generally with formation of abscesses, necessarily determine a fatal issue. Obviously the further the disease has advanced the worse the prognosis, and particularly it has been pointed out that the lower the infected thrombus extends in the jugular the more serious is the outlook.

Treatment.—Finally, we reach the important question of treatment. Speaking with regard to this, I would emphasize in the first place the great urgency of these cases. They are as urgent as a strangulated hernia or a ruptured ectopic gestation. Secondly, I would point out that it is but seldom that a case is too bad to prohibit operative interference, and that even when the case has been prolonged and the evidence of systemic infection is definite, the cutting off of the primary infective source may save the life of the patient. The first step in the operation is the opening up of the mastoid antrum and making a free communication between it and the middle ear. I have latterly in mastoid cases operated according to Ballance's method, removing the posterior bony and cartilaginous walls of the meatus and throwing the whole into one cavity preparatory to skin grafting the cavity at a subsequent operation; but this method is, I think, unsuitable for sinus cases because it takes longer and the necessity of packing gauze into the mastoid wound, and its subsequent "toilet" prevents it cleanly and evenly granulating in a manner suitable for skin-grafting. After the mastoid and the middle ear have been dealt with the bony opening is prolonged backwards to reach the sinus groove, which, it must be remembered, lies more superficially than the antrum, and very occasionally lies so far forwards as to overlap it. The sinus must be reached, not through a little round hole, but through a free opening with broadly shelving sides, and a full vertical inch of it must be exposed. Any pus, infected granulations, or membranous material surrounding the sinus are then removed and the sinus inspected. If there is now

oubt as to whether it is thrombosed or not it should not be xplored with a needle, as some have recommended, for this ight carry infected material into an as yet uninfected sinus; the condition of the sinus is doubtful the operator must rry his mind back to the symptoms observed prior to opera- on: if these have been such as might accompany an acute cal infection only, he may stay his hand at this juncture d wait twenty-four to forty-eight hours to see if the sym- oms subside; but if they do not subside, or if they have been ch as to indicate, either by their severity or their character, stemic infection, then the jugular must be ligated. So we t the following three indications for tying the jugular: (1) hen the sigmoid sinus is definitely thrombosed; (2) when the mptoms of toxaemia do not disappear after the lesser opera- on—that is, dealing with the mastoid antrum and middle ear, d possibly also with extradural suppuration; (3) even without rombosis when there is evidence of severe systemic infection. additional local indication would be feeling the thrombosed gular in the neck as a hard cord. Whether it is felt or not, s better always to ligate the jugular in thrombosis of the us, for it is impossible to say how far down the thrombus ends. Probing, curetting, and washing out the sinus from ve are uncertain processes as far as removal of septic tter is concerned, and unsafe processes in that they are ble to detach clots which may be introduced into the neral circulation. Further, bleeding from the lower end of inus opened behind the mastoid does not necessarily icate that it is clear, for such bleeding may come from the ipital or inferior petrosal sinuses. Rather a bogey has n made of the ligature of the internal jugular in this ration, but quite unnecessarily so; one jugular is just as d as two. Some of those present saw a case under my e a little while ago in which the intimate adhesions ween the internal jugular and a large mass of glands in neck necessitated the removal of about 3 in. of the former, the patient experienced not the slightest inconvenience went to a convalescent home within a fortnight of the ration. Similar cases are by no means uncommon.

t what stage in the operation should the jugular be ned? In my cases this was done after opening the sinus, Ballance has pointed out that it is better practice to open jugular first, so that the risk of any clot detached entering circulation may be obviated. The jugular then is reached ugh an incision along the anterior border of the sterno- toid muscle, and having its centre opposite to the cricoid lage. This incision may be prolonged downwards, if ssary, in order to reach an unthrombosed part of the ; the external jugular usually requires to be tied. The rnal jugular, being ligatured, is opened above the liga- and as much thrombus removed from below as possible. sinus is then opened by a free vertical incision made with notomy knife. On proceeding to remove the clot free ling takes place from the upper end; this should be red to continue for a second or two to wash out the c contents, and is then easily stopped by gauze plugging. is removed down to the bulb, and the venous channel ed freely through with carbolic lotion from the mastoid rom the neck wounds. Some recommend removal of the ar from where it is divided in the neck right up to the its tributaries, the lingual, facial, and other veins being This is an additional traumatism, and adds to the h of the operation. It can only be on the principle of nizing the adverse chances, for it is impossible to block e infection routes and absolutely remove all the in- e sources—for example, the dura on the deeper aspect sinus remains as a possible infective source, and the or petrosal sinus, the occipital and condylar veins as le infection routes.

en all the infected clot has been removed the cut end of in in the neck is ligatured and the neck wound disin- and closed with drainage. The sinus openings, the id wound, and the meatus are plugged with gauze and astoid skin wound partially closed.

first dressing need not take place for forty-eight hours, preferably done under chloroform. There is usually bleeding from the upper sinus opening. Recovery may omplicated, or may be complicated by evidences of ic infection. Antistreptococcus serum should not ly be used until the streptococcus has been found in charges, but as one knows that it is the usual micro- m active in these cases, and further, as there is pro- only one kind of streptococcus, and, as far as I know, e serum, one should not hesitate to give it a trial when stances prevent a previous bacteriological diagnosis. The value of the serum is uncertain, apparent benefit after its use being probably sometimes of the *post hoc* kind.

In conclusion, I should like to express my gratitude to the work of Ballance and Macewen, both pioneers in this depart- ment of surgery, and from whose writings I have largely drawn in preparing this paper.

THE PHYSICAL DEVELOPMENT OF THE LONDON SCHOOLBOY; 1,890 EXAMINATIONS.

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At the present time, when the physical development of the rising generation has awakened a real and, by no means, unnecessary interest, among both politicians and educational experts, I venture to think that the statistics of the physical examination of 1,890 scholars of the Technical Education Board of the London County Council may be of some interest to those who are working in this important branch of public health.

The ages of the scholars range from 9 to 16 years inclusive. They are divided into two groups, junior scholars, who are under 13 years of age; and intermediate scholars under 16 years of age, for the purpose of compiling physical statistics, however, it will be more simple to combine these two groups.

The examinations were carried out between the years 1898-1902 inclusive. The class to which the scholars belong is best shown by the following particulars taken from the reports of the Board.

The junior scholarships, of which there are about 350 a year, are open to boys whose parents do not earn more than £150 per annum, and a large number of them are gained by the children of those who are in receipt of less than £100 a year. The intermediate scholarships, of which there are about 70 a year, are restricted to boys whose parents are in receipt of not more than £400 a year, but half of these are reserved for scholars whose parents earn less than £250 a year; in fact many of the parents do not earn £150 a year.

In giving the average number of junior and intermediate scholarships open for competition, only those for boys are mentioned, as the statistics in this paper deal entirely with boys.

Those statistics dealing with the heights and weights, chest measurements, cardiac examinations, and percentage of scholars with normal vision, do not include the whole 1,890 boys, as some alteration in the form of tabulation was made after the first examination in 1898-9, which prevents the inclusion of the whole number; but wherever a smaller number is dealt with, the fact is mentioned.

Analysis of the Physical Examinatioa of 1,890 Boys. General Appearance—879 Good, 679 Fair, 240 Rather Delicate, 84 Delicate, 8 Very Delicate. Table of Heights and Weights of 1,710 Boys.

Age	9	10	11	12	13	14	15	16
Total number examined..	1	16	328	969	146	117	120	13
Average height	ft. in. 4 2½	ft. in. 4 6⅔	ft. in. 4 8½	ft. in. 4 8¾	ft. in. 5 0	ft. in. 5 2½	ft. in. 5 5	ft. in. 5 6⅓
No. 10 per cent. above the average	—	—	7	24	7	2	4	—
No. 20 per cent. above the average	—	—	1	2	—	—	—	—
No. 10 per cent. below the average	—	—	2	20	4	2	4	—
No. 20 per cent. below the average	—	—	—	—	—	—	1	—
Average weight	st. lb 4 0	st. lb. 5 0	st. lb. 5 2½	st. lb. 5 6½	st. lb. 6 0	st. lb. 7 0	st. lb. 8 0	st. lb. 8 0
No. 10 per cent. above the average	—	—	42	130	18	19	28	3
No. 20 per cent. above the average	—	—	36	57	13	13	13	1
No. 10 per cent. below the average	—	—	55	128	30	32	32	2
No. 20 per cent. below the average	—	—	17	25	4	6	12	1

Note.—The boys were measured in their boots, and their weights were taken when they had been stripped to the waist, but had their jackets on.

Degree of Chest Expansion of 1,644 Boys.

Inches.	Number of Cases.	Percentage of Total Number of Cases.
1	22	1.2
2	348	21.1
3	880	53.5
4	363	22.3
5	25	1.5
6	1	0.0

Circumference of Chest at Forced Inspiration, 1,644 Boys.

Inches.	Number of Cases.	Percentage of Total Number of Cases.
23 to 24	2	0.1
24 to 25	14	0.8
25 to 26	80	4.8
26 to 27	229	13.9
27 to 28	413	25.1
28 to 29	371	22.5
29 to 30	239	13.9
30 to 31	124	7.5
31 to 32	55	3.3
32 to 33	47	2.8
33 to 34	35	2 1
34 to 35	21	1.2
35 to 36	9	0.5
36 to 37	5	0.3

LUNGS.

One boy had signs of consolidation at one apex, and gave a history of haemoptysis; he was sent to a convalescent home for six months, and returned perfectly well.

Twelve boys had bronchitis, but in none of these cases was the disease serious.

One boy gave a history of empyema, for which there had been an operation, but beyond some pulmonary collapse on the affected side no signs of disease were discovered.

HEART.

Of 1,438 boys, 90, or 6.2 per cent., were found to have definite cardiac disease.

Classification of Cardiac Lesions.

Mitral regurgitation	43 cases
Hypertrophy with albuminuria... ...	15 ,,
Mitral stenosis	13 ,,
Simple hypertrophy	7 ,,
Mitral regurgitation and stenosis ...	6 ,,
Feeble and irregular heart's action ...	3 ,,
Aortic regurgitation	1 ,,
Pulmonary stenosis	1 ,,
Mitral regurgitation and pulmonary stenosis	1 ,,

In only 5 of the above cases were symptoms of defective circulation complained of, and in those cases the disease was somewhat serious; 4 of these were suffering from mitral regurgitation, and 1 from pulmonary stenosis, probably of congenital origin.

In the remaining 85 cases, the boys were unaware that they had any cardiac lesions, and will probably not feel the effects of their defective circulation, for some years, if at all. Only in 2 cases was a definite history of rheumatic fever obtained, and in one a history of chorea; many of the boys, however, said they had suffered from severe "growing pains." I believe that these pains are, in many cases, of a purely rheumatic origin, and are in reality, slight attacks of rheumatism, which are not diagnosed and not treated, and lead to the development of cardiac disease, only discovered later on when the mischief has been done. This theory is, I believe, the only tenable one to account for the comparative frequency of definite organic cardiac lesions in children who have not suffered from rheumatic fever or chorea. Were it possible to impress upon parents the fact that "growing pains" are not natural, but are the result of a definite pathological and treatable cause, these attacks might not be disregarded, and cardiac disease in children of this class might not be so prevalent as it undoubtedly is at the present time. Children of the more moneyed classes being better clothed and cared for, and much less liable to exposure to cold and wet, do not run such risks, and consequently do not suffer to such a degree.

In addition to the 90 cases of definite organic disease there were a fairly large number of boys with pulmonary basic murmurs, unaccompanied by hypertrophy or any symptoms of cardiac lesion. These murmurs were probably all ... haemic origin. Another class of murmur which was ve... prevalent, and which was also unaccompanied by any sign ... symptom of cardiac disease, was a very definite, very localize... presystolic murmur heard over the cardiac apex. Th... murmur occurred entirely in boys of a nervous temperamen... and was, I am convinced, produced by an unusually rap... and forcible propulsion of blood through the mitral orific... set up by the quickened heart's action of nervousness; it w... entirely and absolutely separable from any organic pr... systolic murmur, and was never accompanied by a thrill ... cardiac hypertrophy, two signs which I find to be almo... equally common in cases of true mitral stenosis.

SPINE.

There were only 3 cases of spinal disease, all later ... curvatures, two of them of rachitic origin, and one the resu... of an old empyema.

EYES.

In 49 cases, or 2.5 per cent., the colour vision was affecte... in 24 there was "confusion of colours," and in 25 defini... colour blindness.

Acuteness of Vision.—In 439 cases, or 23.1 per cent., visi... was below "army standard"—namely, less than $\frac{6}{18}$, with o... or both eyes tested separately—in 73 of these cases the visi... of one eye was normal. Of the 439 boys whose sight w... below "army standard," 292 were wearing glasses. Out of 1,6... boys, 619, or 37.5 per cent., had normal vision—that is, cou... read $\frac{6}{6}$ with either eye.

It must be borne in mind that the chief object of the e... aminations from which these statistics are compiled is ... ascertain if the scholars are in any way physically delicate ... defective, and if they are found to be so to draw attention ... those defects, so that they may be dealt with, and if possib... cured. Dealing with so large a number it is quite impossib... to do a retinoscopy in each case, therefore any boy wi... defective sight is referred to an ophthalmic surgeon, hen... no statistics as to the number of hypermetropes, myopes, ... astigmatics can be given.

THROAT AND NOSE.

Enlarged tonsils, adenoids, or both, were found in 633 boy... or 33.4 per cent. of the total number examined. Of these, 4... had enlarged tonsils, 98 adenoids, and 41 adenoids a... enlarged tonsils; 208 boys of the 633 had defective hearin... and required treatment to avoid increasing deafness, but ... very large majority of the 494 with enlarged tonsils only h... slight enlargements, which gave no inconvenience a... required no treatment.

HEARING.

Three hundred and thirty-three cases, or 17.6 per cent., h... more or less defective hearing.

In 164 the hearing was fair (the tick of a watch could not be heard more than 2 ft.).

In 100 the hearing was poor (the tick of a watch could not be heard more than 1 ft.).

In 69 the hearing was bad (the tick of a watch could not be heard more than 4 in. to 6 in.).

NOTE.—The watch used could be easily heard by a person w... ordinary acuteness of hearing when 3 ft. distant.

Of the above 333 boys suffering from defective hearing ... had, or had had, enlarged tonsils, adenoids, or both; 38 h... had a discharge from one or both ears, 2 had nasal obstru... tions, and 1 had received a blow over the ear, which h... caused deafness.

In the remaining 54 cases no cause to account for the de... ness could be discovered, but it may have been due to coll... tions of cerumen or some forgotten otitis. As in the case ... the examination of the sight, no thorough examination in... the cause of deafness was possible, but all those boys w... were deaf and had naso-pharyngeal growths were referred t... throat hospital, and all those who were deaf, but had ... adenoid growths or nasal obstructions, were referred to an ... hospital.

With reference to the hearing of children being affected ... naso-pharyngeal growths, Mr. Cheatle notes, in the exami... tion of 1,000 school children attending the Hanwell Distr... School, that in 50 per cent. the hearing was defective, a... 38 per cent. of these were suffering from enlarged tons... adenoids, or both.

Dr. Wilbert[1] found that, of 231 boys he examined, 27 ... cent. were affected in their hearing, 16 per cent. not be... able to hear whispered speech at a distance of 1 metre, and ... these boys with defective hearing were suffering fr...

oids. He also found that, of 26 boys described as bad lars, 22 had adenoids, and that of 84, forming the bottom each class, 65 suffered in the same way.

URINE.

the 1,890 urines examined, albumen was found in 172, per cent.
3 there was a trace.
4 there was a faint cloud.
7 there was a fair cloud.
in 28 there was a heavy cloud.
of these urines were examined a second time, intervals of from to eight months elapsing between the examinations.
4 albumen was present only at one examination.
3 albumen was present at both examinations.
the 172 boys who suffered from albuminuria, 15, or 8.7 per , had definitely hypertrophied hearts and increased al tension, and were undoubtedly affected with chronic itis.
hough there were no such definite signs of chronic itis in all the 53 boys in whose urine albumen was on two separate occasions, I should regard the con- of their kidneys with suspicion, but can come to no utely definite conclusion with regard to them, as it is ossible to keep them under observation for a lengthy d.
h reference to the subject of albuminuria, Dr. Samuel gave some very interesting statistics in his Lettsomian es, reported in the BRITISH MEDICAL JOURNAL of Feb- 25th, 1899, and the following refer to children between es of 10 and 18 years. Stirling found on examining the of 369 boys albumen was present in 20.8 per cent. Rib- 240 examinations found albumen present in 22.8 per and Grainger Stewart in 100 examinations found en present in 17.0 per cent.
onclusion, I should wish to record my thanks to my gue, Dr. Lullum Bathurst, for his assistance in these nations, especially with reference to the careful re- nation of all the cases in which I found cardiac lesions, is thorough and painstaking testing of the urines.
uld also thank the Technical Education Board for their ed courtesy and kindness in considering and granting uests I have found it necessary to make for the better ng out of these examinations.

REFERENCE.
[1] *Deut. med. Woch.*, February 5th, 1903.

EMIC SORE THROAT FROM SUPPURATIVE MAMMITIS IN COWS.

BY ROBERT FRENCH, M.B.DURH., M.R.C.S.,
Finchley.

E read with much interest Dr. R. W. C. Pierce's t of epidemic sore throat in connexion with suppura- ammitis in cows, in the BRITISH MEDICAL JOURNAL of ber 5th, 1903, and also Dr. Kenwood's account of a epidemic in North Finchley and neighbourhood, in URNAL of March 12th. It is quite apparent that these ics are similar in nature, and that from their wide- and pernicious effect more notice should be taken of ause and treatment, and, if possible, of their prevention future. Prevention, to my mind, can only be carried a far more strict surveillance being exercised, by the ary inspectors appointed to the farm, when the cows ked. It is too late to repair the damage when the milk oled from the cans during the daily round of the milk- It seems to me an extraordinary proceeding to allow milk, or perhaps pus, to be drawn from cows suffering ammitis and distributed for human beings to drink. ilthy and disgusting," as Professor Axe mildly puts it. uffering from mammitis must surely be apparent even xperienced milker, and yet we hear that this condition isted for several days prior to the inspection by a ary expert. A few notes on the epidemic at Finchley interesting.

SYMPTOMS.

lisease was generally ushered in with chilliness and about twenty-four hours after infection, and the elt sore. Its appearance was generally one of follicular is or commencing quinsy. In no cases were any resembling diphtheria. In one or two instances the eemed to have escaped, and the infected milk produced an intense attack of diarrhoea. As the throat grew worse the glands of the neck became enlarged and matted together, and felt very hard and very painful. In rare instances suppuration occurred, but this was not the rule. At the same time the temperature rose to 103° or thereabouts, and in one instance I was able to record 107°. Neuralgia was a common symptom, and no nerve seemed exempt. One patient suffered from very acute neuralgia of the ophthalmic division of the fifth left cranial nerve, followed by herpes of those parts supplied by it. This was one of the cases complicated with erysipelas as hereafter described. Other complications arose, such as oedematous swellings of the limbs, swellings of the joints resembling rheumatism, and occasionally erysipelas of the face and head, and a rash resembling measles on other cutaneous parts. A fatal termination was rare, but was generally due to some complication, and in one instance in this epidemic cerebral toxication producing Bell's mania proved fatal. A recrudescence of the symptoms was a very common factor.

TREATMENT.

I was particularly struck with the fact that the usual remedies for follicular tonsillitis, for enlargement of the glands of the neck, and for all other symptoms caused by this infected milk were not at all amenable to treatment and it was not until I had had a case of severe facial erysipelas complicating the disease, in which I used the antistreptococcus serum (B. W. and Co.) that I noticed all other symptoms abate, as well as the marked effect on the erysipelas itself.

I was thus induced to try the same treatment in other severe cases of the epidemic. Without exception the disease began to abate immediately, the temperature fell to normal within 12 hours, and the patient made rapid progress towards recovery. This treatment suggested to me that the cause of the disease was undoubtedly the streptococcus mammitis bovi and should I ever be called upon to treat similar cases, I should at once adopt the serum treatment.

Dr. Eastes of the Laboratories of Pathology and Public Health, Queen Anne Street, very kindly examined some of the pus which I took from a suppurating mass of glands in a child, and I am much indebted to him for the following report:—

> In cover-smear preparations of this pus numerous streptococci were seen and a very few bacilli. These bacilli were short and comparatively stout, not at all fine and thin like the B. mallei. Cultures were made in various media, but only the streptococcus has grown. Some of the pus was also examined for tubercle bacilli, but none were discovered. It is interesting to see that the bacteriological finding coincides with your diagnosis of an "erysipelatous character of infection."

CONCLUSIONS.

The conclusions I formed upon the nature and cause of this disease were that it is of an erysipelatous infection of the throat caused by these micro-organisms, which find their way into the glands of the neck and occasionally spread to the skin, causing a typical erysipelas of the face and head. They eventually find their way into the blood, causing a general septic infection, making their appearance in colonies under the skin and infecting the synovial membranes of the joints. They also attack the neurilemma of nerves, accounting for the acute pains in various parts. The case of neuralgia of the ophthalmic division of the fifth cranial appeared to me very interesting. The micro-organisms apparently attacked this nerve, and herpes followed its course. One morning when I arrived I was astonished to find erysipelas had supervened without any other apparent reason. I am now inclined to think that the streptococci found a suitable soil in the herpes to increase and multiply. The clear fluid in the herpetic vesicles became sanguineous and the vesicles much enlarged. The whole disturbance quickly subsided under the serum treatment. The oedematous swellings of the limbs were apparently due to phlebitis.

INFECTION.

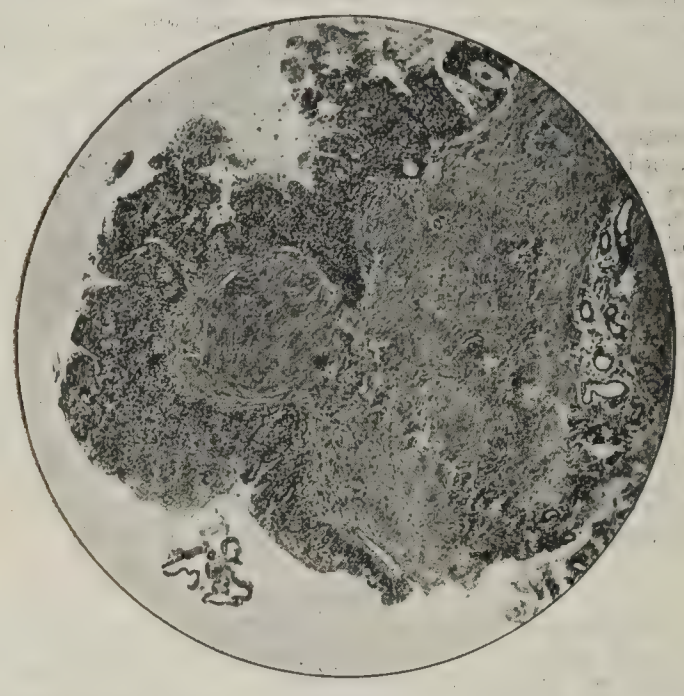
It was not common to find the infection to spread from one member of a family to another; but unless due care be taken —as we should do in dealing with erysipelas—the disease may be contracted without ever having drunk any infected milk. I can recall one instance which would absolutely prove this statement. The husband drank some of the infected milk on his way to business. His own milkman had not called when he left home. The same evening he had a shiver, and passed through the course of the disease in the usual way. His wife, who had not drunk the infected milk, duly became a martyr to an attack typical of the disease.

PAPILLIFEROUS CYST FROM AN AXILLARY SUDORIPAROUS GLAND.

BY H. BETHAM ROBINSON, M.S.LOND., F.R.C.S.,
Surgeon to Out-patients, Surgeon in charge of the Throat Department, and Lecturer on Practical Surgery, St. Thomas's Hospital; Surgeon, East London Hospital for Children, Shadwell.

A CASE illustrating this rare condition came under my care in June last, and presented the following features:

A single woman, aged 22, attended my out-patients' department at St. Thomas's, and complained that during the previous two years a lump had been growing in her armpit; its progress had been slow and not attended by any discomfort until the last fortnight, when it had become painful. Examination disclosed at the dome of the right axilla and rather to its outer wall a convex lump about the size of a pigeon's egg with its long axis corresponding to that of the arm. The skin was unaltered but stretched over it, and free all over except at one point, which agreed with a slight depression, the apparent opening of a duct of one of the axillary sudoriparous glands. The lump was in the substance of the skin, and they together could be lifted up from the subjacent fascia; there was evident elasticity denoting fluid, which latter was confirmed by the marked translucency of the tumour. Having had a previous case, as noted below, I made a correct diagnosis and proved the same by its removal. Section showed it to be a skin cyst consisting of one large cavity containing a thin watery fluid; the lining was in general smooth, but over an area the size of a sixpence soft papillary growths were attached.



Histologically the connective tissue of the cyst wall is seen to be sharply defined from its epithelial lining. The latter over the main part of the cyst consists of two or three layers of cubical cells flattened by pressure. The papillary processes show a many-layered epithelium, the surface cells being swollen and vacuolated, as is frequently seen in secreting glands. The appearances suggest an origin from that portion of the duct between the epidermis and the coiled tube. The tubes of the coil in places are dilated, but without any papillary growths.

This class of cyst appears to be very rare, for any literature bearing on the subject is extremely scanty. Curiously my other case[1] was almost identical.

This was from a little girl aged 13, and the tumour was the size of a Barcelona nut, and situated in the outer wall of the axilla. On examination it proved to be multilocular, with one cyst much larger than the others; from several spots on the wall of the largest cyst were sprouting papillary growths which histologically showed a fibrous core upon which were placed layers of a stratified epithelium with the surface cells vacuolated. The contained fluid was thin and clear like water.

Dr. H. D. Rolleston[2] records a very similar case where the tumour was situated over the left parotid region.

Unna, in his work on the *Histo-pathology of the Skin*, says that cysts of the sudoriparous glands are only known of the duct and not of the coil. Small cysts, generally related with scars, may arise within the epithelial layer, and he terms these "poro-cysts." Cysts from the other part of the duct are placed in the corium, and contain sweat "hydrocystoma": there is no reference to these latter having papillary growths.

It is very evident that in this condition we have to deal with retention cysts of the gland, and there is no more likely place in the body for such to occur than the axilla, where the glands are so well developed and the possibilities of blocking of the duct with dirt so great. Dr. Rolleston compares the appearances with those seen in a duct-papilloma of the breast. In both cases, no doubt, irritating material enters via the duct, and sets up such surface change as to cause the formation of the papillary growths: retention of the secretion, when it occurs, is brought about by the papillary growths and maintained by the cyst tension, causing dilatation of the duct.

REFERENCES.

1 *Trans. Path. Soc.*, vol. xlix, p. 290. 2 *British Journal of Dermatology*, p. 161, vol. xiv.

TRAUMATIC RUPTURE OF THE SMALL INTESTINE.

BY R. LAWFORD KNAGGS, M.C.CANTAB., F.R.C.S.
Surgeon, Leeds General Infirmary.

THE following two cases of rupture of the small intestine are suggestive. In both of them the intestine was ruptured as the result of external violence, but in neither of them was there any external wound. Both of them were treated by laparotomy; the one recovered, the other died shortly after removal from the theatre.

CASE I.

History.—R. L., aged 13, was swinging on a rope fixed to two gateposts, when they collapsed, and portion of a wall fell upon her, striking the pelvis and abdomen. The accident occurred on April 17th, 1900, at 2.30 p.m.

Condition on Admission.—When admitted she was suffering from Colles's fracture of the right wrist, some haemorrhage from the vagina, and contusion of the left hip. The next day she complained of pain in the body, and at midnight I was sent for. The pain had been getting worse during the day, and now the abdominal wall was rigid and there was great tenderness over the lower part. Below the iliac spines the resonance was impaired, and there was a doubtful thrill. The urine passed had been free from blood, and the bowels had not been open since admission. The pulse had risen from 100 to 120. The cause of the peritonitis was suspected to be perforation of a hollow viscus, possibly the bladder.

Operation.—At 2.30 a.m. on April 19th, or 36 hours after the injury, median laparotomy was performed. Extravasated blood was found in the subperitoneal tissues. On opening the peritoneum pus escaped, but no gas. The intestinal coils were found matted together with yellow lymph, and very offensive pus lay between them. This was wiped away gradually as the coils were separated towards the pelvis. At last a portion of bowel was seen with a hole in it from which bloody faeces were exuding. This portion was at once separated and drawn outside, and further escape of its contents prevented, whilst the cleansing away of the pus continued until the lowest collection containing faeces was found in Douglas's pouch. When the disturbed parts had been well cleansed, the hole in the small intestine, through which a pea could have been passed, and which was situated opposite the mesenteric attachment, was closed by a single catgut suture, and two continuous Lembert sutures applied longitudinally made all safe. The lumen was considerably narrowed. The kidney pouches were now wiped out—and the left one needed it. Gauze drains were carried down to both, and another, as well as a rubber tube, were inserted into Douglas's pouch. The damaged coil was placed beneath the wound, which was then closed.

Progress.—For two days the patient's condition was very uncertain. She was very noisy and restless, complained of great pain in the bowels, and vomited occasionally, but the pulse showed a tendency to fall. On the 21st she was distinctly better, and had two spontaneous evacuations. On the 22nd the gauze drains were removed, and from this date her progress to convalescence was uninterrupted. She left the hospital well on June 6th.

Result.—All trouble, however, was not at an end when she ceased to attend hospital. For a long time she had good health, but in January, 1902, nearly two years after the operation, and after a week of abdominal pain an abscess pointed in the abdominal cicatrix, and burst, and a large quantity of most offensive matter escaped. The opening closed in about three weeks, and there has been no local trouble since. It does not appear that this abscess was associated with a silk suture in the parietes, but it is very possible that the Lembert sutures in the gut had something to do with it. The abdomen now looks quite healthy. There is no protrusion at the cicatrix, and there is no induration or thickening to be felt. Though at present the patient suffers from pain and vomiting after food, suggestive of stomach ulcer, and easily controlled by simple treatment, the only inconvenience which can be definitely attributed to the injury is the pain which follows the taking of aperient. This is no doubt due to the intestinal adhesions resulting from the peritonitis.

CASE II.

History.—R. J. W., aged 21, was run over by a 'bus across the lower part of the abdomen on Christmas Day, 1899. He was admitted to hospital late the same night in a state of partial collapse, and recovered fairly, but in the morning his condition caused anxiety, and I was sent for.

late on Examination.—His facial expression was typical of abdominal ering; the pulse was 140 and the hands cold. There was diffused ominal pain but no particular tenderness, and in the right lumbar iliac regions there was dullness and a fluid thrill. There had been e vomiting: the urine contained a trace of albumen. After a con ation operation was decided upon.

eration.—The incision commenced in the right linea semilunaris the dull area had in the course of the operation to be carried ss the right rectus and upwards in the median line. On opening peritoneum bloody serum escaped and the caecum was found dis- ded. The small intestine was then traced from the ileo-caecal valve ne termination of the duodenum, and the higher it was traced the e evident did the signs of trouble become. At last a longitudinal 1 in. long was found just at the duodeno-jejunal junction. The edges of the mucous membrane were protruded and everted. Much stinal fluid was escaping, and the peritoneum in the neighbourhood strewn with currants and peas. It was impossible to get at the ure to suture it until the reflexion of peritoneum lying over the denum and continuous with the transverse mesocolon was torn ugh so as to liberate the fourth part of the duodenum. Then the ing could be manipulated and was closed with a double continuous bert suture. The abdomen was next washed out and finally closed. pt for a Keith drainage tube in the pelvis, and a gauze drain and rubber tube leading to the seat of the rupture.

sult.—At the close of the operation the patient was moribund, and ed an hour later.

Remarks.

recovery after operation for traumatic rupture of the el is always a matter of gratification to the surgeon. rficially these cases resemble perforation of the bowel by t wound, but in reality there is a great difference. In a trating bullet wound of the abdomen there is no hesita- as to the proper course to pursue—at any rate in civil ery. The almost absolute certainty that some viscus been wounded renders immediate exploration impera-

t the symptoms produced by abdominal contusion when owel has been ruptured are not infrequently insidious in onset. In some cases the profoundness of the collapse he urgency of the symptoms leave no room for hesita- but in others the immediate effect of the accident is ered from, and the surgeon, having excluded to his satis- n injury to the other abdominal viscera, spends a period me anxiety before the development of symptoms justifies ploratory operation.

s the time that is lost in this way that is responsible for reat want of success in the treatment of ruptured intes- Yet it is impossible to prevent it unless a rule be ulated that every severe abdominal contusion should be cted to immediate laparotomy. But there would be few ons who would not feel that such a rule would be unjustifiable, for it would lead to much unnecessary ting.

presence of abdominal rigidity in these cases may r to the surgeon to be easily explained by the contusion abdominal muscles. Indeed the patient's behaviour the abdomen is gently palpated is often convincing, h there cannot fail to remain an uncomfortable uncer- that the cause of the rigidity may be twofold. The sing rapidity of the pulse to which Mr. Makins has ed great importance as an indication for operation is btedly a most important sign, but as it almost certainly tes the absorption of toxins from the peritoneum it that valuable time has already been lost. But in not ases the occurrence of vomiting, sometimes of a severe ter, has begun very early.

beginning to attach a great deal of importance to ng after abdominal contusion. It is true that, even in f rupture of the bowel, it is not always present until sfactory conditions are well advanced, but in doubtful where a ruptured intestine is suspected, when the ent period following recovery from initial shock—if that en present—is reached, the occurrence of vomiting, g to the probable implication of the peritoneum, may first sign upon which a fair amount of reliance can be It may occur some time before the pulse-rate has ad- sufficiently to make it quite clear that the increased ncy is not due to subsidiary causes.

ases, therefore, where the nature of the injury was s to make a rupture of the bowel not unlikely, the on- vomiting, when the patient had apparently rallied from mediate effects of the accident, would justify, in my , an exploratory operation; nor should I have any s to its propriety if, in addition to the vomiting, the howed a tendency, however slight, to rise.

A NOTE ON PERINEAL LITHOLAPAXY.

(KEITH'S MODIFICATION.)

By Captain A. HOOTON, I.M.S.,
Bijapur, India.

Although it is now more than ten years since this most useful modification of litholapaxy was first described,[1] and several surgeons have since published large series of cases[2] showing excellent results, the operation has not met with that general acceptance which might have been expected.

This may, perhaps, be attributed chiefly to two causes. In the first place, it has suffered by a confusion with the more serious procedure associated with the name of Dolbeau, an operation more nearly allied to perineal lithotomy than litholapaxy; in the second there is, so far as I am aware, no description of the method under consideration in any standard work on surgery. The latest textbooks at my disposal contain no reference to the subject, though they were all published long after Brigade-Surgeon Keith's articles,[1] and it may therefore be of sufficient general interest to review briefly the present position of the operation.

Even in India its employment is by no means universal; it was stated not long ago that no considerable headway had been made in the Punjab, and in the Bombay Presidency it is probable that there are many hospitals where perineal litholapaxy has never been performed. On the other hand, those who have once adopted the method are, without exception, enthusiastic in its praise.[2] Litholapaxy in children is always a somewhat anxious undertaking, and the relief afforded by this alternative in difficult cases, which would otherwise often have to be relegated to one of the more extensive cutting operations, is necessarily very much appreciated. It is in stone in children that its application chiefly lies; contrary to what anatomical descriptions would lead one to expect the most difficult part of a child's urethra, after the meatus, is often well in front of the membranous portion,[3] and in these cases the shorter route solves the difficulty.

Perineal litholapaxy has been steadily performed in Hyderabad, Scinde; in 1900 Lieutenant-Colonel W. H. Henderson, I.M.S., published his series of 110 cases,[4] with 3 deaths, and the records of the Civil Hospital there (kindly placed at my disposal by Captain T. Jackson, I.M.S.) now show a total of 447 cases, with 18 deaths. From various other sources I have collected a few more cases, which make, with the Hyderabad figures, a total of 458 cases and 18 deaths. It is necessary to remark that the great majority of these represent stones, which, for one reason or another, would have otherwise been dealt with by some form of lithotomy, and that they also include the early operations of a number of surgeons; in fact they may stand for a fair average, and are therefore less likely to prove misleading than the statistics of one peculiarly expert operator. My own experience of perineal litholapaxy is limited to six cases in children, all of which recovered; in two, however, on account partly of prolonged manipulation, partly of the weak condition of the child, the wound did not heal readily, and convalescence was protracted. These were both instances which might have benefited by drainage, and probably a lateral lithotomy would have been preferable for this reason.

The following may be taken as fair examples of uncomplicated cases. It will be seen that recovery is very rapid, and that often only a few drops of urine escape from the wound. Lieutenant-Colonel R. Baker, I.M.S., observes that children used to run about the ward on the day following operation, and I believe Brigade-Surgeon Keith often found that no urine whatever was passed from the opening, and that the sheet on which the patient lay remained perfectly dry. Other advantages which the latter claims for this over the ordinary cutting operations are voluntary micturition, absence of shock, and non-interference with the sexual powers.

Case I.—A Hindu child, aged 3½ years. The smallest instrument available could not be passed through the penile urethra. The stone weighed 28 gr. Urine ceased to pass through the wound on the second day, and he was discharged cured on the ninth day after operation.

Case II.—A Hindu child of 6 years. The perineal operation was performed for the same reason as in Case I. The stone weighed 42 gr. Urine ceased to pass by the wound after twenty-four hours, and he was discharged cured on the fifth day after operation.

Indications.

Various authorities recommend perineal litholapaxy under some or all of the following conditions:

1. A large stone necessitating the use of a lithotrite which will not pass easily by the natural route.
2. A very hard stone, necessitating the passage of a similar instrument.
3. Stricture, in conjunction with a large or hard stone, or perhaps with any stone.
4. A difficult or narrow urethra.
5. Imperfect equipment—the absence of the smaller sizes of lithotrite.
6. Cases in which litholapaxy has been commenced in the ordinary way, but cannot be completed satisfactorily owing to swelling of the urethra and deposit of débris.

The Operation.

Perineal litholapaxy may be thus performed: the patient is placed in the lithotomy position, and the thighs held so that the parts are as symmetrical as possible. A curved staff with a median groove is introduced into the bladder and held as in lithotomy, but neither drawn up beneath the pubes nor depressed. The scrotum is allowed to hang down in the natural position, and neither the operator nor the assistant steadies the skin.

A very small incision or stab is now made with the point of a tenotomy knife or double-edged scalpel—in children about 1 in., in adults 1½ in.—in front of the anus, through the median raphe in the direction of the staff; the groove is entered and the urethra incised for ⅛ in. or more, and the knife withdrawn, slightly enlarging the superficial part of the incision as it emerges. The point of an ordinary director, which should not be too blunt, is inserted through the wound into the groove of the staff and passed into the bladder; the staff is withdrawn, and graduated female sounds or Hegar's dilators introduced up to the required size. Some operators do not pass the dilators so far as the bladder, but there is at all events no harm in doing so.

Dilatation is proceeded with slowly, and each instrument is left in position some little time; when the required aperture has been attained the director is withdrawn, leaving a circular gaping orifice into the urethra. The appropriate size of evacuating catheter is now passed, and the bladder injected, and the lithotrite should follow without difficulty.

If preferred, the director can be guided into the groove of the staff along the knife before the latter is withdrawn. Both cannula and lithotrite are entered point downwards, and carried into the bladder by the usual rotary movement. The operation is completed in the same way as an ordinary litholapaxy, and, as a rule, there is no difficulty in retaining fluid in the bladder; if leakage should occur at the margins of the wound, it is easy to compress them against the instrument.

In order to avoid a valvular aperture (which renders the introduction of instruments difficult) it is most important that the skin should not be displaced when making the incision. Also, it is better to enter the knife too far forward than too near the anus; in the latter case the instruments enter the urethra at an acute angle instead of vertically, and are much more likely to slip past the opening, and there is the added difficulty of working in a deeper wound. The chief danger of the operation lies in the lithotrite or cannula missing the urethral opening, and passing upwards between the bladder and the rectum; the possibility of a small median wound of the bulb, especially in children, need not give rise to anxiety, and so far as I am aware, no cases of troublesome haemorrhage have been recorded.[5]

Most of these points have been previously drawn attention to by Colonel Henderson, to whom I owe any knowledge of the operation. He remarks that it has never been contended that this method would replace lithotomy. There will always remain cases in which, owing to the need for drainage or excessive size of the stone, a perineal or suprapubic cystotomy will be required; but any one who gives Keith's operation a fair trial will find it, under certain conditions, of invaluable service. It appears probable that a restricted knowledge of the procedure, together with the impression in some cases that a cystotomy is involved, may account for its very local employment.

REFERENCES.

[1] Forbes Keith, *Lancet*, June 4th, 1892. [2] Henderson, *Indian Medical Gazette*, August, 1900: Baker, ibid., and *Lancet*, October 10th, 1896, and September 11th, 1897. [3] Freyer's *Modern Treatment of Stone*, second edition, p. 83. [4] *Indian Medical Gazette*, loc. cit. [5] See in this connexion Treves's *Surgical Applied Anatomy*, fourth edition, p. 385: "Wounds of the bulb in the middle line do not bleed readily as a rule."

MEMORANDA:

MEDICAL, SURGICAL, OBSTETRICAL, THERAPEUTICAL, PATHOLOGICAL, ETC.

PASSAGE OF A RENAL CALCULUS THROUGH A LUMBAR SINUS.

J. M., aged 45, had suffered from stricture of urethra for twenty years, and was in the habit of passing a metal bougie himself.

In November, 1901, he had an attack of retention, but failed to give himself relief. Whilst straining he "felt something give way." On examination I found him with distended bladder, left epididymitis, and a purulent discharge from the urethral meatus. Catheterization revealed several false passages, and I drew off a large quantity of offensive alkaline urine. The cystitis was treated by lavage. Seven days later a periurethral abscess developed, and was opened under ether. A second abscess developed a fortnight later, and was similarly treated. Both healed rapidly after evacuation of contained fetid pus.

In February, 1902, the patient went to a convalescent home, but was sent back suffering from pleurisy, with effusion in right side. The effusion was clear; temperature varied from 99° F. in the morning to 103° F. in the evening. The urine was acid, and contained much albumen and pus.

In October, 1902, a large, painful swelling developed in right kidney region, and was opened in the flank. A large collection of intensely fetid pus escaped. The sinus so made continued open, though patient gradually improved and was able to return to his occupation as a tailor.

In December, 1903, a swelling the size of a hen's egg appeared under skin immediately below the sinus. The patient applied a linseed poultice and the following day found a stone lying on the poultice. The stone is reniform, measures 25 mm. by 15 mm. by 6 mm., and consists of uric acid.

The sinus now (January, 1904) is completely closed, and the patient is free from pain.

REMARKS.—The case is of interest as illustrating an unusual way of passing a renal calculus. The calculus is evidently located in one of the calices without giving rise to symptoms. The occurrence of pyelonephritis (secondary to cystitis) and perinephritic abscess provided a track by means of which the calculus was liberated and discharged directly through the abdominal wall.

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CASE OF BONE CYST OF THE NOSE.

THE number of recorded instances of cystic distension of the accessory air spaces of the nose are sufficiently few to make the following example of nasal bone cyst of interest.

The patient, a woman, aged 36, presented herself at the Glasgow Ear Hospital with a history of gradually-increasing difficulty of respiration through the left nostril, extending over a year. There was no abnormal nasal discharge, no evidence of swelling externally, nor was there headache or pain such as is found in chronic suppuration of any of the accessory sinuses. Anterior rhinoscopy showed the following: Blocking almost the whole interior of the nostril, only a very small opening remaining in the inferior meatus, was an ovoid glistening body of a light pink colour. The probe could be passed externally between it and the outer wall of the middle meatus, but internally between it and the septum could not be passed, as the two were in such close apposition. On probing the swelling a crackling sensation was elicited and the mucous membrane covering it was quite smooth and thin as if tightly stretched, and it was evident we had to do with a growth having thin bony walls, and not one of polypoid degeneration of the mucosa. In fact it was clearly an enlargement of the middle turbinal, and from its size and the nature of its wall a distension of the air cell of this structure. I attempted to remove it by means of the snare, but during the manipulation the thin wall crumbled and it was impossible to get it away in one piece. However, by the aid of the snare and Grunwald's forceps the whole was removed. The cyst was found to contain rather thick, sticky mucus, but no pus could be detected. The contents did not appear to be under pressure, and this is interesting. It may be that the compression upon it by the surrounding structures had set up

rocess of absorption causing the disappearance of the more quid portion of the contents. In nature it was probably of at variety known as mucocele. As far as one could calcute, the dimensions were antero-posteriorly 1 in., vertically n., transversely ½ in. A large cavity was left in the nostril, lowing the posterior and upper parts to be distinctly seen. o doubt the pressure of the cyst had caused atrophy of the her ethmoidal cells. There was nothing in the after-history interest; no suppuration or other accident occurred to lay the process of healing.

Glasgow. W. S. Syme, M.D.

S ATMOSPHERIC PRESSURE A POSSIBLE DETERMINING CAUSE OF CEREBRAL HAEMORRHAGE?

HAVE never seen the suggestion made in any textbook, but my somewhat limited experience it would appear to me t atmospheric pressure plays a very important part in ermining an attack of cerebral haemorrhage. On several asions I have noticed that when I have had one case ers have followed almost immediately. This I have found occur especially when there has been a sudden rise in the ometer after a more or less continued depression. Doubt- with increased atmospheric pressure coming on suddenly he extent of an inch or so of the barometer, as occasion- happens, the blood pressure is greatly increased, and in plectic subjects with disastrous results if the systemic dition is predisposed. I now so look on this as cause and ct that I warn such patients to watch for a sudden rise in barometer and to take precautionary measures in the ter of diet, stimulants, and the use of suitable purgatives uch times.

oke-under-Ham. R. Hensleigh Walter, M.B.

VINS, PLACENTA PRAEVIA, AND (?) CONCEALED ACCIDENTAL HAEMORRHAGE.

December 18th, 1903, I was called to an obstetric case by of the hospital district nurses. The history, as given by patient, 5-para, aged 3[illegible], showed her to be about eight ths pregnant. Two months previously she fell from the s of a car. This induced pains in her back and abdomen ulating those of labour, and associated with a feeling of minal distension, vomiting and weakness. She took to bed for a week. About seven weeks afterwards, six days re the onset of labour, she sustained a second fall. On ner occasion was there any external haemorrhage. On nal examination the os was found to be fully dilated and membranes unruptured. The presenting part was only within reach, so high up that it was impossible to nose the presentation digitally. To the left, intervening projecting between the presenting part of fetus and the us, placental tissue was felt. To the right of the preng part of the fetus the lumen of the parturient canal interrupted only by the liquor amnii and the limiting of membranes. Nothing definite was elucidated by minal examination. There had been some haemorrhage to the nurse's arrival, and the latter had seen a pint or blood. The patient was at once removed to hospital. loroform was administered, and a hand having been duced a placenta was found encroaching on the left uterine segment, and a fetus lying transversely with to the left. Podalic version was done, a living child cted, and its placenta removed. In performing version appeared to be a second bag of membranes was felt. On oducing the hand a second fetus was felt and extracted rst, with its placenta and membranes attached. It was macerated condition, with cranial bones much collapsed. *partum* bimanually the superior half of the uterine wall bnormally thick and hard, and internally was much led both anteriorly and posteriorly. Nothing, however, und to be detachable. An intrauterine douche of 1 per lysol was given, and the patient watched. The inference from this condition was that it might be due to an ut organized clot resulting from a concealed haemorcaused by the fall two months prior to delivery. to , doubtless, the death of the second fetus was due. The tus weighed at birth 4½ lb. It died on December 20th, This case is of interest in that it is one of placenta a occurring in a twin pregnancy and, relying on the furnished by the patient, complicated by concealed ntal haemorrhage from the normally placed placenta. ndition of the uterine wall immediately after delivery, usly mentioned, is worthy of notice. It may be said that the uterus underwent normal involution up to the tenth day, when the patient was dismissed well. I am indebted to Dr. Robert Jardine for his kind permission to publish this case.

Glasgow Maternity Hospital. J. Goodwin Tomkinson, M.D.

ROUND WORMS SIMULATING ABDOMINAL TUMOURS.

The following case is of interest for the reason that in a woman a large number of round worms had grouped together in three different parts of the small intestine simulating mobile abdominal tumours:

I was called to see a Hindu widow, aged 30 years, who was said to be suffering from some abdominal growths, with pain, vomiting, and emaciation. I was informed that she had suffered from the lumps for two years, and that they gave her great discomfort and caused flying pains. She also complained of severe backache. She had often noticed these lumps shifting their position. She had been subject to vomiting, irrespective of food, had no appetite, and had lost much flesh and weight.

On examining the abdomen, three distinct tumours, of the size of a hen's egg, were found situated, one just over the right ovarian region, another near the umbilicus just towards its left, and the third about an inch above the umbilicus in the middle line. They were round, rather firm and elastic, were freely moveable, and knotty to the feel.

The abdominal walls were very flaccid, and the tumours could be grasped and moved about quite freely. The handling of the lumps did not cause any pain or sickening sensation. The temperature, pulse, and respirations were normal, and there was never any trouble with menstruation.

The first tumour was situate just over the ovarian region, and felt quite like an ovarian cyst, but I could not account for the other two similar growths situated elsewhere. I was thinking about this when my attention was drawn to the complaint of intense thirst she was suffering from, and on examining her tongue enlarged papillae were found standing quite prominently on the tip and sides—characteristic of worms. This, together with vomiting, loss of appetite, and intense thirst, led me to suspect the presence of intestinal worms, and so I prescribed 6 gr. of santonin in two powders with a saline mixture.

Late in the night she had three or four large loose motions wherein she passed more than 60 round worms in groups. The same powders with the mixture were repeated next day, when she passed some more worms, about 25 in number.

On re-examining her nothing abnormal was found in the abdomen; all the three tumours had disappeared. She felt now quite comfortable, regained her appetite, has been free from pain, and has put on much flesh.

Mazagon, Bombay. K. R. Dalal, L.M.S.

A CASE OF ACUTE OR PERNICIOUS BERI-BERI.

Some time ago I was in medical charge of 1,200 Mohammedans travelling from Singapore to Jeddah on the Haj or sacred pilgrimage to Mecca. The pilgrims were gathered from the Dutch Archipelago and consisted of Malays with a few Arabs. When a week out from Penang my attention was drawn to a well-formed Javanese of 21 years of age, who was supported on his feet by two friends whose shoulders he clasped with his arms, for he could not stand alone.

There was paresis of the lower extremities, and when he attempted to walk he flung his legs about in an aimless and awkward fashion, lifting the feet loosely and bringing them down flatly. There did not appear to be any marked disturbance of sensation, but it was not easy to determine a finer degree of this even with the aid of the interpreter. There was no oedema or tingling or girdle sensation. The patient looked ill and showed extreme languor, though he tried to keep a smiling countenance and brave it out. He could scarcely sit up without help. The knee-jerks were exaggerated, the right slightly, the left distinctly so. Ankle-clonus was not elicited.

The pupils responded to light and in accommodation. The pulse and respiration were moderately increased in frequency and both were somewhat irregular; otherwise there was no defect in the internal organs. The temperature was 102° and persisted near this reading during the illness. The bladder and rectum were not involved and there were no trophic changes. He rapidly grew weaker and died quietly with symptoms of cardiac failure on the morning of the fourth day.

The patient's friends stated that he had not been ailing long before he was seen by me, but this history could not be relied upon for various reasons. He was, however, well enough a dozen days before to walk aboard, and he could easily avoid detection afterwards while sickening by remaining seated during the daily inspection of the ship. It is very probable that the privations of the journey from his native place to Singapore and twelve days in the hold of the steamer had amplified the virus of beri-beri already in his blood. The hatch, which was crowded with coolies and their baggage, had an average temperature of 92°.

With regard to the presence of fever, Sodré, the Brazilian authority, says that this is not uncommon, and that the increased patellar reflex is sometimes seen in the beginning of the illness.

Glasgow. Archibald Jubb, M.D.

THE EFFECTS OF BAKING POWDER.

On September 21st, 1903, I was called to see a woman, aged 69, whom I found vomiting up quantities of blood and also passing blood by the bowel; there was slight tenderness of the abdomen, a very weak pulse of 72, and temperature of 96.2°. I was informed by her that she had felt bilious a fortnight before, and had been taking baking soda on this account ever since, at least six teaspoonfuls a day, and some days more than that. The mucous membrane seemed to be injured throughout the whole alimentary tract. I first administered ergot, both by the mouth and subcutaneously, and then morphine. These remedies made her feel a little easier by the following morning, but she still passed a little blood. I therefore gave a dose of adrenalin, which stopped the haemorrhage. On the third evening she became delirious and very violent, and I again injected morphine. On the days following until October 8th she remained very weak. There had been profuse diarrhoea before haemorrhage started, but afterwards the bowels were unmoved until October 8th, when I gave an enema of soap and water, which brought away a little black faeces. Patient was given an acid mixture on October 9th, and after that there were no more bad symptoms, and the patient made a good recovery. She had nothing but liquid food till the 17th.

I think this case is interesting on account of the large amount of baking soda taken (we have all heard of a little being taken for heartburn), and also on account of the symptoms which it caused. A profuse haemorrhage was the most marked. A. A. Humphrys, L.R.C.S., L.R.C.P.Edin.

Coupar Angus, N.B.

REPORTS
ON
MEDICAL AND SURGICAL PRACTICE IN THE HOSPITALS AND ASYLUMS OF THE BRITISH EMPIRE.

QUEEN'S HOSPITAL, BIRMINGHAM.

CEREBRAL ABSCESS FOLLOWING OTITIS MEDIA: OPERATION: RECOVERY.

(By William Billington, M.B., M.S.Lond., F.R.C.S., Surgeon to Out-patients.)

On November 24th, 1903, A. D., a carter, aged 27, attended the Queen's Hospital complaining of severe pains in the head and drowsiness. He was admitted into the medical wards under the care of Dr. Kauffmann.

History.—Ever since he was a boy the patient had had a chronic purulent discharge from both ears, and had been partially deaf. This caused him little inconvenience until three weeks ago, when he began to suffer from pains in the head, and sought advice at an ear and throat hospital. He was told that he had a polypus in the left ear; this was removed on November 5th. The pain in his head still continued, and his deafness became more marked. On November 18th he had a "fit" while at work, and on that day vomited several times. From then until admission on the 24th he remained at home in bed. There had been no more fits and no more vomiting, but for several days he had been semi-conscious and at times delirious.

State on Admission.—When admitted he was very drowsy and stupid, took a long time to understand a question, and answered slowly and imperfectly. He complained of pains in his head, and appeared to be very deaf. The face was flushed, the tongue dry, and the breath very foul. The pupils were equal and reacted sluggishly to light; there was no squint and no optic neuritis, There was a thick offensive discharge from both ears, but more marked on the left side. On pressure over the left mastoid process the patient showed evidences of much tende ness. There was also slight tenderness over the right mastoid. I tenderness in the neck. There was no paralysis of face, arms, or leg the knee-jerks were equal and diminished. The pulse was 72, regul and full; the temperature 98.6°. The abdominal and thoracic visce appeared to be healthy.

Progress.—During the next three days the patient gradually g worse, and the signs of abnormal intracranial pressure increased. I became more deeply comatose, the breathing became stertorous, t pulse rate fell to 60, the pupils became unequal, the left being t smaller, and he could not be made to answer questions at all. On t evening of the 27th the patient rapidly became worse, and I w hurriedly sent for. He was then lying on his back, the face w flushed, the breathing stertorous and Cheyne-Stokes in type, the pul 60 and full. The pupils were moderately dilated and equal; th reacted sluggishly to light. There was no evidence of paralysis an where, and the limbs were rigid. On firm pressure over the le mastoid patient contracted his facial muscles and put up his left han The presence of a cerebral abscess, probably on the left side, w diagnosed, and as the intracranial pressure was increasing I decid upon immediate operation.

Operation.—An hour later, when the operation was commenced, t patient's condition had changed markedly for the worse. He was th deeply comatose, with flaccid limbs and Cheyne-Stokes respiratio The left pupil was widely dilated and fixed, and he no longer reacted pressure over the mastoid. The pulse was irregular and showed sig of failure, and he was evidently *in extremis*. Since it was clear that h condition was mainly due to an intracranial lesion, and the evidence favour of an abscess above the tentorium, an opening was made at on over the temporo-sphenoidal lobe, about 1¼ in. above and behind t external auditory meatus. The dura mater was tense, and at on bulged into the opening in the skull; it did not pulsate. A small inc sion was made into it, and a grooved director thrust into the brai On the second attempt a few drops of extremely fetid pus escaped. long pair of sinus forceps were then passed along the director, and t blades opened. About 2 oz. of yellowish, very offensive pus escape and the brain beneath the wound was at once noticed to pulsat Finally, a rubber tube was passed into the abscess cavity, and broug out through the scalp flap, the wound washed, and the flap replaced three or four sutures. No anaesthetic was given, and the absce cavity was not irrigated.

After-progress.—It was noticed that the patient flinched for the fi time when the final sutures were being put in, and on examining hi after the operation the pupils were found to be equal, the breathing w more regular, and the pulse had improved. During the next thirty-s hours patient's condition gradually improved. His breathing was r gular and his pupils equal. He did not speak, and resented attempts rouse him or to examine his eyes. Once he became restless and took o his bandages. His temperature remained normal and there was a mod rate discharge from the tube. On the second morning after the oper tion he regained full consciousness, and spoke rationally. He still cor plained of pain in his head, and it was noticed that he had a paresis the right side of his face and of his right arm, The tongue was pr truded in the middle line. On December 1st, four days after the oper tion, the tube was removed altogether from the abscess cavity. The had been very little discharge throughout.

Second Operation.—On December 4th patient was anaesthetised, t original scalp flap turned back and Stacke's operation was performed o the left ear. The mastoid antrum was found at a depth of three fift of an inch and was full of very fetid pus, The ossicles were remove together with the remains of the tympanic membrane. The facial ner was surrounded by a mass of granulations, and the wall between t Fallopian canal and the tympanum had disappeared. A careful sear failed to reveal any opening in the tegmen tympani through which i fection might have spread to the brain. All carious bone being remove the antrum and tympanic cavity were freely opened into the extern auditory canal, and an oval piece of the posterior aspect of the soft lini of the external auditory canal was cut away, leaving a wide hole throug which it was possible to pack the cavity in the bone from the extern meatus. The scalp was then loosely sutured in place, a small gau drain being inserted at the lower angle of the wound. The first trephi opening was examined and the dura found to be covered by healt granulations.

Result.—After this second operation the patient made rapid and uneventful recovery. The paresis on the right sid disappeared in about a week, the hearing improved conside ably, and no more pain was complained of. The temperatu throughout never rose above 100°. Sixteen days after th operation he left the hospital with the wound behind the e firmly healed, and when seen a month later it was found th there was practically no discharge from the ear, a few health granulations were visible at the bottom of the extern auditory canal, and the patient was able to return to work His general intelligence was very good and his memory ex cellent, except that the two or three days preceding the firs operation and the first two days following it were a blank.

Remarks.—This case is interesting in several respects. I illustrates the danger of neglecting a chronic purulent dis charge from the ears, and also shows what rapid recover may follow the tapping of a cerebral abscess even when th patient is in a seemingly hopeless condition. Lastly it is in structive in that it shows how quickly a large cerebral absces

ay heal after being opened, leaving little or no mental or hysical impairment. The exact mode of origin of the abscess as not clear, but probably it resulted from thrombosis of mall veins leading from the seat of infection into the brain. he temporary paresis on the opposite side after the first peration was interesting. It was probably due to the left rus being compressed against the dura at the point where passes through the opening in the tentorium. Evidences f such pressure are not uncommon in cases of temporo-phenoidal tumour.

LUDHIANA HOSPITAL, PUNJAB.

A CASE OF HEPATIC ABSCESS OPENING INTO THE PLEURAL CAVITY.

(By Sophia Palmer, M.B., Ch.B.Edin.)

OHTI, a Hindu female, aged 30, was admitted December th, 1902, with the following history:

History.—Quite well till four months ago, when she miscarried at ght months. Fourteen days afterwards had "fever," and ever since fever" and "dysentery." During last month or more complained of in in right side, weaknesss, cough, and shortness of breath. menorrhoea since the miscarriage.

On admission the patient was seen to be anaemic and maciated, and the following notes were made:

Condition on Admission.—Temperature 103° F., respirations 46, pulse . Tongue furred, breath fetid, prefers lying on right side and opped up. The chest as a whole flat; on the right side there is minished expansion, marked dullness, with much diminished breath unds on all sides, except as regards the dullness, over an area cor-sponding to fourth and sixth costal cartilages in parasternal line, and regards the breath sounds, between sixth and ninth ribs in mid-llary line. Vocal resonance corresponded to the breath sounds. No gophony. Left side healthy; heart displaced to left, and a soft musi- systolic murmur in the mitral area; both second sounds accen-ted everywhere. No evidence of enlargement of liver or spleen. No od count (no apparatus). Urine normal, but at first diminished newhat. Faeces nothing special.

Progress.—The day after admission about 20 oz. of purulent fluid were moved through an exploratory puncture in the sixth interspace in post-axillary line. It was a reddish-brown fluid, containing pus s, red blood corpuscles, and granular débris, but no micro-organ-s; in fact, the typical contents of hepatic abscess. Considerable ef resulted, but dullness did not clear up. On December 23rd, under aine and a little $CHCl_3$, I excised 2 in. of seventh rib in the mid-llary line, where the skin was tender and oedematous. Through opening Oij of fluid were allowed to slowly escape, and two large inage tubes inserted. The cavity seemed smooth and free from esions, and the lung expanded remarkably quickly. The patient e operation well, but four hours later needed a hypodermic of chnine and a nutrient enema of brandy to combat some collapse. fluid escaping at the operation and during the following week was dark, "crushed-strawberry," or "anchovy-paste" colour, of natic odour, and slightly viscid. It contained a good deal of le curdy membrane, and on standing coagulated into a soft my mass. By January 3rd, 1903, discharge was much diminished, chiefly serous, but next day the fluid was bile-stained, and there-r from 2 to 4 oz. of almost typical bile escaped daily. January 8th. s closing, a rigor, the gauze plug replaced by tube. January 13th 9th. The discharge of bile produces much local discomfort, much ved by occluding lumen of tube and a bi-daily dressing. January . Some pus in the bile and tenderness over eighth and ninth inter-es in mid-axillary line. Under $CHCl_3$ I explored sinus, which was d to run backwards and outwards; no adhesions felt below nth rib. An aspirating needle did not strike pus at any of the six ts explored. Nothing further was done, as she took anaesthetic y. February 2nd. A discharge of bile-stained pus of buff colour, r viscid, of mawkish smell. Began a daily irrigation with 1 in 3,000 arg. perchlor.

Result.—After the commencement of the irrigation described adual improvement, local and general, began, and by July he patient was perfectly well in every respect. Through-the faeces remained normal, and there was neither dice nor biliuria.

REMARKS.—The case was pretty clearly one of hepatic ess, which perforated into the right pleural sac. Its ts of interest, I consider, are: (1) The non-appearance of in the discharge until ten days after the resection; and he question of what is the best treatment for biliary la under such conditions. As for the late appearance of there were probably two abscesses, the second one not ing till pressure had been relieved by the emptying e first, the combined cavity then communicating on one with the sinus, and on the other with a biliary or even ystic duct. As to the treatment to be adopted, I received e which covered everything from cholecyst-enterostomy hepatotomy to "masterly inactivity." Eventually the tion and careful watching proved quite successful. I not have worried as early as I did, and should have more readily remembered the words of a revered teacher, "repair is a natural and spontaneous process; the surgeon has to aid Nature." There was nothing peculiar about the temperature, which varied a good deal, but became permanently normal after irrigation was commenced. The amount of bile discharged also varied; usually it was from 2 oz. to 5 oz., and occasionally more, but for nine weeks before the sinus finally closed had diminished to a drachm or less.

SUNDERLAND INFIRMARY.

(By Thomas F. Hopgood, L.R.C.P., M.R.C.S., Surgeon to the Infirmary.)

SARCOMA OF THE SCAPULA: OPERATION: RECOVERY.

The following notes were kindly taken by my House-Surgeon, Dr. Stanley Raw:

J. H., aged 52, was admitted into the infirmary on September 17th, 1903, complaining of pain and swelling of the right shoulder of seven months' duration.

Condition on Admission.—On examination of the shoulder there was found a large smooth swelling of the scapula of the size of a moderately large water melon. The growth was of firm consistency and involved the whole scapula area uniformly, whilst it was freely movable over the ribs. The patient stated that he first noticed something wrong in February, 1903, when he found difficulty in moving the arm, the movements being accompanied by pain in the shoulder and side of the neck. The growth gradually increased in size, and at the same time the pain and limitation of movement became more pronounced.

Operation.—An incision was made on October 16th over the midpoint of the clavicle, which was then divided and the subclavian artery tied in its third part. The original incision was then continued over the pectoralis major and anterior border of axilla to the level of the sixth rib at the mid-axillary point, the various vessels being picked up *en route*. The usual posterior incision was then made, and the inter-scapulo-thoracic amputation completed.

Result.—There was not much haemorrhage during the operation, but there was considerable shock, and the patient was infused with 3 pints of normal saline solution into the median basilic vein before he was taken back to bed. He rallied well and the after-treatment was uneventful, the patient leaving the hospital on December 10th with the wound soundly healed. On section the growth proved to be a small round-celled sarcoma.

RUPTURED GASTRIC ULCER: OPERATION: RECOVERY.

M. O., aged 21, was admitted into the infirmary at 2 a.m. on January 18th, 1904, suffering with severe epigastric pain.

History.—As a child she was always healthy, and attended school regularly and without any illness until she was 12 years of age, when she left school to assist in the housework at home. This life she continued until 16 years of age, when she had typhoid fever and was in bed for a month. After convalescence she had symptoms of indigestion and also menstruated for the first time. Her indigestion got progressively worse, and she occasionally sought medical advice, until at 19 years of age she took a situation as a cook. She still continued to have gastric trouble, and this after two years culminated in her acute illness on the night of January 17th. During the previous few weeks she had had more gastric trouble than usual, and had been under medical care. On this night at 9 o'clock she ate a roast potato, and then went to bed. At 10 p.m., when just dozing off, she was seized with a sudden and acute epigastric pain. It grew worse, and on being seen by her doctor at 12 p.m. she was advised to go to the infirmary.

State on Admission.—She complained of great pain and tenderness in the epigastrium; the abdomen was retracted, and the recti abdominis muscles were in a state of strong tonic contraction. Respiration was shallow and entirely thoracic. Collapse was only slight, the pulse being 110, but of good volume and steady, and the temperature 97.8° F. The patient, however, was markedly distressed and urgently ill. A diagnosis of ruptured gastric ulcer was made, and the patient given a hypodermic injection of one-sixth of a grain of morphine.

Operation.—The abdomen was opened at 2.40 a.m. under chloroform, and on incising the peritoneum a quantity of gas escaped from the cavity. The stomach was drawn into the wound and a perforation discovered on the anterior surface close to the mid-point of the lesser curvature. The stomach was carefully isolated by means of strips of sterilized gauze and the perforation closed by a silk purse-string suture and two superimposed layers of Lembert sutures. The exposed surface was then carefully cleaned with gauze sponges and the strips of gauze removed, the upper part of the general peritoneal cavity being carefully freed from escaped stomach contents. The abdominal cavity was then closed by silkworm-gut sutures, each strand being passed through the whole thickness of the wall, and a gauze drain inserted between the stomach and splenic flexure. The drain was removed after thirty-six hours, and the whole of the wound healed by first intention.

REMARKS.—The after-treatment was uneventful, and the patient made a most excellent recovery, the temperature never rising above 100° F. (this temperature was only on the first day) nor the pulse above 100. After the second day sips of hot water (1 drachm every hour) were allowed by mouth, and after a week, when the stitches were removed, peptonized milk was carefully administered, and after that time the diet was gradually placed on more generous terms. The patient's teeth were in a very bad state, as there were only three sound molars in her mouth. She stated that she had always had bad teeth, but could not say when they commenced to decay. Before she left hospital the decayed teeth were removed, and she promised to have an artificial set substituted as soon as possible. It is worthy of note that she was a great tea drinker. The success of the case was no doubt due to the early operation and to the care and attention paid to the patient by my house surgeon, Dr. Stanley Raw, whom also I have to thank for these notes.

REPORTS OF SOCIETIES.

CLINICAL SOCIETY OF LONDON.

FREDERICK TAYLOR, M.D., F.R.C.P., President, in the Chair.

Friday, March 25th, 1904.

INTESTINAL OBSTRUCTION AFTER TYPHOID FEVER.

DR. E. W. GOODALL communicated two cases:

The first was that of a boy, aged 14, admitted to the Eastern Hospital at the end of an attack of typhoid fever, during the latter part of which there had been abdominal pain. A relapse followed, and then for three days vomiting, hiccough, and pain in the abdomen. About three weeks later a second relapse was again followed by pain, hiccough, and vomiting, and the patient died. At the necropsy the small intestine was partially obstructed about 2½ ft. above the valve by a fibrous band which had apparently arisen out of a patch of local peritonitis opposite a deep ulcer. There were many healing ulcers in the small intestines. The second case was that of a young man, aged 22, operated upon for perforation on the twentieth day of an attack of typhoid fever. At that time he had no generalized peritonitis or peritoneal bands. He did well for about a fortnight, when he began to vomit. A week later there were other symptoms of partial obstruction, and the patient died suddenly from a second perforation. At the necropsy many small bands were found, kinking and compressing the small intestine. The second perforation was about 6 ft. above the valve, in an ulcer just above the highest band.

DR. SEYMOUR TAYLOR remarked that relapses could often be traced to change of diet. Intestinal obstruction as a sequela of enteric fever was most rare; no author, he believed, had even mentioned it.

The PRESIDENT also had never seen or read of a case of the kind.

DR. GOODALL, in reply, said that apparently both cases resulted from a local peritonitis after ulceration. He was surprised it had not been previously observed.

FATAL HAEMATURIA OF UNKNOWN ORIGIN.

MR. WALTER SPENCER read notes on this case.

A man, aged 44, first noticed blood in his urine about a fortnight before his death. His previous health had been good. The chief symptom was increasing haematuria, unaccompanied by pain or frequency of micturition. On admission to the Westminster Hospital he was very anaemic, practically pulseless, and dyspnoeic. The bladder was distended; not tense or tender. The temperature was just below normal. He was infused with salt solution, had repeated enemata of water, and was stimulated with alcohol and strychnine. He passed urine containing a large proportion of blood, the temperature became subnormal, and he died within twelve hours of admission. The necropsy failed to throw light on the cause or source of the haemorrhage. The urinary tract appeared normal. The blood vessels were not diseased. Microscopic sections of the kidney, bladder wall, and aorta did not show anything abnormal, except that the latter vessel was thinner than was usual at this age. A second case of recurrent haematuria was narrated, in a man, aged 42, in whom the condition was arrested for a time by suprapubic cystotomy and drainage of the bladder.

Cases of haematuria unaccompanied by lesions had been referred to by Osler, who mentioned Gull's term "renal epistaxis." Klemperer, in discussing the subject, used the term "angioneurosis." Some of the cases might be compared to those of post-operative haematemesis, where no gastric lesions were found.

DR. W. P. HERRINGHAM had seen varicose veins of the ureter in some cases of fatal haematuria. The age of the patients was suggestive of a vascular origin of the condition.

DR. A. E. RUSSELL mentioned a case of fatal haematemesis in which a minute ulcer was found *post mortem* over the junction of several large vessels. During a cystoscopic examination, with the bladder distended, an abnormal spot might be detected, and yet nothing found when the bladder was opened and its walls collapsed.

DR. WILFRED HARRIS asked if the coagulation time of the blood had been determined, and if calcium chloride had been administered.

MR. C. H. FAGGE inquired if haemoglobinuria was present in either case.

MR. G. EASTES asked if the clots passed by the patient had been floated in water to ascertain their shape, and thus fix the site of the haemorrhage.

MR. SPENCER, in reply, said there was no haemoglobinuria, and that calcium chloride had been administered.

TINNITUS.

MR. CUTHBERT S. WALLACE and MR. H. J. MARRIAGE described a case in which an attempt had been made to divide the eighth nerve within the skull for the relief of tinnitus.

The patient, a girl, aged 23, contracted left otitis media in 1898. Several operations followed, and four years afterwards she began to suffer from tinnitus and vertigo, which symptoms increased in intensity to such a degree that life was rendered well-nigh intolerable. It was therefore decided to attempt to divide the eighth nerve, as in the operation for the exploration of the posterior surface of the petrous bone. The procedure was very difficult on account of the constant discharge of cerebro-spinal fluid and haemorrhage, but the auditory nerve was exposed and finally divided with a blunt hook. Noises were present on the following day. There was no facial paralysis. The wound never showed reaction, and continued to discharge. The patient gradually sank and died on the twenty-first day. At the necropsy it was found that a fine strand of the auditory nerve had escaped division. There was no meningitis, and the internal ear presented a normal appearance.

DR. FARQUHAR BUZZARD said that his examination of the nerve showed that the vestibular and two-thirds of the coeliac nerves were degenerated as a result of the resection of the nerve. Very little was known as to the morbid anatomy of tinnitus, which was a rare symptom in gross lesions of the brain, except where the nerve roots at the base were affected. There was little or no evidence in favour of its central origin.

MR. C. H. FAGGE mentioned two cases in which he had not found it difficult to expose and excise the eighth nerve. Tinnitus was more common than was usually suspected after operations for chronic mastoid disease, and was probably peripheral in origin.

DR. PARKES WEBER believed that many of the cases were complicated with leukaemia. Alt, of Vienna, had found leukaemic infiltration of the nerve. Had commencing leukaemia been observed in the case?

MR. CUTHBERT WALLACE replied.

HUNTERIAN SOCIETY.

F. J. SMITH, M.D., President, in the Chair.

Wednesday, March 3rd, 1904.

THE NAUHEIM BATHS.

DR. PAUL C. FRANZE read a paper on the physiological action of the Nauheim springs and the indications for their use, chiefly in circulatory disorders. There were three springs containing chlorides of sodium, lithium and calcium, and carbonic acid gas in various proportions, and having temperatures of 85° F., 90°, and 95°. The carbonic acid was artificially regulated so as to produce (*a*) thermal baths, (*b*) thermal Sprudel baths, (*c*) effervescing or Sprudel baths. The physiological actions of these baths were: (*a*) Increased metabolism when colder than body heat; (*b*) contraction of the vessels of the skin followed by reaction and dilatation—the well-known glow of the cold-water bather—were produced in the Nauheim baths at temperatures only a degree or two below body temperature, and with so little violence as to be suitable to debilitated heart cases. This effect Dr. Franze attributed to the bubbles of gas stimulating the cutaneous nerves, but he thought in part it might be due to the local action of the salts on the capillaries of the skin. (*c*) This improved circulation led to more active metabolism, and thus to more active digestion and nutrition, whilst the tone of the nervous system was simultaneously improved. He also claimed that low blood pressures were raised by the bath and high blood pressures lowered, and that the baths relieved a heart which was too heavily loaded by peripheral spasm and filled an empty heart from the peripheral vessels. As the baths afforded a means of administering the most delicately graduated exercises to the heart and circulation the cases suitable for them were any cardiac cases which were not of so severe a degree that baths of any sort would be dangerous. If the patients could bear the journey safely they

could bear the treatment. Valvular lesions, simple muscular weakness due to influenza, enteric or acute rheumatism, fatty hearts and even arterio-sclerosis with angina pectoris greatly improved under a graduated course of baths.

Dr. Arthur Davies thought too much had been made at Nauheim of the reduction in size of the heart by a bath or two. The heart varied in size from minute to minute.

Dr. Alexander Morison was of opinion that cases of angina pectoris were unsuited for bath treatment.

Dr. Glover Lyon thought the benefit of Nauheim arose from its atmospheric depression, which discouraged undue exercise.

Dr. Colbeck attributed the benefit of the baths rather to the mechanical action of the water heat and bubbles than to any chemical action either direct or indirect of the chlorides.

Dr. L. A. Smith, Dr. Bryant, Mr. Barnard and the Chairman also spoke; and Dr. Paul Franze replied.

Royal Academy of Medicine in Ireland.—At a meeting of the Section of Pathology on March 18th, Dr. H. C. Earl in the chair, Mr. E. H. Taylor and Dr. O'Sullivan exhibited a tumour from the leg of a man, aged 42, which had originated a year previously in a mole. The tumour, which was attached by a pedicle, was pigmented, and had grown very rapidly. The glands in the inguinal region and in the iliac fossa were large and hard. Dr. O'Sullivan demonstration microscopic preparations from various portions of the tumour. It showed, near the periphery, spaces lined by a single layer of high cubical cells separated from blood vessels by hyaline connective tissue. In a deeper portion the cells, several layers deep, had encroached on this connective tissue and formed a sort of outside sheath to the vessels. The main part of the growth consisted of solid columns of cells separated from one another by a fine fibrous stroma. These cells showed very numerous mitoses. The pigment was confined to the stroma. Dr. O'Sullivan considered the tumour to be an endothelioma growing from the lymph spaces in the subcutaneous tissue. The President also discussed the paper. Mr. L. G. Gunn showed two tumours from kidneys of different subjects. One, which showed large round cells invading the kidney substance, he called a sarcoma. He discussed the possibility of the tumours being carcinoma of the suprarenal capsule. The second tumour showed a firm cystic structure with a papillary growth extending into and dilating the ureter. The President and Dr. O'Sullivan spoke.

Liverpool Medical Institution.—At a pathological meeting on March 24th, Dr. James Barr, President, in the chair, Mr. C. G. Lee and Mr. E. M. Stockdale exhibited three sections of endothelioma of the retina usually known as gliomata which were demonstrated by the latter. One showed tubules made up of a layer of conical cells like the cones of the retina. This was found in early specimens, and the tubules were regarded as capillaries with modified walls. Other specimens showed blood vessels surrounded by a sheath of new growth. As to structure, therefore, these tumours resembled what were elsewhere known as plexiform angiosarcoma, plexiform sarcoma, and cylindroma. Another specimen showed spaces filled with colloid material surrounded by cells.—Dr. Grossmann demonstrated a case in which an orbital tumour of myxomatous nature and of slow growth had been removed. After two partial removals evisceration was finally necessary. There had been no recurrence after four and a-half years.—Mr. Newbolt showed (1) large multiple villous papilloma of the bladder removed by suprapubic operation, patient aged 17. Although the growth was very large, symptoms had only existed for a year; (2) a sacculated bladder, the two parts being connected by an aperture only large enough to admit a probe. The patient was admitted with stricture of the urethra and pneumonia.—Concretions in the appendix were shown by Mr. Paul and also by Mr. Thelwall Thomas. The former was convinced that the immediate cause of appendicitis was almost invariably a mechanical irritant. Mr. Thomas said statistics collected by him showed concretions to be a very common cause. The duration of illness in this case was only 36 hours; it was a first attack, and would undoubtedly have ended fatally but for operative interference.—Mr. Buchanan read notes of a fatal case of carbon-monoxide poisoning due to coal gas to which water gas had been added. Chemically and spectroscopically the characteristic features of CO haemoglobin were present. The stomach, though six weeks had elapsed since death, retained the characteristic cherry-red colour, and showed no signs of putrefaction. Blood from another fatal case which occurred six years ago, also shown, retained its peculiar colour and gave the characteristic reactions. Dr. Grünbaum gave a spectroscopic demonstration to show that the addition of potassium ferricyanide to blood saturated with coal gas altered the absorption bands to one broad indefinite band in the green. It was as yet uncertain to what constituent of coal gas this was due.—Dr. Gordon Little described purin bodies and their metabolism. He had found ammonium fluoride a better precipitant of uric acid than ammonium chloride.—Various card specimens were also shown.

Glasgow Medico-Chirurgical Society.—At a meeting of this Society on March 18th, Dr. Newman, President, in the chair, Professor McCall Anderson showed three cases of lupus in which light treatment had failed. Dr. Anderson proposed to show the cases again after they had undergone a course of tuberculin treatment.—Dr. W. S. Syme made a short communication on ethyl chloride as a general anaesthetic for short operations on the throat and nose. He demonstrated a simple inhaler, and the results with this compared favourably with those obtained with more elaborate inhalers. He claimed for ethyl chloride the following advantages: With a single administration, the dose varying according to the age of the patient and the time required, a period of anaesthesia up to two and a-half minutes might be confidently expected. There was a minimum of struggling, so that, as in some of his cases, the assistance of a nurse was sufficient. The patient quickly recovered and the after effects were slight. If vomiting did occur it was of short duration. Ethyl chloride came next to nitrous oxide in safety. The dose he recommended was 3 to 8 c.cm., though more might be given if necessary.—Dr. G. H. Edington showed: (1) A specimen of undescended testicle showing tubercles in the processus vaginalis; (2) a specimen of a testicle fully descended but strangulated by torsion of the pedicle; (3) a solitary kidney with dilated ureter, associated with malformation of the generative organs, ribs, etc., from a case of atresia ani.—Dr. Hinshelwood reported a case of congenital word blindness.

Glasgow Obstetrical and Gynaecological Society.—At a meeting on March 23rd, Dr. J. K. Kelly, Vice-President, in the chair, the following specimens were shown: Dr. Munro Kerr: A pregnancy situated either in the interstitial portion of the tube or in one-half of a double uterus. He had explored the uterus, and, finding it empty, had amputated it supravaginally with the pregnant sac.—Dr Pace: A fibroid tumour of the uterus undergoing myxomatous degeneration. There was also myxomatous tissue in the broad ligaments. —Dr. Jardine: A curette for the treatment of abortions. The edge was sharper than that of the ordinary dull curette. —Dr. Jardine read notes of a case of gastric ulcer occurring after removal of an ovarian cyst. The cyst, a fibroid of the uterus, was also present, and was not removed on account of the debilitated condition of the patient. On the second day after operation the patient became collapsed. The motions after this were dark, like altered blood. On the twelfth day collapse again occurred, followed by coffee-ground vomiting. The patient ultimately made a good recovery. Dr. Carstairs Douglas said that in some such cases, where death took place, no gastric ulcer was found on necropsy, and suggested that this was a case of post-operative haematemesis. Dr. Jardine replied that post-operative haematemesis occurred within a few days of operation, whereas in his case the second attack of collapse occurred on the twelfth day.—Dr. W. L. Reid estimated the relative value of ventrifixation and certain other operations for the relief of uterine prolapse and retroflexion. If a prolapse, retroflexion, or retroversion could be effectually relieved by a pessary, he usually contented himself with recommending one, more especially as a permanent cure often resulted. Where pessaries failed and where there were no adhesions shortening the round ligaments frequently was successful. It was, however, difficult to perform, and there was the danger of hernia, so he often favoured other operations. For prolapse only he preferred anterior and posterior colporrhaphy, accompanied, if the uterus were heavy, by amputation of the cervix. In young women likely to bear children he had more recently performed hysteropexy. His conclusions

were that, in otherwise untreatable retroflexion, abdominal suspension should be employed. If the appendages were so diseased as to require removal hysterectomy was indicated. If the patient was beyond the child-bearing period he would amputate the cervix and almost close the vagina: if the uterus was heavy he would fix it to the muscular wall of the abdomen. Where the uterus was not heavy and the woman within the child-bearing period he would restore the perineum and partially narrow the vagina with the introduction of a narrow Hodge pessary before the patient got out of bed. In certain cases of prolapse in young women where the uterus was not heavy and where the vaginal tissues were simply dilated, a hysteropexy—by which the posterior surface of the uterus, slightly rawed, was attached by three silk sutures to a large surface of parietal peritoneum—was a trustworthy operation by itself and not likely to interfere with a subsequent pregnancy.

SOCIETY FOR THE STUDY OF DISEASE IN CHILDREN.—At a meeting on March 18th, Dr. PERCY LEWIS in the chair, Mr. HAROLD BURROWS showed a case of enlarged liver and spleen in a girl aged 13. Six months previously laparotomy had been performed for supposed hydatid disease of the liver, but the liver was found to be uniformly enlarged and smooth. There was no history of syphilis, but as there were the remains of old retino-choroiditis in both eyes a diagnosis of syphilis had been made.—Dr. C. W. CHAPMAN showed a girl of 12 years who had suffered from mitral disease, with recurrent attacks of dilatation of the heart. These had at first yielded to the ordinary remedies, but later the dilatation and failure of compensation was not relieved until the administration of adrenalin solution in 5-drop doses every four hours. This was followed by steady improvement.—Mr. KEOGH MURPHY showed a case of haematoma of the parietal bone in an infant of 8 weeks. At the age of 6 weeks the swelling was still soft and fluctuating, but a fortnight later it was rather larger, and hard and bony throughout. Dr. CARPENTER said that in a similar case the *x* rays had shown that the swelling was not really composed of bony tissue, and asked whether Mr. Murphy had made this test. Mr. HOWELL EVANS thought that the tumour was bony, and that the development of such a condition was a strong argument in favour of early surgical interference in all cephal-haematomata.—Mr. MURPHY also showed a case of double pes cavus in a boy of 4 years. Two years previously his walking had become awkward and had steadily become worse. There was no history of acute illness as an exciting cause. The left lower extremity showed a condition of equino-varus, with contraction of the plantar fascia and tendo Achillis. The foot could only be put into a good position with difficulty. The right lower extremity showed a condition of talipes calcaneus and valgus, with great laxity of ligaments. The tendo Achillis and the tendon of the tibialis porticus could not be felt, and there was great wasting of the gastrocnemius muscle.—Dr. LEONARD GUTHRIE showed a boy, aged 11, who for two years had been subject to peculiar attacks in which he would suddenly run to his mother, exclaiming "horrid smell." He would appear much agitated and distressed for a few moments, sometimes spitting and grimacing, and going through the action of trying to pull something out of his mouth. He would then behave "as if he were silly," running to persons in the room and trying to embrace them. After five or ten minutes of this behaviour he would become quiet, turn pale, shiver as if cold, seem exhausted, and lie down to sleep. Dr. Guthrie regarded the case as one of automatism with olfactory and gustatory aurae, a condition allied to epilepsy or migraine. Under treatment with potassium bromide in 8-gr. doses thrice daily the attacks diminished rapidly in frequency and severity.—Dr. EDMUND CAUTLEY showed a case of multiple congenital deformities in a girl aged 5 years. She was one of twelve children, all the others being healthy and well formed. She was very small and intellectually deficient. Walking or standing had not yet been accomplished, although there was no indication of muscular or nervous lesion. The eyes were marked by notching of the upper lids, dermoid cysts on the conjunctivae, coloboma of the iris and choroid, and choroidal atrophy. There were accessory auricles and macrostoma on the right side.—The following papers were read: (1) Congenital word blindness in children, by Mr. SYDNEY STEPHENSON; and (2) notes on a case of nephrolithotomy, by Dr. PORTER PARKINSON and Mr. DOUGLAS DREW.—A specimen of early parrot's nodes and of an embryonic cyst from the mesentery were shown by Dr. E. P. BAUMANN.

British Medical Association.

CLINICAL AND SCIENTIFIC PROCEEDINGS.

BATH AND BRISTOL BRANCH.

BARCLAY J. BARON, M.D., President, in the Chair.

Bristol, Wednesday, March 30th, 1904.

Confirmation of Minutes.—The minutes of the previous meeting were read and confirmed.

Electrical Treatment of Lumbago, etc.—Dr. G. PARKER read a paper on the electrical treatment of cases of lumbago, neuralgia, diabetes mellitus and insipidus, hysteria, Erb-Duchenne paralysis, and lead poisoning.—The PRESIDENT, Dr. SHINGLETON SMITH, Mr. MOLE, Drs. PRESTON KING, MARKHAM SKERRITT, and MICHELL CLARKE discussed the paper.

Parasite of Aestivo-Autumnal Fever.—Dr. J. O. SYMES exhibited blood films which showed the parasite of aestivo-autumnal fever. He said that quinine had had no effect in the case.—Dr. SIEVEKING said that Warburg's tincture, followed by a course of arsenic, was the best method of treatment in such cases.

Cysts and Other Abnormalities arising from Branchial Clefts.—Mr. T. CARWARDINE read a paper on some original observations on cysts and abnormalities arising from the branchial clefts. He showed a number of lantern slides illustrating the character and mode of origin of these cysts, and brought forward evidence that cystic hygroma of the neck arose in connexion with a branchial cleft.—Drs. NEWMAN, NEILD, and EDGEWORTH discussed the paper.

Incontinence of Urine in Children.—Dr. F. EDGEWORTH read a paper on incontinence of urine in children. He discussed the causes of this condition and the various methods of treatment. He had found, though belladonna often relieved for a time, its effect was not permanent. The syrup of hypophosphites had given him good results. In older children careful training of the bladder was a useful mode of treatment.—The PRESIDENT, Mr. MOLE, Drs. WATSON WILLIAMS, WALDO, MICHELL CLARKE, NEILD, and Mr. PAUL BUSH joined in the discussion which followed.

GLOUCESTERSHIRE BRANCH.

AT a general meeting of this Branch, held at the General Infirmary, Gloucester, on March 17th, the PRESIDENT (Dr. Storry), who was in the chair, read notes of and showed the specimen from the following case. A woman, aged 40, complained of pain in the back for five or six years; she had also pains in the abdomen referred to the right iliac fossa. The appendix was removed four years ago, but the pain in the right abdomen was not relieved. It was known at that time that she was passing pus by the urethra, and has passed it daily since, but no small stone or blood was passed until within the last three months, during which she had passed at intervals about a dozen small stones the size of half a pea, usually accompanied with much pain, and the appearance of blood in the urine. She was admitted into hospital at the end of February, and operated on March 1st. The right kidney was removed, together with a stone which weighed $2\frac{3}{4}$ oz. The patient was now convalescent.—Dr. FIRMIN CUTHBERT showed two kidneys removed by lumbar nephrectomy for hydronephrosis:—(1) A woman, aged 45, had been passing pus per urethram for twelve months. The tumour, on the right side, extended down to the pubes and considerably to the left of the umbilicus into the left iliac region; 47 oz. of pus were let out and the kidney removed. In it was a large stone with many branches which totally blocked the ureter, the kidney itself being reduced to a large sacculated abscess cavity with thickened walls. (2) A man, aged 72, had a large tumour occupying the lumbar and iliac region on the right side. There was a history of a fall off a bicycle a year and a-half previously; he passed some blood per urethram after the fall; he had suffered from pain in the back and lumbar region ever since but there was no pus in the urine; a large quantity of pus was discovered in the kidney but no stone; the pelvis of the kidney was occupied by one large abscess cavity, due no doubt to haemorrhage into the pelvis at the time of the accident. Both patients were now convalescent, having made an uninterrupted recovery.—Dr. HODGES illustrated some remarks on radium with interesting experiments.—Dr. SOUTAR read a paper, entitled, What should I do

with a case of Recent Insanity? He maintained that a large number of these recent cases recovered if subjected to efficient treatment; that it was essential that treatment should be begun early; that delay was dangerous as tending to chronic insanity; that treatment must be thorough, and that it should consist in attention to many details. He mentioned the difficulties experienced in efficiently treating these cases in private houses, and the consequent tendency to let them drift more or less until the grosser manifestations of mental disorder made it imperative to take steps to protect the patient or the community. He claimed that these cases should from the outset be considered from the point of view of necessity for treatment, not of that for protection. The treatment could be best secured in institutions equipped and maintained for that particular purpose. He expressed the opinion that advantage might more often be taken in these recent cases of the clauses referring to voluntary boarders in the Lunacy Act of 1890, and he urged that it was a misconception to suppose that medical certificates were to be granted only when it could be said, "This man is dangerous; we cannot protect him properly." They should be granted as soon as it could be said, "This man is ill mentally and we cannot treat him efficiently."—Drs. Storry, Batten, Hodges, Buckell, Hillard, Pruen, and H. Bramwell took part in the subsequent discussion.

SOUTH-EASTERN BRANCH: ISLE OF THANET DIVISION.

Dr. A. F. Street in the Chair.

Westgate, March 22nd, 1904.

Treatment of Adenoid Growths.—Dr. Nicol read a paper entitled The Treatment of Adenoid Growths in the Naso-pharynx. He treated the subject from its various aspects. He was strongly in favour of operation under full anaesthesia, giving plenty of time for thorough removal of the growths, especially drawing attention to the fibrous condition which was sometimes found and which would require removal by some instrument other than the finger. He advised the use of the curette, care being taken to keep in the middle line, but advised against the use of instruments for the clearing of the lateral pouches of the naso-pharynx, as in this way the Eustachian tubes were often damaged.

Rupture of Thoracic Aneurysm.—Dr. Fisk read notes and showed a specimen of a case of ruptured thoracic aneurysm in a woman, which was discussed.

Acute Appendicitis.—Dr. Sutcliffe read a paper entitled Some Practical Points in Cases of Acute Appendicitis. His conclusions were that if no definite improvement had taken place at the end of forty-eight hours, operation should in nearly all cases be undertaken. He used long pieces of sterile gauze for shutting off the affected area during operation, and packed the cavity with gauze, which he removed at the end of twenty-four honrs. He advocated the removal of the appendix at the time of operation whenever possible; in cases of acute diffuse peritonitis he advised multiple incisions and drainage from Douglas's pouch, the loin, and the iliac fossa, with tubes and gauze plugs being used. He did not sew up the wounds. Stress was laid on the necessity for rapid operation, and several cases were quoted.—Mr. Treves, Dr. Eaton, Dr. Street, and Mr. Hugh Aaron discussed the paper; and Dr. Sutcliffe replied.

Treatment of Lupus.—Dr. Berry showed a case treated by the ultra-violet lamp.—The case was discussed by the members.

South Wales and Monmouthshire Branch.—The spring meeting of this Branch was held at the Hospital, Swansea, on Thursday, March 10th, at 4 p.m., Dr. J. Tatham Thompson, President. The following papers were read: A new method of examining the naso-pharynx, by D. R. Paterson, M.D.; some common difficulties in the diagnosis of chronic nervous affections, by W. Mitchell Stevens, M.D.; Cesarean section for the minor degrees of pelvic contraction, with an illustrative case, by Ewen J. Maclean, M.D.; the gastomotic buttons of Professor Jaboulay, by Dr. W. T. Lister.—Mr. W. F. Brook showed a case of tubage of larynx in lieu of tracheotomy during mouth operations, with a note on a new method of removing the lower half of the upper

REVIEWS.

OPHTHALMOLOGY.

The Arris and Gale Lectures for 1903 delivered at the Royal College of Surgeons by Mr. J. Herbert Parsons, the Curator of the Royal London Ophthalmic Hospital, dealt with *The Ocular Circulation*,[1] and gave a most complete account of the subject. The first chapter on the anatomy of the eye is illustrated by numerous diagrams showing the arrangement of the blood vessels in the rabbit and dog, the animals used by Mr. Parsons in his experiments. These anatomical dissections and drawings are taken from a paper by E. E. Henderson in the Royal London Ophthalmic Hospital Reports. Other drawings are from preparations by Nettleship and Henderson. The second chapter deals with physiology and in it the author describes the methods he used for experimental purposes, and tracings of his results are given. In the third chapter the relation of the intraocular to the intracranial circulation is discussed, and many references are made to the excellent work on intracranial circulation done by Leonard Hill. The fourth chapter is perhaps the most interesting from the point of view of the practical physician and surgeon, discussing as it does such conditions as embolism of the retinal arteries, pulsation of retinal arteries and veins, and the effect on the circulation of diseases such as glaucoma, and the toxic effects of tobacco, quinine, etc. The book is certainly the most complete on the subject, and is one of considerable interest both to the scientific worker and to the practicing physician and surgeon.

We are delighted to welcome the third edition of an old and favourite textbook—namely, *A Handbook of Ophthalmic Science and Practice*,[2] by Mr. Henry E. Juler. It has been one of the standard books of this country for twenty years. We cannot help expressing regret that two of those who so materially helped the author in bringing out the second edition are no longer among us—we refer to the late John Griffith and Tillinghurst Atwool. Mr. Keeling has, however, ably filled their places, and some of the excellent drawings of microscopic specimens are his work. The book has preserved all the characteristics which deservedly made the earlier editions so popular, and we are pleased still to see the excellent coloured drawings of the fundus oculi which were made by the late Mr. Tillinghurst Atwool. These and other drawings have always been a feature of the volume. The book is a great deal larger than it was, and altogether it is most imposing. The illustrations are numerous, and everything has been done to bring the book thoroughly up to date; in their proper places references will be found to almost every improvement that has of recent years marked the progress of ophthalmology, though space prevents more than a passing reference to this important fact. Useful appendices are to be found giving formulae, test types, and excellent drawings of microscopic specimens, which are the work of the late Mr. Griffith and of Mr. Keeling, while there is a glossary giving the derivation of ophthalmic terms from Greek, Latin, and Anglo-Saxon. Notes on the eyesight regulations for the public services are given, and a copious index much facilitates reference. Altogether it has more than kept up its reputation as a standard textbook, and we are pleased to see it still holding its own amongst the numerous competitors that have appeared long since Mr. Juler brought out the first edition.

New editions of thoroughly useful books are always welcome, and the ophthalmic world is not slow to appreciate the virtues of such a work as Swanzy's *Handbook of Diseases of the Eye*,[3] the eighth edition of which was issued recently. The book has again been thoroughly revised, and while some matter that may be considered obsolete has been omitted, other fresh material has been added. An excellent description is given of herpes ophthalmica, embodying the views of the most modern workers on the subject. Owing to improved methods certain conjunctival diseases have been elucidated, and much that is new will be found in the chapter dealing with them. The book has always been noted for its clear and lucid descriptions of operations, and the usefulness of this

[1] *The Ocular Circulation.* By J. Herbert Parsons, B.S., B.Sc., F.R.C.S., Arris and Gale Lecturer, R.C.S. 1903. London: John Bale, Sons and Danielsson. 1903. (Demy 8vo, pp. 82. 3s.)

[2] *A Handbook of Ophthalmic Science and Practice.* By Henry E. Juler, F.R.C.S. Third Edition. London: Smith, Elder, and Co. 1904. (Demy 8vo, pp. 753. 21s.)

[3] *A Handbook of the Diseases of the Eye and their Treatment.* By Henry R Swanzy, A.M., M.B., F.R.C.S.I. Eighth edition. London: H. K. Lewis 1903. (Crown 8vo, pp. 698. 12s. 6d.)

part of the work is much enhanced by a description of Maxwell's operation for shrunken socket and Kronlein's temporary resection of the outer wall of the orbit for the removal of orbital tumours, etc. In spite of the fact that the present edition contains but 654 pages, there is scarcely any work of importance to which reference will not be found, while at the end of each chapter there is a very fair bibliography of the latest work done on the subject of which it treats. Finally, it may be said that the book surpasses the preceding editions, and thoroughly keeps up its reputation as being most complete and carefully written. For its size and scope we know of none that surpass it, nor even equal it, and we thoroughly recommend it as being practical and well written. We trust it will continue long to retain the popularity it already possesses.

The fourth edition of DE SCHWEINITZ'S *Diseases of the Eye*[4] is a large book. It does not differ materially from the last edition published only four years ago, but opportunity has been taken to bring it thoroughly up to date, and all the recent work on ophthalmology is at least referred to. Many new paragraphs have been added, and several of the old chapters have been rewritten, while the great advance due to therapeutic agents recently introduced gives opportunity for adding much that is new. The majority of the illustrations are excellent and include several coloured pictures of the fundus. The name of the author was so well known even when the early editions of the work were published that a favourable reception was assured, and since then he has done so much, especially with regard to toxic amblyopia, that there can be few to whom his reputation is not more or less familiar. The present edition is likely to be as popular as its predecessors and from its intrinsic merits we can thoroughly recommend it to all workers, both students and practitioners.

The second edition of HIGGENS'S *Manual of Ophthalmic Practice*[5] has been revised and edited by Mr. ARTHUR W. ORMOND. We are told in the preface that it "is intended entirely for students and general practitioners, and that it does not pretend to go deeply into the subject," but still even with this object in view improvement might be possible. Some antiquated cuts introduced from "Bryant" show but little, notably the illustration of a patient being operated upon, and a diagram of an antique mouth suction apparatus for the removal of broken-up lens matter after discission which probably no aseptic surgeon would dream of using. It is not fair to criticize the description of obscure and rare diseases, but certainly a rather fuller account of tumours of the eye might be written, and the rearrangement of this, together with an elaboration of the index, would make the book far more valuable. In its present form it is hardly as satisfactory as some, though for the purpose of students preparing for the ordinary examinations it is equal to most other books of similar scope.

A third edition of the *Manual of the Diseases of the Eye*,[6] by Dr. CHARLES H. MAY, of New York, has just been published, and seeing that the first edition was only issued in 1900, the popularity of the book cannot be doubted. It does not profess to be of the same comprehensive nature as many of the larger books, but care has been taken to give as fully as possible those things most required by the student and general practitioner, while the more detailed description of rare diseases has been omitted. It is a reliable and handy volume, and we can thoroughly recommend it for those about to present themselves for examination as well as for those in practice.

A very nicely arranged and well got up *Textbook of Diseases of the Eye*[7] is that written by Drs. HANSELL and SWEET, of Philadelphia. Their chief aim has been to produce a volume that is thoroughly practical, and to give, as far as possible, attention to diseases of every-day occurrence, rather than to describe in detail the more obscure and rare diseases that are only occasionally met with and but little amenable to treatment. The plates and illustrations are excellent, and show very well the conditions they are intended to illustrate, though it is perhaps a pity that the drawings of the fundus are not coloured, as it is difficult to show in black and white the conditions met with when viewed with the ophthalmoscope; the force of this remark is well seen on page 293, where various degrees of cupping of the optic disc are illustrated. Although there are so many textbooks in existence, yet most of them are modelled to somewhat the same pattern, and it is difficult among so many to say which is the best. Certainly this one is excellent, it is of moderate size, and great care and attention has been expended in its production. It thoroughly recommends itself to us, as it has all the characteristics that tend to make a book of this sort popular.

The third edition of BAUDRY'S *Medico-Legal Studies on Injuries of the Eye and its Appendages*[8] has appeared. A previous edition has already been translated into English. It describes the various injuries to be met with to the eye, and indicates the appropriate treatment, much as in an ordinary textbook. Numerous illustrative cases are given, and the whole subject is treated from the medico-legal standpoint as affected by the French law. It is of course more applicable to those engaged in the law courts of France than to those practising in the courts of any other country.

It says much for the public appreciation of a book when it has reached its twelfth edition in nineteen years; this is what has happened in the case of HARTRIDGE'S *Refraction of the Eye*.[9] Its appearance and form are so well known to all workers of ophthalmology that it is unnecessary to say much about it. Although but two years have elapsed since the last edition appeared, yet the whole book has been revised, and the chapter on retinoscopy has been rewritten. Among the numerous works on refraction that have appeared since the first edition of this it is sometimes hard to know which to recommend, but no one can go wrong in advising students and practitioners to make themselves acquainted with this book, which is reliable, practical, and well written.

We are glad to see the second edition of Major HERBERT'S useful book on the *Practical Details of Cataract Extraction*.[10] The first edition only appeared in 1902, and although there is little alteration in the new edition, yet a few small errors have been corrected and some new observations have been added. The book is of value as giving thoroughly practical details of an operation which the author has performed thousands of times, chiefly in India.

The plan of the little book entitled *Eye Symptoms as Aids in Diagnosis*,[11] which Dr. MAGENNIS has compiled, is excellent, his idea being to summarize the essential facts of ophthalmology for the benefit of the busy general practitioner. On glancing through the booklet we were prepossessed in its favour, but a more careful examination hardly substantiated our favourable impression. The greater part is sound, and usefully arranged, but here and there the matter is open to criticism. For example, he would have us believe that optic neuritis always produces vision defect, and atrophy sometimes does not, both statements being open to question. He believes that optic neuritis is common in influenza, and that it is caused also by disorders of menstruation, pregnancy, and lactation, a view for which, we think, he would receive but little support.

TEXTBOOKS OF MEDICINE.

THE fifth and final volume of Dr. ALLCHIN'S *Manual of Medicine*[12] is devoted mainly to diseases of the abdominal organs; the general plan of the book follows the lines we

[4] *Diseases of the Eye: A Handbook of Ophthalmic Practice for Students and Practitioners.* By G. E. de Schweinitz, A.M., M.D., Professor of Ophthalmology in the University of Pennsylvania, etc. Fourth Edition. Philadelphia and London: W. B. Saunders and Co. 1903. (Demy 8vo, pp. 773, 280 illustrations. 21s.)

[5] *A Manual of Ophthalmic Practice.* By Charles Higgens, F.R.C.S.E. Second edition, revised and edited by Arthur W. Ormond, F.R.C.S.E. London: H. K. Lewis. 1903. (Crown 8vo, pp. 383. 7s. 6d.)

[6] *Manual of the Diseases of the Eye for Students and General Practitioners.* By Charles H. May, M.D., New York. Third Edition. London: Baillière, Tindall, and Cox. 1903. (Cr. 8vo, pp. 424; 275 illustrations. 8s. 6d.)

[7] *Textbook of Diseases of the Eye for Students and General Practitioners.* By Howard F. Hansell, A.M., M.D., and William M. Sweet, M.D., both of Philadelphia. London: Rebman, Limited. 1903. (Demy 8vo, pp. 532; 265 illustrations. 17s.)

[8] *Etude Médico-Légal sur les Traumatismes de l'Oeil et de ses Annexes.* [Medico-Legal Studies of Injuries of the Eye and its Appendages.] Par S. Baudry, Professor of Clinical Ophthalmology in the University of Lille. Third Edition. Paris: Vigot Brothers. 1904. (Cr 8vo, pp. 333. Fr 5.)

[9] *The Refraction of the Eye.* A Manual for Students. By Gustavus Hartridge, F.R.C.S. Twelfth edition. London: J. and A. Churchill. 1903. (Crown 8vo, pp. 282, 105 illustrations. 6s.)

[10] *Practical Details of Cataract Extraction.* By H. Herbert, F.R.C.S., Major I.M.S. Second Edition. London: Baillière, Tindall, and Cox. 1903. (Demy 8vo, pp. 122. 4s.)

[11] *Eye Symptoms as Aids in Diagnosis.* By Edward Magennis, M.D., D.P.H. Bristol: John Wright and Co. 1903. (Fcap. 8vo, pp. 108.)

[12] *A Manual of Medicine.* By W. H. Allchin, M.D., F.R.C.P., F.R.S.E. Vol. v. London: Macmillan and Co. 1903. (Demy 8vo, pp. 698, 18 illustrations. 10s.)

took occasion to commend in our review of the fourth volume. The subject of "Food and Diet" is dealt with by Dr. Robert Hutchison, who gives a clear account of the scientific basis and framing of dietaries. Dr. Lazarus-Barlow writes upon "The Bacteria of the Alimentary Tract," and gives prominence to the work of Lorrain Smith and Tennant upon disturbances in the normal distribution of intestinal bacteria by such irritants as worms. His view that the colon bacillus is no very potent factor in the causation of appendicitis is not shared by the editor. The diseases of those parts of the alimentary tract above the diaphragm are described by Dr. Abrahams, who, in his pages upon the differential diagnosis of acute sore throat, has contributed an extremely useful piece of work. Of general dilatation of the oesophagus he says, "This is but rarely secondary to stricture." Whilst this is true of actual organic narrowing, the constant association of muscular hypertrophy, in these cases, with the dilatation strongly suggests some obstruction, whether it be due to muscular resistance in the oesophagus itself, or to that opposed by the prepyloric sphincter during the first stage of digestion, or even to the pylorus itself. The contributions of the editor include anatomical and physiological introductions, the general etiology, pathology, and symptomatology of diseases of the stomach and intestines, together with a large share in the accounts of particular diseases of those organs, and of the liver. The comprehensive manner in which he has dealt with such difficult and uncertain subjects as "indigestion" and "constipation" will commend the book to every reader. We notice that Dr. Allchin considers, as the most frequent cause of "peptic" ulcers, "the readiness with which a catarrh of the mucous membrane is induced, and with that superficial erosion just sufficient to give the gastric juice a chance. Dr. Hebb's articles upon the degenerations of the liver and affections of the biliary tracts embody the results of lengthy experience and acute observation. He suggests, with regard to biliary cirrhosis, that there is no "necessity for protracting the existence of this somewhat mythical disorder." Dr. Hale White in his able article upon the peritoneum cites von Brunn, but without giving him definite confirmation for the statement that an onset with very sudden rigors is diagnostic of pneumococcal peritonitis. When discussing the diagnosis of renal calculus Dr. Rose Bradford omits to mention the valuable aid of radiography. The last article, on diseases of the ductless glands, is the joint work of Dr. Sidney Coupland and Dr. Abrahams. With regard to the *Manual* as a whole, we think it may fairly be said that there is no more accurate and reliable, as well as readable, textbook of moderate compass.

A review of the fourth edition of the *Textbook of the Practice of Medicine*, by Dr. J. W. Anders[13] of Philadelphia, was published in the British Medical Journal of June 1st, 1901, p. 1348, and we are glad to welcome the sixth edition recently issued. The first edition appeared in 1897, the fifth in 1901, and during the two later editions two large reprints have been exhausted, so that the popularity of the work, which in our opinion is merited, is manifest. The book remains in character what it was—succinct, clear, accurate, practical, well developed on the experimental and therapeutical sides alike, and with few, if any, exceptions, well arranged. The changes in the present edition consist of additions on such subjects as the mosquito-borne diseases, bacillary dysentery, and the use of the *x* rays in diagnosis and treatment, and of the introduction of matter on such comparatively new subjects as paratyphoid fever, the fourth disease, trypanasomiasis, and amaurotic family idiocy.

Professor Roger has revised his *Introduction à l'Etude de la Médecine*,[14] the English translation of which was reviewed in the columns of October 4th, 1902. The book retains its former character, and is perhaps adapted to the senior than to the junior student. In the interests of the latter, however, Professor Roger has introduced a short lexicon of medical terms which will no doubt be found very convenient by the beginner.

Dr. Wheeler's *Handbook of Medicine and Therapeutics*,[15] which was orginally published some nine years ago, has reached a second edition, and has been revised for that purpose by Dr. Jack. It contains a good number of tables, and a numerical system of arranging the causes and symptoms of disease is followed throughout. A work of this description might be valuable to the hastily-prepared student if only its accuracy could be guaranteed. We regret to say we are unable to state so much of Dr. Wheeler's book. Reference is, for instance, made to the comma tract of Gowers, and the diagrams of the nervous system on pages 119 and 120 are calculated to produce erroneous ideas. Modern views as to the affections of the blood are virtually unnoticed, and the account of the chemistry of peptone on page 373 is far from being correct. It is recommended to give adrenal extract in Addison's disease, and it is stated that the pigment of the urine is urobilin. It is to be feared, therefore, that as a guide to examinations the book cannot be regarded with confidence, and we know of no other purpose for which it is adapted.

[13] *Textbook of the Practice of Medicine* By James W. Anders, M.D., LL.D. 7th Edition. Philadelphia, New York, and London: W. B. Saunders & Co. 1903. (Demy 8vo, pp. 1295. 24s.)

[14] *Introduction à l'Etude de la Médecine.* Par G. H. Roger. Deuxième Edition. Paris: C. Naud. 1904. (Demy, 8vo, pp. 741. Fr. 9.)

[15] Wheeler's *Handbook of Medicine and Therapeutics.* Second Edition. Revised and enlarged by William R. Jack, B.Sc., M.D., F.F.P.S.G., Physician, Outdoor Department, Glasgow Western Infirmary. Edinburgh: Oliver and S. Livingstone. 1903. (Cr. 8vo pp. 432. 8s.)

MATERIA MEDICA AND DISPENSING.

The title which Drs. Khory and Katrak have selected for their book[16] is unfortunate, but the work is a very voluminous and laborious compilation, and calculated to be of great service to medical men practising in India, and to all who desire to obtain a knowledge of the medicinal products of India, their sources, preparation, action, and uses. The main object of the authors, who are distinguished practitioners of Bombay, is to make known scientifically and systematically the drugs which have been employed by Indian *Hakims* and *Vayids*, empirically and traditionally, with a view to the investigation of their reputed properties in the light of modern rational and scientific methods. At the same time the articles of the materia medica contained in the *British Pharmacopoeia*, or used in practice in Great Britain and America, are included in the compilation in order to enhance its utility for Indian practitioners. The work may indeed be described as an Indian pharmacopoeia or dispensatory, and does great credit to the industry and ability of the authors, who have evidently spared no pains to make it complete and serviceable. The first volume contains an introductory chapter on pharmacy and pharmaceutical methods and processes. It includes a description of organic extracts and serums. Then follows a detailed and systematic account of the articles obtained from animal and inorganic sources and of synthetic remedies. The contents of the volume are classified according to the therapeutic character of the item, and a very elaborate table is finally given of diseases (arranged alphabetically) and of methods and drugs used in their treatment. The second volume is devoted to the vegetable materia medica, and is arranged according to natural orders. The information given regarding each plant is exhaustive, and includes vernacular synonyms. The chemistry, pharmaceutical preparations, actions, and uses of each article are also detailed at length. It is this section of the book which includes most of the Indian and oriental drugs. These are classified as in the first volume, and their employment in the treatment of diseases is similarly displayed. A copious index—scientific and vernacular—completes the work. From this sketch of its subject-matter it is plain that the book is one of considerable pretensions. It will be found useful for purposes of reference. As a guide to practice it contains many helpful indications, which must, however, be employed with judgement.

The difficulties which are experienced by medical practitioners who are compelled to dispense their own drugs in finding reliable information as to the most accurate and at the same time most economical way of carrying on this department of their daily work will be considerably lessened by the perusal of a small volume entitled *Dispensing Made Easy*,[17] written by Dr. William G. Sutherland. The training of most men in practical pharmacy is sadly deficient, and to the majority the need for including the dispensing of drugs as a part of their professional duty is an irksome necessity which they would willingly run away from. It is still, however, unfortunately true that in many country villages, and in prac-

[16] *Materia Medica of India and their Therapeutics.* By Rustomjee Naserwanjee Khory, M.R.C.P.Lond., M.D.Brux., etc., and Nanabhai Naoraji Katrak, L.M.S Bombay, etc. In two volumes. Bombay: *Times of India.* 1903. (Demy 8vo, pp. 1442.)

[17] *Dispensing Made Easy.* With Numerous Formulae and Practical Hints to Secure Simplicity, Rapidity, and Economy. By William G. Sutherland, M.B.Aberd. Bristol: John Wright and Co. 1904. (Fcp. 8vo, pp. 102. 3s. 6d.)

tices which are largely concerned in club and parish attendance, there is no escape from the unwelcome drudgery of supplying medicine. It is an essential condition of almost every form of contract work, and any plan of management which lightens the burden it involves will be welcomed by a large body of hard working and poorly-paid practitioners. Dr. Sutherland's book is a creditable attempt to "make things easy." It is clearly and concisely written, and without being tedious, it provides in detail all the instructions that are requisite for conducting a surgery on the best lines. The formulae which are detailed are well selected; valuable information is given as to how the drug bill can best be cut down without loss of therapeutic efficiency, and many useful hints are offered for economizing time and at the same time ensuring accuracy in dispensing. It may be warmly recommended as a trustworthy guide for those to whom it is addressed.

The non-commissioned officers and men of the R.A.M.C. owe a debt of gratitude to Lieutenant H. Harold Scott, M.B., who has provided them with such an excellent textbook in *Compounding and Dispensing Made Easy*.[18] The book has been written as an aid for the promotion of examinations in the subjects treated of, and, with the exception of chemistry, contains all the information necessary for these examinations. The work is well systematized throughout, and is quite above the ordinary "cram" textbook.

In the preface to his book on *Drugs*[19] Mr. H. Wippell Gadd states that its object is to give a concise account of the principal vegetable, animal, and chemical substances used in medicine. It has been written primarily for students, but we fail to see what particular class would be benefited by its perusal. The information given is too bald a statement of facts to be of much educational value, whilst it is not complete enough to be of use as a work of reference.

SPINAL AND CEREBRAL INJURIES.

Dr. August Luxenburger, of the Munich Surgical Polyclinic, has made a valuable and welcome contribution to a difficult and imperfectly-explored subject in his experimental studies on spinal cord injuries.[20] Not only are the more obvious lesions and degenerations of the cord, those associated with such injuries as distortions and contusions of the spine producing cord changes and haemorrhages both extramedullary and intramedullary, with crushes and lacerations of the cord as in fracture dislocations of the spine—not only are these subjected to experimental analysis, but the far more subtle changes due to such conditions as concussion and simple severe flexion of the spine are given—to some extent at least—a concrete representation. The author has produced distortions, and studied the artefacts of the living cord, as Van Gieson has studied them in the non-living cord. He has produced extramedullary and intramedullary haemorrhage in animals, and studied the relation of the haemorrhage to displacements of the nerve substance and consequent degenerations. He has studied the difficult subject of crushes and lacerations of the cord under the more or less precise and deliberate conditions of the laboratory, and all this with a genuine gain, both for the practising surgeon and for the medical jurist, as, for example, in dealing with the controversial questions arising in connexion with railway injuries. There are, of course, many points still left in the realm of pure speculation; for instance, the relation of the movements of cerebro-spinal fluid in setting up a molecular concussion and giving rise to so-called functional lesions, but the number of debatable points which are brought into the light of plain observation is not inconsiderable, and is, indeed, gratifying. The main points the author endeavours to elucidate are the varying effects of slight as compared with severe crushes, and of sudden as compared with slow; whether actual dystociae occur in the living cord as in the dead; in what types of injury the greatest haemorrhage occurs, and the effect of haemorrhage, apart from the actual trauma, in contributing to the necrosis of the nerve tissue. The work is one which must take high rank in the literature of traumatisms of the spinal cord, and will throw not a little light on the parallel pathology of brain injuries.

Professor Robert Langerhans has contributed a monograph on traumatic late apoplexy,[21] which will help to bring the subject of cerebral concussion from under the almost sole domain of surgery into the sphere of the physician, and at the same time will tend to disentangle the clinical condition of traumatic neurasthenia from the group of so-called functional diseases. The old view that the symptom-complex of concussion of the brain depended on a commotio cerebri of molecular nature whereby the nerve structures underwent a vibration that put them functionally out of gear, as, for instance, a permanent magnet may be partially demagnetized by a severe blow, is being steadily discredited (for many cases at least) in favour of the view that vascular lesions are usually produced, not only in petechial haemorrhages in the region of the ventricles, as shown experimentally by Duret and attributed by him to the distension produced by waves of the cerebro-spinal fluid, but also haemorrhages into the substance of the brain. Dr. Langerhans makes a powerful contribution to the latter argument, and relates and comments on some 28 recorded cases. What he argues for and comes little, if at all, short of establishing is that after injuries to the brain the usual sequence of events is: (1) The traumatic lesion, in his opinion, as we gather, of the nature of a bruise; (2) in the course of a few hours the formation of areas of necrotic softening; (3) in the course of a few days changes in the vessels of the part leading by the end of a week to (4) an actual haemorrhage with its pressure changes and the phenomenon of "late apoplexy." In its own way the monograph is as valuable a contribution to the pathology of traumatisms of the central nervous system from the clinical side as that of Dr. Luxenburger's is from the experimental side. The volume includes a good bibliography.

NOTES ON BOOKS.

The *London Manual*[22] is a book which might with advantage be more frequently encountered than it is. In towns other than London nearly every adult male recognizes his citizenship thereof and is conversant with the administration of its affairs. In London a very large proportion even of its more intelligent inhabitants barely recognize the existence of citizenship, and have but the vaguest idea of how or by whom municipal affairs are managed. Their interests are absorbed by their home life, business, or occupation, and the broader political issues, and they regard municipal rates as things with which they have little concern other than that of paying them promptly. If there is anything more curious than this attitude, it is a certain fact which to some extent explains if it does not justify it. This is, that it is not easy for any one who has not followed the evolution of existing municipal and allied institutions, and who is not aware of the existence of this volume, to obtain ready information as to the general principles involved, and still less as to the precise ways and by whom they are carried out. With the help, however, of this annual, it is easy for any one to obtain a detailed acquaintance with everything that concerns municipal London and its work.

The value of *Hazell's Annual*[23] has been so long recognized that in referring to the current issue it will suffice to draw attention to one or two of its special features. Among these is an index which appears for the first time. For the rest, topics such as the British Empire, Parliament and Parliamentary doings, the weather, and education all receive extended and very full notice. It need scarcely be said that the fiscal question is not forgotten. It has, indeed, some 29 pages devoted to its direct consideration, besides a number of references in the new index to other portions of the work which bear upon the subject directly or indirectly. In order that the question may be fairly represented in all its aspects, it is dealt with in three articles, two by active partizans on either side, the third by an expert who reviews the general situation. The average person, however, is as tired of the fiscal question as he is of the education dispute, and we recommend its present perusal only to those who have not

[18] *Compounding and Dispensing Made Easy.* By H. Harold Scott, M.B.Lond., M.R.C.S.Eng., L.R.C.P.Lond., Lt. R.A.M.C. London and Aldershot: Gale and Polden. (Cr. 8vo, pp. 322. 7s. 6d.)

[19] *Drugs: their Production, Preparation, and Properties.* By H. Wippell Gadd. London: Baillière, Tindall and Cox. 1904. (Cr. 8vo, pp. 180. 5s.)

[20] *Experimentelle Studien über Rückenmarks-Verletzungen.* Von Dr. August Luxenburger. Wiesbaden: J. F. Bergmann: and Glasgow; F Bauermeister. 1903. (Demy 8vo, pp. 96, 3 figures, and 12 tables of plates. 5s.)

[21] *Die traumatische Spätapoplexie.* Von Professor Dr. Rob. Langerhans. Berlin: August Hirschwald. 1903. (Demy 8vo, pp. 81. M.2.)

[22] The *London Manual* for 1904. Edited by Robert Donald. London: Edward Lloyd, Limited. (Crown 8vo, pp. 376. 1s. 6d.)

[23] *Hazell's Annual* for 1904. London: Hazell, Watson, and Viney. 1904 (Demy 8vo, pp. 786. 3s. 6d.)

been reading the daily papers. Later on, when time has thrown the subject into proper focus, its admirable treatment in this volume will make the exposition of both sides of the question as they stand at present of decided historical value.

The fourteenth and final volume of the *Encyclopaedia Medica*,[24] which has now appeared, is entirely devoted to an elaborate index of the preceding volumes. The work of indexing so extensive a publication cannot have been easy, and it is satisfactory to be able to note that the indexer, whose name is not mentioned, appears to have acquitted himself of his task in a satisfactory manner. The list of subjects or points extends to 282 double column pages, containing roughly some 35,000 entries all very clearly given, while a number of blank pages are left for insertion of personal notes and references. The general system adopted has been that of printing in black type every disease, condition, anatomical structure, physiological function, place, name, or thing, which is the subject of a special article. The references to the contents of these articles are placed immediately below in ordinary type, not in alphabetical order, but in that which they follow in the article. The task of hunting up a point is further aided by displaying in large characters the names of large general subjects, such as abdomen, adenoids, water, by way of a general heading to the references which follow.

THE INDIAN PASTEUR INSTITUTE AT KASAULI.

THE third annual report of the Pasteur Institute of India, Kasauli, has been issued.

Hydrophobia.

In the twelve months from August, 1902, to August, 1903, 4 persons were treated; there were but six failures, and these all amongst natives. The tables are arranged in three classes:

A. Those bitten by animals *proved* to be rabid.
B. By animals certified to be rabid.
C. By animals suspected to be rabid.

Into the the third group fall all the failures, and further subdivisions as to site of the wound show that no failure occurred amongst those persons bitten through the clothing. Of 25 bitten upon the head or face 2 died, whilst a fatal result was not prevented in 4 cases where the wound was upon other exposed parts; 269 Europeans and 315 natives were treated; of these 462 were men, 30 women, and 92 children. The better results amongst Europeans are attributable to less severity of bites, prompter and more efficient local treatment, earlier treatment at the institute, and, finally, better constitutional condition and surroundings.

Difficulty is found in proving the animals inflicting wounds to be rabid, because the condition of brain and cord received often faulty. Microscopical examination of the medulla, for the lesions described by Babes, and of the pneumogastric ganglia (Van Gehuchten) has given positive results in some cases; negative results of these investigations have, however, little value.

The highest monthly returns were in October (66), and the lowest in July (36). Dogs were accountable for 510 bites, jackals for 59, cats for 3, mules for 1, and foxes for 1; 10 persons were infected by the saliva of a hydrophobic man. Two cases of rabies scheduled as cured in the previous report have died at intervals of eight and fourteen months respectively from the completion of treatment.

When the thermometer stands at or above 80° F. autolysis from the intestine is liable to take place during the later stages of rabies in rabbits, so that in the hottest months a larger series of rabbits to supply cords is necessary, and the cords must be removed immediately after death. The supply of antirabic serum is obtained from young healthy monkeys that have been immunized by successive inoculations for eight months with material of increasing virulence. Experimental proof of the destructive power of this serum on the virus *in vitro* has been furnished by inoculation of rabbits with admixtures of the two substances, and by control experiments with normal serum and with "fixed virus." Hypodermic administration has no inhibitory effect upon infection by subdural inoculation, but there is reason to believe that applied as a first dressing to wounds, and subcutaneously to the neighbouring parts, the serum may have definite therapeutic value; so far it is only employed as a preliminary to the usual methods in badly-bitten and late cases.

Anthrax.

For the preparation of the two anthrax vaccines necessary for immunization (Pasteur) a virulent anthrax culture is grown at 42° C., and replanted in broth daily till an attenuated strain is obtained fatal for a rabbit but not for a sheep; a weaker culture, lethal for the guinea-pig but not for the rabbit, is produced by further subcultivation. From these standard cultures the vaccines actually issued are prepared by incubation of broth subcultures at 37° C. for ten days. In practice the weaker vaccine is first injected, beneath the skin of the neck, and the stronger similarly fourteen days later; local reaction is but slight, and the constitutional disturbance negligible. For a 15-hand horse 1 c.cm. is a safe dose, and the vaccine if kept in a cool dark place maintains its potency for three months. All the results of the 560 doses supplied to applicants are not yet collected, but those to hand show that none of the animals vaccinated have contracted anthrax.

Snake Poisoning.

Antivenene is prepared from the serum of horses immunized with cobra venom; other sera, for protection against viper and mixed venoms, are in course of production. To accomplish immunization of a pony to the degree of withstanding a dose of 1 gram dried venom requires sixteen to eighteen months, fresh inoculations being made fortnightly with doses increasing regularly from 3 mg. (1 per cent. solution in sterile water).

Blood is aseptically collected for the first time a fortnight after the last injection, and it is found that if the horses be well fed blood can be withdrawn once a month for years without detriment to health. Standardization is accomplished by quantitative inoculation tests on rabbits; 1 c.cm. Kasauli antivenene neutralizes 1.1 mg. of dried cobra venom, and is a little more powerful than that prepared at Lille. Larger doses are necessary for children and persons of feeble physique than for healthy adults. Intravenous injection is much more rapidly effective than hypodermic; this method should certainly be employed if symptoms have already appeared, and is advisable in all cases. Heat and light are the most serious causes of deterioration, but carefully kept, the depreciation in a year is but 5 per cent. to 10 per cent., and this can be met by proportionate increase of dose. No form of local application but the proximal ligature, where possible, is advisable, whilst alcohol, ammonia, and strychnine are to be avoided.

Classes.

The laboratories of the Institute have been thrown open for the instruction of officers of the R.A.M.C. and I.M.S., and have been employed for clinical diagnoses of material from all parts of India, for the preparation of typhoid vaccine, diphtheria and tetanus antitoxins, and for research.

ANATOMICAL CONGRESS AT TOULOUSE.

AT the Anatomical Congress held at Toulouse at the end of March the chief subjects discussed may be roughly grouped as follows: Some points in human anatomy dealing with the occipital bone (Waldeyer), the aponeurosis of the axilla (Charpy and Soulié), the pectoral and pelvic girdles (Sabatier), the arterial regions of the kidney demonstrated by means of injections and x rays (Gérard and Castiaux). An extremely interesting paper was communicated by Soulié on radiographs of the blood vessels of bones. By removing the periosteum from injected bones and by long exposure of the radiograph he found it possible to obtain stereoscopic pictures of the exact distribution of the nutrient and other arteries of the bones.

There were several papers on development, including development and phylogeny of the digastric muscle (Chaine), the liver, pancreas, and spleen of ceratodus (Neumayer), the venous system of mammals (Bonne), transverse sinus of pericardium, development of the ape (Keibel), the eye of the mole (Soulié), the pulmonary apparatus of bufo (Buvignier), and gills of reptiles (Saint-Remy and Prenant).

As usual there was a large number of histological papers and demonstrations. Several dealt with connective tissue (Renaut, Laguesse). Renaut and Dubreil showed a new method whereby the cell plates covering the points of intersection of the fibres of adenoid tissue were demonstrated, by using a combination of Victoria blue and saffranin; the granules in living cartilage cells are easily demonstrated by the use of neutral red after the method of Arnold of Heidelberg. It has long been known that the spleen of the hedgehog contains many large multinuclear cells. Morel and Soulié

[24] *Encyclopaedia Medica*. Under the general editorship of Chalmers Watson, M.B., F.R.C.P.E. Vol. xiv. Index Volume. Edinburgh and London: William Green and Sons. 1904. (Demy 8vo, pp. 282. 12s.)

have applied and extended this observation to other insectivora. It opens up a singularly interesting question in relation to blood formation. There were various communications on spermatogenesis and the relation of the interstitial cells of the testis to the genital apparatus (Bouin and Ancel).

There were, of course, numerous papers on the nervous system, among others a special demonstration by Cajal on the relation of nerve fibrils to nerve cells, and one by Van Gehuchten on the superior cerebellar peduncles. Regaud and Favre showed that the abdominal muscles of snakes contain a large number of easily-demonstrated muscle spindles which are known to be part of the sensory apparatus of voluntary muscle. Ductless glands like the suprarenal capsule and hypophysis cerebri (Launois) contain fatty particles which vary with the state of physiological activity of these organs.

Vigier showed some beautiful preparations to demonstrate how it is that the hair of the negro assumes its "curly" character. Apart from the curved form of the hair follicle, there is a special peg or outgrowth of the perifollicular connective tissue, which not only flattens the hair, but gives it a new direction.

One of the interesting papers on account of its far-reaching morphological interest was that of Suchard of the Collège de France. Few perhaps have cared to look into the wonderfully beautiful book of Rusconi—a large folio—on the lymphatic system. It well repays perusal at the present day. Suchard dealt with the lymphatics of the frog's lung as among the simplest of pulmonary sacs. Rusconi who injected these vessels showed them as a wide plexus under the pleura, as if their origin was superficial and subpleural. Their origin, however, is near the free border of the septa that project into the lung. When one of these septa is examined on the flat after injecting the blood vessels with a blue and the lymphatics with a red mass it is seen that there is a morphological analogy between the distribution of these vessels in the lung and those of the folds that exist in the mid-intestine of the frog. This is all the more interesting on account of the origin of the lung from the intestinal tract.

Some exquisitely beautiful preparations of striped muscle fibres, ciliated cells on the surface of the liver of the newt, and cells of the intestinal villi were shown by Prenant, some of them prepared by methods indicated by Gustav Mann.

Professor Tourneux, the President, gave a demonstration of the vasa aberrantia of the mole, and showed a singularly beautiful series of mitotic figures and chromosomes obtained from the mother cells of the pollen grains of the white lily.

Van der Stricht, of Ghent, gave a special demonstration on the structure of the ovum, a subject with which his name is already so intimately identified.

MEDICAL NEWS.

The annual dinner of the West London Medico-Chirurgical Society will be held at the Trocadero Restaurant, Piccadilly Circus, W., on May 4th.

The medical staff of the Post-Graduate College will give a *conversazione* at the West London Hospital on Wednesday, April 20th, at 8.30 p.m.

An International Congress of School Hygiene was opened at Nuremberg on April 5th by Prince Ludwig Ferdinand of Bavaria. All the European States were represented; Japan also sent a delegate.

Dr. John Stafford, who was born in Manchester, Ontario County, March 15th, 1805, has just celebrated his 99th birthday at his home, 27, Byron Street, Rochester, N.Y. He received many calls from friends and neighbours during the day.

King's College Hospital.—Her Majesty the Queen has sent to the Sister-Matron of King's College Hospital £100 in banknotes in aid of the fund for the removal of the hospital to South London, accompanied by a letter expressing Her Majesty's best wishes for the success of the scheme.

Rival Methods of Treating Hip Dislocation.—Dr. Adolf Lorenz of Vienna, who has already paid several visits to the United States, and Prof. Dr. A. Hoffa, of Berlin, have both accepted invitations to hold clinics at the Jefferson Medical College Hospital, Philadelphia, in June next year. The date of the first clinics have been arranged for Monday morning, June 6th, the day before the first session of the American Medical Association. It is stated that Dr. Hoffa will operate on at least one patient previously treated unsuccessfully by the Lorenz method.

A temperance restaurant, so-called, has been opened with some solemnity in Paris by the Director of the Assistance Publique. Alcoholic beverages are not entirely excluded, but will be served only at meals, and then not more than a quantity equal to rather less than half a pint.

The Red Cross and various other societies in Russia have prepared 26 sanitary detachments with hospitals, providing altogether 5,000 beds, and some have already started for the seat of war. Reserve detachments, consisting of 1 surgeon, 4 students, and 6 male nurses, are being formed. The first hospital train left Moscow on February 15th; it consisted of 19 wagons, 14 for the transport of wounded, 4 for the staff, and 1 for the kitchen. The staff consisted of 3 surgeons, 5 sisters of charity, and 36 nurses. In addition, 200 surgeons of the reserve left St. Petersburg for the seat of war soon after the commencement of hostilities.

The new wing of the Victoria Hospital for Children, Chelsea, has now been completed. The new building is of four floors and contains six wards of 16 beds each, and an isolation block providing accommodation for 16 more. A large operating theatre has also been constructed, an *x* ray department has been established, apparatus for sterilizing milk for patients and dressings for the theatre has been introduced. Outside each ward is a balcony for the use of those patients requiring fresh air treatment. The total cost of the new building, including the furnishing, added to the cost of reconstructing the old building for the purposes of administration and providing accommodation for resident medical officers and the extra nursing staff that will be required, is estimated at £40,000, of which £13,000 has yet to be raised.

Students at French Universities.—The total number of students attending the French universities is 30 405, made up as follows: Paris 12.985, Aix-Marseille 1,080, Besançon 333, Bordeaux 2,320, Caen 752, Clermont 299, Dijon 880, Grenoble 705, Lille 1,164, Montpellier 1,707; Nancy 1,327, Poitiers 863, Rennes 1,190, Lyon 2,069, Toulouse 2,291. The Arts Faculty has 4,384 students, of whom 3.873 are French. It has 613 women students. Law has 10 972 students, and of these 4,382 belong to the University of Paris and 1,021 to Toulouse. In the Faculty of Science there are 4 765 students, of whom 1,546 attend the Paris Faculty, 552 that of Lyon, and 476 at Nancy. There is a total of 6,686 students of medicine, of whom 6,115 are French. They are distributed as follows: Paris 3.496, Lyon, 958, Bordeaux 654, Montpellier 552. There are 571 foreigners attending this Faculty, of whom 197 belong to Persia, 89 to Turkey, 63 to Bulgaria, and 57 to Roumania. To these must be added 202 French women students and 164 women students from abroad, together with 1,558 students who are taking the course of medicine and pharmacy. Besides these there are 3,014 students of pharmacy.

According to *American Medicine*, the Utah State Board of Health has caused samples of various patent medicines to be bought from the shelves of druggists and submitted to the State chemist for examination. One alleged remedy, widely advertised as "Hyomei," a liquid preparation for catarrhal troubles, was found to be crude oil of eucalyptus diluted with oil of vaseline. The retail price printed on the label was 1 dollar. Kauffman's Sulphur Bitters was another "remedy" for about fifty different internal ailments. On the label was printed "No alcohol," but the State chemist found 23 4 per cent. of alcohol in the pint bottle, which sold for 1 dollar. Moreover, there was not even a trace of sulphur, and the alleged restorative had no curative properties that could be discovered. "Swamp Root" was a third "remedy" for all the ills the flesh is heir to—particularly in the line of renal troubles. The chemist found 9 6 per cent. of alcohol in the pint bottle, with a large percentage of sugar and juniper berry. "Paine's Celery Compound" was a fourth 1 dollar per pint "remedy." The analysis showed 20.9 per cent. of alcohol and a large amount of fusel oil, so that our contemporary considers it worse than "straight" whisky, which is a variety perhaps akin to that which has been called "twenty-rod." But the gem of the collection were some Catarrhal Powders. In this the chemist found 2 per cent. of cocaine, with 90 per cent. of sugar preparations, and inert substances to hold the drug. The preparation is sold in small vials, each containing 1.5 gr. of cocaine.

BRITISH MEDICAL ASSOCIATION.

ubscriptions to the British Medical Association for the year 1904 are now due and should be forwarded by postal order or cheque to the amount of 25s. to the General Secretary, 429, Strand, London, W.C., or, in the case of Colonial members, to their Branch Treasurer.

British Medical Journal.

SATURDAY, APRIL 9TH, 1904.

STRAINS OF THE TUBERCLE BACILLUS.

HE first volume of reports on Tuberculosis,[1] issued cently by the German Imperial Health Office, comprises o papers. One, embodying the joint work of Professor ssel, Dr. Weber, and Dr. Heuss, is a comparative earch upon tubercle bacilli of different origins; the er, upon fowl tuberculosis and its relationship to mmalian, its transmission by means of animal experi- nts, particularly with regard to feeding, is by Dr. Weber d Dr. Bollinger.

The first paper is of considerable importance, containing it does the results of experiments carried out in pursu- e of a plan drawn up by a commission of experts, onvinced of the truth of Koch's assertions, of om there are here mentioned by name von Baum- ten, Bollinger, and Virchow. The object of the plan to demonstrate the mutual relations of human and ine tuberculosis with respect to their transmissibility, effect has now been given to the first recommendation. s was the subcutaneous injection into calves of pure ures of as many strains as possible of bacilli from erent cases of tuberculosis, and a corresponding series njections into calves with different strains of bovine lli. In all some fifty experiments with forty strains uman bacilli and a further fifteen with strains from ne, fowl, and swine sources have been made.

he cultural and morphological differences of the respec- organisms are first described, and from this stand- t it is maintained that in the overwhelming majority ases of human tuberculosis, bacilli differing in every ect from those which originate the *Perlsucht* of e are found, and only exceptionally such as cannot be nguished. Nevertheless, the possibility of infection han, under certain circumstances, by milk from tuber- us udders is to be regarded as proved, since in one of cases at least a definite *Perlsucht* infection of the resulted from the injection of a strain derived from a of miliary tuberculosis in a child. In this connexion point out the interesting fact that the only cases of ralized tuberculosis resulting in the animals experi- ted upon were cases in which intravenous inoculation strains cultivated from disease occurring in children, ontrast to adults, was employed. At the same time, ng from these results as a whole, it would appear Koch was right to this extent, that the numerical im- nce of bovine sources for the spread of human tuber- is is comparatively slight. The authors, who rally hold their decision on the main question in nce, think that any relaxation or increased strin- gency of our present precautions against milk and allied infections would be at least premature.

In the second paper cultural distinctions between mammalian bacilli and those determining fowl tuberculosis are established. The natural mode of infection in the case of fowls would appear to be by the alimentary canal, although it is only in the early stages of the disease that bacilli are easily recoverable from the excreta of diseased birds. This is due to the speedy healing of the initial lesion in the Peyer's patches, which occurs despite the spread of the disease to other parts of the body. The authors consider that so far the transmission of the mammalian disease to fowls is not proved; on the other hand, fowl bacilli are pathogenic for other birds, for rabbits, mice, and in slight degree for guinea-pigs. Primary tuberculosis of the intestinal tract results in mice, rabbits, and guinea-pigs from feeding with fowl bacilli. In the case of mice there is a characteristic accumulation in the body of enormous numbers of bacilli, for the most part within cells of new formation; the local reaction is trivial. Further, the lungs become infected before the bronchial glands, and the infective path is obviously from the mesenteric glands along the thoracic duct. Fowl organisms seem to maintain their virulence unaltered by residence in the mammalian body, neither heightened for guinea-pigs, for example, nor diminished for fowls. The French observation as to the recovery of mammalian bacilli from the organs of diseased parrots is confirmed, and a typical culture of fowl bacilli from the mesenteric glands of pigs has been obtained, but there is no evidence in the bodies of fowls, or of mammals, of a transformation of the one bacillus into the other. An excellent bibliography is appended to each article.

In connexion with the subject we may refer to a recent report by Dr. Paul H. Römer, of Marburg,[2] describing experiments commenced by him in 1902 on the immunization of bovines against tuberculosis. The animals to be immunized were inoculated intravenously with doses of living bacilli, but it was found that for this purpose great care must be exercised in the selection of a suitable virus. Neither bovine nor avian tubercle bacilli could be used with safety and success, and strains of human origin were very variable, some of them being by no means innocuous to bovines.

Dr. Römer invariably used a special strain of human origin which had been proved reliable by years of experience. The dose used at the first inoculation was equivalent to 4 milligrams of dried bacilli; at the second inoculation, twelve weeks later, five times this quantity was injected. Much better results were obtained with young than with older animals; calves from 3 weeks to 3 months old were the most suitable subjects. Out of an experience of over 1,000 immunizations in which these conditions had been observed no case had occurred in which the inoculations seriously impaired the animal's health. As regards the practical efficacy of the inoculations, Dr. Römer states that cattle treated by this method and afterwards kept for a long time in infected stalls have never, on careful *post-mortem* examination, shown the least trace of spontaneous infection. He has not yet been able to determine the duration of the immunity established, as his method has been put into practice only for a year and a-half; he is of opinion, however, that it will last for a very considerable time, probably throughout the life of the animal.

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culose-Arbeiten aus dem kaiserlichen Gesundheitsamte. Heft 1. Berlin: Julius Springer. 1904. (Roy. 8vo, pp. 162.)

2 *Beiträge zur experimentellen Therapie.* Heft 7. Berlin: August Hirschwald. 1904. (Demy 8vo, pp. 77. M.12.)

THE LONDON MILK SUPPLY.

THE question of the control of the milk supply has been before the Incorporated Society of Medical Officers of Health a good deal recently. Papers contributed by Dr. Mitchell Wilson and Dr. Newman have aroused considerable discussion, and the recent presidential address to the metropolitan branch by Dr. Reginald Dudfield was devoted to this subject. On March 24th a discussion took place upon the steps which should be taken in the metropolis to obtain a more effective control of the milk supply. Ultimately it was resolved to urge the Local Government Board (1) to consider the advisability of carrying out its statutory powers under the Public Health (London) Act, 1891, Section XXVIII, by virtue of which the Board may make general and special orders dealing with registration of dairymen, inspection of cattle, sanitation of dairies, cleanliness of milk vessels, authorization of by-laws, etc.; (2) to bring in legislation to give effect to the recommendations contained in the report of the Departmental Committee on Food Preservatives and Colouring Matter which was issued in 1901; and (3) to take such steps as will ensure the Dairies Orders of 1885, 1886, and 1899 being efficiently carried out by all sanitary authorities, more especially in rural districts; and, further, that outside the metropolis provision be made whereby the carrying out of such orders be transferred to the county councils wherever default is persistently made by the local sanitary authorities concerned. Such an arrangement is provided for in the metropolis under the Public Health (London) Act, 1891, Sections C and CI, and it is extremely important that similar provision should be made for the country generally. The Society also proposes to give consideration to the advisability of an amendment of the "warranty sections" of the Sale of Food and Drugs Acts, 1875 to 1899, in order to prevent any defence of warranty being allowed under such Acts in regard to milk.

The attention of the Public Health Committee of the London County Council has been frequently drawn to these matters, and again early in the present year by the Finsbury Borough Council. Mr. Wynter Blyth, M.O.H. for Marylebone, has made a special report to the Borough Council, in which he expresses the opinion that most of the dirt in milk finds its way into it before it reaches the town, and recommends an organized system for inspecting milk at the railway stations and in the yards of large contractors. We believe that opinion, both among the members of the London County Council and of the Metropolitan Borough Councils, is almost unanimous that legislation is urgently needed along the lines suggested in our reports and now supported by the expert opinion of the members of the Society of Medical Officers of Health. Undoubtedly, the most pressing matter is control of the sources, as we have repeatedly pointed out. It is a matter of common knowledge that a large proportion, estimated by some authorities at about 90 per cent., of the metropolitan milk comes from various parts of the country as widely separated as Glasgow and Plymouth and Wales and Norfolk. It is this immense "gathering ground" that needs much stricter supervision.

The antiquated and insanitary conditions under which cows are milked and the milk is subsequently handled in the vast majority of English farms were graphically described by our Commissioner in the course of the articles published about a year ago. There is no reason to suppose that any serious improvement has since taken place, and it is abundantly clear that small rural authorities will not take the necessary action. They are composed largely of farmers, whose proverbial conservatism has not been corrected by the education given in the elementary schools; they fail to realize that it would be in the best interests of English agriculture to put the milk trade upon a scientific basis. They believe that the observance of sanitary precautions—which, after all, mean little more than ordinary cleanliness—will increase their expenses, whereas evidence has been adduced in our columns to prove that this is not the case. Meanwhile it is interesting to note that an examination of country-produced milk and London-produced milk yields a result altogether in favour of the latter. The same thing has been proved abundantly in Liverpool and Manchester. These cities have a much more perfect system of control than that which obtains in the metropolis. Dr. Niven, in his last annual report, actually proved that milk declared not fit for sale in Manchester and therefore disallowed, was being sent to London. The recommendations of the metropolitan branch of the Society of Medical Officers of Health are reasonable; if anything, they do not go far enough, and we trust the Society's appeal to the Local Government Board will not be in vain.

PLAGUE IN JOHANNESBURG.

THE more the situation in Johannesburg as regards plague is considered the more serious does it seem. It is not only that the present outbreak has already occasioned a considerable number of deaths—70 in the first twelve days of its reported prevalence—but the so-called "sudden" outbreak calls for investigation. Sir Walter Foster, M.P., for the second time, drew the attention of Parliament "to the gravity of the outbreak of plague at Johannesburg" on Thursday, March 31st, and in a letter to the *Times* of April 4th he discusses the annual report of the Medical Officer of Health for Johannesburg for the year ending June, 1900, to which we drew attention last week. In his letter Sir Walter points out that the "document gives support to the suspicion, expressed in my first speech, that there might have been lurking seeds of plague in the town to account for the sudden and startling announcement of 30 deaths among 38 cases. Short details are given in the report of eight 'reported cases of suspected plague.' In three of these which occurred in April last year the clinical signs and symptoms were so strikingly suggestive that the medical attendants regarded them as plague, but the results of bacterial examination were negative."

The suspicion entertained by Sir Walter Foster has been present to the mind of every medical man who has studied the epidemiology of plague. In a previous article we sought an explanation of the sudden mortality arising from the disease in the announcement that it was the pneumonic type of the disease that prevailed in Johannesburg. We are now rebuked for our presumption, and publicly informed that in this statement we have been misled. We regret that we were led to take a too favourable view of the situation; we had hoped that the municipality of Johannesburg would have been able to justify their position in regard to the late announcement of what we must now regard as a serious infection, before the official communication of March 20th was made.

Sir Walter Foster finds in the report of the Medical Officer of Health for Johannesburg, as we found

ek. evidence to support the belief that plague had sted in Johannesburg for some time. We have already en some particulars from this report, but Sir Walter s that the "recent outbreak gives the strongest grounds believing that rats have been dying of plague in the for many months, and that Johannesburg is, and for ne time has been, contaminated with the disease. How g it may remain so it is impossible to say. In Bombay gue began in August, 1896, and, with scientific aid not ly to be less than that at the command of the authori- of the Transvaal, there were 6,741 deaths in the Bombay ricts in the week ended February 27th last; while in ia the deaths in the same week reached the terrible l of 27,858." Not only is it probable that rats were g of plague in Johannesburg during the last twelve ths, but it is now pretty certain that plague prevailed ngst human beings before its presence was admitted larch 20th. To whom to attribute the hesitation in uncing the presence of plague until it had attained a us hold we do not know, and perhaps it would serve od purpose to probe the matter too deeply; but we with Sir Walter when he says: "With this lesson of impotence to stamp out the malady (in India) it is to minimize the danger." While he praises the orities in the Transvaal for supplying themselves with medical officers and a well-equipped laboratory for riological investigation, he points to the example of town, which is said to be the only place in South a which has really got rid of plague after it had once ne established. This success has been attributed, on authority, to the extermination of rats by the use of sz's virus.

doubt stringent measures are being taken, and we that the Public Health Department of the Transvaal iently conducted by able medical officers; but it is sible for a limited staff to manage the general busi- f the public health service, and, in addition, to staff ganize a plague service.

not only in Johannesburg that watch has to be kept. of plague have already been reported from Pretoria, ston, and Benoni, and we have no hesitation in say- at were plague looked for amongst animals—not rats a widespread infection would probably be found. esent staff of the Public Health Department of the aal is not sufficient; their calibre is excellent, but umbers are too few, and should be supplemented by ue corps, with a medical man as commissioner at its with an efficient staff of, say, 100 medical men under nd with inspectors and gangs of men at his com- while inoculation and destruction of rats will be le accessories.

ope for the sake of the country and for the many that are at stake that the authorities in the aal will accept the offers of help that may be made n, that they will not consent to minimize the danger, h the terrible lesson of India before them will listen ce. In some circumstances it is a sign of weakness strength to refuse help. If we except Capetown we nly one real instance of plague being "stamped out." as when plague appeared in Osaka, one of the prin- ities of Japan; the government of that country d 300 medical men to deal with the outbreak. Had nsvaal been Japanese territory there would have by this time, at least that number working in the f Johannesburg and another 1,000 distributed hout the country.

MILITARY HOSPITALS.

As we have already stated, the large military hospital for the London garrison which has been built on the Thames Embankment, will shortly be ready for occupation, and we understand that the principle of erecting large military hospitals at convenient centres will be extended. The localities have not yet been finally determined, but Aldershot, Salisbury Plain, and Devonport are mentioned. It is intended that cases from the small stations shall be transferred under suitable arrangements to the large central hospitals, while adequate provision will be made for the local treatment of non-transportable cases. The central hospitals will vary in size, and the details have not yet been worked out. The general principle governing the arrangement will be to concentrate the sick of the army, and this will involve a corresponding concentration of medical *personnel*, thus counteracting the drawbacks which necessarily attend the isolation of medical officers in small stations. The large hospitals will be thoroughly equipped, so that any and every form of treatment may thus be available for soldiers.

AN AMBULANCE SERVICE FOR LONDON.

THE question of the provision of an efficient ambulance service for London to deal mainly with street accidents and casualties continues to evoke letters to the press and the attention of municipal bodies. While there are those who seem inclined to remain satisfied with hand ambulances and improved instruction of the police in first-aid, it must be evident that they are not in a majority, and that those who urge that the capital city should be in advance of rather than far behind many provincial towns in the mode of handling street accidents have public sentiment at their back. The question was advanced a stage by the report on the whole question which Sir William Collins presented to the last County Council. The Asylums Board does not contemplate dealing with this branch of the ambulance service, and the way is therefore clear for the London County Council to go ahead. We understand that in the last Council there was some indisposition on the part of those responsible for the Fire Brigade to engraft the ambulance service upon the work of the brigade. We gather from the reports of the Association, of which Mr. Reginald Harrison is the President and Dr. James the Honorary Secretary, that the new County Council is almost to a man pledged to support the speedy provision by the Council of an efficient ambulance service, summonable by telephone and supplied with means of rapid transport, either horsed or motor. The needful external support having been thus supplied, we trust there may be no further delay in preparing a complete scheme or in commencing its practical application. The new General Purposes Committee of the London County Council is, we are informed, not yet constituted, and this is the Committee which has the matter in hand. If Parliamentary powers are required. no time must be lost, and we are glad to know that the Metropolitan Street Ambulance Association is organizing an influential deputation which will shortly interview the General Purposes Committee and urge it to prompt and effective action.

AN IRISH DUTCH AUCTION.

THE Board of Guardians of an Irish Union recently advertised for a medical officer to one of the dispensary districts in the union, and invited applicants to state the terms at which they would be willing to undertake the duties. This is undoubtedly a curious proceeding but not if memory serves, quite unique. The correspondent who draws our attention to the advertisement sees in it evidence that the guardians are seeking to take advantage of the "lack of union in the profession, especially in Ireland." If so we can only reiterate the opinion of our Commissioner that while posing as economists they are in reality being false to their duty towards the people they represent. What sort of a medical man will he be who will consent to

take part in this Dutch auction? Will it be the self-respecting well-trained man who values science and realizes the importance of the medical art as a part of the social fabric? There can be but one answer. We have received a number of letters from correspondents well acquainted with the conditions of life in Ireland, and with the dispensary medical service, who one and all assert that our Commissioner's picture was by no means overdrawn. The correspondent already quoted states that the last time he went to a case with a dispensary medical officer, after driving three Irish miles on a dark winter's night, he and his companion had to get out of their trap and proceed on foot about a mile over bog, etc., under the guidance of a native. They returned to the trap wet almost to the knees; he adds that this dispensary medical officer was some 63 years of age, and dared not think of retiring because he did not know whether he would get a pension or not. The report of our Commissioner has been placed in the hands of Irish members of Parliament, and of officials responsible for the administration of local government in Ireland. We trust that it will receive their most serious consideration, and that with the help of the British Medical Association some amelioration in the condition of the Poor-law medical dispensary service in Ireland may be brought about.

MEDICAL INSPECTION OF SCHOOLS.

DR. J. H. CROCKER, Medical Officer of Health, Richmond, Surrey, has presented to the Education Committee of the borough an interesting report recommending the appointment of a medical officer for the inspection of children attending the elementary schools and for the performance of other duties under the Education Act. He points out that the powers of the medical officer of health are limited to the closure of a school or the exclusion of an individual scholar when one or other of these procedures is considered likely to prevent the spread of infectious disease. He, however, cannot act until he receives a notification; whereas, if the cases were recognized early, prompt action might often avoid the more serious step of closing the whole school. He adds that inspections made by himself at various times at the request of managers of schools have had beneficial results, and gives one instance in which, though really exceeding his statutory duties, he was able, by recognizing that a child attending school had been suffering from a mild attack of scarlet fever, to prevent the spread of the infection and so to avoid the necessity of closing the school. He points out that the medical inspection of schools would not only check the spread of notifiable diseases but also of others, such as measles, whooping-cough, ringworm, and ophthalmia, which are not notifiable and he adds that many of the teachers have complained to him of the unsatisfactory position they are in if they send home an ailing child since in many instances no medical man is called in, and the child has to be readmitted to school without a medical certificate. Further, he shows that medical inspection would reveal errors of refraction and would discover deficient children who ought to be sent to a special school under the Defective and Epileptic Children's Act. Finally, as he truly says, there are many other matters in which a medical officer would be of service to the Education Committee. The report is, we believe, now under the consideration of that Committee, and we may express the hope that the recommendations of the medical officer of health will be accepted.

THE CARE OF CHILDREN IN NEW SOUTH WALES.

IN New South Wales a Government department known as the State Children Relief Board looks after children of two distinct classes and also apparently exercises a general supervision over the interests of all children alike. Of the two classes of children directly under its control the one is formed of children who are provided for entirely apart from their parents or relations if they have any, and the other of children for whose care the Board makes an allowance to their mothers, the latter being either poor w or deserted and poor wives. The first class are us orphans or fall into the care of the State for some reason. Of the total of 7,191 children under the care Board at the date of its last report about half belon the one class and half to the other. As regards the chi left with their parents the cost of the subvention mother and for the inspection of the child average each child about £6 8s. a year At present the mo may be granted an allowance simply after a departm inquiry, but it is proposed in future to hold an in before a special court at which sworn evidence as real needs of the case may be taken. The total expen upon the children provided for apart from their pa if any, was, including inspection duty, about £15 15s. head a year; the children were provided for in o several ways, namely: by boarding-out, by apprent by adoption, by cottage homes for children wh physically unfit to be treated in any other way, a another home for those who are refractory. The always has more satisfactory applications for children it can meet and boarding-out very often eventually to adoption, because the foster parents get fond children under their care and are willing to dispense State aid in order to keep them. State inspe however, is continued whether State aid is giv not, and the children of mothers who receive subven are inspected likewise. From an economic point of v is considered that the system results in a saving of a £7 a year for every child as compared with any ba system which could be substituted. More important it is believed that it really effects the purpose for wh was instituted—namely, that of obtaining for the chi a close substitute for home life of a desirable physica moral sort. To keep it informed of the working o system the Board has, besides its paid inspectors, a army of honorary lady visitors and also receives re from schoolmasters and mistresses and others offi brought into contact with the children. Extracts a very large number of reports from these unpaid so are given in an appendix, and the testimony in strikingly favourable to the system. One or two of contain evidence that the apprentice system requires careful watching; but the fact that it is noted that m the children remain on with their whilom guardia private agreement when out of their articles seem indicate that, upon the whole, it must work well. children cost the State nothing beyond an occasional and receive pay, which is collected and kept for them paid over on the termination of their indentures. sum commonly paid for boarded-out children is abou a year, a fact which goes a long way to confirm the plaint recently made before the Irish Poor-law Reform mission that the sum of £5, as paid in Ireland, is fa little.

FOOD FOR THE MIND.

IT has somewhat sardonically been said that a ner disease is one in which the diagnosis is uncertain there is no treatment. The energies of many sk physicians have during the past quarter of a cen tended largely to overthrow the first part of this repro and signs are not wanting that efforts are being ma take the sting out of the latter thrust as well. But v prescriptions as to the physic and the bodily food w are to be consumed by nervous patients abound, very l attention has hitherto been paid to their mental pabu The late Mr. Marcus Beck, as usual far in advance o time, once cured a boy of hysterical hip disease by ta him away from school and prescribing a course of Austen's novels. It is too customary for those who c out Dr. Weir Mitchell's course of treatment to limit patient's reading to what may be called bland non-irritating materials. Very little attempt, ever, has been made in this country to systematize subject; in Germany the case is different, and books papers by Binswanger, Dunin, and others, are open fo

wish to consult them. Recently also Dr. B. Laquer of baden has published a short but interesting paper[1] this topic. He starts with the perfectly true ment that many of the medical procedures employed e treatment of nervous disease are merely intended hicles for the real method of cure, which is psycho-peutical. He condemns the consumption of exciting ture before the age of puberty; and instead of alcohol, re, music-hall, concert room, and newspaper, he recom-s twelve to thirteen hours' sleep, steady moderate every inducement to the observation of Nature, and thing which tends to improve the senses, the whole e muscles, and to render the subjects children of the ry and not of the town. According to Dr. Laquer, ic education tends particularly to upset the psychical ce, and its commencement should, he holds, be ed to the age of 16 in girls and of 18 in boys. He agrees Dunin's view that the three main characteristics of the ically unstable are abnormally increased self-analysis, nd lack of will power. To combat these he recom-s books of travel, sober histories, and biographies, ularly those of men of action. Humorous books are ecommended; the English humorists selected by Dr. r are Dickens, Jerome, and Mark Twain—a juxta-on which is perhaps in itself sufficiently amusing. eading should be moderate in amount, its theme ntly changed, and the habit of concentration raged by writing abstracts of the works read. Finally, inted out that hypochondria is by no means a new , for a very pertinent quotation is given illustrating Musset's sufferings from the complaint; the literary t in its prevention and cure sounds, however, quite odern note.

LEPROSY OF THE OVARIES

LÜCK AND WODYNSKI[2] have recently directed their on to leprosy as it affects the ovaries, a subject has not received all the attention it deserves. That uation is interfered with in leprosy has long been but peculiarly enough, instead of looking upon this result of the disease, just the reverse view was held. io menstruorum was looked upon as an important of leprosy by such writers as Theodoricus, Guy uliac, and de Largelata. It was only in the second the eighteenth century that more rational views d in regard to this matter. Schilling and Hensler inted out that Couzier was the first to remark males who developed leprosy before puberty did nstruate. It is a fact that leprosy leads to irregu-and sometimes cessation of the menses. Drs. and Wodynski, who practise in a leprous area), relate the results of their investigations into this the case of six leprous women who died in the Hospital. They found chronic interstitial inflam-leading to sclerosis of the ovaries, with hypoplasia hy according to the age of the patient. This is chronica leprosa originates, they consider, in wing manner: The bacilli circulating in the blood together with their toxins, give rise to an arterio-with obliteration, which reacts by leading to an ial cell proliferation. Bacilli were found in the tissues, both in extracellular and intracellular ns.

BULK AND ABILITY.

ent communication to the *Archives of the Middlesex* a reprint from the *Journal of Anatomy and y* is published on the relation of the size and the head to mental ability, by Dr. R. J. Gladstone. asurements were taken by means of Gray's cal-hich have the advantage—an important point in netric observations—of giving the same measure-different hands. The principal diameters of the head, length, breadth, and height multiplied together were accepted by the author as giving the index of size. The subjects, 342 in number, comprised students and members of the medical staff of the Middlesex Hospital, boys from St. Catherine's School, Regent's Park, and inmates of St. Pancras Workhouse. As regards mental ability, the individuals were divided into three classes, A, B, C, and every care was taken to eliminate possible sources of error from differences of stature, body weight, and age. Dr. Gladstone's results are somewhat remarkable, as he finds "a distinct correlation between large size of heads and a high degree of mental ability, this correlation being both absolute and relative to the general size and weight of the body." The tables of indices of size given show a progressive diminution from Class A to C, and also that the largest head belongs to Class A and the smallest to Class C; moreover, the average index of size of Class B is considerably above the general average of the uneducated classes. A point of much interest, illustrated in the text, is that if a "frequency polygon" be made showing the number of individuals having heads corresponding to successive degrees of size, the polygon will probably have two main peaks corresponding to two types of head, a large and a small, the apices of the peaks indicating the size of head most frequently met with in the corresponding type. If now on the same chart curves for Classes A and C be drawn—leaving out the individuals of average intelligence, that is Class B—it will be found, says the author, that these also will arrange themselves in two peaks lying within the corresponding peaks of the main curve, and the position of the apices will show that in each of the two types of head Class A have generally larger heads than Class C, although the individuals composing Class A and belonging to the small type will have smaller heads than those of Class C belonging to the large type. These results are so strikingly uniform that they call for remark and, to some extent, criticism. In the first place, the accurate gauging of the intellectual position of many individuals is a difficult—a well-nigh impossible—task; and even their rough division into three classes—A, B, and C—cannot possess the same evidential worth as the cephalometric data to which they are here related. Again, even accepting the product of length by breadth by height as equalling the size of the head, and admitting the general truth that the growth of the skull is dominated by that of the brain, so many other factors play a part in the shaping of the skull, that cephalometric data of this kind cannot, as Ford Robertson has said, supply the date required by human craniology, but only such as belong to the wider science of anthropology. Dr. Gladstone's observations, collated with other material gained by the same methods, should have decided value. Only those, however, who, like Dr. Gladstone, have worked in this field can appreciate the marked influence on any results produced by the inclusion of two or three individuals markedly differing in size of head from a group of people, as in this case, comparatively limited in number; and whilst most anxious to avoid the appearance of disparaging useful work of this kind, we would deprecate any hasty generalization from such results.

METASTASIS IN CARCINOMA.

PROFESSOR MARTIN B. SCHMIDT[1] publishes some researches on the dissemination of carcinoma and the relationship between generalized sarcoma and the leukaemic new growths. He has made a complete pathological investigation of forty-one cases of carcinoma, with special reference to dissemination by the blood stream. It is well known that in many cases in which conveyance of cell groups appears to have taken place through the lungs to the general circulation these organs remain free from metastatic growths; it is also recognized that the metastases of certain carcinomata disseminated through the arterial system show a preference for certain organs. The multiple secondary growths of the osseous system in

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chische Diät, von Dr. B. Laquer, Wiesbaden. Reprinted from *Deut. Zeit. f. Nervenheilkunde*. vol. xxiii.

[2] *Arch. f. Derm. u. Syph.*, Bd. lxvii, Heft 1.

f the Middlesex Hospital. Vol. i. London: Macmillan and Co. 1903. (Demy 8vo, pp. 155. 5s.)

[1] *Die Verbreitungswege der Karzinome und die Beziehung generalisierter Sarkome zu den leukämischen Neubildungen*. Von Professor Dr. Martin B. Schmidt. Jena: Gustav Fischer. 1903. (Roy. 8vo, pp. 91. M. 2.80.)

prostatic cancers illustrates both these conditions. Several theories have been advanced in explanation, the question being whether the circulating cell groups come to rest in certain selected organs only or are distributed throughout the body but form secondary growths only in organs in which they find suitable conditions. It is known that carcinoma cells undergo degeneration in the blood stream, but on the mode of destruction of such cell groups in organs nothing has hitherto been ascertained. Of the 41 cases investigated, 1 only, a carcinoma of the gall bladder, was free from any metastasis; the others fell into three groups. The first included 12 cases of carcinoma in an abdominal organ, with metastases in lymph glands, peritoneum, and liver, without entrance to the blood circulation and without lung metastases; the second group contained 13 cases, in which the lungs were involved, the secondary growths being due to lymphatic transport, in part through the diaphragm to the pleura, in part by retrograde conveyance from infected bronchial glands; the third group contained 15 cases, in which carcinoma emboli were found in the small arteries of the lungs. The investigation of these cases showed that in cancer of an abdominal organ metastatic cell groups are frequently arrested in the pulmonary arteries, but that only a small proportion of these cell masses give rise to metastatic growths in the lung or break through the arterial wall into the perivascular lymph stream. The greater number are destroyed by organization of the thrombus surrounding them or are encapsuled and rendered inert; a small minority grow forwards through the surrounding thrombus to the capillaries and small veins, and become capable of originating secondary growths in other organs. Schmidt considers that the differences in the dissemination of sarcoma and carcinoma are not due to differences in distribution of the metastatic particles, but to the fact that in the latter the arrested cell groups more rarely proceed to the formation of secondary tumours. Schmidt also gives a description of a case of sarcomatosis of the skeleton and the lymphatic glands with a single metastasis in the left suprarenal; with this are compared the pathological findings in a case of lymphatic leukaemia with leukaemic hyperplasia of the periosteum; and a case of lympho-sarcoma of the thymus, hyperplasia of the tonsils, lymphatic glands, and spleen, and lymphatic new growths in the kidneys and testes. The relationships between these different conditions are discussed.

THE INOCULATION OF APES WITH SYPHILIS.

REFERENCE has already been made in the BRITISH MEDICAL JOURNAL[1] to the successful inoculation of a female anthropoid ape with syphilis by Metchnikoff and Roux. Lassar of Berlin has also apparently succeeded in producing the disease in another anthropoid ape.[2] The animal in this case was a male between 4 and 5 years old. The inoculation was carried out somewhat in the same manner as in Metchnikoff's experiment. Scarifications were made in the skin of the forehead in several places, and the secretion taken from a primary sore rubbed in. This was also done upon the lips. In addition, in this case small pockets were made in the skin of the forehead and ears, and minute portions of the chancre inserted into them. All the inoculations were made on the same day. No inoculation was made upon the genitals. The primary sore referred to above was an untreated extragenital chancre of several weeks' duration, situated on the arm of a man who had become infected in the operation of tattooing. This patient also undertook the care of the ape, since, in the event of the experiment proving successful, scratches or bites inflicted by the animal would naturally be fraught with danger to any person not himself suffering from the disease. In order to ensure that the material did not get rubbed off, the ape was kept rolled up in a sheet for an hour or two after the operation. The various sites of inoculation healed in forty-eight hours without disturbance, and in fourteen days two apparently characteristic lesions appeared on the forehead. These were still evident when the animal was exhibited at a meeting of the Berlin Medical Society held six weeks later. In this as in Metchnikoff's, definite secondaries followed—nar papular rashes on the soles of the feet, the palms brow, and round the anus. Cervical adenitis was also sent, and the front of the scalp became bald. In Paris experiments, it will be remembered, the viru more than one patient was used, and secondary as w primary material was employed, the primary mat being applied to the genitals, and the secondary t forehead. Further, the inoculations on the genitals performed on two separate occasions, five days interv between them. The resulting chancre appeared o genitals (clitoris). Thus in both experiments it is extre interesting to note that the inoculation was effecte means of primary virus.

[1] BRITISH MEDICAL JOURNAL, October 3rd, 1903, and February 27th, 1904.
[2] *Berl. klin. Woch.*, December 28th, 1903.

THE PLEA FOR CONSERVATISM IN MEDICINE SURGERY.

WE have of late had somewhat frequent occasion t attention to the swing back of the pendulum of profess thought and practice from the methods of extreme e prise which were in fashion but a few years ago. and weighty protests against undue enthusiasm in prosecution of new methods and the administrati new remedies have appeared in our columns, and w glad to note that the feeling which they have expres awakening echoes even in America. Dr. Beverley Robi of New York has reprinted from a recent number o *Medical Record* an address, of which we quote the sub at the head of this article. Dr. Robinson quotes Reginald H. Fitz, of Boston, who has stated that an ana of the operations undertaken at a large and conducted hospital between the years 1890 and shows that many of them could not be jus by a fair consideration of their results, e immediate or remote. Dr. Robinson, moreover, p out that during the past few years there have considerably more than 100 recorded operations for cirr of the liver, of which the subjects have very seldom obta benefits which are denied to medical treatment. He q with entire approval Sir Frederick Treves's Caven Lecture, in which it is laid down that operation in ap dicitis is indicated only in the ultra-acute cases and w there is definite evidence of suppuration, and that e where urgent symptoms arise the question of sur interference need not be decided for the first five da so. These views are, Dr. Robinson says, in complete a ment with those of Dr. Maurice H. Richardson, who is known as one of the foremost American surgical autho on the disease; and they appear also to fall into line the opinions expressed by Dr. Hemmeter in his boo the diseases of the intestines. Dr. Robinson also re with approval, to the attitude taken up by Sir Felix Se in respect of operations upon the throat and n and by Dr. W. M. Polk, of New York, with re to the conservative treatment of diseases of the ut and appendages; on the other hand, he deprec in the strongest terms suggestions, such as that whic attributes to Sir Lauder Brunton, of operative treat in mitral stenosis. While he admits the enormous gress made by surgeons in the treatment of deep-se and visceral abscesses, he fears the tendency of sur practice, owing to the impunity which skill and opp nity afford, to become subservient to these factors. does Dr. Robinson confine his criticisms to the surg He states that of the enormous number of new rem continually put upon the market very few are really u and relatively innocuous. With regard to fever, fo stance, he views with alarm the replacement of the fashioned diuretics, diaphoretics, and febrifuges by tar products. Where fever is slight it is usually w to leave it alone; where it is continuous, but mode mild antipyretics may be used. It is only whe reaches a dangerous degree that powerful remedies mu

[1] BRITISH MEDICAL JOURNAL, 1901, ii, pp. 1313, 1396.

loyed. In such a case cold bathing is of great value, Dr. Robinson agrees with Dr. Hare in opposing the ne use of this in typhoid fever. He is also inclined oubt the wisdom of the substitution of alkaloids, such caine, quinine, and morphine, for the natural products which they are prepared. Another modern practice which he is not in accord is that of treating intestinal ions by the use of antiseptics instead of clearing out owels by means of castor oil. The older physicians, without our present advantages, anticipated many of most modern lines of treatment; thus the open-air od of combating consumption was indicated by the ngs of Jacob Bigelow and Austin Flint on the self- ation of diseases, and we may add was practised by ge Bodington in England in the Thirties. A point in the author considers we have not improved is our ng. The modern nurse may have a very systematic ledge of her duties, together with a smattering of al sciences, which are of but little use to her, but she tainly not superior, according to him, to her prede- of one or two decades ago. Finally, he reiterates a ng against the specialism engendered by the progress emical and microscopical research, which sees a local e everywhere and often overlooks its underlying Dr. Robinson has framed a cogent and picturesque ment of certain modern medical and surgical evils, though in England, at any rate, one may be inclined rd his account as a little too lugubrious, his paper is reading for its stimulant effect.

THE PERILS OF ATRESIA VAGINAE.

NG woman subject to closure of the lower part of ital canal is obviously in a perilous position, and for long been taught that her life may be in danger moment. Authorities have further been careful to us that an incision through the obstructing septum r to allow of the escape of retained menstrual blood ot be made without great caution, and when made erator must never press on the lower part of the en to hasten the flow of the fluid. Grave or even sults have followed incision even when every pre- has been taken. This fact cannot be impressed ongly on the practitioner and specialist. An t instance of the bad results which may follow when its immediate performance seems urgent ed by Heidenhain.[1] A girl aged 19 came into his ing room in great pain, walking with her chest ward and her hands pressed against the abdomen. d that she had been informed that she had ian cyst, and begged that it should be removed as it was becoming very painful. There was er, smooth, tense, but distinctly fluctuating reaching several inches above the umbilicus. men was well-formed; immediately above it a embrane was detected. The membrane was incised r 2½ pints of greasy blood ran out of the incision. ut a fortnight the patient did well; the tempera- er 101° at first, fell to normal, but on the fifteenth se again, and there were severe pains in the left sa. A swelling in that region was detected and much greasy blood escaped, the cavity was washed packed with iodoform gauze; it began to granu- all seemed satisfactory till thirteen days later. ce more the temperature rose, and a fluctuating in the right iliac fossa was opened and treated in e manner. It contained much syrupy blood. A al fistula developed, and two or three days later ient seemed moribund, chyle coming away in Heidenhain separated the adherent small intes- the wall of the haematosalpinx of the right tube d been opened, drew out the tube, and resected it. es of the opening in the dilated tube were closed by Nine months later the patient was in fair health, ge hernia had developed in the cicatrix of the last incision. This case occurred near Marienwerder, in West Prussia, and the operation for the closure of the artificial anus had to be undertaken in the patient's home. Comment is needless, but this case is a good object lesson on the perils of atresia. Those who treat a case must be prepared to meet the complications which were encountered by Dr. Heidenhain, and to act as promptly if necessary. When there is time for delay, an exploratory operation through the abdomen and removal of the affected parts, if necessary, may be safer than incision of the obstructing membrane in the vagina; whilst, should the uterus and tubes be normal, it might be safer to remove the blood while it is not septic through the upper part of the genital tract than to let it out through a vaginal incision, which involves great risk of infection of residual blood in the dilated tubes and uterine cavity.

Vaginae Congenita. Report of meeting of the Ost-und-West- e Gesellschaft für Gynäkologie, *Monats. f. Geb. u. Gyn.*, March,

THE BACTERIOLOGICAL STANDARDIZATION OF DISINFECTANTS.

DURING the last few years it has been satisfactory to note that much has been done to place the bacteriological standardization of disinfectants on a scientific basis. In the early days of bacteriology a large number of experiments were performed to elucidate this subject, which we now know were unsatisfactory. It is not sufficient to take a disinfectant of which little is known and add a certain quantity to a laboratory culture of the typhoid bacillus of which less is known, and then draw far-reaching deductions from the results. What is necessary in such cases is clearly an exact knowledge of the two chief factors, the disinfectant and the bacillus, combined with a careful and exact treatment of the one by the other. Bacteriologists are coming more and more to understand that results differ according to the strain and age of the bacillus, its culture medium, its ancestry, temperature and period of incubation, and other similar fine points, as well as the broad facts of its species and sporulation. Quite recently Dr. Andrewes, of St. Bartholomew's Hospital, and Dr. Rideal have both drawn attention to these matters, and the latter in conjunction with Dr. Ainley Walker has laid down, experimentally, definite limits of time during which bacterial cultures should be exposed to the action of the disinfectant and the exact dilutions of the disinfectant used. They hold that a bacterial rather than a chemical standard of efficiency is necessary, as the chemical strength of such disinfectant bears no exact relation to its germicidal power. We have received a record of some further preliminary tests on these lines by Professor W. R. Smith and Dr. Somerville, of King's College, from which it appears that creolin (or cyllin) in a strength of 1 in 1,280 acting on a standard culture of the typhoid bacillus incubated for 48 hours at 37° C. in neutral broth performs the same germicidal action as carbolic acid in a strength of 1 in 80. Similar tests were made with the diphtheria bacillus of Klebs-Loeffler, and it is proposed to continue the series. Such a series needs most thorough work before any conclusion can be drawn, and also much more detailed information respecting the tests and the life-history of the bacillus used.

FOOTBALL INJURIES.

IN a small pamphlet entitled *Football Injuries*[1] Dr. R. H. A. Whitelocke gives a record of his experience in his practice among undergraduates at Oxford. Some of his observations are of general interest. They show that the view which has led to the substitution in so many schools of Association for Rugby Union rules of football is only very partially justified. It is true that of the two games as commonly played the Rugby gives rise to the greater proportion of injuries among the players; but on the other hand, while the injuries received under Rugby Union rules are commonly contusions, twists, wrenches, and the like, those which are specially liable to be met with among players of the Association game are fewer in number but

[1] *Football Injuries.* By R. H. A. Whitelocke, M.D., F.R.C.S. London J. and A. Churchill. 1904. (Demy 8vo, pp. 16. 1s.)

more serious in character, often being injuries of the viscera. The average schoolboy is still, we are glad to say, able to put up contentedly with a good deal in the way of sprains and bruises, but injuries to viscera are a very different matter. It would seem, therefore, that if Dr. Whitelocke's experience is borne out by that of other surgeons who see much of that part of the younger generation which plays football, there should be a revulsion among school-masters in favour of the older game. Besides the kind of game other circumstances bear upon the question of resulting injuries, and among these are the season of the year and the atmospheric temperature which prevails. In the autumn players are wont to begin suddenly and to throw themselves at once into hard and well-contested games. As has been often pointed out in these columns, when fresh back from holidays neither schoolboys nor undergraduates are thoroughly fit from a football point of view. They may be in excellent training for walking or shooting, bicycling or riding, but the extreme activity demanded by football is a different thing. The result is that lacerations of muscles, and strains and wrenches of joints occur in individuals who later on in the season could go through the same or greater exertion entirely unscathed. At Oxford it has been observed that more athletic injuries are met with during the first fourteen days of term than during the whole of the remaining six weeks. This fact seems to indicate that at public and private schools, in which regulations as regards games and exercises can be better enforced than at the universities, the authorities should stipulate for the first week or two of the football term being given up to training. As regards the effect of the atmospheric temperature, we are all of us acquainted with the facility with which one seems to "bark" one's knuckles on frosty days, and this common observation finds its analogue in football injuries. Ruptures of muscles seem to occur more readily during frosty weather than on damp and warm days, and the explanation offered by Dr. Whitelocke is that cold retards the contraction of muscles, and renders them inelastic. An observation of a corresponding kind as regards the skin is the facility and painlessness with which large cuts in the skin may be incurred during bathing and swimming.

MISS FRANCES POWER COBBE.

MISS FRANCES POWER COBBE, who so long ago was the Boadicea of the war against experimental research, died on April 5th in her 81st year. For some years before her death she had ceased to be a leader in the cause. Not that she ever sheathed her sword or forgot her swashing blow; but the reckless way in which she brandished her weapon made her an embarrassment to more politic antivivisectionists, while her adoption of methods of warfare, recalling the stinkpots of the Chinese, disgusted all decent people. We prefer not to dwell on these aberrations of a remarkable woman before the grave has closed over her. She gave the example of a strenuous life, marred by no sordid or selfish aims. She did much valuable work in social reform, and was a fierce champion of what she considered to be the rights of her sex. A woman of unquestionably high intellectual endowments, she considered her life of sufficient importance to be told to the world in two volumes. The most interesting things in the book are the unconscious touches of self-revelation. One gets the impression of a domineering, egotistical nature with a considerable infusion of vanity and more that a trace of spite. We are not surprised to see it stated that she was a good hater where her dislike was called forth. It is plain that it was rether easily called forth and that she was extremely ready to believe evil of any person or party or sect or profession she happened to dislike. Perhaps no platform philanthropist is without a vein of hardness, and of this quality Miss Cobbe had her full share. Undoubtedly she did good according to her lights; it is also true that, knowing no better, she tried to do a good deal of harm. Fortunately for humanity she was unsuccessful. It is almost pathetic to think of the utter failure of the cause to which she devoted her best energies. Miss Cobbe could use her pen to good purpose in other directions, but in her n vivisection polemics she was mere sounding bra tinkling cymbal.

SIR FREDERICK TREVES AND THE HONG KO BRANCH.

OUR Hong Kong correspondent writes: On the even March 3rd the members of the Hong Kong and Branch of the British Medical Association entertain Frederick Treves to dinner in the Hong Kong Colonel W. E. Webb, R.A.M.C., President of the B presided over a large and representative gatheri medical men. The toast "His Majesty the King" h been duly honoured, the Hon. Dr. J. M. Atkinson pro "The Navy, Army, and Reserve Forces," which responded to by Deputy Inspector-General Drew, Colonel Brown, R.E., and Surgeon-Captain Ste H.K.V.C. "Our Colony, coupled with the name William Goodman," was then proposed by Dr. J and acknowledged by Sir William Goodman. The Pre in proposing the health of "Our Guest," referred great work Sir Frederick Treves had done in op surgery, recalling how he had offered his services nation during the South African war, and how he ha called to attend His Majesty the King in a serious i Colonel Webb further alluded to the good work Sir erick was still doing in helping to bring about refor the Royal Army Medical Corps. In responding toast Sir Frederick Treves thanked the members f the honour they had done him and said that of all h those bestowed on him by members of his own pro were most highly appreciated by him. Dr. Rennie the posed the health of Dr. Laing, secretary to the Bran Dr. Laing having responded, a very pleasant and mem gathering was brought to a close.

WE are glad to learn that the health of Sir Samuel is improving, although progress is slow.

AT the General Council of the Glasgow Universit on April 6th Lord Kelvin was unanimously chosen cellor of the University.

WE regret to learn that the Johns Hopkins Univ Baltimore, suffered somewhat serious loss durin recent terrible fire in that city, owing to the destruct some seventy warehouses which were not fully insu

THE Osborne Convalescent Home for officers navy and army—a description of which was pub in the BRITISH MEDICAL JOURNAL of January 30th, —was opened without ceremony on April 6th, wh officers took up their quarters.

WE are informed that Mr. Jordan Lloyd, Surgeon Queen's Hospital, Birmingham, and Professor of Op Surgery in the University of Birmingham, intends himself as a candidate at the next election to the C of the Royal College of Surgeons of England. Mr. became a Member of the College in 1877 and Fe 1880.

NOTIFICATION IN JOHANNESBURG.—In view of the state of the public health in Johannesburg it is of terest to note that the notifiable diseases which figu its list are small-pox, chicken-pox, enteric fever, gas typho-malarial fever, malaria, scarlet fever, puerpera or puerperal septicaemia, dysentery, diphtheria, memb croup, erysipelas, and leprosy. Cholera, typhus, rel and continued fevers find no place. All medical me town and suburbs are kept supplied with outfits for th mission to the public bacteriologist of material fro pected cases of each of the following diseases: diph typhoid, and tuberculosis. The sanitary authority als for gratuitous distribution stocks of antidiphtheria streptococcus, and antistaphylococcus serums.

Canada.

LUNATIC AND IDIOT ASYLUMS, ONTARIO.

hirty-sixth annual report of the Inspector of Prisons ublic Charities upon the Lunatic and Idiot Asylums tario for the year ending September, 1903, contains ics of some interest to alienists and medical men in l, as will appear from the following abstract:

l population of Ontario (circa)	2,000,000
l insane population in asylums	5,458
l insane population, including idiots, known to authorities	6,236
ease over 1902...	183
ber of insane to each 10,000 population	28.3
l number of admissions	839
l number of discharges	430
l number of recoveries...	322
l number of deaths	320
entage of deaths to population	5.86
entage of recoveries on admissions	28.67
entage of recoveries on resident population ...	5.06
entage of recoveries on total discharges	71.16
ber granted probational leave	413
rned to asylum	75
l expenditure...	$714,345.18
apita expenditure	$136.74
age for 36 years	$129.12
age number of days' work done during year per atient who worked	294

figures give food for thought on the seriousness of parent increase in insanity in a country so young, ous, and healthful as the province of Ontario. The (6 236) includes all in asylums, and all known to the or-General either in private retreats, hospitals, gaols, pplication made and not yet accepted; it shows an e, as has been shown by every return during the last hree years. No doubt this is partly explainable by ater tendency to the sequestration of the insane, and lly of idiots and epileptics, and also by the increase acilities afforded by the asylums for successful treat- But, after due allowance for all these causes the noly fact remains—that in a population unsurpassed world for general intelligence, morality, and pro- —where there is no criminal or pauper class, and he climatic conditions are most favourable to health, disease should so increase.

nspector-General believes that a study of the class of , their occupations and dwelling-places, will disprove gestion that overtaxed energies, in consequence of over- tion in every business and profession, is the cause of ease, as the large majority of the patients registered osed of those who are not possessed of that intel- calibre which would award them any prominent place ion in society, but are evidently drawn from a de- class whose mentality is of a low order. A hopeful he percentage of recoveries and the small number of after probational discharges. The death-rate is high— cent of resident population—but there are always ses suitable rather for a hospital than an asylum.

INSTITUTION FOR THE FEEBLE MINDED.

. J. Moher, Assistant Superintendent of the Institu- the Feeble Minded, Orillia, Ontario, has been pro- to the position of Medical Superintendent of the for the Insane, Brockwell, in place of the late Dr. , who died suddenly a short time ago. By the policy in the Government institutions of this class, of ment of juniors serving on the various staffs, each fitted by special training for his position, and a con- nd similarity of policy is assured.

THE ONTARIO ANATOMY ACT.

natomy Act in force in Ontario provides that when te of a house of refuge dies and the remains are not within twenty-four hours by a relative or friend, they e Inspector of Anatomy, who sends them to one of dical schools. Other sections of the Act apply to ed dead in hospitals and other institutions, the net eing that the medical schools receive a supply e to their requirements. At the session of the ure on February 26th an amendment was introduced Hislop to the effect that the disposal of the remains cases be left to the discretion of the warden of the and the head of the institution. This was strongly by the medical men in the House on the ground that it was a retrograde step, and a spirited debate ensued. Finally, on the suggestion of the Hon. Mr. Stratton that requests in this connexion might be referred to the Department, the amendment was sent to Committee.

PUBLIC HEALTH OF ONTARIO.

The winter now closing has been the most severe and continuous throughout Quebec and Ontario that has been experienced for many years. February, curiously enough, holds the record for the lowest temperature, greatest snowfall, and largest amount of sunshine for that month since the eighties. Railway communication has been constantly interrupted by storms, and the impassability of country roads has been a special hardship to the medical profession and to the sick. A death-rate increased by the fact that many old and weak people succumb at such a time is a feature of the vital statistics. In Manitoba and the North-West the winter has been pleasant.

The birth-rate of Ontario for 1902 was 21.7 per 1,000; the death-rate 12.6 per 1,000.

The January bulletin of the Ontario Board of Health reports 2,200 deaths, a rate of 13.1 per 1,000 of that part (92 per cent.) of the population reported. A marked increase in the number of deaths over the corresponding month of 1903 was due probably to the very severe cold which has been experienced. The number of deaths from contagious disease was much reduced, though the number caused by tuberculosis increased and amounted to 67 more than from all other infections diseases; 103 cases of small-pox were reported, no mortality. Appended to this bulletin is the report of the provincial bacteriologist, Dr. J. Amyot, analysing 228 examinations made.

Diphtheria is very prevalent in London (Ont.), and the hospital accommodation is crowded.

SANATORIA FOR CONSUMPTIVES.

The report of the National Sanatorium Association states that over 1,000 patients have been cared for in the two institutions maintained. The death-rate from tuberculosis has fallen steadily during the last three years, largely owing to the good work of this association. Taking 115 patients in the college sanatorium, the physician-in-charge reports these results: 24 were discharged apparently cured, 41 with the disease arrested, 31 with marked improvement, 17 as unimproved, 3 as failed. Bacilli were found in 87 per cent. of all patients on admission. Of 97 patients under treatment in the free sanatorium for periods over one month, 5 were discharged apparently cured, 20 with disease arrested, 27 improved, 41 not improved, and 4 died. The average duration of stay was 170 days.

PROFESSIONAL INTERESTS IN ONTARIO.

The clause in the Assessment Bill before the Legislature of Ontario which relates to physicians and surgeons has been altered upon the representations of the members of the profession, so that it now provides that medical men shall pay an income-tax on the basis of 20 per cent. of the value of the house he occupies. At the meeting on February 24th at which this was discussed, a resolution was adopted "that the Federal Government be asked to establish a laboratory for the preparation of antitoxin in Canada, and that until this is accomplished the Government take steps to secure, at lowest cost, a supply from the Lister Institute of Preventive Medicine in London. The formation of an association for business purposes was then discussed, and it was agreed that such an association would be in the interests of the profession, and the Chairman was instructed to appoint a committee to formulate a scheme, and to report to a future meeting.

RADIUM-BEARING MINERALS.

Extensive discoveries have been made recently of radium-bearing mineral deposits in eastern Canada, and it is thought that it may be found also in the great mineralized tract south of James Bay. An interesting series of experiments has just been concluded under the supervision of Professor McLennan, of the Physics Department in Toronto University, to determine the radio-activity of each of the minerals in the large collection in the geological museum.

SCHOOL DRILL AND FIRE RESCUES

During the last eight weeks there have occurred in Toronto three serious fires in educational institutions, two in ordinary day schools, each with a very large population of children, and one in a building the upper flat of which is occupied by a business college attended by 500 students. All these fires occurred while the schools were in session; in the first two

the fire spread rapidly and destroyed the buildings, but in every case, owing to the perfection of the system of drill, the pupils left the building in an orderly manner within three minutes of the time the alarm was sounded. This most striking exemplification of the value of such a system for public buildings has caused an increase in its adoption, and in hospitals and asylums special attention is being paid to the drilling of employés.

THE LATE DR. LANGSTER.

At a meeting of the ex-pupils of the Normal School, Toronto, it was decided to ask permission of the Government to erect a tablet in the school in honour of the late Dr. Langster, who was Principal of that institution for five years, and the author of a series of textbooks.

Scotland.

SMALL-POX.

DURING the period from March 16th to March 31st, both days inclusive, 264 cases of small-pox were intimated to the Local Government Board as having occurred in Scotland. These were distributed over fifteen counties. In actual number of cases the burgh of Greenock stands first, with 70; Glasgow second, with 65; Edinburgh third, with 18; and Leith fourth, with 11. Thus, as in the first half of March, the local incidence of the epidemic is still greatest in the burgh of Greenock, where the cases amount to 10.27 per 10,000 of the population, as compared with 9.67 in Bo'ness, 7.5 in Buckhaven, 2.96 in Port Glasgow, 2.09 in Ayr, and 1.42 in Leith. In Edinburgh, during the week ending Saturday, April 2nd, 8 new cases were reported to the public health authorities. No death occurred in the week in question. The number of cases remaining in hospital was 43, as against 47 in the preceding week.

PREVENTION OF CONSUMPTION.

SANATORIA FOR WORKERS.

THE first report of the executive committee appointed last spring by the National Committee for the Establishment of Sanatoria for Workers suffering from Tuberculosis states that enquiries made by the statistical subcommittee show that much further accommodation is necessary. Another subcommittee, which has been making inquiries as to a suitable site, and the cost of building, have recommended the erection of a sanatorium for two hundred patients, including a certain proportion of women; the cost of the building is estimated at about £50,000, and of maintenance at about £65 a bed per annum. The success of the scheme, the committee points out, will depend upon the co-operation of the Friendly Societies, trades-unions, and the patients themselves.

THE SPITTING NUISANCE IN TRAINS AND TRAMS.

In August last the New South Wales Railway Commissioners, in view of the large amount of public attention which was being directed to the danger of the spread of pulmonary tuberculosis by means of expectoration, passed a by-law imposing a fine of £2 on any person spitting into or upon any railway carriage or tramcar. Since the by-law was passed a considerable improvement has taken place in the condition of the railway carriages and tramcars, although no prosecution has been made, so far, for the offence. The *Australasian Medical Gazette* states that the Railway Commissioners have recently instructed tram conductors, tram guards, and other traffic officers to keep a strict watch, and to report any person found acting offensively in regard to expectorating, and the department will take legal proceedings against persons who infringe the by-law.

UNITED STATES.

Maryland.—The Governor of Maryland has been authorized to appoint a commission of five, three of whom are to be physicians, to investigate the relations of tuberculosis to the public health and welfare, and to devise means for restricting its prevalence. A Bill to render expectoration on the floor, seats, or platform of passenger cars and steamboats or in public buildings has recently been introduced into the State Legislature. The fine would be 350 dols., half of which would go to the informer. Railway and steamboat companies would be required to provide spittoons under a penalty of 25 dols. Bills have recently been introduced into the same Legislature to provide for the registration of tuberculous patients and for other preventive measures. The Bill would also give the health department of Baltimore compulsory powers to disinfect houses or apartments which have been occupied by tuberculous patients.

RAILWAY CARRIAGES FOR TUBERCULOUS PATIENTS.

The Sante Fé Railway, which has power to exclude tuberculous patients from ordinary Pullman cars, has arranged to run special hospital cars at intervals from Chicago to health resorts in Colorado, New Mexico, and California.

CONTRACT MEDICAL PRACTICE.

THE ATTITUDE OF FRIENDLY SOCIETIES.

WE referred last week to the address of the President of the annual conference of Friendly Societies of the United Kingdom at Caxton Hall, Westminster, on March 24th. We learn that the annual conference of the Friendly Societies Medical Association was held on April 4th at the Town Hall, Scarborough. The President, Dr. Hugh Watson, of that town, stated that the most important matter considered during the year has been the Medical Acts Amendment Bill. Though there was no actual reference in it to Friendly Societies or to medical associations, yet it was generally believed that the power asked for to erase the name of a practitioner from the *Medical Register* if he were found guilty of "infamous conduct in a professional respect" might be used against the medical men connected with their associations. It was absolutely necessary for the Association to maintain a firm standing opposition to this or any similar proposal. A resolution was carried on the motion of Mr. Pride (London), seconded by Dr. R. E. Marshall (York), protesting against the Medical Acts Amendment Bill, and instructing the incoming council to take immediate steps to oppose the Bill if it should be re-introduced during the present Parliament, unless words were inserted setting forth that service as a medical officer of Friendly Societies was not *ipso facto* to be regarded as coming within the scope of the Bill.

THE PLAGUE.

PREVALENCE OF THE DISEASE.

INDIA.

DURING the weeks ending March 5th, 12th, and 19th the deaths from plague in India numbered 28,919, 33,517, and 40,527 respectively. These returns place the mortality from plague in India far above any previous record. Since plague appeared in Bombay in 1896 the highest weekly mortality from plague occurred in April, 1903, when for three weeks the deaths from the disease amounted to 30,000. The chief centres of the disease during the three weeks in question are: Bombay districts, 6,140, 7,140, and 8,500; Bengal districts, 3,305, 4,386, and 5,000; North-West Provinces and Oudh, 6,910, 8,504, and 10,000; Punjab, 5,550, 6,431, and 10,[illegible]. It will be observed that out of the 40,527 deaths the above districts contributed 33,500 of the total. Besides these, plague prevails in the Central Provinces and Berar, where during the week ending March 12th the deaths from the disease numbered 2,290; Central India returns 955 deaths during the same week; Rajputana, 621: Kashmir, 405; Bombay city, [illegible]; Hyderabad city, 577; Calcutta, 230. In Mysore the disease regularly begins to subside with the return of the hot weather, and as the temperature gradually rises from South to North of India the annual subsidence of plague follows the climatological change.

SOUTH AFRICA.

Cape Colony.—During the weeks ending March 5th and 12th the reports on plague in Cape Colony towns and districts was as follow:

Port Elizabeth.—Fresh cases, 8 and 3; deaths from the disease, 4 and 2; remaining in hospital on March 12th, 6.

Uitenhage.—During the week ending March 12th: Fresh cases, 2; deaths, 1; remaining in hospital, 2.

From no other town of Cape Colony is plague reported in human beings. Rats are reported as plague infected only from Port Elizabeth and East London.

Transvaal.—In Johannesburg from the first report of the presence of plague on March 20th down to April 3rd the number of cases notified amounted to 126, of which 15 were white people; the deaths from the disease are returned as 70 in all, of which number 7 were whites. On April 4th no fresh cases were reported and no death. April 5th, two fresh cases were 2, with 1 death.

A telegram from Lord Milner to the Colonial Office gave the state of plague in Johannesburg up to April 2nd as follows: Proved cases, 67, consisting of 9 whites, 2 coloured persons, 51 Asiatics, 13 natives; suspected cases 50, consisting of 6 whites, 2 coloured, 6 Asiatics, 36 natives; proved deaths 62, consisting of 7 whites, 49 Asiatics, 6 natives; suspected deaths from plague, 5 natives.

Germiston.—Up to April 5th 9 cases of plague were reported in Germiston and 1 death from the disease.

Benoni.—Up to April 5th 4 cases of plague were reported in Benoni.

EGYPT.

A telegram dated March 18th states that a case of plague had been detected on that date at Port Said.

IARMOREK'S ANTITUBERCULOUS SERUM.

following is an abstract of a paper which Dr. Arthur am has communicated to us, in which he details his iences with Dr. Marmorek's antituberculous serum:

t December, impressed with the theories upon which Iarmorek had based the preparation of his serum, Dr. am determined to try the preparation among his patients . George's and at the Brompton Consumption Hospital; trying it he had upon three occasions the advantage of ersonal advice of Dr. Marmorek, who came over from on purpose to give it. Dr. Marmorek, when first sendver the serum, expressed a desire that it should not be in hopeful cases until some benefit from its use in grave ones had been proved. This attitude, though ifically very sound, somewhat increased the difficulty vestigation, and hence Dr. Latham's experience is ed to thirty cases treated within a space of three ns. It is at Dr. Marmorek's express wish that he gives an account of what he has personally learnt, e is the more ready to do this because his experience, plete though it be, may be of use to the many medical who, after reading Dr. Marmorek's lecture at St. George's tal, may desire to give the serum a trial. The investi- of a new remedy in tuberculosis with its ever varying al picture can never be easy, for it is difficult to distin- between *post hoc* and *propter hoc* results, whether in t of favourable or unfavourable effects. For instance, patients in whose cases there had been a question of encing the serum, died almost suddenly from acute bations of the natural disease. If the serum had been the fatal result would naturally have been ascribed to . Little is known, moreover, as yet of the effects of istering horse serum for months independently of xin. This also adds to the difficulty of determining results are due to antitoxin and what to other causes. fficulty of selecting suitable cases was also great; some ts refused treatment; others would not submit to it nough; others could not support it at all.

THE TECHNIQUE.

lly, the precise technique had to be chosen. Dr. n now usually injects the serum into the abdominal out some patients prefer the back, the axilla, or the in surgical cases a spot near the lesion may be best. the first injection the skin should be sterilized, the re closed by collodion, and all the locality covered terilized gauze. The object of this is to avoid the ty of anything more than swabbing with an antiseptic further injections are made, because with frequent zations the skin becomes too sensitive. Using col- too freely has the same effect. As much space as should be left between the sites of successive injecand a newly-sterilized syringe and fresh needle should ployed. In order to avoid contamination of the re- r of the serum left in the flasks, the cork and neck are ed by passage through a spirit lamp flame, the cork awn by pressure against the side, and not by a circular , the syringe needle inserted, the cork and neck re- and the cork then reinserted. The flask should be a cool place, but not on ice. If the serum becomes or bloodstained it should not be used. This method n used by Dr. Latham in making over 450 injections, f which have been followed by sepsis. The best time cting is between 9 and 11 a.m.

THE DOSAGE.

egards the dosage, Dr. Latham found after a little nce that the doses he at first gave in chronic cases o large. He now gives 5 c.cm. for four consecutive llowed by three days' rest; he repeats the series three ltogether, and then allows a rest of two weeks. Patients nes improve during the intervals, and not at all if the s pressed too hard, but it is difficult to lay down any rule as to the frequency of injections and intermis- Some patients show no serum reaction after compara- arge doses given in a short time, others cannot bear onsecutive doses of 5 c.cm. In treating such patients rmissions must be lengthened. In acute cases, and surgical ones, the serum is better borne. In itis he has given 30 c.cm. doses to a young child for ys without harm, and in adult surgical cases 8 c.cm. cm. doses are frequently borne well.

SERUM REACTIONS.

By this term Dr. Latham means effects probably due to the serum itself and not to the antitoxin which it contains, and they are, he considers, common more or less to all sera. Such reactions are rises of temperature, rashes, neuralgic pains, tenderness and enlargement of glands, feelings of *malaise*, and, in rare instances, affections of joints. In many chronic cases 10 c.cm. caused a rise of temperature, which usually fell again when the injections were omitted. In certain cases the pyrexial effect seems to be cumulative, as it occurred sometimes after the injections were stopped. This cumulative pyrexial action may sometimes be anticipated and prevented by careful observation of the temperature. In two cases the pyrexia continued for a long time; in one of these blood-stained serum had been used; in the other the serum, borne badly from the beginning, was used in what Dr. Latham now recognizes to be too large doses. Since adopting the lower dosage pyrexia has been exceptional. If it occurs the injections should be suspended and only recommenced tentatively. As regards rashes, mere erythema about the site of injection may be passed over, but rashes elsewhere and those accompanied by coryza or other symptoms are a signal for interruption of treatment. As examples of other symptoms, Dr. Latham mentions a feeling of pins and needles followed by neuralgic pains; swelling and inflammation of a finger-joint, lasting a few days; and oedema round the site of injection. In three cases doses of 10 c.cm. caused drowsiness and listlessness. In two or three cases there was some vasomotor disturbance immediately after injections, and one patient became collapsed after his nineteenth injection of 5 c.cm.

THE ANTITOXIC EFFECTS OF THE SERUM.

As regards this, Dr. Latham says he is not yet prepared to give a definite opinion. In some instances, especially when excavation has been present, the disease has made steady progress during the period of treatment. In the majority of cases, however, the patients have definitely stated that they felt better for the injections. In three cases of surgical tuberculosis, out of six treated, pain and tenderness disappeared after a few injections. In most pulmonary cases the first injections lead to an increase of sputa and of moist *râles*. In some this increase has been followed by progressive decrease more marked during intermissions of treatment. He does not think, however, that he can at present usefully give a summary of the effects of the serum on the various symptoms of phthisis, especially as so many of his cases are as yet incomplete. He gives, however, examples of cases which he considers show that the serum has a definite antitoxic effect.

CASE I.

W. L., a commercial traveller, aged 19 years. Five weeks before admission this patient consulted Dr. E. C. Greenwood, who sent him to Dr. Latham. Before consulting Dr. Greenwood he had been feeling "out of sorts" in consequence of a strain at football. Up to that time he had always felt well. For the last three weeks before admission he had suffered from cough, night sweats, and fever. During the last month he had lost 6 lb. On admission he was anaemic, and complained of dyspnoea on exertion, and of being easily fatigued. Pulse 108, regular, soft, and of poor volume. Evening temperature 100°. Tuberculous infiltration was found throughout the right lung with signs of commencing softening in the upper third; the left lung healthy. During the first week in hospital, when no injections were given, the average daily weight of the sputum was 1 oz., and contained on an average 38 tubercle bacilli in each film. The body weight was 9 st. 6 lb.

He received 145 c.cm. in twenty-three injections. After six weeks' treatment he went to the Royal Ventnor Hospital. During treatment he became stronger and felt much more comfortable. The night sweats ceased, dyspnoea disappeared, and the cough less troublesome; expectoration diminished, and instead of 1 oz. by weight a day averaged $2\frac{1}{2}$ drachms. The tubercle bacilli showed no diminution. The patient, who was of a better class than the usual hospital patient, gained 10 lb. in six weeks. When he left St. George's he was able to walk three miles without fatigue. The temperature became practically normal; the dyspnoea disappeared. With regard to the physical signs, it is interesting to record that there was no extension of the disease to the left lung. The actual extent of the disease in the right lung underwent no diminution during the six weeks of treatment. Where there had previously been signs of softening there was now definite excavation with comparatively few moist sounds. In the rest of the right lung the adventitious sounds became markedly less.

CASE II.

W. K., labourer, aged 36; treated at the Brompton Hospital. In July, 1903, this patient had an attack of haemoptysis. Since then he had suffered from cough and expectoration. On admission he was described as a fairly healthy man with a malar flush. His voice was hoarse, the epiglottis was thickened and rigid, and no view of the larynx could be obtained. The evening temperature was 101°. The

daily weight of the sputum varied from 3 to 6 oz., and contained tubercle bacilli. The body weight was 9 st. 6 lb. The whole of the left lung was found to be infiltrated, and there were large crepitant *râles* to be heard in the region of the axilla and over the lower half of the lung.

This patient has had up to the present time 260 c.cm. of the serum in 42 injections. At first he felt more comfortable, and the night sweats disappeared. After three injections the evening temperature fell from 101° to normal, although a week's treatment under ordinary conditions had produced no change in his symptoms. After 42 days' treatment the physical signs in the left lung had somewhat diminished, the large crepitant *râles* being less numerous, but there were now signs of early infiltration at the apex of the right lung. Consequently the serum treatment was omitted on January 22nd. The evening temperature, which hitherto had been normal except at the commencement of the treatment, again rose to 100° on February 6th, and remained at this point till February 18th. The man began to lose ground. At his own request the injections were renewed on February 16th, and the temperature again became normal on February 18th. At the present time the physical signs in his left lung, more especially at the base, are much less marked as far as adventitious sounds are concerned, and the recent infiltration at the right apex shows signs of diminution. The voice is distinctly less hoarse, the general condition is improved, and there has been a gain in weight of 11 lb. in three and a-half months. The weight of sputum and number of bacilli so far show no sign of decrease.

CASE III.

W. H. D., boot repairer, aged 17.

This patient had a chill twelve months before admission to the hospital with subsequent cough. He had been losing ground for the last three months.

On admission he was suffering from night sweats and dyspnoea. Physical examination showed infiltration of the upper-third of both lungs, with signs of excavation on the left side; 160 c.cm. of serum were injected in 26 injections. The patient has left the hospital with his general condition somewhat improved, in that he has lost his night sweats and suffers less from dyspnoea. His weight has remained stationary and the physical signs in the lungs show no alteration beyond some diminution in the number of moist sounds. The interest of this case lies in the sputum. This, though never profuse, showed a diminution in weight. Again, during the first week of treatment 40 tubercle bacilli were found in the average field, together with a few elastic fibres. During the last eight weeks of the patient's stay in the hospital a weekly examination of the sputum failed to reveal any elastic fibres or tubercle bacilli, except a clump of four bacilli on one occasion. The sputum contained a number of cocci, and towards the end of the treatment was possibly largely pharyngeal.

CASE IV.

This case was one of extremely acute tuberculosis. A lady, under the care of Mr. Owen Lankester, who had previously enjoyed good health, complained of feeling unwell. On an examination of the chest crepitations were discovered at the apex of the right lung. Tubercle bacilli were present in the sputum. The disease rapidly spread throughout both lungs, and a fatal issue resulted in six weeks from the onset of the first symptoms. When I saw this patient five weeks after the commencement of the illness there appeared to be no hope whatever of a favourable issue. Large crepitant *râles* were heard over the entire surface of both lungs. Dyspnoea was marked, the pulse feeble, and the temperature 105°. In view of my limited experience of the serum at that time, I was not anxious to try it in this case, but, somewhat against my will, consented to do so. Not only was the temperature reduced from 105° to 100°, but the character of the daily curve was altered. Injections of 5 c.cm. of serum were given on February 7th, 8th, 9th, 10th, 12th, 13th, and 14th. On and after February 9th the daily maximum temperature was lowered and the fluctuations greatly reduced in their range. On February 9th the maximum was 103°, the minimum 101°. On February 10th the maximum was 101°, the minimum 99.6°. On February 11th when no injection was given the maximum was 103°, the minimum 98.4°. On February 12th the maximum was 101°, the minimum 97.6°. On February 13th the maximum was 100.4°, the minimum 97.8°. On February 14th, when death took place in the evening, the maximum was 100°. The condition of the lungs showed no amelioration. I gave small doses of 5 c.cm. partly because I did not wish to set up unpleasant serum effects, and so add to the discomfort of the patient, but chiefly because I thought that the serum which, as I have said, often increases the amount of expectoration and the number of adventitious sounds for the first few days, might act detrimentally if given in large doses in this case, on account of the severity of the catarrh already present. It is an open question whether large doses should not be given in a similar case. Certainly, if a case of this kind is seen at an earlier period, doses of at least 10 c.cm. daily should be given.

CASE V.

F. B., aged 14. This patient was sent into St. George's Hospital by Mr. T. Crisp English for early tuberculosis of the lower end of the fibula on the left side. There was a history of aching pain in the left ankle for fourteen days. No cause of the disease was known, and there was no history of an injury. A swelling had appeared after a few days. On admission there was definite thickening of the lower end of the left fibula. The skin over the outer malleolus was livid and glossy. The movements of ankle-joint were fairly free, but there was pain on pressure and on extreme extension. The tibia was unaffected. The boy was kept in bed, but received no treatment beyond the injections of serum; 55 c.cm. of serum in six injections were given. After three injections the pain completely disappeared, and fourteen days after the commencement of the treatment the condition of the boy was such that he was allowed to get up and walk about the ward. The disease apparently has been completely arrested.

This case is the only example of early tuberculosis which I have treated so far with the serum. It is of course in no way conclusive, but such cases show improvement sometimes of a similar kind when treated with rest alone. The rapid disappearance of the pain and subsidence of all symptoms are however suggestive.

Dr. Latham concludes his remarks as follows: "As a result of my experience of this new treatment up to the present time, I think I may say that the serum, when given in carefully graduated doses, with proper precautions and in suitable cases, does no harm. Further, my experience tends to show that the serum does produce a specific antitoxic effect. In any case there can be no doubt that an extended trial of this remedy should be made, more especially in less severe cases than those to which I have hitherto intentionally confined my attention. It must not, however, be forgotten that great care must be exercised in the administration of this remedy and that the treatment may have to be extended over a considerable time before permanent results are obtained."

STATE REGISTRATION OF NURSES.

WE are asked to publish the following reply to the manifesto published in our columns last week, p. 803:

The signatories of the manifesto against the State registration of nurses, which appeared in the columns of the BRITISH MEDICAL JOURNAL of April 2nd, have failed to grasp the nature and purpose of the Bill introduced into the House by the Association for Promoting the State Registration of Nurses.

The central purpose of this Bill is the organization of the profession by the establishment of a representative Nursing Council, to whom all questions of training, discipline, and other professional matters will be referred, and by whom a register of trained nurses will be kept.

The first duty of the Council (on which the public, the medical profession, matrons, and nurses must be represented) will be to determine what is the minimum training and experience necessary to constitute a fully-trained nurse. Once such a standard is established, nurses who have received the minimum training in hospitals or groups of hospitals approved by the Nursing Council, will be entitled to register and will receive a certificate which will be recoverable by the Council in cases of moral or professional misconduct. It is not suggested that registration should depend upon an "examination," or that the methods of training should differ materially from those now in force in our leading hospitals. Matrons of hospitals in which nurses undergo training will have precisely the same opportunities of judging of the moral qualities of their nurses as they have under the present system; and it is not apparent why that side of a nurse's equipment should receive less consideration under a system of registration than it does at present. State registration will in no way prevent employers from making further inquiries into the personal qualifications of a nurse; but in the innumerable cases where, owing to death or changes in matronships, no such references are possible, the employer will have an assurance that the registered nurse has gone satisfactorily through a recognized training school and has been considered eligible for registration by her matron. It would be needless to anticipate that hospitals will keep in their employ and recommend as candidates for registration women of unsuitable character and disposition. Nurses will therefore, not be registered on their technical qualifications alone, inasmuch as the training schools will certainly in every instance be required to testify that candidates possess the necessary personal qualities.

The public are in a position to judge for themselves whether or not a woman is a desirable member of their households; they have not the expert knowledge to enable them to estimate her professional qualifications.

It must also be borne in mind that many nurses do their work in connexion with either hospital or agency, and thus the public has no guarantee of the efficiency and impartiality of particular agencies. Some maintain an adequate standard of professional efficiency; others are run purely as commercial speculations in the interests of the proprietors.

Under a system of registration the public would obtain their nurses from institutions which guaranteed only to supply registered nurses, and they would then not pay full fees to hospital probationers still in training, or for half-trained

fficient women farmed out as a commercial speculation for pecuniary advantage of a middleman.

The advocates of registration deny that the present want organization and the absence of any definite test of professional efficiency is a guarantee of the possession by nurses of perior moral qualities, and they also contend that—however uable personal qualities may be—it is through technical ll alone that a nurse is rendered valuable in cases of ious illness. The possession of the highest character and best intentions would not enable an ignorant woman to st the haemorrhage of a wounded artery or adjust a dage carefully and skilfully. On the other hand, education technical training tend to cultivate "observation, symhy, cheerfulness, and self-control," and the highly skilled ally acquire that professional zeal or devotion to a ient's interests which is likely to be better directed and re effective than any amount of native, but unskilled, dness and sympathy.

is not suggested that there should be a "uniform train-" but that a certain minimum standard of training should aid down, anything less than which cannot be regarded as plete or sufficient.

on registered nurses will be free to work for hire, but will forbidden to claim the title of "registered nurse;" and it maintained that registration, by giving a definite status to fully-trained nurse, and by enabling the public to disinate between the quality of the services offered, will act a good class of women into the profession, and will to a better subdivision of labour and to greater economy ursing effort.

ne State Register would in no way "lower the status of best nurses," for, although every nurse on the Register ld have reached a certain minimum standard of efficiency, e who undertook further courses of study, or obtained rience in different departments of nursing, would have e facts duly notified in the Register, and this would lt in the creation of a higher order of nurses, to whom higher might be paid, and by whom the prizes of the profession ld naturally tend to be filled.

ne opposition to registration comes from certain hospital mittees—the employers of nurses—and from some matrons e service of these committees, who have ranged themselves ne side of their employers. It is unnecessary to point out the interests of employer and employed are not always tical, and both need safeguarding. There is also considerprejudice in the minds of hospital committees against proposals which would establish a central Board, and thus nish the independence of their nurse-training schools.

present the training schools have absolute power to late the hours of work and the conditions of labour of employés. In some hospitals the position of the proner is inferior to that of the domestic servant, who at rate is entitled to a month's notice. Neither have en who enter the training schools any guarantee at ent that they will receive a thorough training in return he three years' service to which in most cases they bind selves on the understanding that they will receive ficient training.

ese training schools are at the present time a law to selves. There is no minimum standard to which they conform before they are entitled to rank as training ols, and, while some give due consideration to the ests of their pupils, others—as is only natural—consider own convenience first.

an efficient nursing service is a valuable "national ," it is imperative that nurse-training schools should proof of their qualifications before their recognition as ation authorities. This is imperative in the interests of urses and of the public.

list of signatories include seven matrons of hospitals in London, matrons of metropolitan Poor-law infirmaries, seven matrons of ncial hospitals, six matrons of provincial infirmaries, and thirty-honarary officers, vice-presidents, and others of the Society for the Registration of Nurses.

ITH HEALING.—Dr. Dowie, of faith-healing fame, appears ve gone far and fared worse. Failing in his New York paign he has met with no greater success in Australia to h he repaired. He was very unfavourably received even s first arrival, and it is now stated by the *Daily Chronicle* other papers that owing to his speeches and the public tion caused thereby, the Mayor of Adelaide has proed any further use by him of the town hall. A cheque which the "Zionist prophet" lodged in order to secure se of the Exhibition building, has been returned to him

ASSOCIATION NOTICES.

COUNCIL.

NOTICE OF MEETING.

A MEETING of the Council will be held in the Council Room of the Association, at 429, Strand (corner of Agar Street), London, on Wednesday, the 20th day of April next, at 2 o'clock in the afternoon.

ELECTION OF MEMBERS.

ANY candidate for election should forward his application upon a form, which will be furnished by the General Secretary of the Association, 429, Strand. Applications for membership should be sent to the General Secretary not less than thirty-five days prior to the date of a meeting of the Council.

GRANTS FOR SCIENTIFIC RESEARCH.

THE Council of the British Medical Association desires to remind members of the profession engaged in researches for the advancement of medicine and the allied sciences that it is prepared to receive applications for grants in aid of such research. Applications for sums to be granted, which must reach this office not later than 31st of May, must include details of the precise character and objects of the research which is proposed, and must be made on forms to be had of the General Secretary, at the office of the Association, 429, Strand, London.

Every recipient is expected to furnish to the Committee on or before 31st May following upon the allotment of the grant, a report (or, if the object of the grant be not then attained, an interim report to be renewed at the same date in each subsequent year until a final report can be furnished) containing: (*a*) A brief statement for the Report of the Scientific Grants Committee, showing the results arrived at, or the stage which the inquiry has reached; (*b*) a general statement of the expenditure incurred, accompanied, so far as is possible, with vouchers; (*c*) and references to any Transactions, Journals, or other publications in which the results of the research have been printed.

RESEARCH SCHOLARSHIPS.

The Council of the British Medical Association is prepared to receive applications for three Research Scholarships which become vacant, of the value each of £150 per annum, tenable for one year, and subject to renewal by the Council, provided the whole term of office has not exceeded three years.

The scholarships exist for the encouragement of research in Anatomy, Physiology, Pathology, Bacteriology, State Medicine, Clinical Medicine, and Clinical Surgery.

Applications for Scholarships must be made on forms to be had of the General Secretary, and returned on or before May 31st.

ERNEST HART RESEARCH SCHOLARSHIP.

The Council of the British Medical Association is also prepared to receive applications for the Ernest Hart Memorial Scholarship of the value of £200 per annum, tenable for one year, but subject to renewal by the Council for another year. The Scholarship is for the study of some subject in the department of State Medicine.

GUY ELLISTON, *General Secretary.*

429, Strand, March 25th, 1904.

BRANCH MEETINGS TO BE HELD.

BORDER COUNTIES BRANCH: WEST CUMBERLAND DIVISION.—The annual general meeting of this Division will be held at Whitehaven on May 17th. The Secretary will be pleased to receive communications from any member who wishes to read a paper or show cases or specimens.—T. G. MATHEWS, 6, Scotch Street, Whitehaven, Honorary Secretary.

BIRMINGHAM BRANCH: WEST BROMWICH DIVISION.—A meeting of this Division will be held in the Board Room of the District Hospital, West Bromwich, on Wednesday, April 13th, at 4 p.m. Business:—General. Also the consideration of the following important questions: From Medico-Political Committee—Whether it is advisable that the medical witnesses engaged on each side in legal cases should meet in consultation. From Ethical Committee—The question of advertising of medical practitioners in connexion with hydropathic establishments. From the Council of the Association—Shall Medical Defence be undertaken by the Association? As a poll of the Division is asked for on the latter question, members who are unable to be present at the meeting should inform the Honorary Secretary as soon as possible: (1) If it is their wish that the Association should take up Medical Defence as suggested. (2) Whether they approve of the general principles and details of the scheme. (3) If

they are willing to join the Medical Defence department, they should sign form of agreement and return it to H. B. W. PLUMMER, 54, Birmingham Road, West Bromwich, Honorary Secretary.

EAST ANGLIAN BRANCH.—The spring meeting of this Branch will be held at the White Hart Hotel, Manningtree, on Thursday, April 14th. Programme of proceedings:—12.30 o'clock—Meeting of Council. 1 o'clock—Luncheon, 3s.; intimation should be made to Dr. Nicholson of intention to be present by Monday morning, April 11th. 2 o'clock—General meeting. Agenda: (1) Minutes of last meeting. (2) To consider and pass the Ethical Rules for this Branch (copy enclosed). (3) Resolution by Mr H. A. Ballance—"Requiring sponsors for nomination of new members." (4) General business. (5) W. Anton Lieven, M.D. (Aix-la-Chapelle), will read a paper on the Cure at Aix. (6) T. H. Morse, F.R.C.S. (Norwich), will read a paper on Twenty-one Cases of Extrauterine Fetation treated by Operation, with special reference to Diagnosis and Removal before Rupture. (7) Sidney Bree, M.B. (Manningtree), will show a specimen of thyroid adenoma, with notes on case. (8) H. Muir Evans, M.D. (Lowestoft), will read a paper on a Rare Case of Jacksonian Epilepsy in a child of 2 years: Operation: Recovery. 4 to 5 o'clock—Afternoon tea, by kind invitation of Dr. and Mrs. Baxter. Surgical instruments and appliances will be shown by Messrs. Down Bros.—B. H. NICHOLSON (Colchester), H. A. BALLANCE (Norwich), J. GUTCH (Ipswich), Honorary Secretaries.

LANCASHIRE AND CHESHIRE BRANCH: SOUTH MANCHESTER DIVISION.—A meeting of this Division will be held in the Medical Society's Reading Room, Owens College, Manchester, on Thursday, April 14th, at 4 30 p m. Dr. C. Glascott will preside. Business: (1) Whether it is advisable that medical witnesses engaged on each side in legal cases should meet in consultation. (2) The question of advertising of medical practitioners in connexion with hydropathic establishments. (3) Scheme of Medical Defence. (4) General.—F. H. COLLINS, M.D., Bridge House, Didsbury, Honorary Secretary.

SOUTH MIDLAND BRANCH: BEDFORD AND HERTFORDSHIRE DIVISION.—The annual meeting of this Division will be held at the County Hospital, Bedford, on Tuesday, May 3rd, at 3.30 p.m. Agenda:—Minutes of last annual meeting. Election of officers. Appointment of Ethical Committee. Matters referred to the Division by the Central Council: (1) Whether it is desirable that the medical witnesses engaged on each side in legal cases should meet in consultation. (2) The question of the advertising of medical practitioners in connexion with hydropathic establishments. The Executive Committee ventures to draw the attention of members of the Division to the recently-issued Year Book of the Association for the year 1904, and in particular to pp. 42 and 43, dealing with the work and constitution of the Divisions. The Committee would urge upon members the importance of attending the meetings of the Division and taking part in the work devolving upon the Division as the executive and influential units of the Association, to which matters of great moment to every medical man may at any time be referred (by individual members or by the Central Council of the Association), and upon the vitality of which the successful working of the Association as a whole now so largely depends. The attendance of members of the Division is earnestly requested.—S. J. ROSS, 28, Mill Street, Bedford, Honorary Secretary.

SOUTH-EASTERN BRANCH: FOLKESTONE DIVISION.—A meeting of this Division will be held at Hotel Wampach, Folkestone, on Friday, April 15th, at 7.15 p.m. Agenda:—Confirmation of minutes of last meeting. To consider matters deferred from last meeting: (*a*) Vaccination fees: (*b*) Medical Acts Amendment Bill, *vide* BRITISH MEDICAL JOURNAL, September 22nd, 1903; (*c*) representation on General Medical Council. Resolution for Representative Meeting: To consider a recommendation of the Ethical Committee that "The question of advertising of medical practitioners in connexion with hydropathic establishments be referred to the Divisions." To consider a recommendation of the Medico-Political Committee "Whether it is advisable that medical witnesses engaged on each side in legal cases should meet in consultation." To discuss the Medical Defence scheme as prepared by the Medical Defence Committee of the Association. (1) Whether it is the wish of the members that the Association should take up Medical Defence as suggested in the scheme; (2) whether the Division approves of the general principle and details of the scheme; (3) to poll the number of members who are willing to join a Medical Defence department in the event of such a department being formed. It is hoped that members will make an effort to attend, as there are several important matters referred to the Divisions. All members of the South-Eastern Branch are invited to attend the meetings and to introduce professional friends. Dinner at 8.30 p.m.; charge 5s.—PERCY V. DODD, 14, Manor Road, Folkestone, Honorary Secretary.

SOUTH WALES AND MONMOUTHSHIRE BRANCH: CARDIFF DIVISION.—A special meeting of the Division will be held in the rooms of the Cardiff Medical Society, Queen Street, on Thursday, April 14th, commencing at 3.30 precisely. The agenda will be as follows:—(1) Matters referred to the Divisions by the Central Council: (*a*) The scheme of Medical Defence as set forth in the circular enclosed with the notice of the meeting. Members are earnestly requested to take this opportunity of expressing their opinion on this important proposal by duly returning the form annexed to the circular to the Honorary Secretary at 12, Park Place, Cardiff, either before (if unable to attend) or after the meeting where the scheme will be discussed. (*b*) "Whether it is advisable that the medical witnesses engaged on each side in legal cases should meet in consultation" (*vide* SUPPLEMENT to the BRITISH MEDICAL JOURNAL, March 19th, 1904). (*c*) "The question of the advertising of medical practitioners in connexion with hydropathic establishments" (*vide loc. cit.*). (2) Interim report of Committee on Proposed Training Centre for Midwives. (3) Resolution by Mr. T. Garrett Horder: "That steps be taken by the British Medical Association to secure direct representation of the profession in the House of Commons."—EWEN J. MACLEAN, M.D., 12, Park Place, Cardiff, Honorary Secretary.

SOUTHERN BRANCH: PORTSMOUTH DIVISION.—The next meeting of this Division will be held at 5, Pembroke Road, Portsmouth, on Tuesday, April 12th, at 3.30 p.m.—J. G. BLACKMAN, Poplar House, Kingston Crescent, Portsmouth, Honorary Secretary.

SPECIAL CORRESPONDENCE.

BERLIN.

The Imperial Family and Revaccination.—Tuberculosis in Prisons.—Popular Lectures on Tuberculosis.—Proposed Experimental Investigation of Syphilis in Borneo.—Cremation.

AMONG the innumerable absurd reports about the German Imperial family was one, actively circulated by antivaccinationists, declaring that the German Emperor's children had not been vaccinated. This report even found its way into the daily press, and was, of course, believed by those persons—and there are numbers of them in every country—who take for truth whatever is in print. To give denials to all the gossip that crops up daily would, of course, be a hopeless task, but in this case an important principle was involved, as non-vaccination means non-compliance with the law. Under these circumstances, a medical journal—the *Zeitschrift für aerztliche Fortbildung*—asked Dr. von Leuthold, the Emperor's Chief Body-physician, for leave to publish an authentic declaration on the subject, and received from him a statement, signed by Dr. Zunker, Body-physician to the Empress, to the effect that *all* the Emperor's children have been vaccinated and revaccinated in strict accordance with the German vaccination law.

Geheimrath Baer, an experienced prison medical officer and a well-known medical statistician, has published a pamphlet on tuberculosis in prisons, in which he pleads for temporary dismissal of tuberculous prisoners to suitable hospitals, or the establishment of separate prison buildings properly arranged, for the housing of tuberculous prisoners. Dr. Baer gives the following statistics: During the last fourteen years 56 per cent. of all deaths from natural causes in Prussian prisons were caused by consumption, and even in prisons fitted with the best modern hygienic improvements the percentage of deaths from consumption during the last years 1896-1901 remained as high as 38.3. Amongst the population at large the percentage of deaths from consumption was only 18 5 per cent. These figures speak for themselves. There is no doubt that in prisons—as they are at present—each tuberculous inmate is a danger to his surroundings. Now, no one can accuse the Prussian Government of slackness in its efforts for stamping out tuberculosis; in fact, it is really in the van of the modern movement, and therefore it is not surprising to learn that estimates for prison sanatoria are already being prepared, and will probably be included in next year's budget.

Popular courses of lectures on tuberculosis have been held in Berlin this early spring, and are to be repeated at intervals. They are arranged by the central committee for the erection of lung sanatoria, and are held in the lecture hall of the new permanent exhibition for the weal of workpeople. Photographs thrown on the screen, and the specimens of the tuberculosis museum belonging to the permanent exhibition are employed to illustrate the lectures. The first course was attended by officials of the Red Cross Society and of different sick clubs, and future courses are to be given for the benefit of school teachers, police officials, etc.

A scientific expedition of an entirely novel character is being planned, if funds can be found for it—an expedition connected with the successful inoculation of anthropomorphous apes with syphilis virus by Metchnikoff (Paris) and Lassar (Berlin). As these apes in our European climate invariably fall victims to tuberculosis, the plan has been formed to seek them in their own home, and to establish a laboratory in Borneo or Sumatra and send out a bacteriologist, with a view to discovering an antitoxic serum against spyhilis.

The cremation question has again been fully ventilated in a special Committee of the Prussian Diet. In the course of the debate a representative of the Health Department of the Home Office went into the hygienic side of the matter, and declared the spread of diseases by corpses in burial grounds to be impossible. Bacteriological examination had proved that the soil close below graves was as poor in bacteria as other untouched parts, and the same was the case with water flowing from burial grounds. Then, he continued, there were serious objections against cremation from the forensic physician's point of view. Before permitting cremation the Prussian Government would have to make inquests universally obligatory. A representative of the Ministry of Justice added that since 1892 no fewer than fifteen murders had been discovered solely by the exhumation of corpses. Even if inquests became universal that would not solve the problem

completely, as the presence of poison could sometimes only be ascertained by careful chemical examinations. Finally, the Committee decided (by eleven votes against seven) that no steps were to be taken to alter the existing state of things.

PARIS.

Société Médicale des Hôpitaux: Dr. Louis Martin on the Isolation of 2,745 Contagious Cases at the Pasteur Hospital.—Académie de Médecine: Dr. Kirmisson on Administration of Chloroform by Roth's Apparatus.—Restoration of Ancient Medical School.—Typhoid Fever Statistics.

At a recent meeting of the Société Médicale des Hôpitaux Dr. Louis Martin read an interesting paper on the isolation of contagious diseases as carried out at the new Pasteur Hospital. Since 1900 all kinds of contagious diseases have been treated in the same pavilion, but isolated in separate boxes. The hospital was originally intended for cases of diphtheria alone, but it was soon found impossible to treat continually 60 patients with the same disease. From October 1st, 1900, to April 19th, 1903, 2,000 patients were treated—that is, 43 diphtheria, 166 non-diphtherial anginas, 524 small-pox, 5 chicken-pox, 126 measles, 92 scarlet fever, 163 erysipelas, 0 abscess of the tonsil, 7 hydrophobia, 26 antirabic treatment, 7 preventive treatments for diphtheria; 192 mothers of sick children or children of sick mothers; 179 cases which do not come under any of the above heads. Dr. Martin then fully described all the measures taken from the time of admission of the patient to prevent contagion.

From April 17th, 1903, to the present date, 745 patients had been treated in the hospital, and out of this total of 2,745 cases, the cases of contagion had been less than 3 per 1,000, that is, 8 cases of contagion in all, 5 small-pox, 2 erysipelas, and one diphtheria. These cases have all been explained, and Dr. Martin hoped that in the future contagion will be avoided. Two convalescents from small-pox took erysipelas on the same day from insufficient disinfection of combs used by erysipelas patients which, still greasy, had been soaked in 1 in 1,000 solution of corrosive sublimate. The mortality statistics were for small-pox 18 per cent., instead of 24 per cent. for the same epidemic at the Aubervilliers Hospital; for diphtheria, 11 per cent.; for scarlet fever, 2.17 per cent.; for erysipelas, 6.75 per cent.; from measles there were 2 deaths only among 126 patients. Dr. Martin was of opinion that for the new fever hospital at Aubervilliers the principle of the Pasteur hospital should be accepted. One or two pavilions might be set apart for the prevailing epidemic and another pavilion for other diseases. A Pasteur pavilion should be added to new hospitals in Paris to avoid as much as possible the transport of serious cases to the fever hospitals. In each service there should be some isolated rooms for the isolation of doubtful cases of contagious disease and to allow the moribund to die quietly, instead of in the general ward. Dr. Martin thought that new hospitals should not have large wards, but rather wards for three, six, or twelve patients at most.

At the last meeting of the Académie de Medecine Dr. Kirmisson made a communication on the administration of chloroform associated with oxygen by means of the apparatus of Roth, which he considers a real progress in the use of chloroform. Since December 20th, 1902, 229 cases had been thus anaesthetized, all being children up to 15 years of age, the youngest being only 6 months old. The quantity of chloroform used was found to be 50 cg. a minute or 3 grammes for an operation of half-an-hour. The longer the operation the smaller was the proportional quantity of chloroform used. Anaesthesia by this means was always slower than by chloroform alone, requiring as a rule five or six minutes. The calm of the patient and the small amount of agitation in the initial stage were especially striking, the breathing and pulse were quiet, the face remained of a good colour, there was no tendency to syncope, and vomiting was very rare. The patient came round with surprising rapidity as soon as the administration was stopped. In some older patients of 14 or 15 years there was some agitation, due to the use of oxygen being raised, improperly, to 4 litres a minute; in children, as a rule, 2 or 2½ litres were sufficient.

The Municipal Council of Paris has approved the plan of restoring the ancient Faculty of Medicine in the Rue de la Bucherie, across the river from the cathedral of Nôtre Dame. The building will be considered as a historical monument.

The following table shows the course of the present epidemic of typhoid fever in Paris which is now decreasing:

	Cases Notified.	Deaths.
5th week (February 1st to 7th)	—	4
6th ,, (February 7th to 13th)	40	3
7th ,, (February 14th to 20th)	55	2
8th ,, (February 21st to 27th)	117	6
9th ,, (February 28th to March 5th)	158	17
10th ,, (March 6th to 12th)	147	14
11th ,, (March 13th to 19th)	151	15
12th ,, (March 20th to 26th)	106	24

INDIA.

The Civil Department of the Indian Medical Service.—The Director-General.—Leishman-Donovan Bodies.

The question of increased pay for the civil branch of the Indian Medical Service has been referred to each of the local Governments for report, a process which will lead to very considerable delay, but it is hoped that it will be followed by a liberal scheme being ultimately sanctioned. In all fairness, too, the rates when finally brought into force should be made retrospective from the date when the military branch began to receive the enhanced rate of pay, for it would be manifestly unfair for the much harder-worked civil officers to suffer severe loss by a delay due to its not being possible to take up their case until the military rates had been gazetted. While this matter is receiving attention, certain anomalies in the pay of officers officiating in the civil department before obtaining permanent vacancies might very well be remedied. The most serious of these is the great difference between the pay of an officer, who has been fortunate enough to be gazetted to the permanent charge of a native regiment before entering the civil department, and that of his less fortunate brother officer who may have entered the civil branch just before he would have got the full pay of the regiment. Both these officers will be officiating in the civil department in the ordinary course of events for several years, and during the whole of this time the former will be drawing considerable more pay than the latter simply through pure luck. If the latter officer happens to be married he will be very hard put to live at all during the time he is officiating in civil on account of the numerous very expensive moves which he must necessarily experience, as he will usually be acting for some more senior officer who is on leave. This is by no means a very exceptional condition of affairs, as we have met with more than one instance recently of officers officiating in the civil department who could not pay their way from one station to another on transfer without assistance. Moreover, it is largely due to the very inadequate pay of junior officers in the civil branch that so many highly qualified men throw up after a short trial the civil branch and return to their regiments (on which they retain a lien for two years while officiating in civil) although in so doing they sacrifice their prospects of eventually obtaining a good position in the once lucrative civil employment, and thus for ever abandon the pursuit of the goal which they doubtless nearly all set before themselves when they entered the renowned and still much-sought-after Indian Medical Service.

The extension of office of the Director-General of the Indian Medical Service which has recently been granted to Surgeon-General Sir Benjamin Franklin is singularly well timed at the present crisis in the fortunes of the service over which he presides, as he has fully gained the confidence of his officers, and will now be able to see through the reforms which are under the consideration of the Government, especially as Surgeon-General Sir W. Hooper has retired from the India Office. The latter officer has also deserved well of the service by the able manner in which he has piloted through the reforms of the military branch, and he has earned his retirement by long and valuable services.

The parasite-like bodies found in the spleen in certain chronic fevers by Leishman and Donovan are attracting a great deal of attention in India. Dr. Bentley has wired home that he has found them in kala-azar cases. If this is confirmed it will be of great practical importance, as the well-known preventative and therapeutic measures which are of value in controlling that disease will be available for the more widely-distributed sporadic cases, although the discovery of a protozoal parasite, which differs somewhat from the malarial organisms, will not *per se* explain the origin of the Burdwan and Assam epidemics. A medical officer who is acquainted

with kala-azar has recently been placed on special duty to inquire into the mortality from fevers in the worst districts of North-Eastern Bengal, including the Kala-Dukh area, so more light may soon be thrown on the extent and distribution of the new organism. The differences of opinion as to its exact classification among high authorities leads one to think that there must be other forms of the organisms still to be discovered, and the progress of investigation will be watched with great interest.

BRISTOL.

Reports of the Royal Infirmary and General Hospital.

THE report of the Committee of the Royal Infirmary states that a serious crisis has to be faced in the affairs of the institution, and this crisis is, as might be expected, a financial one. It appears from the report that there has been for some years an increasing debt to the treasurer, and that now the indebtedness is little short of £16,000, to say nothing about the pressing needs of a new casualty department and the necessary repairs to the fabric. The Committee decided to appeal to the citizens for £20,000 to wipe off the debt and to increase their subscriptions in number and amount in the future. During the past year the income had been £11,041, but the expenditure had been £5,410 more. The number of patients had been 44,263—3,293 in-patients and 38,480 out-patients—the largest number in the last five years. The chairman, in moving the adoption of the report, referred to the proposed appeal, and stated that he had approached the Lord Mayor to receive a deputation from the Committee and had received a favourable reply. If the money was not forthcoming the institution would have to close some—at least six—of its wards, a serious matter which he hoped would not be necessary.

The report of the General Hospital also shows a state of financial affairs somewhat though not so unsatisfactory. The debt to the treasurer had risen last year from £1,803 to £3,825. This large increase was partly due to a remodelling of the lavatory accommodation, but the income fell short of the expenditure by £1,340. The number of in-patients treated during the year was 2,094, nearly 200 less than in 1902; this was accounted for by the necessary closing of wards during alterations. Out-patients numbered 31,994, an increase; the total number of patients being 34,188. At Avonmouth in connexion with the new dock works a small hospital was opened by Sir John Aird and Co., in which 87 in-patients and 2,343 out-patients had been treated, this institution being worked in conjunction with the General Hospital. The chief alterations made during the year were the lavatory accommodation and the fitting-up of a second operating theatre. In the speeches hints were thrown out that an appeal to the public to wipe out the debt would have to be made, but, taking into consideration the intended action of the infirmary, this will probably be postponed.

In comparing the reports of these two large Bristol institutions, one or two interesting facts can be observed. The infirmary received £386 less than the hospital, and has a debt of £12,000 more; the infirmary treats about 10,000 more patients in the year than the hospital, which no doubt accounts for the big deficit.

CORRESPONDENCE.

THE HOLMAN TESTIMONIAL FUND.

SIR,—As Treasurer and Secretary of the Holman Testimonial Fund we ask your insertion of the following circular and first list of subscribers. It is very rare in our own profession or in any other that so consistent a course of public work and effort in the cause of charity can be found. In disregard of personal interest Dr. Holman has for the last fifty years taken more than his share, as a worthy successor to the Martins of Reigate, of the labour of love which builds up our medical charities. As founder and secretary of the South-Eastern Branch, and as Treasurer of the British Medical Association, he has advanced the progress of the Association and improved its finances; while as Treasurer for twenty years of Epsom College he has fathered it and tided it over many difficulties, until it is now recognized as a great public school with a greater future before it. It seems a worthy object to do something to mark time in such a career.

In the Church of St. Maria Antiqua, in the Roman Forum are pictures of Popes with square and rounded nimbi. The square nimbus is the mark of a living Pope, and such a one would we place on the head of our friend, whom we desire to honour while living, and would do so in the manner most congenial to himself—in some help to Epsom College associated with his name. We are sure that those most intimate with his work will be our helpers in this aim, which we trust will lose no supporters from any inadequacy on the part of its promoters.—We are, etc.,

JOHN H. GALTON, M.D.Lond.,
Treasurer.
W. A. BERRIDGE,
April 4th. Secretary.

[*Copy of Circular Letter.*]

HOLMAN TESTIMONIAL FUND.

For the last fifty years the name of Constantine Holman has been prominent in all the public work of the profession. As Treasurer and Vice-President of the British Medical Association, Vice-President of the British Medical Benevolent Fund, President of the Surrey Benevolent Medical Society, Treasurer and Vice-President of Epsom College (for which he has collected over £7,000 by his personal efforts), Member of Committee of the Royal Asylum of St. Anne's, he has rendered signal services to his profession and the cause of charity. So great have been these services that it is thought desirable by his friends and colleagues that some record of their appreciation should be set down. It is proposed to devote the proceeds of this testimonial to the erection of an Art and Reading Room at Epsom College, to be called the "Holman Art and Reading Room."

Subscriptions of any amount will be received by Dr. John H. Galton, Chunam, Sylvan Road, Norwood, S.E., Treasurer.

Communications to be addressed to Mr. W. A. Berridge, Oakfield, Redhill, Secretary.

The following is the first list of subscribers:

	£	s.	d.
Lord Rosebery, President of Epsom College	5	5	0
Sir Wm. Church, Bart., President, Royal College of Physicians	2	2	0
W. Tweedy, F.R.C.S., President Royal College of Surgeons	3	3	0
J. C. Thorowgood, M.D., Member of Court of Assistants, Apothecaries' Society	0	10	6
F. de Havilland Hall, M.D., President, Medical Society of London	2	2	0
T. D. Griffiths, M.D., President, B.M.A.	5	5	0
Andrew Clark, F.R.C.S. Chairman Council, B.M.A.	1	1	0
E. Markham Skerritt, M.D., Treasurer, B.M.A.	1	1	0
W. A. Elliston, M.D., Past-President, B.M.A.	1	1	0
Mr. A. A. Napper, President, S.E. Branch, B.M.A.	3	3	0
Mr. T. J. Verrall, Secretary, S.E. Branch, B.M.A.	2	2	0
Mr. J. Sidney Turner, J.P., Chairman, Norwood Division, B.M.A.	2	2	0
J. Walters, M.B., J.P., Chairman, Reigate Division, B.M.A.	2	2	0
P. T. Duncan, M.D., Chairman, Croydon Division, B.M.A.	3	3	0
J. Rand, F.R.C.S., Representative, Norwood Division, B.M.A.	2	2	0
Mr. H. J. Prangley, Secretary, Norwood Division, B.M.A.	2	2	0
Mr. W. A. Berridge, Secretary, Reigate Division, B.M.A. ...	2	2	0
Mr. C. H. W. Parkinson, Member of Council, B.M.A. ...	1	1	0
Dr. R. J. Tyson, M.D., Member of Council, B.M.A.	2	2	0
Editor, BRITISH MEDICAL JOURNAL	1	1	0
Sir William Broadbent, Bart., President British Medical Benevolent Fund	10	10	0
Sir Joseph Fayrer, Bart., President, Council Epsom College	2	2	0
Rev. W. Northey, Vice-President Council, Epsom College..	2	2	0
Rev. Hart Smith-Pearse, M.D., Head Master, Epsom College	1	1	0
Dr F. Needham, M.D, Member Council, Epsom College ...	5	5	0
Mr. W. Herbert Page, M C., Member Council, Epsom College	3	3	0
Mr. A. W. Propert, Member Council, Epsom College ...	5	5	0
Proprietors of the *Lancet*	5	5	0
Dr. T. R. Adams, J.P.	1	1	0
A. Grayling, M.B....	1	1	0
Mr. E. R. Ray	3	3	0
Mr. J. N. Winter	1	1	0
John H. Galton, M.D., Vice-President, Epsom College ...	10	10	0

REPORT ON THE POOR-LAW MEDICAL SYSTEM IN IRELAND WITH SPECIAL REFERENCE TO THE DISPENSARY MEDICAL SERVICE.

SIR,—At a meeting of the members of the Irish Medical Association, residing in Downpatrick Union, held at the Dispensary here to-day, the following resolution was proposed by Dr. McComiskey, seconded by Dr. Parkinson Cumine and passed unanimously, and I was directed to forward it to Surgeon-General Evatt, C.B., through your office.

That this meeting of members of the Irish Medical Association residing in Downpatrick Union desire to express our thanks and sense of the great services rendered to the cause of the Irish poor-law officers (medical) by the report of their special commissioner sent over to investigate personally by the British Medical Association and one in whom

British public must place perfect confidence from his position, ity, and lengthened experience in many lands.
am, etc.,

Wybrants Olpherts,
Hon. Sec. North Down Branch, Irish Medical Association, and Ex-Vice-President and Down County Councillor, Irish Medical Association.

npatrick, April 1st.

IR,—At a meeting of the County Donegal Branch of the sh Medical Association, held in Lifford, March 30th, vas proposed by Dr. Johnston, seconded by Dr. Boyd, and ried unanimously:

hat this Branch begs to tender to the British Medical Association the Editor of the British Medical Journal its warmest thanks the very valuable report on the Poor-law medical system in Ireland earing as a Supplement of the British Medical Journal of March , 1904.

am, etc.,
W. J. Weir,
Honorary Secretary.

ril 4th.

MEDICAL WITNESSES' FEES.

IR,—Referring to the annotation in the British Medical RNAL, April 2nd, p. 795, kindly allow me to state that I e procured a number of copies of the paper referred to n Messrs. Eyre and Spottiswoode, and shall have much asure in sending a copy in a sealed envelope to any nber of the United Kingdom Police Surgeons' Association, ny medical practitioner who may wish to have on receipt letter with two penny stamps enclosed. It is most impor- that all medical witnesses should not only insist upon g paid the increased fees and allowances to which they entitled for attending police sessions and assize courts, also for making examination in sexual cases. These minations are important and responsible as well as being remely repulsive.

he fee of one guinea recommended by the Departmental mmittee of the Home Office, 1902, is not excessive for the mination of a female; still less so if it involves the micro- pic and chemical examination of stains on linen, etc. h regard to the examination of males, it appears to have ped the notice of Mr. Akers Douglas that the law officers he Crown advised one of his predecessors that it was ex- ent that a medical examination of prisoners charged with offences as rape should be made.

uch examinations are therefore duties performed under orders of the Secretary of State for the Home Department those who make them may fairly look to him for pay- t.—I am, etc.,

Fred. W. Lowndes,
Honorary Secretary, United Kingdom Police Surgeons' Association.

erpool, April 3rd.

THE ASSOCIATION AND MEDICAL DEFENCE.

R,—I am sorry Dr. Messiter found my letter too long and se to answer in detail. I would merely say that its th and its only claim to the notice of the President of the ical Defence Union were due to the fact that it was an mpt to criticize point by point the circular of the Union. e of the criticisms are still unanswered.

am a loyal member of the Union and yield to no man in admiration of its work, having as an officer of a local ical organization benefited considerably by its advice and stance in time of need. My criticism of the position n up by the Council of the Union is actuated by the con- ion that the whole of the profession is greater than any , even such an important part as the Medical Defence on. I am also constitutionally unable to see that what been done by some men under the name of the Medical nce Union should not be done by similar or the same under the name of the British Medical Association. eems to me that the main duty of the Council of the on lies in making sure that there is no fear of the work of Union being neglected. The name does not seem to me atter. The position of the British Medical Association, y far the largest and most important medical organiza- , is a sufficient guarantee that if defence work is taken up ll be done well.

frankly admit that the qualms expressed about the tion of the man who will not become a member of the ish Medical Association do not worry me a bit. I know man only too well. When his reason for abstaining is some small personal one it will generally be found that elongs to that numerous class which is only too pleased ake the benefits while other men fight and subscribe for n. If the two great defence associations for the sake of the greater efficiency of medical organization resolved to throw in their lot with the British Medical Association, the outside gentleman would have to reconsider his position, for it would hardly be worth while starting a new society for his sake.

I am quite agreed with Drs. Greenwood and Wolstenholme in being disappointed that the scheme does not propose to cover every member of the Association. It is plain to me that the Committee is also disappointed, but they had to deal with hard facts, and so must we. The Association has just gone through a critical period, when it was necessary amongst other changes to raise the subscription, and practical men naturally no not wish to unsettle the members so soon by another compulsory rise. Under the circumstances they wisely I think desire to introduce the new department gradually, and by accustoming members to it pave the way for the inclusive scheme we would all like. The closeness of the connexion between the new department and the Association is a matter of opinion. To me it is good enough to have the executive for the defence department elected in the same democratic way as the other no less important committees are, and I believe that in a very few years there would be few members of the Association outside the defence department, thus obtaining by a slower method the end Drs. Wolstenholme, Greenwood, myself, and many others would prefer to see aimed at directly.

I do not wish to follow Drs. Fothergill and Greenwood in their criticisms of the scheme. The whole is open to amendment by the Divisions and must come before the Representative Meeting. What I am concerned about at present is to point out that this scheme of defence is only another step towards the realization of that all-sufficing organization the profession needs so badly. Any one who ignores this, either with a desire to preserve some useful but comparatively unimportant society, or by fixing his eye on minor details, misses the crux of the whole matter.

There is a sentence in Dr. Messiter's letter which will be painfully familiar to those who have realized the mission of the British Medical Association and who have been actively engaged in organizing the Divisions and canvassing for members. He says:

> The Association after many years' sleep . . . . suddenly presents a pistol at the head of other societies which have been doing excellent work and invites them to commit the "happy dispatch!"

The simile is not a happy one when one considers the way in which the susceptibilities of the existing defence societies have been studied. Their representatives sat on the Committee and gave advice which was freely used and gratefully acknowledged, and in the report an invitation is extended to them to merge themselves, for the greater good of the profession, in the largest and most important organization of that profession. Judging by the report of the meeting of the London and Counties Society, that body is not aware of the existence of the firearm which Dr. Messiter sees aimed at the Union. Surely this terrible anxiety for the continued existence of a Society is a misapprehension of the whole business. Sectional societies, when convinced that their work is to be carried on at least as well as they are doing it, and with a prospect of greater usefulness, should sink themselves for the common good. If the British Medical Association is to become the great national organization of the profession, embracing every reputable member of the profession, it must include in its benefits medical defence. The British Medical Association can include defence as well as all its other benefits, while there is not even a suggestion that the defence societies propose to include the other things. Therefore, for the sake of simplicity and concentration, the smaller societies should join forces with the greater.—I am, etc.,

Gateshead-on-Tyne, April 4th. Alfred Cox.

Sir,—The circular of the Council of the Medical Defence Union protesting against the proposal that the British Medical Association shall take up the duties of medical defence is much to be regretted. In the 1896 agitation, which successfully brought the question before the members, those who were urging the Association to take these duties up received the active support and sympathy of many of the officials of the Medical Defence Union. It was strongly felt that the multiplicity of medical defence societies was a source of weakness, and that their competition and rivalry was unseemly. It was thought that the medical profession would gain by an amalgamation of the existing defence societies under the aegis of the Association. The societies were considered to exist for the benefit of the medical

profession, and, as they were merely a means to an end, there could be no advantage in maintaining any or all of them, providing that the work for which they were formed could be more efficiently carried out by another body. This is the only clear-headed way of regarding this question of medical defence, and it will be a grave mistake if, by falling victims to the common illusion of mistaking the means for the end, we allow our judgement to become warped by any sentimental consideration for the existence of any one of the defence unions.

In the history of most societies formed to advocate a cause there comes a time when enthusiasm for the object gives place to regard for corporate existence, and officials then seem to regard the interests of the Society as more sacred than the cause for which it was created. Judging by the circular just issued the Medical Defence Union has reached this stage of fossilization.

We all recognize the good work which has been done by the existing defence societies, and those who are anxious to see the Association undertaking the duties of medical defence have not, as Dr. Messiter suggests, ceased to have confidence in the societies or their Councils. They believe that the work which has been well done up to the present can be still done better when the Association absorbs the various defence societies which weaken one another by suicidal competition. As these societies are not commercial ventures competition is neither healthful nor desirable, but as they are founded to promote union and to defend our interests competition between them is absolutely hurtful. The idea that this movement—with which every sensible man must sympathize, as its aim is to put an end to this competition—can be in any way comparable to an attempt to form a monopoly on the lines of an American trust or combine can only arise either from a complete misapprehension of the subject or from officialism running amok.

It is much to be regretted that the Council of the Medical Defence Union has seen fit to expend the money of the Union in sending out a circular the only result of which will be to cause division and strife among us and to play into the hands of our enemies.

It is to be hoped that no one will be led astray and that all will heartily support the attempt of the Association to realize the resolutions passed in 1896. Many among us, including myself, are strongly in favour of a compulsory scheme of medical defence, but difficulties are in the way and it is better to have half a loaf than no bread. If the optional scheme is realized and works well there will be no great difficulty in making it embrace all the members of the Association, if at any time it is thought desirable to do so; but if, because we cannot have the whole we reject the part, the scheme may be shelved for years and one of the rare golden opportunities to raise the medical profession from the mire will have passed, perhaps for ever.—I am, etc.,

Hemel Hempstead, April 2nd. A. G. Welsford.

Sir,—It appears to me that the majority of the members are with the minority of the Committee; for I think the majority of the Medical Defence Committee failed to realize the want of the Association as shown by special resolutions passed at Birmingham and confirmed at Carlisle.

I take it that we should be self-contained, therefore medical defence should be compulsory, and being compulsory the subscription should be small, say 5s. This was in our minds when the subscription was limited to 30s. (Article vii.).

I am quite sure it is feasible, for experience of associations and unions tells us that there is a tendency of the official staff to live up to their income. Moreover checks and limitations could be arranged by cases being passed by the Ethical Committee of the Division and each Branch taking its own responsibility subject to the Central Committee of Defence, which would have to report to the Representative Meeting. Thus in ordinary years the expenses should not exceed the income derived from the increased subscription, especially as there would be an increase of membership attracted by the tangible advantage offered. Again, have not the ordinary members the first call on the accumulating surplus funds of the Association, and could they be better employed than in the maintenance of the honour and interests of the medical profession?

I quite agree with the contentions of Drs. Arthur Pain and Wolstenholme, even to the latter's adjective applied to the scheme, for besides being "grotesque" the scheme is as unwieldy and impotent as a Hindu idol.—I am, etc.,

Sittingbourne, April 4th. William Gosse.

Sir,—The President of the Medical Defence Union, in he letter he has sent you, and which you published on page of the British Medical Journal, says:

Other societies may have more money in reserve per head, but sh reserve can only be obtained by cheeseparing policy in relation to cts at law, and such a policy has never obtained in the Medical Def ce Union, as being contrary to the interests of its members.

The reference here made can only apply to the London d Counties Medical Protection Society, because it is the cy society engaged in medical defence which is richer than e Medical Defence Union. The President of the Medal Defence Union would not, of course, make so grave an imtation upon a sister society as is contained in the sente e quoted above, without believing he had proof that the offic s of the London and Counties Medical Protection Society d been guilty of pursuing a "cheeseparing policy in relation o costs at law." He also, in the last clause of the sentenc I have quoted, imputes, by inference, to the officials of e London and Counties Medical Protection Society, cond t contrary to the interests of the members of that society. I ask the President of the Medical Defence Union to state n the British Medical Journal the facts on which he bas this serious charge which he publishes against the manage ment of the London and Counties Medical Protection Socie —I am, etc.,

Hugh Woods,
General Secretary of the London and Counties Medic
London, April 2nd. Protection Society.

THE FINANCES OF THE GENERAL MEDICAL COUNCIL.

Sir,—Your readers may recollect that in the Brit Medical Journal of November 14th, 1903, I advocat under the above heading, the readjustment of the atte ance fee paid to members of the General Medical Council. I did so on the ground that the daily payment of £5 5s. o and above hotel and travelling expenses was fixed at a ti (1) when the Council had accumulated an immense surplus funds, the result of the registration of the entire medi profession consequent on the passing of the Medical A 1858; (2) when the number of members constituting Council was considerably less than now; and (3) when t business of the Council was so decentralized that a la proportion of the duties required by the Act could be chea and expeditiously performed by the various Branch Counci In order that the General Medical Council might ha opportunity of considering the question at its last meeting forwarded a letter, of which the following is a copy, to t Privy Council, and received the subsequent reply:

November 9th, 190

To the Clerk of the Council,
Privy Council Office, London, S.W.

Sir,—As a registered medical practitioner of the United Kingdo have the honour to direct the attention of His Majesty's Privy Coun to the present rate of remuneration allowed by the General Council Medical Education and Registration of the United Kingdom to members under the following Section (xii) of the Medical Act, 1858:

"There shall be paid to the members of the Council such fees attendance and such reasonable travelling expenses as shall from ti to time be allowed by the General Council and approved by the Comm sioners of Her Majesty's Treasury."

As the present rate of £5 5s. per diem and hotel and travelling expen to each member presses with great severity upon the financial resour of the General Medical Council—the governing body of the medic profession—I respectfully beg that the Privy Council will see its way suggest the payment of such less remuneration to each member as w permit of the Council's funds being more liberally devoted to t expenses of those functions for which the said General Council w originally instituted.—I am, Sir, etc.,

S. Wesley Wilson

Reply.

December 2nd, 1903

To S. Wesley Wilson, Esq., D.P.H.

Sir,—With reference to your letter of the 9th ultimo, as to the sca of remuneration paid to members of the General Medical Council, I a directed by the Lords of the Council to state that their Lordships, havi referred the matter to the General Medical Council, have been inform that at its May session the Council revised and reduced the rate allowance to members for travelling expenses, but it is of opinion th the daily allowance for attendance sanctioned many years ago by t Lords Commissioners of His Majesty's Treasury, as required by t Medical Act, 1858, ought not to be diminished.

I am, Sir,
Your obedient Servant,
A. W. Fitz-Roy.

This opinion of the General Medical Council dissipates th idea I had hitherto held that its members sought offi for its honorary considerations rather than for the emol

nts attached thereto; and as that Council has omitted result of its deliberations on so important a matter n its recently-printed minutes of the November meet-, I have to request that you will give this correspondence publicity it deserves.—I am, etc.,

ondon, April 4th. S. Wesley Wilson.

.S.—The revision and reduction referred to consisted in General Council limiting the travelling expenses of its nbers "to their actual outlay together with one guinea incidental expenses to and from London"!

EDICAL EXAMINATION OF SCHOOL CHILDREN.

R,—There can be no doubt of the desirability of regular lical examination of all school children, but it will pro-y be a long time before education authorities in general ot this measure. Meanwhile there is a step in the same ction which would have a much better chance of speedy otion, because its advantages are more obvious to the lay d and its expense less.

he proposal is simply this: that, before any scholarship be held, the winner must satisfactorily pass a medical nination. The examiner should be appointed by and onsible to the authorities of the school where the scholar- is to be held. He should report not only on the sound- of the lungs, heart, etc., but also on the condition of the ial senses, the throat, the teeth, and the general develop-. He must have—though he will very seldom need—the r to reject on account of grave organic disease, but it is lly important that he should have and use the power to one the holding of the scholarship. Many conditions—as errors of refraction, adenoids, extensive caries of the , defective chest development, anaemia, etc.—can be cted by appropriate treatment in a few weeks or months, he candidate ought not to be passed till they have been cted.

y I point out some of the advantages of this plan?

It must be obvious to all that it is a misuse of public to give special facilities for higher education to those re physically unfit to profit by them.

When once this regulation is thoroughly understood it enefit not only those who gain scholarships, but also all ry for them. Ambitious parents and teachers will be l to realize a truth too often ignored—that success in nations is too dearly bought at the cost of a weakly and d body.

ince the most influential people are in general those ave the best brains and the best opportunities of culti- them, it is very desirable in the interests of the al physique to secure that those persons should have ould appreciate healthy bodies.

Education Department has for many years required a cate of physical soundness for all pupil teachers. This ecognition of the same principle, but does not go far h. The examination ought to be as careful and impar- in a case of life insurance, and it is not fair to put the f rejection on the family doctor. Recognizing this, the School Boards appointed their own medical officers for rpose, but the fees they paid were often inadequate.

, perhaps, in the lower grades of education that the or such a regulation is most apparent, but I think there be many advantages in applying it to all scholarships ols of all grades.—I am, etc.,

Helen M. Wilson, M.D.Lond.,

edical Examiner, Sheffield High School for Girls; and formerly 4th. to the Sheffield School Board.

THE DIMINISHING BIRTH-RATE.

—Your correspondent "Hampstead" is undoubtedly hen he opines that the diminished birth-rate, in the middle-class particularly, is chiefly the result of eco- considerations, which lead to the limitation of families althusian methods." One knows of numberless families ch the number of children is limited to one or two, in the natural course seven or eight might have been d. These practices seem to be extending, and are o become more effective still in causing a diminution physically best. Mr. Roosevelt, President of the States, in his book upon *The Strenuous Life*, of course to this, when he conjures the American woman not to otherhood. The thing has also been for a long time ve in France, and even in some of our colonies is pre- a natural increase of population.

y be the fecundity of the human race varies a little as one time and another, bnt there is always an immense unused potentiality for increase, which can at any time be brought into play at the will of the people, and national or patriotic sentiment would perhaps be sufficient stimulus to bring it into play if it looked as if our numbers were undergoing a rapid decline.

The pity is that the increase of our population is to so large an extent of the worst class. Of the higher classes it may be truly said that they are constantly undergoing decrease, and would soon die out but for recruits from the lower ranks.

The latter part of "Hampstead's" letter suggests a selfishness and poorness of spirit in the class he represents, which is pitiable to contemplate. He claims education, and the refined ways of thought and living which accompany it, as the birthright of the sons of his class, and laments that the new education legislation has robbed these sons of their patrimony by bringing the coachman's sons into competition with them. I suggest to "Hampstead" that free competition is requisite as a means of improvement, and that if his coachman's sons prove themselves more competent than the sons of professional men to occupy places in the higher professions, it would be unfortunate if they were not able to occupy them. Coachmen and cab drivers will still be required, so that there will be places vacant. I have heard of several university graduates and other "gentlemen" taking to the cab-driving profession, and the born cab drivers seem to receive them into the "ranks" without complaint of the increase of competition they cause there.

But in all seriousness, is it not one of the most gratifying and satisfactory things a man can experience in life, to have several children, who being morally and physically well developed, may live good and useful lives in any sphere. In comparison with this broader consideration—the grand legacy he thus leaves his country, what is the value, and what the satisfaction of the artificialities and pretences of the genteel existence, for which so much is sacrificed. Surely a good man is better than a bad gentleman, and the sooner we recognize this fact, the sooner we shall be able to compete with the Germans, and the Americans, that "Hampstead" affects to hold in such light esteem, and who are laughing at him in their turn, whilst accomplishing great things.—I am, etc.,

April 4th. Cheltenham.

Sir,—In my opinion the diminishing birth-rate is due in a very large measure to the unblushing, wholesale, and systematic practice of inducing abortion.

The following cases, occurring in my practice during the short period of two months, will bear out my statement:

Mrs. A.—Last child eight months ago. Comes for treatment for metrorrhagia following on three months' amenorrhoea and sickness. States with engaging candour that she took "hickery-pikery" powder one month ago to induce abortion, but without result beyond severe purging.

Mrs. B.—Youngest child aged 10 months; anaemic and thin. During treatment for severe attack of myositis of the trapezius incidentally mentions that she considers herself pregnant, is much worried about it, and meant to come and see what I could do for her as she strongly objects to a further increase in the family.

Mrs. C.—Last child 5 months ago. Requests me to cure amenorrhoea, which is causing her much anxiety. She has recently nursed her baby through a six weeks' illness, has had influenza herself, and is in very poor condition—so much so that she would rather "take poison" than go through another confinement so soon.

Mrs. D.—Last child 18 months ago. Amenorrhoea six weeks. Now suffering from metrorrhagia and diarrhoea. Admits taking something that brought on uterine haemorrhage, griped and purged her severely, and made her feel so ill that she had to get medical advice.

These cases speak for themselves. They are not accounted for by the "higher civilization," "excessive muscular exercise," and the many other theories of a diminishing birth-rate. The whole thing is explained in two words—namely, criminal abortion.—I am, etc.,

April 4th. N. F. R.

Sir,—Many theories have been advanced in this correspondence, but one condition, which I think has a great deal to do with the above, is not mentioned. I allude to dysmenorrhoea, or, more strictly speaking, the causes of it. From my own experience a large percentage of married and unfertile women suffer from it, and the unfertility is not due to any "prevention" method but to the condition which causes the dysmenorrhoea, which appears to be on the increase. I think this is worth the attention of specialists.—I am, etc.,

April 4th. Veritas.

THE BIOLOGICAL SIGNIFICANCE OF MALIGNANT GROWTHS.

Sir,—I trust you will pardon me calling attention to a paragraph in the British Medical Journal of April 2nd, page 800, in which it is stated that Professor Bretland Farmer claims for himself and Mr. J. E. S. Moore the discovery of the biological relationship of malignant to normal cells. It is at least three years since I pointed out this fact, and a reference to my book *Cancer, its Causation and Curability without Operation*, pages 15 and 16, will demonstrate this. This book was published in January, 1903, but in a paper I read on the subject at Cairo, December, 1902, I made the following remarks:

Were cancer due either to a parasite or a microbe, would we find it unilateral? as it almost invariably is in the first instance, and would it not be invariably accompanied by a rise of temperature? which the presence of a microbe or a parasite embedded in the tissues would naturally produce in consequence of the amount of irritation they would excite.

It may be considered a bold and sweeping assertion when I state that I am convinced that cancer, or rather the elements of cancer, are present in every individual whether it manifests its presence or not. My reason for making this statement is because I believe the cancer entity is in its original state a normal cell, which, from a combination of circumstances, has become altered in character, and assumed a new rôle of existence. It thus loses its benign attributes, and ceases to perform its functions in harmony with its surroundings, becomes aggressive and cannibal in its proclivities, prostrating and then preying upon its neighbours. In doing so, it procreates its species at an alarming rate of rapidity, and by its contact with the neighbouring tissues, saps their vitality, and then destroys them when their power of resistance is thus reduced. The physiological condition of these normal cells is displaced by a pathological activity, terrible in its results. Speedily the disease process is conveyed by means of the lymphatics to distant organs, each of which becomes a new centre, from which the mischief radiates.

At Madrid I also read a paper on the subject, of which the following is an extract:

Il peut être considéré comme hardi de ma part de dire que je suis convaincu que le cancer ou plutôt ses éléments existent à l'état latent dans chaque individu, soit qu'ils manifestent leur présence ou non: Je fais cette affirmation parce que je crois que le cancer dans son état primitif est une cellule normale laquelle par suite d'une combinaison de circonstances change de caractère et prend un nouveau rôle biologique. En effet elle perd son caractère physiologique, et cesse d'accomplir ses fonctions en commun avec ses voisines; elle devient agressive et cannibale puis dévoreuse de ses voisines. En agissant de la sorte la cellule se multiplie très rapidement et par son contact avec les tissus environnants, diminue leur vitalité et finalement les détruit, quand leur pouvoir de résistance a diminué. La fonction physiologique de ces cellules est remplacée alors par une activité pathologique terrible dans ses résultats. Très rapidement le processus de la maladie est transporté au loin par les canaux lymphatiques allant à d'autres organes qui deviennent chacun un nouveau centre d'infection.

I fear, therefore, Professor Farmer has not been cognizant of the investigations I have made prior to his. At the same time I cannot but express the gratification I feel that he has independently arrived at the same conclusions.—I am, etc.,

Glasgow, W., April 2nd. Robert Bell.

A CASE WITH A MORAL—AND A SEQUEL.

Sir,—Some years ago, when house-surgeon at a general hospital, I had among the in-patients a man, age about 60, suffering from diffuse cellulitis of the throat and neck. Notwithstanding that all the usual remedies had been tried, including free incisions, the unfortunate patient went from bad to worse, until at last his life was threatened from suffocation. The honorary surgeon, under whose care he was, suggested that, should his condition become more critical in the night, I might as a last resort perform tracheotomy.

About midnight a nurse came to my room to say "the man had just died." Having procured a tracheotomy case I at once set off to the ward where my patient lay, and sure enough he was to all appearance dead; respiration had ceased, there was no pulse. I placed my ear over his heart, but there was no sound. Without further delay I cut down on the trachea, inserted a tube, and with the assistance of two nurses commenced vigorous artificial respiration. Our efforts were soon rewarded by hearing a faint whiff of inspiration, the first flicker of returning animation. This stimulated us to increase our exertions, until, little by little, the man who "was dead" breathed again.

I remained with my patient the greater part of the night, and finally, having made all arrangements for his further treatment, left him in charge of two nurses.

The first visit of my usual morning round was to my tracheotomy case, who I was pleased to find had made most satisfactory progress. All the urgent symptoms were relieved, and he seemed in a fair way to recovery.

This brings me to the main point of my notes and excuse for writing them.

It being now time to change the night nurses, I anxious to place my patient in charge of a competent nu so canvassed the staff to find one who had experienc tracheotomy. One volunteered her services, saying she nursed similar cases at a large general hospital from w she had come to us only a short time before. I placed he charge, and gave her, as I thought, all necessary instruct as to his treatment during the day. In the afternoo received a message to say that the tracheotomy patient wa so well, and that the fluids given him returned through tube. I was at a loss to account for this, and thought possibly in my haste to operate I might have wounded oesophagus. On visiting my patient I found a great ch in him since I left him only a few hours before; he now all the appearances of one labouring under great respira distress. I asked the nurse to give him a little milk, so I might see for myself the cause of this new and altoge unexpected development. She took up a feeding-cup proceeded to pour the contents not into his mouth, bu my horror, down the tracheotomy tube!

I am induced to send you these notes in the hope others may profit by my experience, and when entrus serious cases even to that very excellent institution, trained nurse, to keep in mind the old proverb that "a l knowledge is a dangerous thing."

While on this somewhat extraordinary case, the sequel also be of interest to your readers as an example of h medical man may be the victim of the ubiquitous repo At the time my patient was supposed to have died his was with him. When I went into the ward and was abo perform tracheotomy I requested him to leave, which he On his return he was naturally surprised to find tha father was not "dead" after all.

Next evening one of the staff came thundering into the pital with a local newspaper, containing a sensational ar headed with heavy type, "Extraordinary case at the pital; a dead man brought to life," and wanted to know it was that I allowed such "stuff" to get into the papers bring the hospital into ridicule. I professed my innoc and assured the irate senior that I gave no such report t press.

The explanation of the matter was: The son going int town next day got talking of the proceedings of the n and getting into the hands of the reporters told them story; it got its finishing touches from them, and was served to the public in its sensational form.—I am, etc.,

March 23rd. Late House-Surge

THE METRIC SYSTEM IN PRESCRIBING.

Sir,—Some years ago a friend of mine at Geneva was s drugged to death by a chemist's assistant putting ten tim much arsenic into a tonic as the prescriber intended. Th the assistant was accustomed to the metric system from hood, he made the simple mistake of displacing the dec point one place.

Who would mistake ♏x for ℥j ♏xl? But how easy to take 0.002 g. for 0.02 g., especially with the caligr chemists usually have to contend with. The system is safe where doctors do their own dispensing. How are dents to be expected to remember their "doses"? V fractions present a definite picture to their mind, but n decimals. One may remember that the dose of ext. o gr. ¼ to gr. j, but 0.015 g. to 0.06 g. is as difficult to c mind as an address in New York.

In all countries where the metric system is legalized old measures are still used by the bulk of the people.—I etc.,

Tattenhall, April 4th. Harold Whichel

THE FEEDING OF INFANTS.

Sir,—The admirable papers of your Commissioner an letters of your correspondents have greatly enlightene upon faulty infant feeding and physical deterioration. venture to state that sufficient stress has not been laid the causes of these. They are twofold—the general ne of maternal nursing and, in our slum population at all ev the absence of fresh food in the diet of children.

Most English mothers are unwilling or unable to s their children, or they cease to do so before they are

old. The organic phosphates and other complex constituents of human milk cannot be obtained from ources without great difficulty, yet they are all im- in the formation and development of bone and nerve. ilk at its best is not easily digested by infants, but as d at our homes it is often putrescent, and if we it we decompose the important organic constituents h I have referred. Indeed, it is common knowledge ldren fed on boiled milk sometimes develop scurvy. g the last twelve months I have weighed, measured, mined upwards of 4,000 school children, most of them n the slum district of our city. Not only are the of British slum children rickety, but they are also with scurvy. They are stale, they live on stale food, arbage.

g the same period I have weighed, measured, and d upwards of 1,000 Jewish children born and bred in e slum district. They are free from the taint of and are superior in physical development. And why? most Jewish mothers suckle their children for twelve and feed them on fresh and suitable food when they ed.

t present giving breakfast and dinner on school days um children, and their diet is arranged on antiscor- nciples, and includes limejuice.

is plenty of evidence that improper food is more in- o the wellbeing of children who survive their infancy y life and overcrowding, and I submit that we should sly oppose the present wide tendency of mothers to rsing infants at the breast, and that we should pub- persistently agitate that some of the £30,000,000 ually spent upon the mental culture of our school be devoted to their physical development.—I am,

ley, Leeds, March 26th. WILLIAM HALL.

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n the home modification of milk for infant feeding without doubt be content with approximate rather et results as regards the percentage composition of mixture. This should not prevent us doing the an with the materials at our disposal, and endeavour- ovide the infants of this country with a food that s as close as may be "good mother's milk," and not e control to mothers and nurses with the probable d result of two of water and one of milk with a little

ecessity of the profession exercising control over eeding is continually before us—rickets, scurvy and parascorbutic symptoms, in the children of the ed by being fed on sterilized and humanized milk, ildren of the middle classes from cheaper but much d patent infants' foods, and among the poor from ondensed machine-skimmed milk.

my investigations in this subject, I find that pro- am is bought from a good dairy it will, taken all round, contain from 45 to 48 per cent. of fat, and k under similar conditions contains proteid 3.4, , and fat 3 5 per cent. With these figures before not difficult to instruct the mother or nurse as to a nilk mixture for a child of a given age.

Cautley's letter of March 28th it is not clear whether is measured by weight or by volume when making cent. sugar solution. If by volume, the amount of weight will be considerably more in the case of cane an when milk sugar is used; in either case the by volume will be less than the amount by weight, e figure being used. It is of importance to have hen prescribing milk mixtures, to the measurement t or volume, or more than minute errors will appear rcentage results. I do not follow Dr. Cautley when s that the sugar in the milk mixture is increased o 7 per cent. by the addition of a 5 per cent. sugar to top milk containing sugar 4.4.

minishing birth-rate, the high infantile mortality, with the many pitfalls set by traders in infants' point to the necessity of the profession giving the attention to the feeding of infants.—I am, etc.,

S.W., April 2nd. F. HERBERT ALDERSON, M.B.

VENTRIFIXATION OF THE UTERUS.

Professor Sinclair, in his interesting paper published RITISH MEDICAL JOURNAL of March 26th, does me the f referring to the description of the operation of ventral fixation contained in my work on *Diseases of Women*. The method of operation therein described, he says, is "faulty in every detail."

The differences between the operation as performed by Professor Sinclair and as described by me are too trivial for me to ask space to discuss them, except as to one thing; this is that Professor Sinclair stitches the uterus to the parietal peritoneum, while I advise stitching it to the muscle of the abdominal wall. There can be no question that adhesions between peritoneal surfaces are often absorbed. We know not yet how often or how quickly this happens, but there is no doubt that it does take place. Therefore I advise suture of the uterus to muscle, not to peritoneum. I predict that if Professor Sinclair will watch his cases long enough, he will find that in some, if not in all, the fixation is not permanent, and he will come to stitch the uterus to muscle, instead of to peritoneum.—I am, etc.,

London, W., March 26th. G. E. HERMAN.

SIR,—In the BRITISH MEDICAL JOURNAL of March 26th there is an article by Dr. Japp Sinclair on the above subject, in which he says:

> It was suggested, I believe, by Olshausen in 1886, when he fixed the uterus very slightly, as an incident in an operation undertaken owing to other indications than displacement.

I believe I was the first deliberately to open the abdomen for the purpose of doing ventrifixation of the uterus. This I did at the Hospital for Women in June, 1880, on a single woman, aged 30, with an abnormally large vagina, who was suffering from retroversion of the uterus with prolapsus. The result was good. I well remember a contemporary criticized the proceeding very severely, saying that, "although Dr. Smith claimed this as the first operation of its kind, they sincerely hoped it would be the last, as it was unjustifiable to open the abdomen for so trivial a malady"—or words to that effect; and now it is universally acknowledged as not only justifiable, but indicated.—I am, etc.,

London, W., March 26th. HEYWOOD SMITH.

THE FALLACY OF PROSTATECTOMY.

SIR,—Mr. Herring asks if I consider sepsis to be the most important indication for prostatectomy. I think that it is probably the most serious complication of prostatic enlargement, and that it is one of the most pressing indications for operation in some cases. But whereas Mr. Herring thinks that by avoiding sepsis all necessity for operation is done away with, I consider that this only removes one indication for operation.

Moreover, Mr. Herring considers that it is possible and practicable to avoid urinary infection in every case where self-catheterization must be practised, a result which I believe cannot be hoped for except in a limited number of cases.

The interesting case—a description of which occupies two-thirds of Mr. Herring's letter of March 12th—does no more than prove that an infected bladder and urethra can be more or less satisfactorily disinfected, a fact which, I imagine, is sufficiently well known already. I fail to see that it proves either that every case can be so relieved, or that another breakdown may not occur through carelessness, etc.

The question of operative *versus* non-operative treatment of enlarged prostate is, however, too large to be discussed at all fully in the narrow limits of a few short letters which the pressure on your space alone permits, so that I must content myself with this short protest against the assertion that prostatectomy is seldom or never necessary or advisable.—I am, etc.,

London, W., March 20th. JOHN PARDOE.

STUDENTS' OUTDOOR OBSTETRIC PRACTICE.

SIR,—In the EPITOME to the issue of the BRITISH MEDICAL JOURNAL of April 2nd, p. 54, a report is given of the result of the work of an outdoor maternity charity in the United States, the death-rate being 0.5 per cent., or 1 in 200. This is compared with similar maternities on the Continent, and the mortality is apparently regarded as exceptionally low. I venture to think that it would not be so regarded by those having charge of similar maternity departments in this country. In that connected with the Queen's Hospital, Birmingham, of which I have the honour to be in charge, 579 cases were attended last year, with one maternal death, and in the previous year 478 cases, without a death. The cases are attended in their own homes by students, as in the maternity first mentioned, a qualified house-surgeon super-

vising. Many of the homes are exceedingly poor, and I attribute the low death-rate mainly to the fact that the third stage is never hurried unnecessarily, and that the rules laid down for the students' guidance impress the necessity of a thorough cleansing of the hands with soap and water and perchloride before every vaginal examination, and the equal necessity of cleansing the vulva of the patient.—I am, etc.,

Birmingham, April 4th. C. E. PURSLOW, M.D., M.R.C.P.

PROPOSED STERILIZATION OF CERTAIN DEGENERATES.

SIR,—I am glad my above treatise has prompted so high an authority on mental diseases as Dr. C. Mercier to ask for a definition of a "degenerate."

I suggest that a mental degenerate is a person who has been, or is, or should be certified as such under the Lunacy Act or the Inebriates Acts. It is perhaps difficult to give an all-embracing definition—just as it is difficult to give a definition of a "lunatic." It would be better to define by means of a schedule, such including idiots, imbeciles, epileptics, lunatics, and feeble-minded. I would ask Dr. Mercier to note that I have only dealt with degenerates from the one standpoint—not of marriage—but of impregnation and pregnancy.

May I take this opportunity of referring to two rather unpleasant circumstances connected with the publishing of the above treatise? A large number of correspondents have suggested that doctors should kill all degenerate infants, or those likely to be so. I take no objection to legal murder where a judge and jury take evidence and sentence a person to be hanged. So long as a country has advanced even so far as to allege that they are Christians and that they consider hanging a lawful method well and good; but if these Christians advocate that doctors shall sink to the level of South Sea Islanders and become murderers, then let them do their murdering by the usual judge and jury. Did we kill every existing degenerate, but left the causes of degeneration alone, as great a crop would spring up in a few years.

The second point I reluctantly refer to is—correspondents have suggested that those degenerates who marry should be supplied—whether by the State or by doctors they do not say—with means to prevent impregnation. Such a suggestion is, of course, absurd, as degenerates would not use such methods, the mental degenerates generally considering themselves quite healthy.—I am, etc.,

Liverpool, April 2nd. ROBT. R. RENTOUL.

THE CHEMISTRY OF THE URINE IN DISEASES OF THE PANCREAS.

SIR,—In referring to the "pancreatic reaction" in your article on the Physiology and Pathology of the Pancreas last week, you stated that the results obtained were dependent on the action of nitric acid on glycerine excreted in the urine. May I be permitted to point out that, although this is the working hypothesis on which the research was originally based, I did not claim, in my Arris and Gale lecture, as your article appears to imply, that it was the true explanation.

The purely chemical aspect of the whole subject will be dealt with elsewhere, as soon as some experimental work now in progress is completed, and this I hope will be very shortly. —I am, etc.,

London, W., April 4th. P. J. CAMMIDGE.

THE INTRODUCTION OF PURE AIR INTO SEROUS CAVITIES.

SIR,—Like Dr. Barr, I am sorry if I have not made my meaning clear. My point is that practically there is no advantage in what Dr. Barr calls "positive intraperitoneal pressure" over extraperitoneal pressure, because the abdominal wall is kept by atmospheric pressure in contact with the abdominal contents. I take it that the normal pressure which supports the abdominal viscera is made up of two factors, the atmospheric pressure and the tonicity of the abdominal wall. Air injected into the peritoneum simply constitutes a pad which passively transmits these forces. The presence of this air cushion between the viscera and the abdominal wall can, of course, make no difference to the first factor, while, with regard to the second, it would tend to impair rather than increase the tonicity of the abdominal wall by keeping it abnormally stretched, and by putting the abdominal muscles at a mechanical disadvantage in contracting.

On the other hand, a belt or bandage which the co sense of mankind has hitherto led them to use supple the natural action of the abdominal wall, or after dist acts as a substitute for that action until it recovers its Further, since the object of treatment is as far as possi restore to the normal, surely a simple method of trea which preserves the normal contact of visceral and p peritoneum is better than an unnatural and unnecessa pad which keeps those two surfaces apart.

With regard to the admission of air into the pleural c there is no reason why a sufficiency of aseptic gauze s not form as efficient an air filter as cotton wool, and i hands of distinguished bacteriologists the latter has found effective.—I am, etc.,

Wigton, April 2nd. THEOBALD A. PALM, M

PUERPERAL SEPSIS.

SIR,—I have carefully thought over the causes of pue sepsis both in this country and in the West Indies very varying conditions of cleanliness—nursing, wate ply, drainage, and ventilation—without coming to any factory conclusion. There are, however, a few facts force themselves upon me.

1. The disease was distinctly rare in the West Indies.
2. I never find it in this country when there is a nurse
3. I very seldom find it when one of the old-fashi "Howdies," who are obedient and fairly clean, is engag
4. It is when there is bad nursing that I get tempera as when an inexperienced mother nurses her daught when some neighbour is called in who "goes out occa ally to oblige," and who if called upon while disembow a rabbit would give her hands a hasty rinse under the p and dry them on her apron, and consider herself quite r or with some of the younger "Howdies," who think they better than a doctor and disregard his instructions. women look upon a rigor as of no importance and d report it. They consider a temperature either as a provision of Nature or else due to some indiscretion in di
5. I almost invariably find that the more manipul there has been the less chance there is of a tempera My worst cases usually have a normal temper throughout.—I am, etc.,

Goudhurst, Kent, March 30th. G. H. MAPLETON, M

X RAYS IN THE TREATMENT OF TINEA.

SIR,—The EPITOME of this date contains an abstract paper by M. Saboraud (not Jaboraud) on the treatme ringworm by the *x* rays, which seem to me so likely misunderstood that I desire to draw attention to it.

The abstract states that it is possible "to use five expo consecutively of forty minutes each on a child's head wi bad effects." I have looked up the original, and I find the statement is that these exposures may be used on diff parts of the child's head. Personally I would not risk but certainly to expose one part of the head forty minut five consecutive days would be nothing short of criminal I certainly hope that no unfortunate child has been subj to the treatment incorrectly said to be recommended great an authority as Saboraud.—I am, etc.,

Edinburgh, April 2nd. NORMAN WALK

*** We regret the ambiguity, and may add that the n of the eminent dermatologist is spelt Sabouraud.

OBITUARY.

GEORGE RIGDEN, M.R.C.S., L.S.A.,

Late of Canterbury.

THE death of Mr. George Rigden, of Canterbury, at the age of 89, deprives the medical profession of one of its picturesque representatives, and the South-Eastern Bran one of its oldest members; whilst it is true to say tha had been a member of the British Medical Association al medical life.

He was born at Wingham on December 20th, 1815, an due course entered as one of the first medical student University College Hospital at the same time as the late W. Jenner. Having qualified as L.S.A. in 1837 and M.R. in 1844, he acted as *locum tenens* to the Canterbury Dispens This was his first introduction to the cathedral city, shortly afterwards he was appointed Surgeon and Secre

institution, and devoted the remainder of his life to romotion of its welfare and usefulness. On his retire- in 1900, after some sixty years' service, the Committee him an annuity of £200. With characteristic generosity once announced his intention of giving a donation of year to the Dispensary so long as he lived, and duly it out.

Rigden may be regarded as a connecting link between generation and the present; a representative type of rd-working, self-respecting general practitioner of the ime. His practice was extensive, and entailed con- s hard work, but he never seemed to be the worse for apparently thoroughly enjoyed it. What leisure he make was devoted to sanitation—for he was a great y reformer—at a time when sanitary matters were con- by the general public as of very little importance. vards of twenty years he continued to publish annual of the health of Canterbury, thus as volunteer antici- the work which is now performed officially by our officers of health. Obstetric work was that which greatest attraction for him in general practice, and in *tetric Transactions* for 1881 he published a Statistical of 5,682 Consecutive Cases of Midwifery occurring in Practice. He was a great advocate of turning in suit- es, and in 1862 he contributed a paper on the subject to ITISH MEDICAL JOURNAL. He regarded the early ion of the forceps as of the utmost importance in es, and read many papers embodying his views at the nt District meetings.

g the temporary absence of his son on one occasion ed the forceps in a primipara, and he was 80 years of e time! It must have been about this period, when ast 80, that he assured the writer of this article, who onstrated with him about overworking, that "he was hings very easily then, for he never paid a visit o.m."!

member of the South Eastern Branch he was a con- endant at the meetings of the East Kent District. ributions possessed great clinical interest, and chiefly h obstetric subjects. The enunciation of his views on his extensive experience was generally followed ely discussion, which attracted many of the neigh- ountry practitioners, and helped to make these Dis- tings successful.

was not the excellence of his clinical work so much nesty of purpose, the uprightness of character, the ious performance of duty, the sterling worth of the h won for him the respect and esteem of his profes- thren. This feeling found expression in the year n he was elected President of the South Eastern position which he valued perhaps more than any- which came to him in the course of his professional good and faithful servant," full of years, he has his rest, leaving to his friends the pleasant remem- an exemplary, useful and honourable life.

s already a permanent memorial of his work in the drinking fountain which he presented to the city ieth year of his professional residence in Canter- t for him, too, the Beaney Institute would probably e come into existence. The bequest of £10,000 by as founded came from one who was formerly surgery terwards dispenser to Mr. Rigden, and who in the s prosperity in Australia was ever grateful to him istance he had received from him in early life.

eral took place on March 24th, and was largely nearly all the medical men of the city being He celebrated his diamond wedding two years ago, rvived by his wife and a number of sons and All the former are in the medical profession; one ice at Taunton, another in Kensington, a third is perintendent at Shrewsbury Asylum, and the tises at Canterbury, having succeeded to his father's dispensary.

e above was in type the death of Mrs. George announced in the local papers, at the age of 82— days after that of her husband, and after sixty-two married life. Truly, "in death they were not

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S HUNTER HUGHES, M.R.C.S.ENG., L.S.A.,

Coroner for South Carnarvon.

great regret that we record the death of Dr. Thomas ughes, which occurred at the age of 67, at his resi- maen Castle, Pwllheli, on March 18th.

The eldest son of the late Mr. Hunter Hughes, M.R.C.S., of the same place, he was educated at St. Bartholomew's, and after taking his M.R.C.S. in the year 1858 returned to his native town, where he joined his father in practice, and continued to work until within a few days of his death. He held the post of Workhouse and District Medical Officer for many years, and on the death of his father about fifteen years ago was without opposition elected Coroner for South Carnarvon. The coronership has been in this family for three generations, and previously was held by a medical man.

He was the oldest member of the North Wales Branch of the British Medical Association, having joined it almost as soon as he was qualified. He was its President in the year 1895, and although he was not a very constant attendant at its meetings, he always took a very warm interest in its affairs. He had a very large practice, which extended over a wide area of South Carnarvon, and by all classes was held in the very highest esteem. By none will he be more missed than by the poor among whom he practised. To these he was ever a firm and generous friend, his charity being dispensed in a quiet unostentatious manner, and many a pauper's home has been cheered by his gifts in money and kind, without any one else being made aware of the source from which they emanated.

When the Volunteer movement was originated he took a commission in the then Flint and Carnarvon Battalion and held it for many years. He was a prominent agriculturist, and his advice and counsel on agricultural matters were the fruits of practical experience.

As a coroner he was always most courteous and painstaking, never allowing a single point to escape him in the conduct of an inquest; while his summing-up to the jury was invariably marked by precision and care. Although at times his medical *confrères* considered they were not called as witnesses when they ought to have been, his frank and, to his mind, sufficient explanation was couched in such a conciliatory spirit, that any trace of resentment was at once banished.

He was buried in the family vault at the Abererch Parish churchyard, his funeral being one of the largest seen in the district for many years, and testifying to the universal respect and esteem in which was held.

He was unmarried, and leaves a brother (Dr. J. E. Hughes, of Nevin) and three sisters to mourn his loss.

CHARLES EDMUND OLDMAN, M.A., M.D. CANTAB.,

Late M.O.H., Godstone Rural District.

THE death, after a very short illness, of Dr. Charles Edmund Oldman, of Bletchingley, which occurred on March 19th, is a distinct loss to the medical profession and the cause of the deepest regret in Bletchingley and the surrounding district. Dr. Oldman was born in Gainsborough, Lincolnshire, in 1847, and received his education partly at Cambridge and partly at Guy's Hospital Medical School, taking the M.A. in that University in 1869, the M.B. in 1873, and the M.D. four years later. His first diploma was the M.R.C.S., which he obtained in 1872. Before commencing work in Bletchingley he practised for a short time at Spalding, in his native county. In 1886 he was appointed Medical Officer to the Western District and Workhouse of the Godstone Union, and later became Public Vaccinator and Medical Officer of Health to the Godstone Rural District Council. He had suffered from gout and erysipelas in the early part of the winter, but was believed to be quite strong again, and his death was due to acute blood poisoning starting from the throat, and contracted, it is believed, in the course of duties at health officer. Although assiduously attended by his his partner of 15 years, Dr. E. Furber, and by his friends, Mr. Percy Furnivall and Dr. Luff, all treatment proved unavailing.

In the performance of his public duties Dr. Oldman exhibited great intelligence, energy, and kind heartedness, with the result that he was greatly respected by those whom he served and exceedingly popular with the poor. It is not remarkable, therefore, that his funeral at the parish church should have been attended by a great concourse of people, while in the Congregational church the minister included in an intercessory prayer not only his relations but also "the many poor people who will feel that they have lost one of their best friends." Of the way in which he carried out his public duties one who understands the matter writes: "He was quite one of the very best private practitioner medical officers of health I ever knew." He was indeed a most successful M.O.H. who, showing neither fear nor favour for any man, proved that

the duties of a health officer may be successfully combined with those of a busy and widespread practice. The various drainage schemes which, together with the isolation hospital in the Godstone district, came into existence during his term of office, may well be considered memorials of his work. In the conduct of his practice the standard that he set himself was a high one, and he would always rather suffer pecuniarily than appear to transgress in the slightest manner the strictest code of medical ethics. He was an active member of the British Medical Association and Vice-President of its South-Eastern Branch and of the Reigate Division. He leaves a widow and several children.

RICHARD WHEELER HAINES, M.R.C.S., L.S.A.,

Birmingham.

WE record with regret the death of Mr. Richard Wheeler Haines which occurred very suddenly on March 25th. Mr. Haines was in his 61st year, and although he had not been in good health for some time past, his condition never caused any serious anxiety. He was seized suddenly with an attack of angina pectoris, and died within three hours from the onset at his house in the Edgbaston Road. He was born at Bromsgrove, and educated at the Grammar School in that town. He was a medical student at King's College, London, and took the M.R.C.S.Eng., and the L.S.A. in 1864. At his hospital he won the Senior Medical Scholarship and the Warneford Scholarship, and held the posts of House-Physician and Resident Accoucheur. He was also Junior House-Surgeon at the Manchester Royal Infirmary. Mr. Haines started in general practice in Balsall Heath over thirty-six years ago, where he soon became widely known and highly esteemed. For many years he took great interest in public affairs, and was connected with the Local Board of Balsall Heath for some considerable period before that suburb was made a part of the municipality of Birmingham. Mr. Haines was one of the representatives of Balsall Heath Ward in the City Council for about twelve years, and was associated with the Free Libraries Committee and the Lunatic Asylums Committee. He was an ex-Chairman of the former body, and his portrait is to be seen on the wall of the staircase leading to the Reference Library. In November last his re-election as Councillor for Balsall Heath was opposed, but Mr. Haines had so well won the regard and confidence of his constituents that he was returned by a majority of 121. The deceased gentleman also took keen interest in Freemasonry, and was a Past Master of the Arter Lodge, and had held high offices in the Grand Lodge of his province.

JOSEPH PEEKE RICHARDS, M.R.C.S.ENG., L.S.A.LOND.

THE announcement of the death of Mr. J. P. Richards at his house, Ealing, on March 22nd, came as a shock to a wide circle of friends and acquaintances. His fatal illness lasted only three days, during which he received the unremitting attention of his friends, Mr. J. S. Grubb, Dr. W. S. Colman, and Mr. H. Stansfield Collier. It began as influenzal otitis, and notwithstanding that the mastoid process was early explored, meningitis, coma, and death in a few hours ensued.

Mr. J. P. Richards was born in 1841. His father was Mr. Joseph Richards, Surgeon, of St. Clement's Dane, Strand. Young Richards was educated at Merchant Taylors School, and matriculated at the University of London in 1859. He received his medical training at King's College, and obtained the diplomas of M.R.C.S. and L.S.A. in 1863. He soon afterwards became Assistant House-Surgeon at the Stockport Infirmary, whence he went as Assistant Medical Officer to the Devon County Asylum, Exminster. In 1868 he was selected for the post of Assistant Medical Officer at Hanwell Asylum, Middlesex, and in 1872 was appointed Superintendent of the Female Department of that institution. This post he filled for twenty years, retiring with a pension in 1892. Since that date he has resided at Ealing.

It was at Hanwell that his best work was done. He entirely devoted his time and talents to the endeavour to relieve the patients entrusted to his charge, and proved himself a most able and painstaking asylum physician. He had an extensive acquaintance with general medicine, good business habits, and a methodical frame of mind; was thorough in all his work, cheerful and sympathetic in his manner, and consequently successful and beloved. One of the chief traits in his character was unfailing geniality, rendering him a good companion; and a peculiarity, rare in one w retired from active professional work, was the assidu which he attended meetings and lectures, whereby h keep himself abreast of medical and surgical advanc was a Freemason and a Fellow or member of several societies, but especially interested himself in the wor Medico-Psychological Association. He has left a wid a son and daughters to mourn their irreparable loss.

THE LATE DEPUTY SURGEON-GENERAL CAYLE MR. HENRY CLARK, C.M.G., President of the Fac Physicians and Surgeons of Glasgow, sends us the fo note on the life and work of Surgeon-General Ca whom an obituary notice was published in the MEDICAL JOURNAL of April 2nd:

Surgeon-General Cayley and I were very intimate ciated during a period of six months, for he was in charge of the Scottish National Red Cross Hospital at stad, Orange Free State, and I was the civilian sur charge. Our relations throughout were undisturbed the slightest ripple of disagreement, and our w carried on with the utmost unanimity and good feeli was a man of simple habits, was guided by the high ciples, and brought to bear on all the different prob administration a maturity of judgement and upright aim which secured for him the confidence of all his st ates. When he arrived at Kroonstad with the st equipment of the hospitals, he was suffering from ribs, the result of accidentally walking off the pit platform of Bloemfontein. He had travelled up to Kro in a guard's van (and any one familiar with the South railways can tell what that must be to a man with ribs), yet he would not be persuaded to rest, but sa getting the equipment unloaded, the tents set up, and e pital put in order for receiving patients. This is d sample of his untiring service and self-sacrificing l He was exceptionally well read in the scientific as his profession, and was able to draw from a wide expe especially of tropical diseases. He had also a spe quaintance with diseases of the eye. His health wa lent, and was so maintained by total abstinence fro lants, regulated exercises, and simple fare. In this was able to accomplish feats of strength and endurance were far beyond me, though I was more than ten y junior. It has been my lot to know none more able, gentlemanly, and truly Christian than Henry Cayley.

MR. JOHN WILSON, whose death on March 1 announced recently, was the oldest medical practit Whitby. The only son of John Wilson, M.D., of t town, Mr. Wilson received his early education locally St. Peter's College, York, whence he proceeded to College, London, and there began his medical career receiving the diplomas of M.R.C.S.Eng. and L.S.A. passing the first examination for the M.B.Lond., and ing some time in further study in Paris and Lei returned to Whitby and commenced practice in a fi senior partnership of which his father had just resign did not, however, long continue in this position, but s fresh practice on his own account, which eventually b very large one and extended far into the surr country. He was a man much esteemed by all class being of a retiring disposition he did not aspire t offices, but was content to devote himself to th duties of his profession. His work was chara by perseverance and great thoroughness, c which in his later years caused him to quently called into consultation by his col He enjoyed reading all new publications, and thus ke self ever abreast of the times. Pedestrianism and the sights and objects of the countryside also had a grea tion for him, and although he used to ride and driv earlier days, he latterly did all his country work on fo energies in this direction were not exhausted at home turned into pedestrian expeditions his not very f holidays, a distance of 20 to 30 miles being not uncom him. He was at work until about a week from his which resulted from pneumonia at the age of 69. time he held the appointment of Medical Officer to t Office staff, and also was surgeon to several clubs. He about forty years ago the daughter of Mr. J. Ing

ley Bridge, who predeceased him; he leaves four grown-ons, one of whom is in the medical profession.

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e sudden death is reported of Dr. HENRY BLACKBURN H, a member of the Bermuda Branch of the British ical Association. He was only in his 33rd year, was n respected, and regarded as a man of considerable iise. He graduated at first in Dental Surgery at the ersity of Maryland, but after a year or two of dental tice graduated in medicine at the same University in the 1900. During the South African war he was employed he Imperial Government as Civil Surgeon to the garrison t. George's, Bermuda. His death on February 13th red quite suddenly while he was on a brief visit to his r's house during a round of professional calls.

E HON. THOMAS ROBERT MCINNES, whose death in da was recently announced, was born in Nova Scotia, red a medical education at Harvard, and practised at den, Ontario. After filling several public offices there, ding that of coroner, he moved to British Columbia, e he built up a large practice at New Westminster, and also physician to the Royal Columbia Hospital and cal superintendent of the principal asylum of the pro . Later he entirely gave up practice for politics, and for a short time Lieutenant-Governor of British nbia.

AL NAVY AND ARMY MEDICAL SERVICES.

ROYAL NAVY MEDICAL SERVICE.

SURGEON C. JAMES is promoted to be Deputy Inspector-General anuary 4th. His previous commissions are thus dated:—Surgeon, ber 29th, 1877; Staff Surgeon, September 29th, 1899; and Fleet n, March 12th, 1894. He was Surgeon of the *Tenedos* during the ar in 1879 (medal). He received the expression of the great satis- of the Lords of the Admiralty at the display of zeal and devotion manifested during the epidemic of yellow fever at Jamaica when ed to the hospital in 1882.

notice which appeared in the *London Gazette* of March 22nd relative withdrawal from His Majesty's Naval Service of Staff Surgeon H. L, M.B., is hereby cancelled.

ollowing appointments have been made at the Admiralty: WILLIAM TT, M.A., M.B., Fleet Surgeon, to the *Lancaster*, April 8th; HENRY L, M.B., Staff Surgeon, and GODFREY TAYLOR, M.B., B.A., Surgeon, *Endymion*, April 19th; HAROLD G. T. MAJOR, Surgeon, to the *Bul-*pril 8th; EDWARD H. ROSS, Surgeon, to the *Lancaster*, April 5th; E. JOHNSTON, M.B., B.A., JOHN SHIPSEY, FREDERICK COOK, S W. JEFFREY, ARTHUR D. C. CUMMINS, CHARLES W. WOODS, and AM R. BICKFORD, Surgeons, to the *Vivid*, additional, for disposal, h; NORMAN H. MEIKLEJOHN, HENRY WOODS, M.B., JAMES J. ER, M.B., FREDERICK M. V. SMITH, DAVID H. VICKERY, and R G. M. ANDERSON, M.B., B.A., Surgeons, to the *Fire Queen*, nal, for disposal, May 6th; JAMES C. BRINGHAM, M.B., WALTER P. GEORGE H. S. MILLN, M.B., REGINALD H. ST. B. E. HUGHES, E D. WALSH, ARTHUR R. DAVIDSON, M.B., EDWARD KENNY, and D P. G. CAUSTON, Surgeons, to the *Pembroke*, additional, for l, May 6th; LIONEL C. E. MURPHY, EVELYN R. TOWNSEND, and R R. SCHOFIELD, M.B., Surgeons, to the *Wildfire*, additional, for l. May 6th; PALMER D. RAMSAY and FRANCIS J. GOWANS, Surgeons, *Vivid*, additional, for Plymouth Hospital, May 6th; GEORGE T. , Staff Surgeon, to the *Iphigenia*, April 14th; and JOHN FULLARTON, urgeon, to the *Cadmus*, April 13th.

MEDICAL OFFICERS OF FOOT GUARDS.

Order 43, dated February 12th, 1904, provides that al officers shall not in future be transferred to regi- of Foot Guards, and cancelling the regulations authoriz- ne transfer of an officer of the Royal Army Medical to the regiments of Foot Guards. Medical officers who already been gazetted to the regiments of Foot Guards elect, within such time as may be prescribed by the Council, whether they will remain therein, or be trans- to the Royal Army Medical Corps.

ical officers who elect to remain in the regiments of Guards will be eligible for promotion under Article 383A e Pay Warrant up to, but not beyond, the rank of on-lieutenant-colonel. Those who elect to be trans- to the Royal Army Medical Corps will take rank and ity therein as follows:

gade surgeon-lieutenant-colonel—as a lieutenant-colonel selected reased pay, with seniority from the date of promotion to his rank.

geon-lieutenant-colonel—as a lieutenant-colonel not selected for ed pay, with seniority from the date of promotion to his present A surgeon-major—as a major, with seniority from the date of his original promotion to the rank of surgeon-major or major.

The Warrant of Her late Majesty Queen Victoria, dated October 26th, 1900, as amended by the Warrants of March 24th, 1902, and August 11th, 1902, will be further amended accordingly.

Medical officers now serving with the Foot Guards are given six months within which to make their selection; if they do not join the Royal Army Medical Corps they will remain doing duty with Guards. The application of the new system will, we understand, be introduced gradually.

ROYAL ARMY MEDICAL CORPS.

THE SIR WILLIAM TAYLOR PRIZE.

THE Sir William Taylor Prize of 25 guineas has been awarded to Major M. P. C. Holt, D.S.O., R.A.M.C., in recognition of distinguished professional attainments in surgery as evidenced by the returns of operations performed in Ireland, a summary of which appeared in the *Journal of the Royal Army Medical Corps* of last month.

This prize is awarded annually by Sir W. Taylor to the executive officer of the Royal Army Medical Corps on the active list, or on full-pay employment below the substantive rank of colonel, who shall, in the opinion of the Committee, be most deserving on account of professional or scientific work.

Colonel R. DE LA C. CORBETT, M.D., D.S.O., is granted the temporary rank of Surgeon-General while officiating as Principal Medical Officer in Bengal from March 5th.

Lieutenant-Colonel A. W. F. INMAN, M.B., is granted the temporary rank of Colonel while officiating for Colonel Corbett in the Oude and Rohiland Districts, from March 5th.

EXCHANGES.

The charge for inserting notices respecting Exchanges in the Army Medical Department is 3s. 6d., which should be forwarded in stamps or post-office order with the notice, not later than Wednesday morning, in order to ensure insertion in the current issue.

A MAJOR R.A.M.C. serving in India, whose tour expires next trooping season, desires exchange to remain in India for part tour. Apply to G., care of Messrs. Holt and Co., 3, Whitehall Place, London, S.W.

INDIAN PAY.

COLONIAL writes: To those who have recently joined the Royal Army Medical Corps upon the understanding that the Indian pay is now adequate, it comes somewhat as a surprise to find that the Indian pay is precisely the same as the home translated into rupees, and whilst every other white man is receiving a large salary in return for his exile and injured health, a Royal Army Medical Corps officer receives his meagre home stipend. An engine driver receives £400 per annum. The fact that captains and lieutenants still receive no horse allowance is equally serious. This allowance has been suggested and recommended for the last ten years, has many times been referred to by the BRITISH MEDICAL JOURNAL, yet it was omitted from the recommendations of the Advisory Board. A veterinary surgeon upon joining receives double horse allowance, thus being paid over £100 a year more than a medical lieutenant in India, for of course both officers require horses equally.

INDIAN MEDICAL SERVICE.

LIEUTENANT-COLONEL T. H. POPE, M.D., Madras Establishment, retires from the service from March 1st. He was appointed Assistant Surgeon, March 30th, 1878, and became Surgeon-Lieutenant-Colonel, March 30th, 1898. He was in the Afghan war of 1878-80, receiving a medal for that campaign.

PAY AND PROSPECTS.

SARDAM writes: I see from the SUPPLEMENT of the BRITISH MEDICAL JOURNAL of January 30th, Proceedings of Naval and Military Committee, that "some little time" must elapse before the Government of India complete their considerations with reference to the pay and prospects of officers of the Indian Medical Service in civil employ. As far as I can remember, the matter has been "under consideration" for the past two years; in the meanwhile the Government of India saves the extra expense and the Indian Medical Service is the sufferer. Can it be that this protracted incubation period is the direct result of a sufficiency of competitors coming forward to fill, and more than fill, all vacancies in the service? At the recent examination 42 competed for 20 vacancies. I think men at present entering the service can hardly be fully aware of the respective advantages of the two military services, R.A.M.C. and I.M.S. Pay I.M.S. compares unfavourably with that of the R.A.M.C.:

	I.M.S. Rs.	R.A.M.C. Rs.
Captain, 10 years	550— 700	710
Major	650— 800	810
,, (15 years)...	750— 900	1,005
Lieutenant-Colonel	900—1,259	1,240
(Selected)	1,000—1,400	1,390

I take these figures from the JOURNAL of October 17th, p. 1012. Pay of Major (15 to 20 years) I.M.S. is therefore from Rs.105 to Rs.245 less than one of corresponding rank and service in the R.A.M.C. (2) I.M.S. service is continuous duty in India; instead of getting enhanced pay for doing duty in a bad climate, less pay is given. (3) Furlough, medical certificate, R.A.M.C, free sea passage home and out. I.M.S. officers have to pay both ways if over three years' service; if under three years a passage is provided home, but they will have to pay their way out again.

VOLUNTEER RIFLES.

BRIGADE-SURGEON-LIEUTENANT-COLONEL J. MACFIE, M.D., 4th Volunteer Battalion the Cameronians (Scottish Rifles), Senior Medical Officer, Scottish Rifle Volunteer Infantry Brigades, and Surgeon-Lieutenant-Colonel R. T. CAESAR, 2nd Volunteer Battalion the Hampshire Regiment, resign their commissions and are granted the honorary rank of Surgeon-Colonel, retaining their uniform, March 26th.

Mr. ALFRED T. GRIFFITHS is appointed Surgeon-Lieutenant in the 1st Volunteer Battalion the Duke of Wellington's (West Riding Regiment), March 26th.

Surgeon-Lieutenant T. W. PARRY, M.B., 3rd London, to be Surgeon-Captain, March 26th.

Surgeon-Captain H. C. DONALD, M.B., 2nd (Renfrewshire) Volunteer Battalion Princess Louise's (Argyll and Sutherland Highlanders), to be Surgeon-Major, March 26th.

ROYAL ARMY MEDICAL CORPS (VOLUNTEERS).

LIEUTENANTS W. A. I. FORTESCUE, M.B., F. KELLY, M.D., A. OGSTON, M.B., and T. FRASER, M.B., the Aberdeen Company, are promoted to be Captains, March 26th.

Mr. ROBERT Y. ANDERSON, to be Lieutenant in the Glasgow Companies, March 26th.

VOLUNTEER INFANTRY BRIGADE BEARER COMPANY.

SUPERNUMERARY SURGEON-CAPTAIN G. G. OAKLEY (Honorary Captain in the army), from the 1st Volunteer Battalion the Duke of Wellington's (West Riding Regiment), to be Captain and to command the West Yorkshire Company, March 26th.

HOSPITAL AND DISPENSARY MANAGEMENT.

ST. THOMAS'S HOSPITAL, LONDON.

THE Charity Commissioners for England and Wales have made an order establishing the scheme for the future regulation of St. Thomas's Hospital, so far as regards the accommodation for paying patients, of which they gave notice six months since. By virtue of this scheme the Governors of the hospital may, during their pleasure, set apart for the admission, maintenance, and treatment of not more than forty patients, two floors in the building intended to be used primarily as a home for nurses, which is in course of erection within the precincts of the hospital. The payments of such patients are to be at a daily rate of not less than 8s. to the general income of the hospital, while the number of the patients and the minimum rate of payment to be made by them may be varied from time to time by the Governors, with the sanction of the Charity Commissioners. The Governors are empowered to make such rules and regulations for the admission, treatment, and discharge of the patients as they think fit.

BAGNALL SMALL-POX HOSPITAL.

DR. C. H. PHILLIPS has published a short report and tabular statement of cases recently treated at the Bagnall Small-pox Hospital belonging to the North Staffordshire Joint Small-pox Hospital Board. The total number of cases was 189. The disease was evidently of a very mild type, for the deaths were only 6, but even in these small figures there was the usual differentiation between the unvaccinated and the vaccinated. The former had 2 deaths among 25 cases, or 8 per cent., and the latter had 4 deaths among 164 cases, or 2.4 per cent. The ages of all the cases are given, and the unvaccinated patients who died were aged 5 and 22 years respectively, so it cannot be alleged that they were infants who had not reached the vaccination age. The fatal cases among the vaccinated were in adults aged respectively 29, 41, 45, and 58 years. In 3 of them the area of the vaccination marks was $\frac{1}{16}$ in., and in 1 $\frac{3}{8}$ in. Among the 189 cases were 34 who had been vaccinated during the incubation period of small-pox. All these recovered.

MEDICO-LEGAL AND MEDICO-ETHICAL.

THE SALE OF DRUGS IN TABLOID.

MESSRS. BURROUGHS, WELLCOME, AND CO. have been successful in the appeal which was lodged against the decision of Mr. Justice Byrne with regard to the use of the word "tabloid." It will be remembered that an action was brought by Messrs. Burroughs and Wellcome to restrain Messrs. Thompson and Capper from passing off goods not of the manufacture of the plaintiffs as and for their goods, and particularly to restrain them from selling or offering for sale any such goods under the name "tabloid" or "tabloids," and from infringing the plaintiffs' trade marks.

It was alleged that the defendants, in response to orders for "tabloids," had sold goods not of the manufacture of the plaintiffs' firm. On December 14th, 1903, Mr. Justice Byrne gave judgement for the plaintiffs on the ground that the word tabloid was an invented worn at the time when it was registered as a trade mark, and that, although it was not then descriptive, it had since become descriptive of the drugs sold by the plaintiffs.

This judgement has now been affirmed by the Court of Appeal. In the course of his judgement, Lord Justice Vaughan Williams said: In my judgement I will say that I think this word "tabloid" was, at the time of this registration, a distinctive word suggesting the source or origin of the goods which were covered or intended to be covered by it; and I think, further, that at this date the word tabloid was not a descriptive word. As understood at that time it really conveyed to the hearers no peculiar quality of the goods supplied to the public. . . . I am of opinion that notwithstanding the previous uses of the word "tablet" that "tabloid" when first adopted as a trade mark by Messrs. Burroughs and Wellcome did not intelligibly describe anything.

One of the other judges, in giving judgement, said that when a trade mark was impeached after so long a distance of time as had occurred in this case, it was fair that the persons who had maintained the long user should have the benefit of the doubt.

The short effect of this judgement is that the plaintiff firm have obtained a monopoly in the word "tabloid"; and that no other firm of chemists can use it to describe their wares to the public.

AUTOMOBILE REGULATIONS.

THE President of the Local Government Board, having completed the regulations which he is authorized to make under the Motor-Car Act of 1896 and 1903, has now laid copies of them upon the tables of both Houses of Parliament. As those which concern the driving and use of motor-cars are of direct interest to medical men they are here quoted. Under them every person, either driving or in charge of a motor-car on a highway, must comply with the following rules:

1. He shall not cause the motor-car to travel backwards for a greater distance or time than may be requisite for the safety or convenience of the occupants of the car and of the passenger and other traffic on the highway.

2. He shall not, when on a motor-car, be in such a position that he does not have control over the same, or cannot obtain a full view of the road and the traffic ahead, or quit the car without having taken due precautions against its being started in his absence, or allow the car, or any vehicle drawn thereby, to stand on the highway so as to cause any unnecessary obstruction.

3. He shall, when meeting any carriage, horse, or cattle, keep the motor-car on the left or near side of the road, and when passing any carriage, horse, or cattle proceeding in the same direction, keep the car on the right or off side of the road.

4. He shall not negligently or wilfully prevent, hinder, or interrupt the free passage of any person, carriage, horse, or cattle on any highway, but shall keep the motor-car and any vehicle drawn thereby on the left or near side of the road for the purpose of allowing such passage.

5. He shall, whenever necessary, by sounding the bell or other instrument required by Section III of the Act of 1896, give audible and sufficient warning of the approach or passing of the motor-car.

6. He shall, on the request of any police-constable in uniform, or of any person having charge of a horse, or if any such constable or person shall put up his hand as a signal for that purpose, cause the motor-car to stop and to remain stationary as long as may be reasonably necessary.

These regulations have the force of law, and violation of them will render the offender liable to heavy penalties. While they are of special importance to medical men who use automobiles, a correct appreciation of them by those who use carriages and horses is also desirable in order that they may know what protection is afforded by the law in respect of danger or inconvenience caused by careless motor drivers.

MEDICAL PRACTITIONER AS AGENT FOR A LIFE INSURANCE COMPANY.

TAXES.—A medical practitioner may be an agent for a life insurance company, but (1) he cannot examine cases introduced by himself; (2) he must not subordinate the interests of his patients to those of the company by revealing their secrets without their consent.

VALUE OF SHARE.

H. K. B. J. asks what would be a fair price to pay the firm of which he is a member for an increase in his share from one-fifth to one-fourth. He originally paid £1,000 for the fifth share, which is worth £400 per annum, and he calculates that the fourth share will bring in £500. The practice he describes as being made up chiefly of clubs and small appointments, and is mostly among the poor.

*** A share in a practice of this kind is seldom worth more than a year and a-half's purchase. £150 would appear to be the full value of the proposed increase.

NOTICE TO BE GIVEN BY ASSISTANT.

AN ASSISTANT asks what notice should be given on either side, where there is no definite arrangement. He is paid monthly.

*** A month's notice must be given on either side.

PUBLIC HEALTH AND POOR-LAW MEDICAL SERVICES

HEALTH OF ENGLISH TOWNS.

IN seventy-six of the largest English towns, including London, births and 5,464 deaths were registered during the week ending Saturday last, April 2nd. The annual rate of mortality in these towns, which had been 19.0, 19.7, and 18.7 per 1,000 in the three preceding weeks, rose again 18.7 last week. The rates in the several towns ranged from 8.5 in Walthamstow, 9.0 in Hornsey, 9.4 in Leyton, 11.0 in Willesden, 11.1 in Ipswich, 11.8 in Devonport, 12 3 in Reading, and 12.5 in East Ham to 23.6 in Hastings, to 23.9 in Birkenhead, 23.9 in Swansea, 24.5 in Birmingham and in Manchester, 24.6 in Tynemouth, 24.8 in Warrington, 25.0 in Bury, 25.3 in St. Helens, and 28.6 in Rochdale. In London the rate of mortality was equal to 18.8 per 1,000, while it averaged 18.6 per 1,000 in the seventy-five other large towns. The death-rate from principal infectious diseases in the seventy-six towns last week was 2.2 per 1,000; in London this death-rate was equal to 2.3 per 1,000, while among the seventy-five other towns the rates ranged upwards to 3.6 in Bolton and in Bury, 3.8 in West Hartlepool, 3.9 in Birmingham and in Manchester, 4.1 in Hanley, 4.9 in Coventry and in Swansea, 6.5 in St. Helens, and 7.7 in Warrington. Measles caused a death-rate of 1.4 in Salford and in Leeds, 1.6 in Hanley, 1.8 in Norwich and in Bury, 2.6 in Wallasey, in Manchester, and in Burnley, and 2.9 in St. Helens; diphtheria of 1.3 in East Ham, and 1.6 in Hanley; and whooping-cough of 1.9 in Birmingham, 2.1 in Wolverhampton, 2.4 in St. Helens, 2.6 in Gateshead, 3.0 in Bolton and in West Hartlepool, 4.2 in Coventry, in Swansea, and 6.2 in Warrington. The mortality from scarlet-fever, from enteric fever, and from diarrhoea showed no marked excess in any of the large towns. Three fatal cases of small-pox were registered last week in London, 2 in Tynemouth, and 1 each in Nottingham, Burnham, and Gateshead, but none in any other of the seventy-six large towns. The Metropolitan Asylums Hospitals contained 126 small-pox patients at the end of last week, against 54, 74, and 110 at the end of the three preceding weeks; 42 new cases were admitted during the week, against 26, and 54 in the three preceding weeks. The number of scarlet fever cases in these hospitals and in the London Fever Hospital, on Satur

April 2nd, was 1,570, against 1,601, 1,624, and 1,585 on the three pre-ng Saturdays: 153 new cases were admitted during the week, against 176, and 145 in the three preceding weeks.

HEALTH OF SCOTCH TOWNS.

ING the week ending Saturday last, April 2nd, 919 births and 681 deaths registered in eight of the principal Scotch towns. The annual rate ortality in these towns, which had been 21.5, 23.0, and 22.3 per 1,000 e three preceding weeks, further declined last week to 20.6 per 1,000, was 1.9 per 1,000 above the mean rate during the same period in the nty-six large English towns. Among these Scotch towns the death- ranged from 13.6 in Leith and 17.5 in Aberdeen to 22.4 in Greenock 16.2 in Perth. The death-rate from the principal infectious diseases ese towns averaged 2.2 per 1,000, the highest rates being recorded in ee and Paisley. The 329 deaths registered in Glasgow included 5 small-pox, 12 from measles, 3 from scarlet fever, 8 from whooping-h, 3 from "fever," and 7 from diarrhoea. Four fatal cases of es, 5 of whooping-cough, and 2 of diarrhoea were recorded in ee; 4 of measles and 2 of whooping-cough in Paisley; and 3 of ping-cough in Edinburgh, 2 in Aberdeen, and 2 in Leith.

UNIVERSITIES AND COLLEGES.

UNIVERSITY OF OXFORD.

SECOND EXAMINATION FOR THE DEGREES OF B.M. AND B.CH.

Board of the Faculty of Medicine gives notice of the following es in its Regulations (see Examination Statutes, pp. 190, 191). Regulations under the heads of Medicine, Surgery, Midwifery, and ogy have been amended, and now stand as follows:—

V. *Medicine.*

examination shall be held in the Principles and Practice of Medi- nd shall consist of the following parts:

written paper of three hours.

nical work. This shall include: (*a*) A full clinical report upon a ase, together with a statement of the treatment and the writing of riate prescriptions; (*b*) an oral examination upon other cases d by the examiners.

actical examination in chemical and microscopical methods of sis, such as the investigation of urine, identification of parasites, ation of blood, sputum, etc., and on the use of special instruments gnostic purposes.

iva-voce examination.

VI. *Surgery.*

xamination shall be held in the Principles and Practice of Sur- Candidates will be expected to possess a general knowledge of the of the eye and ear.)

xamination shall consist of the following parts:

ritten paper of three hours.

nical work, partly in writing, partly oral.

examination in surgical anatomy, the methods of operations, ing on the living or dead subject, and the use of surgical instru- nd appliances.

iva-voce examination.

VII. *Midwifery.*

present, except that the words "(1) Paper work, (2) practical ex- on . . . . ." have been replaced by the words, "(1) A written three hours, (2) a practical and viva-voce examination. . . ."

viva-voce examination in Medicine, Surgery, and Midwifery, can- shall be shown pathological specimens, and shall be examined ch appearances as bear upon the clinical aspects of disease.

dhology (Including General Pathology, Morbid Histology, and Bacteriology).

amination shall consist of three parts:

ritten paper of three hours.

actical examination of three hours.

va-voce examination.

regulations will come into force at once, and take effect at the tions of Trinity Term, 1904.

UNIVERSITY OF LONDON.

MEETING OF THE SENATE.

ition of Teachers.—Mr. William Douglas Harmer and Mr. Robert ailey were recognized as Teachers of Surgery and Dr. James s a Teacher of Medicine at St. Bartholomew's Hospital Medical Dr. Wilfrid James Hadley as a Teacher of Forensic Medicine at on Hospital Medical College, Dr. Nathaniel Henry Alcock as a of Physiology at St. Mary's Hospital Medical School, and Mr. Hopewell-Smith as a Teacher of Dental Anatomy and Physiology yal Dental Hospital.

ates for the M.B. and M.D. Degrees.—It was resolved: (1) That students registered in October, 1900, who passed the Final Exa- for the M.B. degree in October, 1903, held in accordance with ations adopted for external students, after completing a con- course of study for that examination as internal students, be iplomas as internal students. (2) That internal students regis- October, 1900, who passed the examination for the M.D. degree ber, 1903, held in accordance with the regulations adopted for students, after completing a continuous course of study for that ion at a school of the University, be granted diplomas as tudents.

siological Laboratory.—The Physiological Laboratory Committee l a report upon the work done in the Laboratory during the past , in which they stated that eleven courses of eight lectures each delivered, and that arrangements had been made by the Senate John Murray for the publication, under the authority of the y. of such of these courses as might from time to time be . The first volume published in this series was Dr. A. D. *n the Signs of Life.* The laboratory has been used for various s by twenty "post-graduate" or otherwise qualified students, ty-three communications from persons working in it have been l in the *Proceedings of the Royal Society* and other scientific The Senate approved the following names for addition to the Panel of Lecturers in Physiology in connexion with the laboratory: N. H. Alcock, B.A., M.D., Lecturer on Physiology at St. Mary's Hospital School; C. J. Martin, M.B., U.Sc., F.R.S., Director of the British Institute of Preventive Medicine; F. W. Pavy, M.D., LL.D., F.R.S., Consulting Physician to Guy's Hospital; A. E. Wright, M.D., Lecturer on Pathology and Bacteriology at St. Mary's Hospital Medical School.

Courses of Instruction in Advanced Physiology.—The following courses of instruction in Advanced Physiology to be given at Guy's Hospital Medical School were approved, and it was resolved that the Lecturers included in the scheme be temporarily recognised as Teachers of the University while deliv ring their respective courses: Physiological Department.—Lecturer: M. S. Pembrey, M.A., M.D., B.Ch.; Demonstrators: E. I. Spriggs, M.D., M.R.C.P.; D. Forsyth, M.D. Lectures and Demonstrations.—J. S. Haldane, M.A., M.D., F.R.S., Lecturer in Physiology, University of Oxford, M. S. Pembrey, M.A., M.D., B.Ch., Chemistry of Respiration; F. G. Hopkins, M.A., M.B., Lecturer in Physiology, University of Cambridge, Recent Work in the Chemistry of Proteids; W. A. Ramsden, M.A., M.D., Demonstrator of Physiology, University of Oxford, Coagulations; A. P. Beddard, M.A., M.D., F.R.C.P., Assistant Physician, late Demonstrator of Physiology, Metabolism in Glycosuria; E. I. Spriggs, M.D., M.R.C.P., Digestion; A. E. Boycott, M.A., M.B., Gordon Lecturer, on the Nervous Impulse.

The times of these lectures will be so arranged that they do not clash with the Advanced Lectures on Physiology at the University of London, University College, and King's College. Permission to attend these lectures will be given to internal students of other schools of the University.

Practical Courses in Chemical Physiology, Experimental Physiology, and Histology will be given in each academic year. A special practical course upon the methods used in the determination of the respiratory exchange, the blood gases and nitrogenous metabolism will be given by Dr. Pembrey, Dr. Spriggs, and Dr. Beddard.

Degrees in Veterinary Science.—Courses of study and examinations, extending over four years, for degrees in veterinary science were approved.

Preliminary Scientific Examination.—It was resolved to print at the head of the botany and zoology papers constituting the papers in biology at the Preliminary Scientific Examination for Internal and External Students the following sentence: "Every candidate must show an acquaintance with both the botanical and the zoological divisions of biology."

School-leaving Certificate.—The Board entrusted by the Senate with the management of the school-leaving certificate examination and the inspection of schools has, at the desire of a number of schools, decided to hold a school-leaving certificate examination beginning on July 4th, in addition to that held in connexion with the ordinary Matriculation Examination, beginning on June 13th. Any school desiring to present pupils for the school-leaving certificate will be required to submit to the University a general statement of the complete course of instruction given in the school and also the curriculum of study pursued by the candidates. Further information and forms of entry may be obtained on application to the Principal, University of London, South Kensington, S.W. The entries must be made, for the June examination before May 1st, and for the July examination before June 1st.

Marlin White Benefaction.—A course of ten lectures on Social Evolution in Oceania will be delivered by Dr. A. C. Haddon, M.A., Sc.D., F.R.S., University Lecturer in Ethnology at Cambridge, at University College, at 4.30 p.m., on the following Thursdays: April 21st and 28th, May 5th, 12th, 19th, and 26th, June 2nd, 9th, 16th, and 23rd, 1904. Admission to the lectures will be free by ticket. Tickets and detailed syllabuses may be obtained from the Secretary, University College, Gower Street, W.C.

Rogers Prize, 1905.—Under the will of the late Dr. Nathaniel Rogers the Senate offer a prize of £100, open for competition to all members of the medical profession in the United Kingdom, for an essay on Anaesthetics, their Physiological and Clinical Aspect. The examiners will attach importance to the results of original observation. Essays, by preference typewritten or printed, must be sent in not later than June 1st, 1905.

Mr. J. H. Parsons, M.B., B.S., of University College, London, has passed the D.Sc. examination for external stuuents in the subject of Physiology.

UNIVERSITY OF EDINBURGH.

THE following candidates have passed the First Professional Examination in the subjects undernoted:

Botany.—J. Aitken, W. Bainbridge, A. Baldie, A. C. Barker, Christina H. Barr, W. Beggs, P. D. Cameron, G. Coats, G. C. Dalton, J. M. Deuchars, J. A. Duggan, F. P. Gibson, G. de C. Hugo, P. F. Hugo, H. Hutson, M. J. Johnston, A. W. Kendall, A. J. B. Leckie, G. H. Lowe, G. J. Luyt, B.A., R. M'Adoo, D. M'Carroll, A. K. Maclachlan, E. P. Maitland, N. Martin, W. M. Menzies, R. C. J. Meyer, B.A., J. E. Mitchell, F. L. Moore, C. C. Murray, A. A. W. Petrie, H. R. A. Philp, N. H. Prior, P. H. Salmond, E. D. Smith, W. A. Stewart, A. White, E. W. Wilbourne.

Zoology.—G. J. Adams, W. Bainbridge, A. C. Barker, F. V. N. Bruce, H. Burns, P. D. Cameron, J. T. Carson, G. Coats, J. M. Dalrymple, G. C. Dalton, F. Dillon, J. A. Duggan, W. G. Evans, J. P. Falvey, W. Fleming, W. T. Gardiner, K. N. Ghosh, A. B. Gordon, R. W. Houman, A. M. Hewat, St. G. M. L. Homan, A. E. Huckett, P. F. Hugo, W. P. S. Johnson, W. D. S. Johnston, R. O. Jollie, A. W. Kendall, H. R. Lawrence, A. R. Leggate, C. R. Lethem, C. L. Louw, H. B. Low, G. J. Luyt, D. M'Carroll, L. G. M'Cune, W. S. M'Cune, A. E. M'Iver, J. C. Mackenzie, K. Mackenzie, D. Macnair, E. R. D. Maconochie, W. J. Mayne, R. C. J. Meyer, T. S. Mitchell, I. A. Van Niekerk, R. J. E. Paterson, N. H. Prior, E. M. Reid, P. Roytowski, C. S. Sandeman, F. Shannon, J. T. Simson, E. W. Smerdon, E. E. Smith, W. A. Stewart, S. G. Tibbles, F. H. de Villiers, Dora M. Walker, F. K. te Water, W. H. te Water.

The following candidates have passed the Third Professional Examination for the degrees of M.B., Ch.B.:

T. Addis, F. Aitken, D. C. Alexander, J. C. D. Allan, A. C. Alport, A. G. Anderson, W. Anderson, G. S. Banks, D. M'F. Barker, J. M. Barkley, W. J. E. Bell, C. E. Blair, D. P. Blair, G. Blair, R. A. Blake, H. Brown, J. W. Cairns, T. F. Campbell, H. M. Cargin, Marjorie Duake Cohen, H. P. Cook, J. Craw, D. C. Crole, J. A. Cruickshank, A. B. Darling, T. Davidson, M.A., J. M. Dickson, H. A. Edwards, C. E. Elliston, F. E. Field, C. N. Finn, N. C. Forsyth, R. S. Frew, W. G. Fröhlich, Jessie H. Gellatly, W. Gemmill, Eleanor A. Gorrie, J. M. Grant, J. Green, C. Rose Greenfield (with distinction),

J. C. Grieve, J. A. Gunn, M.A., B.Sc.; G. Hadden, J. D. Harmer, Ada A. Hatchard, A. S. Hendrie, W. M. Hewetson, J. S. Hogg, J. R. Holgate, J. Ings, T. S. Jackson, J. P. S. Jamieson, J. H. H. Joubert, G. P. Joy, S. Kark, Ethel Landon, J. M. Lauder, J. Lindsay (E. Preston St.), W. L. Locke, J. MacDonald, P. M'Ewan, M.A. (with distinction), T. A. MacGibbon, J. D. M'Kelvie, K. W. Mackenzie, M. Mackinnon, A. C. M'Master, S. M'Naughton, C. M'Neal, M.A., N. N. G. C. M'Vean, S. E. Martin, E. S. Massiah, A. Mathieson, D. M. Mathieson, M.A.; A. I. Miller, O. M. Mirylees, C. E. S. Mitchell, J. S. Mitchell, H. B. Morris, D. L. Morrison, R. R. Murray, A. W. Neill, G. P. Norman, A. J. R. O'Brien, A. A. Ollivierre, D. H. Paul, H. E. Rawlence, C. Reece, A. E. C. Rees, B.A.; A. O. P. Reynolds, W. E. Reynolds, W. G. Robertson, M.A.; W. L. Robertson, J. Z. H. Rousseau, B.A. (with distinction); A. Sandison, W. M. Scott (with distinction), W. J. B. Selkirk, D. W. Sibbald, E. S. Simpson, O. Smith (with distinction), S. A. Smith, T. R. Smith, A. G. V. van Someren, A. B. Spence, J. R. Tannahill, J. A. R. Thompson, R. B. Thomson, Nettie B. Turnbull, E. Valenzia, A. N. J. Vizarat, Frances M. Wakefield, R. C. Walker, H. E. A. Washbourn, H. C. Weber, J. D. Wells, W. H. Welsh, F. P. Wernicke, Elsie B. Wilkie, H. C. Wilson, J. Young. The following candidates have passed in Pathology in the Third Professional Examination: G. Britto, N. S. Carmichael, F. W. Cragg, E. G. Deverell, M. G. Dill, H. F. Fenton, L. Gardener, E. G. Girdwood, H. S. A. Hogg, R. E. Moyes, E. B. Munro, R. H. Nolan, C. R. O'Brien, A. M. Pirvie, B.Sc., D. E. C. Pottinger, D. G. Reid, H. M. Sanzier, E. M. Simmers, J. T. Young.

J. A. Grierson has passed the Second Professional Examination for degrees in Medicine (old regulations).

UNIVERSITY OF GLASGOW.

THE following have passed the First Professional Examination for the Degrees of Bachelor of Medicine (M.B.) and Bachelor of Surgery (Ch.B.) in the subjects indicated (B. Botany; Z., Zoology; P., Physics; C., Chemistry):—

A. Aitchison (Z), J. A. Aitken (P.), W. Allen (C.), D. Anderson (Z.), W. Anderson (B., P.), T. Archibald (Z., C.), J. C. Auchencloss (B., Z., P.), W. Barr (Z.), F. Beatch (B.), C. Bennett (Z., C.), R. I. Binning (B., P.), J. Blakely (Z.), J. L. Boyd (Z, C), W. Brown, M.A. (B.); W. B. Brownlie (Z., C.), D. Y. Buchanan (Z.), M. Buchanan (Z), H. M. Calder (P.), J. Cameron (Z., P.), J. Carrick (Z., C.), D. J. Clark (Z), J. H. J. V. Coats (B.), J. Cook (Partick) (Z.C.), J. Cruickshank (Z. C), W. Dawson (P. C.), J. C. Dick (B.), W. H. Duncan (B.), J. K. Dunlop (P. C.), A. Dunsmuir (C.), T. L. Fleming (B.), T. Forsyth (B.), W. L. Forsyth (Z., C.), J. Fotheringham (Z.), B. Gale (C.), D. Gibson (Z., C.), W. Gilmour (Z., C.), H. MacV. Gossman (B., P.), A. T. A. Gourlay (B., P., C.), E. O'D. Graham (P.), T. E. Gray (Z., C.). W. C. Gunn (P.), J. S. Harbinson (B., Z., P., C.), S. J. Henry (Z., C.), J. H. Hislop (Z., P.), W. A. Hislop (P., C.), A. Hogg (P., C.), B. Hutchison (Z., C.), A. M. Kennedy (Z., C.), T. J. Kirk (Z.), J. Lang (Z.), W. Leitch (B., Z., P., C.), D. C. M'Ardie (B., C.), P. C. M'Arthur, M.A. (B.), F. C. Macaulay (Z.), H. M'Callum (Z., P.), R. M'Carlie (P.), A. M. Macdonald (Z.), A. C. MacDougall (B., P.), J. B. Mackay (B., P., C.), W. M'Kendrick (P., C.), F. W. Makichan (B., P.), W. C. Mackie (Z., C.), W. E. M'Lelland (C.), J. W. M'Leod (Z., C.), J. M'M. M'Millan (Z., P., C.), J. MacMillan (B., P.), P. R. M'Naught (Z., C.), D. I. M'Naughtan (B., P., C.), A. M'Pherson (Z., P.), W. A. L. Marriott (Z., C.), F. N. Marsh (Z., C.), H. Matthews (C.), K. C. Middlemiss (Z., C.), T. Miller (Z.), R. M'K. Morison, M.A. (B., Z., C.), H. Morton (C.), J. Muir (Z., P., C.), R. C. Muir (P.), W. A. Muir (Z., P.), A. C. Munro (Z., C.), A. A. Murison (P.), C. S. M'K. Murison (B., C.), A. Naismith (P., C.), W. Noble (Z., C.), A. R. Paterson (Z., C.), A. Patrick (B., Z.), R. M. F. Pickard (Z.), D. Purdie (Z., C.), M. Purvis (Z. C.), E. Quigley (Z. P.),, R. Rae (Z.), N. M'N. Rankin (B., Z.), T. D. C. Ross (B., P.), G. W. Scott (P., C.), A. Semple (B., P.), W. A. Sewell (Z., C.), J. B. Sim (Z., P.), W. Stevenson (P., C.), L. Storey (C.), H. C. Storrie (Z., P., C.), D. Taylor (Z., C.), W. Telfer (P., C.), J. A. Thomson (B., P., C.), J. S. Thomson (Z., C.), R. M'N. Walker (Z., C.), W. S. Waterhouse (P.), T. P. Watson (B.), T. C. D. Watt (C.), C. P. Williamson (Z., P.), D. M'G. Wilson (Z., C.), H. M. Wilson (B., P., C.), W. A. Wilson (B., C.).

Women.—M. M. Buchan (P., C.), M. B. S. Darroch (B., Z.), M. Foley (P., C.), M. G. Forrest (B., P., C.), J. W. Jones (P., C.), A. M'Crorie (B.), J. A. Macvea (Z.), F. Morrison (P.), J. P. Rose (B., Z.), W. M. Ross (P.), J. C. Russell (P., C.), J. H. Stewart (P., C.).

The following have passed the Second Professional Examination for the Degrees of Bachelor of Medicine (M.B.) and Bachelor of Surgery (Ch.B.) in the subjects indicated (A., Anatomy; P., Physiology; M., Materia Medica and Therapeutics):

G. V. Anderson (A., M.), J. M. Anderson (M.), A. H. Arnott (P., M.), J. Bain, M.A. (A.), T. Barbour, B.Sc. (A., P.), C. Burns (P.), W. A. Campbell (A., P., M.), D. L. Carmichael (P., M.), H. H. Christie (A., P., M.), D. Clark (M.), J. S. Clark, M.A. (A., P.), J. Coutts (A., P., M.), A. D. Cowan (A., M.), T. L. Craig (A., P.), A. M. Crawford (A., P., M.), W. B. Cunningham (A., P.), H. W. Dempster (P., M.), A. C. Douglas (M.), R. J. Driscoll (M.), J. Dunbar (A.), E. M. Eaton (A., P.), T. H. Forrest (M.), J. W. Georgeson (P.), W. Gilbert (A., P., M.), W. Gilchrist (A.), A. H. Gray (A., P.), J. I. Greig, M.A. (M.), R. N. Guthrie (A., P., M.), J. Hammond (A., P.), W. T. Hardie (A.), R. M'C. Hill (A.), L. Hislop (M.), D. G. Hunter, M.A. (M.), H. S. Hutchison (M.), A. E. Jones (A., M.), P. J. Kelly (A.), J. Keys, (A., P.), J. D. Kidd (A., P.), R. W. Leckie (A.), A. Leggat (A.), A. McCall (P.), J. M'Cartney (M.), D. Macdonald (A., P., M.), J. M'Farlane (A., P., M.) J. H. M'Kay (A., P., M.), T. C. Mackenzie (P.), W. F. Mackenzie (A., P., M.), W. Macleod (A.), N. S. Macnaughtan (A.), A. A. C. M'Neill (A., P.), C. J. C. Macquarie (A., P., M.), W. H. Manson, M.A. (M.), R. Marshall (A., P.), R. May (A.), J. Muller (A., P., M.), W. Miller (A., P.), P. Mitchell, M.A. (A. P.), H. W. Moir (A., P., M.), P. J. O'Hare (A.), J. Oswald (P.), J. H. Paul (A., P.), A. G. Paxton (P.), J. Reid (M.), F. G. Robertson (A., P., M.), J. C. Russell, M.A. (M.), W. J. Rutherfurd (A., P., M.), A. C. Sharp (A., P.), J. Sharp (A., P., M.), J. C. D. Simpson (P., M.), R. A. Slater (A.), W. Smellie (A., P.), T. B. Smith (A., P., M.), J. Stevenson (A., P.), J. Stevenson (A., P.), A. A. Stewart (A.), D. L. A. Tate (A., P., M.), C. S. Thomson (A., P., M.), M. Turnbull (P.), A. MacM. Watson (A.), J. K. Welsh (A., P., M.), D. J. Williams (M.), G. H. Wilson (A., P., M.), M. Youdelevitz (A., P.), J. Young (Mount Vernon), A.

Women.—J. M. Andrew (A., P.), R. I. Hudson (A., P., M.), K. R. M. Lucas (A.), A. Picken, M.A. (A., P., M.), H. R. L. Reid (A., M.), V. Reis (P.), M. B. Taylor (P., M.).

R. S. M'Kim, M.A., has passed the Second Professional Examination in Anatomy and Physiology for the degrees of M.B. and C.M. under the old regulations.

The following have passed the Third Professional Examination for the Degrees of Bachelor of Medicine (M.B.) and Bachelor of Surgery (Ch.B.) in the subjects indicated (P., Pathology; M., Medical Jurisprudence and Public Health):

G. A. Allan (P.). W. S. Allan (P., M.), A. Allison (P., M.), A. W. Anderson (M.), J. H. Baird, B.A. (P., M.), H. Barr (P., M.), G. D. M. Beaton (P., M.), M. H. Caldwell (M.), T. M. Campbell, M.A. (P., M.), C. G. A. Chislett (), R. W. Dale, M.A. (P., M.); R. S. Dewar, M.A. (P., M.), W. Duffy, M. (P., M.), J. S. Dunn, M.A. (P.), E. J. Dyke (P., M.), H. W. Dyke (P.,), J. Fairley (P., M.), H. P. Fairlie (P., M.), A. B. Ferguson (P.,), G. Garry (M.). J. Gemmell (P.), J. Glaister (P., M.), A. Graham, B. (P., M.), W. Grier (P.), C. F. D. Hammond (M.), J. D. Hart (), F. Hauxwell (P.), J. W. Hay (P., M.), R. V. Howell (M.), A. Hunter (M.), J. Hunter (P.), W. B. Jack (P., M.), G. N. Kirkwood (), W. L. Kirkwood (P., M.), G. H. Logan (P., M.), P. Lowe, M.A., B. (P., M.), J. B. M'Cabe (P.), T. M'Cosh (P.), W. G. Macdonald, M. (P., M.), D. M'Ewan (P.), H. A. Macewen (P., M.), J. D. Macfie (P.,), J. Macintyre (M.), R. Mackinnon (M.), R. MacLeod (P.), M. T. M'Murrick (P., M.), H. MacNaught (P.), P. Maguire (P., M.), W. M. (P., M.), J. Moffatt (P., M.), W. S. Moore (P., M.), H. J. Miligan (), D. R. Mitchell (P.), J. D. Nisbet (M.), J. Pearson (P.), H. S. Rann (P., M.), C. D. Rankin (P., M.), T. H. Rankin (M.), T. T. Rankin (), J. M. Renton (P., M.), A. Robertson (P., M.), W. Rolland (P.), C. Ross (P.), J. M. Ross (P.), A. C. Russell (P., M.), E. L. A. Sieger (M.), W. Sieger (P.), J. A. Somerville (M.), T. Strain (P., M.), W. A. Stuart (M.), J. Taylor (P., M.), T. Thom (P.), W. L. Walker, M.A. (P.), MacM. Watson (M.), G. Young (P., M.).

Women.—B. S. Alexander (M.), J. T. Clark (P.), M. T. Gallagher (P.,), E. M. M'Vail (P.), C. R. Park (M.), M. Spence (M.).

VICTORIA UNIVERSITY OF MANCHESTER.

THE following candidates have passed the Second Examination in the Faculty of Medicine in the subjects undernoted:

Anatomy and Physiology.—C. B. Davies, Owens; D. Dougal, Owens; Ferguson, Owens; Jane A. Fleming, Owens; C. L. Franklin, Owens; S. H. Gandhi, Owens; P. C. Garrett, Owens; E. F. S. Green, Owens; J. T. B. Hall, Owens; D. W. Hardy, Yorks.; C. Hibbert, Owens; H. T. Lamb, Owens; W. O. McKane, Yorks.; R. H. Mellor, Owens; R. Nightingale, Owens; G. F. Porter, Owens; C. H. Redmond, Owens; W. H. Ross, Owens; F. K. Smethurst, Owens; W. W. Stacey, Owens; H. G. Ward, Owens; J. S. Webster, Owens; A. W. T. Whitworth, Owens; W. Wilson, Owens.

Materia Medica and Pharmacy.—T. G. Burnett, Owens; J. K. Harry, Owens.

The following candidates have passed the Final Examination in the Faculty of Medicine as under:

Part I.—F. de Cunha, Owens; H. S. Dixon, Owens; J. Dixon, York, R. G. Dixon, Yorks.; H. Fearnley, Yorks.; R. L. Ferguson, Owens; A. Gough, Yorks.; H. S. Harling, Yorks.; R. Haslam, Owens; W. Hill. Yorks.; J. J. Hummel, Yorks.; A. J. Landman, Yorks.; C. Mort, Owens; C. N. Smith. Yorks.; H. Spurway, Owens; D. Wainworth, Owens; F. Whalley, Yorks.; F. W. B. Young, Yorks.

Part II.—P. W. Ashmore, Yorks.; J. Battersby, Owens; J. W. Harry, Owens; F. W. Hayes, Yorks.; S. L. Heald, Yorks.; W. G. Kinsey, Owens; W. Y. Martin. Owens; S. Murray, Owens; S. H. Ryan, Owens; B. Suggitt, Yorks.

ST. ANDREWS UNIVERSITY.

HONORARY DEGREES.

AT the annual ceremonial of graduation, held on March 29th, the degree of LL.D. was conferred (*honoris causâ*) on Sir Charles Gage Brown, K.C.M.G., M.D.

ROYAL COLLEGE OF SURGEONS OF EDINBURGH.

Fellowship Examination.—The following gentlemen, having passed the necessary examinations, have been admitted Fellows of the College: J. E. H. Bennet, M.B., C.M., A. W. S. Christie, M.B., Ch.B., O. Gilruth, L.R.C.S.E., H. E. A. Jackson, M.R.C.S.Eng., L.R.C.P.Lond., A. D. E. Shinard, M.R.C.S.Eng., L.R.C.P.Lond., W. Lloyd, L.R.C.S.E., M. B. Smith, M.R.C.S.Eng., L.R.C.P.Lond., and H. M. Traquair, M.B., C.M. Dr. Cunningham, Professor of Anatomy in the University of Edinburgh, was also elected a Fellow of the College without examination.

Bathgate Memorial Prize.—The medal and sets of books forming the prize, presented to the College by Colonel William Lorimer Bathgate in memory of his late father, William M'Phune Bathgate, Fellow of the College, has been awarded to Miss Helen Meldrum M'Millan, 1, Fingal Place, Edinburgh, for the highest marks obtained in competitive examinations in materia medica and therapeutics.

ROYAL COLLEGE OF SURGEONS IN IRELAND.

The New Provost of Trinity College.—At a meeting of the President, Council, held on Thursday, March 24th, the following resolution was passed unanimously: "That the President, Vice-President, and Council express their gratification at the appointment, for the first time, of a medical man to the office of Provost of Trinity College, and congratulates Dr. Anthony Traill on his appointment to that distinguished position."

The following is the Prize List for the Winter Session 1903-4.

Descriptive Anatomy.—Junior: D. P. Clement, first prize (£2) and Medal; G. S. Levis, second prize (£1) and certificate. Senior: J. Adams, first prize (£2) and medal; P. G. M. Elvery, second prize (£1) and certificate.

Practical Anatomy.—First Year; G. S. Levis, first prize (£2) and medal; D. P. Clement, second prize (£1) and certificate. Second Year: P. G. M. Elvery, first prize (£2) and medal; T. A. Buchanan, second prize (£1) and certificate.

Practice of Medicine.—R. Bury, first prize (£2) and medal; P. D. Sullivan, second prize (£1) and certificate.

Surgery.—J. S. Dunne, first prize (£2) and medal; R. Bury and Lyburn, equal, second prize (£1) and certificate.

Midwifery.—J. S. Dunne, first prize (£2) and medal; P. D. Sullivan, second prize (£1) and certificate.

Physiology.—D. Adams, first prize (£2) and medal; T. Sheehy, second prize (£1) and certificate.
Chemistry.—D. P. Clement, first prize (£2) and medal; A. E. S. Martin, second prize (£1) and certificate.
Pathology.—L. Lucas, first prize (£2) and medal; P. D. Sullivan, second prize (£1) and certificate.
Physics.—A. E. S. Martin, first prize (£2) and medal; W. G. Ridgway, second prize (£1) and certificate.

MEDICAL VACANCIES AND APPOINTMENTS.

VACANCIES.

This list of vacancies is compiled from our advertisement columns, where full particulars will be found. To ensure notice in this column advertisements must be received not later than the first post on Wednesday morning.

BURY INFIRMARY.—Senior House-Surgeon; resident. Salary, £110 per annum.
DUBLIN: RICHMOND, WHITWORTH, AND HARDWICKE HOSPITALS.—Anaesthetist.
EAST LONDON HOSPITAL FOR CHILDREN, Shadwell.—Assistant Physician.
GREAT YARMOUTH HOSPITAL.—House-Surgeon, resident. Salary, £90 per annum.
LEEDS: HOSPITAL FOR WOMEN AND CHILDREN.—Resident House-Surgeon. Salary at the rate of £80 per annum.
LEICESTER INFIRMARY.—Clinical Assistant; resident. Honorarium, £10 10s. for six months.
MAIDSTONE: WEST KENT GENERAL HOSPITAL. — House-Surgeon, resident. Salary, £120 per annum,
MARGATE: ROYAL SEA-BATHING HOSPITAL.—Resident Surgeon to act as a Junior and then Senior. Salary at the rate of £80 and £120 per annum respectively.
MARGARET STREET HOSPITAL FOR CONSUMPTION, ETC., W.—Assistant Physician.
MIDDLESEX HOSPITAL.—First, Second, and third Assistants to the Director of the Cancer Research Laboratories. Salaries, £200, £150, and £100 per annum respectively.
PLAISTOW ST. MARY'S HOSPITAL FOR SICK CHILDREN.—Assistant Resident Medical Officer. Salary at the rate of £80 per annum.
PRESTON ROYAL INFIRMARY.—Assistant House-Surgeon, resident. Salary, £60 per annum.
ROYAL FREE HOSPITAL. Gray's Inn Road, W.C.—(1) Resident House-Physician. (2) Resident House-Surgeon. (3) House-Physician. (4) Casualty House Surgeon.
SOCIETY OF APOTHECARIES, Blackfriars, E.C.—Examiner in Surgery.
ST. BARTHOLOMEW'S HOSPITAL.—Assistant Physician.

APPOINTMENTS.

BARNES, C. J., L.S.A., District Medical Officer of the Chippenham Union.
BROWN, H. Reynolds, M.D., C.M.Edin., Medical Officer for the All Saints District of Maldon, and Public Vaccinator for the Purleigh District of the Maldon Union.
CONWAY, J. P., L.R.C.P. and S.Edin., L.F.P.S.Glasg., Medical Officer for No. 3 District of the Greenwich Union.
GRIFFITH, W. S., M.B., C.M.Edin., Certifying Factory Surgeon for the Milford Haven District, Pembroke.
HARVEY, J. H., M.R.C.S., L.R.C.P., District Medical Officer of the Weymouth Union.
HIGNETT, L. W., M.B., C.M.Edin., District Medical Officer of the Uxbridge Union.
HYEARES, James, L.R.C.P. and S.Edin., L.F.P.S.Glasg., Certifying Factory Surgeon for the Kegworth District, Leicestershire.
INTON, Edward, L.R.C.P. and S.Edin., L.F.P.S.Glasg., Government Medical Officer and Vaccinator at Wellington, N.S.W., *vice* C. D. H. Rygate, M.R.C.S., L.R.C.P.
ISCIO, Allen, M.B.Syd., Government Medical Officer and Vaccinator at Emmaville, N.S.W., *vice* Dr. F. C. Shaw, resigned.
JERMAN, L. S., M.B., C.M.Edin., District Medical Officer of the South Shields Union.
KEVILLE, C. F., M.B.Lond., District Medical Officer of the Hunslet Union.
LUMBLES, H. M., M.B. Ch.B.Edin., Certifying Factory Surgeon for the Amble District, Northumberland.
THOMAS, John Lewis, M.R.C.S.Eng., L.S.A., Medical Officer of Health to the Brynmawr Urban District Council, *vice* D. Nyhan, L.R.C.P. and S.Edin., L.F.P.S.Glasg., deceased.
WALKER, J. R. Hall, M.D., C.M.Edin., Medical Officer to the Workhouse of the Risbridge Union at Kedington.
WILLIAMS, D. J., M.R.C.S., L.R.C.P.Lond., Chief Resident Medical Officer at the Kingston Asylum, Jamaica.
WORSLEY, R. Le Geyt, M.R.C.S., L.R.C.P.Lond., L.S.A., Deputy Medical Officer, H.M. Prison, Manchester.
YUNG, C. W. F., M.D.Lond., D.P.H.Camb., Medical Officer for the Middlesex County Council.

BIRTHS, MARRIAGES, AND DEATHS.

The charge for inserting announcements of Births, Marriages, and Deaths is 3s. 6d., which sum should be forwarded in post-office orders or stamps with the notice not later than Wednesday morning, in order to ensure insertion in the current issue.

BIRTHS.

ATKINS.—On April 3rd, Easter Sunday, at 13, Booth Street, Handsworth, Birmingham, the wife of J. F. Atkins, M.B., Ch.B., M.R.C.S.Eng., L.R.C.P.Lond., of a son.
BARTON.—On March 30th, at 17, Redcliffe Gardens, South Kensington, the wife of Charles N. Barton, L.R.C.P.Lond., M.R.C.S.Eng., L.S.A.Lond., of a daughter. Colonial papers please copy.
BLICK.—On February 19th, the wife of Graham Blick, M.R.C.S., J.P., Broome, Western Australia, of a daughter.
LOCKYER.—Mrs. Lockyer, wife of Cuthbert Lockyer, M.D., B.S., M.R.C.P., F.R.C.S., of 117A, Harley Street, of a son.
ROBERTS.—On Wednesday, March 23rd, at South Eaton Place, S.W., the wife of Edward A. Roberts, M.D., of a daughter.

MARRIAGES.

BLAIKIE—ALEXANDER.—At Union Church, Hong Kong, on the 5th inst., by the Rev. C. H. Hickling, assisted by the Rev. J. Campbell Gibson, D.D., Swatow, the Rev. Gardner Blaikie, M.A., E.P. Mission, Chaochowfu, to Tina McCulloch Alexander, M.B., Ch.B., E.P. Mission, Swatow, youngest daughter of the late John Alexander, Esq., Free Church Offices, Edinburgh.
BLACK—BISSET.—At Christ Church, Morningside, Edinburgh, on April 5th, by the Rev. C. M. Black, M.A., James Wilson, M.B., Ch.B.Aberd., Felling-on-Tyne, eldest son of the Rev. James Wilson, B.D., Gardenstown, Banff, N.B., to Kate, youngest daughter of the late William Bisset, Aberdeen.
BROOD—BROOKER.—On March 26th, at St. George's Church, Bloomsbury, by the Rev. R. B. Tollinton, M.A., Thomas Jason Wood, M.D., M.R.C.S., L.R.C.P., Surgeon, Bradford Royal Infirmary, to Edith Isabel, second daughter of the late James W. Brooker, Esq., of Sevenoaks, Kent.

DEATH.

WILSON.—On April 4th, at Allenda'e Town, Northumberland, George Arnison, M.R.C.S., etc., aged 73 years.

DIARY FOR NEXT WEEK.

MONDAY.

Medical Society of London, 11, Chandos Street, Cavendish Square, W. 8.30 p.m.—Clinical cases.

TUESDAY.

Royal Medical and Chirurgical Society, 20, Hanover Square, W., 8.30 p.m.—Dr. Holland Cotton will show (for discussion) a case of supposed Cancer of the Rectum, for which colotomy was performed. Dr. W. Aldren Turner: The Mental Condition in Epilepsy in relation to Prognosis. Mr. A. W. Mayo Robson: Peptic Ulcer of the Jejunum.
Royal College of Physicians of London, 5 p.m.—Dr. George Oliver: On Recent Studies on the Tissue Lymph Circulation (Oliver-Sharpey Lecture I).

WEDNESDAY.

Dermatological Society of London, 11, Chandos Street, Cavendish Square, W., 5.15 p.m.—Demonstration of Cases of Interest.
South-West London Medical Society, Bolingbroke Hospital, Wandsworth Common, S.W., 8.45 p.m.—Clinical evening.

THURSDAY.

Royal College of Physicians of London, 5 p.m.—Dr. George Oliver: On Recent Studies on the Tissue Lymph Circulation (Oliver-Sharpey Lecture II).

FRIDAY.

Society for the Study of Disease in Children, 11, Chandos Street, Cavendish Square, W., 5.30 p.m.—Cases will be shown by Drs. H. Ashby, Hawthorne, James Taylor, Morison, Anderson Smith, and Farquhar Buzzard, and Messrs. Sydney Stephenson and Pernet. Papers by Mr. Leonard Bidwell, Dr. George Carpenter, and Mr. R. O. Dun.

LETTERS, NOTES, AND ANSWERS TO CORRESPONDENTS.

COMMUNICATIONS respecting Editorial matters should be addressed to the Editor, 2, Agar Street, Strand, W.C., London; those concerning business matters, advertisements, non-delivery of the JOURNAL, etc., should be addressed to the Manager, at the Office, 429, Strand, W.C., London.

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CORRESPONDENTS who wish notice to be taken of their communications should authenticate them with their names—of course not necessarily for publication.

CORRESPONDENTS not answered are requested to look at the Notices to Correspondents of the following week.

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TELEGRAPHIC ADDRESS.—The telegraphic address of the EDITOR of the BRITISH MEDICAL JOURNAL is *Aitiology, London.* The telegraphic address of the MANAGER of the BRITISH MEDICAL JOURNAL is *Articulate, London.*

TELEPHONE (National):—
EDITOR, 2631, Gerrard. GENERAL SECRETARY AND MANAGER, 2630, Gerrard.

QUERIES.

JUNIUS asks for recent literature on sea-sickness on long ocean voyages, containing up-to-date theories as to causation and methods of treatment, particularly in the case of delicate females.

PRESERVATION OF RUBBER INSTRUMENTS.

INELASTIC asks for advice for the preservation of rubber instruments, such as black rubber douche tubing, icebags, rubber parts of gas (nitrous oxide) apparatus. He finds that in time the rubber loses its elasticity, becomes brittle, cracks, and perishes; soaking in warm water restores the rubber a little, but in time this fails.

ANSWERS.

THE ACCUMULATION OF CERUMEN.

IN answer to a query from "M.D." (BRITISH MEDICAL JOURNAL, March 26th, p. 763) G. P. writes that in the course of thirty years he has frequently met with this trouble, which he attributes to subacute otitis. There is more or less pain during its removal by syringing and a raw surface is left. Instillation of glycerine or of a solution of sodium carbonate softens the wax. But for habitual use by the patient almond oil should be employed, the ears being gently syringed twice a week at night with the smallest-sized urethral syringe, and precautions taken against catching cold in the ears. An occasional blister behind the ear is useful, especially if any pain is present.

FRENKEL'S TREATMENT OF ATAXIA.

L.R.C.P. asks for the address of a sanatorium at home or abroad at which Frenkel's treatment of tabetic ataxia is carried out.

*** We do not know of any place in England where this method of treatment is habitually pursued, but it is one for which arrangements could readily be made anywhere. The treatment can be obtained at Heiden, in Switzerland, where Frenkel started it; similar methods are in use at Oeynhausen in Germany, and, we belive, at Lamalou in France.

TREATMENT OF OBSTINATE SCABIES.

DR. ARTHUR EMLYN (Brae, Shetland), who states that scabies is very common among Shetlanders, writes as follows in answer to a question by "F. Q.": I have found izal 4 fl.oz., glycerine 2 fl. oz., water 2 fl. oz., cure when all other means had failed. The lotion should be rubbed well into the skin night and morning. Every night the patient should have a good hot wash all over, using plenty of soap. Every third day the sheets, pillowcases, nightdresses, towels, underclothes, stockings, everything that touches the skin, should be changed. Even the gloves worn should be cotton or woollen, which can be put into boiling water once a week. All kid gloves at present in patient's possession should be burned. Women should wear long-sleeved spencers or combinations, otherwise they are apt to reinfect their arms from their blouse sleeves.

The above lotion smarts a little for an hour sometimes, but not to all patients alike; after a while it soothes the skin. Babies, for example, will cry for half an hour after the lotion is applied, then fall into a long sleep, the itchiness of the skin being quite removed for several hours by the izal. Patients should keep on using the lotion for a week after all trace of the disease has passed away from their skin. The bottle needs to be well shaken before use. Equal parts of izal and glycerine give no better results and are more sticky.

LETTERS, NOTES, Etc.

BARBERS AND INFECTION.

D.P.H. writes: All who frequent barbers' shops in this country cannot fail to see that the razors, brushes, sponges, and strops are rarely if ever cleaned, certainly not sterilized. As I understand the Public Health Act, it is the duty of all medical officers of health to inquire into any circumstances affecting the public health. Why do they not take action in these cases? If they have no legal power is it not their duty to agitate for such power, or at any rate to recommend the county councils to have pamphlets distributed to all barbers.

THE TREATMENT OF CONSUMPTIVES.

MR. GEORGE STOKER, C.M.G., M.R.C.P.I. (London) writes: The sanatorium or open-air treatment of consumptives is founded on the fact that the atmospheric conditions in such favoured places as Davos, Colorado, etc., have produced the best results in the treatment of pulmonary tuberculosis. The air in such places has four prominent characteristics—it is dry, pure, highly ozonized, and rarefied. It is obvious that for at least nine months in the year the English climate does not fulfil these conditions. Our object should be, as far as possible, to produce the four conditions above mentioned in the air respired by the patients. This has been done for some years past in an institution in London. The process is simple and cheap, and has produced the most satisfactory results.

TREATMENT OF PUERPERAL ECLAMPSIA.

MRS. M. NONA FYSH, M.B.Lond. (Medical Officer in charge of the Lady Havelock Hospital for Women and Children, Colombo, Ceylon), in the course of a letter referring to previous communications on this subject, writes: I have had many cases of albuminuria with pregnancy under my care in this hospital, and I am glad to say that not one has developed convulsions. My treatment is always of a gentle nature, as recommended by most authorities, and it is as follows:—Bed, flannel clothing, and quiet; a diet of milk and farinaceous food, mild aperients to keep the bowels acting freely (the usual hospital white mixture containing sulphate and carbonate of magnesium), a diuretic mixture, diuretin powders 10 gr. four-hourly, and imperial drink. I have not found this treatment to fail hitherto; all have gone home with the urine free from albumen and without labour having been induced.

PROSPECTS OF INDIAN MEDICAL PRACTITIONERS.

MR. V. P. GONSALVES, L.R.C.P.&S.Edin., L.F.P.S.Glas. (Harwich) writes: In answer to my letter directing your attention to the justifiable discontent among the Indian medical gentlemen owing to want of recognition of their claim to a wider employment in the higher branches of the medical service of their country, you were kind enough to point out that the Indian Medical Service was open to natives of India. Perhaps I am to infer from it that the higher grades are within reasonably easy reach of all Indians of capacity and merit desirous of attaining them, and that, therefore, there is no proper reason for dissatisfaction. But, sir, is it quite clear that the course runs so smooth, and that no great, almost insurmountable, obstacles stand in the path of progress of aspiring youths? The great difficulties to be overcome in order to leave India and reside in England to appear for the competitive examination practically close the higher ranks against at least a majority of deserving men who are on that account to be always in subordinate service. The small number of Indian candidates that present themselves for the Indian Medical Service examination proves the truth of my statement. Perceiving the same difficulty in the case of the Indian Civil Service, the House of Commons passed a resolution that simultaneous examinations should be held here and in India. I submit that the discontent is not without foundation. It is but the natural outcome of methods of spreading instruction without adequate provision for occupying the minds that have been enlightened. This was clearly recognized and well expressed by one of the greatest of Indian Viceroys (Lord Ripon) when he addressed the University of Bombay in the following words: "I am very strongly impressed with the conviction that the spread of education, and especially of Western culture, carried on as it is under the auspices of this and the other Indian Universities imposes new and especial difficulties upon the Government of this country. It seems to me, I must confess, that it is little short of folly that we should throw open to increasing numbers the rich stores of Western learning; that we should inspire them with European ideas, and bring them into the closest contact with English thought; and that then we should, as it were, pay no heed to the growth of those aspirations which we have ourselves created, and the pride of those ambitions we have ourselves called forth. To my mind one of the most important, if it be also one of the most difficult, problems of the Indian Government in these days is how to afford such satisfaction to those aspirations and ambitions as may render the men who are animated by them the hearty advocates and the loyal supporters of the British Government."

ERRATUM.—In the reply to R. P., on Milk for Infants (BRITISH MEDICAL JOURNAL, March 26th, p. 763, col. 2) the first sentence should read: "I generally advise ordinary cane sugar. If the bowels are constipated I use the Demerara (brown) sugar," and not as printed.

LETTERS, COMMUNICATIONS, ETC., have been received from:

A Mr. E. G. Annis, London; Alpha; Assistant; F. H. Alderson, M.B., London; A. M.; A. F. B.; Mr. J. W. Ashworth, Heaton Moor; Alter Idem; D. P. H.; W. Allan, M.B., Glasgow. **B** Messrs. John Bale, Sons, and Danielsson, London; Dr. C. Buttar, London; Dr. R. Bell, Glasgow; Mr. W. M. Beaumont, Bath; Mr. C. E. Blackstone, Ringwood; Messrs. Bell and Bradfute, Edinburgh. **C** Messrs. J. and A. Churchill, London; Carolus; Mr. H. W. Carson, London; Mr. H. E. Clark, C.M.G., Glasgow; Dr. F. H. Collins, Didsbury; A. Cox, M.B., Gateshead; Cheltenham; Dr. J. M. Clarke, Clifton; E. M. Corner, M.B., London; P. J. Cammidge, M.B., London; J. M. Cotterell, M.B., Edinburgh; Mr. J. T. Clarke, Perak. **D** Director-General of the Army Medical Service, London; Dr. P. V. Dodd, Folkestone; H. Davies, M.B., London; Dr. A. Duke, London; B. Dyball, M.B., Exeter; Mr. H. P. Dunn, London. **F** Mr. G. A. Ferraby, Nottingham; Mr. W. Fleming, London; Mr. A. B. Francis, Carrickfergus; Mr. E. E. Francis, Chittagong; Mr. S. B. Fenn, Southport. **G** Dr. J. Gordon, Aberdeen; G. P. Glasgow Obstetrical and Gynaecological Society, Secretary of, Glasgow; Dr. J. Galloway, London; Dr. W. Gosse, Sittingbourne; Dr. A. Greene, Norwich; Dr. J. B. Galton, London; Mr. T. W. H. Garstang, Altrincham; Dr. G. L. Gulland, Edinburgh. **H** F. G. Haworth, M.B., Darwen; G. E. Herman, M.B., London; Mr. W. R. Hall, London Dr. A. D. P. Hodges, Entebbe; Mr. C. E. Hobbes, Stratford-on-Avon; J. Howell, M.B., Cheltenham. **I** Inelastic; Ignoramus; Irishman. **J** J. A. N. L.; Mr. J. F. Janssen, London; Mr. H. Jones, Hereford. **L** L.R.C.P.; Mr. F. L. Lowndes, Liverpool; Locum Ichabod; Mr. N. B. Lues, Calcutta; Dr. T. Laffan, Cashel. **M** H. McLaren, M.B., Glasgow; Dr. E. Mczourelli, Mytilene; G. H. Mapleton, M.B., Goudhurst; Medica; Mr. J. R. McGee, Bradford; A. Murdoch, M.B., Bexhill-on-Sea; Member B. M. A.; Dr. P. J. Macnamara, Kilmallock; Medical Certificate; Dr. E. J. Maclean, Cardiff; Dr. A. Myrtle, Harrogate; Messrs. Mayer and Meltzer, London. **O** Observer; Mr. J. W. Olpherts, Downpatrick; T. H. Openshaw, M.B., C.M.G., London. **P** Dr. E. F. Potter, London; Paulatim; Dr. T. A. Palm, Wigton; Perplexed Vaccinator; Dr. C. E. Purslow, Birmingham; E. J. Pritchard, M.B., London; S. P. Pollard, M.B., Ventnor, Isle of Wight; Mr. T. Percival, Knottingley. **R** Mr. S. H. Rentzsch, Week St. Mary; R. W. H.; L. Rowan, M.B., Kildare; Mr. C. G. Rae, Wick; Mr. H. . Raven, Broadstairs; Dr. J. Reid, London; Mr. T. D. Ransford, Bath; Dr. S. J. Ross, Bedford. **S** E. A. Starling, M.B., Tunbridge Wells; Dr. G. A. Sutherland, London Dr. R. M. Simon, Birmingham; A. A. S. Skirving, M.B., C.M.G., Edinburgh; Dr. R. Stockman, Glasgow; B. Strachan, M.B., Sunderland; South Africa. **T** Dr. G. G. S. Taylor, Liverpool; **V** Dr. F. Vicars, Bournemouth. **W** Dr. A. Woldert, Tyler, Texas Mr. H. Whichello, Tattenhall; Mr. O. Williams, London; Dr. A. McC. Weir, Liverpool; W. J. Weir, M.B., Strabane; Miss H. M. Wilson, Sheffield; Dr. J. S. Walker, Hanley; Dr. G. H. Weaver, Chicago; W. A. M.; Dr. H. Wright, Baltimore; Dr. H. Woods, London; Mr. S. W. Wilson, London; Dr. W. Wingrave, London; Dr. N. Walker, Edinburgh; Mr. G. C. Wilkin, Paignton; Dr. A. G. Welsford, Hemel Hempstead; Mr. S. A. K. Wilson, Paris; Dr. H. Waldo, Clifton; Dr. J. W. Wallace, Glasgow, etc.

BOOKS, ETC., RECEIVED.

A Clinical Handbook of Urine Analysis. By Charles H. Bedford, D.Sc., M.D.Edin. Second Edition. Edinburgh: Bell and Bradfute. 1904. 6s. 6d.

The Commoner Diseases of the Eye. By Casey A. Wood, C.M., M.D., D.C.L., and Thomas A. Woodruff, M.D., C.M., L.R.C.P.Lond., Chicago: G. P. Engelhard and Co. 1904. 1.75 dol.

A Textbook of Legal Medicine and Toxicology. Edited by Frederick Peterson, M.D., and Walter S. Haines, M.D. In two volumes. Vol. II. Philadelphia, New York, and London: W. B. Saunders and Co. 1904. 21s. ver volume.

Saunders' Yearbook of Medicine and Surgery. Edited by George M. Gould, M.D. Vol. I, Medicine. Vol. II, Surgery. London, Philadelphia, and New York: W. B. Saunders and Co. 1904. 13s. per volume.

Praktischer Leitfaden der qualitativen und quantitativen Harnanalyse (nebst Analyse des Magensaftes). Von Dr. Sigmund Fränkel. Wiesbaden: J. F. Bergmann; and Glasgow: F. Bauermeister. 2s. 6d.

Uber natürliche und künstliche Säuglingsernährung. Von Dr. Karl Oppenheimer. Wiesbaden: J. F. Bergmann; and Glasgow: F. Bauermeister. 1904. 1s.

Die psychischen Zwangserscheinungen. Von Dr. L. Loewenfeld. Wiesbaden: J. F. Bergmann; and Glasgow: F. Bauermeister. 1903. 13s. 9d.

Biographic Clinics. Vol. II. By George M. Gould, M.D. London: Rebman, Limited. 1904. 5s.

Refuse Disposal and Power Production. By W. Francis Goodrich. Westminster: A. Constable and Co., Limited. 1904. 16s.

Clinical Studies in Syphilis. By Arthur H. Ward, F.R.C.S.Eng. London: The Medical Times, Limited. 1904. 3s. 6d.

Elementary Lectures on Errors of Refraction. By Harold B. Grimsdale, M.B., B.C.Cantab., F.R.C.S. London: The Medical Times, Limited. 1904. 2s. 6d.

Fieber und Fieberbehandlung. Von Dr. Bergel. Berlin: S. Karger. London: Williams and Norgate. 1904. 2s.

International Catalogue of Scientific Literature. First annual issue. N., Zoology. Parts I and II. London: Harrison and Sons. 1904. 37s. 6d.

Le Syndrome Adénoïdien. Par le Dr. Joseph Delacour. Paris: A. Maloine. 1904.

Lehrbuch der Geschlechtskrankheiten. Von Professor Dr. Eduard Lang. Wiesbaden: J. F. Bergmann; and Glasgow: F. Bauermeister. 1904. 10s. 6d.

Handbuch der Geburtshülfe. In drei Bänden. Herausgegeben von F. von Winckel. Erster Band, II Hälfte. Wiesbaden: J. F. Bergmann; and Glasgow: F. Bauermeister. 1904. 14s. 6d.

Atlas of Rare Ophthalmoscopic Conditions and Supplementary Plates to the Atlas of Ophthalmoscopy. By Nofrath Dr. J. Oeller. Translated into English by Thos. Snowball, M.A., M.B.Aberd. Part II. Wiesbaden: J. F. Bergmann; and Glasgow: F. Bauermeister. 1903. 8s.

Experimentelle Untersuchungen zur Lehre von der Atrophie gelähmter Muskeln. Von Dr. Freidrich Jamin. Jena: Gustav Fischer. 1904. M. 5.

Statistiche Vergleichstabellen zur praktischen Koprologie bei fieberlosen Patienten. Von Baron Dr. Oefele. Jena: Gustav Fischer. 1904. Mk. 4.

Die Gallensteinkrankheit. Von Dr. Walther Nic. Clemm. Berlin: Georg Klemm. 1903. Mk. 1.

A System of Physiologic Therapeutics. Edited by Solomon Solis Cohen, A.M., M.D. Vol. VII. Mechanotherapy and Physical Education. By J. K. Mitchell, M.D. Physical Education by Muscular Exercise. By Luther Halsey Gulick, M.D.Lond. Rebman Limited. 1904. 12s. 6d.

The Confessions of a Physician. By "V. Veresaff." Translated from the Russian by Simeon Linden. London: Grant Richards. 1904. 7s. 6d.

The Sanatorium Treatment of Consumption. By T. N. Kelynack, M.D., M.R.C.P. London: The Scientific Press, Limited. 1904. 6d.

Die nasalen Reflexneurosen und die normalen Nasenreflexe. Von Dr. A. Kuttner. Berlin: August Hirschwald. 1904. M. 6.

Histoire de la Coca; La Plante Divine des Incas. Par le Dr. W. Golden Mortimer. Traduction de la 2ème édition (1902) par H. B. Gausseron. Paris: A. Maloine. 1904. Fr. 12.

Sanatorium-école. Premiers Préceptes aux Tuberculeux. Par M. le Dr. Coste de Lagrave. 2ème impression. Paris: A. Maloine. 1904. Fr. 1.

Carte de la Savoie et du Dauphiné. Géologie, Eaux Minérales. Par Dr. Dardel. Paris: Masson et Cie.

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Remarks
ON
HE TREATMENT OF RETROVERSION OF THE GRAVID UTERUS.*

By G. ERNEST HERMAN, M.B., F.R.C.P.,
Consulting Obstetric Physician, London Hospital.

FORE considering the treatment of retroversion of the vid uterus we have first to ask why it needs treatment. needs treatment because it causes retention of urine. If is not treated the patient will very likely die from the cts of retention of urine. The most common mode of th is by extension of the inflammation from the bladder the ureters to the kidneys, producing what is known as rgical kidney." This differs not from surgical kidney duced by retention independently of pregnancy. It may l, like other forms of destructive kidney disease, to emia. Thus the patient may die from the effects of the placement, weeks or months after it has been replaced.
is not usual for cystitis to bring about death after the ntion has been relieved, but the patient may die from tic fever due to the condition of the bladder and kidneys, bladder symptoms being the more conspicuous. In some s there is exfoliation of the mucous membrane either as mplete sac[1] or in large pieces. This has been called ngrenous" cystitis, "pseudo-membranous" cystitis, and phtheritic" cystitis. The latter term is a bad one, use this condition has nothing to do with the disease duced by Loeffler's bacillus. In some cases in which a brane cast off from the inside of the bladder has been mined microscopically, it has been found to be not ly mucous membrane, but to contain also some muscular . The membrane is generally encrusted with phosphatic so as to be rough, sometimes almost like sand paper.
foliative cystitis is due to acute and prolonged retention rine, and retroversion of the gravid uterus is its com- est cause. Next to that in frequency comes retention wing delivery. It may occur in men from enlarged pros- or other cause of retention. One of the specimens in the eum of the Royal College of Surgeons was an exfoliation ved by Mr. Liston by suprapubic incision from the der of a man, in whom retention had occurred as a result ury. Exfoliation has been produced experimentally in by causing retention of urine. There is a specimen in nuseum of Guy's Hospital in which the vesical mucous brane is raised into nodular elevations by blood effused th it; this probably is the first step towards its complete hment. It has been suggested that the pressure of the on the stretched mucous membrane may cause gan-, but the cutting off of its blood supply by haemorrhage th it is a more satisfactory explanation. On *post-mortem* ination the mucous membrane has been found detached where except at the neck of the bladder, so that it seems t is here last separated, and that detachment begins at ndus, the place farthest from the blood supply.
overy may take place after exfoliation of the vesical us membrane, but we know as yet nothing about the tive process in the bladder after sloughing of the us membrane. In some of the cases the bladder has re- d contracted. I know not whether this is the rule, but l think it probable.
ry[2] observed that for several weeks after exfoliation the contained a quantity of albumen larger than could be ted for by the amount of pus, while there was no sign ptom of Bright's disease. He suggests that there may erous exudation from the surface left bare by the ex- on. This has been observed also in the London Hos-

liative cystitis is not more painful than other kinds of . But instead of tending to recovery after retention en relieved (as does cystitis which has not lasted long for exfoliation to take place) the cystitis continues he dead mucous membrane is expelled or removed e bladder. If nothing is done, the membrane will in passed by the urethra. The date of this will depend e size of the slough. It may be passed during the ek or not till the end of the third week.

*fore the Ealing Division of the Metropolitan Counties Branch of the British Medical Association.

The bladder may give way and extravasation of urine may take place, and in this way speedy death may result. This is not a simple mechanical bursting or tearing open (unless external force has been applied); it is a perforation of the vesical wall by destructive inflammation. In some cases inflammation spreading through the bladder wall to the peritoneum may lead to the formation of adhesions. But if this is not the case, the separation of a slough may lead to extravasation of urine either into the peritoneal cavity or into the cellular tissue according to the situation of the slough; or the wall being thinned by the sloughing of part of the bladder wall, it may rupture at the weak spot.[3] This event has been studied by Krukenberg.[4] He says that gangrene of the vesical wall has never yet been seen when the catheter was used before the sixth day of retention, and that if the catheter is used before the tenth day rupture of the bladder need not be feared.

Death may take place from peritonitis. This is not a frequent, but may be a cause of very speedy death. Rasch has published[5] a case in which peritonitis appears to have been the cause of death. The patient had had retention for 36 hours, and there was severe cystitis; the bladder was full of blood, and the bladder wall gangrenous at places. In this case it would seem as if the micro-organisms causing cystitis had spread through the injured bladder wall to the peritoneum. Peritonitis is not a common cause of death in these cases. A case has been recorded[6] in which the patient died from peritonitis twenty days after reposition. But in this case I regard it as doubtful whether the peritonitis was caused by the displacement.

It is commonly stated that when the retroverted gravid uterus is not replaced, sloughing of the uterus and slow discharge of its contents by fistulous openings into the vagina, rectum, or bladder may take place. This statement seems to have gained currency from its having been made by Dr. Arthur Farre, in his great article on the uterus in the *Cyclopædia of Anatomy and Physiology*. Dr. Farre was so accurate in his statements that his name alone was regarded as a guarantee of fact. But in this instance his statement is a mere general assertion; he relates no cases nor refers to any. I can only find one case recorded in which this is supposed to have happened, and as to this, I agree with Robert Barnes and with Tarnier and Budin in thinking that the case was one of ectopic pregnancy. It is recorded by Guichard.[7] The retention of urine occurred in March, when the patient was two months pregnant, a date too early for the pregnant uterus to cause retention of urine, and fetal bones escaped in the following December. This can hardly be spoken of as "gangrene of the uterus." So far as my knowledge goes, this alleged danger of gangrene of the retroverted pregnant uterus is a mere figment; it is an event which has never yet been known to occur.

An important case is reported by Dr. Macleod, of Kilmarnock.[8] It is authenticated by a necropsy. The gestation sac, which is said to have been the uterus, was adherent everywhere—in the pelvis, to the abdominal wall in front, and to the bowel above which communicated with the cavity. When such universal adhesions are present it is not always easy to determine the anatomical relations of the parts involved, and for this reason I think it just possible that this pregnancy may have been ectopic. But accepting the record as it stands, it must be pointed out that in this case there were repeated attempts at pushing up what was thought to be the uterus, and also at emptying it; and in 1857 antiseptics were unknown. The case, accepting the interpretation given in the report, is unique; but it only proves that pregnancy may take place in an adherent uterus, and that by septic infection suppuration may be set up. These cases are the only evidence that I can find in support of Dr. Arthur Farre's statement. They afford no ground for apprehending that suppuration is likely to occur in a retroverted gravid uterus that is properly treated, even if the displacement be not corrected.

It is said that the vagina may rupture and the uterus protrude. In one case mentioned by Charles this was the result of violent attempts at reposition. In another case the usually accurate Spiegelberg says, on the authority of Halbertsma, that the fetus made its exit through the anus. I have referred to the original record of this case,[9] and all I understand Halbertsma to say is that the uterus (covered by the anterior wall of the rectum) bulged at the anus, and that fetal parts could be felt through the uterine wall. Two other old cases have been quoted, the records of which I have not been able to see. I cannot say that this may not happen,

but I do say that it is an event of the extremest rarity, which should never happen in the practice of any one provided with a catheter and an anaesthetic. It is so rare an accident that the possibility of its occurrence need not be taken into account.

It is commonly said that retroversion of the gravid uterus brings with it danger of abortion. This is a statement without foundation. On the contrary, by the time the uterus is large enough to become incarcerated under the sacral promontory, the patient has gone past the time at which abortion is most frequent, and hence there is little tendency to abortion. If retention of urine is allowed to go on long unrelieved, so that cystitis and pyelitis have been brought about, and the patient is dying of uraemia, abortion will probably precede death. And if the uterus is roughly handled in violent attempts at replacing a retroverted gravid uterus, such misusage may bring about abortion. But retroversion of the gravid uterus is not itself a cause of abortion. Let me give you some figures in illustration. Before considering them, remember, please, that taking all pregnancies together, about one out of every five ends in miscarriage; if, therefore, retroversion of the gravid uterus brings with it a special tendency to abortion, this should take place oftener than in 1 pregnancy out of 5. Busch,[10] out of 74 cases, found that in 69 of them the uterus spontaneously righted itself; and of these only 4 aborted, or 1 in 17. This shows remarkably little tendency to abortion. In the other 5 cases the uterus had to be manually replaced, and all these aborted. Charles[11] has analysed 138 cases. In 8 of these abortion was induced. In 88 the displacement was forcibly reduced, either manually or instrumentally, and in 11 of the cases abortion took place, or 1 in 8—that is, twice as frequently as among Busch's cases, in which the uterus was allowed to right itself, but not as often as among pregnancies generally.

Among his 138 cases, Charles reports abortion in 47; but in 8 of them the abortion was induced. Of the 39 who spontaneously aborted, no less than 20 died. This illustrates the association of abortion with the dangerous effects of unrelieved retention of urine.

During the years from 1885 to 1903 inclusive, there were admitted into the London Hospital 79 cases of retroversion of the gravid uterus. My general instruction to the resident accoucheurs has been to treat such cases by keeping the patient in bed and having the catheter frequently passed, but I have not objected to the uterus being at once replaced when this could be done easily. In 5 of the 79 cases the notes are imperfect; of the 74 that remain, 40 spontaneously righted themselves when the patient was kept recumbent with the bladder empty; in 33 the uterus was manually replaced. Only 2 aborted, both of them cases in which the uterus was manually replaced; 2 died, both of them from uraemia. In 1 case a water-bag was used to effect reposition but took several days about it. I think the uterus would probably have gone up without the bag.

Dr. Champneys has kindly given me permission to use the records of St. Bartholomew's Hospital; and I wish to thank Dr. Eric E. Young for abstracting the notes from the registers. During the years 1881 to 1892, inclusive, 42 cases of retroversion of the gravid uterus were admitted into that hospital. One of these had not had retention of urine, but was admitted because she was aborting. The remaining 41 were all admitted because the uterus was incarcerated, and was causing retention of urine. In 25 of them the bladder was emptied, and the uterus easily replaced. In 2 cases attempts at reposition failed, but the bladder was frequently emptied, and the uterus afterwards spontaneously righted itself. In 8 others the treatment was limited to the frequent use of the catheter; and the uterus in each of them spontaneously went up. In one case the uterus was pushed up by a water-bag in the vagina, and in another case by an air-bag. In two cases the uterus was pushed up by Aveling's repositor. In 2 cases abortion was induced, and 3 cases aborted spontaneously. In one of these abortion did not take place till a fortnight after relief of the retention. Two cases died both from the effects of retention of urine on the bladder and kidneys. One of the abortions did not take place till a fortnight after the uterus had righted itself; and another, in a fatal case, preceded death by two days. Here we have, occurring in the two largest hospitals in London, 115 cases, with but 5 abortions, or 1 in 23, a frequency about one-fourth of that in pregnancies generally.

Looking over the clinical history of this condition it will be seen that the whole and sole danger of retroversion of the gravid uterus in the fourth month comes from its action as a cause of retention of urine. There is no evidence that retroversion of the gravid uterus produces any ill-effect upon the organ itself. Its only importance arises from its effect upon the bladder; its only dangers are those which directly or indirectly spring from retention of urine: cystitis, peritonitis, rupture of bladder, pyelitis, uraemia. The one necessary treatment is the catheter. This, if used in time, is sufficient to relieve all symptoms and prevent all danger. Keep the bladder empty and the patient recumbent, and in over 90 per cent. of cases the uterus will right itself. If it does not pregnancy will still go on. The uterus will enlarge, its anterior wall rising in the abdomen to accommodate the growing fetus. After a few days the bladder, urethra, and cervix uteri gradually accommodate themselves to the altered position, and retention of urine ceases. But unfortunately it does not spontaneously cease soon enough to prevent harm from continued retention, and therefore the possibility of its cessation should never be a reason for omitting or postponing the use of the catheter. The catheter must be used early and often, and if it is so used there will come a time when its use is no longer required. The pregnancy will in all probability go to full term, and when the full term has been reached, the uterine contractions will, while they dilate the cervix, pull it down into its natural position, and effect natural delivery. This has happened in every case in which the accoucheur in attendance has allowed it.[12]

The catheter, and the catheter alone, is therefore all the necessary treatment for retroversion of the gravid uterus, and reposition is in the strict sense of the word unnecessary, for the patient will do perfectly well with the uterus in its abnormal position if only retention of urine is prevented.

But reposition, though unnecessary, is yet often desirable. In a few cases, although the bladder is kept empty and the patient recumbent, the uterus does not spontaneously go up. In such cases it is better to push the uterus up, and thus obviate the necessity of frequently passing the catheter for several days. In many cases it will be found easy, after the bladder has been emptied, to push the uterus up with the fingers in the vagina; and if so it is well to do it, and thus relieve the patient of the necessity for further use of the catheter.

I have never seen a case of retroversion of the gravid uterus that could not be pushed up. In most such cases, after the bladder has been emptied—it is no use to attempt reduction while the bladder is full—the uterus can be pushed up by pressure applied through the vagina. But if the uterus is large, or the promontory much overhanging, the attempt to do this may fail, because the shortness of the vagina prevents the pressure from being applied far enough back. When the retroverted uterus is incarcerated the knee-elbow position has no special advantage; the uterus is prevented from going up not by the intra-abdominal pressure, but by the sacral promontory, and this obstacle to reposition remains the same whatever the position of the woman, and is not removed by making the intra-abdominal pressure negative.

If there is difficulty in replacing a retroverted gravid uterus the best way of doing it is with two fingers in the rectum under anaesthesia. By the rectum pressure can be applied to the fundus of the uterus, a part that cannot be reached by the vagina. With two fingers in the rectum you can press ½ in. further up than with one finger. The presence of two fingers in the rectum is disagreeable for a patient who is sensitive; but when done under anaesthesia the slight stretching of the sphincter which it involves leaves behind no unpleasant effects. With the two fingers applied to the fundus it should be pressed upwards and towards the side on which the larger half of the uterus lies. By pressing towards one side the resistance of the overhanging promontory will be evaded. I have seen the advice given to pull down the cervix with a hook or volsella; but this is unnecessary; push the fundus up, and the cervix will take care of itself. Instruments have been devised for the special purpose of pushing up the uterus, but no instrument can press so accurately upon the right point in the right direction, and with such economy of force, as the tips of the fingers. It has been sometimes advised to effect reposition by placing a dilating bag in the vagina. I have known with such a bag in the vagina a week to elapse before the uterus went up, and I suspect it would have gone up as quickly if no bag had been there. Such a bag cannot very powerfully press upwards, because the perineum is its only point of support below. Therefore I believe a dilating bag to be as ineffective as it is unnecessary.

It has been said that it may be necessary to empty the

lder by suprapubic puncture. I cannot understand how a npetent man, with an elastic male catheter, the use of his s, and a good light can fail to pass a catheter in these es. The figures I have read to you show that in twenty rs, in the two largest hospitals in London, not a case was with in which the catheter could not be passed; and refore, suprapubic puncture of the bladder was never e.

have spoken of this subject at greater length and with e emphasis that I should have done had it not been that ome textbooks, meritorious in many ways, abdominal ion is recommended for retroversion of the gravid uterus. when one finds that it is apparently not known that a verted gravid uterus will nearly always right itself in forty-eight hours if the patient is kept recumbent and bladder empty, the force of the advice to do abdominal ion is considerably weakened.

an see no reason for performing abdominal section. The cases in which it can possibly be beneficial are those in h the uterus is fixed by adhesions in a position of retro- on: and as adhesions generally lead to sterility, such will always be of extreme rarity. And in such cases reaking down of adhesions and replacement of the uterus e attended with more haemorrhage than usual, owing to reater vascularity of the pelvic organs brought about by ancy. Nevertheless, I think in a case of retroversion fixed hesions it would be better to free the uterus by manipu- within the peritoneal cavity than to try to break down ions by pressure from below. Death has been caused by es inflicted during such manipulations. The operator ears through adhesions by pressure from below cannot what pus cavities he may open or what vessels he may cross. The operator who opens the abdomen can at tell if he liberates pus or if there is haemorrhage, and latter case he can do something to stop it. But if is no other indication for abdominal section other than ersion of the uterus causing retention of urine and not replaceable, it is not necessary to replace the uterus. the pregnancy will go to the full term, the uterus ing at the expense of its anterior wall or else spontaneous on will take place. If the gestation goes to full time, course of pregnancy the adhesions will get looser, and probably in time will be absorbed.

ominal section is not free from risk. The case of an nt pregnant uterus is just the one in which oozing from l adhesions is likely to be free and difficult to stop. anger of abdominal section is greater than that of a frequent use of the catheter, and greater than that of pregnancy go to term with part of the uterus in the of the sacrum.

s been proposed and recommended in some textbooks to re the uterus by the rectum or by the vagina, draw off ior amnii in order to reduce the bulk of the uterus, is make reposition easy. This proposal ought to be fully considered because it was made by William . It will prevent too much weight being attached to t that Hunter thought the uterus was sometimes ible if we remember that Hunter had no anaesthetic. terus is really irreducible it may seem a reasonable do; but before doing this it is desirable to be sure e uterus is really irreducible. We should remember that in the great majority of cases the uterus will go e patient is kept recumbent and the catheter frequently but that even in cases in which attempts at reposi- l failed, when the patient was kept lying down with der empty the uterus went up, to use an expression I d in the notes, "of its own accord."

also sometimes recommended to induce abortion. he cervix is high up it is not an easy thing to get a tent into the cervix. But looking at the facts, that rge majority of cases the uterus will right itself if ent is kept recumbent and the catheter frequently and if the uterus does not right itself the pregnancy o term and natural delivery take place in spite of the nent, provided retention of urine is avoided, the n of abortion seems to me unnecessary.

REFERENCES.

are several such sacs in the Museum of the Royal College of of England, Nos. 3,681-2-3,5-5a-6. [2] *Edin. Med. Jour.*, 1883-4, There is a specimen in the R.C.S.Eng., No. 3652, showing this. *Gyn.*, Bd. xix, 1882. [5] *Obst. Trans.*, vol. xxxi, p. 129. [6] *Med. Gazette*, 1855. [7] *Gaz. Méd. de Paris*, 1856, p. 20. [8] *Glasgow Medical* anuary, 1857, p. 410. [9] *Monats. f. Geb.*, xxxiv, p. 414. [10] *Das ren des Weibes*, Bd. iii. s. 583. [11] *Des Deplacements de la Matrice endant la Grossesse.* [12] *Lancet*, May 21st, 1898, p. 1397.

EXTRAUTERINE PREGNANCY.

BY A. E. HIND, F.R.C.S.,
Jersey.

THE following case of extrauterine pregnancy, in which rupture occurred at the third month, and death took place on the tenth day after an operation from pulmonary embolism, presents points of interest.

History.—Mrs. L., aged 31, had had three children, youngest aged 6, but no miscarriage. On September 23rd she called in Dr. O'Connor, of Gorey, who found her suffering from abdominal pain. She had vomited several times. She had not been feeling well for some days, and had felt pain more or less for a week. She was lying in bed on her back. The abdomen was distended and hard. The pain was referred chiefly to the right iliac fossa, and she could not bear the slightest pressure in that region; no dullness could be detected. She declared that menstruation had occurred every three weeks and that she was not pregnant. The bowels had not acted for more than a week. Pulse 110, feeble. Temperature 101.8°. Heart sounds normal. Urine normal. The patient was ordered to remain in bed. Diet: milk and beef tea only. An enema was given with satisfactory result. Her condition gradually improved and when seen on October 18th she said she felt quite well. There was then no pain on pressure, but the abdomen was still distended. Pulse 80. Bowels very obstinate. Eight days later she again called in Dr. O'Connor. He found that she had been downstairs every day, and that whilst in the kitchen that afternoon she was suddenly seized with violent abdominal pain and fell unconscious.

When seen she was in a state of collapse. She lay on her back, knees drawn up, face pale and pinched, running pulse, respirations feeble and rapid, abdomen most painful.

State on Examination.—On the following day, October 27th, I was called by Dr. O'Connor to see the case, and decided to open the abdomen without delay. The patient was breathing very quickly. Pulse rapid and less tension. Face very pale. Abdomen distended and immobile, especially over the lower half; painful and tender all over. She was too ill to be removed to the hospital four miles away. In the attic of a poor labourer's cottage, with the help of Mr. Tweedie we set to work with such precautions against sepsis as we could command.

Operation.—The abdomen was opened by a 4-inch incision through the sheath of the right rectus, and the lower part of the abdomen and the pelvis were full of blood, mostly clotted and dark. Some difficulty was found owing to the distension of the intestines, and while washing out the blood there was a sudden rush of water from the pelvis, and a fetus about 3 inches long appeared, still attached by its umbilical cord to its torn and anaemic placenta. There was only one definite adhesion between bowel and sac, and the sac was apparently continuous with an enlarged portion of the fimbriated extremity of the Fallopian tube, distal to the ovary. The fetus and sac were easily removed and the Fallopian tube ligatured. After clearing out the abdomen as completely as possible the wound was closed and dressed, and a large hot water and salt enema was given and retained.

Progress.—The patient passed a good night after the operation, with the exception of some vomiting, which was relieved by a dose of calomel. After this there was slight diarrhoea, but the wound healed and convalescence was uninterrupted till the tenth day. On November 7th the patient was cheerful and wanted to get up. She seemed quite well, except that the breathing was rather more rapid than one would wish and the pulse still rather feeble. There was no pain or tenderness over the abdomen. Ten minutes after I left her she suddenly collapsed and died.

Necropsy.—Wound perfectly healed. Pelvis contained some blood-stained fluid (*? post mortem*). No injection of peritoneum. Slight sign of a localized peritonitis between two coils of intestine in one place. The remainder of the peritoneum quite healthy. Stump of tube firmly held by silk ligature partially imbedded. The pulmonary artery contained a large clot, which, although branched, was not altogether fixed. It was laminated on section and in parts hollow. Its laminated structure and variegated colour suggested that parts of it were not of recent formation.

REMARKS.—I have no doubt that death was caused by the clot described becoming detached and causing a complete block. It had doubtless been slowing forming. There was also some engorgement of the posterior parts of both lungs, which I do not think was a *post-mortem* change, but probably due to the obstruction of the pulmonary arteries. How long that clot had been in the pulmonary artery before getting moved and causing death one can only surmise. The rapid breathing had been a prominent feature of the case from the first time I saw her, namely, before the operation. Such an accident is apt to follow any operation, and I cannot see how it can be guarded against. I do not think that sepsis has anything to do with the causation. Twice previously have I had similar trouble. Once on the tenth day after removal of a large fibroid, and once after ovariotomy (on the fourteenth day). In neither case was there the slightest sign of any septic infection at any time of the case.

AN anonymous offer to defray the cost of the erection of an operating theatre for the High Wycombe and Earl of Beaconsfield Memorial Cottage Hospital has been accepted.

TREATMENT OF A CASE OF DEPRESSED FRACTURE OF THE SKULL CAUSED DURING BIRTH.

BY ANDREW B. ROSS, M.A., M.B., CH.B.EDIN.,
Late House Surgeon, Glasgow Maternity Hospital.

I WAS called on January 25th to see Mrs. F., aged 28, in her sixth confinement. At her first confinement and her third she had chloroform, and her children were born alive and uninjured, but she does not know whether instruments were used on these occasions. Her second labour was tedious; the child was born dead, but its head was injured; no instruments were used. Her fourth labour was only a little prolonged, and a healthy female child was born uninjured. Her fifth labour, twelve months before, was a case of placenta praevia, delivered by version, between the seventh and eighth months. On the present occasion labour had been going on for fourteen hours, and the nurse in attendance reported that progress had ceased. The os was fully dilated. The head was presenting in the left occipito-anterior position, and seemed fairly well fixed in the brim. Flexion was well marked. I delivered with axis-traction forceps. There was considerable resistance to traction at first, then something seemed suddenly to give way, after which the head and trunk were easily delivered. The diagonal conjugate of the pelvis was roughly estimated to be 4 in.

On the child's head there was a deep almost circular depression, measuring 2 in. antero-posteriorly and 1⅞ in. across, in the left frontal bone; its posterior and internal margins were at the corresponding borders of the bone, the angle of the latter at the anterior fontanelle being slightly tilted up. The anterior margin of the depression lay ½ in. from the supraorbital ridge. I endeavoured to raise the depression by Dr. J. Munro Kerr's method, placing the child's head between my knees, and with one hand on its right frontal bone and the other on its left parietal posteriorly, making strong compression in the diameter of the head at right angles to that in which the depression lay, but this produced no change. The child did not appear to be suffering in any way from the effects of the injury.

On February 17th, twenty days after birth, as there was no spontaneous improvement visible, the child, who was showing no symptoms, was operated on in the Glasgow Maternity Hospital. I made an incision 1 in. long through the scalp, beginning just external to the anterior fontanelle and running parallel to, and ¼ in. in front of, the left coronal suture, and then cut through the bone in the same position by a lateral rocking movement with a sharp scalpel. An angled periosteum elevator was now inserted and passed forward between the bone and the dura mater; injury to the latter was avoided by making the incision in the bone ¼ in. away from the suture to which it is adherent, as recommended by Dr. Jardine. The point of the elevator was brought under the centre of the depression, and by tilting it upwards the inner portion of the bone was raised without difficulty, a sound and sensation being produced as if a dent in a celluloid ball were being pushed out. The outer part of the depression, however, had not come up, and when the point of the elevator was moved out to get under it, it was felt to slip out from under the bone and to lie immediately below the scalp. There was then recognized to be a fracture of the bone running antero-posteriorly and situated rather in the outer half of the depression. The point of the elevator was got under the outer fragment which was also raised, but not so completely as the inner fragment, as the position and size of the incision in the bone prevented a proper manipulation of the instrument. Had the incision been begun a little further out along the coronal suture doubtless this difficulty would not have been experienced. There was very little bleeding, and the scalp wound was closed with two stitches. The area where the depression had been was now flat. Four days later the scalp wound had healed well, and the area of former depression had risen spontaneously and become convex to such an extent that although the head was shaved hardly any difference was noticeable in comparison with the right side, except a slight ridge which was visible where the outer margin of the depression had been. The child was seen a week later, quite well, but no further change in the skull had taken place, and the small difference between the two sides remained.

The operation was practically a subcutaneous one, and could easily be done immediately after birth, without fear of infection from the skin, in cases where the depression could n raised by other means, and where it was giving ris respiratory or other symptoms. The failure of compres the head immediately after birth in this case to raise depression might, I think, have been taken as strong sumptive evidence of the presence of a fracture, althou was not otherwise detected, because Dr. Munro Kerr found that in ordinary depressions his method is al invariably successful; and, as the late Dr. Milne Murray gested when the method was first described, in cases of ture the lateral pressure is more likely to drive the ang the bone at the line of fracture inwards than to force it o

THE GLYCOGEN REACTION IN BLOOD:

ITS PATHOLOGICAL AND DIAGNOSTIC IMPORT.

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NATURE OF THE REACTION.

THE reaction which I wish to describe is one which has known for a good many years. Ehrlich described it in in 1883, and Gabritschewski studied it in numerous conditions in 1891. It fell out of sight, however, and only within the last two or three years that it has again made use of to any extent. This has been due mainly Kaminer, Czerny, and Weiss on the Continent, and Dunham, Locke, and Cabot in America. In this country little attention has been paid to it. It is to Locke that credit is due of having most exhaustively studied it placed its application on a firm basis. Since his p appeared I have applied it to all the cases whose blo have examined, and to many earlier cases of which I had served films, and I have found his conclusions hold goo almost every point.

The method is extremely simple. The solution emplo which serves for fixing, staining, and mounting, is c posed of

Iodine, 1 gram; iodide of potash, 3 grams; distilled water, 100 c with enough gum acacia or gum arabic added to make the fluid syrupy consistence.

The bottle must be kept tightly corked as the io evaporates and the staining is weakened. A rather l drop of this solution is placed on a clean slide, and ordinary air-dried blood film on a cover-glass lowered o it, allowed to remain undisturbed for half a minute to a of complete staining, and then displaced towards one en the slide in order that the thick layer of fluid may not cu too much light in examination; or the surplus fluid ma removed with filter paper. The gum soon sets and the paration will keep for weeks, or sometimes longer, thou slowly fades. The film of blood should be thin, as the reac is much more easily studied if the leucocytes are flatte out.

The specimen is at once ready for examination, and this r be done with an oil-immersion lens and a good light—dayl for choice—but if that is not available, with the whitest l obtainable. The light from an incandescent gas burn satisfactory. An ordinary high power will usually allow to make out well-marked reactions, but not fainter ones, should therefore not be used. Other methods have devised both of staining and mounting, but after a ca trial of them all I have returned to the original metho most satisfactory.

In a film of normal blood treated in this way the corpuscles are stained yellow on a white or faintly ye background, the white corpuscles of a much fainter len yellow tint. The lymphocytes, indeed, can hardly be tinguished from the background, except by the slight di ence in the refractive index of their nuclei. Eosinop can at once be recognized by the high refractive index of granules, and the polymorphonuclear neutrophiles always rather darker than the others because of their closely granules. In none of them, however, should there be faintest trace of red or brown. In normal blood this co is only seen occasionally in the masses of blood plates w are scattered about the films. The amount of this "e cellular" glycogen varies greatly in different cases. The disease in which it seems to be uniformly increase diabetes, in all other conditions it follows no ascertained and it is, therefore, always disregarded.

The appearance described is regarded as a "negati

ction. In a "positive" reaction the change occurs in the ymorphs alone; lymphocytes and eosinophiles are never ected, and the rare cases of myelaemia in which glycogen pears in myelocytes and basophiles may be disregarded. e cells affected may give the brown or reddish-brown colour glycogen in three ways: (1) As a diffuse coloration; (2) as e granules scattered through the whole or part of the cell ly; (3) as coarser granules or masses which may be ttered through the cell body, but are more usually found or near the periphery, sometimes indeed projecting as udopodia from it. The last form is usually seen only in l-marked reactions, the two former both in these and in ter ones. All may be studied by the beginner in pus, ugh the staining in pus is usually much darker than in od leucocytes. A beginner will only observe the more ply-stained cells in blood. I am satisfied that the granules glycogen do not correspond with the neutrophile granules he cell body, which I have elsewhere shown to be identical the nodes of the reticulum of the cell, but that they are plastic and embedded in the inter-reticular substance. s accounts for the fact that the larger masses are pushed he outside of the cell. The nuclei are never affected.

he nature of the substance so stained has given rise to e discussion, but there seems little doubt, from the facts uced by Best, that it is not pure glycogen, but probably a er loose combination of glycogen with some other sub- ce, possibly proteid in character. In cases where the d reaction is positive it is not found, according to surada, in leucocytes in the bone marrow, so that the tance would seem to be taken up or elaborated by leuco- s in the blood stream. Emigrated leucocytes in inflam- ory exudations and in pus show it in larger amount than e in the blood.

e number of cells affected in a "positive" reaction es greatly, almost every one may show the staining, or 2 or 3 per cent. If, after five minutes' searching, or pass- a hundred polymorphs in review, no "positive" cell is , the reaction may be regarded as negative. A much ter time is usually all that is required to make out a ive reaction; the first glance at a film may suffice. The ee of reaction or the number of cells affected generally a very good index of the severity of the causal con- n.

Conditions under which it Occurs.

e general conditions in which the intracellular reaction s are generally regarded as four in number.
Severe disturbances of respiration.
Anaemia.
Toxaemias of metabolic origin.
Suppuration and bacterial infection.

1. *Severe Disturbances of Respiration.*

reaction occurs in such conditions as laryngeal stenosis, sive atelectasis of the lungs, extensive pneumothorax, nal dyspnoea, severe heart failure with dyspnoea. In of these is the reaction usually marked, and it dis- rs when the causal condition is removed, unless pneu- or broncho-pneumonia sets in.

2. *Anaemia.*

ordinary cases of chlorosis, in moderate secondary ia, mild or chronic pernicious anaemia, and in some ythaemias the reaction is negative. In severe lary anaemia, in late and severe pernicious anaemia, late and in acute leucocythaemias the reaction is often ve. Secondary anaemia, however, is so often caused by conditions and by malignant disease, in the late stages ch a marked reaction usually occurs, and patients with rnicious anaemia and leucocythaemia are so notoriously to bacterial infection, that I am very doubtful whether aemia *per se* has anything to do with the reaction.

3. *Toxaemias of Metabolic Origin.*

curs in such conditions as uraemia and diabetic coma. ssible that the reaction occurring in the late stages of ant disease—it is absent in early cases—should be here. It is, of course, well known that tumour cells large amounts of glycogen. In many cases of cancer companying ulcerative and inflammatory processes t for the positive reaction. It has also been found in morphinism.

4. *Suppuration and Bacterial Infection.*

oregoing headings are mainly of pathological interest; it is in the conditions presently to be cited that the diagnostic interest centres.

Kaminer has made a series of experiments on animals in order to discover what organisms, when injected, will cause the reaction. He obtained positive results with streptococcus, staphylococcus, pneumococcus, bacillus anthracis, bacillus pneumoniae (Friedlaender), bacillus coli communis, bacillus typhosus, bacillus pyocyaneus, and bacillus diphtheriae; and Sorochowitsch has also got positive results with the toxins of these organisms; negative results with the organisms of tetanus and fowl cholera, and with such haemolytic agents as potassium chlorate.

But Weiss has since shown that only those cases of diphtheria in the human being give the reaction which are associated with much inflammation and infiltration, and Locke and others have shown that in typhoid fever the reaction is never intense, and does not appear until the end of the second or third week, if at all. Infections in the human subject with the other organisms named give a positive result.

Clinically, the following are the chief conditions in which a positive reaction is constant:

(*a*) *Croupous Pneumonia.*—Here the reaction is early and usually intense. I have found it well marked within ten hours of the rigor. In the early days of a deep-seated pneumonia with few physical signs I have found it useful. It persists until the crisis, soon disappears thereafter, and if it persists should excite suspicion of delayed resolution or empyema.

(*b*) *Broncho-pneumonia.*—The reaction is rarely so well-marked as in croupous pneumonia, but I have found it of value in cases where there was doubt whether this condition was present in addition to bronchitis, in which the reaction is negative. In a case of healed phthisis, where there was an attack of fever with vague signs in the chest, and a fear of recurrence of tubercle, the presence of reaction enabled one to negative this suspicion.

(*c*) *Empyema.*—The reaction is always well marked, and this is a valuable aid in diagnosis from serous effusion, in which the reaction is negative, in cases where the fears of the patient, or other reasons, make exploratory puncture impossible. In dry pleurisy the reaction is also negative, and this is of importance in severe cases in diagnosing it from pneumonia.

(*d*) *Abscess and Gangrene of Lung.*—The reaction is positive unless there is free drainage.

(*e*) *Septicaemias and Pyaemias of all Kinds*, accidental, puerperal, and post-operative, and such conditions as ulcerative endocarditis. The reaction is always very marked, while leucocytosis is by no means constant.

(*f*) *All Advancing Suppurative Processes.*—In these the reaction is constant when any of the pus-producing organisms are concerned, unless the abscess is quite trivial or the condition is early, and varies in amount according to the severity of the condition and the amount of constitutional disturbance produced. The actual size of the abscess does not affect the reaction, thus a carbuncle will give a reaction as intense as a large abscess or an osteo-myelitis, and I have seen a teaspoonful of pus in a retrocaecal abscess give as intense a response as a croupous pneumonia. Free drainage very soon puts an end to the reaction, and pus-pocketing at once brings it back. Recently I have seen a very striking instance of this in a case of pyelitis or pyonephrosis, in which pus was discharged intermittently with the urine from the affected kidney. Whenever the urine was clear, coming obviously from the unaffected side, the reaction was intense, while a discharge of thick pus-containing urine was regularly followed by a remission, though not a disappearance, of the reaction. Tuberculous abscesses do not give the reaction.

(*g*) *Septic Gangrene of all Kinds.*—Gangrene of the bowel in strangulated hernia or intestinal obstruction, or of a limb in the late stages of diabetes, will alike produce a marked reaction. Small aseptic sloughs do not cause it.

(*h*) *Appendicitis and Peritonitis.*—In regard to these conditions, Locke's statistics are so striking that I cannot forbear quoting them. In 8 cases of interval operation the reaction was invariably negative. In 13 cases of acute appendicitis without general peritonitis or local abscess, the reaction was always positive, but varied in degree from slight in cases where there was simply moderate inflammation of the appendix to marked in cases where the appendix was gangrenous. In 20 cases of appendicitis with local abscess, but without general peritonitis, the reaction was always good, sometimes very marked, except in one case, where there were only a few drops of pus thoroughly walled off, and the reaction

was faint. In 21 cases of general peritonitis, from various causes, the reaction was always present and usually intense, especially where pus was present. It was faint in only one case, after nine hours of a mild inflammation from perforating gastric ulcer. My own experience, though much less extensive, exactly bears this out. In abdominal cases in particular the reaction is a much more trustworthy guide than leucocytosis, for while a large leucocytosis, of more than 20,000, practically always indicates operation, the majority of appendicitis cases have an annoying way of showing a leucocytosis of from 15,000 to 17,000, even with a gangrenous appendix, while some, and those the very worst cases of peritonitis, have no leucocytosis at all. In these, however, the glycogen reaction is always well marked. That the converse holds good the following case will indicate: I was asked some time ago by one of my surgical colleagues to see a case in which the history, symptoms, and signs were so vague that the diagnosis was about equally balanced between perforating gastric ulcer and broncho-pneumonia. A leucocyte count had been made and had given 17,000, but the time and place did not allow a more complete blood examination, and it was decided to operate. Nothing was found in the abdomen, and the patient afterwards went through a broncho-pneumonia. When I had an opportunity of examining the films I found a polymorph percentage of only 68 and a doubtful glycogen reaction. Had the circumstances of the case allowed me to make the complete examination at the time I should have refused to sanction operation. I might multiply instances of the sort, but the point is sufficiently well illustrated by what I have said. A point of some importance is the time after the onset of symptoms at which the reaction appears. Locke found it faint three hours after the perforation of a typhoid ulcer, well marked six hours after. I have found it very intense twelve hours after perforation of a gastric ulcer; well marked fifteen hours after the onset of symptoms in a gangrenous appendix case; and quite recently, well marked an hour and a-half after the onset in an inflamed appendix with peritonitis.

(*i*) There are numerous other conditions of less importance in this connexion in which the reaction is present, such as late typhoid, advanced phthisis (in both of which it is probably due to secondary infection), severe malaria, acute cystitis, cerebro-spinal meningitis, miliary tuberculosis (sometimes), severe enteritis (slight), gonorrhoeal arthritis, etc.

Conditions in which it is Absent.

The conditions in which the reaction is uniformly absent are equally important from the point of view of diagnosis. In addition to those already named—rheumatic fever, chronic rheumatoid arthritis, chorea, rickets, infantile atrophy, congenital heart disease and adult heart disease (unless compensation has failed badly), catarrhal jaundice, uncomplicated tubercle of all kinds, dry and serous pleurisy, bronchitis, whooping-cough, asthma, alcoholism, nervous conditions, early cancer, lead colic, diabetes (except when coma has occurred), and such abdominal conditions as ruptured extrauterine pregnancy, obstructed hernia, intestinal obstruction from bands, etc., unless gangrene or peritonitis has set in, and in stationary abscesses.

The relation of the reaction to leucocytosis has already been hinted at, and may be stated briefly thus—that while many of the causes which produce the reaction also cause leucocytosis, there is no necessary connexion between the two, for in rheumatic fever, for instance, where leucocytosis is the rule, the glycogen reaction is absent, and frequently in the leucocytosis-producing diseases the infection is either so slight or so severe that the leucocytes do not rise, though the glycogen reaction is positive, and in the latter case, of great severity, is always intense. Thus in septicaemia I have seen counts of 7,200, 7,400, 2,100 and so on, with marked glycogen reaction. There is a much closer relation between the reaction and a high percentage of polymorphs (over 75 per cent. in the differential count), in the bacterial infections, and one generally finds the two running parallel, a marked reaction with a high polymorph count. Even this, however, is not invariable, and I have found 66, 68, 72 per cent. of polymorphs in septic cases with marked glycogen reactions. One is therefore entitled to regard it as the most delicate test that we have of constitutional disturbance in the conditions named.

Pathological Significance.

The actual pathological meaning of the reaction is not very clear. It is almost certainly not a degenerative change, for leucocytes with broken down nucleus do not show it, and all other evidence goes to show that glycogen is usually found in young and active cells. It is probably associated in some way with the resistance of the organism to poisons, and especially to those which produce positive chemotaxis.

It is unnecessary to repeat in detail the various ways in which the reaction may be used in diagnosis, but it will be obvious that a method which enables us to approach greater certainty of diagnosis in deep-seated pneumonias; to distinguish gonorrhoeal arthritis from ordinary rheumatism, septic or cerebro-spinal meningitis from the tuberculous variety—perhaps, though, on this point observations have not yet been made—cerebral abscess from cerebral tumour, obstruction from strangulated hernia, and which possesses, in addition, a wide range of application already indicated in septic conditions, deserves a more frequent application than has yet been accorded to it. One point which Locke makes is worthy of note, that patients who show it are always "sick," to use an expressive Americanism. Its presence, therefore, in cases which do not admit of a positive diagnosis should always put us on our guard against the possible development of some serious condition.

It must also be clearly understood that, while the method is simplicity itself, it demands in the observer some previous acquaintance with the appearances of blood films, and that it takes some practice before the reaction can be read aright. In its interpretation, also, it necessitates the same precautions as other blood tests, and, indeed, as all laboratory tests. It requires a thorough previous examination of the patient, the exclusion, as far as possible, of complicating conditions, and the endeavour to keep in view a clear issue for diagnosis. If this be done, the method will be found to be of great value.

Bibliography.

1. Locke and Cabot, *Journ. of Med. Research*, vol. vii, 1902. 2. Loc, *Boston Med. and Surg. Journ.*, vol. cxlvii, 1902. 3. Best, *Beitr. z. path. A* (Ziegler), vol. xxxiii, 1903. 4. Katsurada, *Verh. d. Deut. path. Ges.*, 1 5. Kaminer, *Berl. klin. Woch.*, 1899. 6. Sorochowitsch, *Zeit. f. klin. M* vol. li, 1903. 7. Weiss, *Jahrb. f. Kinderheilk*,, vol. lviii, 1903. Full referen to earlier papers will be found in Nos. 1, 3, 6, and 7.

OBSERVATIONS ON SOME TESTS FOR ALBUM IN URINE.

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In connexion with what is probably the most commonly e ployed clinical test for albumen in urine—namely, the appli tion of heat combined with acidulation—my attention has be directed to some facts which I believe are not generally w known, and an explanation of which I have not been able find in any published work. The great point in this test the amount of acidulation, and the fallacies which are apt mislead one in using the test generally arise from inaccura acidulation. This is especially the case if strong nitric ac is employed, as is still done by many physicians and reco mended in many textbooks, diverse directions being given to the amount of acid to be used.

In connexion with the use of strong nitric acid in perfor ing this heat-coagulation test, Bence-Jones long ago (abo 1840) pointed out the fact that, if too little nitric acid added (2 to 3 drops to 10 c.cm. of albuminous urine), or t much (30 to 40 drops), one may fail altogether to detect t presence of albumen, although it is present in appreciab quantity. On the other hand, if 10 to 12 drops are adde and the upper stratum of the fluid rapidly heated, the test positive—that is to say, a white turbidity or coagulum is pr duced. Moreover, when 2 or 3 drops of nitric acid have be used and the test tube boiled with a negative result, t further addition of a certain amount of nitric acid (f example, 6 to 10 drops) leads to coagulation.

These peculiar facts as observed by Bence-Jones seem have been almost entirely forgotten,[1] for very few, if any, the present-day textbooks point out this fallacy, and I ha not been able to find any published work which gives exper mental evidence to explain the above phenomena.

Is the formation of acid-albumen (not coagulable by hea the reason of the negative result with 2 to 3 drops of nitr acid?[2] There does not seem to be any definite evidence th such is the case, nor any explanation why coagulation is g on a further addition of 6 to 10 drops of nitric acid, since a the textbooks state that solutions of acid-albumen are n coagulable by heat. Again, why should not the use of 10 t

lrops of nitric acid lead to the formation of acid-albumen
and an absence of coagulation on heating? I have per-
ned a large number of experiments with albuminous
ne, and the main results obtained have been similar in
he cases. The following is selected as a typical experi-
nt:

buminous urine (0.2 per cent. by Hayward's modified Esbach's
minometer): Reaction faintly acid (no free acid); specific gravity,
; colour, amber, slightly muddy; 6 test tubes were taken, each
aining 10 c.cm. of the filtered urine. Drops of strong nitric acid
added as follows:

A. = 10 c.cm. of urine + 1 drop HNO_3
B. = 10 c.cm. ,, + 2 drops ,,
C. = 10 c.cm. ,, + 10 ,, ,,
D. = 10 c.cm. ,, + 12 ,, ,,
E. = 10 c.cm. ,, + 30 ,, ,,
F. = 10 c.cm. ,, + 40 ,, ,,

er boiling. A., B., E., and F. were quite clear; coagulation was
nt in C. and D. The addition of another 8 to 10 drops of HNO_3 to
d B. after boiling, caused turbidity.

is illustrates the phenomena as observed by Bence-Jones.
the larger amounts of nitric acid some turbidity is in-
d on adding the acid; this may clear up on boiling as in
oregoing experiment, or may not clear up, as often occurs.
acid-albumen had been formed in tubes A. and B. was
usively proved in this way:—

By Neutralization.—1 drop of the strong HNO_3 employed was found
periment to be almost neutralized by 3 drops of 20 per cent. KOH
on. Tubes A. and B. were carefully neutralized first by the addition
3 drops and 5 to 6 drops of 20 per cent KOH respectively, the final
the neutralization being carried out by 0.1 per cent. KOH solution.
neutral point down came a cloudy precipitate of acid-albumen,
was soluble in excess of the alkali, but which was again
n down by neutralizing with weak acid, and again redissolved
ess of the acid.

*By Saturation with Neutral Salts, such as Sodium Chloride and
ium Sulphate.*—10 c.cm. of albuminous urine were taken in tubes
B. as before, and 1 and 2 drops of HNO_3 added respectively;
were then boiled as before. After cooling, both mixtures were
ed with NaCl crystals. There was a copious precipitate of acid-
en in both tubes. Similar results occurred on saturation with
and on half-saturation with ammonium sulphate. (The urine,
adding the HNO_3, did not give such a precipitate with NaCl, etc.)
cid-albumen (like serum-globulin, etc,) is precipitated by satura-
th NaCl and $MgSO_4$, and by half saturation with $(NH_4)_2SO_4$, while
ry albumens are soluble in saturated solutions of NaCl and
and half-saturated solutions of $(NH_4)_2SO_4$. After filtering off the
tated acid-albumen the filtrate was found to be proteid-free and
precipitate when tested with proteid-precipitants (for example.
sulphonic acid, etc.) showing that all the albumen had been con-
into acid-albumen, with the exception, perhaps, of a little in the
proteose.

ngly albuminous urine boiled with 1 to 3 drops of
without coagulation sometimes becomes gelatinous on
ng, so that the tube can be inverted without spilling
ntents; this is due to the large amount of acid-albumen
t.

nd that similar phenomena occur with the other mineral
(hydrochloric and sulphuric); they are not peculiar to
cid.

clear that the first part of Bence-Jones's phenomena
ddition of too little HNO_3) is to be explained by the
ion of acid-albumen.

gards the effects of adding too much nitric acid (30 to
s), the turbidity induced may or may not disappear on
(for example, tubes E. and F.). When it does dis-
it is due to the destructive influence of the corrosive
the proteid (as in the first stage of the xantho-proteic
n), and not to the formation of acid-albumen. In this
utralization gives no precipitate, nor when the fluid is
ifter diluting till the HNO_3 present would be in the
ion of 8 to 10 drops in 10 c.cm. does any coagulation
(A little proteose may be present.)

eason why coagulation occurs with 10 to 12 drops of
cid is that, although a good deal of acid-albumen is
yet acid-albumen does coagulate on heating in the
e of a considerable amount of nitric acid. The great
ng-block is the ordinary textbook statement that
lbumen is not coagulable by heat." This is not
correct; it is true only in a weak acid solution.
umen is rapidly coagulated by heating in certain
s of the mineral acids; the exact percentage of acid
be definitely stated, as it varies with the time and the
ture (for example, acid-albumen will coagulate in a
y low percentage of mineral acid, even at room
ture, if it is allowed to stand long enough). The
nay be regarded as a coagulation by the mineral acid
accelerated by heat, or a heat coagulation accelerated by the presence of a certain amount of mineral acid.

The results obtained by heating after acidulation with nitric acid may fall into one or other of four categories: (1) With faint acidulation, coagulation; (2) with more acid (1 to 3 drops in 10 c.cm.), no coagulation; (3) with 8 to 10 drops, coagulation; (4) with 30 to 40 drops, coagulation or not.

In performing the heat-coagulation test, acidulation with weak acetic acid (2 to 5 per cent.), or a 5 per cent. solution of acid sodium phosphate (the acid salt to which normal urine owes its acidity) is decidedly preferable to acidulation with nitric acid, since with these acidifying agents the danger of forming acid-albumen is reduced to a minimum. The careful production of a suitable degree of acidity followed by the rapid heating of the upper stratum of the fluid is one of the most delicate tests for albumen in urine. The crux of the test lies in the proper amount of acid to be added; the amount needed to give the requisite faint acidulation will vary according to the original reaction of the urine. When using acetic acid in this way the addition of litmus solution as an indicator is necessary. Another way of using acetic acid is to add it, drop by drop, after the urine has been brought to the boiling-point; hardly any time is here given for the formation of acid albumen and the amount of acid used has not to be graduated in the same precise way as when it is added before boiling. On the other hand, a precipitation of "mucin," which might have been seen on acidulating before boiling, will now be indistinguishable from albumen if the acid is added after boiling.

As regards the danger of mistaking urinary "mucin" for albumen when testing is done by acidulation and heat, etc., it is to be remarked that a clear sample of urine which is decidedly acid in reaction can contain little mucin in solution. In a neutral or alkaline urine, however, a very appreciable amount may be dissolved, and here a danger of confusion comes in, and it seems probable that some of the conflicting statistics that have been obtained as to the occurrence of the so-called "physiological or functional albuminuria" of apparently healthy persons (for example, in soldiers and others) are in part at least attributable to urinary "mucin"—either true mucin or nucleo-proteid, or both—being mistaken for albumen. A simple method of distinguishing "mucin" (whether true mucin or nucleo-proteid) is to precipitate it by decided acidulation with acetic or citric acid without heating, for example, by mixing equal volumes of urine and 5 per cent. acetic acid.

Pickering[3] recommends an additional procedure in cases of doubt as regards "mucin," namely, boiling a small portion of the precipitate with dilute sulphuric acid, and testing its reducing properties with Fehling's solution. Such a procedure not only takes time, but is inadvisable and is apt to mislead, since it is based on the assumption that the urinary "mucin" is true mucin, whereas it is commonly made up largely or wholly of nucleo-proteid, which of course yields no reducing sugar on boiling with sulphuric acid.

As regards any advantages in the use of dangerous corrosive acids, like nitric, in testing for albumen—as compared with weak acetic or acid salts—I have not been able to find any. Probably force of habit accounts in great measure for the continued use of nitric acid. Of course, it is possible to use faint acidulation with dilute nitric acid before boiling (litmus solution being employed as an indicator), but this has no advantage over the use of weak acetic acid. Strong nitric acid is obviously unsuitable for the purpose. Again, strong nitric acid dropped in after boiling is apt to redissolve proteid if present in small amount.

A saturated solution of acid sodium phosphate may be used like nitric acid in Heller's test; a precipitate of proteose clears up on heating, while albumen does not. With this reagent there is not the liability to redissolving which is seen with nitric acid.

The test for albumen most used in this laboratory for a number of years has been "the salicyl-sulphonic acid test," and an extended experience of its use has abundantly shown its safety, convenience, and delicacy. As recommended by Professor MacWilliam,[4] the test is done by adding a few drops of a saturated aqueous solution[5] of salicyl-sulphonic acid to a small amount of urine (20 or 30 minims) in a very small test tube. If no precipitate occurs there is no proteid present; if there is a precipitate the tube is boiled to distinguish albumen, which does not clear up on heating but becomes coagulated and flaky from proteoses (primary), which do clear up to reappear when the fluid cools. In the

absence of precipitation on the addition of the reagent it is not necessary to boil at all, hence the test is a much shorter one than the ordinary acidulation and heat test, a matter of great importance when a large number of urines have to be examined, for example, in hospital practice.

There is no need for care as to the exact amount of the reagent used; no danger of over-acidulation, as with nitric or acetic acids—even large excess of salicyl-sulphonic acid does not redissolve the precipitated proteid. Further, the reagent is non-caustic and exceedingly stable, while it does not stain like picric acid, etc. As regards portability it can be used in the form of crystals, which are much safer than the poisonous and staining picric acid crystals, with their further disadvantage in precipitating certain other bodies besides proteids—for example, many alkaloids, etc. When using the crystals, one should proceed as follows: Half a drachm, or less, of urine is taken in a small test tube—for example, $\frac{5}{16}$ in. diameter, and 3 in. in length—a few crystals of salicyl-sulphonic acid are dropped in, and boiling, if necessary, can easily be done in the absence of a spirit lamp, etc.—over an ordinary lamp or candle.

No substance in the urine, apart from those of the proteid class, has been found to give the reaction[6], which is an exceedingly delicate one. As a precipitant of proteose it is greatly superior to nitric and acetic acids, as the latter redissolve the precipitate when too much acid is added.

NOTES AND REFERENCES.

[1] Attention was called to these facts many years ago in this Medical School by Dr. Angus Fraser. [2] Some observers deny that acid-albumen is formed. [3] Pickering, *Journal of Physiology*, vol. xiv, p. 374. [4] MacWilliam, BRITISH MEDICAL JOURNAL, 1891, p. 837. [5] To obtain a saturated solution dissolve 25 grams of salicyl-sulphonic acid crystals in 10 c.cm. of water. Roch used a relatively weak solution, and the results got by his method are very inferior in delicacy; Roch did not distinguish between albumen and proteoses. [6] MacWilliam, loc. cit., p. 839.

AN INQUIRY INTO THE PRIMARY SEAT OF INFECTION IN 500 CASES OF DEATH FROM TUBERCULOSIS.

BY

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ONE of us having been requested to examine the reports of fatal cases of tuberculosis in the hospitals in Bristol, it was thought that a short account of the analysis might be of some interest.

A question which it is scarcely necessary to remark has much agitated the medical mind of late has been the method of entry of the tubercle bacillus into the system. The statistics of some observers appear to show that in the great majority of cases of tuberculosis invasion takes place by means of the respiratory passages, while others have maintained that their experience shows that entry by means of the alimentary tract is by no means uncommon.

Those whose experience leads them to believe that the abdominal viscera are first invaded naturally lay great stress upon the danger of infected milk, while those who hold that the thorax is almost invariably the primary seat of disease are for the most part inclined to consider that bovine tuberculosis is rarely communicated to man. The whole question is involved in difficulty, and it is needless to remark that it is in the age of childhood that milk is chiefly drunk, and it is at this period of life that primary abdominal tuberculosis is most common; yet it does not follow that this is a proof of infection with bovine tuberculosis.

There are numerous ways by which tubercle bacilli of human origin can enter the alimentary canal. Even in the early months of life such infection is possible. All day long some babies are sucking an indiarubber comforter, and it no sooner drops on to the dirty floor than it is hastily picked up and thrust again into the mouth of the infant. Older children also as they crawl take up every article they can lay hold of and put it into their mouths, to the danger of which their dirt-begrimed cheeks bear witness.

While these risks are real, we have, on the other hand, to remember that the discovery of disease in a certain part of the body does not necessarily imply that the cause of the disease found its way to that spot by the nearest route. There is what we may call the inborn weakness of certain orga and the infecting agent may pass through more resista parts of the body in order to reach these weaker organs.

Recent experimental work seems to show, also, th tubercle bacilli entering by the mouth may reach and cau disease of the lungs, while other parts of the body rema unaffected. However, although we may say that in so cases of disease of the lungs invasion may have taken pla by the alimentary canal, so far as we can judge from *po mortem* evidence it seems to us that infection of the abdom may, on the other hand, sometimes occur from a small foc in the thorax. Thus we have seen acute tuberculosis limit to the peritoneum when the only caseous focus in the bo that could be discovered was a caseous bronchial glan During an attack of rheumatism in a boy pericarditis h arisen, and the disturbance set up by this inflammation in t thorax appeared to have disseminated tubercle bacilli co tained in the caseous bronchial gland, which bacilli h attacked the peritoneum only.

As we have said, the question of the method of invasion involved in difficulty, but, even if the matter were sufficient simple to be settled by the evidence afforded by the situati of the oldest foci of disease in the body, we still have t difficulty of deciding in many instances which are the olde foci. Cases of tuberculosis in children in which the disea is entirely limited to one cavity of the body are considerab in the minority, and the liability to fallacy of personal judg ment cannot but influence the conclusions as to which cavi of the body was first attacked. Then, again, there is t difficulty that the pathologist who wrote the *post-mortem* not may not always have been sufficiently explicit to enable t reader to decide which was probably the primary source i infection. Since, however, one of us has been responsib for fully half of the necropsies, the notes of which have be examined, and has always paid attention to this point, fal cies due to this cause are not likely to be serious. In t following list many cases are classed as doubtfully abdomin or respiratory in origin.

Although there may be intestinal ulcers, and perhaps a f caseous mesenteric glands of apparently recent origin, shou there be old pulmonary lesions such as a cavity and perha also large masses of caseous bronchial and mediastin glands, we have generally considered it justifiable to classi the abdominal disease as produced by swallowed sputu infected with tubercle bacilli, and therefore secondary to t disease in the thorax. In other cases, however, when have considered that there would be the least possibility difference of opinion, we have placed the case under the hea ing of "doubtful." For example, when the notes say, " front of the right bronchus was an abscess cavity with thi walls containing caseous material," and also state that only "t mesenteric glands were caseous and all the others norma we have classified the case with those in which the disea might have originated either in the abdomen or the thora though we are inclined to believe that the thoracic focus w with little doubt the older.

Statistics of 102 Cases of Tuberculosis under the Age of 12 Years.

Apparently definitely abdominal in origin...	12	11.7 per cent
Definitely thoracic	57	55.8 ,,
Doubtful whether abdominal or thoracic ...	24	23.5 ,,

Of the remaining cases the primary lession was possibly in the

Bones or joints	in 4
The skin	in 1
The tonsil	in 1
No focus found	in 3

It will be noticed that there were 12 abdominal cases to thoracic—that is, the proportion was 1 to 4.7. Examinati of the cases under the age of 2 years showed, however: much higher proportion of abdominal cases. There were apparently primary abdominal cases and 9 apparent primary thoracic in the first two years of life. But if we co sider it to be universally true that cases of primary a dominal tuberculosis are most common under the age of years, although it suggests infection by means of milk a frequent cause of tuberculosis, it does not prove it. The a dominal lymphatic glands are at an early age irritated a weakened by the products of the almost universal dyspep disturbances which occur in the first years of life, and th weakness naturally exposes them to infection with tuber bacilli, whether human or bovine.

To digress from this subject for a moment, it may be marked that, although cavitation of the lung due to tub culous disease is decidedly much less common in childr than in adults, there were two cavities of considerable si

sent in one case at the age of 5 months and in another at age of 8 months. The second cavity was the size of a gerine orange. In neither of these cases was there any e of disease in the abdominal cavity—not even of solitary ercle in the spleen or liver. As is usual with such ities in children, the tuberculous disease of the lung was iously due to direct spread from caseous bronchial ds. Here a word may be said about primary affection of bronchial glands. It seems to us that, as with the enteric glands, there is no doubt that the bronchial glands be infected with tubercle bacilli without the presence of lesion of the lungs or bronchi that can be discovered the naked eye. Few pathologists perhaps deny this, yet as been considered improbable by some. Tubercle bacilli oubtedly at first not uncommonly set up a bronchitis. have seen the sputum of a patient (who had been quite a fortnight before) swarming with tubercle bacilli when for the fact that the bronchitis from which he was suffer- was associated with a rather suspicious temperature ing more than a passing ailment would have been ght of. Not until three months later was there any dis- rable physical sign of disease in the lung, and death did take place until three years later. An almost precisely lar case occurred in an athletic fellow-student of one of who tested his own sputum during a microscope class, he was suffering from what he only considered to be a ng catarrh. To his dismay he found tubercle bacilli nt in abundance, and his death from phthisis took place years later.

e can understand how the setting up of bronchitis by ubercle bacillus further complicates the difficulty of taining from *post-mortem* evidence the primary source of tion with tubercle. The sputum containing thousands acilli when swallowed may readily produce more sive lesions of the mesenteric glands than in bronchial glands which are close to the seat rigin of the infected sputum. To return to the ion of the evidence afforded by our statistics of the ve frequence of primary abdominal and thoracic ion. Curiously enough the proportion of definitely inal to thoracic cases appeared to be as great in the d as in the first twelve years of life. Thus there were es apparently primarily abdominal and 31 primarily cic; that is to say, the proportion was just over 1 in the second 12 years and under 1 to 4 in the first ars. It must be mentioned, however, that in the sis of statistics for the years we have only placed ngst the doubtful cases. It must be remembered at fatal cases of disease in hospitals cannot be taken as ating the comparative frequency of those diseases or ies of disease. A serious abdominal affection is far likely to be taken into a hospital than a case of chronic nary disease, especially if the latter is considered to berculosis. The same remark is applicable when we er the value of statistics for the third period of 12 that is, between the ages of 25 to 36, but here the pro- n of primary abdominal cases is less marked.

ratio of cases of primary abdominal to thoracic tuber- s in this series of 12 years and during the periods of me length before the age of 25 and after the age of 36 vn in the following table :

–12 years	...	1 to 4.70
–24 years	...	1 to 3.87
–36 years	...	1 to 9.66
–48 years	...	1 to 9 25
–60 years	...	No definitely primary abdominal case
e 60 years	...	1 abdominal case and 7 thoracic—ratio, 1 to 7

above cases do not include all cases of disease either of domen or lungs. In a few cases disease of internal was with little doubt a sequel to long-standing joint ; in 3 the kidney appeared to be first affected, and in epididymis. It may be interesting to note that in 2 fatal cases of Addison's disease tuberculosis occurred ther organ of the body except the suprarenal capsules; may be added that these cases presented, what is some- een in Addison's disease, marked hypertrophy of Peyer's and of the lymphoid follicles of the intestines.

other details which attract attention when reading reports might be mentioned. A somewhat curious s, perhaps, the rarity with which a case of general n of the peritoneal cavity, due obviously to a previous f tuberculous peritonitis, is met with. One of us who experience of nearly 2,000 necropsies only remembers seen one such case. Localized adhesions with some e of a tuberculous origin are, however, not so very uncommon. In an apparently healthy boy, aged 16, who had been run over and killed, adhesions were present over the liver, and a calcareous mesenteric gland with several fibrous glands were present. Another case of similar character was met with in a girl aged 17, dying of heart disease. There were "firm adhesions" enclosing several calcareous nodules over the liver and some over the spleen. The mesenteric glands presented nothing abnormal. A caseous nodule was present at the apex of each lung, but no active tuberculous mischief existed.

Another point of interest that has frequently struck us in the *post-mortem* room is the presence of calcareous nodules in the lower lobe of a lung, and not very uncommonly limited to such a lobe. It appears that the tubercle bacillus can more commonly than is generally thought acquire a temporary foothold, so to speak, in some part or parts of a lower lobe, but that it almost invariably ceases to be able to materially advance, and consequently basal phthisis as we know is extremely rare. Yet we have seen on three or four occasions cavities of considerable size in the lower lobe, while tuberculous disease of less advanced nature was in the upper lobe. In connexion with the reference to isolated calcareous nodules, it may be interesting to remark that in some cases there appeared to have been, earlier in life, recovery from widespread tuberculosis of both lungs. For example, in a middle-aged man "brought in dead," having died of sudden cardiac failure, both lungs were found to be studded from apex to base with calcareous nodules the size of peas. There were from forty to fifty in each lung, and they were as abundant in the lower as in the upper lobes. Precisely similar nodules were found scattered through both lungs of a man aged 25, who died of tuberculous meningitis, but recent tuberculous pulmonary lesions were absent.

To sum up, if we take local foci of disease as evidence of primary disease in the neighbourhood of the foci, our statistics tend to show that during the first twelve years of life tuberculous infection by the air passages is four times as common as by the alimentary canal. Our statistics also seem to show that the comparative frequency of infection through the alimentary canal during the second twelve years is equally common. Deaths in hospitals above the age of 12 years can hardly, however, be taken to represent the average causation of death from varieties of tuberculosis for the whole population above that age, because cases of tuberculosis of the lungs are more chronic than at an earlier period of life, and are not usually admitted to ordinary hospitals.

In spite of the exclusion of chronic pulmonary troubles from hospitals, the proportion of abdominal to thoracic tuberculosis in the institutions from which the reports were taken was very small after the age of 24.

TWO CASES OF PRIMARY MALIGNANT DISEASE OF THE PANCREAS.

BY JOSEPH STEWART, M.B., M.Ch. R.U.I.,
Leeds.

THE two following cases occurred in my practice last year within a period of four months, and as there is reason to believe that primary malignant disease of the pancreas is somewhat rare, it seems desirable to publish them, especially as one of the cases presented an unusual congenital condition.

CASE I.

Mrs. S., married, age 58, came to see me in December, 1902, suffering from intense jaundice and most pronounced muscular weakness. She had never had an illness before. Had been a cook for a couple of years in a restaurant and had indulged moderately in stimulants. She had been losing flesh gradually for six or eight months, although able to do her work.

State on Examination.—The jaundice affected skin and conjunctivae and urine, the latter being deeply coloured. There was no constipation, but instead several motions daily (as many as six), quite white in colour, formed, and considerable in quantity: not lumpy, nor dry, passed in pieces about two inches long, and extremely smooth on the surface. There was intense irritation and itching which prevented sleep. The liver was very large, the right lobe extending into right iliac fossa, the edge and notch in the margin being easily felt. The left lobe was likewise enlarged and could be distinctly felt. The gall bladder was very much enlarged and tense, so tense that it could be grasped in the hand without making any impression on it. In the epigastric region there was a large mass rising as it were from the smooth surface of the liver and continuous with it. This was painful on pressure and was the only tender spot detected on palpation.

Progress and Result.—The patient continued to lose flesh and strength,

and died on April 7th, 1903. At no time did she complain of pain, except the "pain of weakness," and this was distressing. Twenty-four hours before death the urine was of the colour of black ink and scanty.

Necropsy.—The peritoneum was full of very dark-coloured fluid, and a nodule of growth about the size of a walnut found in the great omentum. The liver was studded with whitish deposits varying on the surface from the size of a pin's head to that of a crown-piece. The medium sized deposits were umbilicated and resembled the structure of the liver in the arrangement of the vessels. The pancreas was felt to be enlarged and hard from head to tail; it was extremely friable, and on pulling it up to the surface it broke across like a piece of carrot. It was quite white in appearance. The gall bladder was full of bile. There were no stones in either bladder or ducts. No albumen or sugar was present in the urine at any time during the illness.

CASE II.

Mr. H., aged 73, had been attended by me many times for giddiness and faintness, the result of cardiac degeneration. Four weeks ago he noticed a little dark coloration of the urine, and a week later some jaundice was observed, coming on painlessly. Up to ten years ago he had very severe attacks of "spasms," which could at times be averted by an aperient; but since that time he had been quite free from such attacks.

State on Examination.—He was very deeply jaundiced, the skin of the face, cheeks, and body bronze in appearance, and conjunctivae golden yellow. On scratching the skin with the finger-nail the track of the nail assumed a light heliotrope colour. The skin was itchy, loose, and flabby, and he looked as if he had lost much weight. The urine was very high-coloured, and dark like coffee. Part of the right lobe of the liver could be felt filling the space bounded by the right costal cartilages down to the tenth, and a line extending from this cartilage across to the middle line of the body. There was no pain on pressure over this mass, but if the fingers were inserted under its free edge and the mass lifted up pain was complained of at a spot near the middle line of the body. At a point 1½ in. above the umbilicus and 1 in. to the left of the middle line, which could be covered by a shilling, there was a very tender spot on deep pressure, This painful spot could always be detected up to the last. No gall bladder could be felt. He complained of great weakness and loss of strength, but slept well. He had no appetite, and frequently vomited, and stated that everything he took tasted and smelt like his urine, which was as offensive as if it had undergone decomposition. No bladder or prostatic trouble was present.

Progress and Result.—The motions were invariably white, never constipated nor lumpy, and quite smooth on the surface. They appeared to have the consistency of soft putty, and resembled pieces of this material squeezed through a sausage machine. The quantity was extraordinary considering the intake, and so marked was this that it attracted the patient's and the friends' attention. On May 20th, 1903, vomiting increased and hiccough was very distressing. As much as six pints of gelatinous, tenacious, dark-coloured material was vomited during the night, although not more than 1½ pint of fluid food had been administered during the day. All food by the mouth was stopped for eight days, and during this time the vomiting and hiccough ceased. On May 28th he had a prolonged rigor lasting two hours. When I saw him at 9 p.m. his pulse was hardly perceptible, the feet and legs cold up to the knees, and he was evidently dying. On the following morning the patient was still alive. Warmth had returned to his extremities, and for the first time during the whole illness the skin was acting. The tongue was cleaning at the edges and tip; large, dry, brown crusts were peeling off and leaving a moist surface. It was the best attempt at a recovery from death I have ever seen, as the patient declared he had been dead during the night, and I have no doubt that probably he was so. Food was now taken by the mouth with no return of vomiting or hiccough. On the 30th, however, he sank, conscious to the last. At no time during the illness was sugar or albumen present in the urine.

Necropsy.—There was a thick layer of fat in the skin, with peculiarly greasy soapy feeling. No free fluid was found in the peritoneum. The liver was slightly enlarged and of normal appearance except for whitish nodules about the size of a sixpence dotted here and there on its surface, and umbilicated in the centre. A prolonged search of over half an hour was made for the gall bladder, but none was present. There were two separate ducts leading from the liver, and as far as I could follow them down to the duodenum they remained separate. No gall stones were present in the ducts. The pancreas was white in appearance and slightly enlarged and harder than normal, but neither the enlargement nor the hardness was so marked as in Case I. It tore away easily.

REMARKS.

As to the diagnosis of pancreatitis, in general there should be no difficulty—the painless jaundice, the intense weakness, great wasting, and the enormous evacuations are characteristic. I believe if I were shown the evacuations alone I could diagnose the disease. The only one I ever read of who has laid claim to that diagnostic skill besides myself was the celebrated Dr. Hornbrook, made famous by the poet Burns.

As to the differential diagnosis between simple and malignant pancreatitis, in Case I there was no difficulty, as there were present the deep painless jaundice and the enlarged gall bladder pointing to cancer of the head of the pancreas—Courvoisier's law. In Case II no gall bladder could be felt, for a very good reason, so that the diagnosis was difficult. I accordingly sent a specimen of the urine to Mr. Cammidge, of Wakefield, who kindly sent me the following report with permission to publish it.

The specimen of urine is free from dextrose and albumen, but contains a considerable amount of bile pigments and bile acid. It also gives a well-marked pancreatic reaction, and I should from the character of the reaction expect to find a chronic inflammation of the pancreas.

I sent Mr. Cammidge also portions of the liver and pancreas. The report is as follows:

The liver shows patches of secondary malignant disease. The cells are of a glandular character, and suggest the pancreas as the probable origin. In the section of pancreas the cells are neither normal in appearance nor in arrangement, and I should say that this is part of the pancreas showing early malignant disease, it would probably be more advanced in the head of the organ.

It can be seen from the above that during life it was very difficult to come to a correct diagnosis.

There are two questions which seem to be of interest to physiologists: (1) The fact that there was no constipation, although not a drop of bile entered the intestine throughout the duration of my attendance; (2) considering the destructive changes in the pancreas, the fact that in spite of this there was no sugar present in the urine. One might fairly have expected some change in the urine in one or both of these cases.

SOME UNUSUAL CONDITIONS IN GALL-BLADDER SURGERY.*

BY E. STANMORE BISHOP, F.R.C.S.ENG.,
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IT is perhaps scarcely true that, as Rutherford Morison says, gall-bladder surgery has only a history of ten to fifteen years, but there can be no doubt that it has greatly progressed during that period, and that, before asepsis was possible, it could hardly be said to exist as we know it now at all.

It may be possible at an early period to generalize upon knowledge, and to formulate some rules with reference to this subject, but the time has scarcely yet arrived. At present it is of much more importance that anything unusual or peculiar should be duly noted and described, and it is with a view to this that I have brought forward to day certain cases of this kind.

The presence of biliary calculi in the gall bladder would appear to be a very common thing in persons over 40 years of age. Every *post-mortem* room is able to furnish examples, but large numbers of such cases pass through life without attention having been called to their existence. Kehr has estimated that only about 5 per cent. of the total number ever cause any symptoms. When this does happen, however, those symptoms produce usually intense distress and call imperatively for treatment.

And of all the symptoms thus evoked the most pressing are attacks of intermittent colicky pain, situated in or near the hyponchondrium or in the epigastrium, radiating around the lower part of the right thorax, and often felt with equal severity in the dorsal region, near the apex of the right scapula. Such attacks are usually associated with vomiting which often marks the acme of the attack, and appears to relieve it. It is noticeable that these attacks are often coincident with the time when the gastric contents begin to pass from the stomach into the duodenum; that is, two or three hours after a meal.

But these attacks do not always denote the presence of calculus. They may occur in cases where, if an operation be performed, no stone may be found. Two other causes at least have been discovered which appear to be sufficient in themselves to explain the paroxysmal pain.

Normally, the gall badder is attached to the under surface of the right lobe of the liver by some connective tissue, and by the peritoneal coat, which, covering the lower hepatic surface, is reflected over the bladder and maintains the two in contact. In most cases only the fundus is free, and occasionally, especially in shrunken, contracted gall bladders, even this portion is closely attached to the organ above it. Dr. Krukenberg has described two cases in which the gall bladder, entirely free from the liver down to the cystic duct, has fallen downwards and away so as to kink that duct, and produced thereby the pain which accompanies an unduly distended

* Read at a meeting of the Lancashire and Cheshire Branch of the British Medical Association.

ll bladder, and its futile efforts to evacuate its contents. lthough in the following case eighteen small calculi were esent, it is quite open to question whether their presence oduced the typical biliary colic of which the patient com- ained, or whether this was not equally if not entirely due the kinked cystic duct.

Case I.

S. E. W., aged 50; sent to Ancoats Hospital by Dr. Paton, of Manester, March 3rd, 1904. A stout, florid woman of healthy appearance; arried twenty-nine years: six children; no miscarriages. Her ungest child was 16 years of age, and it was whilst suckling her four nths after birth that the first attack was experienced. The milk mewhat suddenly ceased to be secreted. Spasmodic pain with vomit- came on and lasted for thirteen hours, being ultimately relieved by rphine, hypodermically given. For seventeen days she took nothing the mouth, being entirely fed by nutrient enemata. During this e no stool was passed. The first evacuation after this was "as white lard." So far as she knows, this was the only occasion on which bile s absent from the dejecta. Urination was all through regular, and y

For some six years she has suffered from eczema of the legs. For s she was sent to Harrogate, and there she took the water for some e. After drinking this for a fortnight she had another severe attack, ich began after supper, and lasted for three hours. During the nth she remained in Harrogate she had four or five attacks.

On returning home she had another severe attack. In 1899 another, l since then several milder ones until a month before admission, en I saw her in consultation with Dr. Paton, in consequence of per- s the most severe attack of pain and persistent vomiting she had r experienced. So severe was it that Dr. Paton feared that acute eral peritonitis was present. From this attack, however, she re- ered, and arrangements were made for her admission to hospital a view to operation.

uring all her attacks no marked jaundice was ever observed. There no history of typhoid fever or dysentery, and she had never been ad. On March 7th, 1904, a vertical incision was made near the r edge of the right rectus muscle, passing through over 2 in. of cutaneous fat, from 1 in. below the costal margin to the umbilicus. en the peritoneum was opened it was drawn up on either side and ed to the skin by Allis's forceps. I have found this manœuvre very ul in wounds of such a depth, since the fatty walls are thereby pro- d from damage during the intraperitoneal manœuvres, and not ming bruised are more likely to unite by primary intention.

e gall bladder was easily found, but was entirely free from the , and hung down from it at an angle, which was situated at the mencement of the cystic duct. The cystic duct was firmly attached. bladder was full, but not distended, and lay behind the first part of duodenum, to which it was not adherent. In it, and near the duct were eighteen small, angular, facetted calculi, composed of chole- n and bile colouring matter. These were removed, a rubber tube into the open fundus, and the abdominal wall closed. She made a and complete recovery. The tube came away on the ninth day, she returned home a fortnight later.

ut pain of a paroxysmal character and associated with iting may be found in another set of cases, when on ation no stone is found. In these adhesions are discovered een the gall bladder, the liver, the colon, the duodenum, stomach, or the omentum; most frequently perhaps een it and the last structure. Here the sequence of ts would appear to be this. A mild attack of chole- itis, followed by the formation of a calculus. Passage rds of this concretion, the irritation of its passage ng up some local peritonitis around the gall bladder, and nsequent adhesion to the viscera around. Pressure upon nking of the cystic duct produced by the contraction of adhesions. It is in the differentiation of these cases those in which calculi are still actually present that hy's test has appeared to me to be specially useful. e is the same pain and vomiting in both, possibly also same evanescent jaundice, but in the cases where adhe- only are present Murphy's test gives a negative result, t in those associated with actual calculi the character- check to inspiration yielded by this test is always found. ch cases I have had several. Two only are given here in letail.

Case II.

G., aged 58, sent to Ancoats Hospital July 23rd, 1900, with a in the epigastrium, from which bile and muco-pus were exuding. history given was that for fourteen years she had suffered from ric fever, colic, and ague" at intermittent periods. These attacks ssociated with pain in the epigastrium and right hypochondrium miting of watery fluid. There was also a great deal of retching. the previous April she suffered from a severe stitch in the right r about a week, at the end of which time the skin gave way near edian line, about 2½ in. below the sternum and ½ in. to the the point at which the opening of the sinus was seen. Much pus eenish-yellow material escaped, but no fragments of calculi, and id had been discharging in small quantities ever since. She was t, healthy-looking woman, and had never been jaundiced. us to its giving way a hard, firm mass with rounded outline had etected by her medical attendant beneath the right lobe of the liver. This could no longer be detected. Murphy's test gave a negative result.

On July 25th a probe passed down the sinus detected no foreign body. A vertical incision was made internal to the sinus through the right rectus and the peritoneum opened. Nothing could be felt in the gall bladder, with which the sinus was continuous, nor in the ducts. Extensive and firm adhesions between the bladder, omentum, and transverse colon were found. The sinus was laid open down to the gall bladder, which was drained with gauze. The rest of the abdominal incision was closed. No bile escaped on slitting up the sinus, and the wound gradually healed.

Case III.

Mrs. L., aged 55, admitted to Ancoats Hospital January, 1904, under Dr. Melland. For the last three years she had suffered from pain across the back, just below the angles of the scapula, and for the last four months she had been confined to bed. The pain was gnawing in character. There had been no vomiting; some jaundice was present. There was no pain in front below the costal border. Menstruation had been regular, and the menopause occurred twelve years since. As Dr. Melland discovered an ill-defined resistance below the right hepatic lobe, he very kindly transferred the patient to my care.

The pelvic organs were all healthy: the uterus in good position, and not prolapsed. There was some enteroptosis. The right kidney was very markedly movable downwards and inwards. The left kidney was in its normal position, and not mobile. The liver was not enlarged. Beneath its right lobe could be felt on deep pressure an increased resistance, with indefinable outline; percussion note over this was clear. Murphy's test gave a negative result.

On February 18th an exploratory incision was made in the usual vertical line near the outer edge of the right rectus muscle. There was no fat necrosis, No gall stones could be felt. There was no enlargement of the pancreas. There was, however, firm adhesion of the duodenum to the under surface of the liver, and below it the small contracted gall bladder was found.

Other changes in the gall bladder, probably after-effects of the irritation set up by previous lodgement of gall stones, are sometimes found. A case sent to the hospital by my friend, Dr. Willis, of Gorton, illustrates one of these.

Case IV.

Mrs. G., aged 51, admitted to Ancoats Hospital, November 19th, 1903. This patient had suffered from three or four attacks of severe abdominal pain, the first attack occurring twelve months before admission. The pain was very acute, extended from the right costal arch to the umbilicus, and was followed by vomiting. After the first attack there was jaundice, which lasted for a few months. Each attack was associated with the passage of high-coloured urine and stools of a light colour. The pain passed round the right lumbar region, never higher than the level of the ninth or tenth ribs in the scapular line. The last attack was fourteen days before admission, and was cut short by morphine.

At the time of examination there was no jaundice, but the face was sallow. The patient was inclined to be stout, and there had been no loss of weight. Murphy's and Robson's tests gave a negative result.

November 30th, 1903. The abdomen was opened in the usual line. There was no fat necrosis. The gall bladder was found firmly adherent to the colon and omentum. After separation of these adhesions, the gall bladder was seen to have an hour-glass contour, the fundus being constricted off from the rest by a narrow constriction, as if a ligature had been tied round it. No gall stones could be felt in the bladder or ducts. After packing around with sponges, this portion was opened and clear mucus found within. On introducing a probe, at first no communication could be found between this distal cyst and the rest of the gall bladder, but after a while a pinhole opening was detected. On passing through this, a very slight movement with the instrument broke down what appeared to be a slight and thin adhesion of the mucous lining, and then bile escaped. A drainage tube was fixed in the gall bladder and the abdominal wound closed. This came away on the ninth day, and the wound was perfectly healed on December 22nd, 1903.

The condition found suggested adhesion of an ulcerated mucous membrane consequent upon the previous presence of a gall stone, which had long since passed into the intestine through the normal channel. Possibly a similar explanation might account for the appearances presented in the next case, though this is hardly probable, since the dissepiments found within the gall bladder were so many, and the various cavities formed so various in shape and size.

Case V.

Mrs. S., aged 42, was sent to Ancoats Hospital by my friend, Dr. Harburn, of Buxton, in November, 1900. She was a widow, of perfectly regular menstrual habit, and had never had any children or miscarriages. She looked perfectly healthy. She said that she had been liable to bilious attacks but had had none for the last two years: that she had had two transitory attacks of jaundice: the last eight years before examination. She was in perfect health, however, until eighteen months since, when she began gradually to complain of a heavy, dull, sickly pain in the left lower quadrant of the abdomen and over the sacrum. About the same time there was some oedema of the ankles. The latter symptom, however, had been less during the last twelve months, and was now barely discernible. She had never had pain beneath the right costal margin, where Dr. Harburn had discovered a swelling.

On examination, a firm elastic mass could be felt below the lower edge of the right lobe of the liver in the gall-bladder area, which moved with respiration. Its outlines were rounded, and its lower extremity could be plainly outlined just above the level of the umbilicus. Its size was approximately that of a small cocoa nut. Its upper outline was lost beneath the liver. The abdominal veins were visible, and were, if anything, more marked on the left side. The size of the tumour appeared to her to have varied from time to time since it had been pointed out to her.

On December 3rd, 1900, a vertical incision was made through the right rectus muscle, over the tumour in the usual line. On opening the peritoneum a bluish grey tumour was seen, surrounded by omentum, which was loaded with fat, but was not adherent in any way to the mass. The tumour was easily turned out of the abdominal cavity, and was seen to be the greatly enlarged gall bladder. It was evidently transformed into a multilocular mass, the outer wall showing the outlines of the various cavities. To its lower extremity intestine was firmly adherent, and the adhesions contained large veins. As separation of these seemed undesirably risky, the lower extremity of the mass was stitched all round to the parietal peritoneum, after paracentesis of one or two of the larger cavities failed to bring about any notable diminution in its size. The main mass was then cut away, and the pedicle, which had a diameter of over an inch, left fixed in the abdominal wall. Some bleeding points in its circumference required a few ligatures. Gauze was packed around and over this.

Four days later she was somewhat jaundiced, and she was annoyed by a slight, but persistent cough. Bile had been escaping by a crescentic opening near the lower edge of the pedicle, but not to any great extent. There was for a time some abdominal distention, which was rapidly relieved by turpentine enemata. The stools varied in colour, sometimes light, sometimes evidently containing a normal amount of bile. The urine contained bile, but also in varying amounts.

As the wound had healed around the stump, but this remained practically unchanged, on January 28th, 1901, Paquelin's cautery was applied to its surface until it was mummified. After this it pretty rapidly contracted, but when she left the hospital on February 6th a biliary fistula still remained. This, however, closed entirely during the next two months.

In January, 1902, she married a second time, having been perfectly well in the meantime, and unfortunately became infected with the gonococcus almost immediately. In September she died with acute peritonitis following double salpingitis. I had the opportunity of inspecting the area of operation *post mortem*. The stump still lay in the abdominal wall, but was entirely covered by epithelium. Its continuation inwards was a normal cystic duct. Some small cystic cavities containing clear fluid were still descernible in the fragment of stump remaining; there were no secondary deposits, and no sign of new growth about the part still in existence. There were no gall stones.

The tumour on examination showed a large number of cystic cavities, of all sizes, generally polygonal in shape, owing to counter-pressure, containing clear mucoid fluid, but no calculi. The septa between them were composed of a central thin layer of connective tissue, lined on either side by mucous membrane. No sarcomatous or carcinomatous elements could be found.

It is far more usual to find a number of calculi in those cases in which they exist than single unfacetted specimens. It is, therefore, somewhat curious that I should have had 3 cases of single gall stones in a list of 35 upon which I have operated. One of these is of additional interest because of its probable causation.

CASE VI.

In April, 1903, I was asked by my friend Dr. Willis, of Gorton, to see with him a maiden lady, aged 48, who gave the following history.

When she was 4 years of age she was taken by her parents to New Zealand, where she lived for eighteen months; then she returned to England and has lived in this country ever since.

When 16 years of age she had a severe attack of pain in the right hypochondrium at the same point as she felt it in all succeeding attacks. This attack did not last long.

When 20 years of age she had a severe illness, which lasted about eight months, during four of which she was confined to bed. At this time she was deeply jaundiced, but has never been so since. This illness culminated in the suppuration and bursting through the epigastrium of a hydatid cyst.

For the last five or six years she had had intermittent attacks of paroxysmal pain. These attacks began as a dull ache over the hepatic region or with a feeling of dyspepsia; this might become gradually more acute, or the intense pain might begin suddenly. At times there was a dull pushing sensation in the gall-bladder area, at times it appeared to shoot, so that it made her jump. There accompanied all this an aching pain across the back below the scapulae, which was worst on the right side. The last attack of pain had been on April 10th, lasting for several hours, but not very intense. There was then an interval of a few hours, after which it returned again, and was only relieved by hypodermic morphine. The attacks had occurred every week or fortnight, but during the last few weeks before examination, they had been as often as two or three in a week.

Since morphine had been used, some vomiting had been noticed, but she believed that the drug was losing its effect, both as relieving pain, and as causing rejection of food.

The bowels had always been somewhat costive, but usually acted every day or every alternate day. The stools had never been white.

On April 19th, 1903, the abdomen was opened in the usual line. A long Riedel's lobe was found hanging downwards from the right hepa lobe, marked outside at the level of the costal arch by an oblique transverse line of fibrous tissue, which however did not penetra through its whole tissue. Behind this, a small contracted gall bladd which was adherent to stomach, colon, and duodenum contained o unfacetted calculus; its surface dark brown, and covered with sm irregular eminences, about the size of a hazel-nut. No other sto could be felt. The adhesions were separated, and a drainage tu placed in the gall bladder, which contained, besides the calculus, small quantity of muco-pus. The tube was removed on the third da Bile continued to flow by the wound for about two months, but ult mately the wound entirely healed. Dr. Willis writes, March, 1904: O patient has made a perfect recovery.

In this case, the sequence of events strongly suggests th the nucleus of the stone has probably been formed by one more hydatid hooklets.

A CASE OF LEAD ENCEPHALOPATHY.

BY W. ROSSELL JUDD, M.R.C.S.ENG., L.R.C.P.LOND.,
Ashton-under-Lyne.

AT 11 p.m. on February 16th of this year I was called to see young man, W. R., aged 23, and was told that he had been in fit since 9 p.m.. He left home in the evening for the purpos of attending a cricket meeting, and was apparently in goo health when at the above-mentioned time he was seized wit a fit.

Previous History.—He was a plumber by trade, and up to four yea ago enjoyed good health, when he had a similar fit, from which h recovered, and up to the last illness again enjoyed good health. He w very abstemious, never had colic, and was never troubled with const pation. On inquiry from relatives no history of neurosis could b elicited in his antecedents or in any living members of his family.

State on Examination.—On my arrival at his residence I found th patient in a state of violent epileptiform convulsions, almost amountin to acute delirium. On examination I found him to be well develope but slightly anaemic. The teeth were in a fairly good condition; the was no blue line on the gums; the tongue was slightly furred, and th breath not offensive. The pupils were contracted and did not react light. The knee-jerk was present, and the plantar reflexes were exa gerated. Temperature was subnormal. The pulse was frequent durin the height of the convulsions and almost imperceptible during th quiescent stage. The tension was poor.

Progress.—An enema was given, with the object of thorough emptying the bowel. Sinapisms were applied to the neck, precordium and calves. The convulsions showing no signs of subsiding, I gave rectal injection of chloral and potassium bromide. An hour after th no change having taken place, I gave a hypodermic injection of hyoscin hydrobromate ($\frac{1}{200}$ gr.). This quieted the patient, and he remaine in this quiescent condition until the following morning. I saw him a 8 a.m. on the 17th, and found him in a semi-comatose condition. The sam evening he again became very convulsed and passed urine involuntarily The hyoscine was repeated with renewed quiescence. This alternat condition of semi-coma and convulsions went on until the morning the 19th, when on my arrival I found him severely convulsed. decided to abstract a little blood, with the object of relieving an cerebral congestion; not having a wet-cupping apparatus at hand applied leeches to the cervical region, and by this means abstracte about 6 drachms of blood.

Result.—The patient, however, gradually sank into a state of com and died the same day, so that from the beginning of his illness o the 16th to his death on the 19th he never regained consciousness.

REMARKS.

Fortunately for diagnostic purposes the patient passed som urine prior to his leaving home on the evening of the seizure On analysis the urine presented the following features Specific gravity 1020, fair quantity of albumen, no sugar, n casts, presence of lead. The presence of lead was detecte by Von Jack's test much advocated by Abram and Marsden of Liverpool.[1] A deposit of lead was noticed upon th magnesium within an hour. I allowed the magnesium t remain in the urine for twelve hours, and after carefull washing and drying, on the application of a crystal of iodin and warming, a yellow discolorization took place due to th formation of iodide of lead. The presence of lead was furthe verified by confirmatory tests. I may add that to the busy practitioner the test is one of great simplicity, provided tha reliance can be placed upon the agents used—that is, to b free from any lead contamination.

The case is of interest from the fact that although this wa the first case under my personal care, two other cases seen during my hospital career had a fatal termination, so that on must agree with Dr. Oliver[2] that of all the lesions whic plumbism gives rise to, lead encephalopathy is the mos grave. The question arises, what is the actual cause of th convulsions?

Here we have a young man apparently in good health, with-
t any preliminary signs or symptoms of lead poisoning,
ddenly struck down by the most severe of convulsions,
nich terminate in his death. Has lead a special predilec-
n for the nervous system in certain individuals? If so,
e we to regard the convulsions as due to the direct irrita-
n of the lead upon the nervous system, or may we look
on the convulsions, as in the case of uraemia, due to auto-
oxication from the retention of harmful substances due to
fective renal metabolism?

References.
ncet, January 16th, 1897. 2 Clifford Allbutt's *System of Medicine* vol. ii, p. 988.

YPANOSOMIASIS AND MORBUS DORMITIVA.

By ALEX. MAXWELL ADAMS M.B., C.M.Edin.,
Late of the Gambia Protectorate.

the British Medical Journal, March 28th, 1903, there
eared an article of mine entitled Trypanosomiasis and its
se. In this I asked the question, "Has the trypanosome
relation to sleeping sickness?" pointing out that in
opeans the parasite is found in the peripheral circulation,
suggesting that the African lethargy is an identical
ase, and also that the parasite might be found in the
n centres blocking the capillaries, thus causing local
emia and corresponding somnolence.

his very important contention afterwards received con-
ation at the hands of Castellani and Bruce, who first pub-
ed their results in May and June. 1903, and in the report
e Royal Society, issued later on, Professor Castellani had
observed a trypanosome in the cerebro-spinal fluid about
end of the year 1902, but his opinion was that the disease
due to a streptococcus which he had isolated. My paper,
ten in December, 1902, could, therefore, not be influenced
his as yet unpublished observation. I was led to my
lusions by the following clinical considerations:

In the trypanosome fever and in sleeping sickness we
the same puffiness of the face and lower eyelids (I was
first I fancy to point out the fugitive nature of the
ma and temporary unilateral distribution).

Irritability and apathy in both instances.

The same alteration of voice—a characteristic huskiness.
not here allude to the changes in the speech of the
o where the sounds are unintelligible through paralysis
e tongue, but to a primal change in voice *timbre* noticed
in the disease, and in all probability due to a local
ma of the larynx. I have not seen this change remarked
by other observers. The symptoms in the two races
ed to me to differ in degree rather than in kind. The
difference appeared to be that the European, though
netic, seemed to have less capacity for sleep than usual,
hat the African suffered but slightly from the initial fever.

important point now arises, Colonel Bruce attributes
nfection to a species of tsetse fly, and no doubt in
da this holds correct. It is understood that no horse
xist in a country infested with this pest; and it is very
esting to note that in the Gambia (with the exception of
bo) we have the coexistence of horses and sleeping sick-
the horses in good health, and the sickness quite
al. Therefore, with this fly presumably absent, what is
rigin of the disease in the Gambia? In my previous
e I traced the origin to a rat-bite. However, people are
ten so bitten, and cases of the disease in this colony,
h somewhat scarce, are not uncommon. Hence I con-
that if the disease were caused by insect bites cases
l be numerous, and a state of affairs would exist similar
at we have on the Congo, where we hear of as many as
cases in one district alone; whereas in the Gambia it
e doubted if more than a few cases could be collected at
ime, facts which point to a different method of dis-
ation.

ndia there is a trypanosome disease in horses probably
l by the common horse fly, and I see little difference
en this species (*Tabanidae?*) and a fly found in the man-
swamps of the African river. This insect at times attacks
man species and might thus introduce the parasite.

n more disposed, however, to trace the disease to the rat
he Senegambia at least. I lean towards this view on
nt of the long-known and well-proved existence of try-
omiasis in that animal. Sir Patrick Manson suggests
rnithodorus moubata as a probable cause, but this
l is unknown in the Gambia, though, judging from
analogy, it is quite a possible vehicle of infection, especially when we bear in mind that the parasite of Texan cattle fever is carried by a tick.

Again, the *Halteridium* of birds has been shown to be one stage of a trypanosome, whose full sexual life is completed in the body of *Culex pipiens*. As long as the parasite continues its existence by indirect generations or fission, I can easily conceive of several species of blood-sucking insects conveying the fissiparous germs, and that different methods of infection are possible as in typhoid fever.

The real animal in which the complete sexual life of the parasite is reached has not yet been discovered. Till this is done, the tsetse and other flies must be looked upon as an indirect though no doubt an efficient mode of infection.

The elucidation of the complete cycle of the life-history of the trypanosome is necessary to the complete proof of its relation to sleeping sickness; and when this is done—as I have no doubt it will be—far-reaching practical results will be in sight. My former paper seems to have attracted little attention. In this I put forward my claim to be the first one who suggested that sleeping sickness was caused by a trypanosome, and, secondly (what is more difficult to prove), that the disease in the European and African is identical. Discussions in regard to priority have been rife in regard to this disease. The observations contained in my previous paper and this are, I venture to think, non-controversial, and cannot in any way be considered as minimising the splendid work accomplished by Nepveu, Dutton, Castellani, and Bruce.

AN ADDRESS ON THE PROPOSED MEDICAL ACTS AMENDMENT BILL.*

By J. P. WILLIAMS-FREEMAN, M.D.Durh.,
Chairman of the Division.

Gentlemen,—The Committee of the Division which was called to arrange for this meeting suggested that it might tend to expedite the long and somewhat tiresome business before us, if I should, instead of giving a presidential address on some medical or surgical subject, endeavour to analyse and summarize this proposed Bill to Amend the Medical Acts which has been drafted by the Medico-Political Committee of our Association, and which the Council has sent down for our consideration to-night. In doing so, therefore, I am responsible only for the manner and not for the matter with which I shall try your patience.

There is one central fact which we must never lose sight of in a discussion on this subject, and that is that the Medical Acts of the past and any new legislation which we may hope to get enacted in the future can only be for the benefit of the public, and not for that of the medical profession. No doubt we are quite right to try to bring before Parliament the interests of the profession, and the public would wish to see them safeguarded, but only in so far as those interests are their interests, and not for our professional benefit. They do not wish to work the willing horse to death—they are even anxious to improve the breed of horses—but as only workers for the general weal. The days of special legislation for professional and class interests are happily nearly over.

It may seem unnecessary to insist on this, but I have done so because there is always a natural tendency to forget this principle—not certainly more amongst us than in the ranks of other learned professions—but enough I think to make us often overstate our case and do harm rather than good to our best interests. I doubt, for instance, whether the excited agitation which some of our friends thought fit to indulge in in connexion with the Midwives Bill has done much to raise the profession in the estimation of the public.

The great central change in the Bill before you is the establishment of one uniform State examination held by the General Medical Council, without passing which no one can practise medicine in the United Kingdom or (subject to any local law) in any part of the empire.

The early parts of the Bill lead up to this examination, and Part VI consists of penal clauses to protect the public from practitioners who have not passed it. It is this penal portion that will perhaps excite most discussion. The public likes and always has liked quacks of all descriptions. A certain interest in the unusual, a vein of superstitious credulity in the mysterious (*omne ignotum pro magnifico*) which runs

* Delivered before the Salisbury Division of the Southern Branch of the British Medical Association.

through most people, a mistrust of anything like professional narrowness and even of expert evidence, and the ever-ready suspicion of professional jealousy, all go to make silly people run after the quack. People actuated by such ideas—they are usually of high rank and low education—I should never wish to protect; the fool in his folly may be left to work out his own salvation. All we can do is to guard ourselves against narrowness and jealousy, and keep ourselves to the front in all scientific knowledge, and having done that we may be permitted to derive a good deal of quiet amusement by watching the irregular antics both of the patient and the enterprising practitioner.

But there are others; there is the wretched incurable whose friends have not the mental capacity to grasp and face the situation, and who rush frantically from one quack cure to another in their efforts to escape the inevitable. These we have no power to help. And there is, finally, the largest and most important class, happily growing smaller every year—the poorer people who are genuinely unable to distinguish between the qualified and the unqualified "doctor," between the real and the bogus "professor," who really believe the clever quack advertisements which fill their newspapers, and who, even if they are not imposed upon, are often driven to consult a chemist or a herbalist because his fees are within their means. This class, I think, we are called upon to protect to the extent of making deception as nearly impossible as we can, and this Bill does a great deal to make the qualified practitioner distinguishable and also to prosecute impostors. Whether it is possible or desirable so to interfere with the liberty of the subject as to make it punishable for a man to sell to a willing purchaser his advice on any subject whatever is a question on which every man will have his own opinion. Personally I do not think it is.

But to turn to the Bill. Part I concerns itself with the constitution and powers of the General Medical Council, whose full title as at present constituted it is well to remember. It is the General Council of Medical Education and Registration of the United Kingdom. It shall consist of 22 registered medical practitioners and 1 registered dental surgeon, in place of 31 as now constituted. Of these, 5 shall be nominated by the Privy Council, as at present; 9 by the universities and medical corporations of the United Kingdom, as against 21 at present; and there are to be 8 direct representatives as against 5 in the present Council. The direct dental representation is an innovation that I think we shall all approve and may possibly consider might be increased with advantage. The rest of Part I. Clauses 2 to 11, concerns the methods of election of members and their officers, and the payment of their fees and expenses.

Part II deals with the Registration of Medical Students. It provides for a preliminary examination and for temporary or permanent removal from the *Register* in case of misconduct.

Part III deals with the Education of Students. It establishes one final State Examination in Medicine, Surgery, and Midwifery for everybody. The General Medical Council to appoint the examiners and direct the conduct of the examination. It also arranges for intermediate examinations in subjects prescribed by the General Medical Council to be held by medical corporations and universities, which examinations as well as the medical schools may be inspected by the General Medical Council, and on their recommendation the Privy Council may withhold recognition as qualifying for entrance to the State examination.

Clause 16 is new and important. It provides for the appointment of Assistant Examiners at these intermediate examinations if the General Medical Council think fit, their fees, I observe, being determined by the Council but paid by the Medical Corporation.

Part IV provides that in future no person can be registered unless he has passed the State Examination, that the registration fee be £1, and that every registered practitioner in the empire (those already registered beginning five years after the passing of the Act) must pay an annual registration fee of £1 to keep his name on the *Register*. This provision (which I believe is copied from the Solicitors) would give the General Medical Council an income of over £37,000, which I should think would suffice to pay the examiners handsomely as well as to provide the fees and expenses of the members of Council.

Part V is financial, and provides for the transfer of funds and expenses from the Branch Councils to the General Medical Council.

Part VI consists of penal clauses.

Clause 25 enacts that the General Medical Council may suspend or strike off the *Register* any practitioner who shall have committed a felony or misdemeanour or be judged by them to have been guilty of conduct infamous or *unbecoming* a professional respect. I must confess this last word do seem too wide; one must remember that there is no appe and a practitioner is absolutely at the mercy of a profession tribunal, with no lay assessors to guard against prejudices.

Clause 26 invests the General Medical Council with the powers of a court of justice. Would it not be safer the General Medical Council to bring the black sheep of the profession before the ordinary court to be dealt with as in the case of solicitors?

Clause 28 provides that no unregistered person shall practise medicine, surgery, or midwifery habitually and gain, be entitled to recover fees, or hold any medical appointments, or sign any certificate of death, stillbirth or sickness which purports to be a medical certificate or implies that the person signing it is possessed of medical skill and knowledge. Midwives are exempt by a later clause. The whole question of death certification I think we shall agree is ripe for legislation, and the Act proposed in the last Parliament would itself be a great protection against irregular practice both to the public and the profession.

Clause 29 provides that nobody may grant medical degrees or diplomas to persons until they have been registered, so that the State examination is to be the first qualification a student can get. This would, of course, tend to diminish the number who would go in for diplomas of the lower grades.

Clause 30 is the most radical in the Bill. It must be read *in extenso*:

Penalty for Practice by Unregistered Persons.—Any person who is not registered under this Act and who (1) *medically treats patients*, or (2) otherwise practises medicine, surgery, or midwifery; or (3) *performs any surgical operation* for which he demands or receives any fee, gratuity, or remuneration, and also any person who not being registered under the Act, (4) *pretends to be*, or takes or uses the name or title of physician or surgeon, doctor of medicine, licentiate of or bachelor of medicine of surgery, or master in surgery or assumes any other style, title, addition, designation, or description either attached to the name of the person or to his place of residence or business, or otherwise exhibited implying that he possesses the skill and knowledge necessary for the practice of medicine, surgery, or midwifery, or that he is recognized by law as a physician or surgeon or licentiate in medicine or surgery or midwifery or a practitioner in medicine, or an apothecary, shall be guilty of an offence under this Act, and shall on summary conviction under the Summary Jurisdiction Acts be liable (1) for the first offence to a penalty not less than ten and not exceeding twenty pounds, and to imprisonment in default of payment of no longer than two calendar months, and (2) for each subsequent offence to a penalty not less than twenty and not exceeding forty pounds, and to imprisonment in default of payment for not longer than six calendar months.

This is very severe. I take it (1) would cover chemists who prescribed a diarrhoea mixture; (2) would cover herbalists and private sanitary house inspectors; (3) would apply to a tooth-drawer or a chiropodist, and (4) would include the proprietors of Dr. Williams's Pink Pills or Dr. McLaughlin's Electric Belts. I think we shall all agree that (4) is admirably calculated to give proper protection to the public; whether parts (1), (2), and (3) are either desirable or practicable is more a matter of opinion.

Under Clause 32 the General Medical Council receives the fines.

Clause 33 prevents a patent medicine being falsely sold as the prescription of a living or deceased registered person, the fine being paid to the aggrieved person. If deceased who to?

Clause 34 provides that every person practising, whether principal, assistant, or deputy must have his plate up.

Clause 35 permits any foreigner qualified in his own country to come to a consultation in this country and to act as medical officer in a hospital for foreigners.

Part VII contains definitions, and provides that persons registered before the Act may continue to enjoy their privileges.

Clause 39 provides that nothing in this Act shall apply to midwives—which I submit is not very happily worded, since it apparently entitles them to practise medicine and surgery, sign death certificates, and even grant degrees!

These, gentlemen, are the chief provisions of this proposed Bill. Though it is easy enough to criticize it I think it is an honest attempt to deal with a very difficult subject. It

nitted to us for our consideration, and it is for you to
e proposals to help the Council in their deliberations
it.

CONSULTATIONS BETWEEN MEDICAL WITNESSES.

By W. J. GREER, F.R.C.S., D.P.H.IREL.,
rary Secretary and Treasurer, Monmouth Division of the South
es and Monmouthshire Branch of the British Medical Association.

perhaps hardly necessary to apologize for calling the attention of the members of our Association to the rtance of the issue involved in the discussion on this ct. The Medico-Political Committee has sent to the ions for decision a matter which will require to be ached in a cautious and judicial manner, as the final will be embodied in an ethical rule, and will be binding members of the Association.

an hardly be doubted that, however difficult the subject e, it is distinctly to the advantage of the profession that t Association like ours should endeavour to formulate a f conduct out of this controversy. In dealing with this y it would seem well to adopt the political spirit, at the time keeping clearly before us that "it makes all the nce in the world whether we put Truth in the first place he second place."

sibly the class of cases that come under the notice of the st number of us, will be those involving the Employers' ity and Workmen's Compensation Acts. It is in these harp differences of opinion are exhibited. The public seem evidently to take a very great interest in these ys, for the combatants are often advertised in the local nder the heading "Doctors Differ."

ch incidents could be prevented by the ruling suggested recommendation, then by all means let us adopt it. would be folly to proclaim a law unless we can make it able in its application and binding in its effects. Now uite unnecessary to insist that the guiding principle of medical witness who enters the box is to tell the truth. ill be readily conceded by all of us, no matter on which e appear.

rithstanding this our differences of opinion in the wit-ox create in a sinful public a smile. It happens that nions as medical men are sought in perhaps two ways: give an exact account of the facts of the case, and iassed opinion on them; another way, to emphasize ourable facts in a case for the side which employs one. uestion is usually put thus: (*a*) Will you kindly e A. B. and give us your opinion as to the precise con- Or (*b*) We shall be glad to know if you can kindly e A. B. and appear in court on his (or our) behalf? ntleman who writes the second letter has no doubt of tice of his case and seeks the sympathetic co-operation medical man. No matter in what way the request to e is worded, it is pretty generally understood that the ich employs us has a distinct hope that we shall be lean somewhat in their favour.

brings us abruptly to the question, Do the etiquette nourable traditions of our profession permit medical es to be partisans? It is truly to be doubted if a plain o can be given to this question any more than to that urite, "Have you left off beating your wife?"

regard to the second form of inquiry mentioned as nly received from solicitors, it may be said that in this articular opinion is suggested, but the report which n up and sent by the examiner will clearly state the d the opinion, and the inquirer will at a glance know uitable to his case. If it is favourable to the inquirer's d this may surely often happen without duplicity, l hardly be fair to say that in this case the favourable is suggested. Taking it for granted that the case goes rt and the medical witness appears, counsel in the ation in chief soon presents the witness and all the ce of his qualifications in a partisan light; the other k upon him as a hostile witness and proceed to ur to weaken his statements by cross examination. ss-examination being usually prompted by the medical that side. The witness is expected to stick to his nd in doing this, if he has been careful to found his firmly on the facts, always, of course, presuming that s honestly bear the interpretation presented, the becomes not only a partisan but something of an e. If he has not formed his opinion or is not able to hold to it under cross-examination, he may do a grave injury and a serious injustice to his client. It may be considered by many that this prompting of counsel is one of the most certain ways of producing a sharp conflict of evidence; it raises the further question, Is this custom in accordance with the best interests of the profession? Will consultations between medical witnesses entirely do away with all this? Whatever view the legal profession and the public may take of it, we cannot think that this clashing of opinions, however enjoyable the subtlety of intellect displayed by the combatants may be, tends to raise our position.

This being admitted, we may now turn to inquire how this undesirable conflict can be avoided. The suggestion in the recommendation before us is that a consultation is the best means of settling our differences; that is to say, to arbitrate before going into court. Now, it is said by those who have most frequently to deal with these matters that arbitration is a very good thing when you have a weak case; that the best pleaders in an arbitration are those who can get the most information out of the other side without giving anything away of the weakness of their own side. If the medical witnesses who go in to consult happen to be so worldly as to know of this canon, then the consultation would be a bright example of how not to conduct a consultation, and this could hardly tend to honesty in consultations in general. It appears tolerably certain that to be on the winning side is an instinct as firmly planted in the medical as in the lay breast, so that a compromise is not likely to be effected between two strong-minded medical men well up in their work; besides, compromise is not a very popular word amongst litigants. It is said that it may be heard as a ground of complaint against counsel that some of these learned gentlemen are too ready to compromise.

Again, if the gentlemen who employ us object to this consultation compromise, a ready method of stopping it would be to omit the extra fee which this formality will surely require. Our reply to that, if we were a combined profession, would be to insist on the consultation and on the fee, but alas for a combined profession! The consultation fee, if it could be insisted on would tend to encourage the workman's doctor to be present more often than he is when the employer's doctor makes his examination, or if a consultation is not intended at this stage it would help to ensure the medical witnesses coming together later. Here it will benefit the discussion to intercalate the question, Who is going to pay the fee?

This consultation will mean a careful discussion, which will occupy considerable time. It will mean that the result of the conference will be explicitly written out and signed. It can hardly be contended that this extra work is to be done without an extra fee. It seems clear that the successful working of the proposition will be the greater in direct proportion to the lesser contentious nature of the case. If strongly divergent opinions are formed during the consultation and are irreconcilable, then the consultation is a failure, or worse. On the other hand, if an agreement can be arrived at, then the case is settled, as far as the medical side is concerned, before going into court. This will, of course, be of great advantage to the medical men; but how will the parties look at it—at least, those who like a sporting chance in open court? It must not be forgotten that the ordeal of the witness-box is not avoided by this consultation, that learned counsel are not parties to the conference, and that the galling fire of cross-examination may elicit such replies as may give the advocates an opportunity of exercising their art, and that the result of this may surprise the medical witnesses.

Again, let us suppose a case in which the consultants are in agreement as to the facts. Say, a boiler maker has had a severe injury to his shoulder causing a fracture into the joint, he has been receiving compensation for twelve months, it is agreed that the fracture has united in good position, the question is, Can he work? The employer's doctor thinks that he can work—that it would be good for him to work; the man's doctor thinks that he cannot work for at least three months. Are they to "split the difference" and go into court and swear that the man can go to work in six weeks?

Another very serious matter that must be considered in this discussion is that the workman's doctor may endanger his livelihood if the workmen think that he is too ready to compromise with the employer's doctor.

Passing to another matter, it may be remembered that if these consultations are successful, then to the hard-worked (?) medical referee the only honour that will be left is to keep his distinction after his name in the *Medical*

Directory with the hope that some football secretary may see it and request the doctor to act on the field in his dual capacity.

As to the "expert witness" and the "rising witness" in medical matters, perhaps he had better go; but as this individual is usually of vigorous growth he will give some trouble in his passing. At any rate, if it is for the common good of the profession, he must go.

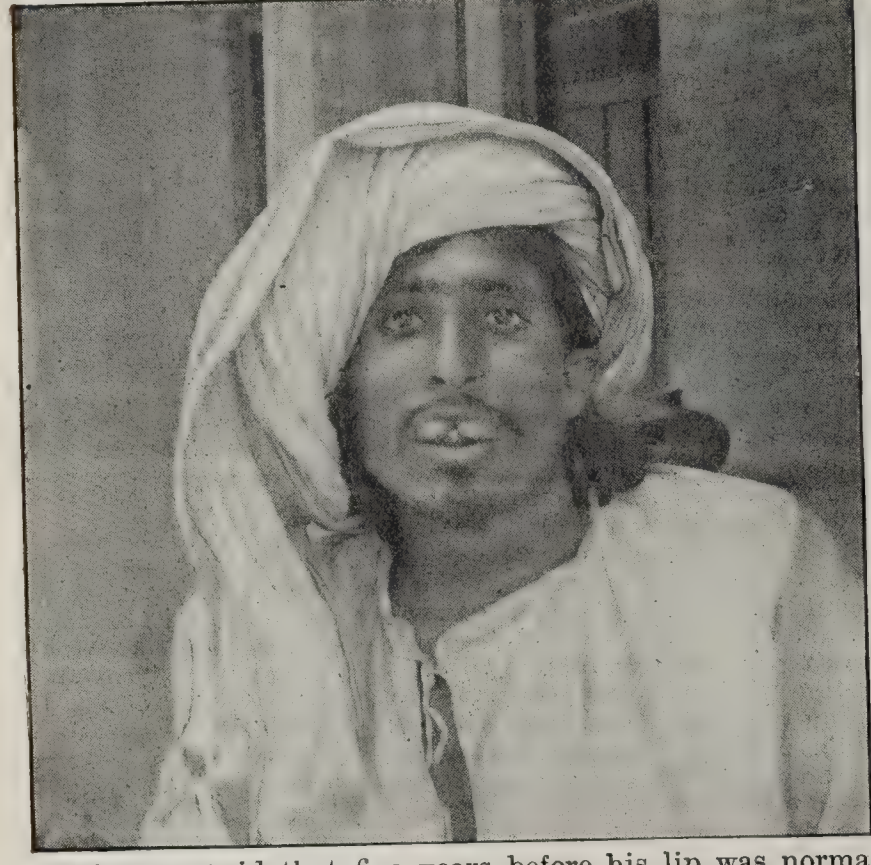
Finally, can we hope that if the recommendation is adopted an immediate future will see us holding up our hands in pious horror at the memory of past public exhibitions of doctors' differences and feel thankful that these have passed away like the baseless fabric of a vision?

MEMORANDA:

MEDICAL, SURGICAL, OBSTETRICAL, THERAPEUTICAL, PATHOLOGICAL, ETC.

MEDIAN HARE-LIP.

THE annexed illustration is from a photograph of a man with a curious simulation of median hare-lip. I have since met two other examples of this deformity. On either side of the median fissure is a tumour-like protuberance, which was painless, and distinctly shotty on palpation.



This man said that five years before his lip was normal, and that a fissure gradually came in the centre without ulceration. Since seeing this case I have met with others whose history corresponded except in length of years. There was no evidence of either syphilis or tuberculosis in any of the cases, and except for appearance the condition gave no trouble. I believe the condition to be a symmetrical adenoma of the mucous glands of the lip. I was not able to verify this, and should be glad to have suggestions on the point, and to hear if other instances of a similar deformity have been recorded,

W. H. LOWMAN, M.B., B.S., F.R.C.S.

Dera Ismail Khan, North-West Frontier Province, India.

ACUTE YELLOW ATROPHY OF THE LIVER.

As this disease is one of comparative rarity, it will be interesting to record the history of the following case, which shows so strong a similitude to the ordinary type.

L. P., aged 10 years, eighteen months previous to the present illness had an acute attack of catarrhal jaundice. Convalescence was not altogether complete, there still being a recurrence of dyspeptic symptoms, biliousness, with marked mental depression, a condition continuing more or less up to the onset of the second illness. There was still a perceptible yellowness of the skin and a slight tendency to pipeclay stools. Her parents testify to the extremely tremulous condition of the limbs at this time, resembling ve closely that of a person with senile tremors.

The present illness commenced on November 13th, 19 with delirium, rise of temperature, quick pulse, nausea a vomiting, pain in hepatic region, bile-stained urine, and cl coloured stools suggesting at the time a typical case of t non-obstructive form of jaundice, and it was treated as su On November 15th mental delirium was absent, sympto abated, and the patient seemed improved. Up to Novem 29th the state of the patient fluctuated, but her conditi then became distinctly alarming; delirium became m pronounced, with grinding of the teeth, occasional conv sions, sordes on lips and gums, epistaxis, haemorrhage fr the mucous membrane of the mouth, stomach, and intesti the pupils were dilated, and the liver dullness showed n distinct diminution. Examination of the urine showed t presence of leucin and tyrosin; there was no optic neurit a pronounced feature was twitching of the masseters; t jaundice became gradually deeper, and finally the pati was quite unable to retain anything in the stomach; t temperature was subnormal, and nutriment with medici treatment was now resorted to per rectum. On the even of December 3rd coma rapidly set in and death occurred the morning of December 4th.

The special features of the case were its strong likeness the early stage to simple catarrhal jaundice and the fact t coma did not set in until very late in the disease. Unless cause slight abatement of symptoms, all the forms of tr ment resorted to proved equally futile. Unfortunately necropsy was out of the question; still no confirmatory e dence was necessary, as the whole case was so typical.

Middleton, Manchester. G. O. ROBERTSON, M.A., M.B., Ch.B

SPONTANEOUS RUPTURE OF THE ABDOMINAL WALL.

CASES such as that reported here must be so extremely r that I offer no excuse for publishing it.

T., aged 40 days, a male Chinese infant, was brou to the Mission Hospital, Tainan, Formosa, on January 1 at 9 p.m. with the following history:

There had been no difficulty at its birth, and the ch appeared to be perfectly healthy. The cord drop off at the end of about a week, and the mother quite certain, and never varied in her statem though carefully cross-questioned, that never then since had there been any protrusion of the navel.

The child was perfectly well till five days before admissi Up till that date motions had been passed daily, and w quite healthy in appearance. The child then had what wo seem to have been an attack of acute enteritis. He had c stant diarrhoea with a great deal of straining, and in the tervals between these motions was always crying.

This was the condition of things when the mother wen sleep on the night of January 14th. In the middle of night she got up, and on going to change the child found th small portion of bowel was protruding at the navel. more the child cried the more bowel protruded. The wom lived some miles away, and the next day seems to have b taken up by a general family council as to what should done with the patient, so that it was not till 9 p.m. on Janu 15th that the child arrived at the hospital.

I found a clean hole about the size of a shilling at the na through which the greater part of the small intestine with caecum and ascending colon protruded. The bowel was v congested and covered with flakes of lymph. The child very collapsed. The bowel was cleansed as much as possi an abdominal incision made upwards and downwards with an anaesthetic, and the bowel replaced with considerable d culty. The incision was then closed with sutures. The ch lived for about six hours after the operation, but never ral properly. There was no necropsy.

Formosa. JAMES L. MAXWELL, M.D.Lon

SCIATICA AND LUMBAGO.

I HAVE no doubt many have found the above disorders intractable to treatment in certain cases. When metaboli origin, or symptomatic of the rheumatic habit, after emp ing all the well-known remedies with no benefit to my pati I have within the last few years found a sheet-anchor in p carpin nitrate gr. ⅓ injected subcutaneously every nigh every other night, with the exhibition of a saline purge croton oil ♏j once a week. Of course painful points chosen for the injection.

he most hopeless case of sciatica I ever met yielded to a sistent course of this scheme of treatment in three weeks. re is, I suppose, no universal specific for either the one or other, but in desperate cases the above, in my experience, orth a trial. The only bar is in a case where cardiac dis- is present, but few medical men have not found out that carpin is badly borne in the presence of organic disease of heart.

rlborough. J. Farquhar, M.D.

REPORTS

ON

EDICAL AND SURGICAL PRACTICE IN THE HOSPITALS AND ASYLUMS OF THE BRITISH EMPIRE.

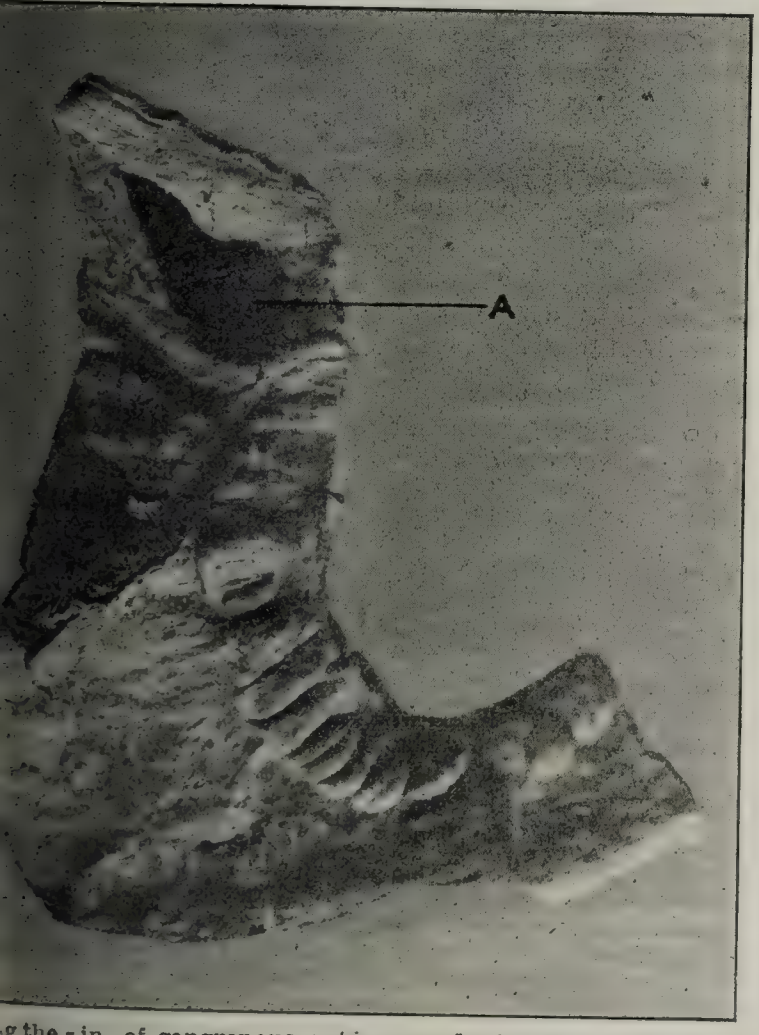
GOCULDASS TEJPAL HOSPITAL, BOMBAY.

OF STRANGULATED INGUINAL HERNIA: PERFORATION OF THE BOWEL: RESECTION OF 7 IN. OF GANGRENOUS GUT: RECOVERY.

(W. H. Burke, B.A., M.B., B.Ch., etc., Lieutenant-Colonel I.M.S., Surgeon in charge the Hospital.)

ory.—Ebrahim Khan, aged 30, a fairly robust Mohammedan, was ted to the hospital on March 30th, 1903. Three days before ad- n, while walking with a heavy load on his head, he felt a sensa- f something having given way, and simultaneously felt severe and noticed a swelling on the right side of his scrotum. He that this was the third time that the hernia had come down, but n the two previous occasions he had been able to return it and e wore an improvised suspensory bandage to keep it in place. wels had been constipated since the hernia came down. On the f March 30th he was very restless, and vomiting of a stercora- character set in.

ation.—Patient was seen by me on March 31st, and at 11.30 a.m. rought under the influence of chloroform. On opening the sac a ty of liquid faeces escaped. The hernia was found to be a large ele containing many coils of small intestine, much inflamed and together, while one loop was in a gangrenous condition, and in ortion a perforation of the gut (as shown below) had taken



g the 7 in. of gangrenous gut removed. Specimen preserved in alcohol. The dark portion A shows the perforation.

After freeing the constriction, which was at the internal abdo- ng, I decided to resect the whole of this gangrenous gut and to e cut ends. I divided the mesentery gradually, ligaturing it l with catgut sutures. The cut ends of the gut were brought into careful apposition by a series of catgut Lembert sutures, after which I was pleased to see the united gut inflate like a bicycle tube. I then returned the whole hernia cautiously into the abdomen, divided and closed the sac above with catgut sutures, returned it into the abdomen, and sutured the pillars of the ring with two deep silk-worm gut sutures. I removed a portion only of the lower portion of the sac, and did not dissect out the whole sac as I usually do, as the patient's condition was such as to indicate the advisability of rapidly terminating the operation. I put in a small rubber drainage tube, making a counter-opening in the scrotum below, and closed the wound, using silkworm gut for the buried, and silk for the skin sutures.

The antiseptic used before opening the sac was biniodide of mercury; afterwards boracic acid and saline solution were used. One hypodermic injection of digitalis and ether was given during the operation.

Progress.—The patient was fed entirely by enemata (eggs, milk, and brandy) for four and a-half days; on the evening of the fifth day 1 drachm of Brand's essence of beef was given every three hours. On the sixth day, besides this, he was allowed by the mouth 1 oz. of a mixture of one part of cream to two parts of barley water. On the ninth day he was given four oz. of Benger's food every two hours in addition; the nutrient enemata were gradually discontinued, while his food by the mouth was gradually increased, but he did not resume his ordinary diet until 4 weeks after the operation. During the first twenty-four hours after the operation the patient passed five stools, which were offensive and contained blood-stained serum, but from that time on the stools became normal in appearance and free from abnormal fetor. The wound was dressed on April 1st, and the drainage tube removed: subsequently it was dressed every third, and finally every fourth, day only. There was no suppuration; the patient never complained of any pain; a little thickening remains around the cord where the lower portion of the sac was left; the hernial opening is apparently permanently closed. The patient walked on the twenty-seventh day and left the hospital on May 5th. The temperature after the operation never rose above 100° and it reached that point on two occasions only; it was usually normal or subnormal. I was assisted at the operation by my house-surgeon, Assistant-Surgeon Lafond, and for the careful nursing of the case I am indebted to Charge-Nurse Flynn.

Remarks.—I consider that this case is interesting as the result is much better than what I could have expected if I had followed the course usually adopted in a case such as I have described, namely, the removal of the gangrenous gut and the making of an artificial anus, which would either have remained or have had to be dealt with by a subsequent partial laparotomy with greater resultant tendency to hernia. Mr. William Thorburn, in his interesting paper on an analysis of 110 operations for strangulated hernia, published in the British Medical Journal for April 25th, 1903, says: "The condition of the intestine varied within the widest limits, but actual gangrene or perforation had occurred in 10 instances only;" also that "in 9 of the 27 (fatal) cases the intestine was gangrenous or perforated by ulceration.....of 10 cases with perforation or gangrene, only 1 recovered." In only 2 cases of the 110 published by Mr. William Thorburn was resection of the gut practised, and both of these cases died within a few hours.

WEST LONDON HOSPITAL.

BREAKAGE OF A COIN-CATCHER: GASTROTOMY: RECOVERY.

(Reported by Donald Armour, M.B., F.R.C.S., Assistant Surgeon to the Hospital.)

This case illustrates the possibility of a dangerous accident occurring in the employment of the coin-catcher now in general use, an accident apparently as unexpected as unpreventable; and, secondly, it shows that operations upon the stomach in young children, when rapidly performed, are not so fraught with danger as is generally supposed.

History.—On the evening of June 16th, 1903, J. H., a boy of 5 years was brought by his mother to the casualty department of the West London Hospital with the history of having swallowed a "coronation medal." On examination by the house-surgeon with the fluorescent screen, the "medal"—or, as it turned out to be, a public-house token the size of a halfpenny—was seen lodged at the level of the sinus pyriformis. The coin-catcher was passed down and seen to engage the coin. On traction being made, however, to withdraw the coin, the coin-catcher broke at the junction of the metal portion with the whalebone handle. The metal portion, 5 in. in length, then passed on down the oesophagus, presumably into the stomach.

State on Examination.—I was sent for, and, reaching the hospital about two hours after, found the child resting quietly, complaining of no symptom beyond his throat "feeling sore." On examination again with the fluorescent screen the coin was readily seen as before, its position unaltered. Nothing was made out in the stomach, but a very faint shadow was seen in the position of the lower end of the oesophagus. This only appeared at intervals and was scarcely to be discerned. These facts, therefore, led me to believe that the coin-catcher was lodged in the lower end of the oesophagus. and was prevented for some reason from passing into the stomach. Nor was there any likelihood of being able to extract it through the mouth without severe injury to the oesophagus owing to its sharp broken end, which was

uppermost, and its great flexibility. It was therefore decided to operate.

Operation.—With the child under chloroform the coin was just felt with the tip of the index finger passed through the mouth. A pair of curved crocodile forceps was passed along the finger and the coin easily seized and withdrawn. An incision 3 in. long was then made just to the left of the middle line above the umbilicus. The stomach at once presented. It was carefully palpated, but found to be empty. Its anterior wall was then invaginated and the index finger passed up through the cardiac orifice. The end of the coin catcher could just be felt against the tip of the finger, but disappeared again at once owing to the forcible contraction of the orifice by which the finger was forced out. A small part of the anterior wall of the stomach was then drawn out through the abdominal wound, and carefully surrounded with sterile gauze. A vertical opening just large enough to admit the index finger was made in the stomach midway between its upper and lower borders. Through this the finger was passed into the stomach and up through its cardiac orifice into the oseophagus, where again the lower end of the coin-catcher could just be reached. A pair of curved crocodile forceps was then passed along the finger up into the oesophagus, and the piece of the coin-catcher seized and withdrawn. The wound in the stomach was sewn up by a continuous catgut suture through all the coats, covered in by a continuous celluloid Lembert suture through the serous coat. The abdominal wound was closed by continuous catgut sutures for the different layers, and interrupted silkworm gut sutures for the skin. No drainage was used.

The child showed no signs of shock as the result of the operation. He was fed by nutrient enemata for two days following the operation, and then on fluids, gradually increased in amount, by the mouth. The night following the operation he vomited some "coffee ground" fluid. His temperature rose to 100° F., and his pulse to 116 per minute at 10 o'clock the same night—that is, exactly 24 hours after operation, but immediately dropped again to normal, in which state they remained until his discharge on July 11th, 24 days after operation. The abdominal wound healed per primam.

British Medical Association.

CLINICAL AND SCIENTIFIC PROCEEDINGS.

GRAHAMSTOWN AND EASTERN PROVINCE BRANCH.

A MEETING of this Branch was held on March 12th; Dr. PURVES, President, in the chair.

Malarial Disease in South Africa.—Dr. EDINGTON read notes on malarial disease in South Africa, and detailed the steps by which he had been able to prove a common origin for the three diseases of stock—namely, horse sickness, veld sickness or imapunga in cattle, and heart water in sheep and goats; and to pass from one disease to another at will. The record of the inoculation experiments was illustrated by temperature charts, and formed a most interesting and convincing demonstration.

Modified Horse Sickness.—Dr. EDINGTON showed further a slide of horse blood containing an intracorpuscular parasite. This was obtained by inoculating a clean imported horse from an ordinary cabhorse in Grahamstown whose blood showed no parasites. Dr. Edington suggested that the disease, which had an incubation period and a febrile course, was a modified form of horse sickness of a malarial type.

Aneurysm of Descending Aorta.—Dr. GREATHEAD showed a specimen of aneurysm of the descending aorta causing death by rupture into the left pleural cavity in a woman of 35. The heart and arch of the aorta were perfectly natural.

Other Communications.—The PRESIDENT showed a section of carcinoma removed during the progress of a Dutch "cure."—A communication, illustrated by photographs, from Dr. HILL AITKEN of East London was read, dealing with the effect of respiratory exercises on enteroptosis and dyspepsia.

PERTHSHIRE BRANCH.

A CLINICAL meeting of this Branch was held in Perth Infirmary on February 26th, Dr. KENNEDY, President, in the chair.

Cases.—Dr. STIRLING demonstrated by *x* rays the location of a needle in a boy's hand, just admitted, which he removed later. He also showed (1) a patient with an abdominal cyst; the patient, an old woman, admitted for fracture of the femur, was found to have a rapidly-growing right ovarian cyst; (2) three cases of lupus of the nose treated by the Finsen light with improvement; and (3) a case of oculomotor paralysis of the right eye in an old woman,—Dr. PATON showed a young woman admitted in a typhoid state, with marked constipation and vomiting. On examining the ... tum for some discharge noticed coming from that regi... a hard mass was felt in the vagina, which turned out to ... ring pessary *in situ* for two years, which was at once remov... the odour was terrible, and a great deal of ulceration was ... sent in the vagina. The condition was due to this ... improvement at once followed.—Dr. TAYLOR showed: (1) A ... case of cerebro-spinal paralysis in a man aged 26; paral... started in the right arm and leg and passed off, affect... then the left side; there was continual cerebral vomit... nystagmus, fundus normal. (2) Two cases of malig... growth, one involving the liver and gall bladder w... increasing jaundice, the other involving the stomach ... secondarily the liver. (3) A case of general psoriasis imp... ing rapidly with alkaline baths, arsenic, and thyroid t... ment. (4) A case of antitoxin rash two days after injec... subcutaneously of 6,000 units. The above cases were sh... in the wards. Afterwards Dr. Taylor read a short pape... the administration of antitoxin in diphtheria, giving de... of his experience with high dosage.

Appointment of Joint Secretary.—On the motion of ... TAYLOR, seconded by Dr. MORTON BURNETT, Dr. Alexa... Trotter was appointed Joint Secretary.

REPORTS OF SOCIETIES.

ROYAL MEDICAL AND CHIRURGICAL SOCIETY.

Sir R. DOUGLAS POWELL, K.C.V.O., President, in the Ch...

Tuesday, April 12th, 1904.

THE MENTAL CONDITION IN EPILEPSY IN RELATION T... PROGNOSIS.

DR. W. ALDREN TURNER read a paper on this subject ... on 161 colony cases. Sex had little influence on the m... condition, but males were numerically more afflicted ... females (91 as compared with 78 per cent.), but the hig... degree of dementia was somewhat more common in wo... A family predisposition to epilepsy and insanity favo... mental impairment. The duration of the disease influe... to some extent the mental condition. The earlier the ... of epilepsy, especially during infancy and childhood, th... the probability of an unimpaired mental state. The ... foundest degree of dementia was most commonly seen ... the major and minor attacks coexisted. The more frec... the seizures the greater the degree of mental impairm... Fits recurring in series were accompanied by a high gra... dementia. The view was upheld that the interparoxy... mental condition seen in most cases of epilepsy was on... pression of a neurosis of which the fits constituted anc... Of the 161 cases, 13.6 per cent. were intellectually no... 31.6 with impaired memory, 25.4 feeble-minded, and 29.1 ... demented.

Dr. FLETCHER BEACH believed that the explanation ... greater mental deterioration in the epilepsy that dated ... childhood was that nerve instability was greater in early ... and that education was lacking. In certain colony case... tinct improvement in the disease followed, according t... own observation, on systematic school education. A... epileptic idiots who were under his care it was noticed ... when an attack occurred in school hours the patient not... forgot all taught that day, but also all that had been le... during the previous week.

Dr. BOND referred to other conditions allied to heredi... factors in prognosis, such as difficult labours and juve... of the parents. The fits were not the essential disease ... nature was as yet unknown.

Dr. TURNER replied.

PEPTIC ULCER OF THE JEJUNUM.

Mr. MAYO ROBSON communicated a paper on this su... and gave a list of all the reported cases, 15 in numbe... being the first, so far as he could ascertain, recorded in En... literature. All the recorded cases had occurred after g... enterostomy, nearly all after the anterior operation, and ... perforation had occurred. Out of 128 posterior gastro-ent... tomies that he had personally performed there had be... instance of jejunal ulceration. Out of 29 anterior g... enterostomies he had had this one case. After some rem... on the pathology, he described the symptoms and treat... of the condition. His own case had occurred three year... four months after an anterior gastro-enterostomy perfo... for pyloric and duodenal ulcer, the patient having been i... interval well for two years. At the operation he had ex...

ulcerated portion of the jejunum and then performed ix's operation. The patient made a good recovery and was well.

Ir. F. C. Wallis asked why an ulcer of the jejunum uld be so frequent after anterior jejunostomy and so after the posterior operation.

Ir. Armour asked as to the cause of the closure of the orus.

r. H. J. Patterson asked whether there could be a causal tion between the ulcer and adhesions of the jejunum with anterior abdominal wall.

r. Robson, in reply, thought that the frequency after rior gastro-enterostomy was to be ascribed to the ctive drainage of the stomach, and hence the persistence he hyperchlorhydria. The closure of the pylorus was by trix.

Case.

. Cotton described and showed a case of malignant disease of the m in which great improvement had occurred after colotomy which liscussed by the President, Mr. Mayo Robson, and others.

OBSTETRICAL SOCIETY OF LONDON.

ward Malins, M.D., F.R.C.P., President, in the Chair.

Wednesday, April 6th, 1904.

uerperal Eclampsia treated by Thyroid Extract.

tenant-Colonel Sturmer, I.M.S., read a short commu- ion on the above subject. Ten grains of thyroid extract given in each case on admission and five grains every four s afterwards. Morphine and saline injections were also in many of the cases. Rupture of the membranes, wed by dilatation of the cervix and the early application rceps or other means of assisting labour, was the usual ice adopted. Under thyroid treatment the maternal ality was reduced to 12.2 per cent. It was claimed that rine after the first two or three doses showed consider- increase and that by the end of twenty-four hours the ase was great, whereas with saline injections and mor- alone, no marked improvement usually set in for y-four hours. It was remarked that most of the cases ampsia occurred on dull and cloudy days, when pro- the skin did not act as well as usual.

Herman considered that increase in the urinary excre- vas one of the most trustworthy indications of recovery patient; and that, as when thyroid was given the ity of urine became quickly augmented, this preparation eally beneficial.

Boxall said that he had recently learnt that eclampsia nduly prevalent in the West Indies as well as in the This was attributed by the local doctors to malarial nce.

Oliphant Nicholson considered the results of treat- of cases of eclampsia and of impending eclampsia by d extract as very encouraging. In severe cases he s used morphine in addition.

President remarked on the difficulty of determining lue of thyroid extract treatment from a series of cases ampsia in which other remedies were at the same time He was of opinion that atmospheric conditions often d a potent predisposing influence in the production of of eclampsia.

imens were shown by Dr. Tate, Mr. Alban Doran, and and-Sutton.

Myoma.

Tate, in exhibiting a specimen of fibro-myoma of uterus arcinoma of body and fibroid tumour of ovary, empha- the importance of exploring the uterus in cases of rrhage persisting for years at about the time of the ause and later, because in these cases malignant disease body was a very probable cause of the symptoms.

Lewers and Dr. Boxall referred to similar cases of oma associated with fibro-myoma which had come under bservation.

Peter Horrocks called attention to the fact that ng from the uterus after the climacteric in a woman to have a fibroid tumour did not necessarily indicate ant disease of the uterus as in this case, nor malignant ration of the fibroid. Some authorities disputed the ility of the latter, but Mr. Alban Doran and he himself own specimens illustrating sarcomatous changes in tumours.

specimens of diffuse adeno-myoma of the uterus were own.

remarks from Dr. Stevens, Mr. Bland-Sutton, and Dr. F. E. Taylor, these specimens were, on the motion of Dr. Blacker, referred to the Pathology Committee.

Dr. Blacker remarked that they were the first examples of this kind of tumour to be shown before the Society. Further examination would no doubt show that the glandular down-growths were in reality derived from the uterine mucous membrane.

Torsion of Fallopian Tube.

Dr. R. Hamilton Bell read a paper on this subject: Twelve cases of torsion of the pedicle in hydrosalpinx and other morbid conditions of the Fallopian tube, in addition to 41 collected by Cathelin, were recorded. A full account was given of a case under the author's own observation. The general problem of torsion of the abdominal viscera was discussed. It was pointed out that the particular conditions necessary to the production of this accident were much more frequently present in cases of hydrosalpinx than in other forms of tubal disease. Short notes followed on the two varieties of torsion, acute and chronic, the direction of rotation and the results of the twist. The influence of age and pregnancy was also discussed. The paper concluded with a consideration of the more clinical aspect of the cases. The close approximation of the symptoms to those of a twisted ovarion was recognized, and the fact was noted that a correct diagnosis previous to operation had never yet been made. But it should be at least suggested when the following conditions were present: a fluctuating abdominal tumour of irregular shape, not rising above the umbilicus, associated with paroxysmal attacks of pain, culminating in a very severe attack with vomiting and constipation, and, if the tumour had been observed before, increase of size, tenderness, and some loss of mobility. The treatment consisted in removal of the twisted tube by abdominal section, while the writer thought that the other tube should be dealt with conservatively whenever possible.

Mr. Bland-Sutton regarded the diagnosis of this condition as practically impossible. It was very difficult even to attempt to frame a plausible theory to explain why the pedicles of Fallopian tubes, when distended with simple fluid, pus, blood, or even when gravid, became twisted. This failure might be attributed in great measure to our profound ignorance of the statics and dynamics of the peritoneal cavity.

Mr. Alban Doran considered that diagnosis must be impossible in many cases, and that, therefore, this condition was often overlooked. It seemed probable, for mechanical reasons, that it was easier for a tube than for an ovarian tumour to untwist itself after axial rotation. Tubal torsion to any appreciable degree was rarer than torsion of the ovarian pedicle, because the dilated tube soon became fixed by adhesions, whilst many ovarian cysts did not become adherent to neighbouring structures till after torsion.

Dr. Lewers referred to a case of his own of pyosalpinx with torsion of the pedicle, and Dr. McCann to a case he had reported of tubal gestation with twisted pedicle.

Mr. Targett mentioned two cases of tuberculous pyosalpinx in which a similar accident had occurred. The conditions in tuberculous disease were specially favourable to torsion. He believed that practically all cases of pyosalpinx with subsequent twisting of the pedicle were tuberculous in character.

Medical Society of London.—A clinical meeting of this Society was held on April 11th, Dr. de Havilland Hall, the President, being in the chair, and showing a case of thoracic aneurysm of the first part of the arch of the aorta.—Mr. J. Hutchinson, jun., showed a case of undescended testicle, complicating hernia, brought down into the scrotum by means of section of all the structures of the cord except the vas deferens and its accompanying vessels, which was followed by atrophy of the gland.—Dr. Herbert Tilley showed a case after radical operation for frontal sinus empyema, which was associated with an inter-arytenoid pachydermia that disappeared after the operation; also a case of asthma relieved by removal of the anterior half of the two inferior turbinals.—Mr. Richard Lake showed a case of Ménière's disease in a woman of 25, which had lasted for five years, and was relieved, as regards the vertigo but not the tinnitus, by removal of the semicircular canals of the left side. The malleus and incus were also removed, yet the voice was now heard at a considerably increased distance.—Dr. Wilfred Harris showed a case of post-diphtherial chronic bulbar

paralysis, with paralysis of the orbicularis oris, atrophy of the tongue, and some weakness of the palate and pharynx.—Dr. H. A. CALEY showed a case of abdominal cyst, with glycosuria—possibly a cyst of the pancreas.

REVIEWS.

ANATOMY.

VARIATIONS of the cranial bones are of importance not only to anatomists and anthropologists, but also to surgeons, and there can be but little doubt that Dr. DOUBLE'S treatise on the variations of the human cranial bones[1] will be welcomed, for it is as exhaustive and, perhaps, is of more general interest than his previous treatise on the variations of muscles. In the present volume Dr. Double deals with the occipital, the parietal, the sphenoid, the frontal, the ethmoid, and the temporal bones, and he discusses the peculiarities which have been recorded, and their significance and probable causation. It is possible that all observers will not agree with the author regarding the causation of many of the phenomena which he records, but they will all admit the cogency of his arguments and the excellent grouping of his facts. We are glad to see that Dr. Double takes a firm stand against the assumptions which have been made too frequently that certain peculiarities, occasionally noted in association with the bones of the human skull, are indications of a low type of organization simply because the peculiarities represent conditions frequently or regularly met with in lower forms. He is also strongly opposed to the idea that irregular conformation of the cranial bones is any indication of diminished mental power, and in this association he points out that the skulls of Dante and Pericles were assymmetrical, that Kant had an interparietal bone, that Descartes, Boileau, Juvenal des Ursines, and Volta had metopic sutures, whilst Pascal not only had a metopic suture but also a mediofrontal eminence. Many of the peculiarities discussed in the treatise are illustrated by figures, and the book is provided with a copious bibliography and an excellent index.

Dr. MOONEY'S thesis on *Some Mechanical Peculiarities of the Human Body*[2] deals with the movements and ligaments of the knee-joint and with the functions of the prepuce. There are considerable differences of opinion with regard to the means by which the movements of the knee-joint are modified, and Dr. Mooney's suggestion that the internal rotation of the femur which occurs at the end of the movement of extension is due to the pull of the tense anterior crucial ligament, would have been more likely to receive acceptance if he had discussed the possible effects of other ligamentous bands which become tense at the same moment, and if he had shown that the tension of the posterior crucial ligament, which is developed at the end of flexion, had a similar effect; that is, Dr. Mooney's arguments would have been more convincing if they had been more comprehensive. His remarks upon the uses of the prepuce of the penis are more interesting, and are well worthy the careful consideration of those surgeons who so frequently advise the very general removal of the preputial fold, for, if Dr. Mooney's contentions regarding it are well based, it has important functions, and should not be removed without sufficient cause.

The work on the elements of the descriptive anatomy of the human subject,[3] by Dr. SOBOTTA, consists of short descriptions of the bones, ligaments, joints and muscles of the human body, together with abbreviated accounts of their development and functions. It contains no illustrations, and is intended to be used with the atlas of descriptive anatomy by the same author, the plates in the *Atlas* being referred to in the *Elements* by notes at the margins of the main text. The figures in the atlas are also accompanied by short descriptions, but these are less complete than the accounts given in the *Elements*, and it must be inferred, as it has been thought advisable to issue the *Elements*, that the text descriptions in the *Atlas* are too short for educational purposes. It is a pity that the two parts could not have been combined in one volume, for much of the text of the *Elements* consists of repetition, in a more or less altered form, of the statements in the *Atlas*. The text of the *Elements* combined with the figures of the *Atlas* would not have made a very ponderous volume, whilst the price might have been kept down. The latter is an important point if books of this description are to be popularized by students. The figures of the vertebrae and the bones of the skull are very good, and in the representations of the skull bones colours have been used with excellent effect. The figures of the limb bones are weak and unsatisfactory, those of the ligaments are better and stronger, and the muscles are represented by accurate and vigorous outlines brilliantly coloured. The illustrations of the bones are incomplete inasmuch as, especially in the cases of the limb bones, they deal only with the adult conditions, and no indications are given of the positions of epiphyseal lines and the lines of attachment of capsular ligaments, which are also important from a practical point of view, and should not be neglected in a volume which forms part of a series which is published more particularly for medical purposes.

Almost the only parts of the translation of the first two sections of Professor TOLDT'S *Atlas of Human Anatomy*[4] which do not command our admiration are some sections of the translator's preface, and some of his notes on the terminology used in the descriptions of the cranial bones. In the former he displays a limited appreciation of human anatomy, and at the same time seems to infer that English anatomists have a similar inadequate grasp of their subject, which is, in its all an epitome of the anatomy of all mammalia, if not of all vertebrates. We feel sure that few English anatomists will agree with Dr. Eden Paul that the science of human anatomy is purely descriptive in its methods, and we are equally certain that it is not taught in a purely descriptive manner in any of the university schools of this country. What Dr. Eden Paul calls "a true knowledge of anatomy," "a knowledge that will through life supply the needs of the physician and the surgeon in their practical work" is what may fairly be called a technical knowledge, suitable for the purposes of handicrafts, and is merely a knowledge of a fringe of the subject; for the human body is the result of a series of developmental processes which can be traced through long ages of time, and almost every part and organ bears upon it the ancestral hall-mark of its origin. It may be that the marks are not such as can be read at a glance, but a true knowledge of human anatomy is a knowledge which enables its possessor to read the signs and to appreciate the value of each individual part, both with regard to its ancestry and to its present functional capabilities. The contents of the three volumes constitute, as their titles indicate, an atlas of the bones, ligaments, and muscles. The text is limited to the names of the various parts, which are printed upon or at the margins of the figures, and a few notes by the translator. The majority of the figures are admirable for their vigour, clearness, accuracy, and the excellence of their execution, and a careful study of them would, alone, serve as a good education up to a certain point, whilst they will form an invaluable aid to the descriptions of the regular textbooks. Of the three sections that on the muscles is perhaps the least satisfactory, and in it are a few figures which are not quite accurate in detail. For example, Fig. 556, which represents the attachment of the rectus capitis posticus minor on the base of the skull is larger than the attachment of the posticus major; Fig. 5[illegible] which shows the sartorious apparently overlapping the inner surface of the gracilis; and Figs. 606 and 609 which do not agree with each other regarding the attachment of the pectineus and the adductors brevis and longus. Many of the translator's notes, with the exception of those which explain differences between the English and German terminology, seem scarcely necessary. This is more especially the case with the note on p. 48, in which it is asserted that certain terms are not used by English anatomists, merely because they do not occur in the textbooks which the translator has consulted: and in the note on p. 59, in which it is stated that the "crista orbitalis" of the Germans separates the orbital from the zygomatic surface of the great wing of the sphenoid, whilst in reality it intervenes between

[1] *Traité des Variations des Os du Crane de l'Homme.* Par M. le Dr. A. F. le Double. Paris: Vigot Frères. 1903. (Demy 8vo, pp. 416, 118 illustrations. Fr. 20.)

[2] *Some Mechanical Peculiarities of the Human Body.* A Treatise for the Degree of M.D. By John Mooney, M.B., Ch.B. Manchester: J. Watson and Sons. 1903. (Demy 8vo, pp. 24, 3 illustrations.)

[3] *Grundriss der deskriptiven Anatomie des Menschen.* Von Dr. med J. Sobotta. I Abteilung: Knochen, Bänder, Gelenke und Muskel. *Atlas der deskriptiven Anatomie des Menschen.* Knochen, Bänder, Gelenke und Muskeln. Munich: J. F. Lehmann. 1904. (Demy 4to, pp. 229; 289 illustrations. M. 20.)

[4] *An Atlas of Human Anatomy.* By Carl Toldt, M.D., and Alois Rosa, M.D. Translated from the third German edition by M. Eden Paul, M.D Brux., M.R.C.S., L.R.C.P. First Section (A) The Regions of the Human Body; (B) Osteology. Second section, Arthrology. Third section, Myology. London: Rebman Limited. 1903. (Demy 4to, Section I, pp. 377 illustrations, 9s. Section II, pp. 182, 111 illustrations, 6s. Section III, pp. 161, 150 illustrations, 8s. 6d.).

tal and spheno-maxillary surfaces, as the translator ht have discovered had he consulted other German text-ks or atlases.

he number of books dealing with clinical or applied tomy has increased rapidly in recent years, and it cannot said that Professor EISENDRATH'S *Textbook of Clinical tomy*[5] is an extremely valuable addition to those which e previously appeared. The text is certainly comprehen-, dealing with both the medical and surgical aspects of ubject, but it contains little that is new, either in the ect-matter or in its arrangement, and the illustrations, gh beautifully executed, are of very mixed value from a hing point of view. The inadequacy of the illustrations is rtunate, for the figures are the most striking feature of the , and though the representations of dissections and sec-s of the body and limbs are excellent, the same praise can-e extended to the figures of more diagrammatic character, ome are distinctly misleading, and others certainly do epresent the conditions ordinarily met with. Thus, from 4 it would seem that the lymphatics of the upper and part of the face usually pass to the facial glands on uccinator muscle, but those glands are by no means ant structures, whilst, even in the cases where they resent, many of the lymph vessels from the eyelids adjacent parts terminate in the superficial parotid ls. In Fig. 5 the facial vein is shown terminating in xternal jugular vein, a by no means common condition; still more unusual relationship is depicted in Fig. 17, ich the thoracic duct is shown passing behind what rs to be the second part of the subclavian artery and in of the brachial plexus, whilst its usual position ront of the scalenus anticus. In Fig. 57 the duodeno-al flexure is placed beneath the lower end of the left y instead of behind the stomach; and in the same , which is repeated as Fig. 62, the splenic flexure of the is represented at the level of the middle of the spleen d of at its lower end. The cystic and the common ic ducts usually unite together at the right end of the erse fissure of the liver above the first part of the duo-n, but in Fig. 63 the union is represented as occurring at wer border of the first segment of the duodenum. Other s are equally misleading, and the text also is not devoid ors. Perhaps the statement made during the discussion functions of the air sinuses of the skull bones, that probably aid through giving the facial bones an oppor-to grow without increasing their bulk," is open to dis-n with regard to the exact meaning of the word "bulk," ere is no doubt that the assertion made in association ranchial fistulae that the branchial clefts of the embryo of communication between the surface and the nx is incorrect, and readers who believe the statement he lingual artery and the hypoglossal nerve pass ss" the greater cornu of the hyoid bone will acquire an ous opinion regarding the relative positions of those ures. The book certainly has good features, but they arcely available until the numerous weak points have radicated.

e are not many good introductory manuals to the of mammalian anatomy, which is far too much ed, and Dr. ALVIN DAVISON'S little volume on the [6] is therefore all the more welcome. It is based more lly on the anatomy of the cat, but the opening chapters n a general way, with the tissues met with in all mam-nd with the methods of preservation and preparation ry for their proper study. In the subsequent chapters rious systems of the body are described in detail, the tions being illustrated by numerous and well-designed and frequent references are made to those features ne anatomy which deviate from the more general alian arrangements. It is not often that one finds so nformation condensed, in so readable a form, into so space.

SUGAR FORMATION IN THE LIVER.

olume of collected essays on sugar formation in the he veteran Professor SEEGEN, whom we congratulate upon having well passed his 80th birthday, has brought together no less than thirty-six papers published during the last thirty years, which all those who are interested in the historical study of the physiology of sugar formation will like to possess. Professor Seegen was originally a follower of Pavy, sharing with most of his countrymen the belief that sugar formation in the liver was merely a *post-mortem* phenomenon, and the starting point of his work was the discovery that the liver of freshly-killed animals contained three times as much sugar as Bernard had supposed, this discovery being due to better methods of analysis. He relates that when he went to his old teacher Professor Karl Ludwig, of Leipzig, and told him of the results of his experiments, Ludwig was by no means convinced, and contended that the sugar formed was derived from the blood. One day Seegen came across in Vienna Kühne, who had for some time been a follower of Bernard, and chaffingly asked Seegen how it was that he had been changed from Saul to Paul? "Oh," said Seegen, "it was not due to any vision or revelation, but just the result of hard work." Having satisfied himself that the liver is the true seat of sugar formation his next step was to attempt to verify Bernard's hypothesis that it is produced by the action of a diastatic ferment; careful research, however, failed to find any trace of such ferments in the liver, but he discovered that the action of salivary ferment upon glycogen is to form not glucose but a sugar which has a feebler reducing and greater rotatory power, since called maltose, whereas liver sugar is glucose. Subsequent chapters relate his discovery of the formation of sugar from peptone and fat. He maintains that the liver sugar is the chief source of animal heat and muscular energy. He thinks Chauveau by his researches on the sugar in arterial and venous blood has proved that sugar is destroyed in the capillaries. Among points of more general interest which are touched by these essays is that of the disappearance of glycogen from the liver of persons dying of suffocation or from carbonic oxide poisoning. The author's latest piece of work is to have found in a decoction of liver a nitrogenous body which by the action of weak hydrochloric acid and heat is converted into grape sugar. Decoctions of other organs do not contain this substance, which, however, has still to be isolated and analysed, a task which the veteran physiologist still hopes to pursue, and in which he has our very hearty sympathy and good wishes.

OBESITY.

THE translation of Professor VON NOORDEN'S monograph on *Obesity*[8] will perhaps cause disappointment to those who expect to find in it a discussion of the means by which superfluous fat may be reduced. It contains no such information, but as the secondary title implies, it merely discusses the indications for the establishment of these methods, the main points of the teaching being (1) that the different methods must be suited to individual cases: (2) that reduction cures should be seldom applied to children and old persons; (3) that rapid reduction cures pursued for a month and followed by eleven months of self-indulgence are of little benefit; (4) that massage does not, as is popularly supposed, remove local deposits of fat, but rather increases them; (5) that slow methods of reduction are to be preferred, especially in women with a large amount of abdominal fat, and in young subjects; (6) that the reduction of obesity is often of very great advantage in heart disease, the treatment being best conducted in a sanatorium; (7) in renal diseases obesity can only aggravate the functional disturbance; (8) in chronic bronchitis, chronic rheumatism, chronic gout, diseases of the organs of locomotion, and diseases of the nervous system, obesity may constitute an unwelcome complication and good results may follow careful reduction; (9) even in pulmonary tuberculosis the extreme obesity which has sometimes followed the overfeeding and lazy life of a sanatorium does harm, this result being likely to occur in early or slight cases of pulmonary tuberculosis. The translation might be better. "Will" is frequently used in place of "shall." There are many clumsy sentences such as: "Watering places are visited that enjoy the reputation in the reduction of obesity"; "an earnest but by no means pleasant refreshing debate has been waged." "Sanatoria" is more often "sanitaria." "Fraught" appears as "frought"; "emphysematous" as "emphesematous." "We should exercise great care in humouring peculiar whims" evidently means from the context, "We should exer-

tbook of Clinical Anatomy By Daniel N. Eisendrath, A.B., M.D. W. B. Saunders and Co. 1903. (Demy 8vo, pp. 515; 155 illustra-s.)

ian Anatomy. By Alvin Davison, Ph.D. London: Rebman, imited. 1903 (Demy 8vo, pp. 250: 108 illustrations. 7s.)

melte Abhandlungen über Zuckerbildung in der Leber [Collected Sugar Formation in the Liver]. Von Professor Dr. J. Seegen. August Hirschwald. 1904. (Demy 8vo, pp. 492. M.12)

[8] *Obesity, the Indications for Reduction Cures.* By Professor Dr. Carl von Noorden. Authorized translation under the direction of Beardman Reed, M.D. Bristol: John Wright and Co. 1903. (Demy 8vo, pp. 59. 2s. 6d.)

cise great care *not* to humour peculiar whims." Possibly we must accept the American "pathologic" and "anatomic" for "pathological" and "anatomical," but to our ears these words are inharmonious. We do not know what the author means by "Terrapin" watering places, unless this is a blundering reference to Oertel's "Terrain-Curorte." Once or twice reference is made to what are called "closed institutions," which we can only guess to be private hospitals.

NOTES ON BOOKS.

FOREIGN HEALTH RESORTS.

Evian.—Dr. BERGOUIGNAN, in his book on treatment at Evian,[1] shows us at once the extreme opinion he holds as to the value of spa treatment. Thus, according to him, "the most powerful agents that can be employed in therapeutics against chronic complaints and diatheses are mineral waters. Bordeu wrote, upwards of a hundred years ago: 'I consider every complaint incurable which has not yielded to the application of mineral waters,' and this opinion has been since then almost universally adopted." We cannot say we think this opinion has been almost universally adopted in England or is ever likely to be, though we believe that great benefit is to be derived in many pathological conditions from treatment by health resorts and mineral waters. That we believe is undeniable, and is likely to be more and more generally acknowledged. Evian-les-Bains, in the French department of Haute Savoie, is situated at an altitude of about 1,350 ft. above sea level on the centre of the southern shore of the Lake of Geneva, facing Lausanne on the opposite (Swiss) shore. Its name—Roman, Aquianum—shows that its waters have been long known. They have a temperature of 53° F., are clear, limpid, and somewhat aërated, and yield only 0.3 gram of solid constituents by evaporation per litre. Naturally the "ionic" theory is called up to account for the therapeutic qualities of the waters of Evian, as of those of the whole class of weakly-mineralized mineral waters. Whatever the correct scientific explanation may be, it is sufficiently attested that a course of treatment at Evian is useful in many conditions of ill-health. Dr. Bergouignan explains especially the diuretic action of the waters and their indications in arterio-sclerosis and biliary, urinary, and metabolic affections.

Eaux-Bonnes.—Dr. LÉON LERICHE'S medical studies on Eaux-Bonnes[2] give a good idea of the main indications of this well-known Pyrenean sulphur spa. Eaux-Bonnes is chiefly resorted to for chronic affections of the respiratory organs, and many patients with pulmonary tuberculosis go there, so that some talk of the danger of infection has got about. This fear is groundless, as Dr. Leriche shows, for the hygienic arrangements are excellent, and rooms are regularly disinfected when visitors leave. Professor Landouzy in his preface even goes so far as to declare that Eaux-Bonnes has attained to his ideal of 1893, when he said, "To-morrow the health resorts for consumptives will be the places where one will be best protected from the contagion of tuberculosis, just as already the lying-in hospitals offer the surest guarantee against puerperal fever." There can likewise be no doubt that to minimize the danger of tuberculous infection the "soil" must be considered and the human organism must be maintained in as healthy and vigorous a condition as possible.

Châtel Guyon.—Dr. BONNET'S monograph on Châtel Guyon[3] deals with the history, development, mineral waters, and other resources of this health resort, which has a pleasant situation in the Auvergne, about 1,300 ft. above sea level. Much of the work is devoted to a consideration of the indications and contraindications of the mineral waters and to physiological experiments which have been carried out with the object of obtaining further information regarding their action. Functional atonic conditions of the digestive organs are much treated at Châtel Guyon, and as English patients occasionally go there medical men in this country may w to hear the opinion of a local practitioner on the value and dications of the spa treatment. Dr. Bonnet's work, thou written in French, may therefore find some place in Engla

Austria-Hungary.—Dr. LABAT'S little book[4] on the *Clim and Mineral Waters of Austria-Hungary* is a worthy succes to his similar publications on the climates and mineral wa of Germany, Spain, Italy, and England. This well-kno author on balneotherapeutic subjects has travelled much a has visited the health resorts about which he writ Amongst the places specially dealt with in the present wo are Meran, Gastein, Gleichenberg, the neighbourhoods Vienna and Buda-Pesth, Pystjan, Trenczin, Mehadia, and course, the famous Bohemian spas Carlsbad, Marienb Franzenbad, and Teplitz-Schoenau. Labat gives the fi place in Europe to Bohemia for purgative spa treatment Hungary for purgative "bitter waters." He considers t the pure sulphur waters of the Pyrenees should rank ab the compound sulphur waters of Austria, and he natura points out that there are no pure alkaline waters in Aust Hungary to be compared with the famous French ones (Vi and Vals). The book is concisely written and contains m which might interest English medical men, especially th who have themselves visited foreign health resorts.

BRITISH HEALTH RESORTS.

In *Buxton: Its Waters, Baths, and Accessory Methods Treatment*,[5] Drs. ARMSTRONG and HARBURN have discussed the therapeutic methods employed at the well-known Derbysh health resort in the treatment of gouty and other conditi for which patients are sent there. In regard to access treatment the authors write:

> No waters, however effective, can be used with advantage in e case; nor are any so omnipotent that their prescribers can affo reject the aid of the resources of science and of progress.

This is, no doubt, very true; but that it should be thou necessary to make any statement so obvious is a curious p of the extravagances into which some writers on min waters have indulged.

Dr. W. BOWEN-DAVIES, in *Llandrindod Wells as a He Resort*,[6] points out the therapeutic qualities of the best kn of the Central Wales group of health resorts. This m frequented place has bracing air and mineral waters, al which a good deal has already been written. It certa deserves its growing popularity, yet we cannot quite un stand the quotation which the author has placed at the c mencement of his address. However much we may b reason to be grateful for the healthfulness of English clima surely we cannot admit that within the narrow limits of G Britain every kind of climate which can be of use to variety of invalid is to be found.

REPORTS AND ANALYSES
AND
DESCRIPTIONS OF NEW INVENTION
IN MEDICINE, SURGERY, DIETETICS, AND THE ALLIED SCIENCES.

MEDICAL AND SURGICAL APPLIANCES.

A New Interrupter.—The Carpentier-Gaiffe patent platin interrupter, which has been brought out by the Medical S ply Association, 228, Gray's Inn Road, is intended for the of radiographers. In it the spring common to the majorit interrupters is abolished, the weight of the hammer gre reduced, and its resistance so modified that a full 10 in. sp can, according to the makers, be produced by two cells of volts. The tension of the hammer, moreover, can be adju at will. A practical radiographer who has examined it o our behalf states that it is a good and practical invent and that, whereas, with ordinary hammer breaks, the platin points are so firmly pressed together that they get roughe

[1] *The Hydro-mineral Cure of Evian.* By Dr. Paul Bergouignan. Paris: Jules Rousset. 1903. (Demy 8vo, pp. 40. Fr. 1.50.)

[2] *Etudes Médicales sur les Eaux-Bonnes.* [Medical Studies on Eaux-Bonnes.] By Dr. L. Leriche. Second edition. Barcelona: E. Richardin; Paris: P. Lamm et Cie. 1903. (Crown 8vo, pp. 123. Fr. 1.50.)

[3] *Châtel Guyon* (Puy de Dome). Etude Médicale sur ses Eaux Thermales, Gazeuses et Polymétalliques [Châtel Guyon in the Department of Puy de Dome. Medical Study of its Thermal-gaseous and Polymetallic Waters]. By Dr. Saint-Réné Bonnet. Charleville: A. Anciaux. 1900. (Royal 8vo, pp. 170.) (The author offers to send a copy to any member of the Association interested so long as the stock lasts.)

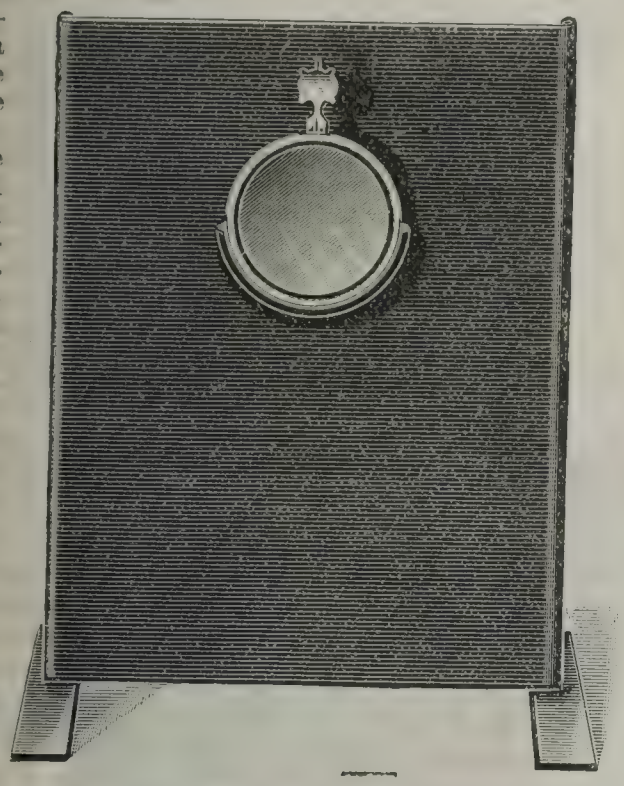
[4] *Climat et Eaux Minérales d'Autriche-Hongrie.* [Climate and Mi Waters of Austria-Hungary]. By Dr. A. Labat. Paris: J. B. Baillie Fils. 1903. (Demy 8vo, p. 92. Fr. 2.)

[5] *Buxton: Its Waters, Baths, and Accessory Methods of Treatment.* B Armstrong, M.R.C.S., J.P., and J. E. Harburn, L.R.C.P., L.R.C.S.E Bristol: John Wright and Co. 1903. (Crown 8vo, pp. 71. 6d.)

[6] *Llandrindod Wells as a Health Resort.* An address by W. Bowen-Da L.R.C.P.Lond. London: The Health Resorts Bureau. (32mo, pp.

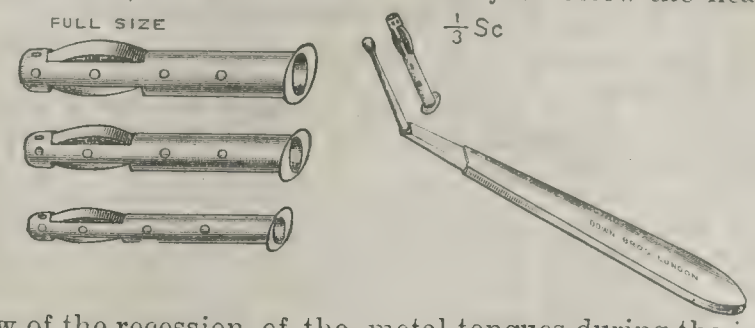
d sometimes jam or even fuse together, with this errupter the points separate quickly. The instrument is rtable.

Colour-test Appliance.—Mr. Percy Dunn, F.R.C.S., Ophlmic Surgeon to the West London Hospital, Lecturer on hthalmology at the West London Post-graduate College, tes: The following is a description of a w appliance testing the our vision, ich I venture suggest will found useful the examina- of candidfor the ious public rices. It consof a deadck metal en 14 cm. in ght. by 9 cm. width, suped on two al cross-bars. above the tre of the en there is val aperture it 3 cm. in meter; around ower half of aperture is



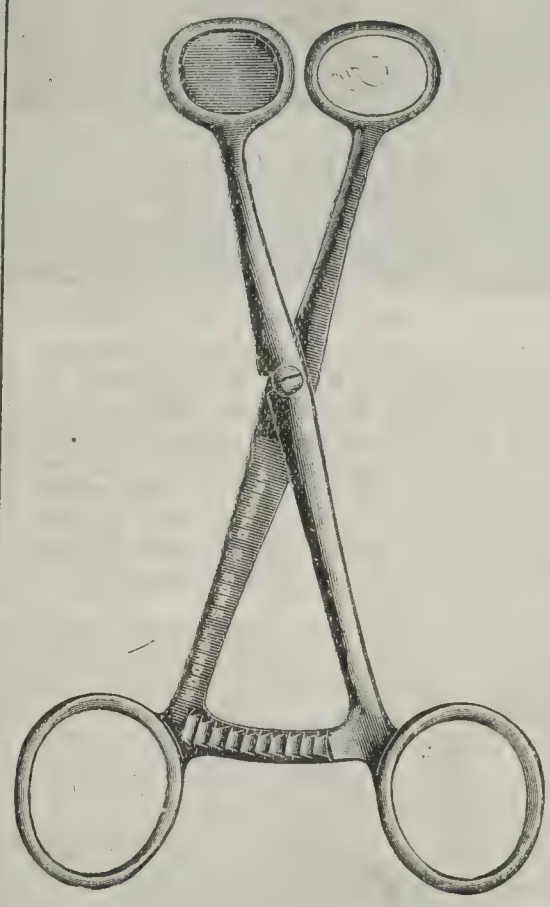
a double groove, similar to that in a trial spectacle e, for the purpose of carrying the coloured discs and hragms employed in the test. In addition to the above, e are four coloured mounted glass discs—blue, red, n, and yellow respectively; one ground glass and one ke glass disc, and three black vulcanite discs having ral apertures, the diameters of which have been designed oximately to test the acuteness of the colour vision at arying distances of 100, 300, and 500 yards. There is a card upon which appear four squares coloured to corred with the four coloured discs. The method of using test is as follows: The screen is placed upon a conent table with a light behind it, the candidate to be exed being seated upon a chair about 4 metres distant. In andidate's hand is placed the card with the coloured es. One of the coloured discs is then inserted in the e in front of the aperture in the screen, and the canes is first asked to name the colour and next to point on the card. The remaining colours are similarly tested. y, the acuteness of the colour vision is further inquired by inserting the vulcanite diaphragms in front of the red discs. The crown glass and smoke glass discs are he purpose of delineating "misty" and "foggy" atmoic conditions. The appliance is supplied in a neat gany box, and can be obtained from the manufacturer, . Davidson, 140, Great Portland Street, to whom I am ted for the care with which he has carried out the n. The cost is very moderate.

-retaining Drainage Tube and Pilot for the Maxillary m.—Mr. Lawrie McGavin, F.R.C.S.Eng. (London) s: The operation of draining the maxillary antrum is f those which are usually performed under the influence rous oxide anaesthesia, and, so far as the drilling of a nto that cavity is concerned, is a very simple matter. ntroduction of the drainage tube is, however, at times the reverse, especially when the tube used is one of fine silver wire and the patient is struggling forcibly; for on as the drill is withdrawn the mucous membrane of ms falls together over the hole, and the entrance of the s at once obstructed. If now a solid tube is forced into rill-hole without the aid of a pilot, the surgeon will ly experience difficulty and the patient pain; on the hand. if a flexible wire tube is used, the rings are not monly displaced, and the tube is thereby rendered less. Again, one now and then finds that patients who to the habit of sucking at their tubes in order to clear are liable to dislodge them, there being nothing to r them in position. In order to overcome these diffis I have devised the drainage tubes and pilot shown in the diagram, and have found them a great convenience. Each tube is provided with a small metal tongue, which stands out from it and holds it in position. The pilots, which all fit the same handle, are made with a waist just below the head to



allow of the recession of the metal tongues during the insertion or withdrawal of the tubes. The tubes are made in several sizes in order to conform to England's antrum drills, and in cases where it is intended to drill through a tooth socket and the space between the teeth is narrow I have had the flange made oval in place of circular. The instruments have been made for me by Messrs. Down Bros., and will, I believe, be found an improvement on the older patterns.

Entropium Forceps.—Mr. Lionel Stretton (Senior Surgeon, Kidderminster Infirmary and Children's Hospital) writes: At my suggestion Messrs. Arnold and Sons have constructed a pair of entropium forceps, as figured in the accompanying drawing. It will be noticed that they are larger than the old-fashioned instrument, and fixed by a rack instead of a screw. This facilitates their application, and enables an assistant to hold them in position more easily. The fenestrated blade is made to fit into a groove round the flattened blade, and the latter is made slightly convex, so that it will force the tissues above the level of the fenestrated edge, and save the scalpel coming in contact with it. To facilitate cleansing the joint is detachable, and the groove for the reception of the fenestrated blade concave instead of angular. Any one who has used the old-fashioned instrument must have experienced some of the difficulties I have indicated, and as the removal of a tarsal cyst is an operation which many members of the profession undertake, I hope this modification may be of use. I am indebted to Messrs. Arnold for the careful manner in which they have carried out my idea.



A New Uterine Forceps Applicator.—Dr. P. J. Macnamara (Kilmallock, Ireland) writes: Will you permit me to supplement the description of my "uterine forceps applicator" which appeared at p. 674 of the British Medical Journal of March 19th, by stating that I find it a most useful instrument for uterine tamponade?

The Lister Institute.—The governing body of the Lister Institute of Preventive Medicine has issued a pamphlet containing an account of the Institute and its several departments, together with some notes on serumtherapeutics by members of the staff. The pamphlet is illustrated by reproductions of photographs of the Institute in Chelsea Gardens and of the laboratory and stables at Queensberry Lodge, near Elstree, where the preventive and curative serums are prepared. A short account is given of the origin and use of the various preparations, together with instruction as to the mode of their application and dose and the indications for its repetition. The pamphlet will be found convenient for reference in an emergency.

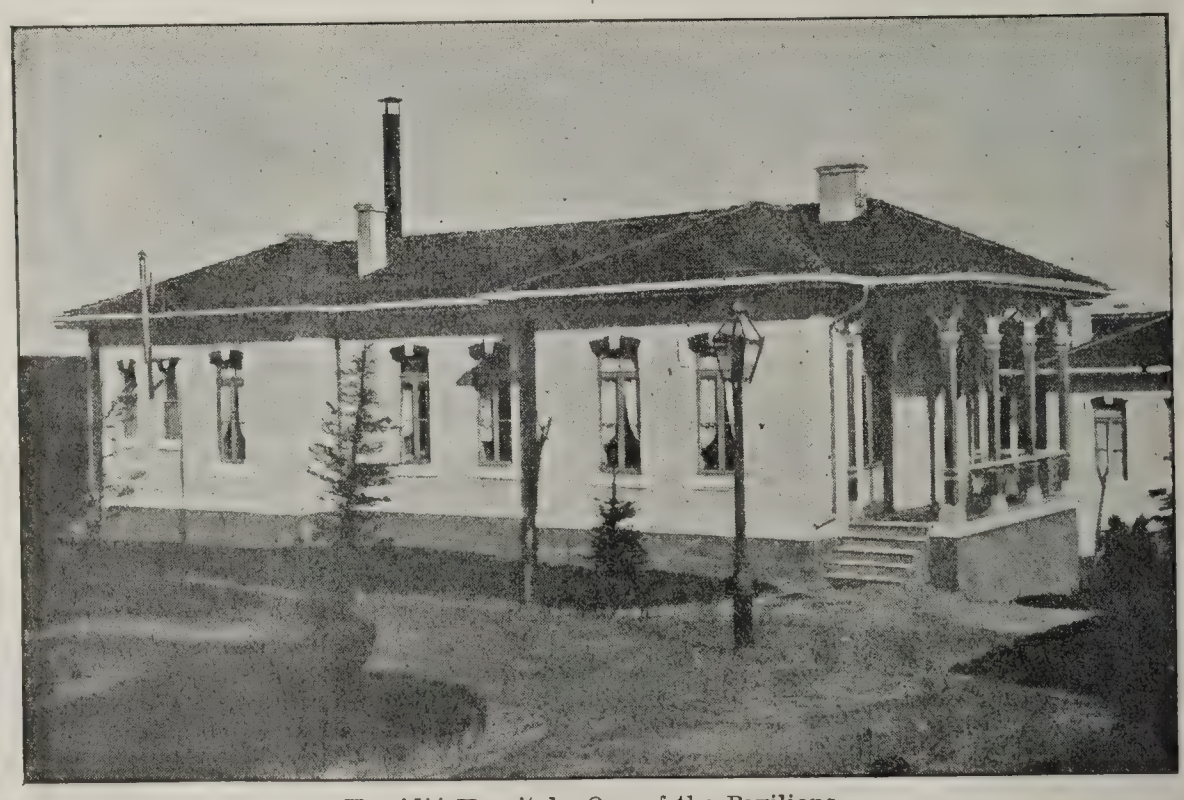
NOVA ET VETERA.

THE SULTAN AND THE HAMIDIE HOSPITAL FOR CHILDREN AT CONSTANTINOPLE.

NEVER has monarch been so severely criticized as Abdul Hamid II, Sultan of Turkey. The seclusion in which he lives lends an air of mystery and romance to a life in reality so simple as to resemble that of a hermit rather than of an Eastern monarch. The Sultan indulges in none of the licentious extravagance associated with the name of most of the rulers of Turkey; he does not care for wine, he is cold to women although his harem is peopled with all the rarest beauties of Circassia, Albania, and Turkey; he dresses in a simple dark blue uniform, eats sparingly, and works harder than any one in his kingdom. The recreations he indulges in are music, reading, and revolver shooting; his great library is stocked with rare editions of English, French, and Turkish works, while he is an unrivalled shot at a target. His evenings are spent oftener than not with his children, he himself and his sons being excellent musicians. No one who has been received by Abdul Hamid has failed to feel strongly his charm of manner and his strong personality. His courtesy is perfect and his mind swift and intelligent. But unfortunately he is known personally to few, while the jealous manner in which he is guarded lends itself to the most fantastic and gruesome legends of those who at most get a glimpse of the "Shadow of God" when, as chief of the Mohammedan religion, he attends the ceremony of the Selamlik every Friday.

Hamidié Hospital, Constantinople. General view from the South.

To those who know him more intimately his generosity is well known. Abdul Hamid's private purse is a large one, and he gives in charity and in support of good works with no niggardly hand. An instance is afforded by the fact that it is entirely to his initiative that the foundation of the Hamidié Hospital for Children near Constantinople was due. Moreover, it is maintained entirely at his private expense, the annual expenditure being about 75,000 Turkish livres. The finest hospital in Turkey, it compares favourably with kindred institutions in other European countries.



Hamidié Hospital. One of the Pavilions.

Situated at Chichli, nearly 400 ft. above the sea-level, in large grounds, it commands an extensive view of the city of Constantinople, the Bosphorus, Scutari, and, in the distance the Sea of Marmora—an ideal situation for health and picturesqueness. The different pavilions or buildings stand in well-laid-out grounds planted with fragrant trees, including 200 pines, acacias, oaks, and chestnuts.

Inside no art or money has been spared: the walls are white-tiled and the ceilings varnished. A special system of ventilation obtains.

The flooring, of polished wood, is built on a masonry foundation open at the sides and allowing the air to pass freely. The beds are of iron and the furniture white, so that dust can easily be detected, and the furniture is frequently repainted. Twice a week each pavilion is thoroughly washed out with water and disinfectants. The dirty linen is placed in boxes painted white inside and covered with lead outside, and in these it is sent out on cars to be washed. In order to avoid dust all sweeping is done with horsehair brooms steeped in antiseptics. The drainage has been most carefully planned, and is greatly aided by the declivity of the soil.

As for the instruments, they are a unique collection. They cost 10,000 Turkish liras, or £8,000 sterling, and were chosen with the utmost care from all the most famed makers in Europe. Recently complete radiographic appliances, worked by a petroleum motor of three horse-power, have been installed.

The feeding of the children is carefully considered. There are seven different diets according to their condition, and when strong enough they are allowed to choose. The kitchen is managed by a staff of cooks, and instead of, as in some hospitals, a difference being made according to the class of patients, here from special desire of the Sultan there is no class prejudice and the poor are treated exactly the same as the rich.

The hospital proper, built of pavilions, provides accommodation for 100 patients. The main administrative building contains the director's rooms and those of his assistants, as well as fourteen rooms for the employés, the pha-

macy, a chapel, and a library. The pathological and bacteriological laboratories are well equipped, and important work is done there under the direction of Fuad Bey, who has studied in the best-known German institutes. The operating room is furnished with aseptic appliances, and, as has been said, the instruments used are the best that money or skill can command.

The wards are pictures of cleanliness and smartness. There are five trained female nurses from Berlin (the head nurse receiving 70 francs a month and the others from 40 to 50), and a visitor to the wards might almost imagine himself to be in a German hospital. The patients are chiefly children ranging from the ages of 1 to 12 years; among the most common diseases treated are tuberculosis of the bones, joints, and lymphatic glands; diseases of the skin, nose, throat, and eye, and infectious diseases for which there are separate pavilions. The Sultan has caused sixteen beds to be set aside to accommodate strangers who may be taken ill while in Constantinople. They are received subject to a recommendation from their respective embassies, no matter of what nationality or religion. This regulation alone speaks volumes for the Sultan's liberality of sentiment and kindness of heart.

There is a policlinic attached to the Hamidié Hospital at which the average daily attendance is about 150. After passing a preliminary examination to detect infectious cases, the non-infectious patients are allowed into a large hall, where they are classified by a physician. Five physicians are in attendance from 9 a.m. to 2 p.m. There are separate well-equipped departments for surgery, gynaecology, medicine, ophthalmology, and nose and throat diseases; medicines are supplied from a dispensary, free of charge. Indeed throughout the hospital the Sultan has willed that no money shall be taken from any patient.

As a further proof of his generosity Abdul Hamid has made over to the Hamidié Hospital all revenues accruing from the mineral waters of Kara-Hissar-i-Sahib. These springs are at some distance from Constantinople, and until recently no use had ever been made of them, though mineral waters were, at great cost, imported into Turkey. Now, however, works are in progress for the catchment and bottling of the waters, and the Anatolian Railway is to transport the water free of freight and all taxes. The analysis of the water is as follows:

Physical qualities of the water: Limpid, pure, agreeable to the taste, without smell, refreshing and gaseous.

Density	1.0030
Temperature at the source	17° C.
A litre of water contains:	Grams.
Sodium bicarbonate	3.1410
Calcium bicarbonate	0.2780
Magnesium bicarbonate	0.0581
Potassium chloride	0.3340
Lithium chloride	traces
Alumina	0.0110
Iron oxide	0.0110
Salicium	0.0200
Total...	3.8430
Carbonic acid (free)	1.0555

It will be seen that these waters are to be classified among those containing free carbonic acid and sodium barcarbonate, such as the waters of Ems, Giesshubler, Vichy, and Vals. As the water does not contain sulphurous salts it keeps indefinitely, and it has no odour of sulphurous hydrogen; for this reason it is superior to some of the mineral waters possessing otherwise similar properties. The further advantage is claimed for it that the cure can be successfully followed at home.

The water is chiefly of use in digestive and urinary troubles, and in various diseases of the skin and thoracic organs its value has been tested at the different hospitals in Constantinople, always with the happiest results, while it has been found that the Kara-Hissar water in many cases effects much more rapid cures than some similar better-known waters. It will be seen that the springs are likely to be a valuable source of revenue to the hospital when they become better known, and so munificent a gift shows how deeply Abdul Hamid must have the welfare of the hospital at heart.

The fourth annual report of the Hamidié Hospital shows that the institution is continuing to do good work under the guidance of Dr. Ibrahim Pasha, who has studied in Germany, is a competent bacteriologist, and who works for the advancement of science in the broadest sense. The report contains clinical and pathological papers in English, French, German, and Turkish, and a number of interesting illustrations. We wish the hospital all the success it deserves.

It is stated that during the last winter session the number of women students in the Faculty of Medicine in the Swiss Universities has exceeded the number of men students, the figures being 763 men and 891 women. There were no fewer than 377 women students in Berne, 181 in Lausanne, 177 in Zürich, 151 in Geneva; in Bâle there were only 5.

EGYPT AND THE SOUDAN.

The report of His Majesty's Agent and Consul-General, Lord Cromer, on the finances, administration, and condition of Egypt and the Soudan in 1903 contains some particulars with regard to the public health of Egypt and the Soudan.

Medical Administration.

The sanitary and medical department received an additional grant of about £E.6,000; about £E.2,500 was devoted to increasing the number and improving the position of subordinate employés, £E.2,000 to the street services of Cairo, and £E.1,000 to hospital expenses.

The number of admissions into the Government hospitals has increased year by year; in 1893 it was 17,473, in 1903 it was 25,162. Lord Cromer observes that while this is satisfactory in so far as it shows that the people are gaining confidence in the hospitals, no Government can afford to give medical treatment gratis to the larger portion of the population. "The principal function of Government," he says, "is the prevention of epidemic diseases, not the cure of persons suffering from ordinary maladies. The Egyptian Government is still far from being in a position to deal adequately with the former of these two questions." Lord Cromer therefore expresses the opinion that it is "very necessary to insist on the payment of fees for treatment, save in the case of the really indigent poor."

Infectious Diseases.

Small-pox.—There were 2,118 cases of small-pox with 394 deaths; the successful vaccinations numbered 406,856 as compared with 377,421 in 1902.

Diphtheria.—There was a good deal of diphtheria in Cairo during the autumn months; 286 deaths occurred, 15 of them amongst Europeans. Whenever the children in the house where one case had occurred were treated with anti-diphtherial serum the disease did not spread.

Plague.—The number of cases of plague notified throughout Egypt was 303 with 160 deaths, as compared with 481 cases and 291 deaths in 1902. The cases occurred in the same towns and villages as in 1902. Lord Cromer quotes the following observations by Sir Horace Pinching:

> The incidence of the disease has followed the same course as that observed in the previous years, namely, the disease became more acute during the early spring months, and ceased during the late autumn. It is interesting to note that the period in Egypt when most cases of the disease appear corresponds with the period when rats are breeding. Almost invariably in the houses where cases occur, and in those adjoining, dead and dying rats are found. For this reason a general disinfection is made not only in the affected house, but in all the houses adjoining. After such a thorough disinfection it is rare that other cases occur.
>
> During 1902 there was a marked increase in the number of cases as compared with 1901. It is therefore very satisfactory to note the decrease which has occurred during 1903. Without doubt the strict supervision of infected districts and the immediate measures taken have to a great extent prevented plague from assuming serious proportions in Egypt. In my opinion these measures must be continued for a number of years to come before we shall be able to consider Egypt safe from a serious epidemic of plague.
>
> For some years past experience has shown that in a country where sanitary police measures and general sanitation are in an advanced state of perfection, a few cases of plague, recognized at once as such and dealt with on simple practical lines, need cause no great alarm as to the disease spreading and assuming a grave epidemic form as it has done in India. Plague, without doubt, like cholera, is a disease which spreads with alarming rapidity among a population devoid of all ideas of hygiene, and amongst which no rational measures are taken to deal with the early cases. It behoves the Government, therefore, to take all measures possible to keep so serious a disease as plague within reasonable limits. This can only be done by constant supervision, and by energetic measures with regard to the discovery of first cases, disinfection, and isolation of the sick.

Infectious Hospital.—A hospital for infectious diseases was completed at Port Said during the course of last year.

Prevention of Malaria.

Lord Cromer draws attention to the very remarkable hygienic results which have been obtained at Ismailia by the application of Major Ross's plan for the destruction of mosquitos. The public health of Ismailia, which was founded in 1862, was satisfactory until 1877, by which time various works had been constructed resulting in a considerable increase in the area of stagnant water. In that year an epidemic comprising 335 cases occurred and malaria subsequently became endemic. The average number of cases in the thirteen years from 1884 to 1897 was 1,700, constituting a very large proportion of the total population. Down to the

end of 1897 the Suez Canal Company had spent about £15,000 on improving the sanitary condition of the town besides some £13,000 on medicine furnished to its employés. In 1897, on the advice of a medical commission, further expenditure amounting to £4,000—a portion of which was borne by the Egyptian Government—was undertaken, but no impression was made on the fever, the average number of cases in the five years from 1898 to 1902 being 1,800. As our readers are already aware, Major Ross visited Ismailia on the invitation of the President of the Suez Canal Company, and on December 27th, 1902, his system—including the prevention of the accumulation of stagnant water and the destruction of the breeding of *Anopheles*—was adopted. The following table, giving the number of cases which occurred month by month in 1902 and 1903, shows the very remarkable results achieved:

	1902.	1903.
January	162	13
February	100	20
March	101	16
April	621	14
May	133	9
June	154	15
July	120	23
August	130	18
September	176	25
October	159	39
November	176	12
December	73	9
Totals	2,105	213

Sir Horace Pinching reports that out of the total number of 213 cases which occurred in 1903, no less than 203 were those of persons who had previously had the fever, so that the number of fresh cases during the year was only 10, and no fresh case occurred after October 15th. Commenting upon these figures, Lord Cromer says: "There can, therefore, be no doubt as to the efficiency of Major Ross's system. It would, perhaps, be somewhat over-sanguine to expect that results similar to those obtained at Ismailia can invariably be produced elsewhere; the conditions under which the experiment has been tried at Ismailia are, in fact, exceptionally favourable. Success can only be ensured by careful attention to a number of petty details. Even if it were possible, it would, I conceive, generally be objectionable to attempt to enforce this attention by legislative measures, which would almost certainly involve minute and probably vexatious interference on the part of the officials with the household arrangements of each family and individual. In most cases, therefore, everything will depend on the effective and voluntary co-operation of the householders themselves. The position and influence of the Suez Canal Company at Ismailia greatly facilitate the work of securing this co-operation, for the whole population practically consists of those who, in a greater or less degree, are connected with the company. Elsewhere, the requisite amount of co-operation may be more difficult to obtain. There is, however, one point in connexion with this branch of the subject which is worthy of note. Expert authorities are agreed in holding that mosquitos do not range far from the place where they are bred. It would therefore appear possible for a few neighbours to co-operate together and free their special locality from this insect pest. The experiment is now being tried in the quarter of Cairo in which I reside."

QUARANTINE.

Lord Cromer, who in previous reports has dwelt on the desirability of introducing modifications into the quarantine regulations, expresses the opinion that the proposals made by the Paris Conference constitute a very distinct step towards bringing the regulations into harmony with both commercial and scientific requirements. He bears testimony to the great ability with which the interests, not only of the Egyptian Government, but also of all concerned in Egyptian affairs, were represented at the Conference by Mohamed Pasha Cherif and Dr. Ruffer. He expresses the hope that the Quarantine Board will now take in hand the revision of its tariff, which greatly requires simplification and modification.

WATER SUPPLY.

Lord Cromer records the pleasure with which he is able to state that the Egyptian Government has at last found itself in a position to embark seriously on the very wide field of sanitary reform; recognizing that the public health depends in no small degree upon the purity of the drinking water, attention will first be given to this matter.

Provincial Towns.—A sum of £E.50,000 was set apart at the beginning of the year to be expended on the water supply of the provincial towns, and further funds will be forthcoming. A scheme for the town of Mansourah has been prepared at an estimated cost of £E.20,000; the municipality has in hand £E.8,000, and the balance will be advanced by Government on payment of interest at 2½ per cent.; a sinking fund of 2½ per cent. is also constituted, so that the loan will be paid off in about thirty years. In 1902 Assouan was provided with water at a cost of £E.3,200, and the Government has now advanced £E.5,000 to enable the scheme to be extended. Schemes for Damietta and Zagazig and other towns are in preparation, and in some cases money will be advanced without charge for interest, and repayment will not be demanded.

Cairo.—The work in connexion with the new water supply is being rapidly pushed on, and it is hoped that during 1905 the water, which will be drawn from a series of deep-bored wells now being sunk along the banks of the Nile, will be distributed to the town. The water from two of these wells is already being distributed. This allows of less stress being put upon the filter beds, with the result that the water recently supplied by the company has been much clearer and better filtered than was formerly the case. A sum of £E.10,000 a year is devoted to the maintenance of free taps from which the poorer classes can obtain pure water, and the Government has contributed £E.20,000 for the improvement of the quality and the increase of the supply of water.

Alexandria.—The question of the water supply of Alexandria, which has been under consideration for many years, has been settled by the signature of a convention with the water company under which it has engaged to construct some new filters on the American "Jewel" system, capable of supplying 36,000 tons of pure filtered water daily. It is hoped that the works will be completed by the middle of next year and they are so designed as to admit of expansion if necessary.

OPHTHALMIA.

In accordance with the provisions of the trust instituted by Sir Ernest Cassel with a capital of £40,000 a British ophthalmic surgeon, Dr. MacCallan, was appointed last July to be in charge of the work. Tents, equipments, and instruments were purchased. A native medical assistant, together with the necessary staff, was engaged, and a travelling hospital was erected at Menouf. During the autumn, Dr. MacCallan visited several towns in Lower Egypt. Notices were sent out that an ophthalmic surgeon would examine and treat any cases of eye diseases amongst the poor gratis. Large numbers of persons availed themselves of Dr. MacCallan's service. There can be little doubt that, by means of travelling hospitals, it will be possible to render assistance to many persons suffering from eye diseases in distant villages, who would probably never go for treatment to the chief provincial town. The present dispensary will be kept at Menouf for two or three months more, and will then be transferred to some other district. After some more experience has been gained, it is proposed to equip another similar dispensary and to dispatch it elsewhere.

LUNACY.

Cairo Asylum.—The accommodation of the Cairo Lunatic Asylum is inadequate, and when the new military hospital was constructed the present building, which adjoins the asylum, will, after some alterations, be converted for the reception of 150 lunatics; a further extension will eventually be necessary; a residence for an assistant and matron is in course of construction. Lord Cromer adds that the want of a simple lunacy law has long been felt, and that the matter is now under consideration.

Hashish.—The total amount of hashish seized during the past year amounted to 24,349 kilos, an increase of 7,770 kilos over any previous year. About one-half of the total crop is said to have been seized. Twenty-two cafés belonging to Europeans and 1,681 belonging to natives were ordered to be finally closed by the Tribunals in 1903, as against 17 and 1,325 in 1902. The price of hashish in Egypt stands higher than it has ever stood before. The rise of price appears to have slightly affected the consumer. In each "goza," or pipe, is placed a piece of hashish weighing about 2 gr., and valued at less than 5 milliemes (1¼d.), with some charcoal. This is passed round eight consumers, each of whom pays 2½ milliemes for a long pull. It is said that formerly one pipe was required to serve twelve consumers. The profits of the retail traders have certainly been reduced, but they are

till enormous. The following extract from Dr. Warnock's eport shows a distinct improvement:

Of 366 male patients admitted to the lunatic asylum during the year, 7, or about 18 per cent., suffered from insanity due to hashish, as com- ared to 22½ per cent. in 1902, 20 per cent. in 1901, 25 per cent. in 1900, 3½ per cent. in 1899, 25 per cent. in 1898, and 33 per cent. in 1897.

School of Medicine.

Lord Cromer reports that since the introduction of reforms hich were undertaken on the advice of Sir Cooper Perry, ho visited Egypt in 1897, the School of Medicine has been teadily growing in popularity; 35 students joined it in 1903 s against 27 in 1902. The total number of students is at resent 98.

The Soudan.

An approximate estimate of the population of the Soudan held to justify the statements that before the period of ie Dervish rule it was 8,525,000, that 3,451,000 persons ied of disease, that 3,203,500 were killed in external or in- rnal war, and that the existing population is 1,870,500 per- ns. Sir Reginald Wingate believes that these statistics, artling though they be, are fairly correct, and as an xample of one among many cases which have come under s personal observation he states that prior to 1882 the dis- ict comprising the banks of the Rivers Rahad and Dinder ntained upwards of 800 villages. When this country was amined some two years ago, not a village remained, but rough the energetic action of the Governor, Colonel rringe, 28 new villages have sprung up. The great decrease the population appears to be attributable mainly to the tertribal wars and to the heavy loss of life in the engage- nts with the British and Egyptian troops, but in part also the recent prevalence of small-pox and other diseases.

Small-pox.—Small-pox has in recent years caused fearful vages in the Soudan. It is said that 25,000 persons died of in the town of Omdurman in 1885, and serious outbreaks curred in 1891 and 1899. A recent outbreak which also reatened to be serious was, Lord Cromer states, averted by e skill and energy of the British medical officers. Great fficulties have stood in the way of the general application vaccination; owing to the prevalence of communicable seases of various sorts, arm-to-arm vaccination has been hibited as dangerous. On the other hand, calf lymph ich has come from Cairo frequently becomes inoperative a few days, owing to the excessive heat of the Soudan. e number of properly-qualified medical officers is inade- ate to deal with vaccination over so vast a country, and an deavour is being made to train a certain number of barbers o are to be found in every village, and for the inspection of ir work by the medical officers of the districts. Though 00 people were vaccinated last year, Dr. Christopherson ributes the decrease of small-pox in the Soudan during the t few years rather to the protection afforded by previous breaks—the last of which, in 1899, was severe—than to cination.

Malarial Fevers.—While the health of the troops in the dan was generally good during the past year (the per- tage constantly sick was 2.83 of the total force), malarial ers were exceedingly prevalent among the garrisons in the r-el-Ghazal Province. Captain Nickerson reports that osquitos swarm over every square yard of the Bahr-el- zal during the rains. No one who has not felt or seen n at Meshra-el-Rek can have an idea of their numbers. soon as the sun goes down they appear like a flight of sts, disappearing one hour after sunrise. During the s, when the country is full of swamps and the khors ded, no system of drainage is possible." The destruction mosquitos and their larvae, draining operations, and other sures are being energetically carried out at Khartoum, sala, El-Obeid, and certain stations on the White and e Niles, and even in the Bahr-el-Ghazal. Although it is soon to expect any very striking improvement, there are ouraging signs, and Colonel Penton believes that when the em has been thoroughly developed in the larger and more ortant stations there will be a marked diminution in the alence of malarial fevers.

Hospitals.—A number of good hospitals have been estab- ed, and the people appear to be gaining confidence in n; 40,862 out-patients and 3,357 in-patients were treated he Government hospitals in 1903, as against 26,591 and 5 respectively in 1902. The number of paying patients is easing. Last year they were considerably more numerous those who received gratuitous treatment.

Research Laboratory.—The research laboratory attached to the Gordon College, Khartoum, and generously equipped by Mr. Wellcome with all the appliances necessary for the conduct of scientific research, has been under the direction of Dr. Balfour, and Lord Cromer states that his researches into the causes of the diseases which specially afflict animal and vegetable life in the Soudan, by adding to the means of prevention which may be adopted, amply justify the creation of the laboratory. He adds that Dr. Balfour's report on his vigorous campaign against mosquitos at Khartoum is specially interesting as showing what is possible in a populous town in the direction of carrying out Major Ross's system.

Tsetse Fly.—Major Griffith, Principal Veterinary Officer of the Soudan Government, had found the tsetse fly in the Bahr-el-Ghazal province on the banks of the Pongo, where the road to Dem Zubeir crosses it. This is believed to be the most northern locality in which the fly has been found.

THE COST OF VACCINATION IN GERMANY, AND THE RISKS ATTENDING ITS USE.

I.—Animal Lymph Institutions: the Cost of Vaccine.

In Germany with a population of about 55,000,000, there are twenty-two State institutions for the provision of animal vaccine; and a report on the working of these establishments is published yearly by the Imperial Board of Health, Berlin.

II.—Cost of Vaccination.

The expenses of the Vaccine Institute in Berlin during the year 1902 amounted to £610, including salaries, hire and expenses of rooms; hire, cost, and feeding of calves; fire and lighting, cleaning and disinfecting, packing and carriage of lymph, and wear and tear of instruments and furniture. From this sum must be deducted £186 received by sale of lymph to private practitioners, thus the actual cost to the community was only £424. Some of the smaller establishments cost much less than this; but, assuming the average cost to be £400, then the twenty-two State institutions for animal vaccine cost in all £8,800. This is a very small sum compared to the cost of a severe epidemic in any large town.

As regards salaries of public vaccinators in Germany, it must be remembered that all official salaries there, and especially those paid to medical men, are very much lower than in this country. In some parts of Germany the public vaccinators receive a fixed salary, in other parts each vaccination is paid for. It appears that in Cologne, to take one place, in the year 1899, there were 13,772 vaccinations by public vaccinators, revaccinations included, and the amount received was £224 17s. During 1900 the sum of £256 12s. was paid for 13,852 vaccinations; and in 1901 the sum of £256 18s. for 13,851 vaccinations. Of course, the vaccinations were all done at stations, where everything was made ready for the public vaccinator. For in Germany everything required in the way of clerical assistance, rooms, etc., is provided by the local authorities and the cost of all this must be considered in reckoning the cost of vaccination. In Germany, in short, the idea is to save the vaccinator in every possible way, whereas in England, it is the child's parents who are considered.

In the (official) Memorandum on the Introduction of Animal Lymph, which was placed before the German Vaccination Commission of 1884 by the Imperial Board of Health, the cost of vaccination was estimated to be about 1s. per vaccination, and in the same document the additional cost of animal in place of human vaccine was placed at one-twentieth of a shilling—that is, a little more than ½d. of English money. During the year 1897 the number of primary vaccinations was 1,455,349 and of revaccinations 1,174.827; thus over 2,500,000 vaccinations were done. If each of the above cost 1$\frac{1}{20}$s., the total cost in 1897 was about £138.000. On this scale 2,000,000 vaccinations would cost about £100,000.

III.—Injuries presumably due to Vaccination.

All cases of asserted injury to the health of any child by vaccination are very carefully investigated, and reports of all such are published yearly by the Imperial Board of Health (*Statistische Mittheilungen aus der k. k. Gesundheitsamte*). By the official regulations cross-cuts are strongly deprecated in vaccination, and so is puncture. The method of operating in Germany is to make four slight incisions, one at each site—that is, one only for each vesicle to be produced. The official instructions are:

Four slight incisions suffice, of at most 1 cm. in length (⅜ in.), and at a distance apart of at least 2 cm. (¾ in.). Into each little wound, held

open by gently stretching the skin, the vaccine is inserted by a single stroking with the charged lancet, much bleeding being avoided.

During the thirteen years 1885-97 out of a total of 32,166,619 children vaccinated or revaccinated in Germany 115 children died "within a few weeks or months" after the operation from injuries presumably due thereto. This is a proportion of 3.5 deaths per 1,000,000 vaccinations. Of these 115 it was shown that 7 died owing to improper treatment of the vaccination sores by parents, 2 were infected by contact with others who had suppuration going on, 1 had cerebral meningitis from a blow on the head on the day of vaccination, 1 was "scrofulous" when vaccinated, and 2 more were "neglected"—that is, did not receive proper care at home. In 1 case anthrax germs infected the child subsequent to vaccination. In 28 cases of other wound diseases the infection must have occurred subsequently, because the disease first appeared from one to three or four weeks after the operation, 2 cases were doubtful as to fault of vaccination, and 2 more were excluded because the disease, sepsis, only appeared thirty-four weeks and a few months respectively after vaccination. Deducting the above cases,

there remain 67 deaths from diseases the causation of which by vaccination does not appear to be excluded, according to their character. Meanwhile in many of these cases the data are too scanty to enable us to form a judgement as to whether such a connexion existed. If we compare this number (67) with the number of vaccinations (over 32,000,000), it results that vaccinations which run an abnormal course are very rare.

Such is the official comment. Thus, when examined, the deaths were brought down to a little over 2 per 1,000,000 vaccinations. The report continues:

While formerly a painful and distressing death due to small-pox removed tens of thousands of children yearly, there now die in all Germany about nine in consequence of unfavourable occurrences after vaccination. Whoever should deprive himself of the advantages of railway travelling because of the accidents that sometimes occur would be looked upon as a simpleton. Compulsory school attendance involves far more dangers to health than compulsory vaccination.

From the report *re* vaccination for the year 1902 we learn that in that year no death occurred directly due to bad lymph or bad vaccination itself. But two deaths from inflammation of the cellular tissue of the upper arm were perhaps due to the subsequent invasion of the site of operation by impurities.

MEDICAL NEWS.

The late Sir Edward Sieveking left real and personal estate of the value of £24,863.

Medical Magistrate.—Dr. John E. Panton has been appointed a Justice of the Peace for Bolton.

The Lord Mayor of London will preside at a festival dinner in aid of the funds of the Middlesex Hospital to be held at the Hôtel Métropole on Tuesday, May 3rd.

Gresham College.—Dr. E. Symes Thompson, Gresham Professor of Medicine, will give a course of lectures on heredity and evolution at Gresham College, E.C., on April 19th, 20th, 21st, and 22nd, at 6 o'clock on each day.

In consequence of the prevalence of anthrax in the County of Chester, the Board of Agriculture and Fisheries has made an order for the slaughter of affected animals, and for the payment of compensation.

It is reported that President Roosevelt has issued an order directing the Japanese system of wrestling to be introduced into the Naval Academy as an addition to the system of athletic training in use there.

We learn from the *Boston Medical and Surgical Journal* that at a concert of the Washington Saengerbund, held on March 20th, a cantata, "Hymne an Hygiea," composed and orchestrated by Dr. John C. Hemmeter, of Baltimore, and dedicated to Dr. William H. Welch, was given.

Convalescent Scarlet Fever Patients.—A special appeal for assistance towards clearing off a debt of £600 is being made by the Committee of the Mary Wardell Convalescent Home for Scarlet Fever at Stanmore. It is now twenty-five years since the foundation of this institution was brought about by the efforts of Miss Mary Wardell, who had realized the need for such a home through her experience as a worker among the poor of London, and who is now, as she says in a covering letter to the appeal, 72 years of age. Patients are admitted upon payments which vary from 10s. a week upwards; about half the annual cost of the home is thus covered. Last year 188 patients were received. So far as we are aware, this is the only home which specially devotes itself to convalescents from scarlet fever, and its utility and value are attested by the fact that it received last year grants from each of the three metropolitan hospital funds.

Cheques amounting to £320 has been forwarded by the National Sunday League to various hospitals and charities as a result of concerts recently given at Battersea, Brixton, Deptford, St. Pancras, Shoreditch, Hammersmith, Stratford, the People's Palace, and Kennington.

The annual dinner of the Volunteer Ambulance School of Instruction will be held on Thursday, May 12th, at the Trocadero Restaurant, London, W., when the chair will be taken by Brigade-Surgeon-Lieutenant-Colonel P. B. Giles, V.D., at 7.45 p.m. The guest of the evening will be Sir William Taylor, K.C.B., Director-General of the Army Medical Service.

The Ingleby Lectures of the University of Birmingham will be delivered by Dr. C. J. Cullingworth, Obstetric Physician to St. Thomas's Hospital, London, in the Medical Lecture Theatre of the University on Tuesdays, May 10th and 17th, at 4 p.m. on each day. The lectures will be A Plea for Exploration in suspected Malignant Disease of the Ovary, with illustrative cases.

The Prefect of Police has proposed, and the Municipal Council of Paris has approved, the introduction of certain amendments in the regulations to which public prostitutes in Paris are at present subjected. Although ostensibly somewhat more severe than those which have hitherto existed, it is considered by many people that the amendments proposed will practically amount to an abolition of the regulations altogether.

The spring meeting of the South-Eastern Division of the Medico-Psychological Association will be held at the West Ham Borough Asylum, Ilford, Essex, on Friday, April 29th. At the general meeting at 2.45 p.m. Dr. F. W. Mott will give a lantern demonstration on the Significance of the Convolutional Pattern of the Human Brain, and Dr. D. G. Thomson will speak of the "Nursing Bill" from the mental nursing point of view.

The report of the Council for 1903, presented to the annual meeting of the Metropolitan Hospital Saturday Fund on April 9th, showed that the receipts from workshops and business houses reached £23,674, being the largest amount recorded in the history of the fund; £21,183 had been distributed among 195 hospitals, dispensaries, and convalescent homes. The Surgical Appliance Committee had supplied 4,313 appliances, towards the cost of which the recipients contributed £2,045. The Lord Mayor, as President, has consented to preside at the annual public meeting of the fund to be held at the Mansion House on Saturday, April 23rd, at 4 p.m.

Epizootic Lymphangitis.—The Board of Agriculture has issued a circular stating that disease of horses known as epizootic lymphangitis, which has existed for many years in Italy and in several other countries in Europe, and is also prevalent in India and in some parts of South Africa, has recently been introduced into Great Britain. The disease is due to a cryptococcus, an ovoid body with a double contoured envelope and highly reflectile contents; it is easily transferred from a diseased horse to a wound on another horse usually no doubt by sponges, rubbers, or brushes, or by the hand of the attendant. The condition is liable to be mistaken for the farcy form of glanders, as the symptoms are swelling of the lymphatics of the skin on the inside of the hind legs as a rule, but also sometimes on the side of the neck or on the body; usually nodules varying in size from a pea to a hazel nut are produced and eventually burst, discharging a small quantity of purulent material. The disease may be diagnosed by a microscopical examination of the discharge, which under a magnification of 400 will reveal the characteristic large ovoid cryptococcus without staining; the mallein test may also be used, as an animal suffering from epizootic lymphangitis does not respond. A horse suffering from the disease should at once be isolated, and notice should at once be given without delay to the police. Separate implements should be used for and about the diseased horse, and as the germs of the disease have been known to linger about a stable for a long time, disinfection should be practised.

RITISH MEDICAL ASSOCIATION.
ptions to the British Medical Association for ear 1904 are now due and should be forwarded stal order or cheque to the amount of 25s. General Secretary, 429, Strand, London, W.C., the case of Colonial members, to their Branch urer.

ritish Medical Journal.

SATURDAY, APRIL 16TH, 1904.

E PRODROMATA OF THE PSYCHOSES.

eat field for research," said a friend to Professor is always the unclassified residuum," and though an unclassified residuum to a field so superficially as that of mental diseases may appear a prema- mption, work of importance is being done by many tors in the outer fringe of psycho-pathological

ch work is that of Dr. Clouston, who in a paper on the Prodromata of the Psychoses r Meaning[1] has insisted on the need for a ely recognition of the solidarity of the whole nervous system, and a clearer conception of the ng connexion between the mental and non-mental s occurring in the course of any psychosis. Not mental diseases accompanied by symptoms non- character, but Dr. Clouston asserts that in a large n of cases the non-mental phenomena precede the ce of the psychosis in a recognizable form. The importance of this, implying the possibility of mental disease in its earliest stages, is obvious. sensory prodromata in melancholia, head pain is e most common, but there may be instead "pecu- tions" of weight or of lightness, bursting or con- lings, giddiness, heat or cold. The head pains are of megrim, and are seldom accompanied by sick- miting. A fact of much practical significance and e interest is that they frequently pass off with arance of the true mental phenomena, and re- uring the period of convalescence, so much so, in the course of melancholia there is a return of omal neurosis the recovery of the patient may ated.

se of these prodromata and their precise relation ental disease which succeeds them are questions ting elucidation. No toxaemic theory, Dr. holds, is satisfactory, and as there are no flush- allors, and the general circulation is not uni- ffected, the common explanation of head- the supposition of vasomotor disturbance nadequate. In maintaining that these sym- pend on "failure of nutritive and dynamic of the higher cortical cells," Dr. Clouston ly describing their origin in as accurate is permitted by the limitations of our present e. Dr. Clouston assumes—as has been for many med by Edinger of Frankfort in his *Ersatz-* condition of metabolic equilibrium in each hose stability is influenced and regulated from by adequate afferent stimuli. Now for the ent of the "mental cortex" and for its due func- tional activity the presence of constant stimuli acting on the sensory centres by way of peripheral sense organs is absolutely necessary. If therefore the sensory system be hereditarily weak, or be exhausted or starved or poisoned, then the mental centres whose proper action depends necessarily on the peripheral integrity must soon exhibit symptoms of disturbance. By this relation Dr. Clouston explains the sequence of sensory neuroses and melancholia. "Sensory disturbances arise first, disturbing impressions are sent to the mental cortex, and melancholia or mania stupor or mental dissolution come next as natural physiological sequences. The sensory areas of the least important, the more shallow, are the gateways to mind and so suffer first."

The conclusion "and so suffer first" seems hardly warranted by the terms of the syllogism. From the context it is apparent that in the psychoses under consideration Dr. Clouston is of opinion that the clinical facts he has adduced show that the mode of neuro-psychic declension is from the periphery to the centre, and not from the centre to the periphery. A quotation from the summary at the end of the paper puts this even more clearly. "A general consideration of the character and frequency of such facts from the physiological and pathological, as well as from the clinical points of view.... seems to point to the fact that the lower parts of the sensory apparatus very often break down before the mental apparatus in the highest regions. They seem to prove the mental cortex to be the centre of the organism, and teleologically its end. In this way they point to a greater resistiveness against disease in the higher centres." That without sensation no mentality could develop or exist may be freely admitted, but it is not abundantly clear that because non-mental neuroses appear in the transition period between sanity and insanity that these phenomena are the result of "a breakdown in the lower part of the sensory apparatus." Pathological facts in support of such a contention are as yet wanting, the underlying changes in the psychoses being up to the present beyond our ken and purely conjectural, whilst the clinical facts, set though they are by Dr. Clouston's researches beyond doubt or cavil, hardly warrant so striking a generalization, and it appears to us they may possibly bear some other interpretation more in harmony with the laws of dissolution as expounded by Herbert Spencer and Hughlings Jackson. Agreeably with the views of these latter the production of these paraesthesias might be analogous to that of hallucinations, and depend on changes in the psycho-sensory centres of the cerebral cortex (Tamburini). That the effect of such changes, slight in amount though they might be, would be felt throughout the whole series of linked neurons, even to the periphery, is *a priori* probable, but the changes would be initiated not in the lowest but in the highest regions.

Returning, however, to the clinical evidence, which throughout is of high value, it may be noted that the prodromal symptoms enumerated by Dr. Clouston are not confined to the head. He states that spinal and visceral pains may precede mental attacks, and special sense disturbances, tinnitus aurium, deafness, loss of taste, and hallucinations recognized by the patient as such have been met with as precursors of mental disorders.

On the motor side convulsions, "fidgets," alterations in handwriting, and particularly, and most characteristic of all, changes in the facial and eye expressions occur amongst the prodromata. No prodromal symptom, how-

[1] *Review of Neurology and Psychiatry*, vol. i, No. xii.

ever, is more common than insomnia. Dr. Clouston frankly admits that no pathogenetic explanation of this symptom is possible until the mystery which enshrouds the physiology and psychology of sleep has been penetrated, but he is convinced that none of the vascular theories put forward explains the matter, and maintains that the elucidation lies in a knowledge of the essential physiological qualities of the cortical cells and that just as a disturbance in the proper balance of anabolism and katabolism in the sensory neurons leads to pain or paraesthetic forms, so a corresponding disturbance in the cortical cells expresses itself in insomnia and distressed dreaming as preludes to a mental attack.

Since Dr. Ford Robertson's observation that in a large percentage of cases of general paralysis catarrh of the bowel can be demonstrated, thus suggesting a causal connexion between intestinal infection and general paralysis, it is possible, Dr. Clouston thinks, that in the nutritive and digestive troubles which often precede mental symptoms for a long time there may lie a similar explanation.

The intrinsic value of Dr. Clouston's suggestive paper lies in the emphasis it lays on the fact that an attack of mental disease is not a simple or localized phenomenon; that the several parts of the nerve system exist in a state of mutual dependence on one another approximating under normal conditions to a state of equilibrium; that if any one factor be disturbed all others are disturbed to a greater or less extent, and finally, to quote the words of the author, "that the whole class of mental diseases should be regarded and treated, not as local disturbances, but as widespread departures from the normal physiological condition of the whole organism."

IMMUNITY AND BLOOD AFFINITIES.

OUR knowledge of the properties of the blood in relation to immunity has increased so rapidly that it is difficult to realize how recent is its origin. In 1888 Nuttall published an important series of experiments which demonstrated the bactericidal action of normal blood serum. This work excited much attention and criticism, and proved a powerful stimulus to further research on both the natural and the acquired powers of the animal body to resist infective organisms. The more recent discoveries and theories on which the modern science of immunity is based are largely attributable to the work and inspiration of Ehrlich and Metchnikoff. At the present day the number of workers in the field is enormous, and the subject has become so extensive and so complicated by the accumulation of individual and more or less isolated data that the main issues still requiring elucidation tend to become obscured. This disadvantage is to some extent a necessary concomitant of the early stages in the progress of a new scientific field; new data must be amassed from a heterogeneity of sources; conflicting ideas, each advocated by its special pleaders, crop up side by side and cannot be finally adjudicated upon except by the slow and cumbrous procedure of elimination, in obedience to the law of the survival of the fittest: and then, as in all scientific work, the personal equation plays an important part. Men engaged upon scientific research must necessarily become absorbed in details, and it is the gift of only the very few to look beyond their immediate objective, and forecast the destinies of their science as a whole. The great majority aim at nothing further than placing upon record new observations, with a veneration for experimental facts which is often accompa a proportionate irreverence towards such intangibl as ultimate principles. But the discovery of new only half the work: the more difficult task rem incorporating these as an integral part of the knowledge which has already accumulated.

What is imperatively needed is the grasp of a mind, to bring into order the chaotic mass of experi work on immunizing serums, and indicate the li which substantial progress is actually being made. new book on precipitins[1] Dr. Nuttall has atten portion of this task, and has also contributed important additions to the experimental data available. Dr. Nuttall is exceptionally well for this work. In addition to his high tation as an authority on the properties of serum, he possesses an unrivalled grasp of the lit of his subject and is capable of handling it in t spirit of cosmopolitan impartiality. His work Germany entitles him to rank amongst the bacteriologists, but has left him without a trace against the French school; and from his i acquaintance with American work he can form opinion as to its value than any other authority country. The present volume fully justifies his rig regarded as the proper man to deal with this subje constitutes a work which must necessarily rank standard authority on the precipitins of blood seru

As to the nature of precipitin test, it will be r bered that an experiment is performed as follow animal, generally a rabbit, is repeatedly inoculate small doses of a particular serum. The animal is quently killed and its serum is collected. This assuming the inoculations to be successful, is now an "antiserum," and possesses the specific prop causing a precipitate when added to a sample of the serum as that with which the rabbit was inoculated when the antiserum is added to serum from anoth of animal no precipitate, or at most a much s amount of precipitate, is produced.

This method has been employed by Dr. Nuttall purpose of determining the degree of inter-relati amongst various species of the animal kingdom. obtained 900 specimens of blood from different a and collected from a large variety of sources and them with precipitating antiserums.

As an example of his results we may take the man. Darwin claimed that man was more closely to the Old World than to the New World apes. I firmation of this view Dr. Nuttall finds that "the rea obtained with the bloods of *Simiidae* closely rese those obtained with human blood; the bloods of *pithecidae* came next, followed by those of the *Cebid Hapalidae*, which gave but slight reactions with human serum, whilst the blood of *Lemuroidae* ga indication of blood relationship." The other va results obtained with the serum of *Mammalia*, *Reptilia*, *Amphibia*, and *Crustacea* are far too numer admit of a summary.

In a later chapter contributed by Dr. G. S. Gr Smith blood relationship is investigated amongst the *Vertebrata* and *Arthropoda* by means of precipitating serum. Here Gaskell's theory as to the origin of verte

[1] *Blood Immunity and Blood Relationship. Precipitin Tests.* By Nuttall, M.A., M.D., Ph.D. Cambridge: University Press. 1904. 8vo, pp. 444.)

nder consideration. It is well known that, in spite ersistence, that eminent physiologist has failed to his favourite theory the adherence of zoologists, as often been hoped that he might at length be e to return to his physiological studies by the nce of some authority who could accept his al hypothesis as valid. It is therefore with genuine hat we find Dr. Graham-Smith concluding from his in tests that "no evidence can as yet be produced ort of this hypothesis."

recipitin test for blood has already been shown to actical value in medico-legal diagnosis. Dr. Nuttall special attention to the application of antiserum purpose, and embodies in the present volume a teresting chapter which contains the results of re- conducted, at his suggestion, by Drs. Graham- nd Sanger, who obtained specimens from a number es in the possession of the Criminal Investigation ent of Scotland Yard, and found that blood which dried many years could still be tested by means itins.

from its zoological and medico-legal interests Dr. book will prove of the highest value to students nity as a summary and criticism of present know- ncerning precipitins and as an indication of the which future researches ought to be conducted. Dr. Nuttall will take up the allied problems of his n the same masterly spirit in which he has dealt ecipitins he will confer a benefit upon medical which it would be difficult to over-estimate.

DOOR EMPLOYMENT FOR "CURED" CONSUMPTIVES.

common experience that patients suffering from ry consumption who have improved considerably reatment in a sanatorium or hospital fail to main- improvement in health, or even become worse ore, when they return too soon to the conditions hich they originally became ill. It requires a d stay in a sanatorium for a case of tuberculosis to entirely quiescent or "obsolescent," and amongst r patients such prolonged absence from home and rarely to be obtained. Thus in any scheme for m treatment of the poorer consumptives pro- ust be made to obviate as far as possible this unhealthy conditions, or the good work of the m will be seriously curtailed, and may be annulled.

sign of the practical spirit in which the National ee for the Establishment of Sanatoria for Workers from Tuberculosis, formed under the auspices of ital Saturday Fund, has approached the problem aspect of the question has not escaped attention. and Buildings Subcommittee of this body, guided dical members, has recommended that for some tients should be found light and suitable employ- t-of-doors. It is rightly believed that a certain of medically-selected patients whose disease is might be fitted for a return to wage-earning as workers by prolonging their stay at the sanatorium, er observation, and learning or practising such ns as it may be possible to include in the scheme lops.

ndeavour to teach some outdoor employment to ose illness has been contracted in unhealthy sur- roundings, so as to prevent as far as possible a return to the dangerous occupation, has figured in most of the schemes which have been drawn up by writers on the subject, but it is one of the details of sanatorium treatment which has hitherto received little practical recognition. To those who are acquainted with the conditions of work in many of the occupations which the poorer consumptives of London follow, the paramount importance of removing these sufferers permanently from such work is obvious, not only for the sake of the patients themselves, but also in the interests of their fellow-workers also.

It is sincerely to be hoped that if, or when, the proposed sanatorium for consumptive workers is established this outdoor work scheme may form a prominent feature of the institution. To withdraw the man who has recovered from an attack of pulmonary tuberculosis from the town, and fit him to earn a living by agricultural employment, will give him the best possible chance of keeping well, and of becoming robust. If, at the same time, the scheme tends to relieve, even to a small extent, the overcrowding of the cities and to lessen the gradually-increasing difficulty in finding the necessary labour for farm work, it may have an economic value beyond that of restoring an invalid to the ranks of the wage earners. The success of the scheme outlined by the National Committee for the Establishment of Sanatoria for Consumptive Workers depends, as the report states, upon the co-operation of the Friendly Societies and of trades-unions as well as upon that of the patients themselves. It will, however, surely not be difficult to secure their co-operation for a scheme which will be of such advantage to all.

HYGIENE AND TEMPERANCE.

It will be remembered that early in January a Committee containing many influential members of the medical profession issued a form of memorial praying the central educational authorities in England, Scotland, and Ireland respectively to consider whether it would not be possible to include in the curricula of the public elementary schools, and to encourage in the secondary schools, such teaching as may, without developing any tendency to dwell on what is unwholesome, lead all the children to appreciate at their true value healthful bodily conditions as regards cleanliness, pure air, food, drink, etc. The memorial further pointed out that under the present permissive system teaching on the laws of health was given to a small proportion of the pupils only, and urged that it should be compulsory. In the army schools of this country, and of all foreign stations west of Aden, teaching in elementary hygiene including temperance and health and sanitation, with special attention to the deleterious effects of alcohol, is given while in many colonies teaching on the nature and effects of alcohol and the advantages of temperance is regularly carried out. Such teaching is still more completely organized in the United States of America. Having regard to the fact that much of the degeneracy, disease, and accident with which medical men are called upon to deal is directly or indirectly due to the use of alcohol, and that a widespread ignorance prevails concerning not only the nature and properties of this substance, but also its effects on the body and the mind, the memorialists urged the Board of Education of England and Wales, the Scotch Education Department, and the Irish Education Authorities to include in the simple hygienic teaching which they desired, elementary instruction at an early age as to the nature and effects of alcohol. The memorial concluded by urging the necessity of ensuring that the training of all teachers should include adequate instruction in these subjects. At a meeting of the Committee of Distribution, held on April 11th at the house of Sir Victor Horsley, it was

reported by Dr. E. Claude Taylor, honorary acting Secretary, that the number of signatures received up to date was 14,632. It was decided to print the petition with all the names appended, and to send copies of it to all the members of both Houses of Parliament and to all the local education authorities. It was also arranged to invite the central educational authorities in the three kingdoms to receive deputations at an early date, in order to present the petition and to point out the importance of the subject which it raises.

COMPANY PRACTICE.

Two recent cases in which titles were assumed under the aegis of limited liability companies illustrate the serious uncertainty of the law. At Bolton a person was prosecuted for wrongfully using the description or title "Reynolds, dentist." The defence that he was only the servant of a company and that the word "limited" was painted on the windows was of no avail; the magistrates convicted and imposed a fine, refusing to state a case for appeal on the point of law. In the Jaffe case, to which we have already alluded, precisely the opposite course of events took place, and the judges of the Irish Court of Appeal delivered themselves of a legal subtlety so remarkable that it is desirable to refer again to the case. They laid down that when a company had been registered under a name which included a medical or dental title the whole set of words became purely its name, just like a man's surname, and that in using the name under which it comes into being no question of assumption of title could be raised. To make it clear the Lord Chief Justice asked, "if a man be born with the name 'Dentist' can he be prosecuted under this Act for using his name? for example, 'John Dentist.'" such a person obviously could not be convicted of assumption of title when he used a name that was his own. This is a novel view of the circumstances, and seems to point to the necessity of regulating the registration of such companies. Whilst adopting this, as it seems to us, far-fetched interpretation, the judges expressed regret that the law did not allow them to convict the persons brought before them.

ALTERATIONS IN THE INCIDENCE OF MEDICINE STAMP DUTY.

As a result of recent legal decisions the Board of Inland Revenue announced last June that it would change its practice in dealing with proprietary medicines, particularly in the case of those the names of which suggested the possession of remedial properties. The new regulations came into force on April 1st, 1904. In times past the practice of the Board has always been a source of uncertainty to chemists selling such remedies; for example, under the old regulations a distinction was drawn between medicines labelled "the cough mixture" and "the mixture for coughs," the former being duty free and the latter taxable. To ordinary mortals there appears to be no reason for any difference of treatment in such cases, and both will pay duty in future. Such a change has caused some consternation amongst prescribing chemists, particularly those whose business premises are situated in poor localities; the sale of small quantities of such remedies is enormous, and if liable to taxation a pennyworth of antibilious pills or cough mixture would cost the purchaser 2½d. Although the Act dealing with the question was passed so far back as 1812, the discovery has only recently been made that it contains an exemption in favour of chemists; by virtue of this exemption they will be able to sell approved remedies if accompanied by an adequate disclosure of their composition. As a result of this, huge formularies have been published, and a reference on the label of any preparation giving the number of the formula in these compilations will be considered equivalent to publication of the formula, and render the remedy duty-free. This will probably result in a great decrease in the number of secret remedies, though many will be unwilling to disclose their composition, and will still continue to pay the duty.

THE UNIVERSITY QUESTION IN IRELAN

Sir Rowland Blennerhassett, President of Quee lege, Cork, has discussed at some length the prese tion of university education in Ireland in an articl *Nineteenth Century* for April. He gives a short hi universities in Ireland from 1312, when the the bishop of Dublin established a short-lived unive that city. While recognizing the important contri to human thought and progress made by Trinity Dublin, he admits that the University of Dublin h commanded the respect and regard of a part of the Although many substantial reforms were intr into its administration, beginning with the admis Roman Catholics at the end of the eighteenth cen maintained during the greater part of the nin century its essentially Protestant character, a but Protestants were excluded from its highe tinctions. He traces the history of the Queen versity and of its successor, with which, he almost every one in Ireland who takes intelligent i in the subject of university education is tho dissatisfied. He believes that the true mod Ireland to follow is the university system of Ge avoiding centralization. He points out that wha done will involve large expenditure in order to pl equipment of the university colleges on an adequat ing. Thus at Cork, he says, not only would labor have to be built and large additions made, but a great library established. He concludes by expres opinion that the main lines which should be follo any scheme of Irish university reform should be t Trinity College to shake off all remaining tramme nected with its origin and to become the great n University of Ireland; "to reconstruct a university lines of the old Queen's, and to reform the Royal enable it to meet wants not met either by Trinity reconstructed Queen's. These universities should as free as possible of State control and preserved fr blighting influence of official interference." Such a would, he asserts, commend itself to the Irish peop have a most stimulating effect on national life and formation of a sound public opinion. Speaking assembly of old Corkonians, who were entertained Café Monico by Dr. Macnaughton-Jones last week, Si land Blennerhassett congratulated the medical sch Cork on the fact that the number of entries last ye larger than in any other school in Ireland save College, Dublin, and added that he thoroughly belie the principle of decentralization in regard to uni education. He referred to the difficulty of carryi original research in the College owing to the poverty endowments, but said that it had withstood many a made upon it from various quarters, and he hoped it always continue to exist as a centre of education and lectual advance in the south of Ireland.

MILK AND NATIONAL DEGENERATION.

We are glad to observe that the *Pall Mall Gazette* o 12th, in the course of an able article on the quest the physical deterioration of the nation, has adopted which we have steadily advocated from the begi This is that it is the absence of due care of the ch early life which is most to be blamed and that wh ordinary rules of hygiene in the surroundings of the require every attention it is the milk supply of the c which demands immediate and radical reform. The and repeated pleadings in the series of articles which w lished last year have not been made in vain, but so fa been regarded by the general press chiefly from the point of the older members of the community and connexion with infectious disease. The real point matter, however, is, as punctuated by the *Pall Mall G* that so long as artificial feeding, which to a great ext an unavoidable evil, prevails, healthy babies are impo without clean and wholesome cow's milk. The art which we refer points out that it is here that the qu of physical deterioration of the nation comes in, few generations of weakly babies necessarily sp

with an undue proportion of defective citizens. almost the whole attention of the public has been ntrated upon the treatment of children at school age pon reforms in educational curricula. Doubtless harm is done at that age; but reform to be effectual be taken much further back—back, in short, to the months of a child's life, when its after-history from int of view of robust health or of comparative weak- s, in nine cases out of ten, to a very large extent ined. This point is one that hitherto has escaped l notice, and, as the *Pall Mall Gazette* states, has been oked even by such a body as the Council of the Royal e of Surgeons, which, in replying to the circular of the or-General of the Army Medical Department on the t of physical deficiencies among the troops, suggested s only applicable to the treatment of children at and later ages. This prevalent oversight of the ance of an essential and primary cause of degenera- the more curious because nothing is more common or the parents of weakly children to ascribe their y to difficulties experienced in rearing them as n. Another point made by the *Pall Mall Gazette* is o far, although certain municipalities have taken up tically the question of placing better milk at the tion of the public, and especially of the poorer , they have hitherto concentrated their endeavours the impossible; in other words, they have tried milk which must often be already practically putre- nd to convert it by heat and other processes into food for the young. They have not recognized, as n done in France, that milk must be protected from urities from the very moment it is drawn. This be the object of all reform, legislative and execu- nd the *Pall Mall Gazette* confirms our statement that, e prejudices of the farmer are overcome, clean milk nore expensive to produce than foul. It would also that the authorities of Shadwell Hospital for n have now recognized this fact, and are about to h a dépôt the milk contract of which will be given rmer who will undertake to conduct his milk pro- operations upon the hygienic lines frequently ed in these columns. The seed therefore appears prouting, and we may hope that other authorities n follow suit.

SCHOOL BABIES AND MEASLES.

t meeting of the Society of Medical Officers of was given up to the discussion of the control of , the mortality from which almost alone among able diseases shows no sign of decreasing, but, short fall in the Eighties, has rather tended to , costing the country about 13,000 lives annually in l and Wales alone. Opinions differed as to the of school closure and the value of notification, members representing rural or small urban for the most part found that closure, if carried y enough, was successful in suppressing epidemics month. A happy suggestion was that adopted by sholme, at Brighton, of allowing children who have suffered from any given infectious disease, and efore insusceptible, to continue their attendance, g those only who are liable to contract it. To e this arrangement cards bearing the names of all e important infectious diseases are issued to the , who, after inscribing them with the name of the aw lines through those from which the child has suffered. But whatever opinions the medical offi- have held as to the success or failure of particular s they were unanimously agreed in ascribing the ce of measles and the terrible mortality—for how 13,000 deaths from a mild and preventable disease ibed?—to the custom, unknown in other countries, ing the infant schools with babies from 3 to 6 years of se children, too young to be capable of learning les- kept for five hours on five days in the week in a foul ere, the effects of which they cannot throw off by e game in the interval, for the purpose of earning ernment grant for attendance and to relieve their mothers of their natural duties as parents. They number 611,000, or 14 per cent. of the children in elementary schools; they provide about 75 per cent. of the cases of measles and 90 to 95 per cent. of the deaths. Their exclusion would conduce to the health of the rising generation, add 14 per cent. to the existing accommodation, and set free for purposes of more real importance to the nation a sum of no less than £1,250,000. The average age incidence of the disease would be raised and consequently the mortality greatly reduced, for though infants might contract it at home from older children, the majority would escape while they constituted the only, or the only susceptible, members of the family.

THE EVICTED ENGLISH.

IN an article with this title published in the *Monthly Review* for April, Major Evans-Gordon, M.P. for the Stepney division of the Tower Hamlets, has discussed the problems, largely of a sanitary order, raised by the alien immigration into the East of London in recent years. The emigrants are largely continental Jews of the poorest class; and from a variety of causes, partly social habits and partly religious customs, they herd together in certain streets under conditions as to overcrowding which would be unendurable even to the poorest British or Irish inhabitants of the slums, low as their standard of cleanliness and comfort is. Major Gordon alleges that there is a "capitalized, methodical overcrowding by which the native inhabitants are expropriated from a constantly spreading area," and that it "differs essentially from the haphazard, unorganized, overcrowding among our own people here in a street, there in a court." We have reason to know that there is no exaggeration in the picture which he draws. A house in a by-street is taken by a small capitalist, who may or may not be a Jew and an alien; he deliberately sets about making the place intolerable to the tenants he finds there, and when they are once got rid of he overcrowds every room with alien Jews, excluding natives, even if any can be found willing to share the conditions of life which soon prevail. The means provided by the Public Health Act for dealing with the evils which arise have proved to be inadequate, and the overcrowding is a standing menace to the public health. One shudders to think of what would be the consequence of the introduction of plague into such a hotbed. The insanitary conditions already produced and extending year by year call urgently for a remedy. The Aliens Bill, introduced by the Home Secretary just before the Easter recess would give the Local Government Board, if satisfied on the complaint of any sanitary authority that the dwellings in the district of that authority or in any part of that district are overcrowded and that the immigration of aliens had substantially contributed to that overcrowding, power to make regulations for prohibiting or regulating the dwelling or residence of aliens or of any particular class of aliens in the area, and for defining the limits of the prohibited area. Inspecting officers would be appointed, who would have power to prohibit the landing of an alien suffering from any infectious or loathsome disease, or from any mental incapacity, or who failed to furnish the certificates of particulars or means of identification prescribed. The Home Secretary would consider the reasons for the prohibition of the landing, and would have power to require the alien to leave the United Kingdom.

THE JAPANESE HOSPITAL SHIPS.

THE Japanese hospital ships which have been frequently mentioned were not prepared specially for the existing war, but were built soon after the signature of peace between China and Japan after the war of 1894, during which the inconveniences and drawbacks of depending on adapted transports made themselves felt. The ships are two in number, the *Hakuai-Maru* (boundless love or benevolence) and the *Kosai-Maru* (eternal charity or beneficence). They are sister ships and both were specially designed for the purpose to which they are now being put, being built in England to the order of the

Japanese Red Cross Society. The expense of course was very considerable, and by way of lessening it an arrangement was concluded between the Society and the Japanese Steamship Company, the Nippon Line, by which the latter was allowed to make use of them for the ordinary commercial purposes of passenger and freight traffic until occasion should arise for their use upon war or allied service. It was not very long after their completion before this happened, and both proved of great use during the international occupation of China in 1900. Between them they performed some fourteen or fifteen journeys from China to Japan, and carried to the military hospital at Ujina 2,866 sick and wounded, amongst whom were a considerable number of men belonging to the European armies of occupation, especially that of the French. Each of the vessels has a length of some 300 ft., a breadth of 40 ft., and a displacement of 2,700 tons, while their speed is fifteen nautical miles an hour, and their draught has been kept so low that they can be used in waters not exceeding 20 ft. in depth. They have three decks, which, according to Dr. Tessier, who described the ships in *Le Caducée*, are divided as follows: On the upper deck are saloons and sleeping cabins, disinfecting chamber and laundry, galley, lamp lockers, bath-rooms and waterclosets, together with an apparatus for hoisting patients on board. The cabins on this deck are assigned to the officers of the ship, to the Red Cross representative and his secretary, the principal medical officer in charge, and to two officers of the Imperial Navy. The middle deck is the hospital deck proper, and has forty-five cots intended especially for officers and a large ward for 115 non-commissioned officers and men. Infectious cases are provided for in a ward placed in the forward part of the ship cut off by a bulkhead; it has cots for 40 patients. The total hospital accommodation, therefore, of each ship is 200 patients. Upon this same middle deck the junior medical officers, the dispenser, and the female nurses have their sleeping rooms, while other rooms are assigned for laboratory, radiograph work, dispensing, and operations. The lower deck is given up to quarters for the male hospital corps, a mortuary, an ice plant, ordinary storerooms, machinery for compressing and cooling air, and away forward the quarters of the ship's company. The complement of each ship for medical and administrative purposes is as follows: A chief medical officer and three assistants, a clerk, two dispensers, a matron, two sisters and nine staff nurses, four non-commissioned officers and twenty-eight men belonging to the medical corps, and in addition a laundryman, several interpreters, and a man who is charged with the care and upkeep of all instruments.

THE WOUNDED IN NAVAL ACTIONS.

THE methods which might best be followed in dealing with the wounded in naval actions have been discussed on more than one occasion at the annual meetings of the British Medical Association, and it has been pointed out that the construction of modern ships of war would place great difficulties in the way of giving prompt and efficient surgical aid. A letter from Captain Lewis Bayly of the *Talbot*, describing the naval action at Chemulpo shows that these difficulties have been proved in practice to be very considerable. The chaplain of the *Variag* had informed Captain Bayly that during the action with the Japanese fleet the carrying away of the wounded on stretchers became impossible. Several men were shot down when carrying them, and only five wounded men altogether were brought down to the surgeon who was below the waterline; of these, two were practically dead when they arrived. Of the 150 men employed on the *Variag's* upper deck during the action, 28 per cent. were killed and 45 per cent. wounded. The wounds of many of the men were described as punctures about as large as the top of the little finger, and from ¼ in. to 1 in. deep, but with no foreign substance in the wound and no sign of scorching. It does not appear to be known how these wounds were produced, but in other cases pieces of clothing were carried into the wounds with the projectile. The men on board the *Variag* had received instruction in first aid, and bags of bandages had been served out. The surgeon reports that some lives were saved by first aid thus given.

MESSAGES TO MEDICAL MEN.

DR. H. BROOK, Deputy Coroner of Lincoln, at a recent inquest in that city called attention to the insufficiency of the messages upon which medical men are not infrequently expected by the public to take prompt action. The occasion which led him to touch upon the subject was one in which a woman died from haemorrhage without receiving any medical assistance. It was shown in evidence that a medical man had been summoned to the bedside, but that he did not go simply because, though he was aware that his services were needed by some one, he was not informed either where or by whom he was wanted. Awakened by a ring at the door bell in the middle of the night, a small, childish voice answered his queries through the speaking tube by "It is me," and after twice repeating this interesting but insufficient information its owner disappeared. Incidents of a similar nature must be familiar to most medical men engaged in practice in the poorer and more populous parts of large towns, not to those whose work lies even among the well-to-do and educated classes invariably supplied with as much information upon being summoned as may rightly be expected. Too often as are the majority of town-bred children, they are either do not understand the messages which they have to deliver or take it for granted that the simple announcement of their presence is sufficient to convey to the doctor all that he requires to know. In the case of the poorer classes a child messenger may occasionally be the only one available, but the practice of sending them is to be deprecated. Apart from the fact that the fuller the information conveyed as to the probable requirements of the case, the more likely are they to be promptly met with a minimum of trouble to the medical man and a maximum of benefit to the patient, no medical man can be blamed if he refuses to act upon a summons *caeteris paribus* more business-like than that upon which men in other walks of life would be expected to take action.

THE RECRUDESCENCE OF SMALL-POX IN LONDON.

THE increase in the number of cases of small-pox in London which was predicted for the spring has taken place. It is well known that such a seasonal rise frequently occurs in this disease. On the whole, probably we may consider ourselves fortunate that the increase has not been more marked. From the official returns it appears that there were in all 17 fresh notifications in January, 108 notifications in February, and 108 in March, or a total for the three months of 144. In the fortnight ending April 9th there were 61 further cases, making 205 cases of small-pox in the metropolis since the beginning of the year. The heaviest returns occurred in the weeks ending March 19th, 24 cases; March 19th, 23 cases; March 26th, 54 cases; April 2nd, 37 cases. It is not improbable that subsequent events may show that the week ending March 26th indicated the summit of the recrudescence. But reliable forecasts are impossible. All we know is that March and April frequently show the zenith of the epidemicity of small-pox, and in the present instance there has been a decline since the week named. It should be noted that the above figures refer to notifications only. Some of these cases prove not to be small-pox. When we turn to the local distribution of the recrudescence, we find that towards the end of the wave (in the week ending April 2nd) the cases occurred chiefly in Bethnal Green (49), Stepney (45), Poplar (14) and Southwark (14). There were 8 cases in Lambeth, while Battersea and Hackney are credited with 7 cases. The remaining 25 cases occurred in ten other metropolitan boroughs and the City of London. The local rise in Bethnal Green and Stepney began in March, and as far as can be judged it was due in the main to the conditions which prevailed at the time of the Lon-

mic, namely, unrecognized cases and personal contact. conditions have in some measure of course dictated eventive measures which have been promptly applied by the London County Council and by the borough ils concerned. In accordance with the provisions of ublic Health (London) Act, 1891, Section LVI, the n County Council has made an order placing vari- among the notifiable diseases for a period of four lar months. This order was duly advertised, and into operation on April 8th. On the previous occa- uch temporary provision was found in some districts of service, especially in the direction of stimulating bservation of all cutaneous rashes. With a view r to facilitating the diagnosis of doubtful cases of pox occurring in the metropolis, the County Council nade an arrangement under which the expert nce of Mr. S. Bingham, formerly medical super- ent of one of the metropolitan small-pox hospitals, Ir. W. McC. Wanklyn, late small-pox referee to the politan Asylums Board, can be obtained gratis by onic message. Early removal to hospital, disinfec- upervision and revaccination of contacts, and investi- as to channel of infection are matters appertaining to dministration, and we are glad to learn that they are ng all necessary attention from the medical officers lth in London. The County Council has materially d in these preventive steps by daily notification to anitary authority of all cases occurring. We trust ese preventive measures will result, as seems likely, tually protecting the metropolis from a more exten- tbreak.

THE LEISHMAN-DONOVAN PARASITE.

Bulletin de l'Académie de Médecine of March 22nd n describes a parasite in the spleen juice of an from Tunis. The specimens were sent to him by hoire, who unfortunately only saw the case when *mis.* At the necropsy the spleen was found con- ly hypertrophied. The anatomical features of the es are in all respects similar to those described by an, and subsequently by Donovan, from the spleen f obscure fevers in India. The discovery of a parasite in Tunis is very important, as it shows is new disease is evidently much more widespread as formerly supposed. It will be interesting to further cases, not only from North Africa but from arts of the world.

CORNWALL AS A HEALTH RESORT.

he object of drawing the attention of health seekers ir medical advisers to the possibilities of Cornwall, horities of the Great Western Railway have issued book, under the title of the *Cornish Riviera*, which, derstood, may be obtained gratis upon application. lustrated, it contains, in addition to ordinary guide- formation, a number of comparative meteorological d the recorded opinions of sundry medical authori- mong the latter are extracts from a paper which Sir Edward Sieveking read before the Harveian some years ago on Falmouth, and of an address, nany readers will probably recall, delivered by Sir Fayrer at the Carlisle meeting of the British Association in 1896. In both papers a high had been expressed of Cornwall as a health resort, e writers were almost as eloquent upon the sub- its climatic advantages as were Sir Walter and Mr. Baring Gould upon its beauties. The logical data serve to show that as regards emperatures West Cornwall rivals several well- health resorts in southern Europe, and entirely me of them in the important point of equability or of range. The range of temperature at Falmouth, ance, during the winter months is but 4.3°, while Nice exceeds 11°, and at Mentone is nearly ng the same months. At one time, of course, Corn- s neither easy to reach nor to live in, but this is altered. As regards hotels, the railway company as opened several of the highest class, while the people throughout the towns and villages are now fully alive to the advantage which will accrue to themselves by making visitors thoroughly comfortable. The train services have been improved, and by way of rendering access to the most picturesque spots thoroughly easy and comfortable, the railway authorities have arranged an extensive system of motor cars.

EXIT THE REGIMENTAL SYSTEM.

WE published last week (p. 871) an Army Order of Februarv 12th, 1904, abolishing regimental medical officers in the Foot Guards, but the order does not apparently extend to the Life Guards and Royal Horse Guards. With that exception the old regimental medical system has thus virtually come to an end, and the unification of the Army Medical Service been completed. The existing medical officers of the Guards will, within a time prescribed by the Army Council, have the option of continuing to serve with their regiments, or of being transferred to the Royal Army Medical Corps. When that corps was constituted, the medical officers of the Household Troops were not included in it, but remained regimental officers under special conditions, and with compound titles, in deference to the old privileges, or perhaps prejudices, of the Guards. But these sentiments have either died away in the process of evolution, or have been brushed aside by the new brooms of the Army Council in carrying out schemes of army reform. For some years past a few Royal Army Medical Corps officers have been shown as "attached" to the regiments of Household Troops. Whether this will continue, or whether these regiments be put on the same footing for medical aid as line regiments remains to be seen. Whether or not this reform portends further immediate changes in army medical administration we cannot say, but there is a feeling that such changes are probable.

A REAL LIVE WAKE.

AN instructive and curious case, which one of the lawyers engaged described as "a real live wake, and a real live corpse, and plenty of porter," was heard in one of the Dublin magisterial courts a fortnight ago. The prisoner was a woman charged with obtaining a sum of £8 from an insurance company by false pretences. She was caretaker and niece of a woman who was insured for the sum mentioned, and who, being very old and infirm, had been receiving advice from time to time from a medical man. The latter had seen her a few days before, and as she was then very ill he was not surprised when he was visited by the prisoner, informed of her death, and asked for a certificate. The latter he gave, guarded by the statutory declaration "died as I am informed," and the prisoner attested the information by a thumb mark. Having received the certificate, the accused, accompanied by a woman who had seen the "corpse," and was presently to lay it out, went to the insurance office, where, on presentation of the death certificate, she was promptly paid. The rest of the day seems to have been spent partly in a street carouse and partly in a typical Irish wake, which included a dance and the consumption of much porter by the candle-decked bedside of the corpse. During the greater part of the day and evening the latter remained as quiet as any well-regulated corpse, but towards night it broke all precedent by suddenly jumping up in bed. Why it behaved in this unbecoming fashion is not quite clear; but in any case Hamlet, having thus thrown up her part, the play necessarily came to an end, and a few days later the deceased materialized herself at the insurance office. There she declared she was not dead at all, and never had been, a theory which the insurance people admitted with some hesitation might possibly be correct. Later on in the police-court she modestly disclaimed any share in the authorship of the play in which she had taken so actively passive a part, and declared that while dead she had only been given the merest sup of porter, and afterwards received no share in the takings at all. According to her account, indeed, she did not remember having been

dead at all, and had merely lain quiet because she had been told to do so, but with what object she did not know. The prisoner's story was that her lately deceased aunt had been dead from seven o'clock in the morning and had only come to life again when washing operations were threatened, and that anyhow even if she was not dead she had received all but 30s. of the money which resulted from her decease. As a witness the prisoner called the woman who accompanied her when she received the insurance money and had previously seen the "corpse," but the witness admitted that she had heard the corpse and the accused talking together. It is true that she did not understand what they said, but that was quite natural, for, as the magistrate pointed out the conversation was of course carried on in a dead language. In the event the prisoner was sentenced to two months' imprisonment for illegal possession of money, and to a fine of £5, or two months more in default, for making a false declaration. This remarkable case is doubtless one which after the lapse of a sufficient interval will be added to the list of those supposed examples of burial alive to which we have frequently referred. In the meantime, it is one which supplies very strong evidence in favour of the contention so often supported in these columns that the death certification law should be immediately amended.

COUNTY WATER SUPPLIES.

THE desirability of systematic inspection of water supplies by county councils has frequently been emphasized in our columns. Such examinations may be carried out in each district of a county by rotation, or certain geological areas or watersheds or gathering grounds may be examined. The recent report by Dr. J. R. Kaye on the water supplies derived or derivable from the new red sandstone formation in the West Riding of Yorkshire is an example of the latter. The new red sandstone occupies a considerable area in the West Midland counties and, roughly speaking, all that part of the West Riding lying to the east of a line drawn northwards from Tickhill to Ulleskelf and northwestwards to Ripon. This area inside the West Riding is about 440 square miles, though a large part of it is covered with drift composed of clays, sands, and gravels, which conceal the formation. There are outcrops at certain points, and bore-holes may be made with most advantage at these exposed sandstone areas. In not a few instances local authorities have availed themselves of this, especially in the southern part of the area. Some sixteen sanitary districts, with a combined population of 112,435, are situated on the area and derive some or all of their water supply from the new red sandstone. It is with these districts that Dr. Kaye's report deals, and he furnishes particulars of sixty-seven borings—their depth, location, strata passed through, etc. He agrees with the findings of the Royal Commission on River Pollution, 1868, that the spring waters and deep well waters are of good quality, potable, and well adapted for domestic purposes. The hardness of the former is, however, usually so marked as to make the water unsuitable for washing purposes. The shallow wells yield clear and palatable water, but as they are so liable to surface pollution they are condemned. Reports such as this have an intrinsic value beyond and and above the fact that they stimulate inquiry and locate responsibility in respect to water supply—matters of the first importance.

PERTHSHIRE BRANCH: PRESENTATION TO DR. URQUHART.

AFTER the annual clinical meeting of the Perthshire Branch of the British Medical Association, a report of which appears at p. 894, the members adjourned to the Station Hotel, where a presentation was made to Dr. A. R. Urquhart on the occasion of his retirement from the office Honorary Secretary. Dr. Kennedy presided, and among those present were Drs. Norwell, M'Ewan, Burnet (Crieff), Cumming, Parker Stewart, M'Naughton, Robertson (Scone), Liddel (Errol), Alexander Trotter, Hume, Stirling, Keay, Menzies, Taylor, and Bisset. The Chairman said that their Association had been in existence in Perth since 1879, and within the last fourteen or fifteen years had b affiliated with the British Medical Association. D his twenty years of office Dr. Urquhart had discharge duties with the greatest zeal and efficiency. He always been willing to help and do what he in their midst. It was the feeling of the Branch they should not let Dr. Urquhart part from the Secretary without in some way showing their appre for his long and faithful services, and in the name Branch he had much pleasure in asking Dr. Urquh accept of two silver fruit stands bearing the foll inscription: "Presented to Dr. A. R. Urquhart as a of esteem and appreciation of his long and valuabl vices to the Perthshire Branch of the British M Association.—26th February, 1904." Dr. Urquha reply, said that though he had resigned the office of s tary, so long as he was in Perth and able to speak a for the Association he should do so for their benef for the promotion of the interests of all the membe the Association. He had done his best for t Association, and he felt that it would be a loss to them if anything was to happen to the ciation. It had been more and more impressed upon that in Perthshire they had a most efficient and Association for the purpose of advancing and maintai the dignity, honour, and usefulness of the medical pr sion. The future they did not know, but so far as i with him it would be his aim, honour, and pleasure to the Perthshire Branch in so far as it was possible for to do so. With regard to the gifts, he could only sa himself and his family that they would be highly treas and would be a reminder of the goodwill of the me profession of Perth and Perthshire.

WE are glad to learn that Sir Samuel Wilks continu make satisfactory progress.

THE Queen has accepted the office of President of London Hospital, in the place of the Duke of Cambri who held the position for 50 years.

A REUTER telegram states that at the sitting of the House of Assembly on April 7th a motion was ado directing the Government to make a full inquiry into leper question, especially with regard to fish diet.

THE subject announced for the Silliman Lecture Yale University this year by Professor Sherrington succession to Professor J. J. Thomson, is the Integra Function of the Nervous System. The course comme on April 22nd.

A GENERAL meeting of the Metropolitan Street Am lance Association will be held at 20, Hanover Square, on May 2nd, at 5 p.m. Amongst the business to be bro before the meeting will be a proposal to send a repres tative deputation to the London County Council.

THE Council of the Medical Society of London elected Dr. Holman to the honorary Fellowship, in reco tion of his public services to the medical profession. Robert Barnes, Sir Joseph Fayrer, Sir William Gaird and Mr. Gant are the only other British honorary Fell of the Society, unless we may still claim Professor Osle

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AT a meeting held under the chairmanship of Profes William Osler, of Baltimore, at the College of Physici of Philadelphia on March 28th, a United States Society the Study of Tuberculosis was formed. A Committee appointed, and a further meeting will be held at Atla City during the week of the meeting of the Ameri Medical Association.

IT is curious, and, as illustrating the difficulty of aro ing public interest in hygiene, not without significan

o one of the London morning papers, in the account ave of Lord Cromer's report, made any references to ssages dealing with the sanitary reforms which are carried out, although by reference to page 901 it e seen that they were neither few nor lacking in in- Whether the great provincial dailies showed more tenment we have not ascertained.

King and Queen visited the Finsen Light Cure ute at Copenhagen on Saturday last; they were con- over the building by the staff, and a bouquet was ted to the Queen by four British patients. The and Queen afterwards paid a visit to Dr. Finsen, health did not permit him to attend the institute, xpressed to him their appreciation of the results t about by the system of treatment which he has ated.

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annual report of the Inspector-General of Recruiting rporated for the first time in the general annual report British army for the nine months ending September 903, which was issued on April 11th. It is stated March last year as the army still remained much in of the authorized establishment, the standards of for recruits for the Royal Artillery, Royal Engineers, e Army Service Corps were materially raised, as also e standard of height for the militia. In the reports everal districts particular stress has again been laid eral instances on the medical rejections, specially ective teeth. The Inspector-General thinks that the nce of the South African war may have directed the on of medical officers more especially to this subject, ints out that the fact remains that the number of edically rejected is still very large and should be the of anxious consideration.

EDICAL NOTES IN PARLIAMENT.

[FROM OUR LOBBY CORRESPONDENT.]

louse of Commons, which had nearly a week less holi- Easter than the House of Lords, began work again on 2th, and, after questions, proceeded to discuss the Estimates. The House was moderately well attended, o members being present in the first division. There istlessness, however, in the proceedings, and the votes assed quickly, the medical vote for the navy exciting ment whatever. So rapid was the progress that the adjourned a few minutes after seven and so escaped ning sitting. At question time Sir Michael Foster he Prime Minister whether an opportunity would be discuss the portion of the report of the War Office titution) Committee which bears on the health of the Mr. Balfour said that he was unable to give an answer nt. The question was repeated on Wednesday by Sir ke, and Mr. Balfour said that an opportunity would on the Army Estimates on Thursday.

Physical Condition of Children, to which Sir John ave notice to call attention some weeks back, will obably come under consideration on Wednesday next the evening sitting. Mr. Claude Hay has first place a motion which reads as follows: "That the Board ation should require arrangements to be made by the ucation authorities whereby every child compelled by ttend a public elementary school shall have received nourishment before being subjected to mental or phy- truction, and that in cases in which proper food has provided for the child by its parents it should be pplied by the local education authority, and sub- ly suitable proceedings taken in respect of such " This resolution will enable the subject of physical ation and its relation to underfeeding to be dis- Arrangements are being made to get a good number sentative speakers on both sides of the House.

Plague in India.—In answer to a question put by Sir Walter Foster on Wednesday, Mr. Secretary Brodrick stated that except as regards the Bombay Presidency the returns of plague deaths in India received up to date did not go beyond the week ended March 19th. The totals for the three weeks ended on that date were 13,187 for Bengal, 24,390 for the Bombay Presidency, and 102,962 for the whole of India, including the above. The number of plague deaths in the Bombay Presidency alone during the month of March was 35,416.

Vaccination Mortality.—Sir John Rolleston put on the paper for Tuesday a motion for an annual return from the year 1875 of births in England and Wales, and of the deaths under 1 year of age, and at all ages from fifteen specified causes, with detailed information (in the same form and in continuation of a Return, No. 433, dated May 15th and ordered by the House of Commons to be printed August 14th, 1877), with, from the year 1898, an additional heading to Tables I to XVI, showing vaccination enforced under Exemption Clause, and Table XVII (vaccination and small-pox) to be continued from 1872. The President of the Local Government Board, however, declined to grant the return, and so the motion was not proceeded with.

Vaccination Bills.—The Vaccination Bill, which seeks to abolish compulsory vaccination, has been blocked by Sir John Tuke and Mr. Cohen. The Revaccination Bill has been blocked by Mr. Logan and Mr. Weir, but Mr. Channing's Bill to prevent prosecutions for non-vaccination, except with the consent of the guardians, has so far escaped blocking.

Vivisection of Dogs.—Sir Frederick Banbury had a notice on the paper on Wednesday night to move, "That in the opinion of this House, no operations for the purposes of vivisection should be performed on dogs." Throughout the evening sitting there seemed little chance of it coming on, as the Irish members were dilating eloquently on the Land Judges Court (Ireland), and criticizing the judges in the good old fashion. Mr. Wyndham, however, astonished his critics by accepting their resolution, which he evidently regarded as harmless, and then after a few more remarks the Irish resolution was carried at five minutes to twelve. This gave Sir Frederick Banbury his opportunity, and he moved his resolution in three or four sentences, and it was seconded by Mr. Channing. Then for a moment or two the Under-Secretary looked anxiously at the Deputy Speaker for his opportunity of reply. He was saved, however, by Mr. Flavin, who from the Irish benches pleasantly chaffed Sir Frederick Banbury on the scanty information he had given the House in support of the resolution, and demanded some medical testimony on the subject. Then the magic hour of 12 arrived, and the debate stood adjourned to a day that may not come in this session.

Doctor and Magistrate.—Mr. Griffith-Boscawen asked the Chief Secretary to the Lord Lieutenant of Ireland whether his attention had been called to the action of Dr. Tierney, J.P., in adjudicating at petty sessions at Clones in cases where he had already acted as medical adviser to and had accepted fees from one of the parties; whether a specific case was brought before the Lord Chancellor on January 2nd last; and, if so, whether any notice had been taken of Dr. Tierney's conduct. Mr. Wyndham replied that this case was brought to the notice of the Lord Chancellor, who, upon consideration of all the circumstances, arrived at the conclusion that official action in the matter was not called for. Steps were taken, however, to convey to the justice named an intimation that the Lord Chancellor considered he had been guilty of an error of judgement in adjudicating in the case in question.

The Osborne Convalescent Home.—Mr. Gibson Bowles asked the Secretary to the Treasury how many convalescent military and naval officers respectively were now accommodated at Osborne, and for how many in all was accommodation provided. Mr. Victor Cavendish replied that fifteen convalescent military officers were now accommodated at Osborne; two of them were accompanied by their wives. There were not as yet any naval officers at Osborne. The accommodation provided was for thirty-eight unmarried officers, and for five married officers accompanied by their wives.

Ireland.

ULSTER MEDICAL SOCIETY.

THE seventh general meeting of the Ulster Medical Society was held in the Physiological Laboratory, Queen's College, on the evening of March 24th. Dr. John Campbell, President, occupied the chair, and there was a large attendance.

Dr. T. H. Milroy, Professor of Physiology, after expressing his pleasure in welcoming the members to the laboratory, gave a demonstration of ascending degenerations in the spinal cord after section of the posterior sacral roots. He also showed a method of demonstrating the action of drugs upon the blood pressure and upon the volume of organs, and gave a demonstration of the action of light of different wave lengths upon the retina.

Dr. J. A. Millroy read a paper on some products of the action of reducing agents upon blood pigment considered in their relation to the pigments of the urine and of the bile. He also gave a demonstration of methods for the recognition of (1) reducing substances other than glucose which may be present in the urine; and (2) of indican and other aromatic substances in the urine.

Professor Symington and Dr. Carnwath showed specimens of (*a*) unilateral flat-foot, (*b*) chronic rheumatoid arthritis limited to both elbows, (*c*) hydrocephalus and spina bifida, (*d*) topographical anatomy of the cerebellum.

Professor Lorrain Smith read a paper on the infectivity of typhoid fever, giving some statistics from the Belfast Public Health Department which tended to prove that in about 50 per cent. of cases only 1 occurred in each house, or from 1.8 to 2.9 on an average in a street.

Professor Lorrain Smith and Dr. R. A. L. Graham gave a demonstration of the toxic effects on nerve cells of oxygen at high pressure.

Dr. John McCaw and Mr. Robert Campbell showed a specimen of congenital stricture of the pylorus; and Dr. McCaw read notes of a case (*a*) of tuberculous meningitis, and (*b*) the intestine of a child who died from intussusception, and showed the specimens.

Dr. J. C. Rankin showed a specimen of a ruptured heart, and Dr. Thomas Houston gave an account of a case of severe anaemia due to sepsis closely simulating pernicious anaemia, and showed preparations.

Sir William Whitla proposed and Professor Byers seconded a resolution of condolence on the death of Dr. James Stuart, Ballymena, Fellow of the Society.

HEALTH OF BELFAST.

At the last monthly meeting of the Belfast City Council the Medical Superintendent Officer of Health reported that 116 cases of zymotic disease had been notified. The births registered numbered 913 and deaths 713; there was a considerable rise in deaths due to respiratory affections owing to the inclement weather; the total death-rate was 25.9. It was exceedingly disappointing to find that just when small-pox had been stamped out a new case had been imported from Glasgow. In no one district, however, had the disease spread; 5 cases had been notified in the month. The question of a city consumption sanatorium was postponed for the present.

BALLINASLOE DISTRICT ASYLUM.

The election of a Resident Medical Superintendent to this asylum in succession to the late Dr. Robert Fletcher took place on April 11th. Formerly these appointments were in the hands of the Lord Lieutenant, but under the Local Government Act they are now vested in the governors. The two candidates were Dr. J. Mills, the Senior Assistant, and Dr. J. St. L. Kirwan, the Junior Assistant. Both had served for several years in the asylum, and Dr. Mills had acted as Medical Superintendent during Dr. Fletcher's long illness and since his death. The Chairman was Dr. MacCormack, the Roman Catholic Bishop of Galway, and he proposed the election of Dr. Kirwan. Mr. Byrne, who seconded the nomination, said that 97 per cent. of the inmates were Catholics, and where they had a candidate of equal merits it behoved them, as a committee almost entirely composed of members of the religious belief of the patients, to elect a man of the same faith. If they did not do so they would be less than men.

Mr. Galvin proposed Dr. Mills. Both candidates were men of admitted medical skill and of the very highest character, but, as Dr. Mills had very considerable experience as the senior assistant, his claim was superior. He was admitted to be a man of great skill and great humanity. He also possessed great administrative capacity, which was essential in an institution of that kind. The question of religion should not enter into the matter, and he believed the Committee would rise superior to such narrow views. He represented the Catholic and Nationalist Council, and he had been appealed to by a number of the members of that Council to support Dr. Mills, who had acted so efficiently as medical superintendent for some time past. He asked the governors to give fair play and to reward merit in the interest of the public service. He also appealed to them on behalf of those afflicted unfortunates amongst whom Dr. Mills had ministered so successfully, devotedly, and strenuously.

Mr. P. J. Kelly seconded. He said he was one of those who had gone through the fire on behalf of catholicity, and he held that the question of religion should not enter into the election. It was because he was a Home Ruler that he would vote for Dr. Mills, who, as senior assistant, occupied priority over every other candidate.

The vote showed 17 for Dr. Kirwan and 5 for Dr. Mills.

An application by Dr. Mills for one month's leave of absence was refused pending the appointment of a junior assistant.

The result of the election is an illustration of the influences which operate in elections to public offices in Ireland. It is manifest that no devotion to service or ability in the discharge of duty will count when candidates of different creeds are applicants for appointments. The one essential is some form of religious belief. The appointment is worth £ a year.

ROYAL ACADEMY OF MEDICINE.

Mr. J. B. Story, the General Secretary of the Royal Academy of Medicine in Ireland, has intimated his intention not to seek re-election in October next. Dr. James Craig and Dr. Travers Smith are candidates for the office, which is of considerable importance.

THE CORONER AGAIN.

A man died suddenly at his work last week, and an inquest was held at the Royal City of Dublin Hospital by the Coroner Friery. Dr. Booth, the house-surgeon, said he could not say for certain what was the cause of death without a necropsy, but probably it was heart disease. Whereupon the coroner delivered himself to this effect:

I am sorry to say that there is a practice springing up amongst members of the medical profession of refusing to give an opinion in cases such as this as to the cause of death except they hold a *post-mortem*. I am strongly opposed to such an unjustifiable practice, and I certainly will not give any instructions to have this poor fellow's body cut up. I have been twelve years now acting as coroner, and I must say that this is the first case in my experience where I have found a doctor declines to give an opinion as to the cause of death. If the doctor is not able to give an opinion I will give an opinion myself, that is, that this man has died from heart disease. The circumstances you have heard detailed show beyond a shadow of doubt that the deceased has for a considerable time past been attending the dispensary of this hospital, and there is no reason in the world why any medical man should have any hesitation in stating his opinion as to the cause of death. It is a monstrous thing to think that a *post-mortem* examination should be held in such a clear case as this, and I am determined, so far as I can, to have an end put to the practice in my district.

A verdict of death from cardiac failure was then returned. This expression of opinion is an example of the way in which some coroners think an inquiry into the cause of death should be conducted. They do not perceive that they stultify themselves by such exhibitions.

Scotland.

SMALL-POX.

ANOTHER case of small-pox has been reported to the sanitary authorities in Aberdeen. The patient, a woman, who lives in the same street in which the last case occurred, was removed to the City Hospital. In view of the outbreak instructions have been issued by the City Parish Council to their medical officers to offer vaccination to the inmates of the poorhouse under the control of the Council.

The vessel *Gardenia*, from which one of the crew was removed a few days ago at Inverness suffering from small-pox, arrived in Aberdeen on April 11th. The vessel on her arrival was boarded by Dr. Matthew Hay, the Medical Officer of Health, and Dr. Taylor of the City Hospital, who satisfied themselves that

had been properly disinfected, and that there o other cases on board. In the week ending mid-day, lay, April 9th, only three fresh cases were notified to thorities, and there was no death. It would therefore that for the present the outbreak is in abeyance.

SCARLET FEVER IN EDINBURGH.

let fever in Edinburgh continues. In the week ending 29th 25 cases were notified, and 2 deaths were red.

BOX BEDS.

C. G. Burnett, Medical Officer of Health for Buckie, in tting his annual report to the town council, made some sting remarks on a number of the influences which e to the prejudice of the health of fishing communities s Buckie. He pointed out that perhaps the most malign ie ignorance of a comparatively large section of the tants concerning the rudimentary laws of health. This nce was manifested, for example, in the general aver- fresh air. In very many houses the most minute pre- ns were taken to prevent the ventilation of bedrooms. not uncommon to see the only window of a bedroom ly nailed up. The greater part of the population still the night in "boxes" made just large enough to n a bed, a portion only of one side of the "box" pen to the room, and that portion partially closed by is as a rule. General deterioration of health and pro- on of infectious disease were certain to follow such a f affairs. He also animadverted on the danger to the l health from the overcrowding which takes place in shing ports as Fraserburgh and Peterhead during the migration to these places for the summer fishing. He ttention also to the prevailing ignorance of the laws of own by the abuse of tea, white bread and potatoes, the f any knowledge of artificial feeding of infants, and the ence of juvenile smoking.

ROYAL ABERDEEN HOSPITAL FOR SICK CHILDREN.

annual report of this hospital shows that the ordinary for the year 1903 amounted to £2,119 2s., and the total y expenditure to £3,107 18s. 3½d., leaving a deficiency 6s. 3½d. This has been reduced to £236 4s. 4½d. by g to the credit side £752 11s. 11d. from legacies, pared with the previous year, however, the ordinary showed an increase of £242 11s., while the expenditure minished by £122 14s. 9d. This reduction in the ex- re is undoubtedly largely due to the excellent manage- of Miss Tatham, the matron of the institution, to apabilities the Chairman bore testimony. The extra- y income amounted to £1,667 19s. 7d., made up of 11s. 11d. derived from legacies, and a capital endow- equest of £615 7s. 8d. The number of in-patients was 767, compared with 770 during 1902, while the ients numbered 2,141. The average cost per annum of d was £42. Colonel Allardyce, in moving the adop- the report, referred to the large annual deficit which ctors had to face in spite of the most careful manage- nd expressed the hope that, in view of the excellent ne by the institution, it would receive a large share of n from subscribers to such charities. He announced t the trustees of the late Mr. Thomas Primrose had to give £5,000 to the hospital, which was the largest had received since its inception. The hearty thanks irectors was conveyed by the Chairman to the trustees generous gift.

AR IN THE EAST.—The *Sei-I-Kwai Medical Journal*, ed at Tokio by the Society for the Advancement of Science in Japan, and written partly in Japanese and English, contains in its February number an account resent work of the Japan Red Cross Society in Korea he casualties at the first engagement off Port Arthur. late of writing the Red Cross Society had taken over ish hospital at Chemulpo, and the beds, twenty-four er, were occupied by Russians. Of the five men the Port Arthur engagement three were officers, as en of the twenty-eight wounded taken home to Japan. w of the cases were compound fractures, but the ma- ing caused by splinters of shell or portions of the masts do not seem to have been very severe. One ho was hit in the thigh is reported to be suffering, enough, from lead poisoning.

THE CONTROL OF THE TRAFFIC IN ALCOHOL.

THE PUBLIC-HOUSE TRUST.

REFERENCE has already on many occasions been made to Earl Grey's Public-house Trust Association, and the third annual report just issued gives a satisfactory account of its progress during 1903. The movement is spreading, and 29 trust companies are now working in England, 1 in Wales, 11 in Scotland, and 1 in Ireland. These companies, with a total subscribed capital of over £300,000, have brought under trust management 130 public-houses, a number which the report states is increasing every week. In fact, the only English counties without a trust company formed, or being formed, are Berkshire, Buckinghamshire, Leicestershire, and Oxfordshire.

In Ontario, Manitoba, South Australia, New Zealand, Tasmania, Mauritius, Natal, and the Transvaal, the trust principles are being brought before the public, while in Germany the movement has attracted the notice of the Emperor, and in the United States of America sister societies are at work.

An interesting part of the report is the memorandum by Colonel Craufurd on points of detail in the arrangement and management of trust houses, written after a tour of inspection made by him to some of the principal trust houses in England and Scotland. It is satisfactory to know that he was of opinion that all the companies are working zealously and loyally, and that there is great promise for the future in the trust movement.

In the opening sentence of his memorandum Colonel Craufurd picks out what is, in our opinion, the point upon which the whole success or failure of the scheme depends, "In no undertaking does success depend more on the personality of 'the man at the helm' than in the management of a public-house and especially a trust house." To discourage hard drinking and to suppress bad conduct, and simultaneously encourage non-alcholic drinks, requires tact and courage, and a weak man in such a post would be worse than useless.

Colonel Craufurd remarked that one of the public-houses in a very bad neighbourhood, and notorious when managed by men for having been frequented by the worst characters of both sexes, became, when the management was transferred to women, a model trust house, and that under the refining influence of women some innate chivalry, found even in the lowest ruffian, might be awakened and have the desired effect. Of course it would be difficult to find the exact type of women suited to run a public-house; they would require to have business capacities; to be courageous, firm, quiet, and respectable; the ordinary barmaid would be worse than useless. Doubtless women with these qualifications are to be found, and the good they might do would probably be very great.

We are told, "The leading principle of these trust companies is the elimination of the element of personal profit from the sale of alcoholic liquors. Accordingly the dividend payable on the capital subscribed is limited to 5 per cent. per annum, and thus the shareholders have only a nominal monetary interest in the trade. All surplus profits are handed to a council to be applied to objects of public benefit other than those properly chargeable to the rates, the provision of counter-attractions to public-houses being especially kept in view. If a trust company is liquidated, the assets, after repayment of the shareholders' capital at par, are handed to the Council for appropriation to public objects."

The wisdom of handing over the surplus profit to a Council not subject to public control may be questioned inasmuch as a Council in a particular district might have hobbies and these, though useful, might be less urgently needed than others far more important.

THE NORWEGIAN SYSTEM.

This is a system of absolute control. It is realized that the company system is not in itself sufficient. The companies work under the joint supervision of the central government and the local authorities, and in the wise relation of these to the companies lies the excellence of the Norwegian system, which, while leaving the companies free from unnecessary interference, prevents them from trying crude experiments.

The municipality always determines the number of licences that are to be issued, and the companies are worked under three powerful safeguards against abuse:

1. There is the safeguard of statutory law in reference to

(*a*) constitution, (*b*) administration, and (*c*) appropriation of profits.

2. There is the safeguard of their association with the licensing authority.

3 There is the safeguard which usually attaches to affairs carried on directly under the public eye, and which are ultimately subject to public control.

The interest received by the shareholder is limited to 5 per cent., and the appropriation of the profit is defined by law; 65 per cent. goes to the central government, and of that retained by the company 20 per cent. Nothing can be applied to objects for which the municipality itself, under the laws in force, is responsible. It can only be used for objects of "public utility" not chargeable to the rates. The balance of 15 per cent. goes to the municipality, and the accounts are audited each year by two auditors. The manager of each retail place is selected subject to the approval of the magistracy and municipal council.

Messrs. Joseph Rowntree and Arthur Sherwell have drawn up a liberal scheme which seems well worthy of the study of all those interested in the prevention of alcoholism. The following outline of the scheme is taken from a pamphlet entitled, *Popular Control of the Public-house*.[1]

"1. That the right of prohibiting the traffic shall be placed within the power of every locality.

2. That localities, where the right of prohibition is not exercised, shall be at liberty to organize and control the traffic, preferably through a company, as in Norway, but always under the direct supervision of the central government and the local licensing authority, and only within clearly defined statutory limits.

3. That the whole of the profits shall, in the first instance, be handed over to a central State authority.

4. That the sole benefit that a locality in which the trade is placed under public control shall receive from the profits shall be an annual grant from the State authority for the establishment and maintenance of recreative agencies, the primary object of which shall be to counteract the influence of the public-house. Such grant to be in ratio to population, and not in ratio to profits earned.

5. That similar grants shall be made to prohibition areas, all inducement to continue the traffic for the sake of the grants being thus effectually destroyed."

Character of the Public-houses that would Remain.

"The houses carried on under public control might reasonably be subject to the following among other conditions of management:

(*a*) Sales on credit to be prohibited.

(*b*) No female bar-tenders to be employed.

(*c*) No adventitious attractions, such as music, etc., to be associated with the sale of intoxicants.

(*d*) Accommodation for clubs, sick benefit societies, etc., no longer to be provided at the public-houses; ample provision for these being made elsewhere (for example, in buildings devoted to the counteracting agencies).

(*e*) Every public-house to be open to full inspection from the highway; no screens or partitions to be used. It is noteworthy that this reform was advocated by a Select Committee of the House of Commons as far back as 1834.

(*f*) Back-door and side-door entrances (that is, doors opening into passages or courts not used as thoroughfares) to be prohibited."

Profits of the Trade and their Destination.

"We have estimated that the net profits of the public-house trade in the United Kingdom amount to £20,000,000 per annum. These enormous profits must go somewhere. There are, broadly speaking, three ways in which they may be dealt with:

"1. They may be allowed, as at present, to pass into private hands, and so add to the power and wealth of the trade and its capacity to resist reform.

"2. High licence may be adopted, under which some portion of these profits would be secured by the community. This system obtains in New York, Philadelphia, Boston, and in many other places in the United States, but from the temperance point of view there are two grave objections to its adoption—namely, (*a*) under high licence the menace of the trade to the national life continues; and (*b*) the inducement to push sales is intensified, the publican having to recoup himself a heavy-licence payment before his profits begin.

"3. The remaining plan is to take the trade out of private hands, and so secure the whole of the profits for the public. The State might retain the whole, or devote a portion to counteracting agencies, as already suggested. The need for such agencies is now universally felt, and the evidence is clear that they cannot be efficiently carried out without support which is beyond the range of private munificence, and impossible from the rates.

"At the present time the public-house is to a large extent the poor man's club, and it will be impossible to draw him away from the public-house unless something is put in its place. The few experiments which have been made on a sufficiently adequate scale in the provision of counter-attractions have been eminently successful, but in the vast majority of cases such efforts have failed for want of the necessary funds. We estimate that for the creation and maintenance of counter-attractions upon an adequate scale a sum of £1,000 per annum for every 10,000 of the population would be required; that is to say:

Edinburgh would require	£31,600	per annum.	
Glasgow	,,	,,	£76,000
Dundee	,,	,,	£16,000
Aberdeen	,,	,,	£15,300

"Taking the towns of Scotland, the sum required each year would be equal to more than a fivepenny rate. This amount obviously could not be obtained by subscription, and certainly it would not be forthcoming from the rates.

A few temperance reformers, who are unaware of the immense profits of the retail liquor trade, have objected to the proposal to maintain counter-attractions out of grants from these profits, from fear lest the traffic should be made permanent, as its destruction would endanger the annual grant. The answer to this is simple. The profits of the retail liquor trade are such that, were the traffic reduced to one-fifth of its present amount, there would still be ample funds for the support of counter-attractions throughout the United Kingdom upon the scale suggested."

In their summing up Mr. Rowntree and Mr. Sherwell point out that at present public opinion is in the formative stage, in which it may be powerfully influenced by clear thought and wise practical suggestions. Under the circumstances a merely negative policy, such as a general hostility to any scheme of public management, will be futile, and can only play into the hands of those whose proposals are fraught with peril. At present the country would, they believe, consider with an open mind any practical proposals on which the temperance party were agreed, but that party must formulate a clear positive policy; the note which it ought to strike is that of effective control of that portion of the traffic which cannot be suppressed. Let the trade, when taken out of private hands, be placed under strict statutory control, and the appropriation of the profits be determined by law, so that there can be no inducement to stimulate or continue the traffic for the sake of the profit which it yields.

[1] By Joseph Rowntree and Arthur Sherwell. Edinburgh: Macniven and Wallace. 3d.

THE HOLMAN TESTIMONIAL FUND.

The Treasurer of the Holman Testimonial Fund desires to acknowledge the following further subscriptions to the fund.

	£	s.	d.		£
J. Ford Anderson, M.D. ...	1	1	0	Dr. F. W. Pavy, F.R.S. ...	2
Mr. E. Parker Young ...	1	1	0	Mrs. E. Garrett Anderson, M.D.	1
Sir Anderson Critchett ...	2	2	0	W. Vawdrey Lush, M.D. ...	1
John Ince, M.D., H.M.I.M.S.	2	2	0	J. Gordon Black, M.D. ...	1
Fred. Bagshaw, M.D. ...	2	2	0	Lord Richard Browne ...	2
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Mr. Walter Rigden	1	1	0	Mr. A. A. Lipscombe ...	0
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Dr. Philip Frank	2	2	0	Geo. Owen, M.D.	2
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Dr. A. E. Sansom	2	2	0	G. R. F. Stilwell, M.B. ...	0
Sir Dyce Duckworth, M.D.	2	2	0	Miss A. J. Wilkinson ...	1
Mr. H. W. Kiallmark ...	1	1	0	Miss J. M. Wilkinson ...	1
Mr. W. A. Brailey	1	1	0	Evan Jones, M.D., J.P. ...	1
Dr. Langley Browne	1	1	0	Henry Barnes, M.D., J.P. ...	2
Dr. J. Moorhead	1	1	0	Chas. Caldecott, M.D. ...	1
J. Barr, M.D.	1	1	0	Walter Whitehead, F.R.C.S.	1
Frank M. Pope, M.D. ...	1	1	0		

Subscriptions will be received by the Treasurer, Dr. John Galton, Chunam, Sylvan Road, Upper Norwood, S.E.

ASSOCIATION NOTICES.

COUNCIL.

NOTICE OF MEETING.

ETING of the Council will be held in the Council Room Association, at 429, Strand (corner of Agar Street), n, on Wednesday next, the 20th day of April, at lock in the afternoon.

following Committees will also meet:

day, April 19th, 1904.—Premises and Library Com-, 3.0 p.m.—Trust Funds Committee, 4.0 p.m. *Wednes-pril 20th, 1904.*—Journal and Finance Committee, m.

ELECTION OF MEMBERS.

andidate for election should forward his application form, which will be furnished by the General Secre-the Association, 429, Strand. Applications for mem-should be sent to the General Secretary not less than ive days prior to the date of a meeting of the l.

LIBRARY OF THE BRITISH MEDICAL ASSOCIATION.

RS are reminded that the Library and Writing Rooms Association are fitted up for the accommodation of mbers in commodious apartments, at the office of the tion, 429, Strand. The rooms are open from 10 a.m. n. Members can have their letters addressed to them ffice.

th, 1904. GUY ELLISTON, *General Secretary.*

BRANCH MEETINGS TO BE HELD.

AND BRISTOL BRANCH: TROWBRIDGE DIVISION.—The annual of this Division will be held at the Town Hall, Trowbridge, on ay, May 11th.—JOHN TUBB-THOMAS, The Halve, Trowbridge, Secretary.

R COUNTIES BRANCH: WEST CUMBERLAND DIVISION.—The annual eeting of this Division will be held at Whitehaven on May 17th. etary will be pleased to receive communications from any who wishes to read a paper or show cases or specimens.—T. G. s, 6, Scotch Street, Whitehaven, Honorary Secretary.

HIRE AND CHESHIRE BRANCH.—Notice is hereby given that ons of Representative Members of Council for this Branch must o me on or before May 1st.—T. ARTHUR HELME, M.D., 3, St. uare, Manchester, Honorary Secretary.

POLITAN COUNTIES BRANCH: WANDSWORTH DIVISION.—A meet-s Division will be held at the Town Hall, Wandsworth, on Thurs-28th, at 8.45 p.m. Agenda: (1) Question from Central Council rtising by medical men attached to hydros. (2) Question referred l Council as to medical witnesses meeting in consultation before 3) Paper by Mr. Arthur E. Giles, F.R.C.S., on The Diagnostic ce of Gynaecological Symptoms. (4) Other business.—E. ROW-HERGILL, M.B., Torquay House, Southfields, S.W., Honorary

D BRANCH: BOSTON DIVISION.—A meeting of the above Division eld at Anderson's Hotel, Market Place, Boston, on Tuesday, , at 3.30 p.m. Agenda: 1. Medical Defence. 2. To consider Pro-m Medico-Ethical Committee. 3. Contract Practice. 4. Annual -A. E. WILSON, Grove Street, Boston, Honorary Secretary.

OF ENGLAND BRANCH.—The spring meeting of this Branch will Newcastle-on-Tyne on Tuesday, May 3rd. Full particulars will by circular. Members wishing to show cases or bring anything e Branch are requested to communicate with the Honorary as early as possible.—ALFRED COX, Cotfield House, Gateshead, Secretary.

WALES AND SHROPSHIRE BRANCH: NORTH CARNARVON AND DIVISION.—A meeting of this Division will be held at the ead Café, Bangor, on Wednesday, April 20th, at 4 30 p.m., Dr. rice, Bangor, in the chair. Agenda: 1. To read the minutes of eeting of the Division. 2. To read letters of apology. 3. To he following matters referred to the Divisions for their opinion 1) The lines the Council has urged upon the President of the ernment Board for improving the existing Vaccination Acts: evaccination be made compulsory by law, and that it be per-tween the ages of 10 and 13 years. (*b*) That both primary vacci-l revaccination be subject to the same provisions for conscien-tion as in the present Vaccination Act, but that the procedure tion should be more strictly defined in any future legislation. e Vaccination Act should be administered directly by a depart-ment of the Local Government Board. (*d*) That in future vaccination legislation no certificate of successful vaccination should be accepted unless it contain a statement as to the number and area of the vesicles produced. (*e*) That all lymph shall be supplied by the Government, or by private establishments under Government supervision and guarantee. (*f*) That every private practitioner furnishing the vaccination authority with certificates of successful and efficient vaccination, satisfying a standard fixed by the Local Government Board, should receive a suitable fee for each such certificate. (2) Representation on General Medical Council. Resolution passed by the Representative Meeting, 1903: That a petition be presented to the Privy Council praying that in any future legislation the British Medical Association be directly represented on the General Medical Council in proportion to its magnitude and representative character. (3) The proposed Medical Acts Amendment Bill—adjourned from last meeting. (4) The question of the advertising of medical practitioners in connexion with hydropathic establishments. (5) Whether it is advisable that the medical witnesses engaged on each side in legal cases should meet in consultation. 4. Discussion on the Treatment of Acute Rheumatism, to be opened by John Evans, M.D., Carnarvon.—H. JONES-ROBERTS, Penygroes, Honorary Secretary.

SOUTH MIDLAND BRANCH: BEDFORD AND HERTFORDSHIRE DIVISION.—The annual meeting of this Division will be held at the County Hospital, Bedford, on Tuesday, May 3rd, at 3.30 p.m. Agenda:—Minutes of last annual meeting. Election of officers. Appointment of Ethical Committee. Matters referred to the Division by the Central Council: (1) Whether it is desirable that the medical witnesses engaged on each side in legal cases should meet in consultation. (2) The question of the advertising of medical practitioners in connexion with hydropathic establishments. The Executive Committee ventures to draw the attention of members of the Division to the recently-issued Year Book of the Association for the year 1904, and in particular to pp. 42 and 43, dealing with the work and constitution of the Divisions. The Committee would urge upon members the importance of attending the meetings of the Division and taking part in the work devolving upon the Division as the executive and influential units of the Association, to which matters of great moment to every medical man may at any time be referred (by individual members or by the Central Council of the Association), and upon the vitality of which the successful working of the Association as a whole now so largely depends. The attendance of members of the Division is earnestly requested.—S. J. ROSS, 28, Mill Street, Bedford, Honorary Secretary.

STAFFORDSHIRE BRANCH.—A meeting of this Branch will be held at the Victoria Hotel, Wolverhampton, on Thursday, April 28th.—G. PETGRAVE JOHNSON, Stoke-on-Trent, Honorary Secretary.

SPECIAL CORRESPONDENCE.

MANCHESTER.

Public Health in 1903.—Voluntary Notification of Consumption.—Earlier beginning of Summer Session.

THE health report for the fourth quarter of 1903 has just been issued, and with the data already published the following deductions may be made: The number of births registered in Manchester during 1903 was 17,568, which corresponds to a birth-rate of 31.7 per 1,000, a rate which is lower than that of any of the last thirty years, with the exception of 1901, when it was 28.7; in 1902 it was 33 per 1,000. The number of deaths from all causes was 10,726, which corresponds to a death-rate of 19.4 per 1,000, and is the lowest rate on record for Manchester. Before 1903 the lowest death-rate on record was 19.8 per 1,000 in 1894. The infant mortality, or the death-rate of children under 1 year per 1,000 births, was 168 in the City of Manchester, and in the township 194; in Ancoats, 194; and in the central district, 207; and the lowest rate—88—was in Crumpsall. The average infantile mortality over all the immense area was 168 per 1,000 children born, against 151 in 1902. This is a high rate, but it is relatively good as compared with 1901, when the rate was 198 per 1,000. Perhaps the fall in the rate is due less to improved methods of feeding and better sanitation than to the prevalence of colder weather in the summer of 1903 and a consequent decrease in the amount of diarrhoea.

A system of voluntary notification of consumption to the Health Department has begun to grow, and is encouraged. All cases notified are registered, and the houses visited by the staff of the Public Health Department, who give all the instruction necessary for the prevention of infection, and where necessary cleansing and disinfection of premises are carried out. Thus valuable knowledge regarding the incidence of the disease is gradually being acquired. The number of cases registered and visited during the year was 1,363, and of these 206 occurred in common lodging-houses. The number of cases removed to hospitals was 1,151.

Manchester set the example of beginning the summer session before the time-honoured first of May. To get the summer session over before the Dog Days, and for other reasons, it begins on the third week of April—a date that has been adopted by the sister University of Liverpool.

SOUTH WALES.

Small-pox.—School Hygiene.—Midwives.

SMALL-POX has once more made its appearance in Cardiff and neighbourhood. One case was notified in Cardiff for the week ending March 19th, and another case occurred in the Llandaff and Dinas Powis Rural District adjoining Cardiff about a week ago. A second case was notified from Cardiff last week. All the cases are isolated, but unfortunately this rurul district is one of the few in the county which has not made provision for the isolation of small-pox, notwithstanding frequent warnings by the county council.

Dr. Williams, County Medical Officer of Health, delivered an instructive lecture recently before the Guild of Graduates of the University of Wales at Aberystwith on the Sanitary and Medical Control of Schools. He emphasized the importance and necessity of (1) the systematic sanitary inspection of all schools, (2) the periodical medical inspection of the scholars, (3) the necessity of teaching of hygiene, etc., to the senior classes. On April 23rd, the provincial sessional meeting of the Sanitary Institute will be held at the Town Hall, Cardiff, when Dr. E. Wallord will open a discussion on "School Hygiene in connexion with the duties and responsibilities of the New Education Authorities." The chair will be taken by Mr. W. Whittaker, F.R.S., Chairman of the Council of the Institute. It is expected that several medical officers of health will take part in the discusston. Arrangements have been made to visit the Isolation Hospital and Crematorium at the Flat Holms after the meeting.

Arrangements are being made at the University College, Cardiff, to establish a teaching centre for young women desirous of entering for the Central Midwives Board examinations. It is much to be desired that a few other centres should be established so as to enable young women from all parts of the county to attend the necessary classes, without incurring greater expense than many of them are able to meet.

BIRMINGHAM.

A New Lunatic Asylum for Birmingham.—Care of the Feeble-minded.—Wolverhampton and District Hospital for Women.—Birmingham Dental Hospital.

THE City Council has erected another lunatic asylum at Hollymoor, which is about eight miles south-west of Birmingham and within a mile of Rubery Asylum. The original estimate was £249,000, and sanction for a loan of £200,000 has been given by the Local Government Board. The accommodation of the existing Birmingham asylums is inadequate to cope with the ever-increasing demands. In addition to the large asylum at Winson Green, where all the patients are received, and the City Asylum at Rubery Hill, which has 804 beds, several large private houses—Glenthorne, Sandwell Hall, and The Leveretts—have also been used for the treatment of the insane. The new asylum at Hollymoor was commenced in the beginning of 1900 on an estate 119 acres in extent. As far as the actual buildings are concerned, the institution is practically finished, but, as the interior equipment must take some time to complete, the asylum is not likely to be opened until towards the end of the year. It has been erected in blocks, with a corridor of communication; the administrative block, including engineering department, kitchens, bakehouse, laundry, and a huge dining-room and recreation hall, is in the centre. Accommodation is provided for 604 patients—302 of each sex—and for the medical staff and attendants, who will number about 100. Many workshops have been built so as to provide suitable occupation for the patients. Great precautions have been taken against an outbreak of fire; two sets of staircases are provided to the dormitories, and there are, in addition, iron staircases which lead out on to the flat roofs of the communication corridors, and from these there are other iron staircases to the ground. There is also a fire-alarm installation in communication with every ward in which people sleep.

It has been suggested by the chairman of the subcommittee of the Hollymoor Asylum that the municipal authorities of Birmingham and the surrounding districts should confer together with a view of erecting on the Hollymoor estate a number of villa homes where feeble-minded children might be trained and their mental capacity developed as far as possible. At the present time there are a number of feeble-minded children in the city asylums whose mental condition could be vastly improved by the training which they would receive in such homes as these.

The annual meeting of the subscribers of the Wolve a ton and District Hospital for Women was held on Ap The report showed that there was a slight decrease amount of subscriptions received as compared with t vious year, and that a sum of £8,000 was still required the institution would be free from debt. The income was £1,031, and the expenditure £1,064; the donations building fund amounted to £4,097. During the past y in-patients and 761 out-patients were treated at the ho and this number is an increase on the figures of the p year. A still further increase is to be expected now t hospital has been moved to the new buildings whic opened in February last.

An appeal is being made by the Committee of the Bi ham Dental Hospital for funds to build and equip hospital. It is stated that the work of the institut outgrown the present building, which was originally a house. When the hospital was removed in 1882 to its p place, the number of patients treated was 5,515. Sinc the numbers have steadily increased, until in 190 reached the large total of 11,112. During these ye tendency has always been more and more towards th servative treatment of the teeth. The Committee obtained from the Colmore trustees a lease of a suita in Great Charles Street. The building has been de with economy but will cost about £8,500 and the ment about £1,500, making in all about £10,000. T the only charitable institution of its kind in the Mid there being none nearer than London, Manchester, or pool. The establishment of the Birmingham Univ which grants degrees in dental surgery, makes a new hospital, equipped with all modern requirements necessary for the training of dental students, and f development of the dental faculty in the university.

CORRESPONDENCE.

A SELF-SUPPORTING HOSPITAL.

SIR,—A correspondence has recently been taking pl the *Guardian* on the subject of self-supporting hospital question involved is one of growing importance both public and to the profession.

As regards the public, it is notorious that the middle c which comprise in different grades a large proportion population, are without adequate and necessary faciliti the management of their sick and injured. They c afford the cost of the nursing homes which flourish in dance for the convenience of their richer neighbours their worldly circumstances are too comfortable to make eligible as recipients of charity in a public hospital. If are tempted, from a very human and commendable des do what they are assured is the best for their sick relat friend, the nursing home is chosen at the cost of subse months or years of privation to themselves and the members of their family. Otherwise the cure must be t taken at the patient's home, under conditions that are a upsetting to the comfort of a small household, an often not conducive to the chances of speedy and u plicated recovery.

It may be replied to such a statement that nursing h are provided to suit the resources of almost every exche and that while some are admittedly expensive, others a be found in which the cost is reasonable. This may or not be the case, but even the smallest cost, which fron nursing home point of view is reasonable, is more than of the middle classes can afford, and despite what is ass by those who conduct such homes, the charges are in instances high, in many extravagant, and in some outrag A room at from five to ten or more guineas a week is means the beginning and end of the tenant's responsib The etceteras often mount up to a formidable total for w the patient has not been prepared.

Abundant evidence can be produced in support of the tention that nursing homes, as they now exist, are lux for the rich only, and are far beyond the reach of those w incomes are limited. Even for the rich they are often c luxuries; more so, in some instances, than, on the grou strict commercial morality, they have any right to be.

Fortunately it is not the custom in this country, as it many others, for doctors to own private hospitals. Nu and others, consequently start homes to meet the de which they know to exist, and they are frequently encou thereto by tempting promises of support. But the prom

ich enterprises are not usually capitalists, and the result hat the homes are small, and unless kept constantly full, not be carried on profitably except on high charges. Fur-, though there need be no reflection on the management he good homes among those which now exist, it must be itted that many valuable details are denied to the ents, of which the inmates of a charity hospital have full ntage. House-physicians, house-surgeons, laboratories, ial appliances for treatment, and even disciplined nursing supervision by night and day, as well as many other rs in the routine of a well-appointed hospital are entirely ing in the nursing home.

all this be true, can a remedy not be found in the lishment of a self-supporting institution which shall nducted on hospital lines? Patients would be admitted he payment of a weekly sum, which would vary accord- to accommodation. This might be provided in four s—large open wards, small cubicled wards, private s, or suites of rooms. The patients would be attended heir own medical men, to whom the hospital staff would sponsible for the due carrying out of instructions in d to treatment. The hospital would be governed by a al superintendent and a matron, who would be directly olled by a Board of Management. It may be urged that an institution would be inimical to the interests of al practitioners in that it would tend to deprive them of ble attendances. This is not my belief. The patient be treated in the paying hospital under precisely the conditions of professional etiquette as at home. What- consultations were necessary would be arranged for at nospital; requisite operations would be performed; l lines of treatment would be carried through there; but d of the patient being temporarily wholly removed his own doctor's jurisdiction, he would continue under harge, with the assistance, to such an extent as was re-, of outside help from physician, surgeon, or specialist. only attempt which has so far been made in London in rection of a paying hospital—apart from paying wards eral hospitals, which are for many reasons a mistake— of the Home Hospitals Association in Fitzroy Square. an excellent institution, travelling in the right direc- ut it is practically confined to surgical work. It is, ver, only a nursing home, and does not provide tory and other hospital facilities which are so ble. The cost is from four to ten guineas per week, n extra three guineas for a special nurse if one be . These sums, with certain small items which always be added, place even Fitzroy House beyond the reach class of people who would be prompt to take advantage ore comprehensive and less expensive institution.

ls would require to be carefully elaborated, but the time to be about ripe for a move in some direction to pro- a widely-felt want and to improve upon the defective ravagant system which is now in fashion.

one element necessary for success is capital, but the foundation would be the first and only outlay. An ion conducted on the hospital system and with nodation to take in a sufficient number of patients e carried on at such a lessened rate of payment as make it attractive and speedily keep every bed con- full. The public would benefit by getting all the ges of hospital treatment at a price for which they ccording to their circumstances, afford to pay, and fession would reap the advantage of having under one ery appliance and convenience for the thorough ation of disease, and in addition would have the of constant skilled supervision.

ees of the medical attendant would remain, as at a matter personal to himself and his patient, while ge to the patient for hospital accommodation would lculated as to be strictly inclusive. In these days, much is being done by munificent gifts for the and extension of our existing medical charities, it dvantageously suggest itself to some benevolent f wealth that his favours could be well bestowed on dation of a self-supporting hospital, which would not rity in the sense of supplying the poor and indigent, ld not the less be a charitable boon of priceless value, it would bring within the reach of a very large num- ersons who are shut out from both the charitable s and the nursing homes as they now exist, the best le facilities for the relief of sickness at a minimum am, etc.,

MEDICUS.

THE ASSOCIATION AND MEDICAL DEFENCE.

SIR,—In answer to Dr. Hugh Woods's letter in the BRITISH MEDICAL JOURNAL of April 9th, it is difficult to imagine why he should have fitted the cap upon the head of the London and Counties Medical Protection Society, Limited, I wrote: "Other societies may have more money in reserve per head," making thus a hypothetical statement. No charge was made against the officials of the Society he represents, nor against its working or management. Indeed, such a conclusion would be impossible to arrive at, as according to the statistics presented by Dr. Woods himself to the Special Committee of the British Medical Association *re* Medical Defence on November 12th, 1903, as published in the SUPPLEMENT of the JOURNAL, January 30th, 1904, it was proved by him "that the working and legal expenses of these two medical protection societies were almost identical per member"—that is, about 9s. 1d. per member.

With respect to Dr. Cox's further letter I do not propose to comment further upon it, except to point out that according to his view there can be no salvation for the medical profession outside the British Medical Association. Well, this may be so in the future, but it certainly does not obtain in the present. Both Dr. Cox and Dr. Welsford are evidently prepared to throw over the claims and repudiate the rights of the 1,600 members of the Medical Defence Union who do not belong to the Association.

The Council of the Union cannot agree to this, whilst it acts on behalf of all its members equally, and is trusted and elected by them to act on behalf of them in such manner. Perhaps if either Dr. Welsford or Dr. Cox could spare time to read the numerous letters which we have received from Association members of the Union upholding the Memorandum of the Council, they would not so readily believe that the scheme formulated for Medical Defence is so acceptable. I can assure both these gentlemen that the interests of the British Medical Association are as dear to the Council of the Union (all of whom are members, and several active members of Council and Committees of the Association) as they are to them, and all unite in desiring increased power and strength to it. It is clear, however, to many that the scheme of Medical Defence described by Dr. Wolstenholme as "grotesque in its details," and by Dr. Gosse as "unwieldy and impotent as a Hindu idol," will add neither to the prestige nor to the weight of the Association.

As stated in my former letter, if the members of the Medical Defence Union desire to destroy their organization which it has taken years to build up, it is for them to say so. Up to the present, however, the contrary opinion has been expressed, and the Council of the Union can have no alternative but to carry on the work, even subject to the completion of the Medical Defence department of the Association, that is, if such a department be ever formed.—I am, etc.,

M. ARDEN MESSITER,
Dudley, April 11th. President of the Medical Defence Union.

SIR,—Dr. Cox is to be congratulated in having succeeded in eliciting a few opinions on this matter, although they all seem to be in opposition to him. The circular of the Defence Union, on which he spends his energies, is after all of very little concern to us. They certainly helped with valuable information, but now find they are to be faced with a rival. Naturally they will write as they have done. But attacking them, while ignoring the feebleness of the result of the referendum to the Central Council, is not a good defence.

Dr. Cox says my various queries, published in the BRITISH MEDICAL JOURNAL for March 5th last, can be rectified in Divisional meetings. I would beg to differ from him. Tinkering up a scheme which in its essentials is drawn up so loosely is only likely to result in a poor job.

The Central Council when issuing the scheme have not placed before the members that information we are entitled to have. Those of us in official positions cannot shut our eyes to why so many members and non-members look still askance at the Association. Two remarks constantly recurring touch on this scheme, and ought to be met with suitable replies. One is, Why cannot the Association so alter its Memorandum as to give all its members medical defence if applied to by them, and do it on the present subscription? The second remark is, What is being done with the guinea retained at the head office? We are entitled to see a detailed account showing how much of that sum goes to this thing and how much goes to that. No personal imputations are made when we say we are in total ignorance, as members, as to

whether the funds are being rightly spent. The Council asks for ten shillings more for defence. We say, Why? What are you doing with the guinea; is there any waste? If free defence of 15,000 members (is it not 19,000?) was given at once, it would cost, they say, £7,000. The Association puts by £5,000 a year clear profit. What is it used for; and why, therefore, do they require another ten shillings a head (£7,500)? Without the above information being given, it is impossible to debate the subject in any Divisional meeting. We have no reply to make to dissentients, and shall never make any headway. Will the Council publish answers to this?

The Defence Committee have in this matter dropped into an old groove, a groove based on tradition, a mode of procedure we had hoped had been once for all wiped away. Three fundamental errors have in consequence been made: They have ignored the various defence societies as well as the members and non-members of the Association.

The existing defence societies have been ignored. It never seems to have occurred to them to try and amalgamate these as a first step in the right direction. The discreditable picture of two societies being opposed in a case before the General Medical Council is still possible. A scheme is prepared and not a word is said to these societies as to whether they could amend it before publication, and so allow it to go before the profession with a chance of success.

The members have been ignored. In preparing a scheme of this sort, would it not have been as well to have issued first to every Branch a string of queries on fundamental points, and, having obtained the replies, to have then drawn up the scheme? Men like to be asked their ideas and what they want. There is no hurry to start defence by the Association, and time would be well spent if we were working along the right lines. Instead of that we are having a one-man scheme put before us to accept, tinker, or decline. Of course the London and Counties Medical Protection Society did not oppose the scheme. It would have been in a sense fouling their own nest to do so; for is not one in the most influential position therein responsible for it?

The non-members of the Association belonging to defence societies have been ignored. That nut there has been no attempt to crack. They simply give them the go-by. I believe they number some 2,000. Would it not have been a good means to an end to have allowed these to join the proposed department without joining the Association direct, at the same time bringing with them on to the proposed committee a certain number of experienced officials? Would even ten years' grace have been too much to offer in exchange for such a gain? In time no doubt all differences would have disappeared and all would be absorbed into the Association.

The Central Council keep reiterating they leave the matter now in our hands to decide; they do not want to be considered as prejudicing the subject one way or another. Such a position is absurd. No Government could stand who produced an important Bill on such conditions. Dr. Cox alone stands by the child. The Council were asked to draw up a scheme by which defence could be "safely and efficiently carried out by the Association." How it was to be done was left to their discretion. They cannot draw up a scheme after such a referendum and then decline responsibility. It is stamped with their mark, and they must acknowledge their adopted child. Men are voting in favour of the scheme simply and solely from this reason.

Many must feel the difficulties of the situation have not been well coped with, when the Council leave their duties practically to one man, and then throw into the arena of medical politics his scheme and run away from it.

We shall make no progress and defence by our Association will still be a thing of the future, until we have been put into a position to judge the case after having information on the two fundamental queries I have given above, and until the members and defence societies have been duly consulted in the preparation of a scheme. Until then it is to be hoped Divisions will carry resolutions to the effect that the scheme propounded is not one by which the Association could "safely and efficiently execute the work of Medical Defence."—I am, etc.,

Southfields, S.W., April 11th. E. ROWLAND FOTHERGILL.

SIR,—From the letters in the BRITISH MEDICAL JOURNAL on this subject I take it that there is a strong feeling amongst the members that our Association should undertake medical defence, not as an appended society to it, but as an integral part of itself. Two sides to this question, as an onlooker, appear to me evident: (1) The side of the Council, (2) the side of the members.

After years of apparent lethargy the Council has ro itself, and undertaken for no increased subscription a large increase of responsibility and work. In what as tion can any one obtain so much for such a small subscri A mother association located in London, holding an a meeting in one of the large centres of the kingdom to all members have free admission; a journal of excellen dition; Branches all over the Empire to which all me belong who are within the radius—all this for the annual subscription of twenty-five shillings.

But the members want defence, and I think very rig Now, it appears to me wasting time and breeding ill blo write letters of complaint or what may seem to be such would suggest that the Council should take the members its confidence and say what extra capital would be requis enable the Association to undertake such defence. Ther some rich men in the Association, some well-to-do, some sufficient for their wants and a little over; possibly thes combine, if they know what is wanted, and so help in atta what certainly appears desirable.—I am, etc.,

Paignton, April 2nd. GRIFFITH C. WILK

SIR,—Dr. Gosse in his letter points out the real difficu supporting the present scheme. I have been a mem the Medical Defence Union for many years—why sho leave it for another defence society unless I get more fe money?

What is the advantage of belonging to the British M Association if I have to pay just as much to join its de department as I now pay to the Medical Defence U Make the scheme compulsory and the total subscriptio a year, and there would soon be no necessity for any defence societies.

Nobody questions the great advantage of having powerful defence society instead of two or three; but t present scheme will still further weaken us by adding an to those already existing.—I am, etc.,

Folkestone, April 11th. ARTHUR E. LARK

THE STATE REGISTRATION OF NURSES.

SIR,—In answer to the reply to the manifesto against registration of nurses, it is said that we who signed it failed to grasp the aim and purpose of the Bill, which w told is to establish a representative Council, to wh questions of training, discipline, and other profes matters will be referred, and upon which the medical p sion, matrons, and nurses must be represented. But th flaw in the suggestion is that the matrons of almost a leading training schools for nurses are opposed to reg tion, and will not serve on any such Council; and it is w of note that in New York, where registration of nurses e the nurses themselves do not register. Dr. Bristow lately been speaking to them and complaining that really ought to register.

The Bills are promoted by people who, however w cannot be said to represent the nursing profession. pointed out that one great advantage of registration w that it will show that the registered nurse has gone factorily through a recognized training school. Bu nurse's certificate shows this just as well as the *Regist* has this advantage, that the certificate shows that the was efficient, say, in 1889, when she got her certificate the employer knows that the certificate speaks only that date. But the *Register*, which gives no further se at all, is, so to speak, a continuing certificate, and would the public to think that the nurse was efficient so long a is on the *Register*.

Those who signed the protest know only too well that nurses who have in past years gained their certificate seriously deteriorated, but a nurse once on a registe always be on, unless guilty of some gross misconduct. a register in so far as it deceives and blinds the public, i only useless but dangerous.

It is needless to point out the fallacy that "it i technical skill alone that a nurse is rendered valuable in of serious illness." Once more let it be repeated that o the dangers of registration is the preaching of this idea making of the technical qualifications of paramount in tance—the passing of an examination the highest idea aim of a nurse! Those who signed the protest foresee every time any member of the public was disappointed

rse, as would alas too often occur, the cry would be raised ve me never again a registered nurse," and this would ct to the detriment of the really good up-to-date nurses. eccentric woman utterly unsuitable to be a member of a sehold, and the writer knows several such women—would , and not only pose, but would actually be a State regis- l nurse, and during her whole life would reflect on all r registered nurses.

is silly to write with a sneer that "the opposition comes certain hospital committees, the employers of nurses, from some matrons." Who are for it? How do those are for it differ except as to quantity and importance those who are against it? Those who are for it are a matrons and a few honorary officers and vice-presidents e Society for the State Registration of Nurses.

it too much to ask any one interested in the subject to are the position and experience of those who oppose tration with those who are agitating for it? Why, almost e leading medical men and the leading matrons are st it; in fact, all the people to whom one would naturally arrive at an opinion founded on the experience of many of useful work.

mpare the signatures:

matrons of hospitals in London, it is said:

1	"Bart's," good	600 beds
2	"Charing Cross," good	150 ,,
	Western Hospital (Fever), Fulham	450 ,,
	Chelsea Poor-Law Infirmary	423 ,,
	St. Giles Infirmary, Camberwell	333 ,,

are all I can find. The other two may have come in since.

vincial Hospitals and Infirmaries:

Infirmary, Leicester	240 beds
North Staffordshire Infirmary, Stoke-on-Trent ...	216 ,,
Royal Victoria Hospital, Belfast	196 ,,
Royal Albert Edward Infirmary, Wigan	156 ,,
Southampton Hospital	130 ,,
Richmond Hospital, Dublin	120 ,,
Bolton Infirmary	106 ,,
East Lancashire Infirmary, Blackburn	102 ,,
Stockport Infirmary	85 ,,
Royal Hospital, Richmond, Surrey	60 ,,
Kidderminster Infirmary	60 ,,

en come 38 honorary officers, vice-presidents of what th?—of the Society for the Registration of Nurses!

:

ty-three matrons of hospitals and infirmaries in London, includ- eight hospitals with medical schools attached.

The London Hospital	Westminster
King's College	St. Mary's
St. Thomas's	St. George's
University College	Middlesex.

e matrons of provincial hospitals and infirmaries, including the of Edinburgh Royal Infirmary and the Matron of Birmingham ry; and a large number of members of the medical profession, ng Lord Lister, Sir J. Reid, Sir Thomas Barlow, Sir Dyce Duck- Sir William Bennett, Dr. Allchin, and many others.

lutions are coming in daily from all parts of the y against the idea of registration.—I am, etc.,

n, E., April 11th. SYDNEY HOLLAND.

NDON MEDICAL DEGREES AND DIPLOMAS.

—The mischief of comparison between the two stan- of medicine in London probably, to many, bulks little in a general professional survey; but the practical e serves actually to entrap the licensees into an in- le position, and for a long time has called for altera- Examiners for both the degrees and the diploma have l me they could not distinguish that the one was r to the other where the subjects of the final examina- re the same; the similarity is proved also by the many and local competitions, when frequently the diploma have proved the equals to the others. This equality be extended to provincial degrees.

real difficulties, however, turn on the lack of oppor- s which beset them in all the ordinary professional f progress. The diplomas were all very well when itles ruled in the profession; but although that state rs has almost passed out of reckoning, we are still d in the College of Surgeons by that unchanging, un- ntative patriarchal oligarchy, the Council, as it has since the constitution of 1848. To-day the highest tions of the profession are not considered to be those Colleges, degrees have taken their place and are in- y placed first, and degrees, in every district, amongst neral ranks, are ousting the status of the Colleges. That means, surely, that the Colleges are no longer of any use to the public or to London, unless they choose to blend their undoubted strength with the University, to improve the present decidedly badly organized teaching, and to re-instate the old credit of London training and qualifications. On that position I still rest my plea for the junction of the two standards.

That limns out a very different position to that of the small London Licentiates' and Members' Society, which, so far, has impoverished rather than advanced this reform, with their pretended tinkering of by-laws, and little letters or petitions to one or the other of the interested bodies, and which they hint at sending to all the hospitals, and to every member thereof, whilst to do so they propose to entirely alter their name. But these are only half measures, like all their petitions, and have always ended, and are likely I think to end, in being discredited.

In the case of one other instance bearing on this reform, the late tendency and effect of the general meetings at the Royal College of Surgeons cannot be said, in my opinion, to have removed the practicability of this brilliant opportunity for *rapprochement*. The College meetings simply serve up a convenient audience for the Council, they are all held entirely on sufferance, and the usual amenities of a meeting of equal counsel and debate do not exist. Such idle propositions or resolutions as "facilities for London students to get an M.D." or "the desirability of putting the University Act in force" that have been considered at the meetings must be void. Two phrases simply cover them. The facilities exist. The Act is already in force. At the last meeting, the one official objection to any reciprocity with the University was most strained, that "the University Act really gave no power to confer a degree with the University." As if the Senate of the University, with its abundant powers and clauses, were not there for that very purpose, and were not masters of the situation; as if the Senate had not already made many diverse concessions, even as far as accepting foreign leaving certificates, with similar proposals for provincial schools; and the University thus comes to be reduced to placing all those beneficiares before the ill-provided-for sons of her own town and substance. I am convinced facilities could be made and conceded on both sides to consolidate their interests. The differences, then, seem slight, but they persist in standing in the fairway of improving London above the medical capacity of a provincial town, and stop it from becoming a medical pattern to the whole empire. This temerity asserts itself in the face of the fact that London has gradually become a town of a university type, with unprecedented repositories of learning, specialized facilities and faculties, and above all, having accumulated the richest of collections.—I am, etc.,

Bognor, April 9th. H. ELLIOT BLAKE.

THE METRIC SYSTEM IN ENGLISH MEDICAL PRACTICE.

SIR,—After thirty-one years of the old style I decided to adopt the metric system in my own practice, and now, having used it for five years, I am perfectly satisfied with the change and its advantages to myself and those about me. The necessity of working out prescriptions gives a familiarity with the system that mere reading never did. The number of mistakes is greatly exaggerated by not unnatural fears. They occur, as things are now, chiefly from medical men being occupied for too long a time at a stretch, just as railway accidents do from signalmen and drivers being similarly overworked, but also, I must admit, from the excessive use of intoxicating liquors. So I cannot agree with Dr. Whichello that it is best for medical men to dispense their own medicines. It may be a necessity for them to do so, but least mistakes, to my thinking, are likely to be made by having medicine dispensed by some one else. Such as have occurred in my own prescribing have been corrected for me by my dispensers, and I should look upon it as an act of the grossest negligence for a dispenser to make the mistake with arsenic that he relates. The most ordinary chemist I have met is put on his guard by having to deal with an active poison, and in some establishments each prescription of the kind has to be checked by a second assistant. Having trained both men and women, I can bear testimony to the ease and accuracy with which it is done.

The real rub lies with the prescriber; 0.06 gram takes some time to get ingrained; but if any egregious blunder occurs the dispenser will be only too glad to prevent harm by pointing it out. Another source of difficulty, though not of

danger, is the sign for the gram. The symbols g. and gm. are so easily confounded that attention ought to be called to the use of the gram, perhaps by underlining, thus gm.

It would be a mistake for any medical man to attempt the change in his busy times; but let him start, after due preparation, when the press of spring work is over, and he will find it a pleasurable occupation for a slack time.—I am, etc.,

Cardiff, April 12th. ALEX. P. FIDDIAN.

THE FEEDING OF INFANTS.

SIR,—The medical officers of health of several large towns, notably Dr. Hope in Liverpool, are doing a good work in trying to provide a pure milk for the artificial feeding of infants. Unfortunately, owing to the milk having been sterilized, it lies under the serious objection of causing scurvy in some few cases, and no doubt imparts the "taint of scurvy" which Dr. Hall, of Leeds, mentions in many other cases. At any rate, I notice children with late development of the teeth, and lateness in learning to talk and walk, with a history of boiled milk or artificial foods very frequently. Signs of rickets are usually found, but this is probably another ultimate outcome of slight scurvy in most cases. These children are often quite fat.

Now it appears to me to be perfectly easy for Dr. Hope and other medical officers of health with energetic municipal councils to arrange for a supply of milk from selected shippons within the city boundaries for infants. Such milk should be drawn off by a mechanical milker, acting by suction. The paps could be washed carefully, and the rubber tubes when not in use would be kept in carbolic acid solution, and boiling water passed through them before use. The milk would be drawn off into a sterilized vessel in the presence of an inspector, and the small single feed bottles filled from this in the municipal laboratory, and then rapidly distributed, packed in ice in hot weather. Absolute sterility is not required. This would be expensive; but in Liverpool, at any rate, it is possible.

A great objection to a mechanical milker—that it does not exhaust the possible supply—does not in this limited use apply, as the cow can be milked off by hand, for the benefit of the general consumer.

If barley water could be used as a diluent instead of plain water it would be a great advantage.—I am, etc.,

Seacombe, Cheshire, April 11th. T. WILLIAM INMAN, M.B.

SIR,—In the BRITISH MEDICAL JOURNAL of April 9th, Mr. William Hall states that "most English mothers are unwilling or unable to suckle their children, or they cease to do so before they are many weeks old." I think that the question arises, "is this not largely the fault of their medical attendants?" When asking well-to-do-women why they have not suckled their children even for a time, I have often been struck with the inadequacy or absence of any reason. The following are common answers: "I really don't know." "Nobody told me that I ought to, and I thought they did just as well on the bottle." "My husband did not wish me to." "The monthly nurse advised me not to."

I find many of these women are perfectly willing to nurse in future when they know the reasons why they ought to do so. Personally, I feel that a medical man should give the question of abandoning suckling as much consideration as he does the question of inducing premature labour. The risk to the child's future welfare is about equal in the two cases. When asked to attend a woman in her confinement, I have for some years past made a practice of asking her if she intends to nurse the infant. If the answer is in the negative I ask the reason. If this is inadequate I carefully explain to her the importance of suckling both with regard to herself and the infant. If she still declines to nurse I then request her, as courteously as possible, to get some other medical man to attend her. I have some personal reasons for doing this apart from the interests of the mother and infant. In the first place, a woman who shows no consideration for her baby is not likely to show much for her doctor, and she will probably be an unpleasant patient to deal with. Secondly, a woman who gets into tight frocks and resumes a society life with a subinvoluted uterus at the end of a month, often spreads it right and left that she has been mismanaged by her doctor. Though she may not state the case quite fairly, I am not at all sure that she is not right.—I am, etc.,

London, April 10th. W. H. C. S.

SIR,—I must apologize for the error in my letter o above subject, published in the BRITISH MEDICAL JO on April 2nd, and must thank Dr. Alderson for so k pointing it out. The addition of 1 oz., by weight, of su 20 oz. of fluid makes a 5 per cent. solution, and consequ the mixture prepared for use should have sugar added i proportion—for example, 1 oz. to 20 oz. In trying to sim the process I made use of a sugar solution of a strengt per cent.; hence the mistake. Such mistakes are ha rectify. To try and correct the error I shall be obliged will reinsert a short description of this method of grad feeding:

Mix together top-milk, 5 oz.; lime-water, 1 oz.; sugar, 1 oz water up to 20 oz. To pass from such a weak mixture to a strong gradually increase the amount of milk and reduce the amount of to an equal extent until the mixture consists of top-milk, 10 oz. water, 1 oz.; sugar, 1 oz.; and water up to 20 oz. By this mea percentage of proteid is slowly increased from about 1 to 2, of fat 2 to 4, and of sugar from 6 to 7. If more fat is required in the a mixtures, the top third of the milk, after standing, should be u stead of the top half. If the percentage of sugar is too hig 7 drachms or less need be added.

Milk sugar or cane sugar may be used, or equal p both, if cane sugar is too sweetening.—I am, etc.,

London, W., April 12th. EDMUND CAUTLEY, M.D., F.R.

A PLEA FOR SOME OLD DRUGS.

SIR,—The striking results obtainable from the use o tar derivatives in acute diseases and in various nervou orders now so prevalent have given to drugs of this c preponderating influence amongst remedies in the treatm disease, and the supply seems quite equal to the deman increase of new drugs being almost wholly from this No one constantly using them can possibly deny thei efficacy; they seem suited both to modern diseases a modern persons. The contrast between their rapid p tion and the scanty introduction of remedies from eith vegetable or mineral kingdoms is a phase in pharma would seem as if the efficiency of the minerals to pr anything new and valuable is now quite exhausted. vegetable drugs are occasionally introduced tentativel hardly any minerals.

Our forefathers trusted almost entirely to the veg kingdom in the treatment of disease. The mothe families thought it their duty to learn themselves, a teach their daughters, the use of many simple herbs, they either kept in their gardens or could gather fro woods or roadsides in the neighbourhood; and the mo old kept beds of medicinal herbs, or physic-gardens, f in the treatment of the sick, not only in their own mona but amongst the laity around. It is recorded th physic-garden of the Cistercian monks at St. Gall, Lake Constance, contained 16 beds, each with the of some herb inscribed on it. Amongst these were: P mint, rosemary, white lily, sage, rue, comfrey, penny fenugreek, rose, watercress or radish, or mustard (sisymb cummin, lovage, fennel, tansy, kidney bean, savory course the use of many vegetable drugs which are now well understood was unknown to them, and they would rally avoid such dangerous plants as monkshood, fox deadly nightshade, hemlock, hellebore, and colchicum. were also generally afraid of the crowfoot family as mostly poisonous, but they quite appreciated the ant butic properties of most of the cresses, which known to contain a great deal of sulphur. It wi noticed that in the list of sixteen plants given a there is not one possessing dangerous qualities. as late as Culpepper's *English Physician*, publishe 1652, a work dealing entirely with vegetable drugs, the of the most poisonous plants are entirely omitted. plants were looked on as universal cures, and the ailments which Culpepper attaches to each plant, a which he warrants a cure, are enough to stagger credulity. A few of the plants were specific for certai eases, such as the pile-wort, rupture-wort, scurvy- throat-wort, wormwood, whitlow-grass, etc., but the majority were used for a variety of complaints, of different natures and organs.

A selected few were of the greatest value, and we fin betony, tutsan, valerian, potentilla, etc., were remedies firmly relied upon in almost any disease. I was interest find Sir J. Sawyer recently advocating the use of an oint of the pilewort, or lesser celandine, in the treatme haemorrhoids.

he object of this note is to suggest that, instead of hunt- so vigorously for something new and adopting all the new ations of chemists, some effort should be made, by some h company as the Apothecaries' Society, to make reliable parations from some of the older drugs obtainable from ive plants before they are allowed to become extinct, so t they could be tried as remedies in common ail- nts. The old dandelion still holds its own, and frequently used in diseases of the liver and stomach. chicum is still a valued specific for gout. Might not ne drugs of the gentian and quassia type become available the treatment of dyspepsias? A preparation of coltsfoot *silago forfara*) might really be as useful as squills or acuanha in the treatment of coughs and bronchial ail- nts. Some other members of the digitalis family might ound to contain properties as valuable as it does. Broom juniper might not be the only British diuretics, and hicum the only specific. May we not be leaving much t is really valuable to the herbalist? It is possible that eriment might result in the discovery of some drugs which ld be useful especially in chronic diseases. The discovery lily of the valley (*convallaria majalis*) has a distinct on upon the heart is a comparatively recent one.

erhaps the cultivation of these old plants, and extraction heir alkaloids or other active principles, might give us e useful and powerful drugs of many kinds.—I am, etc.,

field, April 6th. FRED. TRESILIAN, M.D., F.R.C.P.Ed.

E INTRODUCTION OF PURE AIR INTO SEROUS CAVITIES.

R.—The diatribe of Dr. Theobald A. Palm reminds one of ancient discussion as to why a fish did not displace er, which was solved by an individual of an inquiring of mind who tried an experiment and found that a fish displace water. In discussing a physical subject Dr. n seems to me like a fish out of water—he is not in his er sphere. He has satisfied himself that the injection of into the peritoneal sac must be useless, and hence he ks the matter settled; but I have tried the experiment have found it of great utility. I am continuing, and l continue, the practice whatever Dr. Palm may think of it. my last letter I showed that his arguments were falla- s, and that the atmospheric pressure and his bandages d have no effect *per se* on the intraperitoneal pressure. ead of meeting my contentions he now gives us some s of his own about "the normal pressure which supports abdominal viscera," which, to use an expression of the Samuel Woodcock, have no more to do with the subject the flowers which bloom in the spring. We are not now ing with the support of the abdominal viscera, but with est means of checking excessive effusion or transudation the peritoneal cavity, and it would be much more to the t if he could cite a single case where an ascites had been d by the atmospheric pressure and his bandaging. If I were llow his example and broaden out this discussion, I nt try to extract a little information from Dr. Palm as to art played by the "atmospheric pressure" in supporting e abdominal viscera." He speaks of the atmospheric sure not as *a constant*, but as something like a sandbag, h can be shifted about at pleasure. It is no part of my to give Dr. Palm a course of instruction in physics, but e has ventured into a field of exact science, I may be ved to remind or inform him that in computing relative sures *a constant* can be neglected.

m happy to say that I do not know "the distinguished eriologists" who use aseptic gauze as efficient air filters, I do say that no one is justified in running any risk of ucing an empyema or a septic peritonitis, and I also say Dr. Palm's method of the introduction of air into the ral cavity by the aspirating effect of the chest is a clumsy ill-regulated device.—I am, etc.,

erpool, April 10th. JAMES BARR.

R,—Dr. James Barr, in his clinical lecture on the treat- t of serous effusions published in the BRITISH MEDICAL RNAL of March 19th, wherein he advocates the injection r, etc., into the pleura and pericardium after tapping, es no reference to previous work on the same lines. He goes further, and says in his opening sentence, "Gentle- I wish to introduce to you, and through you to the ical profession, a new method or methods of treating us effusions." Professor Dieulafoy, in his well-known *Manuel de Pathologie Interne*, Tome 1, Ed. VIII, p. 475, wrote in 1895:

Dans un cas de pyopneumothorax, M. Potain a obtenu un succès éclatant à la suite d'injections pleurales d'air stérilisé (Communic. à l'Acad. de Médecine, 24 Avril, 1888). J'ai eu l'occasion de traiter un pyo-pneumothorax tuberculeux par des ponctions multiples, à chaque ponction on ne retirait qu'une cinquantaine de grammes de liquide, et on pratiquait ensuite une injection intrapleurale avec solution de sublimé (*Revue de Médecine*, 10 Février, 1892).

Dr. Barr's "new method" is old history abroad; and, judging from Dr. Palm's letter in your issue of March 26th, is not altogether unknown at home, where, I think with Dr. Barr, it might more commonly be profitably applied.—I am, etc.,

Mentone, April 5th. D. W. SAMWAYS.

VENTRIFIXATION OF THE UTERUS.

SIR,—Will you kindly give me space for just a few sentences about Dr. Herman's letter in the BRITISH MEDICAL JOURNAL of April 9th? If I could have brought myself to believe that the differences between the two operations referred to were unimportant, not to say "trivial," I would not have had another word to say; but, in my humble judgement, Dr. Herman entirely misapprehends the importance of the differences. The chief difference is a matter of principle and is essential. Dr. Herman, according to the description in his work on *Diseases of Women*, binds down the fundus uteri into the abdominal wound. I leave a considerable part of the corpus uteri and the round ligaments free. The importance of this fact when the operation is performed upon women at the child-bearing time of life it would be hardly possible to exaggerate. "Trivial," indeed! I do not regard as unimportant even the differences in the amount of suturing, and therefore in the superficies, in the firmness, and in the permanence of the adhesions. But as these are the details of the operation upon which complete success in rectifying the position of the uterus depends, and their absence means comparative failure, I am free to admit that "the rest is all but leather or prunello."

Dr. Herman is welcome to "predict" that if I wait "long enough" I shall find "the fixation is not permanent." Would he oblige by expressing his "long enough" in figures? Some of my cases have been watched ten or twelve or fourteen years. A systematic inquiry was made into the after-histories about ten years from the time of the first operation, and in all the cases that could be traced the operation had stood up to that time the somewhat exacting tests of primary and permanent success. This could still be said just one year ago, when I read the address which formed the basis of the article in the BRITISH MEDICAL JOURNAL which is the subject of Dr. Herman's criticism.—I am, etc.,

Manchester, April 11th. W. J. SINCLAIR.

PUBLIC HEALTH
AND
POOR-LAW MEDICAL SERVICES.

THE BRISTOL UNION.

SOME six or seven years ago we had occasion to comment upon the manner in which the guardians of the Bristol Union were carrying out their duties towards the sick, and it would appear that no improvement has since been effected. This is the more remarkable because the existence and magnitude of the evils which provoked criticism from ourselves and others have not only never been denied, but were frankly admitted almost as soon as the union was created in 1898 and the present Board came into existence. In each of the workhouses under the control of the guardians the able-bodied, the aged and infirm, children and infants, the sick, the imbeciles, and lock and infectious cases are all aggregated together in buildings which admit neither of proper classification of cases, nor of the upkeep of efficient executive and administrative staffs; one of them, in addition to other evils, consists chiefly of temporary wooden buildings with all their attendant drawbacks and disadvantages. It was admitted years ago, and is not denied now, that whether from the point of view of administrative economy or of that of medical treatment of the sick or of the hygienic surroundings of the sound the whole arrangements are bad if not from many points of view entirely disgraceful.

The steps first taken by the guardians after fifteen months experience of the evils and prolonged consideration of the way

in which they could best be met were entirely commendable. They determined to close up and dispose of one institution altogether, provide in the other for casual paupers, the able bodied healthy children, imbeciles, and aged, but not sick persons, and to build for the sick of both sexes and of all ages a separate infirmary on a new site. With a view to planning the latter in the best possible way from all points of view, a committee was dispatched to visit and report upon the sick asylums of other unions in the larger cities of England, with the result that a very handsomely-illustrated report was prepared and published. Thereupon a site was acquired, the services of an architect engaged, plans and quantities got out, provisional contracts concluded, the sanction of the Local Government Board secured, and everything brought, without the slightest opposition from anybody, to a point at which nothing remained to be done except to issue final orders to commence work.

At this point, however, the views of the guardians as a body suddenly changed, and instead of proceeding with a scheme on which some six or seven thousand pounds had already been spent, they adopted a fresh one by a very narrow majority. This, however, the Local Government Board promptly condemned, pointing out that it was a mere patchwork scheme, which would provide efficiently for the needs neither of the present nor of the future, while it would entail an initial expenditure very little if at all less than the business-like and comprehensive scheme which the Board and the guardians had alike entirely approved. Instead, however, of returning to this original plan, the guardians danced off on quite new lines, appointed a Committee to visit imbecile asylums, and eventually submitted a third scheme to the Local Government Board. The opinion of the Board upon this has recently been published; it is one of unsparing condemnation, it being pointed out, amongst other things, that while no finality is reached or economy of administration secured, the interests of the sick are sacrificed to those of the incurably insane.

What course the guardians will now adopt remains to be seen, and the present position is that while some six years have elapsed since the urgent need for reform was admitted, nothing has been effected beyond frittering away a large amount of the ratepayers' money upon futile plans, reports, and committees; at the same time the condition of things in the workhouses is so bad that it cannot be doubted that lives have been sacrificed. The whole history of the matter is discreditable to a city which has not a few claims to be considered one of the most progressive in the United Kingdom. How far the business element of Bristol is really represented upon the Board of Guardians is unknown, but if it be represented at all it is time for the ratepayers to insist that it should make its influence felt. Either the scheme originally sanctioned should be taken up from the point at which it was dropped in September, 1902, or the plan should be adopted which the Local Government Board has outlined in its last report by way of an unwilling concession to what are apparently the present wishes of the guardians. The former, of course, would be best, as large sums of money have already been sunk in it, and it can be put into operation at once without any further delay or trouble. It is the scheme, too, which best provides for the adequate treatment of the sick. The latter is a matter of the very first importance, not only from a humanitarian point of view, as a passage in one of the annual reports of the proceedings of the guardians would seem to indicate, and to provide increased comfort for those whom stress forces unwillingly upon the rates, but from the point of view of the ratepayer himself. It is the truest economy to provide every possible means of curing the adult sick pauper, and of returning him rapidly to a self-supporting existence, while the adequate care of the infantile workhouse population is of immense importance to the State. Unless the means of treating them when ailing are efficient, the children either die or grow up to be infirm persons, who become a permanent burden to the country. It is to be hoped, therefore, that the opposition which has led to the introduction of these short-sighted successive alternatives to the original statesman-like scheme will be abandoned, and the antiquated arrangements of Bristol be brought into line with those of other great cities of the kingdom by the immediate establishment of a thoroughly up-to-date Poor-law infirmary.

NOTIFICATION OF WHOOPING-COUGH.

M.D.CANTAB.—Whooping-cough is not one of the ordinary notifiable diseases. If, however, the local authority has made it notifiable in the district in which our correspondent lives, and he was attending or called in to visit a patient, he should forthwith notify.

TENURE OF OFFICE OF MEDICAL OFFICERS OF HEALTH.

THE following letter has recently been addressed to the Rural District Council of Dolgelley:

Local Government Board,
Whitehall, S.W.,
March 21st, 19

Sir,—I am directed by the Local Government Board to acknowledge receipt of your letter of the 7th instant, reporting the reappointment for a further term of three years of Mr. Hugh Jones as Medical Officer of Health for the Dolgelly Rural District.

The Board have had under consideration generally the question of the tenure of office of medical officers of health, and they direct me to say that, where a medical officer of health has been in office several years and has, so far as they are aware, discharged his duties satisfactorily, they will be prepared to consider favourably an application for their sanction to his reappointment without limit of time.

If in the present case the District Council are willing to so re-appoint Mr. Jones, the Board would be prepared to sanction the re-appointment accordingly.

A copy of any resolution which the District Council may pass on the subject should be forwarded to the Board.

I am, Sir,
Your obedient servant,
(Signed) JOHN LITHBY,
Assistant Secretary.

The Clerk to the Rural District Council
of Dolgelly.

The letter may be found interesting at the present time, though it does not embody a new departure, as similar letters have been addressed from time to time to other district councils in which the Local Government Board has considered that there would be advantage in having a medical officer of health permanently appointed. It will be observed that the letter contains no reference to salary; but we believe that the Board has never sent a letter advocating permanence of tenure of a medical officer of health unless the salary paid were considered adequate. The periodical review to which the appointment is subjected by the district council sometimes leads to the salary being raised.

HEALTH OF ENGLISH TOWNS.

IN seventy-six of the largest English towns, including London, 5,379 births and 5,379 deaths were registered during the week ending Saturday last, April 9th. The annual rate of mortality in these towns, which had been 19.7, 18.7, and 18.7 per 1,000 in the three preceding weeks, declined last week to 18 4 per 1,000. The rates in the several towns ranged from 7.0 in Walthamstow, 7.1 in Hornsey, 7.5 in Willesden, 7.6 in East Ham, 10.3 in Leyton and in Northampton, and 11.2 in Smethwick, to 21.4 in Bootle, 21.5 in Manchester, 21.7 in Swansea, 22.8 in Leeds, 23.4 in Wolverhampton, 24.8 in Birmingham, 26.2 in Bootle, 27.7 in Hanley, and 29.3 in Norwich. In London the rate of mortality was 18.6 per 1,000, while it averaged 18.3 per 1,000 in the the seventy-five large provincial towns. The death-rate from the principal infectious diseases averaged 2.0 per 1,000 in the seventy-six large towns; in London this death-rate was equal to 2.3 per 1,000, while among the seventy-five other large towns the rates ranged upwards from 3.6 in Rotherham, 3.7 in Brighton and in Wolverhampton, 3.9 in Bolton, 4.1 in Hanley and in Birmingham, 4.7 in St. Helens, and 5.4 in Norwich and in Warrington. Measles caused a death-rate of 1.4 in Salford, 1.6 in Hanley, in Stockport, and in Burnley, 1.8 in Rochdale and in Rotherham, 2.9 in Brighton, 4 5 in Norwich, and 4.7 in St. Helens; scarlet-fever of 1.5 in Warrington and in Newport (Mon.), diphtheria of 1.1 in Bradford and 1.5 in West Hartlepool; and whooping-cough of 1.8 in Bury and in Salford, 1.9 in Aston Manor, 2.2 in Swansea, 2.3 in Walsall and in Birmingham, 2.6 in Wallasey, 3.1 in Warrington, and in Wolverhampton, and 3 6 in Bolton. The mortality from enteric fever and from diarrhoea showed no marked excess in any of the large towns. Three fatal cases of small-pox were registered last week in London, and in Hull. and 1 each in Stockport, South Shields, Gateshead, and Newcastle-upon-Tyne, but none in any other of the seventy-six large English towns. The Metropolitan Asylums Hospitals contained 3 small-pox patients at the end of last week, against 74, 110, and 126 at the end of the three preceding weeks; 25 new cases were admitted during the week, against 26, 54, and 42 in the three preceding weeks. The number of scarlet fever cases in these hospitals and in the London Fever Hospital, which had been 1,624, 1,585, and 1,570 at the end of the three preceding weeks, had further declined to 1,505 at the end of last week. 141 new cases were admitted during the week, against 176, 145, and 1 the three preceding weeks.

HEALTH OF SCOTCH TOWNS.

DURING the week ending Saturday last, April 9th, 1,002 births and deaths were registered in eight of the principal Scotch towns. The annual rate of mortality in these towns, which had been 23.0, 22.3, and per 1,000 in the three preceding weeks, further fell last week to 20.3 1,000, but was 1.9 per 1,000 above the mean rate during the same pe in the seventy-six large English towns. Among these Scotch towns death-rates ranged from 10.1 in Paisley and 17.9 in Edinburgh to 23 Dundee and 24.6 in Perth. The death-rate from the principal infect diseases in these towns averaged 1.7 per 1,000, the highest rates being corded in Aberdeen and Greenock. The 312 deaths registered in G gow included 3 which were referred to small-pox, 8 to measles, scarlet fever, 3 to diphtheria, 6 to whooping-cough, and 3 to diarrh Seven fatal cases of whooping-cough and 2 of diarrhoea were reco in Aberdeen; 3 of whooping-cough and 2 of measles in Dundee; small-pox in Greenock; 2 of measles in Paisley; and 2 of whoop cough in Edinburgh.

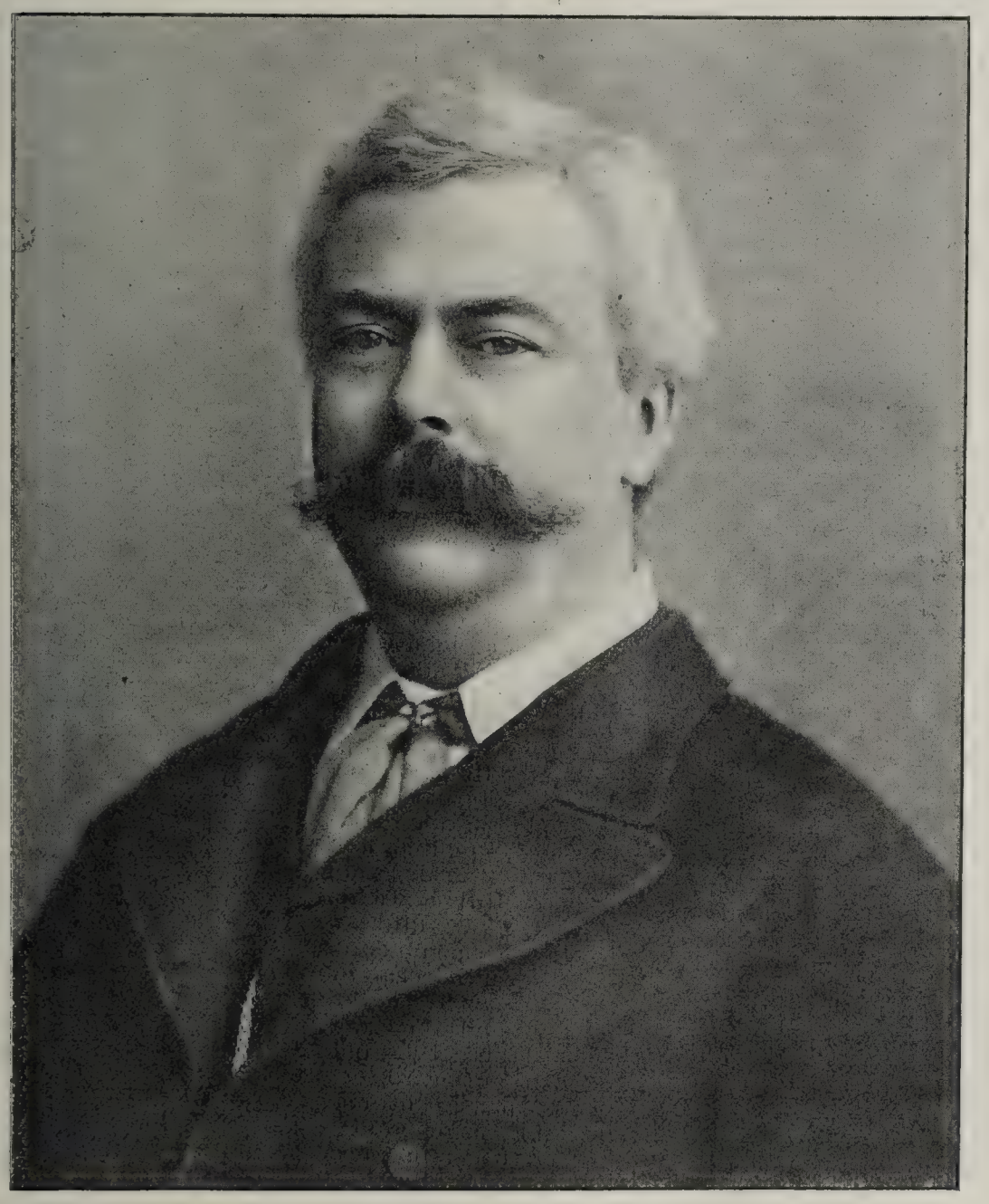
THE American Medical Association has undertaken arrange a pathological exhibit at the World's Fair in Louis. It will include general pathology and bacteriology

OBITUARY.

SIR PHILIP CRAMPTON SMYLY, M.D.,

resident, Royal College of Surgeons in Ireland; Honorary Surgeon o the King in Ireland; Senior Surgeon, Meath Hospital, Dublin.

deeply regret to announce the death of Sir Philip mpton Smyly at his residence, 4, Merrion Square, Dublin, he morning of April 8th. Sir Philip had suffered for y years from gout, but a retinal haemorrhage, which per-ently injured the sight of his right eye, occurred about e years ago, and was the first indication of anything to e serious anxiety to his medical friends. Since then his irns at mineral spas at home or abroad became more fre-t, and during the present year it became evident to those were intimately acquainted with him that he was age-apidly. He had of late frequently expressed a desire to n his position as eon to the Meath ital, but to this colleagues were lling to consent; lthough he had ally ceased to part in the active of the hospital, as in harness the hour of his . On April 7th ad attended to rivate patients e ordinary rou- and indeed on particular morn- his relatives ght him looking er than for al weeks, but at dinner on evening the rup- of a cerebral brought to a n termination n a few hours a hat had been with work and ed with many irs.



Philip was born ublin on June 1838. His , Josiah Smyly, hen one of the ons to the Hospital, and f pneumonia in His mother, ied in 1901, was ly remarkable n, whose phil-opic life-work levoted to the olishment of d schools and es for desti-children. His education hav-een conducted by private tutors, Smyly was ap-iced in 1853 to his grand uncle, Sir Philip Cramp- Bart., who was also at that time on the surgical of the Meath Hospital. He entered Trinity College, n, from which he graduated with a Moderatorship and Medal in Experimental Science in 1859. In the following e obtained the degree of M.B. and the Licence of the College of Surgeons in Ireland. In 1861, at the early f 23 years, he was fortunate enough to succeed to a ncy in the Meath Hospital. Two years later he became and F.R.C.S.I. In 1864 he married the Hon. Nina et, sister of the late Archbishop of Dublin and of Lord more.

was appointed in 1859 on the Viceregal Staff, a connexion lasted through several administrations up to 1892. rved for exactly thirty years on the Council of the Royal ge of Surgeons, and at the early age of 40 he became its President. During his year of office the members of Council presented him with a silver cradle to commemorate the birth of one of his children. In 1893 he was honoured by his College in being selected to represent it on the General Medical Council, and this position he filled for the following seven years. In 1892 he received the honour of Knighthood, in the following year he was appointed Surgeon-in-Ordinary to the Queen in Ireland, and on the Accession of King Edward VII he became Honorary Surgeon to His Majesty in Ireland.

The medical profession was not slow in recognizing Sir Philip's claims to whatever honour it was in its power to bestow. He became in turn President of the Laryngological Association of Great Britain, Vice-President of the Section of Laryngology at the annual meeting of the British Medical Association in London, President of the Irish Medical Association, President of the Irish Medical Schools' and Graduates' Association, and next month he was to have become President of the Leinster Branch of the British Medical Association. He was Consulting Surgeon to the Dublin Hospital for Diseases of the Throat, Nose, and Ear, the Rotunda Hospital, and the National Children's Hospital.

Sir Philip Smyly achieved a distinguished medical position in the public mind. He had a large private practice. He was a good surgeon, a throat specialist, and a skilled family physician. While his practice was lucrative, his advice was never denied to those whose means rendered a high fee impossible. Indeed, it was a matter of common knowledge that in his crowded waiting-rooms the poor clergyman and the badly-paid governess were frequent visitors and received as much attention and skill as those who were able to pay.

As a hospital surgeon, Sir Philip was a painstaking, keen, and successful operator. His abdominal operations in the early Eighties were highly successful and did much to enhance his reputation as an operating surgeon. He often deplored the fact that his teaching powers had never been fully developed. He was not a great clinician, but taught quietly and by example. He had neither the time nor the inclination to publish much of his work or experiences, so that his contributions to surgical literature were few.

The little of leisure which fell to his lot was given to music and literary studies. His position in musical circles in Dublin was recognized by his fellow members of the Hibernian Catch Club, who selected him for a number of years to fill the office of President. Sir Philip also held the highest rank in the Society of Freemasons, being a member of the Supreme Council of the 33rd degree. Probably of outside interests the one which he cherished most was his connexion with the Royal Zoological Society of Ireland. As a member of Council for many years he rarely missed the weekly breakfasts at "the Zoo," and the usual bag of apples

with which he regaled some of the inhabitants was an indication of his affection for animals.

A large portion of Sir Philip's annual income was set apart for charitable purposes; he gave without ostentation and he gave freely. His life was that of a true Christian gentleman in the highest usage of these terms. His religious feelings were deep and self-contained, and his gentle, courtly manners were the outcome of a noble mind.

This is not the place to raise the curtain of his happy domestic life. Let it suffice that he was blessed in his wife and family, who to-day are suffering from a great bereavement.

His children were eight in number—three sons and five daughters. His eldest son is the Honourable P. Crampton Smyly, Chief Justice of Sierra Leone; his second is a distinguished Fellow of Trinity College, while his youngest is just about to enter on his medical studies.

ARTHUR MERRIFIELD GARRINGTON, M.D.EDIN., M.R.C.S.,

Portsea.

BY the death of Dr. Arthur Garrington, the Portsmouth Division of the Southern Branch has lost one of its oldest and most esteemed members. Dr. Garrington was born at Portsea sixty-eight years ago, and he was the worthy son of the late Mr. H. H. Garrington, who for the long period of fifty years carried on a very successful practice in the locality. Dr. Garrington obtained the diploma of M.R.C.S. in 1858, and the degree of M.D. of the Edinburgh University in 1859; shortly afterwards he returned to his native town and joined his father. He held the office of Surgeon to H.M. Prison at Kingston, near Portsmouth, for forty years. He possessed an extensive acquaintance with medicine, and in all his professional relations was ever guided by the highest principles. Throughout his long career he appeared to be impelled by an earnest desire, without any show or ostentation, to discharge faithfully and honourably every duty.

Dr. Garrington was one of the original members of the Southern Branch at the time of its recognition in 1873, and for many years he was a frequent attendant at all the local meetings. When the British Medical Association visited Portmouth in 1899 he held the office of Treasurer, and rendered valuable assistance in all the local arrangements. About eight years ago he retired from practice, and in his retirement he still enjoyed the friendship and esteem of his professional brethren and a large circle of friends. His sudden and fatal illness lasted only a few days, during which he received the constant attention of Dr. Goss and Dr. Archer Colt. Dr. Garrington was twice married, and leaves behind a widow, three sons, and three daughters.

EBENEZER DONALDSON, B.A.UNIV.DUB., L.R.C.S.I., L.R.C.P.I.

Surgeon, Londonderry Eye, Ear, and Throat Hospital.

AFTER a protracted illness Dr. Donaldson died in Londonderry at the early age of 49 on April 7th. He was a native of County Cork and was educated in the Dublin School of Medicine. After a short time at sea, he became Dispensary Medical Officer of Burt, near Derry. Here, instead of becoming overwhelmed by the humdrum of country work, he set himself to work to learn ophthalmic surgery. He started an eye and ear dispensary in Derry for the poor, and after some years settled in Derry and took up ophthalmic work in addition to general practice. He founded the Londonderry Eye and Ear Hospital, of which, with Dr. Hunter, he was joint Surgeon.

A student all his life, he was gifted with a most retentive memory, and was, in addition to being an accomplished and successful ophthalmologist, a most learned and skilful general practitioner. His learning was ever at the service of his professional brethren, as his skill was at the service of the poorest. His standard of professional life was very high, and as a student and a man his guiding principle was, in the words of Huxley, "Veracity is the heart of morality." "The most sacred act of a man's life is to say I believe such and such a thing to be true."

He filled the office of President of the North-West Branch of the British Medical Association, and was for many years its Secretary and Representative on the General Council. He was a member of the Ophthalmological Society, and a contributor to its proceedings.

A true friend and accomplished practitioner, his loss to his professional brethren and to the poor of the north-west of Ireland seems almost irreparable.

INSPECTOR-GENERAL TIMOTHEUS JOHN HARAN, whose d occurred at the age of 74 in Kensington on April 10th, h distinguished career in the Royal Navy, which he entere the year 1850, after receiving the diploma of the Royal Co of Surgeons of Ireland in 1849. A year after entering service he went, as assistant-surgeon of the *Harlequ* medical charge of the boats which attacked Lagos, and mentioned in dispatches. Subsequently he took part series of operations for the suppression of the trade on the West Coast of Africa. During Crimean war he was surgeon of the *Viper*, a v which played an active part in the Black Sea, b repeatedly in action. Inspector-General Haran was pre at the battle of Eupatoria, at the capture of Kertch, i expedition in the Sea of Azoff, the night attacks on defences of Sebastopol, and at the capture of Kinburn. received the Turkish medal and Crimean medal with cl for Azoff and Sebastopol. In 1858 he was promoted a surgeon, and four years later accompanied Commo Wilmot on a mission to the King of Dahomey, an enter at that time considered to be one of considerable peril. also received the Gilbert Blane Gold Medal, and fi reached the rank of Inspector-General of Hospitals Fleets, and retired after two years' service in that ra 1888. He was a member of the British Medical Associa and was Honorary Surgeon to the King.

WE regret to announce the death of Colonel ROBERT DI COUR CORBETT, M.D., D.S.O., Royal Army Medical Corp Lucknow (where he was Principal Medical Officer), on M 24th, in his 60th year, and within a few months of his re ment under the age limit. Colonel Corbett was the s Dr. Richard Corbett of Cork, where he was educated; h came a graduate of the Royal University of Ireland in and entered the Army Medical Service in October of the s year. His period of thirty-seven years was largely spe India, where he saw considerable service in Burmah (188 for which he was mentioned in dispatches, and obtained Distinguished Service Order, with medal and clasp. He came F.R.C.S.I. in 1889. Colonel Corbett married a daug of Mr. Robert Gregg of Cork.

ERRATUM.—We are glad to hear from Dr. Werner Rosen that his father, Isidor Rosenthal, the famous Professo Physiology of Erlangen, of whom an obituary notice published in the BRITISH MEDICAL JOURNAL of March p. 645, is not dead. He is, indeed, in excellent health, a as busily engaged in scientific work as ever. The e which we much regret, was originally made by a Berlin n paper in recording the death of Dr. L. Rosenthal, who w well-known practitioner of Berlin, and also an elder bro of Dr. Isidor Rosenthal himself.

MEDICO-LEGAL AND MEDICO-ETHICAL.

TESTING THE EYESIGHT OF THE NATION.

IN the *Times* of April 7th there was a short article to the effect that contemporary had received a circular communication under the a heading from the office of the *Optician and Photographic Trades Re* which is stated to be the organ of the Optical Society. We are inde to the courtesy of the editor of the *Optician and Photographic T Review* for a copy of the communication, which is as follows:

"TESTING THE EYESIGHT OF THE NATION: IMPORTANT NEW DEPART

"A new departure in the practical application of the science of op which has been imminent for some time past, has just occurred. Worshipful Company of Spectacle Makers, whose record during the three years has brought them into the front rank of enterprising up-to-date City guilds, have decided, after prolonged investigation institute a diploma in the art of eyesight testing, a diploma which directly affect the status of opticians throughout the country. To perly appreciate the importance of this new departure, it must be un stood that the Spectacle Makers' Company, though issuing a diplom opticians for knowledge in general and visual optics, have not certifie to special proficiency in eyesight testing in the shape of a diploma.

"Lately the Worshipful Company of Spectacle Makers have been proached by a great number of the influential opticians of the coun supported by many well-known and scientific men, such as Lord Kel Sir William Crookes, Sir Robert Ball, the Astronomer Royal (Mr. W Christie), and by equally well-known public men, like Lord Burnham, Andrew Dusk, Sir T. R. Dewar, Sir W. de W. Abney, Lieutenant-Colo Clifford Probyn, and others, with the object of getting the Compan institute an examination and diploma in eyesight testing specially ap cable to members of the optical industry.

"The Worshipful Company of Spectacle Makers were bound to t special notice of a memorial introduced under such exceptional weighty auspices, with the results which we have stated.

"So well has the diploma scheme of the Spectacle Makers been recei and so important to the best interests of the public has it appeared, t the National Association of Goldsmiths, who number thousands

eller-opticians, have approached the Spectacle Makers' Company, and, y convinced of the far-reaching efficacy of the scheme, and desirous of warding scientific and technical education within their ranks, have uested the Company to undertake the examination of jeweller-icians in order that they may gain the much-prized diploma. The t of such a powerful and influential body coming forward to co-operate h the Spectacle Makers' Company is no little tribute to the new and erprising movement made by this, the latest, effort of an enterprising r Guild. It means that the public will be better catered for and pro-ed in the matter of their eyesight than has been the case previously he country.

The public, moreover, can rest assured, when they visit an optician hold-the eyesight-testing diploma of the Company, that not only will they fficiently treated as to the application of glasses for the particular ct from which they may be suffering, but also—and this is of equally t importance—may be certain that they will be advised to consult the thalmic surgeon if the case presents any indications of some great ble which the optician, no matter how great his technical skill may s not qualified to treat. In short, the eyesight-testing diploma of the pany will be a guarantee to the public in the highest sense of the n.

e publication of extracts from this circular, with comments, in the s led to some correspondence, from which it appears that the Optical ety was founded in 1890, and wishes to be regarded as a scientific r, and the Honorary Secretary dates his letter from 20, Hanover re, the house of the Royal Medical and Chirurgical Society. The rance in the last paragraph of the memorandum is no doubt well nt, and we observe that the Honorary Secretary states that the ety "has nothing whatever to do with the granting of diplomas of kind whatever." It is therefore to be regretted that its "organ" has ght fit to issue the memorandum above quoted. The whole subject ngaging the attention of the Medico-Political Committee of the sh Medical Association.

TEACHING OF CHILDREN ALLEGED TO BE MENTALLY DEFICIENT.

MEWHAT novel case, arising out of a School Board summons, came e Mr. Horace Smith at the Westminster Police Court on March 29th. p Dance, a working man, of Lambeth, was prosecuted by Mr. A. J. on, the divisional superintendent, for not sending his son to a special ol, the contention being that the boy, who was nine years of age, was ally deficient. Mr. Burton handed in a certificate from the Board's t showing that the boy could not be educated in the ordinary way at ementary school. On the other hand, the boy's father produced a icate from Dr. Benj. Jones, of South Lambeth Road, to the effect he boy was of "average intelligence," and another showing that he egularly attending another school. The magistrate then suggested oth medical men had better be in attendance.

Charles James Thomas, Assistant Medical Officer to the London ol Board, said the boy was brought to him on January 13th, having sent up by the head teacher of the school he was attending; a y of the case was forthcoming on one of the prescribed forms. He ined the child, and was satisfied that he was extremely deficient ally, and totally incapable of receiving instruction in the ordinary ntary schools by reason of this defect. He gave the boy books of a e character to read in the presence of an educational expert. The power of building up words from letters was found to be extremely ent for his years. He could not read a sentence made up of three-words, and could not add together 4 and 3. In his opinion se came within the Act for the mentally deficient, and he certified dingly. An independent examination was also made by the chief tor, and he came to the same conclusion as witness. Answering the trate, Dr. Thomas said that the boy's imitative powers were very he could follow a copy, but could not of his own initiative write ing.

Benjamin Jones, of South Lambeth Road, said he gave the certifi-anded up by the father after an examination of the boy. His con-n was that the boy was of average intelligence. He tested him by ary questions, the lad being brought to him for that purpose. Some years ago he had sent the boy to Charing Cross Hospital to be ed upon for slight deafness. He did not ask the boy to read or

Horace Smith said he should require to be still further satisfied in se. He would now like to see the head master or mistress of the where the boy had attended for some four or five weeks. During me he should imagine any mental deficiency would have been found the teacher.

hearing was therefore adjourned for the attendance of the r.

case was resumed on April 12th, when Mr. T. D. Dutton, solicitor, ed for defendant.

A. T. Burton, the divisional superintendent, said that, in accord-ith the expressed wish of his Worship, the teacher of the boy was ndance.

Dutton said he supposed it was only a question of doctors differing. the matter was placed in his hands he wrote to the head master of ool where the boy was now regularly attending, and he had replied effect that the child, although of slightly weak intellect, was obe-attentive, etc., and should not for his own sake be sent to a special as suggested.

Horace Smith said it seemed to him that he must ask the opinion High Court on this matter. It was pressed upon him that he was ally bound to fine the father of the child for not sending his child ecial school, notwithstanding the fact that he sent the child to r recognized school. He should prefer to act upon their lordships' ons.

urton said that if his Worship decided against him, of course he not let the case rest. He could merely apply the machinery he

Horace Smith dismissed the summons and said he proposed to case for the High Court as to whether he had any right to dis-

MILK WARRANTIES AND ANALYSTS' CERTIFICATES.

arranties seem to be an endless source of dispute. The Fulham h Council recently summoned the Farmers' Dairy Company, of n-in-the-Marsh, at the West London Police-Court, for giving a milk warranty, alleged to be false, to the Callow Park Dairy Company. It appears that in December last the Farmers' Company sent to the Callow Park Company a churn of milk which, when sampled and analysed by the Fulham authorities, was found to contain 0.045 per cent. of boracic acid. The Callow Park Company, when prosecuted, set up the warranty defence, and the case was dismissed. The local authority then proceeded against the Farmers' Company, and furnished, as part of the evidence, the analyst's certificate used in their case against the Callow Park Company. The magistrate dismissed the summons on the ground that one analysis could not be used in two separate prosecutions, on the basis of the judgement in the High Court in the case of Tyler *v.* Kingham in 1900. In this case Justices Riley and Bigham held that the analyst's certificate made for the purpose of first proceeding against a retail dealer was not admissible as evidence against a wholesale dealer. It will be seen, therefore, that the case of the Fulham Council was dismissed on a technical point of procedure rather than on the reliability of the warranty. The case illustrates the unsatisfactory nature of these warranties.

AN UNFOUNDED CHARGE OF NEGLECT.

At an inquest before Dr. Danford Thomas on April 7th, certain facts came to light which illustrate the risks to which members of the medical profession are exposed.

It appeared that a man named Pollock, being in arrear with his rent, was ejected from his lodgings on March 22nd. He went with his wife to the house of a friend, where, in an underground kitchen, Mrs. Pollock gave birth to a child on March 23rd. After the birth Dr. Stitt of Cambridge Place, Regent's Park, saw the mother seven times without any charge. Becoming dissatisfied with Dr. Stitt, Pollock then called in a person described as a dispenser, who prescribed for Mrs. Pollock. On March 31st, Dr. Griffith, Dr. Stitt's partner, found Mrs. Pollock in such a serious condition that he advised her removal to St. Pancras Poor-law Infirmary, where she died on April 3rd. Pollock then sent a letter to Dr. Stitt accusing him of gross carelessness and demanding compensation. He subsequently threatened to report the matter to the coroner. Dr. Stitt, who had in the meantime, consulted the Medical Defence Union, refused to pay anything. At the inquest, where Dr. Stitt was represented by Mr. Hempson, Dr. Dunlop, Medical Superintendent of the infirmary, who had made a necropsy, said that there were no signs whatever of any medical neglect. Death was due to peritonitis caused by septic poisoning. It was probably due to the insanitary surroundings in which the patient had lain for eight days. The jury returned a verdict in accordance with the medical evidence, and the coroner advised the husband to withdraw the letter which he had written to Dr. Stitt.

THE ETHICS OF ANTIVACCINATIONISTS.

Dr. E. Haughton writes: As the committee of the National Antivaccination League seem to consider that I acted without due consideration in publishing the fact of my withdrawal from the League I beg to send the grounds of this action in the shape of correspondence, which I think will justify me in the minds of most persons, more particularly in view of the fact that for several years I have lain under the imputation of being influenced by personal motives in relation to an important public question:

[Copy.]

The National Anti-Vaccination League,
50, Parliament Street, Westminster,
London, S.W.

E. Haughton, Esq., M.D. November 18th, 1902.

Dear Dr. Haughton,—Your favour of the 5th inst. was read to the Council on Thursday last, and I am directed to express very great regret that you feel hurt that your letter was not published in the *Vaccination Inquirer*.

The Honorary Editors explained that the only reason for this was that the letter in question referred to some points upon which the Council do not all think alike, and that it was very unwise to let it appear there was any division of opinion. The Council very much hope that you will reconsider your determination *to sever yourself from the League*, as it would give them great pain to lose your valuable assistance.—Believe me, yours very truly,

Charles Gane,
Hon. Secretary.

November 19, 1902.

Dear Sir,—Your appreciative letter, with message from the Council of the League, duly received last night. It seems, however, to be written under some misapprehension, as it implies that it is only now that my "assistance" has been withdrawn. I should not be surprised to learn *that after the completion of two years* some members of the League were unaware that their oldest member *had withdrawn in great measure on the ground of the censorship exercised over liberty of speech in the Vaccination Inquirer*. I remember when it was the only paper really open to us, as indeed this was the reason of its existence. To say that it is unwise to let difference of judgement appear is to beg the whole question at issue between us. You will therefore see that my resignation ought to stand until actual proof is given, in *the conduct of the journal*, that every shade of opinion receives its just recognition, even when it must ultimately be condemned.—I am, etc.,

Charles Gane, Esq. E. Haughton, M.D.

March 26th, 1904.

Dear Sir,—In reply to your letter just received, I beg to say that the paragraph to which you refer is "the outcome" of the Editor of the British Medical Journal having read an official communication from you to me in November, 1902 (and now in his possession), and my reply; and from having seen a copy of the annual report, in which my name still appears as one of the Vice-Presidents of the League. I think you can hardly be ignorant of the fact that I withdrew from the Presidency of the Croydon Branch a considerable time ago in order to sever the connexion more completely; but I have neither alluded to Mr. Alexander Paul in my communication with the British Medical Association (of which I am a member) nor in any communication that I know of with the National Antivaccination League. I therefore do not think it necessary or desirable to attend your meeting on Monday.—I am, dear sir, yours faithfully,

Charles Gane, Esq. E. Haughton, M.D.

[1] British Medical Journal, March 19th, 1904, p. 699.

The National Anti-Vaccination League,
50, Parliament Street, Westminster,
London, S.W.

E. Haughton, Esq., M.D. March 29th, 1904.

Dear Sir,—Your favour of the 26th inst. was considered at a special meeting of the Council held yesterday, and I was desired to say that, while it was understood that you had withdrawn from the Council, no notification appears to have been received from you that you wished also to withdraw from the list of Vice-Presidents. The Council now note this, and care shall be taken that your name does not appear again as in any way connected with this League.—I am, yours faithfully,

CHARLES GANE,
Hon. Secretary.

MEDICAL CERTIFICATES FOR NON-ATTENDANCE AT SCHOOL.

THE Rugby medical men unanimously refuse certificates in cases of absence from school. In the case heard at the Rugby Police-court on April 12th the medical attendant, Dr. T. Johnston, was subpoenaed by the defendant, and on the medical evidence the case was dismissed with costs against the school authority, the medical man being allowed a fee of 10s. 6d.

MEDICAL ETIQUETTE.

FAIR PLAY complains (1) that a neighbouring practitioner was called in by the parents to see a child under our correspondent's care without his being informed of the visit. As he was in daily attendance, and lived only a hundred yards away, there could have been no difficulty in sending for him. Three days afterwards he received a letter from the practitioner in question, giving him his opinion, and making certain suggestions as to treatment. On the day after this visit our correspondent suggested a consultation, and was then informed of what had happened. He asks whether, under the circumstances, he ought to have thrown up the case? He also asks: (2) May a practitioner visit a patient whom he knows to be under the care of another available practitioner?

*** (1) Our correspondent acted wisely and properly in continuing in attendance, but he might explain to the parents, if he has not already done so, the unwisdom of calling in another practitioner except in consultation. The parents, no doubt, wished to get what they considered an independent opinion, but they do not take into account the difficulty of diagnosis. Parents may be excused a good deal on account of their anxiety for their child.

(2) As a general rule the answer is No. But there may be circumstances under which the practitioner so called upon may attend; for example, if the case is stated to be one of urgency and the friends refuse to send for their usual medical attendant. This seems to have been so in the present instance, but the parents do not appear to have had the intention of giving up the services of Dr. B., although unwilling to let him meet Dr. M. in consultation. Therefore Dr. M. gave his opinion, and ultimately wrote a letter to Dr. B. If he had written this letter at the time, and requested the parents to hand it to Dr. B. at his next visit, he would have done all that medical etiquette required.

IGNORAMUS writes that it is his intention to devote himself henceforward entirely to the diseases of children, and wishes to know whether there would be any professional impropriety in putting the words "children only" in small letters on his doorplate?

*** The announcement of the speciality upon the doorplate is not practised in this country, although common in Germany and America. The objection to it is that it is of the nature of an advertisement, and therefore to be avoided.

FEE FOR ATTENDING PATIENT CONFINED BY MIDWIFE.

T. J. G. writes: I am called out at 7 a.m. to a patient two miles away who had been confined by the village midwife. I express placenta, which is all that is required, and am home again by 8.30 a.m. There is no further attendance. Under the circumstances is 7s. a proper fee to take, and, if not, what should be the fee? Had I attended the patient at the confinement I should have charged £1 1s.

*** T. J. G. is clearly entitled to charge his ordinary confinement fee of £1 1s. in this case of an urgent emergency, but if under the circumstances, considering no further attendance was required or given, he is satisfied with half the fee, 10s. 6d., the patient would be treated very liberally. If it had been a parish case T. J. G. would have been entitled to 10s., the fee for ordinary midwifery, at least.

FEES FOR POLICE CALLS.

J. T., who had a boy brought to him by the police for the treatment of a lacerated wound of the thigh which necessitated eight stitches, will have, we are afraid, to be content with the regulation fee of 3s. 6d., surgical work not being paid for, like mending broken china, at so much a stitch. It may be some consolation for him to know that in many places outside the metropolitan police district it is difficult to obtain even that modest amount of remuneration.

REMUNERATION OF A *LOCUM TENENS*.

LOCUM ICHABOD writes complaining bitterly of an offer made to him to act as *locum tenens* at the rate of 10 guineas a month.

*** Our correspondent is justified in rating his services at a considerably higher rate.

CONSTRUCTIVE PRODUCTION OF ABORTION.

J., a correspondent, inquires whether a father would be actionable for causing the abortion of his married daughter, the said abortion being the result of a quarrel between the father and daughter about her mother's will. The father was trustee of his wife's estate, and had for a long time refused to inform his daughter as to the terms of the will, and when he finally showed it to her he did so in such a manner to cause a painful scene.

*** Under the circumstances we do not think the father is liable to any action.

ROYAL NAVY AND ARMY MEDICAL SERVICES.

ROYAL NAVAL HOSPITAL, HASLAR.

THE session for the surgeons under special instruction at Haslar was brought to a close on April 7th, when the prizes were given away by Inspector-General Sir John D. Macdonald, K.C.B., M.D., F.R.S. Inspector-General Sir Henry Norbury, K.C.B., M.D., Director-General of the Medical Department of the Navy, and Dr. Allchin, a member of the Royal Naval Examining and Consultative Boards, were also present.

The following list of marks having been read to the surgeons by Sir Henry Norbury, he congratulated them on the very creditable report which he had received from Inspector-General Ellis, R.N., in charge of the establishment. Their conduct had been exemplary, the manner in which they had discharged their duties was all that could be desired, and their relations with the staff of the hospital generally satisfactory. After wishing them a very prosperous career in the service, he said that he could not give them better advice than to try to emulate the example of Sir John Macdonald, who while yet a surgeon in the Royal Navy, holding the same rank which they held that day, was for his brilliant scientific achievements elected a Fellow of the Royal Society.

Combined Result of the Examination in London on Entry, and of the Course at Haslar Hospital after the Course of Instruction for Surgeons R.N.

	Marks.		Marks.
W. P. Yetts	4,678	J. C. Bringan	[illegible]
T. D. Liddle	4,151	W. G. M. Anderson	[illegible]
N. S. Meiklejohn	4,028	G. L. Buckeridge	[illegible]
R. H. St. B. E. Hughes	3,824	A. D. C. Cummins	[illegible]
F. M. V. Smith	3,681	T. W. Jeffrey	[illegible]
C. J. Boucher	3,641	P. D. Ramsay	[illegible]
A. H. S. Richardson	3,516	E. P. G. Causton	[illegible]
H. Woods	3,494	G. D. Walsh	[illegible]
G. H. S. Milln	3,479	J. E. Johnston	[illegible]
D. H. Vickery	3,455	F. Cock	[illegible]
E. B. Kenny	3,450	A. R. Davidson	[illegible]
A. R. Schofield	3,353	B. R. Bickford	[illegible]
J. Shipsey	3,320	C. M. Woods	[illegible]
F. J. Gowans	3,306	L. C. E. Murphy	[illegible]
E. R. Townsend	3,301		

The prizes were awarded to the following officers:

Surgeon W. P. Yetts, late of St. Thomas's Hospital, London, the [illegible] Medal.

Surgeon T. D. Liddle, M.B., late of Queen's College, Belfast. [illegible] Microscope.

Surgeon N. S. Meiklejohn, late of St. George's Hospital, London, [illegible] Silver Medal and Books.

Inspector-General Sir John Macdonald, in distributing the prizes, said: It gives me a great deal of pleasure to be here to-day at the close of another session of technical instruction. Special teaching of this kind is found to be necessary to keep the Naval Medical Service in touch with the progress of science, and the most efficient treatment of medical and surgical disease both at home and abroad. Formerly the medical schools at home dealt very superficially with so-called tropical diseases, so that medical officers serving abroad were often brought into contact with cases of epidemics quite out of the ordinary range of their experience or knowledge. Even independently of this, the special constitution of the service itself demands in each case the adoption of rules and principles to be carried out in all grades, and especially to be taught to the junior members. In all this we must perceive the necessity of a special form of medical instruction for the officers of the public services, and it has always been pleasing to me to reflect that I was the first chosen to take up the subject of naval hygiene, and supervise the general instruction of the naval surgeons formerly at Netley, but since transferred to Haslar. It was only to be expected that the naval authorities would institute a system of instruction for the benefit of medical officers of the navy, and a commencement was made, very naturally, with the aid of officers who had gone through the Netley course, and were thus better fitted to carry on the good work at Haslar. I must now give my heartiest congratulations to the prize winners and my best wishes to all the surgeons for their present happiness and future success in their profession and life.

Dr. Allchin also congratulated the class, and reminded the members of it that they could not regard their education as completed. At most of the ports at which you would be stationed there were perfectly equipped hospitals where you would be welcomed and every opportunity of continuing the

ly of clinical medicine and surgery, of pathology and the , would be presented in a manner that no civil private tice afforded. Nor need they restrict themselves to ly professional subjects. The study of the many aspects atural history, of ethnography, of the flora and fauna of ain regions, numerous geological problems that await tion, would all invite them as well as the language and cts of certain races, and the various questions connected their social and political life.

spector-General Ellis then proposed a cordial vote of ks to Inspector-General Sir John Macdonald for giving the prizes and the proceedings terminated.

T SURGEON WILLIAM TAIT, M B., has been appointed Fleet Surgeon Instruction of Surgeons on Entry" at Haslar Hospital. The next on commences in June.

ROYAL NAVY MEDICAL SERVICE.

ollowing appointments have been made at the Admiralty: WILLIAM MSBY, M.B., B.A., Surgeon, to the *Thistle*, additional, April 7th, and commissioning; THOMAS D. GIMLETTE, Deputy-Inspector-General, to Kong Hospital, April 20th; LEONARD H. KELLET, M.D., M.A., De-Inspector-General, to Plymouth Hospital, April 20th; JOHN L. INGTON, Fleet Surgeon, to Haulbowline Hospital, April 20th; HAROLD BORNE, Fleet Surgeon, to the *Good Hope*, April 20th; WILLIAM BETT, Surgeon, to the *Russell*, April 20th; EDWARD B. TOWNSEND, Fleet on, to the *Britannia*, for Dartmouth Sick Quarters, April 20th; JOHN ENHOUSE, Fleet Surgeon, to the *Spartan*, April 18th; WALTER H. S. ARTT, Staff Surgeon, to the *Monmouth*, April 20th.

ROYAL NAVY MEDICAL SERVICE (VOLUNTEERS).

ordance with the provisions of His Majesty's Order in Council of 3th, 1901, a commission of the rank and date shown has been re- to Staff Surgeon F. WOORE, who has been placed on the list of teers for service in the event of war or emergency; dated August 894.

ROYAL NAVAL VOLUNTEER RESERVE.

ELDING C. WHITMORE, M.D., has been appointed Surgeon, March

ROYAL ARMY MEDICAL CORPS.

ENANT J. WADDELL is placed on temporary half-pay on account of lth, March 11th. He joined as Lieutenant, June 19th, 1901.

tenant-Colonel NATHANIEL ALCOCK died at Ballybrack, co. Dublin, ril 4th, aged 64. He was appointed Assistant Surgeon, October 1st, Surgeon, March 1st, 1873; and Surgeon-Major, September 2nd, 1875. ired from the service with the honorary rank of Lieutenant-Colonel, t 14th, 1889. He was in the Kaffir war in 1878, receiving the medal. s Medical Officer to the Dublin Military Prison, to which he was ted in 1883.

ARMY MEDICAL RESERVE.

ON-CAPTAIN G. A. LANG, M.D, having resigned his commission in lunteers, ceases to belong to the Army Medical Reserve.

TEMENT OF THE CASE OF RE-EMPLOYED ARMY MEDICAL OFFICERS DURING THE SOUTH AFRICAN WAR.

[FROM A CORRESPONDENT.]

G the exigency of the South African war a certain number of army medical officers of lieutenant-colonel's rank, both those o recall and those not so liable, were re-employed by the autho- and continued re-employed for periods varying from eighteen s to three years and longer. A few of these officers were promoted *Gazette* of October 17th, 1902, and February 24th, 1903, to the rank onel, in recognition of the services they rendered during the al emergency, which services were also fitly and fully recognized cial letters emanating from the Adjutant-General conveying the of the Commander-in-Chief. The rank attained on promotion— , of colonel—was fully recognized by the authorities during the loyment of the army medical officers by the grant of full pay and nces of the rank of colonel.

n the exigency of the South African war ceased these officers' s were dispensed with, and they were compulsorily replaced on the list. It has now been decided to refuse these colonels the ed retired pay to which they seem justly and equitably entitled.

refusal to grant these officers the increased retired pay is based on 601 A of the Royal Warrant, "Pay, etc.," which the Finance branch ly authorizes the grant of any increased retired pay to which a loyed officer's further service may entitle him, and that the stipu- of three years' service in the higher rank cannot be dispensed with. as the refusal to grant increased retired pay is based on the e years' service" in the higher rank, the following comments may le:

w, possibly, could such officers qualify by serving three years in the ted rank, seeing that they were compulsorily relegated to retired nd thus prevented from qualifying? Is it fair to first force an on to the retired list after all the work possible has been got out , and then to tell him "you cannot get the increased retired pay of pecial promotion because you have not served three years in the

2. The article of the Pay Warrant quoted hereinbefore was framed long before the unforeseen contingency of the South African war arose. It therefore appears scarcely reasonable or equitable to apply an old warrant to a new condition.

3. The case of the re-employed officers promoted was submitted to an ex-official who occupied, before retirement, a high position in the Finance branch of the War Office who has recorded his opinion on the clause of the warrant, namely: Article 601A Pay Warrant as follows:

"But it strikes me that a very narrow meaning has been given to the word 'service' in Article 601A, and as far as I can remember not the sense that was intended—I think there is something to fight."

In the spring of 1902 a question was put by Captain Cecil Norton, M.P., to the Secretary of State for War, in the following terms:

"If he would consider the advisability of granting officers who had retired from the Army Medical Department and other branches of the service, and were not liable to recall, but accepted service in the late national emergency, similar conditions with reference to pension and rank as are granted to reserve officers who have been re-employed."

To this question the Financial Secretary to the War Office replied:

"Medical officers not liable to recall who volunteered to take the places normally occupied by medical officers of the regular army obtain similar conditions to reserve officers."

Now, the reserve medical officers, that is, those liable to recall, have benefited materially by their re-employment in obtaining increased retired pay, for example, an officer who only completed twenty years' service and more but under twenty-five years, obtained after re-employment on completion of twenty-five years an extra 2s. 6d. a day. Another point in favour of increased retired pay for the re-employed medical officers promoted to colonel's rank is Paragraph 2 of Army Order 164 of July, 1902, which reads as follows:

"Retired officers and others specially taken into re-employment on or before May 31st, 1902, will be allowed to reckon employment subsequent to that date, if continuous with employment before it, towards increase of retired pay."

On this ruling, officers of majors rank who had voluntarily retired but were re-employed during the South African war have been promoted to lieutenant-colonel's rank, and have duly obtained the increased retired pay of the latter rank.

Under these circumstances it is singular and incomprehensible why the lieutenant-colonels who were promoted to colonel's rank are denied the increased rate of retired pay to which they consider themselves entitled.

The action of the War Office Finance branch towards officers who in the stress of war worked hard and well can scarcely be termed creditable. The power of the Finance branch to put any ruling it likes on any clause of a Royal Warrant to the disadvantage and prejudice of officers is one that should be curtailed. The officers concerned, who are losers to a large extent by the ruling of the Finance branch, can now only fall back on such help as members of Parliament can give them.

It is, indeed, an open secret that when the *Gazette* (October 17th, 1902, giving promotions specially for services during the South African war was promulgated there was no consultation between the Military and Financial branches as to its financial effect, and now that the officers promoted are retired again it is sought to perpetuate a blunder by refusing them increased pension.

The probable cost to the State of doing justice to a body of officers of all branches promoted to colonels and causing contentment among them would be not more than £16,000 a year. While millions are muddled away a very few thousands are grudged to officers who came willingly to the aid of the authorities in a crisis, in fact in a great national emergency, and who at their present ages will in all probability not live many years to enjoy the increased pension if even it is sanctioned.

ARMY REFORMS.

A CORRESPONDENT sends a cutting of a "military letter" from the *Times of India* of March 16th, in which it is stated that if unacceptable changes are made in the Medical Service by the Army Council, and old boycotting tactics adopted to meet them, "doctors with commissions will find any attempt at combination rather risky."

Our correspondent should pay little heed to such idle threats; we do not anticipate any evil to the service, "doctors with commissions" never have "combined," but the medical profession knows perfectly well how to protect the interests of its members.

REGIMENTAL STRETCHER PARTIES.

THE annual competition for the Connaught ambulance challenge shield among regimental stretcher bearers, which includes the rendering of first aid and the bringing in of wounded, took place at Aldershot on April 11th with the following results:—First, 2nd Cheshire Regiment; second, 2nd Royal Scots Fusiliers; third, 1st King's Own Yorkshire Light Infantry; fourth, 1st Royal Berkshire Regiment; fifth, 1st Royal Scots (Lothian) Regiment; and sixth, 1st East Surrey Regiment. The judges were Major J. H. Parry, D.S.O., and Captains H. A. Hinge and G. St. C. Thom, all of the R.A.M.C. In presenting the shield, Surgeon-General W. H. McNamara, C.B., P.M.O. 1st Army Corps, expressed the regret of Lieutenant General Sir John French at his enforced absence from a competition in which he took great interest. Surgeon-General McNamara added that it gave him very great pleasure to see the quick and careful manner in which the dressing of the wounded had been accomplished and the cases brought in from the field. The winning team had worked remarkably well, the second team were very little behind, while none had done badly, and all had shown great interest in the work. The highest points gained were 125 out of a possible 160 and the lowest 82⅔.

INDIAN MEDICAL SERVICE.

MILITARY EMPLOYMENT.

WE have received some notes from an officer of the Indian Medical Service in military employment, from which we extract the following:

Station Hospitals.

I would place first on my list the absolute necessity of introducing the station hospital system for native troops. It is the only feasible way of treating the sick of Native corps. By the present regimental hospital system, with its multiplicity of hospitals, money which might be expended on equipping one decent station hospital is simply thrown away. And the probability of spending some twenty or more years with no more responsible charge than a regimental hospital with its limited scope for professional work chokes off many juniors from the military side, and tempts them to go in for civil employ. For the juniors themselves a station hospital system would be infinitely better, as many are beginning to realize. On arrival in India they would be posted to some station where they would probably remain for some years, and be exempted from the constant moving about that the present regimental system entails, and they would be under the eye of a senior man of their own service, whose experience in matters professional and lay would be at their service.

So far as I know, practically all the Indian Medical Service men in military employ with the exception of the very junior ones are anxious for the introduction of the station hospital. Possibly to a very junior man arriving in India the glamour of being absolutely his own master in a small regimental hospital is attractive; while the pleasure of being a member of a regimental mess with its camaraderie and hospitality appeals to his comfort.

But if a station hospital system were introduced, the greater scope for work would more than counterbalance the first item; while as regards the mess, in the larger stations at any rate there is no reason why an I.M.S. mess should not be started. In smaller stations bachelors might live as honorary members at various regimental messes, as sappers now do. The chief opponents of the station hospital—and they carry all the weight—are combatant officers, both regimental and on the staff. Of course every commanding officer likes to have "his own doctor," whom he can order about as he likes, and every regiment is glad of the medical officer's regimental subscriptions (which as he rises in rank mount very high), and of his services as mess president, where they are generally utilized; and the people who really deal with all reforms in the service are the combatant officers employed in the military department of the Government of India.

What is wanted is a strong man, or if the strong man is not forthcoming, the strong pressure of an influential body like the British Medical Association to force the hand of the Government of India to get rid of an anachronism which has really nothing to commend it.

Rates of Pay.

With regard to the new rates of pay, they are a great improvement in many respects, but further changes are needed. At present a man in military employment is badly paid in the rank of major, that is, from 12 to 20 years' service.

True, an addition of Rs.100 per mensem at 15 years' service has been made, but even so he is less well off than his brother officer of similar standing in the R.A.M.C. The latter comes out to India for a tour of duty at Government expense, and, if a married man, brings his wife and family also at Government expense. He can reasonably expect to do a fair proportion of his Indian service in a hill station, thus saving the cost of a dual establishment, one in the plains for himself and one in the hills for his family, which is the lot of the I.M.S. man. Again, when his time in India is up he returns to England in a Government transport. The drain on the purse of all I.M.S. men in military employ, in these days of constant moves and frequent employment on the frontier, where no ladies can go, is enormous. From such expenses the R.A.M.C. are practically exempt. Hence their pay compares very favourably with ours. Again, they have no regimental or band subscriptions to pay, which are no small items in the monthly deductions from a regimental medical officer's pay.

Cantonment Hospitals.

Of late years the collateral charge of cantonment hospitals where followers and inhabitants of the Sadr Bazar are treated, which always used to be given to I.M.S. men, is being slowly but surely absorbed by the R.A.M.C., mainly owing to the much more permanent nature of their stay in various cantonments.

As in a cantonment hospital only native sick are treated, it seems to me that only I.M.S. men should be placed in charge. The legitimate work of the R.A.M.C. is the preservation of the health, and treatment when sick, of the British soldier only.

Furlough Pay.

The maximum of £500 per annum is miserably inadequate. When the necessary deductions for passage money to and from England are made, and the Family Pension Fund subscriptions and regimental subscriptions at half-rates paid, the pittance left on which to exist for a year at home is miserable. An increase in the present rates to £600 at twenty years' service and £700 at twenty-five years' service is urgently required to make the service contented, and to save its members from practical poverty when the time comes, as come it must to all, to render a change to a temperate climate necessary. The only way in which a man on furlough at the present rates can make ends meet is to bury himself in some obscure hamlet in the country. Any idea of post-graduate courses is out of the question, as living in or near London of other medical centre is impossible. I speak from bitter experience.

The undermentioned Lieutenants, appointed on probation, are admitted to the Indian Medical Service from the dates specified:—September 1st, 1902: F. P. C. CONNOR, Bengal; G. H. L. WHALE, Punjab. August 31st, 1903: R. KELSALL, M.B., Bengal; J. H. BURGESS, M.B., Bengal; J. M'C. A. MACMILLAN, M.B., Punjab: W. E. J. TUOHY, Bombay; T. F. OWENS, Bombay: R. F. STEEL, M.B., Bombay; G. F. I. HARKNESS, Bombay; A. C. INGRAM, M.B., Madras; G. W. MACONACHIE, M.B., Madras; E. W. C. BRADFIELD, M.B., Madras; A. W. M. HARVEY, M.B., Madras; C. I. BRIERLY, Madras; J. B. D. HUNTER, M.B., Madras; E. T. HARRIS, Madras.

Deputy Surgeon-General EDMUND EYRE LLOYD, Madras Establishment, died at Wokingham, Berkshire, on the 8th inst., in his 75th year. He entered the service as Assistant-Surgeon, January 24th, 1855, and became Deputy Surgeon-General, April 26th, 1885, when he retired. He has war records in the Army Lists.

ROYAL GARRISON ARTILLERY (VOLUNTEERS).

THE appointment of Mr. JOSEPH GRANT JOHNSTON to a Surgeon-Lieutenancy in the 7th Lancashire, which was announced in the *London Gazette* of February 19th, 1904, is cancelled.

VOLUNTEER RIFLES.

MR. ROBERT CROSS is appointed Surgeon-Lieutenant in the 1st Volunteer Battalion the Royal Scots (Lothian Regiment), and Mr. C. H. HOWKINS, in the 1st Volunteer Battalion the Royal Warwickshire Regiment, both dated April 2nd.

Captain D. SMART, M.B., from the Liverpool Volunteer Infantry Brigade Bearer Company, to be Surgeon-Captain in the 2nd Volunteer Battalion the King's (Liverpool Regiment), and to be borne as supernumerary while doing duty with the above Bearer Company, April 2nd.

Lieutenant J. G. MARTIN, M.B., from the Liverpool Volunteer Infantry Brigade Bearer Company, to be Surgeon-Lieutenant in the 2nd Volunteer Battalion the King's (Liverpool Regiment), and to be borne as supernumerary while doing duty with the above Bearer Company, April 2nd.

Mr. HARRY L. SMITH to be Acting Surgeon in the Cadet Corps (Uppingham School), attached to the 1st Volunteer Battalion the Leicestershire Regiment, April 2nd.

Mr. ROBERT W. BRANTHWAITE to be Acting Surgeon in the Cadet Corps (Civil Service) attached to the Prince of Wales's Own, 12th Middlesex (Civil Service), April 2nd.

Surgeon-Lieutenant T. H. LIVINGSTONE, M.B., 2nd Volunteer Battalion the Durham Light Infantry, resigns his commission, April 2nd.

Surgeon-Lieutenant W. J. MACKINNON, M.B., 9th Lanarkshire, to be Surgeon-Captain, April 2nd.

CHANNEL ISLANDS MILITIA.

THE undermentioned supernumerary officers resign their commissions and receive new commissions subject to the provisions of the Militia Law of the Island of Jersey, 1903, each retaining his present rank and seniority, and remaining seconded: Surgeon-Captain H. LE CRONIER, Royal Jersey Artillery; Surgeon-Major W. FALLS, M.D., 1st or West Battalion Infantry; Surgeon-Lieutenant-Colonel A. DUNLOP, M.D., and Surgeon-Captain F. GAUDIN, 2nd or East Battalion Infantry; Surgeon-Major A. B. VOISIN, 3rd or South Battalion Infantry.

STAFF.—Medical Inspector-General A. DUNLOP, M.D., to be Principal Medical Officer (War Office, April 8th.)

HOSPITAL AND DISPENSARY MANAGEMENT

CLAPHAM MATERNITY HOSPITAL AND DISPENSARY.

THE annual meeting of the hospital was held on Thursday, April 7th, in the Board-room. The chair was taken by Mrs. Creighton, who spoke with much appreciation of the work carried on there in somewhat cramped and inconvenient quarters. She urged that funds should be provided to enable the Committee to erect a more modern and suitable building on a site across the road which had just been given. The methods and success of the work done at Jeffreys Road and in the surrounding district and at the Battersea Branch elicited her warm sympathy.

The other speakers were Miss Alice Gregory and Dr. Mabel Poulter, of the Church Missionary Society (China). Both were formerly students of the hospital, and spoke of the great value both for home and foreign work of the teaching given there by Dr. McCall and those associated with her.

The Honorary Secretary, Miss Ritchie, read the report, which was adopted, and the Committee was re-elected for another year. Dr. McCall having spoken, Miss Filter, M.D., proposed, and Miss Joyce, M.D., seconded a vote of thanks to the speakers, which was carried.

UNIVERSITIES AND COLLEGES.

UNIVERSITY OF OXFORD.

THE Vice-Chancellor has nominated Arthur Thomson, M.A., Exeter College, Professor of Human Anatomy, to act during the absence of the Regius Professor of Medicine as his deputy.

The Board of the Faculty of Medicine gives notice that it has approved the Examination in Group C (3) of the Final Pass School as an Examination in Physics.

UNIVERSITY OF EDINBURGH.

AT the Spring Graduation Ceremonial on Saturday, April 9th, the degree of B.Sc. in Public Health was conferred on G. G. Buchanan, M.B., Ch.B., J. McE. Dalziel, M.D., H. W. G. Macleod, M.D., and E. L. Meynell, M.B., Ch.B.

Special University certificates in Diseases of Tropical Climates were conferred on J. McE. Dalziel, M.D., C.M., B.Sc., and D. Melville, M.D., C.M.

UNIVERSITY OF ABERDEEN.

THE following medical and surgical degrees were conferred at the Graduation ceremony on April 6th:

Degree of Doctor of Medicine (M.D.).—T. B. Heggs, M.B., Ch.B. Thesis: Hetol in Tuberculosis. C. Hunter, M.A., M.B., Ch.B. Thesis: Cholelithiasis. R. D. Keith, M.A., M.B., Ch.B. Thesis: Paratyphoid Fever.* R. C. Macdonald, M.B., C.M. Thesis: Diphtheria: being Observations on over Forty Cases, some of which were Treated in a Temporary Cottage Hospital.† A. Reid, M.B., C.M. Thesis: Haemorrhage Before, During, and After Labour.†

* Honours. † Under old regulations.

ces of Bachelor of Medicine (M.B.) and Bachelor of Surgery (Ch.B.).—
. Clark, †F. Hernaman-Johnson, †A. Irvine-Fortescue, G. Adam,
A., F. Anderson, W. Beedie, A. D. Davidson, M.A., F. W. David-
on, A. Duguid, M.A., J. Farquhar, M.A., A. Flett, J. A. Gibb, J. S.
ray, M.A., J. D. Henderson, J. Hunter, A. Hutchison, M.A., H. M.
amieson, N. Kennedy, M.A., W. W. J. Lawson, D. McKay, M.A., M.
acLeod, C. G. Macmahon, W. M. McPherson, A. McRobbie, A. D.
ringle, J. Robertson, A. N. Ross, B. R. G. Russell, H. W. B. Ruxton,
. A. Smith, †W. Wood.

* First-class Honours. † Second-class Honours.

es of Bachelor of Medicine (M.B.) and Master in Surgery (C.M.) (Old) egulations.—A. S. Cardno, M.A.

ollowing received the Diploma in Public Health:
Bruce, M.B., Ch.B Aberd.; J. Macdonald, M.B., C M.Edin.; G.
itchell, M.B., Ch.B.Aberd.; W. R. Pirie, M.B., Ch.B.Aberd.; C. A.
ivoong, M.A., M.B., Ch.B.Aberd.; A. Watt, M.B., Ch.B.Aberd.

CONJOINT BOARD IN SCOTLAND.

arterly examinations of the Conjoint Board of the Royal College
icians of Edinburgh, Royal College of Surgeons of Edinburgh, and
of Physicians and Surgeons of Glasgow, held in Edinburgh, were
ld on April 11th, with the following results:

Examination (Five Years' Course).—Z. D. Lotter-Luther, A. John-
one (with distinction), C. Berry, C. K. Carroll, T. Mohan (with
stinction), Maria S. Allen, D. J. Joubert, M. J. Hayes, C. A.
Driscoll, E. J. Lumsden, G. Smith, E. S. Shiach, and J. du T.
lan.

Examination (Five Years' Course).—A. McKendrick (with distinc-
n), E. A. Williams (with distinction), H. H. Babington, J. H.
hnston (with distinction), R. W. Duncan, W. M. Chambers, A. P.
Connell, J. B. N. Raphael-Tom, H. D. Stewart, K. W. Dani, J. T.
derson, D. L. G. Radford, H. M. Sturrock, H. C. Orrin, T. W.
ulkner, and L. L. N. Ghosh.

assed in Physiology.

Examination (Five Years' Course).—W. W. Dunlop (with distinction),
Wilson (with distinction), H. T. Simpson (with distinction), G. A.
Hamilton, D. J. M. Legge, H. A. Pascoe (with distinction),
McL. Galloway (with distinction), W. Fleming, and J. E. Cox.

ssed in Pathology and 1 in Materia Medica.

Examination.—A. Rogers, A. S. McNeill, J. A. Tolmie, Marian T.
ol. J. C. Pickup, W. D. Yuille, H. A. Foy, P. C. Bharucha,
O'Shaughnessy, A. H. Khan, G. S. Thadani, J. Cretin, Dora Mann,
N. Jan, C. E. Coke, H. J. George, W. T. Clarke, G. W. Armstrong,
C. L. La Frenais, and D. J. Lewis.

passed in Medicine and Therapeutics, 2 in Surgery and Surgical
, 9 in Midwifery, and 3 in Medical Jurisprudence.

ndidate passed the Second Examination (Four Years' Course) in
ect of Materia Medica.

CONJOINT BOARD IN IRELAND.

TES have passed the Preliminary Examination as undernoted:
Allman, J. J. Blake, F. Cassidy, D. F. Curran, H. P. Heney, A.
mphreys, W. S. Johnston, A. R. Mallet, J. Moynihan, J. T.
oyle, M. C. O'Hara, F. E. Preston, B. Reilly, S. Robinson,
el Scher, G. C. Snevd, R. H. F. Taaffe, M. Tobin, B. Wallace,
. Williamson, R. A. Wright.

SOCIETY OF APOTHECARIES OF LONDON.

wing candidates have passed the Primary Examination, Part II,
noted:

y.—I. R. Fearn, Guy's Hospital; J. W. Featherstone, Guy's
pital; T. S. Harrison, Manchester; R. J. W. McKane, Leeds;
V. C. Miller, Leeds; F. B. O'Dowd, Birmingham; H. V. White,
chester; F. H. P. Wills, St. Mary's Hospital; R. P. Wylde, Man-
ter.

gy.—A. C. Dickson, Guy's Hospital; I. R. Fearn, Guy's Hos-
l; J. C. Fletcher, Royal Free Hospital; J. W. Featherstone,
's Hospital; W. J. G. Gayton, London Hospital; T. S. Harrison,
chester; A. W. C. Miller, Leeds; F. B. O'Dowd, Birmingham;
. White, Manchester; F. H. P. Wills, St. Mary's Hospital.

lowing candidates have passed the Primary Examination,
undernoted:
—G. F. C. Harvey, London Hospital; E. A. Mordaunt, Royal
e Hospital.

y.—D. M. Hunt, London Hospital; E. A. Mordaunt, Royal Free
pital; I. Pulteney, Royal Free Hospital; R. Rowlands,
gow; C. S. Spencer, Manchester; M. V. Webb, Royal Free
pital.

Medica and Pharmacy.—J. C. Fletcher, Royal Free Hospital; G.
. Grey, Middlesex Hospital.

ICAL VACANCIES AND APPOINTMENTS.

VACANCIES.

f vacancies is compiled from our advertisement columns, where full rs will be found. To ensure notice in this column advertisements eceived not later than the first post on Wednesday morning.

IAM AND MIDLAND FREE HOSPITAL FOR CHILDREN.—Resident Sur-
icer. Salary, £60 per annum, rising to £80.

: ROYAL ALEXANDRA HOSPITAL FOR SICK CHILDREN.—House-
. Salary, £80 per annum.

: SUSSEX COUNTY HOSPITAL.—Pathologist. Salary about £300 per
and fees.

IFE DISTRICT ASYLUM.—Junior Assistant Medical Officer; resident.
100 per annum.

HOSPITAL FOR SICK CHILDREN, Southwark.—(1) House-Physician,
e-Surgeon. Both resident. Salary, £80 per annum.

ROYAL HALIFAX INFIRMARY.—Third House-Surgeon, resident. Salary,
nnum.

FOR SICK CHILDREN, Great Ormond Street, W.C.—House-Surgeon;
. Salary, £20 for six months.

OSPITAL FOR WOMEN AND CHILDREN.—Resident House-Surgeon.
t the rate of £80 per annum.

TER: ST. MARY'S HOSPITAL FOR WOMEN AND CHILDREN.—Medical
Salary, £65 per annum.

T STREET HOSPITAL FOR CONSUMPTION, ETC., London.—Assistant
n.

MIDDLESEX HOSPITAL.—First, Second, and third Assistants to the Director of the Cancer Research Laboratories. Salaries, £200, £150, and £100 per annum respectively.

NEWARK AND DISTRICT HOSPITAL.—House-Surgeon, resident. Salary, £80 per annum.

NORFOLK AND NORWICH HOSPITAL.—Assistant House-Surgeon. Appointment for six months. Honorarium, £20.

ROBBEN ISLAND LUNATIC AND LEPER ASYLUM.—(1) Senior Medical Officer, salary £600 per annum, (2) Second Assistant Medical Officer, salary £250, rising to £350 per annum.

ROYAL COLLEGE OF SURGEONS OF ENGLAND.—(1) Four Examiners in Elementary Biology for first examination. (2) Four Examiners in Anatomy, and Three Examiners in Physiology for second examination. (3) Four Examiners in Midwifery for third examination. (4) One Examiner each for Parts I and II for the Examination in Public Health.

ROYAL FREE HOSPITAL, Gray's Inn Road, W.C.—(1) House-Physician. (2) Casualty House Surgeon.

ROYAL EYE HOSPITAL, Southwark, S.E.—House-Surgeon. Salary, 50 guineas per annum.

SEAMEN'S HOSPITAL SOCIETY, Greenwich.—(1) House-Physician, resident. Salary, £65 per annum. (2) Junior Resident Medical Officer. Salary £40 per annum.

ST. HELENS COUNTY BOROUGH.—Medical Officer of Health. Salary, £450 per annum, rising to £525.

TIVERTON INFIRMARY AND DISPENSARY.—House-Surgeon and Dispenser. Salary, £80 per annum.

TAUNTON AND SOMERSET HOSPITAL.—Resident Assistant House-Surgeon. Salary at the rate of £50 per annum.

VICTORIA, Australia.—Inspector-General of the Insane. Salary not to exceed £1,500.

APPOINTMENTS.

BULLMORE, C. C., L.R.C.P. and S.Edin., L.F.P.S.Glasg., District and Workhouse Medical Officer of the Falmouth Union.

FREEMAN, W. T., M.D.Durh., F.R.C.S., L.R.C.P.Lond., Senior Assistant Physician to the Royal Berkshire Hospital.

GOODMAN, T. H., M.R.C.S.Eng., L.S.A., District Medical Officer of the Risbridge Union.

HILL, P. E., M.R.C.S., L.S.A., Medical Officer of Health for the Cruckhowell Combined Districts.

JOHNSON, S. H., M.R.C.S., L.R.C.P.Lond., Medical Officer of Health for the Sculcoates Rural District, *vice* James Molineux, M.D.St. And., resigned.

MACCORMAC, W. L., M.B., Ch.B.Vict., Resident Assistant Medical Officer at the Leeds Union Infirmary.

OLIVER, F. Heurtt, L.R.C.P.Lond., L.S.A.Lond., Surgeon-Accoucheur to the City of London Lying in Hospital, *vice* Dr. Jarrow, deceased.

THOMSON, C. A. H., M.B., B.C.Cantab., Medical Officer at Falmouth, Jamaica, *vice* M. M. Meikle, M.B., Ch.Edin., resigned.

WALKER, J. R. H., M.D.Edin., Medical Officer of the Risbridge Union Workhouse.

YULE, J. S., M.D., M.S.Melb., Clinical Assistant to the Chelsea Hospital for Women.

DIARY FOR NEXT WEEK.

TUESDAY.

Chelsea Clinical Society, Chelsea Dispensary, Manor Street, King's Road, Chelsea, S.W., 8.30 p.m.—Sir Isambard Owen: A Case of General Atheroma, in which an Aortic Aneurysm of which there was no Symptom was detected by Radioscopy, and in which a Malignant Ulcer of the Stomach also existed without Symptom (with Specimen). Dr. Wm. Ewart: A Demonstration of some of the Results Obtainable by Percussion.

Medico-Legal Society, 20, Hanover Square, W., 8.15 p.m.—Mr. Stanley B. Atkinson: Adjourned Discussion on Live-birth—in Theory and Practice. Mr. J. Wellesley Orr: A Plea for Cremation. Earl Russell: The Weight to be Attached to Medical Evidence. Dr. Harvey Littlejohn and Dr. F. J. Wethered: Specimens of Puncture Wounds of the Heart.

Pathological Society of London, 20, Hanover Square, London, W., 8.30 p.m.—Dr. A. E. Wright: On the Value of a Comparative Examination of the Blood and Urine. Mr. Cantlie and Professor Hewlett: The Bacteriological Findings in a Case of Climatic Bubo. Dr. T. H. Horder: A Case of Pyocyaneus Pyaemia following Ear Disease.

FRIDAY.

Clinical Society of London, 20, Hanover Square, W., 8 p.m.—Exhibition of Clinical Cases, followed by Discussion. Patients will be in attendance from to 9 p.m.

Epidemiological Society, 11, Chandos Street, Cavendish Square, W., 8.30 p.m.

POST-GRADUATE COURSES AND LECTURES.

Medical Graduates' College and Polyclinic, 22, Chenies Street, W.C.—Demonstrations will be given at 4 p.m. as follows: Monday, Skin; Tuesday, Medical; Wednesday, Surgical; Thursday, Surgical; Friday, Eye. Lectures will be delivered at 5.15 p.m. as follows: Monday, Gall Stones and their Surgical Treatment; Tuesday, Some Intestinal Ailments and their Treatment; Wednesday, Some Common Errors in the Diagnosis and Treatment of Diseases of the Nose; Thursday, Circumcision.

North-East London Post-Graduate College, Tottenham, Hospital, N., Wednesday, 4.30 p.m.—Lecture on External Diseases of the Eye.

BIRTHS, MARRIAGES, AND DEATHS.

The charge for inserting announcements of Births, Marriages, and Deaths is 3s. 6d., which sum should be forwarded in post-office orders or stamps with the notice not later than Wednesday morning, in order to ensure insertion in the current issue.

BIRTHS.

JOB.—At 21, Castle Gate, Newark, the wife of H. Percy Job, of a daughter, April 12th.

ROGER-SMITH.—On April 6th at 1, College Terrace, Hampstead, the wife of Hugh Roger-Smith, M.D., of a daughter.

THOMSON.—At 7, Leopold Place, Edinburgh, on April 12th, the wife of H. Terrance Thomson, M.D., of a daughter.

MARRIAGES.

FAIRWEATHER—LORD.—On April 6th, at the Parish Church, Rusland, William Ernest Fairweather, L.R.C.P.Lond., M.R.C.S.Eng., of Chorlton-cum-Hardy, Manchester, to Constance Mary, eldest daughter of the Rev. C. Lord, Vicar of Rusland, Ulverston.

HOLLIST—HODGSON.—On April 7th, at St. Margaret's Church, Lee, Kent, by the Rev. Canon Jelf, of St. German's, Blackheath, and the Rev. W. Sidney Randall, C.F., Gerald Wetherell Capron Hollist, M.R.C.S., second son of Lieutenant-Colonel Hollist, J.P., D.L., of Lodsworth, Petworth, Sussex, to Ruby, twin daughter of Nevil L. Hodgson, Esq., of Woolwich and Blackheath.

LAWSON—CLARK.—On April 7th, at St. Andrew's Church, Hillingdon West, by the Rev. Geoffrey Lawson, brother of the bridegroom, assisted by the Rev. H. G. Bird, Vicar of the Parish, and the Rev. Arthur Brinckman, Arnold Lawson, F.R.C.S., of 12, Harley Street, W., fourth son of the late George Lawson, F.R.C.S., to Helen Hargreaves, eldest daughter of Andrew Clark, of 71, Harley Street, W., and Cowley Grove, Uxbridge, Middlesex.

DEATH.

GOWING.—On April 10th, Benjamin Chaston Gowing, M.R.C.S. 1865, L.S.A. 1866, Guy's Hospital, late President of the Southern Branch, practising at Stockbridge for the last eleven years.

LETTERS, NOTES, AND ANSWERS TO CORRESPONDENTS.

COMMUNICATIONS respecting Editorial matters should be addressed to the Editor, 2, Agar Street, Strand, W.C., London; those concerning business matters, advertisements, non-delivery of the JOURNAL, etc., should be addressed to the Manager, at the Office, 429, Strand, W.C., London.

ORIGINAL ARTICLES and LETTERS *forwarded for publication are understood to be offered to the* BRITISH MEDICAL JOURNAL *alone, unless the contrary be stated.*

AUTHORS desiring reprints of their articles published in the BRITISH MEDICAL JOURNAL are requested to communicate with the Manager, 429, Strand, W.C., on receipt of proof.

CORRESPONDENTS who wish notice to be taken of their communications should authenticate them with their names—of course not necessarily for publication.

CORRESPONDENTS not answered are requested to look at the Notices to Correspondents of the following week.

MANUSCRIPTS FORWARDED TO THE OFFICE OF THIS JOURNAL CANNOT UNDER ANY CIRCUMSTANCES BE RETURNED.

IN order to avoid delay, it is particularly requested that ALL letters on the editorial business of the JOURNAL be addressed to the Editor at the Office of the JOURNAL, and not at his private house.

TELEGRAPHIC ADDRESS.—The telegraphic address of the EDITOR of the BRITISH MEDICAL JOURNAL is *Aitiology, London.* The telegraphic address of the MANAGER of the BRITISH MEDICAL JOURNAL is *Articulate, London.*

TELEPHONE (National):— EDITOR, 2631, Gerrard. GENERAL SECRETARY AND MANAGER, 2630, Gerrard.

☞ *Queries, answers, and communications relating to subjects to which special departments of the* BRITISH MEDICAL JOURNAL *are devoted will be found under their respective headings.*

QUERIES.

PHOENIX writes: I am treating a patient for obesity. Can I recommend eggs in any form, or are they fattening?

THE PREVENTION OF CONGENITAL HYDROCEPHALUS.

E. R. writes: A healthy young woman had one normal child. About two years afterwards she had another, hydrocephalic, and twelve months later another hydrocephalic. She is again pregnant since February 1st, and wants me to prevent a recurrence of the last two catastrophes. The only abnormality I can find is in the urine, the reaction of which is perfectly neutral and the specific gravity 1012.

TREATMENT OF THE CHLORODYNE HABIT.

W. A. (Scotland) writes: A widow, who takes chlorodyne, was in a home where her brother paid 7s. a week for her, but the authorities turned her out as she was so noisy and disturbing. Her brother is a poor man and she is constantly getting him into debt. Is there any public institution where she could be placed or detained and made to do some work?

*** There does not seem to be any institution into which such a case would be taken, unless she agreed to become a voluntary patient at an asylum. If she were willing, which is doubtful, the matter might be arranged through the inspector of poor, and a small allowance would probably have to be paid, according to the friend's ability. If she has proved herself unsuitable for a private home she would not be taken into any of the general hospitals.

TREATMENT OF MORNING HEADACHE.

DEVON asks for advice in the treatment of a lady, aged 74, who for several years has suffered from a headache lasting three or four hours on the mornings of three or four days a week. Her general health is good, except that she has chronic rheumatism. Drugs and early meals have been tried, but the pain, which is not constant in any part of the head, seems to grow worse, especially in the spring.

ANSWERS.

A. P.—Expenses of a course at Aix-la-Chapelle vary very much according to the class of bath establishment or hotel chosen. A course of treatment is likely to last three or four weeks, but the duration must depend on the decision of the local physician. A prospectus may be obtained (in English, if desired) on application to the Kurdirektor Bad-Aachen, Germany.

H. M. P.—A mother who has occasional attacks of intermittent fever may suckle her child; there is absolutely no risk of any infection passing through the milk. The blood of the mother should be examined, and, if malarial parasites are present, quinine should be administered.

PRESERVATION OF RUBBER INSTRUMENTS.

LIEUTENANT-COLONEL JOSHUA A. NUNN, Army Veterinary Department, writes: In reply to "Inelastic," I have kept rubber instruments in the plains of India through the hot weather in an air-tight tin box with a small quantity of kerosene oil in a gallipot. The oil must be renewed from time to time, as it evaporates.

DR. M. ASTON KEY (Southsea) writes: I have found it beneficial to swab them over five or six times in a year with a saturated solution of turpentine dissolved in methylated spirit. The spirit quickly evaporates, leaving a very fine coating of turpentine, which is quickly absorbed by the rubber, causing no inconvenience. Those instruments which are rarely used should be occasionally manipulated to remove any stiffness at the same time as the turpentine is applied. Any rubber instruments that it is possible to hang up, such as stomach tubes, douche tubing, and the like, are best kept in that manner and not coiled up.

INHABITED HOUSE DUTY.

DR. REGINALD DUDFIELD, (M.O.H. Paddington), writes: Adverting to your reply to "Taxes" on page 816 of the BRITISH MEDICAL JOURNAL of April 2nd, I have lately had some correspondence with the surveyor of taxes of this district on the question of "annual value." I am informed that that value is the "gross rateable value," and that, in the case of blocks of flats or tenement houses, each flat or tenement should be separately rated. The latter is an important point I think.

LETTERS, NOTES, Etc.

MEDICAL WITNESSES' FEES.

THE address of Mr. Fred. W. Lowndes, Honorary Secretary, [illegible] Kingdom Police Surgeons' Association, whose letter on Medi[cal Wit]nesses' Fees was published in the BRITISH MEDICAL JOU[RNAL] April 9th, p. 863, is 40, Knight Street, Liverpool.

A WARNING.

WE have received the following communication from the *N[ew York] Medical Journal:* We are informed that a young man representi[ng] self as being a correspondent for the *New York Medical Jou[rnal]* giving the name of Dr. De Opert, has called upon physicians [in] United Kingdom as a representative of this *Journal.* Will yo[u] acquaint your readers with the fact that no such person is co[n]nected with the *New York Medical Journal*, and that at the present [time] have no travelling representative in the United Kingdom?

LETTERS, COMMUNICATIONS, ETC., have been received from:

A Anxious Mother; A. P.; Aesculapia; Ancient Mariner; W. Allen, M.B., Ga[teshead]. **B** Mr. L. A. Bidwell, London; Dr. W. Bulloch, London; Bovril Limited, Manc[hester and] London; Dr. C. W. Buckley, Buxton; Dr. F. G. Bushnell, Plymouth; Dr. A. N. Boyt[e], St. Albans; H. Barrett, M.B., Derby; Dr. L. A. Baine, Hull; Mr. J. K. Barton, [Dublin]. **C** R. J. Coulter, M.B., Newport, Mon.; Mr. R. M. Craven, Kendal; Mr. A. [Cooper], London; Dr. W. H. Calvert, Melrose; J. G. Cooke, M.B., Londonderry; [Dr. J.] Crichton, London; Dr. E. Cautley, London. **D** Dr. R. Dudfield, London; [Messrs.] Messrs. Down Bros., London; Director-General of Medical Department of the [Navy], alty, London. **E** Mr. J. Edwards, Manchester; Mr. H. Elliot-Blake, Bognor; [Dr. J. H.] Mr. G. Y. Eales, Torquay. **F** Mrs. B Fenwick, London; Mr. G. A. Ferraby, [Nottingham]; F. J. G.; W. E. St. L. Finny, M.B., Kingston Hill; Mr. E. E. Francis, Chi[ppenham]; E. R. Fothergill, M.B., London; Fiji; H. M. Fletcher, M.B., Pontypridd. **G** [Dr. J. H.] Greene, Norwich; Dr. J. H. Galton, London; Dr. C. Gibson, Harrogate. **H** M. [Dr. J.] Holt, Malton; Dr. G. A. Heron, London; W. Hunter, M.B., Hong Kong; Mr. [R. J.] Hudson, London; Mr. F. Harvey, Beccles; Dr. T. A. Helme, Manchester; Hon. [Sec.] Holland, London. **I** W. Inman, M.B., Seacombe. **J** J. T.; Dr. G. P. Johnson [of Burton]-on-Trent; Dr. A. James, London. **K** Mr. T. G. Kerr, London; M. A. Key[nsham], M.B., Southsea. **L** Mr. F. W. Lowndes, Liverpool; Leicester. **M** Mr. J. [Dr. J.] Marshall, London; Dr. R. Morton, London; B. G. A. Moynihan, M.B., Leeds; [Dr. J.] Mackenzie, Burnley; J. T. J. Morrison, M.B., Birmingham; Mr. E. H. Monks, [Dr. J.] A. A. McNab, M.B., Leeds; Mr. J. D. Macdonogh, Bettws-y-Coed; Messrs. J. [and A.] and Co., London; Midgephobia; Dr. D. MacEwan, Dundee; M.D.Cantab.; M[r. J.] Messiter, Dudley. **N** Mr. G. A. Nunn, London; "New York Medical Jo[urnal]" Manager of, New York; N. F. R; Dr. D. Newman, Glasgow. **O** Obstetrical [Society] Secretary of, London. **P** Dr. W. M. Parham, Reading; Mr. C. H. W. Parkinso[n], borne; S. A. Powell, M.B., Bombay; Mr. F. P. Philip, London; Dr. W. A. Pot[ter], mingham; Phoenix; Captain A. E. H. Pinch, I.M.S., London. **R** Mr. A. T[aylor], Newton Heath; Dr. R. R. Rentoul, Liverpool. **S** Suffolk; Dr. G. A. Suth[erland], London; Dr. E. C. Seaton, London; Dr. D. W. Samways, Mentone; Dr. S. Sund[by], London; Mr. J. Smyth, Croydon; Dr. C. S. Sherrington, Liverpool; R. H. Shav[e], Great Yarmouth; K. S. Storrs, M.B., Chelmsford; Dr. G. C. Sandford, Devonpo[rt]; W. J. Sinclair, Manchester. **T** W. A. Taylor, M.B., Perth; Mr. T. Thatcher, [Dr.] Mr. J. Tubb-Thomas, Trowbridge; Dr. F. Tresilian, Enfield; G. G. Turner, M.B[., New]castle-on-Tyne; Dr. E. C. Taylor, London. **V** Veritas; Vorticella. **W** Messrs. [Burroughs] Limited, London; Dr. J. R. Williamson, Vienna; Dr. S. M. Whitaker, Liverpo[ol]; J. T. Williams, Barrow-in-Furness; Dr. N. Wood, London; Dr. R. Wybaun[e]; W. H. C. S. J. W. T. Walker, M.B., London.

BOOKS, ETC., RECEIVED.

The Refraction and Motility of the Eye. By William Norwood Suter, M.D. London: Sidney Appleton. 1904. 9s.

Social Diseases and Marriage. By Prince A. Morrow, A.M., M.D. London: Sidney Appleton. 1904. 15s.

L'Origine du Diabète. Par M. le Dr. A. Lorand. Paris: C. Naud. 1904. Fr. 2.

Nursing Guide, Handbook of Nurses' League and Register of Nurses Trained at Guy's Hospital. London: Ash and Co., Limited. 1904. 1s. 6d.

Le Malattie dei Paesi Caldi loro Profilassi ed Igiene. Dott. Carlo Muzio. Milano: Ulrico Hoepli. 1904. L.7.50.

Elettricità Medica. Dr. A. D. Bocciardo. Milano: Ulrico Hoepli. 1904. L.2.50.

La Rachitide e le Deformità da Essa Prodotte. Dr. Paolo Mancini. Milano: Ulrico Hoepli. 1904. L.4.

Mémoires et Bulletins de la Société de Médecine et de Chirurgie de Bordeaux. Année 1903. Paris: Masson et Cie. 1904

Sammlung klinischer Abhandlungen über Pathologie und Therapie der Stoffwechsel und Ernährungsstörungen. Herausgegeben von Professor Dr. Carl von Noorden. 5. Heft. Von Dr. Carl Dapper. Berlin: August Hirschwald. 1904. M. 1.20.

Notes on the Treatment and Fill[ing] Teeth. By Wm. Cass Grayston, [M.D.] Second Edition. London: The [Dental] Manufacturing Company, Limited. 5s.

Ovariotomy and Hysterectomy in [the] Ward, St. Bartholomew's H[ospital] 1897-1903. By Harrison Cripps, F[.R.C.S.] London: Smith, Elder and Co. 19[03].

Pediatrics. The Hygiene and [Dietetic] Treatment of Children. By T[homas] Morgan Rotch, M.D. Fourth e[dition]. Philadelphia and London: J. B. [Lippin]cott Co. 1903. 25s.

Ophthalmological Anatomy. By J. H[erbert] Fisher, M.B., B.S.Lond., F.R.C.S. London: Hodder and Stoughton. [1904.] 7s. 6d.

Higiene de la Infancia en Costa Rica. [Por] Benjamín de Céspedes. San José de Costa Rica: Tipografía Nacional. 1900.

The Pharmacopoeia of the North-Ea[stern] Hospital for Children. Compiled by [the] Committee of the Medical Staff. Lon[d]on: North-Eastern Hospital for Chil[dre]n. 1904.

Care and Feeding of Children. By [L.] Emmett Holt, M.D., LL.D. Third [Edi]tion. London: Sidney Appleton. 1904. 2s.

*** In forwarding books the publishers are requested to state the selling price.

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Demonstration

ON

ECENT ELECTRO-THERAPEUTIC WORK,

WITH SPECIAL REFERENCE TO LUPUS, RODENT ULCER, AND MALIGNANT DISEASE,

ven before Members of the Glasgow Medico-Chirurgical Society this Session, being the Third of a Series.

By JOHN MACINTYRE, M.B., F.R.S.E., F.R.M.S.,

rgeon for Diseases of the Nose and Throat, Glasgow Royal Infirmary.

RING the past three sessions I have had the honour of ing a demonstration to the members of the Glasgow dico-Chirurgical Society, and upon each occasion have d to convey some idea of the yearly progress which has n made in the treatment of lupus, rodent ulcer, and lignant disease. It is exceedingly difficult at any time to ress an opinion upon methods which are still under con- eration, involving as this does some attempt at com- ative value between the different agents employed. ile admitting this difficulty, and being fully conscious of responsibility, I venture to give this demonstration for ain reasons; amongst others, the large number of workers aged in experimental research in all countries, the con- ing reports which have been published, the importance he subject, and last but not least, the interpretations of meaning of results which have sometimes been mislead- even to the extent of raising false hopes in those suffer- from the severer forms of malignant disease.

order to make my meaning as clear as possible, I shall de the work in the following way: First, the theories lved will be considered; secondly, reference will be made nprovement in apparatus; and thirdly, the clinical aspect ne subject will be discussed.

Theory.

my previous demonstrations I have generally thrown e magic lantern slides on the screen, which were intended present the ordinary spectrum of light, then by way of parison others more of a diagrammatic nature, such as e published in the British Medical Journal of June 1903. In these latter the relationship which exists een most of the forces we are about to consider could be All these were merely intended to show that one could general way indicate a series of forces beginning with so-called electric waves on the one hand, and passing ssively through the heat, light, ultra-violet waves, and the x rays, that is to say assuming them to be trans- waves in ether. The changes in thought brought about e recent experiments with radium naturally cause us to sider some of the views which formerly, for practical ses at least, were considered quite acceptable. For ple, until very recently it has been customary to be all these as transverse waves in ether, but, to quote iver Lodge, every electric current is now believed to be ession or torrent of negatively charged particles called ons. Whether, therefore, we now accept the old classi- n or not, or whatever change our ideas may have ly undergone, it is quite evident that all the forces en these two extremes were not known, and, as has ntly been said when referring to the diagrammatic um, certain gaps had to be filled in. Thus in the m above referred to, and published in this Journal, a was found for such rays as were known under the term erel. Within the last year our ideas of these have ex- d, and it is now believed that these are of three nt kinds, alpha, beta, and gamma rays, the first of probably being the only new ones. These three are off by radium, whilst the alpha rays have as yet only btained from polonium, a fact which may become more ant for therapeutic purposes.

have hinted, the advantages of the above-mentioned nmatic spectra may become less, although whatever ult be we must in some way or other group the dif- forces. Since last year two rays have been announced are new to us: the alpha rays, which I shall consider peaking of radium; the n rays, and these may here be red.

istory of the n rays are exceedingly interesting; and ndlot, in a series of papers (Paris Academy of Science, ten in number during the year 1903), gave the results of a large number of experiments from the physical aspect mainly. They were first detected amongst other rays coming from an excited x-ray tube, but it was soon discovered that they exist in sunlight and also in electric, gas, and other sources of illumination. Further, they have been discovered in substances such as hardened steel or other metals under severe molecular strain. The discoverer has shown that they are not all of one kind, and he has distinguished n_1 rays. In some respects the latter differ from the former, producing reverse phenomena when applied to substances which the ordinary n rays would increase in brightness. Both rays also seem to produce different results according to the manner or direction in which they fall upon the indicator. At first these n waves were supposed to be placed somewhere in the spectrum below the heat and near to the electric waves, but the most recent investigations would seem to show that they are more likely to be related to those near the violet rays, their mean wave length being something like one-tenth that of extreme violet light. The rays pass easily through aluminium, black paper, wood, and saline watery solutions, but they are arrested by water themselves. They are capable of reflection, refraction, and polarization, and the index of refraction has been determined by means of aluminium prisms. Another curious property is to be noted in the fact that there seems to be a storage or accumulation of the rays in some substances. They are said to cause increase in the length of an electric spark, increased phosphorescence in many substances, and M. Blondlot has described a photographic method of recording changes in the electrical phenomena and brightness of phosphorescence. Another curious statement made about the n rays is the power to increase visual acuteness, and the original discoverer was led to believe that they were capable of acting upon the retina. Other workers have confirmed and added to Blondlot's observations. Bichat has shown that the various n rays act differently when bodies are placed in their path, and he has shown a possibility of selective absorption by different metals. Macé de Lépinay thinks during musical vibration in such instruments as the tuning-fork or siren these rays are given out apart from the molecular strain. Jegou finds that they are given out during the passage of an electric current through wire. Charpentier seems to think they may be transmitted through a metal wire and excite phosphorescence upon a suitable screen at the other end of it, but he considers these are probably not ordinary n rays, and Bichat thinks that the conduction through a wire is much the same as that of light waves passed through a curved glass rod.

Professor Charpentier's studies and papers have increased medical interest in the physiology of the subject. Briefly summarized, he says that rays similar to the Blondlot rays are given out from the human body during muscular and nervous excitement. The rays produced resemble the Blondlot rays inasmuch as they increase phosphorescence, the length of the spark of a coil, the passage through certain solid bodies, and the reflexion and refraction and index of the latter seems to be the same as the n rays. There are various devices in the form of screens for demonstrating their presence. In a letter from Dr. Charpentier he writes to me saying that as a rule most observers prefer absolute darkness, others a relative darkness only, and that the screen should be suitably excited first of all in order to see if there is increase of phosphorescence before or during the application of the rays. He is confident that the rays are not the result of heat, because they develop in a few seconds, whereas the effect of heat takes much longer, and moreover he has satisfied himself that such waves are emitted from animals such as the frog, which may be kept at a temperature from 0° to 10° below that of air. He has studied their action upon phosphorence of bacteria, which is said to be augmented. Not only are they found in the region of muscles during contraction, but compression of nerves gives the best results, and he selects certain regions, such as the spinal cord over the cervical and lumbar region, for special demonstration. Not only so, but he declares that over central convolutions such as Broca's augmentation takes place while one is speaking. Similar statements are made about other centres in the brain. Further, he declares that mental effect may be observed by others, and the experimenter himself, inasmuch as this causes the fluorescence to augment upon the screen. Lastly, he declares that the rays are complex in nature, and that difference may be got by filtration through different metals.

While many have been sceptical, there are others who have had no hesitation in confirming Charpentier's results. Hence we have Dr. Walsham and Leslie Miller in London stating

that they have been able to pass the rays through books and to discriminate between the result obtained when the muscle is in action and when it rests by the physical results or changes produced on the photographic plate.

From what has been said it will be seen that all investigators do not accept Charpentier's conclusions, and a great deal of sharp criticism and scepticism has been directed in the physical world to Blondlot's original experiments. Many experimenters, such as Schenk, Burk, McKendrick, and Campbell Swinton, have not been able to confirm the results of Charpentier. The last-named states that where he has been able to detect any such phenomena these are explained by other causes than *n* rays. Lummer of Berlin thinks it is a case of subjective phenomena, or, as he would have it, objective phenomena in the retina. McKendrick, assisted by an able staff of observers, cannot confirm Charpentier's results, and the explanation, he asks, may it to some extent be the result of a change in accommodation. He makes the suggestion that the mental condition of some observers may result in a reaction on the intrinsic muscles of the eye. While these suggestions and objections are interesting, what are we to make of the statement about photographic results? Walsham and Leslie Miller maintain that the difference in the brightness of a screen due to some force emitted during muscular contraction can be detected by the changes upon a photographic film. Having made a large number of screens and attempted to confirm most of the phenomena above described, and having had great difficulty in verifying some of the statements, I was exceedingly indebted to Professor Charpentier for a private communication and screen made by himself. Gaiffe of Paris has also sent me a number of screens, and likewise Leslie Miller of London. Professor Charpentier's letter to me leaves no doubt whatever as to the certainty in his mind of the facts above referred to, and after the demonstration I shall be pleased if some of you will attempt to confirm what has been said by trying the experiments yourself.

Whatever the outcome of these different opinions may be as to the cause or true value of the *n* rays, they are of sufficient interest to us as showing that there are many more forces or rays yet to be discovered, or, as has been said above, if we attempt to represent them diagrammatically, there are many gaps to be filled in; but many physicists and other investigators are evidently doing their best to discover these, and in time the whole series may be at our disposal.

It may not be out of place here in a general way to classify or indicate the different forces or rays, or whatever we may be pleased to call them, which are now being used in connexion with electro-therapeutics, the methods of demonstrating these, and the agents at our disposal for producing them. There are various forms of electrical or possibly cathodal rays —the alpha rays, which are new to us; the *x* rays, which many believe to be identical or similar to the gamma rays; heat, light, ultra-violet, and, it may be in the future, *n* rays. As we shall be discussing the question of apparatus, it is important to notice that the physician or surgeon has to consider a great many different methods or agents for producing these. Thus it may be matter in the form of radium and polonium, or it may be electrical agencies produced by the ordinary continuous battery or thermopyle, or obtained from the main or alternating or continuous currents altered by passing through an intermittent coil, an alternating dynamo, some form of Tesla apparatus or high-frequency accompanied by the use of the alternating dynamo. In addition there may be the changes in condition wrought in some of these by means of the Leyden jar, the static machine, the vacuum tube; and, lastly, the ordinary arc lamp may be the source of energy.

All these agents may be made manifest to us by their physical properties outside the body, and under this heading we speak of the chemical, photographic, fluorescent, electroscopic and illuminative properties. Further, it is possible to obtain results upon living tissues such as micro-organic life, and hence we have the bactericidal aspect to consider. On the other hand, some of the most important properties are only seen when they are applied to the living tissues themselves, vegetable or animal, and hence we have to add the physiological. it may be the pathological, so well known to us in the form of reaction or burns, and lastly the therapeutic results.

The almost limitless range of study begins to dawn upon us when we take into consideration any single property above mentioned. Many of these agents, or forces, or rays, have properties which are common to others, yet some give certain results which are entirely absent in others. Again, where different agents possess similar properties they may va i degree. Thus a photographic plate may be more influe e by one agent than by another. Some of these agents, su some of the rays from radium, discharge an electroscope, u heat, visible light, will not, and ultra-violet only does i n directly. The bactericidal properties vary. Thus the u a violet waves, or some of those produced by radium, a strongly bactericidal, whilst others, such as the *x* rays a doubtfully so. The importance of this from the therap ti standpoint will be seen further on in this paper, because h same disease—say lupus—may be attacked, as Finsen d s basing his theory entirely upon the bactericidal effect u on the organisms in the tissues, while a similar result ma b obtained by *x* rays or other agents which many experime s believe cannot have any influence upon the pathogenic or n isms unless indirectly through the agency of these fo e which belong to the living tissues themselves.

Speaking from the theoretical standpoint, there can b n doubt that great results may be expected from the l h which during the psst year has been thrown upon m y questions hitherto unexplained, and for this information v are largely indebted to the researches in connexion w th radium. Whatever theoretical value this agent may have v are in all probability destined to learn much about cath a rays and *x* rays produced in the ordinary way by mean o the static machine, transformer, or coil. For example n question is of greater importance than the conditions o n ordinary *x*-ray tube, however, excited, as can easily be un r derstood from the disastrous results which have follo ed from the application of *x* rays for photographic or other r poses. In fact, most of the phenomena taking place in e the *x*-ray tube have hitherto been very imperfectly un r stood. Let us take one example. If the cathodal strean e really a torrent of electrons travelling at a tremendous spe d, the production of *x* rays, which are themselves probably o particles but waves or pulses in ether, can be much bet r understood as a result of the terrific impact against the a i- cathode. But, further, may these electrons not escape fr m the *x*-ray tube through the glass itself? That is a possibi y which I have long had in view. We know that soft tubes r very apt to cause burns, and most physicists now look on e beta rays of radium as likely to correspond ts the cath a stream in the *x*-ray tube. In my paper to the Briti Medical Journal of December 12th, 1903, I gave my reas s for suggesting that most likely it was the beta rays fr m radium which caused the well known and destruc e dermatitis with which we are all familiar, and not the al a or the gamma rays. So much was I impressed with t s possibility that I made a considerable number of expi- ments, with a view to distinguishing whether beta rays r cathodal stream could be detected in front of the ordin y *x*-ray bulb. In these experiments I was much assisted y Lord Blythswood and his assistant, Mr. H. S. Allen, but p till now the photographic results have been negative. Je same attempts at magnetic deflection of the cathode rays n front of the tube were tried, as have been found successfu l deflecting the negatively-charged beta rays which come fr m radium. With radium it is easy to demonstrate these phe- mena photographically, but, as I have said, it is exceedin y difficult to get a similar result with the *x*-ray tube. Howev we know that if one holds a charged electroscope near the b b effects by way of discharging it will be got which would rat r point to the escape of electrons through the glass. If t s be definitely proved it would throw much light upon s burns or destructive effects known as dermatitis. Furth the same theories would explain largely the secondary a obscure rays which are got from the sides of the tube a elsewhere, and which to a certain extent destroy and hin the fine detail which a photograph when it is mostly due those *x* rays that come from the anticathode itself. A lastly, there is the possibility that the course of t positively-charged ions which are passing in the oppos direction to the cathodal stream inside the bulb will be bet understood, and hence greater exactitude in the constructi of these, as well as the arrangements for controlling t vacuum, may be expected.

Apparatus.

During the past year considerable improvement apparatus has taken place, and this is of great importan It is necessary to have every part of our apparatus un control of the operator, because he may require consta variations in any force, and the amount of required ener varies in degree and, it may be, in the same patient

erent times. Many operators have suffered from the that the apparatus placed in their hands was not at all able for constant and prolonged daily work. Hence it is no part of our armamentarium can be overlooked. A tant source of trouble, for example, was the arranging the fitting together of the different parts, and for this ose switchboards were ssary. One of the best I is that made by Trotter, lasgow, and the value is particular form lies e fact that, in addition roper arrangements for uring the voltage and rage of current, the oper- has the choice of a great tion in the amount of nt both for his coil and r interrupter. Great im- ment has also taken in the construction of the most important s being greater insula- variations in self-induc- and means of regulating ndensers.

those who prefer the in- e machine it is interest- o know that improve- in the Voss type have ecorded by Schall and rt. Gaiffe's latest pro- ns for mechanical con- on and great simplicity pecially to be noted. there is a difficulty in g the plates, owing to mp atmosphere or other ons, the Wagner micro- rinciple has proved a oon, and some of their instruments, for me- l construction and on to details, would cult to surpass.

ovements in inter- have also been made. Isenthal has a new one the film brake; Max Kohl and others have im- theirs; Wilkins has produced a good mechanical ith rotary wheels, the advantage being that there ercury used; and the Sanitas Electrical Company proved the mercury- terrupter (Wodals). and in many cases and economical f rectifiers for those ave the alternating ave been introduced, by modification of itt vapour lamp, and lately showed a cheap d instrument at one eetings of the Roent- ty.

excellent forms of ve of late been in- , and amongst those have found of value ro-therapeutics are s and Halske's and ann's of Berlin, which d the strongest effect oils. Queen and Co. duced most beauti- igned and finished the same purpose. so supplying excel- table tubes. Some as experienced in using Cossor's tubes, which he ced specially for therapeutic work, and the great hich is to obviate the necessity of masks to protect nding tissues. For the last two years I have tried s made of English glass, and containing a large f lead for the same purpose. Dean has patented a similar arrangement within the last year, and Cox, at the suggestion of Dr. Martin of Cardiff, is advertising a similar contrivance.

Perhaps the most interesting developments of all have taken place in the construction of machines for high-frequency currents. Hirschmann, Dean, Isenthal, Cox, and others have made many improvements, and Dean has a large double resonator which is highly valued by many operators. Other makers, however, such as Leeds and Northup, have produced a new form of apparatus to which my attention has been called by Dr. Lenard of Philadelphia. The principle of this machine, like those which I am about to describe, is not that of the ordinary interrupter coil. My own experience has led me to think that the operator should have a greater quantity of energy than hitherto at his disposal, to be used with care, and only when required. Hence I made arrangements where, by means of oil condensers, I get at least 600 to 800 milliampères.

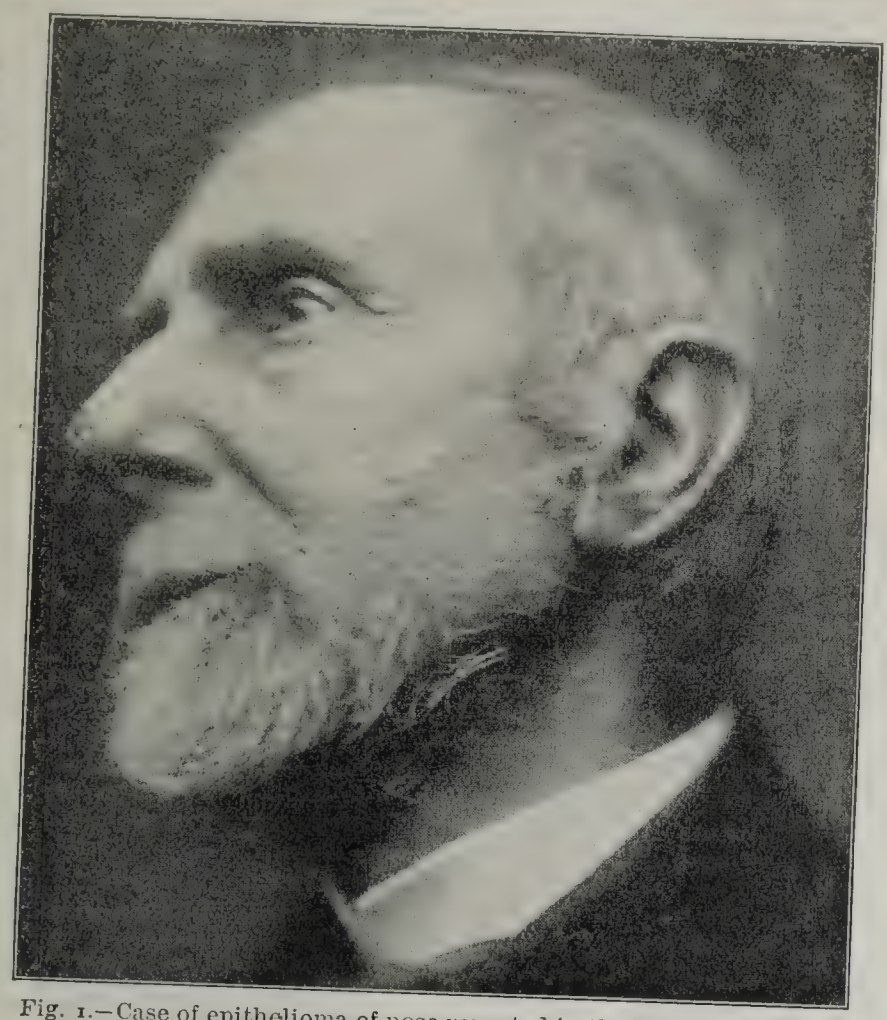

Fig. 1.—Case of epithelioma of nose reported in the BRITISH MEDICAL JOURNAL of June 6th, 1903, radium failed to effect cure; result after 2 months' *x*-ray treatment.

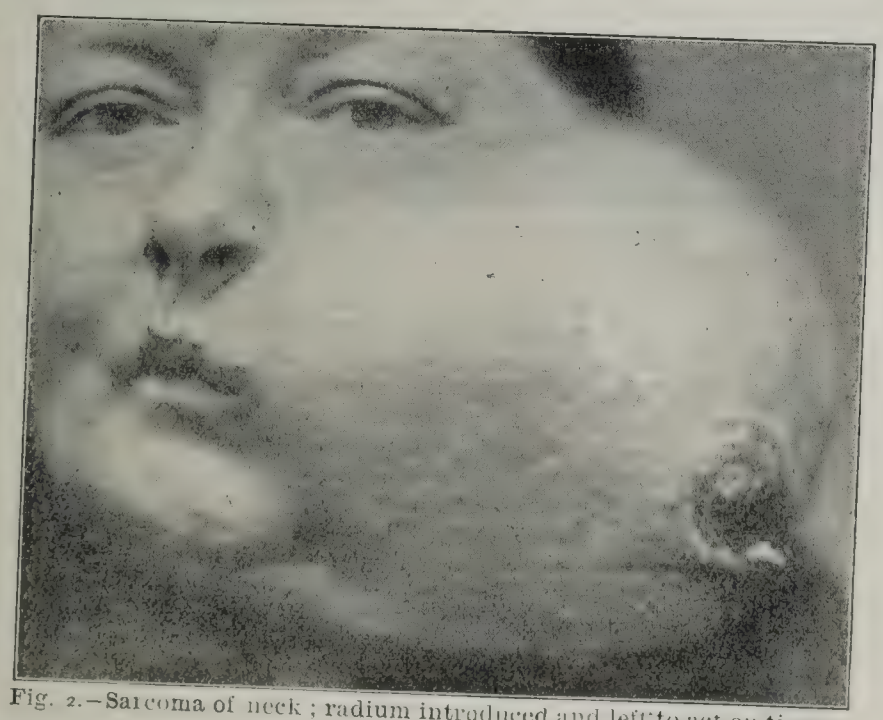

Fig. 2.—Sarcoma of neck; radium introduced and left to act on tissues.

An old method, but under new conditions, has appeared under the name of Koch's patent, and is sold in this country by Schall. The advantages claimed for the system are greater than when the currents are produced from spark coils with interrupters. The apparatus consists of a switchboard with choking coil, rheostats for the motor and transformer, with the usual accessories and instruments for measuring the currents. The transformer is wound like an ordinary spark coil and greater insulation is required. In addition, a rectifier is employed, so that the discharge from the tubes is uni-directional, and this part of the arrangement consists of a small synchronous alternating current. This is not required when being used for high-frequency currents however. The alternating current is employed in this system, and when the continuous current is only at the disposal of the operator a dynamo is introduced. Messrs. Gaiffe, of Paris, have, however, also introduced a transformer, using the alternating current, but they require no rectifier. They claim that any possible danger to the operator or patient is entirely removed by properly constructed and insulated cases. As may be expected, the principle lies in using a step up-transformer. The current may may be used so as to be in one direction only. There is little or no noise, great continuity of spark, steady illumination. They claim that the effleuves from this apparatus are greater than any other, and what is as important probably, the milliampèrage can easily be raised to 1,000 or more at will. It is also said the dosage can be regulated and measured, because the milliampèrage and voltage to the current in the tube can be accurately measured. The possibility of doing away with the troublesome interrupter will be a great gain, but I am doubtful, while the new apparatus may

be of great use in high-frequency currents, if for *x*-ray work generally and more particularly rapid or instantaneous photography any of these will compete with the results obtained when a strong coil and a powerful interrupter like the Wehnelt is used. In all work of this kind great quantity of energy is the essential thing, a principle which I first laid down in 1896 to the Royal Society of Edinburgh, and nothing has caused me to change this view whether we apply it to photographic or therapeutic work.

RADIUM.

Everything to be said of the last agent, radium, and the forces to be obtained from it, is included in the history of its discovery and the researches in connexion with it since that event. Most of the physical properties will be found in my paper to the BRITISH MEDICAL JOURNAL of December 12th, 1903. Since then, however, our knowledge has increased, and I intend, therefore, to demonstrate most of the phenomena by means of which we are able to distinguish it. First of all, let me say that good specimens for therapeutic purposes are even more difficult to find than six months ago. I have brought here a large number varying in radio-activity from 40 units to 2,400,000, measured by means of Curie's instruments. The different effects of these from the physical aspect should always first be tested when a specimen is obtained, and for this reason I am showing you the effects of different more or less pure salts upon barium platinocyanide, potassium platinocyanide, Willemite screens. I consider the test of induced radio-activity upon sulphide of zinc screens of great importance, and likewise the penetration of a given specimen through wood and different metals, and these things I will now show you. Another test of these specimens, the most delicate of all, will be demonstrated by means of the magic lantern, namely, the discharge of an electro-condenser.

Fig. 3.—Lupus; before *x* rays applied.

For therapeutic purposes it is important that we should refer particularly to the alpha rays, which may be small portions of helium, each weighing about 1 per cent. of the radium atom, and which are calculated to travel at least at the rate of 20,000,000 metres per second. Now, the important thing to note is the fact that they are easily stopped by air, thin layers of substances, such as mica; hence they are not likely to be the active agent in most of our therapeutic experiments. They discharge a condenser, are positively charged, and strong magnets cause deviation of them. Photographs of this phenomenon I have brought with me, and will show upon the screen. The beta rays are of still greater interest to us, because everything since my last paper tends to confirm the view expressed therein that these are probably the strongest rays for therapeutic purposes. They are much smaller than the alpha, are travelling at a greater velocity—100,000,000 metres per second, it is said; they are negatively charged, easily deflected by the magnet discharge condensers; but what is most important from our standpoint is that they possess great penetration. The gamma rays are by most observers considered identical, or at least resemble, the *x* rays. They are possibly produced by the beta rays or cathodal stream striking against the radium itself or surrounding objects. They possess the greatest penetration of all, carry no electric discharge, and cannot be deviated by the magnet. Inasmuch, however, as the quantity from a given specimen of radium is very small the question naturally arises, Do they have much effect physiologically or therapeutically?

Since the paper I referred to above we have learned much more about what happens to these radiations, and as the statements about them possess a therapeutic value, let me sum it up in the following way: Rutherford and Soddy, while experimenting, got something luminous, which they were able to collect. This was found to be a gas, inasmuch as it could be condensed. Now Ramsay had long ago found helium in pitchblende, and he and Soddy collected this gas, removing the oxygen and hydrogen chemically. The gas which remained contained carbon dioxide, and this was frozen out by liquid air, and the resulting gas gave a spectrum corresponding to that of helium. This element is itself inert. It is, however, to be found in radium, hence it must have developed. These experiments have given rise to all the statements bearing upon the splitting up of elements into simpler ones. The results from our standpoint are important, because it has been suggested that inhalations of radium or thorium may be used as inhalations in tuberculosis and other affections of the lungs. The apparatus for this I am now showing you in three different forms, one designed by myself, and the other supplied by Dr. Isenthal, and at present experiments are being conducted on these lines in the Royal Infirmary here.

There is nothing of great moment to be added to the physiological and therapeutic effects of radium referred to in my last paper, such as burns, the destruction of lower animals and the effects upon bacteria are still under consideration. Lord Blythswood has discovered the radio-active principles in Bath waters, and the Hon. Mr. Strutt has demonstrated the presence of radium itself. The question as to the possible difference between waters obtained direct from the spas and those observed being due to the presence of such conditions in the one case and lost in the other, may here be noted.

In my last paper I gave the results obtained up till that date by a large number of workers in this country and on the Continent, and these would seem to be no doubt further experiment shows that some of the rays from radium possess therapeutic value. Moreover, the fact that it can so easily be introduced into cavities, and that it is simply applied, would fain lead us to hope that it would prove of greater value than has been found to be the case in the result so far recorded. As in my own experience, for reasons mentioned already in this paper, it is not likely meantime to displace any of the agents we have been referring to. In my last paper described a case in which radium had failed after a very trial, and this is reproduced here with a successful result after treatment with *x* rays (Fig. 1). There is another method of applying radium to which I shall now refer. It has been suggested that it might be possible to introduce the agent in small quantities to the interior of deeply-seated tumours, and with this object I made the following arrangements. An ordinary gold cannula was plunged into the tumour by means of a trocar, an aluminium rod with a small cavity in the end and a suitable cap to it, so as to contain a small quantity of radium, was pushed through the cannula and left to act upon the tissues. The aluminium projected beyond the gold cannula a sufficient length to allow the action of the radium upon the parts. The case is one of sarcoma of the neck, quite inoperable, and it has now been fourteen days in the tissues (Fig. 2). So far the result has been to cause some sloughing of the mass external to the radium. What the ultimate result may be I cannot say, but it will most likely be placed before you at some future time.

DIFFERENT AGENTS COMPARED.

While respectfully submitting the following opinion I may in the first place refer to the question of radium

he first place, there can be no doubt that many workers ave shown that therapeutic results have been got in cases f lupus and rodent ulcer; but the use of radium for ordinary urposes, however, the agent is not in the meantime likely to lisplace those which I am about to mention. Whether we ttribute this to the fact that the amount of energy at our lisposal, even with a fairly large quantity of radium, does ot anything like represent the energy to be got by the 'insen lamp or spark coil, or whether the specimens used ave not been of sufficiently great radio-activity or not, the act remains as has been stated. Many workers are now ngaged in experiment, however, and we must wait for further esults before attempting any comparison. For introduction nto cavities it, of course, possesses an advantage.

Apart from radium we have the light treatment, high-frequency currents, and *x* rays to consider and compare. I ntend to limit the discussion meantime to the application f these forces in the treatment of lupus, rodent ulcer, and nalignant disease, as where one of these agents has been mployed with benefit the other two can also be shown to ave had some success. I shall first of all take up Finsen's nethod—the oldest. In order that I may be as just as possible in my criticisms to Finsen himself, let me first of all ay that no one who has read is most recent work on the ubject, and who has seen the nagnificent results represented in the large series of hotographs reproduced in is book, can fail to testify to he success of his treatment. shall now throw upon the creen twelve photographs of hese in order that you may udge of the results for yourelves. Unquestionably the nain drawback in this treatnent is the long time required to effect a cure. Notwithstanding all this, there s a tendency on the part of nany to question any supreme dvantage in this method of reatment over that of *x* rays. find that in a large number of instances in this country where Finsen's treatment has been tried there is a great disposition to trust more o *x* rays, and sometimes o high-frequency currents, han to the arc light. Further, any one reading the eports of different societies —particularly where discusions have taken place upon kin diseases—will see that he results in many hands ave not been so successful s in those of Finsen himelf. Another strong feature o be noted is the fact that with a smaller lamp—such s the Lortet-Gounod—the results have not been as good s with the large lamps. On this point it may be of interest to quote a communication which I have had from Professor Finsen himself. He maintains that his results are better than others because of his large lamps, and that the only advantage of the small ones is cheapness. He gives onger sittings, and from all reports I think it should be dded he gives greater attention to the details than some perators. For a single patient lamp he tells me that the 'insen-Reyn is almost as good as the large one. This pinion, when carefully looked at, simply means an expression of comparative merit between different apparatus employed for the production of light and the manner in which they are used, but it gives no opportunity of comparing he light treatment with others, such as the *x* rays. A most erious difficulty in connexion with his method will be found n an interesting paper by Dr. Hans B. Christianssen in the *Journal of Laryngology* for October last. This gentleman has been appointed oto-laryngologist at the Finsen Light Institute, nd the necessity for such an expert will be seen when it is tated that he found three-fourths of a thousand lupus patients reated during the past six years to be suffering from lupus vulgaris of the mucous membranes. Now, if this lupus should be anywhere near the orifice it is possible to apply Finsen's light, but the author says the light treatment can be used only in lupus of the mucous membranes of the anterior parts of the nose or mouth, and if not they are forced at Finsen's Institute to resort to other means of treatment. I am bound to confess to a certain amount of disappointment in reading his paper to find that the galvano-cautery is said to be their chief resource.

No reference is made to any attempt by Dr. Christianssen or others to apply high-frequency or *x* rays. In such hands and under the direction of Finsen himself most favourable comparative results might have been obtained. These two agents may have been tried, but the author does not say so. It seems rather strange that, whenever the disease passes beyond the region where Finsen's apparatus can be applied, he and his assistants should resort to the galvano-cautery, iodine, and other solutions—or in plain words to methods of treatment which were in vogue long before any of the newer methods. This is all the more extraordinary when we consider his own statement that three-fourths of the cases had disease in the mucous membranes of the nose and throat, and this statement is still more striking when we consider that other operators have had a considerable amount of success with *x* rays and high-frequency in the nasal and buccal cavities.

Fig. 4.—Lupus ; after treatment with *x* rays.

I have made inquiry at the Glasgow Royal Infirmary, and find my colleagues in the electrical department are employing Finsen's light treatment less frequently than the other, and, as far as can be judged, with no appreciable loss or disadvantage to the patients. I have often used the light treatment, and in cases where the disease passed from the nares on to the face have had experience of both regions, internal and external. Perhaps for the reason that most of my work has been in a special department of surgery, and the most of the cases under my personal observation being lupus of the nose and throat, I have come to the conclusion that, for my purpose at least, the *x* rays are more useful. Sometimes the static machine or high-frequency currents have been selected instead.

When we come to the question of high-frequency currents, it seems difficult to get as definite statements as are quoted above when speaking of light treatment. I am quite aware that many experimenters, many of whom probably have only one agent at their disposal, find high-frequency of great use in lupus and rodent ulcer. It is not to be forgotten, moreover, that high-frequency currents have been more in evidence before the public, at least in connexion with experimental research, in the therapeutics of malignant disease. Judging from these workers with whom I have come in personal contact, I should say that the most striking results in lupus, rodent ulcer, and superficial epithelioma have so far been obtained by means of the excited *x*-ray tube. Where an operator has asked my opinion as to the most useful of these agents in these three affections, and where he has only been desirous of selecting one, I have of late suggested *x* rays in preference to the other two. On the other hand, in hospitals and in fully-equipped private laboratories, remembering, as one must do, the magnificent results of Finsen above referred to, and the claims of those working with high-frepuency apparatus, there is no reason for thinking that further experience can be dispensed with. Much requires to be done yet before any truly valuable comparison can be attempted. I will not here attempt to compare these three methods with surgical procedures, but I think it is only

fair to say that in lupus many cases which had been operated on by surgeons with only temporary success followed by recurrence, have come under my observation, and been apparently cured by means of the *x* rays without recurrence for a longer period than by surgical procedure. I make no reference here to the after-effects for the simple reason that the cosmetic value of *x* rays is generally admitted. Speaking of rodent ulcer, there is one observation which I desire to make with regard to surgical procedure, and that is that I dread nothing more than taking up a case which has passed through the surgeon's hand. I will now show you a number of cases of lupus and rodent ulcer treated by me, leaving you to judge of the results, and the least successful are one or two rodent ulcers for which the surgeon had first operated. In two cases I have had absolute failure, and there the parts had been previously surgically removed. I deem it of supreme importance that those parts of the tissues which are necessary for the reproduction of epithelial structures should be as little interfered with as possible. Even in an ulcerated part there is often enough tissue left by nature to give a start to the new process; but where the skin, subcutaneous tissue, and it may be the bone below, have been completely removed, the results are most seriously interfered with. I shall reserve all reference to malignant disease until further on in this demonstration.

Probably no more important question can arise than that of recurrence, but of course this applies to surgical and all other procedures. In a large number of cases the word recurrence is a mistake. It simply means that the whole disease had not been removed before the patient was dismissed. In lupus and rodent ulcer the patients if at all possible, should be kept under observation for long periods after the disease is supposed to be healed, and they should be warned that if any other illness such as influenza or debilitating affection supervene, the diseased parts should be carefully looked after until all weakening constitutional effects have been removed.

Clinical Results.

I shall first refer to the results obtained in lupus because they will not occupy much time. There can no longer be any doubt as to the value of Finsen light, *x* rays, and even high-frequency in this affection, whatever may be the preferences of different operators. The cases to which I referred in last year's demonstration have, after twelve months' further observation, confirmed all that was claimed for them a year ago. Similar results are being obtained in every centre where well-equipped hospitals have been carrying on experiments. Here at least there is a growing tendency on the part of medical practitioners to send their cases to our hospitals, and many who have hitherto preferred surgical interference are giving one or other of the newer methods a fair trial. Of this we have abundant evidence in the number of patients presenting themselves for treatment at the Royal Infirmary. In not a small number of these surgical aid has already been obtained. I will show you a series of photographs upon the screen to illustrate these, and will take one or two special examples to illustrate what I have been saying. The patient to whom I am specially calling attention had been nine years ill, had been operated upon several times, and you see the results after three months' treatment with the *x* rays (Figs. 3 and 4).

Passing to the consideration of rodent ulcer, let me again remind you of the importance of keeping such cases in a class by themselves. Special reference was paid to this in my paper to the British Medical Journal on June 6th last. By way of emphasizing this let me point out that during the past year I have had an opportunity of collecting over 10 papers upon this subject, and in a large percentage of these it was abundantly evident that what the authors referred to as cancer, epithelioma, and carcinoma were really cases of rodent ulcer. In consequence it is impossible at present to classify the results in a satisfactory way. The whole history of the affection is so different from what is ordinarily termed cancer that it is unfair to consider it as such if we are to give the profession a genuine idea of the value of any of our recent electro-therapeutic methods. I will throw upon the screen a series of pictures of such cases, and will again select one of the face and nostrils as typical of the results of *x* rays (Figs. 5 and 6). The same remarks which I made about lupus apply to this affection. The results from different quarters are ever becoming more encouraging, and there is an increasing number of patients presenting themselves or being referred to the electrical departments by the medical advisers.

Passing to the much more serious question of malignant disease proper, let me first say that even here some more definite classification is advisable than some writers seem to think necessary. For example, epitheliomata of the face or superficial parts, or even recurrence after operation in parts which the surgeon can reach by such means, are not to be placed in the same category as malignant affections deeply seated in the viscera of the thoracic or abdominal cavities. Of course there are regions within cavities, such as the nose, throat, and uterus, which do not quite come under either of these two classes, and which, occupying as they do a sort of intermediate position, may fall into the category of those which can be treated with some prospect of success, and those in which little or no good can be obtained. The effects in a number of these cases I will now show you. In the first of these, a patient aged 70, you will see the results of *x*-ray treatment carried on for five weeks. This patient refused surgical interference, and came specially for *x* ray treatment. I personally recommended him to allow me to excise the tumour, but he selected this agent. The disease had lasted for seven or eight years, but had only taken to rapid growth within the last twelve months. The glands were not enlarged. Let me select another case from the photographs shown and one which was published from my former papers. In this case an undoubted epithelioma which occupied the whole interior of the nostrils, and was of three or four years' duration, has entirely disappeared. There was no glandular enlargement in this case either. My colleague, Dr. Riddell, recently showed a case of mine from the Royal Infirmary, Glasgow, in which a sarcoma rapidly growing and filling a large portion of the left nostril has entirely disappeared. I have more than once at this Society brought under observation several cases of malignant disease of the mamma in which recurrence had taken place more than once after surgical operation, and in which the neoplasms, undoubtedly malignant as diagnosed by the surgeons and after microscopical examination, had disappeared under *x*-ray treatment. Such cases are typical of those which have given rise to the hopes that one or other of these agents, more particularly *x* rays, would cure cancer, but another year's experience has more than confirmed what I have already said, that the serious deep-seated affections which in the public mind at least may be considered synonymous with the word cancer, have so far baffled us. The problem

Fig. 5.—Rodent ulcer of 20 years' duration.

ins to-day as great as ever. Many suggestions have made whereby we may be able to try to pass the agent gh the normal tissues without doing harm to them, and so k the diseased tissues at a distance from the surface. his purpose the penetrative rays alone should promise est results, and probably by ionization. Considering ve know so little about how these forces act it is not to ndered that the best agents to be introduced into the s are not easily named. If one were quite sure that in of superficial mischief the results were due in any way nizing of the air, then the introduction of oxygen in us or liquid form might be tried. Salts of quinine and agents have already been tried, either by absorption gh the alimentary canal or injection into the tissues, l this work is so far experimental at present.

this time all we can say is that however much we may it. complete removal of the disease at the earliest stage ble by the surgeon is the only safe and genuine recom- ation to patients suffering from malignant disease at nt. There is no reason, however, why in many instances hould not be followed up by treatment with the *x* rays, view to the prevention of recurrence.

en tumours, especially those that can be reached, have l the aid of the surgeon, an be no doubt in many ces of what I have pre- y stated in former de- rations about palliative . the stimulation of tion to healthier condi- the removal of bleeding es, and offensive odour, general amelioration of tient's condition. In a r of cases of affections throat, more particu- n the regions of the from actual observa- am inclined to think e are justified in claim- prolongation of life. Of it is only fair to state ast as in all other me- f treatment recurrence ake place, and perma- of beneficial results, superficial cases such ve shown you to-night, be claimed until more as elapsed.

e is one supreme diffi- which all workers feel riments bearing upon eatment of malignant , and that is the want nite knowledge about logy. We have seen much weight Finsen to the presence of rganisms in lupus, hether we agree with not as to the possibility of directly destroying these ms in the living tissues, and whatever his admirable may be due to, the fact remains that there is a definite f satisfaction, when working with such an affection, as s we accept a pathogenic cause. Unfortunately, the cannot be said of malignant disease, and, when ing recent methods of treatment, some say the only tory way to approach the subject is from the etiolo- andpoint, and to an extent it may be admitted this is The history of medicine, however, shows that we have past been forced to seek relief in many affections, such hilis and malaria, without a knowledge of cause. A study of the most recent work upon the etiology of only shows us how little is at present known. One of est contributions to this subject of late was the Brad- cture delivered by Henry Morris, and published in the MEDICAL JOURNAL of December 12th. In a masterly of the most important theories he deals specially with robic theory. The schizomycetic, psorospermic, and ycetic theories are all advanced, but he dismisses the lity of such in the following language: "In short, fission, fungus, yeast fungus, nor psorosperm—neither m, blastomycete, nor protozoon—has up to the pre-

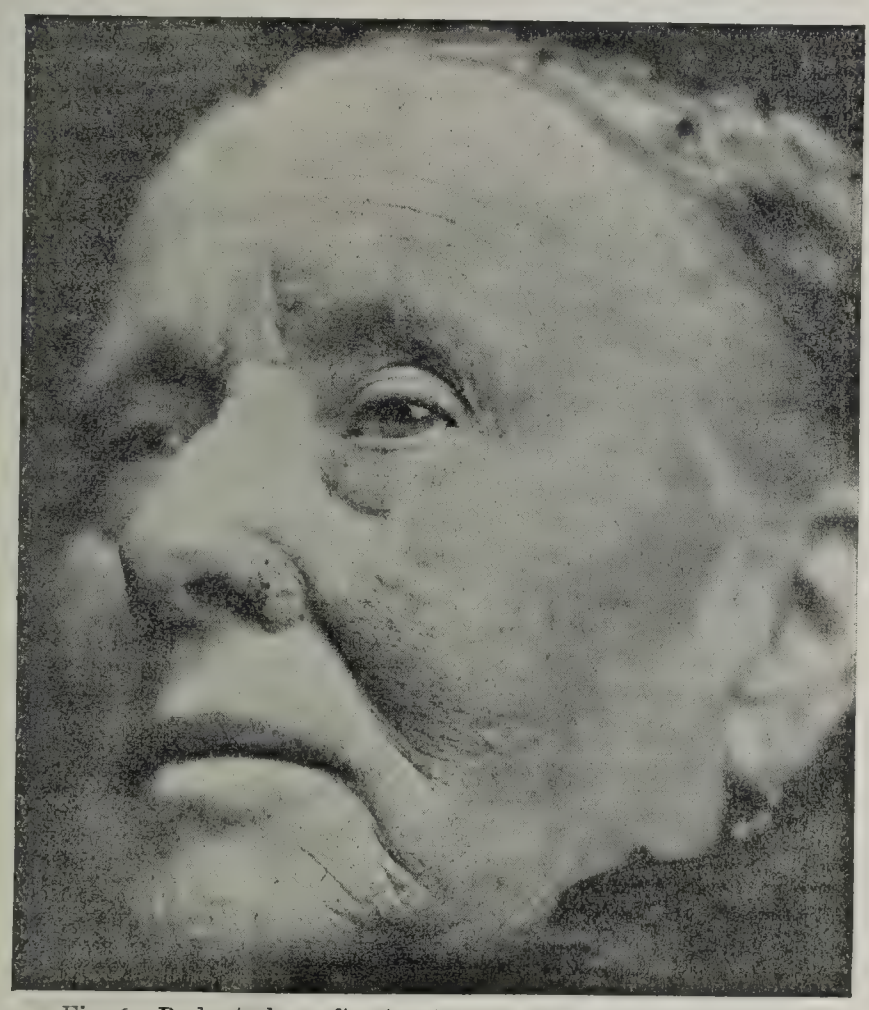

Fig. 6.—Rodent ulcer after treatment with *x* rays for 2 months.

sent moment been satisfactorily shown, in spite of years of patient study by many skilled workers, to be in any sort of casual relationship to these diseases."

The same number of the JOURNAL contains a paper by Mr. Plimmer which shows that the last word has not yet been said about the possible parasitic theories involved, and this writer ably deals with the prevalence of the disease in certain districts due to possible local conditions, The writer closes with an able advocacy of all the views in favour of the parasitic theory and a description of certain bodies to be found in the tumours themselves. Mr. Henry Morris falls back upon the tumour-germ theory of disease for which we are indebted to Cohnheim and Durante, and so much is he impressed with it that he makes the following statement: "There is one theory which is more consistent than any other with all that we know about malignant diseases which fully explains the origin of very many non-malignant tumours, and is, I believe, destined to be accepted as the true explanation of the genesis of malignant new growths."

Curiously enough, practically at the time these words were being spoken a paper was offered to the Royal Society by Professor J. Bretland Farmer, F.R.S., J. E. S. Moore, F.L.S., and C. E. Walker. The whole value of their work depends upon the accuracy of the observations made, and doubtless these will be tested and confirmed or otherwise by many observers in the future. Briefly stated, these gentlemen find that the malignancy of tumours is intimately connected with the conversion of the small somatic cells of the body into reproductive, and they describe the similarity existing between malignant tissues and what is found in the sexual reproductive glands, the terms gametoid and gametogenic are used. They first of all trace the changes which take place normally in the cell during proliferation. They describe the process of the somatic division and the heterotype, and come to the conclusion that in malignant disease the cells of tumours which resemble the reproductive elements are characteristic and are not found in benign tumours, but are due to the conversion of somatic cells as the result of a stimulus of a kind they admit is at present unknown. The authors make a special point of the fact that the cells which undergo these changes must in no sense be considered embryonic because they are somatic in character, the cells possessing the potentiality of the normal number of chromosomes and exhibiting them during division. There are some very striking sentences in their work. For example, they say it is a fact of the highest importance when once the heterotype division has supervened all the descendants of that cell retain the reduced number of chromosomes in normal cases. The importance of this in view of those who seek for the introduction of micro-organic life to produce the stimulus which brings on activity and by the reproduction of the organisms to continue that activity, or, in other words, to constantly reproduce the cause, cannot be overlooked.

According to these writers, "The essential features wherein this heterotype mitosis differs from those of the body or some of the organism (whether plant or animal) as well as those in the cell generations of the reproductive tissues that have preceded it, are as follows: (1) The period of rest and growth; (2) the chromosomes where they are formed from the resting nucleus are present in only half the number of those occurring in the rest of the dividing nuclei of the organism; (3) the forms exhibited by these chromosomes are strikingly different from those of other nuclei; they produce figures resembling loops, rings, aggregations of four heads, and so on.; (4)

their division on the spindle is transverse and not longitudinal.

The subject being of great interest the following explanation made to me by Professor Farmer himself is important. In a letter he says: "The conversion of somatic cells as the result of a stimulus of a kind as yet unknown. This is a familiar conception to botanists, by whom the sharp distinction between somatic and reproductive or gametogenic elements has never been recognized. Perhaps the reason why it has not been so admitted by many zoologists is due to the pathological consequences of its occurrence in animals in which the tissues are more definitely destined to particular ends than is the case with plants. Without committing myself to a definite formulation of an opinion, I might suggest that possibly all cells are potentially reproductive — as philogenetically they certainly are —and that the somatic characters impressed on the majority during ontogeny conceal, but do not entirely abrogate, this potentiality, which might thus be reawakened under appropriate conditions." The observation applies to carcinoma and sarcinoma. If these observations be correct, then the need for explanation in an embryonic cause of tumours would disappear, because, amongst other reasons, if the ordinary somatic cells can undergo this reduction, then it is unnecessary to seek for embryonic tissues at the seat of the tumour, either by inclusion or post-natal processes.

Fig. 7.—Epithelioma of lip at beginning of treatment and one month after.

In Mr. Plimmer's paper he says, in conclusion, that the only hopeful outlook in cancer would seem to rest on the ground of the parasitic theory. Without venturing into the realm of prophecy let me say that we would fain hope that malignant disease will one day be commanded whatever its cause be, parasitic or not. A careful examination of what is seen macroscopically as well as microscopically when treating malignant disease by means of the *x* rays tends in some small way to confirm this. In cases where I have examined the tissues microscopically, and even in instances where specimens have been sent without any history to the pathologist for confirmation of my own observations, I have received abundant evidence of a destructive influence upon the diseased cells, as evidenced by the disappearance of the nucleus, the body of the cell itself, degeneration and absorption to be followed by healthy tissues to fill in the gaps. Clearly, therefore, we have evidence of forces existing in the tissues which can cast out the neoplasms under certain conditions, whatever be the cause. We may also ask here what is the meaning of the inflammatory surroundings and other infiltrations which are not of the nature of the neoplasm itself, but which are so abundantly present wherever we have malignant disease invading healthy tissues. The very ulceration accompanying all this is evidence of some attempt to cast out the diseased part. A few years ago before the etiology of tubercle was understood, who would have believed what is now known to be an accepted fact in connexion with the affection—namely, that a number of people who have been affected more or less in one of the tissues of the body at one time or another during life and in whom nature has evidently been able to arrest the disease? May the same thing not possibly occur in malignant disease? If the true history of the human race were known, it impossible to conceive that infection may take place to some extent in number of instances and that this is controlled by the natural forces which we are referring. In other words that in cases which come under the observation of the physician or surgeon are the cases in which for some reasons at present unknown, resistance to the invasion of the disease has not been sufficient to arrest its progress.

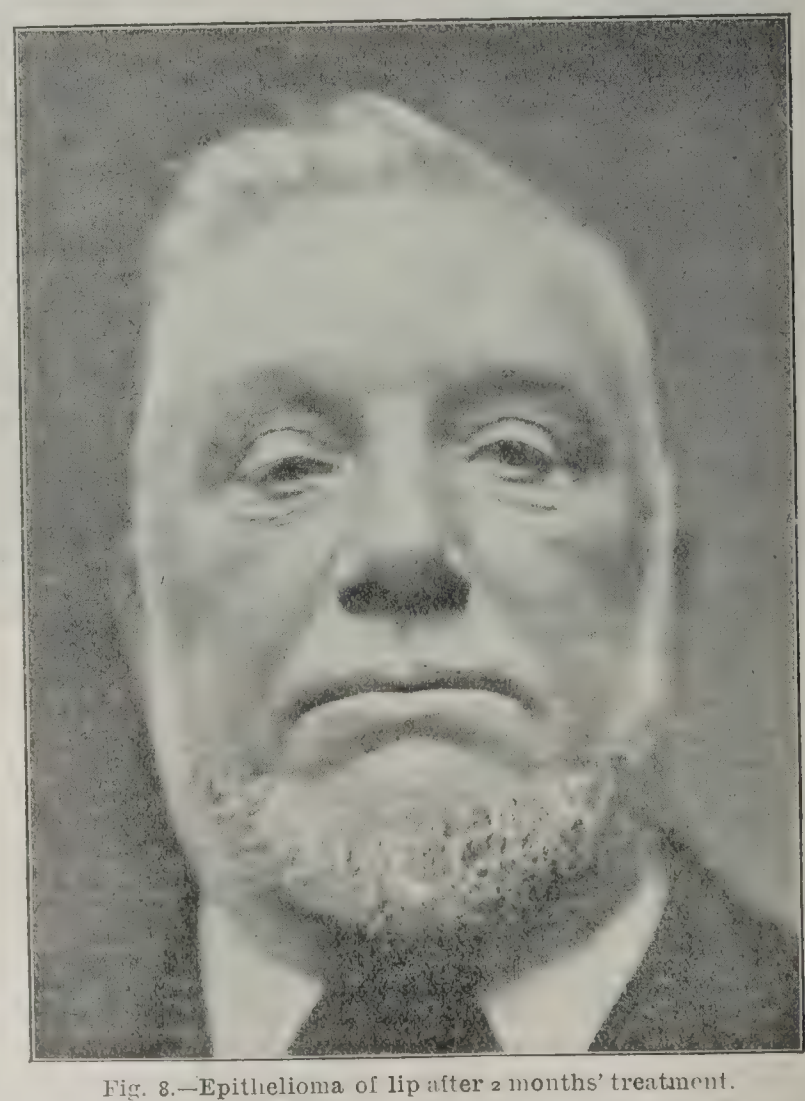

Fig. 8.—Epithelioma of lip after 2 months' treatment.

In all the demonstrations which I have given here I have never claimed more than has been justified by the results. Notwithstanding the great work which is yet to be accomplished, I am more hopeful than ever that some malignant affections will be commanded, and this view largely founded upon what one can see from the examination of the results even in the worst of cases when patients are undergoing such treatment as I have been describing to-night.

THE Health Bureau of Rochester, N.Y., has directed to treat pneumonia as an infectious disease, and to physicians to notify all cases. A new map is to be placed in the Health Office upon which are to be designated, by means of pins, all cases of pneumonia and the sanitary conditions accompanying them.

A TOOTH IN THE TRACHEA DURING ANAESTHESIA.—A case of interest in relation to the treatment of patients in difficulty under anaesthesia has been noticed in a German contemporary (Salin, *Zentralbl. f. Gynäk.* No. 11, 1904, p. 3). The original was in *Hygiea* II, Jahrg. 2, 1902, October). It occurred in Sweden. A patient suddenly ceased to breathe during a supravaginal hysterectomy for fibroid. Artificial respiration and manual pushing forward of the lower jaw proved ineffectual; the anaesthetist therefore opened the mouth forcibly with a wooden spatula. Something was heard to snap, but no broken tooth could be found. The patient began to breathe well, and the operation was concluded. For a few days all went well, but the patient discovered that she had lost a tooth. On mention being made to her of the fact she declared that she could feel the tooth in her throat. Later on she thought it had stuck in her chest. On the fourteenth day after the operation she left her bed. On the fifteenth the temperature went up to 102.2°, and coughing set in. At length during a violent paroxysm the missing tooth was coughed up. The fever and coughing at once ceased.

TREATMENT BY ROENTGEN AND RADIUM RAYS.*

By REGINALD MORTON, M.D., F.R.C.S.E., Etc.,
edical Officer in charge of the Electrical Department, London Hospital.

HE discovery of the therapeutic property of *x* rays, like the rays themselves, was more or less accidental. The pioneers the *x*-ray world, continually exposing their hands to the ys, began to notice after a time peculiar and unpleasant anges in the skin. A form of dermatitis developed, of a ry obstinate character, especially if the *x*-ray work were ersevered in. The changes in the skin of those parts most equently exposed were of course quite unexpected and the ndency at first was to blame the developing solutions or ything but the real cause—the *x*-ray tube itself.

Finally parts were exposed deliberately to the action of the ys, and it was found that the dermatitis could be oduced at will. It was also noted that, if sufficiently pronged, a destructive inflammation was produced causing oughing of the skin and more or less of the subcutaneous ssues, finally leaving behind an ulcer possessing unique aracters, the chief of which was its great chronicity.

It was evident that here was an irritant and caustic having aracteristics peculiarly its own and the effort to make use it in the treatment of diseased tissues was merely a velopment along normal lines.

The changes observed on normal skin under the influence *x* rays are (*a*) pigmentation, (*b*) erythema, (*c*) blanching and osening of hairs. This order is not invariable. In individuals who burn rather than tan after exposure to ordinary nlight the erythema usually precedes the pigmentation. hese changes are superficial and of no serious moment and the exposure to *x* rays be stopped at this point, the skin pidly clears up and resumes its normal condition.

If, however, the exposures are continued another set of fects begin to manifest themselves, the first and most portant of which is dermatitis or *x*-ray burn. The extent this burn varies with the amount of exposure, and it will be und possible to divide *x*-ray burns according to their severy into degrees very much as in the case of ordinary heat rns (Pusey and Caldwell).

First Degree.—Dry dermatitis, without destruction of tissue, st appears around the follicles as a punctate redness, adually becoming diffused over the whole exposed area. It not accompanied by pain, but perhaps by a burning or ngling sensation. If the process stops here; irritation raply subsides, there is some desquamation and, except for more less pigmentation, the area becomes normal.

Second Degree.—This proceeds as above, but goes on to the velopment of a bright red dermatitis with vesiculation. esicles rupture, leaving a weeping surface which gradually comes covered with epidermis and returns to the normal, in the first degree.

Third Degree.—Here we have a dark red, angry dermatitis ith intense congestion. Redness disappears on pressure, t immediately returns. Vesicles and bullae develop, rupre, and leave a raw weeping surface, upon which is formed greyish necrotic membrane composed of epithelium. This adherent, and when removed forcibly the surface bleeds eely. Patients as a rule do not complain of much pain, but ere is always some, and also burning or itching, which may severe and last a long time. The connective tissue is not stroyed, but may be swollen and infiltrated.

The process of resolution after a burn of this degree is not simple as in the first and second. Some cases throw off e membrane quickly and it is not reformed. Epithelium ows in from the margins and from small islands dotted er the surface of the ulcer, and, as a rule, healing will be mplete in from three to four weeks from the development the bullae. In other cases relapses occur which may rry on the process for three or four months. The newlyrmed epidermis is generally very red for some weeks, and e skin is left smooth, thin, and softer than normal.

Fourth Degree.—In the development of this form of *x*-ray rn, the congestion goes on almost to the state of stasis. he skin becomes blue or purple, brawny, and tense, bullae re formed, and later on there is actual necrosis of the skin d subcutaneous tissues. The necrotic tissue is of a dark rey colour, tough and adherent and the line of demarcation not well marked. It remains *in situ* for a very long time—months—if left alone. After it is thrown off the surrounding tissues gradually regain tone, the ulcer contracts and heals over in the ordinary way, except that the scar is more vascular. This is a type of burn seldom seen nowadays and rarely if ever produced intentionally.

A friend of mine who produced intentionally a severe *x*-ray burn on the back of his hand, has now in the scar numerous telangiectases which are apparently permanent.

On the hands of those who are exposed to *x* rays more or less continually—*x*-ray workers—and who do not take precautions, there is developed a chronic persistent atrophic dermatitis seen almost entirely on the backs of the hands. The skin becomes thin and cracked, particularly about the joints, pink in colour, and marked with small telangiectic areas (Sequeira)—like small capillary hemorrhages. The nails become longitudinally striated and brittle. There may be exfoliation of epidermis, and suppuration under and loss of the nails. In all degrees of *x*-ray dermatitis the hairs suffer, they may be merely decolorized, but more often they fall out.

From the early effect on the hairs, and the dry, cracked condition of the skin after prolonged exposure, it would seem as if the hair follicles and sebaceous glands were peculiarly susceptible to the influence of *x*-rays.

The effect of *x* rays on deep-seated tissues is very much less than on the skin, for the very obvious reason that most of the rays are absorbed by the latter, and the deeper tissues come in only for a very small remainder. But that the *x* rays do affect the deeper tissues is beyond doubt; a happy instance of this is the relief of deep-seated pain which frequently follows exposure to their influence. In the treatment of a case in which pain is a feature, the relief—sometimes after a single application—is one of the most common observations, and this alone justifies its use in cases not otherwise very suitable. Individuals vary as regards susceptibility. Speaking generally, fair people are more so than dark, and it is well to remember that an area which has been the site of an *x*-ray dermatitis is more susceptible than it was before. No part of the body seems more susceptible than another, except the eyes; conjunctivitis being very easily produced. We are occasionally asked to treat cases of trachoma, and some of these have been apparently cured by this means, but the application requires to be made with the greatest care and skill.

The microscopic changes are very interesting, and consist, in general terms, of a slow degeneration affecting principally the epithelial cells, and, to a lesser extent, the cells of the glands and vessels. The cells of connective and muscular tissues are only affected in the very severe forms of *x*-ray burn. As the degeneration proceeds inflammatory reaction comes on, vessels are dilated, and there is a marked migration of leucocytes and red corpuscles. This active process of leucocytosis seems to be the chief agent in effecting the removal of masses of tissue which have undergone great degeneration.

The changes in the blood vessels are important, and, according to Gassmann, are as follows:

The vessels are changed into irregular swollen masses, the lumen being sometimes obliterated and sometimes filled with corpuscles, and surrounded with a mass of infiltrating cells. The intima is thickened, endothelium swollen and detached from the wall. In the larger arteries and veins there is also thickening of the intima, proliferation of the endothelium, and partial or complete obliteration of the lumen. There is considerable vacuolation of intima and muscular coat. In the latter the cells seem pressed together, are smaller, and the fibres between them do not stain well. Leucocytes are present in the middle and especially the outer coat. It seems to me that in these changes in the vessels we have an explanation of the great chronicity of the lesions produced by prolonged exposure to *x* rays. It is a case of starvation due to the interference with the proper supply of blood to the parts.

Practical Applications in Therapeutics.

The first disease which occurs to one is rodent ulcer. In the treatment of this disease by *x* rays we have most distinctly a real acquisition to medical science. This disease is incurable otherwise; total extirpation by surgical means is not a *cure*. Its almost inevitable persistence after other forms of treatment is familiar to most of us. In short, a cure formerly was the rare exception, whereas now under *x*-ray treatment a cure is the almost invariable rule.

It seems to be primarily a disease of the sebaceous glands. It spreads locally all the time, but does not disseminate along blood or lymph channels. I mentioned above the apparent

* A paper read before the Kensington Division of the Metropolitan Counties Branch of the British Medical Association.

elective affinity of the *x* rays for the sebaceous glands. The great success of this method of treating rodent ulcer would seem to bear out this idea. Another point bearing on this is the fact that *x*-ray dermatitis is never seen on the palm, which has few, if indeed any, sebaceous glands. Of course it is not exposed to anything like the extent the back of the hand is, but it is just possible the absence of sebaceous glands may have something to do with it.

From rodent ulcer it is but a step to cancer; in fact I am not sure that rodent ulcer is not believed to be a form of cancer by some authorities. It is certainly sometimes very difficult to be sure which we are dealing with.

On the subject of cancer you will naturally be inclined to ask the question, Have any undoubted cases of epithelioma ever been cured by *x* rays? There is no doubt in my mind that the answer is "Yes," but it will be found that the successful cases were almost invariably superficial. Such cases are most often dealt with surgically, and rightly so; but sometimes the patient absolutely refuses operation, and under such circumstances, provided the growth is quite superficial and localized, the *x* rays can be depended upon to effect a cure in almost all cases.

One of the greatest uses of *x* rays with respect to cancer is that of their application after an operation for the removal of a cancerous growth. I think if ten or a dozen applications were given after the wound had healed, as a matter of routine, we would hear less of recurrences.

A common type of case sent to us for *x*-ray treatment is that in which we find numerous small lymphoid nodules in clusters, and in the immediate vicinity of the scar after an operation for the removal of a cancerous growth. These nodules are in or immediately beneath the skin, are undoubtedly cancerous, and are easily removed by *x* rays. Unfortunately, however, these recurring deposits do not spread only towards the surface, and the great majority of these, as indeed of all the cases that are sent to us for *x*-ray treatment, are foredoomed. All is not hopeless, however, as we are sometimes enabled to discharge a patient as apparently cured; but of course all such are kept under observation and instructed to report themselves immediately on the slightest suspicious sign of recurrence. But whatever the final result may be there is in all cases evidence of good effects locally—inhibition of the growth at least, if not definite reduction.

The microscopic changes in a cancer undergoing *x*-ray treatment are interesting. The young cells at the periphery of the cell nests are seen to be degenerating and breaking down, they lose their outline and the nucleus is fragmented.

These changes can take place in a growth covered by sound skin and without any signs of the skin breaking down. From this it would appear that the rays have some selective action on young cancer cells. As bearing on this statement, I saw a case at one of the large hospitals of a cancer of the neck, covered by sound skin, which softened and broke down under *x*-ray exposures. It discharged a quantity of liquid or semi-liquid material containing numerous white masses which were undoubtedly cell nests in an extreme state of degeneration. That such changes do occur in the cell masses of epithelial cancers under the influence of *x* rays has been clearly demonstrated by Pusey. The same writer thus sums up the action of *x* rays on cancerous tissues:

> It is evident that we have to do here with an agent of extraordinary character; it destroys tumour cells which have power of proliferating and of infiltrating and destroying surrounding tissues almost regardless of their nature and structure. It attacks the youngest and most actively proliferating and most destructive cells, while its effect on the normal tissue is of markedly less severity.

In this very power of softening and breaking down cancerous tissues we are confronted by fresh difficulties. In the first place a considerable amount of toxins is sure to be liberated, and ultimately have an unfavourable influence on the patient's general health. I think it should be a rule in treating cancers of any size to promote the elimination of these toxins by every means at our disposal, such as iodides, purgatives diuretics, and moderate outdoor exercise if circumstances permit.

A greater danger, also, has to be considered, and that is the one of disseminating the disease by loosening and setting free numerous cancer germs to form nuclei of fresh growths in distant parts. I am strongly of the opinion that in the *x*-ray treatment of large cancerous masses this is no imaginary danger, and is one reason why attempts to deal with them have met, so far, with so little success.

There is one variety of cancer which gives very good results with the *x*-ray treatment, and that is atrophic scirrhus. Here we have a growth undoubtedly cancerous, but quite localized, and tending to shrink rather than to spread, but yet having the power to infect, more or less, distant parts, sooner or later, if not removed or destroyed. So far I have treated but one case of this kind, and the growth disappeared with surprising rapidity. Several other observers have noticed this.

Sarcoma.—The changes produced by *x* rays are very similar to those in epithelioma. There is the same destructive effect on the younger and most actively proliferating cells, but from the fact that sarcomata are vascular growths and more dependent on a free blood supply for their development, the *x* rays act with greater efficiency by virtue of their effect on the smaller blood vessels—thickening of the intima, with narrowing, or even obliteration, of the lumen. For this reason, under favourable conditions, we should get comparatively good results; but, unfortunately, most cases come to us after other methods have been tried and found wanting and local and general dissemination already begun.

To get good results we ought to be well on with our treatment before there is any dissemination, since the superficial parts of the growth are the first to succumb, and not until they are removed do the deeper portions come in for efficient treatment. From these deeper parts dissemination and local invasion may, in the meantime, extend to the point of rendering our efforts futile.

A case of sarcoma in the posterior triangle of the neck was treated at the London Hospital by *x* rays as a last resort. So far as local appearances were concerned this case did remarkably well. The tumour was about the size of half an orange, and it became so reduced that the normal contour of the neck was almost restored. Unfortunately, however, the disease invaded the chest, and the case passed out of my hands.

Another case treated in the same department—sarcoma of the scalp in the middle line at the back portion of the frontal bone—was twice operated upon, and recurred after each. Under the *x* rays the growth entirely disappeared. That was seven months ago, and there is still no sign of recurrence.

Tuberculosis.—The treatment of some of the manifestations of this disease by *x* rays is now an established method, notably in the case of lupus vulgaris. This was the first disease to be treated by *x* rays, and was suggested by the success of Finsen with his light treatment. Sufficient successful cases have been reported to give the *x* rays an established position in the treatment of this disease, and as a matter of fact there is a growing impression that it is as good, or even better, than the Finsen method. Next to rodent ulcer, the treatment of lupus is the most successful application of *x* rays. As compared to the older method, a much smaller number of shorter exposures are required, and in the great majority of cases the whole area can be treated at once. It is thus much less tedious, is cheaper, and apparently equally efficient. Cases, more or less successful, of the treatment of other tuberculous lesions have been reported, such as enlarged cervical glands, ulcers, scrofuloderma, and verruca necrogenica. Leigh reports a case where excision of the elbow was considered necessary, but was exposed two or three times weekly for two hours to *x* rays. After six exposures the inflammation disappeared, and there was no recurrence after eighteen months.

Tertiary Syphilides.—The results of the treatment of these have not been such as would justify one in substituting it for known methods of treatment. I might mention, however, that recently I was permitted to see at a large London hospital an extensive case involving the whole leg, which had resisted the usual methods and which took a decided turn for the better after *x*-ray treatment was begun.

Psoriasis.—Good results have been obtained by competent observers in the treatment of this disease by *x* rays. It cannot be said that it does anything to prevent recurrence, but the method is easy to apply and much more pleasant than the various evil-smelling compounds ordinarily used, and it has succeeded in bringing about a temporary alleviation in cases where all ordinary methods of treatment had failed.

Chronic Eczema.—There is abundant evidence to prove the value of *x* rays in this troublesome complaint, and often in a surprisingly short time. For many years before *x* rays were discovered I had suffered from a dry and very irritable form of eczema. A short time after I began to use *x* rays I noticed the eczema was very much better, but it did not occur to me to connect the two together. Considering what we now know about the therapeutic value of *x* rays, the ex-

lanation is quite clear, and though I have never deliberately reated the eczema, so long as I am carrying on *x*-ray work he eczema remains in abeyance.

The number of diseases in which *x* rays have been tried is ery large, and would take more time than we have at our isposal to even enumerate, let alone report the results ob-ained. It will probably be some time yet before the thera-eutic value of *x* rays comes to be accurately defined; but o far as the investigation has been carried, it would seem iat for the treatment of all chronic, obstinate, and malignant onditions of the skin and easily-accessible parts we have in rays an agent of very great value.

The Technique.

In the selection of a coil for *x*-ray therapeutics it is impor-nt to see that it gives a thick fat spark. A coil giving such spark, 6 in. to 8 in. long, will meet all requirements. In the noice of tubes, this depends entirely on the effects desired; he softer the tube the more superficial the effect. The thera-eutic power of the very hard tubes is very limited. The ys from these penetrate so readily as to suffer little absorp-on by the tissues. Having chosen a tube for a case always se the same tube for that case, as it will be found much sier to keep control of the resulting effects.

When treating localized conditions such as rodent ulcer and pus it is necessary to protect the surrounding parts. Thin eet lead is mostly used, but special tubes have been devised r application to cavities and very localized areas. In treat-g cancer cases it is advisable to screen as little as possible. Elaborate schemes of technique have been devised and are actised by some individuals, the idea being to arrive at a eans of producing a certain effect, neither more nor less, as sired variations in personal susceptibility, and the difficulty maintaining exactly the same conditions in battery, coil, d tube at all times have rendered such efforts more or less ortive.

The routine method employed at the London Hospital is as fe as any I know of. The tube is fixed about 9 in. from the posed surface; a full span of the hand gives this distance th sufficient accuracy. Applications are made for ten nutes on an average of three times a week. This method ables one to keep in touch with the progress of the case, th little risk of producing a too severe dermatitis in the ent of landing on a very susceptible individual. The ques-n as to whether dermatitis should be produced at all or not one about which there has been some difference of opinion. obably the best results are obtained by producing and intaining a mild degree of dermatitis; the great difficulty to avoid overdoing it. Practice and experience are the y sure guides to successful treatment.

General Conclusions about *X* Rays.

n conclusion, we may take for granted that in *x* rays we e an agent of considerable power and one capable of doing ch good in the cause of suffering humanity—the results in ent ulcer alone represent a great triumph—but also capable loing much harm in the hands of unskilled and unqualified sons. There seems to be a popular idea, among some ple at least—for which I think we have the instrument kers to thank in great measure—that all that is necessary o buy a more or less elaborate outfit and learn to work the tches. The extent to which *x*-ray work and medical tricity generally is being commercialized is deplorable. titutes under various titles are springing up in the various ts of London and the provinces. They advertise freely in lay press, and receive and treat all and sundry who sent themselves. One of the worst features of the case is many members of our profession habitually employ ualified men to do their electrical treatment—a practice to be distinguished from "covering," which is very rely dealt with by the General Medical Council. The ject really deserves a better fate than to fall into the ds of laymen to be exploited as a commercial undertaking. proper medical training is as essential here as in any r branch of medicine, and the more one has been trained lectricity the better will he be in a position to deal with various problems which are always arising. That disaster etimes follows the want of the above essentials is exempli-by occasional actions for damages in the law courts.

Radium.

is, the most wonderful discovery of the scientific world ecent years, is a metal forming the top member of calcium-barium series. It is obtained from the barium lues which are left in the extraction of uranium from pitchblende. It gives a red colour to the bunsen flames—resembling strontium in this respect. Almost all commercial radium is really a barium salt, containing a greater or lesser percentage of the corresponding salt of radium—usually the bromide. The physical properties of this wonderful substance have been already described in the British Medical Journal by Drs. Macintyre, Dawson Turner, Mackenzie Davidson, and others. Of all its wonderful and unique properties that of giving off rays which have an active and a therapeutic action is what concerns us most. These rays are of three kinds, each having characters peculiar to itself.

α Rays.—These consist of minute particles—$\frac{1}{100}$ the mass of the radium atom—of the radium itself, which are flung off at great velocity, and if these are projected against a suitable screen they cause a very beautiful fluorescence. It requires a dark room to see this well, and we are indebted to Sir W. Crookes for devising the spintheroscope, by which this phenomenon is seen to the best effect; *α* rays have little or no penetrating power, and as we must protect the radium from moisture by enclosing it in glass or metal, they cannot exercise any action on the tissues.

β Rays.—These penetrate glass, mica, and aluminium with more or less difficulty. They are primarily cathode rays, and as such must form *x* rays in collison with a solid body. The rays so produced correspond to those given out by a moderately hard *x*-ray tube. According to Dr. Mackenzie Davidson these are the rays which cause the burning and destructive action on the skin. For this reason it would seem that they are chiefly responsible for the therapeutic action possessed by radium.

γ Rays.—These are said to correspond to the rays given off by an exceedingly hard *x*-ray tube, though I doubt if the tube has yet been made to give off rays equal in penetrative power to those possessed by a good specimen of radium. With the sample at the London Hospital weighing 30 mg., the fluorescence was easily discerned with 2 in. of cast iron between the radium and the screen.

It is difficult to say how far the *γ* rays are responsible for the therapeutic activity of radium. We have compared the *β* and *γ* rays to the rays given off by ordinary *x*-ray tubes of different degrees of hardness. It is a matter of common knowledge among *x*-ray workers that a very hard tube giving off rays of high penetrative power has much less local action on the tissues than a soft tube. If the *γ* rays are merely *x* rays of exceedingly high penetrative power, one would expect their therapeutic value to be correspondingly reduced—in fact, to practically a negligeable quantity. That such a standard of comparison is correct seems a matter of doubt. If we experiment in the dark room with a considerable mass of radium—30 mg. or more—and an *x*-ray screen, the difficulty soon becomes apparent. Holding the radium 12 or 18 in. behind a large screen, the latter is faintly but wholly illuminated, and if the hand be placed behind the screen it is seen in its gross outline as a dense black shadow. There is no greater translucency of the soft tissues, and by no adjustment of the screen, hand, and radium is it possible to get any differentiation between the hard and soft tissues. It is difficult from this to see how radium can ever take the place of the *x*-ray tube in diagnosis. It would seem that the rays given off by radium are not perfectly identical with *x* rays as we understand them, and consequently it is not safe to assume that *γ* rays have no therapeutic action because of their resemblance to *x* rays of great penetrative power.

For practical purposes we might speak of the rays of radium as of two kinds—the visible and the invisible, Specimens which have a large amount of self-luminosity are as a rule less therapeutically active. The amount of this self-luminosity possessed by the best specimens is comparatively small, but the amount of fluorescence imparted to an *x*-ray screen is very brilliant and the penetrating power exceedingly high.

Practical Applications.

These are practically the same as in the case of *x* rays. Owing to the scarcity of the substance a very much less quantity of rays are available; but while we lose in quantity we gain in convenience and direct application. There are no wires necessary carrying a current of very high potential, and its small bulk renders it easy to apply it to parts not accessible to the *x*-ray tube.

The chief results attained so far have been in the treatment of rodent ulcer and lupus vulgaris, and the number of reported cases treated successfully is rapidly increasing. Successful cases have been reported by Mackenzie Davidson, Macintyre, Sequeira, Sichel, and others.

The value of radium in the treatment of malignant disease is still under investigation. Dr. Mackenzie Davidson has reported a case of carcinoma of the breast to which radium was applied to the extent of producing ulceration and sloughs with no resulting good of any kind, and from this he thinks radium is of no use in the treatment of this form of malignant disease. It is to be hoped further trial will give more encouraging results. Exner and Holzknecht, of Vienna, have reported cases of epithelioma and melanosarcoma treated with radium with results apparently satisfactory.

Dr. David Walsh has reported a case in which radium is being used in the treatment of a cancerous throat. The case was still under treatment but he is convinced that the progress of the case has been profoundly modified, if not arrested. The same may be said of a similar case under treatment at the London Hospital. A noteworthy fact is the great diminution in the amount and offensiveness of the discharge. Full details of this case will be reported in due course. So far as we have gone there seems reason to believe that radium has a more or less benign influence on malignant growths—whether this influence is sufficiently powerful to entitle radium to be regarded in any sense a cure is a matter for further research to determine.

METHOD OF APPLICATION.

No doubt the most efficient way would be to apply the radium near the area to be treated without any intervening diaphragm. This I have tried, but it is not satisfactory, owing to the impossibility of keeping the radium dry. Moisture reduces its radio-activity very seriously, so that any advantage there may be in direct application is very soon counteracted. The same objection applies to its use through mica, though to a lesser degree: mica obstructs the passage of the rays much less than glass.

The best plan is to have it in small glass tubes 1 in. or 2 in. long, containing 5 mg. in each, as suggested by Dr. Mackenzie Davidson. One, two, or more of these may be used according to the requirements of the case.

As to the length of time between the applications and the duration of each it is impossible to lay down any hard-and-fast rule as yet. So much depends on the amount and radio-activity of the radium used. Taking that of uranium as the unit of radio-activity, the specimens of radium obtainable range from 5,000 units to 1,000,000 units or more. The plan followed at the London Hospital is to apply it for half an hour every second or third day, and there has been no severe reaction in any case as yet. Once we can obtain an adequate supply of radium of a standard radio-activity, the question of application will be very much simplified.

The following notes refer to a case of rodent ulcer successfully treated with radium, which was shown at the meeting when the above paper was read.

It is not, of course, claimed that in this case a cure was brought about in record time. Probably the *x* rays would have cured the case within a month, instead of a little over fifteen weeks. It must be remembered, however, that at the time of commencing treatment very little was known of radium in the treatment of disease. It was the first case submitted to such treatment in the London Hospital, and it was considered advisable to proceed with caution, and for this reason there were two, if not three, intervals of a week during the first half of the time, that the treatment was suspended in view of the possibility of a severe reaction taking place. We now know such a precaution was unnecessary. A further reason for the long time taken in effecting a cure was the small amount of radium available. Placing the radium the same distance from the surface of an *x*-ray screen, it was seen that an area $\frac{1}{4}$ in. in diameter was all that came within the effective field of action, and I think I am safe in saying that had there been enough radium to subject the whole ulcer to its action a dozen applications would have been sufficient to effect a cure.

In support of this assertion I was shown a case of a small rodent ulcer, $\frac{1}{4}$ in. in diameter, under the care of my colleague Dr. Sequeira, which was quite healed over after nine applications with the same specimen of radium used in this case. From a cosmetic point of view the result has been exceedingly satisfactory.

J. B., age 57, sailor, came to the London Hospital in July last, suffering from rodent ulcer. He was under the care of Mr. Eve, who referred him to me for treatment with radium.

History.—The patient first noticed a "wart" two years ago on the left side of his nose, the top of which he rubbed off while drying his face with a towel, a scab formed which in turn was rubbed off, and this process had continued more or less ever since, with occasional bleeding and a progressive increase in size.

Condition at the Time of Admission (July 15th).—There was a furrow ulcerating surface measuring 1⅛ in. by ⅞ in. on left side over the nas bone, coming down slightly over the cartilage. The surface was rais above the level of the surrounding skin and of a pink colour. Up the time of admission no treatment of any kind had been attempted.

Progress.—Ten milligrammes of radium bromide of good penetrati power were used held in a vulcanite capsule having a window of mic It was supported about half an inch from the surface and applied f 30 minutes daily except Saturdays and Sundays. In the intervals treatment a mixture of zinc ointment and lanoline was applied. there was no perceptible change beyond a slight increase of redness t days later, the radium capsule was applied almost in contact. Augu 3rd. Itching; the sore was discharging freely. August 24th, T itching had ceased, the sore was less swollen, and the surface had more healthy appearance. September 16th. The surface was n almost level with the surrounding skin. There was very little di charge. The upper and inner parts were cicatrizing, and the appea ance of the ulcerating surface was healthy, circular in shape, and ⅜ i in diameter. As there had never been anything approaching a decid reaction the length of exposure was increased to one hour. Octob 22nd. The raw surface was less than ⅛ in diameter, quite level, and ha all the appearances of a healthy granulating sore. This was qui healed on October 27th. There were 76 applications in all.

The patient was last seen on February 2nd, 1904, an except that it is more shiny, the scar very closely resemble the surrounding skin both in colour and texture.

A special feature of this case was that beyond the applica tion of a little vaseline once or twice daily, no attempt ha been made to effect a cure up to the time the case came unde observation, and that radium was the only agent used in th treatment.

My thanks are due to Mr. F. S. Eve, surgeon to the hospita for his kindness in allowing me to publish the details of thi case.

SOME TYPICAL EXAMPLES OF ROENTGEN-RA AND HIGH-FREQUENCY TREATMENT

WITH OBSERVATIONS THEREON.

BY ARTHUR W. WIGMORE, L.R.C.P.LOND.,
D.P.H.ENG. CONJOINT BOARD.

Surgeon Roentgen Ray and Electro-Therapeutic Department London Skin Hospital, Fitzroy Square.

I SHOULD like to offer a few remarks on the following case treated by the Roentgen rays and high-frequency electri current, and also on the general application of the Roentge rays therapeutically. The few cases taken from my note books from some hundreds treated at the London Skin Hospita and in private, during the last four years, are fairly typica ones, as they are all absolutely cured cases, with no retur during a long period after treatment. In the cases treated b the Roentgen rays, my *modus operandi* has been the use of Mackenzie-Davidson break with a coil of 12-inch spark and medium tube, rather hard than soft, made for me by Messrs Harry W. Cox and Co., Limited, of Cursitor Street.

I use 24 volts for the break and coil, and generally giv three ampères with the surface of the tube 4 in. from th part affected.

I generally, but not always, protect the surrounding part by thick lead foil covered on both sides with silk, as th emanations from the tube consist of a large amount of stati electricity from the surface of the glass, combined with th Roentgen rays from the interior, the lead foil thus cutting o the rays, and the silk, the static electricity. Proof of th amount of static electricity being given off, can be obtained b stroking the skin of the patient while under the rays when a peculiar rasping will be felt by both patient an operator.

My experience had led me to trust in short applications 5 to 10 minutes—never more—ceasing treatment when an marked dermal congestion occurs, but keeping the patien under observation. By these means I have been enabled t give fairly continuous treatment until apparent cure, but th effect of the rays being cumulative I find that patients return after a prescribed period of rest, in a better condition tha after entire cessation of treatment.

The great point about the results of Roentgen-ray treamen is the very natural appearance of the scar which results—a soft and pliable one, with no keloid.

I should also like to draw attention to Cases v and VII where the Roentgen rays, applied through a special nasa dilator made for me by Messrs. Allen and Hanburys, o vulcanite only, were enabled to affect the cartilaginous septu of the nose with the best results. In certain cases I hav

medicinal preparations while the patient has been under ays.

lupus and rodent ulcer I have used a saturated solution ermanganate of potash well painted over the part, the peutic value of which I attribute to the freeing of the en by the electricity and rays. In psoriasis I have found unguentum pyrogallolici co. (Unna) most useful in com- tion with the rays.

ave a case now under treatment of deep naevus stain, he left cheek of a little girl, to which I applied solution ydrogen peroxide 40 vols. in conjunction with the rays, much diminution of the staining. Afterwards I decided y adrenalin (Parke, Davis, and Co.), and the case is lly improving.

elieve that there is a great future for the use of different lications in conjunction with the rays, for possibly the trative powers of the Roentgen rays, combined with the e electricity, have some effect of increasing the thera- ic action of the applications. The same plan may be d to be useful even in internal medication, as in a case of noma of the rectum, which I have under treatment h had been operated on and recurred and pronounced erable). I am giving sulphate of quinine 2 grains four s a day and apply the high-frequency electric current nally four inches up the rectum, impinging on the mass; atient has steadily improved in health and locally.

CASE I.

. F., aged 70, first came to consult me in October, 1901. She had lent ulcer on right cheek, which had commenced about seven previously. She had had various ointments and lotions, but had ed to have it scraped or burnt. The ulcer was about the size of a illing piece. Thirty-five applications of the Roentgen rays were , five each week for a period of seven weeks. The ulcer com- ed to heal from the commencement of treatment and at the end of nent very little was noticeable, except a slight dermal congestion be seen.

have had frequent opportunities of seeing the lady at us times since. At the present time it is (nearly $2\frac{1}{2}$ years treatment) absolutely healed with no apparent scar.

CASE II.

G., aged 50, was a case of chronic gouty eczema of the buttocks, and testicular regions, accompanied by severe pruritis ani, which extended over a period of fifteen years. He consulted me in ry, 1902. The patient could not lie down at night, but had to sit an armchair. Various applications and treatments had been some of which had partially relieved him for a time. He was five weeks' continuous treatment with the Roentgen rays, consist- twenty-five sittings, the patient lying in the prone position.

steadily improved and since cessation of treatment has no return, two years after treatment.

CASE III.

Rev. F., aged 52, in November, 1901, was a case of psoriasis of ten years' standing, extending from the shoulder blades to the in large scattered patches. The patient suffered great irritation ould not lie down in comfort or ride his bicycle. He had two ds of treatment by the Roentgen rays of three weeks at the time, pplications a week with an interval of one month, thirty appli- s in all. He left me with only a slight staining of the skin and nce had no return. The method of treatment in his case was the position on a castor couch, the Roentgen rays being stationary, he couch was moved backwards and forwards during a period of minutes at each application.

is case has remained well for more than two years.

CASE IV.

P., aged 62, had an apoplectic seizure three years ago. The right and leg were paralysed, with speech impediment. He gradually lly recovered, but with difficulty in walking and inability to co- ate movements of the right hand, used to scribble some time at lice before he could write even fairly well, until December, 1903, he came under me. I applied the high-frequency electric current general massage—sparking of the spinal column and the right nd leg for a period of six weeks continuously for five to ten minutes e time, in all thirty-six applications. The patient has now no lty in walking, has good co-ordination of movements of the hand, he general health very much improved.

method in this case was monopolar, the patient holding lectrode in his right hand, during which time I gently -massaged the regions indicated.

CASE V.

. M., aged 35. This was a case of lupus vulgaris of nose with tion of the cartilaginous septum, which had commenced about years previously. She came to me in September, 1902. Had been ted to various treatments. There was not much destruction of tissue externally but very deep ulceration of the cartilage. This very obstinate case and very similar to Case VIII. I had her under treatment by the Roentgen rays during nearly a year at intervals varying from a month to six weeks for three weeks at the time. For the treatment of the cartilaginous septum I employed a special nasal dilator made solely of vulcanite, which Messrs. Allen and Hanburys carried out from my design. I heard from the patient about a month ago by letter in which she said she was quite well, and no trouble with the nose externally or internally. Before she ceased treatment there was no scarring and the cartilage was practically healed.

CASE VI.

Dr. O'S., aged 58. This gentleman had a very suspicious ulceration on the left side of lower lip at the junction of skin and mucous membrane about the size of a threepenny bit with slightly indurated edges and much constant scaling. He had the very best advice and saw several eminent surgeons who almost unanimously advised removal, it having very slowly but surely advanced for seven years, and was of a marked epitheliomatous character. He came to see me in December, 1903, when I persuaded him to let me apply the Roentgen rays, which I did for about five minutes at the time. I gave him eighteen applications during a period of three weeks, and then two periods of six applications with an interval of a week.

There is now nothing to be seen or felt, except the slightest indentation.

CASE VII.

Mr. B., a farmer, aged 55. In 1900 he was wearing pince-nez which caused a redness on the right side of nose where the glasses caught. A red spot formed and spread into an ulcer about the size of a sixpence. He was told by his medical man that it was a rodent ulcer, and various applications were tried. In September, 1901, he came under me and I decided to apply the Roentgen rays. He had twenty applications extending over four weeks, the ulceration healing very rapidly. The patient was seen in February, 1903, and there was then no visible sign of ulcer or cicatrization.

I have heard from the patient this year and his condition remains the same with no vestige of any recurrence, and it is now two and a-half years after treatment.

CASE VIII.

Miss D., aged 32, first came to see me in September, 1902. Disease commenced about five years previously with ulceration of the cartilaginous septum of the nose and lupoid infiltration of the lower third of the skin of the nose. She came from New Zealand, where she had been a hospital nurse, and had been subjected to many treatments, but the ulcer had steadily increased. She was treated in a similar manner to Case V., with satisfactory results. She has returned to New Zealand, after being in England about six months.

I have since heard from her—in November, 1903—more than a year after treatment, and she expresses herself as cured, and suffers no trouble with her nose internally or externally. She had forty applications of the Roentgen rays altogether.

CASE IX.

Mrs. B., aged 72. This was a case of rodent ulcer, extending over the left half of the chin, from the lip to the lower jaw, about the size of a five-shilling piece, which had lasted over a period of twenty-seven years, with deep ulceration and indurated edges and eversion of the left side of lower lip. She had had many applications and treatments. It was "burnt" in May, 1895, and again in July, 1901, and commenced with a single spot on the chin, and the progress in its increase in extent was slow, but steady. The patient came to me in the middle of November, 1901, and I had her under observation until April, 1902, and applied the Roentgen rays sixty times. She steadily improved, with the exception of one small place about the size of a split pea, but as there was a good deal of dermal congestion I advised a rest. She came again at the end of October, 1903, until December, during which period I gave her forty applications.

I saw her a few days ago, when the ulcer had remained healed, with a good dermal-looking scar and no disfigurement, the eversion of the lip having disappeared.

CASE X.

Mr. R. J., aged 40. This was a case of severe ulceration, partaking of both an epitheliomatous and rodent ulcer type. About eighteen years ago patient was cut, whilst being shaved, on the right lower jaw. A red spot formed where the cut had been made, which gradually increased in size, but with no destruction of tissue at first. Then a "sore" made its appearance at the end of three years and steadily increased until November, 1901. He was treated by his local medical man and subsequently advised to have it operated upon. When he came to me there was a very deep, ragged ulceration, extending from the angle of right lower jaw to the chin, along the ramus, extending above and below about two inches, with indurated edges and much suppuration and steady breakdown of tissue. I gave him the Roentgen rays for a period of six weeks—thirty applications—the resultant scar being very presentable.

In a letter just received from him he says: "Since December, 1901, there has been no return and not the slightest inconvenience."

THE late Deputy Surgeon-General Henry Cayley, C.M.G., who died on March 19th, has left estate of the value of £60,354 17s. 3d.

THE USE OF RADIUM IN A CASE OF RODENT ULCER.

By J. A. B. HAMMOND, M.B.Lond.,
Shanklin, Isle of Wight.

In connexion with the cases of rodent ulcer treated with radium, which were recorded in the British Medical Journal of January 23rd, the following notes may be of interest:

My patient was an old gentleman of 85 years. The trouble first started three years ago as a small nodule on the right side of the face, over the maximum point of the second division of the fifth nerve. His sister diagnosed a pimple and promply squeezed it. As might be expected, despite this treatment ulceration commenced and began to spread. Some valuable time was lost by the patient falling a victim to the enticingly-worded advertisements which promise a cure for skin troubles, trying, as he did, everything. from violet leaves to cuticura soap. When my partner first saw the case, although the ulcer was even then quite small, the patient absolutely refused to have it excised. The case came under my care some eighteen months later. Although the ulcer had by this time spread to the size of the top of a teacup, it was still limited to the area supplied by the second division of the fifth. Even at the present time, while it is ulcerating deeply along the nasal process of the superior maxillary bone, it remains within this boundary. It is thus an example of Mr. Cheatle's hypothesis of a nervous influence directing the spread of cutaneous cancer.[1] The question of using Roentgen rays was discussed, but as so feeble and aged a man could not travel, and as at that time we had no portable coil, the idea had to be abandoned. The advent of radium, by removing these difficulties, gave the patient another chance, for, although he was failing more from old age than from the rodent ulcer, I thought it worth while to try the effect of radium bromide. A small tube of 5 milligrams was purchased. In the absence of any guiding standard, I commenced by giving an exposure daily of 15 minutes, holding the tube within half an inch of the ulcer, without any screen, and slowly moving it over the surface. After four or five days, although there were no visible effects, the patient said the pain was less troublesome, so I increased the exposure to twice a day, with the result that the discharge, which had been considerable, rapidly became less, and the granulations were certainly more healthy, but the edges of the ulcer remained unaffected. The treatment was persisted in for some six weeks, during which time the patient's general health failed very rapidly. Finally he absolutely refused to be bothered with any treatment at all. That was about a month ago. Since then the ulcer has spread deeply, the pain increased, and the discharge returned, which is certainly an indication that even in such a desperate case as this the radium had a distinctly beneficial effect.

In connexion with E. S. London's experiments with the effect of radium on mice, showing that they get blinking of the eyes by the third day, it is interesting to note that the nurse who applied the radium for me after two or three weeks complained very much of smarting and aching of her eyes. This was, however, soon relieved by a small screen, which prevented the radiations from reaching her.

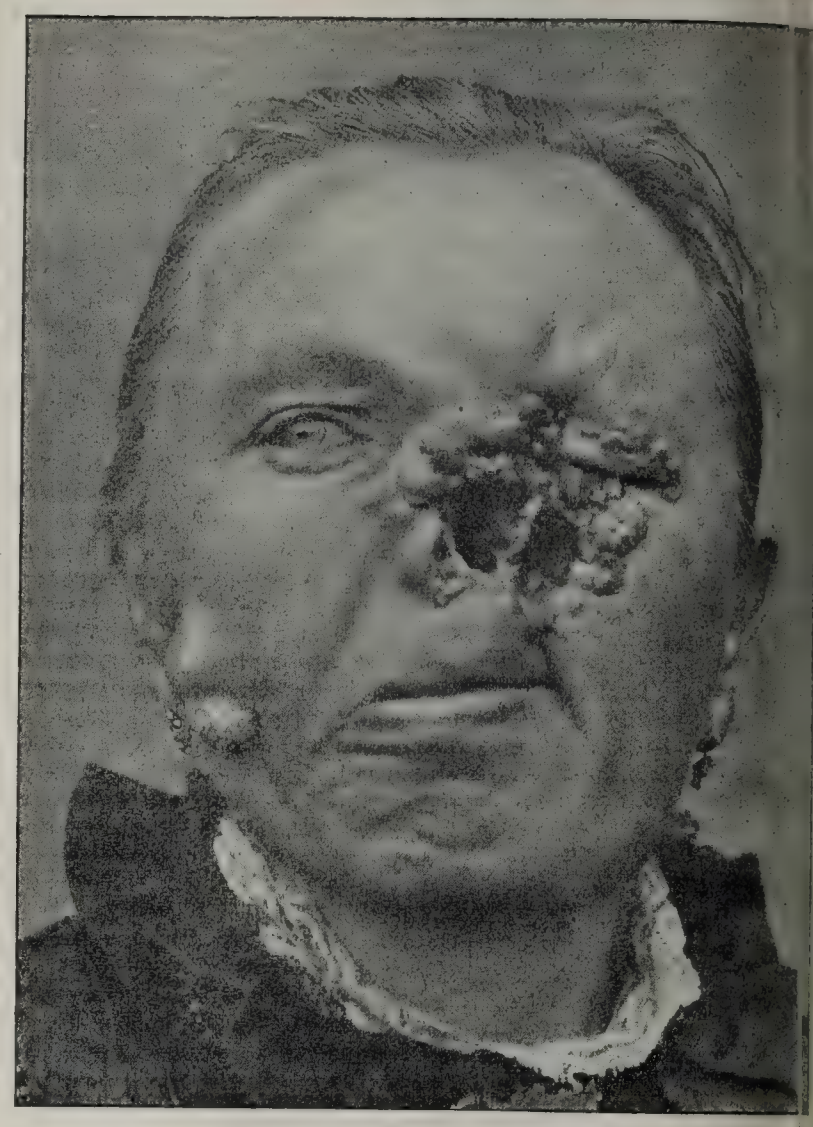

Fig. 1.—Before treatment (full face).

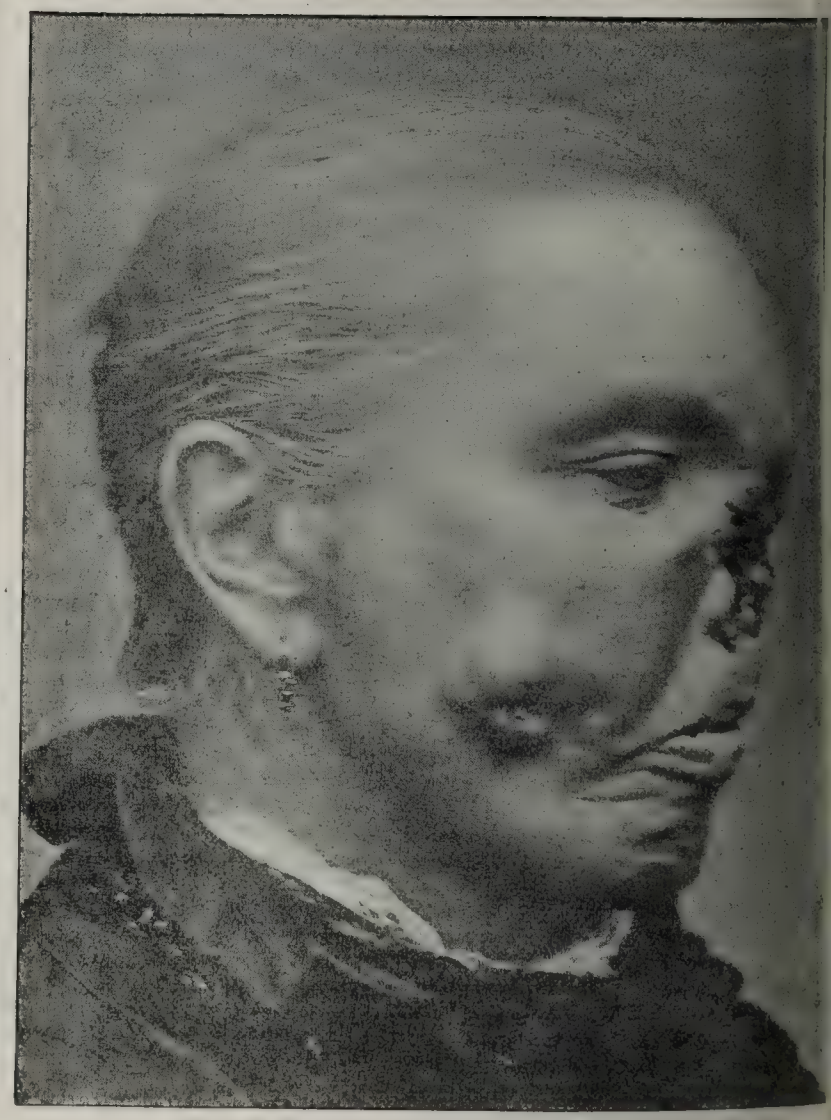

Fig. 2.—Before treatment (side view).

RODENT CANCER TREATED WITH *X* RAYS.

By G. G. STOPFORD TAYLOR, M.D.,
Senior Physician, Liverpool Skin Hospital.

C. W., aged 51, a resident in South Africa, was recommended for treatment by Dr. Mackay, of Southport.

History.

Has always been a strong healthy woman. No history of syphilis. Twelve or thirteen years ago a "pimple" appeared on her left cheek, near the nose and one inch below the inner canthus. As it gave her no pain or inconvenience, she took no notice of it. Three years afterwards the pimple began to ulcerate and was treated with plasters, applied by an irregular practitioner. Ulceration proceeded until ultimately the soft parts of the nose were destroyed. Two years ago a lump appeared on the right cheek.

Present Condition.

The patient is a strong square-set woman. The soft parts of her nose are destroyed, except a small piece of the right ala, leaving the nasal cavities widely exposed. The septum is intact, but its free margin is unhealthy-looking. For the most part surrounding

[1] British Medical Journal, 1903, vol. ii, p. 1515.

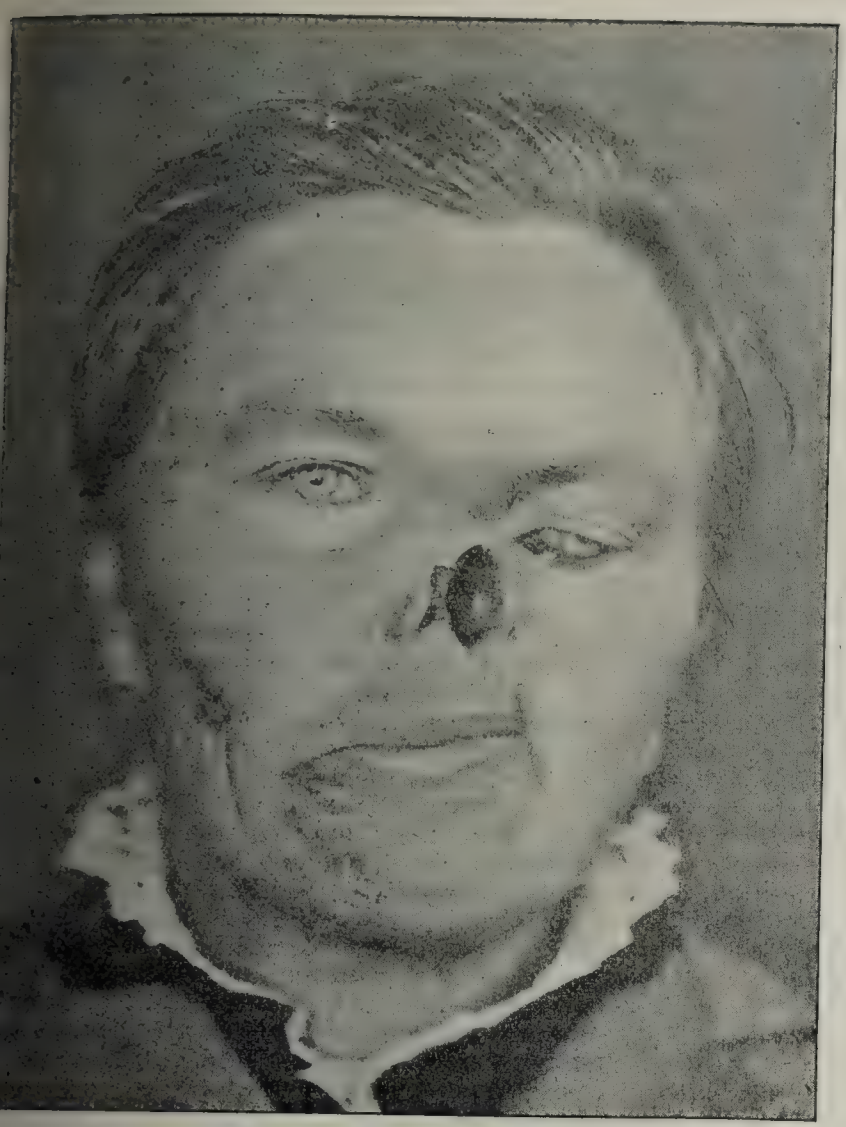

Fig. 3.—After treatment.

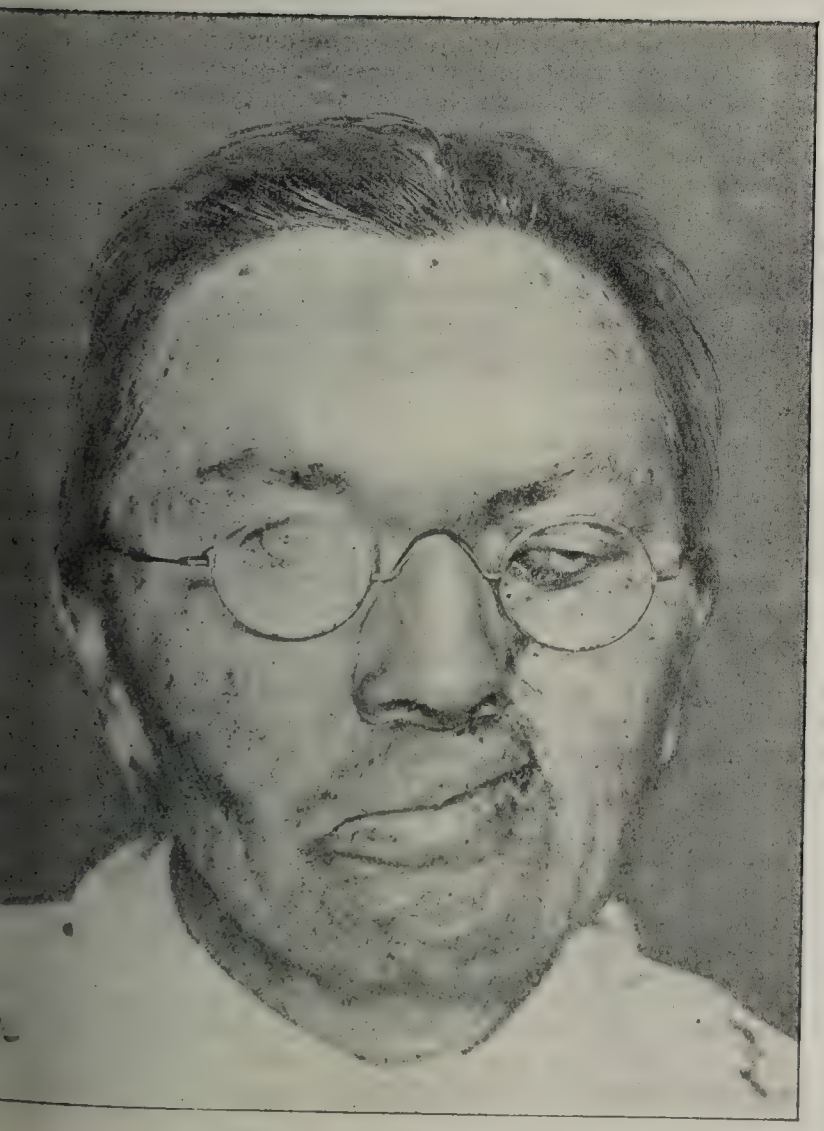

Fig. 4.—After treatment.

the nasal apertures and extending upwards between the orbits, and spreading laterally on to the cheeks and involving also the upper and lower lids of the left eye, are seen nodulated and irregular growths of various shapes and sizes. Some of these are still covered with epidermis, whilst others are raw, bleeding, and fungating. Upon the left upper eyelid are seen typical rolled elevations characteristic of rodent cancer. Some of these are situated about the outer canthus. The disease prevents the patient elevating her eyelid, while the lower lid in its inner third is ectropic. Situated in the substance of the right cheek a lobulated growth as large as a walnut is seen. The epidermis is intact (see Photographs 1 and 2.)

Treatment.

Treatment was commenced June 23rd. *X*-ray exposures were continued twice weekly up to the 30th November. The duration of the treatment varied from five to twenty minutes, according to the effect produced. On July 10th the fungating growths were shrivelling up. On July 21st these were gently removed with a curette. On July 31st signs of healing and cicatrization were evident. On September 4th the other growths were reduced almost to the level of the surface. Photograph 3 shows that the growths on the nose had disappeared. The nasal apertures contracted, the right being a mere slit, and the situation of the growth in the cheek represented by an indurated scar. In November an artificial nose, made by Harry Brook, of Halifax, and attached to spectacles by Curry and Paxton, was supplied (Photograph 4).

Unfortunately I was unable to procure any portion of the growths for microscopical examination. The disease, however, in the centre of the face undoubtedly began as a rodent cancer, which after all is but a variety of epithelioma; indeed, I have seen true epithelioma develop on the site of a rodent ulcer. As to the nature of the growth in the cheek, I am unable to go further than to express the opinion that it is a form of carcinoma, and in this I am supported by Mr. F. T. Paul. There was an absence of any glandular infection.

A MICROBE PATHOGENIC TO RATS (MUS DECUMANUS AND MUS RATUS.)

AND ITS USE IN THE DESTRUCTION OF THESE ANIMALS.

By Dr. J. DANYSZ,

Director of the Laboratory of Agricultural Microbiology, Pasteur Institute, Paris.

[Translation.]

Ever since Loeffler[1] first published his discovery of the bacillus typhi murium, which he isolated during an epidemic of spontaneous disease among white mice and successfully employed in the destruction of field mice (M. agricola), many other bacteriologists have had occasion to study epidemics of a corresponding character and have isolated microbes morphologically identical with that of Loeffler, but exhibiting considerable variety in their effect on different species of small rodents.

Thus the B. typhi murium proved to be absolutely pathogenic only towards ordinary mice (M. musculus) and field mice (M. agricola), that of Laser[2] towards the mus agrarius, that of Merechkozzski[3] in the case of ground squirrels, and, finally, that of Hatchenko[4] towards white rats. In addition, each of these different bacilli was found to vary so considerably in virulence that much difficulty was experienced in turning the powers of any of them to any practical purpose.

It was obvious that it would be exceedingly useful if any means could be discovered (1) of extending the field of action of any one of these microbes and of thus rendering it capable of attacking rodents other than those towards which it was normally inimical; (2) of maintaining its virulence after having thus raised it to the desired pitch. This is the problem which I set to work to solve, and the following is an account of how far I have succeeded up to the present date.

A cocco-bacillus which I isolated during an outbreak of spontaneous disease amongst field mice presented the general characteristics of the B. coli, and to that extent resembled the bacillus of Loeffler, and also from the beginning exhibited some pathogenicity towards grey rats (M. decumanus). Out of ten such rats fed upon a culture of this microbe I found that there died as a rule two or three, while others fell sick but recovered, and the rest remained perfectly healthy. The fact that a certain number of rats fed upon these cultures invariably died seemed to offer some hope that it would be possible to increase the virulence of the microbe by ordinary methods, that is to say, by passing the microbe a certain number of times from rat to rat. On the contrary, however, after making a great number of experiments of this character, it was found that the passage of the microbe from rat to rat, so far from exalting its virulence, always weakened it, whether the animal was inoculated with the culture hypodermically or simply fed upon it. Thus in

any series of passages of the microbe from rat to rat, it was observed that the first culture killed the animals in from seven to twelve days, though the virulence might become sufficiently increased after one or two passages to cause death in from five to ten days; nevertheless, subsequent passages resulted in constantly-decreasing virulence so that finally no rats died at all. For example, after the tenth or twelfth passage, or even sooner, most or all of the rats invariably survived. The result was exactly the same, even if in any series the animals were not fed simply on cultures derived from the bodies of their predecessors, but allowed to feed on the dead bodies themselves. It was obvious, therefore, that when tracing the natural evolution of the disease caused by this microbe, it was necessary, in considering its cessation, to take into account not only the natural resistance of the survivors, but also the progressive diminution of the virulence of the microbe itself. The following is a case in point. Thirty healthy mice were placed in a large cage with two sick ones, while another lot of thirty were divided and placed in six different cages, and fed upon the same culture as the two sick ones which had been placed in the cage of the thirty healthy animals. The result was that in each of the six small cages all the mice died in from four to six days, while in the large cage of thirty rats disease did not begin until three days after the death of the two first mice and the consumption of their bodies by their companions.

This epidemic lasted twenty-three days, during which 27 mice died; the 3 which survived nevertheless died a month later after being fed on a culture of average virulence.

Messrs. T. Kirter and P. Kottyen,[3] working in the laboratory of Professor Dunbar, obtained much the same results in experimenting on rats with a culture sent from my laboratory. Their results are sufficiently interesting to be worth citing in detail.

The original culture killed the rats in		8	days
The second passage	,,	10	,,
The third	,,	7	,,
The fourth	,,	8	,,
The fifth	,,	8	,,
The sixth	,,	9	,,
The seventh	,,	13	,,
The eighth	,,	9	,,
The ninth	,,	13	,,

The tenth resulted in no deaths at all.

It is to be remembered in my experiment with mice, that the 3 mice who survived owed their immunity, not to natural resistance, but to the fact that the initial pathogenicity of the microbes had been lost; for these same 3 mice when fed a month later on a culture of average virulence died at the same time as those used as controls.

There can therefore be no doubt whatever that the virulence of this microbe diminishes progressively and constantly in the course of its passage from rat to rat, and since in this case we are dealing with a microbe which from time to time gives rise to outbreaks of spontaneous disease amongst animals, this fact would seem to throw considerable light upon the natural evolution of epizootic and epidemic disease in general, at least so far as the general group of haemorrhagic septicaemias is concerned. It may be said in short that an epidemic commences, increases in virulence, and then disappears, not only because it meets with individuals who are naturally refractory to its action, but also and in all probability mainly because the virulence of the microbes becomes attenuated, and finally disappears altogether after passage through a certain number of bodies.

I hope soon to be able to throw full light upon this interesting point, but for the moment confine myself to stating it as a fact which has been demonstrated in indisputable fashion. The same result of diminished virulence may be obtained *in vitro* by inoculating a series of cultures one from the other or simply by leaving any individual culture untouched for a longer or shorter period of time.

The general result, therefore, is that it is difficult to maintain the virulence of the cocco-bacillus of the rat or to increase it when it is found to be small. It can only be effected by constantly making a large number of experiments and frequently testing the virulence of the cultures. When making experiments on a series of twenty or thirty rats at a time, it is always found that from the bodies of one or two of these animals a culture can be obtained more virulent than that from the others, and that in this case the virulence of the culture may be maintained for two or three months; it is thus possible while continuing to use this culture for current work to gain time to produce another of equal or even superior virulence. It is by working in this fashion that I have succeeded in keeping up a supply of cultures of sufficient virulence for eight years.

During this time cultures of a sufficient degree of virulence to kill rats fed upon them in cages in my laboratory in from five to twelve days have been used for a large number of practical experiments on farms, warehouses, hospitals, workhouses, etc.

A summary of the reports which I have received, and which number several thousands, shows that in 60 per cent. of the operations undertaken the rats completely disappeared, in 15 per cent. the results were entirely negative, and in the rest, or 25 per cent., of the experiments, though dead and sick rats were found and a large diminution in the number of rodents in the places in which the experiments were conducted was simultaneously observed, complete destruction was not obtained.

In certain but not numerous cases it was observed that the epidemic extended from the locality in which it had been brought about to other localities where nothing had been done, and that sometimes the epidemic lasted for nearly a year. As an example may be quoted Odessa, where my cultures were used to destroy rats during the outbreak of plague in that city in 1902. There the rats completely disappeared after my cultures had been employed, and in 1903—or eight months after the experiment—rats brought back to the port on ships were found to be suffering from the disease which the culture causes. This extensive experiment, or rather this application of the treatment to the whole of a great town like Odessa, which with its suburbs has a radius of 10 or 15 kilometres, may well serve as a model for the use of the treatment in other places. Doubtless errors were committed which should be noted in order that they may be avoided in future, but in general the operation organized by the sanitary authorities and directed by M. Diatroptoff, Director of the Pasteur Institute of Odessa, were very well conducted indeed. It was divided into two parts—one in September and the other in October. In September the proprietors of all houses were ordered to conduct matters themselves, but in October the sanitary authorities enlisted the services of the medical men and medical students of the town.

In order to prepare the 25,000 litres of virulent bouillon required by the town and its suburbs a number of large disinfecting boilers were installed in huts usually employed for storing petroleum, and in this way the whole of the infected bouillon required was supplied in the course of about twenty days. The cultures thus hastily got ready were invariably distributed for use on the day of their preparation, and crusts of bread dipped in it were used as a bait. The first supply of bouillon was inoculated with a culture brought from my laboratory to Odessa by Professor Wyrokouvick, and all the rest of the bouillon prepared from it. To keep check upon the results the Bacteriological Institute had all rats, dead or alive, which could be found after the eighth day after the first distribution collected, and paid a reward of five kopecks for each of them. Each of these rats was carefully examined with a view to deciding whether it had died as a result of the virus or otherwise.

It was not deemed necessary to exercise any special control over the way in which the directions given for the use of the virus were carried out, and reports received showed that in many cases the directions had not been sufficiently observed. Thus in certain quarters of the town, and especially in the poor ones, either the infected bouillon was kept for several days, corked up more or less tightly, or else the inoculated crusts were thrown into streets or courts or other open places in the daytime with the result that the bread intended to be eaten by rats was devoured by dogs or other domestic animals. In the quarters thus inadequately treated the proportion of rats found to have been killed by the virus was only from 42 to 45 per cent., while in quarters where the directions for treatment had been rigorously carried out the results of the necropsy of the rats found were without exception positive.

In most of the small villages round Odessa it was observed that rodents completely disappeared, and finally, it is to be remarked that several weeks after the operations had been carried out the Bacteriological Institute was only able to procure fourteen rats alive and in good health although it offered a reward of 15 kopecks a head. In concluding his report M. Diatroptoff stated that the result of the employment of the virus was far superior to that of any other measures used, and that in spite of the freedom with which the virus had been distributed, no illness either amongst human beings or domestic animals could be traced to its use. The general outcome of this report is to lead to the conclusion

at, provided a culture of this cocco-bacillus is of sufficient rulence, it is possible to count upon the destruction by its e of all the rats in a large city without causing any danger atever to its other inhabitants, human or animal, always pposing that the operations are conducted in an orderly d methodical manner.

References.

entralbl. f. Bakt., 1892, Nos. 1 and 5. [2] Ibid., 1892, p. 184 [3] Ibid., Bd. xvii p. 742. [4] Ibid., Bd. xxiii, p. 873. [5] *Deut. med. Woch.*, 1901, No. 18.

N THE ADMINISTRATION OF CHLORIDE OF ETHYL AND SOMNOFORM, ALONE OR IN CONJUNCTION WITH NITROUS OXIDE OR ETHER.

By G. W. BAMPFYLDE DANIELL, M.R.C.S.Eng., L.R.C.P.Lond.,

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these newer anaesthetic agents can be shown to be almost safe as nitrous oxide and, seeing that they possess the vantages over it, amongst others, of a longer available aesthesia and a more prolonged period of analgesia, it is of vantage to obviate certain disadvantages in respect to some ial sensations and symptoms experienced by the patient, l also inconveniences from the point of view of the rator and anaesthetist.

t is not uncommon to hear patients complain of a choking l suffocating feeling on going under, and I venture to hold t this can, in the large majority of cases, be prevented, it ng caused by the sudden application of a concentrated our and is more noticeable in nervous adults, in children, l those with sensitive or irritable throats.

lany patients are greatly alarmed at having a mask applied the face filled with a powerful vapour. This not infre- ntly causes holding of the breath, coughing, and, in some es, is followed by struggling with consequent delay in the uction of anaesthesia. These initial strugglings, etc., on part of the patient may also be the cause of dreams of a greeable character.

n these respects, unfortunately, the anaesthetic agents now ler consideration compare unfavourably with nitrous de, and it behoves us to use our best endeavours to imize all disadvantages in connexion with the use of these tile drugs if we intend to include them in our list of ndard anaesthetic agents.

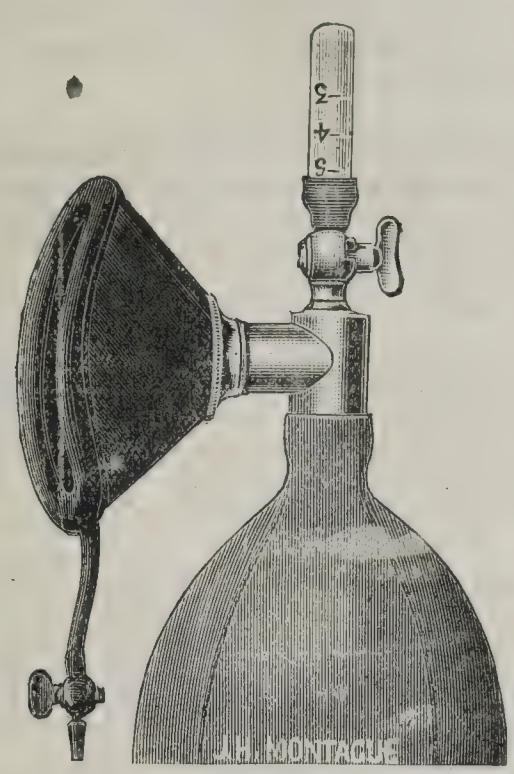
here is a fear in my mind that nitrous oxide, as far as the lic are concerned, may have to bear the blame of some leasant sensations produced by these agents. This would a calamity indeed, and I venture to think that, before inistration, the patient should be told that "gas" is not the esthetic to be used, and also due precaution should be en, when possible, in the preparation of the patient rehand, to prevent after-effects, as well as a careful and led administration with the use of any inhaler that will iate unpleasant initial sensations.

Apparatus.

ne of the most satisfactory methods of overcoming these dvantages is that described by Dr. F. W. Hewitt, namely, of administering chloride of ethyl with nitrous oxide gas, g his own special gas apparatus. This method I have l a number of times with excellent results, but un- unately the period of available anaesthesia is shorter than n the agent is administered alone and a smaller bag is loyed. In most of the inhalers I have seen and used for administration of chloride of ethyl or somnoform alone an mated dose is first projected on to a more or less extensive ace of lint, cotton-wool, or sponge; inside the facepiece, e to the patient's nose and mouth, and then the mask is kly applied. In others a capsule, containing either m. or 5 c.m., is broken inside an inhaler of special truction.

ie objections to the first class of inhalers (besides that tioned above) are, that a certain amount of the fluid at evaporates and is lost for anaesthetic purposes, and con- iently an unknown quantity of the agent is given. Also, zing takes place inside the mask and often close to the ent's nose and mouth. The objection to the use of ules is that there is too much restriction to dose. One t use either 3 c.cm. or 5 c.cm. In the case of young dren, for instance, 2 c.cm. or 2½ c.cm. is often ample to pro- duce satisfactory anaesthesia. Adults seldom require more than 3 c.cm. or 4 c.cm. for one inhalation, and further, for prolonged administration a much larger amount than 5 c.cm. may be required, when it is found both inconvenient and wasteful to be frequently breaking capsules.

An inhaler both simple in construction and use is that made by attaching together the facepiece and angle-mount of a Clover's portable ether inhaler and introducing the agent through the tap commonly found in the angle-mount, used for gas in the nitrous oxide-ether sequence. Dr. Luke has described a modification of this, in which the tap is removed flush with the angle-mount, the hole being closed with a wooden plug.



Having used this Clover method a number of times I find the following modifications and method of great advantage. Instead of the hole and wooden plug in angle-mount I prefer the tap with metal tube continuation. A tap is easier to manipulate than a plug and cannot get lost. Also, owing to the reconstruction of some of the trigger-valved ends of the ethyl chloride bottles it is easier to get in the fluid through the projecting end of the tap than through a hole flush with the surface of the angle-mount, especially is this so if the patient is inclined to move. At the commencement of the inhalation, instead of projecting the fluid through the tap directly from the bottle, a definite quantity is first measured out into a small tube made of thick glass, which for the sake of accuracy I have marked in 3 c.cm., 4 c.cm., and 5 c.cm. graduations. To this small measurse-glass is attached a short piece of red rubber tubing, by means of which it is accurately attached to the end of the tap of the angle-monnt. (Vide illustration.)

Method of Administration.

In the case of a patient sitting up in the dentists' chair the position of the tube and angle mount in relation to the facepiece is the reverse of that shown in the illustration. The tube being downwards, no fluid can escape and no smell will be noticed if the tap is closed. The mask having been accurately adjusted to the patient's face a short period of to-and-fro breathing is first permitted, the tap is now opened, and the angle-mount with its tube is rotated from the vertical position until it is almost horizontal. The rotation is now conducted gradually, so that the fluid will run very slowly out of the glass phial through the tap and metal tube into the bag. The patient will thus inhale a dilute vapour, which he soon gets accustomed to and will tolerate a stronger vapour in a few seconds. One should aim at producing a steady evaporation at first until signs of unconsciousness begin to show themselves, then the drug can be more quickly given. If there is a tendency to holding the breath or to coughing it is a sign that the vapour is too strong for this individual case; the angle mount should then be rotated back again, thus limiting further evaporation of the fluid until the symptoms subside; it can then be again rotated upwards and the flow continued until the tube is empty. With a little care and practice a very satisfactory induction results in a large percentage of cases.

If the patient be in the recumbent position the facepiece may be put on first, the angle-mount and charged tube then so adjusted that the tube be in the most dependent position, the patient's head being slightly on one side. Now tip up the tube (very slowly), which is easily done on account of its rubber attachment to the tap.

The idea of the glass tube I have from Dr. F. W. Hewitt, who uses it with his special gas apparatus, as mentioned before. The metal tap and tube of the angle-mount can with advantage be made larger than those generally found,

and that of mine (supplied me by Mr. J. H. Montague of New Bond Street, London, who also makes the glass tubes) is very much larger.

MIXED WITH NITROUS OXIDE.

In giving a mixture of nitrous oxide and either of these anaesthetics with this apparatus, the simplest way is as follows: The rubber tube from the nitrous oxide cylinders is attached to the tap, the gas is turned on, the mask applied to the face, and the patient is instructed to commence breathing at once. After a few seconds the rubber gas tube is detached from the tap, and replaced by the charged phial, which should be in this case rather more quickly emptied; satisfactory anaesthesia rapidly follows.

CHLORIDE OF ETHYL-ETHER SEQUENCE.

About nine months ago I tried the method of introducing chloride of ethyl into the ether chamber of a "Clover" inhaler through its ordinary filling orifice by first measuring into a minim measure glass a definite quantity, pouring it in and rapidly replacing the plug. This had the advantage of simplicity and could be used in "Clovers" not having a tap on the angle-mount.

On experimenting, I experienced every time a peculiar and unpleasant metallic taste and smell in the vapour, and even when administering it in this way to patients, was distinctly conscious of it, this is absent when given through the tap in angle-mount. The evaporation of the chloryde of ethyl in a large metallic chamber may account for this. I may say I tried two different "Clover" inhalers, with the same results.

The cooling of the ether chamber was very marked. But apart from this, it is a distinct advantage to be able to commence this sequence with the ether chamber ready charged with ether. There should be no smell of ether if the apparatus is well made, and the working parts occasionally taken out and vaselined. The ether chamber is now of course between the angle-mount and facepiece.

According to my experience a better induction results if the ether be gradually turned on quite early; in fact, a few seconds after the ethyl chloride has begun to be inhaled, so as to produce a mixture of the vapours. This is easily done by this method and the manipulations are simple. I am convinced that the less ethyl chloride used the better, 1½ c.cm. to 2 c.cm. being often ample if the mask fits well and the ether is turned on soon enough.

CONCLUSIONS.

The following is a summary of the advantages of this inhaler and methods of administration:

1. A measured quantity of the anaesthetic fluid is given, varying according to the age of the patient and taking into consideration the time of anaesthesia required, the nature of the operation, etc. This gives accuracy of dosage and is useful for making observations and notes for future reference. It should also help to insure against an overdose.
2. The anaesthetic can be given gradually, and that after the facepiece is adjusted; this prevents coughing, holding the breath, etc., and produces a satisfactory induction.
3. More can at any time be added if necessary, either by projecting the fluid through the large open tap or by measuring off more in the tube; also, either can be done without having to remove the facepiece, which is an advantage in some cases in which air-exclusion is necessary. On the other hand, the tube need not be emptied if satisfactory anaesthesia is likely to be produced by less than its contents. In hospital practice this is kept over for the next case for purposes of economy.
4. In the event of voluntary struggling—as is sometimes the case in children and very nervous subjects—it is easy to empty the tube by tipping it up with one finger, both hands being available to hold the mask and steady the patient.
5. If the tap is turned off before the tube is fixed on the patient will not experience the slightest smell of the narcotic when the mask is applied. This is of importance in nervous patients.
6. A perfectly free air-way, no lint, sponge, or wool to breathe through, and no freezing vapour near the patient's mouth or nose, as all evaporation takes place in the metal tube and rubber bag.
7. Nitrous oxide can be given as a preliminary.
8. By retaining the ether chamber these drugs can be given with ether or used as a sequence. All that is necessary is the glass tube.
9. Bromide of ethyl could be given with advantage by is apparatus, as it is important to be able to measure he quantity of the drug.
10. Economy in the amount of anaesthetic used.

I have given chloride of ethyl by this method and apparat using the paper bag invented by Mr. Richard W. Lloyd, ad made by Messrs. Barth and Co., with satisfactory results, ad recommend its use (instead of the ordinary black rubber ge in the case of patients suffering from tuberculosis. In pr chasing a new apparatus it is as well to have the bag and fa piece of red rubber, as it stands sterilization, and as fa my experience goes these drugs have no action upon it.

In conclusion I would state that I have used this appara s and method about 500 times, with results so satisfactory th I may perhaps be excused adding another paper to the la large accumulation on this subject.

INTRASPINAL COCAINIZATION.

BY ALFRED S. GUBB, M.D.PARIS.,
Mustapha Supérieur, Algiers.

THE method of inducing anaesthesia of the lower limbs by te introduction of small doses of cocaine into the spinal ca is one of which we have heard a great deal, though, so far a can judge, it does not seem to have been received with favo in England, and but very few practitioners can have had opportunity of seeing it put in practice. For this reaso thought a few notes on a recent observation here might pro of interest. The idea has hitherto always excited a feeli akin to horror in my mind, for I had not got over the dread possible consequences as the result of penetrating th *sanctum sanctorum* the spinal canal. The news that J. Vincent's *chef de service* was about to amputate a thigh at t Civil Hospital at Mustapha under the influence of "rach cocainization," as it is styled, raised my curiosity, for I h never seen the method in operation. The patient was a m about 35 years of age, who had some time previously su tained a severe crushed and lacerated wound of the left kn This had suppurated, and the removal of the limb was judg indispensable.

Fig. 1.—Position of surgeon and patient when making the injection.

He was naturally rather nervous, but was too much debil tated by the consequences of his complicated injury to testif much objection. He was placed in the sitting position on th operating table and the skin over the lower part of the bac was carefully disinfected in the usual way. The long platin iridium needle was sterilized by heating to redness in th spirit lamp, and the operator, seated at the patient's back selected a spot in the spinal column on a level with a lin joining the two iliac crests. Guided by a finger placed o one of the spinous processes he plunged the needle boldl into the tissues to a depth of about 2 in. The needle met with no resistance, and on disconnecting the syringe cerebro spinal fluid escaped in rapid drops. One c.cm. of cocain solution, contained in a sealed glass bulb, equivalent to 2 cg (about a third of a grain) of the alkaloid was promptly poure into the syringe and injected into the spinal canal. Th

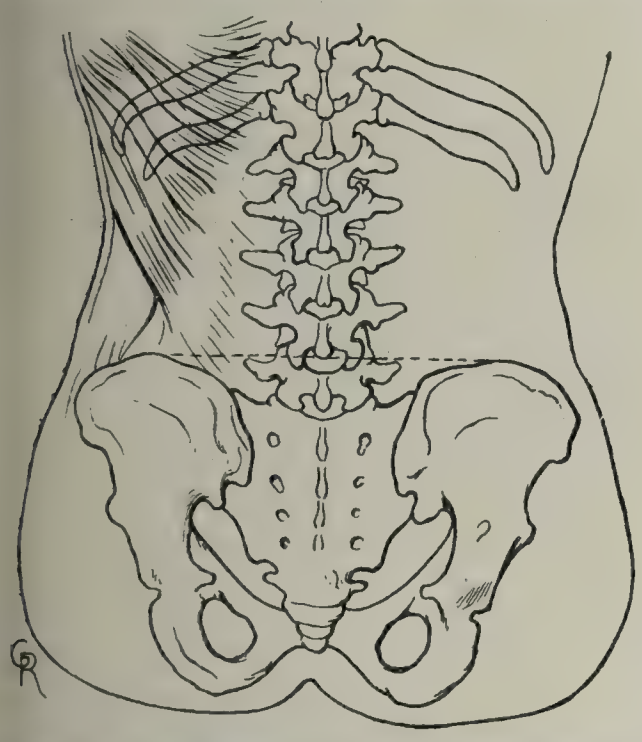
ture was dressed with cotton steeped in traumaticine (a ion of guttapercha in chloroform).

e patient was then placed on his back and a rag placed his nose and eyes to give him the illusion of inhaling thing, and in five minutes the operation was commenced. as performed in a very leisurely way and took at least an hour. The patient never gave the slightest indication in or even discomfort throughout the operation proper; ct, he remained perfectly quiet, breathed evenly, and his e was steady and firm.

must confess that it gave me a little unaccustomed der to follow the operation, knowing that the patient quite conscious, and this feeling was enhanced by the that he resented the application of the elastic bandage Esmarch's tourniquet, for it seems that though this ed of cocainization abolishes sensitiveness to the knife aves that to pressure unaffected. Even the grating tion of the saw elicited no reaction on the part of the nt, and he frankly admitted when the stump had been ed that he had not felt anything.

s was the 231st occasion on which intraspinal cocain- n had been resorted to in Dr. Vincent's service, and has been only one mishap, and this one not due pro- speaking to the method *per se* but to the clumsiness of experienced assistant, who allowed the needle to become minated without calling attention thereto.

ave since experimented on the cadaver, and I found no ulty in introducing the syringe except in one instance, I succeeded an inch or so higher without difficulty.



.—The dotted line shows the vertebra corresponding to a line drawn between the iliac crests.

t the future of the method may be I cannot say. I if many surgeons would have the courage to have re- thereto until they had seen with what ease, certainty, tisfactory result it can be done, but my own opinions subject have been greatly modified by this experience. s remarkable in its way as must have been the earlier ations with chloroform and ether. Apart from the tical risk of septic infection, spinal cocainization ap- to present many advantages over general anaesthesia, moreover, is by no means devoid of risks of its own, s the numerous deaths that occur annually in Great n from this cause. Its simplicity, the readiness with the patient is prepared for the subsequent operation— nly takes two or three minutes—and the fact that there struggling, no respiratory disturbance, or subsequent nfort are certainly very striking. The skin of the back paratively insensitive, so that the pain from the punc- quite trifling.

e writing the above I have been afforded several oppor- es of performing the operation myself on the living sub- chose the space above the last lumbar vertebra, which, the patient is mrde to bend forward, affords plenty of f the needle be directed from below slightly upwards nwards. I experienced no difficulty in attaining my I was advised that it is well to allow a certain quan- cerebro-spinal fluid to escape before making the injec-

tion, and some operators dissolve the alkaloid in the fluid itself instead of in sterilized water.

On one or two occasions there was a little vomiting, but as the patient is quite conscious it gives rise to no trouble, and is readily got rid of without hindering the progress of the operation. In a case of operation for hernia the patient left the theatre smiling, asking if she might not be allowed a square meal as she was hungry, showing the slight constitutional effects of the injection and the total absence of shock.

MEMORANDA:

MEDICAL, SURGICAL, OBSTETRICAL, THERAPEUTICAL, PATHOLOGICAL, ETC.

A CASE OF CYSTIC HYGROMA: REMOVAL: RECOVERY.

A GIRL aged 7 was brought to the Mayo Hospital in November, 1903, for a tumour in the left axilla, which the mother stated had been present since birth and had grown with the growth of the child until it attained the size represented in the photograph. It extended from the scapula behind, round the side of the thorax, to the outer border of the sternum, and upwards to the apex of the axilla. It was soft and to some extent compressible, but it did not appear that its bulk was lessened by pressure. It had bled occasionally from a point in its lower border, which is marked in the photograph by a plug of absorbent wool applied to check the oozing. The tumour was painless, non-pulsatile, not affected by coughing or crying, and the skin over it not altered in appearance; it did not apparently pass beneath the outer border of the scapula.

As the mother still desired that the removal of the tumour should be attempted, although the risks of any operation were pointed out to her, I decided to excise it. In order to control possible haemorrhage an elastic cord was tied tightly round the base of the tumour and an oval incision was made through the skin beyond this ligature. On cutting into the tumour, it was found to consist entirely of multiple cysts having fairly thick walls of connective tissue, which were marked in places on their inner surface by linear thickenings or puckerings. On loosening the elastic band there was no arterial and not much venous bleeding. There appeared to

be a pedicle of attachment to the wall of the thorax, but there was no extension beneath the scapula. The child made a rapid recovery.

[A second photograph sent showed the removal of the deformity to be very complete.]

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ERYTHEMA SCARLATINIFORME.

THE memorandum under the above heading from Dr. James Hamilton of Chelsea, in the BRITISH MEDICAL JOURNAL of March 12th, greatly interested me. I have lately had six cases here in which a distinct scarlatiniform rash appeared; one was obvious scarlet fever; a second was doubtful for days, but proved to be scarlet fever; two others were certainly influenza, and the remaining two closely agreed with Dr. Hamilton's description in signs, symptoms, and course, and were evidently influenza also.

In the article by Dr. F. Foord Caiger, in Professor Allbutt's *System of Medicine*, influenza is included among the maladies which have given rise to eruptions mistaken for scarlet fever. Others, like myself, may be indebted to Dr. Hamilton for opportunely emphasizing this point.

Mentone. D. W. SAMWAYS.

GLANDULAR FEVER IN JAMAICA.

I WAS much interested in reading in the BRITISH MEDICAL JOURNAL of January 9th, p. 71, of an account of an epidemic of glandular fever by Dr. Byers. I have had recently several cases under my care, all being children of from 5 to 9 years of age. I have also heard of one or two cases occurring in adults. The symptoms observed in my cases were exactly the same as those mentioned by Dr. Byers, with the addition (1) of severe toothache (molar), lasting for a few hours; and (2) earache lasting on and off for two or three days. In one of my cases the temperature rose to 104°, and so continued for some days. Convalescence was established in a week or ten days. The cases at first appeared to be mumps, and were so regarded by some of the relations of the patients. I note Dr. Byers's cases occurred in the middle of November. The epidemic in my district occurred at the beginning of January.

Jamaica. F. A. G. PURCHAS, M.B.

TWINS: DIFFERENT SEX: DOUBLE AMNION: COMMON CHORION.

ON March 11th I was called to see a patient who was in labour. This was premature, being between the sixth and seventh months of pregnancy, and the woman was a primipara. The first child had the breech presenting, and was delivered fairly easily; it was a male. The second was a vertex presentation, which I converted into a breech by turning to facilitate delivery. This was a female; both were stillborn. The afterbirth came away entire and without difficulty, and showed two amniotic sacs with a common chorion and one large and well-developed placenta, obviously a single placenta, not two united by fibrous tissue. The point of interest lies in the fact that the children were of different sexes, whereas it is usual under such circumstances to find them both of the same.

Bury. P. F. BRAITHWAITE, M.B.Lond.

REPORTS
ON
MEDICAL AND SURGICAL PRACTICE IN THE HOSPITALS AND ASYLUMS OF THE BRITISH EMPIRE.

LEEDS CITY FEVER HOSPITAL (BECKETT STREET).

CALCAREOUS CHANGES IN HEART, DIAPHRAGM, AND ARTERIES IN A PATIENT 32 YEARS OF AGE.

(Reported by E. S. G. FOWLER, M.R.C.S., L.R.C.P., Resident Medical Officer.)

D., a railway labourer, aged 32 years, was admitted on October 12th, 1903, reported suffering from enteric fever, and complaining of headache, backache, shivering, and pain in the body.

Previous History.—His wife said that for some time he had complained of feeling very tired and from time to time of much headache. He was irritable, and had for some time been very suspicious of trifles. She had spoken of insuring him recently, and since then he seem have a fixed idea that she would attempt to poison him, and in quence was often afraid of the food she put before him. If any friends or acquaintances died, he would draw her attention to t that they were probably insured, and hint that things were not board, etc. After taking to his bed on the 7th, he was very violen absolutely refused all forms of food. His sister said that for time prior to marriage (eighteen months previously) he had a been strong and hearty, steady in habits, but with curious se which they did not understand, and had had no advice about. would often leave his bed at night and rush round to their be doors, knock loudly, and inform the inmates that he was dying was evidently frightened about himself.) Alcohol and syphilis inquired for, but strongly rejected. No information was obta from the patient himself. A question seemed to arrest his atte but he lapsed without answering it. Inquiry as to pain only elici sneering negative answer.

Condition on Admission.—Patient was extremely ill, and was th to be dying. Pulse of 96, and very feeble. Artery walls not noti be tortuous or thickened. Cyanosis. Noisy respiration, 24. Co low muttering delirium and slow waving movement of arms. P small, equal; it was thought that the case might be one of brain chief, or that patient was possibly under the influence of opium. temperature was 101.8°. Tongue moist, dirty heavy fur. Teeth an covered with sordes. Abdomen and chest normal. Heart sounds weak and distant; no *bruit* made out. Two or three acne spo chest and back. Some wasting of muscles. Reflexes present. Pl brisk (finger drawn over the sole in producing it caused spasms muscles, and seemed to annoy patient considerably). Patient complete movement of all limbs. Bladder was active, but excre were voided into bed. Skin harsh and dry. Urine collected, neg

Progress.—The patient remained quietly in bed without rest continued to pull clothes about and wave his arms; constant muttering, with occasional shouting, unless attempts were made t him. Fluid poured into the mouth was returned after longer of sh intervals, and he continued to spit until all was out again. H very violent, and swore vigorously on any further attempt being m The fluid was held in the mouth, never swallowed. Temperature, on admission, was 100.4° in the evening, 99.6° next morning: no on the second evening, and remained normal till the end. Pulse admission, was never above 84 afterwards, but always very small, regular. Respirations between 18 and 20. The patient had no until the third night, and then after $\frac{1}{6}$ gr. of morphine for only hours. On awakening he took two feeders of milk. The bowels washed out with simple enema on the morning after admission, an result was slight but apparently normal. The enema was given difficulty; the patient resented it, and strained considerably to retur An unsuccessful attempt was made to feed by the nasal tube. patient always succeeded in catching the tube on the base of tongue and so directing it into his mouth. On the fourth morni suddenly developed a condition which was thought to be complete unilateral ophthalmoplegia, though it is possible that the exte rectus was not affected, since there seemed to be some slight exte squint—fixed globe, fixed irregular pupil, ptosis (squint may have more apparent than real). In spite of care hypopyon developed t days later. After fourth day there was vomiting and retch Nutrient enemata were given, but were quite unsatisfactory; pat strained so to void them again. Death occurred on the ninth mor after admission. Typhoid was rejected as a diagnosis from the f and the case was thought to be cerebral. Ophthalmoscopic examina was unsatisfactory.

Necropsy.—The body was that of an average built man, rather was rigidity and *post-mortem* staining well marked. The brain was m congested with dark fluid blood (as were all the organs). No sig growth. Roof of left orbit removed. Contents of orbit of nor appearance. No interference with third nerve. Intestines: Conges distended; empty except for about 3 oz. or 4 oz. of normal colou soft formed, faecal material in large bowel. Spleen: Normal s firm. Kidneys: Normal, congested; capsules stripping easily. enlargement of mesenteric glands. Liver: Not enlarged, smo congested. Lungs: Normal, except for some congestion and sli frothy exudation on squeezing. Diaphragm on right side: Cen tendon looking very like an oyster shell; quite calcareo muscle itself hypertrophied. On the left side the tendon in a similar condition, but firmly united to the pericardi Heart: Some hypertrophy, particularly of ventricles. Pericardi much thickened, opaque, and adherent over greater part. Va Mitral valves shortened and edges thickened (may or may not h been sufficient to cause *bruit* in well-acting heart). Other valves ap ently healthy. In three places calcareous deposits had invaded left ventricular wall, apparently actually invading the myocardi and it was necessary to use a small saw to open it up. In thickness largest patch would be some $\frac{1}{4}$ to $\frac{3}{8}$ in. The next was continuous w left tendon of diaphragm, and extended into the right ventricular w The third was a smaller deposit in right ventricular wall near tricus orifice. The aorta showed much atheromatous change in whole leng The carotid on left side contained soft dark clot extending to branc (? cause of ophthalmoplegia). Its walls showed marked atheroma al The pulmonary artery, about $\frac{1}{2}$ to $\frac{3}{4}$ in. above semilunar valves, show a nodule of calcareous growth which had ulcerated through en thelium and projected into lumen of artery. The surface was grit and of similar appearance to other deposits described.

REMARKS.—The specimens as above described were e hibited before the December meeting of the Leeds and We

g Medico-Chirurgical Society. The changes must have taking place for some time and no doubt would explain symptoms of the case, and also account for strange iour and night attacks of angina-like suffocation spoken the sister. The changes are gross for a patient of this 32 years), and I thought they might be worth recording is if for no other reason. I am indebted to Dr. Pearson rintendent of the hospitals) for the privilege of describ- nd exhibiting the above.

itish Medical Association.

INICAL AND SCIENTIFIC PROCEEDINGS.

BIRMINGHAM BRANCH.

neeting on March 11th, Mr. JORDAN LLOYD, President, chair, Dr. STACEY WILSON showed a simple apparatus he had invented for the administration of creosote in r as a treatment for cases of bronchiectasis or certain ies of phthisis, and which seemed to him to obviate the vantages of a creosote chamber. The apparatus con- of a tin box about a foot in diameter, in which creosote porized by a spirit lamp and the vapour conveyed to atient's lungs through a valved tube and mouthpiece as is used for ether inhalations. There was a glass by which the burning of the lamp could be watched, esh air could be introduced by bellows connected with

ons of Prostate Glands, etc.—Mr. JORDAN LLOYD showed es of transverse sections of prostates removed *post* from persons at all ages to illustrate the changes were liable to occur in that organ with advancing years, which the name hypertrophy or enlargement was usually d. The sections were macroscopic, and of thicknesses g from $\frac{1}{30}$ in. to $\frac{1}{4}$ in. They were preserved by a formalin d, and looked exactly as if freshly taken from the body. were permanently mounted by a method of the tor's own between glass plates and in a glycerine solu- f potassium acetate. Mr. Lloyd's conclusions from a study of his own sections led him to conclusions to those reported in the BRITISH MEDICAL JOURNAL a ars ago by Mr. Cuthbert Wallace. He also showed s of the uterus prepared in the same way.

oid Fever.—Dr. SIMEON read a paper on some varieties noid fever, with remarks on the causes of death. He ed the disease as a toxaemia the effects of which varied s intensity and with the site of its principal incidence; nal haemorrhage and perforation were the principal of death.

bits, etc.—A paper by Mr. LOXTON on the treatment of n disorders of the skin was taken as read owing to the s of the hour.—Earlier in the evening Dr. MCCARDIE strated the special features of Professor Harcourt's orm inhaler, while Mr. LOXTON showed a case of ulcer which had improved under *x*-ray treatment e of papular syphilides.

THERN BRANCH: PORTSMOUTH DIVISION.

inical meeting on April 12th, Dr. L. MAYBURY, Presi- n the chair, Mr. HENRY RUNDLE exhibited a man, 5; he developed an abscess between the skull and ater twenty-three days after an injury, which stripped rge flap of scalp over the left parietal bone, together ne periosteum. There was no fracture. The sym- were aphasia and left facial paralysis. He was ed and pus let out; the suppuration was limited. began to return on the second day, and the facial para- sappeared within a week. Mr. Rundle also read notes of es of electric current accidents. In one the injuries urns of the hand and head; in the other the electric which had been conveyed by a flame of gas, had ed a temporary paralysis with rigidity of the s of the arm and neck. He also read notes and photographs of a case of haemophilic arthritis.— cases shown were as follows: Dr. J. WARD COUSINS: ial meningocele, a fracture of skull after operation, ngenital plastic oedema of right hand and arm.—Dr. ER MAYBURY: Spontaneous fracture of humerus, and intussusception occurring twice in a young child.—Mr. C. P. CHILDE: A case of obstruction following removal of a double broad ligament cyst; ileo-colostomy.—Dr. R. EMMETT and C. P. CHILDE: Case of choledochotomy, and one of "ideal" cholecystotomy for gall stones.—Mr. A. BOSWORTH WRIGHT: Carcinoma of male breast; congenital absence of fibulae; rodent ulcer treated by *x* rays.—Mr. C. C. CLAREMONT: A case of tuberculous infiltration of larynx after treatment by submucous injection of guaiacol; a case showing the sequelae of herpes ophthalmicus.

Pathological Specimens.—The following pathological specimens were exhibited: Dr. M. ASTON KEY: A mummified foot produced by embolic gangrene.—Mr. C. P. CHILDE: Carcinoma of the body of the uterus, removed by abdominal panhysterectomy.—Mr. C. C. CLAREMONT: A dermoid cyst.

Clinical Notes.—Clinical notes were read by Mr. BASIL TREVELYAN on a case of acute cerebro-spinal meningitis; and by the PRESIDENT on a case of subspinous dislocation of the humerus.

SOUTH-WESTERN BRANCH.

AT the spring meeting held at the North Devon Infirmary, Barnstaple, on March 30th, Dr. W. F. THOMPSON, President, in the chair, Dr. W. GORDON read a paper on the influence of posture on cardiac physical signs.—Mr. RUSSELL COOMBE read notes of a case of hydrocele of the canal of Nuck.—Mr. R. H. LUCY read a paper on the treatment of uterine fibroids.—Dr. DAVY read a paper on the occurrence of fever in children caused by the indigestion of certain kinds of carbohydrate foods.—Dr. DYBALL read notes on a case of secondary parotitis ending fatally.—Mr. A. C. ROPER read a paper on a form of appendicitis.—Mr. J. W. COOKE showed a case of prostatectomy, and Dr. HARPER showed three cases of congenital inguinal hernia occuring in children of the same family, upon whom he had done a radical cure.

REPORTS OF SOCIETIES.

PATHOLOGICAL SOCIETY OF LONDON.

Professor E. KLEIN, F.R.S., Vice-President, in the Chair.

Tuesday, April 19th, 1904.

BACTERIOLOGY OF CLIMATIC BUBO.

MR. CANTLIE and Professor R. T. HEWLETT read a joint communication on climatic bubo. Mr. Cantlie saw the disease, commonly known by the above name, in 1893 in Hong Kong. Many cases occurred, and about a year afterwards plague broke out. The real interest of the subject turned upon the relation of the disease to plague. Climatic bubo was a specific disease accompanied with a high temperature and lasting three or four weeks. The gland affected suppurated, or suppuration occurred around it, and required excision. The pus examined had hitherto proved sterile. Mr. Cantlie named the condition pestis minor. The case in which the present bacteriological examination was made concerned a gentleman in whom a bubo formed in the groin; the periglandular exudation proved sterile, but from the excised gland cultures were made. Professor Hewlett reported that three bacteria were grown from the gland—staphylococcus pyogenes albus, staphylococcus cereus albus, and a minute bacillus staining by Gram's method, and curdling milk. In these respects the bacillus differed from that of plague; it was non-pathogenic to guinea-pigs and mice. As Dr. Simpson had pointed out to the speaker, it corresponded with a micro-organism isolated by Kitasato in 1898 from a case of plague.

Dr. SIMPSON remarked that the bacillus of Kitasato was not infrequently seen in Capetown, and was associated with what was clinically diagnosed as plague. It was significant that climatic bubo was found in the regions affected with plague; it seemed to bridge over the true epidemics.

Dr. A. E. WRIGHT could not help thinking that a disease caused by such a bacillus as that grown by Professor Hewlett could not be called plague; the two micro-organisms were quite distinct. He observed that the glandular disease due to the true plague bacillus assumed all grades of severity: the glands might not suppurate at all, and the disease would, under such circumstances, be quite local and practically incapable of spreading to other individuals.

Dr. D'ESTE EMERY pointed out that the bacillus in question

bore some resemblance to the acne bacillus of Sabouraud, and might possibly be this, that is, it might have reached the glands in some way from the skin.

The CHAIRMAN remarked that sections of such an excised gland would be particularly useful in settling whether the bacillus lay in the tissue; he had seen a similar microbe in connexion with the skin. Kitasato appeared to have modified his descriptions, and it was not easy to identify the micro-organisms under discussion. He did not think the bacillus of Kitasato was a true plague bacillus.

PYOCYANEUS PYAEMIA.

Dr. T. H. HORDER recounted a case of double middle-ear disease terminating in pyaemia, in which the B. pyocyaneus was isolated after death. Purulent spinal meningitis was found after death involving the lower part of the cord; paraplegia had been present.

Dr. W. BULLOCH adverted to the fact that Charrin had noticed spastic paraplegia in animals experimentally infected with B. pyocyaneus, and the same had been described in man. The microbe was highly pathogenic to animals.

EDINBURGH OBSTETRICAL SOCIETY.

N. T. BREWIS, M.D., F.R.C.S.E., President, in the Chair.

Wednesday, April 13th, 1904.

OBSTRUCTED LABOUR.

PROFESSOR JARDINE (Glasgow) read a paper on clinical notes of a series of 22 cases of obstructed labour, 4 cases of symphysiotomy, and 10 cases of Caesarean section. During 1903 Professor Jardine and his colleague had under their care 703 cases at the Glasgow Maternity Hospital. Of this number 98 had contracted pelvis, the very unusual proportion of 1 in 7. Even this was not all, because these 98 only included those in which there was difficulty in delivery. Details were given of 8 cases of induction of labour. In 2 of these the mother died. Some obstetricians believed induction of labour to be unjustifiable, and advocated symphysiotomy or Caesarean section at full term. Perhaps more children would thus be saved, but even in the hands of expert operators the maternal mortality would not be so low as after induction of premature labour. Four cases of symphysiotomy were then narrated. All the mothers recovered. The children weighed $7\frac{1}{2}$ lb., $11\frac{1}{2}$ lb., $7\frac{1}{2}$ lb., and $8\frac{1}{2}$ lb. Ten cases of Caesarean section were next detailed. Here, also, all the mothers recovered. The placenta was found on the anterior wall in nine-tenths of the cases. The uterus and ovaries were left, even if the tubes were tied for the purpose of sterilization.

Drs. HAULTAIN, JAMES RITCHIE, FORDYCE, LACKIE, KEPPIE PATERSON, and the PRESIDENT discussed the paper; and Professor JARDINE replied.

GYNAECOLOGY AND THE THYROID GLAND.

A paper by Dr. R. C. BUIST (Dundee) on some cases illustrating thyroid relations in obstetrics and gynaecology, was read by one of the secretaries. The first case was one of myxoedema with cystocoele and prolapse, in which ventrifixation was performed. The second was one of myxoedema with pregnancy. The third had had enlargement of thyroid in successive pregnancies. Although this was the twelfth pregnancy she had only one living child, because of difficult labour.

THYROIDECTOMIZED ANIMALS.

Dr. OLIPHANT NICHOLSON made a communication on experiments in feeding on thyroidectomized animals. These dogs very readily developed toxic symptoms when fed on meat, which symptoms disappeared when fed entirely on milk. Horsley had noted that some patients suffering from goître (hyperthyroidism) were apt to develop symptoms of auto-intoxication when the dietary contained too much animal proteid. The hypertrophy in Dr. Chalmers Watson's experiments clearly indicated that these glands were overtaxed in their duties to supply an increased amount of secretion to meet the altered metabolism consequent on the dietary. The remarkable influence of milk diet in eclampsia rested on this explanation, and the exhibition of thyroid in eclampsia was indicated.

Dr. CHALMERS WATSON showed specimens illustrating the influence of a raw meat dietary on the thyroid (hypertrophy) and parathyroid glands (hypertrophy). The specimens shown are described in a preliminary note in the *Proceedings of the Physiological Society* for March, 1904.

LIVERPOOL MEDICAL INSTITUTION.

JAMES BARR, M.D., F.R.C.P., President, in the Cha

Thursday, April 14th, 1904.

CARCINOMA OF THE OESOPHAGUS: GASTROSTOMY.

DR. PHILIP NELSON related a case of carcinoma of th oesophagus in a woman aged 50.

Difficulty in swallowing had only existed for three months, bu has rapidly increased. Her voice was hoarse and there had been se ra attacks of laryngeal spasm. On examination there was found b complete paralysis of the left vocal cord and abductor paralysis of th right cord. An oesophageal bougie became arrested at a point op posite the cricoid cartilage.

Gastrostomy was performed by Mr. Paul in June of last ye it resulted in marked relief, and all went well until Jan ar of this year, when she died. Subsequent examination sh ve that the growth had opened into the trachea, the right lu being the seat of a large abscess.

EXCISION OF GASSERIAN GANGLION.

Mr. DAMER HARRISSON related two cases in which he ad removed the Gasserian ganglion for paroxysmal neuralgi

The first case was that of a man aged 45, who for years had su re from severe neuralgia corresponding to the distribution of the in io dental and infraorbital nerves. The inferior dental nerve was ex se in the bony canal and a portion of it excised; the infraorbital ne was exposed and stretched. The operation was followed by co et relief of the symptoms. Some months later, however, there w return of the neuralgia, and Mr. Harrisson, after reflecting the zyg na exposed and tore through the middle and inferior divisions of the ft nerve. Pain was relieved for ten months, but then returned a in Finally the Gasserian ganglion was excised by Rose's method.

This operation was performed seven and a-half years ago, n since then there had been no return of the neuralgia. h second case was as follows:

The neuralgia was confined to the distribution of the inferior d ta nerve; the latter Mr. Harrisson exposed near the base of the sk and tore through. Marked temporary relief followed, but some mo h later, owing to a return of the neuralgia, the Gasserian ganglion wa excised by the same method as in the previous case.

This operation was performed in 1896, and the patient a been entirely free from pain ever since.

THE TECHNIQUE OF ASEPTIC SURGERY.

Mr. PAUL, in opening a discussion on this subject, said a though the recent changes in the treatment of woundsi not constitute a revolution like the introduction of Listeri they were unquestionably very important, and he thou there were many advantages in discussing the details of t i practice. He first dealt with the preparation of the ski of the patient, and said there was a strong tendency amo st surgeons to leave this important matter too much to the s cretion of the nurses. The hands of the surgeon were n considered. For his own part he employed the permanga e method, and was well satisfied with it. Except in se io cases he did not wear rubber gloves, but his assistants d For ligatures and buried sutures he much preferred catgut prepared according to a method he described, to silk, and skin sutures he used silkworm gut. He did not hesitate o employ drainage in the form of a glass tube or gauze if th was any reason to expect an accumulation of serum in e wound. For dressings he preferred plain sterilized gauze a absorbent wool. In conclusion, he said that while the in- duction of Listerism had been the means of saving ma lives, the introduction of the aseptic method had been e means of saving much time through the more perfect heal of wounds.

Sir WILLIAM BANKS said he had followed the whole cou of antiseptic surgery from 1865, when he had learnt its ten from Professor Lister until to-day, and had practised it every phase of its development. More and more it was solving itself into simple but thorough surgical cleanline He deprecated the lavish expenditure upon modern operati theatres, and said he found his operations done in priva just as successful as those done in the most elaborately-bu hospital theatres. He boiled everything that came in cont with the wound, and for this reason preferred silk to catgut a ligature. As to skin cleansing, if the skin was well shave a good scrubbing with any mild antiseptic was all that w necessary. He had a strong opinion that aseptic surge would soon resolve itself into boiling everything that cou be boiled and shaving everything that could be shaved.

Mr. THELWALL THOMAS thought the term aseptic, wh used as opposed to antiseptic, unfortunate; there was such thing as aseptic surgery in the strict sense of the ter for every surgeon used chemical antiseptics for the skin. I

onvinced that the deeper parts of the skin were never red sterile, and was an ardent advocate of the wearing ber gloves by the surgeon and his assistants. He con- d the question of aërial infection a negligible quantity vate practice, but that it remained in hospital theatres, septic and clean cases were operated upon, a matter rious consideration, and he strongly approved of the ple of special theatres and wards for septic cases.

NEWBOLT compared the results of 126 consecutive cases nia operated upon with and without rubber gloves, the tions otherwise being the same. In the first series 1 n 7 suppurated. In the second series suppuration ed in 1 case in 5.

GEORGE HAMILTON said he had performed 125 major ions since May last, and in only 5 of these had sup- on occurred.

LARKIN, Mr. DAMER HARRISSON, Dr. ALEXANDER, Dr. s, Dr. GRIMSDALE, Mr. RUSHTON PARKER, Dr. JOHN ELL, and Dr. E. T. DAVIES also took part in the dis- n.

EDICO-PSYCHOLOGICAL ASSOCIATION OF GREAT BRITAIN AND IRELAND:

NORTHERN AND MIDLAND DIVISION.

RUTHERFORD GILMOUR, M.B., C.M., in the Chair.

Thursday, April 7th, 1904.

pring meeting was held on April 7th, at Scalebor Park, -in-Wharfedale, the new asylum erected by the West County Council exclusively for the reception of private ts, at the invitation of its medical superintendent, Dr. herford Gilmour.

SALINE INJECTIONS AND MENTAL DISEASE.

CHAIRMAN read a paper on the value of saline injec- n certain acute cases of mental disease. His method st to empty the rectum by an ordinary enema and then ct 15 oz. of a 0.75 per cent. solution of common salt r four times daily. Improvement in many cases had d, the mental symptoms quietening and the pulse-rate . The injection was rarely returned and no bad effects en observed. The bladder had to be watched. The ent was most useful in severe delirious cases, where ength was much reduced.

EDDISON believed the improvement was similar to that ng in the febrile cases, in which restlessness and ent abated when plenty of fluid was given. In such he nervous system shared largely in the benefit pro- by the much-needed water.

POPE, MACPHAIL, EURICH, MAULE SMITH, and YAN also discussed the treatment.

NERAL PARALYSIS AND WORKMEN'S COMPENSATION.

MIDDLEMASS related a case of general paralysis of the where the symptoms appeared a week after a fall of 4 ft. from a ladder. The patient had received com- on under the Act, which was withdrawn after his as to the cause of the disease had been heard. Dr. mass based his opinion upon the following facts. The t was comparatively slight, causing no loss of con- ess nor any symptom of direct brain injury; the ms of general paralysis appeared in a pronounced form after the accident; there was also a strong presump- a syphilitic history. The patient died. On necropsy s of traumatism was found in the brain or skull, and te of the cerebral vessels confirmed the syphilitic of the cause of the disease. He asked whether pre- xistence of syphilis should absolve the employer from .

ILMOUR related a case where general paralysis fol- blow upon the head, but in this instance *post mortem*, the signs of this disease, there was evidence of frac- the skull and of secondary meningitis.

ERSON though the accident was often the result of the s clumsiness; where the disease started directly after y, a decided opinion against the claim would not be le, without evidence of previous illness, the accident roused a latent disease.

OHNSTONE mentioned a case where locomotor ataxia y diagnosed after a bicycle accident to an experienced

URICH thought the victim was entitled to compensa- he onset of the disease was accelerated by injury.

Drs. MOULD, POPE, EDDISON, and MAULE SMITH joined in the discussion.

LARYNGOLOGICAL SOCIETY OF LONDON.—At a meeting on April 8th, Dr. P. MCBRIDE, President, in the chair, Dr. STCLAIR THOMSON showed a case of membranous ulceration of the fauces of six weeks' duration in a woman of 36. The glands were enlarged, but there was neither fever, nor Klebs-Loeffler bacilli, Vincent's spirilla, or fusiform bacilli. Those members who discussed the case inclined to a diagnosis of syphilis.—Mr. P. DE SANTI showed a case of chronic hoarseness in a woman of 43. There was general thickening in the interarytenoid space and a small nodule at the right processus vocalis (pachydermia laryngis).—Dr. H. L. LACK showed a man with bilateral abductor paralysis, the result of trauma, and asked whether any operation could be done to relieve the laryngeal obstruction. The opinion of the meeting was contrary to operation.—Mr. H. TOD showed a case of tuberculous laryngitis in a girl of 13 with definite tuberculous disease of both lungs, and 3 cases where the "fenster-resection" operation for deviation of the septum had been performed. The results were satisfactory, but the opinion was expressed that this operation was no new one, and had been performed frequently in England for the last fifteen years.—Dr. H. TILLEY showed a case, exhibited twelve months ago, to illustrate the permanence of the success of an operation for extensive adhesions of the soft palate to the posterior pharyngeal wall.—Dr. H. W. KELSON two cases of disease of the fauces simulating syphilis.—Dr. J. B. BALL showed a case of melanotic sarcoma of the palate in a man aged 53, who had noticed some black patches on the palate about two years before. Some seven or eight months ago a growth commenced on the soft palate which had grown considerably during the last few weeks, while the patient had lost a stone in weight during the last year. There was some slight glandular enlargement under the chin in the middle line. Mr. de SANTI advised thorough extirpation of the growth itself and surrounding parts, but thought the prognosis very bad in any case.—Mr. E. B. WAGGETT showed a pair of shears for thyrotomy and an aseptic forehead-mirror handle for use during operations on the throat and nose.

DERMATOLOGICAL SOCIETY OF GREAT BRITAIN AND IRELAND.—At a meeting on March 24th, Dr. J. H. STOWERS, President, in the chair.—The PRESIDENT announced that Dr. H. A. G. Brooke (Manchester) had consented to give the oration at the annual meeting next month on the Clinical Relationships of Seborrhoea, and that the Society's dinner would take place after the meeting. The following cases were exhibited: Dr. A. EDDOWES showed a case of extensive acute squamous eczema in a woman, aged 55, who was addicted to alcohol.—Dr. E. GRAHAM LITTLE showed (1) a female child, aged 13 months, with purpura haemorrhagica; (2) a boy, aged 10, with prurigo of Hebra.—Dr. V. H. RUTHERFORD showed (1) a woman, aged 35, with lichen planus; (2) a case of (?) lichen obtusus.—Mr. A. SHILLITOE showed (1) a syphilitic eruption of the corymbose type, (2) a case of syphilis and scabies.—Mr. WAREN TAY sent a boy, aged 17, with small pigmented depressions on the bridge of the nose, for diagnosis. The opinions expressed varied between the condition being congenital, of the nature of acne cheloid, an early stage of rodent ulcer and a chronically infected sebaceous cyst.

BRISTOL MEDICO-CHIRURGICAL SOCIETY.—At a meeting held on April 13th, Mr. J. PAUL BUSH, C.M.G., in the chair, Dr. STACK showed some specimens of rare tumours of the breast, with microscopic sections. Dr. SHINGLETON SMITH and Messrs. MOLE and GROVES remarked on the specimens.—Mr. BUSH read notes of a case of acute haemorrhagic pancreatitis. Messrs. MOLE and CARTER and Drs. WALDO and FIRTH discussed the case.—Dr. E. C. WILLIAMS read notes of a case of blackwater fever, and Mr. CARTER and Dr. WALDO remarked thereon.—Mr. MUNRO SMITH read a paper on the diagnosis of malignant tumours by the microscope, illustrated by lantern slipes. Drs. MICHELL CLARKE, STACK, and WILLS discussed the paper.

RAILWAY AMBULANCE MEN.—A competition took place at King's Cross Station last week to select the team to represent the Great Northern Railway in the competition with other railway companies for the challenge shield presented by the St. John Ambulance Association. The judges, Dr. R. J. Roberts and Dr. J. Maclean Carvell placed the King's Cross team first.

REVIEWS.

CANCER.

DR. DAWBARN'S work on *The Treatment of Certain Malignant Growths by Excision of the External Carotids*[1] is one that should receive the attention of all surgeons. Ligature of the carotids for the purpose of starving out tumours of the head and face is a proceeding which has been made use of from time to time, but the infrequency with which it is practised to-day shows how utterly disappointing have been the results. Dr. Dawbarn presents in a most complete and satisfactory manner the histories of 47 cases in which the proceeding which he advocates was carried out, in 21 instances by himself, and also gives an account of 17 cases in which excision of the external carotids was supplemented by injection of the terminal branches. The operation consists in the exposure of the external carotid and its removal in its whole extent with ligature of the branches. In order to cut off the blood supply effectually it is necessary to do this on both sides; after unilateral excision, pulsation returns in the branches within a few days. The results which Dr. Dawbarn records can only be described as remarkable. Of 11 cases of sarcoma whose history was traced, 2 died from the growth, 1 from doubtful recurrence, the remainder were living and well at periods of from one to eight years. In 24 cases of carcinoma the statistics were much less favourable; in 2 cases only occurred what could be called permanent cure. The supplementing of the operation of excision by the injection of paraffin into the termination of the artery and its three last branches was suggested to the author by Dr. J. A. Wyeth; the cases which he records show that this addition is not without serious risks, such as that of sloughing of the eye, but no final opinion can at present be formed as to its value. All the patients on whom these operations were performed were the subjects of otherwise inoperable malignant disease of the mouth, pharynx, neck, or face, and there seems no doubt that the successful cases were rescued from a hopeless condition. In certain desperate cases it seems likely from a perusal of these histories that the operation can be expected to cause such shrinkage of the growth as to bring it within the bounds of possible surgical removal. If this proved to be rule the operation would be of very great value. The technique is clearly described; evidently it is not an easy undertaking under the best conditions, and access to the terminal branches must be impossible in a considerable proportion of those cases in which the growth encroaches on the neck. No doubt the operation will be repeated by many surgeons within the next few years. Dr. Dawbarn must be complimented on the very candid and temperate manner in which he writes of the operation; it seems probable that he will also have to be congratulated on having elaborated a method of treating with a fair measure of success an otherwise desperate condition.

The character of Major FINK'S pamphlet on *Cancer*[2] will be perhaps most readily judged by quoting a few extracts. On the subject of a probable parasitic origin of the disease the author writes that

> "the quasi-independent parasite" or "autosite," which is an amoebiform or plasmodial jelly-like substance, . . . seizes its favourable opportunity through certain flaws and defects in hygiene and sanitation, and develops into a "mycetozoon" or "protomyxomyces," which form of life has a wonderful power of adapting itself to its environments, casting off allegiance to the protophyta, and claiming allegiance to a life akin to protozoa, after passing through a number of changes in the external world of lower animals and insects, etc.

Major Fink feels that the above statement is quite consistent with the laws of parasitology and bacteriology. Professor McFadyean will be surprised to hear that he was the first to discover that cancer occurred in animals other than man. Chemists and bacteriologists will be also surprised to learn that

> since butyric acid is caused by the ferment known as bacillus butyricus, nucleic acid must also "be due to a highly organized ferment with (*sic*) certain bacilli, to which the term bacillus nucleicus might be rightly applied."

We have heard of histologists who have claimed as parasites forms which have later been shown to be of other nature. We have never before found an example of a bacillus being argued into existence and named. The fact that cancer is common at the menopause is probably due, according to the author, to dead or decaying ova which infect the system; they a ferment which sets up a new growth "in the same almost as fleshy growths occur in mole pregnancy uterus." It is surely a new fact in cytology that nu red corpuscles are "intermediate elements" between and red corpuscles! The pamphlet is full of "mo "haematozoa," "animalicules," "acantho cephalidae readers are given a choice of a large number as the " parasite;" Major Fink appears to favour "Gordiu reasons which are not quite clear; we are given to unde that possibly this parasite may enter the human body rently on the ground that it "has been found wanderi the bodies of ephemera." With regard to its entry i human body, "it probably enters a vein or lymphatic the eggs are deposited, and where it sets up changes l to leucocythaemia of a peculiar type, which leads eithe form of lymphadenoma or myxoedema, or to cancer. find it necessary to refrain from any general criticism o remarkable publication.

[1] *The Treatment of Certain Malignant Growths by Excision of the External Carotids.* By Robert H. M. Dawbarn, M.D. Philadelphia: F. A. Davis Co. 1903. (Demy 8vo, pp. 192, 1 coloured plate. 2 dols.)

[2] *Cancer and Precancerous Changes: Their Origin and Treatment.* By C Fink, M.R.C.S., L.S.A., Major I.M.S. (Retired). London: H. K. L 1903. (Demy 8vo, pp. 105. 5s.).

TEXTBOOKS OF SURGERY.

IN the first volume of this *Manual of Surgery*,[3] Dr. THOMSON and Dr. ALEXANDER MILES have given an ment of what promises to be an able and important con tion from the Edinburgh Medical School to the tea literature of modern surgery. This volume, whic assume, presents one-half of the manual, fulfils in all d including the not insignificant ones of size and hand the conditions of an authoritative work on surgery ad to the requirements of both practitioner and student. teaching throughout is in complete accord with the developments of surgical work, and, as would be exp carries out the traditional character of Scotch teachi being practical and thorough. Although with a vi necessary compression the authors have curtailed as possible the discussion of theoretical and debatable m and have dealt with pathological subjects simply in relation to questions of diagnosis and treatment, the m is comprehensive and well fitted to impart sound instru on both the scientific principles and the practical poi the surgery of the present day. The usefulness of the is enhanced by its excellent type, an abundance of ori drawings, and a full and accurate index. The pr volume, in addition to chapters on different branch general surgery, deals with injuries and diseases of bone joints, and with the special subject of the deformities o extremities.

The Principles and Practice of Surgery,[4] by Professor VAUGHAN, of Georgetown University, conforms to the vailing type of works of this kind intended for general titioners and students. It presents no special features it seems difficult, considering the number of such ge treatises that have of late been issued, both in the U States and in this country, to make out how the autho been convinced that there is much need for this additi surgical literature. He has, it is true, presented his sub matter from a very practical point of view, and his teach though condensed, is clear and sound, and such as to re his book trustworthy for purposes of both study and refer It would have been well if the list of special subjects omi from this work had been extended, as some of the chapte those, for instance, on the Roentgen ray and on orthopa surgery—are brief and inadequate. The illustrations, many of which the author acknowledges his indebtedne other sources, are in many instances wanting in clearness in the pictorial excellence that is expected in modern w on medical subjects.

Dr. KEEN and Dr. J. WILLIAM WHITE, who have so edited the American *Textbook of Surgery* from its first is

[3] *Manual of Surgery.* By Alexis Thomson, M.D., F.R.C.S.Edin., Assis Surgeon, Edinburgh Royal Infirmary; Surgeon to the Deaconess Hospital, Edinburgh; and Alexander Miles, M.D., F.R.C.S.Edin., Assis Surgeon, Edinburgh Royal Infirmary; Surgeon to Leith Hospital. V General Surgery. Edinburgh and London: Young J. Pentland. (Crown 8vo, pp. 763; 262 illustrations; 10s. 6d.)

[4] *The Principles and Practice of Surgery.* Designed for Students Practitioners. By George Tully Vaughan, M.D.(Univ. of Va.), Assis Surgeon-General, Public Health and Marine Hospital Service of United States, Professor of the Principles and Practice of Surg Georgetown University, Washington, D.C. Philadelphia and Lond J. B. Lippincott Co. 1903. (Demy 8vo, pp. 569, 281 illustrations, 15s.)

92, have to be congratulated on the success of their ven- and the recent appearance of a fourth and thoroughly ed edition.[5] This book is the result of the combined s of many contributors who have gained a wide reputa- The new edition, it is stated in the preface, has been extensively altered than any of its predecessors, and ins six entirely new chapters. The tendency to in- ed size has been kept down by the use of a thinner and r type, and by the substitution in some few chapters of a er type. The names of the eminent editors and the taken by the contributors in the advance of modern ry form a sufficient guarantee that the excellence and lness of this work have in its latest form been well tained.

English translation of Professor KOCHER'S *Textbook of tive Surgery*[6] by Mr. HAROLD STILES has reached a second n. The thorough revision of the German work and the additions made to it from time to time since the first of the translation in 1895 have led Mr. Stiles to compile ume almost twice the size of its predecessor. Many sec- including those on the treatment of wounds and the tive surgery of the thorax, abdomen, and pelvis, have entirely rewritten; and, indeed, as is pointed out in the e, the present work—a translation of the fourth Ger- edition—may be regarded as practically a new book. arnest endeavour of the editor to impart to British sur- the teaching of the distinguished Bernese professor has m to add in the form of an appendix a translation of an ctive but somewhat polemical paper on gastro- nostomy.

the preparation of the fourth and latest edition of his nown treatise on emergency surgery,[7] Professor LEJARS ndeavoured both by addition and by omission to render complete and reliable source of information on the methods of surgical therapeutics in urgent and very cases. The size of the volume has been increased by ldition of sections on certain fractures, on rupture of the during labour, on inguino-interstitial herniae, and injuries and affections not dealt with in previous edi- Every chapter, the author states in the preface, has revised and rewritten, with the intention of adding to actical details without increasing too much the size of ook. Considerable additions have been made to the er of illustrations which form so marked and instructive ure of the book. Amongst them are sixteen excellent ed plates from water-colour drawings by M. Leuba, represent the important stages of certain operations, r instance, trephining of the cranium and mastoid n; and hysterectomy, removal of the appendix, enter- y, and other procedures of abdominal surgery.

ORTHOPAEDICS.

the volume[8] by Drs. JULIUS WOLFF and JOACHIMSTHAL mainly with the pathogenesis and treatment of club- he first part of it is devoted to the general factors, logical and anatomical, by which the shape of the is determined. Then the value of the study of logical and functional influences in elucidating the genesis of deformities is emphasized, and Wolff's which is now widely accepted, is frequently men- in this part of the book. The factors determining the of the skeleton in general are then examined more ely, so far as their application to club-foot is concerned. e various theories are duly discussed, with a wealth of graphy and such patience and thoroughness as is only met with in special treatises. The latter part of the describes the various methods for the treatment of club-foot of various kinds, and more particularly contrasts the procedures of Volkmann, Lorenz, and Hoffa. Finally, Dr. Wolff gives his own experiences, but we must confess that the figures illustrating the cases do not convince us that the results are all that can be desired. As a work of reference we think that if the bibliography had been duly tabulated, and if an index of subject material and of authors' names had been added, the volume would prove of greater use to those interested in the subject.

Mr. NOBLE SMITH is well known for his writings on spinal caries, and now he presents us, in his small work on the *Management of Lateral Curvature of the Spine*,[9] with his experience in the treatment of lateral curvature and kyphosis and kindred deformities. In the preface he states that he has discussed the advantages to be derived from scientifically-applied exercises, and has also endeavoured to show that in a large number of cases the use of a mechanical appliance is advantageous, while he freely admits that there has existed a strong prejudice against the use of spinal apparatus. He believes that he has found a simple splint which is free from the objectionable qualities appertaining to the older mechanism. On looking through the volume we find that this particular splint is Chance's spinal support, a somewhat difficult arrangement to adjust properly and one requiring frequent attention. We must confess that we are unable to pin our faith so thoroughly to this apparatus as the author does, and we look upon it as more likely to be suitable to those cases in which no further improvement may be expected and where the object is to prevent the patient from becoming worse. The book is well printed and most of the illustrations are good, although we do not find anywhere a clear diagram of Chance's splint. We lament also the absence of an index. To those who desire information as to some varieties of spinal and chest exercises the little volume will prove useful.

FRACTURES.

PROFESSOR HELFERICH'S *Atlas of Fractures and Dislocations*[10] has, under the editorial supervision of Dr. BLOODGOOD, been added to the useful series of books known in their English form as Saunders's Medical Hand Atlases. In this authorized translation from the fifth and last edition of the German work, both editor and publishers have succeeded in presenting a book of much practical value in so fitting and convenient a form as to render it acceptable to students as well as to practitioners. The high repute of Helferich's *Atlas* and the service it has rendered to students of clinical surgery are due for the most part to the excellence of the illustrations, which are intended to show side by side the external signs and the internal anatomical lesions of the typical forms of both fracture and dislocation. To these are added Roentgen-ray pictures, in which the effects of traumatism are compared with the normal conditions of bones and articulations. The clearness, accuracy, and pictorial qualities of the original drawings are well preserved, and the descriptions afford good examples of careful translation. To the epitome or general comment of the original author Dr. Bloodgood has made some extensive additions, which serve to bring under the reader's notice the most recent views on the treatment of fractures and dislocations, and certainly add to the value of the book as a clinical treatise.

Dr. SCUDDER'S book on the *Treatment of Fractures*[11] has gained a permanent place among the many treatises on this subject written by American authors, and may be regarded as an instructive guide to the modern methods of diagnosing and of dealing with these common forms of injury. In the fourth edition the author has revised and added to the text, and written a new chapter on the generally-accepted methods of treating a few of the ordinary dislocations. Several *x*-ray plates of the epiphyses at different ages of life have been in-

xtbook of Surgery for Practitioners and Students. Edited by William n, M.D., LL.D., F.R.C.S. (Hon.), and J. William White, M.D., Ph.D. lumes. Fourth edition. London: W. B. Saunders and Co. 1903. ro, pp. 1,363. 590 illustrations. 30s.)

book of Operative Surgery. By Dr. Theodor Kocher, Professor of and Director of the Surgical Clinic in the University of Bern. ized Translation from the Fourth German Edition, by Harold J. M.B., F.R.C.S.Edin., Surgeon to the Royal Edinburgh Hospital for ildren, etc. London: Adam and Charles Black. 1903. (Roy. 8vo, 255 illustrations. 20s.)

té de Chirurgie d'Urgence. Par Felix Lejars, Professeur Agrégé a lté de Médecine de Paris, etc. Quatrième édition. Paris: Masson 1904. (Cr. 8vo, pp. 1108. 836 illustrations. Fr. 30.)

r die Ursachen das Wesen und die Behandlung des Klumpfusses. [On ses. Condition, and Treatment of Talipes.] Von Dr. Julius Wolff, b. Medicinalrath. a.o. Professor der Chirurgie und Direktor der Universitäts Poliklinik für orthopädische Chirurgie zu Berlin. gegeben von Professor Dr. Georg Joachimstal. Berlin: August wald. 1904. (Demy 8vo, pp. 170, 9 illustrations. M.4.)

[9] *The Management of Lateral Curvature of the Spine, Stooping, and Development of the Chest in Phthisis.* By E. Noble Smith, F.R.C.S.Edin., Senior Surgeon to the City Orthopaedic Hospital. London: Smith, Elder and Co. 1904. (Cr. 8vo, pp. 141, 45 illustrations. 2s 6d.)

[10] *Atlas and Epitome of Traumatic Fractures and Dislocations.* By Dr. H. Helferich, Professor of Surgery in the Royal University, Greifswald. Authorized translation from the German. Edited by Joseph C. Bloodgood. M.D., Associate in Surgery, Johns Hopkins University, Baltimore. Fifth Edition. Philadelphia and London: W. B. Saunders and Company. (Crown 8vo, pp. 353; 406 illustrations. 13s.)

[11] *The Treatment of Fractures, with Notes upon a Few Common Dislocations.* By Charles Locke Scudder, M.D., Surgeon to the Massachusetts General Hospital. Fourth edition. London: W. B. Saunders and Co. 1903. (Demy 8vo, pp. 534: 668 illustrations: 21s.)

troduced, and the accuracy of the other illustrations has been increased by the introduction of half-tones. The work in its present form is a lucid and practical review, and may certainly be regarded as one of the best illustrated volumes on its subject.

NOTES ON BOOKS.

DR. REGINALD FARRAR, in writing *The Life of Frederick William Farrar*,[1] has collected material chiefly from friends of his distinguished father, and is wise enough to suppress any personal feelings which, however natural, might render the book less generally interesting. He has not aimed at writing a complete and exhaustive biography, but rather a memoir of such length as to be read by the general public. Frederick William Farrar, son of the Rev. Charles Pinhorn Farrar, was born in Bombay, on August 7th, 1831, and began his education at King William's College, Isle of Man, afterwards passing through King's College, London, and Trinity College, Cambridge. After being assistant master, first at Marlborough and then at Harrow, he became head master of Marlborough in 1871; he was appointed successively Canon of Westminster and Rector of St. Margaret's and in 1895 Dean of Canterbury. Farrar, who was an ambitious man, was not happy nor at his best as assistant master, teaching in a low form, and being able to preach but once in a term. He had only a small boarding house, and had no means of being a leading spirit, nor was he consulted about the management of the school. His friends were glad therefore when he became head master at Marlborough, and had a field for his great powers. He was assisted by an exceptionally able staff, which served under him with loyal and heart-whole devotion, and Marlborough rose to the very zenith of her great reputation. Of his transfer to St. Margaret's Bishop Montgomery, one of his curates there writes:

> It was obvious that the Canon was not brought to Westminster for the parish work, but for the sake of the Abbey and of St. Margaret's pulpit, as a factor in the religious life of London.

The Rector accepted this position, and left most of the parish work to his curates, although he visited to a certain extent and taught for some years in the schools. Farrar was one of the great preachers of Queen Victoria's reign, and while he was Canon of St. Margaret's, Westminster, the church used to be crowded to overflowing. Of his work there Bishop Montgomery writes:

> The transformation of St. Margaret's, both as a building and as a spiritual force, was the crown of the Canon's work as Rector. It is no derogation to the earnest men who were in power in the parish before him to say that Canon Farrar revolutionized the Church from every point of view..... The congregations were of course enormous. Constantly those who could not gain admittance betook themselves to the Abbey instead. The House of Commons seats (for it is the church of the House of Commons) were filled. Americans made it a point to worship, not only in the Abbey, but also to listen to Canon Farrar in his parish church. Soon a large choir was formed, homely in one sense, a truly parochial choir, composed of men who were never absent, and whose numbers were only limited by the space in the Church. The sidesmen and churchwardens never failed to be present, and were hard-worked officials in their attempts to cope with eager throngs collected from all parts of London, and indeed of the world. I have seen the church so full, again and again, that it was almost a painful sight.

It is interesting to speculate whether Farrar would have been a successful bishop, the fact that he was believed to favour certain schemes for reforming the Church of England which were looked upon with disfavour by members of the Church in high authority, probably prevented his elevation. But he was a remarkable man, and his *Life of Christ*, which helped thousands to understand the New Testament, thereby rendering a lasting service to the cause of religion, would alone have earned for him the lasting gratitude of the Church. An accidental fall, some years before his death, set up an insidious process of degeneration in the spinal cord, the results of which caused progressive muscular atrophy, and finally robbed him of all power in the upper extremities; finally atrophy of the muscles of respiration brought his life to a peaceful and painless end.

The Book of Herbs,[2] by Lady ROSALIND NORTHCOTE, is one of the series of Practical Gardening books edited by Mr. Harry Roberts. The book is divided into three parts, the first dealing with the chief herbs used at the present time, the second with herbs chiefly used in the past, and the third with herbs used in decorations, in heraldry, and for ornament and perfumes. In a chapter on herbs in medicine we read:

> Many herbs have been expunged from modern *Pharmacopoeias*. Perhaps we have no use for them now that we in England no longer live in perpetual terror of the biting of sea-hares, scorpions, tarantulas, as our forefathers seem to have done! Herbs are rife out among the country poor in favour of quack medicines, though some are still employed, such as wood-sage, dandelions, centaury, meadow-sweet as "bitters." Hellebore is also used, and angelica holds a high place among village herbalists. The dried leaves are said to have great power to reduce inflammation. Mallows are likewise used, while elder still keeps its place in the *British Pharmacopoeia*. Primrose, poor-man's-friend, and comfrey are together made into ointment, white comfrey being used when the ointment is for a woman and red-flowered comfrey for a man. The juice of house-leek mixed with cream relieves inflammation, and particularly the irritation which follows vaccination in an arm "taking beautifully." Pennywort is said to be equally efficacious, especially used with cream, and when simmered with the "sides of the pan" have been known to heal where linseed poultices failed to do good. When the leaf of pennywort is applied to a wound one side draws, the other side heals. Marigold tea is administered for measles, and also in a less degree saffron, both probably on the "doctrine of colour and analogy" referred to the rash. Meadow saffron is still officinal, and is dispensed as tincture of colchicum. Bog-bean and furze are popular remedies, while camomile is officinal. Dr. Schimmelbusch, the great authority, recently recommended it as a mouth wash for disinfecting the mucous membrane after cases of operation of the mouth. In a fomentation camomile heads are a recognized anodyne, and wild camomile and red pimpernel are given locally for asthma, it is said, with great success. Numerous other herbs too many to enumerate, are said to have medicinal and healing properties.

Abroad herbs are much more commonly employed than among the educated classes than in England. Thus, in France tisanes are given for indigestion, headaches, chills, and other ailments. The tisanes are made of such herbs as lime blossoms, violets, marsh mallow, and camomile flowers, while Iceland moss is considered an infallible remedy for a cold, and a teaspoonful of orange flower water is believed to relieve headache or a feeling of nausea. Lady Rosalind Northcote's book contains numerous illustrations, and is altogether readable.

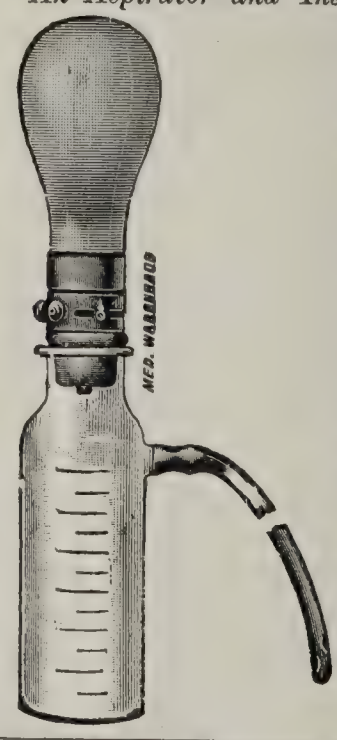
[1] *The Life of Frederick William Farrar, sometime Dean of Canterbury.* By his son, Reginald Farrar. London: James Nisbet and Co. 6s.

[2] *The Book of Herbs.* By Lady Rosalind Northcote. London: John Lane. (2s. 6d.)

REPORTS AND ANALYSES
AND
DESCRIPTIONS OF NEW INVENTIONS
IN MEDICINE, SURGERY, DIETETICS, AND THE ALLIED SCIENCES.

MEDICAL AND SURGICAL APPLIANCES.

An Aspirator and Insufflator.—The annexed figure represents an apparatus which ALBERT ROSENAU, of Bad Kissingen, has had made. Its primary purpose is to withdraw liquids from the stomach for analysis, but, in view of its portability, he thinks it would prove useful in general practice as an instrument for evacuating pleural effusions in children or for inflating the lungs of asphyxiated infants. It consists of a graduated bottle of the capacity of about 7 c.c. communicating with a stomach tube and closed by an indiarubber stopper. The latter has three valved apertures, any one of which can by a rotatory movement be made to communicate with the superimposed elastic bag. Thereby the atmospheric pressure within the bottle can either be exhausted or increased at will. It has been made for him by the Medicinische Waarenhausenactiengesellschaft, Berlin, and the price is £1 4s.



MILK PRECAUTIONS AT LIVERPOOL.—At Liverpool a dairyman has recently been fined 40s. and costs for failing to give written notice to the medical officer of health that one of his cows exhibited signs of tuberculosis of the udder.

QUEEN VICTORIA MEMORIAL PAVILIONS, ROYAL PRINCE ALFRED HOSPITAL, SYDNEY, N.S.W., AUSTRALIA.

Professor T. P. ANDERSON STUART, M.D., LL.D.,
Chairman of the Board of Directors.

orking out the design of these two new Queen Victoria orial Pavilions for the Royal Prince Alfred Hospital, ey, I had so much help from the plans and descriptions her hospitals, often published in the BRITISH MEDICAL JOURNAL, that I am persuaded that a few notes and some of the plans of the pavilions would probably be of assistance to others. I have touched only such points as I think will be useful. The perfect architect is difficult to catch, even in Europe, but I should record that our architect, Mr. Walter Vernon, Government Architect of N.S.W., and I have acted together in the most cordial way.

The two pavilions are practically alike in every respect, and together add 250 to the 236 existing beds, so that they double the capacity of the hospital. One is named the Albert Pavilion, the other the Victoria, and each is surmounted by a bronze statue of the Prince Consort and of the Queen respectively. They are in red brick, while the rest of the hospital is in white, so that altogether they form a distinctive memorial of Her late Majesty. The cost will be about £90,000, defrayed partly by public subscription, partly by a Parliamentary vote—the latter providing the building as such, the former providing the fittings and furniture. The buildings have been erected and roofed, and now the fittings are being supplied. The cubic air space, floor space, window areas, etc., all follow familiar data, so that they need not be specified here. The walls are hollow. Each pavilion has a basement and three floors. The floors are identical in the two pavilions, and the three floors in each pavilion are identical, except as to the piece projecting backwards from the middle of each pavilion (Fig. 1.). Thus one plan of the main part of the pavilion serves for all the six floors.

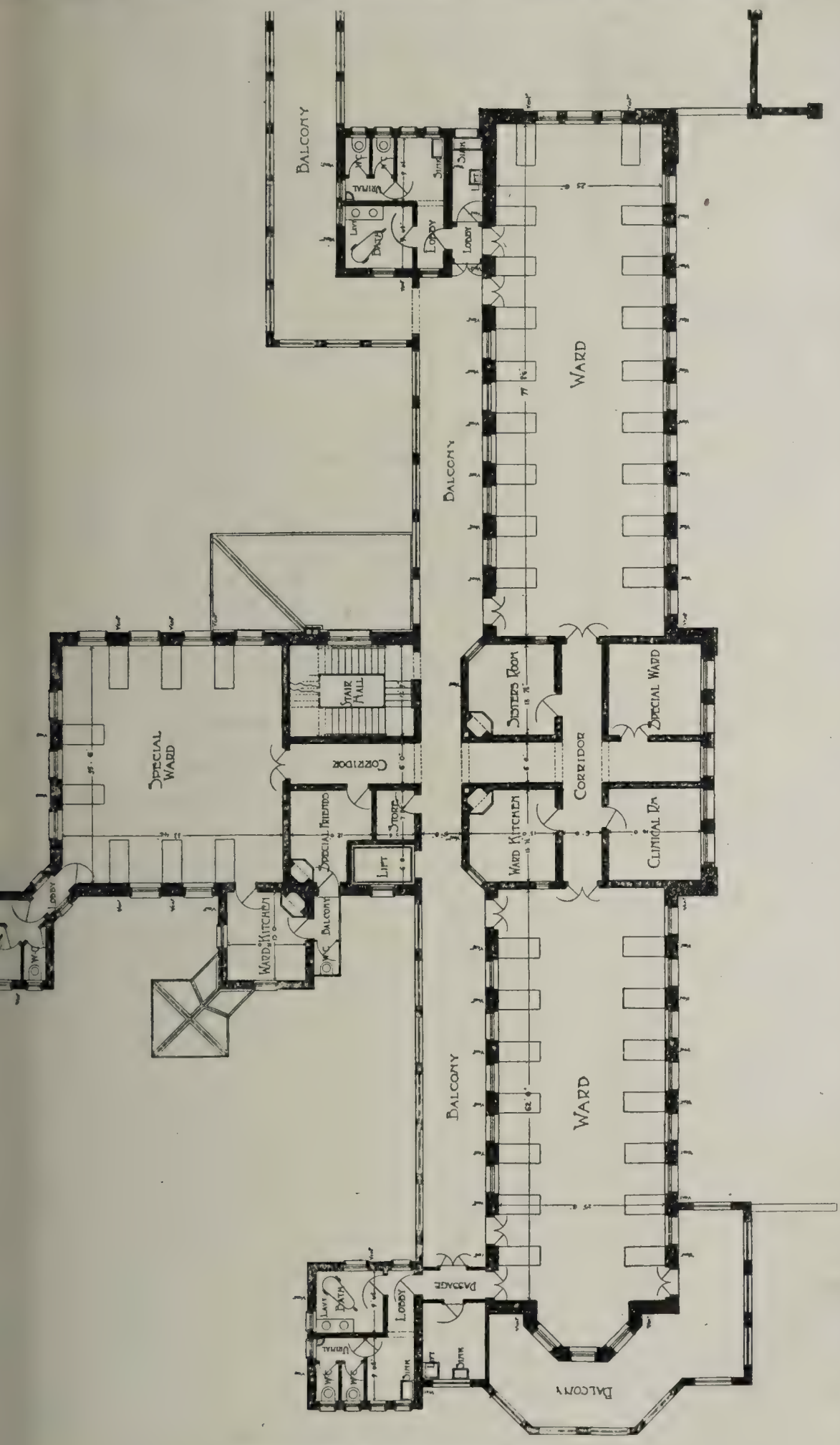


Fig. 1.—General plan of the six floors.

The large wards have 18 and 16 beds respectively, and are separated by the nurses' dayroom—the nurses "live" in the home—the ward kitchen and a corridor, a large clinical room, a special ward for 1 or 2 beds, and a corridor which serves as a convalescent patients' dayroom. The lavatories and bathrooms are shut off by a passage with cross ventilation across the balcony. The surgical-dressing sink is approached from this passage and is on the balcony, as is a small lift for linen, etc. The balcony gives ample sun and shade and, kept from the front of the buildings, it is private. The windows on the west side are provided with outside venetian shutters controlled by a special screw arrangement within the ward. The staircase has no openings from the house itself; it opens only from the open balconies and is fireproof throughout. It thus acts as a fire-escape. The lifts provided for are hydraulic, but I find electric lifts now so very perfect that they may yet be adopted. The walls are of painted cement, with a dado of tiles or opalite. The flooring is a most vexing question; pitch pine brought up with wax has been provided for, but terrazzo tiles 4×4 ft. may yet be adopted. No artificial system of ventilation is required in such a climate. Doors and windows can be kept open pretty well all the year round. Open fires and radiators have been provided.

In the projection from the middle of the pavilion and on the ground floor is a special ward of 8 beds. Similar wards are in the basement

of this projection, so that altogether much segregation and classification of cases is possible. On the first floor are a lecture room and annexes, and over these on the second floor is a very complete operating department.

There are already two operating theatres in the hospital, so that there will be four in all. Besides these, it is intended to provide separate ophthalmic and gynaecological operating rooms. The enlarged plan (Fig. 2) renders much description superfluous. I would merely say that no sinks or other fixed fittings of any sort will be within the operating area proper. All these things will be in the adjacent anteroom, which may be shut off from the operating area by a sliding door. The walls of the theatre generally will probably be of cement painted of a dark-grey colour, so as not to blunt the acuity of the operator's vision. Light is from a single very large window on the south side and going up into the roof. The filtered air entering the operating area will pass outwards over the heads of the spectators, the outward current rendering unnecessary any special arrangement for shutting off the spectators from the operating area. The spaces below the gallery are used for a surgeon's vestiary and for the instrument porter. The surgeons' bathroom seems necessary, especially in the hot, steamy weather, of which we have so much. The gallery is not shown in the plan. The entire theatre will be flushed or steamed in the manner now usual. With a large anaesthetic-room a recovery-room is really not required.

The basements are entirely devoted to the special wards beforementioned, the dispensary and its annexes for the entire hospital, a patients' library, a patients' clothes-room, photographic, Roentgen, electrical, massage, medical bath, Finsen, and children's physical exercise departments, record rooms, Samaritan Society and various stores.

In conclusion, I should like to acknowledge the very great kindness with which I have been treated in visiting numerous hospitals during my visit to the Old Country.

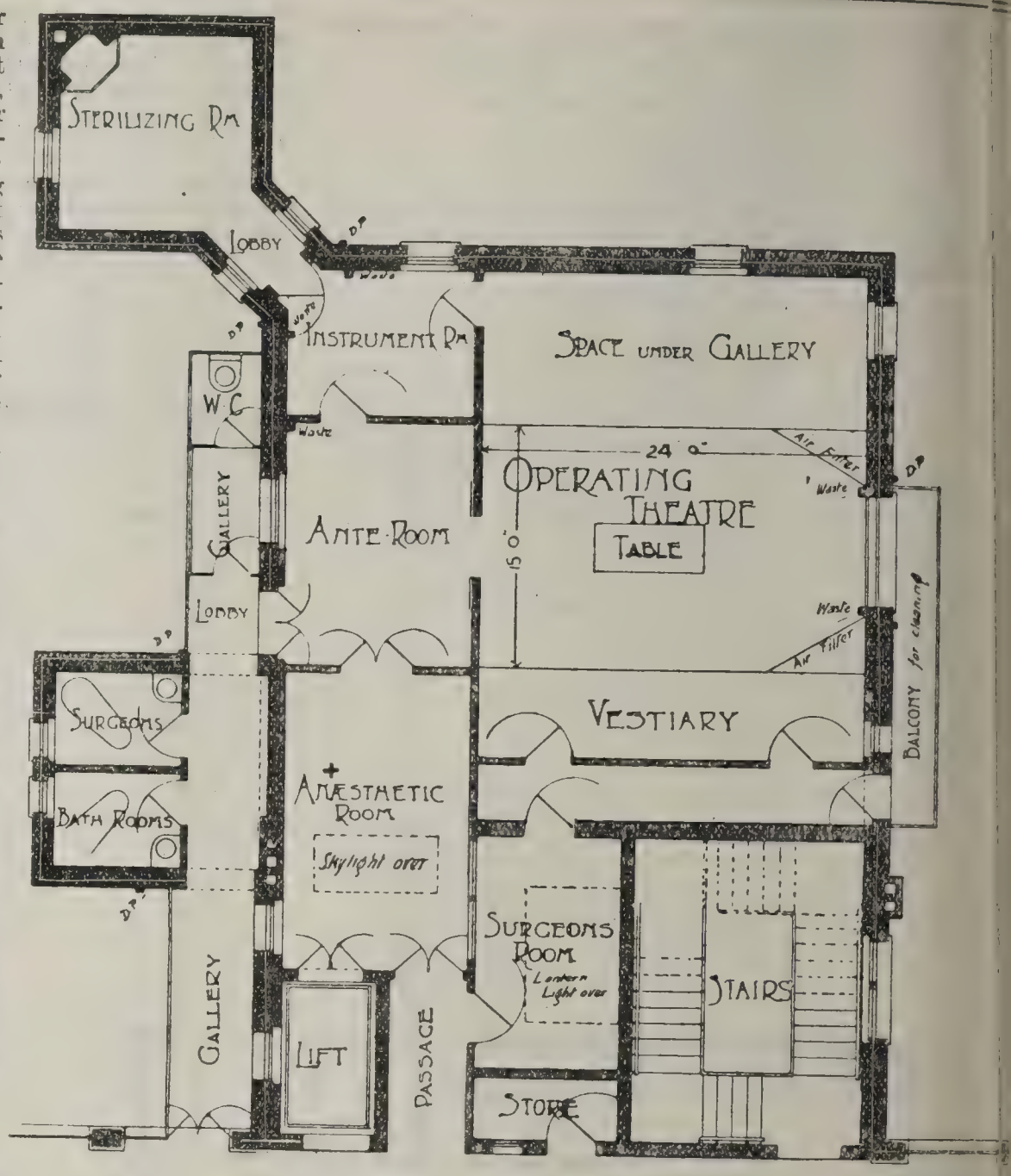


Fig. 2.—Operating departmemt. (Enlarged scale.)

NOVA ET VETERA.

CHINESE MEDICINE.

ACCORDING to Dr. Krause, who some time ago read a very elaborate paper to the Military Medical Society of Berlin,[1] Chinese medicine at the present day is not merely at a standstill, but is declining. There was a time when great activity was displayed; thus the Emperor Chên-hung B.C. 2737-2697 published a work on materia medica containing 260 prescriptions, for which he collected the herbs himself. The Emperor Huang-ti B.C. 2697-2597 wrote a book on hygienic gymnastics, and published B.C. 2697 the *Nei-tjing*, a large anatomical work. He also collected all the scattered works on medicine into an encyclopaedia. Among later works the most celebrated are the *Pen-tsao*, a treatise on herbs in five volumes, by Lischitschin (Tang dynasty A.D. 618-907), which contains 11 886 recipes; and a book on therapeutics by a prince of the Ming dynasty A.D. 1368, containing 27,739 recipes. Very ancient works on hygiene still exist, but the most recent important book of the kind was written in A.D. 1591. Works on the diseases of women and children also exist. The esteem in which a knowledge of medicine was held in ancient China is shown by the fact that the Emperor Shi-Hoang-ti B.C. 264-209, the powerful political peacemaker of China, who ordered the great burning of bo excepted all those on medicine.

EDUCATION.

As the Chinese, saturated with the spirit of Confucius, in their classic literature the highest wisdom and cling the moral therein contained, so do they also cling to ancient teachings on medicine. Scarcely any advance been made in this subject for centuries; the old ideas accepted as absolutely true. In fact, there is no mod medical literature in China which is not grounded wh and entirely on the principles and teachings of the medical classics, except where here and there the influe of such a Western school as that at Hong Kong makes its felt over a limited area.

There are no restrictions on the practice of medicine; th are no examinations and the calling is often heredita Persons who have passed the literary examination often deve themselves to medicine, for the number of vacancies official posts is small in comparison to the number of th who pass the examinations for them. A knowledge of t medical books is the first thing needed. Then the pu must go for instruction to an experienced physician to lea how to undertake examination of cases, especially how feel the pulse. At least two years is needed for this.

The Court of Medicine in Peking (Tai-i-Yuen)—one of t small offices of the State—seeks to preserve carefully t teachings of the ancient medical classics and to see that t practice of medicine is based on these teachings rather tha to encourage new knowledge. It is a kind of medical hig school in which only theoretical instruction is given. T teachers are mandarins who have passed the ordinary litera examinations and have devoted themselves specially to th study of medical literature. From them is chosen th Emperor's physician.

[1] *Berl. klin. Woch.*, 1903.

fixed branches of therapeutics taught in the Tai-i-Yuen

iseases of the large blood vessels.
iseases of the small blood vessels.
ever.
iseases of women.
iseases of the skin.
cupuncture.
ye diseases.
iseases of the throat, mouth, and teeth.
iseases of the bones.

lical practitioners are not much esteemed in China. ly they rank above the priests, but below the geo- ers and schoolmasters. Educated people in China only n medical advice in serious illnesses, and usually treat selves with the aid of medical books. It is dif- with the lower classes. The doctor impresses greatly because he can read and write, and learn- s held in great esteem among the Chinese. The f education, the terrible superstition of the people, and nclination to mysticism render it easy for medical men in an influence, and on this account they are treated much respect among the poor; everywhere the words (great master of medicine) are used. Nicknames also equently given—for example, Dr. Root of Strength, Dr. arb, Dr. Salts of Hartshorn. While in many books on written by Europeans the native practitioners are n of contemptuously as quacks, charlatans, and lers, trading on the stupidity of the masses, yet there me who are fully convinced of the value and incontest- ess of their scientific conceptions.

medical profession is not remunerative in China; one is a high fee, but often not a fifth of that sum is paid; quently it is not a favourite calling among the practical se. Consultations are usually held in the morning at actitioner's house, patients being taken in their turn as come in the appointment book. The examination of the t does not last long. Some practitioners prepare the ines themselves, but for the most part the prescrip- written on red paper, are taken to be made up at a st's shop, which is nearly always elegantly decorated, ront attractively adorned. Great cleanliness reigns , and the excellence of the medicine is advertised in tters, but the prescribing chemist is not unknown. In hai and Canton there are clinical hospitals, benevolent tions in which patients are examined and treated with- fee; connected with each is a pharmacy and coffin factory, medicines and coffins being provided gratis.

Anatomical and Physiological Theories.

wledge of anatomy is very backward in China. Ana- al observations are based on imagination rather than observation. The difference between tendons and s (*kin* signifies both tendon and nerve) and between es and veins is unknown; the capillary system is un- t of. The cranium, pelvis, forearm, and leg are looked as each forming one bone; the large joints are depicted o rollers, the small ones completely ignored. The , it is taught, passes through the lung to the heart, the heart is connected by tubes with the liver, the , the kidneys, and the small intestine. Urine passes gh the latter into the bladder. The spinal marrow s to the testicle. Thus does the Chinese medical prac- er picture to himself the construction of the human

physiology of the Chinese is based on a peculiar system tural philosophy which has many points in common religious, philosophical, and occult theories.

ording to the Chinese, Kosmos arose out of the co- tion of *yâng*, the male, and *yin*, the female principle, ts equilibrium depends on the harmonious activity of two principles. Mikrokosmos represented by mankind, roduct of the co-operation of *yâng* and *yin*, is, like okosmos, the whole living world system, only a mani- ion of universal life. This thought is symbolically ex- ed in a Pantagramm, called *pa Kua* (the eight signs) ed to the Emperor Fu-Hsi, (2900 B.C.) which is the ation of most of the intellectual and philosophical es of the Chinese.

lth, they teach, depends on the equilibrium of *yâng* *in*, on the even balance between weakness and strength, ty and dryness, heat and cold. Of the 12 organs of man governed by *yâng*, and are expansive, their domain is umerus; 6 by *yin*. and are residuary, their sphere being lood. If *yâng* predominates there is excitation, if *yin* depression. The 5 main organs of man correspond to the 5 elements, 5 stars, 5 colours, and 5 sensations of taste, as in the following formula:

Saturn.	Stomach.	Earth.	Yellow.	Sweet.
Jupiter.	Liver.	Wood.	Green.	Sour.
Mars.	Heart.	Fire.	Red.	Bitter.
Venus.	Lungs.	Metal.	White.	Sharp, biting.
Mercury.	Kidneys.	Water.	Black.	Salt.

These speculations lead to other extraordinary theories of the functions of the various organs of the human body. The chief organ is the heart, and, together with the stomach, is the source of thought; the stomach is the organ for breathing; the lungs expel the humours; the gall bladder, which purifies the fluids of the body, is the seat of courage (*tan* = gall = courage). The liver is the seat of sensations, while brain and spinal marrow produce the semen. The right kidney is the seat of the sexual functions. The pulse indicates any disturbance in the state of the body. The pulse is felt at 11 peripheral arteries, and it is believed that every organ has a spectal pulse, which can only be felt by a certain finger. The pulse varies with the sex, age, emotions, seasons, hour, and so on. At least 57 variations of the pulse are known, and it takes two years to master the technique of pulse feeling.

Next to the pulse, the outward appearance of the patient is most relied on to indicate the state of health, but the tongue is examined also. Much stress is laid on these signs, as it is believed that every part of the body has an organ with which it corresponds—for example, the tip of the nose with the stomach, the lobe of the ear with the kidneys, and so on. The breath, taste, etc., of the patient are also studied, the expectoration and urine examined. Attention is paid to palpation and to the influence of cold or heat on the organ examined; auscultation and percussion are unknown.

Therapeutics.

With regard to treatment, internal medication is the most usual. Distinction is made between tonics, astringents, resolvents, purgatives, and alteratives. Among 442 remedies, Hobson found that 314 were from plants, 78 from animals, and 50 from minerals. Roots, blossoms, stems, leaves, and fruit are given in the form of mixture, decoction, pill, powder, or bolus. The skins and hides of animals are specially prepared and used, and salts from various minerals are employed both externally and internally in the form of powder for wounds, plasters, and ointments.

In catarrh of the respiratory organs celery, ginger, nelombo, aconite, gentian, cinnamon, opium, arbor vitae, bamboo, colt's foot, violets, burnt scales of tortoise, toad's saliva, pills from old loam are given according to the effect it is desired to produce, exciting, expectorative, or sedative. In pneumonia an ammoniacal drink with liquorice, clematis, and aristolochia is given. In phthisis a sovereign remedy is *O-tschian*, a gelatine made from asses' skin boiled in arrack. Orange peel is also given, compounded with salt, vinegar, and urine. Oedema is treated with old loam, water plantain, smilax, convolvulus, black beans, and areca nut. Diseases of the kidneys with pigs' kidneys. In haemorrhoids gentian, aconite, ginger, nelombo, gypsum, borax, pulverized rhinoceros horn, burnt hair, or garlic are given. The most effectual remedy in nose-bleeding is powdered dragons' bones, a preparation which we grieve to hear is frequently adulterated. For catarrh of the digestive organs, pepper, cloves, green orange peel, squills, coriander, the crop of a young fowl, or French beans are among the remedies prescribed. As an emetic betony is used, in constipation rhubarb, tamarinds, plums, etc. For dysentery, which is very common in China, there are many remedies, such as magnolia, water plantain, nutmeg, helianthus, cinnamon, snakes' skin, peel of pomegranate root, aloes, and rhubarb. In congestion of the liver sweet basil, buds of bamboo, and elephant hide are used.

Lunatic asylums are unknown in China, but the insane are kindly treated at home. Among the lower classes lunacy is looked upon with superstitious awe.

Various forms of paralysis are described in Chinese books, and maple roots, red sulphide of mercury, tigers' bones, musk and cricket skins are favourite remedies. Camphor and valerian are used for hysteria, which is frequent in women in China.

Infectious Diseases.

Small-pox is frequently epidemic in China, and attacks large numbers. Pock-marked people are often to be seen, and

many are left blind after an attack. Owing to the prevalence of this disease, the Chinese have made a special study of it, and it is curious to find that they believe that the infection which they hold is contained in the fluid of the pustules or in the scabs spread by the wind.

The Chinese have known of variolization since the tenth century, and it is often performed; powdered scabs of mild cases of small-pox being used. This powder is rubbed into the nostrils or the region of the navel. Very carefully-prepared remedies are prescribed, some internal, some external; and it is believed that the disease may be aborted by the use of celery, dahlia, origanon, and liquorice; the eyes are treated with chilidonia, ibex, and rhinoceros-horn powder.

Cholera is not infrequent; aconite root, betony, atractalys, cinnabar, and arsenic are usual remedies. Plague, common in the south, is treated with purgatives (rhubarb), sudorifics (ginger), and diuretics (potassium nitrate).

The treatment of malaria with quinine is unknown. The principal remedy used is magnolia hippoleuca; others are boiled tortoise heads, buffalo cheese, and iron peroxide.

Syphilis is treated much in the same way as in Europe. The use of mercury dates from the tenth century, but is not so energetically employed. It is given internally in the form of calomel, sublimate, and other salts, mixed with calcium sulphate.

Diphtheria is treated by blowing into the throat an astringent powder composed of various ingredients. This is said to be very effectual.

Surgery.

The knowledge of surgery is in a deplorably backward state in China. Confucius taught that a man must keep his body unmutilated, and out of love for his parents must avoid all danger to life. Sometimes the Chinese will let European surgeons operate on them but seldom or never their own. A Chinaman will take the greatest care to preserve an amputated limb, so that after his death it may be buried in the coffin with him so that he may appear worthily before his ancestors.

The treatment of fractures and dislocations is ineffectual owing to the want of anatomical knowledge. Deformity is not corrected but plaster is applied and bamboo splints to prevent movement. Massage has always been greatly used, not only with the hands but also with balls and wooden strikers. Moxa, cauterization, cupping, and bleeding are frequently resorted to.

Plasters are applied to gunshot wounds to extract the balls. Antiseptics are unknown. A solution of alum, pepper-water, powdered tobacco, paper ashes, burnt scales of animal skin are used for dressings.

Operative surgery is limited to extraction of teeth, opening of abscesses and boils. Surgical instruments are primitive. In treating an abscess a preparation of dried toads or litharge is first applied to bring it to a head; then very cautiously it is cut to make a way for the matter to escape.

Acupuncture is used in every kind of illness, even in fractures, cholera, and diseases of the stomach. It is performed with steel needles, which are inserted deeply into certain parts of the body to remove the supposed stoppage of the canals.

Glasses have been used for correcting errors of refraction for centuries. Numbers of the upper classes wear spectacles. Several eye operations are common, such as cataract extraction and paracenteses of the anterior chamber. Inflammation is treated with chelidonia, goat's gall, or woman's milk.

Midwifery.

Women in labour are in ordinary cases attended by midwives. Various drinks are given to the women—ergot, bats' excrements, with childs' urine and arack. There are many works on the treatment of children during the early days after birth. After the birth the mother is given dried placenta. She must get up on the third day after, but should not bathe for twelve days. A period of three years should elapse before the birth of the next child. The midwives are uneducated, given up to superstition, and will attempt to predict the sex of the child by lines on the hand, the shape of the womb, and the movements of the child.

Forensic Medicine.

Forensic medicine forms an interesting chapter in the history of Chinese civilization. A necropsy is compulsory in all cases in which the cause of death is uncertain, and it is carried out by doctors appointed for the purpose by the State. Regulations are prescribed which they must obey, and punishments are inflicted for any crime with great stri Works on forensic medicine are full of superstitious so that great scope is given to those in authority to at death to innumerable causes, hence bribery is resorted to.

Many signs are given in the textbooks by which to guish whether, for instance, wounds were inflicted body before or after death, whether a body found water was drowned or thrown in dead. The followi some of the tests given in the textbooks:

Indistinct wounds on a dead body can be made more visible b ing vinegar on them and looking at them in sunlight through of silk steeped in oil.

If a rope by which a man has been hanged quivers when struc proof that he has committed suicide; if not, the case is one of m

Remains of parents or ancestors may be identified by the chil descendants by letting the blood of the investigators drip on bones. In the case of relations the blood soaks in

Hygiene.

The ancient books on hygiene lay down rules as t proper division of the day between work, rest, and enjoy and as to eating, drinking, and clothing according t season. Public sanitation, as is shown by the state towns, is unknown. The Chinaman does not trouble hi about the welfare of his fellow-beings so long as the me of his own family are cared for. The narrow dirty stree filled with heaps of rubbish of every description, and are filthy pools and puddles everywhere. Public lava are in an indescribable state, and are frequently not us all. Dogs and pigs in company with children add t general confusion in the streets. After seeing the filth o banks of the Peiho in Tientsin, the traveller can only w that the whole population has not fallen victim to infectious disease under the sun. Dysentery, which is common, is attributed to drinking bad and unboiled wat

Even among the highest classes superstition is very p lent. The medical practitioners base many of their cur superstitious remedies. Spirits of the dead play an impo part in the daily life of the Chinese. If any misfortune co it is attributed to the vengeance of the souls of negl ancestors. In epidemics the people see the hand of a g dragon, processions are formed, and bonfires lighted to app the god of the epidemic.

THE PLAGUE.

Prevalence of the Disease.

India.

During the week ending March 19th, 40,527 persons died of plag India. During the corresponding period of 1903 the deaths from pl numbered 29,236. The principal figures during the week in question w Bombay City 849, against 925 during the week ending March 12th; Bor districts 7,687 against 8,504; Calcutta 295 against 230; Bengal dist 4,797 against 4,386; North West Provinces and Oudh, 9,427 against 8 Punjab, 10,174 against 6,431; Central Provinces, 2,804 against 2,290; Ce India, 1,640 against 955; Rajputana, 1,033 against 631: Kashmir, 526 aga 405. In the Bombay districts during March there occurred 42,410 cas plague with 31,288 deaths from the disease; of these 7 cases occurre Europeans, of whom 1 died.

South Arfica.

Cape Colony.

Port Elizabeth.—During the weeks ending March 19th and 26th the f cases of plague numbered 1 and 0, and the deaths from the disease 1 a Six cases remain under treatment at the plague hospital. At Elizabeth and East London plague-infected rats continue to be found.

Transvaal.—According to a telegram dated April 9th, 154 cases of pla were reported in Johannesburg up to that date. Of these, 18 were E peans. The deaths from the disease numbered 72, of which 7 w Europeans. No fresh cases of plague have been met with in Preto On April 13th the reported cases of plague from the commencemen the outbreak numbered 157, of which number 19 were Europeans persons died of the disease, 8 being Europeans.

Hong Kong.

During the weeks ending April 2nd and 9th the fresh cases of pla in Hong Kong numbered 3 and 3, and the deaths from the diseas and 3.

Mauritius.

During the weeks ending March 10th, 17th, 24th, and 31st, and April and 14th the fresh cases of plague in Mauritius numbered 3, 2, 0, 0, 2, a 3, and the deaths from the disease 0, 0, 0, 0, 3, and 2.

Peru.

On April 1st 40 cases of plague were under treatment at Lima. T disease is confined to the poorer parts of the city. On April 7th 2 fre cases of plague were notified at Lima.

Chili.

Cases of plague are reported from Santiago, Chili.

E IRISH DISPENSARY MEDICAL SERVICE REPORT.

important report has been in the hands of our readers March 26th, on which date it appeared as a SUPPLE- to the BRITISH MEDICAL JOURNAL. The report has everywhere received as a very valuable contribution to ntricate and pathetic question of the condition of the Dispensary Service. At the moment when we write the t is still under the consideration of all classes of opinion eland. Judging, however, by the clearly-expressed on of the press and of county Branches of the Irish Medical iation, there is no room to doubt that the publication of eport makes a landmark in the Irish dispensary evolu- which will not be easily overlooked.

Irish Medical Association is organized in county hes, and of these five counties, Donegal, Kerry, gh, Galway, and Roscommon, have up to the present in armest terms passed resolutions of thanks to the British al Association, the Editor of the BRITISH MEDICAL AL, and the Special Commissioner for the great service red to the Irish Poor-law Medical Service by the report. nedical officers of the Downpatrick Union have also rded resolutions couched in similar terms.

ne of these county Branches have also called on the t Association in Dublin to arrange for a full circulation e report throughout all classes concerned in Ireland. rish press has also received the report with general action, and has printed lengthy extracts from it. The *Times*, a leading Dublin newspaper, says:

Irish Poor-law Medical Service owes a debt of gratitude to the H MEDICAL JOURNAL for its action in bringing grievances of long g under the notice of the English public.....The report is of a xhaustive character, a model, in fact, of what such a report be.....It is conceived in a spirit of moderation, and what makes ly valuable is its recognition of the difficulties which beset the ties in any attempt to reform the service upon the lines advo- y its members.

Northern Whig of Belfast says:

Special Commissioner of the BRITISH MEDICAL JOURNAL has l the question carefully on the spot and sets forth the grievances *confrères* with impartiality.....There is no doubt as to the clear- d fairness with which he has stated the case.

Cork Examiner says:

ing but good can come from a full exposure of existing defects ievances, and the report published by the BRITISH MEDICAL AL with special reference to the Dispensary Medical Service do much to enlighten public opinion in England and force vernment to legislate on the matter. The report is all the more e for its moderation and the thorough insight into every feature ail of the question.

All Ireland Review makes long extracts from the report o two separate weekly issues prints with sympathetic ents some of the sadder features of the report. The *News* of Belfast also sympathetically reviews the report oins in the cry for the betterment of the dispensary e. In Glasgow also the report has been referred to and l from the *Glasgow Star*, one of the local journals sted in Irish affairs.

n individual members of the Irish community, lay and al, very sympathetic letters have been received from part of the country and every shade of political and re- s opinion. The completeness of the report and the in- t displays into a very tangled question of Irish life is where commented upon, and the grateful thanks of the s are given. "It is simply splendid, and it is astonish- e thoroughness with which a very complex question is vith" writes one, and this letter is the prevailing note he communications. "Very admirable." "Admirable tion of the conditions of the Irish Poor-law Dispensary e. No previous writer has gone to the root of the as the Special Commissioner has. How in a limited ne obtained so clear an insight into the complicated ions he came to examine and unravel I cannot con-

nore effusive correspondent writes: "The report is y lovely, and how so much information was got in so a time is a marvel." "A report of great power and deep t." "The literary level all through is a high one; the ptive powers of the paper are very striking." A lic prelate writes of the Commissioner: "He took in tuation perfectly, and has pourtrayed it most faith-

yman writes: "The doctors consider it a tower of th to their cause. It seems as if the Commissioner had alf a lifetime in the West of Ireland." "The Commissioner has dealt with the subject most thoroughly." "In every particular an admirable one." "It has placed the whole dispensary service on a proper basis," writes a well-known professor in Ireland. "Very full and lucid report." "Interesting, exhaustive, and painstaking." Another writes: "The report is, without exaggeration, the best I have read on the subject. It is an exhaustive scientific analysis presented with rare literary merit, at times rising to poetic elevation, and, even when dealing with squalid, grimy details, able to descend and paint them in simple short lines, which serve to make the picture more obvious. No more need be written on the subject." "The Commissioner has certainly done wonders in the time, and Irish dispensary doctors owe him a debt of gratitude for what he has done for them." "A man who had spent years in the service could not have written a better report."

The editor of the *All Ireland Review* of April 2nd, 1904, says: "I have not read anything for a long time at the same time so powerful and so convincing, so graphic and so truly tragical as the SUPPLEMENT to the BRITISH MEDICAL JOURNAL of March 26th, which reveals better than was ever done before the intolerable conditions under which our Dispensary Medical Service exists to-day."

Another writes: "I congratulate you on the full and splendid report of your Special Commissioner on the Irish Dispensary Service. Irish or English, it is the very best compendium on the subject I have read for years. Will you convey to your Special Commissioner my gratitude and thanks for the splendid report, which, true in substance and fact, is the best summary I have ever read of the Irish Dispensary Service as it exists?"

"The most complete and satisfactory presentation of the dispensary medical officer which has been anywhere or by anybody published up to this time."

"I have no hesitation in expressing my conviction that the report has taken a unique position among all other reports or statements on the subject. This pre-eminence it has secured largely from the unsparing pains the Commissioner has devoted to his task; largely, too, from his faithful word portraiture of the dispensary phase of Irish life."

Another writes: "The ablest and most exhaustive exposition of the Irish Dispensary System that has yet appeared. The Special Commissioner is entitled to the gratitude of every member of the dispensary service."

An Irish West Country Doctor writes: The case of the dispensary doctors has never before been so ably stated, and I doubt much if one of themselves could do it half as well." "It seems wonderful how it has been so thoroughly done." "A very fine piece of work, and all are very grateful."

A Northern Magistrate writes: "I think the Commissioner has grasped the situation in an extraordinary way." "True in every respect." "The clearest and most convincing report I have read." "The report is beyond praise. When I read it I said from my heart 'God bless the writer.' He has done a noble work for a long-suffering section of men."

From these extracts it will be seen that there is a considerable consensus of opinion in Ireland favourable to the report.

MEDICAL NEWS.

It is reported that uranium ores containing radium have been found in Sweden and in Portugal.

THE out-patient department, dispensary, and offices of the Royal Waterloo Hospital for Children and Women were removed to the new buildings this week.

AN "Amalgamated Society of Registered Midwives" has been formed in Salford to protect the interests of midwives under the new Act.

THE annual dinner of the Sanitary Institute will take place in the Whitehall Rooms, Hôtel Métropole, on May 2nd, at 7.30 p.m.

DEATH UNDER CHLOROFORM.—An inquest was held at the Royal Devon and Exeter Hospital on March 29th last on the body of a farm labourer, aged 34, who had died under chloroform during amputation of a finger. The customary clinical examination was made before the anaesthetic was given, and nothing was found to contraindicate its administration. At the necropsy the heart muscle was found to be in a flabby condition. At the request of the coroner, the police surgeon was present at the necropsy, and he corroborated in court the medical evidence given. The coroner said he considered it advisable in the interests of the medical staff as well as of the

hospital that the police surgeon should attend, and he believed the patients in the hospital had every care. The jury returned a verdict in accordance with the medical evidence, and added that they considered proper precautions were taken.

The report of the Council of the Royal National Pension Fund for Nurses states that 953 policies were issued last year, the largest number since the establishment of the fund. In the same period the policies surrendered numbered 362, held by 353 nurses, the sum paid out amounting to £22,140.

Mr. E. M. Crookshank, formerly professor of bacteriology at King's College, London, has been adopted by the Central Conservative Council of the East Grinstead Division of Sussex, in which he resides, as a candidate for the Division at the next general election.

An entertainment in aid of the Nervous Diseases Research Fund of the National Hospital for the Paralysed and Epileptic will be given at the Eolian Hall, New Bond Street, on April 29th, under the patronage of Her Royal Highness the Duchess of Albany.

The *Journal of the American Medical Association* states that a recent decision of the Court of Appeals of Kentucky practically establishes in that State a precedent for the appointment of expert witnesses in damage cases by the Court, and for doing away with partisan experts.

Princess Henry of Battenberg will be present at the annual meeting of the Colonial Nursing Association, which will be held, under the presidency of Earl Grey, at Sunderland House, Curzon Street, London, W., by the kind permission of the Duchess of Marlborough, on Wednesday June 8th.

It is stated that a peculiarly virulent form of influenza is prevalent in Philadelphia, U.S.A., which from the predominance of symptoms referable to the central nervous system closely simulates cerebro-spinal meningitis, and also lasts much longer than the commoner types of influenza.

A Bill has been introduced into the Senate of the State of New York which provides for the abolition of the office of coroner in New York City upon the expiration of the terms of office of the present coroners. As a substitute it is proposed to appoint medical examiners, who will report the circumstances of all suspicious cases direct to the city magistrates.

The American Academy of Medicine.—The twenty-ninth annual meeting of the American Academy of Medicine will be held in Atlantic City on June 4th and 6th. The programme includes a discussion on school hygiene, and to facilitate the same a summary is to be published of all the laws in force in different parts of America which relate to the teaching of hygiene.

The Royal British Nurses' Association will hold its fifteenth *conversazione* at the Portman Rooms, Baker Street, on Tuesday, April 26th, at 8 p.m. A meeting on behalf of the Trained Nurses' Annuity Fund will be held at 19, Stratford Place, on April 27th, at 3.30, under the presidency of Lady Loch. The meeting will be addressed by Mrs. Garrett Anderson, Miss C. J. Wood, and others.

A Co-operative Dairy.—During their stay in Denmark the King and Queen visited the Trifolium dairy at Haslev. This is a co-operative dairy, comprising upwards of 7,000 cows. It is under the medical supervision of Professor Jensen and Dr. Schierbeck, and produces yearly about a million lbs. of butter and 1,600,000 lbs. of cheese, in addition to selling daily in Copenhagen some 8,000 quarts of milk. About 300 persons are employed in the dairy. Their Majesties also attended a fête given in aid of the Leper Asylum in the Danish West Indies.

Samuel Smiles, the author of *Self-Help*, although a graduate in medicine of the University of Edinburgh, and for some time in practice in his native town—Haddington, N.B.—abandoned a medical career too long ago ever to have been registered apparently as a medical man, or to be included in a medical directory. The facts of his life have been detailed very fully by most of the daily papers, and the only one that seems to have escaped mention is that from 1866 to 1872 he was Secretary of the National Provident Institution. His career is a good—but by no means unique—example of the fact that an education in medicine is no bad outfit for occupations in no way connected with it.

Trypanosomiasis.—At a recent meeting of the French *Academie des Sciences* M. Laveran made a communication in which he maintained the identity from the point of view of morphology, biology, and pathogenicity of the trypanosoma gambiense (Dutton) and the trypanosoma ugandense (as tellani). In view of this identity he urged that the "n trypanosoma ugandense should be dropped altogether s c the description of the organism and term applied to it by Dutton were anterior to those of Castellani and the exist ce of two terms for the same organism was superfluous and n fusing. In the same communication he proposed that he term sleeping sickness should also be abandoned inasmuch as it merely represented the final stage of a disease which he thought should be simply be called human trypanosomiasis.

Anthrax from Horsehair.—An inquest was held at Liverpool on April 18th on the body of a woman who had died from anthrax. She worked in a hair manufactory, and while engaged in the remixing department a horsehair penetrated her chin: she died three days later. The manager of the manufactory stated that samples of this particular kind of horsehair were handled daily, and that during the thirty-seven years he had been with the firm he had not known a similar case. Mr. Graves, Inspector of Factories, said that experiments were being carried out in the neighbourhood of Worcester and also on the Continent under the direction of the Home Office with a view to some effectual means of killing the virus when present in horsehair.

We are requested to state that the Wandsworth Division of the Metropolitan Counties Branch will hold a meeting at the Drill Hall, opposite Clapham Junction, on Thursday, May 12th, at 4 p.m., for the discussion of the questions: (1) Whether it is advisable that the British Medical Association should take up the individual and (or) collective medical defence of its members; (2) is the scheme now submitted one by which this defence can be safely and efficiently carried out? Drs. Bateman, Heron, and Woods have promised to present, and any medical man who wishes to attend will be welcomed.

According to the special correspondent of the *Nor* there has been a severe epidemic of typhoid fever among the Russian troops at Harbin during the past winter. The water, which is obtained from shallow wells, is believed to be the source of the infection, and as the town has no drainage system it is feared that great difficulties will be encountered in dealing with the epidemic. As Harbin will probably be the chief Russian dépôt during the war the outlook is very serious. The same correspondent states that the troops left the camps along the Siberian railway in a filthy state, and as our experiences in South Africa showed, this neglect is a prolific source of fresh epidemic outbreaks.

Fees for Insurance Work.—We have received a copy of some letters which have passed between Dr. Basil Housman of Stockport, and the New York Life Insurance Company. The latter asked for Dr. Housman's co-operation as an additional examiner at half-guinea fees for policies under £250. Dr. Housman refused to have anything to do with the company at all unless paid £1 1s. for each examination, pointing out that it was a matter of indifference to him what sums the examinees proposed to be insured. Writing on the same subject Dr. Distin, of Enfield, encloses a summary of the annual report of the Law Union and Crown Insurance Company, one of the chief offenders in the matter of fee cutting. The accounts show that the company is making such large profits in the usual course of its business that there is no excuse whatever for endeavouring to increase them at the expense of medical men. If they can get medical men to accept inadequate payments, the result in the long run will be less careful work than that on which the foundations of the companies' success have been built up.

Society for Relief of Widows and Orphans of Medical Men.—A quarterly Court of the Directors of the Society was held on April 13th at 11, Chandos Street, W., the President Mr. Christopher Heath, being in the chair. One new member was elected and the deaths of 6 members reported. Two widows had become ineligible for further grants. Fresh applications for grants were read from 4 widows, and assistance was given to 3, the fourth not being eligible under the by-laws. Fifty-four widows, 14 children, and 4 orphans of the Copeland Fund applied for a renewal of their grants, and £1,319 was voted for distribution at the next Court. A legacy of £1,000 from the late Mrs. Du Pasquier was announced. The following gentlemen were nominated for election at the annual general meeting to fill the vacancies in the Court of Directors: Mr. Snell, Mr. Bell, Dr. Godson, Mr. May, Dr. James, Mr. Green, and Dr. West. The expenses of the quarter were £57 3s. 6d. It was decided to hold the annual at 5 p.m. on Wednesday, May 18th.

BRITISH MEDICAL ASSOCIATION.

bscriptions to the British Medical Association for he year 1904 are now due and should be forwarded y postal order or cheque to the amount of 25s. o the General Secretary, 429, Strand, London, W.C., r, in the case of Colonial members, to their Branch reasurer.

British Medical Journal.

SATURDAY, APRIL 23RD, 1904.

THE MEDICAL SERVICE OF THE NAVY.

II.

the British Medical Journal of March 19th, 1904, it shown that a serious effort has recently been made by Admiralty to remedy some of the legitimate grievances he medical officers of the Royal Navy, and to make the ice attractive to young men of sound professional ning, possessing the personal and social qualities that to the making of a good officer. Much has been done he improvement of the service, and it is only fair to Henry Norbury and his staff to acknowledge that it is g to no lack of vigour on their part that a great deal e has not been accomplished. The peculiar discipline traditions of the navy place exceptional obstacles in way of attempts at reform, and if the Director-General not succeeded in getting everything that could be red from the Admiralty, he is at any rate to be con-ulated on having got something substantial. As a lt of these concessions, the service, which was falling a state of atrophy, already shows signs of improved ition; it is beginning to attract a fair supply of well-ified candidates, and there is every prospect that the etion in its ranks will shortly be made good.

would be a dangerous mistake, however, to conclude the medical service of the navy is in a thoroughly factory condition. Although it has been made more ctive to young men, especially to those who engage short term of service, it still presents serious dis-ntages as a professional career.

our previous article we put the case for the Admiralty, ating briefly what has been done for the betterment e service; in the present we propose to play the part devil's advocate" setting forth the grievances from n medical officers of the navy still suffer, and pointing hat remains to be done to make the service what it d be—a career for self-respecting, scientifically ed members of a liberal profession.

has been pointed out more than once in the British AL Journal, a radical defect in the organization of edical service of the navy is the position of official ority assigned to the Director-General. The chief of portant department ought to have authority com-rate with his responsibility. The Director-General ot direct access to the Secretary of State, but can ach him only through one of the Naval Lords of the ralty. His decisions, even as to such minor matters posting of his own officers, are always liable to be led. The Director-General, in short, is merely a head, aud his position as head of his department is ized only when his official superiors find it convenient e him a whipping-post for their own shortcomings. lear that a system which thus undermines the autho-rity of the official chief of the medical service of the navy must tend to paralyse initiative and cripple efficiency, not only in the Director-General himself, but in all the officers of his department. Naval and military authorities alike are jealous of the slightest encroachment on their prerogative. Their conception of the function of a medical department is that it should be a Greek chorus, giving advice which may be taken or disregarded as seems best in their eyes. The theory is unquestionably convenient, for when things go right the executive branch claims the credit, and when they go wrong the blame is laid on the medical department. Surely a plan which leaves the care of the health of the navy largely to the caprice of Naval Lords and commanding officers who know little and often care less about hygiene stands self-condemned. Until the Director-General has full power within his own province he cannot justly be held responsible for defects or failures against which he has not sufficient authority to make provision.

As in the case of the army, we shall doubtless be told that the navy is primarily a fighting machine, and that the care of the sick and wounded is a matter of secondary importance. In this statement there lurks a fallacy which has several times been exposed in the British Medical Journal. Neither the navy nor the army can fight without men, and many a powerful fleet has been made ineffective by sickness. A historical example may serve to set this point in a clear light. In 1774 James Lind, Physician to the Naval Hospital at Haslar, wrote: "The number of seamen in time of war who die by shipwreck, capture. famine, fire, or sword are but inconsiderable in respect of such as are destroyed by the ship diseases and by the usual maladies of intemperate climates." Of "ship diseases" the most disastrous was scurvy, which, according to Lind, "proved a more destructive enemy, and cut off more valuable lives than the united efforts of the French and Spanish armies." Over and over again during the eighteenth century our fleets were crippled by outbreaks of that disease, and more than once our command of the sea was seriously imperilled by its ravages. In 1780 Admiral Geary had to put back to port with 2,400 men disabled by scurvy, and in 1795 Lord Howe's fleet in the Channel was nearly lost owing to the same cause. Yet for nearly fifty years the value of lemon juice as a prophylactic had been urged by one of the chief medical officers in the service of the Government without anything whatever being done by the Admiralty. Had Lind been in a position to enforce the adoption of the measure which he recommended an incalculable amount of suffering and death would have been prevented, and the navy would have gained immensely in efficiency.

This is a particularly glaring example of the evil effects of the subordination of special knowledge to executive authority, but it does not by any means stand alone; the history of hygienic reform in the navy is a record of struggle against official ignorance and apathy, which, taken together, spell inefficiency. The only effective safeguard against disasters that might at any time cripple the navy lies in the efficiency of its medical service, and that service can never be fully efficient unless, in its own sphere of operation, it is untrammelled by a cast-iron discipline which places the health of a ship or a fleet at the mercy of a commanding officer who may, if he pleases, let the advice of his medical officers pass by him like the idle wind. This could not happen if the Director-General held such a position at the Admiralty that his authority in matters relating

to the service of which he is the head could not be ignored. The efficiency of the medical service is in direct ratio to the degree of autonomy which it possesses within the sphere of its own special duties. The failure to grasp this elementary truth has inspired the ill-judged recommendation of Lord Esher's Committee that the medical service of the army should be assimilated to that of the navy in respect of the position of the Director-General. In both services an essential condition of thorough efficiency is the frank recognition of the principle that medical administration must be in the hands of medical officers, and that the responsible head must have full control of his department, subject only to the authority of the Secretary of State.

The want of adequate authority, which goes far to make the Director-General in his official capacity a cipher, is, as we have said, the fundamental defect of the service. The same flaw runs throughout the whole organization, from the highest ranks to the lowest. Everywhere the proper activity of the medical officer is hampered by the interference of the executive branch. As an illustration we may point to the manner in which medical surveys are conducted. Medical surveys in the navy correspond to Medical Boards in the army. Their duties are purely medical; yet the president is always an executive officer who may be junior in rank to the medical officers over whose deliberations he presides. This is not only an absurdity and an indignity, but a direct cause of inefficiency, for the executive officer can of his own mere motion overrule the decisions of his colleagues on matters as to which he is incompetent to form a judgement. Another illustration of the extent to which the functions of the medical department are usurped by the executive branch is to be seen in the fact that reports of outbreaks of epidemic disease are often drawn up and signed by captains of ports without reference to the medical officers in charge. The incongruity and possible danger of such a practice need scarcely be dwelt upon. It was said of a former Prime Minister of this country that he was ready at any moment to take command of the Channel Fleet or to cut for stone. It would seem to be the theory of the Admiralty that executive officers of the Royal Navy have a like multiplicity of gifts imparted to them by their commission. An executive officer is as much out of place as president of a medical survey as a medical officer would be as president of a council of war.

Another illustration of the hindrance to efficiency caused by the fact that medical officers have not proper authority within their own sphere is to be found in sick bays and hospitals. At sea of course the captain must be supreme, but the recognition of this fundamental principle of discipline does not involve the conclusion that the medical officer should have no control at all over sick-bay men, nursing sisters, or patients. In hospitals the evils of the predominance of the executive branch are still more marked. The want of authority on the part of the medical officer necessarily leads to insubordination and inefficiency in the attendants working under him, who know that he has no power to punish them. This system, which places the medical officers in the discharge of their own special duties under the direction of an outside authority, has a bad effect on those officers themselves. Held fast in the bonds of a cramping discipline they lose the habit, often indeed the power, of independent action and subside into the groove of routine, their chief aim being to avoid responsibility.

Enough, we think, has been said to show that the wan of the authority necessary for the proper discharge c their duties is a source of inefficiency and possible dange in an important branch of the naval service. There ar however, other causes of justifiable dissatisfaction amon medical officers. A reform which would be greatly appre ciated is a definite system of medical guards. At presen if a number of ships are together in harbour, the com manding officers may at their own sweet will keep medica officers from going ashore. The duties in such a case ar analogous to those of the house-surgeon for the week at hospital, and there is not the slightest necessity fo keeping all the medical officers at their posts. One of th ships might without any inconvenience be constituted th medical guard-ship for the day, setting free the surgeon on board the others.

Another grievance of which medical officers of the nav may fairly complain is the capricious manner in whic cabins are assigned. By some perversity of fate—o malice prepense in the executive officer with whom rest the allotment of the quarters—the worst cabin in the shi is generally set aside for the fleet surgeon. But medica officers as a class fare badly in this respect, no regar being, as a rule, paid to seniority. Some definite principl should be adhered to in the selection of cabins, and in matter which so closely concerns the comfort of life at se medical officers should not be treated as though it were i accordance with the fitness of things that they should b last served.

In discussing the position of the medical officers of th navy the question of titles naturally arises. The exper ence of the South African war conclusively proved tha military titles greatly facilitated the work of the Roya Army Medical Corps. In the navy, as far as we have bee able to gather, the majority of medical officers have n wish for executive titles. It is felt, however, that if ad quate authority cannot be obtained without such indica tions of rank, it will be necessary to get them. As ha already been stated in the Journal, the Surgeon-Genera of the United States Navy has made a strong representatio to Congress as to the expediency of granting executiv titles to medical officers.

The refusal by certain commanding officers of the socia recognition which is due to men who are at once officer and members of a learned profession is a subtler, but no less galling, grievance. This is a thing that can scarcel be dealt with by an Order in Council or admiralty instruc tion, for no authority can transform a naval officer who i a snob into a gentleman. Social recognition is largely personal matter, and a medical officer who knows hi work, and who in his behaviour shows a proper sense o the dignity of his profession may, as a rule, hope to hav little trouble on that score. The social difficulty, such a it is, would disappear of itself if medical officers wer given the measure of authority which has been shown t be essential.

We have indicated on broad lines the reforms which w regard as necessary to make the medical service of th navy thoroughly efficient. Certain grievances affectin particular classes of officers have not been touched upo as the discussion of them here would confuse the mai issues. Some time ago Lord Selborne, whose attitud towards the medical officers has been not unsympathetic invited suggestions for the improvement of the service We here submit some which we consider of vital import ance. We have freely acknowledged that the service ha

een made more attractive than it was till recently, and at it now offers a good start in life to young men with a ste for the sea. To those, however, who think of enter- g the medical service of the navy with the hope of nding in it their life work and a field for the gratification legitimate ambition, we recommend a careful considera- on of the advantages and disadvantages which we have tempted to set forth without prejudice. In the interest ike of the navy and of the nation we feel bound to press the serious attention of the responsible authorities the pediency of completing the work of reform so well gun. Notwithstanding the increase of pay, the accelera- r of promotion and the other improvements which have en referred to, there is still much discontent among the dical officers of the navy. That there are reasonable unds for this discontent has been shown in this article. s a matter of public concern that the causes of this dis- tent should be removed, for a service in which a sense injustice rankles can never be really efficient.

SMALL-POX AND VAGRANCY.

Henry E. Armstrong, the Medical Officer of Health Newcastle-on-Tyne, has presented to his sanitary nority a valuable report on this important subject. It eally in continuation of a similar report which he made ut eleven years ago, and which was followed by a con- nce of sanitary authorities of England and Wales vened by the London County Council in 1894. At that ference various resolutions were adopted and, it is erstood, were forwarded to the Local Government rd, but small-pox prevalence diminished in the country the subject dropped out of public notice. In the emic which began between two and three years ago, which still continues in some parts of England, the played by the vagrant class in spreading the disease probably been more obvious and prominent than it even in 1893.

January of the present year Dr. Armstrong issued to 200 medical officers of health in urban areas with lations of over 20,000 a series of questions regarding -pox and vagrancy, and received replies from 126 cts. The replies show that, of these 126 districts, ave been invaded by small-pox in the course of the nt outbreak, and that in 57 the disease was first duced by vagrants. There were also secondary intro- ons from similar sources on fully 300 occasions. particular Sheffield, Manchester, Wakefield, and pool had from 23 to 34 such invasions of the e to deal with. In 41 districts the infected vagrants housed in workhouses and in 58 districts in common g-houses. The number of cases occurring in com- odging-houses was somewhere over 600. Systematic tion of lodging-houses and enforcement of Section of the Public Health Act of 1875 were the chief used for securing information.

arding measures to be taken for preventing spread of pox by vagrants, suggestions elicited by Dr. Armstrong's r letter are summarized under a number of headings. estion was as to the desirability of the establishment ur colonies, and about one-half of the medical officers g replies have answered in the affirmative. [have given no answer and [others state that ave no sufficient knowledge or experience on which e an opinion. Three distinctly negative answers ceived. Apart from this special point, the medical officers were simply asked for suggestions without any guiding questions being put to them. In their replies first and most prominent comes compulsory vaccination and revaccination of insufficiently protected contacts, and also general revaccination. The suggestion is made that in epidemic times there should be power to grant an allowance to any person rendered temporarily unfit for work by revaccination. Other recommendations are compulsory removal to hospital, compulsory detention of contacts, notification of chicken-pox, systematic information to sanitary authorities regarding spread of small-pox, if necessary by the establishment of intelligence bureaux, say, in each of the eleven registration districts of England and Wales, and the establishment of an organization for sending quickly and directly unemployed navvies and other workmen to places where work can be obtained. These suggestions are of general application, and to some of them partial effect has already been given. Others, with special reference to vagrants, include their compulsory vaccination (if not already sufficiently protected) on entering common lodging-houses or casual wards of workhouses, the treatment of infected lodging-houses as areas delimited on the lines of the Contagious Diseases (Animals) Act; the division of lodging-houses into two classes, one for regular weekly lodgers, and the other for nightly or casual lodgers; the provision of baths in all common lodging-houses and their compulsory use by inmates, and the provision of an isolation room for suspicious cases, the systematic examination of inmates of common lodging-houses and casual wards, and the establishment of labour wards or dépôts.

The question as to the total number of the tramp population in the country and as to whether it is increasing or decreasing is also referred to. There is no reliable census, but in the West Riding of Yorkshire the medical officer states that there are 1,100 vagrants, and he estimates the number in England and Wales at 36,000. The general view is that tramps are on the increase, and it is a recorded fact that the mean daily number relieved in England and Wales mounted from 5,265 in 1888 to 11,295 in 1898 and 11,361 in 1899. Dr. Armstrong, also, in his interesting report discusses the tramp as a disease spreader; the unemployed workman on tramp; small-pox among workmen seeking employment at water works; and so forth.

The importance of the whole subject is obvious, and it will be readily seen how an inquiry started with special reference to small-pox soon becomes wider in scope so as embrace the general subject of the management of the tramp population and even of the education of their children. But it is one thing to recognize the legislative importance of a subject, and quite another and a very much more difficult thing to secure any useful legislation regarding it. The indifference of Parliament to questions not directly influencing the place and power of political parties is unfortunately too well known, and in this matter of tramps such indifference can find a ready excuse in the general objection which exists in this country to interference with the liberty of the subject. Will a Government which, in spite of a sufficiently definite understanding in the contrary direction, year after year fights shy of introducing a Revaccination Bill even subject to an exemption clause, have the courage, and take the trouble, to legislate for compulsory powers over tramps and vagrants in the matter either of vaccination and revaccination, or of enforced

detention in labour colonies? That is a question the answer to which largely depends on the amount and duration of the pressure which may be brought to bear. The subject should certainly be placed definitely before the Local Government Board. The fact that nothing came of the conference held a decade ago is no reason for refraining from calling another, and the statement made recently by the Home Secretary in reply to a question by Mr. Ormsby-Gore shows that the time is opportune. If the promised inquiry into the vagrancy laws is instituted it will, we presume, include the public health aspects of vagrancy.

RAYS, RADIUM, AND ELECTRICITY.

Some ten months ago we published simultaneously a number of articles on the treatment of disease by various forms of light by Professor Finsen, Dr. Sequeira, Mr. Malcolm Morris and Dr. Dore, Mr. Stephenson, and Dr. Gamlen. There was included also a detailed review of recent electro-therapeutics by Dr. Macintyre. Since then other articles have appeared, and in the present issue will be found a review by Dr. Macintyre of things electro-therapeutic as they stand at the present date, together with papers by Dr. Morton and Mr. Wigmore. All three of these papers are interesting, for each of them treats the matter from a different standpoint. Dr. Morton deals specially with treatment by Roentgen and radium rays, detailing specifically the diseases in which he has tried them, and including in his remarks an interesting discussion of the clinical aspects of *x*-ray dermatitis. Mr. Wigmore confines himself to the narration of his own methods of work, and of ten cases which have occurred in the course thereof. The latter are all clearly stated, and the only objection which might perhaps be raised is that Mr. Wigmore possibly pays electro-therapeutics too high a compliment when he justifies the term "typical," which he applies to his cases, by stating that they were all cases of permanent cure.

The paper by Dr. Macintyre is of a somewhat different character. While it is a review of recent electro-therapeutic progress, it deals in a lucid fashion with the more purely scientific aspects of the matter. It shows that the discovery of radium, though its direct therapeutic results hitherto have not been great, yet promises to throw much light upon the whole subject of electro-therapeutic work in general. There would appear, indeed, to be some hope that before long electro-therapeutics, and possibly other branches of treatment, may be placed upon a purely scientific basis. In another part of his paper Dr. Macintyre discusses the changes which have taken place in apparatus and methods of application of electrical force to the treatment of disease, and compares their value. This is an important matter to the authorities of hospitals and all others who desire to provide themselves with outfits. Finally, Dr. Macintyre deals with the subject from the clinical aspect.

Reading these papers together, it may be concluded that the value of the forces discussed is no longer open to dispute so far as regards lupus and rodent ulcer, and that somewhat improved results have recently been obtained in the treatment of such cases of malignant disease as are open to direct attack. Further, it would appear possible that by a combination of surgery and *x*-ray treatment the recurrence of malignant disease may eventually be rendered much less common than at present. Nevertheless, it cannot be too clearly understood that it is as true now as ever that the only procedure upon which any reliance whatever should be placed in operable cases of malignant disease is the early and complete removal by the knife of every scrap of tissue involved.

We would draw special attention to these papers because, judging from correspondence which reaches us, there seems to be a good deal of doubt amongst the profession as to the comparative and true values of these different forms of treatment; and careful perusal of these three papers will give a clear idea of how matters at present stand. Before leaving the subject we would add that it is most desirable that the general public should clearly grasp the fact that rodent ulcer, the successful treatment of which has done more to popularize *x*-ray work than anything else, stands in a class by itself, and is scarcely if at all comparable with any other form of what is commonly known as malignant disease.

THE VOLUNTEER MEDICAL ASSOCIATION.

General Lord Grenfell, G.C.B., G.C.M.G., took the chair at the annual dinner of Volunteer Medical Officers held at the Imperial Restaurant, Regent Street, London, on April 15th. After the usual loyal toasts had been duly honoured, that of "The Imperial Forces" was given by Dr. Dawson Williams and briefly acknowledged by the Chairman. Lieutenant-Colonel Babtie, V.C., C.M.G., Assistant Director-General, A.M.S., in giving the toast of "The Medical Officers of the Honourable Artillery Company, Yeomanry, and Volunteers," said that the Director-General desired him to say that his absence was due solely to his having to leave London on duty. Colonel Babtie went on to say that the medical officers of the regular forces understood and sympathized with the difficulties of the medical officers of volunteers, but expressed the hope that the volunteers would share in the advances made by the regulars. For example, it was hoped that the new unit about to be introduced would benefit the volunteers. Hitherto there had been bearer companies and field hospitals; in the future these would be combined into one unit, to be called a field ambulance, and the number of stretchers and of bearers to the stretchers would be increased and the total strength raised to perhaps 180. The toast was acknowledged by Lieutenant-Colonel Valentine Matthews, who said that the change indicated would be very satisfactory to the medical officers of the auxiliary forces, who might hope that the increased grant would overcome some of the financial difficulties under which they were now handicapped. The toast of "The Volunteer Medical Association," was proposed by Lieutenant-Colonel E. M. Wilson, C.B., C.M.G. Deputy-Assistant Director-General, A.M.S., who said that the headquarters welcomed an Association which could speak in the name of the medical officers of the auxiliary forces, and he regretted that out of the 800 or 900 officers only about 350 had joined the Association. The toast was acknowledged by Brigade-Surgeon-Lieutenant-Colonel Andrew Clark, who said that such an Association had a most useful function to discharge if only because the difficulties encountered by volunteer medical officers differed very much in various parts of the country. For example, in London the greatest difficulty was to get the men for the bearer company, but, when recruited, there was, owing to the kindness of the commanding officers of battalions, no difficulty in drilling them. In other districts—as, for instance, in the manufacturing districts of the North—the conditions were exactly the reverse. It was easy to get the men, but difficult to bring them together for drills. The council meetings of the Volunteer Ambulance Association were well attended and the difficulties were being thoroughly discussed by it. Representations could be made to head quarters which he knew were highly valued. Lord Grenfell gave the toast, "The Visitors," and referred to the interest which he had long felt in the volunteer medical service. He had become well

quainted with its work while acting as Inspector-General Auxiliary Forces ten years ago, while, as commanding e 4th Army Corps, it had, in considering the defence London, which would in the event of war fall to a large tent on the auxiliary forces, recently been his duty to carefully into the question of the buildings which ght be made available for the treatment of the k and wounded in such an emergency. The toast was knowledged by Colonel Lloyd, V.D. The toast of "The airman" was then given by Brigade-Surgeon Andrew ark, and briefly acknowledged by Lord Grenfell. Captain rper proposed the health of "The Honorary Secretary," eutenant Montgomery-Smith, who said that his only gret was that out of the whole body of volunteer medical cers, which he estimated at about 1,200 very little more n a fourth had joined an association which endeavoured, he believed, with much success to represent their erests and wishes. The annual meeting of the Associa- will take place at 20, Hanover Square, W., on Tuesday, ril 26th, at 4.30 p.m.

HOME RELIEF.

fourth International Home Relief Congress is fixed June 7th next at Edinburgh. Its President is the Right nourable Lord Balfour of Burleigh, and the Chairman the Executive Committee, Sir John Sibbald, M.D., C.P.E. The title of the Congress is a translation of French term, "Assistance Familiale," and the Congresses e grown out of a Congress of charitable work generally in Paris in 1900. It was there suggested that it might re useful if an International Congress of all persons in- sted in the poor were instituted for the purpose of in- hanging views and information upon all subjects con- ed with charitable help to the poor in their own homes ther afforded by the State or by voluntary institutions ssociations. The first Congress was held in Paris in , the second in Antwerp in 1902, and the third and recent at Bordeaux last year. The kinds of aid h formed the subject of discussion at the first gress may be taken as fairly typical of the general cts with which the Congresses are intended to They included not merely the giving of material aid ne form of food, clothing, lodging, or money, or of cal aid in the form of advice, nursing, drugs, and cal appliances, but the ways in which useful sanitary economic information could best be disseminated g the poor. The question of how habits likely to op health of body and mind might best be fostered ved notice; in addition, different plans were con- ed by means of which a spirit of self-help might be lated amongst the poor. The work for the approach- ongress is provisionally divided into five sections. rst deals with children, the second with old age, the with able-bodied adults, the fourth with sick adults, he fifth with insane persons and epileptics. The cts put down for discussion in the children's section le the supervision and home care of children and who are mentally affected, the boarding-out of r children, the methods of organizing home for cripples, the prevention of cruelty to children, re of middle-aged widows and children who are in t of outdoor parish relief; and, finally, home relief tion to the feeding of infants and of school children. tter seems to us at the present moment to be of all bjects entered in this section the most immediately ant, and that most capable of yielding early and l results. We hope, therefore, it will receive the attention. In the section for able-bodied adults colonies, model lodging-houses, and the compulsory on of paupers are all to receive attention, but we o direct reference to the interesting question of cy. It is a distinct honour to Scotland that Edin- should have been chosen as the site of a Congress so the history of the movement, and we hope that it ve a success. In view of the numerous sections of s to whom the objects of the Congress must appeal ould be no lack of attendance thereat. Tickets of rship of the Congress, including the right to receive a copy of the printed report of the proceedings, may be obtained, price 16s., from the Secretary, Mr. I. J. Cowie, 59, Frederick Street, Edinburgh.

INDUSTRIAL LEAD POISONING.

A "Return of the Cases of Lead Poisoning reported as occurring in China and Earthenware Works during the years 1899 to 1903" has just been published by the Home Office. The total number of reported cases in the United Kingdom during 1903 was 97 as against 87 for the previous year. The increase is explained by a slight rise in the number of persons affected in the manufacture of tiles and majolica ware. Taking the potteries in North Staffordshire alone, the principal seat of the industry, the numbers of reported cases of lead poisoning were 75 in 1903, 66 in 1902, 84 in 1901, 165 in 1900, and 204 in 1899. When Professors Thorpe and T. Oliver reported to the Home Secretary on the employment of lead compounds in the manufacture of pottery, the number of cases reported (1898) was 348. It must be gratifying alike to the Home Office and to those who in Parliament and elsewhere have striven to promote the hygiene of our industries to observe this very marked decline in the number of cases of lead poisoning in the manufacture of earthenware and china. No stronger argument could be brought forward to justify the steps then taken to improve the dangerous processes in the manufacture of pottery than the figures just given. The results reflect credit all round. While there is a notable decline in the number of cases of lead poisoning in china and earthenware works, it is a matter for some regret and serious consideration that in certain other trades—for example, that of house painting—there is a distinct increase.

SCHOOL HYGIENE.

The first International Congress of School Hygiene, which concluded it proceedings at Nuremberg on April 9th, appears to have been a success. Every European country except Italy and Turkey was duly represented, and delegates from America and Japan also attended. The work was divided into seven sections. In the first were discussed school buildings and the furniture of the schoolroom; in the second, the hygiene of boarding schools and the various questions relating to the physiology and psychology of education; in the third, the training in hygiene desirable for both teachers and scholars; and in fourth, physical education. The fifth dealt with contagious disease and those other conditions which affect school attendance; while the sixth discussed the institutions and requirements of special schools for the feeble-minded and physically incompetent children. Finally, the seventh dealt with such subjects as holiday camps, the inter-relations of home and school life, and the effect of teaching upon the health of those who engage in it as a profession. The next Congress is to be held in London in 1907, Sir Lauder Brunton being its elected President.

THE BIRTH-RATE OF NEW SOUTH WALES.

Our correspondent in Sydney referred a few months ago in one of his letters to an essay by Mr. Coghlan,[1] the New South Wales Government statistician, on the decline in the birth-rate in that colony. The essay, which deals also with "other phenomena of childbirth," is, however, so important a contribution to our knowledge of birth statistics that it is desirable to call further attention to it. Such statistics for New South Wales are available since 1856, but Mr. Coghlan has confined himself to a consideration of those for 1891-1900, in which time 356,496 children were born. The New South Wales birth statistics are superior to our own, because the records give the ages of the parents of each child born, the period elapsing since marriage, and their previous issue, while the death records show for each married woman the age of the deceased and of her husband, the duration of their marriage, and the number of issue both living and dead. By these means many important problems can be cleared up.

[1] *The Decline in the Birth-rate of New South Wales, and other Phenomena of Child Birth.* An essay in statistics by T. A. Coghlan. Sydney: Gullick, Government Printer. 1903. (Pp. 69.)

The most notable fact shown by the statistics is that in this new country the birth-rate is steadily declining. Thus in 1901 the births per 1,000 married women under 45 were only 235, while as recently as 1886 their number was 339, a decline in 15 years of very nearly one-third. The marriage age among women is now sixteen months later than it was in 1885. It is also noteworthy that in 259 out of every 1,000 marriages the fecundity is prejudiced, or in other words, "the probability of there being issue thereto is actually assured before marriages take place." Of every 1,000 first-born children 510 are of post-nuptial conception. 233 of ante-nuptial conception, and 257 are illegitimate, The reduction of fecundity which has taken place is clearly not due to climatic influences. True, it varies in different parts of the same colony, but there is no marked difference in climate in parts in which there is great difference in fecundity. The difference must be sought for in the influence of town life or in the occupations of the people. It is really a question of artificial checks. At the same time it is interesting to note that the fecundity of Australian women is greater than that of European women living in Australia at every age of marriage, and that amongst other women the Scotch show greater fecundity than the Irish, and the Irish than English women. A difference is drawn between fecundity and fertility. Thus women of Irish birth in Australia are less fecund than women born either in New South Wales or in Scotland, but they are more fertile. In other words, fewer Irish women have children, but to those who are fecund more children are born. One-fourth of all the children born in ten years have mothers whose ages are below 24 years; one-half have mothers below 28 years and 4 months; and three-fourths below 33 years and 6 months. The interval between marriage and first births, the births to women with previous issue, the effects of postponement of marriage on fertility, the number of children to marriages lasting through the whole period of child-bearing, the average number of children to all marriages, fertility in relation to birthplace and religious belief, families of various sizes, joint ages of parents as affecting birth-rates, plural births, sex, deaths in childbirth, multiparae, are among other subjects comprised within the scope of study of Mr. Coghlan's book, but enough has been said to illustrate the almost unique importance of this contribution to a subject of imperial gravity.

THE ANTHROPOMETRY OF THE VISCERA.

Whilst anthropometry has concerned itself with various measurements of the limbs, head, and trunk, and accurate data in these directions have been rapidly accumulating, next to nothing has been done with regard to the variability of the viscera. Mr. M. Greenwood has endeavoured to supply the deficiency, and has contributed to the last issue of *Biometrika* a preliminary paper which deals chiefly with the weight of the heart as compared to other organs—for example, the liver, spleen, and kidney. He has obtained his data from the *post-mortem* records of the London Hospital, and has dealt with them on the lines laid down by Professor Karl Pearson. It is obvious that the material is from a selected class, and is not an average sample of the whole population. Moreover, those taken as "healthy" come, with few exceptions, from the bodies of persons who have succumbed to disease and are only pairs of organs which have been recorded as normal in the *post-mortem* room books. Nevertheless, though open to these objections, the results are of interest and value as being more precise than any heretofore recorded. It is found that the mean weight of the heart is higher than that usually given in textbooks; and that, while the heart is more variable than the liver or the kidneys, it is much less variable than the spleen. So far as the observations are available for drawing such a conclusion, the general effect of disease is to increase the absolute variability of organs and to reduce their correlations with other organs; on the other hand, as one passes from a general hospital population to a healthy population, variability sinks and correlation becomes closer. It has been otherwise established that low variation and high correlation of different parts mean closeness to type, the reverse being a sign of instability and departure from type. It is now shown that individuals who die of disease in adult life are more variable and less well correlated than the healthy, which is what we might expect on the doctrine of survival of the fittest. Though the paper is avowedly only of a preliminary character it contains much that is worth careful study.

AN INTERNATIONAL FACULTY.

At the next summer session of the University of California, which will be held in Berkeley for the six weeks beginning June 27th and ending August 6th, a number of European Professors will be on its teaching faculty. The *Boston Medical and Surgical Journal* states that Professor Svante Arrhenius, Professor of Physics in the University of Stockholm, will give in English a course of lectures on the application of physical chemistry to serumtherapy, in which he will make public his most recent and hitherto unpublished conclusions. Professor Arrhenius will give another course upon the general subject of physical chemistry. Sir William Ramsay, of London, is to be another member of this summer faculty, and is now preparing a course of lectures to be published later, giving his views upon recent developments in chemical theory, dealing with the ion and the electron, and illustrated experimentally by the behaviour and properties of radium. Dr. Hugo de Vries, Professor of Vegetable Anatomy and Physiology in the University of Amsterdam, will deliver in English a course of lectures on natural plant breeding, giving his views on species and varieties and their origin by means of mutations. The lectures will be illustrated by drawing and specimens. The scheme seems to take us back to the early days of universities, when learning and learned men were truly cosmopolitan, and when they spoke a universal language.

THE HEALTH OF FLAX AND LINEN OPERATIVES

As long ago as 1894 certain processes in flax and linen mills were declared by the Secretary of State to be dangerous, and two years afterwards special rules were framed by the Home Office for the guidance of employers and employed. Although the operation of these rules did much to secure healthier conditions for the workpeople, much was still left to be accomplished. To Commander Hamilton Smith was recently entrusted the duty of making an inquiry and of showing how additional improvements might be effected. So far as the ventilation of weaving sheds is concerned, there is not the least doubt that it is extremely difficult to measure with accuracy the amount of air passing into or escaping from the work-rooms, and even where this can be done the result obtained is no proof that ventilation has been adequate, for there must be certain areas in the weaving shed where the air has been, practically speaking, undisturbed. The purity of the air is more satisfactorily estimated by taking samples from different parts of the shed and comparing the percentage of carbon dioxide with that of the outside air. It was found that the percentage in factories situated in country districts was often much below what is considered normal in less favoured places. In some instances the amount was only 1 per 10,000 parts of air. Attention is directed to the excessive humidity of the air in wet spinning rooms, and stress is laid upon the necessity of the water used for producing humidity being taken from a public supply of drinking water, or from an equally reliable source, since in Belfast serious injury to health is said to have followed the use of impure water for this purpose. Splashboards are recommended for the floors in wet rooms and the wearing of waterproof aprons or overalls. In the hackling and preparing rooms considerable quantities of dust are given off, and these processes are properly regarded as injurious to health unless care and precautions are taken. It is difficult to get the workers

[1] Report by Commander Hamilton Smith, R.N., H.M. Superintending Inspector of Factories. Messrs. Eyre and Spottiswoode, East Harding Street, E.C. 2s.

ear respirators. In Belgium, according to Dr. Glibert, e same difficulties exist, both as regards the means emoyed for obtaining efficient ventilation and of combating e evil effects of dust. Commander Smith maintains that e most suitable and reliable ventilation for carding achines is direct suction by means of fans. He recomends, also, that the workers should be protected by a eumatic arrangement fixed close to the feeding table, hich would draw away the dust generated during the eding and spreading operations. It is recommended at the proportion of carbon dioxide in the workrooms all never exceed the proportion in the air outside by ore than 5 volumes to every 10,000 of air; that the air ets shall be so arranged that no direct draught falls on the persons employed; and that the temperature of e incoming air shall not be less than 60° F.

ANTIVACCINATION IN PARLIAMENT.

E Antivaccination League is evidently not pleased h the action of those members of Parliament who are ually regarded as supporters of the cause. Part of the ogramme of the recent annual meetings of the League s "a conference with members of Parliament and other resentatives of public bodies." In the authorized ount of the proceedings no mention is made of any having been present to represent any other public lies, and as for Parliament, only four members ned up, of whom three appear to have deted immediately after speaking their piece. They e thus saved from hearing a bit of the League's d regarding themselves, and their doings, as ressed to the great satisfaction of the audience by Mr. red Milnes, M.A. He said that a voice from the inside t. Stephen's had told them to do their duty outside. In rn he was inclined to tell them to do theirs inside. If re were but one man in the House who knew their stion, great things would result; but, alas, there was a skilled representative of antivaccination in Parliat, otherwise the antivaccinists should not go on suffer- as at present. Such are the thanks which members Parliament receive for truckling to antivaccination, it is to be hoped they are satisfied with their ard. Who is to be the new skilled represenve has not yet been divulged, but as a natural iminary, a seat is being sought out for him. he *Leicester Post* we read that the paid agent and lecr of the League wishes that town to give over its repreation to the good man and true whose presence is ired to save from utter destruction the Westminster m and Gomorrah. But the *Post*, which normally sups the League's side of things, treats the new proposal scorn. In its own words, "It is hardly worth while to ss a question which can scarcely be taken seriously." is cold comfort, but so the matter stands at ent, and what the outcome may be those who live long gh will see. Meanwhile, the policy which the ue urges on its members is to make the question ccination a test one at every election. The latest exnent in that way has been at East Dorset, and it is ant to learn from the *Vaccination Inquirer* that the npt there has fallen a long way short of success. al candidates appear to be regarded as more hopeful cts of pressure than Conservatives, but in this case, at ate, Mr. Lyell, the Liberal who won the seat, stuck to wn views. He is reported to have irritated the ue's friends by his unsympathetic attitude. "As far diers and sailors are concerned, he would vote that should be vaccinated by force if necessary," while as neral revaccination, all that he would promise was to re its accompaniment by a conscience clause, and on further pressed he replied, "I must ask you to der these answers as final. I cannot receive any er deputation on this subject." We take the liberty ngratulating Mr. Lyell on the strength of his backbone he maintenance of his self-respect. We trust, too, ther candidates of both parties will follow his ex-, and so save themselves from subsequent castigaoy League orators for insufficient antivaccination enthusiasm once they find themselves in the House. It is hard to conceive of a Parliamentary position much more degrading than that of a member who in any degree owes his election to, and has to suffer the hectoring of, the leaders of the Antivaccination League and its local branches. Their support indeed must very often be in the nature of a Greek gift. The fact that a candidate has condescended to cringe to such noisy faddists will in most places detach more votes than can be mustered by those who attempt to wring from him pledges of which he would afterwards have reason to be ashamed.

AN EARLY AFRICAN EXPLORER.

Mrs. Larymore, writing recently to the *Morning Post* from Murmur in Northern Nigeria, narrated a visit which she and her husband had paid on their way from Katagum to Kano, to the grave of a medical man and early African explorer whom she calls Richard Oudney. The person, however, to whom she refers must be Walter Oudney, M.D.Edin., the companion of Lieutenant Huge Clapperton and Major Dixon Denham in their endeavour to discover the sources of the Niger in the third decade of last century. Walter Oudney, who was only 34 when he died in the Soudan just 80 years ago, was the child of persons in humble circumstances, and commenced life as a surgeon's mate on board a man-of-war. In 1810, at the age of 19, he became an assistant surgeon, and shortly afterwards was promoted surgeon, and served in the East Indies. On the conclusion of peace with France he returned to Edinburgh, attended classes, and graduated M.D.Edin. in 1817. He had the advantage during this portion of his career of the friendship of the well-known Dr. John Abercrombie, who in his time did so much for Edinburgh medical students. After graduation he at first intended to devote himself to botany, having, indeed, some prospect of becoming university lecturer in that study. Later on, however, he threw in his lot with the explorers already mentioned, and with them left Tripoli for the interior at the end of 1821. By March, 1823, they had reached Kouka, the capital of the kingdom of Bornou, on Lake Chad, and there remained for many months. Towards the end of the year they started afresh with the intention of exploring the country to the west of Bornou. The party, however, had been exposed to considerable privations, and Oudney, whose health had already begun to fail at Kouka, entirely broke down and died of pneumonia not far from Katagum, halfway between Kano and Kouka. He was, according to the descriptions of his companions, a quiet man of slight build, but possessed of much enterprise and determination, and a singularly happy way of dealing with natives. He did much medical work among them and carried on his ministrations up to the last. He was buried under a large tree and the grave covered by a clay-built tomb. Mrs. Larymore says in her letter that since that time no white men have been over the route, but that the natives knew well the site of the grave, although the ancient tree had fallen and the rains of eighty seasons had levelled the tomb to the ground. Before leaving they planted around it the seeds of some white acacias.

PREGNANCY AND DERMOIDS OF BOTH OVARIES.

The recent discussion at the Obstetrical Society on pregnancy after more or less mutilation of the tubes and ovaries will remind us that prognosis as to sterility or fertility after operations where such mutilation is unavoidable must be very guarded. Condamin of Lyons has published an interesting summary of instances of pregnancy in patients subject to bilateral dermoid ovarian tumours already of large size.[1] This phenomenon shows that when the two ovaries, in the anatomical sense of the term, are converted into dermoid cysts pregnancy may nevertheless occur. Follicles bearing ova probably remain in the outer wall of the tumours and manage to enter the ostium of the Fallopian tube; it is also evident that spermatozoa must somehow reach the ova. But, as was sug-

[1] *Annales de Gynéc. et d'Obstét.* March, 1904, p. 188.

gested in the discussion above alluded to, it is possible that in some of these cases there was ovarian tissue beyond the limits of the anatomical ovary, probably in the ovarian ligament; this would explain how in many of the cases collected by Condamin though the pair of dermoids, very small as tumours, were apparently destitute of any trace of ovarian tissue, yet the patient had borne children to within a short time before the operation. In nine cases of an opposite type a brace of large dermoids was removed during pregnancy. On reflecting on these instances of conditions widely different as to the degree of development of the pair of dermoids we may reasonably suspect that not rarely the destruction of true ovarian tissue within the limits of the ovary proper occurs very early, so that pregnancy in double incipient dermoid disease takes place in the same way as when the tumours have become large, that is to say, the ova do not come from either of the diseased ovaries. It cannot be denied, on the other hand, that true ovarian tissue exists in some cases within the limits of a dermoid ovary, and on that fact rests a question of grave importance to the surgeon. In four cases the operator when removing the pair of dermoids left a small fragment of the ovary and had the satisfaction of learning that the patient became pregnant again after recovery. Condamin expresses doubt as to whether it be always possible to preserve a portion of normal ovary. It is certainly not always possible, but it is also doubtful whether it be ever advisable. It would be interesting to know whether recurrence occurred in any of the four cases where a piece of ovary was designedly left behind. The relief felt by a patient after convalescence from ovariotomy is extreme, but the disappointment and mental pain should recurrence occur is correspondingly great, hence it is questionable if it be right to incur the risks of recurrence even for so high an aim as the securing to the patient a chance of maternity.

THE DESTRUCTION OF RATS.

IN another part of this issue will be found a paper in which M. Danysz, of the Pasteur Institute at Paris, gives an account of the virus known by his name. It is an interesting and exceedingly modest statement of an excellent piece of bacteriological work, of which the practical utility, both to agriculturists and epidemiologists, has been more widely recognized hitherto on the Continent than in England. It will be observed that the cocco-bacillus, upon the life-products of which the utility of the serum depends, is not easy either to procure or preserve in a sufficiently virulent condition, and that its passage from susceptible animal to susceptible animal, so far from exalting its virulence rapidly and progressively, decreases it. M. Danysz, however, has found that by using large numbers of rats he can always rely on obtaining from the bodies of one or two out of every twenty or thirty, a strain of microbes sufficiently strong to kill laboratory rats in from seven to twelve days. The virulence of cultures of such strains continues *in vitro* for two or three months, and thus while the existing culture is available for all current purposes, there is sufficient time to hunt by other experiments for another culture to take its place. Working in this way M. Danysz has for the last eight years been enabled constantly to keep by him a supply of virus of adequate strength, and practical use has been made of it for the destruction of rats in warehouses, on farms, and in other places in some thousands of instances. A summary of these operations shows that the experiments thus conducted have resulted in some 60 per cent. of all cases in the complete destruction of the rats, while in 25 the operations have been partially successful, and in the remaining 15 entirely negative. M. Danysz's statement includes a brief account of the largest operation hitherto conducted by his method—namely, the campaign against rats in Odessa in 1902; it would appear to have been very successful. On that occasion the virus was very freely distributed, prepared by very rough-and-ready means, and entrusted for use even to persons of the lowest classes. The rats would appear to have been annihilated without any harm accruing either to human beings or to domestic animals, although the was good reason to suppose that many of the latter a the infected crusts of bread intended for the rats. Give a culture of suitable strength, the methods of prepari and using the infected bouillon seem so simple that t virus might well be employed in places in England whe the destruction of rats is deemed desirable, whether fro a sanitary or other point of view. We believe that a experiment of a limited character was conduct with this virus at Capetown during the early part of t outbreak of plague in 1901, and under the existing circu stances in the Transvaal it seems to be eminently desira that the sanitary authorities of that country should at on arrange for the transmission from the Pasteur Institute a sufficient quantity of culture of adequate strength f the initiation of a rat campaign with Danysz virus. T results obtained under corresponding circumstances Odessa appear to render this most advisable.

EUNUCHOID GIANTISM.

MEN of good inches, as Carlyle called giants, are rarely m of good constitution. It is significant, but not surprisi to find that, according to the above-mentioned author, t only Potsdam grenadier whose life was reliably record by a trustworthy contemporary, "took swelling in the le good for nothing as a grenadier, and was likely to f heavy on society"; so he came to England and mad competence for his wife by making a show of hims Frederick the Great on his accession, seeing the uselessn of his father's giant regiment, disbanded "the stup splayfooted eight foot mass." Carlyle's expression is m appropriate when applied to giants as a class. Giantism a morbid condition. Sometimes it is simply a symptom acromegaly, Maire and Brissaud distinguishing two separ types of acromegalic giant. Vidal and Picqué[1] quite cently turned attention to giantism intimately associa with essential defects in the genital tract. They read no at the meeting of a society on a giant aged 42. When years of age he had an attack of typhoid fever, and af convalescence began to grow rapidly until he became v tall. His genital organs were those of a little child, a the history showed that atrophy of the testes preceded onset of abnormal growth. The bacillus and the toxins typhoid possibly played a prominent part in destroying functions of the testes in this case, and abnormal ost genesis followed. Vidal and Picqué speak of this destr tive inflammation or other degenerative change as "natu castration," and speak of similar cases reported by Laun and Roy, as well as one other instance recently publish by Meige and Brissaud. Launois himself, in discuss the above case, quoted another where an infant was k trated by a dog which attacked him in the cradle. lived to middle age with all the attributes of femini but his height was only 1.74 metre, a little over 5 ft. 7¾ it is of course possible had he not lost his testes, he wo have been shorter. The big, heavy bones of a eunuch to be borne in mind in association with eunuchoid giantis and Curatulo has compared that condition with the ar of the advance of mollities ossium after removal of b ovaries. It would be interesting to distinguish heal from morbid giantism, for undoubtedly a minority of gia have been sound men.

GRANTS TO UNIVERSITY COLLEGES.

IT will be remembered that the Chancellor of the Exche recently promised a deputation that the Treasury grant University colleges should be raised from £25,000 to £50, a year, and held out some hope that the sum might raised to £100,000 next year. The following Committee now been appointed to report on the allocation of the p posed increased grant: The Right Honourable R. B. Halda M.P. (Chairman), Sir F. Mowatt, G C.B., I.S.O., Mr. C Cripps, K.C., M.P., the Rev. Dr. Woods, late President Trinity College, Oxford; Mr. Henry Higgs, of the Treasu will act as Secretary.

[1] *Gazette Médicale de Paris*, March 12th, 1904.

T is reported that the Goldsmiths' Company has placed sum of £1,000 at the disposal of the Council of the yal Society for the purpose of investigations into the rces and properties of radium.

The King, in writing to express his regret that he finds nself unable to be present at the annual athletic festival the South London Schools, has added that he regards h satisfaction the importance now attached to the sical development of children, and takes great interest all institutions which have for their object the improvent of the physique of the young.

Mr. Carnegie has created a fund of 5,000,000 dols. for benefit of persons dependent on those who have lost ir lives in heroic efforts to save life or of such persons mselves if injured but not killed. The benefits of fund apply to Canada and the United States, and Mr. negie's letter contains the following: "No action (is) re heroic than that of doctors and nurses volunteering ir services in the case of epidemics. .... All these and ilar cases are embraced."

December last Mr. W. C. Fletcher was appointed ef Inspector of Secondary Schools under the Board of ucation in England. Mr. J. W. Headlam, M.A., who as porary inspector of secondary schools has for several rs inspected the intermediate schools in Wales and a e number of secondary schools in England, Mr. R. P. t, LL.D., head master of Parmiter's School, N.E., and nerly Honorary Secretary of the Association of Head ters of Secondary Schools, and Mr. Frederic Spencer, ., Ph.D., for fifteen years Professor of French and man at the University College of North Wales, but e recently Rector of the High School at Glasgow, have n appointed Staff Inspectors of Secondary Schools to st the Chief Inspector. The task before these officers great importance to the country, and not least perhaps ne medical profession.

MEDICAL NOTES IN PARLIAMENT.

[From Our Lobby Correspondent.]

derfed School Children.—The debate on the motion of h Mr. Claude Hay, M.P. for Shoreditch, had given ce did not come on on Wednesday night until nearly en o'clock owing to a motion for adjournment, and the ussion was short and disappointing. Mr. Hay pro- d that the State should provide free meals—break- and dinner—for necessitous children, and esti- ed that a rate of considerably less than a half- y in the pound would meet the expenses. The on was seconded by Sir John Gorst, who thought plan would not only put a stop to the hunger of the ren, but would be an efficient instrument for bringing arents to see what their real parental responsibility was. Macnamara, who reminded the House that he was for y years a Board School teacher, supported the proposal; while he thought that parents who could not make provi- for their children must be assisted without any suggestion auperization, those who could but would not should be rely punished. Sir William Anson said that the Committee hysical Deterioration now sitting was collecting a quantity portant and valuable evidence on this subject. Regard be had not only to the child which went hungry to ol, but also to the child ill-fed, ill-managed, and ill- ured from birth, who was behind other children and ered their education. From evidence submitted to Committee it appeared that about 90 per cent. of ren, in whatever class, started with an average ce of a healthy life, but in the case of slum ren, by the time they reached school age 60 cent. were below the normal. The regularity of ol life so far benefited the children that midway in that period the percentage below the normal diminished to 40, and to about 15 at its conclusion. Some of the remedies for this condition might be attained without legislation, such as the teaching of the laws of health and the dissemination by the Board of Education through their intelligence department of information as to what was being done in various localities. He would like to see the case of children brought to school occasionally underfed dealt with by voluntary effort, but for the case of retarded children an extension of the system of truant and industrial schools, accompanied by a diminution of intellectual teaching and a considerable increase in the amount of manual exercise and work about the house. The discussion was continued by Mr. Bond, who was still speaking at midnight when the debate stood adjourned.

Rats and the Plague in Capetown.—Sir Walter Foster asked the Secretary of State for the Colonies on Wednesday whether he would state the results of the use of Dr. Danysz's virus for the destruction of rats as applied in Capetown in the year 1901; and, if the results were satisfactory, whether he would order the same means to be used to destroy rats at the other South African ports affected by plague and in the Transvaal. Mr. Secretary Lyttelton replied that he understood that the results of the use at Capetown of Danysz's virus did not afford grounds for supposing that it was efficacious in the extermination of rats on a large scale. The means to be used to destroy rats at British South African ports were a matter for the Governments of the Cape of Good Hope and Natal. In the case of the Transvaal, he saw no reason to interfere with the discretion of the local Government and its medical advisers, in whose competence to deal with the plague epidemic Lord Milner had full confidence.

Plague in South Africa.—Mr. John Ellis asked the Colonial Secretary on Monday whether, having regard to the presence of plague at Hong Kong and Johannesburg and the admitted susceptibility of the Chinese to this disease, he would suspend the embarkation and importation of any Chinese labourers until the port in China and the district in South Africa are declared to be free from plague. Mr. Lyttelton referred the hon. member to the answer given to a similar question on March 29th, in which he refused to give the undertaking asked for on the ground that the experience of the last three years had shown that the slight outbreaks of plague among human beings in South Africa had been met without much difficulty, and that there was no reason to anticipate special difficulties at Johannesburg. Mr. Ellis asked whether the events of the last fortnight made any difference, and the Colonial Secretary replied in the negative.

Inoculation for Plague in Johannesburg.—Sir John Rolleston asked the Secretary of State for the Colonies whether, in view of the results of serum inoculation for plague in India, he would prohibit the use of plague serum in Johannesburg. Mr. Lyttelton replied that he was not prepared to interfere with the local medical authorities in this matter, and he was not aware of any reasons for the suggested prohibition of the use of plague serum, to which no objection was taken by his medical advisers.

Plague at Hong Kong.—Sir Walter Foster last week asked the Secretary of State for the Colonies if he had received a report on the plague from the Governor of Hong Kong; and, if so, could he state the number of cases of plague reported there during the first three months of this year and the number of deaths. Mr. Lyttelton said that according to the weekly telegraphic reports from Hong Kong on the subject, which were regularly communicated to the press as soon as received, there had been 11 cases of plague and 11 deaths at Hong Kong this year up to April 9th. He had received no detailed report as to the occurrence of plague during the current year, but he had given instructions that a report of the acting medical officer of health on the epidemic of plague during the first seven months of last year, which had just been received, should be sent to the hon. member.

The Tuberculosis (Animals) Compensation Bill.—Mr. Price moved and carried the second reading of this Bill last Friday after a very interesting debate. The object of the Bill is to give compensation to the owner whenever a carcass is con-

demned as unfit for human food on account of tuberculosis. A good deal of injustice has been felt on account of the varying degrees of tuberculosis for which animals have been condemned. It was pointed out in a very interesting speech by Sir Herbert Maxwell that in Edinburgh the whole carcass was destroyed, while in Manchester the organs affected by the disease were removed, and the rest of the carcass, being perfectly sound, was allowed to be sold as meat. Dr. Farquharson strongly supported the Bill in the interests of the butcher and the farmer, who could not diagnose tuberculosis, and he pointed out the public health advantages which the Bill would secure. Dr. Hutchinson protested against any attempt to stop a measure for the benefit of the public health on account of a difference as to whether the taxpayer or the ratepayer should provide the compensation. Mr. Long, on behalf of the Government, was willing to accept a second reading of the Bill on the condition that it was referred to a Select Committee with power to take evidence, and so give the traders an opportunity to present their case and devise some system of compensation. He admitted that it was most important to have skilled inspectors, and that public slaughterhouses should be provided, but it was difficult to force these measures on the local authorities. The promoters of the Bill accepted the reference to a Select Committee.

The Weights and Measures Bill, which occupied a portion of the Friday's sitting of the House of Commons last week, had a section devoted to the metric system, which it was proposed to substitute for Troy weight and apothecaries' weight. In the course of the discussion this part of the Bill was withdrawn in deference to the views of the Government. A good deal of doubt was expressed as to the practicability of introducing the metric system, in spite of its scientific attractions, and when the Bill which is engaging the attention of the House of Lords comes to the Commons for consideration there is likely to be much criticism of the proposal. The Weights and Measures Bill, which, apart from the section dealing with the metric system, is mainly an administrative measure, was read a second time without a division and referred to the Standing Committee on Law.

The Evasion of the Factory Acts.—Mr. Forde Ridley asked the Secretary of State for the Home Department on Tuesday if his attention had been called to a statement lately made by one of the sanitary inspectors of the borough of Bethnal Green as to the evasion of the Factory Acts in consequence of workrooms being part of tenement houses, thus avoiding inspection by the authorities as to the sanitary conditions, overcrowding, and other circumstances under which the work was done; and if so, could he give any hope of these evils being remedied by the issuing of an Order in Council or other method? Mr. Secretary Akers-Douglas replied that he did not clearly understand the question, and thought there might be some misconception. So far as he could gather from inquiries, the statement referred to did not attribute any difficulty in enforcing the Factory Act in workrooms to the fact that they formed part of tenement houses; and, as a fact, the provisions of that Act were enforceable equally in tenement houses as elsewhere. He understood that it was a rule in Bethnal Green that these houses should be visited once a month. On the information no question appeared to have arisen which called for further action.

The Licensing Bill of the Government was introduced on Wednesday evening by the Home Secretary; it proposes that the magistrates in Brewster Sessions when they consider that a licence should be reduced must make a report to Quarter Sessions, with which body the final decision will rest. Where a licence is withdrawn for reasons other than misconduct compensation will be given out of a fund to be raised by a special graduated duty levied upon public-houses, including beer-houses and hotels. Judging from the speech of Sir Henry Campbell Bannerman and from those of Sir Wilfred Lawson and Mr. Whittaker the Bill will be strongly opposed by the Opposition and by the temperance party.

Calf Lymph for Scotland.—On Monday, Mr. Weir asked the President of the Local Government Board, having regard to the fact that Dr. Blaxall, a salaried officer of the London Board, received from the Scottish Board £105 per annum for lymph prepared in the Board's laboratory and produced f calves the property of the Board, would he state whether is sum represented the whole of the profit derived by Dr. Bla from lymph prepared in the Board's laboratory; and, if would he state what extra sum Dr. Blaxall thus received year and to whom the lymph was sold. Mr. Grant Law said, in reply, that apart from his ordinary salary no s other than that paid to Dr. Blaxall by the Local Governm Board for Scotland was received by him for lymph prep in the laboratories at Chelsea. As he had stated on a for occasion the cost of the preparation of the lymph supplie the Scottish Board was borne by Dr. Blaxall.

The Budget.—There was a very large attendance on Tues to hear the taxation proposals for the year. The Chance of the Exchequer made a clear and careful speech, announced an increase of a penny in the income tax, of pence on tea, and some further duties on tobacco in the and on cigarettes and cigars. In the Chancellor's spe there was no indication of any desire to modify the met of levying of the Income Tax so as to favour precarious comes, though some of the subsequent speakers favoure system of graduation.

The Poor-law Medical Officers (Ireland) Superannua Bill.—Mr. T. W. Russell introduced this Bill on Monday, the second reading was fixed for April 28th. The measu intended to make up for the defects of the Poor-law Offi (Ireland) Superannuation Bill, and proposes to place med officers in a satisfactory position by giving the right to su annuation without any vexatious conditions.

The Revaccination Bill.—This Bill is down for sec reading on Tuesday next, but as that day will be occup by Government business most probably it will not reached before 12 o'clock, and then a simple objection stop it. There are blocking motions down in the name Mr. Logan and Mr. Weir.

Scotland.

COMMEMORATION AND GRADUATION DAYS AT GLASGOW

Graduation Ceremonial.

At the annual graduation ceremonial of the Universit Glasgow on April 18th, in the Bute Hall, Principal St presided, and opened the proceedings with prayer in La The graduates from the various Faculties were then prese and "capped." The number of degrees conferred wa follows: Doctor of Medicine (M.D.), 3; Doctor of Sci (D.Sc.), 3; Doctor of Philosophy (D.Phil.), 1; Bachelo Divinity (B.D.), 12; Bachelor of Laws (LL.B.), 13; Bach of Law (B.L.), 4; Bachelor of Medicine and Bachelo Surgery (M.B., Ch.B.), 6, including 1 lady; Bachelo Science (B.Sc.), 27; Certificate of Proficiency in Enginee Science, 8; Master of Arts (M.A.), 78, including 22 ladies.

The Principal then delivered an address. He said while the fund for the extension and equipment of the versity buildings now amounted to over £76,000, a fur sum of £20,000 was required, and he expressed regret the Government of this country was not ready to give financial assistance which the German Government gav universities in that country. After commenting on the mo tendency to substitute physical science for what used t called the humanities in education, he said that the Uni sity should hold the balance evenly and that the soun foundation for the training of any specialist was the and general culture of the character which all scho meant by the term a liberal education. He then refe to the current opinion that the remedy for the def displayed by the South African war and the contin struggle for commercial supremacy was to be found education, but said that it was equally necessary traders, craftsmen, and workers in every departmen national activity should be strong in that which was a dispensable condition of welfare, the sound health of population. Nowhere could the foundations of health more surely laid than in the military training, exercise, discipline of the volunteers. The Principal then dealt the new Scottish Education Bill, and at the conclusion o address the proceedings ended.

Commemoration Day.

The first annual commemoration day to keep in remembrance the founders and benefactors of the University took place on April 19th, and was attended by a large number of graduates from many parts of the country and by many citizens of Glasgow. The principal ceremonies took place in the Bute hall, and were opened by a religious service.

Joseph Black, M.D.

Sir William Ramsay, K.C.B., Professor of Chemistry in University College, London, delivered an address upon Joseph Black, M.D., the son of a native of Belfast of Scotch extraction, whose father engaged in the wine trade at Bordeaux, where Joseph Black was born in 1728. He received his education at the University of Glasgow, where early attracted the attention of Cullen, who was at that time lecturer in chemistry. Black completed his medical studies in Edinburgh and graduated M.D. there in 1754; two years later he was called to succeed Cullen in the chair of anatomy and the lectureship in chemistry in Glasgow. Shortly afterwards he exchanged the chair of anatomy for that of medicine and engaged in medical practice. In 1766, when Cullen became professor of medicine at Edinburgh, Black succeeded him in the chair of chemistry and devoted himself entirely to teaching. His character and abilities greatly contributed to increase the respect in which science was held in Edinburgh; he continued in harness until his death in 1799, in his 71st year. Black's great claim to remembrance was founded on his researches on fixed air; he first showed that a gas can be retained by a solid, and can be made to escape by treatment with acid or by heat; he was then led on to the discovery of what he termed latent heat, and his researches upon this subject, though carried on at a time when precision in experiment was very difficult, gave a value for the latent heat of water which was within one seven-hundredth of that subsequently established. Black's proof that the change of a complex compound to simpler compounds, and the building up of a complex compound from simpler ones could be followed successfully by the use of the balance, had had for its consequence the whole development of chemistry.

Honorary Degrees.

At the close of Sir William Ramsay's address a number of honorary degrees were conferred. The recipients of the degree of LL.D., presented by Professor Glaister, were Mr. Choate, the United States Ambassador; Mr. G. F. Deacon, an eminent civil engineer; Sir Ludwig Grant, Bart., Rhind Professor of Public Law in the University of Edinburgh; Mr. John Honeyman, architect of Glasgow, distinguished by his work in sanitary matters, especially with regard to the housing of the poor; Mr. J. H. Muirhead, Professor of Philosophy in the University of Birmingham; Professor William Stirling, Brackenbury Professor of Physiology in the Victoria University of Manchester; and Sir William Taylor, K.C.B., Director-General A.M.S., who graduated M.B., C.M. in the University of Glasgow in 1864. The same degree was conferred *in absentiâ* on Professor Mendeleeff.

A Memorial of Professor Young.

In the afternoon of the same day a memorial to the late Professor John Young, M.D., Professor of Natural History and Keeper of the Hunterian Museum 1866 to 1892, was presented to the University. The memorial consists of a medallion bearing in bas-relief a bust of the late professor, a volume of his essays and addresses, with a biographical notice by Dr. David Yellowlees, and a catalogue of Hunterian manuscripts. Replicas of the medallion were presented to Mrs. Young and to Queen Margaret College.

Banquet.

In the evening the banquet was given in the Bute Hall of the University; the chair was taken by the Principal, who was supported on his right by Sir William Ramsay and on his left by the Lord Provost.

Graduation Day at Aberdeen.

The spring graduation ceremony of the University of Aberdeen, held in Marischal College, honorary and ordinary degrees in all the Faculties were conferred. On account of the somewhat extraordinary exhibition of rowdyism on the part of the students at the Rectorial Address in November last regulations were laid down by the Senatus regarding the behaviour of students at this ceremony. These regulations were much resented by the male students—there had, of course, been no need for their application to the lady undergraduates—and resulted in a complete boycott of the ceremony by the male section. This certainly made the occasion unique, for in all probability such a state of matters had never before occurred, at least since the fusion of the Colleges in 1860. To the graduates' friends and the general public who assembled in large numbers to view the "capping" the occasion was one for congratulation, since for once they were enabled to hear all that was said and to see the function carried out with unwonted quiet and decorum. Among the honorary graduates who received the degree of LL.D. were General Sir A. J. F. Reid, a graduate in Arts of the University, who recently commanded the British contingent in the International Expeditionary Force against China, and who has had a brilliant career in the India Army; Dr. C. J. Cullingworth, of St. Thomas's Hospital; Sir George Watt, M.B., C.M.Aberd., F.L.S., C.I.E.; and Mr. William Watson, the poet.

Professor Kennedy, Dean of the Faculty of Law, in introducing Dr. Cullingworth to the Principal, who presided at the ceremony in the absence of the Chancellor (Lord Strathcona), referred to him as a man of many distinctions and of long experience, both on the academic and practical sides of his profession, in Manchester and in London. He recalled his many contributions to medical literature which his professional brethren value as models of accurate observation and sound judgement, instancing his studies on puerperal fever and his more elaborate treatise on the diseases of the Fallopian tubes. Dr. Cullingworth met with an enthusiastic reception.

In introducing Sir George Watt, Professor Kennedy mentioned him as an officer of the French Academy and holder of the Daniel Hanbury Gold Medal for research, a distinction awarded in only two other instances to British men of science. He referred to his career as a successful teacher and instructive writer in systemic botany, and enumerated some of the many responsible positions which he had ably filled.

In the evening a reception was held in the Mitchell Hall by the Principal and Professors, and was largely attended by the honorary graduates, graduates, and prominent citizens.

Ireland.

A Rate-supported Sanatorium for Consumptives in County Cork.

The action of the Rural District Council of Cork in petitioning the Local Government Board for a Provisional Order to provide a sanatorium for consumptives of the city and county of Cork marks an interesting step forward in the campaign against tuberculosis. The result of the petition, which has been granted by the Local Government Board, is that the twenty districts into which the county of Cork is divided will be formed into one for the purpose of providing a sanatorium. There will be power to make a rate not exceeding a penny in the pound. A suitable site of twenty acres is open to the acceptance of the joint body, and the beds in the sanatorium will be allocated in proportion to the contributions from the various districts.

It is most appropriate that the lead in such an undertaking should be taken by the county of Cork, for whereas the mortality from tuberculosis is steadily decreasing in Great Britain, there is no diminution of the disease in Ireland, and Cork—especially the city of that name—shows a most deplorable death-rate from this disease. This heavy mortality from tuberculosis is scarcely remarkable when we consider the poverty and insanitary surroundings of many of the people. The overcrowding in many of the lanes and alleys of the city of Cork is almost beyond belief. Professor Corby, in his evidence during the inquiry held by Dr. Browne, Medical Inspector of the Local Government Board, gave an instance of eleven people living in a single room, and another case in which there were seven people living in a house which contained only 336 cubic feet of air space altogether. Dr. Ashley Cummins testified to having seen, in some of the tenement houses in the city, consumptive cases lying in rooms where the walls were covered with the expectoration of the patients. The Cork District Hospital for Consumption, which is practically the only place where phthisical patients can be received at present is so unsuitable that Dr. Cummins, the senior medical officer to the institution, believes that curable cases admitted there quickly become hopeless.

It is evident that there are very few, if any, districts which could have presented to the Local Government Board so strong a case in favour of allowing combination for the erection and maintenance from the rates of a sanatorium for consumptive patients. The principle being accepted, it will be possible for other districts in England and Scotland, as well as in Ireland, to obtain similar permission to levy a rate for the establishment of sanatoria. It must, however, be borne in mind that the sanatorium treatment of early cases is only one portion of the scheme of prevention of tuberculosis. Provision is required for the advanced cases and the disinfection of infected houses and rooms must be carried out. Dr. D. D. Donovan, Superintendent Medical Officer of Health, made this clear in his evidence during the inquiry at Cork, and it is a point which should never be allowed to escape notice. A scheme of prophylaxis which includes only part of the requirements can at best be only partially successful and risks complete failure, but it is to be anticipated that the provisional order for the formation of a sanatorium district, of which the Local Government Board has given notice under date April 14th, will now lead to the introduction by the various local authorities concerned of a complete scheme of tuberculosis prophylaxis.

Central Midwives Board.

We understand that the difficulty which has arisen between the Central Midwives Board and the Irish Training Institutions respecting the certificates which must be produced before candidates can be admitted to the examination will be considered at an early meeting of the Board. The existing regulations, which have received the sanction of the Privy Council, completely exclude the pupil-midwives trained at the Irish hospitals, and under these circumstances it is felt to be very desirable that some modification of the regulations should be adopted, so that women who have obtained certificates from the Irish chartered training institutions can be admitted to the examination of the Central Midwives Board.

Medical Attendance to a West Coast Island.

That the difficulties of dispensary medical officers in Ireland do not always receive due attention from the Local Government Board is manifested by the narrow escape of Dr. O'Meara, the much-respected medical officer of Tullagh Dispensary District, from drowning while endeavouring to reach the sick poor on the islands belonging to his district. It appears that there are some 1,300 or 1,400 persons living on the islands Sherkin, Cape Clear, Hare, and the Skearns, and the only communication with the mainland is by means of an open boat. In rough weather the passage across is extremely dangerous, so much so that Dr. O'Meara and the crew who rowed him across to one of these islands were almost drowned a short time ago in the discharge of their duties. In a letter to the Skibbereen Board of Guardians Dr. O'Meara drew the attention of the Board to the fact that this is the third occasion on which within a recent period he has, with the men accompanying him, narrowly escaped death while on his way to patients on the islands.

Dr. O'Meara also appeared before the Board in person, and pointed out that even when possible to attend the islands it often happened that medicines could not be obtained for days afterwards, and in the case he had been attending on the day of the accident the medicines could not be got for four days, which was too long to have a patient suffering from pneumonia without medicine. He proposed that a medical officer should be appointed to attend to the islands at a salary of from £250 to £300 a year; failing this, he could not see why the Congested District Board would not supply a seaworthy heavy steam launch to make transit between the mainland and these islands, and so prevent further risk of life. Personally, Dr. O'Meara said he did not care a straw whether they supplied a medical officer or a steam launch. After much discussion the following resolution was unanimously adopted:

That the report furnished by Dr. O'Meara be forwarded *in extenso* to the Local Government Board and the Congested Districts Board, and that we request them to hold an inquiry, either conjointly or separately, into the necessity of providing proper medical attendance for the inhabitants of the islands in this union by providing a steam launch so as to render communication rapid and safe between these islands and the mainland.

Ballinasloe Asylum.

The circumstances of the recent election of the medical superintendent to this asylum has led Dr. Milson Rhodes of Didsbury, near Manchester, to send us a letter, from which we take the following:

The question raised by the election of the superintendent of Ballinasloe Asylum is a far larger one than the mere local one. a county alderman and guardian I have been taking an active part in i- ministrative work in regard to the insane for over twenty years, a I look upon the action of the committee as the worst blow at democ ic government in regard to the management of asylums that has yet n struck. I remember an old friend of mine saying, in regard to Boa s that when the parsons came in at the door charity flew out at the o- dow. In this affair the case is worse, for it is actually justice ar appears to have been evicted from the committee room because e senior resident medical officer had been acting as superintend t during the long illness of Dr. Fletcher. What I want to ask is t What encouragement is there to the best men to enter the asylum - vice if, after years of hard work and low remuneration for their servi s they are to be ignored and thrown aside on account of their relig is creed? Many of the best assistant medical officers enter the asylu s for a year or two, and when they see the slow promotion and s ll chance of a good position they leave just as they are becom g thoroughly competent for the work. It must be borne in mind a the average student has very little training in the actual treatme of mental disease during his curriculum, as in no branch of the profes n is the saying, "Get through your exams. and then learn your o- fession," truer than in the case of those who intend to become alien s and it takes a considerable time for any one to acquire the knowl e to fit him for a position of authority in a large asylum. Dr. Mills s evidently devoted himself to the study of mental disease, and his se is a hard one. One governor is reported to have said that it behoved them to elect a man of their own faith. I could find that gentleman asylum where the religious state of affairs was exactly reversed, but the Roman Catholic was appointed.

Registration of Nurses.

On April 15th Dr. James Little presided at a meeting in the Royal College of Physicians in Ireland in furtherance of the proposed Bill for the registration of nurses. There was a crowded attendance. Mrs. Bedford Fenwick explained the objects of the Society for the State Registration of Trained Nurses; and finally the following resolution was proposed by Sir John Moore and seconded by Dr. O'Carroll:

1. That it is essential the nurses throughout the United Kingdom should be efficiently educated for the performance of the responsible duties entrusted to them. 2. That a minimum standard of education and common rules of discipline can be secured only by an Act of Parliament. 3. That, as a preliminary to such legislation, it is desirable a Select Committee of the House of Commons should be appointed at an early date to inquire into the whole nursing question.

Two gentlemen, Mr. Moses and Dr. Parsons, opposed the proposal, which was strongly supported by Sir Thorne Stoker, Sir Thomas Myles, Sir C. Ball, and Dr. Hayes, and was eventually carried with two dissentients.

The Professorship of Botany, Trinity College, Dublin.

The Board of Trinity College has appointed Mr. Henry Horace Dixon to the Chair of Botany, vacant by the resignation of Dr. Percival Wright. Mr. Dixon has acted for some years as his predecessor's assistant. He won a classical scholarship, and at his degree was first senior Moderator in natural science. He has been a hard worker, and he is well known for his observations on the rise of sap in plants.

Dentists and the Companies Act.

An interesting case involving questions regarding the registration of "dentist" companies was heard in Dublin on Tuesday last in the King's Bench Division, the Lord Chief Baron presiding. A person called S. G. Rowell, of Clonmel, wished to obtain registration of a company named "S. G. Rowell, Dentists, Limited." He had applied to the registrar, but he put off the registration owing, apparently —it was alleged—to certain recent legal decisions, although under Section xvii of the Companies Act, 1862, he was obliged to register when the documents were in order. A conditional order for mandamus had been obtained. Counsel for the Irish Branch of the British Dental Association opposed the application on the ground that under the Dentists Act of 1878 no person unless fully qualified was entitled to use the name dentist, that a certain training was required and certain formalities were obligatory on all persons who became dentists, and that what Rowell could not do as an individual he could not do on forming his business into a company. The Lord Chief Baron, in delivering judgement, held that the first sentence in Section iii of the Act of 1878 amounted to a statutory definition of the word dentist, which meant that for the future the word dentist should mean a registered dentist. In the present instance the Company was not and could not be registered under the Act of 1878. The registration would imply that there was a business of dentistry carried on by registered persons, and as the aid of that Court could not be asked for or granted for the purpose of effecting a false representation, the application ought to be refused and should be refused, with costs.

MEDICAL EDUCATION IN AMERICA.

REPORTS OF MEDICAL MEMBERS OF THE MOSELY EDUCATIONAL COMMISSION.

1902 Mr. A. Mosely, who during his residence in nberley, South Africa, had been impressed by the prac- l ability of American engineers, organized an industrial mission of British business men to visit the United es in order to find an answer to the question, "How is it the United States can afford to pay half-a-dollar in es where we pay a shilling, and yet compete with us in markets of the world?" The answer turned largely upon character of the education, using that word in its widest e, available in the United States. In the autumn of last Mr. Mosely arranged for an education commission to the United States with a view to studying the schools universities. The subjects placed for investigation before Commission were:

The development of individuality in the primary schools.
The social and intellectual effects of the wide distribution of dary education.
The effect of specific instruction given (*a*) in business methods; applied science.
The present state of opinion as to the value of professional and ical instruction of university rank designed with special reference e tasks of business life.

e Commission consisted of twenty-six persons selected their special acquaintance with various departments of ation in Great Britain and Ireland. The medical repre- atives were Dr. J. Rose Bradford, Professor of Medicine, versity College, London, and Dr. W. H. Gaskell, Univer- Lecturer in Physiology, Cambridge. Their reports, h form part of the volume issued recently by Mr. Mosely,[1] ain many points of interest to which we can only briefly .

ANATOMY AND PHYSIOLOGY.

. Gaskell prefaces his remarks by the statement that e is at the present time a feeling of unrest and uncer- y both in the United States and in Canada as to the best ods of instruction. Experiments are being tried, and he vidently found it difficult to give any general view. the universities of Harvard and Johns Hopkins the ent is first of all required to spend three to four years in cademic course for the degree of M.A., and is only then itted to enter upon the medical curriculum of four years, e end of which he receives the degree of M.D. This long d is recognized as a drawback, though the great ad- age of a collegiate course is universally recognized, so Dr. Gaskell believes that there will be a tendency more more developed in the United States to institute a com- l course of six years, which will enable the student to n his academical degree at the end of four years and his cal at the end of six, a system very similar to that in in the universities of Canada and at Cambridge and rd. The system is already in working order in the more rn universities of Chicago, Minneapolis, and Ann Arbor. the teaching of human anatomy and physiology is in- d in the scientific subjects for the scientific degree, and, nsequence, the laboratories for these subjects are built se connexion with those for the other scientific sub- and not, as in most of the eastern States, in the midst e town near the hospital, but far removed from the tific buildings of the university. In this tendency of the rsities of the Middle West not to divorce physiology and n anatomy from the list of subjects belonging to a science l and confine them entirely to medicine, he finds one of ost hopeful signs for biological progress in the States, e adds:

a subject as physiology especially ought never to be taught or d except in close proximity to the laboratory buildings of stry, physics, and anatomy, both human and comparative. All oblems of physiology fall under one of these three heads, and there is easy intercourse between the teachers and thinkers in arious subjects, there will be found the broadest views and the fficient teaching power. When the scientific buildings of the sity are situated many miles away from the medical school, and latter alone is provision made for teaching physiology and human y, then such intercourse is very much hindered, to the detri- f both schools. I hope sincerely that in the new arrangements e London University the proposal to concentrate all the pre- y medical subjects, even up to bacteriology, into one or more fic schools apart from the hospitals, will be carried out.

[1] *orts of the Mosely Educational Commission to the United States of , October-December, 1903.* London: The Co-operative Printing , Limited.

Examinations.

None of the universities in the United States or Canada have extern examiners. The question whether or no a student can pass in any subject is decided by his teachers alone, and not only by a separate examination, but also by the nature of the work done by the student throughout the term. Every student belongs to a certain year, and should move with the rest of his class from fresh man to sophomore, from sophomore to junior, and from junior to senior; the work for each year is settled by the teachers and the university authorities, and upon the termination of each course of instruction there is an examination, the results of which together with the marks obtained during the course, determine whether the student has passed or failed in that subject; if he has failed in only one or two subjects he has a chance of making good those failures by working in the summer and passing a supplementary examination in September. If he fails in many subjects he loses his year and has to take all the year's work over again; or he may be advised to try somewhere else where it is easier to get a degree. Each course is got rid of entirely as soon as it is finished and the student can dismiss it from his mind as far as examination is concerned. Further, a subject is much more split up into subdivisions than in Great Britain. Under the term physiology, as understood in England, Dr. Gaskell found almost universally three separate laboratories with separate professors and staff of teachers in each—namely, histology (usually combined with embryology), physiological chemistry, and physiology proper. Each of these subjects forms a separate course with a separate examination.

Method of Teaching.

In all the medical schools of the United States the teaching in any subject is carried on by means of lectures, conferences, recitations (catechetical classes), and laboratory work; to which must be added in some cases seminars. In many universities didactic lectures were looked upon as nearly valueless, on the ground that they were only a repetition of what was already in the textbook, and were not, therefore, needed. Dr. Gaskell sums up this part of his subject as follows:

The idea underlying the whole system of instruction in these scientific subjects is that they are subjects based on experimental research, that the question which the student ought to be taught to ask from the very first is not, What man is the authority for such and such a statement? but, What is the experimental evidence which proves the truth of the statement? Therefore, in every way the student is taught to consider that he himself is undertaking a research, that he is rediscovering for himself what others have found out before him. In accordance with this view no slovenly work is allowed: every experiment must be done as though it was an actual research, time markers, stimulation markers, being used, with the result, so I am assured, that in a very short time it becomes a habit in each man to perform every experiment with real care and thoroughness. Such a method of instruction necessarily means a large amount of time given to the subject and a considerable staff of efficient teachers to supervise the practical work and conduct the recitations, for the latter in order to be of real good must not be given to too large a class.

Dr. Gaskell then describes at length the Harvard "concentration system," a brief account of which is quoted below from Dr. Bradford's report. At Harvard the students are also required to prepare theses, which are read at fixed times and discussed in the class by students and teachers. This is an adaptation to an elementary class of the system of "seminars," followed in all advanced work in all the graduate schools for the degrees of Ph.D. and M.A. A seminar is really a discussion opened either by the teacher or by a member of the class in which all are expected to take part. This system, founded on the belief that the best way of learning is to teach, Dr. Gaskell regards as very valuable, though he questions whether it can with advantage be applied to a large elementary class. In some of the more fortunate universities each student had a separate place in the laboratory which was entirely his own, but where this was not possible the class was divided into sections, so that during the whole time each section was at work the working places belonged absolutely to the members of that section. The whole system, Dr. Gaskell points out, throws a great strain upon the teachers; but he says:

To my mind, two of the most striking points about the laboratory instruction of all kinds in the States is the energy and activity displayed by the teachers, their earnest endeavour to do their utmost without sparing themselves, and the determination of the students to be taught. I do not think it is only because the practical work counts in their final examination that the men attend and work steadily, but because they want to get their money's worth; they have come to the university to be educated for the medical profession, and the stimulus of want of means spurs on a large number, with the net result that the

class as a whole attends well, works well, and in consequence soon becomes thoroughly interested in what must interest everyone—the discoveries of science.

Teaching Appliances.

The greater number of subdivisions of the preliminary medical scientific subjects necessitates a greater number of well-equipped laboratories and a greater staff of teachers. Upon this topic Dr. Gaskell makes the following observations:

With respect to the first item, the building of laboratories, the activity going on in the States makes one ashamed of one's own country. Everywhere one has the feeling that the whole country is so impressed with the desire for the best educational methods that whenever new buildings are required the money is forthcoming for their erection. Either it is given by a munificent donor or is left by will, or is obtained from the past alumni and the general public by the exertions of the President. In the State universities matters may move a bit more slowly, but here, too, new buildings arise with considerable rapidity at the demand of the faculty. It is impossible to enumerate all the rooms for students and research in the different departments of all the universities visited; it is sufficient to say that at Harvard and at Philadelphia University it was felt that the laboratories for the preliminary scientific medical subjects were not quite up to date, and in consequence in both places palatial buildings are arising for the teaching of physiology, pathology, etc. The building at Philadelphia, which is nearly completed, will be, I should think, the finest in the world, unless the Harvard building beats it. At Chicago also there is practically unlimited space for buildings, and also an unlimited purse.

The laboratories in all the universities are well equipped, and in some cases the laboratory unit system has been introduced and has given great satisfaction. He says:

The essence of this system is the limitation of the size of each room in which practical work is done. Instead of one large room holding places for seventy or eighty students, there are a number of small ones each with places for twenty-five students. Each room has its own demonstrator, and every student has his place during the course. The new laboratory for physiology and pathology at Toronto is built on this plan, and impressed me very much. The dissecting room at Johns Hopkins is also divided in the same way, so that each room contains three bodies, and as there are seven students to a body there are twenty-one students in the room under the charge of a demonstrator.

A dissecting room under these circumstances does not give the usual feeling of being overcrowded. There is an air of seclusion and quiet work such as one is accustomed to associate with a class of advanced students in English laboratories but not with a large elementary class. I am inclined to think that one of the most important lessons we can learn from Canada and the United States is how to treat a large elementary class as though its members belonged to a small select one. In order to carry out any such plan successfully, we must not only have the right kind of laboratories, but also a sufficient number of efficient teachers; each unit of the laboratory must have its own demonstrator, while the professor supervises and superintends the whole laboratory.

Suggestions.

We quote in full the suggestions which Dr. Gaskell is led to make as the result of his investigations as to the teaching of anatomy and physiology in America.

1. In our medical and scientific schools separate laboratories with a separate staff of teachers ought to be provided for anatomy, histology, physiology, physiological chemistry, experimental psychology, and perhaps neurology; such laboratories should be arranged on the laboratory unit plan and fitted up throughout with electric light, electric power, and telephones.

2. In cases where there is not sufficient accommodation for the whole class at once, the class should be divided into sections and the teaching so arranged that every student has his place to himself during the whole of that course.

3. I would not advocate the extreme concentration method of learning a subject, but would rather spread such a subject as physiology (in the English sense) over two years. In the first year I would give a general course in which the subject should be treated as a whole in an elementary way, taking, therefore, together the histological, chemical, and physiological aspects of the subject, so as to give the student a good general view of the subject, and leaving the more detailed study to separate courses in the second year in the separate laboratories of histology, physiological chemistry, and physiology.

4. I am inclined to think that histology should not be connected with embryology and put into the department of anatomy, but the laboratories of histology and physiological chemistry should be under the control of the professor of physiology, the head of each department being an assistant professor.

5. I am not convinced that didactic lectures are in large measure a mistake, and that recitations should largely take their place. I think, however, that the system of seminars should be encouraged as much as possible.

6. A six or seven years' conjoint course for the academ and medical degree should be encouraged as much as p sible, and in all universities the preliminary medical scienti subjects should be included among the subjects for the deg in arts or sciences.

7. There is much to be said in favour of taking into accou the work done by the student during the term in his examin tion. There are, however, so many difficulties in the w owing to our system of examination, that it does not see advisable to lay much stress on this point.

MEDICINE AND SURGERY.

Professor Rose Bradford reports that the medical scho visited were those in connexion with the universities in N York, Philadelphia, Baltimore, Chicago, Ann Arbor, Bost Ithaca, Montreal, Toronto, and Quebec. His report is ma under four headings.

I.—*Relation of Hospitals to Medical Schools.*

Professor Bradford states that in most of the cities t hospitals are only indirectly associated with the medi departments of the universities, and their clinical faciliti are not exclusively employed for the instruction of t students of a single university or medical school. In so instances the hospital staffs also contained members w were not necessarily teachers at any university or medi school. In some cities in the States and in Canada arran ments have been made by means of which the services of o hospital are devoted entirely to the needs of a single medi school, as, for example, the Johns Hopkins Hospital at Bal more, the Mercy Hospital at Chicago associated with t North-Western University, the Royal Victoria Hospital Montreal, and the Vanderbilt Clinic in association wi Columbia, New York.

In a great many hospitals in the States and in Canada t custom is for the members of the visiting staff to be on du only for a limited period in each year—sometimes thr months, sometimes six months; at the end of this period t wards are transferred to another physician or surgeon. The regulations are apparently made by the lay bodies governi these hospitals, and where the rule exists the students of a given medical school in association with that hospital ha access to the wards only during the period of service of th chief. On this he observes:

The obvious inconveniences of this system from the point of view clinical teaching are to a certain extent mitigated by the fact that t teachers usually hold appointments at more than one hospital, and mutual arrangement and otherwise it comes about that throughout t academic year such a teacher is in charge of wards at one or oth hospital, and thus his students are able to accompany him at visits.

In America the medical school is an integral part of t university and controlled by it, and the hospital is usually independent institution managed by trustees, the clini opportunities afforded by it being often shared by seve medical schools. In many of the cities visited evidence w obtained that changes are imminent, and attempts are bei made, in many instances successfully, to obtain funds erect and maintain hospitals which shall be available for t clinical teaching of the students of a single university medical school. Upon this Professor Bradford says:

This undoubtedly will remove many of the difficulties that are present experienced by clinical teachers, and will also in all pro bility bring the teaching of medicine more directly under the cont of the university authorities, and in this way still further promote progress of medicine.

The system of clerks and dressers long established in t United Kingdom is followed in the Canadian medical schoo but not in those of the United States, with the exception that of the Johns Hopkins University, Baltimore, where t period of service is three months, and the men filling t posts are in their last (fourth) year. While many of t American teachers are alive to the advantages of the syst of clerks and dressers, they urge that under their syst students get practical acquaintance with disease subsequen to graduation during their period of office as interns at a ti when they are more fully capable of making use of the opp tunities afforded to them.

II.—*Clinical Laboratories.*

In most of the medical schools visited well-equipped clini laboratories were a conspicuous feature, and this was m especially the case in the University of Pennsylvania, Joh Hopkins University, the Massachusetts General Hospit and in the University of Michigan at Ann Arbor. The labo

s contained accommodation for chemical, bacteriological, histological investigations, and were in intimate associa- with the hospitals in relation to the particular medical ol. Separate rooms were usually allotted for the separate ches of the work, and there was ample accommodation orkers who desired to investigate special problems. In instances, indeed, separate rooms were available for erly accredited workers, and, speaking generally, the ee of development of this side of medical instruction nvestigation was highly advanced. It was evident that was a very general tendency in all the medical schools ed to bring clinical medicine more intimately into rela- with the recent developments in the sciences of chemistry, cteriology, and morbid histology. Such routine examina- as blood counts, urine, and stomach-contents analyses, l reactions, and cytological observations on effusions carried out with great thoroughness and with very great ency, so that a very valuable mass of knowledge with nce to these changes in a large number of diseases is accumulated under the direction of the officers in e of these laboratories. In other words, blood-counts ther investigations were not made simply in the special ses where they were necessary from a mere diagnostic of view; but these and other elaborate methods, dent on the recent development of science, were yed in a more or less routine fashion.

ddition to this, special investigations on various pro- in clinical medicine were being worked out by a er of independent observers, and it would seem that facilities both in the way of material, provision of reagents, etc., were afforded for these purposes. Every ethod of investigation that seemed to be suitable for rpose was pressed into service.

some universities the clinical laboratories were under arge of the professor of pathology; in others, of the sor of medicine, the latter plan affording a means of aining the relationship between clinical medicine and logy so necessary for the progress of both. In some of iversities the association was maintained by providing pathological department separate rooms for the de- ents of medicine and neuro-pathology, surgery, and cology, in which the professors of these subjects were d thoroughly to work up, with all the resources of the ogical laboratory, the material of their clinics; the rs in these rooms were, to all intents and purposes, the direction of the professor of the particular depart- oncerned.

d Laboratories.—In many instances special rooms were ed in the hospitals where the students could make ry analyses of urine and stomach contents.

cal Bacteriology and Chemistry.—Very complete courses ruction were given as a rule in clinical bacteriology and try, extending in some instances over two terms, the neeting twice a week for three hours; sometimes a of as much as three months was spent on blood work The student had his own place and locker in the ory, and was free to carry on his observations at all during the day and in the evening. In other words, the third and fourth year the student always has a uarters in the clinical laboratory, where he can make servations he desires. At the Johns Hopkins Univer- cost in materials for about 100 students amounted to 200 per annum; this economical working is in part to ibuted to the small number of attendants provided, deal of the rountine of clearing up being done students themselves. To this custom Dr. Gaskell alls attention. In some universities, however, raduates were not admitted to the clinical labora- a smaller laboratory being provided for their routine tion.

atient Departments.—A great deal of the instruction of s is carried out in the out-patient or dispensary clinic, in many instances possess an equipment for teach- rposes of a very high order of excellence. In some of ut-patient buildings a small laboratory is provided blood examinations, analyses of urine, and examina- stomach contents of an elaborate character could be out.

III.—*The Teaching of Medicine.*

ssor Bradford, after stating that in all the universities a four years' curriculum was in vogue, and inasmuch r was not devoted, as is the custom in this country, reliminary subjects of chemistry, physics, and biology r years of medical study common in the States and in Canada are more or less comparable to the four years in this country subsequent to the first, continues as follows:

It is very difficult, however, to carry the parallel between the systems of education in the two countries any further, because we are at once met with very fundamental differences both in the methods of teaching and in the curriculum. The most important differences in the methods of education may be summarized by stating that in the States the whole course of instruction is in the first place far more systematized than is the case in this country, and there is probably far more supervision of the individual student throughout the course of his studies. An Englishman is, perhaps, most struck with what I have called the systematizing of the instruction. Almost every hour of the student's time is allocated to definite and specific studies, and very commonly these are carried out in very small classes under the direct supervision of an instructor or demonstrator.

In the second place, care seems to be taken that each student should at any rate make himself familiar with certain specified things and objects. For instance, in the teaching of medicine it would seem to be the duty of the instructors to take care that each student should see and thoroughly study one or more examples of the most important diseases, and this is carried to a far greater extent than is customary in this country, where it is assumed as a matter of course that the student in the course of his hospital career will necessarily have many instances of the more important maladies brought to his notice. It would seem that in the American schools this is actually made a special point of by the instructors.

In the next place great use seems to be made of drawings, lantern slides, models, and, in fact, all measures directed to bringing the objective side of the subject before the student.

Lectures or Recitations?—The general trend of opinion seemed to be in favour of curtailing formal and didactic courses of lectures, and in some universities they have been abolished altogether. In the case of medicine their place is taken by what is called the "recitation," which, Professor Bradford says, varies in value enormously in different schools. He gives the following description:

In some in the recitation the teacher meets a section of the class and a given subject is discussed between them, the teacher questioning the class and the individual members of the class frequently questioning the teacher. In fact, in many of the recitations it was very striking to see that the ordinary distinction between the teacher and the taught was very largely broken down, and that the teacher was, so to say, almost a member of the class. In such instances the recitation was based on a given subject which the class had previously read up in one or more textbooks. It is obvious that such a method of instruction has a very distinct educational value, particularly if the subject is selected judiciously. In other instances the recitation was based on a given textbook, and the class was informed at a previous meeting that at the next meeting pages so-and-so to so-and-so would be considered, and in the course of the academic year the textbook was gone through almost page by page by the class. The attendance at recitations was remarkably good, and the students were earnest and eagerly took notes. Where the recitation was based on a textbook the recitation was really a means of ensuring that the student had made himself acquainted with the text, although, doubtless, in many instances the experience of the teacher enabled him to add to the information imparted by the book. The recitation in one form or another may be said to be universal as a system of instruction, and has to a great extent, and, in some instances, entirely, supplanted the lecture.

Special Courses.—The American student gives more time to the study of specialities, and will follow courses on medicine, on laryngology, on surgery, on orthopaedic surgery, nervous diseases, electro-therapeutics, diseases of children, skin diseases, genito-urinary diseases, etiology, ophthalmology, mental diseases, history of medicine, and dietetics.

Amphitheatre Clinics.—Instruction in case-taking and in physical signs is given in small classes by special instructors and so-called amphitheatre clinics, that is to say, demonstrations on selected cases by the professor, were found to be very largely used; the attendance was large, amounting in some cases to one or two hundred; in other words, all the students were at liberty to be present.

"*Ward Walks.*"—The attendance at the ward visits, or, as they are frequently termed in the States, "ward walks," was more restricted, as it was customary to divide up the students into sections of 12, or 20, or 25 men; these sections had the right to attend the visit of the visiting physician or surgeon. The attendance was restricted to a certain definite period, as otherwise it would have been impossible for all the students to attend in the course of their curriculum.

Out-patient Practice.—This is very largely used for teaching; the patients are examined in small, well-equipped rooms by students, one of whom takes the history and the other the present state, which are recorded on a card; the card is then handed to the professor, who examines the patient, demonstrates the signs, cross-examines the student, points out

features of interest, and discusses the case generally. Similar methods are employed in teaching surgery and in the special departments, which every student is required to attend for a certain definite number of hours during the session as one of a small class. Classes for special clinical instruction in therapeutics quite distinct from the systematic instruction in pharmacology and therapeutics are held in some schools.

IV.—*Pathology.*

The pathological departments of the universities visited were generally fine buildings very completely equipped. In many normal histology was under the charge of the professor of pathology, and in some the instruction was actually given by him and his demonstrators. The study of pathology was usually commenced in the second year, that is to say, at a period when anatomy and physiology were still being studied; in some, bacteriology was commenced in the first year, but as a rule the study of pathology was commenced in the second year either with elementary bacteriology or morbid histology; sometimes both subjects were taken at the same time.

The Concentration System.—At Harvard instruction in such subjects as anatomy, physiology, and pathology is carried out by the concentration system, under which the entire time of the student is devoted to the consideration of a single general subject, such as anatomy, physiology, pathology, as the case may be, and the whole course of instruction is carried out in the period of four months. Thus at Harvard, pathology is studied in the first term of the second year.

Size of Practical Classes.—The "section method," that is to say, the division of the class into small numbers under the charge of an instructor or demonstrator, was followed throughout the States for the practical teaching of almost all subjects, and at Harvard the proportion of instructors and demonstrators to students was approximately one to ten; a very complete record of the students' work is kept, and a report made to the professor.

Pharmacology and Therapeutics.—In many of the universities the system of instruction in pharmacology and therapeutics is more specialized and more amplified than is the case in the United Kingdom. In addition to practical instruction in pharmacy and materia medica, lectures and experimental demonstrations are given on pharmacology. The lectures are given to the whole class, but for the demonstrations the class is divided up into small sections—in some cases not more than eight or ten men—and the fundamental experiments on the actions of drugs are shown. Optional or elective classes of a more advanced character where further experimental work is done are also common. Special instruction in therapeutics is given very frequently by a special lecturer or professor, and in some instances ward visits are attended, where the whole clinical instruction is devoted to the consideration of the treatment of the patients.

Examinations.

Upon the subjects of examinations Professor Bradford makes the following observations which it seems desirable to quote in full:

No very useful purpose can at present be served by comparing the examination systems in vogue in the States with those obtaining in this country, as the conditions are so entirely different in that the degree granted by the universities confers no right to practise; the latter is obtained by passing a State examination under the supervision of a special Board. In all the universities the manner in which the student has followed his courses of instruction is a determining factor in deciding whether he shall or shall not receive a degree. Further, it is very usual for the examination in each subject to take place at the end of the course of instruction in that subject, and hence the examination, particularly in what are called in this country the preliminary and early subjects, is to a large extent a piece-meal one. As regards the final subjects—medicine, surgery, and obstetrics—in some instances the student is examined in all at one time.

The fundamental and far-reaching difference between the American and the English systems lies in the fact that the record of a student's work, recitations, laboratory classes, ward work, is kept, and very largely, and in some cases almost entirely, determines the result. A very prevalent custom is not to admit him to the written or practical examination, often held at the end of a course, unless the report of his class work is satisfactory. Such written or practical examination when held is conducted by the professor himself, but the report of the class work is made by the instructor or demonstrator in charge. All the student's drawings, laboratory notes, clinical records of cases seem to be marked and pigeon-holed.

In many universities if the student is rejected in three branches he loses a whole year and the courses have to be repeated. It is difficult to form an estimate as to the number of students who fail, but in the leading universities the proportion would seem to be small compared with what obtains in England.

Conclusions.

Professor Bradford summarizes his conclusions as follo

1. That the enthusiasm of the teachers and of the stu was one of the most striking features of his visit.

2. All the leading universities had exceedingly fine in some cases magnificent, laboratories, and the equip was of a high order of excellence.

3. In the teaching of the non-clinical subjects the labor and practical side was especially developed.

4. Systematic instruction by lectures seemed not to general favour.

5. Even in the final subjects (medicine, surgery, etc. teaching was extraordinarily systematized; but, spe generally, the students did not have the clinical faci they obtain in this country.

6. The scientific investigation of disease in clinical la tories had reached a very high order of development.

7. The teachers in this country in such subjects as ology might well consider whether some of the metho vogue, such as the early study of bacteriology and the cu of giving the class unknown organisms and sectio identify, and the careful record of the students' work, ar features thoroughly deserving of imitation.

ON THE INTRUSION OF THE LAYMAN INTO MEDICAL PRACTICE.

By H. LEWIS JONES, M.D.,

Medical Officer in Charge of the Electrical Department, St. Bartholo Hospital.

MEDICAL men who have taken up the study and practi electro-therapeutics are much concerned in a question w also concerns the whole medical profession, and that i invasion of this field of medical practice by laymen an extensive support which is being given by medical m the unqualified persons who undertake this and other f of medical treatment by physical agents. The situati growing rapidly worse. Electricity has always been exp by charlatans of various species, and this state of things doubtless continue, but medical treatment by elec methods is now being taken up by chemists, by nursin stitutions, by instrument makers, who undertake to carr *x*-ray photography and *x*-ray treatment, and by syndic specially equipped for making money by the treatme patients; and the feature which makes the situation a se one is the way in which these persons and agencies ar couraged by members of the medical profession. Main consequence of this encouragement we are confronted b extensive invasion of an important sphere of medical pra by laymen who are deliberately taking up a branch of me treatment as a means of livelihood. Some of these p seem to think that the treatment of the sick by electricity other physical methods is a field of work into which have a perfect right to enter. Take the following instan last April I received a letter which bore sign having been written by a person of education; and from take the following extracts, as they illustrate the situ very clearly. The writer says: "Dr. B. has kindly all me to use his name in writing to you for information in nexion with a course of lectures at St. Bartholo Hospital. I have explained to him my intention to op electrical establishment in London, and my wish to tak necessary steps to become efficient before doing so. I sh be much obliged if you would give me your opinion what training you consider necessary, and whether it w be possible for me—a layman—to obtain admission to demonstrations on the subject of medical electricity a Bartholomew's."

In replying, I said that the teaching at the hospital wa medical men and medical students only, and that I sorry to think that my correspondent proposed to sta establishment for unqualified medical practice; that it unreasonable to expect me to assist in training person such an object, and that I thought the crowd of unqual practitioners was already large enough. In his repl said:

"I am thankful to you for your letter, as it will serve a instance of what you must pardon me if I describe as th reasonable attitude of mind taken up in certain quarter this subject. I cannot but think that it is to the intere the medical profession and science itself, that reason

ement should be given to specially-trained men who work under medical direction. Of these there are n London whose work and reputation for many years a sufficient answer to the imputation conveyed in er."

letters clearly reveal the idea of their writer that a vas fully entitled to embark on medical practice and t, an idea which causes him to consider my view dical practice should be confined to medical men as easonable attitude of mind." It is also worthy of he was referred to me for advice by a medical prac-

Another striking instance of the general attitude al men towards electrical work is afforded by the a well-known firm of chemists of good standing has d upon the systematic treatment of patients by l methods.

s an extract from a letter from a well-known firm of , written in reply to a medical man who wrote to ask they would treat a case of lupus. "We.....shall be o undertake the treatment of your patient for lupus y *x* rays or the ultra-violet rays. The former treat- have generally found more successful, but can apply your instructions." Another letter from the same eply to another inquiry, is couched in similar terms. that the firm had had considerable success with the of their cases, and that any case entrusted to their be treated with the greatest skill and attention. In r letter this firm enumerate a number of leading men in London who have sent them cases.

ical men had had any proper feeling in this matter lified practice and electrical treatment, this abuse rdly have been allowed to grow up.

recently seen a letter addressed by a chemist to a man asking for instructions as to technical details ribing his methods of treating a case, presumably of ancer, by a vaginal *x*-ray tube. Surely the treat- case of that kind is not a matter to be properly l to a chemist, and yet the country abounds with who are taking up *x*-ray photography and *x*-ray t.

stresses of nursing homes are also becoming imbued same desire to make money out of unqualified

while ago I received a visit from the proprietor of a home. She wished for my advice as to the setting installation of electrical apparatus in her establish- ler alleged reason for this was that her neighbours petitors were all doing so, and she thought she must low in their train or fall behind, and so lose money. ly a booklet of a "nursing home" has been freely d. It contains price lists of fees for courses of treat- non-resident patients by high frequency, by *x* rays, rays, by radium rays, and even by radio-active emanations. Surely this extensive programme is re than should be undertaken by a nurse. Is there r in the woodpile" in the shape of a medical man r work behind the nurse's cloak?

country a few inconsistencies more or less do not uch interest unless attention is pointedly drawn to t in this particular matter of the transfer of elec- tment to laymen the medical profession must needs sted. An inconsistency, which seems to me to be a ne, is the following: The unqualified assistant has lessly exterminated with all the rigour of the law. In e worked under the close supervision of his chief, mainly to minor points of medical practice, and ct to punishment by the loss of employment if he g. Is it not an abandonment of the principle for unqualified assistant was sacrificed to countenance lified electrician? Nowadays the unqualified elec- flourishing by the support of medical men who have control over him, who are generally unable to pre- details of what they wish to be done with any accu- to form any proper judgement as to the manner in ir instructions are being carried out.

ion of medical practice for medical men is simple prehensive, but its importance is not yet fully y the members of the medical profession. Quite se. There are plenty of members of our profession ort unqualified electrical operators. I believe that ity of the electro-therapeutic work done in London y laymen. I hear of it continually.

a case of some interest. A medical man with con- experience of *x*-ray therapeutic work was consulted by a patient suffering from rodent ulcer. The patient said that he had been under the care of a gentleman who is surgeon to a large London hospital which has a good electrical department. He further said that the surgeon advised *x*-ray treatment, and recommended him to apply to a firm of chemists for the treatment of his case. The patient did so, but without benefit, and therefore came to ask my informant to undertake his case; further, he asked for a reduction of fees on the ground that he had been already put to great expense for the treatment given by the chemists.

A few years ago a physician, writing on medical electricity, indulged in a sneer at the expense of medical men practising electro-therapeutics, by suggesting that they were more versed in the intricacies of their apparatus than in the knowledge of anatomy and physiology. Where are we now? The knowledge of the intricacies of the apparatus seems to be the only thing looked for, by those at least of our profession who support the unqualified electrician.

In my opinion the least skilled medical man is to be preferred to the most elaborately equipped of institutes or of lay electro-therapeutic operators, simply because he is a medical man, has had the education of a medical man, and feels the responsibilities which belong to every right-minded medical man. The conversion of medical electricity into a branch of work for electricians would be the greatest possible mistake in the public interest.

It is often said—though chiefly by badly-informed persons—that the equipment of the unqualified operator is so much better than that possessed by the medical practitioner, that the latter must be at a hopeless disadvantage. I mention this in order to contradict it. It is not true for one moment. There is no genuine or useful electrical appliance which is not possessed by the medical men who practise electro-therapeutics. If the unqualified man has nickel-plated knobs to his instruments where the medical practitioner is satisfied with plain brass, does that make the former apparatus any the better? Good modern electrical apparatus is made to regular patterns and can be bought ready-made at the instrument makers. Judging from what little I have seen of the interior of the unqualified man's treatment rooms, and from photographs of other places which have been shown to me, I can unhesitatingly contradict the statement that the unqualified men have any monopoly of the best things.

It must also be remembered that the consequences of electrical applications in the hands of non-medical persons may be disastrous. I have authentic information of a fatal *x*-ray burn produced in the treatment of cancer by an unqualified operator. Some time ago I was called to give evidence at an inquest upon another case in which the taking of *x*-ray photographs by a photographer had resulted in a burn to the patient which ended fatally.

The effect of the neglect of electrical methods of treatment in this country is already reacting very unfavourably upon the medical profession itself. Consider the electrical departments of the larger London hospitals. Are they a credit to the hospitals or are they not? Emphatically they are not. Men of the best stamp—men, that is, of the class who are willing to take up work in other special departments of hospitals—are unwilling to take up electro-therapeutic work because they do not find its status good enough. They are almost afraid even to be associated with electro-therapeutics.

It is a deplorable thing that medical men should fear to identify themselves with medical electricity lest it might injure their professional prospects. To practise electro-therapeutics in a proper manner requires not only a knowledge of anatomy and physiology, of medicine and of surgery, but also a knowledge of physical science such as is possessed by very few medical men. Electricity renders indispensable assistance to all branches of scientific medical practice, and its applications are growing greater every year. Medical electricity as a field of work calls aloud for the best possible type of trained medical man. If medical treatment by electrical methods is to be handed over to any kind of lay operator, its development is certain to suffer seriously, because the right kind of man will be deterred from touching it.

Mr. Morgan, in his presidential address to the Medical Society in October, 1900, has expressed exactly the same opinion. He says: "The further development of *x* rays in surgery and medicine is a study which I should like to see appropriated by members of the profession. I believe that it is still in its infancy, and that there is a great future before it. But, in order that we may obtain the full advantages of

its resources, it appears to me that the study must be pursued by men having a thorough medical training, and must not be allowed by them to fall into the hands of mechanicians, lest its progress as a scientific aid to diagnosis be checked. I heartily commend it as a new form of speciality to those who have time and opportunity to pursue this entrancing study."

To show that the condition of our London electrical departments leaves something to be desired, I will quote an extract from the official bulletin of the French Society of Electrotherapy for the month of July last. It is contained in a letter addressed to the Secretary of the Society by a delegate who was asked to report on the position of electro-therapeutic work in England. He says of one of the large London hospitals: "The electro-therapeutic department seemed to me to be somewhat primitive in its organization and in its apparatus, and I have doubts of its being of any great utility."

At another large London hospital with a medical school there is no electrical department, and this appears to be partly due to the fact that the staff have been unable to induce any suitable man to take it up. In others the electrical department is in an imperfectly-developed condition.

X-ray photography and *x*-ray therapeutics are entrusted to lay operators at several of the London hospitals. This, I think, supports my contention that where electricity is concerned the medical profession is a little careless of its rights and its responsibilities. It does not seem to me that a proper degree of consideration is shown to patients, however humble they may be, if they are made to uncover themselves and expose their infirmities before a lay operator under the false impression that they are in the hands of a duly qualified medical man.

In considering the position of affairs there is a point which should not be lost sight of, and that is that there is a distinction between the common charlatan and the more or less trained electrician who carries out treatment under medical orders. Unfortunately, the latter class tends to shade off into the former, and it is not always easy to recognize much difference.

Our difficulty to-day is not so much the old—and still present one—of the common impostor, but a new difficulty of the voluntary surrender of medical work to laymen. In considering this matter we must not be too ready to impute prejudice or any other unworthy motive to the medical men who employ the lay operators. I am sure that the harm done is often due to thoughtlessness or sheer ignorance. I saw a letter only last week, written by a medical man in the country to another in London. The writer said that a patient of his had fallen into the hands of an unqualified electrician in London, and asked for advice as to how to extricate him. He did not know, he wrote, of any medical man in London practising in electro-therapeutic work to whom his patient might be entrusted. The profession at large does not know that there is any systematic study of electro-therapeutics by medical men. They do not know who is a competent exponent of this branch of therapeutics or who is not. They read the copious advertisements of the numerous electrical institutes, they see the phrase "solely under medical direction" which these establishments use so lavishly, and they take for granted that things are all right. The fact is that the present state of affairs is the natural result of the low esteem in which the subject of electro-therapeutics is held in this country. That may have been pardonable twenty years ago, but electricity has made advances since then, and its medical applications have also advanced very notably.

It is high time for the medical profession to awake to the fact that electro-therapeutics demand serious attention, that many applications of electricity are of great value in medical practice, and that the carrying out of electrical treatment for the sick is a matter for medical men and not for irresponsible laymen.

It is much to be regretted that the Council of the British Medical Association should have disallowed a subsection for electro-therapeutics at the annual meeting this year, particularly after the holding of a successful subsection in the subject at Swansea in 1903.

In order that members of the medical profession may realize the extent to which unqualified practice in electro-therapeutics has spread I venture to bring forward the following instances of the circulars which are being sent out more or less indiscriminately:

1. An extract from a letter dating from Cavendish Square: "Dear Sir,—I beg to inform you that I have, at the suggestion of several leading medical men for whom I work, opened a branch establishment at the above address. My ... years experience enables me to deal with all cases t... suitable for mechanical and electrical treatment."

2. A circular, with illustrations, dated from Eli... Street, Eaton Square. In it I find the following: Mar... results. Roentgen rays, high frequency, Tesla, Finsen ... diseases, lupus, etc., radically cured by iron light. Pa... etc., treated by perfect electro-medical appliances. ... male and female operators.

The addresses of branch establishments are given.

3. Another from Woodstock Street, London, W., ... "We have on our books an efficient staff of hospital-... male and female nurses.....They can be employ... either doctor or patient. We treat patients by ultra... lamps for the profession."

4. In a circular with prices, an *x*-ray photograph of ... and a card from a "Member of the Roentgen S... *X*-ray Specialist," I find the following: "I ha... cently installed the best and most up-to-date appl... thereby ensuring satisfactory results with short exp... and without risk of the dermatitis which hither... been the only drawback in connexion with the use of *x*...

"*X* rays now being so largely used therapeutically ... as for diagnosis, I propose to devote my services exclu... to the medical profession for these purposes."

5. The illustrated circular of a Swedish Institute in ... rington Gardens, S.W., offers many forms of medica... ment, and includes the following: "Physico-thera... treatment of muscular and nervous diseases." "*... thérapie*, galvanic and faradic electricity, electric baths ...

6. Recently a prospectus was circulated of The Ligh... and Electro-Therapeutic Institute, Limited, capital £... It had four directors, none of whom belonged to the m... profession. Among its objects were enumerated the pro... of "light-cure" treatment. Its installation will i... "Finsen light, Roentgen ray, high frequency, vibrato... electric massage, hydro-electric, static, galvanic, fa... and other forms of electric treatment."

7. The Electrical, Ozone, and Light Treatment is a c... which has been in existence for some time. In its advt... ments rheumatism, sciatica, neurasthenia, dyspeps... specially named, and it is stated that "currents of high ... tial and great frequency are passed into the system,"... "expert masseurs attend patients, who are only receiv... the authority of their medical man."

Another prospectus recently issued is that of the K... Light Cure and Electro-therapeutic Institutes, Limited, ... a capital of £15,000. It has three non-medical dir... The managing director is Herr Martin Kroeger, "E... therapeutist," and it also gives the name of a consu... physician and surgeon. Its objects include the acqui... from Herr Kroeger of four institutes, three of which ... London and one at Eastbourne, and the making of ar... ments for carrying out any form of medical, dietetic, hyg... or other treatment of disease.

Another institution is "The Red Cross Light Cur... Electrical Institute" for the modern treatment of dise... electric light and vibration. "Consultations and Roen... rays examinations free." "Patients treated under the s... vision of their own medical man if desired. Or a qu... medical man can always be consulted at the Insti...

ILLEGIBLE PRESCRIPTIONS.—It is stated that in view ... commonly illegible writing of medical men, the Minis... the Interior of Prussia has issued an order forbi... chemists to dispense medicines upon prescriptions any... of which is not perfectly clearly written, in default of exp... tions thereof being obtained from the prescribers. The... also instructed to write the name and address upon ... prescription of the person by whom the medicine is int... to be taken, if this has not already been done by... prescriber.

THE CIGARETTE HABIT IN CANADA.—A resolution ... moved in the Canadian House of Commons, on March ... with the object of prohibiting the importation, manufac... and sale of cigarettes, the consumption of which in Ca... has enormously increased during the past few years. The ... lution having been opposed by the leaders of both sides o... House no vote was taken upon it, and the subject is ther... at present shelved. Last year a similar resolution was p... by a large majority, but owing to some irregularity in ... way in which it had been framed it was subsequently ... out.

PREVENTION OF CONSUMPTION.

Workmen and Sanatoria.

G. A. Heron delivered an address on the prevention of sumption before a meeting of working-men convened by the dred Working Men's Hospital Supporting Societies, on il 14th, at St. James-the-Less School in Sewardstone Road, toria Park, close to the City of London Hospital for eases of the Chest. After explaining what was meant by use of the term consumption and maintaining that the ase was, for the most part, caused by the dust arising n the dried expectoration of consumptives, Dr. Heron ted some interesting statistics which he had received from Tatham, Superintendent of Statistics, General Register e, Somerset House. According to these figures in England Wales the death-rate from phthisis per million living in sexes for the five years, 1866 to 1870, was 2,448; from to 1875 it was 2,218, from 1876 to 1880 it was 2,040, from to 1885 it was 1,830, from 1886 to 1890 it was 1,635, 1891 to 1895 it was 1,462, and from 1896 to 1900 it was . In a period, therefore, of 35 years the fall in the ality from phthisis had been from 2,448 per million to 1,323 million. The population of England and Wales had eased by 50 per cent., while the mortality from pulmonary rculosis had fallen 50 per cent. The mortality from isis differed greatly in the two sexes. In the last five , for which statistics had been prepared, that is to say, in uinquennium, 1897-1902, phthisis was fatal to 1,529 out of million males living, but to only 1,114 females in every on females living. Dr. Heron then observed that there probably from 300,000 to 500,000 people in England and s who were suffering from consumption. Of those it was nable to suppose that at least one-half were too poor to themselves properly treated in their own homes. efore, for their own sakes, as well as in the interests of the hy community, those people should, at the earliest ble moment, be taken to a sanatorium where they would ught how to take care of themselves, and how to deal heir illness. In a sanatorium the poor man should have d a chance of regaining his health as the rich man, who afford to pay for all things helpful for recovery. The ion arose as to how they were to provide accommoda- in sanatoria for a quarter of a million or so of poor e. That would necessitate, after building sanatoria, and ut counting the cost of land, an expenditure of at least shillings a week for each patient. In Germany they had enced to solve the problem by the system of industrial nce which was an enforced payment from every ng man and women in Germany of a certain per- e of their wages; the money was paid to a central fund, this the employers of labour were also obliged to ibe, and the Government also paid a certain amount. ermans had resolved to get rid of tuberculosis, and that e means they had taken for the purpose, feeling sure the end they would accomplish their object. Dr. Heron t that the working-men of the United Kingdom could better than copy the very sensible example of the people many. The Government must help, because the sum of ey required was so large. Dr. Heron then alluded to the ty at the next General Election of impressing on ates for Parliament the importance of the question of lth of the people, and it was a subject that Members iament must force, in season and out of season, on the on of whatever Government was in power. Dr. Heron ok up the consideration of the treatment of consump- carried on now among the poor, especially among the large cities, which consisted, in the earlier stages of ease, in a patient repairing to the nearest out-patient ment of a hospital, being examined there by a physician, g a bottle of medicine, and then returning to his poverty- home, where, being the bread-winner, comforts were diminishing, and proper nourishment was wanting. serable home of that description the patient, already worried, was expected to recover from phthisis by of medicine received from the hospital. It was an bility to treat patients satisfactorily in that manner, . Heron asserted that the out-patient treatment of s of the kind he had indicated was a farce and a y. a great waste of money, and a public scandal. Con- Dr. Heron said that above all things he was con- that if the people of this country did not take an ent interest in the question very little could be done th the most willing Government in power. The only which they could excite an intelligent public opinion on this matter was by educating the people. He knew from his own observations that children at the age when they leave school could be taught to take a rational interest in the rules that govern health, and especially in the means for preventing the spread of infectious diseases, provided, of course, that the subject was put before them in simple words. Dr. Heron said he would like to see it made compulsory on the educational authorities to provide for the proper teaching of the rules that govern health to children leaving school, and the same kind of instruction should be afforded to those who attend universities and colleges. If people were educated in that way when they were young, then, in the coming generations, they would have the fathers and mothers keenly interested in questions of public health, because they would thereby be enabled to keep away from their homes the infections now so fatal and so common in this country. And, further, any one advocating measures to that end would find he had an intelligent body of supporters anxious to have the necessary safeguards set up in their own interests.

Middlesex.

A conference of Middlesex Boards of Guardians was held on April 18th under the presidency of the Chairman of the Brentford Board of Guardians with a view to the establishment of a consumption sanatorium for the county. A provisional Committee, appointed some months ago at a previous conference, recommended the formation of a Middlesex open-air sanatorium of 100 beds, consisting of an administrative block and separate sleeping kiosks on solid foundations, the whole to occupy about 50 acres. The cost was estimated at £250 a head exclusive of the site, and it was recommended that the maintenance should not exceed 30s. a head per week. Certain proposals as to the apportionment of the beds were also submitted. After discussion it was agreed that provision should be made for the treatment of pauper consumptive cases. The conference approved of the scheme of the provisional committee, and decided that a deputation should wait upon the Local Government Board to ask what powers Boards of Guardians possessed, and what might be given if necessary.

THE HOLMAN TESTIMONIAL FUND.

The Treasurer of the Fund which is being raised to defray the cost of some permanent testimonial to Dr. Holman acknowledges the following further subscriptions. The fund will be devoted to the erection of an Art and Reading Room at Epsom College, of which Dr. Holman has been Treasurer for twenty years.

	£	s.	d.
Fred. Durham, M.B.... ...	1	1	0
Francis Bossey, M.D. ...	2	2	0
J. Roberts Thomson, M.D., J.P.	3	3	0
John Crew, J.P.	1	1	0
W. H. Tayler, M.D.	1	1	0
E. L. Adeney, M.D.	0	10	6
Mr. Geo. C. Croft	5	5	0
M. Baines, V.D., M.D. ...	1	1	0
The Misses Maynard ...	2	2	0
Mary Ann Jaffray	1	1	0
Sir Hermann Weber, M.D.	2	2	0
Sir R. Douglas Powell, Bart.	2	2	0
Mr. Malcolm A. Morris ...	3	3	0
Mr. Jas. Nightingale ...	1	1	0
Seymour J. Sharkey, M.A., M.D.	1	1	0
Mr. Jeremiah Coleman ...	3	3	0
Mr. T. L. Grün	2	2	0
Professor Howard Marsh ...	2	2	0
H. T. Butlin, D.C.L.	3	3	0
Sir Thomas Smith, Bart., K.C.V.O.	2	2	0
H. R. Crocker, M.D.	1	1	0
E. H. Drake-Brockman, F.R.C.S.	1	1	0
Edw. F. S. Green, M.D. ...	0	10	6
Mr. Clement C. Smiles ...	5	5	0
J. G. Glover, M.D., J.P. ...	1	1	0
Miss Adelaide Baxter ...	1	1	0
Dr. Hutchins Williams ...	1	1	0
W. A. Evelyn, M.A., M.D. ...	1	1	0
G. Fielding Blandford, M.A., M.D.	1	1	0
Sir Alfred Cooper	2	2	0
Leonard W. Sedgwick, M.D.	1	1	0
Mr. R. W. Inglis	5	5	0
S. Parsons Smith, J.P. ...	1	1	0
Mr. T. M. Rutter	1	1	0
Wm. Travers, M.D.	1	1	0
John H. Morgan, C.V.O., M.A.Oxon.	1	1	0
Lord Alverstone	2	2	0
Fred. T. Roberts, M.D. ...	1	1	0
Mr. Anthony A. Bowlby, C.M.G.	1	1	0
David W. Roberts, M.D. ...	1	1	0
Mr. Sydney C. Austin ...	1	1	0
John E. Ogle, M.A., M.D. ...	1	1	0
J. W. Bond, M.D.	2	2	0
R. L. Bowles, M.D.	2	2	0
J. L. Siordet, M.B.. F.R.C.P.	1	1	0
W. Essex Wynter, M.D. ...	1	1	0
Mr. F. W. E. Kinnier ...	1	1	0
A. P. Luff, M.D.	1	1	0

Subscriptions will be received by Dr. John H. Galton, Chunam, Sylvan Road, Norwood, S.E.; or by Mr. W. E. Berridge, Oakfield, Redhill.

The *Medical Record* of New York states that Dr. Edward Martin, Director of Public Health and Charities of the city of Philadelphia, has purchased at his own expense a mansion and twenty acres of grass and woodland on the banks of Crum Creek in Delaware County, Pennsylvania, for the purpose of providing a place where ill-treated, poorly-fed and sickly children can during the summer obtain fresh air and good food, and spend a life in the open.

ASSOCIATION NOTICES.

NOTICE OF MEETINGS.

1901 ANNUAL GENERAL MEETING.

The Annual General Meeting of the British Medical Association will be held in the Examination Schools, Oxford, on Tuesday, July 26th, at 12 o'clock noon, and Wednesday, July 27th, at 2 p.m.

ANNUAL REPRESENTATIVE MEETING.

The Annual Representative Meeting will take place in the Examination Schools, Oxford, on Tuesday, July 26th, immediately after the Annual General Meeting which will be held at 12 noon; on Wednesday, July 27th, after the Annual General Meeting at 2 p.m., and on Thursday, July 28th, at 3.30 o'clock in the afternoon, if required; also at 2 o'clock in the afternoon on Friday, July 29th, if required.

By Order,

April 21st, 1904. GUY ELLISTON, *General Secretary.*

REPRESENTATIVE MEETING AT OXFORD.

TUESDAY, JULY 26TH, 1904.

NOTICES OF MOTION

THE following notices of motion have been given for discussion by the Annual Representative Meeting at the Annual Meeting of the Association to be held at Oxford, July 26th, 1904, and following days.

A.—Notices concerning alteration of the By-laws of the Association.

By the COUNCIL OF THE ASSOCIATION:

1. That By-law 2 be amended in the following respect—namely, that the words "one month" occurring in the last line but one thereof be deleted, and that the words "seven days (or such longer period as the Branch may by its rules prescribe)," be inserted in substitution therefore.
2. That By-law 10 be amended in the following respects, namely:
(A.) That so much of such said by-law as is contained in Section (*a*) thereof be deleted and no longer form part of such by-law.
(B.) That the words "At any time after January 1st, 1903," with which Section (*b*) of such by-law commences be deleted.
(C.) That Section (*b*) of such said by-law, as thus amended, be designated Section (*a*) thereof, and that Section (*c*) be designated Section (*b*).
3. That By-law 15 be amended by the addition of the following clause at the end thereof, namely: "For the purposes of this by-law, those named in the Annual List of Members, prepared in May in any year, as members of any Branch, shall be deemed to be members of the said Branch for the said year, and those elected by any Branch Council, whose membership dates from July 1st in any year, shall be deemed to be members of the said Branch for the ensuing half-year."
4. That By-law 20 be amended in the following respects, namely:
(A.) That so much of such said by-law as is contained in Sections (*a*) and (*b*) thereof be deleted and no longer form part of such said by-law.
(B.) That the letter (*c*) prefixing the third section of such said by-law and the words "After the first day of the annual meeting of 1903," with which the said section commences, be deleted and no longer form part of such said by-law.
(C.) That the words "elected by the members of the Association attached to the Royal Navy Medical Service, the Army Medical Service, and the Indian Medical Service respectively, in such manner as may be determined by the said services respectively, subject to the sanction of the Council," in Section (C) of such said by-law, be deleted, and that the following words, "and of one member of the Royal Navy Medical Service, one member of the Army Medical Service, and one member of the Indian Medical Service, annually appointed by the Council to represent the said services respectively on the Council," be inserted in substitution therefor, so that the by-law as thus amended shall read as follows:

"The Council shall be composed of the officers and ex-officio members named as members of the Council, *ex-officio*, in Article XXXVIII of the foregoing regulations, together with the members duly elected or appointed by the Branches and other bodies authorized by the by-laws to elect or appoint members of the Council, and of one member of the Royal Navy Medical Service, one member of the Army Medical Service, and one member of the Indian Medical Service, annually appointed by the Council to represent the said services respectively on the Council, and of members annually co-opted by the Council in manner hereinafter provided."

(5) That By-law 28 be amended in the following respect, namely: That after the words "Annual Election" occurring in the fifth line thereof, the following words be inserted and form part of such said by-law: "Or, in respect of election by a Branch, in such other manner as may be prescribed by the Rules of the said Branch," so that the by-law as thus amended shall read as follows:

"Any casual vacancy occurring in the Council, not less than six months before the annual general meeting, may be filled up by any Branch or body the representation of which may have become vacant, and such election shall be conducted in the same manner as the annual election, or, in respect of election by a Branch, in such other manner as may be prescribed by the Rules of the said Branch. Any person so chosen shall retain his office so long as the member in respect of whom such casual vacancy may have occurred would have retained the same."

6. That By-law 32 be amended by the addition of the following clause at the end thereof, namely: "In addition to the above-mentioned report the Council shall have power to present to the Annual Representative Meeting such further report or reports as it may deem advisable, and the same shall be published in the JOURNAL if time permits."
7. That Section (3) of By-law 39 be amended in the following respect, namely: That the words "The public health service, the Poor-law medical service, and the vaccination service be deleted, and that the words "public health and the Poor-law medical service" be inserted in substitution therefor.
8. That the following new by-law be made, and form one of the by-laws of the Association, namely: "In the month of March each year a list of members of the Association shall be prepared and published showing the ordinary membership of each Division and Branch as shown by the register of members of the Association on April 30th of that year, and those named in the said list as members of any Division or Branch shall be deemed to be the ordinary members of such Division and Branch for the purpose of Article XXVII, and for the purposes of By-laws 7, 18, 21 and 22."
9. That the following new by-law be made and form one of the by-laws of the Association, namely: "The powers conferred under Article XXX upon any constituency to appoint a substitute in the place of a Representative unable or unwilling to attend a Representative Meeting, shall be exercised by such constituency in general meeting, or by some officer or members of the Division or Divisions composing the constituency who shall have been authorized by the rules of the said Division or Divisions, or shall by a resolution of the said constituency be authorized to exercise such powers."

That the officers of the Association be hereby authorized and instructed, in conference with the Solicitor of the Association to determine the respective positions in which the new by-laws made this day by the Representative Meeting shall be placed among the existing by-laws, to number the said new by-laws accordingly, to make such alterations in the numbering of the existing by-laws as may be necessary, and to alter accordingly the numerical references contained in any of them.

By the WANDSWORTH DIVISION (Metropolitan County Branch):

By-law 22 of the British Medical Asssociation:

The elective members of Council shall be elected by voting papers sent to each elector by post, the said voting papers containing the names of those candidates who have been nominated each by three electors in writing to the Secretary of the Branch, on or before an appointed day, of which not less than fourteen days' notice has been given in the JOURNAL.

Proposed (*a*) That the words "or by a Division" be inserted after the word "writing."

(*b*) Any Branch can require by its rules that any nomination, not by a Division, be signed by such number of members exceeding three as the Branch may deem expedient.

By the WALTHAMSTOW DIVISION (Metropolitan County Branch):

To amend By-law 18, substituting the word "twenty" for the words "a majority"—to read: "Voting shall be, as a rule, by show of hands, unless before such vote is taken *twenty* of the members present determine that the vote shall be taken by card, in which case every Representative shall record as many votes as there are members in the constituency which he represents."

Other Notices of Motion:

BIRMINGHAM (CENTRAL) DIVISION (Birmingham Branch):

t the representation of the medical profession in Parliament at the present time is inadequate, and in the interests of the public and profession alike should be improved, and that the Council be instructed to consider how this may best be effected.

BRADFORD DIVISION (Yorkshire Branch):

t the Council be instructed to transfer annually from the central funds such amount as the Council shall deem expedient, having due regard to the expenditure necessary to carry out other objects of the Association, to a special fund to be designated "The Supplementary Grants Fund," and that out of such fund grants be made from time to time to such Divisions and of such amounts as the Council may think proper, having regard to the evidences of work done, and to the amount of local subscription for any purpose for which a supplementary grant may be given, the Council to be advised by the Organization Committee as to the distribution of the amount available.

ARDIFF DIVISION (S. Wales and Monmouth. Branch):

steps be taken by the British Medical Association to secure direct representation of the profession in the House of Commons.

ATESHEAD DIVISION (North of England Branch):

That a prominent place shall be reserved in the BRITISH MEDICAL JOURNAL for notices from Divisions and Branches where disputes are taking place as to contract terms, etc., and from which districts it is advisable that decent members of the profession shall keep away. Each such notice shall be repeated, free of charge, until in the opinion of the Division or Branch in question the necessity for it has disappeared.

That the Council of the Association be instructed forthwith to take the steps necessary to obtain the alterations in the Memorandum of Association contained in the Birmingham resolutions, subject to such modifications as are required to harmonize them with the present articles, submitting the same for adoption by extraordinary general meeting in their amended form as a special resolution, before application to the High Court, if legally advised necessary.

AMPSTEAD DIVISION (Metropolitan Counties Branch):

at it is advisable that all Association Business Notices be withdrawn from the JOURNAL and be collected and published in the SUPPLEMENT, so that the JOURNAL be purely medical.

at it is advisable that the good idea of the Year Book be developed: that it should contain the names and addresses of all members, medical regulations, and other details of general interest to make it a real handbook of medical information.

at it is advisable that, having regard to the purity and reliability of the lymph supplied to the public vaccinators by the Local Government Board, every practitioner should be put on the same footing as public vaccinators in respect to the Government supply of vaccine lymph.

RTSMOUTH DIVISION (Southern Branch):

in recording the votes of members of Divisions on matters to be referred to Representative Meetings the following plan should be adopted, namely: The number voting affirmative present; the number voting negative present; the number absent.

RATFORD DIVISION (Metropolitan Counties Branch):

That to Clause 21 of the new Medical Acts Amendment Bill should be added the words, "and such registration shall confer the title of Dr."

That this Division requests the Annual Representative Meeting of the British Medical Association to take into consideration the question of payment of medical practitioners for services rendered when required in midwives cases.

That the Council of the British Medical Association be asked to consider what steps are advisable to increase the Association's membership, and that this resolution be submitted to the Annual Representative Meeting.

NDSWORTH DIVISION (Metropolitan Counties Branch):

That it be referred to the Central Council to consider whether it would not be possible that all announcements of births, marriages, and deaths should be inserted free of charge for members of the Association and their immediate family; and also to charge members of this Association for advertisements at a much lower scale of fees than at present, in cases when these are of a private and non-commercial character and at the same time, by appending to all such some special sign, to indicate that the advertisements are those of members, and in their private capacity.

That it be referred to the Central Council to consider whether it would not be an advantage to charge for the BRITISH MEDICAL JOURNAL, from the beginning of 1905, sevenpence a copy to all non-members of this Association. (75,000 copies are annually sold besides those sent to members).

(C.) In order to reduce the present misuse of Charity Trust Funds put at the disposal of hospitals, the constant necessity for hospital appeals, the indiscriminate issuing of "commends" for treatment, as also the consequent gradual reduction now taking place in the scope offered for practice to general practitioners through this largely increasing attendance of the laity at hospital out-patients' departments, hospital authorities should endeavour to make obligatory:

1. The presentation of a form signed by a medical practitioner.
2. That this form should be produced by all before they receive a *second* gratuitous visit or consultation, or apply for admission to the hospital for treatment.

(D.) That a copy of the above resolution be sent (by a deputation if possible) to the King Edward Hospital Fund Committee, as also to all hospital and other similar committees, together with a copy of a proposed form, and, after pointing out the necessity for same, a hope be expressed that they will use their influence to have it adopted, either alone or in conjunction with any subscriber's recommend at present in use.

(E.) That the Central Council of the Association are hereby asked to carry out the above resolutions and to take into their consideration the desirability of offering to make donations towards the salaries of almoners properly trained, who could thus be expected, while safeguarding the expenditure of Charity Trust Funds, to indirectly aid the interests of the local general practitioners.

(F.) That in the opinion of this Representative Meeting, the time has come that the Central Council should take into its consideration the advisability of forming a Printing and Stationery Department of the Association, not necessarily at the head office, from which all necessary stationery, circulars, and general printing could be supplied and charged to the Branches and Divisions at a sum only sufficiently over cost price to cover working expenses.

(G.) That it is desirable that the Central Council draw the attention of the Medical Profession individually to the fact that by recommending by name certain drugs and certain preparations of those drugs, they are not only allowing themselves to be used indirectly as touts for wholesale druggists, but are also helping their patients to form, either in themselves or others, serious habits of drug abuse.

(H.) That with the view of checking the indiscriminate dispensing of dangerous drugs, the Central Council of this Association be requested to appoint a Committee to investigate the subject, either alone or in conjunction with the Pharmaceutical Society, and to report what steps they would recommend should be taken to remedy the present grave defect in the Law.

By the WIGAN and LEIGH DIVISIONS (Lancashire and Cheshire Branch):

That in the opinion of the Representative Meeting all medical practitioners are entitled to use the title "Dr."

GUY ELLISTON,
General Secretary.

BRANCH MEETINGS TO BE HELD.

BATH AND BRISTOL BRANCH.—The sixth ordinary meeting of the session will be held at the Museum, Bath, on Wednesday, April 27th, at 8 p.m., Dr. Barclay J. Baron, President in the chair, when an address will be given by Dr. Hale White, on Forms of Joint Disease met with in Medical Practice.—W. M. BEAUMONT, J. MICHELL CLARKE, Honorary Secretaries.

BATH AND BRISTOL BRANCH.—The Honorary Secretaries will be glad to receive nominations for two representatives of the Branch as members of the Central Council of the Association on or before May 13th. The by-law governing the election is as follows: "(22) The elective members of Council shall be elected by voting papers sent to each elector by post, the said voting papers containing the names of those candidates who have been nominated each by three electors, in writing, to the Secretary of the Branch, on or before an appointed day of which not less than fourteen days' notice has been given in the JOURNAL."—W. M. BEAUMONT, J. MICHELL CLARKE, Honorary Secretaries.

BATH AND BRISTOL BRANCH: TROWBRIDGE DIVISION.—The annual meeting of this Division will be held at the Town Hall, Trowbridge, on Wednesday, May 11th.—JOHN TUBB-THOMAS, The Halve, Trowbridge, Honorary Secretary.

BORDER COUNTIES BRANCH: WEST CUMBERLAND DIVISION.—The annual general meeting of this Division will be held at Whitehaven on May 17th. The Secretary will be pleased to receive communications from any member who wishes to read a paper or show cases or specimens.—T. G. MATHEWS, 6, Scotch Street, Whitehaven, Honorary Secretary.

LANCASHIRE AND CHESHIRE BRANCH.—Notice is hereby given that nominations of Representative Members of Council for this Branch must be sent to me on or before May 1st.—T. ARTHUR HELME, M.D., 3, St. Peter's Square, Manchester, Honorary Secretary.

LANCASHIRE AND CHESHIRE BRANCH: ALTRINCHAM DIVISION.—The annual meeting of this Division will be held at Altrincham on May 18th. Mr. J. Smith Whitaker, the Medical Secretary of the Association, will deliver an address at 5.30 p.m. (other particulars will be announced hereafter). Members of other Divisions are cordially invited to attend. The meeting will be followed by a dinner (5s. each, exclusive of wine), which

will be open to all members who signify their intention to be present (enclosing postal order for 5s.) to the Honorary Secretary of the Division on or before May 14th.—T. W. H. GARSTANG, Edge Mount, Altrincham, Honorary Secretary.

LANCASHIRE AND CHESHIRE BRANCH: PRESTON DIVISION.—A meeting of this Division will be held on Thursday, April 28th, at the Town Hall, Preston, at 8.45 p.m. Agenda: Election of officers for ensuing year. Medical Acts Amendment Bill. See BRITISH MEDICAL JOURNAL, August 22nd, 1903. Main points of this Bill will be considered. Vaccination Fees. —The following questions will also be considered: Medical practitioners in connexion with hydropathic establishments. Should medical witnesses engaged on each side in legal cases meet in consultation? To discuss medical defence scheme as prepared by the Medical Defence Committee of the Association.—D. TURNBULL SMITH, 2, Fishergate Hill, Preston, Honorary Secretary.

LANCASHIRE AND CHESHIRE BRANCH: ROCHDALE DIVISION.—The annual meeting of this Division will be held at the Wellington Hotel, Drake Street, Rochdale, on Thursday, April 28th, at 8.30 p.m. Agenda: 1. Report of Executive Committee. 2. Election of officers. 3. Discussion on medical defence. 4. Matters referred to Divisions by Central Council: (*a*) Advertising of medical men in hydros; (*b*) consultation of medical witnesses on each side in legal cases.—A. B. MCMASTER, M.D., 174, Drake Street, Rochdale, Honorary Secretary.

METROPOLITAN COUNTIES BRANCH.—Notice is hereby given that nominations of Representative Members of Council for this Branch must be sent to me on or before May 9th. This notice should have appeared last week, but as fourteen days' notice is necessary, it is hoped that no objection will be taken to the above extension of time.—GEORGE ROWELL, 6, Cavendish Place, W., Honorary Secretary.

METROPOLITAN COUNTIES BRANCH: CITY AND WALTHAMSTOW DIVISIONS. —A conjoint meeting of the City and Walthamstow Divisions will be held at the Hospital, Orford Road, Walthamstow, on Tuesday, April 26th, at 4 p.m. Dr. W. Hale White will read a paper on Forms of Joint Disease met with in Medical Practice. Members are entitled to introduce friends, and visitors are cordially invited to attend. City Division.—A preliminary meeting will be held at 3.30 p.m. Business: 1. To consider a recommendation of the Ethical Committee that "The question of the advertising of medical practitioners in connexion with hydropathic establishments be referred to the Divisions." 2. To consider on the recommendation of the Medico-Political Committee, "Whether it is advisable that the medical witnesses engaged on each side in legal cases should meet in consultation." 3. The question of election of members of the Metropolitan Counties Branch to serve on the Central Council of the Association. The Walthamstow Division will meet at 3.30 p.m. to consider the question of medical defence referred by the Council of the Association.—E. W. GOODALL, M.D., the Eastern Hospital, Homerton, N.E., Honorary Secretary City Division; C. J. MORTON, 56, Orford Road, Walthamstow, Honorary Secretary Walthamstow Division.

METROPOLITAN COUNTIES BRANCH: WANDSWORTH DIVISION.—A meeting of this Division will be held at the Town Hall, Wandsworth, on Thursday, April 28th, at 8.45 p.m. Agenda: (1) Question from Central Council as to advertising by medical men attached to hydros. (2) Question referred by Central Council as to medical witnesses meeting in consultation before a trial. (3) Paper by Mr. Arthur E. Giles, F.R.C.S., on The Diagnostic Significance of Gynaecological Symptoms. (4) Other business.—E. ROWLAND FOTHERGILL, M.B., Torquay House, Southfields, S.W., Honorary Secretary.

MIDLAND BRANCH: LEICESTER DIVISION.—The annual meeting of this Division will be held on Wednesday, May 11th, at 4.30 p.m., at the Infirmary, Leicester. Agenda: The election of officers for 1904-5 and other business as put forth in circular sent to each member.—ASTLEY V. CLARKE, M.D., 37, London Road, Leicester, Honorary Secretary.

MIDLAND BRANCH: BOSTON DIVISION.—A meeting of the above Division will be held at Anderson's Hotel, Market Place, Boston, on Tuesday, April 26th, at 3.30 p.m. Agenda: 1. Medical Defence. 2. To consider Proposals from Medico-Ethical Committee. 3. Contract Practice. 4. Annual Meeting.—A. E. WILSON, Grove Street, Boston, Honorary Secretary.

NORTH OF ENGLAND BRANCH.—The spring meeting of this Branch will be held at Newcastle-on-Tyne on Tuesday, May 3rd. Full particulars will be given by circular. Members wishing to show cases or bring anything before the Branch are requested to communicate with the Honorary Secretary as early as possible.—ALFRED COX, Cotfield House, Gateshead, Honorary Secretary.

SOUTH-EASTERN BRANCH.—The annual meeting of this Branch will be held at Eastbourne on Wednesday, June 22nd. Mr. J. H. Ewart, President-elect. The following will be the agenda: 1. To elect the officers of the Branch. (This will be done by voting papers sent to each member of the Branch. Nominations by three members for the offices of President-elect, Vice-Presidents, and Secretary may be sent to the Honorary Secretary on or before Monday, May 16th.) 2. To receive the annual report of the Branch Council. 3. To consider the business of the annual Representative meeting. 4. To make new rules or alter or repeal existing rules. Dr. Larking gives notice that he will move, "That in the opinion of this meeting the present South-Eastern Branch should be divided into two Branches separated by a line running roughly between London and Hastings, and that the opinion of the Divisions concerned be obtained on the question." 5. To transact any business that may be transacted by an ordinary meeting. N.B.—Three members to represent the Branch on the Central Council will also be elected by voting papers. Nominations for these posts, each by three members in writing, may be sent to the Honorary Secretary of the Branch on or before Monday, May 16th.—T. JENNER VERRALL, 97, Montpelier Road, Brighton, Honorary Secretary.

SOUTH MIDLAND BRANCH: BEDFORD AND HERTFORDSHIRE DIVISION.—The annual meeting of this Division will be held at the County Hospital, Bedford, on Tuesday, May 3rd, at 3.30 p.m. Agenda:—Minutes of last annual meeting. Election of officers. Appointment of Ethical Committee. Matters referred to the Division by the Central Council: (1 Whether it is desirable that the medical witnesses engaged on each side in legal cases should meet in consultation. (2) The question of advertising of medical practitioners in connexion with hydropathic establishments. The Executive Committee ventures to draw the attention of members of the Division to the recently-issued Year Book of the Association for the year 1904, and in particular to pp. 42 and 43 [illegible] with the work and constitution of the Divisions. The Committee would urge upon members the importance of attending the meetings of the Division and taking part in the work devolving upon the Division, as executive and influential units of the Association, to which matters of great moment to every medical man may at any time be referred by individual members or by the Central Council of the Association, and upon the vitality of which the successful working of the Association as a whole now so largely depends. The attendance of members of the Division is earnestly requested.—S. J. ROSS, 28, Mill Street, Bedford, Hon. Secretary.

STAFFORDSHIRE BRANCH.—A meeting of this Branch will be held at the Victoria Hotel, Wolverhampton, on Thursday, April 28th.—G. P[illegible] JOHNSON, Stoke-on-Trent, Honorary Secretary.

STIRLING BRANCH.—The annual general meeting of this Branch will be held at the Royal Hotel, Stirling, on Monday, May 2nd, at 3. Agenda: 1. Election of office-bearers. 2. Report of Council. 3. Reference as to "whether it is advisable that the medical witnesses engaged on each side in legal cases should meet in consultation." 4. Reference as to "question of the advertising of medical practitioners in connexion with hydropathic establishments." 5. Paper by Dr. J. G. Connal (Glasgow), Purulent Discharge of the Middle Ear and its Complications.—J. MOORHOUSE, 1, Glebe Avenue, Stirling, Honorary Secretary.

SPECIAL CORRESPONDENCE.

MANCHESTER.

Extent of Physical Unfitness for Army Service.—Provision for Confirmed Inebriates in Lancashire.—Education of Defective Children.

IN Manchester the percentage of applicants for the army and militia rejected in one year was something like forty-[illegible], which means that one out of every two Manchester young men who tried to enter the army failed to meet the medical requirements of the Government. Of 3,296 men, applicants for entry into the army and militia, 1,925 were examined medically, with the result that 889 were reported as physically unfit, and 816 were finally admitted into the militia and army. The martial ardour of 350 was cooled before they reached the medical examination room. Bad teeth was again a prominent cause of rejection. A good many were rejected owing to their failure to produce a written character from their employer, a regulation recently introduced.

The Joint Reformatory of the Lancashire Inebriates' Acts was opened on the 14th inst., by the Chairman, Sir [illegible] Hibbert. The Board was constituted in 1899 under the Inebriates Acts of 1879 and 1898. It is representative of the Lancashire County Council and all the county boroughs except Oldham, and consists of forty-four members. The reformatory is built near Whalley-on-the-Ribble and a short distance from Laugh Station. The site comprises 326 acres and cost £[illegible]. The building itself, situated between two and three hundred feet above sea-level on a beautiful plateau, cost £73,418. It contains twelve separate "homes," each with accommodation for ten persons. The provision at present is solely for women, of whom there are already over 100 from Lancashire in various reformatories outside the county. The inmates will be employed on farming and gardening work—namely, outdoor and open-air treatment. The possible period of detention for females committed by the county and county borough court justices is three years. The director and medical officer is Dr. F. A. Gill. The Chairman said that the Board has to deal with a population of 4¼ millions of people, with a rateable value of £22,335,000. During the year, in Lancashire, 38,901 cases of drunkenness came under the care of the police, and amongst these were 229 cases eligible for treatment in reformatories. The want was much more urgent for women than for men; hence the Board had built for women first. A far from roseate view was given by Mr. Branthwaite, Home Office Inspector of Inebriate Homes. The first "lot" the Board would receive would be practically "irreformable." They had been drinking for fifteen, thirty, and even fifty years, and they could not be reformed in time. The Board, moreover, must work that stratum before it reached the "reformable" cases. Even when a case was reformable that person should not be left in the street, for the drunkard at liberty soon made other drunkards.

In a report presented to the Education Committee Mr. Ashby gives the following details on the work done in the special schools for defective children from March, 1902, to the end of last year. It deals with 120 children between the ages

nd 14. These children had some physical or mental which made them incapable of receiving proper t in an ordinary elementary school. In Manchester the ncy is to exclude the lower grade feeble-minded child. good can be done by educating the upper grade of lass. Owing to the objectionable habits and dan- propensities of many of the lower grade child- heir presence is apt to create a prejudice in the of parents. All the children are alike in the ss of their mental powers and the slowness with they learn to read, write, and calculate. Physical e, drawing, modelling, and handicraft, together with attention to the development of the speech mechanism, portant factors in the treatment. The future of these n is not bright, because the home conditions in many re unfavourable. There is therefore need on their of some after-care association. As these children are e, and easily influenced for good or evil, much neces- epends on their surroundings. As to the chief causes al deficiency, they are "inheritance of nervous insta- ll-health of the mother during the months before the born. bad hygiene, bad feeding during the first year the infant's life." Doubtless alcoholism—directly or ly—contributes. One of the most perplexing social s of the present day is the question of how to prevent king and multiplication of the mentally unfit, and ring home to all classes the vast importance of all cerns maternity and infant life.

CORRESPONDENCE.

BLOOD-PRESSURE INSTRUMENTS.

The question of accurately measuring the arterial in patients is one to which I devoted a considerable ne years ago. The result of my observations was to me of the total unreliability of the methods d. The instruments I used were those of Oliver and Barnard, and, from a consideration of the constitu- thers, the following objections are also applicable to To begin with, I had considerable difficulty in telling e levers of these instruments attained that maximum hich was supposed to represent the mean arterial This, of course, may have been due to a lack of e power on my part. I also found that that the in mm. of Hg. from these instruments when applied ne patient were at such variance that one was forced de that some grave error existed in one or both nts. When I reflected on the manner in which re supposed to act, it soon appeared to me rly unreliable they were for practical purposes. l and Barnard's instrument for instance. In this nt there is a broad armlet of stiff leather on the which there is a bag of thin india-rubber. This pplied round the middle of the upper arm, and the within the indiarubber bag is raised by pumping it until the pulsation of the manometer becomes al excursion. By what process of reasoning the essary to attain this maximal excursion is supposed nt the mean arterial pressure I never could make ne have the idea that the tissues surrounding the sels act like a fluid and convey the movements ood to the air chamber, and the moment when mal excursion of the manometer is reached the within the air bag and the vessels is exactly lanced. A little consideration will convince any an that the tissues (muscles and fat, etc.) cannot act id, for if they did the pressure exercised would d all over the body. The application of this arm- tly the same procedure as the surgeon employs in tourniquet before amputating the arm. Now, it r of common knowledge that the efficiency of the varies in different arms. In a thin, spare arm the e occluded with a very little pressure. In a bulky, ry much greater force is needed, and even then the be that, while some arteries are entirely occluded, only partially so; while some are even not affected ssure. The force employed to partially compress s with Hill and Barnard's instrument does vary as the tissues are spare or bulky, and the conse- hat a variable force is spent in crushing the tissues ne arteries. This crushing force is registered by ment as blood pressure.

The same fallacy is met with in Oliver's instrument. Here a fluid pad is pushed down upon the artery, and if the artery is readily reached it is possible there may be some relation between pressure within the artery and that recorded by the spring. But if the artery is small, and lies deep within a groove bounded by resisting structures (bone or tendon) then considerable pressure is necessary to reach the artery, and this pressure is translated by the instrument as arterial pressure. An exceedingly good example of the fallacy arising from this method of observation was furnished in the BRITISH MEDICAL JOURNAL some weeks ago, when Dr. Barr stated that in a case of paroxysmal tachycardia it took a pressure of 190 mm. by Oliver's instrument to obliterate the arterial pressure. If one reflects a moment on the condition of the circulation in paroxysmal tachycardia, the absurdity of such a result will be easily realized. The heart is beating at a great pace, but it throws less blood into the arterial system. The blood is dammed back into the venous system to such an extent that I have seen the face of a patient in the course of a few hours become livid and swollen, while the liver enlarged, and could be felt pulsating 2 in. or 3 in. below the ribs. At the same time the radial pulse became small and contracted, so that it could only be felt with difficulty as it lay at the bottom of its bed. When searched for with an Oliver's instrument the pad has to be forced deep into the groove, and the pressure recorded is not that of the pressure within the artery, but mainly that of the force required to push the pad down into the groove. In one case of transient tachycardia I found that Oliver's instrument gave a mean pressure of 190 mm., while Hill and Barnard's gave 125 mm.

Supposing one did get an accurate record of the pressure within an artery, what is its significance? Is it supposed to be a record of a pressure within the whole arterial system? An idea seems to be prevalent that if pressure within one artery, whatever its size may be, is obtained, the pressure within all the other arteries of the body must be the same. This notion is evidently based on the idea that as a variation of pressure in a fluid contained within a vessel is reflected at once to all parts of a vessel, so variations of pressure within the arteries is at once reflected to all parts of the arterial system. That this is not the case is evident from a little consideration. The arterial system is not like a closed vessel; the blood is a flowing stream escaping at one extremity. As the stream flows towards the periphery there is a great loss of pressure on account of the friction of the blood against the walls of the arteries. The smaller the artery the greater the resistance and hence the greater the fall of arterial pressure. It takes a light pressure to obliterate the digital artery, a greater to obliterate the radial, and a still greater to obliterate the brachial. What the actual loss of pressure is from the aorta to the radial or digital arteries we have no means of calculating, but it is a factor to be reckoned with and not to be ignored as inventors appear to have done.

I do not want to decry efforts towards the solution of this question. I think the ingenious inventors of these instruments have rendered a great service by their attempts, and if perfection is still far off, nevertheless by their endeavours they bring us nearer to the accomplishment of a very necessary requirement.—I am, etc.,

Burnley, April 9th. J. MACKENZIE.

THE STATE REGISTRATION OF NURSES.

SIR,—In answering Mr. Sydney Holland's letter it is perhaps unnecessary to refer to his elaborate comparison between the numbers and importance of the individuals who have signed his antiregistration manifesto and the numbers of those who have supported the reply to it. The merits of a case can rarely be adequately estimated by a simple counting of heads, and it is doubtful if the value of a matron's opinion corresponds exactly with the size of her hospital. The advocates of registration must concede to Mr. Holland the honours of the day as regards the vigour and energy of his canvass; but they cannot admit that they are unsupported by the nursing profession, seeing that the Royal British Nurses' Association, and the Irish Nurses' Association, together with several independent leagues of nurses, are warmly supporting the registration movement, while 1,160 nurses have joined the Association for promoting State Registration.

Mr. Holland suggests that there will be no advantage gained by registration because "a nurse's hospital certificate shows

just as well as the register" that the nurse has gone satisfactorily through a "recognized training school"; this is hardly the case, for at present certificates are issued by hundreds of institutions of every type and description. Some of these certificates do represent a thorough and complete training, others again simply mean that the holder has spent a very limited time in a special or a cottage hospital. The public have not the technical knowledge to enable them to discriminate between the value of the innumerable certificates held by professing nurses, and as even the twelve leading metropolitan hospitals have arrived at no common understanding as to what constitutes a thorough all-round training it is not surprising that there should be some uncertainty on the subject in the lay mind. In some of these leading hospitals a certificate is granted at the end of one year's training, or to paying probationers after a still shorter period; in others three years in the wards alone entitles a nurse to a certificate, while one important hospital binds its nurses to a four years' term of training, two out of which are spent in earning fees from the public for the funds of the hospital. In view of this diversity of procedure, and of the fact that every hospital works as a separate unit and carries out its own methods of training, it may be questioned whether a "recognized training school" exists, and if so how and by whom it has been recognized.

Mr. Holland further contends that a hospital certificate is superior to registration in that it shows when a nurse was trained, but such facts will naturally be equally given in the register, which will further notify any subsequent experience gained by the registered individual. The register will also have this advantage over a hospital certificate, that whereas the latter once granted can never be recalled, however flagrant the subsequent conduct of the individual, the registration certificate will be subject to forfeiture in cases of moral or professional misconduct.

Mr. Holland fears that "eccentric women" will "pose" as registered nurses, and will by this means bring discredit on all registered nurses; but under the Bill submitted to the House a "pose" of this kind would be sternly dealt with, and eccentric persons of this type will find it less easy than they do at present to pose as hospital nurses.

No doubt all unsuitable individuals will not be eliminated from the profession by registration, but their unsuitability will be more personal than professional, and therefore less dangerous to their patients. The public are also perfectly familiar with the system of registration, and understand its limitations. If dissatisfied with one medical practitioner, they do not condemn the whole medical profession and resort to non-registered "quacks"; nor does an employer who finds that a certificated teacher fails in those personal qualities necessary to his position denounce the whole system of registration or cease to require diplomas and evidence of educational competence. It is therefore inconceivable that, as Mr. Holland suggests, the public will, if disappointed in one registered nurse, "raise a cry against all registered nurses," and expect results from registration in the nursing profession which they know to be unattainable in all others.—I am, etc.,

London, W., April 19th. HELEN MUNRO FERGUSON.

SIR,—It is evident from Mr. Sydney Holland's letter of April 16th that he has failed to grasp the aim of the promoters of this Bill, and that he knows nothing of the widespread dissatisfaction which exists among doctors and trained nurses with regard to the present state of affairs. He lays great stress on amiability of character as opposed to technical skill. But what guarantee does he offer for amiability?

Will it enable an untrained woman to make a decent linseed poultice or prevent the onset of bed sores?

A doctor does not want a "cheerful" ignoramus to fan the forehead of his patient when a typhoid ulcer has perforated. How are we to be protected against the "trained, cheerful, and observant nurse" who gives a vaginal douche when an enema is ordered?

What of the nurse who spends three-fourths of her training time in the ophthalmic wards and is then turned out a fully fledged and certificated nurse? or, to go further, what of the ward maid who, after six weeks in a hospital, presents herself to the head of a nursing home, is accepted, and thereafter is sent out to nurse patients? The above are facts, and not isolated instances, and could easily be added to.

It may be argued that in such cases the matron of the hospital or nursing home is to blame. Quite so, but the object which registration aims at is to protect patients again t kind of thing.

It is childish to say that because a nurse is compet 1900 that she will not be so in 1906. What guarante we that a doctor is competent ten years after he tak degree? Nothing except the *Medical Register*. The ma of doctors keep up to date by reading and talking ove with other men. Is it impossible for a nurse to keep a of her work in a similar way? I know that many do State register for nurses would not be a danger to the pu but would act in the same way as the *Medical Registe* protect the public against impostors and incapables.

The charges of want of tact and eccentricity stated a nurses are doubtless now and then true. But the qu naturally arises, Why were such women allowed to t their training, and what was the matron of the particul pital thinking of when she allowed them to remain hospital? Apparently we cannot get reliable pro amiability, but we can of skill in nursing, and it is impossibility to apply suitable written and clinical tes

Those in favour of this Bill appreciate and desire ta kindness in nurses as much as those opposed to the B they do not wish to cherish ignorance, and justly co that the best and highest womanly qualities are to be and are most capable of development, in the nurse w a decent modicum of brains.

Your correspondent also states that almost all the l medical men and the matrons of large hospitals are o to this Bill. Is he quite sure of this?

And what authority have those matrons to speak f nursing profession? As a general rule, the matron of hospital knows very little of the desires of her subord to say nothing of the large number of nurses in priva tice.

And it is not medical men of the status of Lord List Sir James Reid who experience the anxiety and trouble by half-trained nurses.

Mr. Holland will get a more accurate opinion on the tion at issue if he will consult the general practitione the trained nurses engaged in private practice.—I am.

April 19th.

THE ASSOCIATION AND MEDICAL DEFENC

SIR,—The President of the Medical Defence Union s did not intend to make any charge against the manag of the London and Counties Medical Protection Societ he wrote the words to which I took exception in the you kindly published on p. 864 of the BRITISH M JOURNAL. When he wrote the words in question, whi so misleading, the President of the Medical Defence knew they could apply only to one society engaged work of medical protection, namely, the London and Co Medical Protection Society. Nevertheless, I, of c accept his explanation in the spirit in which it is m I am, etc.,

HUGH WOODS,
General Secretary of the London and Coun
London, April 19th. Medical Protection Society.

THE INTRODUCTION OF PURE AIR INTO SER CAVITIES.

SIR,—I am very much obliged to Dr. Samways for d my attention to the fact that in a case of pyo-pneumo M. Potain had obtained a brilliant success follow jections into the pleura of sterilized air, and that Pro Dieulafoy had treated a case of tuberculous pyo-pneumo by multiple tappings, and at each tapping withdre grams of the liquid and then gave an intrapleur jection of a solution of sublimate; but what all this has do with my treatment of serous effusions I am rather p to find out. If Dr. Samways had read my lecture with c would have discovered that it had nothing to do wit pneumothorax, and that the injection of sterile air was supplemental part of my new method of treating effusions.

Had I been delivering a lecture on the treatment o pneumothorax, and had I known of the metho Drs. Potain and Dieulafoy I should have condemned What would any surgeon say of such treatment? For m part I have not the slightest intention of trying to r the treatment of either an empyema or a pyo-pneumot from the domain of the surgeon. The proper treatment abscess wherever situated is to lay it open, and the be of introducing air into the pleural cavity when there is

is through a free incision. When I find "old history road" confounding the treatment of pleural effusions with at of pyo-pneumothorax I am not surprised that medicine ould remain in some men's minds a matter of irrelevant story while surgery is advancing by leaps and bounds. r. Samways has evidently had no personal experience in any rt of the treatment, yet he indulgently thinks "with r. Barr it (the introduction of air) might more commonly be ofitably applied."

Much more pertinent was the letter of Dr. Stuart Tidey in ich he showed that Professor Forlanini had used injections nitrogen for the production of artificial pneumothorax. In e Epitome of the British Medical Journal of April 2nd, ere is an abstract of a paper on the treatment of pleural usions by Antonio Pisani, published in the *Gazz. Med. Ital.*, rch 3rd, 1904. After removing the effused fluid he in-flated air filtered through cotton wool and slightly pregnated with formaldehyde. It seems this paper was blished sixteen days before mine, but my lecture was livered in January and my apparatus was exhibited at the verpool Medical Institution on November 5th, 1903, and the llowing week a notice of it appeared in the weekly medical rnals. Some months prior to that I delivered another un-blished lecture on the same subject. If I find any more "old story abroad" I shall be pleased to record it.—I am, etc.,

iverpool, April 16th. James Barr.

IR,—Dr. Barr too obviously misrepresents me when he s: "He speaks of the atmospheric pressure not as a con-nt, but as something like a sandbag which can be shifted ut at pleasure." This is directly contrary to fact. But I st decline further controversy with Dr. Barr. His method controversy consists in imputing ignorance or obtuseness ny one who presumes to differ from him, and he retorts h personalities as if it were a personal affront not to agree h him. He appears to imagine that I interfere with his erty to continue his experiments. So far as I am concerned is free to inflate the abdomens of his patients and if he can ve that this will "cure ascites" I shall heartily con-tulate him, though I claim the same right to be sceptical e has to be sanguine. Time will show whether his pro-ure constitutes a "marked step in the evolution of treat-nt," or whether some future autocrat of medicine may per-nce characterize it as a "clumsy and ill-regulated device." his little passage-at-arms with Dr. Barr is not due to any ressive intention on my part, but has arisen in conse-nce of my having simply pointed out that there is no elty in the introduction of pure air into the pleura, and t Dr. Barr's method is not the only one, but that a method ch I practised twenty years was both simple and effective. reference to inflation of the peritoneum was made *assant* and not with the intention of wounding Dr. Barr's *ur propre*.—I am, etc.,

gton, April 16th. Theobald A. Palm, M.D.

* This correspondence should now cease.

SCHOOL BABIES AND MEASLES.

R,—The annotation in the British Medical Journal of il 16th has brought me enquiries as to the method adopted Brighton for the exclusion of children from school ndance who belong to households in which measles is ent. I hope, therefore, you will allow me to explain a ht inaccuracy of detail in that annotation.

is not, so far as I can judge, practicable to obtain from the hers of elementary schools lists of the infectious diseases n which each child has already suffered, although this iously represents the ideal to be sought after, and I believe ady secured, for the majority of boarding schools. Failing the method adopted in Brighton is to exclude from school ndance only those children belonging to the household cted by measles who attend the infants' school, and those r children who have not already had measles.

should in fairness be added that this plan was adopted he result of Dr. Kerr's report on the same subject to the ool Board for London.

does not follow that this plan would be the best to w in circumstances in which it was found that a very proportion of the children over 8 years of age at a given ol had not already had measles.—I am, etc.,

ghton, April 18th. Arthur Newsholme.

"NOTES ON RECENT CANCER MORTALITY IN THE THAMES VALLEY."

Sir,—In my paper on the above subject in the British Medical Journal, April 9th, p. 825, one or two of the figures given under Table I have been wrongly printed. Thus, in the decennium 1891-1900, the total deaths from all causes, at all ages in England and Wales was 5,575,375, not 5,575,374.

In the same period the number of cancer deaths at all ages in England and Wales was 232,178, not 332,178. This gives the percentage of cancer deaths to total deaths as 4.16. The figures were taken from the annual reports of the Registrar-General for England for the years 1891 to 1900 inclusive.

As it may be of interest to know the actual figures for the various years of the decennium I give the following tables:

Year.	Total Deaths from all Causes, at all Ages.	Cancer Deaths, All Ages.
England and Wales.		
1891	587,925	20,117
1892	559,684	20,353
1893	569,958	21,135
1894	49 ,827	21,422
1895	568,997	22,945
1896	526 727	23,521
1897	541,487	24,443
1898	552,141	25,196
1899	581,799	26,325
1900	587,830	26,721
Total	5,575,375	232,178
In the County of Surrey.		
1891	9,246	408
1892	9,432	435
1893	9,367	449
1894	8,163	419
1895	9,111	493
1896	8,532	467
1897	8,693	505
1898	9,480	524
1899	10,268	547
1900	10,347	599
Total	92,639	4,846
In the County of Berkshire.		
1891	4,692	205
1892	4,675	205
1893	4,087	195
1894	3,917	234
1895	4,159	262
1896	3,677	219
1897	3,981	227
1898	4,210	265
1899	4,286	266
1900	4,321	283
Total	42,005	2,361
In the County of Middlesex (Ex-Metropolitan).		
1891	9,144	376
1892	9,667	414
1893	9,689	422
1894	8,687	385
1895	9,789	419
1896	9,637	478
1897	9,939	504
1898	10,789	508
1899	11,850	531
1900	11,681	574
Total	100,872	4,611
In the County of Buckinghamshire.		
1891	2,817	121
1892	2,968	113
1893	2,492	108
1894	2,301	132
1895	2,587	129
1896	2,356	130
1897	2,352	128
1898	2,464	134
1899	2,650	159
1900	2,624	153
Total	25,611	1,307
In the County of Oxford.		
1891	3,234	151
1892	3,393	143
1893	2,901	148
1894	2,704	155
1895	2,953	150
1896	3,019	173
1897	2,937	176
1898	2,710	191
1899	2,899	194
1900	2,982	182
Total	29,792	1,663

These are the counties in which lies the Thames Valley.—I am, etc.,

Shepperton-on-Thames, April 17th. Alex. Urquhart, M.D.

MEDICO-LEGAL AND MEDICO-ETHICAL.

MEDICAL ASSESSORS IN CASES OF PHYSICAL INJURY.

NEW RULES IN COUNTY COURT.

THE first case under the new rules adopted by His Honour Judge Reginald Brown, K.C., which provide for the medical referee in workmen's compensation cases sitting with the judge as assessor instead of the case being referred to him, was heard in the Stockport County Court on April 8th. Application was made to terminate or diminish a compensation order for the payment of £1 weekly to a certain person, who was formerly employed by the applicants as a spinner. Under this order the man had received £122, and the applicants asked, as the alternative to termination, that the order should be redeemed by the payment of £100. They contended that a slight operation would remedy the effects of a sprained foot which prevented him working, but the Court could not insist that the operation should be performed. One of the medical witnesses called said, however, that the result of the operation might not be good, and in a similar case it had been bad. The respondent was examined by the medical referee, and his Honour then decided that the applicants should be allowed to redeem the order by paying £150. An opportunity to appeal was allowed to the respondent.

As this is a matter of considerable interest to medical men, we have obtained through the courtesy of the Registrar of the County Court of Stockport a copy of the document referred to and adopted by his Honour, Judge Brown. It is as follows:

THE WORKMEN'S COMPENSATION ACTS, 1897 AND 1900.

In any application for arbitration under the above-named Acts where a question to be submitted to the Court is as to whether the workman has wholly or partially recovered from injuries received in the course of his employment, or is otherwise of a purely medical nature, the judge will be glad if the parties to the arbitration will place it in his power to have one of the medical referees, duly appointed by the Secretary of State and attached to this circuit, to sit with the judge at the hearing of the arbitration and act as an assessor, pursuant to Section CIII of the County Courts Act, 1888, instead of the judge having to follow the more cumbrous machinery provided by Schedule II (13) of the Workmen's Compensation Act, 1897, and the regulations made thereunder.

It is suggested that the desired result may be arrived at by mutual agreement of the parties to the arbitration, or on the application of one of them, under Section CIII. In either case the fee (two guineas) of the medical referee must be deposited with the Registrar six clear days at least before the day fixed for hearing the arbitration. Such fees will be considered costs in the arbitration unless otherwise ordered by the judge.

By order.

March, 1904.

Medical Referees Appointed by His Honour Judge Reginald Brown, K.C., to Act as Assessors for Circuit No. 9.

District.	Name.	Address.	Qualifications.
Ashton-under-Lyne and Stalybridge, Stockport, Hyde	William Hugh Hughes	Harwood, Ashton-under-Lyne	M.R.C.S.Eng., L.S.A.Lond.
Macclesfield, Congleton, and Sandbach	James Thomson Wilson Baird	Overton House, Congleton	M.B., M.S.Ed.
Nantwich and Crewe	Seymour Hugh Munro	Nantwich, Cheshire	M.D.Ed., L.R.C.S.Ed.

Where there is a conflict in the medical evidence, either side can apply to the Judge for one of the medical referees attached to the Court to sit with his Honour during the hearing. Of course both sides may consent to this course being adopted. The benefit of this arrangement is considerable, as the medical referee has the advantage of hearing the evidence pro and con, which is better than the former cumbrous method of a case being sent to the medical referee who had not the advantage of hearing or seeing any one except the injured man himself. The rule cannot fail to have a beneficial effect, and should be brought into use by other county court judges. The medical referee of course sits merely in an advisory capacity.

A BOLINGBROKE HOSPITAL INQUEST.

ON April 11th Mr. Troutbeck held an inquest on the body of a child of 2 years which had been treated for burns at the Bolingbroke Hospital, Wandsworth. According to the report in the *Times*, the child was burnt on March 26th and was taken to the hospital on March 28th. It attended as an out-patient on the following days up to April 5th, except on Good Friday, the Sunday following, and Bank Holiday. A day or two after the final visit—or some eleven days after the injury—the child died. The foregoing facts were stated in evidence by the mother, with the addition that the child's chest was not examined and that it was not suggested that it should be taken into the hospital, and that she did not take it as an out-patient on the days mentioned because told not to do so.

Marion Ormonde was then called, and after stating that she had dressed the child's wounds on three occasions and that the burns were very serious, was cross-examined by the Coroner as follows:

"Why was the child not seen by a doctor?"

"It was, and he remarked that it should be taken into the hospital; but we were very full and had no beds vacant."

"Why did not the doctor see it when you found it was so bad?"

"There is only one out-patient doctor, and he was busy in the wards then."

"I take your own description of the case that it was a very serious one. Why was it that the child was not seen by a doctor?"

"I did not think if he had seen it he would have said anything more."

"How do you know? What is your qualification for giving that opinion?" To this the witness did not reply, but, after an interval, said no old cases were seen on Bank Holidays, only new cases and accidents. She then said there was also a danger of pneumonia with burns, and that it was increased if the patient was not warmly wrapped up. She had seen no signs of pneumonia when she saw the child on the Tuesday preceding its death. The cross-examination continued as follows:

"You took no means to discover whether the child had or not?"

"No, because it is not within the province of a nurse, but of a doctor."

"Hardly, for he was not in attendance."

Dr. Freyberger then gave evidence as to the cause of death, which he considered to be heart failure from incipient pneumonia while the child was suffering from exhaustion due to the burns. The latter were very serious that from the first the child had little chance of recovery.

The Coroner, in summing up, said that the case disclosed something which required very serious treatment at the hands of the governing body of the hospital. The child should certainly have been seen by a medical man, and, knowing as one did how seriously the medical profession treated the employment of unqualified medical assistants, it was extraordinary to find established at that hospital what amounted to the same thing, a nurse being employed to do medical work. He condemned in strong terms the manner in which the child was treated, and said a revision of the methods adopted at the Bolingbroke Hospital was greatly needed.

The jury returned a verdict of "accidental death," and expressed their entire concurrence with the Coroner's remarks.

A MIDWIFE AND PUERPERAL SEPSIS.

AN inquest was held on April 12th at Woking in relation to the death of a woman from puerperal fever. She had been confined on March 11th, and was attended by a Mrs. Lee. On March 14th the patient was not so well. She died on Sunday, March 27th. On Saturday, March 5th, the midwife had been attending a Mrs. B. who had also been confined and who was suffering from fever. On March 12th the midwife knew that Dr. Thorne Thorne refused to attend Mrs. B., as he was at that time attending a lady. The midwife denied that she knew Mrs. B. was suffering from puerperal fever, but she admitted in cross-examination by the coroner that she had had several cases of the fever in the course of her experience, and that she had been on a former occasion censured by a coroner's jury. In summing up the Coroner said: "It may have been that the midwife knew that the case which she had been attending was one of puerperal fever. The evidence which was called was not strong enough for him to advise them to base a criminal charge upon it. The midwife had practically admitted that she did not bear a good character. She had had 8 or 9 cases of puerperal fever in her practice since April, 1901." The jury considered their verdict in private, and came to the conclusion that death was due to blood poisoning, brought about by puerperal fever. They also thought the nurse should be censured for not taking proper care in going from one case to another. They believed she must have been thoroughly aware that her last patient was suffering from puerperal fever.

The Coroner administered a severe reprimand to Mrs. Lee, who was then allowed to go.

ASSUMPTION OF TITLE.

Two cases recently heard before the Liverpool deputy stipendiary magistrate, in which convictions were obtained under the Dentists Act, are satisfactory in that they show that evasion by the avoidance of plain and direct assumption of title is not always successful.

One of the defendants had a plate on which was inscribed in minute letters "Late assistant to the," and in large letters "Dental Surgeon to the Queen and Court of Holland." A fine of £5 with £5 5s. costs was imposed.

In the other case "Dentist entrance" on the door, and elsewhere "Lancashire Dental Institute, Mr. Griffin, Manager," appeared. In defence it was urged that the word "dentist" was not used by Mr. Griffin personally, and that there had been a registered dentist there until lately. He was convicted both of using the title "dentist" and of using words implying that he was specially qualified to practise dentistry, and fines amounting to £6 and £5 5s. costs were imposed on the two summonses.

ASSISTANTS' FEES.

A CORRESPONDENT writes that he is an assistant to a medical practitioner and one of the terms of his engagement is that he is to have one-half the confinement fee of all cases that he personally attends. He is about to leave his principal, and there is due to him a certain number of these confinement fees which have not yet been paid by the patients. He wishes to know whether in event of these fees being unpaid he can sue the patients or must trust to his principal for the amount due after they have paid up.

*** If his principal was engaged by the patients our correspondent would have no right to sue them. His principal must pay him his share of any fees paid subsequent to his leaving.

A COMPLAINT AGAINST AN EYE INFIRMARY.

MEDICO writes to say that an infant aged 6 days suffering from gonorrhoeal ophthalmia was sent by him to an eye infirmary for treatment, and he complains that the case, though treated, was not admitted as an in-patient, although the father of the child "contributes fortnightly to the hospital in common with every other collier in the place."

*** We are sorry to see by the words which we put in inverted commas that our correspondent appears to make a claim not admitted by any hospital—namely, that the contributions of the working classes give each individual contributor rights overriding the discretion of the medical staff. From inquiries we have made we believe that the authorities complained of acted in accordance with the usual practice of eye hospitals, which do not as a rule admit such cases owing to their age and the danger of the infection spreading and the difficulty of isolating them completely. In reply to our correspondent's further question, who is responsible in this case if the child loses its sight? We may remind him that no hospital or medical practitioner can take the responsibility for the results of treatment in this or any other disease. Hospitals and medical practitioners alike are expected to exercise due care and skill, and are responsible if they can be shown to have neglected to do this, but not otherwise. In the case of gonorrhoeal ophthalmia we are advised that success or failure depends largely upon the stage at which the child comes under treatment.

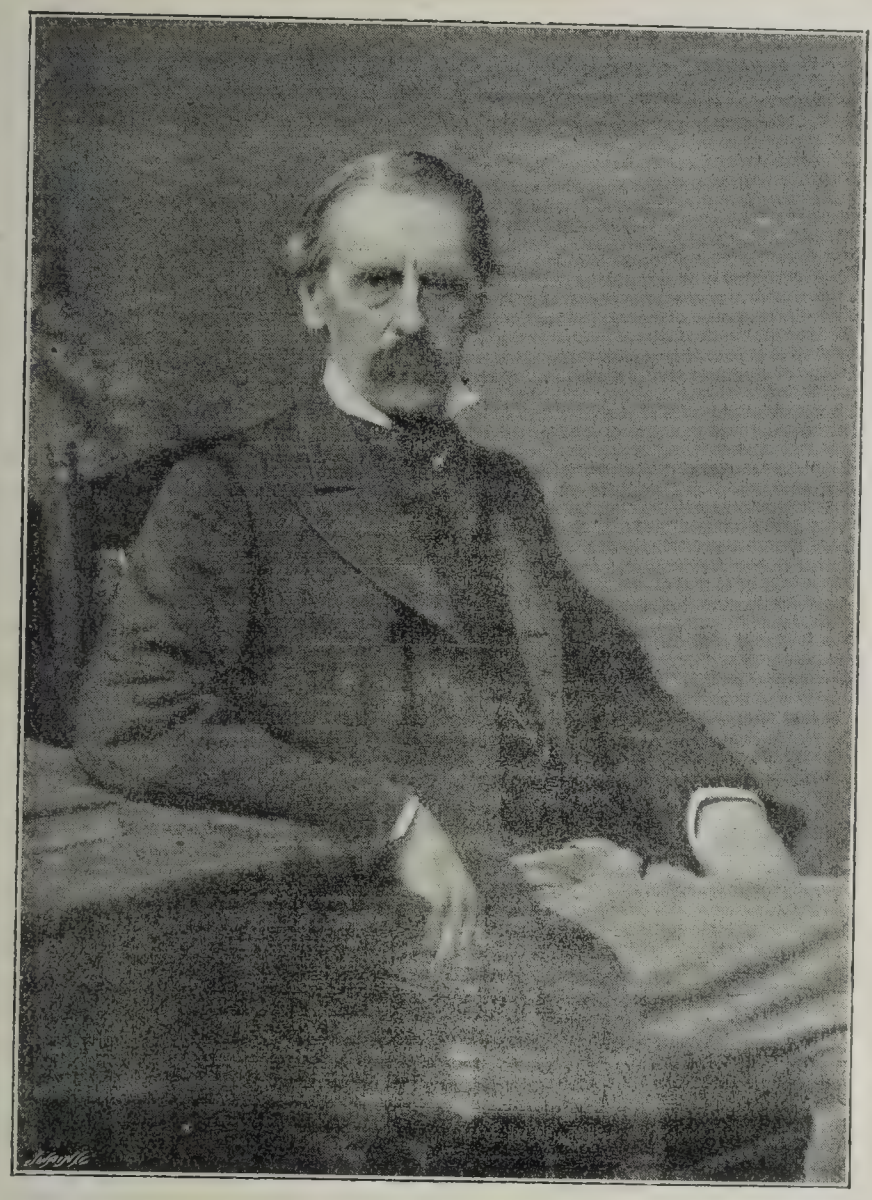
OBITUARY.

HENRY THOMPSON, Bart., M.B., F.R.C.S.,

Extraordinary, His Majesty King of the Belgians; Consulting , University College Hospital; Emeritus Professor of Clinical Surgery, University College, London.

RY THOMPSON died on April 18th after a short illness ouse in Wimpole Street. He was in his 84th year.

Thompson, the son of Mr. Henry Thompson, of gham, Suffolk, and of his wife, the eldest daughter of Medley, the artist, was born at Framlingham on th, 1820. His father, like the members of his wife's vas a strict Baptist, and objected to his son entering cal profession on the ground that, according to the ng, many doctors became infidels. Owing to the of his health young Thompson was educated by utors, and, eventually obtaining his father's consent, s a medical student at University College in 1848, efore, somewhat late He, however, quickly for lost time—if, the time was lost. ned the Gold Medal omy at the Inter- Examination in of the University of n 1849, and that in n 1851, being second Honours Class on sions. He became Eng. by examination out had already, by he Jacksonian prize revious year for an the pathology and of stricture of the shown the bent of . He had married e Loder the pianist nd had commenced n Wimpole Street. ne he was Visiting o the Marylebone and in 1856 was Assistant Surgeon sity College Hospi- continued to study t of diseases of the ary organs, and in won the Jacksonian an essay on the d morbid anatomy ostate; this essay hed and formed the s subsequent works s of the prostate, e two in number: *Prostate, its Patho- Treatment, with s on the Relation of aint to Stone in the* he fourth edition appeared in 1885, *ses of the Prostate*, of which a sixth edition appeared



t this period the minds of surgeons were very much ith the question of the best treatment of stone in r. Lateral lithotomy had become established as on of election, but the demonstration in 1824 by Paris that a stone could be crushed in the bladder ments removed without any cutting operation, had ly impressed surgical opinion, and Keith of had already begun to perform the crushing opera- mpson visited Paris to study the methods of also witnessed the practice of Keith, and finally gan to perform lithotrity at University College nd in private practice. The history of the case of King of the Belgians, did much to establish the nd the fame of Thompson as one of the leading men ciality. The King, who was an uncle of Queen nd greatly esteemed by her, was staying at m Palace about Christmas, 1862, and consulted min Brodie, who diagnosed a stone in the nd being asked who should operate replied "Before all men, Civiale of Paris." Mr. Henry Thompson, being asked the same question, made the same reply, having studied with Civiale in Paris. The great French surgeon was accordingly summoned to the King, and many sittings for lithotrity were held, but some fragments still remained in the bladder. The King was afterwards attended by Langenbeck, without obtaining complete relief, and finally asked Queen Victoria to recommend an English surgeon. Mr. Henry Thompson was selected, and eventually obtained the King's consent to submit to a further operation. At the second sitting the bladder was completely emptied, and the distinguished patient entirely recovered from his affection. After his return to London, Thompson wrote to Civiale that he had really completed King Leopold's cure by the hands of his grateful pupil, who had always worked solely on the principle and by the art which Civiale had been at so much pains to impart to him. The Parisian surgeon, who was much pleased with the letter, returned the compliment by recommending to the Académie de Médecine Thompson's work on the prostate for the Prix d'Argenteuil given for the best work on urinary surgery; the Académie crowned the work and awarded the third part of the triennial fund to Thompson. We may add here that Thompson was appointed Surgeon Extraordinary to King Leopold I, an office continued by the present King, and that he was made an Officer of the Order of Leopold in 1864 and a Commander in 1876. In 1867 he received the honour of knighthood from the English Crown, and then and for many years afterwards carried on a large operating and consulting practice in his speciality. Another distinguished patient upon whom Sir Henry Thompson operated was Napoleon III; although the Emperor had for several years suffered from symptoms of stone in the bladder, and had been advised by his surgeons in Paris to submit to exploration, and, if necessary, to operation, it was not until July, 1872—more than a year after his arrival in this country—that he consulted Thompson. Even then he refused to permit exploration, and it was not until December that political reasons, which were supposed to have justified the delay, appeared to render operation advisable; although Sir Henry Thompson gave a most unfavourable prognosis, he consented to perform lithotrity in three sittings. The first took place on January 2nd, 1873, and the second on January 5th. It had been intended to complete the removal of fragments on January 9th, but the Emperor, who was suffering from extensive disease of the kidneys, with dilatation and much destruction of tissue, succumbed on that morning.

When the eminent American surgeon Bigelow introduced the principle of completing the removal of all the fragments of a crushed stone from the bladder at one sitting, Sir Henry Thompson quickly put it to the test, and his attitude may perhaps best be shown by the following quotation from a paper which he read at the annual meeting of the British Medical Association at Cambridge in 1880:

> The enunciation of this axiom threw light on a point of practice which I had myself long ago observed, and on several occasions had called special attention to. It is this: that when cystitis occurs in the course of lithotrity the most advantageous way of dealing with it is, not to treat the patient by the usual remedies for cystitis, but without delay to crush the remainder of the stone, and remove the whole by aspiration at once. This proceeding I have found very successful, and had strongly urged its adoption both at home and abroad long before

Professor Bigelow's proposal was announced. I name this merely to show a certain corroboration of his view from my antecedent experience, and not with the least idea of laying the slightest claim to forestall my American *confrère*. It was this conviction of mine, however, relative to the effect of removing fragments, which prepared me at once to believe that the principle of Bigelow's proposal would almost certainly prove to be well grounded. Hence I instantly closed with it, and tested it without delay.

The opinion Sir Henry Thompson expressed at this time as to the value and general applicability of the operation at a single sitting was guarded, but we believe that he eventually came to use it very extensively. He also gave attention to suprapubic lithotomy, and wrote a book upon the subject in 1885.

In 1862 he was appointed Surgeon to University College Hospital, but even in hospital practice confined himself almost exclusively to his speciality, and many old students will remember the small and inconvenient wards of which he had charge, although he continued to see out-patients down to 1872. In 1877 he finally retired from the active staff, and in 1877 was made Consulting Surgeon and Emeritus Professor of Clinical Surgery.

He had been appointed Professor of Clinical Surgery in 1866. His clinical teaching was of value chiefly to those students who followed his practice closely, although from time to time he gave stated lectures characterized by much perspicacity and marked by a certain dogmatism which undoubtedly impressed his opinions indelibly on the minds of his hearers. He delivered at least one course of three or four lectures after his retirement from the active staff. As a private practitioner Sir Henry Thompson was most successful; his confidence in his own resources combined with his dexterity of hand and lightness of touch secured him probably the largest practice ever enjoyed by a surgeon in London engaged in the speciality which he followed. No man probably more thoroughly enjoyed his success. He enjoyed not only its solid reward, though by no means indifferent to it, but also, and perhaps more, the social position which he owed partly to his eminence as a surgeon and partly to his artistic associations. He was himself an artist of no mean talent, and early in life began to find one of his chief recreations in sketching; a little later he studied seriously under Elmore and Alma Tadema, and his first picture was exhibited at the Royal Academy in 1865; he exhibited again in 1870, annually from 1872 to 1878, and again in the years 1881, 1883, and 1885. Two of these pictures were afterwards exhibited in the Paris Salon, to which he contributed also a landscape in 1891. The pictures which he exhibited were all either of still life or landscapes; he also made many excellent portrait sketches, and a rapid sketch in pencil of Thackeray has been reproduced by Mrs. Ritchie in her *édition de luxe* of her father's writings. Sir Henry Thompson was also a collector of Chinese and Japanese china, but, characteristically, did not begin to purchase on a large scale until after he had made a most minute study of the subject. In 1878 an elaborate catalogue of a large collection was published, illustrated by autotypes from six drawings by Sir Henry and twenty by Mr. James Whistler. It was Sir Henry Thompson's habit to take a long holiday on the Continent every year, and he was generally accompanied by his daughter. They spent their time largely in visiting picture galleries, and eventually Miss Thompson, with the assistance of her father, prepared an elaborate *Handbook to the Public Picture Galleries of Europe*. The first edition was published in 1877, and there have been several subsequent issues. The volume contains a complete list of all painters whose works are on public view, of the place where their pictures may be seen, notes on the distinctive style of each painter with references to the most characteristic paintings, and a list of the pictures in each gallery.

Probably few men of his time had a larger acquaintance among the literary, artistic, and professional classes in London. He cultivated the social arts, and especially the art of dining. In 1872 he gave his first octave. This was a dinner at first of eight persons, but later on of eight guests at which eight dishes were served. These dinners were continued once or twice a month every winter and spring season down to within a month or two of his death. It is safe to say that few men who attained to eminence during the last thirty years in literature, art, or science failed to take part in at least one octave, where it was always certain that some enjoyable hours would be spent. The host took great pains to ensure variety, and with many men of different callings meeting together on this common ground the talk was of the best. He could point out the very seat at the round table which had been occupied by Thackeray or Dickens, and in later years had all the chief writers of the younger generation. Thompson himself made two incursions into fiction; the first, *Charlie Kingston's Aunt*, published anonymously in 1885, was a rather lugubrious story, the scene of which was laid in the dissecting room; the book was a success, and in the following year was followed by another story called *All But*, which was published with the author's name and portrait.

All through his life Sir Henry Thompson showed interest in questions of the day, although he never took part in politics. Soon after ceasing his active association with University College Hospital he took a house at Molesey, and at first grew tomatoes and bred chickens for the market; later these pursuits were abandoned for astronomy, and he established a well-equipped observatory with a skilled assistant; although this was not long maintained he retained his interest in astronomy, and in 1890 gave a 30-in. reflecting telescope to the Greenwich Observatory, having previously presented the instruments used in his private observatory. He does not appear to have been a sportsman, but when the tricycle first came in he took to it keenly; in later years it had to give way to the motor-car, upon the selection and management of which he wrote a little book only three or four years ago.

The large part which he played in introducing the practice of cremation into this country is too well known to our readers to render it necessary to enter into the matter at length here. The Cremation Society—the first of its kind in Europe—was founded at a meeting held at his house in April, 1874. A crematorium was built at Woking, but its use was forbidden by the then Home Secretary. It was not until 1884 that Sir James Stephen decided, when the matter was brought before him by the Government, that the practice of cremation was not illegal if effected without a nuisance. The first cremation at the Society's crematorium at Woking took place in March, 1885. The practice has since grown very considerably, owing largely to the persistent advocacy of Sir Henry Thompson, who published a small book on the history and practice of modern cremation which reached a third edition in 1899. Through his interest in cremation he was led to study the system of death registration and strongly represented its imperfections to Mr. Asquith, then Home Secretary in 1893. As our readers know, many of the imperfections of the system have not yet been remedied. He was President of the Cremation Society, and it was largely through his efforts that a new crematorium was recently erected by a private company at Golders Green, near Hampstead Heath, and the rules of the Cremation Society were drawn to guard against crime, more effectually than the practice has, we believe, been accepted for all the crematoria established in Great Britain.

Sir Henry Thompson was created a baronet in 1899, and is succeeded in the title by his son, who is a member of the Bar. He is survived also by Lady Thompson, who has been an invalid, and by two married daughters.

We have received the following note from one who knew Sir Henry Thompson well:

By the death of Sir Henry Thompson the profession has been robbed of one of its most distinguished ornaments. It has lost not only the pioneer in urinary surgery, but a man whose genius and gifts rendered him an able representative in the field of art, literature, and sanitary reform. His more marked characteristics—those, perhaps, which led to his success—were his indomitable perseverance and restless energy; both remained with him until the end. He was never idle; idle moments were unknown to him. He was always thinking or planning to forward the schemes in which he was engrossed. Even during the wakeful hours of the night—for he was a bad sleeper—his pen was ever ready to jot down any thought or expression that occurred to him, and there would frequently be a long list of notes awaiting him in the morning, as he never under any circumstances trusted for even the most trivial subject to memory. In fact, where the claims of any object he possessed the rare art of making the best use of any material to hand. If this was not entirely satisfactory he did not hesitate, no matter at what cost to seek what was required. His personality and earnestness almost invariably gained the sympathetic attention of those from whom he sought information and rendered his task the more easy. When dealing with a new subject or question, he marvellously quickly assimilated the important points, and as rapidly formed a sound

Henry rarely if ever abandoned any subject without bringing it to what he considered a successful issue, and this he mplished by his pluck, persistence, and careful study of subject. He was a keen observer, and no detail was too ll to attract his attention.

r Henry was a delightful companion, and his conversa- was always interesting and well expressed, dealing as it with his varied experiences, the people he had met, the rs subjects he had studied, and invariably furnished the ner with some new idea or suggestion. He often described xact meaning he wished to convey by some terse saying mile, thus allowing his teaching to be carried away in a which would never be forgotten.

AL NAVY AND ARMY MEDICAL SERVICES.

ROYAL NAVY MEDICAL SERVICE.

r SURGEON H. MEIKLE is placed on the retired list, April 6th. nted Surgeon, August 21st, 1883, he was made Staff Surgeon, August 895, and Fleet Surgeon, August 21st, 1899.

uty Inspector-General W. D. LONGFIELD has been awarded the wich Hospital pension of £50 a year, vacant by the death of Deputy ctor-General L. H. J. HAYNE.

following Surgeons have been promoted to be Staff Surgeons, from tes specified: T. T. JEANS, M.B.; J. H. PEAD, M.A., M.B.; and H. S. ISTON, M.B., from May 16th, 1902; H. P. JONES and A. O. BOBARDT, from November 14th, 1902; S. T. REID, from May 15th, 1903; C. H. J. ISON and H. HUSKINSON, M.B., from November 12th, 1903. All the s cited had completed eight years' service from the time of their ppointment as Surgeons.

VOLUNTARY RETIREMENT OF NAVAL SURGEONS.

NT MARINER writes to point out that many men will probably be acted to the Naval Medical Service by the offer in the new regula- s of a gratuity of £500 to those who desire to retire at the end of years' service. He asks, therefore, whether the right of retirement be enjoyed by those who may be serving abroad at the end of their years.

Voluntary retirement is permitted after several different periods rvice and the general rules respecting it are the same in each case. run as follows: "Voluntary retirement and withdrawal at the retion of their Lordships will be allowed, as a rule, only n an officer is unemployed or serving at home. Under ial circumstances, however, it may be permitted in the of an officer serving abroad, provided he is prepared pay his successor's passage to relieve him if neeessary. order that arrangements may, as far as possible, be made for the ef of officers who may wish to withdraw on a gratuity, it is desirable six months' notice of their wish should be forwarded for the con- ration of their Lordships. Applications from officers to retire or draw, or resign their commissions, will receive every considera- , but no officer will, as a rule, be permitted to resign under three s from the date of entry." The only rules that specially apply to ers retiring after four years' service are those which concern their equent entry into the Naval Medical Reserve.

ROYAL NAVAL VOLUNTEER RESERVE.

AM B. BETENSON is appointed Surgeon to the Newhaven Company London Division, April 13th.

ARMY MEDICAL STAFF.

ON-GENERAL SIR T. J. GALLWEY, M.D., K.C.M.G., C.B., Principal al Officer H.M.'s Forces in India, has been granted leave out of on private affairs for eight months.

ROYAL ARMY MEDICAL CORPS.

ENANT-COLONEL G. A. HUGHES, M.B., D.S.O., is promoted to be el, *vice* R. de la C. Corbett, M.D., D.S.O., deceased, March 25th. el Hughes was appointed Surgeon, February 4th, 1877; made on-Major, February 4th, 1889; granted the rank of Lieutenant- el, February 4th, 1897; and selected for increased pay, May 10th, His war record includes: The Afghan war, 1878-80 (medal); the analand expedition, 1884-5; the Ashanti expedition, 1895-6 (honour- entioned, star); and the Nile campaign in 1898, as Senior Medical , 2nd British Brigade, being present at the battle of Khartoum oned in dispatches, British and Egyptian medals, clasp, and ap- d a Companion of the Distinguished Service Order).

tenant J. H. R. WINDER, M.D., to be Captain, February 27th. He the department as Lieutenant, February 27th, 1901. He served the recent war in South Africa in the operations in Cape Colony, of the Orange River.

tenant-Colonel R. C. K. LAFFAN retires on retired pay, April 16th, mmissions are thus dated: Surgeon, February 5th, 1881; Surgeon- . February 4th, 1894; and Lieutenant-Colonel, February 5th, 1901. s in the Egyptian war of 1882, including the battle of Tel-el-Kebir with clasp, and Khedive's bronze star); and in the Soudan cam- in 1884-5 (clasp). He was nominated to the third class of the order Osmanieh for his services as Inspector of Hospitals to the Egyptian ry Department.

nel J. M. BEAMISH, M.D., who is serving in the Bengal Command, sumed the duties of Principal Medical Officer, Bengal, *vice* Surgeon- al R. de la C. Corbett, deceased. Lieutenant-Colonel T. B. Moffitt et as Principal Medical Officer, Allahabad, in place of Colonel ish.

following officers are detailed for duty with transports on the ward voyage: Lieutenant-Colonel J. CARMICHAEL, Punjab; Major H. N. THOMPSON, M.B., D.S.O., Bengal; Major J. J. O'DONNELL, M.B., Bengal; Captain G. B. CARTER, M.B., Punjab; Lieutenant-Colonel A. O. GEOGHEGAN, M.D., Bengal; Major J. C. WEIR, M.B., Punjab; Captain H. G. MARTIN, Madras; Captain J. D. G. MACPHERSON, M.B., Bengal; Lieutenant-Colonel T. F. MACNEECE, Punjab; Major R. W. WRIGHT, Bengal; Major J. W. BULLEN, M.D., Madras; Captain F. F. CARROLL, M.B., Bombay.

Captain G. DANSEY-BROWNING is seconded for service with the Egyptian Army, March 31st.

Lieutenant-Colonel JOHN WATSON, M.D., died at Canterbury on March 15th, aged 46. His commissions were dated: Surgeon, March 6th, 1880; Surgeon-Major, March 6th, 1892, and Lieutenant-Colonel, March 6th, 1900. He served with the Chitral Relief Force in 1895, receiving a medal with clasp.

EXCHANGES.

The charge for inserting notices respecting Exchanges in the Army Medical Department is 3s. 6d., which should be forwarded in stamps or post-office order with the notice, not later than Wednesday morning, in order to ensure insertion in the current issue.

A LIEUTENANT-COLONEL due for foreign service about August would like to exchange to remain one and a-half to two years at home. Apply, stating terms, to "B. A.," care of William Hewat, Esq., 86, Northumberland Road, Dublin.

ARMY MEDICAL RESERVE.

SURGEON-CAPTAIN W. CURTIS, 1st Volunteer Battalion the Prince of Wales's Volunteers (South Lancashire Regiment), to be Surgeon-Captain, April 16th.

PUBLIC HEALTH AND POOR-LAW MEDICAL SERVICES.

HEALTH OF ENGLISH TOWNS.

IN seventy-six of the largest English towns, including London, 9,230 births and 5,142 deaths were registered during the week ending Saturday last, April 16th. The annual rate of mortality in these towns, which had been 18.7, 18.7, and 18.3 per 1,000 in the three preceding weeks, further declined last week to 17 6 per 1,000. The rates in the several towns ranged from 8.2 in Reading, 9.7 in Southampton, 9.8 in Tynemouth, 10.3 in Walthamstow, 10.6 in Hanley, 10.9 in Hornsey, 11.0 in Hastings, and 11.5 in York to 22.1 in Birmingham, 22.3 in Smethwick, 22.9 in Newcastle-on-Tyne, 23.2 in Wigan, 23.9 in Norwich, 24.0 in Great Yarmouth, 24.7 in Aston Manor, and 25.2 in Halifax. In London the rate of mortality was 16.7 per 1,000, while it averaged 17.9 per 1,000 in the seventy-five other large towns. The death-rate from the principal infectious diseases averaged 1.8 per 1,000 in the seventy-six large towns; in London this death-rate was equal to 1.9 per 1,000, while among the seventy-five large provincial towns the rates ranged upwards to 3.3 in Birmingham, 3.4 in Salford, 3.5 in Handsworth (Staffs.) and in Gateshead, 4.1 in St. Helens, 4.2 in Bootle, 4.8 in Wolverhampton, 5.4 in Norwich, and 5.8 in Aston Manor. Measles caused a death-rate of 1.3 in Aston Manor, 1.4 in Salford, 1.6 in Hull, 1.9 in Leeds, 2.1 in Burnley, 2.3 in Tottenham, 2.9 in St. Helens, and 5.0 in Norwich; and whooping-cough of 1.7 in Wallasey, 1.9 in Hornsey, 2.1 in Newcastle-upon-Tyne, 2.3 in Walsall, 2.4 in Birmingham, 2.6 in Handsworth (Staffs.), 3.2 in Aston Manor, 3.4 in Bootle, and 4.2 in Wolverhampton. The mortality from scarlet-fever, from diphtheria, from enteric fever, and from diarrhoea showed no marked excess in any of the large towns. Three fatal cases of small-pox were registered in Gateshead, 1 in Bristol, 1 in Leicester, and 1 in Tynemouth, but none in any other of the large towns. The Metropolitan Asylums Hospitals contained 144 small-pox patients on Saturday last, the 16th inst., against 110, 126, and 134 on the three preceding Saturdays; 37 new cases were admitted during the week, against 54, 42, and 25 in the three preceding weeks. The number of scarlet fever cases in these hospitals and in the London Fever Hospital, which had been 1,585, 1,570, and 1,505 in the three preceding weeks, had risen again to 1,523 at the end of last week; 172 new cases were admitted during the week, against 145, 153, and 141 in the three preceding weeks.

HEALTH OF SCOTCH TOWNS.

DURING the week ending Saturday last, April 16th, 1,062 births and 690 deaths were registered in eight of the principal Scotch towns. The annual rate of mortality in these towns, which had been 22.3, 20.6, and 20.3 per 1,000 in the three preceding weeks, increased again last week to 20.9 per 1,000, and was 3.3 per 1,000 above the mean rate during the same period in the seventy-six large English towns. Among these Scotch towns the death-rates ranged from 13.8 in Perth and 15.0 in Greenock to 22.3 in Paisley and 26.5 in Dundee. The death-rate from the principal infectious diseases averaged 2.0 per 1,000, the highest rates being recorded in Dundee and Greenock. The 339 deaths registered in Glasgow included 3 which were referred to small-pox, 12 to measles, 7 to whooping-cough, and 7 to diarrhoea. Four fatal cases of whooping-cough, 3 of measles, and 2 of diarrhoea were recorded in Dundee; 5 of whooping-cough and 3 of diarrhoea in Edinburgh; 5 of measles in Greenock: and 3 of whooping-cough in Paisley.

HEALTH OF IRISH TOWNS.

DURING the week ending Saturday, March 26th, 571 births and 474 deaths were registered in six of the principal Irish towns, against 479 births and 498 deaths in the preceding period. The mean annual death-rate of these towns, which had been 22.3, 25.8, and 24.9 per 1,000 in the three preceding weeks, fell to 24.5 per 1,000 in the week under notice, this figure being 5.8 per 1,000 above the mean annual rate in the seventy-six English towns during the corresponding period. The figures ranged from 11.7 in Waterford and 20.5 in Limerick to 30.2 in Londonderry and 32.3 in Dublin. The death-rates from the principal zymotic diseases during the same period and in the same six towns averaged 2.2 per 1,000, or 0.6 per 1,000 higher than during the preceding week, the highest figure, 4.1, being reached in Limerick, while Waterford registered no deaths under this heading at all.

Throughout these towns and Ireland in general whooping-cough, as for several weeks past, was the principal zymotic cause of death. During the following week ending April 2nd, 527 births and 470 deaths were registered in six of the principal Irish towns, against 571 births and 474 deaths in the preceding period. The mean annual death-rate of these towns, which had been 25.8, 24.9, and 24.5 per 1,000 in the three preceding weeks, rose to 25 8 per 1,000 in the week under notice, this figure being 7.1 per 1,000 above the mean annual rate in the seventy-six English towns during the corresponding period. The figures ranged from 12.6 in Londonderry and 14.0 in Waterford to 35.5 in Limerick and 39.7 in Cork. The death-rate from the principal zymotic diseases during the same period and in the same six towns averaged 1.2 per 1,000, or 1.0 per 1,000 lower than during the preceding week, the highest figure, 2.8, being reached in Dublin, while Waterford and Londonderry registered no deaths under this heading at all. As in the preceding week, the zymotic death-rate was chiefly due to whooping-cough, though no deaths from it occurred except in Dublin, Belfast, and Cork. From measles 4 deaths occurred in Dublin and 1 in Belfast; from scarlet fever, 1 in Dublin, and from enteric, 2 in Dublin and 2 in Cork; from small-pox, typhus, diphtheria, and simple continued fever no deaths were registered at all; diarrhoeal diseases were accountable for 3 deaths altogether.

POWERS OF RELIEVING OFFICERS IN REFERENCE TO THE GRANTING OF ORDERS FOR MEDICAL ATTENDANCE.

SWEATED asks: (1) Whether a relieving officer has power to grant orders for midwifery cases and to recover the fee from the patient, and what chance he would have of enforcing payment; (2) whether anything can be done with a relieving officer who professes himself ready to give orders to any applicant, rich or poor, on the ground that he is thereby protecting himself from a possible charge of manslaughter.

*** (1) A relieving officer on granting an order for midwifery can give notice to the applicant that such order is granted on loan, and then, if authorized by the guardians, he can take legal measures to recover the cost of the same; but before obtaining a legal order for repayment of this it would be necessary for him to prove to the satisfaction of the magistrates before whom the case was brought that the defendant had the means to pay the claim made on him. (2) A relieving officer is bound to exercise a judicious discretion in granting or refusing orders for medical attendance, and under no circumstances ought he to grant an order except on the ground of poverty of the patient. Should he be so indiscreet as to provide medical attendance for any rich person at the expense of the ratepayers on the ground of protecting himself, the guardians, on such case being reported to them, ought at once to stop the practice.

FEE FOR REVACCINATION DISAPPROVED BY AUDITOR OF UNION.

PERPLEXED VACCINATOR writes to ask whether an auditor of union accounts can properly raise an objection to the vaccination of the inmate of a workhouse (which vaccination was done two years ago) on the ground that he (the auditor) could not see the necessity for the operation.

*** We are not aware of any regulation which enables an auditor of Poor-law accounts to object to payment for such a case of vaccination as is described by our correspondent. We are, moreover, quite at a loss to understand how this question crops up now two years after the event. The matter in dispute ought really to have been settled a long time back.

REMUNERATION OF POOR-LAW MEDICAL OFFICER'S DEPUTY.

Q. asks whether it is usual for the deputy of a Poor-law medical officer to act as such without fee, or whether the holder of the appointment is supposed to remunerate him.

*** Every Poor-law medical officer has, on appointment, or soon after, to nominate a deputy who will be prepared to provide medical attendance and medicine at the cost of such medical officer, whenever properly required to do so, in consequence of the incumbent's absence or illness.

UNIVERSITIES AND COLLEGES.

UNIVERSITY OF OXFORD.

SECOND EXAMINATION FOR THE DEGREES OF B.M. AND B.CH.

THE Board of the Faculty of Medicine gives notice that in and after Trinity Term, 1905, the whole of the regulations under the head IX. Forensic Medicine and Hygiene (see Examination Statutes, pp. 191-2) will be struck out and the following substituted for them—namely:

IX. Public Health and Forensic Medicine.

The examination shall consist of (1) a written paper of three hours, (2) a viva voce examination.

The subjects of the examination will be:

Part I. Public Health.

1. *Water.*—Sources of supply. Questions relating to (*a*) quantity, (*b*) quality, (*c*) storage, (*d*) distribution, (*e*) sources of pollution.

2. *Food.*—Diets in relation to age and occupation. Principles involved in estimating the sufficiency and wholesomeness of foods. Dangers due to specifically infective and toxic impurities.

3. *Air.*—The chemical and bacteriological examination of air with reference to its effects on health. Quantity and quality of air. Natural ventilation. Principles involved in artificial ventilation and warming of air.

4. *Soil.*—Principles involved in the physical, chemical, and bacteriological examination of soil with reference to its influence on health and to the presence of specific causes of disease. Ground and subsoil water.

5. *Dwellings.*—Sites and structure. Sanitary arrangements. The dwellings of the poor in towns and rural districts. The methods of the disposal of excreta in town and country.

6. *Hospitals and Schools.*—Principles involved in the construction of general, surgical, and isolation hospitals, and of schools.

7. *Disinfection.*—Ordinary methods of disinfecting rooms, clothing, bedding, and excreta.

8. *Vital Statistics.*—The elementary interpretation of statistical [illegible] relating to births and deaths. Effects of age, distribution, density of population, occupation, and infectious disease on mortality.

9. *Offensive and Dangerous Trades.*

10. *Sanitary Laws and Administration.*—A general knowledge will be required of the following: The law relating to the duties of medical officers of health; the relations of the medical officer of health to the general practitioner of medicine; general statutes and regulations relating to the notification and treatment of infectious disease, to the control of nuisances generally and of insanitary conditions in houses; the law relating to vaccination.

11. *Infectious Disease.*—The prophylaxis against enteric fever, diphtheria, scarlet fever, and small-pox, and the methods to be adopted in preventing the spread of infectious disease.

Part II. Forensic Medicine.

I. The proceedings of legal tribunals with reference to medical evidence and the conduct of medico-legal investigations.

II. The subjects to which medical evidence relates, namely:—

1. *Life.*—Expectation of life. Life insurance. Identity of the living. Proofs of criminal violence. General nature of injuries.

2. *Death.*—Signs and modes of death. Time of death. Death from natural causes. Death by violence, accident, poisoning (including poisoning by gases), starvation, asphyxia.

3. *Birth and Reproduction.*—Conception and gestation, living and stillbirth, criminal abortion, impotence, sterility, violation, unnatural offences.

4. *Lunacy.*—The laws relating to lunacy.

UNIVERSITY OF LONDON.

LONDON SCHOOL OF TROPICAL MEDICINE.

OF the students of the above school who presented themselves for examination at the end of the January-April Session, 1904, the following have passed: *Dr. Norah Lenwood; *Dr. A. L. Hoops, Colonial Office; *Dr. W. M. Eaton; *Dr. J. B. Cleland; *Dr. Olive McDougall; *Dr. McGahey, Colonial Service; Dr. J. Eldon; Dr. J. E. M. Brown, Colonial Service; Dr. M. E. Leicester; Dr. A. E. E. Twynam, Colonial Service; R. L. Rowe, Colonial Service; Dr. H. G. McKinney, Colonial Service; G. F. Whyte, Colonial Service; Dr. C. T. Costello, Colonial Service; C. W. Somerville.

*With distinction.

ROYAL COLLEGE OF SURGEONS OF ENGLAND.

A QUARTERLY Council was held on April 14th, Mr. John Tweedy, President, in the chair.

Jacksonian Prize.

This prize for the year 1903 was awarded to Mr. Stephen Mayo, F.R.C.S., the subject having been "The Various Forms of Conjunctivitis, their Pathology, and Treatment." The subject selected for the year 1[illegible] is "The Pathology and Treatment of Deformities of the Long Bones, due to disease occurring during and after adolescence."

College Triennial Prize.

This was awarded to Mr. Rupert Bucknall for the dissertation on "The Pathological Conditions arising from the Imperfect Closure of the Visceral Clefts."

First Year of Curriculum.

A report was adopted from the Conjoint Committee appointed to consider the regulations relating to the first professional examination and the course of study during the first year of the curriculum. The details of this will be made public at a future date.

Elections.

Mr. W. H. A. Jacobson was elected an Examiner in Dental Surgery, to the vacancy caused by the resignation of Mr. Henry Morris. Mr. Edward Ward, Professor of Surgery in the Yorkshire College, Leeds, was elected a Fellow, he being a member of twenty years' standing.

Vacancies on the Court of Examiners.

Two vacancies will be filled on May 12th. Applications are to be sent in before May 4th. One of the two above vacancies is that of Mr. H. J. Gould, who is a candidate for re-election.

Unqualified Practice.

The following letter was read from the Irish Branch of the British Dental Association calling attention to the judgement in "O'Duffy *v.* Jaffe, Surgeon Dentists, Limited," and asking the College to instruct its Representative on the General Medical Council to support action on the part of that body towards petitioning the Privy Council to initiate the legislation necessary to obviate the evils disclosed.

The following is the text of the letter in question:

"We venture to draw your attention (as one of the Medical Licensing Corporations of the United Kingdom) to the decision of the Court of King's Bench (Ireland) in the case of 'O'Duffy *v.* Jaffe,' herewith enclosed. The action was taken under the 'Dentists Act of 1878,' but the judgement of the Court demonstrates the total inadequacy of existing laws to protect the public from unqualified practice, under misleading titles, of medicine, surgery, or dentistry; inasmuch as any individual can place himself outside the penal operation of the Medical or Dental Acts by the simple expedient of forming a joint stock company, the Court holding that the Act, as worded, applies to a 'natural person' only, and not to a 'company.' Furthermore, it appears that the title assumed by such company on its formation becomes its 'own proper name,' and there seems to be no legal means of restraining the assumption of any title (however misleading to the public), whether it be 'Stiles, Doctors of Medicine,' 'Noaks, Physicians, and Surgeons,' or 'Jaffe, Surgeon Dentists, Limited.'

"In the judgement the Court consents to the view that 'the general intention of the Legislature in regard to the protection of the public has been frustrated,' and is unanimously of opinion that the phrasing of the Act does not enable it to 'reach the mischief,' and suggests that 'the Legislature can, if it think fit, pass a Statute specially directed against' it. We would therefore respectfully ask you to instruct your representative on the General Medical Council to support action on the part of that body towards petitioning the Privy Council to initiate the necessary legislation."

This request was acceded to.

UNIVERSITY OF ABERDEEN.

llowing candidates have passed examinations as under:
Professional Examination for the Degree of M.B., Ch.B.—E. E. Allaway, . Anderson, D. W. Bruce, A. L. E. Coleman, W. Y. Davidson, T. onaldson, N. A. Duncan, J. W. Littlejohn, W. T. Mackintosh, D. J. l'Kinnon, J. M. Mathieson, H. Middleton, S. Piarrona, W. R. tephen, A. Stewart, W. L. Stewart.
of First Professional Examination.—W. S. Argus, G. Davidson, J. eddes, H. Hargreaves, J. B. M'Allan, W. G. M'Donald, Elizabeth 'Hardy, Elizabeth M. M'Laggan, A. J. Shinnie, A. B. Traill, M. J. Villiamson, C. C. Wood.
ma in Public Health.—E. J. Bruce, M.B., Ch.B.Aberd., J. Mac-onald, M.B., C.M.Edin., G. Mitchell, M.B., Ch.B., Aberd., W. R. irie, M.B., Ch.B.Aberd., C. A. Survong, M.A., M.B., Ch.B., Aberd., . Watt, M.B., Ch.B.Aberd.
ersity Gold Medals in the Faculty of Medicine have been awarded ws: Fife Jamieson Memorial Medal in Anatomy and Lizar Medal omy, W. A. H. McKerrow; Keith Medal in Systematic and Clinical , William Low; Shepherd Medal in Systematic and Practical and Dr. James Anderson Medal and Prize in Clinical Medicine, Clark.

DICAL VACANCIES AND APPOINTMENTS.

VACANCIES.

of vacancies is compiled from our advertisement columns, where full lars will be found. To ensure notice in this column advertisements e received not later than the first post on Wednesday morning.

RD ROYAL INFIRMARY.—Dispensary Surgeon, resident. Salary, £100 per .
N, HOVE, AND SUSSEX THROAT AND EAR HOSPITAL.—(1) Honorary ting Surgeon. (2) Honorary Surgeon.
N: ROYAL ALEXANDRA HOSPITAL FOR SICK CHILDREN.—House-n. Salary, £80 per annum.
N: SUSSEX COUNTY HOSPITAL.—Pathologist. Salary about £300 per , and fees.
HOSPITAL FOR WOMEN, Fulham Road.—Clinical Assistant.
HOSPITAL FOR SICK CHILDREN, Southwark.—(1) House-Physician, se-Surgeon. Both resident. Salary, £80 per annum.
DON GENERAL DISPENSARY, 17, Bartlett's Buildings, E.C.—Honorary an.
: ROYAL HALIFAX INFIRMARY.—Third House-Surgeon, resident. Salary, annum.
L FOR SICK CHILDREN, Great Ormond Street, W.C.—Medical Registrar. rium, 50 guineas a year.
R INFIRMARY.—House-Physician, resident. Salary, £100 per annum.
OL: MILL ROAD INFIRMARY.—Assistant Medical Officer; resident. £120 per annum.
OL STANLEY HOSPITAL.—Second House-Surgeon: resident. Salary, £80 per
ET STREET HOSPITAL FOR CONSUMPTION, ETC., W.—Assistant an.
AND NORWICH HOSPITAL.—Assistant House-Surgeon. Appointment months. Honorarium, £20.
: NORFOLK AND NORWICH HOSPITAL.—House-Physician; resident. £80 per annum.
HAM GENERAL HOSPITAL.—Assistant House-Surgeon, resident. Salary, annum.
RADCLIFFE INFIRMARY.—Surgeon.
TON GREEN CHILDREN'S HOSPITAL, W.—(1) House-Physician; (2) urgeon. Both resident. Salaries at the rate of £50 per annum each.
NDON OPHTHALMIC HOSPITAL, City Road.—(1) Third House Surgeon; . Salary, £50 per annum. (2) Refraction Assistant. Salary, £25 per annum.
N FREE HOSPITAL FOR WOMEN, Marylebone Road, N.W.—Clinical nts.
S COUNTY BOROUGH.—Medical Officer of Health. Salary, £450 per rising to £525.
HOSPITAL SOCIETY, Greenwich.—(1) House-Physician, resident. Salary, annum. (2) Junior Resident Medical Officer. Salary £40 per annum.
PENSARY.—Resident Medical Officer. Salary, £120 per annum.
STER GENERAL DISPENSARY.—Resident Medical Officer. Salary, £120 um.

APPOINTMENTS.

es Wilson, M.B., C.M.Glasg., Physician to Aberdeen Dispensary, *vice* Wm. M.D., M.A., deceased.
. W., M.R.C.S., L.S.A., District Medical Officer of the Parish of Lambeth.
A. E., M.B., B.C.Cantab., Certifying Factory Surgeon for the Bruton District, Somerset.
nes M., M.D., M.Ch., D.P.H., Medical Officer of Health and Public Analyst County Borough of Burton-upon-Trent, *vice* Harold Coates, M.D., resigned.
., M.B., Ch.B.Aberd., District Medical Officer of the Skipton Union.
ames St.L., M.B., B.Ch., R.U.I., Resident Medical Superintendent of the loe District Lunatic Asylum.
G., L.R.C.P.Edin., M.R.C.S.Eng., Medical Officer of the Grove Park Work-the Greenwich Union.
lam, F.R.C.S., Surgeon in charge of the Nose, Ear, and Throat Department, ras and Great Northern Dispensary, W.C.
., M.A., M.B.Aberd., Visiting Surgeon to the Hull and Sculcoates Dispensary.
R., L.R.C.P. and S., District Medical Officer of the Towcester Union.
., M.D.Brux., M.R.C.S.Eng., D.P.H., Medical Officer of Health for the Borough l.
H. C. H. R., B.A., M.B., B.C.Cantab., Resident Medical Superintendent of the nent Sanitorium for Consumption, Cambridge, New Zealand.
., W. L., M.B., C.M.Edin., Certifying Factory Surgeon for the Brynmawr County Brecon.
G., M.R.C.S., L.R.C.P., D.P.H., Medical Officer of Health for the Overton istrict.
il, M.A., M.D.Oxon., M.R.C.P.Lond., Honorary Physician to the Poplar l, *vice* Lewis Smith, M.D.Lond., M.R.C.P.Lond., resigned.

DIARY FOR NEXT WEEK.

MONDAY.

Society of London, 11, Chandos Street, Cavendish Square, W. —Dr. W. J. Tyson: Some Points in the Prevention and Early Treatment of Dr. S. Sunderland and Mr. H. J. Curtis: A Case of Tuberculous Peri-, with unusual features.

TUESDAY.

Royal Medical and Chirurgical Society, 20, Hanover Square, W., 8.30 p.m.—Dr. Noel D. Bardswell and Mr. John E. Chapman: The Economic Value of the Sanatorium Treatment for the Working Classes, based upon after-histories.

THURSDAY.

Dermatological Society of Great Britain and Ireland, 20, Hanover Square, W., 4.30 p.m.

SATURDAY.

Sanitary Institute, Parkes Museum, Margaret Street, W., 11.30, a.m., Discussion on Food and Meat Inspection, to be opened by Colonel J. Lane Notter, R.A.M.C., and Mr. W. Hunting.

POST-GRADUATE COURSES AND LECTURES.

Medical Graduates' College and Polyclinic, 22, Chenies Street, W.C.—Demonstrations will be given at 4 p.m. as follows: Monday, Skin; Tuesday, Medical; Wednesday, Surgical; Thursday, Surgical; Friday, Ear. Lectures will be delivered at 5.15 p.m. as follows: Monday, Gall Stones and their Surgical Treatment; Tuesday, Personal Hygiene; Thursday, The Principles of Abdominal Diagnosis.

North-East London Post-Graduate College, Tottenham Hospital, N., Wednesday, 4.30 p.m.—Demonstration of Cases of Ophthalmic Interest.

BIRTHS, MARRIAGES, AND DEATHS.

The charge for inserting announcements of Births, Marriages, and Deaths is 3s. 6d., which sum should be forwarded in post-office orders or stamps with the notice not later than Wednesday morning, in order to ensure insertion in the current issue.

MARRIAGES.

ANDERSON—ENTWISLE.—On March 4th, at Wellington, New Zealand, Dr. John William Anderson, of Wanganui, only son of the late John William Anderson, of Christchurch, to Ada Ellen Woodall Entwisle, eldest daughter of the late William and Ellen Shuttleworth, of Pressbury Hall, and widow of George Ernest Entwisle, Solicitor, of Manchester.

ROBINSON—HENDERSON.—At St. Mary's Waterloo, Liverpool, on April 14th, by the Rev. S. J. Sykes, M.A., Vicar, assisted by the Rev. S. E. Symott, M.A., Vicar of St. Bridget's, Waverlree, Liverpool, George Burton Robinson, M.B., M.R.C.S., to Anne Savile, youngest daughter of the late William Gavin Henderson, Liverpool Union Bank, and of Mrs. Henderson, 15, Beach Lawn, Waterloo, Liverpool.

DEATHS.

CHAMBERS.—On April 13th, at his residence, The Lodge, Buckhurst Hill, Essex, and formerly of 249, Hackney Road, John Chambers, M.R.C.S., L.S.A., in his 90th year. Friends please accept this (the only) intimation.

HEPBURN.—On April 13th, at Coxhoe, co. Durham, William Alexander Hepburn, M.D., F.F.P.S.G., aged 56.

KENNEDY.—On April 15th, suddenly, at 113, Balaam Street, Plaistow, E., Angus Edmund Blydesteyn, the only son of Angus E. and Margaret Kennedy, aged 3 months.

MORICE.—At Greymouth, New Zealand, on February 20th, 1904, Charles Lloyd Morice, M.R.C.S., L.S.A., aged 70.

LETTERS, NOTES, AND ANSWERS TO CORRESPONDENTS.

COMMUNICATIONS respecting Editorial matters should be addressed to the Editor, 2, Agar Street, Strand, W.C., London; those concerning business matters, advertisements, non-delivery of the JOURNAL, etc., should be addressed to the Manager, at the Office, 429, Strand, W.C., London.

ORIGINAL ARTICLES and LETTERS *forwarded for publication are understood to be offered to the* BRITISH MEDICAL JOURNAL *alone, unless the contrary be stated.*

AUTHORS desiring reprints of their articles published in the BRITISH MEDICAL JOURNAL are requested to communicate with the Manager, 429, Strand, W.C., on receipt of proof.

CORRESPONDENTS who wish notice to be taken of their communications should authenticate them with their names—of course not necessarily for publication.

CORRESPONDENTS not answered are requested to look at the Notices to Correspondents of the following week.

MANUSCRIPTS FORWARDED TO THE OFFICE OF THIS JOURNAL CANNOT UNDER ANY CIRCUMSTANCES BE RETURNED.

IN order to avoid delay, it is particularly requested that ALL letters on the editorial business of the JOURNAL be addressed to the Editor at the Office of the JOURNAL, and not at his private house.

TELEGRAPHIC ADDRESS.—The telegraphic address of the EDITOR of the BRITISH MEDICAL JOURNAL is *Aitiology, London.* The telegraphic address of the MANAGER of the BRITISH MEDICAL JOURNAL is *Articulate, London.*

TELEPHONE (National):—
EDITOR, 2631, Gerrard.
GENERAL SECRETARY AND MANAGER, 2630, Gerrard.

☞ *Queries, answers, and communications relating to subjects to which special departments of the* BRITISH MEDICAL JOURNAL *are devoted will be found under their respective headings.*

QUERIES.

M. asks to be recommended a good preventive for midge bites.

PEM asks for advice in the treatment of a corn on the foot, which has been more or less suppurating for two or three months. The patient is a lady aged 50, otherwise in good health.

"LOCUM TENENS" WORK IN IRISH DISPENSARIES.

IRISHMAN, writing on the subject of Irish dispensing practice, (1) expresses the opinion that in most cases 3 guineas should be enough for a *locum tenens* if the latter gets the benefit of private practice, and asks the following questions; (2) if the doctor on sick or other leave gets the benefit of the private practice, why should he not himself pay the *locum tenens* something in addition; (3) who pays for the keep of the *locum tenens*? (4) is it right for the guardians to pay for a *locum tenens* for looking after private practice, as he "takes it that 5 guineas covers the whole work?"

*** (1) We suggest that "Irishman" should study the Report upon the whole question of Poor-Law practice in Ireland published as a SUPPLEMENT to the BRITISH MEDICAL JOURNAL of March 26th. (2) As there is little or no paying private practice in the majority of Irish Poor-law practices, no one "gets the benefit" of it, (3) The *locum tenens* pays for his own keep. (4) The guardians do not pay any one for private practice, which, as far as payment is concerned, is practically non-existent in most Poor-law districts.

ANAESTHESIA BY THE RECTUM?

T. H. MITCHELL, L.R.C.P. and S.Edin. (Ambleside) writes: Would chloroform vapour under low pressure produce general anaesthesia if administered by the bowel? If so, the manifold advantages of rectal anaesthesia in operations about the mouth, etc., are too palpable to require mentioning. Spasm of the glottis—a not uncommon cause of death—would be prevented, and the dangers of impeded respiration from faulty position could be avoided. In cases of gut perforation dilatation of bowel by chloroform vapour under low pressure seems desirable: (1) For its antiseptic effect; (2) its distinctive odour would readily lead to detection of hole; (3) its anaesthetic effect. It would be worth trying in cases of ankylostomum and other worms difficult to get rid of.

*** As far as we know chloroform has never been given by the rectum. It seems more than likely that the vapour would condense and cause very painful proctitis, as it is a very powerful irritant unless greatly diluted. Ether has, of course, been extensively used in this way, and reference to Dudley Buxton's *Anaesthetics*, p. 136, explains the methods and dangers. Ether would, no doubt, answer some of the purposes our correspondent requires, and would, we think, be less likely to produce local irritation.

WORKS ON ELECTRO-THERAPEUTICS.

C. L. asks to be referred to a small work on electricity containing special reference to the methods of its application and the conditions for which it is advised, which would be of use to a general practitioner with little or no knowledge of the subject.

*** C. L. might consult *Medical Electricity*, by H. Lewis Jones, M.D. Third edition (London: H. K. Lewis, 1900, 10s. 6d.); *Therapeutic Electricity*, by W. S. Hedley, M.D. Third edition (London: J. and A. Churchill, 1899, 8s. 6d.); or *Practical Medical Electricity*, by Dawson Turner, M.D. Third edition (London; Baillière, Tindall, and Cox, 1902, 7s. 6d.

AUTOMOBILES IN INDIA.

JUNIOR I.M.S., who is anxious to buy a two-seated petrol motor for use in India, asks for the following information respecting it: (1) Its minimum initial cost; (2) the expense of up-keep; (3) whether in Northern India with frequent transfers a car would be preferable to keeping a carriage and horse; (4) the names of firms.

*** As regards questions 1, 2, and 4, we would refer our correspondent to the detailed articles in which this question was treated as regards England in the BRITISH MEDICAL JOURNAL of January 16th and 23rd, 1904. As regards India we have no special information. The minimum initial cost of a car in England is £150; the cost of up-keep and of working expenses is somewhat greater than that of using a single horse and carriage in England. As regards 3, we should imagine that in many places in India difficulty would be experienced in getting repairs effected; that the expense of keeping the car would be relatively very much greater than that of a carriage and horse in India, and that, in view of the expense involved by transfers, a car would be an undesirable possession in India to any one who has to study ways and means.

ANSWERS.

SEVERAL correspondents who have omitted to verify their communications by their names are reminded that no notice can be taken of anonymous letters.

ENQUIRER is recommended to consult the *South African Medical Record*, copies of which can be seen in the library of the Association.

J. B. L.—M. Lucas-Championnière has described his method of treating fracture in his *Traitement des Fractures par le Massage et la Mobilisation* (Paris: Rueff et Cie, 1895, Fr. 18). A less thorough mode of application, as practised in this country, is discussed by Sir William Bennett in an address on *Use of Massage*, given at the annual meeting of the British Medical Association at Ipswich in 1900, published in the BRITISH MEDICAL JOURNAL of October 6th, 1900, p. 1005, and republished in book form by Longmans, Green, and Co, 1900, 4s. 6d., and also in two clinical lectures on *Use of Massage* (London: Longmans, Green, and Co, 1898).

MORNING HEADACHE.

P. M. writes: Devon's case would probably benefit by a restricted diet of 14 oz. of solid food a day, in one or at most two meals. The same treatment is suitable for the rheumatism.

FEES FOR EXAMINATION UNDER THE WORKMEN'S COMPENSATION ACT.

C. B. H.—These must vary according to the nature of the case. One of the largest insurance companies pays a fee of 5s. for examinations made at the medical examiner's residence and as the amount involved is often small and the report very short and concise, and as the same amount is paid for a renewal of the report if the injured person does not resume work within the time stated in the first report, this fee seems to be equitable if the medical examiner has to report upon all the cases of insured accident which occur in his neighbourhood. A fee of half-a-guinea for examination at the patient's house (which involves an appointment with the patient's medical attendant) may also be taken as adequate. But when a surgeon holds no appointment from the insurance company and is asked to examine an occasional case and when the case is a severe one and requires a careful examiuation and report, one guinea is a perfectly fair charge to make.

LETTERS, NOTES, Etc.

A LARGE DOSE OF CHLORAL.

DR. ALEXANDER BOSWELL (Ashbourne) writes: The following case seems worth recording: A woman, aged 45, suffering from sleeplessness and melancholia was ordered a sedative mixture containing potas. brom. gr. 160, chloral hyd. gr. 160, aq. ʒiv. One tablespoonful to be taken at bedtime, and repeated if necessary. After having been given one dose (containing 20 gr. of each) she got up in the night and drank the rest of the mixture—namely, 280 gr. of bromide and chloral in equal proportions. She slept heavily, but on the following day showed no ill-effects beyond a weak pulse and a clammy skin. It would be interesting to know whether so large a hope has been taken before with impunity.

LETTERS, COMMUNICATIONS, ETC., have been received from:

A D. Allison, M.B., Langley Moor; Dr. T. R. Atkinson, Chadwell Heath; Mr. H. Allen, Sheffield; Mr. R. W. Anderson, Sydenham, N. Z.; Messrs. Arnold and Sons, London. **B** Dr. A. Boswell Ashbourne; Messrs. Burroughs, Wellcome and Co., London; B.A., M.D.; Miss M. P. Bolton, London; Dr. J. Barr, Liverpool; Dr. J. G. Blackan Portsmouth; Mr. J. B. Blackett, London; Dr. L. A. Baine, Hull; Dr. A. W. Beaumont, London; Dr. T. E. Brown, C.I.E., London. **C** Mr. A. A. Cooper, London; A. Cox, M.B., Gateshead; Dr. W. H. Calvert, Melrose; Mrs. Colby, London; C. L.; Dr. V. Clarke, Leicester; Mr. A. Clarke, Tempo; Mr. A. Craske, London. **D** F. A. Davis, Manager of, Philadelphia; Dr. A. Duke, London; H. Distin, M.B., Enfield; M. J. Danysz, Paris; Dr. E. J. Day, Dorchester; Mr. P. C. Daniel, London. **E** Mr. H. Lor. Blake, Bognor; Dr. J. M. Elder, Montreal; Dr. W. A. Evans, Bradford. **F** P. Fiddian, M.B., Cardiff; Mr. S. B. Fenn, Southport; E. R. Fothergill, M.B., London; Dr. B. Fenwick, London. **G** Dr. J. H. Galton, London; Dr. C. Gibson, Harrogate. **H** Dr. J. Hinshelwood, Glasgow; Mr. C. P. Hooker, Cirencester; Mr. J. Houston, London; Dr. J. A. Harris, Chorley; Hoec Gemebaut Boni; Mr C. B. Hillyar, Wellington, Somerset; Dr. J. P. Henry, London; Dr. A. R. Henchley, Canterbury; O. E. Higgs, M.B., London; Mr. E. M. W. Hearn, London; Dr. G. A. Heron, London; Miss M. Hurley, Dublin. **J** H. W. Joynt, M.B., Cheltenham; Miss G. B. Jacobi, London; M. H. Jones-Roberts, Penygroes; Mr. T. Judge, Bangkok; Junior I.M.S.; Mr. H. Jones, Hereford; Just Qualified; Justitia; Mr. J. Jackson, London. **K** J. W. Kerr, M.B., Cape Coast Castle. **L** Dr. A. E. Larking, Folkestone; Mr. F. Lewis, Rugby; L.O.S.; L. T. Laffan, Cashel; Dr. G. A. Leon, Sidmouth; Laryngological Society, Secretary of, London; Liverpool Medical Institution, Secretary of, Liverpool; L. G. B. **M** Mr. H. Mitchell, Ambleside; Medico; M.A.A.; Member of B.M.A. for Fifteen Years; D. MacEwan, Dundee; Dr. E. L. McSheehy, Wimbledon; Dr. G. F. McCleary, London; W. Moody, M.B., Manchester; Dr. C. J. Morton, Walthamstow; Mr. P. Michell, London; Dr. J. J. Macan, Cheam; Dr. W. E. Meads, Bexhill-on-Sea; Mr. H. F. Mole, Clifton; Dr. J. Macintyre, Glasgow; Dr. J. E. Moorhouse, Stirling; Member; M.B.A.; Dr. B. McMaster, Rochdale; H. McLaren, M.B., Glasgow. **N** Dr. A. Newsholme, Brighton. **O** Mr. F. G. O'Donohoe, Castlerea. **P** Dr. J. E. Panton, Bolton; Mr. F. E. Pitts, Nutfield; Post-Graduate; Dr. W. L. Pethybridge, Plymouth; Dr. T. A. Palm, Wigan; Pem.; S. V. Pearson, M.B., London; Dr. G. N. Pitt, London; P. M.; P. Z. K.; Calvin A. E. H. Pinch, London. **Q** Querist; Q. Q. **R** Mr. J. Robertson, Edinburgh; D. Russell, M.B., London; Mr. T. McL. Reid, Edinburgh; Major R. Ross, Liverpool; Royal British Nurses' Association, Secretary of, London; Dr. J. M. Rhodes, Didsbury. **S** Messrs. D. Schulte and Co., London; Miss M. W. Stuart, London; Surgeon L.; Sweated; A. Shillitoe, M.B., London; Dr. W. Sykes, Paignton; Senex; Dr. S Sutherland, London; Dr. H. A. Smith, Bromley, Kent; Dr. D. W. Samways, Mentone; L. Smith, M.B., Bowdon. **T** T. R. A.; Toothache; Dr. L. T. Thorne, London; Mr. B. Turner, Great Grimsby. **U** Dr. A. R. Urquhart, Perth Dr. A. Urquhart, Sheppey-on-Thames; Mr. C. H. Upham, Lyttelton, N. Z. **V** Mr. T. J. Verrall, Brighton; V. Old Member. **W** A. E. Wilson, M.B., Boston, Lincs; Mr. J. T. Williams, Barrow-Furness; Messrs. Wills Limited, Manager of, London; W. Wood, M.B., Braemar; T. Whitelaw, Edinburgh; Mr. E. W. Wallis, London; Dr A. O. Ward, London; Dr. Woods, London.

BOOKS, ETC., RECEIVED.

Atlas zur vergleichenden Histologie der Wirbeltiere nebst erläuterndem Texte. Von N. Loewenthal. Berlin: S. Karger, and London: Williams and Norgate. 1904. £1 16s.

The Annual Charities Register and Digest. With introduction by C. S. Loch. Thirteenth edition. London: Longmans, Green and Co. 1904. 5s.

Materia Medica, Pharmacology, and Therapeutics. Inorganic Substances. By Charles D.F. Phillips, M.D., LL.D. Aberd. and Edin., F.R.S., and F.R.C.S. Edin. Third edition. London: Longmans, Green and Co. 1904. 21s.

The Closure of Laparotomy Wounds, as practised in Germany and Austria. Edited and translated by Walter H. Swafield, F.R.C.S. Edin., M.D. Edin. London: J. and A. Churchill. 1904. 2s. 6d.

The Clinical Causes of Cancer of the Breast and Its Prevention. By Cecil H. Leaf, M.A., M.B. Cantab., F.R.C.S. Eng. Westminster: A. Constable and Co., Limited. 1904. 2s.

Lehrbuch der Experimentalphysik in elementarer Darstellung. Von Dr. Arnold Berliner. Jena: Gustav Fischer. 1903. M.14.

Man and Woman. By Havelock Ellis. Fourth edition. London: Walter Scott Publishing Co. 1904.

Mitteilungen aus der Augenklinik des Carolinischen Medico-Chirurgischen Instituts zu Stockholm. Herausgegeben von Dr. J. Widmark. Fünftes Heft. Jena: Gustav Fischer. 1904. M.3 60.

Sayings, Proverbs, and Humour of Ulster. By Professor Byers. M.A., M.D. Belfast: Wm. Strain and Sons. 1904.

Victoria University of Manchester. Report upon Alleged Effluvium Nuisance attributed to the use of Yeast in a Tannery, and upon an Outbreak of Diphtheria. By Sheridan Delépine, M.B., B.Sc. London and Manchester: Sherratt and Hughes. 1904. 1s. 6d.

Recent Improvements in Methods for the Bacterial Treatment of Sewage. By W. J. Dibdin, F.I.C., F.C.S., etc. London: Sanitary Publishing Co. 1904.

Victoria University of Manchester. Rôle of "Missed" Cases in the Spread of Infectious Diseases. By Arthur Newsholme, M.D., F.R.C.P. London and Manchester: Sherratt and Hughes. 1904. 1s. 6d.

La Maladie du Sommeil. Rapport présenté au Ministère de la Marine et des Colonies par la Mission envoyée en Afrique Occidentale Portugaise. Commandée par Annibal Bettencourt, Ayres Kopke, Gomes de Rezende and Corrêa Mendes. Lisbon: Imprimerie de Libanio de Silva.

Radium and all about it. By S. Botto. London: Whittaker and Co. 1904. 1

Nineteenth Annual Report of the National Association for Supplying Female Aid to the Women of India for 1903. Calcutta: Office of Superintendent of Government Printing. 1904. R.1.

St. Thomas's Hospital Reports. New Series. Edited by Dr. H. P. Hawkins and Dr. W. H. Battle. Vol. XXXI. London: J. and A. Churchill. 1904. 8s. 6d.

The Dental Annual and Directory, 1904. London: Bailliere, Tindall, and Cox. 7s. 6d.

New Letters of Thomas Carlyle. Edited and annotated by Alexander Carlyle. Vols I and II. London and New York: The Bodley Head. 1904.

The Therapeutics of Mineral Springs and Climates. By I. Burney Yeo, M.D., F.R.C.P. London: Cassell and Co. 1904. 12s. 6d.

The Citizens' National Union. Being an old age pension scheme, revised and brought into line with the fiscal question of to-day. By John Tullis. Paisley: Alexander Gardner; and London: Simpkin, Marshall, Hamilton, Kent and Co., Limited. 1904. 6d.

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An Address

ON

AUMA IN RELATION TO DISEASE OF THE NERVOUS SYSTEM.

residential Address to the Manchester Medical Society.

UDSON S. BURY, M.D.LOND., B.SC.VICT., F.R.C.P.,
ysician, Manchester Royal Infirmary; Lecturer on Neurology, Victoria University,

not an uncommon thing for patients who suffer from toms indicating serious disease of the nervous system tribute the onset of their illness to some antecedent nal injury. Thus patients who suffer from fits, from l incapacity, or from some form of paralysis may state these symptoms followed an injury to the head, to the or to one of the limbs. They assure the doctor that were quite well before the accident, and that the fits, the l incapacity, or the paralysis began some days, weeks, nths after the accident. Unless the injury has been , and unless a very direct connexion can be traced en the accident and the symptoms of the nervous dis- the doctor in his superior wisdom is apt to make light, st in his own mind, of the traumatic influence, and s to regard the apparent close relation between the two —namely, external violence and nervous disease—as a dence. For, as a rule, he finds it impossible to trace thological sequence. His scientific training has taught beware of the dangerous doctrine *post hoc ergo propter* nd for surer footing he falls back on the well-worn rock nherited predisposition to disease of the nervous system, the modern favourite hypothesis that unknown bes have entered the body, where they have manu- ed toxins which have exerted a deleterious influence on n parts of the nervous system, the selection of the part ed varying partly with the nature of the toxin and with inherited weakness of structure. Such hypo- appear to him the most likely explanation of the pment of lesions which underlie well-marked types of and cord disease.

nany cases the views of our imaginary doctor are doubt- rrect, either in whole or in part. Nevertheless, there asons for believing that trauma, apart from frac- r disease of bone, may initiate changes in nerve tissue progress and lead to symptoms of permanent serious e. At any rate, with our present ignorance regarding ology of disease, it behoves us to keep our minds open epared to admit the possible influence of any important dent to the onset of symptoms indicating bodily e.

n these considerations in mind, it occurred to me that uld be profitable to consider to what extent trauma be regarded as an exciting cause of serious nervous dis- At the outset it is desirable to indicate the limitations inquiry, and for this no single heading is quite appro- Thus the word trauma implies any external violence ing bodily injury. Now for my present purpose a mplying a narrower range of inquiry is needed. Con- n in the sense of a violent shock or shaking is more to rpose, but I wish also to speak of the effects of injuries peripheral nerves. My purpose, in fact, is to consider some of the effects of concussion of the brain and cord apart from the results of injury or disease of their nvelopes as well as some of the results of injury to the eral nerves.

CONCUSSION OF THE BRAIN.

urgical works this heading is used for a definite clinical ion which is characterized by a more or less complete sion of the functions of the brain. I propose to use it nse which is wider and in accordance with its original ng—namely, a violent shaking or agitation—and to er some of the results that may follow a shaking or sion of the intracranial contents as produced by a r a fall on the head.

anatomical effects of such concussion are manifold; nay be slight and temporary, as when limited to a n displacement of the cerebro-spinal fluid with ensuing ncomitant changes in the quantity of blood in the al vessels, or they may be severe and more or less nent and demonstrable at necropsies. Such conspicuous ogical results may be classified as follows:

- Haemorrhage
  - Meningeal
    - Subcranial.
    - Subdural.
  - Cerebral from rupture of a vessel.
- Inflammatory changes
  - (*a*)
    - Subcranial abscess.
    - Abscess in the brain.
  - (*b*) Pachymeningitis.
  - (*c*) Meningitis
    - Acute.
    - Chronic.
- Laceration of brain—associated with ecchymoses or extravasations of blood into the cerebral substance.
- New growths—started by molecular changes arising in connexion with some of the above lesions or independently of them.

The symptoms and results of these various lesions are to be found in the textbooks, and it would be out of place to attempt their systematic description to-night. My object is rather to bring before you types of cases which have impressed me as of great practical importance, and especially those which illustrate some of the later effects of head injuries.

Let me begin by trying to draw a clinical outline of the sequences of cerebral concussion. A man receives a blow on the head which, without seriously damaging the skull, is severe enough to give a violent shake to the intracranial contents. He may or may not lose consciousness, and in either case he may make a complete recovery, or become the subject of symptoms which are either temporary or permanent. The individual symptoms are numerous: they comprise headache, vertigo, convulsions, mental disorders, paralysis, anaesthesia, and, indeed, almost any symptom that may result from disease of the brain occurring independently of trauma. They may, however, be arranged into definite groups constituting clinical conditions which for the most part are well recognized. Of these I would especially refer:

1. To the early group of symptoms which indicate the presence of meningeal haemorrhage.
2. To symptoms, which although they may develop soon after the accident, are not usually conspicuous until some weeks later. Under this heading we have:
   - (*a*) Varieties of so-called neurasthenia.
   - (*b*) Some forms of insanity.
   - (*c*) Symptoms of brain tumour.
3. To symptoms associated with the condition known as "late apoplexy."

Meningeal Haemorrhage.

Of the immediate effects of head concussion none is more serious than meningeal haemorrhage.[1] In typical cases the diagnosis is easy, but we must remember how variable the clinical course may be, and how easily the condition may be overlooked—a mistake which is responsible for many deaths as well as for many cases of permanent physical and mental incapacity.

The haemorrhage may occur either between the dura mater and the bone or between the dura mater and the cerebral cortex. The former is called subcranial, the latter subdural, haemorrhage. In a typical case of subcranial haemorrhage three clinical stages may be distinguished: An initial stage in which there is partial or complete loss of consciousness as an immediate result of the blow to the head. Then consciousness is regained, and the patient passes into the second stage, known as the "lucid interval," which lasts from a few hours to a couple of days. During this period the patient may feel and appear to be pretty well, and sometimes he is able to resume his work. Sooner or later, however, according to the quantity of blood which is separating the dura mater from the bone, consciousness is again lost, and stupor deepens into fatal coma. During this third stage spasms, accompanied or followed by paralysis, may be observed on the side of the body opposite to that of the blood clot.

The subdural is distinguished from the subcranial variety of haemorrhage by the absence of a lucid interval and by the more rapid onset and development of compression symptoms, which, too, are more general in distribution. To these rules there are, however, many exceptions, and I will now describe a case of subdural haemorrhage in which not only was there a comparatively lucid interval, but one also of considerable length.

CASE I.

A man aged 30 fell off a lorry, probably on to his back. He was stunned but quickly recovered, carried a hamper for about half a mile, and then walked back to his place of business another half-mile. He told his employers that he had had a fall and sprained his wrist, but he made light of the accident. The same night he felt giddy, and is said to have lost consciousness for a time. During the next day he felt pretty well, but in the evening he had two fits in which the right hand worked. During the following week he felt well, and eight days after

the accident he had a chat with his manager, who did not notice anything wrong with him.

Four days later, that is, twelve days after the accident, I saw him in consultation with Dr. Hopps. The patient was lying in bed in a state of stupor, and could be roused with difficulty to answer questions. Twitchings of the right thumb and first finger were observed; there was no paralysis. The knee-jerks were exaggerated. The pupils were small, but reacted to light. The tongue was large and thickly coated. The urine contained a considerable quantity of albumen but no casts: there were signs of hypertrophy of the left ventricle. Dr. Hopps informed me that the man had followed his work regularly for the last seven years without any illness, and had never suffered from headache, vomiting, or dropsy. It is interesting to note that he suffered from violent headache for the first time on the seventh day after the accident.

I was unable to form a positive diagnosis. The condition of the heart and urine pointed to chronic nephritis, and suggested that the nervous symptoms might be expressions of a uraemic condition. On the other hand, the history of good health prior to the accident was a strong point in favour of the view that the stupor and twitching were the results of an intracranial lesion produced by the fall.

In order to be ready for a possible operation we decided to send him to the infirmary, where he came under my care. At this time, just a fortnight after the accident, he could not be roused to answer questions. No injury to the skull could be detected. There was ptosis greater on the left than the right side, and the left pupil was smaller than the right one. When supported he could walk a little; the left limbs were weaker than the right limbs. The knee-jerks were exaggerated. A week later he was less drowsy, could answer questions, and said he remembered falling off the lorry. Two days later—that is, three and a-half weeks after the accident—he lapsed again into stupor and had a convulsive attack on the right side. I then asked Mr. Thorburn to see him. After a careful examination Mr. Thorburn decided that Bright's disease might be a sufficient explanation of the man's condition, and that he did not feel justified in opening the skull.

The patient died a few days later, and at the necropsy a large partially-organized haematoma was found under the dura mater on the left side; it covered the whole motor area, and extended backwards over part of the parietal and forwards over part of the frontal lobe. The kidneys were small and granular, and the heart was hypertrophied.

In this case the presence of Bright's disease made it difficult to decide whether there was an intracranial lesion or not. Moreover, even if the existence of meningeal haemorrhage had been certainly known it was not easy to locate it, for while clonic spasms were observed on the right side paresis affected the left side of the body. It is noteworthy that although a varying degree of stupor was present during the first three works, actual coma did not come on till three or four days before death. Other cases might be mentioned in which the onset of compression symptoms was still longer delayed. A remarkable case in this respect was recently operated on by Mr. Collier.

Case II.

A man, aged 46, was crossing the street when he slipped and fell on the back of his head. He went home by tram, then fainted, and went to bed for three days. On getting up he felt so weak and dazed that he returned to bed, where he remained for six weeks. During this time he suffered from severe headache. About ten months after the accident he was admitted under Dr. Steell at the infirmary. He was then suffering from paresis of the left arm and leg. After three weeks at the infirmary and another three weeks at the Cheadle Convalescent Hospital he returned home, where he had an attack of unconsciousness lasting two days. He remained in a weak state of health suffering much from headache, till he came under Mr. Collier's care about sixteen months after the accident. At this time he had persistent headache, and fell at times into partial stupor. His memory was bad, and his speech was often indistinct and aphasic; constant twitchings of the flexors of the left wrist and fingers were observed, and the left arm was partially paralysed. About a fortnight later Mr. Collier opened the skull on the right side and removed from beneath the dura mater a membranous looking clot of yellowish colour. The man died the next day from collapse.

The cases just related show what a long time subdural haemorrhage may exist without giving rise to decided signs of compression, its presence being associated with symptoms which indicate disturbance rather than abolition of the functions of the cortex. We may now ask, Are these cerebral symptoms due to the surface haemorrhage or to associated cortical lesions, both being immediate results of the trauma? We know that haemorrhage over the surface of an infant's brain produced by obstruction to the circulation during a difficult labour will hinder the development of the brain, and lead to atrophy and sclerosis of the cortex, lesions which are expressed clinically, by spastic limbs, convulsive attacks, and a varying degree of dementia. At least this is the usually-accepted pathology, for it is only fair to state that recently evidence has been brought forward to throw doubts on such a pathological sequence, and in support of the view that the cortical degeneration is primary, being possibly started by some toxin, and not due to the pressure effects of haemorrhage. Certainly in the adult it is probable that a bl the head severe enough to produce meningeal bleedin also cause laceration, with extravasation of blood into c tissue, and that many symptoms, such as headache, v mental disability, are due to a bruised brain, rather tha clot on its surface, the latter lesion being responsib pronounced stupor or coma. Nor can there be any dou the former group of symptoms is frequently associated a bruised cortex in the absence of meningeal haemor To this group of symptoms the term "neurasthenia" is loosely applied, and on this subject I would now make remarks.

Traumatic Neurasthenia.

The symptoms of typical neurasthenia, whether the of trauma, of prolonged mental strain, or of other cause well known, and constitute a clinical condition which rule is readily diagnosed. In all probability the cond depends on molecular changes in certain groups of co cells, changes which are closely allied to those which been shown to follow great fatigue or prolonged experim stimulation.

The subject of traumatic neuroses is a large one; it been admirably studied by Page, Oppenheim, my colleg Mr. Thorburn, and many others, and to-night I will allude to a small portion of the subject. I will omit a r ference to the diagnosis of malingering, to traumatic hys and to the transient forms of neurasthenia which, even from bodily injury, are met with after railway acciden results partly of the terror or horror incident to the strophe, and partly of the mental anxiety associated litigation. This, together with repeated medical exam tions and suggestions from friends and lawyers, leads patient to conscious or unconscious exaggeration of his ptoms, and frequently to the simulation of serious dise

Of such temporary cases I am tempted to give one exa because it affords an amusing illustration of the mixtu neurasthenia, hysteria, and simulation met with in cases that go to trial.

Case III.

A young married man, after a blow on the back from the sudden cl of a railway carriage door, suffered from weakness of the legs, left h anaesthesia, and general debility of both mind and body. One symp on which he laid particular stress was complete impotence. Afte trial, at which each side was well represented by the medical profes he received satisfactory compensation for his ailments, and regained his health. About a year later I met his doctor, who said, 'y will be interested to hear that the wife of our patient who complain impotence was safely delivered of well-developed twins exactly months from the time when his symptoms were most pronounced."

Passing now to more permanent forms of neurasthen is, I think, open to question whether they have yet rece adequate recognition. I allude to cases which, whether result of railway or other accidents involving compensa for damages received do not recover after the cessatio legal irritation, and after claims for loss of work and he have been duly met.

Two groups may be distinguished. The one group co prises cases which clinically closely resemble those of traumatic neurasthenia. As a rule, there is inherited pre position to neurosis—that is, the intimate structure of cortical centres is easily deranged, and molecular cha started by head injuries tend to pathological increase, w the chemical products of cell disintegration may set sclerosis of the surrounding tissue.

I have said that clinically these cases resemble thos ordinary neurasthenia. No doubt this is so at first; but time goes on the tendency to exaggeration of individ symptoms gives way to mental dullness and to other s of cortical deterioration. The other group comprises c where from the first there are signs of cortical lesions, th occurring either beneath the injured spot or on the sid the brain opposite to the injury as a result of *contrec* The lesions are various, including minute lacerations, pun form haemorrhages, and other changes which collectiv constitute contusion of brain tissue. In severe cases th lesions, as already stated, may be associated with mening haemorrhage. Now, the symptoms of a bruised brain closely resemble those of the later stages of the first grou cases which are dependent on molecular changes and sli degrees of cortical sclerosis, hence a certain diagnosis of pathological condition can only be attempted soon after accident, when notable differences may be observed betwe the symptoms of a bruised brain and those of ordin neurasthenia.

Instead of an uncontrollable tendency to discuss their sy

ms in detail, sufferers from a bruised brain are dull and thetic; mental action, instead of being acute and introctive, is carried on with difficulty, as if a thick mist veloped the faculties. Insomnia, a prominent feature in matic neurasthenia, is less common in cases of bruised in, in which, on the contrary, there is a tendency to wsiness and stupor.

he neurasthenic complains of pains in the back, which en radiate to the head and to other parts of the body. In lition to pain there is pronounced hyperaesthesia; the ne and adjacent parts become exceedingly sensitive not y to deep pressure but also to a light touch, and the eraesthesia may extend to the special senses. Dyssia, palpitation, and other visceral disorders are also mon.

he above symptoms are absent or inconspicuous in cases ruised brain. The neurasthenic is able to commence k, either physical or mental, and to do it accurately for a rt time, but he soon tires; he lacks concentration, finds memory unreliable, and exhibits indecision in all his ons. He is constantly restless, while anxiety about his dition fills his thoughts, and thus constitutes another drance to reliable work.

he patient who has a bruised brain is quite unfit to w any employment; he is too apathetic as a rule to ibit anxiety or to worry, and when his cortical lesion is re and extensive apathy is often associated with profound of memory and other signs of considerable mental rioration. In both groups a marked intolerance to holic drinks is frequently observed.

w the distinctions above mentioned, although practical , are not always prominent, and tend to fade as time goes Nor need we be surprised if unable to make a diagnosis een molecular changes in the cortex and bruising of its e, for both morbid processes may disorder the same ons, when the symptoms of the changes will be similar entical.

t in whatever way we look at the matter, one thing ds out clearly, namely, the permanent physical and al incapacity that so often follows concussion of the , and even when the injury to the head appeared to be a t one. I would lay particular stress on the minor degrees ental disturbance[2] which are apt to be ignored, and yet usly interfere with the patient's wage-earning capacity.

Insanity.

th regard to actual insanity after injuries to the head, is abundant evidence that it does occur, and sometimes rently without any evidence of hereditary predisposition. ay develop out of the prolonged depression and irrity so often associated with bruising of the brain, and ially if there is a predisposition to insanity, either ited or acquired, in consequence of the cerebral changes result from syphilis or from prolonged indulgence in ol. As to forms of insanity which ensue in cases of ssed fracture and of surface haemorrhage, these are less becoming rarer owing to the activity and skill of rgeons.

metimes a mental condition develops after concussion presents a close resemblance to that of general ysis, but as a rule dementia is less marked, while the phenomenon and other paralytic symptoms are usually t. One such case I saw some years ago.

Cerebral Tumour.

t tumours of the brain may owe their origin to nutritive es produced by concussion is now generally admitted. e *Medical Chronicle* for 1893 I have recorded a case in symptoms of a brain tumour developed a few weeks a blow on the head from the fall of a scaffold pole. The t died a year after the accident, and at the necropsy a lar sarcoma was found in the upper part of the right l lobe and immediately beneath the part injured.

Late Apoplexy.

last sequel of head injuries to which I will refer is that as late apoplexy. Some weeks after a blow on the he patient becomes suddenly unconscious and dies in e of coma, or he regains consciousness when it is that he has hemiplegia. Cerebral haemorrhage from e of an artery is found at the necropsy. The character apoplectic attack and the morbid anatomy do not t any obvious differences from those of cerebral rrhage occurring independently of trauma. Nevertheless, evidence is forthcoming in some cases that the accident was responsible for the arterial disease. Thus the patient was under 40, and had no signs of heart disease or of arterial degeneration, while the influence of syphilis, of alcoholism, and of nephritis could be excluded. Moreover, symptoms of vascular disease developed soon after the accident, and the apoplectic attack occurred within a few weeks. A voluminous literature, especially in Germany, has gathered round these so-called late apoplexies, the pathology of which has excited much discussion. Bollinger, who was the first to use the term "traumatic late apoplexy," states that a necrotic softening is set up in the injured portion of brain, and that this is combined with changes in the walls of the vessels, which, together with alterations in the relations of resistance and pressure lead to haemorrhage.

The possibility of arterial disease being set up by concussion is a valuable suggestion, but as to the correctness of the pathological views just related I am unable to offer an opinion.

Concussion of the Spinal Cord.

Using the term concussion in the sense already explained, we omit from consideration all cases of injury to the cord from direct wounds or from fractures and dislocations of the vertebral column, and our inquiry is limited to cases which seem to result from a violent shaking of the elements of the cord. Such concussion may follow a blow to the back, or a fall on the back, the head, the feet, or the buttocks.

Indications of cord disease may come on immediately after the concussion or be delayed for a few days or weeks. In the former case the lesion is usually a severe one. Occasionally the cord is lacerated when the vertebrae are uninjured. Sometimes haemorrhage occurs either outside or inside the dura mater, or into the substance of the cord itself. A case remarkable as regards the probable origin of the haemorrhage is now in my wards at the Royal Infirmary.

Case iv.

The patient is a coachman, aged 42, who four years ago was thrown from a carriage and sustained a fracture of the base of the skull which kept him in hospital for fourteen months. After the accident he was unconscious for nearly a month. On regaining consciousness he was unable to move his arms and legs; the paralysis remained absolute for three months, then power began to return and has gradually improved ever since. At the present time he can walk slowly in a stiff fashion, the legs being rigid and their movements weaker than normal. The knee-jerks are exaggerated, and both ankle-clonus and Babinski's reflex are well marked. The left arm is weak, the right is subject to coarse tremor on voluntary movement. The wrist-jerks and elbow-jerks are much increased.

This condition of spastic paresis indicates a slight affection of the pyramidal tracts, in all probability due to a compression myelitis in the cervical region set up by haemorrhagic effusions, which drained down to the top of the cord from the destructive lesion at the base of the skull.

Another cause of severe damage to the cord is a blow in the vicinity of the vertebral column. Cases of gunshot wounds were long ago described by Weir Mitchell, in which immediate and complete paraplegia followed the impact of a bullet near the spine, the cord being softened at the spot while the bones were uninjured. A case of this kind was recently under my care.

Case v.

A man was kicked by a horse between the left scapula and the spine. During the next two days he suffered from severe pain, associated with numbness in the legs. On the third day his legs were paralysed. When seen a fortnight later the paraplegia was absolute and was accompanied by other symptoms indicating destruction of the functions of the cord at the level of the fourth dorsal segment. The patient died at home a few months later. No necropsy was obtained.

In connexion with the immediate effects of concussion it is of the greatest interest to note that a few cases of complete paralysis have been recorded in which no lesion of the cord was found either with the naked eye or the microscope a few days after the injury. The assumption is that the molecular nutrition of the nerve elements was abolished. Now whether minute changes were overlooked or not, these fatal cases without obvious lesions afford a valuable suggestion in regard to the development of symptoms of cord disease a long time after an accident. With such cases in mind, it would not, indeed, be foolish to suggest that more diseases of the cord owe their origin to a long-forgotten trauma than has hitherto been admitted. But without dwelling on this speculation, and without attempting to give complete pathological explanations, one may admit that such evidence as we have bearing on the development of cord disease some months after concussion is worth considering and is often convincing.

Before referring to these later effects of trauma, mention may be made of an intermediate group of cases in which initial symptoms are absent or slight and grave symptoms come on a few days or weeks after the injury, having the character and course of a subacute myelitis.

Thus Lohrisch[3] reports the case of a man, aged 58, who, after a fall on his back, suffered for a fortnight from violent pains on attempting to move his legs. During the next fortnight the pains were less severe, but on the twenty-ninth day after the accident there quickly developed a complete motor and sensory paralysis of both legs together with paralysis of the bladder. At the necropsy a softened focus was found in the dorsal region.

Gowers,[4] too, mentions the case of a lady who was severely shaken in a railway collision. Immediately after the accident she seemed to have suffered no injury, but in a few days paraplegia developed, and from its consequences she died six weeks after the accident. Throughout the dorsal portion of the cord indications of a subacute myelitis were fouud, chiefly in the white columns.

These cases bridge over the interval between the early severe changes, whether molecular or coarse, and later changes, more or less degenerative in character, which underlie the symptoms of locomotor ataxia, disseminated sclerosis, chronic myelitis, and other slowly progressive diseases of the cord. The symptoms of these disorders may not appear until several months after an accident, and their dependence on morbid changes produced by concussion can only be inferred after the exclusion of other causes.

On going over cases of spinal disease which have been under my care during the last fifteen years, the collection of hospital cases having been kindly summarized by a former house physician, Dr. Charles O'Neill, I find that a relation to trauma can be traced more frequently in disseminated sclerosis than in locomotor ataxia. The following are two examples:

CASE VI.

A woman, aged 30, previously healthy, fell through a trap door into a cellar, a distance of 5 ft., and dropped on to a stone slab in a sitting posture. A few days later she complained of numbness on the left side of her face and back. In about five months she began to have a difficulty in walking; this increased, and spastic paraplegia slowly developed. This was followed by nystagmus and weakness of the arms. When seen at a later period the symptoms were unmistakably those of disseminated sclerosis.

CASE VII.

A men, aged 27, fell over a banister on to his back. He was unconscious for four days. After a week he went to work, but could not stand properly. The weakness in the legs increased, and when examined two years after the accident he had well-marked signs of disseminated sclerosis.

Much has been written on the subject of traumatic tabes and in a few cases it seems probable that concussion has started the changes in the posterior root fibres. A patient of my own stated that his ailment dated from a fall three months before he came to see me. He slipped down some thirty stone steps, jogging the lower part of his back on each step. He walked home and went to bed. Two days later he began to stagger, and had pains in the soles of his feet. On examination the patient showed a moderate degree of ataxia. The knee-jerks were absent. The pupils were unequal, and did not react to light. Micturition was delayed.

Lichte,[5] who has written a thesis on traumatic tabes, gives a full account of a case in which a severe sprain of the left arm was followed in a few months bv signs of tabes. Syphilis and other possible causes could be excluded.

These cases, however, are exceptional, and a study of the literature, as well as one's own experience, leads to the conclusion that although concussion may initiate the development of characteristic signs of tabes it rarely acts as the sole cause of this disease. Frequently it will be found on careful inquiry that the tabetic patient was not quite free from symptoms before the accident, No doubt trauma often co-operates with other causes, especially syphilis, and tends to light up disease which was pre-existent, or for which the ground was duly prepared.

INJURY TO THE PERIPHERY OF THE BODY.

Passing now to the periphery I will consider only the question whether disease of the spinal cord may result from injury to the peripheral nerves. A good starting point, because the condition is well known, is arthritic muscular atrophy. Articular inflammation, whether produced by injury or disease, is almost invariably followed by rapid wasting of the muscles that move the joint, the extensor muscles being predominantly affected. Thus, if the shoulder is injured the deltoid chiefly wastes; if the elbow the triceps; if the hip the glutei; if the knee the quadriceps. The atrophy comes on quickly so that in case, for example, of injury to the knee a difference of an inch between the girth of the thigs might be noticed at the end of a week or ten days. As to e explanation of this condition, the evidence both experimenl and pathological gives support to the reflex theory held y Paget, Vulpian, and Charcot, which is that the muscu r atrophy depends on a damaged nutrition of the motor cells of the cord, this derangement being the effect of morbid i- pulses from the irritated nerves of the injured joint. he correctness of this view is practically proved by the experiments of Raymond, who found that a previous division of ie posterior spinal roots prevented the wasting of the muscles

Further light has been thrown on the subject by the investigations of a former Manchester student, Dr. Warrington, who has shown that actual changes in the motor cells may be detected after lesions of the posterior roots.

There can indeed be no doubt that healthy sensory impulses are essential for the proper nutrition of motor neurons, and that morbid sensory impulses will lead to detectable disease. Do the morbid changes pass away when the cause—say articular inflammation—is removed, or do they ever progress and lead to atrophy and destruction of the motor cells? In other words, may progressive muscular atrophy result from peripheral irritation? The answer is that occasionally the muscular atrophy resulting from arthritis becomes permanent, and that many cases of progressive muscular atrophy appear to originate from a severe sprain or other injury to a limb. I have notes of several instances of this relation. A few years ago I showed a patient at a meeting of this Society in which the sequence was striking.

CASE VIII.

The patient, a powerfully built policeman, aged 36 years, was admitted in the infirmary with characteristic signs of progressive muscular atrophy, the muscles of the right arm being principally affected. He attributed the onset of his ailment to a violent struggle with a maniacal person in which he strained the upper part of the right arm. About a month later he noticed that the arm was getting weak and thin. The weakness and wasting increased and were marked when he came under my care twenty months after the injury.

The boundary line between cases of arthritic muscular atrophy and chronic anterior poliomyelitis is not always easy to define, and the differential diagnosis may present great difficulties.

In conclusion, I would draw attention to the need for further study of the after-effects of trauma, and especially as regards their prognosis. Traumatic neurasthenia and hysteria have received ample consideration, but there is room, I think, for a fuller recognition of the prolonged and sometimes permanent incapacity for work that may result from concussion of the head or the body.

Adequate recognition of the possibility of disease leads to increased care in preventive treatment, and to mention only one thing, I believe that the simple prescription of a long rest in bed after injury than is usually obtained in hospital practice would do much to reduce the number of sufferers from chronic diseases of the nervous system.

REFERENCES.

1 Page, Concussion of the Brain, *Brain*, 1902. 2 Crisp English, *Hunterian Lectures*, 1904. 3 Lohrisch, *Zur path. Anatomie der posttraumatischen Erkrankungen des Rückenmarks*. 4 Gowers, *Diseases of the Nervous System*, vol. i. 5 Lichte, *Traumatische Tabes*, 1903.

THE EXAMINATION OF THE TISSUES OF THE CASE OF SLEEPING SICKNESS IN A EUROPEAN.

[WITH SPECIAL PLATE.]

BY

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In October, 1902, Sir Patrick Manson was consulted by the wife of a missionary from the Congo suffering from chronic pyrexia and enlargement of the spleen. After an examination he came to the conclusion that the disease was probably trypanosomiasis, and sent the patient to the wards of the London School of Tropical Medicine, where Dr. Daniels confirmed the diagnosis by finding trypanosomes in the blood. A full account of the case was published in the BRITISH MEDICAL JOURNAL of May 30th, 1903, by Manson and Daniels, and the termination and results were described later by Manson in the same journal, December 5th, 1903.

The symptoms that were present when the patient w

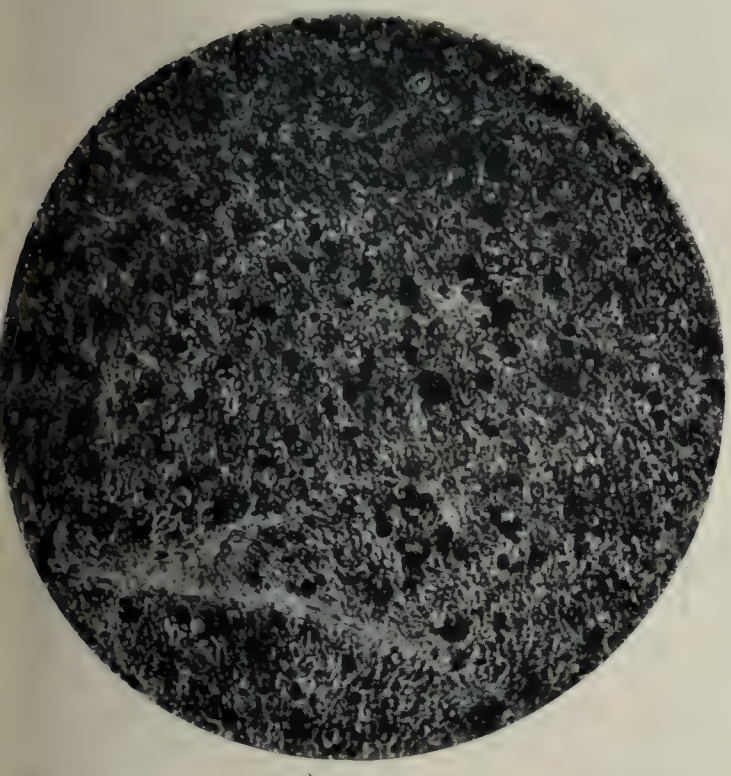

Fig 5.—Degenerated fibres of spinal cord by Marchi's method. Magnification 200 diameters.

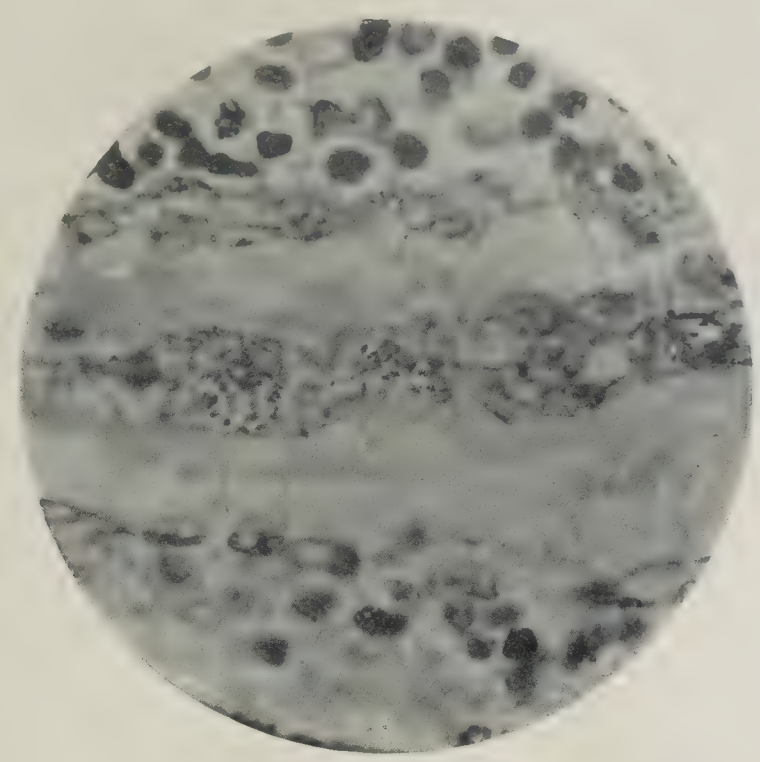

Fig. 6.—Diplococci in a lymph channel of lymphatic gland. Magnification 800 diameters.

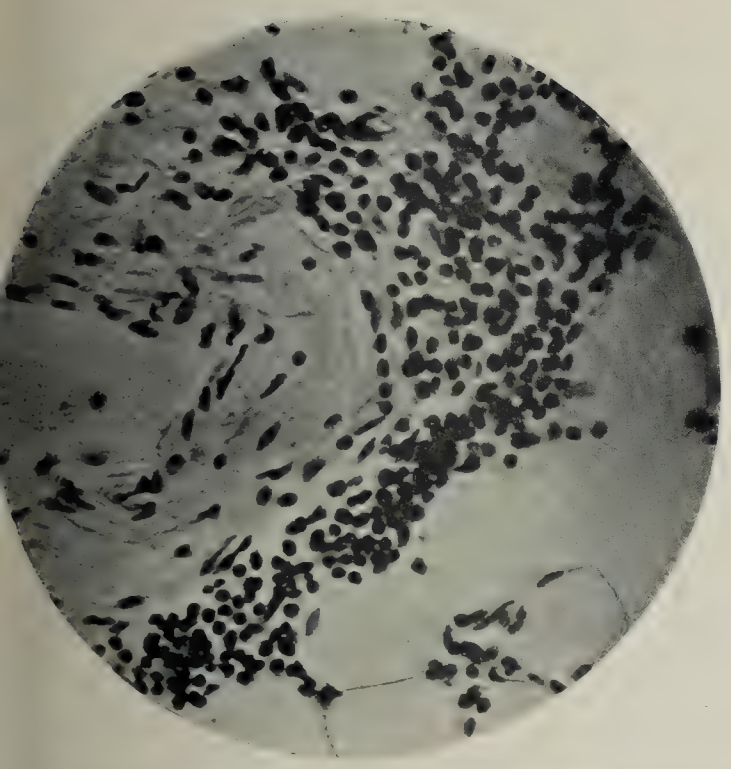

Fig. 7.—Perivascular mononuclear infiltration—epicardium Magnification 400 diameters.

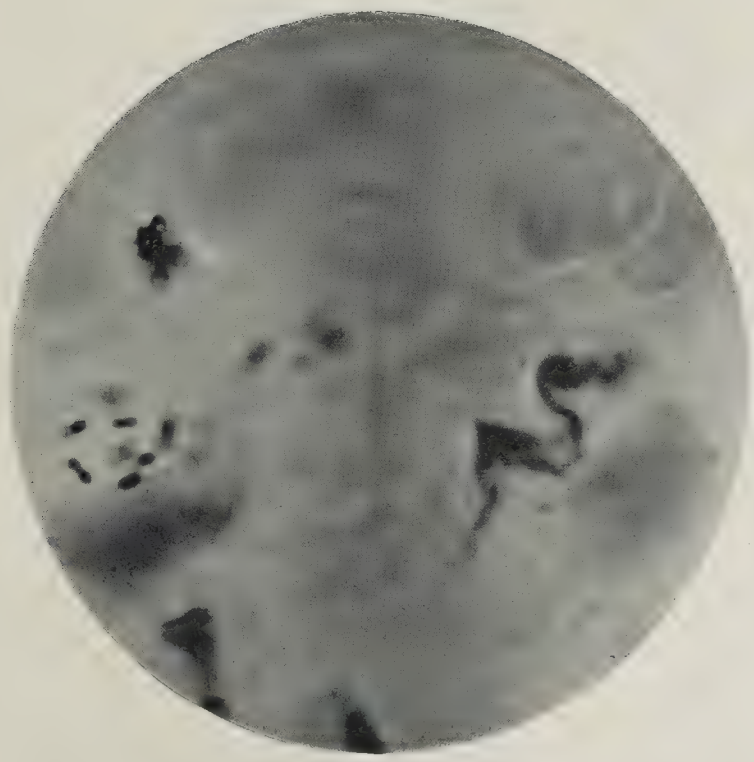

Fig. 8.—Diplococci and dead trypanosoma in a small haemorrhage of myocardium. Magnification 2,000 diameters.

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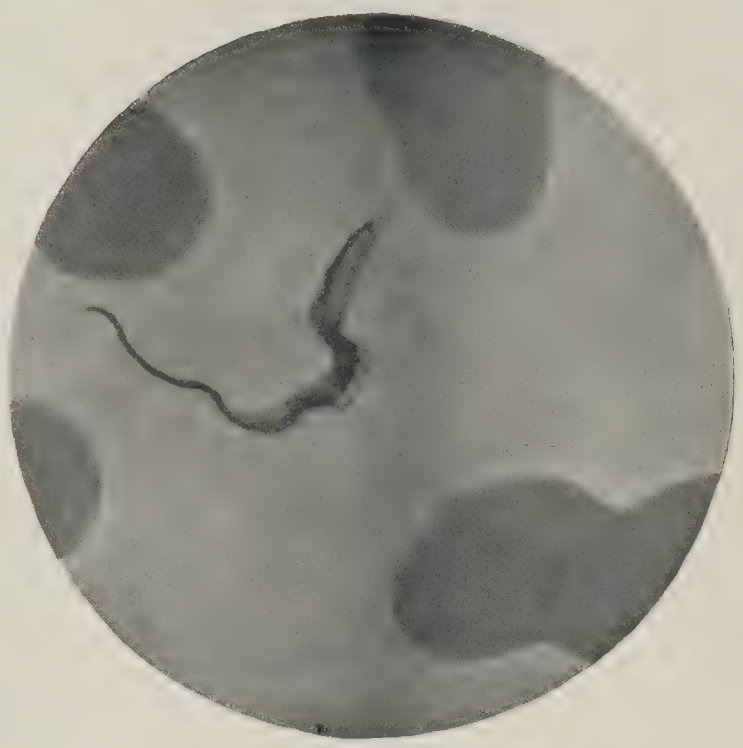

Fig. 1.—Film preparation of blood with trypanosomes. Magnification 2,000 diameters.

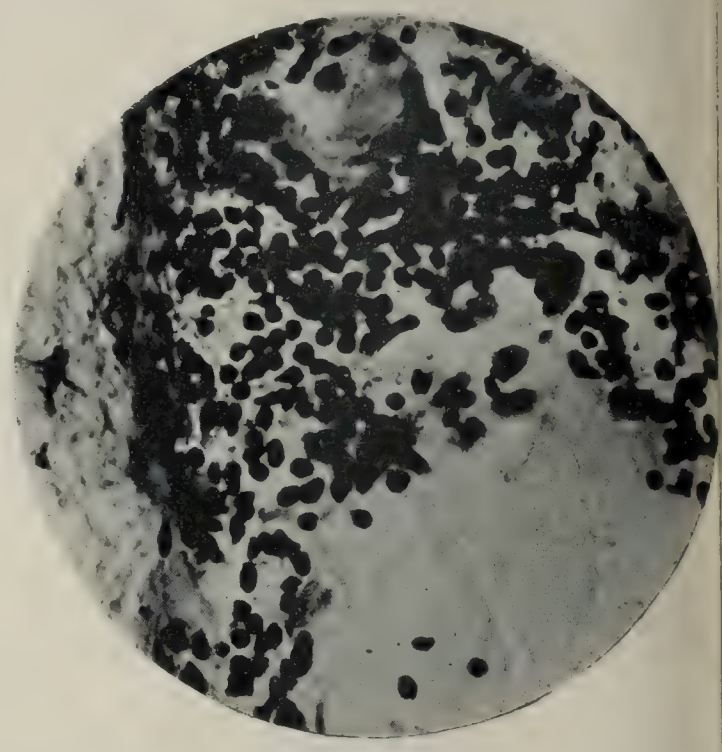

Fig. 2.—Perivascular infiltration of mononuclear leucocytes—cerebellum. A number of small bodies (not diplococci or disintegrated cells) possibly degenerated trypanosomes. Magnification 500 diameters.

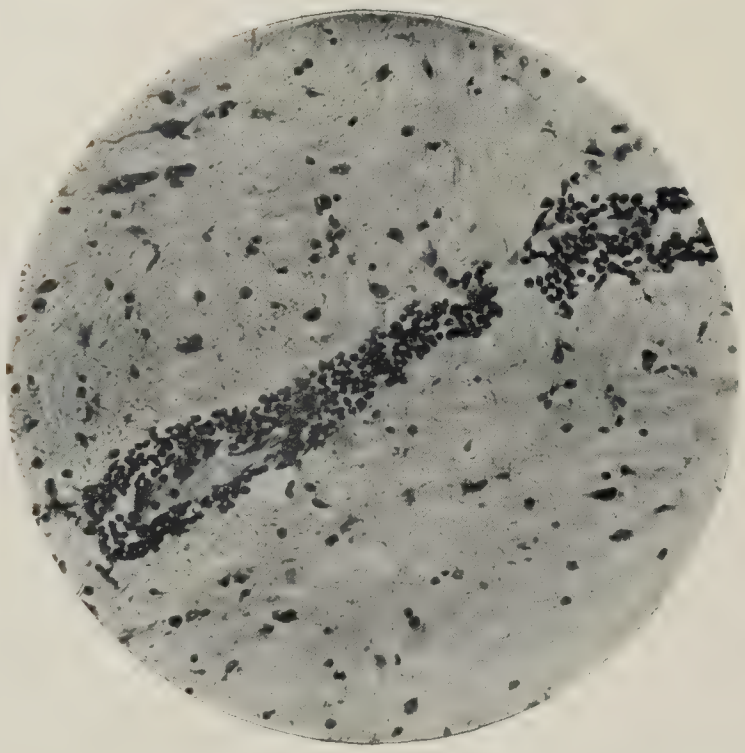

Fig. 3.—Small vein of medulla oblongata showing the surrounding accumulation of mononuclear leucocytes. Magnification 175 diameters.

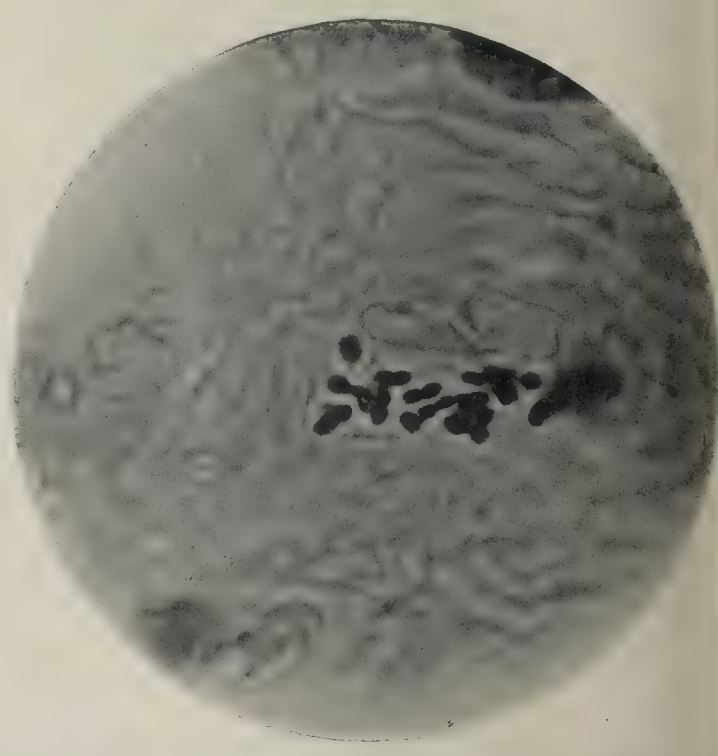

Fig. 4.—Diplococci in brain. Magnification 2,500 diameters.

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ler observation in hospital were chronic irregular pyrexia, aciation, enlargement of the spleen, a peculiar erythema- s condition of the skin, and the presence of trypanosomes small numbers in the peripheral blood. At that time there re no signs of tremors, drowsiness, or other nervous mptoms associated with sleeping sickness.

After leaving hospital a change to the seaside was advised, l the summer was chiefly spent at Cromer. In October, 3, the patient returned to her home in Bristol, and for first time about the middle of that month a marked dency to drowsiness appeared. With the exception of ne twitchings at the left angle of the mouth there were no er evidences of tremors. Emaciation, however, had now ome extreme, and small hard glands were palpable in the terior triangles of the neck. She gradually became more wsy; in the last days of life the sphincters relaxed and e died in a state of coma.

NECROPSY.

We are indebted to Dr. Neill, University College, Bristol, o made a necropsy two and a-half hours after death, for following notes of the macroscopic conditions:

External Appearances.

kin yellowish over body, rough and dry on the upper arms, thighs, abdomen; sclerotics tinged yellow, pubic and axillary hair very nty. Great general emaciation, mammary glands small and sharply lined. Early bedsores over sacrum, posterior ends of iliac crests, y early over right trochanter; skin tightly drawn over facial bones. obvious oedema, but slight pitting over tibiae on firm pressure. or mortis present in jaw muscles only.

Head.

Brain examined first.) Calvarium unchanged, dura mater normal; uantity of blood and cerebro-spinal fluid escaped on removing the in, and the infundibulum was accidentally opened. Pia mater finely ected, and veins distended with blood. Injection difficult to remove h finger pressure, more marked over the occipital lobes. No glazing urface. Convolutions sharply rounded, and sulci wider than normal, being very marked on the right side. Larger sulci filled with clear d, and the superjacent membrane slightly hazy. Circle of Willis mal. No atheroma. Excess of fluid in basal lymph cistern, with ection over medulla and pons, otherwise nothing abnormal at base. adhesions in longitudinal fissure. Corpus callosum and fornix te firm. Lateral ventricles dilated and contained excess of fluid. ndyma injected. but brain tissue not softened. No abnormality covered macroscopically in centra, basal ganglia, crura, cerebellum, s, or medulla. No abnormal fullness of cerebral vessels. No thick- ng of meninges over anterior end of upper surface of vermis; no truction of veins of Galen.

pinal cord not opened, but about 2 in. of cervical cord removed. obvious thickening of membranes. No macroscopic changes on ion.

Thorax.

mall remains of thymus, and one or two small, deep-red, lymph ds found under manubrium sterni. Lungs: Right, a few thin ds of old adhesions laterally and above upper lobe. Lower lobe firm he touch and covered with fine recent pleurisy. On section some ous pigmented thickening at extreme apex of upper lobe, probably led tubercle. Rest of lobe showed oedema. Middle lobe normal. er lobe: Bronchioles congested, substance pale red, uniformly firm, ess, and non-crepitant, granular on section. Left, adhesions and ous tissue at apex similar to right, but less extensive. Rest of lung pleura normal.

ericardium uniformly adherent, but stripped fairly easily except r roots of great vessels. Heart cavities a little dilated, and the iculo-ventricular orifices admitted the fingers more easily than nor- ly. Mitral and tricuspid valves showed chronic fibrous thickening, n one or two small raised nodules of old fibrous tissue. No recent ocarditis. Semilunar valves and coronary arteries normal. Minute hes of atheroma in aorta. Heart muscle normal colour, no fatty or ous changes visible to naked eye. Blood dark, had not coagulated, ted rapidly on being shed.

Abdomen.

o fluid in abdominal cavity. Peritoneum glazed over upper part of ll intestine. A patch of inflammation on surface of jejunum. stines not opened. Spleen occupied upper left quadrant of abdo- n, reaching to within an inch of the umbilical level, and crossing the dle line by a fingerbreadth. Uncovered, except by the omentum, he anterior margin. The spleen was uniformly enlarged, and the gins rounded, the hollow at the hilum being filled out. Capsule ewhat thickened, but no perisplenitis except at the upper end, re the organ was suspended by a thick band of fibrous tissue as k as the little finger. On section the substance was firm, but not kedly so. Surface pale, opaque; trabeculae thickened: Malpighian ies clearly seen and sparsely distributed.

iver.—Enlarged: firmer than normal. No perihepatitis, although a e recent lymph at right anterior margin. Margins rounded. Sur- smooth, but, on closer inspection, fine nodular arrangement ble. Firm on section; colour browner and darker than normal; ved condition of cirrhosis.

idneys.—Tougher than normal; cortex and medulla almost the same colour; former diminished. Capsule stripped with a little difficulty, leaving a granular surface. Kidneys smaller than normal.

Suprarenals.—Healthy on section.

Lumbar Lymphatic Glands.—Enlarged, intense red colour.

Uterus.—Nulliparous. Small fibroids.

Bladder and appendages healthy.

Pelvis.—Normal.

Bone Marrow.

Taken from left humerus. Marrow in cancellous spaces pale red with some fat, in shaft dark red, barely keeping together. No yellow fat seen.

Blood films were prepared by Dr. Symes from the heart and spleen. Portions of the different organs were sent to us in Müller's solution, formalin, and in alcohol for microscopic examination, and arrived on the following day.

The Blood.

Unfortunately the spinal fluid was not examined for trypanosomes, but blood films taken a week before death, and those taken by Dr. Symes from the heart and spleen at the necropsy, though carefully examined, have shown no trypanosomes. The characteristics of the blood are similar to those of the peripheral blood described in the former report of the case, namely, some changes in the size of the red corpuscles, nucleated red corpuscles, and an increase (relative) of the large mononuclear leucocytes. In addition, however, all the films show very clearly the presence of large numbers of diplococci, these being more numerous in the heart than in the spleen.

MICROSCOPIC EXAMINATION OF THE TISSUES.

The sections were for the most part cut in paraffin from tissues hardened in formalin or alcohol, but those stained by Marchi method were prepared from those hardened in Müller's fluid and the sections cut in celloidin. The sections cut in paraffin were stained with carbol-thionin and erythrosine, Unna's polychrome, or logwood and eosin. Sections of the brain were made from various parts of the cortex, the cerebellum, the pons, and the medulla. The spinal cord was also examined. The posterior spinal ganglia and the roots were unfortunately not sent.

Description of the Changes.—1. *Central Nervous System.* *Membranes.*—The pia-arachnoid membrane showed an infiltration, with large and small celled mononuclear leucocytes of a not very marked character in the sections of the cortex, but much more marked in those regions where there is a larger amount of cerebro-spinal fluid, for example, the cerebellum and the medulla.

Vessels.—In the cortex the small vessels, especially the capillaries, frequently show swelling and some proliferation of the endothelial nuclei; this, however, is more marked in some places than others. The blood contained in the vessels exhibits usually an excess of mononuclear leucocytes; in some places groups of polynuclears are seen. Around the vessels are found the characteristic mononuclear infiltration first described by one of us (F. W. M.), and since confirmed as pathognomonic of this disease. This infiltration is much more marked in some portions of the cortex than others, but it is very well marked in the cerebellum and the medulla oblongata. (Figs. 2 and 3.) The vessels of the medulla and spinal cord are congested and in places, especially in the former, there are many recent capillary haemorrhages.

Nerve Cells.—The ganglion cells of the cortex and of the medulla, to a much less degree the spinal cord (in which latter the vascular changes are not marked), show acute changes, probably of the nature of coagulation necrosis. The cells are by no means all affected, nor to the same degree. There is chromatolysis, the Nissl granules being either indistinct, absent, or a dust-like powder, with absence of the granules on the dendrons, which may be broken off, or not exhibiting their normal forms. The changes, in our opinion, are mostly of recent origin, and like the capillary haemorrhages were due to the toxic conditions of the blood and cerebro-spinal fluid caused by the invasion of the diplococci to be described.

Glia Tissue.—The neuroglia cells in places show active proliferation.

Organisms.—No trypanosomes were found in the blood vessels or perivascular spaces of the central nervous system, although a large number of sections were examined. In the superficial cortex in some sections small foci of leucocytes, mononuclear, and polymorphonuclear were found. Several of these foci exhibited no diplococci, but curious granules of varying size, as if these may have been the cause of the inflammatory action. We would not venture to say that these were degenerated trypanosomes, but it is possible that they may have been such. Similar bodies were found amidst the cells in the perivascular spaces of the medulla and cere-

bellum (Fig. 3). The magnification, 500 diameters, is not sufficient to show these small round bodies distinctly. Under a high power, however, no differentiation of structure can be made out. It is therefore impossible at present to do more than record the fact of their existence.

In all parts of the central nervous system, as indeed in all the organs and tissues, diplococci (staining by Gram's method) could be found (Fig. 4).

By Marchi staining, numerous recently-degenerated fibres could be found in the medulla, spinal cord, and cortex (Fig. 5).

The microscopical examination, therefore, of the nervous system shows changes similar to those which have been met with by us in cases of the disease occurring in Africans.

Lymphatic Glands.—A large number of sections of these were examined, and by Gram's method every section showed large numbers of diplococci in foci or in the lymph channels and blood (Fig. 6).

Bone Marrow.—Showed diplococci and large numbers of large mononuclear leucocytes.

Lungs.—Congestion and pneumonia of the right lower lobe was found. Diplococci present.

Liver.—The cells exhibit fatty infiltration; there is some increase of fibrous tissue; the blood in the vessels shows haemolysis; excess of mononuclear leucocytes and diplococci. There is no malarial pigment.

Spleen.—Congestion of vessels, increase of fibrous stroma; diplococci; no malarial pigment.

Kidneys.—Vessels congested, no diplococci discovered; epithelium of uriniferous tubules exhibits first stage of coagulation necrosis, probably due to the toxic condition of the blood.

Heart.—Epicardium, a marked mononuclear infiltration around the vessels (Fig. 7). Early pericarditis: Myocardium, the muscle fibres exhibit brown atrophy and pigmentation, and there is a condition of recent haemorrhagic myocarditis due to infection; for in the haemorrhages are numerous colonies of diplococci, and in one section what appears to be a dead trypanosome (Fig. 8).

This is the only distinct evidence pointing to the existence of trypanosomes found in the large number of sections examined, but its form and size and its existence amid the blood corpuscles point undoubtedly to its nature, although it does not present the typical characters of the trypanosome seen in the film preparation (Fig. 1).

We have recorded the bare facts, and consider that this case is of especial interest, inasmuch as it shows that a European who has resided in a country where sleeping sickness exists, and who leaves that country with trypanosomes in the blood, may for a considerable time present no symptoms of sleeping sickness, and then develop them and die, the tissues showing changes similar to those met with in Africans. It is a strong argument in favour of the trypanosomes being the cause of the disease; but what part do the diplococci play? Have these appeared subsequent to the onset of the characteristic symptoms of the disease, and is there, therefore, a causal connexion, or is it merely a terminal infection?

We desire here to acknowledge the services of Mr. Charles Geary, Assistant to the Pathological Laboratory, Claybury, for the excellent photomicrographs of his preparations of the tissues.

ASYLUM DYSENTERY IN RELATION TO B. DYSENTERIAE.

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(From the Bacteriological Laboratories of Guy's Hospital.)

The researches of Shiga, Kruse, Flexner, Strong, Rogers and others have resulted in the accumulation of a mass of evidence pointing to the correctness of the assumption that acute dysentery, wherever it occurs, is a disease due to the invasion of the human organism by a specific bacillus—B. dysenteriae; or, perhaps, in view of the uncertainty existing at present with regard to the relative importance of the Flexner and Shiga types, it would be more exact to say some one or other member of that group of organisms typified by B. dysenteriae. Flexner and other workers in this field, notably Vedder and Duval, have also demonstrated the presence of a similar bacillus in material obtained from cases of epidemic diarrhoea occurring in asylums for the insane in America, thus supporting the contention of Mott, that th disease, is identical with the dysentery of tropical clime So far as I am aware, however, the organism above referred has not hitherto been isolated from cases of asylum dysente in this country, and I therefore wish, to state briefly th positive results obtained from the bacteriological examinatio of material derived from such cases. My material wa obtained from an epidemic of dysentery which occurred towar the end of last year in one of the London county asylums, an I now wish to express my thanks to Dr. Mott for his kindne in placing the said material at my disposal.

Course of the Epidemic.

With the clinical aspect of the cases comprising this ou break, and the means by which the disease was carried wards other than that in which it first appeared, I am not present concerned. Indeed many interesting points bearin on asylum dysentery and its bacteriology must be reserve for a detailed paper, which will appear in the forthcomi volume of the *Archives of Neurology*.

Briefly, the course of the epidemic was as follows: Th male side of the asylum had been remarkably free from cas of diarrhoea and dysentery for some time prior to Augus 1903. On the 20th of that month, however, two cases dysentery were reported from a ward which I will ca Ward A, and were followed by two more on the 24th; a fift case occurred on the next day, and a sixth on the 28th of th month. No more patients were attacked in this ward, an within two months all six cases were convalescent.

Towards the end of September a similar outbreak, but of more severe type, made its appearance in Ward B. He eight patients were successively attacked, and of these thre succumbed to the disease. In Ward C three patients co tracted the disease, of whom one died. Isolated cases, ones and twos, cropped up also in other wards at varying i tervals during the months of September and October to th total number of eight, three of these being fatal.

Table I.—*Ward Incidence of Cases of Dysentery.*

Ward.	Patient's Initials.	Date of Onset of Disease.	Result.	Date.
A ...	G. E. R.	Aug. 20th, 1903	Recovery	Sept. 10th, 1903
	H. M. H.	,, 20th, ,,	,,	,, 10th, ,,
	C. V.	,, 24th, ,,	,,	,, 11th, ,,
	C. H.	,, 24th, ,,	,,	,, 10th, ,,
	T. W. S.	,, 25th, ,,	,,	,, 12th, ,,
	J. R. M.	,, 28th, ,,	,,	,, 11th, ,,
B ...	J. F. S.*	Sept. 25th, ,,	Death	Nov. 30th, ,,
	T. H.*	Oct. 15th, ,,	,,	,, 7th, ,,
	J. A.*	,, 16th, ,,	,,	Oct. 24th, ,,
	S. H.*	,, 17th, ,,	Recovery	Nov. 14th, ,,
	S. A. H.	,, 19th, ,,	,,	,, 8th, ,,
	J. J.*	,, 29th, ,,	,,	,, 27th, ,,
	P. M.	Nov. 11th, ,,	,,	,, 26th, ,,
C ...	A. A. S.	Oct. 16th, ,,	Death	Oct. 17th, ,,
	J. L.	,, 18th, ,,	Recovery	Nov. 10th, ,,
	W. S.*	,, 31st, ,,	,,	,, 26th, ,,
D ...	E. C.	,, 19th, ,,	,,	,, 13th, ,,
E ...	B. B.*	,, 17th, ,,	,,	,, 14th, ,,
F ..	A. D.	,, 6th, ,,	,,	Oct. 30th, ,,
	E. O.	,, 10th, ,,	,,	Nov. 1st, ,,
G ...	R. P. D.	,, 6th, ,,	,,	,, 2nd, ,,
H ...	H. M.*	,, 23rd, ,,	Death	Oct. 25th, ,,
J ...	J. C. S.*	,, 14th, ,,	,,	,, 24th, ,,
	W. G. B.	,, 15th, ,,	Recovery	Nov. 3rd, ,,

* Cases examined bacteriologically are indicated by an asterisk.

None of the cases in Ward A came under my observatio but of the remaining 18 cases I was supplied with specime of the stools from 5 during life. Further specimens of faece scrapings of dysenteric ulcers, blood, and bile were collecte at the *post-mortem* inspection from 5 of the 6 fatal cases (wit all precautions against accidental contamination), and sent t me for examination.

Methods: Faeces,

The method adopted in the examination of the faec material and scrapings from dysenteric ulcers was simple i the extreme, the work of differentiation and isolation bei facilitated by the employment of a special nutrient medium a modified form of the "lakmus-laktose-nutrose-agar" Drigalski and Conradi.* A platinum loop, reserved for th particular purpose, and capable of holding about 2 mg. faeces, was employed to emulsify three or more loopfuls the specimen in 10 c.cm. of sterile nutrient broth. Thr

* A simplified method of preparing and standardizing this mediu formed the subject of a recent communication by the present writer the Pathological Society, January 19th, 1904.

uls of this suspension were deposited on the surface of a se agar "plate," and then spread evenly over its entire ce by means of a sterile L-shaped glass rod. Two, and times three, other plates were then inoculated in series, he whole set of plates incubated at 37° C. for twenty- ours. At the end of this time such colonies as corre- ded in their naked-eye appearances, blue coloration, and cteristic odour of fresh semen, with those produced by a al B. dysenteriae (Shiga) were severally emulsified with e broth, and tested against a 1 in 100 and a 1 in 200 dilu- of antidysenteric serum (for which I am indebted to ssor Kolle, of the Institute für Infektionskrankheiten, n) both macroscopically and microscopically.

a good agglutination reaction was obtained within half our the organism was grown upon agar, the subsequent h plated, the organism then isolated and subcultivated rallel series with an authentic B. dysenteriae (also ned from Professor Kolle), and its identity or otherwise with determined.

BLOOD.

cimens of blood, unfortunately, were available only such patients as succumbed to the disease, and were ted at the *post-mortem* inspection—the bodies being in a cold chamber during the interval that elapsed en death and the necropsy—generally from the femoral but occasionally from the heart direct. Some of the was employed to inoculate agar and broth tubes, and er incubation at 37° C. growth supervened, that growth plated on nutrose agar in a manner similar to that ed for the suspensions of faeces, and the contained isms isolated.

remainder of the blood from each case was thoroughly fugalized, the separated serum pipetted off, and tested in ng dilutions against the strains of B. dysenteriae pre- y obtained from this epidemic, and also against the s "stock" strains of B. dysenteriae, which have been me from time to time by Professors Flexner, Kolle, and .

BILE.

was also collected at each necropsy direct from the ladder, and cultivations were established from it on agar broth. Careful search was made in every case for the e diplococcus recorded by Durham as occurring in r cases, but without success. When growth was ob- in the cultivations from the bile it was plated on e agar and the contained organisms isolated and iden-

result of these examinations is most conveniently given e form of tables (Tables II and III), which in their ement correspond to the list of the cases comprising idemic given above:

From these tables it will be seen that B. dysenteriae was isolated from six of the cases examined. All these had, at some time or other during the course of the disease, been passing typically dysenteric stools—semi-fluid and plentifully mixed with slime, mucus, and blood—but with one exception all had passed this stage before I obtained specimens from them. The single exception (S. H.) afforded me a typical dysenteric stool, consisting chiefly of blood-stained mucus, which, when suspended in broth and plated on nutrose agar, yielded a practically pure cultivation of B. dysenteriae. This specimen was one of the earliest I received, and the B. dysenteriae from it was actually the first to be isolated and identified. It was strictly comparable in all its characters and reactions with the Shiga strains obtained from Berlin and Philadelphia; further, it was completely and almost immediately agglutinated, macroscopically and microscopically, by a 1 in 200 dilution of antidysenteric (Shiga) serum, and also by the serum from the patient T. H. in similar dilution.

The results obtained from the examination of *post-mortem* material were by no means so satisfactory, as the bacillus was isolated from two only of the five cases examined.

At the necropsy of the first patient (J. F. S.) from whom the bacillus had been isolated during the early stages of the disease, the dysenteric lesions of the intestine were found to be healing, so that presumably the organism, if not actually absent, was probably present in but very small numbers. In the third case (J. A.) the failure to isolate the bacillus must, I think, be attributed to the interval that elapsed between the necropsy and the commencement of the examination—an explanation that holds good also in the fifth case (J. C. S.).

The agglutination reactions, too, seem at first sight unsatisfactory, but I think it is quite possible that the general septicaemia which had attacked the patient J. F. S., and which was associated with the presence of large numbers of streptococci in the blood (the blood, too, showed marked haemolytic changes), was sufficient to account for the negative reaction. The other cases may be explained on the assumption that agglutination is a reaction of immunity rather than a reaction of infection. My experience, too, of numerous other cases of asylum dysentery leads me to believe that a positive serum reaction is most likely to be obtained during the first fortnight of the disease. An alternative explanation in the case of the fourth (H. M.) would be that the interval between the onset of the attack and death—two days only—was too short to allow of the formation of any agglutinin.

CONCLUSIONS.

The number of cases included in this preliminary communication is obviously too few to admit of any generalization as to the etiology of asylum dysentery, but the following

TABLE II.—*Results of Examination of Faeces obtained during Life.*

Patients' Initials.	Age.	Date of Onset of Disease.	Date of Receipt of Specimen.	Naked-eye Appearances of Faeces.	B. Dysenteriae Present or Absent.	Bacillus Isolated, Agglutinated by "Shiga" Serum in Dilution of
J. F. S.	35	September 25th, 1903	November 2nd, 1903	Normal "formed"	Present	1 in 200
S. H.	50	October 17th, ,,	October 29th, ,,	Typical dysenteric stool, semi-fluid, containing blood and mucus	,,	1 in 200
J. J.	37	,, 29th, ,,	November 2nd, ,, / ,, 5th, ,,	Resembling pea-soup	Absent	—
W. S.	24	,, 31st, ,,	,, 6th, ,, / ,, 9th, ,,	Dark reddish-brown, semi-solid / Pea-soupy	Present / Not isolated	1 in 200
B. B.	38	,, 17th, ,,	October 29th, ,,	Putty-like in consistence and colour	Present	1 in 150

TABLE III.—*Results of Examinations of Post-Mortem Material.*

ient's tials.	Age.	Date of Onset of Disease.	Date of Death.	Date of Receipt of Specimens.	B. Dysenteriae Present or Absent.	Dilution of Blood Serum giving Positive Reaction against		Organisms Present in	
						"Shiga" Strain.	"S.H." Strain.	Blood.	Bile.
F. S.	35	September 25th, 1903	November 30th, 1903	November 30th, 1903	Absent	—	—	Streptococcus pyogenes longus	
. H.	65	October 15th, ,,	,, 7th, ,,	,, 9th, ,,	Present	1 in 200	1 in 200	B. coli communis.	
. A.	37	,, 16th, ,,	October 24th, ,,	October 27th, ,,	Absent	—	—	*Nil.*	
. M.	69	,, 23rd, ,,	,, 25th, ,,	,, ,, ,,	Present	1 in 10	1 in 10	*Nil.*	
C. S.	60	,, 14th, ,,	,, 24th, ,,	,, ,, ,,	Absent	—	—	B. coli communis.	

statements seem to be quite warranted by the facts observed:

1. That a bacillus, identical with the B. dysenteriae, described by Shiga as the specific cause of acute dysentery in Japan, can be isolated from the stools of many cases of asylum dysentery.

2. That the blood serum of some of these cases of asylum dysentery possesses a specific agglutinative action when tested against B. dysenteriae isolated from the stools of other similar cases, and also against other strains of B. dysenteriae isolated from cases of dysentery in tropical countries.

On the other hand, the experience of an extended series of examinations of the stools of patients suffering from asylum dysentery will permit me to state:

3. That in order to detect the presence of B. dysenteriae, the stools must be examined when fresh.

4. That *post-mortem* material must be collected and examined as soon after death as possible, as after a few hours' delay, even in quite acute cases B. coli becomes the predominant organism in the intestinal canal.

5. That under these conditions (3 and 4) the isolation of B. dysenteriae from the stools of patients suffering from acute asylum dysentery is comparatively easy by the methods I have indicated—when those stools are, naked eye, typically dysenteric.

6. That in cases of chronic asylum dysentery B. dysenteriae, if present, is so outnumbered by B. coli and other intestinal saprophytes as to render its isolation a matter of extreme difficulty.

DIFFERENTIATION OF B. TYPHOSUS AND B. COLI COMMUNIS BY MEANS OF THE PHOTOGRAPHIC PLATE.

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IT does not appear to have been recorded that the gelatino-bromide photographic plate is sensitive to direct application of the products of certain bacterial cultures in a very remarkable manner, and that, further, the effect on the plate is variable with the special nature of the bacteria to a degree which renders easily possible, in at least one important case, a discrimination between bacteria otherwise difficult to differentiate.

My observations having been mainly confined, so far, to the typhoid bacillus and the B. coli communis, I will refer at present to these only.

Cultures of these bacilli are made in broth, samples of the same broth being used for each culture. After, say, 24 hours a few drops of each culture are placed upon the sensitive surface of a photographic plate and spread so as to wet an area of any desired extent—say, 1 cm. or 2 cm. in diameter. (In general, 0.2 c.cm. of the culture has been allowed to spread by itself upon the plate, covering an area of about 1 square cm.) This is done in a red light sufficiently faint to avoid sensible fog upon the plate. An opaque cover—an empty developing dish will do—is now turned over the plate, and it is left thus screened for about 40 minutes.

The cover is now lifted and the superfluous fluid upon the wet areas drawn off with a pipette. No change is observed at this stage of the experiment. The plate is then developed in the usual manner, and during development it is best screened from light. It will now be found that the moistened areas develop with very different densities of silver deposit. The coli culture produces a full and marked reduction of the salt. There has progressed over the area wetted by this culture an action similar to the formation of a photogenic material in the film. But where the typhoid culture has acted the result is quite different. Only a very faint deposit is, in general, obtained. And if the plate has, in fact, been exposed sufficiently to the red light (either wilfully or incidentally) to produce a general fogging, it will be found that its effect is even inhibitive and its presence marked by an area almost free from reduced silver.

The following points are of interest, but can here only be briefly noted:

(*a*) The discriminative action is the same, with some variation in degrees of distinctness, when typhoid and coli cultures of the same age are compared at very different periods after inoculation. Thus, cultures of these two organisms in broth compared, after 4 hours' growth and after 33 days, react as above.

(*b*) The activity of each increases with time up to a certain age which has not been accurately ascertained. This activity possibly varies with the physical conditions attending cultu but may be taken as increasing from shortly after inoculatn to 4 days of growth.

(*c*) A coli culture of 24-hours age, when compared wit a typhoid culture of any age (tested up to 33 days) gives e more marked reducing effect.

(*d*) After a few hours' growth the broths may be boiled d thus sterilized, and the differential effect upon the sensit e surface persists.

(*e*) This discriminative reaction has been obtained with fi cultures of coli from different sources and with five typhd cultures from different sources.

(*f*) It will be found that if the sensitive plate is wetd with tap water and also with sterile broth, and simultae- ously applications of the cultures are made—four separe areas being thus prepared for comparison—the typhoid d sterile broth do not differ markedly in their actions upon silver bromide, whereas the effect of the tap water has bn intermediate between that of the coli and the typhoid. It is known that water is to some extent a sensitizer.

(*g*) The time of exposure of the plate to the applicatio f the cultures has varied between 10 and 90 minutes, and e discriminative action of 24-hour cultures found to be bt marked with an exposure of 45 minutes. But from at le 10 minutes exposure upwards the difference is obtained wh any broths in which there is a visible growth.

(*h*) While in some of the earliest of these observations, d before I had gained experience as to the best methods to e- ploy, a few cases occurred in which the distinctive differe was not well marked, in all my recent observations, twen- four in number, I have unfailingly obtained the differenal effect.

(*i*) Finally I have observed that if pools of well-grown li and typhoid broth cultures are poured on a photograpic plate and exposed to light, a reduction of silver is seen in a w minutes without development. After about 30 minutes e deposit due to the typhoid broth is distinctly darker t n that due to the coli broth. If the pools be now poured f the sensitive plate the difference reaches its maximum, u as the gelatine dries the distinction is almost completely l t Tap water has no visible effect, except the swelling of e wetted gelatine of the plate.

I am continuing the experiments, and am not withi hopes of more extended applications of the phenomenon.

NOTE UPON THE CAUSATION OF CANCER

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THE observations of Professor Farmer and others with reg to the mode of division of the nucleus in cancer cells ren it possible to formulate a theory which seems to me to affo reasonable explanations of many of the difficult points connexion with cancer.

Briefly stated, my view is that cancerous growth is cau by the degenerative reversion of epithelial cells to a germi type, in association with a local irritant and in the prese of an abundant blood supply. The post-heterotypic mu plication of the cells having once commenced, as a resul the degenerative reversion to an ancestral type, the lo conditions serve to continue and fix the type, with the reg that the growth becomes practically a colony of unicellu parasites. These act as one would expect members of suc colony to act; they encroach upon the tissues of the h preferring to multiply along the lymph channels both account of the resistance being less in this direction than any other, and also on account of the favourable nutritio environment there met with; or when they permeate walls of a vein tend to be washed off from the colony independent units, which, when they lodge in suitable sit tions, give rise to new colonies, namely, the metast growths.

Just as in animals we find an ascending and a descend stream running along parallel lines, so in cells, with reg to specialization, evolution may be downward as well upward. Again, just as the individual in his developm presents a brief epitome of the history of the race, so, t certain extent, does the individual cell in its decay tend approximate to an earlier type of cell similar to that fr which it has been evolved, and with similar attributes powers. However, the more specialized the cell the gre

l be the difficulty in its reverting to an ancestral type. is one sees that, with certain exceptions, nerve cells, ing once been formed, are incapable of multiplication and fact just as nerve, muscle, connective tissue, and epi- lium may be said to form a descending scale in respect to ir specialization or departure from the ancestral type, so these various tissues differ in their attributes and in their ers of multiplication from the ancestral cell. The thelial cells may, indeed, be looked upon as those cells ch have been left over after the more specialized cells e been budded off, and it follows that it is these cells ch will most nearly resemble the ancestral cells in their ibutes, and especially in their powers of reproduction, will most easily revert to the original type. In er words, as this reversion must be in the form of a eneration, it is in these cells that one may expect a enerative reversion most readily to occur. It may be ected that the reversion ought to be to an embryonic type, t is to say, to a type which is capable of reproducing the le organism; but, in the higher animals at least, the er of so complete a reversion has been lost, though in ny of the lower animals, and in most of the higher plants, capacity is retained by the least specialized of the indi- ual cells of which the organism is composed.

, then, the tendency of degenerating epithelial cells to eversion to a germinal type be allowed, the next thing consider is, what the causes are which determine the earance of the disease at any one time or place. With rd to time, the essential condition is that the epithelial s should be becoming somewhat inert, that is to say, grow- prematurely old, and losing their normal powers of repro- tion or multiplication. In other words, that, with regard hem, the decadent period of life should have set in. It often been said that a man is as old as his vessels, and is equally true of most of the organs of the body, and of epithelial cells more especially. A tendency to what be described as precocious degeneration of the epithelium be a parental legacy; and just as in some families the els tend to develop atheroma early, whilst in others the becomes prematurely white or thin, or the nerve cells all tend to undergo atrophy, so also with these tissues the ility to the early formation of cancer is not infrequently onounced family characteristic. Again, the favourite s for cancer are those, like the breast or the cervix uteri, re degenerative processes appear most early. Further, the increased rapidity of living under modern condi- s, all the degenerative diseases are tending to increase in uency, and to appear at earlier ages than was the case our more slow-living ancestors. I need only instance eral paralysis of the insane and degenerative conditions he heart muscle apart from valvular disease.

gain, with regard to cancer houses, streets, and villages, external conditions which favour the early onset of enerative changes in epithelial structures will favour the elopment of cancer, hence it is not surprising that ronment should be effective within somewhat narrow ts in determining the frequency of the disease. The high entage of stomach cases is further hardly to be wondered onsidering the amount of irritation to which this organ is osed by overcooked, hard, irritating food on the one hand, nauseous, artificially, semi-digested messes on the other, lone the worry it suffers from the continus drugging it ives on the wall-poster advice of the quack medicine lor. It is therefore small cause for surprise that the ach epithelium tends early to grow old and feeble, and cells individually to strive to retrace their evolutionary ory.

far, then, if I have succeeded in establishing that under ain conditions the epithelial tissues, and especially those ertain regions, are in a state ripe, as it were, for reverting n ancestral germinal type, then it only needs that some ting cause should appear in order to start the cancerous th. But even it started, if it is to go on, the nourish- t must be abundant, and hence, again, the great liability ancer of those regions, like the breast and the uterus, re the mechanical arrangements for the supply of blood far in excess of the needs of a decaying or degenerating n. The exciting cause may be a mechanical irritant such rough tooth or a gall stone, a chemical irritant as occurs n an irritating discharge flows over a granular surface, or ochemical one as in the case of a simple ulcer becoming gnant, or as in Paget's disease of the nipple. The effect ie exciting cause is probably complex, in that it not only act as an irritant to the cells, but will also cause dilata- tion of vessels and excessive blood supply to the part concerned. Thus it seems to me that all the conditions present in cases of cancer can be more readily and satisfactorily explained by this theory than by any other which has so far been advanced.

STRUCTURAL LINKS IN MALIGNANT GROWTHS.

BY

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and

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IT is said that the qualities which constitute malignancy differ in degree rather than in kind from the characteristics of benign growths. Thus, for example, simple adenoma becomes malignant adenoma, fibroma becomes sarcoma, and papilloma becomes carcinoma. Again, it is impossible by clinical or pathological methods to distinguish sharply between certain cases of retained placenta, simple and malignant moles, chorion-epithelioma (deciduoma malignum) and even teratoma. Progressive growth and the formation of metastases, the infiltration of surrounding tissues, their atypical character, and the absence of specific symptoms are most frequently noted in carcinoma and sarcoma. The laws which govern the growth of tumours and the "fecundity" of the cellular constituents are as yet unknown, but a rapid rate of multiplication and also of degeneration—in other words, cellular instability—is usual. The growth is not in proportion to the nutrition of the body as a whole or in part, or to the age of the patient—for example, the "cancer age" is late middle life.

In carcinoma both lymphatics and blood vessels are the channels for the supply of nourishment, but in sarcoma no lymphatics are known. In both cases the cells are bathed in nutrient fluid and must be fed by a process of osmosis, perhaps aided by increase of assimilatory activity. The purpose of new growths is, of course, unknown. A parallel is perhaps suggested between cancerous growths and the rank vegetative activity often observed in herbaceous plants and in the larger fungi.

Various irregularities in the divisions of the nucleus have been observed in malignant growths—for example, multipolar spindles, increase in the number of chromosomes or in the amount of stainable substance (chromatin) in the nucleus, direct or simple division, etc. Professor Farmer and his colleagues have recently shown that heterotype nuclear divisions, characterized by a reduced number of chromosomes which are annular or "bunched" in appearance, are attached to the long axis of the spindle, and divide transversely, are present in malignant growths in man. Drs. E. F. Bashford and J. A. Murray have reported the same in other mammals and in fishes.

During the study of a large number of sections made by one of us (F. B.) it was noted that the mitoses were very readily observed in a glandular carcinoma of the rectum, less so in a sarcoma, and least in a scirrhus mammae. The appearance of the mitotic figures, as sketched from microscopical preparations with high magnification, is of interest to all pathologists, and the difference between the slender V-shaped somatic chromosomes and the thick irregularly-shaped heterotypic ones, is especially well shown in Fig. 1. In Fig. 2 the somatic mitosis shown in A stands in sharp contrast with the heterotypic ones, B to G; these sketches are all from a glandular carcinoma of the rectum, and were made with uniform magnification. A similar contrast is shown in the sketches H (somatic) and I (heterotypic), which are from a sarcoma. It was observed that the cells undergoing heterotypic mitosis were frequently enlarged and of a spherical or ovoid form. Another feature noticed in the glandular carcinoma was the occurrence of both somatic and heterotypic mitoses in the glands of Lieberkühn adjacent to the growth, and their tendency to be situated nearer to the lumen than to the basement membrane.

Observations are being made with a view to mapping out the topography of cancer cells by this method and to ascertaining their distribution, as described by Professor Farmer, in various growths and in "heterologous" neoplasms. No evidence was obtained of conjugation of resting nuclei, or of conjugation of cells in pairs ("gametes"), or of appearances resembling the formation of "swarm-spores."

The question arises whether cells which have undergone a reducing nuclear division are "inclined" in plants or in animals to self-fertilization or fertilization from chemical stimuli. Such a phenomenon in cancer would presuppose that a sexual change is signified by this reducing division, similar to the sexual and asexual phases in the life-cycle of certain sporozoa and dependent on intrinsic and extrinsic (environment) forces. Parthenogenesis brought about in some way might explain by reinforcement the wonderful power of mimicry of original structures seen in metastases. It has long been known that parthenogenesis occurs in certain animals, and it has been shown in some cases to result from the lack of separation from the egg-nucleus of the second polar body, or to follow on the re-fusion of this body with the egg-nucleus. As stated by Professor Farmer in his kind reply to my letter of inquiry[1] parthenogenesis has been shown to occur in consequence of chemical stimuli, in cases where the egg-nucleus evidently possesses the reduced number of chromosomes. On the other hand, Dr. Bashford believes that the heterotypic mitoses are the expression of a terminal phase in the life-cycle of the cancer-cell.

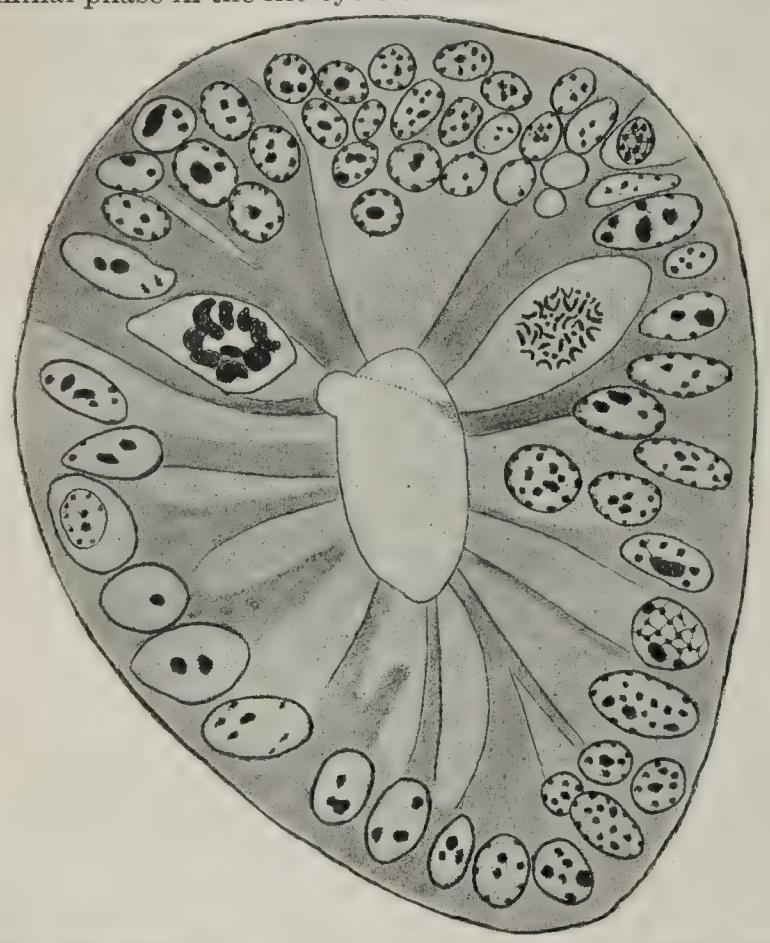


Fig. 1.—Part of a section of a glandular carcinoma of the rectum, showing a somatic and heterotype mitosis in two cells of a gland. Both figures show the "metaphase" stage, the figure being viewed from one of the two poles of the spindle. In the somatic figure nearly the whole of the thirty-two chromosomes are shown; in the heterotypic figure nine thick curved chromosomes are seen in the section.

A second structural change that links malignant processes is afforded by the morphological transition of cells of sarcomatous to those of epithelial form. Many sections of an "adenocysto-sarcoma" of the breast (removed by Mr. C. Whipple at the South Devon Hospital from a woman, aged 52) show that the columnar cells of the intracystic growths pass be gradual transition into large sarcomatous elements. Again, in a huge diffuse melanotic sarcoma of the liver (in another woman, aged 52, under the care of Mr. W. L. Woollcombe), the hepatic capillaries were stuffed with pigmented cells, varying from the size of small endothelial to that of large sarcomatous elements. A pigmented mole over the seventh right intercostal space showed similar pigmented cells in the cutis; the thyroid gland in this case was the seat of an adenoma. Though such a mole may be considered to be sarcomatous or again to be epitheliomatous, I regard it as a primary endothelial tumour, on the same grounds that Raymond Johnson and Lawrence regard "parotid tumours" as endotheliomata.

Similarly, H. D. Rolleston and O. Grünbaum note as follows in a "perithelioma" of the cheek: "Striking features are the transition from cells of a sarcomatous type to cells resembling columnar epithelium and the villous or papillomatous arrangement," despite the use of selective epithelial stain.[2] This is not "metaplasia," defined by S. G. Shattoc and C. A. Ballance as the transformation of one normal tissu to another, but is akin to true "heterology" (Virchow). appears to be the reverse of that which is seen in thos tumours in which epithelial and sarcomatous elements a formed from "indifferent" tissue.[3]

Not only may such changes as calcification, pigmentatio vascularity, etc., be faithfully transmitted from primary t secondary growths, but pigment appears in the neighbourhoo of certain pigmented secondary deposits (for example, in between the liver cells). This cannot be explained by th wandering of pigmented sarcoma cells, comparable to th wandering of pigment cells in fishes, but may be an exer tion. It even appears in some sections as if the cells of secondary deposit and those of the organ exert mutual actio on each other's shape. Again, carcinoma can convert adj cent normal tissues to stroma. Both phenomena suggest th environment does influence the "germinal" cells of thes growths, chemically or otherwise, despite the tendency Jensen's experiments to magnify the potentiality for growt and reproduction inherent in "epitheliomatous" cells in th mouse.

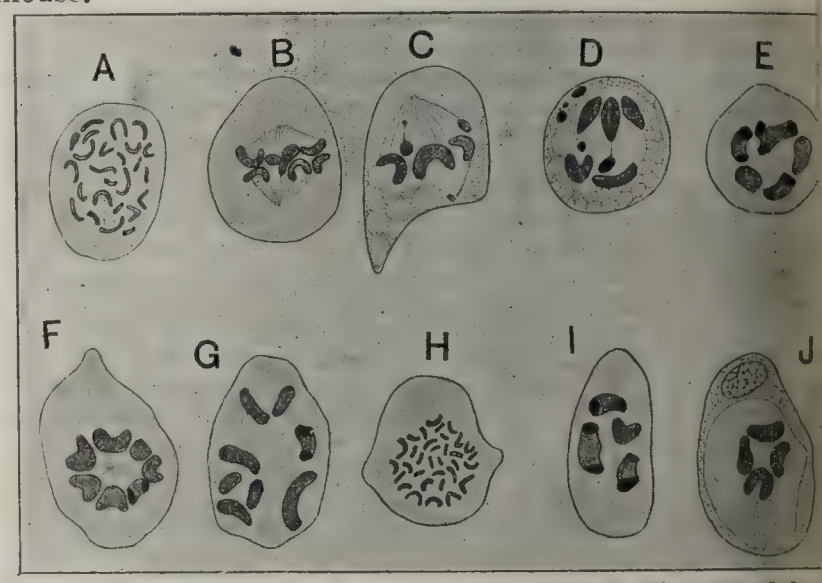


Fig. 2.—A to G are from the same series of sections as Fig. 1 (glandular carcinoma of rectum). A is a somatic mitosis, metaphase, and 25 of the 32 chromosomes are seen; in B, C and D, the spindle is cut longitudinally; in E, F and G it is cut transversely at about the middle. In B to G the mitoses shown are of the heterotype kind, the chromosomes being few, thick, and irregularly shaped. In some cases they are evidently ring-shaped, and in E one of the chromosomes shown is branched, being Y-shaped in section. G is probably a multipolar mitosis, the chromosomes showing a tendency to form three groups, but the spindle-threads were not distinct. H and I are from a sarcoma in fascia of thigh, H being a beautiful example of a somatic mytosis, whilst I is heterotypic, the section showing only 4 curved chromosomes. J is from a carcinoma mammae, heterotypic metaphase, showing four thick bent chromosomes; above is seen the resting nucleus of an adjacent cell. The drawings were made with uniform high magnification.

The figures which accompany this paper are from case under the care of Messrs. R. H. Lucy, W. L. Woollcombe and C. E. Russel Rendle at the South Devon Hospital, to whon I express my thanks for the material obtained on remova during operations. I am greatly indebted to Mr. F. Caver for his beautiful and exact drawings, some of which are her reproduced.

REFERENCES.

1 *Nature*, February 25th, 1904. p. 392. 2 *Trans. Pathol. Soc. Lond.*, vol. liv p. 353. 3 The "blastomata" of C. P. White, *Lancet*. February 15th, 1902 and of H. Snow.

THE TREATMENT OF INEBRIETY BY ATROPINE.

BY C. A. McBRIDE, M.D.TORONTO, L.R.C.P. AND S.EDIN

As doubt is sometimes thrown on the efficacy of all short term systems of treating inebriety, a few notes on the subjec based upon a lengthy and somewhat wide experience, may b of interest, especially as I have come to the conclusion that i the majority of cases long periods of detention are wholly un necessary, and that a complete recovery, with absence of al craving for stimulants, may generally be expected after course of treatment lasting six weeks.

The advantages of a short-term system, if efficient, are s obvious as not to call for enumeration. The question, course, is whether the treatment results in permane

overy. As to this, there is, to my mind, no doubt whatever, assuming that the drugs be not only rightly selected but htly employed.

The essential element of the treatment I have found ccessful is the administration of atropine. This is most nveniently given hypodermically, using the sulphate. In opinion this drug has a specific action, and, although obably by itself insufficient to eradicate a craving for ohol or other narcotics previously administered, it is, in great majority of cases, essential to the treatment. Along h atropine it is my practice to administer at the same e strychnine, and I consider it also of great importance to nibit regularly a bitter tonic, usually a fluid extract of chona bark. The cases to be mentioned subsequently l indicate the method of treatment. I may here say nerally that the drugs used must at first be given in small es which subsequently are increased; that their exhibin must be conducted personally by the medical attendant harge of the patient and not deputed to others, and that drug should be pushed until a distinct physiological ct is produced. In an adult where there is no delirium serious complication, the doses I am in the habit of ministering are as follows:

. Atropine sulphate commencing at $\frac{1}{200}$ gr. three times a , increased gradually during the first week until the ils are affected and the mouth becomes dry. In most es $\frac{1}{60}$ gr. will be the maximum dose.

. Strychnine nitrate given at the same time subcuously in doses beginning with $\frac{1}{60}$ gr. and rising to $\frac{1}{20}$ gr. he majority of cases.

. Fluid extract of red cinchona bark given every three rs in ordinary doses by the mouth.

will be obvious that in the administration of powerful gs of this kind considerable judgement is required, that in many cases it is needful to modify the ve treatment. Auxiliary methods of treatment are also of t value, amongst which may be mentioned attention to general health of the patient, the use of warm baths, ial dietary, and regulated exercise. In cases where there elirium, or when maniacal symptoms are threatened, as nly too common in cases of acute alcoholism, other edies may be required. Even at the risk of somewhat ering the strength, it is generally advisable to administer isk purge at the commencement of treatment, in order to ove imperfectly eliminated waste products. Bovril containg plasmon may be administered freely and frequently.

o illustrate the application of the remedies I have selected cases, each one being typical of a different class of riate.

Case I.

M., aged 45, entered for treatment August, 1895; of cadaverous arance, slight physique, markedly nervous, general health bad, ring greatly from insomnia. He was a heavy smoker. The attacks coholism were periodical, and lasted about a fortnight. During wo or three months' intervals he had no desire for stimulants. e transacting his ordinary business he would suddenly be seized an uncontrollable desire for them, and rushing from the room d disappear for a time; he would be found later in the back room me low inn, where he had been drinking large quantities of ky. During the debauches he would talk quite rationally, but wards could remember nothing of what had occurred. Prior to eginning of treatment the patient was found by his friends, after ng been in hiding for three days, commencing a fresh debauch.

nding the patient hypersensitive to the effect of strychnine, I did push this drug beyond $\frac{1}{30}$ gr. three times daily. In combination this I gave atropine sulphate, commencing with $\frac{1}{200}$ gr., and ually increasing the doses until the eyes and mouth were affected; strength was maintained for a fortnight, and the drug withdrawn days later. The patient was also given every three hours a mixof red cinchona bark, gentian, and capsicum. The above strength rychnine was maintained until the twenty-eighth day, when it was ually reduced to *nil* at the end of the fifth week. The capsicum in ixture was only administered during the first fortnight, and the er mixture continued during the remainder of the course. The nt lost the craving for stimulants on the third day; on the next day nsomnia disappeared; his general health improved with marked ity, and he left the sanatorium at the end of six weeks enjoying lent health.

:901, when I last heard of this man, he was still perfectly well, and had been no return of his troubles.

Case II.

B., aged 45, entered November, 1896; married. At the time of encing treatment he had been drinking to excess for five years. ervous system was completely shattered and the heart's action ened; he was very emaciated and anaemic.

atment was as follows: Strychnine injections were administered imes a day, commencing with $\frac{1}{60}$ gr., and sulphate of atropine, commencing with $\frac{1}{200}$ gr. At the end of the second day the desire for alcohol had completely disappeared. On the morning of the third day I was, however, compelled temporarily to withdraw the atropine as the man began to develop symptoms of delirium tremens; these I met with a hypodermic injection of $\frac{1}{2}$ gr. of morphine, which sent the patient into a sound sleep lasting ten hours. After regaining consciousness the delirium had quite disappeared. The atropine injections were resumed upon the following day and continued as in Case I; the strychnine was rapidly increased, so that by the fourth day he was receiving $\frac{1}{30}$ gr. each injection, and this strength was continued for twenty days, when it was gradually reduced to nothing at the end of the fourth week. The rest of the treatment varied but little from that in Case I.

The patient was so satisfied with the results that during the two years following his admission he was the means of inducing a number of men from his native town to undergo treatment. I may state that most satisfactory reports regarding this patient have recently come to hand—that is, September, 1903.

Case III.

A. B., aged 32, married, one child, entered for treatment May, 1891. He was anaemic, of slight build, highly nervous, but there were no signs of visceral disease. He had been drinking to excess for about three years.

Entering under compulsion, and consequently refusing treatment, it was with difficulty that I succeeded in inducing him to submit to treatment by allowing whisky at frequent intervals. He was able to take this stimulant for two days, but on the morning of the third he could not bear its odour, and although he made persistent efforts to drink a glass of whisky and soda was quite unable to do so. Being an intelligent man, he recognized that some change had taken place, and decided to go through with the treatment. From that time on to the completion of the courses he gave me no trouble, but, on the contrary, became intensely interested in his progress towards recovery. The hypodermic treatment consisted of four injections daily of strychnine nitrate and atropine sulphate, commencing with $\frac{1}{40}$ gr. and $\frac{1}{200}$ gr. respectively. In conjunction with this he received every three hours a mixture of red cinchona bark, coca,* gentian, and capsicum. The strychnine was rapidly increased so that by the third day he was receiving $\frac{1}{30}$ gr. each injection, this strength being maintained for twenty-one days, when it was gradually reduced to *nil* at the end of the fourth week. The atropine was slowly increased until the usual physiological symptoms appeared on the fifth day, and this strength was maintained until the thirteenth day, when it was gradually reduced and finally discontinued on the sixteenth day. The coca and capsicum in the mixture were only administered during the first fortnight and the simpler mixture continued during the remainder of the course, which lasted altogether five weeks. During the whole course of treatment he resided with his wife at a neighbouring inn. Here he had every facility for indulgence in his former habits and enjoyed entire liberty after the fourth day. He rapidly gained in strength and flesh, his appetite for food returned during the first week and remained excellent throughout; he slept well, thoroughly enjoyed the daily exercise prescribed, and left for home in good health.

I met with this gentleman about three months ago, and ascertained that ever since the treatment thirteen years ago he had retained a strong aversion to all alcoholic stimulants. I may add that about seven years ago he passed through a severe financial crisis, owing to the worries of which he became very depressed. At this time he was in a strange country-separated from all his friends, and in the heart of a heavy drinking community. I naturally asked him whether, under this great trial, he felt any inclination to resort to stimulants; his reply was that he never once thought of them. Prior to his treatment his family physician had informed me that he would not live two months longer unless something was done to check his heavy excesses.

Case IV.

C. H., aged 50, married, a commercial traveller, was treated May, 1891. He began drinking at the age of 20, but did not drink to excess till he was 35. Though a man of exceptional ability, his drinking habits had brought him so low as to cause him to sell his furniture to obtain money for drink. He had been unusually fleshy, but at this time the flesh hung upon him loosely, and there was considerable enlargement and tenderness in the hepatic region. The heart s action was weak, but there were no lesions; the mental faculties, even during sober periods, were enfeebled. The man was a nervous wreck, the slightest thing throwing him into either tears or excessive laughter.

Treatment was as follows: Three strychnine injections were administered precisely as in Case III. The atropine was commenced in the same way, but was temporarily withdrawn after two days' administration, as symptoms of delirium tremens appeared. Doses of whisky had been allowed periodically up to this time, and to obtain sleep 30 gr. of potassium bromide had been added to the final drink of the day. Although he slept off and on during the second night, the delirious symptoms remained. On the morning of the third day he was given $\frac{1}{2}$ gr. of morphine hypodermically; at the end of two hours the excitement had increased to such an extent that he was rapidly exhausting his remaining strength. Another $\frac{1}{2}$ gr. was injected, and after an hour and a-half had passed without the desired result another $\frac{1}{4}$ gr. was administered. This caused the excitement to subside in about ten minutes, so that he dropped into a deep sleep which lasted for about seven hours. Upon

* For some years now I have entirely omitted the use of coca, and believe that it played no useful part in the treatment of these earlier cases.

waking for a few minutes he took some bovril and I gave an injection of strychnine. Another quiet sleep ensued for about the same period as the first. During the few minutes he was next awake he was fed and treated as before; altogether he slept for twenty-four hours, at the end of which time the atropine injections were resumed and continued as in Case III. He found on regaining consciousness that the craving for stimulants was greatly lessened, and during the course of the next two days it not only disappeared, but was replaced by absolute aversion to alcohol. With the exception of some slight modifications incidental to the condition of the patient's system, the treatment varied but little from that in Case III during the remainder of the course. He returned home in what he was pleased to term "the pink of condition," his treatment having lasted five weeks.

During the second week he informed me that he had apparently been "living in a cloud," but he now felt as though "scales had fallen" from his eyes, and that he could not only think and see clearly, but that also his views on the use of intoxicants had been entirely reversed. His subsequent career proved that his recovery was complete. It may be added that three years after treatment he unintentionally took some brandy sauce when away from home; the effect was remarkable, in that he had hardly time to leave the dining room before vomiting. He remained well in January, 1904.

The four cases cited are typical of the majority, but I may refer to one extreme case that passed through my hands in October, 1895. It was a case of acute alcoholic poisoning in a man 30 years of age. He was a confirmed inebriate and not expected to rally from the unconscious condition in which I found him. I agreed to treat him in consultation with his medical adviser, provided consciousness was regained. The treatment was administered at his own home, and as the man had no idea that he was being treated for alcoholism, I purposely left the decanter and siphon within his reach. On the fifth day he ordered them out of his sight, remarking that their presence nauseated him. This may be scarcely credible, but I can vouch for the accuracy of the statement. It was not until his recovery was completed that he was informed of the reason of his treatment. When I last heard of the patient three years ago there had been no relapse to his former habits.

I think that the foregoing cases will fully illustrate the method of application.

I make no claim for originality in respect of the drugs used in this treatment of inebriety. The method of their application is, however, I believe, new, and I cannot find that the medical profession generally is aware of the specific action of atropine in combating inebriety. In the ordinary textbooks no mention is made of it. In Hare's *Therapeutics*, published in 1903, the value of strychnine and atropine is discussed. I may quote the following passages:

There can be no doubt that in most cases strychnine is beneficial, and that it markedly diminishes the depression of the period of withdrawal, and may even tend, as is claimed by Phelps (*Medical Fortnightly*, St. Louis, 1895, viii), to impair the appetite for alcohol. Though it has not in the writer's experience so valuable a property, no harm can be done by its use, especially in moderate doses. In many cases we must admit that its use is followed by most gratifying results.

Referring to the use of atropine, he says: "Its stimulating qualities are apparently of much service in many cases of alcoholism. Like strychnine, it appears to lessen the depression caused by the withdrawal. It seems to diminish especially the distressing epigastric and sinking sensations from which alcoholics suffer. . . . . Clark (*New Orleans Medical and Surgical Journal*, vol. xxiii, p. 721) regards the combination with strychnine as almost a specific He maintains that while strychnine acts as a nerve tonic the atropine has a special aptitude for decreasing the appetite for alcohol. Carter (*Medical News*, March 9th, 1895) also regards atropine as of special value. He declares that atropine given three or four times a day will produce a great distaste for alcohol in from one to five days; that whisky becomes repellent as regards both sight and odour, and that its taste becomes intolerable, producing nausea."

Hare also remarks further . . . . "Atropine may indirectly lessen the craving for alcohol."

Having now for fully thirteen years used these remedies with a large measure of success, during which time I have treated several hundred cases, I feel justified in saying that a remedy is available which will prove of great value in the treatment of one of the most hopeless forms of disease.

The cases cited in this article refer simply to patients who have suffered from excessive use of alcohol. I have also used the treatment largely in the case of those who are suffering from the abuse of other narcotics, especially cocaine and morphine. I have never known unsatisfactory sequelae to result either in the case of these or alcoholic patients.

From an *a priori* point of view one would naturally think that recovery was impossible in a considerable number of cases. It is well known that alcohol produces extensive degeneration of the nervous elements in the brain and peripheral nerves, and as our present knowledge seems decidedly to indicate that very little repair of damaged nerve cells is possible it is hard to believe in the complete restoration to mental vigour of patients who have for many years taken alcohol in great excess. Nevertheless, experience has shown me that many cases which are apparently most hopeless do recover under the treatment here recommended. I can hardly offer any explanation of this. I apprehend that in these cases the marked signs of mental deterioration are due to the effect of continued intoxication by alcohol retained in the body rather than to actual nervous destruction of tissue from alcoholic poisoning. No doubt some degenerative changes are present in most cases. The amazing recoveries which I have seen under the treatment here set forth make it perfectly clear to me, however, that the degenerative changes play but a small part in producing the obvious degradation and deterioration of the mental faculties.

I trust that the publication of these notes may result in this treatment having a careful and extended trial, but perhaps a caution is desirable lest the fate that sometimes follows the introduction of good methods of treatment should attend this and it become discredited by its wide adoption without proper precautions. Very considerable attention is required on the part of the physician. The cases are often exceedingly difficult to manage, and success is hardly likely to follow unless the treatment be carried out under proper conditions, and for this reason treatment in a sanatorium or other special institution is desirable in order to obtain the best results.

THE SO-CALLED "GOLD CURE" OF INEBRIETY

By S. BACKWELL FENN, L.R.C.P. and L.R.C.S.Ed., etc
Medical Officer, Southport Hydropathic Hospital.

HAVING had the opportunity of treating many patients with and watching the effects of, the so-called gold cure of inebriety for the last three and a-half years I esteem it a privilege and duty to testify to its methods and results. We are all only too familar with the sad relapses occurring where the patient has been placed under restraint for six, twelve, or more months. Under these circumstances he is unable to procure the drink he craves for, and on leaving the retreat often immediately resorts to the prohibited stimulant and becomes its slave as before. The Americans have long recognized this, and institutions for the rapid cure of this disease abound in the new world, though it would appear that most of them work with secret or proprietary formulae. I am indebted to the Rev. Dr Wolfenden for seriously calling my attention to the "gold cure" and inducing me to give it a trial.

The *modus operandi* of the "cure" is as follows: On entering the institution the patient is at once made thoroughly at home, and is given a glass or bottle of his favourite beverage if he wants it. No restriction is put upon his movements, and he can go in or out as he pleases between meals and the times for administering the medicines. A generous table is provided and, in some cases, extra nutrition is prescribed in the shape of soups, beef tea, oysters, etc. Before commencing the medicinal treatment the patient is thoroughly examined, and the presence or absence of organic disease ascertained. The "cure" then begins and consists of hypodermic injections, medicines given by the mouth and the administration of baths. The first are given four times a day and consist usually of a solution containing daturine sulphate gr. $\frac{1}{200}$ or atropine, gr. $\frac{1}{500}$ and strychnine sulphate gr. $\frac{1}{100}$, these doses being regulated according to the patient's condition. I have never seen an abscess or unduly sore arm from this frequent use of the needle. The medicine given internally is taken every two hours during the day and evening. This generally is a mixture containing chloride of gold and sodium gr. $\frac{1}{20}$, ammonium chloride gr. j, aloin, gr. $\frac{1}{25}$, fluid extract of viburnum ♏ x and tincture of cinchona ♏ xl. Should the patient suffer from diarrhoea I omit the aloin. It is found that small doses frequently repeated are better than larger ones at longer intervals.

If the patient from force of habit insists after the fourth or fifth day in taking alcohol, a little liquid extract of ipecacuanha is added to his medicine. The resulting emesis quickly induces him to abstain from his whisky. Should the medicine produce nausea, diarrhoea, or bilious symptoms I change the prescription accordingly. Tincture of capsicum, fluid extract of kola, and ammoniated tincture of valerian are drugs frequently used in addition to the above named. Special attention is paid to insomnia and neurasthesia, symptoms from which inebriates frequently suffer The next, and by no means the least, important part

he treatment is the hydrotherapeutic. Full sheet packs, n packs, vapour baths, sitz baths, spinal baths, are all in r place found to be most beneficial. The skin is thus got a thoroughly healthy condition and internal organs are gorated in the performance of their functions.
entally and morally much is accomplished by the patient's rful surroundings, the presence of others nearing the pletion of their treatment, whose well-being and health tly encourage the new arrival, and by tactful counsel from physician or nurse to help the patient's resolve and open to his mind fresh and healthy views of life and its ileges.
the great majority of cases four weeks is sufficient to sform the drink-sodden victim of intemperance into a thy and sober man or woman. Exceptional cases will ire five weeks, and very occasionally six to eight are rable.
here are some few cases who have little or nothing left to upon. They appear to be thoroughly burned out, so to k, by alcohol, and though the baths and medicines may the appetite for drink away they have no vitality left, soon drift back into their old habits. Such cases, how-, are not numerous. Rarely, too, one meets with another s of patients that are very disappointing. They will not t one honestly and fairly in taking the treatment, they drink on the sly, and will never show an honest purpose ve a clean life. As a rule, however, no patient who takes full course of treatment as directed, and manifests an est desire and set purpose to rid himself of his bondage fail to succeed. One clearly recognizes that alcoholism ot simply a physical disease but also a great moral malady, we therefore seek to lead the patient to look upon life in w way; to persuade him to give up false friends and old ciations; and to make up his mind that in the future he under no circumstances whatever touch the poison that ruined his past.
he treatment is necessarily institutional from its very re and the frequent, regular, and thorough administration he remedies employed. Besides, there is much about tutional life and its environments that is extremely ful to the patient. I should add, however, that con-rable success has been achieved by sending specially-ned administrators as residents into homes of alcoholics month or five weeks, there to treat the patient under the sician's directions.
hat percentage of the patients remain permanently cured? most difficult to answer this question, as from the very re of the malady it is not easy to gather reliable statistics. Wolfenden's statistics in Australia go to show that 80 per remained total abstainers after a period of one to eight s. My own experience leads me to conclude that 60 cent. here do so. Some fall and return at once, and ng learnt their bitter lesson are the stronger for the ose. Others are led back to drinking habits by old asso-ons, the presence of drink in the home, or the lack of l courage. The results, however, are most encouraging stimulate one to further research and endeavour to secure best results.

ADRENALIN IN NEUROTIC HEART.

By A. S. MYRTLE, M.D.,
Harrogate.

HING has been more forcibly impressed on my mind ng the last fifteen years than the great and steady ease of heart cases of a neurotic origin. On examining in a quiescent state, one discovers nothing abnormal heart or pulse. The attack generally comes on suddenly out apparent cause — the patient feeling perfectly detects a little flurry in heart's action with a sense of ession or weight—the pulse is feeble, very irregular, and rmittent, beating rapidly for a second or two, then halt-missing a beat after every third, fifth, or seventh. piration is hurried and shortened, but not remarkably so, a full deep breath can be readily taken. Early attacks off generally as quickly as they appear with rest and a of whisky or other stimulant; they can be frequently be ed to errors in diet, over-fatigue, mental excitement, or tional derangement of the liver. As time goes on they me more frequent and persistent, demanding active treat-t. I have found full doses of strychnine $\frac{1}{20}$ gr. hypoder-lly or by the mouth most reliable, and with this $\frac{1}{250}$ gr. to r. strophanthin is combined with marked advantage; in severe cases I have resorted to ether inhalations without permanent good. I have long discarded digitalis as useless.

Recently I met with two cases lasting for days where the above measures, with plenty of brandy, etc., had absolutely no effect.

CASE I.

The first, a gentleman over 70 years of age, had been very bad for four days and nights, when my son suggested a trial of adrenalin. He had been using this (to me a new therapeutic agent) in cases of haemorrhage, internal and external, at the infirmary and in private. He had noticed that in cases where he had found the heart weak, the pulse feeble and irregular before the adrenalin was given, after its use the heart's action got stronger, the pulse steadier, and whilst admitting that the improvement in these cases might reasonably be accounted for by the cessation of the bleeding, he advised a trial of the drug in this case and prescribed 20 min. of adrenalin chloride solution every six hours; the pulse was so rapid, feeble, and irregular that it could not be counted, the patient complained of a dull pain with sense of weight over the heart, his expression anxious, the face and ears ashen, the extremities cold, and the voice reduced to a whisper. After the second dose a little improvement was noticed, and this continued without a check after each dose; after the fifth the patient fell asleep in his chair and in a couple of hours awoke feeling quite himself but very shaky.

CASE II.

Shortly afterwards a similar case came under our care—a gentleman close on 80 years of age, of gouty habit. He had been liable to heart attacks for many years. After reading a highly sensational blood-and-thunder novel, the heart suddenly gave in; he began passing large quantities of pale urine, for an hour and a-half he had to empty his bladder every fifteen minutes. He was put on the same course as the other patient, and after the third dose was relieved of all discomfort.

In neither of these cases did any unpleasant effect follow.

In milder cases we have given small doses, 5 min. with $\frac{1}{125}$ gr. of strophanthin with the most satisfactory results. I feel scarcely warranted in bringing this new remedy as a cardiac tonic to the front on such limited experience, but having watched its action most carefully I am convinced of its value, and place it before the profession believing it will prove of great benefit in cases of heart failure such as I have described. I am all the more encouraged to do so after reading the original, bold as well as successful results obtained by Dr. James Barr, of Liverpool,[1] in dealing with the very worst cases of serous effusion in the cavities of the body, where complications of the gravest kind had to be faced.

REFERENCE.
1 BRITISH MEDICAL JOURNAL, March 19th.

DIONINE: A NEW OCULAR ANALGESIC.

By JAMES HINSHELWOOD, M.A., M.D.,
Surgeon, Glasgow Eye Infirmary.

IN dealing with disease in such a sensitive organ as the eye, our aim must be not only to cure the disease, but during its course to give relief to the sufferings of the patient. Every agent which can contribute to the relief of pain should therefore be welcomed as an additional weapon to our therapeutic armamentarium, which cannot be too well stocked. At the meeting of the British Medical Association in 1898 at Edinburgh I made a communication[1] on holocaine, an ocular anaesthetic and analgesic, greatly superior to cocaine in its power of relieving the deep-seated pain of ocular disease. On reading Darier's recent work[2] on ocular therapeutics my attention was directed to dionine as an ocular analgesic, and I have since made extensive use of it with great success, both in my private and hospital practice. Although dionine has been used for several years in general medicine as a sedative to replace codeine and morphine in bronchitis, pulmonary emphysema, and bronchial asthma, its use as an ocular analgesic is practically unknown in this country, and hence I wish to briefly record my personal experiences of this new and powerful agent for the relief of pain in the eye.

Dionine, or ethyl-morphine hydrochloride, is a white odourless crystalline powder freely soluble in water. I have used the dionine chiefly in 5 per cent. aqueous solution, or made up with vaseline as an ointment in similar strength. Where there is great lachrymation I prefer to use it as an ointment, which smears itself over the globe of the eye, and is gradually melted and aborbed. In such cases a few drops of a solution are rapidly diluted with tears and washed out of the conjunctival sac, and therefore it is not so effective as the ointment. Even in 2 per cent. aqueous solution, or as an ointment of same strength, dionine has marked analgesic properties, and hence, where the pain is not severe and the inflammatory condition of the eye not very acute, the

strength of 2 per cent. may be quite sufficient to give the necessary relief.

When this 5 per cent. solution is dropped into the conjunctival sac it does not modify in any way the sensitiveness to touch of the cornea or conjunctiva. The gentlest contact with cornea or conjunctiva is felt just as distinctly after the instillation of the dionine as before it, hence it is not an anaesthetic like cocaine or holocaine. It is of no use, therefore, for the removal of foreign bodies or for performing operations of any kind on the eye. But if the patient is suffering from a painful affection of the eye, such as iritis, irido-cyclitis, glaucoma, ulcer, or inflammation of the cornea, the instillation of the dionine solntion will always soothe, and often give complete relief, for several hours from the severe pain which accompanies those affections of the eye. Dionine is not an ocular anaesthetic, but is a powerful ocular analgesic.

Does the dionine give this relief by its local action on the globe of the eye, or does it act on the central nervous system, after being absorbed into the general blood stream partly by the conjunctiva and partly by the tear passages? That its action is purely local is proved by the fact that when both eyes are painful relief is experienced only by the one into which the dionine has been instilled, the other eye remaining painful as before.

Cocaine and holocaine are both anaesthetics and analgesics. Cocaine and holocaine render cornea and conjunctiva insensitive, so that we can perform operations on the eye without pain, and for this purpose they stand so far unrivalled. They are also analgesics, relieving the pain of disease when it is superficial, as in abrasion and ulcers of the cornea. But in this analgesic power dionine is undoubtedly superior both to cocaine and holocaine, and hence the great value of this new agent in the treatment of diseases of the eye. In the deep-seated pain produced by iritis, irido-cyclitis, and glaucoma the analgesic effect of cocaine and holocaine is much less powerful, and particularly that of cocaine. Sometimes cocaine actually increases the pain by elevating the tension of the eye, and hence cocaine should be used with the greatest caution as an analgesic in inflammatory conditions of the eye. I have recorded a case[3] where an attack of acute glaucoma was brought on by the use of cocaine. In glaucoma cocaine should never be used for the relief of pain. Holocaine can be freely used in glaucomatous cases, as it has no effect whatever on the tension of the eye. It is in these cases of deep-seated pain due to inflammatory affections of the eye that the analgesic effects of dionine are of the greatest service. We can give the patient relief no doubt by the internal administration of morphine by the month or hypodermic injection, but this method has the great disadvantage of frequently deranging the digestion and disordering the patient's nervous system. It is a great step in advance to give the patient relief by a local analgesic alone, and this we are able to accomplish in most cases by dionine.

I have recently, in cases of deep-seated pain due to inflammatory affections of the eye, such as iritis, cyclitis, irido-cyclitis, and glaucoma, carried out comparative experiments with regard to the power of cocaine, holocaine, and dionine in relieving pain. I have used three solutions—cocaine, 5 per cent.; holocaine, 1 per cent.; and dionine, 5 per cent. I have used these solutions alternately in the same cases with the view to determine the degree and also the duration of the relief afforded. Cocaine is by a long way at the bottom of the list both as to the degree and duration of the relief afforded. Its analgesic effects are not to be compared with those produced by holocaine and dionine in this particular class of cases. Cocaine only gave very partial relief as compared with the great relief afforded by holocaine and dionine. The analgesic effects of the dionine were found to be even greater than those of holocaine.

With regard to the duration of the relief afforded, both holocaine and dionine were much superior to cocaine; but here, too, dionine was at the top of the list. The partial relief from cocaine rarely lasted more than an hour, whilst the analgesic effects of holocaine and dionine lasted for three and sometimes for four hours. For the relief of the severe deep-seated pain in inflammatory affections of the eye, both as regards degree and duration of the analgesia produced, I found dionine the most powerful agent, next to it holocaine, and a long way inferior to both cocaine.

There is an occasional effect of the dionine regarding which the patient must be warned, otherwise it may cause him much needless alarm. After the first instillation, there sometimes appears an intense chemosis of the conjunctiva, which swells up and overlaps the cornea. This need cause no a as it rapidly subsides, and it is even an appearance to be comed, as in these cases where the dionine produces int chemosis its analgesic effects seem to be greatest. chemosis of the conjunctiva appears only after the fir second instillation of the dionine, and never after the su quent ones, and need not interfere in the slightest degree the regular use of the drug. I have never seen it afte use of 2 per cent. solutions, but only after the use of cent. solutions. The dionine drops or ointment may be every four, six, or eight hours, according to the severity o pain and the effect produced.

REFERENCES.
1 BRITISH MEDICAL JOURNAL, 1898. 2 Darier, *Leçons de Thérapeu Oculaire.* 3 *Ophthalmic Review*, 1900.

HYDRONEPHROSIS DUE TO ABNORMALITIES THE URETERS

TWO CASES SUCCESSFULLY TREATED BY PLASTIC OPERATIO

BY B. G. A. MOYNIHAN, M.S., F.R.C.S.,
Leeds.

WITHIN the last twelve months I have operated upon 2 c of hydronephrosis and have found, in each, a deformity o ureter to be the cause.

CASE I.—*Stricture of Ureter: Ureteroplasty: Recurrence of Hydronephr Ureteropyeloneostomy: Recovery.*

A. D., female, aged 19, admitted to the Leeds General Infirma October 6th, 1902, complaining of a swelling on the right side o abdomen. The history was, that ever since the age of 2, patient had suffered from pain and constant uneasiness in the loin, especially after exertion. There had never been any sympt of urinary disorder, neither pain nor frequency of micturition; no blood had ever been observed in the urine. The pain during last year or more had been worse and had come in "spasms" wi caused faintness and sickness. Four weeks before admission noticed that the right side of the abdomen was swelling. Since first appearance of this enlargement it had steadily increased in without remission.

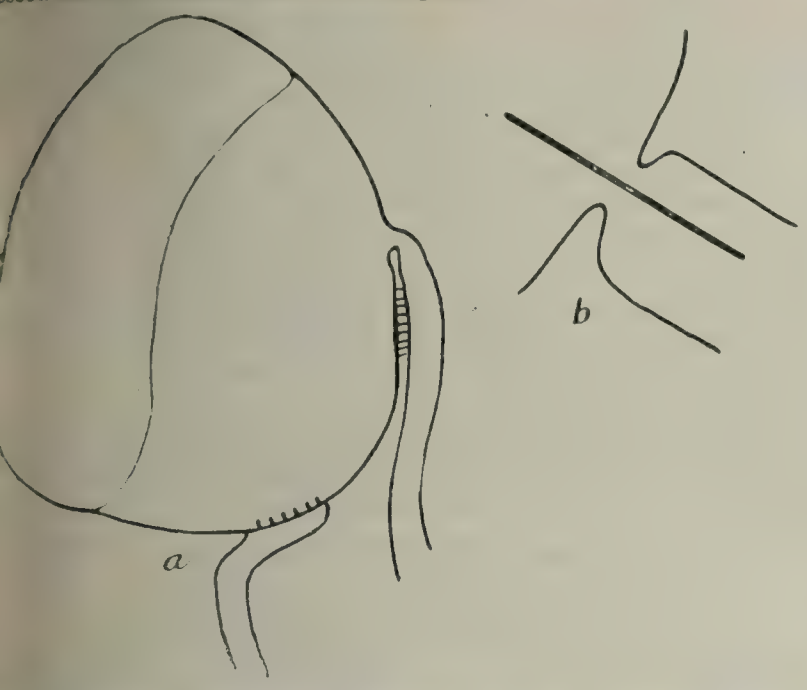
On examination of the abdomen a smooth, rounded bulging tum was found in the right lumbar region. The signs revealed, permi an assured diagnosis of hydronephrosis to be made.

On October 6th, 1902, the kidney was exposed through an obli lumbar incision. The tumour was found to be formed by the e mously distended pelvis of the kidney. About 27 oz. of fluid v drawn off by the aspirator. It was then apparent that the rela of the ureter to the renal pelvis was abnormal. The urete normal size, opened at approximately the junction of the u third with the lower two-thirds of the pelvis, and was intima adherent to the wall of the pelvis as it lay in contact v it. The ureter was freed from the pelvis, and at its p of origin was seen to be very markedly stenosed. The of the ureter was abruptly diminished over a short len as though a narrow tape had been tightly tied around A small incision was made into the ureter above ½ in. be the stricture and a fine probe passed upwards to the pelvis. the stricture its passage was arrested, nor could any probe be mad pass. The stricture was, therefore, carefully divided from the out with a fine scalpel and the incision continued upwards into the p until its length was approximately 2 in. This longitudinal wound then stitched transversely with a continuous double suture of Pagenstecher thread passed with an intestinal needle; the muc membrane was not pierced. Before introducing any of the stitche probe was passed downwards along the ureter into the bladder to m certain that the channel was pervious. The kidney, which, after emptying of the pelvis seemed unduly mobile, was anchored by a stitches through the capsule passed in such a way as to tilt the kid slightly, in the hope that the ureteral opening might thereby be m the lowest point.

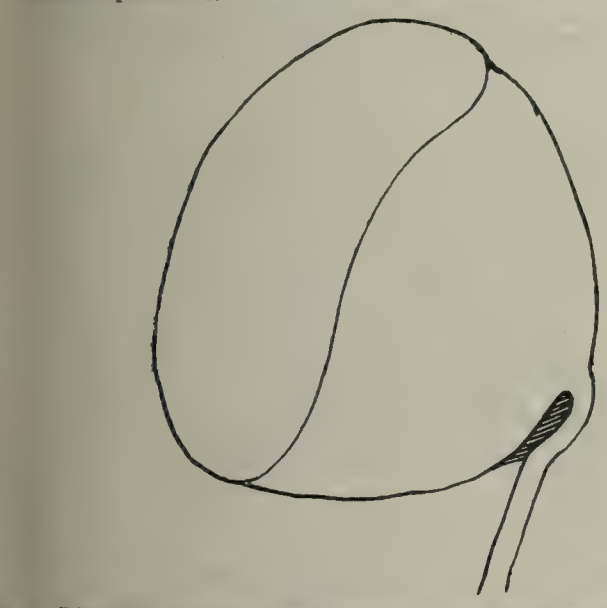
Recovery from the operation was uneventful, but three weeks late was seen that the tumour was reforming. On November 22nd an amination showed that the hydronephrosis was, to the full, as large before. On November 24th the kidney was therefore again expo through the old incision and the distended pelvis emptied. The ure was cut completely across at its junction with the pelvis. The sect was made obliquely. The pelvic opening was closed by a purse str suture and a continuous suture outside this. The distal end of ureter was split for rather over an inch. An opening was now m into the pelvis at the lowest point, and to this opening the cut end the ureter was sutured. The sutures of Pagenstecher thread w passed with an intestinal needle, and did not pierce the mucous me brane. The wound in the loin healed by the first intention, and patient rapidly improved in health and strength.

When seen in August 1st, 1903, she had gained 2 st. 4 lb. in weig The urine separator of Luys was passed. Both test tubes began at o to fill. On examination it was found that the urine from the right k ney was slightly larger in quantity and of lower specific gravity (1006 compared with 1011) than that from the left. Palpation of the lum

gion elicited no tenderness, and no enlargement of the kidney could perceived. The wound was soundly healed, and the patient ex-essed herself as feeling well in all respects.



ig. 1.—Diagram showing the distended pelvis and adherent ureter. *b* shows the stricture at the orifice of the ureter and the incision for ureteroplasty. *a* shows the position of the ureter after the second operation.



g. 2.—Diagram showing the spur-like projection at the entrance to the ureter.

s II.—*Valve-formation at the Upper End of the Ureter; Pyelo-ureteroplasty; Solitary Kidney: Recovery.*

. B., female, aged 21. In September, 1902, the patient was con-d. Shortly after her rising from bed she began to experience pain a feeling of weight, "as though something were dragging" in the side. Before this there had never been any symptom referable to urinary organs. When the side was examined by her medical man elling was found. This increased gradually in size at first, until a our, obvious at once on inspection, had formed. During the last e months some variation in the size of the swelling had been ced. The urine passed had varied a little in quantity, but had not accurately measured. A diagnosis of hydronephrosis was made, on April 20th, 1903, the kidney was explored through the loin. rge distension of the pelvis of the kidney was found. The pelvis aspirated, and 32 oz. of thin clear urine withdrawn. On the inner the ureter, which was of normal size, was adherent very firmly bout an inch to the wall of the pelvis. On separating it the upper was found to be much thickened, and it was at first thought that a l stone might be impacted near the pelvis. The ureter was incised itudinally, and the incision carried upwards into the pelvis. The xening was found to be due to a prominent indurated spur which had ed at the junction of the pelvis and the ureter. The ureter opened ob-ely into the pelvis, and that wall which was nearest to and adherent ne pelvis had formed, with the pelvic wall, a tough triangular s, which seemed to be obstructing the entrance to the ureter. The ion in the ureter and pelvis divided this valve completely; it was nued upwards and downwards until its length was approximately . The vertical incision was then closed transversely. A small nage tube was passed into the sac of the hydronephrosis through ortex of the kidney, in order to drain away for a few days all the e and so allow a better chance of healing in the ureteral wound. wound in the loin was then closed, except at the point where the c drainage tube issued.

For nine days all the urine was passed through the loin, no drop o urine issuing from the bladder. At the end of that time the tube was withdrawn and the wound gradually healed, and concomitantly urine began to be passed from the urethra.

The patient was seen on July 25th, 1903. The lumbar wound was entirely healed, the kidney could only just be felt. Urine was passed in normal quantity, and without any discomfort. The urine separator of Luys was passed. At the time of using this instrument I was not aware of the fact that no urine had been passed from the bladder for nine days subsequent to the operation, as two days after the operation I had left home for a few weeks. I found on passing the separator that all the urine escaped into the left test tube; not a drop came into the right. I was therefore very much chagrined at my apparent lack of skill with the instrument, but ample compensation was afforded me when I learnt the previous history, for it became then quite obvious that the patient possessed only one kidney, that upon which I had operated. The result, therefore, was a proof of the efficiency of the instrument as satisfactory as it was unexpected.

These two cases illustrate very well the treatment of hydronephrosis due to stenosis and valve obstruction of the ureter. In the first pyelo-ureteroplasty was followed by pyelo-ureteroneostomy; in the second the plastic operation alone sufficed to effect a cure. The number of cases of hydronephrosis which have been treated by procedures similar to these is still very small. In Mr. Henry Morris's book on *The Surgical Diseases of the Kidney and Ureter*, vol. ii, pp. 444, 445, only 12 cases are tabulated, and of these 5 were in the practice of the author. In Israel's work, *Chirurgische Klinik der Nierenkrankheiten*, page 72, 2 cases, one of valve formation and one of stenosis of the ureter, are recorded.

In Case 1 the stenosis of the ureter at its origin from the renal pelvis was doubtless congenital. Symptoms had been present since the age of 2. The high opening of the ureter was probably caused by the earlier and more considerable distension of the lower part of the pelvis. As the urine accumulated in the most dependent part of the pelvis, it would cause a bulging and an increasing distension of this part, so that as time passed the ureter would appear to be pushed higher and higher up in the inner wall of the sac. Although the opening at the first operation was made of large size, it was clearly inadequate as a means of drainage, on account of the fact that the lowermost part of the pelvis was never completely emptied. At the second operation the incision into the renal pelvis was made of good size and at the very lowest point.

In the second case the cause of valve formation was obscure. No better case than this could be quoted in strenuous advocacy of conservative treatment in the treatment of hydronephrosis, for the kidney affected was the only one the patient possessed, and if harm had come to that death would have been inevitable.

In both cases a thorough exploration of the whole length of the ureter was made, and no other abnormal condition was discovered.

DECAPSULATION OF THE KIDNEY FOR THE TREATMENT OF ALBUMINURIA.

By DAVID NEWMAN, M.B.,
Surgeon, Glasgow Royal Infirmary.

I have read with much interest an article on Experimental Nephritis followed by Decapsulation of the Kidney by Drs. I. Walker Hall and G. Herxheimer, in the British Medical Journal of April 9th. While they deal with the subject almost entirely from the experimental and pathological standpoint, at the end of their valuable article they make a short reference to the surgical aspect of the subject. The conclusions they have come to by experimental methods are the same as those I have drawn from clinical experience over a period of many years. I have seen no reason to depart from my original opinion that the benefits derived from surgical operative interference in cases of albuminuria were due to relief of tension. When the capsule of an inflamed or congested living kidney is incised, the capsule retracts and the cortical substance pouts out through the wound, thus demonstrating that the parenchyma has been subjected to considerable pressure. Not only is this observed during life, but even in the dead kidney to a lesser degree the same physical conditions maintain. It is the contrary in old-standing parenchymatous and interstitial nephritis; in both these conditions there is no protrusion of the kidney substance when the capsule is divided. Edebohls and his followers maintain that decapsulation of the kidney is necessary, not only in acute but also in chronic renal affections, and that relief is obtained

by the establishment of a new and active cortical circulation, by which the diseased cells of the uriniferous tubules are regenerated and their functional activity increased. I look upon this view as entirely erroneous, and not supported by facts. I have never seen any such new formation of blood vessels in kidneys which have been decapsulated, quite the contrary, the new-formed fibrous tissue is usually found to be almost non-vascular when a few months old. When the capsule of the kidney is removed granulation tissue forms on the surface of the organ, and blends with the granulation tissue thrown out by the tissues of the parietes. At first the capillary circulation in this new cellular connective tissue is very active, but no new vessels of any size form, and within a comparatively short time it becomes converted into dense fibrous tissue.

Certainly Edebohls has rendered good service to the profession by the enthusiastic advocacy of surgical interference in certain forms of albuminuria, but I do not consider that his method of decapsulation does more good to the patient than relief of tension by simple incision, as advised by Mr. Reginald Harrison in 1896, and as practised by me in 1888.[1] It is true that in the instance referred to the operation was undertaken in the belief that the patient was suffering from renal calculus, but the operation and its result taught me that by incising the kidney "relief of tension facilitates the renal circulation," it relieved pain and caused the albuminuria to cease. This lesson I have always remembered, and it has regulated my practice in such cases ever since.

In my paper in the *Clinical Society's Transactions*, page 74, I said: "All the cases referred to above seem to have an important bearing, not only upon the pathology of albuminuria, but also on the treatment of it in certain cases;" and again at page 76: "I believe that not only in the cases referred to here, but in many others, the retardation of the glomerular circulation by venous engorgement is the chief factor in the causation of suppression of urine and some forms of albuminuria, and consequently relief of tension may give immediate ease to the patient and restore the function of the kidneys.

"General experience, I think, has shown that the vascular tension produced by mechanical venous obstruction or by inflammatory engorgement cannot be relieved permanently by drugs, while it can be rapidly alleviated, and serious consequences avoided, by surgical treatment. Free incision or local bleeding is clearly indicated in such cases, and in all cases of increased vascular tension of a tissue, whether the one or the other method should be employed, depends upon the immediate cause of the tension and the anatomical structure of the organ or part involved." As my case in 1888 was probably the first in which incision of the kidney was recognized as a means of relieving pain and causing the albuminuria to disappear, it may be worth while giving the following short account of the case as recorded in the article in the *Clinical Society's Transactions*, p. 77.

Sudden Suppression of Urine: Albuminuria: Renal Colic: Incision of Kidney, followed by Relief of Pain and Disappearance of Albuminuria.

In 1888, at the Western Infirmary, I saw a man who complained of severe pain in the loins, most severe, however, on the right side. It came on suddenly about two months previously, and at the onset was accompanied by rigors and a sudden diminution in the quantity of urine. I ascertained from his medical attendant, the late Dr. John Moyes, of Largs, that the urine at the beginning of the attack contained albumen, but no tube casts were discovered. Specific gravity 1025 to 1030, but daily quantity of urea diminished; quantity from 25 oz. to 35 oz. in twenty-four hours. The patient did not complain of headache, nausea, or vomiting, and no other of the characteristic clinical features of nephritis were present, such as anasarca, effusion into serous cavities, anaemia, or uraemic symptoms.

When seen at the infirmary the urine contained a moderate quantity of albumen but no tube casts, and comparatively little deposit was thrown down on standing. There was a history of the passage of small oxalate of lime calculi and of occasional haematuria. While under observation he had several attacks of distinct renal colic, which led me to the conclusion that he was suffering from renal calculus, and he was advised to have an operation performed in the hospital. This he refused, but consented, after some delay, to have it done in private. On exposing the right kidney by a free incision in the loin the organ was seen to be enlarged, of a dark chocolate colour, and very tense. On examining the kidney with needles for the detection of a stone free bleeding occurred, and as no calculus could be discovered with the needles I made a free incision into the pelvis in order to explore with the finger. The bleeding was very free, and the wound in the cortex had to be plugged with iodoform gauze. No calculus was found. I felt that I had made either an error in diagnosis or that my search had been imperfect, and left the case with the belief that harm rather than good had been done by the operation; but, to the satisfaction of the patient and myself, he ceased to suffer any pain, the albuminuria disappeared entirely, and afterwards the patient enjoyed excell health.

In this case, from the onset of the trouble till the time of the op tion, albumen was constantly present and the quantity of urine mained considerably below the normal, but after incision the albu disappeared and remained absent, and the quantity of the ur increased. I have no doubt that in this case the relief of tension the incision facilitated the renal circulation.

The conclusions I have come to as regards the efficeincy incision of the kidney is that it is useful in cases of ac or subacute congestive disorders, such as acute phritis, congestion associated with haematuria, in cases anuria from toxic poisoning, or in other instances where functions of the kidney are suddenly arrested without a evidence of mechanical obstruction to the escape of uri I am glad to see that more importance is now being tached to surgical intervention in the cases I have referred

REFERENCE.

1 Cases illustrating increased vascular tension in the kidney as a ca of renal pain, haematuria, and albuminuria, with or without tube ca symptoms relieved by surgical treatment. *Clinical Society's Transacti* vol. XXX, p. 65, 1896.

A FATAL CASE OF SECONDARY PAROTITIS.*

BY BRENNAN DYBALL, M.B., B.S., F.R.C.S.,
Anaesthetist to the Royal Devon and Exeter Hospital.

PAROTITIS, as a sequel to injury or disease of the abdominal or pelvic viscera, is a well known but not very comm occurrence. Though it may often be a troublesome or even serious complication, it is as a rule overshadowed by t primary lesion. In the following case, however, the parotit was of such severity as to be the actual cause of death, and is therefore, I think, of sufficient interest to be reported:

Onset.

Mr. S. S. M., aged 37, after two days' slight epigastric pain, was seiz with intense abdominal pain about 2 a.m. on November 14th, 1902. I him about two hours later. He was lying on his back with his kn drawn up, complaining of most intense pain all over the abdomen, b worse in the lower part. The pulse was 120, and the axillary temperatu normal. The abdomen was slightly distended and scarcely moved wi respiration, which was of the thoracic type; it was very tender a resistant all over, but not more so at any one spot than another; the was no dullness or local swelling, and repeated inquiries failed to eli a history of any previous pain in the caecal region. There had been vomiting or previous attacks of indigestion. The tongue was som what coated, and the bowels had not been opened for two days. Mo of the teeth were in a shockingly carious condition. In the absence localizing signs it was decided to wait a short time. Two hours lat the pain was just as severe, but was now localized to the right ili region, which was very tender and resistent to palpation, while the re of the abdomen was comparatively free from pain and tenderness. I had passed urine and complained of great pain over the bladd when doing so. The urine was quite normal. The pulse was still 12 but the temperature had risen to 103° F.

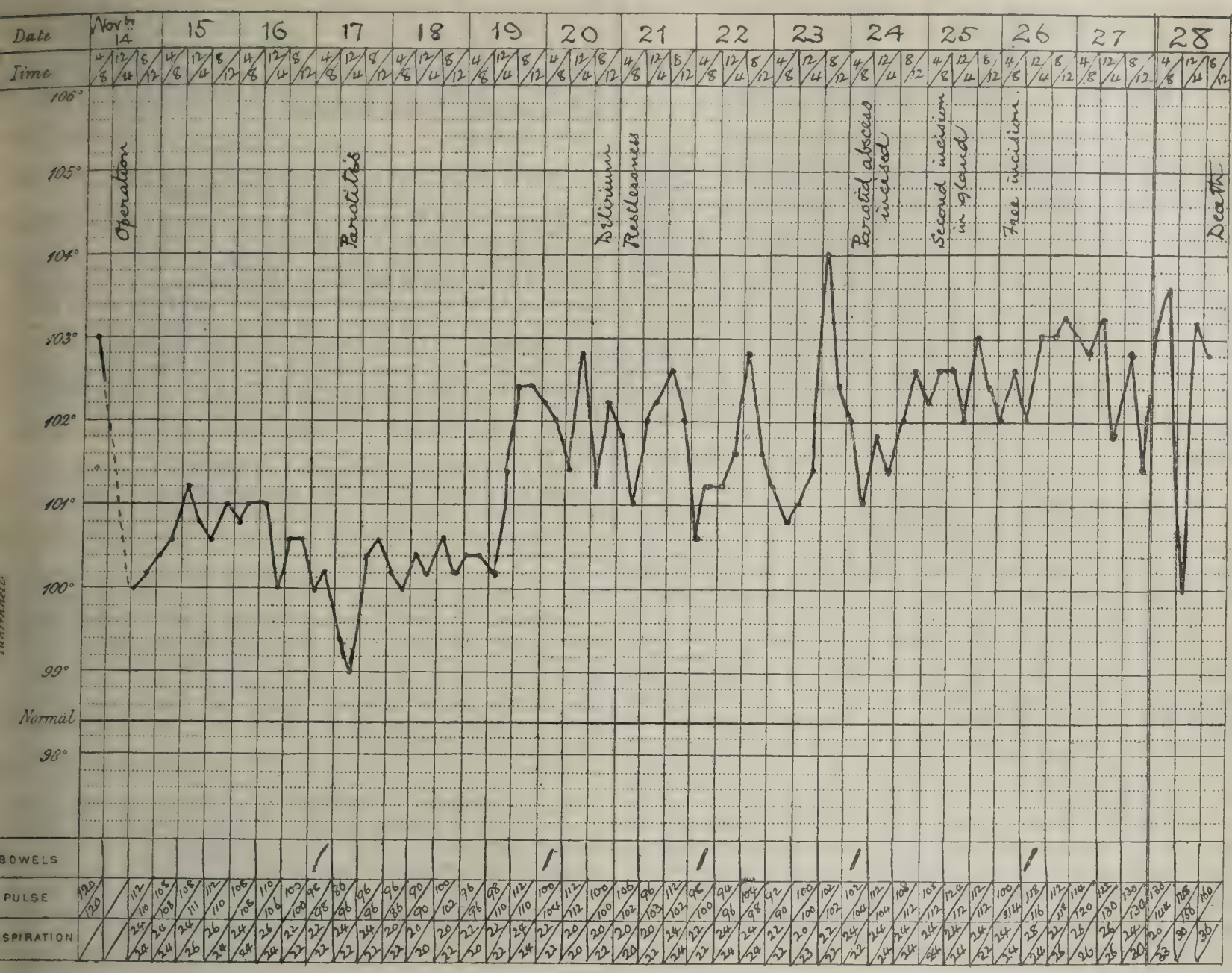
Operation for Appendicitis.

It was clear that the patient was suffering from a very severe type appendicitis and operation was advised. Dr. Davy saw him with me few hours later, agreed with the diagnosis and the necessity for ope ation, and the patient was removed in an ambulance to the Hon Hospital where the operation was performed. Chloroform was give by Dr. Andrew, and Dr. Solly assisted me. On opening the peritone cavity a little faecal-smelling thin pus escaped; there were adhesions and the appendix was easily found. It was much swolle gangrenous almost up to its junction with the caecum, half an inc from which a small concretion could be felt. There was no perforatio The meso-appendix was acutely inflamed and nearly half an inch thic After shutting off the operation area with sponges, the appendix w removed by the usual "coat sleeve" method, the stump invaginate into the caecum and buried by a row of Lembert sutures. About a ounce of offensive pus was removed from the pelvis with sponges, aft which the operation area and the pelvis were well irrigated wit sterilized water and sponged dry. The wound was then closed, drainag being provided by a large rubber tube with a "wick" of gauze, reachin to the pelvis, and a smaller tube down to the caecum. The patie stood the operation very well, but gave a good deal of trouble to th anaesthetist owing to his tongue persistently falling back. Tongu forceps and a gag had therefore to be freely used, the latter causin some damage to his carious teeth.

After-progress.

As far as the abdominal condition is concerned, the after-progress wa most satisfactory. There was no vomiting after the operation, th abdomen quickly became free from pain and distension, and moved wel with respiration. The discharge from the drainage tubes was merely little odourless serum; they were shortened daily and soon dispense with. The incision healed without any trouble, and the sutures wer

*Read before the South-Western Branch of the British Medical Association.



oved on the tenth day. The temperature on the afternoon of the th day fell to 99° F.—in fact, after the first forty-eight hours the minal condition gave rise to no anxiety at all.

Onset of Parotitis.

t, unfortunately, in the neck the state of affairs was very different. he fourth day the right parotid gland became slightly swollen and er, and the temperature rose from 99° F. to 100.4° F. A gland beneath aw on the same side was also swollen. Hot fomentations of lead n were applied, but the parotid bubo increased in size and interfered tly with feeding owing to the pain on opening the mouth. Two days the temperature rose to 102° F. and maintained a high level for the of the illness; while on the following day low, muttering ium, coupled with extreme restlessness set in, and the pulse rose er 100.

Operation.

turally a very keen watch was kept for signs of suppuration, but the ling kept very hard and brawny, and it was not until the eleventh hat a small spot of softening was detected at the centre. Chloro- was given and the abscess incised by Hilton's method, liberating no than half a drachm of very thick pus. No improvement in the nt's general condition followed this, and the following day another of softening was found at the lower part of the gland and was ed. The discharge from the first incision was now considerable cating rapid breaking down of tissue, and on the next day the ess was found to be discharging through the external auditory us, and the two cavities were found to be communicating and were freely open by an incision joining the other two. The walls of the y exposed were in a horrible grey, sloughy, semi-gelatinous state, the necrosed tissues evidently extended deeply, as a probe passed ds touched the fronts of the transverse processes and also the base e skull, but laterally the inflammation was confined fairly to the s of the gland. Much of the slough was cut away, the cavity was ently syringed out with a solution of hydrogen peroxide and ed with hot fomentations of lotio sodae chlorinatae.

After-Treatment.

tistreptococcus serum was injected, brandy and injections of hnine had been and were freely administered, and the patient held wn extremely well for a time, but on the thirteenth day the heart to fail and he died on November 28th, fifteen days after the operation and eleven days after the first appearance of the parotid bubo.

REMARKS.

The rarity of parotitis as a cause of death is shown by the fact that only six instances were found in the English, American and French literature, and in one of these, reported nearly fifty years ago, death was certainly not due to the parotitis but to the primary abdominal condition. Suppurative parotitis, whether primary or secondary, is not, as a rule, very severe, the pus being confined to the limits of the gland. In the case now related, however, the inflammation was exceptionally virulent, and I can find but very few similar cases in the literature. In one of these the parotid sloughed completely away leaving the masseter bare, but the patient, a boy of ten, recovered.[1] In another, the inflammation spread beyond the gland with a resulting cellulitis, which extended down to the lower border of the pectoralis major and outwards to the acromion at the death of the patient.[2] Both of these were cases of primary parotitis. In the third, a case of secondary parotitis after ovariotomy, there was also a consecutive cellulitis of the neck with death of the patient.[3] In my case it was no doubt owing to a secondary infection of the already-inflamed parotid by septic organisms from the mouth, derived from the broken-down carious teeth, that the inflammation was so virulent. In cancrum oris one sees a similar type of inflammation, also due to the action of buccal organisms.

REFERENCES.

1 Roth. Gangraena Parotidis. *Woch, f.d. ges. Heilk.* 1851. 2 Coombs, *Med. Press and Circ.* 1881. 3 S. Paget. *Lancet*, i., 1886, Case No. 32.

PRESENTATION.—At the conclusion of a course of lectures on home nursing conducted by Mr. H. Norman Barnett, F.R.C.S., at Knock, Belfast, some members of the class presented him with a silver-faced carriage clock as a slight recognition of his services.

MEMORANDA:

MEDICAL, SURGICAL, OBSTETRICAL, THERAPEUTICAL, PATHOLOGICAL, ETC.

TREATMENT OF ANKYLOSTOMIASIS.

IN the BRITISH MEDICAL JOURNAL of March 5th, p. 545, Dr. Branch, in an interesting note on the treatment of ankylostomiasis, suggested that a case treated by me in the Western Infirmary of Glasgow in June, 1903, might still harbour the worms, and advised that inquiry should be made into the man's present condition. During his stay in the infirmary the patient got 20 gr. thymol thrice and 2 drachms liquid extract of male fern once. I asked him to come into hospital again for a few days, and repeated examinations of his stools have failed to reveal in them the presence of ova or of altered blood. Since dismissal last June he has been working as a miner and furnaceman without discomfort from breathlessness or debility, and states that he feels perfectly well.

Glasgow. RALPH STOCKMAN.

A WARNING SIGN OF DANGER TO THE CHILD DURING LABOUR.

IN the BRITISH MEDICAL JOURNAL of March 26th, I see the paper by Dr. F. E. Daniel, A Warning Sign of Danger to the Child during Labour, read at a meeting of the Furness Division of the North Lancashire Branch of the Association.

I have myself for years been aware of the same movements in the child he speaks of (which are peculiar, and when once noticed cannot be mistaken for "a kick"), and I always associate them with great danger to the child. My invariable practice has been to deliver (as Dr. Daniel suggests), as rapidly as possible, being careful of injury to the perineum, but making this a secondary consideration. I have never met with any evil consequences as the result of such practice. I have noticed the movements in forceps cases, but not nearly so frequently as in breech presentations. I had as recently as March 20th a well-marked case in a breech presentation, in which delivery was hastened in the usual way by introducing the fingers and assisting the sweep of the face over the perineum by pressure on the malar bones. In this case the cord was tightly twisted round the neck. The child did not breath upon delivery, but by means of artificial respiration slowly recovered.

Bidford, Warwickshire. C. E. HOBBES.

PNEUMONIA.

THE following cases are interesting owing to their cerebral complications:

1. Mrs. P., aged 46, on January 14th, 1903, fell down insensible with clenched teeth. A systolic *bruit* was present, but no fever. The base of the left lung was consolidated, and cleared up so as to allow her to be discharged on January 17th. On January 15th, 1904, a similar attack occurred. She worked up to the day of falling down, remained comatose more or less for twenty-four hours.

2. Mrs. M., aged 26, on October 6th, 1902, had a temperature of 102.6° F., with consolidation of the left base. There was transitory hemiplegia on the right side, and hallucinations of vision. She saw people green, etc., after the fever had ceased some days. She was discharged well on October 27th. This year she came from another district to consult me, suffering from pneumonia, which readily underwent resolution.

3. Mrs. C., on January 17th, fell sick; on Monday, 18th, epileptic fits, with unconsciousness, occurred. The base of left lung was solid; uterus, which contained a quickened fetus, was in a state of tonic contraction. During the fits the head was drawn to the right, the tongue was bitten on the right side, and there was frothing at the mouth. The patient suffers from asthma, and a mitral *bruit* was present. She was absolutely unconscious of her surroundings up to Tuesday night, the 19th. On Wednesday she recognized me, but knew nothing of the past. She had been worried by the death of her husband from accident in December. Fetal movements were felt about a fortnight later, and she was discharged on February 1st. On the 24th she gave birth to a macerated child, and made a good recovery. Under treatment the asthma improved. She never had fits prior to this.

4. Miss W., aged 22, an epileptic, had a chill on February 22nd, with continued vomiting but no fever on to the 27th. In the morning epileptic coma occurred with tremor, frothing at the mouth, contracted pupils and pale discs. In the afternoon she had temperature of 103.4° with pneumonia at the right base. Death occurred next day at 5 p.m., consciousness not having returned.

Southfields, S.W. J. REID, M.D.

THE MORPHOLOGY OF THE SPIRILLUM OF RELAPSING FEVER.

IN a paper on "Recurrent Fever associated with Spirilla," in the BRITISH MEDICAL JOURNAL of March 5th, 1904, p. 5, Sir Patrick Manson says, "Morphologically the spirillum differed from spirillum obermeyeri as usually represented, whereas this well-known organism exhibits many short and abrupt flexures the curves of the parasite I describe were few and graceful." I have had over a hundred cases of relapsing fever under my care and in all the blood was repeatedly examined. I venture to say that in every slide the curves of the parasites were "few and graceful," often serpentine or in loops, the serrate or abruptly-jointed form being the exception.

The "spirillum obermeyeri as usually represented" is an excellent illustration of the manner in which one "observer" after another slavishly copies the original type of the discoverer instead of, like Sir Patrick Manson, faithfully recording what he actually sees.

I have no doubt that Sir Patrick's case was one of relapsing fever with an unusual number of relapses or perhaps re-infections. To me it seems strange that a larger number of cases have not been imported into Europe from Bombay; a journey of fourteen days to London, considering there must have been tens of thousands of cases in the former city during the years 1901 and 1902. As there are many cases without any relapse they would only be recognized by the examination of the blood.

Bombay. A. POWELL, M.B., M.Ch.

INFLAMMATION OF THE LACHRYMAL PASSAGES.

I CONSIDER a treatment which I have recently adopted a useful adjunct to that usually employed in such cases. Counter-irritation has long been employed in the form of hot bathing to the skin over the nasal duct, and I have recently employed it by making an application of tincture of iodine to the nasal mucous membrane covering the front of the anterior turbinal bone, but keeping away from the opening of the nasal duct.

Forest Gate, E. ALBERT CORNER.

ANTENATAL RIGOR MORTIS.

ANTENATAL rigor mortis is so rarely observed and yet of such importance from a medico-legal standpoint that the following case is of sufficient interest to report:

On visiting Mrs. W. P. S., aged 35 years, 4-para, on the evening of September 6th, 1903, I found her well on in the second stage of labour, with strong regularly-recurring uterine pains, although she considered herself only eight months pregnant. Her face was red and swollen, partly from the violent expulsive efforts, but largely from an overdose of brandy; and she was calling loudly for chloroform. A very few drops of the latter sufficed to quiet her, and the baby was born after a few more pains. It was very plump and well nourished, but did not cry out. Observing this I attempted artificial respiration, but found that the arms were rigid. Further examination revealed the fact that the child was in a state of rigor mortis, and the nurse subsequently told me that this had not passed when the child was put into the coffin next day for burial.

I am unable to state the cause of death in this case, but fetal movements had been felt feebly about five hours before birth. The patient was one who habitually suffers very greatly from the vomiting of pregnancy, and she had done so during this pregnancy, the vomiting having been particularly distressing during a month preceding confinement. There was also a tendency to alcoholism, and two of her children show stigmata of hereditary syphilis. She has had one abortion and one premature labour with a dead fetus, attributed at the time to the excessive vomiting.

The rigor mortis did not offer any obstruction to the labour as in some reported cases, but this was probably due to the difference in the degree of the stiffness. The patient also had a particularly roomy pelvis and lax vagina, with very easy labours. NUTTING S. FRASER, M.B., M.R.C.S.

St. John's, Newfoundland.

REPORTS

ON

EDICAL AND SURGICAL PRACTICE IN THE HOSPITALS AND ASYLUMS OF THE BRITISH EMPIRE.

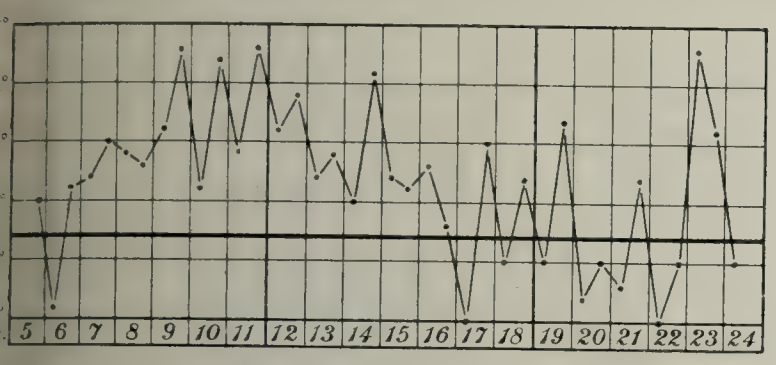
PETERBOROUGH INFIRMARY.

CASE OF SEVERE AND FATAL HAEMOPTYSIS IN A CHILD, AGED 3½ YEARS.

der the care of Dr. Cane, Senior Physician, to the Infirmary.)

Reported by Wilfrid A. Aldrid, M.R.C.S., L.R.C.P., House-Surgeon to the Infirmary.]

.., a female child, aged 3½ years, was admitted on Decem-5th, 1903, into the Peterborough Infirmary, under the care r. Cane, for cough.



istory not very reliable. The child had, according to its dmother, been suffering from a cough for nine months. ıne, 1903, had an attack of measles, since which time the h had been much worse. A few weeks before admission a spell of bad breathing, the noise (it was said) was so that it could be "heard all over the house." Legs have swollen. Patient was brought up in an open cart a dis-e of seven miles on a very cold day. Mother died of con-ɔtion.

esent Condition.—The condition of the child was so bad dyspnoea, cough, and cyanosis, that she was at once ad-ed, examination being deferred.

amination.—Child pale, thin and dusky, especially about ıose and temples. Sitting bolt upright in bed, the re-ɔent posture causing an increase in the cough and ıoea. Respirations rapid and somewhat laboured; there arked stridor both inspiratory and expiratory. Cough ı and croupy, somewhat paroxysmal. Voice, husky. : There are a few enlarged glands in anterior gles. Tonsils natural. Legs: There is no oedema. Chest: e markedly pigeon-breasted. Harrison's sulcus well ed. No beading of the ribs. There is marked recession e lower costal region, and also of the supraclavicular e. The sterno-mastoids are called into play during in-tion, and there is but poor movement of the costal s. Epigastric pulsation very noticeable. Heart: A B outside N L, in fifth space; impulse rapid, and inclined wavy. A C D is increased to right of sternum on light ssion; no cardiac murmur. Lungs: On palpation there urring sensation on left side, most marked posteriorly. ercussion, dullness at left apex and down to base pos-ly. At the right apex the note is impaired; over the of this side there is hyper-resonance. Auscultation: side, breath sounds are much increased in intensity, are harsher than natural; there are scattered crepita-all over this side. Left side, breath sounds greatly ıished; tubular quality in places, which, at a point just the apex, approaches an amphoric type. Short, sharp mixed with coarser ones, are heard everywhere; voice ls are not reliable. Urine: Slight cloud of albumen. ess of the case: Temperature irregular, ranging from 101.6°; general condition appeared to improve slightly few days; cough more paroxysmal, and somewhat re-ling the paroxysmal stage of whooping-cough; no m could be obtained; signs of a cavity at the left ; cavernous breathing and resonant *râles* became more unced.

ropsy (thorax only allowed).—Body that of an emaciated child. Thorax: On removing sternum and ribs it was found that the left lung was adherent, while the right came well over to the left side of the chest. Pleurae: Left—adherent to chest wall all over, and also to diaphragm. Right—some recent adhesions showing scattered clumps of tubercles. A small quantity of blood-stained exudation. Trachea: Surrounded by large masses of glands, some hard, others breaking down. Just above the bifurcation there was a clean punched-out hole on the posterior wall of the trachea, which communicated with an abscess cavity formed by a necrotic gland the size of a small nut. Bronchi and bronchioles were filled with blood clot. Lungs: Left—shrunken, solid, and airless, greyish-white in colour, and very hard. In the upper lobe towards its anterior border there was a cavity the size of a pigeon's egg, containing blood clot. The wall of this cavity was closely adherent to the chest wall, and was torn during removal. Section.—Quite solid and somewhat racemose in appearance. The cavity in upper and anterior part of upper lobe communicated with a smaller one at the extreme apex. At the lower part of the larger vomica there was a leash of thrombosed vessels extending across it, but the bleeding spot was not seen. Right Lung—Extremely emphysematous. The upper lobe was solid and airless. Section.—Upper lobe solid and in a condition as seen in lower lobe of left side. Through the rest of the lung are scattered nodules of broncho-pneumonia. Heart: Pericardium—Two layers so adherent that they could not be separated. Right heart was dilated. Pericardium over the left auricle was adherent to left pleura. Spleen: Full of tuberculous nodules. Liver: A few scattered tubercles are to be seen. Kidneys: Large and pale. Capsule strips off easily. Venae stellatae marked. Amyloid reaction was not obtained. Peritoneum: Natural.

The rarity of severe and fatal haemoptysis in children—and it is not a very common termination in adults suffering from phthisis—is, I hope, a sufficient excuse for my reporting this case somewhat at length. There are several interesting points in the case apart from the haemorrhage, which was so profuse as to cause death in less than ten minutes. The enlarged tracheal glands caused, I take it, the marked stridor and croupy cough, which, apart from the physical signs in the lungs, simulated the laryngeal obstruction due to diphtherial membrane. The stridor was, however, both inspiratory and expiratory, that due to diphtheria being inspiratory. The perforation of the glandular abscess into the trachea was also an interesting point. Large cavities are not usual in children with tubercle of the lungs. In conclusion, I have to thank Dr. Cane for permitting me to publish the notes of this case.

The Astley-Cooper Prize.—The date which has been fixed for the next reception of the essays in competition for the Astley-Cooper Prize of £300 is January 1st, 1907, and the subject of the essay or treatise is to be the Naked-eye and Histological Anatomy of the Spinal Cord. The conditions annexed to the competition by the testator of the Prize fund, the late Sir Astley P. Cooper, Bart., are that the essays and treatises of competitors must contain original experiments and observations which have not previously been published; further, that each essay or treatise must be illustrated by preparations and drawings, and that the preparations and drawings which accompany the successful essay shall be added to the museum of Guy's Hospital, and, together with the work itself, become the sole and exclusive property of the hospital. Sir Astley Cooper's will further declares that "no physician or surgeon or other officer for the time being of Guy's Hospital or of St. Thomas's Hospital in the Borough of Southwark, nor any person related by blood or affinity to any such physician or surgeon for the time being, or to any other officer for the time being in either of the said hospitals shall at any time receive or be entitled to claim the prize." With this exception the prize is open for competition to the whole world, but it will not be awarded to any essay which is the joint production of two or more authors. The essays, which should be typed or otherwise legibly written, must, if not in the English language, be accompanied by an English translation. Each must be distinguished by a motto and accompanied by a sealed envelope containing the name and address of the writer. Only that envelope will be opened which bears outside the motto of the successful treatise. The conditions as to originality of observation, illustration by preparations and experiments, and previous publication should be studiously observed by all competitors, who would do well perhaps to put themselves in advance in communication with Dr. Newton Pitt, the secretary of the fund at Guy's Hospital.

REPORTS OF SOCIETIES.

ROYAL MEDICAL AND CHIRURGICAL SOCIETY.

Sir R. Douglas Powell, K.C.V.O., President, in the Chair.

Tuesday, April 26th, 1904.

The Economic Value of the Sanatorium Treatment.

Dr. Noel Dean Bardswell and Mr. John E. Chapman contributed a paper which was devoted to the consideration of the life-histories of twenty-eight consumptive patients who were treated according to sanatorium methods in the Sheffield Royal Infirmary between June, 1899, and March, 1900. These patients were accommodated in two of the general wards of the infirmary specially reserved for the purpose, and facilities were made for carrying out the main essentials of the sanatorium treatment—namely, a maximum amount of open air, an adequate diet, and regulated rest and exercise. The diet, which was a modification of a hospital convalescent diet, consisted of breakfast at 6.30 of porridge, bacon and eggs or fish, bread and butter, and half a pint of milk; half a pint of milk at 10.30; dinner at 12.30 of meat and two vegetables, milk pudding and fruit, with half a pint of milk or beer; tea at 4.30 of bread and butter or jam, and an egg, with half a pint of milk in tea; supper at 7 p.m. much the same as at breakfast with half a pint of milk; half a pint of milk was also allowed for each patient during the night. The class of case admitted for treatment: The cases admitted were quite unselected. Of the 28 admissions, 11, or 39 per cent., were hopeless, and only 16, or 57 per cent., appeared to have a chance of being restored to a fair working capacity. The following table gives a brief summary of the twenty-eight admissions, the basis of classification being the duration of the disease and the extent of the lesions:

Duration of Phthisis.	No. of Cases.	Average No. of Lobes Affected.
6 months...	8	2 or 3
6 to 12 months	8	3 or 4
12 months, or more	12	4 or 5
	28	

The patients with miliary, acute caseating, and very advanced fibro-caseous disease (30 per cent.) were not appreciably benefited by treatment; the satisfactory results were obtained in those who had either fairly recent active disease or chronic slowly progressive mischief of considerable duration. Of the 16 patients who belonged to one of these two classes, 9 were discharged restored to their full working capacity, and 7 were sufficiently improved to allow of their return to light work. Statistics were prepared, covering a period of four years, subsequent to the patients leaving the infirmary, the basis of the classification being that of their various wage-earning capacities during this period. In the course of four years, of the 9 patients who were restored to their full working capacity, 3 died, 2 were lost sight of during the third and fourth years respectively (their conditions when last heard of being in every way satisfactory), and the remaining 4 maintained their health and were at full work throughout. Thus 4 patients certainly, and possibly 6, of the 9 under consideration had successfully withstood the strain of four years' work. Of the 7 patients only partially restored to health, only 1 was alive at the expiration of four years; but up to the end of the third year 3 of them had remained well enough to do a certain amount of work. The factors which seemed chiefly instrumental in determining the ultimate results obtained were the amount of income, financial obligations, and of family, etc., and conditions at home and at work. The advantages of comfortable home conditions, and an adequate income were very apparent. The nature of the employment on which the arrested consumptive depended for his livelihood had such an important bearing upon his future that a decision as to the kind of work to which he should return became one of paramount importance. Usually it was difficult for men to exchange injurious occupations for work of a satisfactory nature without incurring considerable financial loss. The following table gives the occupations of all the patients admitted to the sanatorium wards:

1. Indoor Work.

	No.		No.
Workers in metal shops ...	8	Coal miner	
Workers in engineering shops	3	Workhouse hospital attendant	
Clerks	4	Box-maker	
Shop assistants		Machinist*	
Cabinet maker	1	House-work*	

2. Outdoor Work.

Rate collector	1	Stone mason	
Errand boy	1		

Grand total ... ... 28.

* Female patients.

From this table it is seen that no less than 22 out of the men admitted were dependent for their livelihood on occupations to which it would be undesirable for a case of arrest tuberculosis to return, and this fact illustrated the great od that the consumptive working man had to contend against large cities. Of these 24 men, however, only 15 on their d charge actually resumed work, and of these no less than or 80 per cent., changed their employment. The followi table gives the original work of these 15 and the nature of t employment they returned to, with the result:

Original Trade.	Trade Returned to.	Success Failur
G. Metal grinder	Same work, shorter hours	Success
S. Cycle mechanic ...	Same work	Failure
S. Stone-mason	Same work	Failure
F. Cabinet-maker's assistant	Porter in medical school	Partial succes
F. Metal-smith	Other work, nature unknown	Failure
R. Coal-miner	Telephone company's labourer	Success
T. Grocer's assistant ...	Emigrated to Australia, odd jobs	Success
S. Steam-hammer driver	Steward of working men's club	Success
T. Type founder	1. Commercial traveller 2. Tram conductor	Failure Success
B. Silver spinner	Emigrated, farm labourer, etc.	Failure
B. Office clerk	1. Rate collector 2. Office clerk	Success Failure
P. Workhouse hospital attendant	1. On workhouse farm 2. Workhouse attendant (general)	Failure Success
G. Silversmith	1. Commercial traveller 2. Assisted in wife's shop	Partial succes Success
H. Box-maker	1. Van driver 2. Worked in a bakehouse	Success Failure
H. Clerk	Caretaker	Died so after. Death dependent nature work.

Of the 3 men who returned to their original employmen two, namely, the cycle mechanic and the stone-maso quickly relapsed, although the former was on clinical grou a very promising case. The satisfactory occupations we those of telephone company's labourer, steward of worki men's club, tram conductor, rate collector, workhou infirmary attendant, van driver, hall porter, and doing o jobs in Australia. Commercial travelling and working farms both proved failures, the work in each case entaili too much labour. The conclusions drawn were as follow (1) That general hospitals, even when situated in large citi could do a great deal for their consumptive patients; (2) th the sanatorium treatment could be carried out with a consid able degree of success in institutions other than the especially constructed for the purpose; (3) that to obta satisfactory economic results patients admitted should rigorously selected, unmarried men with early disease, w were both willing and likely to have the opportunity of retu ing to suitable employment having the best prognosi (4) however satisfactory the immediate results of treatme might be in the case of the working man, the risk of subsequ relapse was very great, unless his social status allowed of living and working under at least fairly favourable conditio after discharge.

Dr. Theodore Williams thought the paper told on t whole a sad tale. The number of cases was unfortunat small. Taking the 28 cases, the results seemed to him unsat factory. Of the 16 that were at all hopeful, only 5 d well. Of the cases classified as partial arrest, seve merely showed some improvement, and of 9, 8 di At the end of 4 years, 5 cases only out of 28 were still at wo Of 3,500 cases of phthisis recorded by Dr. Pollock wi ordinary out-patient treatment, the average of life was 2 ye 10 months among the 125 that died, and of the others ma promised to go on working for long. This did not argue w

the sanatorium treatment, unless it were thoroughly carried out and the patient returned to favourable conditions. much trust was to be placed in gain of weight alone; this ne and went very easily. The after-occupation was very portant. Colonies for old consumptive patients seemed to very desirable.

Dr. Kingston Fowler remarked that the miliary type was nd in children from the breaking down of a caseous mass as a terminal event in chronic cases. In regard to the e fibroid type there was fibroid transformation of miliary ercle often with emphysema. The extent of the disease an important factor in prognosis. A pathological ssification was better than a clinical. Prognosis deded largely on the patient's temperament and on char- er traits. Distinguishing the economic point of view m the philanthropic, cases should be taken early, preably unmarried males without any one dependent on m. Most of the cases referred to in the paper were ond cure. The results were only unfavourable in so as they disappointed unwarranted expectations. e pathological condition was three or four times more exsive than the clinical signs indicated. A very favourable upation was nursery gardening. Better-class cases rly all broke down from over-exertion; for two years, as Walther held, nothing but walking exercise should be en. He still considered that the open-air treatment gave best results.

Dr. Rufenacht Walters thought the duration of the treatnt was a very important point. Most of the cases recorded he paper required a long course. The gained fat should converted into good muscle; girth might decrease, while ght was maintained. The cases at Sheffield were treated too short a time. For an early case the German idea that ee months' treatment was sufficient had been abandoned. y about 10 per cent. of the cases seeking sanatorium treatnt were really early cases.

Dr. Glover Lyon had inquired of 20 hospital patients who undergone improvement; not one had returned to work. ter results were probably obtained from indoor treatment, it was of questionable advantage for a working man, as he ld not go on with his work and he would probably get into habits.

Dr. Newsholme thought the economical part of the ques- had a wider bearing from the public health point of view. s a married man was more suitable for treatment than the narried because more depended on him, and he had more ortunities of disseminating infection. The chief value was therapeutic than educational. The extreme importance came very strikingly in working a system of voluntary notifica-. Even one month's educational treatment was probably nore value from the economic point of view than three nths' curative. The importance of early diagnosis could be over-estimated; in many towns an examination of the tum could be made gratuitously, and an examination uld be made of the sputum in every case of intractable gh.

Dr. Horton-Smith thought from the individual point of v the early cases should be subjected to treatment. But were they to be got into the sanatoria? Perhaps the ndly Societies might help by giving the patients full pay ing the treatment. Change of occupation was a difficult g; a labour bureau organized by philanthropic societies ht help. In relation to statistics an examination of the tum for bacilli should be appended in the slight cases.

The President, speaking of general hospital treatment, ught that for prolonged treatment it was unsuitable, but it very valuable for the acute phases and for intercurrent ctions of tuberculosis. Moreover, all patients might have a probationary period in a general or in a large st hospital for a few weeks' observation before being passed o the sanatoria. This would probably be the ideal plan. If ry large hospital could supply 3 or 4 beds for such a purpose h might be gained. Of the after-care of cases not much ld be learned from small numbers of cases. Patients must livided into those without claims on them, and those with onsibilities. The aim for the former should be to afford n as good aseptic conditions as were obtained in the sanaum. If occupation was essential, a change to outdoor life indicated. In some of the latter other members of the ily might help. There was great need for the founding of age colonies for the benefit of patients who had had some nths of definite sanatorium treatment; the expense on the 's would not be very great. While the earlier cases were re hopeful, yet the severer cases deserved treatment and sympathy; they were of a certain value to civilization, if of no economic value. These were, however, as a rule, unsuitable for sanatorium treatment; they needed treatment in hospital wards. Physicians should not be too economically minded as to these cases. Relief of symptomatic suffering was one of the highest functions of hospitals.

Dr. William Ewart also thought that general hospitals should undertake the treatment of a certain number of consumptives. They had remedial, educational, and medical educational functions. The last had not been sufficiently emphasized. Medicinal treatment would greatly shorten the duration of sanatorium treatment and lessen the mortality of the disease.

Dr. Newton Pitt, in view of so many cases improving under open-air treatment, and retrograding afterwards, thought the need for colonies for patients after treatment seemed urgent. Some broke down from overwork, and others seemed to suffer from the impossibility of satisfying the craving for pure air and an excess of food. The London infirmaries might organize work for their patients, and Friendly Societies and county councils likewise. For London clerks very little was at present done; a colony or camp in the neighbourhood of London for such would be a great good. Extreme moral deterioration seemed to result from sanatorium treatment in the way of developing habits of idleness.

Dr. Bardswell, in reply, said his cases were very unfavourable ones, more so than the average; the social conditions seemed to turn the scale; the length of a man's purse determined his cure. Gain of weight on a physiological diet was of great value and was largely muscular. Loafing habits followed, it seemed, on too great carefulness over convalescent patients. The Charity Organization Society had helped to support some cases while at a sanatorium, and these, being freed from anxiety, did very well. In all the cases recorded tubercle bacilli were found in the sputum. There would be great difficulty in making colonies for horticulture, as they would never be self-supporting, and an endowment would be needed. Tuberculous labour was unsound labour. The crux of the social factor seemed to be largely a matter of diet.

CLINICAL SOCIETY OF LONDON.

Clinical Evening.

Frederick Taylor, M.D., F.R.C.P., President, in the Chair.

Friday, April 22nd, 1904.

Mobility after Joint Operations.

Mr. F. J. Steward showed a girl, aged 5, who had had tuberculous disease of the knee, from which, three and a-half years ago, he removed all the synovial membrane, most of the cartilage of the femur, etc. When the plaster-of-paris splint was discontinued after two years' use movement in the joint slowly returned, without attempts being made to obtain it.

Mr. Crisp English referred to two cases in which after extensive operations at the ankle and knee-joint respectively mobility had ensued. He thought it better, however, to aim at obtaining a stiff joint.

Polycythaemia and Erythromelalgia.

Dr. F. Parkes Weber showed a woman, aged 36, a Jewess, mother of two children, who after her last confinement, seven years ago, suffered from "inflammation of the womb" and swelling of the whole left lower extremity for a month. Burning sensations in both feet appeared three years ago, and when she was first seen in 1903 the feet were turgid with blood, hot and painful. Some improvement had occurred; but on the skin of the left foot there were still some livid patches, tender to pressure. The spleen was enlarged. Haemoglobin was about 125 per cent. of the normal; red cells 9,000,000 in the c.cm.

Dr. James Galloway said that the case revived the original conception of erythromelalgia as described by Weir Mitchell, for arterio-sclerotic changes were certainly not prominently marked. The condition could be well simulated as a result of such vascular degeneration, and he had come to the conclusion that cases of redness, pain in one extremity, leading to necrosis, in an adult over middle age were more likely to be due to ischaemia of arterio-sclerotic origin than to true erythromelalgia. A revised classification of the cases was called for, based upon the blood changes rather than upon the actual condition of the vascular walls.

Dr. Weber, in reply, said that the case could not very well have been mistaken for anything else when it was seen in the acute stage. Radiographs of the affected side revealed a lighter shadow than that seen in the opposite limb, but he feared that this would not prove of much diagnostic value.

Osteo-arthritis of the Knee.

Mr. Openshaw showed an acrobat who, after fracture of his femur, had osteo-arthritis of the knee; this had been treated by a splint which transferred the weight of the body from the pelvis to the ground, and thus gave the knee-joint rest. Great improvement resulted, and he could now walk without pain.

Mr. L. McGavin considered that the case was probably an instance of Charcot's disease.

Gangrene of Fingers.

Mr. Charters J. Symonds showed a man, aged 45, who attended to horses during the hunting season, and who during the winter of 1902 lost the tip of one finger, and during last winter lost the tips of several other fingers on both hands. He had no arterial or nerve disease, nor diabetes. It was possibly a relic of frost-bite.

Dr. Pasteur thought the possibility of Raynaud's disease could not be excluded.

Spontaneous Fracture of Neck of Femur.

Mr. C. J. Symonds showed a man, aged 42, who when kneeling to open a cupboard heard a crunching noise, and had increasing inconvenience at the hip, though he was able to walk without pain. One day he became suddenly worse; there was enormous swelling about the hip, and the leg was shortened. The neck of the femur appeared to be broken, but the head remained in the acetabulum. There were at present no decided symptoms of locomotor ataxy.

Mr. Bowlby remarked that one of the earliest signs of tabes was spontaneous fracture, and described two striking cases, in one of which the disease was found to be fully developed ten years subsequently.

Mr. Symonds, in reply, said there was in his case a suspicion of some insufficiency of the ocular muscles.

Cases.

The following were also exhibited:—Mr. Openshaw: Firm ankylosis and contracture of knee treated by elastic steel bar traction. The angle of contracture, which had been 112 degrees, opened out to 180 degrees in seven weeks under treatment, without pain or heat, and the mobility of the joint increased.—Dr. Wilfred Harris: Early acromegaly. The patient was a girl, aged 20.—Dr. Lee Dickinson: Congenital heart disease, ascribed to patent ductus arteriosus, chiefly characterized by a long rumbling murmur and thrill in the second left interspace close to the sternum; the murmur occupied the whole cardiac cycle; the thrill was mainly diastolic.—Mr. R. P. Rowlands: Congenital malformation of left first branchial cleft, absence of ear and seventh and eighth cranial nerves, and deformity of left upper limb, only two fingers being present. Mr. Rowlands also showed: Premature puberty in a boy aged 2. The external genitals resembled those of a boy of 15. He was 34 in. in height, irritable, not precocious in mental development.

MEDICAL SOCIETY OF LONDON.

F. de Havilland Hall, M.D., F.R.C.P., President, in the Chair.

Monday, April 25th, 1904.

Prevention and Early Treatment of Disease.

Dr. W. J. Tyson read a paper on this subject instancing, in regard to prevention, ague, septic diseases, diphtheria, myxoedema, and typhus, and in regard to early treatment tuberculosis and cancerous diseases of the intestinal tract. He referred to the milk question, and said that unboiled, unsterilized, and unadulterated milk should be obtainable by all. In regard to the education question, he regretted the neglect of its purely physical side. He alluded to the needless expenditure by institutions in treating confirmed disease which would have been better incurred in preventing it. The physician would some time occupy his proper place as the most important functionary in an enlightened and progressive State.

Dr. Steele Perkins referred to the effect of frozen food in producing appendicitis and to the formation of drug habits by the sale of tabloids.

Dr. W. Ewart thought the beginning of prevention was at the cradle or even before it, and discussed the question of matrimonial irresponsibility.

The President alluded to the disappearance of ague from this country, and of hospital gangrene and typhus.

Perityphlitis simulating Cancer.

Dr. Septimus Sunderland and Mr. H. J. Curtis communicated this case, which was relieved for nineteen months by lateral anastomosis, followed by acute appendicitis abscess, appendectomy, and cure. It illustrated the difficulty sometimes found in determining whether a tumour, although exposed by abdominal incision, was malignant or not. The mass found at the first operation was now thought to be either tuberculous or inflammatory, which, disappearing, was followed by a recurrent attack of appendicitis.

Dr. H. A. Caley alluded to the difficulty of distinguishing appendicitis from malignant disease in old subjects.

Mr. J. D. Malcolm referred to cases comparable with that described in the paper.

The President mentioned a case of malignant disease wrongly diagnosed as one of typhlitis.

LEEDS AND WEST RIDING MEDICO-CHIRURGICAL SOCIETY.

C. Richardson, M.R.C.S.Eng., President, in the Chair.

Friday, April 22nd, 1904.

The Prophylactic Use of Diphtheria Antitoxin.

Dr. A. E. Porter read a paper on the administration of prophylactic injection of antitoxin to persons who had been exposed to the infection of diphtheria. He mentioned the results of this mode of procedure in Essex in 1900-1. Out of 55 persons in 24 households, only 1 subsequent case occurred after the injection and this was a very mild attack. Among the remaining 8 persons in the same houses who did not receive injection there were 3 cases of diphtheria. During the same epidemic there was another series of 24 similar households in which no injections were made and one-sixth of the inmates, excluding the primary cases, contracted diphtheria. In neither series was it possible to maintain proper isolation. The employment of prophylactic injections in Cambridge, Toronto, New York, and Chicago was quoted. The speaker considered that 500 units protected the majority of persons exposed to the infection for about three weeks. Failures occurred in a small percentage of instances, but the subsequent attacks were of a very mild nature; the administration of antitoxin was especially advocated during the epidemic prevalence of diphtheria when ordinary measures had failed to localize the disease and also in the case of institutions containing children. It was mentioned that among persons so protected a considerable proportion were infected and that care should consequently be taken to prevent them from mixing with unprotected individuals.

Dr. Bampton, Dr. Gordon Sharp, and Dr. Cheetham took part in the discussion; and Dr. Porter replied.

The Estimation of Uric Acid in the Urine.

Dr. A. F. Dimmock described a new method of estimating uric acid in urine which he and Mr. F. W. Branson, F.C., working in conjunction, had devised. Their aim had been to make it a simple process which would not require much time. A definite amount of urine was taken, saturated with chloride of ammonium, and the precipitated urate of ammonium collected and carefully washed. The precipitate was transferred to a close bottle, and thus brought into contact with hypobromite of sodium, the evolved nitrogen being collected in an apparatus similar to that used for the determination of urea. The volume of gas being read off, the amount of uric acid was calculated therefrom. Experiments with chemically pure uric acid had given excellent results, and from these a scale had been prepared.

In the discussion which followed Mr. Branson was asked to demonstrate the method.

Dr. Trevelyan, Dr. T. Fox, and Dr. Barrs made some remarks; and Dr. Dimmock and Mr. Branson replied.

Intussusception.

Mr. Herbert Roper related two cases in which he had reduced an intestinal intussusception after abdominal section. In one case the symptoms had lasted four days, and the other less than twenty-four hours. Both cases recovered. One child was $8\frac{1}{2}$ years old and the other 12 months.

Mr. Littlewood, Mr. Lawford Knaggs, and the President took part in the discussion; and Mr. Roper replied.

Mechanism of the Alimentary Canal.

Dr. Tregelles Fox read a paper on this subject, in which he propounded some quite novel ideas chiefly concerning the cyclical propulsion of the contents along the alimentary canal, which he divided into five segments.

Therapeutical Society.—At a general meeting on April 29th, Dr. Cooper in the chair, Dr. H. French read a paper on some experiments upon drugs which were s

increase the number of leucocytes in the blood. After scribing Metchnikoff's and Ehrlich's opinions, and alker's experiments on the action of leucocytes, he said at he had found the maximum number of leucocytes in his n blood was 13,000 in a c.cm., and since the number in imals varied greatly, he had made all his experiments on nself. At first he took nuclein both by the mouth and podermically in increasing doses, but he never found more an 13,125 leucocytes in one c.cm. of his blood. Then hypo-mic injections of sodium cinnamate were tried, but no in-ase of leucocytes occurred, and lastly, collargol was injected increasing doses; this raised the number of leucocytes to 187 per c.cm., but caused fever, headache, and great depres-n. It was very desirable to find some drug which would in-ase leucocytes without causing so much general disturbance. A note from Dr. T. Belgrave, of Australia, a Corresponding llow of the Society, was next read, which forwarded a nslation of a letter from Dr. Hahl, Imperial Governor, rman West Guinea. The latter stated that no parasite of nosquito had been found in West Guinea, but Dr. Demp-lff, the leader of the malaria expedition, found that a ecies of *Notonecta* existed in the mosquito-infested ponds, ich devoured the larvae of the *Anopheles*, and he suggested t this *Notonecta* should be bred wherever malaria existed. stly a paper from Mr. J. Maiden, Director of the Botanic rdens, Sydney, Australia, a Corresponding Fellow of the iety, was read, on plants which induced eczema; in this described the following plants and gave instances of the tation that they caused: (1) Phlebolium argenteum ister plant); (2) Dysoxylon Richii and (3) Dysoxylon elleri (red bean); (4) Rhus radicans (the poison ivy); (5) us diversiloba (the poison oak); (6) Rhus vernix (the poison nach; (7) Castanospermum Australe (the black bean); (8) calyptus maculata (spotted gum); (9) Eucalyptus hemi-loia (gray gum); (10) Capania aculeata (dogwood); (11) rethrum parthenicum (featherfew); (12) Primula obconica;) Primula sinensis; (14) Excoecaria Agallocha; (15) Ex-caria parviflora; (16) Thuja Douglasii; (17) Hyacinthus entalis; (18) Richardia Aethiopica (the arum lily). All se plants excited irritation of the skin by contact, and ne such as rhus and eucalyptus even by proximity.

Manchester Medical Society.—At a meeting on April 13th, J. S. Bury, President, who was in the chair, gave an dress on trauma in relation to disease of the nervous system e p. 997).—Dr. C. W. Buckley read a paper on the atment of neurasthenia. He considered objective sym-ms the chief guide to treatment. (1) To remove nervous ses, it was generally necessary to send the patient away m home and relations for a while, and preferably to a cing climate. (2) Accessory causes included errors of raction, malformations and disorders of the mouth, nose, l naso-pharynx, dyspepsia and functional hepatic dis-ers, movable kidney and enteroptosis, malformations and orders of the generative organs, etc. These were all open treatment, but the influence of a neurotic heredity could ely be removed, nor was the increased vulnerability of the rvous system, resulting from prolonged or exhausting dis-e, open to direct attack. (3) Disorders of the vasomotor tems were common and important, and should be treated such measures as hydrotherapy, massage, and physical thods of other kinds; electricity, though appealing to the ient's imagination, was rarely so useful; galvanism of abdomen was often useful especially if constipation were sent. (4) Abundant nourishment must be supplied to the rvous system, carefully chosen and suited to the needs of e nervous structures. The Weir-Mitchell treatment, which ered all this ground, must be rigidly carried out to be ccessful. (5) Special symptoms, such as headache and eplessness, should be treated as they arose. Drugs were of le value; the organic forms of phosphorus, such as glycero-sphates and lecithin, supplied food to the nervous system, t they were generally unnecessary if the diet was carefully anged; arsenic and valerian were both useful, and also ychnine in very small doses. Suprarenal gland was useful cases of vasomotor paresis. Most reliance, however, was be placed on diet and physical methods, and drugs should avoided as far as possible.

Card Specimens.

Mr. A. Wilson: Professor Vernon Harcourt's new chloroform inhaler. Mr. A. H. Burgess: (1) Sterilized dressings in portable form; aseptic caps for surgeons' use during operations.—Professor Wild: ecimens of drugs and minerals.

Harveian Society.—At a clinical meeting on April 14th, Dr. C. Theodore Williams, President, in the chair, Dr. Leonard Guthrie showed a tailor, who during three years had gone through the following phases of insular sclerosis:

In 1881 a short attack of hemianaesthesia, in 1894 paraesthesia of hands and feet with loss of power in all extremities, lasting a fortnight. In 1895 symptoms recurred; he was admitted to the National Hospital, Queen Square, and discharged, apparently completely cured, in about three months. In 1898 weakness of legs reappeared, and in 1900 he could not walk without help. In January, 1901, he was readmitted to hospital with loss of power, slight manual inco-ordination, ataxic spastic gait, exaggerated deep reflexes, and extensor plantar reflexes, no ankle clonus; he had several relapses and was becoming ataxic and spastic. At present there was very slight nystagmus on lateral deviation. The optic discs were normal. Speech was stuttering but not scanning or syllabic; no wasting of muscles; muscular power of upper extremities fair. Very slight "intention" tremors; abdominal and back muscles were paretic at times; muscles of lower extremities showed varying degrees of weakness. Gait, weak and uncertain; knee-jerks active, ankle-clonus (spurious) at times, plantar reflexes irregular, electrical reactions normal. The muscular paresis was worst under influence of emotion, or after fatigue. If notice were taken of him, he became flurried and nervous while walking and presently fell like a tree and became completely paraplegic and exhausted for the time being.

Dr. Guthrie had regarded the condition as one of functional myasthenia until the history, clearing pointing to relapsing and remittent insular sclerosis, was forthcoming. — Dr. Risien Russell showed a case of myasthenia gravis in a young woman, aged 28 years, whose illness began about a year ago, and in whom many of the characteristic phenomena of the affection were present, including the myasthenic reaction on faradic excitation of the muscles. The symptoms were not, however, always made worse by muscular exertion, nor were they more pronounced at the menstrual period, and they disappeared in a remarkable manner ten months ago, but returned eight months later. Some impairment of resonance over the manubrium sterni suggested the possibility of enlargement of the thymus gland. — Mr. Jackson Clarke showed a girl, aged 7 years, on whom over two and a-half years ago he performed costo-transversectomy for obstinate paraplegia due to tuberculosis at the level of the fourth dorsal vertebra. Paraplegia in spinal disease frequently yielded to rest and general treatment, but there were two indications for operation: first, when total motor and sensory paralysis, including the bladder, supervened rapidly; and, secondly, when in the more ordinary type of case in which the paralysis was chiefly motor, rest had been given a fair trial without success. If performed with due care, costo-transversectomy was less dangerous than lamiectomy, and on other grounds was preferable to it.—Dr. Edmund Cautley showed a case of cerebral syphilis in a man aged 22, admitted to the Metropolitan Hospital for lassitude and headache of three months' duration, and vomiting for three weeks. He had been treated at the Lock Hospital for eighteen months, and still showed the remains of a specific rash. His hair came out a year ago, and on admission he was almost bald. His mental condition was dull, but had distinctly improved under a month's treatment, and there was a free growth of white hair becoming dark in places. The knee-jerks were exaggerated, there were no ocular changes, and the headache had ceased; the condition was doubtless due to a mild form of endarteritis.—Dr. Wilfred Harris showed two cases of lead paralysis. In addition to ordinary symptoms, one had paralysis of the deltoids and supraspinatus and infraspinatus muscles; the other had complete atrophy of the intrinsic muscles of both hands.—Mr. T. Crisp English showed three cases, one a case of goître in a girl aged 17. An operation indicated by severe dysphagia had led to improvement of the general symptoms.—Mr. E. Laming Evans showed a case of congenital absence of the fibula in a female aged 4 months. The metatarsal and phalangeal bones of the fifth toe were also absent, and the foot was in a position of marked equino-varus. No history of deformity in the family, nor of injury during pregnancy was obtainable.

Hunterian Society.—At a clinical meeting on April 13th, Dr. F. J. Smith (President) in the chair, Dr. O. K. Williamson showed a child with a loud diastolic murmur heard beneath the second left costal cartilage and a non-collapsing pulse. Dr. Williamson regarded it as a case of pulmonary regurgitation, and thought that there were pericardial adhesions, as the cardiac hypertrophy was greater than he would expect from the valvular lesions. The general opinion of the meeting, however, was that the murmur was aortic, since it was heard in the vessels of the neck.—Mr. H. L. Barnard

showed a young girl with symmetrical parenchymatous goître. Slight stridor had been present, but had disappeared under a few days' treatment by tincture of iodine, potassium iodide, and extract of thyroid. If the stridor increased thyroidectomy of one lobe and the isthmus would be advisable.—Dr. William Ettles showed a case of tumour high up in the neck, with congestion of the skin and mucous membranes and greatly dilated venules. There had been small petechiae on the palate. The large veins of the head and neck had not been engorged. The tumour was the right lobe of the thyroid probably enlarged by an adenoma, but it did not apparently exert pressure on the trachea or great veins. The veins of the arms had never been congested, but both retinal veins had been greatly engorged. Dr. Glover Lyon suggested that the congestion was of vasomotor origin and not mechanical.—A case of a cervical rib springing from the transverse process of the seventh vertebra on the left side in a man was shown by Dr. William Ettles. The subclavian artery crossed it and simulated an aneurysm. It produced a fullness in the neck, but did not give rise to any symptoms. A skiagraph was shown in the case.—A similar case of a cervical rib on the left side, but in a woman, was shown by Mr. H. L. Barnard. In this case pains and weakness were complained of in the arm. No surgical interference was recommended. A case of actinomycosis of the left side of the head and neck, which had been cured by the daily exhibition of 330 gr. of potassium iodide and several applications of *x* rays, was also shown by Mr. H. L. Barnard. The disease started at the angle of the jaw. It progressed rapidly until the dose of iodide reached 270 gr. About the same time *x* rays were tried, and the case commenced to improve and was now practically cured. The cure was attributed rather to the potassium iodide than to the *x* rays. The ray fungus was found on many occasions.

Pathological Society of Manchester.—At a meeting on April 20th, Dr. Reynolds, President, in the chair, Dr. Nathan Raw made a communication on the method of infection of the human body by the tubercle bacillus, and exhibited several specimens in illustration. He was of opinion that human and bovine tuberculosis were distinct varieties of the same disease, and that the bacilli were culturally and morphologically different. Abdominal tuberculosis in children, together with enlarged glands and strumous joints in children, he considered were in reality bovine tuberculosis conveyed to the alimentary canal by tuberculous milk. He was also of opinion that acute miliary tuberculosis was generally bovine in origin and was not true human tuberculosis. He believed the human body was attacked by two distinct varieties of tuberculosis.—Mr. Montgomery mentioned a case of excision of a congenital dilatation of the sigmoid colon, and showed the specimen.—Mr. Southam made some remarks on a series of 120 operations for the removal of vesical calculi, and showed the specimens, which included examples of encysted calculi, spontaneous fracture, calculi containing foreign bodies as their nuclei, etc. In 49 cases the calculi had been removed by lithotrity, 14 of the patients being boys under 10 years of age. In 63 cases lithotomy had been performed, the lateral operation in 17 patients, and the suprapubic in 46 patients. In 10 cases there was a recurrence after operation—namely, in 5 patients after lithotrity and in 5 patients after lithotomy. No instance of recurrence was met with in children or in adults under 50 years of age. Other preparations were shown as card specimens.

Glasgow Medico-Chirurgical Society.—At a meeting on April 1st, Dr. Rutherfurd in the chair, Dr. Alfred Young showed (1) a case of sarcoma of nine years' duration. The patient, aged 38, was operated on for a left-sided ovarian tumour in 1894. A year afterwards a tumour appeared in the left iliac and umbilical regions. An incision was made by a surgeon at the Glasgow Royal Infirmary, but as the lower part of the left rectus muscle was found to be involved with tumour tissue the operation was abandoned, and a portion of tissue was removed for microscopical examination. The tumour proved to be a spindle-celled sarcoma. The case had been under Dr. Young's observation for the last six years, and the original portion of the tumour had undergone marked atrophy and had now almost disappeared. The growth, however, had extended upwards along the sheath of the rectus, and there was now a considerable mass of two years' duration over the left costal margin. The lymphatic glands in the left axilla were enlarged. The patient's general health was very good, and there was no intestinal or pulmonary trouble. (2) A patient who sustained a dislocation of the left knee two years ago, and a skiagraph showing the displacement. The injury was produced by a blow from a "sprag" from a wagon just as the patient was extending the leg with the foot on the ground. The lower end of the femur was driven backwards and slightly inwards. The internal condyle of the femur was very prominent in the popliteal space, but there was no apparent injury to the vessels or nerves. The dislocation was reduced, and the patient made a complete recovery, being now able to play football. The joint was quite firm and strong, though there must have been considerable tearing of the ligaments.—Dr. George Bell Todd read a paper on ankylostomiasis, and illustrated his communication by lantern slides and specimens.—Dr. Alex MacLennan showed a patient on whom he had operated with a good result for web fingers. The third, fourth, and fifth fingers on both hands had been joined together.

REVIEWS.

"THE CONFESSIONS OF A PHYSICIAN."

The Confessions of a Physician[1] should be reserved for the ear of a discreet confessor and not shouted from the housetops, and the only discreet confessors for a physician are his professional brethren, who are able justly to weigh his transgressions and apportion the blame due unto him. It is with regret therefore that we find a Russian physician washing his dirty linen in public with every sensational accompaniment that is calculated to attract attention to the nasty business. Our regret is all the greater when we find that he has not confined himself to the recitation of his own delinquencies, but has tacked on to his avowal of them calumnious statements about other men, and vilification of the craft to which he belongs.

Dr. Veresaeff's book, which had been before the public first in the original and afterwards in French and German translations for some time before it was rendered into English, must be taken seriously; it is not a merely literary venture or flight of imagination. There is probably no physician who is not in possession of secrets which, were the seal removed from them, would make material for romance, or who has not been mixed up in tragic events which not only point a moral but might adorn a tale. A well-kept casebook is a series of scraps of biography often on its seamy side which a novelist or novelette writer would greedily seize and weave into fictitious narrative. In *Passages from the Diary of a Late Physician* Mr. Samuel Warren made use of incidents occurring in medical practice in the construction of a series of very beautiful and touching stories. But Dr. Veresaeff's *Confessions* are not in this category. They are not by any means inventions, or fanciful sketches intended merely to interest and amuse. They profess to be frank and veracious disclosures of the doubts and difficulties that beset a physician's career, of his ignorant flounderings amongst the pitfalls that surround him, of his fatal mistakes, of the weaknesses and affectations that his work begets in him, and of the harsh treatments he meets with at the hands of his patients. They are addressed to the crowd, are on the general market, and have been prepared for sale to all and sundry, and it is evidently hoped that the sale will be a large one. Medical phraseology is used, medical works are quoted, medical theories are discussed, medical writers are criticized. The work cannot be dealt with on its literary merits, which are not inconsiderable, but must be taken as a grave and measured manifesto, laying bare to the public Dr. Veresaeff's private shortcomings, and all the shortcomings, brutalities, and pretentious impostures which he thinks he has discovered in the medical system in which he has found himself involved. By its very nature the book stands condemned. It is no light or jesting parody, and we must assume that in its publication reform was held in view; yet Dr. Veresaeff has appealed to a court that is, as he well knows, incapable, in the absence of skilled assessors, of giving any just judgement, and has stated his case in a manner well calculated to excite prejudice and obstruct reform, and wholly unworthy of himself and his profession.

Dr. Veresaeff's book is, we do not hesitate to say, an opprobrium to Russian medicine, and unless it be repudiated the impression will prevail that the healing art in

[1] *The Confessions of a Physician.* By "V. Veresaeff" (V. Smidovich). Translated from the Russian (with the author's permission) by S. Linden. London: Grant Richards. 1904. (Demy 8vo, pp. 318. 7s. 6d.)

t country remains in a state of semi-barbarism. Refine-
nt, and even common decency, must be unknown to
ysicians there if they approve of the style Veresaeff
opts in describing for the general public some of his
periences and his reflections thereon. He is called to
a girl in the country, who manifests some reluctance in
ling him what is the matter with her.

"Turn round, Annie, and let him have a look," coaxed her mother. turned on her side, and lifted her rude linen shift, which was as bark from dried pus. I grew faint with the unbearable odour from the sight I saw. Her entire left thigh from waist to knee was great bluish-red swelling, corroded by sores and abscesses the size fist, covered with stinking, decomposing matter.

was attending a lady student:

verything indicated typhoid; the spleen could be felt through her mise, but it was necessary to bare her middle that I might see the eclae. I hesitated for a moment—even now it pains me to proffer h requests: "Ah! you want me to raise my nightgown."

meets a lady, who informs him that she has been

victim of dysmenorrhoea for the last four years. She had consulted ious professors. One diagnosed anteflexion of the uterus; another striction of the collum—a month ago division of the collum had been formed on her . . . . she initiated me into the most intimate details er sexual and married life.

d the man who can write thus—and a score of such super-
ous and gross expositions might be quoted—in a popular
k that is certain to fall into the hands of women and girls
the audacity to lecture his professional brethren on their
nt of fastidiousness in the examination of women. He
nks it objectionable that "a man still in his prime should
l over a young and bared girl," and he is of opinion that
ients gradually develop a habit for such examinations,
ained at the cost of a painful shattering of their spiritual
ology and blunting of their moral sense. If his descrip-
n is correct—let us hope it is not—of the way in which the
ical examination of women is conducted in Russian hos-
als, there may be some ground for his opinion and some
lanation of his own offensive bluntness of statement. In
propaeddeuthic clinique, he tells us, a young woman
fering from pleurisy mounted the professor's daïs:

ne of the students stepped up intimating that she was to undress . . she took off her shawl and bodice and lowered her chemise, as s her waist, her face was serene and proud.

the clinique of syphilodology a young woman presents self.

he assistant went behind the screen. She stood fully attired and crying. He made her strip to her chemise. Placing the patient on unge, they began to examine her; she was examined at length in a il revolting to the lay person.

rom what Dr. Veresaeff says it seems that there is in the
pitals of Russia scarcely the same amount of scrupulous
ard for the patient's feelings to which we are accustomed
his country. But we fear we cannot altogether ascribe to
atmosphere of his student days the uncleanliness of
esaeff's confessions, for he unblushingly acknowledges a
stitutional pruriency of mind, which is sufficient to
ount for what we complain of in them. When a young
ale was stripped before him he had "voluptuous feelings."
en he approached a young girl of eighteen of rare beauty
h presystolic resonance who had "thrown off her night-
ft, and sat up in bed bared to the waist," he tried "to look
n her with the eyes of a physician, but could not help
erving that she had handsome shoulders and a beautiful
ast.....I was conscious of the impurity of our glances."
re is no prudery in characterizing all this as discreditable
ts author and especially censurable when appearing in a
ular work by a physician.

nough has perhaps been said to indicate that Veresaeff is
unsafe guide; and a further examination of his work must
vince that he is utterly untrustworthy. The charges that
makes against himself in respect of his treatment of the
ients who sought his help—one of them is a charge of
nicide—are certainly highly coloured and probably un-
nded, but we are not concerned to refute them. If he
oses to hold himself up to condemnation and contempt as
ing been an ignorant and incompetent practitioner, that
is affair, not ours, and we only refer to his self-reproaches
ause they show that he is the last man in the world who
uld criticize his brethren or throw dirt on the profession
which, by his own showing, he has been so unproficient a
mber. His attempts to cast obloquy on physicians and
geons may deceive lay readers, but will be readily seen
ough by medical men. Mistakes and misadventures must
ur. What profession is exempt from them? Have we not
Court of Appeal? Do not bridges collapse and boilers
st? Are not theatres burnt down? Mistakes and mis-
adventures should be recorded for the benefit of those who may profit by the warnings they afford, but it is monstrous unnecessarily to frighten the public by harping on them, for much mischief may thus be done. The wonder really is that the medical mistakes and misadventures which Veresaeff has scraped together are so few and trivial. His very worst case is that of a hospital surgeon who had punctured the intestine while performing ovariotomy, and whom he meanly represents as standing in the *post-mortem* theatre in a state of great trepidation, and trying to ingratiate himself with the pathologist so that his blunder might be lightly passed over. The patient had died of peritonitis, and there was a small wound of the intestine. Veresaeff would have his readers believe that the surgeon had by his clumsiness killed the woman. "She had applied," he says, "to the surgeon for aid, and thanks to his intervention she now lay a corpse." But what are the facts? The woman suffered from a large abdominal tumour, with extensive adhesions to the intestines. She had previously suffered from peritonitis, and was practically under sentence of death. An attempt was made to save her, but so dense were the adhesions that the tumour could not be removed. The Professor of Pathological Anatomy who performed the necropsy and found the small rent in the bowel declared that it was all but impossible to notice a small wound of the intestine in such a mass of adhesions, and that in such complicated cases the best surgeons could not be guaranteed against untoward accidents. But suppose that the version of this case which Veresaeff desires to convey was correct, and that the surgeon did kill the woman, what good purpose does he hope to serve by his narration of it now, long after the event? It can only frighten many poor women with ovarian tumours, and prevent them from availing themselves in good time of the only sure means of relief, while it lowers the estimation in which surgery is held.

It would be profitless to make observations on Veresaeff, in his writhings of remorse, real or affected, over the blunders of his early days, or to follow him step by step in his progress to smug complacency attained apparently at about his 30th year. He stands self-condemned. His pages bristle with contradictions and inconsistencies. Open where we may, these confront us in matters great and small. On resolving what his attitude towards his patients should be, the first principle he lays down is that he must be fearlessly honest and transparent in all his dealings with them. "Hostile and ironical feelings are raised in patients when the full truth is withheld from them." On the very next page he describes the case of a young Government clerk, suffering from typhoid fever, in whom by the incautious administration of calomel he had induced profuse salivation.

"What could I say? Was I to tell them that taking my medicine was the cause? Nothing could have been more idiotic. For I would merely have shattered the patient's confidence; no useful end would have been attained, and in future he would have anticipated some catastrophe from my every prescription. So I wisely held my peace, avoiding the eye of the patient's wife.

But Veresaeff's *Confessions* are not confined to reminiscences of his own errors and wholesale slander of others. They have a wider range, and are made the vehicle of his scientific and philosophical musings, and in this department they are stuffed with speculations, which might be amusing on the pages of Mr. H. G. Wells, but which in a sedate scientific work can only arouse contempt. The length of the intestines of man, we are told, gradually diminishes as we march across Europe from North-West to South-East (the allegation is in the highest degree doubtful, and has no adequate basis of observation), and the meaning of this, we are assured, is that the French and Spaniards eat more digestible food than do the Germans and Russians—an explanation in the highest degree questionable, assuming that the state of matters to be explained really existed. Well, the outcome of this is "a bright hope for the future of mankind." It is clear that, by the adoption of a rational diet made up of concentrated chemical compounds which would become transformed into blood in their entirety without any previous digestive preparation, our race will get rid of its intestines altogether, and thus free itself from a burden and be enabled to reinforce its higher functions by energy now expended upon mere vegetative processes. In the course of time sauer kraut and sausages, roast beef and dumpling, bread and onions, and even oysters and sweetbreads, must all go by the board and peptonized lozenges suffice for human sustenance. Such prospects reconcile one to having been born in an early and imperfect era of evolution. The fact that rubbish of this kind is gravely propounded by strutting scientists and is

joyously swallowed by gaping multitudes suggests that not only shortening of the intestine but softening of the brain is in rapid progress.

But what has all this to do with the confessions of a physician? Nothing whatever. It is merely irrelevant padding. And does Dr. Veresaeff really believe it? It is impossible to say. He enumerates all the changes in conformation and qualities—grotesque and preposterous they are—which consistent evolutionists of the bolder sort, with an assumption of prophetic foresight greater than that of Daniel, predict for our species in the progress of civilization. He apparently acquiesces in the prediction, and then he breaks away from it, questioning whether the sacrifice of so many useful organic appliances and humble faculties is necessary for cerebral development and the higher intellectual life, and arguing that, while availing ourselves of the advantages offered by civilization, we must preserve the closest communion with Nature and remain jealous of our old characteristics while developing new qualities. But how—taking for granted his evolutional hypothesis—this is to be accomplished he does not give us a hint; and in the next breath he tells us that the future so bright from a social point of view is hopelessly sinister and poor as far as the life of the organism itself is concerned "everything will tend to make physical labour superfluous, and bodily idleness will result, fat will take the place of muscle, we shall lead an inretrospective vegetative existence being deprived of broad horizons and strangers to Nature." All that can be said is that the man does not know what he would be at, and puts a low estimate on the intelligence of his readers.

The proper place for Veresaeff's *Confessions* is not the drawing-room table, but the dustbin.

TROPICAL MEDICINE AND HYGIENE.

Malaria.

Another book, specially adapted for students studying tropical medicine in the laboratory, has quickly followed that published recently by Dr. Daniels. This is the *Practical Study of Malaria*,[1] by Dr. Stephens of Liverpool and Dr. Christophers, now of the Indian Medical Service. In the introduction the authors contend that their plan of giving essentially practical methods is the correct one. The contents follow the lines now generally taught in schools of tropical medicine—first, the preparation and study of normal blood, then pathological conditions, then malaria, then mosquitos, then blackwater fever, then the haemamoebidae, trypanosomes, and filaria. The part on malaria should give the student a good grasp of the subject, the subsidiary signs, of which the authors have made a special study, being well described. Following malaria come the description, habits, and anatomy of mosquitos, how to dissect them to show parasites, and their classification. The latter is taken from Theobald's latest work on the subject, and is up to date. A very good chapter follows on the clinical study of malaria, and the opinion is expressed that between quinine haemoglobinuria and blackwater fever there is practically no difference. Blackwater fever is described as a quinine intoxication *plus* something more—namely, a condition of the blood in particular malarial patients, which is the determining factor whether quinine will produce an attack or not. The writers have had much experience in this disease, and their statement backs up Koch's original idea. A good synoptic account is given of the various haemaebidae of animals, the trypanosomata, tsetse flies, and filariae, and an appendix closes the book. The latter chapters do not quite come up to the high standard of the first part of the book, but, taken as a whole, it is excellent, and will be found very useful by the student beginning the study of tropical medicine.

In a pamphlet entitled, *A Revision of the Anophelinae*,[2] Lieut.-Colonel Giles brings his second edition of *A Handbook of the Gnats or Mosquitoes* up to date. The question of the classification is dealt with first, and the general scheme and nomenclature proposed by Mr. Theobald is adopted, the regrouping of the family proposed by Neveu-Demaire, based mainly on the characters of the palpi, being rightly condemned. Though agreeing in the main with Theobald's ... genera the author considers one or two of those unsatisfactory, and sounds a warning note as to the degradation of genera to species. After all, however, the differences are not very great; *Stethomyia* he thinks should be kept within the limits of the *Anopheles* in spite of its mamillated prothorac lobes, and the single specimen which has founded the genus *Aldrichia* he thinks should really be classed as an aberrant form of Myzomyia rossii. The amateur entomologist will find the diagnostic table based upon obvious colour-characters very useful.

That the little work on *The Causation and Prevention of Malarial Fevers*,[3] by Captain James, I.M.S., should have reached a second edition so quickly shows how popular it has been amongst the class for whom it was intended. The scope of the work has been enlarged, and a very good summary on malaria and mosquitos is the result. The treatment of malaria is discussed scientifically, and many useful points for the proper administration of quinine are given. The statements that quinine should not be taken until the diagnosis is absolutely assured, and that an accurate diagnosis is essential for successful treatment, may be accepted. The question of prophylaxis is entered into fully, and all the different methods that have been adopted are taken up in detail. An appendix, containing methods of examination of the blood and diagrams, concludes this very excellent little treatise.

In a small pamphlet entitled *Haemoglobinuric Fever: its Distribution and Etiology*,[4] Dr. Collett, of Southern Nigeria, suggests that blackwater fever may be due to the presence of the bacillus megatherium. This suggestion is based on his own statement that haemoglobinuria due to megatheriolysis is identical with that condition in haemoglobinuric fever. There is nothing new in his description of the distribution of the disease, and after a short discussion on this point the writer, in language that pertains more to Virgil and Horace than to himself, proceeds to the causation. Briefly stated, his conclusions are that neither the malarial nor the quinine theory have sufficiently satisfied the demands of science to be acceptable as facts or speculations. Having lightly swept those factors aside, a specific theory is introduced and a long ramble into the question of immunity—a subject which does not seem to have any connexion with the case—is undertaken. The idea of the bacillus of megatherium is furnished by Erhlich's work on the haemolytic products which are produced by that organism, and then a parallel is drawn between this and the haemolysis in blackwater fever.

Plague.

To those interested in inoculations against plague a book entitled *The Treatment of Plague with Professor Lustig's Serum* by Dr. N. H. Choksy, will appeal. The *pros* and *cons* are treated fairly, and there is much useful work incorporated in the book. In a short review all the points contained in the book cannot be touched on, but dealing with Dr. Choksy's conclusions, which are also held by as great an authority as Professor Sir Thomas Fraser, one notices that he claims that both the Lustig and Roux-Yersin serums are capable of reducing the case-mortality of plague in the non-septicaemic cases, but that in the septicaemic both are equally of no avail. Those results, obtained in Bombay, differ from those reported from Oporto and Glasgow, where the Roux-Yersin serum was credited with bringing about the recovery of grave septicaemic cases. It is satisfactory to be able to record that the serum reduces the case-mortality in some cases of plague, even though not in all, as this is a distinct advance. Subcutaneous injections, the author states, must be relied on for success solely in non-septicaemic cases, and must be begun immediately after the disease declares itself. It is to be feared that the great expectations that followed the introduction of a serum for diphtheria are not to be realized for some of the more deadly bacterial diseases such as plague and tetanus. A series of appendices on illustrative

[1] *The Practical Study of Malaria and other Blood Parasites.* By J. W. W. Stephens, M.D., D.P.H., Walter Myers Lecturer in Tropical Medicine, University of Liverpool, and S. R. Christophers, M.B., I.M.S., Members of the Royal Society's Commission on Malaria in Africa and India, 1898-1902. London: Longmans, Green and Co. 1903. (Demy 8vo, pp. 420. 10s.)

[2] *A Revision of the Anophelinae*, being a first Supplement to the second edition of *A Handbook of the Gnats or Mosquitoes.* By Lieut.-Colonel G. M. Giles, M.B., F.R.C.S., I.M.S. (Retired). London: John Bale, Sons, and Danielsson. 1904. (Demy 8vo, pp. 48. 2s. 6d.)

[3] *The Causation and Prevention of Malarial Fevers*: A Statement of the Results of Researches. Drawn up for the use of assistant surgeons, hospital assistants, and students. By Captain S. P. James, M.B.Lond., I.M.S. Second Edition. Calcutta: Office of the Superintendent of Government Printing. 1903. (Demy 8vo, pp. 56, 8 plates. 1s. 6d.)

[4] *Haemoglobinuric Fever: its Distribution and Etiology.* By J. Wallace Collett, Medical Officer, Southern Nigeria. Old Calabar: The Government Press. 1903. (Demy 8vo, pp. 16).

[5] *The Treatment of Plague with Professor Lustig's Serum.* By N. H. Choksy, M.D. Bombay: Indian Textile and Municipal Journal Company. 1903. (Demy 8vo, pp. 166.)

ses, recent studies in immunity and their bearing on serum-erapy, and Kolle and Otto's comparative studies of various tiplague serums complete the book, which will repay reiul study.

Trypanosomiasis.

Dutton and Todd, who were sent out by the Liverpool hool of Tropical Medicine to the Gambia to study try-nosomiasis[6] in 1902, have now published their results in a mewhat voluminous report. It is unfortunate that the blication has been delayed so long, as it is rather out of te now, the work done on trypanosomes and their con-xion with sleeping sickness in Uganda having all been rried out since then. Clinical descriptions of two cases of ypanosomiasis in Europeans are first given, the former ing Forde's original case, the second that of a quadroon rn on the Gambia. Unfortunately necropsies were not tained in either of those cases, and so the opportunities of termining whether the perivascular infiltrations of sleeping kness were present or not was missed. The next and most portant part of the report deals with equine trypanosomi-s, which is a very chronic disease in the Gambia. Cases recorded and photogrophs of affected animals given, and en the question of the transmission is taken up. Numerous periments were conducted with flies of the genus *ossina palpalis;* but all those failed entirely, and the efforts repeat Bruce's transmission experiments were without ult. Though probosces of tsetse flies and stomoxys were efully dissected, the authors never found trypanosomes, as en in the blood, in those situations. They think the failure y have been due to the fact that they were working in the season. In the light of this work it is certainly of the eatest importance that more investigations should be made the question of the tsetse fly as a transmitter of the try-nosome, and the exact mechanism should be carefully died. Especially is this the case when it is remembered t the tsetse fly has been implicated in the spread of sleep-sickness. The report, which is illustrated by coloured grams and photomicrographs, contains an account of culations into rats of trypanosomes found in birds and gs, and a bibliography.

The Bureau of Government Laboratories, Department of Interior, U.S.A., has issued a report on trypanosomes and panosomiasis,[7] by Dr. W. B. Musgrave and Mr. Moses T. egg, of the Biological Laboratory in Manila. The volume somewhat bulky, but as it deals largely with the work that already been accomplished on this subject it will repay a eful perusal by those interested. A very complete classifi-ion of all the names of the trypanosomes (and their nonyms) discovered up to date in various animals is given, then the important questions of the modes of trans-ssion and infection is entered upon. The old theories of ected grass and water are condemned, emphasis being laid tead on the transmission through wounds in which biting ects play the principal part. Other flies beside the tsetse may act as transmitters, and carefully worked-out experi-nts on dogs show that fleas may transmit surra from dog to g. The further fact that rats are also said to be infected h surra in the Philippines shows that it will be difficult to mp the disease out in Manila. From a scientific point of w the most important part of the report is the considera-n of the identity or individuality of surra, nagana, dourine, *mal de caderas.* The writers bring forward evidence that se diseases are caused by the same parasite, and incline to belief that surra should be the only vernacular name wed. The chapter on prophylaxis is especially good, and indicates how serious a matter the introduction of this ease into a non-infected island or country may be. The rantine regulation of the States forbidding the entrance of horses from an infected port is doubtless the best that be adopted for places so far free from surra. Once the ease is introduced very little can be done. The endeavours he authors to discover prophylactic and curative serums have all failed, and they have come to the conclusion that all methods tried for the treatment of the disease have been without results of practical importance or significance. A very complete bibliograph, compiled and edited by Miss Mary Polk, is appended to the report.

The Leishman-Donovan Body.

In the *Thompson-Yates and Johnston Laboratories Report*, vol. v, New Series,[8] the first page is devoted to the memory of the Rev. Samuel Ashton Thompson-Yates, M.A., the founder of the laboratories called by his name. A very excellent photograph is given of the deceased gentleman and a short account of the interest he took in natural science. The loss to Liverpool of such a benefactor must be great, but his name will be handed down to posterity in association with the laboratory he so munificently endowed. A passing reference is also made to the death of Professor Nocard. The main part of the fasciculus deals with the work of the trypanosomiasis expedition to Senegambia; this has been published separately. As it has been reviewed, all that remains is to deal with what is left. This consists of an interesting article on the Leishman-Donovan body, by Professor Ross. A very accurate and well-studied description, with a coloured plate, is given of these parasites, and then the question of their nature is discussed. Leishman's original idea that the parasite was a trypanosome is held to be incorrect, and as regards Laveran's view that it is a *Piroplasma*, it is pointed out that they are not piriform nor intracorpuscular and do not show signs of bipartition. The recent paper by Manson and Low on this subject also goes strongly against the theory that the parasite is a *Piroplasma*, and the suggestion made by Ross that it probably belongs to a new genus of sporozoa is possibly the correct solution. The subject, it is pointed out, is of great importance, and it is hoped that the Indian Government will take the matter up.

NOTES ON BOOKS.

The second annual issue of the *International Catalogue of Scientific Literature*[9] comprises the literature on bacteriology available up to May, 1903. The important feature of the work is the elaborate classification of the subject matter by means of a very extensive range of subdivisions. Most of these subdivisions are obviously of great utility for purposes of reference, but it is a little difficult to understand what the editors mean by the "philosophy" of bacteriology. The four articles which constitute the whole of this division do not appear to be, in any proper sense of the term, philosophy; and if the word is merely intended to comprehend articles dealing with the general bearings of bacteriological principles, the list surely ought to have been made very much more extensive.

The Garden Decorative,[10] by F. M. Wells, is a useful, compact little handbook on gardening which should prove very useful to amateur gardeners. It gives much practical and useful information and covers a wide field of general gardening. The author has a practical knowledge of his subject and gives hints not always to be found in more ambitious works. Some portions of the book have appeared in the *Gardener* and *Amateur Gardening*.

Under the title of *New Poems*,[11] Mr. Ronald Campbell Macfie gives a collection of short poems, chiefly republished from *Black and White*, the *Bookman*, the *British Weekly*, the *Illustrated London News*, and other periodicals. They are slight; some of them are graceful and rhythmic while others are sentimental and rather far-fetched, but on the whole there is good promise, and we wish the author well.

Dr. Dupont, of Antwerp, is reported to have under his care a young European who has recently returned from the Congo and who is suffering from sleeping sickness.

Liverpool School of Tropical Medicine, Memoir XI. First report of the panosomiasis Expedition to Senegambia, 1902, of the Liverpool School Tropical Medicine and Medical Parasitology. By J. Everett Dutton, ., B.Ch.Vict., and John L. Todd, B.A., M.D., C.M.McGill; with Notes I. E. Annett, M.D., D.P.H., and an Appendix by E. V. Theobald, M.A. don: Longmans, Green, and Co. 1903. (Demy 4to, pp. 75. 10s. 6d.)

903. No. 5. Department of the Interior Bureau of Government oratories: Biological Laboratory. *Trypanosoma and Trypanosomiasis, Special Reference to Surra in the Philippine Islands.* By W. E. Musgrave, .. Acting Director, Biological Laboratory, and Moses T. Clegg, istant Bacteriologist, Biological Laboratory. Manila: Bureau of lic Printing. 1903.

[8] *The Thompson-Yates and Johnston Laboratories Report.* Edited by Rubert Boyce and Charles Sherrington, with H. E. Annett, A. S. Grünbaum, Benjamin Moore, Ronald Ross, and E. W. Hope. Vol. v. (New Series). Part II. London: Longmans, Green and Co. 1903. (Demy 4to, pp. 108. 12s. 6d.)

[9] *International Catalogue of Scientific Literature.* R. Bacteriology. London: Royal Society. 1903. (Demy 8vo, pp. 443. 21s.)

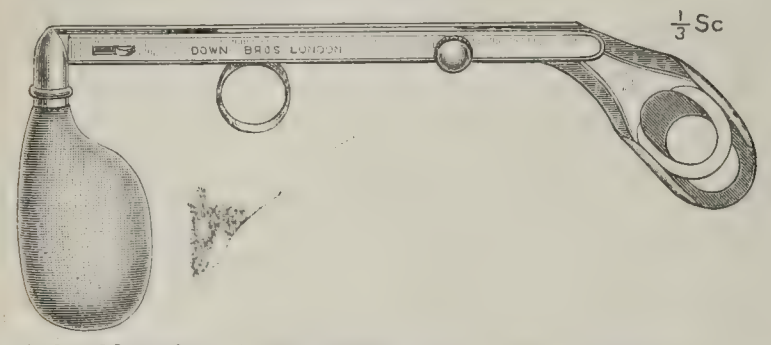
[10] *The Garden Decorative.* By F. M. Wells. London: The Cable Printing and Publishing Company. 1903. (Cr. 8vo, pp. 135. 2s.)

[11] *New Poems.* By Ronald Campbell Macfie. London: John Lane. 1904. (Cr. 8vo, pp. 134. 5s.)

REPORTS AND ANALYSES
AND
DESCRIPTIONS OF NEW INVENTIONS
IN MEDICINE, SURGERY, DIETETICS, AND THE ALLIED SCIENCES.

MEDICAL AND SURGICAL APPLIANCES.

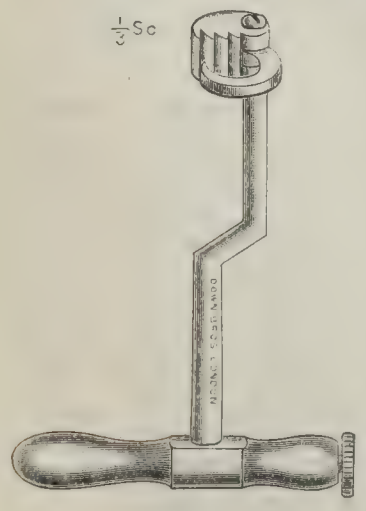
A Tonsillotome.—Mr. LAWRIE MCGAVIN, F.R.C.S.Eng. (London, W.), writes: In a recent communication I drew attention to the fact that, although the majority of laryngologists at present use Mackenzie's guillotine in the performance of tonsillectomy, this instrument, like many less well known, still leaves much to be desired. I have been for some time working at the production of a more ideal instrument, and the points which I have borne in mind in doing this are those which I believe such a one should possess. They are as follows:



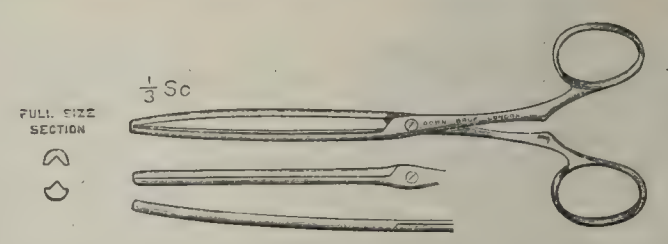
1. It should conform to the curved shape of the oro-pharynx.
2. The long axis of the fenestration should coincide with the long axis of the tonsil when the instrument is in position.
3. It should be very light at the distal end, and fairly heavy at the proximal; this gives a correct balance to the instrument.
4. The grasp should be a powerful one, and therefore the handle should be well fitted to the hand.
5. It should cut as well with one surface of the blade as with the other.
6. The action should be that of the powerful flexors of the index finger rather than that of the feeble thenar muscles.
7. There should be no possibility of jamming or of dislocation of the blade or guides.
1. It should be easily taken to pieces and as easily put together.

All of these points I have endeavoured to combine in my guillotine, which will, I think, be found handy and practical. It is provided with a ring-knife in place of a blade, and with it tonsils markedly dependent in the pharynx are quickly and easily grasped; indeed, in this respect it overcomes one of the chief difficulties which confront those who are not specially practised in tonsillectomy. As the instrument differs so entirely from all others of its kind, it has necessarily had to pass through a good many alterations, and for this reason especially my best thanks are due to Messrs. Down Brothers for the patience and careful work they have expended on its production, and to which its success is very largely due.

An Instrument for Rapidly Enlarging Opening in Skull.—Mr. W. ARBUTHNOT LANE (Surgeon to Guy's Hospital) writes: As one is always glad to know of an instrument by means of which portions of the vault of the skull can be removed rapidly and safely, I make no apology for calling attention to that illustrated here, which I have devised and had made for me by Messrs. Down Bros. The instrument is made on the principle of the old-fashioned tooth key. The fulcrum is serrated so as to afford a good hold on the outer surface of the skull. The tooth or claw opens to a distance of $\frac{3}{8}$ in. from the fulcrum, allowing sufficient room for the thickest skull. When opened to its full extent the claw is easily pushed under the bone, and then with a very slight turn of the handle, which acts as a lever, sufficient force is exerted to break off the piece gripped between the claw and the fulcrum. The size of the fragment removed is regulated by the depth to which the claw is inserted, and the length of the shaft keeps the hand quite free from the wound.

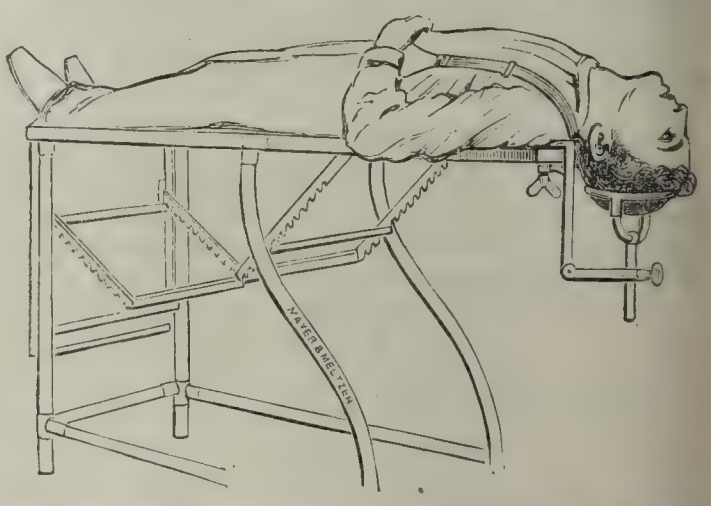


Pile-suture Forceps.—Mr. A. S. BARLING, Surgeon, Roy Lancaster Infirmary, has devised the pile-suture forceps he illustrated. They have "proved of value in the excision a suture of ha morrhoids a metho practised myself — a doubtless many othe —for sever years, ar which w



carefully described and beautifully illustrated by Mr. A. Mitchell, of Belfast, in the BRITISH MEDICAL JOURNAL February 28th, 1903, p. 483. All the forceps that I have se described for the treatment of piles are unnecessarily cu bersome. Kocher's artery forceps often allow the cut edg to slip through before the insertion of the suture, thus givi rise to troublesome bleeding and irritating delay. The disadvantages are avoided by the use of the new forcep There is nothing original in their construction, but I thi that if any one should use them he will be satisfied. Th have been made for me by Messrs. Down Brothers, Limite 21, St. Thomas's Street, Borough, S.E."

A Head-rest for Post-nasal Operations.—Dr. F. A. NYULAS of Melbourne, Australia, writes: I have found the head-re here figured most convenient in the removal of post-nas growths and for operations within the nostrils. The "han ing head" position over the end of the table, as ordinari maintained, in my opinion, seriously impedes respiratio owing to the extremely strained condition of the anteri neck muscles. My head-rest overcomes this difficulty, a dispenses with the need of an assistant to steady and suppo the patient's head. The operator sits at the end of the tabl beyond the patient, and does his work in a more deliberat satisfactory and safe manner, than is possible by oth



methods, while at the same time the risk from any anaestheti is considerably diminished (personally, I prefer chloroform The head-rest is easily clamped on to the end of an ordinar kitchen table, while the "rest" itself may be quickly raise or lowered. It should be kept low to allow of full extensio of the neck. A towel thrown over it after it is fixed in posi tion will prevent soiling by blood. The whole apparatus i in parts for convenient portability in one's bag. It will als be found useful in operations on the roof of the mouth an upper jaw, in excision of the larynx, and in endoscopic ex aminations of the oesophagus. I have designed, for read use with the head-rest, a simple folding chloroform mask o which a fresh piece of lint or domette may be clamped at eac operation.

CARBOLIC ACID POISONING.—According to a recent accoun in the *Daily News*, Mr. Allen, a veterinary surgeon, of Dublin has accidently discovered that turpentine is an antidote t carbolic acid when ingested in poisonous doses. He wa called upon to treat two horses who had been poisoned, an gave one of them a dose of what he thought was olive oil, bu which was really turpentine. The benefit was so great tha he gave some to the second horse; both recovered rapidly although the second horse was already unconscious when th dose was administered. In view of the comparative ineffi cacy of all treatments hitherto suggested for this form o poisoning, the experience, if there be any real foundation fo it, may be worth following up.

NOVA ET VETERA.

SOME NOTES ON CHINESE MEDICINES.

is difficult, for various reasons, to estimate the amount of owledge of medicine possessed by the Chinese physician, t is, the native practitioner who has not received an cation in Europe or America. He is not required to pass examinations nor do his patients require any assurances his knowledge beyond the possession of one or more native ks on the art of healing. Heredity is a very strong recommdation in the young physician's favour, if his father nce to have been a doctor he will certainly be popular, and in addition, his grandfather has also been a medical man, rge *clientèle* is assured him.

t would be absurd to imagine that a people of such an ient civilization as the Chinese possess no knowledge of rapeutics, but they are extremely reticent in the presence foreigners as to their reasons for the administration of tain drugs, their composition and therapeutic action. A ple which has practised inoculation against small-pox since Sung dynasty (A.D. 1014) must, in ordinary fairness, be lited with some research into the actions of drugs on the man body. The doses used are invariably large to our as; pills are taken by the hundred and other things in like ggerated proportion. The statistics quoted are taken from *List of Chinese Medicines*, published by order of the pector-General of Imperial Maritime Customs, 1889. The t quoted is Canton, which may be taken as a representative city (population about 2,000,000) similar drugs ng in use throughout China with possibly some local ations which are unimportant. Opium is not mentioned his paper as its use has become so universal in southern na that it may be considered more a luxury of diet than a g.

inseng, that universally popular medicine in China, is orted to Canton to the extent of 590 piculs from Korea and 5 piculs from other parts of China, mostly from chwan. Korean ginseng being the most expensive and said e best, this much-discussed root is supposed to possess an rodisiac action. The total import of ginseng of various les to Canton amounts to over 3,000 piculs per annum icul = 133 lbs.). There are many other drugs credited with milar action, to which further reference will be made.

iquorice is a very favourite medicine, the annual import unting to 2,722 piculs. Rhubarb also (rheum officinale) is ely used, 229 piculs a year. There are many substances l as carminatives and appetizers, and one has only to read hina menu or be in a Chinaman's presence after a meal to erstand that they must frequently require the assistance ne physician in the treatment of dyspepsia. Such drugs as lamoms, orange peel, ginger skin, cassia, peppermint es, mustard, pepper, orange pips, gentian, coriander, etc., all used by them. For aperients they administer calomel, or oil, senna, leaves of castor oil plant, castor oil nuts, nes, rhubarb (rheum officinale), liquorice and croton s.

favourite tonic is made from the "roots of a woody bing plant with hooked spines and axillary tendrils and e oval-ribbed leaves, furnishing a tonic like sarsaparilla hich the decoction is drunk. Probably a smilax." More 1,700 piculs of this root are required annually in Canton. nic, peroxide of iron and dandelion are also used.

ercury is used for syphilis, cubebs for gonorrhoea, and ragus as a diuretic. Other substances largely imed for medicines are camphor, sulphur, borax, sodium hate, poppy capsules, potash, copperas, cinnabar, realgar, d urine, zinc carbonate, olive oil, camomile, eucalyptus, eed, areca nut, orris root, aconite, black hellebore atrum nigrum), nettles, and tansy, all of which suggest e use to the Western mind.

ppermint ice and oil are exported from Canton to the e of 4,000 taels annually. (The tael varies from 2s. 6d. to d.) Peppermint ice is sold in small bottles and is snuffed he nostrils, it having a really surprising effect on nasal rrh, relieving congestion and headache, and loosening the ous secretions.

foreign medicines an emulsion of cod-liver oil, a "head- cure," and anti-opium pills seem to find a large market. anti-opium pills are a patent medicine containing phine sulphate, they relieve the patient of one drug t and enable him to abandon the opium pipe only to ace it with the morphine pills.

sides ginseng there are many other substances taken as aphrodisiacs or in cases of impotence. Many of the substances used are very disgusting and will not be quoted. Deer penis is imported in large quantities and is sold at 100 taels per picul, also asses' penis, seal's penis, and sheeps' penis. Human placentas are exported and many other things, as deer wombs, compounds of liquorice and human faeces, and liquid manure many years old are probably used for similar purposes. The deer is believed to possess wonderful properties, and there is scarcely any portion of the animal that is not used for medicine, the horns to the value of several hundred thousand taels are imported annually and the unborn young are cleverly imitated and sold. A possible explanation of the popularity of this animal for medicinal purposes suggests itself in the fact that the God of Longevity is always represented by Chinese artists as riding a deer. Tigers' bones, tiger-bone jelly and blood are largely used, being credited with the property of promoting bravery, and for the same reason the spleen and liver of executed criminals and boars' gall bladders are eaten.

The Chinese possess an enormous veneration for antiquity, and one can see the same idea in the choice of some of their medicines, for example, old varnish, liquid manure preserved many years, fossil ivory, fossil teeth, soot from old ovens, fossil crabs and shells, old chunam (Portland cement and sand 1 in 3), putty caulking from old broken-up vessels and water in which a few "cash" of an early dynasty have been boiled.

There is so much rank superstition mixed with some knowlege of drugs that it is impossible to draw a line between reasonable thought and arrant nonsense in their choice of medicines. Insects and animal substances enter so largely into their materia medica that one might be tempted to imagine all native doctors to be quacks of the most unscrupulous type. The following list will suggest the nostrums concocted by the charlatans of our own Middle Ages:

Dried silkworms
Scorpions
Red lady-bug
Blistering fly (not cantharides, but a small fly whose bite produces a blister)
Maggots found in liquid manure
Common earthworms
Centipedes
Dried toads
Toad cakes (toad spittle mixed with other ingredients and pressed into cakes)
Cast skins of cicadas
Lining membrane of fowls' gizzards
Wasps' nests
Sea-horse
Sea-dragon
Wens or corns from monkeys
Dried lizards,
Snails
Tortoise-shell glue
Snake skins
Buffalo horns and bones
Chrysalis of the mantis
Goats' sinews
Dried snakes
Caterpillars
Hedgehog skins
The dung of silkworms, magpies, bats, rabbits, cockroaches, and birds
Sand, earth, and stones

The above is far from being a complete list of the Chinese Pharmacopoeia, but it will serve to show through what a varied range of thought their ideas have moved in attempts to relieve the diseases common to humanity.

The poetic nature of the Chinese is evident in the nomenclature of some of their drugs and is pleasanter reading than the above nauseating catalogue. The following are literal translations of some of the native names:

"The arrow of the hundred medicines."
"The stone which the sun vapourizes."
"Water dragon bones" (old caulking of ships).
"Thunder pills."
"The king of the field boundaries" (a weed).
"The grass which the deer picks" (another instance of the healing properties with which the deer is credited).
"Opium weaning grass."
"Head-turned chicken" (a dried fruit).
"Golden antique olives."
"Thousand taels worth seed."
"The hill over running duke."
"Sure remedy" (the bark of a tree).
"Robust the whole year" (certain bulbs).
"Phoenix bowels" (the phoenix is a beneficent animal like the dragon, and is the special emblem of the Empress as the five-clawed dragon is of the Emperor).

The Chinese possess a great faith in prophylactics, but here one finds nothing but superstition pure and simple; for example, the soup made from a black cat is drunk by blacksmiths in Canton to prevent burns from hot metals.

There is no mention of quinine as an import, but it is probably prescribed by the better-educated doctors, the refuse of indigo vats is used as a medicine, but whether it is given in cases of malaria is doubtful.

The sister science of surgery may be dismissed with a few words, it consists mainly of acupuncture, actual cautery,

ligation, counter irritants and massage. We have all read of the expert Chinese dentist who extracts teeth with his fingers as the only instrument. The removal of a stump by this means seems an impossibility, and if we examine the strings of teeth which form the native dentist's professional badge we find that the teeth extracted are almost invariably sound, a fact which rather detracts from the world-wide reputation of the Chinese operator who requires no forceps to assist him in his work.

H.L. NORRIS, Surgeon, R.N.,
H.M.S. *Tamar*, China.

PHYSICAL EXERCISE IN SCHOOLS.

THE following is a summary of the report of the Committee[1] which was appointed by the Lord President of the Board of Education and the Vice-President of the Committee of the Privy Council in Scotland, with instructions to examine the model course of physical education at present in use, to judge how far it should be modified or supplemented, and to consider what principles should be followed in order to render a model course or courses adaptable for the different ages and sexes of the children in public elementary schools.

GENERAL CONSIDERATIONS.

The existing model course is condemned because it does not seem to the Committee to be constructed, as a whole, on the well-defined general principles which may be educed from a consideration of the function of physical exercise as a necessary element in a well-ordered course of general education for children. A fresh syllabus or alternative course is therefore suggested which is founded on principles evolved in the course of discussion as to which of enumerable exercises suggested and examined should or should not be included in a model course. It is not urged that this should be compulsorily or immediately substituted for that in use, because there is reason to believe that the various educational authorities concerned will of their own accord bring their systems into line with the model now proposed.

The actual exercises embodied in the syllabus in many cases are common to many well-known "systems." They have been selected because they are suitable for children of school age and require no special apparatus. All exercises in the least likely to prove injurious to children of even weak physique have been carefully excluded, as also all those not considered to have distinct value for one or other of the purposes mentioned hereinafter. It is contemplated that within the limits of the approved syllabus a certain freedom of choice will be left to teachers in the selection of groups of exercises, and that they should be permitted or even encouraged to apply their minds to the consideration of the principles involved, and from time to time suggest emendations. It is noted, however, that no such fresh departures should be accepted without grave consideration, that uniformity of practice is desirable, and that the words of command suggested for each exercise should be strictly adhered to throughout the country.

PHYSICAL EXERCISE AND GENERAL SCHOOL HYGIENE.

The Committee state that it has been forced upon it in the course of its deliberations that, important as is the question of physical exercise in itself, it is only part of the much larger question of general school hygiene and the various considerations connected with it. As regards physical education, certain children ought at times or altogether to be excluded from participation therein, and the responsibility for such exclusion must primarily rest on the teacher. This, independently of all other considerations, renders it necessary that instruction in the laws of health and in the outward signs of physical and mental weakness should occupy a more prominent place in the training of teachers than has hitherto been the case. Mere written examinations in physiology and hygiene are insufficient, and the teachers should be so instructed as to be able to recognize signs of defective nutrition and such defects of sight, hearing, and breathing, as require medical attention. They should be familiar with the signs of physical and mental fatigue, which to the experienced teacher ought to be a gauge on which to keep his eye in regulating the work of his pupils. Thus instructed the teachers would be able to pick out among the children those whose cases required further investigation at the hands of a medical man who has made a speciality of this kind of work.

[1] Report of the Inter-Departmental Committee on the Model Course of Physical Exercises. London: Eyre and Spottiswoode; Edinburgh: John Menzies and Co.; and Dublin: Hodges, Figgis, and Co. 1904. 3d.

The Committee, in short, is of opinion that no kind of educational organization can be considered complete which does not provide for the systematic reference to medical experts of questions of school hygiene and the special treatment of individual scholars.

THE CONDUCT OF THE WORK.

As to the question of by whom physical education should be carried out, the Committee considers that those simple exercises, which it terms "recreative," should be conducted by the ordinary class teachers. It considers these exercises an essential part of the course proposed, and that they should be repeated for a few minutes several times a day. For the rest, the Committee points out that there is a considerable and increasing supply of persons, chiefly women of good education, who have made a systematic study, both theoretical and practical, of the scientific principles which should regulate bodily exercise, and who are also experienced in class teaching. It suggests that the local authorities should make more use of these experts, in some cases to undertake the instruction altogether, and in others to organize and supervise the physical education given by such ordinary teachers as may chance to have qualified in some degree under the existing systems.

THE LOCALITY OF THE WORK.

Finally, the Committee point out that not only should all schools be provided with playgrounds, but, in addition, some room should be provided in which the physical exercises may be carried on systematically from week to week, irrespective of weather. It does not regard it as essential that the physical education should be conducted in the open air, but does regard it as essential that it should be carried on with great regularity.

THE PHYSICAL EXERCISES RECOMMENDED.

These include 109 exercises, as to each of which precise instructions are given. Twenty-eight supplementary and voluntary exercises are also mentioned which require the use of light dumb-bells. A key table is given in which the exercises are divided into sections so as to be progressively suitable for children from 7 to 9, from 9 to 11, and from 11 upwards.

THE PURPOSE OF THE EXERCISES.

It is pointed out that every exercise recommended, with the exception of those marked "recreative," has a double object—its physical effect upon the health and physique of the children and its educational effect, sometimes the one sometimes the other prevailing. Exercises in which physical effects prevail are roughly as follows:

Nutritive exercises, which, acting primarily on respiration and circulation, thus make for improved nutrition. Natural types of such exercises are the untaught movements of children in running, leaping, and skipping. Given a sufficient supply of food and of oxygen for its combustion, it is by such exercises that healthy frames are built up.

Breathing exercises are those which principally affect the mechanism of respiration. The object of these is less that of increasing simple chest capacity than of increasing the difference between the full and empty chest. Correct breathing is essential, and the child on its first admission to school should be taught by imitative movements how to breathe correctly or unlearn those bad habits which unhealthy catarrhal conditions in infancy may have produced. This instruction is quite as important as any other infant school work.

Corrective exercises are those designed to counteract the evil habits and defects, often apparently of trivial character, which may be acquired during school work. In addition to the specific exercises prescribed, attention to the positions assumed by children during their lessons must be regarded as an integral part of the physical training. For instance, children should never be allowed to hold their books nearer than 12 in. from their eyes.

Control exercises are those found in various balance exercises. Examples of them in ordinary life are dancing, skating, cycling; their chief effect is to educate the nervous system and increase its influence over muscle action and co-ordination.

Educational Effects.—These are brought about by nearly all the exercises, but especially by those which require complex co-ordinations of movement, a certain concentration of mind and a distinct effort of will. When thoroughly learnt, the educational effect may cease, but the nutritive value remains. Two or three times a week the exercises should be regarded in the same light as ordinary school lessons, inasmuch as that their acquirement and perfect performance involves more or

ss physical and mental fatigue. There is therefore the ame general need for proportioning their length to the age nd development of the children.

Recreative Exercises.—The foregoing considerations, however, o not apply to certain simple exercises, marked recreative, hich should be used purely for their nutritive effect. Being imly mechanical and recreative, they should be repeated in ie classroom two or three times daily for a few minutes at a me. When thus used it will be found that children who ave been at one task for a considerable time and are getting tigued and inattentive are at once refreshed.

Final Observations.

The exercises in the syllabus are designed for children be- reen 7 and 12 years of age, and the physical capabilities of ildren of such ages have probably been under-estimated ther than over-estimated. Improperly-fed children are not kely to derive much benefit from exercises of the nutritive der; these and other children whom some constitutional eakness or other cause seems to unfit for participation in the ercises should be reported to the local educational thority, in order that steps may be taken to find a remedy, here a remedy is possible. The breathing exercises in par- cular will at once disclose defects which should be reported r medical advice and treatment. The regular appearance of eathlessness amongst certain apparently healthy children ll also usually indicate recourse to medical advice.

Desk work for infant classes should be very short; in- rvals for play and kindergarten games frequent; and great tention should be given for securing proper positions at sk work; while the simple and nutritive exercises should frequently practised. In the infant classes musical accom- niment to the nutritive exercises may generally be allowed, t not in the older classes, because the rhythmic stimulus ren by it to some extent replaces the need for will effort, and diminishes the educational value of the movements. ery exercise should be performed with intention—that is, th distinct realization of its purpose, and with requisite ention and decision.

Finally, during all exercises, and especially during the few nutes of daily exercise, doors and windows should be ened so that the rooms may be flushed with as much fresh as possible. Nevertheless, the exercises should not be itted even if this condition cannot be fulfilled, for with per nasal breathing any atmosphere which is good enough live in will be good enough to exercise in.

THE CANCER RESEARCH FUND.

e first scientific report issued by the Cancer Research nd[1] of the Royal Colleges of Physicians and Surgeons ords the progress of certain investigations conducted Dr. E. F. Bashford and Mr. J. A. Murray under the direc- n of the Executive Committee and Pathological Subcom- tee. The report contains three papers.

Zoological Distribution of Cancer.

n the first of these are described certain facts concerning zoological distribution of cancer which have been demon- ted by the examination of specimens of the disease in estic animals and other vertebrates; growths with histological characters of carcinoma have been obtained m the cow, dog, horse, sheep, and pig, and from the se, cat, hen, parakeet, salamander, cod, gurnard, and t. The disease therefore occurs in domestic animals, and in wild animals both in captivity and in natural sur- ndings. These observations confirm those of previous kers on the wide distribution of cancer throughout the ebrate class; the great diversity of the habitat, food, and ditions of life generally of the animals in which the ase occurs, relegates such external agencies to a subsi- y part—if they play any part at all—in determining the dence of the disease. The observations were not sufficient ustify any conclusion on the relative frequency of the ase in the domestic and wild animals.

The Transmissibility of Malignant Growths.

ne second paper treats of the transmissibility of malignant growths from one animal to another. The results of recorded attempts to transplant normal tissues, embry- onic tissues, and tissue from the reproductive organs have been entirely negative; the possibility of success- fully transplanting chorion was tested with completely negative results. On the other hand, the successes recorded by Jensen and Borrel in transplanting carcinomata in mice from animal to animal were repeated in the laboratory with material supplied by Professor Jensen. With this material 259 inoculations were made with a successful result in 25 to 30 per cent.; the histological characters of the tumours confirmed Jensen's observations that they developed from the actual cells intro- duced. The suitability of the animal into which the inocula- tion is made seems to be of importance; but greater weight attaches to the character of the tissue introduced when the inoculations are made into animals of the same race. Age seems to have no influence on the proportion of successful transplantations, in contrast to its cardinal importance in determining the initiation of the cancer cycle. In the light of the phenomena of immunity it is interesting to note that it is possible to obtain multiple tumours from transplantations performed on the same date, and that transplantation can be successfully performed in animals in which the tumours have already developed fourteen days to ten weeks after the first effective transplantation. In all successful transplantations the parenchyma of the tumour preserves the same character; the rate of growth and the relative proportion of stroma is subject to variation. Exposure of the tumour tissue to a temperature of 37° C. for twenty-four hours rendered all the results of transplantation negative, and the breaking down of the tissue in a mortar had a similar effect.

Cytological Characters.

In the third section of the report the comparative cyto- logical characters of malignant new growths are considered. The work of v. Hansemann is examined, and it is shown that although he described the hypochromatic nucleus as occurring in carcinomata, yet his observations did not include what is of chief importance in those of Farmer, Moore, and Walker—namely, that the diminution of chromosomes takes place in exactly the same way as in reproductive cells, and that the numbers are approximately halved as compared with those of the somatic mitoses. The occurrence of this heterotype mitosis in carcinomata was confirmed by observations in the Cancer Research Laboratory. The number of cells exhibiting this mitosis varies in different tumours, and no direct relation to the degree of malignancy has been established; the mitoses in the growing margin are uniformly of the somatic type, and in some cases, where rapid degeneration is a characteristic phenomenon, heterotype mitoses may be very difficult to find. These considerations militate very strongly against the value of the heterotype mitosis as a diagnostic criterion of malignancy. A clear description of the characteristics of this mitosis is given in the report. Exception is taken to the view of Farmer, Moore, and Walker, that the cancer process consists in a transforma- tion of the normal adult tissues into modified reproductive or "gametoid" tissue possessing the features of malignancy; the negative results of testis and ovary transplantation are held to show that this explanation is inadequate. Certain nuclear figures which have been seen in some of the carcinomata examined are considered to support the idea that a species of conjugation occurs amongst these cells: if this be so a new cycle would be started thereby, and the independent growth of malignant tumours and their metastases would be ex- plained. Whether such a conjugation of cells or nuclei of normal tissues occurs as the initial phenomenon in the cancer cycle must be settled by further investigations.

[1] *cientific Reports on the Investigations of the Cancer Research Fund.* er the Direction of the Royal College of Physicians of London and Royal College of Surgeons of England. No. 1. London: Taylor and cis. 1904. (Demy 4to, pp. 36, 35 illustrations. 2s 6d.)

At the annual meeting of the Royal National Pension Fund for Nurses the Council was able to report a very successful year, and that the policies granted were approximately 100 over those issued in the preceding period. At the quinquennium which ended December 31st, 1902, it was found that a bonus of £27,944 could be declared, and this sum was duly divided among the policy-holders during the year. The expenses of management were 3.77 of the premium income, and £1,764 was distributed in sick pay in 1903, or £200 more than in 1902. During the last quarter of the year the annuities then being paid were at the rate of over £10,000, divided among 708 annuitants. It was stated that the actuaries' investigations again seemed to show that nurses as a body lived longer than other classes of women.

MEDICAL NEWS.

Surgeon-Major McSheehy, of Wimbledon, was recently sworn in as a Justice of the Peace for the County of Surrey.

The plans filed for the annexe to St. Luke's Hospital, New York, involve a building ten stories high, with a roof garden in addition.

At the last meeting of the Council of the British Medical Benevolent Fund 17 applications were received, and sums amounting to £151 were voted to 15 applicants; 2 cases were postponed for further inquiry.

Sleeping Sickness.—Colonel David Bruce was the Friday evening lecturer at the Royal Institution on April 22nd, when he gave a popular summary of the many scientific accounts of sleeping sickness and its etiology, which have already been published in the British Medical Journal by himself and many other observers.

Conscript Nurses.—In Zurich a lady doctor has been advocating that all unmarried women of the well-to-do classes should be compelled by the State to devote one year to unpaid hospital work. She claimed that the hospitals would benefit and the girls gain a training of great value to them after marriage. The latter may be true, but the result to the hospitals would, we imagine, be anything but desirable.

Volunteer Ambulance School of Instruction. — Sir William Taylor, K.C.B., Director-General Army Medical Department, has accepted the invitation of Brigade-Surgeon-Lieutenant-Colonel P. B. Giles and officers of the Volunteer Ambulance School of Instruction to be present at the annual dinner, which will take place at the Trocadero on Thursday, May 12th.

Nature states that Mr. Francis Galton is about to address a circular letter and a schedule of questions to each Fellow of the Royal Society on "Ability in Families." He asks for a return of those relatives in specified near degrees who have achieved any kind of "noteworthy" success. This is defined to be a success in any pursuit whatever that ranks among those who follow that pursuit at least as high as success in gaining the title of F.R.S. ranks among men of science.

The May dinner of the Edinburgh University Club of London will take place at the Criterion Restaurant on May 11th, at 7.30 p.m. Sir Robert Finlay, K.C., M.P., Lord Rector of the University, will preside, and amongst those who have accepted the invitations of the club are Mr. Justice Darling, Mr. J. M. Barrie, Captain Robert Marshall, and others. It is expected that a large number of members will be present to support the chairman.

Bequests to Medical Institutions.—The estate of Dr. William Sutton of Dover, who died recently, was sworn at a value of £56,469. He bequeathed £1,000 each to Dover Hospital, the Royal Medical Benevolent College, and the British Medical Benevolent Fund; £500 to St. Thomas's Hospital; £300 to the Dover Institute of Trained Nurses; and £250 each to the London, Guy's, Charing Cross and Royal Free Hospitals.

Its report for 1903 shows that the affairs of the Nurses' Co-operation, 8, New Cavendish Street, W., are in a satisfactory condition, and that the accommodation for nurses has been increased. Owing to the success of the society, all those who joined before 1898 are now to be put upon the same terms as original members, that is to say, they will receive their gross earnings less only 5 per cent. instead of 7½ per cent. as heretofore.

A small pamphlet advocating the claims of St. Bartholomew's Hospital to public support has been published by Sir William Treloar, Alderman of the City Ward in which the hospital stands. He addresses himself as a business man to business men, but nevertheless manages to write movingly of what "Bart's" has been to the City in the past, convincingly of the need to the whole community of its existence in the present, and eloquently of what the institution will be in the future if his fellow-citizens and others follow the example of their forefathers.

Medico-legal Golf.—On Saturday, April 23rd, a golf match promoted by the Bar Golfing Society was played between eight barristers and eight medical men on the links of the Burnham Beeches (Bucks) Club; play was by singles in the morning and by foursomes in the afternoon. The singles were very evenly contested, each side scoring four points. the afternoon, however, Law got the better of Medicine by o point.

The Royal Visit to Denmark.—The *London Gazette* April 22nd announces the following honours conferred on t occasion of the King's recent visit to Copenhagen: Profes Thorold S. V. Petersen, Physician in Ordinary to the Ki of Denmark, and Professor Jens Schou, Surgeon in Ordina to His Majesty, to be Honorary Commanders of the Roy Victorian Order; Doctor Christen M. Wittüsen le Mai Resident Surgeon to the King of Denmark, to be an Honora Member of the Fourth Class of the Royal Victorian Order.

Metropolitan Hospital Saturday Fund.—At the annu meeting of the Metropolitan Hospital Saturday Fund, held the Mansion House on April 23rd, the report put in show that the amount collected during 1903 was £23,674, or £7 more than in the preceding year. This success had be achieved without in any way trespassing on the grou covered by King Edward's Hospital Fund or of the Hospi Sunday Fund, all three funds alike having steadily progress in public favour. The meeting terminated with an addre from Professor Smith upon the close connexion between t absence of an adequate "health conscience" among t public and the extent of the calls at present made up hospital accommodation.

Home for Inebriate Women.—The Duxhurst Industri Farm Colony was established for the treatment of cases inebriety among women of the working classes some ni years ago. It has accommodation for 60 patients, a annually receives some 500 applications for admission. its annual expenditure of about £6,000, some five-sixths a covered by the payments of patients and the profits on wo done. As a rule only voluntary patients who cannot received in any State-aided reformatory are admitted, b occasionally patients are accepted under the Act, these bei usually "one-conviction" cases amongst young women. Ste are taken to trace the after-history of all patients, and it believed that the percentage of permanent cures is ov 50 per cent. It is now desired simultaneously to extend t scope of the work and to relieve Lady Henry Somerset, wh founded the home, of all further financial responsibility respect of an institution which is considered to have prov that it can successfully meet a national need. Subscriptio for this purpose may be sent to the Secretary, Miss M. Bolton, 411, Birkbeck Bank Chambers, London, W.C.

Public Health in the Philippine Islands.—The month report of the Board of Health for the Philippine Islands a the City of Manila for November last, which is issued by t Acting Commissioner of Public Health (Dr. Munson) recor a death-rate of 53.9. During the last four years some eig or nine monthly rates have exceeded this figure. In Jul 1902, the annual death-rate reached the extraordinary figu of 107.0. The population, according to a rough census, 219,941, of whom 189,782 are Filipinos, 21,230 Chinese, 4,3 American, and the remainder Europeans and others. T high death-rate in November appears to have been due to t infant mortality. The number of deaths occurring durin the month among infants less than 1 year of age amounte to 58.5 per cent of the total deaths of the city popul tion. Among the Filipinos this percentage amounte to 65.5. The principal causes of the mortality infants were (*a*) convulsions, eclampsia, and tetanu and (*b*) bronchitis, meningitis, and debility. In respe to the former group Dr. Munson reports: "The more prom nent symptoms presented by these three causes largel resemble each other, and it is believed that the latter ar often confounded with each other, particularly since death of this class largely occur in the absence of medical attend ance, and the death certificates in such cases must be mad out on the basis of the symptoms given by members of th family. There is strong reason for belief that the death occurring in the first month after birth and attended by con vulsions chiefly depend upon tetanus infection at th umbilicus, due to the handling of the unhealed stump of th cord with unclean fingers, and the common local practice o massaging the abdomen of the newborn." The high mor tality from bronchitis is attributed to insufficient clothing depending upon poverty and ignorance. The Board o Health is taking steps to prevent death from these various causes. During November there were also 2 deaths from plague and 23 from Asiatic cholera, which was showing sign of abatement. Beri-beri caused 36 deaths during the montl and small-pox 2.

BRITISH MEDICAL ASSOCIATION.

Subscriptions to the British Medical Association for the year 1904 are now due and should be forwarded by postal order or cheque to the amount of 25s. to the General Secretary, 429, Strand, London, W.C., or, in the case of Colonial members, to their Branch Treasurer.

British Medical Journal.

SATURDAY, APRIL 30TH, 1904.

THE POOR-LAW MEDICAL SERVICE IN SCOTLAND.

report of the Departmental Committee of the Local ernment Board for Scotland on Poor-law Medical ef and the Management of Poorhouses has been issued contains much information and makes many recom- dations of interest to the medical profession.

the SUPPLEMENT this week (p. 86) will be found the terms ference to the Committee, and an outline of the main ures of the report. The recommendations of the Com- ee, together with the paragraph referring to the tenure fice of parochial medical officers and other points of e importance to the medical profession are quoted ally.

e Poor-law administration in Scotland has differed its formation from that of England in that it has sted mainly of a system of outdoor relief, but within t years more attention has been given to indoor . The many recommendations made by the Depart- al Committee show that much yet requires to be done is direction.

appears from the report of the Local Government Board 03 that there are 67 poorhouses having accommoda- for 16,235 inmates, so that the efficient treatment of sick and infirm in poorhouses is a matter of much rtance. The proposal to give increased powers to the edical officer to deal more effectively with the classi- on of the inmates, and the suggested regulations in exion with the treatment of tuberculosis, are steps in ght direction. Parochial sanatoria for consumptives ggested, and it is pointed out that "if by two, three, r months of treatment in a poorhouse hospital the t can be restored to working efficiency, the Poor-law rities are to that extent relieved of the burden both ient and family. On these grounds alone, apart from uestion of infectivity, parish councils are, we think, ed in undertaking the treatment of patients in sana- n lines." The carrying out of the recommendation auper nursing be abolished and a general system of d nursing introduced, would remedy a distinct nce.

British Medical Association has long recognized he tenure upon which a parish medical officer in nd holds his appointment is most unsatisfactory; ay be dismissed, or his services may be dispensed by the parish council at any meeting duly called on ays' notice without any reasons being assigned. report of the Committee points out that while ate means have been taken to secure the t of the sick poor in Scotland, nothing has been to protect medical officers against unjust or ous dismissal, and adds that with a fear of dismissal always present the efficiency of the service may be greatly impaired. We could have wished that the Committee had definitely stated that the efficiency is impaired because there can be no doubt that it is; nevertheless, they make a very definite recommendation which is that parish medical officers should have the same tenure of office as medical officers of health and sanitary inspectors, under the Public Health (Scotland) Act, 1897, that is to say that they should only be removed from office with the sanction of the Local Government Board. Attention has been repeatedly drawn in Parliament to dismissals, especially in the Highlands and Islands of Scotland, of Poor-law medical officers without just cause, and now that this recommendation has been made it is to be hoped that there will be as little delay as possible in giving effect to it.

Last year the British Medical Association undertook to accord its support to the Local Government (Scotland) Act Amendment Bill then before Parliament, on condition that a clause providing that all medical officers holding office under the Poor Law in Scotland should be dismissible only by or with the consent of the Local Government Board were added to it. Dr. Muir, Secretary of the Scottish Poor-law Medical Officers' Association, speaking at the Annual Representative Meeting at Swansea, formally thanked the Chairman and members of the Medico-Political Committee for the action taken; and the matter is one of those which the Council of the British Medical Association at its meeting last week recommended members of the Association to bring to the notice of candidates for Parliamentary honours.

If effect be given to the further suggestions made in the report of the Departmental Committee that dwelling-houses should be provided for medical officers, and that additional medical attendance should be provided in certain Highland and Island districts, special causes of difficulties in these districts will be removed.

The consideration of Poor-law administration raises many very complex questions, and it is open to debate whether the present system is the best that could be devised. According to the Report of the Local Government Board for 1903, thrifty Scotland has a Poor-law roll of 103,016 persons, costing £1,225,053 per annum; and it may be argued that a system of national assurance or old age pensions would be preferable. There can, however, be no doubt that the adoption of the recommendations of the Committee will be the means of removing many defects and of immensely improving the present service. We congratulate Dr. Leslie Mackenzie and the members of the Committee on their very practical and comprehensive report. It now remains for the medical profession, and more especially those resident in Scotland, to urge on Parliamentary representatives and candidates the necessity of carrying out the recommendations made.

MENTAL FATIGUE.

CONSIDERING the importance of the study of mental fatigue, and the large mass of evidence educed by psychologists engaged in its investigation, the opposing views of different authorities might appear, at first sight, somewhat remarkable. Even a cursory examination, however, shows that the whole subject is so dependent on the solution of other questions concerning which psychologists are divided, and on inherent difficulties of aesthesiometric and psychometric investigation, that this conflict of theories is, at

present, inevitable. One of these questions is that of attention. Memory and attention, closely if not inseparably related powers which play a necessary part in all human operations, vary in all individuals, and appear to correspond in degree to each individual's position in the intellectual scale. Ribot, in fact, argues that savages are incapable of voluntary attention, whilst both Carlyle's definition of genius as an infinite capacity for taking pains, and Macaulay's more sonorous dictum "a magisterial subjection of all dispersive influences, a concentration of the mind upon the thing which has to be done, and a proud renunciation of all means of effect which do not spontaneously connect themselves with it," if they do not correctly define genius, nevertheless embody the same central truth of the intellectual value of attention. Attention is thus a property or condition urgently requiring elucidation in relation to mental fatigue.

Voluntary attention, phylogenetically and ontogenetically late in acquirement, is one of the first to weaken in pathological conditions, a diminished power of attention being characteristic of many morbid states, psychoses, and hereditary types of mental disease. Attention and conscious mentation are so closely connected that mental fatigue might almost be expressed in terms of attention, and a study of attention would cover a large part of the field of the psychology of fatigue. Yet here we encounter diametrically opposed views. Some psychologists hold that attention is essentially spontaneous and reflex, arising from the affective states (Ribot, Fechner, etc.), voluntary attention being a subsequent development of these constituent elements; while others maintain that attention is psychical in nature, the result of a voluntary apperceptive process, and "that whilst in accordance with the methods of the old faculty-theory 'attention' and 'will' were regarded as different, sometimes as related, forces....the truth evidently is that these two concepts refer to the same class of psychical processes."[1] For Wundt, also, involuntary attention is only a simpler form of internal volition, and "the conditions of attention are not given with the internal and external stimuli which we regard as the physical counterpart of centrally and peripherally excited sensation."[2] For psychologists holding these latter views psycho-physical experiments upon attention must possess only limited interest. To enter into this controversy would lead us too far; but, whilst admitting that the time is not yet ripe for any dogmatic expression, we may state with Münsterberg[3] our conviction that the physiologist cannot be thus summarily excluded from the discussion.

The foregoing observations have been evoked by a paper in the *Psychological Bulletin*[4] by Professor Seashore, who therein very briefly points out some errors and some lines of progress in the study of experimental fatigue. The article does not embody the results of any independent investigation, but formulates in very general terms the author's views of the lines on which the experimental study of mental fatigue should be carried out, and is preceded by a short criticism of Kraepelin's statement that "Fatigue through mental work is, so far as we know, a general fatigue.....only the difficulty and not the kind of mental work is significant for the general extent of fatigue." This is directly controverted by the author, who states that Kraepelin is evidently wrong both in regard to fact and in regard to the supposed significance of the c but he does not adduce any experimental data in sup of his contention. He agrees, however, with Kraep who says that the conclusions founded on aesthesom experiments in school children are *in der Luft*, the esse truth to be found in them being such as the experime have read into them from their general knowledge, that in including under the same ban the ergog method, Ebbinghaus method, and others, Kraepelin probably right. Dr. Seashore then lays down some exce rules for the guidance of investigators, but we are bou admit that these rules are such as would naturally occ any worker in this field and are couched in terms of te sufficiently precise.

Dr. Seashore's original contention that Kraepel wrong in affirming that fatigue is general is, how debatable. Mosso and McDougall both maintain fatigue is general. "All the magazines of energy ca drained by the exaggeration of any activity of organism....there exists only one kind of fatigue, nam nervous fatigue; this is the preponderating phenome and muscular fatigue also is at bottom an exhausti the nervous system."[5] The hypothesis of inhibitio drainage[6] is on this point a restatement of the same and if the theory of a general body of energy which be tapped on the side of least resistance under influence of sensory stimuli, thus diverting to the main stream of energy and draining it from parts, should appear somewhat mechanical as applied singularly complex phenomenon, the universality of relation of reciprocal inhibition is by it certainly easily explained.

The fact is that the whole subject, considering physiological, pathological, and—and this is a point w deserves particular mention—its pedagogical import requires more extended investigation and a thor critique of method. On this latter point we are ent at one with Professor Seashore, and heartily commend plea for revision. The difficulties are enormous, but, any other sphere of work, these difficulties are dir proportional to the breadth and importance of the fie operation.

THE NATIONAL ANTIVACCINATION LEAGU

THIS League has recently held its annual meetings, a glance through the official reports is not without inte The first point that will probably strike a reader of annual report is that the League has certainly no wa vice-presidents, male and female, the total list amou to 64. Lieutenant-General Phelps occupies the di guished—if not indeed the unique—position of being president and vice-president; but we hasten to say tha feel quite certain he is well worthy of the double hon and so we trust he will not think it necessary to sen an epistle in explanation or defence of his of positions.

Among the vice-presidents there appear the name four medical men. One of these, Dr. Edward Haugh recently complained to us that he had insisted—appare so long as three or four years ago—on having his n removed from the list, but that no attention had been to his request. The explanation now made to hi behalf of the League would, in any ordinary connexio

[1] Wundt, *Outlines of Psychology*, 2nd revised English edition, p. 240.
[2] O. Kulpe, *Outlines of Psychology*, translated by Titchener, 1895.
[3] Münsterberg, *Beitrage zur experimentelle Psychologie.*
[4] *Psychological Bulletin.* Literary section of the *Psychological Review.* Macmillan, New York. Vol. i. No. 4.
[5] *Fatigue.* A. Mosso. Trans. by Margaret Drummond, M.A., and Drummond, M.D. London: Swan Sonnenschein and Co. 1904
[6] W. McDougall, *Brain*, 1903, p. 153.
[7] BRITISH MEDICAL JOURNAL, March 19th, p. 699, and April 16th, p.

ded as peculiar. Since his complaint was made c in the BRITISH MEDICAL JOURNAL the Council has a special meeting, at which it agreed to tell Dr. hton that it had supposed he wanted to retire only the Council, and not from his vice-presidentship. is put forward notwithstanding the fact that so long s November, 1902, it was writing to him regarding lready declared decision to sever himself "from the ıe"—as if a man could be a vice-president of a society which he had severed himself. The cause of the ance was the refusal of the organ of the League to its columns to one of its own vice-presidents, on the d that his letter referred to some disputed points, that it was very unwise to let it appear that there ny division of opinion." This is rather perplexing, g from a body whose constant complaint is that d editors persist in suppressing their correspondence. otable point about another of the four medical vice-lents (whom the League dubs "M.D.," but without the mation of the *Medical Register*) is that the *Vaccination er*, in its report of the proceedings at the annual ng, refers to him as "not an antivaccinist," though oks on compulsory vaccination as "an evil of the t character," owing to its being "the beginning of a ific tyranny." On this matter also the position of the e is peculiar. Its objects are "The entire repeal of accination Acts, the disestablishment and disendow- of the practice of vaccination, and the abolition of gulations in regard to vaccination as conditions of yment in State departments, or of admission to tional or other institutions." But on another page annual report there is in large letters the invitation, opponents of compulsory vaccination are earnestly d to join the National Antivaccination League. A ription of 5s. and upwards per annum consti- membership. Funds urgently needed." It would appear that to swell its membership the e is not merely willing but anxious to obtain ts who may be quite out of sympathy with the objects of its existence, for manifestly there is a difference between the abolition of compulsory vac- on and the entire repeal of the Vaccination Acts.

vithstanding the wide net by which it tries to catch ers, the League's annual meeting, though held in the polis, does not appear to have been at all well attended. atherings extended over two days, and the total r of delegates and visitors who signed the roll in rse of that time amounted to 78, including 13 ladies. e discussion there were several references to the tion Clause of the present Vaccination Act, and it ent that, now they have got it, the opponents of vac- n are not at all sure whether it has done them any A representative from Leicester stated that the ty of the people of that town were now asleep, as rtificate gave them nothing to fight for; another er held that a good deal of apathy had crept into anks; still another urged that the effect of the clause ucing opposition to vaccination was the very thing perial League wanted; and a fourth went the length laring that the Vaccination Acts troubled him less he dog licence, and that in a Parliamentary elec- e would not pledge himself to vote only on the ques- vaccination. Such deliverances do not indicate that tivaccination League is in very good spirits.

painful to notice that the grievances of the Presi- re not confined to our own action regarding him, or to our refusal to fill columns with his argumentation. The Commission on Physical Degeneration seems to be equally hard-hearted. The General naturally assumed that this Commission "would have seen that first and foremost among all the causes of degeneration there was none more significant than the introduction of cow-poxing —the introduction of miscellaneous disease—into every child born," and he is both grieved and surprised that the Commission was not anxious "to have light thrown upon the problem." We desire most respectfully to express our sympathy with the disappointed warrior. It is very sad that the Commission should have so treated him, and that it prefers darkness rather than the illumination which he himself was chivalrously willing to bring to bear on what he regards as the root matter of their inquiry.

Another subject which appals General Phelps is the ignorance of the doctors in Leicester concerning the proper treatment of small-pox. A Leicester leaguer stated that he attributed the small-pox deaths in the Leicester Hospital to the fact that they "did not give what he regarded as a bath. The bath was too often in the nature of a mere wash." This information was greeted with cheers by the assembled antivaccinationists, but exactly what they were applaud- ing is not obvious to the uninformed outsider. It was at this point that the President animadverted on the want of knowledge of the Leicester doctors, but he appears at the same time to have made a flank attack on his colleague from that town. That gentleman had spoken only of baths, but the President wanted to know "whether oil had been used on the patients." The Leicester man thought not, but in some cases "Captain Fielden's ointment" had been applied; and, regarding this, General Phelps said that his own belief was "that if oil had been used in conjunction with the ointment the death-rate would have been very small." One remarkable point in connexion with this valuable discussion is that the layman from Leicester stated that just over a year ago he had attended three cases of small-pox, and that "the cases were never noti- fied." This assertion surely requires investigation by the Local Government Board.

While we cannot subscribe to all that the President says, it is a great pleasure to agree with him on one point, and as he seems to imagine we have treated him some- what scurvily of late, we hasten to the ground which is held in common between us. General Phelps declares that "no class would gain more by doing away with the compulsory enforcement of cow-poxing than the medical profession itself." Most undoubtedly that is so. The abolition of vaccination would fill the pockets of the medical profession. It would also fill the hospitals and the graveyards, and would fill with tears the eyes of mourning relatives of the victims of antivaccinist folly; but so far as the material welfare of medical men is concerned, there is no question that they would gain largely. But considerations of our duty and of our profit point in diametrically opposite directions. Our profit is to let vaccination go by the board, to offer no resistance to the false teaching, to the vile insinua- tions of interested motives, to the ignorant and self-conceited clamour of the League which has General Phelps for its President. But our duty is to try to save the public from the cruel mercies of sentimental fanaticism, to try to save men and women from the results of their own ignorance or indifference, and, above all, to try to save helpless children from the folly of their parents. Even if, on account of the political exigencies of the time

and of eagerness to secure odd votes, one Government after another may refuse to do its legislative duty towards the prevention of small-pox, the obligation yet remains on the members of the medical profession to promote the practice of vaccination and revaccination by every proper means, notwithstanding that in doing so they are reducing their own income and are at the same time making themselves the objects of attack and insult by the supporters of the National Antivaccination League.

SUPERANNUATION OF IRISH POOR-LAW MEDICAL OFFICERS.

THE text of the Bill to provide superannuation for Poor-law medical officers in Ireland introduced into the House of Commons on April 18th is published in the SUPPLEMENT to this issue. It is backed by three Irish members, each representing a different shade of Irish political opinion—namely, Mr. T. W. Russell, an Ulster (Tyrone) Unionist; Mr. Harrington, a Nationalist member, representing a Dublin division, and closely identified with the Irish National Party; and, thirdly, by Dr. Thompson, the Independent Nationalist member for North Monaghan. The union of members of these three Irish political groups in supporting such a Bill is in itself a great step in advance, and is full of good augury for the success of the measure. The Bill consists of six clauses; we may set aside their numerical order and at once fix on Clause 5 as the key of the position. If passed into law, it would in itself confer a great boon on the Irish Medical Services by removing one obstacle to superannuation. It lays down that the superannuation allowance shall be paid in the same proportion and from the same funds as the actual salary of the medical officer. This proviso would be far-reaching in its effect, and would wipe out the injustice which at present saddles the local rates with the whole cost of the superannuation allowance of medical officers, although the State pays 50 per cent., and in the case of agricultural districts somewhat more, towards the salary of these same officers while they are serving. This point is very clearly referred to in our recently-published report on the Irish Dispensary Service (page 69, column 2). The second clause of the Bill uses the magic word "shall" in lieu of "may" when referring to the action of the local guardians in granting superannuation allowance. This is a great advance on the optional phraseology of the Acts of 1865 and 1869. The whole of the emoluments of the medical officer, whether as a workhouse infirmary medical officer under the original Poor-law Act of 1841, or as a dispensary medical officer under the Medical Charities Act of 1851, or as a medical officer of health under the Public Health Act of 1878, or as a registrar of births, deaths, and marriages under the Registration Acts, would be brought under contribution in estimating the retiring allowance of the medical officer. It seems a pity that, so far as we read Clause 3 of the Bill, it would not apply to medical officers of county infirmaries, nor would it in the future apply to county medical officers of health when such much-needed officials are appointed in the same manner as to workhouse and dispensary officers; but these omissions can be dealt with later. The fourth section enables the Local Government Board to add to the actual service of a medical officer a certain number of years of boon service not exceeding twenty—a highly-important matter in dealing with medical men whose education is long and expensive, and who cannot enter on actual employment until six or eight or even more years after most other public officials. It may be hoped that the Local Government Board, who would be vested with authority to fix the number of boon years to be added to the officer's service, would decide such questions in a liberal and just manner. Of the other details of the Bill, as to the actual financial clauses no doubt we shall hear a certain amount of criticism, but no one can doubt that the Bill, if passed, would be a step towards the amelioration of the sad condition of the Irish Poor-law Medical Service. The Bill, having been introduced at so late a date, has not obtained a favourable place, but we feel sure that the Divisions and central Council and Medico-Political Committee of the British Medical Association would support any action which the Irish members might take to induce the Government to find an opportunity for its second reading at an early date.

ARMY MEDICAL ADMINISTRATION.

A SPECIAL meeting of the Royal Naval and Military Committee of the British Medical Association was held on April 27th to consider a reply received from the Secretary of the War Office (Reconstitution) Committee to representations made in accordance with the resolution adopted by the Committee at its meeting on March 29th, and published in the BRITISH MEDICAL JOURNAL of April 2nd, p. 814. The reply stated in the first place that the War Office (Reconstitution) Committee has not proposed any change as regards the Army Hospitals Committee except to bring that body into touch with the new barrack branch under the civil member of the Army Council; and further, to provide that it shall send a representative to attend the Army Council when required; secondly, that the Advisory Board remains unaffected except that Lord Esher's Committee has laid it down that the Director-General, if necessary associated with a civil representative of the Board, should be summoned to the Army Council "whenever his advice and specialist knowledge" are required; and thirdly, Lord Esher's Committee has recommended the abolition of the Army Sanitary Committee because its functions could better be discharged by the new medical bodies recently constituted. The Royal Naval and Military Committee having fully considered the reply, resolved that a communication should be addressed to Lord Esher's Committee pointing out that the further arguments set forth in the letter now received from the War Office (Reconstitution) Committee did not in any way meet the objection urged against the exclusion of a military medical and sanitary expert from the Army Council, but by showing clearly that there was no adequate method of co-ordination rather tended to aggravate the apprehension that the scheme was likely to be inimical to the welfare of the soldier and the efficiency of the army.

THE DRUG TREATMENT OF INEBRIETY.

A PAPER by Dr. C. A. McBride, on the treatment of inebriety by atropine, which is published in another column, appears completely to disclose the method which he employs. The method is not novel. It has been followed for a good many years past, chiefly by unregistered practitioners. We may therefore be all the more indebted to Dr. McBride for helping to lift what would appear to be a therapeutic method of some value out of the mire. Information has been communicated to us by independent observers which confirms the conclusion that in certain cases the treatment, of which atropine appears to be the essential feature, has been successful in weaning drunkards from their pernicious habit, and that under favourable circumstances at least they are able to resist the temptation for years. Whether the cure is permanent or not time alone can prove, but no treatment can be expected to work miracles, and there must be on the part of the patient a real desire for amelioration; the atropine apparently produces a distaste for alcoholic drinks which may perhaps be temporary, but the concomitant tonic treatment is calculated to put the general health into a better condition, and the patient is by so much more likely to regain sufficient will power to resist subsequent temptations. A paper by Dr. Backwell Fenn on the so-called "gold cure" of inebriety is also published in this issue. The use of the double chloride of gold and sodium has often been vaunted as a specific for inebriety. Dr. Fenn would appear to consider it useful, but on comparing the method he describes with that used by Dr. McBride it will be observed that atropine is used in both instances. Dr. Fenn indeed prescribes daturine, but this is a drug of uncertain composition. The name daturine was originally given to the total mixed alkaloids obtained from stramonium before the real nature of this mixture was understood. This

known to consist of atropine and hyoscya-
e. Probably stramonium, hyoscyamus, and belladonna
ain no atropine in the fresh state; all contain hyos-
ine, however, and all yield atropine on extraction,
generally accepted view being that this is due to con-
on of hyoscyamine into atropine during the process.
e two alkaloids are isomers, and the conversion indi-
d readily takes place, though its extent is a question of
itions—hence daturine is of very variable composi-
We find that in the gold prescription the gold at
forms a compound with the cinchona alkaloids and is
ipitated. The mixture on keeping darkens consider-
and assumes a purplish colour. This change indi-
that the gold compound is becoming reduced, but to
rmine whether the gold becomes deposited or whether
ms a colloidal solution would require further experi-
. Other metals, for example mercury, have now
obtained in a colloidal form (in which they are
le in water), by reduction in the presence of organic
er, and it is just possible something of the kind
s here. The prescription is a curious one, somewhat
niscent of the days of polypharmacy, and in view of
IcBride's recorded observations it would appear that
chloride forms no essential part of the treatment.

ALIENISM AND INEBRIETY.

recent meeting of the Society for the Study of
iety, Dr. Robert Jones, Medical Superintendent of
London County Council Asylum at Claybury, read a
in which he made some interesting remarks on
iety from the point of view of the alienist physician.
owed that physical illness was often the cause of
al breakdown in persons described not as alcoholics
as long-continued moderate drinkers; while as
cteristics of an insane inebriate he pointed to illu-
of a visual character, a tendency to sudden impul-
movements, and delusions of a persecutory nature.
when the delusions were, as an exception, exalted and
iose, they were egotistical and selfish in comparison
the benevolent altruism of the general paralytic.
abitual lying of the insane inebriate he ascribed to de-
ss of morals than of memory. The patient forgot recent
, and brought into the present long past events in his
While apparently regarding inebriety as a species of
ty in itself, the speaker drew a distinction between the
ate and the insane person suffering from alcoholic
ty. In the former the stress of alcoholic injury
ainly on the bodily organs, while the brain held
t of all. Nevertheless there was a considerable
nt of mental deterioration evident in all inebriates.
port of this statement Dr. Jones cited the fact that
per cent. of all the inebriates under treatment in
ts and reformatories during the year 1902 were
erred to asylums for the insane. The rest of
ddress was taken up with a consideration of
nic effects of alcoholism upon the nation and
e direct expense to ratepayers involved by the
sed provision for the treatment of insanity thus
ed necessary. He showed that out of 35,916
s admitted to the London County Council
ns during the ten years 1893-1902 inclusive,
per cent. of the men and in 11 per cent. of
omen the insanity was due to alcoholism alone.
eatment was very unsatisfactory and disappointing,
e when patients were discharged they almost invari-
lapsed if they tasted alcohol at all and there were
w who did not do so. In trying to account for the
of alcoholism, and in searching for means by which
nt be lessened, he ascribed considerable weight to
sence of sufficient knowledge of its physiological
amongst the people and not a little to bad cookery.
as habitually served up in ordinary, especially
g-class, households, lacked a stimulus which men
omen alike sought in alcohol and mistook for the
of repletion and nutrition incident to a food meal.
st the subjects which he suggested for discussion
e question whether there was any physical explana-
tion of the craving for alcohol and whether the total amount of alcohol consumed by a people was a measure of the temperance of those people.

COIN DEBASER AND QUACK DOCTOR.

AT the trial of Ralph Appleton and another at the Central Criminal Court last week for feloniously "sweating" gold current coins an interesting and somewhat instructive piece of evidence was given by Detective-Sergeant Beard, one of the officers engaged in the case. In cross-examination by Appleton, the detective said that when he searched the premises in Tyers Street (the place in which the felonious occupation was carried on) a quantity of drugs and documents referring to purchase of drugs were found. "He had heard that Appleton was at one time with a quack doctor and that after leaving him he posed as a M.D. of the United States." Appleton informed the Court that he had "made a study of the cause and cure of cancer and that he had at his residence at Brixton 200 medical books." We commend these statements to the Cancer Research Association and also to the public. The connexion between a cancer quack and a debaser of current coin is somewhat mystical at first sight, but really in both cases there is a "lightening of gold"—in the one case, however, the patient is fraudulently deprived of his coin in its entirety: in the other only a small portion of the gold is "sweated" from the coin itself. How many persons were treated by Appleton, if any, unfortunately, did not come out in evidence and the result of "his study of the cause and cure of cancer" must remain unknown for at least fourteen years, the period of the penal sentence inflicted upon him. Would that more pretenders to a secret knowledge of cancer cures could follow him in his well-earned retirement from unqualified practice! As long as the Medical Act remains unamended there will be many "Appletons" outside the prison walls.

THE METROPOLITAN STREET AMBULANCE ASSOCIATION.

AN important meeting of the Metropolitan Street Ambulance Association will take place next Monday, May 2nd, at 5 p.m. at 20, Hanover Square, when a number of motions will be submitted for approval. The first of these will be moved by Sir William Church, President of the Royal College of Physicians, and seconded by Sir Cooper Perry. It is to the effect that, having considered the present condition of ambulance provision in London for dealing with cases of accident and sudden illness in the streets and public places, the Association is of opinion that there is urgent need of organization under one body of an improved ambulance service summonable by telephone and provided with more rapid transport. A second resolution, to be proposed by Mr. Tweedy, President of the Royal College of Surgeons, and seconded by Sir Alfred Cooper, Vice-President, Royal College of Surgeons, affirms the opinion that, having regard to the excellent ambulance services organized by municipal authorities elsewhere, the London County Council is the proper body to provide and maintain such service. A final resolution, to be moved by Sir Thomas Barlow and seconded by Mr. Makins, will direct these resolutions to be communicated to the London County Council by deputation, and request the officers of the Metropolitan Street Ambulance Association to arrange for the co-operation and support of other representative associations for this purpose. It is to be hoped that all those interested in the success of the important object which this Association has at heart, and especially medical men, will make a point of being present at this meeting. The prospects of a successful issue are greater now than they have been for several years past. Thanks to the active canvass of candidates at the last London Council election, the majority of the present Council are believed to be favourably disposed to the proposal that the London County Council itself should undertake the organization and administration of an ambulance system to meet the needs of London. That Council has already been made acquainted with the ambulance requirements of London, and with what has been done to meet

analogous needs elsewhere by the able report drawn up by Sir William Collins, Chairman of the Committee specially appointed to investigate the matter in 1901. It is hoped that when the subject is again formally brought forward for consideration by the Council any resolution proposed will have the advantage of being fathered by Sir William Collins, and in view of the favourable canvass to which reference has already been made, no serious opposition should be encountered.

THE FUTURE OF FEEBLE-MINDED CHILDREN.

DR. G. E. SHUTTLEWORTH has reprinted a paper on this subject which he read at the National Conference of Teachers of Special Schools. After referring to the pioneer work of Dr. Seguin half a century ago and the sanguine estimate as to the proportion of feeble-minded children who could by education and careful management be turned out useful citizens, he said that the pendulum had now swung a little too far in the opposite direction; while he was not prepared to argue that indiscriminate liberty could be given to the feeble-minded subject, however feeble-minded he or she might be, he felt that it would be a mistake to maintain that all children requiring special instruction should without distinction be permanently segregated from the rest of the community. Inquiries made in London, Birmingham, and elsewhere tended to show that about one-third of the children passing through the special schools would require permanent care for the protection of themselves and the community. The Act of 1899 had not been sufficiently long in force to justify any trustworthy estimate with regard to the results, since the period of training ought to extend over nine years. He commended the work of the After-Care Associations, which would maintain a friendly interest in the welfare of ex-pupils, and might perhaps be able to accomplish something in discouraging the marriage of the unfit. He thought it would be better for school authorities to have discretionary power to retain pupils in special industrial classes even beyond the age of 16, and pointed out that some feeble-minded children possessed special mechanical aptitude, which, if properly directed, might be turned to good account in after-life. He added that the Local Government Board had set a precedent by allowing the training of the Poor-law feeble-minded children under the Metropolitan Asylums Board to be continued up to the age of 21. In concluding his address he dwelt on the necessity for co-ordination amongst various workers for the benefit of the feeble-minded.

THE WONDERS OF CHRISTIAN SCIENCE IN MANCHESTER.

THE "First Church of Christ, Scientist," has been opened in Manchester. It is stated that the Christian Science Church treats diseases in return for fees. A Liverpool gentleman in the audience is reported to have said that his elder daughter, who was now a young woman, had ailed from childhood, and had had a wretched life. Everything that was abnormal had been her lot. Doctors did not understand her case, specialists had given no relief, and nursing homes without number had been tried without success. Her weight was under 5 st., and her appearance recalled the pictures of the victims of the plague in India. When she was on the brink of the grave her parents placed her in the hands of a Christian Science healer in Manchester; she accepted the truth, and the truth had made her free. She had been physically and mentally an absolute wreck; now she was sitting in that church enjoying, for the first time in her life, peace and happiness. Mentally she was sound as a bell, and physically she was practically well. A Manchester man went even one better: "He had given up whisky, wine, and cigars, because he now had no desire for them." Let our legislators take note. Why legislate and stir up unpleasantness when such remarkable results can be effected by coming under Christian Science treatment? Another Manchester adherent, a lady, had manifested a subtle susceptibility to instrumental music; it deprived her of consciousness and more besides. She regained the use of her paralysed limbs a few hours a this beneficent treatment, but unfortunately "in her broke one of them in using it." As if to show cosmopolitan and general applicability of the systen Californian lady said Christian Science had cured sister of cancer, her brother of yellow fever and of a b from head to foot, her mother of an internal growth, her father of deafness. She had much to be thankful no doubt. Here we at last have something like evide as to the wonderful virtues of the new dogma. Moreo it was vouched for even by a belted earl. What mor necessary? It must be added, however, that phenomen this sort have occurred in all ages with a curious periodi resembling that observed in so many epidemic diseases

A CLIMATIC SCALE.

MR. W. F. TYLER, F.R.Met.Soc., thinks that the effec climate—that is to say, what is generally referred to a bracing or relaxing effect—is probably the combi action of temperature and humidity. He has there invented a new word, "hyther," to indicate the joint ef of temperature and humidity, and by a comparison of "hyther" of various places—the maximum, minimum, mean quantities—he hopes that their relative brac ness or relaxingness will become obtainable.[1] He e suggests that the extreme degrees of "hyther" in wh life can exist might be experimentally ascertained, incl ing the limits for saturated air, for dry air, and for air v various percentages of moisture. The discovery of the l governing the extreme degree of "hyther" would be m valuable in assisting to the discovery of those gover the modern degrees of "hyther." At Shanghai in 1902 Tyler requested twelve persons of normal condition regular habits to estimate by their own sensations ev day at noon the degree of "hyther" on a scale 0 to 10, the highest figure representing the v muggiest day—hot, damp, and enervating—which observer had experienced, and the other end the scale (0) representing an ideal summer's day—wa but bright, brisk, and bracing. The table of the result these observations during the thirty-one days of the mo of August as compared to the dry-bulb thermometer re ings and the wet-bulb differences during the same per rather leads to the conclusion that there must be gr variations between individuals as regards sensitiveness "hyther," or else that the sensations of bracingness relaxingness must be partly due to other climatic fact besides temperature and humidity. It is, inde notorious that the sensitiveness of an individual to c ditions of the atmosphere depends largely on tempor conditions of his body, and a person who has been eat freely will think weather "relaxing and depressing" which at other times he would be quite comfortable. I haps "rheumatic" persons and those suffering from remains of old injuries to bones or joints would prove p ticularly sensitive to variations in "hyther."

AUTOMOBILES AND MEDICINE.

THE use and abuse of the bicycle from a hygienic poin view came in for much discussion at one time, and turn of the automobile seems to have arrived. Its the peutic and pathogenic powers were the subject of a the recently presented by Dr. Blanchet to the University Lyons. The thesis was founded partly on personal ex riences and partly on the opinions collected from a num of medical men whose patients included numerous au mobilists. The author considers the matter chiefly fr the point of view of the treatment of phthisis. He hims had influenza in April, 1898. Previously he had h good health, but the attack was followed by pleur with effusion. The latter disappeared with some rapid but a dry pleurisy continued for a long time. Eight months later he had symptoms of slight bronchi and tubercle bacilli were found in the sputa. then began to lose flesh and appetite, and h

[1] A Scheme for the Comparison of Climates, *Journal of Balneology a Climatology*, February, 1904.

ht fever; fifteen months later he had to give up k. Some six or seven months of rest and open air tment restored his health sufficiently for him to mmence work, but he was still below his usual ght, and had little appetite. Upon resuming work he ght an open automobile, and went out twice a day, ring on each occasion 60 or 70 kilometres. After a of this experiment he recorded the results, which e that he had entirely got rid of his cough, entirely re- ed his appetite, and had increased 6 kilos. in weight, in e of being actively engaged in professional work all time. His chest capacity had also increased between and 900 c.cm. Summing up his own experiences and e cited from a number of medical friends, the author ludes that automobile exercise will gradually abolish reatly diminish the cough of tuberculous patients and ose suffering from chronic bronchitis, and at the same produce healthy sleep and appetite. On the other d. the exercise will increase pyrexia if the latter dy exists, and may cause it in those who are excitable. iew of the long stay in the open air which auto- ile exercise implies and the increased atmospheric sure entailed by the rapid motion, it is quite natural benefit should be experienced in cases of early pul- ary tuberculosis. It is essential, however, that the should be duly protected from cold. It is also most rtant to avoid dust, and for this reason unfrequented s should be selected. There is still more reason to ve that the exercise will prove of value in all condi- which are accompanied or brought about by ineffec- or slow tissue metabolism. Examples of distinct fit in neurasthenia have come under our own notice, on the other hand, we have had reason to conclude a catarrhal condition of the upper air passages may ept up indefinitely by motoring under ordinary condi- and on frequented roads.

THE JUBILEE OF SIR HENRY ROSCOE.

GE number of old pupils and friends of Sir Henry E. e assembled in the Whitworth Hall, Manchester, on vening of April 22nd to celebrate the jubilee of his ation as a Doctor of Philosophy in the University of elberg. Sir Henry was presented with congratulatory sses from over thirty universities, colleges, learned ies, and scientific institutions. There were also a number of personal tributes. The keynote of all he great services rendered by Sir Henry to the ad- ment of science and to the cause of education. ugh his great work was the promotion of the interests me of Owens College, more especially in connexion ts chemical department, Manchester, largely through nfluence, became recognized as probably the most ntial education centre in the north of England. For ng period of thirty years, from 1857, Sir Henry was ly engaged in the work of the College, and he took an part in obtaining the charter of the university. From rts of the world messages of goodwill and congratu- s were received. Amongst the speakers were Dr. e, Sir Michael Foster, Sir William Ramsay, and Pro- Ostwald.

NSTRUCTION OF RAILWAY EMPLOYEES IN FIRST AID.

entioned last week that the teams to represent the g railway companies in the competition for the y challenge shield presented by the St. John Ambu- Association are now being selected, and we believe large number of the men employed by the principal y companies in Great Britain receive instruction t aid and ambulance work. We learn from the *l Record* of New York that all men engaged in oper- the Pennsylvania railway system will in future instruction in first aid. The plan, it is stated, is omprehensive, and includes the equipment of all e, mail, express, working and wrecking cars, ter- , yards, offices, shops, and important stations with ers. First-aid boxes will also be provided in all locomotives, terminals, yard offices, shops, and stations. These boxes will contain six sterilized first-aid packages. Each package contains one large triangular band- age, one ordinary roller bandage, two compresses, and two safety pins. No drugs or liquors will be provided. The boxes will be of wood, and will contain a tin box, in which the materials will be placed. The Pennsylvania Railway is also perfecting plans for the con- struction of several hospital cars adapted for the trans- portation of the sick, and to be used in emergency cases. The employés to be instructed include all passenger and freight trainmen, enginemen and firemen, and all em- ployés at terminals, yards, and shops. The employés will be arranged in classes, and will be instructed by medical examiners connected with the Pennsylvania relief depart- ment. They will be taught how to place injured persons on stretchers, how best to transport the injured, and will be schooled in the simple means of taking care of wounds, fractures, burns, and shock, without the use of drugs or liquor. The instructions will include emergency treat- ment of pain, unconsciousness, convulsions, and heat prostration.

THE COUNCIL OF THE ROYAL COLLEGE OF SURGEONS OF ENGLAND.

AT a meeting of Fellows of the Royal College of Surgeons of England practising in Birmingham and the Midland Counties, held at the Medical Institnte on April 21st, Mr. Frank Marsh in the chair, a resolution proposed by Mr. George Heaton, seconded by Dr. John W. Taylor, and sup- ported by Mr. Jordan Lloyd and others, was adopted unani- mously: "That this meeting of Fellows of the Royal College of Surgeons of England practising in Birmingham and the Midland Counties is of opinion that the provincial Fellows are at present inadequately represented on the Council of the College, and pledges itself to support the candidature of Mr. Gilbert Barling at the forthcoming election."

THE BRITISH ASSOCIATION.

THE British Association will meet this year in Cambridge, from August 17th to August 24th. This will be the fourth meeting in Cambridge, the first having been held in 1833, the third year of the Association's existence. The invita- tion to meet in Cambridge in 1904 was presented by the University and town of Cambridge and the county councils of Cambridgeshire and the Isle of Ely acting conjointly. Accommodation for the eleven Sections will be found in the rooms of the Science Department. The President of the Section of Physiology will be Professor C. S. Sherring- ton. F.R.S., of Liverpool; the President of the Section of Anthropology, Mr. Henry Balfour; the President of the Section of Botany, Mr. Francis Darwin, F.R.S.; and the President of the Section of Educational Science the Bishop of Hereford. The Guildhall will be used as a reception room; the address by the President, the Right Hon. A. J. Balfour, will be given on August 17th in the Corn Exchange and the lectures in the new theatre. A special edition will be issued of the *Guide* to the town and University of Cambridge by Mr. J. W. Clark, the Registrary of the University, who will also deliver a lecture on the origin and growth of the University; a handbook to the natural history of Cambridgeshire, written for the meeting, and edited by Dr. J. E. Marr and Mr. A. E. Shipley, will be published by the University Press. Many of the colleges will extend hospitality to persons attending the meeting. Trinity College will give a reception, and garden parties will be given in the Botanic Gardens by the Lord- Lieutenant and the Mayor of Cambridge.

THE EPIDEMIC OF SMALL-POX.

THE recrudescence of small-pox in England, has not subsided. In a large number of places the occurrence of a few cases has ceased to attract attention or to receive notice in the local papers; but, in spite of this, in some thirty or more localities the prevalence or extent of small-pox has been sufficiently serious to have been noted by the general press.

Derbyshire, Nottinghamshire, and Leicestershire are the counties chiefly affected, the principal foci being the towns which derive their names from those counties. Leicester in particular has suffered heavily during the past month. In the north, too, the disease has been causing considerable trouble in the neighbourhood of Newcastle, while Yorkshire has come in for a good deal of notice, especially in connexion with Hebden Bridge and Sheffield. Throughout the country the addition of chicken-pox to the list of notifiable diseases is now apparently a common measure, while, judging from the number of discussions at meetings of Boards of Guardians the connexion of the tramp population with the spread of small-pox and other diseases is at length becoming so clearly recognized that some movement may be expected on the part of guardians as a body in favour of an amendment of the laws which affect the question of vagrancy. In London the situation as regards small-pox does not materially differ from what it was when we last referred to the question, a fortnight ago—that is to say, there are now under treatment at the small-pox hospitals of the Metropolitan Asylums Board between 140 and 150 small-pox cases, as compared with some 60 in the middle of March. In Scotland the disease continues to be notable rather for the extent of country over which it prevails than for severity of character or number of cases. Some forty-six places in all appear to be affected, while the totals of the fortnightly statements of notifications which have been received, issued by the Local Government Board of Scotland, run as follows: 197, 296, 259, 240, 234, and 261. These figures include all the notifications made from the beginning of the year up to April 15th.

THE REVACCINATION BILL.

THE Imperial Vaccination League has issued a list of those who have signed the declaration in favour of the Revaccination Bill now before the House of Commons. The declaration is in the following terms: "Believing that in vaccination and revaccination we possess the best protection against epidemic small-pox, I should heartily welcome legislation making revaccination at school age obligatory on all but the children of conscientious objectors, or those who may be for a time excused on the ground of ill-health." The list forms a small volume of seventy-eight pages, and the classification shows that the declaration has been signed by the heads of a large number of public schools and women's colleges, by many professional musicians, by the mayors or ex-mayors and town councillors of a large number of boroughs, by chairmen and members of municipal health committees and Boards of Guardians, and by a number of commercial firms and large employers of labour. A concluding note states that the County Council of Herefordshire, the councils of the metropolitan boroughs of Finsbury, Holborn, and Westminster; and the corporations of Bootle, Bury, Manchester, Leamington, Newcastle-upon-Tyne, St. Helens, Stoke-upon-Trent, and Sunderland, as well as the guardians of the Prescot Union, have resolved to present a petition to the House of Commons in support of the Bill. The Bill was down for second reading in the House of Commons on April 26th, but was not reached. It has been put down again for next week, but, unless the Government grants special facilities, the chance of a discussion is small.

INCREASE OF VACCINATION.

DR. MONCKTON COPEMAN, in continuing the course of advanced lectures on public health given in the University of Manchester, when speaking of "Vaccination—its Pathology and Practice," referred to the results of legislation. Since the Act of 1898 came into force there had been a steady increase in the number of people vaccinated for the first time. In 1893 the number was 500,314, and last year it was 826,771. At the same time there had been a constant decrease in the number of cases of illness reported as due in any degree to vaccination.

WE have pleasure in stating that the rumours concerning the health of Mr. Lockwood, Surgeon to St. Bartholomew's Hospital, London, are unfounded.

EVIDENCE before the Physical Deterioration Committee was given on Monday, April 25th, by Sir John Gorst, M.P., Dr. Ralph Vincent, and Dr. Arthur Shadwell, and on April 27th by Mr. Macnamara, M.P.

MEDICAL NOTES IN PARLIAMENT.

[FROM OUR LOBBY CORRESPONDENT.]

The Aliens Bill on its second reading occupied the House of Commons the whole of Monday, and evoked a very interesting discussion. Sir Charles Dilke moved, "That the House, holding that the evils of low-priced alien labour best be met by legislation to prevent sweating, desires to assure itself before assenting to the Aliens Bill that sufficient regard is had in the proposed measure to the retention of the principle of asylum for the victims of persecution." He contended that the numbers of alien immigrants had been greatly overstated, that they were in this country only a quarter of the number in France, and that the percentage increase was larger in France and other countries than in Great Britain. He also quoted the evidence of medical officers of health to show that these aliens lived regular lives, were not intemperate, and that in spite of overcrowding the mortality among them was lower than among our own people. Mr. Trevelyan seconded the amendment. Major Evans Gordon and Mr. Hayes Fisher supported the Bill; Mr. Asquith, who made a powerful speech against it, said that any insanitary evils connected with alien and sweating should be met by a more vigilant administration of existing Acts. Mr. Long in the course of his reply said that he hoped to have the opportunity of making amendments in the Public Health Act with the objects referred to, but argued that overcrowding must be treated as a national and not a local question. Later in the debate Mr. Burns pointed out that the Jewish aliens could not be accused of bad health or of introducing epidemic diseases. The Jewish community were less liable to be attacked by epidemics than any section of Europeans. In Rome in old days the Ghetto was comparatively immune from plague, and in more recent years the Jews were more immune from cholera than Europeans among whom they lived. He opposed the Bill, which was read a second time after midnight without a division, the amendment having been rejected by a majority of 124.

Rabies and Imported Dogs.—In the House of Lords on Friday in last week Lord Lytton called attention to the Importation of Dogs Order made by the Board of Agriculture whereby owners of dogs are separated from the dogs for a period of six months after their importation. As no case of rabies had occurred in any dog imported since the present order had been in force, it was suggested that the Board of Agriculture should revert to the former practice of allowing owners to quarantine dogs themselves under suitable regulations. Lord Onslow said it was perfectly true that no case of rabies had occurred in any imported dog since the present order had been in force, but rabies was common on the Continent, and the regulations were imposed to prevent the introduction of the disease. He hoped and believed that the existing practice of requiring quarantine of imported dogs on the premises of a veterinary surgeon would continue in the majority of cases; but under the new rules it was provided that after a dog was sent to a veterinary surgeon for identification and examination, and that precautions might be taken, the owner might obtain an order for removal upon signing an undertaking to abide by regulations laid down by the Board of Agriculture. The dog, but in the custody of the owner, would, for the prescribed period, be required to bear a distinctive badge or harness, bearing the inscription "In quarantine for rabies." If the dog strayed from the custody of the owner, it could thus be identified. It would, he admitted, be a source of trouble and expense on the part of those who imported dogs, and if this was objected to the dog might, under existing regulations, be sent to the care of a veterinary surgeon. He hoped there would not

who would avail themselves of the new rule, which was cession in the interest of a few persons who felt there hardship in a long separation of the animal from its r. If these concessions were in any way abused, if the ations were not in every way observed, the order would once rescinded, and there would be a return to the order sent in existence. If there was any indication on the of an individual of a desire to evade the orders, the dog l at once be taken to the veterinary surgeon, and a ar licence would at all future times be refused to that n.

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eriments on Dogs.—Mr. Logan asked the Secretary of for the Home Department whether his attention had directed to Professor Schäfer's experiments on dogs; hether, seeing that 109 doctors entered a protest against xperiments as being cruel and useless, he proposed to ny action in the matter. Mr. Akers-Douglas replied he memorial to which the hon. member referred had ed his most careful consideration, together with all the nstances of the case; but for reasons explained in r to questions last year he did not feel justified in dis- ng the experiments.

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of Medical Witnesses in Scotland.—Mr. W. F. Law- asked the Lord Advocate on Monday whether in sheriff the fee of one guinea per diem to a medical witness ixed sum or liable to be reduced if case was unim- t or took less than four hours' attendance. Mr. Scott n replied that the regulation in regard to medical fees sheriff courts was as follows: Medical men, when cited professional evidence from a distance of more than ile from the towns in which they reside, if detained our hours, are allowed, not exceeding, per day, £2 2s., fares, but nothing additional for maintenance; if in hey are allowed, not exceeding, per day, £1 1s. The a guinea, therefore, was not a fixed sum. The pro- -fiscal might exercise his discretion and give less than m, according to the circumstances.

Prevention of Corruption Bill.—This Bill has again d, and was read a second time in the House of Lords sday. The Lord Chancellor, in moving the second , said that there was a great and advancing evil which ecessary to meet, and it was urgent that steps should n to diminish what had been described as a canker way commercial honesty. He had accepted with one on the amendments made in Grand Committee of the ns, and that ought to clear the way for complete nce of the Bill. The exception was the veto of the y-General, which he regarded as essential to prevent iling, which might otherwise be encouraged by the blackmailer was likely to be the last person in the pay a visit to the Attorney-General and ask per- to institute a prosecution under the Bill. Lord James ford criticized the veto of the Attorney-General as a s provision which would put obstacles in the way of e measure. The Lord Chancellor insisted on the y for the safeguard, and the second reading was agreed e text of the Bill as amended in Grand Committee n in the BRITISH MEDICAL JOURNAL of July 25th last

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evaccination Bill did not come on for discussion on and the second reading has been postponed till ay, May 4th. The chances are against it for that day st be low down on the list.

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w Guardians as Public Vaccinators.—In reply to lwell, the President of the Local Government Board the Greenwich Board of Guardians appeared to have at their meeting on April 7th to enter into contracts members of their own body as public vaccinators. he question of the approval of these contracts under tion. He might, however, remind the honourable that any person who was concerned in any contract into with a Board of Guardians was disqualified for ember of such Board.

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w Children Boarded Out.—Sir Walter Foster asked dent of the Local Government Board last week if he te the number of children at present boarded out in and Wales, distinguishing between those boarded out within and those beyond the union. Mr. Long answered that the number of children boarded out in England and Wales on January 1st last was 8,372. Of these, 6,581 were boarded within the union and 1,791 beyond the union.

Corporal Punishment in Poor-law Cottage Homes.—Sir Walter Foster asked the President of the Local Government Board whether his attention had been called to a case of flogging at the Cottage Homes at Wednesfield, in which the medical officer described the back of the boy as covered with weals and abrasions from the nape of the neck to the back of the knees; whether he could state the character of the birch rod used, and if it was of the regulation pattern and weight; and whether steps would be taken to prevent such punishments being inflicted on young persons in Poor-law institutions in future. Mr. Long replied that his attention had been called to this case, and he had communicated with the guardians of the Wolverhampton Union with respect to it. The Cottage Homes Committee of the guardians had investigated the matter, and he understood that at the inquiry held by them the police medical officer, acting for the Society for the Prevention of Cruelty to Children, described the condition of the boy's back in the sense stated in the question. He was informed that the birch used was similar to that used by the police, and that the weight of the instrument was $4\frac{1}{2}$ oz. The regulations made by the Local Government Board with respect to these homes, whilst allowing corporal punishment in the case of boys, provided that no punishment should be inflicted with any instrument which had not been approved by the guardians or the Committee, but it would seem that there was no record of the approval having been given to the birch used in the present instance. The guardians had censured the officer by whom the punishment was given, and had adopted the report of the Committee which recommended that the use of the birch as an instrument of punishment should be abolished, and which contained other suggestions with a view to preventing excessive chastisement in future. The action taken by them would, he hoped, have the effect desired.

The Treatment of Epileptics.—Mr. Schwann asked the First Lord of the Treasury if, seeing that mental disease was held by the authorities not to include epilepsy, he would extend the promised inquiry as to the treatment of the feeble-minded so as to include epileptics, with a view to giving the county councils power to make provision for sane epileptics which they did not at present possess. Mr. Balfour replied that he learned from the Home Secretary that in the reference to any body of inquiry which may be set up the particular case which the hon. gentleman had in view would certainly be included.

The Budget occupied the attention of the House on Tuesday and at the morning sitting on Wednesday. There was a good deal of dissatisfaction expressed at the continuance of war taxes in time of peace, and a strong desire was expressed by Mr. Trevelyan and others that any inquiry into the incidence of income tax should be extended so as to take in the question of graduation. In a division on the report of the resolution levying the income tax at 1s., the Government majority was reduced to 38, and defeat was only averted by the fact that 20 members usually in opposition voted with the Government. On Tuesday evening and Wednesday the additional duty on tea occupied both sittings. The tax was condemned as cruel to the poor, inasmuch as it taxed an article which had become a necessity to the working classes. On the other hand, some members—notably Mr. Wylie—condemned tea as a beverage, described the evils of excessive tea-drinking, and startled the House by declaring that its component parts were the same as those of strychnine. The House, however, when it had recovered from the shock of this chemical disclosure, continued the discussion on the sober lines of finance, and finally the amendment to keep the duty at the old rate was rejected by the narrow majority of 37.

The Public Health Acts Amendment Bill.—The long delay in the introduction of this Bill is causing questions to be asked in the House. In answer to one inquiry the Prime Minister stated that it was in an advanced stage of preparation, and the President of the Local Government Board stated on Monday that he could not at present fix a date for the introduction of the Bill, but that he would introduce it at the earliest date practicable.

Scotland.

The Scottish Volunteer Ambulance Trophy.

Elaborate preparations are being made by the Scottish Volunteer Medical Officers' Association for the inauguration of the new trophy competition which will take place in the drill hall of the 1st L. R. V. Glasgow on Saturday, May 14th. The trophy, which is a fine piece of silverwork, is valued at 300 guineas, and no less than fourteen teams have entered for the first competition, representing regiments in Glasgow, Edinburgh, Perth, Dundee, Inverness, Hamilton, Kilmarnock, and Helensburgh. Surgeon-General Sir William Taylor, M.D., K.C.B., Director-General Army Medical Service, will preside, and will be supported by the Marquis of Breadalbane, the Marquis of Graham, Colonel Wilson, C.B., C.M.G., D.S.O., A.M.S., Colonel F. W. Trevor, P.M.O. of Scottish District, Sir John Ure Primrose, Bart., Lord-Lieutenant of the County, and Lady Primrose, and others; while at the close of the competition the Duchess of Montrose will hand over the trophy and badges to the winning teams. The competing teams will be examined in three subjects:

(*a*) Drill, including stretcher and wagon drill and the transport of the wounded.

(*b*) First aid and bandaging.

(*c*) General knowledge, including anatomy and physiology.

Three examiners will judge in Section *A*, Major C. C. Fleming, D.S.O., R.A.M.C.; Surgeon-Lieutenant-Colonel Napier, 3rd L.R.V.; and Major J. McGregor Robertson, R.A.M.C. Volunteers. Two judges will undertake each of the other sections, namely, Brigade Surgeon-Lieutenant-Colonel A. D. Webster, Q.R.V.V., Edinburgh; Surgeon-Major J. Mill, 5th V.B.R.S., Leith; Lieutenant-Colonel Geddes, D.S.O., R.A.M.C., Maryhill Station Hospital; and Honorary Staff Surgeon J. Macintyre, R.N.V.R. Reserve examiners include Surgeon-Captain A. K. Chalmers, 1st L.R.G.A., and Surgeon-Captain Rowan, Clyde Submarine Miners.

The necessary equipment is being supplied by Colonel Geo. T. Beaton, C.B., and officers of the Glasgow Companies R.A.M.C. Volunteers, while the details of the competition are being arranged by Captain R. T. Halliday and Lieutenant H. Wright Thomson of the same corps. The ceremony will be of a very interesting character, and will be under the patronage of the officers commanding the various regiments of the district. It is hoped that Lieutenant-General Sir Charles Tucker, K.C.B., commanding the Scottish District, will also be present with his staff.

The trophy, which is the property of the Medical Officers' Association, is of very handsome design, standing about 3 ft. high. The base is richly ornamented, and supports four figures representing different branches of the service—a naval volunteer, a yeoman of Scottish Horse, an artilleryman, and a Royal Highlander. The central pillar is ornamented with the Scottish Arms, the badges of all the Scottish regiments, and a scene representing the succour of the wounded on the field of battle. The Arms of Glasgow and Edinburgh also appear in relief, while on the base are those of Perth, Dundee, Aberdeen, and Inverness, in which towns the competition will be held in turn. The badge and motto of the R.A.M.C. also occupy a prominent position. Two figures on the top of the pedestal support a four-mouthed gourd, while above the whole design is a figure representing the Triumph of Science, with in one hand the rod of Aesculapius, and in the other the laurel wreath of Victory. The trophy is at present in the Glasgow Art Galleries in the custody of the Corporation of the City, and will be retained for the year by the winning corps, while specially designed badges will be given to the first, second, and third teams.

Edinburgh Royal Maternity Hospital.

Residence for Students.

It has been a reproach to the Edinburgh Medical School that sufficient means were not available to students for acquiring experience of midwifery. In consequence many students keen about their work have gone to Dublin, Belfast, and Bristol for what they failed to find in Edinburgh. The reproach is, in part at least, now about to be removed. Part of a building behind the Maternity Hospital has been acquired and is to be altered and converted into a residence for students. It will be connected by a covered passage with the hospital, and will be capable of providing room for twelve students, who will be provided with board and lodging at 25s. a week, and will have the intern and extern practice of the hospital at their disposal for one month. Thus 144 students will be provided for each year. The new house will be called "The Milne Murray Lodge," in memory of the late Dr. Milne Murray, who was one of the first to urge the organizatic of such a home. To the time of his death he was deeply ir ested in the scheme. Mrs. Milne Murray has been asked, a has consented, to become the first matron of the new ho which is expected to be available for occupation about th beginning of July next.

Edinburgh Royal Maternity and Simpson Memorial Hospi

D. N. Callander, M.B., Ch.B., and T. W. E. Ross, M.B., Ch.B., have been appointed House-Surgeons for the qua beginning May 1st next. Dr. Fordyce will act as Assist Accoucheur to the Physician-Accoucheur during the sa period.

Small-pox in Scotland.

During the period from April 1st to April 15th inclu 202 cases of small-pox were intimated to the Local Gov ment Board. These were distributed over fifteen coun Lanarkshire heading the list and Renfrewshire stan second as regards the actual number of cases. Of to Glasgow Burgh had 74 cases, Greenock 34, Edinburg Falkirk and Bo'ness each 7, and Falkirk 5. The loca cidence of the epidemic during the period in question a greatest in the Burgh of Bo'ness, where the cases amou to 7.52 per 10,000 of the population, as compared with 4.9 Greenock, 3.57 in Grangemouth, 2.37 in Port Glasgow, 2.36 in Falkirk. The following are the totals in sequen the previous similar tables issued by the Local Governm Board since the beginning of the year, namely, 197, 296, 240, 234, and 261. In Edinburgh in the week ending A 16th, 5 new cases were notified to the Public Health Auth ties, and in the week ending April 23rd 2 cases. In nei week was there a death.

Compulsory Revaccination.

The Edinburgh Town Council has by a large maj approved of the principle of the Bill for compulsory revacc tion. The Convener of the Public Health Committee sai thought opinion in Scotland on this matter would b unanimous.

Edinburgh District Lunacy Board.

Resignation of Sir John Sibbald.

At a meeting on Monday, April 25th, a letter was read Sir John Sibbald resigning his position as medical advis the Board. His resignation was accepted with unanim regret. It was he who first inspired the Board with the of having a segregated asylum. The Chairman hoped, w their work at Bangour was more complete, that they migh able permanently to associate Sir John Sibbald's name that institution.

Appointments for Bangour.

At their meeting on Monday, April 25th, the Board pointed Isabella Davidson, of Murthly, to be matron of first female villa and administrative home at Ban Asylum at a salary of £90. At the same time they appoi a female clerk, a charge nurse, and five nurses, all s curiously enough coming from Inverness.

Ireland.

Royal Academy of Medicine.

We are requested to state that Mr. John G. Cronyn, of Dub is a candidate for the office of General Secretary of Royal Academy of Medicine in Ireland which will bec vacant in October next.

Sanatorium for Consumption in Cork.

A special meeting of members of the Cork Branch of Association for Prevention of Consumption was held April 20th, Dr. P. J. Cremen in the chair, to consider a c munication from the Local Government Board sanctio the provision of a sanatorium by a joint Board. The L Government Board pointed out that as the numbe members on the Board—fifty-six—would probably prove wieldy, it would be better that a working Committee Management should be selected. The first duty of the body will be the selection of a site, and in this connexi letter was read from Mr. Barter, who so generously offer site of twenty acres at Myshall, saying that if this site sh not prove satisfactory to the Committee he would gladly £500 towards the acquirement of another one. The Chair directed attention to the fact that the provision of this i tution was not the be-all and the end-all of the moven

h the Association had taken in hand. That was only one of the programme, which included the improved housing e poor, improved sanitation, an efficient system of notifica- the provision of a home for curable cases of consumption, ose capable of being improved, as well as providing a home dvanced cases. The need of providing sanitary dwell- and of getting rid of overcrowding, especially in insani- areas, said Dr. Cremen, was receiving some attention in , but so far the country towns had done nothing in that tion. Proceeding, he drew attention to the advantages tification, and pointed out a passage in the report of Dr. ne, Local Government Board Inspector: "Infection was d in forty-four instances. In one instance that came r my notice members of three families who successively pying a house in which a case of consumption occurred acted the disease." If this sort of thing were allowed to , said Dr. Cremen, then a fourth family might go into ouse, and so on, till innumerable lives would have been and he thought the remedy for all this was notification. fficient inspection of dairies, and, as Dr. Browne had ed out in his report, the bacteriological examination of should receive due attention. Before the meeting con- d it was agreed that the attention of the Public Health mittee and the Corporation should again be directed to eport received from Dr. Browne in regard to the preven- f consumption, and especially to the points made by hairman.

is Branch of the National Association for the Prevention onsumption, and particularly its President, Dr. P. J. en, to whom its formation was chiefly due, is to be con- lated on its energy and successful work. It is to this h that the inquiry which has led to the constitution of oint Sanatorium Board was due, and it is evident from remen's speech at the meeting that it does not intend the Public Health Committee shall forget that since mption is preventable no delay should be allowed in g all necessary steps for its prevention.

MEATH HOSPITAL, DUBLIN.

annual meeting of the Meath Hospital was held on 25th, Mr. A. Andrews, J.P., in the chair. The report that the total expenditure was £6,173 4s. 4d., and the ary income £5,604 17s. 1d.; 1,472 patients were treated wards during the year, and the mortality was 5·53 per Speeches in support of the resolutions were made by eorge Perry, Mr. Vere Ward Brown, Mr. Darley, and eys, and by Sir J. W. Moore, Sir Lambert Ormsby, Dr. Craig, members of the staff.

RESENTATION TO THE PROVOST OF TRINITY COLLEGE.

meeting of a number of Dr. Traill's former pupils held blin on April 13th, presided over by the Right Rev. C. F. y, D.D., Lord Bishop of Clogher, it was decided to raise for the purpose of making a presentation to Dr. Traill mmemoration of his recent appointment to the Provost- f Trinity College, that all who were pupils of his while university should be invited to join, and that the sub- ion should be limited to £1 1s. Cheques should be in favour of the "Traill Presentation Fund," and for- d to the Honorary Treasurer, Dr. James Craig, 18, on Square, Dublin.

BALLINASLOE ASYLUM.

J. J. Gorham, of Clapham Common, has sent us the ing letter about the recent election at Ballinasloe m, some references to which have been made in the o Irish editorials:

ieve with you that Dr. Mills was the more suitable candidate at ent election for the post of resident medical superintendent, and y he was not chosen, but in the interests of fair play I ask you t the few following facts.

elected candidate, Dr. Kirwan, is a member of a local family of rable influence in the county, and has already served a long iceship on this staff in the asylum.

een-twentieths of the inmates of the asylum are Roman cs.

Mr. Balfour's recent reform of county administration all these appointments were usually made on religious considerations, effect was that the leading officials were exclusively Protestant. uld venture to say that no one knows this better than your correspondent, and I challenge him to deny it.

ACTION AGAINST A MEDICAL MAN.

il action for the recovery of £50 damages was brought Londonderry Recorder's Court on April 15th against Dr. V. Watson, Dispensary Medical Officer at Limavady, to recover £50 damages sustained by reason of negligence, unskilfulness, coarseness, and violence on the part of the defendant in operating on the plaintiff, a woman. It is satisfactory to be able to note that this scatter-gun charge entirely failed, and resulted in the return by the jury, after only five minutes' consideration, of a verdict for Dr. Watson, to whom four guineas expenses were allowed. The alleged unskilfulness, etc., occurred in the course of an operation of plugging for profuse nasal haemorrhage. The plaintiff had suffered from profuse haemorrhage on more than one occasion, but had not before been treated by Dr. Watson. He used adrenalin, and successfully arrested the haemorrhage by plugging, but was subsequently unable to remove the plug because the plaintiff would not allow him to use the necessary measures. He consequently sent her to the Ear and Eye Hospital in Derry, where the plug was removed under an anaesthetic. Several medical men gave evidence that the treatment adopted was entirely correct and scientific, and that the difficulties which arose were the fault of the plaintiff alone.

THE HOLMAN TESTIMONIAL FUND.

THE name of Constantine Holman is a household word throughout the British Medical Association, in the work of which he has taken a prominent part during more than the lifetime of the great majority of its members. No living member of the medical profession has done more in an unostentatious manner to promote the interests of his brethren, and none has better deserved a public recognition of his persevering and self-sacrificing efforts on their behalf. Dr. Holman's line of public work was doubtless determined by the circumstances of his introduction to professional life. He had the good fortune to be apprenticed, in 1847, to Messrs. Thomas and Peter Martin, of Reigate, who helped Sir Charles Hastings in bringing the British Medical Association into existence, and warmly supported Mr. Propert in the establishment of Epsom College. The name of Dr. Holman is writ large in the history of both these foundations.

In 1848 Dr. Holman was assistant secretary to Mr. Thomas Martin at a meeting in favour of Poor-law medical reform. In 1849 he entered Guy's Hospital, just at the palmy time when three discoverers—Bright, Hodgkin, and Addison—gave their names to three new diseases. In 1851 he went to Edinburgh, and in 1852 to Paris, settling in Reigate in June, 1852. As Secretary—appointed in 1862—and afterwards as President, of the South-Eastern Branch, he laboured strenuously in the division of the three counties composing it into districts of manageable extent, and in organizing its work. It is generally acknowledged that this Branch has been one of the most successful in the Association, and that its prosperity is in great measure due to the energy and organizing ability of Dr. Holman. He served for several years on the Committee of Council (twenty-one in number) of the British Medical Association, and actively supported the transference of the Central Office of the Association to London. He took an active part in replacement of the Committee of Council by a Council consisting of representatives elected by the Branches. He strongly supported the late Dr. Waters of Chester in promoting the passage of the Medical Acts Amendment Bill. In 1887 Dr. Holman was elected Treasurer of the Association, and during his period of office, which was one of exceptional storm and stress, he showed himself a careful keeper of its purse and a vigilant guardian of its interests.

Dr. Holman, who had been for some years a member of the Council of Epsom College, was pressed to undertake the duties of Treasurer of that institution. The affairs of the school were then at a very low ebb, and drastic measures of reform had to be adopted in which he was ably assisted by Mr. Malcolm Morris. There was a deficit of £7,000. Thanks to the devoted labours and administrative capacity of Dr. Holman the debt has been wiped out, and the school has been enlarged and adequately equipped for scientific teaching. The lists of distinctions which boys trained there won at the universities and medical schools show that Epsom College is, in regard to efficiency, second to no public school in England. Dr. Holman has also done valuable work as Vice-President of the British Medical Benevolent Fund, as President of the Surrey Benevolent Medical Society, which has only had three Presidents since its foundation in 1812—the two Martins and Dr. Holman; and as a member of the Committee of the Royal Asylum of

St. Anne's. For some time he was on the Board of Management of Ventnor Hospital. When it is remembered that all this public work was, till his partial retirement from active professional life a few years ago on leaving Reigate, done amidst the manifold cares and burdens of a large country practice, some measure will be obtained of the devotion with which Dr. Holman has served his brethren. In all his work not the most uncharitable or censorious could show any trace of self-seeking; he has been content with the feeling that he has faithfully done his duty to the medical profession collectively and to all members thereof who have come within his sphere of practical benevolence. It is in every way fitting that the services of such a man should be commemorated in a permanent manner, and no fitter form could have been chosen for the purpose than the "Holman Art and Reading Room" which it is proposed to erect at Epsom College. The College itself in its present condition is a monument of his unselfish labours. But it is well that his name should be enshrined in a memorial, and we earnestly hope that the whole profession, for which Dr. Holman has for half a century given unstintedly of his best, will show their appreciation of his services by responding liberally to the appeal for funds issued by Drs. John H. Galton and W. A. Berridge.

The Treasurer of the Fund acknowledges the following further subscriptions:

	£	s.	d.		£	s.	d.
Mr. Ethelbert Hosking ...	1	1	0	Mr. Edward East		10	6
W. Ward Leadam, M.D. ...	1	1	0	Clayton East, O.E.		10	6
Mr. H Silverlock	1	1	0	W. R. Dakin, M.D.	1	1	0
Mr. Thos. Gray	1	1	0	Thomas Buzzard, M.D. ...	2	2	0
Mrs. Campion	1	1	0	Wm. Collier, M.D.	2	2	0
Herbert Taylor, M.D. ...	1	1	0	Mr. Nath. P. Blaker	1	1	0
Mr. W. B. Crossley	2	2	0	Deputy Surgeon-General E. McKellar, M.D., J.P. ...	1	1	0
Mr. F. Edward Pearse ...	1	1	0	P. W. Latham, M.D.	2	2	0
Stamford G. Felce, M.D. ...	0	10	6	A. H. Tubby, M.S.	1	1	0
M. Prickett, M.D.	1	1	0	E. A. Saunders, M.A., M.B.	1	1	0
Robert Boxall, M.D.	2	2	0	H. A. Martin, M.D.	1	1	0
Mr. Chas. Mortimer and Mrs. Mortimer	2	2	0	P. Maury Deas, M.B., M.S.	2	2	0
Mr. W. Gandy	1	1	0				

So far, the list of subscribers contains the name of only one Old Epsomian.

In the list published on April 16th for G. Owen, M.D., read G. Oliver, M.D.

Subscriptions of any amount will be received by Dr. John H. Galton, Chunam, Sylvan Road, Norwood, S.E.; or by Mr. W. A. Berridge, Oakfield, Redhill.

CONTRACT MEDICAL PRACTICE.

A MEDICAL ATTENDANCE SOCIETY.

A CORRESPONDENT sends us the rules and regulations of a Medical Attendance Society, and inquires whether it is any better than an ordinary Medical Aid Society. It would appear that the district is situated in a Welsh valley and is about two miles in extent. The population numbers about 11,000 and includes all classes, but consists mostly of miners and those employed in industries connected with mining. A "head doctor" is appointed at a salary of £450 per annum, and there are a certain number of "assistant doctors" under him. Surgeries, drugs, and medical appliances are found by the Society and a horse and trap for the use of the "head doctor." The duties of the latter are practically to give his whole time to the Society and to overlook all the medical arrangements. The amount paid by members is not stated, but there is evidently no wage limit, and we have no information as to the salaries of the "assistant doctors." The salary of the chief is, in our opinion, very inadequate considering the responsibility of his position, and does not suggest a very generous remuneration to the assistants. This Society appears to possess some of the worst features of Medical Aid Societies, as it tends to force the whole population of the district to employ the services of its medical officers. With inadequate remuneration the professional work is not likely to be of the best quality; but, however inferior, the unfortunate inhabitants are compelled to accept it. From a medical point of view we cannot consider this Society satisfactory or recommend members of the profession to accept its appointments.

YORK.

We are informed that a copy of the following resolution, adopted by the Directors of the York Dispensary on July 10th, 1900, was forwarded recently to the resident medical officers:

That on and after the first day of August next no drugs or preparations be ordered by any of the medical staff except such as are to be found in the *British Pharmacopoeia*; that the use of carbolized tow be substituted for absorbent wool, and antiseptic lotions with ordinary lint for prepared forms of antiseptic dressings, unless the consent of one of the honorary medical staff has been obtained for the use of these forms of dressings. This resolution is not to apply to midwifery cases.

THE IRISH DISPENSARY MEDICAL SERVICE REPORT.

A MEETING of the Belfast and District Branch of the Irish Medical Association was held in the Medical Institute, College Square North, on April 22nd. The President, Professor Byers, M.D., presided. Dr. S. B. Coates was nominated as representative of County Antrim on the Central Council of the Association. The meeting took up the consideration of the recently published report of the Special Commissioner of the BRITISH MEDICAL JOURNAL on the Poor-law medical system in Ireland. Professor Byers explained the steps which led up to the publication of the report, and expressed warm appreciation of the action of the JOURNAL. The Special Commissioner had given very considerable time to the studying of the present system. He had visited every county in Ireland, and had interviewed representative members of every profession and every class all over the country. He had presented a masterly report, which was calculated to place the present agitation for improvement in the medical service on a sounder basis, and to do more than anything else attempted to secure much-needed reforms. Several of the members present spoke in similar terms of the report, and on the motion of Professor Lindsay, seconded by Dr. J. White Browne, it was unanimously resolved:

That the best thanks of the Branch are hereby tendered to the BRITISH MEDICAL JOURNAL for the very able and exhaustive report of their Special Commissioner on the Poor-law medical system in Ireland which appeared in the JOURNAL of March 26th, 1904.

We are informed by Mr. Thomas Gick, Secretary of the Irish Medical Association, Dublin, that at the meeting of the Council of the Irish Medical Association on April 20th the following resolution was passed:

That the best thanks of the meeting be given to the Editor and the Commissioner of the BRITISH MEDICAL JOURNAL for the able and exhaustive report on the Poor-law system in Ireland, which appeared in the JOURNAL of March 26th, 1904.

The following resolution was carried unanimously at a meeting of the County Meath Branch of the Irish Medical Association:

That a vote of thanks be sent to Surgeon-General Evatt for his masterly and statesmanlike exposition of the grievances of the Irish Dispensary System, clearly demonstrating not only the injustice of it to the dispensary doctors, but also to the sick poor; and that a vote of thanks be simultaneously accorded to the British Medical Association for sending a Commissioner to deal with this intricate subject, with congratulation to that Association on the choice of so able a Commissioner, whose report could scarcely be improved upon even by anyone who spent a lifetime in the Irish Poor-law service.

At a meeting of the County Galway Branch of the Irish Medical Association held on April 18th, the following resolution was unanimously adopted:

That the best thanks of the County Galway Branch of the Irish Medical Association be tendered to the British Medical Association, the Editor of the BRITISH MEDICAL JOURNAL, and Surgeon-General Evatt, C.B., for their valuable assistance to the cause of the Irish Poor-law medical officers. and that the Irish Medical Association be asked to send a copy of Surgeon-General Evatt's report sent to every member of the Houses of Parliament.

THE MIDWIVES ACT.

MEDICAL FEES IN MIDWIVES' CASES.

AT the annual meeting of the Birmingham and District General Practitioners' Union on September 29th, 1903, the following resolution was adopted:

That, in view of the new condition of things created by the Midwives Act of 1902, it is desirable, in the opinion of this meeting, that the Council formulate rules for our common guidance in respect to attendance on midwives' cases, such rules, after approval by the Union, to be incorporated in the Code of Ethics.

We are informed that at a meeting of the Council of the Birmingham and District General Medical Practitioners'

n, held on March 30th, the following report of the cal Committee of the Council was read and approved:
The question of medical attendance in midwives' cases ng been thoroughly discussed, the Committee considers it is impossible to formulate a code of rules for the ance of members.
They wish to point out:
"1. That the relation of medical men to the public is ot altered by the Midwives Act, either financially or rofessionally.
"2. That a larger fee should be charged in midwives' ases.
"3. That when summoned to a case by a midwife, a nedical practitioner's relation to the patient is the same s if summoned by the patient."
understand that in June last the East Birming- Branch of the Birmingham and District General cal Practitioners' Union adopted a resolution to the that the members of that ward agreed not to d midwives' cases at a fee of less than one guinea that the midwife concerned in the case would eld responsible for obtaining the fee. As will be ved this suggested action, which we understand has ed much apprehension among midwives, has not been ssed by the central Council of the Union, which has the view that the relation of medical men to the public ot been altered by the Midwives Act, and that the rela- f a medical practitioner to the patient is the same when noned by a midwife as when summoned by the patient

CENTRAL MIDWIVES BOARD.

following memorandum was issued last October by idwives Board to those county councils which applied

ions to County and County Borough Councils in Reference to the Duties Assigned to Them under the Midwives Act, 1902.

he Central Midwives Board suggests to the county councils the bility of retaining the administrative duties assigned to them, the Midwives Act 1902, as far as possible in the hands of a com- directly appointed by themselves. This will not only secure for unty council more adequate control over the expenditure, but nd also to prevent the possibility of local rivalries and jealousies ring with the carrying out of the provisions of the Act.
he Board suggests further that the Health Committee of the council would form a suitable committee to act as the local ising authority, with power to add to its number from outside ncil or otherwise.
unties where there is no county medical officer, it is suggested special medical officer be appointed to advise the committee.
is further suggested that supervision should be regarded as at part a medical duty, and that the medical officer of health, medical adviser specially appointed, should be empowered to he executive officer of the committee.
he Board suggests to county and county borough councils that, ing a matter almost solely affecting women, the local supervi- hority should, as sanctioned by the Act, include in any com- it may appoint, one or more women conversant with the needs oor in the district.

e information with regard to the action taken by county ls in various parts of the country was given in an article hed in the BRITISH MEDICAL JOURNAL of October 31st, age 1170.

HYGIENE AND TEMPERANCE.

emorial to the central educational authorities of the kingdoms on the subject of the introduction of com- y instruction in hygiene and its allies circulated to the l profession in January received, as stated on April 16th, remarkable amount of support that some practical he from it may confidently be expected. It becomes, ore, a matter of interest to consider what precise form tion in personal and domestic hygiene should take in blic schools. Obviously this is a matter upon the wise n of which the success of the movement must largely , and at the present moment we merely propose to in- some of the many and diverse considerations which are ed.

ngst these are, What are the scientific truths which ecessarily be taught? What are those which may con- tly be omitted? How shall the teaching be given? In grades or at what periods of the school career should truction be carried on and with the help of what text-

ough we have put the question of textbooks last, mpilation and choice thereof involves in a measure the settlement of all the earlier questions. Any person who desired at this moment to commence instruction in a school in the subject of temperance would naturally ask, as we have done, for suitable textbooks. Presumably he will be offered, as we have been, a choice of a number of American publications or those which are in use in the army schools, the only places in this country in which such instruction is compulsory, Taking the latter first we find that instruction on the subject of temperance and sanitation is not given to junior classes, but only to those of the "elder children's schools," or in Standards IV to VII, and that five textbooks are used. One is Jarrold's *Temperance Reader*, another Hart's *Sanitation and Health*, while the others are entitled *The Scriptural Aspect of Temperance*, *The Economy of Temperance*, and *The Physical Aspect of Temperance*. The first two we have not seen, but the last three we have examined carefully. They are all written by the same author and upon the same system, each chapter terminating with a summary or a display upon the blackboard of the principal points included in the lesson. The book upon the scriptural aspect of temperance consists of excerpts from the Old and New Testaments which bear upon the use of alcohol, with comments and explanations. The next deals with the economic effects of excessive indulgence in alcohol upon the individual, the family, and the nation, and contains a good many calculations of somewhat dubious precision. The last and largest of the three deals in three divisions, each of twelve lessons, with the following general subjects: (1) Strong drinks, what they are; how they are made; their effects on the stomach and digestion; (2) alcohol and the blood; (3) the brain, the nerves, the mind; and how alcohol hurts them. In effect it is a textbook of very elementary chemistry and physiology, with the possible effects of alcohol brought into constant and not always quite legitimate prominence.

These books are doubtless compiled with a considerable amount of ability, but, nevertheless, we do not think that they are to be recommended, and still less do we believe that they would meet the views of those who initiated the movement, or be willingly accepted by the majority of educational authorities.

Turning now to the volumes published in America, we find quite a different condition of things prevailing. There, it is to be remembered, the question is no new one. The movement now in progress in England was initiated in America some thirty years ago. The first law making the study of physiology and hygiene, including the nature and effects of alcoholic drinks by public school children, compulsory was introduced in 1882, and the growth and effects of the work have been most carefully supervised by an association specially formed for that object. It is a branch of the Bureau of Scientific Temperance Investigation, and is the special care of an Advisory Board, which consists of two "reformers," one of whom is a clergyman, three persons actively engaged in education, and seven medical men.

There are several series of textbooks, such as the *Union*, the *Pathfinder*, and the *New Century* the latest of all, which are popular and are all regarded by the Advisory Board as more or less completely meeting the needs of the case. The Union series, like, we understand, all the others, deals with matters in a different way to those English works to which we have already referred. Its underlying conception is that the subject of physiology and health should be commenced in the very lowest classes, and the extent of the teaching increased as the children pass upwards class by class. The books issued, therefore, all deal with the same subjects in much the same way, the second of the series entering into it somewhat more deeply than the first and the third than the second. The first book is written almost entirely in words of one or two syllables, and the information given on physiology and hygiene is such as could be absorbed by the smallest child of school age. At the end of each chapter are lists of questions which may be asked and simple illustrations which may be given.

As textbooks of physiology and hygiene these works are certainly better than the English ones. Considerations as to alcohol are brought into proper focus and relegated to the end of each chapter, together with an account of other undesirable habits which are harmful to personal health and success in life. The existence of these books is probably due to what is called a petition to authors and publishers, which was signed very early in the history of the movement by a very large number of physicians, members of State Boards of Health, educational and other persons of influence in the United States. It was intended as a guide as to what text-

books should teach and as to the grading of the instruction and the amount of temperance matter it was thought desirable that they should contain. The petition was originally issued in 1887, and steps have been taken ever since to keep it up to date and to bring it constantly under the notice of publishers and possible authors.

The following are the specifications made as to what textbooks should be:

1. They must teach with no uncertain sound the proven findings of science, namely:

(*a*) That alcohol is a dangerous and seductive poison, and must define a poison.

(*b*) That beer, wine, and cider contain this same alcohol, thus making them dangerous drinks to be avoided, and that they are the product of a fermentation that changes a food to a poison, and must define a food.

(*c*) That it is the nature of a little of any liquor containing alcohol to create an appetite for more, which is so apt to become uncontrollable that the strongest warning should be urged against taking that little and thus forming the appetite.

2. They must teach also the effect of these upon "the human system," that is, upon the whole being—mental, moral, and physical. The appalling effects of drinking habits upon the citizenship of the nation, the degradation and crime resulting, demand that instruction here should give clear and emphatic utterance to the solemn warnings of science on this subject.

3. This instruction must be as well graded to the capacities of each class of pupils as the modern school readers are. A book fit for high schools put into primary or intermediate classes will make the study a failure there. Truth is just as true and as scientific when told in easy words as when put into stilted technicalities the child cannot understand.

4. This is a physiological temperance movement. In all grades below the high school this instruction should contain only physiology enough to make intelligible the general laws of health, including those relating to the nature and effects of alcoholic drinks and other narcotics. The latter subjects (that is, the nature and effects of alcoholic drinks and other narcotics) should occupy at least one-fifth the space in textbooks for these grades. As only a small portion of the pupils in our public schools attend high schools, and vast numbers leave school from the lower grades, this instruction should be early and ample. It is not desirable to have a separate book for the physiology heretofore studied in the high school or to limit the amount, but at least twenty pages in a textbook for these classes should be given to the question of the danger of alcoholic drinks and other narcotics.

5. This effort to disabuse the minds of the rising generation of the fallacies which lead to drink habits should purposely avoid reference to the medical use of alcohol. As by common consent its lay prescription is condemned, the question of its use as a remedy may properly be relegated to medical treatises, as out of place and misleading in a school textbook.

Lacking in any of these points, a textbook on scientific temperance is incomplete, and the use in the schools of such a book will not result in a strong temperance sentiment among the pupils using it.

Because the question of total abstinence for the public school children of this country, and therefore of their well-being and that of the land soon to be governed by them, depends so largely upon the teachings in these books we make this appeal.

We are somewhat inclined to believe that this petition or manifesto is worthy of imitation. It is obvious that as soon as a demand for textbooks arises an attempt will be made by publishers to meet it, and unless the ground is duly prepared in advance it may very well be that a book or series of books, if issued by an enterprising publisher, may become popular for other reasons than their essential value. If treated in a sufficiently broad-minded manner the matter ought not to be one of essential difficulty, for about the main truths of hygiene and physiology and the connexion therewith of alcohol there is no dispute.

AT the last meeting of the Royal Meteorological Society a paper by Mr. W. L. Dallas on the variation of the population of India compared with the variation of rainfall in the decennium 1891-1901 was read. The author showed that during the four years 1891-5 the rainfall was generally normal or heavy over nearly the whole country, and during the six years 1895-1901 the rainfall was greatly deficient. The general census of India on March 1st, 1901, showed the total population to be 293,475,477, which, excluding the territories not included in the 1891 census, was an increase of only 1.3 per cent. The population had thus failed to increase according to the normal rate during the decade. Part of this failure was no doubt due to epidemics. The author, however, showed that there was a relationship between the variations of the population and the variations of rainfall during the dry years. The area within which the most serious decrease of population occurred coincided almost exactly with the area of greatest deficiency of rainfall.

ASSOCIATION NOTICES.

ANNUAL REPRESENTATIVE MEETING.

ERRATA.

THE following notices of motion were inadvertently omitted from last week's JOURNAL:

By the FOLKESTONE DIVISION (South-Eastern Branch):

1. That the present method of election by the Branch Council is unsatisfactory, and that new members should be elected by the members of the Division in which they reside.
2. That all members of over thirty years' standing should be made honorary members of the Association.

ELECTION OF MEMBERS.

ANY candidate for election should forward his application upon a form, which will be furnished by the General Secretary of the Association, 429, Strand. Applications for membership should be sent to the General Secretary not less than thirty-five days prior to the date of a meeting of the Council.

LIBRARY OF THE BRITISH MEDICAL ASSOCIATION.

MEMBERS are reminded that the Library and Writing Rooms of the Association are fitted up for the accommodation of the members in commodious apartments, at the office of the Association, 429, Strand. The rooms are open from 10 a.m. to 5 p.m. Members can have their letters addressed to them at the office.

GUY ELLISTON, *General Secretary*.

BRANCH MEETINGS TO BE HELD.

BATH AND BRISTOL BRANCH.—The Honorary Secretaries will be glad to receive nominations for two representatives of the Branch as members of the Central Council of the Association on or before May 13th. The by-law governing the election is as follows: "(22) The elective members of Council shall be elected by voting papers sent to each elector by post, the said voting papers containing the names of those candidates who have been nominated each by three electors, in writing, to the Secretary of the Branch, on or before an appointed day of which not less than fourteen days' notice has been given in the JOURNAL."—W. M. BEAUMONT, J. MICHEL CLARKE, Honorary Secretaries.

BATH AND BRISTOL BRANCH: TROWBRIDGE DIVISION.—The annual meeting of this Division will take place at the Town Hall, Trowbridge, on Wednesday, May 11th, at 3 p.m. Business: 1. To elect officers, the representatives of the Division on the Branch Council, and the ordinary members of the Executive Committee. 2. To elect the Representatives of the Division in Representative Meetings of the Association. 3. To receive the annual report of the Executive Committee. 4. To consider the business of the Annual Representative Meeting. 5. To make new rules or alter or repeal existing rules. 6. To transact any business that may be transacted at an ordinary meeting. To consider the advisability, and if necessary to petition to petition the Council, to alter and extend the area of the Trowbridge Division. To consider the following matters referred to the Divisions for their opinion thereon: (1) Whether it is desirable that the medical witnesses engaged on each side in legal cases should meet in consultation. (2) The question of the advertising of medical practitioners in connexion with hydropathic establishments. (3) Shall medical defence be undertaken by the Association? As a poll of the Division on the latter question is asked for members of the Division who are unable to be present should inform the Honorary Secretary as soon as possible: (*a*) if it is their wish that the Association should take up medical defence as suggested. (*b*) Whether they approve of the general principle and details of the scheme. (*c*) If they are willing to join the medical defence department, in the event of such a department being formed. They should sign form of agreement enclosed herewith and return it to me at above address. The Executive would urge on members the importance of attending the meetings of the Division and taking part in the work devolving upon the Divisions, as the Executive and influential units of the Association, to which matters of great moment to every medical man may at any time be referred (by individual members or by the Central Council of the Association), and upon the vitality of which the successful working of the Association as a whole now so largely depends.—JOHN TUCKER THOMAS, The Halve, Trowbridge, Wilts, Honorary Secretary.

BIRMINGHAM BRANCH.—The fiftieth annual meeting of this Branch will be held in the Medical Institute, Birmingham, on Thursday, June 9, at 3.30 p.m. The retiring President, Professor Jordan Lloyd, will introduce the President-Elect, Dr. T. E. Underhill. The annual dinner will be held on the same date at the Grand Hotel, Birmingham.—J. T. J. MORRISON, F.R.C.S., 3, Great Charles Street, Birmingham, Honorary Secretary.

BIRMINGHAM BRANCH.—Nominations for two elective members of the Central Council of the Association may be sent to the undersigned on or before May 19th.—J. T. J. MORRISON, F.R.C.S., 3, Great Charles Street, Birmingham, Honorary Secretary.

BIRMINGHAM BRANCH: COVENTRY DIVISION.—The annual meeting of this Division will be held at the Coventry and Warwickshire Hospital, on Tuesday, May 17th, at 8.30 p.m., Dr. Milner Moore in the chair. Agenda: 1. Whether it is advisable that the medical witnesses engaged on each side in legal cases should meet in consultation. 2. The question of the

ertising of medical practitioners in connexion with hydropathic blishments. 3. The medical defence scheme of the Association. 4. Committee will recommend the adoption of a new rule making a time t for papers and speeches. 5. The election of officers, the Representa-ve of the Division on the Branch Council, and the Executive Com-ee.—E. H. SNELL, Knighton House, Coventry, Honorary Secretary.

ORDER COUNTIES BRANCH: WEST CUMBERLAND DIVISION.—The annual eral meeting of this Division will be held at Whitehaven on May 17th. Secretary will be pleased to receive communications from any ber who wishes to read a paper or show cases or specimens.—T. G. HEWS, 6, Scotch Street, Whitehaven, Honorary Secretary.

ORSET AND WEST HANTS AND WEST SOMERSET BRANCHES COM-ED.—Notice is hereby given that the names of candidates for elec-as a member of Council of the Association for these Branches must ent to either of the undersigned on or before Tuesday, May 17th next. ILLIAM VAWDREY LUSH, Weymouth, or W. B. WINCKWORTH, Taunton, orary Secretaries.

RSET AND WEST HANTS BRANCH: BOURNEMOUTH DIVISION.—The al meeting of this Division will be held at the Medical Societies ns, Shaftesbury Hall Chambers, Bournemouth, on Wednesday, May at 3.15 p.m. An agenda paper will be sent to each member, and it is d there will be a good attendance as matters of great importance will nsidered. Tea at 5 p.m.—C. H. W. PARKINSON, Wimborne, Honorary tary.

ST ANGLIAN BRANCH.—The annual meeting of this Branch will be at Lowestoft, on Thursday, June 23rd. Members wishing to read rs or show cases should communicate with Dr. Gutch, Ipswich, as as possible.—B. H. NICHOLSON, M.B., East Lodge, Colchester, rary Secretary.

T ANGLIAN BRANCH.—Election of members of Council. The nomina-of candidates to represent the Branch on the Central Council of the iation for the ensuing year must be made by three electors on or e May 16th next, in writing, to the General Secretary of the Branch, NICHOLSON, M.B., East Lodge, Colchester.

T ANGLIAN BRANCH: SOUTH ESSEX DIVISION.—The annual meeting s Division will be held at the Victoria Hospital, Southend-on-Sea, on 6th, at 4 p.m. Members wishing to read papers or show cases are sted to send immediate notice to W. CARDY BLUCK, Southend-on-lonorary Secretary.

T YORK AND NORTH LINCOLN BRANCH.—Nominations for the on of a Representative on the Central Council for this Branch ed for the present with the Cambridge and Huntingdon Branch) l be sent not later than May 14th to E. M. HAINWORTH, 16, Albion , Hull, Honorary Secretary.

T YORK AND NORTH LINCOLN BRANCH.—The annual meeting of this h will be held at the Royal Infirmary, Hull, on Saturday, June 4th, m., to be followed by the annual dinner the same evening.—E. M. VORTH, 16, Albion Street, Hull, Honorary Secretary.

GOW AND WEST OF SCOTLAND BRANCH.—The annual meeting of ranch will be held in the Royal Infirmary, Glasgow, on Friday, May Programme: Statutory business meeting of Branch in the Board of the Infirmary at 3 p.m. Demonstration by Dr. John Macintyre Recent Electro-Therapeutic Methods of Treatment in the Electrical on from 4 to 5.30 p.m. Dinner (morning dress) at 6.30 p.m., as inti-by post.—JAMES H. NICOLL, 4, Woodside Place, Glasgow, Honorary ary.

CASHIRE AND CHESHIRE BRANCH.—Notice is hereby given that ations of Representative Members of Council for this Branch must t to me on or before May 1st.—T. ARTHUR HELME, M.D., 3, St. Square, Manchester, Honorary Secretary.

ASHIRE AND CHESHIRE BRANCH: ALTRINCHAM DIVISION.—The meeting of this Division will be held at Altrincham on May 18th. Smith Whitaker, the Medical Secretary of the Association, will an address at 5.30 p.m. (other particulars will be announced here-Members of other Divisions are cordially invited to attend. The g will be followed by a dinner (5s. each, exclusive of wine), which open to all members who signify their intention to be present ing postal order for 5s.) to the Honorary Secretary of the Division before May 14th.—T. W. H. GARSTANG, Edge Mount, Altrincham, ary Secretary.

STER BRANCH.—The annual meeting of this Branch will be held in yal College of Physicians, Kildare Street, Dublin, on Wednesday, th, at 4.30 p.m.—ARTHUR H. WHITE, Derrybawn, Rathgar, Dublin, ary Secretary.

OPOLITAN COUNTIES BRANCH.—Notice is hereby given that nomina f Representative Members of Council for this Branch must be sent n or before May 9th. This notice should have appeared earlier, fourteen days' notice is necessary, it is hoped that no objection e taken to the above extension of time.—GEORGE ROWELL, 6, ish Place, W., Honorary Secretary.

OPOLITAN COUNTIES BRANCH: WANDSWORTH DIVISION.—A special g of this Division will be held in the Officers' Mess Room of the 4th st Surrey Regiment, St. John's Hill (opposite Clapham Junction), on Thursday, May 12th, at 4 p.m. There will be a discussion on eme of medical defence submitted for the approval of the members hese heads: (1) Is this meeting in favour of the Association taking general and (or) individual defence of its members? (2) Is the now submitted one by which the Association could safely and tly execute the work of individual medical defence? All medical e invited to attend. Drs. Heron, Messiter, Bateman, and Woods have agreed to attend and help in the debate. Agenda papers on application to E. ROWLAND FOTHERGILL, Torquay House, Southfields, S.W., Honorary Secretary.

MIDLAND BRANCH.—The last day for sending in nominations of elective members of Council for this Branch is May 31st.—F. M. POPE, 4, Prebend Street, Leicester, Honorary Secretary.

MIDLAND BRANCH: LEICESTER DIVISION.—The annual meeting of this Division will be held on Wednesday, May 11th, at 4.30 p.m., at the Infirmary, Leicester. Agenda: The election of officers for 1904-5 and other business as put forth in circular sent to each member.—ASTLEY V. CLARKE, M.D., 37, London Road, Leicester, Honorary Secretary.

NORTH OF ENGLAND BRANCH.—The spring meeting of this Branch will be held at Newcastle-on-Tyne on Tuesday, May 3rd. Full particulars will be given by circular. Members wishing to show cases or bring anything before the Branch are requested to communicate with the Honorary Secretary as early as possible.—ALFRED COX, Cotfield House, Gateshead, Honorary Secretary.

NORTH OF ENGLAND BRANCH.—Notice is hereby given that nominations of Representatives for this Branch (two required), each signed by three members of the Branch, must be sent to me on or before May 14th, 1904.—ALFRED COX, Cotfield House, Gateshead, Honorary Secretary.

NORTH WALES AND SHROPSHIRE BRANCH: DENBIGH AND FLINT DIVISION.—The annual meeting of this Division will be held at Wrexham on Friday, May 27th.—E. D. EVANS, Bodeirian, Wrexham, Honorary Secretary.

OXFORD AND READING BRANCH.—The annual meeting of this Branch will be held in the Library of the Royal Berkshire Hospital, Reading, on Friday, May 6th, at 3.30 p.m. Dr. W. Collier will move a resolution against the registration of nurses. Dr. G. H. R. Holden (President 1904-5) will read notes about a case of acromegaly. Cases of interest will be exhibited by Dr. Marriott, Dr. W. J. Maurice, Mr. H. A. Whitelocke, Dr. Price, Mr. J. H. Walters, Dr. Freeman, and by others members of the Branch. Mr. H. A. Whitelocke, F.R.C.S., will read notes about Some Cases of Ectopic Pregnancy treated by Operation. Mr. Arthur Roberts, F.R.C.S.E., will give a few remarks on Disease of the Middle Ear in Relation to Disease of the Brain and its Coverings. Dr. W. T. Brooks will read notes About a New Form of Milk for Infants, and, if time permits, Dr. Francis Hawkins will read some notes about Paracentesis as a Means of Treatment for Ascites, and Mr. H. G. Armstrong will read notes on One Hundred Cases of Measles with Special Reference to Differential Diagnosis. Dinner will be served at the Great Western Hotel at 6.15 p.m., price (to include coffee and dessert) 6s. 6d. Members intending to dine should signify their intention to W. T. FREEMAN, M.D., 30, Portland Place, London Road, Reading, Honorary Secretary.

OXFORD AND READING BRANCH.—Notice is hereby given that nominations for a Representative Member of Council for this Branch must be sent to me on or before May 15th.—W. T. FREEMAN, M.D., 30, Portland Place, London Road, Reading, Honorary Secretary.

SHROPSHIRE AND MID-WALES BRANCH.—A meeting of this Branch will be held at the Salop Infirmary on Tuesday, May 3rd, at 3 p.m., the President, Dr. F. K. Piggott, will take the chair. Agenda: To consider a resolution on the recommendation of the Medico-Political Committee of the Council of the Association: "Whether it is desirable that the medical witnesses engaged on each side in legal cases should meet in consultation." To consider a recommendation of the Ethical Committee of the Council of the Association: "The question of the advertising of medical practitioners in connexion with the hydropathic establishments be referred to the Divisions." The Secretary will communicate to the Branch the result of their recent vote *re* medical defence. Mr. Gilbert Barling will read a paper on Some Observations on Enlarged Prostate, with Special Reference to Enucleation, illustrated by lantern slides. Dr. Cureton will read a brief note with regard to potatoes in diabetes. Drs. King and Emery will show a specimen of ovarian tumour removed successfully (for axial rotation) during the fourth month of pregnancy. Mr. Macleod will show a case of coxa vara (with skiagraph). By the invitation of the President members will partake of tea at the infirmary after the meeting. [Note.—This is the last meeting of the Branch under its old name.]—HAROLD H. B. MACLEOD, Shrewsbury, Honorary Secretary.

SOUTH-EASTERN BRANCH.—The annual meeting of this Branch will be held at Eastbourne on Wednesday, June 22nd. Mr. J. H. Ewart, President-elect. The following will be the agenda: 1. To elect the officers of the Branch. (This will be done by voting papers sent to each member of the Branch. Nominations by three members for the offices of President-elect, Vice-Presidents, and Secretary may be sent to the Honorary Secretary on or before Monday, May 16th.) 2. To receive the annual report of the Branch Council. 3. To consider the business of the annual Representative meeting. 4. To make new rules or alter or repeal existing rules. Dr. Larking gives notice that he will move, "That in the opinion of this meeting the present South-Eastern Branch should be divided into two Branches separated by a line running roughly between London and Hastings, and that the opinion of the Divisions concerned be obtained on the question." 5. To transact any business that may be transacted by an ordinary meeting. N.B.—Three members to represent the Branch on the Central Council will also be elected by voting papers. Nominations for these posts, each by three members in writing, may be sent to the Honorary Secretary of the Branch on or before Monday, May 16th.—T. JENNER VERRALL, 97, Montpelier Road, Brighton, Honorary Secretary.

SOUTH-EASTERN BRANCH: CROYDON DIVISION.—The next meeting of this Division will be held at the Croydon General Hospital, on Thursday, May 19th, at 4 p.m., Dr. Carpenter in the chair. Agenda: 1. This being the annual meeting officers for the ensuing year will be elected. 2. To arrange for the next meeting and to elect a Chairman. 3 Members will be asked to consider "Whether it is advisable that the medical witnesses engaged on each side in legal cases should meet in consultation."—Medico-Political Committee. And also to give their opinion upon "The

question of the advertising of medical practitioners in connexion with hydropathic establishments."—Ethical Committee. As a main feature of the hospital meeting is the exhibition of clinical cases, these questions may be put to the vote without discussion. 4. The exhibition of clinical cases. Members desirous of showing cases are requested to communicate with the Honorary Secretary at their earliest convenience, and not later than May 16th. Messrs. Down Bros. will show surgical instruments. The dinner will take place at the Greyhound Hotel, at 6 p.m. Charge 7s., exclusive of wine. N.B.—The Honorary Secretary would be much obliged if members would kindly inform him whether they intend, if possible, to be present at the meeting, and if likely to remain to dinner. By doing so they will materially facilitate arrangements and promote the success of the meeting. All members of the South-Eastern Branch are entitled to attend and to introduce professional friends.—E. H. WILLOCK, 113, London Road, Croydon, Honorary Secretary.

SOUTH-EASTERN BRANCH: REIGATE DIVISION.—A meeting of this Division will be held at the White Horse Hotel, Dorking, on Thursday, May 12th, at 5 p.m., the President of the Division, Dr. John Walters, J.P., will take the chair. Agenda: Important Association business. By Mr. F. Curtis, F.R.C.S.Eng.: A Note on Freyer's Operation for Removal of the Prostate. Specimens kindly lent by Mr. Freyer will be shown. By Sir Dyce Duckworth, Physician to St. Bartholomew's Hospital: The Pursuit of Novelties in Medicine. Dinner at 7 p.m.—W. A. BERRIDGE, 158, Station Road, Redhill, Honorary Secretary.

SOUTH-EASTERN OF IRELAND BRANCH.—The annual meeting of this Branch will be held at Kilkenny on May 25th. Agenda: 1. Minutes of last annual meeting. 2. Election of officers.—RAYMOND W. ORPEN, Bagenalstown, co. Carlow, Honorary Secretary.

SOUTH-EASTERN of IRELAND BRANCH.—Notice is hereby given that nominations of Representative members of Council for this Branch must be sent to me on or before May 14th.—RAYMOND W. ORPEN, Bagenalstown, co. Carlow, Honorary Secretary.

SOUTH MIDLAND BRANCH.—Notice is hereby given that nominations of a Representative member of Council for this Branch must reach me on or before May 14th, 1904.—E. HARRIES JONES, 45, Sheep Street, Northampton, Honorary Secretary.

SOUTH MIDLAND BRANCH: BEDFORD AND HERTFORDSHIRE DIVISION.—The annual meeting of this Division will be held at the County Hospital, Bedford, on Tuesday, May 3rd, at 3.30 p.m. Agenda:—Minutes of last annual meeting. Election of officers. Appointment of Ethical Committee. Matters referred to the Division by the Central Council: (1 Whether it is desirable that the medical witnesses engaged on each side in legal cases should meet in consultation. (2) The question of the advertising of medical practitioners in connexion with hydropathic establishments. The Executive Committee ventures to draw the attention of members of the Division to the recently-issued Year Book of the Association for the year 1904, and in particular to pp. 42 and 43, dealing with the work and constitution of the Divisions. The Committee would urge upon members the importance of attending the meetings of the Division and taking part in the work devolving upon the Divisions as the Executive and influential units of the Association, to which matters of great moment to every medical man may at any time be referred (by individual members or by the Central Council of the Association), and upon the vitality of which the successful working of the Association as a whole now so largely depends. The attendance of members of the Division is earnestly requested.—S. J. ROSS, 28, Mill Street, Bedford, Honorary Secretary.

SOUTH MIDLAND BRANCH: NORTHAMPTONSHIRE DIVISION.—The annual meeting of this Division will be held at the Library, General Hospital, Northampton, on Thursday, May 26th, at 12 noon, under the presidency of Dr. Buszard. Agenda: Minutes of annual meeting, 1903. Election of officers. To receive Divisional report. To discuss: (1) The question of the advertising of medical practitioners in connexion with hydropathic establishments. (2) Whether it is desirable that the medical witnesses engaged on each side in legal cases should meet in consultation. (3) The formation of a Medical Defence Committee of the Association.—E. HARRIES JONES, 45, Sheep Street, Northampton, Honorary Secretary.

SOUTH WALES AND MONMOUTHSHIRE BRANCH: CARDIFF DIVISION.—The annual meeting of this Division will be held in the rooms of the Cardiff Medical Society, 131, Queen Street, on Thursday, May 19th, at 3.30 p.m. Agenda: 1. Minutes of the two previous general meetings. 2. To elect the officers of the Division, namely, Chairman, Vice-Chairman, and Secretary (to act also as Treasurer). 3. To elect (*a*) four representatives of the Division on the Branch Council; (*b*) four ordinary members of the Executive Committee. 4. To elect the Representative of the Division in representative meetings of the Association. [Note.—The elected members included in 1, 2, and 3, constitute the Executive Committee of the Division.] 5. To receive the annual report of the Executive Committee. 6. To consider the agenda of the annual representative meeting and to instruct the Divisional Representative thereon. 7. To consider other business which may be referred to the meeting by the Executive Committee. Members are specially asked to note the date of this meeting, and to do their best to attend and take part in the election of the various officers and representatives of the Division, and also in the discussion of the other important items of the agenda. Members will receive in due course particulars of the arrangements for a dinner to take place on the evening of the same date (May 19th).—EWEN J. MACLEAN, 12, Park Place, Cardiff, Honorary Secretary

SOUTH WALES AND MONMOUTHSHIRE BRANCH: MONMOUTHSHIRE DIVISION.—The annual meeting of this Division will be held in the Newport and County Hospital, on Friday, May 27th, at 3.30 p.m. Members wishing to bring any matter before the meeting will please notify the Honorary Secretary not later than May 14th. Members who intend joining the Defence Department, and who have not yet sent in their applications, are requested to do so as soon as possible.—W. J. GREER, Newport, Honorary Secretary

STIRLING BRANCH.—The annual general meeting of this Branch wi be held at the Royal Hotel, Stirling, on Monday, May 2nd, at 3.15 p. Agenda: 1. Election of office-bearers. 2. Report of Council. 3. Refere as to "whether it is advisable that the medical witnesses engaged on e side in legal cases should meet in consultation." 4. Reference as to " question of the advertising of medical practitioners in connexion w hydropathic establishments." 5. Paper by Dr. J. G. Connal (Glasgow Purulent Discharge of the Middle Ear and its Complications.—J MOORHOUSE, 1, Glebe Avenue, Stirling, Honorary Secretary.

ULSTER BRANCH.—The spring meeting of this Branch will be hel the Town Hall, Portadown, on Thursday, May 5th, at 3 p.m. member having any communication to make will please communi with the Honorary Secretary. Dr. WILLIAM CALWELL, 1, College Squ North, Belfast.

YORKSHIRE BRANCH: WAKEFIELD AND DONCASTER DIVISION.—A mi ing of this Division will be held in the Board Room, Beckett Hosp Barnsley, on Thursday, May 5th, at 4.15 p.m., Dr. Stanger in the ch Agenda: 1. Minutes of last meeting. 2. Notices of motion for An Representative Meeting. 3. The advertising of medical practitioner connexion with hydropathic establishments. 4. The advisability medical witnesses on each side in legal cases meeting in consultatio The scheme of medical defence. 6. General business.—C. J. RUS McLEAN, Ancroft, Doncaster, Honorary Secretary.

SPECIAL CORRESPONDENCE.

PARIS.

Académie de Médecine: M. Kelsch on Tuberculosis in the Fre Army.—Dr. Fabre on Anaemia among Miners.—Dr. Reynè Epithelioma of Both Breasts Cured by Castration.—A Cod Medical Ethics.—Reconstruction of Cochin-Ricord and F Hospitals.—Monument to Professor Tarnier.

RECENTLY M. Kelsch, director of the Val-de-Grâce Milit Hospital and Medical School, made an interesting commu cation to the Académie de Médecine on the question of tub culosis in the French army, as a protest against the opin not long since expressed in the Upper Chamber that he d not believe in the contagious nature of this disease. Four five thousand young soldiers are invalided annually tubercle, and on the supposition that each case carried c tagion to at least ten persons, then the army is responsible 50,000 cases of tubercle every year among the civil populati M. Kelsch contended that although tuberculosis is seen f quently in the army, yet contagion plays but a small part in development, cases of "open" tubercle, the only ones wh are really dangerous, are very rare in barracks, while patie with breaking-down lesions would be absolutely unable to ca out the hard course of instruction and training which soldier's life entails. As a fact, elimination of the unfit tak place chiefly in the first few months after joining the colou elimination is rare in the second year, and quite exceptio in the third year of service. Observation shows that th numerous cases of tuberculosis are due to the awakening lesions latent and unsuspected at the time the recruits jo such as fibro-caseous ganglia at the hilum of the lung or liv old solitary tubercles of bone or parenchymatous tissu which are found *post mortem* in nearly 50 per cent. of you soldiers dying from other diseases. M. Kelsch affirms th the greater number of soldiers invalided for phthisis duri the first few months after joining the colours are in reali instances of the second stage of an affection of much older d than their arrival in barracks. What the young recr finds in barracks is much less the bacillus of Koch th circumstances which favour the awakening and reappearan of the germ which has long lain dormant in his bo that is, fatigue from the training, insufficient food, exposu to all weathers, the strict discipline, etc., all depressi causes. Following the line of least resistance the microbe forcibly drawn towards the lungs; these are put to v active work, either physiologically by the training, or path logically by the catarrhal affections of the air passages, whi so commonly mark the initial period of training, unfort nately fixed for the most inclement season of the year. T military authorities in Germany have at their dispositi 1,200,000 or 1,300,000 individuals from among whom to sel the annual contingent, while in France there are but 500,0 at most from whom to collect an equivalent number of m fit for service, and it is by this fact that M. Kelsch explai how it comes about that tuberculosis is two or three tim less frequent in the German than in the French army.

At the last meeting of the Académie de Médecine Dr. Fab (of Commentry) read a paper on anaemia in miners, showi how complex and variable are the causes of the affectio Many cases have been due to an intoxication either fro

nations of poisonous gases such as sulphuretted hydrogen to insufficient ventilation, which caused the epidemic ng the miners of Anzin, Fresne, and Vieux-Conde, from lead as in some mines at Schemnitz in gary. The ankylostoma causes fewer cases than is gener- supposed. Dr. Fabre then studied pathologically the es of production of anaemia among miners, and clinically pecial influences—general, professional, and individual— h favour its development, as well as the prophylactic ures for its prevention. In cases due to ankylostoma, is the disease contracted, and what regulations should dered for its prevention? A discussion followed, in h Professors Blanchard, Chantemesse, Chauveau, and oux took part, and the Académie appointed the follow- s a special commission to study the whole question: Blanchard, Chantemesse, Lancereaux, Laveran, Magnin, iet, and Dr. Roux.

Reynès (Marseilles) showed a patient whom he had of inoperable epithelioma of the two breasts by ovari- y, the only vestige being a sort of cicatrix with indura- At the time of the operation the woman, aged 33, was dy cachectic; one of the tumours she had had for nine , the other for three years. The microscopic examina- made by Professor Cornil showed these to be pavement- epitheliomata. The tumours began to diminish soon the operation, and in two months the large ulceration e left breast had cicatrized. He considered that his od of treatment was only applicable to cases of cancer ring before the menopause.

last International Congress of Professional Medicine eontology expressed the opinion that a code of ethics to be drawn up to serve as a guide to the profession, o be given to each newly-qualified man on the day he his thesis examination. The April number of the *in* de l'Association Générale de Prévoyance et de rs Mutuels de Médecins de France publishes a rough of a code of medical ethics which has been drawn up by cial Commission composed of Drs. Dignat, Glower, ndre, Lepage, and Lereboullet.

Municipal Council has just decided to begin imme- the work of rebuilding and enlarging the Cochin- Hospital at an estimated cost of nearly Fr.11,670,000 800). The Pitié Hospital will be reconstructed at an ted cost of Fr.8,051,000 (£322,040) on ground belonging Salpêtrière Hospital. Various improvements are also arried out at the Lariboisière Hospital, at the St. Louis al, and at the Hôtel-Dieu.

Municipal Council has authorized the erection of a nent to Professor Tarnier on the façade of the Clinique ucheur, in the Avenue de l'Observatoire, facing the bourg Gardens.

VIENNA.

tical Contest.—The Surgical Clinic at the General Hos- .—A New Cancer Microbe.—New Plans for the General ital.—Lady Doctors in Austria.—Dr. Moser's Scarlet Serum.—General News.

the last few months little of special medical interest urred in Austria-Hungary, with the exception of the of twenty-nine members to the Arztekammer, the ent in Vienna of the General Medical Council. Over ection many serious battles were waged, the election eing the crucial point, and, it is to be hoped, the last f a commotion which has been going on for some time It will be remembered that several months ago the beral, clerical, and anti-educational party, then in power Diet, made a most offensive attack upon the medical ion with the officials of the High School of Medicine mmediate victims and vivisection as a weapon. It ry generally considered by medical men that the ment had been culpably negligent in protecting the profession from unjust political attacks, and as a the majority of medical men holding public appoint- tendered their resignation. Fresh appointments Medical Council, therefore, had to be made, and the n was seized, partly by politicians and partly by a ented section of medical men, to convert an election h professional matters should alone be considered into cal battleground. There were two principal parties, of he German-national, anti-Liberal party tried to show e other comprised nothing but antiquated, old- ed persons unworthy to be leaders of modern profes- sional life. All weapons commonly used in political contests were introduced, and those questions of religion and nationality which have so much weight in Austria were brought into play. Ninety per cent., however, of all voters were induced to throw in their influence, and, in spite of the Government giving the clerical anti-Liberal party as much help as it could, the old party, as it was called, eventually won the day. This party includes in its ranks the best-known members of the profession, and endeavours to combine all fair-minded opinions upon one platform, while at the same time demanding that Government shall give due protection to scientific research, and secure for all medical workers the consideration and respect which is their due. Dr. Ewald, Senior Surgeon of one of the largest hospitals, has been elected President of the Council, and it appears likely that, now the strife is over, its work will be carried out on desirable lines.

Professor Hochenegg has been appointed Director of the first surgical clinic of the General Hospital, a post at one time occupied by Billroth. In his clinical teaching he lays much importance upon exact diagnosis and trains his pupils to be critical. His best known published work is a monograph on cancer of the rectum. He is still a young man and by the majority of persons his appointment is welcomed.

A special committee of the Society of Physicians is engaged in investigating a sporozoon which, in a paper read by him before the Society, Dr. Feinberg alleged to be a hitherto undescribed organism. Its importance is that, according to Dr. Feinberg, its life-processes are the true cause of cancer.

It has been recognized for long past that the General Hospital in Vienna so well known to all English students is with its 2,300 beds too crowded for the requirements of modern science. Plans therefore have been adopted for the building on the pavilion system of a new hospital at a cost of about a million sterling on the site of the old lunatic asylum which comprises 220,000 square yards.

At length Vienna can boast of a lady doctor with a Vienna degree in the person of Miss Margareth Konigsberg. Two lady doctors already practise in Vienna, and at Bosnia, where there are many Mohammedans, a certain number of lady doctors were appointed some time ago to work among the female population. Hitherto, however, all lady doctors have obtained their degrees abroad, and the lady mentioned is the first to obtain the M.D. degree of the Vienna University.

In one of the children's hospitals trials have been in progress of the scarlet fever curative serum described by Dr. Moser at the Carlsbad Congress in 1902. Forty-four serious cases complicated by hyperpyrexia and nephritis were chosen with results considered to be very favourable to the claims made for the serum. A second trial is now in progress.

Dr. Gersuny, who now is perhaps the best known of all Billroth's pupils, recently celebrated his 60th birthday in a fashion different to that common in Austria. Instead of holding a reception he performed four prolonged operations. It is to Gersuny that in Austria is ascribed the credit of several new operations and modifications of technique, especially in connexion with plastic operations on the vagina, the use of paraffin injections, and the introduction of torsion to produce an artificial sphincter ani.

The summer term, or semester, as it is called here, begins on May 1st, and will last till about July 15th. A considerable number of special courses are announced, of which the following are the more important: A course by Docent Sternberg, on Cardiac Diseases; one by Docent Strasser, on Hydrotherapy of Internal Diseases; and another on Chemical and Microscopical Examination of Diseases of the Digestive Organs, by Docent Czyhlarz. Laryngology will be taught in courses delivered by Professor Chiari, by Hayeck (including lectures on Diseases of the Accessory Sinus of the Nose), by Réthi, and by Koschier in the Poliklinik. Lectures and courses on Haemology by Türk and by Weiss. Diseases of Children will be demonstrated and lectured upon in all the hospitals by Monti, Kassowitz, Escherich. As regards surgery, the following courses are worth mentioning: Surgical Diseases of the Urinary System, by Frisch, Zuckerkandl, Jurié; Surgery of Children's Diseases, by Hochenegg, Friedländer, Lorenz. The courses on Otology comprise Pollitzer's course, and those of Urbantschitz, Alt, Hammerschlag, and Pollak. The courses on Surgery of the Ear by Hammerschlag or Pollak, and by Biehl or Alexander are specially worthy of mention. Several courses on the use of the Ophthalmoscope will be delivered by the assistants of the respective clinics, and also on the Methods of Operative Ophthalmology by Professor Königstein. In Gynaecology and Obstetrics special courses

on operative treatment will be given by Peham, Savor, Braunfernwald, Dittel, Latzko, and on conservative treatment of Gynaecological Diseases by Herzfeld. This does not complete the list, as other courses on Dermatology and Syphilis, Cystoscopy, Radiotherapy, Neurology, Embryology, Hygiene, and Bacteriology will be given by various specialists. The greater number of all the courses mentioned will be given in the General Hospital, and some in the Poliklinik, about three minutes' walk distant, and a very few in other hospitals. The fees range from £1 1s. to £4 4s., and the duration of the courses from five to eight weeks.

MANCHESTER.

Southern Hospital for Women and Children.—Jewish Ward and Kitchen in Infirmary.

THE report of the Manchester Southern Hospital for Women and Children states that the number of patients treated during the year was 5,805, while at the Maternity Hospital 1,820 cases were attended. The expenditure was £4,311 and the income £2,962, thus leaving a deficit on the year's working of £1,348. The Committee state that "knowing the pressure and urgency of the cases requiring treatment, it is deplorable that the income should be so much below the expenditure." In view of the increase of expenditure in the future when the institution is removed to large and more suitable premises, it is contemplated bringing the wants of the institution before the public. The design for the new buildings has been approved, the administrative block, containing the residential quarters for the medical officers and staff, and for students training in the Maternity department, will be placed facing Oxford Road and overlooking the free open space of Whitworth Park. Behind this block and connected by corridors are to be three blocks of wards for the Maternity Department, and for women and children. There is to be an isolation block for cases of puerperal fever which occur in home patient practice. It is intended to begin with accommodation for 60 beds, but when complete 100 beds will be provided.

The question of special hospital provision in the infirmary for those who are members of the Jewish community has often been discussed. Although the Jews of Manchester are erecting a hospital of their own, the question of providing a Jewish ward and kitchen in the new infirmary has again been brought into prominence. The Jews have agreed to bear the cost of erection and to provide a Jewish cook, but they ask the infirmary to maintain it. The Board of Management remitted the question to the Infirmary Committee and the Building Committee, the former to deal with organization and the latter with the question of cost if it arose.

BIRMINGHAM.

The Birmingham and Midland Hospital for Women.—The New Hospital for Women.—Small-pox at Arley.

THE annual meeting of the Birmingham and Midland Hospital for Women was held on April 20th in a large marquee erected on a portion of the foundations of the new hospital. The annual report showed that the total number of new and old cases treated in 1903 was 19,370, being an increase of 1,292 on the number of the previous year. The in-patients were 444, and the number of operations performed 426. The income of the hospital for the past year amounted to £3,514, and of this the sum of £936 was received from subscriptions and £475 from the Hospital Saturday collection. There was a balance of ordinary expenditure over ordinary income of £11.

The new Hospital for Women in Stratford Road, Sparkhill, has long been found inadequate, and it has therefore been decided to build a new hospital. The site for the new buildings is situated in Showell Green Lane, Sparkhill; it is away from the main road and the noise of heavy traffic there, while the Sparkhill Recreation Ground, which is a fine open space, lies behind it. It is estimated that a sum of £40,000 will be necessary to erect and equip the new building, and towards this amount £32,000 have already been promised. The foundation stone was laid by the President of the hospital, Mr. Arthur Chamberlain, in the presence of a large gathering of the supporters of the charity. The new hospital will be a brick building of two stories. In the centre will be the administrative block, containing a large entrance hall, the accommodation for the resident medical officers and the matron, the kitchens, offices and store rooms. At the back of this block are placed four ward units, two on each floor; each unit contains a ward for eight beds, an isolation ward for two beds, a duty room, bath-room, pantry, and two laboratories placed at the corners, with a balcony between them, from which a staircase leads to the ground. A narrow balcony will run on each side of the wards on the first floor. These wards will be connected on the ground floor with the administrative block by a central corridor. Opening out of this corridor there will be the dispensary, surgical store rooms and other offices; the staircase will surround a large lift. On the first floor, immediately opposite the lift, will be two operating rooms, an anaesthetic room and a sitting room for the sister in charge. The hospital will contain forty-eight beds. At the south end of the central block it is proposed to erect a detached nurses' home, and at the north another detached building for the laundry, engineering department, and mortuary. A convalescent home is also being built and will probably be ready for occupation by September. The main building is expected to be finished in the early part of 1905.

About 30 cases of small-pox have already been notified at Arley, near Nuneaton. The majority of these are under treatment at the isolation hospital at Binley. The Chairman of the Rural District Council has intimated that when the epidemic is over he will draw attention to the greatly increased cost occasioned by people not having their children vaccinated.

SOUTH WALES.

A Discussion on School Hygiene.

AT a sessional meeting of the Sanitary Institute, held at Cardiff on April 23rd, Dr. Walford, medical officer of health for Cardiff, in the course of an address on school hygiene in connexion with the duties and responsibilities of the new education authorities, said that the present moment was a suitable one for directing special attention to the subject of school hygiene. Recent legislation had transferred the management of our public elementary schools to the local authorities, already in existence, with other powers and duties, especially those concerned with public health. Practically the education authority and the sanitary authority were one and the same body; the present, therefore, was a fitting time for organizing a systematic and effective method of supervising the sanitation of schools and of putting the care of the health of the scholars on a more scientific basis than before. The comparative neglect of hygiene in connexion with school life in the past was probably due to erroneous ideas as to education. The development of the mind was looked upon as apart from the physical development of the body, regardless of the fact that the brain, the organ of the mind, was an essential part of the body. An original or acquired defect in the structure of the brain might render futile the best efforts of the most accomplished teacher. Impurities from the air taken into the lungs might enter the blood circulation and seriously affect the mental faculties of the pupil. It was therefore important that both teachers and pupils should carry on their work under the most favourable conditions. In the matter of school hygiene many other countries were ahead of us. The schools in America, Germany, and Switzerland compared favourably with any of those in this country.

The Sanitary Institute had recently interested itself in a theoretical and practical course of instruction in hygiene for teachers The syllabus would at once suggest the enormous advantage, to school children, of being under the control of teachers possessing a knowledge of these subjects. At the same time it must not be forgotten that many of the teachers in the elementary schools were quite alive to the importance of maintaining the schools under their control in a proper sanitary state. The active and intelligent co-operation of teachers was absolutely necessary to the success of any scheme of school hygiene. Probably the most urgently needed reforms in most schoolrooms were improved methods of heating, an artificial system of ventilation, and electric light. With the present desks and improper modes of handwriting, it was a wonder that spinal curvature, impaired vision and St. Vitus's dance were not more common. It was wrong to place a clean and healthy child at the same desk as a child suffering from some parasitic disease, the result of dirt and neglect. There should be single and properly adjustable seats. It was difficult at present to exclude those pupils who were physically unfit for school, and those suffering from infectious disease. A medical officer appointed by the Education Authority would remove the danger. The

ard of Education in 1901 issued a memorandum urging chers to be watchful, and to exclude affected children. the matter of diagnosis of visual defects, continued the ard, the school authorities were confronted with a diffi- ty owing to the fact that a large proportion of the cases uired special care for their detection, and hence, unless ert knowledge were brought to bear, it was only too pro- le that many would be overlooked, to the detriment of ldren, who might be subjected to unjust censure and ishment as well as to the overtasking and further erioration of their sight. The visitation of schools by suit- e nurses, especially the infant departments, might have e advantage, but its adoption by voluntary associations ne or two big towns did not in any way meet the case or eve the education authority from its responsibility. It the primary duty of that authority to teach the children ething by which they might obtain the means to live; it one of the duties of the sanitary authorities to teach the ple how to live. There was now before county councils, aty boroughs, and to some extent the district councils, an ortunity for work in a national and imperial sense un- alled in their histories, while in a public health sense had now an opportunity of eclipsing all previous rds.

r. Howard Jones (Newport, Mon.) stated that the large unt of money spent in this country in the attempt to ate children under 4½ years of age was absolutely wasted; ct, more or less permanent injury both to the health and tal aptitude of children was thus caused. He also referred he great prevalence of measles and its high death-rate, as being in a great measure due to the attendance at too an age of children at school. The cleansing of schools not what it should be. The floors, etc., were swept daily, once every two months or so scrubbed out. The use of n the floor would, in the speaker's opinion, be a great ovement, as it would keep down the dust.

. Herbert Jones (Hereford) referred to the Education rtment as being the only public department without a cal expert.

. Paterson (Cardiff) quite agreed with what Dr. Howard s (Newport) had said as to the attendance of very young ren at school. He thought that it would be very much r if the money now spent in attempting to educate very g children were spent in the establishment of gymnasia chools. This, Dr. Paterson contended, could be done out any addition to the rates. The need for physical ing in this country was very evident from the fact that e number of young men from our towns who joined the a high percentage were on medical examination rejected fit, and of those who were accepted a large number were equently discharged as unfit for further duty.

Meredith Richards (Medical Officer of Health, Croy- stated that he had three nurses who visited school ren suffering from minor ailments, and advised the ers as to the necessity or otherwise of calling in a cal man.

Tatham Thompson (Cardiff) said that from 3 to 5 per of the children attending school suffered from defective ght. The percentage increased right up to the univer- when it was between 30 and 40 per cent. Children ally were born long-sighted. It was in learning to use eyes that the mischief was done—too close a vision and illumination. The window space should be sufficient well arranged; great care should be exercised in the ring of the walls, so that the light should be diffused as as possible. It might be convenient to parents to have children (under 5) at school, but educationally it was of lue. Single desks were an absolute necessity, and these d also be adjustable. The speaker condemned in a emphatic manner the use of slates and slate pencils, lso the "slant" writing, which he contended was con- e to defective eyesight and curvature of the spine.

s Kate Hurlbatt (Principal, Aberdare Hall, Cardiff) said was something radically wrong in the management of Many entered college with defective teeth, impaired ion, weak eyesight, anaemia, and headache. The value sh air was not recognized by parents. It was most im- nt that as much time as possible be spent in the open order that real intellectual work could be accom- ed.

D. J. Thomas (Medical Officer of Health, Merthyr) ed to the selection of suitable sites for schools. These ny cases were built without any regard as to the pre- g winds, the result being that during a greater part of the year the inlets for ventilation acted as outlets and vice versa.

Dr. T. H. Morris (Chairman, Glamorgan County Education Committee) said that the greatest brake on the progress of education was the Board of Education in London, and if any of those present could suggest any means whereby that body could be made alive to its responsibilities a great deal of good would be done.

In addition to those who took part in the discussion there were present: Dr. Eben Davies, Swansea; Dr. J. D. Jenkins, Rhondda; Mr. Howells, clerk to the Education Committee, Rhondda; Mr. Harpur, borough engineer, Cardiff; Dr. Lloyd Edwards, Barry; Dr. W. H. Symon, Bath, etc., and several ladies.

In the afternoon a visit was made to the Isolation Hospital and Crematorium on the Flat Holme.

Dr. W. Williams (Medical Officer of Health to the county of Glamorgan), who had promised to deal with the subject from the point of view of county councils, was unavoidably absent.

Mr. J. H. Sugden, F.I.C.

Mr. J. H. Sugden, F.I.C., of the Cardiff and County Public Health Laboratory, has graduated M.Sc. in the Victoria University. The well-wishers of the laboratory and Mr. Sugden's many friends will be delighted to hear of his well-deserved success.

Midwifery Training.

The question of the training of midwives for South Wales and Monmouthshire has been the subject of a discussion between Principal Griffiths of University College, Cardiff, and a deputation which waited on him on behalf of the Cardiff and District Medical Association. The deputation, which consisted of Drs. Walford (M.O.H. Cardiff), M'Lean, Rhys Griffiths, Paterson and Morris, pointed out that under the new Act midwifery candidates must have attended a three months' course on anatomy and the theory of midwifery. The medical department of University College could, the Association considered, undertake the duty of giving this instruction better than any other body in South Wales and it therefore urged that the necessary theoretical courses should be established and the county councils of Cardiff, Glamorgan, and Monmouthshire invited to afford financial assistance. Three courses a year, each of twelve lectures, would probably be necessary. In reply the Principal stated that the College would be willing to undertake the responsibility of carrying out the scheme, if the three county councils could see their way to provide the necessary financial assistance and also establish certain free scholarships. A guarantee of a sum of about £150 per annum for five years would, he thought, probably meet the case.

CORRESPONDENCE.

A SELF-SUPPORTING HOSPITAL.

Sir,—In the British Medical Journal of April 16th I read with much interest a letter by "Medicus" on the subject of self-supporting hospitals. It is a subject which has interested me for some years. There is no doubt that the most deserving and the most useful classes are at present quite unprovided for in the matter of hospital discipline and nursing. It is also a fact that the converted houses which constitute the private nursing homes, with their unequal and badly-distributed rooms, impossible passages and lavatory arrangements, their lack of accommodation for the nurses, servants, or administration, leave much to be desired in efficiency as well as in economy of working. I dealt with this subject in a pamphlet which I published some few months ago. I think if "Medicus" considers the difficulties in the way he will not be very hopeful of starting special hospitals. The first difficulty is the vast capital necessary. When we consider that the working capacity of the proposed homes would have to be almost if not quite equal to that of our present charities; and also, if we consider the enormous cost that the public already bears for such purposes, it is obvious that it will not be easy to raise the sums required.

The second difficulty is the efficiency. Those who have had experience of the difficulties of running a nursing home will realize how necessary it is in the interests of efficiency as well as economy to have a place specially built for the work, and also how essential it is to be able to provide for a sufficient number of patients; in fact, how essential it is to centralize as far as possible all the local nursing and hospital

requirements. It is not enough to have a sufficient number of pay beds open to the public, but the actual cost price of these beds must be kept low. There is only one way of keeping them low enough to be really useful and low enough to give a sufficiently wide range of usefulness, and that way is to make use of the many idle hospital beds in the existing charities. There are reasons why the scheme should not be adopted in teaching centres, and also there are some provincial hospitals which have no room, but in by far the greater number of provincial charities there are more than enough spare beds to supply the want. Besides supplying a want which in the near future must be attended to, this scheme also goes a long way towards solving the question of charity hospital finance. The profits to be earned are considerable. If the average cost per bed in a charity is, say, 25s. a week, pay patients could be admitted at prices varying between 10s. and £2 10s. a week, and averaging, say, 30s. The actual out-of-pocket expenses would be very small, about 5s. a week each for food, etc. They would cost no more because there would be no need of any increase in the administration expenses, which would have to be paid in any case. Practically no extra nurses would be required and no extra servants, or heating, office expenses, lighting, rent, rates, etc. Therefore, not only would the beds pay their actual cost, but, by sharing the expenses of the existing charity beds, they would show a profit of thousands a year. Two small wards of ten beds each in an average provincial hospital would earn for that institution about £1,500 a year. Every doctor should have the right to send his cases into these wards and attend them there himself. I hope to deal more fully with this important subject elsewhere.—I am, etc.,

Bath, April 20th. J. R. Benson, F.R.C.S.

MEDICAL ASSESSORS.

Sir,—Those of us who have seen something of medical evidence in "compensation cases" will commend the action of the county court judge of Stockport, described in the British Medical Journal of April 23rd. The rules adopted by him only provide for an assessor under certain circumstances. It seems desirable, however, that the judge should be assisted by assessors in all "compensation cases." The medical evidence always differs on some essential point. Previous consultations between the medical witnesses will not usually be consented to by the parties to the arbitration. In the event of appeal, the Court of Appeal might be assisted by an advisory "Court of Medical Appeal."

The way the decisions vary in different courts alone shows the necessity for altering the present procedure. In two cases of hernia—an accident?—in which the writer was recently engaged, and in which the facts were practically identical as far as the accident factor was concerned, the decision was by one judge for and by the other against the applicant.

Judges are hardly to be blamed for following the line of least resistance—*post hoc ergo propter hoc*—but it is well known how fallacious such reasoning is in medical matters. Before the Compensation Act all the colliers with pain in their backs used to come as out-patients suffering from "rheumatism"; now they have "strained themselves lifting a tram."

Medical witnesses liable to be biassed are salaried works or colliery doctors, who may be dismissed by the men at a month's notice; assistants in works practices who have become degraded by alcoholic indulgence; men who have entered the case on the Dodson and Fogg principle; men who are engaged by employers for the routine examination of their workmen. These and other varieties of possibly biassed witnesses, in addition to the cases where there is an honest difference of professional opinion, all call for the appointment of medical assessors.—I am, etc.,

Cardiff, April 25th. William Sheen, M.S.Lond., F.R.C.S.

BLOOD-PRESSURE INSTRUMENTS.

Sir,—My attention has just been drawn to Dr. Mackenzie's letter, and I trust I am not too late for a short reply in your next issue. It is quite obvious to me that Dr. Mackenzie's heart was too much enamoured by the sphygmograph when he made his blood-pressure observations to be open to the allurements of a new love; but that is doubtless fortunate for us, for we are now all the richer for the valuable work he has done on the circulation. Nearly all the points he mentions have been in my mind for years, and I have done my best to show how they can be met; but it is difficult to get others to realize as one does oneself the importance of p- ticular points in technique. Each one requires to be trai in the details of a method—just as Dr. Mackenzie has trai himself in the sphygmographic line. We do not exp absolute perfection in blood-pressure instruments, nor in a thing else.

In regard to my own instrument, from the first I have s that if an observation is to be made on the radial artery t artery must be taut in its bed. To that end I directed t the wrist should be bent as far back almost as it will o without discomfort and rigidly kept there. I have seen e a professor of physiology begin all right and end all wro and then tell me he kept the wrist at the prescribed 45 degr all the time when at the close of the observation it was a much lower angle. The observer, while absorbed with instrument, gradually relaxes the angle, and the record ri in proportion to that relaxation. To secure the right an mechanically I have devised a simple wrist rest, which made by Mr. Hawksley, 357, Oxford Street, W. The inst ment is now mounted on a slide, which greatly simplifies a facilitates the use of it, and makes its readings more prec and accurate. It secures a mechanically true forward thr of the pad, which is thus easily and delicately actuated the thumb, and the handle gives perfect steadiness to hand in applying the instrument.

In making observations large excursions of the indica should be avoided, for then it is impossible to read with p cision. When, however, they cannot be avoided, rubber ca (made by Mr. Hawksley) are used. The observer should possible, find some part of the artery which gives the le response; then he will be able to locate the reading with $2\frac{1}{2}$ mm. In the physiological work just done I found no di culty in distinguishing differences of 1 mm. There is c source of error which I have so far only casually referred Every now and then one meets with a case in which, af the lessening of the first development of the movement second begins on applying further pressure. I am not quite clear as to the cause of this second development; I o know that it does not represent the true arterial pressu whereas the first does. I believe that many high records thus produced. The observer should, therefore, carefully lo out for the first reduction of the pulsation of the indica and he will avoid being misled.

My observations in tachycardia show that it is extrem difficult to make a reliable reading of the arterial pressure that condition of the circulation. In the course of work should think that I exclude 10, or perhaps 15, per cent. of cases as unreliable for blood-pressure observation, either the score of nervous excitation of the circulation or on th of structural unsuitability. Still I prefer the half-loaf rath than no bread. I am satisfied of one thing, that the clinic observation of the arterial pressure is one requiring t greatest care and tact. The influence of the nerves requi to be sedulously excluded as much as possible, and phys logists and physicians have not yet grasped the great i portance of the physiological variations which form the ve groundwork of the clinical study of blood pressure. As w be shown from some recent work, the time for accurate co parative observation during the day is quite limited. present we are jumbling up normal with abnormal pressur utterly disregarding a normal base line which does exist.

Exercising tact and caution I know nothing more valua or more important in clinical observation than a well-record arterial pressure; and a little experience of the right ki would soon assure Dr. Mackenzie of this fact. I am qui sure if he could be at my side during the coming season Harrogate the practical aspect of this matter would daw upon him, and perhaps he might glance with more favour my first love.—I am, etc.,

Farnham, April 26th. George Oliver.

THE INTRODUCTION OF PURE AIR INTO SEROU CAVITIES.

Sir,—I am sorry that Dr. Theobald A. Palm should ha retreated from an untenable position with such bad grac However, in this controversy I have the right to the la word, and I mean to have it, no matter how many disputan may crop up. The question is not with me a personal matte as Dr. Palm seems to think, but the question of Dr. Palm, his anxiety to claim priority, trying to controvert a d monstrable fact. As a Scotchman he should have know that "facts are chiels that winna ding, An' downa be di puted."

It would have been much better if Dr. Palm had stuck t

he did in 1886, which, so far as we know, he has not done . However, being anxious that he should have all the t to which he is entitled, I have read his article, "On Experiences with the Aspirator," in the *Edinburgh al Journal*, November, 1886. In this paper he refers to es where he allowed air to enter the pleural cavity in an more careful manner than that described in his letter in RITISH MEDICAL JOURNAL, March 26th, 1904. In one of two cases one aspiration sufficed; in the second two were red. He also refers to a third case in the following :

ontrast with these. I remember one case in which, while I was supering the process of aspiration, the aspirator was accidentally de- from the tube, and there was a sudden rush of air into the . The patient was not under my care, and I had not the oppor- of watching the progress of the case; but I heard that the case n unfavourable course, and in the course of some months the died.

ve no doubt that if Dr. Palm had followed up and de- ed his method he would have made something out of it, shall leave it to others to estimate the amount of credit ich he is entitled after allowing his method to sleep for en years, and then only waking up on the appearance of cture; and I think it will take a good deal of ingenuity . Palm's part to prove that what I have described as my ethod of treating serous effusions is merely a replica of I am, etc.,

pool, April 23rd. JAMES BARR.

PUERPERAL SEPSIS.

—I venture to suggest that we should hear less about eral sepsis if every puerperal patient were given a dose m on the conclusion of labour, and, at the same time, head of the bedstead were raised. No doubt the s system plays an important part in determining the of septic matter. A nervous patient is more inclined to than a phlegmatic individual. The medical attendant insure proper contraction of the womb by manipulat- at organ through the abdominal wall for twenty es after labour is concluded, and also bring about t drainage by causing the patient to lie on a slightly d plane. I remember a case where the nurse reported lochia, which smelt badly on syringing. I imme- ordered the head of the bed to be raised, with the that the lochia increased in amount and the odour e normal. The labour had been satisfactorily con- It was the after-drainage that was at fault; the contained a pool.—I am, etc.

emouth. FREDERIC VICARS, M.D.Brux.

—Probably there is no disease that gives so much to the general practitioner as puerperal sepsis. He the case, and after all is finished he feels pleased mself and the relatives of the patient are all jubilant armed. This continues till the third or fourth day, igors and a rise of temperature perhaps come on. is the cause? Septic poisoning! Why? Cases of re often put down to various causes such as influenza, ver, typhoid, but in the end they are septic poisoning. eat question for us all is where do the septic germs rom, and how do they get into the uterus? I believe ny of these germs exist in the hair and external parts mother. Acting on this supposition I have rendered arts aseptic and with the best results, that is, I have a temperature for two years, including several opera- es (cephalotripsy, etc.). Of course the practitioner's are rendered perfectly aseptic; I then instruct the o wash the external genitals with thoroughly germi- ap and a nail brush for the surrounding parts. This cut off all the hair about the part, and with cotton sh the labia and all round with a solution of sublimate, o. If the head is not too far down I douch with sub- in 3,000. After the child is born I always wash the parts with sublimate solution, and for a week after- he nurse uses a douch of sublimate, 1 in 4,000, at first day and after the first three days once in 24 hours. I at in this way sepsis should become rarer. Amongst the rticularly, the women are very careless and neglect to e genitals. Discharges give a grand hunting ground microbes. If these are hanging round the parts how r the examining finger, itself perfectly aseptic, to em up to the uterus, or at least into the vagina. Once here does it stop?—I am, etc.,

April 26th. HENRY BARRETT, M.B.

PAPILLIFEROUS CYSTS FROM SUDORIPAROUS GLANDS.

SIR,—I have just seen Mr. Betham Robinson's note on Papilliferous Cyst from an Axillary Sudoriparous Gland in the BRITISH MEDICAL JOURNAL of April 9th. He refers to the rarity of such growth and quotes Unna "that cysts of the sudoriparous glands are only known of the duct and not of the coil." In my paper on Hydrocystoma in the *British Journal of Dermatology*, No. 80, vol. vii, 1895, Mr. Robinson will find a photomicrograph showing an intracystic growth in a sweat cyst, and others showing that Unna's statement is not correct. In this I have been confirmed by Dr. Alex. Morton of Glasgow, Dr. Colcott Fox of London, and Dr. Thibierge of Paris, all of whom have seen my sections. In fact hydrocystoma is explicable as a disease of the coil rather than of the duct.—I am, etc.,

Hamilton, April 23rd. JAMES ADAM.

THE LEISHMAN-DONOVAN BODY FOUND AT OMDURMAN.

SIR,—I have just received a telegram from Professor Andrew Balfour, of Khartoum, informing us that the new parasite of man, *Leishmania donovania*, has been discovered by Dr. Sheffield Neave at Omdurman. Numerous researches now being made are showing the great importance of this organism, and the fact of its discovery in Egypt will be sure to be of interest to many of your readers.

I must add also that Dr. Bentley, of Assam, has kindly sent me preparations of smears from the spleen of cases of kala-azar. These smears verify his statement that the parasite occurs also in that disease. The organism appears to be a tissue parasite rather than one belonging specially to the blood. I venture, therefore, strongly to suggest the search for it, or similar parasites, in many other diseases such as the exanthemata, of which the causative agent is not at present definitely known.—I am, etc.,

Liverpool, April 15th. RONALD ROSS.

THE STATE REGISTRATION OF NURSES.

SIR,—Those who consider that nursing reforms are urgently needed in this country and who are surprised that those reforms are being opposed, will be interested and amused to read Mr. Sydney Holland's letter in the BRITISH MEDICAL JOURNAL of April 16th. Interested to find that he evidently recognizes the advisability of making some explanation to the medical profession for the opposition of himself and his friends, and amused to observe how fragile his explanations are. Permit me briefly to summarize these:

1. "The matrons of almost all the leading training schools for nurses . . . will not serve on any such council" as the General Nursing Council. The Bill before Parliament provides that two matrons of general hospitals in London, two matrons of provincial hospitals, and one matron of a Scottish and one matron of an Irish hospital should serve on the proposed council. I regret to be obliged to point out to Mr. Holland that, on a council of some thirty persons all told, it would be a physical impossibility for "the matrons of almost all the leading training schools" to serve—even if they desired to do so. On the other hand, I can confidently inform him that there are far more than a sufficient number of such matrons who would be able and willing to take the seats which would be available for them on the governing body of their profession. I have no doubt note will be taken of the fact—which Mr. Holland must of course have full authority to state—that when Parliament creates a Nursing Council the matrons of the hospitals he specifies will refuse to serve thereon.

2. That "a nurse's certificate shows that she has gone satisfactorily through a recognized training school" and that therefore a nursing register is not needed. I assume that Mr. Sydney Holland cannot be entirely ignorant of the subject upon which he speaks so dogmatically. He must, therefore, be aware that a "nurse's certificate" in thousands of cases at present proves nothing at all. There are some 300 hospitals in this country which grant such certificates after one year or less, after two years or more, to those nurses who have worked in their wards. Such hospitals vary from 800 beds to 40 beds, or perhaps less—and the amount of the nurse's training as represented by her certificate, is at least equally variable. One cardinal reform which is hoped for is that every registered nurse shall have passed through a uniform curriculum of education, and shall have reached a minimum standard of efficiency in the responsible duties she may be

called upon to fulfil when her training is ended. On the other hand, Mr. Holland must be aware that numbers of women are now at work as nurses who are a disgrace to the whole calling and a danger to the public. They produce certificates—how obtained is immaterial—and by means of these gain admission into private houses in the most trusted capacity possible. At longer or shorter intervals, they appear in the police-courts, but on their release from prison are again able on the strength of the certificates, which Mr. Holland considers so infallible, to resume their career with its exceptional opportunities for safe and easy crime. It is fair to ask what single step have Mr. Holland and his friends taken in the last sixteen years to protect the public against such criminals posing as nurses? And if they have done nothing themselves, by what authority, or with what justification, do they attempt to prevent others from obtaining reforms which are so obviously and so urgently needed?

3. "One of the dangers of registration is the preaching of this idea(!)—the making of the technical qualifications of paramount importance." It is somewhat difficult to deal with an argument which is transparently futile. It is certainly open to question whether "the preaching of an idea" could cause the slightest danger to any one. Does Mr. Holland imagine that a register could deal with anything but "technical qualifications," or does he consider that such qualifications in a nurse are of no importance at all?

4. "That every time any member of the public was disappointed with a nurse the cry would be raised, 'Give me never again a registered nurse,' and this would reflect to the detriment of the really good up-to-date nurses." It is at least satisfactory to find that Mr. Holland acknowledges that "the really good nurses" will hereafter be registered. But why this sudden pity for the public and for really good nurses? Has it never occurred to Mr. Holland how much more detrimental to the latter are the reflections now caused by the frequent spectacle of so-called "nurses" being condemned for criminal offences?

5. That those who are "for registration are only a few matrons and a few honorary officers of the Society for the State Registration of Nurses." I regret that there is only one word which fitly characterizes this assertion. Mr. Holland has no possible means of knowing all the support this movement has now received. Ignorance in some men—and those not the least honoured—induces a certain degree of modest diffidence; in others, of a different stamp, it may take the form of sublime self-confidence which obscures the truth. I venture to believe, from some knowledge of the facts, not only that the Nurses' Bill has received most wide and influential backing in Parliament, but that it has a very wide measure of support behind it both from the medical profession, the nurses—who are, I observe, ignored by Mr. Holland—and the public, who, I may remind him, employ the nurses, and will, whatever Mr. Holland wishes, have the final word to say in this matter. There is only one other point upon which I need at present touch. It would be interesting if Mr. Holland would reply to one simple question. If he believes that he and his friends are right in opposing nursing reforms, why do they not employ all the influence they can bring to bear to obtain the suggested inquiry by a Select Committee of the House of Commons into the whole question, and thus obtain the immense advantage of publicly explaining upon oath their objections to the registration of nurses?—I am, etc.,

London, W., April 18th. BEDFORD FENWICK.

*** We must appeal to correspondents who may be disposed to write on this subject to pay some consideration to space.

TESTING THE EYESIGHT OF A NATION.

SIR,—The circular of the Optical Society, which is quoted in the BRITISH MEDICAL JOURNAL of April 16th, states:

"The public, moreover, may rest assured, when they visit an optician holding an eyesight testing diploma of the company, that not only will they be efficiently treated as to the application of glasses for the particular defect from which they may be suffering, but also—and this is of equally great importance—may be certain that *they will be advised to consult the ophthalmic surgeon if the case presents any indications of some great trouble which the optician, no matter how great his technical skill may be, is not qualified to treat.*" The italics are mine.

A case bearing on this came under my notice a few days ago. I was consulted by a City gentleman for defective vision, especially marked in the right eye. On examination I found that vision in this eye was reduced to fingers at ½ metre. Further examination disclosed some patches of choroidi in the neighbourhood of the macula, floating opacities in th vitreous, and some opacities in the lens. He told me ha when he had first noticed the vision of the eye failing he consulted a well-known optician in the city, who had "m full examination" of his eyes, diagnosed syphilis as the c of the trouble, told him the case was incurable, and of c prescribed glasses. He did not suggest that he should medical advice.

Now that we have the Midwives Bill passed into la doubt we shall soon hear of a demand for the legal r tration of these "diplomates" of the Spectacle Ma Company.—I am, etc.,

London, W., April 16th. JOHN P. HENRY, M.D., B.Ch.Du

SIR,—I observe in the BRITISH MEDICAL JOURNAL of A 16th, p. 926, that you take notice of the new diploma w the Worshipful Company of Spectacle Makers has decid grant for proficiency in eyesight testing. I think that t persistent attempts to encroach on the domain of the me man ought certainly to receive some check. The aim ambition of these self-styled eyesight specialists is that shall be recognized by the public as persons who are pro qualified to prescribe and supply spectacles, and I fear th is only the medical fraternity who are capable of appreci the extent of their presumptuousness. The safeguard w this new diploma is said to contain about referring the seri cases to the oculist is no safeguard at all, since nothing s of a medical curriculum, followed by many years' clinica perience, can teach the difference between a morbid a healthy eye, especially in those cases where for the time b the central vision is perfect or nearly so. I sincerely h that the Medico-Political Committee will find some mean place the correct limitations to the sphere of the jewe optician, and to put some control over the misleading st ments by which he lures the purchaser to his wares.—I etc.,

April 25th. ASSOCIAT

ESPERANTO.

SIR,—In your leading article on an International Lang (February 6th) you say that Esperanto is as hard to learn "real" language. So far is this from being the case tha acquisition is more a recreation than a labour. You also that, even when learnt, one has but acquired a body witho soul, a language without a history or a literature.

It has a history. Its history is the story of the lifel labour of its author, Dr. Zamenhof, a member of our own p fession, and of his patient efforts to overcome the opposit and natural indifference of mankind to any thing that savo of innovation. A literature will surely come in time: language was ever born with one ready made. It has alre commenced.

Briefly, Esperanto consists of a relatively small numbe unchangeable root-words, the meanings of which can extended by means of thirty-three affixes, so that each r word is, in itself, a small vocabulary. This power tha possesses of creating new words, drawn entirely from its c resources, and in which it resembles the old English (An Saxon) language, should appeal strongly to all Engli speaking peoples. The majority of these roots are deri from the Latin; this fact ought to recommend it to scientific world.

The grammar can be mastered in half an hour, and all ru are without exceptions! Being a phonetic language, it is easy to speak as to read and write; and it has been pro repeatedly by actual practice that there is no variance in pronunciation by persons of different nationalities.

For obvious reasons no modern tongue could ever hope become international, and nowadays we are much too bu to acquire a colloquial knowledge of Latin. An easily-lea neutral language alone has any chance of success. Such language is Esperanto.

As a member of our profession, Dr. Zamenhof has so claim on our sympathy and support in his good work for t benefit of the human race. I say good work, for if Esperan is once adopted as a second language for all nations—we not presume to displace national tongues—it would do mo to aid the cause of universal peace than numberless Pea Societies and Hague Tribunals.

If you, Sir, would only give your invaluable aid you wou earn the gratitude of the Esperanto world, and most probab

d induce many members of the Association to join our
s.

teen months ago Esperanto was almost unknown in
and, although it had then made much headway all over
Continent. To-day there are many groups in various
of the country and the London Esperanto Club publishes
Esperantist (3s. per annum). Among the contributors to
monthly magazine we find the name of Sir William
say, himself an enthusiastic Esperantist. But the most
nty argument in favour of Esperanto from our point of
is the *Internacia Scienca Revuo*. Hitherto it has been
st impossible for us to keep pace with the times without
ding knowledge of English, French, and German, and
and more invaluable works are yearly given to the world
alian and Russian. Now, however, thanks to this ad-
ble monthly review, we are able to read in Esperanto a
osis of the doings of the previous month all over the
. Here we indeed realize the practical value of Esperanto,
hen we bear in mind that it is a language easily learned
d moments from an eighteenpenny textbook and a dic-
ry costing half a crown, it is surely a matter worthy of
than passing comment.

nderstand that the Librarian of the London Esperanto
41, Outer Temple, will gladly give further information
e language which has provided me here in quiet Trinidad
an interest both agreeable and profitable. In conclusion,
mention that a sample copy of this *Internacia Scienca*
can be had for the sum of sixpence.—I am, etc.,

dad, April 5th. A. M.

THE DIMINISHING BIRTH-RATE.

—I have read with much interest the letters on "The
nishing Birth-Rate" which have recently appeared in
RITISH MEDICAL JOURNAL. Although it is idle to con-
he reasons of this condition, still we need not refrain
liscussion on that account. The point to which I would
ttention is the, perhaps, minor one of attaching a
to the majority of English wives and mothers. I
e that since the diminishing birth-rate is so appreci-
it must be in consequence of the attitude of the
ty, who fail to "produce" as many children as is
ally possible. I should think that those unnatural
who "shirk motherhood" because they prefer their
leasure might be wiser to continue doing so than to be
d by Mr. Roosevelt's words of wisdom, unless their
idea of the use of life were altered. If those who do
small families, as wisely as they know how, consider it
rable to have large families, might not the stronger
e them credit for a good motive instead of using the
"unblushing" and "criminal" to describe an act
ought not to be forced upon many hardworking women
upper middle classes? It is said that we should not
re with Nature, but although it is natural for disease to
humanity, it is not considered right to let Nature have
y there.

wife of a country practitioner knows very well how an
of £350 goes. Rent, taxes, travelling, insurance,
t for £150. Living for £100, dress for £50, wages for
nd there is not much of a margin for provision for
ny children as are physically possible. Such
cts are not hopeful for the education of the
r three children who may appear. Are we to
the mothers who say, "We wish to do our best for
ildren, to give them a good education and start
' and to praise those whose dragged-up family of nine
rred entirely to "The Lord's will" for its existence? I
mean to insinuate that all large families are a failure
matter of citizenship, but a large family is a luxury
nnot be thoroughly appreciated by the professional
. Then there is a more selfish view to be taken. The
f the community is inseparable from the good of the
ual, and may it not be right that modern women should
to keep always ahead of their children; to be their
, philosopher and friend" when the leading strings
behind—a progress which is hardly possible with a
-increasing family? One of your correspondents gives
es which ought to appeal to his softer feelings for the
sex who bear so much of the burden of life. The cases
s. B." and "Mrs. C." are indeed pitiful, and I am sure
N. F. R." treated them with all the kindness which I
octors always exercise, although he uses two very
words at the end of his letter to describe their wishes.
etc.,

h. AESCULAPIA.

THE METRIC SYSTEM.

SIR,—If those who dispense their own medicines will adopt the metric system they will not give it up again. The gram is sufficiently large for us to regard it in the concrete, whereas a grain is a mathematical abstraction. It is easier to calculate in 1, 2, 3, etc., grams than in halves and quarters of a drachm, or in twelfths—meaning 5 gr.—or in eighths—meaning $7\frac{1}{2}$ gr. Then the fluid measure, the cubic centimetre, is the exact equivalent, whereas the ounce is $437\frac{1}{2}$ gr. and the fluid ounce is 480 drops. We remember a gram is 15 gr., and the transition to the drachm is easy. We must, however, in writing put grm. and gr. plainly.

The objection as to the point (.), which might be misplaced in a hurry, has force. Let the grain (apothecaries' weight) be made exactly the fifteenth part of the gram. For opium and the alkaloids, etc., where doses are very minute, the grain or minim might be retained, and we should still have liq. arsenicalis ℿiij or strychnine gr. $\frac{1}{30}$.

The Pharmaceutical Committee of the General Medical Council would have power, I suppose, to authorize this.

There is no reason for delay in using bottles divided in tenths, 20 c.cm. or 10 c.cm. to the dose, corresponding with tablespoons and dessertspoons. An inquiry I have addressed to a manufacturer of glass bottles elicits the following: "We shall be glad to make the necessary moulds and plates as soon as there is the slightest prospect of selling bottles from them."—I am, etc.,

London, S.W., April 21st. GEORGE CRICHTON, M.D.

ROYAL ARMY AND NAVY MEDICAL SERVICES.

ROYAL NAVY MEDICAL SERVICE

THE following appointments have been made at the Admiralty: ARTHUR E. KELSEY, M.B., B.A., Staff Surgeon, to the *Melampus*, temporary, April 20th; CHARLES M. WOOD, Surgeon, to the *Pembroke*, May 6th; EDWARD G. P. CAUSTON, B.A., Surgeon, to the *Vivid*, May 6th; PENRY G. WILLIAMS, Surgeon, to the *Impregnable*, for the *Inconstant*, April 26th; CHARLES M. BEADNELL, Staff Surgeon, to the *Erebus*, April 30th.

The appointments of Surgeon C. M. WOODS to the *Vivid* and of Surgeon E. P. G. CAUSTON to the *Pembroke* have been cancelled.

ARMY MEDICAL STAFF.

LIEUTENANT-COLONEL JOHN STANNARD MACADAM, late of the Army Medical Staff, died at Southsea on April 23rd, at the age of 66. He was the youngest son of the late Philip MacAdam, of Blackwater, co. Clare, and entered the service as Assistant-Surgeon, March 31st, 1862; was made Surgeon, March 1st, 1873; Surgeon-Major, April 28th, 1876; granted the rank of Lieutenant-Colonel, March 31st, 1882; and appointed Brigade-Surgeon-Lieutenant-Colonel, July 26th, 1887. He retired August 3rd, 1892. He had no war record in the Army Lists.

Lieutenant-Colonel JOHN HENDERSON WHITTAKER, late Army Medical Department, died at Dublin on April 24th. His commissions were thus dated: Assistant-Surgeon, October 3rd, 1857; Surgeon, November 23rd, 1872: Surgeon-Major, March 1st, 1873; Brigade-Surgeon, April 20th, 1883; and Honorary Deputy Surgeon-General on retirement, July 6th, 1884. He took part in the Fenian Raid into Canada in 1870 as Assistant-Surgeon, 69th Regiment, receiving a medal with clasp. He was Surgeon to the Royal Hibernian Military School in Dublin, to which he was appointed in 1885, relinquishing that position in 1901.

ROYAL ARMY MEDICAL CORPS.

LIEUTENANTS R. M. RANKING, M.B., and F. H. NOKE, M.B., from the Seconded List, to be Lieutenants, April 5th.

Lieutenant G. W. G. HUGHES is seconded for service with the Egyptian Army, April 7th.

Lieutenant G. W. SMITH, M.B., resigns his commission, April 23rd. He joined the department, September 1st, 1902.

Captain HENRY EVERED HAYMES died on March 15th, in the province of Bahr-el-Ghazal, Soudan, aged 32. He joined the R.A.M.C. as Lieutenant January 28th, 1899, and was made Captain January 28th, 1902. He was employed with the Egyptian army from September, 1899, and was seriously wounded in action while serving in the Soudan. He had been awarded the 4th class of the order of the Medijidie.

EXCHANGES.

The charge for inserting notices respecting Exchanges in the Army Medical Department is 3s. 6d., which should be forwarded in stamps or post-office order with the notice, not later than Wednesday morning, in order to ensure insertion in the current issue.

A MAJOR, recently arrived home, is willing to exchange to either South Africa or Egypt in about four months' time for either whole or portion of tour. Please state terms to Medicus, c.o. Holt and Co., 3, Whitehall Place, London.

ARMY MEDICAL RESERVE.

SURGEON-CAPTAIN D. TODD is promoted to be Surgeon-Major, April 13th.

MILITIA.

SURGEON-LIEUTENANT-COLONEL A. M. ADAMS, 3rd Battalion the Cameronians (Scottish Rifles), is retired on account of ill-health, April 23rd; he is granted the honorary rank of Surgeon-Colonel, and retains his uniform.

CHANGES OF STATION.

THE following changes of station amongst the officers of the Royal Army Medical Corps have been officially reported to have taken place during the last two months:

		From.	To.
Lt.-Col.	W. T. Johnston, M.D.	Bengal	Dublin.
,,	C. Seymour, M.B.	Bombay	Southampton.
,,	D. O'Sullivan	Belfast	Punjab.
,,	W. Heffernan	Templemore	Limerick.
,,	W. D. A. Cowen	Bengal	Alderney.
,,	H. L. E. White	Punjab	Woolwich.
,,	J. L. Hall	Shoeburyness	Bombay.
,,	H. K. Allport, M.D.	Madras	Maidstone.
,,	A. S. Rose, M.D.	Maryhill	Bengal.
,,	J. Battersby, M.B.	Dublin	Curragh.
,,	R. C. K. Laffan	,,	Queenstown.
,,	E. O. Wight	Devonport.	Hounslow.
,,	Sir A. A. Brooke-Pechell, Bart., M.B.	Dublin	Belfast.
,,	C. R. Tyrrell	Dover	Shorncliffe.
,,	W. B. Thompson	Madras	Portsmouth.
,,	W. G. Macpherson, M.B., C.M.G.	North China	Jap. Army.
,,	R. R. H. Moore, M.D.	Bengal	Aldershot.
Major	G. B. Russell, M.B.	Templemore	Tipperary
,,	A. E. C. Spence, M.B.	Belfast	Londonderry.
,,	L. R. Colledge	Newport	Devonport.
,,	W. T. Swan, M.B.	Portsmouth	Queenstown.
,,	J. S. Green, M.B.	Bengal	Dublin.
,,	M. O'Halloran, M.D.	Dublin	Curragh.
,,	H. Cocks, M.B.	,,	Cork.
,,	H. M. Adamson, M.B.	Devonport	Bodmin.
,,	H. H. Brown, M.B.	York	Sheffield.
,,	J. Will, M.B.	Portsmouth	East Africa.
,,	C. J. MacDonald, M.D.	Malta	Crete.
,,	D. M. O'Callaghan	Colchester	Bedford.
,,	F. R. Newland, M.B.	Curragh	Bombay.
,,	G. Scott, M.B.	Fort George	Edinburgh.
,,	T. Browning	Dublin	Mullingar.
,,	J. J. C. Watson, M.D., C.I.E.	Maryhill	Bermuda.
,,	W. S. Dowman	Shorncliffe	Brighton.
,,	R. Caldwell	Aldershot	Bengal.
,,	O. R. A. Julian, C.M.G.	Home District	Chatham.
,,	S. Macdonald, M.B.	Bengal	Woolwich.
,,	A. O. C. Watson, M.B.	Punjab	Edinburgh.
,,	J. C. Morgan	D. York's Sch.	Bengal.
,,	C. A. Young	Punjab	Dublin.
,,	B. J. Inniss	Bengal	Cork.
,,	W. S. Boles, M.B.	Dublin	Dundalk.
,,	A. P. Blenkinsop	Brighton	Bengal.
,,	V. H. W. Davoren	Madras	Devonport.
,,	J. Girvin	Cyprus	Home District.
,,	A. J. Luther	Aldershot	Bombay.
,,	A. W. Bewley	Hong Kong	Dublin.
,,	H. E. Winter	Crownhill	Cardiff.
,,	R. W. H. Jackson, M.B.	Punjab	Dublin.
,,	G. A. T. Bray	Cardiff	Crownhill.
,,	B. Forde, M.B.	Bengal	Templemore.
,,	W. A. S. J. Graham	Egypt	Chatham.
,,	C. Dalton	—	Dublin.
,,	W. E. Hardy	S. Africa	Dover.
,,	J. E. Brogden	Netley	Gosport.
,,	T. J. Lenehan, M.B.	Kildare	Dublin.
,,	F. M'Dowell	Madras	Punjab.
,,	I. A. O. MacCarthy	Bombay	Somaliland.
,,	N. Tyacke	Bengal	Punjab.
Captain	J. G. M'Naught, M.D.	Perth	Edinburgh.
,,	H. W. H. O'Reilly, M.B.	Limerick	Dublin.
,,	W. J. Taylor, M.B.	Home District	Bombay.
,,	F. R. Buswell	Bombay	Madras.
,,	J. B. Anderson	Dover	Shorncliffe.
,,	A. E. Master, M.B.	Devonport	Bristol.
,,	G. Dansey-Browning	Alton	Egyptn. Army.
,,	K. B. Barnett, M.B.	Aldershot	Alton.
,,	J. P. Silver, M.B.	Devonport	Pembroke Dk.
,,	D. Lawson	Portsmouth	Netley.
,,	S. J. C. P. Perry	Dublin	West Africa.
,,	R. J. Blackham	Punjab	Newry.
,,	J. Grech	Dublin	Bengal.
,,	H. Hewetson	Madras	Aldershot.
,,	C. F. Wanhill	Netley	Bermuda.
,,	W. E. Hudleston	Punjab	R.A.M. Coll.
,,	L. Addams-Williams	Devonport	Exeter.
,,	J. M'D. M'Carthy, M.B.	Bengal	Chester.
,,	A. W. N. Bowen	,,	,,
,,	J. G. Berne	Aldershot	Birr.
,,	W. P. Gwynn	Madras	Somaliland.
,,	S. de C. O'Grady, M.B.	Bengal	,,
,,	A. H. O. Young	,,	Chester.
,,	S. O. Hall	Madras	Somaliland.
,,	J. S. Gallie	Dublin	Aldershot.
,,	E. B. Knox, M.D.	Madras	Punjab.
,,	B. F. Wingate	,,	Bengal.
,,	W. Bennett, M.B.	Bengal	Somaliland.
,,	A. E. Hamerton	Punjab	,,
,,	F. M'Lennan, M.B.	Bengal	,,
,,	J. H. Robinson	Punjab	,,
,,	FitzG. G. Fitzgerald	Ceylon	Dublin.
,,	A. R. Greenwood	Madras	Somaliland.
,,	W. M. Power	Bombay	,,
,,	C. D. Myles, M.B.	Dublin	Bengal.
,,	E. W. Powell	Jamaica	Cork.
,,	O. Challis	—	Aldershot.
,,	A. J. Hull	—	Bengal.
Lieutenant	D. L. Harding	Dublin	Madras.
,,	L. Cotterill	Madras	Somaliland.
,,	W. F. Tyndale, M.B., C.M.G.	Hounslow	Bengal.
,,	W. B. Taylor	Aldershot	Madras.
,,	H. J. Crossley	Dover	,,
,,	R. L. V. Foster, M.B.	Woolwich	,,

		From.	To.
Lieutenant	J. G. Bell, M.B.	Aldershot	Madras.
,,	M. G. Winder	Curragh	Dublin.
,,	T. S. Coates, M.B.	Netley	Madras.
,,	A. E. B. Wood, M.B.	,,	Bengal.
,,	J. C. G. Carmichael, M.B.	,,	Madras.
,,	R. H. Bridges	Aldershot	,,
,,	J. A. W. Webster	,,	,,
,,	R. C. Wilmot	,,	,,
,,	C. W. Holden	Curragh	West Afri
,,	H. B. Kelly, M.B.	Galway	Madras.
,,	E. M. Pennefather	Curragh	,,
,,	G. H. J. Brown, M.B.	Netley	,,
,,	B. H. V. Dunbar, M.D.	,,	Bombay.
,,	D. Ahern	Curragh	,,
,,	D. G. Carmichael, M.B.	Netley	Madras.
,,	J. M. M. Crawford	Woolwich	Punjab.
,,	C. Bramhall	,,	Bombay.
,,	T. E. Harty	,,	Bengal.
,,	H. H. Swanzy	,,	,,
,,	H. T. Stack, M.B.	,,	,,

The undermentioned Lieutenants, appointed on probation, Jan 31st, 1903, are stationed as follows: W. F. Ellis, Woolwich; F. W. W. Da M.B., Aldershot; J. H. Duguid, M.B., Aldershot: G. W. G. Hughes, Egyptian army. The following, appointed August 31st, 1903, are pl thus: A. C. H. Gray, M.B., Uganda: D. P. Watson, M.B., and T. S. ding, Netley; J. E. Powell, Woolwich; F. M. M. Ommanney, Alder O. Ievers, M.B., and R. H. MacNicol, M.B., Curragh; H. H. J. Fawcet S.; L. Pallant, Netley; N. D'E. Harvey, M.B., Curragh; C. R. Bra Netley; S. E. Lewis, M.B., and G. S. Kempthorne, Aldershot; McEntire, M.B., Curragh: F. M. G. Tulloch, Royal Army Medical Co P. J. Hanafin, Curragh; J. D. Richmond, M.B., Aldershot; E. M. ville, M.B., Woolwich; M. C. Wetherell, M.B., Netley; H. C. Hild Aldershot; G. S. Mackay, M.B., Netley; W. MacD. MacDowall, Alder R. T. Collins, Netley.

Lieutenant-Colonel J. Hickman, retired pay, has been place medical charge of troops at Gravesend.

Lieutenant-Colonel W. Babtie, M.B., V.C., C.M.G., D. Bruce, M.B. L. E. Anderson, have been selected for increased pay under Article the Royal Warrant.

INDIAN MEDICAL SERVICE.

LIEUTENANT-COLONEL R. MACRAE, M.B., Bengal Establishment, off ing Civil Surgeon of Hazaribagh, is appointed to officiate as Admini tive Medical Officer and Sanitary Commissioner, Central Provinces.

Lieutenant-Colonel W. G. H. HENDERSON, Bombay Establishme appointed Honorary Surgeon on the personal staff of the Gove General of India.

Colonel W. R. BROWNE, M.D., Madras Establishment, is appoint officiate as Surgeon-General with the Governor of Madras.

Colonel A. M. BRANFOOT, M.D., C.I.E., late of the Madras Estab ment, has been appointed to succeed Sir William Hooper as Presid the Medical Board at the India Office.

Deputy Surgeon-General GEORGE COCHÊT CHESNAYE, late Be Establishment, died on April 12th at Bournemouth in his 67th Appointed Assistant Surgeon, February 10th, 1859, he became Surg Colonel, January 14th, 1889, and retired from the service in 1894. 1859 to 1864 he was attached to the 3rd Bengal European Light Ca and to two troops of Bengal Horse Artillery. During this perio rendered excellent service at Mian Mir and Amritsar in the chole demic of 1861, for which he received the high approbation of H.R.H Duke of Cambridge and H.E. the Commander-in-Chief in India. His record is as follows:—Hazara campaign, 1868 (medal with clasp); L expedition, 1871-2 (mentioned in dispatches, clasp); Afghan war, 187 as Principal Medical Officer, and in charge of the Staff 1st Brig 1st Division, being present at the capture of Ali Musjid, the expediti Sherpore in December, 1879, the action of Saidabad, the operation Kohistan, the march from Kabul to the relief of Kandahar, and battle on September 1st, on the following day being placed in char all the Native wounded (mentioned in dispatches, medal with t clasps, and bronze decoration); Maori expedition as Principal Me Officer. He was in receipt of a Distinguished Service pension, gra him in 1894.

Lieutenant-Colonel EDWARD FERRAND, M.D., Madras Establishm died at Peshawar, on March 9th, aged 53. He was appointed Assis Surgeon, September 30th, 1875, and was made Brigade-Surgeon-Lieute Colonel, September 30th, 1895. He was with the Burmese expeditio 1886-9 (medal with clasp); in the campaign on the North-West Front India in 1897-8, including the operations on the Samana and in Kurram Valley during August and September, 1897, and at the reli Gulistan (medal with two clasps); and with the Tirah expedition in (clasp).

IMPERIAL YEOMANRY.

SURGEON-LIEUTENANT R. M. WILSON, M.D., Derbyshire Regiment, t Surgeon-Captain, April 23rd.

EDWARD C. THOMPSON, M.B., to be Surgeon-Major in the Nort Ireland Regiment, April 16th.

ROYAL GARRISON ARTILLERY (VOLUNTEERS).

SURGEON-MAJOR A. K. CROSSFIELD, 2nd Devonshire, is promoted Surgeon-Lieutenant-Colonel, April 9th.

Mr. PAUL J. O'SULLIVAN to be Surgeon-Lieutenant, April 9th.

VOLUNTEER RIFLES.

LIEUTENANT I. G. THOMAS, 3rd Volunteer Battalion the Welsh Regi resigns his commission, and is appointed Surgeon-Lieutenant, April

Surgeon-Lieutenant L. J. BLANDFORD, M.B., 1st Volunteer Battalion Durham Light Infantry, to be Surgeon-Captain, April 16th.

Brigade Surgeon-Lieutenant-Colonel W. H. BULL, 1st Bucks, is seco whilst holding the appointment of Senior Medical Officer of the H Counties Volunteer Infantry Brigade, April 23rd.

Mr. JOHN C. BAKER to be Surgeon-Lieutenant in the 1st Bucks, A 23rd.

Mr. JAMES WOOD and Mr. FRANK ROBINSON to be Surgeon-Lieuten in the 2nd Volunteer Battalion the Loyal North Lancashire Regim April 23rd.

rgeon-Lieutenant C. R. KEYSER, 16th Middlesex (London Rifles), to urgeon-Captain, April 23rd.

ROYAL ARMY MEDICAL CORPS (VOLUNTEERS).

following is substituted for the notice which appeared in the *London tte* of April 15th: Major V. MATTHEWS, the London Companies, to be tenant-Colonel, and to command, under Paragraph 55A Volunteer lations, April 9th.

ROYAL ARMY MEDICAL CORPS (MILITIA).

TENANT R. LE G. WORSLEY resigns his commission, April 16th.
eutenant H. V. CRASTER, 2nd South-Eastern District Company, ns his commission, April 23rd.

ROYAL ENGINEERS (VOLUNTEERS).

EON-LIEUTENANT E. S. CARDELL, 1st Sussex, resigns his commission, l 16th.

CHANNEL ISLANDS MILITIA.

CHARLES A. BOIS, to be Surgeon-Lieutenant in the Royal Jersey lery, March 16th; Surgeon-Captain F. N. GAUDIN, 2nd or East alion, to be Surgeon-Major, March 19th; Surgeon-Major P. B. TLIF, from Royal Jersey Artillery, to be Surgeon-Major, 3rd or South alion (Medical Corps Section), from July 27th, 1901; Surgeon-Captain STAMBERG, M.D., from 2nd or East Battalion Royal Jersey Light ntry, to be Surgeon-Captain 3rd or South Battalion (Medical Corps on), from February 21st, 1903.

THE PARKES MEMORIAL PRIZE.

Parkes Memorial Prize, consisting of seventy-five guineas and a ze medal, which is awarded every third year to the writer of the essay on a subject connected with hygiene, will be awarded next in The competition is open to medical officers of the Army, Navy, Indian Medical Services of executive rank on full pay, with the otion of professors and assistant professors of the Royal Army cal College during their term of office. The subject of the next is On Sanitary Requirements of Naval and Military Units in Peace War, with suggestions for Complete Schemes of Sanitary Organiza- suitable for both the Navy and Army. Essays must be sent to the tary of the Parkes Memorial Fund, Royal Army Medical College, hination Hall, Victoria Embankment, W.C., on or before December 1906. Each essay must have a motto, and must be accompanied a sealed envelope bearing the same motto and containing the name e competitor.

BARRACK-ROOM EQUIPMENT.

E OF THE RANK AND FILE" of His Majesty's army, who does not belong he medical department, writing from Woolwich, wishes to draw the ention of the medical profession in general, and of R.A.M.C. officers particular, to the following matter: Barrack rooms are only supplied h an eight-gallon zinc tub intended for scouring purposes, two tea s, and two ration tins. The zinc bath is usually, however, employed refuse tub and is not available for scouring purposes, especially on upper floors of barracks. The result is that the ration tins used drawing meat rations and intended for serving up vegetables are d for scouring purposes. The tea buckets are also used for the same pose, and are mopped out and cleansed with the same implement s used for mopping out the urine tubs. The writer "knows nothing ut germs and their kin," but considers that these practices, which the fault, not of the men, but of the lack of equipment, must foster ase. They are also disgusting and not, he believes, confined to olwich.

MEDICO-LEGAL AND MEDICO-ETHICAL.

SMALL-POX IN STOCKPORT.

outbreak of small-pox at Stockport has given rise to certain very us proceedings on the part of the Stockport Sanitary Committee. pears that on April 11th this body took proceedings against Ernest ard, the Workhouse Master of the Northwich Union, and Dr. Gough, Medical Officer of the Northwich Union, "for that they did on ary 13th, having charge of one, James Foy, who was then suffering a dangerous infectious disease, unlawfully expose the said James ithout proper precaution against the spread of such disease in a n place, to wit, the borough of Stockport." It appeared that the n question was a pauper who had been discharged from the North- Workhouse. He was subsequently found in a Stockport lodging- suffering from small-pox.
he outset Mr. Gordon Hewart (barrister) instructed by the Medical ce Union, who appeared for Dr. Gough, took objection to the pro- gs on the ground (*inter alia*) that the offence, if any, had been com- d at Northwich, and therefore the case was not within the juris- n of the Stockport magistrates.
r hearing the arguments and after a consultation on the bench, the man said that the magistrates considered it was very unfair that it d go forth that the Corporation of Stockport had acted arbitrarily s matter. It had been stated that the medical officer of Stockport ommunicated with the Northwich authority, and that a number of s had been forwarded, and the magistrates were therefore justified ing that the Northwich authority had had sufficient notice of legal edings. However, the magistrates upheld the objection that that had no jurisdiction in the case, and on those grounds they dis- d the summons against Mr. Pritchard and Dr. Gough.

ADVERTISEMENT OF AN UNREGISTERED PRACTITIONER IN NEWSPAPERS.

than one correspondent has drawn our attention to the full-page tisement in *Vanity Fair* and *Black and White* of Mr. Alabone and his d of curing consumption, and has asked whether no protest can de against it. To our mind the worst feature about Mr. Alabone's tisement is that it contains alleged testimonials from medical tioners, whose names, with one exception, are not given, but whose qualifications are set out in full. No doubt the publication of advertisements is a matter which mainly concerns the financial side of a newspaper, but we are informed that the managers of *Black and White* have been canvassing the medical profession for orders, offering copies at a reduced annual subscription; we should have thought, therefore, that this advertisement, which is mainly an attack upon the medical profession and its institutions, was calculated rather to deter than attract medical subscribers. Those who followed the correspondence that took place in the *Times* a few years ago and the result of Mr. Alabone's promise to disclose his methods should be able to put a correct value upon the claims he makes, but outside the medical profession comparatively few persons would interest themselves in the controversy.

QUACKERY IN BRADFORD.

ON April 21st Lewis Hirst was summoned at the Bradford City Court on two charges of having practised as a medical man without being registered.

Mr. A. Neill (instructed by the Medical Defence Union) prosecuted; Mr. Hammond defended.

Mr. Neill stated that the defendant carried on the business of a quack doctor; that he issued large quantities of bills headed "King and Co." stating that he had sixty years' experience, and that he was the oldest specialist in the world. The bill also stated that a qualified surgeon was in attendance. Persons who had visited the defendan in his "professional capacity" were called for the prosecution.

The defence amounted to a denial of all the facts.

The Stipendiary said it was a very bad case. The public were greatly indebted to the Medical Union which had prosecuted. The defendant was little else than a quack. People who required medical assistance should be protected from such men.

The defendant was fined £20 and 15s. costs on the first charge and £20 and 13s. costs on the second charge, with the alternative of one month s imprisonment in each case.

CERTIFICATE FOR WORKMAN'S COMPENSATION.

M. C. asks what is the usual fee charged for examining an injured workman, and filling up a certificate on behalf of an employer of labour who had his workmen insured against accident. The man had just been attended professionally by the certifier, so no special visit was required; the amount of compensation involved was small.

*** Five shillings is an ordinary fee to charge for filling up the certificate in these cases. The amount involved is often small, and generally the medical certificate has only to state the nature of the injury and the probable duration of the disablement.

MEDICAL ETIQUETTE.

DEVON.—C. was visiting in a village epidemic of diphtheria. X. (not a patient of C.'s) asked him to see his little boy. X. explains that he had sent for his doctor four hours ago, and has a boy dead from diphtheria in the house, and fears the second child will die. At first C. refuses to see the child as it is E.'s patient, he being the regular attendant; but, on being pressed by X., C. says he will see the case for E. He does so, and rides straight to E.'s house, two miles away, and urges E. to go at once. C. alleges that he is rude to him, and writes afterwards and accuses C. of unprofessional conduct. C. notifies the case. Was it wrong (1) to see the case as E.'s substitute in such an emergency? (2) To notify the case? Is it wrong for a medical man called in to an infectious case as a second opinion to notify the case?

*** (1) We do not see that C. could have acted otherwise. (2) He was legally bound to notify the case. The consultant called in as a second opinion to a case of notifiable disease is also responsible for its notification, but if it has been already notified by the practitioner first in attendance, it is not usual for the consultant to take any further steps.

THE FORM OF A DEDICATION.

SENEX asks the best way in which a medical man should be described in the dedication to him of a piece of music?

*** This is purely a matter of taste, but we think it should run: "Dedicated by the Composer to A. B., M.A., M.D.Oxon."

THE BIOGRAPHIC PUFF.

DR. PHINEAS ABRAHAM (London, W.) sends us a copy of the correspondence he has had with the Editor of *Land and Water Illustrated* respecting a proposal made on behalf of that paper for what is called "a photographic interview" with Dr. Abraham for publication in a special supplement of that journal. Dr. Abraham in his reply, while courteously declining the proposal, very properly points out that the editor cannot be aware that respectable members of the medical profession are not accustomed to lend themselves to anything which savours of public advertisement.

*** This is unquestionably the right attitude to take towards such proposals, which are becoming increasingly common.

HOSPITAL AND DISPENSARY MANAGEMENT.

GUY'S HOSPITAL.

THE report for the year 1903 shows that for the first time since 1884 all the wards have been brought into use, and that the institution ministered to a greater number of sufferers, both in-patients and out-patients, than in any previous year. The beds in occupation at the end of the year numbered 602, and the patients treated in the wards were 8,191, exactly 100 more than in 1902, and about 2,500 more than a decade ago. This increase is due in measure to the reopening of closed beds, but also to the acceleration of cure resulting from advancement in science, better nursing, and improved general conditions. Of the 8,191 patients, 6,632 were cured or relieved, 387 unrelieved, 661 died (as compared with 722 in 1902), and 511 were still under treatment. Of all the cases, 2,585 were medical and 5,606 surgical. The out-patients numbered 128,051; it is

stated that the propriety of their being granted charitable medical relief was in each case investigated by an out patient visitor. The total expenditure for the year was £88,468 16s. 1d., as compared with £108,201 in 1902. The diminution occurred under the heading of extraordinary expenditure, indicating that building operations are nearing completion. Ordinary expenditure underwent but slight increase. As the ordinary income was £54,023, and the extraordinary income (from legacies and donations) £17,114, there was a deficiency of £17,331, which had to be borrowed, with the result that on December 31st last the hospital owed its bankers and others some £41,000, and the amount temporarily withdrawn from the Re-endowment Fund was close upon £30,000. The Treasurer makes an urgent appeal for donations and subscriptions to pay off this debt. A sum of £77,000 is in addition required to complete the Renovation and Building Fund; and additional income to the extent of at least £15,000 per annum is necessary to keep the hospital free from debt in the future.

UNIVERSITIES AND COLLEGES.

UNIVERSITY OF OXFORD.

Degree Days.—Congregations will be held for the purpose of conferring degrees in Easter and Trinity Terms on the following Thursdays: May 19th, June 16th, June 23rd, and July 9th.

UNIVERSITY OF CAMBRIDGE.

Examiners.—Mr. D'Arcy Power and Dr. J. Rose Bradford have been appointed additional Examiners in Surgery and Medicine respectively for the Third M.B. Examination in the present term.

Examinations.—The following dates are published by the Registrary:

	Names Sent In.	Certificates Received.	Examination Begins.
First M.B. ... ... Second M.B. ... ... Third M.B., Part I...	May 26th.	June 8th.	June 13th.

State Medicine.—Mr. H. E. Durham, M.B. (King's), Dr. J. J. W. W. Stephens (Caius), and Dr. F. H. H. Guillemard (Caius) have been appointed additional members of the State Medicine Syndicate, with special reference to the new examinations in Tropical Medicine and Hygiene.

Sanitary Science Examination.—The following candidates have satisfied the Examiners in both parts of the examination for the diploma in Public Health:

E. Baines (Gonville and Caius), W. W. O. Beveridge, B. K. Chatterjee, T. A. Clinch, M. Coplans, E. K. Gawn, E. S. Gorman, A. E. Horstall, H. L. P. Hulbert (Trinity), A. C. Ingram (St. John's), J. C. Jameson, R. Millar, T. Rhind, E. Swainston.

UNIVERSITY OF EDINBURGH.

Opening of the Edinburgh Medical Schools.

The University and extra-mural medical classes will be resumed for the summer session on Monday next, May 2nd.

The following is the official list of passes at the recent Professional Examinations for degrees in Medicine and Surgery:

First Professional Examination.—G. J. Adams, R. C. Alexander, A. C. Barker, W. Beggs, J. A. Belcham, H. Blyth, W. Boyd, A. Bremner, F. V. N. Bruce, H. Burns, P. D. Cameron, P. Chalmers, G. Coats, C. E. A. Coldicut, H. M. Cook, A. C. Court, J. Crocket, F. J. Davidson, C. H. Derksen, J. A. Duggan, W. G. Evans, J. P. Falvey, J. Findlay, W. Fleming, K. Fraser, K. N. Ghosh, A. B. Gordon, P. Gorrie (with distinction), A. G. M. Grant, R. D. L. Greene, J. O. Hamilton, R. W. Hauman, F. W. Hay (with distinction), W. S. Heron, A. M. Hewat, St. G. M. L. Homan, J. J. Jervis, M. J. Johnston, C. W. Kay, A. W. Kendall, H. W. Kerrigan, A. F. Lee, A. R. Leggate, C. R. Lethem, C. L. Louw, H. D. Low, G. J. Luyt, B.A., D. M'Carroll, L. G. M'Cune, W. S. M'Cune, J. Macdiarmid, J. V. MacDonald, T. MacEwen, A. E. M'Iver, G. M. Mackay, W. J. M'Keand, J. C. Mackenzie, E. R. D. Maconochie, E. P. Maitland, N. Martin, W. J. Mayne, R. C. J. Meyer, B.A., J. E. Mitchell, T. S. Mitchell, J. A. Morris, G. S. Norman, J. H. H. Pearson, A. A. W. Petrie, J. P. du Plessis, N. H. Prior, E. M. Reid, J. J. Van Rensburg, P. Roytowski, M. W. Ruthven, P. H. Salmond, Charlotte D. Schaeffer, F. Shannon, R. G. Sherlock, J. T. Simpson, J. D. Skinner, E. D. Smith, W. B. Somers (with distinction), H. M. Spoor (with distinction), W. A. Stewart, J. W. Stirling, W. Stobie, A. Tait, J. C. Tennant, Eleanor M. Thompson, A. E. Turnbull, H. S. Wallace, F. K. te Water, and A. White.

Second Professional Examination.—J. H. Aikman, M.A., J. A. Ainscow, A. W. Atkinson, R. C. E. Atkinson, R. G. A. Bagnall, C. F. Bainbridge, C. R. M. Baker, D. M. Barcroft, A. J. Beattie, E. H. Black, R. Bladworth, F. H. Bradley, I. W. Brebner, Mary Brown, T. G. Brown, B.Sc., D. S. Buist, C. H. Burgess, S. T. Champtaloup (with distinction), A. E. Chisholm, J. M. Christie, W. I. M. Clark, R. D. Clayton, W. Core, M.A., S. G. Corner, D. Cotteril, W. Cramer, Ph D., R. G. Cunningham, J. Dass, A. Davies, A. M'D. Dick (with distinction), J. T. Dickson, T. H. Dickson, M. G. Dill, A. M. Drennan (with distinction), R. Duncan, J. Dundas, D. D. Dunn, E. W. Dyer, S. S. Dykes (with distinction), D. Eakin, J. G. Fleming, M. S. Fraser, R. Fraser, J. W. Frew (with distinction), W. J. Geale, Laurence Gibson, E. C. Girling, G. A. Gordon, W. L. Gordon, W. H. Gowans, K. K. Grieve, J. Grimoldby, G. Gunn, J. A. Harley, G. H. Howe, F. O. Inglis, Blanche M. L. Johnston, T. B. Johnston (with distinction (with distinction), N. W. Kidston, A. G. K. Ledger (with distinction), A. Leitch, O. T. Leonard, P. Lornie, J. P. Lowson, R. D. M'Alister, J. S. Macdonald, W. K. Macdonald, J. W. S. Macfie, W. O. S. M'Gowan, G. B. Macgregor, T. S. M'Intosh, D. F. Mackenzie, J. N. Maclaughlin, M. Maclean, M.A., J. A. Macleod, Helen M. M'Millan, J. B. M'Morland, R. P. M'Morland, A. C. B. M'Murtrie, K. M'Murtrie, J. M. Macphail, J. N. M'Turk, D. Mann, J. S. Manson (with distinction), Jamesina J. Marr, R. P. Mathers, J. Matheson, M.A., G. M. Melville, C. I. Milne, C. J. Milne, H. J. More, R. H. Nolan, J. S. Orwin, J. S. Peebles, A. M'T. Pirrie, B.Sc., G. Pollock (with distinction), H. B. Porteus, A. Priestman, C. A. Purnell, C. Pycroft (with distinction), Mabel L. Ramsay, G. Raubenheimer, W. H. Riddell, C. S. U. Rippon, J. Ritchie (with distinction), H. D. Robb, R. M'N. Robb, W. S. I. Robertson, E. Rose, M.A., F. Ross, J. M'D. Ross, Z. M. H. Ross, E. Russell, J. Scott, T. H. Scott, A. D. Stewart (with distinction), H. G. Sutherland, W. J. Taggart, K. R. Tampi, D. R. Taylor, H. V. Taylor, W. A. Taylor, C. H. Tewsley, E. R. Thompson, H. H. Thorburn, J. N. Turnbull, Annie D. Urquhart, A. G. Visser, G. F. C. Wallis, T. Walsh, R. H. Walton, A. I. S. Walwyn, R. Wilkins, O. H. Williams, W. E. R. Williams, C. R. Wills, Ethel Wiseman, R. M. Wishart, A. F. Wright, Emily C. Wybourne, A. W. Young.

UNIVERSITY OF GLASGOW.

At the usual spring graduation, held on April 18th, the following were amongst the recipients of degrees:

Doctors of Medicine (M.D.).—*A. B. Kelly, M.B., C.M., D.Sc. (Thesis: Contributions to the Pathology and Diagnosis of Certain Affections of the Antrum of Highmore); *D. M. Taylor, M.A., M.B., C.M. (Thesis: Sympathetic Ophthalmitis after Preventive Enucleation); T. D. Brown, M.B., C.M. (Thesis: A Clinical Study of Mediastinal Tumours).

* With commendation.

Doctor of Science (D.Sc.).—J. M. Cowan, B.A., M.D. (Thesis: Papers on the Myocardium).

Bachelors of Medicine and Bachelors of Surgery (M.B., Ch. B.).—Agnes Wallace Cameron, J. R. Gilmour, A. Jamieson, P. Millar, G. J. Williams, E. Wright.

UNIVERSITY OF ABERDEEN.

The following candidates have passed examinations as under:

Second Professional Examination.—W. Bain, *R. Chalmers, G. Cooper, *J. G. Copland, G. F. Dawson, A. M'R. Donaldson, *Mary W. Durno, R. J. Duthie, G. J. Forgie, **J. F. Gill, *R. M. Gunn, A. Hutton, C. V. Impey, A. Jonston, A. Xellas, J. Laing, A. S. Leslie, J. G. M'Gregor, D. B. M'Grigor, R. W. M. Macpherson, W. L. Millar, M. A. Milne, J. E. Mitchell, J. H. Moir, S. V. Van Niekerts, A. Paterson, J. Raffan, P. M. Rennie, J. R. Stewart, F. J. Stuart, F. P. Sturm, A. G. Troup, A. F. Wallace, Christine Wilson, *W. H. Wishart.

Part of Second Professional Examination.—H. Begg, W. Begg, T. Chalmers, J. M'K Clark, S .C. Howard, E. K. Mackenzie, W. A. H. McKerrow, J. Murray.

Third Professional Examination.—*R. Brown, H. K. W. H. Dornhurst, R. *R. Duncan, R. Eager, G. J. Forgie, W. Low, J. B. M'Diarmid, * J. M'Intosh, J. M'Kenzie, K. Mackinnon, G. Milne, H. R. Neilson, P. B. Roth, R. F. Russell, J. A. B. Sim, C. M. Smith, *R. H. Spittall, J. H. Stephen, J. F. B. de Villiers, Lizatte A. M. Wilson.

Part of Third Professional Examination.—Mary R. Bissett, W. E. Reid.

Final Examination.—G. Adam, M.A., F. Anderson, W. Beedie, A. D. Davidson, M.A., **J. Clark, F. W. Davidson, A. Duguid, M.A., J. Farquhar, M.A., A. Flett, *A. I. Fortescue, J. A. Gibb, J. S. Gray, M.A., F. Herman-Johnson, J. J. D. Henderson, J. Hunter, A. Hutchison, M.A., H. M. Jamieson, N. Kennedy, M.A., W. J. W. Lawson, D. McKay, M.A., M. MacLeod, C. G. Macmahon, W. M. McPherson, A. M'Robbie, A. D. Pringle, J. Robertson, A. N. Ross, B. R. G. Russell, H. W. B. Runton, W. A. Smith, *W. Wood.

Final Examination for M.B., C.M.—A. S. Cardno, M.A.

** With "much distinction." * With "distinction."

UNIVERSITY OF DURHAM.

The following candidates for the Second Examination for the degree of Bachelor in Medicine have satisfied the Examiners in the subjects indicated:

Anatomy, Physiology, and Materia Medica.—Honours, Second Class: D. Ranken, College of Medicine, Newcastle-upon-Tyne. Pass List: T. H. Bishop, M.R.C.S., L.R.C.P., Edinburgh University; S. Havelock, B.Sc., College of Medicine, Newcastle-upon-Tyne; Camilla Lucy Heckrath, London School of Medicine for Women; H. G. G. Mackenzie, M.A., College of Medicine, Newcastle-upon-Tyne; E. L. Markham, College of Medicine, Newcastle-upon-Tyne; Jessie Jean Martin Morton, Edinburgh School of Medicine for Women; Bertha Mary Mules, London School of Medicine for Women; Jessie Margaret Murray, London School of Medicine for Women; H. B. Stephenson, College of Medicine, Newcastle-upon-Tyne; F. Whitby, St. Bartholomew's Hospital; C. R. Wilkins, College of Medicine, Newcastle-upon-Tyne; J. L. Wilson, M.A., College of Medicine, Newcastle-upon-Tyne.

The following candidates for the First Examination for the Degree of Bachelor in Medicine have satisfied the Examiners in the subjects indicated:

Elementary Anatomy and Biology, Chemistry and Physics.—Honours—First Class: F. R. Dudderidge, College of Medicine, Newcastle-upon-Tyne. Honours—Second Class: Charlotte Purnell, London School of Medicine for Women. Pass List: F. W. Cheese, M.R.C.S., L.R.C.P., St. Bartholomew's Hospital; Helen Mary Gurney, College of Medicine, Newcastle-upon-Tyne; Gertrude Ethel O'Brien, College of Medicine, Newcastle upon-Tyne; H. Shield, College of Medicine, Newcastle-upon-Tyne; J. A. Sacco, College of Medicine, Newcastle-upon-Tyne; H. J. Slade, M.R.C.S., L.R.C.P., St. Bartholomew's Hospital; C. S. Thompson, College of Medicine, Newcastle-upon-Tyne.

Elementary Anatomy and Biology.—K. B. Allan, College of Medicine, Newcastle-upon-Tyne; H. E. Bloxsome, St. Bartholomew's Hospital; L. F. Browne, College of Medicine, Newcastle-upon-Tyne; L. K. Edmeades, Guy's Hospital; Elizabeth Niel Havelock, College of Medicine, Newcastle-upon-Tyne; Hedvig Christina Kellgren, College of Medicine, Newcastle-upon-Tyne; T. H. V. King, St. Bartholomew's Hospital; Elizabeth Patteson, London School of Medicine for Women; F. A. Robinson, College of Medicine, Newcastle-upon-Tyne; Rev. R. H. Smallwood, M.A., College of Medicine, Newcastle-upon-Tyne; B. Taylor, College of Medicine, Newcastle-upon-Tyne; J. F. Young, Guy's Hospital.

Chemistry and Physics.—H. C. W. Allott, Guy's Hospital; H. R. Crisp, College of Medicine, Newcastle-upon-Tyne; W. H. Edgar, College of Medicine, Newcastle-upon-Tyne; F. W. Melvin, College of Medicine, Newcastle-upon-Tyne; Theresa de Gournay Miller, London School

Medicine for Women; F. W. White, College of Medicine, Newtle-upon-Tyne.

lowing candidates for the Third Examination for the Degree of in Medicine have satisfied the Examiners:

s.—First Class: J. G. Gibb, St. Bartholomew's Hospital. Second ss: W. Fairclough, College of Medicine, Newcastle-upon-Tyne; J. Willan, College of Medicine, Newcastle-upon-Tyne.

st.—G. N. Biggs, St. Thomas's Hospital; J. F. Bridge, Birmingn University; H. Drummond, College of Medicine, Newcastlen-Tyne; H. Drummond, College of Medicine, Newcastle-upone; A. Finlay, London Hospital; S. F. St. D. Green, M.R.C.S., .C.P., Capt. R.A.M.C., St. Bartholomew's Hospital; A. B. Jones, lege of Medicine, Newcastle-upon-Tyne; J. C. Norman, College Medicine, Newcastle-upon-Tyne; J. C. Pearce, A.Sc., College of licine, Newcastle-upon-Tyne; L. M. Rosten, St. Bartholomew's pital; R. Rutherford, College of Medicine, Newcastle-upone; R. G. S. Simpson, College of Medicine, Newcastle-upon-Tyne; A. Smith. M.R.C.S., L.R.C.P., Guy's Hospital; R. J. Weidner, lege of Medicine, Newcastle-upon-Tyne; J. L. Wilson, M.A., lege of Medicine, Newcastle-upon-Tyne.

UNIVERSITY OF DUBLIN.

owing degrees in the Faculty of Medicine were conferred by the y Caput on Thursday, April 21st:

in Medicina.—W. E. Grandy, J. Wallace.

CONJOINT BOARD IN IRELAND.

ES have passed the First Professional Examination as under-

.—A. E. S. Martin, E. Waide.

P. H. Black, S. Blake, A. Curry, E. Evans, H. S. Johnston, G. S. is, F. Mahony, A. E. S. Martin, R. Power, G. W. Stanley, J. P. derberg.

ed the Examination.—W. Breen, R. J. Brookes, P. Ferguson, P. Grainger, C. A. O'Burne-Ryan, G. G. Stephenson, T. J. iams.

ates have passed the Second Professional Examination as under-

.—G. Sheppard, T. J. O'Farrell, R. M. Bronté.

Subjects.—Miss H. O. D. Beamish, J. A. Buchanan, J. Crowley, . Raverty, R. O. Kelly.

ed the Examination.—P. M. Carroll, J. Daniell, M. J. Kelly, C. A. Leeper, J. H. Lyne, J. G. M'Great, H. V. M'Keogh, 'Brien, W. B. Soady, M. Walters.

CONJOINT BOARD IN ENGLAND.

wing have passed the First Examination of the Board in the ndicated:

y.—A. Baxendale, Owens College, Manchester; A. C. B. Biggs, versity College Hospital; H. V. Bettley-Cooke, A. J. Brown, C. ke, and R. E. Clarke, London Hospital; S. H. Browning, Guy's pital; J. P. Clarke, University College, Liverpool; R. Cock, ring Cross Hospital; F. J. Craddock, St. Bartholomew's Hosl; E. E. Davies, University College, Bristol; A. W. Duncan and . G. Ferguson, St. Mary's Hospital; H. W. Gabe, Middlesex pital; C. P. R. Harvey, London Hospital; H. W. Heasman, s Hospital; H. L. Hughes, St. George's Hospital; H. G. Janion, versity College Hospital; J. A. A. Kernahan, St. Bartholomew's pital; H. G. Kilner, Middlesex Hospital; C. E. Lowe, Westster Hospital; G. H. Mead, St. Thomas's Hospital; C. A. don, Birkbeck Institute; H. R. Mullins, Oxford University and 's Hospital; A. E. Nicholls, University College, Cardiff; F. T. ahony, London Hospital; R. G. Oram, Guy's Hospital; C. E. H. y and W. N. A. Paley, Westminster Hospital; R. A. Parsons, Mary's Hospital; M. W. Phipps, Queen's College, Cork, and don Hospital; E. S. Pierrepoint, Technical Institute, Wandsth; E. A. Pywell, St. Thomas's Hospital; R. B. N. Reade, St. y's Hospital; M. Remers and J. R. Rigg, Owens College, Manster; F. Rendall, London Hospital; A. Rhodes, Birkbeck Instis; R. G. Riches, St. Bartholomew's Hospital; W. S. Simpson and . Stibbe, Charing Cross Hospital; C. R. Start, Felsted School; Wainwright, Middlesex Hospital; W. H. Watson and F. J. eeler, Guy's Hospital; C. H. Welch, King's College Hospital; M. Williams, University College, Aberystwyth; H. A. F. Wilson, Thomas's Hospital.

l Pharmacy.—J. Avery and N. H. Bye, London Hospital; F. C. J. er, King's College and St. Mary's Hospital; E. J. Chambers, tminster Hospital; R. J. Cyriax, Edinburgh University; J. W. d and A. W. Eyles, Guy's Hospital; E. P. J. Dawes, Birmingham versity; L. C. Ferguson, St. Bartholomew's Hospital; G. Finch, kshire College, Leeds, and St. Thomas's Hospital; W. H. Flint, ningham University; B. M. Footner, King's College Hospital; Franklin and R. S. Harper, Guy's Hospital: L. A. Harwood, rate study; S. Heathcote, Owens College, Manchester; A. T. kson, L.D.S.Eng., University College, Sheffield; H. H. Jenkins, 's Hospital; T. L. Kenion, University College, Liverpool; H. A. b, St. Mary's Hospital; J. D. L. Lloyd, Birmingham University; . Martin, London Hospital; C. A. Meadon, private study; L. er, L.D.S.Eng., Guy's Hospital; H. W. Nicholls, Middlesex pital; O. S. Norton, Guy's and Westminster Hospitals; C. W. rien and A. O'Neill, St. Bartholomew's Hospital; W. S. Orton, 's Hospital; E. S. Prior, University College, Bristol, and ddlesex Hospital; R. M. Rendall, D. H. Richards, G. C. F. inson, and H. W. B. Walling, Guy's Hospital; C. R. Start, rate study; H. J. D. Walker, London Hospital; J. Warburton, ens College, Manchester; S. Williams, University College, diff.

ary Biology.—S. D. Adam, R. B. Adams and F. Basford, St. ry's Hospital; E. B. Allnutt, J. J. H. Beckton and N. B. Benjad, St. Bartholomew's Hospital; A. Baxendale and G. N. Braham, ens College, Manchester; H. V. Bettley-Cooke, London Hospital; I. Browning, Guy's Hospital; C. J. Butler, Charing Cross Hosal; C. A. Caufman, St. Thomas's Hospital; E. J. Chambers, stminster Hospital; J. P. Clarke, University College, Liverpool; E. Clarke, London Hospital; R. C. Clifford, St. Bartholomew's spital; R. Cock, Charing Cross Hospital; B. Dale, St. George's spital; D. Davies, London Hospital; S. A. Day, St. Mary's Hospital; J. W. Doherty, Birkbeck Institute; C. S. Douglas and A. Downes, St. Bartholomew's Hospital; J. G. Edwards, City of London College; B. G. Goodwin, Birmingham University; R. S. Graham, St. Mary's Hospital; G. C. Gray and P. Hall, St. Bartholomew's Hospital; E. J. D. Haining, University College, Bristol; M. Hallam, University College, Sheffield; P. T. Harper, St. Thomas's Hospital; W. G. Harrop, Owens College, Manchester; C. P. R. Harvey, London Hospital; L. A. Harwood, Birkbeck Institute; W. H. S. Hodge, St. Bartholomew's Hospital; G. P. Humphry, St. George's Hospital; H. G. Janion, University College Hospital; T. W. Jones, Charing Cross Hospital; C. E. Lowe, Westminster Hospital; R. H. S. Marshall, St. Mary's Hospital; F. L. Nash-Wortham and T. H. Oo, St. Bartholomew's Hospital; A. E. Nichols, University College, Cardiff; T. F. O. Mahony, London Hospital; T. G. Percival and C. C. Pickles, Yorkshire College, Leeds; A. B. Pettigrew, University College, Sheffield; M. W. Phipps, London Hospital; W. H. Pickup, Birmingham University; C. M. Plumptree and H. C. Pugh, Guy's Hospital; E. J. J. Quirk, Charing Cross Hospital: G. F. Randall, Middlesex Hospital; M. Remers, Owens College, Manchester; A. Rhodes, Birkbeck Institute; J. F. Richardson, London Hospital; A. B. Scott, St. Bartholomew's Hospital; W. S. Simpson, Charing Cross Hospital; H. Spitz, St. Bartholomew's Hospital; J. Startin, St. Thomas's Hospital; P. E. Stibbe, Charing Cross Hospital; J. E. Taylor, Yorkshire College, Leeds; H. H. S. Templeton, University College, Bristol; C. R. B. Von Braun and C. F. Willies, St. Bartholomew's Hospital; A. H. L. Thomas, H. E. Wall, J. L. Waller, and J. B. Webb, St. Mary's Hospital; D. P. Williams, Charing Cross Hospital; S. Williams, University College, Cardiff; H. A. F. Wilson, St. Thomas's Hospital; P. V. Wynne-Werninck, Merchant Venturers' College, Bristol.

CONJOINT BOARD IN SCOTLAND.

AT the April sittings of the Conjoint Board held in Glasgow the following candidates passed the respective examinations for the triple qualification:

First Examination.—O. T. Jones (with distinction), F. G. Allan.

Second Examination.—N. B. Watch, J. H. M. Jones, H. Watson, J. F. O'Brien, T. M'Clure, J. P. Bamboat, J. J. O'Callaghan, W. C. Mann, E. A. S. Shaw, W. F. F. Durr, G. W. Hill.

Third Examination.—D. E. A. Buchanan, H. S. Gettings, T. P. Cox, W. W. N. Knox, W. W. Dempster, J. J. Egan, T. G. Campbell, Beatrice Fanny Board, P. Bateman, W. E. Davies, J. Wylie.

Final Examination.—Maud Farley Everett, W. H. Williams, E. N. Coutts, J. O'Brien, Beatrice Fanny Board, Eva Mary Handley, S. M'Carthy, E. Claye, J. L. Niven, A. M'Innes, C. E. Ross, J. O'Connor, H. F. Warwick, S. Cunliffe, J. B. L. S. Scott, R. H. Rigby.

SOCIETY OF APOTHECARIES OF LONDON.

PASS LIST, April, 1904.—The following candidates passed in:

Surgery.—G. Dewick (Sections I and II), St. Thomas's Hospital; W. S. Gibson (Sections I and II), Manchester and Charing Cross Hospital; C. Kellgren (Section I), Royal Free Hospital; L. H. Lewis, Middlesex Hospital; H. J. May (Sections I and II), London Hospital; F. H. Hand (Section II), St. Mary's Hospital; A. B. S. Todd (Sections I and II), Leeds; T. R. Waltenberg (Section II), Manchester.

Medicine.—A. Anderson (Sections I and II), Leeds; G. J. Eady (Section I), St. Bartholomew's Hospital; J. H. Harrison (Section I), Sheffield; J. A. Kilpatrick (Section II), King's College Hospital; C. S. Scott (Section I), St. Bartholomew's Hospital; R. W. L. Wood (Sections I and II), Leeds.

Forensic Medicine.—M. O. Dollie, University College Hospital; G. J. Eady, St. Bartholomew's Hospital; H. R. Grellet, Guy's Hospital; H. G. Peel, Leeds; L. S. Veale, Royal Free Hospital; F. J. Waldmeier, London Hospital; R. W. L. Wood, Leeds.

Midwifery.—A. Anderson, Leeds; H. H. R. Bayley, Charing Cross Hospital; A. G. C. Findlay, University College Hospital; W. A. T. Lloyd, London Hospital; W. S. Mitchell, St. Mary's Hospital; E. D. Richardson, St. Mary's Hospital; A. B. S. Todd, Leeds; L. S. Veale, Royal Free Hospital; J. S. Ward, Sheffield; J. A. R. Wells, St. Thomas's Hospital.

The diploma of the Society was granted to G. Dewick, F. H. Hand, L. H. Lewis, H. G. Peel, and F. J. Waldmeier.

ST. THOMAS'S HOSPITAL MEDICAL SCHOOL.

THE following prizes have been awarded for the Winter Session, 1903-4:—First Year's Students: J. A. Clark, the William Tite Scholarship, £25; R. W. Rix, College Prize, £20. Second Year's Students: H. J. Nightingale, the Peacock Scholarship, £35: A. C. F. Turner, College Prize, £20; H. G. Bennett, College Prize, £10. Fifth Year's Students: A. G. Gibson (medicine), £10; H. A. Kisch (surgery), £10; C. E. Palmer (midwifery and disease of women), £10; A. G. Gibson (pathology), the Haddon Prize, £10; F. A. Broadribb and E. W. Parry (forensic medicine and insanity) and K. Takaki (pharmacology and therapeutics), £5 each. The Mead Medal for proficiency in medicine, pathology, and hygiene was awarded to K. Takaki. The Wainwright Prize, £10, and the Seymour Graves Toller Prize were awarded to A. G. Gibson, of Christ Church, Oxford. The Cheseldon Medal for proficieney in surgery and surgical anatomy was awarded to H. A. Kisch.

THE MEDICAL DIPLOMATES' SOCIETY OF LONDON.

THE last meeting of the London Licentiates and Members Society was held at 20, Hanover Square, W., on April 19th, again under the presidency of Dr. F. J. Smith.

The first motion, by Dr. A. Douglas Cowburn, was to send a "circular letter to the medical schools asking their support." Dr. Elliot-Blake rose on the first motion to propose an amendment that a new name be adopted for the new society—namely, "The Medical Diplomates Society," with or without the addition "of London." The Chairman having agreed to place the amendment first, the speaker added that if a new society was to be formed he was in accord therewith, but rules should be framed; he said this was the only course open to them to follow, inasmuch as the London Licentiates and Members Society had been founded three years ago with the one object to petition the Colleges and the University, and this had failed. As to the "letter," he viewed it only as a preliminary matter, and would be content with it if simply used to obtain legitimate opinions and not to compose the sole policy.

Dr. H. Hilliard did not object to the new title, but certainly thought

"of London" should form part. The title, "The Medical Diplomates' Society of London" was put to the meeting and carried as a substantive motion.

Dr. A. Douglas Cowburn then carried his motion that a letter be sent to the members of the staffs of the London medical schools. He was willing to conform to Dr. Elliot-Blake's suggestion that the names of the members of the Society should be obtained and attached to the letter.

Dr. F. W. Collingwood proposed that the statistics relating to the public medical examinations of the army and navy be included in the letter, but this was not carried.

The following members were appointed an Executive Committee: Drs. Smith, Hilliard, Langford, Elliot-Blake, Cowburn, and Rose, the President to be a member *ex officio*. The meeting closed with cordial votes of thanks for the past assiduous services of the President and Dr. F. C. Langford, the Honorary Secretary. New members desiring to join the Society should address themselves directly to any member of the executive with the exception of the President.

OBITUARY.

JAMES FRANCIS TAPLIN, M.D., C.M.GLAS.,

Small Heath.

IT is with profound regret that we record the death of Dr. Taplin, the oldest medical practitioner in Small Heath, which took place at his residence, 414, Coventry road, on April 14th, and this regret is enhanced by the sad circumstances surrounding his sudden demise.

Dr. Taplin, who was 66 years of age, was born in Devonshire, and was the son of the Rev. James Taplin, a well-known Unitarian minister. When 16 years old he was apprenticed for a term of six years to Messrs. Pearse and Northey, surgeons, at Tavistock; in 1860 he sailed in the *Windward* of Peterhead on a whaling expedition to the Arctic regions in order to earn the requisite fees for completing his medical education. On his return he resumed his studies at Glasgow, acting for a time as dresser to Professor Lister, now Lord Lister, and finally graduated at that university, taking the degree of M.D. in 1863 and that of C.M. in 1865.

He went several voyages as a ship's surgeon to India, sailing via the Cape, as the Suez Canal route was not then opened, and then settled down as assistant to a surgeon at Shaftesbury in Dorsetshire. His exceptional abilities and industry were at once recognized, and he received an offer of partnership; but his love of travel and adventure was not yet satiated, and he accepted in preference an appointment on a tea plantation in Assam. Here he practised for a few years, and before returning to England in 1872 he also practised for a short time in Calcutta, where he was Junior Warden to a local Lodge of Freemasons. After his return to England he engaged in general practice in Small Heath, and his sudden death has come as a sad blow to his numerous friends and patients.

Possessed of a genial and cheery manner and indefatigable energy, he was greatly loved by all, whilst his wide experience and sound professional knowledge gained him a high reputation. Upright and conscientious in the highest degree, he was a man of broad human sympathies, ever at the call of the sick and suffering, whether rich or poor. For the last thirty-two years he devoted himself entirely to his practice, and denied himself even much-needed rest and recreation in order to gratify the exacting demands of his oldest patients, many of whom owed their lives over and over again to his tireless devotion and attention. Until the very day of his tragic death he had been in active work, and it is difficult adequately to portray the gloom which his sad end has cast over the whole neighbourhood. If ever man was loved it was he, and his memory will be treasured as that of a kindly, honourable, and God-fearing gentleman. His son, Dr. Julian Taplin, has the deepest sympathy of the profession in the irreparable loss he has sustained.

DR. HENRY BRIGGS, who died at Southport on February 26th, in the 80th year of his age, was at one time one of the best-known medical men in Lancashire, and at the time of his retirement in 1887 the senior partner of the leading firm of medical practitioners in Burnley. He was born at Mytholmroyd, near Halifax, and received his early education first in that village and afterwards at Hebden Bridge and Huddersfield College. In 1842 his first connexion with Burnley and with his future partner was established by his apprenticeship to Mr. Stephen White of that town. Later on he entered at University College Hospital, London, where he proved himself an able and successful student. He gained the Fellowes Scholarship and Medal in 1848 and the Gold Medal for Anatomy in the same year. In the following year he received the Gold Medal in Comparative An... and was admitted a Member of the Royal College of Su... In 1850 he became L.S.A., and four years later to... degree of M.D. at the University of London. The fir... years after completing his formal career as a ... he spent as demonstrator of anatomy at his old sc... medicine and then went abroad and worked for some ... Paris. In 1855 he was taken into partnership by ... master, Mr. Stephen White, and after the death of th... carried on the practice alone for several years. In 187... ever, he himself took a partner. His retirement in 1... due to ill-health, which, however, was not sufficien... nounced to prevent him passing his time in travel ... Later on he settled down at Southport and there pas... remainder of his days. He was a life-governor of the ... Victoria Hospital and a few years before he gave up ... was appointed a Justice of the Peace for the County ... caster. Having begun medical work in the first hal... nineteenth century, he naturally had many interest... periences to relate, and amongst others was that of t... operation performed under chloroform by Robert List... died a bachelor.

ON the afternoon of April 12th, Mr. FRANCIS ... LANDER was accidently killed when out bicycling w... wife, close by his house in Stamford. Running down a... steep lane which opened into a main road he lost co... his machine and dashed into a passing dray horse. T... of the skull was fractured, and he received other in... He was brought home and lingered until shortly aft... night, when he died. Mr. Lander was a member of... Leicestershire family; received his medical education ... London Hospital, and obtained the diploma of L.R.... 1889, and that of M.R.C.S. in 1891. He commenced h... fessional career as House Surgeon to the Nottingham G... Dispensary. He subsequently practised in Nottin... remaining there for about ten years, and was Medical ... to the No. 1 Poor-law District. About a year ago after a... attack of pleurisy the state of his health gave cause fo... anxiety, and he was strongly advised to leave Nottin... This he did, and after travelling for some time, took a p... in Stamford four months ago. Here, completely recov... health, and in what he considered ideal surroundi... looked forward to spending many happy years, but it w... to be. Mr. Lander was of a singularly gentle and lovi... position; he was not a pushing man, and his interest... mostly centred in his profession. He had a sound kno... of his work and succeeded in obtaining not only the ... dence but also the esteem of his patients. He was a d... husband and father and leaves a widow and one you... He was 39 years of age.

IT is with great regret that we have to record the d... Dr. N. M. BROWN, of Spondon, near Derby. Dr. Bro... the eldest son of Mr. Adam Brown, a gentleman until... in the Civil Service, and who survives his son. H... educated at Beccles Grammar School, where his a... attracted the attention both of his masters and ... fellows. Leaving Beccles, he entered Downing C... Cambridge. His university career was distinguishe... in due course he obtained the B.A. degree with firs... honours in 1883, and was an Exhibitioner and Prizem... Natural Science. Shortly afterwards he gained a... scholarship in Natural Science at St. Bartholomew's ... pital, and there completed his professional education. ... sequently he was appointed Assistant Demonstra... Biology, a post he occupied for some time. In th... 1886 he became associated with the late Dr. Charles ... of Spondon, with whom he shortly afterwards entere... partnership. From that time he resided in Spondon an... carried on an extensive practice. Dr. Brown was an ... Conservative in politics and took great interest in the w... of the party locally. Some three years ago his health ... way in consequence of repeated attacks of influenza. C... of climate effected no permanent improvement, and e... ally he was advised to undergo treatment at the Cot... Sanatorium, near Cheltenham. Unfortunately his cas... then become practically hopeless, and he died the ... March 30th, deeply mourned not only by his patient... by his numerous personal friends. By his own desi... body was cremated at the Perry Bar Crematoriu... April 5th.

ROBERT HARTLEY, of Pemberton, Wigan, who died on 19th at his house Ashleigh, Orrell, near Wigan, in his 58th was a well-known figure in medical circles near Wigan. d been in practice in Pemberton for thirty years, had a general practice, and was especially beloved by the who looked on him as a friend as well as medical atten- whatever "Robert" said was taken as gospel. He was ted at the Wigan Grammar School, afterwards was nticed to a chemist, but, deciding on medicine as a pro- n, he proceeded to the School of Medicine, Manchester, ecame M.R.C.S.Eng. and L.R.C.P.Edin. in 1874. Soon vards he was appointed Medical Officer of Health to the erton Local Board, which afterwards became the Urban ict Council, and only a few years ago his appointment ade permanent in recognition of his long and faithful es. He was also Union Medical Officer and Public Vac- or for the Pemberton District of the Wigan Union. In ion to his professional duties he was Chairman of the District Council for some years, and also after a severe st was elected a County Councillor of Lancashire for the erton and Orrell Division of the Council, only resigning positions quite recently; by virtue of his position as man of the Orrell District Council he was a J.P. for the y of Lancashire. In July last he found he had some inconvenience associated with pain; but it was not later that he called in Dr. Wolstenholme, his neighbour, is friend Mr. Berry, Wigan, who discovered that he was ing from cancer of the rectum. Sir William Banks y saw him with a view to operation, but it was dis- ed that little prospect of success could be held out. He ntly bore his suffering till the end. He leaves a son and aughters to mourn his loss. He was interred at Upholland ch on April 22nd, the funeral being a large and repre- tive one.

HUGH PRYTHERCH, M.R.C.S.Eng., L.R.C.P.Edin., died e last day of March of pneumonia at the age of 52 years. udied medicine in Dublin in the Seventies, and for a con- able time he assisted the late Dr. Roberts, Portmadoc. he gained an excellent insight into general practice, stood him in good stead during his professional life. 77 he began practice on his own behalf at Menai Bridge, esea, and, being a man of commanding appearance, l and sympathetic, he very rapidly gained the confidence patients and very soon developed a large practice and ne highly popular and well known throughout the island. as very fond of his profession and hardly ever took any ation from heavy professional work and the anxieties hed thereto, and no doubt this to a considerable degree ght his professional career to a premature close. He the appointment of medical officer and public vaccinator e Bangor and Beaumaris Union and was for many years mber of the North Wales Branch of the British Medical ciation. He was also a prominent Freemason and held provincial honours. He was buried on April 5th at el, where a large concourse of patients and friends came y him their last respects. It might be said of him in ruest sense of the word that he was "A man who loved ellow-men."

PUBLIC HEALTH AND POOR-LAW MEDICAL SERVICES.

HEALTH OF ENGLISH TOWNS.

Twenty-six of the largest English towns, including London, 8.789 s and 4,697 deaths were registered during the week ending Saturday April 23rd. The annual rate of mortality in these towns, which had 18.7, 18.4, and 17.6 per 1,000 in the three preceding weeks, further ed last week to 16.0 per 1,000. The rates in the several towns d from 5.1 in Willesden, 7.0 in Handsworth (Staffs), 7.1 in Hastings, Newport (Mon.), 7.7 in Hornsey, 8.5 in Leyton, and 9.7 in Tottenham Devonport, to 20.6 in Oldham, 20.7 in Sunderland, 20.9 in Birken- 21.8 in Burnley, 22.0 in Manchester, 22.4 in Birmingham and in iens, and 25.6 in Warrington. In London the rate of mortality was er 1,000, while it also averaged 16.0 per 1,000 in the seventy-five other towns. The death-rate from the principal infectious diseases averaged er 1,000 in the seventy-six large towns; in London the rate was to 1.8 per 1,000, while among the seventy-five other large towns the ranged upwards to 3.2 in Salford, 3.3 in Huddersfield, 3.4 in Bootle, Manchester, 3.7 in Walthamstow, 4.1 in Burnley, 4.3 in Birmingham, allasey, and in Rhondda, 5.4 in Warrington, and 7.1 in St. Helens. les caused a death-rate of 1.4 in West Ham and in Walthamstow, 1.6 iddersfield, 2.3 in Norwich, 2.5 in Brighton, 2.6 in Hornsey and in sey, 3.1 in Burnley, 3.8 in Rhondda, and 6.5 in St. Helens; scarlet of 1.5 in Warrington; and whooping-cough of 1.7 in Walsall and in Wallasey, 1.9 in Leicester, 2.2 in Swansea, 2.3 in Birkenhead, 2.5 in Bootle, 3.0 in West Hartlepool, 3.1 in Birmingham, and 3.9 in Warrington. The mortality from diphtheria, from "fever," and from diarrhoea showed no marked excess in any of the large towns. Two fatal cases of small-pox were registered in Manchester, and 1 each in London, Nottingham, Gateshead, and Tynemouth, but none in any other of the seventy-six large towns. The Metropolitan Asylums Hospitals contained 123 small-pox patients at the end of last week, against 126, 134, and 144 at the end of the three preceding weeks; 23 new cases were admitted during the week, against 42, 25, and 37 in the three preceding weeks. The number of scarlet fever cases in these hospitals and in the London Fever Hospital, which had been 1,570, 1,505, and 1,523 on the three preceding Saturdays, had risen again to 1,543 on Saturday last, the 23rd inst.; 210 new cases were admitted during the week, against 153, 141, and 172 in the three preceding weeks.

HEALTH OF SCOTCH TOWNS.

DURING the week ending Saturday last, April 23rd, 1,017 births and 695 deaths were registered in eight of the principal Scotch towns. The annual rate of mortality in these towns, which had been 20.6, 20.3, and 20.9 per 1,000 in the three preceding weeks, further rose last week to 21.0 per 1,000, and was 5.0 per 1,000 above the mean rate during the same period in the seventy-six large English towns. Among these Scotch towns the death-rates ranged from 11.0 in Leith and 17.8 in Edinburgh to 25.8 in Dundee and 26.2 in Perth. The death-rate from the principal infectious diseases averaged 2.4 per 1,000 in these towns, the highest rates being recorded in Glasgow and Dundee. The 339 deaths registered in Glasgow included 2 which were referred to small-pox, 19 to measles, 3 to scarlet fever, 7 to whooping-cough, 3 to "fever," and 6 to diarrhoea. Five fatal cases of whooping-cough, 3 of measles, and 3 of diarrhoea were recorded in Dundee; 6 of whooping-cough and 3 of measles in Edinburgh; 7 of whooping-cough in Aberdeen; and 2 of whooping-cough and 1 of small-pox in Greenock.

HEALTH OF IRISH TOWNS.

DURING the week ending April 9th, 495 births and 485 deaths were registered in six of the principal Irish towns, against 527 births and 470 deaths in the preceding period. The mean annual death-rate of these towns, which had been 24.9, 24.5, and 25.8 per 1,000 in the three preceding weeks, fell to 25.5 per 1,000 in the week under notice, this figure being 7.1 above the mean annual rate in the seventy-six English towns during the corresponding period. The figures ranged from 16.4 in Londonderry and 21.9 in Limerick to 31.1 in Dublin and 32.2 in Cork. The death-rates from the principal zymotic diseases during the same period and in the same six towns averaged 2.1 per 1,000, or 0.9 per 1,000 higher than during the preceding week, the highest figure, 3.4, being reached in Cork. Whooping-cough, as for several weeks past, was again the principal cause of death from zymotic disease throughout Ireland, but 4 deaths from measles were recorded in Dublin and 1 in Belfast. During the following week ending April 16th, 635 births and 438 deaths were registered in the same six towns, against 495 births and 485 deaths in the preceding period. The mean annual death-rate of these towns, which had been 24.5, 25.8, and 25.5 per 1,000 in the three preceding weeks, fell to 23 3 per 1,000 in the week under notice, this figure being 5.7 above the mean annual rate in the seventy-six English towns during the corresponding period. The figures ranged from 13.7 in Limerick and 17.6 in Londonderry, to 26.9 in Belfast and 31.2 in Waterford. The death-rate from the principal zymotic diseases during the same period and in the same six towns averaged 1.1 per 1,000, or 1.0 lower than during the preceding week, the highest figure, 3.2, being reached in Belfast, while Cork, Limerick, and Waterford registered no deaths under this heading at all. Whooping-cough showed a slight diminution, but caused 11 deaths in Dublin and 10 in Belfast. The deaths from measles increased, 4 being registered in Dublin and 7 in Belfast; 1 death from enteric and 1 from diarrhoeal disease occurred in Belfast, and 6 deaths from diphtheria were recorded in various parts of Ireland.

VITAL STATISTICS OF LONDON DURING THE FIRST QUARTER OF 1904.

IN the accompanying table will be found summarized the vital statistics of the metropolitan boroughs and of the City of London, based upon the Registrar-General's returns for the first, or winter, quarter of the year. The mortality figures in the table relate to the deaths of persons actually belonging to the various boroughs, and are the result of a complete system of distribution of the deaths in public institutions among the several boroughs in which the deceased persons had previously resided.

The 33,254 births registered in London during the three months under notice were equal to an annual rate of 28.7 per 1,000 of the population, estimated at 4,649,088 persons in the middle of the year; in the corresponding quarters of the three preceding years the rates had been 30.1, 30.8, and 29.1 per 1,000 respectively, the average rate for the first quarters of the ten years 1894-1903 being 30.9. The birth-rates last quarter ranged from 15.2 in the City of London, 16.0 in Hampstead, 17.5 in the City of Westminster, 20.8 in Kensington, and 22.0 in Stoke Newington, to 34.5 in Bermondsey, 34.7 in Poplar, 36.0 in Bethnal Green, 37.6 in Finsbury, and 37.9 in Stepney.

The 20,604 deaths of persons belonging to London registered during last quarter were equal to an annual rate of 17.8 per 1,000, against 18.6, 21.3, and 16.8 per 1,000 in the first quarters of the three preceding years; in the corresponding quarters of the ten preceding years the mean rate was 20.5 per 1,000. The death-rates last quarter in the various metropolitan boroughs ranged from 12.0 in Hampstead, 12.7 in Lewisham, 14.5 in Stoke Newington, 15.0 in Woolwich, 15.4 in Wandsworth, and 15.7 in Fulham, to 20.7 in the City of London and in Shoreditch, 21.3 in Poplar, 21.5 in Finsbury and in Bermondsey, and 22.5 in Southwark.

During last quarter 1,852 deaths were referred to the principal infectious diseases; of these, 8 resulted from small-pox, 670 from measles, 81 from scarlet fever, 204 from diphtheria, 595 from whooping-cough, 54 from enteric fever, 1 from simple continued fever, and 239 from diarrhoea, but not any from typhus. These 1,852 deaths were equal to an annual rate of 1.61 per 1,000, against an average rate of 2.14 per 1,000 in the corresponding periods of the ten preceding years. The lowest death-rates last quarter from these infectious diseases were 0.51 in the City of London, 0.68 in Stoke Newington, 0.75 in the City of Westminster, 0.80 in Hampstead, 1.01 in Islington, and 1.02 in Lewisham; while the highest rates were 2.04 in Stepney, 2.05 in Shoreditch, 2.08 in Battersea, 2.38 in Poplar, 2.45 in Bermondsey, 2.47 in Southwark, and 3.04 in Hammersmith. Measles showed the greatest proportional fatality in

Analysis of the Vital Statistics of the Metropolitan Boroughs and of the City of London after Distribution of Deaths occurri in Public Institutions during the First Quarter of 1904.

BOROUGHS.	Estimated Population middle of 1904.	Births.	Deaths.	Annual Rate per 1,000 Living. Births.	Deaths.	Principal Infectious Diseases.	Deaths from Principal Infectious Diseases.	Small-pox.	Measles.	Scarlet Fever.	Diphtheria.	Whooping-Cough.	Typhus.	Enteric Fever.	Simple and Ill-defined Fever.	Diarrhoea.	Phthisis.	Deaths of Children to 1,000 Births.
COUNTY OF LONDON	4,649,088	33,294	20,604	28.7	17.8	1.61	1,852	8	670	81	204	595	—	54	1	239	2,055	
Paddington	146,975	861	602	23.5	16.4	1.45	53	—	36	4	5	6	—	—	—	2	42	
Kensington	179,236	931	748	20.8	16.7	1.58	71	—	47	—	5	6	—	1	—	12	70	
Hammersmith	117,412	801	557	27.4	19.0	3.04	89	—	76	—	2	3	—	1	—	7	49	
Fulham	152,482	1,254	596	33.0	15.7	1.61	61	—	29	—	10	12	—	1	—	9	66	
Chelsea	74,329	423	358	22.8	19.3	1.89	35	—	19	4	1	7	—	—	—	4	41	
City of Westminster ...	177,321	773	722	17.5	16.3	0.75	33	—	14	2	—	4	—	4	1	8	85	
St. Marylebone ...	130,337	977	637	30.1	19.6	1.53	50	—	25	2	4	5	—	2	—	12	68	
Hampstead	86,663	345	260	16.0	12.0	0.80	17	—	9	1	1	3	—	—	—	3	16	
St. Pancras	235,936	1,559	1,142	26.5	19 4	1.78	104	—	45	10	14	24	—	4	—	7	117	
Islington	341,044	2,275	1,436	26.8	16.9	1.01	85	1	20	5	9	37	—	2	—	11	157	
Stoke Newington ...	52,445	288	189	22.0	14.5	0.68	9	—	—	2	2	5	—	—	—	—	25	
Hackney	226,260	1,544	902	27.4	16.0	1.05	60	—	12	4	16	20	—	4	—	4	86	
Holborn	57,161	429	288	30.1	20.2	1.47	21	1	17	—	1	1	—	—	—	1	37	
Finsbury	98,938	927	530	37.6	21.5	1.17	29	—	5	3	5	11	—	—	—	5	78	
City of London	23,482	89	121	15.2	20.7	0.51	3	—	—	—	1	2	—	—	—	—	9	
Shoreditch	117,033	1,004	604	34.4	20.7	2.05	60	—	17	3	5	29	—	—	—	6	47	
Bethnal Green	130,207	1,169	653	36.0	20.1	1.72	56	4	10	3	13	17	—	1	—	8	82	
Stepney	303,791	2,868	1,537	37.9	20.3	2.04	154	—	45	5	22	55	—	6	—	21	154	
Poplar	169,905	1,469	901	34.7	21.3	2.38	101	1	20	3	23	43	—	2	—	9	82	
Southwark	207,937	1,716	1,169	33.1	22.5	2.47	128	1	51	1	9	45	—	5	—	16	117	
Bermondsey	129,397	1,113	694	34.5	21.5	2.45	79	—	22	5	2	36	—	2	—	12	64	
Lambeth	310,359	2,306	1,358	29.8	17.6	1.41	110	—	44	5	10	25	—	5	—	21	122	
Battersea	175,465	1,270	714	29.0	16.3	2.08	91	—	19	2	6	39	—	5	—	20	80	
Wandsworth	257,586	1,742	990	27.1	15.4	1.20	77	—	27	6	10	22	—	3	—	9	97	
Camberwell	268,384	1,855	1,079	27.7	16.1	1.43	96	—	38	1	6	38	—	4	—	9	95	
Deptford	113,509	829	498	29.3	17.6	1.87	53	—	11	5	8	27	—	—	—	2	42	
Greenwich	101,651	666	411	26.3	16.2	1.50	48	—	4	1	6	31	—	1	—	5	39	
Lewisham	140,401	903	445	25.8	12.7	1.02	36	—	4	1	4	19	—	—	—	8	30	
Woolwich	123,416	908	463	29.5	15.0	1.40	43	—	4	3	4	23	—	1	—	8	58	

Paddington, Kensington, Hammersmith, Chelsea, Holborn, and Southwark; scarlet fever in Chelsea, St. Pancras, Stoke Newington, Finsbury, Bermondsey, and Deptford; diphtheria in Fulham, Hackney, Bethnal Green, Stepney, Poplar, and Deptford; whooping-cough in Shoreditch, Poplar, Southwark, Bermondsey, Battersea, Deptford, and Greenwich; "fever" in the City of Westminster, St. Pancras, Hackney, Stepney, Southwark, and Battersea; and diarrhoea in St. Marylebone, Stepney, Southwark, Bermondsey, and Battersea. Of the 8 fatal cases of small-pox, 4 belonged to Bethnal Green, and one each to Islington, Holborn, Poplar, and Southwark.

During the last quarter, 2,055 deaths from phthisis were registered, equal to an annual rate of 1.77 per 1,000, against 1.82, 1.84, and 1.66 in the corresponding quarters of the three preceding years. Among the various metropolitan boroughs the lowest death-rates from phthisis last quarter were recorded in Paddington, Hampstead, Wandsworth, Camberwell, Deptford, and Lewisham; and the highest rates in Chelsea, St. Marylebone, Holborn, Finsbury, Bethnal Green, Stepney, and Southwark.

Infant mortality, measured by the proportion of deaths among children under 1 year of age to registered births, was equal to 133 per 1,000 last quarter, against 126, 132, and 127 in the corresponding quarters of the three preceding years. The rates of infant mortality during the quarter under notice were lowest in St. Marylebone, Islington, Stoke Newington, Hackney, Holborn, and Wandsworth; while the highest rates were recorded in Chelsea, Hampstead, Shoreditch, Southwark, Bermondsey, and Battersea.

PLUMBERS' EXAMINATION.

AT an examination for registration as plumbers held at King's College, London, on April 23rd, under the direction of the Plumbers' Company, twenty-three candidates appeared and five passed. The examination was both theoretical and practical.

GOSPORT WATER.

IT is satisfactory to be able to note that there is a prospect that the long-standing dispute with regard to the Gosport water supply will be settled at an early date in a manner which meets the views of those who have so courageously kept up the agitation. Our readers will remember that some years ago the local water company, desiring to increase its supplies, sunk a well into the chalk. The water from this source, always abundant and at first satisfactory in quality, soon became more and more saline. The company made light of this fact, but Inspector-General Walter Reid, R.N., controverted their views and showed that the saline contents were due to the percolation of sea-water from a creek which received the whole drainage of Fareham. For a long time the company was supported by the urban district council, but Inspector-General Reid stuck to his guns and eventually obtained local adherents, and finally, with the assistance of the Admiralty and War Office, brought the water company into a more reasonable frame of mind. The latter, therefore, introduced a private Bill this session embodying a scheme for a fresh supply. The urban district council, however, remained obstinate, desired to oppose the Bill, and were only persuaded to refrain from doing so by a vote passed at a general meeting of ratepayers and inhabitants. The new scheme, therefore, which provides for an entirely fresh supply from an unexceptional course, will now not be opposed. It is to be hoped, however, that Parliament will insist upon the time in which the company undertakes to complete the scheme being reduced from five years to three, or even less. Gosport has already suffered pecuniarily for its short-sighted opposition to the introduction of sanitary reform, through unlet houses, diminished trade, and loss of custom from yachts, while the water company itself has probably lost for ever the contract for watering the Fleet which it formerly held. Until the water reform has been effected it is desirable that all the inhabitants should either boil the water or adopt corresponding measures of precaution.

MEDICAL VACANCIES AND APPOINTMENTS.

VACANCIES.

This list of vacancies is compiled from our advertisement columns, where particulars will be found. To ensure notice in this column advertisements must be received not later than the first post on Wednesday morning.

BELGRAVE HOSPITAL FOR CHILDREN, Clapham Road, S.W.—Resident Medical Officer. Salary at the rate of £40 per annum.

BRIGHTON: ROYAL ALEXANDRA HOSPITAL FOR SICK CHILDREN.—House Surgeon. Salary, £80 per annum.

BRIGHTON: SUSSEX COUNTY HOSPITAL.—Pathologist. Salary about £200 per annum, and fees.

CARDIFF INFIRMARY.—Honorary Assistant Ophthalmic Surgeon.

FARRINGDON GENERAL DISPENSARY, 17, Bartlett's Buildings, E.C.—Honorary Physician.

GORDON HOSPITAL, Vauxhall Bridge Road, S.W.—Surgeon to Out-patients.

HOSPITAL FOR SICK CHILDREN, Great Ormond Street, W.C.—Medical Registrar. Honorarium, 50 guineas a year.

LEICESTER INFIRMARY.—House-Physician, resident. Salary, £100 per annum.

LIVERPOOL: ROYAL SOUTHERN HOSPITAL.—Honorary Anaesthetist.

NORTH-EASTERN HOSPITAL FOR CHILDREN, Hackney Road, E.—(1) House Physician. (2) Two House-Surgeons. Salary in each case at the rate of £60 per annum.

NORWICH: NORFOLK AND NORWICH HOSPITAL.—House-Physician; resident. Salary, £80 per annum.

NOTTINGHAM GENERAL HOSPITAL.—Assistant House-Surgeon, resident. Salary £100 per annum.

OLDHAM INFIRMARY.—Senior House-Surgeon, resident. Salary, £100 per annum.

PERTH DISTRICT ASYLUM, Murthly.—Assistant Physician, resident. Salary, £110 per annum.

SAMARITAN FREE HOSPITAL FOR WOMEN, Marylebone Road, N.W.—Clinical Assistants.

SHEFFIELD ROYAL HOSPITAL.—Assistant House-Physician, resident. Salary, £50 per annum.

SHOREDITCH: PARISH OF ST. LEONARD.—Medical Officer for the Infirmary and Workhouse. Salary, £300 per annum, with board, etc., or £400 without board and attendance.

SOCIETY OF APOTHECARIES OF LONDON.—Examiner in Medicine.

STRATFORD: WEST HAM AND EAST LONDON HOSPITAL.—Junior House-Surgeon, resident. Salary, £75 per annum.

SUNDERLAND: MONKWEARMOUTH AND SOUTHWICK HOSPITAL.—House-Surgeon, resident. Salary, £80 per annum.

WORCESTER GENERAL INFIRMARY.—House-Physician, resident. Salary, £80 per annum.

YORK DISPENSARY.—Resident Medical Officer. Salary, £120 per annum.

APPOINTMENTS.

ABRAM, G. Stewart, B.A., M.B., B.C.Cantab., M.R.C.S.Eng., L.R.C.P.Lond., Junior Assistant Physician to the Royal Berkshire Hospital.

BENNETT, W. F. C., L.R.C.P. and S.Edin., District Medical Officer of the Sheffield Union.

, James, M.A., M.B., M.R.C.P.Edin., Registrar to the Royal Hospital for Sick iren, Edinburgh.
r, G. M., M.R.C.S., L.R.C.P.Lond., District Medical Officer of the Pontypridd n.
W. S., M.B., Ch.B.Edin., District Medical Officer of the Whitehaven Union.
). G., M.D., B.C Cantab., House-Physician to the Sussex County Hospital, nton.
r, J. D., M.B., C.M.Aberd., District Medical Officer of the Poplar Union.
NSON, T., M.R.C.S., L.R.C.P., Medical Officer of the Cannock Union Workhouse.
D., M.D., Ch.B., R.U.I., Medical Officer of the Workhouse and Public inator for the Berriew District of the Forden Union.
, Edward E., M.R.C.S., L.R.C.P., D.P.H., Medical Superintendent of the tford Union Infirmary.
, W. H., M.R.C.P., L.R.C.S.Irel., Medical Referee under the Workmen's Com ation Act for County Carlow.
, T. C., M.R.C.S., L.R.C.P.Lond., District Medical Officer of Grenada, West s
S. H., M.B., M.S.Edin., Medical Officer of the York Union Workhouse.
, A. R., M.D.Lond., M.R.C.S., L.R.C.P., Resident Medical Officer to the Hospital ilepsy and Paralysis, Maida Vale.
, J. R. Hall, M.D.Edin., Medical Officer to the Post Office at Haverhill including low.
, B. J. E., L.R.C.P. and S.Edin, L.F.P.S.Glasg., District Medical Officer of the nere Union.

DIARY FOR NEXT WEEK.

TUESDAY.

ogical Society of London, Guy's Medical School, 8.30 p.m.

WEDNESDAY.

ical Society of London, 20, Hanover Square, W., 8 p.m.—Specimens e shown by Dr. Horrocks, Dr. F. E. Taylor, Dr. Lockyer, Dr. Fairbairn, and Mrs. M.D. Short communications: Dr. H. C. Bartlett (introduced by Dr. Boxall), of Lithopaedion of fourteen years' duration; Laparotomy; Recovery. Dr. F. E. r, two cases of Enlarged Wandering Spleen forming pelvic tumours in women. Mr. Alban Doran, Haematoma and Haematocele—a study of two cases of tubal pregnancy.

THURSDAY.

almological Society of the United Kingdom, 11, Chandos Street, ndish Square, W., 8 p.m.—Specimens and Cases by A. L. Whitehead, N. B. an, A. Bronner, R. W. Doyne, J. H. Parsons, J. B. Lawford, R. E. Bickerton, Mayou, 8.30.—Papers: Mr. S. Mayou, the Retina and Optic Nerves in Anen- y; Major H. Herbert, Trachomatous Pinnas and its Associated Corneal es; Dr. W. C. Rockliffe, (1) Optic Atrophy and Primary Amenorrhoea, (2) Neuritis following Concussion of Globe, (3) Unusual sequence in Cataract ction, (4) Peculiar Outbreak of Granular Ophthalmia; Mr. W. E. Cant, asis and Operations for Trichiasis.

en Society, 20, Hanover Square, W., 8.30 p.m.—Mr. J. J. Vesey, the gen Society; its past Work and Future Prospects. Mr. F. H. Glew, Some Ex- ents with Alpha Rays.

FRIDAY.

ondon Medico-Chirurgical Society, West London Hospital, Hammer- W., 8.30 p.m.—Mr. L. A. Bidwell, the Operative Treatment of Pancreatitis. . McAdam Eccles, Lessons from a Year's Fatalities.

ent Medico-Chirurgical Society, Royal Kent Dispensary, Greenwich S.E., 8.45 p.m.—The President, Dr. Robert E. Scholefield, will deliver the ential Address on some Considerations on the Causes and Treatment of nia.

ological Society of London. 20, Hanover Square, W., 5 p.m.—Cases pecimens will be shown by Dr StClair Thomson, Dr. L. H. Pegler, Dr. H. J. Dr. W. H. Kelson, Dr A. Bronner, and others.

for the Study of Disease in Children, 11, Chandos Street, dish Square, W., 5.30 p.m.—Dr. George Carpenter, A Case of Chronic Intestinal ction. Papers: Mr. W.W. Watson Cheyne and Dr.R.H.W.Wilbe,iA Case of Per- Gastric Ulcer in a Boy; Mr. Harold J. Stiles (Edinburgh) and Dr. Stuart ald (Edinburgh), Delayed Chloroform Poisoning (with lantern demon- n).

POST-GRADUATE COURSES AND LECTURES.

ross Hospital, Thursday, 4 p.m.—Demonstration of Medical Cases.
for Sick Children, Great Ormond Street, W.C., Thursday, 4 p.m.—Lecture on rgical Treatment of Empyema.
Graduates' College and Polyclinic, 22, Chenies Street, W.C.—Demonstrations given at 4 p.m. as follows: Monday, Skin; Tuesday, Medical; Wednesday, al; Thursday, Surgical; Friday, Throat. Lectures will be delivered at 5.15 as follows: Monday, Gall Stones and their Surgical Treatment; Tuesday, al Hygiene; Wednesday, The Relationship of Syphilis to Insanity; Thursday, Surgical Emergencies.
rnon Hospital for Consumption and Diseases of the Chest, 7, Fitzroy Square, ursday, 5 p.m.—Introductory Address on the Morbid Anatomy of Pulmonary culosis in relation to the Clinical History of the Disease.
Hospital for the Paralysed and Epileptic, Queen Square, W.C.—Lectures e delivered at 3.30 p.m. as follows: Tuesday, Functional Tremors; Friday, y of the Nervous System.

BIRTHS, MARRIAGES, AND DEATHS.

ge for inserting announcements of Births, Marriages, and Deaths is which sum should be forwarded in post-office orders or stamps with ce not later than Wednesday morning, in order to ensure insertion in ent issue.

BIRTHS.

ES.—On Sunday, April 24th, at 1, Walton Place, Hans Place, London, S.W., the W. Paul Jones, M.D., L.R.C.P., of a son.
—On April 23rd, at 7, Ascott Avenue, Ealing, W., Agnes Dunnett, M.B.Lond., Lionel Francis Dunnett, of a son.
CKENZIE.—On the 17th April, at 42, Green Street, Park Lane, W., the wife of . Shaw-Mackenzie, M.D.Lond., of a daughter.

MARRIAGES.

ENDERSON.—At the Gardens Presbyterian Church, Capetown, on April 21st, Rev. J. J. McClure, assisted by the Rev W. G. Macfie, M.A., Alexander n Wells, M.A., M.B Glasg., F.R.C.S.Edin., eldest son of the Rev. Dr. Wells, w, to Edith Boyd, youngest daughter of Sir William Henderson, Aberdeen.
PARRY.—At Christ Church, Edinburgh, on Wednesday, April 20th, by the Rev. ACK, assisted by the Rev. W. E. Cottar, James Miller, M.B., Cn.B., Weymouth, James Miller, Las Palmas, Grand Canary, to Eleanore, daughter of W. Ensor of 57, Nile Grove, Edinburgh.
HODGINS.—On April 25th, in London, the Rev. Richard Elrius Brown, B.A., fax, to Charlotte Hodgins, M.D., of Bradford.

DEATHS.

On April 20th, at Leawood, Cantelupe Road, Bexhill-on-Sea, formerly of 64, land Avenue, Maida Vale, Julian Willis, M.R.C.P., etc., aged 57.
LD.—At 18, Castle street, Dumfries, on April 19th, Alexander Dall MacDonald, tc., in his 59th year.
April 23rd, at Abergavenny, G. Aubrey T. Fox, M.R.C.S., L.R.C.P., aged 37.

LETTERS, NOTES, AND ANSWERS TO CORRESPONDENTS.

COMMUNICATIONS respecting Editorial matters should be addressed to the Editor, 2, Agar Street, Strand, W.C., London; those concerning business matters, advertisements, non-delivery of the JOURNAL, etc., should be addressed to the Manager, at the Office, 429, Strand, W.C., London.

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AUTHORS desiring reprints of their articles published in the BRITISH MEDICAL JOURNAL are requested to communicate with the Manager, 429, Strand, W.C., on receipt of proof.

CORRESPONDENTS who wish notice to be taken of their communications should authenticate them with their names—of course not necessarily for publication.

CORRESPONDENTS not answered are requested to look at the Notices to Correspondents of the following week.

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TELEPHONE (National):— EDITOR, 2631, Gerrard. GENERAL SECRETARY AND MANAGER, 2630, Gerrard.

☞ *Queries, answers, and communications relating to subjects to which special departments of the* BRITISH MEDICAL JOURNAL *are devoted will be found under their respective headings.*

QUERIES.

SENEX asks for advice as to the most suitable seaside place in England to which to send a patient who is a martyr to hay fever, and where he would be likely to be free from it.

THE F.R.C.S.ENG.

M.B., nine years' standing, asks what chances a country practitioner would have of acquiring the F.R.C.S.Eng. simply by reading for it. Limited means of seeing good operative work. No opportunities for operations on cadaver. Which textbooks would be most suitable, and how could lack of opportunity for practical work be overcome?

*** We are advised that, under the conditions detailed by our correspondent, a country practitioner could not hope to prepare himself for the Final Fellowship, which is at present an examination demanding a practical acquaintance not only with operative surgery, but with surgery from its scientific aspects, including a real knowledge of morbid anatomy, morbid histology, and a certain amount of bacteriology. The knowledge expected on these subjects is of a kind that reading alone could not supply.

PRACTICE IN CALIFORNIA AND BRITISH COLUMBIA.

M. B. A. asks what examination a holder of an English qualification would have to pass in order to practise legally in California or British Columbia.

*** In California an English graduate or diplomate must be personally examined by the State Board in anatomy, physiology, bacteriology, pathology, chemistry and toxicology, surgery, obstetrics, materia medica and therapeutics, and the theory and practice of medicine. The examination in each subject includes not less than ten questions, and is understood to be mainly written. In British Columbia all aspirants to registration must produce proof that they are the holders of a diploma or degree in medicine and surgery granted by a Board which demands four years' study from all candidates and in addition must pass an examination before the College of Physicians and Surgeons of British Columbia. As to the precise nature of this examination we have no information.

THE VENTILATION OF OPERATING THEATRES.

DR. THOMAS LAFFAN has recently caused an operating theatre to be so constructed at his hospital that its entry is from, and its exit into, a garden; he has been influenced by the view that if an "independent atmosphere" is essential to an ideal ward, it is *a fortiori* essential to the ideal theatre, and would like to hear other professional views upon the point.

*** It may doubtless be successfully contended that a theatre should be provided with an "independent atmosphere," but scarcely *a fortiori* inasmuch as that the considerations underlying the two questions probably differ in some degree, for example, into questions of the ventilation of wards, in which patients may lie for weeks or months, theories of permissible CO_2 and other respiratory products enter more largely than they can into the question of the atmosphere necessary in a theatre.

ANSWERS.

TOOTHACHE might consult the following:—Smale and Colyer's *Diseases and Injuries of the Teeth*, second edition (London: Longmans, Green and Co. 1901. 21s.); Tomes's *System of Dental Surgery*, fourth edition (London: J. and A. Churchill. 1897. 16s.); and Pearsall's *Mechanical Practice in Dentistry* (London: C. Ash and Sons. 1898. 18s).

MORNING HEADACHE.

VOX CLAMANTIS writes: In the BRITISH MEDICAL JOURNAL of April 16th, "Devon" asks advice as to the treatment of morning headache in an old lady. Let me advise him to read a paper by Sir Lauder Brunton published in the *Practitioner* for February, 1894, "On the Use of Bromide of Potassium and Salicylate of Sodium in Headache." I can testify to the great value of this if given as Sir Lauder advises. My wife suffered agonies for years from frequent morning headaches, and was almost

immediately relieved by this treatment as well as of the slight gouty symptoms which occasionally troubled her. I also frequently suffer from morning headaches as described by Sir Lauder Brunton, and from irregular and undeveloped gout, and this treatment for the time invariably relieves me. But if the gouty symptoms and morning headaches are severe and more than usually frequent, I find the best plan is to take for two or three weeks 5 gr. of sodium iodide two or three times a day and a dose of blue pill and a saline draught once a week. The relief thus afforded is very great.

BOOKS ON ORTHOPAEDIC SURGERY.

C. L. might consult *Deformities, a Treatise on Orthopaedic Surgery*, by A. H. Tubby, M.S. (London: Macmillan and Co. 1896. 17s.); *Orthopaedic Surgery*, by J. Jackson Clarke, F.R.C.S. (London: Cassell and Co. 1899. 21s.); *Orthopaedic Surgery*, by C. B. Keetley, F.R.C.S. (London: Smith, Elder and Co. 1900. 16s.)

REFRACTION.

REX.—Swanzy's *Diseases of the Eyes*, eighth edition (London: H. K. Lewis, 1903, 12s. 6d.), would probably meet our correspondent's requirements. One of the best books solely on refraction which is not too elaborate is Stanford Morton's *Refraction of the Eye*, sixth edition (London: H. K. Lewis, 1897, 3s. 6d.).

THE FINANCES OF THE GENERAL MEDICAL COUNCIL.

SPECTATOR will see by reference to the report of the proceedings of the General Medical Council on May 30th, published in the SUPPLEMENT to the BRITISH MEDICAL JOURNAL of June 6th, 1903, that the fee for re-registration of a name removed from the *Medical Register* under Section XIV of the Medical Act of 1858 was raised to £1, and that the fee for the registration of each additional qualification was raised to the same amount.

VISION OF CANDIDATES FOR THE ARMY AND NAVY.

O.—In the English army (and also the Indian Medical Service) the regulations are as follows: (1) If a candidate can read D=6 at 6 metres (20 English ft.) and D=0.6 at any distance selected by himself, with each eye without glasses, he will be considered fit. (2) If a candidate can only read D=24 at 6 metres (20 English ft.) with each eye without glasses, his visual deficiency being due to faulty refraction, which can be corrected by glasses which enable him to read D=6 at 6 metres (20 English ft.) with one eye, and D=12 at the same distance with the other eye, and can also read D=0.8 with each eye without glasses at any distance selected by himself, he will be considered fit. (3) If a candidate cannot read D=24 at 6 metres (20 English ft.) with each eye without glasses, notwithstanding he can read D=0.6, he will be considered unfit. (4) Squint, inability to distinguish the principal colours or any morbid condition, subject to the risk of aggravation or recurrence in either eye, will cause the rejection of a candidate. In the navy candidates for the Executive and Engineering branches must have entirely normal vision, that is, equal to $\frac{6}{6}$ in each eye. For other branches vision need not be normal but must be capable of correction to $\frac{6}{9}$ in each eye.

OUTDOOR SHELTERS FOR CONSUMPTIVES.

Q. Q.—The erection of outdoor shelters for patients suffering from consumption in public parks has been suggested—as, for example, in Victoria Park and on Plumstead Common—but so far as we have been able to ascertain the proposal has not yet been carried out in this country. It might be possible to obtain some details of the practical working of such shelters in the Berlin parks through the Secretary of the National Association for the Prevention of Consumption, 20, Hanover Square, W.

BOOKS ON THERAPEUTICS.

LANCASTRIAN would probably find that the *Textbook of Pharmacology and Therapeutics*, edited by W. Hale White (London: Young J. Pentland, 1901, 21s.), would suit his requirements. A useful work by an American writer is *Therapeutics: its Principles and Practice*, by H. C. Wood, eleventh edition (London: Smith, Elder and Co., 1902, 18s.).

LETTERS, NOTES, Etc.

FICTITIOUS TEMPERATURES.

DR. E. FRASER (Brixton Road, S.W.) writes: It may interest your readers to know that a malingerer can "shake up" a clinical thermometer nearly as well as we can shake it down. I heard recently that some schoolboys did this whenever they wanted fish, as they found that a temperature of 100° F. generally meant fish for dinner. (They had measles.)

WOUNDED IN NAVAL ACTIONS.

FLEET SURGEON E. J. BIDEN, R.N., writes with reference to the paragraph referring to the wounded in naval actions published in the BRITISH MEDICAL JOURNAL of April 16th, p. 910, that from the preceding part of Captain Bayly's report, and his own experience in Crete in 1897 (JOURNAL, 1897, vol. i, p. 1184), he has no doubt that the small wounds were caused by shrapnel-shell bullets.

AMMONURIA.

DR. JOHN HADDON (Hawick) writes: I read with interest the article in the EPITOME of April 23rd, par. 244, on Phosphaturia and Ammonuria, in which it is stated that ammonuria is not always the result of bacterial action. It is some years since I noticed that the urine of some vegetarians made red litmus blue as soon as it came from the bladder. I thought the urine was alkaline, but having left the litmus paper lying on the table till it dried, I was astonished to find the part that had been wet in the urine had changed to red. I concluded that it must have been ammonia that changed the litmus paper from red to blue. Recently I noticed that physiologists in their analysis of urine mention pre-formed ammonia. A. Freudenberg found that the majority of his neurasthenic patients had ammonuria. Was it the effect of the neurasthenia, or connected in some way with the cause of that condition? The study of the acidity of the urine on varying diets, as well as in disease, is one which some of our research scholars might take up with advantage; but no observations are of much value unless a complete analysis of each specimen of urine is made. It is highly probable that pre-formed ammonia may be found to have some relation to uric acid, and its study may throw some light on uricacidaemia, and help us not only in the treatment but in the prevention of gout and rheumatism.

LETTERS, COMMUNICATIONS, ETC., have been received from:

A Dr. P. S. Abraham, London; Dr. I. W. Anderson, London; Mr. M. Acheson, Bra... Dr. R. S. Anderson, Spennymoor; Dr. J. Adam, Hamilton; Associate; W. ... Alexander, M.B., Crowle. **B** Mr. J. T. Burden, London; Mr. H. N. Barnett, ... Dr. J. S. Bury, Manchester; Dr. C. Buttar, London; Dr. T. E. B. Brown, ... London; Mr. K. C. Basu, Calcutta; Dr. J. Barr, Liverpool; Mr. W. Berry, Wiga... E. Bruce-Low, Edinburgh; Dr. W. G. Bacot, Bournemouth: Dr. E. C. Bridges, ... **C** C. W. Cathcart, M.B., Edinburgh; Mr. A. Connell, Sheffield; Mr. T. T. Collin... linasloe; Dr. G. Crichton, London; A. Cox, M.B., Gateshead; Mr. F. W. Collin... London; Dr. E. M. Callender, London; Mr. J. G. Cronyn, Dublin. **D** Doctor ... Mr. S. Dash, London; E. E. Dyer, M.B., Alloa. **E** Mr. E. East, London; ... Elliot-Blake, Bognor; Dr. W. A. Evans, Bradford; Mr. A. Evans, Leeds. ... Helen Munro Ferguson, London; B. G. Fiddian, M.B., Newport, Mon.; E. R. Fot... M.B., London; Dr. E. Fraser, London; Miss R. Ford, Tadworth; Major G. ... London. **G** Mr. M. Gregory, Uxbridge; Dr. J. H. Galton, London; Mr. T. ... Garstang, Altrincham; G. A. B.; A. C. Guthrie, M.B., Leith; Mr. E. Green, ... Mr. R. E. Garratt, London; Dr. T. Gick, Dublin; Mr. W. J. Greer, Newport, Mo... J. J. Gorham, London. **H** Hunterian Society, Secretary of, London; W. Ha... M.B., Blackpool; A. Harris, M.B., Chesterfield; Dr. E. M. Hainworth, Hull; ... Haydon, London; Messrs. P. Harris and Co., Birmingham; Mr. M. C. Hime, ... derry; R. T. Halliday, M.B., Glasgow; Dr. J. P. Henry, London; Dr. G. He... London, **J** Dr. F. H. Jacob, London; Mr. J. D. Jones, Deri; Mr. J. A. Ja... London. **K** Dr. S. W. Kelly, Cleveland; Mr. J. Keen, Folkestone; Dr. E. ... London. **M** M.B.; Manchester Medical Society, Secretary of, Manchester; M... Montgomery-Smith, London; Mr. A. E. McCann; Mountmellick; Messrs. M... and Co., London; Dr. E. J. Maclean, Cardiff; Dr. D. Mackay, Berlin; E. McC... M.B., Devonport; M.D.; Dr. H. G. Molony, Ballingarry; Dr. A. S. Myrtle, Har... Mr. J. MacMunn, London; J. T. J. Morrison, M.B., Birmingham. **N** Nemo; ... Neal, Birmingham. **O** Old Member of Twenty Years' Standing; Optician; Mr. ... Orpen, Bagenalstown; Observer. **P** Dr. M. Paterson, Grangemouth; Miss J. ... London; Dr. F. M. Pope, Leicester; B. C. Powell, M.B., Roscrea; Captain A. ... Pinch, London; Pater. **R** R. S. D.; Mr. G. Rowell, London; Royal National ... Fund for Nurses, Secretary of, London; Mr. J. Robertson, London; Mr. H. ... London; Rex; Dr. W. Ranner, Freetown, West Africa. **S** Senex; E. Stork, ... Bury St. Edmunds; Miss L. Stevenson, Edinburgh; Spectator; Dr. W. Sheen, ... D. T. Smith, M.B., Preston; Mr. W. St. A. St. John, Derby; Dr. E. H. Snell, ... G. Skinner, M.B., Edinburgh; Mr. G. B. Stocker, London; F. A. Southam, M.B., ... chester; Mr. A. E. Shaw, Lacey; Sweated; Dr. S. Sunderland, London; Dr. A. ... Manchester; D. L. Smith, M.B., Bowdon; Messrs. Street and Co., Lond... Stephenson, M.B., London; Senex. **T** Mr. J. W. Taylor, Bristol; S. J. Taylor, ... Norwich; Mr. J. Tubb-Thomas, Trowbridge; Dr. J. H. Teacher, Glasgow; M... Thurston, Zeerust; Dr. E. F. Trevelyan, Leeds. **W** Mr. P. Williams, Londo... J. S. Walker, Hanley; Dr. S. M. Whitaker, Liverpool; Dr. F. Willcocks, London; ... Medical Society, Secretary of, Wigan; Dr. H. Williams, London; Dr. W. B. War... Liverpool; Mr. E. H. Willcock, Croydon; Mr. W. B. Winckworth, Taunton; ... Williams, Rhyl. **X**. Y. Z.

BOOKS, ETC., RECEIVED

Der Einfluss von Boden und Haus auf die Häufigkeit des Krebses f. nach Detail untersuchungen in Bayern. Von Dr. med. Karl Kolb. München: J. F. Lehmann. 1904. M.4.

Bericht über 137 Gallensteinlaparotomien aus dem letzten Jahre (6. 10. 1902 bis 6. 10. 1903) unter gleichzeitiger Berücksichtigung der nicht operierten Fälle. Von Prof. Dr. Hans Kehr. München: J. F. Lehmann. 1904. M.5.

Beiträge zur experimentellen Therapie. Herausgegeben von Prof. Dr. E. v. Behring. Heft 8. Tuberculoseentstehung, Tuberculosebekämpfung und Säuglingsernährung. Von E. v. Behring. Berlin: August Hirschwald. 1904.

Immune Sera: Haemolysins, Cytotoxins, and Precipitins. By Prof. A. Wassermann, M.D. Authorised translation by Charles Bolduan, M.D. First edition. New York: John Wiley and Sons, and London: Chapman and Hall, Limited. 1904. 4s. 6d.

Elements of Water Bacteriology, with special reference to Sanitary Water Analysis. By Samuel Cate Prescott and Charles-Edward Amory Winslow. First edition. New York: John Wiley and Sons, and London: Chapman and Hall. 1904. 5s. 6d.

Medical Laboratory Methods and Tests. By Herbert French, M.A., M.D.Oxon., M.R.C.P.Lond. London: Baillière, Tindall, and Cox. 1904. 3s. 6d.

Sketches of the Lives and Work of the Honorary Medical Staff of the Manchester Infirmary, 1752 to 1830. By Edward Mansfield Brockbank, M.D., M.R.C.P. Manchester: University Press. 1904. 15s.

Notes on the Composition of Scientific Papers. By T. Clifford Allbutt, M.A., M.D., LL.D., D.Sc., F.R.C.P., F.R.S., F.L.S., F.S.A. London: Macmillan and Co. 1904. 3s.

The City of London Directory. Thirty-fourth annual edition. ... W. H. and L. Collingridge. 12s. 6d.

The Income Tax Burden. By T. Halle... F.S.S. London: Horace Cox. 19...

A Manual of Dental Anatomy. By C... S. Tomes, M.A., F.R.S., F.R.C.S. ... edition. London: J. and A. Chu... 1904. 12s. 6d.

Zur Psychopathologie des Alltags... Von Dr. Sigm. Freud. Ber... Karger, and London: William... Norgate. 1904. 3s.

Die Colostrumbildung als physiologis... Analogon zu Entzündungsvorg... Von Dr. Hans Bab. Berlin: A... Hirschwald. 1904. M.6.

Patent Foods and Patent Medicine ... Robert Hutchison, M.D., F.... London: John Bale, Sons, and D... son, Limited. 1904. 1s.

A Manual and Dictionary of the Flow... Plants and Ferns. By J. C. Willis. Second edition. Cambridge: Univ... Press. 1904. 10s. 6d.

Ueber plötzlichen Tod durch Herzlähm... Von Dr. Ernst Ehrnrooth. Ber... August Hirschwald. 1904. M.2.

The Medical Inspection of School Ch... By W. Leslie Mackenzie, M.A., ... M.R.C.P.E., D.P.H., F.R.S.E. As... by Edwin Matthew, M.A., M.B. ... M.R.C.P.E. Edinburgh and Gla... William Hodge and Co. 1904. 10s. ...

University of Manchester. Lecture ... Application of Chemical Analysis ... Study of the Biological Proces... Sewage Purification. By Gilb... Fowler, D.Sc., F.I.C., on March ... 1904. Manchester: Sherratt and H... 1s. 6d.

Isolement et Psychothérapie. Par ... Docteurs Jean Camus et Pie... Pagniez. Préface du Professe... Déjerine. Paris: Félix Alcan. ... Fr.9.

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A Clinical Lecture
ON
A CASE OF STRANGULATED FEMORAL HERNIA.

By ANDREW CLARK, F.R.C.S.,
geon to the Middlesex Hospital, and Lecturer on the Principles and Practice of Surgery in the Medical School.

E case to which I wish to direct your attention this after-on is that of a patient who was admitted into Bird Ward March 8th with intestinal obstruction. A message was t to me in the operating theatre that she was in a serious dition, and that faecal vomiting had been going on for eral hours. Accordingly as quickly as possible I went to estigate the case, and decided to lose no time in operating a femoral hernia which I found she had on the right side, l which I thought was very likely the cause of her trouble. ere were several unusual points about the case, and I am refore bringing it before your notice in a more formal way n I could do at my ordinary ward visit.

istory.—The patient was too ill to give a very definite account of self, but with the aid of her daughter who accompanied her to the pital we elicited the following history: She appears to have been a healthy woman, never having been laid up, except with an attack heumatic fever thirty years ago, from which she recovered perfectly. had had a right femoral hernia for many years, for which she wore uss, and this she continued to wear. When I called attention to hernia she insisted that it had nothing to do with her present ble, because she had no pain in it and it was always in its present dition. The present trouble began five days before admission rch 3rd), when the patient was seized with pain in the abdomen after eating some beefsteak. This pain was accompanied by sick-, and several attempts to relieve the bowels were unsuccessful. sent for a doctor, who, she states, ordered no medicine, but told to put turpentine and hot fomentations on her abdomen, which did, and, getting relief from the pain, she did not stay in bed, gh the vomiting and constipation continued. The next day she had evacuation of the bowels, but otherwise remained in much the same ition. She continued to persevere with her household work though in and discomfort until March 7th, that is, for four days after she first taken ill. She then felt so bad that she took to her bed and for the doctor again, who, she states, ordered her some medicine to continue the turpentine fomentations, which she did till the ness of her blistered abdomen made her leave them off. The doctor siting her the next morning found increased distension and faecal ting, and advised her to go to a hospital, so she came here in the se of the afternoon, walking into the ward. Before she could be nto bed she vomited a good deal of faeculent material.

ndition on Admission.—A spare, delicate-looking person, and very . All over the abdomen is a large blister, which she states was ed by the vigorous application of turpentine on hot flannels. The men is very tense, and tympanitic all over, and patient complains in in the epigastric and hypogastric regions. There is a right ral hernia which is neither tense nor painful but decidedly tender anipulation. A rectal examination revealed nothing.

w, with this history and condition before us what were o do? Here was a patient who had intestinal obstruction days, immense distension, and faecal vomiting, but the ace of her abdomen was in such a state of rawness and and altogether she was so dirty, that an aseptic lapar-y seemed impossible until some time had been allowed lapse to purify her; but why should not the hernia be ause of the trouble? It might be, though I must con-I had my doubts about it, as it presented none of the ary local symptoms of strangulation. But the skin was thy in that neighbourhood, and it was quite possible to get part aseptic quickly, so I decided to explore it, and, as the el proved, here really was the cause of all the trouble. we did not save the patient's life but we relieved her nt symptoms, and she was saved a good deal of suffering. fore I go into the details of the operation let me tell you passed through my mind while I was examining the nt. Here was a bad case of intestinal obstruction, not acute, but it could not be called chronic, as the patient been quite well up to six days before admission. Was hernia (which one could not help seeing when the men was uncovered) strangulated and was this the sole of the obstruction? We remember that the local sym-s of strangulated hernia are a tender, painful, hard, tense, ucible swelling with no impulse on coughing or straining; was not one of these signs present except irreducibility, you recollect the patient walked into the ward, which hardly expect a patient with strangulated hernia to do. general symptoms are the same as intestinal obstruction from other causes. What are these, and is there anything in this case that would lead us to diagnose any other cause? They are intussusception, internal strangulation by a band or by a twist of the gut, volvulus and impaction of a foreign body. Intussusception rarely occurs in patients of the age of this individual; the symptoms were not severe enough for acute, and chronic would have had a longer history; the abdomen was too tense to expect to feel an intussusception. Internal strangulation by a band was unlikely, as the patient had never had peritonitis or indeed any abdominal disease to produce it, and at her age one would hardly think it was a congenital band; it might have been a twist, and that I thought not unlikely. Volvulus—that is, twisting of the mesentery so as to produce obstruction to the calibre of the bowel—was a possibility, but the history was too short; and for much the same reason obstruction by a foreign body was unlikely, and, moreover, there was no history of her having swallowed anything hard and indigestible; and there was no reason to think the patient had gall stones, the other foreign body most likely to get impacted and cause obstruction, so that the diagnosis really in my mind was between the hernia and a twist.

Had the abdomen and the patient been in such a condition that I could have safely operated in the middle line, I think I should have done so, and dealt with the hernia from within if it proved to be the cause of the trouble, but that was out of the question, and one knows that in an old femoral omental hernia, which this was, it is not uncommon for a little bit of bowel to come down and get strangulated, though in most cases there is some local sign of it.

Having determined on exploring the hernia it was desirable that no time should be lost, accordingly the patient was taken into the theatre and anaesthetised with gas and ether. The details of the operation are as follows: An incision was made over the hernia towards its inner side, the sac was exposed and freely opened, when about an ounce of slightly blood-stained fluid escaped, a mass of omentum somewhere about the size of an orange was then seen and found to be adherent at the femoral ring, but free elsewhere; this was gently raised, and behind it was seen a piece of gut which was deeply congested, but not gangrenous, and tightly nipped at the femoral ring. The constriction was divided with a hernia knife in the usual way, and the piece of bowel was easily returned to the abdomen. The adherent omentum was then carefully separated, transfixed, tied in two pieces with a silk ligature. and removed. The sac, which was very thin and tore easily, was tied at the femoral ring, but the lower part was left where it was. The wound was closed with interrupted silk sutures, dressed with cyanide gauze, and the patient put back to bed. To comment on the steps one by one—First: The escape of slightly blood-stained fluid—this indicated congestion and nothing more; next we observed a lump of omentum which was free at the bottom of the sac, but adherent at the neck; it was a good deal altered in appearance from normal omentum, but only in the condition this tissue gets into when it has been in its abnormal position a long time; it was obviously not the cause of the trouble, but on lifting it up there was a claret-coloured lump in appearance not unlike a large black Hamburg grape protruding from the femoral ring and nipped by it; this, I had no doubt, was the cause of the obstruction. Taxis had no effect, as one would expect, so I divided the constriction with a hernia knife and the little piece of gut slipped back easily.

May I say a few words on how to safely do this part of the operation? First, a director should be got under the band, and the best director is the finger-nail, then, it is wise to use a knife which has had the very sharp edge taken off; I think it is about the only condition under which a surgeon likes to use a blunt knife. You naturally make your nick away from any known vessel; here you would not cut outwards, as if you did you would probably damage the femoral vein, nor directly upwards lest you wound the spermatic cord or epigastric artery and get trouble with bleeding; but inwards, and if, as sometimes happens, there is an abnormal vessel in the way which a sharp edge would wound, a blunt edge would divide the resisting band and probably push the vessel away, that is why I used a blunt knife.

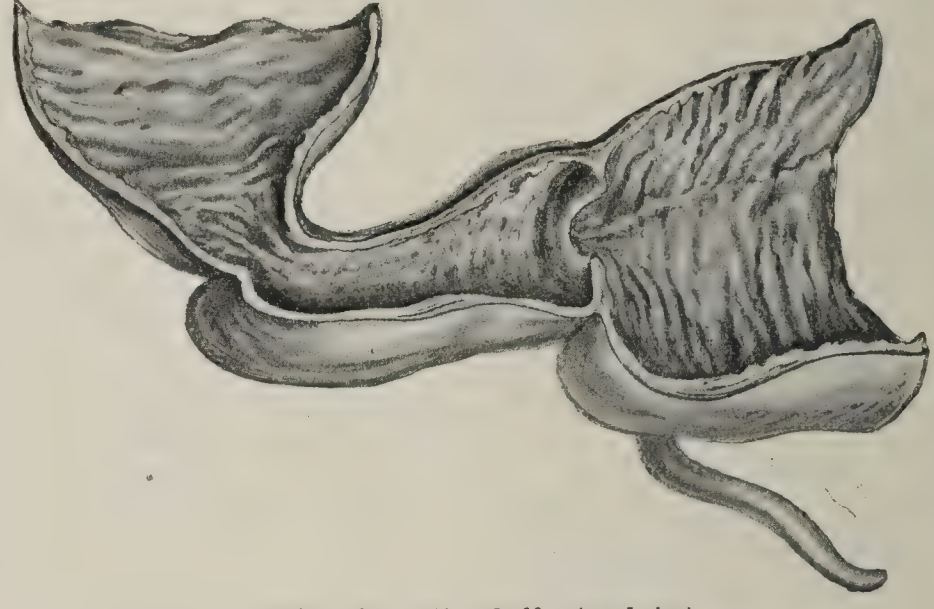
The question as to whether one should return the herniated bowel did not arise in this case; it was obviously in a condition in which recovery could take place when the constriction was removed. Now we come to the omentum. What was to be done with that? I examined it carefully, and found that it was only adherent in the outer part of its circumference and that it did not contain any gut, so I decided to remove it, and I did so by first separating the adhesions and tying

several vessels that bled; then I transfixed the main piece and tied it securely in two halves, the stump was then allowed to fall back into the abdomen and the neck of the sac ligatured. I made no attempt to close the ring, in a femoral hernia I do not think this is much use, neither did I dissect out the sac, which I found very adherent, and when it is securely cut off from the peritoneal cavity it rarely gives trouble.

We now come to the subsequent life-history, and unfortunately it was very short. The operation had evidently relieved the mechanical obstruction for the vomiting had quite ceased, but the abdominal distension did not go down and the bowels did not act. When I saw the patient twenty hours after the operation I learned that she had had a fair night and was more comfortable, and I suggested a turpentine enema to try to get the bowels to act; this however had no effect. The same evening, about thirty hours after the operation, her pulse began to fail, and notwithstanding the administration of stimulants she never rallied and died about 10 o'clock the next morning, forty-two hours after the operation. The only points here I need remark on are the continuance of the distension and the non-action of the bowels. Was this due to another constriction or to reduction *en masse?* Seeing that the vomiting had ceased I did not think it was either, but probably due to paralysis of the gut which might have been caused by the long constriction, and not improbably by the administering of opium, though we did not know for certain that that drug had been given, and it was acting on this belief that I ordered a turpentine enema. I may add as to reduction *en masse* that it rarely if ever occurs now, as it is an invariable custom to open the sac freely and explore the adjacent parts, and moreover it is very rare in femoral hernia.

A *post-mortem* examination was made the same afternoon, and I will read an extract from the notes:

On opening the abdomen the large intestine was found to be collapsed and empty (see Fig.), the small intestine considerably distended, its walls injected, especially along the lines of contact, and in places it was deeply discoloured, and this was most marked near the ileo-caecal valve. There was no exudate on the peritoneum, but its surface was slightly lacking in lustre. The appendix was healthy; the last 3 in. of the ileum were much discoloured and showed evidence of recent constriction, the peritoneum being discoloured and in one spot slightly abraded. The lumen of the gut was narrow, but not obstructed, the obstruction having apparently been relieved at the operation. The mucous membrane of this part of the gut was much discoloured and slightly rough from superficial ulceration, but there was no actual gangrene. The ileo-caecal valve was patent; the ileum in several places was deeply discoloured, and there was considerable submucous haemorrhage in these regions, but no ulceration. The neck of the hernial sac was found to be closed and the stump of the omentum was natural with the ligatures upon it.



Portion of Intestine (half natural size).

I need not read the rest of the *post-mortem* notes, as they are not material to our purpose to-day; it is sufficient to mention that with the exception of the liver and kidneys, which were fatty, the organs were normal.

The first thing we note here is the collapsed condition of the large intestine; then we notice that the herniated part of the gut was the very end of the ileum, almost implicating the ileo-caecal valve (see fig.). I have never seen this part of the bowel in a hernia, and am not able to find it recorded, the most usual part of the tube to find is the ileum higher up; but the colon, the caecum, the sigmoid, and the stomach have been found in a hernial sac, as well as most of the abdominal and pelvic organs, excluding, I believe, the pancreas and kidneys only. We next observe that the peritoneal covering was deeply discoloured in places, especially near the ileo-caecal valve; this was easily accounted for at the herniated part, as the constriction produced congestion, from which the gut had not recovered during the short time the patient lived, but as taxis had not been employed and there was nothing to account for the rest of the discoloration, I imagine it to be *post mortem*. The fact of the surface being slightly lacking in lustre, and injected at the lines of contact looks as if peritonitis, the old bugbear of abdominal operations, but which we rarely meet with now, was beginning. It is not many years since it was the rule in operating for hernia never to open the sac if it could be avoided for fear of this complication; indeed, this was the practice within my recollection. In a clinical lecture given in University College Hospital by Mr. Quain in my early days as a student, speaking of the way of dealing with the omentum in a hernia after the gut had been returned he says: "The bowel being restored to the abdomen by division of structures covering the sac, and without opening the sac itself, it would not be justifiable to proceed further, not justifiable to open the sac in order to act more immediately upon the omentum with the view of replacing it in the abdomen, as well as the bowel which had been already replaced." Such was the fear in those days of cutting the peritoneum, but if the peritoneum had to be opened then the omentum was treated exactly as we treat it now, though the surgeon is enjoined to make as small an opening as possible. The next point to comment on is "the lumen of the gut was narrow, but not obstructed," and I think this is well shown in the figure below. Whether the lumen was completely obliterated before the operation I cannot say; it suggests the possibility of a so-called Richter's hernia—that is, the inclusion in the constricted part of only a portion of the circumference of the bowel, this condition is not often met with, but is said to be more common in old and in femoral hernia than any other variety. You observe one constriction close to the ileo-caecal valve and the other a little higher up, and a well-marked pouch between the two; you also notice the marked distension of the ileum above, which is nearly as large as the caecum. This, you remember before laying the intestine open, we saw to be quite collapsed. The actual nipping was removed, and there is no pathological cause to show why there was no action of the bowels after the operation. The superficial ulceration and discoloration of the mucous membrane and the submucous haemorrhage were probably due to the irritation of purgatives given with a view to relieve the obstruction in its early days. Enteritis is a condition that sometimes follows the operation for strangulated hernia, and when it occurs is a serious and troublesome complication.

I cannot conclude this lecture without impressing upon you the importance of searching for a hernia in all cases of intestinal obstruction, and if you find one to explore it before resorting to other treatment or to the more serious operation of examining the intestines for an internal cause, even though as in the case under consideration, there was no definite evidence from the local signs in the hernia that it was the cause of the trouble, and further, that whenever you do operate on a strangulated hernia, take care to explore the adjacent parts thoroughly, so that in the event of the continuance of any of the symptoms you know it cannot be due to reduction *en masse*, and remember that there are cases in which the symptoms may continue for a limited period, and that time and suitable drugs will effect a cure.

MEDICINE AND MATRIMONY.—It is stated that the New York State Legislature will shortly have submitted to it a Bill providing that all persons applying for a marriage licence must, as a necessary preliminary, obtain a medical certificate. The Bill is intended "to place greater restrictions upon the marriage of imbeciles and half-witted persons and also to prevent those having consumption and other diseases from marrying." A Bill having a similar object has recently been introduced in the Ohio Legislature. It provides that no person who is an imbecile, a lunatic, a drunkard, or a sufferer from the effects of narcotic drugs, shall be allowed to marry.

N OPERATION FOR THE RADICAL CURE OF HERNIA.

By J. HOGARTH PRINGLE, M.B., F.R.C.S.,
Surgeon, Glasgow Royal Infirmary.

this paper I desire to describe a method of performing a lical operation for the cure of inguinal hernia which I have v been employing for nearly eighteen months, and which so far given results that are quite satisfactory.

revious to that time it had been my practice to operate on all cases according to the method of Sir William Mac-en, for I well know what admirable cures are obtained by n. Formerly I had many opportunities of seeing and mining cases, often at long periods after operation at his nds, and I never saw a patient who had a recurrence of his nia.

With the results in my cases I was, however, disappointed. enty-six patients were operated on by me, and of these 14 e not been seen again since very shortly after their dis-ssal; possibly some of these may have had a relapse; but, he remainder, 5 are known to me to have had a recurrence the hernia, while in the others who have been seen from e to time since their operation the result has been good, the inguinal canal seems to be closed perfectly. Of the atients in whom a recurrence occurred, 2 had a stitch cess after operation; one of these went eighteen months, other two years before recurrence took place; while of the hers, all of whom healed perfectly aseptically, 2 relapsed hin a few weeks after dismissal, the other not for eighteen nths.

n some of my cases trouble was caused after operation by mbosis of the spermatic veins, which lead to great ema of the scrotum and the formation of a sausage-like lling, which often extended for the whole length of the uinal canal, where it might possibly act as a sort of wedge tend ultimately to interfere with the accurate apposition he walls of the canal.

had sometimes appeared to me at the end of an operation an unnecessarily large amount of tissue, composed of the nasteric and other fasciae, was left to be transmitted ugh the inguinal canal as it had just been restored, and this might prevent the closure of that passage being as ect as it might be if they were not there. For this reason equently removed considerable portions of these tissues, thought that a more perfect closure was obtained in con-uence; but in doing this it was constantly observed that fasciae so cut away were of considerable thickness, the naster itself even in cases of large herniae being often e a good layer, and it was thought they might be ntageously utilized for the purpose of aiding to close canal instead of removing them.

Operation.

ith this idea an operation came to be performed of which ollowing is a description:

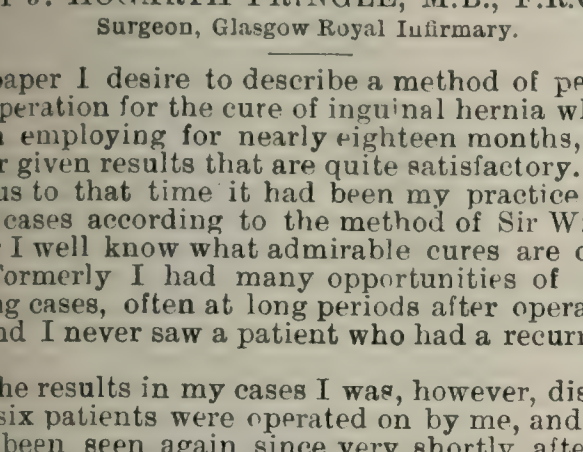


Fig 1.

An incision $\frac{3}{4}$ in. above and parallel to Poupart's liga-t, and running from a point over the internal pillar of external abdominal ring to a point situated over the al iliac artery, is made; the external oblique is shown he whole length of the wound and the external ring ly defined. The aponeurosis of the oblique is now ded from the point of meeting of the two pillars of the outwards as far as the limit of the skin wound, and its ins retracted, the lower flap being dissected off the nal oblique and cremaster down to Poupart's ligament 1).

2. The cremaster and all tissues beneath it down to the sac are divided in a direction corresponding to the dotted line in Fig. 1, and the flap, as outlined, is turned down off the sac by blunt dissection and held back.

3. The sac is now stripped carefully off the cord right up to the internal abdominal ring, In cases where the sac is sufficiently thick to permit the necessary manipulation it is returned in the following way: A ligature is tied round the fundus, or, if any of the sac has been cut away, round the most distal portion of what is left, and one end of the ligature, which is left long, is used as a continuous suture, which passes from side to side, and, in a sense, spirally, up the sac, which is at the same time continually invaginated. The result is that a "balling" of the sac is produced, and in this way a thick and rounded pad is formed, which comes to lie exactly at the internal abdominal ring, and to project into the peritoneal cavity as a slightly rounded prominence. If the hernia is recent and the sac thin, it is very troublesome to get it to invaginate satisfactorily; it is then returned by the running suture, as recommended by Sir William Macewen.

4. The distal end of the cord is now drawn upon from the wound; the spermatic veins isolated, and divided between two ligatures just proximal to the epididymis: the ligatures are then tied together so as to keep the venous stumps approximated in order that some traction may be exerted upon the cord at a later stage.

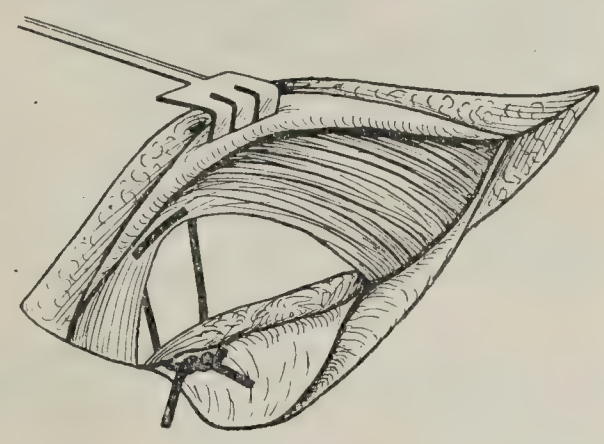


Fig. 2.

5. *Suture of the Internal Oblique.*—A "relaxing" suture—of catgut of medium strength—threaded on two needles is next passed through the horizontal portion of the combined tendons of the transversalis and internal oblique, just as they approach the rectus muscle, at two points from without inwards so as to leave a loop of the suture lying upon the outer aspect of the tendon: the two needles are then passed behind the cord and through Poupart's ligament (as in Fig. 2); the needle which is placed nearer the middle line being passed close up to the spine of the pubes, the other at the point where the spermatic cord naturally crosses the ligament. This suture is meantime left untied. Several catgut sutures are then passed between the internal oblique and Poupart's ligament so as to get as close coaptation of these two structures as possible from the insertion of Poupart at the pubes to the point where it is crossed by the cord, these sutures all being

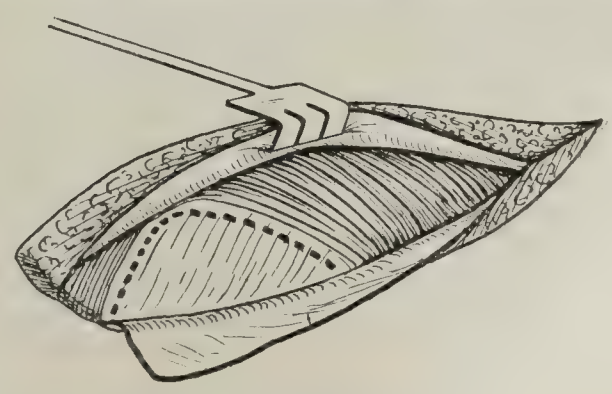


Fig. 3.

posterior to the latter. It often happens that the sheath of the rectus (here not a "sheath" at all in the sense of there being two layers, but actually the combined tendons of the transversalis and oblique passing in front of the rectus) is too rigid to draw down easily. In these cases its attachments to the anterior surface of the tendon of the rectus are freely divided, which always permits it being easily approximated to Poupart; and if, as is sometimes the case, the rectus sends

a prolongation outwards to be inserted into the ileo-pectineal line, this is also divided close to the bone and sutured to Poupart, and thereby much additional strength is given to the inner part of the posterior wall of the canal. In tying these sutures, the "relaxing" suture is first tied and the others after it.

An assistant now draws upon the testicle so as to stretch the cord, and three or four sutures are passed external to the latter between the oblique and Poupart so as to draw the muscle down in front of the cord (see Fig. 3).

6. The cremaster flap is drawn upwards and inwards as far as possible, and sutured to the anterior surface of the internal oblique and of its tendon over the rectus by deep as well as marginal sutures. (The appearance of the wound at this stage is shown in Fig. 4.)

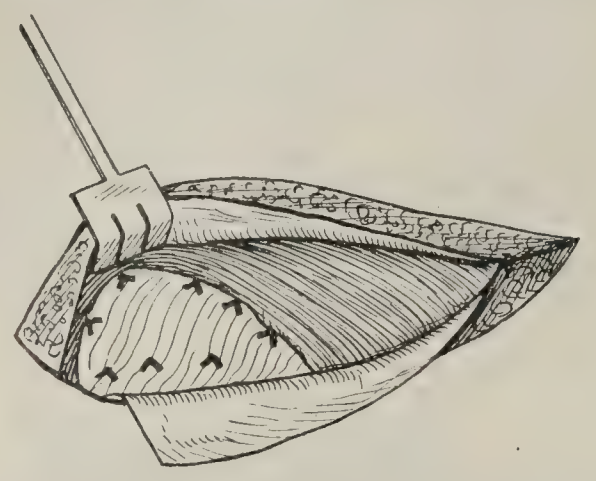


Fig. 4.

7. The aponeurosis of the external oblique is now sutured as close as possible; a buried suture is used for the subcutaneous tissue layer, and finally the skin is sutured.

Results.

Twenty patients have now been operated upon by me in this manner, and although no great interval has elapsed since the first case was so treated, there is no instance of any recurrence of the hernia.

All the cases have been seen frequently, and the region of the operation in every one is firm and tight.

None of the patients after operation developed any thickening of the cord above the level at which the veins were ligatured; and the object for which that procedure was adopted appears, therefore, to have been attained. Oedema of the scrotum has been very markedly less than in my former experience, and only one of the patients developed a hydrocele.

I believe strongly in the advantage of a pad formed from the hernial sac as advocated by Sir William Macewen, and think that the method I employ for making it is a good one. In a patient recently operated upon who had both an irreducible inguinal and umbilical hernia, the inguinal was treated in the way above described in the first place, and when the umbilical hernia was dealt with I took the opportunity of examining the state of the inguinal region from the abdominal aspect, and found the closure to be as accurate as it could possibly be The peritoneal pad was tight and hard and rounded, projecting above the surface of the abdominal wall at the internal ring like one-half of a small ball.

There is no transplantation of the cord which forms such a prominent feature of the Bassini-Halsted operation. I take every care that the cord shall cross Poupart's ligament at its normal situation. The cord, however, in my operation is practically reduced to the vas and its own vessels, for by tying and dividing the veins I get rid of them as venous channels as completely as if they were actually excised; the amount of tissue they represent in their collapsed condition is very small indeed, so that the opening through which the cord has to be transmitted beneath the internal oblique is of the smallest diameter.

My reason for dealing with the veins in this way is that I believe it offers the best means of preserving intact the nerve to the cremaster. Normally this nerve runs in close proximity to the spermatic veins at the posterior and outer part of the cord; if it can be preserved the substance of the cremaster flap will thereby be preserved, and in that case will be of much greater value than it can be if it atrophy, as must happen if the nerve be destroyed. When the cremaster flap is sutured into position on the surface of the oblique it is drawn both upwards and inwards a little further than its actual natural position (compare Figs. 1 and 4); the tw structures mutually support each other, and form a sma canal in which lies the vas along with the collapsed vein The flap remains a taut layer, always, as I have found, of definite value, which, however, will vary in different case I have been struck with the degree of contraction possesse by the fibres of what at first sight looks like an attenuate and thin muscle. After the flap is cut and dissected down will contract into quite a compact layer.

I have quite recently learned that an account of an opera tion somewhat similar to what has just been described wa published by Halsted in the *Johns Hopkins Bulletin* fo August, 1903: it constitutes a very marked modification of th operation which has hitherto been known by his name. I his new operation Halsted removes the sac, excises the veins and employs the cremaster as an additional layer of tissu much in the same way as I have done; but he places it deepe than the internal oblique, suturing it to the under surface o the latter.

It appears to me to be distinctly preferable that the fla made of cremaster and the other fasciae should be placed i front of the internal oblique; it does not interfere in any wa with the suturing of the oblique to Poupart's ligament, and i has, as it seems to me, this great advantage, that nothin remains except the vas—and in my operation the empty vein —to be passed beneath the inferior border of the oblique Whereas if it be placed deeper than the oblique there will b a puckered-up portion of these fasciae to be transmitted, an consequently, a less close approximation of the oblique t Poupart is possible, unless the flap is cut away from its pro longation into the scrotum—a procedure which I do not gathe from his description is carried out by Halsted.

Excision of the spermatic veins is, I believe, absolutely certain to lead to division of the cremasteric nerve and conse quent atrophy of the cremaster fibres, a result which in my method I have all along done my utmost to avoid, and as believe with success, for several of the patients have shown a good cremasteric reflex after operation.

Femoral Hernia.

In my operations for this variety of hernia after freeing the sac I return it in the same manner as above described so as t invaginate and "ball" it. Then I make a longitudinal inci sion at the inner part of the femoral sheath, so as to open the venous or middle compartment, free the inner border of the femoral vein with the handle of the knife and draw the vein outwards. Then pass a needle carrying a strong catgut suture from the venous compartment (and therefore to the outer side of the septum between it and the "femoral canal") through the pectineus muscle, and bring it out close to Gimbernat's ligament; the two ends of the suture are then passed from below upwards through Poupart, and, at the inner side, through Gimbernat.

This suture lies entirely outside the walls of the femoral canal, and when it is pulled up and tied closes the latter completely; no chink is left between the margin of the ring and one of the sutures through which a hernia can wedge its way.

Further closure of the canal and reinforcement of this deep suture are obtained by two or three interrupted stitches which are passed between Poupart and the pubic portion of the fascia lata over the pectineus, and the wound is closed by suturing the subcutaneous tissues and then the skin.

No case which I have operated upon by this method is known to me to have had a recurrence of the hernia.

ON GASTRO-JEJUNOSTOMY FOR PYLORIC STENOSIS, GASTRIC ULCER AND SOME OTHER NON-MALIGNANT CONDITIONS.

By GILBERT BARLING, M.B., F.R.C.S.,

Professor of Surgery University of Birmingham, Surgeon, Birmingham General Hospital.

My observations will not be rigidly circumscribed to the title of my paper as there are operations similar in purpose to gastro-jejunostomy to which I must briefly refer, so also some other conditions than actual pyloric stenosis and existing gastric ulcer will be considered, as duodenal ulcer, for instance, and hour-glass stomach. The radical procedure of excision of the pylorus or some other area of the stomach I have, however, purposely excluded as these would expand my remarks to undue length. In my own hands gastro-jejunostomy has

en performed for a variety of conditions which I will ssify into three groups:

. For stenosis of the pylorus, for hour-glass contraction of e stomach, or for a stenosis of the duodenum in each case to ow the contents of the stomach to pass freely into the estinal tract and thus provide relief to gastric stasis with distressing symptoms and the incapacity for work which it ngs.

. For the purpose of putting the stomach at rest, to stop emorrhage from ulcers, whether situated in stomach or odenum, with the intention also of relieving pain and ocuring the healing of the ulcers.

. For atonic dilatation of the stomach with marked pro-sis it being hoped that the substitution of a passive opening the pylorus, and at a more dependent position of the mach, would relieve the organ of its burden of overfullness l consequent pain and vomiting. Chronic dyspepsia, with-evidence of gastric ulcer or dilatation, has also thus en treated as a refuge when no relief was obtained by ting or other medical measures.

How far has gastro-jejunostomy fulfilled the purposes for ich it was undertaken? The answer varies with the dition for which the operation was done. In simple complicated stenosis of the pylorus or of some other part of stomach (hour-glass contraction), the relief has been ost always complete and thoroughly gratifying, the more ere the symptoms the more marked the benefit. If, as is rarely the case, the patient has been markedly neuras-nic, the full benefit of the operation has been somewhat ayed, and subsequently under stress of work or anxiety a eatening of the old symptoms of pain and vomiting has en due to gastric catarrh or to an easily exhausted nervous aratus. With appropriate treatment these threatenings e passed off and the former condition of improvement has n maintained. Many in the group of patients now under sideration have attained a power of digestion so robust t I have been astounded by an account of what they can pose of; happily their nutrition and power of work has n equally satisfactory.

When haemorrhage or pain due to gastric or duodenal er has been the necessity for operative interference h symptoms have been relieved. The relief may be manent, but I have had two experiences to the con-y. One patient was the subject of duodenal ulcer which an anterior anastomosis was made with com-te cessation of severe pain and bleeding which had pro-ed extreme anaemia. At the end of two years, however, ulcer extended and produced death by perforation. In ther patient with gastric ulcer causing severe pain, relief given by an anterior anastomosis, and a year later, when patient appeared to be doing well, a sudden severe matemesis caused death. The ulcer in this case was ex-sive and firmly adherent by its base to the liver and pro-ly therefore a difficult one to heal, but as it was not sible to obtain a necropsy there is, of course, room for bt whether this or some other condition produced the l haemorrhage. Neither of these ulcers could have been ised without great risk to life, but where excision of an r is feasible its removal, in addition to gastro-jejunostomy, uld be considered.

roup 3 in my classification mentions atonic dilatation of stomach, and chronic indigestion, producing pain and iting unrelieved by medical treatment and dieting, with-evidence of stenosis, ulcer, or dilatation of the stomach or denum. I have operated in one case of each kind. The mple of atonic dilatation was in a woman, feeble, ciated to a degree, and very neurasthenic. In the first ance I thought this patient's pylorus somewhat more d and narrow than in health, and regarding pyloroplasty a less severe measure than anastomosis resorted to the ner but without any relief to the symptoms. Later I per-ned posterior gastro-jejunostomy by suture, and though od recovery followed the operation scarcely any benefit derived from it: pain is still complained of after all is of nourishment, the stomach is still as dilated as nerly, reaching almost to the pubes, the neurasthenia is rofound as ever and the emaciation as extreme, but the ent does not vomit now. The patient with chronic gestion was a man aged 28, engaged in laborious work, ch he frequently had to give up owing to pain after taking and vomiting, though at no time had he suffered from matemesis. The patient was sent to me in 1901 as nary treatment had failed to relieve him, and at the eral Hospital I opened his abdomen to see if an ulcer existed in stomach or duodenum, but after careful search neither ulcer, stenosis, nor dilatation of the stomach was found and the operation was finished as a mere exploratory one. He seemed better for a time, an improvement due probably to rest in bed and very careful dieting, but in six weeks the patient was as bad as ever. For months he haunted the out-patient room complaining of the old symptoms, and in February, 1902, I readmitted him for observation. Whilst he was in bed he did not vomit, but when allowed to get up and move about the ward, pain in the epigastrium occurred every day and was followed by vomiting. In March, thinking that I might have missed an ulcer at my previous examination, I re-opened the abdomen, and again could find no gross lesion, but lest I should have overlooked anything I did a posterior gastro-jejunostomy by suture, unfortunately without benefit and the man is still under treatment in the medical out-patient department. The result then in this limited group of cases has been discouraging.

Taking the whole of the cases together, pyloric stenosis has been the reason for surgical interference in a large majority. How this particular stenosis arises is not clear, whilst in some instances it is due to the cicatrix of healed ulceration; in most this is probably not the correct explanation. The local condition usually found is a pylorus which will only admit just the tip of the little finger, the opening feels like a button-hole, the surface layers of the stomach over the pylorus are supple and not infiltrated, there is no puckering or scarring on the peritoneum. This condition appears to be brought about by persistent spasm of the pylorus, initiated by an ulcer at a less or greater distance from the pylorus, or by excess of hydrochloric acid in the gastric secretion, perhaps in some cases ulcer and hyperchlorhydria coexist. I show you a specimen which illustrates these points, taken from a patient who died nine days after anastomosis by Murphy's button. At the necropsy the pylorus admitted a No. 10 catheter with difficulty, a chronic ulcer existed on the anterior surface extending across the lesser curvature to the posterior surface, where it was adherent to the pancreas, having perforated all the coats of the stomach; the ulcer came near to but did not involve the pylorus; the circular muscle of this orifice appeared to be much hypertrophied and fibrosed. Dr. Saundby's note states that free HCl was present to the extent of 0·0357 per cent., that is, it was in excess.

The signs and symptoms of pyloric stenosis are quite definite in the later stages when the stricture is well marked and the dilatation and proptosis have advanced to an extreme degree, associated with in some cases a good deal of hypertrophy of the muscular coat. The story generally told by these patients is one of long-continued indigestion, with pain and vomiting at varying time after the ingestion of food, sometimes of haematemesis or melaena. The vomiting eventually may not be constant, but occurs at intervals of a day or two, large quantities then being brought up with food material very incompletely digested though it might have been taken days before. When the stomach is artificially distended its lower border will be found some inches below the umbilicus, and its upper border is also displaced downwards, showing proptosis as well as dilatation. When the stomach is palpated, and sometimes even when it is not, powerful waves of peristalsis may be seen crossing the organ from left to right. There may be intermission of the symptoms after careful dieting, and especially when the patient is resting in bed, but a return to activity starts the whole train over again. In such cases there is clearly a mechanical obstacle to the emptying of the stomach and a definite thickening may be palpated about the right rectus. But this is the condition of the patient after much suffering, great loss of weight, and inability to work. These severe cases when submitted to operation, if they recover, are enormously benefited, and are restored to health and active life, but because of their enfeebled condition they are exposed to undue risk from operation, and by earlier surgical interference might not only escape this risk but much misery and disability.

Dr. Saundby is of opinion that the minor degrees of obstructive dilatation are often overlooked as in them the classical symptoms, periodic vomiting, and visible peristalsis are absent, and the symptoms are ascribed to chronic gastritis. He holds that the only way to avoid this mistake is by the sytematic employment of inflation in the examination of stomach cases. But dilatation of the stomach is not always dependent upon pyloric obstruction, and where it is due to simply atony experience shows that surgical interference does not give good results. It is, therefore, important

to determine whether obstruction exists or not. Dr. Saundby believes that this may be done by the examination of the contents of the fasting stomach twelve hours after a test meal of bread and meat. He recommends a supper of bread and meat, usually minced meat, to be given at 9 o'clock at night, and at 9 o'clock the next morning the stomach tube should be passed and the stomach emptied. If there is no obstruction the stomach will be completely free from even microscopical traces of food. If there is slight obstruction there may be traces of food, the amount of residue being in proportion to the degree of obstruction. This method has been too recently introduced to enable a final opinion to be given as to its value, but it seems to be based on sound principles and has proved trustworthy in several cases transferred to me by Dr. Saundby for operation.

The earlier recognition of gastric stasis leading to earlier relief by surgical measures is what we should aim at; patients should not be allowed to go on for years in more or less constant distress becoming more and more unable to perform their duties in life, and having to face an operation of some risk at the end. Early operation, in this as in so many other conditions, means safe operation. That the operation must be one of small mortality I fully concede, how this is to be secured I have just indicated. With these general observations on the kind of cases requiring operation, the benefit conferred by gastro-anastomosis, derived from an experience which now extends over about seven years, and the necessity for early operation in pyloric stenosis I turn to the methods of operating. First, let me say a few words as to the rival operations of pylorodiosis or stretching the stricture and of pyloroplasty by which it is incised and subsequently sutured, in either case for the relief of pyloric stenosis. With regard to the first mentioned, in my opinion it should be absolutely abandoned; if dilatation is thoroughly performed the risk of splitting the peritoneal coat and causing a fatal peritonitis is considerable, if the stretching is less complete the stricture is apt to recur quickly as in one of the cases I shall presently relate.

Pyloroplasty is a much better operation than that just alluded to, and is an occasional alternative operation to gastro-jejunostomy. When there is a choice between the two some surgeons prefer it to gastro-jejunostomy, but this is a preference I do not share, the results attained by it in my cases have not been as satisfactory as those brought about by anastomosis, consequently I rarely resort to pyloroplasty. On the making of an anastomosis between stomach and jejunum much ingenuity has been expended and very numerous methods suggested—a sure sign of dissatisfaction with most if not all. I do not propose to occupy your time with a full discussion of these, but will quite briefly summarize the matter and give the conclusions I have arrived at.

First, the union may be made either with the anterior or the posterior surface of the stomach. My earlier operations were all made with the anterior surface, either by means of suture alone, by suture with the aid of a bobbin, or by Murphy's button. The subsequent course was nearly always an anxious one owing to interference with the onward passage of the intestinal contents between the pylorus and the anastomosis, with resulting regurgitation of bile and pancreatic secretion into the stomach and vomiting. In some cases death appeared to me to be brought about directly in feeble patients by this vomiting. This "vicious circle," as it is termed, seemed due partly to the awkward displacement of the jejunal loop when it is brought out of its usual position from the back of the abdominal cavity to the front of the stomach and partly to the drag of the transverse colon, with its constantly varying distension, around which the portion of jejunum is brought to apply it to the stomach. For the last two years I have, therefore, abandoned the anterior anastomosis unless I have been driven to it by some diseased condition which forbade a posterior junction. The posterior union may be carried out in various ways, each having strong advocates in whose hands the method recommended has given very good results. In France the "*methode en* Y" is much practised. This requires a complete section across the jejunum, the junction of the distal end with the stomach and of the proximal end into the side of the distal portion of the jejunum. This elaborate plan was devised to prevent regurgitant vomiting, but as it involves the risks of a double anastomosis I have personally not practised it. We then have left the choice of posterior union by suture alone, by suture with the support of some absorbable material such as Robson's bone bobbin or by the use of Murphy's button. Each has some advantage and some disadvantage. Suture takes longer to apply than does Murphy's button and is more apt to be followed by regurgitant vomiting, as will be exemplified later on, but it leaves no foreign body in the stomach or to be passed out by the bowel with possible risk of ulceration or obstruction. The bobbin helps, I think, to prevent regurgitant vomiting, but is a rather inconvenient object to suture round owing to its bulk, and in a case which I shall presently mention its use was followed by death from haemorrhage. Murphy's button is quickly applied, and its use is generally followed by an easy recovery with very little if any, regurgitant vomiting. It may, however, produce obstruction if it escapes down the bowel, a point which I shall presently illustrate, and it may cause perforation about the line of union with fatal peritonitis. If retained in the stomach, as the button often is, it is doubtful if harm happens.

In the choice of methods just alluded to I am not in a position to speak dogmatically, though my judgement, on the whole, is in favour of suturing, still I cannot ignore the ease of recovery generally associated with the use of Murphy's button nor can I forget the briefer time occupied in applying the latter when the patient is very feeble, as not infrequently happens, and even a quarter of an hour's prolongation of the anaesthetic is a serious addition to the risks of the operation. In a few cases, too, it is more convenient to use the button because anatomical or diseased conditions allow only of small exposure of the posterior stomach surface with scarcely room for satisfactory suturing as in a patient whose case will be described presently where there was widespread adhesions from an old perforation.

I will not weary you with full details of all the cases in which I have performed posterior gastro-jejunostomy for innocent conditions, though a few I must describe at some length, but I wish to record my results by this method and to urge its general adoption. I have done the operation 18 times with 2 deaths, 8 of of them were by suture only with no death, 2 were by suture and absorbable bobbin with 1 death and 8 were by Murphy's button with 1 death. So much as to the safety of the operation.

The cause of death in the case anastomosed by suture and bobbin was haemorrhage into both stomach and peritoneal cavity, the source of which could not be discovered. There was nothing in the patient's history suggestive of any haemophilic tendency, the operation presented no difficulty and the suture was carried out exactly as in the other cases. Since this accident I have taken even more precaution to ligature any tiny vessel divided in the transverse meso-colon and to close by ligature or suture the vessels divided in the stomach wall. The other death was due to the Murphy button ulcerating through the junction on the ninth day after operation. The patient, a male aged 52, had emaciated and lost strength very rapidly the few days preceding operation and I am perfectly convinced that his days were lengthened rather than shortened by the operation. My reason for not suturing in this case was the absolute necessity of saving every minute possible at the time of operating, and for the next 24 hours the patient was so feeble that it seemed impossible that he should struggle through, but stimulants and very early feeding by the mouth carried him through this extreme depression. When nutrition is at so low an ebb repair can hardly be carried out in a satisfactory manner, and this no doubt in part, if not entirely, explains the perforation at the line of union. It makes one inclined in future to run the immediate risk which suturing with its greater consumption of time implies but, perhaps, the most useful lesson of the case is the necessity for earlier operation.

As to ease of recovery, I find that in 8 cases of suture troublesome vomiting occurred in 4, in 1 of them presently to be described a secondary anastomosis between the portion of jejunum above and that below the union with the stomach was necessary to save the patient's life. In 2 cases treated by suture and bobbin troublesome vomiting did not occur in either. In 8 cases anastomosed with Murphy's button troublesome vomiting occurred in none.

As to the subsequent patency and efficiency of the opening it appears to me to matter little how the union is effected. I have patients going about in comfort and taking ordinary diet years after the anastomosis was made and without any suggestion of narrowing of the anastomotic opening whatever method was used.

I now propose to describe the chief details of the operation. Little preliminary preparation of the patient is necessary, nothing beside milk is allowed for forty-eight hours before the operation, all mouth feeding is interdicted after 6 o'clock in

e evening preceding operation, and nutrient enemata are then mmenced and repeated every four hours. Stomach washing never resorted to, a few patients do not resent it, but to the ajority it is very disagreeable and occassionally distressing. ıltivations made from 15 of my cases by my friend, Dr. ewetson, show that the contents of both stomach and unum are generally free from bacterial life under the conions above mentioned. Of the 15 cases 9 gave no growth all from the stomach or jejunum. In the cases in which owth occurred torulae and staphylococci were each found ree times, bacilli, the exact kind undetermined, five times, d streptococci once. Even if washing out were resorted to I ubt if it would have much effect on any organisms in the omach, and it certainly would have none on those in the unum.

To gain access to the stomach the abdomen is freely opened the middle line, the transverse colon and great omentum e turned upwards, the transverse mesocolon is divided, care ing taken to avoid the arches of vessels supplying the on, and the posterior surface of the stomach is seen. Lying se to it is the junction of the duodenum and the jejunum to e left of the vertebral column. A portion of jejunum not s than 12 in. from this junction is selected for the astomosis, it is emptied and lightly clamped with Doyen's ceps so as to control its canal and its circulation. A pouch stomach, drawn through the opening in the mesocolon, is nilarly treated and the parts surrounded by sponges are as as possible brought outside the peritoneal cavity. The ction is made by two rows of sutures, the outer, including itoneum and muscle, is interrupted once when it has comted a half circle and is then laid aside. Stomach and unum having then been opened, and the larger vessels in stomach incision ligatured, the second suture is applied luding all the coats, and it makes a complete circle with- interruption. The parts have been held in apposition by assistant who manipulates the clamp forceps, and at this nt the forceps may be taken off before the outer row of uring is resumed and completed. The parts are swabbed r with normal salt solution and returned into the belly. cently I have adopted a suggestion of Littlewood's, of eds, removing some of the redundant mucous membrane stomach and intestine before making the second row of ures, but I have not yet had suffic ent experience to approve condemn this. I may here state that in no case of gastrounostomy, however the anastomosis has been made, have ad a death from septic peritonitis set up by the operation. ceed, in all cases, both anterior and posterior, numbering ut 40, there has been only death due to faulty technique, nely, the one due to haemorrhage which I have already cribed. The after-treatment is simple.

othing is given by the stomach for a few hours, then sips ot water are allowed, and at the end of twenty-four hours lespoonfuls of milk and water are taken every half hour. s is steadily increased until by the end of the fourth day a ple of pints of milk per diem are being disposed of, tard, beef tea, or similar food is then added to the diet. about the tenth day minced meat or chicken is allowed additions are gradually made until at the end of three ks an almost ordinary diet is taken. This is subject to iation in patients who suffer much from regurgitant niting and is modified also by the condition for which ration is undertaken as, for instance, active ulceration present in the stomach.

have already given the number of my cases operated on posterior gastro-jejunostomy, the general results of the rations, and a few other details.

he following are a few of the more remarkable included by list of cases, and are introduced in detail to illustrate e particular points:

SE I. *Failure of Pyloroliosis : Complete Relief by Posterior Gastrojejunostomy.*

story —Miss K., aged 29, sent to me November 24th, 1901, by Dr. in, of Stourport, with a history extending over four years, during h time she had been subject to pain in the stomach immediately taking food, and vomiting, but at no time had there been haematis. Two years before I saw the patient a surgeon in London opened her abdomen, but the incision was merely exploratory and ing else was done. In April, 1901, another surgeon in London ened the abdomen and finding a stenosis of the pylorus did ta's operation of stretching the stricture which gave relief to the ptoms, but by August, 1901, the patient was as bad as ever.

ndition when First Seen.—The only food the patient could take out vomiting was milk; when in bed and taking milk she was from pain, but was always in pain when up and about. The r border of the stomach when it was distended reached more than half-way down between umbilicus and pubes; in the epigastrium nearly 2 in. above and slightly to the right of the umbilicus a slightly tender and movable mass measuring about an inch in all directions could be felt, there was no visible peristalsis of the stomach. Discomfort in the region of the left kidney was complained of and the organ was found to be freely movable.

Operation.—On November 26th, 1901, I opened the abdomen and found the pylorus densely thickened, and it evidently formed the mass felt from the outside. Posterior gastro-jejunostomy was performed by suture and Robson's bone bobbin.

After-history.—The operation was well borne; the patient vomited a little during the next two days, and not at all afterwards. Her recovery was quick and easy; she was soon able to take ordinary diet, has continued to do so since, and leads an active life.

In October, 1903, Dr. Martin wrote to me, in answer to my inquiry, and said that the patient is very well indeed.

CASE II. *Pyloric Stenosis, Pyloroplasty : Relief for a Time ; Relapse : Posterior Gastro-jejunostomy by Suture : Persistent Regurgitant Vomiting : Secondary Anastomosis : Recovery.*

History and Condition.—Mrs. C., aged 41, was admitted to the General Hospital on May 21st, 1902, for pain in the stomach and vomiting. Her illness began eight months previously with several attacks of haematemesis, accompanied by pain in the stomach after taking food. When admitted only fluid nourishment could be taken, as had been the case for months, and even this caused vomiting about twenty minutes later. The stomach was dilated until its lower border reached about 3 in. below the umbilicus. The patient was very neurotic; she suffered from palpitation, from prolapse of the uterus; the period was irregular, the bowels constipated.

First Operation.—On May 26th the abdomen was opened and a stenosis of the pylorus found, which would only admit the tip of the little finger. Pyloroplasty was performed and a good recovery ensued, with fairly complete relief to the symptoms, but by the end of the summer the patient's complaints of pain and vomiting were as bad as ever.

Readmission.—She was readmitted on September 26th, 1902, with pain in the stomach, vomiting, and haematemesis.

Second Operation.—Posterior gastro-jejunostomy was performed on October 6th by suture, and during the following seventeen days persistent regurgitant vomiting occurred, varying from 1 to 3 pints, the last-mentioned quantity being vomited on October 23rd.

Third Operation.—As the patient was rapidly losing ground, becoming thinner and feebler, the abdomen was reopened on this day. The portion of jejunum between the duodenum and the anastomosis was found hugely dilated, so a secondary anastomosis was made between it and a portion of jejunum beyond the anastomosis.

After-history.—Some ounces per diem were vomited for he first few days, the largest amount in any day being 7 oz. Then matters settled down, and the patient was discharged on November 9th, able to take ordinary diet.

CASE III. *Pyloric Stenosis and Hour-glass Stomach : Pyloroplasty and Posterior Gastro jejunostomy.*

History —Mrs. D., aged 47, sent to me by Mr. Macleod, of Shrewsbury, with pain in the stomach and back and vomiting, became an in-patient at the General Hospital June 13th, 1903. For several years she had been subject to attacks of pain in the stomach and back, accompanied by vomiting, with intermissions lasting three or four weeks. Latterly the periods of relief had become shorter, until finally the pain became continuous and was quite independent of taking food, but was relieved by vomiting, the vomit at times being very large in amount. The patient had been carefully dieted and treated, most relief being afforded by lavage of the stomach, but latterly this had failed and there was steady loss of weight. Distension of the stomach with CO_2 did not show any extreme dilatation, but there was a marked notching in the distended organ suggestive of hour-glass constriction.

Operation —June 15th the abdomen was opened and a double condition found, namely, a narrow stenosis of the pylorus and a severe constriction of the stomach about the junction of the middle third with the pyloric third of the organ. The first condition was relieved by pyloroplasty, the latter by posterior gastro-jejunostomy between the proximal portion of the stomach and the jejunum. Being driven by the contraction much nearer than usual to the cardiac end of the stomach only a small area of the posterior surface could be exposed without risk of injury to the arterial supply of the colon. This space seemed insufficient for a safe anastomosis by suturing, so a 1 in. Murphy button was employed.

After-history.—An excellent recovery followed the double operation, and the patient was discharged from hospital at the end of a month taking ordinary diet in comfort. A month later she was threatened with an attack of intestinal obstruction due to the button, but this was voided in a day or two, and for five months all went well, weight and vigour were gained and the patient resumed her ordinary household duties. Quite recently she has experienced a new pain immediately under the left costal arch, and vomiting has occasionally happened. It is not evident yet to what this relapse is due, whether to adhesions outside the stomach, to fresh ulceration, to contraction of the anastomatic opening, or possibly to some transient condition which careful dieting and management will put right. The patient is now well again.

CASE IV. *Huge Thickening around Gastric Ulcer Simulating Malignant Growth : Posterior Gastro jejunostomy with Rapid Diminution of the Swelling and Complete Relief to Symptoms.*

History.—In October, 1903, I was asked by Dr. D'Abreu to see a Mrs. R.,

aged 43, who was suffering from pain in the stomach and vomiting. The history extended over six years, but there was at times intermission of the symptoms, but never permanent relief; at no time had there been haematemesis or melaena.

Condition when First Seen.—The patient was extremely emaciated, had been confined to bed for some weeks, and subsisted entirely on milk. No other food of any kind could be tolerated, and even with milk alone she occasionally vomited a large quantity of fluid. The stomach appeared to be much dilated, reaching nearly to the pubes, and peristaltic waves could be seen passing across it from left to right. In the umbilical region was a mass larger than one's fist, which appeared to be closely attached to the stomach, it was firm, rather lobulated and tender, the mass moved with some freedom in the lateral but only slightly in the vertical direction; the patient was extremely anaemic and weighed only 4 st. 9½ lb. The vomit and the motions were free from blood. The long-continued history, the mobility of the stomach tumour, and the absence of cachexia such as is associated with advanced malignant growth, led me to believe that I had to deal with a case of chronic ulcer with massive inflammatory thickening around, and I proposed gastro-jejunostomy for the relief of the condition.

Operation.—On opening the abdomen on October 26th, 1903, the large mass felt through the parietes was found to occupy that portion of the stomach near to but not involving the pylorus, the tumour was pinkish in colour, as from inflammatory injection, and it was markedly oedematous. A posterior anastomosis was quickly made with Murphy's button as the pulse was very feeble and quick, running up to as high as 120.

After-history.—This was entirely uneventful, the patient was never sick, the tumour mass shrank rapidly appearing by the eighth day to be reduced to about half its former size; on the twentieth day the patient's weight had increased 9 lb, and she left the hospital on the twenty-third day after, taking solid food. Since that time she has continued to thrive, can do her household work, and has gone up in weight from 4 st. 9½ lb. to 8 st. 3½ lb.

CASE V. *Perforation of Gastric Ulcer: Excision of Ulcer: Recovery: Recurrence of Stomach Symptoms: Pyloric Stenosis Found: Posterior Gastro-jejunostomy: Recovery.*

History.—B. P., aged 24 years, was sent to me by Dr. Mary Hamilton-Williams, and was admitted to the General Hospital on January 6th, 1904. In March, 1902, she had been treated at the Liverpool Infirmary by Mr. Hamilton for a perforated ulcer on the anterior wall of the stomach; the ulcer was excised. Prior to that she had suffered from indigestion for seven years, with periodical attacks of vomiting, and at times haematemesis. Following the operation just mentioned the patient had a period of comfortable digestion which lasted a few months, then the old pain began to return, and vomiting a little later, whilst on three occasions blood was vomited, the last time being about three months ago. The pain came on very soon after taking food, and was generally relieved by vomiting.

Condition on Admission.—The patient was anaemic but well nourished; the bowels were constipated: the period was irregular. There was no evident dilatation of the stomach; no definite thickening could be felt in it, but there was some degree of tenderness all over the upper zone of the abdomen. Milk could be taken as a diet with freedom from pain and vomiting, if the patient was absolutely recumbent, but if she resumed active habits even milk gave rise to pain and vomiting; if she remained in bed, no other food but milk was tolerated.

Operation.—On January 18th, 1904, posterior gastro-jejunostomy was performed with difficulty owing to the very widespread adhesions from the old perforation. Only a small area of the posterior surface of the stomach could be exposed—too little to allow of safe suturing and a sufficiently large anastomotic opening, so the union was made by a 1 in Murphy button. The pylorus was so narrow as only to admit the tip of the little finger; whether an active ulcer existed in any part of the stomach it was impossible to determine, but none was felt.

After-history.—An easy recovery followed; the patient vomited about 2 oz. of watery fluid the day after operation, and not again; the button was passed on the sixteenth day, and on the twenty-third day the patient was discharged from hospital, taking practically an ordinary diet, and free from all discomfort.

CASE VI. *Duodenal Ulcer: Gastro-jejunostomy: Complete Relief to Pain and Bleeding.*

History.—J. M., aged 32, was sent to me by Dr. Martland of Walsall, and was admitted to the General Hospital on January 20th, 1904, complaining of severe and persistent pain in his back, of vomiting, and loss of weight. The history extended over about six years, although four years earlier still vomiting of blood had given rise to a suspicion of gastric ulcer. In the earlier part of this time the symptoms were intermittent and the patient was generally able to work, but for some months prior to admission he had been much worse, especially in regard to pain, and had been entirely disabled from work.

Condition when First Seen.—The pain was experienced chiefly to the right of the lumbar spine, passing occasionally round to the umbilicus; it was often worse when lying down. To the right of and some 2 in. above the umbilicus there was a persistently tender spot, but no tumour was palpable nor was there any unusual pulsation. The urine was normal, as was the function of micturition; there was nothing in the history suggestive of biliary colic; the patient had never been jaundiced. Vomiting occurred at irregular intervals and gave some relief to the pain, but the pain and vomiting appeared to be independent of food taking. The patient denied any haematemesis for some years, but the guaiacum test showed the presence of blood in the vomited matters, and examination o the stools showed that a considerab quantity of blood escaped by the bowel. The patient was very anaemi he was neurasthenic, and presented the appearance of a man who w gravely ill; morphine was required at night to procure any rest.

Operation.—Duodenal ulcer was diagnosed, and at the operation dense thickening over an area of about an inch in diameter was felt the second portion of the duodenum mainly in the posterior surfac but encroaching somewhat on the outer wall. Posterior gastro-jeju ostomy was performed.

After-history.—An absolutely uneventful recovery has followed, e tirely free from regurgitant vomiting. Pain has been entirely abse except on one occasion after an indiscreet meal; no morphine has be required, and there has been no further loss of blood by the bowel. the end of nineteen days the patient was up and about in the wa taking the ordinary house diet; he was discharged apparently well February 18th, and has since been in excellent health.

ACUTE INTESTINAL OBSTRUCTION CAUSED B SYPHILITIC ULCERATION IN THE ILEUM.

BY JOHN M. ELDER, M.D., C.M.,

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E. L., aged 23, labourer, was admitted to the ophthalmo logical department of the Montreal General Hospital o August 20th, 1903, suffering from extensive ulceration of th left upper eyelid. This trouble, he stated, began about on month prior to admission in the form of a small, painles papule on the lid, which so rapidly increased in size that th surrounding swelling of the lid prevented him from openin the eye. The affected area on the summit of the lid the broke down, forming a spreading painless ulcer, whic showed no disposition to yield to topical healing remedies.

State on Admission.—The patient, a fairly well-nourished young ma not markedly anaemic, showed three ulcerating patches, almo coalescing, on the left upper eyelid, one about the centre of the lid ¼ in. above and parallel to the ciliary margin, 1 in. long and about ¼ in wide. The second, near the outer canthus, was circular, an about ⅓ in. in diameter. The third was at the inner canthus, somewha smaller and elongated. All three were depressed, had sharp, punched out edges, with unhealthy bases and absence of granulations. Th skin of the upper lid was congested, but there did not appear to be an tendency to infiltration. The skin of the lower lid was unhealth looking, and at the outer side of the eye there was a well-marke conjunctivitis.

Abdominal Attack.—A few hours after his admission to the hospital h developed acute abdominal symptoms, the first thing noticed being sharp intermittent pain at the umbilicus coming on half an hour after stool. He next felt nauseated, but could not vomit. Rectal tenesmu was persistent. He passed urine normally. The pain became con tinuous, and as the abdomen was becoming markedly distended an rigid, and the patient's general condition one of collapse, I was sent fo in the night to see him. I found him very depressed and mentally dul with shallow breathing, rapid pulse, and subnormal temperature (97°F. The abdomen was moderately distended, rather more about the umbilica region than elsewhere; marked rigidity of abdominal muscles, espec ally in the epigastric region, but tenderness only to a moderate degree and with no point of maximum tenderness. There was no vomiting, bu occasional hiccough. I got the history as given above, and was assure by the medical superintendent that the patient was hourly growin worse, as indeed I saw for myself. A careful urinalysis gave us no clu to the condition. I therefore determined upon an exploratory lapar otomy as the only means of clearing up the diagnosis, and of possibl saving the patient's life.

Operation.—He was taken at once to the operating room, where, unde ether anaesthesia, the abdomen was opened by a 3 in. median incision below the umbilicus. In the peritoneal cavity was a moderate amount o turbid, yellowish, odourless sero-purulent fluid, in which floated a numbe of large jelly-like pieces of fibrin. The peritoneum was injected, but n ulcerating areas could be seen. The ileo-caecal valve being found the colon, caecum, and adjacent part of the ileum were found collapse and the appendix normal. This showed that the obstruction wa higher up and in the small bowel. On tracing up the collapsed ileum no enlarged gland or Peyer's patches or other evidences of inflam matory processes were noticed. At a point about two and a-half fee from the ileo caecal valve the gut was bound down to the posterio layer of the peritoneum, and it was with some difficulty that these ad hesions were separated and the ileum delivered through the incision It was then seen that at this point the omentum, firmly adherent t the bowel in fully two-thirds of its circumference, grasped it like band. This was evidently the site of obstruction, as the bowel above markedly distended, overhung the constricting ring. The bowel abov this point, for a considerable distance, looked very dark, and evidentl contained blood. The omentum was carefully separated from th underlying bowel, to which it was attached by firm, old adhesions But the separation of the adherent omentum in no wise freed the pas sage through the bowel, which was here completely obstructed by a firm nodular mass in its lumen. I accordingly proceeded to resect this par of the bowel, along with about 3 in. below it, which looked discoloured and unhealthy. We found, as we expected, that the bowel above the

nstriction, was filled with quite recent blood. An end-to-end enter-haphy, with catgut suture, was done, and the bowel replaced; the domen was well irrigated with hot saline solution, and a large rubber inage tube passed down into the pelvis, the abdominal wound sed around the tube, layer by layer, and patient given a rectal saline h brandy, and sent to the surgical ward. On examining the resected rtion of intestine, it was found that subjacent to the mesenteric achment there was an old ulcer, showing loss of tissue of the mucosa, t without evidence of surrounding inflammation, and not involving e underlying muscular coats of the bowel. Opposite to this ulcer was small abrasion in the mucosa, showing evidence of recent haemor-age from some small vessel there, and this blood had dissected up tween the mucosa and muscularis, causing a haematoma, opposite the er, sufficient to quite obstruct the lumen of the gut at this point. yond the obstruction the blood was escaping into the proximal part he bowel, where it was observed before resection, Cultures of the e fluid in the peritoneal cavity shewed B. coli infection. The path-gist's report of the specimen is as follows: "On mesenteric border portion of small intestine removed, the mucosa is atrophied and sues contracted at base of cicatrizing ulcer. Opposite mesenteric rder is a haematoma beneath the mucosa Underneath the area of ophied mucosa is an effusion of blood. Lumen of bowel is filled h a blood clot. Mesenteric arteries show extensive sclerotic anges."

Result.—The patient made an uninterrupted recovery after the opera-n, the bowels acting the day following operation and regularly there-er. He left the hospital in twenty-two days, is now at his work, and s regained his normal weight.

Remarks.—Clinically, this case was a rather unique and ost interesting study to me, and before saying anything out the literature bearing on it I wish to refer shortly to the story. Here was a young man, with no history of venereal fection, it is true, who developed a typical tertiary ulcer on e eyelid. This chronic ulcer subsequently healed quickly d completely under mercurial inunctions (which were gun two days after operation), combined with pot. iod. s. xv-xxx t.i.d., though locally it was not treated, except by ordinary boracic compress. The ulcer in the bowel pre-nted similar syphilitic characters, and we had evidence, croscopically, of an endarteritis, which, in a man of 23, th such an associated skin lesion, was presumably also philitic. The possibility of typhoid ulceration was thought but against that was the absence of other symptoms, the sence of the Widal reaction (for which we tried several nes), and the position of the ulcer (at, and not opposite to, e mesenteric attachment). All these considerations, in njunction with a typical tertiary skin lesion, yielding dily to antisyphilitic remedies, makes the diagnosis of philitic ulcer of the small bowel almost certain.

As I afterwards ascertained from the patient, there was a story of obscure abdominal symptoms for some time before mission to the hospital. He had noticed "pains in the omach after eating" for a month previous, but he had had vomiting nor had he lost flesh. He had also alternations diarrhoea and constipation for about the same time, but ver severe enough to interfere with his work. It would em, therefore, that though the haemorrhage had produced e complete obstruction, he had doubtless previously suffered mewhat from the intestinal ulcer. He is still under appro-iate antisyphilitic treatment.

The surgical literature on this subject is, so far as I have en able to examine it, very scanty. Many textbooks on rgery say nothing about the subject at all. Treves, in his rk on *Intestinal Obstruction* says: "Excluding the rectum, philitic ulcers of the bowel are rare. They may be met th in any part of the intestine, but according to Rieder[1] e most common in the upper part of the lesser bowel.....It said that syphilitic ulcers produce stenosis of the bowels. any deductions can be drawn from the effects of tertiary philitic ulceration of the rectum this can be quite well derstood. There is no doubt that a gumma in the wall of e gut may lead to a stricture without causing any ulceration the mucous membrane."[2]

In that most excellent *Manual of Surgical Treatment* lately blished by Messrs. Watson Cheyne and Burghard, the ference reads (vol. vi, p. 352): "Syphilitic ulceration lead-g to stricture is very rare in any part of the intestinal tract cept the lower part of the rectum." Rose and Carless[3] ate that "stenosis of the small intestine due to cicatricial ricture may arise from syphilitic disease, and may long main chronic or almost unnoticed until some intercurrent ndition produces complete obstruction." But no special ress is laid on the subject, and no case is cited.

The *American Textbook of Surgery* dismisses the subject rtly thus: "Syphilis of the intestinal tract in the adult s little interest for the surgeon" (p. 166). Similarly, even m a pathological point of view, I think we may safely say that syphilis of the intestinal tract is a comparatively rare condition, and, as Treves says, is generally seen in the rectum and colon. Oberndorfer has collected 25 cases of congenital and 24 cases of acquired disease showing lesions in the intestinal tract. Fournier is mentioned as having found about a dozen cases.

Oberndorfer in his 25 cases of congenital lues reports as to the site of trouble in the intestine: jejunum, 9 cases; near ileo-caecal valve, 3 cases; colon, 6 cases.

Thoma recognizes the four following conditions which may be found in any organ as the result of syphilis: (1) Simple hyperaemia, with a few clumps of lymphoid cells in the region of the smaller blood vessels. (2) Exudate; this may be rich or poor in cells, and is usually accompanied by changes in the walls of the capillaries and smaller arteries. (3) Dense round-celled infiltration, together with formation of new connective tissue on the one hand and degeneration on the other, resulting frequently in superficial or deep ulcers. Dense scar tissue formed from the above-mentioned new connective tissue. Jurgens differentiates the syphilitic lesions of the intestine into three classes: (1) Superficial lesions; these usually show fatty and necrotic changes, and occur most frequently near the ileo-caecal valve. (2) Gumma. (3) Eruption of miliary nodules in the mucosa, serosa, and muscularis. The nodules closely resemble tubercles, but are distinctly yellow. Lochte found these in a necropsy of a case of congenital syphilis where other lesions made the diagnosis certain.

In children dying from congenital syphilis the intestines frequently show circumscribed or circular areas of hyperaemia, also patches of infiltration or definite ulcers. Scar tissue is found in rare instances. Exudates and adhesions in the peritoneum are found.

In acquired syphilis the same anatomical picture is presented with certain peculiarities. There is a marked tendency to the formation of nodules or girdles of infiltrated tissue, or else ulceration. The ulcers are usually flat, starting in the submucosa, and soon followed by loss of the epithelium. Their depth varies, perforation being not uncommon, resulting in local abscess or general peritonitis. In 35 cases of acquired disease there were 7 perforations. At least one such case has been seen in the congenital form.

On the other hand, the ulcer may heal with the formation of scar tissue and consequent stenosis. This has been seen in 7 cases, in 4 of which the intestine above the stricture was distinctly dilated.

The prognosis of this disease may be judged from the fact that a fifth of the cases die from perforative peritonitis, another fifth suffer from multiple intestinal stenoses, and a certain percentage have repeated intestinal haemorrhages. Involvement of the intestine is a very severe complication in syphilis.

As to the therapy, mercury and the iodides are, of course, indicated for the general condition, The haemorrhages should be treated by absolute rest and opium. Perforative peritonitis and stricture should be dealt with according to the general principles of surgery. These are a few extracts from a very full discussion on this subject, with excellent bibliography, in an article by Dr. A. Weiss, in the *Centralblatt für die Grenzgebiete der Medicin und Chirurgie*, August, 1902, which should be read by any one interested in this subject.

REFERENCES.

[1] *Ann. Univ. Med. Sci.*, vol. i, 1893, p. 31. [2] *Intestinal Obstruction*, p. 208. [3] *Manual of Surgery*, p. 861.

SOME CASES OF INTESTINAL OBSTRUCTION SUCCESSFULLY TREATED.

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The following paper is a sequel to a communication which I made last year to a society, entitled Some Fatal Cases of Intestinal Obstruction. In the discussion that followed the desire was expressed that on a future occasion I should bring forward those cases in which more success attended my efforts. This, then, is my apology for dealing with a subject that many will say is already worn threadbare.

For convenience I have arranged the cases as far as possible into groups.

CASE I.

Case I was that of a man aged 48 years who was m ted into the

Meath Hospital under Dr. Craig's care complaining of constipation, vomiting, abdominal distension, and pain. The previous history was that of occasional attacks of diarrhoea, but increasing difficulty in getting the bowels to act was the most noticeable feature. For over a week before admission the bowels had not acted, though he had taken several doses of medicine. The abdomen was enormously distended, the intestinal coils being clearly outlined. Vomiting was severe and decidedly stercoraceous in character. The clinical clerk administered an enema, but without any effect. Next day Dr. Craig asked me to see the man with a view to operation. On hearing the history and looking at the man the diagnosis of acute, supervening on chronic, obstruction was obvious, and its cause was easily determined on making a rectal examination. About 3 in. up the rectum was blocked with a fixed mass of cancer. On getting the patient to pass water immediately before operation some bright red blood was mixed with the urine, and the patient informed me that for some weeks he had been compelled to evacuate his bladder more frequently both by day and night than previously. This condition pointed to implication of the bladder by the growth. The stomach was washed out, ether administered, and a left inguinal colostomy performed, the gut being opened and washed out at once. This had the effect of prolonging the patient's life for close on four months, but his condition was truly pitiable on account of the cystitis and pain in the bladder. The bladder was irrigated twice daily, but morphine had to be given in large doses to subdue the pain and give rest.

CASE II.

Case II was that of a woman, aged 43 years, who was admitted into the Meath Hospital under my care with all the symptoms of acute obstruction. The previous history showed that on three occasions during the three previous months she had been under the care of a surgeon for similar, but not quite so severe, symptoms. On each occasion she informed me this gentleman ordered the "sister" to give her an enema, which acted, and in a couple of days she was again able to leave hospital. On examination the abdomen was considerably distended, the distension being much marked along the course of the colon. The vomiting was gushing and severe, but though of a brownish colour did not possess any faecal odour. The hernial rings were free, but rectal examination revealed a mass of cancer which was quite adherent to the sacrum behind, and I was doubtful as to whether it was not also adherent to the uterus in front. Left inguinal colostomy was performed as quickly as possible, and the gut opened and washed out. I know this patient was alive sixteen months after, but I then lost sight of her.

CASE III.

Case III was that of a man aged 50 years, who was admitted under my care one night last September complaining of constipation, abdominal pain, distension, and vomiting. For several months he had had considerable difficulty in getting his bowels to act. During this time he got a few attacks of diarrhoea, which he had attributed to the aperients he had taken. For six days before admission his bowels had not acted at all, while for a week before that they had only acted very slightly. The vomiting was bile-stained. The abdomen was generally distended, the distension being most noticeable along the course of the colon. The hernial rings were free, but rectal examination revealed a mass of cancer situated as high up as the finger could reach. As his condition was not very urgent a hypodermic of morphine was administered, and operation postponed until the next morning, when inguinal colostomy was performed in the usual manner, and the gut opened and washed out at once. Here, again, in a few days we had evidence of implication of the bladder, which was then daily irrigated with warm boric lotion, while the pain was relieved by morphine. In this case the obstruction was relieved and life prolonged for about two months.

CASE IV.

Case IV was that of a boy aged 7½ months, who was taken suddenly ill some sixteen hours previously with screaming, as if in severe pain, and vomiting. The pain seemed to come in paroxysms, with intervals between the attacks of five or six minutes, and was attended with profuse sweating; later, the intervals between the paroxysms were as much as half an hour. The bowels acted soon after the onset of pain, and again on two or three occasions, the last motion containing some blood. On examination the face was pale, the lips drawn, and the eyes sunken. A tumour could easily be detected in the position of the transverse colon, and there was a well-marked loss of resistance in the right iliac fossa. Acute intussusception was diagnosticated, and the abdomen opened as soon as possible, under chloroform anaesthesia, through the right rectus muscle. The intussusception, which had extended as far round as the splenic flexure of the colon, was easily withdrawn and reduced in a moment or two, there being no adhesions, the abdomen was quickly closed by through-and-through sutures, Recovery was complete and rapid. The operation was completed in less than fifteen minutes.

CASE V.

Case V was that of a girl, aged 7½ years, who was taken ill six days before admission into Cork Street Hospital. Sudden pain, attended by vomiting came on while at school. The bowels acted soon after. The pain continued "to come and go, though not so bad," for the next six days. She vomited occasionally only, and the bowels acted twice or three times before going into hospital. On the morning after admission I was sent for and saw the girl lying rolled up in bed, looking exceedingly ill. From the time of her admission I was informed she had vomited everything she was given. The temperature was between 99° and 100°, and the pulse about 140 to the minute. The abdomen was so rigid that nothing could be detected until a whiff of chloroform had been administered, when an intussusception was easily made out extending down over the left pelvic brim. The vacancy in the right iliac fossa was well marked. I had the child immediately removed to the Meath Hospital, where its abdomen was opened as soon as possible. The intussusception extended so low down the rectum that I had to get my clinical clerk to pass a finger into the rectum and push it up until I could get my fingers below its apex. Reduction was easily effected, the last part to be reduced after a little expression being the caput caecum coli with the appendix, which latter was only about 2½ in. in length, but certainly as thick as my index finger. The appendix was removed in the usual manner and the abdomen closed. The operation was completed in less than twenty minutes. The patient was discharged perfectly well in thirteen days.

CASE VI.

Case VI was that of a little girl, aged 2 years, who was taken ill a few hours before admission into hospital with abdominal pain and vomiting. The bowels acted twice soon after the onset of pain, each action taking place immediately after or towards the end of a paroxysm of pain. When seen by me about an hour after admission, except that the child looked seriously ill, with a little pale anxious face, my examination was entirely negative. Two drops of tincture of opium were ordered to relieve the child's suffering. Next day the condition was much the same, a paroxysm of pain occasionally making the child scream out, but she only vomited once during the twenty-four hours after admission. Examination of the abdomen both during and in the intervals between the paroxysms of pain failed to reveal anything. On the second day after admission a swelling could easily be detected in the right half of the pelvis. Pressure upon this caused the child to cry out and the abdomen to become rigid. Under chloroform the swelling could be easily felt to be a distinctly oval-shaped mass, and this was further confirmed by placing one finger in the rectum and the other hand on the abdomen. I decided to explore at once, so had the child brought to the theatre and the abdominal wall cleansed. While the abdominal wall was getting its final washing I noticed that the swelling could no longer be felt while immediately before this it was even visible. I hesitated for a moment or two as to what I should do but knowing that the last portion of an intussusception, which I considered this to be, is often difficult to reduce I desired to make a small incision and explore the abdomen with the finger inside and thus make sure that everything was right. Except for a little serous fluid that escaped on incising the peritoneum nothing abnormal was detected, and the small wound was closed with three silkworm-gut sutures. The facial appearance of the child after this was quite different. Its recovery was complete. I have no doubt but that this was an example of intussusception reduced by manipulation. As regards the diagnosis we were not unmindful of the fact that Henoch's purpura sometimes closely simulates intussusception, but there was no evidence to warrant the suggestion that this was such a case.

CASE VII.

Case VII was that of a young woman of 21 years who was taken ill, five days before admission under Dr. Craig's care, with pain in the abdomen and vomiting. The bowels had not acted for two days before this attack. There was a history which pointed to an attack of peritonitis a couple of years before this. Several doses of medicine had to be taken and a doctor administered two enemata to her, but without any other result than that of increasing her pain and vomiting. Dr. Craig, seeing that she was suffering from acute obstruction, asked me to see her with a view to immediate operation. On examination the hernial orifices were all free, the abdomen was generally distended, but slightly more so just to the left of the middle line below the umbilicus, at which place she complained of tenderness on pressure. At this place also one could detect a distended coil of intestine on palpation. It was thought this was the most likely site of the obstruction. Rectal examination failed to reveal anything. On opening the abdomen freely through the left rectus a number of distended and congested coils protruded, and directly in the site of the previously detected tenderness the cause of obstruction was found to be a band encircling a bunch of the coils of the jejunum. Its separation was quickly effected, but in doing so a portion of the softened wall of the intestine was opened, giving exit to some of its contents. This was easily closed again by a few Lembert sutures. The coils of intestines in the pelvis were found to be firmly adherent to each other at acute angles, so that I have no doubt if they had not been separated the liberation of the strangulated coils of jejunum would not have completely relieved the obstruction. The only trouble subsequently was a severe diarrhoea, which started some fourteen hours after the operation and continued for several days. This was the first case in which I was led to wash out the stomach after as well as before the operation, as we noticed that though the stomach had been washed out thoroughly immediately prior to the administration of the anaesthetic, stercoraceous vomiting came on just as she was being lifted off the operating table. After being put into bed I passed the tube and washed out an enormous quantity of stercoraceous material, more, in fact, than I had been able to wash out prior to the administration of the anaesthetic. From the great benefit of the post-operative gastric lavage in this case and in subsequent cases I am of opinion it is a procedure which is of even greater importance than the ante-operative irrigation. To this procedure I drew your attention specially last session.

CASE VIII.

Case VIII was that of a woman, aged 54 years, who was admitted under my care with a large umbilical hernia and symptoms of intestinal ob-

tion. The hernial sac was opened up and the omentum separated it with some difficulty, but there was no evidence of strangulated ine. The omentum was pulled out and removed after ligatures een applied. On passing the fingers into the abdomen after en- g the orifice a distended coil of intestine was felt, and on examin- his further it was found to be strangulated by a fibrous band, passed upwards and backwards from the upper part of the um- l orifice to the mesentery, to which it was adherent and from it was easily separated, thus liberating the strangulated coil. ther end was ligatured and cut off and the wound closed. Re- y was uninterrupted.

Case IX.

e IX was that of a spare woman, aged 36 years, who was admitted hospital with symptoms of obstruction of a chronic character. hoea alternated with constipation for some months, but for some prior to admission the bowels had not acted. There was no ing. Pain was complained of for some time in the right iliac and a tumour was not only easily detected on palpation but was ctly visible through the thin abdominal walls. A provisional osis of cancer of the caecum and ascending colon was made, and ration undertaken with a view to removal if possible. However, pening the abdomen, the adhesions were so extensive and the nteric glands so enlarged, it was considered that a palliative dure to obviate the inevitably acute obstruction was the only able course to adopt. A lateral anastomosis was then effected en the ileum and the left side of the transverse colon. This tion gave complete relief to the obstructive symptoms—in fact, the s acted a few hours after operation. The patient got occasional s of diarrhoea during the six months that followed before her , but no evidence of obstruction.

Case X.

e X was that of a woman aged 55 years, kindly sent to me by Dr. ce Beatty. She was taken ill last Christmas night with abdominal and vomiting. This pain and vomiting continued during the and up to the time she was seen by Dr. Beatty, who gave her nd a note addressed to me, in which he asked me to admit her he Meath Hospital as an urgent case of intestinal obstruction. d her admitted and saw her soon after. The abdomen was dis- d, but chiefly on the right side. Some distended coils could be palpated. The pulse and general condition were good. The l rings were free, and rectal examination revealed nothing of im- nce. An enema did not produce any effect. Though her condition ot urgent, I determined to operate at once. When the abdomen pened the caecum and ascending colon bulged into the wound. great distension rendered an accurate diagnosis of the state of impossible, so the caecum was incised and its contents, as well se of the ascending colon, evacuated. It was then seen that the of obstruction was a cancerous growth involving the hepatic e of the colon. Secondary deposits were found in the omentum nesentery, conditions which precluded radical treatment of the ure. The ileum was then brought across and fixed to the sigmoid e by means of the largest-sized Murphy button (as the quickest d). The small opening in the caecum was previously closed by a uous Lembert suture. The condition at the end of the operation ry good, and since that she has never had a bad symptom. The s acted freely on the third day, and since the fifth day have been daily without medicine. The button was passed on the eleventh The woman is now convalescent.

Case XI.

e XI was that of a young man of 22 years of age who was sent to Dr. Sandes from Cork Street Fever Hospital on December 27th. s taken ill the previous evening with pain in the abdomen and ng. On inquiry it was ascertained that he had been drinking y for some time before Christmas, but his bowels had always been r, and he did not remember ever having had an attack of pain s character prior to the present one. Dr. Sandes had diagnosed nal obstruction, but when I saw him soon after admission he Meath Hospital I failed to detect any evidence of it. His was 64, regular and strong; he had no pain whatsoever, no vomit- r several hours, the abdomen was soft and not at all distended. was no tenderness anywhere. The hernial rings were free, and examination did not give us any information. This was at 4 p.m. ng was given by mouth except very small quantities of milk and ater. He slept all night, had not a single spasm of pain, and t vomit once. Next morning he felt quite well, wanted some- to eat, and was very anxious to be allowed up. The examination abdomen was entirely negative; there was no distension. g regard to the fact that Dr. Sandes, who had seen the patient k Street Hospital, had diagnosed internal obstruction, I was l to keep him in bed, but ordered a dose of oil, which I felt would precipitate matte s if obstruction really existed. Orders iven to have everything in readiness for operation in case pain miting recurred.

e hours afterwards I received a telephone message to say the t was in severe pain and vomiting profusely. I went across to al at once and proceeded to operate as soon as possible. The of the obstruction was found to be the passage of a loop of the portion of the ileum through a hole in the right side of the great um; the free end of the omentum beyond had become adherent mesentery of the small intestine close by, and in its turn was ng further pressure on the herniated loop. The omentum was y separated and the strangulated loop easily reduced after en- larging the opening in the omentum. This opening was then closed by a couple of cagtut sutures, and the abdomen closed by suturing in tiers. The stomach was washed out and the patient put to bed. Except for an attack of pneumonia involving the upper lobe of the right lung, there was nothing in his subsequent condition to be apprehensive of. The bowels acted after a dose of calomel on the second day. He is now quite well.

Case XII.

Case XII was that of a man, aged 31 years, who was sent to me four weeks ago from Cork Street Fever Hospital, where he had been treated for the previous month for typhoid fever. On the night prior to being sent to me he was taken suddenly ill with pain in the abdomen and vomiting. Dr. Day saw him soon after, and believing him to be suffering from appendicitis sent him to me next morning. I saw him immediately on admission when the patient looked very seriously ill. The abdomen was slightly distended, and generally resonant on percussion. There was slight rigidity over the right lower quadrant of the abdomen. The bowels were confined and an enema had no effect. Rectal examination revealed nothing of importance. The pulse was about 120, but fairly strong. I felt doubtful as to the diagnosis, but as the aspect of the patient was that of one suffering from some severe peritoneal lesion I opened the abdomen as soon as possible by a small incision. On dividing the peritoneum a considerable quantity of serous fluid escaped. This fact coupled with the history of severe pain and vomiting coming on suddenly led me to form the opinion that the case was one of intestinal obstruction. This opinion was further confirmed by the appearance of a distended coil of small intestine, while the caecum was found to be empty. On passing my fingers down into the pelvis I immediately detected the cause of obstruction. The abdomen was then freely opened. The cause of the obstruction was found to be an adhesion between the left side of the great omentum and some inflammatory material in the right side of the pelvis, a coil of ileum being strangulated round the adherent omentum. The omentum was easily separated, thus liberating the strangulated coil. An enlarged and softening omental gland was removed from the omentum close to its attachment to the transverse colon on the left side. The adhesions in the pelvis were then separated, in the midst of which was found the appendix diseased. Its mesentery having been ligatured I removed the appendix in the ordinary way, after which the abdomen was closed. A small piece of gauze was placed in the pelvis where the adhesions were separated, as a couple of drops of pus were seen during the separation of the adhesions. The gauze was brought out through a small opening previously made in the appendix region. The stomach was thoroughly washed out immediately after the operation. The gauze was removed in twenty-four hours, and for about thirty hours everything went well, but about this time vomiting and hiccough of a distressing nature supervened. Examination of the abdomen showed that there was no reason to be apprehensive of peritonitis. There was neither tenderness, rigidity, nor pain. The epigastrium was greatly distended, indeed the stomach seemed almost outlined on the abdominal wall. The stomach was then thoroughly irrigated, a procedure which gave great relief from the sickness and hiccough for some hours, but eventually the vomiting returned worse than ever, being this time almost black or of a very dark brown colour. The bowels had meantime acted freely, and there was no colicky pain suggestive of recurrence of the obstruction. The stomach was again well irrigated with sodium bicarbonate solution, and orders were given to repeat the process as often as there was any recurrence of the vomiting. In all, the stomach had to be washed out four times after this with the result that the patient is now quite well. He suffered from an attack of parotitis which lasted for three days and then subsided.

Case XIII.

The last case is that of a gentleman aged 71 years, whom I was asked by Dr. Craig to see in Portobello Private Hospital on June 20th last. At that time he was suffering from a large abscess situated in the anterior abdominal wall. Under anaesthesia it was opened and an enormous quantity of very fetid pus evacuated. The cavity was well irrigated and its walls, which were in a sloughing condition, as thoroughly cleaned as it was possible to do. Two drainage tubes were passed into the cavity and the usual dressings applied. That night, for the first time for several days, his temperature was normal. His bowels were well moved by an aperient given the previous night and an enema administered a few hours before operation. On the fourth day he was so well and felt so hungry that he insisted on getting solid food; the bowels acted well during the night. The discharge from the abscess was still slightly fetid.

On June 24th—that is, the fifth day—he felt uneasy in the stomach, with an inclination to sickness, vomited once, and told me he knew he had eaten too much on the previous day. Solid food was stopped and an enema ordered.

On June 25th, at 3.30 a.m., I received a telephone message to say patient was vomiting enormous quantities of black material and was very weak. On arrival a few minutes later I found the abdomen greatly distended, the breathing very quick, and the pulse very feeble and irregular. At my request Dr. Craig was sent for, and in the meantime I proposed to wash out the stomach. The vomited material was so black that Dr. Craig and I were of opinion there must have been haemorrhage into the stomach. The stomach tube was then passed, and at least half a gallon of this black stuff removed. The gastric lavage was continued until the fluid returned quite clear. It was also seen that the irrigation had considerably reduced the distension of the upper part of the abdomen. Ten drops of adrenalin chloride were administered by mouth and one-thirtieth of a grain of strychnine was given hypodermically.

After some time, as there was no sign of returning sickness, two compound colocynth pills were given. An enema was ordered to be given at 8 p.m. if the bowels did not act before that time.

At 10 a.m., when Dr. Craig and I arrived, we were informed the only effect of the enema was the expulsion of some flatus, the fluid returning scarcely discoloured. The abdomen was somewhat more distended and tympanitic, especially in the umbilical and subumbilical region. There was no pain, tenderness on pressure, or rigidity. Patient informed us his bowels were at all times difficult to move, and that he was in the habit of taking at least 8 to 10 oz. of Apenta water for a dose every morning, and insisted that we should give him that amount as he knew it would give him relief. His temperature at this time had risen to 101.6°, and the pulse was if anything more irregular and feeble. There had been no vomiting since the lavage. Only small quantities of milk and brandy were allowed.

At 8 p.m. his condition was unchanged. There was no action from the bowels. The passage of a small amount of flatus was the only effect of an enema.

June 26th. No improvement; abdomen more distended; outline of large intestine very distinct; no tenderness unless directly over site of abscess; no rigidity. There was still no return of the vomiting but hiccough was distressing. The discharge from the abscess had almost ceased and there was no fetor; still there was no action from the bowels. Operation was recommended, but this he refused to listen to, and demanded more medicine by mouth and another enema. An enema of warm oil was ordered but we did not consider it advisable to give any more aperients by the mouth.

8 p.m. General condition worse; distension enormous and interfering greatly with respiration; the heart's action had become very irregular and weak; the temperature was about 101° F.; the enema had produced no effect. We again strongly urged operation but the patient just as firmly refused to entertain the idea. Still there was no vomiting but the hiccough had become almost continuous.

June 27th, 10 a.m. The only change noticed was that he seemed to be wandering a little in his mind but he firmly declined operation.

6 p.m. As the bowels had not acted he then said he would allow us to operate, but my impression was that he scarcely realized what that meant. Though it seemed almost hopeless, I opened the abdomen by a small incision through the right rectus muscle and tied a Paul's tube into the first loop of gut that presented. This was done as he lay in bed without any general anaesthetic. A little eucaine was injected into the site of the proposed skin incision. On incising the peritoneum some serous fluid escaped, and a coil of intestine—but whether large or small bowel I could not say—was pressed up against the abdominal aspect of the edges of the wound. The distension of the coil was so great that it was impossible to pass the finger round it or hook it up into the wound, but it seemed to be pressed with such force against the wound that I thought it safe enough to puncture it where it lay. The edges of the small opening made by the knife in the gut were quickly caught with forceps and the bowel pulled forward as its contents were forcibly ejected. When sufficiently emptied to be well pulled forward into the wound, a clamp was placed on the edges of the opening, and with three or or four sutures the walls of the gut were fixed to the peritoneum and deeper structures of the wound. A Paul's tube was tied in with a pursestring suture and the wound around the tube and intestine loosely packed with gauze. A copious discharge took place from the bowels during the subsequent twenty-four hours, at the end of which time the patient pulled it out. He was still somewhat delirious, temperature 102°; pulse unchanged. Said he felt A1, but did not look it. Abdomen getting quite flat. The subsequent course is easily told. For three or four days he hovered between life and death, very little hope of recovery being entertained.

At 5 a.m. on the fourth morning after this, we were again sent for to say he was dying, but $\frac{1}{30}$ gr. of strychnine with $\frac{1}{100}$ gr. of atropine, followed by mx of adrenalin chloride revived him and from this on except for a little bronchitis to which he was subject he never had a bad symptom. The bowels acted slightly in the ordinary way, and from this on were kept acting daily by glycerine enemata. The faecal fistula closed spontaneously and was soundly healed in six weeks. The patient is now in perfect health. He told me last week when I met him by accident down town that his bowels acted daily sometimes after medicine, sometimes after a glycerine enema.

With respect to the first group of cases due to rectal cancer I will merely state that, speaking generally, sufficient attention is not paid by the general practitioner to the attacks of diarrhoea, for which, in the vast majority of these cases, the patient is first driven to consult a medical man. Temporizing with the diarrhoea instead of introducing the finger into the rectum means loss of time, and only too often permits the case to drift into that hopeless condition in which radical treatment is absolutely out of the question.

The second group of cases is illustrative of what, on the whole, is probably the most common cause of acute obstruction. The mortality of these cases is very high, and, I believe, is higher still than is shown by statistics, for the simple reason that many infants die from intussusception without the condition having being diagnosed or even a suspicion of such a condition having been entertained; while, on the other hand, many cases correctly diagnosed but operated upon too late are never published. The majority of cases of acute intussusception ought to be recognized without much difficulty within twelve or fifteen hours after the ons If, then, such cases were submitted to immediate operat interference in anything like suitable surroundings there no reason why the mortality should be more than one-l what it is at present. A competent operator in an early c will not take more than fifteen minutes at the outside to co plete the entire procedure, and, so far as my experience operations in young children goes, it teaches me that ope tions are relatively as well borne by them as by adults.

Cases of intestinal obstruction due to bands, of which Ca VII and VIII are examples, are perhaps amongst the most sat factory the surgeon has to treat, for very often the symptoms urgent from the start owing to the fact that there is genera a considerable disturbance of the circulation and nerve supp of the parts. The severity of the symptoms is almost alwa directly proportionate to the suddenness and extent to whi the normal circulation is impeded and the innervation terrupted. Diagnosis is thus comparatively easy and ope tive interference sought for while the patient is still in fairly good condition.

On the other hand, acute obstruction due to adhesions these are at all extensive, is perhaps the most unsatisfacto form of obstruction to treat. The separation of the adhesio is tedious and difficult, and the operation is generally p longed, as the result of which the patient often sinks, whi should the patient recover, the re-formation of the adhesio with recurrence of the obstruction at a later date is not at unlikely.

Obstruction due to stricture, whether simple or malignan if urgent, is best treated by temporary drainage, the disease part being subsequently removed and the continuity of t bowel re-established. If not urgent, resection and end-to-e anastomosis gives good results. If resection is impossibl and the case not urgent, a short-circuiting operation shou be done.

If called upon to perform short-circuiting again, I inte to cut the ileum across, close its lower cut end, and then t the upper cut end into the bowel below. This will preve any faeculent material passing into the excluded loop, condition which might be attended by serious results.

Case XI, in which the loop of intestine passed through hole in the great omentum, is the only one of the sort I ha seen; its treatment was both easy and satisfactory.

The last case is an interesting one. The obstructio must undoubtedly have been of an adynamic natur Probably the inflammation spread from the abscess sac the parietal peritoneum, and involved the wall of the si moid flexure, thus producing some temporary paralysis, whi the resulting distension above led to an acute kinking bending of the intestine, with consequent obliteration its lumen at that point. The salutary effect of the establis ment of a temporary faecal fistula is here well exemplifie The therapeutic value of gastric lavage for what may termed post-operative gastric paralysis or dilatation ass ciated with profuse vomiting, which in many cases becom quite black, and which, if not energetically treated, invariab ends in death, is well evidenced in this case, as well as Case XII.

There is but one other point to which I must allude. is that of the treatment of the distended intestine aft the cause of obstruction is removed. Every surgeon know how difficult it is to deal with this condition. A sing puncture evacuates but a coil or two at most, while t passage of a soft rubber tube through this opening an running it up the lumen of the intestine to evacuate furth coils is disappointing. Multiple punctures relieve the cond tion still more, but this procedure necessarily takes up a co siderable amount of time, and we know these patients are not a fit state to stand prolonged operations, while of course larg quantities of the septic material must still be left behin Recognizing the benefits obtained by gastric lavage, I hav been thinking for some time whether intestinal lavage coul not be employed with similar beneficial results in these case and I have been further strengthened in this view by readin Kocher's method of treating acute septic peritonitis, in whic he washes out the greater part of the small intestine. Th is done by bringing out a loop of the upper part of th jejunum, and making a small opening into it, through whic the nozzle of an irrigator is introduced. A loop of the ileu is opened low down, and the whole area of intestine irrigate between these two openings. In the case of obstruction, course the lower opening should be made some little di tance above the site of obstruction after relieving it. Such procedure should occupy less time than multiple puncture

of course all the septic decomposing contents of the ines are completely washed out. If such a line of ment has been proved beneficial in septic peritonitis, it d surely prove more so still in acute obstruction, for in atter, after the relief of the obstruction, death is almost s due to the absorption of the poisonous products from testine. Prevent this by removing them completely as e done by irrigation, and many lives should be saved.

N CONGENITAL HOUR-GLASS STOMACH.

By W. F. BROOK, F.R.C.S.,
Senior Surgeon, Swansea Hospital.

r. Moynihan has shown in his able and most interesting on hour-glass stomach, published in the British cal Journal of February 20th, this condition is almost iably acquired; and no doubt many surgeons, bearing in their own experience, will be inclined to agree with him ts congenital origin is probably a myth.

s would certainly have been my belief after reading his had it not been for a case which I met with in June Prior to this, so far as my own experience went (but I t for a moment suggest that it had been sufficient to nt the formation of any independent conclusion), every of hour-glass stomach which I had seen, whether he operating table or *post mortem*, bore ample evi- of having originated in one of the three conditions Mr. Moynihan mentions, but especially malignant se and chronic ulceration. Where the latter had been ause I had on two occasions met with perforation at the us into the general peritoneal cavity. The first was in f three cases ending fatally out of nine in which I had ted for perforate gastric ulcer. The other occurred in a nt while slowly recovering in the Swansea Hospital an ovariotomy in which persistent oozing from the raw es resulting from separation of very extensive adhe- had necessitated packing the whole pelvis with gauze. patient died within three hours of the onset of sym- s, and before the house-surgeon had realized what had ened. The posterior wall of the constriction, which ted three fingers, consisted of an old ulcer whose base ormed by adherent and eroded pancreas, the perforation in front.

e following case however is, I think, clearly of congenital n. I saw the patient with Dr. E B. Evans, of Swansea. dministered the anaesthetic at the operation while his Surgeon Alban Evans, R.N., formerly house-surgeon at wansea Hospital, kindly assisted me. Unfortunately, cropsy was obtained.

ory.—The patient was a school-mistress, aged 50. She had been since girlhood to pain after food at no fixed interval, followed lieved by vomiting. At times she was very ill and unable to con- her occupation. Notably was this the case in 1882. In the early f 1902 she was much reduced and incapacitated by incessant ng; but between September, 1902, and the spring of 1903, she en very much better and had gained weight. From this time mmenced to go down-hill again, losing flesh, the pain and vomit- coming worse and worse, until she finally took to bed early in There was no history of haematemesis or melaena.

lition when First Seen.—When I saw her she was extremely ted, everything, even peptonized food, being vomited, and she apidly going from bad to worse. The stomach did not appear dly dilated. The diagnosis lay between pyloric or hour-glass is. The general enfeeblement was so marked that it was decided operating to endeavour to pick up the strength by rectal feeding. this treatment the vomiting ceased, the pulse became stronger ss rapid, and the general condition greatly improved, and had the ion been done at the end of five days it might have had a successful On the seventh day the enemata were returned and retching and ng recurred, and it was decided to operate without further loss e.

ation and Result.—Upon opening the abdomen on July 1st the h, which was unusually thin-walled and could be easily with- , was found to be divided into two pouches of about equal size narrow constriction. The peritoneum covering the isthmus was om adhesions both in front and behind. It was as transparent, and free from thickening as that covering either pouch and the a continuous with it above and below showed no sign of pucker- alpated between the finger and thumb it showed no more thicken- an a fold of the stomach picked up at any other spot. The pylorus oth pouches were free from thickening and showed no external tion of chronic ulceration. Upon incising the isthmus, which admit of a No. 7 or 8 catheter, both the mucous membrane lining that of either pouch to a distance of some two inches, was readily arefully inspected. It was soft and velvety throughout, and d not the slightest sign of cicatrix. The operation of gastro-plasty was rapidly completed, but the patient unfortunately sank and died ten hours later.

It is obvious that so narrow a constriction in the stomach must be a very vulnerable spot, so that it is not improbable that congenital hour-glass contraction may actually lead to ulceration, when traces of the latter, if found, would be liable to be wrongly interpreted as evidence of a pathological origin of the deformity. A case referred to by Messrs. Robson and Moynihan,[1] although quoted as an example of the way in which an hour-glass stomach of chronic inflammatory origin, unless very carefully examined, may appear to be congenital, would seem to admit of such an explanation.

REFERENCE.
[1] Robson and Moynihan, *Diseases of the Stomach and Their Surgical Treatment*, pp. 174-5.

CASE OF CONGENITAL HYPERTROPHIC STENOSIS OF THE PYLORUS.

By ARTHUR J. CLEVELAND, M.D.Lond., M.R.C.P.
Norwich.

There is little doubt that this condition is much commoner than was at one time supposed, and in view of the successful results that have of late attended operations for its relief, it is important to record cases of the disease verified by actual examination, in the hope that by so doing early recognition, and consequently early interference, may become easier. Unfortunately the two chief symptoms, vomiting and constipation, are by no means rare in infants, and may be due to faulty diet, while the peristalsis and other conclusive evidence of a dilated stomach may, as in this case, only become obvious when the general condition of the child is too bad to enable an operation to offer much hope of success.

A male child was first seen by me when two months old, for vomiting, constipation, and wasting. He was a fine baby at birth, but when 14 days old began to vomit and suffer from constipation. He took the breast well but returned what he got immediately after finishing a feed—sometimes the vomit was large in amount, but food was never retained but vomited an hour or so later. The bowels were very obstinate in spite of treatment, being opened on an average once a week, and on one occasion no motion was passed for thirteen days. The child had wasted rapidly, and when I saw it was little more than skin and bone with a pinched face, depressed fontanelle, and feeble cry.

There was no abdominal distension, and beyond a considerable increase of stomach resonance both to direct and auscultatory percussion, there was nothing to confirm my suspicion of the actual condition. A week later well-marked peristalsis was visible from left to right over the upper part of the abdomen, and I elicited a succussion splash. I could not feel any lump in the region of the pylorus. The question of operation was discussed, as the diagnosis now appeared certain, but the general condition of the child was very bad, and the parents would not consent to what was rather a hopeless remedy. He died of exhaustion three weeks later, when 3 months old, the pertinacity with which he clung to life being all the more astonishing as during that time he had frequent fits, passing from one convulsion into another, according to the mother's account. I never saw the child in one of these fits, which from the mother's description I took to be tetany.

The necropsy was limited to the abdomen. The lower border of the stomach reached to the umbilicus, and the viscus occupied the whole of the epigastric and left hypochondriac regions. The pylorus was hard and felt almost cartilaginous; it measured $\frac{3}{4}$ in. in length and was shaped like a bobbin, namely, with a constriction in the middle and a maximum circumference at either end of $1\frac{7}{8}$ in. It admitted an instrument with a circumference of $\frac{5}{8}$ in. The mucous membrane lining it was thrown into folds; there was no ulceration.

The stomach had lost its normal shape, its walls were thin, and the mucous membrane smooth. The intestines appeared almost empty, and there was scarcely any fat to be seen on the child.

Microscopically the hypetrophy was mainly in the circular muscle coat, with some increase of fibrous tissue.

Medical Magistrate.—Dr. Wm. Henry Lewis, of Llansantffraid, has been appointed a Justice of the Peace for the County of Montgomery.

A FOREIGN BODY IMPACTED FOR SEVEN MONTHS IN THE OESOPHAGUS.

BY ANDREW FULLERTON, B.CH., F.R.C.S.I.,
Hon. Assistant-Surgeon, Royal Victoria Hospital and Belfast Hospital for Sick Children.

L. M., aged 7 years, swallowed a halfpenny seven months before being brought for treatment to the Belfast Hospital for Sick Children. It gave rise to no definite symptoms until three weeks before admission, when it was noticed that she was ill and that she brought up foul-smelling material at intervals.

State on Examination.—When admitted on August 19th, 1903, it was noticed that the child could not swallow ordinary diet, and a skiagraph showed a circular or slightly oval body lying almost in the middle line opposite the bodies of the third and fourth dorsal vertebra. The upper margin reached to the level of the third ribs above and the lower margin to a point slightly above the level of the fifth ribs below at the costo-vertebral junction. The oval appearance from above down was due no doubt to the coin lying somewhat obliquely. After an unsuccessful attempt to remove the foreign body through the mouth the child became extremely ill, and brought up considerable quantities of foul-smelling, sanious, purulent matter, while the temperature varied from 99° to 100° F., and the pulse was weak and irregular, with a rate of 150 per minute.

Operation.—A week after admission oesophagotomy was performed on the left side, the skin incision being made from the level of the thyroid cartilage to near the sternum, a little anterior to the sterno-mastoid muscle. The oesophagus was exposed a little below the cricoid cartilage, as this portion was free from vessels and easily accessible. The trachea was drawn out and rotated somewhat to the right side, and the great vessels were well retracted to the left. A small opening was made into the postero-lateral region of the gullet (to avoid the fibres of the recurrent laryngeal nerve) and a long probe passed. It was not found necessary to cut the omo-hyoid muscle as good retraction exposed the posterior surface of the oesophagus to the necessary extent. The probe touched upon a foreign body about 4½ in. from the wound. The end of the probe was bent into a hook shape and passed beyond the body, which was thus hooked up, surrounded by foul-smelling greyish fluid, with a drop or two of blood. The odour was sickening, and was evidently due to ulceration at the point of impaction. When the coin reached the small aperture in the oesophagus it was grasped with Spencer Wells forceps and the wound carefully enlarged so as just to allow of its removal. The halfpenny was covered with thick yellowish-brown muco-pus and was black at the periphery, but copper-coloured and polished in the centre of both surfaces. There was no erosion of the metal, the inscriptions on both sides being quite legible. The wound was well sponged out with a 1 in 1,000 solution of perchloride of mercury. The oesophageal wound was completely closed by a continuous formalin catgut suture for the mucous membrane, and a similar suture for the muscular coat. A small rubber drainage tube was introduced into the depths of the wound, and the skin edges brought together by silkworm-gut sutures.

Progress and Result.—Shortly after the operation the child regurgitated some of the foul-smelling matter already referred to, stained with blood, but did not vomit. She was, however, very weak and collapsed for two days, with a pulse of 152. The temperature only once reached 100.2° F. No food was allowed by the mouth for nearly forty-eight hours, feeding with beef-tea and brandy and milk and egg alternately being rectal. On the second day the child looked blue and collapsed, with a very bad pulse, although the wound was healing well. The drainage tube was removed and mouth feeding begun, when the child immediately began to improve. Probably the collapse was due to starvation. Vomiting occurred once after feeding by the mouth was begun, but it did not recur. The pulse gradually improved, falling to 130 on the third day, and 92 on the fifth. Some of the skin sutures were removed on the sixth day, and the remainder a day or two later. Healing took place by first intention, and there was no sign of leakage from the oesophageal wound. Easily digested and soft food—soft-boiled egg and thin bread and butter without crust—were given at the end of the first week. The further history of the case was uneventful, and when heard of a few days ago the child was in excellent health.

REMARKS.

The case is of interest in the following particulars:

1. The length of time since impaction, 7 months.
2. The absence of symptoms until three weeks before admission to hospital, when ulceration of the oesophageal walls was evidently in progress.
3. The situation of the coin, close to the arch of the aorta, into which ulceration would possibly have taken place and in a position where the use of forceps might have been fatal.
4. The method of dealing with the oesophageal wound. The wound being in healthy structures was completely closed by a row of sutures in mucous membrane and a second row in the muscular walls.
5. No tube was passed down the oesophagus to feed the patient.
6. Rectal feeding was of doubtful effect. Compare the rapid improvement after food was given by mouth.

A CASE OF MALIGNANT OBSTRUCTION O OESOPHAGUS: GASTROSTOMY.*

BY
E. SOLLY, M.B., F.R.C.S., Harrogate. and H. I. DAGGETT, M. M.R.C.S., Boroughbridge.

THE operation of gastrostomy for oesophageal obstructi neither sufficiently rare nor as a rule sufficiently difficu performance to justify the publication of an isolated cas any rate at length—but I venture to think that the follo brief note may be of interest to many, not only on accou the result obtained, but as an encouragement to others c upon to deal with similar cases; and as a sort of moral tc end of my tale, I would add that the case is not withou bearings upon the much-discussed problem of the relatic the public hospitals to the private practitioner.

History.

The patient was a woman, aged 43, who had always been thin her friends had noticed for about twelve months that she was ge appreciably thinner. For many years she had a "peculiar throat," being able to swallow certain articles of food, but pain was never plained of. About Christmas, 1902, however, her difficulty in swa ing began to increase, and she gave up trying to take solid especially meat. Pain was now felt, but it was never a ma symptom, and only came on in attempting to swallow. No me man was ever consulted until July, 1903, when the patient staying at Middlesborough. The trouble was at first thought t spasmodic, but gradually the diagnosis became evident, as com obstruction developed, with rapid loss of flesh. She returne Boroughbridge in September, 1903, having been for a week fed ent by nutrient enemata. Dr. Daggett saw her on September 17th, immediately made arrangements for me to visit her with a view to o ation. I cautiously tried to pass small bougies, but could get no beyond the pharynx.

Operation.

On September 24th I performed gastrostomy, using the met generally known as Frank's, but I believe more correctly a buted to Albert. Through an incision just internal to the left l semilunaris, carried through the fibres of the rectus muscle, I c out a portion of the stomach, which though small was not difficu find, and showed no sign of disease. Having fixed this in positio catgut sutures carried through the peritoneal coat of the viscus then through the parietal peritoneum at the edge of the wound, I m a second incision an inch higher up along the costal margin; this only carried through the skin and fascia, and by blunt dissection portion of skin between the two incisions was raised up, and under arch so formed the portion of stomach already drawn out was pu and held by passing hare-lip pins through the serous and musc coats. The lower wound was then closed by interrupted silkworm sutures and a dressing of cyanide gauze applied.

After-history.

An opening was made into the protruding portion of the stomach Dr. Daggett after twenty-four hours, and through this the patient fed. All went well (except for a little leaking through the openi which, however, ceased after a few days, and at no time gave serious trouble) till the beginning of December; the patient gai strength, was able to sit up, and once or twice was able to go out a bath chair. The neck on the right side, however, became very m thickened and stiff, and not long afterwards swelling occurred on left side, the whole enlargement being in the situation of the thyr gland. An abscess containing fetid pus formed in the tum and was evacuated at the end of November, and another one early December. About this time dyspnoea occurred at intervals, the fi attack following a sudden movement of the head to one side: th attacks became more frequent and more urgent as time went on, and December 22nd tracheotomy was performed by Dr. Daggett. This g instant relief, but the patient gradually lost ground, and died fr exhaustion on January 28th, 1904, nineteen weeks after the operatio gastrostomy. No necropsy was permitted, unfortunately, but I thi the case was undoubted one of malignant disease of the thyroid gla as fixation of the larynx was noticed almost from the first.

In estimating the value of the relief afforded by the ope tion of gastrostomy, one must recognize the fact that when is performed for malignant disease one is fighting a losi battle, and in most cases the patients have no means knowing the horrors of the starvation which they ha escaped, but must all the same feel the depression acco panying the gradual failure of strength; they are apt, the fore, to be dissatisfied with the result. Our patient, havi experienced a week of absolute starvation, was in no doubt to the benefit she derived, and for the four months for whi she lived after the operation constantly expressed her gra tude for the relief afforded by it. For us, there was the sat faction of showing that a major operation could be succes

*Read at a meeting of the Yorkshire Branch of the British Medical Ass ciation held at Harrogate.

performed in a cottage, and the patient, who was lling to go away from her home to a hospital, was able id her days among her own people.

e hears and reads much about the abuse of hospitals by e who can well afford to pay, but part of the blame for lies at the doors of those practitioners who are too ready irk a little responsibility. Many of the better class poor r to stay at home if possible, and wherever the services good trained nurse are obtainable during the critical on of the after-treatment, much can be done at home, t is better for the position of the profession that it should done, rather than that people who can quite afford to moderate fee should be obliged to resort to a hospital nally intended only for those in need of relief and unable y for it. And this brings me to what I alluded to as the ral" of my tale—namely, that a partial solution of the em of hospital abuse lies in the provision of facilities ie better nursing of the poor in their own homes. It is m necessary for the nurse to reside in the house; in an an's cottage there would not often be room; and opera- requiring constant attendance afterwards had better be in a hospital; but there remains a large class of cases e all that is required is for the nurse to exercise such al supervision as can be given by one or two visits dur- ne day. Under aseptic or antiseptic conditions frequent ings are rarely needed, and in my experience the poor etter at carrying out orders than the well-to-do, provided the orders are given to them simply and in a form which ppeal to their common sense.

THE TREATMENT OF ACNE, FURUNCULOSIS, ND SYCOSIS BY THERAPEUTIC INOCULA- TIONS OF STAPHYLOCOCCUS VACCINE.

BY A. E. WRIGHT, M.D.,
Professor of Pathology, Army Medical School, Netley; Pathologist St. Mary's Hospital.

été une chose curieuse que la faillite des antiseptiques dans le itement des maladies dermatologiques parasitaires. On fondait r eux des espérances collossales, ils n'ont presque rien donné.— BOURAUD.

E and a-half years ago I was confronted with the fol- g situation: I was consulted by a patient, 40 years of who was a prey to chronic staphylococcus invasions, and for seven years suffered from severe and constantly- ring furunculosis, complicated by sycosis, eczema ie, styes in the eyes, and eczema tarsi. The boils, h occurred all over the body, occurred in two varieties— superficial boils seated generally in the skin of the and face, and larger deep-seated boils occurring in the utaneous tissue of every region of the body, more par- arly about the nates and thighs. His history was as vs:

ven years previously, when engaged in clearing out a eotomy tube which had been removed from a patient had been operated upon for acute laryngitis, he accident- inoculated himself in the forefinger with some of the c material, and in spite of three deep incisions made ssively into the finger and palm of the hand, the tion spread upwards to the axilla, giving origin there ubo, and thence onwards into the blood stream, setting gh fever and septic peritonitis. The susceptibility to ylococcus invasion had manifested itself immediately the septic attack.

mediately before the date at which the patient consulted had been engaged in following out the changes which roduced in the blood after the inoculation of antityphoid ine. I had ascertained in the course of that inquiry that inoculation of a bacterial vaccine is followed first by a tive phase of diminished bacterial power, corresponding loubt to the period of application of the vaccinal ulus; secondly, by a positive phase of greatly increased ericidal power, that is, a period of active response; and y, after the remission of the stimulus, by a comparatively ble period of increased resistance. I had further deter- ed that the negative phase effect is directly dependent respect to duration and intensity upon the dose of the ine, such negative phase being of only short duration n the dose of the vaccine inoculated is small and where constitutional symptoms produced are slight. Reflect- upon these facts it occurred to me to break through entional restrictions, and to exploit bacterial inocu- lations, not alone for the purpose of prophylaxis but also therapeutically, in the case of patients suffering from localized bacterial invasions. Giving effect to these considerations, I proceeded in a tentative manner—testing in each case the effect produced upon the blood by each separate inoculation—to experiment on the possibilities of applying inoculation of a staphylococcus vaccine in the treatment of furunculosis, sycosis, and acne. I published my first results obtained on a series of 6 cases in the *Lancet* for March 29th, 1902. I set forth in the paper in question in detail the method employed for the preparation of the vaccine and the course of the reaction of immunity as indicated by the phagocytic reaction of the blood before and after inoculation. It emerged very clearly that we have, in the case of the inoculation of staphylococcus vaccine, to deal with a precisely similar sequence of negative and a positive phase as in the case of antityphoid inoculation; and further, that, as in the case of antityphoid inoculation, the duration of the negative phase varies with the quantum of the vaccine inoculated; lastly, that the attainment of the desired clinical result depends on the cumulation of the effects of a series of properly interspaced inoculations. The clinical results achieved in the 6 cases here in question were very full of promise. The cases that were treated were, first, the case of severe and multiform staphylococcus invasion just described; secondly, a case of very severe sycosis, which had lasted for a period of years, and which had been intractable to all treatment; thirdly, a case of furunculosis in an old lady which had followed upon a surgical operation; fourthly, a case of acute furunculosis in a medical student; fifthly, a case of mild sycosis; and, lastly, a case of irritable furuncular pimples on the back of the neck.

I have since the date of the publication of the paper in question treated by the method of inoculation a further series of cases of staphylococcus invasion. These cases include: One case of severe generalized staphylococcus invasion characterized by boils, paronychia, and severe acne; three cases of severe and long-continned sycosis barbae, which had proved intractable to treatment by antiseptics; a further case of sycosis barbae, which had been treated by epilation for many years; six cases of moderate furunculosis; and seven cases of severe and very chronic acne. In nearly all these cases I have plotted out in the form of a curve the change produced by inoculation in the phagocytic power of the blood.

The following are brief particulars of some of the cases:

CASE VII.

The patient is a medical man, the curator of a pathological museum. He suffered more or less continuously for years from boils in all parts of the body, from severe facial acne, and from paronychia. We have here evidence of a susceptibitity to every form of staphylococcus invasion. In April, 1903, after removal of four finger-nails for paronychia, he applied to me with a view to subjecting himself to staphylococcus inoculations. At the time the patient was suffering also from "a large crop of boils upon his neck." He writes, "after the first inoculation, these quickly aborted, and I remained in very good health until August, when a large furuncle formed in my right buttock." This furuncle aborted after undertaking a second inoculation. The patient reports (January, 1904) "that the facial acne has been considerably better since the inoculation, but I am," adds he "by no means cured, as I had another furuncle in the loin a few days ago, but I must say that I have had great benefit from the inoculations." Owing to the fact that the patient was treated in the provinces, no data are here available with regard to the condition of the blood before and after inoculation.

CASE VIII.

Patient, a labourer, 40 years of age, the subject of sycosis, gives the following history: He suffered as a child from severe pustular eczema and from deep-seated suppuration behind the ear, which continued for years and has left very deep scars. He has also suffered from time to time from boils and from a discharge from the ears. We have here probable evidence of a lifelong susceptibility to staphylococcus invasions.

Five months ago his head became very scurfy, and the inflammatory affection passed down from the head to the parotid region, and finally to the beard and to the whole hairy surface of the face and chin. The patient now presented himself for treatment as an out-patient in the Skin Department of St. Mary's Hospital, and was treated by the *x* rays and by antiseptics for two months without any improvement. It was now determined to try the effect of staphylococcus inhalations.

Condition of the Patient when the First Inoculation was Undertaken.

November 2nd, 1903. The patient was suffering from very aggravated pustular sycosis, each hair of the beard being surrounded by pus, while there was considerable induration and furuncular inflammation below the angle of the jaw of the whole anterior surface of the front of the neck. The patient's phagocytic index, taking unity as representing the phagocytic index of the normal blood, was 0.48. The patient was inoculated with a quantum of sterilized staphylococcus culture which contained 2,500 millions staphylococci.

November 9th. Sycosis is astonishly improved. The general health

of the patient is also much better, and the pain has entirely disappeared. The phagocytic estimation miscarried. The patient was inoculated with a quantum of sterilized staphylococcus culture containing 5,000 millions of staphylococci. Cultures obtained from the remaining pustules yielded pure cultivations of the staphylococcus aureus.

November 16th. Improvement has been continuous, there being now very few pustules. Acute weeping eczema has, however, supervened over the whole region of the head. The patient was treated for this condition by Dr. Graham Little by an application of carbolic oil. Phagocytic index, 1.21.

November 19th. Improvement still continuous, so far as the pustulation of the beard is concerned. The patient still suffers from weeping eczema over the whole region of the scalp. Lotio plumbi was substituted for the carbolic oil. Phagocytic index, 1.13. The patient was reinoculated with a quantum of sterilized culture which was derived from his own staphylococcus, and the quantum inoculated corresponding to 5,000 millions staphylococci.

November 26th. Pustules on the face, head and arms, had now completely disappeared and the eczematous condition is nearly well, but a good deal of redness persists about the skin and cheeks and the epidermis is everywhere scaling off. Phagocytic index, 2.1.

November 30th. A few trifling pustules are still to be seen on the face, but much less general congestion. Phagocytic index, 1.92.

December 8th. The patient is now almost quite well with the exception of a few superficial pustules. Phagocytic index, 2.7. The patient was inoculated with a quantum of vaccine made from his own staphylococcus, containing 7,500 millions of staphylococci.

December 14th. The patient is practically well. Phagocytic index, 0.92.

December 17th. The patient is about to resume work. Phagocytic index, 1.85.

Subsequent History.—The patient, who was all but completely cured in December, relapsed as a consequence of alcoholic excesses at Christmas. He is now, after a further series of inoculations, again practically well.

CASE IX.

The following case was inoculated and examined by my friend, Captain Stewart R. Douglas, I.M.S., in the Royal Victoria Hospital, Netley. The patient, Private C., was affected with sycosis of the beard. Two years ago, when on active service in South Africa, a crop of small pimples developed on his chin and spread over the whole surface of his face and jaw. The patient has been in hospital under treatment for seventeen months, but his condition has undergone only temporary improvement.

May 15th, 1903. Phagocytic index, 0.8.

May 23rd. Phagocytic index, 0.7. Inoculated with a sterilized staphylococcus culture derived from his beard. The quantum inoculated corresponded to 2,500 millions staphylococci.

May 25th. Phagocytic index, 1.1.

May 27th. Phagocytic index, 1.2.

May 28th. Phagocytic index, 1.2. Reinoculated with a quantum of the same vaccine containing 5,000 millions of staphylococci.

May 29th. Phagocytic index, 0.64.

June 2nd. Phagocytic index, 2.6.

June 3rd. Phagocytic index, 1.9.

June 4th. Phagocytic index, 1.85.

June 6th. Phagocytic index, 1.2.

June 7th. Phagocytic index, 1.5.

June 9th. Phagocytic index, 1.2.

After the first inoculation, and contemporaneously with the rise in the phagocytic curve, the number of the pustules was considerably diminished. After the second inoculation the patient was practically well. Captain Douglas's further observations were broken off by his departure from Netley.

CASE X.

The patient, a medical student from a Northern university, had been for years the victim of severe sycosis complicated by abscesses in the parotid region. He had been treated in a very systematic manner by epilation, and there was no longer any active sycosis in progress. There remained, however, considerable congestion and induration in portions of the previously affected area.

Phagocytic index, 0.73.

The patient was inoculated with a quantum of staphylococcus vaccine containing 2,500 millions staphylococci.

June 3rd, 1903. The symptoms after inoculation have been very slight. Phagocytic index, 2.25.

June 4th. Phagocytic index, 1.2.

June 5th. The patient was reinoculated with a quantum of vaccine corresponding to 5,000 millions staphylococci.

June 6th. Patient has considerable reaction and local pain.

Phagocytic index, 0.57.

June 12th. Phagocytic index, 0.79.

June 15th. Phagocytic index, 1.2.

June 17th. Phagocytic index, 1.1.

Reinoculated with 2,500 millions staphylococci.

June 20th. Phagocytic index, 0.8.

June 30th. Patient expresses himself as convinced that his condition is much improved.

Phagocytic index, 1.06.

July 3rd. Reinoculated with 5,000 millions of staphylococci derived rom the culture which was obtained before the first inoculation.

July 6th. Patient is still suffering from considerable constitutional disturbance.

Phagocytic index, 0.34.

July 8th. The constitutional disturbance has passed off. Phagocytic index, 1.75. Treatment suspended, the congestion and induration having practically disappeared.

January 4th, 1904. Patient presented himself, with a history of the recurrence of his facial trouble, from which he had been free for five months. After two further inoculations with a vaccine prepared from the staphylococcus isolated from his beard six months ago the inflammatory trouble again completely subsided.

CASE XI.

June 12th, 1903. The patient, a medical man, presented himself for treatment with the following history. He suffered from the first attack of boils in June, 1897, after exhausting outdoor work in connexion with midwifery. His attack lasted for about six weeks, and a series of about a dozen boils developed. During the next eighteen months he suffered from several attacks of boils, but the details of these attacks had faded from his memory. At the end of 1900 and spring of 1902 he suffered from a number of recurrent attacks of furunculosis, several of these lasting well over a month.

In 1902, in February, he suffered from a very aggravated boil, and in 1903 from two or three bad attacks. Between June 2nd and 12th, the day on which the patient presented himself for treatment, nine boils had appeared in succession on his neck.

June 12th. Phagocytic index, 0 87.

The patient was inoculated with a quantum of sterilized culture containing 500 millions staphylococci.

June 13th. Phagocytic index, 0.73.

June 15th. Phagocytic index, 0.9.

June 18th. Patient after wearing a collar for the first time on June 17th developed two further boils. One of these aborted.

June 20th. Phagocytic index, 1.02.

The patient was reinoculated with 750 millions staphylococci.

June 24th. Succeeded in wearing a collar for a few hours in the evening.

June 25th. Developed a small boil which cleared up on the 28th.

June 27th. Phagocytic index, 1.2.

June 28th. A spot on the right eyebrow which did not suppurate.

July 8th. Phagocytic index, 1.1.

Patient was reinoculated with a vaccine made from a staphylococcus obtained from his boil. The constitutional reaction which resulted was somewhat more severe than on previous occasions.

July 3rd. Phagocytic index, 1.3.

Subsequent History.—Patient remained perfectly free from boils for over two months.

In October, after three weeks of sleeplessness, patient developed a small boil behind angle of jaw and stye in the eye.

In January, 1904, a small pustule appeared on the neck; with the exceptions patient has had no recurrence of his trouble. He expresses himself as convinced that his period of insomnia would, except for the inoculation, have been followed by an aggravated attack of boils.

CASE XII.

The patient, a medical man, aged 55, applied for treatment, having suffered from boils on the back of the neck at frequent intervals for three or four years. He has always been more or less subject to this trouble.

December 4th. Phagocytic index, 0.79. Patient was inoculated with a quantum of staphylococcus vaccine corresponding to 2,500 millions staphylococci.

December 10th. Patient was reinoculated with 1 c.cm. staphylococcus vaccine.

December 12th. A boil has begun to develop in the neck.

December 17th. The boil under the ear, which would in ordinary circumstances have suppurated and sloughed, is now aborting. Phagocytic index, 1.56.

Subsequent History.—Patient has had no recurrence of boils.

CASE XIII.

July 14th, 1903. Patient, a healthy man, aged 24, who was in training for a boat race, developed a boil on his gluteal region three weeks ago and is now suffering from a crop of boils on the neck. Phagocytic index 0 84. Patient was inoculated with a quantum of vaccine corresponding to 2,500 millions staphylococci.

July 17th. Boils have improved. Phagocytic index, 0.88. Patient was reinoculated with 2,000 millions staphylococci.

July 20th. Boils are nearly well. Phagocytic index, 1.3.

July 25th. Phagocytic index, 1.9.

July 31st. Phagocytic index, 1.95. Patient soon afterwards relapsed and did not come up for further treatment.

CASE XIV.

Patient, a professional man, aged 32, presented himself for treatment on November 25th, 1903, having suffered almost without interruption since last May with painful boils on the nates which in each case suppurated. The patient gives a history of sycosis ten years ago.

November 25th. Phagocytic index, 0.87. Inoculated with 2,500 millions staphylococci.

December 4th. Patient has developed another small boil in the gluteal region. Phagocytic index, 0.91. Patient reinoculated with 5,000 millions staphylococci.

December 17th. The boil referred to above has aborted without suppuration. Phagocytic index, 0.94.

Subsequent History—Patient remained free from his trouble for three and a-half months He then developed a boil in the neck, and was reinoculated with 2,500 millions staphylococci.

CASE XV.

ent, a professional man who has been invalided home from the East neral debility and boils, presented himself for treatment with a boil h axilla.
ber 8th, 1903. Phagocytic index, 0.49. The patient was inoculated ,500 millions staphylococci.
ber 15th. Patient is much improved in health. The boils in the have aborted without suppuration. He was reinoculated with millions staphylococci.
ember 1st. Phagocytic index, 0.95.
quent History.—Patient is in good health, and has had no further

CASE XVI.

ent, a medical student, aged 24, with a long history of acne, boils, ppuration after an operation. Boils have occurred in every region body; they are at present quiescent. The face is a mass of scars ld acne. There is at present, in comparison with what there has a trifling amount of active mischief.
ember 1st, 1903. Phagocytic index, 0.82. Inoculated with a quantum ine corresponding to 1,000 millions staphylococci.
ember 8th. Patient reports himself much better. Phagocytic 1.7. Reinoculated with 5,000 millions staphylococci.
ember 18th. Patient's appearance has improved in a wonderful r, every trace of pustulation having disappeared.
l 25th. Patient has, as a result of working for an examination to relapse. He was reinoculated with 2,500 millions staphylococci'

CASE XVIII.

ent, 25 years of age, is engaged in the City. Has been the victim ply acne for many years. At present there are very few indi- s of suppuration. Phagocytic index, 0.54. Inoculated with 2,500 ns staphylococci.
mber 2nd, 1903. Patient's condition seems to be a little ameliorated, himself being uncertain whether this is to be attributed to oculation or to an ordinary remission of his trouble. Phagocytic 1.0. Reinoculated with 5,000 millions staphylococci.
mber 11th. No great change. Face appears somewhat clearer. cytic index, 2.1.
equent History.—Patient presented himself two months after with ost perfectly clear complexion. He expressed himself as satis- the efficacy of the inoculations.
ES XVII, XVIII, XIX, XX.—These were all cases of aggravated and hronic acne, affecting respectively a young medical man, a young er, a spinster lady of 45, and a married lady of 35. The first two vere characterized by marked pustulation and extensive scarring he face, the upper part of the chest, and the upper half of the In the third case the chief feature of the condition was the ing and development of indolent pimples over the region of the nd chin. The fourth case was characterized by the development ked induration round the papules, in particular upon the chin. mples had for years been kept under restraint only by eliminating charine elements and fruit from the diet. In each of these cases reat improvement, amounting in three cases to a practical cure, ffected by a series of three injections of the staphylococcus e.

may be noted that in none of the above cases was any eptic treatment combined with the inoculations. Further, case were any restrictions imposed in the matter of diet.

CONCLUSIONS.

is, I think, satisfactorily established by the fore- cases that chronic staphylococcus invasions, and in ular furunculosis, sycosis, and acne, can be treated very effective manner by inoculations of a staphylo- s vaccine. I have elsewhere [1] called attention to the principles of the therapeutic inoculation of bacterial ne—the method which is here in question—and to its sphere of application. It will therefore here suffice to o mind that we do not in the case of these inoculations y to the patient protective substances produced in the ism of an animal vicariously inoculated, but we induce nemical machinery of the patient to elaborate by its own s the protective secretion which is required for the uction of the invading bacteria. The elaboration of protective secretion proceeds in accordance with the al law that a vaccine introduced into the organism will, that it is introduced in appropriate doses and at proper vals, call forth a production of the specific bacteriotropic ances which are required for the destruction of the ria against which protection is desired. To comply with onditions just specified we must employ, as was done in ases above reported, a vaccine of standardized strength. must further, for the achievement of the best results, ure, before we proceed to reinoculation, the effect produced ch case upon the patient's blood by the previous in- tion. Lastly, it is advisable in obstinate cases to resort vaccine made with the particular strain of micro- ism which has acclimatized itself to grow in the nt's organism. The scientific deductions which emerge these observations are reserved for detailed discussion in another place. The reader will, however, note on reading over the cases that clinical improvement invariably went hand in hand with improvement in the phagocytic power, and that the negative phase which everywhere supervenes upon inoculation revealed itself to blood examination in the form of diminution of the phagocytic power and in some cases to clinical observation in the development of fresh pimples and boils. This transient and, from the clinical point of view, insignificant aggravation of the symptoms is full of instruction, inasmuch as it is indicative of the possibility of aggravating the patient's condition by the employment of excessive and too frequently repeated doses of vaccine.

REFERENCE.

[1] On Therapeutic Inoculations of Bacterial Vaccine, BRITISH MEDICAL JOURNAL, May 9th, 1903.

MEMORANDA:

MEDICAL, SURGICAL, OBSTETRICAL, THERAPEUTICAL, PATHOLOGICAL, ETC.

CASE OF APPENDICITIS COMPLICATED BY THE PRESENCE OF AN OVARIAN CYST.*

A. M., aged 23, an attendant at a refreshment bar, first complained of pain in the stomach on July 7th, 1903. On July 8th she went to work, but looked so ill that she was sent back and remained in bed. I first saw her on July 9th; she was in bed, with a temperature of 102° F., the pulse was 140, and there was acute tenderness over the appendix region, dullness on percussion, which extended across the median line and almost up to the umbilicus.

On admission into the Royal United Hospital all the acute tenderness seemed to have gone from the right inguinal region and lower part of the abdomen, and the abdomen, although not moving with respiration, could be palpated without discomfort. Fluctuation could be made out over the area of dullness. On rectal examination a fluctuating tumour was felt bulging into Douglas's pouch; the pulse was 160, and the temperature 102.4°. She was not operated on at once because it was felt that all this dullness and fluctuation could not be due to such a recent attack of appendicitis.

On July 10th the abdomen was more rigid and the tenderness and pain had returned; the pulse and temperature were still high. I opened the peritoneum in the median line. Some free turbid fluid escaped and an ovarian tumour was seen. After evacuating the cyst, as it was being drawn out a quantity of foul-smelling pus escaped, and it was seen that the cyst had formed one wall of a foul appendicular abscess. After the removal of the cyst an incision was made over the appendix, the muscles being divided and the appendix removed. The abdominal cavity was freely washed out and carefully dried. Drainage tubes were placed in Douglas's pouch and into the appendix region, and the wounds were sewn up in several layers and 2½ pints of normal saline introduced into the veins of the right arm.

The drainage tubes were swabbed out every three or four hours with gauze; a large amount escaped from the middle tube, not much from the side. The patient slowly but steadily improved; the pulse dropped to 84 by July 17th and the temperature to normal by July 19th. She remained in bed till September to allow of consolidation and complete healing.

The diagnosis in this case was not easy, but I record it chiefly because it affords much encouragement to hope for the best even in an apparently desperate case of fouled peritoneum.

T. D. RANSFORD, F.R.C.S.Eng.,
Honorary Surgeon, Royal United Hospital, Bath.

SPONTANEOUS RUPTURE OF THE SPLEEN.

IN view of its medico-legal importance I give here details of a case of spontaneous rupture of the spleen, of which occurrence only three cases are, as far as I can discover, on record. They are given in Lyon's *Medical Jurisprudence* (third edition) by Lieutenant-Colonel Waddell, I.M.S. The case I am about to record occurred in the Chumbi Valley, Thibet, early in February. The details are as follows:

Purba Nowgali, a corporal-driver in a Government yak corps, and a Nepalese by nationality, had been in Chumbi about three weeks. He was employed at his ordinary duties up to

* Read before the Bath and Bristol Branch of the British Medical Association.

the time of his death, and he never complained of any disease whatever.

At 7 A.M. on February 8th, the havildar (native sergeant) in charge of a section of the yak corps gave some orders to him while he was lying in his tent. The deceased then came to the door of his tent and repeated the orders to the drivers. After having done so he lay down to sleep. He was alone in the tent at the time.

About twenty minutes later the deceased called to his brother, who was a driver in the same corps, saying that he had a pain in his side. The havildar and the man's brother then went to the tent. The man appeared to be in great distress, and complained of intense pain "near his heart." The havildar at once called a British officer, who came to the tent and looked at the man, who still complained of the pain and weakness. He made no accusation of any one having struck him, and could not in any way account for the pain, which he repeated was "near his heart." He grew rapidly weaker and died a few minutes before 8, about half an hour after the pain commenced.

I was sent to the camp to make a necropsy about 3 p.m. the same day, as though no suspicion whatever of foul play existed the cause of death was unknown. I found the body undisturbed, lying on its left side, the right arm bent at the elbow and lying over the left epigastric area. The left arm lay straight down by his side with the hand tightly clenched. His legs were slightly flexed at the knee. Rigor mortis was marked. I then removed the body from the tent and examined it. He appeared to be well developed and powerful, about 25 or 30 years of age. A minute examination of the surface of the body showed no sign of injury whatever. The only point that was noticed was a slight fullness of the abdomen.

On opening the abdomen a large quantity of blood under considerable pressure gushed out. The blood, which was dark and fluid, was evacuated, and the abdominal organs examined.

A large rupture was found in the spleen, extending through the anterior angle to the hilum. The organ was enlarged to about double the normal size, and very soft. There were no peritoneal adhesions. A minute examination of the rest of the body showed nothing abnormal except a very small right-sided hydrocele and a very slight amount of emphysema in the lungs. The heart was not dilated. Extreme anaemia was of course present, especially in the brain. Before the necropsy an inquiry made elicited not the slighest evidence of a fall or blow, and the deceased never made any complaint whatever of having been struck by any one. As shown, the necropsy revealed no evidence of external injury, and consequently I regard the case as an undoubted instance of spontaneous rupture of the spleen. It is a case of considerable medico-legal interest, especially in India where rupture of the spleen is often an inportant factor in criminal cases.

G. I. DAVYS, B.A., M.B., B.Ch., B.A.O., Lieut. I.M.S.
Chumbi. Thibet Mission Force.

HAEMOGLOBINURIC FEVER.

I SHOULD like to add my experience to that of Dr. Hearsey[1] in strongly advocating that quinine be not exhibited in blackwater fever. I certainly have not had the same length of experience as Dr. Hearsey, but from such cases as I have had to deal with on Lake Nyassa, B.C.A., I have been led to feel as he does that quinine is contraindicated.

In some clinical respects there is little similarity between ordinary malaria and haemoglobinuric fever, and in the lack of bacteriological certainty we may well ask if blackwater is *per se* a malarial fever. That of course, its geographical distribution is purely tropical for all practical purposes is certain, but then blackwater fever is by no means distributed exactly wherever one finds ordinary malaria. It would also appear very certain that malaria must precede blackwater fever, and that blackwater is malarial infection plus some other unknown factor. To watch a case of blackwater and to put it clinically side by side with an ordinary malaria case is to note that in few particulars do they coincide symptomatically, except in broad similarities points common to all fevers. The temperature is quite unlike malaria, seldom rising above 102 5°F., except in the dangerous hyperpyrexia. All the major and dangerous symptoms, both during and after the attack, are almost entirely due to the destruction of the red blood corpuscles, the restlessness and fearful breathlessness (sometimes) due to lack of haemoglobin, and reminding one forcibly of an acute and prolonged haemorrhage; the acute jaundice, the biliousness, are all due to the breaking-up of the corpuscles, and do not look at all like ordinary malaria. If the dissimilarity of the two conditions were all, still quinine might be given expectantly, but I have seen distinct rigors and exacerbation of the black urine follow exhibition of 5 gr. of quinine, and in reading cases treated by (say) 60 gr. quinine per diem (for example, Dr. Stendal's case) one does indeed wonder how the patient managed to retain them, for the mucous membrane of the stomach is intensely sensitive and tends to reject anything given. Quinine given hypodermically to patients almost bloodless through blackwater fever is not satisfactory, the tissues are much below par, and I have seen the most troublesome subdermic fibroses and even necroses and suppuration follow quinine hypodermically, though until the skin broke these necroses were aseptic. I cannot recall any definite pathological assertion that during blackwater fever we have the same cyclic development of the plasmodium malariae as in malaria.

At present, then, my conviction is—Avoid quinine in blackwater fever and, indeed, avoid nearly all drugs until we know of some really trustworthy specific, except the most simple and gentle purgatives, the very simplest and easy in action, for example, calomel. As for food, I would almost recommend entire rectal feeding until the gastritis and intense biliousness is allayed. For patients in that state seemingly waste much, if not all, that is given them by the mouth, and time being of immense value it is as well that absorption should be taking place continually. Personally I feel that the secret of successful treatment of blackwater fever lies not so much with us doctors as such as in skilful and tender nursing.

ERNEST A. BOXER, L.R.C.S.Edin., etc.
Edinburgh. Livingstonia Mission, Bandawe, B.C.A.

[1] BRITISH MEDICAL JOURNAL, March 5th 1904, p. 544.

REPORTS
ON
MEDICAL AND SURGICAL PRACTICE IN THE HOSPITALS AND ASYLUMS OF THE BRITISH EMPIRE.

EDINBURGH ROYAL INFIRMARY.

A CASE OF PARAPLEGIA OF SIXTEEN MONTHS' STANDING: LAMINECTOMY: RECOVERY.

(Under the care of J. M. COTTERILL, M.B., C.M., F.R.C.S.E. Surgeon to the Infirmary.)

G. A., aged 36, a mason, was admitted on November 11th 1898, having been transferred from the medical wards, where he was under the charge of Dr. Byrom Bramwell.

HISTORY.

Several years previous to admission the patient had developed spinal caries, and had suffered considerable pain in the back for three years past. He had first noticed loss of power in the legs about twelve months before admission. There was no family history of tubercle, nor had the patient previously suffered from any manifestation of the disease.

STATE ON ADMISSION.

The patient was a well-nourished man, the muscles of the upper half of the body being well developed. The pulse was 70, and the temperature 98° F.

Nervous System.—He complained of heat and tingling in his toes and legs; both phenomena were more marked on the right than on the left side. He had incontinence of urine, complete paralysis of both lower limbs, and complete anaesthesia of both lower limbs, scrotum, and abdominal wall up to the level of the umbilicus. Sense of heat and cold was absent over a similar area.

Deep Reflexes.—The knee-jerk and ankle-clonus were markedly increased, and adductor and cross-adductor jerks were present. The elbow-jerks were normal. There was spinal epilepsy in the lower limbs.

Superficial Reflexes.—The plantar was markedly exaggerated, the cremasteric absent, the gluteal present.

Spine.—There was marked projection at the level of the ninth dorsal spine, but no pain on percussion.

The bowels were only moved after an aperient, and then involuntarily. The urine (drawn off by catheter thrice daily), had a specific gravity of 1021, was alkaline, and gave a copious

sit of pus and some mucus. There was no albumen. e were bedsores on both hips.

PROGRESS.

r some months the effect of extension was tried, but as ondition remained highly unsatisfactory it was decided rform laminectomy.

OPERATION.

May 11th Mr. Cotterill operated by turning back a circular flap, exposing the eighth, ninth, and tenth l spines. The laminae and spines of these vertebrae g removed, a bony tumour was found springing from the erior aspect of the spinal canal. This bony outgrowth surrounded by tuberculous granulation tissue, and ed very marked narrowing of the canal. The spinal cord firmly gripped at the level of the outgrowth, and on val of the laminae it was noticed that the cord was con- ably indented. The constricting material having been y removed, the soft parts were brought together over the , and the edges of the wound in the skin very accurately ght into apposition.

AFTER-HISTORY.

e wound healed by first intention, and the patient began el some improvement in sensation as early as the fourth after operation.

e deep reflexes were noticeably less exaggerated fifteen after operation, and at the same time slight improve- t in the motor functions was observed. He could now he bowels moving, and was able to pass voluntarily a l quantity of urine. The bedsores began to heal.

ght improvement continued till September, when he was home, wearing a poroplastic jacket. There was still a iderable amount of pus in the urine.

PRESENT CONDITION.

e patient has recently returned for inspection, and it is d that he is now almost entirely cured. He can walk five ix miles at a stretch, his sensation and reflexes are nal. His water is quite clear and is passed in a good m. The bowels act regularly, and he is in excellent th.

EMARKS BY MR. COTTERILL.—The results of laminectomy tuberculous disease of the spine are so frequently dis- inting that it is satisfactory to have to report a case re recovery has been so perfect. This is all the more ble when one remembers the condition of the patient at time of operation—paraplegia for sixteen months, puru- cystitis, and bedsores. In order to ensure an aseptic lt, which is of such primary importance, the greatest ible care should be taken to sterilize the operation area several days before operating, the skin wound should be t accurately closed by the finest silk stitches and then red with collodion, all pressure on the part being pre- ed by a circular air pillow, and the use of thick dressings the wound avoided. They tend to cause perspiration in neighbourhood of the wound, and so conduce to sepsis. s interesting to note that improvement was slow and con- ous for three years after laminectomy, this time having sed before the patient reached his present satisfactory lition.

REPORTS OF SOCIETIES.

EPIDEMIOLOGICAL SOCIETY.

A. WHITELEGGE, C.B., M.D., F.R.C.P., President, in the Chair.

Friday, April 15th, 1904.

ANTHRAX.

T. M. LEGGE (H.M. Medical Inspector of Factories) read aper on industrial anthrax, dealing with 211 cases reported ing the five years 1899-1903. The case death-rate had been er cent. and much smaller than formerly, and about the e as on the Continent, except in an outbreak in Austria orted by Eppinger, in which there were 78 fatalities out 88 cases. As regards the seat of infection, in 5 it was ernal, in 84 the neck, in 77 the face and head, in 16 the arm, in 28 elsewhere, and on the fingers only once, and t doubtful. The death-rate was greatest when the d or neck was the point of entry. The diagnosis confirmed bacteriologically in 155 cases. As regards atment, 145 cases were treated in hospital and the rest at their own homes. In 143 cases the pustule was excised, but no general conclusion as to the best form of treatment could be deduced. As regards trade incidence, of the 211 patients, 72 were wool workers, 56 of these being employed on wools scheduled as dangerous; 58 were horsehair workers, and 69 hide and skin workers. The percentage of infection among those working on parcels known to be dangerous were, wool workers 1.3 per cent., and horsehair workers 1.5 per cent. Of the wool workers, 41 belonged to Bradford and 11 to Kidderminster; of the hide and skin workers, 38 to London and 18 to Liverpool; while 23 cases among horsehair workers occurred in London; London and Liverpool and the districts of Bradford and Worcester thus accounted for 131 of the 211 cases. Only 1 case was reported from Scotland and none from any of the West of England counties, where no wools scheduled as dangerous were used. Roughly, 34 per cent. of the wool cases were traceable to the so-called Persian wools, and 22 to Turkish and Van mohair. With horsehair, 28 per cent. to Chinese and 21 to East Indian importations. Many, however, could not be traced, and much that was entered as French, Belgian, or German was really Russian or Turkish imported through those countries. The lower the standard of the civilization of a people, the greater was the risk of its sending anthrax-infected material. The Chinese were among the worst, since they took no steps to exclude dead and diseased hides, and packed up filth to 20 or even 50 per cent. of the weight. The Kurds were no better; but so long as there was a demand for natural brown wools recourse must be had to those countries. The question of disinfection was beset with difficulties, chemicals being wholly inadmissible, and heat sufficient to destroy the bacilli being applicable to horsehair only. Experiments in this country, in Germany and Italy, had shown that horsehair could be effectually disinfected by current steam at a temperature between 200° and 225° F. at from 2 to 2½ lb. pressure. Beyond this little could be done except to protect the workpeople by supplying special close-fitting washable dresses, gloves, and veils when engaged in special work, and preventing diffusion of dust by manipulating the materials as far as possible in the wet state and burning the dust. The waste should not be used for manuring fields, this practice and the pollution of streams with the foul water being a cause of anthrax on farms.

Dr. ARNOLD EVANS (M.O.H. Bradford) had found all disinfection injurious to wools; he had no knowledge of formalin. There were dangerous wools other than those scheduled.

Mr. WEBB (Gloucester), a horsehair manufacturer, had for many years conducted experiments in conjunction with the county medical officer and analyst. Since 1897 he had passed all his goods through a Lyon's disinfector at the pressure and temperature mentioned by Dr. Legge; he found it at once the most effective and least hurtful measure. Signor Pachetti, of Milan, who employed 1,500 operatives and maintained a bacteriological laboratory, had come to the same conclusions as regards temperature and pressure of steam as himself. It was remarkable that spores which were not detached in the dry combing and were not to be detected in the dust, were separated by the moisture of the steaming process and could be cultivated from the washings.

Dr. FRANKLIN PARSONS, speaking of industrial anthrax, referred to the case of a heifer, the flesh of which was all, except the tongue, sold in the open market and could not be traced; no one seemed to have suffered, the bacilli being doubtless destroyed in cooking, but the farmer and butcher who killed the animal and dressed the carcass both died within the week.

Drs. KENWOOD, HAMER, BULSTRODE, WILLOUGHBY, and Mr. WOLF DEFRIES also made remarks.

Dr. LEGGE, in reply, said that of non-industrial anthrax 32 cases occurring among butchers had been reported, but there were, he believed, many more, though from the inoculations being confined to the hands and forearms, the fatality was very low. The disease was very frequent in South America, but of an extremely mild type, for he had read of 200 cases with scarcely a death. He hoped that the serum prepared by Professor Sclavo, and by which he had treated 164 consecutive cases with a mortality of only 6.09 per cent., would be shortly used in this country. The official regulations here applied to woollen works only, those adopted in some horsehair factories being voluntary, but in Germany the manufacturers had complied with the requirements or recommendations of the Government and had not experienced any loss.

LIVERPOOL MEDICAL INSTITUTION.

JAMES BARR, M.D., F.R.C.P., President, in the Chair.

Thursday, April 28th, 1904.

STRANGULATED HERNIA.

Mr. K. W. MONSARRAT related a case of strangulated inguinal hernia with an unusual complication in a man aged 45 years. The operation took place twenty-four hours after the onset of symptoms.

The gut was intensely congested, but, except for a greyish purple patch on the entering coil at the neck of the sac, it did not show evidence of marked damage. At the end of the following week the patient complained of vague general abdominal pain, and this was accompanied by evening pyrexia. The pain became localized to the right iliac fossa, and during the seventh week after operation symptoms of chronic intestinal obstruction commenced. The abdomen was opened in the right iliac region, and a mass of coiled small intestine was found bound to the parietal peritoneum by a dense adhesion, while there were numerous other adhesions between the coils, one of which was causing a definite compression. The adhesions were divided, the omentum used to cover some of the raw surface, and the abdomen closed.

This operation was followed by subsidence of all morbid symptoms.

Mr. LITTLER JONES related a case of Richter's hernia in a woman aged 73, admitted into the Royal Infirmary with a history of four days' pain and abdominal discomfort and slight distension, and with a small lump in the right femoral region.

There was no constipation or vomiting, neither was there a history of hernia. A strangulated femoral hernia being diagnosed, operation was proceeded with. The gut was adherent to the sac, which contained foul-smelling fluid; the protrusion was the size of an ½-in. marble, of an ashy grey colour, too far gone for recovery. The constriction being divided, the gut was gently pulled down and the diverticulum invaginated into the lumen of the bowel. Lembert sutures of fine silk were used to secure the peritoneum. An uninterrupted recovery followed, the patient leaving the hospital in the fifth week.

This was the second case that had come under his care, the other requiring enterectomy and being in the inguinal region. The bud-like process in the latter case was about half the lumen of the bowel; 14 in. were removed. The patient was a man aged 48, and also made a good recovery.

SWALLOWED FOREIGN BODIES.

Dr. W. BLAIR BELL described his treatment of children, aged 18 months and 4½ years who had swallowed foreign bodies, the one a brooch and the other a bed-knob. He had given absorbent cotton wool, teased finely, in their food. The result had been extremely satisfactory in each case, the swallowed body being passed in, at most, eighteen hours enveloped in the wool. So far as he knew, the method was a new one.

PLEURAL EFFUSION.

Dr. R. J. M. BUCHANAN read a paper on the interpretation of physical signs in pleural empyema. He considered Baccelli's sign unreliable as a distinction between serous and purulent effusion. The auscultatory signs of a purulent effusion resembled, in his experience, those of consolidated lung more than serous effusion. Serous effusion seemed to him to exercise a selective rather than a wholly inhibitive influence over the transmission of vocal vibrations. He pointed out the danger of errors in diagnosis in the "acute pneumonic type" of pleuritis, and the probability that purulent effusion might be present from the onset and errors of diagnosis dangerous. More careful study and interpretation of physical signs in pleural effusion was desirable, in order that the indications for exploratory puncture might be clearly established.

Dr. A. G. GULLAN mentioned a case in which the vocal fremitus, breath sounds, and vocal resonance were transmitted through a purulent effusion. The patient was a man aged about 40, who was supposed to have a thickened pleura, as he had a previous history of pleurisy on the affected side. His temperature, night sweats, and general appearance were considered by the physician in charge to be due to large tuberculous cavities which existed at both apices. After death, however, though the upper parts of the lungs were affected by marked tuberculosis, pus was found in the pleural cavity.

Dr. T. R. GLYNN mentioned the importance of the obliquity of the line of dullness in pneumonia when the patient was sitting up. He said that in some cases, though the clinical symptoms pointed to a large effusion being present, only a small quantity of fluid could be drawn off, the excessive dullness being due to concurrent pneumonia.

Dr. W. B. WARRINGTON thought the existence of bronchial breathing was independent of the serous or purulent n of the material conducting the glottic sound. The chief f culty was to explain its existence in some cases of pl effusion, and in others the diminution of all normal au tatory phenomena.

Dr. HUBERT ARMSTRONG remarked that empyema, k enteric fever, was a disease which occurred with greates quency in children, and yet was generally discussed in aspects which it presented in adults. A most impor point in the diagnosis was the altered position of the beat. This and the extreme dullness with distinct resist on percussion were the signs on which he placed reliance; when in doubt he never hesitated to explore, u a large needle.

Dr. E. T. DAVIES said that in his experience the mos liable sign of pleural effusion was the absence of v fremitus, but the only certain evidence of pleural effu was obtained by the exploring needle.

Mr. LITTLER JONES, Drs. JOHN HAY, HILL ABRAM, LLOYD ROBERTS also joined in the discussion.

At the same meeting Dr. CARTER read a note on Some periments with Digestants and on the Influence of Anti tics upon Digestion.

ROYAL ACADEMY OF MEDICINE IN IRELAND.—At a meeti the Obstetric Section on April 15th, Dr. ALFRED SMITH, Pri dent, in the chair, the PRESIDENT read notes of a cas tuberculosis of the vaginal portion of the cervix uteri. patient, aged 25, was admitted to St. Vincent Hospital January last with a history of an incomplete abortion foul-smelling discharge. The temperature on admission 100.4° F., and was put down to septic absorption. On insp tion a fungous ulcerating mass projected more or less unifor around the os. It broke down easily on pressure with finger, causing a well marked haemorrhage. Cancer was p visionally diagnosed, but the examination under the mic scope of a piece cut out of the cervix showed it to be tub culous. Both lungs were affected with tuberculosis, and la quantities of tubercle bacilli were found in the sputu Hence palliative treatment was alone possible. The ch points of interest were the rarity of the affection, the source infection, and the differential diagnosis. Drs. DARGAN, GLEN TWEEDY, and NEVILLE also discussed the paper.—Dr. E. TWEEDY read a paper on some recent methods of opening a closing the abdomen.

Card Specimens.

Dr. GLENN: Dermoid tumour of the ovary, sarcoma of the ova carcinoma of the ovary, and epithelioma of clitoris and labia minora. Dr. E. H. TWEEDY: Sarcoma of the uterus.—Dr. GORDON FITZGERALD A tubo-ovarian cyst.

GLASGOW OBSTETRICAL AND GYNAECOLOGICAL SOCIETY.—A a meeting on April 27th, Dr. NIGEL STARK, President, in th chair, Dr. R. H. PARRY showed a dermoid tumour of the le ovary which had constricted the sigmoid flexure. The righ ovary contained a number of small cysts. In the sam patient there was a large cyst attached to the omentum an without any connexion with the pelvic organs. It proved o examination to be a multilocular ovarian cyst.—Dr. JARDIN read notes of a case of recurring eclampsia. First attack Mrs. A., 4-para, aged 30, was admitted on April 23rd, 1903 under Dr. Black's care. She was supposed to be eigh months pregnant. She was unconscious, having had thre fits before arrival. There was slight oedema of hands an feet, and the urine was loaded with albumen. She regained consciousness under treatment on April 26th, and on the following day was delivered by natural effort of a dead child. When she left hospital there was still a trace of albumen in the urine. Second attack: On December 3rd, 1903, the patient was again admitted to hospital in a semi-comatose condition, with a history of convulsions for twelve hours. The urine contained a large quantity of albumen, with granular and hyaline casts and degenerated blood cells. Saline solution was injected subcutaneously, the cervix dilated with Bossi's dilator, and a live child delivered with forceps. The tube casts disappeared, but there was still a trace of albumen in the urine when the patient left hospital. Dr. Jardine also read notes of a case of hydrocephalus with *post-partum* haemorrhage. Mrs. G., 2-para, was admitted to hospital on October 12th, 1902, after two attempts had been made to deliver her with forceps. The uterus was firmly moulded round the child, but there was no special thinning of the lower uterine segment. The uterus was in a state of continuous tonic con-

ion. The large head could be felt to crackle under fingers. Dr. Jardine perforated and delivered by ns of a cranioclast. As profuse haemorrhage came on he ed out the placenta and compressed the uterus anually. An intrauterine douche (120° F.) was given, wed by a solution of suprarenal gland, 30 gr. to the . As the uterus still remained uncontracted it was ged with iodoform gauze.—Dr. J. K. KELLY read notes of cases of primary carcinoma of the ovary: (1) Mrs. C., 45, was admitted to hospital on February 16th, 1903. months before admission she noticed a swelling in the r abdomen, which had rapidly increased. On palpation abdomen felt extremely tense, but no tumour nodules d be detected. The dullness on percussion varied with ge of position. On opening the abdomen both ovaries found to be cystic, that on the left side forming a conrable mass. The tumour on the right side was about the of a small apple. The patient returned twice to hospital to pped, and died about nine months after the operation. ovaries were both carcinomatous. (2) H. D., aged 30, arried, was admitted to hospital on February 19th, 1903, plaining of pain and swelling of the abdomen of two ths' duration. On palpation, the whole left side of the men was felt to be occupied by a firm tumour presenting efined irregularities. Douglas's pouch was occupied by rregular mass passing down into the right side of the is. On abdominal section, the tumour was found to con- of one very large mass springing from the left ovary, and naller mass filling the hollow of the sacrum and the right of the pelvis, and representing the right ovary. The ent was dismissed well seventeen days after operation. died four months later from recurrence. Microscopic mination showed both tumours to be alveolar carcinomas.

LSTER MEDICAL SOCIETY.—At a meeting on April 21st, Dr. N CAMPBELL, President, in the chair, Dr. V. G. L. DEN read a paper on ethyl chloride as a general anaesic. He had had experience of three inhalers: (1) Lucas's r inhaler, from which he removed the sponge when ethyl ride alone was to be given; (2) Luke's modification of er's ether inhaler; and (3) Field Robinson's "ideal in- r." He preferred Lucas's or Luke's, by either of which llent results might be obtained; and a point in their ur was that they avoided the necessity of carrying a ial inhaler for ethyl chloride. Of somnoform he had had xperience, as it had little, if any, advantage over pure l chloride, and was very disagreeable from the contained l bromide. He had confined himself to pure ethyl ride and narcotile, the latter being a mixture of the rides of methyl and ethyl, which the makers formerly lled bichloride of methyl ethylene. After quoting the res of various writers as to the duration of induction and lable period of anaesthesia, he stated that he had found anaesthesia could be induced in as short a time twenty seconds in children, and that the average was half a minute to one minute and a-half according the age and condition of the patient. The duration anaesthesia with 5 c.cm. in an adult or 3 c.cm. a child he found to be on an average from a minute to a ute and a half. The available anaesthesia he found did depend proportionately upon the duration of administra- , for after some minutes inhalation for a minor surgical ration the patient was found to be able to answer questions ee-quarters of a minute after removal of the inhaler from face. He had noticed the fact on several occasions that if econd dose was necessary during, say, a dental operation, anaesthesia from the second dose was generally longer n that from the first. He considered the drug safe and y once had any anxiety; that was a case of amputation of toe in a tetanus case. Spasm of the jaw set in r six or seven minutes' inhalation. The mouth was ned with a gag as far as the condition of trismus would w; breathing again began and inhalation was continued til the operation was concluded. He now used ethyl oride as the routine anaesthetic in adenoid cases and for ny dental cases. He had found it of great benefit in many nor surgical operations, and had had the opportunity of ing it in three cases of dislocation of the shoulder. The uscular relaxation was perfect and reduction easy. In one the cases unsuccessful attempts at reduction had been ade the previous evening under nitrous oxide. He had und, however, that general muscular spasm occasionally curred even when the anaesthetic was pushed till corneal flex was quite abolished. He considered it valuable as a preliminary to ether, and with a limited experience of about 250 cases altogether, he liked ethyl chloride the more he used it. —Mr. FULLERTON showed the stomach from a case of ruptured ulcer in an hour-glass stomach. After he had opened the abdomen for the perforation he found an hour-glass stomach with the perforation or tear near the narrow part; he performed a gastro-gastrostomy; and the patient was making an excellent recovery when a small abscess formed which opened into the pelvis; this was drained, and again the patient was doing well when lung symptoms supervened, and the patient rather suddenly died.—Dr. CECIL SHAW showed microscopical preparations from some unusual cases of catarrhal conjunctivitis, of which he had seen several in the last two months. They were characterized by great swelling of the lids, profuse muco-purulent discharge, and secondary spots of impetigo on the arms and legs where the patients, who were all young children, had scratched themselves. The microscope showed a mixed infection of streptococci and staphylococci.

PATHOLOGICAL SOCIETY OF LONDON.—Laboratory meeting at Guy's Hospital Medical School, Tuesday, May 3rd; Dr. BEDDARD in the chair. The following communications were made: J. FAWCETT, case of sarcoma of the pancreas associated with pseudo-lipaemia. A. E. BOYCOTT, some experiments on ankylostoma larvae. C. PRICE-JONES, a method of preparing microscopic films of bone marrow. J. W. H. EYRE, demonstration of a series of pathogenic intestinal organisms on nutrose plates.

BRADFORD MEDICO-CHIRURGICAL SOCIETY.—At a meeting on April 19th, Dr. H. ANGUS, President, in the chair, Dr. VAUGHAN BATESON gave an address on Medical Customs of the Thibetans, illustrated by photographs and specimens of charms, etc. Thibetan medical men, he said, were priests, and drugs were very little used. Chief reliance was placed on charms which were in some cases objects of the nature of jewellery or in others inscriptions on paper which were worn on the person, different inscriptions being used according to the effect desired. Other remedial measures were bathing in waters which at certain times were supposed to possesss healing virtues, and the use of musical instruments, drums and trumpets. Surgical measures were apparently never undertaken. In cases of snake-bite pieces of dry sandstone were applied to suck away the poison. Syphilis, at least in the familiar form, was rare. Leprosy was common, as also was apoplexy. In disposing of the dead, cremation was practised in the case of persons of peculiar sanctity, but it was not common owing to the scarcity of fuel. The usual practice was to expose the body to be eaten by vultures and wild animals. Sometimes bodies were thrown into rivers, etc.

REVIEWS.

GASTRIC DISORDERS.

THE essay upon gastro-succorrhoea, by Professor H. STRAUSS and Dr. BLEICHROEDER,[1] is a careful and praiseworthy piece of work, although its results are not conclusive. The condition in question is not well defined and is regarded by many authorities as rather a symptom of many forms of stomach disorder than an independent condition. Professor Strauss therefore starts his inquiry from the beginning and seeks to lay down the conditions under which the presence of gastro-succorrhoea may be diagnosed. The presence of a certain amount of fluid in the fasting stomach is not in itself sufficient. He thinks that more than 10 c.cm. is abnormal and more than 20 c.cm. pathological, but less than 50 c.cm. is slight, and where the amount does not exceed 40 c.cm. it gives rise to no symptoms. But such fluid may be merely retained stomach ingesta. True gastric juice is thin, like water, or slightly greenish in colour, of a specific gravity of from 1004 to 1008; it contains free hydrochloric acid and a due proportion of pepsin. He attaches importance to the molecular concentration of the fluid and the amount of hydrochloric acid. The fluid should show absence of sugar and erythrodextrin, and he lays stress upon the absence of fermentation on the addition of a few grains of glucose. Another point is the proportion of sediment when the fluid is put to stand in a graduated glass; this in gastric juice should not exceed 4 or 5 per cent.; sarcinae and sprouting torulae

[1] *Untersuchungen ueber den Magensaftfluss.* [Investigations Concerning Gastro-succorrhoea.] Klinischer Teil, von Professor H. Strauss. Patholog.-Anatom. Teil, von Dr. F. Bleichroeder. Jena: Gustav Fischer 1903. (Demy 8vo. pp. 94. M.2.)

should be absent. Having thus defined the condition he recognizes two main classes—(1) the acute and intermittent; (2) the chronic. The acute and intermittent cases he attributes to nervous causes, sometimes associated with advanced organic disease (for example, tabes), though in other instances the nervous troubles appear to be merely functional. The chronic cases are usually attended by motor deficiency of the stomach and frequently with dilatation. This association is so common that some authors see in the irritation caused by retention of stomach contents the cause of the increased flow of gastric juice. Ulcer is another frequent factor, but the author does not think motor defect is an absolutely essential accompaniment. One argument he urges is that successful gastro-enterostomy does not always at once effect a cure. Nevertheless we understand him to admit that the irritation resulting from the retention may be the cause of the flow, and that changes set up by this retention may persist and maintain the irritation after the obstruction has been removed. The second or pathological part of the essay ought to throw light upon this question, but unfortunately fails to do so, and the result of Dr. Bleichroeder's investigations is mainly negative. The treatment recommended by Professor Strauss is the avoidance of starch and the use of a diet of albumen and fat. With this diet he combines the use of the stomach tube. He does not think silver nitrate deserves to be considered a specific, but he regards alkalies as useful and speaks well of Carlsbad salts and Carlsbad waters. In obstinate cases he recommends the operation of gastro-enterostomy. In the management of these cases the state of the general health is of importance and all means should be employed by which this can be improved.

In his monograph on the disorders of the stomach met with in chronic phthisis, Dr. Du Pasquier[2] gives a fairly complete account of a somewhat limited subject and one upon which it must be confessed that recent methods of examinations throw no very great amount of light. As a pupil of Professor Robin he follows his methods and adopts his pathological doctrines. Robin's test breakfast consists of half the white of an egg cooked hard, 60 grammes of white bread, and 200 grammes of water, but it does not appear to possess any real advantage over the simpler meal of Ewald, composed of about the same quantity of bread, with tea without milk or sugar. The addition of the egg albumen is unnecessary as bread contains sufficient proteid matter to test the peptic digestion. In connexion with this part of the subject the author does not make it clear that the biuret reaction can only be regarded as an indication of the presence of peptone after the albumoses have been precipitated and removed. The dyspeptic disorders of phthisis are divided into three groups. The first, which occurs in the pre-tuberculous stage depends chiefly upon hyperchlorhydria. The patient complains of discomfort and distension; pain is rare and vomiting exceptional. If vomiting occurs he considers that it is due to irritation of the vagus. He finds the liver often swollen, though only to the extent of two finger-breadths below the false ribs; it is sensitive and tender, but this as well as the hyperchlorhydria and the vomiting is attributed to the influence of the vagus, which seems to be a favourite doctrine of the author's teacher, Professor Robin, who has also noticed that these symptoms may be associated with polyuria. The second group corresponds with the stage of the deposition of tubercle, and in this the symptoms are those of atonic dyspepsia with deficiency of hydrochloric acid and gastric ferments. The third group corresponds to the stage of cavity formation in which the stomach disorder depends upon chronic gastritis with deficiency or absence of gastric juice. He finds that fever does not influence stomach functions unless it is prolonged and continued, when it may diminish secretion. While stomach complications aggravate the prognosis of phthisis and are of primary importance in the plan of treatment, their occurrence does not indicate any modification in the ordinary rules by which they are to be met. It is, however, of importance, according to the author, to avoid stimulating the stomach in the early stages and to reserve such means for the hyposthenic conditions which occur later. He also insists upon the harm that may be done by the use of drugs and alcoholic remedies of an irritating kind, such as creosote and medicated wines, in the earlier stages where there is hypersecretion, while on the other hand cod liver oil, as Pawlow has pointed out, tends to check this excessive action of the gastric glands, and therefore may be administered with advantage.

[2] *Les Troubles Gastriques dans la Tuberculose Pulmonaire Chronique.* [Gastric Disorders in Chronic Pulmonary Tuberculosis.] Par E. Du Pasquier. Paris: G. Steinheil. 1903. (Demy 8vo, pp. 136.)

URINARY ANALYSIS.

The merit of Major Bedford's *Clinical Handbook of Urine Analysis*[3] is that it gives briefly and in clear language what are, on the whole, accurate directions for the best means of making clinical urinary examinations with special reference to the precautions needed by workers in a tropical climate where the temperature of the atmosphere is generally higher than in England and there is a greater tendency in organic fluids to undergo decomposition. It must not, however, be supposed that in a work of this kind the reader will find a complete and exhaustive discussion of pathological questions. The author's aim appears to be to describe the necessary manipulations, to point out which he thinks best, and to indicate the fallacies which lurk in them and the means by which these may be avoided. Within these limits we think Dr. Bedford has succeeded in producing a useful book, but it, perhaps, ought not to be compared with the larger works on the urine for general use. The directions given to aid the inexperienced operator are, as a rule, sensible, but we doubt whether it is wise to recommend that microscopic sediments should be examined with a high power, between 300 and 500 diameters, at any rate at first. It seems better to teach the student to examine a drop of the sediment with a lower power (100 diameters), with which he is more easily able to recognize the presence of casts, while he can see pus and blood corpuscles and the larger crystals quite sufficiently well. If there is anything which he does not make out clearly he may use a higher power, after he has got some idea of the nature of the sediment and the number of objects present. Under "Casts" Dr. Bedford repeats the doubtful statement originally made by Sir George Johnson, that leucocyte casts occur in glomerulo-nephritis; nowadays nobody tries to diagnose clinically this form of kidney disease. Waxy or colloid casts can hardly be said "to occur in granular-contracted kidney" but are sometimes present in all forms of chronic renal inflammation, and are not characteristic of any one in particular. The statement is not wrong, but it looks as if they occurred more often in this form whereas they do not. In applying the heat test for albumen the author uses dilute acetic acid to acidulate the urine before boiling but adds strong nitric acid to determine whether the cloud produced is albumen or phosphates, and then points out that the nitric acid may dissolve a small amount of albumen if present. Would it not be better to boil the urine first without acidulation, having ascertained its reaction by litmus paper? If a cloud appears on boiling a few drops of dilute acetic acid will easily distinguish between albumen and phosphates without any risk of dissolving the former. If the cloud is dissolved the urine should then be heated again for a few seconds in order to see whether a cloud forms after acidulation, but the recognition of albumen by heat in alkaline urine is unsatisfactory, and in this case a second test is necessary. In ordinary clinical work, however, it is surely not always necessary to use three tests as the author proposes. We do not think observers in this country consider safranine a better test for sugar than Fehling's solution; general experience with it has not been satisfactory. Le Nobel's test for acetone is not mentioned although it is very simple: add a few drops of a three or four per cent. solution of sodium nitro-prusside to a drachm of urine in a test tube, shake it up and then float upon the surface an equal quantity of strong liquor ammoniae; at the point of contact a brilliant amethyst colour developes and diffuses through the ammonia. In testing the permeability of the kidney by methylene blue it is usual and sufficient to give the methylene blue in a pill and not by hypodermic injection as here recommended. The book is illustrated by some rather poor lithographs, and we have noted several misprints.

Dr. Watson's little book, *The Examination of Urine*,[4] consists of 30 very small pages, and into these it is attempted to compress an account of the anatomy and physiology of the urinary apparatus, a description of the characteristics of

[3] *A Clinical Handbook of Urine Analysis.* By Charles H. Bedford, D.Sc., M.D Edin., Professor of Chemistry, Calcutta Medical College, Major, Indian Medical Service. Second edition. Edinburgh: Bell and Bradfute. 1904. (Demy 8vo, pp. 180. 6s. 6d.)

[4] *The Examination of the Urine.* By J. K. Watson, M.D., Edin. London: The Scientific Press, Ltd. (Fcap 8vo. pp. 30. 1s.)

al urine, to teach the reader how to detect abnor-ies of all characters when present, and to measure in some their extent. The book is stated in the preface to be ded for the use of nurses but, nevertheless, tests are for acetone and aceto-acetic acid, four tests for albumen six for sugar. At the end of the description of the latter urse is told that she need not trouble herself about any s. We quite agree. The author has attempted a task in h he has not succeeded, and the book is not one to be mmended.

PATHOLOGY.

EWING has spared no pains to introduce into the second on of his *Clinical Pathology of the Blood*[5] references to more recent investigations. The cryoscopic examination he blood and urine is described; by this method noting the freezing point of the blood and e an effort is made to detect any deficient inative power of the kidneys; observers are not imous in their opinions as to the value of this test, but rding to recent contributions, a good deal may be expected he method as a guide in the surgical treatment of ateral renal disease. The reader will be struck with novelty of Plate 3, in which various forms of leucocytes ed by the Nocht-Romanowsky method are depicted; the ulations shown in the large leucocytes will cause consid-le misgivings in the minds of those observers who attempt to sharp lines of distinction between granular and non-ular leucocytes; further, the nucleation of the blood elets and their apparent formation within the red cor-les, a view which is accepted by the author, will excite iderable interest. Dr. Ewing has introduced a discussion Ehrlich's side-chain theory of immunity, and gives satis-ory diagrams to explain the relationship existing between s, immunizing and susceptible, and the various forms of ptors, immune bodies, complements, etc. The clinical y of haemolysis is in its infancy at present, but, as most icians feel, very probably many of the complex problems, as the laws controlling the action of isolysins, the nature he group of cases known as "pernicious anaemias," or the chial manifestations occurring in leucocythaemia and other ases, will be elucidated by a development of research in direction. Already we have the observations of Ascoli, us, Clairmont, and others, which form a foundation for her research. The new volume retains its former charac-; it is a reliable clinical guide, and supplies valuable sum-ries on all the modern developments.

n examination of Professor MCFARLAND'S *Textbook upon the thogenic Bacteria*,[6] leaves a favourable impression, and, refore, we have no particular wish to disparage the tone of fident satisfaction in which the author himself announces his preface the especial merits of his book. These merits , however, simply those of an ordinary, useful, students' tbook. The same ground has been covered quite as well by ny other authors, and, by some, rather better. If an ex-tion is to be made in favour of the present volume, it is t the timorous student may be inspired by it with a self-iant enthusiasm which will enable him to grasp some diffi-lt problems with a firmer hand than would be possible he received his early impressions from a less confident iter.

That a further edition of *Dr. Stengel's Textbook of Path-gy*[7] should be required within three years of publication of e third issue, is the best evidence of its usefulness to a nsiderable body of readers. Particular attention has been id to the revision of such sections as those on "immunity" d the "bacterial diseases," but the feature of this edition the inclusion of a chapter on technical methods; this ange we do not view with favour, feeling sure the fifty pages ould have been better employed in the expansion of such a bject for example as "diabetes." The author's account of is malady could afford but scant satisfaction to a student turning to his textbook of pathology for a more detailed description than the exigencies of space permitted in his textbook of medicine.

EXPERIMENTAL PATHOLOGY AND PHARMACOLOGY.

JUST as the science of the body in health is included under the three headings: (1) Physiology, (2) descriptive anatomy, (3) histology, so the science of the body in disease—for example, "pathology"—should include: (1) Experimental pathology, (2) morbid anatomy, (3) pathological histology. Unfortunately, the first, and surely most important, section has been very much neglected. Books entitled "Pathology" usually include sections (2 and 3), and are perhaps more than plentiful; but works dealing strictly with the experimental part, or even cursorily with it, are almost non-existent. It is, therefore, with much pleasure that we welcome the German manual of Dr. Heinz on *Experimental Pathology and Pharmacology*.[8] The first half of the first volume, which was published recently, is divided into five sections, each section being considered under three principal parts. The first gives a general outline of the subject of the section; the second involves a detailed description of the various methods used in investigation; and the third is composed of the principal results so obtained. These are in most cases carefully tabulated and the investigator's name given. A good bibliography accompanies each section. The first section deals very fully with the physical chemistry of the cell, and includes both "salt" and "ion" action. This section is perhaps the best one in the book; the subject is attacked in a methodical manner, the laboratory methods are clear, and the diagrams good. A large amount of space is occupied by giving, in perhaps too great detail, the results of individual investigators. Thus, under plasmolysis, the experiments of De Vries are tabulated in full, while sixteen pages are devoted to the theory of narcosis as advocated by Overton and Hans Meyer. The second section discusses corrosives, astringents and antiseptics. The first two of these receive comparatively little attention, thus the astringent action of the tannins is dismissed in a few lines. Under the heading Antiseptics are given the detailed experiments of Koch, Gepperd, Behring, and others, and the treatment of the subject as a whole, as has been elucidated by German investigators, is very complete. General protoplasmic poisons are considered in the third section, and are classified according to Löw's system. About eighty pages are devoted to the section on inflammation, including its excitement by drugs and other means. The phenomena of diapedesis, chemotaxis, phagocytosis, etc., receive ample discussion, and in each case the methods of investigation are lucidly expounded. The last section deals with the blood, and is the longest in the book. An account is given of its chemical and physical properties, the number and form of its corpuscles, and of haemoglobin and blood gases. The methods of examination are then described and illustrated by sketches when necessary. That part dealing with the principles of staining is particularly well done, but some simple methods such as that of Jenner are not described. In the special part the reaction of the blood to various abnormal conditions is dealt with. The main results are generally tabulated. Thus we find tables showing the toxic substances which destroy the corpuscles, which alter their form, or which produce changes in the haemoglobin. Space is also devoted to experimental work dealing with iron in blood formation, to the relationship of drugs to the white blood corpuscles in the circulation, and to the alkalinity of the blood. The volume, so far as it goes, gives a fairly complete account of the experimental methods involved and the results obtained in those branches of pathology and pharmacology upon which it touches. It is interesting and accurate throughout. The arrangement into sections is excellent, and reference to any particular work is easy. It is a matter for regret, however, that English work does not receive its proper recognition. Nevertheless, the book will prove valuable to all engaged in research, and as a work of reference should find a place in experimental laboratories.

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linical Pathology of the Blood. By James Ewing, A.M., M.D. Second Edition. London: Henry Kimpton. 1904. (Demy 8vo, pp. 495. 21s.)

" *A Textbook upon the Pathogenic Bacteria.* By Joseph McFarland, M.D ourth Edition. London: W. B. Saunders and Co. 1903. (Medium 8vo; p. 629; 153 illustrations. 15s.)

' *A Textbook of Pathology.* By Alfred Stengel, M.D., Professor of Clinical edicine in the University of Pennsylvania. Fourth Edition. London: . B. Saunders and Co. 1903. (Demy 8vo, pp. 934. 394 illustrations. s.)

[8] *Handbuch der experimentellen Pathologie und Pharmacologie.* By von Dr. R. Heinz Erste Band, erste Hälfte. Jena: Gustav Fisher. 1904. (Demy 8vo, pp. 489, 34 illustrations. M.15.)

THE Chicago Board of Education has decided to establish medical inspection in all schools. Teachers are to report diseases and insanitary conditions where the general health is menaced.

NOTES ON BOOKS.

FORENSIC MEDICINE AND PUBLIC HEALTH.

THE editors of the seventh edition of HUSBAND'S *Forensic Medicine, Toxicology, and Public Health*[1] have altered and improved the volume to so great an extent that it would have been better, we think, had they amplified it in certain respects still more and brought it out in their own names only. There are more pages than before; these are larger, the type is clearer, and a considerable number of excellent illustrations have been added. The more orderly arrangement of the subject matter and the greater completeness of the index also considerably enhance the value of the volume. It is still, however, rather too much like summarized lecture notes to make it easy or interesting reading to the student, and the almost complete absence of illustrative cases, especially in the part dealing with forensic medicine, is unfortunate. Here and there we find passages which are not in the best of taste—as for instance, when referring to inflation of the lungs in stillborn infants, the question is asked, "Who would inflate the lungs?" the answer given being, "Surely not the mother, who would be only too glad that the child was dead, and who would be in no hurry to resuscitate it." The section dealing with poisonous metallic irritants is one of the best in the book and has been materially altered from the last edition. Valuable chapters have also been added upon poisoning by foods and by putrefactive alkaloids. The public health part has been largely rewritten, and contains in a condensed form the most important facts relating to the subject. The illustrations here are well selected, clear, and numerous, and save much letterpress. The author wisely avoids entering into much discussion with regard to the many vexed questions, such as those associated with isolation hospitals, the best methods of dealing with sewage, etc., limiting himself in most cases to a mere statement of facts. The section dealing with hospital construction is especially interesting.

The Annual Charities Register and Digest,[2] of which the edition for 1904 has just appeared, is a work of great value to every one who takes an interest, whether active or passive, in legal, voluntary, and other means for the prevention and relief of distress or for the improvement of the condition of the poor. All institutions and associations having either of these objects in view receives notice, and, in order that matters may be more clearly represented, the register is subdivided into sections according to the specific work undertaken by the institutions included in them. Reference to these is facilitated by an exhaustive index and in addition a memorandum by an expert is placed at the beginning of each section. Mr. C. S. Loch's "Introduction" is really a treatise upon the administrative and executive principles, and the difficulties, objects, and requirements of all charitable work whether undertaken by the State, by private individuals, or by voluntary associations.

The forty-first fasciculus of the work published under the term of *Titles and Authors of Original Articles Printed in American and Foreign Medical Journals, with Complete Index Thereto*[3] brings up the index of the *Journal of the American Medical Association* to December 31st, 1903, and covers the last six months of that year. It consists of 144 four-column foolscap pages, and is divided into four parts. The first is devoted to a general index in which references to the same subject are frequently entered under more than one heading, such as "baby," "infant." The second is a reprint of the tables which the *Journal* prints weekly of the original contents of leading medical periodicals throughout the world. The third gives the titles of those articles in alphabetical order, together with references to the pages in the *Journal* on which further information about them will be found. The fourth is an index of the names of authors of articles whether originally published or abstracted in the *Journal* or merely mentioned therein. The list therefore practically includes the names of nearly all those who published original articles in the leading medical journals of the world throughout the period covered by the index. It will thus be seen that, though the publication will naturally be of most use to readers of the *Journal of the American Medical Association*, it is calculated to be of considerable use to other persons, and especially to those engaged in literary work or in writing or re-editing textbooks. Inasmuch, however, as the indexes supplied of foreign journals do not, as a rule, include reports of single cases, and purport to be entirely complete, the guide cannot take the place of the *Index Medicus* for those who are anxious to overlook nothing which has appeared on the subjects in which they are specially interested.

Among the more valuable of the original papers in the fourth volume of the thirteenth series of *International Clinics*[4] are one by Professor J. H. Musser on the treatment of pneumococcal infection of the lung, in which he wisely remarks that each case is a law unto itself, that there is therefore need for abundant resources to enable daily change to be made in the treatment if required, and also gives excellent indications for effecting such changes; one by M. Louis Julien, Surgeon to the Saint Lazare Hospital in Paris, on subcutaneous injections of mercury for syphilis; and one by Dr. F. J. Poynton on the parallelism between the clinical symptoms and the pathological lesions of rheumatic fever, which, although hardly judicial, is suggestive, not to say inspiring. Among the less satisfactory papers is one by Professor D. R. Brower, of Chicago, in which there is, as far as we have seen, nothing new and something that is misleading. He, for example, diagnoses cerebral haemorrhage as the pathological cause in a case of hemiplegia which took two days at least to develop and in which there was no loss of consciousness, in a man, too, with very rigid arteries. He also gives as one of the diagnostic signs of tabes that are of "considerable value" that in a particular case he could squeeze the patient's testicles with all the force at his command without causing him any pain. Such statement excite reflections that are too deep for ordinary criticism.

That the interest of the subject matter of the volume of *Progressive Medicine*[5] for the last quarter of 1903 is not as great as that of some of its predecessors is no depreciation of the value of an important publication. It depends not on the compilers but on the activity, and, in a sense, the fortuitous success of the body of workers whose results they epitomize. In the present volume diseases of the digestive system are in charge of Dr. J. C. Hemmeter, surgery of Dr. J. C. Bloodgood, genito-urinary diseases in that of Dr. W. T. Belfield, and diseases of the kidneys of Dr. Rose Bradford, while Dr. Bruballer epitomizes recent physiology, Dr. C. Harrington general hygiene, and Dr. H. R. M. Landis makes a selection of therapeutic advances. Whether of equal interest to former volumes or not, in reading such a quarterly digest continuity is of importance, and this volume should therefore be studied with as much care as its predecessors.

We have previously had occasion to speak in terms of approval of KEMP AND CO.'S *Prescribers' Pharmacopaeia*,[6] and the fifth edition is a further improvement. As a guide to the properties of all kinds of remedial agents it will no doubt be heartily welcomed again. Over 1,300 additions have been made since the last edition, and we have satisfied ourselves of its completeness, the very latest remedies being included.

Dr. J. ODERY SYMES has to a large extent rewritten the second edition of *The Bacteriology of Every-Day Practice*,[7] and has added sections dealing with the preparation of blood films, meningitis, trypanosomiasis, influenza, and diseases of the alimentary system. A book of this sort is obviously far too brief to serve as a reliable guide to bacteriological technique and diagnosis, but it may teach the unskilled when and how to put up material for examination by an expert, and encourage him to attempt a little amateur bacteriology on his own account

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[1] Husband's *Forensic Medicine, Toxicology, and Public Health*. Seventh edition, revised and enlarged by R. J. M. Buchanan, M.D., M.R.C.P., and E. W. Hope, M.D., D.Sc. Edinburgh: E. and S. Livingstone. 1904. (Cr. 8vo, pp. 740. 10s. 6d.)

[2] *The Annual Charities Register and Digest*. London: Longmans, Green and Co. 1904. (Demy 8vo. pp. 960. 5s.)

[3] Chicago: American Medical Association. (Demy 4to, pp. 144. 50 cents.)

[4] *International Clinics*. A quarterly of illustrated clinical lectures and especially-prepared original articles. Edited by A. O. J. Kelly, A.M., M.D. Volume IV. Thirteenth series. London: J. P. Lippincott Co. 1904. (Demy 8vo, pp. 321. 10s. 6d.)

[5] *Progressive Medicine*. A quarterly digest of advances, discoveries, and improvements in the medical and surgical sciences. Edited by Hobart Amory Hare, M.D. Volume iv. London: Rebman, Limited. 1903. (Demy 8vo, pp. 444. 15s.)

[6] *The Prescribers' Pharmacopoeia*. Fifth edition. London and Bombay: Kemp and Co. 1904. (Crown 8vo, pp. 373. Rs. 5.)

[7] Medical Monograph Series, No. 2. *The Bacteriology of Every-Day Practice*. By J. Odery Symes, M.D., D.P.H. Second edition. London: Baillière, Tindall, and Cox. 1904. (Crown 8vo, pp. 103; 11 illustrations. 2s. 6d.)

NOVA ET VETERA.

A YEAR'S ADVERTISEMENTS.

ERY practitioner is probably annoyed or amused, or both, the flood of advertisements of drugs and other commodities h which his letter-box is stuffed.

bout a year ago it occurred to the writer that instead of mmarily condemning these advertisements to the waste er basket they might be collected say for one year, and t some statistics might thus be obtained which would not without interest. The year's collection is now complete, l includes all the advertisements received by a London geon between April 1st, 1903, and April 1st, 1904.

The total number of packets (mostly postal) received was 300, ighing 57½ lbs. In this total such bulky packages as a case of neral water, etc., are not included. Some of the larger kages were delivered by carrier. The postage paid on the mainder amounted to 19s. 8d.

As to the countries of origin of the advertisements, Great itain is responsible for far the greater number, 162 packages. e United States came next with 50, while France and rmany sent almost equal numbers—34 and 35 respectively. her countries were responsible for the remainder. The pre-nderance of Great Britain is not as great as it seems, as a ge number of advertisements were sent out by the London anches or agencies of foreign manufacturers, but it is not ssible to say how many these were.

The advertisements were in many instances accompanied by mples of the goods recommended, or by offers to send mples. None of these offers, it may be said, were accepted. Various samples were received, ranging from a stout case ntaining four stone bottles of mineral water to a little box tablets. Soap, ointment, tonics, purgatives, and analgesics rmed the greater part, but lime juice, wine, and whisky ust not be forgotten, nor last, but not least, the baby's feed-g bottle, which an enterprising firm anxious for the future the race presented.

Of diaries four were received, including, of course, that ndsome volume which the medical profession has for some ars past been accustomed to receive, together with much struction, some samples, and "literature." The size and ight of this particular diary—it weighs 9 ozs.—prohibit its e in the pocket, and those practitioners who preserve it pro-bly allow it to adorn their desks or carriage seats. From e of the diaries of American origin we glean the information hat among English undertakers there are over a hundred aduates who are entitled to use the initials M.B.E.S." This es not mean, as may be supposed, "Bachelor of Medicine of ngland and Scotland, but "Member of the British Embalming ciety." The instruments and fluids used are said to be ade in America, and the diary, which for the rest is a neat d handy little book, obligingly furnishes the name and dresses of the "graduates" M.B.E.S. for ready reference.

Writing pads seem to be the form of advertisement favoured vendors of drinkables. Wine, water, and beef tea were sponsible for three received.

Five lists of medical and surgical appliances were received, cluding one from a well-known firm which weighs nearly lb. and measures nearly 300 cubic inches, and which must rely contain the price, if not the picture, of every possible ol the surgeon can want.

From Continental health resorts come sundry tastefully-corated and illustrated booklets, sometimes accompanied a free pass to the local Casino, and the authorities of a rench watering-place send coupons good for ten dozen of its greeable table waters. The proprietors of hot-air baths and ndred cures send various booklets advocating their insti-tions where various light rays, X rays, and hot air may be plied to the sufferer.

The medical newspapers received were not many. They were two kinds—genuine medical journals and so-called journals hich exist only for the purpose of pushing the sale of certain strums. The United States is the usual habitat of this last nd of parasite.

Seventeen advertisements from fourteen firms of wine mer-ants were received during the year. The whisky dealers nd the cigar merchant who send a pamphlet *Is Smoking njurious?* are agreed in maintaining that good whisky and od tobacco are harmless. Only the wares of unscrupulous vals are harmful.

Some of the American drug papers are remarkable owing the letters which they say that they have received from ractitioners and which they publish over the writers' names. If these are genuine it would appear that the standard of general education among medical men is even lower in the United States than in the United Kingdom, where unluckily it is not too high. The testimonials are not only of American origin; many purport to be given by practitioners in the United Kingdom, whose names and addresses appear in the *Medical Directory*.

Persistency is one of the chief characteristics of the modern advertiser, although no drug dealer seems to have approached the *Times* in that quality. Twenty-six advertisers sent more than one packet during the year, some sending as many as one a month. But while the Frenchman, who vaunts his cough mixture once a month, sends a copy of the same testimonials and "literature" each time, the more agile American sends twelve different advertisements a year, in the guise of a gratuitous medical journal. From this we may learn that uric acid causes all our ills, but that ——— will cure the diathesis. The "editor" and his correspondents furnish a plethora of instances narrated often in homely but racy language.

The proprietors of a notorious narcotic and sedative have taken the strange course of sending with each advertisement a coloured and enlarged copy of one of the well-known plates in *Gray's Anatomy* which illustrate the surgical anatomy of fractures. No acknowledgement is made to the proprietors of *Gray's Anatomy*, but, perhaps, this is hardly to be expected from a firm which hails from the land of Captain Kidd and of many other though more peaceful pirates. But these pictures seem somewhat irrelevant.

Our advertising friends contradict each other as might be expected. Rival panaceas are often incompatible. One firm sends us diet cards for the diabetic, while from the other side of the Atlantic we learn that diabetes mellitus can be cured by hypnotism without regulation of the diet.

As for gout, the theories of rival druggists are very contradictory. Once a month New England tells me to use certain salts of lithia, but, on the other hand, I am told to leave medicines alone, as a few alkaline baths (of secret composition) will remove the uric acid through the skin, and the patient "may eat and drink whatever comes to hand." Surely the *bon vivant* cannot resist the temptation to try this remedy.

It is impossible to estimate the amount of money which is spent annually in the attempt to bring to the personal notice of practitioners various nostrums. If, as is quite likely, the advertisements were sent to all the 30,000 medical men in the United Kingdom whose names are in the directory, the postage alone would amount to £29,500, to say nothing of carriage of non-postal samples. What the cost of the materials, printing and packing is it is not possible to say. But some of the boxes of drugs and toilet requisites and the catalogues and diaries must have cost a good deal. If it pays to bring such advertisements under the notice of an educated and intelligent class what wonder that advertising should pay in the case of the ignorant and credulous?

SMALL-POX PREVENTION IN GERMANY.

SLOW though we are to follow Germany's example, everything that relates to the prevention of small-pox there is of interest in this country, and the President of the Local Government Board is to be thanked for having sent Dr. Bruce Low last autumn to ascertain the facts on the spot. The results are now published in a very valuable and most interesting report.[1] The latter begins by stating that the inquiry was entered on owing to "conflicting statements having been made from time to time in the public press as to the methods employed in Germany in dealing with small pox patients." The special subject of investigation has been the part played by isolation and the exact measures of isolation which are practised.

At the very outset the reporter met with a serious but suggestive practical difficulty. In Berlin, where he went first, he could hear of no small-pox in Germany. The Central Health Office knew of none, but to help him in his inquiry it was arranged that he should visit representative towns in the four chief States of the German empire—Prussia, Bavaria, Saxony, and Württemberg. The towns visited were ten—in Prussia, Berlin, Cologne, Frankfort-on-Main, Wiesbaden, and Mainz; in Bavaria, Munich, and Nuremberg; in Saxony, Dresden, and Leipzig; and in Württemberg Stuttgart. And so Dr. Bruce Low started on his quest through these towns, with a total population of nearly 5 millions. But it appears

[1] Dr. R. Bruce Low's Report to the Local Government Board on the arrangements made in Germany for the isolation of small-pox cases, ...

that from beginning to end he could not find a small-pox case in any of them. As a matter of history, indeed, the disease was known. In Berlin there had been some 70 cases in seven years (1895-1901 inclusive); in Cologne one case in 10 years; in Frankfort, 9 fatal cases in 10 years; in Wiesbaden, 12 cases eleven years ago, but none since then; in Mainz apparently none during eleven years; in Munich, 7 cases in eight years; in Nuremberg, none for about eleven years; in Dresden, no deaths for the past ten years; in Leipzig, 8 cases in eight years; and in Stuttgart none in six years. The record is truly a wonderful one. There is nothing to be found like it anywhere else in Europe. In this country we have regarded ourselves as exceptionally free from small-pox—and especially from fatal types of the disease—in recent years, but our population of 32 millions has had 6,761 deaths from small-pox in the twelve years 1891-1902, whilst the 56 millions in Germany have had only 607 deaths.

As regards the small-pox which did occur in Germany, the amount of it due to foreigners is quite remarkable. Russia, Austria, and Italy are the principal contributors, and many of the outbreaks are near the Russian and Austrian frontiers. Dr. Bruce Low's notes on the ten towns he visited are very striking in illustration of the importance of foreign sources of infection. In Berlin it has been already stated that about 70 cases occurred in seven years. There were outbreaks in five of the seven years, and in every outbreak the origin of the infection was traced to foreigners—Russians, Italians, Austrians, Portuguese, and in one case to a group of performing negroes from Togoland. In Frankfort the disease was twice introduced from Russia. Dresden is within thirty miles of the Austrian border, and thence receives its small-pox. Of 8 persons attacked at Leipzig in eight years, 2 were Russians and 4 Austrians.

Professor Weintraud, of Wiesbaden, gave Dr. Bruce Low an interesting instance of how small-pox differentiates between the revaccinated and the non-revaccinated. Some years ago Professor Weintraud was Resident Medical Officer at the Berlin Charité Hospital, when two small-pox cases were admitted. Naturally there was anxiety to show to the students these examples of so rare a disease. But it was thought quite unnecessary to revaccinate them, the operation being compulsory in Germany. And so no less than 260 students were admitted in detachments for clinical teaching. At the end of twelve days two of the 260 fell ill with small-pox. Both were Italians, and neither had been revaccinated. Revaccination in Germany, however, is not so absolutely universal as to furnish no control experiments among its own population, and various examples are given resembling our experience in this country in small-pox hospitals where occasional oversight and omission furnish to the small-pox poison opportunity of demonstrating its infectivity.

Coming now to the question of how this marvellous immunity from small-pox is produced throughout the German empire, the questions discussed are vaccination and isolation. The latter appears not to be seriously thought of in Germany itself as the explanation, though no doubt there are cranks there as here. Wherever he went Dr. Bruce Low was told that vaccination and revaccination are the safeguards on which reliance is placed. Small-pox when it occurs is "isolated" in the German sense of the term, unless the patient is too ill or in a remote country district. So also are other infectious diseases isolated. But small-pox isolation in Germany is a very different thing from small-pox isolation in England. In the domains of the Kaiser there are practically no small-pox hospitals as such. The rule is to treat that disease in a pavilion, not of a small-pox hospital and not even of a fever hospital, but of a general hospital for medical and surgical and fever cases. Such a conception of small-pox isolation is rather difficult of mental assimilation by an Englishman, but the fact is so, and Dr. Bruce Low not only states it but illustrates it by block plans of nine of the hospitals which he visited.

The amount of small-pox hospital accommodation is really comical. In Berlin, with a population of 2,000,000, there are 12 beds reserved for variola! They constitute a pavilion of two small wards, part of the Royal Charité Hospital, the largest general hospital in the capital, with 1,500 beds. The small-pox pavilion is about 24 ft. from a scarlet fever pavilion and about 150 ft. from a street bounding the hospital. An easily climbable open iron fence surrounds it. Though the nurse does not sleep in the general nursing block, the cooking for small-pox patients and nurse or nurses is done at the central kitchen, and soiled linen, after certain precautions are taken, is washed at the hospital central laundry. When a small-pox case is admitted the staff told off to attend to are revaccinated, but there is no general revaccination eith of nurses or patients. Needless to say, the general hospit of Germany are not themselves isolated. They are situat to suit the convenience of the populations they serve, a the plans show them planted amidst busy streets.

The truth is that the whole German system of small-p treatment and so-called "isolation" is dominated fro beginning to end, and from centre to circumference, by t great fact of the vaccination and revaccination of the peop The population, as a whole, is practically insusceptible small-pox, and this consideration is supreme in every st taken in dealing with the disease. It is vaccination a revaccination which make effective these laughable essays small-pox isolation. This is fully recognized in Germa Dr. Bruce Low states that the chief Medical Director of t Charité told him "that reliance is placed upon the previo vaccination and revaccination of the population, includi the patients in the hospital, to protect them from the possib spread of the infection from small-pox cases treated on t site of the Charité." The same authority held that, were not for vaccination and revaccination, small-pox would ha to be isolated in the country, away from towns. "He w very strongly of opinion that it is the universal vaccinatio and revaccination of the community that prevents small-po from spreading, and that without the practice in questio the whole system of isolation of the disease in Germa would have to be completely changed, which would involv enormous expense to the ratepayers." The testimony medical men in the other towns was practically identical.

It should be stated, however, that in one of the ten town there really is a small-pox hospital. Mainz, with a populatio of 88,000, provided such an institution in the outskirts of th town about eleven years ago. Dr. Bruce Low, having receive the necessary directions, went to look for it, and his searc was successful. The hospital is situated in the grounds of florist and nursery gardener, which contain, also, the ga dener's cottage, greenhouses, and so forth. A wooden garde fence surrounds it, with footpaths along the outer side. Th buildings were erected about 1892 for cholera, but since the they "have been regarded" as for small-pox. It is in thi sense that they constitute a small-pox hospital. So far as th gardener could recollect, there never had been any small-pox to put into the hospital. There seems no reason why th building should not also be regarded as the dwelling-place o the man in the moon when he visits this mundane sphere.

As in this country, so in Germany, small-pox is a notifiable disease; but notification is there made to the police authorities, who inform the medical officer of health, who visits and then reports to the police. There is power of compulsory removal to hospital for isolation of cases of small-pox or suspected small-pox, "if in the opinion of the medical adviser of the local authority the patient cannot be properly isolated at his home." Where removal is looked on as dangerous to life, the patient can be left at home, and also in rural districts remote from any hospital.

Such is the German isolation system, of which so much has been heard from antivaccinationists within the past year or two. The distinguishing features of it as recorded by Dr. Bruce Low, are quite Gilbertian; but, judging from experience, there seems no reason to doubt that members of the letter-writing ring of the Antivaccination League will continue to assert in newspaper correspondence that Germany owes its freedom from small-pox to its rigid system of isolation. In a recent publication one of the editors of the *Vaccination Inquirer* wrote: "As it happens, Germany's isolation arrangements are much more stringent than our own"; and in a leading article in its issue of October last the *Inquirer* discourses about "the drastic system of isolation in Germany," and goes on to say: "They have so little faith in their revaccination in Germany that they dare not let small-pox come near the revaccinated." What mischievous nonsense this is, and how strikingly untrue, is shown by Dr. Bruce Low's plain statement of facts regarding Germany's measures of isolation, the situation of its small-pox pavilions, their relation to the wards occupied by other diseases, and to public thoroughfares and dwelling houses. Small-pox cases indeed are simply surrounded by the revaccinated, and those who are placed in direct charge are differentiated from the rest of the population by getting an extra revaccination when they are about to enter on their duties.

But it is a poor achievement for a powerful Government merely to expose the character of antivaccination propagandism. That has been done by others a thousand times in the

t, and no doubt will be a thousand times in the future. question is, what is Mr. Balfour's Cabinet going to do ddition? In face of what is now published as a result of own investigation in Germany, what excuse or explana- remains if it still fails to bring in a revaccination Bill? Bruce Low's report ruthlessly exposes the latest sophisti- ons of the Antivaccination League; but if legislative ctivity continues regarding this question, then the ort will be far more condemnatory of the Cabinet than it of the League. The Government knows the truth as to small-pox can be prevented, and it will be hoist with own petard unless it follows up the issue of the report by introduction into Parliament of a measure for assimilat- four vaccination law to that of Germany, so far as the ering circumstances and character of the two countries reasonably permit.

THE RELATIVE SANITARY CONDITION OF DIFFERENT EUROPEAN ARMIES.

. LOWENTHAL has contributed to a recent number of *La ue* an important article on the sanitary condition of the nch and German armies, which deserves more than inci- tal notice, especially as it helps to throw some light on English army vital statistics. He points out that in the dst of all the attention which is being devoted to secure fect armies, it is time that the soldier himself received ention, and that the "effrayante" mortality and morbidity he French army should be carefully studied. This view fortunately making headway. M. de Freycinet has crystal- d it in the statement that "*la bonne santé d'une armée est première condition de sa puissance*," and the French calami- s of 1870 are ascribed in part to the deplorable state of its ny and its decimation by infectious diseases, from which Prussian army was relatively exempt.

An initial difficulty is how to state the extent of the evil merically in a manner which will be accurate and at the ne time comparable with the statistics of other countries. e facts adduced by Dr. Lowenthal indicate that an inter- tional agreement should be secured, ensuring that the vital tistics of the chief European armies should be so compiled to be strictly comparable. Thus the French army statistics calculated on total numbers, the German on effective mbers; the French statistics include officers with men, the rman very wisely do not. But allowing for these sources error, and for differences in the average ages of each army, s instructive to contrast the experience of the French and rman armies. The main results of this comparison, gether with similar comparisons with the experience of the glish army are here given. In making this comparison owance needs to be made for the fact that the French and rman armies are conscript, and it is possible that fewer clusions for initial defects occur in these countries than in listing for the English army.

In 1846-59 the general death-rate in the French army was per 1,000, in 1901 it was only 5.37 per 1,000. This appears point to immense improvement, and the view that such provement has occurred, as in the analogous case of the nglish army, is unhesitatingly taken by most writers. Dr. wenthal has, however, little difficulty in pricking this tistical bubble. Great alterations have occurred in the oportion put on half-pay and retired (*les réformes et les traites pour maladies*). In 1863 these were 6.6, in 1895 they re 28.9 per 1,000. Those who formerly died in the army, w die after being dismissed or retired from it. Until or less this source of error is eliminated, little stress can be id on the lowered death rate shown above. That this con- ntion is correct is further indicated by the fact that the orbidity rate has slightly increased, while the death-rate has remarkably declined. Thus it was 587 per 1,000 in 1862-9 d 631 in 1901. We are therefore driven to the conclusion that e greater part at least of the decline in the death-rate of the rench army is due to sick men being more frequently retired. Compare this with the reduction in the death-rate of the ritish army in the United Kingdom from 11.5 in 1870 to 6.2 r 1,000 in 1901. How much of this is due to real improve- ent in the conditions of life of the soldier, and how much changes in length of service and in the system of drafting ck men out of the service? The contrast of the figures for he English and French armies with those for the German rmy is very striking, the death-rate (not including officers) eing in 1901, 5.11 per 1,000 in the French and 2.23 per 1,000 the German army.

Dr. Lowenthal then proceeds to compare the incidence of special diseases on the French and German armies respectively in the following tables.

Enteric Fever.

	Morbidity.	Mortality.
	Per 1,000 Men.	Per 1,000 Men.
French army at home	4.88	0.71
German ,, ...	1.60	0.17
British ,, ...	1.60	0.29

The figures as to small-pox are equally striking.

Cases of and Deaths from Small-pox.

	Cases.	Deaths.
French army	8,974	739 in the period 1875-1901.
German ,, ...	16	3 in the period 1875-1901.
British ,, ...	6	1 in the one year 1901.

The figures for scarlet fever and diphtheria are also suggestive:

	Scarlet Fever.		Diphtheria.	
	Morbidity.	Mortality.	Morbidity.	Mortality.
French army	5.98	0.24	2.05	0.08
German ,, ...	0.81	0.04	0.59	0.01
British ,, ...	4.50	0.03	0.70	0.02

But the most significant figures are those dealing with tuberculosis, and they confirm very strikingly the view that mortality statistics are very misleading as an indication of the true health conditions of an army. During 1877-80 the mean death-rate from tuberculosis in the French army was 1.35 per 1,000, in 1901 it was 0.98; but during the same period the morbidity-rate from tuberculosis rose from 2.37 to 7.20 per 1,000, an increase of 200 per cent.! The real increase is greater than these figures show, for as Dr. Lowenthal points out, an increasing number of tuberculous patients are eliminated from the army without passing through the hospital. That this is the true explanation is shown by the fact that the number put on half-pay and retired owing to tuberculosis has increased from 2.80 per 1,000 in 1877-87 to 6.91 in 1901.

Although the figures are perhaps not absolutely comparable the following table is most suggestive:

1901: Rates per 1,000: Tuberculosis.

	Morbidity.	Mortality.	Invalided.	Total Loss.
French army	8.30	1.05	8.15	9.20
German ,, ...	2.00	0.26	1.51	1.77
British ,, ...	4.90	0.71	0.59	1.30

The whole of Dr. Lowenthal's article will well repay study. In view of the figures from which we have made a few extracts, it is not surprising that Dr. Lowenthal concludes that in the present condition of things as to morbidity and mortality, the French army, which ought to be a school of sanitation and hygiene, as it is a school of courage and self-denial, constitutes on the contrary one of the most powerful factors for the physical enfeeblement and the depopulation of the country, owing to the excessive amount of sickness and mortality, and above all, owing to the number of moribund persons, of semi-invalids and invalids who leave it year by year.

The whole subject of army statistics needs co-ordination and reorganization. An international agreement is required as to the statistical methods to be pursued, in order that results may be compared. Above all, it is necessary, so far as England is concerned, that optimism should not be allowed to prevail as to the sanitary conditions in which our soldiers and sailors live, that careful investigation should be made and reforms instituted, in order that in the case of our own national forces it shall not be said that men are discharged in large numbers who subsequently become a burden

on the community owing to their health having been permanently damaged while engaged in the country's service.

MEDICAL NEWS.

Under the will of Mr. William Martin Bickerstaff, of Regent's Park, which was sworn at £82,250, the sum of £1,000 is left to each of the following institutions: St. Bartholomew's Hospital, the Bethlem Royal Hospital, the Royal Hospital for Incurables, and Earlswood Asylum for Idiots.

Earl Egerton of Tatton will take the chair at the seventh annual meeting of the Childhood Society for the scientific study of the mental and physical condition of children. The meeting will be held at 7, St. James's Square, S.W., on Wednesday, May 11th, at 3 p.m., and Dr. Shuttleworth will deliver an address on degeneracy, physical, mental and moral.

Dr. Angelo Mazzarelli, who has just died at the age of 71, at Venice, where he had resided many years, was born a Brescia, and practised his profession in that city for thirt y five years. He has bequeathed to the municipality of Venice a sum of £800 towards the cost of erection of the proposed hospital for consumption. To his family he has left estate estimated at £160,000.

The annual meeting of the Association of Asylum Workers will be held on Tuesday, May 17th, at the house of the Medical Society of London. The chair will be taken at 4 p.m. by Sir James Crichton-Browne, the President. One gold and three silver medals awarded by the Association for long and meritorious nursing service will be presented, and all interested in asylum work and workers are invited to attend.

The annual meeting of the members of the Royal Institution was held on May 2nd, Sir James Crichton-Browne, M.D., Treasurer and Vice-President, in the chair. The annual report of the Committee of Visitors for the year 1903, testifying to the continued prosperity and efficient management of the Institution, was read and adopted, and the report on the Davy Faraday Research Laboratory of the Royal Institution, which accompanied it, was also read. Seventy new members were elected in 1903. Sixty-two lectures and twenty evening discourses were delivered in 1903.

The East London Medical Society, formed primarily to press for a reform of the abuse of hospital charity, will hold a meeting on Tuesday, May 17th, at 3.30 p.m., at the King's Assembly Rooms, Cottage Grove, Mile End Road, near Burdett Road, at which all medical practitioners in the E. or N.E. districts of London are invited to attend. The Honorary Secretaries are Dr. Edwin Hastings, 415, Mile End Road, E.; Dr. F. Harris White, Tredegar Road, E.; and Dr. George Black, 230, Burdett Road, E.

The Alexandra Hospital for Children with Hip Disease, Queen Square, held its festival dinner on April 27th. The Duke of Marlborough, who presided, remarked that the hospital was the only one which dealt exclusively with hip disease in children, and that between £5,000 and £6,000 a year were required for the maintenance of its 86 beds. During the evening it was announced that £3,601 had been collected in aid of the institution.

Anthrax in Cheshire.—An inquest was held on April 28th on the body of a butcher who had been called upon to slaughter a cow by a farmer at Faddiley, near Nantwich. A verdict of death from anthrax was returned in accordance with the evidence of the medical man who had attended the deceased during his illness. The cow in question had been stated by a veterinary surgeon to be suffering from milk fever, and its carcass was sent into Manchester. There the meat was recognized by an inspector to be from an animal infected with anthrax, and was seized and destroyed.

Welsh Medical Dinner.—It has been decided to hold a Welsh medical dinner at the Prince's Restaurant, Piccadilly, on May 25th, at 7.30 p.m., when Sir John Williams, Bart., will preside. A general meeting will be held at 6.30 to discuss the advisability of instituting an annual reunion. Those wishing to be present or to introduce guests are requested to communicate with either of the Honorary Secretaries, Dr. T. P. Beddoes or Dr. William Lloyd, 63, Wimpole Street, London, W.

Medical Sickness and Accident Society.—The usual monthly meeting of the Executive Committee of the Medical Sickness, Annuity, and Life Assurance Society was held a 429, Strand, London, W.C., on April 29th, when the chair wa taken by Dr. de Havilland Hall. The principal business c the Committee was the examination of the annual report c the Society, which, together with the quinquennial valuatio report, will be distributed among the members before th annual general meeting to be held on May 19th. The record of the operations of the Society for last year are very satis factory. A large increase has been made in the reserves, an although the sum disbursed in sickness benefits is the greates on record, it is less than the amount expected and provide for. The number of members is increasing, and as thei average age is still growing, the amount of sickness pa expected and provided for grows larger every year. Th economy with which the operations of the Society hav always been conducted has produced a large balance to th credit of the management fund, and the Committee will pro pose at the general meeting a method by which this surplu will be equitably divided amongst those members who hav most largely contributed to it. A substantial bonus will alsc be allotted to those members who in the earlier years of th Society's business took out life assurance benefits. Pro spectuses and all particulars on application to Mr. F. Addis cott, Secretary, Medical Sickness and Accident Society, 33, Chancery Lane, London, W.C.

An Epileptic Colony in Texas.—A fine institution provided by the State of Texas for the care of epileptics was formally opened a few weeks ago. The sum of £50,000 was appropriated by the Legislature for the purpose. The colony is situated at Abilene, Texas, and though not yet completed has sufficient accommodation for 250 patients. It is built on the cottage plan, a certain number of patients being allotted to each cottage, each of which is a complete household, with kitchen, dining room, servants, nurses, and vegetable garden all to itself. Dr. John Preston, formerly superintendent of the State Lunatic Asylum at Austin, has been appointed superintendent. The law stipulates that epileptics now cared for in the three insane asylums (Austin, San Antonio, and Terrell) shall be received first, and then those still uncared for, at home or in gaols as the case may be, are to be admitted in order of application as far as they can be received.

French Colonial Congress.—It has already been announced in the British Medical Journal that a Colonial Congress is to be held in France from May 29th to June 5th. The meeting place is the College Sainte-Barbe, Place du Pantheon, Paris. One section of the Congress will be devoted to colonial hygiene and medicine, and another to general hygiene and international prophylaxis. Professor Raphael Blanchard is the president of the former, Professor Charrin of the latter. Among the papers to be read in the section of colonial hygiene and medicine are the following: Dr. E. Brumpt, sleeping sickness; Dr. J. Guiart, the pathogenic action of intestinal parasites; Dr. Jeanselme, medical study of the Indo-Chinese peninsula and Yunnan; Dr. Le Dantec, phagedenism of wounds in the tropics; Dr. Leven-Lemaire, uncinariasis; Dr. Joly, medicine and hygiene in Polynesia, particularly in the New Hebrides; Dr. Cannac, climatology and hygiene of the Eastern part of the Ivory Coast; Dr. R. Wurtz, tropical oedema.

Small-pox and Chicken-pox.—The following figures show the number of cases of chicken-pox notified within the metropolitan area for each week that has elapsed since the order of the London County Council came into force. First week, ending April 9th (two days only), 200 cases. Second week, 704 cases. Third week, 574 cases. Fourth week, ending April 30th, 522 cases. Last week the number of cases of small-pox notified was 12, or rather less than half the total of the previous period; the number of cases notified in the present week down to the evening of May 4th was 7. Medical men in London appear to be availing themselves of the arrangements made by the London County Council with a view to assisting them in the diagnosis of doubtful cases. These, it will be remembered were that Mr. S. Bingham and Mr. W. Mc. Wanklyn, both of whom were formerly officers in the small-pox service of the Metropolitan Asylums Board, should hold themselves in readiness to proceed to consultations when required. The arrangement is still in force, and the consultations, which are gratuitous, can be arranged promptly by telephonic or other message to the Public Health Department of the London Council, 8, St. Martin's Place, W.C. We learn that of some 50 cases to which they had been called nearly one-half proved to be cases of small-pox.

BRITISH MEDICAL ASSOCIATION.

riptions to the British Medical Association for year 1904 are now due and should be forwarded postal order or cheque to the amount of 25s. he General Secretary, 429, Strand, London, W.C., In the case of Colonial members, to their Branch asurer.

British Medical Journal.

SATURDAY, MAY 7TH, 1904.

HE MEDICO-POLITICAL WORK OF THE ASSOCIATION.

PPLEMENT published this week affords striking e of the very large amount of work done by the Medical Association for the profession at large. ture to think that this fact should be recognized by nedical practitioners who still refrain from joining ks of the Association.

annual report of the Council gives a general con- of the multifarious matters dealt with by or through tral executive during the past year, and it, together e reports of the proceedings of the various Central tees of the Association, ought to be read in full. , however, take this opportunity of directing atten- few matters of outstanding importance.

l be remembered that the annual Representative at Swansea instructed the Medico-Political tee to investigate the economic conditions of practice as carried on in various ways in this and the Committee has now presented an interim With the co-operation of the honorary secretaries of s a series of questions has been circulated cal practitioners actually engaged in contract throughout the country. The Committee advises definite pronouncement should be made by the ion until the replies have been received, analysed, sidered, a process which must obviously take a l of time, but by collating information derived reports of various medical societies and of the of the Committee on the conditions that he exist in various Divisions he had been called visit, the Committee found itself in a position to e at once certain propositions for the considera- he Divisions. Starting with the proposition that esent conditions a contract medical service for the necessity in some parts of the United Kingdom, mittee expresses the opinion that every medical ner in the district for which the service provides ave the right to be a medical officer of the f he so wishes and undertakes to conform ules, and further that medical men should ately represented on the management of any nt of contract practice relating wholly to medical ith regard to fees, the Committee recommends inimum annual fee should be five shillings, and ren under the age of 5 should not be admitted at num rate, but that these provisions should be a local decision to accept a composition fee in f families having more than three children; it ds that these fees should not apply to night tetric cases, operations, or serious accidents. he Committee recommends that there should be reserved to the medical officer the right, subject to a reasonable arrangement as to retrospective application, to decline to attend a member whom he may consider to be in a financial position unfitting him for membership. A recommendation by the Ethical Committee, that a list of places in which conflicts with regard to contract practice are known to exist should be published weekly in the BRITISH MEDICAL JOURNAL has been approved by the Council, and will be carried into effect as soon as the necessary information can be obtained. We would suggest to members who reside in localities where such conflicts are in progress to communicate with the Medical Secretary at the office of the Association in London.

The Medico-Political Committee has also made a report to the Council on the scale of remuneration offered by insurance companies for medical examinations and the character of the examinations required. The report of the Norwich Division on the subject was published in the SUPPLEMENT to the BRITISH MEDICAL JOURNAL of March 19th, and the Committee concurs in the opinion that for every full and careful report upon the state of an applicant's health the medical referee should receive not less than one guinea, but adds that there are many cases in which one guinea is an inadequate fee. This matter is now formally before the Divisions, and it is essentially one upon which a clear expression of opinion from them is very much to be desired.

Another matter of considerable interest to practitioners generally is dealt with in the memorandum which the Council, on the recommendation of the Medico-Political Committee, has referred to the Divisions on the present position of registered medical practitioners in the matter of furnishing certain information to coroners. It is well known that the medical profession has fallen into the habit of supplying to a coroner particulars with regard to the deaths of patients under their care in order to assist him in deciding whether an inquest be necessary or the nature of the evidence to be called. There is no legal obligation upon the profession to do this, and not only is no fee as a rule paid for such information given to assist the course of justice, but some coroners fail to acknowledge the help thus given to them, and some have even accused medical men of neglect of duty in not supplying such information. The practice which has grown up is entirely informal and without any legal basis, and the memorandum points out that if a preliminary inquiry by a coroner is to be regarded as an integral part of the procedure sanctioned by the State, the Legislature should definitely prescribe the respective obligation of coroners and medical practitioners, and provide reasonable remuneration, as is already paid in a few districts. It will be noted that the Committee expresses the opinion that where the assistance thus voluntarily given is not duly recognized by a coroner members of the medical profession may find themselves compelled to refuse to continue to give it.

The inquiry entrusted to the reconstituted Hospitals Committee is still in a preliminary stage, but the report of its proceedings will, we believe, be read with general interest. It will be seen that the Committee has drafted a memorandum setting out the principles which should govern the admission of in-patients and out-patients, and has suggested that a conference with laymen possessing special knowledge of hospital management would probably be advantageous.

The Medico-Political Committee has had before it the resolutions of the Divisions with reference to the draft

Medical Acts Amendment Bill. These opinions are now being carefully considered by the Committee, and the Bill will be redrafted and submitted to the Divisions, it will then come up for discussion at the annual Representative Meeting at Oxford, when it is hoped that the opinion of the Association on the principles involved may be definitely ascertained.

The Council of the Association at its meeting last January adopted a resolution to the effect that it is of urgent importance that elementary scientific instruction in health subjects, including temperance, should be provided in all the primary schools by the educational authorities, in order that the conditions which lead to deterioration of the national physique may be understood and as far as possible prevented. This resolution was transmitted to the Board of Education by the Chairman of the Public Health Committee, Dr. Groves, with an explanatory covering letter and elicited a sympathetic reply. The memorial signed by over fourteen thousand medical men which is about to be presented to the central educational authorities of the three kingdoms cannot fail to confirm the Board of Education in its expressed intention to give the subject careful consideration and must help to guide it to a right decision. Upon the advice of the Public Health Committee the Council has resolved to represent to the Government that, having regard to the influence of the conditions of education on public health, it is advisable that the Board of Education and each local educational authority should be provided with a medical adviser. This important principle has already been acted on in some of the chief towns, but it is very necessary that it should become the rule and not, as at present, the exception.

The same Committee has presented a report on the two Nurses' Registration Bills in which certain amendments are suggested, and another in favour of the Revaccination Bill, the prospects of which are, it is to be feared, this session very unfavourable, though it is possible that if withdrawn in the House of Commons and introduced into the House of Lords, an opportunity would be afforded for a discussion of the important principle it embodies.

Upon all the matters here mentioned—and the list might be easily extended—it is clearly to the interest of the profession that its voice should be heard by the Legislature and the public; upon all the Association, through its Divisions and through its central Committees, is disseminating information, gathering and co-ordinating opinion, and presenting the result in an orderly and reasoned form. The medical profession has suffered in its public status and private interests owing to the insufficiency of the work hitherto done in political matters. The value of the services now being rendered by the British Medical Association to the profession at large must be self-evident even to those medical practitioners who still remain outside this great professional organization.

THE ATTITUDE OF THE MEDICAL PROFESSION TOWARDS THE TREATMENT OF DISEASE BY UNQUALIFIED PERSONS.

THE question raised by Dr. Lewis Jones in the BRITISH MEDICAL JOURNAL of April 23rd, p. 980, is of great interest both to the profession and to the public, for it appears from what he says—and most of us can corroborate his statements—that in certain special spheres of practice the treatment of disease is with increasing frequ carried out by persons who possess no medical qual tions. It is clear, too, that the practice is to a consi able extent supported, and apparently approved, by members of the medical profession. Dr. Jones comp that medical men who take up electro-therapeu are not supported as they should be by their colleag but that the practical application of electricity, ra graphy, and *x*-ray therapeutics is entrusted to lay pe This is the case at several of the London hospitals also at some hospitals out of London.

Dr. Jones says that he has recently seen a l addressed by a chemist to a medical man askin instructions as to technical details, and describin methods of treating a case, presumably of uterine c by a vaginal *x*-ray tube. In order to meet the dem for such treatment a well-known firm of chemist h lately added an installation of electro-therapeutica radiographic apparatus to its business, and, we u stand, receives a considerable amount of profes support. Nursing homes are following suit, a small institutions for electropathic treatment, ma by laymen or nurses, are springing up in parts of London and in provincial centres. In a tion to these institutions for electro-therapeutics the several medico-mechanical institutes, while there has a considerable invasion of England by Swedish ma and masseuses who profess to treat all sorts of dis from lateral curvature to appendicitis.

The chief cause of this state of things is that few m men appear willing to devote themselves to this while those who do so ask fees which are beyond the r of the majority of patients. It is within our know that a patient recently sent to a medical electricia him after two or three visits for an unqualified esta ment where he got for 5s. treatment which he belie be the same as that which had previously cost a guin

In what has been said we have not only describe cause, but hinted at the remedy. We do not for a m suggest that medical practitioners should wor smaller fees. The work in question need not be ac done by the medical practitioner himself; all he has is to see that it is properly done by others under his vision. All such work must be under the contro medical practitioner, who should have a staff of and male operators to carry out the necessary proce in accordance with his directions. Therapeutic esta ments of the kind required for the purpose need org tion, and it is not every one who possesses this fa Where a medical man has this gift he may manage such stitution for himself, but where he cannot he mus the assistance of a business manager, who must account be allowed to interfere with the medical work. No establishment in which every detail treatment is not under direct and continuous m supervision should receive the support of the m profession. This is apparently the course approv the Ethical Committee of the Association, which, in to the question whether a medical practitioner m perly become the managing director of a hydro establishment, passed the following resolution:

That in the opinion of the Committee it would appear to be bet medical men should be on the directorate of such an institutio that the entire control should pass into the hands of laymen, wh be less likely to conform to what the medical profession would as sound principles of management; but a medical man who such an office must equally accept responsibility to the profes the mode in which the establishment is conducted.

opinion has been approved by the Council of the iation.

principle set forth in the resolution just quoted s not only to hydropathic institutions, but to electro-eutic and mechano-therapeutic institutes, and every of establishment for the treatment of disease by al methods. As an illustration of the actuality of the m with which the medical profession is confronted, we ention that we have received a copy of an invitation, by the Town Clerk of Leamington, inviting medical ioners to demonstrations by a Dr. Rau, of Zurich, of rthromotor" which has just been added to the muni-stablishment at the Pump Room in that town. We tand that the Corporation has already provided not rdinary baths, but apparatus for giving radiant heat nd a complete electrical installation. We have no find with the enterprise shown by the Corporation ing to develop to the utmost possible extent the utic resources available for visitors to the charming resort of which it is the tutelary deity. For the the town itself, however, as well as of the visitors, it e satisfactory to have an assurance that the control new methods and appliances for the treatment of with which Leamington has been provided is under ent medical direction.

YSICAL EDUCATION IN ELEMENTARY SCHOOLS.

olished last week a brief analysis of the report of artmental Committee appointed by the Board of on last year to examine the model course now in judge how far it should be modified or supple- and to consider what principles should be , in order to render a model course or courses e for the different ages and sexes of the children elementary schools. The Committee was com- the following members: Mr. J. Struthers, C.B., Secretary to the Scotch Board of Education, ; Colonel G. M. Fox, Inspector of Physical under the Board of Education, late Inspector- of Military Gymnasia; Miss Deverell, one of His Inspectors of Schools; Dr. Kerr, Medical Officer to l Board for London; Dr. A. L. S. Tuke; two Scotch Messrs. J. Stewart and K. Whitton; and two eachers, Messrs. J. F. Blacker and Marshall Jack-. Corner acted as secretary to the Committee.

utcome of personal investigations into the work- existing systems of drill and physical exercises, mittee rejected the Board of Education's model so unsuitable as not even to be amendable, cause the course did not seem as a whole "to be ed on well-defined general principles educed nsideration of the function of physical exercise ssary element in a well ordered course of general for children." It considered that the course in too great a measure of military drill taken Infantry Red Book. In the new course recom- y the Committee the military element is for the excluded, and in its place a series of exercises ended intended to build up the physique of the The exercises are framed on a scientific basis, their chief aim their suitability to children of (from 7 to 12 years) and their simplicity, no paratus being required. Ornamental exercises likely to injure children of weakly physique are rigorously excluded. Certain movements styled "corrective" are introduced specially to correct bad positions and habits contracted by children suffering from defects, the Committee having noted in the course of its inquiry that many children suffer from bodily defects likely to be intensified by the artificial conditions of schoo life.

It is obvious that to draw up a scheme suitable to a large mass of children, including the healthy and vigorous as well as the sickly and deformed, and at the same time to keep it within the bounds of economy, is a task so full of difficulties that an ideal perfection is impossible. The chief difficulties are to deal with a mass of children if the vigorous and healthy are to exercise side by side with the sickly and deformed, and the necessity to draw up a scheme which will not immediately be rejected on pecuniary grounds. Bearing in mind these two salient points, it may be said that the Committee has acquitted itself very creditably of its task, and has succeeded in drawing up a workmanlike scheme. Colonel Fox, who has for a long time past taken an active interest in the physical training of school children under the London School Board, is doubtless responsible in a great measure for the wise and carefully selected course of exercises drawn out.

It is to be regretted that the Committee should not have put its foot down more firmly with regard to the question of medical inspection in schools, for until this is introduced the best possible conditions cannot be attained. As our Commissioner in the course of the inquiry into national deterioration pointed out some months ago, the first thing insisted upon in Sweden, America and other countries, is the medical inspection of school children, and it was shown that the cost was small. In America a practitioner living in the neighbourhood of a school attends for say an hour every morning, and at the opening of the school any child considered by the teacher to present any suspicious symptom, or not looking well, is sent to the medical officer's room, is examined and immediately sent home when necessary. In this way not only is the spread of infectious diseases checked, but underfed children can be singled out, and those suffering from deformities, or in any way delicate, can be classified and sent to special classes for physical training where special exercises would be practised. The Committee suggests that "When, from some malformation or for other reasons, many children are unable to perform the whole of the exercises with profit, they may be formed up behind the other scholars and allowed to take part in such exercises as will not prove injurious," but it is those very children suffering from special complaints and deformities who in many cases require the greatest care in exercise. To allow them to stand behind where they cannot be properly watched by the teacher, and leave them to take part in such exercises as will not prove injurious, does not solve the problem of improving the national physique. If these children are not taken in hand during the period of growth they will suffer in consequence all the days of their lives. We protest that there should be systematic medical inspection in schools, and that the unfit should be singled out and taken separately in one or more classes with special exercises. The sooner the necessity for this is taken to heart the sooner will increase of unfitness be checked.

Now is the moment for the matter to be represented to the new education authorities and for these to inaugurate their reign by this sorely-needed reform, and, as will be seen, the Council of the British Medical Association has

resolved to represent to the Board of Education that not only the Board itself but also every local educational authority should be provided with a medical adviser. This is the first step in advance, and the medical adviser would no doubt find it necessary to organize a system of inspection of schools in each district by medical men practising in the neighbourhood. As has been said, German and American experiments show that the expense happily need not stand in the way. The experience of American cities proves that it is almost nominal. It will be seen that by subtracting the vast amount expended on keeping at school miserable and unfit children who, owing to their physical condition, are unable to reap any benefit from their education, from the sum which it would cost to employ local physicians to attend schools for an hour every morning the educational authorities would be vastly the gainers. And so would the nation in the matter of physical fitness could it but be brought to recognize the unwisdom of the "penny-wise-and-pound-foolish" policy.

"ACCEPTED PROFESSIONAL OPINION."

AT the annual banquet of the Royal Academy last Saturday Mr. Arnold-Forster complained that he felt very strongly the absence of what he might call "accepted professional opinion" with regard to the great military problems of the empire. If, he said, Lord Rayleigh or Professor Dewar in the world of science were to express an opinion on argon or radium, and a halfpenny newspaper expressed the contrary view, public judgement would go in favour of the scientific authority. He could not pretend that a similar acceptance was always accorded to military judgements in questions which were clearly within the military province. We are by no means sure that in this free and enlightened country public judgement would in all cases go in favour of even the highest scientific authority against a halfpenny newspaper. But in regard to "military judgements," it is scarcely surprising that they are not always blindly accepted. Considering the frequency with which such judgements have in recent years been flagrantly falsified before all men, it would indeed be wonderful if they were not sometimes regarded with doubt and suspicion. We are glad, however, to find the Secretary of State for War pleading so strongly for the proper appreciation of "accepted professional opinion." We hope this may be taken as a proof that he has come to see the danger of ignoring such opinion as has been done so conspicuously, not to say defiantly, by Lord Esher's Committee in regard to the medical service of the army. We freely recognize the zeal and ability of that Committee, but we are sorry to be compelled to say that the part of its report which deals with the medical service is made practically valueless by its refusal to be guided by "accepted professional opinion." We need not repeat the criticisms already made in the BRITISH MEDICAL JOURNAL on its proposals. We think it well, however, to direct attention to the remarkable reply sent by the Committee to the letter of the Chairman of Council of the British Medical Association which is published in the SUPPLEMENT to the present issue of the JOURNAL (p. 115). The question of the representation of the service by a medical officer having a seat on the Army Council, which is considered of vital importance by "accepted professional opinion," is simply left on one side, while the Committee quietly rides off on a side issue. A not altogether ingenuous attempt is made to create a diversion by showing that "no change of any kind has been proposed as regards the Army Hospitals Committee except to bring this valuable body into touch with the new Barrack Branch." It could scarcely be proposed, even by reformers whose main idea seems to have been to alter everything that had been done before, to make changes in a Committee whose span of existence is measured only by months. Nor do we quite understand how Lord Esher and his colleagues can yet have sufficient grounds for describing it as "a valuable body." The point put forward by the Chairman of Council of the British Medical Association was that the Army Hospitals Committee is virtually a distinct body of the Army Medical Service, independent alike of the Director-General and of the Advisory Board. This objection, too, is simply evaded. In fact, the Committee's statement throughout is a fine example of the logical fallacy known as *ignoratio elenchi*. We may add that many who take an interest in the medical service of the army would be grateful for some further light as to the origin and constitution of the Army Hospitals Committee. The creation of this "valuable body" was as noiseless as the building of Solomon's temple, which, as Bishop Heber puts it, arose "like an exhalation." Even now nothing, as far as we know, has been officially divulged as to its composition. Why all this mystery? The children of light ought not to love darkness. We are quite willing to believe that the Hospitals Committee is in every way excellent, but we cannot help regretting the clandestine manner in which it appears to have been established.

CONVALESCENT HOMES IN LONDON PARKS

WE are glad to know that this question again came up at the London County Council last Tuesday. The Council agreed to a recommendation of the Parks Committee to contribute £8,000 towards the purchase of eighty acres for the extension of Hampstead Heath. This arose out of a proposal made by the Hampstead Heath Extension Council, supported by Lord Meath, Sir Robert Hunter, Canon and Mrs. Barnett, and others. In an appeal issued on behalf of the proposal, it was urged with great force that this boon would be enjoyed not only by residents in Hampstead, but by the children of crowded districts of London, and that by means of the tube railways now approaching completion, even those resident in the East and South of London would be greatly benefited by the acquisition of the eighty acres. Curiously enough, however, later in the afternoon, the Parks Committee brought up a recommendation suggesting that some of the upper rooms in the beautiful mansion at Golder's Hill, formerly occupied by the late Sir Spencer Wells, should be utilized as a residence for the park superintendent, and that convenience for both sexes should also be provided there. Sir William Collins thereupon proposed, and Mr. Jephson (Chairman of the Health Committee) seconded, a motion to refer the whole matter back to the Committee for further consideration. Sir William Collins pointed out, as has been urged in these columns, that the Act which authorized the acquisition of Golder's Hill Estate distinctly provided that the mansion should be devoted to some public purpose for the health or convenience or recreation of the people of London. It was true, he said, the Parks Committee had on his motion approved the principle of using mansions in the London parks as convalescent homes, but they had refused to apply this principle in the case of Golder's House, although its fitness for the purpose had been proved when it was used as a convalescent home for the Queen. He protested against using this beautiful mansion as a residence for a park constable. It was not in compliance with the Act. After a lengthy debate the reference back to the Committee was carried by a substantial majority. We trust we have now heard the last of the preposterous proposal of the Parks Committee. It was observed that when it is sought to acquire fresh extensions of Hampstead Heath the Council is urged to contribute on the ground that those resident in the crowded slums of Central and East London will be greatly benefited. Surely, however, the practical proposal was made that salubrious Hampstead should extend its recuperative powers to the little denizens of the slums by using Golder's Hill House as a convalescent home, the very same persons wrote indignant letters to the *Times* protesting against such sacrilege. Let the house in question be devoted to some purpose of real public utility. For ourselves, we cannot imagine a better purpose than that of a convalescent home for children.

THE RISKS TO LIFE IN LONDON.

isksencountered by those who frequent London streets
ner on dutv or for pleasure must be sufficiently obvious
ery one. They have probably been increased by the
ng use of tramways and automobiles, and few people
be surprised to learn that the average number of
is accidents in London amounts to as many as
a year. It is probable that a large section of the
complacently supposes that when an accident
the sufferer is removed for treatment in a
rranged ambulance and under as favourable
omfortable conditions as possible. They may possibly
mewhat disturbed to learn that 70 per cent. of all
of accident are as a preliminary to surgical treat-
jolted in cabs or other unsuitable conveyances. It
but little imagination to conceive how immensely
fferings of a person with, for instance, a fractured
must be increased by this process, while it requires
agination at all, but merely a little common know-
to appreciate the fact that the chances of any
accident resulting in prolonged illness or in
are gravely and materially increased thereby.
ly no better general proof of the gravity of the evils
h every individual is at present liable, owing to the
an efficient ambulance service, could be quoted
nat supplied by the existence of the Metropolitan
Ambulance Association itself. This Association
jects with which medical men have no more
concern than any other members of the
nity. Nevertheless, within a month or two
organization by its present active secretary,
thur James, over a thousand London medical
ad joined it, while included in their number
he majority of those physicians and sur-
whose names are best known to the public. An
of its latest proceedings is given at p. 1101. The
ons there mentioned were, it is understood, circu-
forehand, and it will be noted that, besides being
ously accepted at a very influential meeting,
d the written approval of many of those who, like
ster, were unable to be present in person. The
ns include a record of opinion that a thoroughly
d ambulance service is necessary, and an expression
f that such service could be better organized
ondon County Council than by any other body.
solutions will be submitted to the London County
cy a deputation on Monday next, and we hope that
tion accorded will be a favourable one. There can
ubt whatever as to the correctness of the view
d in the first resolution, while as for the second
cil is asked to do no more than what has already
e long ago by bodies of corresponding function
rtance in America, Australia, Denmark, Austria,
e, not to mention Liverpool, Bootle, Manchester,
, Leeds, Sheffield, and other large towns in

INVESTIGATION OF SMALL-POX.

ED discussion took place at the meeting of the
tan Asylums Board on April 30th upon a proposal
ize Dr. Ricketts, Medical Superintendent of the
en Small-pox Hospital, and Dr. C. J. Martin,
rector of the Lister Institute of Preventive Medi-
undertake experimental work respecting the
of small-pox. Dr. Ricketts, in applying for the
referred to the need of such an investigation,
ked that knowledge on the subject had advanced
since the time of Jenner, notwithstanding
both before and since bacteriology had become
He gave reasons for this barrenness of result,
t that more laborious attempts to elucidate the
tory of the disease might prove less futile. He
that it was desirable to co-operate with such a
boratory as that of the Lister Institute to make
estigation; and added that Dr. Martin was
o-operate in every way. Experiments on animals
ecessary, but these would be inoculations only.
s, it would be necessary for the Joyce Green Hospital to be licensed under the Vivisection Act. A letter was read from the Hackney Guardians protesting strongly against any use of the hospitals of the Asylums Board for such a purpose. The guardians of St. Pancras, Stepney, Chelsea, and Wandsworth sent letters supporting the Hackney Board; whilst the Strand guardians wrote, approving of scientific research being made into the origin of small-pox, and commending the managers for allowing investigations to be made into the matter. Mr. W. L. Beurle disapproved of the use of rate-supported hospitals for such a purpose, and proposed a resolution which was negatived. Dr. J. R. Hill moved the adoption of a recommendation by the Hospitals Committee "that they be empowered to sanction the investigations." Mr. Beurle, Mr. T. Bates, and the Rev. G. W. Pope opposed the resolution, which Sir E. Galsworthy, Mr. H. L. D'Arcy Jaxone and Professor W. R. Smith approved, and which was eventually adopted. The investigation in view is a most desirable one, and the Metropolitan Asylums Board must be warmly congratulated upon the strong common sense and enlightened spirit shown in its treatment of the question.

THE CANCER RESEARCH FUND AND QUACK REMEDIES.

THE authorities of the Cancer Research Fund have, as might be supposed, received an immense number of communications from all sorts of correspondents claiming to possess infallible cancer remedies. We are informed that all these cases are dealt with in the same manner; a letter is sent stating that no investigation into the claim can be made unless the composition of the alleged remedy is disclosed, and warning is given that, although no use will be made of any secret communicated, still there can be no guarantee that it may not be necessary to express publicly an opinion upon any specific claim made or the nature of a secret remedy. In the public interest it has been deemed advisable to deal with such claims in a most conciliatory spirit, and as a general rule no occasion has arisen to cause regret for the course followed.

SPOROZOA AND DISEASE.

PROFESSOR MINCHIN resumed his lectures on the sporozoa on April 25th, and dealt with the group of the myxosporidia. The myxosporidia belonged to the neo-sporous group, in which spore-formation began early in life and went on continuously during the trophic stage. Such spore-formation was not an interruption of the nutritive life-stage, whereas for the telosporidia and malarial parasite it marked the end of the trophic stage. The spores were formed in the interior of the body—endospore formation—in myxosporidia. The trophic stage was characterized by a large-sized amoeboid phase. The spores formed were large, and with rare exceptions each spore was provided with 2 or 4 "polar capsules." The myxosporidia were parasitic in fish and cold-blooded vertebrates; they occurred in two conditions—namely, free in the internal cavities of viscera (gall and urinary bladder) and in the tissue parenchyma of organs, the latter being the more dangerous and virulent form of infection of the host. Epidemics among the fishes in certain rivers in Germany had been lately studied by Döplein, who had found the disease to be due to species of myxosporidia—myxobolidae—affecting barbels and other river fishes. The myxobolus Lieberkunii was the common sporozoan parasite found in the pike's bladder, and occurred in about 50 per cent. of the fishes examined. Myxosporidia, said the lecturer, exhibit amoeboid movements; they are of an elongated worm-like shape, but some forms are disc-like and flat. The ectoplasm is very faintly granular; but a dense, coarsely-granular, yellow substance is found in the endoplasm. This consists of oil and pigment droplets and dark crystalloid bodies. A number of nuclei are present in the body. Reproduction of myxidium takes place in the winter months. A multinucleated bud is separated off from the parent body, and many such buds may be formed and separated off in succession. Another process of multiplication, namely, by spore formation (endospores)

occurs in the warmer months. A cell wall is formed within which the myxidium contracted to a spherical mass undergoes segmentation into a number of oval elongated protoplasmic bodies, each provided with a stinging cell and filament at the two poles. These sporoplasmic bodies, as they are called, form a double shell, like a pair of watch glasses, in the form of a convex lens. After a time, when the parasite is accidentally swallowed by an animal, the shell opens and the young amoebiform myxidium issues forth, the loosening of the shells being produced by the gastric juices of the host. Within the host the cycle of multiplication is reproduced. A calf fed upon the spores of myxidium or myxobolus will show parasites, some of which are in the renal tissue (epithelium), where they increase and multiply for some time, while others are met with in the eye muscles and skin. Four families of myxosporidia are recognized, for example, the disporea (parent form producing two spores), the polysporea, the chloromyxideae, and the myxobolideae.

TAXATION BY WEIGHT.

Many suggestions for the relief of the over-pressed income-tax payer have been made to the Chancellor of the Exchequer, but he resolutely declines to accept cats or bicycles or bachelors as substitutes. We venture to call his attention to another source of revenue which in these days of overfeeding may be expected to yield a good return. It is an economic principle that luxuries should be taxed rather than necessaries. A superfluity of fat, which is mostly the result of luxurious living, may therefore not unfairly be regarded as a fitting object of taxation. The idea is not altogether original, for there is, we believe, an enlightened municipality in Sweden which levies a rate on all citizens over a fixed standard of weight. The weight of flesh which a citizen can decently carry about him is fixed at 135 lb. Persons exceeding this limit are taxed at the following rates: Up to 200 lb., about 12s. 6d. a year; from 200 lb. to 270 lb., approximately 25s.; beyond 270, about 7s. 6d. for every pound. The plan seems to us to have not a few advantages. The number of people in this country who bear the fat man's burden is so large that a Chancellor of the Exchequer who could get his "pound of flesh" out of each of them would be able to look forward to his budget without disquietude. A large financial deficit would be more than made good by the surplus of adipose tissue among the British people. There would be no difficulty, as in the case of the income-tax, about the graduation of the tax, nor could a man conceal his bulk so easily as he can minimize his income. This would tend to raise the moral tone of a community in which the payment of "conscience money" in respect of evaded income-tax is, we fear, regarded by many as a mark of imbecility. A tax on fat would also have an excellent effect on the health of the nation by bringing about a reform of unwholesome habits of eating and drinking. Falstaff's axiom "The more flesh the more frailty," though not exactly intended by the fat knight as a precept of hygiene, expresses a hygienic truth. Let the Chancellor of the Exchequer try the effect of the tax we have suggested for a few years, and he will do something to check the physical degeneration of the race with which we are threatened.

THE MEDICAL ARRANGEMENTS OF THE THIBET EXPEDITION.

The medical arrangements of the Thibet expedition are under the charge of Lieutenant-Colonel Waddell, who was selected for the post on account of his knowledge of Thibet. In addition to the military force there are many thousand coolies engaged in transport work on the 150 miles of mountain road over which all the supplies have to be carried up to the frozen heights now occupied by the force. The medical establishment consists of sixteen executive medical officers and thirty-one assistant surgeons and hospital assistants, with a large staff of hospital orderlies and the usual equipage of field hospitals. The ambulance transport consists of eight stretchers per regiment, as well as about fifty dhoolies each carried by six bearers, also ambulance chairs and riding ponies, and bullock tongas on the Teesta valley road. As the Indian Kahars could ot stand the extreme cold, Thibetan and Sikhamese coolies vre employed, and, except for some desertions, they are don well. There is a base hospital at Siliguri on the railwa at the foot of the Himalayas, from which the invalids re sent back to their stations. At each chief stage of pe road beyond this a section of a hospital has been es b- lished right up to the front, and at the smaller interveng posts a hospital assistant with medicines is placed. In each of these stages hospital huts are being built to repce the tents before the rainy season sets in among the lce valleys, and as a better protection against the cold no snow of the higher tracks. After the fight at Guru abu 180 wounded Thibetans were attended to by our medca officers, and many of them were carried to the neighbu ing villages, so as to be near our hospitals and thus rec v further treatment.

A GERMAN ARMY EXPERIENCE.

The members of the military force which Germany a had occasion to dispatch against the revolting Hero in its South-West African Colony appear to be suer ing very much more severely than might have e expected. On the morning before the encounte a Ovikokero, or on March 13th, the total strength of h expedition consisted of 22 officers and 476 non-comi sioned officers and men. Telegraphing just six w later a correspondent of the *Lokalanzeiger* gave a is of the losses which had been incurred up to that date b sickness and from the enemy. These were 8 officers k e 4 wounded, and two invalided; while of the non-n missioned officers and men, 56 had been killed, 18 woure 8 were dead from disease, and no less than 62 had beei valided through ill-health. Dealing with the non-comi sioned officers and men these figures, represented in e centages of total strength, are: killed, 11.8 per c wounded, 3.8 per cent; invalided for sickness, 13.c cent.; and dead from disease, 1.7 per cent; while, ta the officers, the percentages are: killed, 36.3 p cent.; wounded, 18.1 per cent.; invalided, 9 per c These figures are decidedly interesting. We doubt a much if they have ever been even approached in any responding English expedition within modern time they amount to a loss of practically one-third of h whole force in the short space of a month and a The figures are all the more remarkable because Ger South-West Africa has what is in no way an unhe climate. It lies much upon the same level as Transvaal, and it has proved very suitable for colo tion by Europeans; nor was the season in which operations were undertaken the warm part of the yea the beginning of the African winter. It might, there have been reasonably expected that it would prove to keep a small compact body of troops in the be health. The expedition is the sort of military oper which the British army is constantly carrying on all the world, and we are certain that a similar sick rate and death-rate in a force of corresponding size, under climatic conditions incomparably less he would have caused a tremendous outcry. The dent tends to show that our own army medical o have very much less to learn from their foreign com than we are constantly being told is the case. It is noted also that upon the day the correspondent dispa his telegram there were, in addition to the losses al registered and given above, 44 other men in hospita typhoid fever.

THE FUNCTIONS OF A HOSPITAL NURSE

What are the proper functions of a hospital nurs question which Mr. Troutbeck indirectly touched in comments which he made at the conclusion of an in in connexion with the Bolingbroke Hospital. Of th account was published on April 23rd, page 990, and h his observations upon the inquiry, a correspo directly raises the same question. Mr. Troutbeck grave fault with the authorities of that hospital fo

g a nurse to take, as he said, sole charge of a
ty patient and compared her employment in that
t to that of an unqualified assistant by a medical
As regards that particular hospital, Mr. Troutbeck did
njustice, inasmuch as that the patient, a baby which
een badly burned, was seen by the medical officer of
spital himself, not once as Mr. Troutbeck inferred,
on four out of the seven occasions upon which it
rought up to have its dressings changed, so that
se cannot fairly be said to have been left to
le charge of the nurse. Nevertheless, the general
on as raised by our correspondent remains the same.
ks whether it is right that a nurse should
ypodermic injections, sew up small cuts, keep on
g serious wounds day after day without the imme-
upervision of a medical man, or even, in the case of
r hospital which he apparently has in mind,
ster a dose of antitoxin before the arrival of the
physician. These practices, he thinks, are the out-
f hospitals being too "exclusive," and he infers that
ould not exist if more use were made of the services
patient honorary medical officers of young medical
the neighbourhood. As regards the direct question
it would probably be undesirable to lay down any
d-fast rule, but it is quite certain that no nurse
be expected or allowed as a general rule to do any
things specified in hospital work any more than in
practice. We are aware that in some of the
hospitals nurses do, more than occasionally, con-
ch operations of minor surgery, and also have too
hand left them in the after-dressing of casualty
Such practices, however, are usually due either to
kness of the house-surgeons, or to the hospital
g more work than its resident medical staff can
perform. In either case they are equally undesir-
improper, and we doubt very much whether the
ies of any hospital openly countenance them.
additions to the honorary staffs of hospitals
top them is not quite certain, though such addi-
ght in some towns be desirable upon other grounds.
is that they might lead to the extension of general
nt work, which in most places is already more
able than it need be.

NESS AND MORTALITY AMONG NURSES.

eventeenth annual meeting of the Royal National
Fund for Nurses some remarkable figures were
the distinguished consulting actuary of the
n, Mr. George King, F.I.A. The operations of
l National Pension Fund are on a sufficiently
le to give trustworthiness to the actuarial results,
least as death-rates are concerned. Its capital,
1887 was £20,000, had increased in 1903 to
In the pension branch 10,764 policies have
ed from the commencement of the Fund in 1887,
953 were granted during the last year. The
ed features of the statistics are, first, the exces-
nt of sickness, and, secondly, the exceptionally
-rate experienced by the insured nurses. The
f policies issued in the sickness branch since the
ement of the Fund is 2,754; but this number,
representing a much smaller experience than
he annuity or pension branch, is sufficient to
he general conclusion, now confirmed in a num-
cessive years, that nurses suffer excessively from
sickness. The sick pay in 1903 amounted to
year's working of the sickness account showing
of £255. To meet this loss £2,603 has been
his account from the large general reserve fund
0,000 which the Pension Fund possesses. Con-
th the excessive sickness claims, which are
an the utmost sickness claims known to Mr.
ny other sickness tables, is the comparatively
rate. Government annuitants show a compara-
mortality, but the mortality in connexion with
is lower. It is shown by Mr. King to be lower
the select mortality of British offices, which is
urable than that of Government annuitants.
Thus in the last quinquennial period the number of deaths in the sickness branch was only 21. The number expected according to the tables employed was 71, the number expected according to the Government Friendly Society tables was 69, according to the Government annuity tables 70, and according to the British offices tables 66. Thus the mortality among the nurses was less than one-third of the lowest estimate of other tables. These figures ought to encourage nurses to join the Pension Fund, as, according to the experience of the Fund, they are almost certain to live to enjoy their pensions. The association of excessive sickness with a low mortality remains to be explained. That there should be excessive sickness among nurses engaged in nursing the sick, often in ill-ventilated overwarm bedrooms, with long and irregular hours, often broken sleep, and much anxiety, is not surprising; but the compatibility of this excessive sickness with a marvellously low death-rate is difficult to understand. More information is needed as to the duration of the active part of a nurse's life before the reason of this apparent discrepancy can be stated. The occupational figures of the Registrar-General do not help us, as these relate only to males. May it not be that the withdrawals hold the key to the anomaly? During 1903 362 policies were surrendered against 392 in 1902. Thus in 1903 about 3.4 per cent. of the total policies issued up to that date were withdrawn. It may be that the weakly nurses are thus weeded out, drifting to other less trying occupations, and that the low death-rates of those remaining in the Pension Fund represent the experience of a specially selected number of nurses. Assuming that this suggestion explains part of the extremely low death-rate among nurses, it does not affect the great advantages which the current annuitants receive, which indeed are the greater in consequence of withdrawals. The point, however, raises the essential difficulty in all occupational statistics. It is not unlikely that the favourable mortality statistics of coal miners are in part at least due to a similar selection, in which those with weak chests or other tendency to disease have been eliminated. Whatever the explanation in the case of nurses, their excessive sickness experience calls for careful consideration; private nurses should have sufficient time allowed them for rest and recreation, and for as near an approach to a healthy life as is consistent with the daily care of the sick. Those nurses who surrender their policies in the Fund are very fairly, we may almost say generously, treated. After two years' payments, a nurse is allowed to receive back her premiums with $2\frac{1}{2}$ per cent. compound interest, 5 per cent. being deducted for expenses of administration. If the policy has been in force for seven years no working expenses are charged.

TRUTH ON "CHRISTIAN SCIENCE."

OUR contemporary *Truth* in the course of its chronic campaign against imposition of every character, has recently had some hard things to say about "Christian Science." These drew from one who is apparently an adherent of Mrs. Eddy a strong protest, and in its further comments *Truth* sums up the general situation somewhat neatly. If, it says, a man suffering from pneumonia elects to dispense with medical treatment, which it would guess was in this case more a matter of nursing than anything else, there is some chance of his recovery; how much chance depends on various unknown circumstances. If he elects to be nursed and doctored by the light of existing knowledge his chance of recovery will be materially increased, to what extent again depending upon unknown circumstances. His recovery in the first case would not prove that he was wise to dispense with medical knowledge and skill, nor would his death in the second prove that the doctor killed him. But if a man with neither medical knowledge nor skill persuades a sick man to be treated by him upon principles derived from reading the Bible and the sick man dies, then that person should bear part of the responsibility for the death, even though it cannot be proved that the deceased would have recovered under medical treatment. The hold which Christian Science and other forms of quackery obtain upon

some people is explained by the fact that there are a great many people who suppose themselves to be ill, but who really have nothing whatever the matter with them, and that all that has to be done is to convince them of this. It is certain also that the mind has a real influence on the body, and can affect its health for good or ill without the assistance of a physical agent. This fact is as well known to medical men as to any other persons, but until perhaps recently and in connexion with hypnotic influence they have not given the subject as much study as it deserves. It is to these two facts that our contemporary attributes whatever popularity Christian Science may possess; and its adherents, when not engaged in "curing" people who are perfectly well, are playing with an obscure force of which they know as little as the "mesmerist" who cures toothaches and headaches at a country fair. Their creed, therefore, or whatever it is to be called, is distinctly mischievous, because it teaches people to discard the knowledge and skill in the treatment of disease that have been laboriously acquired by successive generations of mankind in favour of a precarious and doubtful substitute. This, says *Truth*, is quackery in its most pernicious form by whomsoever it be practised.

AMERICAN SCIENCE.

WE have become so habituated to the assertion that the provision made for the advancement of science and for its teaching is immeasurably better in the United States than in the United Kingdom that the criticisms and suggestions which Mr. Carl Snyder has embodied in his volume entitled *New Conceptions in Science*[1] excite curiosity and surprise. The book gives a sketch of the recent progress of science, and its avowed object is to establish a comparison between men of science in Europe and America. The author asserts that the United States had a slight share only in the marvellous scientific advance of the past century; he endeavours to discover the reason for this and suggests remedies. "It is," he says, "certain we do not lack for colleges and institutions of 'higher culture.' The sums which our Croesuses scatter with lavish hand are the wonderment of Europe. We are a clever people undoubtedly ....We have done big things; and it is, perhaps, just for that reason, just because of the rich prizes of business, that the Faradays and Claude Bernards are not to be found among us." While alleging that America is left far behind in the scientific world, Mr. Carl Snyder is anxious that she should outshine every other country, and thinks that this end may be achieved by a great temple to science. "It would require," he writes, "but the co-operation of those who are broadly interested in scientific progress, and who have a desire to keep abreast of the swiftly advancing knowledge of their day, to achieve the beginnings of a great institution which should be at once a scientific society, a forum where the chief notables alike of Europe and America might be gathered and heard, and a seat of scientific research. It would be a work worthy of any man to undertake the founding of such an institution in the chief city of the New World." Mr. Snyder works on the principle of Mahomet and the mountain, but, although his temple may perhaps see the light of day, it would be of small avail to America did she provide a temple gorgeous beyond description, with no gods of her own to worship. While it is true that America has not yet thrown up a Newton, a Darwin, or a Pasteur, we cannot believe that Mr. Snyder's grandiose building scheme is the way to produce such men. They are born, not made, and the United States, by endowing and equipping laboratories, are going the right way to discover a genius, when, as Carlyle would have said, he gets himself born.

COMPANY LAW.

AFTER some little argument a deputation from the Bristol Pharmaceutical Association and Sir Michael Hicks-Beach, who received it, parted without any modification of their respective opinions. The deputation sought support for a clause in the Pharmacy Bill now awaiting its second reading which seeks to deal with the company form of infringement of the Acts by requiring that directors of pharmaceutical companies shall be qualified chemists. Sir Michael Hicks-Beach withholds his support on the ground that this is not enough for the protection of the public if a qualified person has charge of the shop. If there were no such thing as one-man companies, and if the bona fides of all such companies were beyond question his arguments might stand; but, as things are, his attitude betokens small acquaintance with the real facts. Sir Michael at last stated that the Government was pledged to introduce a measure to deal with the subject, but, so far as reported, did not say whether he meant pharmacy law in general, or this company question in particular.

THE MIDDLESEX HOSPITAL.

THE wisdom of festival dinners in connexion with hospitalities, often disputed, seems at any rate to have been happily confirmed in the case of the Middlesex Hospital which gave a dinner at the Hôtel Métropole on May 3. A large number of influential persons accepted invitations, the officers—administrative and professional—had the opportunity of describing the many solid excellences which this institution can truthfully boast, and the result was that the Chairman of the Weekly Board—Lord Sandhurst—was able, before the end of the proceedings, to announce a collection of nearly £6,000. One distinction of the evening was that the speeches were comparatively short and all (including those of the Chairman, the Lord Mayor) decidedly to the point. Lord Sandhurst gave a brief summary of the work carried on and an account of the structural and other improvements recently introduced, dealing with the cancer department of the hospital he made the interesting statement that the preliminary investigation of all the records of the hospital since 1746 had been completed, with the result that they were now in a position to analyse some 6,000 cases of malignant disease collected from the past. The cancer research work, upon which the hospital was engaged, was the natural outcome of its devotion to cancer treatment for so many years, was justified thereby, and was in co-operation, not in competition with that of other investigating bodies. Mr Henry Morris, Dr. Kingston Fowler, who, as respectively Senior Surgeon and Senior Physician of the hospital, replied to the toast of "The Staff," both studiously avoided the temptation to make statements of a purely professional character, but in view of some passages in earlier speeches must have been considerable. Mr. Morris, while accepting the credit given for philanthropy was no more than what was due to a body of professional men without whose assistance hospitals could not exist, yet disclaimed for medical men any specially innate philanthropical instinct: it was the sight of suffering, the constant appeals for assistance that developed those charitable instincts with which a man alike were born, while the variety of the conditions with which they had to deal constantly stirred up medical men to endeavour to discover the causes of disease and to improve methods of treatment. He recognized that the demands made by modern surgery added no little to the cost of keeping up hospitals, but thought the results achieved proved that they were more than justified. Dr. Kingston Fowler thought that however gloomy the exteriors of hospitals might be there was much more brightness and happiness within them than those who seldom visited them commonly believed. The charm of the intercourse between patients, students, nurses and the staff was excellent, and relations often grew up between the sufferers and those who endeavoured to relieve them which were of the nature of personal friendship. He would like to see all hospitals thrown open one day a week, under such regulations as were needful, to the inspection of the whole public; he was sure that it would lead to increased support. He alluded also to the need of endowments for the teaching of medical science in London; in default of them the patriotic spirit shown in provincial towns would in time lead to the vast clinical resources of the metropolis being comparatively neglected to the eventual detriment of the whole country.

[1] *New Conceptions in Science.* By Carl Snyder. London: Harper Brothers. 1904. (Demy 8vo, pp. 361. 7s. 6d.)

THE SANITARY INSTITUTE.

E annual dinner of the Sanitary Institute of Great tain and the Colonies, held at the Whitehall Rooms on y 2nd, brought together about 100 members and guests ler the chairmanship of Dr. Robert Farquharson, M.P., Vice-President of the Institute. In proposing succesly the usual loyal toasts, Dr. Farquharson on behalf of Institute made graceful acknowledgement of the reciation and encouragement always extended by the g and all the Royal Family to everything which contried to the health, and hence to the wealth, of the people, referred appropriately to the loss which the Institute had ered through the death of its late President the Duke of bridge. The toast of "The Navy, Army, and Auxiliary ces" fell to Sir R. M. Hensley, Chairman of the Metroan Asylums Board, who, in addition to the after-dinner pliments commonly paid to "our gallant defenders," ded to their value as a standing example of the virtues advantages of discipline in an age whose tendy was to dispute authority and to make each man a unto himself. The toast was acknowledged by Lieut.-nel Firth, R.A.M.C., Professor of Military Hygiene he Royal Army Medical College, and at one time litor of the work on hygiene founded on the treatise he military surgeon in whose honour the Parkes eum, now maintained by the Sanitary Institute, was lished. He was followed by Sir R. Douglas Powell, nvited the company to drink to the health of Parlia-, partly on the ground that a recent debate had appay revealed that its members daily risked their lives microbe-infected atmosphere, and partly because ament deserved well of those present inasmuch as d passed many measures calculated to further the sts which the Institute had at heart. Sir Francis Powell, M.P., in reply, detailed the principal meawhich could be placed to the sanitary credit of more parliaments, claimed that in many respects legislaas in advance of administration, and urged that to true progress thoughtful legislation must march in hand with active local administration. Pursuuch the same line of thought, Sir J. Ure Primrose bed the immense strides which practical sanitation ade in the past twenty-five years, and in proposing ast of "The Sanitary Institute," justly credited it uch of the improvement which had been effected practical sanitation and in the mental attitude of blic towards questions of hygiene. Municipalities, ed, should devote their energies to making the lives people healthier, brighter, and happier rather than ging in enterprises of a commercial character. In ly on behalf of the Institute, Dr. Farquharson said work was the care of the human animal from the to the grave; given a nation of healthy men and the difficulty of all other problems was immensely d. The Institute, having outgrown its premises, ove elsewhere, and as the London County Council the education authority, there was an opportunity o recognize the value of the Institute's work by g it facilities for establishing a teaching school of

GES IN THE BLOOD AT HIGH ALTITUDES.

FOA, of Turin, has published some interesting ions on this subject.[1] It is an old observation od counts made at high altitudes show an increase umber of red corpuscles, and the objection at first that the difference was owing to an error in the due to the diminution of barometric pressure—n shown to be invalid. Dr. Foa finds that this is not observable at a height of 1,200 metres and light at 1,800 metres, but at an altitude of 3,000 manifest within eight hours after arrival or even With the increase in the number of red corpuscles that there is a commensurate increase in the perof haemoglobin. These changes are, in early f exposure to high altitudes, peripheral only, and found in the blood drawn from large arteries. But after animals have been kept there from eight to ten days a slight augmentation is observable in the number of red corpuscles found in the large arterial trunks; it is due to an increase in the haematopoietic activity of the bone marrow. Within thirty-six hours after return to lower levels the increase in red corpuscles has practically disappeared. Examinations of the urine do not afford any indication that this return to the normal is accompanied by a destruction of red corpuscles. Various explanations have been offered for these changes observed in the blood at high altitudes, and the matter is still the subject of controversy; the view which appears most probable is that at high altitudes there is a diminution of arterial blood pressure and a superficial vasodilation, and that under these conditions there is a congestion of red corpuscles in the superficial capillaries.

[1] *Archives Italiennes de Biologie*, Tome xli, Fasc. i, 1904.

WE understand that Mr. Chamberlain's visit to Egypt and Sicily has resulted in very satisfactory recovery from the effect of the prolonged overstrain to which he had been subjected.

THE next session of the General Medical Council will begin on Wednesday, May 25th, when the President, Sir William Turner, K.C.B., will take the chair at 2 p.m. The session usually begins on a Tuesday, and the postponement to the following day is due to the fact that May 23rd will be a bank holiday (Whit Monday).

THE Croonian Lectures before the Royal College of Physicians of London will be delivered by Dr. J. Rose Bradford on Tuesdays and Thursdays, June 7th, 9th, 14th, and 16th, at five o'clock on each day. The subject of the lectures will be Bright's disease and its varieties.

THE whole scientific world will hear with deep regret of the death of M. Emile Duclaux which occurred suddenly on May 3rd at the age of 64. He was the chief of the Pasteur Institute of Paris and one of the foremost among contemporary biologists. He was the author of a great work entitled *Traité de Microbiologie*. He was a member of the Académie des Sciences and of the Académie de Médecine.

MEDICAL NOTES IN PARLIAMENT.

[FROM OUR LOBBY CORRESPONDENT.]

The Business of the Week in the two Houses has not brought up many points of medical interest. Monday was occupied by the Scotch Education Bill. On Tuesday the Budget resolutions were considered and finally disposed of after a sharp debate on the tobacco duties. Sir Walter Foster, while criticizing the increased duty on cigarettes as likely to take much from the public and give little to the Exchequer, said he could have gladly welcomed a duty of the kind if it had been devised to check the growing habit of cigarette smoking by boys. On Wednesday the Church occupied the day with the New Bishoprics Bill, and on Thursday Scotch Estimates were the subject for consideration. Next week the Licensing Bill will be taken.

The Irish Poor-law Medical Service.—Dr. Thompson asked the Chief Secretary to the Lord-Lieutenant of Ireland if his attention had been called to the report of the Special Commissioner of the British Medical Association, who had recently inquired into the grievances of the Irish Poor-law medical officers; and if, considering the allegations contained in the report against the whole administration of the Poor-law medical service, he would recommend the appointment of a Royal Commission to investigate the whole question. Mr. Wyndham answered that the recommendations contained in the report referred to, even if they were practicable, could only be carried out at an increased cost to the ratepayers together with a further large subsidy from public funds. The views of the Local Government Board on the question of the Poor-law medical service had been fully set out in its recently published annual report, and it was not considered that any new facts would be ascertained by an investigation of the character suggested.

The Sanitation of the House of Commons.—Last week, when the vote for the Houses of Parliament buildings came on, there was an amusing debate, which lasted nearly five hours, on the ventilation and general sanitary state of the House of Commons. Mr. Wylie started with a long grumble, and amused the members by saying that if the building had been under the Factory Acts the Chief Commissioner of Works would have been fined long ago. Mr. F. Wilson followed, and described his investigations when member of the old Committee of three years back, and specially dwelt upon the waste of space in certain parts of the building while the members were cramped in their accommodation. He quoted the report of the recent Committee on Ventilation as showing the comparative purity of the air of the chamber as regards bacteria and the much larger number found in the badly-ventilated committee rooms. Mr. Richards and other members followed, and amused the House by references to the Ladies' Gallery and the grille, and by describing the arrangements generally as giving members the worst and the most expensive club in the metropolis. Sir Michael Foster, as Chairman of the Ventilation Committee, gave a very interesting account of the work done by himself and his colleagues, and interested the members by describing bacteria as being of two classes, friendly and unfriendly, yet often most difficult to distinguish. He described the defects of the present system of ventilation, and suggested that more extended experiments should be made with a view to its improvements. There was somewhat of a shudder among his audience at the idea that they and their Chamber should be used for experimental purposes. Dr. Farquharson afterwards restored the gay humour of the legislators by a sympathetic reference to the sufferings of the ladies in their small and stuffy gallery. Their lot was not a happy one, he declared, and he offered, if he were appointed a Committee with power to add to its number, to go and interview the ladies with a view to remedying their grievances. Later on Sir Walter Foster repeated his opinion, often expressed in previous debates, that the air of the Chamber was relatively very pure, and he claimed the results of the experiments made by the Committee as establishing this fact. He congratulated the Committee on having done a great work in making the Chamber and the House generally cleaner. It was really cleanliness that was most wanted, and he mentioned the disgracefully dirty condition of the windows and gas-lamps round the building as evidence of his contention. He also referred to the overheated condition of many parts of the House as dangerous to the members. Other speakers dwelt eloquently on the inconvenience of the smoke room, the need for better tea and reading rooms, and the strange fact that although a whole series of rooms had recently been added to the general accommodation, none of them had been given to the members, but all appropriated by the Ministry. Mr. Weir finally caused much hilarity by referring to the system of introducing the air into the Chamber through the floor and so driving upwards the dirt brought in on members' boots. He referred to the Eastern method of removing boots before entering a house, and suggested the employment of Japanese maidens to remove boots and supply slippers to members on arrival. The Commons thoroughly enjoyed the afternoon, and were not much disappointed when Lord Balcarres, speaking for the Commissioners of Works, made an official reply in the usual form. The vote was agreed to after a division.

Small-Pox in East London.—Sir Thomas Dewar on Tuesday asked the President of the Local Government Board, in view of the recent outbreak of small-pox in East London, if he could state to what cause it was attributed, and how many patients had been removed for treatment from the various districts of London by the Metropolitan Asylums Board. Mr. Long said in reply that he was unable to specify the precise cause to which the outbreak was to be attributed, but he might state that several cases occurred in some common lodging-houses, and seamen's boarding-houses at Stepney and Poplar, and the earliest of these cases seem to have been those of some cattlemen who came from America. The number of patients removed to the hospitals of the Metropolitan Asylums Board from various districts of London from March 1st to April 29th was 242.

The Cost of Vaccination at Belmullet.—Mr. John O'Donnell asked the Chief Secretary to the Lord Lieutenant of Ireland, whether his attention had been called to the condition of things existing in Belmullet Union owing to an outbr[eak] small-pox in a neighbouring island, and to the bi[ll] vaccination which had been incurred by the medical [o]ffi[cer] there, and which the Poor-law guardians were unable t[o] owing to the number of persons in that union who ha[d] sented themselves for revaccination; and to the fact t[hat] provision had been made for such a contingency when [the] ing out the rate estimate; and, if so, whether, in view [of] poverty of the people in that part of the country, he [will] recommend the Government to make a grant sufficien[t] large to pay the amounts now due, and for which no pro[vi]s had been made by the local bodies. The Chief Secret[ary] replied that he was informed that the expense incurred the Board of Guardians amounted to £272. There were funds at the disposal of the Government for making a[n] to defray this charge.

The Revaccination Bill does not gain favour, and in addi[tion] to others Mr. Coghill has given notice of his intention move, on the second reading, that it be read this day months. At present there is no chance of the Bill [co]m on for discussion.

The State Registration of Nurses.—Dr. Thompson [ask]s the President of the Local Government Board on Mo[nday] he would consent to appoint a small select committee [to] sider the advisability of the State registration of nurses. Long replied that the subject of nursing generally was within the province of his department, which was [con]cerned with it as respected nursing in Poor-law institu[tions]. He was not in a position to give the consent asked for [the] question.

Poor-law Nursing.—Mr. Schwann asked the President the Local Government Board what steps, if any, had taken to deal with the reports of the Departmental Com[mit]tee on Nursing which was made in November, 1902, and [to] the recommendations of the Committee in that report [should] be adopted as they stand. Mr. Long replied that, as [stated] in the reply given to the honourable member by his [hon]ourable friend, the Secretary to the Local Government Board April 21st, after the report of the Departmental Com[mit]tee on this subject was made, he received a considerable [num]ber of representations on points relating to their [recom]mendations. He had caused these representations [to be] brought before the Committee, who had duly consi[dered] them. He was now in possession of the views of the [Com]mittee, and would shortly decide precisely what [action] should be taken in the matter.

Army Nurses.—The Secretary of State for War, in [reply] a question by Dr. Farquharson, said that a Royal Warr[ant] would shortly be issued under which the salary of a nurs[ing] fixed at £40 a year rising to £45, instead of £30 to £[35] present; whilst the pay of the higher classes of sister, [matron] and principal matron were correspondingly increased. [Under] the new regulations the matron-in-chief would receive [£]1 year rising to £350. The pensions depended on the [rate of] pay, and were accordingly increased in proportion.

Rats on Shipboard and the Plague.—Sir Thomas [Dewar] asked the President of the Local Government Board whether he was aware that vessels entering French ports from plague-infected ports were not allowed to load until owners had had such vessels fumigated for the purpose of securing the destruction of any rats which might be on board; and, having regard to the remarks contained in the last annual report of the Medical Officer of Health for the Port of London and the prevalence of plague in the East, would the question of adopting regulations similar to those in force in France be considered. Mr. Long replied that he was aware of the decree made by the French Government with regard to this matter. That decree was, however, before the recent International Conference at Paris took place. The provisions on this subject included in the convention and made as the result of the Conference were more stringent than those of the decree. It had been the duty of the Local Government Board to recommend the destruction of rats on board vessels coming from plague-infected ports when the vessels were empty, but it had not thought necessary to make this compulsory.

Canada.

Congress of French-speaking Physicians.

those who are to speak at the second Congress of h-speaking Physicians of North America are M. Paul d, Surgeon of the Salpêtrière, representative of the y of Medicine of Paris, and Professor Pozzi, delegate the University of France. The Congress is to be held al University, Montreal, early in June.

A Medico-political Association.

ovement is now on foot in Toronto for the formation of ical business society. At a recent meeting Dr. A. A. nald was asked to act as a chairman of a committee he is to select. This committee is to formulate a e for the organization of a business medical associa- The object of the society is to oppose legislation which reaten the welfare of the medical profession, to arrange eded enactments, and regulate hospital practice, the ance upon charity patients, fees for railways, insurance nies, friendly societies, and other matters of this .

Decapsulation in Bright's Disease.

Primrose, of Toronto, Professor of Anatomy and l Surgery of Toronto University, read a paper before ontreal Medico-Chirurgical Society upon operations he kidney in chronic and acute nephritis. The subject nsidered under three heads:

eport of a number of cases of nephritis operated upon author, including chronic nephritis, calculous nephritis, vable kidney complicated by nephritis.

bservations on the effects produced by the various ls of operating proposed for the relief of nephritis: tting the capsule; (*b*) decapsulation of the kidney; hrotomy; (*d*) nephrectomy. Experimental work upon as also discussed in this section.

scussion of the whole question as to whether or not ve interference is advisable in nephritis.

r the first heading the most interesting case recorded e in which the operation was done two and a-half years th the deliberate intention of relieving the condition ld aged 10 who was suffering from chronic Bright's with general anasarca. The capsules were removed operations with almost immediate relief of the acute ms. The patient had had several relapses since, but iet had so far been sufficient to restore health. The raphs shown with the report indicated a remarkable ement.

rimrose advocated removal of half of the capsule, the rest intact. Chloroform rather than ether was as an anaesthetic. In the experiments upon dogs it nd that after decapsulation the capsule began to be again in twenty-four hours, and that in three months as thick as ever, and in two layers as in the normal Dr. Primrose thought that a certain number of cases were suitable for operation, but that a great ould not be operated upon. Cases in which there eased tension with a fair amount of normal tissue, and e kidneys with nephritis were the most favourable. ary benefit could unquestionably be obtained in cases h medical treatment was of no avail but whether per- benefit could be hoped for could only be determined and experience.

Gonorrhoeal Endocarditis.

inlay and McCrae reported a case of malignant gonor- ndocarditis. The patient was a sailor, aged 23, who n infected with gonorrhoea nine months previous to th. About three weeks before death the heart sym- vere noticed for the first time, accompanied by a diastolic murmur at the base. The character murmur changed from time to time, and a murmur developed at the apex. *Post mortem* a tag nd upon one of the aortic cusps, and a pure culture of ci obtained from the heart blood and pericardial

Lung Capacity and Thoracic Type.

it Mackenzie, Medical Director of Physical Training ll University, and Lecturer in Artistic Anatomy of the ciation, Montreal, delivered a lecture upon the Rela- he Thoracic Type to the Lung Capacity, illustrating r by means of a medical student whose chest expan- 8 inches. He stated that two types of chest might be recognized, the broad and the deep, and that these types might be determined by calculating the relation of the depth to the breadth of the thorax when quiescent. Of 500 male candidates for athletic teams the average thoracic index was 68 per cent., and the average lung capacity 251.6 cubic inches. Upon taking examples of each class, that is, first, men in whom the breadth was greater and the depth less than the average, secondly men in whom the breadth was less and the depth greater than the average, it was found that the lung capacity of the broad-chested was 7.9 cubic inches under the average, and that of the deep-chested 7.7 over the average. These results were compiled from a record of measurements extending over a period of six years, and intended merely for university statistics. Dr. Mackenzie also measured a number of Grecian statues, and found that in general the ideals of manly beauty and symmetry thus portrayed called for a high thoracic index.

Ireland.

The Local Government Board on the Irish Poor-law Medical Service.

As will be seen from our medical notes in Parliament, Dr. Thompson on May 1st asked the Chief Secretary for Ireland a question with reference to the report of the Special Commissioner of the British Medical Journal, and inquired whether, in consequence of the allegations made therein, the Government was prepared to recommend the appointment of a Royal Commission to investigate the general question. Mr. Wyndham answered by a reference to the views of the Local Government Board for Ireland as set out in its annual report. He stated, further, that he did not consider any new facts would be ascertained by an investigation of the character suggested, and that the recommendations made in the report of the Special Commissioner of the British Medical Journal even if practicable could only be carried out at an increased cost to the ratepayers and the public funds. We naturally, therefore, turned with interest to the annual report mentioned. It states that the Local Government Board is aware of the dissatisfaction existing in the Poor-law Medical Service and that it is in complete sympathy with those Boards of Guardians who desire to improve the conditions of the Poor-law Medical Service; it is prepared, so far as lies in its power, to accede to any reasonable suggestions which may be put forward with that object, either by way of a general revision of salaries or otherwise. The Board considers that due regard should be paid not only to the admittedly just claims of many of the medical officers on the grounds of greatly increased expense of living, but also to the taxable capacity of the different parts of the country. Figures are quoted which show, so far as they go, that the number of cases attended during the decade 1893-1902 decreased to the extent of 20 per cent. as compared with the decade 1853-1862, or 50 years earlier, while on the other hand, the amounts paid for medical services increased by 53 per cent. Dealing with the individual medical officer it is pointed out that in 1853 each received out of union funds £73 8s., whereas now the average amount paid for the combined offices of medical officer and medical officer of health was £141 11s., exclusive of the fees for vaccination and for the examination of lunatics, and also exclusive of those received by a medical officer as registrar of births, deaths, and marriages, an office usually held by him. It is stated that the existing salaries are in many cases unquestionably small, especially in districts where little private practice can be obtained; but, on the other hand, it is pointed out that the salary of a dispensary medical officer was never intended as remuneration for his whole time, but given merely to secure a first claim upon his services. Unlike other officers of the union, he need not devote his whole time to the service in order to qualify for pension.

Much is made of the diminution in the population of the country, which it is shown amounts to rather over two millions since the year 1851; and this fact is made an excuse for supporting the opinion that a reduction of, and not an addition to, the medical staff is called for. It is suggested that such reduction would enable Boards of Guardians, without adding to the charges on the union funds, to deal more liberally with the remaining medical officers, upon whom increased duties would thus fall. As a proof that such additional work would be gladly accepted if carrying additional pay, it is pointed out that permanent medical officers are often

selected by their colleagues as temporary substitutes during absence. On this point it is finally stated that whenever a post becomes vacant the policy of considering whether it might not be abolished and the district thrown into a neighbouring one will be continued.

Dealing with the question of an annual vacation, the Board expresses a kind of Platonic approval of the principle that medical officers should be accorded an annual leave of not more than four weeks, and recalls the fact that in 1889 it included in a general order a provision intended to facilitate the granting of such leave by guardians. It is pointed out that under the Local Government Ireland Act, 1892, the guardians are entitled to be recouped, out of local taxation funds, one-half the remuneration paid by them with the Board's approval to medical officers employed as substitutes for those absent on vacation. It is further stated that there are still disputes on the question of the scale of pay for temporary substitutes in a few unions, but that this is a matter eminently one for amicable arrangement between the Boards of Guardians concerned and the medical officers. The same complacent attitude is adopted with regard to the question of remuneration for extra professional services; this, it is stated, is essentially a matter for amicable arrangement between the Boards of Guardians and the medical officers according to local requirements. Article 23 of the dispensary rules, it is stated, was framed to obviate disputes with regard to the fees for consultation and in 150 out of 159 unions the scale of fees adopted by the guardians under the provisions of that regulation have been approved. In illustration of its general views the Board refers to its correspondence with the Kilmakevoge Dispensary District of the Waterford Union; in this district difficulty had been experienced in obtaining a medical officer for a vacant post with the result that the guardians at a meeting on March 4th, 1903, adopted and transmitted to the Local Government Board the following resolution:

That while the guardians are not prepared to accede to the demand for a uniform scale of remuneration at £200 per annum for the dispensary medical officers, they are quite willing that provision should be made for (1) an annual holiday of one month, substitute to be paid by the guardians, Government recouping half the expense; (2) superannuation being secured on the lines of the measure recently framed for that purpose; (3) a fair remuneration for services rendered outside ordinary duty; and the guardians strongly urge the Local Government Board to take such steps as may be in their power to give effect to the above without delay.

The reply of the Board as regards the annual vacation was in accordance with what has already been stated as to its views upon that point, namely, four weeks' leave might be accorded and half the cost recovered; as to superannuation its reply, in view of the Bill now before Parliament, is without special interest; while as regards the third question of extra professional assistance the guardians were informed that they are at liberty to pay at their discretion rates of remuneration for extra services already approved, and that if they did not consider them sufficient it was within their power to submit an amended scale.

Upon the whole, therefore, it may be noted that the report to which Mr. Wyndham refers makes no special attempt to grapple with the difficulties of the situation, and that while pointing on the one hand to the increased remuneration received by individuals, and the lessened work that has to be done by the whole body, and laying stress upon the fact that medical officers are not whole-time employés it overlooks the essential point that though medical officers may be at liberty to undertake private practice if they can, as a matter of fact no practice is to be got in many districts, and that the majority of dispensary medical officers are solely dependent upon the salaries which the Board itself admits are in many cases most inadequate.

Central Midwives Board.

We understand that at a meeting of the Central Midwives Board which took place on April 28th the difficulty of admitting candidates from the Irish training institutions to the Board examination came up again for consideration. Letters having been read from the medical officers of the Coombe Lying-in Hospital and the Rotunda Hospital of Dublin, Mr. Heywood Johnstone stated that the promoters of the Midwives Act of 1902 had not the smallest intention of making it impossible for Irish midwives to pass the State examination, and he urged the Board to reconsider the rules which now unfairly exclude women trained at the chartered hospitals in Ireland from obtaining certificates and admission to the midwives' roll. He thought the best way out of the difficulty would be to suggest to the Privy Council the recognitio the excellent system of training of pupil-midwives carrie at the Irish maternity institutions in lieu of the t months' tutelage and personal attendance upon at least tw women during labour, and also twenty women during th days following labour now required by the Central Midw Board. Mr. Heywood Johnstone then proposed the follo resolution, which was seconded by Mr. Ward Cousins:

That in lieu of the certificates of personal attendance upon 20 the Board may, if they think fit, accept the certificates of the m or chief resident medical officer of a hospital or institution midwives are trained that the candidate has attended the cou training prescribed for pupil-midwives for the period and in a ance with the regulations in force in such hospital or institutio

All applications for the recognition of such certificates mu made by the master or chief resident medical officer of the ho or institution applying, and must be accompanied with a statem the regulations for the time being in force, and of any special ci stances which prevent candidates trained in such hospitals or i tions from producing the ordinary certificates required by the Bo

After a long discussion the resolution was rejected majority of one. The question therefore remains unso as the Central Midwives Board again refuses to recom the admission of pupil-midwives to the Board examina who have been trained at the oldest and best-known midw schools of the United Kingdom.

The West Coast Islands.

The Board of Guardians of the Skibbereen Union ha ceived an assurance from the Local Government Board the difficulties and dangers connected with medical a dance on the inhabitants of Cape Clear and other West islands are being considered by itself and the Congested tricts Board conjointly. These difficulties were describ the British Medical Journal of April 23rd, at page 97

Death of an Old County Cork Doctor.

One of the very oldest members of the medical profe in Ireland died last week in Mitchelstown. He was b few years before the battle of Waterloo, and was th survivor in Mitchelstown of a family that for more t century occupied a position of prominence and influen the district. The late Dr. William O'Neill was in his t medical practitioner who had a widespread reputation f professional skill. He studied medicine and surgery in and Edinburgh in the Thirties of last century, and obt the degree of M.D. of the University of Edinburgh so ago as 1840. During the entire course of his professional he practised in Mitchelstown district, and was always h esteemed. He was for a quarter of a century medical of Mitchelstown Dispensary District, and on resigning office was appointed medical officer of Mitchelstown house, a post which he held till a dozen years ago, wh resigned. In the years of the famine of 1846-47 Dr. Wi O'Neill, as assistant to his father, Dr. Eugene O'Neill remarkable for his devotion to the duties of his profe After the celebration of a solemn Requiem Mass i parish church the remains were laid to rest in the f vault in Mitchelstown churchyard.

The Belfast Board of Guardians and the Local Government Board.

The Belfast Board of Guardians has deservedly gaine reputation of advancing with the times. Although the rates for the city are comparatively low, yet enormou provements have been made in the workhouse and t firmaries and hospital within the last fifteen years. La resident medical officer was advanced to a somewhat responsible position in the house; this change was bas seniority and capability, and the guardians recommend increase in salary from £100 to £120; but the Local G ment Board, it is understood, has refused to sanctio increase. There is no dispute as to the high capability officer, nor as to the suitability of the change, nor as recommendation of the immediately responsible bod Board of Guardians, who surely should know best, no the very onerous nature of the duties or the manner in they have been discharged.

Dr. H. Macnaughton-Jones, M.A.O., Hon. Causâ, F formerly University Professor of Obstetrics and Gynae in the Queen's University at Queen's College, Cork, a President of the British Gynaecological Society, has elected a Corresponding Fellow of the Munich Gynaecol Society.

Scotland.

THE EDINBURGH HARVEIAN FESTIVAL.

22nd Harveian Festival will be held in the Hall of the College of Physicians, Queen Street, on Friday, May when Dr. Somerville will deliver the Harveian Oration Edinburgh Medical School, 1855 to 1859. The oration e given at 6 45 p m. The dinner is at 7.30 p.m. Every ian is expected to let the secretaries know, by letter, er he purposes to attend the festival or not.

NERAL COUNCIL OF THE UNIVERSITY OF EDINBURGH.

statutory half-yearly meeting of the General Council of niversity of Edinburgh was held in the Examination on Wednesday, May 4th, at 3 p.m. Our report will r in a future number of the BRITISH MEDICAL JOURNAL.

SMALL-POX IN EDINBURGH.

ing the week ending Saturday, April 30th, 3 fresh cases all-pox were notified. No death was registered. Two r cases were reported on Monday, May 2nd.

THE EDINBURGH CITY HOSPITAL.

nurses' annual "At Home" took place in the Recrea- Hall of the New City Hospital, on the evening of Wed- , April 27th. A large company present included mem- the Town Council and the Public Health Committee, ers of the medical profession, personal friends of , former patients, and nurses from the various nursing tions of the city and district. The Lord Provost, the ner of the Public Health Committee, and Sir Henry ohn were present. The guests were received by the n (Miss Thomas), and by the Medical Superintendent laude B. Ker). There was music and dancing. On the ing evening the domestic staff of the hospital was ained at a concert party and by a cinematograph exhi-

DINBURGH ROYAL INFIRMARY AND AN AGE LIMIT.

Committee appointed by the Court of Contributors to gate and report on the question of an age limit for the ry staff and the University Professors has not yet ded its labours, and has asked for a further remit e six weeks.

MILLPORT MARINE BIOLOGICAL STATION.

West of Scotland Marine Biological Association con- to do good work at the Marine Station at Millport. tation forms an excellent practical laboratory for the nd students of the Glasgow medical schools, and is used for research work, but in addition the Associa- s during the past few years conducted courses of study ool teachers, and in this has been very successful. chers' classes for the present summer were inaugurated ril 30th, when a number of interested guests were to see the work of the station. The classes are held rdays, and an advanced practical course will continue May and June, while the elementary class will extend uly and August. Considerable improvements have y been made in the equipment of the station, and ons are still in progress. To give greater facility for h work the tank room is being increased, while a large ass laboratory with tables for about 40 students is rovided, and also a new dwelling house for the curator. ssociation possesses an excellent steam yacht, in requent dredging excursions are made.

NGRESS OF THE SANITARY INSTITUTE AT GLASGOW.

Health Exhibition which is to be held in connexion with ngress of the Sanitary Institute at Glasgow in July next clude a municipal exhibit arranged by the different ments of the Glasgow Corporation. The Cleansing ment proposes to arrange for, amongst other things, s of a model up-to-date destructor, and the globe fer- the Gas and Electric Departments will show the evelopments in illumination, and the Sewage Depart- hat they can produce from what were formerly waste s. The other departments of the Corporation will well represented, and representatives of municipali- ending the Congress will welcome this opportunity of ing the progress that is made in municipal enterprises Glasgow Corporation. The social and holiday aspect Congress has not been overlooked, and excursions have ranged to Loch Lomond, the Trossachs, and the Falls , amongst other places.

THE METROPOLITAN STREET AMBULANCE ASSOCIATION.

THE general meeting of the Metropolitan Street Ambulance Association, to which reference was made in the BRITISH MEDICAL JOURNAL on April 30th, took place on Monday, May 2nd, at 20, Hanover Square. It was a very well-attended meeting, among the better known of those present being Sir Thomas Smith, Sir Dyce Duckworth, Sir William Church, Sir Alfred Cooper, Sir Thomas Barlow, Mr. J. Tweedy, Surgeon-General Keogh, Mr. Timothy Holmes, Mr. Alfred Willett, Mr. G. H. Makins, Dr. Rolleston, Dr. Marion Cox of New York, Dr. William Thorburn of Manchester, Mr. Noble Smith, and Mr. Durham.

Mr. REGINALD HARRISON, the President of the Association, took the chair, and letters of regret at being unable to be present, but expressing strong approval of the object of the Association, were read from a large number of persons. These included Lord Lister, Sir T. Lauder Brunton, Sir James Dick, Dr. Pye-Smith, Mr. C. T. Dent, Sir Henry Howse, Mr. Herbert Page, Sir Victor Horsley, Mr. Clement Godson, Sir James Reid, Sir Cooper Perry, Sir Felix Semon, and Sir Patrick Manson.

Mr. HARRISON, in his opening speech, stated that the Association was founded in January, 1904, by some members of the medical profession, who appointed a president and council to initiate proceedings. Its object was to secure for London, and with as little delay as possible, an efficient street ambulance service for accidents and medical casualties. In undertaking this movement the Association in no way undervalued the importance of the work which was done by voluntary ambulance associations and by individuals, especially the St. John Ambulance Association and Mr. H. L. Bischoffsheim. It recognized, however, that the influence of a large and united body of the medical profession, practically acquainted by daily observation with existing ambulance arrangements, and holding definite views as to how these might be improved, was likely to afford valuable assistance to the authorities of the metropolis in bringing matters relative to this important matter to a definite issue. The Association thus initiated received very shortly the adherence of over 1,000 medical men. On the basis of some evidence given by Sir Cooper Perry before the London County Council it had been calculated that from 8,000 to 10,000 sufferers from severe accident were annually removed from the streets, for treatment in hospital or elsewhere, in cabs or other unsuitable conveyances. The majority of the sufferers thus affected naturally were persons belonging to the working classes, but it was not to be forgotten that any citizen of London, however well-to-do, might be the subject of an accident and thus be exposed to the greatly increased suffering and most gravely augmented danger incurred by transport in an improper conveyance; his attention to these points had been particularly directed by his early experience as a resident surgeon in a Liverpool hospital. The number of horse or motor ambulances required for London could not be definitely determined in advance, but some were certainly required; for though hand ambulances and litters were better than nothing, speed in transport was of importance in view of the antiseptic treatment which a wound might require. Many of the constituent parts of an ambulance service already existed and the time had come when they should be brought under one central authority. He then called upon Dr. Arthur James, the honorary secretary, to state what steps had already been taken.

Dr. ARTHUR JAMES stated that after a valuable report on the ambulance requirements of London by a Subcommittee of the London County Council, under the chairmanship of Sir William Collins, had been published in 1902 nothing further was done, on account, it was suggested, of the indifference of the public to the matter. In anticipation, therefore, of the then approaching election the Association had been formed and took steps to secure the sympathy of candidates and arouse the interest of electors. Medical men to the number of 110 were appointed honorary local secretaries in the fifty-eight constituencies; they sounded the candidates as to their views and generally tried to create local interest in the subject of an ambulance service. The result had been that, of the 118 newly-elected councillors, 104 were well-disposed towards the movement, and knew, moreover, that they could rely upon the support of their constituents as well as practically upon the whole medical profession in the metropolis. The Association was confident that the London County Council could organize and control an ambulance

service better than any other central body, having already such an efficient emergency service as the fire brigade at its command. This brigade, with its ninety stations and resourceful staff of 1,350 men, already possessed almost all the administrative machinery necessary, and little more was needed to make an efficient ambulance service beyond the addition to the fire brigade department of the required ambulances, horses, and men. It was not proposed that the fire brigade as it stood should simply be further loaded with responsibility for the transport of sufferers from accidents, but that men added to the force for that purpose should be an addition to the ordinary complement and be so trained as to be interchangeable with its members. This was the system successfully adopted in many places, and in particular in Liverpool, the town which possessed the most efficient ambulance service in the kingdom.

Sir William Church (President of the Royal College of Physicians) then moved the first resolution, which read as follows:

That this Association, having considered the present condition of ambulance provision in London for dealing with cases of accident and sudden illness in the streets and public places, is of opinion that there is urgent need of organization under one body of an improved ambulance service, summonable by telephone, and provided with more rapid transport.

In recommending the resolution to the meeting Sir William Church pointed out that the Association merely sought to combine existing agencies so that they might act under one central authority.

It was seconded by Mr. Timothy Holmes and duly passed.

The second resolution introduced by Mr. John Tweedy (President of the Royal College of Surgeons), seconded by Sir Alfred Cooper (Vice-President of that College), and duly accepted was:

That having regard to the excellent ambulance services organized by municipal authorities elsewhere, this meeting is of opinion that the London County Council is the body by which such service should be provided and maintained.

Finally a resolution, moved by Sir Thomas Barlow and seconded by Mr. G. H. Makins, was passed, that the foregoing resolutions should be communicated to the London County Council by deputation with the co-operation and support of other bodies and persons interested in the matter.

LITERARY NOTES.

We understand that the eleventh edition of Martindale and Westcott's *Extra Pharmacopoeia* will be published by Mr. H. K. Lewis early next week. The text has been thoroughly revised by Dr. Wynn Westcott, and Mr. W. Harrison Martindale, Ph.D.

The long-expected biography of Sir Andrew Clark will, it is announced, be published in the early autumn.

The following translation of correspondence which passed between the late Mr. Herbert Spencer and the author of an antivaccination pamphlet was published in the *Vaccination Inquirer* of March 1st, 1904. Our contemporary states that the late Dr. Hubert Boens, of Charleroi, in 1884 dedicated a pamphlet to Mr. Herbert Spencer, entitled *La Variole, la Vaccine et les Vaccinides en 1884*.

Dear and Honoured Master and Colleague,—Science and Philosophy ought to unite in redeeming the errors of the past. Of these vaccination is one. We offer you, for the fight against it, precise facts and irrefutable arguments. You have been good enough to join us in protesting against legislation which makes vaccination obligatory. It is no longer only the intervention of the legislator in this medical practice, which is a source of considerable revenues to the Faculty, which needs to be stopped, but also the practice itself, and that in the names of hygiene and of the public health. Be so kind as to accept, dear and honoured colleague and master, the dedication of this pamphlet, with the assurance of my most respectful regards.

Hubert Boens.

Charleroi, January 1st, 1884.

To Monsieur Hubert Boens, President of the Universal League of Anti-vaccinators.

Dear Sir,—I accept with pleasure the dedication which you offer to me. The present condition of my health forbids me to undertake any serious work. As soon as I am able I will devote myself, with more attention and zeal than heretofore, to the battle which you have undertaken with your learned Swiss, German, French, and English friends and others against compulsory vaccination.—I am, yours faithfully,

Herbert Spencer.

38, Queen's Gardens, Bayswater, London, January 9th, 1884.

Mr. W. R. B. Prideaux (Assistant in the Library of the Royal College of Physicians of London) writes: At the end of the interesting account of the loss of Nelson's arm stated that Dr. Beatty in his journal makes no ment Nelson's death. The reason probably is that he had o municated a full medical history of the case to the *Me and Physical Journal*. It occurs in vol. xv, 1806, p. 72, a accompanied by a coloured engraving of the fatal b showing the pieces of coat and epaulette carried away and the dents caused by striking against bone. The st told without prolixity and may be worth reproducing i It opens with the following covering letter to the Edit the *Medical and Physical Journal*:

Gentlemen,—I beg leave to transmit you a statement of the sci and nature of the wound which produced the death of the excee lamented and late illustrious hero, Lord Nelson, and request y please to insert it in the next number of the *Medical and Journal*. Enclosed is likewise a drawing of the fatal ball w appendages which were carried before it through the whole co described.—I am, etc.,

W. Beatty, Sur

H.M.S. Victory, Dec. 15th, 1805.

The following is the text of the report:

About the middle of the action with the combined fleets on t of October last, the late illustrious Commander-in-Chief, Lord N was mortally wounded in the left breast by a musquet-ball, supp be fired from the mizen-top of *La Redoubtable*, French ship of th which the *Victory* fell on board of early in the battle; his Lo was in the act of turning on the quarter-deck, with his face towa enemy, when he received his wound; he instantly fell, and was c to the cock-pit, where he lived about two hours.

On his being brought below, he complained of acute pain ab sixth or seventh dorsal vertebra, of privation of sense and mot the body and inferior extremities; his respiration short and di pulse weak, small, and irregular; he frequently declared his b shot through; that he felt every instant a gush of blood wit breast; and that he had sensations which indicated to him the ap of death. In the course of an hour his pulse became indistin was gradually lost in the arm; his extremities and forehead soon afterwards cold. He retained his wonted energy of mi exercise of his faculties until the latest moment of his existenc when victory, as signal as decisive, was announced to him, pressed his pious acknowledgments thereof and heart-felt satis at the glorious event in the most emphatic language; he then de his last orders with his usual precision, and in a few minutes wards expired without a struggle.

Course and Scite of the Ball, Ascertained since Death.

The ball struck the fore part of his Lordship's epaulette, and e the left shoulder immediately before the processus acromion sc which it slightly fractured; it then descended obliquely into the t fracturing the second and third ribs; and after penetrating the l of the lungs, and dividing in its passage a large branch of the pul artery, it entered the left side of the spine between the sixth and s dorsal vertebrae, fractured the left transverse process of the six tebra, wounded the medulla spinalis, and fracturing the right tra process of the seventh vertebra, it made its way from the right the spine, directing its course through the muscle of the ba lodged therein, about two inches below the inferior angle of th scapula.

On removing the ball, a portion of the gold lace and pad epaulette, together with a small piece of his Lordship's coat, were firmly attached to it.

Writing at a later date, Mr. Prideaux says: May I con my former note on Nelson's death by a quotation fro *Athenaeum* of March 12th (p. 344)? The passage occur notice of G. F. Laking's *The Armoury of Windsor C European Section*:

There are other historic relics which, however desirable in collection, have little to do with armoury. One of these is the that caused the death of Nelson at Trafalgar. Dr. Beatty, who ex it from the wound, with a strange taste, always wore this bulle the time of his death; he bequeathed it to William IV.

The following account of a characteristic experim natural history conducted by John Hunter in 1792 m new to readers of the Journal. It occurs in a letter Mr. Pearson, printed in the *Gentleman's Magazine* in The writer says:

I shall now endeavour to perform my promise of March 10th peating the particulars which I heard the late Mr. John Hunte of an experiment he once made to ascertain whether swallows any disposition to sleep, or to retire into water, or caverns, etc. time of their disappearance.

His narrative, which I give from memory, was as follows: On in the month of September, he prepared a room with every accon tion and convenience which he could contrive to serve as a dor for swallows, if they were disposed to sleep in winter. He pla the centre a large tub of water, with twigs and reeds, etc., reached to the bottom. In the corners of the room he contrive ficial caverns and holes, into which they might retire; and he the floor, or suspended in the air, different lengths of old wooden

[1] British Medical Journal, March 12th, 1904, p. 613.

h had formerly been employed in conveying water through the ts, etc.

hen the receptacle was rendered as complete as possible, he then ged some watermen to take by night a large quantity of the lows that hang upon the reeds in the Thames about the time of r departure. They brought him, in a hamper, a considerable num- and had so nicely nicked the time of their capture, that on the day following there were none to be seen.

e put the swallows into the room so prepared, where they con- ed to fly about and occasionally perch on the twigs, etc. But not ever retired into the water, the caverns, holes, or wooden pipes, or ed the least disposition to grow torpid. In this situation he let n remain till they all died but one. This appearing to retain some ur, was set at liberty, when it mounted out of sight and flew away. he birds lay dead scattered about the room; but not one was found p, or torpid, or had, if I rightly remember, so much as crept into f the receptacles he had so provided.

idea that swallows hibernate under water seems to have n firmly held by some of the correspondents to the *tleman's Magazine*, and even so great an observer as Gil- White seems in his *Natural History of Selborne* to incline ne belief that these birds sleep through the cold months ne year. But he made no such practical experiment in port of his views as that here described.

THE MANCHESTER MEDICAL GUILD.

Honorary Secretary of the Manchester Medical Guild es as follows:

ny evidence were required that combination among medical men fective in guiding public opinion and in protecting medical ests, the success of the Medical Guild in two directions recently is sufficient.

some time past the Salford Corporation has paid medical pract- rs a fee of 2s. 6d. for procuring specimens for bacteriological ination, especially in doubtful cases of diphtheria and typhoid. examination must be of great value to the community, as it es as far as possible correct diagnoses. But, for some reason, the d Corporation suddenly issued a notice that in future the fee l be discontinued. The Medical Guild then decided to send a ation to represent to the Health Committee not only the value of bacteriological tests, but also the unfairness of expecting medical to procure such specimens, often at considerable risk to them- , without adequate remuneration. The deputation was extremely eceived by the Medical Officer of Health, and as a result of the iew the Health Committee reconsidered their circular, and have announced that they will pay the fee of 2s. 6d. for all such nens when procured at the request of the Health Department. in, the Manchester Corporation recently proposed to apply for mentary powers for the compulsory notification of phthisis. The al Guild thereupon made representations to the Health Committee ne time was not ripe for such a step, that the branding of subjects y phthisis as suffering from infectious disease would make them cally outcasts, unable to procure employment, and would thus an onus of responsibility on medical men that would not be com ed for by any benefit to the community, and that until far more ive facilities for isolation or sanatorium treatment were avail- uch compulsory notification would be unworkable. The Health ittee considered these representations of the Medical Guild, and sult the proposed clauses of the Bill were abandoned.

THE PLAGUE.

Prevalence of the Disease.

India.

g the weeks ending March 26th and April 2nd the deaths from in India numbered 39,975 and 46,320 respectively. The latter is the highest ever recorded; in no week since 1896 have deaths lague exceeded 30,000 until the third week of March this year, when died of the disease. During the weeks ending March 26th and nd the principal figures were: Bombay City, 931 and 1,065; Bombay ts, 7,176 and 5,470; Calcutta, 471 and 544; Bengal Districts, 4,109 and North-West Provinces and Oudh, 8,776 and 5,470; Punjab, 12,594 and Kashmir, 540 and 540; Central Provinces, 2 230 and 1,798: Central 1,605 and 1,469. In Rajputana 1,335 and in Beluchistan 8 deaths lague were reported during the week ending April 2nd. The city ras is threatened with plague for the first time. Although the has prevailed in the Presidency for some five or six years endemic ave not been reported in the city itself. As yet the disease is confined to the suburb of Sembium, whence 10 cases are reported; March 19th an endemic case was stated to have developed within 7 of Madras proper. Since April 6th no further cases have been d from Sembium. It is improbable that at this late period of the season Madras will be further affected at present.

South Arfica.

Cape Colony.

g the weeks ending April 2nd and 9th no fresh cases of plague eported from any town or district of Cape Colony. Six cases of remained under treatment in the plague hospital during the nding April 2nd, and 4 in the week ending April 9th. At Port th rats and mice were found infected with plague.

vaal.—The total number of plague cases since the outbreak on 20th amounted in the Transvaal up to April 16th to 158; to April 20th to 160; and to April 23rd to 160. Of these cases the Europeans attacked numbered 18 all told. The deaths from the disease were reported to amount to 75 up to April 16th; 77 to April 20th; and 80 to April 23rd. Of this number 8 were Europeans.

Hong Kong.

During the weeks ending April 16th, 23rd, and 30th, the fresh cases of plague in Hong Kong amounted to 3, 5, and 25, and the deaths from the disease to 3, 5, and 25 respectively.

Mauritius.

During the week ending April 21st no fresh cases of plague were reported in Mauritius.

Chili.

The reported appearance of plague in Chili is officially denied.

THE HOLMAN TESTIMONIAL FUND.

The Treasurer of this Fund acknowledges the following further subscriptions:

	£	s.	d.		£	s.	d.
R. Clement Lucas, M.B., B.C.	2	2	0	Edred M. Corner, B.Sc., M.A. (Old Epsomian) ...	1	1	0
T. Armstrong Bowes, M.A., M.D.	0	10	6	M. Cecil Hayward, M.B. (Old Epsomian)	1	1	0
Guthrie Rankin, M.D. ...	2	2	0	T. Squire Sprigge, B.A., M.B.	1	1	0
G. H. Savage, M.D.	2	2	0	H. M. Stewart, M.B., M.A. ...	1	1	0
Arthur C. Latham, M.A., M.D.	2	2	0	Reginald Harrison, F.R.C.S.	1	1	0
Mr. E. C. P. Hull	2	2	0	Mr. W. Wilson Coltart ...	1	1	0

Subscriptions of any amount will be received by Dr. John H. Galton, Chunam, Sylvan Road, Norwood, S.E.; or by Mr. W. A. Berridge, Oakfield, Redhill.

In the list published for April 30th for W. B. Crossley read W. D. Crossley. In the note appended to the list "the name of only one old Epsomian" should be the name of only one sent in as old Epsomian. There are now nine old Epsomians in the published lists.

ASSOCIATION NOTICES.

BRANCH MEETINGS TO BE HELD.

Bath and Bristol Branch.—The Honorary Secretaries will be glad to receive nominations for two representatives of the Branch as members of the Central Council of the Association on or before May 13th. The by-law governing the election is as follows: "(22) The elective members of Council shall be elected by voting papers sent to each elector by post, the said voting papers containing the names of those candidates who have been nominated each by three electors, in writing, to the Secretary of the Branch, on or before an appointed day of which not less than fourteen days' notice has been given in the Journal."—W. M. Beaumont, J. Michell Clarke, Honorary Secretaries.

Bath and Bristol Branch: Bristol Division.—The annual meeting of the Bristol Division will be held in the Medical Library, University College, Bristol, on Thursday, May 19th, at 8 30 p.m., Dr. E. Markham Skerritt in the chair. The business of the meeting will be: (1) To elect officers, the Representatives of the Division on the Branch Council (the present Honorary Secretary resigns, and does not seek re-election). (2) To elect the Representative of the Division in Representative Meetings. (3) To receive annual report of Executive Committee (4) To consider business of Annual Representative Meeting. (5) To make new rules, or alter or repeal existing rules (6) Proposed inquiry into club practice. (7) Any other business.—J. Michell Clarke, Clifton, Honorary Secretary.

Bath and Bristol Branch: Trowbridge Division.—The annual meeting of this Division will take place at the Town Hall, Trowbridge, on Wednesday, May 11th, at 3 p m. Business: 1. To elect officers, the Representatives of the Division on the Branch Council, and the ordinary members of the Executive Committee. 2. To elect the Representative of the Division in Representative Meetings of the Association. 3. To receive the annual report of the Executive Committee. 4. To consider the business of the Annual Representative Meeting. 5. To make new rules, or alter or repeal existing rules. 6. To transact any business that may be transacted at an ordinary meeting. To consider the advisability, and if necessary to petition to petition the Council, to alter and extend the area of the Trowbridge Division. To consider the following matters referred to the Divisions for their opinion thereon: (1) Whether it is desirable that the medical witnesses engaged on each side in legal cases should meet in consultation. (2) The question of the advertising of medical practitioners in connexion with hydropathic establishments. (3) Shall medical defence be undertaken by the Association? As a poll of the Division on the latter question is asked for members of the Division who are unable to be present should inform the Honorary Secretary as soon as possible: (*a*) If it is their wish that the Association should take up medical defence as suggested. (*b*) Whether they approve of the general principle and details of the scheme. (*c*) If they are willing to join the medical defence department, in the event of such a department being formed. They should sign form of agreement enclosed herewith and return it to me at above address. The Executive would urge on members the importance of attending the meetings of the Division and taking part in the work devolving upon the Divisions, as the Executive and influential units of the Association, to which matters of great moment to every medical man may at any time be referred (by individual members or by the Central Council of the Association), and upon the vitality of which the successful working of the Association as a whole now so largely depends.—John Tubb-Thomas, The Halve, Trowbridge, Wilts, Honorary Secretary.

Birmingham Branch.—Nominations for two elective members of the Central Council of the Association may be sent to the undersigned on or before May 19th.—J. T. J. Morrison, F.R.C.S., 3, Great Charles Street, Birmingham, Honorary Secretary.

BIRMINGHAM BRANCH.—The fiftieth annual meeting of this Branch will be held in the Medical Institute, Birmingham, on Thursday, June 9th, at 3.30 p.m. The retiring President, Professor Jordan Lloyd, will introduce the President-Elect, Dr. T. E. Underhill. The annual dinner will be held on the same date at the Grand Hotel, Birmingham.—J. T. J. MORRISON, F.R.C.S., 3, Great Charles Street, Birmingham, Honorary Secretary.

BIRMINGHAM BRANCH: COVENTRY DIVISION.—The annual meeting of this Division will be held at the Coventry and Warwickshire Hospital on Tuesday, May 17th, at 8.30 p.m., Dr. Milner Moore in the chair. Agenda: 1. Whether it is advisable that the medical witnesses engaged on each side in legal cases should meet in consultation. 2. The question of the advertising of medical practitioners in connexion with hydropathic establishments. 3. The medical defence scheme of the Association. 4. The Committee will recommend the adoption of a new rule making a time limit for papers and speeches. 5. The election of officers, the Representative of the Division on the Branch Council, and the Executive Committee.—E. H. SNELL, Knighton House, Coventry, Honorary Secretary.

BORDER COUNTIES BRANCH: NORTH CUMBERLAND DIVISION.—The annual general meeting of this Division will be held at the County Hotel, Carlisle, on Friday, May 27th, at 3.30 p.m. It is proposed to make a medico-ethical subject a leading feature of the meeting, and the Chairman has promised to open the debate by a paper on the Relations of Medical Men to Each Other. Members willing to contribute papers, etc., should communicate with the Honorary Secretary, NORMAN MACLAREN, Carlisle.

BORDER COUNTIES BRANCH: WEST CUMBERLAND DIVISION.—The annual general meeting of this Division will be held at Whitehaven on May 17th. The Secretary will be pleased to receive communications from any member who wishes to read a paper or show cases or specimens.—T. G. MATHEWS, 6, Scotch Street, Whitehaven, Honorary Secretary.

DORSET AND WEST HANTS AND WEST SOMERSET BRANCHES COMBINED.—Notice is hereby given that the names of candidates for election as a member of Council of the Association for these Branches must be sent to either of the undersigned on or before Tuesday, May 17th next.—WILLIAM VAWDREY LUSH, Weymouth, or W. B. WINCKWORTH, Taunton, Honorary Secretaries.

DUNDEE DISTRICT BRANCH.—This Branch will meet on Friday, June 3rd, to consider the business of the Representative Meeting; to elect the Representative and other officers; and other business. Notices of motion should be sent to the Secretary before Friday, May 20th.—R. C. BUIST and G. HALLEY, Dundee, Honorary Secretaries.

DUNDEE, PERTH, AND STIRLING BRANCHES.—The nomination of candidates for office of elective member of Council for the ensuing year must be made in writing on or before May 24th, to Dr. Moorhouse, 1, Glebe Avenue, Stirling. Each member may nominate a candidate, but no name will be voted on unless supported by three nominations.—R. C. BUIST, 166, Nethergate, Dundee; W. A. TAYLER, 10, Marshall Place, Perth; J. E. MOORHOUSE, Glebe Avenue, Stirling, Honorary Secretaries.

EAST ANGLIAN BRANCH.—The annual meeting of this Branch will be held at Lowestoft, on Thursday, June 23rd. Members wishing to read papers or show cases should communicate with Dr. Gutch, Ipswich, as soon as possible.—B. H. NICHOLSON, M.B., East Lodge, Colchester, Honorary Secretary.

EAST ANGLIAN BRANCH.—Election of members of Council. The nomination of candidates to represent the Branch on the Central Council of the Association for the ensuing year must be made by three electors on or before May 16th next, in writing, to the General Secretary of the Branch, B. H. NICHOLSON, M.B., East Lodge, Colchester.

EAST ANGLIAN BRANCH: NORTH SUFFOLK DIVISION.—The annual meeting of this Division will be held at the Young Men's Christian Association, London Road, Lowestoft, on Wednesday, May 25 h, at 4 p.m. Agenda: (1) Minutes of last meeting. (2) Election of officers for ensuing year. (3) Notes on a case of Angioneurotic Oedema (Dr. Ransome). (4) Matters referred to the Divisions: (*a*) The scheme of Medical Defence as set forth in the circular enclosed; (*b*) whether it is advisable that the medical witnesses engaged on each side in legal cases should meet in consultation (see SUPPLEMENT to BRITISH MEDICAL JOURNAL, March 19th, 1904); (*c*) The question of the advertising of medical practitioners in connexion with hydropathic establishments (loc cit) Members are requested to take this opportunity of expressing their opinion on this important proposal by returning the form annexed to the circular to the Honorary Secretary of the Division, either before (if unable to attend) or after the meeting.—WILSON TYSON, Lowestoft, Honorary Secretary.

EAST ANGLIAN BRANCH: SOUTH ESSEX DIVISION.—The annual meeting of this Division will be held at the Victoria Hospital, Southend-on-Sea, on May 26th, at 4 p.m. Members wishing to read papers or show cases are requested to send immediate notice to W. CARDY BLUCK, Southend-on-Sea, Honorary Secretary.

EAST YORK AND NORTH LINCOLN BRANCH.—Nominations for the election of a Representative on the Central Council for this Branch (grouped for the present with the Cambridge and Huntingdon Branch) should be sent not later than May 14th to E. M. HAINWORTH, 16, Albion Street, Hull, Honorary Secretary.

EAST YORK AND NORTH LINCOLN BRANCH.—The annual meeting of this Branch will be held at the Royal Infirmary, Hull, on Saturday, June 4th, at 4 p.m., to be followed by the annual dinner the same evening.—E. M. HAINWORTH, 16, Albion Street, Hull, Honorary Secretary.

EDINBURGH BRANCH: SOUTHERN DIVISION.—The annual meeting of this Division will be held in Room No. 3, Oddfellows Hall, Forrest Rd, on Tuesday, May 17th, at 8.15 p.m. Agenda: Minutes of last meeting; annual report and financial statement; recommendation of Executive Committee to alter Rule 6 to read "the officers shall be elected annually in the annual meeting of the Division, the Chairman being eligible for election for three consecutive years;" election of officers, members of Executive, and Representatives; consideration of various questions referred to Divisions.—MICHAEL DEWAR, 24, Lauriston Place, Edinburgh, Honorary Secretary.

GLASGOW AND WEST OF SCOTLAND BRANCH.—The annual meeting of this Branch will be held in the Royal Infirmary, Glasgow, on Friday, May 20th. Programme: Statutory business meeting of Branch in the Board Room of the Infirmary at 3 p.m. Demonstration by Dr. John Macintyre upon Recent Electro-Therapeutic Methods of Treatment in the Electrical Pavilion from 4 to 5.30 p.m. Dinner (morning dress) at 6.30 p.m., as intimated by post.—JAMES H. NICOLL, 4, Woodside Place, Glasgow, Honorary Secretary.

LANCASHIRE AND CHESHIRE BRANCH: ALTRINCHAM DIVISION.—The annual meeting of this Division will be held at Altrincham on May 14th. Mr. J. Smith Whitaker, the Medical Secretary of the Association, will deliver an address at 5.30 p.m. (other particulars will be announced later). Members of other Divisions are cordially invited to attend. The meeting will be followed by a dinner (5s. each, exclusive of wine), which will be open to all members who signify their intention to be present (enclosing postal order for 5s.) to the Honorary Secretary of the Division on or before May 14th.—T. W. H. GARSTANG, Edge Mount, Altrincham, Honorary Secretary.

LEINSTER BRANCH.—The annual meeting of this Branch will be held in the Royal College of Physicians, Kildare Street, Dublin, on Wednesday, May 18th, at 4.30 p.m.—ARTHUR H. WHITE, Derrybawn, Rathgar, Dublin, Honorary Secretary.

LINCOLN BRANCH.—Preliminary Notice.—A meeting of this Branch will be held on Thursday, May 26th.—E. M. SYMPSON, 2, James Street, Lincoln, Honorary Secretary.

METROPOLITAN COUNTIES BRANCH.—Notice is hereby given that nominations of Representative Members of Council for this Branch must be sent to me on or before May 9th. This notice should have appeared earlier, but as fourteen days' notice is necessary, it is hoped that no objection will be taken to the above extension of time.—GEORGE ROWELL, 2, Cavendish Place, W., Honorary Secretary.

METROPOLITAN COUNTIES BRANCH: WALTHAMSTOW AND E. DIVISIONS.—A conjoint meeting of these Divisions will be held, by kind invitation of Dr. J. O. Adams, at Brooke House, Clapton, N.E., at 8 p.m. on Thursday, May 12th, when Dr. J. H. Sequeira will give a demonstration of cases of skin disease.—C. J. MORTON, M.D., Honorary Secretary, Walthamstow Division; E. W. GOODALL, M.D., Honorary Secretary, City Division.

METROPOLITAN COUNTIES BRANCH: WANDSWORTH DIVISION.—An ordinary meeting of this Division will be held in the Officers' Mess Room of the 4th V.B. East Surrey Regiment, St. John's Hill (opposite Clapham Junction Station), on Thursday, May 12th, at 4 p.m. Business: (1) Minutes; (2) correspondence; (3) to discuss the scheme of medical defence submitted by the Defence Committee of the Association under these headings: (1) Is this meeting in favour of the Association taking up the general and (or) individual defence of its members? (2) Is the scheme submitted one by which the Association could safely and efficiently execute the work of individual medical defence? Dr. Heron, Mr. Messiter, Dr. Bateman (Medical Defence Union), Dr. Woods (London and Counties Medical Protection Society), and Dr. Allan (M.P.A.) attend and help in the debate. N.B.—The annual meeting of the Division will be held at the Crichton Restaurant, Clapham Junction, on May 26th. A dinner (6s. per head) will precede this meeting.—E. ROWLEY FOTHERGILL, Torquay House, Southfields, S.W., Honorary Secretary.

MIDLAND BRANCH.—The last day for sending in nominations of elected members of Council for this Branch is May 31st.—F. M. POPE, 4, Prebend Street, Leicester, Honorary Secretary.

MIDLAND BRANCH: LEICESTER DIVISION.—The annual meeting of this Division will be held on Wednesday, May 11th, at 4.30 p.m., at the Infirmary, Leicester. Agenda: The election of officers for 1904-5 and other business as put forth in circular sent to each member.—ASTLEY V. CLARKE, M.D., 37, London Road, Leicester, Honorary Secretary.

NORTHERN COUNTIES OF SCOTLAND BRANCH.—The annual meeting of this Branch will be held at the Imperial Golf Hotel, Nairn, on Saturday, May 21st, at 12 o'clock noon. Agenda: (1) Minutes of autumn meeting. (2) To elect office-bearers for the ensuing year, and a Representative of the Branch in Representative meetings of the Association. (3) To arrange place for next annual meeting; in connexion with this the Council suggest that in order to give the members in the North of Scotland an opportunity of attending either Tain or Golspie should be selected for next year's meeting. (4) To consider the business at the Annual Representative Meeting at Oxford. (5) To consider the following questions referred to the Branch for its opinion thereon: (*a*) whether it is desirable that the medical witnesses engaged on each side in legal cases should meet in consultation; (*b*) the question of the advertising of medical practitioners in connexion with hydropathic establishments; (*c*) shall Medical Defence be undertaken by the Association? In connexion with this question the Honorary Secretary would feel much obliged if members who approve of this scheme would fill in and return the form of agreement sent them some time ago with the Medical Defence circular. Those disapproving of the scheme might advise the Secretary accordingly, as the Central Council of the Association wish a poll of the members on this subject by May 30th; this being an important question affecting all members it is important that they should give an individual expression of opinion. (6) Any other competent business. Luncheon will be served

Imperial Golf Hotel at 1.30. By the courtesy of the Nairn Golf Club lf course will be open to members of the Branch and their friends, is expected that a match will be arranged between medical men e members of the Nairn Golf Club. The Secretary would feel much l if those who intend to play would kindly let him know, so that cessary arrangements can be made. The Nairn Bowling Club also the courtesy of their Green to the members of the Branch, and it e hoped that a match may be arranged. Members who wish to this should inform the Secretary. For those wishing it a drive to lace in the neighbourhood can be arranged, provided a sufficient r intimate their desire to do so.—J. MUNRO MOIR, 4, Ardross Ter- nverness, Honorary Secretary.

THERN COUNTIES OF SCOTLAND BRANCH.—In accordance with 22 of the Constitution the election of a Representative in the Council of the Association must be made by voting papers sent member, and the candidates' names must be sent to the under- on or before May 28th, and the nomination paper signed by members.—J. MUNRO MOIR, 4, Ardross Terrace, Inverness, ry Secretary.

H LANCASHIRE AND SOUTH WESTMORLAND BRANCH: KENDAL N.—The annual meeting of this Division will be held in Kendal nesday, May 18th, at the Secretary's house, at 3.30 p.m. Agenda: n of officers for ensuing year. The following questions referred to vision will be discussed: (1) The position of medical witnesses s one another. (2) The Medical Defence scheme; answers to the ng questions as to this scheme should be sent to the Secretary as possible: (*a*) Is it your wish that the Association should take up l Defence as suggested in the scheme? (*b*) Do you approve of the principles and details of the scheme? (3) The position of medical ioners in connexion with hydropathic establishments.—P. F. DGE, Stramongate House, Kendal, Honorary Secretary.

H OF ENGLAND BRANCH.—Notice is hereby give that nominations esentatives for this Branch (two required), each signed by three rs of the Branch, must be sent to me on or before May 14th, 1904.— Cox, Cotfield House, Gateshead, Honorary Secretary.

H WALES AND SHROPSHIRE BRANCH: DENBIGH AND FLINT N.—The annual meeting of this Division will be held at Wrexham ay, May 27th.—E. D. EVANS, Bodeirian, Wrexham, Honorary y.

H WALES AND SHROPSHIRE BRANCH.—We hereby give notice that tions for a Representative on the Council of the Association, y three members of the Branch, must be received not later than . by W. Jones Morris, Is-y-Coed, Portmadoc.—W. JONES MORRIS, MACLEOD, and H. JONES ROBERTS, Honorary Secretaries.

D AND READING BRANCH.—Notice is hereby given that nomina- a Representative Member of Council for this Branch must be ne on or before May 15th.—W. T. FREEMAN, M.D., 30, Portland ondon Road, Reading, Honorary Secretary.

-EASTERN BRANCH.—The annual meeting of this Branch will be Eastbourne on Wednesday, June 22nd. Mr J. H. Ewart, Presi- ct. The following will be the agenda: 1. To elect the officers of nch. (This will be done by voting papers sent to each member of nch. Nominations by three members for the offices of President- ce-Presidents, and Secretary may be sent to the Honorary Secre- or before Monday, May 16th.) 2. To receive the annual report of nch Council. 3. To consider the business of the annual Repre- e Meeting. 4 To make new rules or alter or repeal existing rules. ing gives notice that he will move, "That in the opinion of this the present South-Eastern Branch should be divided into two s separated by a line running roughly between London and , and that the opinion of the Divisions concerned be obtained on tion." 5. To transact any business that may be transacted by an meeting. N B.—Three members to represent the Branch on the Council will also be elected by voting papers. Nominations for sts, each by three members in writing, may be sent to the Honorary y of the Branch on or before Monday, May 16th.—T. JENNER , 97, Montpelier Road, Brighton, Honorary Secretary.

EASTERN BRANCH: CROYDON DIVISION.—The next meeting of sion will be held at the Croydon General Hospital, on Thursday, , at 4 p.m., Dr. Carpenter in the chair. Agenda: 1. This being the neeting officers for the ensuing year will be elected. 2. To or the next meeting and to elect a Chairman. 3 Members will to consider "Whether it is advisable that the medical witnesses on each side in legal cases should meet in consultation."—Political Committee. And also to give their opinion upon "The of the advertising of medical practitioners in connexion with hic establishments."—Ethical Committee. As a main feature of ital meeting is the exhibition of clinical cases, these questions ut to the vote without discussion. 4. The exhibition of clinical lembers desirous of showing cases are requested to communicate Honorary Secretary at their earliest convenience, and not later 16th. Messrs. Down Bros. will show surgical instruments. The ill take place at the Greyhound Hotel, at 6 p.m. Charge 7s., ex- f wine. N.B.—The Honorary Secretary would be much obliged if would kindly inform him whether they intend, if possible, to be at the meeting, and if likely to remain to dinner. By doing so materially facilitate arrangements and promote the success of the All members of the South-Eastern Branch are entitled to attend troduce professional friends.—E. H. WILLOCK, 113, London Road, , Honorary Secretary.

EASTERN BRANCH: FAVERSHAM, ISLE OF THANET, CANTERBURY, , FOLKESTONE, AND DOVER DIVISIONS.—A combined meeting of visions will be held at the County Hotel, Canterbury, sday, May 19th, at 3.30 p.m., Dr. Gogarty in the chair. Members of the Faversham, Isle of Thanet and Canterbury Divisions will meet half an hour earlier (3 p.m.) to receive report and elect representatives. Agenda: An address will be delivered by Dr. Robert Boxall on the Relief of Dysmenorrhoea and Sterility. The following papers will be read: Dr. T. Whitehead Reid, on the Diagnosis of Intraperitoneal Haemorrhage; Dr. William Gosse, Rheumatism and its Treatment at Aix-les-Bains; and a paper by Mr. Hugh M. Raven. Dinner will be served at the Hotel at 6.15 p.m.; charge 5s., excluding wine. Those wishing to dine are kindly requested to send a postcard the day previously to A. R. HENCHLEY, 1, London Road, Canterbury, Honorary Divisional Secretary.

SOUTH-EASTERN BRANCH: HASTINGS DIVISION.—The annual meeting of this Division will be held at the East Sussex Hospital, Hastings, on Thursday, May 19th, at 4.30 p.m. The chair will be taken by Dr. Frederic Bagshawe. Agenda: (1) Confirmation of minutes; (2) election of officers for ensuing year; (3) report of Executive Committee; (4) consideration of any business to be brought forward at the annual Meeting of Representatives; (5) consideration of proposed scheme of Medical Defence; (6) letter respecting grouping of Divisions for election purposes; (7) Dr. Redmayne will show a case of Bronchiectasis treated by incision and drainage; (8) Mr. Christopherson will read notes on a case of Perforated Gastric Ulcer treated by excision.—J. W. BATTERHAM, 3, Grand Parade, St. Leonards-on-Sea, Honorary Divisional Secretary.

SOUTH-EASTERN BRANCH: REIGATE DIVISION.—A meeting of this Division will be held at the White Horse Hotel, Dorking, on Thursday, May 12th, at 5 p.m., the President of the Division, Dr. John Walters, J.P., will take the chair. Agenda: Important Association business. By Mr. F. Curtis, F.R.C.S.Eng.: A Note on Freyer's Operation for Removal of the Prostate. Specimens kindly lent by Mr. Freyer will be shown. By Sir Dyce Duckworth, Physician to St. Bartholomew's Hospital: The Pursuit of Novelties in Medicine. Dinner at 7 p.m.—W. A. BERRIDGE, 158, Station Road, Redhill, Honorary Secretary.

SOUTH-EASTERN BRANCH: NORWOOD DIVISION.—A meeting of this Division will be held at the Queen's Hotel, Upper Norwood, on Thursday, May 19th, at 4 p.m., Mr. J. Sidney Turner, M.R.C.S., F.L.S., J.P., in the chair. Agenda: (1) Whether it is advisable that the medical witnesses engaged on each side in legal cases should meet in consultation; (2) the question of the advertising of medical practitioners in connexion with hydropathic establishments; (3) the Medical Defence scheme of the Association.—HENRY J. PRANGLEY, Tudor House, Anerley, Honorary Secretary.

SOUTH-EASTERN BRANCH: REIGATE DIVISION.—The next meeting of this Division will be held at the White Horse Hotel, Dorking, on Thursday, May 12th, at 5 p.m., Dr. John Walters, J.P., in the chair. Agenda: Letter from Miss Oldman. Letter from Sir Trevor Lawrence, K.C.V.O., M.R.C.S Eng. To elect a Representative. To consider whether it is advisable that the medical witnesses engaged on each side in legal cases should meet in consultation; also to give their opinion upon the question of the advertising of medical practitioners in connexion with hydropathic establishments; and other Association business. Mr. F. Curtis, F.R.C.S.: A note on Freyer's operation for removal of the Prostate; specimens will be shown, kindly lent by Mr. Freyer. Sir Dyce Duckworth: On the Pursuit of Novelties in Medicine. Members desirous of exhibiting specimens or reading notes of cases are invited to communicate at once with the Honorary Secretary. Dinner at 7 p.m.; charge, 7s., exclusive of wine; morning dress. The Honorary Secretary would be much obliged if members would kindly inform him whether they intend, if possible, to be present at the meeting, and if likely to remain to dinner. All members of the South-Eastern Branch are entitled to attend and to introduce friends.—W. A. BERRIDGE, Redhill, Honorary Secretary.

SOUTH-EASTERN OF IRELAND BRANCH.—The annual meeting of this Branch will be held at Kilkenny on May 25th. Agenda: 1. Minutes of last annual meeting. 2. Election of officers.—RAYMOND W. ORPEN, Bagenalstown, co. Carlow, Honorary Secretary.

SOUTH-EASTERN OF IRELAND BRANCH.—Notice is hereby given that nominations of Representative members of Council for this Branch must be sent to me on or before May 14th.—RAYMOND W. ORPEN, Bagenalstown, co. Carlow, Honorary Secretary.

SOUTH MIDLAND BRANCH.—Preliminary Notice.—The annual meeting of this Branch will be held at Winslow, Bucks, on Thursday, June 16th, under the presidency of Dr. Kennish. Members wishing to read papers or show cases or specimens must communicate with the Honorary Secretary not later than June 6th.—E. HARRIES JONES, 45, Sheep Street, Northampton, Honorary Secretary.

SOUTH MIDLAND BRANCH.—Notice is hereby given that nominations of a Representative member of Council for this Branch must reach me on or before May 14th, 1904.—E. HARRIES JONES, 45, Sheep Street, Northampton, Honorary Secretary.

SOUTH MIDLAND BRANCH: AYLESBURY DIVISION.—The annual meeting of this Division will be held on Thursday, May 26th, at 2.30 p.m., at the Eight Bells Hotel, Bletchley. Agenda: (1) Minutes of the last meeting. (2) To consider and discuss the scheme of Medical Defence of the Association. (3) Resolution by Dr. Easte on the granting of Medical Certificates to School Children. (4) To consider any further business or communications. Attention is directed to the form of undertaking appended to the proposed scheme of Medical Defence, which, if approved, should be filled in and forwarded to the Secretary. Luncheon (at 2 o'clock) will be provided at the Hotel, price 2s. each. Members wishing to partake of the same should inform the Secretary not later than May 23rd.—HORACE ROSE, Melrose, Aylesbury, Honorary Secretary.

SOUTH MIDLAND BRANCH: NORTHAMPTONSHIRE DIVISION.—The annual meeting of this Division will be held at the Library, General Hospital, Northampton, on Thursday, June 2nd, at 12 noon, under the presidency of Dr. Buszard. Agenda: Minutes of annual meeting, 1903. Election

of officers. To receive Divisional report. To discuss: (1) The question of the advertising of medical practitioners in connexion with hydropathic establishments. (2) Whether it is desirable that the medical witnesses engaged on each side in legal cases should meet in consultation. (3) The formation of a Medical Defence Committee of the Association.—E. HARRIES JONES, 45, Sheep Street, Northampton, Honorary Secretary.

SOUTH WALES AND MONMOUTHSHIRE BRANCH.—Nominations for two elective members of the Central Council of the Association may be sent to the undersigned on or before May 21st.—Dr. R. PATERSON, 15, St. Andrew's Crescent, Cardiff, Honorary Secretary.

SOUTH WALES AND MONMOUTHSHIRE BRANCH: CARDIFF DIVISION.—The annual meeting of this Division will be held in the rooms of the Cardiff Medical Society, 131, Queen Street, on Thursday, May 19th, at 3.30 p.m. Agenda: 1. Minutes of the two previous general meetings. 2. To elect the officers of the Division, namely, Chairman, Vice-Chairman, and Secretary (to act also as Treasurer). 3. To elect (*a*) four representatives of the Division on the Branch Council; (*b*) four ordinary members of the Executive Committee. 4. To elect the Representative of the Division in representative meetings of the Association. [Note.—The elected members included in 1, 2, and 3, constitute the Executive Committee of the Division.] 5. To receive the annual report of the Executive Committee. 6. To consider the agenda of the annual representative meeting and to instruct the Divisional Representative thereon. 7. To consider other business which may be referred to the meeting by the Executive Committee. Members are specially asked to note the date of this meeting, and to do their best to attend and take part in the election of the various officers and representatives of the Division, and also in the discussion of the other important items of the agenda. Members will receive in due course particulars of the arrangements for a dinner to take place on the evening of the same date (May 19th).—EWEN J. MACLEAN, 12, Park Place, Cardiff, Honorary Secretary.

SOUTH WALES AND MONMOUTHSHIRE BRANCH: MONMOUTHSHIRE DIVISION.—The annual meeting of this Division will be held in the Newport and County Hospital, on Friday, May 27th, at 3 30 p.m. Members wishing to bring any matter before the meeting will please notify the Honorary Secretary not later than May 14th. Members who intend joining the Defence Department, and who have not yet sent in their applications, are requested to do so as soon as possible.—W. J. GREER, Newport, Honorary Secretary.

SOUTH WALES AND MONMOUTHSHIRE BRANCH: SOUTH-WEST WALES DIVISION.—The first annual general meeting of this Division will be held at Slipney Hotel, Llanelly, on May 31st, at 3 p m. Gentlemen who wish to read papers, or who have any communications to make, will please communicate immediately with the Honorary Secretary, GLANVILLE MORRIS, Mardy, Glamorgan.

SOUTH-WESTERN BRANCH: PLYMOUTH DIVISION.—A meeting of this Division will be held at the Rooms of the Plymouth Medical Society, Athenaeum Lane, George Street, Plymouth, on Friday, May 13th, at 4.30 p.m. Agenda: (1) Election of Divisional Representative for year 1904-5. (2) Election of office-bearers for 1904-5. (3) To consider the following questions referred to the Division by the Council of the Association, and return answers thereto: (*a*) Whether it is advisable that the medical witnesses engaged on each side in legal cases should meet in consultation; (*b*) the question of the advertising of medical practitioners in connexion with hydropathic establishments; (*c*) whether the Association should undertake Medical Defence on behalf of its members. Any member unable to attend the meeting is requested to communicate his views on these subjects by letter to H. W. WEBBER, M.S., 4, Queen Anne Terrace, Plymouth, Honorary Secretary.

SOUTH-WESTERN BRANCH.—The nomination of candidates for the office of elective members of Council (Branch Representatives on the Central Council) for the ensuing year, must be made by three electors, and in writing, on or before May 21st, to the Honorary Secretary of the Branch, Mr. C. YOUNG EALES, 1, Matlock Terrace, Torquay.

STAFFORDSHIRE BRANCH.—Notice is hereby given that nominations of a Representative of this Branch on the Central Council of the Association must be sent to me on or before Tuesday, May 24th.—E. PETGRAVE JOHNSON, Brook Street, Stoke-on-Trent, Honorary General Secretary.

STAFFORDSHIRE BRANCH.—The annual meeting of this Branch will be held at Wolverhampton, on Thursday, June 9th.—E. PETGRAVE JOHNSON, Brook Street, Stoke-on-Trent, Honorary General Secretary.

SPECIAL CORRESPONDENCE.

INDIA.

The Antimalarial Campaign at Mian Mir.—Plague Inoculation in the Punjab.—Pay of the Indian Medical Service.

ONE of the results of the visit of the Malaria Commission of the Royal Society to India was the commencement of antimalarial operations in the very unhealthy cantonment of Mian Mir in the Punjab as an experiment to demonstrate what could be done to lessen malaria by destroying the *Anopheles* which carry the infection. A report on the operations from 1901 to 1903 has recently been issued as Part 6 of the *Scientific Memoirs* (new series), which has been written by Captain S. P. James, I.M.S., who was attached to the Commission and has continued in charge of the operations. The object of the Commission was to test the efficacy of mosquito destruction in the prevention of malaria, and Mian Mir as selected as a very malarious place in which it seemed probable that a marked reduction in the number of these ins could be effected, as the rainy season is a short one, the a annual rainfall averaging only about 20 in., while for sev months in the cold weather no mosquitoes can be found the station. On the other hand, owing to the extreme flat of the place water easily stands in the drains, etc., wh series of irrigation canals run through the cantonment, these form the principal breeding ground of the *A. culicif* which is the common carrier of malarial infection in Punjab. During the rainy season of 1901 careful obse tions as to the incidence of malaria and of the bree places of *Anopheles* were made by the Commission, and it found that from 20 to 56 per cent. of the children in ferent parts of the cantonment were infected with mal parasites, while from 20 to 75 per cent. had large spleens. examination in a similar manner throughout a year sh that both rates were much higher in the autumnal season than in the dry hot weather, the number infecte one bazaar falling from 52 per cent. in October to 8 per in June, while the spleen rate in the same time fell f 80 per cent. to 26 per cent. Two-thirds of the infection with malignant tertian and the remaining third with be tertian parasites. In April, 1902, before *Anopheles* had b to reappear, the operations of cleaning out the irriga channels, filling up pools, and brick-lining the largest cha were begun in a selected part of the cantonment, and t measures were steadily continued under efficient supervis The present report only deals with the results of the op tions during one fever season and the following winter spring. The results were as follows. Although the op tions were begun under very favourable conditions number of *Anopheles* mosquitos steadily increased in houses of the area under treatment throughout the r season, and decreased in the cold weather although op tions were then discontinued, just as in the untreated a The numbers, however, in the houses of the treated at any time of the year was not nearly as great as it w have been without the operations. Still specimens of *A. culicifacies* and *A. rossii* could be easily caught in t houses at any time. During the winter months the *A. c f cies* were found hibernating as partly-developed larva the permanent pools, and these were all carefully destr over an extensive area during the cold months, when no a insects could be found in the houses, with the idea that area might be completely rid of the mosquitos in this Nevertheless, in the following May, *A. culicifacies* reappea and were almost as prevalent as at the same time in previous year. The conclusion is that the problem materially reducing the number of *Anopheles* in Mian Mi very difficult, although a permanent diminution may in t be possible. Next, as to the reduction in amount of malaria; the season was particularly healthy in all part the cantonment, which makes it difficult to judge. Yet reduction in the treated lines in both the endemic index the spleen-rate was distinctly greater than in the untrea and Captain James concludes that "the experiment sh that even a slight reduction in the number of *Anop* mosquitos affects the amount of malaria to an extent whic quite measurable" In addition to the campaign against *Anopheles*, two other experiments were carried out with gre effect. The inhabitant of one series of syce lines were mo out into tents three-quarters of a mile from the nearest ca which harboured *A. culicifacies*, and 600 yards from nearest pool. No adult *Anopheles* could be found in t tents during the rains, and no adult was attacked malaria, while the endemic index in the children fell in year from 56.5 to only 4 per cent. In the hospital follow lines all the children were treated systematically w quinine, but no other change made, and a similar method carried out in one of the syce lines. The result was t none of the syces got fever that season, while both the in tion and spleen rates of the children were greatly reduced most important result. A study of this report only confi the general opinion in India that destruction of *Anopheles* a method of malarial prophylaxis is a most hopeless measur this country even in unusually favourable conditions, while such places as Lower Bengal it would be sheer folly and wa of money to attempt it. On the other hand, the last-mention results encourage the hope that by means of a wider distribut of quinine, especially among children, very much may be acc plished in reducing the death-rate from malaria, and a pr tical scheme for such a distribution is a very urgent desi

It should also have been mentioned that excellent vere obtained from the administration of quinine to ps under efficient medical supervision, as suggested agpur Malarial Convention.

olution by the Lieutenant-Governor of the Punjab on noculation in the Punjab has just been issued which ome light on the question. The fluid supplied by the Research Laboratory first incurred suspicion owing to smell in a large proportion, its abnormal appearance, more frequent abscesses and insufficient reaction from its use. The laboratory was asked to discon- supply, and operations were ordered to be continued old fluid as far as it would go. As this time the l disaster occurred, 32 deaths from tetanus taking The circumstances point to the conclusion that was contaminated with tetanus before it reached the The cessation of inoculation was at once ordered, people being still anxious for the treatment, inocula- the old fluid only was resumed some months later, o careful tests in the laboratory and again in the

atisfactory to be able to report that in the budgets brought forward allowance has been made for in- ay for the civil branch of the Indian Medical Service. se of Bengal, which has the largest number of such he sum of 120,000 rupees has been set on one side for ose, which should allow of the new rates being made tive to some extent. It is expected that the an- ent will be made shortly. It is fortunate that the ent of India has such a large surplus this year, as it afford to settle this question in a spirit sufficiently to ensure the maintenance of the high level of com- or the service which existed in the past.

MANCHESTER.

ions to Hospitals.—Post-graduate Courses.—Report on esome Dwellings.—Tuberculosis and Imported Cattle.

puted that the amount required annually to main- hospitals in Manchester is about £100,000, and of last year the contributions from all sources fell £1,100. Last year the sum raised on Hospital was £4,536, and from both Hospital Saturday and 8,466.

ctice of holding post-graduate courses in certain de- of practical medicine and surgery has been revived ner in Owens College. Courses—thirteen in num- ing from cutaneous to nervous diseases, will be members of the staff of the College and Royal In- The courses commence immediately after Whit- each will consist of six meetings.

izens' Association for the Improvement of the me Dwellings and Surroundings of the People ed in this city in 1901, and the first-fruits of a ouse investigation of certain typical selected dis- Manchester and Salford have been made public. stigations were carried out by the Association's The report embodying these results does not deal ide questions brought home to social workers by of Mr. Rowntree of York, or of Mr. Booth. The ugh work was done in eight selected districts, and lected as being bad, that is, they were not all the but samples of them. The actual work was done and some improvements have taken place ; still, there are other areas equally bad. Some acts are very striking as to water supply. e one tap was shared by 40 houses, another by 30. ses 10, and in five cases 8 houses shared one tap. many similar cases occurred in crowded districts wded houses, near the central and dirtiest part of where there are many back-to-back houses. As to rangements, they were hardly better. In four cases was shared by 8 houses, in four by 7, in five by 6, by 5, in twenty-seven by 4. When it is remem- many of the houses contained several families, the to be even worse. The Association, in view of all ays stress particularly on the need for a system to d makes a strong case against a patchwork policy. cipality must face the problem as a whole, and beforehand how any given insanitary area is to be

shire Chamber of Agriculture at its meeting on ay 2nd, made an important suggestion in regard erculosis (Animals) Compensation Bill, commonly called the Butchers' Bill. They are in favour of the Bill in cases in which cattle during life appear to be healthy, but, after slaughter, are found to be tuberculous, and the carcasses are condemned and confiscated. The Bill provides that the loss shall be charged against and paid by the council of the administrative county or of the county borough where such animals are slaughtered. Thousands of foreign cattle imported to this country are slaughtered on their arrival at the lairages in Wallasey. This place is in the administrative county of Cheshire, and it would be manifestly unfair to involve Cheshire farmers in liability for diseased foreign cattle. The difficulty only arises in one other place in the country, namely, Deptford. The Chamber accordingly, while expressing approval of the main provisions of the Bill, suggested the insertion of a special clause exempting the authorities from liability for compensation in the case of foreign animals that may be home-slaughtered. It was decided to ask Cheshire members of Parliament to support the Bill, subject to this amendment.

BIRMINGHAM.

Judgement Under the Workmen's Compensation Act.—Midland Counties' Asylum, Knowle.—The Dudley Guest Hospital.

AT the Dudley County Court, on April 28th, Judge Howland Roberts gave judgement in an important action under the Workmen's Compensation Act. The applicant, a signalman in the employment of the Great Western Railway Company, sustained a compound fracture of his right leg in 1902 by falling over an exposed wire while he was leaving his work. He was treated at the General Hospital, Birmingham, and the fracture completely healed, but the man is now totally incapable of doing his former work on account of lameness. This condition was shown to be due to locomotor ataxy, from which the man was known to be suffering four years before the accident. His Honour commented upon the conflicting statements made by the six medical witnesses, and said he was of opinion that the disease had developed very rapidly after the applicant had left the hospital, and that this acceleration in the progress of the malady was a result of the accident. He accordingly gave judgement in favour of the applicant, awarding him compensation at the rate of 13s. 10d. a week. He also declined to place any limit to the duration of the award, and gave costs on the higher scale.

The thirty-seventh annual meeting in connexion with the Midland Counties Asylum, Knowle, was held in the Council House, Birmingham, on April 29th. The institution is one for the care and training of feeble-minded children, and owes its existence to the energies of the late Dr. Bell Fletcher, of Birmingham. There was an adverse balance for 1903 of £368 5s. 9d., which was caused chiefly by the appointments of industrial trainers in tailoring, shoemaking, and carpentry, and by certain additions to the nursing staff. There were 106 cases under treatment in the asylum during the past year, and the average cost of each patient was £35.

The thirty-second annual concert in aid of the Dudley Guest Hospital took place on April 25th in the Park Lane School-rooms, before a large attendance. These concerts have been instrumental in handing over to the Hospital Committee sums amounting to upwards of £860. The hospital is doing excellent work, and last year dealt with 1,581 cases.

HONG KONG.

Bubonic Plague, Small-pox, and Cholera.

THE number of cases of bubonic plague recorded down to March 29th was 6. Disease has made its appearance later this year than last, though it is too soon yet to predict whether this will be a "plague year" or not. The cold season has continued longer than usual, and the rainy season has not yet set in. Every effort is being made to encourage the Chinese to cleanse their houses thoroughly.

During the week ending March 28th there were no cases of bubonic plague. Three cases of small-pox in Chinese were reported, and 2 were fatal. There was 1 fatal case of cholera.

SPECTACLE PRESCRIBING.—The practice of spectacle prescribing by opticians appears to be on the increase in France as in England, and is beginning to attract attention from medical men. Consequently the suggestion has been thrown out that a law should be introduced into the Senate with the object of assimilating opticians to chemists in the matter of serving out spectacles otherwise than on medical prescription.

CORRESPONDENCE.

THE INTRUSION OF THE LAYMAN INTO MEDICAL PRACTICE.

Sir, I have read with great interest Dr. Lewis Jones's article in the British Medical Journal of April 23rd on the intrusion of laymen into medical practice, and think with him that it is time something was done to put a stop to the present condition of affairs. Any one interested in this subject, and who has the interests of the profession at heart, need but refer to the columns of the London daily papers to see the extent of the evil to which Dr. Jones has drawn attention.

Here, in Italy, they manage things—in this respect at all events—better; for the unqualified medical charlatan is an unknown quantity, and in every large city fairly well educated physicians are to be found who devote themselves entirely to electro-therapeutics. They advertise, to be sure, in the daily papers, but it is done openly according to the custom of the country; and after all, when everything is said and done, it is perhaps uncertain whether this constitutes the most objectionable form of advertising.

Recently, however, we have been threatened with an invasion of unqualified medical operators, all *forestieri*, and mostly hailing from England. They are certificated and "eminently qualified" to practise the art under medical supervision, but any one who has studied seriously this branch of medical science is fully aware of the value to be attached to this form of professional supervision.

Electricity has always been exploited by charlatans, and this will continue so long as medical men send them patients whom they are unable to treat themselves through sheer ignorance of the first principles of the science, and whom they will not send, through some occult reason, to their professional brethren, who are, of course, alone competent to treat such cases.

It is all very well to say that it is beneath the dignity of a physician to attempt to cure his patients by this method, but an educated physician should be above all this, and not hesitate to employ all and every means to cure or ameliorate the condition of those entrusted to his care.

Personally I would as soon place a patient of mine under the care of an unqualified medical electrician as I would send a prescription containing strychnine to a chemist who was known not to be possessed of the necessary scales and measures for accurate dispensing. To apply electricity properly and safely, a sound knowledge of its effects—physical, chemical, and physiological—are necessary, besides a good knowledge of anatomy and physiology. The charlatan, to do him or her justice, think they know all this.

It was only quite recently I recommended a patient of mine for massage to one of these irregular practitioners. He diagnosed enlargement of the left lobe of the liver, which I failed to do, and suggested electricity, being a certificated electrician. Fortunately the patient was gifted with a sense of humour, and so no harm was done. This is only one instance which could be easily multiplied. I am afraid that there is some truth in the statement that the equipment of the unqualified operator is superior to that possessed by the medical practitioner. Dr. Lewis Jones indignantly denies this; but I fail to grasp his meaning when he asserts in the same breath that the electrical departments of the large London hospitals are no credit to them. Of course any one who has visited Continental and American hospitals will have no difficulty in believing this statement, and naturally if the hospitals are badly equipped, it follows that the student who wishes to pursue the study of medical electricity must be placed at a disadvantage and receive imperfect instruction.

Dr. Lewis Jones deserves credit for bringing this matter so prominently before the profession, and it is to be hoped that he will receive that amount of support which he deserves.—I am, etc.,

Florence, April 30th. T. Gerald Garry, M.D.

POOR-LAW MEDICAL RELIEF IN SCOTLAND.

Sir,—I feel sure that all who are interested in the poor and the proper provision of suitable and ready means for their medical relief, are deeply obliged to you for the long and interesting extracts published in the Supplement to the British Medical Journal of April 30th, from the ... mental Report of the Scottish Local Government Board ... form an appropriate complement to the lurid picture ... Medical Poor-law grievances so graphically put bef... week or two ago.

Will you kindly give me a little space to protest ... part of myself and the other medical officers of health ... Highlands of Scotland, against the remarks of the ... mental Committee that we do not appear to have ... attention in our official reports to the subject of unc... deaths. I have not the reports of my neighbours by ... I feel sure that it is impossible for any one to have ... health reports without such a reference.

As for myself, while frankly giving the palm for ... power to the accomplished M.O.H. for Inverness-shire ... on referring back that at page 18 of my first report (... 1891) I enter fully into this matter of uncertified deat... quote a few sentences:

This (the fact of there being so many deaths uncertified) is ... stumbling-block to the statistician. . . . Opinions may dif... the real value of medical services in the way of prolonging l... such help in serious sickness should be within the reach of eve... many in out-lying districts die, who could not, if they wante... such assistance.

Again, in my report for 1892 I say:

In some places the majority of those sick even unto death ... had the advantage of medical help, at least to soothe the ... their last moments. . . . It is sad to think that so proper ... cannot be gratified. The great deterrent for poor people is ... pense. I came across such a case in the course of my inqu... summer, where the life of a fine boy might have been sa... medical skill being procurable and the comparatively simple o... of tracheotomy performed. But how could it be when the do... 25 miles distant and his fee prohibitive, though no fault of ... so the poor child was allowed to die by suffocation.

Again, under the heading of the Western District, I ...

I cannot look upon it as anything but a serious blot that ne... half of the total number of deaths is uncertified, or, in othe... that almost every second person dies in the Western District ... receiving any medical assistance.

In the same year I note in the Black Isle District th... "unfortunate that so many die without the advan... medical aid, the proportion in Cromarty being nearly ... of 100 deaths."

The concluding words of my report for the same ... "unknown causes of mortality. I am sorry to repeat ... large number of uncertified deaths."

In short, in my reports for 1893, 1894, 1895, 1896, 1... subject is prominently referred to. And every year th... been given along with the usual official tables of morta... additional column showing the percentage of unc... cases, surely enough of itself to show that I, and do... others, are constantly drawing special attention in our ... reports to this disgraceful state of things in the Highl...

I am, etc.,

William Bruce, M.D.
Dingwall, May 2nd. County M.O.H. for Ross and Cro...

SALARY OF POOR-LAW APPOINTMENTS.

Sir,—In the advertisements of vacant appointments ... British Medical Journal of April 30th there is on... medical officer and public vaccinator for a certain Un... a north-midland county, and it is instructive as giving ... idea of the value attached by public bodies to ... services.

A district having an area of over 7,000 acres and a p... tion of 7,000 people, and which must contain a large n... of paupers and other poor persons, requires a medical ... who must supply medicines, surgical instruments, and ... medical and surgical appliances except cod-liver oil, q... and trusses. The salary offered is £20 per annum! ... extra bait to attract impoverished medical men, it is ... that extra fees (it omits to state that this means extra ... amount to about another £30.

It would be interesting to know the reason of this v... occurring, and why the Clerk to the Guardians should ... a sum amounting to at least one-twentieth of the ... salary in advertising for a successor.

Those who are familiar with the vagaries of re... officers and others granting orders for midwifery case... dents, etc., and who know that in many cases these ... have a way of suddenly diminishing and disappearin... be much surprised if the guardians have any applica... this "eight shillings a week" appointment.—I am, etc...

Folkestone, May 2nd. A. E. Larking, ...

BLOOD-PRESSURE INSTRUMENTS.

I am indebted to Dr. Oliver for his courteous letter -pressure instruments (British Medical Journal of th, p. 1048). I can assure Dr. Oliver that I am entirely prejudice in this matter, nay rather, I am extremely to be convinced of the reliability of his instrument, pilgrimage to Harrogate would convert me I would undertake it. I have so often observed the periodic blood pressure to be accompanied by symptoms of serious nature that I am continually on the watch for ain patients. But though this is so commonly recog- e are yet in need of some authoritative method to e the question. I have on several occasions met ex- d consultants who asserted that my patients had an l increase of blood pressure when I was as convinced nothing of the sort. It was to settle this difference on that I turned hopefully to Dr. Oliver's instru- d it was with a keen sense of disappointment that I d its use. I am willing to admit that the failure yself and not in the instrument, and if Dr. Oliver sfy me that his instrument records nothing but blood pressure I will gladly take it up again.

nard Hill's admirable article in Schäfer's *Physiology* set out the results of experiments in measuring the ar pressure in certain animals. Unfortunately the re so confusing that one is at a loss for a standard by e human ventricular pressure can be measured. the horse Chauveau and Marey found the pressure ft ventricle to vary from 95 to 140 mm.Hg., while l Gaule found it in the dog from 114 to 135. Assum- in the human heart it rises as high as 200 mm.Hg., wing train of reasoning leads me to suspect that sure recorded by Dr. Oliver's instrument is not pressure. In the passage of the wave of blood e arteries a considerable amount of force is lost on against the walls, and by the distension of the all. Although this distension is extremely minute, stretching the elastic coat a considerable force ed, a force which is stored up in the elastic e liberated during the ventricular diastole, and which a continuous pressure on the contained column of Hürthle found that the systolic pressure taken at the nd of the carotid artery was 160 mm Hg., at the peri- d it was 117 mm.Hg., that is to say that the wave of passing along $5\frac{1}{2}$ in. of artery lost 43 mm.Hg. As l is four times that distance, the pressure is bound uch lower than Dr. Oliver's instrument records— m.Hg.

rom the actual number of mm.Hg., if we could get a record of the arterial pressure, and could follow its s the instrument would be of great use. The pressure by these instruments is the product of two factors: force required to push the instrument down to the nd (2) the arterial pressure. If (1) were constant it neglected, but if we reflect for a moment it will be t cannot be constant. We all know how easy it is te an artery that lies bare and visible, and how it is sometimes to feel an artery in a well-padded ng embedded in a firm layer of fat. In one indi- e artery may be readily perceptible, large and for- ng a febrile attack. Next day with a fall of tempera- small and shrunken, and can only be felt with . The force applied to reach it in the latter case is d as blood pressure, and the observer beholds with rise of blood pressure so great that he never would pected it had his instrument not told him.

ignorant of physical laws that in writing as I have n conscious that I may be exposing myself to the the learned in these matters. Still, I trust Dr. ll bear with me, and kindly help in smoothing the ne who seeks the truth with faltering steps and who failed to work out his own salvation.

letters I have received I find there are others, like myself, who yearn for enlightenment.—I am,

May 3rd. J. Mackenzie.

OPOSED STERILIZATION OF CERTAIN DEGENERATES.

n the British Medical Journal of April 2nd Dr. r asked for a definition of "degenerate" and de- In the succeeding Journal I attempted to reply. n I thought it right to write to the author of that fine work, *Degeneration*, by Max Nordau, for a definition. He replies from Paris as follows:

Dear Dr. Rentoul,—In my book *Degeneration* I adopt the very acceptable definition of degeneracy by Morel, which runs as follows (p. 16 of *Degeneration*): "The clearest notion we can form of degeneracy is to regard it as a morbid deviation from an original type." I may formulate now this definition in the following clearer and more concise shape:

"Degeneracy is a deviation from the generic type caused by the incapacity of the degenerate offspring to attain to its full development. This incapacity is a consequence of a weakening of the germ plasma, most probably by the effect of the intoxication of the parents. What differentiates degeneracy from other deviations of the generic type is this: the degenerates tend towards extinction by rapid diminution of the power of reproduction, while non-degenerate atypical formations are infinitely transmitted without interfering in any way with the normal vitality and fecundity of their bearers."

Yours faithfully,

April 24th, 1904. Max Nordau.

I think the above letter will help to elucidate the many points I have referred to in the above treatise.—I am, etc.,

Liverpool, April 28th. Robert R. Rentoul.

SUDDEN ILLNESS AND ACCIDENTS IN THE STREETS OF LONDON.

Sir,—I quite agree with what has been written in the British Medical Journal *re* the ambulance system, but think it would be far more benefit to the public if the profession would at once agitate for some definite regulation as to the treatment of cases of illness and accidents in the streets.

At present the state of affairs is appalling, and it is far safer to be on a battlefield than to be unfortunately taken ill in the streets of London. The minute one is prostrate then every one thinks it their right to experiment upon you, some think you ought to be dosed with brandy, others that cold water should be dashed in your face, while a third party advise that your legs and arms should be nearly pulled out of their sockets. No one, of course, has any idea the reason they recommend their treatment.

The policeman since he has generally passed the St. John Ambulance is the more to be dreaded than the public, for he at once assumes authority and decides whether a doctor shall be sent for or not (more often not). Only last summer I had to fight for a poor young lady's life in Hyde Park who had fallen down in an epileptic fit. Some one wanted to give her brandy, another cold water, a nurse to extend her legs and arms, a policeman to stand her up erect. I could only stand over her and shout "Leave her alone," after having loosened all her things.

Surely, sir, some definite plain and simple rules could be devised to put a stop to all this, especially in a city that pretends to value human life; such as the following:

(*a*) It shall be criminal for the lay public to administer anything, or interfere with a person who is taken ill or meets with an accident in the streets, otherwise than place him or her in a place of safety.

(*b*) A person with a St. John Ambulance certificate or a nurse may render first aid until the arrival of a doctor, after which they must follow his instructions.

(*c*) The police must in all cases at once send for a doctor, but should there be a doctor in the crowd who offers his services they should be at once accepted. It should be an illegal offence for a policeman not to carry out the instructions of a doctor when he takes over the case.

(*d*) The police should always carry a piece of red cord with them, so that a space could be marked off, it being given to some willing hands to hold. Any one pushing their way through to be liable to immediate arrest.

By some such simple means as these many lives would be saved, the surgeon be able to make some kind of a diagnosis, and perhaps be able to relieve or alleviate the pain of the victim whilst he or she was being conveyed to the hospital or home. Many colleagues I am sure could record some painful cases in their experiences due to the present want of any law on the subject.—I am, etc.,

London, W., April 24th. Thomas Dutton.

TESTING THE EYESIGHT OF THE NATION.

Sir,—With reference to a note in the British Medical Journal of April 16th, page 926, under the heading "Testing the Eyesight of the Nation," I am authorized by my Council to state that the Optical Society, which is mainly a scientific society as I show in my subsequent quotation of its objects, does not at this stage commit itself to any definite opinion on the sight-testing question, nor can it accept responsibility for the views of individual members; moreover, it does not

organize or conduct examinations or grant "diplomas" of any sort whatever.

In the note I refer to you mention that the *Optician and Photographic Trades Review* is stated to be the official organ of the Optical Society. That journal is the official medium for the publication of the Society's notices and proceedings, but is in no sense authorized to voice independently the opinions of the Optical Society as a body. Moreover, I have the authority of the Editor of the *Optician and Photographic Trades Review* for the assertion that neither he nor the "Official Journal" had anything to do with sending out the so-called "circular communication."

As a matter of interest to your readers I shall be glad if you will permit me to state that the objects of the Optical Society (which was founded in the year 1899) are:—

(*a*) To promote intercourse between those interested in the science of optics in the United Kingdom, the Colonies, or Foreign Countries.

(*b*) To foster and disseminate knowledge of optical matters among its members.

(*c*) To arrange lectures, discussions and demonstrations on optical science and optical instruments.

(*d*) To provide its members with information on all optical subjects of interest.

(*e*) To promote the establishment, adoption, and recognition of standard sizes, gauges, calibres, templets, and methods for universal use with all optical and other scientific instruments.

(*f*) To print, publish, sell, lend, or distribute the proceedings or reports of the Society, or any papers or communications on optical science or subjects connected therewith.

—I am, etc.,

W. SALT, Honorary Secretary.

The Optical Society, 20, Hanover Square, London, W., May 2nd.

THE ASSOCIATION AND MEDICAL DEFENCE.

SIR,—From the letters which have appeared in the BRITISH MEDICAL JOURNAL on this subject, it is, I think, clear that while there is a very general desire that the Association should take the matter up, there is also very general dissatisfaction with the scheme of defence which has been laid before the Divisions. It will be, I think, very unfortunate if this dissatisfaction with the scheme proposed should lead the Divisions, or any of them, to vote against the Association taking up the defence of its members—a result which can readily be avoided by such Divisions approving of the first clause only of the scheme, which provides for the confirmation by the Representative Meeting of the resolutions passed at Birmingham on July 13th, 1896, confirmed at Carlisle, July 28th, 1896, and registered at Somerset House, August 11th, 1896, altering the Memorandum of Association, and establishment of the same before the courts.

As one of the principal points which has given rise to difference of opinion has been the question where the funds for defence are to come from, I should like to point out that in the SUPPLEMENT to the JOURNAL of April 30th it is shown that there are a number of balances from Branch funds on the year's working, which amount to some £1,250, and that if these were "earmarked" for medical defence, and allowed to accumulate yearly until wanted, they would form the nucleus of a defence fund which at our present rate of progress since the matter was first formally brought before the Council of the Association at the annual meeting at Brighton in 1886, would gradually grow large enough to render any special subscriptions unnecessary; while if, on the other hand, the Representative Meeting desired to see medical defence undertaken within the next year or two, it is quite within the power of the Association to have some of the £5,000 annual profits on the year's working, added to the £1,250 savings by the Branches for the purpose. At present, however, it seems only necessary to take one step at a time, and that is to authorize the Council to do what it would seem they ought to have done in 1896, but did not, that is, get the alteration of the Memorandum of Association sanctioned by the Court.—I am, etc.,

London, S.E., May 4th. H. NELSON HARDY.

SIR,—Just a word or two as a parting contribution to this discussion. If one may take the letters on this matter which have appeared in the BRITISH MEDICAL JOURNAL as an indication of the real feeling of the Association, there is no doubt that the present scheme has not been received with any enthusiasm. But nobody seems to take up the position that there is any *a priori* reason why the Association should not take up defence. It is taken for granted by most writers that defence is a proper thing for the Association to undertake. I hope that the Divisions will see that their votes and instructions to representatives leave no room for after the Oxford meeting, that they intend that defenc become a part of the work of the Association, whatev comes of the present scheme.

Nobody has troubled to explain how matters are improved by delay. The vested interests connected wit present societies are hardly likely to diminish if we wai are the personal prejudices likely to soften. It seems that at Oxford we should resolve that we must have m defence and with as little delay as possible. If we g position clearly laid down the exact details matter lit present.—I am, etc.,

Gateshead, May 2nd. ALFRED C

THE STATE REGISTRATION OF NURSES.

SIR,—Dr. Bedford Fenwick complains, none too civ but let that pass, rudeness is never worth replying to—a have misrepresented the numbers of those who suppo manifesto for the State registration of nurses. But if h read my letter at all carefully he must have seen that merely comparing the signatures to that paper with attached to the paper issued against State registration. answering a silly sneer that the opposition to State reg tion, as shown by the paper issued against it, "comes certain hospital committees, the employers of nurses from some matrons."

In Mrs. Bedford Fenwick's newspaper the signatu favour were published, and I have no reason to think th would minimize their number or importance.

And—I must be short—Dr. Bedford Fenwick asks me if I am so sure that I am on the right side, I do not ask parliamentary inquiry, when I could state my reaso oath? In passing I may remark that such an inquiry o not be "on oath"—there would be no swearing till the sion was given. But this is indeed a new form of test faith that is in one! Because some distracted mortals by homoeopathy and at allopaths, do we turn round allopaths and say "You cannot be sure you are right, would ask for a committee of inquiry." Why, we shou doing nothing else all our lives but crying out for inq —I am, etc.

London, S.W., May 3rd. SYDNEY HOLL

SCHOOL BABIES.

SIR,—In your excellent report of the sessional meet the Sanitary Institute at Cardiff, published in your is April 30th, I am credited with drawing exception t school attendance of children under 4½ years of age. is a slight error in the matter, as I did not mention tha What I objected to was the school attendance of ch under 6 or even 7 years of age, and pointed out that t did not require even at present that School Boards should spend money upon the so-called education of in under 5 years.

As the age mentioned in your report of the proceed considerably under that at which I consider school atten advisable, I trust you will correct the slight error in you issue.—I am, etc., J. HOWARD JONES, D.Sc., M.D.

Newport, Mon., May 2nd. Medical Officer of He

OBITUARY.

AUSTIN MELDON, F.R.C.S., D.L.,

Dublin.

WE have to record with very sincere regret the death Austin Meldon, F.R.C.S.I., D.L., of Dublin, which place on Thursday, April 28th. The end came with suddenness. He had been attending to his professional during the day, and after dinner was dictating a letter his wife was writing, when he suddenly expired.

Austin Meldon was born in 1844, and became a Licenti the Royal College of Surgeons, Ireland, twenty years after In 1865 he became a Licentiate of the then King and Q College of Physicians. His collegiate course was distingui He was double gold medallist in surgery and midwifer first prizeman in anatomy in the Catholic University M School, where he was at once appointed demonstrat anatomy. A little later he was appointed Surge Jervis Street Hospital, a position which he held until a ago, when he retired and was elected to the consu staff.

He was a man of much industry, and he wrote papers

ariety of subjects. He obtained the Pathological s gold medal for his essay on diseases of the ovaries; wrote on such diverse subjects as cholera, gout, and ic gout, diseases of the skin, the intravenous injec- milk, tetanus, lithotomy, transfusion, and two suc- ases of tapping the pericardium. He was a bold and xterous operator, and he worked with admirable sm.

eldon was a member of the British Medical Associa- l took an active part in the annual meeting in Dublin Socially, Austin Meldon was one of the most e of men. His remarkable bulk—he was about 27 st. t—did not seem to interfere with his activity or . He played tennis and rode a bicycle with all the d vigour of younger men, and there was no social in which, if opportunity offered, he did not join almost boyish enjoyment. He had an enviable ment. His fun was spontaneous and bubbling over; ay be said of him truly that he never said an un- or unkind word regarding any one, so it resulted tin Meldon stood high in the esteem and affection of essional brethren, who deeply sorrow that death has emoved him from their companionship.

eldon was twice married. One of his sons is serving al Africa as a combatant officer; the second is in as a medical man in Dublin. A few years ago Mr. was greatly afflicted by the death of his only and daughter.

s buried in Glasnevin Cemetery on Monday last. s an immense attendance of his friends, who in this to show how great was their attachment to a man eply engaged their affection.

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gret to record the death of Dr. Wm. Alexander , of Coxhoe, Durham, which occurred on April 15th. urn took the diploma of L.S.A.Lond., and the de- D.St. Andrews in 1880, and came into the district as to the late Dr. Carnes, whose daughter he married, e practice he afterwards continued with great success. very extensive colliery practice, being surgeon to five ieries. Along with this he combined several public nts, being Medical Officer of Health for Corn- sh, the Southern District of the Durham Union, and n District of the Durham Rural District Council; so Public Vaccinator for the same districts, and Officer of the Houghall Small-pox Hospital. Dr. ook considerable interest in ambulance work, being er for the St. John Ambulance Association, and was n in this connexion in the county of Durham. He ber of the British Medical Association, but did not ctive part in the work of his Branch owing mainly sy professional life he led. He was a staunch n, taking a particular interest in Church schools a representative on the Durham Diocesan Board on. His death at the age of 56 leaves a gap in the ighbourhood which will be hard to fill, as he was trusted medical adviser, but a hard-working and citizen.

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t to announce the death, in his 71st year, of Mr. Chester, which took place on April 12th at Southport. Mr. Bullin, who was born in Bath, took na of L.D.S. in 1861. He was for a quarter of a onorary Dental Surgeon to the Chester General In 1887 he was President of the Midland Branch sh Dental Association. Mr. Bullin was the second istrate in Chester.

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rmer students of Mason College will hear with ne death of Dr. Lorenzo Whitfield, which took e early age of 29 years, on April 25th, at Monrovia, U.S.A. He was the elder son of Edwin and Mary hitfield, of the Hollies, Coventry Road, Small t Mason College he won a medal in anatomy, and iplomas of M.R.C.S. and L.R.C.P. in 1898. He ly held the posts of House Physician at the ospital, and House-Surgeon at the General Hospi- gham.

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ouncement of the death of Dr. Pierleone Tom- fessor of Dermatology and Syphiligraphy in the of Palermo, who was recognized throughout the rld as one of the leading authorities on these sub- jects, will be heard with regret. In his own country he was held in special respect as a highly successful teacher, He contributed largely to the literature of his speciality, being the author of books and papers on the classification of skin diseases, on gonorrhoeal affections, on renal syphilis, on keratosis, on pityriasis rubra, and many other subjects.

We regret to announce the death of George Watson Beattie, the Medical Officer of Health for Failsworth. Dr. Beattie graduated in 1870 in Aberdeen, and took the degree of M.D. in the same university in 1872. As showing the respect in which he was held, the funeral was of a public character, and the route along which it passed was lined by several thousand people. At the head of the procession was a detachment of police, behind whom were many of the principal inhabitants of the township, members of the district council, overseers and other officials, and many members of the medical profession.

Deaths in the Profession Abroad.—Among the members of the medical profession in foreign countries who have recently died are Dr. F. Jouon, Professor of Anatomy in the Medical School of Nancy; Dr. Bruchon, Professor of Anatomy in the Medical School of Besançon; Dr. J. K. Zarubin, sometime Professor of Clinical Surgery in the University of Charkoff; Professor W. J. Drobowolsky, one of the foremost of Russian ophthalmologists, aged 66; Dr. M. v. Strauch, a well-known gynaecologist of Moscow; Professor V. Ratimoff, a prominent surgeon of St. Petersburg; Dr. Louis A. Kengla, editor of the *Occidental Medical Times* (San Francisco); and Dr. J. B. Sanford, Speaker of the House of Representatives, Colorado, aged 35.

MEDICO-LEGAL AND MEDICO-ETHICAL.

THE MEDICAL PROFESSION AND LABORATORY REPORTS.

A circular has been issued by the Clinical Research Association in which the Director asks the assistance of its members in a matter which becomes each year more pressing. He alludes to the fact that patients almost daily write asking for an examination to be made and a report to be sent directly to them. He says that it is the invariable custom of the Association to decline to do this, in the following terms: "I regret that, in accordance with our rule, we are unable to report on pathological specimens to any but the medical man in attendance on the patient. This is a rule from which we never wittingly depart. If you will kindly favour us with the name of the medical man in attendance we will at once forward the report to him." But he goes on to say that they are often met with the rejoinder that some medical man, even sometimes one of their own members, has instructed the applicant to take this course, and a tiresome and even acrimonious correspondence may result. We have had our attention drawn to this matter on more than one occasion, and it has been too often the fault of the patient's medical adviser. These reports ought to be used and their value can only be appreciated by the medical advisers. Laboratory reports have no absolute value, and they must be taken in connexion with the whole of the facts of the case. Unless this is done, they lead only to confusion and produce in the minds of patients or their friends those doubts which it is our duty to solve for them.

LIABILITY FOR FEE.

C. writes that a farmer brought one of his labourers to him with a lacerated hand, due to an accident occurring on his farm. C. attended to the case, and wishes to know who is responsible for his fee. He understands that the patient has received compensation, but has since disappeared. He also asks what would be a reasonable charge for amputating a finger, and dressing subsequently about half a dozen times.

*** Unless the farmer repudiated liability at the time of bringing the patient, or unless our correspondent has shown by his own action that he looked to the patient and not to the farmer for payment, the latter would be liable. Two guineas may be suggested as a reasonable fee, if all the attendance took place at our correspondent's surgery.

Obstetricus.—A., who is in the habit of attending confinements for another practitioner, on the condition that he goes on with the case, and takes the fee, attended in this way the wife of an insurance agent. At the termination of the case no fee was paid, but shortly afterwards he saw the husband, who promised to come round with the fee. He has not done so, and A. wishes to know whether he can recover from the patient's husband. He has since learnt that the practitioner for whom he acted was in the habit of attending this patient gratuitously.

*** It is to be feared that the practitioner who asked A. to act for him is the only one who can sue the patient's husband, and if he had been in the habit of attending her gratuitously, his action might be defeated.

"THE BIOGRAPHIC PUFF."

Mr. A. E. Manning Foster, Editor and Managing Director of *Land and Water Illustrated*, writes to say that his attention has been drawn to a paragraph appearing in the British Medical Journal of April 30th under the title of "The Biographic Puff." He explains that the circular letter of which Dr. Phineas Abraham received a copy was sent to him without Mr. Manning Foster's knowledge through the mistake of a clerk.

ROYAL ARMY AND NAVY MEDICAL SERVICES.

ROYAL NAVY MEDICAL SERVICE.

DEPUTY INSPECTOR-GENERAL E. R. H. POLLARD has been promoted to be Inspector-General, March 7th. He entered the Royal Navy as Surgeon, March 30th, 1878; became Staff Surgeon, November 18th, 1882; Fleet Surgeon, April 11th, 1891; and Deputy Inspector-General, August 23rd, 1899. As Surgeon of the *Boadicea* he served with the Naval Brigade during the Zulu war of 1879 (medal with clasp); he was also in the Egyptian war in 1882, and was present at the battle of Tel-el-Kebir (promoted to be Staff Surgeon, medal with clasp, and Khedive's bronze star).

Surgeon G. B. BROWN has been placed on the retired list, April 27th. He was appointed Surgeon, May 23rd, 1898.

The following appointments have been made at the Admiralty: GEORGE M. LEVICK, Surgeon, to the *Queen*, April 7th; GEORGE S DAVIDGE, Surgeon, to the *Perseus*, additional, and on recommissioning, March 25th; ALASTAIR F. MACKAY, M.B., Surgeon, to the *Research*, April 7th; ROBERT H. ATKINS, Surgeon, to the *Triton*, April 7th; ALOYSIUS F. FLEMING, Surgeon, to Chatham Yard, lent temporarily, May 10th; WILLIAM E. BENNETT, Fleet Surgeon, to the *Wild Swan*, on commissioning; JOHN MENARY, M.D., Fleet Surgeon, to the *Theseus*, on commissioning, and HENRY HUNT, Surgeon, to the *Theseus*, on recommissioning; JOHN A. KEOGH, M.B., B.A., Staff Surgeon, to the *Prometheus*, on recommissioning; JAMES M. ROGERS, Fleet Surgeon, and EDWIN K. GRAZEBROOK, Surgeon, to the *President*, for three months' hospital course, May 2nd; J. H. THOMAS, Fleet Surgeon, to the *Good Hope*, April 30th; R. MILLER, Fleet Surgeon, to the *Rupert*, May 10th, and to the *Terror*, on recommissioning; A. E KELSEY, Staff Surgeon, to the *Andromache*, May 10th; J. O'HEA, Surgeon to the *Ariadne*, for the *Columbine*, on recommissioning.

SENEX writes: The thanks of all those who have the welfare of the above service and the happiness of naval medical officers at heart are due to you for your able leading articles on the subject. The extremely fair and temperate spirit in which you have approached the question, should certainly give your remarks great value with the authorities. Those who have personally suffered the indignities, and consequent heart-burnings, entailed by the present condition of things, find it difficult—nay, impossible—to put the matter in the impartial light which you have happily done. Now that the BRITISH MEDICAL JOURNAL has put its good hand to the plough naval medical officers will rest confident that that hand will not be removed before the work is done.

ROYAL ARMY MEDICAL CORPS.

LIEUTENANT-COLONEL W. W. KENNY, M.B., has been appointed Principal Medical Officer, Transvaal District.

Colonel G. D. N. LEAKE has been transferred from the Bombay and Nagpore Districts to the Oude and Rohilcund Districts.

EXCHANGES.

The charge for inserting notices respecting Exchanges in the Army Medical Department is 3s. 6d., which should be forwarded in stamps or post-office order with the notice, not later than Wednesday morning, in order to ensure insertion in the current issue.

A MAJOR, recently arrived home, is willing to exchange to either South Africa or Egypt in about four months' time for either whole or portion of tour. Please state terms to Medicus, c.o. Holt and Co., 3, Whitehall Place, London.

HOUSEHOLD CAVALRY.

SURGEON-LIEUTENANT R. M. COWIE, 2nd Life Guards, is promoted to be Surgeon-Captain, April 11th. He was made Lieutenant Royal Army Medical Corps, April 11th, 1901, and was soon after attached to the 2nd Life Guards, to which he was confirmed as Medical Officer, October 15th, 1902.

Captain ST. J. B. KILLERY, from the Royal Army Medical Corps, to be Surgeon-Captain Royal Horse Guards, May 4th. He was appointed Surgeon-Lieutenant, July 29th, 1893, and Surgeon-Captain, July 29th, 1896. He was attached to the Scots Guards, September 26th, 1903.

ARMY MEDICAL RESERVE.

SURGEON-LIEUTENANT G. F. WHYTE, M.B., to be Surgeon-Captain, April 17th.

INDIAN MEDICAL SERVICE.

COLONEL W. R. BROWNE, M.D., Madras Establishment, Principal Medical Officer, Madras, is granted the temporary rank of Surgeon-General while officiating as Surgeon-General with the Government of Madras, from March 29th.

Lieutenant-Colonel G. BOMFORD, M.D., C.I.E., Bengal Establishment, Principal and Professor of Medicine, Medical College, Calcutta, and First Physician, College Hospital, is granted the temporary rank of Colonel while officiating as Inspector-General of Civil Hospitals, Punjab, from March 16th.

The next examination for thirteen appointments is fixed for August 1st next.

ROYAL GARRISON ARTILLERY (VOLUNTEERS).

SURGEON-MAJOR (Surgeon-Lieutenant-Colonel Army Medical Reserve) W. L. STEWART, M.D., 1st Banff, resigns his commission, retaining his rank and uniform, April 30th.

Mr. JOHN H. STEPHEN, to be Surgeon-Lieutenant in the 1st Banff, April 30th.

Surgeon-Lieutenant W. L. CHUBB, 1st Cinque Ports, resigns his commission, April 30th; he is granted the honorary rank of Surgeon-Captain and retains his uniform.

Surgeon-Captain G. P. BARTON, 1st Devonshire, resigns his commission, April 30th

Surgeon-Captain D. TODD, 1st Durham, to be Surgeon-Major, April 30th.

PUBLIC HEALTH AND POOR-LAW MEDICAL SERVICE

HEALTH OF ENGLISH TOWNS.

IN seventy-six of the largest English towns, including London, 4,785 deaths were registered during the week ending last, April 30th. The annual rate of mortality in these towns, which had been 18.4, 17.6, and 16.0 per 1,000 in the three preceding weeks, again last week to 16.3 per 1,000. The rates in the several towns ranged from 7.5 in Reading, 8.3 in Willesden, 8.7 in Handsworth, 9.4 in Hastings, 9.7 in Ipswich and in Halifax, 9.8 in Walthamstow, in Leyton, to 20.8 in Wigan, 20.9 in Warrington, 21.0 in Plymouth, Liverpool, 21.9 in Coventry, 22.0 in Stockton-on-Tees, 22.7 in Hanbrough, and 25.9 in Wallasey. In London the rate of mortality 15.6 per 1,000, while it averaged 16.7 per 1,000 in the seventy-five large towns. The death-rate from the principal infectious diseases was 1.8 per 1,000 in the seventy-six large towns; in London this death was equal to 1.7 per 1,000, while among the seventy-five large provincial towns the rates ranged upwards to 3.9 in Hornsey, Stockton-on-Tees, 4.3 in Birmingham, 4.6 in Salford, 5.0 in Yarmouth, 5.1 in Walsall, 6.0 in Wallasey, and 9.3 in Walthamstow. Measles caused a death-rate of 1.4 in Manchester, 1.6 in Burnley, Rhondda, 1.8 in Rotherham, 2.1 in Brighton, 2.3 in Norwich, Wallasey, and 3.2 in Hornsey; scarlet fever of 2.3 in Warrington, diphtheria of 1.7 in Barrow-in-Furness, and 2.4 in Hanley; and whooping-cough of 2.0 in Blackburn, 2.1 in Bolton, 3.0 in Great Yarmouth, Stockton-on-Tees, 3.2 in Salford, 3.3 in Birmingham, 4.0 in Walsall, 7.0 in Warrington. The mortality from enteric fever and from diarrhœa showed no marked excess in any of the large towns. Three fatal cases of small-pox were registered in London, 2 in Halifax, and 1 each in Manchester, Newcastle-on-Tyne, and Tynemouth. The Metropolitan Asylum Hospitals contained 104 small-pox patients at the end of last week, against 134, 144, and 123 at the end of the three preceding weeks; 12 new cases were admitted during the week, against 25, 37, and 23 in the three preceding weeks. The number of scarlet fever patients in these hospitals and in the London Fever Hospital, which had been 1,505, 1,523, and 1,541 on the three preceding Saturdays, had declined again to 1,341 on Saturday last, April 30th; 185 new cases were admitted during the week, against 141, 172, and 210 in the three preceding weeks.

HEALTH OF SCOTCH TOWNS.

DURING the week ending Saturday last, April 30th, 1,045 births and 615 deaths were registered in eight of the principal Scotch towns. The annual rate of mortality in these towns, which had been 20.3, 21.0 per 1,000 in the three preceding weeks, declined again last week to 20.0 per 1,000, but was 3.7 per 1,000 above the mean rate during the same period in the seventy-six large English towns. Among these Scotch towns the death-rates ranged from 15.6 in Leith and 17.2 in Greenock to 22.3 in Paisley and 24.3 in Dundee. The death-rate from the principal infectious diseases averaged 2.1 per 1,000 in these towns, the highest rate being recorded in Dundee and Paisley. The 302 deaths registered in Glasgow included 3 which were referred to small-pox, 10 to measles, 5 to scarlet fever, 5 to diphtheria, 5 to whooping-cough, 2 to "fever," and 8 to diarrhœa. Six fatal cases of whooping-cough were recorded in Edinburgh; 2 of measles, 5 of whooping-cough, and 2 of diarrhœa in Dundee; 6 of whooping-cough in Aberdeen; 3 of measles in Paisley, and 2 of measles in Greenock.

HEALTH OF IRISH TOWNS.

DURING the week ending Saturday, April 23rd, 542 births and 3[illegible] were registered in six of the principal Irish towns, against 635 births and 438 deaths in the preceding period. The mean annual death-rate in these towns, which had been 25.8, 25.5, and 23.3 per 1,000 in the three preceding weeks, fell to 22.2 per 1,000 in the week under notice, this figure being above the mean annual rate in the seventy-six English towns during the corresponding period. The figures ranged from 12.6 in London to 26.0 in Limerick. The death-rate from the principal zymotic diseases during the same period and in the same six towns averaged 0.8 per 1,000, or 0.3 per 1,000 lower than during the preceding week, the highest figure, 2.7, being reached in Limerick, while Cork, Londonderry, and Waterford registered no deaths under this heading at all. The whooping-cough death-rate was lower throughout all Ireland, 11 deaths in all being recorded. From measles 3 deaths occurred in Dublin and 1 in Belfast. From scarlet fever 1 in Belfast, where also 1 death from diarrhœa was registered. During the week ending April 30th, 548 births and 390 deaths were registered in the same six towns, against 542 births and 390 deaths in the preceding period. The mean annual death-rate in the same towns, which had been 25.5, 23.3, and 22.2 per 1,000 in the three preceding weeks, fell to 21.7 per 1,000 in the week under notice, this figure being 5.4 above the mean annual rate in the seventy-six English towns during the corresponding period. The figures ranged from 19.5 in Waterford and 19.9 in Cork, to 23.2 in Limerick and Londonderry. The death-rate from the principal zymotic diseases in the same period and in the six towns averaged 4.0 per 1,000, or 0.[illegible] than in the preceding week, the highest figure, 2.9, being reached in Belfast, while Cork, Londonderry, Limerick, and Waterford registered no deaths under this heading at all. The whooping-cough death-rate went up, 13 deaths from this cause being recorded in Belfast, 3 in Dublin, and 2 in rural towns. From measles 2 deaths occurred in Belfast and 3 in Dublin. Belfast also recorded another death from scarlet and 3 from diarrhœa fever. From diphtheria 1 death occurred in Dublin and 1 in Belfast.

ENGLISH URBAN MORTALITY IN THE FIRST QUARTER

[SPECIALLY REPORTED FOR THE "BRITISH MEDICAL JOURNAL"]

THE vital statistics of the seventy-six large towns dealt with in the Registrar-General's weekly returns are summarized in the accompanying table. During the three months ending March last, 113,055 births were registered in these towns, equal to an annual rate of 29.7 per 1,000 on the aggregate population, estimated at 15,271,287 persons in the middle of the year; in the corresponding quarter of the preceding year the rate had been 30.1 per 1,000. In London the birth-rate last quarter was 28.1 per 1,000, while it averaged 30.1 in the seventy-five large provincial

Analysis of the Vital Statistics of Seventy-Six of the Largest English Towns during the First Quarter of 1904.

Towns.	Estimated Population middle of 1904.	Births.	Deaths.	Annual Rate per 1,000 Living. Births.	Deaths.	Principal Infectious Diseases.	Deaths from Principal Infectious Diseases.	Small-pox.	Measles.	Scarlet Fever.	Diphtheria.	Whooping-Cough.	Fever.	Diarrhoea.	Deaths of Children under one year of age to 1,000 Births.	Rate per cent. of Uncertified Deaths.
s	15,271,287	113,005	71,202	29.7	18.7	1.66	6,330	56	1,746	447	795	2,219	325	742	145	1.3
ncial Towns	10,622,337	79,711	49,940	30.1	18.9	1.69	4,459	48	1,076	366	588	1,616	269	496	149	1.8
	4,648,950	33,294	21,262	28.7	18.3	1.62	1,871	8	670	81	207	603	56	246	136	0.2
	144,419	976	546	27.1	15.2	0.82	29	—	11	2	5	5	—	6	106	—
	132,566	1,064	427	32.2	12.9	1.48	49	—	32	2	10	—	1	4	112	1.2
	81,221	408	179	20.1	8.8	0.35	7	—	4	—	—	2	—	1	81	—
	112,981	913	396	32.4	14.1	0.71	20	—	9	4	3	4	—	—	95	—
	288,424	2,416	1,203	33.6	16.7	2.19	158	1	60	5	15	46	11	20	126	0.2
	116,902	890	353	30.5	12.1	1.47	43	—	8	2	17	11	4	1	121	0.6
ow	110,844	755	336	27.3	12.2	1.30	36	—	5	2	4	23	1	1	118	2.1
	111,282	895	311	32.3	11.2	1.19	33	—	12	4	4	6	1	6	103	0.6
	66,503	269	232	16.2	14.0	—	—	—	—	—	—	—	—	—	112	—
	126,286	738	603	23.4	19.2	1.34	42	—	11	—	9	16	1	5	145	—
h	198,038	1,366	920	27.7	18.6	1.73	86	—	—	7	18	50	6	5	149	1.5
uth	64,645	303	250	18.8	15.5	0.56	9	—	—	—	2	3	—	4	129	—
on	112,500	779	447	27.8	15.9	0.47	13	—	—	—	5	4	1	3	117	—
	76,373	480	286	25.2	15.0	0.74	14	—	—	—	3	3	—	8	113	3.1
ton	91,146	543	319	23.9	14.0	0.61	14	—	1	6	3	—	—	4	110	4.1
	69,805	497	275	28.6	15.8	0.63	11	—	3	1	2	1	1	3	117	0.4
nouth	52,099	365	269	28.1	20.7	2.53	33	—	8	—	16	5	2	2	101	—
	115,538	811	607	28.2	21.1	3.44	99	—	79	2	—	6	2	10	171	2.3
	114,003	747	592	26.3	20.8	1.06	30	—	—	7	6	10	5	2	174	0.2
	75,334	565	281	30.1	15.0	1.19	22	—	—	5	5	8	2	2	115	—
	343,204	2,290	1,491	26.8	17.4	1.25	107	—	12	20	34	20	6	15	115	0.2
Trent	63,932	547	322	34.3	20.2	1.82	29	—	5	5	13	—	2	4	152	0.6
pton	51,934	320	206	24.7	15.9	0.08	1	—	—	—	1	—	—	—	103	0.5
	98,194	805	407	32.9	16.6	1.66	41	—	—	5	2	25	4	5	122	0.2
h	91,432	783	441	34.3	19.3	2.23	51	—	—	11	8	24	1	7	198	0.5
wich	59,634	339	204	22.8	13.7	1.35	20	—	1	2	4	9	2	2	139	2.9
n	67,186	611	325	36.5	19.4	1.56	26	—	3	3	1	4	3	12	136	2.5
on	537,965	4,492	2,946	33.5	22.0	2.57	345	—	84	27	40	128	4	62	174	3.3
	66,667	489	207	29.4	12.5	0.48	8	—	2	1	1	2	1	1	92	1.9
or	60,691	492	216	32.5	14.3	0.47	7	—	1	1	2	—	2	1	140	4.6
	80,363	552	309	27.5	15.4	1.60	32	—	10	1	2	16	2	1	139	1.6
	73,904	616	304	33.4	16.5	1.19	22	—	—	—	3	17	—	2	146	2.0
	224,186	1,474	884	26.4	15.8	0.82	46	1	—	—	—	32	3	10	153	1.9
	66,958	484	295	29.0	17.7	0.84	14	—	—	1	6	2	2	3	192	0.7
n	248,811	1,703	1,249	27.5	20.1	1.58	98	8	—	6	22	31	24	7	162	0.7
	120,449	857	551	28.5	18.3	0.45	14	1	—	1	4	7	1	—	147	—
	97,008	626	488	25.9	20.2	1.44	35	—	24	5	2	2	—	2	161	0.4
	114,814	957	595	33.4	20.8	1.72	50	1	—	5	7	31	3	3	143	—
	60,354	389	234	25.8	15.5	2.19	33	—	6	—	2	22	2	1	149	0.9
	723,430	6,096	4,068	33.8	22.6	2.04	368	—	21	25	44	217	23	38	161	3.6
	61,755	493	301	32.3	19.5	1.48	23	—	—	2	6	13	1	1	127	2.7
	88,545	824	470	37.3	21.3	3.00	66	3	28	1	12	17	1	4	161	6.0
	62,800	546	364	34.9	23.2	1.27	20	1	—	3	—	14	2	—	161	0.8
	67,331	612	399	36.5	23.8	4.41	74	1	27	15	2	23	2	4	175	6.0
	175,744	1,148	853	26.2	19.5	2.15	94	—	2	11	7	63	5	6	174	0.2
	58,450	362	317	24.8	21.8	3.50	51	—	20	3	4	21	1	2	174	3.2
	557,938	4,371	3,137	31.4	22.6	1.90	264	2	100	15	25	70	15	37	166	1.8
	228,983	1,825	1,204	32.0	21.1	2.63	150	—	46	9	27	42	11	15	155	0.6
	139,497	903	704	26.0	20.2	1.85	64	1	20	10	10	9	1	13	135	0.3
	85,601	503	446	23.6	20.9	2.34	50	—	17	2	6	23	—	2	157	3.6
	100,569	655	490	26.1	19.5	2.60	65	—	20	5	2	27	5	6	177	3.1
	132,134	805	604	24.4	18.3	1.54	51	—	27	2	3	4	5	10	158	5.5
Furness	115,055	863	715	30.1	24.9	3.83	110	—	71	1	10	2	16	10	207	3.1
	59,654	459	226	30.9	15.2	0.46	7	—	1	2	—	2	—	2	148	4.0
d	94,925	559	431	23.6	18.2	0.45	11	—	5	1	2	2	1	—	114	2.1
	107,580	550	479	20.5	17.9	0.64	17	1	1	1	4	3	1	6	140	1.5
	285,089	1,610	1,316	22.6	18.5	1.26	91	—	25	13	28	6	8	11	143	0.6
	450,142	3,216	2,295	28.7	20.4	2.39	267	—	113	19	18	96	8	13	160	0.3
	432,940	3,646	1,942	33.8	18.0	1.11	120	—	16	24	11	47	10	12	136	4.1
	58,498	487	275	33.4	18.9	2.13	31	—	18	2	2	6	3	—	150	2.2
	81,268	578	332	28.5	16.4	0.84	17	1	1	1	4	8	1	1	131	0.6
igh	253,865	1,963	1,054	31.0	16.7	0.65	42	3	6	4	11	11	3	4	122	1.3
-Tees	96,084	902	463	37.4	19.2	1.50	36	—	—	4	4	8	6	14	150	1.5
pool	52,192	413	253	31.8	19.4	1.46	19	—	—	1	3	13	—	—	155	0.8
ds	69,251	548	350	31.7	20.3	2.72	47	—	5	—	4	38	—	—	188	0.9
	151,157	1,329	755	35.3	20.0	1.67	63	2	30	—	8	11	9	3	141	5.6
n-Tyne	107,334	911	469	34.0	17.5	0.67	18	2	—	1	4	4	3	4	128	6.2
	118,067	1,039	617	35.3	21.0	3.63	107	15	6	8	3	67	2	6	180	4.2
on.)	225,362	1,741	1,103	31.0	19.6	1.16	65	1	4	8	10	37	3	2	130	0.2
	53,060	498	251	37.6	19.0	0.93	12	3	1	1	1	—	3	3	129	2.0
	71,543	576	338	32.3	18.9	1.40	25	—	—	2	2	16	2	3	170	0.6
	176,313	1,332	774	30.3	17.6	1.90	84	—	29	9	16	22	—	8	160	0.1
dfil	122,310	1,274	634	41.8	20.8	2.66	81	—	25	6	8	17	8	17	186	1.4
	72,745	718	482	39.6	26.6	2.60	47	—	—	10	3	19	6	9	240	—
	95,931	745	523	31.1	21.9	3.13	75	—	—	2	3	63	2	5	219	1.1

among which the birth-rates ranged from 16.2 in Hastings, 18.8 in Bournemouth, 20.1 in Hornsey, 20.5 in Halifax, 22.6 in Bradford, and 22.8 in Handsworth (Staffs), to 36.5 in Warrington and in West Bromwich, 37.3 in St. Helens, 37 4 in Middlesbrough, 37.6 in Tynemouth, 39.6 in Merthyr Tydfil, and 41.8 in Rhondda.

During the quarter under notice 71,202 deaths were registered in these towns, corresponding to an annual rate of 18.7 per 1,000, persons living, against a rate of 17.3 per 1,000 in the first quarter of last year. In London the rate of mortality last quarter was 18.3 per 1,000, while it averaged 18.9 per 1,000 in the seventy-five other large towns, and ranged from 8.8 in Hornsey, 11.2 in Walthamstow, 12 1 in East Ham, 12.2 in Leyton, 12.5 in King's Norton, 12.9 in Willesden, and 13.7 in Handsworth (Staffs.), to 22.0 in Birmingham, 22.6 in Liverpool and in Manchester, 23 2 in Wigan, 23.8 in Warrington, 24.9 in Preston, and 26.6 in Merthyr Tydfil.

The 71,202 deaths from all causes included 6,330 which were referred to the principal infectious diseases: of these, 56 resulted from small-pox, 1,746 from measles, 447 from scarlet fever, 795 from diphtheria, 2,219 from whooping-cough, 325 from "fever" (principally enteric), and 742 from diarrhoea. The death-rate from these principal infectious diseases was equal to 1.66 per 1,000 last quarter, against 1.67 in the corresponding period of last year. In London the death-rate from these diseases was 1.62 per 1,000, while it averaged 1.69 in the seventy-five large provincial towns No death from any of the principal infectious diseases was registered last quarter in Hastings; among the other towns the rates ranged from 0 08 in Burton-on-Trent, 0 35 in Hornsey, 0 45 in Derby and in Huddersfield, 0.46 in Barrow-in-Furness, 0.47 in Southampton and in Smethwick, 0.48 in Kings Norton, and 0 56 in Bournemouth, to 2.72 in West Hartlepool. 3 00 in St. Helens, 3.13 in Swansea, 3.44 in Norwich, 3.50 in Bury, 3 63 in Grimsby, 3 83 in Preston, and 4.41 in Warrington. The 56 fatal cases of small-pox registered last quarter included 15 in Gateshead, 8 in London, 8 in Nottingham, 3 in St. Helens, 3 in Hull, 3 in Tynemouth, and 2 each in Manchester, Sunderland, and South Shields. The 1,746 deaths from measles were equal to an annual rate of 0.46 per 1,000; in London the death-rate from this disease was 0.58 per 1,000; while it averaged 0.41 in the seventy-five other large towns, among which measles showed the highest proportional fatality in Norwich, St. Helens, Warrington, Bury, Preston, Leeds, and Rotherham. The 447 fatal cases of scarlet fever corresponded to an annual rate of 0.12 per 1,000; in London the scarlet fever death-rate was only 0.07 per 1,000, while it averaged 0.14 in the seventy-five other large towns, and was highest in Northampton, Devonport, Hanley, Walsall, Warrington, Oldham, Gateshead, and Merthyr Tydfil. The 795 deaths from diphtheria were equal to an annual rate of 0.21 per 1,000; in London the death-rate from this disease was 0.18 per 1,000, while it averaged 0.22 per 1,000 in the seventy-five other large towns, among which diphtheria was proportionately most fatal in East Ham, Great Yarmouth, Bristol, Hanley, Bootle, St. Helens, Salford, and Bradford. The 2,219 fatal cases of whooping-cough corresponded to an annual rate of 0.58 per 1,000; in London the rate of mortality from whooping-cough was 0.52 per 1,000, while it averaged 0.61 per 1,000 in the seventy-five large provincial towns, among which the highest death rates from this disease were recorded in Wallasey, Liverpool, Warrington, Bolton, Bury, West Hartlepool, Gateshead, and Swansea. The 325 deaths referred to different forms of "fever" (principally enteric) were equal to an annual rate of 0.09 per 1,000; in London the rate was 0.05 per 1,000, while it averaged 0.10 in the seventy-five other large towns, among which the greatest proportional mortality from "fever" occurred in Nottingham, Burnley, Preston, Rotherham, Middlesbrough, Sunderland, Tynemouth, Rhondda, and Merthyr Tydfil. The 742 fatal cases of diarrhoea corresponded to an annual rate of 0.19 per 1,000; in London the death-rate from this disease was 0.21 per 1,000; among the seventy-five large provincial towns the highest rates were recorded in Reading, West Bromwich, Birmingham, Oldham, Middlesbrough, Rhondda, and Merthyr Tydfil.

Infant mortality, measured by the proportion of deaths among children under 1 year of age to registered births, was equal to 145 per 1,000; in London the rate of infant mortality was 136 per 1,000, while it averaged 149 per 1,000 in the seventy-five other large towns, and ranged from 81 in Hornsey, 92 in King's Norton, 95 in Tottenham, 101 in Great Yarmouth, 103 in Walthamstow and in Burton-on-Trent, and 106 in Croydon, to 177 in Burnley, 180 in Gateshead, 186 in Rhondda, 188 in West Hartlepool, 192 in Grimsby, 198 in Walsall, 207 in Preston, 219 in Swansea, and 240 in Merthyr Tydfil.

The causes of 916, or 1.3 per cent., of the deaths registered in the seventy-six towns last quarter were not certified, either by a registered medical practitioner or by a coroner. The causes of all the deaths were duly certified in Croydon, Hornsey, Tottenham, Hastings, Brighton, Bournemouth, Southampton, Great Yarmouth, Devonport, Derby, Birkenhead, and Merthyr Tydfil; while the highest proportions of uncertified deaths were registered in Northampton, Smethwick, St. Helens, Warrington, Blackburn, Barrow-in-Furness, Sheffield, Sunderland, South Shields, and Gateshead.

UNIVERSITIES AND COLLEGES.

UNIVERSITY OF OXFORD.

Examinations for the Degree of Bachelor of Medicine.

The examinations for the degree of Bachelor of Medicine will commence in the Examination Schools on Thursday, June 16th. The time table of the examinations has been published in the University *Gazette* for April 26th, 1904. The names of candidates, accompanied by the proper certificates and statutable fees, must be sent in to the Secretary to the Boards of Faculties, Clarendon Building, not later than 10.30 a.m. on Wednesday, June 1st. Forms of entry, with certificate forms, can be had on application to the Secretary.

Examination for the Degree of Master in Surgery.

The examination for this degree will commence at 10 a.m. on Thursday, June 23rd. Names must be sent in not later than 10.30 a.m. on Saturday, June 4th.

UNIVERSITY OF CAMBRIDGE.

Degrees.—At the congregation on April 28th the following degrees were conferred: *D.Sc*, *Honoris Causâ*: Professor Wilhelm Friedrich Ostwald. *M.D.*: F. A. Bainbridge, and O. F. F. Grünbaum, Trinity; A. Emerson, Caius, *M.B.*: F. R. Carroll and H. M. Joseph, Trinity; H. C. Sidgwick, Clare; R. D. Smedley, Pembroke; S. L. O. Young, Christ's; E. A. [illegible] Selwyn Hostel. *B.C.*: F. R. Carroll, H. M. Joseph, S. L. O. You[illegible], E. A. Wright.

UNIVERSITY OF LONDON.

MEETING OF CONVOCATION.

A GENERAL meeting of Convocation is appointed to be held [illegible] University on May 9th, at 5 p.m. The Chairman of Convocat[illegible] Deputy Chairman, and the Clerk of Convocation will be appoint[illegible] the three appointments the following graduates have been resp[illegible] nominated, namely: Sir E. H. Busk, Dr. T. L. Mears, and Mr. H. [illegible] LL B., B.A. The members of the Standing Committee of Con[illegible] will be elected: those of the Faculty of Medicine who ha[illegible] nominated are H. Burrows, M.B., B.S., H. J. Scharlieb, M.D., [illegible] W. H. Wilcox, M.D., B.Sc. The report of the Standing Committee [illegible] presented. This relates almost entirely to the regulations for th[illegible] the library of the university, which are recommended by the Co[illegible] for adoption by Convocation. A resolution will be also su[illegible] relating to the date of the LL D. examination.

UNIVERSITY COLLEGE.

Neurological Lectures.—A course of advanced lectures on the T[illegible] the Brain are being given by Dr. W. Page May, F.R.C.P., Lecture[illegible] College, on Wednesdays, at 5 p.m., in the Physiological Theat[illegible] first lecture was delivered on Wednesday, May 4th. The course [illegible] comprised in ten lectures, and is open without fee to all internal [illegible] of the University.

GUY'S HOSPITAL MEDICAL SCHOOL.

A course of twelve lectures by the Gordon Lecturer, A. E. Boyce, [illegible] M.B., B.Sc, on Experimental Pathology, was commenced in the [illegible] logical Theatre on May 5th, and will be continued on subsequent [illegible] days at 4 p.m. These lectures are open to students of the medical [illegible] of the University and to members of the medical profession.

ROYAL COLLEGE OF PHYSICIANS OF LONDON.

AN ordinary quarterly comitia was held at the College on Thursday [illegible] 28th, the President, Sir William S. Church, in the chair.

REPORT ON BERI-BERI.

The President announced that a letter had been received fr[illegible] Board of Trade asking permission for the report of the College [illegible] subject of beri-beri to be printed and circulated amongst the resp[illegible] mercantile authorities. On the motion of the President, permiss[illegible] granted.

DIPLOMAS AND LICENCES.

The following gentlemen were admitted Members of the College: [illegible] Graham Forbes, M.A., M.D.Cantab.; Donald George Hall, M.A. [illegible] Cantab., L.R.C.P.; Charles Christopher Heywood, M.A., M.D. [illegible] L.R.C.P.; George Mackay MacDonald, B.A., M.B.Cantab., L.R.C.P.; [illegible] Sommerville, B.A., M.D.Roy. Univ. Irel.; Edward Turton, M.[illegible] L.R.C.P.

In conjunction with the Royal College of Surgeons Licence [illegible] granted to 99 gentlemen.

The quarterly report of the Examiners for the Licence was recei[illegible]

MURCHISON SCHOLARSHIP

On the report of the Examiners, the Murchison Scholarsh[illegible] awarded to Mr. W. H. Harwood-Yarred, a student of St. T[illegible] Hospital.

ELECTION OF FELLOWS.

The following gentlemen were elected Fellows of the College [illegible] nomination of the Council: Edward Johnstone Jenkins, M.D. [illegible] William John Gow, M.D.Lond.; Thomas Robert Bradshaw, M.D. [illegible] Edmund Henry Colbeck, M.D.Cantab.; Arthur John Hall, M.B.C[illegible] John Francis Harpin Broadbent, M.D.Oxon.; Bertram Louis Abr[illegible] M.B.Lond.; Charles Arthur Mercier, M.B.Lond.; William Cecil [illegible] quet, M.D.Oxon.; Arthur Carlyle Latham, M.D.Oxon.

Communications.

Communication were received from:

1. The Secretary of the College of Surgeons, reporting certain p[illegible] ings of the Council on April 14th.

2. Lady Clark, offering for the acceptance of the College a mar[illegible] of the late Sir Andrew Clark, Bart., by H. Bain Smith, 1888. The g[illegible] accepted, and a cordial vote of thanks passed to Lady Clark.

3. The Lister Institute, inviting the College to allow its Presider[illegible] nominated, *ex officio*, a member of the Council. The invitati[illegible] accepted.

Reports of Committee of Management.

The following reports were received from the Committee of M[illegible] ment:

1. A report, dated March 21st, regarding the desirability of cea[illegible] require additional certificates of hospital attendance or instructio[illegible] candidates rejected at the Third or Final Examination of the C[illegible] Board. On the recommendation of the Committee it was agreed t[illegible] the following note after Paragraph XVIII, Section II, of the Regul[illegible] "A candidate who possesses a registrable qualification is admiss[illegible] re-examination without producing evidence of attendance on addi[illegible] hospital practice."

2. It was further agreed, on the recommendation of this Com[illegible] that the Simon Langton Schools, Canterbury, be added to the [illegible] institutions recognized by the Examining Board in England for in[illegible] tion in chemistry, physics, and practical chemistry.

3. Report, dated April 11th, recommending that the St. Paul's E[illegible] Ear Hospital, Liverpool, be added to the list of Ophthalmic Ho[illegible] recognized by the Examining Board in England. This was agreed [illegible]

4. Report, dated April 20th, on the question of granting diplo[illegible] tropical medicine. After a lengthy discussion, the recommendat[illegible] the Committee were not adopted.

Report of Laboratories Committee.

The Committee, under date March 4th, reported:

(*a*) That during the three months ending December 4th, 6,245 d[illegible] diphtheria antitoxin, each containing 3,000 units, had been suppl[illegible] the hospitals of the Metropolitan Asylums Board, making a total of 18,[illegible] units.

(*b*) That during the quarter further batches of antitoxin suppli[illegible] Messrs. Parke, Davis and Co., had been tested in the laboratory,

ate granted showing its strength, sterility, and freedom from of antiseptic.

hat Dr. Brodie had collected one volume of papers relating to ches carried out in the laboratories during the early period tenure of office, and hopes shortly to be in a position to second volume containing the papers published during the later

hat as it had not been found possible to compile a volume of papers hed during Professor Woodhead's term of office as director, the ry has been requested to print an index of all papers issued from oratories, with references, where known, to the publications in they appeared.

Library.

books and other publications presented to the Library during the uarter were received, and thanks returned to the donors.

VICTORIA UNIVERSITY OF MANCHESTER.

The Merging of Owens College.

niversity of Manchester Bill, an unopposed measure, which trans- e property and liabilities, and in fact merges Owens College in the sity of Manchester, which has passed through the House of Lords, fore the Chairman of Committees in the House of Commons on th. The necessary proofs were given by the Vice-Chancellor and Parliamentary agents. It was stated that certain minor amend- uggested by the Board of Education and by the Attorney-General en adopted by the Council and Court of the University. The Bill dered to be reported for third reading.

The Medical School.

illiam Stirling, Professor of Physiology, has been appointed by ncil to the office of Dean of the Medical School.

rofessor Tom Jones Exhibition in Anatomy has been gained by . Todd.

ROYAL COLLEGE OF SURGEONS IN IRELAND.

Election of Examiners.

eeting of the President, Vice-President, and Council held on , May 3rd, the following were elected to examine for the various In Anatomy, Ambrose Birmingham, Alexander Fraser. In , F. Conway Dwyer, Andrew Fullerton, Thomas E. Gordon, R. oynt. In Physiology and Histology, E. L'E Ledwich, Charles ger. In Biology, John J. Burgess. In Ophthalmology, Arthur H. , Patrick W. Maxwell. In Pathology and Bacteriology, Arthur n White. In Pathology, Robert Allen. In Midwifery and Gynae- Frederick W. Kidd. In Sanitary Law and Vital Statistics, Caleb J. In Engineering and Architecture, J. Charles Wilmot. In Surgery and Pathology, Daniel L. Rogers, William G. Story. In ical Dentistry, George M. P. Murray, William Booth Pearsall. In try and Physics, Edwin Lapper, Robert J. Montgomery In Lan- L. J. Woodroffe. In Mathematics, Physics, Dictation, and English . W. Tristram.

DICAL VACANCIES AND APPOINTMENTS.

VACANCIES.

of vacancies is compiled from our advertisement columns, where full lars will be found. To ensure notice in this column advertisements e received not later than the first post on Wednesday morning.

VE HOSPITAL FOR CHILDREN, Clapham Road, S.W.—Resident Medical . Salary at the rate of £40 per annum.

L GREEN INFIRMARY.—Assistant Medical Officer, resident. Salary, £100 num.

T: LEBANON HOSPITAL FOR THE INSANE.—Medical Superintendent, at. Salary for first year £250.

HAM AND MIDLAND HOSPITAL FOR SKIN AND URINARY DISEASES. cal Assistant. Honorarium, 52 guineas per annum.

HOSPITAL FOR WOMEN, Fulham Road.—Clinical Assistant.

HOSPITAL, Whitechapel, E.—Surgical Registrar.

HOSPITAL FOR SICK CHILDREN, Southwark.—House-Surgeon, resi- Salary, £80 per annum.

ENERAL INFIRMARY.—House-Physician, resident.

BA UNIVERSITY.—Professorships of Botany, Physics, Chemistry, and logy. Salary, 2,500dols.

VERNON HOSPITAL FOR CONSUMPTION, Hampstead.—Surgeon rologist.

ASTERN HOSPITAL FOR CHILDREN, Hackney Road, E.—(1) House- an. (2) Two House-Surgeons. Salary in each case at the rate of £60 per

H: NORFOLK AND NORWICH HOSPITAL.—House-Physician; resident. £80 per annum.

INFIRMARY.—Senior House-Surgeon, resident. Salary, £100 per annum.

DISTRICT ASYLUM, Murthly.—Assistant Physician, resident. Salary, £110 num.

TH: SOUTH DEVON AND EAST CORNWALL HOSPITAL.—House- n, resident. Salary, £100 per annum.

REE HOSPITAL, Gray's Inn Road, W.C.—(1) Clinical and Assistant Patholo- (2) Junior Obstetric Assistant.

AN FREE HOSPITAL FOR WOMEN, Marylebone Road, N.W.—Clinical nts.

OF APOTHECARIES OF LONDON.—Examiner in Medicine.

AM HOSPITAL.—House-Surgeon, resident Salary, £90 per annum.

BERG ASYLUM, near Capetown.—Assistant Medical Officer, resident. Salary, sing to £300 per annum.

HOSPITAL FOR CHILDREN, Tite Street, S.W.—House-Surgeon, resident. tment for six months. Honorarium, £25.

UNTY HOSPITAL.—House-Physician, resident. Salary, £100 per annum.

APPOINTMENTS.

W., M.B., C.M.Glasg., Medical Officer of Health to the Aberdeen Town , *vice* William Findlay, M.D

Wilfred A., M.R.C.S., L.R.C.P., House-Surgeon at the Kent and Canterbury l

William, M.B.Toronto, Clinical Assistant to the Chelsea Hospital for n.

S., M.R.C.S., L.R.C.P.Lond., District Medical Officer of the Sheffield

Charles A., M.D.St.And., F.R.C.S.I., L.D.S.R.C.S., Assistant Dental Surgeon Bristol Royal Infirmary.

A., M.R.C.S., L.R.C.P.Lond., District Medical Officer of the Bridge Union.

H. W., M.D.Lond., L.R.C.P., M.R.C.S., D.P.H., Surgeon to the North y Hospital, Middlesbrough.

JAMES, F. C., M.B.Durh., D.P.H., Medical Officer of Health Hoxne Rural District and District Medical Officer and Public Vaccinator for the Fressingfield District, *vice* Samuel Kirby, M.D. resigned

THOMSON, A., M.B., District Medical Officer of the Barnsley Union.

TURNER, P. D., M.D., Medical Officer of Health for the Borough of Ryde.

DIARY FOR NEXT WEEK.

MONDAY.

Medical Society of London, 11, Chandos Street, Cavendish Square, W., 8 p.m.—General Meeting, Election of Officers and Council for Session 1904-5. 8.30 p.m., Ordinary meeting. Dr. F. J. Poynton: A Study of a Case of Rheumatic Fever, with Lantern Demonstration. Mr W. H. Clayton-Greene: The Influence of Early Operation on the Mortality and Results of Appendicitis.

TUESDAY.

Royal Medical and Chirurgical Society, 20, Hanover Square, W., 8.30 p.m.—Dr. Chalmers Watson: The Effects of a Proteid Dietary (raw meat)—an experimental and clinical study. Dr. Herbert French: Leucocyte Counts in eighty-three Cases of Appendicitis. The Limitations of Leucocytosis as an Indication for Laparotomy.

WEDNESDAY.

Dermatological Society of London, 11, Chandos Street, Cavendish Square, W., 5.15 p.m.—Demonstration of cases of interest.

South-West London Medical Society, Bolingbroke Hospital, Wandsworth Common, S.W., 8.45 p.m.—Dr. E. Furniss Potter on Observations on the Removal of Adenoids.

THURSDAY.

Harveian Society of London, Stafford Rooms, Titchborne Street, Edgware Road, W., 8.30 p.m.—Dr. James Taylor: Combined Sclerosis in the Spinal Cord associated with Blood States. Dr. Edward Squire: Common Errors in the Physical Examination of the Chest.

British Gynaecological Society, 20, Hanover Square, W., 8 p.m.—Discussion on Dr. Macnaughton-Jones's paper, The Dangers of Pessaries. Specimens will be shown by the President and others.

FRIDAY.

Epidemiological Society, 11, Chandos Street, Cavendish Square, W., 8.30 p.m.

British Laryngological, Rhinological and Otological Association, 11, Chandos Street, Cavendish Square W., 4.30 p.m.—Cases will be shown by Dr. Fred. Spicer, Dr. Kelson, and Mr. Mayo Collier. Adjourned discussion on Mr Mayo Collier's paper, Latent or Intermittent Nasal Obstruction, to be opened by Dr. Sim Wallace and Dr. Hemington Pegler. Communication on Pachydermia Laryngis with Lantern Demonstration, by Dr. W. Jobson Horne.

Clinical Society of London, 20, Hanover Square, W., 8.30 p.m.—Dr. Stanley Green and Dr. W. H. B. Brook: Cases Illustrating the Value of the Roentgen Rays as a Factor in the Diagnosis of Early Pulmonary Tuberculosis. Dr. E. A. Peters (introduced by Mr. C. J. Symonds): Notes on Two Cases Illustrating Some of the Advantages and Disadvantages of X-Ray Treatment in Recurrent Breast Cancer. Dr. H. E. Thompson and Dr. C. U. Aitchison (introduced by Dr. Percy Kidd): Two Cases of Tumour of the Left Auricle Simulating Mitral Stenosis.

POST-GRADUATE COURSES AND LECTURES.

Charing Cross Hospital, Thursday, 4 p.m.—Demonstration of Surgical Cases.

Hospital for Sick Children, Great Ormond Street, W.C., Thursday, 4 p.m.—Lecture on Cerebellar Disease in Children.

Medical Graduates' College and Polyclinic, 22, Chenies Street, W.C.—Demonstrations will be given at 4 p.m. as follows: Monday, Skin; Tuesday, Medical; Wednesday, Surgical; Thursday, Surgical; Friday, Eye. Lectures will be delivered at 5.15 p.m., as follows: Monday, Diseases of the Lymphatic System; Tuesday, the Relationship of Syphilis to Insanity; Wednesday, Personal Hygiene; Thursday, The Principles of Abdominal Diagnosis.

Mount Vernon Hospital for Consumption and Diseases of the Chest, 7, Fitzroy Square, W., Thursday, 5 p.m.—Lecture on the Physical Examination of the Chest.

National Hospital for the Paralysed and Epileptic, Queen Square, W.C.—Lectures will be delivered at 3.30 p.m. as follows: Tuesday, Tabes Dorsalis; Friday, Paraplegia.

North-East London Post-Graduate College, Tottenham Hospital, N., Thursday, 4.30 p.m.—Lecture on Motor Paralysis.

Post-Graduate College, West London Hospital, Hammersmith Road, W.—Lectures will be delivered at 5 p.m. as follows: Monday, Sedatives in Mental Diseases; Tuesday, X Rays (illustrated by lantern slides); Wednesday, Disorders of Menstruation Thursday, Affections of the Bronchi; Friday, Administration of Anaesthetics.

BIRTHS, MARRIAGES, AND DEATHS.

The charge for inserting announcements of Births, Marriages, and Deaths is 3s. 6d., which sum should be forwarded in post-office orders or stamps with the notice not later than Wednesday morning, in order to ensure insertion in the current issue.

MARRIAGES.

DENSHAM—SOPER.—On April 30th, 1904, at All Saints' Church, Devonshire Road, S.W., by the Rev. Canon Allen Edwards, Vicar of the Parish, and Rural Dean of Kennington, assisted by the Rev. T. W. Ketchlee, Vicar of St. Mark's, St. Helens, Lancs., Alec Densham, M.B.Lond., of Woodville, Worthing, son of Benjamin Densham, of Bramley Croft, Hindhead, to Alice Marian, daughter of William Soper, M.R.C.S., L.S.A., of 307, Clapham Road, S.W.

KELYNACK—MCLAREN.—On April 27th, at St. Stephen's, East Putney, S.W., by the Rev. Innes B. Wane, M.A., assisted by the Rev. Canon Barker, M.A., and Rev. A. Rouse, M.A., T. N. Kelynack, M.D., M.R.C.P. of 120, Harley Street, Cavendish Square, W., eldest son of the Rev. N. Kelynack, to Clara Violet McLaren, M.B., B.S.Edin., only daughter of the late James Grieve McLaren, of Calcutta, and granddaughter of David McLaren, J.P., D.L., of Rydal House, East Putney, S.W.

PHILLIPS—GROMME.—On April 28th, at St. James's Church, Birch, Manchester, by the Rev. J. J. Scott, M.A., Canon of Manchester, assisted by the Rev. F. G. Millar, M.A., Vicar of Billinge, Wigan, and the Rev. G. F. Buller, M.A., Rector of the parish, Hugh Richard Phillips, M.D., of 28, Palace Court, London, E., only son of G. Turner Phillips, J.P., to Helen Minnie (Nellie), youngest daughter of Louis Grommé, of Regent House, Victoria Park, Manchester.

SPURRIER—STOCKS.—On April 27th, at All Saints' Church, South Lambeth, by the Rev. Canon Allen Edwards, Rural Dean of Kennington, assisted by the Rev. Bearden Shewell, B.A., Steven Spurrier, only son of John Walter Spurrier, Esq., of Greenhithe, Kent, to Gertrude Stocks, eldest surviving daughter of Frederick Stocks, M.R.C.S.Eng., etc., of "Courland," 421, Wandsworth Road, Clapham, S.W.

WILSON—MILLER.—At the Grand Hotel, Glasgow, on April 30th, by the Rev. A. J. Robertson, D.D., Clackmannan, assisted by the Rev. John Wilson, M.A., Partick (uncle of the bridegroom), John Horne Wilson, M.D., of 7, Ladbroke Square, W., to Christie, daughter of John Miller, Esq., Grassmailston, Alloa.

DEATHS.

WHITFIELD.—On April 25th, at Monrovia, California, U.S.A., aged 29, Lorenzo Whitfield, M.R.C.S., L.R.C.P., eldest son of Edwin and Mary Hannah Whitfield, of The Hollies, Coventry Road, Small Heath. (By cable.)

MICKLE.—On April 20th, George Mickle, M.A., M.B., C.M., eldest son of the late Dr. David Mickle, of Kirklington, Yorkshire. Deeply regretted.

LETTERS, NOTES, AND ANSWERS TO CORRESPONDENTS.

COMMUNICATIONS respecting Editorial matters should be addressed to the Editor, 2, Agar Street, Strand, W.C., London; those concerning business matters, advertisements, non-delivery of the JOURNAL, etc., should be addressed to the Manager, at the Office, 429, Strand, W.C., London.

ORIGINAL ARTICLES and LETTERS *forwarded for publication are understood to be offered to the* BRITISH MEDICAL JOURNAL *alone, unless the contrary be stated.*

AUTHORS desiring reprints of their articles published in the BRITISH MEDICAL JOURNAL are requested to communicate with the Manager, 429, Strand, W.C., on receipt of proof.

CORRESPONDENTS who wish notice to be taken of their communications should authenticate them with their names—of course not necessarily for publication.

CORRESPONDENTS not answered are requested to look at the Notices to Correspondents of the following week.

MANUSCRIPTS FORWARDED TO THE OFFICE OF THIS JOURNAL CANNOT UNDER ANY CIRCUMSTANCES BE RETURNED.

IN order to avoid delay, it is particularly requested that ALL letters on the editorial business of the JOURNAL be addressed to the Editor at the Office of the JOURNAL, and not at his private house.

TELEGRAPHIC ADDRESS.—The telegraphic address of the EDITOR of the BRITISH MEDICAL JOURNAL is *Aitiology, London.* The telegraphic address of the MANAGER of the BRITISH MEDICAL JOURNAL is *Articulate, London.*

TELEPHONE (National):—
EDITOR, 2631, Gerrard.
GENERAL SECRETARY AND MANAGER, 2630, Gerrard.

☞ *Queries, answers, and communications relating to subjects to which special departments of the* BRITISH MEDICAL JOURNAL *are devoted will be found under their respective headings.*

QUERIES.

WE would request correspondents who desire to ask questions in this column not to make use of such signatures as "A Member," "A Member B.M.A.," "Enquirer," and so on. By attention to this request much confusion would be avoided. Correspondents are asked to write upon one side of the paper only.

PATER asks to be recommended a school for a boy aged 14, in a healthy situation, giving a liberal classical education and possessing a good moral tone. The fees to be from £50 to £70 a year.

RESTORATION OF NAME TO "MEDICAL REGISTER."

INDEX would be glad to known if the General Medical Council has a legal right to impose a fee of £1 upon practitioners desirous of "restoration" to the *Medical Register* since the provision respecting restoration in the Medical Act, 1858 (Section XIV) does not mention any fee whatever? As all other imposed fees are specifically mentioned in the said Act "Index" is of opinion a restoration fee is illegal.

ANSWERS.

RAISED SCARS AFTER VACCINATION.

W. P. F. writes: Dr. Rentoul, in the BRITISH MEDICAL JOURNAL for February 6th, mentions four cases of raised vaccination scars, presumably amongst Europeans; and Dr. Hoyle alludes to the frequency of this condition amongst Asiatics. I have lately seen one case in a European girl of 15 corresponding in every respect to those described by Dr. Rentoul, except that in her case what was at first a feeling of itching has become one of actual pain when the scar is rubbed against or touched with the finger. She was vaccinated in June, 1903, and mentions that a school friend who was vaccinated at the same time has a similar condition of the scar, which is painful on a hot day. Calf lymph was used in each case. I have never come across this condition before in Cape Colony, although I have made particular examination of vaccination marks in over 1,500 candidates for employment on the Cape Government railways. These include Europeans, Cape Boys (coloured), and Kaffirs. I do not know if any clue can be discovered in the remark made to me by the above-mentioned patient: "Dr. —— told us that he would give us more, because the time before when we were vaccinated it did not take," or in the fact that she suffers from anaemia, has an anaemic *bruit*, and breaks out into purple spots after a bath.

A BITTER CUP.

E. E.—The wooden cup imparting a bitter tasted to water which our correspondent possesses is in all probability one of the quassia cups in common use in the early part of the 19th century; the turnings produced in their manufacture were used in pharmacy. The fact that water must now be allowed to remain in the cup before it becomes perceptibly bitter indicates that the surface is becoming exhausted and that deeper penetration is now necessary in order to extract any bitter principle. They are still in common use in Turkey.

THE TREATMENT OF HAY FEVER.

GOLF CLUB.—The method of employing Professor Dunbar's antitoxin in hay fever was described by Sir Felix Semon in the BRITISH MEDICAL JOURNAL of July 18th, 1903, to which we would refer our correspondent. The method is still in the experimental stage. It is not put forward by Professor Dunbar as a lasting cure, but as an antidote against the attack. The serum is applied locally to nose and eyes each time, during the hay-fever period, when the premonitory symptoms are felt, and must be repeated as often as they recur. The approximate cost, therefore, can hardly be stated; but one serum phial with empty tube and pipette costs 10s., and if used several times daily will last for two or three days only.

LETTERS, COMMUNICATIONS, ETC., have been received from:

A Messrs Andrus and Andrus, London; Mr. A. H. Allen, Sheffield; Mr. H. E. Allen, London; J. W. Allan, M.B., Glasgow. **B** Mr. J. R. Benson, Bath; Dr. J. W. Byers, Belfast; Miss E. C. Barton, London; Mr. W. A. Berridge, Redhill; Mr. W. P. Briggs, Aspatria, Mr. L. A. Bidwell, London; J. W. Batterham, M.B., St. Leonards-on-Sea; Dr. F. M. D. Berry, London; Dr. R. C. Buist, Dundee; British Gynaecological Society, Secretary of, London; Dr. C. E. Beevor, London; Dr. W. Bruce, Dingwall; Dr. F. G. Bushnell, Plymouth. **C** A. Cox, M.B., Gateshead; Mr. F. W. Collingwood, London; Mr. A. Corner, London; Mr. W. S. Chidley, Melbourne; Dr. S. W. Carruthers, London. **D** Mr. C. Drummond, London; D. C. W.; Deltoid; Mr. P. Donnellan, Castlerea; D. A. Davies, M.B., Swansea; Dr. T. Dutton, London; Disappointed Sahib; Mr. F. ... Merton; Dr. P. V. Dodd, Folkestone; Dr. E. le J. de Segrais, Paris. **E** Rev. R. I. ... London. **F** Dr. D. Forbes, Manchester; H. M. Fletcher M.B., Pontypridd; ... E. R. Fothergill, M.B., London; Dr. P. C. Franze, Bad Nauheim. **G** Dr. J. H. G... London; Dr. W. Gray, West Hartlepool; Dr. E. W. Goodall, London; General Practit... Golf Club; Dr. J. Galloway, London; Glasgow Obstetrical and Gynaecological S... Secretary of, Glasgow. **H** Dr. J. Haddon, Hawick; Mr. E. Horder, London; ... Houston, London; Dr. A. R. Henchley, Canterbury; Mr. E. J. Hinvest, Devon; Dr. E. B. Hastings, London; Harveian Society, Secretary of, London; N. B. Ha... M.B., London. **J** Mr. H. Jones-Roberts, Penygroes; Dr. A. James, London; ... G. P. Johnson, Stoke-on-Trent; Dr. H. M. Jones, London; Dr. J. H. Jones, Ne... Mon. **K** C. Killick, M.B., Maidstone; Mr. J. Keen, Folkestone; Dr. R. Ker... Glasgow. **L** Laryngological Society, Secretary of, London; Mr. W. P. Le F... Bulawayo; Dr. A. E. Larking, Folkestone. **M** Mr. W. J. Morton, London; ... Martin, North Shields; Dr. D. Mackwan, Dundee; Mr. H. H. B. Ma... Shrewsbury; Mr. P. O. Malabre, Richmond Jamaica; Dr. C. J. Morton, Waltham... Mr. J. MacMann, London; Mr. J. Mackenzie, Inverness; Dr. A. N. Mc... Glasgow; Dr. J. E. Moorhouse, Stirling; Messrs. Mawson, Swan and Ma... Newcastle-on-Tyne; R. C. B. Maunsell, M.B., Dublin; J. C. McConaghey, ... Macclesfield; Mr. R. W. Murray, Liverpool; Dr. E. J. McWeeney, Dublin; Mr. ... Mayne, Swindon; Member; A. Murchison, M.B., Uig. **N** J. H. Nicoll, ... Glasgow; B. H. Nicholson, M.B., Colchester. **O** Dr. G. Oliver, Farnham; ... O'Meara, M.B., Skibbereen. **P** W. H. Peacock, M.B., York; Price's Patent Candle... Manager of, London; Mr. R. B. Pilcher, London; Dr. T. A. Palm, Wigton; Dr. ... Poynton, London; Mr. H. J. Prangley, London. **R** A. G. Robb, M.B., Belfast; ... J. A. Russell, Edinburgh; Mr. W. P. Reynolds, London; Renal Casts; Dr. H. R... Ashford; Messrs. L. Rose and Co., London. **S** Dr. G. A. Sutherland, London; ... Sharp, Newark on Trent; Senex; Mr. R. Slocock, Spilsby; Dr. R. H. Stern, Chichester; Sweated; Mr. W. Salt, London; Dr. C. E. Skinner, New Haven, Conn. **T** J. H. T... M.B., Manchester; Mr. T. J. Tonkin, Chard. **V** Dr. G. Variot, Paris. **W** Dr. T. W... Birmingham; Mr. A. H. White, Dublin; Messrs. H. R. Williams and Co., London; ... T. J. Wood, Bradford; Mr. M. Woodward, Pershore; Dr. A. A. Warden, Paris; ... A. G. Welsford, Hemel Hempstead; Dr. F. Willcocks, London; Dr. E. W. A. W... Oxford; Walker-Gordon Laboratories, Manager of, London. **X** Dr. E. S. ... Manchester.

BOOKS, ETC., RECEIVED.

Manuel pour l'Etude des Maladies du Système Nerveux. Par le Dr. Maurice de Fleury. Paris: Felix Alcan. 1904. Fr. 25.

Das Kropfherz und die Beziehungen den Schilddrüsenerkrankungen zu dem Kreislaufapparat. Von Dr. W. Minnich. Leipzig und Wein: Franz Deuticke. 1904. M. 4.50.

School and Home Hygiene. By W. J. Abel, B.A. New Edition. London: Longmans, Green and Co. 1904. 4d.

The Unlucky Golfer, His Handbook. By Maurice C. Hime M.A., LL.D. London: Simpkin, Marshall, Hamilton, Kent and Co.; and Dublin: Wm. M'Gee. 1904. 6d.

Fanny Hare: Her Dream; or, A Plea for Cheerfulness. By Maurice C. Hime, M.A., LL.D. London: Simpkin, Marshall, Hamilton, Kent and Co.; and Dublin: Wm. M'Gee. 1904. 6d.

Orthmann's Handbook of Gynaecological Pathology. Translated by C. Hubert Roberts, M.D. Lond., F.R.C.S. Eng., M.R.C.P., assisted by Max L. Trechmann, F.R.C.S. Eng., M.B., C.M. Edin. London: John Bale, Sons and Danielsson, Ltd. 1904. 5s.

The Knights Hospitallers in Scotland and their Priory at Torphichen. By George Thomas Beatson, M.D., C.B. Glasgow: James Hedderwick and Sons. 1903. 2s. 6d.

Atlas and Epitome of Operative Gynaecology. By Dr. Oskar Shaeffer. Translation edited by J. Clarence Webster, M.D. Edin., F.R.C.P.E., F.R.S.E. Philadelphia, New York, and London: W. B. Saunders and Co. 1904. 13s.

Obstetrics for Nurses. By Joseph B. De Lee, M.D. Philadelphia, New York, and London: W. B. Saunders and Co. 1904. 12s.

Treatise on Diseases of the Skin. By Henry W. Stelwagon, M.D., Ph.D. Third Edition. Philadelphia, New York, and London: W. B. Saunders and Co. 1904. 25s.

The Meaning of a Modern Hospital. By W. Bruce Clarke, M.A., M.B. Oxon., F.R.C.S. London: Longmans, Green and Co. 1904. 1s.

Die Buchführung im Apothekenbetriebe. Von Dr. Josef Barber und Valerian Schestauber. Wien und Leipzig: A. Hartleben. 1904. M. 3.

The Elements of Chemistry. By ... Pattison Muir, M.A. London: ... A. Churchill. 1904. 10s. 6d.

Archives of the Middlesex Hospital. ... Second Report from the Cancer Research Laboratories. Edited for the Cancer Investigation Committee by Alexander G. R. Foulerton, F.R.C.S. London: Macmillan and Co. 1904.

A Medical Debate on Vaccination ... Société Médicale des Praticiens de ... (translated from "Le Médecin ... Brussels). London: P. S. King and ... 1904. 2d.

Bains de Mer d'Angleterre. Par le ... Labat. Paris: J. B. Baillière et ... 1904.

Vorlesungen über den Bau der nervösen Zentralorgane des Menschen und der Tiere. Von Prof. Dr. Ludwig Edinger. Erster Band. Das Zentralnervensystem des Menschen und der Säugetiere. Leipzig: F. C. W. Vogel. 1904. M. ...

On the Best Method of Sewage Disposal for Small Communities. By F. ... Stoddart. Bristol: J. Wright and ... 1904. 6d.

A Textbook of Physiology. By Isaac ... A.M., M.D. Philadelphia: F. A. ... Co. 1904. 3.00 dol.

Beiträge zur Klinik der Tuberkulose. Herausgegeben von Dr. Lucius Brauer. Band ii. Heft 3. Wurzburg: C. Kabitzsch. 1904. M. 2.50.

Les Maladies de la Nutrition. Lee Maladie de l'Estomac. Par Albert ... Deuxième Edition. Paris: J. B. ... 1904.

Scientific Memoirs by Officers of the Medical and Sanitary Departments of the Government of India. New Series. No. 8. A Preliminary Report on a Parasite Found in Persons Suffering from Enlargement of the Spleen in India. By Lieut.-S. R. Christophers, I.M.S. Calcutta: Office of Superintendent of Government Printing. 1 rupee 8 annas.

The Wisdom of the East. Sayings of Kung the Master. Selected by Allen Upward. London: The Orient Press. 1904.

Bournemouth. Edited by George W. ... London: The Health Resorts Association. 1904.

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Remarks
ON
E INFECTIVE NATURE OF RHEUMATIC FEVER,

ILLUSTRATED BY THE STUDY OF A FATAL CASE.

Read before the Medical Society of London, May 9th, 1904.

By F. J. POYNTON, M.D., F.R.C.P.Lond.,
stant Physician, University College Hospital and Hospital for Sick Children, Great Ormond Street.

PRESIDENT AND GENTLEMEN,—I have the honour of ging before you to-night the results of an investigation a fatal case of rheumatic fever in a child; I also wish to py some of your time in a consideration of the statement rheumatic fever is an infective disease.

I.—CASE AND COMMENTARY.

e case is the twenty-fifth fatal one that I have investi-d, 24 of which were studied jointly with Dr. A. Paine; it rare example of an illness, which it was possible to w over a period of many months, to investigate care- after death, and finally to elucidate by experimental rch. I have to thank my colleague, Dr. W. S. Colman, one time or another I have had to thank all my medical agues at the Hospital for Sick Children, Great Ormond et, for permission to make use of some of the notes of llness. Let me first say that it is not my intention to y you with irritating clinical or *post-mortem* details, and escriptions that I shall give will only bear upon practical ts, and upon facts which need due emphasis.

History of Early Attack.

July, 1902, a delicate little girl, aged 9, was brought to out-patient department suffering from chorea; the k was moderate in severity, general in its distribution ordinary in its type. Unfortunately there was active t disease; the mitral valve was damaged, and the action e heart was rapid and excited. It was clear that imme- rest was essential, and she was at once admitted into ospital.

is was her first attack of rheumatic fever. It had com-ed six weeks previously with vomiting and pains in the s; a week before admission there had been painful ings of the wrist-joints, and the last symptom to make ppearance had been the chorea. There was no family ry of rheumatism.

the hospital a more detailed examination of the heart ed that there was considerable dilatation, and that there lso a to-and-fro murmur at the apex; the systolic element is murmur was loud and blowing, and could be traced the axilla. Her stay in the hospital was uneventful, and, a further rest in a convalescent home, occupied fourteen s. After this she returned to me, and I found that the a was cured, but that the condition of the heart was isfactory, its action was still rapid, and the systolic nur was distinct. Rest and medical treatment were con-d at home, with slow improvement, and the child ted herself to me at least once a month.

May, 1903, the *bruit* had disappeared, and at the apex a short first sound and normal second sound were le. I mention this fact because the disappearance of mitral murmur could neither have meant that the valve completely recovered its natural state, nor could it have t that the *bruit* was the result of dilatation of the left icle, and not the result of an endocarditis. The attack, nk, had been too severe and too obstinate for either of explanations to be probable, and I had little doubt that isappearance of the *bruit* was to be interpreted as the ncement of mitral stenosis. For this reason I watched ase with particular interest.

History of Fatal Illness.

ortunately, in June her mother fell ill, and did not the child again until August 17th. She was then so worse that she was at once admitted into the hospital Dr. Colman.

history of this latter illness was as follows. Fourteen previously she had complained of pain over the heart all the limbs; she had looked cyanosed, and had felt nd shivery, and, as in the former illness, had suffered attacks of vomiting.

On admission her temperature was 103.8°, her pulse 140, and her respirations 40. There was great cardiac distress, but, although the heart was greatly enlarged, there were no signs of pericarditis. The prominent feature on examination was a singularly loud systolic murmur in the mitral area. Examination of the lungs showed nothing definite. The spleen was enlarged and tender, the liver was enlarged, and the urine was albuminous. The temperature, in the two-hourly chart, showed irregular fluctuations; in the four-hourly, a continuous and moderate pyrexia. While in the hospital, the prominent symptoms were rapid anaemia, sweating, and abdominal pain. Ten days after admission she died suddenly.

This illness appeared to me to be an example of that form of endocarditis of rheumatic origin which is comparatively rare in childhood, and which may be called the malignant rheumatic form. For looking upon rheumatic fever as an infective disease, I recognize three types of endocarditis.

The first, simple endocarditis. In this the micro-organisms in the valve either cease to be active, or are destroyed by the living cells of the tissues.

The second, the fibroid type, as in mitral stenosis. In this the infection is persistent, but the resistance of the tissues is great. This type was greatly elucidated by a distinguished former President of this Society, Dr. Sansom.

The third, the malignant type. In this the micro-organisms grow in countless numbers in the valve; the vegetations may be either large or small, and the resistance of the tissues is feeble.

In this case the diagnosis of malignant endocarditis was based upon the presence of infarction with severe endocarditis, of irregular fever and rapid anaemia, and upon the absence of any true evidence of pericarditis.

Post-mortem Investigation.

I was fortunate enough to obtain permission to make an examination immediately after death, and I had the necessary apparatus at hand, and the assistance of Dr. Neave, the clinical pathologist, and Mr. Langmead, the house-physician. A bacteriologist will understand the real value of such an opportunity, which is only too rare.

The method of investigation will need only a very brief description:

1. The pericardium was exposed, dried, and seared, and two Pasteur pipettes were passed—one into the pericardial cavity, the other into the left ventricle. The pericardial exudation was clear. This and the blood from the heart were added to culture media of alkaline broth and milk.

2. The pericardium was opened. Then a thread was passed through the muscle at the apex, and the heart was pulled out and its posterior aspect exposed. This surface was dried and seared, and the left auricle and ventricle opened by one sweep of a heated knife. Assistants then held the walls open with sterilized forceps, and the mitral valve was exposed, covered with blot clot. The valve and clot were cut out and placed in the media, and another piece of the valve was put at once in fixative.

3. Cultures were taken from (*a*) the lungs, (*b*) the kidneys, (*c*) the spleen, (*d*) the gall bladder.

4. Films were made from these organs and the exudations.

Permission for examination of the brain was refused. The necropsy made it clear that there was no pericarditis, and showed that the mitral valve was the only one certainly diseased; this valve was much thickened, and upon the small piece which was placed in the fixative there were tiny vegetations. The heart itself was generally enlarged. The lungs showed patches of pneumonia and congestion. The spleen was much enlarged and contained white infarcts. The kidneys were very pale, and the transition from the cortex to the medulla was difficult to trace. The liver was large and fatty. There was no suppuration.

So far, then, as the gross lesions were concerned the diagnosis of malignant rheumatic endocarditis was upheld, and it was with much interest that I cut the fragment of the mitral valve, for small though the vegetations upon it were, the true interpretation of the case rested upon the demonstration in these sections of numerous diplococci. A section is under the microscope, and later will be thrown upon the screen. The enormous number of diplococci in the vegetation is very remarkable, and this specimen is a perfect example of a valve in the condition of malignant rheumatic endocarditis.

Bacteriological Investigation.

The bacteriological results from the cultures were as follows:

1. Pure cultures of the diplococcus were found in the tubes inoculated from the valve, the spleen, and the kidney.

2. The culture from the lung was not pure, but the diplococcus was present among other micro-organisms.

3. The tubes containing the pericardial fluid and the blood gave negative results.

The negative results obtained from the pericardial fluid emphasize a point to which, with Dr. Paine, I have already directed attention. It is that these micro-organisms, when they grow in the body, grow best in the local lesions, and although they are often present in the blood they do not thrive in it. Moreover, they are not easily found in recent exudations, for they lie in the synovial tissues, and not in the synovial fluid of the joint; in the pericardium itself, and not in the pericardial exudations. To reach these fluids they must destroy the phagocytic endothelia that line the synovial membrane and pericardium, and the reason why the micro-organisms are deposited in the tissues and not at first in the exudation is clearly because they are carried in the blood stream, and where they escape will find themselves in the connective tissues around the blood capillaries.

It is not, then, to be expected that in a slight attack of rheumatic fever, either examination of the blood or of the synovial exudation will often result in success. This is not strange, indeed it would be much stranger if one had only to take a minute quantity of blood from a finger or vein, in order to show the infective agent, or if the micro-organisms dropped into a synovial exudation like pepper from a pepper-pot. If that were the case rheumatic fever would indeed be a terrible malady.

Experimental Investigations.

One of the cultures was immediately sent to Dr. V. Shaw, who carried out experimental investigations upon rabbits and monkeys. The lesions of rheumatic fever resulted in both animals, and thus Dr. Shaw has shown that the monkey is susceptible to the infection. His paper, a valuable addition to the subject of rheumatism, was published in the *Journal of Bacteriology and Pathology*, December, 1903.

The infected rabbits died of arthritis, endocarditis, and pericarditis. One monkey died from arthritis, pericarditis, and endocarditis; another, after an attack of severe arthritis and the development of a mitral systolic murmur, recovered and was alive four months later. Dr. Shaw has kindly lent me the specimen of the heart of the monkey that died from rheumatic fever. It shows, you will see, well-marked aortic endocarditis, and also early mitral endocarditis.

These are the hearts of two rabbits which were also inoculated. And as a contrast let me also show the heart of a monkey which died from a mixed infection of the rheumatic diplococcus and the staphylococcus aureus. The pyaemic abscesses, due to the staphylococcus, are distinctly seen in the cardiac wall, and form a striking contrast to the specimen of the pure rheumatic infection. The diplococcus was again isolated in pure culture from the tissues of the animals.

This experimental investigation by Dr. V. Shaw was an entirely independent one, which in my opinion adds very greatly to its weight.

This case then is a striking confirmation of the infective nature of rheumatic fever. When I hear the great "if" with which this view is often prefaced, I sometimes feel inclined to ask: "What more proof do you want"? The infective agent is present in all cases in which there is a reasonable chance of finding it; it is present in the local lesions; it produces similar lesions in animals, and is present in those lesions also. Scientific clinical physicians have for years thought that the disease is of the pyaemic or metastatic type; the bacterium belongs to that group of micro-organisms. Suppuration is rare in rheumatic fever. It is also rare in experimental rheumatic fever. Even our old friend "acidity in the blood" can now pass into an honourable retirement, for the micro-organism, as this culture is witness, has powerful acid-producing properties, although I do not suppose it causes "acidity in the blood."

II.—Practical Applications of the Infective View of Rheumatic Fever.

In the first place, this view brings into prominence the extreme importance that must be attached to the early symptoms of the disease. In these days, when we deal with tuberculosis, our first thought is to detect the disease in the earliest stage, and when the lungs are attacked the infective agent is fortunately deposited in a position from which it is often coughed up and discovered in the sputum. This advantage we do not possess when dealing with rheumatic fever, but the principle of an early diagnosis equally h good, and when the medical profession seriously accepts infective view it will be bound to search for every shre clinical evidence that can lead to the detection of rheum fever before it has produced gross lesions. Clinicians th are who have already done so. The gradual failure of hea the wasting, the vague epigastric and other pains, nervousness, the night terrors, the anaemia, all th equivocal warnings, and others also, will require the clos investigation in the children of rheumatic stock. Am the hitherto unexplained pyrexial attacks of childh rheumatic fever must be reckoned as a cause. In cou of time the public will learn from the medical profession value of this early diagnosis, and fewer cases will be brou to us already irretrievably damaged, and thus our opp tunities for treatment will be improved.

Secondly, there are certain facts—none of them, I adm new facts—which were formerly uncertain, but which n rest upon a sure basis, namely:

1. The existence of a true rheumatic broncho-pneumo and a rheumatic pleurisy.

2. The existence of a true renal rheumatism.

3. The existence of a true rheumatic peritonitis.

Clinical, pathological, bacteriological, and experimen evidence can now be obtained in support of these statemen and although some of these manifestations may be rare, proof of their occurrence must be of value.

The relation of tonsillitis to rheumatic fever has be recognized for more than a century, and at the present ti the learned President of our Society has been among t foremost in insisting upon the importance of that relati Now its true meaning is clear, for it is certain that channel of infection is through the damaged tonsils in wh the micro-organism is deposited. Almost as complete is t proof of the existence of a true rheumatic iritis and chorea.

Thirdly, it is now possible to produce with great consta experimental heart disease. This I believe to be a st p f ward in the study of heart disease, and to be an event in t history of heart affections. Even if the accumulated evide from all parts of the world upon the infective nature rheumatic fever were swept away to-morrow, there wou still survive after its destruction this fact which cannot ignored. Already our practical knowledge has profited, fo has shown:

1. That simple and malignant endocarditis can be stages the same process, and has demonstrated that they are n always essentially different, and that the malignant fo does not always premise a secondary infection. It follo from this that if rheumatic endocarditis is infective it can both simple and malignant in type.

2. It has shown that *ante-mortem* thrombosis may occur the heart in rheumatic fever without any severe valvul damage. Although this was recognized, it could only be c tainly proved by experiment.

3. Accurate knowledge can now be obtained upon t rapidity of the formation of vegetations and upon their actu structure, points which in the future must make our kno ledge of the active heart diseases a more accurate one.

4. It throws light upon the formation of infarcts in rheu atic fever, which experiment shows may form without t presence of any visible valvular disease or clotting of blo in the chambers of the heart. The bearing of this fact on t pathology of chorea is manifest.

5. The myocardial changes in rheumatism which were su pected by the clinician and elucidated by the pathologist a absolutely proved by experiment, for they can be produc by this micro-organism.

The ability to isolate an infective agent from rheumat fever brings us one step nearer the proper understanding the chemical problems of the disease. Triboulet, Walker a Ryffel, Shaw and Berger have already attacked this side the question, and have shown that the micro-organism can different media produce such various acids as formic, lacti and acetic. Walker and Ryffel have demonstiated form acid in the urine of the rheumatic patient, and have obtaine the same acid from the bodies of the bacteria themselves— very interesting point. The fact that different acids a found in different culture media should, I think, be a war ing against any over-hasty assumption that rheumatic fev is due to one special poison, to which salicylate sodium is a antidote.

But not only does this view establish facts, it also throw out suggestions which have also a practical value. Is it n probable, for example, that the bacterium may sometim

ain latent in the tissues, stunned as it were, but not really ed? Some years ago, with Dr. Paine, I showed that it ht be found in the urine of the rabbit, ten weeks after ulation, and the bearing that this has upon chronic matic arthritis and any other form of chronic and re- ing rheumatic lesion needs no labouring. How suggestive, n, was the occurrence of a relapsing iritis in a rabbit as result of intravenous inoculations with this bacterium, ch was recorded by Dr. V. Shaw in the paper to which I e already alluded. May not this throw light upon that actable relapsing iritis, which is met with now and again hose who come of a stock in which there is a history of matic fever, rheumatoid arthritis, or gout?

gain, the demonstration of the infective nature of rheu- ic fever is a powerful stimulus to a study of the action of erial poisons in the pathogeny of gout. It will help to ue us—as have the writings of Woods Hutchinson and lmers Watson—from the slough of despond into which y have fallen, because searching in a swamp of facts for explanation of gout they have rested all their weight upon e crystals of biurate of sodium.

etween rheumatism and gout there are great differences, the acute outbreak, the attacks, are in some respects derfully similar. There are French writers—for example, ot—who hold gout is a result the rheumatic ction acting in pecial constitu- , the gouty. , as all other s upon gout, s proof, but my pathies are with e French au- s thus far, that put forward a capable of f or disproof, write upon the ect of gout with freshness of ght which is larating. I hold the demonstra- of the infective n of rheumatic throws open a e field for ght and sug- on upon the ect of gout. I would again t attention to production of itis by certain —as, for ex- e, by Menzer's heumatic se- and by the ntitetanus serum, as recently reported by Mr. Annan case under the care of Dr. Rose Bradford. If substances free from bacteria are likely to produce the itis of gout I hold that, on the evidence at present coming, such substances are more probably of the lex nature of sera than of the simple nature of sodium te.

other application of the infective view is the one I hope ow more clearly by the aid of a short lantern demonstra- It is based upon the demonstration of the identity in ture of the cardinal lesions of rheumatic fever. This ity has been long surmised, and now it rests upon good nce. Endocarditis, pericarditis, arthritis, pleurisy, and le formation are lesions of the same type, when due ance is made for their anatomical surroundings. It is I think reasonable to suppose that the cardinal devia- from this type will also be comparable. Thus, the ic smouldering mitral stenosis becomes comparable to ic indurative pericarditis and chronic periarticular itis. Malignant endocarditis is comparable to malignant ute pericarditis, and to some forms of rheumatoid itis. That is to say, our ideas of the life-history of matic fever will be cautiously enlarged, and the shattered e of rheumatism can be slowly rebuilt upon foundations which can be tested by accurate methods. The bearing of this upon rheumatoid arthritis is especially close, and may eventually lead to an agreement upon what is really to be understood by that condition.

The question of treatment appeals most forcibly to our profession and to the public. The truth of this I cannot put more tersely than did a doctor who looked at a section of a valve containing the bacterium, and remarked, "What is the good of it? it doesn't help us to treat muscular rheumatism!"

I think that this view *does* help us in treatment, and that our treatment *is* improved. I say nothing to-night of serum-therapy, because that method is in a very critical period of its development. With its discovery we hailed the advent of rational methods, but hasty conclusions and scanty knowledge of its difficulties and imperfections are fast making its use as empirical as that of any crude drug. But our treatment is advanced in two directions; first in its application to the individual; and secondly in its application to the community.

We can now see more clearly the two phases in rheumatic fever—the active, when the infection has the upper hand, and the reactionary, when the infection is being vanquished and the healing processes have commenced. Thus we see more clearly when to bring into action the assistance of hydropathic treatment, radiant heat, electricity, massage, climatic influence, and all those many aids to recovery. Such methods are no fetishes, and it is well to be able to see their functions more plainly. We see more clearly, too, when to use tonics and liberal diet, and what we can promise a patient in the way of cure. These are not little things; it is good for us and our patients that some of the mysteries surrounding the treatment of rheumatism should be cleared away.

Section through a vegetation on the mitral valve, showing numerous diplococci and chains in the necrotic tissue. (Zeiss objec. $\frac{1}{12}$, Oc. 3.)

Then, again, when surgical measures are considered, the indications are more certain. I hope I am among the last to approve of hasty appeals to surgery in rheumatic arthritis, or to think that the opening of a large joint is a light measure. But when occasion arises the procedure is surely a rational and prope one when we know that there is an infective agent to be dealt with. It is equally clear that, in early rheumatic arthritis, in order to rid the joint of this infective agent by surgical methods it would be necessary to remove the synovial membrane, and that, I feel, is a sufficient answer to any who would counsel such a measure. Surgery in these matters has a very definite limitation, and, as Mr. Howard Marsh stated in his recent Bradshaw Lecture, in many cases only partial success can be expected. Its position, nevertheless, is much strengthened when it is remembered that there are cases of arthritis—and non-suppurative ones—in which literally thousands of micrococci have escaped the barrier of the endothelium and have made their way into the synovial fluid.

It is, however, in its application to the treatment of the community that I think the greatest hope lies.

Rheumatic fever in this country, and especially in London, must be looked upon as one of the most common and most damaging of all diseases. So far as the poorer classes are concerned it is as much to be dreaded as cancer, for it attacks the young, and though tuberculosis is more rapidly fatal to life, I doubt whether even it is a lesser evil. If rheumatic heart disease was not so often looked upon as heart disease, but rather as a mutilation from rheumatism, as phthisis is

looked upon as a mutilation from tuberculosis, the true magnitude of the evil would, I think, strike home more forcibly. We should hear far more of efforts at prevention than of academic discussions upon cardiac *bruits*, and of hopeless attempts at treating scar tissue. It is with this aim in view that I have again brought forward a study of the infective nature of the disease, so clearly foreshadowed in this country by Dr. A. Mantle nearly twenty years ago, yet then so little regarded. The logical step from a practical interpretation of these facts is the prevention of rheumatic fever. It matters not whether, as some hold, there is a specific micro-organism, or as others, that there are several different infective agents, the essential fact remains unaltered. Rheumatic fever is infective—much heart disease results from infection—the first step in treatment must be preventive.

The time, I believe, has come to study once again by the light of this view the predisposing causes of rheumatic fever. To trace once more the influence of climate, of cold and damp, and of sudden changes in temperature. To inquire into the incidence of the disease on those who live in new and jerry-built houses, into the effects of overcrowding and malsanitation. To study epidemic outbreaks and cases of apparent contagion. To investigate the part taken by school life among the poor, with its outbreaks of sore throats and its strain upon the system of the ill-fed and ill-clothed. Surely there is hope from such investigations that the prevention of some of the rheumatic fever which causes such pitiable suffering among the children of the poor will be thus obtained.

ABDOMINAL PAIN IN ACUTE RHEUMATISM.

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AMONGST the minor symptoms of acute rheumatism of frequent occurrence in childhood Still pointed out some years ago[1] that pains in the epigastrium and about the bases of the axillae were of the first importance. Poynton,[2] too, refers to the frequency of "obscure abdominal pains" in the rheumatism of childhood, and gives it as his impression that they "are generally paroxysmal, and usually referred above the umbilicus to the epigastric region." Donkin, in his *Diseases of Childhood* (1893), p. 212, states that "the painful onset of rheumatic attacks is sometimes accompanied by rigors, occasionally by vomiting, and not very rarely, especially when there is cardiac involvement, by marked precordial or epigastric pain." Much might be said about each of these features, but it is to the pain in the upper abdomen that I wish to draw attention now; for having seen a good deal of acute rheumatism recently, especially in children, I have been much struck not only by the frequency of this symptom, but also by some characteristic features not previously noted, so far as I know, which are present in a certain number of cases.

The manifestations of acute rheumatism in childhood are so manifold, and occasionally their advent is so insidious and ambiguous, that it is rather surprising how little some of the "minor symptoms of frequent occurrence" have been studied and emphasized. The epigastric pain is not peculiar amongst these minor symptoms in repaying a more thorough investigation than has hitherto been granted them, but in this paper I shall confine my attention to this symptom alone. Perhaps the frequency of aches and pains about the abdomen in children has interfered with the detailed examination of the "epigastric pain" of rheumatism, and the common occurrence of "pains all over" in many a febrile infection accompanied by pains in the limbs has led to a callousness on the part of clinical observers. In my experience few pay attention to the abdominal symptoms occurring in the acute rheumatism of either children or adults, yet often it is these symptoms that are the important ones in diagnosis and treatment. In children pain is the most frequent of the abdominal symptoms, and it is often of help diagnostically. In its most typical form it conforms to the following description.

SITE AND CHARACTER OF THE PAIN.

The abdominal pain is nearly always situated about the upper half of the abdomen. The frequency with which children are liable to refer all intra-abdominal pain to the umbilicus makes it striking that this pain is seldom referred solely to that spot, for though occasionally it is said to run acro the middle line a little above this landmark it is rare for t child to point there only. It usually seems to start from point a little below the costal margin, close to the mi clavicular line on either side, and to run from there eith towards the umbilicus or straight across the epigastrium. first I thought it was rather commoner on the left side tha on the right, but recently I have seen a number of cases whe it has been confined to the right side, and until I have co lected a rather larger number of cases I am not prepared say upon which side it is commoner for it to begin. It ofte occurs on both sides, and then may be either equally comm on both sides, or more frequent on one than the othe Occasionally it is more purely epigastric, and about th middle line.

It is not a superficial pain, but is invariably said to b "inside," yet it does not go through to the back nor trav round the trunk. It is always described as being of a shar nature, and in many cases that I could relate has been a pe sistently recurring symptom giving rise to considerab suffering. It is more acute than most of the ordinar stomachaches, but by those children who have experience both this pain and a stitch in the side it is described as bein less severe as a rule than the stitch. It is "quite different from the pain that may be produced as the result of th administration of aperient drugs, but most children are unabl to put into words the features upon which this difference de pends. It is of short duration but recurs. Each paroxysm lasts from a minute to four or five minutes, though occasionall its duration is somewhat more prolonged than this. "Run ning," "crossing the street," and "going to bed," are th three commonest exciting causes of paroxysms. It appears t be brought on, in other words, most frequently by muscula exertion, by excitement, and by other factors the exact natur of which are somewhat obscure.

The pain is not associated with nausea or vomiting nor with any of the ordinary symptoms of gastric de rangement, except accidentally. It is not the result o any irregularity or indiscretion in the diet, nor does i appear to be in any way causally connected with either constipation or diarrhoea. There is no abdominal dis tension accompanying it, and as far as I can make out it i not associated with any gurglings or ordinary colics of th gut. Loss of appetite is not necessarily, nor usually, an accompaniment of it. The pain comes on independently o food, and the nature of the diet the child is taking does no generally influence its occurrence. It does not as a rul double the patient up, but should it come on during exercis it will most likely cause the patient to keep quite still, and often to sit down also. It does not appear to be associated with soreness of the abdominal walls nor with much tender ness, either superficial or deep. The attacks vary very much as to the frequency of their occurrence. I am inclined to think that a typical case would be one in which six or seven paroxysms occur daily for a few days, then three or four days come with fewer attacks, or perhaps none, followed by another period of increasing frequency culminating at about the end of a total of ten days in an illness that manifests itself as acute rheumatism by the occurrence of some of the well recognized phenomena of that malady. But it is perhaps futile to talk of a typical case when the variability of the frequency of occurence of these attacks is so marked and when the number of cases illustrating the feature is not yet very large.

This symptom is, I think, commoner in girls than in boys The cases conforming most accurately to the above descrip tion have been in fairly well-nourished girls of 9 to 16. When much younger than this the patients are generally incapable of describing their symptoms with precision, and amongst patients older than this the symptom is not so common. It does occur more or less typically, however, in older children and probably occasionally in young adults. The phenomena of rheumatism that are likely to be associated with this symptom follow no rule. As far as I can make out, any of the better recognized manifestations of acute rheumatism may occur in association with these paroxysms of abdominal pain, and the latter are not more likely to be associated with cardiac manifestations than with some of the other phenomena, except, of course, in so far as is explained by the great frequency of cardiac affection at this age. The pain does not appear to have any direct connexion with the severity of the rheumatism, either as it affects the heart or as it affects other structures. The peculiar paroxysms moreover appear to be rare in relapses of rheumatic arthritis.

Etiology.

The question as to the cause of this pain about the upper domen is of great interest. Still[3] says, "the 'pains in e stomach' may sometimes be in the abdominal muscles, t I suspect that it is usually gastric in origin, and is due to catarrhal condition in some way dependent on the rheu- tism." Any explanation of its causation must at present t upon mere speculation, and I do not propose to enter w into the discussion of the various theories that could be pounded. But from what I have already said it is clear t I do not agree with the suggestion that these peculiar roxysms of pain are dependent upon gastric catarrh.

Treatment.

he treatment of this symptom is the treatment of acute umatism, often in children, especially when symptoms of but ght severity are present, a matter of considerable difficulty. dinary remedies directed to cure other kinds of recurring dominal pains and to alleviate stomach-aches of more usual urrence appear to have no influence upon the symptom, ereas if other indications of rheumatism arise and are such o necessitate thorough treatment of the malady in bed, pains will almost immediately disappear. This thera- tic test may be of diagnostic value. Like so many of the mptoms of acute rheumatism in childhood sodium sali- ate, when given in moderate-sized or small doses to a ient who is allowed to go about and live on a more or less inary diet, will not infrequently alleviate this symptom help to ward off its recurrence. But as a rule when the mptom is at all prominent, or when the urgency of other matic manifestations demand, its cure is only affected by ting the patient to bed and insisting on full antirheumatic tment. I may add that I have found aspirin very useful ne or two cases for which I have tried it.

Diagnosis.

his is not the only kind of abdominal pain that may be ciated with the outburst of acute rheumatism. And even ld pain having these peculiarities be present, it is hardly e expected, considering the age of the patients and the ety and variability of the circumstances under which are likely to be situated, that it is always possible to get ll and exact account of them. I have already indicated other pains about the belly arise not infrequently in nexion with this malady. Sometimes they are the result eatment, for large doses of alkalies and sodium salicylates administered as well as active aperient drugs. But I am e sure that the symptom I have described is not the result eatment. Moreover, stomach-aches of an ordinary nature, lly dependent upon some gastric derangement arising one cause or another, are occasionally prominent symptoms e onset, or more rarely during the course, of an attack of matism. Then there is rheumatic appendicitis, and a condition thought to be due to rheumatic affection of the -muscular abdominal parietes which arises suddenly and sociated with "acute abdominal pain and tenderness so re as to simulate peritonitis" (Dawson Williams).[4] But oint I wish to emphasize is that these pains that I have ribed are of fairly frequent occurrence and are more or characteristic of acute rheumatism, for they have pecu- ies that distinguish them from many of the other pains rring about children's bellies. They are not absolutely ognomonic of acute rheumatism, but when a definite unt of them can be obtained and most of their typical res are present, they should arouse strong suspicions of isease, and often their presence leads to a more careful h for indications of rheumatism than might otherwise ndertaken, and is a helpful feature in clearing up the re of an otherwise doubtful case.

ch patience is required in investigating such symptoms hild; one has to make friends with the patient first of Leading questions cannot be avoided altogether, but by l and judicious questioning details as to special sym- s can be obtained. It is all too easy to get an account symptom out of children that conforms to the precon- d ideas concerning that symptom, the patient acqui- g too readily in any suggestions offered to him. I have to avoid such a source of error, and one reason why I not delayed publishing these remarks for a longer time, g which I might have gathered more material, is that I t incite others to investigate this symptom and thereby ve the personal element from the investigation. If the iar abdominal pains I have described are not met with ner observers, I shall at all events have drawn further attention to the frequency of pain in the upper abdomen as a symptom of acute rheumatism in children, a frequency not yet, I think, sufficiently well recognized. But that there is some foundation for my description and that I have not drawn an altogether fanciful account of this feature can be seen by referring to the few cases I detail below. They are the most typical that I have seen during the past two months, and I have chosen them out of many that I have collected because they are fresh in my memory, and well illustrate many of the points emphasized above. For permission to make use of four of the following cases I am much indebted to the physicians of St. George's Hospital.

Case I.

G. A. was a well-nourished girl of 6, who was seen by Mr. Fairley Clarke on January 6th on account of stomach-ache. He administered a purgative and gave her an ordinary mixture and instructions as to diet, but did not relieve the symptoms. A week later on examining her very thoroughly he discovered two small subcutaneous nodules close to the spinous processes of the upper lumbar vertebrae on the left side of the back. Not being sure as to whether these were rheumatic nodules or not, and being somewhat puzzled about the nature and treatment of the abdominal pain he referred the case to me. I saw the case on January 13th. I made the following notes at the time of my examination:

Family History.—Mother had acute rheumatism six years ago; in bed three weeks. Father well. One sister, aged 5, well. No other children.

Personal History.—Enjoyed good health up to about a fortnight ago, except for measles and whooping-cough in the past. About a fortnight ago started wasting, and having pains in her inside coming on suddenly when she walked quickly or when she stooped. Usually on starting to walk. They last a few minutes at a time, but were frequently repeated. No particular time of day. Not associated with any indiscretion in diet, and bowels always regular, no nausea or vomiting. Appetite poor for a fortnight. Three days ago had transient pain and slight swelling in the knees and lower parts of thighs.

Present State.—Looks rather pale. Tongue: Moist; yellowish fur, not thick. Rheumatic nodules on the back, none elsewhere. Joints: Nothing abnormal. Heart: No dilatation, no murmurs, first sound rather soft.

Course.—The child was put to bed and treated in the ordinary way for acute rheumatism. Well-marked crops of nodules made their appearance, some arising about the spines of the scapulae and about the posterior parietal regions of the scalp, as well as in the commoner situations for them. There was no fever. The abdominal pains did not recur. Recovery was eventually satisfactory.

Case II.

C. A. was a girl, aged 10, who was admitted into St. George's Hospital on February 23rd under Dr. Ewart complaining of pains in the stomach, joints, throat, and head. Her temperature was 101°, pulse 112; slight dilatation of the heart; coated tongue. Abdomen: Slight tenderness and resistance to deep pressure over the upper part of the abdomen, especially about the middle of both hypogastric regions. No superficial tenderness, no distension, and movement good. Joints: Slight pain on movement of both elbows and knees. About the middle of both anticubital fossae there is a little fullness, pinkness, and tenderness. Tonsils appeared fairly normal, perhaps a little hyperaemic. Her history was as follows:

Family History.—Negative.

Past Personal History.—No previous rheumatism. Except for measles when 3 years old quite healthy.

History of Present Illness.—On February 19th she went to school complaining of pains about the abdomen; at midday was sent home on account of these becoming worse, and because slight headache and pain in the elbows were also complained of. Headache, pain on movement of the elbows, and "pains in the stomach" continued up to the time of admission into the hospital. On February 22nd pain in both knees and some soreness of the throat was added to the other symptoms. February 21st was the only day she was kept in bed.

She was a particularly bright and intelligent child, and though only 10, could define all her symptoms very clearly. I made the following notes about her abdominal pain on February 24th. "They are sharp pains of a severe nature situated about the upper abdomen on each side, lasting only a few minutes, but recurring several times during the day. These pains are brought out especially on walking fast, or when she goes to bed at night. They were the first symptoms present; they have been the worst symptom, the most distressing trouble throughout. They are not made worse on coughing or breathing deeply. They are situated in the right upper and left upper abdominal segments, more frequently on the right side than on the left. They have no association with the taking of food; they are not accompanied by any nausea. They 'seem to be inside,' and not superficial in the least. They have not been produced by the taking of any purgative, nor do they accord well with the pains due to intestinal colic. They run from the middle of the hypochondriac region from a point just below the costal margin to a point just below and outside the umbilicus on each side. The pain is often present on both sides at the same time. There appears to have been been some soreness to the touch, but this was not a prominent symptom; rubbing the stomach was not thought of." Then follows an exact account of the action of the bowels and the administration of

some liquorice powder eliminating these as causes of pain, and a note, which I need not add, setting forth the mother's account of the symptoms corroborating the above details.

The patient was treated in the ordinary way. All her pains left her soon, and her recovery was satisfactory.

CASE III.

N. H. was a girl of 12, whom I saw first of all on February 5th as an out-patient at St. George's Hospital. The symptoms complained of were recurring "fainting fits," and recurring paroxysms of abdominal pain. There was no family history of rheumatism, but a fortnight before the patient had had sore throat and pain all over. She was a well-nourished, well-developed, intelligent child. The abdomen was normal. Temperature 100.2°. Heart's impulse diffuse, action rapid, and distinct left-side dilatation. There were no vacant beds in the hospital that day, so she was given some sodium salicylate and sent home; but her symptoms were not relieved, and on February 19th a vacancy was found for her and she was admitted into the hospital under the care of Dr. Rolleston. Her condition then was much the same as upon February 5th, the temperature being 100°, and the pulse 120, low tension, rather irritable and jerky. The left heart was dilated, the area of cardiac dullness extending to just outside the left nipple. At the apex, the sounds were embryocardial and rather abrupt in character, and the rhythm tended to alter on movement. There was a haemic *bruit*, best heard in the third left space, and the pulmonary second sound was a little accentuated.

A few days after her admission I wrote the following note about her abdominal pain: "Nearly two years ago she saw a doctor in the country on account of recurrent sharp pains about the upper abdomen. In other respects her health was good. She was told that it was colic, and prescribing was probably in accordance with this diagnosis. But she was not relieved, for from time to time since then attacks of this pain have recurred. They have sometimes been associated with growing pains in the legs, but these have not been sufficient to make her limp. The pain in the upper abdomen has occurred in short paroxysms lasting but a few minutes, but recurring frequently throughout the day. They come on especially when she runs or walks fast, and when they come on she stays still, and doubles herself up somewhat; she does not rub her stomach, nor sit down. The pain comes in the right hypochondrium and runs across the epigastrium just above the umbilicus. 'It is inside.' It is not associated with tenderness or soreness of the abdomen. It has nothing at all to do with the ingestion of food; it is not accompanied by vomiting or nausea. She distinguishes it absolutely from a 'stitch in the side,' which she has had on one or two occasions on running, and from colicky pain, such as that she has had since admission to the hospital, probably due to the administration of an aperient. Though these pains may occur in exactly the same situation as the kind first described, they are both 'quite different.' She is unable, however, to explain in what way they are different. She says that they are worse than the colicky pain she has had since admission, but not so bad as a stitch in the side. The pain does not go through to the back. Since admission none of the peculiar attacks of abdominal pain have occurred."

CASE IV.

E. T., aged 16, was admitted into St George's Hospital on February 25th, 1904, under the care of Sir Isambard Owen. She was complaining of joint pains and swellings, with sweating and headache.

Family History.—Negative.

Past Personal History.—Scarlet fever several years ago. Since the age of 14 occasional slight growing pain in the legs; never bad enough to make her limp.

Present Illness—Began on February 18th with pain in the left ankle and right knee. She tried to do her work, that of a general servant, up to February 23rd. About this time joint pains and headache got worse, and in addition some shooting pains occurred about the upper abdomen. They were not associated with nausea or vomiting nor with the taking of any medicine, for none had been given her. The bowels were regular. The pain came on independently of food. It seemed to be inside and went across the epigastrium, but seemed to have started in the hypochondriac region, more commonly on the right side than on the left. It did not go round or through to the back at all. Though constantly recurring it did not last very long at a time. The paroxysms came on during the night, waking her out of sleep, as well as during the day. They occurred five or six times during the night and three or four times during the day. She appeared never to have had a "stitch in the side," and so cannot compare them to this pain. She had never experienced pains like them before.

Course.—Under the usual treatment the pains as well as the other symptoms of acute rheumatism subsided satisfactorily. The patient is still in the hospital, however, for on March 21st she had to be readmitted, three days after being discharged, on account of a relapse. The abdominal pain did not return during the relapse. She is now feeling well again and will soon be able to leave the hospital, for it seems that her heart has not been permanently damaged.

CASE V.

A. S. was a boy of 16, who was admitted into St. George's Hospital on March 4th under the care of Dr. Penrose. He was complaining of joint pains flying about. These, slight at first, affected chiefly the ankles and knees, and had come on originally three weeks before his admission. Shortly before admission they were associated with pain in the neck and across the shoulders, and on February 29th he got "pains in the stomach." These were not associated with anorexia, or vomiting, nor with the taking of food. Action of the bowels did not influence them, they were not connected with the taking of a purgative, and they we unlike the pains that may occur after the administration of an aperie though they were occasionally associated with gurgling sensations the bowels, and once with slight nausea. The bowels had been regul They came on in short attacks lasting a minute or two, situated in t epigastrium, not sufficiently severe to double him up, but quite sha They were not below the level of the umbilicus, and were not associat with soreness of the abdominal wall, but seemed to be inside. Th were in the hypochondrium sometimes, more commonly on the left th on the right side. They occurred chiefly in the night while he w warm in bed. They woke him up, recurring four or five times duri the night.

On admission the patient's temperature was 101°, he had a moist sk and smelt rheumatic. There was arthritis of both knees. The fi sound of the heart was muffled, but the heart was not dilated. Und full doses of salicylate and the other usual remedies his pain went awa An eruption of exudative erythema on the trunk occurred on Mar 8th to 11th. On March 30th he was able to go home, somewhat anaem but fairly well.

REFERENCES.

1 *Practitioner*, 1901; 2 *Med. Soc. Trans.*, vol. xxiv, p. 24; 3 *Practitioner*, 19 p. 61; 4 *Medical Diseases of Infancy and Childhood.*

ON THE BACTERIOLOGY OF SO-CALLED "STERILIZED MILK,"

WITH SPECIAL REFERENCE TO THE MUNICIPAL SUPPLY OF MILK FOR THE FEEDING OF INFANTS.

BY

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IT is now nearly ten years since Professor Flügge, of Breslau called attention to the dangers of imperfectly sterilized mil in the feeding of infants. The subject does not appear, i this country at least, to have attracted the attention whic its importance deserves. And in view of the activity of man municipalities in the direction of establishing infant mil dépôts, the present appears an opportune time to rediscus the question. The chief results of a bacteriological examina tion of the milk supplied by the Leith Corporation's infan milk dépôt, given below, form the basis of the presen article.

It is now, we suppose, universally admitted that the grea majority of intestinal disorders of infancy occur in artificially fed babies, the large proportion of these affections bein caused by the bacterial contamination of cows' milk used a a substitute for mothers' milk. We are unfortunately still in the dark as to which group or groups of the infinite variety o bacteria occurring in milk are to be regarded as the chie offenders. Our ignorance on this point would matter less i by any convenient method we could kill all the bacteria in milk. But, as will be presently shown, this is almost, if no actually impossible, as long as we continue to adopt our pre sent methods.

The bacteria in milk may be roughly divided into three classes, according to their powers of resisting heat.

1. Non-spore-bearing bacteria. These include the cocci the lactic acid, coli and proteus groups. The members o this group are very easily killed by exposure to temperature of 100° C., or as an alternative by heating for a short time at a temperature ranging between 90° C. and 95° C. This latte temperature is reached when in domestic parlance, articles o food are "brought to the boil." Pasteurization—subjecting the milk to a temperature of 70° C. for half-an-hour—will also kill these bacteria. The bacteria which are the normal in habitants of the mammary ducts of the cow, and which can not be avoided even with attention to the utmost care and cleanliness, belong to this group.

2. The butyric acid bacilli. These are strictly anaërobic spore-bearing bacilli. They rapidly decompose milk when stored in closely-stoppered bottles, with strongly acid reaction, coagulation and butyric acid and gas formation. Their spores are killed by an exposure of one to one hour and a-half at a temperature of 100° C. To this group belongs Klein's bacillus enteritidis sporogenes.

3. The bacillus subtilis group. These are aërobic spore-bearing bacilli, but are capable of growing under anaërobic conditions. They decompose milk with faintly acid or unchanged reaction, coagulation of the casein and subsequent liquefaction of the coagulum.

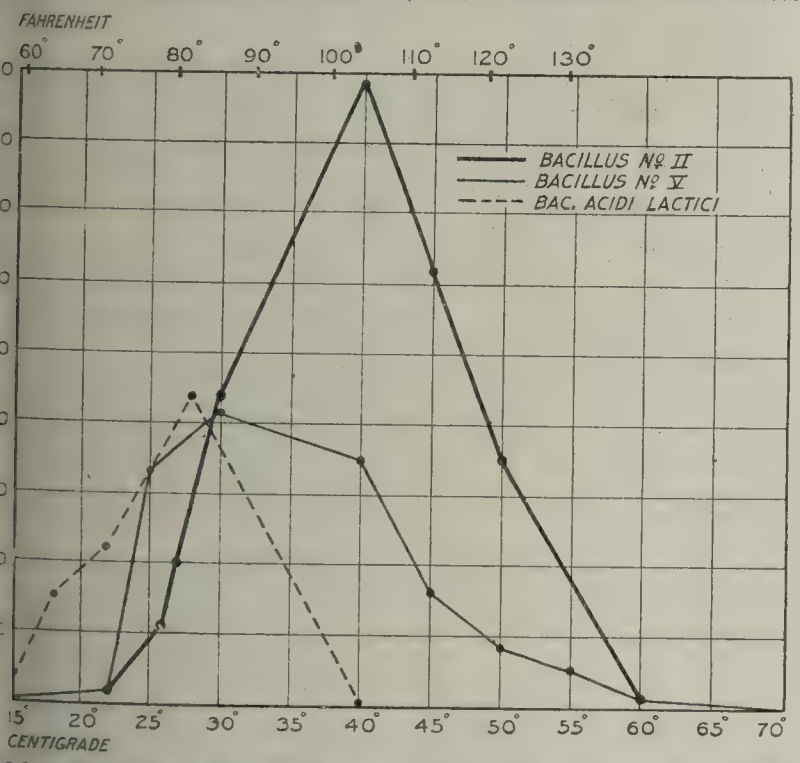
From the latter fact Flügge has called them the "peptonizing" bacilli. They are characterized by an extraordinarily rapid rate of growth at high temperatures (25° C. and up-

ards), comparatively little growth taking place below 22° C. heir spores are more resistant than those of Group 2, most them requiring an exposure of at least two hours at 100° C. effect their destruction. It is to the importance of this ird group of "peptonizing" bacilli in the causation of mmer diarrhoea in infants that Flügge has called attention. fantile diarrhoea, as measured by statistics of mortality, ly occurs to any marked extent in countries where the ean summer temperature rises above 60° F. In these untries more than three-quarters of the deaths occur ring the hottest quarter of the year—June to August. lso every rise of temperature is closely followed by a rise infantile mortality. The mortality is practically confined infants fed upon cows' milk, and occurs, according to ügge, despite the fact that the majority are fed upon cows' ilk which has been boiled. Suspicion is thus immediately st upon the "peptonizing" bacilli, since these grow very pidly at the temperatures in question and without pro-cing much obvious change in the milk. The anaërobes, roup 2, are less likely to do harm, as they speedily curdle ilk and render it obviously unfit for human food.

Flügge isolated twelve distinct species of "peptonizing" cilli from samples of market milk. These are fully scribed (distinguished by numbers) in his article.[1] On count of their power to produce albumoses and peptones in lk all of these must come under grave suspicion. But ree of them Flügge found to be definitely pathogenic to ce, guinea-pigs, and rabbits, when injected subcutaneously intraperitoneally. When milk cultures of these bacilli re given by the mouth to young dogs the animals drank e milk readily, and immediately suffered from diarrhoea, ich was followed by fatal results when the feeding was itinued; recovery taking place when other milk was given. nilar experiments with the acid-forming anaërobes failed, cause the dogs refused to drink the milk.

Flügge's investigations led him to the conclusion that most the so-called "sterilized" milk on the market was quite reliable and likely to cause harm. The labels attached to bottles usually stated that the milk was "Sterilized" *erilisirte Milch* or *Keimfreie Dauermilch*). In fact Flügge ggests, and we think the force of his suggestion is very ong, that it should be made compulsory to change the rding of the label to read "Heated Milk, not Sterile" *hitzte Milch, nicht Keimfrei*). "Must be kept at a tem-ature below 18° C., or used within 12 hours."

The following diagram, taken from Flügge's article, shows relative rapidity of growth at various temperatures of of his "peptonizing" bacilli, and the *bacillus acidi lactici*.



bbert[2] made a closer investigation of the pathogenic pro-ies of Flügge's bacillus No. 1. He confirmed Flügge's lts, and came to the conclusion that the toxin is con-ed within the body of the bacillus and that only in its tative form, the spores being harmless. He found that oiling the milk culture before use it was no longer patho-c, either when injected or given by the mouth. This is important from a practical standpoint. He also made very interesting observation that while the milk culture caused fatal diarrhoea in young puppies when given by the mouth, it was harmless to older dogs even in large quantities ($1\frac{1}{2}$ litre per day for five days).

Weber[3] examined 150 samples of "sterilized" milk from Berlin shops, finding only 54 per cent. sterile. He isolated and described 18 species of "peptonizing" bacilli, and investigated their pathogenic powers. In only three of the bottles did he find pathogenic bacilli corresponding to those described by Flügge. With these he was able to confirm the results of Flügge and Lubbert, with the exception of the feeding experiments. He considers that these bacilli (like all other members of this group) are only harmful in that they are capable of setting up fermentative changes in the milk, and not in virtue of the toxins contained in the bacilli. Whether these bacilli are only harmful when a weakened state of the body permits them to grow in the intestines to an abnormal extent and set up fermentation there (as Escherich and his pupils hold), or whether, when given in large quantities, they can set up intestinal disturbances even in normal circumstances, must at present be left an open question.

If Flügge be right in thinking that the bacilli of Group 3 play the most important part in the causation of summer diarrhoea among infants the reproach against partially sterilized milk is a very serious one. It means that the comparatively harmless bacilli of Group 1 are killed, while the spores of the putrefactive bacilli are left to flourish undisturbed by competition. It is a well-known fact that milk ordinarily turns sour without putrefying. In fact, the lactic acid bacilli may, from this point of view, be regarded as actually beneficial, since they inhibit the growth of the "peptonizing" or putrefactive bacilli.

At the same time, we think it will be agreed by most practising physicians—in this country, at least—that many of the intestinal disorders of infancy may be prevented by boiling the milk, an indication that the bacilli of Group 1 are the real culprits. In any case, it behoves municipal authorities who supply milk which is called "sterilized," and which is believed by the public, and perhaps by not a few of the medical profession, to be sterile, to control the quality of that milk by frequent bacteriological examinations. Also to give their customers the necessary directions for its proper keeping.

Bacteriological Examination of the Milk Supplied to Infants by the Leith Corporation from the Infants' Milk Dépôt.

At this dépôt the bottles, fitted with ordinary spring stoppers, are placed, after being filled, in a sterilizer which is supplied with steam under a pressure of between 12 and 15 lb. The registering thermometer passes through the lid of the sterilizer into a conical vessel filled with milk. After this thermometer registers 212° F. the bottles are subjected to that temperature for half an hour.

It may be objected that from what we know of the powers of resistance to heat of the various organisms, nothing is gained by leaving the bottles in the sterilizer so long; that an exposure of from five to ten minutes would serve the same purpose. But preliminary experiments showed distinctly better results with an exposure of twenty minutes than with only five or ten minutes. It has therefore been considered advisable to give half an hour, that being the limit allowable without causing an alteration in the taste and colour (caramelization) of the milk.

All the bottles examined contained between 5 and 6 oz. of a mixture of three parts of milk to one of water, with the addition of some cream, sugar, and salt.

It was desired in the first place to ascertain how many of the bottles were actually sterile. On receiving the bottles from the dépôt they were placed in the incubator at 98° F. for two days. Those bottles which showed coagulation were tested for gas formation and reaction. Loopfuls from the remainder were taken with a sterile platinum needle and spread upon agar plates. The reaction was tested with litmus and the following tests made:

1. *Boiling Test.*—A little of the milk was put in a test tube and boiled. In some cases coagulation of the casein occurred.

2. *Alcohol Test.*—A little of the milk was put in a test tube, and an equal amount of alcohol (68 per cent. by volume) added. In most cases where the milk was not sterile a fine flocculent precipitate resulted. In no case was the reaction obtained with sterile milk. This test, originally used for fresh milk, has been shown by Weber to be equally applicable to "sterilized" milk, and to be much more sensitive than the boiling test. Our results confirm this observation.

It may be said that the agar plates were examined after incubation at 98° F. for twenty-four hours.

The subjoined table shows the results of the experiments:

Bottles Examined after Incubation at 98° F. for Two Days.

Date.	No. of Bottles.	Spontaneous coagulation.	Of remainder.			Not sterile.	Sterile.
			Boiling test.	Alcohol test.	Tests negative but not sterile.		
Nov. 8	8	2	?	?	?	7	1
,, 17	4	?	?	?	?	3	1
Dec. 5	9	9	—	—	—	9	0
,, 6	7	6	0	0	—	6	1
,, 7	9	2	1	2	1	5	4
,, 8	7	7	—	—	—	7	0
,, 10	7	2	0	1	1	4	3
,, 14	7	6	1	1	0	7	0
,, 15	7	5	0	1	1	7	0
,, 19	4	1	0	1	0	2	2
,, 24	7	7	—	—	—	7	0
,, 26	5	3	0	0	0	3	2
Jan. 7	9	8	0	0	1	9	0
Total ...	90	58				76	14
Per cent.	100					84.4	15.5

Thus it will be seen that only 15 per cent. of the bottles were sterile, and it is also to be noted that the percentage of sterile bottles varied largely from day to day. This can only be due to variation in bacterial contamination of the original milk. The majority of the bottles which coagulated showed strongly acid reaction, gas formation, and characteristic smell of butyric acid. The remainder gave a faintly acid reaction and uniform coagulum.

It was next desired to ascertain the number of bacteria present after two days at various temperatures. Various dilutions were made, and for the lower temperatures at least two agar plates were poured, each with 1 c.cm. of a 1 in 10 dilution of the milk. For the bottles exposed at the higher temperatures much greater dilutions were necessary. The plates were incubated at 98° F., and were counted from eighteen to twenty-four hours afterwards. The numbers must be regarded as only of approximate and relative value, since it was frequently impossible to make satisfactory estimations on account of the very rapid growth over the surface of the agar, even when only a small number of colonies were present. No attempt was made to count the anaërobes present.

The series of bottles were exposed for two days at room temperatures varying between 50° F. and 70° F.

Date.	No. of Bottles.	Not Sterile.	Sterile in 2 c.cm.	Average number of Bacteria per c.cm. of those not Sterile.
September 16th ...	6	1	5	10
December 21st ...	7	2	5	5
,, 23rd ...	7	5	2	3,400
,, 25th ...	7	1	6	16,000

The following bottles were incubated for two days at 70° F., and the results may be considered along with those just given.

Date.	No. of Bottles.	Not Sterile.	Sterile in 2 c.cm.	Average number of Bacteria per c.cm. of those not Sterile.
December 29th ...	7	2	5	30
,, 31st ...	7	—	7	—
January 2nd	6	2	4	12,000
Totals	47	13	34	Average number of bacteria in those not sterile 4,400.
Per cent.	100	27.7	72.3	

These results must be held to be quite satisfactory. There is evidently very little growth of the organisms concerned at temperatures below 70° F. Seventy-two per cent. of the bottles were sterile in 2 c.cm.; in the remaining 28 per cent. the bacteria did not average more than 5,000 per c.cm. None of the bottles gave the alcohol reaction. We conclude from the above results that the milk is safe and reliable when kept even for two days at temperatures below 70° F.

It is very different, however, with the next series of bottles examined, which were incubated for two days at 80° F.

Bottles Incubated at 80° F. for Two Days.

Date.	No. of Bottles.	Not Sterile.	Sterile in 1 c.cm.	Average number of Bacteria per c.cm. in those not Sterile.
January 4th ...	6	4	2	50,000
,, 5th ...	6	5	1	180,000
,, 6th ...	6	3	3	38,000
Totals	18	12	6	
Per cent.	100	66.6	33 3	100,000

Here, evidently, there has been very active growth, and th proportion of sterile to non-sterile bottles is almost reversed while the average number of bacteria in those not sterile is n less than 100,000 per c.cm. Three of the bottles gave th alcohol reaction, all gave a faintly acid or amphoteric reactio to litmus. None were altered in appearance or taste.

Bottles Incubated at 90° F. for Two Days.

Date.	No. of Bottles.	Not Sterile.	Sterile.	Average number of Bacteria per c.cm.
January 8th ...	6	6	0	4,000,000

One of these bottles showed a clear zone below the cream, indicatin a separation of the casein. On shaking the bottle this abnormal appear ance at once disappeared. The taste was only slightly bitter, and th smell unaltered. All showed faintly-acid reaction. The remainin bottles were unaltered in taste and smell. One of them coagulated on boiling, and two gave the alcohol reaction.

It will be observed that these results correspond closely with the curves shown in Flügge's diagram.

It would be very desirable to conduct similar experiments during the summer months, when milk is, for various reasons, much more liable to contamination with spore-bearing bacilli.

Conclusions.

The first and obvious conclusion arrived at is that the designation "sterilized" milk, as applied to that sold from corporation dépôts, is wrong and misleading, and we would suggest the substitution of the term "Milk Prepared for Infants." In this way there will be no sailing under false colours, nor will undue confidence be placed in the keeping qualities of infants' milk. From Weber's results it is obvious that the remark as to designation also applies to commercial "sterilized" milk.

Secondly, every customer should be carefully instructed as to the necessity for keeping the milk in as cool a condition as possible. This instruction will especially be necessary in summer, when the temperature often exceeds 70° F.

Thirdly, faith in the powers of our steam sterilizers should not be too implicit. Accordingly, in hot weather each day's supply ought to be sold as it is prepared.

Fourthly, as an additional precaution, all bottles, after being taken from the sterilizer, should be placed in warm water gradually cooled. To place the still hot bottles in cold water would lead to their bursting.

From the writings of Flügge, Lubbert, and Weber it is not difficult to understand why imperfectly sterilized milk may be the cause of diarrhoea and intestinal troubles. If imperfectly sterilized milk is allowed to stand in warm rooms it will soon become a source of danger to the consumer, and it behoves us to avoid this possibility by insisting that all "prepared" milk be stored in cool places.

There are those who, after reading what we have written, will come to the conclusion that the establishment by corporations of infant milk dépôts should neither be persevered with nor advocated. If our article leads one astray in that direction, we take the early opportunity to say that our faith in providing milk for infant feeding is in no way weakened; but our attention has been forcibly drawn to one or two points the emphasis of which will, we trust, be a help to those corporations whose enterprise and forethought have led them to come to the aid of those infants who were being martyred at the shrine of ignorance.

The Commissioner who wrote in the JOURNAL about the Milk Supply of Large Towns is one of those who scoffs at the principle of corporation efforts to supply bottles charged with carefully regulated meals for infants. He would—and we are thoroughly at one with him—prefer to have pure milk reach

ıe house from the cow. That is to say, there must be clean ınds to milk the cows, whose teats, udders, and flanks must so be purified. In addition all milk after coming from the ow must be filtered and cooled, and if possible sold from aled cans or bottles. That we admit to be the ideal which e must all seek to achieve in our respective districts. But y way of corollary to his able articles there appeared the plies received from many medical officers of health regard- g the enforcing of regulations under the Dairies, Cowsheds, ıd Milkshops Orders. The sad tale need not be retold, but ıese replies showed that in many districts regulations were ot even framed, and that where they were in existence they ere frequently not enforced. It is a knowledge of these cts, unfortunate as they are, that has urged some medical ficers of health to advise their local authorities to adopt the rinciple of supplying milk in such a way that it will be safer drink than most of the filthy stuff coming in from badly pt cowsheds and dirty cows.

Two years ago we instituted a crusade against these cow- eders who did not keep their premises in conformity with ıe existing regulations. The cow-feeders in the district romptly formed themselves into an association, engaged a licitor, and held an indignation meeting at which we were nounced as "hounds of officials" who were seeking to ruin arduous and honest calling. Much was achieved despite e meeting and the declamations, but it had to be done at e point of the bayonet.

In some districts the cow-feeders are alive to the necessity r keeping everything clean, but that appears to be the ception to the rule. The cow is a machine which is pleted three times daily, and fed to give plenty of milk. ıere is no time to waste over the cleansing of hands or any- ing else. Moreover, the general public looks upon cold ilk with suspicion. It requires much education on this int, for if milk be warm, though it be heated with the dition of hot water or skimmed milk, the consumer believes must be fresh from the cow. Filters and milk coolers are w in action, and the cow-feeder starting operations 4 or 5 every morning, declares that he has no time waste over details which he is pleased to call the ads of health officials." The average cow-feeder refuses be taught. He will not leave the path trodden by predecessors. Force alone will compel him to adopt re modern and cleaner methods. That force must be plied from two directions. First, the general practitioner ıst take a keener and more active interest in the subject of re milk supplies. If the family physician only knew it, ny a patient of his drinks milk which in the language of e Public Health Acts is "unfit for human food." Were the ctor to teach his patients why milk, artificially cooled, is fer to use by reason of its better keeping qualities, the gent demands from consumers would soon goad the milk ler to supply the want. Secondly, the power must be ıced in the hands of the medical officer of health to say to ow-feeder when his traffic is not being conducted on satis- tory lines. Analogous power is granted under the Factory d Workshop Act when dealing with bakehouses. The fact ıt the local authority comes in as a buffer between the alth official and the cow-feeder makes the supervision of the lk traffic often extremely difficult, and in some places well- h impossible. That this anomaly should be remedied pears to us to be absolutely necessary.

While the foregoing remarks have taken us beyond the pro- ıce of our paper, they go to prove that the medical officer health is perfectly justified in advocating the establish- nt of infant milk dépôts, and we speak from experience. has been our constant aim to persuade and teach cow- ders in our district the value and importance of cleanliness. have made some progress, and have earned for ourselves otoriety for hard heartedness and severity which few men sess, and all because we have tried to rouse the Van Winkle cow-feeder out of his sleep. With that ex- ience to guide us we had no hesitation in recommending adoption of the principle of supplying infants with milk ich had been filtered, mixed with cream, sugar, and water definite proportions, put up in bottles which had been upulously washed, and finally subjected to a temperature ficient to kill most of the micro-organisms present. We re been gratified beyond measure to see the good results, the least valuable of which has been the education of the ple. Many, indeed most, of those who come to our dépôt drawn from that class which has been in the habit of ling infants upon the rule of thumb principle. Dirty tles, rancid teats and tubes, and extraordinary varieties of food have been supplanted by consistently good and wholesome nourishment at a very low cost. Already many mothers have come to appreciate the difference between the old and new method, and when we can say we have educated them to value the importance of sound infant feeding we have achieved much.

When the ideal milk supply of our large towns is universal the people may have no need of corporations to assist in the mixing up of food for the young. We cannot, however, wait for the mountain to come to us, so we must go to it by taking an immediate step in the direction of preparing milk for infants, thousands of whom, despite the purest milk supply in the world, would be fed upon mixtures of wonderful concoction.

[Note.—Since the above was written it has been decided to pasteurize the milk by subjecting it to steam at 170° F. for twenty minutes, and subsequently cooling the bottles.]

References.

[1] C. Flügge: Die Aufgaben und Leistungen der Milch-sterilisirung gegenüber den Darmkrankheiten den Säuglinge. *Zeitschr. f. Hygiene*, Bd. xv q. xv 11. 1894. [2] A. Lubbert: Ueber die Natur der Giftwirkung peptonisirender Bakterien der Milch. *Ibid.*, Bd. xx. 11. 1896. [3] A. Weber: Die Bakterien der sogenannten sterilisirten Milch des Handels, mit besonderer Berücksichtigung der giftigen peptonosirinden Bacterien Flügge's. *Arb. a.d. kaiserlichen Gesundsheitamt*, Bd. xv, 11. 1900.

"GOUTTES DE LAIT ET CONSULTATIONS DE NOURRISSONS."

By G. VARIOT, M.D.,

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In France rapid progress has been made in the scientific rearing of infants under a system of medical supervision. Midwifery doctors conceived the idea of having infants born in maternities brought back periodically to be weighed and inspected, and if need be that milk might be supplied for their nurture. Professor Hergott, of Nancy, founded in 1890 a charity in the maternity to encourage breast-feeding for infants. Mothers who suckled their children and who brought them back one month after birth in a satisfactory state received a monetary donation. Thus Dr. Hergott succeeded in materially stimulating the suckling of infants for the first few months of their lives, the most important period. In 1892 Professor Budin organized at La Charité in Paris a *consultation de nourrissons* for children born in his wards. He submitted the mothers to a weekly inspection during the whole period of nursing, and he also distributed sterilized milk to those who had an insufficient natural supply. Only 5 or 6 per cent. of the children were fed entirely from the bottle, 60 per cent. were breast-fed, and 35 per cent. received their nourishment partly from the breast and partly from the bottle, These are the most recent figures, and relate to cases which were attended to at the *consultation de nourrissons* at the Clinique Tarnier during 1903.

We physicians have adopted the method of watching our infants inaugurated by the accoucheurs, and have introduced it into a different sphere, into dispensaries for sick children situated in the poor quarters of Paris. In 1892 I established at the Dispensaire de Belleville, in one of the poorest districts of the French capital, a *goutte de lait*, and shall briefly describe the field in which it works and its methods. Children of the lowest and poorest classes are brought to us who are almost invariably fed artificially and rarely if ever breast-fed by their mothers, who are compelled to work hard to be able to rear their children. Most of the children are atrophic after illnesses such as gastro enteritis. They are not always brought by their mothers, but often by a grandmother, an elder sister, or an *éleveuse* (baby farmer). Bad rearing and the injudicious use of the feeding bottle are consequents of misery and pauperism. Such is the infant population of our *gouttes de lait* both in the poor quarters of Paris and in the manufacturing centres, where women are obliged to work in the manufactories or in the workshops. It is utterly impossible to resort to suckling to combat infantile mortality in such centres. The mothers have no longer any milk. We have therefore organized the scheme of distributing good sterilized milk, which we give gratuitously or at a reduced price according to the funds of the charity. This distribution of milk is of great value where the great majority of children have to be nursed artificially. For this reason we have adopted the apt title of *goutte de lait*, which was originated by Dr. Dufour in 1894 to designate the most interesting work he had organized at Fécamp.

It goes without saying that we watch these infants whom we are forced to nurse artificially, and of whom the overwhelming proportion are atrophic when they come into our hands. By distributing good milk, by graduating the feeding bottles, by weighing the children each week, by carefully watching the mothers, or *élereuses*, and by distributing printed instructions for the nursing of children, we obtain most satisfactory results. We bring up artificially atrophic children who have been deficient in weight by one-third and sometimes by one-half of the normal. All these infants would have fallen into a marasmic state of atrophy and would have died if the neglect of hygienic requirements by the mothers and *éleveuses* had not been arrested. Our *gouttes de lait* thus become in the course of things schools for artificial nursing.

The comparison made by Dr. Peyroux between the mortality statistics of the *consultations de nourrissons* of the accoucheurs and the *gouttes de lait* of the physicians is manifestly unfair and calculated to raise false conclusions. The accoucheurs watch the rearing of children born in their wards mostly breast-fed; the *gouttes de lait* treat children of the poor and low classes, nursed artificially and usually brought in an atrophic state. The error into which Dr. Peyroux has fallen has come from lack of experience. He has neither founded nor directed any *consultation de nourrissons* or *goutte de lait*, and he simply works on statistics which are sometimes so deceptive. He has tackled a subject the complexity of which he has not appreciated.

Accoucheurs only lose 5 or 6 per cent. of the children who frequent their consultations, but this low figure is accounted for by the fact that they only accept a very small proportion of children artificially fed—5 or 6 per cent. Never can one hope to see a reduction to such a percentage of infantile mortality, taking all children in any country into the reckoning. The practice of accoucheurs in accepting only a very small percentage of artificially-fed children for treatment influences their statistics, and gives them an apparent favourable showing.

Of the children who are brought to us we lose in our *gouttes de lait*, from all causes, from 20 to 25 per cent., but the majority are atrophic when their treatment begins, and hereditary diseases account for a great number of deaths among the Parisian poor, where we work.

Those who wish to deprecate the *gouttes de lait*, and drag them into unfavourable comparison with the *consultations de nourrissons* of the accoucheurs completely ignore the fundamental principles of these two institutions, which, far from being antagonistic, are complementary one with the other.

At the beginning of this month (April, 1904), at the Congrès d'Obstetrique et de Pédiatrie at Rouen, the subject of *gouttes de lait* was the occassion of numerous interesting communications on the part of Monsieur le Docteur Brunon. Director of the School of Medicine at Rouen; Mme. Marie Roussel, Dr. Lourier (Elboeuf), Dr. Ausset (Lille), Professor Pinard, and others; and there were rather heated discussions on this matter. In spite of the efforts of the accoucheurs, who desire to use specially the *consultations de nourrissons* for the supervision of breast-fed infants, the tendency of the *gouttes de lait* is to control the artificial feeding of infants. Doctors naturally think—and rightly so—that breast-fed children do not require such strict supervision as those fed artificially. This is how Dr. George Carpenter, in his editorial article in the *British Journal of Children's Diseases*, has understood the working of *gouttes de lait*, and he recommends that institutions such as these be founded in all the large cities of Britain. Dr. Carpenter rightly criticizes dépôts for merely selling milk organized both by the municipality and by private people without the strict supervision of a medical man. But these dépôts have absolutely nothing in common with the *gouttes de lait* organized in Paris, and in a certain number of towns in France which are all supervised by doctors who alone are qualified to direct such institutions.

THE OCCURRENCE OF PRIMARY TUBERCULOUS INFECTION OF THE INTESTINAL TRACT IN CHILDREN:

THE RESULTS OF 5,142 CONSECUTIVE NECROPSIES.

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THE statements made by Koch[1] in his address before the Congress on Tuberculosis in London in 1901, regarding the identity of human and bovine tuberculosis and the modes of transmission of the infection have since been subjected to most careful and searching investigation without any definite solution of the problem being arrived at. In conjunction with Schütz, he carried out a number of experiments, the results of which led him to conclude that human tuberculosis is not identical with bovine tuberculosis, and that the former is not transmissible to the latter, and further that the dangers ascribed to the consumption of tuberculous infected food have been grossly exaggerated. As is well known, articles of diet frequently contain in a living and virulent condition bacilli of *Perlsucht* in considerable numbers, and the quantities of such consumed by man daily would afford excellent opportunities for these micro-organisms to infect man.

Such, however, is not the case. According to Koch, tuberculous infections through the agency of food can only be accepted when the intestine itself is found affected—that is, when a so-called primary intestinal tuberculosis is found. Koch found such a condition extremely rare; in fact, he only remembers having seen two cases during his many years' investigation into tuberculous pathology. He is supported in this conclusion by the results obtained by other Continental observers. In the Charité of Berlin, where an enormous number of necropsies are held, only 5 cases of primary intestinal tuberculosis were found in five years. Baginsky,[2] working in the Kaiser and Kaiserin Friedrich Hospital for Children, found in a total of 933 cases of tuberculosis in children no case of primary intestinal tuberculosis without accompanying tuberculous changes in the lungs and bronchial glands. And Biedert[3] found only 16 cases of the condition out of 3,104 necropsies on tuberculous children.

These results appear to show the rarity of intestinal tuberculosis in children, and strongly support the dictum of Koch that the dangers of infection through tuberculous infected food are of no greater moment than that which obtains for hereditary transmission of the disease, and may be discarded from the point of view of prophylaxis.

At the same time the observations of others must not be discarded. Previous to the Congress on Tuberculosis in 1901, the opinion was widely diffused that the tubercle bacillus most frequently gained an entrance into the body through the tonsils and the lower part of the small intestine. Such were the conclusions arrived at by Professors Sidney Martin and Sims Woodhead, who conducted experiments on tuberculosis when engaged in the work of the Tuberculosis Commission in London. In their opinion invasion of the intestine by tubercle bacilli could take place without leaving any trace of a pathological condition.

OBSERVATIONS IN HONG KONG.

During the years 1902 and 1903, 5,142 necropsies were held at the public mortuary in Hong Kong. The number of those performed on children under 5 years of age comprises about 35 per cent. The bodies came from all parts of Hong Kong and the adjoining newly acquired territory. Special attention was directed to the presence or absence of abdominal tuberculosis in its various forms, and the results where necessary were amplified by microscopic and histological examination. Tuberculosis in all its varieties is widespread amongst the Chinese population in Hong Kong. All ages are affected, but children and young adults are responsible for the majority of the cases. The modes of life of the native population, coupled with the extraordinary overcrowding existent in the densest parts of the city, are distinctly favourable for the rapid dissemination of the disease. The frequency of the occurrence of the disease would not appear to depend on any climatic or racial peculiarity, nor would the course of the disease appear to be more rapid in Hong Kong than in Europe.

The results of my investigation into the frequency of intestinal tuberculosis show that out of 5,142 necropsies only 13 cases of the condition were found. In 8 of the cases the condition was regarded as secondary, the infection being derived from the presence of tuberculous foci in other parts of the body. Pulmonary tuberculosis was found in 5 and acute generalized tuberculosis with marked affection of both lungs in 3 cases. In these the infection of the intestinal tract was probably occasioned through the swallowing of infected sputum. In all of these cases the manifestations of intestinal tuberculosis were typical.

Only 5 of the cases could be regarded as instances of primary intestinal tuberculosis. They all occurred in children under 5 years of age. In these the tuberculous process had apparently commenced in the follicles of the small intestine. All stages of the disease were usually present in each case. The

ıcous membrane was studded with small nodular eleva-ns, many of which were of a yellowish-white colour, and on etion showed central necrosis and caseation. In the imme-ıte surrounding ulcers of varying size were scattered about e mucous membrane. These had infiltrated and somewhat egular edges, and their bases were composed of minute llow caseous nodules. Crops of minute tubercles were ınd beneath the serous peritoneum, each surrounded by a peraemic zone, and the lymphatic vessels showed evidences blocking by tuberculous infiltration. The mesenteric ınds were found tuberculous in 3 cases.

These results bear out the observations made by patho-gists on the Continent, and in the presence of so great a mber of necropsies are of great importance in regard to the quency of primary intestinal tuberculosis. They bear out, ther, the views now generally recognized in regard to the asion of the intestine by micro-organisms. The invasion the alimentary canal under natural conditions by micro-ganisms is by no means an established fact. In fact, there pears to be reason to doubt such an occurrence. Although e intestinal canal is the seat of election of the causal agents a large number of diseases, yet the general results of all servations and experiments seem to show that under linary conditions the intestinal tract resists to a great ent the invasion of micro-organisms. The danger of auto-ection through the normal intestine appears to have been ggerated, particularly in regard to the production of neral disease in children. The researches of Czerny d Moser[1] are confirmative of this, and, according to chl,[5] most generalized diseases in children do not e origin from the intestine but from the respiratory tract. at such a condition of affairs is met with in tuberculosis in ldren I have been able to convince myself. By far the jority of cases of tuberculous disease amongst children in ng Kong arise in connexion with the lungs and medias-um. The investigations of Nocard and Kaufmann[6], Lewin[7], ssilieff Kliemann[8], and others, endeavouring to demon-ate the sieve-like structure of the intestine and its invasion micro-organisms, would appear to be considerably akened by the careful experiments of M. Neisser[9] showing resistance of the alimentary canal to the invasion of ro-organisms during normal processes of digestion and n after severe mechanical and chemical injuries to the estinal mucous membrane.

hese results have been confirmed by Simoncini[10] and histovitsch[11]. At the present time it would appear ad-able to take up something of an intermediate position in ard to the invasion of the intestine by micro-organisms. the same time, the conditions in the intestine are remark-e when one considers that there is no other part of the y which is so closely and permanently in contact with such ch bacterial flora.

is said that although primary intestinal tuberculosis is a ty, primary tuberculous disease of the mesenteric glands by no means uncommon. The results of investigations n English and German sources are forthcoming, showing this condition is found in a small percentage of cases. odhead[12] found it in 14 per cent. of all cases of tuber-sis in children. Biedert[13] found it 40 times in 1,346 ropsies of tuberculous children; Carr[14] 5 times in 120; Grawitz[15] in Griefswald 4 times out of 1,104 necropsies. lossmann[16] and some others, however, believe tubercu-s of the mesenteric glands to be quite as rare as primary stinal tuberculosis. My own observations would seem to w that the mesenteric glands are more rarely the seat of erculous disease than is generally acknowledged. During past two years, in the presence of an enormous amount athological material, the outcome of over 5,000 necrop-shows 5 cases only of this condition. In each case the ed-eye appearances were supplemented by histological mination. In all of the cases the presence of tuberculous ase was found elsewhere in the body, most frequently in lungs or lymphatic glands in the mediastinum. In no was there evidence of tuberculous infection through the stinal mucous membrane. The intestines were normal ne naked eye in each case. In one case acute generalized ary tuberculosis was present, and the peritoneum was d scattered over with small tubercles. In another case peritoneum was also tuberculous, but here the process accompanied by thickening of the membrane, and the era were covered with a pearly-coloured layer, in which found caseous tuberculous nodules.

gain, on performing a large series of necropsies on dren one frequently comes across enlargement of the mesenteric glands. The appearances in some of the cases are on superficial examination suggestive of the condition known as "tabes mesenterica." I have often experienced difficulty in regard to these cases, and had to resort to careful microscopic examination before pronouncing them free from tuberculous disease.

From my own cases one is hardly justified in concluding that the infection took place by way of the intestine. As has already been mentioned, the normal intestinal mucous membrane offers no great opportunities for the penetration of micro-organisms. The presence of tuberculous disease in other organs—for example, the lungs—allows of the possibility of the transmission of the causal agent from the latter to the mesenteric glands.

Conclusions.

My results would appear to justify the following conclusions:

1. That primary tuberculosis of the intestine is rare in children under 5 years of age.
2. That tuberculosis of the mesenteric glands is also rare.
3. That the results obtained amongst a native population where tuberculosis in all its forms is rife, and the conditions of life extremely favourable for the dissemination of the disease, point to the alimentary canal as a rare avenue through which infection in tuberculosis is conveyed in childhood.

References.

[1] R. Koch. Tub. Congr., London; *Deut. med. Woch.*, 1901, S. 549. [2] Baginsky, *Berl. klin. Woch.*, 1880, S. 209. [3] Biedert, *Münch. med. Woch.*, 1890, S. 321; 56 Versl., *Deut. Naturfor. u. and.* [4] Czerny and Moser, *Jahrbuch f. Kinderheilk.*, 38, S. 430. [5] Fischl, *Sammlung klin. Vorträge*, N, F., No. 220. [6] Nocard et Kaufmann, *Semaine Méd.*, 1895. [7] Lewin. *Beitr. z. Inhalationstherapie.* 1865. [8] Wassilieff Kliemann, *Arch f. exp. Path.*, Bd. xxvii, [9] M. Neisser, *Zeit. f. Hyg.*, 1896. [10] Simoncini, *Ann. d'Igien. sperim.*, Roma, vii, 61, 1897. [11] Tschistovitsch, Baumgarten's *Jahresber.*, 1897. [12] Woodhead, 'British Medical Journal, 1898, ii, S. 918. [13] Biedert, *Deut. med. Woch.*, 1883, S. 724; and loc. cit. [14] Carr, *Lancet*, 1894, i, S. 1177. [15] Grawitz, *Deut. med. Woch.*, 1901, S. 711. [16] Schlossmann, *Cent. f. Bakt.*, Band xxxii, No. 21, p. 644.

INTUBATION IN LARYNGEAL DIPHTHERIA.

BY

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I.

Although a number of informing articles have appeared in recent years, notably one of great practical value by Goodall,[1] intubation of the larynx in diphtheria does not seem, in this country, to have received that recognition which, with due regard to its limitations, it deserves. A consideration of a series of cases is therefore perhaps permissible.

During the period covered by this paper, every laryngeal case requiring operation was treated, in the first instance at least, by intubation, and this absence of selection will, we believe, be of value in discussing the differentiation of cases suitable respectively for intubation and tracheotomy. In this connexion it should be said that intubation was not lightly undertaken; in almost every instance the obstruction was such that immediate interference was necessary. A few cases of a toxic and therefore unfavourable type were, however, intubated because, with only moderate obstruction, there was general loss of ground (see Group E).

We have thought it advisable to outline every case briefly as the best method of giving point to the principles considered in the body of the paper.

O'Dwyer's tubes, either all metal or vulcanite-coated, were used.

Approaching the cases from the point of view of the clinician, who has to decide whether an operation is necessary and also to choose between intubation and tracheotomy, we have arranged them in five groups. They are 70 in number. In stating the time during which the tube was worn, in every case the first day is counted as one.

Group A.

Cases not Intubated on Admission, but after a Varying Time for Progressive Obstruction; Twenty-three Cases, with Six Deaths.

Case I.—M. E. W., female, 17 months. Eighth day. Extensive membrane on tonsils, palate and uvula; profuse nasal discharge. Broncho-pneumonia (right). Antitoxin 12,000 units. Intubated twelve hours later; relief complete. Removed on fourth, fifth, and finally on sixth day. Death on same day from broncho-pneumonia and toxaemia.

Case II.—M. G., female, 10 years. Second day. Membrane both tonsils. Antitoxin, total dose 26,000 units. Intubated sixteen hours later. Relief not complete. Tube twice removed and cleaned. Death from broncho pneumonia thirty-six hours later.

CASE III.—N. G., female, 2 years. Third day. Extensive pharyngeal membrane. Broncho-pneumonia (left). Total dose of antitoxin 40,000 units. Intubated after twenty-four hours. Relief complete. Tube pulled out by child. Replaced after an hour and a-half. Removed on sixth day. Reintubated after some hours. From now until thirteenth day, especially after eleventh day, tube frequently coughed up (on one occasion swallowed and passed by rectum), reintubation being always shortly necessary. Tracheotomy. Could not do without tracheal tube until thirty days later. Recovery.

CASE IV.—C. J., female, 3 years. Second day. Membrane on both tonsils. Glands enlarged on both sides. Total dose antitoxin 28,000 units. Intubation after five hours. Relief complete. Removed on third day. Recovery.

CASE V.—W. B., male, 17 months. Third day. Membrane on both tonsils. Total dose antitoxin 26,000 units. Intubated after six hours. Relief complete. Extubated on fifth day. No further laryngeal trouble at that time. Numerous complications (otitis, mastoid abscess, persistent albuminuria, etc.). Second attack of diphtheria in eighth week, with laryngeal obstruction. Intubated with complete relief, but died on following day from exhaustion.

CASE VI.—R. M., female, 4 years. Seventh day. Membrane on one tonsil. Enlarged glands. Antitoxin 16,000 units. Intubation after four hours. Relief complete. Extubated on fourth day. Recovery.

CASE VII.—R. W., female, 1 year. Third day. Membrane on both tonsils. Antitoxin 14,000 units. Intubation after three hours. Relief complete. Removed after eight hours for blocking; replaced. Extubated fifth day. In an hour and a half extreme obstruction; reintubated. Same occurrence on ninth day. After that frequently coughed up until fourteenth day. Tracheotomy. Death twenty-four hours later.

CASE VIII.—D. G., female, 2 years. Second day. Total dose antitoxin 24,000 units. Intubated after eighteen hours. Relief complete. Tube blocked twelve hours later. Removed. Recovery.

CASE IX.—E. W., female, 2 years. Ninth day. Remains of membrane on uvula. Antitoxin 16,000 units. Intubated after eighteen hours. Coughed up tube twice on same day and once next day, when it was left out for four hours. On third day twice removed and cleaned. Condition much worse. Tracheotomy. Death ten hours later.

CASE X.—F. M., male, 14 months. Said to be first day. Fauces congested, no membrane. Some bronchitis. Antitoxin 16,000 units. Intubation after two hours. Relief complete. Extubated on fourth day. Slight recession for next forty eight hours. Recovery.

CASE XI.—R. S., female, 4 years. Seventh day. Membrane both tonsils. Pneumonia (right). Antitoxin 16,000 units. Intubation after three hours. Complete relief; sixteen hours later sudden cyanosis and collapse. Tube removed. Artificial respiration necessary. No further laryngeal trouble. In second week recurrence of pneumonia. Death on eighteenth day after admission.

CASE XII.—W. H., male, 1 year. ? Third day. Membrane on both tonsils. Broncho-pneumonia. Total dose antitoxin 24,000. Intubated after eight hours. Complete relief. Extubated sixth day. Recovery.

CASE XIII.—L. C., female, 5 years. Third day. Exudation on both tonsils. Slight bronchitis. Total dose antitoxin 24,000 units. Intubated some hours after admission. Relief complete. Extubated on fifth day. Recovery.

CASE XIV.—R. S., male, 11 months. Fifth day. Glands enlarged on both sides. Antitoxin 12,000 units. Intubated after four and a half hours. Relief practically complete. Coughed up much mucus and small pieces of membrane. Slight recession for first three days. Much cough. Extubated sixth day. Recovery.

CASE XV.—C. W., male, 19 months. History vague. Nasal discharge. Broncho-pneumonia. Total dose antitoxin 26,000 units. Intubation after two and a half hours. Relief complete. Extubated ten hours later for blocking. Reintubated in fifteen minutes. Finally extubated on sixth day. Recovery.

CASE XVI.—B. B., 5 years. Tenth day. Antitoxin 10,000 units. Intubated after two hours. Relief complete. Extubated on fifth day. Recovery.

CASE XVII.—I. L., female, 5 years. First day. Membrane on one tonsil. Total dose antitoxin 18,000 units. Intubated after seven hours. Relief complete. Extubated after thirty-six hours. Recovery.

CASE XVIII.—S. H., male, 4 years. Severe pharyngeal case. In sixth week attack of measles. On eighth day of attack laryngeal diphtheria. Intubation. Extubated on fourth day. Reintubated fifth day. Tube coughed up a few hours later. Steam tent for a few days. Recovery.

CASE XIX.—L. G., female, 5 years. Severe pharyngeal case. Measles in sixth week. On twelfth day of measles second attack of diphtheria, involving larynx. Intubation. Complete relief. Extubated fourth day. Recovery.

CASE XX.—E. C., male, two years. Fourth day. Total dose antitoxin 42,000 units. Intubation after six hours. Extubated on fourth day. Some recession. In steam for two days, Recovery.

CASE XXI.—J. B., male, 3 years. Third day. Membrane on right tonsil; slight broncho-pneumonia. Total dose antitoxin 40,000 units. Intubated after twenty-four hours. Relief not complete until some hours later. Extubated fifth day. Transient return of obstruction two days later with antitoxin rash. Put in steam. Recovery.

CASE XXII.—A. H., male, 3 years. Fourth day. Total dose antitoxin 32,000 units. Intubated after four hours. Restless for a quarter of an hour. Relief then complete. Extubated third day. Recovery.

CASE XXIII.—E. E. W., female, 5 years. Sixth day. Total dose antitoxin 30,000 units. Intubated after eight hours. Relief complete. Extubated after thirty-six hours. Some uneasiness. Steam for two days. Recovery.

GROUP B.

Cases Admitted with Moderate Obstruction Requiring Intubation at a Subsequent Time for a Paroxysmal Exacerbation; Two Cases with no Deaths.

CASE XXIV.—C. R., male, 4 years. Fourth day. Traces of membrane on tonsils. Antitoxin 12,000 units. Intubated three hours after admission during an attack of severe obstruction with cyanosis, following a fit of coughing. Tube coughed up in twenty minutes. Recovery.

CASE XXV.—R. W., female, 3 years. Second day. Exudation on right tonsil. Total dose antitoxin 24,000 units. One hour after admission, urgent obstruction with cyanosis. Intubation. Complete relief. Coughed up tube and large piece of membrane two hours later. Recovery.

GROUP C.

Cases Admitted with Obstruction already sufficiently Developed to require Immediate Operation; Thirty-seven Cases, with Eleven Deaths.

CASE XXVI.—M. B., female, 1 year. Fifth day. Slight glandular enlargement. No membrane on fauces. Relief complete. Some evidence of broncho-pneumonia. Antitoxin 12,000 units. Twenty-three hours later medical officer urgently summoned. Found child dead. The tube was not blocked. The sister's report pointed to sudden heart failure without obstruction.

CASE XXVII.—V. S., female, 16 months. Supposed second day. Membrane on tonsils and uvula. Profuse sanguineous nasal discharge. Relief complete. Total dose antitoxin 32,000 units. Extubated during first twenty-four hours for blocking; tube at once returned. Extubated fourth day. Recovery.

CASE XXVIII.—F. S., male, 18 months. Sixth day. Membrane on both tonsils. Relief complete. Considerable broncho-pneumonia. Antitoxin 12,000 units. Extubated after twelve hours for blocking; left out nine hours. Extubated on third day; at once reintubated. Extubated fifth day; tube left out two hours. Finally extubated seventh day. Recovery.

CASE XXIX.—V. F., female, 3 years. Duration doubtful. Membrane on both tonsils. Broncho-pneumonia both sides. Relief complete. Total dose antitoxin 18,000 units. Extubated on second, fourth, seventh, eleventh, thirteenth, eighteenth, twenty-first, twenty-fifth, and thirtieth days, obstruction returning after periods varying from two to seventeen hours. On thirty-first day finally removed, with use of chloral and bromide draught and steam. For several days paroxysmal obstruction still occurred. Recovery.

CASE XXX.—A. J. M., male, 2 years. Sixth day. Relief complete. Antitoxin 20,000 units. Respiration and pulse increased during second and third days. On fourth day obstruction returned. Extubated and reintubated without relief. Tracheotomy, also without relief. Death two hours later.

CASE XXXI.—T. L., male, 2 years. Second day. Membrane on both tonsils. Complete relief. Total dose antitoxin 22,000 units. Extubated twice on second day, tube filled with mucus. Finally extubated on seventh day. Recovery.

CASE XXXII.—J. D. W., male, 4 years. Sixth day. Membrane on tonsils and soft palate. Profuse nasal discharge. Glands much enlarged. Pulse feeble, extremities cold. Complete relief. Total dose antitoxin 28,000 units. Epistaxis. No urine passed. Death after eleven hours from toxaemia.

CASE XXXIII.—F. J. T., male, 20 months. Third day. Slight exudation on right tonsil. Relief complete. Total dose antitoxin 40,000 units. Extubated sixth day. Four days later dyspnoea and recession with some cyanosis. Reintubated. Tube coughed up three times in next six days. On last occasion not replaced. Recovery.

CASE XXXIV.—E. T., female, 6 years. Eighth day. Advanced toxaemia. Relief complete. Total dose antitoxin 32,000 units. Death in thirty-six hours from toxaemia.

CASE XXXV.—E. N., male, 2½ years. Third day. Some exudation on both tonsils. Relief complete. Antitoxin 16,000 units. Extubated fifth day. Some recession on same evening, soon passing off. Recovery.

CASE XXXVI.—L. B., female, 2 years. Third day. Profuse nasal discharge. Sloughy, blood-stained exudation on both tonsils. Glands slightly enlarged. Relief complete. Total dose antitoxin 36,000 units. Tube removed on third and fourth days, left out for six and three hours respectively. Finally removed on sixth day. Same evening considerable recession, passing off in twenty-four hours. Recovery.

CASE XXXVII.—E. S., female, 3 years. Eighth day. Severe toxaemia. Membrane on both tonsils. Haemorrhage from nose and pharynx; purpura. First insertion seemed to block larynx entirely. On withdrawal, a large sloughy piece of membrane found on lower end of tube. Reinserted. Immediately coughed up. Again inserted, with complete relief. Eighteen hours later tube blocked and removed. No return of obstruction. Death from toxaemia on same day.

CASE XXXVIII.—H. J. E., male, 2 years. Third day. Membrane on right tonsil. Relief complete. Total dose antitoxin 32,000 units. Extubated fifth day. Recovery.

CASE XXXIX.—K. B., female, 19 months. Fourth day. Membrane on both tonsils. Relief complete. Total dose antitoxin 40,000 units. Tube coughed up twice on second day. Extubated on third, fourth, and fifth days. Longest period without tube three hours. Finally extubated on sixth day. At end of fourth week perichondrial abscess. Incision and drainage. Recovery.

Note.—During this period we had a case of perichondrial suppuration in which intubation had not been performed, and another more recently.

CASE XL.—L. C., female, 3 years. Second day. Enlarged glands on both sides. Complete relief. Total dose antitoxin 32,000 units. Tube removed and replaced on second day. On third day, violent cough and

ession. Tube removed; complete membranous cast of trachea ghed up. Not reintubated. Recovery.
ASE XLI.—R. J. W., male, 3 years. Seventh day. Complete relief. itoxin 20,000 units. Extubated on fourth day. Recovery.
ASE XLII.—M. H., female, 2 years. Fourth day. Relief complete. itoxin 12,000 units. On second day colour bad, pulse and respira- s increased in speed. Tube removed. Three hours later trache- ny performed. Death in nine hours.
ASE XLIII.—M. V., female, 2 years. Second day. Complete relief. l dose antitoxin 32,000 units. On third day restlessness and some ssion, then, during nasal feed, sudden cyanosis. Tube removed tracheal cast 1 in. long coughed up. Recovery.
te.—This case is interesting in view of the fact that in rare instances den death occurs during nasal feeding.
ASE XLIV.—R. N., male, 12 months. Second day. Complete relief. l dose antitoxin 24,000 units. Occasional slight recession. Ex- ted seventh day. Slight recession for twenty-four hours. Re- ry.
ASE XLV.—H. O., male, 4 years. Second day. Nasal discharge and dular enlargement. Complete relief. Total dose antitoxin 32,000 s. Rather frequent cough. On second day urgent dyspnoea and ssion. Tube removed and complete cast of trachea coughed up, in- ing bifurcation. Same event on third day, the cast being less com- e, but showing bifurcation. Removed on fourth day for same on, and some large flat pieces of membrane coughed up. Extubated fth and finally on eighth day. Recovery.
SE XLVI.—M. A. S., female, 2 years. Sixth day. Broncho-pneu- ia both sides. Relief complete. Total dose antitoxin 28,000 units. ubated sixth day. Three days later some recession and restlessness ing off in a few hours. Recovery.
SE XLVII.—D. E. G., female, 4 years. History not known. Complete f. Total dose antitoxin 26,000 units. Extubated fifth day. Some ssion and occasional dyspnoea for some days. Recovery.
SE XLVIII.—C. S., male, 7 years. Third day. Glands moderately rged on both sides. Relief complete. Total dose antitoxin 26,000 . Extubated on fourth day. Recovery.
SE XLIX.—M. T., female, 7 years. Complete relief. Coughed up eighteen hours. Replaced. Coughed up a few hours later. very.
SE L.—R. F. B., male, 3 years. Third day. Diphtheria following les. Complete relief. Antitoxin 18,000 units. Extubated on day. Recession afterwards, gradually increasing. Steam for two Recovery.
SE LI.—B. S., female, three years. Duration doubtful. Relief not complete. Steam tent. Antitoxin 10,000 units. On second day coughed up with small piece of membrane. Reintubated. Still recession, increasing on second evening. Tracheotomy. No brane could be extracted at operation. Death seven hours later.
SE LII.—C. S., female, 4 years. Second day. Relief complete. oxin 12,000 units. Extubated on sixth day. Recovery.
SE LIII.—H. P., female, 3 years. Second day. Relief complete. oxin 12,000. Extubated fourth day. Recovery.
SE LIV.—J. P., female, 12 months. History vague. No pharyngeal brane. First insertion gave no relief. On withdrawal complete of larynx found attached to tube. Relief complete on second tion. Total dose antitoxin 24,000 units. Temperature, pulse, and ration rose during day, and obstruction returned and increased. removed, cleaned, and replaced without relief. Tracheotomy. nserting tube respiration ceased entirely. By forceps, on second pt, complete cast of trachea removed showing bifurcation and al secondary branchings, nearly 4 in. long. Artificial respiration; fifteen hours after admission.
E LV.—F. W., male, 3 years. Third day. Membrane on one . Relief complete; tube coughed up in a few minutes without n of obstruction. Total dose antitoxin 56,000 units. Reintubated ours later. On second day obstruction returned. Tracheotomy. six hours later although relief complete.
E LVI.—N. H., female, 5 years. Fourth day. Membrane on both s. Relief considerable but not complete. Antitoxin 10,000 Recession increased on same day. Extubated and put in steam On third day some obstruction still present. Tracheotomy. lete relief. Tube worn for more than a month. Recovery.
E LVII.—C. R., male, 5 years. Third day. Faucial congestion. lete relief. Total dose antitoxin 23,000 units. After three hours locked and removed. Reintubated six hours later. Cast of larynx in mouth. Finally extubated on fifth day. Recovery.
E LVIII.—G. A. B., male, 11 months. History doubtful. Membrane ght tonsil. Glands affected on both sides. Slight broncho- nonia. Relief complete. Total dose antitoxin 35,000 units. coughed up on third day. Replaced. Extubated fifth day. ubated in three-quarters of an hour. Coughed up on seventh twice) and again on eighth day, when it was not replaced. ery.
E LIX.—J. U., male, 1 year. Second day. Membrane on both s. First insertion gave no relief. Stridulous sound suggested membrane below tube. Second insertion gave complete relief about a quarter of an hour. Total dose antitoxin 28,000 units. l evening obstruction returned, with rising temperature. Trache- . Obstruction not relieved; no membrane could be extracted. twenty-six hours after admission.
LX.—H. D., male, aged 22 months. Third day. Complete Antitoxin intravenously 11,000 units, subcutaneously 10,000 Extubated fourth day. Some recession and dyspnoea. Put in for three days. Recovery.

CASE LXI.—G. T., male, 7 years. Sixth day. No faucial exudation. Severe broncho-pneumonia. Relief great but not quite complete. Tube removed after eight hours. Not found necessary to replace it. After four days slight obstruction, passing off in a few hours. Broncho-pneumonia gradually spread and caused death on sixteenth day.

CASE LXII.—M. M., female, 3 years. Second day. Complete relief; Broncho-pneumonia. Total dose antitoxin 30 000 units. After twelve hours tube blocked; removed. Cast of trachea, which included bifurcation, found in mouth. Reintubated. Fourteen hours later tube blocked; removed; replaced in half an hour. Extubated on fourth day; reintubated in a few hours. Extubated on seventh day; reintubated in ten hours. Tube coughed up once on each of next two days. Next day (tenth) medical officer urgently summoned. Found patient apparently dead, tube having been coughed up. Tracheotomy. Artificial respiration. Recovery. Still wearing tube five months later, although there is some entrance of air by larynx and the voice is good.

GROUP D.

Cases admitted in extremis; Six Cases with Three Deaths.

CASE LXIII.—W. T., male, 6 years. Sixth day. Extremely toxic case; some laryngeal obstruction. Tube pulled out by patient immediately after first insertion. Replaced at once. Complete relief. Antitoxin 14 000 units. Death in eight hours from toxaemia.

CASE LXIV.—J. R., male, 4 years. Third day. First insertion seemed to block the larynx entirely. Tube withdrawn. Second insertion gave complete relief. Extensive broncho-pneumonia on both sides. Total dose antitoxin 32,000 units. During next eighteen hours tube blocked with mucus and removed five times. During last reinsertion respiration stopped. Tracheotomy, artificial respiration, death.

CASE LXV.—A. B., female, 4 years. Fourth day. Membrane on both tonsils. Relief complete. Total dose antitoxin 36,000 units. Tube coughed up once and removed once in the next twenty-four hours. Extubated on fifth day; reintubated in one hour. Finally extubated on ninth day. Recovery.

CASE LXVI.—H. R. S., male, 15 months. Second day. Almost moribund. Relief on intubation not quite complete. Tube coughed up twice. Tracheotomy. Death sixteen hours after admission.

CASE LXVII.—G. B., male, 4 years. Third day. Almost moribund. Respiration stopped a few seconds after first insertion; tube withdrawn: tracheotomy; artificial respiration. No membrane found in trachea at operation, but next day large sloughy mass withdrawn with forceps. Total dose of antitoxin 40,000 units. Recovery.

CASE LXVIII.—E. A. J., male, 3 years. Second day. Slight faucial exudation. Almost moribund. Relief complete. Total dose of antitoxin 32,000 units. Tube coughed up on fourth day. Recovery.

GROUP E.

Cases with only Moderate Obstruction, but with Progressive Asthenia, and especially a Tendency to Circulatory Failure; Two Cases, One Death.

CASE LXIX.—H. C., male, 2 years Fourth day. Extensive membrane, much pharyngeal swelling, profuse nasal discharge, glands much enlarged. Antitoxin 20,000 units. Some obstruction continued with general loss of ground till sixth day. Intubation on this day. Complete relief of obstruction. Extubated third day: immediately reintubated. From now till the twelfth day, especially after ninth day, frequent coughing up of tube, always with urgent obstruction within a few minutes. Tracheotomy. Seven days later death from syncope.

CASE LXX.—M. K., female, 4 years. Fourth day. Very extensive pharyngeal membrane, profuse nasal discharge. Total dose antitoxin 36,000 units. Intubated after twenty-four hours. Complete relief. After eighteen hours tube blocked and removed. Same occurrence twenty-four hours later, distress developing quickly in each case. Extubated sixth day; reintubated in a quarter of an hour. Extubated three more times up to thirteenth day. From then till eighteenth day tube very frequently coughed up, urgent obstruction always quickly developing. Tube retained after this, but every attempt to leave it out failed. On thirty-second day removed under chloroform. After twenty-four hours gradual increase of obstruction. Tracheotomy on thirty-fourth day. Tube worn for four months. Recovery.

II.

It is unnecessary to enter into the ordinary clinical indications for operation; to them may be added those obtaining in Group E. It being decided that an operation is necessary, the question of the relative advantages of intubation and tracheotomy arises. It may be said at once that the choice primarily depends on the surroundings of the individual case, for the post-operative emergencies requiring the immediate presence of a medical man are far more frequent with intubation (see, for instance, Cases III, XLIII, XLV, LVIII) than with tracheotomy; difficulties following the latter can generally be dealt with, temporarily at least, by the trained nurse. Hence it is plain that tracheotomy is preferable in private practice. In hospital, where constant medical attendance is assured, intubation has the general advantage of throwing less work on the nursing staff, both in preparation and after-treatment.

Passing to the intrinsic value of the two operations, intubation is in our opinion easier to perform, after a little experience. Apart from secondary inflammatory conditions we have only failed to insert the tube in one case, which was not

diphtheria. It must be admitted, however, that in rare cases of diphtheria, oedema may render intubation impossible; it is a cardinal rule that no force must be used when inserting the tube. Against the dangers of tracheotomy, which even the experienced operator may encounter, are to be placed, in the case of intubation, the partial asphyxiation from gagging and inserting the tube (see Case LXIV), and the possibility of actual blocking of the trachea by dislodged membrane (see Cases XXXVII, LXVII). These exigencies are, however, rare, and when they occur seldom cause death. If necessary tracheotomy can be performed. The operator should see beforehand that the essential instruments are at the bedside. Case LXIV is the only one where death occurred at the time of intubation; it seemed to be due rather to cardiac failure than to obstruction —the more so as the previous insertions, excepting the first, had been effectual.

We do not propose to discuss the mortality of the two operations; it will suffice to say that at this hospital the death-rate for intubation, including cases subsequently requiring tracheotomy, is 30 per cent., against a somewhat higher rate for primary tracheotomies. In apprising the value of operation it must be remembered that even with the obstruction relieved death may occur from a variety of other causes (see, for example, Cases V, XI, XXXIV, etc.).

In view of the foregoing considerations we should ourselves, as a rule, choose intubation, in the absence of clinical contra-indications. Among conditions which at one time or another have been so considered are:

(*a*) *Severe Involvement of the Fauces and Nasal Passages.*—The fact that enlargement of the cervical glands, tonsillitis and nasal obstruction may, in very exceptional cases, make tracheotomy necessary is recognized. That there may, however, be extensive pharyngeal and nasal involvement and intubation yet completely relieve is shown by Cases I, III, XXVII, XXXII, XXXVI, LXIX, LXX. Their subsequent history (3, out of the 5 which survived the first few days, requiring tracheotomy under conditions pointing to ulceration) nevertheless suggests that cases of this class may be unsuitable for intubation, not necessarily because the operation may fail to relieve, but rather owing to a special vulnerability of the tissues. We are inclined to believe that such vulnerability is a characteristic of septic cases in which the mixed infection extends to the larynx. The two last-named cases illustrate this. We do not think that in ordinary severe faucial and nasal cases intubation is often contra-indicated. If there be severe toxaemia, such as is marked by a general tendency to bruising on slight pressure, it is natural to suppose that the larynx will share in it and a liability to ulceration result. In such cases it will be necessary to weigh the risks of tracheotomy, with or without chloroform, against the possibility of ulceration from the intralaryngeal tube.

(b) Palpable Oedema of the Upper Part of the Larynx.—We have had one case, not in this series, in which a considerable amount was present. Intubation gave relief at first; but after a time, as the child was slowly losing ground, tracheotomy was performed with distinct benefit. Ulceration probably occurred, and must be admitted to be a danger in such cases.

(c) The Presence of Membrane low down in the Trachea.—Even if it were possible to make a preliminary diagnosis of this condition with any degree of certainty, its significance as a contra-indication would remain in doubt. Thus, Cases XLV and LXII were completely relieved, although subsequently casts showing the bifurcation of the trachea were coughed up.

(d) A Moribund Condition Referable to Obstruction.—Cases are occasionally admitted to hospital in which the necessary delay, slight as it is, and the temporarily increased asphyxiation which intubation involves, are inadmissible. By a coincidence none quite so desperate occurred in the present series. Cases LXV, LXVI, LXVII, and LXVIII most nearly approached this condition (see also Case LXII).

The question of extensive broncho-pneumonia as a contra-indication to intubation suggests itself. This complication is a common cause of death in fatal cases of intubation as of tracheotomy. The same holds good, however, in non-operative cases of diphtheria in which the air passages are involved, and we doubt whether intubation in itself has any influence on the course of broncho-pneumonia. If, however, there is much tentacious sputum, intubation may be rendered ineffectual by constant blocking of the tube (see Cases IX, LXIV). Such a contingency cannot well be foreseen, and in point of fact cases may do well with intubation alone, even though there be considerable pre-existing broncho-pneumo (see, for example, Cases XXVIII, XLVI).

III.

Reference has already been made to immediate block during insertion. Of another kind are cases in which intu tion only affords partial relief. If the obstruction rem severe tracheotomy will, of course, be required. Otherw due time should be allowed for the child to settle down (s for example, Case XXII). When slight obstruction continu the patient should be carefully watched. Gradual impro ment may ensue (see Cases XIV, XXI). If, on the other ha loss of ground continues, we are of the opinion that trac otomy is sometimes advisable, even though the obstruct be slight.

Next fall to be considered cases in which intubation lieves completely, but only for a time. This may be due extension of the membrane (see Cases XXX, LIV, LIX), peated blocking of the tube, as already mentioned (see Ca IX, LXIV), or the development of definite intolerance (s Cases III, VII, LXIX, LXX). These are all conditions that mand trachetomy. In the first-named condition this may may not relieve, or the relief may be only temporary. In t second more or less complete relief of the obstruction usual, but the prognosis remains bad. As regards the la it cannot be doubted that frequent reinsertions are hausting to the patient, and may possibly cause injury to t larynx.

IV.

The intralaryngeal tube having effectually relieved the struction, it will be the aim of the operator to dispense wi it as soon as possible. On this point Northrup (Artic on Diphtheria in Nothnagel's *Encyclopaedia of Practical Me cine*, English edition) remarks that "five days for a child ov 2 years of age may be considered a fair average. At t Willard Parker Hospital the time allowed is four days; t the New York Foundling Hospital three days.....Accordi to Somerset.....a child under 2 years of age may require t tube intermittently during a period of two weeks or long He puts the limit of time during which the tube should worn without removal at five days in primary intubation In our series, excluding cases fatal during the first few da the tube was coughed up or removed for the first time:

(*a*) In 9 cases within twenty-four hours; of these, 7 did n require reintubation.

(*b*) Of 7 cases on the second day only 2 did not require r insertion.

(*c*) Of 7 on the third day, 4 did not require reinsertion.

(*d*) Of 11 on the fourth day, 10 did not require reinsertion.

(*e*) Of 9 on the fifth day, 8 did not require reinsertion.

(*f*) Of 7 on the sixth day, 5 did not require reinsertion.

(*g*) One case on the seventh day did not require reinsertio

As to the day of final removal, this took place on the fir day in 7 cases, on the second day in 2, on the third day in on the fourth day in 10, on the fifth day in 9, on the sixth d in 7, on the seventh day in 3, on the eighth day in 2, on t ninth day in 1, on the tenth day in 1 (tracheotomy, Case LXI on the twelfth day in 1 (tracheotomy, Case LXIX), on t thirteenth day in 1 (tracheotomy, Case III), on the fourteen day in 1 (tracheotomy, Case VII), on the sixteenth in 1 (Ca XXXIII), on the thirty-first day in 1 (Case XXIX), on the thirt second day in 1 (tracheotomy two days later, Case LXX).

We are of opinion that the tube should be removed the fourth day at the latest, and left out if it is all possible. Thus steam and sedatives may be used (f example, Cases XVIII, XXIII, etc.). If by the tenth d the tube cannot be dispensed with, we consider that as rule tracheotomy should be performed. Of the above seve cases in which the tube was retained after the ninth day, fi came to tracheotomy, and in the three which survived the was evidence of laryngeal obstruction for a considerable tim In one of the two which did not come to tracheotomy, the was an interval of four days, during which the tube was n worn. Especially should tracheotomy be done if there definite intolerance.

A review of the cases with "retained tube" shows th they were initially of a severe type; two occurred in the fir group, two in the third, and two in the fifth.

As to the method of extubation, we are in agreement wit Fairbank[2] that in most cases the thread should be le attached. It sometimes causes salivation, and may, of cours be bitten through. To prevent the tube being pulled out t hands may be tethered to the sides of the cot, but a bett plan is to use cardboard elbow splints, so that the child ca

e freely and play with toys. We also endorse Fairbank's ction to enucleation.

REFERENCES.
[1] *Edin. Med. Jour.*, March, 1902. [2] *Lancet*, June 20th, 1903.

SUGGESTION FOR THE TREATMENT OF PUERPERAL CONVULSIONS BY SPINAL SUBARACHNOID PUNCTURE.

WITH NOTES OF A CASE SO TREATED.

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knowledge of the etiology and pathology of eclampsia of nancy and the puerperium is so unsatisfactory as to afford ational basis for treatment. In the present state of affairs ust turn to clinical study and to the results of personal rience for guidance. No apology is needed, I think, for uring to suggest any means of treatment which offers the ibility of relief in this distressing condition.

hether of mechanical or chemical origin, it is now agreed the phenomena of eclampsia are largely dependent upon presence of toxic material in the blood, discussion still on as to whether this accumulation is the result of ient elimination, imperfect metabolism, or increased uction, or of the introduction of some new toxin foreign e non-pregnant state. The nature of the toxin is still own, nor is there more certainty as to the way in which oduces the eclamptic state.

the matter of treatment it is agreed that there are three indications:

To prevent the accumulation and assist the elimination struction of the poison.

To deal with the pregnancy.

To control the convulsions.

upon each of these there exists a diversity of opinion as dering as in the question of causation.

e first indication is scientifically the important one, but esent our methods are purely empirical. It is, however, e last of these three principles that I wish especially to attention; but I may say that my experience coincides what I believe to be the experience of others—namely, cases have in my hands done best where the pregnancy me to an end and the convulsions have been controlled; orst cases have been those in which the convulsions not be controlled, and where coma supervened; and I come to regard the extent to which the nervous system olved and the success with which this can be controlled e key to prognosis.

e questions of the management of the pregnancy and of xaemia must be dealt with equally, whether we see the efore the occurrence of convulsions or afterwards.

n the Pre-eclamptic Stage (that is, the stage in which the nen in the urine may be increasing, while the urea is ishing in amount, and certain signs and symptoms are ring, as, for example, headache, oedema, respiratory ss). The first indication is to combat the accumulation toxin by dietetic and hygienic measures, attention to xcretions, and possibly the administration of thyroid t, based on the theory that, owing to thyroid deficiency, metabolism is imperfect. In many cases treatment on lines succeeds, and pregnancy may run to term; but nxious cases are those in which the deficiency of urea ion and albuminuria persist and untoward symptoms ify; in these cases we have to face the important ques- f interfering with the pregnancy. If, on the one hand, he fact that there is deficient excretion or increased pro- n of effete material directly dependent upon the nt state (that is, upon the fact that the maternal sm cannot meet the strain put upon her metabolic ses by the life and growth of the fetus and their con- nces), and by appropriate means we are unable to the balance, we must consider termination of the ncy as an important and integral part of treatment; the toxin is some special toxin generated in the womb from placental or fetal faultiness, or some formed in association with the dissolution of ed placental cells (escaped into the maternal stream), the same rule holds, though possibly ust eventually rather look to serumtherapy or ent by antitoxin injections. If, on the other hand, d be shown that the fault lies in some distant organ, for example, the thyroid gland, and a remedy can be found by supplying some deficient element of its secretion, a great point would be gained, for interference with pregnancy would become unnecessary. If it should become necessary to terminate the pregnancy, the choice of method is of importance. Formerly I have induced labour by the introduction of bougies and also by the glycerine method of Pelzer, but recently I have employed the more rapid method of dilating by Bossi's dilator. The first and second principles of treatment are bound up together and are of special importance in the preventive treatment of eclampsia, but, once convulsions have set in, the third principle becomes of instant and of first importance.

2. *Eclamptic Stage.*—The first principle of treatment remains in force: it is necessary to get rid of the toxin, and now more active measures must be taken: hot packs, saline injections, and rectal irrigation are of use. With regard to the second principle—the management of pregnancy—there is a great diversity of opinion. Looking upon the continuance of pregnancy as a vital factor in the production of the poison and the causation of this disease, my own practice is to end the pregnancy, whether labour has commenced or not. Truly, the onset and progress of labour by the unaided natural powers, involving much unwonted muscular work and nervous strain, must throw into the system an additional amount of effete material, with which the excretory organs, if already damaged, may be unable efficiently to cope, or the violent uterine contractions may conceivably give rise to further escape of placental cells into the maternal blood-stream, and so intensify the danger. And it is on this account that I personally am of opinion that the right course is not to leave the matter in the hands of the maternal powers, but to terminate the labour as expeditiously and as safely as possible by artificial means. Though much has been said, and possibly rightly said, in favour of abdominal or vaginal Caesarean section, my own practice is as follows:—(1) Where labour has commenced and the os is dilating I chloroform and deliver, if necessary, completing dilatation artificially by hand or instrument. (2) Where labour has commenced and the os is not dilating, or where labour has not commenced, I chloroform and dilate by means of Bossi's dilator and deliver. Formerly I dilated manually, or by hydrostatic bags, but now I prefer Bossi's instrument, which I believe, if carefully used, may be safely used. Possibly the fact that my muscular development is not too great has preserved me from inflicting those serious injuries which apparently have been met with in its use. If dilatation be performed slowly and the cervix carefully watched there should be little danger. But, as I said before, when once convulsions have occurred, whether before, during, or after labour, the third principle becomes of instant importance. It is now essential to control the convulsions, and this is the special point to which I desire to call attention.

The Convulsions.—How are the convulsions caused? Several suggestions have been offered: (1) That they are produced by direct action of the toxin upon the nerve cells, (2) by cerebral anemia, the result of constriction of arterioles, (3) by cerebral oedema, the result of increased arterial tension, (4) by coagulation and capillary thrombosis. A suggestion, which I now advance, is that the eclampsia is due to increased cerebro-spinal tension. If we look at the clinical aspect of a case, we see at once that this suggests intracranial pressure. The premonitory signs of headache, dizziness, irritability and sudden blindness, the clonic, tonic, and tetanic spasm, the stupor and coma, all are consistent with increased intracranial pressure. Whether this be the cause or not, the continuance of the violent convulsions will increase the pressure by causing congestion of the cerebral vessels, and if continued, serous effusion and even haemorrhages may occur. We have only to think of the picture of the eclamptic woman to see how grave must be the congestion resulting from each attack. If this intracranial pressure be present, and if it be allowed to continue unrelieved, or to increase, it will in all probability lead to death. If the convulsions continue unrelieved, small or large haemorrhages or other vascular disturbances may occur, and, once this state is reached, the patient will almost inevitably die—these are the cases that end in death, whatever treatment be adopted, and my experience has led me to the conclusion that the tendency to death is proportionate to the extent to which the nervous system is involved. Whilst therefore dealing with the questions of the toxaemia and the pregnancy, it is essential to control the fits.

What Means Have We?—Up to the present time we have

been dependent chiefly upon drugs. It has lately been suggested that saline injections may be of use by washing out minute capillary thrombi—an unsatisfactory theory. Venesection, too, has been thought to influence the fits by reducing arterial tension; but it is chiefly upon drugs that we depend. I must confess to employing drugs, especially morphine, with a feeling of anxious doubt. We have yet no rational basis for their use; we are acting altogether in the dark, and are introducing into the body, once and for all, substances which, whilst they may do good, offer for all we know an equal chance of doing harm. Most of the drugs are cardiac depressants, and their actions require to be carefully watched. Morphine, if given in sufficiently large amount, whilst certainly paralyzing the nerve centres, with equal certainty interferes with and checks metabolism and arrests the excretions—the interference with the latter being the antithesis of what we want. To illustrate the difficulty of the present position it is only necessary to refer to the fact that whilst one school recommends morphine to control the fits and inhibit metabolism, another would exhibit thyroid extract because it enhances tissue change. If it could be shown, on the one hand, that the toxaemia *is not* due to the accumulation of effete materials usually present in the body, which are now in excess and capable of being eliminated by the natural channels, if these could be got to work, and, on the other hand, that the toxaemia *is* due to the presence of some new toxin entirely peculiar to the pregnant state, for example, a toxin formed during the process of dissolution of placental cells (syncytiolysin or syncytiotoxin), and that this toxin chiefly acts as a poison to the nervous centres; then, until the discovery of a specific antitoxin, there might be ground to encourage us to push the administration of morphine, even though it blocked the excretions. Recent experimental researches have been conducted in this direction. It has been shown by Schmorl and others that during pregnancy fragments of villi or syncytial cells escape into the maternal blood stream, and upon this fact has been built the following theory: These foreign cells act as a poison to the maternal system; they give off a toxin (cytotoxin), for the neutralization of which an antitoxin (cytolysin), which has the power of destroying these cells, is produced by the maternal tissues. Veit suggested that, if this antitoxin, which he named syncytiolysin, is formed in insufficient quantity, the placental cells are not destroyed and act as the direct cause of the eclampsia. Ascoli, as the result of experiments, concluded that the convulsions were due to over-production of this syncytiolysin, whilst Weichardt propounds the theory that in the dissolution of the placental cells by the maternal antitoxin (syncytiolysin) a new toxin is set free, which, if not neutralized, will give rise to eclampsia, and this he calls syncytiotoxin. His conclusions are the result of experiments upon rabbits and guinea-pigs, in which he has induced all the phenomena of eclampsia. Recently these experiments have been repeated by Wormser, of Bale, who has failed to confirm the results obtained by Weichardt. Unfortunately, then, this interesting and promising theory remains a theory: we have no substantial evidence of the existence of this specific toxin and our hopes of a specific antitoxin are unrealized. We must return, therefore, to our present means of controlling the convulsions, for which, as I have said, we are chiefly dependent upon drugs.

It would be of inestimable value if we had some means whereby we could control the fits without introducing into the system new substances or drugs, which may do harm—some means to control the fits with certainty, averting, as it were, the immediate menace of death, and allowing time to bring the pregnancy to an end and to get the excretory powers to work.

If my view that the convulsions and stupor are dependent upon an increased intracranial pressure be correct, we have a most satisfactory and certain means of obtaining immediate relief. In 1872 Quincke noted the free communication of the subarachnoid spaces of the brain and spinal cord, and again in 1891 he called attention to this fact and to the possibility of tapping the spinal cord in the lumbar region. Since that time many cases have been recorded, chiefly of meningitis in children, but also some cases of persistent headache and coma in lead poisoning and chronic Bright's disease, in which the method has been employed and relief has been obtained. It was in November of last year that I decided to apply this method of treatment to puerperal eclampsia.

The first two cases seen by me after coming to this decision I now record for the sake of contrast; in one the method was not employed, in the other it was; both were cases of puerperal eclampsia, the convulsions following confinement. The question of treatment was simplified, for the first principle—the management of pregnancy—was not involved, the pregnancy having already come to an end before the fits appeared. Treatment, then, lay in the direction of controlling the convulsions and eliminating the poison; it was a matter of energetic action.

The first case was that of a primipara, over 30 years of age, the wife of a member of the medical profession; during pregnancy her health was good; a fortnight before confinement, noticing that her ankles were a little swelled, she called her husband's attention to the fact; he thought little of it, but examined the urine, which contained albumen.

Labour was quite straightforward, but, as the perineum was somewhat resistent, chloroform was administered and low forceps applied. Everything appeared satisfactory, the only noticeable feature, to which no great importance was at the time attached, being that the patient was somewhat excited and lively. Delivery took place about 10.30 p.m., during the night the doctor was summoned because of some slight attack, the nature of which was not quite evident; this recurred two or three times. No urine was obtained.

In the morning the patient had a more definite eclamptic attack, and I was sent for. On my arrival I witnessed a most violent and prolonged eclamptic seizure: by catheter I obtained a very small amount of urine (a few drachms) which was deeply mixed with blood. Chloroform was administered and a pint of saline solution injected beneath each breast; chloral and croton oil were given by mouth and hot saline solution injected into the bowel. The question of lumbar puncture was mentioned, but, owing to its experimental nature and the surroundings of the case, was not employed. I remained with the patient for several hours, during which there were several convulsions. Then as the patient appeared to have settled down into a quiet sleep, I left her requesting that I should be sent for if necessity arose. The patient however, as I subsequently was grieved to learn, died about twelve hours after the first violent attack.

The second case was one which I saw in consultation with Dr. Henry and Dr. McMaster, of Rochdale, on December 19th 1903, and to the latter I am indebted for the notes of the case:

The patient was aged 29: morning sickness had persisted all through pregnancy, and from the sixth month onward the patient had suffered from headache and swelling of the ankles, the urine being scant. Labour was natural, lasting only a few hours and a midwife being in charge; the child was born at 6 a.m., and the patient was then quite comfortable, but, two hours later, she complained of headache, vomited, had a fit, and suddenly lost her sight, the blindness being complete. During the day the fits recurred with increasing severity and frequency. At first, during the intervals, the patient was irritable, but the irritability gradually gave way to stupor; the stupor deepened until, towards 5 p.m., when I first saw her, the patient was almost comatose between the fits. In ten hours there were fifteen fits, and as the day advanced the patient was progressively becoming worse.

Treatment.—During the day chloral hydrate and a diaphoretic mixture were given by Dr. Henry and Dr. McMaster. At 3 p.m. Dr. Henry telephoned to me, and on my suggestion the chloral was repeated, 5 gr. of thyroid extract and 2 minims of croton oil were administered, and normal saline solution was injected into the rectum. At 5 p.m. I met Dr. Henry and Dr. McMaster in consultation. The patient was very ill, her condition had steadily got worse in spite of the treatment employed, the fits were very violent and prolonged, and in the interval the patient maintained a semi-comatose state; it looked as if she must die. We decided upon energetic action. The patient was put under chloroform by Dr. McMaster, and a pint of warm saline solution (made up from Burroughs and Wellcome's tabloids—a most convenient preparation) was transfused beneath each breast: whilst Dr. Henry attended to this, I performed spinal subarachnoid puncture in the lumbar region and withdrew a drachm and a-half of cerebro-spinal fluid. The fluid escaped rapidly, as if under considerable pressure, and not drop by drop, as occurs, for example, in health when the needle is inserted for cocaine anaesthesia. A rectal injection of hot saline solution was also given. We stayed with the patient till 7.30 p.m., and as no further convulsion occurred and as the patient was perfectly quiet, she was left in charge of the midwife. At 10 p.m. we again visited the patient, and were informed by the midwife that the patient had had "two very slight fits" during our absence. The patient was, however, in a very satisfactory state; she spoke to us, recognized the voices of the doctor and her friends, and sat up in bed to drink some water and take the medicine given to her; there was, however, still total blindness. From this time onwards there were no more fits, the patient steadily improved, and is now quite well, and has completely recovered her sight; the albumen disappeared from the urine six weeks after labour. For four days the extract of thyroid (5 gr. three times a day) was continued, large doses of acetate of potash were given at frequent intervals, with plenty of barley water to drink, and the bowels regulated by sulphate of magnesia for a week. Thereafter she was given a mixture of liquor ferri perchloridi, acetate of potash, and aq. chloroformi.

The method of operating employed was as follows. The patient was placed upon her left side, and the trunk flexed as far as possible; the skin of the lumbar spinal region was washed with ethereal soap and water, and then with per-

bride of mercury solution (1 in 2,000). The highest points he iliac crests being determined, an imaginary transverse was drawn between these points; the left index finger placed upon the point where this imaginary line crossed spine, this point coinciding with the tip of the spinous ess of one of the lumbar vertebrae. A hollow needle, n. long, held in the right hand, was made to pierce the ½ in. to the right of the point held by the operator's left ex finger, and was then pushed onwards, being directed htly upwards and towards the middle line, so as to pass ath the lower edge of the vertebral lamina, and so enter subarachnoid space.

ich is the history of these two cases, and the successful e of the second case, which seemed quite hopeless, gives feeling of the deepest regret that lumbar puncture was performed in the first.

have only one case to record, and on that account I have tated to bring this matter forward. The importance he subject, the peculiarly distressing nature of the occur-e, the absence of definite knowledge, and the feeling of un-ainty and semi-hopelessness in our present treatment, ther with the hope that this suggested method may ive extended trial and prove of value, must be my excuse, ology be required, for bringing the matter forward at this e.

MEMORANDA:

DICAL, SURGICAL, OBSTETRICAL, THERA-PEUTICAL, PATHOLOGICAL, ETC.

THE PREVENTION OF BUBONIC PLAGUE.

I, as one who has had a certain amount of experience ubonic plague in China and South Africa, throw out a estion not for the cure but for the prevention of this ple scourge? Let me first, however, draw attention to in characteristic features of this disease.

Given similar conditions and environment, the oured"[1] and "white" races are equally susceptible.

The former races are attacked in overwhelming propor- to the latter owing to differences of condition and onment, the most important of which is that "coloured" le are almost invariably barefooted.

Plague is caused by the admission into the system of a fic micro-organism or its spore.

The means of entrance is most frequently (always?) by ution of continuity of the skin or mucous membrane.

This is usually situated in the foot amongst non-peans.

The groin is the usual site of the bubo in such races.

Provided the manipulator has no abrasion about his n, cases of bubonic plague may be handled with perfect nity.

In the comparatively rare instances in which "whites" act the malady, the bubo exhibits a predilection for the ry or pectoral regions. In descriptions of the "black e" of London the pectoral bubo is vividly portrayed.

king the above points into consideration, why not el all "coloured" people resident within or in the imme- neighbourhood of plague-infected areas to wear an uate protective covering to their feet?

s suggestion is at any rate well worth a trial, and I feel dent that, were it enforced, a marked diminution in the nic plague-rate would ensue.

C. MARSH-BEADNELL,
Staff Surgeon, R.N.

idloes.

SEPTATE VAGINA.

notes on septate vagina in a recent number of the BRITISH CAL JOURNAL were interesting to me because of a case I with three years ago. S. A., a maiden lady, aged 50, con-l me for obstinate constipation accompanied by abdomi-ain, and in the course of a pelvic examination the follow-otes were made.

Vaginam.—The external genitals are normally formed; hymen pre-hough small; the finger can be introduced into the vaginal canal little over an inch; there the continuity of the canal is inter-by a thin strong septum transversely placed, the centre of which orated by a small opening sufficient to allow an ordinary uterine to pass easily through.

nual Examination per Rectum.—The uterus can be felt situated lly in pelvis, and is normal in size. On passing the uterine sound through the aperture in the vaginal septum with the finger at the same time in the rectum, the point of the sound can be felt free in the upper portion of the vaginal canal.

There was no history or sign of any inflammatory trouble that might produce cicatricial atresia, and the condition gave rise to no specific symptoms, its discovery being quite accidental.

Matlock. GEORGE C. R. HARBINSON, M.B., B.Ch.

THE ETIOLOGY OF VARICOCELE.

I HAVE a case of ordinary varicocele (left) said to have been caused by a strain. The lad (aged 17) was lifting a heavy trough with his hands behind him, and he says he felt a sudden pain in the left groin and found his scrotum swollen. On examination I found a varicocele, and in addition swelling and discoloration around the ring. The lad denies having ever indulged in masturbation, and persists in his first declaration that there was no swelling of any kind before the accident.

Some recent authorities admit that a severe strain is one of the possible causes of variocele, and it seems reasonable that any severe intra-abdominal pressure might cause sufficient dilatation of the spermatic veins to overstrain their coats. The interesting question however arises: On which side would such a varicocele appear? The arrangement of the left vein at once explains why the dilatation appears on that side in ordinary cases, that is, there is obstruction to the upward flow in the surcharged vessel. But intra-abdominal check to the upward flow in the cava would surely cause distension on the side where least resistance exists, that is, on the right, where the spermatic vein joins the cava obliquely.

My point is that the fact of the varicocele being on the left negatives the contention that it was caused by the strain, and that the surrounding swelling and discoloration were caused by the crushing of a pre-existing varicocele against the lad's hard stiff trousers.

Barnsley. JNO. MACPHAIL, M.B., C.M.

REDUCTION OF DISLOCATION IMMEDIATELY AFTER THE ACCIDENT.

IN reference to Dr. Walford's communication under the above heading in the BRITISH MEDICAL JOURNAL of March 19th, p. 664, I might be allowed to mention an accident which occurred in my own person some eight years ago, and due to a similar cause. I was riding a bicycle when I suddenly came upon a piece of sharp new road metal, and, jumping off rather awkwardly to save my tires, I fell with all my weight upon my extended thumb on the elevated edge of the metal before the rest of my hand reached the ordinary level of the road, the result being that my thumb was dislocated at right angles to its ordinary position, the base projecting down into the palm. With my left fist I at once hit the base a smart blow upwards and outwards, instantly restoring it to its normal position, and, seizing it, flexed it strongly into the palm, retaining it there with my handkerchief as a bandage; and as in Dr. Ward's case, this was all done without almost the slightest pain. The thumb remained swollen and stiff, and painful for two or three weeks, but I thereafter quite regained the use of it.

Sunderland. B. STRACHAN, M.B.

STERILIZATION OF THE HANDS.

PROBABLY many surgeons who, like myself, possess a pretty sensitive skin have found many of the ordinary means of "sterilizing" one's hands before operating quite impracticable. The following has been arrived at after various experiments, and as it seems to keep one's hands in excellent condition even with operating six days a week it may be worth recording.

1. After paring the nails with a nail trimmer, they are carefully cleaned and the hands and arms scrubbed with a broad, fairly stiff nail brush, abundant hot water and soft soap, for ten minutes by the clock. The nail brushes are boiled daily for thirty minutes and kept in 1 in 2,000 corrosive sublimate lotion.

2. The nails are again thoroughly cleaned with bone or metal nail cleaner. Much material formerly irremovable is now softened and easily taken away. The hands and arms are again scrubbed as before, for five minutes. Then after rinsing in boiled water they are (3) scrubbed thoroughly with 1 in 500 corrosive sublimate lotion made with half alcohol and half water. This scrubbing is to take ten minutes. After this they are rinsed in 1 in 2,000 corrosive lotion, then in sterile

[1] l non-Europeans are included in the words "coloured" people.

salt solution and lastly sterilized glycerine is rubbed all over the skin.

The whole process takes twenty-five minutes. Our assistants go through the same process, except that between 2 and 3 is inserted a lathering of the hands for five minutes with chlorinated lime and washing soda taken together in the hand and used like soap with water. This leads to a free evolution of chlorine, easily discernible by the smell, and is doubtless most powerful as a germicide, though to some skins it is somewhat irritating. Where the lime is used No. 3 lasts only five minutes, and the hands are also rinsed in formalin lotion for two minutes. The latter, however, I have entirely abandoned as being extremely irritating and damaging to sensitive skins.

J. RUTTER WILLIAMSON, M.D.

Miraj Hospital, Western India.

REPORTS

ON

MEDICAL AND SURGICAL PRACTICE IN THE HOSPITALS AND ASYLUMS OF THE BRITISH EMPIRE.

LOWESTOFT HOSPITAL.

JACKSONIAN EPILEPSY IN A CHILD OF 2 YEARS: OPERATION: COMPLETE RELIEF.

(By H. MUIR EVANS, M.D.Lond., Surgeon to the Hospital).

D. W., a little girl aged 2 years and 8 months, was brought to me on September 28th, 1903, suffering from severe fits of an epileptiform character.

History.—The child was well nourished but pale; she had all her milk teeth. Brought up on the breast until 14 months old, she had cut her first tooth at 5 months, so that there had been no trouble with dentition. No evidence of rickets, congenital syphilis, hereditary tendency to epilepsy, or of any ear trouble, could be obtained.

Onset of the Fits.—In October, 1902, when 17 months old, she was seized one night with severe convulsions, which lasted from 12 midnight until 6 in the morning. There had been no known injury or fall. The left side of the body "kept working all the time," and after the convulsions ceased the child lay for fourteen days paralysed down the left side of the body. From October to Christmas, 1902, there were no fits, but at the end of December she had a few convulsive seizures, which consisted of a sudden ducking of the head. Then followed a period of quiescence until the spring of 1903, when the fits returned, and were more severe and more obviously left-sided. In the summer of 1903 the attacks grew rapidly worse in character, and were unrelieved by medical treatment.

Character of the Fits.—In October I found that the fits were of two kinds—one the sudden dropping forwards of the head, and the other a severe convulsive movement involving the left side of the face and the left arm and leg, frequently throwing the child violently to the ground, so that I seldom saw her without the right side of the face and head having been severely bruised. Between the fits the child constantly made rapid sucking movements of its tongue, which was protruded between the lips, and there was paresis of the left side of the face, not affecting the eye. After a severe attack the paresis extended to the left arm. There was no optic neuritis. The knee-jerks could not be obtained on either side. Treatment was commenced with gr. v of bromide of potassium t.d.s., and was gradually increased until gr. xv of the bromide was taken three times daily, but with no effect except a general lowering of the nervous system, so that the child could only walk with difficulty. Digitalis and arsenic were also tried in combination with the bromide. In December I advised the parents to submit the patient to an exploratory trephining, but it was not until January of this year, after consultation with Mr. Hamilton Ballance, that the parents would give their consent. By this time the attacks, when severe, had unfortunately begun to involve the right side of the body.

State on Admission.—The child was having frequent minor attacks, and as many as three or four severe ones daily. She lay in a listless state, taking no notice of her surroundings but very fretful, taking no food unless fed forcibly, and sleeping but a few minutes at a time throughout the whole night.

Operation.—On January 20th I trephined the skull so as to expose the ascending frontal convolution at its junction with the third frontal. In working out the cerebral topography I employed the method of Professor Th. Kocher, and defined the linea precentralis. The origin of the inferior frontal sulcus was in this way readily and accurately localized. A full-sized trephine was used and the circle of bone removed. At once the dura mater bulged markedly, and on incising it crucially an excess of cerebro-spinal fluid escaped. The arachnoid now appeared in view, and at once showed us that we had exposed the diseased area. It looked as if a mucous polyp was flattened on the surface of the brain, and on incising it one was surprised that the clear fluid that escaped was not of a thicker consistence. There was no thickening of the membranes nor sign of old blood clot to be noticed. After applying pressure for a moment to arrest a little venous haemorrhage, the brain appeared to have been compressed so as to fully a fingerbreadth beneath the dura. The amount of fluid escapi must have been 2 or 3 drachms. The flaps of dura mater were la carefully in position again and the skin sutured. No drain was us Before leaving the table the patient had two slight fits, and the pu was rather rapid.

Result.—The following day the temperature rose to 100.5°, but it f on the 23rd, and by the 24th it became normal and continued throughout convalescence. From the time of operation till now th has been no convulsion, and the improvement in general health been steadily maintained. Until the 27th she lay in a listless sta taking little notice of the people in the ward, but taking nourishm and sleeping well. On the 31st she noticed her parents, although some days previous she had been smiling and playing with toys. February 4th the child was very bright and cheerful, able to sit up bed, but still showed some paresis of the left side of the face wh laughing. By February 20th she was so lively that she had to removed from the neighbourhood of acute cases; she was able to sta and walk, and could make attempts at the names of patients, besi saying "mamma."

REMARKS.—The immediate and persistent relief of sy ptoms has been most gratifying, and one sees no reason w any relapse should occur. The case is obviously one whi comes under the category of those early cases of epilep described by Gowers as originating in the first two years of li and associated with a cortical lesion. They are characteriz by the severity of the initial symptoms, by their unilate character at the commencement, and by the occurrence hemiplegia transient or persistent. One would imagine vascular lesion was the primary cause, but there was no si or trace of any old blood clot to give credence to this view this particular case.

ST. LEONARDS HOSPITAL, SUDBURY, SUFFOLK.

MALIGNANT DISEASE OF ASCENDING COLON.

(By EDGAR HUNTLEY, M.B., B.S.Lond., Surgeon to t Hospital.)

MRS. E. S., a widow, aged 68 years, was sent into the hospit by Dr. Pettitt of Long Melford, to whom I am much indebt for the majority of the following notes:

History.—Very little is known as to her family history, but no accou of any member dying of malignant trouble was obtainable. She had h thirteen children, seven of whom were living; the rest died, most them in infancy. She had always been a spare but strong, healt hard-working woman, and had no definite illness until June, 1902, wh she had a very persistent attack of sciatica on the left side. This c fined her to bed for fourteen weeks. In December, 1902, she beg to complain of her body, and was noticed to be often supporting t right side of her abdomen.

State on Examination.—No special attention was called to this un May, 1903, when on examination a mass about the size of a tangeri orange was felt in the right iliac region. This mass was distinctly ha and movable, but had no marked tenderness, and felt somewhat bos She had had dragging pains on this side and general discomfort abo the abdomen, and suffered from increasing constipation, the motio latterly being made up of markedly flattened pieces. The had never been any blood or slime passed. Retching h been moderate, but no actual vomiting. General wasting had be noticed for the last few months. On May 25th, 1903, patient w admitted into hospital with diagnosis of malignant disease of caecum ascending colon. After she had been watched for a few days, and t advisability of operating before complete obstruction set in had be placed before her relations, it was decided to explore the mass.

Operation.—On June 5th she was anaesthetised by Dr. Finch, wh Dr. Pettitt kindly came over and assisted me at the operation. oblique incision was made down on to the mass, and this ful exposed. It turned out to be exactly as diagnosed, and w found to involve the whole circumference of the gut, the lum being almost occluded. The junction of the ileum with the col could not be clearly defined owing to several coils of small inte tine being matted to one another and to the mass. For t reason it was deemed advisable not to try and remove the portio of bowel involved. After finding the coil of small intestine whi seemed to be entering the colon, one-half of a Murphy button was i serted into that portion which was not matted up and the other part the button into the ascending colon above the growth, the two par being then approximated firmly in the usual way. The abdomin incision was then sewn up with salmon gut and horsehair.

Progress.—On June 9th, four days after the operation, the patie passed naturally a fair-sized motion without any blood, and again June 12th, when the wound was dressed. The latter was quite sou with the exception of a small stitch abscess about the centre. T bowels acted regularly once or twice a day until June 16th, when t button was passed without the patient knowing anything about it. T temperature ran between 97° and 100° F. until June 25th, when it b came normal and remained so until she left the hospital on June 30t After the passage of the button motions became of the ordinary healt size and consistency.

Result.—In July the patient was seen at home by Dr. Pettitt, to who she expressed herself as much relieved, and also stated that t

ons were of normal size, shape, and colour. During Dr. Pettitt's lay all apparently went well, but in the middle of September we patient together and found a soft red oedematous swelling all nd the mass. A little later this swelling broke down and dis-ged thin blood-stained fluid, with a faecal odour during the last ; no faeces ever passed through it. From this time onward the nt slowly sank and died on November 17th, 1903, the bowels con-ng to act healthily as before, while there was no symptom of obstruc-right up to the very end.

MARKS.—This case we take to be interesting; first, for reason that we were able to relieve an impending intes-l obstruction; secondly, for the marked relief the opera-gave the patient as regards the general discomfort from h she suffered before; thirdly, from the fact that her last were free from all those distressing symptoms of intes-l obstruction which would have occurred but for the ation performed.

British Medical Association.

CLINICAL AND SCIENTIFIC PROCEEDINGS.

BATH AND BRISTOL BRANCH.

sixth ordinary meeting of the session was held at Bath pril 27th, Dr. BARCLAY BARON, President, in the chair. re were fifty-five members and visitors present. Dr. HALE TE opened a discussion on forms of joint disease met with edical practice, and the following speakers took part in Dr. CAVE, Dr. PRESTON KING, Mr. PAGAN LOWE, Dr. WILSON H, Dr. MICHELL CLARKE, Dr. SYMES, Dr. SHINGLETON H, Dr. BANNATYNE, Dr. WILLS, Mr. FLEMMING, Dr. WATSON LIAMS, and Dr. WALDO.—A vote of thanks to Dr. HALE TE was moved by Mr. R. J. H. SCOTT, seconded by Dr. DO, and carried by acclamation.

GLOUCESTERSHIRE BRANCH.

NERAL meeting of this Branch was held at Cheltenham pril 21st. Mr. E. C. CRIPPS, in the absence of the Presi-through illness, occupied the chair.

rsonal Hygiene and Prevention of Disease.—Dr. ETTINGER a paper on this subject. He said that prevention of ase was much more important than treatment of disease, the healthy should always be considered before the sick. cause of diseases must first be studied in order to find the ns of preventing them; by far the larger number of named ases were due to the presence of living organisms he body. Since many diseases formerly supposed to due to cold, etc., had been found to be really due icro-organisms the probability was that many others se etiology was still obscure would in course of time also ound to be caused by the presence of micro-organisms. tically all the diseases were preventable in theory, and gh the exigencies of life made it impossible to live ideally majority of people could very well manage to live more hily than they did, and it was very desirable that more ntion should be paid to various personal details which an important bearing on the maintenance of health. re was room for great improvement as regards both ate and public sanitation, drainage, and the disposal of ish, etc., also laws should be made dealing with such gers as spitting and the overcrowding and inefficient ilation of churches, theatres, offices, etc. Further, the egation of all infectious cases should be compulsory ding cases of more chronic infections such as tuber-sis. Rooms should be furnished more simply in r that thorough cleanliness might be possible and win-s should always be open in any room that was occupied there should be better provision of closets, baths and tory basins in every house than was usual. Most people not pay sufficient attention to the cleanliness of their own ons. Dirty clothes were often worn, the body was quite ficiently washed, and sufficient care was seldom taken t the cleansing of the orifices of which the mouth was the t important. Regularity of life was essential to health work and rest and nourishment should be taken in lar quantities at regular times and of regular kind. ntion to these points was necessary in order that the ues might be maintained in good condition and so be able sist disease.

METROPOLITAN COUNTIES BRANCH: CITY AND WALTHAMSTOW DIVISIONS.

(CONJOINT MEETING.)

Walthamstow, April 26th, 1904.

Dr. C. H. WISE, Chairman of Walthamstow Division, in the Chair.

JOINT DISEASE AS ENCOUNTERED IN MEDICAL PRACTICE. Dr. W. HALE WHITE read a paper on this subject. The difficulties in connexion with diseases of the joints met with in medical practice fell, he said, into two groups—one connected with acute diseases of joints, the other connected with chronic varieties. Among the acute conditions rheumatic fever naturally first engaged attention, and mistakes were not infrequent, since rheumatic fever was so common that one was liable to diagnose it too readily. A patient should never be said to have rheumatic fever so long as a solitary joint was affected. Early in the disease one joint only might be implicated, but as long as this was so the diagnosis should be left open. Fracture into a joint and osteo-myelitis of the end of a bone had been thought to be rheumatic fever from forgetfulness of this rule and this mistake had cost the patient his life. In the early stage of pleurisy or pneumonia on the right side referred pain in the right shoulder might be so severe that the patient would be thought to have rheumatic fever. This disease might be mistaken for almost any specific fever, perhaps the comparing it with influenza was commonest. A by no means rare but very serious confusion was that between pyaemia and rheumatic fever. Many instances of this might be quoted, but as an example the following would serve. A youth was transferred from the care of a surgeon because it was believed he was suffering from rheumatic fever; the discovery of some pneumonia made this diagnosis doubtful and a rectal examination revealed a prostatic abscess; this was the source of the pyaemia from which he died. The difficulty was very great when pyaemia took the form of malignant endocarditis, but it was very necessary to be careful since the prognosis was so different. The arthritis which sometimes occurred with secondary syphilis might closely resemble rheumatic fever, and failure to remember that meningitis due to the diplococcus intracellularis was frequently accompanied by effusion into joints had often led to error. Many cases of severe gonorrhoeal rheumatism, in which the temperature might reach 103°, were called rheumatic fever, and the mistake was particularly apt to occur when the disease existed in women. The great effusion in the joints, the affection of tendon sheaths and fasciae, the absence of sweating, and of a blush over the joint, together with the dry skin of gonorrhoeal rheumatism should prevent confusion. In very rare cases arthritis was prominent in typhoid fever, and a case was cited in which this had caused an erroneous diagnosis. Although pneumococcal arthritis from time to time occurred, yet mistakes between it and rheumatic fever were rare because actual pneumonia hardly ever occurred with rheumatic fever. Glanders, dysentery, Malta fever, and dengue all often showed arthritis, but they were so rare in this country that their diagnosis need not be considered. Among diseases which were not specific fevers gout was the one most often confused with rheumatic fever. This mistake nearly always arose from want of care; according to Fatchen it was a common error in America. It was excessively rare for rheumatic fever to leave permanent deformities; when it did so it was nearly always in the case of children. In considering the chronic diseases of joints met with in medical practice the first thing was to try to differentiate the diseases grouped together under the names osteo-arthritis, arthritis deformans, and rheumatoid arthritis. Three maladies at least were clearly distinct—there was the disease usually called osteo-arthritis and commonly seen in the hip of elderly men. Secondly, there was the disease for which arthritis deformans was a good name. It was usually met with in women of middle life; affected by preference the hands but also many other joints; the cartilage was eburnated and bony outgrowths form. Thirdly, there was a disease for which rheumatoid arthritis was a good name. It occurred mostly in young women; in a severe case all the joints in the body were quickly affected. They were uniformly distended by synovial effusion; there was some uniform periarticular swelling; the joints most characteristically affected were the proximal interphalangeal joints, which became spindle-shaped; the temporo-maxillary joints were often implicated. The affection of the joints was so serious that the patient

often quickly became bedridden; the arthritic muscular atrophy was especially well marked; there was some pyrexia, with a rapid pulse out of all proportion to the temperature; the feet and hands swelled profusely but the rest of the body hardly perspired at all, while several pigmented spots appeared on various parts of the skin. After the patient had been severely ill for a week or a fortnight the temperature fell, but the disease was very liable to relapse, and, if it was severe, fixation of joints rendered the patient a cripple. Sections of the joints showed that the disease was one of the synovial membrane, that new outgrowths of bone never formed, and that any erosion of cartilage was slight and only secondary to the pressure of thickened synovial membrane. The *x* rays always indicated that the bone was unduly transparent. With regard to the differentiation of the diseases comprehended under chronic rheumatic arthritis from other chronic diseases of joints it should be borne in mind that gout was frequently overlooked, while next to gout chronic gonorrhoeal rheumatism gave rise to most mistakes, and in association with this it was well to remember that flat-foot was often thought to be chronic rheumatism. A somewhat similar mistake was that of confounding sciatica and hip joint disease. It was probable that some cases of chronic tuberculous disease of joints were miscalled rheumatoid arthritis, and the difficulty was made greater by the fact that by the time there was an opportunity for examining the joints the tubercle bacilli were dead. Still more common was the mistake of calling chronic infective arthritis due to some chronic suppuration, as that about a tooth, chronic rheumatism. In all cases supposed to be examples of this disease a careful search should be made for some focus of suppuration. Other important errors referred to were the arthritic conditions met with in nervous diseases, in haemophilia, and in Henock's purpura.

A discussion followed, in which the following members took part: Messrs. Wallace, Corner, Alexander, and Drs. Wise, Shadwell, Price, M. Greenwood, and Goodall; and Dr. Hale White replied.

METROPOLITAN COUNTIES BRANCH: ST. PANCRAS AND ISLINGTON DIVISIONS.

At a meeting held at the Great Northern Central Hospital, Friday, April 29th, at which fourteen members were present, Mr. Sydney Stephenson demonstrated the following cases: (1) Anophthalmos, or more correctly extreme microphthalmos, in a baby; (2) two instances of congenital opacity of the cornea in babies; (3) three cases of superficial scleritis, "episcleritis," in adult females; and (4) several cases to illustrate interstitial keratitis of specific origin.

Dr. Glover proposed a vote of thanks; it was seconded by Dr. W. W. Westcott, and most cordially carried.

OXFORD AND READING BRANCH.

The annual meeting of this Branch was held in the library of the Royal Berkshire Hospital on May 6th, Dr. G. H. R. Holden, President, in the chair.

Election of President-Elect.—Mr. A. J. Drew was elected President-Elect, and Mr. R. T. Doyne the first Vice-President.

Cases.—The President read notes of a case of acromegaly in a lady of 51. Photographs were shown. The etiology, pathology, and treatment of the were fully entered into.—Dr. Freeman (for Dr. Price) then showed a very well marked case of acromegaly in a male, aged 34.—Dr. C. W. Marriott read notes about two cases, and also exhibited the patients: (1) A case of lymphadenoma in a male, and (2) a case of (?) primary lateral sclerosis in a female.—Mr. W. J. Foster presented a case of anomalous rodent ulcer in a female. It had not the characteristic appearance of either a rodent ulcer, an epithelioma, a lupus, or of syphilis. It was being treated by iodides internally and *x* rays externally. Mr. Foster also exhibited another patient who was being treated by *x* rays.—Mr. Hastings Gilford showed an interesting case of cretinism.—Dr. Freeman exhibited a patient with a tertiary tuberculous eruption affecting the abdomen, lower chest, and buttocks, in a male aged 56. No previous history could be obtained.

Morbid Specimens.—Mr. J. H. Walters showed an enlarged prostate that he had lately removed.—Mr. Hastings Gilford showed specimens of ectopic cysts which he had himself removed.

Ectopic Pregnancy.—Dr. H. A. Whitelocke remarked some cases of ectopic pregnancy treated by operation.—The President, Mr. J. H. Walters, Mr. Hastings Gilford, and Mr. Symonds joined in the discussion. The question as to drainage or no drainage was fully entered into, as also the question of catgut or silk ligatures.—Dr. Whitelocke preferred the former, Mr. Walters the latter.

ULSTER BRANCH.

Portadown, Thursday, May 5th, 1904.

Thomas McLaughlan, M.D., President, in the Chair.

Rupture of the Uterus.—Dr. John Campbell (Belfast) read a paper on three cases of rupture of the uterus, and showed (1) two solid ovarian tumours removed from one patient; and (2) two cystic ovarian tumours removed from another patient. He also gave a preliminary report on the treatment of cancer of the uterus by radium.

Ruptured Extrauterine Pregnancy.—Dr. Hadden (Portadown) read short notes (1) of a case of ruptured extrauterine pregnancy, successfully operated on by Dr. Darling, Lurgan; (2) of a case of hyperpyrexia (109° F.) in an infant aged 5 months, with recovery.

Lithotomy.—Dr. Crooke (Derry) read notes and showed specimens of two cases of lithotomy, one of exceptional interest and difficulty in a female dwarf, both successfully operated on; and notes of a case of subdural haemorrhage, also successfully operated on.

Operation for Perforated Typhoid Ulcer.—Dr. Darling (Lurgan) read notes of a case of perforated typhoid ulcer, in which he had performed laparotomy.

Gastric Ulcer.—Dr. Calwell (Belfast) read notes (1) on some further statistics of gastric ulcer, and (2) on a form of apparently intermittent gastric dilatation in the neurotic.

REPORTS OF SOCIETIES.

ROYAL MEDICAL AND CHIRURGICAL SOCIETY.

Sir R. Douglas Powell, K.C.V.O., President, in the Chair.

Tuesday, May 10th, 1904.

Effects of a Proteid Dietary.

Dr. Chalmers Watson gave a demonstration of the clinical and pathological appearances observed in an experimental research into the effect of feeding fowls on a diet of raw meat, and discussed shortly their bearings on disease in the human subject. The main facts to which attention was directed were: (1) The absence of any indications of gout (urate deposits); (2) the variety in the clinical and pathological features observed in the different subjects, the lesions in the thyroid and parathyroid gland and bone marrow, the very favourable manner in which one fowl affected with well-marked tuberculosis was influenced by the diet. The application of these facts to disease in the human subject was shortly discussed under the following headings: The rôle of a proteid dietary—a diet rich in nucleins—in the induction of gout; and the dietetic treatment of tuberculosis with special reference to the use of raw meat as a curative agent. The research was begun with the object of confirming or otherwise the recent interesting research of Kionka on avian gout. The results obtained did not confirm those described by Kionka's record; the experiment was unsuccessful so far as the induction of gout was concerned. This negative result was of itself of much interest; the interest was enhanced by the changes incidentally observed in the thyroid glandular system, the bone marrow, and other tissues in the non-tuberculous fowls, and by the distinctive characters of the reactions in the tuberculous subject. The investigations consisted in feeding eight fowls, six hens, and two cocks, on a diet of raw lean meat and water. Four of the fowls were a year old, and four were just under 2 years of age. The observations lasted for 16 months. The (later) history of the eight fowls was thus summarized. At the end of six months two of them were returned to the yard in apparent perfect health. Two had succumbed to acute nervous derangements at the fourth and seventh months respectively. The animals went off their food, showed symptoms of paralysis and inco-ordination, rapidly became unconscious and died. No gross lesions were observed at the necropsy; there was no trace of uratic deposits. Of the four remaining fowls which were fed on the dietary for thirteen to sixteen months, three lost weight and showed marked disturbances of the cutaneous and nervous system; the fourth gained marked in weight and generally thrived on the diet. The necropsy revealed no traces of gout in any of the subjects. The thi

in this group showed a remarkable hypertrophy of the id and parathyroid glands, and in two of these subjects one marrow had almost entirely disappeared; in the n subject the thyroid and parathyroid glands presented mal appearance, and the bone marrow was of a "leuco- ic" type; this fowl showed marked evidence of inal and hepatic tuberculosis. Other features of st were the entire absence of renal disease and the hy state of the blood vessels throughout the system. e points had significance in relation to the gene- accepted view that a nitrogenous dietary led to vas- and renal disease. The facts recorded had an important ng on some generally accepted views of the appropriate ry in gout. Of late years there had been a tendency to don the long held "uric acid theory" of the disease. idently with this change, however, the attention of investigators and clinicians had been increasingly ted to the "nucleins" of the food, and the articles of diet ed or forbidden had special reference to their richness or wise in nucleins or purin bases. The facts recorded sug- d that this theory of the "nucleins" should also be aban- d. Some facts from comparative pathology bearing on the ble bacterial origin of the disease were advanced. In t years special interest had been taken, especially on the nent, in the question of the value of raw meat as a ive agent in tuberculosis. The interest in this subject arisen mainly from the experimental researches of t and Héricourt on dogs which had been rendered culous by intravenous injections of tubercle bacilli. e observers, as the outcome of a large amount xperimental work, demonstrated that feeding tuber- s animals on raw meat gave remarkable results; cooked meat did not give the same effect as raw ; that the muscle plasma and not the pulp contained the e principles of the meat. Their researches led them to ude that raw meat as opposed to cooked meat had a fic effect in antagonizing the tuberculous toxin. In the ssion which followed Richet's paper, the objection aised that as the animals had been artificially rendered culous the conditions *re* treatment were hardly compar- to tuberculosis in the human subject. It was further d that the results obtained might be peculiar to the strictly carnivorous animals. The present record met objections. The facts showed that in this case of natur- cquired tuberculosis the results of feeding with raw dietary confirmed those recorded by the French vers for the artificially-induced disease. It also ed that this favourable result was obtained in grami- ous animals. The negative results obtained in the ex- ental investigations of Fränkel and Sobernheim and ason Brown were of great interest but did not minimize mportance of Richet's observations and deductions. was yet much to be learned regarding the mechanism hich the raw meat diet overcame the disease. The re- able hypertrophy of the thyroid and parathyroid glands ree fowls was apparently induced by the raw meat ry. In the fourth fowl—a tuberculous subject—this dietetic régime did not obviously disturb the functions se glands, but in place of this it exerted an exceedingly rable influence on the tuberculosis from which the animal ed. These facts were extremely suggestive, not only with d to the manner of action of raw meat on tuberculosis, lso regarding the probable explanation of the thera- c activity of a milk régime in the treatment of a variety ections—for example, eclampsia, chorea, and other dis- . Attention was also directed to the coincident changes e bone marrow; tbese changes indicated the great im- nce of the study of the interdependence of various in- l secretions. Reference was made to recent observations e thyroid and parathyroid glands, which suggested that structures played a more important rôle in the in- l defences of the organism than was commonly sted.

e PRESIDENT asked if in any of the fowls an examination e excreta had been made; and as to the renal function in nating uric acid also there was reason for believing that tion of the meat food had passed through the alimentary in a partially decomposed condition. Were there any of scurvy in the fowls? In regard to the meat diet in culosis a certain increase in meat in the diet of culous patients had been found useful, but an exclusive diet would presumably be detrimental.

. WALTER EDMUNDS, referring to the thyroid changes, this was as far as he knew the first time in which an ex- perimental enlargement of the thyroid had been produced without inducing symptoms.

Dr. WATSON, in reply, said that the question of excretion had been carefully investigated by Kionka; fowls had an equal capacity he thought of dealing with an increased amount of uric acid to that which the human subject had in dealing with an excess of urea; there was no evidence of scurvy in the fowls.

LEUCOCYTOSIS AND APPENDICITIS.

Dr. HERBERT FRENCH communicated a paper based on a study of the leucocyte counts in 83 consecutive cases of appendicitis in Guy's Hospital. The cases had been arranged in four main groups, the classification being based on the character and course of the disease in each case, and not on the leucocyte changes. The four groups were those with local signs, no tumour, spontaneous recovery; local signs, a definite tumour, spontaneous recovery; local signs, a definite tumour, evacuation of pus; and those with general peritonitis. It was found that many cases in which spontaneous recovery occurred, without clinical signs of rupture of an abscess into the bowel, gave leucocyte counts exceeding 20,000, a few exceeding 30,000. Many cases in which pus had to be evacuated gave low leucocyte counts. Therefore the leuocytosis alone could not be taken as a proof positive of pus, or of its absence, when it did not exceed 30,000. Many cases in which pus was present showed from 35,000 to 56,000 leucocytes, however, and no simple case reached these figures. A leucocyte count, therefore, of 35,000, or more, could be regarded as strong evidence of pus, though lower figures left the question doubtful. More important than the total count was the rising leucocytosis when counts were made at intervals. No such rising count occurred in any simple case; pus was present whenever successive counts showed increasing numbers. The reverse was not true; sometimes pus was present though successive counts showed progressive diminution. The sign, therefore, was valuable, but had great limitations; it might mislead if attention were paid to it alone. It must be taken into account, but only in association with pulse-rate and the general condition of the patient.

Dr. DUDGEON considered that both an enumeration of the leucocytes and a differential count should be made. The gradual increase in the number of cells was most important in diagnosing appendicitis. Even 10,000 or 15,000 was often suggestive, along with other signs. Over 30,000 was not by any means conclusive as to the presence of pus. The differential count was of great importance. In suppuration 80 or 90 per cent. of polymorphonuclear neutrophiles was often found. The absence of eosinophiles was probably of little importance. Ehrlich's method of staining the blood with iodine giving a brown colour or granules to polymorphonuclear cells had seemed to him a very unreliable method. There was no sign absolutely diagnostic of suppuration. The diagnosis of typhoid and intestinal obstruction were important; even 50,000 or 80,000 leucocytes had been found in intestinal obstruction. He asked if the gas in the abscess cavity described was really due to the bacillus coli communis.

Dr. G. NEWTON PITT referred to a case associated with pylephlebitis due to B. pyocyaneus without any leucocytosis.

Dr. FRENCH, in reply, had not found the differential count in diagnosing suppuration of much value. The bacillus present in the case with gas was, according to the pathological report, the colon bacillus. In the two cases of pylephlebitis described in the paper without leucocytosis there was no blue coloration of the pus.

EDINBURGH MEDICO-CHIRURGICAL SOCIETY.

Professor JOHN CHIENE, C.B., President, in the Chair.

Wednesday, May 4th, 1904.

TUBERCULOUS ARTHRITIS.

MR. ROBERT JONES (Liverpool) read a paper on tuberculous arthritis in the young and alluded to his association with the late Hugh Owen Thomas. The latter was a warm advocate of the conservative treatment of tuberculous joints, and based his treatment on a theory of mechanical and physiological rest. Mechanical rest he attained by attaching the articulation to a rigid iron frame, holding that it was not obtained by extension. In fifteen years Mr. Thomas never excised a joint in a young person, and the speaker had never seen such consisently good results obtained as by Thomas. Early diagnosis of tuberculous lesions of joints was not easy, but there were two symptoms of considerable value—rigidity and de-

formity. Rigidity generally preceded pain and muscular shrinkage, and should extend to all normal movements of the joint before being accepted as proof of a joint lesion. Free movement even in one direction would at once exclude tuberculous disease. Deformity, another early symptom, was practically constant in character, and in nearly all cases could be avoided provided proper lines of treatment were followed. In hip disease natural processes might in time effect a cure, since movement became in time so painful that the patient took to bed of his own accord, when the leg assumed the position of greatest comfort, and muscular spasm protected and locked the joint. This position, however, resulted in structural shortening of the tissues, and produced a deformed limb with impaired movement. Proper treatment immobilized the joint, saved the muscles from spasm and thus from contracture, relieved pain, and prevented the bone destruction due to attrition and pressure. For early hip disease in small children the speaker used a double splint which immobilized better, was easier to apply and keep in position. The child was kept in the open air continuously. Such cases, when seen early and treated on these lines, seldom exhibited complications; many recovered with movable joints, and rarely had flexion deformities of more than ten degrees. When the disease was more advanced and the deformity considerable he corrected the deformity under an anaesthetic in the following manner: A direct pull on the limb was obtained by means of a thick skin of wool, counter-extension being effected by a sheet between the limbs on the sound side; the adductor muscles were divided if tense. Flexion and adduction were corrected, and the pelvis on the diseased side lowered. The limb was then placed in the abduction frame and kept absolutely at rest. Experience had convinced him that in a large number of cases tuberculous abscesses should be treated by expectant methods. Generally speaking they were harmless, and became dangerous only when infected from within or without. It should be remembered that the tubercle bacillus was not pyogenic, and that the inflammation which it produced results in the formation of granulation tissue. In many cases an intra-articular tuberculous abscess would become extra-articular, travel a considerable distance from where it arose, and finally disappear. In those cases where the abscess did not disappear but invaded the skin, he abstained from interference until the skin became red, he then made a small puncture, half an inch in length, using at the same time the strictest antiseptic precautions, he did not interfere with the third sac wall, considering it to act as a barrier against infection. In cases where pain and a pyrexia were present together with loss of body weight, mixed infection might be assumed, and the abscesses should then be evacuated as soon as possible. It might also be necessary to evacuate tuberculous abscesses owing to the fact that their position rendered fixation splints impossible. Retropharyngeal abscesses should also be immediately opened, preferably behind the sterno-mastoid. Speaking generally a joint could be considered cured where the range of movement did not diminish by use; in cases in which ankylosis resulted, a joint might be pronounced cured where the angle did not change after use. The speaker then described his treatment of cases of fibrous and bony ankylosis in an undesirable position, and concluded by laying stress on the responsibility of the general practitioner in cases of tuberculous disease of joints since it was then that the cases were seen in an early stage.

In the discussion which followed, the President, Messrs. David Wallace, Cathcart, Alexis Thomson, and Dr. Chalmers took part, the latter expressing a wish that surgeons would try a diet of raw meat in joint tuberculosis.

Specimens were exhibited by Mr. Cotterill, Mr. A. A. Scot Skirving, Mr. J. W. Struthers, and Mr. Alexis Thomson.

MEDICAL SOCIETY OF LONDON.

F. de Havilland Hall, M.D., F.R.C.P., President, in the Chair.

Monday, May 9th, 1904.

Study of a Case of Rheumatic Fever.

Dr. F. J. Poynton described a fatal case in which the mitral valve showed small vegetations which contained large numbers of diplococci from which pure cultures were obtained. The cultures produced rheumatic cardiac lesions in rabbits and monkeys. From these lesions pure cultures were again obtained. Reference was made to the importance of the early diagnosis of the rheumatic state, and the evidence of true rheumatic broncho-pneumonia, pleurisy, nephritis, and peritonitis; the formation of formic, lact and acetic acids by the same diplococcus in different medi a suggested similar toxic origin of gout; and the relation acute rheumatism to chronic rheumatism and rheumat arthritis. In regard to treatment, the infective the showed the time at which active or palliative or surgi measures were indicated and the prime importance of t prevention of rheumatic fever.

Dr. A. E. Garrod still believed that uric acid had a go deal to do with the pathology of gout.

Mr. Marmaduke Sheild alluded to the benefit of openi the joints in pyaemic and gonorrhoeal cases with irrigation

Dr. A. Paine advocated the disinfection of the urine cases of malignant endocarditis, and, after remarks by Dr. L. Abrahams, Dr. Poynton replied.

Influence of Early Operation on the Mortality a Results of Acute Appendicitis.

Mr. W. H. Clayton-Greene read a paper on this subje Not only was the number of cases of appendicitis great than formerly, but it was increasing in severity. It could n be dissociated from some degree of peritonitis. The resul of early operation showed not only a diminished death-ra but also fewer sequelae. The mortality, apart from the ear operation, was probably not under 20 per cent.

The paper was discussed by Mr. A. E. Barker, Mr. Sheil Mr. McAdam Eccles, Dr. H. A. Caley, Mr. J. D. Malcol and Mr. Clayton-Greene replied.

Election of Officers.

The following were elected the new officers of the Soci for the ensuing year:—*President:* Mr. John Langton. *Vi Presidents*, Dr. E. J. Nix and Mr. Charters J. Symond *Honorary Secretary:* Dr. Risien Russell. *Members of Counci* Sir Hugh R. Beevor, Mr. Carter Braine, Dr. H. A. Cale Mr. A. Carless, Dr. H. Corner, Dr. Lovell Drage, Dr. Havilland Hall, Dr. A. H. N. Lewers, Mr. T. H. Opensha C.M.G.; Dr. F. S. Palmer, Dr. J. E. Ranking, and Mr. W. Spencer.

OPHTHALMOLOGICAL SOCIETY OF THE UNITE KINGDOM.

John Tweedy, P.R.C.S., President, in the Chair.

Thursday, May 5th, 1904.

The Retina in Anencephaly.

Mr. Stephen Mayou read a paper on the Retina and Opt Nerves in Anencephaly. He dwelt on the controversy whic exists as to whether the axis cylinders of the optic nerve a developed from the brain or retina, or from both these stru tures, as is more usually held. The myeline sheaths, hov ever, seem to develop from the brain towards the retina. I the full-term anencephalic fetus which the author obtaine there was an arrest of development at the stage when th primary and secondary optic vesicles are formed, and the nerv sheaths differentiated, but before the development of the ax cylinders or chiasma of which no trace was found. Th choroid was hypertrophied and the retina showed a norma pigment layer. The layers of the retina were present exce the nerve fibre layer which was completely absent. Th author concluded that the development of the axis cylinders wa directly dependent on the proper development of the cerebra centres.

Pannus and Associated Corneal Changes.

Major H. Herbert, I.M.S., read this paper. He describe some of the corneal changes seen in the acutely progressiv forms of trachoma. In many cases the whole cornea staine with fluorescine showing this to be inflamed. When pannus wa developing this part never stained, showing its essentiall protective nature. In old cases the author described "lym phoid pannus"; these nodules were situated on the basis o an old diffuse corneal opacity, some of them coalesced an their margins might overlap the corneal edge. The sever forms became progressively thicker, and ultimately pannu crassus or carnosus was developed. Apart from the above th limbus alone might be thickened, but this occurred almos exclusively in follicular conjunctivitis. The permanent re sult of mild pannus was the slight extension downwards o this scleral margin. Indentations might be seen in mor severe cases, which were probably not due to ulceration bu to a reabsorption of the lymphoid nodules.

The Operation for Trichiasis.

Mr. W. E. Cant (Jerusalem) read a paper on this subject.

hiasis was so extremely common in the East that out of oo cases treated in fifteen years 12,200 suffered from it. great difficulty experienced in treatment was the shrink- of the conjunctiva and the great thickening of the tarsus lf; the latter might be five or six times its natural thick- s. He discussed the various operations, and gave his ference to Snellen's, modified to suit individual cases, as operation (removing a wedge-shaped piece of the tarsus) easy of accomplishment; it turned the lashes well out; e was no raw surface left to heal. It was applicable to cases, and could be extended in various ways to meet ing degrees of deformity. For the severe conditions in East he suggested the following modifications: (1) In- d of the simple wedged-shaped piece of tarsus that was oved, an excision of a U-shaped piece of tarsus and tissue t down to the conjunctiva; (2) the sutures, instead of g entered above or in front of the lashes and out ugh the upper lip of the cut, were entered from the lid gin behind or beneath the lashes and out through the er lip and then passed in and out of the tarsus high up, above the upper margin of the cup, so that on drawing ends together great eversion was produced; (3) when the opion extended quite into the canthi, canthotomy and hoplasty were employed as adjuncts.

r. ROCKLIFFE read short notes on the following cases:

Atrophy of both Optic Nerves with Primary Amenorrhoea.—This case been under observation for six years, with steadily increasing hy, and no other special or general symptoms. There was deep cupping, but no neuritis or haemorrhage. The retinal vessels not attenuated, and with the exception of an infantile uterus and veloped sexual organs, the remaining organs were healthy.

Optic Neuritis following Concussion of the Globe.—The patient received ere blow on the eyeball (right) immediately followed by loss of n, with intense optic neuritis. There was neither wound of the all, traumatic cataract, nor displacement of the lens, haemorrhage the vitreous, ruptured choroid, nor detachment of the retina. e was, in addition to the optic neuritis, a haemorrhage into the w spot with iritis. Three months later the vision of the left eye d (? functional). Six months later the vision of the left eye became al, the right improved to $\frac{6}{18}$ and J.4.

Unusual Sequence to Cataract Extraction.—The patient, a decrepit nan, after an uncomplicated extraction developed on the fourth day ise diphtheritic-looking membrane of both lids and surrounding ea. The pupil became blocked; there was no chemosis or pain, nor here swelling of the lids. The corneal epithelium exfoliated and the as eventually excised, when the cicatrix appeared healthy and per- y healed. The anterior and posterior chambers were normal, but oloboma and iris were blocked with thick yellow membrane, with derable iritic thickening.

A Peculiar Outbreak of Granular Ophthalmia.—There were 7 persons, f whom had been nursing a diphtheritic child. They each had an e attack of granular ophthalmia without trachoma or membrane. ected the lower lids only in 5 of the cases; both eyes were affected tervals of a few days. In all there was a subnormal temperature, ession of spirits, and lassitude, but no other general symptoms. ttack ran a similar course in each case and lasted about fourteen days. acteriological examination was negative except in one examina- where the bacillus xerosis in large quantities was present. The ination was carried out by the Clinical Research Committee.

CARD SPECIMENS.

rd specimens were shown by the following: Messrs. WHITEHEAD, MAN, BRONNER, DOYNE, PARSONS, LAWFORD, TAYLOR, BICKERTON DU, PATON, BLAIR, SILCOCK, and ANDERSON.

CIETY FOR THE STUDY OF DISEASE IN CHILDREN.—At a ting held on April 15th, Dr. C. O. HAWTHORNE in the r, Dr. JAMES TAYLOR showed a boy of 5 years with con- tal proptosis and meningocele. The mental condition defective, and recently his eyesight had been failing. tagmus and optic atrophy were also present.—Dr. ANDER- SMITH (introduced) showed a girl of five years who at the ht of an attack of measles developed cerebral symptoms, ely, vomiting, squinting, head retraction, photophobia, unconsciousness. At the end of five days the acute sym- ns subsided, but she was found to be aphasic, resented g touched, and wasted rapidly. There was no optic itis or ear trouble. A month later she was still aphasic, d not sit up in bed, moved her limbs in an ataxic ner, and appeared to have general cutaneous anaesthesia. re was slight rigidity of the limbs, ankle clonus, and ggeration of the knee-jerks. More recently there had gradual improvement in the motor power; she could a few words, the ankle clonus had disappeared, and sensa- was improving. Dr. HAWTHORNE thought the evidence eningitis was not clear, and suggested that the symptoms ht have been due to some form of toxin. He recalled a ewhat similar condition in an adult after influenza. Dr. FARQUHAR BUZZARD thought that all the symptoms could be attributed to a lesion of the cerebrum, without any involvement of the spinal cord, and that there had probably been encephalitis produced by the measles toxin. As the improvement had been so marked, there was reason to hope for a good ultimate result. Dr. JAMES TAYLOR agreed as to the good prognosis and as to toxaemia connected with the measles being the probable cause. In reply to questions Dr. ANDERSON SMITH said he had thought of the possibility of the rash and other symptoms being due to cerebro-spinal meningitis and had excluded that; further, another member of the family had measles at the same time.—Dr. S. VERE PEARSON showed a case of tuberculous nodule in the fronto-medullary tract. The patient was a boy, 2 years old, and was suffering from weakness in, and disinclination for, walking, with slight drowsiness and squint in the left eye. There had been occasional retching and difficulty in walking. Definite right-limbed paresis had developed later. Dr. Vere Pearson commented on the crossed paresis, and considered that there was a lesion in the ponto-medullary tract, probably a tuberculous growth.—Dr. HAWTHORNE referred to a case of basal tumour in a child, who developed third nerve paralysis, and presented evidence of tubercle in other parts of the body. The tumour was found *post-mortem* to be tuberculous.—Dr. FARQUHAR BUZZARD referred to the rarity of tuberculous tumours in this region, and to the fact that they were usually discovered accidentally after death, having produced no symptoms during life. He was inclined to regard the case shown as one of pontine tumour, probably gliomatous.—Dr. C. O. HAWTHORNE showed a boy of 10 years, suffering from paramyoclonus multiplex. There were sudden, shock-like, clonic muscular contractions affecting both sides of the body at the same time. The bilateral and isochronous character of the contractions was well seen in the cremaster muscle. The muscles of the face, the trunk, and the thighs were also affected.—The following papers were read. Mr. LEONARD BIDWELL: A case of gonorrhoeal pyosalpinx in a girl of 6 years treated by removal of the tubes. Dr. GEORGE CARPENTER: A case of gonorrhoeal inflammation of the uterine appendages in a girl of 3 years, with spontaneous recovery. Mr. R. C. DUN (Liverpool): A case of post-hemiplegic chorea, *petit mal*, and mental irritability, treated surgically. Mr. LEONARD BIDWELL: Two cases of strangulated hernia in infants under 1 month, treated by operation.—Cases of microphthalmos were shown by Mr. SYDNEY STEPHENSON, of splenic anaemia by Dr. BAUMANN, and one of dactylitis with subcutaneous nodules in an infant by Dr. A. MONSON.

ASSOCIATION OF REGISTERED MEDICAL WOMEN.—At a meeting on May 3rd, Miss ALDRICH BLAKE, M.S., M.D., in the chair, Miss THORNE, F.R.C.S.I., read the notes of a case under her care of streptothrix infection in the right iliac fossa of a young woman aged 26. The nature of the disease was recognized when the abscess was opened and the characteristic granules were seen in the pus. On microscopic examination, the granules were found to consist of mycelial threads, but no clubs were discovered. Miss SIMPSON, M.D., described two cases of infantile tetanus, occurring in infants of 11 days old and 8 days old respectively. The first child was admitted on January 22nd, and the second on February 11th. The same nurse had attended both confinements and had used Fuller's earth for the umbilicus in each case. The father of the first child was a cab washer and ostler. All the symptoms of tetanus were present, and the umbilicus was very unhealthy in both cases. In the second child there was purulent discharge from both eyes which was examined for tetanus bacillus with negative results. Death followed in both cases on the day of the admission. Notes of a case of multiple polypi of the large intestine in a girl aged seventeen were read by Miss COCK, M.D.

THE NEW YORK STATE CANCER LABORATORY.—There was some difficulty about the renewal of the annual appropriation of £3,000 for the cancer research laboratory at Buffalo. The Finance Committee reported that it was convinced that no progress was being made in the laboratory. It added that the State would gladly spend its money in the effort to find a cure for cancer if it could be shown that any advance had been made. In deference to urgent representations, however, the Chairman of the Senate Finance Committee, who cut the item out, finally agreed that it should be retained in the supply bill. The laboratory will therefore receive the State grant of £3,000 which it has received for six years.

REVIEWS.

PUBLIC HEALTH.

PROFESSOR GUIRAUD, of Toulose, and his *préparateur*, Dr. A. GAUTIÉ, have brought out a French edition of Smolensky's Russian treatise on public health, and have entitled it *Traité d'Hygiène*.[1] More than half the book deals with nutrition and foods. The quantity and quality of various aliments necessary to individual health are discussed in detail, and then the chief chemical, physical, and physiological properties of various foods, such as meat, fish, milk, butter, cheese, fats and oils, eggs, bread, wines, beer, tea, coffee, cocoa, and conserves and condiments are dealt with in some twenty chapters. The origin, varieties, mode of preparation, methods of chemical and bacteriological examination are each treated in respect of all the chief varieties of food. In addition a number of practical points as to sanitary inspection and the examination of unsound food are discussed. The remainder of the book is concerned with air, water, soil, the dwelling-house, lighting, clothing, etc. These matters have been treated in a somewhat superficial and fragmentary manner. A book which devotes 44 pages to flour and 30 pages to water is likely to present the subject in a way lacking focus and proportion, and that is the chief complaint that must be made. Some of the methods of examination recommended are obsolete and some others are not sufficiently described or explained to serve as guidance to the investigator. The bacteriology also leaves something to be desired. Broadly, however, it may be said that Smolensky's work incorporates an immense body of useful facts for the sanitarian or public analyst.

The second edition of the Italian hygienist's *Manuai*[2] has been thoroughly revised and brought up-to-date under the general editorship of Professor CELLI, assisted by numerous collaborators. The first volume is chiefly confined to laboratory work, and includes the microscopic appearances of meat, milk, farinaceous food, wine, etc , with their adulterations and diseases ; this is followed by a section on protozoology. A very full account of bacteriology in its relation to hygiene occupies over 300 pages, and is followed by chapters on chemistry as applied to public hygiene. The last 100 pages are devoted to the hygiene of meat and milk. In the second volume general and special epidemiology are treated, and there are chapters on the hygiene of the soil, the habitation, water, habitat, the city, and special forms of houses, that is to say, hospitals and schools. Finally, the official and legal aspect of public health work is discussed. The illustrations which are scattered throughout the work are hardly up to the level of the letter-press. The type is small, particularly in the bacteriological section, so that it has been possible to convey a large amount of information in the space at the author's disposal, which is not only very full but includes the most recent and trustworthy work on the matters in hand. Only constant reference could test the real value of such a book ; but, so far as we have been able to examine it, it appears thoroughly adequate and to be highly recommended.

We have received the second edition of Dr. R. B. FERGUSON'S *Aids to the Mathematics of Hygiene*,[3] the first edition of which was reviewed in our columns in 1894. It fulfils a useful purpose as a ready reference book for the chief formulae involved in different branches of public health work, and its value is increased by the fact that examples are given throughout. This is important, as the mathematics of medical men are sometimes rather shaky. The different chapters deal in succession with problems relating to hygrometry, ventilation, rainfall, and sewerage, energy and exercise, hospital wards, chemical calculations, vital statistics, and mensuration.

The concluding parts of the new edition of *Cassell's Family Lawyer*[4] deal mainly with subjects that have received much attention from Parliament during recent years, an attention which is due to an increasing concern for the public health and well-being, and is in itself characteristic of the legislation of the latter part of the nineteenth century. The w of the sale of food and drugs is treated in considerable det and a very fair general idea of the subject may be gathe The adulteration of food is dealt with at a length wh might become wearisome in a popular work, were le monotony of a detailed examination of the regulations ap ing to the sale of particular foodstuffs not relieved by quiet humour of many of the illustrations used by the auth One story will bear reproduction: "A Bill was once in duced into Parliament whereby it was proposed to impo fine upon certain offenders, and that half the penalty should g the informer. But the Bill was amended in its passe through the House of Commons, and instead of a fine, x months' imprisonment was made the penalty. They for however, to strike out the clause awarding half the pena to the informer." The author never heard of a comm informer informing against anybody under this sapi statute. In connexion with the law relating to prope owners and builders, the subjects of sanitary regulatio drains and nuisances, "obstructive buildings," and powers of medical officers of health in regard to the impro ment of unhealthy areas receive attention ; and the chap dealing with them will be of assistance to the seeker after principles that underlie the law governing these mu regulated matters. There is one defect in a book of this kil namely, that in endeavouring to traverse the wide fi covered by his subject the author must necessarily incl matter that can never concern any but a particular class ; therefore each of his readers will have to sift for himself sections which interest him from the matter in which th are embedded ; while the absence of any authority for statements made, though one of the essentials of a popu work on law, prevents it from being of much value at a tie when it is really needed. The author has performed his th well, especially in the bringing up to date of the pres edition, which will no doubt be as widely read as predecessors.

NEUROLOGY.

IN *Les Nerfs du Coeur chez les Tabétiques*,[5] Dr. JEAN HEITZ gi us the result of an inquiry into the changes found in nerves of the heart in cases of tabes dorsalis. Before enter upon the subject proper he gives a summary of the pres state of knowledge in regard to the nerve supply of the hea dealing with the subject from the points of view of anatomy, histology, and physiology of the cardiac plexus a the constitution of the several neurones. This part of volume is written in a most commendable manner, clear a concise. We note that the view insisted upon by certa clinicians that sympathetic fibres from the heart reached spinal cord at the level of the upper dorsal and lo cervical nerves has evidently been established by experimental observations of François-Franck. We also obse that the author continually refers to certain sympathe nerves as being "sensitive," although no proof has be afforded that they are sensitive in the usual meaning of term beyond the fact that they are afferent. This term h been so frequently employed, however, by physiologists th they have come to take the function for granted because th see certain analogies to sensory nerves in the course a constitution of these nerves. But surely it would further t ultimate end of science better if they frankly stated that th had as yet no absolute proof of the function of such nerves. dealing with the symptomatology of heart affections t author omits to note the more recent observations in regard the sensory symptoms, such as the striking and suggesti hyperaesthesia of certain muscles and the distinction betwe the deep and superficial hyperaesthesia of the skin. T author is still in a state of bondage to his teachers, for quotes approvingly theories in regard to the causation symptoms that with more extended experience he w certainly find untenable. From the few references regardi his own observations we think he would have added to t value of his book by increasing these and by omitting t quotation of the vain imaginings of many writers. Regardi the practical part of this work the author shows that there a undoubtedly numerous cases in which degeneration of t fibres of the vagus and sympathetic has been found, thou the relationship to cardiac symptoms is by no means clear, a

[1] *Traité d'Hygiène.* Par le Dr. P. Smolensky, St. Petersburg. Translation, annotated by Professor Guiraud and Dr. A. Gautié. Paris: G. Steinheil. 1.04. (Royal 8vo, pp. 784. 119 illustrations. Frs. 20.)

[2] *Manuale dell' Igienista.* [The Hygienist's Manual.] Per cura de Prof. Angelo Celli. In two volumes. Rome and Milan: Albrighi, Segati and Co. 1904 (Demy 8vo, pp. 1,632. L.30.)

[3] *Aids to the Mathematics of Hygiene.* London: Bailliere, Tindall, and Cox, 1904. (Foolscap 8vo, pp. 103. 2s. 6d.)

[4] *Cassell's Family Lawyer.* By a Barrister-at-Law. London: Cassell and Co., Limited. 1903. (27 parts. 6d. each.)

[5] *Les Nerfs du Coeur chez les Tabétiques.* (Etude Clinique et Anaton pathologique). Par Dr. Jean Heitz, Ancien Interne des Hôpitaux de Par Paris: G. Steinheil. 1903. (Demy 8vo, pp. 220, Fr. 4.)

acts cited are too few and indefinite to establish any in conclusion. That there may be some relationship irs possible, however, from cases in which extensive tis of the vagus was associated with attacks of tachya and respiratory difficulties. That there should be ent changes in the heart and aorta in tabes is what t be expected seeing that the patients are mostly ilitic, but that these changes are due to the tabes is a ent question, and the author considers that they are irrent and not dependent phenomena. If the posterior ganglia of the lower cervical and upper dorsal nerves are ed by the tabes, and in consequence the afferent athetic fibres destroyed, then it is easy to conceive that nsory symptoms would be provoked by the disease of the and aorta. But, seeing that so many people who suffer grave affection of the heart and aorta present no ry symptoms, it does not justify the view that the ce of symptoms in tabetics affected with disease of the and aorta is a proof of degeneration of the afferent athetic nerves of the heart. Why should Argyll rtson be deprived of his patronymic? We observe that uthor continually refers to the pupillary phenomena as *Signe d'Argyll*."

a succinct but sufficiently comprehensive introduction aboratory guide to the subject, Dr. HARDESTY'S *Neuro-l Technique*[6] may be warmly recommended. The in-tions are thoroughly practical and the methods given stood the test of application in the laboratory. In the art of the book the anatomical nomenclature for the ous system and sense organs, the result of a convention atomists at Basle, is given, and the book in size and resembles that by Kahlden in common use in neuro-logical laboratories.

other addition to the ever-increasing number of small books of nervous and mental diseases is Dr. PERSHING'S *nosis of Nervous and Mental Diseases*.[7] It makes no pre- to originality or completeness, and is not intended to ce a systematic study of nervous and mental diseases, ims simply at furnishing a guide to practical diagnosis ractitioners who have no special knowledge of the subject. lassification is therefore not based on neuro-pathological nds, but is purely symptomalogical, and is composed of es of tables and explanatory matter on the same method e "keys" in common use in the practice of chemistry, y, zoology, etc. The compiler has fulfilled this aim on hole fairly well, but it is difficult to imagine how the f such an aid could prove anything but unsatisfactory.

HYDROTHERAPEUTICS.

first edition of Dr. S. BARUCH'S volume on *Hydro-py* was reviewed in the BRITISH MEDICAL JOURNAL[8] mber 24th, 1900, p. 1505. We now have a second edition,, derably enlarged, and likewise a German translation of second edition by Dr. W. LEWIN, of Berlin. Amongst additions to the present edition is a chapter on the ts obtained in insanity based upon records in large ms. The author insists upon the exact study of the ique of every hydrotherapeutic procedure and of the fications rendered necessary by existing conditions, and nds that hydrotherapeutic means are capable of exact ge, although he admits that by apparently similar uses drotherapy opposite results have been reached. A good of space is devoted to the subject of baths in typhoid . He objects to the older teaching that cold baths in disease act merely by reducing the temperature of nts for the curious reason that Hare and Hirshfeld in ralia, who employed baths of 80° to 90° F., had a mor- of only 3.4 per cent. He does indeed point out, how- that these baths are not warm for patients whose tem- ure is 104° F., and that reaction is produced by the differ- of temperature between the skin and the water. The ralian records, however, seem to confirm his statement in the aged and weak and in children a bath of 90° F. is more effectual than one of 85° F. The point is, however, far from being established, and readers would do well to consult the paper by Dr. Pembrey published recently in our columns. The book is to be accepted as a critical survey of the whole subject by one who, on account of his practical experience, is thoroughly qualified for the task. The German edition will rank with existing textbooks by German authors.

Dr. P. ROETHLISBERGER, in various pamphlets[9], describes his experimental research on the action of the hot sulphur baths of Baden, in Switzerland. About forty series of experiments on different persons proved that in the bath and for a considerable time afterwards the temperature of the rectum showed a marked diminution, whilst the superficial temperature increased or remained stationary in baths of 88° to 100° F. In baths of about 100° F. the temperature of the rectum decidedly rose, but dropped below normal after the baths. According to Stifler just the opposite effect is produced by simple water baths of corresponding temperatures. The author concludes that the Baden baths have such a decided influence on the metabolism, temperature, and circulation of the bather that the impartial investigator must admit their action as specific, that is to say, as different to plain water baths at the same temperature.

Dr. SCHWEINBURG'S *Handbook of Hydrotherapy*[10] is a carefully condensed account of the methods and rationale of this branch of therapeutics. The first part deals with general principles and embraces descriptions of the various methods of application, including ordinary baths of different temperatures, gaseous baths, hydro-electric baths, wet and dry packings, vapour baths, hot-air baths, electric light baths, douches, local baths and douches, hydrotherapeutic bandages and compresses, and various methods by special apparatus for the local application of heat and cold. In Part II diseases and morbid conditions are separately considered in regard to the possibility of help from some form or other of hydrotherapeutic treatment. Under diseases of the heart and circulatory organs the author points out that the old idea of heart disease forming an absolute contraindication for bath treatment is no longer held. Indeed, the organic lesions caused by endocarditis, when they have once become chronic, generally remain, and the hydrotherapeutic measures are directed not so much against these old lesions of the nature of scars, as against the disordered functions of the body which accompany them or are left behind by the original illness. In regard to the "hardening" of individuals by the use of baths, etc., it should be remembered that the powers of resistance of delicate children may be lowered instead of increased by too energetic attempts at "hardening" them by cold water and exposure to cold weather. For those familiar with the German language the book can take a place by the side of the other German textbooks on the same subject, for instance, that of Matthes, reviewed in the BRITISH MEDICAL JOURNAL, October 10th, 1903, p. 908. The portion devoted to gynaecology is from the pen of Dr. O. Frankl.

Mr. R. METCALFE'S *Essays and Notes on Hydrotherapeutics*[11] contains some interesting if not very novel information, some common sense, and a good deal of nonsense. As an appendix he gives an entertaining account of Richmond and its surroundings, illustrated by some excellent views of the neighbourhood, including one of a hydropathic establishment bearing the author's name.

NOTES ON BOOKS.

THE thirty-ninth volume of the *St. Bartholomew's Hospital Reports*,[12] 1903, edited by Dr. A. E. GARROD and Mr. W. MCADAM ECCLES includes certain communications relatively original in character. Dr. F. C. Shrubsall contributes a remarkable monograph, Physical Characters and Morbid

urological Technique. By Irving Hardesty, Ph.D, Instructor in omy, University of California. Chicago: University Press; and on: Wesley and Son. (Demy 8vo, pp. 192. 8s.)

e Diagnosis of Nervous and Mental Diseases. By Howell T. Pershing, M.D., Professor of Nervous and Mental Diseases in the University aver. London: Rebman, Limited. (Demy 8vo, pp. 224. 6s.)

e Principles and Practice of Hydrotherapy. By S. Baruch, M.D. d edition. London: Baillière, Tindall, and Cox. 1904. (Demy 8vo, 6. 74 illustrations. 16s.) *Hydrotherapie*. A German translation of bove by Dr. W. Lewin. Berlin: A. Hirschwald. 1904. (Demy 8vo, 8. M. 12.)

[9] *On Sulphur Baths*. By P. Roethlisberger, M.D. Reprinted from the *Journal of Balneology and Climatology*, January, 1904. Also articles dealing with the same subject in the French and German languages.

[10] *Handbuch des allgemeinen und speziellen Hydrotherapie*. Von Dr Ludwig Schweinburg. Nebst einen Beitrage von Dr. Oscar Frankl. *Die Hydrotherapie in der Gynäkologie und Geburtshilfe* [Handbook of general and special Hydrotherapy. By Dr. L. S. Together with a contribution by Dr. O. F. Hydrotherapy in Gynaecology and Midwifery]. Wiesbaden: J. F. Bergmann. 1904. (Demy 8vo, pp. 298; 45 illustrations. M. 6.)

[11] *Essays and Notes on Hydrotherapeutics*. By Richard Metcalfe. London: Simpkin, Marshall, Hamilton, Kent and Co., Limited. 1903. (Crown 8vo, pp. 254. 3s. 6d.)

[12] London: Smith, Elder and Co., 1904. (Demy 8vo, pp. 521. 6s.)

Proclivities, representing much labour and deep thought. The author enters into a close analysis of physical characters and geographical distribution, and concludes that there are indications that certain physical types appear with greater frequency among patients from certain diseases than among the general population. Fair complexioned types appear as associated with acute rheumatism, heart disease, tonsillitis and osteo-arthritis, dark complexioned types with nervous diseases, pulmonary tuberculosis, and malignant disease. Dr. J. Graham Forbes furnishes this volume with a Medical Report of the Anglo-French Boundary Commission on the Western Frontier of the Gold Coast Colony—January, 1902—May, 1903, with maps and photographs, and an additional article on Native Methods of Treatment in West Africa. Dr. Stanley Atkinson, Barrister-at-Law's short but interesting and amusing Forensic Physiology will repay perusal. Sir Lauder Brunton's paper On a Case of Staphylococcic Infection is autobiographical and includes a most graceful and well-deserved tribute of personal and professional admiration to the memory of his late colleague, Mr. Walsham. The obituary of the latter, by a member of the hospital staff who signs in initials, heads the volume, and his portrait appears as the frontispiece. Mr. Cripps's experience in Ovariotomy and Hysterectomy in Martha Ward includes excellent observations on the general treatment of abdominal cases and on certain matters of detail in respect to the two operations. Sir Dyce Duckworth supplies Observations on Chorea Gravidarum, Mr. D'Arcy Power Some Cases of Gastric Surgery, Dr. Herringham On Syphilis of the Heart, Dr. Calvert Hydatid Disease of the Heart, and Mr. Walter Jessop an article On the Prognosis after Operation in Glioma of the Retina. Two Intracranial Cases, by Mr. C. E. West, F.R.C.S., are of considerable interest; they occurred in the Aural Department of the hospital; in one of the cases cerebellar abscess was associated with chronic suppurative otitis media. Mr. Eric Young reports A Case of Senile Gangrene occurring in a Man aged 45, while Mr. D'Arcy Power and Dr. Jobson Horne write On some Cases of Malignant Disease from the Department for Diseases of the Throat and Nose. Dr. Arnold Izard's Cambridge thesis, Some Difficulties in the Diagnosis of Appendicitis, is included in this volume; the author treats with ability a subject always of interest to the surgeon; the same observation applies to Mr. Sydney Scott's Perforation of the Intestine in Typhoid Fever. A short note by Dr. Parkes Weber, On Action and Reaction in Pathology and Therapeutics, deserves consideration, as the author has clearly devoted much thought to his subject. Dr. G. G. Morrice's Two Illustrations of Nervous Diseases refer to a case of herpes zoster associated with Bell's paralysis and an instance of larval Graves's disease. Altogether this thirty-ninth volume is decidedly above the average as regards articles of interest to the general medical public, whilst it is not deficient in papers and notes prepared by members of the staff. As usual, the annual Statistical Tables of Patients under Treatment in the Hospital are included in the volume.

In writing on vital energy in its significance for medical science,[13] Professor Rosenbach trenches upon that fascinating borderland which lies between the purely material and the psychical or non-material aspects of existence. Apart from its speculative interest, this subject has undoubtedly a very considerable practical importance; but it is so extremely difficult and obscure that no one can plunge into its depths with any certainty of being able to bring up to the surface any discoveries of substantial value. Therefore it is with a feeling of disappointment rather than of reproach that we express the opinion that Professor Rosenbach has not been altogether successful in his attempt to apply philosophical principles to the elucidation of vital phenomena. Whilst admitting that we cannot tell him how he might have worked out his very ambitious project to a really satisfactory issue, we may point out that his initial difficulty appears to lie in the crudity and inadequacy of his philosophical conceptions. This is particularly conspicuous in his notions of the doctrine of free will; and, in fact, the general speculative tone of the whole book is inconclusive and lacks the grip of scientific demonstration.

Handbooks for Volunteers.

The great alterations in stretcher drill since the first edition of Major Marshall's manual on the subject was published has necessitated a new edition,[14] in which much text has had to be rewritten and many of the dia redrawn. The plan adopted by Major Marshall of te drill by diagrams has been found useful, and all vol medical officers and stretcher bearers will find his *St Drill* helpful. Much trouble appears to have been ta get the information up to date and with a great meas success. The information as to dress seems unnece complicated by details of the dress of all branches service and for campaigning as well as home duties, and two small errors could be pointed out—but then chan dress in the army may have taken place between the tion of proofs and the issue of the book. The book is w up, and of a suitable size for the pocket.

The second issue of the *Volunteer Annual* (*Metro Corps*)[15] is brought up to date for the volunteer year October 31st, 1903. This is a book which all metrop volunteers should possess, and which all intending to b volunteers would do well to consult. It gives all inform as to strength, uniform, and work of the various yeo and volunteer regiments in the metropolitan area, even so far afield as Woolwich and Guildford. The appendic also valuable, and give useful information as to the re ments for efficiency, the cost of uniform and annual exp for officers, the rules of the National Rifle Association, list of books on subjects which the volunteer requi study including those relating to the medical service. end of the book is an alphabetical list of officers servi different corps of which details are given in this volume

[13] *Energetik und Medicin.* Von Professor Dr. O. Rosenbach. Zweite Auflage. Berlin: August Hirschwald. 1904. (Demy 8vo, pp. 118. M. 2.80.)

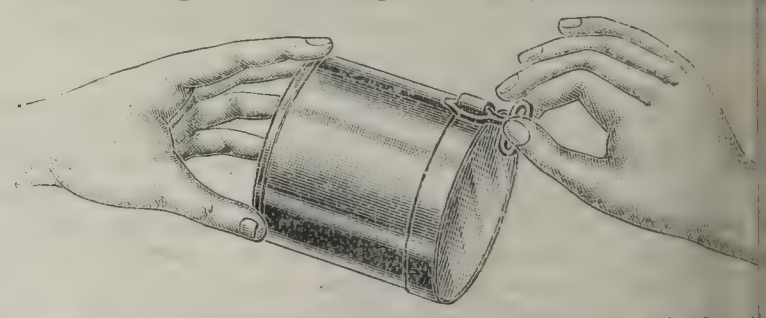
[14] *Stretcher Drill* (Illustrated). By Major J. J. de Zouche Mar Second Edition. Teddington: Published by the author. 1904. (Fca pp. 110. 3s.)

[15] *The Volunteer Annual, 1904 (Metropolitan Corps).* London: Adam Charles Black. (Crown 8vo, pp. 104. 1s.)

REPORTS AND ANALYSES
AND
DESCRIPTIONS OF NEW INVENTIO
IN MEDICINE, SURGERY, DIETETICS, AND THE ALLIED SCIENCES.

MEDICAL AND SURGICAL APPLIANCES.

Sterilized Surgical Swabs.—Mr. J. Jackson Clarke brin our notice some sterilized surgical swabs and bandage pared at his suggestion by Mr. W. Martindale. The swabs various sizes, and are made of two layers of soft gauze sti over absorbent wool in such a way that no frayed edge exposed, and are packed in numbered batches of te twenty, tied up in a small gauze sack, and then placed



tin case and thoroughly sterilized. The lid of the t soldered on immediately at the conclusion of the opera For use the nurse is directed to moisten the outside o tin with a 1 in 40 carbolic solution, and then to turn handle of the soldered strip of metal till the lid falls off surgeon then cuts the string which surrounds the neck o sack and the swabs are ready to his hand. Any swab used during the operation may be safely applied to the w as a dressing. By sending a prescription to a chem reliable set of swabs, etc., may thus be quickly obtaine any operation. The illustration shows the mode of open tin.

The Study of Criminology.—A Bill providing for establishment of a bureau and a laboratory for the stu the criminal, pauper, and defective classes has been i duced into the New York State Legislature. It is based similar Bill which has already been submitted to Cong The work of the bureau would consist in the gathering of of a sociological, pathological, or abnormal nature.

The Galerie des Sources, Vichy (Établissement Thermal).

NOTES ON HEALTH RESORTS.

VICHY.

the mineral springs of Europe probably none was so nown to the English in the middle of last century as . Later its popularity waned, and the English went or ent more and more to other health resorts, mainly in ny. This change was due to various causes, among may be mentioned a certain change in the fashion of al opinion, and a failure on the part of Vichy itself to ace with the times in its bathing arrangements and in ovision of ancillary methods of treatment.

object of this article is to point out that in so far as may have at one time fallen a little behindhand in its rooms, baths, and so on, it has now more than made up , and has for the last few years possessed one of the most conveniently planned, and most complete mineral establishments in the world. It need fear no rival on ore in Germany, and it is in some features modelled on gate, though on a larger scale.

y was known to the Romans, great amateurs of mineral , and its modern history dates back to the fifteenth y when Louis II founded a convent of Célestins who he waters for treating the sick who asked their charity. XIV completed a public hospital and towards the end seventeenth century Mme. Sévigné, who performed ies in the consumption of the waters, helped to make ace fashionable. The aunts of Louis XVI derived so benefit from a course at Vichy that the erection of a tablishment was planned, but the Revolution stopped hing, and though Napoleon ordered the resumption works nothing was done until after the Restoration. odern development of Vichy dates from 1853 when the eased the waters to a company. A few years ago this ny resolved practically to reconstruct most of the baths mp rooms, and the new buildings have now been com- nd in working order for two seasons.

ough Vichy had somewhat fallen out of fashion with nglish it had steadily grown in popularity with the n, so that the number of visitors, which was in round rs 25,000 in 1872, had risen to 42,000 in 1892, to 72,000 in nd in 1902 to 82,000, among whom were to be numbered English.

y, that part of it which interests the invalid, is a very ct place. Most of the springs and bath-houses lie close er and are connected by covered ways, which lead also Casino, with its reading-rooms, restaurant, and theatre. hole stands in a small park or large garden. There is r larger pleasure ground laid out on the banks of the a mountain river varying very much in volume. A ie barrage converts that part of its bed opposite Vichy small lake during the season.

re are both hot and cold springs at Vichy, some of yield very large quantities of water. The principal is La Grande Grille, so called because it was once pro- by a grating. The Source de l'Hôpital, which owes its to the circumstance that the civil hospital once stood y, is also a copious spring. The water from these two s contains much free carbon dioxide, and is used both inking and for supplying the baths. The principal cold spring is the Source des Célestins, an agreeable sparkling water strongly charged with carbonic acid. The chemical constituents of these three springs are very similar, their chief character being the large percentage of sodium bicarbonate and the presence of free carbon dioxide. All three also contain magnesium carbonate and sodium sulphate, which, though present in small proportions may yet have some therapeutic importance. There are other springs in use, but these mentioned are typical, and the following analyses by Bouquet show their constitution:

Name of Springs.	Grande Grille.	Hôpital.	Célestins.	Chomel.
Free carbonic acid	0.908	1 067	1 049	0.768
Sodium bicarbonate... ..	4.883	5 029	5.103	5.091
Potassium bicarbonate ...	0.352	0 440	0.315	0 371
Magnesium bicarbonate ...	0.303	0 200	0.328	0.338
Strontium bicarbonate ...	0.003	0 005	0.005	0.003
Calcium bicarbonate ..	0.434	0 570	0 462	0.427
Iron oxide	0.004	0.004	0.004	0.004
Manganese oxide	Traces	Traces	Traces	Traces
Sodium sulphate	0.291	0.291	0 291	0.291
Sodium phosphate	0.130	0.046	0.091	0 070
Sodium arseniate	0.002	0.002	0.002	0.002
Sodium borate...	Traces	Traces	Traces	Traces
Sodium chloride	0.534	0 518	2.534	0.554
Silica	0.070	0.050	0 060	0.070
Organic matter	Traces	Traces	Traces	Traces
Total ...	7 914	8.222	8.244	7.959

There are four bath-houses at Vichy. The first-class baths, reopened in 1903 after reconstruction, are models of completeness and cleanliness. They contain 140 baths, 9 large douches, 24 massage douches, 32 ascending douches, large plunge baths, and a large well-equipped institute for mechanical and electrical treatment, under the direction of Dr. Vermeulen. The second-class and third-class baths are well but less luxuriously appointed; all under the direction of Dr. Lejeune, assisted by Dr. Pariset. The fourth set of baths, divided into three classes, are the Bains de l'Hôpital supplied by the spring of that name.

The diseases in which a course of Vichy offers most hope of benefit are those of the stomach, including dilatation; of the liver, especially congestion; of the intestines when attended by congestion, but including certain forms of mucomembranous colitis, urinary gravel and nephritic colic, and skin disorders associated with gout. A course is also reputed to be of advantage to patients suffering from diabetes or glycosuria, and in Bright's disease. About gout itself there is room for difference of opinion, but the baths and massage douches undoubtedly yield excellent results in chronic joint affections which the patient calls rheumatic and his friends gouty. The treatment by these means is often usefully supplemented in the mechano-therapeutic institution.

We are indebted to an English physician who has given special attention to gastric and metabolic disorders for the following notes:

"The merits of the springs of Vichy are undisputed, and the enormous sale of the water is sufficient evidence that they are without a rival in their class. With these extraordinary

advantages it is not surprising that Vichy is a very prosperous place which attracts annually some 70,000 visitors, many of whom are English; but these come for the most part in May and September, and are mostly persons who take the cure seriously. During these months Vichy is not seen at its best; August is probably the gayest time, especially during the race week, but throughout the month the theatre is well supported by good companies, there are numerous excellent concerts, and the baccarat tables are crowded. English visitors who seem to prefer Homburg and Marienbad, would find that there are greater attractions at Vichy than at either of these places, and that every facility exists for carrying out any desired course of treatment. Unfortunately, Vichy has the reputation of being hot during July and August, and this is true, but there are many alleviations, and in many cases hydrotherapeutic treatment is most successful when the external temperature is high. Many persons for whose cure Vichy is most suitable have been used to a tropical climate and would feel no inconvenience from the heat, while the robuster type of gouty, dyspeptic or hepatic patients for whom treatment at Vichy is most beneficial would not find the temperature too trying. Debilitated persons of both sexes, but especially women, should not be sent there during July and August, and the delicate, irritable, nervous type of invalid does not do well at Vichy at any time.

"In these days, when at so many health resorts patients are allowed to eat very much what they like, Vichy deserves honourable mention for the attention paid to diet. It is of the utmost importance that the doctors should be agreed upon such a question in order that the hotel and restaurant keepers may know how to regulate their tables. For this purpose the recommendations of the Medical Society of Vichy have been printed and circulated, and these recommendations are simple and such as can be easily followed. In addition, in some of the best hotels special bills of fare are daily provided for certain classes of patients; for example, one for dyspeptics and another for diabetics; but in other hotels the proprietors consider it sufficient to inform their visitors that if any article upon the bill of fare is forbidden they may order something else which will be supplied without extra charge."

Vichy is reached in seven hours from Paris. The invalid on arriving should consult one of the physicians practising in the town, whose instructions as to baths, massage, etc., will be carried out at the bathing establishment under the direction of the medical staff. The town is well supplied with hotels, villas, and furnished rooms. It boasts that its arrangements are so varied that a visit need not be beyond the resources of a shallow purse.

All the greater watering-places possesses a characteristic physiognomy. Vichy claims to be *reine des villes d'eaux et des stations thermales;* and without doubt she possesses a certain feminine charm, though, on the serious side of her, without the capriciousness usually associated with her sex. About all her ways their is brightness and elegance as well as thoroughness. At the pump-rooms the visitor receives his morning glass from the hand of a neatly-dressed young woman selected, as one may judge, not without regard to the aphorism that it is the first duty of woman to be pleasant to look at. In the bath-house everything is managed with military precision and seriousness. If the invalid be a man accompanied by wife or daughters, there must be few mineral water towns so likely to be agreeable to all members of the party as Vichy.

The Vichy Company carries on a considerable trade in bottled water and also in the salts obtained by its evaporation. The natural waters of all the chief springs are bottled, but of the 55,000 bottles which may be filled daily some 30,000 contain the water of the Célestin springs. To obtain the salt the water is evaporated in vacuo at a low temperature by a special apparatus capable of dealing with 120,000 litres a day; this quantity of water would yield about 800 kilograms of salts, but the total annual output is about 130,000 kilograms. Part of this large quantity of salt is put up in small packages of 6 grams, so that each package will yield about 1 litre of artificial Vichy water, or in bottles for export. The rest is employed in the manufacture of the well-known Vichy lozenges. The factory in which these processes are carried out is the particular care of M. Guerin and is a model of cleanliness.

The Directors of the Japanese Red Cross Society have, it is announced, appointed Miss Anita McGee, an American medical graduate, to take charge of the military hospital at Matsuyama. Miss McGee brought with her a staff of nurses who volunteered for the work.

THE HEALTH OF THE PORT OF LONDO

The annual report on the general conditions affecting h public health in the port of London during the year w ended on December 21st, 1903, was presented by the Me Officer, Dr. Herbert Williams, on April 14th.

Sanitary Inspection.

The total number of visits of inspection made by h sanitary inspectors during the year was 35,485, an advanc the previous year of nearly 2,000 inspections and upwar 3,000 above the average for the preceding five years. Of h total number of visits, 14,552 were to vessels lying in va parts of the river; 20,831 inspections were made in the d and in the Gravesend district; while 102 vessels wer spected in the portion of the River Medway which is wi the jurisdiction of the Port Sanitary Authority. Of h total number 3,133 or 9 per cent. required cleansing of general kind, which is carried out on verbal representat being made by the inspectors. Of the total number of ve inspected, 15,989 were from foreign ports, 5,338 arrived co wise, and 13,294 vessels came with the description of "In Navigation," while 864 inspections were made of premise shore. Of the nationality of vessels inspected 29,444 British, equal to 82.97 per cent. of the total; Swedish Norwegian amounted to 1,734 or 4.91 per cent., and Ger to 1,063 or 2.99 per cent. of the total. The number of sea found by the inspectors on their visits to be suffering f sickness of a non-infectious character and referred to Seamen's Hospital, Greenwich, was 40.

Medical Inspection.

The total number of vessels medically inspected Gravesend during the year was 2,552. This number is hig than any total for the preceding five years and considera above the mean for that period. This means, says Williams, that increased vigilance has been necessary on part of the medical officers in dealing with the possible in duction of cases of plague, as well as other infecticus dise into the country.

Plague.

Six cases in all were reported by vessels on arrival these, 3 were admitted to the Port Sanitary Hospital, bu none of them did the disease prove to be really plague.

The Destruction of Rats.

The destruction of rats on board ships and ashore on premises of the various dock companies has continued. work is carried on by professional rat-catchers, who are p by the dock companies and shipowners, and over whom officers of the port have no control. In certain of the p the dead rats have to be produced to some responsible per who keeps a record, but this is not done everywhere. total number destroyed during 1903 in dock warehouses, vessels while in dock, and on vessels during voyage is 76,0 which, with 185,982 brought forward from the last rep gives a total of 262,782.

Although the number of rats destroyed during the yea considerable, it is doubtful whether this represents even natural increase of births over deaths. A large amount money is expended annually by the dock companies in destruction of rats, but Dr. Williams is sure that they do get full value for the money spent, and he feels confid that if the same amount were expended by the authority number destroyed would be considerably increased, as would then be possible directly to control the work of rat-catcher. It is pointed out that the French Governm has decreed that all vessels coming from, or touching a plague-infected port must be fumigated with a view to killing of all rats on board before any cargo is allowed to landed in a French port, and the cost of this has to be bo by the shipowners. This rigorous procedure is contras with the practice in the Port of London, where shipown are only invited to co-operate with the sanitary authority preventing, as far as possible, rats from going on shore, a to capture as many rats as possible during the stay of vessel in the port. The medical officer wishes it to be clea understood that all rats captured are destroyed, and are allowed to leave the jurisdiction of the authority.

Yellow Fever.

No cases have been reported on any vessel arriving at Port of London.

Cholera.

he ss. *Royal*, which arrived on January 30th, 1903, reported ses of cholera during the voyage between Alexandra and ta. At Malta the forecastle and all living rooms were dis- cted, and all infected beds, bedding and clothing were nt. On arrival at Gravesend all was found well on in- tion; the names and addresses of the patients were taken notified in the usual manner. The vessel was kept under rvation during her stay in London, and no further sick- occurred. The ss. *Wakasa Maru* arrived at Gravesend on mber 16th, having left Yokohama on October 17th, and ed at several ports. Four cases of cholera occurred between ohama and Singapore. Adequate measures of disinfection e carried out at the latter port and no further cases of era or of any disease or sickness resembling cholera rred from the time the vessel left Singapore until her al at Gravesend, where the medical officer on examina- found that all persons on board were in good health.

Small-pox.

he total number of cases of small-pox reported on vessels 13; 11 of these were admitted to the Port Sanitary Hos- l at Denton.

Enteric Fever.

all 88 cases of enteric fever were reported during the , of which 55 were treated in the Port Sanitary Hospital enton. A detailed account is given of the conveyance of disease by infected blankets from the field of military ations in South Africa to the training ship *Cornwall* in Port of London; and it is stated that the Committee, at suggestion of the medical officer, sent a communication to War Office authorities urging that no effects from de- ed persons should be allowed to leave South Africa until had been thoroughly disinfected. It is pointed out that is representation had received the careful consideration e War Office it is probable that the outbreak would not occurred.

Enteric Fever and Sewage: Polluted Shellfish.

prominent part in the investigation of the relation of out- xs of enteric fever to the consumption of shellfish ted with sewage was taken by the Committee, the Port ondon Sanitary Authority having within its jurisdiction mber of important shellfish layings and fisheries. e are enumerated as follows: On the Essex shore—Leigh k, cockles; Hadleigh Ray, oysters, mussels, periwinkles; r Roach, oysters; Maplin Sands, cockles. On the Kent e—The Swale, oysters; Blythe Sands, cockles. At the ning of the year Dr. Williams received from the Medical er of Health for Wandsworth information that several of enteric fever which had occurred within his district in his opinion, traceable to the consumption of cockles Leigh in Essex. The sewage of Leigh is filtered through breeze filter beds, the resultant effluent being discharged Leigh Creek, about half-a-mile westward of Leigh Rail- Station. Cockles are gathered from the Maplin and ie Sands, brought by boat to Leigh, where the practice is ace them in the creek for a variable period in order to ge themselves of the sand." Assuming the original ering ground to be free from sewage pollution, storage of ockles in Leigh Creek points to an obvious result, namely, purging themselves of the sand of the gathering ground, fill themselves with the sewage-polluted mud and water e creek. The medical officer collected samples of the es direct from the creek. These were submitted to Dr. , who reported that he had found in them the typhoid lus, or, at any rate, a bacillus corresponding to it and ering all tests of the bacillus typhosus. These investiga- were contemporary with others carried out on behalf of Public Health Department of the City and the Fish- ers' Company. The results which have been published ery case pointed to the same danger, and immediate were taken to prohibit the sale in London of shellfish this source. The Committee further personally inspected arious sewage outfalls in the Thames estuary subject to risdiction, and observed the pollution in the immediate bourhood of some of them. The medical officer gave nce before the Royal Commission on Sewage Disposal, proposed that the Port Sanitary Authority should be ed powers to enter upon an inspection of shellfish ground, f polluted, to prohibit further laying of shellfish there. ot as to the constitution of the authority for the control llfisheries, the recommendations of the Royal Commis- losely followed the suggestions made by Dr. Williams.

Typhus Fever.

case was reported during the year.

CANCER RESEARCH IN LIVERPOOL.

The Committee of the Liverpool Cancer Research Fund has just issued its first annual report. The fund had its origin in the benevolence of Mr. T. Sutton Timmis, J.P., who wished it to be a memorial of his deceased wife. It was decided that the sum of £10,000 should be vested in two trustees and administered by a Committee consisting of Professor W. Carter, Dr. James Barr, Professors Rushton Parker, F. F. Paul, R. Boyce, and C. L. Sherrington. The Committee was empowered to spend it at the rate of £1,000 a year till it was exhausted or the cause of cancer discovered. Permission was subsequently given to make the sum £1,500 per annum if the Committee should think this amount desirable. As Mr. Timmis at the time of the gift was President of the Liverpool Royal Infirmary, it was thought desirable that an association should be established between that institution and the fund. This was accomplished, and a room to serve as a ward laboratory was assigned for the purposes of the research; a certain number of beds was also set aside for the purposes of clinical observation on cases of cancer. The Council of the University of Liverpool also granted the use of five large rooms in its laboratories for the prosecution of the inquiry. Dr. A. S. Grünbaum was chosen to be director of the research. That gentleman, in his interim report, which covers a period of something less than a year, states that in framing a plan of work he determined to proceed mainly along two lines—therapeutic and experimental.

Therapeutic Investigations.

Under this head it is stated that the cytolytic milk of a cow and, subsequently, when it yielded no more milk, its serum were tried. It was expected that it would have effect only on cancer of the breast, but it was also tried on two cases of cancer of the stomach and one of cancer of the rectum. One patient with cancer of the stomach took the milk constantly until death, the other two did not continue to send for it and their subsequent history is not known. Of two cases of cancer of the breast, in one the disease is apparently arrested; the other, which was really too advanced for fair trial, has died. Three cases of uterine cancer are being treated with the serum from a horse; they all show objective signs of improvement. Offers of infallible remedies were received from several people. They were informed that their remedies would be investigated if the composition were revealed. Only two replied, and the remedy of one is under investigation. Of the value of *x* rays as a curative agent in certain cases there can be no doubt, but at the present moment the clinical and pathological characteristics of such cases are not defined and require minute investigation. Radium has also been tried.

Experimental Work.

This branch of the inquiry has been directed towards the discovery of the causes of cancer. Dr. Grünbaum is of opinion that a combination, and perhaps not always the same combination of causes, is necessary. If once a strain of human cancer can be experimentally secured and continued, he says, we shall be appreciably nearer the goal. In carrying on the work both the developmental and the parasitic hypotheses have consequently been kept in view. The recent additional evidence obtained by the London observers towards the germinal theory raises the hope that a comparatively simple physiological cure may be possible, when we remember by what simple means experimental embryologists are able to alter the development of germinal cells. The occurrence of malignant disease in animals has also been under investigation.

In order to promote interest in the inquiry about 2,000 circulars were sent out to medical men in the north of of England, soliciting their co-operation, and about 1,000 to veterinary surgeons. The response to these appeals has not been very encouraging. A number of tumours has been received—about 57 per cent. from the Royal Infirmary, about 16 per cent. from the London Hospital, 1 per cent. from the Royal Southern Hospital, and about 26 per cent. from outside sources. Several tumours, mostly malignant, from animals have been received and examined; they include specimens from horse, cow, sheep, dog, pig, cat, mouse, and trout. This number does not include some specimens sent to the Department of Comparative Pathology which Dr. Grünbaum has also been afforded the opportunity of examining. A few interesting clinical and pathological variations from the conditions obtaining in man have been noted, but the resemblances are sufficient to justify the supposition that similar intrinsic and extrinsic causes exist for all.

MEDICAL NEWS.

A Bill for the registration of trained nurses, with the title of "R.N.," was recently introduced into the State Legislature of Maryland.

Pasteurism in Philadelphia.—The Pasteur method for the treatment of persons bitten by dogs has quite recently been employed for the first time in Philadelphia.

American Climatological Association.—The American Climatological Association will hold its twenty-first annual meeting at Philadelphia on June 2nd, 3rd, and 4th, under the presidency of Dr. J. C. Wilson of that city.

A Hypnotic Hospital.—Professor Hyslop, of Columbia University, has announced that a hospital for the hypnotic treatment of diseases will shortly be established at New York. A well-known millionaire has agreed to give a large sum of money for this purpose.

A meeting of the Ambidextral Culture Society will be held in the rooms of the Medical Society, Chandos Street, Cavendish Square, W., on May 18th, at 5 p.m., when a lecture on Ambidexterity from the Medical Point of View will be delivered by Dr. James Shaw.

It is announced that a performance in concert form of Gluck's *Orfeo* is to be given at Queen's Hall on June 3rd, in aid of the rebuilding fund of St. Bartholomew's Hospital, and under the patronage of Her Majesty the Queen and of of their Royal Highnesses the Prince and Princess of Wales.

Royal Institution.—At a general monthly meeting of the members of the Royal Institution held on May 9th, the Duke of Northumberland, K.G., President, who was in the chair, announced that he had nominated the following among others Vice-presidents for the ensuing year: Sir Felix Semon and Sir James Crichton-Browne (Treasurer).

Dr. Koch has recently arrived at Cairo from West Africa, and is being consulted by the Egyptian Sanitary Department on the epidemic of bovine typhus which now rages in Egypt and as to the measures being taken for its suppression. It is probable that Dr. Koch will also be consulted regarding bubonic plague. He has had conferences with Sir Herbert Pinching, Director of the General Sanitary Service, and Dr. Bittar.

Special Pullman Cars for Consumptives.—In accordance with the recommendations of the United States Public Health and Marine Hospital Service, the Pullman Company has agreed to add to its equipment hospital cars to run on the Santa Fé Railway between Chicago and Kansas City to Colorado and New Mexico health resorts on certain days each week, to be set apart for consumptives and other sick persons. Ordinary Pullmans are to be reserved for persons in health.

Medical Incomes in the United States.—According to *Leslie's Monthly* there are about 200,000 doctors in the United States, or about 1 for every 350 people. It has been approximately estimated that the average yearly income of these men is £150, or that the American public pays £30,000,000 annually for medical attendance, omitting entirely the money spent for patent medicines which bring millions to manufacturers, or the amount spent for doctors' prescriptions, or paid to quacks and commercial doctors. The preparation for the practice of medicine that gives a man a good standing in the profession means an expense of about £800 for four years in a reputable medical school, £200 for general expenses during two years' hospital service, and perhaps another £200 for setting up in practice.

Kids and Rabbits.—A curious and unpleasant discovery was made in the Central Meat Market at the end of last month. A meat inspector had his attention directed to a box invoiced as rabbits, and in his turn drew the attention of the medical officer of health to its contents. The latter found that the contained animals, although dressed in the manner in which rabbits are usually prepared for the market, were unquestionably not rabbits at all, but immature animals of some other species. He consequently caused them to be examined by Dr. Shave, of the Royal Veterinary College, who pronounced that what it was endeavoured to pass off as rabbits were really the carcasses of newborn kids. Upon inq it was found that the box in question had come from Na in Prussia, and that the consigner had expressed his readi to send a hundred of these so-called rabbits to the Lo Central Meat Market weekly. Dr. Collingridge, in repo the matter to the sanitary authority, pointed out that wil the sale of kids for rabbits is a trade fraud, the use of the s of newly-born animals killed at birth, presumably for h sake of the mothers' milk supply, was a filthy and disgu practice. These remarks are doubtless quite true, and th seizure and destruction of the shipment will probably pe the consigner from attempting the imposition again. remarkable, indeed, that it should ever have been attemp One is accustomed to tales of the frauds of the restau cook upon his master's customers and of animals being s up under names which they never bore in life, but a co sponding imposition upon the cook himself seems a n idea.

West London Medical Chirurgical Society.—The m bers and friends of the West London Medical and Chirur Society met together on May 4th at the Trocadero, Piccadi on the occasion of the twenty-second anniversary dinn the Society under the chairmanship of the President, D Taylor. An interesting event which took place in the co of the evening was the presentation to Mr. Percy Dunn to Mr. McAdam Eccles of a silver bowl each in recogn of the services they had rendered to the Society in connec with the *West London Medical Chirurgical Journal*. The t of "The Imperial Forces" was proposed by Mr. C. B. Kee who secured the attention of those present by an earnest t test against the omission from the new War Office Boa the head of the Army Medical Department. Fleet-Sur French, who replied for the navy, described how in m actions in the future medical officers would have to re below and wait until the fighting was over before atten to the wounded. Colonel Hendley, I.M.S., who also sponded to the toast, described his experience of the d culties resulting from the want of proper representatio the Medical Service at the different centres of administra in India. He contended that the variety of work and res sibility which devolved upon medical men in India demar wide powers of control and proper representation so that t views should be properly carried out in the interest humanity. The toast of "The Kindred Societies and Gue was proposed by Mr. Stephen Paget and acknowledged Dr. de Havilland Hall and Dr. Theodore Williams. Mr Swinford Edwards was entrusted with the toast of "T President and the Society" to which the President sponded.

The Rural Midwives' Association.—The first an meeting of this Association, the object of which it train and supply midwives for rural and provincial tricts, to assist in starting local associations, and to obt help and co-operation for the work through county coun union infirmaries, guardians, and existing charities, was on May 5th. Sir M. Foster, M.P., who presided, s according to a report which appeared in the *Times*, that Association had reason to be satisfied with the progr made during the year, though it had to contend with m difficulties. In the first place, it was stated that one effec the Association would be to hinder the development of thoroughly-trained midwife, but he was prepared to deny it would have any such result. The object of the Associa was really not so much to protect the midwife herself a assist the rural poor by seeing that they were provided w proper attendance in the hour of need. It had also b stated that their efforts tended to put ignorant pers into a position for which they were not fitted by Nature; the care that the Association was exercising in regard to women selected for training was a sufficient answer to objection of that kind. He denied also that there was danger of the Association's encroaching on the duties of local supervising authorities of county councils and o public bodies. Mrs. Heywood Johnstone moved the adopt of the report, which stated that during the year 23 women been sent to training institutions, and that the Associatio present had ten midwives and several monthly nurses at w in nine counties. So far, however, the funds had not enab the Committee to make any grants to very poor villa towards training and starting a midwife. The motion seconded by Dr. Boxall, and adopted. The financial st ment showed that the receipts for the year amounted £726.

BRITISH MEDICAL ASSOCIATION.

bscriptions to the British Medical Association for he year 1904 are now due and should be forwarded y postal order or cheque to the amount of 25s. o the General Secretary, 429, Strand, London, W.C., r, in the case of Colonial members, to their Branch reasurer.

British Medical Journal.

SATURDAY, MAY 14TH, 1904.

OVERLOOKED FORCEPS.

ERY surgeon who has performed abdominal operations ows how much anxiety they entail. There are dangers haemorrhage, of the diffusion of sepsis, and of damage to portant viscera. But the most harassing dread which ets him is the fear of overlooking instruments and nges when he closes the abdominal incision. Under tain conditions this accident is exceedingly likely to ur; above all, in emergency operations where haemor- ge is placing the patient's life in immediate pardy, and where at the same time there is already h a degree of exhaustion that the operation must completed as rapidly as possible. In a case which recently been before the public the evidence wed that about two-dozen forceps had to be used, is frequent under the circumstances. These in- uments are most valuable for haemostasis, as if left for a few minutes they entirely seal up small vessels in sules and in vascular adhesions, and thus render liga- e superfluous; or, to state the case more cautiously, y counteract the dangers of leaving vessels unligatured. preventive purposes they are admirable, saving in ny cases the loss of a drop of blood when a vessel is ded. But the free application of these instruments of essity involves risk of some being left behind, ecially, as we have said, in emergency operations.

he dread of leaving forceps in the abdominal cavity le the earlier ovariotomists think how they might nteract or avoid such danger. The long-shanked in- uments which Koeberlé, Wells and Péan introduced which remain in use were a great improvement upon liances like Dieffenbach's little bulldog forceps, ex- ent for haemostasis, but so small as to be unfitted for a-abdominal operations. Wells used to tie a long piece ire or silk to them to avoid losing them in the peri- al cavity, but the inconvenience of such an arrange- t was evident. The introduction and development of long-shanked pressure forceps with the catch at the dles is part and parcel of the history of the establish- t of abdominal surgery.

et accidents of the kind which their contrivance was cially designed to prevent occurred very early after introduction of the pressure forceps, and in the very ds of the designers of that instrument. Spencer ls himself described how once he left a pair of forceps the abdominal cavity after an ovariotomy, in his terian Lectures at the Royal College of Surgeons in . The oversight was rectified a few hours later by the oval of the forceps, and the patient recovered. Un- nately in another case of the same kind the forceps not missed. It ultimately found its way into the der, whence it was removed, the patient dying of the second operation. Since the early days of Sir Spencer Wells's practice this kind of accident has been reported nearly 200 times, including all cases where other objects besides forceps were left in the abdominal cavity. Von Neugebauer of Warsaw has been especially industrious in collecting statistics, on account of a judicial inquiry in which Professor Kosinski and Dr. Solman were implicated in 1899. He himself gave evidence, and a year later published his standard monograph *On the Accidental Leaving Behind of Foreign Bodies* (Forceps, Sponges, Pads, etc.) *used during Operations in the Abdominal Cavity, with Medico-legal Opinion.*[1] He collected 101 cases, yet by January 23rd, 1904, he was able to collect 87 more.[2] In this latter communication he quotes the words of Robert Weir: "I consider it almost impossible to guard against this contingency absolutely. We can only by great care reduce it to a minimum." Weir operated three times for the removal of sponges and gauze pads left in the abdomen. Von Neugebauer speaks of the importance of intelligent counting of forceps and sponges—as all must do who write on the subject—but he also dwells on other matters associated with these accidents. He considers that too many forceps and sponges are used, admitting that there is extreme variety in practice in this respect, for Schröder and Lawson Tait used a minimum whilst Péan employed dozens at a single operation, and living operators differ as much as to what is the necessary number of forceps and sponges. Von Neugebauer favours a minimum stock of forceps and sponges, but this practice may prove very inconvenient when a large vascular tumour has to be removed after separation of numerous adhesions. He speaks of the advantages of elevation of the pelvis and of a good light, and is very particular in insisting on perfect narcosis. All surgeons will agree with him that straining of the abdominal muscles and prolapse of coils of intestine through the wound are extremely disconcerting to the operator and assistant. The surgeon in the confusion may forget some of the important steps which he took at the beginning of the operation, and when he reduces the bowel forceps or sponges near the wound may be pushed far upwards or backwards into the recesses of the abdomen. When this operative complication occurs just at the time that the sutures in the abdominal wound are about to be secured—practically the end of the operation—the risk of the accident under consideration is considerable, especially should the operator have found it necessary to place a sponge or forceps in the abdominal cavity after the set had been counted by some responsible attendant.

Von Neugebauer includes in his valuable reports 27 cases where the foreign body left in the abdominal cavity was a pressure forceps; we may add another where a pair of scissors was forgotten and only detected by the pain they caused the patient when dancing a few months later. Nussbaum successfully removed the scissors. Ten out of the 27 forceps cases ended fatally, but in one instance amongst the ten a quack administered strychnine, contrary to orders after the operation, and the fatal result might have been due to the drug.[3] Sponges are much more to

[1] *Monats. f. Geb. u. Gyn.*, vol. xi, 1900, pp. 821, 933.

[2] 87 neue Beobachtungen von zufälliger Zurücklassung eines *sub operatione* benutzten Fremdkörpers (Arterienklemme, Schere, Schwamm, Gazetupfer, Mullkompresse, u. s. w.) in der Bauchöhle samt einigen anderen unvorhergesehenen Zufällen *intra operationem*, *Zentralbl. f. Gynäk.*, January 23rd, 1904, p. 65.

[3] This was *l'affaire du Dr. Lassallette* (*Gaz. Méd. de Paris*, Vol. lxx, 321: Frommel's *Jahresbericht*, 1899, p, 950). An Italian surgeon was recently prosecuted, but acquitted; the foreign body in this case was a piece of gauze.

likely to cause fatal complications, whilst gauze pads, the objects which are more often left behind than any other, are less deadly than forceps, as they tend to find their way into the bowel. Cushing and Marey removed rings from the peritoneum, a signet ring in the first case, a diamond one in the latter; we regret to say that, according to Von Neugebauer, a well-known surgeon operates with a gold ring on his finger. Schachner[4] is uncertain whether several other reports concerning these trinkets may not represent one case that had received uncommon notoriety. We trust that his suspicion is true; the wearing of a ring during an abdominal operation is inexcusable.

It is quite clear that a forceps is a source of great danger as long as it remains in the abdominal cavity. Unfortunately it is doubtful whether the last accident of this kind has been recorded. The public surely cannot think that it occurs as a rule as the result of wilful negligence. Neugebauer's statistics include the names of operators of high renown, and indeed the majority of surgeons who have experienced this great misfortune were experts more or less. We admit that it is to be feared that many cases may remain unrecorded. The personal factor in individual cases is an uncertain element in an operation; some nurses we know do not assist so well as others, some cannot count many objects without becoming confused, and the same may be the case with the operator, the assistant, or with any medical officer or servant told off to count instruments and sponges. It would be unfair in the extreme to throw all the blame on the operator, just as it would be most unjust for the latter to endeavour to place all responsibility on the assistants and nurses. The truth remains that the responsibility must always be to a certain extent divided. In this most recent case, the one at the West London Hospital, the solicitor seemed to admit that the checking of instruments had not been well attended to, and one nurse is reported to have said that she never understood that it was necessary to count the forceps—a most grave admission. The operator fatigued by an emergency operation, which he has just concluded, is often not in a fit state to make sure about forceps and sponges without the intelligent aid of his assistants and nurses.

THE BACTERIOLOGY OF RHEUMATIC FEVER.

We publish in another column an address delivered by Dr. F. J. Poynton on the infective nature of rheumatic fever, illustrated by the study of a fatal case. With regard to the value of this case as evidence in support of Dr. Poynton's theory, attention may be called to the following points. In July, 1902, a girl aged 9 was admitted to hospital suffering from chorea and active cardiac disease. A week before admission there had been painful swellings of her wrist-joints. The chorea was cured, but the condition of the heart remained unsatisfactory after her discharge. She was readmitted in August, 1903, and died in ten days, the features of the case being clinically those of malignant endocarditis. This diagnosis was corroborated *post mortem*. The only heart valve diseased, however, was the mitral; this was much thickened and exhibited tiny vegetations. From these vegetations, and also from the spleen and the kidney, pure cultures were obtained of a diplococcus resembling the diplococcus which, from previous investigations, Dr. Poynton regards as causative of rheumatism. The same organism, contaminated with others, was obtained from the lungs. With one of the pure cultures Dr. V. Shaw produced in both rabbits and monkeys arth endocarditis, and pericarditis. "This case, then," Poynton urges, "is a striking confirmation of the infe nature of rheumatic fever."

Taken purely on its own merits, it is a little diffic see that the case fully bears out Dr. Poynton's conclu The vegetations on the mitral value which containe diplococci were minute, and therefore it is reasonab assume that they were of recent origin; nor is there particular ground for believing that these organisms resided for any longer period in any of the other orga which they were found. The bacteriological investiga proved a generalized and terminal infection with a d coccus which produced joint and cardiac lesions in ex mental animals; but that is a very different matter proving that this same organism was the cause of chorea and morbus cordis which were clinically dete in the child more than a year previously.

It is only fair, however, to consider this case in the of others which Dr. Poynton has previously record conjunction with Dr. Paine. In 1900 these authors lished an account[1] of the bacteriological and experime investigations they had made with material from eight of rheumatic fever. From each of these cases diplo were isolated which appeared to be identical with t discovered by Triboulet in 1897 and by Wassermann in Cultures of these organisms were obtained from the blo living patients suffering from acute rheumatic pericar from the fragments of granulations removed from the car valves after death, and from the throat of a living pa suffering from rheumatic tonsillitis. Intravenous in lation of the cultures into rabbits did not cause supp tion but produced morbus cordis, arthritis, coagula necrosis in the liver and kidneys, plastic pleurisy pneumonia. This investigation was continued, and 1901 the authors were able to announce[2] that they isolated the diplococcus from 16 cases of rheumatic f In one instance they obtained a pure culture from a r matic nodule, and with an intravenous inoculation of culture produced in a rabbit valvulitis, pericarditis, polyarthritis. In 1902[3] they isolated a diplococcus w was present in the synovial membrane of the knee-join a man, aged 67, several of whose joints showed the chr destructive changes recognized as occurring in one typ rheumatoid arthritis. Pure cultures of this organism duced upon two occasions when injected into rabbi severe arthritis but no cardiac lesion. And in more re articles the authors have endeavoured to show that t is a group of cases of malignant endocarditis whic rheumatic in nature, that from these cases a diploco can be isolated in pure culture which will reproduce disease in rabbits, and that the lesions produced by genic cocci such as the staphylococcus aureus essentially different.

It will be seen, therefore, that Dr. Poynton's researc provide many interesting reasons, which are supporte the work of others, for holding that there is an impor association between a particular diplococcus and som the clinical manifestations of rheumatism. Much most valuable of his observations are those upon infective organisms which are productive of endocard He seems, in conjunction with Dr. Paine, to have es lished upon fairly substantial ground the fact tha

[4] *Annals of Surgery*, vol. xxxiv, 1901, p. 700.

[1] *Lancet*, September 22nd and 29th, 1900.
[2] *Lancet*, May 4th, 1901.
[3] *Trans. Path. Soc.*, vol. liii.

ial type of non-pyogenic diplococcus is productive of rm of endocarditis which may be fatal, and which is infrequently met with in cases which are clinically sified as rheumatic fever. But Dr. Poynton wishes to r us much further than this. He claims to have shown the entire clinical entity known as rheumatism is to bacterial infection, and that the infective agent is in y cases the particular diplococcus which he describes, gh he does not exclude the possibility that some nces of rheumatism may be due to other bacterial o-organisms. Regarded as a working hypothesis, this has two excellent justifications; it is the view which many of our leading physicians incline linical grounds; and it is the hypothesis which explains many bacteriological data recently ed upon record, not the least valuable of which are for which we are indebted to Drs. Poynton and e. But when we are asked to travel beyond the stage pothesis and to accept it as an incontrovertible fact rheumatism, in the wide clinical sense of the term, is ed to be due to bacteria, and that one at least of the isms which causes it has been fully identified, then el that we are being invited to accept wider conclu- than are justified by the data hitherto available. The of Dr. Poynton's which we publish this week (p. 1117) instance in point, and there are many others which eaders will find on consulting his previous articles. will find, for example, that the diplococcus in ques- vas in a very considerable number of the cases isolated death from a patient who had succumbed to morbus ; and though this organism was undoubtedly asso- with, if not causative of, the terminal infection, very far from being clear that this same organism he efficient cause of the rheumatic symptoms which manifest months, or even years, previously.

with regard to the presence of the diplococcus in atic nodules, on which some stress is laid, it will be that when a patient dies with this organism widely inated in his body, his rheumatic nodules may con- nese diplococci without having beenproduced by them. author's illustrations of histological preparations human rheumatic nodules are particularly uncon- g on this point; they show, to quote their own ptions, "retiform connective tissue with small s of diplococci scattered through it," and, in another ce, "groups of the diplococci lying in the interstices swollen connective tissue." It does not follow that e cocci occur within a tissue they are causative of its ; we have no grounds for assuming that they are, we have some evidence of active tissue pro- ion, of which, in the instances quoted, there is

isolation of a similar diplococcus from a case of tonsill- sociated with rheumatic symptoms is also interesting, s been corroborated by other observers; but it will cessary for these experiments to be successfully ed in a very large number of instances before it is ctorily established that the onset of rheumatic fever rmined by a specific organism which gains its first to the body by absorption through the tonsils.

LIFE, BIRTH, AND LIVE-BIRTH.

ANLEY B. ATKINSON, who is both a medical man and ster, has published in the *Law Quarterly Review* a -legal study on "Life, Birth, and Live-birth." Every lifeless child is, in the eye of the law, presumed to have been born dead unless there is evidence to the contrary. A person cannot be convicted of murdering it, nor can it inherit property, unless there is evidence that it existed separately from its mother. It is important, therefore, to know by what evidence such separate existence may be proved. There is no exact legal definition of a "child." From the point of view of the criminal law a fetus must be advanced enough in development to be capable of independent existence; but there is no ruling as to the period of gestation at which a child becomes capable of independent life. A monster incapable of separate existence is obviously not a "child," nor is a mole. There is one case on record in which a judge stopped a case on the ground that the alleged "child" was "a mass of corruption." But there is no definition of what kind or degree of deformity renders the product of conception not a "child." From the proprietary point of view a pregnancy is a potential child at any stage.

Should the proposed registration of stillbirths be carried out, it would become necessary to have some distinction between a fetus and an abortion, unless the suggestion made by Mr. Lowndes in 1872 were adopted—namely, that everything requiring burial, either fetus or abortion, should be registered. This would seem the most practicable way of avoiding the difficulty.

Birth, in a legal sense, takes place when the last part of the body of the fetus is wholly extruded from the body of the mother. The cord and placenta are not legally an essential part of the child. It follows from this that breathing is not a test of life, for a child may inspire before its legs or even before its body is born, and on this ground evidence to that effect has been in repeated cases held to be insufficient proof that a child had been born alive—cases which chiefly testify to the skill of lawyers in befogging juries into taking possibilities for probabilities.

To establish the fact of "live-birth" there must have been some token of vitality after the complete birth of the child. Most of the acquittals of the crime of infanticide take place because evidence is not procurable to prove a post-natal separate and independent existence in law. The principle we have just stated held good in English law till 1901, when Mr. Justice Wright laid it down that "the true test of separate existence in the theory of the law, whatever it may be in medical science, is the answer to the question, whether the child was carrying on its being without the help of the mother's circulation? If yes, then it had a separate existence even though it might not be fully born." Although this sounds well, and may seem to bring the law more into harmony with physiology, yet it makes practically no difference: for who can say that a child not fully born is "carrying on its being without the help of the mother's circulation?"

In criminal cases the only evidence of live-birth usually obtainable is circumstantial. The longer the child has lived the easier the task. If the child dies very soon after entering the world it will be almost impossible by *post-mortem* evidence alone to prove a very short post-natal life, an admission which will be early extracted from a medical witness by defending counsel, and when the labour has been secret and survival brief, indirect evidence is usually deficient. Cases of premeditated infanticide, however, usually do not occur at birth.

Cases in which evidence of live-birth is required in civil actions occur occasionally in connexion with birth insur-

ance policies, with compensation payable to a posthumous child, cases in which the birth of a child is disputed an account of the age of the mother, and cases in which upon the birth of a living child depends the holding by a widower of his late wife's property. All such cases are rare. Dr. Atkinson points out that the logical post-natal life test is reduced to an examination of the organs concerned in the circulation of the blood. Crying after birth was the common law test of live-birth. But children apparently dead at the moment of birth have survived for hours with an almost imperceptible beating of the heart. These feeble babes are at times laid aside as dead, when they are really only stillborn. Philip Doddridge, the hymn writer, was an instance. Therefore the persisting function of the heart is the real evidence of post-natal vitality.

The legal status of the child *in utero* is curious. To procure abortion is a crime; to kill a child in the act of birth and before it is fully born is not an offence. But if the child lives independently after birth and dies in consequence of wounds inflicted during delivery and before independent existence, this, it has been judicially laid down, is enough to constitute murder. The precept given in obstetric books, always to break up the medulla after perforating, thus becomes important, not only for the feelings of the mother but for the safety of the doctor. A child born on board ship cannot, in the absence of a special agreement, be charged as a passenger.

DISTRICT NURSING IN IRELAND.

LADY DUDLEY'S scheme for the establishment of district nurses in the poorest parts of Ireland came into active being just a year ago, and after reading the first report of those who are charged with its administration it is impossible not to wish both continuance and increase of the success which it has so far achieved. The excellence of the objects in view, and of the means which have been taken to attain them are alike indisputable. As for the former, few people need to be told that the poorest parts of Ireland are very poor indeed, and that the dwellings, in many parts mere hovels scattered over desolate if picturesque hillsides, are tenanted by a race of infinite value to the empire, and one to be encouraged and fostered in every possible way from the point of view of medical economics. There are certainly no people to whom the benefits of district nursing could be more profitably extended. Those who have perused with any care the report of our Special Commissioner on the Poor-law System of Ireland need no argument to convince them that there must be many cottages and hamlets in Ireland which it must often be impossible for the district medical officer to visit often, or even visit at all, with adequate promptitude, and that in default of the assistance of a trained nurse valuable lives must be lost from this cause alone. So far Lady Dudley and her fellow-workers have only been able to supply nine nurses, whom they have stationed in the most necessitous of many necessitous districts. At least ten times this number will be required before the needs of the situation are adequately met, and many people may be the more disposed to assist in raising the supply to this number by two definite considerations independent of those to which we have referred. One is that a fundamental part of Lady Dudley's scheme is a recognition of the fact that the functions of a nurse are not merely to mitigate existing suffering, but that she should be a person of such character, born and acquired, that she can exercise an educative and civilizing influence upon those among whom she lives and works, and thus teach them to help themselves. This is a point which the initiators of many other rural nursing schemes have either left out of sight altogether or have rendered impossible of attainment by making the conditions employment such as could not possibly meet the views a personal needs of any suitable woman. This error La Dudley has carefully avoided, with the result that, thou the cost may be somewhat increased, the nurses employ are not only highly educated in ordinary and district nursi work, but are capable of fulfilling the functions of, so speak, kindergarten mistresses in matters sanitary, and recognizing instinctively where the work of a doctor begi and that of a nurse ends. The Secretary of the Fund which the scheme is being carried out is Miss Keyes, Vic regal Lodge, Dublin.

SMALL-POX AND VACCINATION AT GATESHEAD.

THE vagaries of public bodies with reference to local ma agement of small-pox are being curiously illustrated Gateshead. It seems that within the past few mont there have been some 500 cases of variola, and that recent the guardians adopted the very sensible course of empow ing all registered medical practitioners to vaccinate revaccinate at the public expense. But the Readi guardians have been sending round for support by oth Boards a petition for presentation to Parliament setti forth that the practice of vaccination "is dangerous to li and limb, and useless as a preventive of small-pox;" a straightway the Gateshead Board have by a large majori decided to support the petition! They thus intimate the public and Parliament that they have been offeri payment to medical men all through their district for t direct purpose of maiming and slaying not merely t unfortunate paupers who have been committed to the sapient control, but all the inhabitants of the Gateshe Union who might be induced to accept their kind offers possible mutilation and murder. Whether the guardia can best be described as Bedlamites or as Thugs would t a suitable subject for a debating society, but as to ho much weight Parliament should attach to the petition there can be no debate at all. T resolution to support the Reading petition wa we observe, proposed by the Rev. A. B. Tebb. He reported to have declared that "this was the mo sensible petition he had ever heard," from which it ma be gathered that his experience of petitions or else h views of what constitutes sense in such matters must somewhat peculiar. In Gateshead, he pointed out, o medical man whom he named had received (for vaccin tions) £250 in three months; but surely that only goes t show that a good many of the public have taken advanta of the Board's own offer of free vaccination. He also sa that vaccinations had cost Glasgow £54,000 in four year and that there had been 3,000 cases of small-pox and 3 or 400 deaths; but he entirely omitted the absolute essential point as to whether the cases and deaths ha occurred among those whose vaccinations had cost t amount stated or amongst those who had refused pr tection. As regards Leicester, to which he also referre he did not state—and perhaps he did not know—th within the last month or so cases have been occurring the rate of nearly 30 a week, and that the medical offic is being blamed for over-activity in pushing the clai of vaccination. When his discourse to the guardia was replied to by a medical member of the Board, t reverend antivaccinist declared, with fine Christia charity, that, "without imputing motives the medic fraternity could not clearly dissociate the fees from the consideration of the question." That is a kind of insinu tion which naturally comes home to roost, and if Mr. Teb chooses to attribute to others the considerations whi determine his own conduct, the self-revelation cannot without interest in the circles in which he moves.

THE JAPANESE SOLDIER'S FEET.

THE Japanese soldier has been well described by an office of Indian experience as "a Ghoorka—with brains;" an there could be no higher praise. Like the Ghoorka, t Japanese soldier is short and thick set, with muscles d veloped to the highest point of efficiency and a syste trained to endurance. He is sober, and he thrives on

t which would mean starvation for most white soldiers. is, as all the world can see, a first-class fighting man. is high exemplar of all soldierly qualities, however, if are to believe Dr. Matignon, who was for many years sician to the French Legation at Peking, and has made a special study of Asiatic ethnology, one weak point. As far as bodily strength s he is of iron, but his feet are of clay. How l a part the foot is in a soldier we may learn from that ed military expert, Terence Mulvany. Readers of *Lord the Elephant* will remember his account of his experience, but as the passage is a *locus classicus* on subject we venture to quote it: "I had a boot-gall, I was all for keepin' up wid the rig'mint and h like foolishness; so I finished up wid a hole my heel that you cud ha' dhruv a tent-peg into. th, how often have I preached that to recruits since, a warnin' to thim to look afther their feet! docthor, who knew our business as well as his , he sez to me—in the middle of the Tangi Pass was—'That's sheer damned carelessness,' sez he. w often have I tould you that a marchin' man is stronger than his feet—his feet—his feet?' sez he." Matignon's view is that the Japanese foot is less adapt- to Western fashions than the Japanese brain is to stern ideas, and that it has suffered in consequence. opean boots and shoes are endured in public as evils parable from a higher civilization, but in private the t progressive Japanese hasten to rid themselves of e instruments of torture. The Japanese recruit, whose has never known restraint or encumbrance, is made to r thick leather boots which inevitably cause suffering frequent disablement. In the war with China in 1900 Japanese troops had little marching to do and conse- ntly their boots did little mischief. In the Manchurian paign of 1895, however, the number of men disabled by ot-gall" was very considerable. There would doubtless been many more but for the fact that both officers men marched in sandals, a form of footgear excellent mmer, but ill-adapted to the terrible cold of a Man- ian winter. Dr. Matignon was told by Japanese officers had been through the campaign that European boots done more harm to their men than the Chinese bullets. oleon used to say that he won most of his battles with legs of his *grognards*, and we cannot doubt that the tary authorities of Japan, who have hitherto shown nselves so far-seeing and accurate in the adjustment of ns to the end in view, will take care that the success of armies in battle is not neutralized by any avoidable e of failure in the marching power of their troops.

ONGRESS FOR THE REPRESSION OF QUACKERY.

fety from the evils that afflict mankind were to be d in the letter of the law, France would be excellently protected against the pestilence of quackery. Only ther day a punctilious prefect refused to sanction the of a supply of serum for use in a case of diphtheria man who had held the post of *interne* of the Paris itals, and passed all the examinations for the doctor's e except the final formality of the thesis, and who ened at a particular moment to be the only person ssed of medical knowledge accessible in a country ct. Yet the country privileged to possess a law nistered with such undiscriminating rigour ap- to be scarcely less infested by quacks than our land under a Constitution which jealously uards to every citizen the sacred right, in the words r. Gregory, of going to the devil in his own Quacks of all kinds vaunt their unfailing and their thaumaturgic nostrums in the press and ver there is space to stick a bill; they prey on their ns under the nose of the law which would seem to be nd as Justice itself. Practitioners of mystic thera- rites find countless dupes in the towns, and bone- s, herbalists, and spell workers swarm in the country. lergy, who apparently cannot forget that medicine old days a part of their domain, are apt to supple- their ministrations to the spiritual needs of the devout with the prescription of remedies of a purely physical character for their suffering bodies. The law is, in fact, to a large extent made inoperative by the judicial authorities charged with its administration. Magistrates and judges seem to regard the law as being intended to protect the interests of the doctors rather than those of the public, and in this spirit they deal with the cases of illegal practice that are brought before them. In France, too, as everywhere else, there are many who have more faith in the big promises of quackery than in the modest claims of science. There is a story of a man, driving a busy trade in panaceas of various descriptions at a fair in a Paris suburb, who was invited by the police to show his diploma. To their surprise he at once produced the document which proved that he was an authentic doctor of medicine. He begged them, however, not to betray him, as if his customers learnt that he was properly qualified their belief in him would evaporate! Whether true or not, the story points an instructive moral. Quackery is so rampant in France that a Congress for the discussion of means to suppress or abate the evil is being organized by the Union des Syndicats Médicaux de France, and other kindred societies. The chairman of the Organizing Committee is Dr. Léon Duchesne, and the general secretary, Dr. Levassort, both of whom have given special attention to the question. The Congress, which is to be held in about a year, is not intended to be a strictly medical meeting; legislators, magistrates, members of the Bar, journalists and the general public are invited to take part in the proceedings. The programme of discussions is very comprehensive, including illegal practice by (*a*) persons who have nothing to do with the medical profession; (*b*) by persons who may be called parasites of the profession, such as druggists, nurses, masseurs, chiropodists, etc.; (*c*) by persons holding diplomas which give a limited right to practise—dentists, midwives. Illegal practice by foreign doctors, "covering" and medical columns in newspapers, will also be discussed. Last of all in the long list of subjects on the programme comes the question of the means of enlightening the public as to the dangers of unqualified practice. This we should certainly put first, for in the education of the public mind. in the creation of an intellectual atmosphere in which quackery cannot live, lies the best hope of freeing men from the humiliating bondage to the vilest imposture in which they are now held by ignorance.

THE REMOVAL OF KING'S COLLEGE HOSPITAL.

The anticipated opposition to the Bill authorizing the removal of King's College Hospital, to which we referred some time ago, did not prove very formidable when the Bill came before the Select Committee of the House of Lords for consideration. After evidence in support of the propriety of the removal of the hospital to Camberwell had been given by some of its officials and by Sir Edmund Hay Currie, Mr. Blennerhassett, K.C., who represented the Westminster City Council, informed the Committee that under the terms of the Pest House Charity certain obligations towards the inhabitants of Westminster were imposed upon the governors of the hospital in return for the income which the hospital received from that fund. If the hospital were moved the inhabitants of Westminster would be deprived of the advantages which they had hitherto enjoyed from its presence in their midst; he therefore asked the Committee to say that the governors of that institution should no longer be entitled to any part of the funds of this local charity. Unless some such provision were inserted in the Bill, the trustees of the charity would be debarred from going before the Charity Commissioners and asking for a new scheme to be framed in view of the altered circumstances brought about by the removal of the hospital from Westminster to Camberwell. The final upshot of the matter was that the Committee held that the desirability of moving the hospital was proved but consented to the introduction into the Bill of the following clause, and of the modification of such others as were not in accord with its sense: "At any time after the removal of the hospital from

the present site the trustees of the charity known as the Pest House Charity may, if they think fit, give notice thereof to the Charity Commissioners, who may, if they think fit, settle a new scheme for the administration of the said charity, but nothing in this section contained shall in any way interfere with the discretion of the Charity Commissioners as to the continuance of the present scheme or the settlement of a new scheme." The Pest House Charity, to which reference has been made, is derived from the sale of the site of an old plague hospital within the ancient city of Westminster. The income, it is understood, has been divided for many years past between King's College Hospital and Charing Cross. The share of King's College Hospital would appear to have varied between £200 and £500 odd during late years, in return for which the hospital has been under a nominal obligation to maintain 24 Westminster patients. Even £500 a year is a very poor return for the upkeep of 24 beds, and the hospital has probably done a very great deal more every year for the poor of Westminster than that for which it was nominally paid. The institution in its new home will not be very much less accessible to inhabitants of some parts of Westminster than at present, and its services not less at their disposition than at that of the rest of London, so it is to be anticipated that the Charity Commissioners will not see fit to authorize any variation in the administration of the trust.

THE RISKS TO LIFE IN LONDON.

The deputation to the London County Council in respect of an ambulance service, to which under the above heading a reference was made in the British Medical Journal for May 7th, at page 1093, was received by the General Purposes Committee of the Council on Monday afternoon. An account of the proceedings will be found on page 1161 of this issue. It will be observed that the deputation was of a notably influential character, and that it had the advantage of formal introduction by Sir William Collins. The County Council, as represented by the General Purposes Committee, was, it is understood, much impressed with the views thus laid before it and by the answers to the questions which were put to the members of the deputation. An immediate and satisfactory outcome of the interview was that the Committee, on the withdrawal of the deputation, decided that it would be well to appoint a subcommittee to consider the whole question, and promptly put this view into execution. Everything therefore at present promises well for the success of a movement to the importance of which from the point of view of every member of the London public we have repeatedly drawn attention.

CAISSON OR DIVERS' DISEASE.

The illness which is liable to occur in a person who, after exposure to increased atmospheric pressure, is too rapidly removed from it presents many and most varied symptoms. Of these, perhaps the most usual are pain, varying in degree, and especially affecting the limbs, head, and epigastrium; nausea, vomiting, paralysis, transient or permanent, and with or without pain, vertigo, and coma; whilst comparatively sudden death is not rare. The number of deaths that have already occurred in the United States is authoritatively given as nearly 100. The duration of the illness varies from minutes to months, and when death supervenes it may occur within fifteen minutes, and generally happens within four or five days of the seizure. The lesion usually found *post mortem* is congestion of brain and cord and some of the viscera. In two of twenty-five necropsies Van Rensselaer observed air in the veins. When death is deferred for some weeks the spinal cord is usually congested or softened, especially in the lower dorsal or upper lumbar region, and pyelitis, cystitis, and bedsores are also present. François many years ago suggested that the disease was due to the liberation of air from the blood when the pressure was reduced, and that it went off in bubbles which obstructed the smaller vessels. The opinion of Dr. Andrew H. Smith, of New York, however—and he is a leading authority on the subject—is that the "long-continued pressure produces changes in the distribution of the blood, especially in closed cavities, such as that of the skull and of the spinal cord"....."perhaps also in the cavities of the long bones, which are so often the seat of exquisite suffering." "A sudden transition to a lower atmospheric pressure after prolonged exposure to a higher one" is, at any rate, one essential cause of the disease, and it has been computed that the time which should elapse after leaving the caisson or deep water, and before passing to the open air, should certainly be not less than five minutes for each additional atmosphere, and each atmosphere in diving corresponds to a depth of about 33 feet of water. Various treatments have been suggested, but none is so efficacious as the immediate return of the patient into the compressed air either in the caisson or in a supplementary chamber constructed for the purpose, and in which the pressure may be very slowly reduced. If resorted to at once, this treatment apparently never fails. So much has been known on the subject for some years past; and it remained for Dr. Leonard Hill, F.R.S., who, with Professor J. J. R. Macleod, has been making experiments, to confirm what was before little more than surmise respecting the etiology of the disease and to show that its multiform symptoms are due to one cause alone. In his own words, "the real cause of the illness is the frothing of air in the blood, a frothing which takes place when a man after exposure to compressed air is quickly 'decompressed' or returned to the normal atmospheric pressure." Under ordinary air pressure each 100 c.cm. of a man's blood dissolves about 1 c.cm. of nitrogen, but under a pressure of four atmospheres, that is, at a depth of 100 ft., the same amount of blood dissolves about 4 c.cm. of nitrogen; and on rapid decompression 3 c.cm. of the gas escape from each c.cm. of blood as bubbles as from soda water when the cork is drawn. These bubbles in the blood vessels obstruct the circulation and cause the diverse symptoms enumerated above, according to the position of the escaped air bubbles. Animals, Dr. Hill asserts, can be safely exposed to a pressure of eight atmospheres, or a depth of 230 ft., for four hours if two hours be spent in gradual decompression. Moreover, recompression of any one showing signs of illness drives the free gas bubbles again into solution. He therefore emphasizes the injunction that divers from great depths, or men working in caissons under excessive pressure, should be decompressed slowly so that the redundant gas may escape from the blood slowly and gently. He has constructed a diving-bell in which the decompression may be slowly effected, and he asserts that by its means divers may safely work at depths up to 200 ft. below water. A few divers, except the strongest and most expert, exceed 100 ft. the extension of their range of work to double the usual distance for the visiting of wrecks and raising of oysters, pearls, sponges, etc., seems to be easily possible and, further, to be capable of accomplishment with safety if divers will remain in the decompression chamber a sufficient time for it to perform its beneficial rôle.

PROFESSOR WILHELM HIS.

The news which reached England early last week of the death on May 1st of Professor Wilhelm His, of Leipsic, was received with great regret in all scientific circles, and especially in those directly interested in anatomy and embryology. An opportunity for giving early expression thereto was seized at a meeting of the Anatomical Society of Great Britain and Ireland on May 6th, when a vote of condolence with Frau Geheimrat His and the other members of the family of the deceased was moved by Professor Symington, F.R.S., and seconded by Professor Thane. Professor Symington said that he felt sure that the members of the Anatomical Society would desire to place upon record their high appreciation of the eminent services to science rendered by Professor His as a brilliant investigator in almost every department of anatomy. His labours had ensured for his name a leading and permanent position among the great masters and teachers of anatomical science. The Society was proud of the fact that his name had been enrolled upon

f honorary members for a great number of years, hat he had been present at one of its meetings and a valuable contribution to the proceedings. With eath the branches of science to which he devoted him- ost one of their greatest ornaments, and while this aturally took the first place in their minds, his death bring with it a sense of personal loss inasmuch as is treatment of those members of the Society who had the privilege of working in his laboratory had s been of the kindest and most generous character. ssor Thane, in seconding the resolution, referred to a which he had recently paid to Jena and to his pre- at a meeting of the Anatomische Gesellschaft of that Professor His had promised to be present at the ng and to support thereat the old view regarding the tory fissures of the brain; he was, however, unable ne, and his absence was severely felt. Professor Thane e would be greatly missed by the numerous workers roceeded to Leipzig, for he was accustomed not only ce his time and laboratories at their disposal but to em with suggestions and even with valuable material. egrets thus phrased will have a wide and appreciative and form a suitable epilogue on the life-work of this anatomist, some details of which will be published ater issue.

SPOROZOA AND DISEASE.

ssor Minchin dealt with the microsporidia and poridia in his seventh lecture on the sporozoa on nd. The microsporidia were minute forms, distinct he myxosporidia described in the previous lecture, e spores produced by them were so small as to be visible. Microsporidia occurred in both inver- es (for example, arthropods) and vertebrates (fish), rely in the latter. They were, however, absent from gher or warm-blood vertebrates. The stickleback, -fish, and flounder were particularly liable to be in- by the spores. These parasites were sometimes eadly to insects, the most notable instance of this he glygea bombycis, or "disease" of the silkworm. an, who has investigated the matter very minutely oroughly, found that an epidemic of disease which d crayfish in France, and almost exterminated them tain rivers, was due to a microsporidium which d the muscles of the crayfish and produced ve destruction of the muscular tissue and The microsporidia multiplied by a process gony, producing a number of spores (four or eight) f which was oval, with a vacuole at one end and nally with a "stinging-thread" at the other. The own of the microsporidia was the glygea bombycis silkworm. The sarcosporidia were another class of a which infected warm-blooded animals such as ep, mouse, and pig. The first observer who noted ccurrence was Miescher who found them in the they were named "Miescher's tubes." They are in the striped muscular tissue of the mouse, and if ditions of life are favourable they multiply and in- in such numbers as to kill the mouse. They occur long fine whitish streaks in the oesophagus of the nd the pig. The life-history consists of a trophic nultinuclear) in which the parasite is found to swell the substance of the muscle fibre. A limiting ane radially striated with canaliculi forms the of the body of the parasite. Within this membrane plicated process of spore-formation is undergone, al product of which is the formation of numerous m or sickle-shaped bodies (gymnospores) which bove by a spiral or corkscrew-like motion, and cause gration of the muscles. In the pig and sheep the produced are sausage shaped with broad rounded A clear region exists at one end, and from this area ging-thread" is usually extended, the presence of an be shown by special methods of staining (Laveran snil). Smith infected mice with sarcosporidia, and fed other mice with the flesh of the infected ones. sult was the appearance of microsporidia in the alistic) mice after a long latent period. Professor Minchin is of opinion that infection from mouse to mouse may thus spread owing to the occasional cannibalistic habits of these rodents. Little was as yet known concern- ing the occurrence of sarcosporidia in man, though he beieved that in the future the subject would probably assume as much importance as the question of the malarial parasite has to-day.

MEDICAL DEFENCE IN AMERICA.

Two years ago the New York State Medical Association was moved by the large number of blackmailing mal- practice suits brought against medical practitioners of good repute to undertake the defence of its members against such action. The applicant was required to agree to fight each case through to the court of last resort. According to the counsel for the Association statistics show that, during the last five years throughout the United States, one practitioner in every one hundred and fifty has been sued each year for alleged malpractice. The activity of the Medical Association has already had the effect of decreasing the number of these actions. In most of the cases with which it has dealt no complaint has ever been served, and in only three has the action been put on the calendar for trial. Within the last year three of the representative organizations of other States have taken up a similar plan of defence.

TEMPERANCE WORK IN THE ARMY.

At the annual meeting of the Royal Army Temperance Association held at the Royal United Service Association under the presidency of Lord Roberts on May 10th, it was stated in the report that in the army there are 46,719 total abstainers, and honorary members bring up the number to 57,304; of these India contributes 24,000 total abstainers, 7,000 honorary members, and 123 juvenile members. This means that about one-fourth of the entire British army is enrolled in the ranks of the Association. The Rev. J. H. Bateson, who presented the report, said there was a time when the army was called the national school for intem- perance. To-day there could be no doubt that it was the national school for temperance. Lord Roberts, who is the Chairman of the Council of the Association, expressed gratification at the success that had attended the Associa- tion. Sixteen years ago he started it in India. At that time there were several associations in existence which had done good work in the army. It occurred to him that an amalgamation of the societies would be beneficial. He received the greatest assistance from the clergy of all de- nominations and commanding officers. The Government of India not only promised an annual grant but enabled them to have a separate room in every barracks, and soon after his return to England eleven years ago he started an association on similar lines in this country. For all prac- tical purposes it was one association for the United King- dom and for India—in fact, for every place the army went to; and it had received the approval of the highest in the land, the King having graciously sanctioned the prefix "Royal" to the name of the association. He sincerely trusted that it would continue to grow in strength.

DO WE EAT TOO MUCH?

This question has been answered with an emphatic affirmative by nearly all writers on dietetics, and it is the experience of medical practitioners that a large proportion of the diseases which they are called upon to treat have their origin in overeating. The results of a series of experiments made under the auspices of the Sheffield Scientific School of Yale with the object of determining whether the average human being does not eat too much, afford decisive confirmation of this conclusion. Professor Russell H. Chittenden, Director of the School, who conducted the experiments, read a paper before the National Academy of Sciences at Washington on April 20th, in which he stated that, as a result of the investigations, the conclusion had been arrived at that the average healthy man eats from two to three times as much as he requires to keep him in perfect health and vigour.

The experiments were made on three classes of men—several professors of the school, some students, and a squad of United States soldiers. In nearly all the tests meat was gradually reduced, with little, if any, increase in starch and other foods. No fixed regimen was required in any case, the endeavour being to satisfy the appetite of each subject. The experiments, which lasted a period of from six months to nearly a year, ended a short time ago, when, according to Professor Chittenden, all his subjects were in the best of health. Their weight in some cases was almost exactly the same as when the experiments were begun, in some slightly lower. Their bodily vigour was greater and their strength was much greater, partly owing to their regular physical exercises during the experiments, and partly owing, Professor Chittenden believes, to the smaller amount of food eaten. The daily consumption of food at the close of the experiments was much less than the recognized standard, and from a third to half as much as the average man eats.

MORE MARVELS OF CHRISTIAN SCIENCE.

WELL might the remark of old be applied at present—"Oh ye of little faith." Manchester under the guidance of Christian Science is doing its best to emancipate itself from this reproach. We cannot say how many faith-healers there are in that city, but any lack in numbers is made up by the intensity and tremendous amount of faith exhibited by its votaries. We give a few instances of more remarkable "cures." A lady who before she knew Christian Science was "a miserable girl—always seeking, never satisfied" came under its benign influence and grew so happy that "she hardly seemed to touch the ground." The science it appears, has a commercial as well as a spiritual value. Why does not overworked humanity at large hasten to embrace the cult? One lady "has almost forgotten what it is to feel tired." Tired Nature's sweet restorer is nothing to this new specific for all the ills that flesh is heir to. What a priceless boon is within the reach of all of us. By it pain is dispelled. It even cures irritability of temper and dispels unhappiness. Perhaps a course of instruction previous to matrimony or a decided dose when domestic storms arise might lighten the labours of our courts of law, and establish domestic felicity where none exists owing to irritability and incompatibility of temper. It even takes all ill temper out of business men, and frees them from all the worries and cares of business. Christian Science, then, if its claims are well founded, is a universal panacea for all ills spiritual and physical. But there's much virtue in an "if."

THE CURE OF LEPROSY.

DR. ISADORE DYER, of New Orleans, has been credited recently by many papers with the assertion that he has discovered a means of curing leprosy, the nature of which is not disclosed. In twelve cases, it is stated, every trace of the disease has been eradicated, while all the cases in the leper home of which he has been medical officer for some years, with the exception of a few who were admitted in a hopeless condition, show distinct improvement. Doubtless we shall hear before long something more of this discovery, since if Dr. Dyer has really made the assertions ascribed to him, he will no doubt hasten to submit it to expert criticism and to investigation at the hands of fellow workers. In the meantime it may be pointed out that, as is well known to medical men in general and especially to those who have had any prolonged experience of the disease, leprosy in its more chronic and most common forms is a malady which, perhaps more than any other, tends to move by fits and starts. The life of an average leper is an extraordinarily long one considering the obvious disabilities under which he suffers. Vast numbers of the sufferers materially improve in health and appearance when brought into healthy surroundings and submitted to medical supervision. In very many cases distinct periods of repose may be observed independently of any medication or treatment, a fact which renders self-deception on the part of medical men, as regards the effect of remedies tried, exceedingly easy. In some cases these periods of repose are prolonged, and in not a pause lasting for many years and coupled with g improvement in health may convey the impress complete cure. It is, therefore, not difficult to a for the general amelioration stated to have been ob among all the unfortunate residents in this part home, while the reputed cures may reasonably be as prima facie either to the periods of prolonged arr which mention has been made, or to those err original diagnosis, long undiscovered, examples of could be culled from the records of many if not all institutions. What, however, renders the discovery dubious than anything else is the statement that Dr is convinced that owing to his treatment leprosy in a decade will not be considered more formidable than ty or yellow fever. The comparison thus established be short, sharp diseases such as those mentioned, and a insidious malady such as leprosy, alike condemns and the statements which accompany it.

INCREASE OF VACCINATION.

WITH regard to a paragraph under this heading, appeared in the BRITISH MEDICAL JOURNAL of April (p. 1036), Dr. Monckton Copeman, F.R.S., asks us to that the figures there given as to the number of pr vaccinations in certain years are inaccurate and misle The fact that there has been a great increase of va tion year by year since the Act of 1898 came into fo true, but Dr. Copeman made no mention of the year neither did he give statistics for last year, as the figur not yet available. We regret the inaccuracy into wh were led through reliance on the statements of respondent whom we had every reason to believe informed.

CHOLERA IN PERSIA.

WE learn from a medical correspondent at Ker shah, Persia, that cholera has broken out in the pr of Kermanshah, having been introduced by pilgri turning from Kerbela. Thirty-five cases have oc with 26 deaths. Quarantine and sanitary measures the hands of Mons. Molitor of the Customs, Dr. Lousa Russian Consulate, and Dr. Scott attached to the E Vice-Consulate.

MEDICO-PSYCHOLOGICAL ASSOCIATION OF GR BRITAIN AND IRELAND.

THE next general or quarterly meeting of the M Psychological Association of Great Britain and Irelan be held, under the presidency of Dr. Ernest W. Wh Wednesday, May 18th, 1904, at the Langham Hotel, land Place, W., at 4 p.m. The following papers w read: Quantitative and Qualitative Leucocyte Observa in Various Forms of Insanity, by Dr. Lewis C. Bruce, sician Superintendent, and Dr. A. E. M. Peebles, Assi Physician, Perth District Asylum, Murthly. A Stati Note on the Social Causes of Alcoholism, by Dr. Sullivan. The Psychology of Hallucinations, with grammatic illustrations, by Dr. W. H. B. Stoddart. No a Case of Combined Spinal Degeneration with Un Mental Symptoms, with microscopical sections of the by Dr. J. Kennedy Will. The members will afterwards together at 6.30 p.m. at the Café Monico, 46, Regent S London, W.

BRITISH BALNEOLOGICAL AND CLIMATOLOGI SOCIETY.

A GENERAL meeting will be held at 5 p.m. on Wedne May 18th, at 20, Hanover Square, W. An ord meeting will be held at 5.30 p.m., when an address w delivered by Sir Dyce Duckworth, M.D., LL.D., F.R entitled: "Some Observations on British Winter Res The annual dinner will take place the same ev (May 18th), at the Criterion Restaurant, Piccadill 7.30 p.m. The Fellows are invited by the Presiden Alfred F. Street, of Westgate-on-Sea, to be present smoking concert in the King's Room in the same Restau at 9.30 p.m.

DIAN MEDICAL SERVICE ANNUAL DINNER.

nnual dinner of the Indian Medical Service will be t the Café Monico, Piccadilly Circus, on Thursday, th, at 7.45 o'clock. The chair will be occupied by n-General Sir Colvin Colvin-Smith, K.C.B. Officers ntend to be present should communicate with the ary Secretary, Lieutenant-Colonel P. J. Freyer, rley Street, W.

GICAL SOCIETY OF THE UNITED KINGDOM.

e requested to state that the next meeting of the cal Society of the United Kingdom will be held at sgow University on Saturday, May 21st, the Presi- r. Barr, in the chair. The meeting will be opened o a.m. Professors McKendrick and Cleland and have promised to take an active part in the pro- gs.

estate of the late Sir Henry Thompson has been at £223,748.

fifty-fifth annual meeting of the American Medical tion will be held in Atlantic City, New Jersey, on h, 8th, 9th, and 10th.

meeting of the Court of Governors of St. Bartho- Hospital, held on April 28th, Dr. Morley Fletcher, M.D.Camb., F.R.C.P.Lond., was elected Assistant an to the hospital.

Medical Society of London will hold a *conversazione* rooms, 11, Chandos Street, W., on Monday next. tion by the President will take place at 8.30 p.m., 8.45 Sir Isambard Owen will deliver an oration on ure Prospects of Medical Education in London.

ellevue Hospital, New York, is to be rebuilt by the a magnificent scale. It is estimated that the total ay amount to £2,800,000. It will accommodate tients. Quarters will be provided for more than dent physicians and surgeons.

Right Hon. Chas. Scott Dickson, K.C., M.P., Lord e for Scotland, will preside at the dinner of the University Club, London, to be held on Friday, , 1904, at the Café Royal, Regent Street. Appli- for tickets should be made to the Honorary Secre- Harley Street, W.

pening lecture of the summer session at the n Hospital for Consumption and Diseases of the ill be delivered by Dr. J. Mitchell Bruce on day, May 18th, at 4 p.m. The subject will be the f Digitalis in Cardiac Failure. The lectures are ll qualified medical practitioners and to students ine.

TING of the Sociological Society will be held in the Economics and Political Science (University of Clare Market, W.C., on Monday, May 16th, at at which a paper on "Eugenics: Its Definition, nd Aims" will be read by Mr. Francis Galton, .D., F.R.S. The chair will be taken by Professor rson, F.R.S.

RACE THE DUKE OF ARGYLL, P.C., K.T., G.C.M.G., etc., will preside at the festival dinner of the aterloo Hospital for Children and Women, to be Monday, June 20th next, at 8 p.m., in the new the Savoy Hotel. The details are in the hands of l Bureau, 30, New Bond Street, but information tained from the Ladies' Committee, the Managing of the Savoy Hotel, or at the hospital.

LIZABETH MORTON, widow of Dr. W. T. G. Morton, , whose name is so closely associated with the ion of surgical anaesthesia, died on April 21st at New York. She was born in 1826, and was married to Dr. Morton in 1844. According to the *Boston Medical and Surgical Journal*, no recognition of any sort ever came to her from the American Government, although the reports of six Congressional Committees during her husband's lifetime had recommended an appropriation of several hundred thousand dollars in acknowledgement of the benefit derived from ether anaesthesia during the civil war. Mrs. Morton is survived by two sons, both members of the medical profession.

MEDICAL NOTES IN PARLIAMENT.

[From Our Lobby Correspondent.]

The Death-rate in South African Mines.—On Thursday in last week the adjournment of the House was moved by Major Seely "to call attention to the cruel and improper treatment of South African natives in the Witwatersrand mines." After quoting evidence as to flogging and other ill-treatment, he referred to the terrible mortality among the miners. For the last year the rate had averaged 80 per 1,000, and during the last six months it had increased to nearly 90 per 1,000. That was twenty times the rate of mortality in English mines, and there was no other employment in any part of the world so terribly fatal. Mr. Winston Churchill seconded the motion for the adjournment, and said that 80,000 people were concentrated within a restricted area under conditions that were almost unnatural, but that we were just as responsible for what occurred in the Goldfields as if the compounds were in Regent's Park. Mr. Lyttelton in the course of a long reply complained of the debate having been raised before he could master the voluminous papers he had only just received. He contended that the authorities in South Africa were doing their best, and quoted a telegram from Lord Milner in reply to a message calling attention to the excessive death-rate in the mines, in which it was admitted "that the high rate of mortality in the mines is the weakest point in our armour." (This admission was received with ironical cheers.) The Colonial Secretary continued, that as long back as 1896 a Commission of doctors had been appointed in the Transvaal, and they had made a most valuable report. The expenditure required to carry out their recommendations had been cheerfully borne. Medical experts were of opinion that the improvements widely adopted must tell in time. The recent high mortality was due to some extent to the scarcity of labour, as any labour was obliged to be recruited, and inferior physique increased the death-rate. He believed the mortality would be lessened by the measures taken. The Commissioner for Native Affairs quoted a report of a Commission of medical officers who made the death-rate 57 per 1,000. Curiously enough, the mortality of natives in the Kimberley compounds was 57.2 per 1,000 for 1902. For February the death-rate in the mines was brought down to 35 per 1,000, but he said the first three months of the year were the best months. He promised to consider the whole question, including the means taken to prevent lung disease from dust; and after further debate the motion for adjournment was rejected by a majority of 63.

The Royal Army Medical College.—On Monday last Dr. Farquharson asked the Secretary of State for War what progress was being made in the building of the Royal Army Medical College; and when the temporary arrangements for the instruction of lieutenants on probation and captains were to come to an end by being transferred to the new college. It was stated in reply that the building of the Royal Army Medical College was not yet commenced, but the plans had been prepared and the contract documents were being drawn up. Under these circumstances no reply could be given to the latter part of the question.

Vivisection.—Dr. Shipman asked the Secretary of State for the Home Department last week if he could state when the returns of experiments on living animals in 1903 would be published, and what was the number of dogs vivisected in 1903 in University College, London. Mr. Secretary Akers-Douglas replied that the return in question was now in course of being printed, and would be published as soon as possible. It would contain the usual full particulars, but he had no material from which to answer the second paragraph of the question. Dr. Shipman also asked the Secretary of

State for the Home Department whether his attention had been drawn to recent proceedings of the Metropolitan Asylums Board, and whether he had yet received an application from the Board to register a place for the performance of experiments on animals living under the Cruelty to Animals Act, 1876, and if so whether he would give the House an opportunity of discussing the question before public money was diverted to such a purpose. Mr. Secretary Akers-Douglas answered that he had been furnished with a report of the recent proceedings of the Metropolitan Asylums Board in the matter referred to, but he had received no application for registration or for a licence under the Cruelty to Animals Act in connexion therewith. If he received any such application it would be his duty to consider and deal with it in accordance with the ordinary practice in such matters. The registration of premises at a small-pox hospital for the investigation of small-pox by means of experiment would not be an unprecedented step, and he was not aware that honourable members would need any exceptional facilities for criticizing this particular item of administration. Mr. Weir took up this matter and asked how many dogs were to be inoculated with small-pox at the Joyce Green Hospital. Mr. Akers-Douglas said that he had not as yet received any application for permission to make the experiments referred to.

The Plague and Chinese Labourers.—Several questions were put on this subject on Monday last, and the Colonial Secretary, in reply to Mr. Buchanan, Sir Walter Foster, and Mr. Weir, said that the charter of the steamer to convey Chinese labourers to the Transvaal had not been cancelled. He had received a telegram from the officer administering the Government of Hong Kong on Saturday, stating that one case of bubonic plague had occurred in a lodging-house partly occupied by emigrants—the patient was a rejected emigrant; and that there had been no other case among emigrants up to the present time. He believed this was the case. So long as the medical advisers of the local government did not regard the conditions under which the Chinese labourers were introduced as involving undue risk, and subject to such precautions as they thought necessary, he did not, as at present advised, propose to interfere. He added that the length of the voyage from China was largely in excess of the period of incubation of the disease, and that very greatly reduced the risk of the introduction of plague. Mr. Lyttelton also said he was informed by the officer administering the Government of Hong Kong that intending emigrants, on arrival at Hong Kong during the last fortnight, had been accommodated in ordinary Chinese lodging-houses in Kowloon, of which a number had been hired and placed under special medical inspection; a permanent isolated dépôt was being built four miles from Kowloon, and isolated temporary accommodation would be ready in two days; all emigrants who satisfied the emigration officer and passed strict medical examination would be sent there pending shipment, those rejected being sent home.

Punishment of Children.—Sir Walter Foster asked the President of the Local Government Board whether, in view of the punishments inflicted on children who were withdrawn from public supervision and protection in Poor-law institutions, such as that inflicted on a boy in the St. Giles' Receiving Home in January last, who was returned to the Westminster Union with both cheeks black, both arms black, and bruises on his legs, or that lately inflicted on a boy in the village community of the Wolverhampton Guardians, the Department would issue such regulations as would prevent excessive corporal punishment in the future by requiring the resignation of any officers guilty of such practices. In reply Mr. Long said: "The regulations in force in respect of workhouses contain rules which are intended to prevent excessive corporal punishment. They prohibit corporal punishment altogether in the case of a girl, and, in the case of a boy, direct that the rod or other instrument shall be approved by the guardians or Visiting Committee. Two officers must, if possible, be present when the punishment is given, and it is not to be inflicted until two hours have elapsed after the commission of the offence. The particulars of the punishment are required to be entered in a book which has to be laid before the guardians. Similar rules are contained in the special orders issued for Poor-law schools and like institutions. Any officer infringing the rules or administering excessive corporal punishment is liable to censure or removal from office, as the case may require. The rules were, he thought, sufficient usually to prevent undue punishment ... where a case of excessive punishment is reported to hi... was prepared to deal with any officer in fault in the ma... in such way as in the circumstances may be necessary. ... might add that, as he understood, the bruises, etc., ir... first case referred to in the question are not admitted to ... been caused by punishment at all."

St. Bartholomew's Hospital Bill, intituled "An Ac... empower the Governors of Saint Bartholomew's Hosp... in the City of London, to demolish the Church of ... Bartholomew the Less and to use the site thereof and ... burial ground adjoining thereto for the purposes of the ... Hospital and for uniting for ecclesiastical purposes ... Parish of Saint Bartholomew the Less with the Paris ... Saint Bartholomew the Great; and for other purpos... came down to the Commons on Friday in last week ... message from the Lords, having passed the Upper Ho... It will now be proceeded with in the Commons.

The Scotch Estimates, when under consideration last w... led to a new public-health question being discussed—nam... the nuisance and injury caused to the people in Orkney ... Shetland by the dead whales thrown upon their coasts. ... Cathcart Wason said that some Norwegians had establi... a fishing station, and caused this serious annoyance. ... Farquharson, Mr. Weir, and Mr. Asher also spoke on the ... ject, and the Secretary for Scotland, in his reply, adm... that from the public-health point of view there had bee... intolerance nuisance. The companies concerned were ... pared to destroy the carcasses altogether, and then ... public-health objection would be met. It was impossib... prevent foreign fishermen from killing whales in non-t... torial waters, however injurious the practice might be. ... promised the institution of an inquiry such as had ... asked.

The Meath Hospital, Dublin.—Mr. Clancy asked the ... Secretary to the Lord-Lieutenant of Ireland whether, in ... of the fact that the medical staff of the Meath Hos... (County Dublin Infirmary) claim the right to elec... vacancies in their own body, and that this right is clai... by the members of the staff elected since the passing of ... Local Government Act, 1898, as well as by those in c... before that date, he could state if it had been actually ... cised on any occasion since 1898 by members of the ... elected since that date; and whether any representations ... been received in reference to this matter from the Infir... Committee. Mr. Wyndham answered that two gentle... had been elected to the medical staff of this hospital s... the passing of the Act of 1898 by the Medical Board u... the 55 Geo. III. The answer to the last query was in... negative.

Ballinasloe Lunatic Asylum.—Mr. Roche asked the ... Secretary to the Lord Lieutenant of Ireland whether the ... tion of Dr. Kirwan to the position of Resident Medical Su... intendent of the Ballinasloe Lunatic Asylum has yet ... sanctioned, and, if not, what was the reason of the delay? ... Wyndham replied that the appointment had not yet ... sanctioned. The Lord Lieutenant was in correspondence ... the subject with the Committee of Management of ... Asylum. On the succeeding day Colonel Nolan asked ... Chief Secretary to the Lord Lieutenant of Ireland if ... Kirwan had been elected Medical Superintendent of ... Ballinasloe Lunatic Asylum by a majority of the joint Ga... and Roscommon Committee, and if his appointment to ... position had as yet been confirmed by his Excellency ... Lord Lieutenant? Mr. Wyndham said that the reply to ... first inquiry was in the affirmative. The appointment had ... yet been confirmed by the Lord Lieutenant.

The Revaccination Bill came up as the last item of ... ness on Friday in last week, and at the conclusion of ... sitting the order for second reading upon Monday, May ... was read and discharged and the Bill withdrawn for ... session.

Nurses' Registration Bills.—These two Bills still remai... the order paper, but have no chance of passing this sess... There is, however, much talk of a Select Committee being ... pointed to consider the proposals contained in the Bill ... well as the general question.

Scotland.

AL REPORT OF THE SANITARY AND MARKETS DEPARTTS OF THE CITY OF EDINBURGH FOR THE YEAR 1903. Chief Sanitary Officer, Dr. A. Maxwell Williamson, has shed his sixth annual report to the Town Council. The work of the sanitary staff has been given to the suppresnd removal of conditions which are defined as nuisances the meaning of the Public Health (Scotland) Act. y-two thousand had been dealt with during the year. included a large number of insanitary properties, in reo which much improvement had been carried out. It gested that closing orders should be applied for against faulty properties, as there are plenty of unoccupied s in the city. In the past compulsory removal has re- in greater comfort and improved sanitary conditions. s, stairs, and lobbies in crowded districts have been ved. Periodic night visits, to detect overcrowding, have nade.

eral old properties under the Corporation improvement e have been removed, thus allowing access of light and Systematic inspection of the sanitary condition of shops en continued with good results. The ticketing of small s has been completed to the number of 7,060, and a rd of cleanliness has been insisted on. In nearly 700 he papering and lime-washing of small houses has been . The various cemeteries have been regularly visited, heir condition found satisfactory. The condition of the supply has been inquired into, and cistern inspection en systematically carried out. Stair-painting, common g-houses, farmed-out houses, ice-cream shops, dairies, res, Sale of Food and Drug Acts, Shop Hours Act, or shop assistants, meat inspection, tuberculosis in and foreign meat brought into the city have all been usly dealt with. Dr. Williamson and his staff are to be tulated on the vigour and efficiency with which they carried out their trying duties. The report is worth perusal.

OF EDINBURGH: SIR HENRY LITTLEJOHN'S ANNUAL REPORT FOR 1903.

Henry Littlejohn's report for 1903 was laid on the table town council on Wednesday, May 4th.

Area, Population, Inhabited Houses, etc.

rea of the city is 11,416 acres; the population 327,441, ncrease since the middle of the year 1902 of 4,475 per- the density of population was thus 28.68 persons per he number of inhabited houses was 69,016, while the r of unoccupied habitable houses was 2,787. Between ddle of 1902 and the middle of 1903 there was an in- f occupied houses of 566.

Births, Marriages, and Deaths.

number of births registered was 8,112, equal to a birth- 24.77 per 1,000 of the population. Thus the continuous recent years goes on. Of the largest English and towns, only Bradford with 23.3 and Perth with 24.39 er. The number of marriages was 3,041, a rate of 18.5, rasted with 19.4 in 1902. The number of deaths was iving a death-rate of 16.89 per 1,000 of the population, en "country deaths" were deducted the number was or a death-rate of 15.5 per 1,000, the lowest annual ate ever recorded for Edinburgh. It had only been hed twice before—in 1902 and 1896 with 15.83 and 15.26 ively. Of the total deaths, 1,471 occurred under of age, or 29.6 per cent. Of these, 952 were infants year. The death-rate of children under 5 years was 1,000, while the rate for all those above this age was 1,000.

Causes of Death.

number of deaths due to zymotic diseases was 373, zymotic death-rate (excluding diarrhoea) of 1.13 per the population, which was slightly below the average preceding five years. Small-pox caused 1 death, accounted for 91 deaths (a death-rate of 0.27 per 1,000 population), scarlet fever 53 deaths, diphtheria and anous croup 59, whooping cough 148, and enteric fever smallest annual number ever before recorded in the This low mortality from enteric fever was not the f diminished prevalence of the disease, since 237 cases d, as compared with 192 and 215 cases in 1902 and 1901 vely, during which years the deaths numbered 27 and 30. The small mortality was largely due to the fact that out of the total of 237 cases, 214 were treated in the City Hospital, where the conditions were much more favourable to recovery than in the houses of the majority of patients. This view was borne out by a comparison of the fatality of the disease in hospital and in home-treated cases. Among the former it was only 7 per cent., while amongst the latter it was 26 per cent. The next section of Sir Henry's report should be quoted in full:

> Puerperal fever was returned as the cause of death in only three women, a number which, in my opinion, does not represent the true mortality, and is much below the actual number of deaths of puerperal women from conditions which could be included by the term "puerperal fever." Until, however, there is a definite pronouncement as to the conditions which this term is intended to include under the Notification Act, there will be no chance of obtaining accurate statistics.

Diarrhoeal diseases: 7 deaths were attributed to epidemic diarrhoea or zymotic enteritis, while 28 were said to be due to simple diarrhoea. Sir Henry Littlejohn thinks the profession does not yet realize the importance of the distinction which the Registrar-General desires should be drawn between the epidemic variety of diarrhoea, which chiefly attacks infants, and diarrhoea due to other causes. For this reason he combines the figures given above, and sets down the total mortality from epidemic diarrhoea as 35, of which 25 occurred in infants under 1 year. Tuberculous diseases caused a total of 698 deaths (phthisis 467, tuberculous meningitis 89, tuberculous peritonitis 25, tabes mesenterica 12, tubercle of other organs 49, general tuberculosis 55, and lupus 1). Alcoholism was stated as the direct cause of 36 deaths, and rheumatic fever 43 (20 to the acute fever, 13 to chronic rheumatism, and 10 to rheumatic arthritis). Gout was only debited with one death. Cancer gave 316 deaths, developmental diseases gave 222 deaths, diseases of the nervous system 261, diseases of the heart and blood vessels 807, diseases of the respiratory organs 759 (of which bronchitis and pneumonia accounted for 693), diseases of the digestive system 299, diseases of the urinary and generative organs 170, accident and negligence 126, suicide 40, ill-defined and non-specified causes 508 (of which 152 were said to be due to "atrophy, debility, or inanition," while 352 were said to be due to "old age," of which 259 had exceeded the age of 75 years).

Mortality amongst Illegitimate Children.

The total number of such deaths in children under 5 was 149 last year, as compared with 113 and 191 in 1902 and 1901 respectively. Out of 601 illegitimate children born last year, 100 died, or a proportion of 106 per 1,000, as compared with a proportion of 113 deaths of illegitimate children per 1,000 legitimate births.

Notification of Infectious Diseases.

During the year 1 case of typhus was notified, 237 of enteric, 7 of puerperal fever, 575 of diphtheria, 5 of small-pox, 1,415 of scarlet fever, and 434 of eryipslas—in all 2,674 cases. Details are given of these cases.

City Hospital.

During the year 2,860 patients were treated, as compared with 2,310 the previous year. Of the cases of infectious diseases notified in 1903, 90.29 per cent. were admitted to hospital, by far the largest percentage on record. The total cost per occupied bed per annum was £44 19s. 2d.

Bacteriological Examinations.

Three hundred and twelve examinations were carried out on behalf of the Corporation by the Usher Institute of Public Health, as against 383 in 1902. In the year 1901, before the present arrangement with the Usher Institute was entered into, the number of examinations made at the request of practitioners was 630, so that it can only be concluded that a large portion of this work is now being performed unofficially in other laboratories.

The convalescent home, disinfection of schools and clothing, and report upon the inspection of workshops and bakehouses, form the concluding sections of a very interesting and valuable report, which extends to 91 foolscap pages.

NATIONAL ASSOCIATION FOR THE PREVENTION OF CONSUMPTION: GLASGOW BRANCH.

The third annual report of the Glasgow district branch of the National Association has just been issued and shows satisfactory progress. In it reference is made to the successful scheme of public lectures that was carried out in the poorer districts of the city during last winter, and the Council hope

to resume these on even a larger scale during the coming winter. Attention also is still given to the question of spitting and the dangers of infection arising therefrom, and the Council again offer to supply suitable cards prohibiting spitting for exhibition in public works and factories, as well as at railway stations and waiting rooms. Progress is reported in connexion with the construction of the Sanatorium at Lanark. Plans have been adopted and approved by the Lanark County Council for the erection of a pavilion and five double sleeping chalets, and these are now in the course of construction. In the pavilion will be five double bedrooms, and a ward containing ten beds, and these with the sleeping chalets will give accommodation for thirty men. It is hoped that at no distant date additional buildings will be put up. Meanwhile the erection of the first pavilion and chalets is being hastened on, and it is expected that they will be ready for the reception of patients in June. The Council report that the special sanatorium fund now amounts to about £17,000, and they record their thanks to the numerous contributors. In this connexion special reference is made to the spontaneous and invaluable services rendered by the proprietors of the *Glasgow Evening News*, for having not only established and wrought so successfully a "People's Fund" which now exceeds £7,380, but also by its articles and paragraphs awakened public sympathy and interest amongst all classes in the work of the National Association. The Council also specially acknowledge the very handsome and unanimous donation of £5,000 recently made by the Corporation of Glasgow for this work. It is hoped that the increased interest in the special objects of the Association that has recently been displayed in the city will be maintained and produce even better results in the coming year.

Aberdeen University: Summer Session.

The summer session of the Medical School opened on Tuesday, April 26th. There was no formal ceremony, and no introductory addresses were delivered. The number of new students enrolled, while quite up to former years, shows no decided advance since the operations of the Carnegie Trust began. At the same time, the university has gained considerably as regards the fee fund, since the students now take out a larger number of classes. Last year the addition to the fee fund in this respect amounted to a very considerable sum.

The Garioch and Northern Medical Association.

The summer meeting of the above association was held at Inverurie on Saturday, the 7th inst., when the members dined together in the Kintore Arms Hotel, under the chairmanship of Dr. Angus Fraser, Aberdeen. This association must be one of the oldest provincial medical societies—in Scotland at least. Founded in 1854 for scientific and social purposes, its career has all along been very prosperous, and meetings have been regularly held twice a year up to the present time. Besides practitioners from a wide area of the county, the membership includes many consultants and practitioners of the city of Aberdeen, and though the scientific side has been dropped for some years, socially its success appears to grow steadily, the membership being larger at the present time than ever before. The society celebrated its jubilee in September last year, when about fifty medical men dined together at Inverurie, the principal guests being Sir Victor Horsley and Dr. William Bruce, of Dingwall. Those who were present will not readily forget the heartiness and spontaneity of this interesting meeting. During all those years the society had only had two secretaries—the first the late Dr. Mackie, of Insch, who held office for thirty-two years, and now the office is worthily filled by Dr. Paterson of Inverurie.

Bequests.—Mr. William Tillie, of Duncreggan, Londonderry, who died on March 8th last, left personal estate valued at £196,880 19s. 3d. Among other bequests are two of £500 each to the City and County Infirmary of Londonderry and the Londonderry District Nursing Society.—Mrs. Gertrude Thompson of Milton Hall, Cumberland, has bequeathed £100 to the Cumberland Infirmary, Carlisle.

Inebriates.—The Committee of the Homes for Inebriates Association in its annual report published March 30th gives a satisfactory account of Dalrymple House, one of the homes in which it is interested, and expresses the opinion that while the Inebriates Act of 1898, with the Licensing Act of 1902, marks a great step forward, the whole ground is as yet by no means covered. It urges, therefore, that all who possess influence should work to promote such legislation as would render compulsory the seclusion of all inebriates whether criminal or otherwise.

Ireland.

The Irish Dispensary Medical Service.

At the spring meeting of the Ulster Branch of the I Medical Association, which was largely attended, held Town Hall, Portadown, on May 5th, the President, Dr. T McLaughlin, of Londonderry, in the chair, Professor M.D., moved:

That the members of the Ulster Branch (the largest in Ireland to express their very great satisfaction with the exhaustive repo the Poor-law Medical System in Ireland with special reference Dispensary Medical Service," which appeared as a supplement British Medical Journal of March 26th, 1904, and that they their best thanks to the Editor and to the Special Commissione Journal.

He said that at the last annual meeting of the Associat Swansea the grievances of the Irish dispensary docto respect of inadequate salary, superannuation, and a holiday, had been brought before the first Represen Meeting, which unanimously adopted resolutions suppo the line of action taken by the profession in Ireland. subject came the next day before the Central Council, a the only Council member present from Ireland, whe matter came up for consideration, he had very gladly ported the resolutions submitted from the Represen Meeting. The question was referred to the Medico-Po Committee (on which Dr. L. Kidd, President of the Medical Association, was appointed a member), and result, in accordance with instructions received fro Editor of the Journal, Surgeon-General Evatt, C.B. ceeded as a Special Commissioner to Ireland, to inquir the Poor-law medical service of that country, with s reference to the dispensary system in force there. He fessor Byers) thought the selection of Surgeon-General was a most fortunate one, as his unique experience organizer and his high gifts as an administrator were e the qualities needed to investigate the question of the griev so long complained of by their fellow medical men in the Poor-law medical system. His report, so thorough in detail, had placed the whole question on an entirely platform, and he thought they would all agree with a ment in a resolution of the County Meath Branch of the Medical Association recently published that this " could scarcely be improved upon, even by any one who a lifetime in the Irish Poor-law service." The Commiss of the Journal had shown that an extensive reform o present system of giving medical relief in Ireland a granting pay and allowances to the medical officers urgently needed, and he was glad to hear that the repor in the hands of every Irish M.P., of every chairman c county councils, and of all the members of the Local Go ment Board. The daily newspapers had also published sympathetic articles on the report, for which they were d obliged. He (Professor Byers) thought that the membe the Ulster Branch, who had on several occasions pass solutions in support of the claims of their medical bre in the Poor-law service, were more than satisfied with admirable report, and accordingly they, in the above re tion, expressed the sense of the obligation they were un the Editor and the Special Commissioner of the Jou He hoped that, with the valuable assistance and aid of the British Medical Association, the Poo medical system of Ireland would soon be placed in a p position.

Dr. E. C. Thompson, M.P., one of the three Irish me who has backed the Bill to provide superannuation for law medical officers in Ireland, introduced into the Ho Commons on April 18th, seconded the resolution, an ferred to the great help and aid the British Medical As tion had given to the agitation for improving the sta the Irish dispensary doctors. He hoped the time would come when the Irish and the British Medical Associ would be united into one body.

Professor Thomas Sinclair, in supporting the resolutio ferred to the service Professor Byers had done on beh the Irish Poor-law medical officers, and hoped the me would bring Surgeon-General Evatt's valuable report b the editors of all the local papers which had not yet disc the question. He said that report gave information ev those who thought they fully understood the question. resolution was carried very warmly.

Ethics, "The organ of the Ethical Movement," deals

port on the Irish dispensary system in its issue of
n in the following terms:

er document that the King would do well to glance at is
t on the Poor-law Medical Service in Ireland, which was issued
me ago as a SUPPLEMENT to the BRITISH MEDICAL JOURNAL.
ose who cannot enter into the intricacy of Ireland's Imperial
may very easily see the great evil described in this report.
awarded to the medical men in the public dispensary service
d are scandalously inadequate, the areas they have to serve
usly large, the method of election open to serious abuse, and
ring ensuing among the poor peasantry very great, in spite of
ous labour of the doctors.

meeting of the County Wicklow Branch of the Irish
l Association held at Shillelagh on May 4th, the
ng resolution was passed unanimously:

he best thanks of the County Wicklow Branch of the Irish
Association be returned to Surgeon-General Evatt, C.B., Com-
r, BRITISH MEDICAL JOURNAL, for his able advocacy of the
the Irish dispensary doctors.

meeting of the Tyrone Branch of the Irish Medical
tion held at Omagh, on April 30th, the following reso-
proposed by Dr. Lyle, seconded by Dr. Leitch, was

vote of thanks be sent to the Editor of the BRITISH MEDICAL
for reporting, and to the British Medical Association for send-
an efficient and painstaking Commissioner to report on the
r-law medical service.

meeting held in Claremorris on May 3rd of the Co.
Branch of the Irish Medical Association it was unani-
resolved:

he best thanks of this meeting be conveyed by our Honorary
to the Editor of the BRITISH MEDICAL JOURNAL and to his
oner for the masterly report on the Irish dispensary system.

GUARDIANS' VIEWS OF SALARIES.

l be generally admitted that our recent report on the
spensary Service has so explained the working of that
that medical men in England can now form a fair
on the Irish Poor-law Administration in its
aspects. We would invite attention to the follow-
typical picture of the working of the Irish Poor-law
n the case of Dr. Donnellan who has for eighteen years
e post of Dispensary Medical Officer to the Castlerea
in Roscommon County. The facts are reported in the
th Independent. The Castlerea Dispensary District
the largest and most populous districts in the West
d; it is over 70 square miles in extent and has a popu-
12,000 very poor people. There are in this district three
dispensaries, far apart from each other, and needing
three days in the week, and there are in addition
ion out-stations. The distances to be traversed by
ical officer run up to 200 miles a week, and could not
be managed with less than two horses. Dr.
n's salary on appointment was £100 a year. In 1898
ard of Guardians unanimously recommended
ry to be raised to £120 per annum. To this
l Government Board officials in Dublin objected,
er much wrangling, £10 a year increase was
ed. This is a lower sum than the salary paid for the
y years ago, although at that time a considerable
alary was paid to the medical officer by a wealthy
dlord for the care of his establishment and labourers.
ellan, on April 16th, 1904, addressed his Board of
s and asked for an increase of £20 per year. There
nimated discussion at the Board, and during the de-
guardian said "there was an increase proposed here
in man who could not claim to be a Nationalist, and
arely by one vote I carried my point, disallowing
rease to a man who directly insulted us as a
st body." Another said: "When they had a good
st they should not lose him." While a third re-
"They (the doctors) are all good Nationalists when
n for increase of salaries." In the end the voting for
ase was even, and a deadlock ensued, and Dr.
n remains with his huge district, his unceasing work,
ary that does not maintain his horses, conveyances,
nts. The *Westmeath Independent* points out that
ntly the Roscommon guardians appointed a medical
£150 per year, and wonders why an old officer like
ellan is not similarly paid. It considers "the
the Castlerea guardians as one of the shabbiest and
racious that has come under public notice for some
n this opinion all members of the British Medical
on and the public generally will, we make no doubt,

THE KING IN IRELAND.

One of the most pleasing incidents of the King and Queen's visit to Ireland took place on May 4th at Mallow Railway Station, through which the Royal party had to pass on their way to Kingstown at the conclusion of their Irish visit. An enthusiastic greeting was accorded to their Majesties, who stood in the door of the Royal saloon and seemed immensely pleased with their reception. Before, however, the train steamed out of the platform, the King, who seems never to forget a service or to fail in tactful or gracious acknowledgement of it, inquired if Mr. Charles C. Haines, of Sunnyside, the father of Miss Haines, who acted as senior nurse during His Majesty's last dangerous illness, was present. On being informed that the gentleman was on the platform, Mr. Haines was brought forward and introduced to His Majesty. Both the King and Queen shook hands heartily with Mr. Haines and engaged in an animated conversation with him. Loud cheers greeted this manifestation of their Majesties' gracious recognition of the services rendered by a lady of whom Mallow is justly proud.

IRISH MEDICAL ASSOCIATION.

A meeting of the Co. Meath Branch of the Irish Medical Association was held on April 21st, at Navan. Dr. Ringwood of Kells was elected President of the Branch. Among the resolutions passed were the following:

That the thanks of this Branch of the Irish Medical Association be accorded to Sir Thomas Myles, Sir William Whitla, Surgeon Tobin, and Professor Kinkead of Galway, for the good work which they have done for our Association in showing the students of medicine and the general public the great grievances of the Irish Poor-law Medical Service.

That the Executive Committee of the Irish Medical Association be requested to formulate a scheme for the systematic instruction of the students of the various schools of medicine in Ireland upon the subject of the grievances of the Irish Poor-law Medical Services, as many of the students at present are not even aware that there are any grievances existing.

That the attention of the Executive Committee of the Irish Medical Association be called to the fact that in the opinion of the Co. Meath Branch of the Association the minimum salary of £120 per annum, fixed by the Association for workhouse doctors, is entirely inadequate, and that we consider the subject is deserving of their further consideration.

That members of the Branch are of opinion that there are grievances concerning the medical officers acting for the railway companies in this country, and they therefore resolve to give them every support in their power to obtain redress; and they will decline to accept any railway appointment rendered vacant by the dismissal or resignation of any medical officer in his efforts to obtain redress of the existing grievances, and that in case a red ticket is presented to a dispensary doctor for attendance upon a railway servant he shall apply to the Board of Guardians to have said ticket cancelled at their next meeting.

That the members of the County Meath Branch of the Irish Medical Association shall inform the Executive Committee of the Irish Medical Association they object in the strongest terms to having any consultation fee at a less sum than £2 2s. for any distance at any time, a fee of £2 2s. being always paid heretofore by the local Boards, the same being rceoverable in a court of justice; and they thereby resolve that no member of this Branch shall accept a less fee than £2 2s. for any consultation.

That as the Local Government Board requires that they should nominate a medical substitute when on sick leave, vacation, or when for any other reason they are about to absent themselves from duty, and whereas the local Boards frequently refuse to accept the nominated substitutes for no valid reasons, it places them in an anomalous and unfair position, they resolve, therefore, that no member of this Branch shall accept any such appointment against the will of the doctor who has nominated another; and that they consider it as much to the advantage of the local Boards as to themselves that this resolution shall take effect.

That the members of the County Meath Branch of the Irish Medical Association express their disapproval of Clause 6 of the Local Government Act of 1902. Its narrowness in the treatment of the questions or salaries and superannuation being unjust both to the medical officers and to the ratepayers, and its effect must be entirely to the disadvantage of the sick poor, they therefore resolve that every effort should be made by them to secure the co-operation of their Parliamentary representative in the repeal of this clause.

DUBLIN HOSPITAL SUNDAY FUND.

The report of the Committee of the Dublin Hospital Sunday Fund for the year 1903 has been published. Since the fund was established in 1874, £123,225 16s. 3d. has been subscribed, and last year £3,600 was distributed among fifteen hospitals. The collections are made exclusively in 272 churches of the various Protestant denominations. The Roman Catholic Church does not take any part in the movement. The com-

mittee inspect the hospitals each year, and the sums awarded are in direct proportion to work done and to efficiency.

Richmond Hospital, Dublin.

H.R.H. the Duke of Connaught visited the Richmond Hospital on the day before he left Dublin. He was accompanied by General Sir John Maxwell, K.C.B., Colonel Congreve, V.C., Military Secretary, and Captain Hollond, A.D.C. He was received by the Governors and the medical and surgical staff and the lady superintendent, and was conducted through the wards, theatres, kitchens, laundry, power house, and the pathological department. On leaving he expressed high approval of the general arrangements and of the comfort of the patients.

The Lock Hospital, Dublin.

Mr. George Meldon, son of the late Mr. Austin Meldon, has been appointed one of the surgeons of the Lock Hospital, Dublin, in room of the late Mr. Michael Donnelly.

Meath Hospital, Dublin.

The governors of the Meath Hospital, Dublin, have unanimously elected Mr. Conway Dwyer to be one of the surgical staff, in succession to the late Sir Philip Smyly. Mr. Dwyer has been surgeon to Jervis Street Hospital for many years, and he is one of the Professors of Surgery in the School of the Royal College of Surgeons.

Royal College of Physicians.

The College has approved of the wearing of distinctive robes by its Fellows, Members, and Licentiates. Fellows may wear a black velveteen robe of shape similar to that worn by a Doctor of Medicine of a University, the collar and facings being of royal purple poplin, together with a velveteen cap and tassel. Members, a gown similar to that of Masters of Arts, the facings being 4 in. in depth, of royal purple poplin, and a collar of like material. Licentiates, a Bachelor of Arts gown, with 3-in. facings of royal purple poplin.

Royal College of Surgeons.

The annual meeting of the Royal College of Surgeons in Ireland will take place on Saturday, June 4th, at 1 o'clock. The election of President, Vice-President, and Council will be held on the following Monday, June 6th. Mr. Arthur Chance will be the new President, and so far the only candidate mentioned for the Vice-Presidency is Mr. H. R. Swanzy.

The Recent Appointment at Ballinasloe Asylum.

The Lord Lieutenant having requested the Asylum Board at Ballinasloe to inform him of "the reason for passing over the Senior Assistant Medical Officer, who was also acting Resident Medical Superintendent," a meeting was held to consider the matter. The Roman Catholic Bishop of Galway, Most Rev. Dr. McCormack, was in the chair. Mr. Byrne, who originally seconded Dr. Kirwan's appointment, moved a resolution stating "that that gentleman was not elected on sectarian grounds, but because his distinctions, degrees, and honours were equal, if not superior, to those of the other candidate, and his college course was far more brilliant and distinguished; secondly, that his testimonials were exceptionally good and from the very highest and most eminent authorities; and for these good and cogent reasons we most respectfully ask His Excellency to sanction the appointment at his earliest convenience." He complained that the Committee had been lashed by the press. In Belfast and other places in the North of Ireland, where Protestants had the power, the fact that a man was a Catholic was taken into consideration against him.

A Member: You are going back on it again.

Mr. Byrne: I do not go into the religious principle, but we had a candidate of equal merit.

Rev. Canon Lynskey: Superior merit.

Mr. Fahy (to Mr. Byrne): That is the way you are putting your foot in it again.

The Chairman said he would be in favour of challenging the authority of the Lord Lieutenant to repudiate their action or to ask any reason.

Mr. Denis Kelly proposed a resolution denying the right of any man to demand a reason for his vote. "We may assure His Excellency that we were fully cognisant of the fact that Dr. Kirwan's eight years' experience as a registered medical practitioner and over eight years in the asylum service more than fulfilled the requirements of the Act of Parliament under which the appointment has been made. In connexion with the appointment made we may be permitted to say that Dr. Kirwan is a Co. Galway man of undoubted ability and administ[rative] capacity, and under whose charge we feel confident th[at the] welfare and comfort of the patients of this institution w[ill be] closely and conscientiously looked after, and the intere[sts of] the ratepayers whom we represent safely guarded, a[nd] influential friends and supporters in the Counties of G[alway] and Roscommon largely subscribe as heavy taxpayers [to the] upkeep of this institution, and are naturally much inte[rested] to have the best man appointed to the important posit[ion of] Resident Medical Superintendent of the Asylum."

The motion was seconded by the Chairman and c[arried] unanimously.

The Governors appear to have completely forgotte[n the] proceedings of a month ago. The majority then declare[d that] the candidates were of equal merit and capacity, an[d the] reason assigned for Dr. Kirwan's selection was that he [was a] Roman Catholic, while Dr. Mills was a Protestant.

Newry Fever and General Hospital.

At the annual meeting of the supporters of this instit[ution] the report of the Managing Committee was read. The [Com]mittee is satisfied that with the utmost economy the ho[spital] cannot be managed on less than £800 per annum. [The] County Council is about to reduce its annual subscri[ption] of £400 to £300; and as the public subscriptions only amo[unt] to £310, it is felt that unless this second source of inco[me is] considerably increased operations will have to be la[rgely] curtailed. Already a debt of £182 17s. is due to the ban[k]. It is felt that an excellent and useful institution, which in [fact] may be considered a necessity, should be much more libe[rally] and heartily supported by the general public in a town of [the] size and importance of Newry.

The Derry City and County Infirmary.

The popularity of this institution and the high appreci[ation] in which the labours of the professional staff are held [are] evidenced by the great success of a conversazione held o[n the] evening of the 4th inst. in the Guildhall in aid of its f[unds]. Like most up-to-date hospitals, the expenses are heavy [and] it is hoped that a substantial sum will be gained, and th[at in]terest in a most deserving establishment will be more w[idely] spread. All the medical and surgical staff gave [their] assistance.

Health of Belfast.

At the monthly meeting of the City Council on May [9] the Medical Superintendent Officer of Health reported [that] 132 cases of zymotic disease had been notified; there w[ere] of small-pox and only 19 of typhoid and 16 of simple [con]tinued fever; scarlet fever and erysipelas were more preva[lent]. the total births registered number 958, and deaths 688; [the] deaths from zymotic diseases were 70, from phthisis 111. [The] annual death-rate from all causes was 25, probably due t[o the] large number of respiratory affections. No case of smal[l-pox] had occurred during the past fifteen days, and there we[re] persons under observation.

As both the City Council and the Board of Guardians [are] considering the question of a sanatorium for consumpt[ives] the following resolution was proposed and carried:

That it be an instruction to the Public Health Committee to co-op[erate] with the guardians in selecting a site for the sanatorium so as to [avoid] the expense of two sanatoria.

It was agreed that the two bodies should meet, so that [they] should not duplicate the work; legal or monetary difficu[lties] should not be allowed to stand in the way of a common-[sense] agreement.

THE HOLMAN TESTIMONIAL FUND.

The Treasurer of this Fund acknowledges the following fu[rther] subscriptions:

	£	s.	d.		£
G. B. Ferguson, M.D. ...	1	1	0	Brig.-Surg. John Wales ...	1
Rev. W. A. Thomas	1	1	0	Prof. R. Saundby, M.D. ...	1
Mr. J. A. Newsom	1	1	0	Surg. C. B. Fairbank, R.N. (Old Epsomian)	1
Mr. E. N. Gardiner	1	1	0	Mr. A. C. C. Parkinson (Old Epsomian)	0
Mr. T. Neale	1	1	0	Bilton Pollard, M.B., B.S....	5
Mr. J. W. Wilson	1	1	0	H. Hetley, M.D.	2
Mr. H. V. Plum	1	1	0	J. Percy A. Gabb, M.D. ...	2
Mr. H. E. Gardner	1	1	0	Mr. A. Hope Walker... ...	0
Rev. A. C. Knight	1	1	0		
Mr. H. F. Lee	1	1	0		
Miss Jones Parry	1	1	0		

The amount at present subscribed does not nearly reach [the] sum required to carry out the projected scheme and fur[ther] subscriptions of any amount will be received by Dr. John [S.] Galton, Chunam, Sylvan Road, Norwood, S.E.; or by Mr. [F.] A. Berridge, Oakfield, Redhill.

E METROPOLITAN STREET AMBULANCE ASSOCIATION.

PUTATION from the Metropolitan Street Ambulance iation was received on May 9th by the General Purposes ittee of the London County Council for the purpose of sing the best means of providing a more efficient ance service for the streets of the metropolis. The de- on from the Metropolitan Street Ambulance Associa- as important and influential, being composed of the ing members of the Association: Mr. Reginald Harrison, esident; Sir William Church, President of the Royal e of Physicians; Sir Alfred Cooper, Vice-President of the College of Surgeons; Sir Thomas Barlow, Physician to His y's Household; Sir Cooper Perry, Superintendent of Hospital; Mr. Anthony Bowlby, Surgeon to St. Bar- new's Hospital; Surgeon General Keogh; Mr. Raymond n, Surgeon to University College Hospital; Dr. H. D. ton, Physician to St. George's Hospital; Mr. Cuthbert e, Surgeon to St. Thomas's Hospital; Dr. R. Dudfield; . Arthur James, the Hon. Secretary, by whose labours sociation has been founded and placed on a satisfac- oting, not only in regard to numbers but also in respect influence of its members. Lieutenant-Colonel Sir d Temple, Assistant-Director of the Ambulance Depart- of the St John Ambulance Association and Deputy- an of the Committee of that body, together with l Sir Herbert C. Perrott, Chief Secretary of the St. Ambulance Association, accompanied the deputation he Metropolitan Street Ambulance Association as offi presentatives of the St. John Ambulance Association. putation was introduced to the General Purposes Com- by Sir William Collins, and, on the invitation of the an (Mr. T. M'Kinnon Wood), Mr. Reginald Harrison ed those present. He began by thanking the Com- for receiving the deputation, and referred with satis- to the fact that they were supported by two influential ntatives of the St. John Ambulance Association. He ad a letter from Mr. H. L. Bischoffsheim hoping that ult of the conference with the London County Council prove satisfactory and regretting his inability to be . Mr. Reginald Harrison next read a letter from ght Hon. Viscount Knutsford, the late Director St. John Ambulance Association, who also ed his inability to join the deputation, and ed his entire sympathy with the objects they heart. Mr. Harrison then pointed out that the ion attended there as representing public opinion natter of urgent importance to the whole population the jurisdiction of the London County Council. Those n who were members of the medical profession, of he Metropolitan Street Ambulance Association con- desired to state that they had undertaken to draw n to the subject under a strong sense of public duty out of a personal knowledge as to how accidents and es in the streets were at the present time transferred itals and elsewhere. They were convinced that exist- visions in London for such casualties were quite ate, and compared unfavourably with other places. , they considered that the London County Council authority which should undertake the duty of making n for a more efficient ambulance service for the streets. ressed the hope that the London County Council might way towards endeavouring to obtain without delay entary powers for the purpose. Mr. Harrison empha- e necessity for this last point, because without such no adequate ambulance service could be provided metropolis. The London County Council was un- ly the authority that could undertake the work of nce most efficiently and most economically, and it was e that the matter should be put through as quickly as so that when a definite scheme was decided upon all ho were interested in the project could bring it to a ul issue without any unnecessary loss of time. Turn- ir William Church, who sat on his right hand, Mr. n asked him to present to the General Purposes Com- he resolutions which had been unanimously adopted last general meeting of the Metropolitan Street nce Association.

illiam Church then proceeded to read the resolutions t the meeting of the Metropolitan Street Ambulance ion on May 2nd, to the effect that there was urgent organization in London of an improved ambulance nder one body, that the London County Council was the body to provide and maintain such service, and that the resolutions be communicated to the London County Council by deputation. He then proceeded to explain in detail the advantages to be derived from combining the proposed ambulance service with the fire brigade service, not only from the point of view of economy, but also from that of expediency. In replying to questions from members of the Committee, Sir William Church agreed that the suggested scheme would save life and alleviate suffering, especially in a district like that round the Poplar Hospital, where, according to figures quoted, accidents were received at the rate of four every hour day and night.

Sir R. Temple and Sir H. Perrott then promised every assistance possible from the St. John Ambulance Association, and they were followed by Dr. A. James, who was occupied for some time in explaining how the necessary men, horses, and ambulances could be added to the present strength of the fire brigade. Dr. James made it clear that by this strengthening of the fire brigade there would be at hand in case of unusual emergency an extra force. He advocated an addition of two men, one horse, and one ambulance to each fire station selected for the purpose. In the new scheme of ambulance service the police would afford first assistance to the fire brigade in the same way as they now helped the brigade in cases of fire.

The Chairman of the General Purposes Committee, in thanking the deputation for attending, declared that the views which had been put before them by the deputation would meet with careful deliberation and sympathetic consideration. The deputation then withdrew.

LITERARY NOTES.

AN issue of the *Autocar*, specially dealing with the subject of motoring for medical men, will appear on May 28th. The number will be copiously illustrated and will contain a large amount of information on motor cars in relation to medical practice.

We are requested to state that the *National Review*, beginning with the June number, will be published by the proprietor, Mr. L. J. Maxse, at his own office, namely, No. 23, Ryder Street, St. James's Street, London, S.W., to which henceforward all communications should be addressed.

On May 16th Messrs. Smith, Elder and Co., will publish a work entitled *Some Aspects of Social Evolution*, by Dr. Lionel Tayler. The author proceeds from a general review of heredity as the basis of physical evolution to the differentiation of special types corresponding to certain classes of the social organism. Accepting the principle of individual variation with unmodifiable structure, he rejects that of progress by use-inheritance, but finds in natural selection, which constantly accelerates the development of a given variation, a sufficient cause to produce new types of humanity. Dr. Tayler further discusses the question of typical temperaments, their physical bases and probable influence on the future of Society.

It is stated in an American medical journal that Mr. Rockefeller's recent munificent gift to the Johns Hopkins Hospital was the outcome of a perusal of Professor Osler's classic treatise, *The Practice of Medicine*. We congratulate the distinguished author on the stimulating effect of his teaching and the multimillionaire on his intelligence. The reading of medical works by laymen often produces undesirable results, and should as a rule be discouraged—unless they are millionaires. If, however, as free citizens they will insist on reading such literature, it is to be hoped that they may always choose for their edification in this direction works by authors of recognized scientific position.

Dr. Norman Moore contributes to the May number of the *St. Bartholomew's Hospital Journal* an interesting note on Rahere, the founder of that ancient institution. The article is illustrated by an autotype of Rahere's charter dated 1137, the original of which is still in the possession of the hospital. Two large seals of dark wax are attached to the document. On one is represented an edifice with three turrets, and on the other a tall figure with a slender rod in the right hand and something in the left hand, which is perhaps an alms-box. The building on the seal, says Dr. Moore, is probably the Priory of St. Bartholomew's as it looked in the first twenty years of its existence, for the surrounding inscription is sufficiently legible to show the words "sigillum conventus evvlesie dei et sancti bartholomei de smethefeld." This seal of the convent of the Church of God and of Bartholomew of Smithfield is nearly circular. The other seal is oval, and its inscription is less distinct, but "Bartholomie de Smethefeld" may be read on the right of the figure, while on the left an "o" is

discernible about the middle of the curve, suggesting that the whole inscription is "sigillum hospitalis sancti bartholomei de smethefeld."

The Rev. Robert Paul has, as we learn from Mr. A. Francis Steuart, recently edited for the *Miscellany of the Scottish History Society* a number of letters and documents respecting Dr. Robert Erskine, who was physician to Peter the Great. Erskine was a younger son of Sir Charles Erskine, of Alva, was born in 1677, and studied medicine in Edinburgh and Paris. After graduation he went to Russia in 1704, and soon after his arrival he was appointed Physician to the Czar. Several Scottish doctors practised their profession in Russia in the eighteenth century. In 1728 Lewis Calderwood became surgeon to the Preobrajenski guards. Later James Mounsey became first physician to the Empress Elizabeth. Later still Dr. John Rogerson, of Dumfries, as physician to Catherine the Second, was the depository of many curious Court secrets. The Empress gave him a magnificent collection of Russian medals. In 1792 Robert Simpson was chief surgeon at Cronstadt, Sir James Wylie, whose statue may be seen in St. Petersburg, was head of the Medical Department, and Sir Alexander Crichton was physician to the Czar Alexander the First. In 1698 Peter the Great secured the services of thirty surgeons from Great Britain, and during his reign he founded the Aptekarski Prikaz, or Ministry of Medical Affairs. In 1710 Dr. Erskine wrote to his brother from "Mosco" that he was well and kindly entertained there. In 1716, by a charter dated at Dantzig, Robert Erskine was made by the Czar a Councillor of State. In 1717 he accompanied the Czar to Paris, assisting his Imperial Master to buy several anatomical collections and cabinets of natural history. Erskine died at Koucheserski in 1718 at the age of 41. The Czar had his remains conveyed to St. Petersburg, and buried in the precincts of the Alexander Newski Monastery. Peter acted as chief mourner in the funeral procession. In addition to bequests to his brother, Dr. Erskine left money and jewels for the relief of necessitous families in St. Petersburg. To the Czaritsa Ekaterina Aleksievna he left "such of my linen as has not been used and the lace which is still entire and not torn, and all my porcelain ware." His library he left to be sold for the benefit of his heirs, and his curiosities, medals, and surgical instruments to be offered for sale to the Czar for the benefit of orphanages, hospitals, and almshouses in Scotland; and his country seat, Gastel or Gastilitz, to the Czar "in case he should wish to give it to Her Highness, the eldest princess" (Elizabeth Petrovna).

In the *St. Thomas's Hospital Gazette* for March Dr. Herbert Hawkins gives an interesting account of James Ware, a medical student of St. Thomas's in 1773-6. After a brief apprenticeship to the Surgeon of the King's Yard, Portsmouth, he entered at St. Thomas's. During his period of studentship he kept a diary which shows that his work was light compared with that of a modern student. He had only two lectures in the day to attend, and he seldom worked in the evening. He went to the play and was a regular attendant at debating societies. Among other amusements he goes to see men hanged at Tyburn. He records the operations at which he was present—cutting for stone, amputations, "ye operation for ye empyema," etc. After attendance at lectures for two months he passed an examination at Surgeons' Hall, which recalls that of Roderick Random. The only question he was asked was what dressings he would prepare for an amputation. On the strength of this he found himself "qualified to act as Surgeon's Second Mate of a third rate." A fellow student after an equally searching examination was forthwith appointed surgeon to the *Cygnet*. In 1775 Ware entered St. Thomas's as "a walking pupil" for one year. He spent most of his time in dissecting, varying his anatomical studies by occasional attendance on a midwifery case. He was called up at night if any surgical case of interest was admitted into the hospital. The following is the operating theatre programme for one day: "December 18th. Mr. Lucas performed operation for aneurysm, extracted a tumour on the breast and a very large tumour upon the tibia, while Mr. Warner performed a palliative operation for the hydrocele with the lancet, and Mr. Else amputated at the wrist for a gunshot wound in the hand, and Mr. Smith made punctures in the side of a man to discharge the air from an emphysema." In 1777 Ware became assistant to an eye surgeon with whom he later entered into partnership. In 1791 the partnership was dissolved and thenceforth Ware practised in New Bridge Street on his own account chiefly as an oculist. He did much to make ophthalmic surgery a recognized special branch and wrote largely on the subject, his books being translated and used on the Continent. He was elected a Fellow of the Royal Society in 1802. He died in 1815. He was the founder of the Society for the Relief of Widows and Orphans of Medical Men in London and the Vicinity, and the School for the Indigent Blind.

CONTRACT MEDICAL PRACTICE.

A BURIAL CLUB.

AT a special meeting of the No. 1 General Burial Society, Macclesfield, held on April 26th, a letter was considered in which the two medical officers of the society conjointly asked for a material increase of salary and in default of its being granted tendered their resignations. From the proceedings at the meeting, as published in the *Macclesfield Times*, it would appear that this club numbers 6,406 members and that when ill they apply to the secretary for "notes," upon the strength of which the medical officer selected by the patient duly attends to his requirements; at the end of the quarter the notes are collected from the medical officers and the quarter's salary divided *pro rata*. As to the amount of the salary, the total expenditure of the society for the treatment of its members would appear to be not more than £350 a year, or £250 for the medical officers and £100 for the dispensing of medicines; in other words, something less than 2s. a year for each member. After a long discussion it was decided to refuse to make any increase and to accept the resignations tendered. Remarks such as the following were made at the meeting. "The work the medical officers did for their salary was not very much; they knew the society had some money in other funds, and their greedy eyes and minds were fixed upon getting it if possible." "The more money the doctors were paid the less respect was received from them by the members of the society." The amiable attitude of the members of this club towards its medical officers thus portrayed is worthy of careful note by any medical man who may aspire to the honour of becoming its paid servant.

A JOINT MEDICAL SCHEME.

At a mass meeting at Merthyr on April 30th of the Plymouth and Cyfarthfa Colliery workmen a scheme drawn up by a representative committee was presented for consideration. It provided for the appointment of two chief doctors with assistants, with all necessary medicines and appliances solely for the benefit of the men of these collieries. As an amendment it was proposed that each workman should be at liberty to engage his own doctor and to send the bills to the committee for payment. On a division the general principle underlying the scheme proposed by the committee was accepted by the meeting, but the scheme itself referred back to that body for amendment of details.

THE ADVANTAGES OF UNION.

It would appear from the *North Mail*, a paper of influence in Durham and Northumberland, that the question of the fees to be paid to medical men in colliery practice is coming up again in an acute form in that neighbourhood. In some districts the medical levy is 6d. a fortnight and in others 1s. in return for medical attendance and medicines to the collier and his family. Seventeen Durham lodges, it is stated, have decided to ask the Executive Committee of the Miners' Association to open negotiations for a reduction of all ninepenny to sixpenny levies. The encouragement which the suggested movement receives from the *Mail* is not very great, and the observations made bring into strong relief the advantages of co-ordination among the medical men in the north. It is pointed out that the colliery doctor is most appreciated by the toiling patients when an accident occurs in the pit or sickness creeps into the homes. On other occasions he is often regarded as an official who draws a big salary than his merits deserve and one whose income ought to fluctuate with that of the men themselves. The doctor is essential to the wellbeing of every colliery even more so than blasting powder or expert hewers or the "iron man." This being so, a strike among the medicos would, suggests our contemporary, speedily put a stop to financial hostilities, for in the north nearly all of them belong to the British Medical Association, and it is regarded as doubtful whether even an organization as powerful as the Miners' Association could coerce the even more powerful medical association. An unnamed medical man who was interviewed upon the prospects seems to have given very judicious replies. He thought it possible that the medical

night fall in with the wishes of the miners, but he did ink it very likely. If the men wanted efficient attend- hey must be prepared to pay for it, as a sixpenny levy, ally in small collieries, was not an enticing sum. The ould be ill-advised to push matters to an extreme, and on was unlikely to succeed. Even if medical men mported from the south the collieries would eventually to fall into line again, since men who would accept e under such circumstances would be professionally ized and be unable to obtain assistance at operations or vice of consultants.

THE MIDWIVES ACT.

Lancashire.

quarterly meeting of the Lancashire County Council. n April 28th, the Midwives Act Committee reported ith a view to bringing the Act to the notice of all per- lesirous of practising as midwives in the adminis- county, it had inserted an advertisement in 56 of the al newspapers circulating in the county, inviting ersons to communicate with the county medical officer th Up to the present time 354 persons residing in the istrative county had applied to be placed on the regis- o of these applications had been forwarded to the l Midwives Board in London. A list of applicants sub- by the medical officer of health showed that from f the districts comparatively few applications had been d.

Nottinghamshire.

report of the county medical officer of health was con- l at a meeting of the Notts County Council held on oth. The medical officer stated that since the begin- f this year he had received 96 additional names of practising as midwives, making a total of 304. As one hief objects of the Midwives Act was to prevent the of puerperal fever, the Health Committee had approved suggestion of the city medical officer to pay 10s. 6d. to medical officers of health for special reports upon of puerperal fever. The committee had also given o the chairman of the committee and the city medical to suspend any midwife from practising if such sus- n should appear necessary to prevent the spread of on.

Devonshire.

meeting of the Bideford Rural Council held on April letter was read from the County Council asking the Council to reconsider its decision not to carry out the ons of the Midwives Act. It was pointed out that f the rural councils of the county had accepted the ion that they should undertake the duties connected e carrying out of the provisions of the Act, and it was t the rural councils were more likely to carry out the efficiently than the county council. The Chairman e Committee went into the matter very fully. Mr. said he did not see how they could carry out the provi- wing to the district being so very scattered. The l officer said he could not see how it was to be done. no doubt it would be a very good thing if they could e good nurses into the district. The Chairman moved dical officer should report on the matter at the next , and this was carried.

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ital Sunday Fund.—On May 10th a meeting of the l of the Hospital Sunday Fund was held at the Man- ouse, the Lord Mayor in the chair. Among those pre- re Sir William Church, President of the Royal College icians, and Sir William Broadbent. A letter was read Ir. George Herring, of Hamilton Place, Piccadilly, that he was willing, as on previous occasions, to give £10,000 to the fund or to add one quarter to the amount d in places of worship on June 12th, limiting this to a on not exceeding £100,000. He made that offer, as he hat the demands of the charitable for building, etc., leprive many deserving hospitals of part of their pre- ome and so compel the closing of some of the wards. nund Currie stated that Mr. Herring in the past five ad contributed in all £53,000 towards the fund, namely, a year for three years, and subsequently sums of and £12,000, representing a quarter of the amounts d in churches and chapels on Hospital Sunday. Pre- y Ridgeway proposed a cordial vote of thanks to Mr. , and the Council accepted his proposition to add one to the collections in places of worship.

ASSOCIATION NOTICES.

BRANCH MEETINGS TO BE HELD.

Bath and Bristol Branch: Bristol Division.—The annual meeting of the Bristol Division will be held in the Medical Library, University College, Bristol, on Thursday, May 19th, at 8.30 p.m., Dr. E. Markham Skerritt in the chair. The business of the meeting will be: (1) To elect officers, the Representatives of the Division on the Branch Council (the present Honorary Secretary resigns, and does not seek re-election). (2) To elect the Representative of the Division in Representative Meetings. (3) To receive annual report of Executive Committee. (4) To consider business of Annual Representative Meeting. (5) To make new rules, or alter or repeal existing rules (6) Proposed inquiry into club practice. (7) Any other business.—J. Michell Clarke, Clifton, Honorary Secretary.

Birmingham Branch.—Nominations for two elective members of the Central Council of the Association may be sent to the undersigned on or before May 19th.—J. T. J. Morrison, F.R.C.S., 3, Great Charles Street, Birmingham, Honorary Secretary.

Birmingham Branch.—The fiftieth annual meeting of this Branch will be held in the Medical Institute, Birmingham, on Thursday, June 9th, at 3.30 p.m. The retiring President, Professor Jordan Lloyd, will introduce the President-Elect, Dr. T. E. Underhill. The annual dinner will be held on the same date at the Grand Hotel, Birmingham.—J. T. J. Morrison, F.R.C.S., 3, Great Charles Street, Birmingham, Honorary Secretary.

Birmingham Branch: Coventry Division.—The annual meeting of this Division will be held at the Coventry and Warwickshire Hospital on Tuesday, May 17th, at 8.30 p.m., Dr. Milner Moore in the chair. Agenda: 1. Whether it is advisable that the medical witnesses engaged on each side in legal cases should meet in consultation. 2. The question of the advertising of medical practitioners in connexion with hydropathic establishments. 3. The medical defence scheme of the Association. 4. The Committee will recommend the adoption of a new rule making a time limit for papers and speeches. 5. The election of officers, the Representative of the Division on the Branch Council, and the Executive Committee.—E. H. Snell, Knighton House, Coventry, Honorary Secretary.

Border Counties Branch; North Cumberland Division.—The annual general meeting of this Division will be held at the County Hotel, Carlisle, on Friday, May 27th, at 3.30 p.m. It is proposed to make a medico-ethical subject a leading feature of the meeting, and the Chairman has promised to open the debate by a paper on the Relations of Medical Men to Each Other. Members willing to contribute papers, etc., should communicate with the Honorary Secretary, Norman MacLaren, Carlisle.

Border Counties and North Lancashire and South Westmorland Branches.—Notice is hereby given that nominations for a representative member on the Council for these Branches, signed by three members thereof, must be sent to me on or before May 29th.—Francis R. Hill, 62, Warwick Road, Carlisle, Honorary Secretary, Border Counties Branch.

Border Counties Branch: Scottish Division.—A meeting of this Division will be held on Friday, May 20th, at 3 p.m., in the County Buildings, Buccleuch Street, Dumfries.—George R. Livingston, 47, Castle Street, Dumfries, N.B., Honorary Secretary.

Border Counties Branch: West Cumberland Division.—The annual general meeting of this Division will be held in the Board Room of the Whitehaven Infirmary on Tuesday, May 17th, at 3.45 p.m. Agenda: 1. To elect officers, the representative of the Division on the Branch Council, and the ordinary members of the Executive Committee. 2. To receive the annual report of the Executive Committee. 3. To consider the business of the Annual Representative Meeting. 4 To consider a motion, of which Dr. G. J. Muriel has given notice, that Rule 11 shall be altered to read as follows: "Ordinary meetings of the Division shall be held at the discretion of the Executive Committee, and not less than two in addition to the annual meeting, etc." 5. Dr. J. W. Crerar: Blood examination in general practice. 6. Dr. G. B. Muriel: Notes on some of the uses of hyoscin. A dinner has been arranged for at the Grand Hotel. Members who intend to be present are asked to notify the Honorary Secretary, T. G. Mathews, 6, Scotch Street, Whitehaven.

Dorset and West Hants Branch.—The annual meeting of this Branch will be held at the Dorset County Hospital, Dorchester, on Wednesday, May 18th, at 3 p.m. Agenda: Place of the summer meeting. Address by the President, The Medical Attendance of the Poorer Classes. Dr. Alderson to move: "That steps be taken by the British Medical Association to secure direct representation of the profession in the House of Commons." Vote of sympathy to the Irish Medical Service. Communication—Dr. Ramsay: Notes on a successful case of resection of bowel in a child aged 5 years. Luncheon at the King's Arms Hotel from 1 to 3 p.m.; price 3s. each. Members intending to be present are requested to communicate with Mr. W. E. Good, 48, High Street West, Dorchester, by Monday, May 16th.—William Vawdrey Lush, 12, Frederick Place, Weymouth, Honorary Secretary.

Dorset and West Hants and West Somerset Branches Combined.—Notice is hereby given that the names of candidates for election as a member of Council of the Association for these Branches must be sent to either of the undersigned on or before Tuesday, May 17th next.—William Vawdrey Lush, Weymouth, or W. B. Winckworth, Taunton, Honorary Secretaries.

Dundee District Branch.—This Branch will meet on Friday, June 3rd, to consider the business of the Representative Meeting; to elect the Representative and other officers; and other business. Notices of motion should be sent to the Secretary before Friday, May 20th.—R. C. Buist and G. Halley, Dundee, Honorary Secretaries.

DUNDEE, PERTH, AND STIRLING BRANCHES.—The nomination of candidates for office of elective member of Council for the ensuing year must be made in writing on or before May 24th, to Dr. Moorhouse, 1, Glebe Avenue, Stirling. Each member may nominate a candidate, but no name will be voted on unless supported by three nominations.—R. C. BUIST, 166, Nethergate, Dundee; W. A. TAYLER, 10, Marshall Place, Perth; J. E. MOORHOUSE, Glebe Avenue, Stirling, Honorary Secretaries.

EAST ANGLIAN BRANCH.—The annual meeting of this Branch will be held at Lowestoft, on Thursday, June 23rd. Members wishing to read papers or show cases should communicate with Dr. Gutch, Ipswich, as soon as possible.—B. H. NICHOLSON, M.B., East Lodge, Colchester, Honorary Secretary.

EAST ANGLIAN BRANCH.—Election of members of Council. The nomination of candidates to represent the Branch on the Central Council of the Association for the ensuing year must be made by three electors on or before May 16th next, in writing, to the General Secretary of the Branch, B. H. NICHOLSON, M.B., East Lodge, Colchester.

EAST ANGLIAN BRANCH: NORTH SUFFOLK DIVISION.—The annual meeting of this Division will be held at the Young Men's Christian Association, London Road, Lowestoft, on Wednesday, May 25th, at 4 p.m. Agenda: (1) Minutes of last meeting. (2) Election of officers for ensuing year. (3) Notes on a case of Angioneurotic Oedema (Dr. Ransome). (4) Matters referred to the Divisions: (*a*) The scheme of Medical Defence as set forth in the circular enclosed; (*b*) whether it is advisable that the medical witnesses engaged on each side in legal cases should meet in consultation (see SUPPLEMENT to BRITISH MEDICAL JOURNAL, March 19th, 1904); (*c*) The question of the advertising of medical practitioners in connexion with hydropathic establishments (loc. cit.) Members are requested to take this opportunity of expressing their opinion on this important proposal by returning the form annexed to the circular to the Honorary Secretary of the Division, either before (if unable to attend) or after the meeting.—WILSON TYSON, Lowestoft, Honorary Secretary.

EAST ANGLIAN BRANCH: SOUTH ESSEX DIVISION.—The annual meeting of this Division will be held in the Council Chamber, Clarence Road, Southend-on-Sea, on Thursday, May 26th, at 4 p.m., and not at the Victoria Hospital as stated in a previous notice. Members wishing to read papers or show cases are requested to send immediate notice to CHARLES FORSYTH, M.B., Crinnis House, Southend-on-Sea, Honorary Secretary (pro tem.).

EAST YORK AND NORTH LINCOLN BRANCH.—Nominations for the election of a Representative on the Central Council for this Branch (grouped for the present with the Cambridge and Huntingdon Branch) should be sent not later than May 14th to E. M. HAINWORTH, 16, Albion Street, Hull, Honorary Secretary.

EAST YORK AND NORTH LINCOLN BRANCH.—The annual meeting of this Branch will be held at the Royal Infirmary, Hull, on Saturday, June 4th, at 4 p.m., to be followed by the annual dinner the same evening.—E. M. HAINWORTH, 16, Albion Street, Hull, Honorary Secretary.

EDINBURGH AND FIFE BRANCHES.—The names of candidates for election as members of Council to represent these Branches must be sent to Dr. Logan Turner, 27, Walker Street, Edinburgh, on or before June 1st. Each candidate must be nominated in writing by three members of the Conjoint Branches, which are entitled to elect two representatives.—NORMAN WALKER, 7, Manor Place, Edinburgh, and A. LOGAN TURNER, 27, Walker Street, Edinburgh, Secretaries of the Edinburgh Branch; R. BALFOUR GRAHAM, Sea View House, Leven, Secretary of the Fife Branch.

EDINBURGH BRANCH: SOUTHERN DIVISION.—The annual meeting of this Division will be held in Room No. 3, Oddfellows Hall, Forrest Road, on Tuesday, May 17th, at 8.15 p.m. Agenda: Minutes of last meeting; annual report and financial statement; recommendation of Executive Committee to alter Rule 6 to read "the officers shall be elected annually in the annual meeting of the Division, the Chairman being eligible for election for three consecutive years;" election of officers, members of Executive, and Representatives; consideration of various questions referred to Divisions.—MICHAEL DEWAR, 24, Lauriston Place, Edinburgh, Honorary Secretary.

GLASGOW AND WEST OF SCOTLAND BRANCH.—The annual meeting of this Branch will be held in the Royal Infirmary, Glasgow, on Friday, May 20th. Programme: Statutory business meeting of Branch in the Board Room of the Infirmary at 3 p.m. Demonstration by Dr. John Macintyre upon Recent Electro-Therapeutic Methods of Treatment in the Electrical Pavilion from 4 to 5.30 p.m. Dinner (morning dress) at 6.30 p.m., as intimated by post.—JAMES H. NICOLL, 4, Woodside Place, Glasgow, Honorary Secretary.

LANCASHIRE AND CHESHIRE BRANCH.—A general meeting of this Branch will be held in the Medical Institution, Mount Pleasant, Liverpool, at 3.45 p.m., on Wednesday, May 18th. Agenda: Papers on medical and surgical subjects, and clinical demonstrations by James Barr, M.D., W. B. Warrington, M.D., Karl Grossmann, M.D., W. Alexander, M.D., F. H. Barendt, M.D., R. A. Bickersteth, F.R.C.S., Damer Harrisson, F.R.C.S., Robert Jones, F.R.C.S.—T. ARTHUR HELME, M.D., 3, St. Peter's Square, Manchester.

LANCASHIRE AND CHESHIRE BRANCH: ALTRINCHAM DIVISION.—The annual meeting of this Division will be held at St. Margaret's Church Institute, Market Street, Altrincham, on Wednesday, May 18th, at 4.50 p.m. Agenda: 1. Minutes of quarterly meeting of February 17th. 2. Minutes of special meeting of March 30th. 3. Report of Committee (minutes of meetings of February 20th and April 20th). 4. Reports of officers. 5. Election of officers for 1904-5 (Rules 5, 6, and 11). 6. Election of member of Branch Council (Rule 8). 7. Election of Representative at British Medical Association Annual Meeting (Rule 7.) 8. Election of Executive Committee (Rules 4 and 9). 9. Annual Report of Committee. 10. Consider business of Annual Representative Meeting. 11. To make new rules or alter or repeal existing rules. 12. To transact any business that may be transacted at an ordinary meeting. Mr. J. Smith Whitaker, the Secretary of the Association, will deliver an address at 5.30 p.m. on Uses of the British Medical Association to Medical Practitioners. Executive Committee invites all members of the Lancashire and Cheshire Branch and all medical men residing within the area of the Branch, whether members or not, to hear the address. At 7 p.m. a dinner will be provided at the Unicorn Hotel (price 5s. exclusive of wine), of which members of the Branch and guests; notice to the Honorary Secretary later than May 14th.—T. W. H. GARSTANG, Edge Mount, Altrincham, Honorary Secretary.

LEINSTER BRANCH.—The annual meeting of this Branch will be held in the Royal College of Physicians, Kildare Street, Dublin on Wednesday, May 18th, at 4.30 p.m.—ARTHUR H. WHITE, Derrybawn, Rathgar, Dublin, Honorary Secretary.

LINCOLN BRANCH.—Preliminary Notice.—A meeting of this Branch will be held on Thursday, May 26th.—E. M. SYMPSON, 2, James Street, Lincoln, Honorary Secretary.

MALTA AND MEDITERRANEAN BRANCH.—The annual meeting of this Branch will be held at No. 76, 2da. Teatro, Valletta, on May 30th, at 3 p.m. Agenda: 1. Confirmation of minutes. 2. Correspondence. 3. Other business. 4. Reading of papers. 5. Election of officers and members of Council. 6. Election of Representatives for Representative Meeting. 7. Annual report of Council. The Secretary would be pleased to receive communications from any member who wishes to read a paper or show cases or specimens.—T. M. ZAMMIT, Valletta, Honorary Secretary.

METROPOLITAN COUNTIES BRANCH: WANDSWORTH DIVISION.—The annual meeting of this Division will be held at Crichton's Restaurant, Opposite Junction, at 9 p.m., on Thursday, May 26th. Agenda: 1. Minutes. 2. Correspondence. 3. Resolutions referring to Central Council if any business. 4. Election of officers, Representatives, and Committee. 5. Annual report. 6. Consideration of agenda for Representative Meeting. A dinner will precede this meeting at 7.15 p.m. Evening dress optional. Charges 6s. each. Guests can be invited by members. It is hoped by coming in large numbers members will show they take an interest themselves in their Division's successful development.—E. ROWLAND FOTHERGILL, Torquay House, Southfields, S.W., Honorary Secretary.

MIDLAND BRANCH.—The last day for sending in nominations of candidates for members of Council for this Branch is May 31st.—F. M. POPE, 4, Belgrave Street, Leicester, Honorary Secretary.

NORTHERN COUNTIES OF SCOTLAND BRANCH.—The annual meeting of this Branch will be held at the Imperial Golf Hotel, Nairn, on Saturday, May 21st, at 12 o'clock noon. Agenda: (1) Minutes of autumn meeting. (2) To elect office-bearers for the ensuing year, and a Representative of the Branch in Representative meetings of the Association. (3) To arrange place for next annual meeting: in connexion with this the Council suggest that in order to give the members in the North of Scotland an opportunity of attending either Tain or Golspie should be selected for next year's meeting. (4) To consider the business for the Annual Representative Meeting at Oxford. (5) To consider the following questions referred to the Branch for its opinion thereon: (*a*) whether it is desirable that the medical witnesses engaged on each side in legal cases should meet in consultation; (*b*) the question of the advertising of medical practitioners in connexion with hydropathic establishments; (*c*) shall Medical Defence be undertaken by the Association? In connexion with this question the Honorary Secretary would feel much obliged if members who approve of this scheme would fill in and return the form of agreement sent them some time ago with the Medical Defence circular. Those disapproving of the scheme might advise the Secretary accordingly, as the Central Council of the Association wish a poll of the members on this subject by May 30th; this being an important question affecting members it is important that they should give an individual expression of opinion. (6) Any other competent business. Luncheon will be provided at the Imperial Golf Hotel at 1.30. By the courtesy of the Nairn Golf Club the golf course will be open to members of the Branch and their friends, and it is expected that a match will be arranged between medicals and the members of the Nairn Golf Club. The Secretary would feel much obliged if those who intend to play would kindly let him know, so that the necessary arrangements can be made. The Nairn Bowling Club have extend the courtesy of their Green to the members of the Branch, and it is to be hoped that a match may be arranged. Members who would like to join in this should inform the Secretary. For those wishing it a dance in some place in the neighbourhood can be arranged, provided a sufficient number intimate their desire to do so.—J. MUNRO MOIR, 4, Ardross Terrace, Inverness, Honorary Secretary.

NORTHERN COUNTIES OF SCOTLAND BRANCH.—In accordance with By-law 22 of the Constitution the election of a Representative in the Central Council of the Association must be made by voting papers sent to each member, and the candidates' names must be sent to the Secretary signed on or before May 28th, and the nomination paper signed by three members.—J. MUNRO MOIR, 4, Ardross Terrace, Inverness, Honorary Secretary.

NORTH LANCASHIRE AND SOUTH WESTMORLAND BRANCH: KENDAL DIVISION.—The annual meeting of this Division will be held in Kendal on Wednesday, May 18th, at the Secretary's house, at 3.30 p.m. Agenda: Election of officers for ensuing year. The following questions referred to this Division will be discussed: (1) The position of medical witnesses towards one another. (2) The Medical Defence scheme: answers to the following questions as to this scheme should be sent to the Secretary as early as possible: (*a*) Is it your wish that the Association should take up Medical Defence as suggested in the scheme? (*b*) Do you approve of the general principles and details of the scheme? (3) The position of medical practitioners in connexion with hydropathic establishments.—STURRIDGE, Stramongate House, Kendal, Honorary Secretary.

OF ENGLAND BRANCH.—Notice is hereby given that nominations sentatives for this Branch (two required), each signed by three s of the Branch, must be sent to me on or before May 14th, 1904.— COX, Cotfield House, Gateshead, Honorary Secretary.

WALES AND SHROPSHIRE BRANCH: DENBIGH AND FLINT .—The annual meeting of this Division will be held at Wrexham ay, May 27th.—E. D. EVANS, Bodeirian, Wrexham, Honorary y.

WALES AND SHROPSHIRE BRANCH.—We hereby give notice that ions for a Representative on the Council of the Association, three members of the Branch, must be received not later than by W. Jones Morris, Is-y-Coed, Portmadoc.—W. JONES MORRIS, MACLEOD, and H. JONES ROBERTS, Honorary Secretaries.

D AND READING BRANCH.—Notice is hereby given that nomina- a Representative Member of Council for this Branch must be e on or before May 15th.—W. T. FREEMAN, M.D., 30, Portland ndon Road, Reading, Honorary Secretary.

RN BRANCH: SALISBURY DIVISION.—The annual meeting of this will by held at the Infirmary, Salisbury, on Wednesday, May 18th, .m. Agenda: 1. Minutes of the last meeting. 2. Election of Treasurer's account and balance sheet. 4. President's address; Diabetes, to be followed by discussion. 5. Cases and specimens. ting will be preceded by dinner at the County Hotel at 7 p.m. intending to be present at dinner are requested to inform the Secretary not later than May 14th. Members wishing to show at the meeting are requested to communicate with the Honorary as soon as possible.—J. E. GORDON, 52, Endless Street, Salis- norary Secretary.

EASTERN BRANCH.—The annual meeting of this Branch will be Eastbourne on Wednesday, June 22nd. Mr. J. H. Ewart, Presi- . The following will be the agenda: 1. To elect the officers of h. (This will be done by voting papers sent to each member of h. Nominations by three members for the offices of President- -Presidents, and Secretary may be sent to the Honorary Secre- before Monday, May 16th.) 2. To receive the annual report of h Council. 3. To consider the business of the annual Repre- Meeting. 4. To make new rules or alter or repeal existing rules. g gives notice that he will move, "That in the opinion of this he present South-Eastern Branch should be divided into two separated by a line running roughly between London and and that the opinion of the Divisions concerned be obtained on on." 5. To transact any business that may be transacted by an neeting. N.B.—Three members to represent the Branch on the uncil will also be elected by voting papers. Nominations for s, each by three members in writing, may be sent to the Honorary of the Branch on or before Monday, May 16th.—T. JENNER 97, Montpelier Road, Brighton, Honorary Secretary.

ASTERN BRANCH: CROYDON DIVISION.—The next meeting of on will be held at the Croydon General Hospital, on Thursday, at 4 p.m., Dr. Carpenter in the chair. Agenda: 1. This being the eeting officers for the ensuing year will be elected. 2. To r the next meeting and to elect a Chairman. 3. Members will o consider "Whether it is advisable that the medical witnesses n each side in legal cases should meet in consultation."— litical Committee. And also to give their opinion upon "The f the advertising of medical practitioners in connexion with ic establishments."—Ethical Committee. As a main feature of al meeting is the exhibition of clinical cases, these questions to the vote without discussion. 4. The exhibition of clinical mbers desirous of showing cases are requested to communicate onorary Secretary at their earliest convenience, and not later 6th. Messrs. Down Bros. will show surgical instruments. The l take place at the Greyhound Hotel, at 6 p.m. Charge 7s., ex- wine. N.B.—The Honorary Secretary would be much obliged if ould kindly inform him whether they intend, if possible, to be the meeting, and if likely to remain to dinner. By doing so aterially facilitate arrangements and promote the success of the ll members of the South-Eastern Branch are entitled to attend oduce professional friends.—E. H. WILLOCK, 113, London Road, Honorary Secretary.

STERN BRANCH: FAVERSHAM, ISLE OF THANET, CANTERBURY, FOLKESTONE, AND DOVER DIVISIONS.—A combined meeting of sions will be held at the County Hotel, Canterbury, ay, May 19th, at 3.30 p.m., Dr. Gogarty in the chair, of the Faversham, Isle of Thanet and Canterbury will meet half an hour earlier (3 p.m.) to receive report representatives. Agenda: An address will be delivered ert Boxall on the Relief of Dysmenorrhœa and Sterility. The apers will be read: Dr. T. Whitehead Reid, on the Diagnosis of neal Haemorrhage; Dr. William Gosse, Rheumatism and its at Aix-les-Bains; and a paper by Mr. Hugh M. Raven. Dinner ed at the Hotel at 6.15 p.m.; charge 5s., excluding wine. Those dine are kindly requested to send a postcard the day to A. R. HENCHLEY, 1, London Road, Canterbury, Honorary Secretary.

STERN BRANCH]: FOLKESTONE DIVISION.—The annual meeting ision will be held at Hotel Wampach, on Friday, May 27th, at nda: To elect officers, the Representatives of the Division on Council, and the ordinary members of the Executive Com- receive the annual report of the Executive Committee. A the Folkestone, Ashford, and Dover constituency will be held day, at the same place, at 5 p.m. Agenda: To elect the Repre- n Representative Meetings of the Association. To elect a To consider the business of the Annual Representative Meet- embers of the South-Eastern Branch are invited to attend the nd to introduce professional friends.—PERCY V. DODD, 14, d, Folkestone, Honorary District Secretary.

SOUTH-EASTERN BRANCH: HASTINGS DIVISION.—The annual meeting of this Division will be held at the East Sussex Hospital, Hastings, on Thursday, May 19th, at 4.30 p.m. The chair will be taken by Dr. Frederic Bagshawe. Agenda: (1) Confirmation of minutes; (2) election of officers for ensuing year; (3) report of Executive Committee; (4) consideration of any business to be brought forward at the annual Meeting of Representatives; (5) consideration of proposed scheme of Medical Defence; (6) letter respecting grouping of Divisions for election purposes; (7) Dr. Redmayne will show a case of Bronchiectasis treated by incision and drainage; (8) Mr. Christopherson will read notes on a case of Perforated Gastric Ulcer treated by excision.—J. W. BATTERHAM, 3, Grand Parade, St. Leonards-on-Sea, Honorary Divisional Secretary.

SOUTH-EASTERN BRANCH: HORSHAM DIVISION.—The annual meeting of this Division will be held at the Parish Room, The Causeway, Horsham, on Wednesday, May 18th, at 3 p.m. Agenda: 1. The ordinary business of an annual meeting, such as election of officers, etc. 2. Any other business. 3. Election of new members. 4. Exhibition of cases of interest. 5. Dr. H. Lewis Jones (London) has kindly consented to read a paper, entitled, On Recent Advances in Electro-therapeutics. Any members wishing to show cases, etc., are requested to communicate with the Honorary Secretary at once, in order that arrangements may be made. All members of the South-Eastern District are entitled to attend and introduce medical friends. The Honorary Secretary will be pleased to see any of the members at his house to tea after the meeting.—L. M. SNOW, The Chantry, Horsham, Honorary Secretary.

SOUTH-EASTERN BRANCH: NORWOOD DIVISION.—A meeting of this Division will be held at the Queen's Hotel, Upper Norwood, on Thursday, May 19th, at 4 p.m., Mr. J. Sidney Turner, M.R.C.S., F.L.S., J.P., in the chair. Agenda: (1) Whether it is advisable that the medical witnesses engaged on each side in legal cases should meet in consultation; (2) the question of the advertising of medical practitioners in connexion with hydropathic establishments; (3) the Medical Defence scheme of the Association.—HENRY J. PRANGLEY, Tudor House, Anerley, Honorary Secretary.

SOUTH-EASTERN OF IRELAND BRANCH.—The annual meeting of this Branch will be held at Kilkenny on May 25th. Agenda: 1. Minutes of last annual meeting. 2. Election of officers.—RAYMOND W. ORPEN, Bagenalstown, co. Carlow, Honorary Secretary.

SOUTH-EASTERN OF IRELAND BRANCH.—Notice is hereby given that nominations of Representative members of Council for this Branch must be sent to me on or before May 14th.—RAYMOND W. ORPEN, Bagenalstown, co. Carlow, Honorary Secretary.

SOUTH MIDLAND BRANCH.—Preliminary Notice.—The annual meeting of this Branch will be held at Winslow, Bucks, on Thursday, June 16th, under the presidency of Dr. Kennish. Members wishing to read papers or show cases or specimens must communicate with the Honorary Secretary not later than June 6th.—E. HARRIES JONES, 45, Sheep Street, Northampton, Honorary Secretary.

SOUTH MIDLAND BRANCH.—Notice is hereby given that nominations of a Representative member of Council for this Branch must reach me on or before May 14th, 1904.—E. HARRIES JONES, 45, Sheep Street, Northampton, Honorary Secretary.

SOUTH MIDLAND BRANCH: AYLESBURY DIVISION.—The annual meeting of this Division will be held on Thursday, May 26th, at 2.30 p.m., at the Eight Bells Hotel, Bletchley. Agenda: (1) Minutes of the last meeting. (2) To consider and discuss the scheme of Medical Defence of the Association. (3) Resolution by Dr. Easte on the granting of Medical Certificates to School Children. (4) To consider any further business or communications. Attention is directed to the form of undertaking appended to the proposed scheme of Medical Defence, which, if approved, should be filled in and forwarded to the Secretary. Luncheon (at 2 o'clock) will be provided at the Hotel, price 2s. each. Members wishing to partake of the same should inform the Secretary not later than May 23rd.—HORACE ROSE, Melrose, Aylesbury, Honorary Secretary.

SOUTH MIDLAND BRANCH: NORTHAMPTONSHIRE DIVISION.—The annual meeting of this Division will be held at the Library, General Hospital, Northampton, on Thursday, June 2nd, at 12 noon, under the presidency of Dr. Buszard. Agenda: Minutes of annual meeting, 1903. Election of officers. To receive Divisional report. To discuss: (1) The question of the advertising of medical practitioners in connexion with hydropathic establishments. (2) Whether it is desirable that the medical witnesses engaged on each side in legal cases should meet in consultation. (3) The formation of a Medical Defence Committee of the Association.—E. HARRIES JONES, 45, Sheep Street, Northampton, Honorary Secretary.

SOUTH WALES AND MONMOUTHSHIRE BRANCH.—Nominations for two elective members of the Central Council of the Association may be sent to the undersigned on or before May 21st.—Dr. R. PATERSON, 15, St. Andrew's Crescent, Cardiff, Honorary Secretary.

SOUTH WALES AND MONMOUTHSHIRE BRANCH: CARDIFF DIVISION.—The annual meeting of this Division will be held in the rooms of the Cardiff Medical Society, 131, Queen Street, on Thursday, May 19th, at 3.30 p.m. Agenda: 1. Minutes of the two previous general meetings. 2. To elect the officers of the Division, namely, Chairman, Vice-Chairman, and Secretary (to act also as Treasurer). 3. To elect (*a*) four representatives of the Division on the Branch Council; (*b*) four ordinary members of the Executive Committee. 4. To elect the Representative of the Division in representative meetings of the Association. [Note.—The elected members included in 1, 2, and 3, constitute the Executive Committee of the Division.] 5. To receive the annual report of the Executive Committee. 6. To consider the agenda of the annual representative meeting and to instruct the Divisional Representative thereon. 7. To consider other business which may be referred to the meeting by the Executive Committee. Members are specially asked to note the date of this meeting

and to do their best to attend and take part in the election of the various officers and representatives of the Division, and also in the discussion of the other important items of the agenda. Members will receive in due course particulars of the arrangements for a dinner to take place on the evening of the same date (May 19th).—Ewen J. Maclean, 12, Park Place, Cardiff, Honorary Secretary.

South Wales and Monmouthshire Branch: Monmouthshire Division.—The annual meeting of this Division will be held in the Newport and County Hospital, on Friday, May 27th, at 3.30 p.m. Members wishing to bring any matter before the meeting will please notify the Honorary Secretary not later than May 14th. Members who intend joining the Defence Department, and who have not yet sent in their applications, are requested to do so as soon as possible.—W. J. Greer, Newport, Honorary Secretary.

South Wales and Monmouthshire Branch: South-West Wales Division.—The first annual general meeting of this Division will be held at Slipney Hotel, Llanelly, on May 31st, at 3 p.m. Gentlemen who wish to read papers, or who have any communications to make, will please communicate immediately with the Honorary Secretary, Glanville Morris, Mardy, Glamorgan.

South-Western Branch.—The nomination of candidates for the office of elective members of Council (Branch Representatives on the Central Council) for the ensuing year, must be made by three electors, and in writing, on or before May 21st, to the Honorary Secretary of the Branch, Mr. C. Young Eales, 1, Matlock Terrace, Torquay.

Staffordshire Branch.—Notice is hereby given that nominations of a Representative of this Branch on the Central Council of the Association must be sent to me on or before Tuesday, May 24th.—E. Petgrave Johnson, Brook Street, Stoke-on-Trent, Honorary General Secretary.

Staffordshire Branch.—The annual meeting of this Branch will be held at Wolverhampton, on Thursday, June 9th.—E. Petgrave Johnson. Brook Street, Stoke-on-Trent, Honorary General Secretary.

Worcestershire and Herefordshire and Gloucestershire Branches.—Nominations for the election of a Representative on the Central Council for these grouped Branches must be sent, signed by three members, on or before May 31st, to Dr. G. W. Crowe, Worcester, Honorary Secretary.

SPECIAL CORRESPONDENCE.

PARIS.

Société Médicale des Hôpitaux: The Treatment of Incontinence of Urine by Lumbar Puncture. — The Death of Emile Duclaux.—Magdeleine: The Translation of Music by Gesture under Hypnotic Influence.—Typhoid Fever in Paris.

At a recent meeting of the Société Médicale des Hôpitaux Drs. Babinski and Boisseau made an interesting communication on the treatment of incontinence of urine by lumbar puncture. Two patients were presented who had been cured by this means. The first was a young girl of 17 years, who had suffered from nocturnal incontinence since the age of 7. After a lumbar aspiration of 15 c.cm. the patient had no incontinence for eight days; from the ninth to the thirteenth day she had incontinence twice. A second lumbar puncture was then made. The fifth and seventh day after this second puncture the patient again had incontinence, but from that time, or for the past two months, the patient had not had a single involuntary micturition. During three months, therefore, she only had incontinence on four occasions. These were during the first month, while in the last two months she had been perfectly free from her infirmity. The second patient was a syphilitic, who had suffered for two years from organic spasmodic paraplegia and incontinence of urine and faeces, the incontinence being due to paralysis of the sphincter of the bladder. Eight days ago lumbar puncture was performed, 15 c.cm. of fluid being withdrawn; since then the incontinence had disappeared. The patient felt the desire to urinate and was conscious of the passage of urine. Two other patients of the same class had been observed. One, a child aged 14, had incontinence of urine night and day for a month and a-half, which had resisted treatment with belladonna. On January 14th lumbar puncture was performed and incontinence disappeared. From March 16th to April 15th nocturnal incontinence reappeared, but only every three or four nights, and had disappeared since this latter date, upon which lumbar puncture was performed a second time. The other patient, suffering for one year from spasmodic paraplegia, had had incontinence of urine for one month when he was punctured. This incontinence yielded to a single puncture, and the patient had been able to retain her urine during the fortnight which had since elapsed. In an ataxic patient who had had incontinence for four years, lumbar puncture gave no result, but the incontinence had ceased for fifteen days three years previously after a pu made on his entry into hospital for a cytological exami Drs. Babinski and Boisseau, without being able to expla lumbar puncture affects the incontinence, suggested it form an excellent treatment for this affection, and that advisable to carry on further research in this direction.

French science has suffered a great loss by the sudde on May 3rd of Emile Duclaux, Member of the Institute the Académie de Médecine, and Director of the Paste stitute, which position he was called upon to fill at the of Pasteur in 1895. Duclaux was born June 24th, 18 Aurillac (Cantal), where, after brilliant studies at th college, he had helped his father, a bailiff. He then w the Ecole Normale, and it was during his studies that P remarked and chose him as his collaborator in his rese on silk-worm disease. After teaching chemistry at Cl and at Lyons, Duclaux was appointed Professor of P and Meteorology at the Institut Agronomique in 1879. I he was appointed Professor of Biological Chemistry Sorbonne. The name of Duclaux will remain assc with a number of works on microbiology. As lon as 1882 he wrote a book entitled *Ferments and L* which called attention to the approaching revo of creed as to the etiology of infectious diseases 1887, under the patronage of Pasteur, Duclaux fo the *Annales de l'Institut Pasteur*, in which he h wrote a series of critical articles and reviews. In 18 began to publish his chief work, the *Traité de Microb* in four volumes. In 1896 he published the interestin graphy of his master, *Pasteur. Histoire d'un Esprit.* Du showed the same zeal as a citizen which he had show scientist, in support of justice and truth. He took a portant part in the Dreyfus affair, and in collaboratio Emile Zola, Trarieux, and Pressensé, carried on an campaign; as one of the founders of the Ligue des Dro l'Homme, he was tried on the charge of being a membe unauthorized association. It was during one of the me of the League two and a half years ago that he was down by a first attack of apoplexy; gradually he got b and was again able to attend to his multiple duties seemed to have entirely recovered when this second an attack occurred.

At the Theâtre des Mathurins recently Professor M of the Ecole de Magnétisme, presented to the public remarkable patient of his—Magdeleine—who, whi hypnotic sleep, translates, as it were, by gestures the of music, either played or sung; she also acts when pla read to her. There is an immediate correlation betwe gesture, attitude, expression, and what she hears. The notable point in her condition is the impression produc her in so special a manner by music, her body becom sort of mechanism, responding to every emotion whic music conveys to her exaggerated nervous sensibility, a pressing by most striking poses every feeling of passion, joy, grief, and voluptuousness. Her father is Swiss, an mother a Caucasian. Having a superb voice, she st singing, and obtained a first prize at the Conservato Geneva. Her education, character, and temperament dicated a theatrical career, but it is said that an invi fear of the public and an awkwardness in her gait hitherto prevented her appearing in public. She has a had excellent health, with the exception of persistent aches, for which she consulted Professor Magnin.

The typhoid fever epidemic is now rapidly coming end. During the first week of March, when it was maximum, 158 fresh cases were notified. The following shows the cases and deaths notified during five weeks:

	Cases.	Deaths.
Week ending March 26th...	... 106	... 24
,, April 2nd ...	... 76	... 16
,, ,, 9th ...	... 77	... 14
,, ,, 16th ...	... 60	... 10
,, ,, 23rd ...	... 29	... 5

SYDNEY.

Leprosy in New South Wales.—Purifying the Milk Supp The Bubonic Plague.—The Declining Birth-rate.—The Guinea Expedition.

Dr. Ashburton Thompson, the Principal Medical Offic the Government, has just issued his annual report (190 leprosy in New South Wales. During that year 10 pe were reported to the Board of Health as suspected le and 9 of these were subsequently admitted to the

under the usual medical certificates. At the close of r 15 patients remained in the lazaret, of whom 9 hites; of these 5 were natives of New South Wales, naainder natives of different European countries and a. Of the coloured inmates of the lazaret, 4 were , 1 a Javanese, and 1 a native of the New Hebrides. orts of the history and condition of these patients on on to the institution are appended to the report. t of maintenance amounts to about £142 a head per

me years past a careful watch has been kept on the pply of Sydney. During the last two and a-half years prosecutions have been instituted, with the result practice of putting preservatives into the milk is g less and less common. All the year round samples are taken by the officers of the Board for analysis, milk vendors are entirely ignorant as to when the will be taken. While 44 per cent. of the samples the year 1901 were found to be adulterated, in 1902 entage dropped to 22, whilst for the first ten months only 4 per cent. of the samples were proved to be ted. Some forms of preserved milks are still ted with preservatives, and the Board are contem- some action against the manufacturers.

an interval of nearly eight months, bubonic plague n appeared in Sydney. On March 7th a mouse taken neighbourhood of Darling Harbour was found to be with plague bacilli; two days later a rat found in district was also found to be plague-infected. On day a case of plague in a boy employed in a produce this district was reported to the Board of Health, patient was at once removed to the plague wards at t Hospital. It appears that the patient had been l in removing some dead rats from the premises to d it is pretty certain that he received the infection rom these infected rats. The place where the rats nd is close to a wharf where vessels trading to nd ports frequently berth, and large quantities of d produce are handled on this wharf. Dr. Ashburton n is of opinion that the infection has thus been ced from Queensland by rats. As plague has been for some time past in Queensland, strict pre- have been taken in the case of vessels arriving with from Queensland ports, and a considerable amount ling has been aroused in consequence of these ns on inter-State trade. The outbreak of plague y, in spite of all the precautions taken, shows how it was to insist on the plague regulations being in the case of vessels arriving from the neighbour- So far no further cases have been reported, and rt is being made to destroy the rats and mice in all ne city and suburbs.

ious decline in the birth-rate in Australia, to which was drawn by Mr. Coghlan, the Goverment Statis- me months ago, led to the appointment of a Royal on, consisting of the Hon. Dr. C. K. Mackellar t), Sir Normand MacLaurin, Drs. Foreman, Paton, nd Nash, and seven laymen. Their report has re- n presented to His Excellency the Governor, and ifty-four pages of printed matter, exclusive of the diagrams, etc., which are to be published in a olume. The report shows that there has been a ed and steady decline of the birth-rate since the In that year there was a sudden remarkable fall, g to 2.23 per 1,000, followed by a continuous and ine, until in 1902 the total decline had exceeded 10 During the period 1889-1902 there has been a rise arriage age, from which a very slight fall in the might be expected to follow. But the principal ne deliberate interference with reproduction. Some facts are given in this report as to the in- ffects of the use of preventive pessaries and ractices upon the health of the woman, and se in the insanity-rate is shown to be coincident decline in the birth-rate. A large number of sug- re offered by the Commission with a view to check ne and to prevent the present high rate of infant Among these suggestions are: Increased public ccommodation, amendment of the Public Health rtain respects, licensing of all lying-in homes and spitals, making indictable the procuring of abortion, of an administrative body to be entrusted with the on and certification of obstetric nurses, prohibition of all the various preventives and the suppression of all advertisements relating to the same, amendment of the Poisons Act so as to prevent the distribution and sale of abortifacient drugs, proper provision of sanitary accommodation in all buildings in which women are employed, prohibition of the sale or display of obscene or indecent literature and the publication of improper advertisements, and settlement of the people on the land, in order to check the tendency to the concentration of the population in the towns. In the section of the report dealing with infantile mortality a large number of valuable suggestions have been made in the way of instructing the general public as to the feeding and care of infants. Among these suggestions are the distribution of printed instructions on infant feeding, the instruction of girls at school in the same subject, the regulation and control of advertisements and sales of artificial foods, the prohibition of preservatives in such funds and also in milk, the establishment of municipal milk dépôts, increased hospital accommodation for sick infants, supervision of infants' homes and the reception of the mother as well as the child into such homes, control of persons taking charge of children under the age of 3 years for the purpose of gain or reward, and the compulsory registration of stillbirths. The Commissioners also lay stress on the necessity for a more satisfactory registration of births and deaths; and, in considering the relation of operative surgery to sterility, they conclude that while the advance in knowledge made by that branch of practice has made it more useful to society, it has not contributed to the decline in the birth-rate. The publishing of this report has given rise to an enormous amount of newspaper correspondence, the general tendency of which is to show pretty clearly that the Commissioners have hit the nail on the head in declaring that the deliberate prevention of conception is the main cause of the decline in the birth-rate. It remains to be seen what effect the report will have in checking this serious evil.

Dr. Seligmann, a member of Major Daniels's New Guinea expedition, contracted some form of malarial fever in the Fly River district of New Guinea, and has returned to Sydney to recuperate. He is at present under treatment in a private hospital, but is progressing favourably, and expects to return to New Guinea in the course of a few weeks.

MANCHESTER.

Relative Density of Population in Manchester and London Areas.—Owens College Bill Passed.—New Public Health Laboratory.—City Coroner's Court.

On comparing the density of the population in and around London and Manchester, it appears that in 1901 about 6,500,000 persons were living within a thirty-mile radius of London, while within a similar radius of Manchester Exchange there were only about 5,500,000. If a radius be taken of forty-five miles, it gives 8,000,000 for the Manchester area and 7,000,000 persons within a corresponding area with Charing Cross as its centre. Brighton within fifty-one miles of London is the nearest single town of 100,000 inhabitants. Within a circle of forty-five mile radius round Manchester there are Liverpool, Sheffield, Bradford, Oldham, etc.

The Bill for merging Owens College in the Victoria University of Manchester has passed both Houses of Parliament, and now only awaits the sign manual of the King to become law. The name Owens College will still be retained for the buildings, and these will, as it were, be the habitat of the University.

Recent developments in connexion with the Infirmary on the one hand and with the University on the other have necessitated very considerable changes in the Public Health Department in connexion with the University. The Laboratory of Public Health, founded a few years ago, has to give place to the new infirmary, and already a new laboratory has been begun, which it is hoped will be ready for work in October. The increase in public-health work, both in connexion with the University and with the Corporation of Manchester and surrounding corporations, has made it necessary greatly to enlarge the laboratories. With a new degree in public health and the new diploma in veterinary medicine, much more space will be required, and this has been amply provided for in the new laboratory, which is being erected on a site close to the proposed new infirmary. Already a considerable sum has been obtained to pay for its erection.

At last it appears that the City Coroner is to have a more suitable room for his work. Proper accommodation will be found in the new fire and police station which is being erected in London Road,

CORRESPONDENCE.

QUEEN'S COLLEGE, CORK.

SIR,—My attention has been called to the report of observations made by me at a dinner of graduates of this College in London, which appeared in your issue of April 16th, to the effect "that the number of entries in the medical school of last year was larger than that in any other school in Ireland, save that of Trinity College, Dublin." I may at once say that the statements which, according to this account, I am represented as having made are inaccurate, and not in accordance with the ideas which I had in my own mind at the time, and which I intended to convey, but which possibly I did not express sufficiently clearly.

The shortest way to set the matter right will be if I furnish the annexed table extracted from those given by the General Medical Council in their annual lists:

	1902.	1903.
Catholic University Medical School, Dublin	72	61
School of Physic Trinity College, Dublin	45	41
Queen's College, Belfast	35	58
Queen's College, Cork	45	35
Royal College of Surgeons	25	27

At the time I made the observations in question the contents of the last column in the above table had not come to my knowledge, and when I spoke of "last year" I naturally referred to our last College session of 1902-3 corresponding so far as these figures are concerned to the year 1902 of the General Medical Council lists, and the idea I wished to convey was that in that session Cork occupied with Trinity College the second place in the list as I stated in my last report.—I am, etc.,

ROWLAND BLENNERHASSETT,
Cork, May 5th. President, Queen's College, Cork.

PROFESSOR DUNBAR'S ANTITOXIN AGAINST HAY FEVER.

SIR,—I receive so many inquiries with regard to the use of Professor Dunbar's hay fever antitoxin during the forthcoming hay fever season that you may, perhaps, accord me a short space to give general information so far as I am able to.

My paper on Impressions of the Efficiency of Professor Dunbar's Antitoxin in Hay Fever, which appeared in the BRITISH MEDICAL JOURNAL of July 18th, 1903, represented the sum of my observations during last year's hay fever season, and this year's season not having yet begun, I can of course not add anything from personal experience to the statements then made. Meanwhile, however, Drs. Lübbert and Prausnitz, Professor Dunbar's assistants, have published in the *Berliner klinische Wochenschrift* of March 14th and 21st of the present year a paper, in which they attribute the want of success of the remedy in the hands of several observers to the fact that it was not used nearly frequently enough during the hay fever time. They recommend that the remedy, in its fluid form for the eyes and in its new powdered form for the nose, should be used regularly as a prophylactic measure, the first application to be made immediately after waking, and further ones, particularly when the patient has been in the open air, as soon as the least irritation is felt. The frequency of the applications will thus of course vary considerably in every individual case; but it is obvious from their statements, as well as from my own experiences of last year, that as long as the applications be made to the eyes and nose only and no subcutaneous injections be resorted to the remedy is perfectly harmless. They further insist that no serum bottle ought to be used longer than one week at the utmost, as after that time decomposition of the fluid takes place.

The remedy is sold under the name of "pollantin," and by this time most chemists will very likely be in possession of it. At any rate, it is obtainable from Messrs. Bullock and Co., 3, Hanover Street, Hanover Square, W.

One point on which Drs. Lübbert and Prausnitz very strongly insist is that the patient should during the hay fever period sleep with doors and windows closed.

With regard to further details I must refer to the original.—I am, etc.,

London, W., May 9th. FELIX SEMON.

THE FEE FOR RESTORATION TO *MEDICAL REGISTER*.

SIR,—In answer to your correspondent, "Index," who, the BRITISH MEDICAL JOURNAL of May 7th, raises the question as to the legality of the fee of one pound which the General Medical Council charges for "restoration," I beg to reply as follows:

A member of the profession who for any cause ceases to be upon the *Register* is exactly in the same position as one who has never registered at all, and to gain access once more to the *Register* he has to make application for "restoration," which application however is really one for registration pure and simple.

Under Section XV of the Medical Act, 1858, the Council is empowered to claim a fee not exceeding £5 for registration and might if it so choose claim that full sum for "restoration," but fortunately for the members of the profession whose names have been erased, the sum fixed at present is the lesser amount of one pound, and that amount "Index" will find is neither illegal nor improper under the Act.—I am, etc.,

London, W., May 7th. A. GEORGE BATEMAN.

THE STATE REGISTRATION OF NURSES.

SIR,—It is somewhat strange that Mr. Sydney Holland should commenced this correspondence by describing the objections made by certain ladies as "silly sneers," should be tremulously anxious to be treated "civilly" himself, and opened a discussion in the BRITISH MEDICAL JOURNAL which has been answered; and the only rejoinder he can make is to indulge in mock heroics over some imaginary "rude" speech and an equally irrelevant and equally imaginary conversation with a hypothetical homoeopath.

It is to be hoped that the few medical men who have been persuaded to give their honoured names as opponents to registration of nurses will compare the powerful arguments advanced by Sir Henry Acland, Sir James Paget, Sir William Savory, and others in favour of that measure of protection to the public, and of bare justice to well-trained nurses, with the sentimental suggestions and suppositions upon which the present opposition to it is apparently based. It is specially noteworthy that its opponents do not attempt to deny the very serious evils now prevalent in the nursing world, nor the consequent need for reforms: and that they tacitly admit that they have done nothing to assist, but everything they can to retard, such reforms being effected.

Permit me to add that I yield to no one in admiration of the remarkable work Mr. Sydney Holland has done for the London Hospital; and this makes me regret the more that he has not fully appreciated the public importance and professional significance of this nursing movement. It has been in progress for seventeen years; those who have been directing it have deprecated undue haste and all needless publicity as there were many novel problems to consider, many facts too grave to lightly publish. But a steady organization has been going on during those years, all over the world. In less conservative countries than this. Nursing Acts of Parliament have been already passed; and now it is believed that sufficient knowledge and sufficient support has been accumulated to render it advisable, *pace* Mr. Holland, that a Parliamentary inquiry should be held into the whole nursing question, and to make it certain that such an inquiry will be followed by legislation.—I am, etc.,

London, W., May 9th. BEDFORD FENWICK.

BLOOD-PRESSURE INSTRUMENTS.

SIR,—I have just seen Dr. Mackenzie's criticism of blood-pressure instruments in the BRITISH MEDICAL JOURNAL of April 23rd. Dr. Mackenzie says he never could make out by what process of reasoning the force necessary to attain the maximal excursion (of the Hill-Barnard sphygmometer) is supposed to represent the mean arterial pressure." The theory that an artery pressed upon will give a maximal pulse when the pressure applied to it is sufficient to empty it in diastole while allowing it to fill in systole, does not seem to me a difficult one, and has not been questioned by physiologists. The question is how far the instruments hitherto invented are capable of correctly indicating the maximal pulsation.

Dr. Mackenzie says "a little consideration will convince any thinking man that the tissues (muscles and fat, etc.) do not act like a fluid, for if they did the pressure exerted would be reflected all over the body." This is an asser-

rary to physical ideas that I will leave it to Dr. zie to prove at his leisure.

lackenzie say, "supposing one did get an accurate of the pressure within an artery, what is its signifi- Is it supposed to be a record of a pressure within the terial system? An idea seems to be prevalent that ure within one artery, whatever its size may be, is l, the pressure within all the other arteries of the body e the same." As to the significance of the arterial , I must refer Dr. Mackenzie to the textbooks of gy. Physiologists have proved by experiment that sure in all the larger arteries is practically the same as an animal is placed horizontally so as to cut out ence of gravity. Friction has little effect in lowering sure until the arterioles are reached.

ted the Hill-Barnard sphygmometer by applying it ck of a dog, while we recorded the arterial pressure dinary way with a Hg. manometer. We found we tell the mean pressure by the index of the maximal n correctly within a few millimetres.

naller sphygmometer, applied to the radial artery, the same readings as the larger instrument applied rachial artery. The interposition of layers of wool the pad of the former instrument and the artery difference to the readings. We concluded from this s of fat made no difference. With our instruments able to detect changes in pressure due to gravity.

are the experimental observations on which we based racy of the instruments. Our experiments may have ng, and if so Dr. Mackenzie can repeat them and s, but I am not willing at present to accept his con- n, which is largely based on physical misconcep- In the clinical use of sphygmometers I have had no e, but I can predict that in certain cases the instru- ust fail to give accurate readings.

h instruments have a certain period of action; a Hg. er, for example, has a very long period; it is too ecord systolic and diastolic pressures. In cases of lia with very rapid pulse the sphygmometers are too slow to follow the rapid variations in pressure. e variations of pressure in aortic regurgitation are that the instruments would not have time to follow n both these cases the instruments would indicate a of equal height over a large area of pressure. e sphygmometer cannot be used on rigid tubes, and must fail in cases of sclerosed arteries, when the nnot be swiftly compressed in diastole. Excluding s, I believe the maximal pulsation instruments pro- d give fairly accurate readings.—I am, etc.,

, May 9th. LEONARD HILL.

TREATMENT OF INEBRIETY BY DRUGS.

should be much indebted to any member of the n who would tell me of a thoroughly well-managed institution where the treatment described by Dr. is being carried out under constant medical super- The Legfield (Hayden) cure at Liverpool seems to considerable success, but the drugs used there are r as I am aware, made known, and it is impossible people to submit to treatment the nature of which eret.—I am, etc.,

V., May 10th. E. GARRETT ANDERSON, M.D.

ave read with much interest the articles which ap- the BRITISH MEDICAL JOURNAL dated April 30th above subject. I do not wish to unduly disparage ns set forth, or to severely criticize the results t, in order that the profession may not take too v of this method of cure, I would like to state the ve formed after three and a-half years' experience atment of inebriety, and to submit certain facts ereto.

y is essentially a disease in which the seat lies in logical part of the brain. The centres for self- degenerated, and the centres for desire react ab- o alcohol; such being the case, it is absolutely im- hat a drug can act upon these centres to restore heir natural functions. It is just as reasonable to rug administered could produce a dislike to one's uthor.

lieve, this drug treatment may do is, first, to assist effects of the disease by enabling to build up the patient's physical strength; and, secondly, to create a faith cure by trading on the patient's credulity.

In regard to the first effect, is not the treatment more rational if a patient by fresh air, nourishing and regular diet, and nerve tonics given him by the mouth, has his strength restored? There is certainly no risk of teaching a patient the habit of hypodermic injecting.

In regard to the second effect, this faith which is implanted in the patient's mind if shattered, is it not reasonable to suppose that the patient is left in a more helpless state than before his cure was thus attempted. This has certainly been my experience, gained from those who have undergone those cures.

Why is it necessary that the patient must be willing to be cured if atropine will cause an aversion to alcohol? Is the action of the drug dependent on the patient's will? If so, it is the first time I have found the physiological action of a drug can thus be interfered with. A great many inebriates and morphinomaniacs cannot tolerate atropine in the smallest quantity; they therefore I suppose according to this method must be termed incurable.

The foregoing are my opinions, gained by experience. Let me now give you a few facts. During the last three and a-half years I have had under my treatment 108 inebriates; eighteen of those had undergone previously one of the so called drug cures (16 per cent.); several of those cases had undergone the drug treatment more that once. On analysing these cases I find they were not all incurable under what I call rational treatment, as you will see by the following table:

Cured	...	4 = 22 per cent.*
Relapsed	...	4
Not traced	...	2
Died... ...	...	5 = 27.7 per cent.
Still under treatment ...	...	3

*By cured I mean they have been at least a year since leaving, total abstainers.

The notable features of this table are (1) that 22 per cent. were cured by another method than the drug method which had failed; (2) 27.7 per cent. had died. Of the 91 cases who have not undergone the drug treatment 7.3 per cent. have died. This is a remarkable difference.

Lastly, I would state that I believe there is no royal road or short cut to the cure of inebriety, but it takes a long time of patient perseverence on the patient's behalf. In a remark made in one of the articles the writer would lead one to believe that patients sent to a retreat are cooped up and confined until they leave, and then at once fly back to their old habit. In a well-managed retreat this is not the case. Patients are given, judiciously, opportunities of exercising their self-control, and, as they prove themselves able to resist temptation, perfect freedom is gradually restored to them.—I am, etc.,

JOHN Q. DONALD, L.R.C.P., L.R.C.S.Edin.

Colinsburgh, Fife, May 9th.

THE ASSOCIATION OF DIPLOMATES OF THE ROYAL COLLEGES OF PHYSICIANS AND SURGEONS OF EDINBURGH.

SIR,—May I ask you for space in the BRITISH MEDICAL JOURNAL to state that the general meeting of the above Association will be held at 20, Hanover Square on May 19th at 4 p.m. Circulars are being sent to diplomates in London and the provinces, but as some may not receive them will they kindly accept this as an invitation to attend?—I am, etc.,

C. ST. AUBYN-FARRER, President.

London, W., May 10th.

THE ASSOCIATION AND MEDICAL DEFENCE.

SIR,—As a general practitioner and a member of the Association and the Medical Defence Union, may I be permitted to mention a few points in opposition to the Association taking on medical defence?

First, the funds of the Association would not be available, as some think they would be, for medical defence, but a separate fund would have to be created, such as money borrowed on the security of the guarantors, at interest, and the payment of such interest would be a serious loss to any defence funds.

Secondly, the Medical Association is all very well as a scientific body, and useful, further, in deciding ethical questions with regard to the conduct of its members and in setting an example of tone to the profession generally, and beyond that province it is doubtful whether it should seek to go.

Thirdly, by far the greater number of medical men in Great

Britain and Ireland are not members of the British Medical Association, and a large number of subscribers to the Medical Defence Union are not members of the Association. Would these medical men, then, be without medical defence, or would they be driven thus into the Association? Such a course would be the result of unfair pressure and savour of trades unionism.

The Medical Defence Union has done and is doing excellent work. It is much respected and not a little feared in legal circles. Opposition is a good thing, and should a large body like the Medical Association—by no means famous for its business-like character—monopolize medical defence, it is by no means sure that the humble medical practitioner would receive fair consideration—as he does at present in defence—by a body governed to a great extent by consultants and specialists.—I am, etc.,

Bristol, April 19th. JOHN WM. TAYLOR.

P.S.—It is worth remembering at this juncture that it was from the British Medical Association came the suggestion that medical men should be forbidden to dispense, which would mean ruin to many of us. To prevent such a crisis the Medical Defence Union would have been of the greatest use.

*** The statement that "By far the greater number of medical men in Great Britain and Ireland are not members of the British Medical Association" cannot be allowed to pass unchallenged. According to the *Medical Directory* for 1904 the total number of practitioners resident in Great Britain and Ireland was 30,409, and from the statistics submitted by the General Secretary to the Medical Defence Committee of the British Medical Association (SUPPLEMENT to the BRITISH MEDICAL JOURNAL, January 30th, 1904, p. 10) it was shown that the number of members of the Association resident in England and Wales was 11,966, in Scotland 1,812, and in Ireland 941, making a total of 14,719. Taking the crude figures it will be seen that of the total number of members of the profession shown in the *Medical Directory* as resident in the United Kingdom 48.4 per cent. are members of the Association. The *Medical Directory* contains the names of a considerable number of medical men who have only recently registered and are holding resident appointments in hospitals, or for other reasons have not yet settled down in practice.

Our correspondent is further in error in stating that it was from the British Medical Association that "came the suggestion that medical men should be forbidden to dispense." The proposal was made at a meeting of the Central Division of the Metropolitan Counties Branch, held on February 17th, by a private member on his own responsibility. The proposal was seconded *pro formâ* by the Honorary Secretary of the Division, and after discussion was lost by a large majority, only one person voting in its favour. Our correspondent might have seen this for himself in the BRITISH MEDICAL JOURNAL of February 20th, p. 446. May we hint that he will do well in any future excursions into the region of controversy to follow the advice of the venerable Oxford scholar and verify his references?

TESTING THE EYESIGHT OF A NATION.

SIR,—Your correspondent, Dr. Henry, commences his letter with an error in regard to the Optical Society which has already been pointed out by the *Times*, and perhaps you will allow me to do the same here. The "Optical Society" has nothing to do with sight-testing schemes, diplomas, examinations or the circular quoted in the BRITISH MEDICAL JOURNAL of April 16th under the above heading. The *Optician and Photographic Trades Review* has also denied the paternity of the circular, so it can only be assumed that it was issued by the authority of the Worshipful Company of Spectacle Makers, whose scheme for granting diplomas in sight testing it was presumably intended to advertise.

As a practical optician, may I state that this scheme has not by any means the general support of the leading retail opticians? The agitators in favour of this diploma were largely of the class of chemists, jewellers, and those who call themselves optologists, who sell spectacles as a side line to businesses which are not generally optical. The leading scientists who are represented as having supported the proposal were, I can only conceive, induced to do so under the impression that the opinions of the gentlemen who were to be examined by the Committee of Inquiry presided over by Sir George Faudel Phillips would be acted upon. Yet every medical man who gave evidence gave advice which was not in accord with the course which the Company has adopted. I by many of the leading members of the industry th diploma which does not receive the support of at lea section of the medical profession is sure to be looke with suspicion, and if the matter is not pushed along it is quite possible that some other solution of the di satisfactory to both opticians and the medical professi be arrived at.

The fact that opticians have tested sight when sup spectacles ever since those useful aids were invented is question; that until the last few years this was done ligently and without any objections from the ophth surgeons, who were also neglectful of this branch o practice, is admitted. That during the past twenty opticians have greatly improved their methods cannot denied, and that they are now every week correcting factorily thousands of cases of errors of refraction is proved. The objections of the ophthalmic surgeons t doing this is based upon insufficient knowledge of wh really being done: they do not come in contact with th testing optician, know little of his ways and consequ pronounce him anathema on the strength of an occa miscalculation, a fault which is not absolutely unkn their own profession.

Between the ordinary medical practitioner and the o the case is different; many opticians will bear me out say that it is a matter of everyday occurrence for doct send patients to the opticians to be fitted with glasses medical practitioner of the present day has general some experience in the ophthalmic ward of his hospit is frequently quite capable of diagnosing whether his p is suffering from a disease requiring special treatm whether it is simply a case of refraction. If it is the l is reasonable that he should refer the case to an optician he may know to be well up to his work and not comm patient to the expense of a physician's fee and the important waste of time of a visit to the West End.

This seems to me to be the line upon which a solu the difficulty will have to be sought. The optician sho encouraged by every possible means to develop his st the science of optics, and every medical practitioner carry his study of eye diseases further than many ap do at present, so that he could decide with confide difference between optical and pathological errors. He then refer his refraction cases to a good optician who be pleased to furnish him with a report, as I am freq doing, as to the glasses he was supplying. This inter between the doctor and the optician would be produc great good and remove many unreasonable prejudices on sides, and the doctor would not have to admit, as he times does at present, practical ignorance of seriou troubles, as his patient would feel that the optician was controlled by him and would wear the glasses with incr confidence.

In conclusion, I may say that I think greater freed intercourse might be brought about by membership Optical Society. It would then be found that the optic a sensible man, frequently of considerable scientific a ments, and desires nothing in the shape of unfair compe It is a scientific society, one of its objects is to promote course between those interested in optical matters. M T. Glazebrook, D.Sc., F.R.S., Director of the Na Physical Laboratory, is its President, and the meeting is 20, Hanover Square, W., the home of the Royal M and Chirurgical Society. The honorary secretary is M Salt.—I am, etc.,

London, W.C., May 15th. JAMES AITCHIS

SOUTH AFRICAN CIVIL SURGEONS' FOURTH ANN DINNER.

SIR,—May I call attention in the columns of the B MEDICAL JOURNAL to the above dinner, which will take at the Hotel Cecil on Tuesday, June 28th, at 7.30? Mr. Makins, C.B., will take the chair. Reply cards will be s all those whose addresses are available. Many address not available and many incorrect; hence I take this o tunity of catching the civil surgeon's eye, and I shou glad to hear as soon as possible from all those who i to be present. Tickets, price 10s. 6d., should be for at the dinner. There will be a plan of the table reception room, and members can arrange their seats pr the dinner. Miniature medals and decorations sho worn.—I am, etc.,

London, W., May 11th. C. GORDON WAT

CANCER RESEARCH.

A paragraph in the British Medical Journal re- the attitude taken by the authorities of the Cancer h Fund in relation to quack remedies makes one what is the proper position to be taken by medical o are experimenting with the hope of discovering a cancer. My brother and myself, for example, have perimenting for years before this Research Fund was ought of, and it would never occur to us to take re- ywhere but to the medical profession, but we would y test for ourselves before doing so. What is our while experimenting? It is surely not reasonable s to give details of an incomplete experiment, and if ot do so, are we using a secret remedy? A very small of the medical men we have spoken to on the subject he incompleteness of the experiments and say pub- at least tell us, what you are doing. By far the larger of doctors, and, so far, every lay person, say that it e more than foolish to publish prematurely. Lately ple of open-mindedness was given at several hos- nen the Schmidt treatment—an unknown serum—was fair but unsuccessful trial, and a similar experiment d some years ago with the Mattei treatment; yet we nedical men saying to patients, "Although I believe be beyond all hope, do not go to Dr. So-and-So, ou hear he is trying something new, because what ng is a secret remedy." In effect the advice is, Better an try any experiment with something you do under- I am, etc.,

W., May 10th. Skene Keith.

L ARMY AND NAVY MEDICAL SERVICES.

ROYAL NAVY MEDICAL SERVICE.

ing appointments have been made at the Admiralty: Reginald LD, Surgeon, to the *Medusa*, May 3rd; Charles J. O'Connell, o the *Simoon*, May 3rd; Edward A. G. Wilkinson, Surgeon, to . May 3rd; Arthur F Fraser, M.B., Surgeon, to the *Surprise*, ; Alfred M. Page, Fleet Surgeon, to the *Suffolk*, on commis- May 21st; Jonathan Shand, Fleet Surgeon, to the *Glory*, for Wei-Hai-Wei, May 6th; Henry B. Beatty, Fleet Surgeon, awen, for the *Boscawen III*, May 6th; Lancelot Kilroy, M.B., eon, to Bermuda Hospital, May 6th; Reginald H. St. B. E. Surgeon, to the *Hogue*, May 6th, and to the *Suffolk*, May 21st; H. Knapp, Surgeon, to Plymouth Hospital, May 6th; Norman OHN, Surgeon, to the *Monmouth*, May 6th; Warren G. West- eon, to the *Egmont*, for Malta Yard, May 6th; George F. , Surgeon, to the *Albemarle*, May 6th: Thomas D. Liddle, M.B., the *Exmouth*, May 6th, and to the *Prince of Wales*, May 18th; Mortimer, Staff Surgeon, to the *Pelorus*, May 19th. The nt of John A. Keogh, B.A., M.B., Staff Surgeon, to the *Pro-* s been cancelled.

ROYAL NAVAL VOLUNTEER RESERVE.

J. A. C. Kynoch, M.B., is appointed Surgeon to the Clyde May 3rd.

ROYAL ARMY MEDICAL CORPS.

T-Colonel W. W. Kenny, M.B., to be Colonel on augmenta- 1st. He was appointed Surgeon, August 5th, 1877; Surgeon- ust 5th, 1889; granted the rank of Lieutenant-Colonel, August and made Brigade-Surgeon-Lieutenant-Colonel, August 24th, as in the Afghan war in 1879-80 with the Khyber Line Force ith the Soudan expedition in 1885, including the actions at d Tofrek and the destruction of Temai (medal with two clasps, e's bronze star); and in the South African war in 1899-1900 dal with two clasps).

nt-Colonel W. L. Lane, M.B., retires on retired pay, May 11th. d the service as Surgeon, August 4th, 1878: became Surgeon- ust 4th, 1890; and Lieutenant-Colonel, August 4th, 1898. He record in the Army Lists.

nt M. F. Foulds is promoted to be Captain from April 9th. ommission dates from April 9th, 1901. He was in the South r in 1901-2, and has the Queen's medal with three clasps and medal with two clasps.

nt J. B. Clarke, M.B., is also promoted to be Captain, April joined as Lieutenant, April 14th, 1901. He was in the South r in 1899 1999 with the Imperial Yeomanry, and has the dal with two clasps.

nt D. L. Harding is likewise promoted to be Captain, April rst commission being dated April 26th, 1901. He served in y, south of the Orange River, during the South African war d has the Queen's medal with three clasps.

t-Colonel T. B. Moffitt, who is serving in the Bengal Com- been appointed to officiate as Principal Medical Officer, and Nerbudda Districts.

t-Colonel A. W. P. Inman, M.B., also serving in Bengal, is o officiate as Principal Medical Officer, Oude and Rohilcund

ARMY MEDICAL RESERVE.

aptain H. D. Brook to be Surgeon-Major, April 23rd.

INDIAN MEDICAL SERVICE.

Colonel D. Wilkie, M.B., Bengal Establishment, is confirmed as Principal Medical Officer, Assam District.

Lieutenant-Colonel R. D. Murray, M.B., Bengal Establishment, Professor of Surgery in the Medical College, Calcutta, and *ex-officio* Surgeon to the College Hospital, is appointed to officiate as Inspector-General of Civil Hospitals, United Provinces, with the temporary rank of Colonel, from April 3rd.

IMPERIAL YEOMANRY.

Surgeon-Captain R. Williams, Denbighshire Hussars, resigns his commission, May 7th.

ROYAL GARRISON ARTILLERY (VOLUNTEERS)

Surgeon-Lieutenant P. J. S. Bird, M.D., 1st West Riding of Yorkshire, to be Surgeon-Captain, May 7th.

VOLUNTEER RIFLES.

Hon. Lieutenant in the Army M. J. Maloney, M.B., late Captain, to be Surgeon-Lieutenant in the 6th Volunteer Battalion the King's (Liverpool Regiment), May 7th.

Surgeon-Lieutenant G. F. Whyte, M.B., 1st (City of Dundee) Volunteer Battalion the Black Watch (Royal Highlanders) to be Surgeon-Captain, May 7th.

ROYAL ARMY MEDICAL CORPS (VOLUNTEERS).

William M. Young, M.A., to be Lieutenant in the Leeds Company, May 7th.

Captain J. B. Mann, the Manchester Companies, to be Major, May 7th.

BEARER COMPANY ROYAL ARMY MEDICAL CORPS (VOLUNTEERS).

Mr. James A. Rooth to be Lieutenant in the Sussex and Kent Company, May 7th.

CIVIL SURGEONS AND GRATUITIES.

A Civil Surgeon complains that on severing his connexion with the R.A.M.C. on March 31st last after having been attached to it for three years, he applied for but was refused the gratuity mentioned in Article 601B, Pay Warrant, on the ground that his contract being at the rate of £270 per annum "inclusive," he was ineligible for the grant. He considers he has been hardly treated.

*** We fear that on the technical ground mentioned our correspondent is precluded from the gratuity. At the same time, in view of similar services being probably required in the future, we think it would have been wiser policy to have exercised more liberality in the matter of such gratuities.

THE STATION HOSPITAL SYSTEM IN INDIA.

Doctor Sahib writes: So far as I have been able to find out from actual inquiry among other I.M.S. men, it is only a certain number of senior men who are in favour of the introduction of the station hospital system. The average man continues to hold what we have always hitherto held—that the existence of the regimental system has been our one great boon, the one thing that has made our social life a happy one and our professional life one worth living. We occupy a definite and comfortable position in military society. As independent units we should be no man's children, and our position as honorary members of the mess could never be the well-assured one it is now; we should always feel we were outsiders. It would be the breaking of a tie between ourselves and the staff corps, to give them their old name, such as binds together no two other branches of His Majesty's service.

As an ideal, the station hospital system, with its seniors ready to instruct and encourage the juniors, is splendid; as the real, with its military discipline always running counter to professional feeling, and its seniors, whose position over the juniors depends in no way on their greater knowledge, the station hospital system is a blight on professional keenness. In this connexion the evidence of others who, like myself, have had a month or two of station hospital work before joining the native army, should be valuable. I joined a regiment: for the first time my patients were my own: I needed to ask no man if I might do this or that, and I shall never forget the stimulus to professional keenness my new sense of responsibility gave me. Military discipline exerted in medical professional matters has a deadening effect on professional keenness, and the happy feature of the regimental system is that the only discipline exerted over the doctor is in purely military matters; his professional self-respect is untouched, and can live. Conversely, the bad feature of the station hospital system is its introduction of that medico-military discipline for his freedom from which the I.M.S. man daily thanks heaven.

I confess I am not greatly impressed by the fact that those who want the change are pretty senior men. The senior man has had more time and leisure to develop the service habit of "grouseing" than the rest—a habit of the existence of which I fancy the Editor of the British Medical Journal is fairly well aware.

I do not deny we suffer from disabilities and discomforts. I have been long enough in the service to be aware of them. But some of them are inherent in the position of a military medical officer with native troops, and especially a senior one. It is easy to fall into the fallacy of imagining that the abolition of a particular system would necessarily be the panacea for vaguely-felt discomforts.

If the station hospital system is ever introduced, then shall the sigh of the Indian Medical Service man reach the ear of the long-suffering Editor of the Journal—"Oh, for the good old days of the regimental system, when the doctor was 'one of ourselves' in the mess and not the outsider he is now; when he was in touch with the Sepoys and knew their ways; and when the regiment was proud of him! He was *the* 'Doctor Sahib' then. And who is he now?"

MEDICO-LEGAL AND MEDICO-ETHICAL.

RETURN CASE OF SCARLET FEVER.

ON April 29th and 30th an action for damages against the Metropolitan Asylums Board was heard before Mr. Justice Ridley and a special jury in the King's Bench Division, of which the following details are summarized from the *Times* report.

The plaintiff's case was that his son Arthur, who was removed to the Grove Hospital, Tooting, on March 29th, 1903, suffering from a slight attack of scarlet fever, had been sent home on May 9th, or three days under six weeks from the date of his removal, that he had a nasal discharge and was desquamating slightly on his return, that as an alleged consequence of his return in this condition his mother sickened with scarlet fever on May 16th, and was removed to the Western Hospital, Brompton, two days later; that on May 19th another son, aged 19, also sickened, and was sent to the same hospital: that the nasal discharge from which the original patient suffered lasted until about the end of June and that on the 1cth of that month two other children showed signs of scarlet fever and were removed to hospital; that after the occurrence of the first cases the premises of the plaintiff and the patients' clothes were duly disinfected by the local authority. Upon these facts plaintiff claimed that he was entitled to special damages, owing to the continuance of scarlet fever in his house through the negligence of the defendants. The latter denied that any negligence had been shown or that the boy Arthur had infected the rest of the family. Evidence in support of the plaintiff's case was given by the plaintiff himself, his wife, his son Arthur (the original patient), three other sons, who were subsequently infected, and also by a neighbour. These witnesses, with the exception of Arthur, stated that the boy's nose was running on his return home. Arthur, however, stated that he was brought home on the top of an omnibus. that his nose was not running when he left the hospital, although it had been doing so some days before; it only recommenced some days after his return. The case was then adjourned. On its resumption next day evidence was given by Dr. E. A. Miller, who said that Arthur Wright was sent into hospital on March 29th on his advice, and that he did not see him again until May 23rd, or about a fortnight after his return from the hospital; at that date he was still peeling on his hands and feet, and had swollen tonsils and a purulent discharge from the throat. He considered that both the wife of the plaintiff and his other son aged 19 caught the disease from this boy. He considered it improper to allow a patient to go home while there was a nasal discharge, and thought that infection possibly might be communicated by a desquamating skin; desquamation, however, might continue for many weeks, and if the bed card shown to him was correct it was quite proper for the authorities of the hospital to have discharged the patient on May 9th. It was possible that the two latest patients caught the disease from their father, who was slightly infected.

The Medical Officer of Health for the Borough of Wandsworth gave evidence as to the steps he had taken. He considered it quite possible that the patient Arthur infected the other persons; slight desquamation was no evidence that the boy was infectious; it might go on for weeks; the doctor attending the patient in hospital was the only person who could say when he ought to be discharged.

Upon the termination of this evidence, the defendants' counsel said that the defendants were relieved by the evidence given for the plaintiff from any medical difficulty in the case; the medical witnesses agreed that if the bed card were correct it was quite proper to let the boy go out of hospital. From that card it was clear that the boy was examined on May 5th, 7th, and 9th, and that on these dates his nose, ears, and throat in particular were examined. The boy himself admitted that his nose was not running the day he left the hospital, and the counsel submitted that as the boy went home outside an omnibus on a day when an east wind was blowing nothing was more likely than that he should catch a cold and develop a nasal discharge. The case had been carefully inquired into by the defendants, and during such inquiry the statement had been made by the plaintiff's eldest daughter that the cold did not come on until two or three days after the patient came home. It was quite clear, in short, that when the patient left the hospital he had no nasal discharge.

Dr. Beggs, medical superintendent, gave evidence in support of the counsel's statement, and at this stage the jury stopped the case, stating that they considered that no case of negligence had been made out. Verdict and judgement accordingly were then entered for the defendants.

A RHEUMATISM "CURE."

IN Cardiff County Court, on May 5th, the Good Health Alliance Company was, according to the *Western Mail*, defendant in an action for £50 damages brought against it by one of its patrons. It was stated in evidence that the latter purchased from the company a pair of "foot drafts" advertised as a harmless cure for rheumatism. After wearing them, however, for about a week apparently, his feet became so blistered that he was crippled for about six weeks, and unable during that time to follow his usual occupation. Medical evidence was given as to the condition of the plaintiff's feet after wearing the plasters, and the opinion was expressed that the latter contained tar, and that it was absurd to state that the "cure" could draw uric acid out of the system through the soles of the feet. For the defence, the chemist who manufactured the "foot drafts" for the defendant company stated that they contained no poisonous ingredient. He was followed by a Dr. Boyd, described as a consulting physician in London, who had examined the plaintiff's feet at the request of the company; he found that they had been blistered, but thought that their condition might have been aggravated by walking about; there was nothing sufficiently strong in the foot drafts to, in his opinion, set up poisonous irritation. Two local witnesses testified that they had used similar drafts with advantage. The judge in summing up said that if people chose to purchase patent medicines from advertising companies they probably deserved all they got; but that as the cure was advertised as harmless, and the defendant company did not warn the plaintiff of the results that might follow, it was liable for the damage that accrued. Judgement would accordingly be entered for the plaintiff for £20 damages.

MEDICAL ATTENDANCE ON RURAL POSTMEN IN SCOTLAND.

Y. Z. writes: Appointments of medical men by the Government are being made in Scotland to give attendance and medicines to the rural postmen. My first notice of such a thing was a flourish in the local paper stating that Dr. —— had been appointed by the Government to attend the rural postmen over certain districts. It so happens that I live in a district with a good few branch post-offices, and other districts who live at inconvenient distances, and who are seldom seen by a doctor, have got the appointments. We believe these appointments have been made through influence brought to bear on the Government. The only reason one can see why any doctor should wish for such an appointment is the fact that it may introduce him into a new district and his neighbours' rounds and patients. The payment is miserable—it will not reward a doctor for one visit and medicines for a year to these out-of-the-way districts. On that account the appointment has been refused by some medical men who think it would be mean to be bought by such a trifle. It reminds one of the hard bargains which the socialistic societies, who believe in the levelling-up process, try to get from the needy members of the profession. The Government seem to want to have a lot of information for nothing out of the profession, a little sop being thought sufficient for a great deal of red-tape work. What good is there in such appointments? None, at any rate to the bulk of the men, many already being in societies, and very few will send for a stranger when they can get their own doctor passing every day. If this sort of thing happening in many districts, and if so should the despised ones, in revenge, vote "agin the Government?" I have made up my mind to do so.

MEDICAL FEES AT INQUESTS.

M.—The fee for attendance is 1 guinea; for attendance with *post-mortem* examination 2 guineas. However many attendances may be required at adjournments there is no extra fee. A Bill has been prepared by the British Medical Association, which was printed in the SUPPLEMENT to the BRITISH MEDICAL JOURNAL for February 7th, 1903, p. 8. Should it become law, it will provide for the payment of 1 guinea for each attendance. The medical witnesses' fees are now regulated by statute law (see Coroners Act, 1887, Sec. XXII).

LEGAL CORONER'S DECISION.

A MEMBER (Ireland) forwards us a copy of the *Dublin Evening Mail* in which it appears that at a recent inquest the coroner censured the medical witness because he would not state positively the cause of death of the person dead when he was called to see him. The report states that the coroner observed that if the doctor was not able to give an opinion he would do so himself, and that was that the deceased had died from natural disease. The deceased it appears was 55 years of age, a clerk, and died suddenly and unexpectedly at his office, and, as there was no evidence of foulplay, the death must, in the coroner's opinion, be from heart disease, and he pressed the medical man to give this opinion. The doctor properly declined to say so without making a *post-mortem* examination. The coroner then observed that it was a monstrous thing that a *post-mortem* examination should be made and that he was determined to put an end to such practice in his district.

*** We need hardly say that the coroner was a solicitor, and that he continues in the course that he threatens to pursue a miscarriage of justice is likely to follow, and, possibly, an exhumation of the body. It is the duty of the coroner and jury to establish by clear and undoubted evidence the true cause of death and not to guess at it.

A FRIENDLY SOCIETY AND ITS MEDICAL OFFICER.

A CORRESPONDENT writes that he has been medical officer to a Friendly Society for twenty-four years, and that when elected he had an agreement with the committee that, in event of relations between them being terminated, a three months' notice should be given on either side. He has lately been dismissed without receiving this notice, and is informed that the rules of the Society state that the medical officer may be dismissed "at the pleasure" of that body. He intends to consult a solicitor with the object of taking action at the county court, and would be glad to be advised as to his position.

*** It is to be feared that our correspondent will gain nothing by taking the action he proposes. If the rule be as stated, and was in force the time he was elected, it will be held binding, and the fact that he was unaware of its existence will not help him. The rule, too, will outweigh the verbal agreement.

DOORPLATES ON DOCTORS' HOUSES OF CALL.

A. G. W.—We have on several previous occasions pointed out that in country places medical men are justified in putting up a doorplate at a house of call, although there is no actual tenancy.

MEDICAL ETIQUETTE.

DR. FRANCIS H. STUART writes to us from New York in reference to a note under this heading in the BRITISH MEDICAL JOURNAL for April 16th, page 928: The announcement of the speciality upon the door-plate is not practised in this country, although common in Germany and America. I write to correct the statement as regards America. I have never seen such a door-plate in this country belonging to any member of the profession (?) who was not a "quack," which as you know applies only to medical men who, though sometimes holding a degree—perhaps by purchase—are not recognised by those of regular professional standing. Men who are recognized by their *confrères* as specialists in any line never need such a designation. For a "physician" to adopt such a designation on his door-plate would stamp him *per se* as a "irregular."

PAYMENT OF DEPUTY.

A CORRESPONDENT writes that he has been appointed medical officer for a section of a large railway company on the condition that he make arrangements for prompt medical attendance in a certain district situated at considerable distance from his residence. There is only one medical man in this part, and he wishes to know on what scale he ought to pay him for acting as his deputy. He receives 8s. per annum for each family of the railway employés and 21s. for each confinement.

*** This ought to be settled by mutual agreement, but in equity the resident practitioner might claim to be paid by our correspondent the fees as he would have charged if called in as a private practitioner.

NIVERSITIES AND COLLEGES.

UNIVERSITY OF OXFORD.

gregation held on Thursday, April 28th, the following degrees ferred:

of Medicine.—Thomas Edwyn Cecil Cole, Christ Church. Dr. ssertation was a written work upon "The Clinical Aspects of e Affections of the Nervous System."

r of Medicine and Surgery.—William Edward Blackall, non-e.

UNIVERSITY OF CAMBRIDGE.

Examination for Medical and Surgical Degrees. Part II.—The follow- now satisfied the Examiners in all three sections:

Barclay, M.A., Christ's; H. J. D. Birkett, B.A., Trin.; E. M. wn, B.A., Pemb.; S. Child, B.A., Pemb.; R. A. Clapham, B.A., m.; G. H. Colt, B.A., Sid. Suss.; A. W. D. Coventon, B.A., Trin; L. Cripps, B.A., Trin.; H. M. Davies, B.A., Trin.; R. G. Elwell, , Trin.; H. Falk, B.A., King's; G. R. Footner, B.A., Pemb.; H. Fraser, B.A., Cai.; J. Goss, B.A., Jes.; C. F. Hadfield, M.A., n.; E. Harrison, B.A., Trin.; W. Hastings, B.A., Christ's; G. M. Hine, M.A., King's; H. F. Horne, B.A., King's; W. E. me, B.A., Pemb.; K. H. A. Kellie, B.A., Cai.; J. Lambert, B.A., n.; R. O. Lee, B.A., Emm.; T. C. Lucas, B.A., Cla.; S. M. kenzie, B.A., Trin.; C. W. P. Moffatt, B.A., Cla.; W. M. Molli- , B.A., King's; A. R. Moore, B.A., Cai.; R. F. Moore, B.A., ist's; W. V. Naish, M.A., Emm.; R. G. Northwanger, M.A., Joh; . MacL. Plowright, B.A., Joh.; C. A. W. Pope, B.A., Trin.; H. chbeith, M.A., Trin.; R. H. Robbins, B.A., Trin.; B. H. Stewart, ., Jes.; C. Stiebel, B.A., Trin. H.; G. A. Ticehurst, B.A., Joh.; . Whitting, B.A., King's; R. A. Worthington, B.A., Cla.

ments.—Sir Michael Foster, K.C.B., has been appointed a Manager liour Fund for the Encouragement of Research in Zoology. Mr. sons has been appointed an Examiner in Anatomy. Mr. T. C. k, an Examiner in Physics for medical degrees. Mr. W. B. d Mr. F. G. Hopkins have been appointed Examiners for the ize in Physiology.

—Mr. F. G. Smart, M.B., has offered to found in the University a ip of £100 a year for research in Botany. The offer has been accepted, and the first election will be made in July. The ip is ordinarily tenable for two years.

EDINBURGH UNIVERSITY GENERAL COUNCIL.

tory half-yearly meeting of the General Council of the Univer- nburgh was held in the Examination Hall on Wednesday, May he Rev. Professor Patrick in the chair. The minutes of meet- ober 30th, 1903, were read and approved. The report of the Committee was submitted, as was the report of the Subcom- Modern Languages and the report of the Finance Committee. orted that the total number of matriculated students in Science cine was:

	1889-90	1891-2	1893-4	1895-6	1897-8	1899-1900	1900-1	1901-2	1902-3
...	—	—	171	145	147	149	170	169	206
...	2,003	1,852	1,560	1,455	1,405	1,368	1,364	1,396	1,427

UNIVERSITY OF LONDON.

CONVOCATION.

L meeting was held on Tuesday, May 10th.

Election of Officers.

ip Magnus, Deputy-Chairman, at first occupied the chair, and t the only graduate nominated for the appointment of Chair- ir E. H. Busk, M.A., LL.B., who had filled the position for twelve was now re-elected for another term of three years. Sir E. H. aking the chair, said that the amount of work accomplished by e (of which he was officially a member) had been particularly nce his election three years ago, and that the regulations were ed for all the degrees except those of Law, which were nearly . Mr. T. L. Mears was elected Deputy-Chairman, and a vote of ssed to the retiring Deputy-Chairman (Sir P. Magnus) for his In returning thanks, Sir P. Magnus spoke of the gifts to the , and wished that some multimillionaire would make a gift nditions, as the fulfilment of the conditions often gave much ible to the Senate. He referred to the generous gift by the ompany, the munificent benefaction of Sir Donald Currie, and of the Goldsmiths' Company in reference to the library, and he latter company had most generously placed at the disposal versity their institution at New Cross, together with all build- reehold land and a conditional offer of £5,000 a year for five ts maintenance. Mr. H. E. Allen, LL.B., B.A., was reappointed onvocation.

Standing Committee.

tion of members was declared; those nominated for all the were duly elected.

ort of the Standing Committee was, on the motion of Mr. W. ers, K.C., presented and received.

The Library.

s for the use of the library and reading room were considered id discussed at length and amended; and on the proposal of s, K.C., and Dr. R. M. Walmsley they were approved as amended, ded to the Senate with the request that they may be adopted use. Under these suggested regulations the library is to be until 5 p.m., and on two evenings a week from 7 to 9. All and members of the University who have passed the examina- Faculty next following the Matriculation Examination, and ized teachers and officials of the University, will be able to use ; whilst members of the Senate and of Convocation and some ons will have the conditional privilege of borrowing as many mes at a time from the library.

After the adoption of a resolution suggesting to the Senate the advisability of altering the date for the LL.D. Examination to the third Monday in October had been unanimously passed, the house adjourned.

THE VICTORIA UNIVERSITY OF MANCHESTER.

AT a meeting of the Court held on May 5th a large number of important ordinances received the approval of the Court. They dealt with Veterinary State Medicine, Public Health, and Pharmaceutics. The University of Manchester will now grant a Diploma in State Medicine to fully-qualified members of the Royal College of Veterinary Surgeons. It will not enter into competition with any of the five existing colleges which train gentlemen for the Membership of the College. Those aspiring to take this diploma will be trained to deal with the prevention and control of diseases occurring in the lower animals and which are transmissible to man, and also with the prevention and control of diseases of the domesticated animals with a view to diminish the losses caused to the agriculturalist by the prevalence of these diseases. In fact, the University is doing for veterinary medicine what it has already done for ordinary medicine when it instituted the D.P.H. It was stated that the scheme had the cordial support of the Lancashire Association of Veterinary Surgeons. Regulations will be framed to carry out the enactments of the Ordinances.

Ordinances for Diploma in Veterinary State Medicine:

1. The University shall grant a Diploma in Veterinary State Medicine (D.V.S.M.), which shall be awarded by the Senate.

2. The examination shall be in two parts, and shall be written, oral, and practical.

3. Candidates, before entering for the first part of the examination, must have held for not less than twelve months the Membership of the Royal College of Veterinary Surgeons, and must present satisfactory certificates

(1) That, after obtaining the Membership of the Royal College of Veterinary Surgeons, they have attended an approved course of instruction in veterinary hygiene in the University, or in a college recognized for this purpose by the University.

(2) That, after obtaining the Membership of the Royal College of Veterinary Surgeons, they have during at least six months received practical instruction in laboratories recognized by the University in Chemistry, Bacteriology, and Pathology, as applied to Veterinary Hygiene.

4. Candidates, before entering the second part of the examination, must present certificates

That, after obtaining the Membership of the R.C.V.S., they have during six months (of which at least three months shall be distinct and separate from the period of laboratory instruction required under (2)) been diligently engaged in acquiring a knowledge of the duties of veterinary inspection under a veterinary surgeon (holding a public appointment), to be approved of for that purpose by the University. This requirement may be modified by the Senate in the case of Veterinary Inspectors who have held an appointment recognized by the University for not less than one year.

5. Candidates may present themselves for Parts I and II separately, or at the same time, provided that no candidate be admitted to Part II unless he has already passed in Part I. No candidate's name will be published until he has satisfied the Examiners in both parts of the examination.

6. Candidates must satisfy the Examiners in the following subjects:

Part I.

(*a*) Practical Chemistry;
(*b*) Practical Pathology, Parasitology, and Microscopy; } With special reference to Veterinary Hygiene.

Part II.

(*a*) Comparative Pathology;
(*b*) Hygiene, Sanitary Law, and Administration; } With special reference to Veterinary Hygiene.
(*c*) Sanitary Reporting;

Ordinances for degree of B.Sc. in Public Health:

1. Candidates must be graduates in medicine of this University or of some other university recognized for the purpose.

2. Candidates must produce certificates of attendance at courses of study in the University extending over not less than two years subsequent to their graduation in medicine, and must have passed an Examination in the subjects prescribed by the Regulations.

Ordinances for ordinary degree of B.Sc. in Pharmaceutics:

The degree of Bachelor of Science is granted under the following conditions, after a course of study and examination suitable for Pharmaceutical students:

(1) Candidates must present themselves for the Intermediate Examination at the end of their first year of study after passing the Matriculation Examination.

The subjects of the Intermediate Examination are:

(i.) Physics with Practical Work.
(ii.) Chemistry with Practical work.
(iii.) Botany with Practical work.
(iv.) A Practical Examination in the Pharmaceutical Laboratory.

The subjects of the Final Examination are:

(i.) Chemistry.
(ii.) Two of the following:
Materia Medica.
Botany.
Physics.
History of Chemistry.
Electro-Chemistry.
Pharmacology.
Bacteriology.
Toxicology.
Analysis of Food and Drugs.

It was resolved to confer the honorary degree of D.Sc. on W. H. Perkin, Sen., F.R.S., the distinguished chemist, whose name is so well known in connexion with his researches in the Aniline Dyes. Mr. Perkin will open the Schunck Laboratory.

CONJOINT BOARD IN ENGLAND.

THE following gentlemen have passed the Second Examination of the Board in the subjects indicated:

Anatomy and Physiology.—R. C. Allen, Birmingham University; R. E. Apperly, Middlesex Hospital; J. Appleyard, University College Hospital; H. E. Battle, Yorkshire College, Leeds; T. H. C. Benians, London Hospital; H. G. Bennett, St. Thomas's Hospital; H. Blakeway and F. H. W. Brewer, St. Bartholomew's Hospital; F. T. Bouchier, University College, Bristol; M. B. S. Button, London Hospital; E. B. Clayton, B.A.Camb., Cambridge University; J. B. Close, Yorkshire College, Leeds; R. M. Coalbank, St. Bartholomew's Hospital; F. G. Collins, London Hospital; A. Cordon, Birmingham University; C. F. Curtis, Owens College, Manchester; A. Davidson and M. M. Earle, Guy's Hospital; H. E. T. Dawes, B.A.Camb., Cambridge University; R. M. Dennys, St. Bartholomew's Hospital; J. H. Farbstein, University College Hospital; W. D. Frew and G. E. Fritche, Middlesex Hospital; R. F. Gerrard and G. E. Green, Liverpool University; H. Granger, St. Thomas's Hospital; S. Hallam, Charing Cross Hospital; H. McC. Hanschell, E. W. D. Hardy, and W. de M. Hill, St. Bartholomew's Hospital; W. W. Hellyer, London Hospital; A. E. Ironside, Charing Cross Hospital; J. G. Ivers, Owens College, Manchester; W. G. Jones, L.D.S.Edin., University College, Cardiff, and Owens College, Manchester; W. R. Kilgour, St. Bartholomew's Hospital; W. H. King, University College Hospital; S. J. Lee, Middlesex Hospital; K. A. Lees, B.A.Camb., Cambridge University; W. H. Leigh, Owens College, Manchester; C. F. L. Leipoldt, Guy's Hospital; A. R. Littlejohn, St. Mary's Hospital; P. W. Mathew, Middlesex Hospital; E. P. Minett, Guy's Hospital; F. M. Neild and H. J. Nightingale, St. Thomas's Hospital; F. W. O'Connor, R. D. O'Connor, and T. O'Neill, St. Bartholomew's Hospital; R. C. Paris, King's College Hospital; R. J. G. Parnell, University College, Bristol; B. T. Parsons-Smyth and W. Patey, St. Thomas's Hospital; E. H. Paterson, Guy's Hospital; R. M. Peake, Middlesex Hospital; D. Phillips, St. Mary's Hospital; L. L. Phillips, St. Bartholomew's Hospital; A. J. S. Pinchin, St. Thomas's Hospital; E. N. Plummer, Guy's Hospital; E. N. Ramsbottom, B.A.R.U.I., Owens College, Manchester; C. E. Redman, B.A.Camb., Cambridge University; C. M. Rigby, London Hospital; A. T. Rivers and S. MacK. Saunders, Guy's Hospital; A. B. Rooke, University College Hospital; A. L. Sachs, M.A.Camb., Cambridge University and St. Thomas's Hospital; G. B. Scott, St. Bartholomew's Hospital; H. J. Smith, Guy's Hospital; H. A. Smith, B.A.Camb., Cambridge University and Westminster Hospital; F. R. Smyth, Middlesex Hospital; F. E. Sprawson, S. F. St. J. Steadman, and A. K. B. R. Taylor, Charing Cross Hospital; R. W. Starkie, Owens College, Manchester; A. A. Straton, St. Mary's Hospital; E. Sutcliffe, Yorkshire College, Leeds; D. C. Taylor, University College Hospital; C. H. Treadgold, B.A.Camb., Cambridge University; R. G. Vaughan, University College, Bristol; H. Wales, and J. P. Walker, Yorkshire College, Leeds; E. B. C. White, London Hospital; W. Wijeyegoonewardena, Ceylon Medical College and King's College Hospital; E. M. Woodman, St. Bartholomew's Hospital.

In Anatomy only.—D. M. Keith, University of Michigan, U.S.A.

In Physiology only.—H. W. Lowry, St. Bartholomew's Hospital.

PUBLIC HEALTH
AND
POOR-LAW MEDICAL SERVICES.

HEALTH OF ENGLISH TOWNS.

IN seventy-six of the largest English towns, including London, 8,403 births and 4,359 deaths were registered during the week ending Saturday last, May 7th. The annual rate of mortality in these towns, which had been 17·6, 16·0, and 16·3 per 1,000 in the three preceding weeks, declined again last week to 14·9 per 1,000. Among these towns the death-rates ranged from 4·3 in Smethwick, 5·2 in Leyton, 6·0 in Burton-on-Trent, 6·2 in Devonport, 6·7 in Willesden and in East Ham, 7·8 in Tottenham and in King's Norton, and 8·0 in Walthamstow, to 18·6 in Liverpool, 19·1 in Wigan, 20·0 in Salford 21·3 in Blackburn, 21·5 in Plymouth, 23·1 in Manchester, 23·7 in Merthyr Tydfil, and 26·5 in St. Helens. In London the rate of mortality was 14·9 per 1,000, while it also averaged 14·9 per 1,000 in the seventy-five other large towns. The death-rate from the principal infectious diseases in the seventy-six towns averaged 1·8 per 1,000; in London also this death-rate was equal to 1·8 per 1,000, while among the seventy-five large provincial towns the rates ranged upwards to 3·1 in Warrington, 3·2 in Birmingham, 3·6 in Salford and in Burnley, 4·1 Manchester, 4·5 in Aston Manor, 4·7 Blackburn, and 5·3 in St. Helens. Measles caused a death-rate of 1·5 in Warrington and in Leeds, 1·6 in Huddersfield, 1·7 in Wallasey, in Manchester, and in Rhondda, 2·1 in Brighton, 2·9 in St. Helens, and 3·1 in Burnley; and whooping-cough of 1·5 in Warrington, 1·6 in King's Norton, in Grimsby, in Manchester, in Newcastle-on-Tyne, and in Swansea, 1·7 in Walsall, 1·8 in Bury, 1·9 in Birmingham, 2·3 in Salford, 3·2 in Aston Manor, and 3·6 in Blackburn. The mortality from scarlet fever, from diphtheria, from enteric fever, and from diarrhoea showed no marked excess in any of the large towns. One fatal case of small-pox was registered in London, 1 in Stockport, 1 in Manchester, 1 in Tynemouth, and 1 in Newcastle-on-Tyne. The Metropolitan Asylums Hospitals contained 88 small-pox patients at the end of last week, against 144, 123, and 104 at the end of the three preceding weeks; 14 new cases were admitted during the week, against 37, 23, and 12 in the three preceding weeks. The number of scarlet fever cases in these hospitals and in the London Fever Hospital on Saturday last, May 7th, was 1,590, against 1,523, 1,543, and 1,541 on the three preceding Saturdays; 242 new cases were admitted during the week, against 141, 172, and 185 in the three preceding weeks.

HEALTH OF SCOTCH TOWNS.

DURING the week ending Saturday last, May 7th, 951 births and 594 deaths were registered in eight of the principal Scotch towns. The annual rate of mortality in these towns, which had been 20·9, 21·0, and 20·0 per 1,000 in the three preceding weeks, further declined last week to 18·0 per 1,000, but was 3·1 per 1,000 above the mean rate during the same period in the seventy-six large English towns. Among these Scotch towns the death-rates ranged from 9·2 in Perth, and 12·3 in Leith to 20·1 in Glasgow and 20·4 in Dundee. The death-rate from the principal infectious diseases in these towns averaged 1·9 per 1,000, the highest being recorded in Glasgow and Paisley. The 308 deaths registered in Glasgow included 13 which were referred to whooping-cough, 5 to measles, 5 to diarrhoea, 3 to scarlet fever, 2 to diphtheria, 2 to "fever," and 1 to small-pox. Six fatal cases of whooping-cough were recorded in Edinburgh; 2 of whooping-cough, and 2 of diarrhoea in Dundee; 2 of whooping-cough and 1 of small-pox in Paisley; and 2 of measles in Greenock.

HEALTH OF IRISH TOWNS.

DURING the week ending Saturday, May 7th, 599 births and 392 deaths were registered in six of the principal Irish towns, against 548 births and 368 deaths in the preceding period. The mean annual death-rate in these towns, which had been 23·3, 22·2, and 21·7 per 1,000 in the three previous weeks, fell to 19·9 per 1,000 in the week under notice, this figure being above the mean annual rate in the seventy-six English towns during the corresponding period. The figures ranged from 12·3 in Limerick and 16·4 in Londonderry to 23·1 in Belfast and 25·5 in Dublin. The deaths from the principal zymotic diseases during the same period and in the same six Irish towns averaged 0·8 per 1,000, or 0·1 per 1,000 less than during the preceding week, the highest figure, 2·6, being reached in Belfast, while Cork, Londonderry, Limerick, and Waterford registered no deaths under this heading at all. Limerick made a record in the shape of 53 births during the week to a total of 9 deaths. At Belfast 4 deaths from measles occurred, 11 from whooping-cough, and 2 from enteric. In Belfast 2 deaths were ascribed to whooping-cough, 1 to enteric, and 5 to diarrhoeal disease.

POWERS OF RELIEVING OFFICERS IN REFERENCE TO THE GRANTING OF ORDERS FOR MEDICAL ATTENDANCE.

SWEATED—to whose previous inquiry an answer appeared in the BRITISH MEDICAL JOURNAL of April 23rd, page 994—has written again stating that it is useless for him to make any attempt to influence the relieving officer through the guardians, as the majority of the Board will not take any steps to alter the objectionable practice of granting medical orders of which he so justly complains.

*** We are afraid our correspondent will have a difficult battle to fight; but we have every reason to believe that if he were to apply to the Honorary Secretary of the Poor-law Medical Officers' Association at the office, Princes' Chambers, 9, Copthall Avenue, London, E.C., he would find the Council of that Association ready to give him all reasonable assistance in the matter.

MEDICAL VACANCIES AND APPOINTMENTS.

VACANCIES.

This list of vacancies is compiled from our advertisement columns, where particulars will be found. To ensure notice in this column advertisements must be received not later than the first post on Wednesday morning.

BIRMINGHAM GENERAL HOSPITAL.—House-Surgeon, resident. Salary at the rate of £50 per annum.

BOURNEMOUTH: ROYAL VICTORIA HOSPITAL.—Honorary Medical Officer in charge of Electrical Department.

BRADFORD ROYAL INFIRMARY.—Dispensary Surgeon, resident. Salary, £100 per annum.

BRIGHTON: SUSSEX COUNTY HOSPITAL.—Second House-Surgeon, resident. Salary £60 per annum.

BURY ST. EDMUNDS: WEST SUFFOLK GENERAL HOSPITAL.—House Surgeon, resident. Salary, £100 per annum.

DUBLIN: MERCER'S HOSPITAL.—Visiting Surgeon.

DUBLIN: RICHMOND DISTRICT ASYLUM.—Clinical Assistant, resident. Salary at the rate of £60 per annum.

EAST LONDON HOSPITAL FOR CHILDREN, Shadwell, E.—House-Physician, resident. Honorarium £25 for six months.

EVELINA HOSPITAL FOR SICK CHILDREN, Southwark.—(1) House-Surgeon, resident. Salary, £80 per annum. (2) Surgeon to Out-patients.

GLASGOW PARISH COUNCIL.—Resident Medical Officer for Barnhill Poorhouse, Springburn. Salary, £250 per annum, rising to £350.

HOSPITAL FOR DISEASES OF THE SKIN, Stamford Street, S.E.—Clinical Assistant for Out-patients.

LANARK COUNTY COUNCIL.—Assistant Medical Officer of Health. Salary, £150 per annum and travelling expenses.

LEEDS GENERAL INFIRMARY.—House-Physician, resident.

LEEDS PUBLIC DISPENSARY.—Junior Resident Medical Officer. Salary, £100 per annum.

LEICESTER INFIRMARY.—Clinical Assistant, resident, till January 1st, 1905. Honorarium, £10 10s.

LONDON HOSPITAL, Whitechapel, E.—Surgical Registrar.

LONDON LOCK HOSPITAL, Dean Street, W.—Surgeon to Out-patients.

LONDON SCHOOL OF MEDICINE FOR WOMEN, Hunter Street, W.C.—Lecturer on Anatomy.

LONDON THROAT HOSPITAL, Great Portland Street, W.—Honorary Anaesthetist.

MANITOBA UNIVERSITY.—Professorships of Botany, Physics, Chemistry, and Physiology. Salary, 2,500dols.

NEW HOSPITAL FOR WOMEN, Euston Road.—(1) House-Physician. (2) House-Surgeon. (3) Resident Medical Officer (Maternity Department).

NORTH-WEST LONDON HOSPITAL.—(1) Resident Medical Officer. (2) Assistant Resident Medical Officer. (3) Second Honorary Anaesthetist. Salary for (1) and (2) £50 per annum each.

NORWICH: NORFOLK AND NORWICH HOSPITAL.—Honorary Medical Officer in charge of Electro-therapeutical Department.

PLYMOUTH: SOUTH DEVON AND EAST CORNWALL HOSPITAL.—House-Surgeon, resident. Salary, £100 per annum.

ROYAL COLLEGE OF SURGEONS OF ENGLAND.—(1) Hunterian Professorship. (2) Erasmus Wilson Lecturer. (3) Arris and Gale Lecturer.

ROYAL LONDON OPHTHALMIC HOSPITAL, City Road, E.C.—Third House-Surgeon, resident. Salary, £50 per annum.

ST. PETER'S HOSPITAL FOR STONE, Henrietta Street, W.C.—Junior House-Surgeon, resident. Salary at the rate of £50 per annum.

SHEFFIELD CHILDREN'S HOSPITAL.—Lady House-Surgeon, resident. Salary £50 per annum.

SHEFFIELD ROYAL INFIRMARY.—Junior Assistant House-Surgeon, resident. Salary, £70 per annum.

VALKENBERG ASYLUM, near Capetown.—Assistant Medical Officer, resident. Salary £250, rising to £300 per annum.

VICTORIA HOSPITAL FOR CHILDREN, Tite Street, S.W.—House-Surgeon, resident. Appointment for six months. Honorarium, £25.

WESTERN GENERAL DISPENSARY, Marylebone Road.—Second House-Surgeon, resident. Salary, £80 per annum.

WESTMINSTER GENERAL DISPENSARY, Soho.—Resident Medical Officer. Salary £120 per annum.

YORK COUNTY HOSPITAL.—House-Physician, resident. Salary, £100 per annum.

YORK DISPENSARY.—Resident Medical Officer. Salary, £120 per annum.

APPOINTMENTS.

ONG, J. R., M.D., District Medical Officer of the Pontypridd Union.
, J. J., M.B., B.Ch.Glasg., D.P.H.Camb., Medical Officer of Health for St. Helens,
F. Drew Harris, M.B.Lond.
I. Erasmus, M.D.Brux., M.R.C.S.Eng., L.R.C.P.Lond., L.S.A.Lond., Clinical tant to the Hospital for Consumption and Diseases of the Chest, Brompton, S.W.
ER, H. Morley, M.D.Cantab., F.R.C.P.Lond., Assistant Physician to St. Ba the- w's Hospital.
, John, M.B., Ch.B.Aberd., House-Surgeon to the Aberdeen Royal Infirmary.
SON, Alex., M.A., M.B., Ch.B.Aberd., Assistant Medical Officer, Kingseat m, Aberdeen Lunacy Board.
Howe, M.R.C.S., L.R.C.P., Medical Attendant, Morton District Hospital under Derbyshire Hospital Committee.
, James, M.B., C.M.Glasg., House-Surgeon to the Royal Eye Hospital, South- ree Alex. Lyons, M.R.C.P.Edin., resigned.
LL, C. de Z., M.R.C.S., L.R.C.P., District Medical Officer of the Tiverton Union.
SON, James, M.B., Ch.B.Aberd., House-Physician to the Aberdeen Royal nary.
G. R., M.B., Ch.B.Aberd., Resident Medical Officer to the Royal Aberdeen tal for Sick Children.
Enid M., M.B., B.S.Lond., Senior Resident Surgeon to the Victoria Hospital,
cil B. F., M.B., B.Ch., B.A.O.R.U.I., Assistant House-Surgeon to the Stafford- General Infirmary, Stafford.
Harold, M.A., M.B., B.C.Cantab., M.R.C.S., L.R.C.P.Lond., Honorary Surgeon North Ormesby Hospital, Middlesbrough.
S, R. M., M.B., C.M.Edin., Certifying Factory Surgeon for the Menai Bridge ct, County Anglesey.
, R. F., L.R.C.P.&S.Edin., L.F.P.S.Glasg., District Medical Officer of the rt Union.
M.—Dr. J. Wilson Adam has been appointed Medical Officer to a section of the Town Council employés, and not M.O.H. as stated in our last issue.

DIARY FOR NEXT WEEK.

TUESDAY.

l Society of London, 11, Chandos Street, Cavendish Square, W. al Conversazione.—8.30 p.m., Reception by the President; 8.45 p.m., Oration by mbard Owen, M.D., on the Future of Medical Education in London.

gical Society of London, 20, Hanover Square, W., 8.30 p.m.—Dr. W. P. gham and Dr. J. H. Thursfield: The Glomerular Lesions of Diffuse (Parenchy- s) Nephritis. Professor Farmer, Mr. Moore, and Mr. C. E. Walker: Malig- rowths. Mr. E. M. Corner: Sarcoma of the Alimentary Canal. Dr. R. U. n: Sarcoma of the Stomach. Dr. E. P. Baumann and Dr. J. G. Forbes: y Sarcoma of the Lung in an Infant. Dr. Parkes Weber: Leukanaemia. Dr. Blackburn: Cystic Disease of Liver and Kidney. Card specimens will be by Dr. J. Fawcett and Dr. E. P. Baumann.

WEDNESDAY.

Psychological Association of Great Britain and Ireland, m Hotel, Portland Place, W., 4 p.m.—Dr. L. C. Bruce and Dr. A. E. M. : Quantitative and Qualitative Leucocyte Observations in Various Forms nity. Dr. W. C. Sullivan; A Statistical Note on the Social Causes of Alco- Dr. W. H. B. Stoudart: The Psychology of Hallucinations, with diagram- llustrations. Dr. J. Kennedy Will: Notes of a Case of Combined Spinal ration with Unusual Mental Symptoms, with microscopical sections of the

Balneological and Climatological Society, 20, Hanover Square, 0 p.m.—Sir Dyce Duckworth: Some Observations on British Winter .

SATURDAY.

al Society of the United Kingdom, Glasgow University, 10.30 a.m. ssors McKendrick, Cleland, and others have promised to take an active part eeting.

POST-GRADUATE COURSES AND LECTURES.

ss Hospital, Thursday, 4 p.m.—Demonstration of Medical Cases.
r Consumption and Diseases of the Chest, Brompton, Wednesday, 4 p.m.— on the Action of Digitalis in Cardiac Failure.
r Sick Children, Great Ormond Street, W.C., Thursday, 4 p.m.—Demonstra- Selected Cases of Heart Disease.
aduates' College and Polyclinic, 22, Chenies Street, W.C.—Demonstrations iven at 4 p.m. as follows: Monday, Skin; Tuesday, Medical; Wednesday, ; Thursday, Surgical; Friday, Ear. Lectures will be delivered at 5.15 follows: Monday, Diseases of the Lymphatic System; Tuesday, Seborrhoea its Consequences and Complications; Wednesday, Aural Sepsis, its Pathology atment; Thursday, The Principles of Abdominal Diagnosis.
non Hospital for Consumption and Diseases of the Chest, 7, Fitzroy Square, rsday, 5 p.m.—Lecture on Differential Diagnosis of Pulmonary Lesions.
ospital for the Paralysed and Epileptic, Queen Square, W.C.—Lectures delivered at 3.30 p.m. as follows: Tuesday, Cerebral Abscess; Friday, y.
London Post-Graduate College, Tottenham Hospital, N., Thursday, —Lecture on Sensory Paralysis.
te College, West London Hospital, Hammersmith Road, W.—Lectures will red at 5 p.m. as follows: Monday, Affections of the Lung Substance and ment; Tuesday, Haemoptysis and its Treatment: Wednesday, Disorders of ation; Thursday, Prostatic Obstruction; Friday, Haemoptysis and its nt.

BIRTHS, MARRIAGES, AND DEATHS.

for inserting announcements of Births, Marriages, and Deaths is hich sum should be forwarded in post-office orders or stamps with not later than Wednesday morning, in order to ensure insertion in t issue.

BIRTHS.

N.—On the 7th May, at 30, Park Road, Forest Hill, S.E., the wife of Robert n, M.B.Lond., of a daughter.
On Monday, May 9th, 1904, at 23, Nightingale Place, Woolwich, S.E., the wife R. J. C. Cottell, R.A.M.C., of a daughter.
On May 5th, at 56, David Place, Jersey, the wife of Edward Le Geyt, Eng., L.R.C.P.Lond.—a son.
May 6th, at Arden House, Henley-in-Arden, the wife of W. Ernest Nelson, R.C.S., L.R.C.P., of a son.
—On the 5th May, at Platt Cottage, Manchester, the wife of Ernest S. M.D.Lond., F.R.C.P., of a daughter.

MARRIAGE.

S.—On April 18th, at Harlech Villa, Dunoon, by the Rev. R. S. Macmorran, the Rev. J. W. Girvan, William Smith, M.B.Lond., of Brabourne, Kent, to Hoch, youngest daughter of B. C. Ross, Esq., of 4, Ardgowan Square,

DEATHS.

the 21st of April, at Tenby, Robert Taylor Sumner Eagar, M.D., son of the Canon Eagar, Rector of Ashton-under-Lyne.
ay 9th, at 138, Cromwell Road, Bristol, Thomas Hill, M.D.
May 5th, at Dorchester, Walter Wentworth, younger son of Major and . Wade, R.A.M.C., aged 11 years.

LETTERS, NOTES, AND ANSWERS TO CORRESPONDENTS.

COMMUNICATIONS respecting Editorial matters should be addressed to the Editor, 2, Agar Street, Strand, W.C., London; those concerning business matters, advertisements, non-delivery of the JOURNAL, etc., should be addressed to the Manager, at the Office, 429, Strand, W.C., London.

ORIGINAL ARTICLES and LETTERS *forwarded for publication are understood to be offered to the* BRITISH MEDICAL JOURNAL *alone, unless the contrary be stated.*

AUTHORS desiring reprints of their articles published in the BRITISH MEDICAL JOURNAL are requested to communicate with the Manager, 429, Strand, W.C., on receipt of proof.

CORRESPONDENTS who wish notice to be taken of their communications should authenticate them with their names—of course not necessarily for publication.

CORRESPONDENTS not answered are requested to look at the Notices to Correspondents of the following week.

MANUSCRIPTS FORWARDED TO THE OFFICE OF THIS JOURNAL CANNOT UNDER ANY CIRCUMSTANCES BE RETURNED.

IN order to avoid delay, it is particularly requested that ALL letters on the editorial business of the JOURNAL be addressed to the Editor at the Office of the JOURNAL, and not at his private house.

TELEGRAPHIC ADDRESS.—The telegraphic address of the EDITOR of the BRITISH MEDICAL JOURNAL is *Aitiology, London.* The telegraphic address of the MANAGER of the BRITISH MEDICAL JOURNAL is *Articulate, London.*

TELEPHONE (National):—
EDITOR, 2631, Gerrard. GENERAL SECRETARY AND MANAGER, 2630, Gerrard.

☞ *Queries, answers, and communications relating to subjects to which special departments of the* BRITISH MEDICAL JOURNAL *are devoted will be found nder their respective headings.*

QUERIES.

M. C. C. would like to hear of an institution where a chronic hysterical woman of about 40 could be received to undergo Weir-Mitchell treatment. She suffers from no organic disease, but is very poor, and could only afford to pay the expenses of removal there.

DR. CHAS. A. DAVIES (Ramsey, Isle of Man) would be thankful if any readers would kindly give him their experience of the following motor cars: "Ideal," made at Eccles; "Humberette," "Thor," "Jackson," "Spreadwell," and which they would advise to get, and with the cost of upkeep.

"BANDELA" would be glad to hear from any one who has tried the new drug "veronal" (BRITISH MEDICAL JOURNAL of March 5th, p. 518) if the prolonged use of "veronal" is attended by any untoward effects of any kind. A patient who has long suffered from a tedious insomnia, not attributable to any organic lesion, finds that 3 grains just before bedtime exert a most excellent effect. She has been treated with all the ordinary nostrums, such as hot milk, etc., and with many sedatives and hypnotics, such as sulphonal, chloral, trional, paraldehyde, potassium bromide (but not morphine) all of which gradually lose their power. Her age is 44. Our correspondent will be very glad of any hints in the treatment of the case.

TEMPERANCE asks the name, publishers, and price of the textbooks on temperance mentioned in the article on Hygiene and Temperance published in the BRITISH MEDICAL JOURNAL, April 30th, p. 1041.

*** *Physiology and Health.* In three volumes. (Philadelphia: E. H. Butler and Co. 1s., 1s. 3d., and 2s.). *The Physiological Aspect of Temperance.* (London: Church of England Temperance Society. 1s. 6d.).

NEURITIS inquires whether the Tallerman treatment is used in any of the London hospitals, and whether it would be likely to relieve pains of neuritis.

*** We believe that the hot-air baths made upon the system of the late Mr. Tallerman and supplied by him are in use at St. Bartholomew's and some other hospitals, and it is deemed possible that they might do good in cases of peripheral neuritis.

ANSWERS.

RENAL CASTS.—The information required will be found in Dr. Dixon Mann's *Physiology and Pathology of the Urine.*

R.S.D.—Nothing is known as to the causes of hypertrophy of the breasts. The only treatment is mechanical support if necessary, either by suitable corsets or a specially-constructed sling.

SENEX.—Gadd's *Synopsis of the British Pharmacopoeia, 1898,* fifth edition (London: Baillière, Tindall, and Cox, 1900, 1s.), a review of which appeared in the BRITISH MEDICAL JOURNAL of February 2nd, 1901, p. 280, will give the information required.

DR. G. A. FINLAYSON (Singapore).—Professor Minchin's lectures will not be published (at any rate for the present) in book form, since he published a *Monograph on the Sporozoa* (forming part of the *Treatise of Zoology*, edited by Professor Lankester) last year. Our correspondent will find in it, and in the report of the lectures as given in the BRITISH MEDICAL JOURNAL, all the facts up to date.

FIJI.—The only book specially devoted to Tropical Hygiene is *Hygiène des Etablissements Coloniaux*, by G. Reynaud (Paris: J. B. Ballière et Fils, 1903. Fr. 5. We would recommend our correspondent to obtain Manson's *Tropical Medicine* (London: Cassell and Co. 1903. 10s. 6d.). On general public health subjects our correspondent might consult Parkes and Kenwood's *Hygiene and Public Health.* Second edition. (London: H. K. Lewis. 1902. 12s.)

THE PICRIC ACID TEST.

F.W.A.B.—Picric acid is useful as a negative test for albumen in urine, but not as a positive test, since in addition to albumen it precipitates globulin, albumoses, compound proteids, alkaloids, and resins.

QUALIFICATIONS FOR PUBLIC ANALYST.

D.P.H.—The necessary qualifications for a public analyst are Associateship or Fellowship of the Institute of Chemistry and a certificate of pharmacology and microscopy from the Institute. Full information may be obtained from Mr. R. B. Pilcher, Secretary, Institute of Chemistry, 30, Bloomsbury Square, W.C.

LETTERS, NOTES, Etc.

VACATION COURSES IN BERLIN.

THE next "cyclus" of vacation courses of instruction to be given under the auspices of the Berlin Association of Privat-docenten will begin on September 26th and end on October 22nd. A list of the courses will be sent post free on application to Herr Metzer, Langenbeck-Haus, 10, 11, Ziegelstrasse, Berlin, from whom all information may be obtained.

THE DESSAUER APPARATUS.

DR. PAUL C. FRANZE (Bad Nauheim) writes: I have read the excellent thesis of Dr. Macintyre in the BRITISH MEDICAL JOURNAL of April 23rd, but miss in the enumeration of apparatus the name of "Dessauer." To the genius of Dessauer in Aschaffenburg (Germany) we owe many of the greatest improvements in *x*-ray application, namely, the Dessauer apparatus, are constructed according to such scientifical considerations as to combine great functional capacity with the saving of tubes and comparative cheapness; further, the Dessauer "ideal tube" enables, by a simple though most ingeniously devised method, the regulation of the resistance in the tube, thus giving the possibility of making the tube harder or softer during work by merely touching a lever, and without altering the vacuum. The significance of this will be obvious to any *x*-ray worker at once. It would be too long here to dwell further on the advantages of the Dessauer apparatus, yet I would not have omitted this opportunity of drawing attention to them.

FIRST-AID TREATMENT OF CUT ARTERIES.

DR. L. A. PARRY (Hove, Sussex) writes: I have for some years examined classes in first-aid for the St. John Ambulance Association, and during that time many hundreds of cases have passed through my hands. I have been greatly struck by an almost universal mistake made by these candidates in their answers to the question, What is the treatment for a cut artery in a limb? It is extremely rare, no matter whom the lecturer may have been, to get the correct answer. Compression of the main artery of the limb, tourniquets, and all sorts of things are advocated; only one candidate in many suggests direct pressure on the bleeding point. The treatment, as laid down in the St. John Ambulance manual is clear; it is the ordinary treatment of any primary haemorrhage, namely, direct pressure at the seat of bleeding, but somehow or other it does not seem to be in the knowledge of the candidates of these classes. I saw recently a case in which the harmful effects of the ignorance of this rule were marked. A woman cut her hand with a knife, was treated by "first aid," and then ran over to my house, leaving her tracks behind her. She was bleeding freely when I saw her. I quickly cut away the amateur tourniquet of linen screwed tightly round the arm by means of a piece of firewood and the bleeding ceased at once. She lost a large quantity of blood (my front door steps showed it pretty plainly next morning) because instead of pressing a clean pad of rag on the wound this badly-applied tourniquet had been applied. I think the St John Ambulance lecturers would do well to spend a little more time in impressing this important knowledge on their pupils. This week I examined a police class—with one single exception not a man, as a first answer, suggested direct pressure on the bleeding point as the treatment of a cut artery in a limb.

AN OLD MEDICAL BILL.

DR. FRANCIS J. ALLAN (London, W.C.) has kindly sent us a copy of an old medical bill. No addresses are given. The money was evidently paid through Messrs. Gosling, the well-known bankers in Fleet Street.

Samuel Walsh, Esq., to J. Pyle.

				£	s.	d.
1772:						
Jany. 18.	Mr. Walsh blooded and attended	7 times	...	3	13	6
Decr. 22.	Bruised arm	,, 21 do.	...	11	0	6
1773:						
Sepr. 19.	Do.	,, 3 do.	...	1	11	6
1774:						
Feb. 7.	Do. blooded and	,, 4 do.	...	2	2	0
1776:						
March 2.	Do.	,, 2 do.	...	1	1	0
1777:						
Decr. 17.	Do.	,, 11 do.	...	5	15	6
				£25	4	0

Recd. the 12th August, 1779, of Robert Gosling and John Pyle, Esqrs., Exors., Saml. Walsh, Esq., by the hands of Messrs. Goslings, Twenty-five Pounds four shillings in full of all demands.—J. Pyle.

VACCINATION AFTER SMALL-POX.

DR. E. SYDNEY HAWTHORNE (Mudgee, N.S.W.) writes: In the BRITISH MEDICAL JOURNAL of February 27th, p. 448, just received, I observe an article entitled "Note on Vaccination in the Incubation Stage of Small-pox," by Dr. Patterson, Jujuy, Argentina, in which he states as follows: "I am under the impression that vaccination at any time previous to the rash will modify the small-pox." As it might prove of interest, not alone to Dr. Patterson but also to your readers, I ask the courtesy of your pages for the following few remarks: In last year's May issue of the *Australasian Medical Gazette*, and in the August issue of the *Dublin Journal of Medical Science*, there appears an article under the heading "Vaccination after Small-pox," written by me, and copies of which I enclose. In this article you will read that eleven years ago I practised vaccination successfully in all my cases of small-pox occurring in the unvaccinated *during* the early stages of prodromal rash and papular eruption, and thereby converting a very serious and probably fatal case into a harmless and modified variola. Dr. Patterson shows the efficacy of vaccination *previous* to the rash, whilst I *during* the rash. In this connexion I might add that I frequently have observed three distinct eruptions at the same time on one patient—namely, inoculation, vaccination, and variola.

LETTERS, COMMUNICATIONS, ETC., have been received from:

A Mr. W. A. Aldred, Canterbury; Mr. F. Addiscott, London; C. E. Adams, M.B., Buckhurst Hill: Mr. J. Aitchison, London; Dr. J. W. Byers, Belfast; Rev. M. Acheson, Kenley; Dr. A. G. Auld, London; Messrs. Aldard and Son, London. **B** Mr. W. M. Beaumont, Bath: Mr. W. A. Berridge, Rodhill: "British and Colonial Druggist," Manager of, London; Sir R. Blennerhassett, Cork; A. G. Bateman, M.B., London; Dr. J. O. W. Barrett, Gottingen; Dr. W. Bain, Harrogate; Bandela; Mr. A. F. Bradshaw, Oxford; Mr. E. S. Bishop, Manchester. **C** Cartwright, London; R. F. Campbell, M.B., Wark-on-Tyne; Dr. J. M. Clifton; A. Cox, M.B., Gateshead; Sir E. H. Currie, London; Miss E. G. Ashford; Mr. R. C. Chicken, Nottingham; Mr. C. T. Cook, London; Mr. J. M. London; Mr. R. Creasy, Windlesham; J. A. Coutts, M.B., London: Dr. G. W. Worcester; Dr. J. R. Collins, Cheltenham; C. W. Cathcart, M.B., Edinburgh; A. Charlton, Montreal; Mr. J. J. Clarke, London; Miss L. B. Clapham, London; C. **D** Dr. T. V. Dickinson, London; Messrs. Doulton and Co., Dr. P. V. Dodd, Folkestone; D.P.H.; Dr. C. A. Davies, Ramsey; Sir D. Duc London; Lady Dudley, Dublin; Director-General of the Medical Departmen Admiralty, London; Mr. J. Q. Donald, Colinsburgh; District Medical **E** Embryo; E. J. W.; Mr. H. N. Edwards, Markyate; R. J. Ewart, M.B., Li **F** Mr. W. Fleming, London; G. A. Finlayson, M.B., Singapore; Mr. A. E. M. London; E. W. A. B.; Mr. C. E. S. Flemming, Bradford on-Avon; Febrile; D Franze, Bad Nauheim; E. R. Fothergill, M.B., London; J. H. Fryer, M.B., Br Dr F. R. Fairbank, Dorking; Dr. W. T. Freeman, Reading; Dr. B. Fo London; C. Forsyth, M.B., Southend on-Sea. **G** Dr. T. G. Garry, Florence; Dr H. Galton, London: Mr. T. Gick, Dublin; Dr. E. W. Goodall, London; Mr. H. Garstang, Altrincham; E. B. Garland, M.B., Bristol. **H** Mr. H. N. London; Hon. Sydney Holland, London; Mr. R. Harrison, London; Mr Hargreaves, Manchester; C. E. Ham, M.B., London; Dr. C. O. Hawthorne, Dr. R. G. Hebb, London; Mr. E. S. Hawthorne, Mudgee; Mr. J. Houston, Lt J. A. Hammond, M.B., Shanklin, Isle of Wight; Mr C. M. Heanley, Dag J. Howell, M.B., Cheltenham; Dr. L. Hill, Loughton; Dr. T. A. Helme, Man **K** D. H. Kyle, M.B., St. Andrews. **L** Mr. W. Lloyd, London; Dr. W. Weymouth; T. D. Luke, M.B., Edinburgh; R. G. Lynam, M.B., Oxford. Messrs. Ingram and Royle, London; Inquisitive; Messrs. Iliffe and Sons, Co **J** Mr. H. P. Joh, Newark; J. L.; Mr. W. H. Jalland, York; Mr. A. T. Jones, Mo Ash; Dr. R. Jones, Claybury; Miss G. B. Jacobi, London; Dr. G. P. Johnson on-Trent. **M** Dr. J. Mackenzie, Burnley; Dr. S. G. Morris, Mandy; Mr Morton, London; M. G.; Dr R. Maclaren, Carlisle; Dr. R. G. McGowan chester; Dr. A. N. McGregor, Glasgow; B. G. A. Moynihan, M.B., Leeds; J. C. Merry, Eastbourne; Dr. S. Moritz, Manchester: Dr. R. G. Macdonald, New Zealand. **N** Neuritis; B. H. Nichols n, M.B., Manchester; J. H. Nicol Glasgow. **O** Obs'etrical Society, Secretary of the, London. **P** Panhard; Mr Penfold, London; Dr. L. A. Parry, Hove; Mr. R. M. Pooley, London; Captain Pinch, London; Pickwick **R** Miss C. M. Richardson, M.B., Derby; J. A M.B., Sunderland; Dr. J. C. Renton, Glasgow; Dr. H. Reston, Barnstaple Reid, London. **S** Dr. D. W. Samways, Mentone; Dr. G. A. Sutherland, Lond F. H. Stuart, Brooklyn; Subscriber; Dr. S. Sunderland, London; Dr. G. F London; Mr. L. M. Snow, Ho sham; Dr. J. Scott-Wilson, Walsall; Sir F. C.V.O., London; Sex; Dr. J. Stewart, Glasgow; Mr. T. Stephenson, Edi **T** Temperance; H. Taylor, M.B., London; Dr. J. J. Taylor, Philadelphia; Tilley, London; Mr. T. J. Tonkin, Chard; Dr. S. Taylor, London. **V** **W** Dr. E. F. Willoughby, London; Dr. H. W. Webber, Plymouth; Mr. E. W. London; Mr. C. H. Whiteford, Plymouth; Dr. R. T. Williamson, Manchester; A. J. Wilson and Co., London; D. C. Watson, M.B., Edinburgh; West W. L. H.; Dr. W. E. Wynter, London; Mr. P. Williams, Bridgwater; Willcocks, London; H. J. Waring, M.B., London; Welshman.

BOOKS, ETC., RECEIVED.

A Complete Handbook of Midwifery. By J. R. Watson, M.D. Edin. London: The Scientific Press. 1904. 6s.

Organic Nervous Diseases. By M. Allen Starr, M.D., Ph.D., LL.D. London: Baillière, Tindall, and Cox. 25s.

Aerztlicher Führer durch Bad Nauheims Kurmittel für Aerzte und Laien. Von Dr. med. Paul C. Franze. Erste Auflage. Friedberg and Bad Nauheim: Carl Bindernagel. 1 0s.

The Extra Pharmacopoeia of Martindale and Westcott. Revised by W. Harrison Martindale, Ph.D., F.C.S., and W. Wynn Westcott, M.B.Lond., D.P.H. Eleventh edition. London: H. K. Lewis. 1904. 9s. 6d.

Buy English Acres. By C. F. Dowsett, F.S.I. Seccond edition. Winklebury: C. F. Dowsett. 1904. 3s. 6d.

A Handbook of Sanitary Law, for the Use of Candidates for Public Health Qualifications. By B. Burnett Cham, D.P.H. Camb., M.D., M.R.C.S., L.R.C.P. Third edition. London: Ash and Co., Limited. 1903. 2s. 6d.

Lectures on Clinical Psychiatry. By Dr. Emil Kraepelin. Authorized translation from the German. Revised and edited by Thomas Johnstone, M.D. Edin., M.R.C.P. Lond. Lond n: Baillière, Tindall, and Cox. 1904. 10s. 6d.

The Case Against Antivivisection. By Stephen Paget. London: The Scientific Press. 1904. 2s.

What we Owe to Experiments on Animals. By Stephen Paget. London: The Scientific Press. 1904. 1s. 6d.

Victoria University of Manchester. Health Laboratory. Spread of [illegible] tious Diseases. Lecture on The [illegible] of "Missed" Cases in the Sprt Infectious Diseases. Delivere Arthur Newsholme, M.D., F.R.C. March 9th, 1904. London and chester: Sherratt and Hughes. 1s. 6d.

La Médecine et les Religions. Pa Paul Bruzon. Paris: J. B. Baille Fils. 1904. Fr 3.50.

Ilfracombe. Edited by George W London: The Health Resorts A tion. 1904.

The Lecture Agency Date Book. J June, 1904-5 and 1905-6. London Lecture Agency. 1s.

The Infectivity of Enteric Fever Alexander Collie, M.D. Aberd. Bri John Wright and Co. 1904.

Life of Joseph Jordan, with some Pa lars of the Life of Dr. Ed Stephens. By F. W. Jordan. London and Manchester: Sh and Hughes. 1904. 5s.

Das Kropfherz und die Beziehunge Schilddrüsenerkrankungen zu Kreislaufapparat. Von Dr W. nich. Leipzig und Wien: Deuticke. 1904. M.4.50.

Unconscious Therapeutics; or, The sonality of the Physician. By T. Schofield, M.D., M.R.C.S. London: J. and A. Churchill. 5s.

*** In forwarding books the publishers are requested to state the selling pric

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Annual Oration

ON

HE FUTURE OF LONDON MEDICAL EDUCATION.

Delivered to the Medical Society of London.

By Sir ISAMBARD OWEN, M.D., F.R.C.P.,
Vice-Dean of the Faculty of Medicine of the University of London.

ME years ago I met a distinguished foreigner on his first it to London. He said: "What a strange people you are England! Your country has given birth to some of the atest leaders of modern thought. Had we been fortunate ough to call them compatriots, their monuments would ve been conspicuous in our towns, the public places of our ital would have borne their honoured names. I have versed London," he pursued, "without once being re-nded that I was in the country of Darwin and of Spencer; name even of Newton met my eye only at the corner of ack street off Holborn."

did my best to explain the apparent paradox. I traced detail the principles of English street nomenclature; I ed the probability that the Newton of High Holborn was the author of the *Principia*, but a local builder; I pointed that a London statue was the very last form of memorial hilosopher would wish for; but my companion went away y half satisfied, and left me, to speak frankly, as uncon-ced as himself.

ne cannot in candour deny that the contrast is somewhat between the commanding position in the history of nce which England owes to the labours of a few of her ed sons and the attitude of comparative indifference which mass of contemporary Englishmen display, I will not say ely to the personal fame of their illustrious pioneers, but eneral to the entire question of the advance of scientific wledge within their bounds, and to the development of the ns of national education which that advance demands.

lsewhere in civilized Europe we are made conscious of a ker public recognition of the change that the last cen-made in the conditions of the modern world; of the nt to which the cultivation of exact knowledge has revo-onized the requirements of public and private business; of the obligations and necessities which the new order of gs has imposed on the community. Elsewhere than ng ourselves it is not thought a strange thing that the urces of a State should be employed to extend the bounds bstract knowledge; elsewhere we see the organization of cation no less an object of government than the ordering he police or the control of the highway. Even in com-tively poor countries we find scientific knowledge and ned intellects regarded as sound public investments, and popular voice applauding a liberal application of public ey to secure them.

ay we not say that the time has come when England ld make up its mind whether the Continental view of requirements of the age is right or wrong? If it be right, cannot without concern view the extent to which this try has lagged behind. At present England speaks with rtain voice and mind. She evinces no real conviction of practical value of scientific knowledge or scientific train-Science is lauded to the skies in words and left to starve act. Research is commonly treated as though it were a ter of merely private ambition or concern. Commerce industry are still in doubt whether any more scientific ing is necessary for their employés than sufficed a ury ago. In questions of public education, except as far as may concern a point of religion, the generality of lishmen hardly affect an interest.

he prevailing note of indifference belongs to no particular s or section. The country squire who regards schools as nsidious means of undermining agriculture may be hed by the industrial magnate who frankly despises all nical knowledge gained outside the workshop. The ister who with difficulty consents to make a public grant esearch has himself to wrap its object in some specious e of "utility," lest the popular voice should condemn it dole to a privileged class.

the matter of public education, half heartedness has led to a course as wasteful as it is illogical. For thirty years at a vast expenditure, we have been educating the entire lation up to a preliminary stage, and providing no means for those who show themselves capable of it to proceed further. If a national system of education is to produce a national advantage worth the money it costs, its aim must surely be largely a selective one. The ultimate object, from a statesman's point of view, of national education is to bring the best brains of the country, or, to speak more precisely, the best combinations of brains and energy, to the front; to bring them into the positions in which they can be turned to the best account in the national struggle for supremacy. In England we have stopped at the first stage, the most costly and least remunerative. We have produced year by year a mass of educable material and made nothing further out of it. Whatever individual talent the elementary school may have revealed, we have taken no care to ensure its after-development. We have laid a costly foundation and built nothing upon it. Can we wonder that so many Englishmen regard national education as a failure, and speak of it as a device to convert useful workmen into unnecessary clerks? If it be not so in fact, it is not the fault of the policy that has been followed.

To all this there is a significant exception. John Bull's carelessness about science and education stops with the shore. When he has to deal with his own chosen element, the sea, he is altogether another man. In nautical matters no one values exact knowledge more; no one, unless, perhaps, his recent pupil in the Far East, has more assiduously cultivated scientific methods, or been more careful of the training of the men to whom he entrusts his destinies. We need not, therefore, commit the absurdity of supposing indifference to science to be any permanent feature of the English character. It is but a passing phase, the origin of which we may discern in patent historical causes.

The Causes of Neglect.

Great Britain entered on the Victorian era under peculiar advantages. Previous rivals in Europe had been exhausted by long wars which had brought us no greater disaster than increased taxation; America was still almost a negligible quantity. Our early use of coal and the mechanical inventions to which it had given rise had aided in giving us a long start of our contemporaries in the modern world which those inventions were bringing into being. Other nations might claim superiority in the graces of life; in commerce, in industry, in material civilization generally, the United Kingdom for many years was easily ahead of them all. We fancied, perhaps, that this was to last for ever. Other nations had painfully set about the task of organizing their resources, systematizing their knowledge, trying to make the most of the human material they possessed; we had, we thought, no need to do the same; our natural energies and superior aptitude would always keep for us the supremacy we had gained. In matters of education England no less enjoyed during this period a pre-eminence it has been difficult for her to forget. The universities of the Continent had long been in a state of decay, material as well as intellectual. The last relics of the great mother University of Paris, that had once ranked in authority with Pope and Emperor, had disappeared in the Revolution; of her half hundred of colleges, nearly all had vanished. The collegiate foundations of Oxford and Cambridge, on the contrary, had steadily grown in opulence and lost nothing of external splendour. In the middle of the last century Oxford and Cambridge, to say nothing of Eton and Winchester, were as far in advance of anything of the kind elsewhere as the commerce of the Thames or the industries of Lancashire. As was natural, Englishmen grew to regard their two ancient seats of learning as the type-universities of the world, and the particular kind of education prevalent there as the ideal of what university education should be. Universities elsewhere have since multiplied and gathered resources; economic causes have diminished the income of our once wealthy colleges; but England is slow to realize the new situation. The appeals for help which Cambridge has been lately making to its wealthy alumni are passing almost unregarded, and the great majority of Englishmen would still, I believe, be surprised to be told that, measured by contemporary European, to say nothing of American, standards, neither Oxford nor Cambridge would be reckoned among first-class universities.

Whether it be that we forgot, in the later years of the nineteenth century, a familiar apologue, whether it be that we had grown into the habit of relying too much on our natural advantages and neglecting the means of improving them, or thought that the world would stand still for us, certain it is that of late we seem to have awoke rather suddenly to the disagreeable fact that in some of the departments of the

world's business in which we thought our supremacy most secure we are being overtaken, and possibly distanced, by countries that we scarcely regarded as rivals a generation ago. It is not only that the tortoise shows signs of overtaking the hare; the new world, we begin to find, has bred a hare at once fleeter and more persistent than ourselves. Now perhaps one may hope that a hearing will be given to those who have long been speaking to unwilling ears and calling attention to the neglected state of national education in the heart of the empire. We have long had it pointed out to us with what heed these matters were regarded in Continental countries; how carefully their educational systems were thought out; how liberally even poor nations were voting money for educational purposes; but to all this little attention has been given, these things being apparently regarded as necessary only for the foreigner. Will Englishmen be equally careless of what is being done in the United States and in our own North American colonies? Americans can hardly be set down as a second-rate people, or an unpractical race, or an unsuccessful one. It may be that London will not disdain to learn something from them. There was published in London a few weeks back the report of the Mosely Educational Commission to the United States, the second of the two commissions which Mr. Alfred Mosely dispatched at his own expense to endeavour to trace the cause of the success of Americans in their competition with ourselves. The Commission included twenty-six men prominent in the British educational world. The reports they sent in run to 400 closely printed pages and every page is interesting reading. The contents may well startle this country, if anything can, out of its apathy with regard to the matter.

Everything, let me say at once, is not represented as perfect in American education. The Commissioners found much to criticize in American educational methods, in their lack of thoroughness in certain directions, in a general tendency to underpay the *personnel*, and in a certain disposition on the part of private benefactors to regard buildings and sites as of more importance than men. But these, it is frankly admitted, are faults of immaturity and over-rapid growth; the greater part of the American educational institutions are barely a generation old. Nor did the Commissioners find that thoughtful Americans were in the habit of looking on education as the source of their prosperity. That they were disposed rather to attribute to the inherent qualities of their composite and selected race. But, what was more significant, they regarded the national interest in education as the natural expression of the very qualities that made them successful, and were confident that if their public education had not been the cause of their prosperity, it was an essential condition of their prosperity being maintained.

American interest in education is not of recent origin. The practice of appropriation of public land to educational purposes by act of the Federal Government dates from the early years of American independence; and the most extensive measure of this kind was passed in the crisis of the civil war. Up to the year 1900—as may be learned from the educational reports prepared for the Paris Exhibition—the United States Government had in this way assigned upwards of eighty-six million acres, an area larger than the whole of the United Kingdom, out of the public domain for the support of education. The total value of federal education grants in land and money to the same year, the land being valued only at its original selling figure, is stated by the same authority to be nearly sixty millions sterling. This, it will be understood, is the grant of the Federal Government alone, and has nothing to do with the contributions and levies of the separate States and their cities. Private benefaction has been on a still more remarkable scale. Private gifts and bequests for university education alone, says one of the Mosely Commissioners, have amounted to forty millions sterling in the course of thirty years. Fourteen millions sterling is given by one of the 1900 reports as the sum of the private benefactions of the single year preceding to universities, colleges, schools, and libraries. Mr. J. D. Rockefeller and others are said to have spent four millions on the University of Chicago, and other recent foundations are reported to be still more royally endowed. Harvard, at the present time, draws an annual income of nearly or quite two hundred thousand sterling from private benefactions. Though medicine is as yet the least favoured and one of the most backward branches of American education, the special gifts to it are still far from contemptible. The medical department of the Columbia University of New York, for example, is endowed, including land and buildings, to the extent of £496,000, the site a buildings of the Jefferson Medical College of Philadelp are valued at £120,000; and a recent benefaction to t medical department of Cornell University in the State of N York is rumoured to amount to £300,000. An imperf return shows an aggregate of three million sterling of p perty enjoyed by medical education throughout the State and during the five years 1894-8 private gifts to medi schools are reported as exceeding half-a-million sterlin being about a sixth of the benefactions made to hospita during the same period.

Of the universal American interest in public education; of t profound belief in the value of public education that possess all classes in the States, every chapter of the Mosely repor is eloquent. Public bodies, we are repeatedly told, grud no money spent on education, the claim of educational ins tutions to the best sites, the best buildings, the best a pliances that can be obtained, is regarded as incontestibl moneyed men are everywhere prompt to recognize the nee of education, industrial concerns are eager to secure the mo highly educated men for their employment. The develo ment of public education in the States is still going actively fo ward, and by all appearance will do so for many years to com

It is sad to compare with these glowing pictures of educ tional progress the history of the twenty years of waste opportunity and effort we have lately known in London, t twenty years of wearisome agitation, of interminable i quiries, of reiterated deputations, of bland official replies, municipal and public apathy, that we went through before w could get so much as the bare framework of a teachin university in this, the richest city of the world. May we hop that in the twentieth century London will turn its eyes to se what these vigorous young communities in America a doing, and that we shall not have to wait twenty years mor before our hard-earned frame is clothed with living material

The Special Classes of Medicine.

In this country, at least, no form of higher education ca claim a stronger title to public support than medical educa tion. Its purpose is the interest of all. Disease and acciden are no respecters of time and place; the life of the wealthies may at any moment rest upon the skill and knowledge of th humblest village practitioner; failure at any point of the sani tary guard which in times of danger preserves a nation fro epidemic disease may let in an enemy that will cost the country more than it could ever spend upon its medical schools The medical profession is not one that can be charged wit making a selfish or illiberal use of its knowledge. In all things it has loyally consulted the public advantage first o all. It is a profession of whose voluntary generosity the public never scruples to make unsparing—I had almost written unblushing—use, a profession which meets the heavy demands made upon it with unfailing patience and public spirit. I shall hardly overstate the fact if I assert that a fifth of the entire population of London has at one time or another, in the hour of distress, learned to rely on the public or private charity of the medical practitioner. Medicine, which gives so much and so readily, may surely ask a little in return, and expect in all honour that its claims will be ungrudgingly met.

If the claim that medicine is about to make on the inhabitants of London has gone unrecognized till now it is not altogether the public fault. Medicine has perhaps desired too much to be independent and self-sufficing; we have not taken the public sufficiently into our confidence as to the needs of our art; we have troubled too little to see that it was adequately informed. The average non-medical person, it is safe to say, knows at the present day far less of what goes to the making of the medical practitioner than he does of almost any other form of professional education. The developments of medical education during the last quarter of a century have not been trumpeted abroad, "written up" in the press, or made the subject of magazine articles. Of the London hospitals the London public knows much; of the schools of medicine that have grown up alongside of them almost nothing. It would probably surprise the great majority of Londoners to learn that the mere buildings of these schools would in the aggregate suffice for the needs of many a renowned university, that upwards of four hundred teachers are actively engaged in connexion with them, and that the curriculum pursued in them is at once the most arduous and the most highly systematized form of education that exists in the country.

The foreigner would be no less astonished to hear that the entire system has been the result of private effort, and that until lately it has been entirely self-supporting. The build-

gs appropriated to its use in University and King's Col-
es are almost the only public assistance it has to
nowledge; private liberality has hardly gone beyond the
ndation of prizes and exhibitions. With the exception of
tain professorships at University College, there is not at
present moment a single endowed chair in any medical
ool in the metropolis. Like many other institutions in
gland the London School of Medicine was not founded—it
w spontaneously in response to a need. It grew up in
se connexion with the twelve great general hospitals, but
lately it had cost them nothing; on the contrary, they
e pecuniarily the gainers by it. I ventured some six
rs ago to estimate that the existence of the medical
ools virtually added no less than £50,000 a year to the
ritable resources of London, and I was not accused of
ggeration.

he endowment of a single professional faculty to the
ent of some £24,000 a year, exclusive of premises and
ary, would seem in London the dream of a rather distant
ure; but that is the extent to which, in the neighbour-
capital of France, the Faculty of Medicine appears
be subsidized from public sources. The statistics of
her education issued by the Ministry of Public Instruction
the ten years 1889-1899 show that in the last year reported
(1897-8) the sums assigned to the purpose of the Faculty
ounted to 1,466,212 francs, of which only 859,302 francs were
ouped from students fees, leaving 606,910 francs, say £24,276,
e provided from public sources, chiefly the coffers of the
e. The expenses of the Paris Faculty do not, it may be
ed, include those of instruction in what we term the "pre-
nary sciences."

Modern Requirements.

complete endowment of the Faculty of Medicine is not at
ent in question in London. We see no reason to appre-
d that the schools of the London hospitals will be less able
he future than in the past to provide for their own re-
ces for the professional education of as many students as
r ample hospitals can accomodate, but there is a strong
growing sense of the need of relieving them from the in-
sing pressure of a burden which at the present they are
er the obligation of supporting, but which is properly none
eirs to bear.

e medical curriculum has long since everywhere divided
f into two nearly separate portions, the one mainly pro-
onal, while the other tends more and more to become
ly academic. It is within my own recollection and that
any here that the student of other days, while still pur-
g his ordinary anatomical and physiological studies, in
e cases while working only at the introductory physical
biological sciences, was expected or encouraged to spend
rt of his time in the wards and out-patient rooms of his
ital, and to familiarize himself thus early with the
cts of disease. That is now virtually at an end. The
easing requirements of the earlier parts of the curriculum
rendered it impracticable. The contemporary pupil,
gh nominally attached to a hospital, pursues as a general
the first two years, or three as the case may be, of his
culum under almost purely academic conditions, and
y enters a medical or surgical clinic for any serious
ose until he has surmounted the barrier of his anatomical
physiological examinations.

eed not stop to discuss whether the change of practice is
mixed advantage or no. Something, it will doubtless
id, is lost in the present day which the older and less
entiated plan of education was able to impart; but this,
, is a profitless question to raise. The present system is
rsal, or nearly so; it has forced or is forcing itself by
gic of circumstances on every seat of medical education
and it must be taken as one of the facts of the case that
ve to deal with.

almost every place of medical education except London
her differentiation has already taken place. The re-
ibility of providing for the earlier portion of the curri-
n has ceased to rest upon the medical school properly
led. In Lancashire and Yorkshire, in Birmingham and
astle, and in Wales, endowed universities and university
es have taken this part of the work upon themselves,
ng the schools of medicine, in the strict sense of the
to their proper task of teaching the theory and practice
edicine and surgery, and such of the more advanced
hes of science as cannot conveniently be separated from
al work.

London, without a central teaching authority to assist,
or co-ordinate the scattered educational agencies at work in her vast area, this further step has till now been impossible. The medical schools, unendowed and without external aid as they are, have had to bear the burden of the preliminary education themselves. Each separate school, in order to maintain its position, has found itself obliged to offer a medical curriculum complete in all its parts, academic as well as professional, and to provide the buildings, laboratories, and external teachers necessary to make it so. Until London possessed a university in fact as well as in name, no practicable way out of the difficulty could be seen, and the difficulty has been a steadily increasing one. While politicians disputed whether five millions of population should have two titular universities or only one, whether professors of European fame should be dealt with as honourable men or objects of public suspicion, and how far the laying of academic hands on the London Matriculation Examination would endanger that palladium of British learning, the men who were actually doing the work had to strain every nerve to meet the constantly growing requirements of the long medical curriculum, and to keep the London schools of medicine on a level worthy of their historic fame. The work was done. It has, I venture to say, been well done; but the strain on the schools has been no light one, and its tendency is still to increase. Over the schools hangs the shadow of the ominous question, How long can the present strain be maintained? A limit will be reached, it must be plainly said, unless London awakes to some sense of its responsibility in the matter. And while London is asleep, the provinces are moving. I trust I shall not be understood as saying one word in dispraise of the excellent teaching given in many of the provincial medical schools, or in derogation of the highly distinguished physicians and surgeons who are working so ably in them; but the fact nevertheless remains, not only that London possesses an unexampled field of clinical instruction, but that, as long as the greatest prizes of the profession are to be found in the capital, the tendency must be for the best clinical talent in the profession to be attracted to the metropolitan hospitals and schools.

The Solution of the Question.

It would, I will not hesitate to say, be a disaster, not only to Londoners, but to England and Wales as a whole, if London should ever lose the position it has hitherto held as the chief seat of medical education in the country. It is to the grave discredit of so wealthy a capital that such an event should be even imaginable.

Thanks to the reconstitution of the University of London we have at last a definite plan to lay before the public. It is a plan which has been drawn up by the Faculty of Medicine of the University, a body fully representative of medical education in the metropolis, and which has been officially adopted by the Senate of the University as an integral part of its scheme of future development. It is proposed to found, as part of the University of London and under its direct control, a public Institute of Medical Sciences to undertake teaching in physics, chemistry, biology, anatomy, and physiology for the purposes of medical students. The classes of the institute will not be limited to those only who are undergraduates of the University and propose to take its degrees. Provision will equally be made by the University for the instruction of students who are aiming at the College diplomas or the licence of the Apothecaries Society. Nevertheless, all who enter the institute will be studying in the University in fact as well as in name. They will be able to commence their career by entering directly at the University, and until they have completed their classes in the institute they will not need, unless they wish, to join a hospital at all. They can wait till they have finished the academic part of the curriculum and select their hospital when the time has come for them to begin their clinical work. No compulsion will, of course, be exercised by the University over existing medical schools. Any that may find it to their advantage still to carry on the earlier as well as the latter part of the curriculum will be at liberty to do so; those whose policy is otherwise will be able to receive their clinical students directly from the University of London Institute as now they receive them from the Universities of Oxford and Cambridge and the University College of Cardiff.

The University is willing and anxious to establish such an institute; but to do so funds are, of course, needed, and funds for the purpose the University as yet has unhappily none. How much, it will be said, will be required? That has been the subject of careful estimate. Assuming the institute to be started as contemplated for 500 students at

the outset, and assuming—as is not impossible—that a free site can be obtained, it is reckoned that £160,000 would be sufficient for the necessary buildings and equipment, and that the annual expenses on staff and service would not exceed £20,000, of which about two-thirds would be recouped by fees, leaving to be provided from endowment between £6,000 and £7,000 a year, which brings the total capital endowment estimated as required to £375,000.

To what quarter is the University to look for this necessary sum? On the Continent of Europe it would at once be recognized as a legitimate charge on the State. In our country that can hardly be. The tradition that professional education is no affair of the State is still deeply rooted in England. Even the modest subsidy annually granted by the Treasury to the English Colleges is given under proviso that no portion of it shall be used for the purposes of the medical school. On State aid we can count but little. In America, if we may judge from the accounts lately brought back by the Mosely Commissioners, the matter would also be speedily settled. Our Chancellor would need but to sally out, pay some half dozen judiciously planned morning calls, exercise the persuasiveness which he is universally allowed to possess, and the thing would be done. Have we no wealthy men in London capable of being fired by emulation of transatlantic gifts to education, who will make this modest benefaction their peculiar care? As we lately learned with so much gratification, a most auspicious beginning, at least, has been made. May we trust that it will be followed by speedy fruition, and that the list of subscribers already privately started will be covered without needless delay? Among them, one may safely predict, will be found not a few members of our own profession; but it must be clearly remembered and understood that it is no personal interest or advantage of the profession that is being sought. The object is in the fullest sense one of public concern, and it is to the public, not to the medical profession, that the appeal of the University is particularly addressed.

It would be a poor compliment to a University destined, as we hope, to a great academic position to let it be supposed that this introductory work is all that the Faculty of Medicine will eventually expect from it. At present it is our most urgent need, but there are more ambitious fields of work awaiting the University later. The idea that the principal duty of a university is the education of undergraduates, and that a bachelor's degree is the climax of a university career, is among the fading traditions that the nineteenth century bequeathed to us. In the United States the more advanced school of educationists already begin to regard the teaching of undergraduates as but a secondary function of a university, if indeed they would admit it to be a university function at all. The preparation of candidates for initial degrees they are disposed rather to relegate to a class of institutions of subordinate rank which in America are called "colleges." The real work of a university, it is argued by many, is that to which the attainment of an initial degree is only an introduction. "Graduate study," as Americans call it, is already with them a prominent feature of higher education, and even seven years ago, according to the reports I have already quoted, twenty-three American institutions were able to make up between them a total of 4,919 resident graduate students, an average of nearly 214 each. The medical world in England has long recognized the importance, and indeed the necessity, of graduate study, and the number of members of our profession pursuing it in London in one shape or another would probably exceed anything that is to be found in America; but the provision which we have been able to make for it would, I fear, have to sustain a far less flattering comparison. It is certainly not yet so complete as to place any serious difficulty in the way of its absorption into the organization of the University, or to render the co-operation of a powerful university with it other than welcome. With the aid of the University we may perhaps one day see removed the weakness of the London system that has always been most apparent to foreigners; I mean the entire dependence of the academic position of a medical teacher upon the term of his hospital office, with the unavoidable result that some of our greatest clinicians have ceased to teach at the very time when their experience is ripest and their judgement at its greatest maturity.

May I venture, in conclusion, to deprecate a certain note of impatience that occasionally makes itself perceived in the medical world because the development of our University is not proceeding at as rapid a pace as we could wish? We must not expect impossibilities. To make up the arrears of generations in a great capital was as huge a task as any versity could have had committed to it, and some of the culties in the way have been very hard to surmount. the constitution of our University is not an ideal one, th may be open to the charge of cumbrousness, I, at least, not concerned to deny; but machinery is of less import than men; and we need not complain overmuch of a cons tion that has committed the interests of our science to strong and able hands as those of the representatives i upon the University Senate, and placed at the head of Faculty a man so singularly capable as its present Dea grappling with the difficulties of the present situation. best compliment we can pay to the statesmanship and self-sacrificing labours of Mr. Butlin and his fellow-worke our behalf is, I submit, to give them a patient as well a earnest support.

HAEMATOMA AND HAEMATOCELE,

A STUDY OF TWO CASES OF EARLY TUBAL PREGNANCY.

By ALBAN DORAN, F.R.C.S.,
Surgeon, Samaritan Free Hospital.

The question of operative or expectant treatment in e extrauterine pregnancy is of high importance, but rem unsettled, for authorities are not agreed as to what is best course to pursue when haemorrhage sets in and st the early abnormal pregnancy. Haematocele, the result intraperitoneal haemorrhage, may undoubtedly subside, has been demonstrated by the experience of authorities whom further reference will be made, and by a case in own practice presently to be related. A majority of gyna ologists, however, hold that haemorrhage into the perito cavity, even when due to a bleeding mole and not to rupt of the tubal sac, demands operation. On the other hand, authorities appear to admit that haematoma, the result haemorrhage into the pelvic connective tissue outside peritoneal cavity, is far more likely to be absorbed, therefore does not as a rule render operative interfere urgent. Even Taylor, who insists that cases of intrap toneal haemorrhage from a ruptured tube or tubal m rarely recover without operation,[1] at the same time adm that when the tubal sac ruptures into the connective tis space below the peritoneum a haematoma is the result, a in some instances the pressure and disturbance caused this collection of blood is sufficient to stop the progress the misplaced pregnancy. When this is the case the haem rhage is slowly absorbed, and if the pregnancy be ea and abortive, the products of conception undergo absorpti also.[2]

Roughly speaking, then, we are taught by certain livi writers of repute that a haematocele implies great peril a demands operation, whilst it is generally admitted tha haematoma[3] represents a far less dangerous ending to an terrupted tubal pregnancy and will subside if the patient kept at rest.

The two following cases are of some interest because th do not support this teaching. For in the first, there w all the signs of tubal abortion with haemorrhagic mole a pelvic haematocele, yet the patient recovered and the h matocele underwent absorption. In the second a haemato developed, but though the patient was kept at rest hospital the effusion of blood did not subside. On t contrary, it ruptured its capsule, so that intraperitone haemorrhage occurred, rendering immediate operative int ference needful.

Case I. *Bleeding tubal mole and pelvic haematocele. Clots passed two months after last period, with pelvic pain and swelling in right for and iliac fossa, decidua passed a week later, a mass with the character pelvic haematocele then developing, and gradually becoming harder a smaller: No operation, prolonged rest: Period re-established within months, becoming regular.*

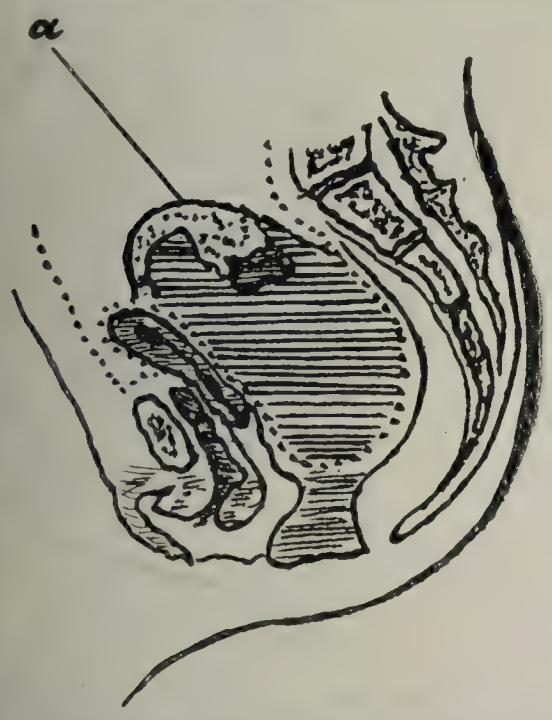
E. H., 24, was admitted into my wards in the Samaritan F Hospital, on February 11th, 1903, for symptoms indicating ecto gestation.

She had been married for over six years and had been twice pregna The first child was five years and nine months old, and was deliver at the seventh month by forceps, the second one was one year and eig months old and was delivered by forceps at term. Both children we reared, and the puerperium was uncomplicated after both labours. the age of 13 this patient had been under treatment for anaemia, b she had never suffered from any serious illness.

The catamenia recommenced and continued regular during lactati

both labours, but the second child was only suckled for six weeks.
e was scanty show every third week with much pain.
ne last period occurred in the first week in December, 1902. On
ruary 7th, 1903, over two months later, some clots passed, and there
much pelvic pain. Haemorrhage continued, especially at night.
Williams of Connaught Street was called in on February 11th and
d the patient in severe pain, with a temperature of 101° and a
e of 120. She complained of much bearing-down pain at night,
was at once sent to the Samaritan Hospital.
ne patient was very anaemic and thin, but quite free from cachexia or
ession of spirits. I detected much distension in the right iliac re-
with tenderness on palpation and resonance on percussion. No
body could be defined. The uterus was almost fixed; the right
ix was occupied by a tender mass of about the size of a walnut,
lly encroaching on Douglas's pouch, but connected with the
ling in the corresponding iliac fossa.
February 13th the distension was more marked, very resonant,
much less tender. The uterus was more fixed and displaced
ards, the mass in the right fornix larger. In the afternoon the
dua, which I now exhibit, was passed. The temperature was 100.2°,
ulse 132. There was absolutely no shock nor pain. The passage of
membrane afforded relief, and I decided to wait for a while before
ating.
the morning of February 14th I detected a firm mass in the right
fossa, cup-shaped, with the convexity upwards and extending
ss the middle line. The shrinking of the dimensions of this mass
very appreciable day by day. By the 20th it was quite hard and
d. the show, for the first time since admission, was absent. By
h 2nd the pelvic condition was more evident than before, for there
a firm, insensitive, convex body in the posterior fornix, continuous
the mass above the right groin. The uterus was drawn up in front of
nass, the cervix lying against the pubes.
e whole mass steadily contracted, and on March 23rd, when I
harged the patient, it projected 3 in. above the pubes, lying more in
niddle line than before.
April 6th I had an opportunity of examining her. The uterus now
d with a convex mass, which occupied the posterior and right
ces. The fundus could be clearly defined, and the upper part of
nass did not extend above the level of the fundus.
April 9th a true period with molimen occurred, lasting five days,
he show was rather free. A little powdery brownish blood was
ionally discharged until the end of April. Then the period became
ar; by the end of June the mass behind the uterus had greatly
nished and the patient was in excellent health. I noted distinct
tion at the base of the right broad ligament, as is observed in a
pregnancy still in progress. At the end of July the anaemia had
t disappeared and the pelvic pains had passed away. I after-
heard that the patient was in very good health in October.

is case was to all appearances an instance of bleeding
mole* in the right side and development, subsequent to
xpulsion of the decidua, of a pelvic haematocele. That
natocele was cup-shaped above and formed inferiorly a
ex mass projecting into the posterior vaginal fornix (Fig. 1).



. Case 1.—The dotted line shows the peritoneum of Douglas's
ouch in normal position. The clot fills the pouch. (*a*) Fallopian
ube, containing a tubal mole which caused the haemorrhage.

er words, its lower part really occupied Douglas's pouch.
relation of the clot is of importance in association with

ed not dwell on the pathology of this condition, on which so much
as been thrown by Cullingworth, Bland-Sutton, Lockyer, Handley,
hers. as this communication deals with the question of intra-
eal and extraperitoneal collections of blood rather than with
nole.

the next case, where also a convex mass projected into the posterior fornix, but did not occupy Douglas's pouch, since that serous fold had been completely displaced by extra-peritoneal haemorrhage.

I have repeatedly verified this combination of tubal mole and pelvic haematocele on the operating table; indeed, it must be familiar to all well versed in the surgery of the female pelvis. Masses of clot are discovered concealing the pelvic viscera. The uterus, the unaffected appendages, and the conspicuous tubal mole come into view when the clot is removed. Below and behind, Douglas's pouch is found full of blood, fluid or otherwise. Thus the effused blood, save that which is still inside the tubal mole, lies outside the uterus and appendages, which it covers up more or less completely. In the next case, on the contrary, the uterus, tubes, and broad ligaments completely covered the great collection of effused blood, only a small amount of which was beginning to escape into the peritoneal cavity by leakage from the broad ligament.

Taylor, whose demonstration of intraperitoneal haematocele is well known for its clearness, teaches that "in women it is almost always caused by tubal pregnancy, sometimes by rupture of the tube, and sometimes by bleeding from the fimbriated end without rupture. The latter is the more common cause of intraperitoneal haematocele, and this bleeding from the unruptured tube is usually set up by the presence of a haemorrhagic mole within it."[4]

Turning to treatment, the opinion of the same authority on that important matter is not so generally accepted as is his interpretation of the morbid anatomy of the condition in question. He maintains that an operation is always needed in cases of rupture of the tube and tubal mole,[5] where these haematoceles develop, the collection of blood being, in his opinion, "almost always" due to those complications.[6] He states that "occasionally, here and there," a patient recovers without operation, and admits that he has seen five or six such cases.[7] He declares that "natural cure is rarely satisfactory, and that it contrasts somewhat unfavourably with operative methods."[8]

Many gynaecologists follow Taylor's principles, but experience has shown that he has over-rated the perils implied by the development of a haematocele. I have had under my care a considerable number of cases during the last few years that have done very well without operation, though I, as well as certain more thorough advocates of expectant treatment, must make allowance for errors of diagnosis, the more so as I shall explain how another variety of haemorrhage in ectopic gestation, namely haematoma, may be mistaken for haematocele.

I admit that convalescence is without doubt more rapid after operation, but in my cases of spontaneous recovery the patients remain perfectly comfortable, with no abdominal cicatrix and with no ligatures on stumps—complications always to be dispensed with if possible. But several authorities are even more conservative than myself. My colleague, Dr. Lockyer, has published a valuable critical review on this question.[9] Champneys's statistics are familiar to us all,[10] but Lockyer also dwells upon the opinion of Veit. That gynaecologist lays down a principle in direct contradiction to Taylor's teaching. "We cannot assert," says he, "that when the ovum is dead dangers are absent. We can, however, state that subsequent to death of the ovum a favourable termination is much more probable. These cases will mostly recover without help." Lockyer himself concludes that the conservative treatment of ectopic pregnancy in the earlier months has established for itself a secure position in modern gynaecology. It is specially satisfactory in the treatment of tubal mole and diffuse haematoceles. Gossmann also believes in the frequency of spontaneous cure.[11]

When we turn to haematoma, sometimes called extra-peritoneal haematocele, Taylor differs from many of us as to its relation to ectopic gestation. He demonstrates how a tubal sac may burst so as to discharge the ovum into a space which it makes for itself by forcing apart the layers of the broad ligament. In consequence an anterior or posterior tubo-ligamentary pregnancy develops. Taylor's theory is generally accepted, being based on sound anatomical and pathological evidence. In fact we all admit that the ovum may lie between the layers of the broad ligament. That being the case, we must further allow that blood from a ruptured tubal sac may also force itself into the broad ligament, in other words it will form a haematoma. Nevertheless, Taylor teaches that haematoma of the broad ligament is only in the minority of cases due to tubal pregnancy.[12]

I am of opinion that haematoma is more frequently the result of extrauterine pregnancy. In the case which I will now relate the extraperitoneal position of the clot and displacement of the pelvic peritoneum were made very manifest at the operation. There was a source of fallacy which led me to suspect before the operation that the clot lay in Douglas's pouch. I cannot help thinking that many cases of haematoma have thus been diagnosed as haematocele.

CASE II. *Haematoma following rupture of tubal sac; pain in right iliac fossa and vomiting when period was due—four days later haemorrhages and swelling above pubes steadily increasing and forming below a convex mass simulating a haematocele. Decidua passed over a month after beginning of symptoms—eleven days later acute internal haemorrhage, operation, haematoma containing 4 lb. of clot discovered, uterus, appendages, and pelvic peritoneum forming its capsule, right tube opening into haematoma which leaked into peritoneal cavity. Removal of uterus, appendages and clot. Recovery.*

A. B., 31, was admitted into my wards in the Samaritan Free Hospital on March 14th, 1903, with symptoms indicating ectopic gestation. She had been married eleven years, and her first pregnancy ended normally two years after marriage. Two years later, when in the seventh week of her second pregnancy, she received a blow in the eye and aborted; the curette was used in the Queen's Hospital, Birmingham, shortly afterwards. The third pregnancy ended one year and a-half later at term, the fourth also terminated normally on March 23rd, 1902, but haemorrhages occurred during the puerperium and lasted for eleven weeks, when Dr. Davidson of Shepherd's Bush plugged the uterus and the bleeding ceased. The child had died in the fourth week. The catamenia returned, and were regular until January 14th, 1903, when free show appeared, lasting for four or five days. A fortnight later the patient suddenly "felt very languid." On February 15th sharp pain was felt in the right iliac fossa, and she vomited twice. On the 19th haemorrhages set in; they were slight, but the pains increased. Dr. Davidson kept her at rest, and on March 8th detected a lump above the pubes. She was seen a few days later by Dr. Lockyer, who sent her into my wards, having diagnosed ectopic gestation.

The patient on admission was highly anaemic; she had been slightly so for several months. The abdomen was distended with flatus[13] and very tender to touch. A firm deposit could be felt in the hypogastrium; its upper limits lay within 3 in. of the umbilicus, and the blunt-edged fundus of the uterus could be defined high on its anterior surface.

On vaginal examination I detected a big, firm mass, uniformly convex, in the posterior fornix, which made me suspect that it must be in Douglas's pouch—a haematocele, in fact: but it proved, as will be shown, to be extraperitoneal. The cervix was small and pushed upwards and forwards. Very distinct pulsation could be felt in both lateral fornices.

The temperature on admission was 102° in the mouth, at the end of a week it dropped to 99°, then it rose to 100° at night and never fell to normal; shortly before the operation it was 100.2°.

Three days after admission, on March 17th, I found that the decidua[14] which I now exhibit, had been passed on the previous night. There was great trouble from constipation, and it was not easy to introduce an enema tube, as the mass pressed on the rectum. A long shreddy, shaggy clot was passed on the 18th. The bowels were at length opened by aperients and the patient fared better for a few days.

On the evening of March 28th a clot as big as a walnut was passed, and a few hours later violent pains, "like labour," as the patient described them, set in. At 6 a.m. on the 29th, I was called up and found the patient in a state of collapse with a very rapid feeble pulse. The swelling was distinctly larger and much more tense. There could be no doubt that internal haemorrhage was taking place.

From the first ectopic gestation seemed very probable, and the discharge of a decidua on the 17th made the patient's condition yet more clear. There was no evidence of fresh haemorrhage when the decidual membrane came away, so I thought that the haematocele, as it seemed to be, would gradually disappear. Several large haematoceles in my own practice have become absorbed. When the acute symptoms set in I concluded that there must be fresh intraperitoneal haemorrhage, and in order to arrest it I operated with the assistance of Dr. Lockyer, Dr. Belfrage administering gas and ether.

The pelvis was elevated throughout the operation. I made a free incision and found that the hard mass was the uterus drawn high up on the anterior aspect of a convex swelling, together with a greatly distended right Fallopian tube. The left tube, also much dilated, ran down the left border of the swelling. The great omentum adhered firmly to the fundus and to the right tubal sac. A small collection of recent clot lay behind the omental adhesion in front of adherent small intestine and descending colon. These adhesions were detached.

I laid open the right tube. About 4 oz. of old, dry, brown clot were found in its canal, and then a big dark swelling came into view, forming as it were the floor of the dilated tubal cavity. I cut into the thin membranous tissue, consisting of organized clot, which formed the wall of the swelling, and then a great mass of coagula appeared, more recent than that which had filled the right tube. I removed no less than 4 lb. of this clot, which filled the whole pelvis.[15]

The patient's condition at this stage was very serious, and as the precise source of the haemorrhage could not be determined I tied both ovarian vessels, turned down an anterior flap of peritoneum from the lower part of the uterus, secured the uterine vessels, and amputated the uterus through the upper part of the cervix. That organ then came away with both tubes and ovaries and with the great dome of membrane which had capped the mass of clot. That displaced membrane consisted of the opened up broad ligament and peritoneum, which had once formed Douglas's pouch.

The pelvis was drained with iodoform gauze and the abdominal wound closed, except at its lower angle.

Over one pint of saline fluid was injected under the breast during the operation, and a saline enema was administered. After the abdominal wound had been closed 1½ pint of saline fluid was injected into the left median basilic vein.

When the patient was put back to bed her condition was very unfavourable. At the end of three-quarters of an hour she seemed a little stronger, though there was no pulse at the wrist. Brandy and digitalis were given—enema of hot water could not be retained. At noon the temperature had risen to 105.2°, and there was a rigor. She observed marked facial spasms which lasted for several minutes. Half an hour later the pulse could be felt. By 6 p.m. after free administration of digitalis and brandy, the temperature had fallen to 103° F., the pulse was 150, but distinct and regular. At 10 p.m. temperature 101.6° F., pulse 138, and the patient took barley-water. The absence of vomiting was remarkable.

Twenty-four hours after the operation the patient seemed much stronger and flatus passed naturally. I removed the gauze, and little or no oozing followed. A rubber tube was left in the lower angle of the wound for a few days. The cavity was washed out with antiseptic solutions for about four weeks, some sloughy tissue coming away. The anaemia was relieved by suitable treatment, and the patient left hospital with a sinus in the lower angle of the wound four inches deep. The general health was good.

I last saw the patient on March 8th, 1904; she had gained flesh and was much less anaemic. On August 9th she noticed a show of blood which lasted for two days, on October 13th a much more copious discharge set in and continued for four days.[16] The show recurred with regularity every four weeks until February, when it appeared twice, and the patient suffered from flushings as though a premature menopause was impending. The sinus was 2 in. deep. The lower cicatrix of the abdominal wound was firm. On vaginal examination the cervix was found to be quite movable. The fornices were free.

This case was clearly an example of haematoma caused by rupture of a tubal sac between the layers of the corresponding broad ligament (Fig 2). The accident must have occurred

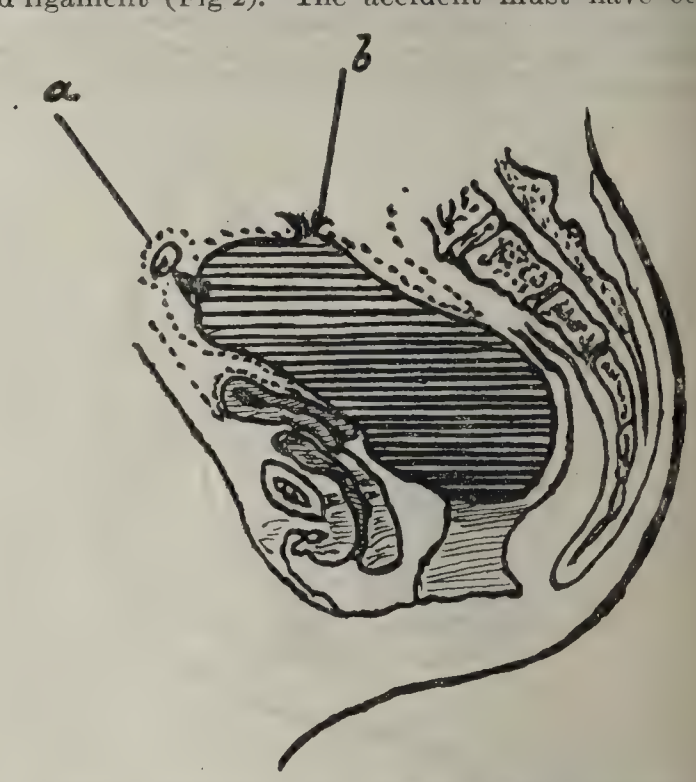


Fig. 2. Case II.—The dotted line shows the pelvic peritoneum completely displaced upwards by the clot. (*a*) Dilated right Fallopian tube, which had ruptured into the parametrium. (*b*) Site of secondary rupture into peritoneal cavity.

about February 15th, and the ovum was destroyed, else posterior tubo-ligamentary pregnancy would have developed. The haemorrhage continued, until at length the whole pelvic peritoneum was heaved up. That part which had formed Douglas's pouch became the superior and posterior part of the capsule which covered the great mass of clot. The uterus and appendages were raised up with the anterior layer of the broad ligament so as to constitute the anterior part of the

ule. The lower part of the clot free in the pelvic connec- tissue lay, not in Douglas's pouch, but in its site and d be detected by touch as a convex mass behind the ix.

n the night of March 28th, nearly six weeks after the ure of the tube, the capsule leaked a little posteriorly its superior limits at the point of adhesion to the ntum.

n this occasion there was sharp pain, such as has n noted in intraperitoneal haemorrhage, but the patient's erings must have been largely due to the tension of the ule of peritoneum, a necessary result of the renewed morrhage.

ad a fetus escaped through a rent in the capsule instead clot, then, granting that the patient and fetus had sur- d, a tubo-abdominal pregnancy of the fourth class, rding to Taylor,[17] would have developed. Earlier writers eved that most abdominal pregnancies were established hat manner, which implied that abdominal was secondary ibo-ligamentary pregnancy.[18]

he cause of the renewed haemorrhage in Case II was not r. Most probably it was due to straining at stool. There e no solid motions in the intestinal canal at the time, but, he contrary, looseness of the bowels following free purga- by magnesium sulphate which had greatly relieved the lence. In order to hasten the escape of flatus and liquid ion patients often strain at stool.

he most prominent physical sign, after the presence of a our in the hypogastrium, was the convex mass behind cervix. A similar kind of swelling is to be detected when e is a pelvic haematocele and the blood in Douglas's h has coagulated; a tubal sac in the same position also s a convex mass behind the cervix.[19] But there is no glas's pouch in this case—a fact which was made clear at operation. All collections of clot, as well as all cysts and ids which burrow thoroughly into the posterior fold of mesometrium, must, if they continue to grow, displace portion of the peritoneum which constitutes Douglas's h, so that it will lie on the top and back of the clot or our. This displacement of the peritoneum is very plainly when a large fibroid of the broad ligament is exposed enucleated from its serous investment. I have demon- ted at full length this displacement in the Harveian ures for 1902.[20]

ylor,[21] in treating of broad ligament haematoma, observes in some cases "by burrowing in front of the rectum low n in *(sic)* the pouch of Douglas it may produce a well- ned tumour behind the uterus that closely simulates r-peritoneal swelling of a distended and adherent tube." a broad ligament haematoma cannot be in Douglas's h, as it is essentially an extraperitoneal condition. lor illustrates the above remarks by a drawing from Hart Carter's work,[22] on inspecting it that author's meaning at becomes clear. The clot is represented behind the pos- r layer of Douglas's pouch, being, in the case illustrated, fficient in bulk to heave up the whole pouch in the ner which I have already endeavoured to explain. Thus relations of one form of small haematoma are proved by t and Carter's section, whilst the relations of an unusually e haematoma were made evident by the condition of the ted parts which I detected when operating on Case II.[23] us these two cases indicate, in the first place, that matoma is not so rare a result of interrupted extra- ine pregnancy as is generally taught, and that it may be aken for haematocele. Haematoma is, however, decidedly frequent than haematocele in relation to ectopic gesta- . For the tubal sac is more likely to discharge its con- s through the ostium into the peritoneal cavity, or to t into that cavity, than to rupture between the folds of broad ligament. When the broad ligament is opened up his manner experience has proved that, instead of a matoma forming, the ovum not rarely continues to lop, constituting the tubo-ligamentary pregnancy, rior or posterior, of Taylor. There remains a considerable ority of cases where the ovum is destroyed and a true matoma develops and displaces the pelvic peritoneum ards after the manner of a tubo-ligamentary sac. In a case the lower part of the haematoma, bulging behind cervix, may be mistaken for a haematocele occupying glas's pouch, though in reality that pouch no longer ts, its peritoneum lying above the haematoma.

condly, the haematoma of extrauterine gestation, even n developed early, is not so innocuous, as compared with matocele, as certain authorities are inclined to believe. The peritoneal capsule may yield, so that dangerous intra- peritoneal haemorrhage ensues.

Thirdly, there can be no doubt of the truth of the prevalent theory that haematocele is a very frequent result of inter- rupted tubal gestation. At the same time, whilst the dangers of haematoma have been underrated, the perils of haema- tocele have been exaggerated, at least as regards the earlier stages of ectopic gestation. The haematocele often signifies that the issue of blood from a tubal mole has permanently ceased, nor is it certain that the same may not be said of many cases of early rupture of the tube.

In conclusion, we must admit that the importance of faith- ful clinical study of extrauterine pregnancy from its early recognizable stages cannot be over-estimated. There is much that we can safely teach, yet there remains more that we must learn about ectopic gestation; above all, as to the rela- tion of prognosis to treatment.

NOTES AND REFERENCES.

[1] *Extrauterine Pregnancy*, p 148. [2] Ibid., p. 64. [3] That is to say subperi- toneal haemorrhage, as defined above. The term "tubal haematoma" applied to haemorrhagic mole is confusing, and is therefore not employed in this communication. [4] Ibid., p. 33. [5] Ibid., p. 148. [6] Ibid., p. 65. [7] Ibid., p. 148. [8] Ibid., p. 149. [9] "The Conservative or Expectant Treat- ment of Extrauterine Pregnancy," *Journ. of Obstet. and Gynaec. of the Brit. Empire*, vol. ii. p. 173. See also, for a recent instructive discussion on the same theme, Gustav Klein's "Operiren oder nicht Operiren bei Eileiter Schwangerschaft und Haematocele?" *Monats. f. Geb. u. Gyn.*, December, 1903, p. 897. The conflicting evidence of Klein and Gossmann deserves consideration. [10] "A Contribution towards the Study of the Natural History of Tubal Gestation," illustrated by a series of 75 original cases. *Journ. of Obstet. and Gyn. of Brit. Empire*, vol. i, p. 585. [11] Gustav Klein, loc. cit. [12] Ibid., p. 65. [13] This symptom would favour the diagnosis of haematoma. [14] My thanks are due to my colleague, Dr. Lockyer, for examining and mounting the deciduae from these two cases. [15] No trace of a fetus could be detected. The pregnancy had been inter- rupted at a very early stage [16] It is very doubtful if any ovarian tissue could have been left, as both ovaries were easily removed with the body of the uterus. In oöphorectomy for the cure of uterine fibroids it was quite otherwise. I have discussed this question in the Harveian Lectures (Lecture II, *Lancet*, vol. i, 1903, p. 415. [17] Ibid., p. 58. [18] Ibid., pp. 47, 48. [19] Taylor rightly lays stress on the fact that a swelling behind the cervix in these cases may be the gravid tube and not a haematocele or haema- toma. For his view of the relations of the gravid tube to the haemato- cele, see ibid., p. 113, par. 10, [20] Lecture I, *Lancet*, vol. i, 1903, p. 350. Section, "The Surgical Anatomy of the Broad and Ovarian Ligaments." This heaving up of Douglas's pouch has recently been noted by Savariaud when operating upon a case of hydatid cyst burrowing in and beyond the broad ligament. "J'essaie en vain de luxer la tumeur hors du Douglas; *elle soulève le péritoine pelvien en s'en coiffant.*" (The term is most expres- sive; the clot in my case was *coiffé*, by the pelvic peritoneum). See Savariaud, "Kystes Hydatiques du Ligament Large et du Grand Epiploon," *Rev. de Gynéc. et de Chir. Abdom.*, November-December, 1903, p. 986. [21] Ibid., p. 65. [22] Ibid., Fig. 27, p. 66. [23] See Taylor, Ibid., Fig. 29, p. 68, where a broad ligament pregnancy has already begun to heave up Douglas's pouch. As that author justly observes (p. 69), this illustration is "exceedingly simple and intelligible." Lawson Tait's well-known "jelly-fish," convex above concave below, represents an intermediate or average type of hae- matoma.

A Clinical Lecture

ON AN EIGHTH SERIES OF CASES OF

TOTAL EXTIRPATION OF THE PROSTATE FOR RADICAL CURE OF ENLARGEMENT OF THAT ORGAN.

Delivered at the Medical Graduates' College and Polyclinic.

BY P. J. FREYER, M.A., M.D., M.CH.,
Surgeon, St. Peter's Hospital, London.

GENTLEMEN,—In a lecture delivered by me in this College about two and a-half years ago, and subsequently published in the BRITISH MEDICAL JOURNAL,[1] I had the honour of placing before you full details of my operation of total extir- pation of the prostate for radical cure of enlargement of that organ. I have since then from time to time, here and else- where, lectured on several further series of cases of this oper- ation, and published the lectures in the same JOURNAL.[2] In this manner complete details of my first 53 cases of this oper- ation have been submitted for the consideration of the profes- sion at large. I have now to bring to your notice a further series of 20 cases of the operation, carrying my work in this direction down to the end of 1903. I cannot inflict on you full details of these operations, even were it possible to do so in the limited time at our disposal. I shall therefore content myself with giving brief notes of the majority of the cases, dwelling more at length on those that illustrate some inter- esting or novel feature in connexion with the operation.

During the course of my remarks I shall have to dwell particularly on two facts: first, that I have latterly been extending the operation to the removal of much smaller prostates than previously attempted; and, secondly, to patients more advanced in life than I had at one time imagined it safe to deal with.

But let me, in the first place, introduce to you this patient, who once previously appeared before this class. This patient, now aged 73, is the first on whom I performed this operation, on December 1st, 1900. He is, as you see, in perfect health, able to pass and retain his urine as well as he ever did. The most satisfactory feature of this operation is the complete and permanent cure that ensues, if the comparatively small mortality be eliminated.

Case LIV.

Gentleman, aged 63, sent by Dr. W. Bevan, Alton, Hants, July 27th, 1903. Prostatic symptoms for four years, during which blood passed occasionally. Intense pain and frequency of micturition. Residual urine 25 oz. Prostate much enlarged per rectum; bilobed, movable. I opened the bladder suprapubically, August 1st, and found the right lobe of prostate prominent and rounded, but from the left lobe sprang a growth which involved the base and left side of the bladder. The right lobe was easily enucleated, but the left lobe and growth had to be removal piecemeal. The whole weighed 2½ oz. Passed urine naturally August 20th; wound dry August 27th. On September 20th Dr. Bevan wrote: "The patient is going on nicely; passes urine without pain or discomfort."

It is impossible to say whether the growth had its origin in the left lobe of the prostate and extended to the bladder, or vice versa.

Case LV.

Gentleman, aged 62, with prostatic symptoms for ten years. Intense frequency of micturition—hourly by day and night. Prostate not much enlarged per rectum, but cystoscopic examination revealed a finger-shaped outgrowth in the bladder from right lobe. Prostate, weighing ¾ oz., enucleated as a whole in its capsule, August 3rd, 1903. Passed some urine naturally August 23rd; wound closed August 26th. I saw the patient on September 19th, in excellent health, urine quite clear, and passed and retained naturally.

Case LVI.

Gentleman, aged 57, sent by Dr. Llewylyn Lewis, Neath, South Wales, August 21st, 1903, with prostatic symptoms gradually increasing for five years. Catheter employed for ten months; practically dependent thereon for four months. Cystitis, haemorrhage, rigors; much difficulty in passing catheter.

I removed the prostate as a whole, September 16th, Drs. A. Westley, Montreal, and Rawlings, Swansea, being present. The prostate, which weighed ¾ oz., presented an outgrowth in the bladder the size of a cherry, and the inner orifice of the urethra was stenosed. Urine passed naturally October 4th, wound closed October 16th. On December 7th the patient wrote that he was quite well, passing and retaining his urine as well as ever, the urine being clear and free from albumen.

Case LVII.

W. M., aged 60, admitted to St. Peter's Hospital, September 5th, 1903, with retention of urine, the bladder being distended to the umbilicus; 30 oz. drawn off, alkaline, foul-smelling, and containing muco-pus. Great frequency for a year. Prostate moderately enlarged per rectum, nodulated, elastic, movable. Urine drawn off by catheter regularly and bladder washed out. Patient in very bad health; any exertion produced faintness. By September 15th the urine was acid and the general health improved, but practically the whole of the urine passed by catheter.

On September 16th I removed the prostate, weighing 3¼ oz., entire in its capsule. Scarcely any bleeding and no shock. Passed some urine per urethram September 23rd; 10 oz. naturally October 4th; suprapubic wound dry October 8th. Discharged October 25th, passing his urine naturally but still with some frequency. Reported himself at the hospital a few days ago in perfect health, able to retain and pass his urine, which was normal, as well as he ever did.

Case LVIII.

Gentleman, aged 74, consulted me, June 8th, 1903, on the advice of Mr. Keogh Murphy, of London. Prostatic symptoms for fifteen years; entirely dependent on catheter for eight years. Small stone removed by another surgeon in December, 1902. Has passed much blood since then. Catheter every two hours; severe pain and spasm at times, during which cannot pass catheter. Urine extremely offensive, alkaline, containing much pus, mucus, and albumen. Prostate greatly enlarged per rectum, soft, elastic, movable; felt bimanually. Haemorrhoids present from constant straining. General health good. I urged removal of the prostate without delay, but counter-influences were brought to bear on him, and I did not see him again till August 13th, when he came urging immediate operation. This I could not undertake till the middle of September, as I was starting on my autumn holiday. The patient had markedly lost ground in the interval, was extremely emaciated, feeble, and suffering intensely.

On September 17th, Mr. Keogh Murphy assisting, I removed the prostate, weighing 4½ oz., entire in its capsule. I also removed from the bladder two large and seventeen small phosphatic calculi, weighing ¾ oz. There was considerable difficulty in enucleating the prostate owing to extensive adhesions resulting from chronic cystitis, and there was considerable bleeding. The patient rallied well from the operation but died suddenly six hours after from heart failure.

This is the only instance among the series of 73 cases in which death was immediately due to the operation. The patient was in an extremely feebly condition, with putrid urine, and his kidneys probably extensively diseased. Still I could not refuse operation, his sufferings were so great. Had the operation been submitted to in June, as advised, he would in all probability have made a good recovery, as his general health was not then much affected.

Case LIX.

Gentleman, aged 63, sent by Dr. W. P. McEldowney, Portsmouth, with prostatic symptoms for twelve years; retention five years ago, since when not a drop of urine passed except by catheter. Great difficulty latterly in introducing catheter, attended by bleeding. Prostate only moderately enlarged per rectum, rather hard. General health good.

On September 18th, 1903, I removed the prostate, weighing 1¼ oz., entire in its capsule. It presented in the bladder in the form of a beaded collar, causing stenosis of the orifice, and was removed with difficulty owing to its being tightly enveloped by the sheath of recto-vesical fascia. Uninterrupted recovery. Urine passed per urethram October 13th; wound closed October 20th. Patient left the surgical home in good health October 27th, able to pass and retain his urine naturally.

Case LX.

Gentleman, aged 72, sent by Dr. Eyre, of Rome. Prostatic symptoms for fifteen years. Catheter employed for ten years; great frequency and scalding. Prostate much enlarged per rectum, bilobed, dense, movable.

On September 21st. 1903, I enucleated the prostate entire, weighing 3½ oz., Mr. Percy Ratcliffe assisting. Scarcely any bleeding and no shock. Passed urine per urethram October 11th; wound closed October 15th; went home October 26th able to pass and retain his urine naturally.

Case LXI.

T. H., aged 65, sent by Dr. H. Gurney, Dovercourt, admitted to St. Peter's Hospital September 21st, 1903. Retention six years ago, relieved by catheter; great frequency—hourly by day and night. On admission in great distress; 35 oz. urine, containing much pus, drawn off; practically all urine by catheter afterwards. Bladder washed out daily. Urine and general health much improved by treatment.

On September 30th I removed the prostate entire, weighing 2¾ oz. Time occupied between commencing suprapubic cystotomy and delivery of prostate from bladder, four and a-half minutes. Scarcely any bleeding and no shock. After operation patient troubled much with sickness. Feeding by the bowel employed, but vomiting persisted in spite of all efforts to relieve it.

On October 8th the urine was scanty, and he became restless and delirious, and died from uraemia on October 9th, ten days after operation. The wound remained healthy throughout.

At the necropsy the bladder walls were found much thickened, and the kidneys in a state of advanced interstitial nephritis, with great dilated pelves and calices. No trace of prostatic tissue was found in the walls of the cavity, from which the gland had been removed. The kidneys had evidently been diseased from long-continued obstruction to the flow of urine and resulting backward pressure.

Case LXII.

A. M., aged 61, admitted to St. Peter's Hospital October 3rd, 1903, with prostatic symptoms of three years' duration, during which he had several attacks of acute retention, relieved by catheter. Great frequency; constant pain in the loins; haematuria occasionally after use of catheter. Prostate uniformly enlarged, elastic, movable. General health very bad; heart weak, and pulse irregular.

On October 7th I removed the prostate entire in its capsule. The prostate was easily enucleated from the surrounding sheath, but much difficulty was experienced in delivering it into the bladder, owing to the dense, unyielding character of the recto-vesical fascia at the neck of the bladder. Considerable shock from the operation, but patient soon rallied. Began to pass urine naturally November 5th. Convalescence very slow. Discharged December 5th. I have now the pleasure of introducing this patient to you, in good health, and untroubled by any urinary symptom.

Case LXIII.

On October 20th, 1903, I was summoned to Birmingham to see, in consultation with Dr. M. Hallwright, a gentleman, aged 61, who had suffered from prostatic symptoms for seven years, extremely distressing for the last three. Early in 1903 he became suddenly much worse and a catheter was passed by a surgeon. This was followed by much constitutional disturbance and pyrexia, in consequence of which the catheter was not persisted in. In February he had continued pain, constant spasm with offensive urine. The physician then in charge found tube casts, and considered that pyelitis had set in. Complete retention on March 1st, for which the bladder was opened suprapubically by a well-known surgeon, and a prominent portion of the prostate in the bladder, weighing ¾ oz., removed. Although relieved to some extent patient was never free from bladder spasm, though suprapubic drainage was kept up, and after some months he drove out wearing a urinal. No urine had passed naturally since the operation. Orchitis also supervened, and the straining, and discomfort of the

inary apparatus became so wearing that complete removal of the ostate was contemplated. It was with this view that I was called in. ound the prostate considerably enlarged per rectum, bilobed, elastic, d movable, and I considered it one capable of being removed. The tient was of a nervous temperament, extremely thin and worn from s constant sufferings, but wiry.

For various reasons it was considered inadvisable to bring the tient to London, so on October 24th I operated at Birmingham— . Haynes, anaesthetist, Dr. Hallwright assisting, and Dr. C. Nichols ing present. Having opened up and enlarged the suprapubic fistula found the right lobe of the prostate somewhat prominent in the ıdder, and the enucleation of this portion was quite easy. The left pe, however, was matted by cicatricial tissue with the bladder, the sult of the previous operation, and the enucleation of this portion as effected with considerable difficulty, much force being necessary to parate it from the surrounding tissues. Eventually the prostate, or ther what remained of it from the previous operation, came away in e mass, weighing 1⅛ oz. There was little bleeding or shock. I saw e patient with Dr. Hallwright several times during the ensuing three eks. He continued to make favourable progress, though he had veral rises of temperature. On November 15th patient passed 3½ oz. urine naturally, and on November 22nd the wound was completely osed. On December 6th Dr. Hallwright wrote: "The patient is tter than he has been for years and gains strength daily. He says e water is beautiful and takes no time in passing."

This gentleman is now in excellent health, interesting himlf in his business as usual, duntroubled by any urinary mptom. I have to acknowdge the devotion and skill th which the after-treatent—not the least element success in these cases—as carried out by Dr. allwright. In my last mmunication[3] I called tention to Case XLVIII, in hich McGill's operation of rtial prostatectomy had en performed a year preously with no relief, folwed by complete cure when e entire prostate had been moved. The present case a further illustration of the me sequence of events.

CASE LXIV.

Gentleman, aged 74, first conlted me in June, 1902, with the ual symptoms of prostatic engement, which had existed five ars, superadded to which were ose of stone in the bladder for e year. Catheter employed for ree years, practically all the ine passing in this way. Proate much enlarged, smooth, ase, bilobed, movable. Cystopy on June 29th revealed pronence of the right lobe in the ıdder, and a smooth oval stone ng beneath this. Litholapaxy once performed, the débris of e stone, which was uric covered by phosphates, weighing 84 gr. A oid recovery ensued, and the patient was enabled to pass about one-lf of his urine naturally for some months. But as the prostate ntinued to grow he become entirely dependent on his catheter, the introduction of which there was at times considerable difficulty; stitis frequently. On October 29th, 1903, when he returned to have e prostate removed, the urine contained much pus, and the patient s very feeble.

n October 31st, Sir A. Fripp and Dr. Proust, of Paris, being present, removed the prostate entire in its capsule; weight 3 oz. Time cupied from commencing the suprapubic incision till the prostate s delivered from the bladder, four minutes. Recovery uninterrupted, ough slow. Passed urine naturally November 22nd; wound finally sed December 12th. Went home to the country December 20th able pass and retain his urine naturally, and has since continued to put flesh and improve in health generally.

CASE LXV.

Gentleman, aged 77, seen in consultation with Dr. W. Burgess, eatham Hill, October 28th, 1903. Prostatic symptoms for seven ars, the frequency gradually increasing till August last, since when e urine had dribbled away by day and night. Constant pain in the pogastrium, very feeble; says he has been "going rapidly downl" for two years; much loss of flesh during last fortnight; pressed; says he feels that he will not live long. A week previously Burgess had passed a catheter and drawn off 2 quarts of urine; l a the consultation I drew off 3 pints of clear urine of low specific gravity, 1010; albumen *nil*. Prostate enlarged considerably per rectum, bilobed, dense, movable.

On November 2nd, Dr. Burgess and Dr. R. Proust, of Paris, being present, I removed the prostate, weighing 1¼ oz., with ease, only four minutes elapsing till the gland was delivered from the bladder. There were several small calculi in a pouch behind the prostate. Scarcely any bleeding and no shock. Not a bad symptom for seventeen days, during which patient daily improved in strength, and latterly sat up daily. Some urine passed November 12th, and the wound had almost closed on the 19th. On this day he began to feel very low and lost his appetite. Next day the urine was very scanty and drowsiness set in. He died of uraemic coma on November 21st. Death in this case was obviously due to long-standing disease (insufficiency?) of the kidneys rather than to the operation. Nevertheless it has to be accepted in connexion therewith.

CASE LXVI.

Gentleman, aged 56, seen in consultation with Mr. John Langton, Harley Street, November 6th, 1903. Prostatic symptoms for two years. Cystoscopic examination attempted a year previously, but unsuccessfully, owing to bleeding. Intense frequency of micturition by day and night, so that sleep impossible. Condition most miserable. Much averse to using catheter; in constant dread of retention. Residual urine only 2 oz., clear, healthy. Prostate palpably enlarged, bilobed, soft, movable. We made a cystoscopic examination, November 7th, with difficulty, as bleeding again set in; but the view eventually obtained revealed a finger-like outgrowth of the right lobe of the prostate in the bladder. I at first counselled postponement of operation till the prostate should have grown larger, and thus become more easy of removal; but Mr. Langton, who knew of the patient's sufferings both physical and mental, was averse to delay, and eventually it was decided to operate at once.

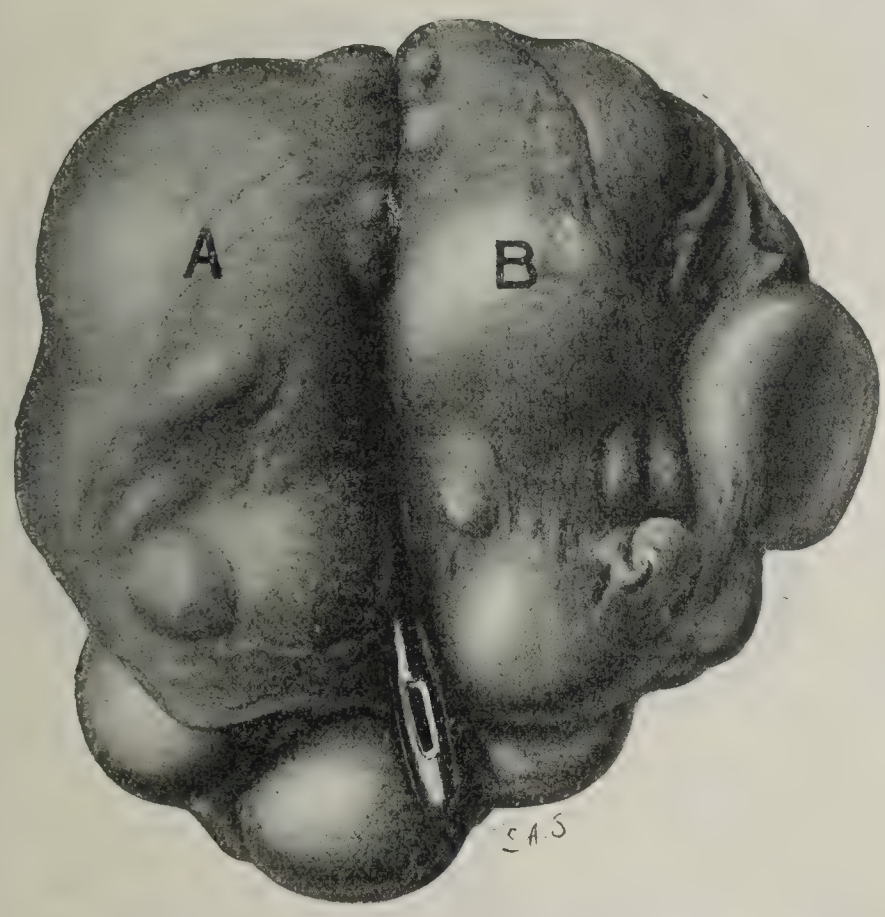


Fig. 2 (Case LXVII).—Prostate weighing 4½ oz. removed from patient aged 81. A, left lobe; B, right lobe.

Operation, November 9th. On introducing my finger into the bladder the right lobe was found projecting inwards for ¾ in. The prostate was easily and rapidly enucleated, only four minutes elapsing from commencing the suprapubic incision till the gland was delivered from the bladder. Rapid and uneventful recovery, urine passing naturally November 27th, and the wound being dry December 1st. On December 3rd he left the home perfectly well, able to retain his urine for five or six hours, and to pass it naturally—"not so well since he was a boy," as the patient expressed it.

The prostate (Fig 1, p. 1186), which weighs 1 oz., is a pretty specimen, and shows the finger-like outgrowth from the right lobe in the bladder, which no doubt acted as a foreign body, giving rise to irritation, and acting as a ball-valve to the urethral orifice. This is the youngest patient on whom I have performed this operation. The ease with which the comparatively small prostate was enucleated is remarkable.

CASE LXVII.

Gentleman, aged 81, seen with Dr. Knox Shaw, Wimpole Street, October 29th, 1903. Prostatic symptoms for thirty years, gradually increasing. Catheter passed in June, 1901, showing 13 oz. residual urine. Cystitis in August, with much pus in the urine, and rigors. Catheter five or six times daily in November, 1902. Sounded under an anaesthetic in July, 1903, by another surgeon, but no stone found; entirely dependent on catheter since then, with much pain and occasional bleeding. General health bad. Prostate greatly enlarged per rectum, broad, soft, nodular, movable.

On November 19th, Dr. Knox Shaw and Colonel E. Little, I.M.S., being present, I removed the prostate entire in its capsule with several small calculi from the bladder. There was considerable bleeding, and the patient was feeble for some days after the operation.

By November 29th the suprapubic wound had closed so rapidly that it was necessary to reinsert a small tube to prevent spasm of the bladder. This was removed December 6th, and on the same day the patient began to pass urine naturally. Wound closed December 11th. On December 16th he went out for a walk. He is now quite well, and able to retain and pass his urine naturally.

The prostate (Fig. 2) weighs 4½ oz., and is irregularly enlarged and bossy, the left lobe having been more prominent in the bladder than the right.

CASE LXVIII.

Gentleman, aged 69, with prostatic symptoms for seven years.

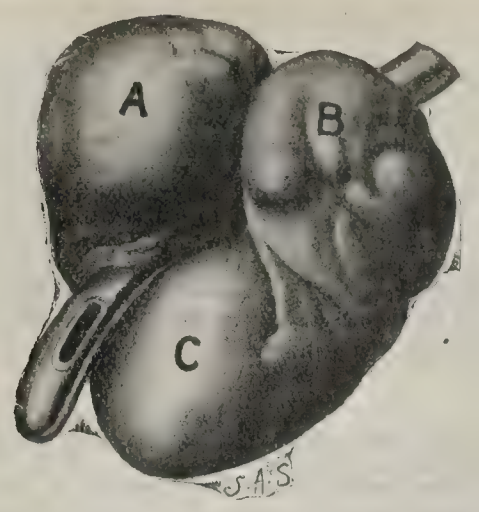


Fig. 1 (Case LXVI).—Prostate, weighing 1 oz., removed from patient, aged 56. A, left lobe; B, right lobe; C, finger-like outgrowth in bladder from right lobe. Catheter indicates course of urethra.

Catheter employed for four years; entirely dependent thereon for two years. Much pain and haemorrhage; urine fetid. Calculi felt by sound. Prostate enlarged, nodular, and movable.

On November 18th, 1903, Colonel S. Porter, I.M.S., being present, I removed two large and twenty-one small phosphatic calculi, weighing 442 gr., and then enucleated the prostate, weighing 2¼ oz. Scarcely any bleeding; no shock. Uninterrupted recovery. Commenced to pass urine naturally December 3rd; wound dry December 8th. Left for the country December 22nd, in excellent health, able to retain and pass water as well as he ever did.

CASE LXIX.

E. J., collier, aged 64, sent by Dr. T. D. Griffiths, Swansea, admitted to St. Peter's Hospital November 23rd, 1903, with prostatic symptoms of four years' duration. Retention six months previously; catheter employed since then: entirely dependent thereon for six months. Prostate moderately enlarged per rectum. Cystoscopy revealed a nipple-shaped outgrowth of the left lobe in bladder.

On December 2nd I removed the prostate, weighing 1½ oz., entire in its capsule, the operation from commencing the suprapubic incision till the delivery of the prostate occupying only two minutes and a half. Passed 5 oz. urine naturally December 19th, and wound closed next day.

I have now the pleasure of introducing to you this patient in perfect health, able to pass and retain his urine as well as he ever did.

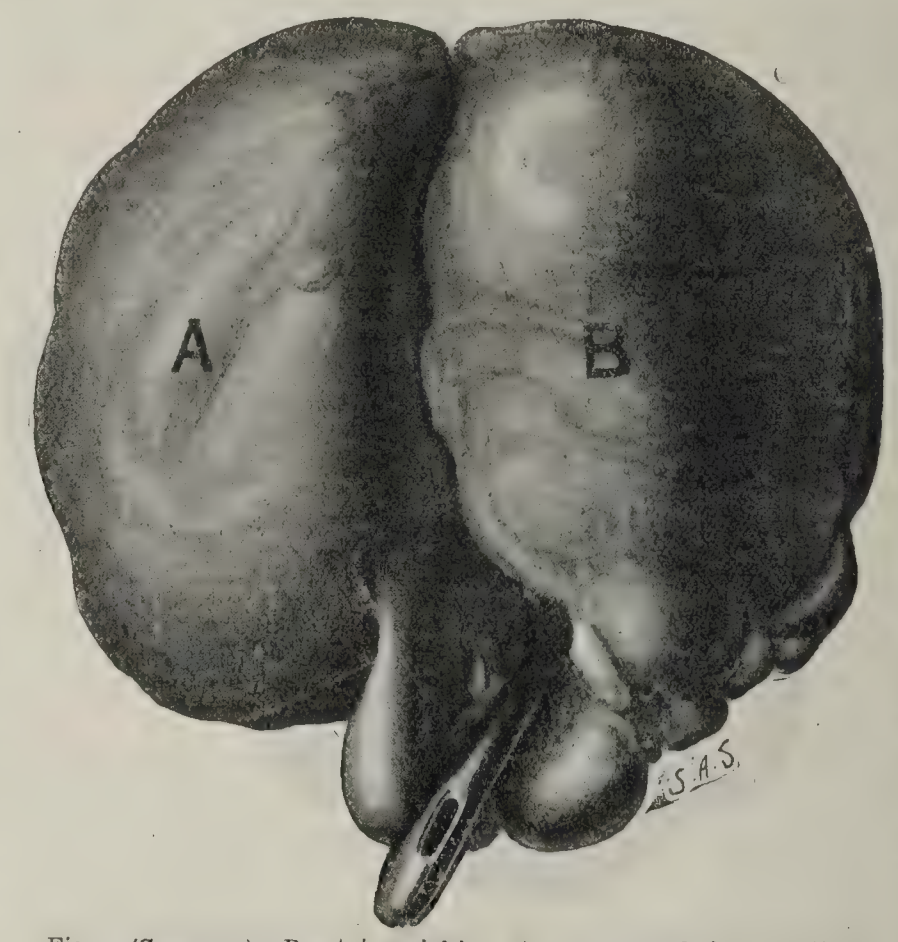


Fig. 3 (Case LXX).—Prostate weighing 6¼ oz. removed from patient aged 84. A, left lobe; B, right lobe. Catheter shows position occupied by urethra.

CASE LXX.

Captain M., aged 84, seen at Windsor with Dr. Bruce Porter, November 22nd, 1903. Prostatic symptoms for eight years; catheter employed for six years; entirely dependent thereon for five years: passed every two hours. Urine contains much blood and ropy muco-pus, alkaline, fetid. Catheter passed in 13½ in. before urine flowed; stone felt grating against its end. Prostate enormously enlarged per rectum, roundly bilobed, smooth, soft, movable. Patient emaciated, bearing the impress of terrible suffering. "Life not worth living under present condition," as he puts it; morphine daily to mitigate pain. Intermittent and irregular pulse. Rigors and fever periodically. Brought to London November 27th, and bladder washed out twice daily.

On December 4th, Mr. C. Braine, anaesthetist, and Dr. Bruce Porter assisting, I opened the bladder suprapubically, and found two phosphatic stones, which were removed; weight, 2½ drachms. Both ureters dilated to such an extent that the index finger passed readily into them. The prostate felt the size and shape of a cricket ball, jammed beneath the pubic arch, half of it lying in the bladder and half outside. It was enucleated entire in its capsule. Much force was required to separate it from the surrounding sheath. Time from commencing the suprapubic cystotomy till prostate delivered from bladder, seven minutes. There was scarcely any bleeding or shock. Drainage tube removed December 7th; not a bad symptom; no morphine since operation. "Talk of the pains of an operation," said the patient, "the last four days have been l days from pain amongst many years." Sat up daily after December 1 Passed urine naturally December 20th; wound dry December 2 and patient walking about. On January 2nd, 1904, travelled hom Windsor in good health and spirits, passing and retaining his u naturally. Stated that he felt twenty years younger than his ag a truly "grand old man." In spite of the putrid state of the u before operation the wound remained healthy and free from phosph throughout.

The prostate (Fig. 3), which weighs 6¼ oz., is a fine specime symmetrical enlargement, with a small outgrowth in the form of a below the orifice of the urethra. This is the oldest patient on who have performed this operation, and I submit that the result is a g surgical triumph, considering his age, the large size of the prost the weak state of the patient, the presence of chronic cystitis w formation of phosphatic calculi, the dilated condition of the ure from backward pressure, indicating a probability that the kidneys w much diseased, and in spite of all this the complete restoration of hea and function of the bladder.

CASE LXXI.

Gentleman, aged 78, with prostatic symptoms for ten years. Cathe not employed owing to case being complicated by the presence of stricture of the urethra. Great frequency of micturition—every 10 hours by day and night. Residual urine, 12 oz., contained much p Patient extremely feeble, scarcely able to stand up.

On December 11th, Mr. C. Braine anaesthetist, I performed inter urethrotomy and then opened e bladder suprapubically. The p state presented a nipple-shap projection on either side of e inner orifice of the urethra, wh was stenosed. The bladder is extensively sacculated. The p state, weighing ¾ oz., was e cleated, the lobes coming av separately. On December 2 passed urine naturally; wou closed January 4th, 1904. T patient is now convalescent a able to pass and retain ur naturally.

CASE LXXII.

H. P., aged 59, admitted St. Peter's Hospital December 5 1903, with the usual symptoms enlarged prostate. This pati had been operated on by anot surgeon in April, 1901, by McGi method, an enlarged "mid lobe" of the prostate being moved. The suprapubic wou did not heal till January, 19 when the sinus was excised a cauterized. Since then, incre ing pain and frequency of m turition. Catheter passed night after which he got five or s hours sleep; at other times h to urinate every two hours. R sidual urine, 8 oz., alkaline, feti contained much pus. Prosta enlarged per rectum; rounde tense; fairly movable. Cy oscopy on December 9th, 19 showed the prostate enlarged a rounded on the left side, ir gularly jagged on the right. mass of muco-pus covered t trigone, and in this was embedded a phosphatic calculus, which w

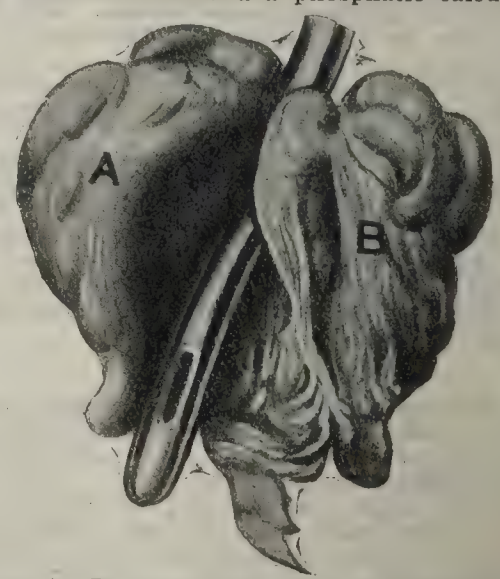


Fig 4 (Case LXXII).—Prostate, weighing 1¼ oz., removed from patient, aged 59. A, smooth nodular left lobe; B, jagged right lobe, result of portion having been previously removed by McGill's operation.

oved by litholapaxy. The bladder was washed out daily, with the lt that the urine became acid, but there was no diminution in the or frequency.

December 16th Mr. Bickersteth, of Liverpool, and others being ent, I removed the prostate. There was considerable difficulty in ing the bladder suprapubically, owing to the scar tissues being ed together, and still greater difficulty in enucleating the prostate, g to the inflammatory adhesions, resulting from the previous opera- between the inner margins of the prostate and the walls of the der, though the gland came away readily from the triangular ment. A portion of the prostatic urethra came away adherent to gland. Uninterrupted recovery. The wound was closed December thirteen days after the operation. The patient is now quite well, ing about the wards, able to retain and pass his urine as well as he did.

e prostate (Fig. 4, p. 1186), which weighs 1¼ oz., is jagged along the erior aspect of the right lobe, where it was adherent to and matted the bladder wall. This is the third case in which my operation of plete enucleation of the prostate has been entirely successful after ill's operation had failed. The previous operator in this case has istently in his writings and otherwise minimized and misrepresented nature and scope of my operation, as being identical with McGill's. s the irony of fate that this case, in which McGill's operation per- ed by him had entirely failed to bring relief to the patient, should e fallen into my hands to be completely cured by total extirpation of prostate.

CASE LXXIII.

gentleman, aged 76, sent by Dr. T. D. Griffiths, Swansea, seen with Homerton, London, December 15th, 1903. Prostatic symptoms for e years; retention ten months ago; catheter employed since then much pain in passing it; great irritability of the bladder; cannot p from the frequency of micturition; urine acid but contains much and mucus; prostate greatly enlarged, smooth, soft, movable, felt anually; patient's health much impaired.

December 19th, Mr. Thomson Walker and Dr. Homerton assisting, moved the prostate, weighing 4¾ oz., as usual. There was very e bleeding or shock. The patient has had no bad symptom, and is convalescent.

TE.—During the period that has elapsed since this lecture was ered on January 6th, 1904, I have performed this operation in a ber series of 25 cases. Details of these operations will in due course ubmitted for the consideration of the profession.

REFERENCES.

uly 20th, 1901. [2] February 1st, July 26th, and November 8th, 1902; l 18th, July 4th, and October 17th, 1903. [3] BRITISH MEDICAL JOURNAL, ber 17th, 1903.

TOTAL PROSTATECTOMY:

UCTIONS TO BE DRAWN FROM THE PRESENCE OF STRIATED USCLE FIBRE IN THE "CAPSULE" OF THE PARTS REMOVED.

By CUTHBERT S. WALLACE, B.S., F.R.C.S.,
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THOMSON WALKER, in a recent communication read re the Royal Medical and Chirurgical Society,[1] has vn attention to the presence of striped muscle fibre on anterior aspect of the prostate. He describes it as sur- nding the apex of the organ and then as passing up on anterior surface of the gland between the "capsule" and posterior layers of the recto-vesical sheath of the pro- e. (The prostatic plexus of veins lies between the layers he recto-vesical fascia; consequently there will be a layer he recto-vesical sheath between the veins and the layer of ped muscle.) In another part of the same paper, when ribing the "capsule" on a specimen removed by pro- ectomy, it was stated that striped muscle fibre was found he anterior part of the "capsule." From this it was ed that the line of cleavage in the process of enucleation t have passed outside the confines of the gland, and that efore the prostatectomy was complete.

microscopic sections of the normal prostate made at t angles to the long axis of the urethra and midway veen the extremities of the gland, the following features ne relation of this striated muscle may be noted.

the most anterior part of such a transverse section the ated muscle fibres take a transverse or horizontal direc- . The bundles are well marked and are separated from other by a little fine areolar tissue. Near the urethra bundles become more widely separated, and between n are seen to lie well-marked fibrous tissue and unstriped cle fibres. Traced outwards towards the lateral parts of the tate, the striped muscle fibres lose themselves in the tance of the organ. Passing inwards towards the urethra striped muscle fibres become more and more widely rated by the fibro-muscular stroma of the gland until at the latter predominates, the striped fibres becoming r and fewer until they cease altogether. Some time, however, before this happens the gland tissue makes its appearance, so that striped muscle fibre, fibro-muscular stroma, and gland tissue are found in the same field; and it is possible to see gland tissue with striped muscle fibres lying on both its central and peripheral aspect, so intimately is the striped fibre insinuated into the peripheral portion of the gland.

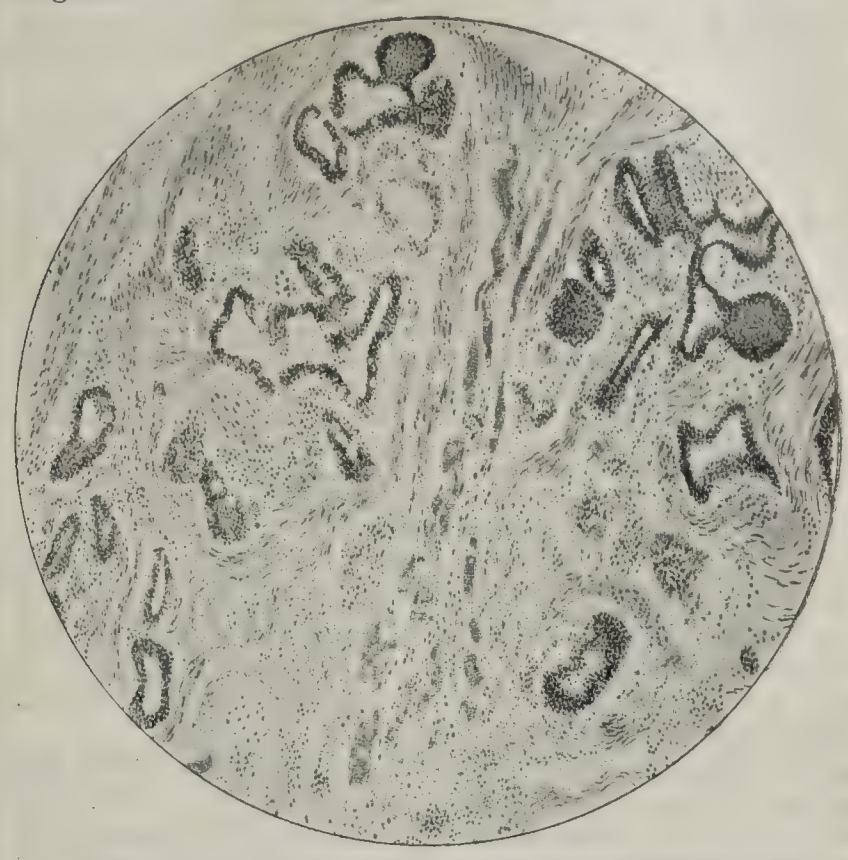

Fig. 1.—Showing a portion of the periphery of the prostate of a young adult. A group of striated muscle fibres is seen penetrating the stroma between the gland acini.

It thus follows that the presence of striped muscle fibre in the "capsule" of an enucleated prostate is not to be taken as an irrefragable proof that the line of enucleation has passed outside the confines of the gland, and that therefore the prostatectomy is complete. The completeness, as in other cases, can only be established by a microscopic demonstration of the absence of gland tissue in the parts left behind.

REFERENCE.

[1] BRITISH MEDICAL JOURNAL, March 26th, 1904, p. 728.

THE RELATIVE ADVANTAGES OF SUPRAPUBIC AND PERINEAL PROSTATECTOMY.*

By EDWARD DEANESLY, B.Sc.LOND., F.R.C.S.ENG.,
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THE prostate must be regarded both anatomically and functionally as an accessory portion of the urethra, to which it is inseparably attached. Its relation to the bladder is much less intimate. The normal prostate is entirely extravesical, and its internal projection within the bladder is hardly visible when the bladder and urethra are slit open from the front. Seen in their normal relations in the living body by means of the cystoscope, the difference between the male and female bladders is much less than would be expected, and all that is seen of the prostate is a low median-grooved projection at the posterior part of the orifice of the urethra. The median groove corresponds to the anterior aspect of the projecting uvula vesicae, and in some cases the uvula itself is seen as a small round projection in the middle of the groove.

The prostatic urethra, 1¼ in. in length, is completely embraced by the prostate, but a much thicker portion of prostate covers it behind than in front. Moreover, the anterior portion consists mainly of unstriped muscular fibres, and in some cases no gland tissue at all exists in front of the urethra. The prostatic utricle and seminal ducts open into the projecting veru montanum near the centre of the prostatic urethra, and above the centre are the openings of the prostatic ducts. The connexion of the urethra with the surrounding prostatic

* Read before the Staffordshire Branch of the British Medical Association.

tissue is so intimate that it is impossible with the sharpest instruments by any ordinary means of dissection to separate the normal urethra from the prostate. When the prostate is enlarged the urethra participates in the process, and becomes distorted and elongated, sometimes to the extent of more than double its original length. To any one who examines an anatomical specimen showing this condition it is simply incredible that the prostate can be removed without removing, also, the whole, or practically the whole, of the prostatic urethra.

Another point in the surgical anatomy of the prostate which is of obvious importance, but which has received little attention in recent discussions on prostatectomy, is the relation of the prostate to the sphincters of the bladder. The muscles which, from their position and the arrangement of their fibres, may be presumed to have a sphincter action are three. First, the thicker portion of the circular muscular coat of the bladder which surrounds the neck and the orifice; next, the intrinsic muscle fibres of the prostate; and, lastly, the constrictor urethrae and a layer of circular fibres which extends upwards from it, and embraces the apex of the prostate. The first two of these are unstriped (involuntary) muscles; the last consists of ordinary striated muscular fibres. It was thought by Henle that the muscular tissue of the prostate formed the effective sphincter of the bladder; but although, as already mentioned, the portion of the prostate in front of the urethra consists mainly of muscle fibres crossing the axis of the urethra, and others similarly disposed are seen behind the urethra in transverse sections of the gland, their importance as sphincters cannot be great, in the first place because they are absent in women, and, in the second, because we know that practically the whole prostate can be removed without loss of control over the bladder.

There can be no doubt that the most important and effective sphincter is the constrictor urethrae and its upward extension on the apex of the prostate. This is a voluntary muscle and voluntary control must be effected through it, just as voluntary control of the anus depends on the external sphincter ani. In both cases of course there exists also an internal or involuntary sphincter muscle composed of a strengthened band of the normal circular muscular coat of the viscus. When a catheter is introduced within any part of the prostatic urethra no urine flows unless the patient strains—that is, unless the bladder contracts or is compressed by the abdominal walls. This shows that the prostatic urethra is normally closed, and is not, in fact, a portion of the bladder. The force closing it, however, presumably the contraction of the circular fibres of the neck of the bladder, is very small, for once the point of the catheter is in the prostatic urethra very little hydrostatic pressure suffices to overcome it and to allow fluid to enter the bladder. On the other hand, to inject fluid through the anterior urethra and overcome the resistance of the constrictor urethrae a much higher pressure is required.

The relation of the prostate to surrounding structures, especially to the pelvic fascia, has lately been the subject of much controversy, and is of great surgical importance. This controversy arose out of the well-known operations of Mr. P. J. Freyer, to whom, whatever view we may take of his anatomical contentions, is due the credit of having demonstrated that complete prostatectomy from a surgical point of view is not only possible but much simpler than had previously been supposed. Mr. Freyer's contentions were, first, that the enlarged prostate had a definite capsule of its own from which it could be enucleated with the finger; and, secondly, that in some cases, at any rate, it was possible to remove the prostate in one or more pieces, leaving an intact urethra behind.

I think most of those who have followed the controversy are now agreed that neither of those contentions has been sustained. The observations of Mr. S. G. Shattock and of Mr. Cuthbert S. Wallace seem to me absolutely conclusive on the main points. There only remains, in order to clear up the confusion, that surgeons should agree upon a common nomenclature of the structures involved. All are agreed that after Freyer's operation some kind of prostatic capsule is left behind. Whether this is a true fibrous capsule or a condensed portion of the prostatic cortex compressed by the adenomatous growths within is immaterial from a surgical point of view. It is certain that the normal prostate has no such capsule, and the investments of the enlarged adenomatous prostate may be described best as consisting of an outer fibrous sheath formed by the recto-vesical fascia, and an inner capsule or cortex derived from the gland itself. Between these two investments lie the prostatic plexus of veins, which are not injured by the operation of enucleation.

It is obvious that the prostate may be approached surgically by two routes: (1) through the bladder, and (2) from without the bladder, through the rectum or perineum. The main object of this paper is to discuss the relative advantages of these two routes. At the present time, owing to the brilliant series of operations published by Mr. Freyer, the suprapubic route is that most generally adopted. Suprapubic cystotomy is a simple and familiar operation, and gives ready access to the prostate from within the bladder. The mucous membrane over the prostate is incised over one or both sides of the prostate, and the latter is then easily enucleated by the finger, aided by the fingers of the other hand in the rectum. I have performed this operation four times, and in three cases of the four the prostate was shelled-out completely without difficulty and with little haemorrhage. In the fourth it was simply impossible to enucleate the prostate, which was of the hard fibrous variety, and the operation had to be completed by the perineal route. The recto-vesical sheath had, however, been opened, and the patient succumbed to pelvic cellulitis at the end of a fortnight. In this case there was nothing to distinguish the fibrous from the adenomatous variety of prostatic enlargement, either by rectal palpation or by cystoscopic examination. It was considerably enlarged and projected within the bladder like a cervix uteri, just as in the same manner as in the other three cases in which enucleation was easy. Had this case been operated on by the perineal method without the previous injury inflicted by the unsuccessful efforts from above, the whole or a sufficient amount of the prostate could have been safely removed under the guidance of direct vision. Or, if this had proved impossible, the operation could have been abandoned without inflicting any serious injury.

Another objection to the suprapubic route is the great depth of the prostate from the surface in stout subjects. Owing to this cause considerable laceration of the prevesical cellular tissue is difficult to avoid, and exposes the patient to two serious dangers—prolonged oozing of blood into the subperitoneal tissues and subsequent pelvic cellulitis. The latter occurred in one of my cases, and although the prostate was easily enucleated in two large smooth masses, death occurred on the third day.

Lastly, in the suprapubic operation the subsequent drainage of the bladder is effected against gravity, and is often a source of serious trouble. The pouch left in the bottom of the bladder is never completely emptied, the urine generally becomes ammoniacal, and the wound often becomes sloughy and coated with phosphates. Owing to these causes healing of the wound may be delayed for many weeks.

These objections to the suprapubic incision are so obvious that the alternative perineal route has been advocated and practised by many surgeons both before and since Freyer's cases were published. Mr. J. H. Nicoll, of Glasgow, in 1899 advocated a preliminary suprapubic cystotomy followed by a median perineal incision. The prostate was then pushed into the perineal wound by two fingers in the bladder from above, and a sufficiency of redundant prostatic tissue clipped away with scissors without opening the urethra or bladder. Bruce Clarke in 1900 advocated a very similar procedure carried out in two stages. This operation has certain obvious advantages, especially in such a case as that I have already mentioned, where the prostate is so densely fibrous that enucleation is impossible.

A much superior perineal method, which I shall now describe, has been elaborated by M. Robert Proust, of Paris, and is described in detail in an admirably illustrated monograph published in 1903. After verifying the steps of the operation on the cadaver, I have employed this method on a man whom I show to-day and whose case I will first briefly relate.

He is now 65 years of age. In September, 1901, the late Mr. Vincent Jackson removed a large stone by suprapubic cystotomy, and at the same time snipped away some small portions of the prostate which projected within the bladder. As a result of this operation he was much benefited, and was able to dispense with the catheter, on which he had for some time previously been entirely dependent. Symptoms of stone recurred, and in October, 1902, after an ineffectual attempt at lithotrity, I reopened the bladder and removed two large smooth calculi lying in a narrow-mouthed pouch at the base of the bladder. The prostate was felt to be greatly enlarged and projected like a cervix uteri into the bladder. After this operation he remained well for twelve months: another stone was then found, and I advised prostatectomy. Influenced by the considerations already mentioned, and also by the presence of a considerable ventral hernia, the result of the

o previous suprapubic operations, I selected the perineal route, and rried it out by Proust's method on February 18th, 1904. The operan proved rapid and simple in performance, and satisfactory in its sult. Convalescence was rather slow, but unattended by any special fficulties, and the patient is now—ten weeks after the operation—in od health. The urine is acid and clear, and micturition forcible and e from pain. There remains, however, some weakness of the hincter of the bladder, and he is unable to retain urine beyond two urs.

M. Proust, in his work, makes no reference to Freyer's ocedure; but I may point out that Freyer's discovery (for ithout disparaging previous operators it really amounts to a scovery), namely, that in the majority of cases of enlarged ostate the whole mass can be easily enucleated, is of equal lue, whether the prostate is approached from above or from low. The final stage of the operation—the enucleation—is e same in both cases, except that by M. Proust's procedure e prostate is not only completely exposed to sight and touch it rendered quite superficial, so that the whole operation can carried out with precision and deliberation. The steps by hich this is accomplished are as follows, and great importce is attached to the precise performance of each step fore proceding to the next. These steps are illustrated by larged copies of Proust's illustrations here shown.

In the first place the patient is placed in what is termed the verse perineal position—that is, the lithotomy position—ith the pelvis raised by a special table or by blocks to such height that the surface of the perineum is almost horintal. A catheter is passed and left in the bladder. A rved incision with its convexity forwards is then made from e ischial tuberosity to the other, the summit of the curve eeting the middle line two fingerbreadths in front of the us. The skin and fat are dissected back, and the bulbovernosus and ischio-cavernosus are defined. A small uscular bundle, which Proust terms the superficial anolbar raphe, passing from the hinder end of the bulb to the us, is put on the stretch and divided transversely. The terior end of this band being drawn upwards and forwards e bulb is lifted with it, and two important landmarks are w exposed and defined—the anterior edges of the levator i on each side and in the middle line between them a nd of muscular fibres uniting the membranous ethra to the rectum, called by Proust the rectoethral muscle. The recognition of this structure is the ost important step in the operation because it is the y to the recto-vesical space. It is divided transversely, eping the scissors parallel to the membranous urethra so to avoid wounding the latter. When this cut is made curately it at once opens the retro-vesical space, and the ostate and bladder are easily separated from the rectum as gh as the reflection of peritoneum by means of the two refingers. If a suitable retractor is now inserted and the ctum and anus drawn strongly backwards, the posterior rface of the prostate is not only exposed to view but is agged down into a quite superficial position, in which it n be easily handled. In order to make it project still ore the prostatic urethra is opened at its apex and a sharplyrved sound passed into the bladder. If the beak of the strument is now turned round so that it looks towards the erator, the prostate can be drawn down and steadied in any sired position.

It is now easy to open the prostatic capsule and by means the finger and blunt elevators to enucleate completely the ostate on its peripheral aspect, leaving it attached to the adder merely by the prostatic urethra. The latter is next cised along its floor throughout its whole length but witht trespassing on the neck of the bladder. Inserting the ger inside the open urethra and using sharp scissors, each teral half of the prostate, according to Proust, may be cut ay from the urethra without wounding the latter, and the anner of doing so is clearly shown in one of his figures. By e use of sharp instruments and by making the incisions in e substance of the prostatic tissue itself, it is of course eoretically possible to remove the bulk of the prostate, and ave the prostatic urethra as a completely isolated tube tached to the membranous urethra at one end and the neck of the urethra at the other. The mere scription of the result of this procedure makes it difficult believe that this is really possible, except, perhaps, in ses where the enlarged prostate projects but slightly within e bladder. Where it projects into the bladder, as it does the great majority of cases, to the extent of one-third or en one-half of its bulk, I do not believe it is possible to nove the whole organ without taking away the greater part, not the whole, of the prostatic urethra. Without, however, accepting the possibility of preserving the prostatic urethra as a normal procedure, it is one of the principal merits of the perineal method, as opposed to the suprapubic, that the whole operation is conducted with a full and clear view of the field of operation. It is for this reason much more adaptable to the varied conditions of particular cases. It is by no means certain that complete removal of the whole of the enlarged prostate is required in all cases, or is, indeed, possible in every case. Where, therefore, enucleation is found to offer unusual difficulty, such as that due to the densely fibrous form of prostatic enlargement, it would be easy by the perineal method to clip away with scissors the bulk of the gland without opening the bladder or the urethra, except by means of the median incision already described. This incision, however, should never be omitted, for the amount and character of the internal projection, even if previously determined by the cystoscope, as is always advisable, must be confirmed by a finger in the bladder. If by this means it is found that the removal of the portions of gland from outside the bladder has not sufficiently lessened the projection within it, or especially if any pedunculated projecting mass is felt, the projecting portions can be easily reduced or removed by suitable gouge forceps passed into the bladder.

The after-treatment is simple. The breach in the urethra or bladder is partly closed by sutures not passing through the mucous membrane, and a large rubber tube is brought out through the centre of the perineum; the rest of the perineal wound is sutured. The bladder is irrigated daily, the tube being removed as soon as the state of the urine and wound permits. The resulting perineal fistula then rapidly closes, and normal micturition is resumed.

In conclusion, I may briefly summarize the principal advantages which prostatectomy by the perineal method appears to me to possess compared with the more familiar suprapubic method. It is anatomically more direct; it does not inflict a double wound in the bladder, and does not open the prevesical cellular tissue. Again, the whole operation can be performed deliberately, and under the direct guidance of sight as well as touch; it permits, therefore, the operator to remove as much or as little of the prostatic overgrowth as the circumstances of the case or the nature of the enlargement render desirable or feasible. Lastly, the drainage of the bladder and subsequent wound treatment are much facilitated by the dependent opening. The conspicuous merit of Proust's operation compared with previous perineal methods is the accuracy and certainty with which each step of the operation is performed, and the admirable access to sight and touch which it gives to the prostate and base of the bladder. When the steps of the operation are properly carried out, the exposure of the prostate is extremely rapid and simple, and the whole operation occupies no more time than the suprapubic operation. Perhaps the greatest merit of the operation is that it permits a precise examination of the whole prostate both within and without the bladder before the question of removal of the organ is finally decided. The preliminary stages of the operation, indeed, offer a method of exploring the bladder which for many purposes is much superior to suprapubic cystotomy. In those common cases, for example, where stone and enlarged prostate coexist, and where lithotrity is either difficult or inadvisable, owing to the liability of recurrence, it is usual to remove the stone by suprapubic cystotomy. Of late years the prostate has often been removed at the same time. Most surgeons are aware that suprapubic lithotomy in adults, whether accompanied or not by prostatectomy, is attended with a considerable mortality, but the difficulties imposed by the enlargement of the prostate and the depth of the bladder have hitherto made lateral or median perineal lithotrity even more difficult and dangerous. The latter difficulties have been entirely overcome by Proust's method, by which the bladder and prostate can be easily and safely opened from the perineum, either for exploration, for removal of calculi, or for removal of the whole or portions of the prostate.

Presentation.—Dr. W. Hooper Masters, on leaving Parkstone to take up his residence in Barnes, was presented with a walnut wood writing table, with desk and revolving chair, by the members of the Poole and Parkstone Natural History Society, of which he was president; he also received a silver matchbox and gold mounted cigarette holder from the Gardeners' Association.

REMARKS ON A SERIES OF 120 OPERATIONS FOR VESICAL CALCULI.

By F. A. SOUTHAM, M.B.Oxon., F.R.C.S.Eng.,
Surgeon, Manchester Royal Infirmary; Professor of Clinical Surgery, Owens College.

Having recently completed a series of 120 operations for the removal of vesical calculi, a brief review of the cases and an exhibition of the specimens will perhaps prove of interest.

Sex.

The operations were performed upon 110 patients, of whom 8 were females and 102 were males, illustrating the much greater frequency of calculus in the latter sex.

Age.

Twenty-nine patients were under 10 years of age, and of these 6 were three years old, this being the youngest age at which a calculus was met with; 47 patients were between 10 and 50 years of age; 44 patients were over 50 years of age—namely, 17 between 50 and 60 years, 18 between 60 and 70 years, and 9 between 70 and 80 years; the oldest patient was 78 years of age.

Nature of Operation.

1. *Females.*—In 7 of the 8 females the calculus was extracted through the dilated urethra. In the remaining case it was removed by vaginal lithotomy, this route being selected in preference to the suprapubic, as the bladder was extremely rigid and contracted, and the calculus, which consisted of uric acid, was of large size, measuring $2\frac{1}{2}$ by $1\frac{1}{2}$ in.

2. *Males.*—In 49 patients the calculus was removed by lithotrity, this operation being performed in 14 of the 27 boys, who were under 10 years of age; of the latter, 4 patients were 3 years old, 2 were 4 years old, and 5 were 5 years old; 3 patients were between 5 and 10 years of age.

In 63 cases lithotomy was performed, the lateral operation in 17 patients, and the suprapubic in 46 patients.

Mortality.

In 12 patients the operation was followed by a fatal result, giving a mortality of exactly 10 per cent. in the total number of cases operated upon. The unsuccessful cases, all of which occurred in males, were as follows: In the 49 cases treated by lithotrity 1 case was fatal, giving a mortality of almost exactly 2 per cent. for the crushing operations.

The patient in this instance was a gentleman, aged 72 years, who had been a free liver and was of a very gouty habit. The calculus consisted entirely of uric acid and was about $1\frac{1}{4}$ in. in diameter. There was considerable enlargement of the prostate, so that the operation was somewhat prolonged, lasting upwards of an hour. It was followed by coma and suppression of urine, and death took place on the second day from uraemia. No necropsy was made, but though the urine was normal, the kidneys were probably affected with gouty nephritis.

In the 63 lithotomies there were 11 fatal cases; these occurred in the 46 suprapubic operations, the 17 lateral operations all proving successful. This gives a mortality of nearly 24 per cent. for the suprapubic operation, which at first sight seems unusually high. It must be remembered, however, that the cases so treated were all unsuited for lithotrity, the latter operation being contraindicated in each instance—with one exception—on account of the large size of the stone, associated either with enlargement of the prostate and an unhealthy state of the bladder and urine, or with a feeble condition of the patient, in consequence of which the shock of a prolonged crushing operation would not have been well borne.

The fatal result in these cases was due in several instances, when the patients were advanced in years, to sudden heart failure, coming on at some interval after the operation, when all was apparently progressing favourably; in others, as proved by necropsy, it was the result of pre-existing secondary renal disease, death being preceded by suppression of urine and other evidences of uraemia.

The one exception was a boy, aged 8 years, upon whom I performed my first suprapubic operation in 1886. This date was very shortly after suprapubic lithotomy had been revived by Sir H. Thompson, and our experience of the operation was as yet very limited. The bladder and urine being healthy, after removing the stone I sutured the opening in the bladder and then closed the external wound. All went on satisfactorily for some days, when the bladder began to leak; the urine being unable to escape externally, infiltrated the surrounding tissues, and the boy developed pelvic cellulitis which proved fatal. Subsequent experience has taught us to leave the external wound open when the bladder is sutured so that if any leaking should occur there may be an exit for the urine.

As regards the mortality after suprapubic lithotomy, I was somewhat surprised to find that it was so high, not only in my own practice, but also in that of other surgeons.

Jacobson[1] mentions 14 cases of suprapubic lithotomy under his care, of which 4 were fatal, giving a mortality of 28 per cent.

Barling[2] collected 72 cases of suprapubic lithotomy performed in London and provincial hospitals between 1888 and 1892, the patients all being under 20 years of age, and in 15 instances there was a fatal result, giving a mortality of 20 per cent.

It is also interesting to note that in the practice of Freyer,[3] since he has performed lithotomy only in such cases as are unsuitable for lithotrity, lithotomy in the adult (21 cases, with 4 deaths) has been attended by a mortality of nearly 20 per cent.

Recurrence.

In 7 patients there was a recurrence of the calculi in the bladder, necessitating further operations. In 1 patient lithotomy was performed three times and lithotrity once in the course of eight years. In another lithotomy was performed once and lithotrity twice in the course of twelve years, an interval of ten years elapsing between the second and third operations. In 2 patients lithotomy and lithotrity were each performed once. In 3 patients lithotrity was performed twice, intervals of from two to five years elapsing between the different operations.

It is interesting to note that in the cases where the calculi recurred 1 patient was in his 50th year, and the others were all over 56 years of age when the first operation was performed. No instance of recurrence was met with in children or in adults under 50 years of age.

The 10 instances of recurrence were met with after five operations for lithotrity, and also after five operations for lithotomy, giving 10 per cent. of recurrences after lithotrity and 8 per cent. after lithotomy. In 2 patients nephrolithotomy was subsequently performed, and calculi were removed from the kidney on each occasion.

Foreign Bodies as Nuclei.

In 2 instances the nucleus of the calculus was formed by a a foreign body. In 1 case—a male, aged 28—it consisted of a piece of a glass rod, which he stated he had accidentally swallowed eight years previously. In the other—a female, aged 37—who had been operated upon three years previously for vesico-vaginal fistula, the nucleus was formed by a silver suture.

Spontaneous Fracture.

In one instance there was a good example of this rare complication. The patient, a man, aged 58 years, had frequently passed by the urethra numerous irregular particles, some twice the size of a pea, evidently fragments of fractured phosphatic calculi. Suprapubic lithotomy was performed, and fourteen facetted phosphatic calculi were removed from the bladder, and in addition several fragments of other calculi, which had broken up in its interior, apparently as the result of "concussion" from contact with one another.

Encysted Calculi.

A typical example of this condition was met with, a number of small calculi being contained in a saccule the size of a pigeon's egg, situated at the base of the bladder, with the interior of which it communicated by an opening just large enough to admit the tip of the little finger. Calculi were twice removed at an interval of two years from the saccule by suprapubic lithotomy, and their subsequent formation was then prevented by establishing a permanent suprapubic fistula.[4]

References.

[1] *The Operations of Surgery*, 1902, vol. ii, p. 406. [2] British Medical Journal, 1894, vol. i, p. 959. [3] *Modern Treatment of Stone*, p. 59. [4] British Medical Journal, December 14th, 1895.

The Royal Institute of Public Health proposes to entertain Mr. Chamberlain at dinner at the Criterion Restaurant, Piccadilly, on June 30th, in recognition of his eminent services to preventive and tropical medicine. Further particulars will be found in our advertisement columns.

MEMORANDA:

MEDICAL, SURGICAL, OBSTETRICAL, THERAPEUTICAL, PATHOLOGICAL, ETC.

INVERSION OF THE UTERUS.

I was called to attend Mrs. F. in her confinement, a primipara 28 years of age. Having found the first stage had been tedious, as soon as the os was sufficiently dilated I applied the long forceps and delivered, and after waiting ten minutes and feeling the insertion of the cord, while external pressure was applied, I removed the placenta; with it followed the uterus completely inverted. The placenta was slightly adherent to the fundus, but was easily detached. I immediately pushed up the uterus, which readily reinverted itself. No haemorrhage or symptoms of shock followed, and my patient, except for some rather unusual weakness lasting a few days, is now on the fifth week from her confinement quite well.

I find the accident to be one of extreme rarity (it was only observed once in upwards of 200,000 cases at the Rotunda Hospital), and it may on this account prove interesting.

Pershore. MARTIN WOODWARD.

AN UNUSUAL DISLOCATION OF THE CLAVICLE.

The following case is one of sufficient rarity to be worth recording: H. W., aged 33, when somewhat intoxicated was thrown from his bicycle on to his left shoulder and head. On recovering consciousness he complained of great pain and inability to move his left shoulder. When I saw him I found that his left clavicle had been dislocated backwards and torn from the acromion process of the left scapula, and that on slipping my fingers behind the acromial end of the clavicle with some force I could bring the acromial end forward and down into position, but that on releasing hold the acromial extremity, or, to be more correct, the whole clavicle, for there was no fracture, was immediately pulled backwards by the trapezius muscle. Two days later at the Victoria Cottage Hospital and under gas and ether given by Dr. Leon of Sidmouth, I got the acromial extremity down into position and kept it there in the following way: I placed a firm sponge over the acromial end of the clavicle and put on a Bavarian plaster-of-paris shoulder cap. By placing a large pad in the left axilla and the left arm in Sayer's position for treatment of fractured clavicle I managed to get my chief pressure over the left shoulder and under the left elbow. I kept the shoulder in this splint for five weeks, and when I took it off I found the shoulder perfectly symmetrical and in excellent position. I then employed passive movements with the rubbing in of liniments, and at the time of writing this—a fortnight later—the patient is able to use his arm well and has excellent mobility in his left shoulder joint. I take it that the left superior and inferior acromio-clavicular ligaments as well as the conoid and trapezioid ligaments were ruptured.

Sidmouth, Devon. ARTHUR C. BIRD, M.R.C.S.Eng., L.R.C.P.Lond.

A CASE OF ACUTE TETANUS: DEATH.

T. H., aged 23, was admitted into hospital under my care on March 18th, suffering from an injury to his right foot.

On admission he had an extremely anxious expression, and was suffering greatly from shock. His temperature rose at night to 102°, and his pulse was 126.

On examination of his chest a well-marked mitral murmur, systolic in time, was detected, and there were moist sounds over both lungs. The left foot was very swollen, and much discoloured, but no fractures could be made out. On the dorsum of the right foot there was a large lacerated wound, with comminuted fractures of the second, third, and fourth metatarsal bones. The sole appeared healthy. Owing to his condition I decided to delay any operative treatment until Saturday, when I performed a Lisfranc's (this was done because he would not consent to a Syme's). He recovered from the operation, and progressed favourably until Friday morning at 5.30, when he awoke complaining of a slight stiffness of his lower jaw, which never became fixed. He had his first spasm on Saturday, March 19th, at 3.30 a.m. This was followed at 5.10 a.m. by another slightly more severe; a third occurred at 5.25 a.m., which was a very bad one. He died at 5 30 a.m.

The stump looked healthy, and showed no signs of suppuration. It was dressed with hot boracic fomentations from the first.

I think the case of interest for the following reasons:

1. Short period of incubation—eight days.
2. Short period between the first symptoms and death—twenty-four hours. (This was probably accelerated by the condition of his heart.)

His abdominal muscles remained flaccid throughout.

ARTHUR DOBSON,
Surgeon, Ilkeston Hospital.

REVERDIN'S CURVED NEEDLE IN CLEFT PALATE.

FOR the last three years I have regularly used this needle (made for me by Mr. Gardner, surgical instrument maker, Edinburgh) in passing the silkworm-gut sutures used in uniting the muco-periostal flaps, and the time saved and the satisfactory results obtained lead me to strongly recommend it to those performing such operations. It avoids the necessity of passing two sutures, and as Gardner has now made it with a spring catch similar to Reverdin's straight needle, a considerable amount of time is saved.

J. CRAWFORD RENTON, M.D.,
Surgeon, Western Infirmary, Glasgow.

RECURRENT HERPES ZOSTER.

REFERRING to Mr. Leopold G. Hill's communication on recurrent herpes zoster, I have a patient, a lady aged about 70, who had a severe attack affecting the right side of the chest about two years ago, and who has just developed a recurrence, the right side of the chest and abdomen being the selected part.

I have never before seen it occur more than once in the same patient, and I have heard Mr. Jonathan Hutchinson say that more than one experience of it is so infrequent that it is safe to tell patients with herpes zoster they will never get it again.

HENRY WALDO.
Physician, Bristol Royal Infirmary, and in charge of the Department for Skin Diseases.

REPORTS

ON

MEDICAL AND SURGICAL PRACTICE IN THE HOSPITALS AND ASYLUMS OF THE BRITISH EMPIRE.

ANCOATS HOSPITAL, MANCHESTER.

CYLINDRICAL EPITHELIOMA IN THE CENTRUM OVALE.

[Reported by R. T. WILLIAMSON, M.D.Lond., F.R.C.P., Physician, to the Hospital; and Assistant Lecturer on Medicine, Owens College, Manchester.]

E. C., iron worker, aged 40, was admitted May 21st, 1903, on account of weakness of the right arm and leg.

History.—Five weeks previous to admission he had first noticed weakness of the right hand. The loss of power gradually increased. At the end of a week he could not use a hammer at his work, and he then first noticed loss of power in the right leg. The weakness in the right arm and leg gradually increased. There was no pain in the head and no vomiting. No history of syphilis or injury to the head could be obtained. In 1896 the right eye had been seriously injured at his work, and very soon afterwards it had been removed by an ophthalmic surgeon. (The patient states definitely that there was no tumour in the eye.)

State on Admission.—The right arm was paralysed. The right hand could not be moved, but very slight movements could be made at the elbow and shoulder. There was paresis of the right leg, the movements being much feebler than those of the left leg. The patient was able to walk alone, but there was scraping of the toes of the right foot in walking. The knee-jerks were present. Ankle-clonus and the extensor (Babinski's) type of plantar reflex were obtained on the right side, but not on the left. There was a slight diminution of tactile sensation all over the right side, most marked in the hand. Sensations of pain and temperature were distinctly felt on the right side. The tongue when protruded deviated a little to the right. The movements of the left eyeball were normal. The right eye had been removed in 1896. No signs of growth could be detected in the right orbit). In the centre of the left cornea was an opacity due to an old injury. There was no hemianopsia. The heart, lungs and urine were normal. There was no headache and no vomiting.

Progress.—A few hours after admission a right-sided unilateral convulsion occurred. Twitchings commenced in the right arm, then extended to the right leg and finally to the right side of the face. Consciousness was not lost during the fit. The left side was not convulsed. The duration of the fit was about five minutes.

Similar fits occurred on May 26th, 27th, 28th and 30th.

On May 31st there were two fits; on June 1st there was one fit.

June 2nd. Vomiting occurred four times.

June 3rd. Vomiting occurred once.

June 4th. Speech thick and difficult.

June 7th. Three unilateral convulsions. Vomiting occurred three hours later.

June 8th. Slight motor aphasia. No word deafness.

June 19th. The opacity of the left cornea had hitherto prevented the optic disc being seen with the ophthalmoscope, but on June 19th the pupil was dilated with atropine, and by careful examination a view of the optic disc was obtained. There was no optic neuritis. The disc was normal. The touch with the finger was not felt on the right hand and lower half of forearm. Above the middle of the forearm and on the rest of the right side of the body the touch of a finger was felt, but not localized correctly. The right arm was completely paralysed. The right side of the face was paralysed (chiefly the lower facial muscles). The right leg was very weak, but slight movements could still be made. There was marked motor aphasia. "Yes" and "No" were the only words which could be spoken by the patient. There was no word-deafness.

June 26th. Pulse slow, 60 per minute.

June 29th. Motor aphasia. "Yes" and "No" were the only words which the patient could say. In addition there was at this date complete word deafness. (The patient had never been able to read or write.) Paralysis of the right arm and leg was now complete; paralysis of the right side of the face well marked.

The patient became very drowsy and semi-comatose in the early part of July. On July 11th the temperature rose to 102.4°; on July 13th to 106°. Death occurred on the latter date.

Post-mortem examination revealed no noteworthy changes in the organs of the thorax and abdomen. Brain: Convolutions of the left cerebral cortex slightly flattened. Medulla, pons, and cerebellum normal to the naked eye. On section of the brain a tumour was found in the white matter of the centrum ovale of the left cerebral hemisphere, beneath the motor area of the cortex. The tumour was greyish red in colour, very vascular and soft, but clearly defined from the brain substance at its margins. The growth was roughly spherical; its diameter was about 2½ in. in the sections through the ascending parietal and frontal convolutions. The growth extended for a very short distance into the posterior part of the prefrontal region. It was separated from the cerebral cortex by white matter of varying amount, in most of the sections; but in the sections through the ascending frontal and parietal convolutions the growth extended close under the grey cortex (in the region of the arm and leg centres). At one point the growth extended to the roof of the lateral ventricle. Other parts of the cerebrum presented no change of importance.

Microscopical examination showed that the tumour consisted of a connective tissue stroma, in which were embedded gland-like structures—tubules and small cyst-like structures lined with epithelial cells. The cells next to the lumen of the tubules and cysts were cylindrical epithelial cells, the deeper cells were irregular in shape. In addition to the tubular and cyst-like epithelial structures, strands of epithelial cells, chiefly cylindrical, were embedded in the connective tissue stroma. Also at many parts were masses of irregularly-shaped epithelial cells. The cylindrical cells, lining the tubules and small cyst-like cavities just mentioned, resembled those lining the central canal of the spinal cord. At some parts the cells were ciliated. Sections of the spinal cord, stained according to Marchi's method, showed marked degeneration of fibres of the crossed pyramidal tract on the side opposite to the growth, and degeneration in the direct pyramidal tract on the side of the lesion. The degenerated fibres in these tracts were stained deep black). There were also a very few degenerated fibres in the lateral pyramidal tract on the same side as the brain lesion.

In sections stained according to Van Gieson's method, and also in sections stained according to the methods of Weigert and Pal, no definite signs of degeneration could be detected in the crossed and direct pyramidal tracts. No degeneration could be detected in the posterior columns of the cord, either by Marchi's or Weigert's methods of staining.

Remarks.—At the early period of the illness the case presented a little difficulty as regards diagnosis. The absence of headache and vomiting at first, and the absence of optic neuritis, when the optic disc was examined on June 19th, were points against the diagnosis of cerebral tumour. The most important point in the clinical history of the case was the gradual onset and the steadily progressive nature of the paralysis. This is perhaps the most characteristic symptom of cerebral tumour. The extensive nature of the symptoms—hemiplegia, motor aphasia, and word-deafness—was suggestive of softening of the cerebral cortex from obstruction of the middle cerebral artery. But the slowly progressive development of the hemiplegia was against the diagnosis of softening, and practically conclusive of tumour in this case. The unilateral convulsions were also in favour of tumour, and at first appeared to point to a cortical lesion. Hence the question of surgical treatment was often considered. But the symptoms soon suggested a localization of the growth in the white matter of the centrum ovale (between the cortex and the internal capsule). It appeared improbable that a growth on the cortex would extend over such a wide area as to destroy the face, arm, and leg centres along with Broca's convolution and the first temporo-sphenoidal convolutio Such an extensive localization would have been necessary, explain the complete hemiplegia with aphasia and wor deafness, if the lesion had been a cortical one. In the whi matter of the cerebral hemisphere, fibres from these cortic regions converge to a smaller area, and in this region a lesi of less extent would cause the symptoms just mentioned. appeared possible that the unilateral convulsions were caus by the growth commencing in the white matter and extendi up to the deeper part of the cortex at one point. The grow was, therefore, localized to the white matter of the centru ovale, and operative treatment appeared to be contra-ind cated.

The necropsy showed that the localization was correct, a that operation would have been of no real service owing the deep situation of the growth. It was an interesting fa that optic neuritis was absent on June 19th—that is, nin weeks after the onset of the symptoms, and at a time whe all the other symptoms were well marked. After this da the restlessness of the patient during the few attempts whi were made to examine the optic disc, together with th marked corneal opacity already mentioned, prevented n obtaining a view of the fundus.

In a similar case which I have previously recorded,[1] opt neuritis was absent, the hemiplegia was of gradual onset, an the growth was in the centrum ovale.

As already mentioned, the microscopical examination of th tumour revealed a gland-like structure, tubules, and cyst-lik spaces, lined with epithelial cells, the innermost layer o which were cylindrical. The cells resembled those lining th central canal of the spinal cord—ependyma cells. Some o the cells were ciliated. Also embedded in the stroma we tracts of epithelial cells.

Ziegler has described a form of carcinoma of the cerebra ventricles which may invade the brain substance. In thi form of tumour, embedded in the stroma, are strands o cylindrical epithelial cells, tubules, and cyst-like cavities lined with cylindrical epithelial cells.

Stroebe has described a form of glioma in which cavitie were present, which were lined with ciliated cylindrical ep thelial cells. These he regarded as processes cut off from th primitive neural tube, or ventricles of the brain.

Schmaus has described a rare form of cerebral and spina tumour, which is apparently due to a proliferation of eper dyma cells. In the stroma a large number of gland-lik structures are seen, the lumina of which are lined by cell similar to ependyma cells. In some parts small cysts ar seen, at other parts tube-like structures or strands of epi thelial cells. To these growths he gives the name of neuro epithelioma.

The growth in the case which I have just recorded appear to correspond to the forms of tumour described by Ziegler an Schmaus—cylindrical epithelioma or neuro-epithelioma.

At one point the tumour was in continuation with the wal of the lateral ventricle. No growth was found in the lungs liver, or other organs of the thorax or abdomen; but the rec tum was not examined *post mortem*. During life there were however, no signs or symptoms of growth either in the rectum or in any other part of the body except the brain, and I think there can be no doubt that the cerebral growth was primary I believe the growth was a cylindrical epithelioma (neuro epithelioma) having its starting-point in the ependyma of the lateral ventricle.

HULL ROYAL INFIRMARY.

A SMALL DIPHTHERIA EPIDEMIC.

[Reported by F. C. EVE, M.D.Cantab., M.R.C.P., House-Physician.]

IN April of this year two of the patients in our children's ward developed diphtheria. They were promptly sent to the Fever Hospital, but in a week another case occurred. In a month two more children developed diphtheria.

As the ward contained only 26 cots it was obvious that the germs had obtained a firm stronghold somewhere. The long interval between some of the cases suggested a search in the fauces of the nursing staff. The very first throat examined showed early but definite membrane, though this nurse had not up till then complained of her throat. Swabs were taken of the nine nurses who came in contact with the children and examined by Mr. Scott at the Pathological Laboratory of the Yorkshire College. He reported the presence of the Klebs-Loeffler bacillus in six out of nine cases. The throats of the

[1] *Edinburgh Med. Journ.*, July, 1902.

nurses were then sprayed with free chlorine spray twice a day r a week. We had then no more trouble with diphtheria. efore admitting any fresh children to the ward the throats of l the children were also sprayed for a few days.

This little epidemic seemed to be worth reporting as indi- ting the ease with which it was arrested when once the parent cause was detected. That so many of the nurses ould be walking about with the bacilli in their throats is so of interest.

British Medical Association.

CLINICAL AND SCIENTIFIC PROCEEDINGS.

STAFFORDSHIRE BRANCH.

Wolverhampton, Thursday, April 28th, 1904.

F. MILNES BLUMER, M.B., C.M., President.

Gastro-jejunostomy for Gastric Ulcer.—Mr. CHOLMELEY read tes of a case. A woman, aged 25, had suffered from sym- oms of gastric ulcer off and on since the age of 14. She was st admitted to the Wolverhampton Hospital on April 28th, 03, and discharged on August 10th. She was readmitted January 18th, 1903, with all the usual symptoms of gastric cer and a good deal of tenderness in the epigastric region. aematemesis had occured four days before readmissi n. On bruary 23rd she had symptoms very suggestive of perfora- n of stomach. As the pulse remained good it was decided wait. On March 17th she was much better and was fed by uth. At the beginning of April she became worse; there s more pain and vomiting. Temperature went up so it s decided to perform a gastro-jejunostomy on April 8th. e temperature the evening before the operation was 102.8°. e temperature had always gone up during her attacks of in and vomiting. A posterior gastro-jejunostomy was ne. The scar of a gastric ulcer was found on the anterior face of the stomach close to the pylorus, and there were a mber of adhesions between the pyloric end of the stomach d the transverse mesocolon in the lesser sac of the peri- neum. The patient at the date of the meeting, three weeks er operation, was taking chicken and fish without any dis- nfort. She was unable to walk owing to the condition of feet, one which had no connexion with the operation.

Enterectomy: Removal of Uterine Appendages.—Mr. CHOL- LEY also related the following case: E. H., aged 21, was nitted to hospital on July 22nd, 1903. She had been rried one month before. The present illness began four to weeks before admission with pain and tenderness in the er part of the abdomen. She vomited once. The pain got ter but recurred. Leucorrhoea had existed for one month. admission the temperature was 104°. The abdomen was racted, rigid, and very tender, chiefly at the lower part. e pulse was rapid, and the tongue moist. Hardness could felt in Douglas's pouch, but the patient was too tender for per examination. On July 23rd she was examined under er. Per vaginam the uterus was found retroverted, and at felt like an enlarged tube was found on the right side in uglas's pouch, and an enlarged tube on the left side in at of the uterus. The abdomen was opened in the middle e. The right tube was found to be very enlarged and tuous, and lay curled up in Douglas's pouch with the dus of the uterus. The left tube was in a similar condi- n in front of the uterus, adherent to it and to the intestine. e left ovary was about the size of a hen's egg. The right e and ovary were removed fairly easily, as the adhesions e not very firm. The left tube was cleared with difficulty, ng to firm adhesions between the ovary and the small intes- e. While separating last coil of intestine some pus was let out n between it and the ovary, and a hole was torn or found he small intestine, there being a loss of bowel wall of ut 1 in. by ½ in. The bowel was clamped with two ren's clamps covered with a gauze swab and placed outside abdomen until the left tube was removed and the uterus laced. Four inches of gut were resected, end-to-end stomosis effected with two continued silk sutures, and the omen drained with glass tube. The patient got on very l, and had no bad symptoms. The abdominal wound was y to heal superficially, but was now sound. Both tubes were nd to be much thickened, and their walls infiltrated with . The left ovary was suppurating. The infection was un- btedly gonorrhoeal. The evening before the operation the perature dropped suddenly from 104° to normal. This was possibly due to an abscess between the gut and the ovary bursting into gut. The patient at the present time was in perfect health, and had no trouble with her bowels or with the abdominal scar.

Amputation at Hip-joint.—Mr. CHOLMELEY also showed a case of amputation at the hip-joint after unsuccessful wiring for fracture of femur due to hydatid disease of femur, the notes of which were published in the BRITISH MEDICAL JOURNAL of March 5th, 1904.

Carcinoma of Rectum.—Mr. E. DEANESLY showed several cases: (1) A man, aged 55, was admitted to the Wolverhampton Hospital in September, 1901. He had noticed bleeding from the bowel for ten months previously, and had lost much weight. The growth involved the anus and the anterior circumference of the rectum for some distance above it, and was deeply ulcerated. After removal of the coccyx and portion of the sacrum and slitting up the anus and rectum in the posterior middle line, the growth and the anterior portion of the rectum were freely removed, exposing the prostate and bladder, but without opening the peritoneum. The membranous urethra, which was accidentally divided, was sutured over a rubber catheter. The divided rectal wall was brought down and sutured to the skin. Recovery was slow, but complete. The anus being removed, loss of control of course existed, and there was slight prolapse of the rectum, but by emptying the bowel every morning with an enema syringe the patient kept himself clean the rest of the day with little trouble, and was now (two and a-half years after the operation) in good health and at work. (2) A man aged 63, alive and well two years after removed of 5 in. of the pelvic portion of rectum for carcinoma by the sacral route. This was a typical case of Kraske's excision of the rectum performed in May, 1902. The operation was long and difficult, but the result satisfactory, the patient being in excellent health, with no sign of recurrence and little inconvenience from the sacral anus, which was easily controlled by a pad. Although the anus was not involved in this case it had not been found practicable to restore the continuity of the bowel, which indeed was seldom possible in advanced cases, such as was this. It had, however, been successfully accomplished in another case from which a specimen was exhibited.

Epithelioma of Rectum.—Mr. E. DEANESLY showed several specimens of epithelioma of the rectum removed by the sacral operation: (1) A small epithelioma with bleeding papillomatous villi situated on the anterior wall of the rectum immediately above the bladder. The portion of bowel removed consisted of 1½ in. of the anterior three-quarters of the circumference of the rectum, including the peritoneal coat. The gap was sutured transversely by sutures of silkworm gut passing through all the coats, including the peritoneum, and tied on the mucous surface. The sphincter and perineum were restored by a subsequent plastic operation, and at the present time the patient remained in perfect health and comfort. (2) About 5 in. of the middle portion of the rectum, with a hard epitheliomatous ulcer almost completely encircling the bowel and reducing the lumen to the size of one finger. This specimen was removed by Kraske's operation two years ago from the patient mentioned above.

Prostatectomy.—Mr. E. DEANESLY showed a man, aged 65, from whom an enlarged prostate had recently been removed by Proust's perineal operation. This patient had a somewhat eventful surgical career during the last few years. In September, 1901, the late Mr. Vincent Jackson had removed a large stone by suprapubic cystotomy, and had at the same time snipped away some small portions of the prostate which projected within the bladder. As a result of this operation he was much benefited, and was able to dispense with the catheter on which he had for some time previously been entirely dependent. Symptoms of stone recurred in October, 1902. Mr. Deanesly, after an ineffectual attempt to crush, reopened the bladder, and found two large smooth calculi embedded in a narrow-mouthed pouch at the base of the bladder. The prostate was greatly enlarged, and projected like a cervix uteri into the bladder. He recovered and remained well for a time, only troubled by frequency of micturition and a ventral hernia through the weak suprapubic scar. At the beginning of the present year another stone was found and prostatectomy was advised. This was carried out on February 18th by the method described in the paper read later. The result was very satisfactory. The patient had regained his health, his urine was clear and acid, and micturition was forcible and free from pain. The only drawback from which he at present suffered was inability to retain

his water for more than two hours at a time, and a weakness of the sphincter of the bladder, which was unable to resist the strain of a cough or extra exertion. This condition was still improving.

Suprapubic and Perineal Prostatectomy.—Mr. E. DEANESLY also showed several specimens illustrating his paper on the relative advantages of suprapubic and perineal prostatectomy, published at p. 1187: (1) Normal bladder and urethra laid open. (2) Greatly enlarged prostate and bladder, with dilated ureters and kidneys, from an elderly man who had died with obscure symptoms shortly after admission to the medical wards of the Wolverhampton General Hospital. (3) Bladder and urethra and prostate of a patient who died ten weeks after removal of a greatly-enlarged prostate by Freyer's method. A considerable cavity still remained in the situation formerly occupied by the prostate. Death had occurred from chronic cystitis and exhaustion. (4) A similar specimen from a man aged 58, who died forty-eight hours after Freyer's operation from slow haemorrhage and pelvic cellulitis. In this case the prostate (also shown) was enucleated easily in two smooth masses each the size and shape of a hen's egg, the greater part of the prostatic urethra being attached to one of the lobes. A uric calculus measuring $1\frac{1}{4}$ in. by $\frac{5}{8}$ in., which had been diagnosed by the history and symptoms, but could not be felt by the sound owing to the great projection of the prostate, was also removed at the operation. (5) Enlarged prostate in two lateral masses, removed by perineal prostatectomy from the patient previously shown. A phosphatic calculus, measuring $1\frac{1}{2}$ in. by 1 in., removed at the same time, was also shown. (6) Fragments of large uric calculus removed by lithotrity from a man aged 55, together with portions of an enlarged prostate subsequently removed by suprapubic cystotomy, rendered necessary some months later by recurrence of stone. The last operation was performed in 1901, and the patient had remained well since.

Cases.—Mr. DEANESLY also showed the following cases: (1) A boy, aged 14, with a scapular dislocation of the left shoulder, apparently incurred during birth. The movements of the shoulder were limited, but there was no muscular paralysis, and the utility of the limb was not so much impaired as might have been expected. (2) A woman, aged 60, who was admitted to hospital on December 24th, 1903, with a femoral hernia strangulated for four days. A loop of gangrenous bowel was removed, about 6 in. in length, including the healthy portions at each end, and immediate circular enterorrhaphy performed. Although Poupart's ligament was divided, and there was some suppuration of the wound, the operation for radical cure which was performed at the same time as the enterorrhaphy was quite successful and no truss was now worn.

X Rays and High-frequency Currents.—Dr. CODD read a paper on some results of treatment by *x* rays and high-frequency currents, with illustrative cases.

REPORTS OF SOCIETIES.

CLINICAL SOCIETY OF LONDON.

FREDERICK TAYLOR, M.D., F.R.C.P., President, in the Chair.

Friday, May 13th, 1904.

X RAYS IN THE DIAGNOSIS OF PULMONARY TUBERCULOSIS.

DRS. A. STANLEY GREEN (Lincoln) and W. H. B. BROOK (Lincoln) contributed a paper, illustrated by lantern slides. The authors had examined several chests during the past two and a-half years, in nearly all of which the physical signs were carefully elicited. Skiagraphs were shown illustrating the conditions of many of the cases before and after sanatorium treatment, and taken by the plate-to-back method with the tube 20 in. to 24 in. from the plate, the exposure varying from thirty to sixty seconds. In the early cases of pulmonary tuberculosis the method had proved of great value as a diagnostic agent, rendering it possible to see that unilateral limitation of movement of the diaphragm occurred. The transradiancy of the lungs or presence of scattered areas of shadow were indications of the health or disease of these organs. The shape and slope of the ribs and width of the intercostal spaces were also important points to note. The presence of cavities could be shown, and even fibrosis recognized under certain conditions. In bilateral cases an *x*-ray examination was able to demonstrate the presence and extent of the disease in many cases before it was recognizable by ordinary methods of examination. To obtain the full value of skiagraphy, however, one should regard it as an adjunct to the older methods of physical examination and microscopical examination of the sputum.

Dr. W. EWART dwelt on the great value of the paper and the evidence it gave of the assistance obtainable from skiagraphy in the early diagnosis of phthisis. Doubtless the method would in future be far more generally employed.

Dr. THEODORE WILLIAMS welcomed the *x* rays as affording assistance, but believed that microscopical cavities could always be diagnosed by auscultation, when it was complete and thoroughly employed. Physical examination ran a risk of being less carefully studied at the present day than its merits deserved.

Dr. G. B. BATTEN agreed with the authors as to the value of *x* rays for the early diagnosis of phthisis, since more people realized a thing by looking at it than by listening. Further, many a patient would, upon seeing the photograph of his own case, be willing to undergo the necessary treatment without further cavil or delay. He had also used the method lately to show that a suspected case was not one of phthisis.

The PRESIDENT thought ocular demonstration of the morbid condition was most valuable; but shadows were not always infallible, and their interpretation required great care.

Drs. HERBERT FRENCH, CECIL LYSTER, and W. PASTEUR asked for further information.

Dr. GREEN, in reply, said that medical men should develop their own plates. When cases of phthisis were diagnosed by physical examination they had, in his opinion, already passed the early stage; *x* rays detected the disease still sooner; whilst, if the picture were shown to the patient he or she more easily recognized the necessity for the requisite open-air treatment. Fibrous tissue was only present at a late stage of the disease. All his plates had been treated according to the same method, length of exposure, etc. The thickened pleura and enlarged bronchial glands could be photographed. Fluids in the pleura changed their position with the alteration of the patient's posture; and the picture and the percussion note were both thereby changed.

Dr. BROOK, also replying, mentioned cases in which the plate had shown the presence of tubercle a month or more before physical signs were first distinguished by careful auscultators.

RECURRENT CARCINOMA TREATED BY X RAYS.

Dr. E. A. PETERS described two cases of cancer of the breast. In the first case the original operation had been performed by Mr. Charters Symonds. Radiography was pursued for twenty-two months. The subcutaneous nodules and ulceration disappeared under the treatment, but returned in a condition of diminished activity on its cessation. Eventually the growths appeared under the skin at the back of the thorax, and these nearly disappeared after exposure to the rays. The breast and glands of the opposite side became involved. Considerable relief from pain was experienced by the patient. In the second case both the subcutaneous nodules and pleuritic thickening improved greatly under a month's treatment, but the patient died shortly afterwards from thoracic involvement. A tendency for scar tissue to break down while under the treatment was noticed.

Dr. LEWIS JONES said that it was disappointing that whilst the superficial recurrences of cancer disappeared under *x*-rays treatment, the patient died of deep disease over which the rays had very little effect. Possibly better results might ensue if the *x* rays were tried soon after the surgeon's operation and before generalization of the disease began; *x* rays could change the characters of a growth, and even prevent its tendency to recur.

Dr. G. B. BATTEN referred to a case of cancer of breast in which nodules recurred and were removed. On the seventh occasion he applied *x* rays thirteen times for ten minutes each time, and the nodule completely disappeared. The *x* rays had apparently a selective effect both upon degenerating and actively-growing epithelial cells.

Dr. A. E. T. LONGHURST inquired whether the rays might not sometimes excite the local condition and so tend to the more rapid recurrence of the disease elsewhere.

Mr. BOWLBY considered *x* rays the most potent agent known for the treatment of recurrent cancer of the breast, but they sometimes started sudden and severe inflammatory conditions. He narrated a case in which acute cellulitis of the neck was thereby caused.

Mr. LYSTER said that treatment by *x* rays was slow, and it would therefore be wrong to apply it at the earliest stage of

e disease and neglect the benefit that resulted from surgical erations. In inoperable cases, however, it relieved pain d removed recurrent nodules. To affect deep parts strong ys had to be applied, which inflamed the superjacent skin. Dr. Peters replied.

OYAL ACADEMY OF MEDICINE IN IRELAND.

Section of State Medicine.

Sir John Moore, President of the Section, in the Chair.

Friday, April 22nd, 1904.

Poisoning by Cantharides.

R. Martley brought forward a case in which an elderly oman had been poisoned by this substance. About an nce of the powdered drug had been administered to her in glass of rum, but in spite of the amount having been so rge she survived for thirty-one and a-half hours.

Coal-gas Poisoning.

Professor E. J. M'Weeney, M.D., read a paper on this bject. Professor Emerson Reynolds, he said, in a paper ad before the Royal Dublin Society in 1900, communicated e result of a number of analyses of Dublin coal gas made r him, which showed that the ordinary percentage of CO—mely, 6 per cent.—had been more than doubled during bruary and March, 1900, and this increase he accounted for the addition of carburetted water-gas. Some analyses ndly made for the speaker during the past few days by Mr. olmes Pollok, of the Royal College of Science, showed 17.2, .8, and 14.6 per cent. of CO respectively. Seven fatal cases gas poisoning had come under his notice during the past ree years. In the first group a family of four lived in a use where gas was not used, and there were no fittings. The s had penetrated into it from a broken main in the street, th the result that one of the persons was found dead and e others more or less collapsed. In the second group a umsy attempt had been made to defraud the gas company "short-circuiting" the gas into the house so as to eliminate e meter. The rubber tube used in the attempt had slipped f, with the result that the family of three persons were phyxiated in their sleep. The third group of cases was that a man and his wife, who were suffocated in their bedroom a Dublin hotel by gas escaping from a wall bracket, the pcock of which was half open. The last case was that of a ung man who was asphyxiated in his bath by fumes ntaining CO escaping from a badly-constructed and unvenated "geyser." He had in each case applied the usual ectroscopic and chemical tests for CO with positive results. ie findings at the necropsy on each case were typical. He d also made blood counts and differential leucocyte counts the cases that had recovered, but the results were conflictg. In view of the deadly nature of the gas now supplied, reased caution in its use was necessary.

Professor Tichborne said that in the last case it was evident at the CO did not come from the combustion of the gas, as would then have been converted into CO_2, but must have t into the room as CO. He suggested that, as the accident d happened about 9.30 p.m., a time when there was great essure in the mains, the CO might have escaped through e air inlets in the Bunsen burners.

Dr. Delahoyde thought a good deal of the ill-health ong the working classes was to be put down to the use of nny-in-the-slot meters and gas cooking stoves not connected th a flue.

Dr. Kirkpatrick thought it remarkable that CO gas was aping at such a rate as to poison a man, and yet that it l not explode, though the gas jet was alight all the time.

After remarks from Drs. Carrington, Beveridge, M'Vittie, d Bewley; Professor M'Weeney replied.

OBSTETRICAL SOCIETY OF LONDON.

Edward Malins, M.D., F.R.C.P., President, in the Chair.

Wednesday, May 4th, 1904.

A Degenerating Fibromyoma.

. Peter Horrocks exhibited a specimen which he arded as a fibromyoma degenerating into a sarcoma. dominal hysterectomy was undertaken owing to rapid wth of the fibroid in association with menorrhagia in a ient of 46. Some authorities disbelieved in the possibility sarcomatous change in a fibromyoma of the uterus. In ilar cases previously published by Doran and Finlay and nself, there was one significant fact common to all of m—namely, that the tumour had existed for years in the usual state of slow growth, and that it began to grow rapidly shortly before operation or removal.

Dr. Handfield-Jones doubted the possibility of deciding whether in the specimen shown sarcomatous degeneration had begun in the substance of the fibroid or had started in the endometrium and spread thence to the fibroid.

Mr. Alban Doran doubted whether these tumours, said to be "sarcoma" histologically, were clinically malignant. He suspected that the cells, which were large and spindle-shaped, might be altered plain-muscle cells.

Dr. Eden said he had been interested in the subject of sarcomatous changes in fibroids for some years. He had no difficulty in accepting the fact that a malignant growth might arise in a benign neoplasm just as easily as in healthy normal tissues. But the term sarcomatous or malignant "degeneration" as applied to this process was an unhappy one, because "degeneration" implied loss of vitality or death of cells, while a malignant new growth was characterized by extraordinary activity and proliferation of cells.

Haematoma and Haematocele.

Mr. Alban Doran read a paper on this subject, which is published at page 1180.

Dr. Peter Horrocks, discussing it, said that he believed that extrauterine fetation was much commoner than was supposed, and that many cases recovered without being diagnosed or treated. He had seen many cases recover without operation, though occasionally operation became urgently necessary even in cases in which resolution had been going on apparently normally for weeks. He regarded bleeding, severe pain and rise of temperature, either protracted or recurring, and the absence of efficient help within easy call as important factors in deciding on the necessity for operation. He had failed to discover in Mr. Doran's paper any indication which would serve to diagnose a haematoma such as the one described from an ordinary haematocele.

Dr. Cullingworth thought the condition described in Mr. Doran's second case was rare. From his (the speaker's) own experience and from what he had gathered from reading, he regarded pelvic haematoma as a rare complication of interrupted tubal pregnancy, and an extensive haematoma such as Mr. Doran had described as exceedingly rare. With regard to treatment, the cases on record were at present far too few to justify them in formulating any conclusions as to the dangers incurred or any fixed rules as to the line of treatment to be adopted.

Mr. John W. Taylor said that in one sentence in his book (which Mr. Doran quoted) he had said that a broad ligament haematoma due to tubal pregnancy might be absorbed and undergo a natural cure; but this was inserted rather in deference to popular teaching than as the result of personal observation. So far as his own experience went, the only recoveries without operation which he had himself observed were 7 or 8 cases of peritubal haematocele, most of which were referred to in his book. He had always held and taught that whereas haematoma due to other causes than tubal pregnancy was very generally easily absorbed, a broad ligament pregnancy and haematoma due to broad ligament pregnancy was specially dangerous. His opinion regarding the general danger of expectant treatment in tubal pregnancy and the advisability of operation was the result of personal observation and experience.

Dr. Amand Routh thought a distinction should be made between encysted and diffuse haematocele. If the haematocele were diffuse bleeding was probably still going on, and if the severe pain felt in these cases was as high as the umbilicus, it was evidence of extensive haemorrhage into the peritoneal cavity. Such a case needed prompt abdominal section. If the haematocele was encysted operation was rarely called for.

Dr. Blacker had met with two examples of haematoma of the broad ligament one of which was an interesting proof that a haematoma of the broad ligament could disappear entirely, leaving behind practically no trace of its existence. He thought that it was necessary to distinguish very carefully between the results to be obtained by expectant treatment in these cases and in cases of broad-ligament gestation in which the fetus was still alive; they were two entirely different classes of cases usually requiring quite different treatment.

Mr. Alban Doran, in reply, observed that haematoma, haematocele, or broad ligament tumour, whether right or left, tended to push the uterus upwards, forwards, and towards the middle line when it grew big. A convex mass behind the posterior vaginal fornix was not necessarily in Douglas's

pouch. The rarity of haematoma, essentially intraligamentary, and the frequency of Taylor's tubo-ligamentary pregnancy implied that the ovum, when it was forced into the space between the layers of the broad ligament, usually survived and developed. The encysting of blood within intestinal adhesions was common in haematocele, but great coagulability saved patients in cases of diffuse haematocele, the blood in such instances clotting into a ball lying loose in the peritoneal cavity.

EDINBURGH OBSTETRICAL SOCIETY.

N. T. Brewis, M.D., F.R.C.S.E., President, in the Chair.

Wednesday, May 11th, 1904.

Malignant Complications of Fibromyomata.

Dr. F. W. N. Haultain, in a paper on this subject, asked the question whether fibromyomata influenced or predisposed to malignant uterine changes. He had found 4 cases of malignant degeneration out of 1,200 collected cases of fibromyomata. A general review of the whole subject would appear to show that malignant uterine disease was but slightly affected by fibromyomata, and that their association was a pure coincidence. Thus, from this aspect, radical operative measures for the treatment of fibroids without symptoms could not be urged. The paper was illustrated by descriptive cases and by a large number of photomicrographs.

Professor A. R. Simpson, Drs. James Ritchie, J. W. Ballantyne, J. Haig Ferguson, and the President spoke; and Dr. Haultain replied.

The Obstetric Sachel: a Problem in Asepsis.

Dr. J. W. Ballantyne read a paper on this subject, which will be published in our columns.

Drs. Haultain, James Ritchie, M. Dewar, W. Fordyce, George L. Chiene, and Webster discussed the paper; and Dr. Ballantyne replied.

PATHOLOGICAL SOCIETY OF LONDON.

P. H. Pye-Smith, M.D., F.R.S., in the Chair.

Tuesday, May 17th, 1904.

The Glomerular Lesions in Diffuse (Parenchymatous) Nephritis.

Drs. W. P. Herringham and J. H. Thursfield gave a lantern demonstration of the histology of the above condition. The conclusion in regard to the cause of the exudative and other changes found in Bowman's capsule was that these were due most probably to a chemical agent.

The Cytology of Malignant Growths.

Professor Farmer, Mr. Moore, and Mr. C. E. Walker made a communication on the above subject, the main points of their observations having been communicated lately to the Royal Society. In malignant tumours the authors had described heterotypical mitosis in certain of the cells, the method resembling that which obtained in the sexual cells of the testis and ovary; it was otherwise known as "reduced," since the number of chromosomes was only half of those produced in the ordinary cells of the body. No similar mitosis occurred in the tissues of benign growths. They regarded the described cases of nuclear fusion as too few to provide a basis for generalization. The tissue for such observations should be fixed in acetic alcohol and afterwards embedded in paraffin. The examination could be carried out without much delay. The causes, in plants, that would lead to reduction-division of chromosomes were many, for example, variations in moisture, in food, particular coloured light. The cells so altered could not regain the characters of the somatic cells without fertilization.

Mr. S. G. Shattock observed that the authors were credited with holding that heterotypical mitosis was the explanation of the carcinomatous phenomenon. Upon such a view he made certain criticisms. The great feature of carcinoma was its invasiveness, and the presence of heterotypical division did not in itself explain this. He referred to the cases of incomplete castration of cockerels studied by Mr. Seligmann and himself, where minute fragments of ruptured testicle became engrafted on the intestine, liver, and elsewhere. In these cases the operation was done before the advent of spermatogenesis, and the cells here belonged to the particular type in question. Nevertheless not only did no carcinomatous disease ensue, b the growths that followed could not even be classed adenomata; for the whole sum of the various grafts did n exceed the volume of the two normal testicles of the adu bird, and the case was evidently one only of the reproducti of the lost parts, as happened in the case of the spleen liver after extensive yet not total extirpation. The graf showed active spermatogenesis in progress. On the oth side, if the phenomena of non-malignant invasion we considered, the presence of heterotype mitosis mig with certainty be excluded in some cases. In the i vasion of necrotic tissue, or of a thrombus by granulatic tissue, all the invading cells were somatic, and to take a ph siological instance, the same was true of the invasion of ca tilage by connective tissue in the process of so-called intr cartilaginous ossification. The speaker had referred to the various points in order to submit that the presence "reduced" cells in carcinoma did not in itself explain th life-history of the disease; it did not *per se* explain its i vasive character.

Professor Farmer observed that although the authors ha been credited with the view that they had arrived at a explanation of the phenomena of carcinoma they disclaime this; the relation between heterotype mitosis and the lif history of carcinoma they did not profess to explain. I plant tissues the common cells might pass over into th reproductive kind, and so in those of animals. As to th results furnished by incomplete caponization he would no have been prepared to say whether a carcinoma would hav followed or not.

Mr. Moore spoke to the same effect.

Other Papers.

The following papers were taken as read owing to the cur tailment of the meeting occasioned by the official busines of the annual meeting: Dr. R. N. Salaman, Sarcoma of th stomach; Mr. E. M. Corner, Sarcoma of the alimentar canal; Dr. E. P. Baumann and Dr. J. G. Forbes, Primar sarcoma of the lung in an infant; Dr. F. Parkes Weber, A case of leukanaemia; Mr. E. M. Corner, Variations in tem perature in the dying examined as to their physiologica explanation.

ANATOMICAL SOCIETY OF GREAT BRITAIN AND IRELAND.

Professor J. Symington, F.R.S., President, in the Chair.

Friday, May 6th, 1904.

The Localization of Abdominal Viscera.

A discussion on this subject was introduced by Dr. Addison, who recalled the main features of his method of division of the trunk for regional and topographical purposes. This was to divide it into four equal parts by three horizontal planes, through points a quarter, a half, and three-quarters of the way from the upper border of the pubes to the suprasternal notch. These points were determined by drawing a tape from the pubes to the suprasternal notch and marking off the divisions on the surface of the body. The lowest or iliac plane practically corresponded with the intertubercular plane adopted by Professor Cunningham. The middle plane passed so regularly through some part of the pylorus that it might be called the transpyloric plane. The highest plane was the thoracic. The body was also divided by three vertical planes, the median and the right and left lateral, the two latter being taken, one on each side, through a point midway between the anterior superior iliac spine and the middle line. The speaker showed that the planes usually described in anatomical textbooks varied so greatly as regarded underlying viscera as to be useless. The essentials of any surface division of the body were that it should be (1) a reliable guide to underlying parts; (2) occupy a sufficiently constant position in any body, whether adult or otherwise; (3) be ascertainable with ease and certainty. The transpyloric plane met these requirements, being found in 90 per cent of the cases at or within 1.5 cm. of the disc between the first and second lumbar vertebrae. A point midway between the umbilicus and the infrasternal notch so constantly corresponded with this plane that it might be taken as identical with its level, and all exposure and measurement thus avoided. As regarded the effect of thoracic and abdominal disease upon the shape and position of the costal arch, the ribs might be high or low and the costal arch wide or narrow, in the presence of increased intrathoracic pressure, however brought about. Its shape and

osition, therefore, were no reliable guide, either as to the osition or condition of the subjacent viscera. The pylorus, 75 per cent. of the bodies which he had examined, was at within 1.5 cm. of the transpyloric plane; any extreme eviations from this position could be ascertained beforehand y percussion of the liver. When the liver was displaced ownwards through increased intrathoracic pressure, or was nlarged and more to the left than usual, the pylorus would ien be lower than usual, and on the middle line, or even to ie left of it. The reverse conditions would be found if the ver were pushed up under the diaphragm by intestinal dis-nsion below. Similar conditions were found to prevail ith regard to the duodenum, which might be displaced from ie right kidney by an enlarged liver. The duodeno-jejunal exure was in general just below the transpyloric plane a ttle to the left of the middle line, and whilst subject to the splacement by an enlarged or low liver or a distended omach above, or distended intestines below, the range of s movements was less than that of the pylorus. The hila the kidneys were just below, and internal to the inter-ction of the transpyloric and right or left lateral planes. ith regard to the movements of the right kidney, that gan was but little subject to displacement downwards by e pressure of an enlarged liver above, and was independent support from the ascending colon below. When, however, e diaphragm was depressed through pleural effusion or her chest diseases, the kidney was uniformly lower than ual. Possibly pre-existing thoracic disease was an etio-gical factor in the occurrence of some cases of movable dney. Owing to the normal strength of the attachment of e kidney to the diaphragm and posterior abdominal wall, found it difficult to believe that the conditions usually signed as precursors of movable kidney were of much sig-ficance under circumstances of normal anterior develop-nt. The same considerations as regarded parietal attach-nt applied to the left kidney. The upper border of the ileo-lic junction was just below and internal to the intersection the iliac and right lateral planes. The root of the pendix being usually at the lower border of the ileo-colic nction its normal position was thereby sufficiently indicated. e commencement of the pelvic colon, or the place where large intestine on the left side of the pelvis became some-at abruptly possessed of a long mesentery, was shown to almost without exception at the level of the anterior perior iliac spine in the left lateral plane. Finally, speaker contended that by the proportional system of ly division which he recommended important clinical nts of the different viscera could be readily determined, l the organs grouped around them in a body of any size hout burdening the memory with numbers or measure-nts which, being necessarily variable, were in consequence rustworthy.

Dr. A. KEITH thought the point on the costal arch crossed the outer margin of the rectus muscle was so definite as to worthy of more extended use, and tentatively put forward names of right and left rectal points to localize the areas question. He also believed that the middle of the spino-bilical line running from the anterior superior iliac ne to the umbilicus gave the ileo-colic junction with uracy.

Professor G. D. THANE said that more information was nted as to the range of variations in position assumed by viscera under discussion, and also advocated the use of spino-umbilical line for obtaining the position of the ileo-c junction.

Mr. MCADAM ECCLES thought that the transpyloric line was sufficiently stable to be satisfactory. The positions taken by the caecum and appendix varied materially, the former n prolapsing. He believed that the excursions of all the era were very great.

Mr. STANLEY BOYD thought that in view of the liability to iation in locality of viscera, it was sufficient for clinical poses to know where to place a hand or an incision with greatest probability of finding the required viscus. If not nce successful the surgeon could search widely around ig paths which experience might have shown the wander-viscus to follow. Practically localization of extreme uracy was not necessary; but it was obviously of import-e to know what reliance might be placed upon statements fessing to give the "normal" position of organs, and this wledge work such as Dr. Addison's would afford.

Professor A. ROBINSON thought the influence of age must aken into account in localizing viscera, and agreed that surgical and anatomical advantages of precise localization did not correspond. He had seen a displacement of the pylorus unassociated with liver enlargement

Professor SYMINGTON asked what was really meant by "low liver." A low chest wall went with an increased vertical extent of liver without enlargement.

EPIDEMIOLOGICAL SOCIETY.—At a meeting on May 13th, Dr. B. A. WHITELEGGE, President, in the chair, Dr. MORITZ PISTOR, Principal Medical Officer to the Prussian Ministry of Education and Public Health, read a paper on the prevalence of enteric fever in Prussia from 1892 to 1901, with remarks on its origin, spread, and control. After a brief retrospect of past theories as to its causes and relations, he pointed out that, though the registration of the causes of deaths was very unsatisfactory in many of the agricultural and mining districts, especially when the population was largely composed of Poles, Walloons, and other foreign elements, the effects of sanitary progress, improved water supplies, and better disposal of sewage had shown themselves in the reduction of the annual mortality from enteric from over 6 to under 2 per 10,000 for the whole kingdom, and in many districts to less than 1. The reduction was general, and the relative position of the districts little changed, but it was impossible to point to any conditions—geographical, climatic, or industrial—as determining the relative incidence of the disease. The highest mortality had always been in the district of Trier on the Moselle, near the French frontier, mountainous, with hot summers and mild winters; next came Dantzic, low-lying, with colder winters; and Arnsberg, in Westphalia, mountainous, mining, and industrial; then Marienwerder and Bromberg, in East Prussia, agricultural, and Erfurt. Other districts above the mean were the low-lying districts of Königsberg, Köslin, Stettin, Gumbinnen, east of the Elbe, with Aachen, Coblenz, Hildesheim to the west like islands in an area of low mortality. On the other hand, the districts with the lowest mortality included, besides the wealthy and in every way progressive city of Berlin, and the rich residential town of Wiesbaden, diverse districts and populations such as Schleswig-Holstein, with an oceanic climate and almost wholly agricultural population, Hanover, with the exception of Hildesheim, which, more industrial in the south, was agricultural and maritime in the north, Nassau adjoining Arnsberg, but with a highly intelligent population, and strange to say Lower Silesia, agricultural, and Oppeln, with generally a bad sanitary reputation and a large mining and manufacturing population in close intercourse with Russia and Austria. They were, however, extensively provided with good public water supplies, which Trier was not, and the same might be said of parts of Westphalia, where the wells had been fouled or drained by the mining operations. The most striking contrast in the mortality of otherwise similar districts was that between Arnsberg and Trier and Oppeln. In all the population was largely engaged in mining, and miners as a rule were neglectful of order and cleanliness, but in Oppeln the foreign element was not so strong as in the others, where the miners were 60 per cent. of the entire population and largely composed of Walloons, Italians, Poles, and even Roumanians. The rate was high in East and West Prussia and in Posen—agricultural districts with a Polish population indolent and dirty, and drawing their water from wells and water courses polluted with sewage. Pomerania, with similar climatic conditions and also agricultural, was more purely German, and the people remarkable for their cleanliness. Here Stralsund and Greifswald, with unimpeachable water supplies, had apparently higher mortalities, owing to the presence of large hospitals. After discussing the bacteriology of enteric fever and the several modifications of agglutination tests, the speaker summed up by expressing his belief that the B. typhi had a much shorter existence out of the living body than was commonly supposed, that it did not multiply in the soil, but was passed from one individual to another by means of water, milk, vegetables, or other articles of food recently contaminated by the excreta or the urine of affected persons, and by direct contact, epidemics being mostly due to water or milk, and mild unrecognized cases playing a most important part in maintaining a succession of sporadic cases, while overcrowding and general neglect of sanitation favoured its perpetration and spread.

DERMATOLOGICAL SOCIETY OF GREAT BRITAIN AND IRELAND.—At a meeting on April 28th, Dr. STOWERS, President, in the chair, cases were shown as follows:—Dr. ALFRED EDDOWES

(1) a patient, aged 20, with lichen occupying nearly the whole of the body covered by clothing; (2) microscopical specimens from a case of acute eczema.—Dr. E. GRAHAM LITTLE (1) a case for diagnosis, a man, aged 56—syphilis (?), tuberculosis (?); (2) tertiary ulcer simulating rodent; (3) lichen planus verrucosus; (4) lichen planus hypertrophicus with (?) mycosis fungoides; (5) chancre on the lip, with secondary eruption and breaking down gumma of the left leg.—Mr. T. J. P. HARTIGAN: Tuberculosis of the lobules of both ears, which were pierced for earrings twenty-four years ago.—Dr. V. H. RUTHERFORD: Urticaria pigmentosa.—Dr. T. D. SAVILL: (1) A case for diagnosis, a pustular form of urticaria; (2) morphoea; (3) prurigo aestivale; (4) erythema circinatum; (5) lichen planus verrucosus.—Mr. A. SHILLITOE: (1) A small papular syphilide; (2) a varioloid syphilide.—Dr. E. STAINER: Localized atrophy of the skin.—Dr. J. H. STOWERS: (1) Alopecia neurotica universalis; (2) pustular eczema of the hands; (3) photographs of herpetiform hydroa.—Dr. WILFRID B. WARDE: Persistent oedema of the hand and forearm.

REVIEWS.

NATURAL HISTORY.

DR. WALTER KIDD, in his book *The Direction of Hair in Animals and Man*,[1] set out with a threefold purpose, his most important object being to show that acquired characters can be inherited. Dr. Kidd separates out regions of the head, trunk, and limbs peculiarly open to contact with opposing surfaces and others under the special influence of certain active habits of the particular animal forms, and calls these "critical areas." He shows that as a rule the hair-streams on the animal body run in the lines of least resistance, and that the critical areas are those which show the most notable deviations of the hair-streams from the primitive type, where the resistances encountered are mechanical. That is, he shows that the hair-streams in these areas are acquired, but he does not show that there has been any inheritance of these acquired characters. Like many other Lamarckians, Dr. Kidd does not always distinguish between characters once acquired and transmitted to successive generations, and characters reappearing generation after generation owing to the continuance of the cause which produces them. At page 78 he criticizes Professor Lankester's suggestion that the whorls and other arrangements of hair on the heads of mammalia may furnish data for systematists, and says: "Judging, however, from a study of the hair in other regions and numerous groups of mammalia, it is more probable that these facts of hair arrangement on the frontal, nasal, and parietal regions, when worked out, will indicate differences in habit and use in the animals concerned rather than contribute taxonomic distinctions." Surely if they were the outcome of characters originally acquired but now inherited they would be eminently suitable for systematic purposes! Referring to variations in the frontal border of the scalp, Dr. Kidd says (page 79):

> A series of observations have been made as to these, and I may say that they are truly congenital modifications, inasmuch as the cases from which they were taken were those of children whose ages varied from a few hours to 6 years, and in all cases the operation of secondary causes was eliminated.

Surely children have their hair brushed before they attain the age of 6 years or even months; and how can Dr. Kidd eliminate the effects of brushing from his results? He examined 70 cases as to the frontal border of the scalp, and found that 45 of these showed a left lateral parting, 17 a central, and 6 a right lateral, and he claims

> that probably most of them, certainly some, are produced in the individual by inherited effects of dressing the hair in ancestors.

He then discusses the break in the stream forming the eyebrows in man, a break which he says

> lies always over the spot where the outer attachment of the corrugator supercilii draws in the skin in knitting the brows.

He incidentally discovered that out of 200 cases examined

> there were in all 14 cases with the break most marked on the right, 33 in which it was equally marked on the two sides, 153 in which it was most marked on the left. . . The reasons for this curious fact cannot be discussed here, as it requires further investigation (p. 84).

We submit that the direction of hair on the frontal border of the scalp equally deserves further investigation. On p. 77 Dr. Kidd suggests that

> there is no clear evidence that on the vertex the method of dressing or parting the hair has left any mark on the arrangement of hair in the fetus or newborn infant.

This looks like evidence against his contention, but he deftly turns it to his advantage thus:

> The study of the direction of hair brings out a general rule, borne out by other phenomena in Nature, that apart from variations of a biological sort, which are not here being considered, the original characteristics of an organism are not lightly departed from as the result of use or habit; and if, as in the vault of the cranium, a very considerable variety of direction of traction or other forces are in operation, primitive conditions remain unaffected.

It might, on the other hand, be argued that if acquired characters were inherited, such considerable variety of direction of acting forces should produce variability in direction not constancy of a primitive character. The only verdict at present possible on this most important point of the inheritance of acquired characters must be "not proven."

[1] *The Direction of Hair in Animals and Man.* By Walter Kidd, M.D., F.Z.S. London: A. and C. Black. 1903. (Demy 8vo, pp. 154. 5s.)

THERAPEUTICS.

MARTINDALE and WESTCOTT'S *Extra Pharmacopoeia*[2] needs no introduction to our readers and we cordially welcome the advent of the eleventh edition. Since the last edition was published that gifted pharmacist, William Martindale, has passed away, and it has fallen to his son, Dr. Harrison Martindale, to collaborate with Dr. Wynn Westcott in the production of the new work. At the outset we may say that the son has worthily upheld the best traditions of his father, and that the thoroughness and usefulness of the book are still its leading characteristics.

Its very nature renders constant revision necessary, and when one notes the extent and character of the new matter introduced, and reflects that only three years have elapsed since the last edition was published, the progress in the use of remedial agents becomes very evident. Of special interest is the new section on Radiology, in which the Roentgen ray, Finsen lamp, high-frequency current, and radiant heat are discussed. The attention directed to radium is also reflected in a very interesting and exhaustive monograph, describing its preparation, properties, tests for purity, and its uses and methods of being used as a remedial agent; this is quite the best summary on the subject which we have yet seen, and, in addition to radium, other radio-active elements are dealt with. The chapters on Antitoxins and Organotherapy have been largely rewritten, and that on Analytical Methods has been carefully revised and brought up to date.

We note that, under the heading, Normal Saline Solution, it is remarked that surgeons differ as to the proportion of sodium chloride which ought to be present—"some say 0.6 or even 0.9 per cent." We may point out that the latter figure is the correct one and is now generally employed by Continental workers; it is isotonic with the contents of human blood corpuscles, whereas the 0.6 per cent. solution is hypisotonic with them and causes them to swell visibly. Earlier experiments were carried out with frogs' blood, with which the 0.6 per cent. solution is isotonic, and hence this figure has crept into textbooks.

The index, which has been increased by more than 1,500 titles, forms a striking feature and now occupies no fewer than 138 pages; space has been economized in the text, however, by the omission of cross references, thus rendered unnecessary. Though the large amount of new matter has caused bare addition of 112 pages, the size of the book has actually been reduced through the use of finer paper.

We have touched generally on the principal alterations and improvements effected, for their number renders more than an indication of them impossible in the space at our command. No one engaged in medicine or pharmacy can afford to be without a copy of the latest addition of this valuable work of reference.

OBSTETRIC TEXTBOOKS.

A WORK that has gone into its third edition does not demand very detailed notice. Dr. FOTHERGILL'S *Manual of Midwifery*[3] is not large, nor does it aim at encyclopaedic treatment of the subject. But it is concise, and shows in every chapter that

[2] *The Extra Pharmacopoeia of Martindale and Westcott.* Revised by W. Harrison Martindale, Ph.D., F.C.S., and W. Wynn Westcott, M.B.Lond., D.P.H., H.M.'s Coroner for N.E. London. Eleventh Edition. London: H. K. Lewis. 1904. (Medium 24mo,; pp. 809. 9s. 6d.)

[3] *Manual of Midwifery*, for the Use of Students and Practitioners. By W. E. Fothergill, M.A., B.Sc., M.D., Lecturer in Obstetrics, Owens College, Manchester, etc. Third edition. Edinburgh: Wm. F. Clay. 1903. (Crown 8vo, pp. 506, 87 illustrations, 9s.)

e author has a firm grasp of the subject in hand. In his odest preface he almost disclaims originality, and puts the edit of his clear and accurate work to the account of his dinburgh teachers. But how far his knowledge has been mmunicated to him by them, and how far it has been gained his own observation, reading, and reflection matters little; e result of it is that he has produced an original and good ok, although its size prevents the subject from being very lly treated. This edition contains a coloured plate illusating the newer views as to the formation of the amnion and e vascular connexion between the embryo and the chorion. is, so far as we know, in this respect a pioneer among textoks. There are some points of practice upon which we ight comment—for example, the suggestion of treating acenta praevia with a Barnes's bag in the vagina, as to nich our idea would be that the Barnes's bag might as well in the bed. Any sort of vaginal plug big enough to fectively compress the lower uterine segment causes the tient such pain that if she recover she will probably choose other medical attendant for her next labour.

Dr. DENISON WIGGINS'S *Midwifery for Midwives*[1] is designed cover the requirements of the Examining Board authorized the Midwives Act, 1902. It is a brief handbook of midfery plus some information about general nursing, the idwives Act, and examination questions for midwives. In contemporary we have seen the statement attributed to the st Lord Tennyson, that in poetry it was not the thought at lived, but the expression, In the little work before us, it lives, it will not be by the matter it contains, for it ntains nothing that cannot be found elsewhere ; but by the nner in which the facts it deals with are set forth. It is itten in a clear and easy style, and there may be learners o will find it less difficult to understand and remember n any other book on the same subject written with a e intention. So we wish Dr. Wiggins's little venture a sperous voyage.

Dr. COOKE'S *Nurse's Handbook of Obstetrics*[2] is intended for instruction of women engaged in nursing wealthy ladies America. In addition to directions as to the duties which perly appertain to a nurse, a good deal of information is en about various diseases and operations, which no doubt nurse will find interesting, but which some may think erfluous. Still, excess of knowledge will do no great m; but we cannot say we think it prudent for a nurse to e upon herself the administration of chloroform for puerl eclampsia, as is here directed. The utility of the book English readers is lessened by the number of American le names used in it. But it contains descriptions of some enious devices for the comfort of the lying-in woman. must, with regret, say that it seems to us to offend good te in the illustrations. Surely a nurse can understand it a vaginal examination is without a photograph of a tor making one?

MENTAL DISEASES.

ERY alienist, in taking clinical notes, must frequently find reme difficulty in finding adjectival words in which fitly lescribe the attitude and facial changes of his patients, which, though felt to be departures from the normal, de classification. Every attempt—and Dr. SHAW'S *siognomy of Mental Diseases and Degeneracy*,[6] notwithding its small compass, is a very successful attempt—to nge and systematize these nuances of expression and exn their mechanism, tends to clarity of thought, and is an to diagnosis. This little book, on which the author is to congratulated, is the reproduction, with some additions alterations, of those parts of Dr. Shaw's contributions to lical Annuals for 1894, 1897, and 1903 which refer to siognomy. The text is beautifully illustrated by photohs and drawings, which have evidently been carefully cted as typical of the various forms of mental disease.

After twenty-one years of Asylum work Dr. BARKER has compiled a little manual on *Mental Diseases*,[7] primarily for the use of Victorian students as "a simple, comprehensive and epitomized study of psychological disorders." Most so-called manuals are, in Dr. Barker's view, not sufficiently elementary and concise. Dr. Barker has been impressed both in England and Australia by the woful inexperience of general practitioners as a body in anything pertaining to mental diseases and their treatment. This may be so, but we cannot admit that this fault lies at the door of the authors of standard textbooks. The classification adopted by Dr. Barker is broadly that recommended by the Medico-Psychological Association, the description of the various forms of mental disease is lucid throughout, and the treatment contains many practical hints taken from the author's own experience. The chapter on delusion, hallucination, and illusion is unfortunately not so clear as the rest of the book, and if it be true, as the author says, that these questions continue to be the cause of many an uncomfortable *quarte d'heure* to medical witnesses, we are afraid that the reading of this chapter will do nothing towards shortening their agony. "Delusion," says the author, "is a false interpretation or conception of existing and surrounding things." Again "an illusion, like an hallucination, is purely an intellectual creation, and requires no corresponding external reality for its production, as in the case of a delusion." This regrettable confusion of delusion and illusion runs through the whole chapter and detracts from the value of a book otherwise fitted to fulfil its author's aim.

The second English edition of WILHELM WUNDT'S classic *Outlines of Psychology*[8] contains all that the author has included in the fourth German edition. The English translation of the first German edition was reviewed in the BRITISH MEDICAL JOURNAL of May 14th, 1898. Since then numerous additions have been made to the text. The physiological symptoms and concomitants of feelings, intensive tonal fusion, spacial ideas, reaction experiments in volitional processes, consciousness and attention, and associations and memory are some of the subjects which receive important additions. Psychical states (sleep, dreams, and hypnotism) take up additional space, and are treated in a rather dogmatic manner. The general plan remains unaltered, but there has been a growth corresponding to the increase in physiological and psychological literature which immensely increases the value of the book and will assist it in retaining its high position as as indispensable textbook of physiological psychology. It is unnecessary to praise further a book which has won universal recognition, but the translator deserves thanks for the lucidity of style and the careful accuracy of this edition.

Dr. DERCUM'S work on *Rest, Mental Therapeutics, and Suggestion*, which forms one of the volumes of Solis Cohen's *System of Physiologic Therapeutics*,[9] is largely devoted to the discussion of the so-called rest cure in its various aspects. He endeavours to distinguish between simple neurasthenia (fatigue neurosis), neurasthenoid states and symptomatic neurasthenia, hysteria, and hypochondriasis, and holds that modifications of the main methods of treatment by rest are required for each. Of hypochondriasis, he says that it is, like hysteria (from which, however, it differs radically in its symptoms), a psychoneurosis, occupying a position midway between mental and nervous diseases. During melancholic waves of true mental disease

> The picture is presented of intense psychic depression associated with ideas of sinfulness, spiritual ruin, or moral unworthiness. There is the great agony of the lost soul, the hopelessness of a wasted past, or the belief in some crime never to be atoned. In hypochondria, on the other hand, the patient's ideas relate solely to the conditions of the body. It is the somatic state and somatic impressions with which he is concerned.

The term "residual hypochondria" the author uses for a condition in which the patient, even after having made a recovery from some acute affection, persists for many weeks or months in believing himself to be ill. The author dis-

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[1] *idwifery for Midwives* By W. Denison Wiggins, M.R.C.S., L.R.C.P., H., Assistant Medical Superintendent of the Greenwich Infirmary. lon: Baillière, Tindall and Cox, 1904. (Crown 8vo, pp. 259, 44 illustra- 38. 6d.)

[2] *Nurse's Handbook of Obstetrics*, for Use in Training Schools. By h Brown Cooke, M.D, Lecturer on Obstetrics to the New York City ing School for Nurses ; Surgeon to the New York Maternity Hos- etc. Philadelphia and London: J. B. Lippincott Co. 1903. (Demy pp. 391. 9s.)

[6] *he Physiognomy of Mental Diseases and Degeneracy.* By James Shaw, Bristol: John Wright and Co. 1903. (Crown 8vo, pp. 95 ; 78 illus- ons. 3s.)

[7] *Mental Diseases: A Manual for Students.* By W. H. Barker, M.R.C.S. Eng., B.A.Cantab., M.A.Melb., London: Cassell and Co. (Crown 8vo, pp. 260).

[8] *Outlines of Psychology.* By Wilhelm Wundt. Translated by Charles H. Judd, Ph.D., Instructor of Psychology, Yale University. Second edition. Leipzig: Wilhelm Engelmann, and London: Williams and Norgate. (Demy 8vo, pp. 390. 8s.)

[9] *A System of Physiologic Therapeutics.* Edited by Solomon Solis Cohen, A.M., M.D. Vol. viii—Rest, Mental Therapeutics, Suggestion. By Francis X. Dercum, M.D., Ph.D. London: Rebman Ltd. 1903. (Demy 8vo, pp. 340. 12s. 6d.)

cusses the application of physiological measures for these various affections, together with the correction of special symptoms, etc. The remaining chapter of Part I is devoted to the application of rest in chorea and other nervous diseases sometimes called functional, and in others generally recognized to be organic. Part II embraces the large subject of treatment of mental diseases. In Part III the author discusses the influence of the mind over the body, and gives his views on legitimate and illegitimate employment of "suggestion" in treatment. He is no enthusiastic advocate of hypnotism. He says:

> If hypnotism be at all applicable as a method of treatment, it is applicable to an exceedingly limited number of cases. Not even in hysteria is its use necessary or justifiable.
>
> Hypnotic suggestion enormously exaggerates the suggestibility of the patient during the waking state.
>
> Of a truth, hypnotism never cures any affections except those which are readily curable by other and physiologic measures.

Hypnotism, he says, ranks of necessity with "mind cure" and the imbecilities of Eddyism. Some will not altogether agree with Dr. Dercum on this point.

NOTES ON BOOKS.

THE latest volume of the *Transactions of the Epidemiological Society*[1] is the twenty-second volume of the new series, and contains an account of the proceedings of the Society during its forty-third year. It is worth reading even by those not specially interested in the general subject of epidemiology. Professor Delépine's reasoned indictment of boracic acid and formaldehyde as food preservatives is of permanent value, and the paper in which Sir Patrick Manson draws attention to the danger of importing yellow fever to which Asia will be exposed upon the completion of the Panama Canal is of the highest practical importance. Perhaps of still greater interest to the general reader will be the paper by Professor Delépine upon the bearing of outbreaks of food poisoning upon the etiology of epidemic diarrhoea. The discussion of this communication was introduced by Dr. Newsholme at a subsequent meeting in an equally careful paper, and the proceedings upon these two evenings taken together form an interesting summary of the views at present held as to the various etiological factors of a disease which influences the infant mortality-rate to a greater extent than any other. Apart from differences of opinion in respect of contributory causes, all were agreed that, so to speak, one child's milk frequently proves the same child's poison in default of adequate care to protect it from contamination being exercised both at the dairy where it is drawn from the cow, during transport to the retailer, and in the house of the eventual domestic purchaser.

The fourth volume of the *Transactions of the Otological Society of the United Kingdom*,[2] edited by Mr. ARTHUR CHEATLE, contains an account of the communications, specimens, and cases considered during the fourth session of the Society, 1902-3. Two out of the four meetings were given up to the discussion of tuberculosis of the ear. At the last meeting a brief note by Mr. Cheatle on quinine deafness revealed the fact that there is apparently room for difference of opinion as to the effect of this drug upon the auditory apparatus. That in large doses it was capable of producing permanent deafness of a more or less marked degree seems to have been accepted by all; but while the general opinion was that it was a dangerous drug to give even in tonic doses to those whose hearing was in any way impaired, one member stated that small doses of quinine had seemed to do good in cases of anaemia of the internal ear.

Mr. MAURICE C. HIME, M.A., LL.D., already known to our readers as a moralist, endeavours in *The Unlucky Golfer*[3] to extract a moral from golf. It is, he says "essentially a game of skill, into which the element of chance enters but little." This is the opinion of the average golfer on the day when he gets round under ninety; on days when he is over a hundred his opinion is different. Dr. Hime would seriously rebuke this attitude of mind. But is it worth while to be serious about golf? Seriousness will ruin any game, even golf. Monsell agrees that golf is a pastime, not an occupation, has supplied a number of outline sketches which we confess to thinking much better than Dr. Hime's couplets and triplets. Dr. Hime has also sent us the ballad of *Jane Haire*, a *malade imaginaire* converted to cheerfulness, content and fatness by dreaming that she had been drowned and visited hell. Mr. Monsell's illustrations are not so good, and Dr. Hime's verses decidedly better; they may be remembered perhaps for the application of the adjective jovial to the "King who rules the Emerald Isle."

[1] *Transactions of the Epidemiological Society of London.* Vol. xxii. New series. (London: Williams and Norgate. 1903. (Demy 8vo, pp. 173. 6s.)

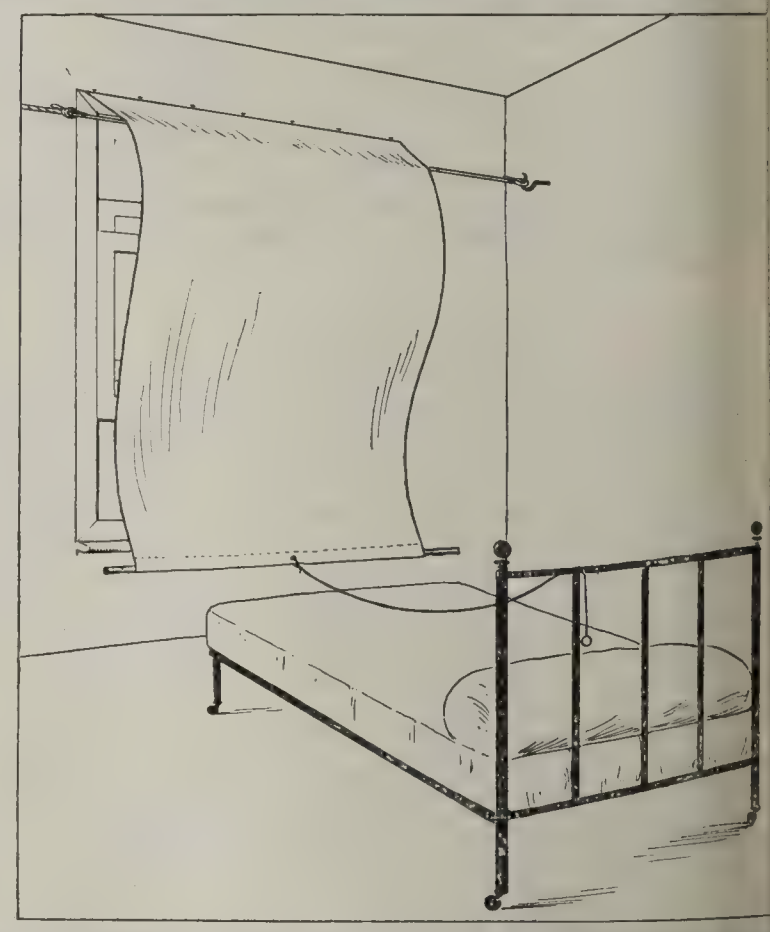
[2] *Transactions of the Otological Society of the United Kingdom.* Fourth session, 1902-3. London: J. and A. Churchill. 1903. (Crown 8vo, pp. 151. 10s.)

[3] London: Simpkin, Marshall, and Co. Dublin: Wm. McGee. 6d. net each.

REPORTS AND ANALYSES
AND
DESCRIPTIONS OF NEW INVENTIONS
IN MEDICINE, SURGERY, DIETETICS, AND THE ALLIED SCIENCES.

MEDICAL AND SURGICAL APPLIANCES.

A Bed Punkah.[1]—Dr. WILLIAM EWART, Senior Physician St George's Hospital, and Belgrave Hospital for Children, writes: The arrangement shown in the illustration was extemporized in less than fifteen minutes, with the help of a small sheet, a few tacks and nails, some strong cord, a piece of indiarubber gas pipe, and a length of cane, for the benefit of one of the many sufferers who are too ill and breathless to send away, and for whom the benefit of "open air" has to be secured during the winter in a small room in the heart of London. A dense fog had supervened, impairing the supply as well as the quality of the air, and threatening to aggravate the dyspnoea and the catarrh. The emergency had to be met on the spot, and the device proved so efficient that its use was kept up permanently with great advantage after the return of ordinary London weather. The foot of the bed happened to be near the window, so that the bed punkah became at the same time a window punkah, drawing the outer air directly into the room, and charging it with the vapour of a solution of turpentine (three parts) and eucalyptol (one part), which was freely syringed on to the sheet. As this adjunct to treatment may be a boon in many a poor dwelling, I may briefly describe how its construction can be rapidly planned and explained, so that it may subsequently be carried out at



the doctor's short visit. The sheet is provided with suitable hems (top and bottom) by means of safety pins. The lower hem is threaded with strong cord, and secured by nails or strong tacks into the upper wooden ledge of the window

[1] Demonstrated before the Chelsea Clinical Society on April 19th, 190

ne (or tightly stretched between hooks high above the foot he bed), and into the lower hem the cane is to be inserted r. A strong hook having then been driven into each of side walls, about 2 ft. away from the front of top of the window, and a cord stretched across room, a sheet is slung over the cord without being ached to it. A length of 1½ to 2 yards of wireless india-ber gas tubing is then substituted for that part of the cord ich supports the sheet. The cane is next provided at its idle with a cord sufficiently long to pass over the top rail the bedstead and back into the patient's hand, and with s the punkah is ready for use. A cord and pulley may be sequently provided to haul up the punkah when not re-red. One advantage of this exceedingly simple and light angement is that the elasticity of the indiarubber gives a ximum swing to the sheet with a minimum pull, the ient working the punkah for himself with zest and with-fatigue. The medication of the air may be varied accord-to indications. Some time after this installation had n working satisfactorily I remembered the late Dr. hard Neale's enthusiastic advocacy, long before the days "open-air" treatment, of the "chemical lung" which he l invented for a different object. This was a punkah arged with an alkaline solution for the purpose of clearing air of rooms and of tunnels of its SO_2. Full references l be found in Neale's *Digest*, under the headings "Punkah" l "Chemical Lung." Although devised for pulmonary con-nption, the bed-punkah will probably be found a useful k-room appliance in a variety of other cases, and also ing the summer, when it can be made into a cooling as ll as a ventilating agent. But its chief office is during lls of stagnant air; and its chief use for the present is for thousands of poorer consumptives living in small town ements, for whom there is neither sanatorium accommoda-n nor any artificial ventilation system such as that ieved by Dr. Glover Lyon, much less any artificial atmo-ere, but who must be content with London air such as it It answers well in its rough original form, but I shall be d to hear of any improvements likely to add to its use-ness.

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essary for Prolapsus Uteri.—Dr. HUGHES DAVIES (London), writes: wish to call your attention to a "pessary for prolapsus uteri" hich Mr. Derham-Reid, of Manchester, has had made, and the par-culars of which you describe in the number of the BRITISH MEDICAL OURNAL of April 2nd, p. 790. If you will have the goodness to refer the JOURNAL of January 19th, 1901, you will find that you pub-shed a description of a new prolapsus pessary of my invention, the rincipal feature of which is either a Hodge or a ring, supported upon forked column and hinged. Messrs. Krohne and Sesemann have nce, and previous to that date, manufactured and sold the "Hughes avies pessary," essentially forestalling that now put forward by r. Derham-Reid as a "novelty." Besides this publicity, the pessary as exhibited before the Obstetrical Society by me. I may add that e "Hughes Davies pessary" was also described in the *Lancet* of ctober 6th, 1900.

Aspirator and Insufflator.—Dr. Albert Rosenau of Kissengen, asks us state that the apparatus for aspiration of the gastric secretion, a escription of which was given in the BRITISH MEDICAL JOURNAL of pril 23rd, p. 958, can now be obtained from Messrs. S. Maw, Son, nd Sons, Aldersgate Street, E.C.

NFANT FEEDING: A FORMULA.—A great many more or less plicated receipts to determine the amount of milk which infant should receive, and the frequency with which the als should be given, have been devised, but it has been to Mr. I. Stanley Kahn, of the Boston City Hospital, to pound a formula which, at the first glance at least, appears iously complicated. He tells us that the amount of food uired in twenty-four hours by the average healthy infant various ages may be obtained by adding 11 to 5 times square root of the age of the child in weeks. He is kind ugh to say that the square root may be approximate. For tance, at 3 weeks the square root is 1, and the quantity ob-ed by the calculation is 20 oz. At 4 months the square t is 4, and the result of the calculation is 31 oz. In a table the *Boston Medical and Surgical Journal* of March 17th, 4, he shows that the results at various ages agree fairly sely with the quantities mentioned by Ladd, Oppenheim, rr, and Holt, and the formula may therefore be of some as a *memoria technica* to practitioners of the mathematical n. With regard to the number of meals in twenty-four rs, his formula is 11 minus the square root of the age of child in weeks; thus at 4 months the square root being 4 number of meals will be $11 - 4 = 7$.

NOVA ET VETERA.

MANCHESTER MEDICAL WORTHIES.[1]

SOME time ago the Council of the University of Manchester resolved to issue volumes of special interest or importance, and we now have the opportunity of welcoming the first of the *Medical Series of Publications of the University of Manchester*. We congratulate both the author and the publishers, the former on the thorough and painstaking nature of his researches into the life-histories of the Manchester medical men of a bygone age, and the latter on the production of a handsome volume which will be the standard work on all that relates to the more intimate history of the medical past of the Royal Infirmary. The visit of the British Medical Association to Manchester in 1902, and the address given by Mr. Walter Whitehead, the President, on that occasion, did much to quicken interest in the history of medical Manchester.

Dr. Brockbank has written longer or shorter biographies of fifty-five medical men beginning with Thomas White (1696-1776), who "was the father of Charles White," and ending with Thomas Turner (1793-1873). Thirty-four were honorary physicians and eighteen honorary surgeons.

Of many of these worthies little is said or could be said. The longest memoirs are devoted to Charles White, Thomas Percival (1740-1804), Thomas Henry (1734-1816), John Ferriar (1761-1815), and P. M. Roget (1779-1869), who all left their mark either in deeds of well-doing, or in literature or in science. Of Charles White (1728-1776), one of the founders of the Infirmary—which began with "accommodation for twelve patients"—and of the Lying-in Hospital, "the originator of lectures to medical students in Manchester" (1783), we need say little here, for Mr. Whitehead in his presidential address at Manchester, Dr. Lloyd Roberts, and recently Professor Cullingworth, have borne tribute to his memory, to his work, and to his worth. We may recall that White suggested section of the ends of the humerus in a case of ununited fracture (1761). He performed excision of the upper head of the humerus with retention of entire motion of the limb (1769). His works on the management of pregnancy (1773) and phlegmasia (1784) are classical, and his use or "topical application" of the "spunge" in the stoppage of haemorrhages is not forgotten (1762). The surgeon who, it was stated, recently was charged with the duty of severing after death the trachea and carotids of a well-known lady, received no such reward for his labours as did Charles White. One of his patients had a great dread of being buried alive; she left White £25,000 on condition that she should remain above ground for 100 years. She died in 1757, and White took the practical method of embalming her body. The mummy had a varied history, and was at last interred in 1868.

A considerable number of the subjects of these biographies remained unmarried, and two at least died as the result of falling from horseback. The sister of Edward Hall left £11,000 to the infirmary; while Edward Holme (1770-1847), the friend of Dalton—even in death they are not parted, for they both repose in Ardwick Cemetery—left his fortune of £50,000 to University College, London. His large library was sold.

The volume contains accounts of the little disputes that took place from to time between these medical heroes, but these polemical questions may be left in oblivion. Nor need we do more than recall the story of Manchester as the first provincial school of medicine, and how from the first germ of medical lectures given in 1783 and the College of Arts and Science, there has by a slow process of evolution and absorption arisen the independent University of Manchester of to-day.

Here and there we get glimpses of the times and manners of the primitive state of hygiene, the Jacobite period, the prevalence of typhus, the earliest numeration of the people of Manchester and Salford in 1773—the expenses of which were largely defrayed by medical men, and of the apprentice-period and conditions of indenture. The closing years of the eighteenth century—1789, 1790, 1794—saw the outbreak of successive terrible epidemics of typhus, and no wonder. Young children operatives slept in the mills; Crompton's invention of the spinning mule in 1779, which was not patented, led to a great demand for labour, and the work was done under the most insanitary conditions; even the floors of the mills were filthy beyond belief. To John Ferriar and to Percival largely belong the merit of stirring up the authorities to do some-

[1] *Sketches of the Lives and Work of the Honorary Medical Staff of the Manchester Infirmary from its Foundation in 1752 to 1830, when it became the Royal Infirmary.* By E. M. Brockbank, M.D. Manchester: University Press. 1904. (Demy 4to, pp. 311. 15s.)

thing to protect the people. In the end a Board of Health was established, and the New House of Recovery was opened in 1804, although previous to this a fever hospital had been established near the infirmary.

A nonagenarian of 1854 recollected the time when there were only three private carriages in Manchester. White and Percival were responsible for two out of the three. We are told that the third was owned by a "Salford lady," whose name and fame have not been committed to cold print, though doubtless both were well known on both banks of the Irwell.

Leaving aside the mass of detailed biography, let us look at some of the achievements of the staff of the infirmary during these three-quarters of a century. Apart from the foundation of hospitals and allied institutions, we have the foundation of the Literary and Philosophical Society, the foundation of the first provincial school of medicine, at any rate of anatomy, and the Medical Society, in 1834; in medical ethics, the publication in 1803 of the famous work of Percival, the establishment of bills of mortality which helped to found the science of vital statistics, and paved the way for the Board of Health; in factory legislation, improvements for restricting the hours of labour of mill hands, especially of children; in science, new processes for the preparation of drugs, the enunciation of Henry's law, the analysis of coal gas, the foundation of anthropometry by White; in practical medicine, the use of cod-liver oil for chronic rheumatism (1772) by Samuel Kay of Bury (1708-1784), the formation of an artificial pupil and couching in infancy by Gibson. In 1794, S. A. Bardsley (1764-1850) stated that "it is highly probable that canine madness arises solely from actual communication of the virus, and that a proper system of quarantine, extending to dogs within the kingdom, and to such as may be imported, would be the most effective means of extirpating canine madness from the British Isles." This is exactly the practice adopted by the Legislature rather more than a century afterwards.

It appears that John Atkinson Ransome (1779-1834) was the first to suggest the use of silk or catgut ligatures for tying arteries, on the ground of their animal origin, as they would be more readily absorbed—exactly the arguments that were used when catgut came to be extensively used towards the end of the nineteenth century. The first systematic course of clinical lectures at the hospital was delivered by E. Carbutt in 1833. There is no definite record of the surgical lectures.

The only one of the half-hundred on whom a title was conferred by the Crown (1853) was Sir James Lomax Bardsley (1801-1876). "He did not possess great intellectual attainments. What distinguished him was good common sense and sound judgement rather than deep learning" Let us recall his quotation from Cullen regarding the value of clinical instruction to the teacher and to the patients as well as to the students:

> If there be anything which can induce the rash practitioner to pause, the inconsiderate to reflect, or the ill-informed to seek for instruction, it is the necessity of explaining the grounds of his practice and his opinions of disease to an audience composed of well-educated medical students.

Manchester is justly proud of the three Henrys—Thomas, William, and William Charles, the biographer of John Dalton for the Cavendish Society—father, son, and grandson. From 1775 to 1892 one or other was a Fellow of the Royal Society.

The work is illustrated by nearly thirty plates; some of them show the infirmary at various periods of its history, but most are portraits of the staff. There are several useful appendices, giving lists of the honorary physicians and surgeons, the senior medical residents, apothecaries, physicians' clerks for home patients, matrons, and, last but not least, an admirable bibliography and a copious and useful index. There are a few printer's errors; obviously the reference to Dr. Eason is wrong by a century.

To one Manchester medical worthy Dr. F. W. Jordan has devoted a separate volume.[2] The *Life of Joseph Jordan*, which incidentally gives an account of the rise and progress of medical schools in Manchester, with some particulars of Dr. Ed. Stephens, is avowedly a "tribute of admiration for the originality, industry, and perseverance of a Manchester worthy whose work was the germ of provincial medical schools." It recalls the portrait of "an old world type of character," of him "who initiated medical education in this city," Joseph Jordan (1787-1873) who began his professional career at 15; he was an apprentice first to Mr. Bill and then to Mr. Simmons. The latter engagement gave young Jordan the run of the infirmary. He was a surgeon in the militia from 1806 to 1811. He practised for a time at Kidderminster, but keen pursuit of anatomy caused him to leave rather precipitately, and in 1812 he commenced practice in Manchester.

In September, 1814, he announced "To Students of Anatomy," that "Mr. Jordan will open rooms for the study of anatomy on the 1st of October. Bridge Street." The original dissecting rooms were in Back Queen Street. In 1816, the "anatomical demonstrations" were given in the first floor of the house, which he occupied as a yearly tenant for nearly sixty years. Mr. Jordan gave a complete course of one hundred and forty lectures as required by the Apothecaries' Hall and the College of Surgeons. They extended from October 1st to April. When Mr. Jordan started his school no legal qualification to practise was required, and there was, therefore, no compulsory curriculum and the certificates of metropolitan teachers were alone accepted. In 18[illegible] Dr. Hull induced the Apothecaries' Company to accept Mr. Jordan's certificates as in every way equivalent to those given by the metropolitan teachers, and in 18[illegible] the Royal College of Surgeons followed suit. Thus the monopoly was set aside, and there was founded the first provincial medical school whose certificates were regarded as equivalent to those of teachers in the metropolis. Mr. Jordan lectured on anatomy for upwards of twenty years, and "he never had a student rejected in this subject." In 18[illegible] the teaching was carried on in a new building called the Manchester Medical Institution, which remained open until 1834. There were between sixty and seventy students, for whose use were provided a spacious theatre, a museum, five or six marble-topped tables, and a good supply of water, as well as private dissecting rooms for medical practitioners. The battle of the schools—Mount Street, Pine Street, Chatham Street, Marsden Street—has been often told, and need not be related here.

Jordan on the third attempt was elected surgeon to the infirmary in 1835, a post he occupied for over thirty years. The election cost him £690, chiefly spent in bringing voters from the country.

Jordan taught anatomy before the passing of the Anatomy Act, 1832, and had much experience in obtaining the necessary material. Once he was fined £20 by the magistrates reluctantly, as they admitted, and his resurrectionist was condemned to undergo twelve months' imprisonment and to pay a fine for rifling a grave. Bodies were even sent to London and to Knox in Edinburgh. Practically, before the passing of the Anatomy Acts, the public and the Legislature demanded a knowledge of anatomy, but the law prevented the candidate from acquiring that knowledge.

Mr. Jordan's methods of teaching were entirely his own, essentially practical and learned in the severe school of experience, while professional work filled his life. Although abstemious in every other respect he was an inveterate snuff taker. His published contributions to science were few. The short memoir of Edward Stephens, a nephew of Jordan's, given in Dr. F. W. Jordan's volume, contains an account of the examination for M.D. in Leyden in 1827, where Stephens was "dubbed doctor by Dutch courtesy." He was examined in private for two hours by Sandifort—all in the Latin tongue. "It is no joke passing at Leyden." Three other public examinations were in store, and the Latin thesis had to be defended in the Grand Hall, where the candidate was obliged to mount the rostrum dressed in a black suit, black silk stockings, and a sword at his side! Courtesy also demanded that the day before the thesis was defended the student should proceed in a carriage with his two paranymphs—young men who supported the candidate in defending the thesis—and leave a copy of the dissertation with each of the professors. A practical dissection had to be done. The successful candidate gave a dinner or coffee to the paranymphs and other friends. Stephens gave them "coffee" as he wished to do everything as cheaply as possible. Perhaps for that reason he asked his uncle to send him £40 instead of £30.

In an appendix Dr. F. W. Jordan gives dates of events in the rival schools, and a general account of the early history of medical education in Manchester. The work is illustrated by several excellent plates. The establishment of provincial medical schools was a matter of national importance, and was part of one of the movements of the age. If Mr. Jordan was the real Father of the Manchester Medical School Mr. Thomas Turner stood *in loco parentis*. We agree with Dr. Jordan that "both teachers are entitled to equal honour."

[2] *Life of Joseph Jordan.* By F. W. Jordan, M.D. Manchester: Sherratt and Hughes. 1904. (Demy 8vo, pp. 140. 5s.)

NOTES ON HEALTH RESORTS.

NAUHEIM.

UHEIM is situated at the eastern point of the chain of the unus mountains, 480 ft. to 570 ft. above the level of the sea. e aspect is north-eastern, so that a fresh breeze blows from e Wetterean plain, and it is seldom damp or foggy. The an temperature from May 1st to October 1st—the season—62.24° F., rising in July to 66.2° F. But it is always possible to find cool and bracing air near the so-called Graduan House, which is provided with a covered promenade and rrounded by pleasure grounds. The house, which is a kind summerhouse, is built close by one of the evaporating walls, wn which the water is allowed to trickle, and concentrates its passage to form the mother-lye. A large evaporation orn wall is shown in the illustration. The journey from ndon to Frankfort takes nineteen hours, and thence to uheim, by a branch line, less than an hour.

Nowhere can the influence of a physician make itself more t than at a health resort, and nowhere has that influence been re apparent than at Nauheim, where the Brothers Schott have en instrumental in elaborating Beneke's (1850) treatment of sorders of the heart and circulation with such conspicuous ccess that Nauheim has become the most renowned heart re in Europe.

e diseases of e heart which uheim professes to treat with ccess are valvular, and especially mitral, diseases, pericardis and endoditis and their quelae, chronic locarditis and ocarditis, nervous affections of e heart, weak art, dilatation d hypertrophy, d vasomotor orders. The e is said to be eful also in disders of the art associated h obesity, in ipient arteriosclerosis, angina ctoris, and aves's disease. her conditions o treated are eases of the ipheral and tral nervous tems, organic or functional, particularly neuralgia, atica, chronic myelitis and chronic meningitis, that is, flammation of the spinal cord and its membranes. In omotor ataxia the baths are said to produce good results. ny cases of neurasthenia also derive benefit.

One of the thorn evaporating walls for production of mother-lye, Nauheim.

The baths are divided into five classes:

No. 1. Brine baths free from carbonic acid, varying in temperature containing from 1 to 10 per cent. of added brine. The greater part the carbonic acid has evaporated, and the water is also cooled by ng allowed to spout freely.

No. 2. Hot brine baths abounding in carbonic acid and differing in perature. The salt obtained by evaporation of the mother-lye con- s on an average of about 60 per cent. sodium chloride, 20 per cent. ium chloride, 15 per cent. magnesium chloride, and 17 magnesium mide, 5 per cent. potassium chloride, 0.1 per cent. chloride lithia, 15 per cent. of water.

No. 3. Thermal stream baths or baths of flowing brine.

No. 4. Sprudel baths (an effervescent bath). The brine contains its complement of carbonic acid, and is at a natural temperature of ° to 91.4° F.; it flows directly unaltered in quality into the baths ough outlet pipes. The bath is filled, and then the tap is shut off, hat CO_2 is gradually evaporating while the patient is in the bath.

No. 5. Sprudel stream baths of flowing Sprudel water, an intensified n of sprudel. These baths are the great feature of Nauheim; the er comes straight from the spring into the bath through pipes, and sprudel brine flows through the bath while the patient is in it; the tinual flowing of the water causes the carbonic acid to be always ng because always arriving fresh. These baths are most stimulating.

The springs chiefly used for baths are Spring 12 (Friedrich Wilhelms-Quelle), which rises from a depth of about 600 ft., throwing up a great jet of water, and Spring 7 and Spring 14 (Ernst Ludwigs-Quelle), struck in 1900.

The waters used for bathing, as will be seen from the analysis, contain about 2 to 3 per cent. sodium chloride, 2 to 3 per mille calcium chloride (this is considered very important), a great deal of carbonic acid gas, and a small quantity of iron bicarbonate. Two of the springs rise in great jets some 30 ft. high, one of them containing as large a proportion of carbonic acid gas as 1,340 c.cm. to a litre of water.

Seven bathing establishments contain 280 bathing rooms. In these are hip baths of brine, with or without carbonic acid gas; fresh-water baths, plain or medicated in various ways; shower baths, with brine; baths with douches of different kinds. The prices of the baths are as follows: Thermal or brine bath, 1.50 to 2.10 marks; ordinary sprudel, 2 to 4.10; stream sprudel, 5 to 6.

Patients can be taken, if necessary, to and from their baths in bath chairs, and there is a room where they can rest afterwards if they wish. The demand on the baths is so great during the season that they commence at 5 a.m., and continue all day. In 1902, 304,616 baths were taken. The new thermal spring baths constitute intermediate baths for patients dependent before on the thermal or the spring baths. These spring basins were constructed so that the waters might retain the carbonic acid gas and their heat until they flowed into the bathing tubs. The pipes and the basins are in underground ways, in which the air is kept at a temperature of 30° C. Four springs are used for drinking purposes, but those principally employed are the Kur-Brunnen and the Karls-Brunnen, which contain 1 to 1½ per cent. common salt, 1 per mille calcium chloride, and are effervescent with free carbonic acid gas. The Ludwigs-Quelle is an alkaline, carbonated water, and the Schwatheimer-Brunnen is a mineral spring for drinking purposes only, containing 0.13 earthy bicarbonates, 0 01 iron bicarbonate, and a like proportion of common salt. This water is used successfully for anaemia.

The distinctive feature of the Nauheim method of treating heart affections and defective circulation consists, as is well known, in baths and resistive gymnastic exercises.

The sprudel stream baths can be taken at a lower temperature than other baths on account of the stimulation of the skin produced by the movement of the water as well as by the bubbles of carbonic acid gas formed in it and the action of the salts. In favourable cases the heart's action becomes more regular, while the pulse grows fuller and the breathing more even and quiet, food is better assimilated, and with the improvement in the general condition the heart grows stronger and healthier. The treatment must be commenced cautiously, and the baths should, of course, be taken only under the advice of one of the many local physicians. It is usually recommended that the baths at first should last not more than from six to eight minutes, and should be followed by complete rest. Even so, a day should be missed frequently until the stage arrives when the sprudel and finally the *Sprudelstrom* baths may be taken.

The exercises thought out by the Brothers Schott consist in "voluntary movements with resistance," the resistance

Quantitative Analysis of the Nauheim Waters.

(The amounts of Ingredients are given in Grams as contained in 1,000 Grams of Water.)

Constituents.	Springs for the Baths.			Drinking Springs.				
	No. 12.	No. 14.	No. 7.	No. 8.		No. 10.		
	Analysed by Prof. Will.	Analysed by Dr. Sonne.	Analysed by Prof. Will.	Kur-brunnen, analysed by Prof. Will.	Karls-brunnen, analysed by Dr. Uloth.	Ludwigsquelle, analysed by		Schwal-heimer Brunnen near Nauheim analysed by Prof. Lieb
						Prof. Will 1868	Dr. Sonne 1900	
Sodium chloride	29 2940	24 0692	21 8245	15.4215	9.8600	0.3411	0.4195	1.280
Sodium sulphate	—	—	—	—	—	—	—	0.066
Lithium chloride	0 0536	—	0.0492	0.0267	Traces	0.0012	Traces	—
Potassium chloride	1.1194	1.0825	0.4974	0 5270	0.0731	Traces	0.0280	—
Ammonium chloride	0.0712	0.c660	0.0550	0.0371	0.0123	—	—	—
Calcium chloride	2.3249	1 6327	1 7000	1.0349	1.0578	—	—	—
Magnesium chloride	0.5255	0.5634	0.4402	0.7387	0 2040	—	0.0812	0.116
Magnesium bromide	0.c083	—	0 0060	0.0063	0.0014	—	—	—
Calcium sulphate	0.0352	∫ 0.c602	0.0347	0 0238	0.2277	0.0288	0.0248	—
Strontium sulphate	0 0499	⌊ —	0 0390	0 0324	0 0087	—	—	—
Calcium bicarbonate	2.6012	2.6529	2 3541	1.1461	0 9515	0.3692	0.4507	0.062
Magnesium bicarbonate	—	—	—	—	—	0.1928	0.1132	0.069
Sodium bicarbonate	—	—	—	—	—	0.0928	0.1170	—
Protoxide of iron bicarbonate	0.0484	0 0418	0.0383	0 0262	0.0152	0.c098	0.0152	0.015
Manganese bicarbonate	0.0069	—	0.0065	0.0080	—	—	—	—
Oxide of zinc bicarbonate	0.0089	—	0.0104	0 0070	—	—	—	—
Silicic acid	0.0213	0.0193	0.0325	0 0186	0 0087	0.0121	0 0135	0.015
Iron arseniate	0.0002	—	0.c004	0.0002	Traces	—	—	—
Iron phosphate	0.c007	—	0.0005	0.0003	0.0002	—	—	—
Absorbed carbonic acid	1.0074	1.1905	1.2634	1.9622	1.4272	1.2545	1.8135	2.250
Total amount of all constituents	37.1770	31.3785	28 3520	21.0171	13 8478	2.3023	3.0766	3.873
Amount of solid constituents	35 3573	29.7436	26.3543	18.6935	12 1257	1.0478	1.2631	1.546
Specific gravity	1.0276	1 0225	1 0209	1 0147	1.0089	1.0010	1.0009	1.0022
Temperature—Fahrenheit	91.4°	88.16°	86.9°	70.52°	59.0°	65.84°	62.96°	46.76°
Amount of the free and half combined carbonic acid	990 5 c.c.m.	1000 c.cm.	1116 3 c.cm.	3 0534 gr.	1.7417 gr.	—	9.20 c.cm.	—

being against the hands of the person supervising the exercises. Some patients benefit more from the baths without the exercises, whilst to others the latter are of great use.[1] Tricycle exercise is recommended by Dr. Siegfried, the treadles being made to revolve according to the requirements of the patient and in cases where passive movements of the lower limbs are useful the tricycle is pushed by an attendant. Climbing exercises are also employed as part of the treatment, and gradually ascending pathways are laid out with resting places here and there. A course usually lasts from five to six weeks, and the most satisfactory results are obtained in cases of dilated heart, the superficial area of cardiac dullness being diminished.

The benefit derived from Nauheim may be attributed mainly to the tonic effect of the gaseous baths on the circulation, the reflex stimulation of the vagi and the increased elimination of waste products of metabolism, which have accumulated owing to defective circulation.

Nauheim has a population of 5,000, and contains many villas and hotels, the most favoured being those looking on to the Park, which is larger than any other German spa possesses. The Kurhaus and baths stand in this park. The former contains a fine concert and ball room as well as drawing and reading rooms, a billiard room and refreshment rooms. It is fronted by a large terrace. Every visitor (physicians excepted) must pay a Kurtaxe of 20 marks, and 6 marks for each member of the same family. There is a large choice of good hotels and lodging-houses. Rooms can be had from 7s. to 50s., board for 28s. and upwards a week, while visitors whose state of health has changed for the worse may be admitted to the municipal hospital.

The Nauheim cure—and indeed, this might apply to any cure—has been described in the following words: "*Schlafen, lesen, essen und baden.*" But Nauheim is not enlivening, for it is perhaps the one spa where the majority of patients treated are genuinely ill—some sick unto death—many of them being sent there when their physicians are at their wits' ends, and dying even before they leave the train or soon after arrival.

The treatment should be recommended before the evil becomes too serious; and indeed, the patient should be sent there after the first symptoms are discovered, on the doctrine that prevention is better than cure.

[1] See BRITISH MEDICAL JOURNAL, 1895, vol. i, p. 527, and vol. ii, p. 1081.

THE PLAGUE.

PREVALENCE OF THE DISEASE.

INDIA.

DURING the weeks ending April 9th and 16th the deaths from plague in India numbered 47,759 and 46,812 respectively. During the weeks in question the principal figures were: Bombay City, 975 and 706; Bombay Districts, 6,216 and 5,128; Calcutta, 539 and 500; Bengal Districts, 3,516 and 1,942; North-West Provinces and Oudh, 7,641 and 6,197; the Punjab, 23,777 and 26,961; Rajputana, 892 and 1,005; Central India, 1,095 and 1,288; Central Provinces, 1,386 and 704; Kurachi, 297 and 264; Kashmir during the two weeks, 1,165.

SOUTH AFRICA.

Cape Colony.

Port Elizabeth.—During the weeks ending April 16th and 23rd the number of fresh cases of plague amounted to 2 and 1, and the deaths from the disease to 1 and 0 respectively. Four cases remained under treatment in hospital on May 23rd. Many rats and mice were found infected with the plague bacillus.

East London.—No cases of plague in man were recorded during the weeks in question, but rats and mice were found to be infected.

No case of plague was discovered in man or animal in any other part of South Africa.

Transvaal.

During the weeks ending April 30th and May 7th the fresh cases of plague in Johannesburg numbered 14 (3 whites) and 11 (6 whites), and the deaths from the disease amounted to 5 (no whites) and 4 (1 white) respectively. Up to May 7th the total number of suspected cases since the commencement of the outbreak on March 20th amounted to 185 and the deaths from the disease to 89. From the method of reporting the disease by the Transvaal authorities it is impossible to estimate the exact number of persons who have really suffered from plague, and suspected and proved cases are included in one report, while in the next only proved cases are estimated. During the week ending April 30th, for instance, 32 of the patients examined during the week were stated not to be suffering from plague, yet they are included in the original total for the week: and, again, during the week ending May 7th 32 of the cases were found not to be plague. It would be well were only actual cases of plague reported upon. Two deaths from plague are reported from the Witwatersrand district. Although plague-infected rats are being found, the majority of those examined have been proved, it is stated, to be suffering from trypanosomiasis.

HONG KONG.

During the week ending May 7th there occurred 29 fresh cases of plague in Hong Kong and 26 deaths from the disease.

MAURITIUS.

During the weeks ending April 28th, May 5th and 12th but 1 fatal case of plague was reported during the week ending May 5th.

AUSTRALIA.

Sydney.—A case of plague occurred in Sydney on March 10th. No case of plague had been reported in Sydney for eight months previously.

Queensland.—Plague is stated to prevail in Queensland, but there are no reports on which to base statistics.

CENTRAL MIDWIVES BOARD.

We have received the following report from the Secretary of the Central Midwives Board:

At a meeting of the Central Midwives Board, held at the Board Room, 6, Suffolk Street, S.W., on April 28th, and adjourned to May 11th, the following business was transacted:

Present on April 28th: Dr. Champneys, Mr. J. Ward Cousins, Dr. Cullingworth, Mr. J. H. Johnstone, M.P., Miss Paget Dr. Sinclair, Miss Wilson, Mr. E. Parker Young.

Present on May 11th: Dr. Champneys, Miss Paget, Dr. Sinclair, Miss Wilson, Mr. E. Parker Young.

1. Dr. Champneys was re-elected Chairman of the Board for the ensuing year.

2. Mr. J. H. Johnstone, M.P., was re-elected Honorary Treasurer for the same period.

3. Letters were read from the Secretary of the Rotunda Hospital, Dublin, the General Secretary of the Royal Academy of Medicine in Ireland, the Master of the Coombe Hospital, Dublin, and Dr Byers, Physician to the Incorporated Belfast Maternity Hospital, asking the Board to reconsider its decision as to an alteration of its rules, so as to allow pupil midwives trained in the chartered maternity hospitals of Ireland to be placed on the same footing as candidates for the examination of the Board producing the certificates prescribed by Forms III and IV in the Schedule to the Rules of the Board.

Resolved: That it is desirable to reconsider the rules, so far as regards the application contained in the letters now read.

It was moved and seconded: That in lieu of the certificates of personal attendance upon twenty cases the Board may, if they think fit, accept the certificates of the master or senior medical officer of a hospital or institution where midwives are trained that the candidate has attended the course of training prescribed for pupil-midwives for the period and in accordance with the regulations in force in such hospitals or institution.

All applications for the recognition of such certificates must be made by the master or senior medical officer of the hospital or institution applying, and must be accompanied by a statement of the regulations for the time being in force, and of any special circumstances which prevent candidates trained in such hospitals or institutions from producing the ordinary certificates required by the Board.

On a division there voted: For the motion, 3; against the motion, 5. The motion was accordingly lost. The further consideration of the matter was then adjourned to May 26th.

4. After consideration of applications for certificates the names of 1,037 women were passed under Section 11 of the Act, and ordered for entry on the roll.

The following table shows the separate numbers of the various qualifications at present appearing on the roll:

Royal College of Physicians of Ireland	1
Obstetrical Society of London	1,213
Rotunda Hospital	55
Coombe Hospital	23
Queen Charlotte's Hospital	73
Liverpool Lying-in Hospital	20
British Lying-in Hospital	3
Glasgow Maternity Hospital	39
St. Mary's Hospital, Manchester	78
Manchester Maternity Hospital	1
City of London Lying-in Hospital	7
Royal Maternity Hospital, Edinburgh	6
Salvation Army Maternity Hospital	4
National Maternity Hospital, Dublin	1
Women in bona-fide practice, July, 1901	2,928
Total enrolled	4,452

5. Resolved, that it is desirable to appoint an inspector to visit and report on institutions applying for recognition of certificates or approval as training schools, in cases where it appears advisable to the Board.

6. The consideration of the scheme of examinations to be instituted by the Board was further proceeded with, and adjourned.

The Treasurer of the Epsom College, Royal Medical Foundation, begs to acknowledge with thanks a donation of £0 10s. from the Wimbledon and District Medical Society.

London School of Tropical Medicine. — Twenty-nine students have entered the school for the three months' course which began in May and ends in July. One lady is included in this number.

THE STUDY OF CHILDHOOD.

The annual meeting of the Society for the Study of the Mental and Physical Conditions of Children was held on May 11th, Earl Egerton of Tatton in the chair. Among those present were: Sir Robert Hensley, Chairman Metropolitan Asylums Board; Dr. Griffiths, President of British Medical Association; Dr. Hyslop, Superintendent Bethlem Hospital; Dr. F. Warner, Dr. Langdon-Down, Dr. Mott, Dr. Gladstone, and Dr. Robert Jones. The report of the Council recorded continued progress and activity in promoting the objects and work of the Society by (*a*) arranging lectures which assist the study of educational methods, and of the environment of children during school life best suited to ensure their mental and physical development; (*b*) publishing volumes of transactions, and disseminating the teaching and information contained in the lectures and addresses given before the Society; (*c*) memorializing the Board of Education on the necessity of the Elementary Education (Defective and Epileptic Children) Act of 1899 being made compulsory on all educational authorities, and the desirability of provision being made for the special training of teachers to qualify them for the care of defective children; (*d*) offering to give evidence before the Physical Deterioration Committee; (*e*) appointing representatives to attend the Congress of the Sanitary Institute at Bradford and the Conference of Special Teachers held at Manchester; (*f*) appointing representatives to the Joint Committee of the Teachers' Guild to consider the compilation of a pedagogical bibliography. For the first time in the history of the Society the Council had to report that the membership had reached 100, including 14 honorary corresponding members, 63 members, and 24 associates. The following were elected officers for 1904: *President:* Right Hon. Earl Egerton of Tatton. *Vice-Presidents:* Right Hon. Earl of Stamford; Lady Douglas Galton; E. W. Brabrook, C.B., F.S.A.; T. Bridgwater, LL.D., M.B., M.R.C.S.; Richard Biddulph Martin, M.P.; Rev. W. D. Morrison, LL.D.; J. W. Palmer, A.I.A.; G. H. Savage, M.D., F.R.C.P., M.R.C.S.; Rev. T. W. Sharpe, C.B.; Francis Warner, M.D., F.R.C.P., F.R.C.S. *Treasurer:* Richard Biddulph Martin, M.P. *Council:* Fletcher Beach, M.B., F.R.C.P., M.R.C.S.; Mrs. Dickinson Berry, M.D.; F. J. Campbell, LL.D.; R. P. Cockburn, M.D., M.R.C.S., L.R.C.P.; S. de Brath; M. Friedeberger, Ph.D.; Miss Hilda Gavin; W. Hamilton Hall, L.R.C.P., M.R.C.S., F.S.A.; C. W. Hole (Delegate from the National Union of Teachers); H. R. Kenwood, M.B., F.C.S., D.P.H. (Delegate from the Sanitary Institute); A. B. Kingsford, M.R.C.S., D.P.H.; R. Langdon-Down, M.A., M.B., M.R.C.P.; Sidney Spokes, M.R.C.S., L.D.S.; G. E. Shuttleworth, B.A., M.D., M.R.C.S.; E. White Wallis, F.S.S. An address on Degeneracy: Physical, Mental and Moral, was delivered by Dr. G. E. Shuttleworth, who disavowed the pessimistic views held by some as to the extensive prevalence of degeneracy in the nation. He was unable to accept all that Nordau had written as to genius being mainly degenerate, and Lombroso's and Benedikt's theories as to specialized criminal types of brain. Yet the subject was one calling for scientific observation and strenuous measures of counteraction where detected. How to detect early signs of deviation from the normal in physical and mental development was one of the questions which the Society had set itself to solve. The report on the examination of 100,000 children in schools, issued under its auspices in 1895, was a most valuable contribution to the problem. Anthropometric observations of the growing child were also of importance, and these unfortunately were too few. The child being "father to the man," such observations would have national value in relation to the alleged physical deterioration of army recruits; and it was only by combating adverse conditions in the incipient stage that good could be effected. Dr. Shuttleworth reviewed the alleged evidence of physical deterioration, and pointed out that even if it were proved it would apply only to the lowest stratum of the community. He referred to the inquiries made previous to factory legislation in 1832, and remarked that then, as now, unwholesome conditions of town life and of indoor labour were undoubted factors in physical deformity. The transmissibility of defects was next considered, and it was argued that much depended upon environment as well as upon heredity. Passing to the subject of mental degeneracy, its close correlation with physical degeneration was pointed out, and the coincidence of physical deformity with moral defect had been noted from the most ancient times. In conclusion, the causes and possibilities of prevention of

degenerate states were briefly considered. The restriction of the marriage of the unfit was of prime importance but formed a difficult social problem; antenatal care in relation to female labour was desirable; maternal nursing instead of bottle feeding should be considered a social duty whenever practicable. School methods should be brought into harmony with physiological principles, and with this view all teachers should be trained in that part of physiology and psychology which had a direct bearing on their work. Growing children should be protected from overstrain, mental or physical, and their conditions of life rendered as favourable as possible by legislative restrictions of premature employment out of school hours, as well as by sanitary homes, sanitary schools, and, if needs be, by supplementing scanty nutriment. The falling birth-rate was briefly alluded to, and a hope expressed that women, while aspiring to share what used to be considered the responsibilities and employments of men, would not forget that the sacred duties of motherhood must not be shirked.

MEDICAL NEWS.

Mr. Alban Doran has been elected Honorary Member of the Berlin Gesellschaft für Geburtshülfe und Gynäkologie.

The Duke of Norfolk has, in celebration of his recent marriage, given £1,000 to the Norfolk and Norwich Hospital, to establish an ophthalmic department.

International Conference on Tuberculosis.—The Conference will meet in Copenhagen on May 26th next. The National Association in England will be represented by Sir W. Broadbent, Bart., Dr. Nathan Raw, and Dr. Alfred Hillier.

Antivivisection in the United States.—The Committee of the Massachusetts State Legislature, which has had under consideration a Bill for the regulation and control of vivisection, has given leave to the petitioners to withdraw. This seems to be a polite expression for rejection of the measure, which has had the same fate for several preceding years.

A Congress against Drink and Consumption.—A University Antialcoholic and Antituberculous Congress is to be held at Montpellier on May 24th and 25th. The programme of the Congress includes reports and discussions on the struggle against alcoholism and tuberculosis in the Universities of Bordeaux, Toulouse, and Montpellier, and the consideration of a scheme of mutual insurance against tuberculosis.

King Edward's Hospital Fund.—Sir John Aird has offered to increase his annual subscription to the King Edward Hospital Fund for London by 100 guineas, this sum to be specially appropriated to endowment in order to raise the fixed annual income from investments and other sources to £50,000. This is in response to the offer of an anonymous donor to give a sum estimated to produce £4,600 a year if others will give the sum necessary to produce double that amount by the end of this year.

The Composition of Proprietary Remedies.—The Legislatures of Massachusetts, Ohio, and New York, have had Bills submitted to them during the present session providing for the publication of the formulae of all proprietary remedies sold within the confines of those States. Each bottle or packet must contain an exact statement of the ingredients of which the medicines are composed and the relative quantities of each ingredient.

Dr. Koch on Cattle Plague in Egypt.—Dr. Koch, in the report containing the results of his investigations on cattle plague in Egypt, which was laid before the Ministry on May 13th, gives it as his opinion that the plague is an extremely mild form of rinderpest, and one more allied to Texas and Transcaucasian fever, the germ conveying the infection bearing also some analogy to the parasite found in coast fever in West Africa. He recommends the Government to pursue the measures already adopted, such as the application of injections and the isolation of infected animals.

Small-pox Investigation.—At a meeting of the managers of the Metropolitan Asylums Board on May 14th the Clerk announced the receipt of letters from the guardians of Islington, Poplar, Westminster, Lambeth, Camberwell, Lewisham, and Holborn, protesting against the resolution by which on April 30th the Board determined to permit experimental work in connexion with the causation of small-pox to be carried on at Joyce Green. It was proposed that the letters should be referred to the General Purposes Committee for consideration and report, but the Board reaffirmed its previous decision in the matter by resolving to proceed with the next business; the letters therefore will merely receive formal acknowledgement.

University of Pennsylvania.—The new medical laboratory of the University of Pennsylvania, the erection of which has taken four years, is to be formally opened on June 30th. Exclusive of site and equipment the building has cost nearly £140,000. It is the first of a group of buildings which it is proposed to erect and which when completed will it is hoped, form the largest system of buildings devoted to the teaching of medicine in the world. The laboratory, which is two stories in height above a high basement, has a front of 340 ft. and a depth of 200 ft. It contains, in addition to rooms for private research and a library, large laboratories of pathology, pharmacy and pharmaco-dynamics, two museums, three smaller laboratortes for comparative pathology, neuro-pathology and surgical pathology, rooms for photographic work, twenty rooms for subsection teaching and four lecture rooms, two with sitting accommodation for 185 students each and two for 400 each.

Leeds Public Dispensary.—The new buildings of the Leeds Public Dispensary, an institution of great local importance, were opened on May 12th by Professor Clifford Allbutt, F.R.S. Very ample and excellently planned accommodation is provided for the following departments: Medical, surgical, ophthalmic and aural, casualty, and dental. A clinical laboratory is also installed, and in addition an isolation room for the immediate segregation of any case of infectious disease presenting itself among the out-patients attending. Nearly the whole of one floor is given up to the purposes of dentistry, the importance of which to the poor thus receives fuller recognition than that commonly accorded. Dr. Allbutt, whose connexion with the institution began forty years ago, gave an interesting sketch of his reminiscences of its work. To these Mr. C. G. Wheelhouse, who was also present, added some of his own. His knowledge of the dispensary's work went back to 1846, and as one of the honorary staff he co-operated in its work from 1853 to 1864.

City of London Hospital for Diseases of The Chest.—The Lord Mayor presided on May 13th at the festival dinner of the City of London Hospital for Diseases of the Chest at the Hotel Cecil, Strand. After the usual loyal toasts had been honoured the Lord Mayor, in proposing "Prosperity to the City of London Hospital for Diseases of the Chest," drew special attention to the welcome presence of the representatives from various working men's societies. It was, he considered, a matter for sincere congratulation that the funds of the institution were contributed to so largely by working men. In the course of the past year the number of attendances in the out-patient department amounted to 63,709 and in-patients to the number of 848 were admitted into the institution in the course of the same period. Unfortunately, owing to the lack of funds, 24 beds still remained closed. An annual income of £12,000 was required to keep the hospital going at its full efficiency, but the sums from donations and subscriptions fell far short of that. The Lord Mayor's speech was followed by an announcement from the Secretary of the hospital, Mr. H. D. Ryder, who had the satisfaction of reading out a list of donations and subscriptions amounting to over £3,000. The toast of "The Medical Staff" was proposed by Alderman and Sheriff Sir John Knill and was replied to by Dr. Heron. In proposing the toast of "The Committee and Executive Staff" Sir William Church explained that his connexion with the Hospital Sunday Fund and with the King's Fund enabled him to judge of the efficiency of the Committee of Management and the executive body of the institution. The hospital was so well managed that amongst institutions of a similar kind it had come to be considered almost a pattern hospital. He had been a visitor to the City of London Hospital for Diseases of the Chest and he knew how well the patients were treated and how comfortable they were, and he was glad also to be able to state that that satisfactory result was reached at considerably less cost per head than at similar institutions. Alderman Sir G. W. Truscott acknowledged this toast, and a most successful evening was concluded by Sir G. W. Truscott proposing "The Health of the Chairman," to which a suitable acknowledgement was accorded.

BRITISH MEDICAL ASSOCIATION.

scriptions to the British Medical Association for ie year 1904 are now due and should be forwarded y postal order or cheque to the amount of 25s. the General Secretary, 429, Strand, London, W.C., , in the case of Colonial members, to their Branch reasurer.

British Medical Journal.

SATURDAY, MAY 21ST, 1904.

THE FUTURE OF LONDON MEDICAL EDUCATION.

ENT events in England and discussions which have en in connexion with them have created in the minds of ıy persons a kind of aversion towards every dissertation n the subject of education. We hope, however, that this will not deter any of our readers from carefully perusing oration upon the future of London medical education vered before the Medical Society of London, and pub-ed in this issue. Distinguished physician and Deputy-ncellor of the University of Wales, Sir Isambard Owen ls no introduction, and his oration is a singularly r statement of the main facts of the whole stion as it at present stands, having the advant- of being couched in simple language, and id of those minute details which are irritating to the ral public and only of special import to those ediately concerned in their settlement. The tion of medical education in general and of medical ation in London in particular, though one which natu- interests medical men, nevertheless concerns them not than it does the whole nation. The well-being of if any, medical men at present in practice will fected, either favourably or unfavourably, by the solu- of the difficulties which at present surround medical ation in London. For good or bad, their education, so s universities and schools can effect it, is complete, how the education of the medical student of the e shall be conducted affects them not at all; the fact fore that the present movement—one, indeed, which ated the whole reconstruction of London Univer--should have been organized and is now being ed forward by medical men who have been singularly ssful in their own career should be sufficient proof in of the real existence of the needs upon which the is made are based. The project in view, indeed, is, Isambard Owen points out, not in the interest of medi-en in particular but in that of all men alike. Disease accident are no respecters of time and place; the f the wealthiest may at any moment rest upon the and knowledge of the humblest village practi-r; failure at any point of the sanitary guard h in times of danger preserves a nation from mic disease may let in an enemy that will cost the n more than it could ever spend upon its medical ls. Finally, the medical profession is not one that can arged with making an illiberal or selfish use of its know-, but one which has always loyally consulted the ic advantage first of all. Of its generosity in labour ublic never scruples to make unsparing use, and it s the heavy demands made upon it with unfailing nce and public spirit.

The claims of medicine upon the public are so great that it would be the more peculiar that London medical education should not hitherto have received support from the public purse were it not for the fact—pointed out by Sir Isambard Owen—that the public has grown accustomed, and almost been taught, to regard medical education as a matter which concerns no one but medical men themselves. Whether from choice or necessity, medical education in London in the past has been conducted chiefly as a matter of private enterprise, and in this way enormous sums of private money have been invested in buildings and equipment, and the needs of the day have thus been met.

In the early future, however, such efforts will not suffice. At one time the whole education of the medical student could be conducted within the walls of a hospital with the addition of a very few tutorial buildings. This is no longer the case. The medical curriculum now is practically divided into two parts. Of these the later and more strictly professional should, and indeed can, be conducted only within the precincts of great hospitals situated within reach of vast populations and with unfailing sources of clinical material in the shape of cases of disease and injury of all characters. This part of medical education can continue to be conducted in the medical schools as they at present exist, but in spite of clashing interests which might have been expected to interfere it is an axiom accepted now by all London medical schools alike that the earlier or more academic studies could best be and should be conducted in a central institution devoted exclusively to those sciences upon which both medical and surgical practice depend.

It is the foundation and endowment of such a school upon an adequate footing, one which has been christened in advance "The Institute of Medical Sciences," which is now in question. It is a project of the highest importance, and one which should excite the enthusiasm of all those, whether rich or poor, who are interested in the well-being and progress of the nation. The metropolis of England, like those of many other civilized countries, is perhaps somewhat lacking in a spirit of local patriotism. In the matter of medical education, however, one explanation in addition to that to which we have already referred may possibly be that hitherto there has been no definite project or plan by which public interest could be aroused or the purses of rich men opened.

But this, again, is no longer the case. The object which the University of London has in view is a perfectly definite one, and at once local and national. The fact that provincial universities have sprung up and are doing all in their power in nowise affects its imperial importance. Apart from the fact that London possesses a field of clinical instruction unequalled throughout the world, the tendency must be for the best clinical and teaching talent to be attracted to metropolitan schools and hospitals so long as the greatest prizes of the profession are to be found in the capital. It follows, therefore, as Sir Isambard Owen has pointed out, that whatever the provincial universities may succeed in doing, it would be disastrous not only to Londoners, but to England and Wales as a whole, and, it may indeed be added, the whole empire, if London should cease to occupy the position, which it has held up to the present and should always retain, as the principal seat of medical education in this country. Of this, however, there will be no small risk if, owing to lack of public support, the desire of London University to establish a central

school of instruction in the preliminary sciences should fail to be early realized.

Nor, again, should the interests of individual institutions either from lack of sufficient study of the questions involved or from other cause, be allowed to interfere with the realization of the main object in view. Of this there must be always some risk and there would appear, indeed, to be some reason to suppose that some such clashing of supposed interests or misapprehension of the true position has already taken place.

The gift, for instance, of £100,000 by Sir Donald Currie to University College has been mistaken by many persons as a gift to the University of London, and from some of the terms employed in the deed of gift it appears possible that the munificent donor may have been under the same impression. This, however, as Mr. Butlin, Dean of the Faculty of Medicine, has pointed out, is not the case. It is a gift to University College, and as soon as the remaining sum of £18,000 is obtained, that College will become incorporated with the University. But this incorporation will not in any way diminish the necessity for the establishment of an Institute of Medical Sciences under the control of the Medical Faculty of the University of London, at which medical students in London can begin their studies, irrespective both of the hospitals at which they propose eventually to complete their education, and of the degrees or other medical qualifications which they aspire to obtain.

THE FOOD QUESTION IN HEALTH AND IN DISEASE.

THE quantity and quality of the food daily consumed play such a large part in the maintenance of health and in the treatment of disease that it is rather remarkable that closer attention has not been paid to this important question. We are told by the physiologist that certain quantities of nitrogenous and starchy foods, of fat, sugar, etc., are necessary for healthy existence, the quantities varying with the mode of life, but an infinite difference of opinion is discoverable when we try to ascertain how this necessary material is to be taken in the form of the ordinary articles of diet.

On one point alone is there agreement; the general rules by which the feeding of infants should be determined are well understood although not by any means generally followed, as was pointed out in the BRITISH MEDICAL JOURNAL in the articles lately published on Physical Degeneration.

As regards the feeding of children of school age no such recognized system exists, and here there appears to be room for great improvement as has been mentioned in the articles just referred to, as well as in some others on the Food Factor in Education. Indeed the mere fact that the feeding of children in English boarding schools altogether differs from that of similar children in France and Germany is alone sufficient to indicate the need of some thorough investigation which may lead to a diet established on a scientific basis.

It is not, however, for children alone that a diet table based on more exact knowledge is a necessity. Adults find themselves in no better case. What shall I eat and drink? is a question constantly put to the doctor, and one which the conscientious physician often finds it hard to answer.

Popular impression, lately perhaps influenced by a successful play, inclines to the view that we usually eat too much, as exemplified by the saying that "man digs his grave with his teeth." But there can be little doubt that if graves be not dug, strength and usefulness are often impaired by giving too little occupation to the masticating organs. How often are insomnia and other neuroses due to the tea and egg for dinner so dear to the feminine heart, and how much brain fag may not be put down to the cold and roll for lunch of a busy city man? On the other hand it is quite true that too much is as bad as too little; and it is certain that frequent meat meals, washed down with copious draughts of alcoholic liquors, often impair the health of a man taking little or no exercise, and may be the very cause of the sense of lassitude and exhaustion which lead him to take more food or yet another pick-me-up. What is contended for is a closer study of this all-important subject, after which it should not be at all impossible to prescribe a diet based on scientific inquiry and exact knowledge.

It is, however, when we have to advise a dietary for persons whose health is impaired that we become most conscious of the difficulty of deciding among various systems usually altogether empirical, and that we feel the need of some certain foundation on which to base our judgment. The chaotic state of professional opinion on this subject was clearly exhibited in a discussion which took place last year at the Balneological Society with regard to the best diet for gouty and rheumatic patients. Almost every possible different view found expression among those present, and there was no consensus of opinion either as to the number of meals nor as to the proportion which the nitrogenous or starchy constituents should bear to the other elements of the diet. In fact, as regards sufferers from these complaints, all shades of opinion can be found among medical men, some of whom advocate a diet consisting of lean meat and hot water, while others prefer a moderate mixed diet; and yet again others who prefer a diet from which nitrogenous food is as far as possible excluded.

To refer to only a few of the other cases in which a scientific feeding of the patient would be of the first importance, there may be mentioned the question as to the place of milk in the diet of typhoid, as to the quantity of food, and especially of liquids, in the treatment of some forms of cardiac disease, and the burning question as to the place of alcohol in the treatment of disease, whether chronic or acute.

As regards dyspeptics, very various diets seem to suit different cases of the complaint, and while the physician's advice rarely goes beyond the prohibition of a few especially indigestible articles, the sufferer mostly has to find out for himself what he should eat, drink, and avoid, and usually acquires that knowledge at the expense of much pain and discomfort.

It was said, twenty years ago, that a doctor was one who to a body of which he knew nothing administered drugs of which he knew little more. This taunt is hardly deserved by the profession to-day. But if for drugs we substitute the word food the accusation would not be without some point. It is probable that it will continue in some measure to be deserved until the food question is given its proper place in the medical curriculum. The study of dietetics should be looked upon as very nearly, if not quite, as important as the study of therapeutics.

THE Treasurer of the Epsom College acknowledges with thanks the receipt of a donation of £25 2s. 10d. in aid of the Royal Medical Foundation from the St. Andrew's Graduates Association.

HEREDITY, TUBERCULOSIS, AND LIFE ASSURANCE.

RING recent years the importance of a family history tuberculosis in regard to life assurance has been vari-ly estimated. Some have been inclined altogether to regard it except in so far as there is obvious danger of ection for any one living in the same house with con-nptive and expectorating relatives; but Dr. Finlayson, an address delivered recently before the Insurance and uarial Society of Gla-gow,[1] endeavoured to show that discovery of the tubercle bacillus has not upset the nciples which have been recognized and acted on by st life assurance medical officers.

)r. Finlayson alluded to the work of Dr. Claud Muirhead, o in his survey of twenty-one years' mortality experi-e of the Scottish Widows' Fund, pointed out the curious that those who died of apoplexy during those years given on the average a worse family history of con-nption than those who actually died of consumption. On other hand, it must be noted that, of the 254 consump-s, 80.70 per cent. were below the average weight, while of 152 non-consumptives only 40.13 per cent, were under ght. Therefore 60 per cent. of the non-consumptives weight of body in their favour although their family ory in regard to consumption was worse. Moreover Muirhead recognized that 46 per cent. of the consump-s entered under 30 years and 88 per cent. under 40 s so that their family histories were very imperfect n they joined the Society.

n discussing the main facts of heredity in disease Dr. ayson pointed out the importance of obtaining data only in regard to the diseases of the parents and hers and sisters, but also in regard to the brothers and rs of the parents and the parents' parents and their hers and sisters. He maintained that, from the life rance point of view, it comes to the same thing whether tubercle bacillus itself is inherited (as undoubtedly it rare cases) or whether merely the disposition to infec-and to succumb to infection is what descends to the ring. In regard to heredity and infection with rcle bacilli we have the old question of the soil and seed. "If a youth attending some popular nce classes in Glasgow goes home to the country nay hear his grandmother speaking of the mould on a of old boots, lying in a room, as a proof of damp; her dson, full of pity for her antiquated notions, explains mould is a vegetable growth, due to a living germ, h has infected, as it were, the boots and made them ldy; he may offer to demonstrate the growth under the oscope, and ask triumphantly if damp can cause a table growth." Yet, Dr. Finlayson remarks, the grand-ner is just as near the truth as her grandson. Indeed, seed and the soil are equally important, and this is gnized in every insurance paper." The "seed" of rculosis is abundant enough, and the possibility of a ial predisposition to tuberculous infection must ys remain an important question in life assurance. A family history is particularly grave when the proposer s poor physique, and the environment of the indivi-at his work or in his residence must naturally be idered together with his inherited constitution. An age in the applicant before the family history is fully developed, and before the proposer's health and constitution are consolidated, ought, it is contended, to make us more cautious in dealing with those presenting tuberculous tendencies in their family history.

[1] *berculous Disease and Heredity in Relation to Life Assurance, and Inter-t Albuminuria in relation to Life Assurance.* By James Finlayson, LL.D. Glasgow: J. Hedderwick and Sons. 1904. (Demy 8vo,)

THE NATIONAL ANTIVIVISECTION SOCIETY.

The annual meeting of the National Antivivisection Society was held on May 17th, presided over by Lord Llangattock, and graced by the presence of the usual assortment of peers, peeresses, and parsons. This being the formal annual meeting of the year some reference could not be avoided to the speech made by Mr. Stephen Coleridge upon the last corresponding occasion, to the libel case in which it resulted, and to the crushing defeat and exposure which the Society had suffered in the person of its Secretary and Treasurer in the action of Bayliss v. Coleridge. This case and the verdict Lord Llangattock, however, with commendable discretion, refused to discuss in detail, and contented himself with denouncing as outrageous the damages awarded to Dr. Bayliss, and exacted in the form of voluntary contributions, together with the heavy costs, out of the pockets of the Society's friends. This done he passed on to ask those present to believe that the whole affair had really been a blessing in disguise, and that the Society and its influence had been marvellously strengthened thereby. In support of this cheerful, if inaccurate, view of matters he subsequently drew an impressive picture of the work done as that of a flourishing influential Society with fresh, new, offshoots built upon "sure foundations," and exhibiting useful activity of every kind. It was not the sort of representation of which Robert Burns was thinking when he expressed his longing for some means by which people could see themselves as others see them, but a looking-glass picture pure and simple. Such as it was, however, it must have been very exhilarating to those whom collectively it purported to represent. It was, therefore, somewhat of an anticlimax, and must have been rather a shock to his audience when Lord Llangattock admitted soon after that the Society, whose spreading influence he had just described, had, in spite of its most strenuous efforts, totally failed to prevent Birmingham University from being added to the list of places licensed under the Vivisection Act. He was followed by Mr. Stephen Coleridge, who was quite in his best form, and in no whit abashed by the damning exposure of his methods to which delicate if insufficient reference had just been made. He unctuously expressed his joy at finding himself in the same place as last year able to repeat what he is pleased to call his vindication of the justice of the cause of the Society. He was not ashamed practically to repeat his charges against scientific workers of practising meaningless and immoral torture, and said that vivisectors in his view represented the base forces of selfishness in the world, and that they were indifferent to faith, loyalty, steadfastness, generosity, self-sacrifice, and valour. Finally, in one of those flights of oratory in which he so entirely loses sight of the true bearings of the matter with which he deals, he concluded by proclaiming anathema against the Metropolitan Asylums Board, and threatening it with the pains and penalties which it will incur should it persist in its determination to permit of endeavours being made under its auspices to discover a sure means of abolishing small-pox. The means which are in view, it should be noted, are nothing more formidable than the inoculation of a few animals, inoculations precisely of the same general character as those by which thousands of human children have been protected against diphtheria during the course of the last few years. We need only add that the account given at this meeting of the general effects of last year's events upon the antivivisection movement seems to us, as to most people, in no way correct. The public is now well aware of the methods by which the campaign is pursued, and has some conception of the kind of confidence which it should place in the statements made by Mr. Stephen Coleridge and those who speak in the name of the Society. Nevertheless, we must congratulate

Mr. Stephen Coleridge and his friends upon the happy way in which they are able to bear up under sufferings which, if not so useful, must be at least as acute as those of the animals for whom they profess so much pity.

A DISCREET JURY.

IT is satisfactory to be able to note that twelve men have for once in a way failed to exhibit the usual sheep-like docility of Mr. Troutbeck's juries and refused to accept the invitation from him to add to their verdict a rider censuring a London hospital. The circumstances in this case were that a man, who had been knocked down by a runaway horse and carriage, was brought to the West London Hospital where he was found to be suffering from shock, a broken leg, and some obscure injury to the pelvis. There was no bed vacant, but in view of his condition arrangements were made to keep him for nine hours upon an extemporized couch, during which time he received from the officials of the hospital every possible attention. Thereafter he was sent to his own home on a stretcher. His friends, however, strongly objected to his not being permanently admitted, and in reasoning with them the house-surgeon in charge of the case seems to have mentioned the fact that the patient was a very well-to-do man, the manager of an ice-cream company. Reference was made to this fact not as a reason for refusing permanent admission but as a circumstance which rendered his return home less to be regretted, inasmuch as that being well-to-do the patient was in a position to secure every attention at home. The constable who accompanied the deceased to the hospital said he saw no want of attention whatever, but nevertheless at the inquest accusations were made of cruelty and neglect on the part of the hospital authorities. In summing up, Mr Troutbeck practically refused to accept the statement that permanent admission was refused because no bed was vacant, and ascribed it to a failure on the part of the hospital surgeon to diagnose the real gravity of the injuries; if, he thought, their serious nature had been recognized, a bed by some means or other would have been found for him; the fact that a man was rich was no reason for denying him admission. The jury, however, returned a verdict of accidental death, and added that they declined to make any observations on the complaint made against the hospital. Mistakes occur at hospitals as in every other sphere of human activity, but they are on the whole very rare. The campaign against hospitals which Mr. Troutbeck has been assiduously and, in our opinion unwarrantably, conducting for some time past cannot but in the long run do great injury to these institutions, and, secondarily, to the public whose interest Mr. Troutbeck presumably believes himself to be protecting. It is satisfactory, therefore, that one of his juries has at length proved unamenable to dictation, and it is to be hoped that the hint will not be lost upon him.

THE RELATION BETWEEN INFANTILE MORTALITY AND BIRTH-RATE.

MR. W. MCLEAN, the Government Statist of Victoria, has recently drawn attention to this important and often overlooked relationship.[1] He holds the opinion that infantile mortality in old and populous communities occupies the position of perhaps the most prominent determinant of the birth-rate; and in support of this contention gives a list of twenty countries in which, with but few exceptions, a high infantile mortality is associated with a high birth-rate. The first four and the last two of the countries on this list are as follows:

	Birth-rate per 1,000 of the Population.	Deaths under 1 Year per 1,000 Births.
Saxony	39·9	283
Hungary	38·9	256
Austria	37·2	250
Prussia	36·5	210
Victoria	25·7	110
South Australia.	25·5	109

[1] *Intercolonial Medical Journal of Australasia*, March 20th, 1904, p. 114.

As a matter of mere chance, the probability of the high birth-rate being associated with the highest infantile mortality in the table of twenty countries is $\frac{1}{20}$; that the first and second in the one series would be associated with the first and second in the other series is $\frac{1}{20} \times \frac{1}{19} = \frac{1}{380}$, or 379 chances against 1, and the probability of the above four being in the order given in both series is 116,279 to 1. It is in view of these figures impossible to doubt the correlation which exists between the two series of events. This is a very different conclusion from the fallacious statement made many years ago by Dr. Letheby that the birth-rate is the controlling element in the death-rate. So far as the general death-rate at all ages is concerned, this is not true; for a high birth-rate continued over a considerable series of years means not only a large proportion of population living in the early years of life in which they are subjected to a high rate of mortality, but also a counterbalancing large proportion at the middle ages in which the death-rate is very low. The nature of the relationship between a high infantile mortality and a high birth-rate deserves further study. The same information which would give us the causes of low infantile mortality would doubtless give a partial clue to the cause of the correspondingly low birth-rate. There can be little doubt that infant feeding determines to an overwhelming extent infantile mortality. Thus, as Dr. Hugh Jones pointed out in 1894, the lowest European infantile mortality (10 to 13 per cent.) is in Sweden and Norway, where almost every child is nursed by its mother; while it is highest in those countries where maternal nursing has become the exception. It is well known that maternal nursing postpones the recurrence of pregnancy; and we have in this fact a partial explanation of the common association between a high birth-rate and a high infantile mortality. It would be reassuring to all who have the highest interests of the community at heart could this be accepted as a complete explanation of the present decreasing birth-rate in England. The facts, however, show that it is not so. It is notorious that mothers have become less willing to perform their maternal function of nursing; and yet the birth-rate, which on the above supposition ought to become higher, is declining. It does not follow that the above explanation does not rightly explain much of the low birth-rate in Victoria. Let us hope that it does. Nor does it follow that the same cause is not operating in England and producing a normal and wholesome lowering of the birth-rate by increasing the intervals of child-bearing. But we think there is overwhelming evidence showing that the cause seriously contributing to produce the decline in the English birth-rate is the use of artificial means of restricting the size of families; a line of conduct which there is every reason to regard as degrading to those who practise them, injurious both mentally and physically and contrary to the highest interests and the moral standards of the community.

THE ROYAL SOCIETY.

THE first *conversazione* of the two annually given by the Royal Society at Burlington House took place on May 17th, and as usual there were many exhibits which required more study for a just appreciation of their practical value, scientific novelty, or ingenuity in application of already ascertained natural laws than could possibly be given to them in the course of a short evening. Equally as usual, the number of exhibits of special medical interest was few. Dr. G. H. F. Nuttall, F.R.S., had an exhibit dealing with ticks and tick-transmitted diseases; amongst the specimens shown were the piroplasma canis, a parasite living within the blood corpuscles of the dog, and the cause of a very fatal canine disease in Africa and some parts of Europe. In South Africa the disease is carried by a tick called the haemophysalis leachi. The parasite in question would appear to be similar, if not identical, with the one to which Texas fever or red water and Rhodesian fevers are due. The disease among human beings known as "rocky mountain fever" has also been ascribed to the same

ganism. The spirochaete of Marchoux was also shown; s is a blood parasite transmitted by a tick called the gas miniatus, and is allied to the parasite of relapsing er in man, and to that causing a fatal disease of geese Russia, in neither of which has the carrier been yet ermined. Professor J. B. Farmer, F.R.S., and Messrs. ore and Walker showed a number of microscopic les illustrating the cell divisions in malignant growths ich were fully described by them some months ago in pages of this Journal. Professor H. Marshall Ward, c., F.R.S., showed a collection of microscopic preparas in illustration of rust fungi; it was interesting but uired too much special knowledge to be attractive to majority of those present. Dr. A. E. Wright showed methods which he employs for measuring the agglutiing and bactericidal powers of blood; it was a very efully prepared and most informing exhibit to those o gave themselves time to study it. Mr. J. W. Gordon wed a compound draw tube and oscillating screen built on the lines put forward by him in a paper ently read before the Royal Microscopical Society; object is to get rid of the blemishes incital to extreme magnification and which Helmholtz ved to be due to the small diameter of a Ramsden le. This object was accomplished by employing an illating opalescent screen in the view plane of the ncipal microscope, to serve as a secondary source of iation and to expand the transmitted wave front. The specimen shown was a diatome magnified about 10,000 neters; the value of the invention was very evident. W. N. Shaw, F.R.S., showed a cleverly-designed sitive barograph for the study of minor variations of ospheric pressure; these are recorded by a lever which gnifies the vertical motion of an inverted cylinder ting mouth downwards on mercury. The interior of cylinder is in communication with a sealed air nber, and minor and passing variations of temperature obviated by the use of non-conducting material; slow ations, on the other hand, both of temperature and of sure are reduced to insignificance by a small leak ween the chamber and the external air, with the eral result that the details of comparatively rapid fluction of atmospheric pressure are clearly brought out. most popular show of the evening perhaps was that n by Mr. Francis Fox in illustration of the operations at Simplon tunnel, and of engineering work on the River besi. In this was shown the Brandt hydraulic drill, neans of which rapid progress can be made in rock ing without, it is claimed, the formation of dust. her developments of colour photography were shown ir W. de W. Abney, K.C.B., F.R.S., and also by Mr. anger Shepherd; the exhibit of the latter was perhaps nore striking, being an example of the application of ral colour photography to the production of lantern s of spectra for lecture and educational purposes. The lt of the process used is a true natural colour photoh consisting of nothing but the colouring matter rely locked up in a single film of gelatine. Radium oits were for the most part conspicuous by their nce, but Dr. Alan B. Green had upon view some photohs illustrative of induced radio-activity in bacteria. were produced by first exposing small masses of eria to the beta and gamma rays of radium bromide, then placing them between two thin sheets of non-active glass, bringing the latter into contact with a itized film, and then developing the negative upon nary lines. Any observation concerning radio-activity the present state of knowledge of interest, but what ortance should be attached to this latest observation t at present obvious.

THE PHARMACEUTICAL SOCIETY.

Pharmaceutical Society of Great Britain gave its al dinner on May 17th at the Hôtel Métropole. Some nembers and guests were present, and thanks to the chairmanship of the President of the Society, Mr. Atkins, J.P., the toast list was worked through in a commendably short space of time. Himself an excellent speaker, Mr. Atkins set a good example of brevity and point, of which due note was taken by those who followed. Speaking of the Pharmaceutical Bill now before the House of Commons, Mr. Atkins remarked that as a corporate body, one of whose purposes was the protection and furtherance of the interests of its members, the Society would have been perfectly justified in endeavouring to effect legislation in the interests of chemists alone. This, however, it had not done. The Bill before the House was conceived in the interests of the public, and it was the desire of the Society that it should be examined and criticized both in and out of the House from that standpoint alone. He was followed by Mr. Thomas Lough, M.P., who, in returning thanks for the toast of "The Houses of Parliament," made humorous allusion to the respect with which chemists had ever inspired him from the days when, as a boy in a small village, he had looked upon the chemist as the most important person in the place, and at his shop as one of awe-inspiring mystery. He was a strong supporter of the Bill before the House, considered that it asked nothing which in the interests of the public should not be granted, and believed that if not accepted in the form of a private Bill the same clauses would necessarily be included in any Bill which the Government itself might be led to introduce. In proposing "The Health of the Medical Profession," the Chairman said that the desire of the Society was that its members should confine themselves strictly within the line which divided their duties from those of the medical profession. He was aware that there were certain free lances who overstepped it, but the Society did all in its power to frown such conduct down. After making happy allusion to the statement of Herbert Spencer that happiness was the great quest of mankind, to the connexion of happiness with health and of health with the efforts of medical men, he drew brief attention to the modern progress both of pharmacy and of those who practised it. He thought the time had come when the Pharmaceutical Society should be definitely invited to take part in the work of keeping the *British Pharmacopoeia* up to date. The sentiments expressed and the way in which the toast was received by those present met with due acknowledgement at the hands both of the President of the Royal College of Physicians, Sir William Church, and of the President of the Royal College of Surgeons, Mr. John Tweedy. The former made allusion to the growing importance of serumtherapy, to the failure of Government to institute any official supervision over the sera put upon the market, and to the efforts which the Royal Colleges of Physicians and Surgeons had made conjointly to meet the situation. He thought that the duty of standardizing sera should be the joint work of pharmaceutical and medical bodies.

ROCK DRILLING AND MINERS' PHTHISIS.

Mr. E. L. Carlyon, one of the Cornwall coroners, has been conducting an interesting inquiry near Truro touching the death of a miner 60 years of age, which was stated to have been due to miners' phthisis. The inquiry was the outcome of a request conveyed to him from the Home Office that he should order a necropsy to be made in such cases, with the view of throwing some light on the nature of the malady. The deceased man had been formerly a tin miner, but had subsequently gone to South Africa, where he worked for only two months at rock drilling. He returned from the Transvaal about five years ago. At the necropsy made by Dr. Edwards, of Devoran, and Drs. Walters and Haldane, of Oxford, the lungs were found to be absolutely black from dust and smoke inhaled during life; in addition, they were consolidated. A microscopical examination of the diseased organs has yet to be made, but from the evidence tendered at the inquest the verdict that the deceased "died of pulmonary phthisis apparently caused by inhalation of stone dust during work underground as a miner in Cornwall, America, and the Transvaal," will presumably be merely strengthened thereby. The following rider was

added to the verdict: "that in order to deal with this great source of danger to health special legislation is urgently called for." In his evidence Dr. Haldane gave some very valuable information regarding the mortality returns of the miners who had died in the coroner's district, and who had worked in South Africa. The men had worked as rock drillers in the Transvaal, and had been much exposed to dust. Of these miners within the last three years 19 had died of lung disease, and all but one had been returned as having died of phthisis. The average age of the men was 36 years, and the average length of time they had worked on the rock drills was 5½ years. As an indication that even Cornwall miners who had never worked rock drills were nevertheless inhaling too much dust, Dr. Haldane stated that 37 such men had died, the average age at death being 56. Of these 37 miners, 25 had died of lung disease. In order to obviate the evil effects of dust jets of water were advocated, a recommendation which found warm support in the statement of a juror who had had experience of its beneficial effects when working in the Transvaal. Medical opinion is divided as to the real cause of miners' phthisis. The pathology of this disease formed the subject of a discussion which took place at the meeting of the British Medical Association in Swansea last year, and in which Professor T. Oliver of Newcastle-upon-Tyne, Professor Adami of Montreal, and Professor Hamilton of Aberdeen took part.[1] It was then contended that dust was the primary and most important factor in the causation of the malady. The coroner's inquiry to which we have alluded shows that the time has now come when steps should be taken to reduce the high mortality-rates of the Cornwall and Transvaal miners — or, in other words, that legislation and practical science should now do for these men what they have effected for coal-miners generally.

THE METRIC SYSTEM.

THE Bill dealing with weights and measures, the main features of which we published in the SUPPLEMENT to the BRITISH MEDICAL JOURNAL of March 19th, passed its third reading in the House of Lords on May 17th, after its return from the Select Committee to which it had been referred. The latter body introduced in it sundry amendments which had been proposed by various public departments. Lord Belhaven, who moved the third reading, mentioned that he had that day presented a number of further petitions in support of the measure from town, city, and county councils, chambers of commerce and of of agriculture, and from other bodies, together representing a very large proportion of the population. The general effect of the Bill, if it survives the ordeal of the House of Commons, will be to render the adoption of the metric system in the United Kingdom compulsory after an interval of about two years.

STATE REGISTRATION OF TRAINED NURSES.

THE annual general meeting of the Society for the State Registration of Trained Nurses was held on May 13th, Miss Louisa Stevenson in the chair. The report stated that since the last annual meeting 469 applications for membership of the Society from matrons and certificated nurses had been accepted, making the total number of members at present 1,204. Miss Stevenson said that the progress made during the past year had been such as to give them great hope for the future. She fully recognized the social, professional, and political opposition they had to contend against, but that opposition did not alarm her in the least. The objections to the movement were similar to those that were urged against the training and registration of medical women, and they would be overcome as successfully as those had been. She was convinced that, sooner or later, there would be for the whole British Empire a State register for trained nurses. It was resolved to make the following addition to the constitution of the Society: "That ladies and gentlemen not connected with nursing be eligible for election as Associates of the Society." Mr. H. J. Tennant, M.P., moved a resolution approving the Bill for registration introduced into the House of Commons by Dr. Farquharson, M.P., and declaring that it was desirable, in the public interest, that a Select Committee should be appointed to inquire into the whole nursing question. He pointed out that the Bill was intended for the protection of the public no less than for the protection of the nurse. Lady Helen Munro Ferguson seconded, and other ladies supported the resolution, which was adopted unanimously.

[1] BRITISH MEDICAL JOURNAL, September 12th, 1903, p. 658.

PROFESSOR E. J. MAREY.

SCIENCE has suffered another loss this week by the death on May 16th of Etienne Jules Marey, Professor of Natural History at the Collège de France, and *doyen* of the Medical and Surgical Section of the Academy of Science and of the Anatomical and Physiological Section of the Academy of Medicine. He obtained his chair in 1878 upon the death of Claude Bernard, and was one of the last representatives of a brilliant school of which Brown-Séquard, Paul Bert and Vulpian were prominent members. Famous for his many applications of precise methods to the study of physiology, he was best known, perhaps, to medical men in England from his introduction of the sphygmograph. Some details of his career will be given in a later issue.

THE UNIVERSITY OF WALES.

SIR ISAMBARD OWEN, Deputy Chancellor, presiding at the annual meeting of the Welsh University Court at Holyhead, raised the question of petitioning for a supplemental charter, including among other things provision for enabling the University to grant degrees in medicine, surgery, and obstetrics, excluded from the original charter. Sir Arthur Bigge, Private Secretary to the Prince of Wales, the Chancellor of the University, wrote from Marlborough House expressing His Royal Highness's approval of this proposal. Sir John Williams also strongly supported it. Students from Welsh medical schools were, he said, taking distinguished places in other universities, while the Welsh University was deprived of the credit. The Court resolved to include this provision in the application for a supplemental charter.

LADS' DRILL ASSOCIATION.

THE annual (1903) report of the Lads' Drill Association tells us of work done and of work contemplated. The Association has helped towards the formation of cadet battalions and corps throughout the country, and intends to work on until the rudiments of military training are brought within the reach of every able-bodied youth within the realm. Already military drill is part of the curriculum of a few schools in this country; and in many of the Colonies it has taken a much more prominent place in school training than in Britain. All are agreed that physical benefit is likely to ensue from some form of military drill, and as an asset in the direct defence of the Empire it is of considerable value. The number of men under arms and the number of men trained to bear arms are undoubtedly below the needs of the Empire to-day; and as a means towards removing this deficit it is essential that an opportunity should be afforded the youths of the country of making themselves familiar with military movements and military weapons if conscription is to be avoided. As a hygienic factor from the point of view of physique, military drill, as modified for boys, is a safe and useful form of exercise. Overstrain is well-nigh impossible, the evils of training to win prizes in sports are avoided, and the gain to the nation is considerably greater than proficiency on the crossbar, weight-lifting, mere dumb-bell exercises, or even success in high jumping, long jumping, or sprinting. Military drill is conducted in large halls or in the open air, and is thereby calculated to do more good than training for show performances in the close air of crowded gymnasia. We congratulate the Lads' Drill

ssociation on the good work it has already accomished, and hope its efforts to benefit the physique of ıe youth of the country may find abundant support.

SPOROZOA AND DISEASE.

ROFESSOR MINCHIN delivered his eighth and concluding cture on sporozoa on May 9th at University College, ıd having dealt with the remaining groups of sporozoa ·en drew general conclusions concerning the group of ıorozoa as a whole. The doubtful groups which were fficult to classify included many isolated forms. The ore important of these were (*a*) the actinomyxon of Stolc hich was met with as a parasite in tubifex worms, and hich were provided with three polar capsules, and (*b*) the ıplosporidia (Laveran and Mesnil) which were simple ıinucleate cells which grew and multipled into morula-ke masses, which in turn broke up into numerous indivi-ıal spores. The latter were met with as parasites in rtain rotifers and belonged to the genus *Bertramia*, scribed by Bertram of America in 1892. Further, there mained a group called the exosporidia, which comprised ro curious parasite organisms,—namely, amoebidium ıd siedleckia. Amoebidium occurred on the gills and ıtennae of fresh-water crustacea. It grew into tubes of any individual cells. From the structure and mode of velopment it was doubtful whether this organism could regarded as a true sporozoon. The other form, siedleckia, ıs to start with also uninuclear, but by a process of ultiplication it formed a large multinucleate elongated m with a pointed fore end and a rounded rear end ıich detached itself, while the rest of the animal ew and reproduced itself. By this form of growth, and der certain conditions by a process of zoospore formation is organism multiplied and grew. It was probably allied notely to the gregarinae. The lymphosporidia were other small class of sporozoan parasites found in the lomic fluid of crustaceae. Epidemics of fish disease acking trout in America during recent years were traced the presence of this organism. Finally, said Professor nchin, isolated species of sporozoa were met with which ıld not be added to any of the existing genera. One such m, remotely gregariniform in appearance, affected the senteries, lymph glands, and subcutaneous structures of flounder; this parasite encysted itself and could be ily seen surrounded by the connective tissue of its host. ıweiakoff had described a rare amoebiform sporozoon which a name had not as yet been given. This also occurred certain fishes. It differed remarkably from all other rozoa in the fact that it possessed a contractile vacuole. reproduced by the formation of numerous endospores, ich in turn grew and aggregated into little plasmodia. e endospores were oval in form but devoid of a shell or ting. Professor Minchin concluded by pointing out that ylogenetically the sporozoa were not a homogeneous class, t they were the modern parasitic descendants of two es of development, one originating from flagellate forms l giving rise to the telosporidia (gregarinae, coccidia, and mosporidia, in which a trypanosome phase was erved), while the other arose from amoeboid or rhizopod ms and gave rise to the myxosporidia, microsporidia, and cosporidia.

INVALID CHILDREN'S AID ASSOCIATION.

ONFERENCE has been arranged by the Invalid Children's l Association, and will be held at the Guildhall on June and 8th. The object of the conference is to bring into nmunication those working to assist crippled and in-id children; to make known the various needs of this ss and the agencies available for supplying them; and onsider the education of crippled and invalid children l the means of fitting them for future occupation and ependence. The relation of this work to the Poor Law l to charity organization will also be discussed, as well he possibility of preventive measures. The Lord Mayor l preside at the opening meeting, and at the four ses-ns of the conference the chair will be taken by the Earl Aberdeen, Sir William Broadbent, the Duchess of Sutherland, and Lord Stanley of Alderley. Among the papers to be read are the following: The Social Aspects of the Prevention of Illness, by Dr. A. Newsholme; Cow's Milk as a Food in Infancy, by Dr. E. Cautley; the Prevention of Tuberculosis among Children, by Dr. Nathan Raw; the Results obtained in Cases of Joint Disease under the care of the Invalid Children's Association, by J. Howell Evans, F.R.C.S.; the Importance of Treating Surgical Tuberculosis in Children in Properly-equipped Establishments away from Large Towns, by Mr. A. H. Tubby; and the Educational Handling of Physically and Mentally Defective Children, by Dr. Eichholz. Programmes, tickets, and other information can be obtained of the Secretary, Invalid Children's Aid Association, 8, Henrietta Street, Covent Garden, W.C.

THE COUNCIL OF THE ROYAL COLLEGE OF SURGEONS OF ENGLAND.

THE annual election for members of Council will be held at the College of Surgeons on Thursday, July 7th, at 2 p.m. There will be three vacancies; Mr. Bryant and Mr. Pick retire, having been re-elected in 1896, whilst, owing to the death of Mr. T. R. Jessop, re-elected in 1899, a vacancy exists for a substitute member to fill his place until 1907. The President, Mr. Tweedy, is substitute for Mr. Davies-Colley until July, 1904, but being in the chair does not retire. Mr. Pick really resigned altogether last autumn, whilst Mr. Bryant will not seek re-election. A blank form of the requisite notice from a candidate and of his nomination may be obtained on application to the Secretary of the College; it must be received by him, duly filled up, not later than Monday, June 13th. A voting paper will be sent by post to each Fellow of the College whose address in the United Kingdom is registered at the College on Monday, June 27th, and Fellows will not be required to apply for voting papers. We publish at p. 1231 our annual analysis of the Council, with the dates of election of the members and the proportionate representation of the schools in London and the provinces. Mr. Marsh, who, having been re-elected in 1902, holds his seat until 1910, now represents Cambridge, though elected as a surgeon to St. Bartholomew's Hospital. Mr. F. S. Eve, Mr. Bland-Sutton, and Mr. Gilbert Barling are among the candidates for the vacancies.

THE NATIONAL SANATORIUM FOR CONSUMPTION, BOURNEMOUTH.

THE annual general meeting of governors was held in London on May 12th. In the unavoidable absence of the President, the Earl of Eldon, the Right Honourable Arthur F. Jeffreys, M.P., occupied the chair. The annual report of the Committee of Management for 1903, which was unanimously adopted, stated that the accounts showed a deficiency of £305, as compared with a deficit of £540 the previous year. The Committee regretted that the income was still insufficient to meet the current expenditure. Owing to additional accommodation which was being provided new annual subscriptions to the amount of at least £500 were urgently needed. The report further stated that during the year 225 patients were admitted, of whom 182 were discharged improved, many being fitted to return to their occupations. Sixty-four patients remained from 1902, so that the total number under treatment last year was 289. The average length of stay in the sanatorium was 11.8 weeks. Mr. Robson-Burrows, a member of the Committee of Management, informed the meeting that the plans and specifications for the new extension of the sanatorium had been prepared, and tenders were being invited for carrying out the work. The new building will provide several additional beds for patients, and better accommodation for the nurses, the present quarters of the latter being very inadequate and unsuitable. Considerable alterations were also to be carried out in the present building, including the addition of several more baths and shower baths, the enlargement of the dining rooms, further improvements in the ventilation, the providing of a disinfector for disinfecting the bedding and clothing, etc. A portion of the cost of these works has been subscribed, but

£1,000 is still urgently needed to complete the required amount. It was unanimously resolved that the best thanks of the Governors be given to the honorary medical, surgical and dental staff for their valuable services during the past year.

ASYLUM WORKERS' ASSOCIATION.

A CROWDED meeting of members and friends of this Society was held at 11, Chandos Street, W., to receive the annual report, and to listen to the farewell address of Sir James Crichton-Browne, who is retiring after seven years' service as President. Amongst those present were Sir Robert Hensley (Chairman, M.A.B.), Dr. Farquharson, M.P., Dr. Sidney Coupland, Commissioner in Lunacy, Dr. Nicholson, C.B., Lord Chancellor's Visitor, and many members of the Medico-Psychological Association, together with a representative gathering of the various ranks in asylum service. The annual report (presented by the honorary secretary, Dr. G. E. Shuttleworth) stated that though there had been a falling-off in the number of ordinary members there had been an increase in income, owing to the annual subscriptions having been raised from 1s. to 1s. 6d. Receipts from all sources had amounted to £472, and payments to £305. Twenty-one nurses and attendants had received grants from the Homes of Rest Fund to enable them to get change of air and rest when "run down" or recovering from illness. The claims of mental nurses to registration had been successfully urged upon those promoting Bills on the subject, and the question of pensions had not been lost sight of. In conclusion, regretful reference was made to the approaching retirement of Sir J. Crichton-Browne from the presidential chair, which he had so ably occupied for seven years; and Sir John Batty Tuke, M.D., M.P., etc., was nominated as his successor. The adoption of the report was moved by Sir J. Crichton-Browne in an eloquent and interesting address, and this was seconded by Dr. Sidney Coupland. Dr. Farquharson, M.P., moved, and Sir R. Hensley seconded, a cordial vote of thanks to the retiring President, and Sir John Batty Tuke, M.D., M.P., was elected as incoming President, on the proposition of Dr. Nicolson, C.B.

EXPERIMENTS ON HUMAN METABOLISM.

THE United States Department of Agriculture has issued a report[1] by Drs. Atwater and Benedict on the metabolism of matter and energy in the human body. Their observations are derived from experiments upon young men in good health, who are placed in what is termed a "respiration calorimeter." This is a piece of apparatus which is designed to measure both the products of respiration and the heat given off by the body. It includes a chamber 7½ ft. long, 4 ft. wide, and 6½ ft. high, in which it has been found a man may spend a few days in "comparative comfort." The room is lighted by a window and furnished with a folding chair, table, and bed, and also with a stationary bicycle when the experiment involves muscular work. The chamber is ventilated by a measured current of air, samples of which are taken for analysis before it enters and after it leaves the chamber. So delicate are the measurements of temperature that the observer sitting outside and recording the changes every two or four minutes immediately detects a rise or fall of even one hundredth of a degree in the temperature of the air inside the chamber. If, for example, the man inside the chamber rises to move about, an increase of temperature is immediately recorded owing to the increase in the heat given off from his body through this muscular exertion. Details are given of twenty-one experiments, and with them are incorporated the results of thirty-four similar experiments previously recorded, making in all a period of 150 days during which the subjects had been under observation in the chamber of the apparatus. The amount of detail involved in the work is enormous; the tables of measurements and analyses alone occupy more than 150 closely-printed pages; and if we ca say that any very striking or important discoveries cerning metabolism and the nutritive values of food s have been made, we can at all events congratulate authors upon their inexhaustible supply of patience perseverance.

[1] *Bulletin*, No. 136. Washington, 1903.

A BILL TO AMEND THE LUNACY ACTS.

LEGISLATIVE crops are as a rule reaped by quite diffe people and Governments from those who sowed the s but the Attorney-General has taken good care no jealous rival shall entice his one ewe la into an adjoining field. On Thursday, May 12th, had a lunacy debate in the House of Commons, when John Batty Tuke gave a quiet and thoughtful spe pleading for reform, and Sir Michael Foster followed some weighty and elegantly-phrased sentences, and Wednesday, May 18th, Mr. Finlay introduced a Bill, wh under the operation of a topsy-turvy rule, he was allowed to explain to the House. Of this, however, have obtained a copy, and find this most important cla

1. If a medical practitioner certifies that a person is suffering mental disease, but that the disease is not confirmed, and that it i pedient, with a view to his recovery, that he be placed under the of a person whose name and address are stated in the certificate f period therein stated, not exceeding six months, then during that pe the provisions of section three hundred and fifteen of the principal shall not apply.

One-fifth of the Scotch lunatics are thus boarded among the peaceful and soothing influences of home gheel. Scotland is gradually annexing England, the Southerners are compelled to admit that in m matters of social safety and convenience things managed far better north of the Tweed; and is not a conspicuous instance of reasonable common se that a case trembling on the border line of insan can be treated domestically for six months instead passing through the ordeal of certification, and be hardened and crystallized into permanent madness the exciting and depressing surroundings of asylum li Need we remind our readers that in England at prese if any one receives a domestic case for profit, ho ever well he treats it, the law may be harshly, crue and vindictively put in motion against him by interest common informers acting on secret information. Sir Willia Gowers gives numerous instances of this in the admirab address given by him before the Medico-Psychologi Association, which we cordially recommend to the care consideration of our readers.

REGENERATION OF NERVES.

MOTT, Halliburton, and Edmunds have recently publishe the results of some experiments upon this subject. T old idea that when a nerve was bisected the axons grew o from the central end of the divided nerve was attack some few years ago and considerable experimental eviden adduced to show that the new axons were formed by t peripheral elements of the divided fibre. Clinical obser tion of the rapid return of sensation after suturing o divided nerve fibre as contrasted with the very slow regai ing of motor powers lent considerable weight to the pe pheral theory. The present communication, howev seems to foreshadow a return to the older views. It appea that at an early stage in the degeneration of nerve fibre the neurilemmal cells at first multiply and later share wi the phagocytes the removal of the myelin droplets. St later they elongate, look as though they were connected e to end, and appear like embryonic nerve fibres; they a really situated outside the newly forming axis cylinde either covering or concealing it. Histological evidence not sufficient to supply data for the theory of nerve r generation: a strand or tissue may look like a nerve, b unless it can be experimentally shown to be both excitab and capable of conducting nerve impulses it may not be r garded as such. The clinical statements as to the retur

[1] *Proc. Physiol. Soc.*, March 19th, 1904.

sensation must be accepted with some reserve; process of "freshening up" the divided fibres may e a stimulus lasting for a few days, and which may be ily referred by the patient to the usual terminations of particular nerve endings involved. Experimental ection of nerves was undertaken, and the upper end enclosed in rubber caps to prevent the union of the ipheral to the central end. When 100 to 150 days had osed, the animal was anaesthetised and the nerves sub- ted to strong faradic currents. In all cases they were irely inexcitable; even the wasted muscles barely onded to this type of stimulation. After division and turing of large nerves in the monkey and the cat, and n restoration of function suggested that regeneration taken place, the nerve was again exposed. It was found that the two ends were united, and that the e could be excited both above and below the junction. iece of the same nerve was then excised an inch or so w the junction. On microscopical examination it was d to contain fine new nerve fibres, and all traces of degenerative products had disappeared. The animal killed ten days later. The peripheral portion of the e was quite inexcitable and showed Wallerian neration. Some evidence will be later pro- d to show that the more distant the situa- from the original point of section the less ectly are the new fibres developed. Further riments were undertaken to investigate the in- ice of stimuli upon the regeneration of nerve fibres. upper posterior spinal roots were divided on one side monkey. The operation resulted in paralysis of all ements except when some strong emotional tendency manifested. A large nerve of the paralysed arm was divided and sutured, the corresponding nerve on the hy side being similarly treated. Sixty to seventy days the animal was killed. Union of the divided nerves red in both sides of the body, and the nerves reacted lly to the faradic current. The fibres and lateral s of the cord also presented the same histological arances. These experiments apparently left open paths for afferent stimuli, and the next line of ry is an endeavour to cut off all the afferent paths to nterior cornual neurons in order to determine the t of regeneration in the absence of external stimuli.

ULEIN IDA SZENDEFF, M.D., has been appointed ant Physician to the State Asylum for Children at enburg. This is said to be the first occasion on which te appointment has been conferred on a medical n in Hungary.

International Congress of Physiologists will hold xth meeting at Brussels this year from August 30th ptember 3rd. All communications relative to the ess should be addressed to Dr. Slosse, Institut Solvay, Leopold, Brussels, before July 1st.

FESSOR HOWARD MARSH, M.A., F.R.C.S., will deliver unterian Lecture on (1) Intermittent Hydrops of the , and (2) The Influence of Growth on Deformities, at orge's Hospital Medical School on Wednesday, May at 8.30 p.m. The lecture is open to all members of edical profession.

MEDICAL NOTES IN PARLIAMENT.

[From Our Lobby Correspondent.]

Lunacy Commission.—When the vote for the sum of 9 for the Lunacy Commission came on last week, Sir Tuke took advantage of the opportunity to raise a very ting discussion. After referring to the composition of mmission in England, he pointed out that there were certified lunatics in their charge, giving 38,000 lunatics ry Medical Commissioner, while in Scotland there were only 4,100. He showed the superiority of the Scotch system, and urged the necessity of more Medical Commissioners. The numerical inadequacy of the Commission grew worse and worse; there was only the same number now as in 1845, when there were only 25 000 certified lunatics to be supervised. He urged the division of England into four or five districts with a resident Commissioner in each. In respect to the rapid increase of lunacy, he referred it to the absence of treatment in the early stages and the want of proper care of cases discharged as cured. Glasgow established an institution thirteen years ago for the treatment of incipient cases, and 70 per cent. had been discharged cured. Similar institutions were required all over the country. Cases, moreover, when cured required care for some time to prevent relapses. He urged the appointment of a Select Committee to consider the whole question. Sir Michael Foster seconded the motion, and urged the necessity for amendment in the law. He dwelt on the fact that while medical science had greatly advanced the lunacy laws had practically stood still. More opportunity for the treatment of incipient cases was required, so that science could do more; and he suggested notification as in the case of infectious diseases and the treatment of early cases in private houses as in Scotland. Dr. Farquharson followed with a suggestion for a Royal Commission, and pointed out the inadequacy of the existing machinery for the enormous work to be done, and showed the superiority of the Scotch system as regards the treatment of less developed cases. Mr. Brigg followed from an administrative point of view, and showed the enormous cost now thrown upon the ratepayers for lunacy purposes. In one case, he said, an asylum would cost about £640 per inmate. Mr. Gibson Bowles made a strong protest against any change to lessen the security of the individual from being wrongly confined as a lunatic. Sir John Tuke vigorously challenged the speaker, and asked him to quote a single case; but Mr. Gibson Bowles could only refer to Charles Reade's novel as founded on facts. Dr. Hutchinson and Lord Edmond Fitzmaurice also spoke, and Sir John Dorington praised the work of the Commission, and said legislation went as far in 1892 as public opinion would allow. The Attorney-General, in reply, defended the existing state of things as regards the methods of the Commissioners, and thought the outcry about the increase in lunacy was not altogether well founded. The Lunacy Bill, which had twice come from the Lords, had been stopped in the Commons, and that Bill would in many respects improve the law. He could not agree with the suggestion of a Royal Commission or a Select Committee, and he could give no undertaking as to the Lunacy Bill being introduced this session. Dr. Farquharson and Sir E. Strachey protested against the unsatisfactory reply of the Attorney-General and divided the Committee, when the vote was carried by a majority of 90.

A Violation of the Lunacy Act.—Mr. Corrie Grant asked the Secretary of State for the Home Department on Wednesday whether he was aware that Mrs. Helen Meredith was detained in Bethlem Royal Hospital from August 17th to September 25th, 1903, without being taken before or visited by a judicial authority as prescribed by Section VIII of the Lunacy Act, 1890, although she signed, immediately on her admission on August 17th, 1903, a notice of her desire to be taken before or visited by a justice, judge, or magistrate having jurisdiction in the district within which she was detained; and, if so, if he would say who was responsible for this violation of the Lunacy Act, and what steps would be taken to prevent a repetition of it.—Mr. Secretary Akers-Douglas said that he understood on inquiry that the facts were as stated in the question, but that the delay was due to causes for which the hospital authorities were not responsible. They forwarded the notice given by the lady in question without delay to the clerk to the justices, and it was in his proceedings for securing the attendance of a justice that the difficulty and delay occurred. He was making further inquiries with a view to ascertain whether any steps could be taken to prevent the recurrence of such a case.

County Medical Officers of Health.—Mr. Frederick Wilson asked the President of the Local Government Board if he would grant a return specifying the counties which up to the present had appointed a whole-time medical officer of health under the provisions of the Local Government Act, 1888. Mr. Long answered that a return was obtained in 1896, "showing the salaries and other remuneration and the terms

of appointment of medical officers of health appointed by county councils in England and Wales." If the honourable member moved for a return in continuation of this, he should be happy to assent to its being granted.

Arsenical Poisoning and Pure Beer.—Sir Cuthbert Quilter asked the President of the Local Government Board whether the conference between representatives of the Government departments concerned had yet taken place, and whether he was in a position to announce what course he proposed to adopt to give effect to the recommendations of the Royal Commission on Arsenical Poisoning, more especially for the protection of the public against the use of injurious ingredients in beer and the fixing of a standard of purity. Mr. Long replied that some preliminary questions had had to be considered before any conference could take place. These were now receiving attention, and he hoped to arrive at a decision upon them very shortly.

The Chinese Labourers and Medical Inspection. — Sir Walter Foster asked the Secretary of State for the Colonies whether any estimate had been made of the cost of housing intending Chinese emigrants for the Transvaal at Hong Kong during their detention, for the building and maintenance of the isolation dépôt near Kowloon, and for the medical inspection; and by whom the charges for this system of isolation and inspection would be defrayed. Mr. Secretary Lyttelton replied that he was not aware what the cost of providing for the labourers during the sojourn at Hong Kong would be. It would be borne by the importer.

Vivisection and its Results.—Last Monday Mr. Weir asked the Secretary of State for the Home Department whether he could state what scientific results had been derived from the vivisection of dogs and other animals during the past year. Mr. Secretary Akers-Douglas replied that he thought the hon. member was asking rather too much if he expected him to compress into the form of an answer to a question the scientific results of a year's experimental research. He would refer him to the periodical transactions of the learned societies, to various essays, and other scattered publications, both past and future, for no doubt some of last year's results had not yet been published.

Uncertified Deaths in Ross-shire.—Mr. Weir asked the First Lord of the Treasury, in view of the fact that in some districts of Ross-shire half the deaths were uncertified and that similar conditions prevailed in other Highland crofting counties, if he would state whether he intended to propose legislation to deal with the matter. Mr. Balfour said in answer to the question that the Government did not propose at the present time to introduce legislation on the subject.

The Death-rate in the Transvaal Mines.—Mr. Herbert Samuel asked the Secretary of State for the Colonies whether he could state the number of natives employed in the mines of the Transvaal generally and of the Rand in particular, or the number employed either in the Transvaal or on the Rand who died in the year 1903; and if not, if he would say on what data the death-rates per 1,000 had been calculated. Mr. Lyttelton said in reply that the data on which were calculated the death-rate per 1,000 which he quoted in the House on Wednesday last, namely, 57 per 1 000 for the earlier months of 1903 and end of 1902, and for 1903 and up to April, 1904, 66 per 1,000, were given at page 389 of Cd. 1897, and page 58 of Cd. 2025, just issued. The two sets of figures did not relate to exactly the same areas, but the data given in the Blue Books showed that the deaths for January to July, 1903, in mines in Johannesburg, Krugersdorp, Boksburg, Germiston, and Springs were 2,514, and that for August to December in the mines including these districts, and also Klerksdorp, Heidelberg, and Vereeniging, the deaths were 2,319.

Miners' Phthisis in the Transvaal.—Dr. Hutchinson asked the Secretary of State for the Colonies if his attention had been drawn to the observations of Dr. Haldane at an inquest held on a Cornish miner at Bisson, to the effect that rock drilling was dangerous and should be done by use of the water jet; and, if so, if he would take steps to make the use of the water jet compulsory in all metalliferous mines in the Transvaal. Secretary Lyttelton replied that he had not seen Dr. Halda observations referred to, but he had read an interesting p by Mr. Francis Fox, M.I.C.E., on this subject; and he learned from the Home Office that the inquiry which been made into miners' phthisis in Cornwall by Dr. Hald Mr. Martin, and Mr. Thomas was now completed, and their report which dealt with the precautions to be obse in the use of rock drills would be issued very shortly. should at once bring it to the notice of the Transvaal Gov ment. He would at the same time point out that the sub had for some time engaged the earnest attention of the Tr vaal Chamber of Mines, who had offered prizes for the practical suggestions and devices for dealing with the ma

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Poor-law Nursing.—Sir Harry Samuel asked the Presid of the Local Government Board whether the Local Gov ment Board had decided to issue a general order consequ upon the recommendations contained in the Report of Departmental Committee upon the nursing of the sick p in workhouses; if so, when such order would be issued a before such issue, for what Parliamentary period would order be laid upon the table of the House of Commons fo consideration. Mr. Long replied that this matter was ceiving his attention with a view to the issue of an order early as practicable. It would not be necessary, how that the order should be laid upon the table of the Ho prior to its issue.

The Pollution of the Thames.—Sir Frederick Dixon-H land asked the President of the Local Government Bo whether his attention had been called to the insanitary c dition of the River Ray, a stream running between the to of Swindon and the Thames; and whether he would bri pressure to bear on the authorities concerned to underta the duty of cleansing the stream, which did not come with the scope of the Thames Conservators' powers. Mr. Lo said that his attention had been drawn to this subject. had no power to require the local authorities to underta the cleansing of the stream, but he was communicating w them on the subject.

The Sanitary Condition of Derrygonnelly.—Mr. Edwa Mitchell asked the Chief Secretary to the Lord Lieutenant Ireland whether he was aware that the sanitary and sewera condition of Derrygonnelly, County Fermanagh, was in a c dition dangerous to the health of the inhabitants, and th the medical and sanitary officers for the district had repor on the insanitary state of the village, and brought the matt to the notice of the Local Government Board; and, if so, he would direct immediate steps to be taken to remedy th state of affairs. Mr. Wyndham answered that the defecti sanitary condition of Derrygonnelly had engaged the atte tion of the Local Government Board, who had urged t Rural District Council to proceed with the necessary sewera works, but so far without effect. Section xv of the Publ Health Act, 1896, provided, however, that when a formal co plaint was made to the Board that the local authority h made default in this respect, the Board, if satisfied, after d inquiry, that such defaults had been established, should e force the performance of its duty by the local authority. T attention of the Council had been drawn to this enactment.

Business after Whitsuntide.—As the holidays are to exte from May 19th to May 31st, the prospects of private membe Bills are more or less settled for the session. The third an fourth Fridays after Whit Sunday are the only private me bers' days left, and there are down for June 10th, the first these days, the Musical Copyright Bill and the Weight and Measures Bill, both for consideration after amendmen by the Standing Committee. The following Friday is take up by the Railway (Private Sidings) Bill and two measure dealing with the Marking of Foreign Plate and the amend ment of the Savings Banks Acts. Supply and non-contentiou votes and the Penal Servitude and Dogs Bills will b taken on the first two days after the recess. The Pharmac Bill is down for June 1st, and also the Nurses Bill and the adjourned discussion on Sir F. Banbury's motion o the vivisection of dogs, but none of them are very likely t come on. Indeed, if the session is to end by the middle o August there will not be much chance for anything but th more important Government business, and as the Licensing Bill is so contentious some Bills will have to be dropped.

Ireland.

The Irish Dispensary Medical Service Report.

a meeting of the Fermanagh Branch of the Irish Medical ociation, held at Enniskillen, on May 10th, the following olution proposed by Dr. Leonard Kidd, and seconded by Annesley, was unanimously adopted :

at the warmest thanks of this meeting be conveyed to the Editor of British Medical Journal and the Special Commissioner for the t benefit rendered to the Irish Poor-law Medical Service by the able excellent report published in the Supplement of the British ical Journal on March 26th, which this Branch regards as the work yet done on behalf of the Irish Poor-law Medical Service.

Sir Charles Bent Ball.

ne King has been pleased to appoint Sir Charles Bent , M.D., F.R.C.S., Regius Professor of Surgery, University reland, to be one of His Majesty's Honorary Surgeons in and, in the room of Sir Philip Crampton Smyly, M.D., eased.

A Dublin Coroner.

t a meeting of the Public Health Section of the Royal demy of Medicine on April 22nd Dr. Martley drew atten- to the action of a Dublin coroner at an inquest recently rted in the press. The circumstances were that the de- ed had been brought dead to a hospital at which he had nded as an out-patient six months previously, and that house-surgeon, being asked by the coroner to give his ion as to the cause of death without making a necropsy, ined to do so; thereon the coroner directed the to bring in a verdict without further evidence. Section determined by resolution, proposed and unani- sly accepted, to communicate the facts to the Council of Academy, and to recommend that they be brought to the e of the authorities. The coroner in question would ar to be the same legal coroner unfavourable criticism of e action upon a corresponding occasion has already ap- d in the British Medical Journal.

Proposed Poor-law Consumptive Sanatorium for Belfast.

the last weekly meeting of the Belfast Poor-law guardians ter was read from the Clerk of the City Council asking her the guardians would co-operate with the Council in ting a site and building a sanatorium. After some ession of opinion against the expense of two sanatoria, principle of co-operation was unanimously agreed to— ut prejudice, however, to the scheme of the guardians n progress for acquiring a site for the sanatorium for oor.

cal Benevolent Fund Society of Ireland: Belfast and County Antrim Branch.

annual meeting of the subscribers of this Branch was in the afternoon of May 13th in the Medical Institute, st. Sir William Whitla, M.D., President, occupied the

Richard Purdon, Honorary Secretary and Treasurer, nted the annual report. The gross receipts amounted 58 13s. 6d., and the total expenses were £11 4s. 7d. The ts were £13 13s. 6d. less than last year, but the falling off nly apparent, as the contributions from the medical nts had not yet been received; and there was a special bution from the annual dinner of the Ulster Medical y of £15 last year. Country members had increased wn members decreased; the latter had fallen by 15, e amount by £6 5s. 6d; the former had increased from ntributing £31 12s., to 59 contributing £41 17s. 6d. Ten ations were carefully gone into, and nine forwarded to n for favourable consideration, amounting to £142.

Chairman, in proposing the adoption of the report, hat from one point of view it was extremely satisfactory; were the premier branch of Ireland, and their contribu- ad shown a generous increase over that of a few years On the other hand, it was deplorable that so many al men failed to join with even the smallest subscrip- he thought that this fund should take a leading place, l next to direct family claims, in the esteem of medical

Whitaker, whose membership extended over fifty years, led the motion; the fund was one of pure benevolence, all sectarian or party differences.

he motion of the President, seconded by Dr. Gibson, Dr. Joseph Nelson, Belfast, was elected President for the ensuing year.

On the motion of Dr. St. Clair Boyd, seconded by Dr. Fielden, the following were appointed the Branch Committee: Sir William Whitla, Professor Lindsay, Drs. Brice Smyth, Henry O'Neill, J.P., St. Clair Boyd, Dempsey, R. C. M'Cullagh, McKisack, J. W. Taylor, Whitaker, Leslie, Gibson, Macarthur (Greyabbey), St. George (Lisburn), Darnell (Bangor), Donnan (Holywood), Nolan (Downpatrick), and Gaussen (Dunmurry).

Dr. Gaussen proposed, and Mr. W. J. Shields seconded, Dr. R. J. Purdon as Honorary Secretary and Treasurer, with a warm vote of thanks for his great interest in the fund and his strenuous efforts to increase its benevolent efforts.

Professor Lindsay proposed, Dr. Leslie seconded, and Dr. Purdon supported, a vote of thanks to Sir William Whitla for his services as President during the last four years; throughout this time he had exhibited personal influence and energy which had been a strong factor in raising the subscription list to its present height.

An Operation Theatre for the North Charitable Infirmary, Cork.

At the monthly meeting of the Committee of Management of the North Charitable Infirmary, Cork, Sir Daniel Hegarty presiding, Professor Pearson, F.R.C.S., appeared before the meeting, and asked to be allowed to make a statement which was of great importance to the institution. After drawing attention to the many improvements that had taken place in recent years in the infirmary, he said that, as one of the surgeons of the institution, the want still appealing to him was that of an operation room thoroughly up to date, and in accordance with the modern requirements of surgery. In the present room much good work had been done, but at the same time, as an operation room of the twentieth century, it was not suitable. He came there in the happy position of being able to announce to the Board that a generous donor had, through him, been good enough to promise to furnish sufficient funds to construct an operation room, the name of the donor to remain, for the time being at least, anonymous; the conditions under which the operation room was to be constructed were:

1. That the plans for same meet with the requirements of modern surgery and with the wishes of the surgeons of the institution.
2. That they receive the approval of the medical staff and the approval and sanction of the Board of Management.
3. That they are carried out under the direction and supervision of the architect, who shall from time to time consult with the intern surgical staff with regard to any points of detail or alteration in the plans which may arise.
4. That the work shall be executed in strict accordance with the supervision and to the satisfaction of the architect.
5. That payments shall be made from time to time by the trustees of the fund which they shall appoint, and who will be the intern surgeons for the time being.

Speaking further on the point, Professor Pearson mentioned that at the time of the promise of funds he had been going to Dublin, and had asked the architect of the nstitution to accompany him, and had shown him the most modern operation rooms which had been constructed within the past few years. They had also visited Belfast and inspected the Royal Victoria Hospital, which cost £150,000, and had seen everything from which they could derive information.

Mr. Harding, on behalf of the Board, expressed the thanks of the members to the generous unknown donor of whom Professor Pearson had spoken, and also thanked Professor Pearson for being instrumental in obtaining the generous grant for the infirmary, and for the most business-like manner in which he had acted on the occasion of taking the architect to Dublin and Belfast in order to put him in the position of being able to procure information as regards the construction of an operation room that would be thoroughly representative of the twentieth century.

It was proposed and seconded that Mr. Hill, the architect, be instructed to prepare the plans and specifications for the construction of the new operation room in accordance with the conditions mentioned.

At the last quarterly meeting of the court of governors of the Newcastle Royal Infirmary the following resolution was carried: "That in recognition of the splendid services rendered to the institution by the vice-chairman, Sir George Hare Philipson, M.D., over a long period of years, he be elected President of the Royal Infirmary."

Scotland.

ABERDEEN UNIVERSITY: QUATERCENTENARY CELEBRATIONS.

SOME months ago a large and representative Committee was appointed to make arrangements for the Quatercentenary celebrations, which had been provisionally fixed to take place in the autumn of 1905. This date was chosen in the expectation that the new buildings at present in course of erection would be completed, and that this would allow of the inauguration of several new departments forming an important part in the scheme of celebration. It has, however, been apparent for some time that there was little likelihood of the buildings being finished by the above-mentioned date, and at a meeting of the Committee, held on Tuesday, May 17th, it was unanimously agreed that it would be inexpedient to proceed with the arrangements for the ceremony for 1905, and that the entire celebrations should be postponed until the autumn of 1906. By this date the new buildings will undoubtedly be fully completed, and the departments fit for occupation. It was also agreed to continue the Committee as at present appointed, and to proceed to draw up a provisional scheme of arrangements for 1906. This scheme will, no doubt, be on an elaborate scale, as the town is heartily co-operating with the University in the endeavour to celebrate the historic occasion in a manner worthy the reputation of both. Meantime, favoured with better weather, the contractors are pushing on the work, and the beautiful outline of frontage to Broad Street is already attracting much attention.

THE OUTBREAK OF SMALL-POX.

Five weeks have now elapsed since the removal of the last case to the City Hospital so that the outbreak at Aberdeen may be safely assumed to be at an end. It has happily been limited to 3 cases.

THE KINGSEAT ASYLUM.

This asylum, which has been built by the Aberdeen Lunacy Board for the accommodation of pauper lunatics, was formally opened on Saturday, May 14th, after being duly licensed for the accommodation of patients by the General Board of Lunacy. The asylum, which is built on the detached villa system, is splendidly situated on rising ground near Newmachar Station on the Buchan Railway about twelve miles from the city. It has taken over three years to build and is said to have cost over £120,000, the furnishing and equipment being of the most modern description. Already 260 patients have been removed from the Royal Lunatic Asylum and from the two city poorhouses to the new institution, which is under the care of Dr. Charles Angus, as medical superintendent.

PREVENTION OF CONSUMPTION IN GLASGOW.

An interesting function took place at the Bromhill Home for Incurables on the afternoon of May 14th in the shape of the opening by the Duchess of Montrose of the Lanfine Home for Consumptives. The Glasgow and District Branch of the Association for the Prevention of Consumption in addition to their other work undertook to erect a sanatorium at Lanark for the treatment of early and hopeful cases, and in a few weeks this will be ready to begin receiving a small number of patients. Quarrier's Home at Bridge of Weir likewise provides an excellent sanatorium for female cases in the early stages. This new home at Broomhill is, however, supplementary to such efforts, and is meant for those hopeless cases to which at present no prospect is open but that of terminating their existence miserably either in overcrowded and ill-ventilated sick rooms in private dwellings, or in the wards of a poor-house. This new home is due to the generous bequest of an Ayrshire lady, Miss Martha Brown, who left £5,000 for the erection of a consumption home, and £15,000 to be devoted towards its annual endowment. The Duchess of Montrose, in formally declaring the home open, drew public attention to the urgent need for such homes to accommodate these advanced cases, partly for the sake of the sufferers themselves, but also to diminish the dangers of infection to their families and friends.

SCOTTISH VOLUNTEER AMBULANCE COMPETITION.

The first annual competition for the Scottish Volunteer Ambulance Trophy took place on Saturday afternoon, May 14th, in the 1st L.R.V. Drill Hall, Glasgow. It was an unqualified success, no fewer than thirteen teams from different parts of Scotland taking part in it; the precision and skill displayed by many of the competitors in the stretcher and the transport of wounded were the subject of favourable comment. Surgeon-General Sir William Taylor presided over a distinguished audience of prominent officers and other interested spectators, while the Duchess of Montrose graciously handed over the trophy to the winning team, the 5th (Glasgow Highlanders) V.B.H.L.I., with badges to the most successful competitors. Details of the way in which this trophy and competition came into being were given in the BRITISH MEDICAL JOURNAL of April 30th, p. 1038.

EDINBURGH ROYAL INFIRMARY RESIDENTS' CLUB.

The annual general meeting of members of this club will be held in the Caledonian Station Hotel, Edinburgh, on Friday, June 10th, 1904, at 7 p.m., when the secretary's and treasurer's reports will be submitted. The tenth annual dinner will be held in the same place at 7.30 p.m. Sir William Mitchell Banks, president of the club, will occupy the chair. Members intending to be present should send their names to the Honorary Secretary, Dr. Claude B. ... City Hospital, Colinton Mains, on or before June 6th.

THE HOLMAN TESTIMONIAL FUND.

THE Treasurer of this Fund acknowledges the following further subscriptions:

	£	s.	d.		£	s.	d.
Chas. Gibson, M.D.	1	1	0	R. B. Wrightson, A.B., M.D.			
Mr. T. J. Watts	1	1	0	Mr. Geo. Roe Carter... ...			
Mr. W. Wallis	0	10	6	Mr. Giles Lockwood L. Hawken			
Mr. P. Purnell...	1	1	0				
T. Bridgwater, M.B.Lond....	3	3	0	Mr. F. Boxall			
J. Ward Cousins, M.D.Lond.	1	0	0	Sir Geo. H. Philipson, M.D.			

Further subscriptions will be received by Dr. John ... Galton, Chunam, Sylvan Road, Norwood, S.E.; or by M... A. Berridge, Oakfield, Redhill.

CONTRACT MEDICAL PRACTICE.

WE have received the following communication with reference to the occurrences at Macclesfield, to which we drew attention in the issue of May 14th, page 1,162:

We, the undersigned medical practitioners, desire to call the attention of the medical profession to the unsatisfactory relationship which exists between the Macclesfield ... General Burial Society and its two medical officers who have recently resigned.

This society contains 6,406 members, and the remuneration paid is £250 per annum for medical attendance, an additional £100 per annum is paid to a local chemist for dispensing. The actual sum thus paid per head per annum is about ... and this, we are of opinion, is grossly inadequate.

The payments to the medical officers are based on the proportion of sick notes received by them, each note remaining valid for the current three months. This payment is made not on the number of members entitled to medical benefit, but each medical officer is paid according to the number of sick notes received by him from the members requiring medical attendance. In consequence of the resignation of the society's two medical officers an attempt is being made by advertisements extensively circulated in the lay press to fill the vacancy thus caused.

We are most anxious that intending applicants should be made acquainted with these facts, as we feel confident that no medical practitioner would accept the position which extensive experience has shown to be unremunerative, and which is in direct opposition to the strongly-expressed opinion of the whole medical profession in the town.

(Signed),

JOHN L. RUSHTON, SENR.	ROBERT PROUDFOOT.
JAS. BRIERLEY HUGHES.	JOHN BRIERLEY HUGHES.
JOHN SOMERVILLE.	C. A. NEWBALD.
C. A. BRADLEY.	JOSEPH WESTMORLAND.
W. H. CLARKE.	J. LATHAM RUSHTON.
C. AVERILL.	L. T. FRASER.
W. H. TOWNSEND STORRS.	A. M. CLARK.
J. HEDLEY MARSH.	

THE annual banquet of the Association of British Post Medical Officers will take place in the Whitehall Room, Hotel Métropole, London, on July 1st, at 7.30 p.m.

EPSOM COLLEGE.—The London and Counties Medical Protection Society, Ltd., has kindly voted the sum of £26 11s. 6d. to the funds of the Epsom College Royal Medical Foundation.

ASSOCIATION NOTICES.

NOTICE OF QUARTERLY MEETINGS OF COUNCIL FOR 1904.

MEETINGS of the Council will be held on Wednesdays, July 6th, and October 19th, in the Council Room of the British Medical Association, 429, Strand, London, W.C.

ELECTION OF MEMBERS.

Any candidate for election should forward his application on a form, which will be furnished by the General Secretary of the Association, 429, Strand. Applications for membership should be sent to the General Secretary not less than forty-five days prior to the date of a meeting of the Council.

LIBRARY OF THE BRITISH MEDICAL ASSOCIATION.

MEMBERS are reminded that the Library and Writing Rooms of the Association are fitted up for the accommodation of members in commodious apartments, at the office of the Association, 429, Strand. The rooms are open from 10 a.m. to 6 p.m. Members can have their letters addressed to them at the office.

GUY ELLISTON, *General Secretary.*

BRANCH MEETINGS TO BE HELD.

BATH AND BRISTOL BRANCH: BATH DIVISION.—The annual meeting of this Division will be held at the Royal United Hospital, Bath, on Monday, June 20th, at 6.15 p.m., Mr. R. J. H. Scott in the chair, for the purpose of electing officers, members of the Branch Council (there are five vacancies), and such other business as may be done at an annual meeting.—W. M. BEAUMONT, 4, Gay Street, Bath, Honorary Secretary.

BATH AND BRISTOL BRANCH: BATH AND TROWBRIDGE DIVISIONS.—A meeting of these Divisions will be held at the Royal United Hospital, Bath, on Monday, June 20th, at 6 p.m., for the purpose of appointing a representative of the Divisions in Representative meetings of the Association.—W. M. BEAUMONT, Bath, J. TUBB THOMAS, Trowbridge, Honorary Secretaries.

BIRMINGHAM BRANCH.—The fiftieth annual meeting of this Branch will be held in the Medical Institute, Birmingham, on Thursday, June 9th, at 8 p.m. The retiring President, Professor Jordan Lloyd, will introduce the President-Elect, Dr. T. E. Underhill. The annual dinner will be held on the same date at the Grand Hotel, Birmingham.—J. T. J. MORRISON, M.S., 3, Great Charles Street, Birmingham, Honorary Secretary.

BORDER COUNTIES BRANCH; NORTH CUMBERLAND DIVISION.—The annual general meeting of this Division will be held at the County Hotel, Carlisle, on Friday, May 27th, at 3.30 p.m. It is proposed to discuss a medico-ethical subject a leading feature of the meeting, and the Chairman has promised to open the debate by a paper on the Relations of Medical Men to Each Other. Members willing to contribute cases, etc., should communicate with the Honorary Secretary, NORMAN HAREN, Carlisle.

BORDER COUNTIES AND NORTH LANCASHIRE AND SOUTH WESTMORLAND BRANCHES.—Notice is hereby given that nominations for a representative member on the Council for these Branches, signed by three members thereof, must be sent to me on or before May 29th.—FRANCIS R. HILL, Warwick Road, Carlisle, Honorary Secretary, Border Counties Branch.

DUNDEE DISTRICT BRANCH.—This Branch will meet on Friday, June 3 to consider the business of the Representative Meeting; to elect a representative and other officers; and other business.—R. C. and G. HALLEY, Dundee, Honorary Secretaries.

DUNDEE, PERTH, AND STIRLING BRANCHES.—The nomination of candidates for office of elective member of Council for the ensuing year must be made in writing on or before May 24th, to Dr. Moorhouse, 1, Glebe Place, Stirling. Each member may nominate a candidate, but no name will be voted on unless supported by three nominations.—R. C. BUIST, Whitethergate, Dundee; W. A. TAYLER, 10, Marshall Place, Perth; J. E. MOORHOUSE, Glebe Avenue, Stirling, Honorary Secretaries.

EAST ANGLIAN BRANCH.—The annual meeting of this Branch will be held at Lowestoft, on Thursday, June 23rd. Members wishing to read papers or show cases should communicate with Dr. Gutch, Ipswich, as soon as possible.—B. H. NICHOLSON, M.B., East Lodge, Colchester, Honorary Secretary.

EAST ANGLIAN BRANCH: NORTH SUFFOLK DIVISION.—The annual meeting of this Division will be held at the Young Men's Christian Association, London Road, Lowestoft, on Wednesday, May 25th, at 4 p.m. Business: (1) Minutes of last meeting. (2) Election of officers for ensuing year. (3) Notes on a case of Angioneurotic Oedema (Dr. Ransome). (4) Matters referred to the Divisions: (*a*) The scheme of Medical Defence as set forth in the circular enclosed; (*b*) whether it is advisable that medical witnesses engaged on each side in legal cases should meet in consultation (see SUPPLEMENT to BRITISH MEDICAL JOURNAL, April 19th, 1904); (*c*) The question of the advertising of medical practitioners in connexion with hydropathic establishments (loc. cit.) Members are requested to take this opportunity of expressing their opinion on this important proposal by returning the form annexed to the circular to the Honorary Secretary of the Division, either before (if unable to attend) or after the meeting.—WILSON TYSON, Lowestoft, Honorary Secretary.

EAST ANGLIAN BRANCH: SOUTH ESSEX DIVISION.—The annual meeting of this Division will be held in the Council Chamber, Clarence Road, Southend-on-Sea, on Thursday, May 26th, at 4 p.m. Business: (*a*) Election of officers for ensuing year and matters submitted to Division for consideration. (*b*) Address by Mr. T. H. Openshaw, C.M.G., M.S., F.R.C.S., on a New Method of Treating Hip Disease, Ankylosed Joints, and Fractures of the Lower Extremity. (*c*) Cases or papers by the Chairman (Mr. A. Clough Waters, M.B., J.P.), Lieut.-Colonel Westcott, R.A.M.C., M. H. Raper, M.D. Messrs. Allen and Hanburys, Limited, will show a selection of new instruments and drugs. The Chairman invites members and their friends to tea after the meeting.—CHARLES FORSYTH, M.B., Crinnis House, Southend-on-Sea, Honorary Secretary (pro tem.).

EAST YORK AND NORTH LINCOLN BRANCH.—The annual meeting of this Branch will be held at the Royal Infirmary, Hull, on Saturday, June 4th, at 4 p.m., to be followed by the annual dinner the same evening.—E. M. HAINWORTH, 16, Albion Street, Hull, Honorary Secretary.

EDINBURGH BRANCH: SOUTH-EASTERN COUNTIES DIVISION.—The annual meeting of this Division will be held in the King's Arms Hotel, Melrose, on Thursday, June 16th, at 3 p.m. Business: (1) Election of office-bearers. (2) Consideration of motion, of which Dr. Hamilton (Hawick) has given notice, "That the Division invites all the members of the Edinburgh Branch to meet at Hawick in July"; and of a further motion, "That, alternately, the annual meeting of the Branch be held in one of the county towns within its area, and that it be held next year at Hawick." (3) Consideration of agenda of the Annual Representative Meeting to be held at Oxford, in order to instruct the Representative of Division what lines to follow when the various questions come under discussion. (4) Consideration of the Contract Practice inquiry issued by the Medico-Political Committee.—W. HALL CALVERT, The Laurels, Melrose, Honorary Secretary.

EDINBURGH AND FIFE BRANCHES.—The names of candidates for election as members of Council to represent these Branches must be sent to Dr. Logan Turner, 27, Walker Street, Edinburgh, on or before June 1st. Each candidate must be nominated in writing by three members of the Conjoint Branches, which are entitled to elect two representatives.—NORMAN WALKER, 7, Manor Place, Edinburgh, and A. LOGAN TURNER, 27, Walker Street, Edinburgh, Secretaries of the Edinburgh Branch; R. BALFOUR GRAHAM, Sea View House, Leven, Secretary of the Fife Branch.

GLASGOW AND WEST OF SCOTLAND BRANCH.—Nominations for the office of Representative of this Branch on the Council (the Branch electing two), each signed by three members, must be in the hands of the Honorary Secretary on or before June 15th.—JAS. H. NICOLL, 4 Woodside Place, Glasgow, Honorary Secretary.

LANCASHIRE AND CHESHIRE BRANCH: BIRKENHEAD DIVISION.—The annual meeting of this Division will be held in the Birkenhead Medical Society's Room, 14, Hamilton Square, on Wednesday, May 25th, at 4 p.m. Agenda: (1) To consider matters referred to the Divisions. (2) To consider the scheme for Medical Defence. (3) To elect officers of the Division. (4) To elect Representatives on the Branch Council. (5) To elect a Representative of the Division to the Representative Meeting of the Association. (6) To consider the business of the Annual Representative Meeting. (7) To appoint a Subcommittee to consider means whereby the membership of the Division may be increased.—J. H. FARDON, 59, Grange Mount, Birkenhead, Honorary Secretary.

LANCASHIRE AND CHESHIRE BRANCH: CHESTER AND CREWE DIVISIONS.—The annual meeting of the members of the above Divisions will be held at the Chester General Infirmary, in the Board Room, at 5 p.m., on Tuesday, May 31st. Agenda: (1) Minutes of the last meeting. (2) Annual report of the Committee. (3) Election of officers for 1904-5 (Rules 5, 6, and 9). (4) Election of the Representative of the Divisions of Chester and Crewe on the Branch Council. (5) Election of the Representative of the Divisions of Chester and Crewe at the British Medical Association annual meeting. (6) To make or alter any rules. (7) To consider whether medical witnesses should meet in consultation. (8) Any other business. Tea (provided by the Honorary Secretary) will be served at 4.30 p.m.—H. W. KING, M.D., 26, Nicholas Street, Honorary Secretary, Chester Division.

LANCASHIRE AND CHESHIRE BRANCH: SALFORD DIVISION.—The annual meeting of this Division will be held at the Palatine Hotel, Manchester, on Tuesday, May 31st. The business will include the election of officers and representatives and consideration of the notices of motion to be brought before the Annual Representative Meeting.—J. H. TAYLOR, 361, Eccles New Road, Salford, Honorary Secretary.

MALTA AND MEDITERRANEAN BRANCH.—The annual meeting of the Branch will be held at No. 76, Sda. Teatro, Valletta, on May 30th, at 5 p.m. Agenda: 1. Confirmation of minutes. 2. Correspondence. 3. Ordinary business. 4. Reading of papers. 5. Election of officers and members of Council. 6. Election of Representatives for Representative Meetings. 7. Annual report of Council. The Secretary would be pleased to receive communications from any member who wishes to read a paper or show cases or specimens.—T. M. ZAMMIT, Valletta, Honorary Secretary.

METROPOLITAN COUNTIES BRANCH: CITY DIVISION.—The annual meeting of this Division will be held at the London Institution, Finsbury Circus, E.C., on Thursday, May 26th, at 4 p.m. Agenda: (1) Minutes. (2) Correspondence. (3) Election of officers. (4) Election of Representative in Representative Meetings of the Association. (5) To receive annual report of Executive Committee. (6) Medical Defence: To consider (i)

whether it is the wish of members that the Association should take up Medical Defence as suggested in the Scheme; (ii) whether the Division approves of the general principles and details of the Scheme (see SUPPLEMENT to the BRITISH MEDICAL JOURNAL of March 19th, p. 31). (7) To consider the Notices of Motion for the Representative Meeting at Oxford (ibid., May 7th, p. 118). (8) To consider certain questions with regard to Contract Practice (ibid., p. 107). (9) To consider the Report of the Council of the Association (ibid., p. 96). (10) To consider the question of fees for medical examinations for insurance (ibid., p. 109). (11) To consider memorandum from the Council on the present position of medical practitioners with respect to Coroners (ibid., p. 107). N.B.—It will be observed that several very important questions are to be brought up for discussion at this meeting. The Honorary Secretary begs to remind members that a quorum of twelve is necessary to transact business.—E. W. GOODALL, M.D., The Eastern Hospital, Homerton, N.E., Honorary Secretary.

METROPOLITAN COUNTIES BRANCH: HAMPSTEAD DIVISION.—The annual meeting of this Division will be held at the Hampstead Conservatoire, Swiss Cottage, N.W., on Friday, June 3rd, at 4.30 p.m. Dr. Ford Anderson will preside. Agenda: (1) Minutes. (2) Election of officers (Chairman, Vice-Chairman, and Secretary); election of two Representatives on the Branch Council; election of seven members of the Executive Committee. (3) Election of Representative of the Division in Representative Meetings of the Association. (4) To receive annual report of Executive Committee. (5) To consider the business of the Annual Representive Meeting (Notices of Motion have been published in the BRITISH MEDICAL JOURNAL of April 23rd and 30th). Amongst them are the following: By the Hampstead Division: (1) That it is advisable that all Association business notices be withdrawn from the JOURNAL and be collected and published in the SUPPLEMENT, so that the JOURNAL be purely medical. (2) That it is advisable that the good idea of the Year Book be developed; that it should contain the names and addresses of all members, medical regulations, and other details of general interest to make it a real handbook of medical information. (3) That it is advisable that, having regard to the purity and reliability of the lymph supplied to public vaccinators by the Local Government Board, every practitioner should be placed on the same footing as public vaccinators in respect to the Government supply of vaccine lymph. (6) Alteration of Rules of the Division. Rule 5 to read: The officers of the Division shall be a Chairman, Vice-Chairman, Secretary, who shall also act as Treasurer, and Assistant Secretary. Rule 6 to read: The officers shall be elected annually in the annual meeting of the Division, "the Chairman being eligible for re-election for one year, after which he may not hold the same office within five years." (7) General business.—J. DILL RUSSELL, F.R.C.S., Osman House, Fortis Green, N., Honorary Secretary.

METROPOLITAN COUNTIES BRANCH: ST. PANCRAS DIVISION.—The annual general meeting of this Division will be held at the Athenaeum, Camden Road. N., on Friday, May 27th, at 4.15 p.m. Dr. Wm. Wynn Westcott, the Chairman of the Division, will preside. Agenda: (1) To confirm the minutes of the meeting held on April 29th, 1904. (2) To receive the annual report and accounts of the Secretary. (3) To elect the officers for the ensuing year—namely, a Chairman, Vice-Chairman, Secretary, a Delegate to the Representative Meeting of the Association, and seven members of the Executive Committee. (4) Dr. Francis John Buckell will open a discussion upon the Midwives Act, 1902, and the report of a Special Committee of the Association upon the regulations of the Central Midwives Board in regard to medical practitioners. (5) To consider the Medical Defence Scheme of the Association, on which Dr. F. J. Buckell will move the following resolution: "That this Division does not approve of the Scheme of Medical Defence as prepared by the Medical Defence Committee of the Association, and instructs its representative to vote against the scheme at the Representative Meeting." (6) To consider resolutions to be submitted to the Annual Representative Meeting at Oxford, and to transact any other business which may be transacted at an ordinary meeting.—R. C. M. POOLEY, M.R.C.P., 35, Highbury Grove, N., Honorary Secretary.

METROPOLITAN COUNTIES BRANCH: TOTTENHAM DIVISION.—There will be a meeting of this Division at the Tottenham Hospital, on Friday, May 27th, at 4 p.m. Agenda: Annual Meeting. Election of Officers. Adjourned discussion on Medical Acts Amendment Bill, etc.—FRED. TRESILIAN, White Lodge, Enfield, Honorary Secretary.

METROPOLITAN COUNTIES BRANCH: WANDSWORTH DIVISION.—The annual meeting of this Division will be held at Crichton's Restaurant, Clapham Junction, at 9 p.m., on Thursday, May 26th. Agenda: 1. Minutes. 2. Correspondence. 3. Resolutions referring to Central Council initiating business. 4. Election of officers, Representatives, and Committee. 5. Annual report. 6. Consideration of agenda for Representatives' Meeting. A dinner will precede this meeting at 7.15 p.m. Evening dress optional. Charges 6s. each. Guests can be invited by members. It is hoped by coming in large numbers members will show they wish to interest themselves in their Division's successful development.—E. ROWLAND FOTHERGILL, Torquay House, Southfields, S.W., Honorary Secretary.

MIDLAND BRANCH.—The last day for sending in nominations of elective members of Council for this Branch is May 31st.—F. M. POPE, 4, Prebend Street, Leicester, Honorary Secretary.

MIDLAND BRANCH: BOSTON DIVISION.—The annual meeting of this Division will be held on Tuesday, May 24th, at the Red Lion Hotel, at 1 p.m. Agenda: (1) Election of officers. (2) Programme for the year. (3) Any other business. Luncheon will be provided at 2 p.m. Tickets, 3s. 6d. each exclusive of wine. Members are requested to intimate not later than May 20th if they intend to be present.—A. E. WILSON, Beech House, Boston, Honorary Secretary.

MIDLAND BRANCH: LINCOLN DIVISION.—The annual meeting of this Division will be held at the Guildhall, Lincoln, on Thursday, May 26th, at 4 p.m. Agenda: (1) Minutes of last meeting and Treasurer's balance-sheet. (2) Election of officers for ensuing year. (3) Consideration of subjects: (a) Whether it is advisable that the medical witnesses engaged on each side in legal cases should meet in consultation. (b) The question of advertising medical practitioners in connexion with hydropathic establishments. (c) The question of Medical Defence, whether it should be taken up by the Association, and whether the scheme suggested is approved. Tea will be provided.—E. M. SYMPSON, 2, James Street, Lincoln, Honorary Secretary and Treasurer.

NORTHERN COUNTIES OF SCOTLAND BRANCH.—The annual meeting of this Branch will be held at the Imperial Golf Hotel, Nairn, on Saturday, May 21st, at 12 o'clock noon. Agenda: (1) Minutes of autumn meeting. (2) To elect office-bearers for the ensuing year, and a Representative of the Branch in Representative meetings of the Association. (3) To arrange place for next annual meeting; in connexion with this the Council suggest that in order to give the members in the North of Scotland an opportunity of attending either Tain or Golspie should be selected for next year's meeting. (4) To consider the business at the Annual Representative Meeting at Oxford. (5) To consider the following questions referred to the Branch for its opinion thereon: (a) whether it is desirable that the medical witnesses engaged on each side in legal cases should meet in consultation; (b) the question of the advertising of medical practitioners in connexion with hydropathic establishments; (c) shall Medical Defence be undertaken by the Association? In connexion with this question the Honorary Secretary would feel much obliged if members who approve of this scheme would fill in and return the form of agreement sent them some time ago with the Medical Defence circular. Those disapproving of the scheme might advise the Secretary accordingly, as the Central Council of the Association wish a poll of the members on this subject by May 30th; this being an important question affecting the members it is important that they should give an individual expression of opinion. (6) Any other competent business. Luncheon will be served at the Imperial Golf Hotel at 1.30. By the courtesy of the Nairn Golf Club the golf course will be open to members of the Branch and their friends, and it is expected that a match will be arranged between medical men and the members of the Nairn Golf Club. The Secretary would feel much obliged if those who intend to play would kindly let him know, so that the necessary arrangements can be made. The Nairn Bowling Club also extend the courtesy of their Green to the members of the Branch, and it is to be hoped that a match may be arranged. Members who wish to join in this should inform the Secretary. For those wishing it a drive to some place in the neighbourhood can be arranged, provided a sufficient number intimate their desire to do so.—J. MUNRO MOIR, 4, Ardross Terrace, Inverness, Honorary Secretary.

NORTHERN COUNTIES OF SCOTLAND BRANCH.—In accordance with By-law 22 of the Constitution the election of a Representative in the Central Council of the Association must be made by voting papers sent to each member, and the candidates' names must be sent to the undersigned on or before May 28th, and the nomination paper signed by three members.—J. MUNRO MOIR, 4, Ardross Terrace, Inverness, Honorary Secretary.

NORTH OF ENGLAND BRANCH.—The annual meeting of this Branch will be held at South Shields on Wednesday, June 8th, at 2.30 p.m. Further particulars will be given by circular.—ALFRED COX, Cotfield House, Benshaw Road, Gateshead, Honorary Secretary.

NORTH OF ENGLAND BRANCH.—Election of Representatives on Central Council of the Association. No one having been nominated except the two retiring representatives, I hereby declare that Drs. James Murray and James Henry Hunter are elected as Representatives of this Branch.—ALFRED COX, Honorary Secretary.

NORTH WALES AND SHROPSHIRE BRANCH.—We hereby give notice that nominations for a Representative on the Council of the Association, signed by three members of the Branch, must be received not later than May 31st, by W. Jones Morris, Is-y-Coed, Portmadoc.—W. JONES MORRIS, H. H. B. MACLEOD, and H. JONES ROBERTS, Honorary Secretaries.

NORTH WALES AND SHROPSHIRE BRANCH: DENBIGH AND FLINT DIVISION.—The annual meeting of this Division will be held at Wrexham on Friday, May 27th.—E. D. EVANS, Bodeirian, Wrexham, Honorary Secretary.

NORTH WALES AND SHROPSHIRE BRANCH: NORTH CARNARVON AND ANGLESEY DIVISION.—The annual meeting of this Division will be held at the British Hotel, Bangor, on Wednesday, May 25th, at 2 p.m. Chairman, Dr Emyr O. Price, Bangor. Agenda: (1) To read the minutes of the last meeting of the Division. (2) To read letters of apology. (3) To elect the following officers, etc., for the ensuing year: Chairman, Vice-Chairman, Honorary Secretary, Representative on the Representative Committee, Representatives on the Council of the Branch, Representatives on the Executive Committee of the Division. (4) To receive the annual report of the Exective Committee of the Division. (5) To consider the business of the Annual Representative Meeting to be held at Oxford July 26th to 29th, 1904 (see SUPPLEMENT to the BRITISH MEDICAL JOURNAL May 7th). (6) To report on replies received from members of the Division regarding Medical Defence. (Members are respectfully requested to fill up and return, without delay, the Form attached to the Memorandum on Medical Defence which has been sent to them.) (7) To consider Memorandum and Inquiry Forms *re* Contract Practice. (8) To consider the Proposed Medical Acts Amendment Bill, adjourned from last meeting. (9) Discussion on Some Points on the Prevention and Treatment of Tuberculosis, to be opened by Dr. James Craig, Llandudno. (10) Dr E. Lloyd, Bangor, will read notes on a Case of Mastoiditis and the value of a ¼ in. Trephine in opening up the Mastoid Antrum.—H. JONES-ROBERTS, Penygroes, Honorary Secretary.

NORTH WALES AND SHROPSHIRE BRANCH: SOUTH CARNARVON AND MERIONETH DIVISION.—The annual meeting of this Division will be held at the Cors-y-Gedol Hotel, Barmouth, on Thursday, May 26th, at 2 p.m. After the formal business of the Division, the following papers and communications will be read: J. Hill Abram, M.D.: Some Cases of Cerebral and Spinal Syphilis. H. Briggs, F.R.C.S.: (1) Notes and Drawing of Case of Placental Apoplexy; (2) Suppurative Salpingitis. G. P. Newbold, F.R.C.S.: Case of Excision of Caecum for Carcinoma. W. Thelwall Thomas, F.R.C.S.: Chronic, Non-malignant Stomach Troubles, treated Surgically. Luncheon at 1 p.m.—W. JONES-MORRIS, Is-y-Coed, Portmadoc, Honorary Secretary.

UTH-EASTERN BRANCH.—The annual meeting of this Branch will be at Eastbourne on Wednesday, June 22nd. Mr. J. H. Ewart, Presi- -elect. The following will be the agenda: 1. To elect the officers of Branch. (This will be done by voting papers sent to each member of Branch. Nominations by three members for the offices of President- t, Vice-Presidents, and Secretary may be sent to the Honorary Secre- on or before Monday, May 16th.) 2. To receive the annual report of Branch Council. 3. To consider the business of the annual Repre- ative Meeting. 4. To make new rules or alter or repeal existing rules. Larking gives notice that he will move, "That in the opinion of this ing the present South-Eastern Branch should be divided into two ches separated by a line running roughly between London and ings, and that the opinion of the Divisions concerned be obtained on uestion." 5. To transact any business that may be transacted by an ary meeting. N.B.—Three members to represent the Branch on the al Council will also be elected by voting papers.—T. JENNER ALL, 97, Montpelier Road, Brighton, Honorary Secretary.

UTH-EASTERN BRANCH: CHICHESTER AND WORTHING DIVISION.— annual meeting of this Division will be held at the Infirmary, thing, on Friday, May 27th, at 3.30 p.m. Mr. W. S. Simpson will ide. Agenda: (1) Minutes of the last meeting. (2) Election of ers. (3) To decide the place of next meeting. (4) To consider the pro- d Medical Acts Amendment Bill (adjourned from last meeting). (5) To ider suggestions of Ethical and Medico-Political Committees. (6) Dr. is and Dr. Morris will read papers. After the meeting a dinner will eld at Warne's Hotel.—H. C. L. MORRIS, M.D., The Steyne, Bognor, orary Secretary.

UTH-EASTERN BRANCH: FOLKESTONE DIVISION.—The annual meeting is Division will be held at Hotel Wampach, on Friday, May 27th, at . Agenda: To elect officers, the Representatives of the Division on Branch Council, and the ordinary members of the Executive Com- e. To receive the annual report of the Executive Committee. A ing of the Folkestone, Ashford, and Dover constituency will be held same day, at the same place, at 5 p.m. Agenda: To elect the Repre- tive in Representative Meetings of the Association. To elect a tary. To consider the business of the Annual Representative Meet- All members of the South-Eastern Branch are invited to attend the ings and to introduce professional friends.—PERCY V. DODD, 14, r Road, Folkestone, Honorary District Secretary.

TH-EASTERN OF IRELAND BRANCH.—The annual meeting of this h will be held at Kilkenny on May 25th. Agenda: 1. Minutes of annual meeting. 2. Election of officers.—RAYMOND W. ORPEN, nalstown, co. Carlow, Honorary Secretary.

TH MIDLAND BRANCH.—The annual meeting of this Branch will be at Winslow, Bucks, on Thursday, June 16th, under the presidency . Kennish. Mr. Horace Savory (Bedford) will read a paper on a Case enign Papilloma of Renal Pelvis; Haemothorax, Nephrectomy, very. Members wishing to read papers or show cases or specimens communicate with the Honorary Secretary not later than June 6th. HARRIES JONES, 45, Sheep Street, Northampton, Honorary Secretary.

TH MIDLAND BRANCH: AYLESBURY DIVISION.—The annual meeting is Division will be held on Thursday, May 26th, at 2.30 p.m., at the Bells Hotel, Bletchley. Agenda: (1) Minutes of the last meeting. consider and discuss the scheme of Medical Defence of the Associa- (3) Resolution by Dr. Easte on the granting of Medical Certificates ool Children. (4) To consider any further business or communica- Attention is directed to the form of undertaking appended to the sed scheme of Medical Defence, which, if approved, should be filled l forwarded to the Secretary. Luncheon (at 2 o'clock) will be pro- at the Hotel, price 2s. each. Members wishing to partake of the should inform the Secretary not later than May 23rd.—HORACE Melrose, Aylesbury, Honorary Secretary.

TH MIDLAND BRANCH: NORTHAMPTONSHIRE DIVISION.—The annual ng of this Division will be held at the Library, General Hospital, ampton, on Thursday, June 2nd, at 12 noon, under the presidency . Buszard. Agenda: Minutes of annual meeting, 1903. Election icers. To receive Divisional report. To discuss: (1) The question advertising of medical practitioners in connexion with hydropathic ishments. (2) Whether it is desirable that the medical witnesses ed on each side in legal cases should meet in consultation. (3) The tion of a Medical Defence Committee of the Association.—E. HARRIES , 45, Sheep Street, Northampton, Honorary Secretary.

TH WALES AND MONMOUTHSHIRE BRANCH.—Nominations for two ve members of the Central Council of the Association may be sent to dersigned on or before May 21st.—Dr. R. PATERSON, 15, St. Andrew's ent, Cardiff, Honorary Secretary.

TH WALES AND MONMOUTHSHIRE BRANCH.—The annual meeting of ranch will be held in the Board Room of the Infirmary, Newport, ne 9th, at 4 p.m.—D. R. PATERSON, Cardiff, F. G. THOMAS, Swansea, rary Secretaries.

TH WALES AND MONMOUTHSHIRE BRANCH: MONMOUTH DIVISION.— nnual meeting of this Division will be held in the Newport and y Hospital, on Friday, May 27th, at 3.30 p.m.; Chairman, Dr. J. W. gan. Business: (1) Minutes. (2) To elect officers, the Representa- f the Division on the Branch Council, and the ordinary members Executive Committee. (3) To elect the Representative of the Divi- n the Representative Meetings of the Association. (4) To receive nual report of the Executive Committee. (5) To consider the busi- f the Annual Representative Meeting. (6) To make new rules or or repeal existing rules. (7) Recommendation of the Medico- cal Committee: "Whether it is advisable that the medical wit- s engaged on each side in legal cases should meet in consultation." commendation of the Ethical Committee: "The question of the advertising of medical practitioners in connexion with hydropathic establishments be referred to the Divisions." (9) S. Hamilton: That all registered medical practitioners are entitled to use the title "Dr." (10) J. B. Coumbe: To call attention to the disadvantage to the profession and to the public of prescribing drugs under the protected titles "tabloid," "jelloid," "cocoid," etc. (11) W. D. Steele: To call attention to the poll of members of the Division on the question of Medical Defence. (12) Any other business.—W. J. GREER, 2, Chepstow Road, Newport, Honorary Secretary.

SOUTH WALES AND MONMOUTHSHIRE BRANCH: SOUTH-WEST WALES DIVISION.—The first annual general meeting of this Division will be held at Slipney Hotel, Llanelly, on May 31st, at 3 p m. Gentlemen who wish to read papers, or who have any communications to make, will please communicate immediately with the Honorary Secretary, GLANVILLE MORRIS, Mardy, Glamorgan.

SOUTH-WESTERN BRANCH.—The nomination of candidates for the office of elective members of Council (Branch Representatives on the Central Council) for the ensuing year, must be made by three electors, and in writing, on or before May 21st, to the Honorary Secretary of the Branch, Mr. C. YOUNG EALES, 1, Matlock Terrace, Torquay.

STAFFORDSHIRE BRANCH.—Notice is hereby given that nominations of a Representative of this Branch on the Central Council of the Association must be sent to me on or before Tuesday, May 24th.—E. PETGRAVE JOHNSON, Brook Street, Stoke-on-Trent, Honorary General Secretary.

STAFFORDSHIRE BRANCH.—The annual meeting of this Branch will be held at Wolverhampton, on Thursday, June 16th.—E. PETGRAVE JOHNSON. Brook Street, Stoke-on-Trent, Honorary General Secretary.

WORCESTERSHIRE AND HEREFORDSHIRE AND GLOUCESTERSHIRE BRANCHES.—Nominations for the election of a Representative on the Central Council for these grouped Branches must be sent, signed by three members, on or before May 31st, to Dr. G. W. CROWE, Worcester, Honorary Secretary.

YORKSHIRE BRANCH.—Preliminary Notice.—The annual meeting of this Branch will be held at Leeds on Wednesday, June 22nd. Members wishing to read papers or show cases or show cases or specimens are requested to communicate with the Honorary Secretary as soon as possible. Annual dinner at 6.30.—ADOLPH BRONNER, 33, Manor Row, Bradford, Honorary Secretary.

YORKSHIRE BRANCH.—Notice is hereby given that nominations of Representative Members of Council for this Branch must reach me not later than June 6th.—ADOLPH BRONNER, 33, Manor Row. Bradford, Honorary Secretary.

SPECIAL CORRESPONDENCE.

BERLIN.

Professor Lassar on Radium.—Post-operative Sanatoria.—The Berlin Municipal Hospital.—The Institution of School Medical Officers.

AT one of the last meetings of the Berlin Medical Society, Professor Lassar, the well-known dermatologist, gave an account of some radio-therapeutic experiments and demonstrated a number of cases. He had found radium very valuable in the treatment of surface tumours, and his observations had brought to him the conviction that certain morbid new growths could be cured by its use. Further, radium treatment presented no special difficulties, nor was it accompanied by any untoward by-effects. Roentgen-ray treatment, on the other hand, required great precautions, in order to avoid destruction of healthy tissues. Provided these precautions were observed, he had found Roentgen rays of the greatest assistance in the treatment of inflamed and proliferating skin diseases. He had succeeded in curing a number of head, ear, throat, and hand inflammations solely by application of Roentgen rays without any other medicament or drug, and, finally, in cases of new growth following on successful cancer operation he had been able to save the patient from what would otherwise have been hopeless sepsis. Professor Lassar demonstrated several cases of this character.

A new society has been formed, the aim of which is the erection of sanatoria for the open-air treatment of cases of bone and joint tuberculosis. This class has found no place hitherto in the great German sanatorium scheme, though the results obtained by the seaside sanatoria in France have shown the great improvement that can be effected by post-operative sanatorium treatment. In the year 1902 there were no less than 1,300 children with surgical tuberculosis in the four municipal Berlin hospitals, of whom 600 were unable to walk. It is satisfactory to know that the new Society has received contributions sufficient to enable it to begin building a sanatorium in the neighbourhood of Berlin.

During the year 1902-3 the Berlin municipal hospitals had

charge of no less than 36,039 in-patients, 2,746 more than in the previous year. There were 5,080 deaths during the year.

Interesting statistics concerning school children in Berlin have just been published—statistics which show how crying was the necessity for the institution of school doctors. At the beginning of Easter term this year all the children entering school for the first time—15,000 in number—were examined by school doctors—no light piece of work, as there are only thirty-six medical men appointed for the purpose. About 10 per cent. of the children were set aside as mentally or bodily defective, and were returned to their homes, and had their school career deferred for half a year or a year. Of these defective children, 25 per cent. suffered from general debility, 16 per cent. had not sufficiently recovered from serious illnesses, 5 per cent. were tuberculous, 15 per cent. suffered from severe anaemia, scrofulosis, or rachitis. About 10 per cent. were mentally defective. In former times—before the beneficent institution of school doctors—all these little "incapables" would have been admitted to school, and forced to attempt to keep up with the other children, with resulting great disadvantage to the healthy children in the classes as well as to themselves.

MANCHESTER.

Auxiliary Fund for Children's Hospital.—Sunday Hospital Fund.—Water Filtration.—Citizen's Association.—The Housing Question in Manchester and Surrounding Towns.—Nature Study for Poor Children.—Industrial Oxygen.

SOME eleven years ago the Ladies' Auxiliary Fund of the Manchester Children's Hospital was founded for the purpose of aiding the hospital by contributions from various districts. In all about thirty districts have been included in the sphere of influence, and this year £1,714 has been received from these districts. Annually for a number of years past there has been a large deficit in the income of the hospital, which has only in part been met by legacies and special donations.

The fact that many well-to-do citizens are ceasing to reside in Manchester itself is having a considerable effect in diminishing the contributions to the Hospital Sunday Fund, which has been steadily showing a downward tendency. The Committee this year propose to make a special effort to increase the fund by appealing to those merchants and others who have their places of business in Manchester and Salford. It is hoped that this supplementary fund will rectify the balance.

Dr. Thresh, Medical Officer for the County of Essex, delivered at Owens College one of the lectures promoted in connexion with the Public Health Department, the subject being Water Filtration. The process of filtration for the purification of water seemed he said to be of very recent origin. The remains of ancient aqueducts and reservoirs did not indicate that the engineers of Nineveh, Babylon, or Rome concerned themselves with this question. The first attempt to remove from water anything more than visible suspended matter appeared to have been made by one of the London water companies in 1829. The engineer of the Chelsea Water Company finding that the Thames water did not become clear by mere subsidence, experimented with sand filters. It was possible, however, that sand filtration had been used in Lancashire before that date. This simple sand filtration method was known as the English system. In America, where the water supply was chiefly from the rivers, the deposits in the water soon clogged the filters so that coagulants and mechanical filters had been introduced. The outbreak of cholera in Hamburg had led to more efficient study of the purification of water by scientific methods. Mechanical filters had been greatly improved in recent years, but in the case of water to which dangerous bacteria might gain access we were not yet in a position to say that such appliances could be trusted to remove them, whilst we knew that sand filtration could be so conducted as to form an absolute safeguard.

Some years ago there was founded in Manchester a "Citizens' Association for the improvement of the Unwholesome Dwellings and Surroundings of the People;" its work is already bearing fruit, partly in the publication of the investigations carried on to reveal the extent and character of unwholesome dwellings, partly in the diffusion of knowledge as to what is being done elsewhere, more especially in Germany. An interesting address was given on May 11th by Mr. Charles Booth, the editor of "The Life and Labour of the People," on the housing question as it affects great towns. The first thing was, he said, to educate the city authorities and the people. Essentially this is the advice of Marcus Aure who said "You will do the greatest service to the State if ou shall raise not the roofs of the houses, but the souls of e citizens."

In grappling with the overcrowding question Manchest is met by the difficulty created by what may be describe as "crowding of towns." Not only are the people crowded in e houses, and the latter crowded on the ground, but, in additn, the ring of towns by which Manchester is surrounded ren rs access to rural districts difficult. Each town and each vill e in prosperous Lancashire requires "expansion." Th should be a well-thought-out plan for this expansion, an a comprehensive policy which will deal, *inter alia*, with e following problems. It should include extended inspecti, fuller use of powers for municipal building, stimulation f private enterprise in the same direction, acquisition o s much land as possible, extended powers over and rating f unoccupied land; finally, though really first, greater pern nence of position and more exact knowledge of the questi s to be dealt with on the part of municipal officers, coupl with the appointing of special commissions to consider e needs of the locality and make recommendations. An portant question is the provision of cheap means of locor tion. There is a very evident connexion between housing a locomotion. Only when there has been proper expansion sites in the outskirts can the older parts be made rea habitable.

In the poorer districts of Manchester there are at le 20,000 children of school age who, unless special provision made, are not likely to get into the country for that refre ment of body and mind and that close touch with Natu which is recognized as an annual need. Already there is partial provision by means of the various country or seasi camps. A new departure is being made whereby batches 80 boys or girls will go to the country with two or three the children's own teachers for a fortnight or three weel They will carry on a modification of their ordinary scho work, giving much time to object lessons on their rambl and to open-air pursuits of various kinds. This is the fi attempt, in England at least, to bring Nature and dire Nature studies to bear on the lives of poor school childre It is conceived on the right lines, and must prove, if t necessary funds are forthcoming, of both social and educ tional importance.

An important series of experiments is being conducted Manchester as to the possibility of the industrial productio of liquid air, according to the method proposed by Profess R. P. Pictet of Geneva, and the separation of its oxygen an nitrogen by fractional distillation. The experiments are a present incomplete, but from the results already obtained seems reasonable to anticipate that the manufacture of liqui air may shortly be transferred from the laboratory to th ordinary workshop, and liquified air be thus put upon th market for the innumerable purposes to which it would len itself.

CORRESPONDENCE.

TREATMENT OF INEBRIETY BY DRUGS.

SIR,—In your issue of May 14th Dr. Donald severel criticizes my article, The Treatment of Inebriety by Atropine which appeared in your issue of April 30th. As I think it would serve no useful purpose to take up the implied accusa tions one by one I will pass these; I simply wish to reassert that I have given the results of an experience lasting over fourteen years, and I do not think that any *a priori* argument that such recoveries could not take place can alter the facts as they stand. Any medical man, of course, who is willing to take the trouble to give the treatment a fair trial can judge for himself.

I venture to think that the best reply I can give is to quote yet another case. Over three years ago Mr. H. entered my home for the treatment of inebriety. Family history extremely bad as regards heredity. Owing to exceptional skill in his calling he had risen rapidly until he was the possessor of a large and lucrative *clientèle* at one time, but which was subsequently sacrificed by his intemperate habits. He was placed in a home of restraint for twelve months, where, according to his own statements, he was allowed no liberty whatever. He arrived home on his release in a state of intoxication, although the distance to be travelled was only a short one, and as a result of this outbreak attempted to take

own life. From the moment of entering my home he yed the fullest liberty and was subject to all the tempta- s of London's daily life during his six weeks' stay; his uct throughout treatment and his subsequent career con- ively proved the efficacy of the drug. During the three s' interval he has suffered many domestic afflictions, the ax being reached about ten months ago when he lost a ig wife. During that wife's illness he lost many nights'), although he was unable to absent himself from his r arduous employment, consequently he became very usted, yet, although he had to administer the alcoholic ulants prescribed by the doctor in charge, neither ety, exhaustion, grief, nor worry caused a relapse. Being an employé it is part of his daily duty to provide iolic beverages for his employers' customers while trans- g business in his private office. In a recent letter to me akes use of this striking expression, "I thank God daily the terrible craving for alcohol, which at one time I was ly unable to resist, was completely removed by your ment." This is by no means an isolated case.

rely any fair-minded man would hesitate before calling a "faith cure," or speak of it as "trading upon a patient's ility."—I am, etc.,

C. A. McBRIDE, M.D., L.R.C.P.&S.Edin.,
16th. Medical Superintendent, Norwood Sanatorium.

,—In your article under the above heading which ared on April 30th, you state that "in certain cases the ment, of which atropine appears to be the essential re, has been successful in weaning drunkards from their cious habit." Permit me, as one who has devoted y years to the clinical study of inebriety, to say a word is important subject.

ave never known a single case of "inebriety" perma- y cured by drug treatment. I can quite understand a nkard" being, as you put it, "weaned from his perni- habit" by treatment made up of drugs and faith cure, drunkard is not necessarily an "inebriate." The terms ot convertible. A man may take alcoholic drink to s for years and years without becoming an inebriate. satisfactory to find that by degrees the teaching of enjamin Richardson and Dr. Norman Kerr is beginning r fruit as regards this important differentiation.

briety is a physical disease involving certain parts of rain substance, the "will centre" being invariably one e parts damaged. Drunkenness is a vicious habit may lead to this result or it may not. In dealing the mere drunkard you have only to think of a "per- s habit" (to use your careful expression); but in the f the inebriate you have to deal with a pathological ion.

physician could be induced to believe that the functions h centres as are involved in cases of inebriety were ever ed by the exhibition of gold or atropine, or any other

method of treatment which commends itself to the ific mind and which, in my experience, furnishes the esults may be put shortly as follows: (1) Get your t to realize that part of his brain substance is the seat lefinite disease, the result of alcoholic poisoning. n to him that the function of the portion so damaged e taken up by a set of brain cells requisitioned for the e. Let him understand that the process by which this erence of function is accomplished is an extremely cated one, and that Dame Nature works very slowly in g such a change. (2) Place him for at least a year he will be constantly and systematically protected is enemy, to avoid the slightest risk of Nature being red with in her work as the taking of even the smallest ty of alcohol will arrest the reparative process. See that n these favourable surroundings (from which all alcoholic ges are rigidly excluded) his general health is improved exhibition of tonics and other appropriate treatment, at a higher moral tone is cultivated by elevating asso- in domestic life. (3) Enjoin upon himself, and with mphasis on his relatives, how necessary it is that he ecome an absolute teetotaller for the rest of his life.

ing through the records of the last 200 cases treated at nurry," I find that 41 (upwards of 20 per cent.) had pre- submitted to the "gold cure" or other drug treat- Every one of these patients stated that the benefit l had been of quite a temporary character.

nclusion, I would urge upon my medical brethren to age in every way the use of "inebriety" and "drunkenness" as convertible terms. Disease and vice are found close together, but they should not be confounded the one with the other by the scientific physician.—I am, etc.,

Clifton, May 16th. JAMES STEWART, B.A., F.R.C.P.Ed.

THE BACTERIOLOGY OF ACUTE RHEUMATISM.

SIR,—I gather from Dr. Poynton's paper, The Infective Nature of Rheumatic Fever, Illustrated by the Study of a Fatal Case, that an essential part of his argument is, that the illness from which the patient suffered in July, 1902, was acute rheumatism as ordinarily understood. The facts of the case given in the History of the Early Attack are: (1) A girl, aged 9 years, was admitted into hospital in July, 1902, suffering from chorea and active heart disease; (2) a week before admission she had painful swellings of the wrist joints; (3) the attack commenced six weeks before admission with vomiting and pains in the limbs, and (4) this was her first attack of rheumatic fever, and there was no family history of rheumatism. This account is certainly highly suggestive of acute rheumatism, but I venture to think the facts stated in the history are not sufficiently conclusive to warrant a dogmatic assertion that it was so. A combination or sequence of endocarditis, arthritis, and chorea may be due to many other causes than rheumatism, and of these scarlet fever is the most frequent.

I have seen instances in children of apparently slight scarlatinal arthritis and endocarditis followed later by fatal malignant endocarditis. Suggestive features against the attack in question being true rheumatism are:

(*a*) The mode of onset. I have paid particular attention to rheumatism in children for a good many years, and I can certainly say that I have never come across a case beginning with vomiting.

(*b*) There is no history of pains or swelling in the joints until five weeks subsequent to the onset, when the wrist joints were found to be swollen.

It is unusual for the wrist-joints to be involved in first attacks of rheumatism in children; such justifies the inference that the patient has suffered from rheumatism before, or that other joints have been previously involved in the same attack; otherwise it arouses the suspicion that the arthritis is not true rheumatism.

In scarlatinal arthritis, however, the wrist-joints only are commonly attacked.

(*c*) It is very rare to meet with a case of true rheumatism in a child in which arthritis is at all marked, with no family history of rheumatism. It is to be regretted that fuller details of the previous history are not given, for without them it appears quite as justifiable an inference that this child had slight unrecognized scarlet fever, followed in the fifth week by endocarditis, arthritis, and chorea. If that is so, the "history of the fatal illness," the features of which were those of malignant endocarditis, falls into line.—I am, etc.,

Southall, May 16th. J. D. WINDLE, M.D.

THE ASSOCIATION AND MEDICAL DEFENCE.

SIR,—One of the original objects for which the British Medical Association was founded was "the maintenance of the honour of the profession." Surely this object cannot be better attained than by undertaking the defence of individual members when unwarranted and malicious attacks are made upon them; and I cannot agree with Dr. Taylor when he says that in doing this the Association is going beyond its province.

One great objection to the defence scheme is the question: "What is to become of the existing medical defence societies, and the defence of those who are not members of the Association?" If these societies are unwilling or unable to amalgamate with the Association, there still remain, roughly, 15,000 medical men for them to defend. If, on the other hand, these societies decide to merge themselves into the British Medical Association, would it not be possible to allow those medical men who are not members of the Associatiod to avail themselves of the privileges conferred by the medical defence scheme on payment of an annual subscription of 10s.? Later on, when the Association is in a position to undertake the medical defence of all its members at the present subscription of 25s., these non-members would still continue to pay 10s. per annum.

It would be a simple matter to ascertain the feelings of members on this point by bringing it forward for discussion at the various Divisional meetings.—I am, etc.,

Putney, May 15th, S. VERDON-ROE, M.R.

THE FEE FOR RESTORATION TO *MEDICAL REGISTER*.

SIR,—Since I am responsible under the name of "Index" for raising the question as to the legality of the fee of £1 charged by the General Medical Council, I beg permission to comment on the opinion given by Dr. Bateman on the matter in the BRITISH MEDICAL JOURNAL of May 14th.

I notice that he bases the legality upon the circumstances that restoration and registration are identical for the purposes of the Act. In doing so he practically commits himself to the fact that a medical man is liable to a loss of £5 for failing to answer a letter sent under the following Section XIV of the Medical Act (1858):

> It shall be the Duty of the Registrars to keep their respective Registers correct in accordance with the Provisions of this Act and the Orders and Regulations of the General Council, and to erase the Names of all registered Persons who shall have died, and shall from Time to Time make the necessary Alterations in the Addresses or Qualifications of the Persons registered under this Act; and to enable the respective Registrars duly to fulfil the Duties imposed upon them it shall be lawful for the Registrar to write a Letter to any registered Person, addressed to him according to his Address on the Registrar, to inquire whether he has ceased to practise, or has changed his Residence, and if no Answer shall be returned to such Letter within the Period of Six Months from the sending of the Letter it shall be lawful to erase the Name of such Person from the Register; provided always, that the same may be restored by Direction of the General Council should they think fit to make an Order to that Effect.

Assuming for the moment that Dr. Bateman be correct, this liability of the practitioner to lose £5 may occur again and again, for there is no fixed period when any individual practitioners may expect to receive any said "letter;" nor, indeed, strange as it may seem, need so important a document be even registered through the post.

With the judgement of one so versed in legal matters as Dr. Bateman it is with great diffidence I disagree; but I must hold that to regard registration and restoration as similar from a legal point of view is, to my mind, unduly straining the significance of terms. At the time of registration a medical man pays—shall I say for clearness, purchases?—certain State privileges. To promote the correctness of the *Register* he may in some time be sent the "letter" referred to in the section quoted. Should he fail to respond to so uncertain and fitful a communication—a communication which may be transmitted the day after, or ten years subsequent to his registration—according to Dr. Bateman's reasoning, he forfeits the privileges he paid £5 for. Surely this is an unreasonable interpretation to put upon the Section; re-registration, not restoration, would then have been the term used, if such meaning were implied.

Is it not more logical to argue that, pending the practitioner's application for restoration and the production of evidence that the said candidate for restoration is the identical individual whose name originally appeared at a definite address on the *Register*, the privileges of the individual are merely suspended and not confiscated; in short, that his restoration is a restoration to the privileges conferred by the Act. Section XIV was clearly framed to enable the registrars to keep their respective *Registers* correct, and to me, at least, it appears guiltless of the penal intent which Dr. Bateman's reading would give it.

This view would seem to me to be the more reasonable, since not a word is mentioned in the section as to the powers of the Council to levy a restoration fee; differing indeed from every other case such as primary registration and the registration of additional qualification where the powers of the Council are specifically defined as to its authority to impose fees.

While on this subject it is interesting to note that it was only last year that the General Medical Council raised the fee for restoration and the registration of additional qualification from 5s. to 20s. each, and at a time coincident with its debates on the acute financial crisis through which it is passing. If Dr. Bateman's views therefore harmonize with those of the Council the way is easy to the recoupment of its treasury at the expense once more of the practitioners; for, with the means thus given of erasing and restoring under Section XIV another £2,000 or so per annum could easily be realized, as the idea is capable of vexatious development.

What is now £1 restoration fee may ultimately, if Dr. Bateman be correct, be £5, with the Council's increasing exigencies. It is with the object therefore of directing immediate attention to the matter that I raise the question of the legality of the General Medical Council in imposing the fee.—I am, etc.,

S. WESLEY WILSON,
Late Registrar Medical Council, Ireland.

London, May 14th.

THE MEDICAL PROFESSION IN PARLIAMENT

SIR,—It has frequently been pointed out in the me press how very deficient our profession is in regard to u action and political representation, particularly in refer to those hygienic questions which so closely concern the well being of the State, and upon which only medical men are to speak authoritatively.

In almost every session of Parliament matters of publi terest bearing upon the health of the people are raised, for want of expert representation, give only academic terest. It is often felt—and occasional advice in this d tion is offered—as year by year medicine becomes mo science for the prevention of disease than for its cure, there should be numerically a more authoritative repres tion in Parliament than heretofore in regard to matte State sanitation. It has even been suggested that t should be a Minister of Public Health. The questions o fant mortality, the prevention of infectious and contag diseases, vaccination, the adulteration of food, the effects of overcrowding; also the care of the insane, education of midwives, and the State registration of nurs all these questions bear closely upon the greatest asse the State—namely, the vigour, energy, and the health o people.

The present medical members of Parliament have each all rendered valued service to the utility as well as to the fluence of medicine, and they have greatly tended to r the standard of debates upon medical matters. Is it much to hope that those occupying seats of distinct such as the Presidents of our Colleges of Physicians and geons, the Regius Professors of Physic at the universiti not to mention the illustrious men who, *facile princ* in their own special department, are enjoying a digni retirement from active professional work—may be indu to sit in Parliament, as is done with so much good effe some of the Continental Legislatures? Our universi which establish general curricula of education might wel proud of such representatives, and—if I do not anticip the opinion of teachers—medical as well as general educa needs revision. The London University and those of E burgh and St. Andrews are both honoured by their pres distinguished medical representatives. The Universities Glasgow and Aberdeen will at the next election need a r representative, and their medical graduates constitute powerful and numerous class.

The general election is not far distant, and Parliamentary representation may be worthy of the consideration of Council of the British Medical Association, which in past has done so much, not only for the dignity of the p fession as a whole but also for the interests of its memb individually.—I am, etc.,

A UNIVERSITY VOTER

May 14th.

POOR-LAW MEDICAL RELIEF IN SCOTLAND.

SIR,—A propos of Dr. Bruce's letter relative to uncertif deaths in the Highlands and Islands of Scotland, it may well to indicate that if the Departmental Committee h felt disposed to interrogate the medical officers, who necessity frequently come into contact with the registra they would have obtained evidence proving that expense a distance from the doctor were not the only reasons for t enormous number of uncertified deaths, many being reg tered where the fees were neither prohibitive nor the peo unable to pay, and others when the deceased did not live from the doctor.

In my own case expense is never thought of. Those w do not pay and never intend to pay are the readiest to dema my services, and get them, and from the farthest distance too, the idea being that "the parish doctor is bound attend when called upon."

The Committee would probably have found also that in certain percentage of deaths, when the registered medic practitioner in the district had refused to give a certificate death, the cases had been treated and supplied with med cine by "skeelful persons," men who have received no medic training whatever, and who take up such work as pastime.

Cases could, I am sure, be instanced by parish councillo

here old people as soon as they get past work are "clapped
1 the Board" by their relations, who seem to lose all affec-
on for these old people, and regard them as stumbling
ocks in their daily life; so, when death claims them, it is
oked upon as a "happy release" for all concerned.
Where the pauper is no relation to the custodians, one
uld go a little further and suggest that the carelessness is
uch increased; and if the pauper takes ill and seems likely
die, "Why, there's nae need to fetch the doctor; let he
e in peace."
Fatalism, too, is strong in these remote parishes, and
nds to develop the virtue of resignation somewhat too
uch. "It's the will o' the Almichty."
The evidence with regard to uncertified deaths is eloquent
stimony, so far as it goes, and, being derived in part from
alted personages intimately connected with the parish
uncil view of the whole question, will naturally be
cepted with greater credence than that of officials who
e closely in touch with the registration of deaths. But
.ve these gentlemen probed the matter to the bottom? I
ncy the medical officers and registrars could furnish
idence to corroborate what I have said.—I am, etc.,
May 16th. A Parish Doctor.

HE INTRUSION OF THE LAYMAN INTO MEDICAL PRACTICE.

SIR,—I concur with everything stated by Dr. Lewis Jones
d Dr. Gerald Garry. At the same time I wish to point out
e fact that the medical profession have to contend with
qualified laymen in every branch of the healing art. A
ference to a popular monthly magazine for the present
nth will prove that I am right in making that assertion.
A much-advertised saline is said to "rectify the stomach
d make the liver laugh with joy"!
A tonic, named after one of our most celebrated hospitals,
ctually assists in the digestion of food and quickly
engthens the organs concerned."
A company advertise that imperfect noses can be corrected
an absolutely painless method; that double chins, droop-
cheeks, and wrinkles in the face about the eyes or mouth
n be removed.
Another company states that drunkenness can be cured in
hort time by taking its remedy in tea, coffee, or food. A
nufacturing company recommends "vibration" as the
atest treatment in the world for nervousness, indigestion,
stipation, rheumatism, gout, torpid liver, sluggish circu-
ion. and lung troubles.
A "Doctor" Rice—whose name I have failed to find either
the *Register* or the *Medical Directory*—tells us how hun-
ds of sufferers have cured themselves of rupture at home
a slight expense.
A scientist, called Professor W. C. Wilson, has invented a
storer" known as "Actina," through which all affections
the eye and ear, such as blindness, granulated lids,
aracts, sore eyes, deafness, etc., are cured without cutting
drugs.
The Dr. G. McLaughlin Co.'s "Electro-vigour cures nervous
orders, weak back, lumbago, rheumatism, stomach, liver,
ney, and bowel troubles, 'come-and-go' pains, and that
d feeling, after every other treatment has failed."
The Magic Foot Draft Co. profess to cure rheumatism
ough the feet without medicine.
The Surrey Treatment Co. says that alcoholic excess,
comania, and resultant nervous diseases can be cured at
patient's own home by the now-recognized Surrey treat-
nt.
The Antipon Co. say they permanently cure corpulence,
renew strength and vitality.
Aulvermacher's Galvanic Establishment say that their
tric belt cures indigestion, constipation, biliousness, and
forms of liver complaint. Rheumatism, gout, sciatica,
lumbago are speedily removed by its use. It proves an
ailing remedy for kidney troubles, pain, and weakness in
back. Its use revives health in delicate women, while
every kind of nervous weakness or exhaustion and
eral debility in men and women it is a sure and certain
e.
The Trilene Company advise all fat people that they can be
ed by taking their Trilene tablets, and state that they are
only cure for stoutness registered by Government!
We cannot help feeling, Sir, that a certain amount of
onsibility rests on the managers of journals and news-
ers in allowing such extraordinary statements to appear
in their advertisements. The modern notion seems to be—insert honest advertisements if you can, but get advertisements at any cost.—I am, etc.,
Cardiff, May 10th. T. Garrett Horder.

OBITUARY.

WILHELM HIS,

Professor of Anatomy, University of Leipzig.

The brief announcement of the death of Professor His, in the British Medical Journal of May 14th, came as a shock and surprise to the majority of the scientific workers of this country; but to his more intimate friends his failing health had for some time been apparent, and he passed away after much suffering on Sunday morning, May 1st.

Wilhelm His was born at Basle in 1831, and in Basle commenced his medical studies in 1849. In the year following he moved to Berne, where he had some relatives connected with the university of that city. Here Theile taught anatomy, Valentin physiology, and Bernard Studer geology. From 1850 to 1852 he was at Berlin, and came under the influence of Johannes Müller and Remak. He was much impressed by the great biologist, whose lectures on human and comparative anatomy were at that time perhaps unequalled. Indeed, Professor His has left it on record that the first lecture of J. Müller which he attended was a perfect revelation in the way of teaching and erudition. It was, too, from Müller and Remak that he learnt the elements of embryology, and thus laid the foundation for the great work which he was destined to carry out in the future.

From Berlin he went to Würzburg, where he stayed three terms (1852-1853). Here he came under the notice of Virchow, and worked in his laboratories. Shortly afterwards in 1854 he returned to Basle to complete his examinations, and then proceeded to Paris. In Paris he met Claude Bernard and Brown-Séquard, and worked for some time in the laboratory of the Collège de France. In 1857 he became a Privatdocent under Professor Meissner, and in the same year, when only 26, he became, through Meissner's promotion to Freiburg, Professor of Anatomy and Physiology in his native town. Owing to his youth and natural modesty he was somewhat diffident of his powers for carrying on the work of the two subjects, but the Chancellor of the University, Herr Peter Merian, remarked to him, "Wir haben sie ins Wasser geworfen, sie mögen nun zusehen, wie sie schwimmen," or, "We have thrown you into the water, see to it that you now swim." It is well known how brilliant his career has been and how richly his labours have been rewarded in that realm of science over which he held almost sovereign sway, but Professor His has told us, however, in allusion to the remark of the Chancellor, that several times in the first year after his appointment, when day by day he was engaged in preparing for one or two lectures, demonstrations, and experiments, etc., that "Das Wasser ging mir allerdings weit an den Hals herauf," or that in other words he often felt like drowning.

He remained in the University of Basle until 1872, when he succeeded E. H. Weber as Professor of Anatomy and Director of the Anatomical Laboratories in the University of Leipzig. Simultaneously with his appointment W. Braune, Weber's son-in-law, became Professor of Topographical Anatomy in the same University. These two men, differing in age only by a few days, but differing markedly in their general temperaments, became very close friends, and on the death of Braune in April, 1892, the loss was felt by His to be well-nigh irreparable. His's work was done first in the old, then in the new, buildings of the institutes at Leipzig. The new buildings were erected under his supervision, and have become a model for successive generations.

With regard to his original work, it may be said at once that he contributed valuable papers to nearly every department of anatomy, but it is as an embryologist that he is best known in this country, where his name has been familiar to every medical student of the last twenty years.

In 1885 he completed the monumental work which he published under the name of *Anatomie menschlicher Embryonen*, and which has formed the basis of all subsequent textbooks dealing with embryology. His monographs and miscellaneous papers exceed one hundred in number.

In 1897 Professor His was present at the summer meeting in Dublin of the Anatomical Society of Great Britain and Ireland, and at the invitation of the Royal Academy of Medicine of Ireland delivered an address in the theatre of the Royal Dublin Society on the Development of the Brain. On

that occasion he summed up in a masterly manner the general principles underlying the organization of the brain, and illustrated his lecture by blackboard sketches, which were afterwards photographically reproduced in the *Transactions* of the Royal Academy of Medicine in Ireland. In July, 1901, Professor His celebrated his 70th birthday, and was the recipient of numerous congratulations and good wishes. A most cordial greeting was sent by the Anatomical Society congratulating him, and wishing for him a long continuance of health and strength.

Grievous though the loss of such a man must be, we have not to mourn in him a life cut short, for its promise has been amply fulfilled. Wilhelm His when he died had done his work, and has left a legacy of enormous scientific value behind him.

FRANCIS CUBBON ROGERS, F.R.C.S.Edin.,

Chairman of the Dartford Division of the South-Eastern Branch of the British Medical Association.

THE sudden death of Dr. Francis Cubbon Rogers, of The Firs, Belvidere, Kent, was a great shock to the neighbourhood and will be the source of continued regret to his very numerous friends. Born only forty years ago, Dr. Rogers enjoyed excellent health up to the beginning of this year, when he had an attack of influenza, and did not entirely shake off its effects. He had recovered sufficiently to resume active work, but the onset, a few days before his death, of some precordial pain, though quite of a passing character, had led him to speak of making arrangements to go away for a short change of air. The evening of the day upon which this project was seriously discussed he was, while engaged in his surgery, seized by an attack of angina pectoris. This, in spite of assistance immediately furnished by his friends, Drs. Good and Baddeley, terminated fatally in less than an hour.

Dr. Rogers was the son of Mr. Alfred Rogers, of Manchester, and received his medical education at Owens College in that city, and after becoming L.S.A., took work as assistant in Stockport. Afterwards he proceeded to Scotland, where in 1892 he received the diplomas L.R.C.P., L.R.C.S.Edin., and L.F.P.S. and L.M.Glas., to which in 1901 he added the Fellowship of the Royal College of Surgeons of Edinburgh.

For several years after completing his professional studies he practised in Stockport, having succeeded to the practice in which he commenced work as assistant. During this period he entered the Town Council of the Borough and helped to bring about some useful reforms. In 1901 he came south, and on December 16th of the same year succeeded the late Dr. John Elliot as Medical Officer of Health for the district of Erith. Upon the foundation of this appointment he soon built up a large general practice. He included therein a number of clubs, and was Honorary Surgeon to the Erith Cottage Hospital, Divisional Surgeon of the Metropolitan Police, and Medical Officer to the Royal Alfred Institution for Merchant Seaman. He also held a Surgeon-Captaincy in the 3rd Kent Artillery Volunteers. Being a man of great mental and physical activity, and possessed of a singularly genial disposition, his value and work were quickly recognized by his colleagues; a fact which, although he was, comparatively speaking, a newcomer, led to his election as Chairman of the Dartford Division of the South-Eastern Branch of the British Medical Association.

His funeral took place at Urmston, near Manchester, on the last day of April, and was attended by representatives from the Erith Urban District Council and the Stockport Medical Society. At a special meeting of the former body, held subsequently, a resolution was passed recording the high opinion of the Council of the zeal and ability exhibited by the deceased in its service, and stating that his death was a loss to the whole district. Dr. Rogers left a wife and three little girls, with whom very great sympathy is felt.

FORMER students of University College, London, will hear with regret of the death of Professor ALEXANDER WILLIAMSON, Emeritus Professor of Chemistry in that school. Dr. Williamson, who was in his 80th year, was elected a Fellow of the Royal Society in 1855, and was Foreign Secretary of the Society from 1873 to 1889. He was a Past President of the British Association for the Advancement of Science.

THE Treasurer of the British Medical Benevolent Fund, Dr. Samuel West, desires to make grateful acknowledgement of the receipt of a donation of £25 from the St. Andrews Graduates' Association, being one-half of the balance in hand at the date of its dissolution.

ROYAL ARMY AND NAVY MEDICAL SERVICES

ROYAL NAVY MEDICAL SERVICE.

STAFF SURGEON C. M. BEADNELL is promoted to be Fleet Surgeon, May 13th. He was appointed Surgeon, May 13th, 1886, and Staff Surgeon, May 22nd, 1896. He volunteered for active service in the American-Filipino war, was with General Lloyd Wheaton's column, and was present at the battles of Caloocan and Malinta in 1899 (mentioned in dispatches as having rendered invaluable aid to the wounded under fire, thanked by the principal operating surgeon for surgical work in the military hospital); was with Lord Methuen's Division in South Africa, and was at the battles of Belmont, Graspan, Modder River, Magersfontein, and Paardeberg (mentioned in dispatches for invaluable aid under fire at Graspan, promoted to be Staff Surgeon, with eight years' seniority, for services during the war).

Surgeons A. E. MEREWETHER, M.B., W. S. H. SEQUEIRA, M.B., J. G. REED, and W. G. MATHEW, whose first commissions are dated May 13th, 1896, are promoted to be Staff Surgeons, May 13th. Staff Surgeon Reed, whilst Surgeon of the *Algerine*, was at the taking of the Taku Forts in 1900, being on duty at the time in a temporary hospital between the attacking ships and the forts (China medal with clasp). He accompanied the first water party for the relief of Tientsin. The other officers mentioned have no war record.

The following appointments have been made at the Admiralty: JOHN MENARY, M.D., Fleet Surgeon, and JOHN A. KEOGH, B.A., M.B., to the *Theseus*, May 11th: HERBERT H. PEARSE, Surgeon, to the *Fire Queen*, additional, for Portsmouth Dockyard, May 20th; WILLIAM M. KER, M.B., Surgeon, to the *Britannia*, May 26th; MALCOLM CAMERON, M.B., Surgeon, to the *Wildfire*, May 22nd.

Fleet-Surgeon S. S. O'GRADY has been promoted to be Deputy Inspector-General, from February 18th, 1904. His previous commissions are thus dated: Surgeon, March 31st, 1877; Staff-Surgeon, March 31st, 1889; and Fleet-Surgeon, December 6th, 1893.

ROYAL ARMY MEDICAL CORPS.

COLONEL (temporary Surgeon-General) W. F. STEVENSON, M.B., C.B., is continued on the active list as a supernumerary to the establishment, under the provisions of Article 473 of the Royal Warrant of October 20th, 1900.

The temporary rank of Colonel granted to Lieutenant-Colonel A. W. INMAN, M.B., while officiating as Principal Medical Officer of a district in India, has effect from March 16th.

Lieutenant-Colonel J. G. MACNEECE, now stationed in Dublin, has been appointed Principal Medical Officer on the Dublin District Staff, vice Lieutenant-Colonel G. A. Hughes, D.S.O.

Lieutenant-Colonel C. R. BARTLETT has been appointed Senior Medical Officer, West Africa.

Lieutenant-Colonel J. M'GANN, retired pay, has been appointed Medical Officer, Dublin Military Prison.

The undermentioned Lieutenants are confirmed in that rank: F. C. LAMBERT, B. G. PATCH, T. J. WRIGHT, A. C. OSBORN.

CHANGES OF STATION.

THE following changes of station amongst the officers of the Royal Army Medical Corps have been officially reported to have taken place during the last month:

	From.	To.
Lt.-Col. W. T. Johnston, M.D.	Dublin	Belfast.
,, F. B. Maclean	Punjab	Canterbury.
,, A. O. Geoghegan, M.D.	Bengal	Chester.
,, C. G. D. Mosse	Southampton	Winchester.
,, A. V. Lane	—	Glasgow.
,, J. Carmichael	Punjab	Dublin.
,, C. R. Bartlett	Hounslow	West Africa.
,, R. J. Geddes, M.B., D.S.O.	Edinburgh	Maryhill.
Major H. N. Thompson, M.B., D.S.O.	Bengal	Aldershot.
,, S. N. Cordozo	Bombay	Portsmouth.
,, S. Powell, M.B.	China	Aldershot.
,, H. E. Cree	Madras	Dover.
,, A. P. H. Griffiths	Bombay	Chester.
,, H. Cocks, M.B.	Cork	Fermoy.
,, J. J. O'Donnell, M.B.	Bengal	York.
,, C. J. MacDonald, M.D.	Crete	Malta.
,, D. M. O'Callaghan	Bedford	Colchester.
,, H. C. Thurston, C.M.G.	Bermuda	Home District.
,, C. A. Young	Dublin	Enniskillen.
,, J. C. Weir, M.B.	Punjab	Home District.
,, E. C. Freeman	Gosport	Colchester.
,, J. Girvin	Home District	Guildford.
,, R. W. H. Jackson, M.B.	Dublin	Cork.
Captain T. M'Dermott, M.B.	Dublin	Curragh.
,, G. S. Mansfield, M.B.	2nd Gr. Gds.	Home District.
,, St J. B. Killery	Scots Guards	,,
,, J. R. M'Munn	Curragh	Dublin.
,, H. A. Berryman	1st Co. Gds.	Home District.
,, P. Evans, M.B.	1st Gr. Gds.	Aldershot.
,, L. Addams-Williams	Exeter	Bristol.
,, H. G. Martin	Madras	Dublin.
,, J. D. G. Macpherson, M.B.	Bengal	South District.
,, G. B. Carter, M.B.	Punjab	Aldershot.
,, R. A. Cunningham, M.B.	Malta	Crete.
,, L. N. LLoyd, D.S.O.	1st Irish Gds.	Home District.
,, C. S. Smith, M.B.	Gren. Gds.	Aldershot.
,, A. J. M. Cuddon-Fletcher	Scots Guards	Home District.
Lieutenant J. E. H. Gatt, M.D.	Curragh	South Africa.
,, J. B. Meldon	Aldershot	Madras.

Lieutenants F. C. Lambert and B. G. Patch, appointed on probation January 31st last, are stationed at Woolwich.

Lieutenant-Colonels H. G. Hathaway and J. R. Dodd, M.B., have been selected for increased pay under Article 362 of the Royal Warrant.

ARMY MEDICAL RESERVE.

SURGEON-LIEUTENANT A. A. MACKEITH to be Surgeon-Captain, April 28th.

Surgeon-Captain J. M. H. MARTIN, M.D., to be Surgeon-Major, May 4th.

ARMY MEDICAL STAFF.

rgeon John Mulrenan, M.D., died at Limerick on March 20th last. joined the department as Surgeon, February 3rd, 1878, and retired on lf pay, May 14th, 1885.

ssistant Surgeon Robert William Woollcombe died at Westbury-on-rn, Gloucestershire, on March 7th. He was appointed Assistant rgeon, March 28th, 1845, and went on half pay, February 1st, 1857.

INDIAN MEDICAL SERVICE.

ors J. H. T. Walsh, H. Hendley, and W. G P. Alpin, M.D., of the dgal Establishment, and who entered the service as Surgeons, April 1884, are promoted to be Lieutenant-Colonels from April 1st. Their records are as follows:— Lieutenant-Colonel Walsh, Burmese Expe-on, 1885-7 (medal with clasp). Lieutenant-Colonel Hendley, Soudan mpaign, 1885, (medal with clasp, and Khedive's bronze star), and Bur-e Expedition, 1886-8 (medal with two clasps). Lieutenant-Colonel in, Soudan Campaign in 1885, including the action at Tofrek (medal h two clasps, and Khedive's bronze star)

olonel J. S. Wilkins, D.S.O., Bombay Establishment, Principal Medical cer, Aden District, has been granted leave out of India for six months private affairs.

IL writes: The pay and prospects of officers of the Indian Medical rvice in civil employ still being "under consideration," it will per-ps not be out of place to once again bring to notice the improvements hich must be introduced if the service is to be rendered content. ey are:

1. That the Director-General India Medical Service shall be a member the Viceroy's Legislative Council, and that the Surgeon-Generals ith the local governments shall be members of the local legislative uncils.

2. That the pay (of course exclusive of any local allowance) of officers civil employ shall under no circumstances be less than that which ey would receive in military employ.

The appointment of the Director-General and of Surgeon-nerals to be members of the legislative councils of their spective governments must almost inevitably lead to a ore effective medical department, and to a clearer under-nding between the Government and its medical department. It obvious that a man who has devoted his life to the study of medical tters is better able to advise the Government with regard to the chnique of the medical department than any one else, but unless he a member of Council his advice cannot carry due weight.

The importance of representing the various departments on the uncil by an expert is recognized by Government, as indicated by the pointment of members of other departments—namely, Educational partment—to a seat on the Council. Why, therefore, is the Medical partment not similarly represented?

Respecting proposal No. 2, the improvements in the pay of officers of Indian Medical Service in military employ, which were introduced November last and took effect from September 13th, 1903, have led to result that a medical officer in civil employ with a substantive rge may draw anything between Rs 50 and Rs.450 (selected Lieu-ant-Colonels) a month—less than an officer of equal rank and service h a substantive charge in military employ. This inequality having ady existed for over six months, it is to be hoped that the Govern-nt of India will see their way to remedy it and to introduce the other provements which are still under consideration with as little further y as possible; but, whatever these improvements may be, the ser-e at large will not be satisfied unless the Director-General, Indian dical Service, is given a seat on the Viceroy's Council and so enabled fficiently represent the Medical Department.

IMPERIAL YEOMANRY.

on-Captain T. F. Dewar, M.B., Fifeshire and Forfarshire, to be on-Major, May 14th.

ROYAL ENGINEERS (VOLUNTEERS).

on-Captain W. Sinclair, M.B., 1st Aberdeenshire, to be Surgeon , April 30th.

ROYAL JERSEY MILITIA.

ndermentioned supernumerary officers of Royal Jersey Light In-are absorbed into the establishment, dated April 8th: Surgeon-W. Falla, M.D., 1st or West Battalion; Surgeon-Captain F. N. N, 2nd or East Battalion; Surgeon-Major A. B. Voisin, 3rd or South ion.

VOLUNTEER RIFLES.

on-Captain J. Griffiths, M.D., the Cambridge University Rifles, Surgeon-Major, April 30th.

E Hepburn, M.D., late Major Edinburgh Company Royal Army al Corps (Volunteers), to be Surgeon-Major, 3rd Volunteer Battalion elsh Regiment, April 30th

following announcement is substituted for that which appeared in ndon Gazette of April 22nd, under the heading of "Volunteer Offi-ecoration": Brigade-Surgeon-Lieutenant-Colonel O. Grant, M.B., verness-shire) Volunteer Battalion the Queen's Own Cameron High-s.

ade-Surgeon-Lieutenant-Colonel W. D. Waterhouse, 4th Volun-ttalion the Royal Fusiliers (City of London Regiment), is borne as umerary whilst holding the appointment of Senior Medical Officer nd London Volunteer Infantry Brigade, May 14th.

eon-Lieutenant J. G. Bain, M.B., 2nd Volunteer Battalion the Albert's (Somersetshire Light Infantry), to be Surgeon-Captain, th.

eon-Lieutenant-Colonel J. Mackay, M.B. 5th (Perthshire Highland) eer Battalion the Black Watch (Royal Highlanders), resigns his ssion, is granted the honorary rank of Surgeon-Colonel, and his uniform, May 14th.

ROYAL GARRISON ARTILLERY (VOLUNTEERS).

n-Lieutenant J. C. French, 2nd Durham (Seaham) resigns his ssion, May 14th.

ROYAL ARMY MEDICAL CORPS (VOLUNTEERS).

Lieutenant A. A. Ross, M.B., 1st Lothian Bearer Company, to be Captain, April 30th.

The resignation of Lieutenant E. B. Dowsett, the Woolwich Companies, which appeared in the *London Gazette* of March 18th, 1904, is cancelled.

Lieutenant E. C. Montgomery-Smith, 2nd London Bearer Company, to be Captain, May 14th.

THE VOLUNTEER AMBULANCE SCHOOL OF INSTRUCTION.

The annual banquet of the staff and members of the school took place at the Trocadero on May 12th; Brigade-Surgeon-Lieutenant-Colonel P. B. Giles, V.D., F.R.C.S., Senior Medical Officer, was in the chair. The official guests were Surgeon-General Sir William Taylor, K.C.B., Director-General Army Medical Department; Colonel A. T. Sloggett, C.M.G., Principal Medical Officer Home District; Surgeon-General Don; Lieutenant-Colonel E. M. Wilson, C.B., C.M.G., D.S.O., War Office; Lieutenant-Colonel G. Robinson, Commanding the Dépôt R.A.M.C., Aldershot; Mr. Jonathan Hutchinson, F.R.S.; and Dr. Galloway (Advisory Board).

The Chairman was supported by Brigade-Surgeon-Lieutenant-Colonels Andrew Clark, Chairman Volunteer Medical Association; G. S. Elliston, J. Adams, W. Waterhouse, and many others.

The toast of the evening, "The School," was ably proposed by the Director-General, who laid great stress on the success of the staff, especially as regards the advanced or nursing class, the knowledge gained therein being of great use in the treatment of wounded after transfer to hospital.

Brigade-Surgeon-Lieutenant-Colonel Giles, in responding, thanked the commanding officers of the various metropolitan corps who had placed their headquarters at his disposal; he also thanked Major Maclure, the President, for his present of a handsome challenge shield which he had devoted to the nursing class. The year had been a successful one, and the staff of the school was justly proud of the large class inspected by the Director-General. His thanks were due to the officers and non-commissioned officers instructors for the *esprit de corps* which they had shown. Nearly 600 medical officers had passed through the school. Referring to the Royal Commission, the report of which would shortly be published, Colonel Giles said that he had told the Commission that increased allowances for medical officers were necessary when attending camp.

Mr. Hutchinson, in returning thanks for the guests, said that the evening was the commencement of a new epoch in his life, for though he was once on the point of going out as pathologist to investigate the enormous mortality at Scutari during the Crimean war, he never had had any previous experience of military medical organization; he was reminded of the old Greeks who, when a gentleman was ill, called in the physician who was invariably accompanied by an orator whose duty it was to explain to the patient and endeavour to persuade him as to the virtues of the physician's prescription, and in this instance he would call upon the orator who was associated with him—namely, Dr. Galloway, who then also spoke.

The toast of "The R.A.M.C." was proposed by Brigade-Surgeon-Lieutenant-Colonel G. S. Elliston, and suitably acknowledged by Colonel Sloggett.

The attendance was a good one, and excellent arrangements were made by Surgeon-Captain E. M. Callender, the mess president.

MEDICO-LEGAL AND MEDICO-ETHICAL.

A CHARGE OF NEGLIGENCE.

On Monday, May 9th, the hearing of the case of Smith *v.* Pare was commenced before Mr. Justice Lawrance, sitting with a special jury in the King's Bench Division. The hearing occupied three days. The action was brought by Mr. Edward Arnold Cloete Smith, M.R.C.S., L.R.C.P., against a Mr. Pare to recover fees for attendance on the defendant's wife and for damages for assault. The defendant said that the fees claimed were exorbitant, and entered a counterclaim for negligence and extra expenses thereby incurred.

Mr. Duke, K.C., and Mr. Macpherson appeared for the plaintiff, Mr. McCall, K.C., and Mr. Bateson for the defendants.

It appeared that the plaintiff was called in in March, 1903, to treat Mrs. Pare for cancer by the "*x*-ray" and "high-frequency electric treatment." It was alleged that Mrs. Pare had been operated on four and a-half years before for cancer by Sir Victor Horsley, but there having been a recurrence of the disease, Mrs. Pare was advised by some friends to try combined *x*-ray and high-frequency treatment. The plaintiff's treatment was carried out at St. Leonards by an electrician named Mr. Chaplin, while a Dr. Inglis attended to Mrs. Pare's general health. It appeared that the plaintiff continued to attend Mrs. Pare until the end of April, when Mr. Pare wrote to ask him not to call again. In June the defendant assaulted the plaintiff on the steps of his private hospital. The plaintiff claimed £96 in respect of fees and damages for assault.

The plaintiff in the course of his evidence said that he had had four years' experience, and had studied the nature of *x* rays as a cure for cancer. After Mr. Pare consulted him he advised Mrs. Pare to try a combined treatment by *x* rays and high-frequency currents. Mrs. Pare was at St. Leonards, and the treatment was there carried out. Her glandular system was almost wholly affected by general poisoning from cancer. It was necessary to apply the treatment over the whole body. He gave directions for the application of high-frequency current twice a day for two hours. The *x* rays were to be applied at a distance and for a longer time. He noticed an improvement on March 24th, but he was then informed that the high-frequency treatment exhausted Mrs. Pare, so that thenceforward only the *x*-ray treatment was continued. The patient returned to London on March 27th. There was as yet no sign of dermatitis. The skin subsequently became irritable, and parts had to be protected by tinfoil. When he was dismissed from the case he saw no reason to suspect sloughing of the skin. The assault took place on June 9th in Palace Gardens Terrace.

In cross-examination, witness said that he had never recommended high-frequency treatment alone, but in combination with *x* rays. Mr. Pare had never told him that he would not agree to any treatment which caused pain. He (witness) knew that *x*-ray treatment would be likely to cause dermatitis or burns. Sir Victor Horsley and Mr Huxley were to give their consent to the treatment after being consulted. He (witness)

believed they assented to the treatment. High frequency had no direct effect upon internal cancer, but it improved the condition of internal cancer; *x* rays had an effect upon internal cancer. He had told Mr. Chaplin to take every precaution, and to watch for hours. It was not usual to limit treatment for external cancer to ten minutes. He was unaware that as a result of the burning Mrs. Pare had not been to straighten herself.

Dr. Inglis, of Hastings, was also called on behalf of the plaintiff.

Dr. A. H. Greg, Superintendent of the *x*-ray department at St. Thomas's Hospital, said he examined Mrs. Pare last month, and, assuming her condition to have been as described by the plaintiff and Dr. Inglis, he was of opinion that a remarkable cure had been effected.

Mr. McCall having opened the case on behalf of the defendant,

Miss Trinder, who had been engaged as nurse to attend Mrs. Pare, said she was with her from December, 1902, until December, 1903. She said that the burns continued for a long time after the treatment was over, and required continual attention. Between May and July her condition improved, but in September there was an amount of sloughing for which additional dressing was necessary. In cross-examination she said that she disapproved the treatment, but that she regarded Mrs. Pare as a doomed woman. She could not see that the treatment gave relief.

Henry Huxley, M.R.C.S., L.R.C.P., next gave evidence for the defendant. He had been in attendance on Mrs. Pare for twelve years. She had been operated on in 1899 for a growth on the left breast which was not cancerous. In September, 1902, she suffered from septic pneumonia. He never assented to the use of *x* rays although he had agreed that the "high frequency" treatment would do no harm. In cross-examination, he said he had had no experience of *x*-ray treatment except for skiagraphs.

Sir Victor Horsley, F.R.C S., F.R.S., etc., said that he had operated upon Mrs. Pare in 1899. The patient did not suffer from cancer. As to her condition in 1903 he agreed with Mr. Huxley. He had advised open-air treatment for the lungs. He never consented to the treatment by high-frequency currents. He remembered Mr. Pare asking him whether "high frequency" should be used. The *x*-ray treatment was not referred to. He told the defendant that the "high-frequency" process would do neither good nor harm. When he saw Mrs. Pare on April 30th she had had severe burning across the abdomen. In his view no good purpose could have been served by the application of the rays to the abdomen. The *x* rays could only affect external nodules of cancer. In cross-examination, he said there was evidence at the time of destructive disease of the lung, and that the patient was desperately ill. He did not agree with Dr. Greg (called on behalf of the plaintiff) that cases of diffused cancer could be treated by application of *x* rays over the whole body. Dermatitis occasionally followed the application of the rays in cases of cancer. It was more severe in some cases than in others. Desperate remedies were justifiable in cases of desperate disease.

Mr. Chisholm Williams, F.R.C.S., L.R.C.P., said that he agreed with the evidence given by Sir Victor Horsley. In the circumstances the *x*-ray treatment as applied could have had no beneficial effect. In any event the *x* rays should have been stopped as soon as the injury to the skin commenced. The burn of the *x* ray was the most intractable of all burns to deal with.

The defendant in the course of his evidence said that he could not remember saying anything to Dr. Smith in remonstrance during the month of April He had made up his mind to assault the defendant after he had seen the burns from which his wife was suffering.

Mr. McCall, in addressing the jury on behalf of the defendant, laid emphasis on the fact that the defendant had never consented to the *x*-ray part of the treatment; and secondly, that plaintiff was guilty of great negligence in applying the treatment.

Mr. Duke, on behalf of the plaintiff, said that the true aspect of the case was that Mrs. Pare was alive to-day in spite of her desperate condition in March, 1903.

The learned Judge, after summing up, left two questions to the jury: (1) Did the defendant consent to the treatment by *x* rays? (2) Was the treatment proper, or was the plaintiff guilty of negligence?

The jury, after an absence of forty-five minutes, found that the defendant did not consent to the *x*-ray part of the treatment, which was improper, negligent, and unskilful. They gave the plaintiff 40s. for the assault, and awarded the defendant £100 on the counterclaim, as the sum of 40s. had been paid into court. Judgement was entered for the defendant both upon the claim and counterclaim.

WORK OF INDOOR ASSISTANT.

PANHARD (Leeds) asks what amount of night work is usually done by an indoor assistant, where there is no definite arrangement made with the principal as to same, and what percentage of midwifery cases would be a fair one for the latter to do, where the assistant has no commission on the cases.

*** It is impossible to lay down a rule under such circumstances. Where a principal overworks his assistant the latter has the remedy in his own hands.

PURCHASE OF PARTNERSHIP.

EMBRYO writes that he is purchasing a practice which has only been carried on by the present owner three years, and the price is to be one and a-half year's purchase on the average receipts of these three years. The vendor when he bought the practice bought also the book debts, which our correspondent does not propose to do. He wishes to know whether these book debts, a large proportion of which have been paid during the last three years, ought to be included in making out the average on which he is to pay?

*** No; properly speaking, these accounts ought to be deducted.

MEDICAL MEN AND POLITICS.

CRESCENT writes to complain of a report in a local newspaper of an interview with a medical practitioner who expressed his views from the temperance standpoint against the Licensing Bill, and asks our opinion upon it.

*** While we deprecate the practice of medical men allowing themselves to be interviewed on behalf of the press on matters connected with the treatment of disease, it would be going too far to refuse to allow members of the medical profession to express their opinion upon public and political questions in which they take an interest. We should not object to a medical practitioner appearing upon a po platform to make a speech because possibly some medical men r politics in order to obtain personal advertisement. We cannot at to analyse motives, and it is certainly the right, if not the d every citizen to take his share and play his part in such discussio

FEES TO ASSISTANT IN FULL CHARGE.

A CORRESPONDENT writes: Will you kindly let me know whether, event of the chief going away for a few days, it is customary f assistant left in sole charge to be paid full *locum* fees for the time chief's absence? What is the tradition?

*** It is not usual for the assistant to be paid extra when the cipal goes away for a few days, leaving him in charge of his practi

AN INFIRM *LOCUM TENENS*.

A CORRESPONDENT writes that he engaged a *locum tenens* throu advertisement, and on his arrival found that he was suffering chronic hemiplegia. Before engaging him a letter had been writ a medical man whose name had been given as a reference. The a received was that the gentleman in question was a most trustw man, and might be safely entrusted with the charge of a practic Our correspondent would like to know if an invalid of this type to be allowed to undertake *locum tenens* work; (2) what is to be th of the conduct of the referee in this case?

*** (1) A medical practitioner, even if partially disabled by dis must be permitted to get his own livelihood, if he can do so medical man has no right to recommend such a *locum tenens* brother practitioner, without informing him of his obvious infirm If the facts are as stated, our correspondent is justified in consid that he has not been treated with the consideration he was entit expect from a professional brother.

CONSULTATIONS WITH HOMOEOPATHS.

J. H. FRYER.—We would refer our correspondent to the answer under this heading in the BRITISH MEDICAL JOURNAL for March 1901, from which we quote the following passage: "It is felt by sen tific physicians that the wide divergence of views as to the selecti remedies renders consultation with professing homoeopaths futile it is, we believe, their general practice to decline it. Surgeons, oth other hand, do not hesitate to meet homoeopaths in consulta probably because their distinguishing doctrines do not exten surgical means."

MEDICAL EVIDENCE IN COURT OF PROBATE.

BEDFORD.—A practitioner is required to give evidence in the C of Probate in respect to a patient's will. He has written to the solici in the case, stating the fees he demands for giving his evidence. h only answer he can get is "that his proper charges will be duly p He wishes to know: (1) Whether they can subpoena him, and give exactly what they think fit; (2) if subpoenaed, is he bound to atte the expenses demanded are not paid; (3) are his demands reasona (4) if bound to attend the court on subpoena can he refuse to be sw until his expenses are guaranteed; (5) is there anything further he do?

*** (1) No, they must pay him the charges considered reasonab the court; (2) if subpoenaed he must attend if conduct money is him, namely, first-class railway fare, and as he resides at a dist from the court, reasonable hotel expenses; (3) it is to be feared tha court would not consider his demands reasonable; two to three gui a day would be the outside amount he would be allowed; (4) he refuse to be sworn until his proper charges are guaranteed; (5) w not know of anything further that he can do,

ADVERTISEMENT OF AMBULANCE LECTURES.

COTSWOLD.—Our correspondent will find this question commented u in the BRITISH MEDICAL JOURNAL for January 25th, 1902. We d attention to the frequent protests against the way in which lecture delivered on behalf of the St John Ambulance Association are advertis and expressed the opinion that the Central Committee of that Asso tion should consider the question and adopt a form of advertisemen be used uniformly throughout the country, in order that the evils of system might thus be reduced to a minimum. The matter will be referred to the Ethical Committee.

FEES TO MEDICAL WITNESSES.

RISE.—Our correspondent has, we think, good reason to complain of manner in which the large discretion left to clerks of assize has b exercised in his case. On April 27th he attended at a police court give evidence in a criminal assault case, and was detained two hou The case was then adjourned for three days and he then again atten for over five hours. In due course he attended assizes, and was k from 11 a.m. to 5.45 p.m. before the case was reached. The priso pleaded guilty. He was entitled, under the new rules, to a sum not ceeding £3 17s. 8d., being 10s. 6d. for the first attendance at the poli court, £1 1s. for the second, and £2 2s., with 4s. 2d. railway fare, fo full day at the assizes. Owing, however, to the discretion allowed to clerks of assize, he was only paid £2 6s. 2d., in spite of the protest of t town clerk, who stated in a letter to our correspondent that the fe allowed at the last assizes were "exceedingly unsatisfactory," and th he was writing to the Home Secretary on the subject. Our corresp dent might very well send a copy of the statement which he has s mitted to us to his local M.P., and get him to ask a question in t House of Commons as to whether the Home Secretary is aware that t increased scale of payments which he sanctioned on the r commendation of a departmental committee last year are not bei generally paid.

UNIVERSITIES AND COLLEGES.

UNIVERSITY OF OXFORD.

FACULTY OF MEDICINE.

Examinations for the Degrees of B.M. and B.Ch.

E Board of the Faculty of Medicine gives notice that in the ojects of Human Anatomy, Human Physiology, Pathology, dicine, Surgery, and Midwifery, in the examinations for degrees of B.M. and B.Ch., the written part of the examiion shall consist of one paper of six questions, only five of ich may be answered; and that in the subject of Forensic dicine and Public Health (the first examination in which, der the new statute, will take place in Trinity Term, 1905) written part of the examination shall consist of a paper of questions, of which three shall be allotted to each division he subject. The Board of the Faculty of Medicine also es notice that the regulations as to certificates to be pro-ed by candidates before admission to the second examina-n for the degrees of B.M. and B.Ch. (*Examination Statutes*, 192-4) have been struck out, and replaced by the follow-regulations, which will first come into effect in Trinity m, 1905. Candidates for the several parts of the examina-ns for the degrees of B.M. and B.Ch. are required, at the ie of entering their names with the Secretary to the Boards Faculties, to produce to him the following certificates, nely:

FIRST EXAMINATION.

uman Anatomy.—Every candidate for the Examination in Human tomy must produce a certificate, signed by the proper authority, ving that he has dissected the whole body once. (See No. 1 below.)

uman Physiology.—Every candidate for the Examination in Human siology must produce a certificate (No. 2), signed by the proper ority, showing that he has attended a systematic course of laboratory uction in Practical Histology and in Practical Physiology in the siological Department of the University, or an equivalent course in aboratories of a medical school or schools approved by the Board of Faculty of Medicine. The Board has approved for this purpose: The iological laboratory of the medical school of any university in the ed Kingdom which gives a medical degree, including the laboratory y school of the University of London; the physiological laboratories ie medical schools of Yorkshire College, Leeds; University College, tol, and Firth College, Sheffield. In order that the course may be guized as equivalent, the certificate must state that the holder has ided a course of Practical Histology for a period of at least three ths and a course of Practical Physiology for a similar period, this r including both Physiological Chemistry and simple experiments muscle and nerve.

SECOND EXAMINATION.

hology.—Every candidate for the Examination in Pathology must nee the two following certificates, namely: (*a*) A certificate (No. 3) of g attended a course of Laboratory Instruction in Practical ology which shall have included twenty meetings devoted to Morbid logy and sixteen meetings devoted to practical instruction in Bac-logy. Such course may be taken in the Laboratory of the Depart-of Pathology in any university in the United Kingdom, or in that y school of the University of London. (*b*) A certificate (No. 4) of g acted as *post-mortem* clerk for a period of three months in any of ospitals included in the following list: Any hospital connected with ool of the University of London; General Hospital, Birmingham; l Infirmary, Bristol; General Infirmary, Leeds; Northern Hospital, pool; Royal Infirmary, Liverpool; Royal Southern Hospital, Liver-Royal Infirmary, Manchester; Infirmary, Newcastle-on-Tyne; l Hospital, Sheffield; Royal Infirmary, Aberdeen; Royal Infirmary, ee; Royal Infirmary, Edinburgh; Royal Infirmary, Glasgow; ern Infirmary, Glasgow; Adelaide Hospital, Dublin; City of Dublin ital; Dr. Steevens's Hospital, Dublin; Meath Hospital, Dublin; mond, Whitworth, and Hardwicke Hospital, Dublin; Sir k Dun's Hospital, Dublin; St. Vincent's Hospital, Dublin; Misericordiae Hospital, Dublin; Royal Hospital, Belfast.

ensic Medicine and Public Health.—Every candidate for the Exami-n in Forensic Medicine and Public Health must produce the five ving certificates, namely: (*a*) A certificate (No. 5) showing that he cted as dresser for a period of six months in the surgical wards, s clinical clerk for a period of six months in the medical wards of pital or hospitals approved by the Board of the Faculty of Medi-The Board has approved for this purpose the hospitals enumer-in the list approved under the head (*b*) above. (*b*) A certificate), signed by the proper authority, showing (1) that the holder has ded a course of lectures on mental disease, with clinical demon-ons, in connexion with one of the recognized medical schools; or t he has attended for three months the clinical practice of a ic asylum recognized by the Board of the Faculty of Medicine. regard to (2), the Board will recognize for this purpose—In Eng-and Wales: The county and borough asylums and public hospitals e insane. In Scotland: The district and public asylums for the e. In Ireland: The district asylums. (*c*) A certificate (No. 7), d by the proper authority, showing that the holder has attended t less than two consecutive months on the clinical practice of a fever tal or asylum recognized by the Board of the Faculty of Medicine. oard will recognize for this purpose—In England: The infectious tals under the control of the Metropolitan Asylums Board. In Scot-The Edinburgh Fever Hospital. The Glasgow Fever Hospital, lere. In Ireland; The Dublin (Cork Street) Fever Hospital. (*d*) A cate of proficiency (No. 8) from a public vaccinator appointed by the Government Board, and authorized by them to give such certifi-(*e*) A certificate (No. 9), signed by the proper authority, of (1) g attended twenty cases of labour in (*a*) the maternity department ecognized medical school, or (*b*) the Rotunda Hospital in Dublin, or having attended thirty cases of labour (*a*) in Queen Charlotte's Lying-in Hospital, or (*b*) under the superintendence of a duly-registered medical practitioner. The certificate to state that the holder has in all cases been present at the time of the birth of the child.

Medicine, Surgery, and Midwifery.—Every candidate for the examination in medicine, surgery, and midwifery must produce the six following certificates, namely, the five certificates Nos. 5, 6, 7, 8, 9 required from candidates for the examination in Forensic Medicine and Public Health, and in addition (*f*) a certificate (No. 10) showing that he has attended, during a period of two years, the medical and surgical practice of a hospital or hospitals approved by the Board of the Faculty of Medicine. The Board has approved for this purpose the hospitals enumerated in the list approved under the head (*b*) above.

Certificates (forms of which are obtainable from the Secretary to the Boards of Faculties) are required in the following subjects: 1. Human Anatomy. 2. Practical Histology and Practical Physiology. 3. Practical Pathology. 4. *Post-mortem* Clerk. 5. (*a*) Hospital Practice—Surgery; (*b*) Hospital Practice—Medicine. 6. Mental Disease. 7. Infectious Disease. 8. Vaccination. 9. Attendance on Labours. 10. Hospital Practice.

Nomination of Examiner in Medicine (pro hac vice).

Joseph Arderne Ormerod, D.M., Jesus College, has been nominated by the Vice-Chancellor and Proctors as Examiner in Medicie, *pro hac vice*, for the Final Examination for the Degree of Bachelor of Medicine in place of Frederick T. Roberts, D.M.Lond., who has been granted leave of absence.

(Dr. Payne, who had been appointed, is unable to serve.)

UNIVERSITY OF CAMBRIDGE.

Degrees.—On May 12th the following medical and surgical degrees were conferred:—*M.D.:* A. E. Carver, Clare. *M.B.:* E. A. Ellis, Downing. *M.B. and B.C.:* B. Hudson, Clare; C. B. Goulden, non-coll. *B.C.:* W. M. Mollison, King's; E. M. Brown, Pembroke; W. V. Naish, Emmanuel.

Honorary Degrees.—In connexion with the meeting of the delegates in academies about to be held in London, the honorary degree of Doctor of Science is to be conferred on Professor Retzius, of Stockholm, and Professor Waldeyer, of Berlin. The ceremony will take place on Saturday, May 28th.

ROYAL UNIVERSITY OF IRELAND.

MEETING OF SENATE.

THE Senate met on Thursday, May 12th, Right Hon. the Earl of Meath, Chancellor of the University, presiding. The Secretaries reported the death of George Johnston Allman, LL.D., D.Sc., F.R.S. The following resolution was passed unanimously:

"The Senate desire to express their deep regret at the death of Dr. Allman who has been a member of their body from the foundation of the university; and they wish to place on record their sense of the great benefits which the university has derived from Dr. Allman's scientific attainments and wide educational experience, his strict integrity and his devotion to the interests of the university for so many years."

The reports of the Examiners upon the recent Spring Medical Examinations were considered and honours and exhibitions awarded.

It was resolved that the Degree of D.Sc. be conferred *Honoris Causâ* upon Sir William Crookes, F.R.S., and upon Professor James Dewar, F.R.S.

The following candidates have been adjudged by the Senate to have passed the undermentioned examinations:

Second Examination in Medicine. Honours. First Class: *J. B. Butler, Catholic University School of Medicine. Second Class: †J. A. Shorten, Queen's College, Cork. Upper Pass: J. A. Black, Queen's College, Belfast; C. R. Crymble, Queen's College, Belfast; C. H. Harbinson, Queen's College, Belfast; J. F. Neary, Catholic University School of Medicine; J. J. O'Neill, Queen's College, Cork; Maria Rowan, Queen's College, Belfast. Pass: S. Acheson, Queen's College, Belfast; T. Arnold, Queen's College, Belfast; M. F. Caldwell, Queen's College, Belfast; J. P. Carolan, Catholic University School of Medicine; W. F. A. Carson, Queen's College, Galway; F. T. Dowling, Catholic University School of Medicine; E. FitzGerald, Catholic University School of Medicine; Jane M'C. Fulton, Queen's College, Belfast; J. W. Garry, Queen's College, Galway; C. E. L. Harding, Queeen's College, Belfast; W. T. Henderson, Queen's College, Belfast; J. J. Hickey, Queen's College, Cork; J. Hughes, Queen's College, Galway; F. Keane, Queen's College, Cork; J. Kilgarriff, Catholic University School of Medicine; M. Leane, Queen's College, Cork; J. E. A. Lynham, Queen's College, Galway; J. S. M'Combe, Queen's College, Belfast; J. B. Murphy, Queen's College, Cork; J. F. O'Brien, Queen's College, Cork; J. A. O'Halloran, Catholic University School of Medicine; P. O'Hart, Charing Cross Hospital, London; H. H. Prentiss, Queen's College, Belfast; W. Riddell, Queen's College, Belfast; D. T. Sheenan, Catholic University School of Medicine, J. Sinclair, Queen's College, Belfast; W. M. Thomson, Queen's College, Belfast; S. J. Watson, Queen's College, Belfast.

* Exhibition of £25. † Exhibition of £15.

Third Examination in Medicine.—Honours. First Class: *W. A. M'Kee, B.A., Queen's College, Belfast. Upper Pass: J. L. Dunlop, Queen's College, Galway; M. P. Scanlon, Catholic University School of Medicine. Pass: Madeleine S. Baker, Catholic University School of Medicine; J. A. Beamish, Queen's College, Belfast; J. A. Boyd, Queen's College, Belfast; G. F. Campbell, Queen's College, Belfast; H. Carson, Queen's College, Belfast; N. M. Donnelly, Catholic University School of Medicine; J. Finnegan, Queen's College, Belfast; H. J. Forbes, Queen's College, Belfast; J. Gaston, Queen's College, Belfast; J. R. Hackett, Queen's College, Cork; J. J. Hollywood, Catholic University School of Medicine; R. F. Kennedy, Queen's College, Belfast; D. T. MacCarthy, Catholic University School of Medicine; W. M'Kee, Queen's College, Belfast; A. V. M'Master, Queen's College, Belfast; T. Meagher, Catholic University School of Medicine; J. P. Moore, Catholic University School of Medicine; J. W. Murphy, Queen's College, Cork; Jeannie R. Murray, Queen's College, Belfast; Gabriel V. Ryan, Catholic University School of Medicine.

* Exhibition of £30.

M.B., B.Ch., B.A.O. Degrees Examination.—Honours. First Class: *W. M. Crofton, B.A., Catholic University School of Medicine; †T. Lyle, Queen's College, Belfast. Upper Pass: E. Clements, Queen's

College, Belfast; P. T. Crymble, Queen's College, Belfast; H. P. Devlin, Catholic University School of Medicine; Marie E. Hayes, Catholic University School of Medicine; R. G. Meredith, Catholic University School of Medicine, S. Stockman, Queen's College, Belfast. Pass: Anna E. Adderley, Catholic University School of Medicine; A. P. Barry, Catholic University School of Medicine; J. Corker, Queen's College, Belfast; W. H. Davis, Queen's College, Belfast; Lillie E. Dunn, Queen's College, Belfast; M. FitzGerald, Catholic University School of Medicine; Mary K. Gibson, Catholic University School of Medicine; D. Gleeson, Queen's College, Cork; J. C. M'Hugh, Catholic University School of Medicine; J. C. M'Pherson, Queen's College, Belfast; G. Madden, Catholic University School of Medicine; J. W. Pitt, Queen's College, Belfast; P. Power, Queen's College, Cork; P. Quinn, Catholic University School of Medicine; Mary E. Simms, Queen's College, Belfast; J. Thompson, Queen's College, Belfast; T. Walsh, B.A., Queen's College, Galway, Owens College, Manchester, and School of Medicine, Edinburgh; S. H. Whyte, Queen's College, Belfast; J. E. Wilson, Queen's College, Belfast.

* Exhibition of £40. † Exhibition of £25.

The following candidates have passed the M.D. Degree Examination:

D. E. Cantillon, M.B., B.Ch., B.A.O., private study; A. McC. Erskine, M.B., B.Ch., B.A.O.; A. Welply, M.B., B.Ch., B.A.O., Queen's College, Cork, and private study.

The following have passed the M.B., B.Ch., B.A.O. Degrees Examination as undernoted:

Upper Pass.—E. Clements, Queen's College, Belfast: W. M. Crofton, B.A., Catholic University School of Medicine; P. T. Crymble, Queen's College, Belfast; H. P. Devlin, Catholic University School of Medicine; Marie E. Hayes, Catholic University School of Medicine; T. Lyle, Queen's College, Belfast; R. G. Meredith, Catholic University School of Medicine; S. Stockman, Queen's College, Belfast.

Pass.—Anna E. Adderley, Catholic University School of Medicine; A. P. Barry, Catholic University School of Medicine; J. Corker, Queen's College, Belfast: W. H. Davis, Queen's College, Belfast; Lillie E. Dunne, Queen's College, Belfast; M. Fitzgerald, Catholic University School of Medicine; Mary K Gibson, Catholic University School of Medicine: D. Gleeson, Queen's College, Cork; J. C. M'Hugh, Catholic University School of Medicine; J. C. McPherson, Queen's College, Belfast; G. Madden, Catholic University School of Medicine; J. W. Pitt, Queen's College, Belfast; P. Power, Queen's College, Cork; P. Quinn, Catholic University School of Medicine; Mary E. Simms, Queen's College, Belfast: J. Thompson, Queen's College, Belfast; T. Walsh, B.A., Queen's College, Galway, Owens College, Manchester, and School of Medicine, Edinburgh; S. H. Whyte, Queen's College, Belfast: J. E. Wilson, Queen's College, Belfast.

The following have passed the Third Examination in Medicine as undernoted:

Upper Pass.—J. L. Dunlop, Queen's College, Galway; W. A. McKee, B.A., Queen's College, Belfast; and M. P. Scanlon, Catholic University School of Medicine.

Pass.—Madeleine S. Baker, Catholic University School of Medicine; J. A. Beamish, Queen's College, Belfast; J. A. Boyd, Queen's College, Belfast; G. F. Campbell, Queen's College, Belfast; H. Carson, Queen's College, Belfast; N. M. Donnelly, Catholic University School of Medicine; J. Finnegan, Queen's College, Belfast; H. J. Forbes, Queen's College, Belfast; J. Gaston, Queen's College, Belfast; J. R. Hackett, Queen's College, Cork; J. J. Hollywood, Catholic University School of Medicine; R. F. Kennedy, Queen's College, Belfast; D. V. MacCarthy, Catholic University School of Medicine; W. McKee, Queen's College, Belfast; A. V. McMaster, Queen's College, Belfast; T. Meagher, Catholic University School of Medicine; J. P. Moore, Catholic University School of Medicine; J. W. Murphy, Queen's College, Cork; Jeannie R. Murray, Queen's College, Belfast; and G. V. Ryan, Catholic University School of Medicine.

UNIVERSITY OF DURHAM.

At the Convocation held on Saturday, April 30th, the following degrees in Medicine and Surgery were conferred, namely:

Doctor in Medicine.—C. Fisher, M.B., B.S.Durh., R. B. Greaves, M.B., B.S.Durh., L. McNabb, M.B., B.S., B.Hy., D.P.H.Durh., M. F. Squire, M.B., B.S.Durh., M. C. Wetherell, M.B., B.S.Durh.

Doctor in Medicine for Practitioners of Fifteen Years' Standing.—J. Bradford, L.R.C.P.E., L.F.P.S.G., M. A. Dutch, L.R.C.S.I., L.K.Q.C.P.I., D.P.H., G. B. Flux, M.R.C.S., L.R.C.P., H. Hendley, M.R.C.S., L.R.C.P., L.S.A., A. Hooper, M.R.C.S., L.S.A., A. Rigden, M.R.C.S., L.R.C.P., W. S. Sprent, L.R.C.S.I., L.K.Q.C.P.I.

Bachelor in Medicine (M.B.).—T. E. Amyot, College of Medicine, Newcastle-upon-Tyne; R. S. Brown, College of Medicine, Newcastle-upon-Tyne; H. Christal, College of Medicine, Newcastle-upon-Tyne; E. F. Edmunds, University College, Sheffield; A. H. Fullerton, College of Medicine, Newcastle-upon-Tyne; W. Gibbons, College of Medicine, Newcastle-upon-Tyne; A. J. Gilbertson, College of Medicine, Newcastle-upon-Tyne; W. Haward, St. Thomas's Hospital; W. G. T. Hepplewhite, College of Medicine, Newcastle-upon-Tyne; L. M. Markham, L.D.S., College of Medicine, Newcastle-upon-Tyne; W. J. Phillips, B.Sc., College of Medicine, Newcastle-upon-Tyne; Mary Raw, College of Medicine, Newcastle-upon-Tyne; F. W. Ritson, College of Medicine, Newcastle-upon-Tyne; Constance Charlotte Robertson, College of Medicine, Newcastle-upon-Tyne; J. M. Shaw, College of Medicine, Newcastle-upon-Tyne; F. Stoker, College of Medicine, Newcastle-upon-Tyne; O. B. Travers, Guy's Hospital; W. F. Wilson, College of Medicine, Newcastle-upon-Tyne; H. Wolfe, College of Medicine, Newcastle-upon-Tyne.

Bachelor in Surgery (B.S.).—T. E. Amyot, College of Medicine, Newcastle-upon-Tyne; R. S. Brown, College of Medicine, Newcastle-upon-Tyne; H. Christal, College of Medicine, Newcastle-upon-Tyne; E. F. Edmunds, University College, Sheffield; W. Gibbons, College of Medicine, Newcastle upon-Tyne; A. J. Gilbertson, College of Medicine, Newcastle-upon-Tyne; Chella Mary Hankin, M.B., London School of Medicine for Women; W. Haward, St. Thomas's Hospital; W. G. T. Hepplewhite, College of Medicine, Newcastle-upon-Tyne; L. M. Markham, L.D.S., College of Medicine, Newcastle-upon-Tyne; W. J. Phillips, B.Sc., College of Medicine, Newcastle-upon-Tyne; Mary Raw, College of Medicine, Newcastle-upon-Ty F. W. Ritson, College of Medicine, Newcastle-upon-Tyne; Constance Charlotte Robertson, College of Medicine, Newcastle-upon-Ty J. M. Shaw, College of Medicine, Newcastle-upon-Tyne; F. Stoker, College of Medicine, Newcastle-upon-Tyne; O. B. Travers, Guy's Hospital; W. F. Wilson, College of Medicine, Newcastle-upon-Tyne; H. Wolfe, College of Medicine, Newcastle-upon-Tyne.

Bachelor in Hygiene (B.Hy.).—W. E. Peacock, M.D., B.S., D.P.H.Durh R. Stobo, M.B., C.M.Glasg.

The following received the Diploma in Public Health (D.P.H.): W. Palmer, M.D., B.S., L.S.Sc.Durh.; R. Stobo, M.B., C.M.Glasg.

ROYAL COLLEGE OF PHYSICIANS IN EDINBURGH.

A quarterly meeting of the Royal College of Physicians of Edinburgh was held on Tuesday, May 3rd, Dr. Clouston (President), in the chair.

Introduction of Fellow.

Stuart McDonald, M.B., C.M., F.R.C.P.E., was introduced and took his seat as a Fellow of the College.

Admission to the Fellowship.

The following members were amitted by ballot to the Fellowship of the College: Hugh Lathrop Murray, M.R.C.P.E., F.R.C.S.E., Melbourne; John William Meyers, M.D., M.R.C.P.E., D.P.H., Shipley; William Wood, M.B., C.M., M.R.C.P.E., Edinburgh.

Admission to the Membership.

On a Ballot the following candidates were admitted to the Membership of the College after examination: Robert Thomas Herron, L.R.C.P., L.R.C.S.I., Armagh, Ireland; and William Alexander Reid, L.R.C.P., L.R.C.S.E., Edinburgh.

Admission to the Licence.

The Registrar reported that since the last quarterly meeting thirty-seven persons had obtained the licence of the College by examination.

Annual Report regarding the Laboratory.

The Curator submitted his report for the last year regarding the research and reporting work undertaken in the laboratory during the year and the expenditure incurred. The report showed that 35 workers had been engaged in research; that 2,365 specimens had been reported on, being an increase of 497 on the number for the previous year; and that the expenditure had amounted to £1,038 1s. 6d. The report was adopted by the College.

Hill-Pattison Bursary Award.

The Hill-Pattison Bursary, which is in the gift of the College, was awarded, after a competitive examination in anatomy and physiology, to Mr. Douglas L. G. Radford.

Triple Qualification Examinations.

The draft regulations regarding the various triple qualification examinations for the ensuing year were considered.

Expulsion of Licentiate.

By vote of the College, Allan Douglas Cameron, a Licentiate of the College, was expelled from the College and deprived of his licence to practise, as granted by the College, and of all his rights and privileges as Licentiate.

Quatercentenary of Royal College of Surgeons.

On a motion by the Treasurer it was resolved: "That, in connexion with the Quatercentenary of the Royal College of Surgeons, the College entertain the guests of the sister College to luncheon."

Poor-law Medical Relief: Report of Departmental Committee.

On a motion by Dr. Andrew it was resolved: "That the College express approval of the recommendations contained in the Report of the Departmental Committee appointed by the Local Government Board for Scotland to inquire into the system of Poor-law Medical Relief and into the Rules and Regulations for the Management of Poorhouses, dated March 17th, 1904, applying to the duties and powers of medical officers and to the tenure of office, and direct that a copy of this motion be forwarded to the Local Government Board."

The Education Bill for Scotland.

On a motion by Dr. Clouston the College instructed the Council to take action in favour of a clause being inserted providing for medical inspection of schools, so that school hygiene and the physical education and condition of the school children may become part of the educational system of the future in Scotland.

ROYAL COLLEGE OF PHYSICIANS OF LONDON.

An extraordinary Comitia was held at the College on Thursday, the 12th, the President, Sir William S. Church, Bart., in the chair.

Congress of the Sanitary Institute.

The President announced that he had appointed Sir R. Douglas Powell and Dr. Newsholme as delegates to represent the College at the forthcoming Congress of the Sanitary Institute at Glasgow.

Physical Disability of Recruits.

The President further announced that he had nominated Drs. Donkin and Francis Warner to act on the Committee to inquire into the Physical Disability of Recruits, in the place of Drs. Poore and Pringle, who had resigned.

Fellows.

The following gentlemen. who were elected at the last Comitia, were admitted Fellows of the College: William John Gow, M.D.Lond.; Thomas Robert Bradshaw, M.D.Dubl.; Edmund Henry Colbeck, M.D.Cantab.; Arthur John Hall, M.B.Cantab.; John Francis Harpin Broadbent, M.D.Oxon.; Bertram Louis Abrahams, M.B.Lond.; Charles Arthur Mercier, M.B.Lond.; William Cecil Bosanquet, M.D.Oxon.; Arthur Hyle Latham, M.D.Oxon.

Reports.

The following reports were received: A report from Sir Lauder Brunton, the representative of the College at the International Congress on School Hygiene at Nuremberg. The Congress had been a

ss, and the subjects discussed were of great interest and importance. l been arranged that the next Congress should be held in London in ear 1907.

report from the Committee of Management, dated May 4th, 1904, mending that the West Ham Municipal Technical Institute be d to the list of institutions recognized by the Examining Board in and for instruction in chemistry, physics, and practical chemistry. was adopted.

regulations for the first year's study and first examination of the int Board, revised by the Committee of Management in accordance the reports of July 22nd, 1903, and March 22nd, 1904, of the Special int Committee, were discussed and adopted. The revised regula- apply to candidates who commence their professional study on or June 1st, 1904.

ROYAL COLLEGE OF PHYSICIANS OF IRELAND.

ie stated examinations for the licences in medicine and midwifery to registered medical practitioners, and held on Monday, May 9th, and the three days next following, the undermentioned candidates successful, and have since been duly admitted by the President as tiates of the College: G.W. Fitzgerald, M.B., C.M., Univ. Edin., M.D.: tzGibbon, M.B., B.Ch., B.A.O., Univ. Dubl., M.D.

ROYAL COLLEGE OF SURGEONS IN IRELAND.

ETING of the Fellows will be held on Saturday, June 4th, at 1 o'clock, eive the annual report of the Council. A meeting will also be held onday, June 6th, at 1 o'clock, pursuant to the provisions of the ters, to elect a President, Vice-President, Council, and Secretary of College for the ensuing year.

CONJOINT BOARD IN IRELAND.

IDATES have passed the Third Professional Examination as under- d:

ll Subjects.—*A*, Honours: P. V. Dolan. *B*, Pass: J. Bradley, M. J. Coyne V. J. Cullen, Miss J. C. Hargrave, F. P. J. Leyland, L. Lucas, J. J. McNelis, P. J. Rooney, W. Walsh.

pleted the Examination.—I. Allaun, T. A. Bennett, W. W. Boyce, T. W. Browne, F. J. Cairnes, C. Cooper, F. A. Flynn, T. J. Gallighan, J. M. Hayes, F. W. Matthews, R. A. Murphy, W. T. Morton, S. C. Mulligan, D. de Courcy O'Grady, A. L. O'Keeffe, M. O'Keeffe, W. J. O'Sullivan, H. E. Redmond.

TRINITY COLLEGE, DUBLIN.

following have passed the Previous Medical Examination in the cts undernoted:

tomy and Institutes of Medicine.—W. L. Hogan, J. Du P. Langrishe, W. J. Thompson, J. C. Ridgway.

sics and Chemistry.—J. M. Harold.

my and Zoology.—J. D. K. Roche, G. N. Morphy, D. J. Millar, G. Meldon.

CONJOINT BOARD IN IRELAND.

ollowing candidates have passed the examination for the Diploma blic Health:

I. Carrington, M.R.C.S. (honours), Major S. F. Clark, M.B., P. A. MacDermott, F.R.C.S.I., B. M. M. Coffey, L.R.C.P. and S.I., W. G. Jordan, M.B., R.U.I., J. F. Hodgson, M.B., F. W. Martin, M.R.C.S.

following candidates have passed the Final Professional Examina- :

. Ashe, R. G. Griffin, S. B. Hanbury, R. E. Humfrey, T. C. C. Leslie, P. Maher, T. B. Moriarty, J. F. McMonagle, T. S. Reeves, J. M. Reynolds, J. Roberts, H. R. C. Rutherford.

CONJOINT BOARD IN SCOTLAND.

ollowing candidates, having passed the requisite Examinations of onjoint Board, have been admitted Diplomates in Public Health: Barford, M.R.C.S.Eng., L.R.C.P.Lond.: A. M. Wood, M.B., Ch.B.; Thomson, M.D.: Margaret Merry Smith, M.B., Ch.B.; C. Bharad- L.R.C.P. and S.E.; T. F. H. Blake, L.R.C.P. and S.E.; W. I. Dunn, Ch.B.; A. Grant, M.B., Ch.B.; J. L. Marjoribanks, M.B., C.M.: J. A. p, L.R.C.P. and S.E.; J. H. Meiklé, M.B., C.M.; D. Melville, M.D.; A. Reid, L.R.C.P. and S.E.

following gentlemen have passed the First Examination in Public h: H. de C. Woodcock, L.R.C.P. and S.E.; A. R. Maclurkin, M.B., ; R. Staward, F.R.C.S.E.: A. F. Jack, L.R.C.P. and S.E.; and J. n, M.B., C.M. David Dryburgh Gold, M.B., C.M., has passed the d Examination in Public Health.

ROYAL COLLEGE OF SURGEONS OF ENGLAND.

dinary Council was held on May 12th, Mr. John Tweedy, F.R.C.S., ident, in the chair.

Diploma of Membership.

ety-eight diplomas were issued to candidates found qualified at the examination.

Court of Examiners.

A. Pearce Gould was re-elected on the Examining Board; and Mr. Silcock was elected in the second vacancy which had arisen by the ment of Mr. Henry Morris.

Redemption of Land Tax.

eference to reports of November 6th, 1902, and November 5th, 1903, nance Committee reported that the formalities for redeeming the Tax upon Nos. 37, 38, and 43, Lincoln's Inn Fields, and upon por- of the College premises in Portugal Street, have now been com- d. The cost has amounted to £1,612, a reduction of £429 upon the ate given by the Committee in their first report.

Diploma in Tropical Medicine.

question of the granting of such a degree by the Royal Colleges was ed to a Special Committee of the Council to consider and report

International Congress on School Hygiene held at Nuremberg.—Dr. nt Dukes reported that as the delegate of College he had attended the Congress, which was held April 4th to 9th, 1904. The Congress is to be held in 1907 in London.

Recognized Ophthalmic Hospitals.—The St. Paul's Eye and Ear Hospital, Liverpool, was placed upon the list recognized by the Conjoint Examining Board in England.

Examinations for the Services.—A letter (addressed to the President) of April 22nd was read from Mr. F. W. Collingwood, forwarding statistics relating to the examinations for admission to the Army, Navy, and Indian Medical Services, showing that candidates holding the L.R.C.P. Lond. and M.R.C.S Eng. were: (*a*) 22 6 per cent. more successful than candidates drawn from all other sources; (*b*) 28 per cent. more successful than the candidates holding degrees and diplomas from Scotch and Irish universities and colleges; (*c*) 23.5 per cent. more successful than the Scotch and Irish graduates; (*d*) 15.8 per cent. more successful than the Edinburgh graduates; and (*e*) 34.3 per cent. more successful than the Dublin graduates.

THE COMING COUNCIL ELECTION.

The Council is at present constituted as follows:

President.

Mr. J. Tweedy; C, (1) 1892, (2) 1900 (substitute for Mr. Davies-Colley till 1904).

Vice-Presidents.

Mr. H. Morris; C, (1) 1893 (substitute), (2) 1898.
Sir Alfred Cooper; C, (1) 1895 (substitute), (2) 1900.

Other Members of Council.

Mr. T. Bryant; C, (1) 1880, (2) 1888, (3) 1896, P, 1890-2.
Mr. T. P. Pick; C, (1) 1888, (2) 1896.
Sir H. G. Howse; C, (1) 1889, (2) 1897, P, 1901-3.
Mr. J. Langton; C, (1) 1890, (2) 1898.
Mr. T. R. Jessop (*deceased*); C, (1) 1891, (2) 1899.
Mr. F. Howard Marsh; C, (1) 1892; (2) 1894, (3) 1902.
Mr. A. W. Mayo Robson; C, (1) 1893, (2) 1901.
Mr. H. T. Butlin; C, (1) 1895, (2) 1903.
Mr. Edmund Owen; C, 1897.
Mr. R. J. Godlee; C, 1897.
Mr. W. Watson Cheyne, C.B.; C, 1897 (substitute), (2) 1901.
Mr. F. Richardson Cross; C, 1901.
Mr. Herbert W. Page; C, 1899.
Mr. J. Ward Cousins; C, (1) 1895 (substitute), (2) 1897 (substitute), (3) 1900.
Mr. A. Pearce Gould; C, 1900.
Mr. R. Clement Lucas; C, 1901.
Mr. J. H. Morgan, C.V.O.; C, 1902.
Mr. H. H. Clutton: C, 1902.
Mr. C. W. Mansell Moullin; C, 1902.
Mr. Clinton T. Dent; C. 1903.
Mr. G. H. Makins, C.B.; C, 1903.

Thus Mr. Bryant and Mr. Pick retire, having been re-elected in 1896; we understand that neither will seek to be elected again. The President, Mr. Tweedy, being in the chair, does not retire; otherwise his term as substitute for Mr. Davies-Colley would expire in July. There remains a vacancy caused by the death of Mr. Jessop, who was re-elected in 1899, so that the substitute member elected next July will fill that vacancy until 1907.

The following list shows the proportional representation of metropolitan medical schools, of special hospitals in London, and of the provinces.

St. Bartholomew's	3	
Charing Cross	1	
Guy's	3	
King's...	1	
London	1	
Middlesex	2	
St. George's	2	
St. Mary's	2	
St. Thomas's	2	
University College	2	
Total number attached to London schools ...		19
Members attached to special hospitals in London		1
Provincial members (Leeds 2*, Bristol 1, Southsea 1)		4
Total		24*

* *Minus* 1 deceased. † Including Mr. Howard Marsh, now of Cambridge.

PUBLIC HEALTH
AND
POOR-LAW MEDICAL SERVICES.

EPIDEMIC MORTALITY IN LONDON.

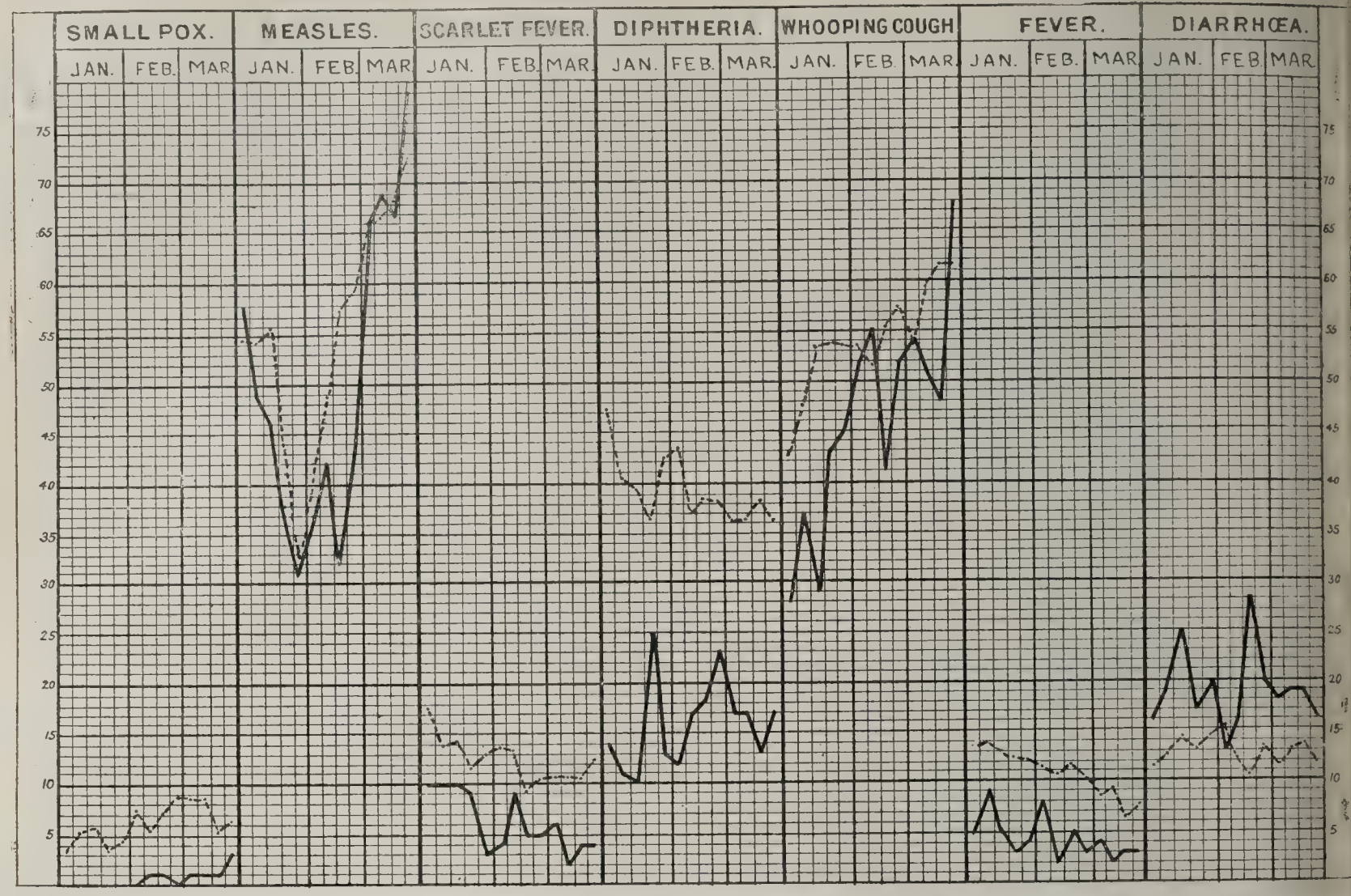
[SPECIALLY REPORTED FOR THE BRITISH MEDICAL JOURNAL.]

THE accompanying diagram shows the prevalence of the principal epidemic diseases during the first, or winter, quarter of the year. The fluctuations of each disease, and its relative fatality as compared with that in the corresponding periods of recent years, can thus be readily seen.

Small-pox.—Eight fatal cases of small-pox were registered in London last quarter, against 2, 3, and 3 in the three preceding quarters. Of these 8 deaths, 4 belonged to Bethnal Green, and 1 each to Islington, Holborn, Poplar, and Southwark. The number of small-pox patients admitted into the Metropolitan Asylums Hospitals during the quarter was 198, against 161, 120, and 94 in the three preceding quarters; 126 cases remained under treatment at the end of the quarter, against 57, 21, and 26 at the end of the three preceding quarters.

Measles.—The deaths from measles, which had been 759, 247, and 671 in the three preceding quarters, numbered 670 last quarter, and were 51 below the average in the corresponding periods of the ten preceding years. Among the various metropolitan boroughs, measles showed the highest propor-

DEATHS FROM EPIDEMIC DISEASES IN LONDON DURING THE FIRST QUARTER OF 1904.



NOTE.—The black lines show the *recorded* number of deaths from each disease during each week of the quarter. The dotted lines show t *average* number of deaths in the corresponding weeks of the ten preceding years 1894-1903.

tional fatality in Paddington, Kensington, Hammersmith, Chelsea, Holborn and Southwark.

Scarlet Fever.—The fatal cases of this disease, which had been 82, 91, and 90 in the three preceding quarters, further declined last quarter to 81, and were equal to only one-half of the corrected average number. The highest death-rates from scarlet fever last quarter were recorded in Chelsea, St. Pancras, Stoke Newington, Finsbury, Bermondsey and Deptford. The number of scarlet fever cases in the Metropolitan Asylums Hospitals, which had been 1,614, 1,849 and 1,606 at the end of the three preceding quarters, had further declined to 1,546 at the end of last quarter; 2,142 new cases were admitted during the quarter, against 2,681, 3,006 and 2,416 in the three preceding quarters.

Diphtheria.—The deaths referred to diphtheria in London, which had been 175, 147, and 189 in the three preceding quarters, further rose to 207 during the three months under notice, the average number in the first quarters of the ten preceding years having been 510. Among the various metropolitan boroughs the greatest proportional mortality from this disease was recorded in Fulham, Hackney, Bethnal Green, Stepney, Poplar, and Deptford. The number of diphtheria patients under treatment in the Metropolitan Asylums Hospitals, which had been 781, 671, and 734 at the end of the three preceding quarters, had further risen to 786 at the end of March last; the number of new cases admitted during the quarter was 1,287, against 1,495, 1,464, and 1,438 in the three preceding quarters.

Whooping-cough.—The fatal cases of this disease, which had been 445, 217, and 209 in the three preceding quarters, rose again last quarter to 603, but were 102 below the corrected average number. Among the various metropolitan boroughs whooping-cough was proportionally most fatal in Shoreditch, Poplar, Southwark, Bermondsey, Battersea, Deptford, and Greenwich.

"*Fever.*"—Under this heading are included deaths from typhus, from enteric fever, and from ill-defined pyrexia. The deaths referred to these different forms of "fever," which had been 49, 87, and 169 in the three preceding quarters, declined again last quarter to 56, and were 85 below the average number in the corresponding periods of the ten preceding years. One death from ill-defined pyrexia but none from typhus was recorded during the quarter under notice. Enteric fever mortality was highest in City of Westminster, St. Pancras, Hackney, Stepney, Southwark, and Battersea. The Metropolitan Asylums Hospitals contained 86 enteric fever patients at the end of last quarter, against 88, 247, and 246 at the end of the three preceding quarters; 173 new cases were admitted during the quarter, against 149, 379, and 506 in the three preceding quarters.

Diarrhoea.—The 246 deaths from diarrhoea in London last quarter were 76 in excess of the average number in the first quarters of the ten preceding years. Among the various metropolitan boroughs this disease was proportionally most fatal in St. Marylebone, Stepney, Southwark, Bermondsey, and Battersea.

In conclusion, it may be stated that the 1,871 deaths in London attributed to these principal epidemic diseases during the quarter ending March last were nearly 25 per cent. below the corrected average number in the corresponding quarters of the ten preceding years. The lowest death-rates from these diseases last quarter were recorde the City of Westminster, Hampstead, Islington, the City of London, Lewisham; and the highest rates in Hammersmith, Shoreditch, Ste Poplar, Southwark. Bermondsey, and Battersea.

HEALTH OF ENGLISH TOWNS.

IN seventy-six of the largest English towns, including London, births and 4,705 deaths were registered during the week ending Satu last, May 14th. The annual rate of mortality in these towns, which been 16.0, 16.3, and 14.9 per 1,000 in the three preceding weeks, rose a last week to 16.1 per 1,000. The rates in the several towns ra from 6.0 in Smethwick, 7.9 in Barrow-in-Furness, 9.6 in Hornsey, 10 Willesden and in Hastings, 10 3 in East Ham, and 10.5 in Handsw (Staffs.) to 19.5 in Derby, 19.8 in Coventry, 21.3 in Manchester, 22.0 in mingham and in Newcastle-on-Tyne, 22.3 in Rotherham, 23.8 in Burn and 24.0 in Warrington. In London the death-rate was 16.3 per 1 while it averaged 16.0 per 1,000 in the seventy-five large provincial to The death-rate from the principal infectious diseases averaged 1.8 1,000 in the seventy-six large towns; in London this death-rate was e to 2.0 per 1,000, while among the seventy-five other large towns the r ranged upwards to 3.0 in Rhondda, 3.2 in Hornsey, 3.3 in H dersfield, 3.5 in Wallasey and in Manchester, 4.0 in Stock on-Tees, 4.3 in Birmingham and 7.7 in Warrington. Mea caused a death-rate of 1.2 in Brighton, in Rochdale, in Leeds, 1.3 in Hornsey, in West Ham, and in Rhondda, 1.4 in Hull, 1 Manchester, and 2.7 in Huddersfield; scarlet fever of of 1.7 Northa ton; diphtheria of 1.2 in Bristol and 1.6 in Hanley; and whooping-co of 1.3 in Hornsey, 1.4 in Coventry, 1.5 in Newport (Mon.), 1.7 in Ha worth (Staffs.), 1.8 in Bury, 2.0 in Burton-on-Trent and Blackburn, 2. Bolton, 2.6 in Wallasey, 2.9 in Birmingham 3.0 in Stockton-on-Tees, 5.4 in Warrington. The mortality from enteric fever, and from diarrh showed no marked excess in any of the large towns. One fatal cas small-pox was registered in Leicester, 1 in Nottingham, 1 in Derby, Sheffield, 1 in South Shields, and 1 in Gateshead, but none in any o of the seventy-six towns. The Metropolitan Asylums Hospitals contai 99 small-pox patients at the end of last week, against 123, 104, and 8 the end of the three preceding weeks; 26 new cases were admi during the week, against 23, 12, and 14 in the three preceding we The number of scarlet fever cases in these hospitals and in the Lon Fever Hospital, which had been 1,543, 1,541, and 1,590 on the three ceding Saturdays, had further risen to 1,600 on Saturday last, the inst.; 239 new cases were admitted during the week, against 210, 185, 242 in the three preceding weeks.

HEALTH OF SCOTCH TOWNS.

DURING the week ending Saturday last, May 14th, 1,037 births and deaths were registered in eight of the principal Scotch towns. annual rate of mortality in these towns, which had been 21.0, 20.0 18.0 per 1,000 in the three preceding weeks, further declined week to 17.9 per 1,000, but was 1.8 per 1,000 above the mean rate dur the same period in the seventy-six large English towns. Among th

h towns the death-rates ranged from 13.0 in Leith and 13.5 in Greenock, o in Perth and 20.1 in Dundee. The death-rate from the principal tious diseases averaged 2.3 per 1,000, the highest rates being recorded undee, Aberdeen and Greenock The 282 deaths registered in low included 3 which were referred to small-pox, 9 to measles, scarlet fever, 3 to diphtheria, 11 to whooping-cough, and 9 to hoea. Three fatal cases of whooping-cough, 2 of measles and 2 of r," were recorded in Edinburgh; 4 of whooping-cough, and 3 of hoea in Dundee; 8 of whooping-cough in Aberdeen; and 4 measles eenock.

HEALTH OF IRISH TOWNS.

NG the week ending Saturday, May 14th, 578 births and 383 deaths registered in six of the principal Irish towns, against 599 births and aths in the preceding period. The mean annual death-rate in these s, which had been 22.2, 21.7, and 19.9 per 1,000 in the three preceding s, rose to 21.1 per 1,000 in the week under notice, this figure being 5.0 the mean annual rate in the seventy-six English towns during rresponding period. The figures ranged from 12.6 in Londonderry 7 in Cork. The death-rate from the principal zymotic diseases g the same period and in the same six Irish towns averaged 1.4 per or 0.6 per 1,000 higher than during the preceding week, the highest 4.1, being reached in Limerick, while Cork, Londonderry, and rford registered no deaths under this heading at all. From measles ths occurred in Dublin and 1 in Belfast; from scarlet fever, 1 in n and 1 in Belfast; from diphtheria, 1 in Dublin; and from enteric, Dublin and 1 in Belfast. Whooping-cough once more assumed its inent position, 10 deaths being ascribed to this disease in Dublin, 10 lfast, and 3 in Waterford.

LUNATICS AND IMBECILES IN WORKHOUSES.

GEORGE ROOKE presided over a meeting of the Committee of the l-Western Poor-law Conference held at Manchester on May 13th. pecial object of the gathering was to receive a report of the Sub-ittee appointed November, 1903, to consider how practical effect best be given to Mr. Cleaver's paper on combination and classifica- f workhouses, read at the annual conference held at Blackpool in mber last. Mr. Hagger (Vestry Clerk of Liverpool) read the draft t of the Subcommittee, which was as follows:

hat in our opinion it is desirable that in any scheme which may be ed for the maintenance, apart from the workhouse, of harmless ic lunatics, imbeciles, sane epileptics, and feeble-minded persons, eable to the rates in the county of Lancaster, the provision for ess chronic lunatics and imbeciles should be made by the Lan- e Asylums Board: that for that purpose the Board should arrange e erection of buildings of a plain and inexpensive character, to be s asylums for the reception of harmless chronic lunatics and imbe- aud we are further of opinion that such asylums could be so admin- d that the weekly charge for the maintenance of patients, including ishment charges, should not exceed 7s. 6d. per head.

hat as regards sane epileptics and the feeble-minded, we are of n that the guardians of the several unions in the county should le the accommodation required for such cases, apart from the work- , and we think this might be accomplished by groups of unions ning, under the provisions of Section VIII of the Poor-law Act, 1879, ct joint institutions, as has already been arranged between the s of Chorlton and Manchester, whilst unions not in a combination contract with the committee of one of the joint institutions to take ases.

e are also of opinion that it is desirable that similar steps should en with the view to provide accommodation for the sane epileptics he feeble-minded in the Cheshire unions, and that the Cheshire y Council should be approached on the question of providing te asylum accommodation for chronic lunatics and imbeciles.

y these means many cases could be removed from the workhouse, e existing county asylums would be relieved of a large number of ot requiring costly asylum treatment.

e desire to add that the foregoing scheme could be brought into ion without the necessity arising for fresh legislation.

Rhodes, who moved the approval of Clause 1 of the report, said that ing involving legislation would mean that in view of the present ted state of business at Westminster it could not be put through three or four, and perhaps five, years. It was a shame to house epileptics with insane epileptics. With the former class there o doubt that by putting them to work on the land they could do hing towards producing the food they ate. The proposals as e feeble-minded would, he believed, be cheap and efficient.—eaver (West Derby) who seconded the motion, said he was looking d to the day when lunatics would be removed from all workhouses. lid not want to thrust the scheme down the throats of guardians in unions, but they were only doing what was the desire of nine- of the unions in the county.—Mr. D. S. Bloomfield (Chorlton) said was not a union in Lancashire which had proper accommodation for ss whom they were considering. In Chorlton Union they had modation for something like 400 of such patients, and although os no union in the country had better accommodation, he did not there was a member of the Board who would say that it was proper modation.—Mr H. Jenner-Fust, Poor-law Inspector, said that at 15 the 30 workhouses in Lancashire there were separate blocks for lles. In the other cases such patients were in wards attached to blocks or to the main building of the workhouse. He believed he rrect in saying that in every case the accommodation which was at t occupied by imbeciles would be immediately absorbed by other s of inmates if it were vacant. Therefore, although there might be a with some that it might be rather hard for them when they had good provision for imbeciles that no compensation should be paid n any way, still when they found that they were saved the expense of ding further buildings for other classes of inmates, a good deal of objection would be removed.—The first clause was then adopted.—odes, in moving the second clause, said that any one who studied ileptic question must be convinced that the accommodation for tics was not of the proper kind; Germany, France, Switzerland, he United States were all doing something for that class, and nd ought to make proper provision. Unhappily the class comprised r 1,000 of our population. There were about 70,000 of them in nd.—The motion was seconded and adopted.—The third clause re- to Cheshire unions was passed on the motion of Rev. A. Symonds, led by Mr. George Leigh.—Mr. Cleaver afterwards moved that the report be adopted as a whole, and forwarded to the Asylums Board. He appealed to guardians to deal with the scheme in a broad-minded way, so as to prevent the bringing forward of another Bill something like the Valuation Bill.—Dr. Rhodes seconded the motion.—Mr. Leach proposed an amendment to send the report to the individual Boards, in order to receive their views upon it before it went to the Asylums Board.—The amendment was lost, 18 votes being recorded in its favour, and 26 against it.

PROPOSED COTTAGE HOSPITAL AT CRIEFF.

FROM an article which appears in a local newspaper we gather that it is intended to erect a cottage hospital for the district of which Crieff is the centre. The site chosen is on some low-lying ground, about a mile from the nearest doctor's house, circumstances which, in the absence of further details, do not commend the scheme, if a better placed and more accessible site can be found. The remarks of the chairman of the meeting of the General Committee called to consider the proposed site do not increase our confidence in its suitability. He is reported as admitting that the site "was far away from the doctors, but there was this consolation, that with a trained nurse in the hospital she would be able to diagnose cases, so that the services of the doctors would be less frequently called for." Along with this very ill-informed remark must be considered a somewhat similar remark of a medical member of the Committee to the effect that "the doctors would be very seldom called out, because there would be a trained nurse at the hospital." It should be noted that the cottage hospital is for general non-infectious diseases. The notion held out that nurses are competent to diagnose cases, and therefore presumably to decide whether medical aid is needed or not is one which is both foolish and mischievous; and it is of some importance as indicating a growing tendency in some quarters to place nurses out of their proper position and give them the serious and, in their hands, dangerous responsibilities of medical diagnosis. No hospital the patients of which are not daily visited by a medical man, and have not within easy reach medical advice in an intervening emergency, can be considered to be fulfilling its proper functions or to be worthy of public support.

NATIONAL REGISTRATION OF PLUMBERS.

PROFESSOR MATTHEW HAY, Medical Officer of Health for the City of Aberdeen, presided on May 5th at the annual meeting of the District Council for Aberdeenshire, Kincardineshire, and Banffshire for the National Registration of Plumbers at the Robert Gordon's College, Aberdeen. In moving the adoption of the report, Professor Matthew Hay expressed the greatest satisfaction that in connexion with the registration movement in Aberdeen they had been able to assist to a very large extent in the education of the younger plumbers in the district. The following resolution was passed unanimously:

> "That this meeting records its emphatic opinion that the time has arrived when the voluntary system of registration for plumbers carried on in Aberdeen and in other large centres of population in the kingdom by the joint action of the public authorities and the plumbers, should be placed on a statutory basis, on lines already approved by the Local Government Board, in the interests of the public health and economy, and that such legislation is a necessary adjunct to the powers already exercised by sanitary authorities and the water undertakings of the kingdom, and resolves to transmit a copy of this resolution to the Prime Minister, the President of the Local Government Board and the local members of Parliament."

Speaking in support of the resolution, Mr. John Clarke, Lecturer on Education at the Aberdeen University, said he was prepared to urge that the Town Council should do what it could to enforce the employment of duly-qualified plumbers in any work that was to be carried out under their jurisdiction or to which their approval had to be obtained.

THE DETECTION OF ANKYLOSTOMA INFECTION.

A REPORT has recently been presented to the Home Secretary by A. E. Boycott, M.B., B.Sc., on an improved method of ascertaining the presence of the ankylostoma duodenale by an examination of the blood of workers in suspected mines. In this report, which has been published as a Parliamentary paper, Mr. Boycott points out that one of the constant effects of the presence of the worm is to bring about a considerable increase in the number of eosinophile leucocytes. Mr. Boycott states that these leucocytes are present in normal blood in numbers ranging from about ½ per cent. to 4 or 5 per cent. of the total of white corpuscles; and that, when more than 5 per cent. are present, a probability of the presence of ankylostoma exists, a probability which would be raised to practical certainty by such an amount as 8 per cent. The blood is obtained from a needle-prick of the finger, and a single small drop is sufficient for the examination of an individual. By assembling the workers in any mine in which the presence of ankylostoma is suspected, the necessary drops of blood from a large percentage of them may be easily obtained upon microscope slides, and the subsequent examination of each slide may be quickly conducted with sufficient exactness to prove or disprove the necessity of further examinations of a less manageable kind.

UNDERGROUND BAKEHOUSES.

JUDGEMENT has now been given by the Bradford stipendiary in the case of Bradford Corporation *v.* Gallon and Sons, bakers, for using an underground bakehouse without a certificate, under Factory and Workshops Act, 1901, Section CI, having been granted by the local authority. For the defence, it was apparently submitted that "the bakehouse in question was in existence before the passing of the Act, and therefore did not require a certificate." The stipendiary quoted the well-known case of Schwerzerhof *v.* Wilkins, and gave judgement for the defendants. We understand that the Corporation will appeal, and we hope they will succeed, for if we have been furnished with all the facts it would appear that the Corporation ought to have been successful.

DORCHESTER.

THE Medical Officer of Health for Dorchester (Dr. E. J. Day) is able to present a very favourable annual report for 1903. The death-rate is 9.4 per 1,000, and the infant mortality-rate is only 51 per 1,000 births. Both these returns are lower than in 1902, and indicate a high standard of public health. During the year the most important sanitary event has been the completion of the town drainage scheme (during the mayoralty of Dr. E. W. Kerr). A number of minor sanitary improvements have been carried out.

PASTEURIZED MILK IN PHILADELPHIA.

A PASTEURIZED Milk Society, which began operations in Philadelphia some eight months ago by the distribution of 4,500 bottles monthly, is now sending out 3,000 bottles daily. Six branch stations are already in existence, and a seventh is about to be added. The price charged for the milk is said barely to cover the cost of pasteurization.

CANCER.

THE Report of the Medical Officer of Health to the Urban District Council of Spalding, Lincolnshire, contains a statement that the mortality from cancer is increasing from year to year within his district: the deaths ascribed to this disease during the year numbered 19, and formed 11.65 per cent. of all deaths registered.

CERTIFICATE OF LUNATIC IN WORKHOUSE.

W. M. O. writes to ask advice in reference to the following case: The medical officer to a workhouse gives notice to the relieving officer that an inmate requires removing to the lunatic asylum. Upon meeting the relieving officer the next day he is informed the magistrate had instructed him (the relieving officer) to make an appointment with his own medical man to meet him at the workhouse. 1. Had the magistrate the power to ignore the medical officer? Was the relieving officer obliged to carry out the magistrate's instructions? 3. What should be the etiquette of the medical man to the medical officer? 4. Has the medical officer any redress?

*** (1) The magistrate had the power to call to his assistance any medical practitioner to certify the case as one fit for an asylum. (2) The relieving officer was obliged to take the directions of the magistrate so long as such directions were in accordance with the requirements of the Lunacy Act. (3) We are unable to see that the medical man selected by the magistrate to act in the case was guilty of any breach of etiquette. (4) We do not see that our correspondent has any redress.

HOSPITAL AND DISPENSARY MANAGEMENT.

GLASGOW ROYAL ASYLUM, GARTNAVEL.

AT the commencement of 1903 this asylum contained 430 patients, and the number resident at the end of the year was 439. During the year 154 were admitted, 32 being readmissions. Fifty-three patients were discharged as recovered, 62 as relieved or not improved, and 30 died. The percentage of recoveries on admissions for the year is given as 35, and percentage of deaths on the average number present as 7. Of the 154 admitted, alcoholic excess was believed to be the cause of insanity in 29. The medical superintendent, Dr. L. R. Oswald, admits that alcohol may bulk too largely in the public eye as the cause of insanity, but states his conviction that it was the principal, though not the only, cause in the number stated, and that it was further a contributory cause in a number of others. Hereditary tendency to insanity or to allied nervous diseases was ascertained in 44 of the admissions, that is, in 25 per cent., and probably existed in many more, though not elicited from the relatives. The gravity of this fact is emphasized by Dr. Oswald, who maintains that to solve the problem of the prevention of insanity "we must go further back and eradicate or modify the tendencies that lead to it, whether inherited or acquired in childhood or early life." Amongst the preventive measures, Dr. Oswald advocates the physical and mental education of children. By education, he does not mean the routine at present pursued in schools, which he states "seems at times to be more calculated to induce insanity than to prevent it," but an education based on the study of the individual. This opinion was also voiced by one of the directors, Sir John Neilson Cuthbertson, who feared that the modern system of education in dealing with hundreds of children in mass scarcely gave a fair chance to the child predisposed to mental weakness. Dr. Oswald suggests that every child on first going to school should be accompanied by a medical statement for the guidance of the teacher, and pleads for a periodical examination of the child's mental state. Overwork and business and domestic worry account for 20 of the admissions, alcoholic intemperance 29, the adolescent, climacteric, and senile periods for 23, mental shock in 2, disappointed affection in 1, and the remainder are generally distributed over the usually accredited physical causes. We note with satisfaction that a modified open-air treatment has been inaugurated, and the improvement which has followed in some cases has encouraged the directors to give this more extended trial.

ST. ANDREWS HOSPITAL FOR MENTAL DISEASES, NORTHAMPTON.

WE have before us the annual report for 1903 of this valuable and well-equipped institution, conducted by a Board of Governors which has no pecuniary interest in its success, but whose sole aim is to provide suitable accommodation for patients of the upper and middle classes. The directors speak well of the management, which maintains its usual high standard of efficiency. On January 1st, 1903, there were 403 inmates. During the year 76 were admitted, of whom 18 were readmissions, and 63 were discharged; of the 63 discharged, 9 were relieved, 9 were not improved, and 35 recovered, a recovery percentage on admissions of 46.0. Of the 76 admitted, there were 16 cases of acute mania, chronic mania 16, recurrent mania 8, puerperal mania 1, acute melancholia 15, chronic melancholia 11, and recurrent melancholia 2. Of 6 dements, 3 were cases of primary dementia. There was only 1 case of general paralysis. As to the probable causes of insanity, mental anxiety, adverse circumstances and domestic troubles, etc., account for 24, intemperance in drink 3, previous attack as predisposing cause in 15, and old age in 4. Hereditary influences were ascertained in 11. Of the causes of the 32 deaths, 30 were from natural causes, 1 committed suicide, and 1 died from eating yew leaves. In view of this death and others elsewhere from the same cause the directors strongly urge the removal of all yew trees from enclosed airing grounds. The numbers remaining on the books at the end of the year were 384, the total number under treatment 479, and the average under treatment at any one time 395, a slight decrease compared with the two years immediately preceding. It is, however, shown by the statistical tables that there has been a steady upward movement in this asylum since 1877, when the inmates numbered only 279.

EAST SUSSEX COUNTY LUNATIC ASYLUM, HAYWARD'S HA

THIS report for the year ending September 30th, 1903, is the forty-[illegible] owing to the severance of the two councils for East Sussex and th[illegible] Borough of Brighton, the last annual report of the joint committee. in view of the approaching separation, notice was given to determ[illegible] reception contracts with other asylums, and in August the re[illegible] patients was commenced, those patients chargeable to East Suss[illegible] taken to Hellingly and those chargeable to Brighton being brou[illegible] to Hayward's Heath. These changes naturally affect in a marked[illegible] statistical tables, and render difficult correct estimates of recove[illegible] etc., from the data given. On September 30th, 1902, there were 98[illegible] at Hayward's Heath. On September 30th, 1903, there were 737, being largely due to the transfer of East Sussex patients to H[illegible] During the year there were 308 admissions, of whom 81 were readm[illegible] There were 457 discharged and 103 deaths. The admissions sho[illegible] crease of 70 compared with the previous year, but included in t[illegible] 43 chargeable to Brighton brought from other asylums, leaving a[illegible] increase of 27. Excluding transfers from other asylums, the pe[illegible] of those discharged as recovered within the year was 4.6 higher t[illegible] year. Of the 103 deaths (a percentage on the average daily mem[illegible] sident of 10.5) 5 were due to phthisis, 9 to bronchitis or pneumo[illegible] heart disease, 21 to general paralysis, 11 to old age, and the rema[illegible] to various forms of brain disease or other constitutional disord[illegible] cases the coroner considered it necessary to hold inquests and in e[illegible] a verdict was returned exonerating the asylum officials from blam[illegible] case the patient was admitted in an unconscious state and die[illegible] following day, and in another the patient died within a few m[illegible] admission to the asylum. The Committee of the Brighton Borough Asylum will continue the management under the offi[illegible] other members of the staff.

COUNTY BOROUGH OF MIDDLESBROUGH BOROUGH ASY[illegible]

THE statistical tables of this the sixth annual report of this asyl[illegible] an increase of 9 patients on the preceding year, an increase of [illegible] average of the last ten years. This increase of insanity wi[illegible] borough—with the exception of the years 1895 and 1900, which s[illegible] decided fall—has been fairly steady not only numerically but in[illegible] tion to the population. Thus in 1894 the proportion of certified [illegible] the population was 1 in 517.3, in 1898 1 in 487.6, in 1901 1 in 447.[illegible] 1903 1 in 445.5. This, however, is well below the general ratio of [illegible] drawn from the same class, as the Blue Book presented to Parlia[illegible] the Commissioners in Lunacy last July shows this to be 1 in 293. [illegible] with this increase a new extension for 160 inmates has been built [illegible] of £125 per head and was handed over on January 10th, 1904. The [illegible] 78 admissions during the year, 72 of these for the first time; 34 [illegible] 78 were subjects of incurable conditions, and of the remaining 44 [illegible] discharged recovered, a satisfactory recovery-rate of 40.84 per ce[illegible] average recovery-rate for England and Wales for 1902 was 36.13). [illegible] were 27 deaths, all from natural causes. Of the 78 admissions the [illegible] 34 cases of mania, 15 of melancholia, 8 of dementia, 13 of general p[illegible] of the insane, and 8 of congenital or infantile mental deficiency [illegible] the probable causes, moral causes, domestic trouble, mental anx[illegible] worry, etc., account for 13, intemperance and drink 17, venereal d[illegible] and the remainder are fairly equally distributed over the usua[illegible] physical agencies. Hereditary influence was only ascertained i[illegible] the 29 deaths 9 suffered from general paralysis of the insane, an[illegible] organic brain disease. There were 18 cases of thoracic disease, in[illegible] 11 cases of empyema, 4 of abscess of lung, 1 of phthisis. The lo[illegible] rate from phthisis and the large number of cases of empyema are s[illegible] and it would be interesting to know how many of these cases un[illegible] operations, and also if the exudate was examined bacteriologica[illegible] if so whether it was sterile or not.

CITY AND COUNTY OF BRISTOL LUNATIC ASYLUM.

THE admissions to this asylum during the year 1903 were 226, of [illegible] were boarders from out-county unions; 21 are thus chargeabl[illegible] city, an increase on the preceding year of 6. The medical superin[illegible] congratulates the Committee on the smallness of this increase [illegible] taking into consideration the yearly increase in the population, b[illegible] his previously expressed opinion that there has been no increas[illegible] curring insanity in the city of late years. These figures are very s[illegible] tory, but to arrive at a true estimate there should be added certifi[illegible] not sent to this asylum and those helpless lunatics kept in work[illegible] There were 852 patients on the books on January 1st and 838 on De[illegible] 31st, 1903, an average number resident during the year of 854; 1[illegible] discharged as recovered, a percentage recovery-rate on admissions [illegible] (given in another part of the report as 50.46; the former figure, h[illegible] is correct); 39 were discharged as relieved, 1 not improved, an[illegible] were 91 deaths. Of the admissions, 32 of whom were readmission[illegible] were 120 cases of mania, 44 of melancholia, 27 of dementia, 13 of [illegible] paralysis, 18 of acquired epilepsy, and 4 of acquired or infantile [illegible] deficiency. Of the probable causes moral disturbances (business a[illegible] etc.) appears in only 1 case. Hereditary influence was ascertained [illegible] large number of 83, intemperance and drink in 10, privation and ill[illegible] (cause of ill-health not stated) in 54, old age and "other causes" [illegible] and epilepsy and "other forms of brain disturbance" in 13. W[illegible] that whilst general paralysis of the insane appears as a probable c[illegible] 10 of the admissions, it is given as present in 13 of these. W[illegible] disease is not given as one of the probable causes, though poss[illegible] cluded amongst "other causes." Considering the number of ca[illegible] general paralysis, we cannot think that syphilis was not present i[illegible] The causation was unascertained in 13. Of the 91 deaths, the pro[illegible] features are phthisis 15, "congestion of lung" 11, chronic Bright's [illegible] senile decay 13. The Commissioners speak well of the manageme[illegible] general condition of this asylum.

THE CITY OF LONDON ASYLUM, STONE, NEAR DARTFO[illegible]

DURING the year 1903 there were 735 patients under care and treat[illegible] this asylum, and the average number daily resident was 561 (254 [illegible] and 307 females) as compared with 518 in the previous year. Ther[illegible] 193 patients admitted, of whom 9 were readmissions. The recove[illegible] among the 124 patients discharged was 43.70 per cent. calculated up[illegible] number admitted. The death-rate was 8.56 per cent. calculated u[illegible] daily average number resident, and only 6.53 per cent. calculated [illegible] the total number under treatment. The number of private patien[illegible] tinues steadily to increase. In 1892 the number remaining in res[illegible] was only 18, and we find that at the end of 1903 there were no les[illegible]

lining on the books. Owing to this large increase a plot of land idence was purchased, and the first villa in connexion with the duly opened in the month of May, and immediately occupied. heme of admitting and providing for private patients at erate rate of one guinea a week not only meets a very pressing ant, but its success has been such as to leave in the hands of the tee at the end of the year a profit of upwards of £5,000. Dr. Ernest e, the physician-superintendent, in concluding his annual report, s follows on this subject: I feel prompted to congratulate the tee upon the position your institution has attained and upon its lended sphere of usefulness opened out by the development of te patient department.

DICAL VACANCIES AND APPOINTMENTS.

VACANCIES.

of vacancies is compiled from our advertisement columns, where full lars will be found. To ensure notice in this column advertisements e received not later than the first post on Wednesday morning.

EN ROYAL INFIRMARY.—Second Assistant Anaesthetist.
MOUTH: ROYAL VICTORIA HOSPITAL.—Honorary Medical Officer in of Electrical Department.
RD ROYAL INFIRMARY.—Dispensary Surgeon, resident. Salary, £100 per .
N: SUSSEX COUNTY HOSPITAL.—Second House-Surgeon, resident. Salary, annum.
LONDON OPHTHALMIC HOSPITAL, Gray's Inn Road, W.C.—House- n, resident. Salary at the rate of £50 per annum.
NDON HOSPITAL FOR CHILDREN, Shadwell, E.—House-Physician, resi- Honorarium £25 for six months.
HOSPITAL FOR SICK CHILDREN, Southwark.—(1) House-Surgeon, t. Salary, £80 per annum. (2) Surgeon to Out-patients.
RD GENERAL HOSPITAL.—House-Surgeon, resident. Salary, £100 per
L FOR SICK CHILDREN, Great Ormond Street, W.C.—House-Physician, t. Salary, £20 for six months.
COUNTY COUNCIL.—Assistant Medical Officer of Health. Salary, £140 per and travelling expenses.
HOSPITAL, Whitechapel, E.—Surgical Registrar.
SCHOOL OF MEDICINE FOR WOMEN, Hunter Street, W.C.—Lecturer on y.
A UNIVERSITY.—Professorships of Botany, Physics, Chemistry, and logy. Salary, 2,500dols.
EST LONDON HOSPITAL.—(1) Resident Medical Officer. (2) Assistant t Medical Officer. (3) Second Honorary Anaesthetist. Salary for (1) and (2), annum each.
HAM WORKHOUSE INFIRMARY.—Resident Medical Officer. Salary, £120 um.
RADCLIFFE INFIRMARY.—Honorary Assistant Surgeon and Registrar.
OUGH HOSPITAL AND DISPENSARY.—Junior House-Surgeon, resident. ment for six months. Salary, £80.
R'S HOSPITAL FOR STONE, Henrietta Street, W.C.—(1) Junior House- n, resident. Salary at the rate of £50 per annum. (2) Six Out-patient Clinical nts.
D CHILDREN'S HOSPITAL.—Lady House-Surgeon, resident. Salary, £80 um.
RT INFIRMARY.—Resident Junior House and Visiting Surgeons. Salary cing at £70 per annum.
GENERAL DISPENSARY, Marylebone Road.—Second House-Surgeon, alary, £80 per annum.
PENSARY.—Resident Medical Officer. Salary, £120 per annum.

APPOINTMENTS.

hur, M.D.Lond., M.R.C.S.Eng., L.R.C.P.Lond., Anaesthetist to St. Thomas's l.
William Frederick Cocksaigne, L.R.C.P.Edin., L.R.C.S.Edin., L.F.P.S.Glasg., ond., District Medical Officer and Public Vaccinator, Sheffield Union, *vice* olmes, M.R.C.S., L.R.C.P., resigned.
T. F., M.D.Durh., M.R.C.S.Eng., Certifying Factory Surgeon for the Chatham , Kent.
A. Douglas, M.R.C.S., L.R.C.P.Lond., D.P.H., Medical Officer of Health to ourable Societies of the Inner and Middle Temple.
rasmus, M.D.Brux., M.R.C.S.Eng., L.R.C.P.Lond., Clinical Assistant to the ndon Hospital for Children, Shadwell, E.
Graham, M.D.Cantab., M.R.C.P.Lond., Honorary Physician to the Farringdon Dispensary.
H. Morgan, M.R.C.S.Eng., L.R.C.P.Lond., House-Surgeon to the Bridgnorth th Shropshire Infirmary, *vice* Dr. Milne.
acMaster, L.R.C.P.&S.Edin., L.F.P.S.Glasg., Certifying Factory Surgeon for dbeck District, Cumberland.
P. W., M.R.C.S., L.R.C.P.Lond., Resident Assistant Medical Officer at the m Union Infirmary.
hn, M.D., D.P.H., Medical Officer to Post Office at Troon, Ayrshire, including ald and Lymington.
p E., M.R.C.S., L.S.A., Medical Officer to the Post Office, Crickhowell.
M.B., C.M.Glasg., Assistant Physician to the Dumfries and Galloway Royal ry.
. E. L., M.D., B.S.Lond., M.R.C.S., L.R.C.P., Medical Officer of Health to the Urban District of Wolstanton.
J., M.D.Edin., L.S.A.Lond., Medical Officer of the Casual Wards of the Union.
A. J., L.S.A., Certifying Factory Surgeon for the Shepley District, Yorkshire.
R, D. A., M.B., C.M.Edin., Certifying Factory Surgery for the Denby Dale Yorkshire.
T, G. E., M.B., District Medical Officer of the Caistor Union.
, M.B., Ch.B.Glasg., Medical Officer to the Parish of Ceres, and Certifying Surgeon for the Civil District of Ceres, Fifeshire, N.B.
Herbert, B.S., D.Sc., F.R.C.S., appointed Assistant Ophthalmic Surgeon to ity College Hospital.
M.B., C.M.Aberd., Certifying Factory Surgeon for the Portsoy District, re.
, M.B., C.M.Edin., Medical Officer to the Carnarvon Port Sanitary Authority ation Hospital.
W., Wm., M.B., C.M.Edin., Certifying Surgeon for the Stocksbridge District, re.
Douglas, L.R.C.P., M.R.C.S., Resident Surgical Officer to the Children's , Birmingham.
W., M.R.C.S., L.R.C.P., Medical Officer of Health for the Kirkby Moorside istrict.
Chisholm, F.R.C.S.Edin., Surgeon to the City Orthopaedic Hospital.

DIARY FOR NEXT WEEK.

WEDNESDAY.

Dermatological Society of Great Britain and Ireland, 20, Hanover Square, W., 4.30 p.m.—Annual meeting and conference. Oration by Dr. H. A. G. Brooke on The Clinical Relationships of Seborrhœa.

FRIDAY.

Society for the Study of Disease in Children, 11, Chandos Street, Cavendish Square, W., 5.30 p.m.—Papers by Mr. W. Watson Cheyne, Dr. R. H. W. Wilbe, and Mr. Lockhart Mummery. Cases will be shown by Dr. Edmund Cautley, Mr. Francis Jaffrey, Mr. Walter Edmunds, Mr. Hunter Tod, Dr. Walter Emery, Mr. Harold Balme, Mr. A. D. Reid, and Mr. Thomson Walker.

Clinical Society of London, 20, Hanover Square, W., 8.30 p.m.—Annual general meeting. Election of officers for session 1904-5. The following papers will be read:—Dr. David W. Finlay: A Case of Pyopneumothorax Treated by Incision and Removal of Ribs Dr. H. E. Thompson and Dr. C. U. Aitchison (introduced by Dr. Percy Kidd): Two Cases of Tumour of the Left Auricle Simulating Mitral Stenosis. Mr. H. B. Robinson, M.S.: Femoral Aneurysm in Hunter's Canal: Ligature of Superficial Femoral and Popliteal Arteries: Cure of Aneurysm: Death from Cardiac Disease ten weeks later. Mr. C. R. Keyser, F.R.C.S.,: Case of Congenital Elevation of the Scapula.

POST-GRADUATE COURSES AND LECTURES.

Charing Cross Hospital Thursday, 4 p.m.—Demonstration of Surgical Cases.

Hospital for Consumption and Diseases of the Chest, Brompton, Wednesday, 4 p.m.—Lecture on Angina Pectoris.

Hospital for Sick Children, Great Ormond Street, W.C., Thursday, 4 p.m.—Lecture on the Use of Sodium Citrate in Infant Feeding.

Medical Graduates' College and Polyclinic, 22, Chenies Street, W.C.—Demonstrations will be given at 4 p.m. as follows: Tuesday, Medical; Wednesday, Surgical; Thursday Surgical; Friday, Throat. Lectures will be delivered at 5.15 as follows: Wednesday, The Forms of Diabetes and the Differential Examination of Urine; Thursday, Purulent Endometritis.

Mount Vernon Hospital for Consumption and Diseases of the Chest, 7, Fitzroy Square, W., Thursday, 5 p.m.—Lecture on General Principles of Treatment of Respiratory Affections.

National Hospital for the Paralysed and Epileptic, Queen Square, W.C.—Lectures will be delivered at 3.30 p.m. as follows: Tuesday, Anterior Poliomyelitis Friday, Progressive Muscular Atrophy.

North-East London Post-Graduate College, Tottenham Hospital, N., Thursday, 4.30 p.m.—Lecture on Affections of the Cranial Nerves.

Post-Graduate College, West London Hospital, Hammersmith Road, W.—Lectures will be delivered at 5 p.m. as follows: Tuesday, Puerperal Insanity (at the London County Lunatic Asylum, Hanwell); Wednesday, Practical Medicine; Thursday, Rectal Fistula; Friday, Surgical Cases.

St. Peter's Hospital, Henrietta Street, W.C.—Lecture. Demonstrations will be given as follows: Tuesday, 3.30 p.m., Surgical Diseases of the Kidneys; Saturday, 2.30 p.m., Diagnosis in Urinary Disease.

BIRTHS, MARRIAGES, AND DEATHS.

The charge for inserting announcements of Births, Marriages, and Deaths is 3s. 6d., which sum should be forwarded in post-office orders or stamps with the notice not later than Wednesday morning, in order to ensure insertion in the current issue.

BIRTHS.

BIDWELL.—On April 20th, at Bloemfontein, South Africa, the wife of C. H. Bidwell, M.R.C.S., L.R.C.P., of a daughter.

FLEMING.—On May 11th, at 10, Chester Street, Edinburgh, the wife of Robert A. Fleming, M.D., F.R.C.P.E., of a son.

RAYSON.—On Friday, May 13th, at 86, Osmaston Road, Derby, the wife of H. Knights Rayson, M.D., M.R.C.S., L.R.C.P., of a daughter.

MARRIAGE.

MASINA—PARAKH.—On April 16th, at Bombay, India, Hormasji Manekji Masina, F.R.C.S., to Jeroai Burjorjee Ratanji Parakh, B.A.

LETTERS, NOTES, AND ANSWERS TO CORRESPONDENTS.

COMMUNICATIONS respecting Editorial matters should be addressed to the Editor, 2, Agar Street, Strand, W.C., London; those concerning business matters, advertisements, non-delivery of the JOURNAL, etc., should be addressed to the Manager, at the Office, 429, Strand, W.C., London.

ORIGINAL ARTICLES and LETTERS *forwarded for publication are understood to be offered to the* BRITISH MEDICAL JOURNAL *alone, unless the contrary be stated.*

AUTHORS desiring reprints of their articles published in the BRITISH MEDICAL JOURNAL are requested to communicate with the Manager, 429, Strand, W.C., on receipt of proof.

CORRESPONDENTS who wish notice to be taken of their communications should authenticate them with their names—of course not necessarily for publication.

CORRESPONDENTS not answered are requested to look at the Notices to Correspondents of the following week.

MANUSCRIPTS FORWARDED TO THE OFFICE OF THIS JOURNAL CANNOT UNDER ANY CIRCUMSTANCES BE RETURNED.

IN order to avoid delay, it is particularly requested that ALL letters on the editorial business of the JOURNAL be addressed to the Editor at the Office of the JOURNAL, and not at his private house.

TELEGRAPHIC ADDRESS.—The telegraphic address of the EDITOR of the BRITISH MEDICAL JOURNAL is *Aitiology, London.* The telegraphic address of the MANAGER of the BRITISH MEDICAL JOURNAL is *Articulate, London.*

TELEPHONE (National):—
EDITOR, 2631, Gerrard.
GENERAL SECRETARY AND MANAGER, 2630, Gerrard.

☞ *Queries, answers, and communications relating to subjects to which special departments of the* BRITISH MEDICAL JOURNAL *are devoted will be found under their respective headings.*

QUERIES.

V. D. writes: Can any member tell me where I can obtain authentic information concerning the medicinal properties of panax ginseng and chionanthus virginica which are extensively advertised in this country by an American firm of druggists under the guise of a so-called medical journal.

*** Panax ginseng is the plant yielding the celebrated ginseng of the Chinese who use it as an aphrodisiac. It is also used as a heart stimulant. It has not been chemically investigated. Chionanthus virginica is said to be diuretic and aperient and useful in chronic inflammatory states of the various viscera. It yields a glucoside which is probably a saponin.

ANSWERS.

H. J. F. B.—Our correspondent is clearly entitled to charge for his "false pain" visit. We think a fee of 5s. would be suitable. This should not be included in the fee for the confinement.

VREDE (Bloemfontein).—The epileptic patient referred to would be eligible for the colony at Chalfont, information about which can be obtained from the Secretary, Mr. Penn Gaskell, 12, Buckingham Street, Strand, W. This is an institution for sane epileptics only. There is also an establishment for similar cases at Maghull, near Liverpool, the Secretary of which is Mr. William Grisewood, 5, Dale Street, Liverpool.

SEX.—If general and local disease can be excluded attention should be paid to the general health. Abstention from any attempt at intercourse for a month or two would be advisable. During this time the patient and his wife should occupy separate rooms, or, at any rate, separate beds.

VERONAL.

DR. T. M. WATTS of Goxhill, Lincolnshire, writes: In reply to "Bandela," I have exhibited veronal about a hundred times, and continuously for weeks in several cases. In no instance have I seen any untoward effects except that in a male octogenarian my invariable dose of 6 gr. caused somnolence day and night; 3 gr. did all that was wanted in his case. I have taken it frequently myself, and from my experience with myself and patients I have come to regard it as the safest and surest, and in every way most satisfactory, hypnotic I have ever met. The brand I have used is Merck's.

URINARY CALCULI.

ARABIA.—A very excellent account of the naked-eye characters of urinary calculi will be found in the last edition of the *System of Surgery* edited by Holmes and Hulke (1883). The article on urinary deposits and calculi in vol. iii, by Mr. A. Poland and Dr. W. F. Donkin, includes also references to the extensive collection in the Royal College of Surgeons, London, and quotations from the College catalogue, which is very full on the particular matters in regard to which our correspondent seeks for information.

DR. LAVILLE'S ANTIGOUT REMEDIES.

DR. C. HASLEWOOD.—Laville's liquor is said to be a strong tincture of colocynth, which may account for the symptoms observed by our correspondent. We do not know the composition of the pills, It is interesting, and perhaps of some practical value, to notice the part played by purgative remedies in all gout nostrums.

A STABLE SOLUTION OF HEROIN HYDROCHLORIDE.

S. W. S.—Heroin hydrochloride dissolves readily in distilled water to form a solution of the strength desired, namely, gr.j to 3j. The difficulty probably arises through the use of tap water, which precipitates many alkaloids. The distilled water should be boiled for fifteen minutes before using, and the solution placed in a well-stoppered bottle, which has been thoroughly cleaned with strong sulphuric acid, and afterwards rinsed out with the boiled water. This should keep well, but if it does not then the following method might be tried: Dissolve the heroin hydrochloride in half the water, and make up to the volume required with glycerine.

LETTERS, NOTES, Etc.

LIFE SAVING.

THE next competition held by the Life Saving Society for the King's silver Cup will take place on July 2nd and 4th. The object of this Society is both to teach and to promote the teaching of the art of swimming and life saving, especially among those who live on or near water. Some 5,000 persons annually, or about 14 a day, lose their lives in the waters of the United Kingdom, and last year over 400 were drowned in the River Thames alone. The Honorary Secretary of the Society is Mr. W. Henry, 8, Bayley Street, Bedford Square, W.

INTRA-ABDOMINAL ANASTOMOSIS.

We received some months ago for publication some correspondence of a very friendly character which had passed between Mr. Stanmore Bishop, of Manchester, and Dr. Wackerhagen, of Brooklyn, U.S.A. It did not and does not seem to us to be of sufficient public interest to justify reproduction, but we give here, in deference to Mr. Bishop's wish that full justice should be done to Dr. Wackerhagen, the point upon which the correspondence turns. Mr. Bishop, in his paper on intra-abdominal anastomosis read at Swansea, expressed the opinion that the support given by Dr. Wackerhagen's wafer cylinders was too transient to indicate their use in operations upon the small intestine. This opinion Dr. Wackerhagen considers incorrect, and supports his view by reference to cases in which he has used the wafers with success for such operations. The real difference between these distinguished surgeons lies in their respective views of what constitutes adequate protection to the line of union. Dr. Wackerhagen is satisfied with one which lasts through the operation and for a very short time afterwards, while Mr. Bishop does not consider the use of any support justified unless after the operation is complete the support remains intact long enough to protect the uniting surfaces from the chemical action of the contents of the small intestine until such union is practically complete.

URINE ANALYSIS.

DR. C. H. BEDFORD (Moffat) writes: While thanking you for the kind terms in which you review the second edition of my *Clinical Handbook of Urine Analysis*, may I point out an oversight as to the single omission noticed in the book? The reviewer says: "Le Nobel's test for acetone is not mentioned," and he proceeds to describe this test in which nitroprusside of sodium and an alkali are the reagents used. But the first test for acetone given in my book (at p. 92) is that with sodium nitroprusside and an alkali (Legal's test). Both are essentially the same test under different names. I notice that your reviewer considers it "sufficient to give the methylene blue in a pill and not by hypodermic injection" in testing renal adequacy. The objection to giving the drug by the mouth is that its absorption from the gastro-intestinal tract is, in many cases, delayed and the corresponding delay in the appearance of the drug in the urine leads to wrong conclusions as regards renal adequacy. Hypodermic administration is, therefore, much to be preferred.

MEDICAL GOLF TOURNAMENT, 1904.

THIS tournament will be held on Thursday, June 9th, at Northwood, by kind permission of the Northwood Golf Club). Eighteen holes at play *v.* Bogey. No match to start later than 3 p.m. No previous play allowed on the day. Class I. Handicaps of 12 and under. Class II. Handicaps of more than 12 (24 limit). Members of Northwood Golf Club deduct 2 from their handicap. First and second prize, and one for best last 9 holes *v.* Bogey in each class. Foursome sweepstakes competition *v.* Bogey in afternoon. Players arrange their own matches, apply to the Honorary Secretary, stating time they wish to play. Entries stating lowest handicap and enclosing 5s. entry fee, to be made before June 8th, to the Honorary Secretary, Mr. Rolf Creasy, Wisham, Surrey.

LETTERS, COMMUNICATIONS, ETC., have been received from:

A Dr. F. J. Allan, London; Mrs. E. Garrett Anderson M.D., London; Messrs. Allen and Hanburys, London; Dr. T. R. Atkinson, Chadwell Heath; Mr. A. Abdin, Johannesburg; Dr. A. G. Auld, London. **B** Mr. L. A. Bidwell, London; Dr. W. Buckley, Buxton; Bedford; Mr. E. S. Bishop, Manchester; Dr. J. R. Bryon, London; Mr. C. A. D. Bryan, Leicester; Dr. A. Bronner, Bradford; Mr. H. Badcock, Gillingham; Mr. W. A. Berridge, Redhill; Mr. W. M. Beaumont, Bath. **C** Mr. A. Conway, Stockport; J. Cunningham, M.B., Stewarton; Dr. G. Crile, London; Cotswold; A. Cox, M.B., Gateshead; Civil; Mr. A. Corner, London; W. H. Calvert, Melrose; Mr. C. F. Cuthbert, Gloucester; Dr. F. B. Carter, Leeds. **D** Mr. T. Duncan, Fintona; Mr. A. Dobson, Ilkeston; Mr. G. W. Duncan, Lido, D.M.O. **E** Dr. J. Edmunds, Brighton. **F** Dr. P. C. Franze, Bad Nauheim; M. Fardon, Birkenhead; Dr. C. Fisher, Shere; F. C. F.; Dr. L. G. Fraser, North Shields; C. Forsyth, M.B., Southend-on-Sea. **G** Dr. J. H. Galton, London; Dr. J. Gaine Crieff; Dr. W. Gray, West Hartlepool; Mr. W. J. Greer, Newport, Mon.; Dr. Goodall, London; Germ Cell. **H** Mr. T. G. Horder, Cardiff; C. Haslewood, Slaidburn; Mr. J. Hamilton, Dumfries; J. McK. Harrison, M.B., Ledbury; Highet, Troon; Dr. W. Henry, Leicester. **J** Mr. A. T. Jones, Mountain Ash; Jackson, London; Miss G. B. Jacobi, London; Mr. B. Johnson, Crewe; Dr. Johnson, Stoke-on-Trent; Mr. W. Jones-Morris, Portmadoc. **K** S. Keith, London; Dr. H. W. King, Chester; Kent. **L** G. R. Livingston, M.B., Dumfries; A. Latham, London; Mr. C. B. Lockwood, London; Dr. A. E. Larking, Folkestone; L. A. T. **M** M. C. C.; Mr. J. H. Marsh, Macclesfield; Dr. R. B. Mahon, Ballybay; Mr. W. J. Morton, London; Mr. W. J. Mulford, London; Mr. A. A. Martin, Jarrow-on-Shields; Mr. H. C. Martin, Wroughton; Dr. J. McNamara, London; B. Moynihan, M.B., Leeds; Mr. W. A. Meredith, London; Dr. C. A. McBride, Lisburn; Dr. W. H. Masters, London; Mr. J. R. McPhail, Paris; Dr. J. J. Macan, Cheam; P. Michelli, London; Medicus; Mr. J. O. McCreery, Burnopfield; H. McLaren, Glasgow. **N** J. H. Nicoll, M.B, Glasgow; Mr. S. Neave, Khartoum. **O** M. Owen, Rushden; Sir I. Owen, London. **P** J. Pardoe, M.B., London; Mr. C. Parkinson, Wimborne; Mr. E. Palliser, London; Parish Doctor; W. M. Philip, Colombo; Mr. R. C. M. Pooley, London. **R** Mr. J. Robertson, Edinburgh; DJ. Ross, Sunderland; Dr. J. C. Renton, Glasgow; Mr. H. Rowe, Leeds; Dr. A. Ross, Bad Kissingen; Dr. W. Russell, Edinburgh; Rex; J. D. Russell, M.B., London; J. T. T. Ramsay, Blackburn. **S** Mr. C. St.Aubyn-Farrer, London; S. W. S.; Mr. Strickland, Colombo; Mr. H. C. Smith, London; Mr. J. Scott, Kermanshah; M. S. Salt, Edinburgh; Mr. W. G. Sutcliffe, Margate; P. S. Sturrock, M.B., Dunfermline; Mr. R. R. Sleman, London; R. D. Sweeting, M.B., London; A. Shillitoe, M.B., Lisburn; Dr. A. Sellers, Manchester: Dr. J. Stewart, Clifton; Mr. A. St Lawrence-Burke, Killala; Dr. R. W. I. Smith, Sheffield; Messrs. W. B. Saunders and Co., London. **T** Thompson, London; Dr. J. W. Taylor, Belfast; Mr. T. J. Tonkin, Chard; Dr. Tresilian, Enfield; J. H. Taylor, M.B., Salford; Dr. J. H. Teacher, Glasgow; Mr. Thomas, London. **U** University Voter. **V** S. Verdon-Roe, M.B, London; **W** Mr P. Williams, Bridgwater; Mr. C. G. Watson, London; Dr. A. O. Ward, Lisburn; Mr. S. W. Wilson, Aylesbury; A. E. Wilson, M.B., Boston, Lincs.; Dr. F. Wise, London; Dr. E. Weyll, Langenschwalbach; Messrs. A. J. Wilson and Co., Lisburn; Dr. J. D. Windle, Southall; Mr. F. C. Wood, London; Dr. E. F. Willoughby, Lisburn; Mr. C. F. Wightman, Royston; Mr. R. Weiss, Manchester.

BOOKS, ETC., RECEIVED.

Clinical Lectures and Essays on Abdominal and Other Subjects. By H. D. Rolleston, M.A., M.D.Cantab., F.R.C.P. London: Sidney Appleton. 1904. 5s.

The State Remedy for Poverty. By A Doctor of Medicine. (An extract from that work, with further remarks in 1904.) London: George Standring. 1904. 1d.

Report of the Middlesex Hospital for the Year 1903. London: Mitchell, Hughes, and Clarke. 1904.

The Cancer Charity of the Middlesex Hospital. Report of the year 1903. London: Mitchell, Hughes, and Clarke. 1904.

Theorie und Praxis der Augengläser. Von Dr. E. H. Oppeheimer. Berlin: August Hirschwald. 1904. M 5.

Wounds in War: The Mechanism of their Production and their Treatment. By Surgeon-General W. F. Stevenson, C.B., A.M.S. Second edition. London: Longmans, Green and Co. 1904. 15s.

The Oxford and Cambridge Year-Book, 1904. Part I, Oxford. Edited by H. Holland. London: Swan Sonnenschein and Co., Limited. 1904. 3s 6d.

Southport. Edited by George W. Hall. London: The Health Resorts Association. 1904.

Manual of Materia Medica and Pharmacy. By E. Stanton Muir, Ph.G., M. Third edition. Philadelphia: F. A. Davis Co. 1904. 2 dols.

Aspects of Social Evolution. First Temperaments. By J. Lionel Tay M.R.C.S. London: Smith Elder Co. 1904. 7s. 6d.

Commentarii di Clinica Medica dalla Morfologia del Corpo Um Por Professor Achille de Gio Parte generale. Seconda edi Milano: Ulrico Hoepli. 1904. L.

A Manual of Midwifery. By Lewis Galabin, M.A., M.D.Cam F.R.C.P.Lond. Sixth edition. Lo J. and A. Churchill. 1904. 14s.

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A Clinical Lecture
ON
COUGH AND ITS SIGNIFICANCE.

elivered at the Medical Graduates' College and Polyclinic.

BY FRED. J. SMITH, M.D., F.R.C.P.,
Physician, the London Hospital.

HE subject that I have chosen to-day to talk to you about is exceedingly common one, and, I must admit, also very equently troublesome to treat. When I first gave Mr. nch my subject I thought it would be a fairly easy one to ing into manageable proportions, but the more I looked at the larger I found it was.

I would begin by remarking that cough is very like pain in e respect; it is a signal that something is irritating a nerve nerves. In the case of pain the irritation may be anyere. In the case of cough it is primarily an indication of itation of a branch of the vagus nerve, though cough may ise occasionally from other sources, as we shall see. To get sound basis for estimating what and where that irritation it is necessary to analyse cough: first, in regard to its meanism; and, secondly, in regard to its causation and treatent. Cough, then, may be defined as an abnormal respirary process produced by a stimulus reaching a centre, a ocess which has, moreover, for its object the removal of the mulus. The importance of this will be seen later in king of treatment.

It is stated in works on physiology that such a centre has en localized close to the respiratory centre. It is tolerably vious that such a centre does exist, for the process of ughing is a very complicated one, and there must, therefe, be a great saving in labour if the messages can be conlled by cells which are in close connexion.

THE PROCESS OF COUGHING.

The actual processes in the act of coughing are: (1) An spiratory effort followed at once by (2) a closure of the al cords, in turn followed by (3) violent expiratory orts in which (4) a sudden opening of the rima glottidis es place. The chief difference between an ordinary deep spiration and cough lies in this approximation of the vocal ds till the air pressure in the lungs and bronchi reaches a nsiderable height, sufficient to suddenly force them open l thereby carry with the gust of air the offending material t excites the cough. How high this pressure may reach at nes is shown by the lesions in the lung that may be proed by it, either by a sudden considerable increase in the ssure, or by long-continued slighter increase. For inance, sudden rupture of an air vesicle has been produced h consequent pneumothorax in an otherwise healthy chest, l emphysema occurs in the slighter forms of a cough ich is long continued. How important this closure is, is n in the ineffectual cough of cord paralyses which we ll mention presently.

COUGH AND THE VAGUS NERVE.

ough may be and often is, as in the physical examination the chest, when one asks a patient to cough, a purely untary procedure. But we must assume here either an normal stimulus from a surface or an abnormal condition rritability of such surface. The palate, pharynx, larynx, nchial tubes, and pleura are the usual seats of such nulus or irritability, but other regions and even the skin y be at times the source of a cough. A complete analysis li the possible sources of cough involves an examination ll the surfaces to which the vagus is distributed, and all possible irritants to which those surfaces might be exed. The branches of the vagus are as follows:

A small branch to the meninges, which has no interest for us at ent because I know of no case of cough produced by such means. vomiting which takes place in meningitis is probably produced ugh that same branch by stimulus of the vagus

A small branch—Arnold's or the auricular branch—distributed to back of the pinna of the ear and probably also to the external tus in part, for a cough is certainly produced from an affection of external meatus. All of you most likely have met with cases in h the removal of a plug of wax from the ear and the curing of a external ear discharge has completely relieved a cough which has a puzzle as regards its causation.

A branch to the pharynx joining with other nerves round the phagus. This nerve is certainly a source of cough in pharyngeal

4. The superior laryngeal branch distributed as a sensory nerve to the base of the tongue, the epiglottis, and the larynx, irritation of which probably produces as many cases of coughing—not due to distinctly pulmonary disease—as all the others together. That is the most important branch to remember.

5. The inferior laryngeal branch supplying motor powers to the muscles of the larynx, and therefore important in carrying out the movements in cough, but it has also a few sensory fibres.

6. The cardiac branches, possibly of some interest to us, but cardiac cough is more probably due to muscle failure with back pressure and irritation to the lungs with excessive secretion.

7. The pulmonary branches concerned in the cough of gross pulmonary disease such as tubercle, growths, etc., and possibly in the cough of pleural disease in its visceral layer.

8 and 9. The oesophageal and pericardial branches, not of much clinical interest, as cough in these diseases is due generally to pressure on the trachea and larynx or to associated pleurisy. I know nothing about oesophageal cough or pericardial cough.

10. The gastric branches and branches to other abdominal viscera. They come within our present purview because one is very definitely acquainted with the cough which arises from gastric disturbances in the shape of forms of dyspepsia.

COUGH IRRITANTS.

The irritants to which the surfaces may be exposed may be briefly classified into: (1) Foreign substances, such for instance as tobacco smoke, dust, etc.; (2) excess of natural secretion which is a very common event in inflammatory troubles; (3) pressures and inflammation; (4) acute, or chronic and simple debility, or increased irritability without obvious change in structure so far as the naked eye is concerned. This question of increased irritability is exceedingly important because there can be no doubt about it that many people coming to you would call themselves in perfect health except that they are troubled with "a beastly cough" every time of going out of or into a warm room, in fact with every change of temperature. Examine them as much as you like and you find nothing. The condition is simply one of increased irritability, and it occurs particularly after influenza and other debilitating diseases. Every now and again one sees some practitioner hopelessly at his wit's end to know what to do with such a case, and I do not know that I can give him anything that will cure such a case with ease and certainty.

COUGHS AND THEIR CAUSES.

Many classifications of cough might be given, but one of the simplest and most useful is to divide them boldly into two classes only, namely, (1) the cough useful and (2) the cough ornamental or useless. Provided we are aware of the causes which may be, or rather are, giving rise to a member of either class I know of no better classification. Indeed in dealing with the treatment of a cough this must be our guiding principle. The cough that is useless should if possible be checked, whereas the useful cough should be encouraged. In attempting to discover the cause of any particular cough we must, however, give a more systematic list of the possible causes to be looked for, that is, from a clinical point of view, a list of diseases. Keeping to an anatomical order we may then enumerate them.

1. *Ear.*—The principal causes of cough here are plugs of wax and chronic catarrh of the external meatus. If not complained of these are likely to escape notice unless a systematic examination of the patient is made, when they at once become obvious if an examination is made of the ear. As a direct cause of a cough they are, so far as my personal experience in practice is concerned, rare, but in talking with one's aural friends they are apparently not so rare as one would be led to suppose. Our aurist tells me he often sees patients whose principal complaint is first of all that of being a bit deaf, and then such a patient will say "It is not the deafness that worries me so much as that horrible cough.' And the cough ceases with treatment of the ear.

2. *Pharyngo-tonsillar Troubles.*—These include: (*a*) A long pendulous uvula; this is one of the most common causes of a cough that occurs with unfailing regularity when the patient lies down; (*b*) chronic catarrhal pharyngitis, with small nodules of adenoid tissue to be seen, and patches of excessive vascularity; (*c*) chronic tonsillitis or adenoids must not be forgotten in this connexion; and also (*d*) acute inflammation of some parts of the pharynx and palate. Inspection of the mouth with a simple spatula will commonly reveal any of these conditions; their presence is usually suggested by hawking being a prominent complaint with the cough. The patient coughs and hawks to get his pharynx cleared. A friend of mine is troubled in this way, and here I might mention that the only way of treating such cases is to have these

slight patches of adenoid tissue cauterized. Periodically about once a year, when he gets an extra bad attack, my friend goes to Sir Felix Semon, who kindly burns it for him. He is better for a few months, and then he begins to cough again. The sputum in these cases is usually rather characteristic; it comes up in small pellets not infrequently mixed with a little blood—an important point, because haemoptysis in the mind of the public is almost synonymous with consumption. But it is our business to be aware that such haemoptysis is very frequently not due to tubercle. I think that not more than 50 per cent. of haemoptyses are due to tubercle.

I put into this group the specific febrile diseases, because they belong to the same branch—namely, the pharyngo-oesophageal—of the vagus. A sore throat with cough often ushers in an attack of measles or even of scarlet fever or of rheumatism, and in pertussis or whooping-cough the pharynx and upper air passages seem to be the seat of the infection. In the treatment of pertussis some methods are directed entirely to what we may speak of as antiseptic cleansing of the back of the throat, palate, and larynx, such as having an antiseptic burning in a candle. Diagnosis here rests largely with the thermometer and other complaints of feverishness, with aching in limbs or head. In pertussis the evidence will rest on the age of the patient, or on a history of possible exposure to infection in an adult. One is rather apt to overlook whooping-cough in the case of an adult. I had a case not long ago in which a father and his three children were down with whooping-cough, and really he was very ill with it; he could get very little sleep. When dealing with coughs in general, it must not be forgotten that cough in the early days of pertussis has not yet acquired the characteristic whoop.

Diphtheria belongs to this class before it has attacked the larynx, and in young children who are hardly capable of complaining of sore throat this possible source of a cough must never be overlooked. A mother brings a child to you and says: "It has been coughing for the last day or two and I want you to examine it." The child does not appear to be very ill, because diphtheria does not always start in a malignant way. But it is very necessary that you should look at the back of the throat—I know the difficulty of that—because of the possibility of the case being one of diphtheria.

3. *Laryngeal and Tracheal Troubles.*—These form an enormous group which one must classify in some sort of way. I do not pretend to tell you that the following is the best way to classify them, but it is a very useful method: A, A gross local visible lesion; B, a gross local loss of power in the cords; C, no visible changes or very slight ones.

With regard to the first of these three groups, A—a gross local visible lesion—you have tuberculous, syphilitic, and malignant ulceration. None of them are very rare, and all have to be thought of. Then you have acute inflammation, which is a gross local visible lesion; acute inflammation may be due to a simple cause, a simple laryngitis, or it may be again specific—that is to say, either diphtherial, tuberculous, or syphilitic. Again, the inflammation may be due to a foreign body, of which I had an example only three days ago in the London Hospital. A girl of about 16 years of age came in complaining of a cough, and the sputum which she brought up was very offensive. She then developed pleurisy, and ultimately in the *post-mortem* room we found half the shell of one of those so-called "monkey nuts," which had caused extensive consolidation of the lung—in fact, gangrene. Well, then we have also papillomata of the cords not to be forgotten as a possible cause, more common in children but also found in adults. The German Emperor probably has papillomata of the cords.

In the second or B class of laryngeal and tracheal troubles—gross local loss of power in the cords—any of these ulcerations that I have mentioned above might cause paralysis of the vocal cords if the infiltration be sufficiently deep, but in the majority of these coughs the loss of power in the cords is due to pressure on the recurrent laryngeal below in the thorax. Of course, the causes of pressure are as numerous as the causes of swelling. Glands, carcinoma, sarcoma, lymphoma, aneurysm must none of them be forgotten as possible causes of cough, and they require to be looked for as otherwise they may not suggest themselves.

We now come to C, or the third of these groups, which is a very important one, namely, no visible change to be seen, or only very slight ones. I have divided this up into two. First, a condition chiefly of local excessive irritability, possibly associated with slight visible changes, congestion, e For instance, after influenza and other debilitating diseas you get a cough lingering for months and no treatment seer to touch it. Then from excessive use (by hawkers and pub speakers, etc.) a nasty irritable condition of the larynx aris which requires to be treated from the point of view of chec ing the cough. You get just the same thing in old alcoholi and again from tobacco. I am a smoker myself and I c quote my own experience. I can usually stand a conside able amount of smoking, but I had an attack of influenza few weeks ago, and for a fortnight afterwards I could n touch tobacco; it started a cough immediately simply fro local irritability, the tobacco smoke acting as an irritar There is precisely the same remark to be made in regard dusty occupations. In middle-aged and elderly men there a form of irritability which must not be overlooked—a gou condition of the larynx. I do not know that there are a changes to be seen, but the possibility of gout has to considered in connexion with this excessive irritability.

The second condition that I have put down in connexi with this third group, is a condition of pure reflex stimul certainly without any visible changes. In such cases there on the trachea a pressure which, though out of sight, caus cough. Of this I had a typical instance only the other da the case of a man well known in society. He had a cough f which no explanation could be offered until about the thi or fourth day, when he coughed up a table-spoonful of pu A small abscess had broken into the back of his trachea a he coughed up the pus. The case rapidly proved fata Aneurysms do the same sort of thing. Then there may pressure on the trachea as the result of enlarged glands. W know of that occurring in children. I had a case of cough a small boy quite recently, which I put down to gland growt I overhauled him very carefully and could find no visib cause. He had a few enlarged glands in the neck, and thought there was probably gland pressure at the back of h trachea. Sometimes one reads of these cases of gland pre sure on the trachea being diagnosed, but one can only gue at them.

4. *Pulmonary troubles*, which I have put down as anoth cause of cough, need hardly delay us much, since the diagnosis is generally easy. They include acute and chron pneumonia, broncho-pneumonia simple and septic, tuberc which may be miliary or small, or it may be gross in either early or a late stage. These are all too obvious to requi much comment. Then there is simple bronchitis which ma be acute or it may be chronic, in elderly people generally a sociated with emphysema. Besides simple bronchitis the are the complicated bronchial troubles such as bronchorrhoe of which I know little as an independent disease, but it met with from time to time. Then bronchiectasis which h its characteristic sputum, abscess of the lung, gangrene the lung, hydatids, and other growths. These will all gi rise to coughs, and can be diagnosed without really any ve great difficulty if the chest be carefully examined.

5. *Pleural affections* form the next great group of cause They are usually associated with pain. Of pleural affectio you have acute pleurisy, which certainly may be dry, or may be with effusion of simple serum or pus. Then you hav your chronic pleurisy. We are rather apt to lose sight chronic pleurisy; it is more often met with than is general admitted, and it may be simple adhesions, or there may b definite thickening of the pleura. I saw an excellent illustr tion of that only this afternoon. The condition had come o after the removal of the right kidney twelve years ago. Th wound had apparently suppurated, and the pleura at the bas of the right lung was at least one-third of an inch thick. Th good lady had had a great deal of cough, for which no e planation was forthcoming. Then, besides acute and chron simple inflammations, there are all sorts of growths occurrin on the pleura, both malignant and tuberculous, and any them may give rise to cough or stitch in the side.

6. *Stomach troubles* are included in the last group of clinica causes. I know nothing about the kidneys or organs below th stomach giving rise to cough, but certainly one is well a quainted with gastric troubles and chronic dyspepsia various types as causes of most obstinate cough. I say one well acquainted with it. My reason is that one meets no and again with a patient who complains of a cough, and whe asked, "When do you cough?" the reply is, "Directly aft a meal. I feel so full that I begin to cough. Nothing seem to relieve it except that if I am sick the cough will stop. Upon several occasions I have met with cases of this descri tion, therefore one must admit a class of gastric coughs.

ich, then, for a clinical list of causes of cough. It is ob-ous that in the time at my disposal, even if I had two -tures, I could not pretend to discuss the differential dia-osis of all these numerous causes of cough individually.

The Diagnosis of Causes.

What I propose to do now is to suppose that we have a tient before us, and I shall go through an imaginary inter-w with him to show how one's field of diagnosis is nar-wed down to probably a few only of the possible causes ich may then be further investigated if necessary. I mphasize those words "if necessary." Just recently in the itish Medical Journal there has been a considerable rrespondence as to the treatment of pneumonia, and it uck me that all the correspondents who had ventured to ticize Dr. Lees (the original writer of the article) had left t the one point which seemed to me to be most seriously en to criticism in the whole article, and that is, the state-nt that you should examine the chest at least every day d sometimes even, he went so far as to say, twice or three nes a day. I am certain that that is exceedingly wrong aching. What I say is that when once you have got a finite diagnosis of pneumonia you can certainly inform urself as to the progress of the disease by the temperature the patient, by his statements, and by his general appear-ce. I am quite sure that the discomfort, to say nothing rse of it, to which you put him in making him sit up in bed ilst you examine the chest to see whether his pneumonia s gone another inch or two, is a bad thing for the patient, d is going a long way round to find out what can generally ascertained by the shorter method of observation.

Let us see what aids we get toward diagnosing the cause of e cough.

The Age of the Patient.—In babies and quite young children st of the more unusual causes can be at once excluded by e mere fact of age. Bronchitis, broncho-pneumonia, ercle, pneumonia, and whooping-cough are far and away e most likely causes, and if there be no temperature the t becomes at once the probable cause if we can ex-de the presence of a foreign body; the possible esence of the latter is almost certain to be brought the notice of the medical man by the mother, either h a direct history of her having seen the child put nething in the mouth and start coughing or by a sudden fit coughing in the midst of perfect health. A case which was ught to our notice the other day is rather apropos of this: hild perfectly well was left in the care of a man during the porary absence of the woman who was nursing it, on her urn she found that the child had definite laryngeal trouble h cough and it turned out that the man—he has got seven rs penal servitude for it—had pushed a cork into the back the child's throat. I have myself met with a somewhat ilar case: A child was taken with violent fits of coughing r eating some soup. Inasmuch as what it had eaten was p, I was misled and my experience may be of use to t, I said to myself the soup was probably too hot and the child l perhaps burnt its throat, and so excited a cough. It did occur to me, I must admit, that here was a case in which re might possibly be a foreign body. The coughing was paroxysmal and troublesome that I had the child taken to pital, and there it died after tracheotomy, at which hing was found, but *post mortem* I found a jagged bit of e sticking in the child's larynx; this had come from the p and had gone the wrong way.

n older children, from four years up to puberty, age in itself rs us but little guide, nor in fact do we get any assistance n age alone until, say, from 40 to 45, or from there rards; at this period slight but persistent chronic nchial troubles, quiet pleurisies and growths of all kinds, luding aneurysms, come very much to the fore. One case de a very strong impression upon me, in which a young ow, about 30, had been playing football on a Saturday; he seen by a friend of mine on the following Tuesday or dnesday. The young man said, "I do not know why I e come to you; it is only to please the mother." He was ced to be a little bit short of breath, and had a slight gh, but beyond that nothing. One side of his chest was of fluid, and several pints were drawn off; this is an stration of quiet pleurisy.

bvious Illness or Distress.—We may use the obvious illness enote fever, loss of flesh, wasting, etc., and we may take ress to denote difficulty or rapidity of breathing and blue-of the face or lips. In the former case the cough will bably reveal itself by physical signs in the chest of some acute inflammatory trouble or very possibly an advanced phthisis. An especial caution must be given to carefully examine the throat for a membrane of diphtheria or for an acute tonsillitis in cases where there is distress in connexion with breathing. Actual dyspnoea or difficulty in inspiration—mere shortness of breath is not necessarily dyspnoea—in young subjects is strongly suggestive of laryngeal obstruction. A little child is in obvious distress with a cough if the ribs or supraclavicular parietes are sucked in during inspiration; in such a case do not forget to think of diphtheria as a cause of laryngeal obstruction. In older subjects actual obstruction is much rarer, but the blue lips and obvious panting are strongly indicative of cardiac weakness as the cause of the cough or chronic bronchitis with extensive emphysema.

How long have you had the cough?—This is probably the first question that you will put to your patient, and much information may be derived from the answer. A cough sufficiently severe to worry the patient so far as to take medical advice, and which has lasted only a few days, is practically sure to belong to the group of "acute obvious disease" either in the mouth or chest. The more obscure causes—pressure, chronic laryngeal irritation, etc.—commonly give rise to a mere tickling in the throat with slight cough at first, and it is only when it has lasted for some time that it has caused sufficient alarm to necessitate or render advisable, in the mind of the patient, medical advice. Hence the duration of the cough is a very important point in diagnosis. If the cough has continued only for a few days the group of acute inflammatory troubles is suggested; if it has lasted some months it is probably due to a cause with gross physical signs in the chest or to a growth that needs some care to find.

Did it come on after a distinct illness?—Here we come to the group of infectious diseases—measles, influenza, scarlet fever—which are very liable to leave a cough; so also may broncho-pneumonia, pneumonia, or acute pleurisy. If you hear: "Yes, I have had pneumonia three months ago and have had the cough ever since," immediately you will say: "Has this pneumonia cleared up?" And you will examine the chest and listen to the area alleged to be infected. You may find some crepitations and perhaps tubular breathing. A differential diagnosis is then required between actual definite tuberculosis and the result of chronic pneumonia; this may mean that you will have to hunt for the tubercle bacillus. The cause of the cough, then, coming after a definite illness may be either chronic induration of lung or simple irritability of the larynx. I might mention here what I have found most useful in the treatment of laryngeal irritabilities left after infectious fevers. The following prescription I have found very successful: ℞ Liq. morp., ♏x; syr. limonis, ♏x; glycerine, ♏x; acid. hydrocyan. dil., ♏iij; syr. scillae, ♏x; aq. ad ℥j, ℥j pro re nata. The lemon, I think, is important; it has a little sharpness and acidity which seems in some peculiar way to relieve the irritability. It is important also that you should tell the patient how to take this linctus. Do not tell him to take a teaspoonful and swallow it as a medicine at once. It is perfectly true that the morphine is a little bitter, but the glycerine, lemon, and syrup of squills disguise that bitterness and make the linctus pleasant to take. Tell him to dip the tongue into the linctus and to swallow it slowly; he thus takes it in tiny sips, and by this means it will hang about the palate and the upper part of the larynx much better. If the linctus be swallowed very slowly some of it may actually get on to the epiglottis and those parts which are so very irritable.

When does your cough come on; what excites it?—A cough that only comes on when a patient is lying down is very suggestive of a relaxed uvula and laryngeal irritability. A cough coming on immediately he gets into bed at night is primarily suggestive of phthisis or of whooping-cough. But there is in addition a very important consideration to be here remembered, and one which has a strong bearing upon the treatment of cough in phthisis at an early stage; it is this. The temperature of a bedroom is usually much below that of the sitting room in which the patient has possibly spent his evenings; secondly, the patient undresses and exposes the skin to this lowered temperature; thirdly, he gets into sheets which are, and feel, much colder than the skin. Any one of these may, and frequently does, excite a fit of coughing which may last long after equilibrium of temperature between skin and bedclothes has apparently been established. Such a cough as this is usually caused by laryngeal troubles, acute or chronic. But, on the other hand, a cough which wakes

the patient up after he has got warm in bed—possibly asleep—is far more likely to be due to disease of the substance of the lungs. Malignant or other growths may do the same thing but tubercle is what you more especially suspect. Then in a little child whooping-cough may be the cause of the cough, the paroxysms of which are more frequent at night.

A cough in the morning only is very suggestive of bronchial or laryngeal catarrh due to change in the temperature or a slight accumulation of secretion during sleep. A man jumps out of bed when warm, and begins to cough because the temperature of the room, unlike the temperature of the bed, is not the temperature of his body. A cough after meals suggests dyspepsia as the cause. A cough on smoking or talking is almost certainly due to laryngeal affections.

A cough only on exertion primarily suggests cardiac debility, but it must not be forgotten that exertion may lead to mouth breathing, with consequent cough. If one begins to put forth great exertion, one usually opens one's mouth and takes a deep breath, and thus irritates the larynx; so that it does not necessarily follow that the cough thus induced by exertion is a cardiac cough. The heart must, of course, be carefully examined, particularly to see if there is any undue frequency or irregularity of rhythm or beat, or if there is an insufficient difference between the first and second sound. *Bruits* are a point of difficulty, because many hearts with *bruits* are working perfectly well; so that a *bruit* alone is of small consequence if the rhythm be not interfered with. If the heart be sound, then a cough on exertion probably means emphysema or chronic irritability of the larynx.

Do you bring up anything with the cough, and, if so, what? Is the cough relieved by bringing up something?—You may derive a great deal of useful information from the answer to these questions. Take a typical example or two. The sputum from a cavity of any sort (phthisical or simple bronchiectasis) is commonly profuse in quantity with each act of coughing, or, rather, with each attack of cough, and the relief experienced is frequently quite complete for a time. The patient has emptied his cavity, has ceased coughing, and then goes on for several hours without any cough at all. The smell of the sputum will largely differentiate between the two conditions, simple phthisis and bronchiectasis. Phthisical sputum very rarely has any smell except a peculiar faint, sickly smell of its own. We all know how offensive a smell a bronchiectatic cavity may have. Again, the sputum of tubercle is nummulated, whereas that of bronchiectasis and other cavities is more homogeneous and watery as a rule.

The sputum of acute affections is thick and very viscid.

What do you bring up?—If he replies to the effect that "It is very sticky," you know that the man has got some acute trouble in connexion with the mucous membrane, for it is only under such a condition that you get very sticky sputum. "Does that give you any relief?" "No, I want to cough again the next few minutes." "Do you bring up any blood?" "No, I have never seen any." This negative reply does not help much. If he says, "Yes, I do bring up blood," one must admit that such a positive reply makes one suspect tubercle, but the affection is not necessarily tubercle all the same, for acute bronchitis and pharyngeal affections are often associated with streaks or stains of blood; haemorrhage from tubercle is generally free. You will then be careful to examine the back of his pharynx and his teeth to see whether the blood may not have come from the gums or posterior pharynx; if these are healthy you will have to be careful in examining the apices of the lungs, because of the possibility of the complaint being phthisis. But generally speaking the blood spat up from a tubercle is a little clot, whereas in other conditions it is a streak of blood in the sputum. If you see the sputum that is brought up perhaps you will find it to contain a lot of pus. That does not signify very much, except by its quantity. Remember that a mucous membrane very easily produces pus; it is the natural result of inflammation of a mucous membrane. On the other hand, serous membranes when inflamed secrete a clear serum. Purulent inflammation of a mucous membrane may not be anything of great consequence, but purulent inflammation of a serous membrane is a very serious matter.

If there be no sputum we do not get so much information, for a dry cough is met with in so many different conditions. For example, the cough of early phthisis, the cough of heart failure, frequently the cough of all forms of pressure on the trachea, stomach cough, ear cough, and the cough of simple irritability of the larynx are all dry.

Is there pain with the cough?—What is the locality of the pain if the patient complains of it. In laryngeal a pharyngeal troubles the patient correctly locates the trou by the associated pain in most cases, though we must n make the mistake of assuming that no local pain in th organs necessarily excludes them as causes of the cough. pleuritic troubles the patient again will locate the pain in t ribs or just under them. Aneurysm and growths are alm as often free from pain as associated with it. There is c form of pain that must be here alluded to as it is frequentl source of fallacy. In the act of coughing the recti abdomi are given very severe work to do, and the patient will oft enough say "There is something the matter with my bell that is where my pain is." But that pain probably con from his coughing, and you will find it is so in a large numb of cases by examining the abdomen and finding nothing.

Has the voice altered since the cough appeared?—Ordina laryngeal troubles, with acute or even chronic inflammatio are often accompanied by hoarseness. But the voice m alter in another direction; there may be feebleness of t voice, inability to sustain it, the patient cannot speak a lo sentence without getting short of breath. That should p you on the track of the possibility of paralysis of one voc cord, because the voice is produced by varying degrees approximation of the vocal cords. If one of the cords paralysed it will not approach the other, and then there wi be an opening left through which the air escapes too rapid with the result that the patient will be short of breath, a the voice is not good.

These are, I am afraid, very scanty hints as to the possibility of diagnosing the cause of a cough. At the same tim when you have finished all these questions that I have su gested, it is more than probable that you will have eliminat most of the causes, and not only so, but you will probab have determined positively to what the cough is due.

Treatment of Cough.

It is a mere truism to say that the first point in treating cough is to remove the cause if it can be found; it is here th a simple division of coughs into the useful with sputum, a the useless without expectoration is so helpful, for it may impossible to discover the cause and we may then treat t symptom on first principles, namely, that a dry cough shou be suppressed, if possible, and a cough with sputum shou be encouraged.

Causes themselves may be divided into the removable a the irremovable, of the former, smoking, talking, exerti are external causes avoidable if not removable, cerumen the ear, papillomata of the vocal cords, an enlarged tons adenoids, are internal causes capable of mechanical remov the treatment of both classes is obvious and need not further mentioned; but the other causes which cannot thus summarily avoided or removed require careful consid ation. I cannot of course enter into a full discussion of t treatment of the diseases which give rise to cough so sh only attempt to lay before you a few hints which I have fou very useful. First, the treatment of local conditions with reach of a brush or spray; the actual topical application drugs to the interior of the larynx (lactic acid for instance tuberculous ulceration) is rather too special a method for n to touch upon. For relaxed uvula and congestion of t posterior pharynx I have found nothing so useful as t Krameria lozenge of the *British Pharmacopoeia* combin with $\frac{1}{3}$gr. of cocaine in each lozenge, and this more pa ticularly the case when the trouble is a little farther ba behind the anterior pillars of the fauces.

For nearly everything except actual trouble in the mou itself, I believe that gargles are practically useless; all gargle does is to moisten the parts in front of the anteri pillars; unless indeed a patient be as skilled as some Germa ones are said to be who can allow a student to watch wat touch their vocal cords; with a patient like these there ma be some use in a gargle, but not for the ordinary patient. T above lozenge and others must take the place of gargl unless you have time and opportunity to apply drugs with brush to the posterior pharynx and top of the epiglottis. have found that a 1 in 60 lotion of carbolic acid thus appli is extremely useful in what is termed relaxed throat, and conditions of acute or sub-acute inflammation of the posteri pharynx it relieves pain and checks the cough.

In the use of a spray apparatus my experience is that a indiarubber reservoir between the pump ball and the bott is very necessary. If only the pump ball is used the spr lasts for just the moment of time during which pressure being exerted, it ceases directly the pressure ceases. T

t way to use such an apparatus is for the patient to open mouth wide, place the spray nozzle just within the lips, then take several deep inspirations while the spray is actively issuing forth; to enable him to do this it is ssary that the spray should issue for several seconds, and can only be the case when the elastic reservoir is inserted he pumping tube. An exceedingly useful mixture to e in such an apparatus is one composed of tinct. benzoin rinum ipecac. and a 5 per cent. solution of cocaine, in l parts; used properly in spray this relieves the cough uced by all irritable conditions of the larynx such as e and chronic laryngitis, even when tuberculous, and is useful when nothing is to be seen and yet the patient plains of a tickling in the throat.

ave already drawn your attention to an important prin- in the treatment of the useless form of cough in phthisis. ely, to avoid sudden changes of temperature in the air h is breathed or which comes in contact with the skin; a in the bedroom and a warm bed for the purpose need not urther alluded to. If, however, the cough, even in need cases of phthisis, be useful in clearing out a cavity nptying tubes filled with muco-purulent secretion, such autions need not be adopted, at any rate, so vigorously. efinite phthisis with a useful cough I have found nothing fficacious as the following: Pot. iod., gr. viij; syr. tolu., ; aq. ad ℥ss, t.d.s.

chronic and subacute bronchitis I have a little personal rience to offer you, which is that this is the condition *cellence* in which smoking and excessive talking should oided; but, on the other hand, do not avoid or counter- l the cold morning tub—during the night a good deal of tion collects in the bronchi, and there is no better stimu- to help a cough to clear this out than that derived from old morning bath, personally I find it better than any

Of course, such a thing is only advisable for those who ccustomed to it; it would not do for those with weak or who are unaccustomed to it, and equally, of course, l not do for bad acute bronchitis. If in such chronic cough is very troublesome I find the iodide prescription useful and also the troch. glycer. et anisi of the pton Pharmacopoeia, which loosens the phlegm in a re- able manner.

n inclined to think that potassium iodide is much more l for adults than for children in assisting cough. In the I find that belladonna pushed rather freely gives me results than any other drug; by "pushed" I mean minins for a child of 2 years, and that given four-hourly; doses must be watched for dilatation of the pupil and for um.

ond these few—I fear very fragmentary hints—I have no l panacea for coughs to offer you unless it be that actual e of air—atmosphere—is a very excellent prescription for ugh of debility in those who can afford it.

MON CAUSES OF ERROR IN EXAMINATION OF THE CHEST.

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unfortunately true that even the youngest and most erienced amongst us may occasionally be mistaken. ven mature experience does not preclude the possibility or, especially in the solution of problems involving the ulation of evidence only to be obtained by skilled ration and deductions from signs which are capable of s interpretations. There is, perhaps, no form of medi- amination in which constant practice is more necessary der to detect signs and experience to interpret them he examination of the chest. This is little realized by udent who has been taught his physical signs from arked cases of disease, and it is sometimes lost sight he practitioner. Most of us who have been connected hospital for chest diseases have watched with amuse- he "cocksureness" of the new resident or student, and for the "humble mindedness" which comes after a eks of special experience. But though we cannot hope y to avoid error, we may minimize the chance of mis- y studying the more common causes of error. I pro- mention some of these under the following headings: ncomplete examination, including want of method; faulty interpretation of signs, and I shall confine myself entirely to such cases as have come under my own observation. I need not discuss the mistakes which arise from a routine treatment of symptoms without any attempt to investigate their cause, though this subject might be of value if we could speak to the prescribing chemist. We are justified here in excluding the possibility of carelessness or of ignorance.

In view of the short time at my disposal I shall aim at making my remarks suggestive rather than exhaustive. Let us, then, first consider

Errors arising from Incomplete Examination.

Although not strictly within the limits defined by my title, I may remind you that it is a serious mistake to neglect altogether to examine the chest when there are conditions which suggest the possibility of mischief within the thorax. I do not, of course, propose that the chest should be examined in all cases which present themselves for treatment, for I know that in general practice this is impossible as well as undesirable. Where, however, there is any ground for suspecting disease of the heart or lungs, examination should not be deferred for the symptoms to develop. We all know, for example, how insidiously tuberculosis of the lung may commence, and how much depends upon early treatment and consequently upon early recognition of the disease. When the family history, general condition, or personal surroundings of a patient point to special predisposition to consumption, a precautionary periodical examination of the chest—say once in six months—is desirable, especially for the few years just before and after puberty.

More definitely within the scope of my subject come those cases in which a partial examination of the chest is made to verify the existence of some conditions suggested by the symptoms for which the patient seeks relief, which being found, no further investigation is pursued. As an example of this, I may instance the cases in which the existence of anaemia has been verified by hearing haemic murmurs in the neck or over the heart, but where no examination of the lungs has been made and commencing tuberculosis has thus escaped detection. I have met with several such cases, in some of which the consequent delay in commencing special treatment has been disastrous to the patient.

Another somewhat similar source of error occurs from neglecting to carry out the examination further as soon as any evidence of lung mischief has been found in one part. In this way pleurisy at one base has been discovered, and tuberculosis at the apex of the same or the opposite lung has been undetected; pneumonia has been correctly diagnosed and pericarditis or endocarditis overlooked; a hydatid cyst in the lower lobe of the lung has been unsuspected, whilst some dullness at the apex was discovered. So also bronchiectasis or tuberculosis may be overlooked when associated with chronic bronchitis or with fibroid disease of the lung.

A curious example of what obvious conditions may be missed by incomplete examination came under my notice a few years ago. A patient was sent to me because of commencing tuberculosis in one apex, and immediately the chest was fully uncovered it was evident that the heart's impulse was on the right side of the chest. Further investigation disclosed complete transposition of the viscera, unnoticed by a man whose skill in physical examination was sufficiently developed to enable him to detect slight changes in the apex of the lung. Examination without removal of the clothing will frequently lead to error, To listen through clothing cannot furnish exact results, and even to leave the clothing over the neighbouring parts whilst the part being examined is bared may cause mistakes. I have been asked to explain the significance of a creaking *râle* which disappeared completely on removing the patients leather braces.

A not uncommon form of incomplete examination is that due to want of method. If you commence to examine the lung by putting your stethoscope to the chest and asking the patient to take a deep breath, you may at once obtain evidence of disease; but if the examination begins and ends with this you will obtain very incomplete information, and may miss much that is of importance. If on the other hand you develop the habit of systematic and methodical examination, the various stages of investigation—inspection, palpation, percussion, and auscultation—will follow each other as a matter of course in every case, and mistakes will be fewer. The stage which is perhaps most often neglected is that of inspection, yet there is much that is valuable which may be learned from this mode of investigation. I had, only a day or two ago, a very instructive instance of the value of

inspection. A patient was supposed to be suffering from early tuberculosis of the lung. Percussion over the upper part of the chest gave hyper-resonance over the left apex, and comparative deficiency of resonance above the right clavicle. The breathing was weak at the left apex, and the louder breath sounds on the right side suggested harshness in comparison. Slight consolidation in the right apex was thereupon suspected. Inspection, however, showed very marked diminution in the respiratory movements on the left side of the chest, especially in the lower part, which led to more careful examination, disclosing evidence of pleurisy at the left base. So too it is wise to listen to quiet breathing before asking the patient to breathe deeply, and also to get the patient to cough and then to draw a deep breath. Crepitations, otherwise unheard, may be brought out in this way, and *râles* may be altered or may disappear on coughing.

We may include amongst the incomplete examinations those cases in which an examination, having been once made, is not repeated, so that the course of the disease processes is not followed, and complications may develop without our knowledge. In many lung diseases and in acute diseases of the heart or pericardium it is most necessary to examine repeatedly so as to follow the progress of the morbid processes. The development of a fresh centre of disease in another lobe of the lung already attacked by tuberculosis materially modifies our view of the patient's chances of recovery. The following figures, taken from the medical reports of the Mount Vernon Consumption Hospital, will serve to illustrate this fact. Of rather more than 1,400 cases, 19 per cent. had only one lobe affected, and of these 93.65 per cent. left the hospital improved; 40 per cent. had mischief in two lobes, and 73.57 per cent. of these were improved; 26 per cent. had three lobes affected, and 58.15 per cent. of these left improved; the remaining 15 per cent. had mischief in four lobes, and only 46.37 per cent. of these were classed as improved when they left the hospital.

By repeated examination it may be possible to detect the early signs of danger in some new situation in time to counteract it—a matter of much importance to the patient. As an example of the danger of neglecting to repeat the examination of the chest in lung disease, I select the case of a nurse who had an attack of acute bronchitis, and who, after the acute attack had passed off, still continued to cough. No further examination of the chest was made, however, until she came to London some few weeks later, when I found softening tuberculous mischief in the lungs from which she died within a year.

Fluid may accumulate without our knowledge in the pleural cavity (for example, empyema in a child after an attack of pneumonia) if examination is not repeated after the original disease has been diagnosed.

Imperfect or incomplete examination is clearly a preventable source of error which should be avoided.

We come now to the

FAULTY INTERPRETATION OF SIGNS.

This is a more common and more excusable cause of error. Although errors of interpretation are of course sometimes the result of inexperience, all of us are liable to misinterpret the evidence obtained by physical examination. Nor is this in any way surprising to those with sufficient knowledge of the subject to appreciate the difficulties. In the first place we are confronted with the impossibility of fixing a standard which shall represent the healthy condition for all individuals, and thus in determining what in any case constitutes a divergence from health. We may have, and as a fact we do all carry in our minds, some idea of what constitute the physical signs of a healthy lung; but no two individuals are precisely alike, and signs which may indicate a healthy condition of the lungs in one person might constitute evidence of disease in another of different age, sex, build, and physical development. Not only so, but the signs heard over one part of the chest in health would indicate some divergence from health if heard over another part of the chest. We fall back on a comparison between corresponding parts of the two sides, but this, as we shall see, may not always remove our difficulty. One cause of occasional error is to be found in the difference not infrequently to be noted in healthy persons over the apices of the lungs when one side is compared with the other. It is essential, in order that we may be able to detect divergences from health, that we should be conversant with the physical signs obtained on examination of the healthy chest.

I have recently completed the examination of the chest in a series of 100 healthy persons of both sexes, carefully n the differences over the apex of the lung between the sides as regards percussion note, breath sounds, vocal r ance, and vocal fremitus. The result, briefly summarize as follows: Some difference in the percussion note, gene a slight deficiency over some portion of the right ap noted in 45 per cent. of the cases; some slight differen the intensity or character of the breath sounds is found per cent.; vocal resonance is louder on the right side per cent., and vocal fremitus more marked on that side per cent. of healthy persons. Although, theoretically should expect to find the increase in vocal resonance an vocal fremitus to be directly associated in all cases, practi I find that in a small number of cases these do not go toge

Differences in percussion note, vocal resonance, and fremitus I find to be more often noted in men, w differences in the breath sounds occur more frequent women. The figures are:

	Males.	Females.
Percussion differences	50 per cent. ...	37.5 per cent.
Breath sounds ,, ...	23 ,, ...	32.5 ,,
Vocal resonance ,, ...	83 ,, ...	70.0 ,,
Vocal fremitus ,, ...	86 ,, ...	77 5 ,,

Time does not allow of my pursuing this interesting sub more fully on the present occasion, but it will be obse that some deficiency of resonance is to be detected on per sion over a portion of the apex of the right lung in about hal healthy chests examined, and that increased vocal reson and fremitus on the right side are to be noted in the majori individuals in health. I have known the "flatness" on cussion over the right apex, which is quite compatible health, attributed to commencing consumption, and, on other hand, signs due to consolidation put down to physiological condition. We must bear in mind that, a with the louder breathing sometimes heard on the right s the expiratory portion of the sound will probably be n clearly heard, but it will not in health equal or exceed inspiratory sound in length. If with a slight deficienc resonance, louder breath sounds, and increased vocal re ance and fremitus, there is a noticeable prolongation of expiratory portion of the breath sound, the inferenc disease is not only justifiable but almost convincing.

Another difficulty I have occasionally met with, depending on the want of a definite normal standard, is so what curious. I have known careful observers rightly exp the opinion that a patient has early tuberculosis of one l but locate the lesion on the wrong side. At first sight seems almost impossible, but a moment's consideration suggest the explanation. A sufficiently well-marked di ence between the two sides is noted, which is too great t physiological; but without some standard to guide observer it is difficult to say which is the normal for t individual, all that is certain is that if one lung is nor the other cannot be so. It is true that with more car noting the various details of the breath sounds, etc., it sh generally be possible to avoid such an error, but I have kn competent observers differ as to which was the affected l whilst agreeing as to the presence of disease. Another caus mistake as to the side affected in tuberculosis is the pres of emphysema around a patch of consolidation, making percussion note and breath sounds seem clearer on the affe side than on the other. Whilst on the difficulties met w in cases of tuberculosis of the lung, I may refer to anot not unusual error which would be avoided if the gen condition of the patient were duly considered, namely, r taking signs of a scar, or of obsolescent tuberculosis active disease. I have also known compensatory (puer breathing mistaken for tubular breathing. with consequ misapprehension as to the condition of the lung. This m take could hardly be misleading if the relation between length of the inspiratory and the expiratory portions of breath sound were noted, or if the impression produced the quality and pitch of the breath sound were further te by the absence or presence of pectoriloquy. This error ex plifies a fault which is not unknown among the less exp observers, namely, that of noting part only of the charac istics of the breath sounds—for example, pitch, intens etc.—and omitting to note the quality of the sound or relation which the expiratory sound bears to the inspirat in regard both to intensity and duration.

The signs of a cavity in the lung are sometimes mislead It is not always easy to detect a cavity of moderate s and it is often difficult to locate even a large cavity. a meeting of the Harveian Society some years ag showed a youth with signs of a bronchiectatic cavity wh

med to be quite near the surface, and the situation and ent of which appeared to be clearly defined. Yet attempts train this cavity were made at several different hospitals hout success, and when I saw the patient again twelve nths later he had numerous scars on his back, but no rator had found the cavity.

he explanation of the above difficulties is that, though we y rightly attribute certain physical signs to the presence n air-containing space of comparatively large size, we can- always say that it is an excavation of the lung tissue. signs may be produced in an undilated bronchial tube, be conducted to the ear by solid tissue between the tube the surface of the lung. So, too, in the localization of ities the sounds produced in the cavity will be con- ted in the direction of the adjacent consolidation, not essarily by the shortest route to the surface. Thus the ns of a cavity may be best heard not immediately over the rest portion of the chest wall, between which place and cavity there may be air-containing lung, but at some more ant part of the chest where consolidated lung reaches the face from the neighbourhood of the vomica.

et us now pass to another error in a different kind of dis- e—the failure to detect the presence of fluid in the pleural , or the mistaken diagnosis of effusion. Although the sical description of the signs which indicate the presence luid in the pleural sac—dullness on percussion, absence of ath sounds, absence of vocal resonance and fremitus, and placement of organs—furnishes such a distinct chain of dence that mistake seems impossible, the definite detec- n of fluid is, in many cases, a matter of great difficulty. ath sounds may be clearly though not loudly heard when re is a considerable quantity of effusion, and if the pleura thickened vocal resonance and fremitus may be present, the heart sounds be conducted over the dull area. The placement of organs, even with a large effusion, may be vented by adhesions, or counteracted by the traction of a tracted lung—as when pleural effusion occurs with a con- ted tuberculous lung above, and the heart has been dis- ed by the older lesion. In young children the signs of l are often indefinite or misleading. I have been asked to cases said to be pneumonia with delayed resolution, in ch I have found the signs supposed to indicate solid lung epend upon fluid in the pleural cavity, and to disappear spiration. The mistake may perhaps sometimes have rred from insufficient examination, but in other cases it certainly been due to faulty interpretation of the physical s noted. It is by no means easy in some cases to deter- e the presence of pleural effusion, apart from those cases hich the fluid is pent up betweed two lobes, or otherwise lized by adhesions.

s a further illustration of a class of cases where faulty in- retation of signs may occur we may meet occasionally cases in which fluid is found in the pleural cavity ndary to some morbid condition below the diaphragm, or re the fluid is not due to pleural inflammation. Here the sical signs may be rightly referred to fluid in the pleural ty, but the true nature of the disease is not diagnosed. I e known the pleural sac to contain fluid poured into it by bursting of a hydatid cyst in the lung, and a case where a ural effusion was supposed to be purulent, but was found onsist of clear serum, the symptoms indicative of the ence of pus being due to a subphrenic abscess from a per- ted gastric ulcer.

any of us have experienced the difficulty in distinguishing hildren between a broncho-pneumonia and disseminated monary tuberculosis, or in adults between an apex-pneu- nia and tuberculosis. This is, however, not a matter of taking the physical signs, for tuberculosis produces a ncho-pneumonia in children or a pneumonia in the adult. physical condition of the lung is the same whether the ting cause be the tubercle bacillus or the pneumococcus; by the course and development of the lesion that the ts of the different causes may be distinguished.

ith regard to the heart, as with the lungs, errors may e from incomplete examination or from faulty interpreta- of physical signs. Enlargement of the heart is some- s inferred from the apex beat being lower or further to left than its normal position. The heart may, however, ch cases be of normal size, but displaced. So, too, an rent increase in the area of cardiac dullness may indi- , not an enlarged heart, but a retracted lung. In palpa- pericardial friction may be mistaken for a thrill, or ro-pericardial friction may be confused with a pericardial

In auscultation an "accidental," "functional," or "haemic" murmur may be taken for an organic murmur, and vice versa. The first and second sounds of the heart may be mistaken one for the other, and similarly an obstructive murmur may be supposed to indicate regurgitation.

Sometimes a murmur produced outside the heart is mistaken for one originated at one of the cardiac orifices. Thus pericardial friction or a cardio-respiratory murmur may be so misinterpreted. The cardio-respiratory murmur is occasionally very misleading. This is a "whiffing" or blowing sound produced by the impulse of the heart, or the pulsation of one of the large arteries, forcing air out of an adjacent portion of the lung. It is usually heard during expiration and gets its rhythm from the beating of the heart, being thus cardio-systolic in point of time; it may disappear when the patient holds his breath. I have known such a murmur, produced in the tongue of lung between the apex of the heart and the chest wall, mistaken for a mitral regurgitant murmur, and when heard over the second right intercostal space aortic obstruction has been erroneously diagnosed.

I described this murmur at some length in the British Medical Journal of December 10th, 1898, and need not refer more fully to it here. This murmur has, in several instances which I have met with, caused difficulty in cases examined for life assurance.

I trust I have not been wearisome with this tale of pitfalls which may cause trouble to the investigator of chest diseases. The mere enumeration of such difficulties in the examination of the chest as have caused errors within the knowledge of a single observer is sufficient to show that the examination of the chest is no simple matter. The possession of a stethoscope does not in itself indicate an adequate equipment for the investigation of chest diseases. The detection of the various physical signs requires careful training and constant practice, their interpretation demands special knowledge.

The man who is conscious of the most mistakes is not necessarily the one who has made the most, but I am not so sanguine as to imagine that those errors which I have recognized, and which have prompted this paper, are either so numerous or so serious as those which I may unconsciously have committed.

TUBERCULOSIS IN THE SOUTH OF IRELAND.*

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Owing chiefly to improved methods of modern sanitation and to the increased attention which is now given to education in hygiene, and especially to the value and importance of fresh air, the mortality from tuberculous diseases in England, Wales, and Scotland has been greatly reduced in recent years.

Excessive Mortality from Phthisis.

Unfortunately, across the Irish Channel the same happy condition of things cannot be said to exist, as I will now endeavour to show by an examination of figures taken from the annual reports of the Registrar-General of Ireland for the years 1901 and 1902, and from an investigation of the death returns of the Registrar of the Clonmel Urban District.

In the Registrar-General's report for 1902 (page 16) there is a most interesting and instructive diagram, which shows at a glance how, while in England and Scotland the death-rate for all forms of tuberculous disease has fallen to a remarkable degree in the 39 years from 1864 to 1902, yet in Ireland it has actually increased.

In Scotland in 1864 the tuberculosis death-rate was 3.6 per 1,000, rose to 3.9 in 1870 and 1871, and then gradually fell to 2.3 in 1900. In England the death-rate from these diseases was 3.3 in 1864, 3.4 in 1866, and has since gradually fallen to 1.9 in 1900, and in 1902 the phthisis death-rate in London was as low as 1.64 per 1,000. But in Ireland the rate, which was only 2.4 in 1864, has since gradually risen to a maximum of 2.9 in 1900,[1] and was as high as 2.7 in 1902. While this was the death-rate from tuberculous diseases for the whole country, in those urban districts having a population of 10,000 and upwards, the rate was 4.29 per 1,000 in 1901, and 4.1 in 1902. The highest death-rate from tuberculosis in these towns was in Clonmel (population of urban district, 11,023), where it was 6.5 per 1,000 in 1901.

* Read at a meeting of the South Eastern of Ireland Branch of the British Medical Association.

and 5.9 in 1902. Last year—1903—the rate was rather lower, but still as high as 4.1 per 1,000.

The following tables, calculated from the Registrar-General's annual reports, clearly show the bad pre-eminence of the town of Clonmel in regard to its mortality from phthisis (pulmonary tuberculosis).

TABLE I.—*Comparison of the Phthisis Death-rate of Clonmel with that of Dublin, of Five of the other Large Towns in the South, of the whole of Ireland, and of each Province.*

Town or Province.	Phthisis Death-rate per 1,000.		
	1901.	1902.	1903.
Whole of Ireland	2.14	2.10	—
Leinster	2.50	2.30	—
Ulster	2.10	2.10	—
Munster	2.10	2 10	—
Connaught	1.60	1.58	—
Dublin	3.30	3.20	—
Cork	2.80	2 80	3.66
Limerick	1 60	1.70	—
Waterford	3.50	3.60	—
Wexford	2.30	2.70	—
Kilkenny	4.20	2.30	—
Clonmel...	5.08	5.40	3.99

TABLE II.—*Showing the Proportion of Deaths from all Causes to Deaths from Tuberculous Phthisis in the Superintendent Registrars' Districts of Clonmel, and those of several neighbouring Districts.*

Superintendent Registrar's District.*	Phthisis Death-rate, 1901.	Total Death-rate, 1902.
Carrick-on-Suir	As 1 to 8.04	As 1 to 10.00
Roscrea	,, 11.20	,, 7.80
Callan	,, 11.40	,, 21.00
Nenagh	,, 10.00	,, 8.40
Dungarvan...	,, 10.00	,, 6.70
Lismore	,, 10 00	,, 6 20
Tipperary	,, 9.50	,, 10.12
Mallow	,, 9 00	,, 7.10
Enniscorthy	,, 8.20	,, 14 00
Birr	,, 8.00	,, 8.20
Thurles	,, 8.00	,, 8 30
Youghal	,, 7.00	,, 8 10
Cashel	,, 10.40	,, 16.60
Kilkenny	,, 6.10	,, 8.10
Clogheen	,, 5 10	,, 8.50
Clonmel	,, 5.80	,, 5.30

* The Superintendent Registrar's district is the same as the Poor-law Union, and includes the urban district of the town mentioned, together with all the smaller rural districts in the Union.

From Table I it will be seen that while the phthisis mortality of the neighbouring district of Carrick-on-Suir was in 1901 one-eighth and in 1902 one-tenth of the total mortality of the district, and in Tipperary in each year about one-tenth, in the Clonmel district the phthisis mortality was as nearly as possible one-fifth of the total mortality in 1902 and one-sixth in 1901. As a contributory cause of the disproportionately high phthisis death-rate in Clonmel, it is necessary to point out that there are in that town two institutions (the county asylum and the union workhouse) into which patients are admitted from various parts of the County Tipperary, and that a considerable number of deaths from phthisis occurs in these institutions; but, even making allowances for such causes, the tuberculous death-rate is very much higher than it ought to be.

In the three years 1900, 1901, and 1902, excluding all persons admitted from other parts of the county to the asylum and the union and dying there, 136 people died in Clonmel from tuberculous phthisis, 70 of these being males and 66 females. Of those deaths, 101 occurred between the ages of 15 and 50, only 5 were under the age of 5 years, and only 2 were over 60. The question may well be asked, Can a town of 11,000 inhabitants afford to lose each year 33 of its population at the age when they are of most use to the community from a disease which is to a great extent preventable?

Fortunately for the existence of Clonmel, its general death-rate, though fairly high, is not in proportion to its phthisis death-rate. The total mortality from all causes was in 1901 24.1 per 1,000, 26.6 in 1902, and 19 6 in 1903. In these years the death-rate from cancer was 0.99 per 1,000 in 1901, 1.17 in 1902, 0.907 in 1903; the zymotic death-rate was 1.6 per 1,000 in 1901, the same in 1902, and 1.4 in 1903.

Prevalent Insanitary Conditions.

In seeking for the cause of the condition of things wh[ich] have pointed out any one who is acquainted with the ext[erior] and interior of an Irish cottage or cabin in town or co[untry] will at once be in possession of one essential factor i[n] production of a high death-rate from phthisis. In the co[un]t one enters a yard outside the house through a rickety [gate] and to get to the front door one has to wade through [a] wet manure, the nature of the contents of which is ob[vious] to more than one sense. Then one enters the cottage [itself] peers round in the dim light; on becoming accustom[ed] the gloom one probably sees several half-naked ch[ildren] huddling over the embers of a fire in an open grate. T[he] floor is of mud and usually damp; there is only one [small] window, which serves to let in a feeble glimmer of da[ylight] to keep out the air, as it is always shut. There is an [inner] room in which there are one or two box beds fixed a[gainst] the wall. These contrivances look like sailors' bunks [in] forecastle of a ship, and they are carefully curtained to [keep] out light and air as much as possible and smothered in [the] bedclothes. The window is similar to that in the living-[room] and similarly adapted. This is where the poor wretched [con]sumptive spends his last hours of life, and it is a splendid breeding-ground for the germs of the disease from which [he] is dying. In the town the fronts of the cottages are of [course] kept cleaner, but the interior is much the same, though the box bed is not so common.

There is no great overcrowding in Clonmel; there [are] hardly any back-to-back houses, and cellar dwellings [have] been abolished. But the back yards of the houses in which the poor and even the better class of artisans reside are a disgrace to a civilized community. The vast majority of these yards are arranged on the same plan. I will therefore describe a typical one which will serve to illustrate what I mean.

I was recently called to a case of diphtheria occurring in the house of a well-to-do artisan in a fairly good street. The back yard of this house is about 20 ft. long by 15 ft. wide, large enough to give light and air behind the house, and [is] much larger than the yards behind the poorer class dwellings; but it is badly paved with cobble stones unevenly laid. In one corner there is a water tap from the town supply, the quality of which, I may mention incidentally, is excellent. Underneath the tap is a gully with a broken and defective trap. In the opposite corner of the yard is a good-sized ashpit, and beside it a privy-midden, commonly called in local vernacular a "dung-pot." The latter is used by the whole family, and is in a very dirty condition.

In another back yard, which I happened to enter while doing dispensary duty last autumn, I found that the ashpit and midden were full, and that the inhabitants of the house, not troubling to have them emptied, attended to the wants of Nature in the open yard, the condition of which was indescribable. This was in the back yard of a labourer's cottage, and probably the same state of affairs would exist there to this day had I not noticed it by chance and had it removed by the sanitary inspector.

But the most objectionable feature regarding these ashpits and middens has now to be stated. The responsibility of emptying these receptacles is shirked by the sanitary authorities and thrown upon the householder, who has to pay for it, no compulsion being put upon him to keep them in a proper sanitary condition. Worse still, the only way by which the soil can be removed is through the house. Naturally, from motives of economy, combined with the inherent "laissez-faire" temperament of the Irish race, coupled, perhaps, with the dislike of the housewife for the inevitable dirt in the hall and passage entailed by it, this emptying process is carried out as seldom as possible—in many cases not oftener than once a year.

This is no fancy picture, but is the usual condition of things in the houses of the lower and lower middle classes in this town; and, I have little doubt, in many another town in the South of Ireland.

Considering how careless phthisical patients are in these classes as to indiscriminate spitting, and how phthisical sputum swarming with tubercle bacilli is, in common with other kinds of house refuse, kept on the premises for such long periods, can it be wondered that there is such a prevalence of phthisis, and there surely will be as long as this state of things exists.

As I have just stated, the large majority of houses in Clonmel are provided with the privy-midden system of excreta and refuse disposal in its worst form. A small minority

population have the benefit of the water-carriage system ewage disposal. One end of this system, namely, the r supply, is excellent, being taken from a gathering nd in the mountains near the town and at a good height e it, and being efficiently filtered in accordance with ern principles. When we come to the middle of the em—the most important part in many respects—we are treading on such safe ground, as many of the waterclosets defective in various ways and most inefficiently ventilated. here are a large number of cesspools in the town, and I eve that many of the town sewers are, owing to faulty truction, little better than cesspools. The crude sewage in straight into the river, in the middle of the town, with- any attempt at purification. Fortunately, the forces of ure have provided us with a fine river, whose current is d, and for the most part of the year runs with a large me of water, otherwise we might suffer more than we do inefficient drainage.

here are two other things which I must allude to as no ot in some measure contributory to the excessive phthisis tality in Clonmel. The first is the condition of the ghterhouses. Several of these are at the back of the hers' shops, close to dwelling houses, and are not kept in roper sanitary condition. It is also a very common om in the town to keep pigs in close proximity to lling-houses.

he second matter I refer to is the horse and cattle fair, h is held every month in the main streets of the town. n numbers of cattle are herded together for hours all the principal streets and up against the shop fronts, and n, as so frequently happens, the fair day is wet, it is ly necessary to describe the filthy condition of the oughfares, which, in fact, are rendered almost impassable decently-clad pedestrians. It is possible that some of e thousands of cattle may have tuberculous disease of intestines, in which case, if we assume as proved the tity of human and bovine tuberculosis, their excreta d tend to spread the disease. I do not wish to lay too h stress on this probable cause of phthisis prevalence, t is at least worth considering.

ere is very little, if any, supervision of the cows which ly milk to the inhabitants of Clonmel and of their oundings. I indeed fear that many of the milk vendors are indifferent to, if not ignorant of, the necessity for ulous cleanliness in all the details connected with the ly of milk to the public. Recent epidemics of enteric fever been traced to the milk supplies, the probable source of n being infected water used to wash milk cans. In cular I may instance the condemnation, by Professor llivan, F.T.C.D., of the milk supplied by one of the con- ors to the county asylum, in the recent investigation the origin of an epidemic of enteric fever in that ution. If enteric fever is spread in this way it is more likely that many cases of tuberculous disease may have ilar origin.

ere is another possible factor in the etiology of phthisis h prevails in Clonmel, as well as in all parts of Ireland. er to the dampness of the climate caused by the high all. The average annual rainfall of Clonmel for the last e years was 41.45 in., and in 1902 it was as much as n. and 53.91 in. in 1903. Although I think there can be doubt that the damp climate of Ireland has some exion with the excessive prevalence of phthisis, yet it is rtant not to exaggerate this connexion.

I mentioned before, in 1864 the death-rate from tubercu- diseases was 3.3 in England, 3.6 in Scotland, and only Ireland. The decrease in the death-rate in the two r countries during the last 50 years, coincidentally with crease in Ireland, is to be attributed rather to better ary administration than to any change of climate.

tin, in spite of the very high rainfall in 1903 the phthisis -rate in that year was lower than it has been for some . All over the kingdom the general death-rate for 1903 was the average, a fact attributed by some authorities to the sive rainfall preventing the dissemination of the germs ease by dust to the same extent as in drier years. The ll in Carrick-on-Suir for 1903 was 63.5 in., and yet the sis death-rate in that town was much lower than in nel.

town of Clonmel is situated in a valley on the river Suir, overflows its banks several times every winter, so that houses near the river have their basements constantly d. There is a mountain range close to the town to the south high rising ground to the north, so that the town is situated in a sort of cup. The prevailing wind is south-west, and the climate is generally considered very relaxing.

Remedies.

I will conclude with a brief consideration of some possible remedies for the conditions I have described.

As it is impossible to alter the laws of Nature and of meteorology, one potent cause of high phthisis mortality will always exist in the large rainfall of Ireland. But that is no reason why those which are remediable should not be remedied.

Obviously the first thing to do is to see that the towns are administered, as far as sanitary matters are concerned, in accordance with the first principles of hygiene.

A proper system of disposal of excreta and refuse should be adopted, and whenever it is impossible to adopt the water-carriage system the yards of all houses should be properly paved and the privy-middens and ashpits constructed in accordance with the model by-laws of the Local Government Board, which should be enforced by all sanitary authorities. The provisions of these by-laws should also be enforced with regard to slaughter-houses and the keeping of pigs in proximity to dwelling-houses. I notice that the Corporation of Clonmel is just introducing a certain number of automatically-flushed public closets which is undoubtedly a step in the right direction.

There should also be a more efficient control of the premises and cows of milk purveyors. The cattle fair should be relegated to a proper fair green at a suitable distance from the town.

Under the Irish Poor-law system the dispensary medical officer is *ipso facto* also medical officer of health. The average dispensary doctor has neither sufficient time nor independence to deal adequately with important problems of public health, which are accordingly either allowed to go to the wall or dealt with by the sanitary inspector, an individual who, though in many instances an excellent official according to his lights, yet is not qualified either by education or by position to form a thoroughly independent judgement in all questions of sanitary reform.

Of course the medical inspectors of the Local Government Board do a great deal in the way of investigating epidemics and making recommendations for the good of the public health; but they have not time to attend to many necessary details. I think that if it were possible to appoint independent and properly qualified medical men as medical officers of health for each county they would bring the sanitary administration of Ireland more into line with that prevailing in England, and would give the smaller Irish towns a chance of being led into the ways of sanitary righteousness.

I have no doubt that the attention which is now being given to the open-air treatment of phthisis, and the steps that are being taken in different parts of the country to erect open-air sanatoria for the treatment of consumptives, as well as the efforts being made to educate the public as to the infectiousness of phthisis and the proper methods for its prevention, will in time greatly diminish the mortality from that dread disease.

PRIMARY INTESTINAL TUBERCULOSIS IN CHILDREN: PERFORATION OF ULCERS.

By NATHAN RAW, M.D., M.R.C.P.Lond.,
Physician, Mill Road Infirmary and Sanatorium for Consumption Liverpool.

Primary tuberculosis of the intestine is, in my experience, a very rare condition to meet with in the *post-mortem* room. I have personally conducted over 600 necropsies on persons dying from tuberculosis, and have only seen 3 cases which I could unhesitatingly say were primary intestinal ulceration, the remaining cases of tuberculous ulceration being always secondary to lung infection. These 3 cases occurred in children aged $2\frac{1}{2}$ years, $1\frac{1}{2}$ year, and 2 years respectively. With regard to the significance of primary intestinal ulceration as a factor in the spread of the disease, Professor Koch, in his famous lecture in London in 1901, said:

> If the bacilli of bovine tuberculosis were able to infect human beings, many cases of tuberculosis caused by the consumption of alimenta containing tubercle bacilli could not but occur among the inhabitants of great cities, especially the children, and most medical men believe that this is actually the case.
>
> In reality, however, it is not so. That a case of tuberculosis has been

caused by alimenta can be assumed with certainty only when the intestine suffers first—that is, when a so-called primary tuberculosis of the intestine is found. But such cases are extremely rare. Among many cases of tuberculosis examined after death I myself remember having seen primary tuberculosis of the intestine only twice. At the Charité Hospital in Berlin ten cases of primary tuberculosis of the intestine occurred in five years. Among 3,104 necropsies of tuberculous children Biedert observed only 16 cases of primary tuberculosis of the intestine. Hitherto nobody could decide with certainty in such a case whether the tuberculosis of the intestine was of human or of animal origin. Now we can diagnose them. All that is necessary is to cultivate in pure culture the tubercle bacilli found in tuberculous material, and to ascertain if they belong to bovine tuberculosis by inoculating cattle with them.

The question whether human and bovine tuberculosis are the same or different diseases has exercised the minds of scientific and clinical workers since 1901, when Koch made his famous declaration. Two Commissions were appointed to investigate this question. The work of the Imperial German Commission[1] was purely experimental, portions of tuberculous material being used from different parts of the body with special reference to the organs of children affected by tuberculosis. The report is unanimously in favour of Koch's contention that the bacilli from human and bovine sources have distinct morphological and bacteriological characters, which are sufficient for their easy differentiation.

This is of the highest importance, and confirms the observations made by me in the BRITISH MEDICAL JOURNAL of February, 1903. In addition, the German Commission has clearly proved that bovine tuberculosis is conveyed to children, and also particularly emphasizes the fact that tuberculosis is often primary through the intestines and mesenteric glands. From three cases of miliary tuberculosis in children they found the disease to have been introduced through the intestines, and in one case the infection was bovine from milk.

If we add to this the 7 cases of primary tuberculosis of the intestines or the mesenteric glands with those recognized as *Perlsucht* infection, we have 10 certain cases of primary infection of the digestive organs, of which 3 have to be considered as infection of *Perlsucht* or bovine tuberculosis by means of milk.

The result, then, of the work of the German Imperial Commission is to establish (1) that there is a distinct difference between the bacilli of human and bovine origin, and (2) that bovine tuberculosis is conveyed to children by means of infected milk, although they add not to any great extent. My own clinical and experimental work is in entire agreement with these results, excepting with regard to the amount of bovine tuberculosis conveyed to humans, which I consider is considerable. I believe that man is attacked by two distinct varieties of tubercle, one conveyed by infection from one person to another, the other by receiving into the body bovine bacilli from infected milk.

It is important to bear in mind that although primary intestinal tuberculosis is extremely rare, yet primary infection of the mesenteric glands is comparatively common; in children the tubercle bacilli pass readily through the walls of the small intestine and are conveyed by the lymphatics first to the nearest glands and then by direct extension throughout the abdomen, and in many cases through the diaphragm to the pleurae, lungs, and bronchial glands. This process of extension to the lungs I have met with in many cases, and numerous feeding experiments on animals have confirmed it.

During the last seven years I have had under my care 306 children suffering from what I have diagnosed as "tabes mesenterica," meaning by this tuberculosis of the mesenteric glands. A large proportion of these children recovered under careful treatment, whilst of the total number I had an opportunity of making a necropsy on 48. There can be no doubt that the abdominal glands and organs may be infected from the thorax downwards as well as from the intestine. In several cases it was obvious that the primary infection was through the lungs, and that the child by swallowing the sputum had infected the abdominal organs. On the other hand, the majority of my cases showed primary infection of the digestive tract with secondary lymphatic extension to the chest, and in some cases to the meninges. My cases of acute miliary tuberculosis all appeared to be of intestinal origin and bovine in origin.

The following are very brief notes of three cases of primary intestinal tuberculosis:

CASE I.

A child aged 2½ was admitted to Mill Road Infirmary on June 13th, 1903, with the usual symptoms of intestinal tuberculosis. There was great emaciation, with enormous distension of the abdomen, with diarrhoea and offensive stools. The history of the child's feeding was carefully taken. It was fed on the breast till 14 months old, then on cow's milk, which was usually bought at a milk shop or in the s Enlarged mesenteric glands could be palpated through the thin minal wall, but the lungs showed no trace of disease. The usual ment was adopted, careful feeding, and various nutrients, but he on September 10th, 1903, having made little effort to improve.

At the necropsy there was great emaciation. The intestines sh extensive ulceration of the ileum and caecum with enormous en ment of the mesenteric glands. Some of the lymphatic glands o anterior surface of the vertebrae were much enlarged, but the vi were not affected and the lungs appeared to be quite healthy. T were two recent perforations of the intestine near the caecum with peritonitis.

CASE II.

A girl, aged 2, was admitted on June 29th, 1903, with all the ptoms of abdominal tuberculosis, constant diarrhoea, distension o abdomen, and enlarged glands which could be easily palpated. milk history was carefully taken. Child fed on the breast fo months, then cow's milk which was never boiled. In spite of all ment she died on August 22nd.

The necropsy revealed a condition almost exactly the same as Ca There were fifteen to twenty typical tuberculous ulcers in the i with perforation of three of them and matting of the bowels. mesenteric and abdominal glands were caseating and enlarged, w the lungs were quite healthy.

CASE III.

A child, aged 1½, was admitted on March 13th, 1904, with co diarrhoea, and in a general hectic condition. She had a curious sp odic crowing cough resembling whooping-cough and she was iso on that account. She died in ten days.

At the necropsy extensive ulceration of the intestines, with old ch mesenteric glands, and a general lymphatic extension to all the a minal viscera, then through the diaphragm to the pleurae, which studded with grey tubercles, apparently quite recent. The bron glands were enlarged and compressing the trachea.

In conclusion, whilst I admit that primary intestinal tu culosis is extremely rare in children, yet in my experi tuberculosis is very frequently conveyed to the digestive t by infected milk, the bacilli readily passing through the in tinal wall into the nearest lymphatic glands, leaving no vis trace on the intestine.

This tuberculosis is not true human tuberculosis, bu bovine in origin, and may rapidly spread to all the viscer the body, or may remain (as it most often does) localize the mesenteric glands. Hence it is that, whilst tubercul milk will not produce human tuberculosis, it neverthe sets up bovine tuberculosis in the human body, m especially in children, and is even more virulent to child than the human variety. It is thus of the highest importa that tuberculosis amongst dairy cattle, especially th affected in the udder, should be recognized early and cattle removed at once, and also that milk should be ste ized for all children under the age of 10 years.

REFERENCE.

1 BRITISH MEDICAL JOURNAL, April 9th, 1904, p. 847.

SUPRARENALIN IN PULMONARY HAEMORRHA

BY DUNCAN MACDONALD, M.B., C.M.,
Oban, N.B.

IN view of the recent notices in the BRITISH MEDICAL JOURN I think the following case will prove interesting to y readers:

A.D., male, single, aged 28 years, had an acute attack of phthisis p monalis four years ago. There were distinct physical signs of disease in the right apex and infraclavicular region, with a temperatu ranging from 99° F. morning to 103° F. evening. With open-air tre ment and guaiacol carbonate he improved considerably, and was able resume his work as a post-office clerk after about three months' tre ment, being then transferred from a large city to a small seaside to post office.

The following year he had a sharp attack of pleurisy of the right si for which he was tapped, and was able to resume work within th weeks from the date of the attack. With the exception of this slight terruption and his annual holiday he never lost a day's work from t time of his illness four years ago until January 16th, 1904. On th day on his way home from the office he called to see me, as he h observed a little blood in his sputum that morning. I then learn that about New Year's time, when the post office was exceptiona busy, he had done a good deal of extra work and heavy lifting some weeks, had overheated himself, and had sweated and felt shive in the intervals. His cough also became much worse; indeed, his cou had never left him in the morning since his first illness. I found w marked physical signs of cavity in the right infraclavicular region, b he had no rise of temperature. I ordered him to bed and gave him mixture containing iron, digitalis, sulphuric acid, and ergot. He pr gressed favourably till January 25th, when I allowed him to rise a litt daily, but not to go out. On January 28th there was fresh bleedin and the sputum contained more or less blood daily after that. I chang

medicine on January 30th to extract hydrastis canadensis fluidum, ture hamamelidis, and ext. glycyrrhizae, as the haemorrhage was a e severe, and gave him morphine ¼ gr. hypodermically at bedtime. ie bleeding became less again and things seemed to go on favourably l February 12th, when at 11 a.m. without any cough or warning he a copious haemorrhage which nearly filled a bedpan. He was very ipsed after it. I gave him morphine ¼ gr. hypodermically then, and wards ¼ gr. night and morning. For two nights before this haemor- e the temperature rose to 102° F. in the evening. On February 17th olved to try the effect of suprarenalin, looking to the results obtained raeser,[1] Bird,[2] and Hedley,[3] and I tabulate the routine treatment.

Suprarenalin (Armour and Co.)

February 17th, 5 p.m.	3j (1 in 5,000).		
,, 18th, 1 a.m.	do.	...	Slight bleeding morning.
,, ,, 9 ,,	do.	...	
,, ,, 1 p.m.	do.	...	
,, ,, 6 ,,	do.	...	
,, ,, 12 night	do.	...	
,, 19th, 6 a.m.	do.	...	Slight bleeding 11 p.m.
,, ,, 12 noon	do.	...	
,, ,, 6 p.m.	do.	...	
,, ,, 12 night	do.	...	
,, 20th, 6 a.m.	do.	...	
,, ,, 12 noon	24 minims (1 in 1,000).		
,, ,, 6 p.m.	do.	...	
,, ,, 12 night	do.	...	
,, 21st, 6 a.m.	24 drops (1 in 1,000).		Slight bleeding.
,, ,, 12 noon	do.	...	
,, ,, 2 p.m.	5 drops do.	...	
,, ,, 4 ,,	do. do.	...	
,, ,, 6 ,,	do. do.	...	
,, 22, 2.20 ,,	10 do. do.	...	About teacupful of haemorrhage 1 p.m.
,, ,, 4.20 ,,	do. do.	...	
,, ,, 6.20 ,,	do. do.	...	
,, 23rd, 4 a.m.	do. do.	...	Fatal haemorrhage 4.40 a.m.

ring this time the sputum was more or less coloured, but there was little cough and the temperature remained normal. Morphine was given hypodermically night and morning to allay the cough, the exception of the mornings of February 20th and 22nd. The haemorrhage came on suddenly without warning and ended the e in a few minutes. It was very copious, about half a basinful ng up. The treatment of the case beyond this included perfect in bed in the recumbent position, cool liquid food, ice to suck, lation of bowels by salines and enemata, and avoidance of all ement and talking.

REMARKS.

uprarenalin in this case evidently did no good so far as ultimate issue of the case is concerned. Indeed, owing s raising the blood pressure its use seemed rather contra- cated than otherwise; still, after reading the results ined and looking to the hopelessness of the case I felt fied in giving it a trial. That suprarenalin increases the d pressure was evident from the marked extra tension in pulse after administration. Twice when given frequently ne day I noticed profuse perspiration following its use. d not interfere with the patient's digestion in any way, gave rise to no discomfort of any kind. He always essed himself as "feeling nothing" from taking it. Any effect it had seemed to be more marked when the phine was given at the same time. As to whether its bition delayed the final haemorrhage terminating the I cannot say.

this case evidently a large branch of the pulmonary y must have ruptured, probably as the result of rysmal dilatation into a phthisical cavity and probably ication of any kind would have proved ineffectual, but in severe cases I should be inclined to try the results of arenalin again. After the first slight haemorrhage in case I gave a hypodermic of ergotine, but as it made the nt feel very sick and faint I did not repeat it.

REFERENCES.

ITOME of the BRITISH MEDICAL JOURNAL, December 12th, 1903, 75. [2] BRITISH MEDICAL JOURNAL, January 23rd, 1904, p. 191. TISH MEDICAL JOURNAL, February 13th, 1904, p. 365.

CASE OF HAEMOPHILIA TREATED WITH ADRENALIN CHLORIDE.

By ERNEST FRANCIS, M.R.C.S.ENG., L.S.A.LOND.,
Chief Medical Officer, Assam-Bengal Railway.

February 23rd, 1904, I was urgently summoned to see a nt who was said to have been bleeding from the mouth bout six hours. I found a young man, blanched and ous-looking, his pulse too rapid to count, feeble and ring. A large quantity of coagulated blood was in a at the bedside and blood was being expectorated at ent intervals.

e view of the mouth and pharynx being obscured by l and blood-clot, a Gowan's gag and tongue depressor was introduced and the pharynx and mouth cleaned out. It was then seen that there was deep purple ecchymosis of the right side of the hard palate, sharply limited by the middle line. The soft palate was engorged and oozing blood rapidly; the uvula was engorged, about 2½ in. long, and bleeding freely. The uvula was seized by forceps and removed with scissors, the whole of the pharynx swabbed out with sponges saturated with adrenalin chloride solution (1 in 1,000) (Parke Davis), and a sponge saturated with the solution held to the stump of the uvula. On its removal, after several minutes all haemorrhage was found to have completely ceased. All the treated parts were completely blanched, with the exception of the ecchymosis on the right palate, which remained a dark purple and appeared extraordinarily sharply defined, presenting a striking contrast to the adjacent mucous membrane.

Adrenalin chloride solution ♏xv was given by the mouth. The urgent haemorrhage having been arrested, I had leisure to obtain the history of the case:

The patient was a male Hindu (Brahmin), aged 22. At the age of 12 years he received a blow on the right temple from a tennis ball. He bled from both nose and mouth for "several days afterwards."

At the age of 15 years he fell from a horizontal bar. He sustained no apparent injury, but on the following day began to bleed from the nose and mouth and to pass blood with both urine and faeces. This lasted five days. On the present occasion no blow or injury had apparently been sustained.

A puncture caused by a hypodermic injection was oozing freely. Adrenalin solution was applied to it, and no more oozing took place.

At 10 P.M. the patient vomited a large quantity of blood (probably swallowed earlier in the day). He passed a stool containing much black blood, and his urine was dark port-wine coloured. There had been no recurrence of bleeding from the mouth. There was a large, tender, and obscurely-fluctuating tumour in the right iliac fossa. The temperature was 98.4° F., and the pulse 134, regular, and much improved. The face was less anxious. He was ordered a mixture containing adrenalin solution ♏x and ergotinin citrate $\frac{1}{200}$ gr. by the mouth every four hours.

February 24th, 7 a.m. Condition improved; no bleeding from mouth; appearance less anxious. Temperature 98.6° F.; pulse 118; urine black; faeces black. Adrenalin and ergotinine citrate mixture continued.

February 25th, 9 a.m. Much better. No external bleeding. Swelling in right iliac fossa less. Pulse 110, good; temperature 98.8° F.; urine clear, but slightly bloodstained; faeces black. Able to sit up in bed and talk. Adrenalin mixture discontinued, and full doses of iron and arsenic substituted.

February 26th, 9 a.m. Appearance very anxious; very restless; no external bleeding; urine port-wine coloured; has passed a copious stool consisting almost entirely of fresh blood; pulse 132, fluttering, and intermittent; breathing shallow and sighing; a hypodermic injection of ergotinine citrate $\frac{1}{100}$ gr. and strychnine $\frac{1}{60}$ gr. was at once given, and a rectal injection of 1 pint of saline solution at 100° F. The adrenalin mixture was again ordered by the mouth.

February 26th, 6 p.m. Face less anxious; breath fetid; pulse 135, non-intermittent; temperature 100.2°.; evacuation of the saline rectal injection stained black; urine clear, no visible blood; no external bleeding. Another saline rectal injection given and mixture continued.

February 27th. The patient became very restless, and his temperature rose to 103° F. on the night of the 26th. I was called to him at 2 a.m., and found him extremely restless, semi-conscious; temperature 104° F.; respiration very hurried and shallow; pulse 150, failing. At 2.15 a.m. the patient became completely unconscious, the pulse imperceptible, and the respiration more rapid and shallow. Respiration ceased at 2.20 but the heart continued to beat irregularly for nearly a minute afterwards.

REMARKS.

The patient's family being wealth and high caste Hindu no family history was obtainable, nor for the same reasons was a necropsy possible. Had I at the time been aware of the patient's previous history I should not have removed any portion of the enormously enlarged uvula. It is of interest, however, that the bleeding from the stump was at once controlled, and that there was no recurrence of any haemorrhage from the pharynx.

ON THE PHYSICAL EXAMINATION OF 1,580 GIRLS FROM ELEMENTARY SCHOOLS IN LONDON.*

BY F. MAY DICKINSON BERRY, M.D., B.S.LOND.,
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THE girls mentioned in this paper are pupils in elementary schools who have obtained scholarships from the Technical Education Board of the London County Council to enable them to continue their education in higher-grade schools. The conditions under which the scholarships are given—the same for the girls as for the boys—were as described by my colleague Dr. Leslie Thorne Thorne in his paper in the BRITISH MEDICAL JOURNAL of April 9th, namely:

"Junior" scholarships are given to pupils in elementary schools in London whose parents' income does not exceed £150 a year, and "intermediate" scholarships to those whose parents are not in receipt of more than £400 a year, or, in half the cases, £150 a year. About 300 junior and 30 intermediate scholarships are bestowed yearly upon girls. Every child, before taking up the scholarship, has to pass a medical examination, partly in order to ensure that none shall receive a scholarship who is not in a fit state of health to profit by it and partly that any cases of physical defect may be reported, so that the necessary treatment may be obtained or recommendations be forwarded to the school which the child is to attend.

The physical examinations which I now summarize have been held twice yearly during a period of five years, and it is not without interest to note how far the results of the examination of the two sexes correspond.

General Appearance.—The girls were arranged in three classes as regards general appearance—good, 60 per cent.; fair, 34 per cent.; delicate, 6 per cent.

Height and Weight.—The following tables show the average height and weight of 1,385 girls from 11 to 15 years of age. The girls examined the first year are not included, as the examination was conducted somewhat differently; girls of 10 and 16 have also been left out, the numbers being too small to be of statistical value. The average weights and heights of the boys, taken from Dr. Thorne Thorne's table, are added by way of comparison.

TABLE I.

Age.	11		12		13		14		15	
	Girls.	Boys.	Girls.	Boys.	Girls.	Boys.	Girls.	Boys.	Girls.	Boys.
Total number examined ...	226		815		214		50		79	
Average height ...	ft. in. 4 7	ft. in. 4 5½	ft. in. 4 9	ft. in. 4 8¾	ft. in. 4 10	ft. in. 5 0	ft. in. 5 1½	ft. in. 5 2½	ft. in. 5 2	ft. in. 5 5
Average weight ...	st. lb. 5 0	st. lb. 5 2½	st. lb. 5 5	st. lb. 5 6½	st. lb. 6 0	st. lb. 6 0	st. lb. 7 1	st. lb. 7 0	st. lb. 7 8	st. lb. 8 0

In the succeeding tables the average heights and weights of the girls I examined are given in centimetres and kilograms, and are compared with similar statistics from schools for girls in various European counties taken from Dr. Axel Key's *Investigations in School Hygiene.* It will be seen that the London girls compare favourably as regards height with all others; as regards weight they are slightly below both the Swedish and the American girls. The latter, however, appear to have been girls in higher grade schools, and therefore would represent probably a wealthier class than that from which our scholars are drawn.

TABLE II.—*Average Height in Centimetres.*

Age.	L.C.C.Scholars (London).	Quetelet. (Brussels).	Bowditch (Boston).	Paglioni (Turin).	Sweden.	Denmark.
11	139.7	130.1	135.7	131.5	137.0	133.0
12	144 9	135.2	141.9	136.7	143.0	138.0
13	147.4	140.0	147.7	142.6	148.0	146.0
14	156.2	144.6	152.3	149.6	153.0	151.0
15	157.4	148.8	155.2	152.6	157.0	154.0

* This paper, read at the International Congress of School Hygiene held at Nuremberg April 4th to 9th of this year, has been slightly altered in form so as to correspond more closely with Dr. Leslie Thorne Thorne's paper on "The Physical Development of the London Schoolboy" in the BRITISH MEDICAL JOURNAL of April 9th, 1904.

TABLE III.—*Average Weight in Kilograms.*

Age.	L.C.C.Scholars (London).	Quetelet (Brussels).	Bowditch (Boston).	Paglioni (Turin).	Sweden.	Denmark
11	31.7	25.5	31.23	26.9	31.9	30
12	34.8	29.0	35.53	29.5	35.9	34
13	38.2	32.5	40.21	34.5	39.6	38
14	44.9	36.3	44.65	38.5	44.8	42
15	48.0	40.0	48.12	43.8	48.9	46

Tables IV and V refer to the circumference of the chest on forced inspiration to the degree of possible chest expansion, that is, the difference between forced inspiration and forced expiration. Dr. Thorne Thorne's tables regarding boys are given for comparison.

TABLE IV.—*Chest Circumference on Forced Inspiration.*

Inches.	Number of Cases (Girls).	Percentage of Total Number of Cases.	Percentage (Boys).
23—24	6	0.7	0.1
24—25	55	6.1	0.8
25—26	146	16.1	4.8
26—27	256	28.2	13.9
27—28	181	20 0	25.1
28—29	107	11 8	22.5
29—30	76	8.3	13.9
30—31	52	5 7	7.5
31—32	21	2.3	3 3
32—33	7	0 8	2.8
33—44			2.1
34—35			1.2
35—36			0 5
36—37			0.3

TABLE V.—*Degree of Chest Expansion.*

Inches.	Number of Cases (Girls).	Percentage of Total Cases.	Percentage (Boys).
1—2	42	4 8	1.2
2—3	467	53.0	21.1
3—4	318	36.1	53.5
4—5	45	5.1	22.3
5—6	8	1.0	1.5

Examination of the Chest.—There was no case of serious lung disease of any kind among the girls.

Hearts.—Out of the 1,580 children examined, there were 13 cases (about 8 per cent.) with cardiac murmurs indicative of organic heart disease; 4 of these children had suffered from rheumatic fever, and the cardiac condition was doubtless due to this; the remaining 9 were all children of perfectly healthy appearance, with no further symptoms of cardiac trouble and with no idea whatever that there was anything wrong about the heart. One had had scarlet fever; in the others no history of any disease to which the cardiac condition could be attributed was elicited. In all these cases the murmur was mitral regurgitant. In 34 children (about 2 per cent.) a basal systolic murmur was present, doubtless haemic in character and in most cases due to anaemia. The anaemia was in nearly all the cases of but slight degree.

Spine.—Out of the total 1,580 girls 12 per cent. presented some degree of lateral curvature of the spine. The proportion in the last two examinations was considerably higher, being as much as 22 per cent. I attribute this largely to the fact that at these examinations my attention was specially directed to this point, and that all cases were reported in which, when the girl was told to stand perfectly upright, any degree of scoliosis was observable; whereas, in the earlier examinations, the slighter cases were not included. It is true that in a considerable proportion of the cases the curvature was slight and could be made to disappear by rectifying the position; but even in a large number of these there was already some rotation of the vertebrae, shown by greater prominence of the ribs on one side. There were 5 cases of severe scoliosis with definite bony deformity. One of these was due to shortening of one thigh from old hip disease.

In most of the cases the general muscular development was poor, there was frequently a tendency to anaemia, and many were below the average in weight. It is noteworthy that among the boys very few cases of scoliosis were found. I am of opinion that the poor muscular development of

any of the girls is the chief cause of the curvature of the pine, and that it calls very strongly for more attention to hysical education, and especially for more provision for ymnastics than is found at present in elementary schools r girls. Girls, too, of the lower classes do not as a rule lay the same vigorous games as do the boys, or as are layed now by girls of the higher classes of society.

Eyes.—There was no case of colour blindness or even of confusion of colours" among the girls.

Acuteness of Vision.—Out of the total number, 202, nearly 13 er cent. had errors of refraction requiring the use of glasses. nly 39 per cent. of these were already provided with any lasses.

Hearing.—Out of 1,400 cases 117, 8.3 per cent., had defec- ve hearing to some extent. In 80 of these the defect was ight, a watch normally heard at 18 in. being audible at dis- nces varying from 6 in. to 12 in. In 37 cases the defect was nsiderable, the watch being heard only at less than 6 in., many cases at less than 2 in. In nearly all these, however, ne ear only was affected. In several there was a history of orrhoea. In no case was the deafness noticeable in ordinary nversation. Contrary to my expectation I found but few the cases of defective hearing associated with enlarged nsils or adenoids, they were 13 in all, or about 11 per cent.

Throat and Nose.—Enlarged tonsils, adenoids, or both, were und in 148 cases, naarly 10 per cent. Many of the cases ere slight and no treatment was advised. Fifteen cases of lenoids were recommended to undergo an operation. The sociation with deafness was, as remarked above, very small, ing limited to 13 cases. The percentage of enlarged tonsils id adenoids was very much less in the girls than the boys, mely, 10 per cent. instead of 34 per cent. It may be sug- sted that cases were allowed to pass undetected in the rmer, but I do not think that this was the case. There was ndoubtedly a striking absence among the scholarship girls the facial signs of adenoids so common in our elementary hools and especially so in the classes for mental defectives— it there too I think more frequent on the whole in boys an girls.

Urine.—Among the 1,580 cases examined 151, or nearly 10 r cent., had albuminuria. This percentage is almost exactly e same as that found among the boys. Only those cases are cluded in which there was both a distinct cloud on boiling d a definite ring on treatment with cold nitric acid. The nount of albumen varied from a slight cloud to, in a few ses, as much as one-fifth solid albumen. In as many cases possible the urine was examined a second time at a few ys' interval: 82 cases were thus re-examined, in 67 albumen s present on both occasions. I have endeavoured as far as ssible to keep the albuminuria cases under continued obser- tion. This has not been always easy, as they are under no ligation to attend any subsequent examination, and oppor- nities for further investigation can only be obtained as a vour. I have, however, succeeded in making over 300 aminations of the urine in old cases.

Seventy-Three Cases were Examined Three Times.—In 180 (83 r cent.) of the examinations albumen was found. In 9 cases umen was present at every examination

Forty-One Cases were Examined Four Times.—Albumen was nd in 93 of the examinations (76 per cent). In 10 cases re was albumen at every examination.

Fourteen Cases were Examined Five Times.—In 57 of the minations (81 per cent.) albumen was found. In 6 cases umen was present on each occasion.

The longest time any case has been under observation is years; 23 cases have been under observation for periods from three to five years. Of these 23, 10 had albumin- a at every examination, 12 had no albuminuria the last e they were examined (3 of these also had none the last e but one), 1 case was found to have no albuminuria at intermediate examination, but albumen was present again en last she was seen. The amount of albumen was found vary a good deal in the same individual at different es. On the whole, the tendency certainly was for the ount to diminish at each subsequent examination, but this by no means invariably the case.

Causation of the Albuminuria and Health of the Girls.— majority of these girls were of good general appear- e, several were indeed among those who were noted as g specially robust and healthy-looking; 10 were some- t anaemic, and were among those who were classed as cate. Albuminuria is said to be common in children of a rotic temperament, subject to night terrors, somnambu- , or other symptoms of an unstable nervous system. Certainly by far the larger number of the girls I examined were by no means of this type.

There was a history of scarlet fever or diphtheria in a certain number of cases, but not in a greater proportion than among the whole number of girls examined. In no case was any history of kidney disease given, and in none had the existence of any kidney trouble been suspected. I did not find among them any cases with further symptoms of kidney disease or circulatory disturbance. Enlarged tonsils were present in somewhat greater proportion than among the girls in general, but not to any great extent.

In a few of the cases where the amount of albumen was largest a microscopic examination of the urine was made. No casts were found. I have not as yet found evidence of deterioration of the general health among the girls who have been kept under observation. One girl has had scarlet fever since she was first examined, and informs me she was then told that it was complicated by inflammation of the kidneys. As she appears to have been but slightly ill, the diagnosis was probably due to the pre-existing albuminuria.

The conclusions I have drawn from the very imperfect observations I have been able to make are as follows:

1. In the majority of the cases in which albuminuria was found the condition was not merely accidental and transitory, but was more or less permanent, at any rate for a few years.
2. I find no evidence of consequent deterioration of health so far as I have been able to watch the cases.
3. On the whole the albuminuria tends to diminish, and in more than half the cases had disappeared when they were last seen.

Unfortunately the time during which it has been possible to keep the girls under observation is too short to throw much light on the subject of the ultimate prognosis in these cases of albuminuria. That some will result in nephritis is probable, but the large number of cases in which the albumen has disappeared after persisting for some months or years certainly appears to me to afford some evidence against the theory that albuminuria in the apparently healthy is to be considered in all, or nearly all cases, an early stage of interstitial nephritis. It is, of course, impossible to say that some of the albumen may not have been due to leucorrhoea. The urine in all the cases reported was, however, quite clear, and there was no signs of leucorrhoeal discharge—cases in which there was merely a faint trace of albumen present were on this account not included.

As regards the condition of the girls generally as brought out in these examinations, I think this may be considered satisfactory. The girls as a rule were healthy. Although a considerable proportion might have been better developed in many ways, and a variety of defects were discovered, these were generally not serious, and the falling below the standard of health was not great. The candidates were the picked scholars of the elementary schools; they had all worked hard, and had had to pass a fairly severe competitive examination. The medical examination was interesting in regard to the question as to whether such application to work had injured the health of the scholars, an accusation not infrequently made concerning work in Board schools. In the case of those who came before me—the girls who succeeded—I think the answer was in the negative.

NOTE ON THE OCCURRENCE OF LEISHMAN-DONOVAN BODIES IN "CACHEXIAL FEVERS," INCLUDING KALA-AZAR.

By LEONARD ROGERS, M.D., M.R.C.P., I.M.S.,
Acting Professor of Pathology, Medical College, Calcutta.

The work of Donovan[1] in showing the above parasite-like bodies to be commonly present in chronic fevers in Madras, following very closely on the first description of them by Leishman,[2] has raised the very important question as to whether some of the cases hitherto known as "malarial cachexia," including the Assam epidemic form of the disease kala-azar, might not be caused by the new parasite. On my recent return to India I was fortunate enough to be placed on special duty to inquire into the prevalence of fevers in Dinajour (which is one of the districts in which I showed some years ago[3] that the Assam epidemic fever took its origin in the early Seventies, owing to five out of six successive years of deficient rainfall). I have, therefore, been able to examine for the new parasite by spleen puncture, with some

results which appear worthy of record. As my object was to find out how to differentiate the cases with the new bodies from chronic malarial fevers, all cases with enlargement of the spleen below the ribs and recent fever were submitted to the little operation, which was rendered painless by spraying the skin first with ethyl chloride. Although, in all, 30 cases were examined in this way in small dispensaries no ill result followed. The duration of the cases varied from one month to several years, as will be seen from the following table, most of them presenting very marked enlargement of the spleen, accompanied by darkening of the skin, anaemia, and considerable emaciation; that is the typical picture of "malarial cachexia." In short, these were just the cases which I pointed out some years ago are individually considered indistinguishable from kala-azar in Assam, but which differ from that disease, when the family histories are gone into, in that more than 1 death in a family within a year or two is very exceptional in the sporadic form seen in Lower Bengal; while it is the rule in the epidemic form of Assam, where among the patients in a large dispensary three-quarters had lost half, or more than half, of their household from the disease.[4] Further, in the worst part of the Dinajpur districts I could obtain no evidence of villages being decimated by the disease, and of the people deserting them, as always occurred in the affected tracts in Assam. Yet, given a single case of the two forms, there is no means of distinguishing them, except, perhaps, by the greater rapidity of the occurrence of the markedly cachexial stage in the epidemic form.

With regard to the present series of cases, malignant tertian malarial parasites were found in some, Leishman-Donovan's bodies in others, while in the remainder no parasites could be detected, although in most a film prepared from the peripheral blood was examined, as well as those of the spleen blood, Romanowsky and Leishman's stains being used. It will be most convenient to tabulate, for purposes of comparison, the two series of cases in which parasites were found. The negative cases, which constituted just one half (15 out of 30) were precisely similar in nature to those given in the tables.

white corpuscles, and also a large proportion of lymphocyte and a reduced one of polynuclears, just as I have previously shown occurs in chronic malarial fevers as well as in cases of "malarial cachexia" and kala-azar, so that if the new bodies are not a form of malarial organism then it is evident that large mononuclear increase is not diagnostic of malaria, but rather of an indication of the presence of a protozoal, as opposed to a bacterial, invasion of the system. It is disappointing to find that even spleen puncture fails to differentiate all the chronic fever cases, but better results may be obtained by repeating the procedure, as a second puncture was successful in one case.

It is, of course, conceivable that all these chronic cases may be due to the new parasite-like bodies, and the presence of malarial parasites in many of them also may be a coincidence. If the new parasites do not form melanotic pigment then it is clear that the great majority of these chronic cachexial fevers are complicated by malaria, for I have shown on more than one occasion that both in kala-azar[5] and also in "malarial cachexia,"[6] as seen round Calcutta, recent black pigment is nearly always met with in the liver, spleen, etc., after death; while during the occasional high rises of temperature which occur during the course of the low fever of the cachexia stage of the disease malarial parasites can frequently be found. On the other hand, against the view that the new bodies are a late secondary infection frequently occurring in the subjects of chronic malarial fever are the facts that these new parasites were found after only one month's fever in two of the cases recorded above; while it will be shown presently that they are also to be met with in fairly early stages of kala-azar; so that, on the whole, it appears to be more likely that they are a new form of protozoa very closely allied to the malarial parasites, and producing a very similar train of symptoms, but with a greater tendency to bring about a cachexial state very rapidly, and a greater resistance to the action of quinine in small doses. In view of the above results, it is clear that the differentiation of the new fever from chronic malaria by purely clinical means apart from spleen puncture, will be an extremely difficult

Table of Cases in which Parasites were Found.

I.—FEVERS SHOWING LEISHMAN-DONOVAN BODIES.

No.	Sex.	Age.	Duration of Fever.	Present Fever.	Anaemia.	Skin.	Spleen.	Liver.	Wasting.	Parasites.
1	F.	4	15 months	Daily	Very marked	Dark	A.S.S.	1″	Very marked	Numerous.
2	M.	15	1 year	Daily	Marked	Very dark	Beyond navel	1″	Very marked	Scanty.
3	M.	25	2 years	Slight	Slight	Dark	4″	*Nil*	Slight	Numerous.
4	M.	15	7 months	Daily	Slight	Dark	Beyond navel	*Nil*	Very marked	Scanty.
5	M.	40*	2 years	Daily	Slight	—	4″	*Nil*	Thin	Numerous.
6	M.	14	1 month	Daily	Slight	*Nil*	To navel	1″	*Nil*	Scanty.
7	M.	8	1 year	Daily	Very marked	*Nil*	To navel	*Nil*	Very marked	Scanty.
8	F.	7	1 month	Daily	Marked	Dark	Beyond navel	½″	Thin	Numerous.
9	F.	6	1 year	Daily	Slight	*Nil*	A.S.S.	4″	Extreme	Scanty.
10	M.	8	1 year	*Nil* lately	Marked	Dark	A.S.S.	1″	Very marked	Scanty.
					II.—FEVERS SHOWING MALARIAL PARASITES.					
1	M.	7	3 years	Slight	Slight	Very dark	Beyond navel	*Nil*	Thin	Mal. tert.
2	M.	7	2 years	Frequent	Slight	Very dark	A.S.S.	1″	Thin	Mal. tert.
3	M.	12	2½ years	Daily	Marked	Dark	To navel	—	Thin	Mal. tert.
4	M.	14	2 years	Daily	Marked	*Nil*	Beyond navel	*Nil*	*Nil*	Mal. tert.
5	M.	8	3½ years	Frequent	Very marked	Dark	A.S.S.	1″	Thin	Mal. tert.

A.S.S. means down to the anterior superior spine of the ilium. ″ equals 1 in. below the edge of the ribs.
* Died of pneumonia. Bodies found in the spleen, liver, and bone marrow.

A study of the above table shows that there is no point of marked difference between the two series, for in both the majority of the cases occurred in children and were of a chronic type, the malarial ones happening to show this in the more marked degree on the average, while the darkening of the skin since the onset of the fever—a point on which the relatives sometimes volunteered information before they were asked—the marked enlargement of the spleen, and to a less degree, of the liver, the anaemia and wasting are all common to both series. The area in which these cases were examined is but a little south of the Darjeeling terai, and is very malarious, the spleen rate in the villages from which most of these cases came having been 99 and 100 per cent., while it was in this very tract of country that the Malarial Commission found a very definite relationship to exist between the spleen rate and malarial endemic index, so that there can be no doubt as to the prevalence of malaria in this part. It is also remarkable that even with spleen puncture no parasites of any kind were found in half the cases, although in all but 3 of the 15 negative cases fever was still occurring regularly, while they had not been recently dosed with quinine. Most of the cases in both series showed an increase of the large mononuclear

matter, and will require a far larger series of cases than the present one. Yet if the new bodies prove to be the cause of all the chronic fevers in which they are met with a great advance will have been made, and a new field of research opened up.

LEISHMAN-DONOVAN BODIES IN KALA-AZAR.

In December last a letter appeared in the *Indian Medical Gazette* from Major Donovan pointing out that the cases in which he had found the new parasites resembled kala-azar closely in type, and suggesting that the latter disease might also be due to them. Ross has also made a similar suggestion. Thanks to the kindness of my old friend Dr. Dodds Price, of the Nowgong district of Assam (whose experience of kala-azar is absolutely unrivalled at the present time), in sending me slides made from blood obtained during life by spleen puncture in seven cases of undoubted kala-azar, the duration of which varied from five months to two years and a half, I have been able to search for the new bodies. The results may be very briefly summarized by saying that numerous Leishman-Donovan's bodies were readily found in three of the cases, while in two more they were more

sparingly met with. In one case none could be found, but the notes of the case reported that the patient was improving and was expected to recover. In the remaining case the slide was spoilt in trying a new fixing agent. Since these results were obtained, Dr. Bentley of Assam has announced in the *Indian Medical Gazette* that he has also found these bodies in kala-azar cases, and has therefore abandoned his recently-expressed Malta fever theory of the disease which I showed was based on serum tests with too low dilutions to be of any value, while in two series of cases I got partly negative results, since which similar negative reactions have been obtained at the Army Medical School laboratory in another series of kala-azar bloods sent by Dr. Price. These parasites, then, are certainly to be found in kala-azar, and should they prove to be the actual cause of this disease the matter will be one of great practical importance, for the measures recommended by me, and very successfully carried out by Dr. Dodds Price and others, both for the suppression of the disease by segregation measures,[10] and [11], and the very marked lowering in the mortality produced by more efficient treatment with quinine, should be equally valuable in the treatment of the sporadic form of the affection. Still more important from this point of view is the demonstration beyond the possibility of dispute by Dr. Price[12] of the certain action of quinine as a prophylactic against kala-azar, for when he first put into operation the segregation measures he lost hospital assistants and menials of the infected camp from the disease with great regularity, until he started, now several years ago, dosing them all regularly with quinine, since which he has not lost one, except a man who had already contracted the disease before this measure was started. A drug which is such a perfect prophylactic can hardly fail to have some curative action, although it often fails in advanced cases, and must be pushed in early ones to be effective, as I urged several years ago in my original report on the disease. I lay stress on this point because Major Donovan says that quinine is of little use in the disease. Now that we have a method of diagnosing the affection in the earlier stages quinine should be pushed as soon as possible before the patient reaches a cachexial state, and his total leucocytes, and still more the phagocytic polynuclears, are reduced to but a small fraction of their proper numbers, as I have previously pointed out, is so commonly the case in the most hopeless of these chronic fevers.[4] and [6].

With regard to the bodies themselves, I can find no difference between those seen in the sporadic form in Dinajpur, and also quite recently in Calcutta in cases admitted to the Medical College Hospital as "malarial cachexia," and those I have found in kala-azar, while both agree clearly with specimens kindly shown me by Major Leishman in London, and sent me by Major Donovan from Madras, as well as those depicted by Manson and Low still more recently in a case from Sylhet.[7] In view of the great differences of opinion as to the nature of the parasites among leading medical authorities, it is useless to add any more to those already expressed, especially as further forms doubtless remain to be discovered before the life-history of the organism can be made out fully. That an asexual form of sporulation goes on in the spleen appears certain, but more than that I am not prepared to say at present. Nothing resembling an adult trypanosoma has yet been been seen.

I have also recently visited the Kola-Lukh area but found the outbreak had died out, only recovering cases being seen. It is worthy of note that nearly all the Dinajpur cases were found only about forty miles from the Kola-Lukh area. I would also like to point out that the discovery of a slightly different form of protozoan parasite than the present known malarial ones in both "malarial cachexia" and kala-azar does not *per se* clear up the mystery of the origin of the spreading epidemic form of the disease in Assam from the endemic form in Lower Bengal.

In my original report I stated that I had expected to have met with a different form of plasmodium from those of ordinary malarial fevers, and for this purpose examined a series of cases of commencing fever in kala-azar-infected houses so as to get them in the earliest stages, but failed to find any differences in the parasites met with in the peripheral blood from those of malaria (spleen puncture, unfortunately, not having been done), except in kala-azar they appeared to be less frequently pigmented, but the difference was not sufficiently striking to allow of there being differentiated by it." Further, "I never came across any crescent forms." If the new organisms are piroplasma, as suggested by Laveran, then some of the parasites I saw in the peripheral blood may be an intracorpuscular form of the parasite, although many of them were undoubtedly pigmented malarial organisms, which were met with throughout every stage of the disease in different cases, although often absent for a considerable time during the occurrence of the low form of fever in individual instances. In several of the Dinajpur cases recently examined the peripheral blood has showed unstained amoeboid-like bodies, usually situated in red corpuscles, which present a purple stippling with Leishman's stain, the exact nature and significance of which I am uncertain about. As I worked in Assam mainly with unstained specimens fixed with osmic acid vapour (Romanowsky and Leishman's stains not then being in general use), some of the intracorpuscular unpigmented forms then seen may possibly have been of this nature.

Of the forms met with in blood withdrawn from the spleen during life, the commonest is a small oval body slightly longer than it is brood and measuring about one-third the diameter of a red blood corpuscle in its longest axis. It has two nuclei, one of which is small and often rod-shaped and stains deeply, while the other is larger, more rounded, and less darkly stained. They are usually situated opposite each other, close to the capsule and in close contact with each other. These bodies are free in the blood and may be very scanty, but in cases with actual fever when the blood is obtained they are not infrequently very numerous, being met with in numbers in a single field of the microscope. In addition to this form, small groups of similar bodies are met with clumped together so as to closely simulate a quartan sporulating malarial parasite, while in others these are seen in the act of breaking up into the small forms. A still earlier stage of this sporulation is seen in which pairs of unequal-sized nuclei are grouped within a single cell, but no signs of subdivision are yet apparent. These last forms are somewhat larger than the longest of the single forms, and appear to be produced by a subdivision of the nuclei of the latter. I have not yet found this form in the peripheral circulation, but possibly it may be present in small numbers. I have also seen them within polynuclear white corpuscles, where they may show degenerative changes.

In conclusion, I would suggest as a suitable provisional term for the chronic fevers showing Leishman-Donovan bodies in the spleen the term "cachexial fever" until further advances allow of a more accurately descriptive name being agreed upon.

Note.—Since this paper was written it has been pointed out by the editor of the *Scientific Memoirs of Army Medical Officers* that the bodies recently described by Majors Leishman and Donovan were first recognized and described by Lieutenant-Colonel D. D. Cunningham, I.M.S., as occurring in Delhi boil as long ago as 1885 in a paper in Part I of the *Scientific Memoirs*. If these bodies are to be called by any one's name it should, therefore, be by that of Cunningham.

References.

[1] British Medical Journal, 1903, vol. ii, p. 79. [2] British Medical Journal, 1903, vol. i, p. 1252. [3] Report on Kala-azar, 1897. [4] *Ind. Med. Gaz*, November, 1902. [5] Ibid., October, 1902. [6] *Med. Chir. Trans.*, 1903, and *Lancet*, vol. i, 1903. [7] British Medical Journal, January 23rd, 1904. [8] British Medical Journal, 1903, vol. ii, p. 1261. [9] *Ind. Med. Gaz.* March, 1904. [10] British Medical Journal, September 24th, 1898. [11] *Med. Chir. Trans.*, 1899. [12] *Ind. Med. Gaz.*, October, 1902.

THE LEISHMAN-DONOVAN BODY.

BY

Sir PATRICK MANSON, K.C.M.G., F.R.S. and GEORGE C. LOW, M.B.

So far the peculiar parasites associated with splenomegaly in India and other places have been found in the spleen, liver, and bone marrow, in the former two by puncture during life, and in all three *post mortem*. Lately having made sections of some of the other organs of a case which died of kala-azar in the wards of the London School of Tropical Medicine, and which presented many Leishman-Donovan bodies in the spleen, liver, and bone marrow, we have found the same parasite in the lymphatic glands from the mesentery.

Sections of the pancreas, kidney, and large and small intestine have so far shown nothing.

We record this fact now as it may be of importance in the further elucidation of the disease. We hope to publish shortly a full account of the case with photographs, and details of the arrangement of the parasites in the different organs.

"LEISHMANIA DONOVANI" IN THE SOUDAN.

By SHEFFIELD NEAVE, M.R.C.P.,
Khartoum.

The following instance of *Leishmania donovani* found by me at the Omdurman Civil Hospital is, I believe, the first case found in Africa except that occurring in Tunis on November 3rd last, and reported by M. Laveran. The case was under the control of Dr. J. B. Christopherson, and it is by his kind permission that I publish this account.

On March 19th I examined H. B., a boy aged about 8 or 9 years, who had just been moved from the hospital at Khartoum as a matter of convenience. He had come from Mesharareck in the Bahr-el-Gazal, some 800 miles up the river, to be treated for chronic diarrhoea, and had recovered from this, but had a daily rise of temperature, usually remitting to normal, and commonly rising to 101° at night. This has continued till the time of writing. He was very emaciated, and his spleen was enlarged down to the level of the navel, but well to the left of it. The glands in both axillae and groins were also enlarged. Subject to the above, there were no abnormal signs or symptoms; he complained of no pain, and expressed himself contented with his lot.

Examination of the blood showed no malarial parasite either in the splenic or peripheral blood, but the former was full of *Leishmania donovani*. At the time I had unfortunately broken my haemocytometer, and had to put off a corpuscle count until April 9th, when the following was the result:

Erythrocytes ...	4,200000.
Leucocytes ...	3000.
Large mononuclears	67 per cent.
Small mononuclears	11 per cent.
Polynuclears	20 per cent.
Eosinophile	1 per cent.
Myelocyies	1 per cent.
	100 per cent.

The enormous percentage of large mononuclears points to malaria, but no parasite of any kind was found, possibly owing to the quinine he had been taking.

On April 14th I communicated the discovery to Dr. A. Balfour, when visiting his Gordon College laboratories. He deemed it of much more importance than Dr. Christopherson and myself. He agreed with the identification, and at once telegraphed to Major Ross (who, it appears, had already instigated a search for this organism here), and it was through his kindness that I was enabled to inject some of the spleen blood into the vein of a rabbit, under the the skin of another, and into the spleen of a monkey, as well as to inoculate a number of media, with however, so far, negative results.

The history given by the mother is that the spleen began to enlarge while the boy was being suckled, but never gave any trouble. This may have some connexion with the fact that the case described by M. Laveran was a baby aged 7 months, and I would suggest that children may prove a happy hunting ground for this organism. If this proves to be the case it would appear to dispose of some present theories of origin.

The cerebro-spinal fluid was examined for trypanosomata, but found sterile. The urine was centrifugalized, but nothing abnormal found, nor did it contain albumen.

When separate the individual units appear to have a somewhat oval form, something like a grain of wheat, and to contain a nucleus and a small rod-like body. They may, apparently, be of very varied size, the largest about one-half the size of an average red corpuscle. They occur singly, or may simply be contiguous in two's or three's, or, again, aggregated in large number without arrangement while imbedded in some adhesive reticular material. Further, they may appear to be collected in a spherical envelope often about the size of a large white corpuscle, but some also larger and some smaller; in this variety there are often spaces as if individuals had dropped out. Phagocytosis may be observed on the part of the leucocytes, which may be seen to have enclosed many of the bodies.

These bodies stain purple or violet with the Leishman stain I have been using, apparently affecting both the tints. If even a small quantity of water is mixed with the blood, or if it is received into the citrate solution to prevent coagulation, the bodies appear to disintegrate, all their parts being rendered indistinct and somewhat disconnected, which would tend to show that the next step in their life-history was not at any rate extracorporeal, and that they do not escape by the urine. With the view of possibly discovering another phase in the life-history of the organism, about 60 c.cm. of bloc were dropped without mixing into sterile broth, and the cl allowed to stand for twenty-four hours, but in this case no of the bodies nor anything else abnormal were seen on e amination.

A gland was excised from the groin, and some smears mad but nothing abnormal was found; sections have not yet bee made.

NOTE ON THE LYMPHATIC GLANDS IN SLEEPING SICKNESS.

BY
Captain E. D. W. GREIG, I.M.S., and Lieut. A. C. H. GRAY, R.A.M.C.

[*Communicated to the Royal Society by* Colonel Bruce, F.R.S *at the desire of the Sleeping Sickness Commission. Received and read May 5th, 1904.*]

Captain Greig, in a letter dated March 17th, 1904, write that, following a suggestion of Dr. Mott, they have examine the contents of lymphatic glands during life from fiftee sleeping sickness patients. In all of them actively motil trypanosomes were very readily found in cover-glass prepara tions taken from the cervical glands. They were also presen in other glands such as the femoral, but were not nearly s numerous.

They found the trypanosomes to be far more numerous i the glands than in the blood or cerebro-spinal fluid, an believe that the examination of fluid removed from lymphati glands will prove to be a much more rapid and satisfactor method of diagnosing early cases of sleeping sickness tha the examination of the blood.

At first the glands were excised, but this was soon found t be unnecessary, as it is easy to puncture a superficial glan with a hypodermic syringe and suck up some of the juice int the needle and blow this out on a slide. The actively movin trypanosomes were readily found after a short search i these slides, when a prolonged search in similar preparation of the blood from the finger failed to discover them. I stained specimens, in addition to well-formed trypanosomes there exist many broken-down remains which suggest that a destruction of the trypanosomes takes place in th glands.

The authors also examined the cervical lymphatic gland of the five natives suffering from trypanosomiasis who have been under observation for the past year, and found actively motile trypanosomes in the liquid withdrawn from the gland in all of them. Tabula, one of these patients, is employed i the hospital, and the dispenser reports he is getting very stupid.

The lymphatic glands were also examined for streptococc by staining and culture, but in every case were found to be sterile. Some of the cases, the glands from which were ex amined for streptococci, were very far advanced. The strepto coccus invasion must, in the opinion of the authors, be a very late one, and only occur shortly before death.

Observations made upon the blood showed a constant in crease in the percentage of lymphocytes, but the total leuco cytes are not increased. The authors consider that these observations throw a new light upon the glandular enlarge ments which have been so constantly noticed in sleeping sick ness, and that the disease is essentially a polyadenitis brought about by the arrest of the trypanosomes in the glands where many of them are destroyed, but whence some escape from time to time into the blood stream, and thus occasion the increase which has been observed in the peripheral circu lation.

They regard their observations upon the presence of try panosomes in number in the lymphatic glands of both early cases of trypanosomiasis and advanced cases of sleeping sickness, as affording important evidence of the unity of these diseases, and further proof that the trypanosomes are the essential cause of sleeping sickness.

The Marquis of Salisbury will take the chair at the forty-fourth annual dinner of King's College, London, which will be held at the Hôtel Cecil on Monday, June 20th.

The Post-Graduate College and Past and Present West London Hospital dinner will take place at the Empire Rooms, Trocadero Restaurant, Piccadilly Circus, W., on Saturday, June 25th, when the chair will be taken by Dr. J. Barry Ball at 7.30 p.m.

MEMORANDA:

MEDICAL, SURGICAL, OBSTETRICAL, THERAPEUTICAL, PATHOLOGICAL, ETC.

CROUPOUS PNEUMONIA TREATED WITH ANTI-PNEUMONIC SERUM: RECOVERY.

THE patient, a fragile boy of 7 years, became ill on April 8th. I was called in on April 9th. He complained of earache and pain in the left hypochondriac region; the temperature was 105°F., the pulse 120, and the respirations 60 per minute. On examination of the chest the only change to be made out was coarse vesicular breathing all over. There was no cough. I ordered ice to the head, and a mixture containing sodium salicylate, caffeine, and tincture of convallaria. Next morning the temperature was 104.5 F., and pulse and respiration very quick; the pain in the ear and abdomen was relieved. Thinking the condition was probably of an influenzal origin, I ordered ammoniated tincture of quinine, half a teaspoonful every two hours; in the evening the condition was the same. On the following morning (April 11th) the condition was unchanged, and in the evening the temperature was still 104.5° F.; the pulse and respiration were very fast; there was slight broncho-vesicular breathing in the left scapular region passing upwards to the apex; a slight cough: cupped dry). Ordered two leeches over the left lung and injected hydrochlorate of quinine (Aufrecht's method). On the morning of April 12th the temperature was still 104.5° F., the pulse still quick, there was bronchial breathing and dullness over the left apex and slight broncho-vesicular breathing on the right side, and slight expectoration of rust-coloured sputum. In this a few pneumonococci, but no tubercle bacilli or streptococci were found. In the evening the temperature was 103° F., the pulse 130 and very feeble; I decided, therefore, to inject antipneumonic serum. Of this 6 c.cm. were injected in the abdomen. The tension of the pulse at once improved, and next morning the temperature was 103° F., pulse 110 and much stronger. The general condition of the patient was much improved. In the evening the patient was sleeping peacefully and manifestly better. On April 14th the temperature was 101° F., the pulse 100 and much stronger. On April 15th pulse, temperature, and respiration were normal. The patient made an uninterrupted recovery.

Notwithstanding the fact that my patient had all the usual remedies—alcohol, ammonia, digitalis, etc.—his condition remained serious, and it was only after the serum had been injected that any improvement could be observed. The effect of the serum showed itself chiefly on the pulse, which at once improved in tone. This is what one would expect in a case where toxin poisoning was obviously present. I consider the serum saved the boy's life by antagonizing a sufficient quantity of the toxin, and so allowing the failing heart to gain in its tone until the crisis occurred.

Bath. A. COWAN GUTHRIE.

A METHOD OF ARRESTING AN EPILEPTIC FIT.

NOTHING brings home to a medical man his helplessness more than to be called upon to treat an epileptic fit. What can he do? Loosen all tight clothing, put a pillow when procurable under the head, and force the jaws apart to keep the tongue from being bitten, generally at the expense of breaking the patient's teeth, but still the horrible contortions continue and surround the inevitable interested and gaping crowd. Consequently any method that will put a stop to the fit needs no apology for its publication.

Passing one day into the Female Epileptic Ward I found a nurse, who lives in the constant dread of losing one of her charges through suffocation during the fit, vigorously shaking and slapping on the back a patient who was in the clonic stage of an epileptic fit. When questioned as to her strange behaviour, she stated that "she was stopping the fit," and proceeded to explain: One day when rushing to the assistance of a patient in a severe fit she happened to trip and fall over the patient, and much to her astonishment the fit ceased immediately. Following up the hint, I drew up a chart containing the names of several patients who have severe fits, and instructed her to turn the patient on to the left side immediately the fit commenced, and to hold them in this position, so to record her results. I have also personally tried the method with complete success on several occasions. Nearly all the cases recorded were treated in the "tonic spasm" of fit, and in most cases directly the patient was turned on to her left side the muscles all became flaccid and the colour of the face improved; they still breathed heavily and remained unconscious for some time, but no "clonic spasm" supervened. I have also tried the effect of turning the patient on to the right side, but with less satisfactory results.

What is this result due to? Can it be due to some circulatory change produced in the brain by rapidly turning the patient on to the left side and thus stimulating the heart? Now when I am in the neighbourhood of a patient who is seized with a fit I rapidly turn them on to the left side and do nothing more but hold them in that position. The effect is generally quite startling, and does away with any risk of injury to the tongue as there is no clamping of the jaws and the breathing is at once eased. Most of the cases so treated if left to themselves had very severe fits and invariably passed into a violent convulsive state. The simplicity of the method recommends itself.

While on the subject of the treatment of an epileptic fit, the following case may be of interest, although the method has often before been advocated, as showing the efficacy of tying a ligature round the limb from which a "sensory aura" takes its origin: J. L., a male patient, aged 24, was admitted into the asylum some weeks ago; he is fairly intelligent and gives the following account of himself: Two years ago he was camping out with his militia regiment when, after a heavy day in the ranks under a hot sun, a thunderstorm came on and he got soaked to the skin; he went back to his tent and changed, shortly afterwards he became hot all over and perceived a dull aching pain on the outside of his left ankle. This gradually spread up his left leg and the left side of his body, and on reaching his left temple in about a quarter of an hour he fell down unconscious. He had never had any fits previously and no history of syphilis can be obtained. On admission it was suggested that he should tie a ligature round his leg just below the knee when he first perceived the pain in his ankle. The result has been completely successful; he now always carries a piece of stout string in his pocket, and directly he gets the warning he ties it tightly round his leg and the pain does not spread beyond the ligature and gradually dies away, and no fit results.

Macclesfield. J. C. MCCONAGHEY, M.B., Ch.B.Edin.

AFTER-HISTORY OF A RUPTURED TUBAL GESTATION.

THE following case shows what Nature can do when aided by careful management. Some twenty-two years ago Mrs. H., aged 36, engaged me to attend her in her fourth confinement which she expected in May 1882. Two months before that date I was summoned and on entering the room was shown a placenta with about a foot of cord attached, the membranes broken off. I was informed that about an hour previously she had been taken with labour pains, that considerable bleeding had occurred and that about quarter of an hour before I arrived the placenta had been born and the cord broken without being pulled on (which I very much doubted), the haemorrhage was not then excessive and there was very little shock. By external examination a body the size of an ordinary child could be felt in the right iliac region. Internally the finger failed to find any rupture or remains of the cord. The uterus was fairly contracted. I advised absolute rest and gave an opiate. In the evening she was comfortable, and for the next three or four weeks she progressed satisfactorily, the temperature never rising above 101° F. After the second day I ordered a vaginal carbolic injection. Some clots and pieces of membrane came away on, I believe, twenty-two different occasions. The mass in the right iliac gradually contracted until at the end of three months it felt about the size of a football. I could not when I examined her at first hear the fetal heart sounds, but as she was a big, fat woman, it would probably have been impossible to detect them even if the child were alive. In five or six weeks she was about as usual doing her housework. Six months later on I examined her and could still find a round hard mass in the right iliac region bigger than a cocoanut and tender on pressure. Exactly two and a-quarter years afterwards she was confined of a full-time child and had an uneventful labour, and two years after another baby was born, and three years after that she had another child—all natural labours—although the hard tender lump in the right iliac region still remained. The menopause came on at the age of 51. It was possibly a little more troublesome than usual, but since it was completed there has been no symptom which could be ascribed to the continued presence of the large tender lump. She has had a good deal of bronchitis and influenza, but, apart from this the only inconvenience that she suffers is that she cannot bear to

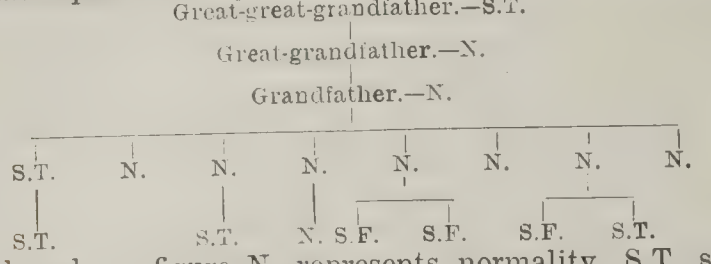
pull in her rather large figure, and that she has to go up and down stairs in child fashion, one step at a time, but I think her stoutness explains this.

Looking back on the history the question arises, Was I justified in advising her to go on as she was or submit to an operation? I feel I did the right thing, as twenty-two years ago the death-rate from abdominal section was very high, I think quite 33 per cent. died, and removal to hospital would probably have been fatal. Had she been operated on she would not probably have been alive and fairly well now at the age of 58 years, although if the operation had been successful she would no doubt have been spared a certain amount of pain.

Chelsea. JAMES HAMILTON, M.D. Q.U.I.

SUPERNUMERARY DIGITS.

THE genealogical tree which follows is that of a patient of mine who has supernumerary digits:



In the above figure N. represents normality, S.T. supernumerary toes, and S.F. supernumerary fingers. The distribution is curious. The deformity skips two generations to reappear in one member of the third, and in five of the fourth. In this latter it will be noted supernumerary fingers also appear.

Faringdon. H. DARWIN HEY.

REPORTS

ON

MEDICAL AND SURGICAL PRACTICE IN THE HOSPITALS AND ASYLUMS OF THE BRITISH EMPIRE.

BRISTOL ROYAL INFIRMARY.

A CASE OF PNEUMOCOCCAL PERITONITIS.

(By HENRY WALDO, M.D., M.R.C.P., Physician, Bristol Royal Infirmary.)

History.—A girl, aged 15, looking older, partook of a hearty supper of meat and new bread on October 29th, 1903, and retired to bed feeling perfectly well. During the night she awoke with severe pain over the left hypochondriac region and vomited.

State on Examination.—She was admitted to the infirmary under my care on November 6th, 1903, having been attended at home for a week by a medical man. The abdomen was very swollen and scarcely moved during respiration, but only tender over the left hypochondrium. The spleen could just be felt. There were no rose spots. Bowels loose since the onset. Intellect quite clear. No headache all through. Slight attacks of retching. Tongue very dry and brown, and lips and teeth covered with sordes. Fine bronchial *râles* at both bases. Pulse 140, dicrotic. The patient presented all the appearances of a severe case of enteric fever in the third week.

Progress and Result.—Death occurred after she had been in the infirmary one week, during which time three negative Widal's were taken. The case was examined on the day of admission by the surgical staff; they decided not to operate. There was no vomiting after admission, although some severe attacks of retching occurred. A fair amount of fluid nourishment was taken.

Necropsy.—At the necropsy there was no evidence whatever of the perforation of any organ. There was a thick layer of lymph and pus inside the abdominal wall and covering the viscera, which after staining was shown by the Pathologist, Dr. Fisher, to contain pneumococci in abundance. The internal surface of the stomach was a little injected. The intestines and appendix were healthy.

REMARKS.—It is significant that up to the day of this patient's admission there had not been a case of pulmonary pneumonia in the infirmary for some long time. But upon the day of her entry we took in several.

PRETORIA HOSPITAL.

CEREBRO-SPINAL MENINGITIS: LATE DEVELOPMENT OF HEAD RETRACTION: LONG ILLNESS: RECOVERY.

(By PERCY STEWART, L.R.C.S.I., Assistant Medical Officer to the Hospital.)

THE following case of cerebro-spinal meningitis under my care in the Pretoria Hospital seems worth recording:

G. D., male, aged 23 years, was admitted June 3rd, 1903, complaining of severe headache and pain in the back of the neck and down the spine for two days.

State on Examination.—Marked rigidity of the neck was observed. No retraction of the head was not present; the knee-jerks were exaggerated; Kernig's sign was well marked, but Babinski's sign was absent. No ocular paralysis or optic neuritis existed. Temperature 101. Pulse slow.

Progress.—During the first week his temperature was irregular (98° 102°), and the pulse varied between 56 and 84 beats a minute. Obstinate constipation existed.

June 9th, 1903.—Complaint was made of severe rheumatoid pains in limbs. Rigidity of neck persisted, with pain on attempted movement. No retraction of the head existed. Sodium salicylate was given without benefit. During the second week the temperature was irregular, with two rigors, but pulse normal. The patient was very restless, could not sleep, and every night was slightly delirious. Chloral and bromide were given with benefit.

June 11th.—The patient was put on hydrarg. c. creta gr. iij. t.i.d.

June 16th.—The headache persisted, unrelieved by phenacetin, etc. The patient complained of severe pains, radiating down arms.

June 18th.—Nystagmus was present, and the knee-jerks diminished.

June 20th.—The general condition has grown much worse. Temperature 102.5°, Pulse 84. Continuous pain was felt in neck and arms, and the patient cried out every few minutes unless relieved by morphine or chloral hydrate, in very large doses. He was subject to restless delirium and swallowed with difficulty. Inunction of unguentum hydrarg. was substituted for hydrarg. c. creta.

June 22nd.—The following notes were made: Patient semi-comatose. Temperature normal. Retraction of head present; pupils widely dilated; no optic neuritis: knee-jerks absent; Kernig's sign present. A Quincke's lumbar puncture having been made, turbid cerebro-spinal fluid escaped very freely. A specimen kept for examination and rather more than half an ounce was allowed to escape.

June 23rd.—The patient was semi-comatose.

June 24th.—Slight improvement was observed, but the pupils remained widely dilated. The knee-jerks were absent, and ankle clonus could not be produced, while Babinski's sign was strongly marked. The patient gradually improved during the following week, the temperature remaining practically normal, and the mental condition greatly improving, delirium being extremely slight.

July 1st.—The symptoms had much improved; no paralysis was present, but the patient was much wasted. After this the general condition improved steadily, but was interrupted during the last week in July by a return of the headache and pain in the neck; this disappeared in two days.

August 1st.—Some diplopia was noticed few days, with paresis of the right orbicular external rectus muscle.

RESULT.—On September 1st the patient was discharged from hospital. The diplopia had then disappeared, and no paralysis had occurred.

Bacteriological Examination (by Dr. Pakes, Government Analyst).—The fluid drawn from the cerebro-spinal canal was purulent, and contained the meningococcus of Weichselbaum. No pneumococci, staphylococci or streptococci could be found, either by microscopical examination or by cultivation.

REMARKS.—The points which seem of most interest are the fact that retraction of the head came on so late in the disease, the primary exaggeration and subsequent loss of the knee-jerks; the wide dilatation of the pupils, which persisted throughout the attack; the duration of the illness (two months), and final recovery after such marked purulent infection of the meninges.

UNION INFIRMARY, LEICESTER.

POST-PARTUM HAEMORRHAGE TREATED BY ADRENALIN.

(Reported by C. DOUGLAS BRYAN, M.R.C.S., L.R.C.P.)

E. F., aged 35 years, was admitted into the Union Infirmary, Leicester, on November 23rd, 1903, suffering from purpura haemorrhagica of a fortnight's duration, and was at the same time about 8½ months pregnant.

State on Admission.—She had bleeding from the mucous membranes of the mouth, rectum, and vagina, as well as haemorrhages under the skin in various parts of the body, some of these latter being extensive. There was nothing in her history to account for the condition, she being up to the present illness healthy, having had six children, all normal confinements.

Treatment and Progress.—On admission, a mixture of extr. ergotae liq., acid. sulph. dil., and liq. hamamelidis was given, but as this did not control the haemorrhages, ol. terebinthinae m xx. was tried, with satisfactory result. In the afternoon of November 28th, 1903, the patient's labour commenced. At 7.45 p.m. the pains were fair, the os soft and dilatable, the membranes intact. Extr. ergotae liq. 5j w

ven by the mouth. At 8.15 the membranes were ruptured, and the ild was born normally at 9 p.m. A certain amount of haemorrhage curred between the pains, as evidenced by clots expressed with every in, especially after rupture of the membranes. The uterus contracted er delivery, and another drachm of the liquid extract of ergot was ministered. The placenta was expressed easily after waiting ten nutes; no haemorrhage of importance occurred, the uterus remain- g contracted. The pulse was 100 per minute.

Post-partum Haemorrhage.—In about 15 minutes the uterus relaxed, d the patient began to flood severely. A hot douche was immediately en, but the bleeding continued, so ice was applied to the vagina, and gotin given hypodermically, but though the uterus became fairly con- cted the haemorrhage persisted. The patient's condition was now ious. Pulse 130, small and feeble; face blanched; restlessness, etc. e hand was now introduced into the uterus, and all clots rapidly ared out, and with a large pledget of wool soaked in a solution of enalin chloride, 1 in 5,000, the interior of the uterus was swabbed, a ieheof 1 in 20,000 of the above being given at the same time.

RESULT.—The haemorrhage ceased immediately, the uterus ntracted firmly, and the patient's condition rapidly im- oved, the pulse falling to 112 per minute. Next day the ient was given adrenalin chloride sol. 1 in 1,000 in 10-minim es every four hours, by mouth, in order to control the pur- ic condition, but on the third day the haemorrhage again mmenced from the mouth, so the adrenalin was discon- ued, and the ergot mixture (as above) again resorted to, h satisfactory results. The lochia became offensive on the rth day, but never excessive. The patient's temperature e on the third day, and took an up-and-down course for ut a week, the highest point reached being 102°. The child not suckled. The patient is now quite well, and all the puric spots have disappeared.

British Medical Association.

CLINICAL AND SCIENTIFIC PROCEEDINGS.

YORKSHIRE BRANCH: BRADFORD DIVISION.

C. GOYDER, Chairman of the Division, in the Chair.

Bradford, May 10th, 1904.

SPECIAL meeting of this Division was devoted entirely to ntific subjects.

Specimens.—Mr. BASIL HALL showed the following speci- s: (1) Carcinoma of colon removed by colectomy. (2) Some imens from cases of nephrectomy. (3) Ovarian cyst with ted pedicle, and gall stones from suppurating gall bladder oved from the same patient. (4) Specimen from a case of oidectomy. (5) Cases of carcinoma of the body of the is removed by pan-hysterectomy.—The specimens were ssed by Mr. MOSSOP and Mr. HORROCKS; and Mr. HALL ed.

Gastric Ulcer and High-frequency Currents.—Dr. METCALFE, a paper on this subject. The results produced on ular contractions, if stimulated beyond 5,000 per second, ased in direct ratio to the increased number of alterna- . Respiratory combustion was stimulated, more oxygen ; absorbed and more carbonic acid gas given off. Motor ensory nerves lost their sensibility to excitations. He described the following case:

patient, a woman aged 60, after complaining of dyspepsia for l years, began fourteen months ago to suffer from great pain ating. It was of a "boring" character, going through to the The bowels were usually active, but she began to have attacks ness. She frequently vomited up blood, either in its fresh con- or as a coffee-grounds-looking material. Often she had melaena. in became almost constant, and, as she asserted, "she had never ithout pain and sickness one day for twelve months." She was constant medical treatment and had had the best advice as t and drugs that it was possible to obtain. But she obtained ef, rapidly growing worse and losing flesh. She suffered from nt insomnia. The stomach was dilated to below the umbilicus. orly the pain was chiefly localized to the epigastrium below the m cartilage, but she had also a good deal in the middle of the etween the sixth and eighth dorsal vertebrae. The diagnosis of e was that of a chronic ulcer of the haemorrhagic type—possibly ant. At first Roentgen rays were tried by applying them directly e epigastrium. They appeared to help the patient to sleep better, t not relieve the pain or sickness. High-frequency currents were esorted to. Auto-condensation on the couch for ten to fifteen s three or four times a week was used, and local applications by lectrodes directly over the stomach area. She soon began to relief. The sickness diminished, the pain got less, and in four weeks she was nearly well again. Four months afterwards she excellent health. She lived on an ordinary diet, had no dis- in her stomach, and assimilated her food perfectly.

The action, said Dr. Metcalfe, was probably due to a toning of the unstriped fibres of the muscular walls of the stomach, either directly or indirectly through the vagus. This improvement in muscular tone probably stimulated a general contraction of the whole organ. The stomach would be enabled to empty itself thoroughly after each meal, and the retention of imperfectly-digested food would be abolished. Absorption of irritative material would not take place, tension on the ulcer would be lessened, and healing promoted.—The case was discussed by the CHAIRMAN and DRS. JOHNSTON, HORROCKS, BASIL HALL, and MILLSON; and Dr. METCALFE replied.

Porro's Operation.—Mr. HORROCKS read a paper on two cases of this operation. They were undertaken on account of general pelvic contraction in a somewhat dwarfed woman. In each case there had been no living child born previously. Full time labour had resulted in destruction of the child before delivery was effected. The operation was performed by ligaturing the ovarian and uterine arteries before opening the uterus. The uterus was removed and the pedicle treated by the intraperitoneal method. Pelvic drainage was used. In both cases the mother and child survived the operation.—Mr. HALL was much more in favour of Caesarean section. Porro's operation became common at a time when the mortality from Caesarean section was very high. But that mortality had steadily but slowly diminished, until now it was only from 3 to 6 per cent., whereas that from Porro's operation was 10 to 14 per cent. To remove the uterus increased the shock and also the length of time required to perform the operation. The mutilation of the patient was also much greater.—Mr. HORROCKS, in reply, said his operation was not quite the same as Porro's, as in that operation the stump was treated outside the peritoneum. Caesarean section was only undertaken when labour had commenced—the uterine walls not being healthy and the interior discharges somewhat unsafe from a surgeon's point of view. The stitches, too, in friable tissue easily gave way, and a fatal result might be precipitated. The length of time occupied in performing this modified form of Porro's operation had not exceeded one hour.

METROPOLITAN COUNTIES BRANCH: WALTHAMSTOW AND CITY DIVISIONS.

AT a conjoint meeting of the above Divisions, held, by the kind invitation of Dr. J. O. Adams, at Brooke House, Clapton, on Thursday, May 12th, Mr. FREDERICK WALLACE, Chairman of the City Division, presiding, the following cases were exhibited and discussed by Dr. J. H. SEQUEIRA: (1) Two cases of lichen planus; (2) a case of lupus erythematosus affecting the face and fingers, which had been submitted to light treatment; (3) a case of extensive psoriasis in which the hands were involved; (4) a case of rodent ulcer on the front of the thorax treated by *x* rays; (5) a case of rodent ulcer on the eyelid of a young woman, aged 20, treated with radium; (6) a case of pigmented mole on the face treated by electrolysis; (7) a case of xeroderma occurring symmetrically in patches; (8) a case of psoriasis and lupus vulgaris coexisting in a child; (9) a case of morphoea occurring on the leg; (10) a case of tuberculide with keloid.

SOUTH-EASTERN BRANCH: CANTERBURY DIVISION.

A COMBINED meeting of the Old East Kent Division, consisting of members from Faversham, Thanet, and Canterbury with Ashford, Folkestone, and Dover was held at Canterbury on May 19th. Some thirty-five members and visitors were present, and Dr. GOGARTY presided. The following papers were read and discussed: Dr. ROBERT BOXALL: The treatment of dysmenorrhoea and sterility.—Dr. T. WHITEHEAD REID: The diagnosis of intraperitoneal haemorrhage.—Dr. WILLIAM GOSSE: The treatment of rheumatism at Aix-les-Bains, being the personal experience of the writer.—Dr. HUGH RAVEN: Graves's Disease.—A dinner was afterwards held at which twenty-seven members and visitors were present.

MEASLES AND WORKSHOPS.—On the recommendation of the Medical Officer of Health, Dr. F. W. Alexander, the Public Health Committee of the Borough of Poplar decided to draw the attention of the central authorities to the fact that, under the law as it at present stands, home work in places infected by measles cannot be prohibited, inasmuch as Section cx of the Factory and Workshops Act only applies to infectious diseases subject to compulsory notification. The home work which the section has in view is the making, cleaning, washing, altering, ornamenting, finishing and repairing of wearing apparel, and any work incidental thereto, together with such other work as may be specified by special order of the Home Secretary.

REPORTS OF SOCIETIES.

Edinburgh Medico-Chirurgical Society.—At a clinical meeting on May 18th, Professor Chiene, President, in the chair, the following cases were shown—Dr. Burn Murdoch: (1) Infantile scurvy in a child, aged 10 months, fed on milk sterilized at a temperature of 212° F. Periosteal haemorrhages most marked at the upper ends of the femorae, and distinctly shown by skiagraphs, had occurred; (2) two cases of cerebral tumour. One of the latter had fibrosis of the left lung, suffered from paroxysmal headaches, and had double optic neuritis.—Mr. Stiles: (1) Congenital elevation of the scapula, due to a piece of bone connecting the spine of the scapula to the transverse process of one of the cervical vertebrae: full elevation of the arm was thus rendered impossible; (2) a patient, aged 9 years, from Shetland, with a hydatid cyst of the liver containing about ¾ gallon of fluid; (3) a case on which cuneiform osteotomy of the femur for coxa vara causing marked adduction had been performed; (4) a child, aged 2½ years, from whose kidney a large sarcoma had been removed. At the operation some enlarged glands were observed, but up to the date of exhibition, four months later, the child had remained well and shown no signs of recurrence; (5) a child in whom he had produced ankylosis of the knee and ankle-joints on account of infantile paralysis. Before operation the limb was quite useless, but it was hoped the child would now be able to walk; (6) a girl with ununited fracture of the humerus. The fracture being compound, the broken ends had been united by an aluminium plate kept in position by screws. Owing to sepsis and necrosis this procedure was not successful. After an interval of three months the fractured surfaces were rawed and again united in the same fashion. A successful result now appeared likely.—Dr. John Thomson: (1) Congenital cerebellar ataxia, a condition first described a short time by Dr. F. E. Batten; the patient showed bilateral conjugate nystagmus and lateral head nodding; the reflexes were normal; the condition did not appear to be hereditary; (2) an imbecile child, aged 8, with peculiar congenital deformity of the frontal, nasal, and superior maxillary bones (rhinodyme); a groove was present between the frontal bones; the nose also showed this mesial groove; the primaxilla was almost absent; the eyes were very far apart; the patient's mother was likewise imbecile.—Drs. Thomson and Mr. Stiles: Three cases of congenital hypertrophy of the pylorus. All had been operated on, one by the procedure first recommended by Loreta, namely, dilatation of the hypertrophied pylorus, another by joining the small intestine to the stomach, and the third by this method after Loreta's operation had been performed three weeks previously and had failed.—Dr. Fowler: (1) Cretinism; (2) spastic rigidity with a low grade of idiocy and very severe rachitic deformity. The latter was due in large part to the action of the spastic muscles on the rachitic bones.—Dr. Drummond: Microcephalus in a child, aged 9 months. The patient began to suffer from fits when aged 3 months, those numbered eight or nine each day, and lasted for five months.—Mr. Scott Carmichael: A boy suffering from congenital malformation of the bones of one forearm. Congenital displacement of the upper end of the radius was present, the ulna was very rudimentary and the third metacarpal bone and phalanges absent.—Card specimens and photographs were exhibited by Drs. John Thomson, Burn Murdoch, and Fowler, and by Messrs. Stiles and Scott Carmichael.

Royal Academy of Medicine in Ireland.—At a meeting of the Surgical Section on May 6th, Professor E. H. Bennett in the chair, Mr. John Knott exhibited a series of the long bones of the human skeleton, showing the various epiphyses, and pointing out their peculiarities of ossification and final junction with their respective shafts. The clavicle presented several peculiarities. There was no epiphysis for the acromial extremity; the centre of ossification for the shaft was the first to appear in fetal life, while the sternal epiphysis was usually the last in the skeleton to unite with its shaft. This epiphysis was also distinguished by its peculiar thinness—making it the "battered sixpence" of anatomical similitude, and placing it quite beyond the possibility of the conservative resection of early life. The upper epiphysis of the humerus, which exactly included the head and tuberosities, had long been familiarly known; but the lower had, till very recently, been always misrepresented. The best English textbooks of surgery used to represent an "epiphysary fracture" as including both condyles in the lower fragment. The specimen exhibited showed that the epiphysis was a mere osseous crust, the removal of which hardly diminished the prominence of the condyle. The upper end of the ulna presented a supplemental epiphysis, placed on the top of the recognized one, which had remained hitherto unscribed, except by the exhibitor at a former meeting of the Royal Academy of Medicine. The upper end of the femur presented three epiphyses—for head and either trochanter—approximately in the same stage of fusion with the shaft. That for the head was thinner than was usually believed; when detached it was but a concave shell of bone. That for the lesser trochanter was very seldom found, its abrupt prominence and small surface of junction causing it to be almost always lost. The epiphysis of the lower end of the femur was of immense importance in connexion with growth and development. As its centre of ossification appeared immediately before birth, its presence constituted the best test of the maturity of the fetus, no other epiphysis of the skeleton developing an osseous centre during intrauterine life. Future gigantism or dwarfism depended more on this epiphysis than on the whole of the rest of the skeleton. Most anatomists placed its junction with the shaft at the age of 20, which was too early for many cases. Till it fused with the shaft, growth continued, and the height of a giant would be found to depend very largely on the length of the femur. The terminal epiphyses of the tibia, being thin, called for great care on the part of the surgeon in the operation of excision. Those of the fibula presented no peculiarity, except the well-known one of the early ossification of the lower one—Mr. Alexander Blayney detailed the notes of a case sent to him with symptoms resembling those of recurrent appendicitis. A tumour could be felt somewhat above the appendix region, which proved to be a malignant growth infiltrating the beginning of the ascending colon. The caecum with a small portion of the ileum and the greater part of the ascending colon were removed, the lower end of the ileum being implanted on the transverse colon by a Murphy button. The patient recovered rapidly, and was quite well six months afterwards when the paper was read.—At a meeting of the Pathological Section on April 29th, Dr. Earl, President, in the chair, Dr. T. G. Moorhead showed three slides in which the Leishman-Donovan bodies appeared, giving a description of the cases from which they were taken, and a history of the discovery of the bodies and of their relation to malaria.—Professor E. J. McWeeney showed specimens of blood from a case of pernicious anaemia exhibiting punctate basophilia. Many of the red corpuscles were thickly sprinkled with granules of strongly basophilic character, which could be detected in preparations stained by Jenner and Pröschers modifications of Romanowsky's stain, as well as in triacid preparations. He was inclined to look upon the granules as due to raryorrhexia. He also showed slides of rabbits' blood containing the nagana parasite, and human blood containing the parasite of sleeping sickness. These latter had been given him by Dr. MacCarthy, travelling scholar in pathology of the Royal University, who had obtained them from the Pasteur Institute, where he had been working. The nagana of surra disease had been propagated for a number of generations in the exhibitor's own laboratory, starting with a white rat brought from Paris by Dr. MacCarthy. He showed, too, the trypanosoma lewisii, which he had found in 6 out of 30 ordinary Dublin sewer rats. The morphology of the parasite was demonstratod by means of screen projections.—J. Neville shewed the following specimens, giving a description of each: (1) Sloughing fibromyoma of uterus; (2) tubo-ovarian cyst; (3) tubal pregnancy, showing decidual cells and hydatiform degeneration of villi; (4) sarcomatous degeneration of a fibromyoma.

Glasgow Medico-Chirurgical Society.—At a meeting on May 6th, Dr. Newman, President, in the chair, Dr. T. H. Monro showed a boy, aged 9, whose health was good till the beginning of 1902, when he had scarlet fever. In the second week of the fever he began to have convulsive attacks. In April, 1902, his eyesight commenced to fail, and he had severe occipital headaches and ataxia. His eyesight gradually became worse, and he passed evacuations in bed. In June, 1902, he had convulsions, involving the face and the limbs, accompanied by loss of consciousness for ten minutes. After this his condition improved; he walked better, and he got almost completely rid of his incontinence. Dr. Monro described the condition as probably due to a tuberculous growth

n the cerebellum.—Dr. A. A. Young read notes of some cases f carcinoma mammae illustrating certain characteristics of he disease: (1) A case where the left mamma was removed nd axilla cleared out on account of a small carcinomatous umour in the outer aspect of the breast, not involving the kin. (2) A case where a small cancerous nodule appeared n the surface of the right mamma eighteen months after the left mamma had been removed for carcinoma. This was considered as an extension of the primary disease through the superficial lymphatics. (3) A case of duct cancer of the mamma where a very small tumour had been present for fourteen or fifteen months, but had been nored by the patient, and medical advice was first sought n account of symptoms referred to the stomach. There appeared to be undoubted signs of secondary cancerous growths the abdomen. (4) A case of diffuse and more or less acute rcinoma of the mamma. The whole breast was much rollen and ulcerated, and it was said to have followed an bscess during lactation. He mentioned a case where a recurrence in the skin over the pectoral region had occurred even years after the removal of the primary growth.—Dr. mes Galbraith Connal read a paper on the treatment of llness of hearing and subjective noises in the ears by high-quency currents. Before trying high-frequency, other ethods had been tried, but found ineffectual. In chronic y catarrh of the middle ear, with in some cases secondary ıyrinthinic involvement (20 cases), 10 patients reported at the tinnitus was improved, 2 being much better. In 2 of e cases a fractional improvement in the hearing was noted, d believed to be due to lessening of the subjective noises. post-suppurative conditions 5 of the 7 cases reported the nitus as much better. Five cases of sclerosis of the middle all reported an improvement in the hearing; testing led to show this in 1 case, but confirmed it in 4, while the nitus was lessened. In 1 case where tinnitus had been sistent there had been no noises for three months. In ase of primary labyrinthitis (traumatic) and 1 of tinnitus hout marked dullness of hearing the high-frequency curts had no effect. Dr. J. R. Riddell described the appaus employed.—Dr. Walker Downie showed portions of seed capsule of an apple which had been impacted in the nx of a child, and removed by operation.

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aryngological Society of London.—At a meeting on 6th, Mr. J. Charters Symonds in the chair, the follow- cases were shown: Dr. StClair Thomson, complete sub- ous resection of a deflected septum; Dr. L. H. Pegler: ases showing results of Moure's operation for deflected um shown as a contrast in methods of operation to the es recently shown by Mr. Tod; the general opinion was different cases required different operation and that no operation suited all cases; Dr. H. W. Kelson: Ulceration he epiglottis and vocal cord in a boy, aged 12, and a tid swelling in a boy, aged 14; Dr. H. J. Davis: (1) A an, aged 39, with linear perforation of the left vocal cord, ndition looked upon as one of great rarity; (2) a woman, 40, who had suffered from chronic cough for eight years had marked pharyngitis atrophica with hypertrophic dular patches; (3) globular swelling of the right side of larynx in a man of 29; (4) partial paralysis of the soft te with paralysis of the left vocal cord; Dr. A. Bronner: ioma of the maxillary antrum in a woman of 60; Dr. es Spicer: (1) Soft vascular growth (angeio-sarcoma) hed to the cartilaginous septum nasi in a woman, aged with recurrence six weeks after removal; (2) sarcoma dothelioma) of maxillary antrum and ethmoid with yema and cholesteatoma in a woman of 50; since the rmance of operation six months before there had been currence; (3) epithelioma of the soft palate in a man, 84, which had been excised five months before, there had no recurrence; Dr. F. Potter: Fixation by infiltration of eft vocal cord in a man of 60 with a history of syphilis; H. Tilley: Lupus of palate, pharynx and larynx—a case ght forward for discussion of the treatment to be ted; Dr. J. Donelan: Tumour of palate in a woman, aged r diagnosis; in the general opinion it was of a mixed acter, probably fibro-sarcoma, and its removal was ad- ; Mr. P. de Santi: (1) A man, aged 63, with paralysis of eft vocal cord, a history of hoarseness and of difficulty of lowing of one month's duration only; physical examina- of the chest revealed nothing abnormal, but a skiagraph ed marked dilatation of the aorta; (2) bilateral haema- of septum nasi in a child, aged 7; Dr. W. Bennett: pharyngeal swelling and doubtful infiltration in the upper part of the larynx; the diagnosis was open to question, but it rested between post-pharyngeal abscess and tuberculous trouble.

Pathological Society of Manchester.—At a meeting on May 11th, Dr. Reynolds, President, in the chair, Professor J. Dreschfeld and Dr. F. Craven Moore described 3 cases of primary sarcoma of the liver: (1) A female, aged 56, who suffered for four months from gastric disturbance, pain in the hepatic region, jaundice, abdominal tumour, loss of weight, and, towards the end, from ascites. At the necropsy the liver was found to be occupied by a large single mass of new growth; the peritoneum and the coeliac and mediastinal lymph glands were the seat of metastases. In structure the new growth was a sarcoma, round and spindle-celled, arising probably from the endothelium of the portal capillaries. (2) A male, aged 23, who suffered for five months from weakness, wasting, and abdominal tumour; no ascites, no jaundice. The necropsy revealed a diffuse infiltrating new growth of the liver, with metastases in the portal glands. In structure it was a typical endothelioma of the portal capillaries. (3) A male, aged 61, who suffered for five months from weakness, wasting, and abdominal tumour; no jaundice; ascites occurred towards the end. At the necropsy the liver was found to be occupied by a number of nodules of new growth, the larger being cystic. In structure they were angiosarcomata undergoing myxomatous degeneration.—Dr. Charles Melland and Dr. Orr gave a lantern demonstration of coloured photomicrographs illustrating the morphology of the malaria parasite.—Dr. R. T. Williamson showed (1) specimens of a small sarcoma of the cerebellum affecting the left amygdala only. The symptoms had been chiefly headache, vomiting, double optic neuritis, and ataxia with a tendency to fall to the left. Marchi's method of staining revealed marked degeneration of the posterior root fibres in their intramedullary course in the upper half of the spinal cord. There was marked degeneration in Burdach's columns in the cervical region; but Goll's columns were unaffected. (2) Specimens from the brain of a patient who had suffered for twelve months from intense headache. There had been no optic neuritis until the last four days of life. Four tuberculous masses were present in the cerebrum, all of which were surrounded by a thick fibrous capsule. The masses resembled gummata, but their tuberculous nature was shown conclusively by the presence of numerous tubercle bacilli. — Dr. I. Walker Hall showed an intrapericardial aortic aneurysm communicating with the pulmonary artery and left auricle. —Other preparations were shown as card specimens.

Glasgow Pathological and Clinical Society.—At the concluding meeting of the session on May 9th, Mr. A. E. Maylard, President, in chair, Dr. G. B. Buchanan showed the sac and coverings of an umbilical hernia with omentum adherent round a large part of the wall, from a patient of 71 years of age, operated on for strangulated hernia.—Dr. Alex. Napier showed a patient, the subject of an extensive lupus verrucosus, who was under treatment by curetting, actual cautery and injections of tuberculin: there had been marked improvement since the treatment was commenced.—Dr. G. B. Buchanan showed an epithelioma of the oesophagus which had penetrated into the larynx.—Dr. Napier read notes of a case of acromegaly in a woman, aged 34. The condition had been slowly advancing for five years. A series of photographs and the patient were shown.—Dr. J. Wainman Findlay read notes of a case of chronic lymphatic leukaemia and demonstrated the condition of the blood in a patient aged 60. The enlargement of the glands under the chin had been noticed two years ago, and when shown all the superficial glands were greatly enlarged. The proportion of leucocytes to red corpuscles was about 1 to 2.5, the small lymphocytes forming 96 per cent. of the former. Red corpuscles 1,424,000 per c.mm. White corpuscles 568,660. The patient had syphilis thirty-five years ago and malaria sometime later.—Dr. T. K. Monro and Dr. J. Archd. Campbell reported a case of splenic abscess and empyema due to the bacillus typhosus, and associated with a positive Widal's reaction, but without intestinal lesion. Except fever the case showed none of the signs of enteric. It terminated fatally in about three weeks. —Mr. R. H. Parry showed a case illustrating Brophy's operation for cleft palate.

The next meeting of the International Congress for the Study of Tuberculosis will be held in Paris in 1905 from October 2nd to 7th.

REVIEWS.

THE PATHOLOGY OF SLEEPING SICKNESS.

THE Portuguese Commission which was sent out to the West Coast of Africa to study sleeping sickness has now published the results of its researches in a voluminous report entitled *La Maladie du Sommeil*.[1] The work shows evidence of care and scientific accuracy, and contains some very useful and important information. There is not much to note in the first chapters, which deal with the history, geographical distribution, and etiology of the disease. In the discussion of the clinical symptoms, however, special stress is laid on the enlargement of the lymphatic glands, this being looked upon as a constant symptom, the authors even believing it very probable that the pathological process starts in the lymphatics which drain the head and neck. No special mention appears to be made of the extreme frequency of adenitis in natives not suffering from sleeping sickness, and this rather minimizes the importance of the observation. Somnolence, in the cases met with by the Commission, was one of the principal manifestations of the disease; perhaps the term lethargy is more strictly correct, and describes more accurately the conditions seen in those suffering from this complaint. The number of examinations of the blood is hardly large enough to give much value to the estimation of the red and white corpuscles, and, no data being given of the stage and time of the disease in the table, it is difficult to draw conclusions. The muscular tremors and the other symptoms, now so well described in textbooks of tropical medicine, are duly noticed. As regards the histological pathology, Mott's original observations are confirmed. The chapter on the bacteriological researches is the most important and interesting part of the report, especially, as more recent researchers have attempted to show that trypanosomes are to be regarded as the sole cause of the pathological changes so characteristic of sleeping sickness. After a careful perusal of this part of the work, one is led to the conclusion that the peculiar coccus found by the Commissioners constantly in a long series of cases is, as they state, identical with that found by Castellani in Uganda, and that it does play an important part in the production of the perivascular, meningeal, and other infiltrations. Apparently this coccus if properly looked for is always to be found even at a considerable period of time before the fatal termination. Unfortunately, the experiments on animals are not sufficiently exhaustive to decide definitely what part this organism may play in the etiology of the disease. Macroscopically the lesions found in monkey No. 2 inoculated with a pure culture of the coccus are suggestive of those found in sleeping sickness; but as no microscopic examination appears to have been made of the brain or other organs, it is impossible to determine whether perivascular infiltrations were present. In addition to this, the number of experiments on monkeys was very limited. The second part of the report is devoted to a clinical description of 66 cases with notes of necropsies, but here again there is a lack of microscopic details. In an addendum, notice is taken of Castellani's discovery of trypanosomes in the cerebro-spinal fluid of sleeping sickness cases in Uganda. The Commissioners admit that on a re-examination of several of their specimens they have detected trypanosomes. Their final conclusions are that more work is required to determine the parts played by the coccus and trypanosome respectively as causative agents in the production of sleeping sickness. The report is illustrated throughout by many photographs and numerous charts; and very excellent photomicrographs of the perivascular infiltrations of the brain, nerve cells, and the coccus *in situ* conclude this exceedingly interesting report.

DISEASES OF THE STOMACH.

THE first thing that strikes the intending reader of Professor ROBIN'S volume on *Diseases of the Stomach*[2] is its enormous size. It consists of over 1,100 large octavo pages, and may deter all but the most industrious. It is made up of five parts, of which the first is devoted to the method of examining patients and the physical and chemical exploration of the stomach; the second and longest to a consideration of dyspepsia; the third to organic diseases of the stomach; the fourth to the causes of diseases of the stomach and their effects on other organs; and the fifth to the influence of other diseases upon the stomach.

In the first part we notice that while the author gives a fairly full account of modern methods for examining the stomach, he entertains by no means an exaggerated opinion of their value. He states, for example, that the chemical examination of the stomach is useful as a means of study and in exceptional circumstances for diagnosis, in which opinion we entirely agree with him. But his method of examination might be more exact: for example, few modern authorities on the stomach will agree with him in attributing so much value to *clapotage* as an index of motor defect and we hold that his defective procedure is entirely accountable for the opinion he entertains of the rarity of dilated stomach. His views of dyspepsia are that it consists of two types, which he calls hypergenetic and hypogenetic respectively. In the former secretion and motion are in excess in the latter both are defective. He believes that the former is the most common form and that its results are successively hyperchlorhydria, pyloric spasm, permanent pyloric obstruction with dilatation, and in certain cases ulcer. The hypogenetic form, on the other hand, develops gastritis, achylia gastrica, and atonic dilatation. We understand the author to contend that these conditions are never dissociated increased secretion always goes with excessive muscular activity, diminished muscular activity with decreased secretion, and therefore he objects to such clinical names as hyperchlorhydria and achylia gastrica, because they describe only a symptom or a part of the disease. It is, of course possible that the prevailing type of dyspepsia differs in different countries owing to variations in race, temperament, food, and habits. Certainly we do not recognize hypergenetic dyspepsia as he describes it to be the common type here. His clinical descriptions are not the only parts of the book which seem to be local. For example, in this country there is no occasion to protest against the use of sodium bicarbonate in quantities of 20 grams to 30 grams (⅔ oz. to 1 oz.) in a few hours: nor do we find that coprostasis is often mistaken for movable kidney. He believes in pyloric spasm as a functional condition causing obstruction which may be relieved by medical means, the chief of these being absolute milk diet. He has a very copious collection of drugs, such as atropine, cannabis indica, solanine, picrotoxine, veratrum viride, and menispermine as stomach sedatives. We are inclined to consider the whole of this teaching respecting dyspepsia as too theoretical; it looks too much like an attempt to fit the facts into certain neat pigeon-hole arrangements; and when we come to treatment there is the same disposition to put forward a plausible "rational" plan based on theory rather than to give the results of experience. It is true that so much is included that it is hard to say that anything important is omitted, but it is side by side with much of doubtful value, and the good is not distinguished from the bad. M. Robin recommends pepsin as an aid to digestion, apparently mainly on the ground that a considerable amount of pepsin can be found in the urine in certain cases of dyspepsia. He certainly states the fact that pepsin can only act in the presence of hydrochloric acid, and when arguing against the use of hydrochloric acid he urges that in order to supply sufficient to favour peptic digestion an impossible quantity would be required; moreover, he shows elsewhere that he is fully aware that pepsin is rarely absent from the stomach, and that when absent hydrochloric acid is also deficient: yet in spite of these considerations he recommends it as a remedy, although he does so in a different part of the book from that in which he objects to the use of hydrochloric acid on the grounds given above. Moreover, while disapproving the use of hydrochloric acid he recommends sulphuric acid to be taken in precisely the same manner and supports this practice by purely empirical considerations.

In discussing the dyspepsia of phthisis he argues that infection by tubercle is often due to the diminished hydrochloric acid in the gastric juice, tubercle bacilli accidentally swallowed not being destroyed, but later on he quotes the work of his pupil, du Pasquier, who showed that in the early stage of phthisis 69 per cent. have excess of hydrochloric acid,[1] 19 per cent. deficiency, and 12 per cent. the normal amount. These examples illustrate the way which M. Robin uses or

[1] *La Maladie du Sommeil.* Rapport présenté au Ministère de la Marine et des Colonies, par la Mission envoyée en Afrique Occidentale Portugaise constituée par Annibal Bettencourt, Directeur de l'Institut Royal de Bactériologie, Camara Pestana, Chef de la Mission; Ayres Kopke, Professeur à l'Ecole de Médecine Tropicale de Lisbonne; Gomes de Rezende, Chef de Service à l'Institut Royal de Bacteriologie, Camara Pestana; Corrêa Mendes, Directeur du Laboratoire de Bacteriologie de Loanda. Lisbon: Libanio da Silva. 1903. (Roy. 8vo, pp. 288. 9 plates),

[2] *Les Maladies de L'Estomac.* (Diseases of the Stomach.) Par Albert Robin. Deuxième Edition. Paris: J. Rueff. 1904. (Royal 8vo, pp. 1,104.)

[1] BRITISH MEDICAL JOURNAL, May 7th, 1904, p. 1082.

gnores facts according to the conclusions he desires to draw t the moment.

The section on gaseous fermentation has a great deal in it vith which we agree and which should be better known. In the irst place he does not consider fermentation to be so common r so important as is often supposed. Gas in the stomach is or the most part air swallowed with the food. This is shown y the rapidity with which it is developed after eating, and he nature of the gas in many examples that have been xamined chemically. Lactic acid fermentation is undoubtedly common; in fact, this acid is so common that it as for a long time supposed to be physiologically present, ut it does not form gas. There is some confusion in the uthor's mind when he speaks of fermentation in the stomach s the cause of foul breath, for he admits that the eructated ases do not, as a rule, have a bad odour, and in another lace he shows that he is quite well aware that the cause of oul breath is buccal fetidity.

Over and over again he repeats the assertion that small uantities of alkalies stimulate the gastric secretion although e adduces no fresh evidence, and the well-known exeriments of Pawlow prove the contrary. This view leads im to express unusual opinions as to the use of mineral aters; small doses of Vichy water are, in his opinion, contraidicated in cases of excessive secretion of gastric juice, hile they may be useful where this secretion is defective. He ems to think all cases of chronic gastritis smoke or drink to cess, which is neither charitable nor true.

His view of the etiology of gastric ulcer is (1) excessive cretion of gastric juice, (2) gastritis acida, and (3) an casioning cause which permits the already weakened ucous membrane to be attacked by the hyperacid and perpeptic juice. But latent ulcer of the stomach is more equent than the author admits, and occurs in persons who ve not suffered from any stomach trouble such as the above ggested series of events would imply. In the treatment of stric ulcer he speaks highly of the "absolute rest" method, which he means the plan by which the patient is fed clusively by the bowel, the stomach meanwhile being kept tirely empty, but he is at first vague as to its duration and timately states the average time for which it is possible to aintain this treatment as nine days, too short a period it is intended to keep the stomach empty until the er is completely healed and too long if, as we think can be undantly shown, suitable food taken by the stomach only es harm when taken within forty-eight hours of an attack of emorrhage, and recovery depends upon improving the tient's nutrition. He admits that during rectal feeding the tient invariably loses weight. Hyperchlorhydria plays a y extensive part in the author's pathology, for example, to he attributes mucous colitis, appendicitis, chronic constiion, and dipsomania!

Throughout these lectures Professor Robin, while quoting gely from contemporary literature, shows little respect for opinions he finds there. Indeed, he states them in such way as to allow him a comparatively easy victory. The ok may be regarded as an encyclopaedia of information on subject of diseases of the stomach, but we dissent from ny of its teachings and conclusions.

THE EXAMINATION OF THE URINE.

st of the books that have been written on the urine and examination have dealt with the subject too much from chemical point of view, and consequently there has been a long time a want felt by medical men for a book on the ne which should be a clinical guide in the diagnosis and atment of disease. To produce such a book a somewhat e combination is required in the writer, for he should be h a practical and practising physician and a scientific mist whose knowledge is abreast of the many advances t have been made in the domains of physiological and hological chemistry. Fortunately, in Dr. Dixon Mann se two attributes are pre-eminently combined, and it would lifficult, if not impossible, in this country to select a man er qualified to discharge successfully the task he has ertaken. In his volume on the *Physiology and Pathology the Urine*,[3] Dr. Dixon Mann has produced a book ch, we venture to predict, will be welcomed alike by lical men and by students of medicine, and which will prove most helpful in solving many of the problems that are met with in connexion with the diagnosis and treatment of disease. It is only possible to give a very cursory description of the various sections of this admirably compiled and written book. One useful and practical feature of it is that the urinary constituents are not necessarily grouped together according to their chemical constitution, but according to their physiological and pathological associations—a grouping which, from the clinical point of view, is of immense use. A section that will especially appeal to the practising medical man is that devoted to the effects produced on the urine by the principal diseases and to pathological deviations attended by distinctive changes in the urinary secretion. In connexion with the application of Fehling's test, stress is very properly laid upon the point that the mixture of Fehling's solution and urine should never be submitted to prolonged boiling, as several substances (apart from sugar) may be present in the urine which are capable of reducing copper salts with the aid of prolonged heat. The sections on the occurrence and detection of acetone and diacetic acid in the urine and their relationship to diabetes are especially clear and good, and will prove of great value to the clinician. The book contains a masterly review and criticism of the occurrence of uric acid and its salts in the human organism. The section on urinary pigments is one of the best we have met with, and very good illustrations accompany the article on urinary sediments. The author wisely states that too much stress should not be laid on differences in the size of casts, and reference is made to the important fact that exceptionally casts may be found in the urine in the absence of disease and when no albumen is present in the urine, a condition which is explained as being probably due to the fugitive presence in the blood of some toxin. The illustrations of the various forms of casts are very clear. The book concludes with a chapter on urine in its pathological relations, which is perhaps, from the point of view of the practising physician, the most valuable of all. Dr. Dixon Mann is to be congratulated on having produced a work which cannot fail to be of inestimable value alike to medical men and students, and which is in every respect worthy of his high reputation.

[3] *hysiology and Pathology of the Urine, with Methods for its Examination.* . Dixon Mann, M.D., F.R.C.P., Physician to the Salford Royal Hos- ; Professor of Forensic Medicine in the Victoria University of Manter. London: Charles Griffin and Co., Limited. 1904. (Demy 8vo, 72, 29 illustrations. 8s. 6d.)

PATHOLOGY.

We are glad to see a second edition of Dr. Lazarus-Barlow's excellent work on *General Pathology*.[4] It has been thoroughly revised and partly reconstructed, and much additional matter has been introduced in order to bring it up to date. The author's great merit is his wide grasp of physiological principles and his appreciation of their importance for the study of morbid processes. His treatment of oedema is particularly valuable from the way in which it incorporates important experimental work by physiologists on the lymph flow; and the pathology of heat regulation is treated with equal success. Work of this kind provides a useful and much-needed object lesson, showing the immense advantage which both the physiologist and the pathologist may derive by bringing the study of the normal and the morbid into a close relationship. Whilst thoroughly approving of his general method of dealing with his subject, we are not quite sure that Dr. Lazarus-Barlow fully realizes the standpoint of the average reader. The medical student who reads the book in order to learn, however enterprising he may be, is not possessed of unlimited powers of assimilation. There is, therefore the danger that if we give him too wide a range of epitomized opinions from leading authorities with whom he is hitherto unacquainted, we may induce mental dyspepsia. Of course, the intention of widening a student's view in order to stimulate him to seek wider acquaintance with the literature of his subject is most excellent; but the author, whilst still providing this very desirable stimulus, might secure a wider audience if he recognized the narrower limits of the learner's horizon as compared with his own. We also think that bacteriology and immunity might with advantage have been omitted. These matters are best dealt with in special works, and are rather an encumbrance on the main purport of the present volume.

Dr. Walker has issued in a book[5] his Gordon Lectures, delivered at Guy's Hospital in 1902, on inflammation, infec-

[4] *A Manual of General or Experimental Pathology for Students and Practitioners.* By Walter Sydney Lazarus-Barlow, B.A., B.C., M.D., F.R.C.P. Second Edition. London: J. and A. Churchill. 1904. (Royal 8vo, pp. 736. 21s.)

[5] *The General Pathology of Inflammation, Infection, and Fever.* By E. W. Ainley Walker, M.A., M.D. London: H. K. Lewis. 1904. (Crown 8vo. pp. 260. 4s. 6d.)

tion, and fever. Treating his subject from the standpoint of recent discoveries in the science of immunity, he has provided a digest of what is known about infective processes which ought to be useful to medical students preparing for the higher examinations and to others who desire to obtain a general and easily comprehended outline of the phenomena dealt with. There is evidence throughout the book that the author has obtained his information by direct references to the original authorities; he consequently writes with a freshness and force not otherwise attainable. This is a welcome feature, and stands in pleasing contrast to the habit of compilation from second-hand sources, which is only too common nowadays. The number of misleading statements which are perpetuated in this way is a serious evil and is largely due to busy lecturers and others who publish as new textbooks what are really nothing more than patchwork transcriptions from a variety of other textbooks not much more trustworthy than the new production. We may cite as an example the agglutination phenomenon in the blood of typhoid patients. Every student is familiar with this and calls it Widal's reaction. Very few of them know that the true credit of the discovery belongs to Gruber and Durham. If they consult Dr. Walker's textbook they will find this matter placed in its proper light by means of a simple and concise statement of the nature of the discoveries made and the investigators who made them.

In his book on the Functions of the Leucocytes,[6] Dr. Jacques Carles ascribes to these cells a variety of properties and a degree of importance which are only likely to gain full acceptance from those who have been brought up to an implicit belief in the teachings of the French school on this subject. In addition to their phagocytic action on bacteria, leucocytes are regarded as possessing special selective properties which enable them to take up into their protoplasm a variety of substances which are useful to the organism, such as lecithin and compounds of iodine; these materials the leucocyte modifies by means of its ferments and then distributes to the parts of the body where they are needed. Leucocytes are also thought to play an important part in the absorption of metallic drugs; this is ascribed to their peculiar richness in nuclein and to the readiness with which nucleic acid forms metallic compounds. Thus, for example, the action of mercury on a syphilitic lesion is explained as due to the absorption of the mercury by the leucocytes, which are then attracted by chemiotaxis to the lesion and there discharge the mercurial compound which exerts a specific action. In short, such is the importance of these cells that in dealing with disease generally the doctor is urged to investigate the condition of his patient's leucocytes with as much care as he bestows on their heart, kidneys, and nervous system. We may commend the book as an interesting amplification of a certain point of view, but it should be pointed out that many of the experiments quoted in support of its doctrines are the work of pupils of Metchnikoff who have not achieved in their observations the same degree of accuracy as their master; nor must it be forgotten that properties demonstrable in the leucocytes of animals, such as frogs, are not necessarily possessed by the leucocytes of man.

In the preface to his book on *Rabies*[7] Dr. Sime expresses his indebtedness for valuable criticisms to the scientific expert who read his manuscript for the Syndics of the Cambridge University Press. We have no doubt that these criticisms have increased the value of the work, but, even as it stands, we regret to find that Dr. Sime's opinions fail to impress us as being either important or conclusive. He tells us that he has "treated and expounded" the malady of rabies "as essentially a preventive rather than a prophylactic disease, these being described as the two great orders of the entire realm of germ disease." Rabies is also described as being "primarily a germ disease of the intensifying rather than of the attenuating division of the animal kingdom." These expressions and the exposition which is intended to elucidate them are somewhat difficult to understand, and, therefore, although we do not wish to damp Dr. Sime's ardour, we cannot conscientiously encourage him in a belief that his work is likely to be placed in the first rank amongst scientific publications.

[6] *Du Rôle des Leucocytes dans l'Absorption et l'Élimination des Substances Etrangères à l'Organisme.* Par Dr. Jacques Carles. Paris: Vigot Frères. 1904. (Royal 8vo, pp. 152, 5 coloured plates. Fr.6)

[7] *Rabies, its Place amongst Germ Diseases and its Origin in the Animal Kingdom.* By David Sime, M.D. Cambridge: University Press. 1903. (Demy 8vo, pp. 290. 10s. 6d.)

NATURAL HISTORY.

Three years ago Dr. Gerald Leighton published a bo on British serpents. A wish was expressed that he wou write a treatise on lizards, and in accordance with that wi the present work *British Lizards*[8] was prepared; the t together complete the account of the British reptiles—snak and lizards—from the point of view of the field naturali In an introduction the author points out that for outdo work the physiological and geographical, and the speci characters are the most important aspects to study, i it is impossible for any one man to make himself famili with all that is known of all the aspects even of a ve few animals. Each aspect is a study so far-reaching itself that one is more than most of us can manage to lea thoroughly. The main questions a field naturalist has study are: What animals live in a given region? Wh characters make them the species they are? How are th related to other living or extinct forms? How do they li their life? The object of the book is to give the field work just sufficient information on those points on which he hi self does not work to enable him more thoroughly to und stand the phenomena which come under his observation ou of-doors. The British lizards are described, and the counti and localities arranged according to the areas defined in t "County and Vice-county divisions of the British Isle For biological purposes the book is clearly and concise written, and students wishing to take up the subject serious will find it of the greatest assistance. Specially interesti are the illustrations by Mr. Douglas English taken fro living lizards by the "control method." Mr. English, who skill in photographing small animals, reptiles, and birds well known to all those interested in natural history, phot graphs his subjects in captivity. The illustrations in t book convey a much better idea of the appearance of t lizard than coloured plates, which are often misleading.

It is not surprising to find that Mr. Douglas English's bo has already run into a second impression for the charmi collection of stories concerning small animals entitled *W Tim'rous Beasties*[9] appeals alike to grown-ups and to childre Not only are the stories attractively written, but each one is reality an object lesson, full of information as to the wa and habits of the tiny animals dealt with. Mr. Englis methods of studying the beasts he writes about are origina Whereas Mr. Kearton employs all sorts of stratagems such hiding for hours in a stuffed cow which he carries about wi him in order to photograph birds too timid to approach human being, Mr. English's method is to capture small wi animals, birds and reptiles, and while taming them to stu their habits. When they are sufficiently tamed he phot graphs them. There are 150 illustrations in the book, a done in this way from living creatures, and to say that the are done by Mr. English himself is to say that they a admirable.

PHYSICAL REMEDIES.

Dr. A. Béclère explains, in the introduction to his work o the *Roentgen Rays*,[10] that it was first presented in the form of report to the second International Congress for Medical Ele tricity and Radiography at Berne in September, 1902, and tha one of his objects was to show that although the rays hav proved of great service in surgery, physicians will also fin them of service in medicine. In support of this he quote the conclusions reached by Professor Bouchard's as earl as 1896. Dr. Béclère makes no attempt to compet with the larger and more important works, such a the *Traité de Radiologie Médicale* recently produced unde the editorship of Professor Bouchard. On the contrary in a simple, readable, and concise way he describe the methods of exploring the chest, a few of the bes forms of apparatus for clinical purposes, and the principa accessories. The apparatus described is just such as a ordinary physician would require in his room for genuin diagnostic purposes, either by means of the screen or photo graphy. After describing the importance of examining th normal thorax and the interpretation to be put on the di

[8] *British Lizards.* By Gerald Leighton, M.D., F.R.S.E. Edinburgh George A. Morton; and London: Simpkin, Marshall and Co. 1903. (Crow 8vo, pp. 214. 5s.)

[9] *Wee Tim'rous Beasties* (Studies of Animal Life and Character). B Douglas English. London: S. H. Bousfield, Limited. (Cr. 8vo, pp. 223 150 illustrations. 5s.).

[10] *Les Rayons de Röntgen et le Diagnostic des Maladies Internes.* Par A Béclère, Médecin de l'Hôpital Saint-Antoine. Paris: J. B. Baillière e Fils. 1904. (Crown 8vo, pp. 96, 20 illustrations. Fr.50.)

erent shadows representing the organs, he proceeds to describe the pathological changes which can be determined. Changes due to mischief in the pleural cavity, the lungs, heart, pericardium, aorta, and oesophagus occupy the most important clinical part of the work, as might be expected. He thinks that the *x*-ray examination of the thorax should never be omitted; indeed, he recommends that it should be the first thing done by the physician. The second part of the work treats of the examination of the digestive organs, the diagnosis of calculi, and shows how valuable *x*-ray work may be in the hands of an expert. A third very short chapter is devoted to the examination of the cranial cavity and upper part of the spine. As a result of his investigations, Dr. Béclère concludes that in some conditions of the central nervous system we have a useful help in the *x* rays for the examination of the abdomen: they constitute a valuable method of procedure, principally in the diagnosis of urinary calculi, and as a means of giving additional information in the exploration of the stomach. For the thoracic organs he takes the claim that the rays will rank in medical practice along with auscultation and percussion, and that their importance is becoming greater from day to day. The work is more than an introduction to the subject. It is well written, the illustrations are practical, and Dr. Béclère's excellent clinical study will doubtless meet with a favourable reception from the profession.

A large number of treatises on the medicinal value of light, heat, and electricity have been published within recent times both in Europe and America. The latest comer is a volume on *Natural Physical Remedies*,[11] from the pen of Mr. H. H. HULBERT, Lecturer on Health and Voice Production to the Guildhall School of Music. Like many of its predecessors, this book errs in claiming results from the application of physical methods which can only be designated as extravagant and in excess of any legitimate deduction from the evidence that is so far forthcoming. The forces enumerated in the title play an important part in the cure of disease and, in all probability, the measure of their usefulness is yet imperfectly appreciated, but neither any one of them, nor all of them combined, can be regarded as a universal panacea, such as the general tenor of Mr. Hulbert's book would suggest as being possible. The author quotes long extracts from various writers—Douglas Kerr, Knowsley Sibley, Bezly Thorne, Bradley, Herschell, and others—but he gives no detailed record of any personal experience confirmatory of the generalized statements in which he indulges. Thus, in speaking of the treatment of phthisis by high-frequency currents, he says:

> All the patients gain in weight, and nearly all derive great benefit if the treatment is continued for a period of not less than three months; the consensus of medical opinion seems to be that recoveries may reasonably be expected in at least 50 per cent. of the cases treated.

This is a mere assertion unsupported by proof, and one, moreover, which is not in agreement with every one's experience. Many other similar examples might be quoted of the somewhat loose way in which the virtues of physical remedies are proclaimed. Mr. Hulbert is not without imaginative powers, for he tells us that:

> It is not difficult to picture Adam, after the Fall, suffering from his first experience of a "chill," and instinctively creeping forth so as to expose his back to the genial influence of a semi-tropical sun.

Good descriptions are given of various forms of electrical and other apparatus, and the book is illustrated by several well-executed plates. It contains also a considerable amount of useful information as to methods of application and details of management, but it dwells with unnecessary emphasis on the flowing system of treatment. The radiant heat and light baths which are arranged on this system constitute, doubtless, a convenient and readily adaptable electrical method of bringing the body under the influence of two great natural forces, but it is sufficiently advertised throughout the press of the country to make a volume mostly devoted to its glorification a redundancy.

[11] *Natural Physical Remedies: Light, Heat, Electricity, and Exercise in the Treatment of Disease.* By H. H. Hulbert, B.A.Oxon., M.R.C.S., L.R.C.P. London: Simpkin, Marshall, Hamilton, Kent, and Co. 1903. (Demy 8vo, pp. 286. 2s. 6d.)

THE Council of the Association for Promoting the Training and Supply of Midwives has decided to arrange for a large public meeting to be held in the autumn in furtherence of its objects.

SIR LAUDER BRUNTON has been elected Consulting Physician to the Infants' Hospital, London.

MEDICAL SICKNESS ANNUITY AND LIFE ASSURANCE FRIENDLY SOCIETY.

ANNUAL REPORT AND QUINQUENNIAL VALUATION.

THE twenty-first annual report of the Medical Sickness Annuity and Life Assurance Friendly Society presented to the annual general meeting on May 19th embodied a special report on the quinquennial valuation of the business made by the Secretary of the Society, Mr. Francis Addiscott, F.I.A., in conjunction with the consulting actuary, Mr. George S. Crisford, F.I.A., actuary of the Rock Life Assurance Company and Public Valuer under the Friendly Societies' Act.

For the sickness benefits, which formed the largest part of the business of the Society, the rate of interest assumed was $2\frac{1}{2}$ per cent., while in the annuity and life assurance branches, in which no new business had been taken since 1894, the rate assumed was 3 per cent. Mr. Addiscott's report stated that the same bases of calculation had been used as in 1898, namely, the Institute of Actuaries' H^{m} Mortality Table and the sickness experience of the Manchester Unity of Oddfellows.

Sickness Fund.—At the date of the valuation, December 31st, 1903, the number of members assured for sickness benefit was 2,231, the total weekly sick benefit secured was £8,453 11s., and the gross annual premium income payable to the Society in respect of these benefits was £15,151.

Calculated upon the basis indicated the funds showed a surplus of £2,742. Only 90 per cent. of the premiums actually receivable by the Society were valued, 10 per cent. being reserved for expenses of management, although a smaller proportion had hitherto been found sufficient.

Life Assurance Fund.—At the date of valuation there were 191 members assured for an aggregate sum of £33,400, and paying an annual premium income of £919 6s. The life assurances had been valued by the H^{m} tables at 3 per cent., and 10 per cent. of the gross premiums had been reserved. The fund showed a surplus of £1,921.

Deferred Annuity Fund.—On December 31st last there were 435 members assured for deferred annuities, commencing at age 65, or for endowments payable at the same age. Of these 188 contracts were on the plan of returnable premiums. Under this arrangement, should the member die before attaining the age of 65 years, three-fourths of the premium paid by him for this benefit were returned to his representatives. The remaining annuity benefits were on the non-returnable system. Annuity benefits had been converted by 113 members into endowments payable at the age of 65, and as the Society now granted no further annuity or assurance benefits the annuity and life assurance branches were being slowly reduced in size. During the quinquennium the number of annuity contracts was thus reduced from 502 to 435, and with each succeeding quinquennium a large proportionate decrease may be anticipated. The funds showed a deficit of £702. Since 1894, when this department of the work was given up, annuity or assurance benefits could be secured by members through the agency of the Society from the Rock Life Assurance Company.

Surplus.—The sickness experience of the Society during the five years was less than the expected sickness by 739 weeks, or about 6 per cent.; the ratio of the actual to the expected sickness, however, had a tendency to rise with the age of the Society, and during the last quinquennium the margin in favour of the Society was not so great as in the previous five years, so that the surplus in the sickness fund was smaller. It was insufficient to enable a cash bonus to be paid on all the existing contracts. The Secretary proposed that every sickness member reaching the age of 65, at which he would go out of benefit, during the current quinquennium, should be allowed from a surplus in the management fund a bonus of 10 guineas for every guinea per week of sick benefit he had secured during his membership with a proportionate amount to those who during their membership had increased the amount of their sick benefit. The management fund surplus arose from the economical working of the Society's business, and had been largely produced by the contributions of those older members who would at once benefit under the proposed plan of bonus.

Mr. G. S. Crisford in his certificate stated that he had carefully considered and examined the particulars and methods of the valuation, and was of opinion that the methods employed in the valuation of the funds and liabilities were satisfactory, and that the basis adopted was one which properly

represented the true financial position of the Society. He approved of the recommendations made by the Secretary.

The annual report contained the following statement:

The amount paid during the year for sickness and accident claims was £9,663 12s., and the following statement shows the amount paid away in such benefit during 1903 and in each of the preceding five years:

Year.	Members.	Payments.
		£ s. d.
1898	1,876	6,109 12 0
1899	1,945	7,490 15 0
1900	2,006	8,250 0 0
1901	2,093	7,829 10 0
1902	2,177	9,359 17 0
1903	2,274	9,663 12 0

The amount of sickness experienced is about £300 less than the amount expected and provided for by the tables.

The report further stated that since the Society was started in 1884 over £90,000 had been disbursed in sickness benefit, and letters received from members in benefit left no doubt that in many cases the sickness pay had prevented inconvenience, and in some actual privation.

ANNUAL MEETING.

The CHAIRMAN (Dr. de Havilland Hall) in his customary address congratulated the Society upon the year's work. The number of new members elected during the year was 176, the largest for some years past, bringing the total membership of the Society up to 2,274. He urged members to enlist new members, not for the sake of the Society, which had a sufficient number of members to ensure its stability, but for the future of newcomers, and therefore for the general good of the profession. Referring to the work of the year he said that the annuity branch showed a small deficit, thus preventing any bonus being awarded to annuitants, while in the life assurance branch the Committee were able to declare a bonus of 10 per cent. on the sum assured. Turning to the sickness fund, which he regarded as the most important branch of the Society's work, he said that during the year £9,663 12s. had been paid away in sickness benefits, which was a record for the Society. They had had twenty-five members on the fund for the whole of the year and there was but little prospect of any of them being able to resume work. The principle adopted by the Society of making permanent provision for members up to the age of 65 was unique. The large saving effected on the management fund had led to a considerable surplus and the Committee recommended that when a member attained the age of 65 he should be allotted a bonus of £10 10s. for every £1 1s. per week of sick benefit he had secured during membership. As a large amount of the surplus was derived from the contributions of older members it was considered only right that when they went out of benefit under the age limit they should receive something. The number of members who would attain the age of 65 during the next five years amounted to 63 and the bonus payable to those members would amount to £2,352. He hoped the meeting would also agree that the arrangement should be made retrospective with regard to the 22 members who had attained the age limit during the quinquennium just concluded; this would entail a further sum of £661 10s. The question of providing sick pay for members after they had reached the age of 65 had been again considered by the Committee, and the more it was looked into the more difficult a problem it became. He was convinced that the true solution was for members to contract for a deferred annuity to commence at 65; he did not think there would be a very great difference in the payment required for that and the additional sum which would have to be charged for an extension of sick pay.

The votes of the Society for Epsom College had been given last year to W. R. Mortlock, the son of the late Dr. Mortlock. This year they had been given to the the same candidate, and it was hoped that he would be successful. He was glad to be able to report that there had been no occasion to appeal to the arbitrators. The trustees of the Society had shown great interest in its affairs, and the members owed those distinguished gentlemen a debt of gratitude for their valuable assistance. He expressed the thanks of the Society to the BRITISH MEDICAL JOURNAL and the *Medical Press and Circular* for their great help in drawing the attention of the profession to the advantages of the Society. The record of Committee attendances would, he thought, be considered very satisfactory. The assistance received from country members w more than their attendance would suggest; it was a gre advantage to have representative men in the importa centres to whom the Committee could confidently appe He was sure the meeting would be sorry to hear of the illne of their excellent Secretary, whom he was glad to be able report was recovering. Dr. Hall concluded his address moving that the report of the Committee and the audit accounts for the year ending December 31st, 1903, be receiv and adopted.

The resolution was seconded by Dr. BRINDLEY JAMES, a carried.

The CHAIRMAN next moved that the proposal to grant bonus to members on attaining the age of 65 should be ma retrospective to those 22 members who had attained the a limit in the last quinquennium.

This was seconded by Dr. BRINDLEY JAMES, and carried.

On the motion of Dr. DE HAVILLAND HALL the valuati report was received and adopted.

The list of officers of the Society, as submitted to the mee ing, was, on the motion of Dr. LESLIE THORNE THORN seconded by Dr. WINSLOW HALL, adopted.

A vote of thanks to the Chairman for presiding at th annual meeting of the Society and at the meetings of th Executive Committee during the last year brought the pr ceedings to a close.

CONTRACT MEDICAL PRACTICE.

POST-OFFICE MEDICAL APPOINTMENTS IN THE HIGHLANDS AN ISLANDS OF SCOTLAND.

"MEDICUS," who is a parish medical officer in the Highlan of Scotland, informs us of the terms offered to him by th Postmaster-General to attend two rural postmen who resi 12 and 15 miles from his residence. The duties are as follow (1) To examine candidates for appointment; (2) to attend the office or at their house, and to supply with medicine a officers on the list supplied to the medical officer; (3) to visi on requisition of the postmaster, any one absenting himse from duty on the plea of illness; (4) to certify as to the unfi ness or otherwise for future duty all applications for supe annuation; (5) to attend specially to sanitary condition the post-office. The remuneration is 8s. 6d. per annum f each person on the list furnished, and in addition a fee of 10 for each candidate examined for appointment to establishe service, this amount covering all examination of candidat either on nomination or probation.

"Medicus" replied, thanking the postal authorities f giving him an opportunity of applying for the office, bu pointed out that the remuneration offered was totally insuff cient to induce a medical man to take up such work in widespread parish. With regard to the list of duties, he con sidered (1) the examination fee was inadequate; (2) the f offered per man was absurd, considering the distance to b travelled, and in the two cases mentioned, as both men a not in very good health, they might require a good deal medical attendance. Further, he would be reluctant, for th remuneration stated, to render himself liable to be sum moned by sub-postmasters to go such distances for any sligh ailment the men might suffer from. With regard to (3), (4 and (5) he pointed out that no remuneration is offered for se vices rendered to the Department in these cases, and that th Department desires to obtain information from a medical ma without paying for it, and, as he can get a reasonable fee fro the men as a private practitioner, he does not feel justified i giving his services to a wealthy Department at a less figure.

We congratulate "Medicus" on the stand he has made and we trust that medical men practising in the Highland and Islands will under similar conditions act as he has done It is only by combined action that this, and similar attempt to get medical practitioners to do work without reasonabl remuneration, can be frustrated.

FEMALE DENTISTS IN PARIS.—According to recently pub lished statistics there are in Paris 29 female practitioners o dentistry. Of these, 20 hold the diploma of the Paris Faculty The total number of dentists in Paris is 700.

MEDICINE AND MATRIMONY.—A Bill providing that every intending candidate for matrimony should appear before some medical practitioner for instruction, with a view to reduce the number of defective children, was not long ago introduced into the Iowa State Legislature. It was thrown out by a unanimous vote, on the ground that its provisions were con trary to the constitutional guarantee of liberty and the pur suit of happiness.

NOTES ON HEALTH RESORTS.

SCHWALBACH, NASSAU.

SCHWALBACH, properly known as Langenschwalbach because of its long narrow shape, and to distinguish it from other Schwalbachs, is a small town of some 3,000 inhabitants situated on the north-western slope of the Taunus mountains in a deep valley at an altitude of 950 ft., in the Prussian Province of Hesse-Nassau. The spa is situated in the upper or south-western part of the town, where there are good shops. The springs lie in two valleys stretching east and west; they are separated by a mountain ridge, and enclosed by wooded hills and woods of pines and beeches. Schwalbach is only fifteen kilometers from the mine and not far from Wiesbaden, and the journey from London via Cologne takes about twenty-one hours.

As far back as 1571 a doctor named Tabernæmontanus, a native of Worms, wrote a treatise upon the waters in which, from an experience of many years, he called the Winebrunnen "the best excellent and beneficial of all springs," while the praises of the Stahlbrunnen were sung by the physician Spreweizer.

But Schwalbach, like every other "cure," has had its palmy days and its bad days. In the seventeenth and eighteenth centuries it was a most aristocratic bathing place, then went out of fashion to be brought into vogue again in the nineteenth century by the Empresses of France and Russia. Most of the visitors are German, but it is also much frequented by English and Americans, and to a less extent by Dutch and Russians.

The climate is invigorating but not too cold, as the hills afford a protection from the winds, and variations in temperature are small owing to the shape of the mountains, the mean from May to September inclusive being 15.5° C.

In Langenschwalbach there are eight mineral springs. The principal of these are the Stahlbrunnen and the Winebrunnen for internal use, the Stahlbrunnen containing more iron than the Winebrunnen (0.08 per mille of the bicarbonate of iron to 0.06 per mille). The waters also contain a very slight proportion of magnesium bicarbonate; the stronger, Stahlbrunnen, according to Fresenius, contains only 0.02, or less than Spa.

Schwalbach; Bath house and pump room.

Dr. Spencer writes:

"The springs are well set, the water rising in stone basins, in which it is colourless and clear; in the Winebrunnen it is considerably agitated, in the Stahlbrunnen not quite so much, and in the Paulinenbrunnen in a still less degree. This agitation is caused by the stream of carbonic acid gas which issues with the water. If a white glass bottle be filled, from a hitherto undisturbed Brunnen, the water appears extraordinarily clear, and only when closely examined the very fine ochre-coloured flakes, which precipitate themselves on the sides, can be observed. The water taken from the wells continues to precipitate in the glass, and if a half-filled bottle be shaken a considerable quantity of carbonic acid gas escapes, together with an exceedingly small quantity of sulphuretted hydrogen, sufficiently to be detected by the smell. The water is cold, refreshing and sharp to the taste, soft, and with a flavour of iron. The iron taste is most strongly perceptible in the water of the Stahlbrunnen. The temperature of the wells having been taken at different seasons and at different temperatures of the air, it is proved that it is not constant, but varies from to 10 degrees R.

The specific gravity of the waters of the wells is as follows:

Stahlbrunnen	1.000638
Winebrunnen	1.001510
Paulinenbrunnen	1.000684

The constituents of the Stahlbrunnen, Paulinenbrunnen, and Rosenbrunnen are practically the same. The Stahlbrunnen is richest in iron and carbonic acid, while the Paulinenbrunnen contains a little less of magnesium bicarbonate, and a little more lime bicarbonate.

The Winebrunnen possesses considerably more lime bicarbonate and sodium bicarbonate.

According to Fresenius, the water in the reservoir contained 80 per cent. of the original quantity of protoxyde of iron in solution and that of the baths 68 per cent.

Stahlbrunnen.

The Stahlbrunnen contains, according to Fresenius, the following constituents in

(*a*) Weighable quantity (the salts of carbonic acid calculated as simple carbonates):

	In 1,000 parts.
Sodium carbonate	0.014573
Sodium chloride	0.006723
Sodium sulphate	0.003746
Potassium sulphate	0.007622
Lime carbonate	0.153687
Magnesium carbonate	0.139278
Carbonate of protoxide of iron	0.060733
,, ,, ,, manganese ...	0.013327
Silicic acid	0.032070
Total solids	0.432059
Half combined carbonic acid	0.174724
Free carbonic acid	2.981672
Sulphuretted hydrogen	0.000116
Total	3.588601

And (*b*) in unweighable quantities: Sodium phosphate, traces boric acid, minute traces; organic substances, minute traces.

II. *Winebrunnen.*

The Winebrunnen contains the following constituents in (*a*) weighable quantities: the salts of carbonic acid calculated as simple carbonates:

	In 1,000 parts.
Sodium carbonate	0.173377
,, chloride	0.008640
,, sulphate	0.006193
Sulphate of potash	0.097466
Carbonate of lime	0.398312
,, ,, magnesia	0.397110
,, ,, protoxide of iron	0.041006
,, ,, ,, mangan. ...	0.006574
Silicic acid	0.046500
Total solids	1.085071
Half combined carbonic acid	0.473201
Free carbonic acid	2.710873
Sulphuretted hydrogen	0.000116
Total	4.269261

(*b*) In unweighable quantities: sodium phosphate, traces; sodium borate minute traces; organic matter, minute traces.

The principal bath-house is the Royal, situated near the Winebrunnen. It contains over ninety bathing-rooms. The iron-water flows into the reservoir and thence into the bath by gravitation. The baths are made of copper with double bottoms, and into the space between steam is conveyed and the water in the bath raised to the desired temperature. By this system there is a decrease of at least 25 per cent. in the loss of carbonic acid. The rooms are fitted up with

douches, shower-baths and apparatus. The effect produced by these baths is attributed to the mechanical stimulation to the skin by bubbles of carbonic acid gas.

Peat baths are a feature of Schwalbach. The peat is obtained from the Winebrunnen valley and is the product of decaying plants acted upon by large quantities of water and different mineral precipitates. The fresh peat is exposed, heaped up for six months in the winter, and the chemical decompositions which occur are held to enhance the therapeutic value of the peat. The following is the analysis of Schwalbach peat:

1,000 parts of peat dried at 100 degrees of C. contain (Frésénius):

A. Constituents soluble in water:		
1. Organic:		
Ulmic acid, pit acid, and pit-salt acid		0,315
2. Inorganic:		
Lime sulphate	0.473	
Sodium sulphate	0,149	
Potassium sulphate...	traces	
Ammonium sulphate	traces	
Sodium chloride	0,059	
Potassium chloride...	traces	
Silicic acid	0,042	0,723
Total soluble in water		1,038
B. Constituents not soluble in water:		
1. Organic.		
Sebaceous matters	4,644	
Waxlike substances...	7.578	
Resinous substances	4,675	
Ulmic acid and humic acid	151.342	
Ulmine and ulmic acid	71,650	
Remains of plants and chemically-bound water...	256,942	
Total of the substances insoluble in water ...		499,831
2. Inorganic.		
a. soluble in hydrochloric acid:		
Oxide of iron	29.512	
Alumina	44,286	
Magnesia	5,222	
Lime	8,765	
Soda	1,178	
Potash	1,196	
Sulphuric acid	4,354	
Phosphoric acid	1,930	
Carbonic acid	—	
Silicic acid	4.264	
		100,666
b. not soluble in hydrochloric acid:		
Clay	238,045	
Sand and small stones	160,420	398,465
		1,000,000

Before employing the peat it is passed through sieves and then mixed with mineral water in a tube and stirred, being heated by steam until it assumes the consistency of thin paste. The mixture is regulated by the physician's prescription to the consistency and temperature suited to individual patients, there being three degrees of thickness. The baths are then rolled on rails into the bath rooms and placed beside a bath of fresh water for rinsing. Peat baths are often recommended for use before the iron baths are taken, but rest is necessary after taking them. The price of an ordinary bath is from 1.20 to 2 marks, according to its situation and time of day, while the price of a peat bath is 4 marks.

The waters are taken early in the morning, before breakfast or at noon after the bath, and again at meals, mixed with wine if they are found too gaseous alone. They are also taken warm, mixed with milk or whey, or following upon a small quantity of bitter aromatic tea. The whey is prepared from goats' milk, and is found useful as an addition to the water of ferruginous acidulous springs not easily digested by patients. In fact, in the treatment of all cases care should be taken to prescribe the waters for each patient according to his powers of digestion, for to attempt more than can be easily assimilated is apt to cause congestion. The iron waters, it is asserted, are not injurious to the teeth, nevertheless many patients use tubes for drinking. The usual course consists of twenty-five baths spread over a period of six weeks. If the treatment is continued too long, it does the patient harm. Moderate exercise is usually recommended, and a simple wholesome diet from which foods containing acid, raw fruit, and very rich dishes are banished. The cure is usually followed by an after-cure in good pure country air.

The diseases treated at Schwalbach are: Chlorosis in girls of from 14 to 20 years of age, when a carefully-regulated drinking and bathing cure, carried out in fresh mountain air, together with a nourishing diet, produces excellent results; anaemia, and those disorders of the digestive system partially or wholly dependent on a general condition of anaemia or debility, and retarded convalescence in men and women, when a bathing and drinking cure combined with a strengthening diet and much exercise in the mountain air, is often successful; in leucorrhoea and chronic inflammatory conditions of the female pelvic organs vaginal douches of the mineral water in addition to the baths are efficacious.

In cases where other springs are in the first place desirable, but where a supplementary course of ferruginous waters is necessary, Schwalbach is recommended, and it is often used as an after-cure for patients who have been to Nauheim, Kreuznach, Ems, Schlangenbad, Wiesbaden, and other places. The season is from May to October, and visitors find good hotels.

PREVENTION OF CONSUMPTION.

BRISTOL.

THE annual meeting of the Gloucestershire, Somerset, and Wiltshire branch of the National Association for the Prevention of Consumption was held in the Council Chamber in Bristol on May 13th. Sir John Dickson Poynder, M.P., presided, and referred to the fact that at the last annual meeting it was decided to begin building the sanatorium at Winsley, near Freshford, and to erect sufficient accommodation for 24 patients and the necessary staff. During the year the funds that had come in had allowed the Executive Committee to extend the work so as to receive an additional 34 patients. The report, read by Dr. Lionel A. Weatherly, stated that the sum of £16,660 had been collected or promised, out of which £8,750 was for 35 beds, with a promise of £2,275 per annum to maintain them. This showed a great increase on the figures given at the last annual meeting, when it was announced that £9,762 had been promised, his including £3,250 for 13 beds and £845 per annum for maintenance. This increase was largely due to the action of the Bristol City Council, who had asked for 16 more beds. The Committee, recognizing that the chief principle of the scheme was self-help and that so many towns in the three counties had not applied for beds at all, considered they were justified in acceding to the City Council's request. Two rural district councils had applied for beds—the first of such councils, it was believed, that had applied in the country—and this application had been sanctioned by the Local Government Board after due inquiry. According to the original scheme, only 5 beds now remained for private or public bodies to build and maintain. The Committee had felt justified when the Bristol City Council applied for the additional 16 beds and contributed £4,000 to extend the work of construction to the full number of 60 beds. Several matters, namely, additional heating, difficulties over foundations, etc., had increased the expense of erection, and certain difficulties had arisen over drainage, but this latter was now being considered. It was not thought advisable to open the sanatorium for patients before November, when the whole building would be complete. During the summer a fête will be held in aid of the funds at the Clifton Zoological Gardens. The report gave details of the expenditure up to date, and stated that an additional £6,256 were still required. Dr. Weatherly, in a few explanatory remarks, said that the Rural District Councils were allowed to borrow the sum available for beds, the amount to be paid back within a period of ten years, while the £65 paid for maintenance would be a saving in the rates. The additional heating apparatus had cost £1,000, but it was the experience of those conducting similar institutions that at least double the apparatus was required to that needed in other places. The meeting concluded with the appointment of a Board of Management and the usual vote of thanks.

YORK.

The third report of the York Branch of the National Association for the Prevention of Consumption deals with the work done during 1902 and 1903. The report commences with an account of the second annual meeting in February, 1902, and refers to the meetings of the council during that year and to lectures given under the auspices of the Branch during 1902 and 1903. It would seem, therefore, that no general meeting has been held and no report issued for two years. The twelve months from September, 1902, to September, 1903, was marked by the practical trial, on a small scale, of the scheme announced at the last meeting for treating York cases of consumption at the Gateforth Sanatorium. Two beds have been retained in the sanatorium, and in these 8 cases have been accommodated during the year—4 slight and 4 more advanced. Of these, the slight cases have been apparently cured, whilst the more advanced cases have extended since

leaving the sanatorium. Much of the report is taken up with a copy of a leaflet on "The Evil Habit of Spitting," an extract from the report of the medical officer of health for the city, and reprints from the *Yorkshire Herald* giving abstracts of two lectures delivered under the auspices of the Branch. The York Branch of the National Association is undoubtedly doing good work, though the report of the Council hardly shows this to advantage.

Nottinghamshire.

The Nottingham and Nottinghamshire Association for the Prevention of Consumption has issued its fourth annual report dealing with the year 1903. The main interest in the year's work centres round the Sherwood Forest Sanatorium, founded by the Association, which has been enlarged and now provides accommodation for 26 patients. The Committee make a similar complaint to that coming from other institutions as to the class of cases sent for treatment. In spite of the expressed opinion of the "imperative necessity of early treatment" of cases of consumption, something like three-fourths of the applicants for admission only came before the consulting physicians when their malady had already reached a hopeless stage.

The medical report of the sanatorium shows that 93 patients have been admitted to the institution during the year, of which 24 remained under treatment at the end of 1903. Of the 69 patients discharged, in 17 cases the disease was arrested, 19 cases were much improved, 19 improved, 4 stationary, and 10 worse. The average stay in the sanatorium was about four months. Not quite half of the patients were early cases.

An interesting note as an appendix to this report states that out of 42 patients who left the sanatorium before the end of 1902 it has been ascertained that 16 are well and at work, 5 are fairly well but not at work, 5 are worse, and 16 are dead. Experience has proved that the site at Ratcher Hill is admirably suited for a sanatorium, and the building continues to give satisfaction.

Canada.

A deputation from the Association for the Prevention of Tuberculosis waited on the Prime Minister, Sir Wilfrid Laurier, at Ottawa, in the early part of the present month, and asked for the establishment of a sanatorium for the treatment of consumptive patients in each of the provinces of the Dominion. It was pointed out to the Premier that there are annually 8,000 deaths in the Dominion from this disease. The Prime Minister replied that the British North America Act provided for provincial jurisdiction over hospitals, but he would consult with the Minister of Justice to see whether a point might not be stretched in this particular instance so as to provide for the Dominion aiding such institutions.

Natal.

The prevention of consumption in South Africa is a problem of increasing urgency and importance, and there is evidence of a desire to lose no time in commencing the attack both in Cape Colony and in Natal. At the Durban Town Hall a meeting was held on March 4th, under the auspices of the local branch of the National Association for the Prevention of Consumption and other forms of Tuberculosis, at which a lecture was given by Dr. Jaspar Anderson, Medical Officer of Health for Capetown. A large and representative assembly attended to hear the lecture, which was illustrated by lantern slides. Dr. Anderson explained at some length and in simple language the nature of consumption and the manner in which it spreads through a community, and showed in what ways preventive measures may be usefully employed. Incidentally Dr. Anderson pointed out that there is reason to suppose that consumption is on the increase in South Africa, especially amongst the coloured population. The immigration of consumptives into the colonies in the past has much to do with the prevalence of the disease now, and this immigration is still going on. It is proposed to amalgamate the Durban and Pietermaritzburg branches of the National Association into a Natal branch, thus constituting a powerful organization for the whole country.

United States.

Illinois.—An order has recently been issued by the Chicago City Council ordering the police to arrest all spitters in public places. More than three years ago an ordinance was passed prohibiting spitting on the floors of public conveyances or public buildings. It is still theoretically in force, but is practically a dead letter.

Pennsylvania.—The Philadelphia County Medical Society has voted against the compulsory registration of tuberculosis as a contagious disease. By rules recently made by the Altoona Board of Health, Pennsylvania, barbers are no longer permitted to shave consumptives in the communicable stage of the disease. The Philadelphia Bureau of Health, as a part of its crusade against tuberculosis, has undertaken to disinfect all unoccupied houses on the request of intending tenants. The work will be carried out at the expense of the city, provided the tenant will agree to clean the building thoroughly before taking possession. By this means it is hoped one not infrequent cause of the spread of the disease, especially among the poor, will be removed.

Ohio.—The Ohio House of Representatives passed a Bill providing for a Commission to select and purchase a site and erect a State sanatorium for the care of incipient pulmonary tuberculosis. The Bill carries an appropriation for the purchase of a site. The hospital will cost about £35,000 more. About 1,000 persons will be treated per year.

THE HOLMAN TESTIMONIAL FUND.

The Treasurer of this Fund acknowledges the following further subscriptions:

	£	s.	d.
Fred. Taylor, M.D.	3	3	0
Mr. J. W. Lowder Cooper (Old Epsomian)	0	10	6
Mr. A. B. McCarthy, M.B. (Old Epsomian)	0	10	6
Mr. Harold Lawton, (Old Epsomian)	1	1	0
Mr. H. Martin Francis, (Old Epsomian)	0	10	6
Mr. Percival E. Francis, (Old Epsomian)	0	10	6
Mr. Geo. Stawell (Old Epsomian)	1	1	0
C. M. Chadwick M.A., M.D. (Old Epsomian)	1	1	0
Mr. G. H. Makins, C.B. ...	2	2	0
Mr. Stamford Felce	1	1	0
Balance of Council's Testimonial to Dr. Holman (1903) per Mr. Stamford Felce	6	9	0
Mr. A. Kelsey	2	2	0
Alfred Hillier, B.A. (Cape), M.D., M S.	1	1	0

Further subscriptions will be received by Dr. John H. Galton, Chunam, Sylvan Road, Norwood. S.E.; or by Mr. W. A. Berridge, Oakfield, Redhill, and a further list will be published in a month. The amount at present subscribed is £353 3s. 6d.

LITERARY NOTES.

Mr. John Murray has published this week a work on *Physical Deterioration* by Mrs. Watt-Smyth. The book discusses within a moderate compass and from an independent point of view problems which are now much exercising the public mind. It traces the steady trend of the population of the country into towns, and discusses the conditions of town life inimical to the healthy development of children. The defects in the methods of education in public elementary schools are criticized, systems of physical education in use in this and other countries are described, and the importance of medical inspection of school children insisted on. Various remedies for the evil influences shown to exist are suggested, and the inducements which may serve to retain the country population on the land described. The book appears at an opportune moment, and will be found to contain much of great interest in the medical profession.

Do we often think of the heavy toll we pay to India by giving up to it so many of the brightest and best intellects in each generation, whence those who do not fall victims to the climate retire too often to the obscurity of Bath or Cheltenham with the C.I.E. and a pension? It is therefore all the more pleasing to welcome such a book as Colonel D. D. Cunningham's *Some Indian Friends and Acquaintances*, which is one of the most delightful works about Indian birds and beasts that has ever been written. In a country like India, where boys are not given to birds-nesting, and the instinct to destroy life has been checked by thousands of years of religious insistence upon its sanctity, birds and beasts are less shy than they are with us, and therefore lend themselves more readily to observation. Taking advantage of these opportunities, the author amused himself by keeping a journal wherein he noted the ways and habits of various animals, and he has used these observations to enliven his description of the commoner forms of animal life in India. Nothing could be more simple than the subject matter, but the stories of bird and beast life are told with great literary charm and considerable sense of humour, so as to be most delightful reading. We should like to place a copy in the hands of every young officer going to India, as from it he may learn many things which will make him wise with a wisdom not otherwise quickly acquired, and perchance he may gain some

of the author's sympathetic interest in the animal life about him that will go far to alleviate the tedium which modern writers insist upon with undue emphasis as oppressing the exile in India.

Messrs. Baillière, Tindall and Cox announce for publication this week a translation by Dr. Thomas Johnstone of Professor Kraepelin's *Clinical Psychiatry:* a new work on *Organic Nervous Diseases* by Professor M. Allen Starr, which will contain 26 coloured plates, besides 275 drawings in black; and a second edition, revised and enlarged, of Dr. Baruch's *Principles and Practice of Hydrotherapy*. The same firm have also nearly ready for publication the ninth edition of Dr. H. Macnaughton-Jones's manual on *Diseases of Women*. The book, which has been entirely re-written, will contain new plates, and will be issued in two volumes instead of one in the popular "University Series."

It is announced that Messrs. Routledge are about to publish a book entitled *Confessions of a Fashionable Physician*. The author is described as "a London doctor," and the purpose of the book is, we gather, to furnish an answer to the question, Is the public at large supplied with a satisfactory medical guardianship, and if not, who is at fault, the doctors or the public?

In his recently-published *Autobiography* Herbert Spencer records that at the age of 30 he "turned vegetarian." He described the first effects of his new dietary as follows in a letter to his mother dated May 6th, 1850:

> As I have felt no inconvenience during these first few weeks I do not suppose I shall now do so. I think I have felt the cold more keenly than I should otherwise have done, and I find others who are trying the experiment make the same complaint. I believe, however, that this result is merely temporary. Meantime, I am in all respects well and strong.

He states that from the phrasing of these statements it is clear that he was willing to persist in vegetarianism had he been encouraged to do so by further results. His scepticism was first aroused, however, by the fact that after six months' abstinence from animal food the friend whose example he had followed in the adoption of a Pythagorean diet gave evidence of a lowered condition. His voice became extremely mild and feeble, and he had partially lost power over one of his feet in walking. Writing again towards the end of May, Spencer says:

> I have about decided to give up the vegetarianism, at any rate for the present. I think this relaxation under the eyes is due to it.

He adds that the clearest evidence that he had been suffering from the diet was disclosed afterwards. He found that he had to rewrite what he had written during the time he was a vegetarian, because it was so wanting in vigour.

The late Miss Frances Power Cobbe was a professional philanthropist as well as a philozoist, but her excessive love of animals seems to have caused a certain degree of atrophy in her feeling for her own kind, at least in one direction. This is amusingly illustrated in the following passage which we find in vol. ii, p. 247, of Sir Mount Stuart Grant Duff's recently-issued *Notes from a Diary, 1892-1895:*

> We spoke of Miss Cobbe, and Paul [the late C. Kegan Paul] said: "I got into frightful trouble with her once, in the most innocent way. I used the expression, 'the lower animals.' 'Lower animals!' she said, 'I acknowledge no such distinction—unless indeed you refer to married men.'"

A correspondent of the *Westminster Gazette* reports a good thing said by Charles Darwin, which he heard from Huxley some twenty years ago. At that time the late Mr. R. H. Hutton, of the *Spectator*, had taken up the cudgels rather warmly against vivisection. "Who is this Mr. Hutton?" said Darwin; "he seems to be a kind of *female Miss Cobbe*." Professor Huxley described it as the most beautiful double-barrelled "score" he ever remembered.

The following is a translation of a circular which was addressed to all the leading journals of Paris by the Prefect of Police in February, 1803:

> The Councillor of State, Prefect of Police, to the Editors of journals: Citizens, I observe every day more and more that persons who have no legal right to practise medicine and pharmacy cause to be advertised in the journals remedies and preparations as to the efficacy of which there is no guarantee. Inasmuch as the health of citizens may be injured by the use of those remedies, I recommend you henceforth to insert no advertisement thereof in your journal unless they have received my approbation. I rely upon your strict compliance with this measure. With compliments,
>
> Le Councillor of State, Prefect
>
> Dubois.

Although this edict does not seem to have produced any lasting effect, it is interesting to note that there were public authorities in France enlightened enough to take such a step a hundred years ago. The root of all quackery is advertisement, and the evil can never be eradicated until newspapers come to see the immorality and disgrace of acting as decoy in the most heartless form of fraud.

MEDICAL NEWS.

A New Children's Crusade.—In San Antonio, Texas, a new force has been introduced in the warfare against the mosquito. Dr. Kohnke, the health officer of New Orleans, has met with great difficulties in his endeavours to "organize victory" against the baleful *Anopheles*, and this led him to conceive the idea of enlisting the aid of schoolboys in the work. He preached his new children's crusade at Laredo, San Antonio, Houston, and Galveston, and with the co-operation of the superintendent of the Board of Education of San Antonio, he enrolled a number of the school children in his antimosquito army. It is proposed to carry on the fight on the same plan in New Orleans. It is certainly a happy thought to utilize the natural destructive tendencies of schoolboys for the extermination of these pestilent insects.

Wholesale Abortionmongering in Florence.—Last summer a singular nest—it might almost be termed a limited liability company—of malefactors was discovered by the police in Florence. The discovery culminated in twenty-seven persons being tried at the assizes last week. Of these eight were licensed midwives, one a student-midwife, two chemists, one a chemist's assistant, three keepers of disorderly houses, and the rest apparently—for the cases were very properly heard *in camerâ*—girls and women upon whom abortion had been procured. In the result five midwives were convicted and sentenced to various terms of imprisonment varying from four years four months and fifteen days to three years eight months. The chemists got two years and eleven months, except one who was fined £12. The girls convicted were sentenced to ten months' imprisonment each. The midwives were also suspended for an indefinite term from the practice of their art. Of the procuresses, one was acquitted and two put back for trial under another form of indictment. One midwife and several girls were acquitted.

Society for Relief of Widows and Orphans of Medical Men.—The annual general meeting of the Society was held on May 18th at 11, Chandos Street, W., the President, Mr. Christopher Heath, being in the chair. From the report read by the Secretary it appeared that 12 new members had been elected during 1903, 4 had died, and 3 resigned, leaving 297 members at the end of the year. Two widows were elected and 3 had died; 53 were in receipt of grants on December 31st, 1903. Six orphans had been granted assistance, 1 had become ineligible, leaving 15 receiving grants. A sum of £3,308 10s. had been distributed during 1903. The expenses of the year had been £244,199. The receipts available for payments had been £3,302 1s. 10d., a deficit of £251 17s. 11d. on receipts and payments, owing to change of investments and half a year's interest only paid on the new stock. A small legacy of £25 had been received. A vote of thanks to the editors of the medical journals was passed unanimously. The following gentlemen were elected to fill the vacancies in the Court of Directors: Mr. A. W. Green, Mr. E. G. C. Snell, Mr. E. H. May, Dr. C. Godson, Mr. W. J. N. Bell, Dr. W. C. James, and Dr. Samuel West. A vote of thanks to the Chairman closed the proceedings.

The Birmingham Medical Benevolent Society.—The eighty-second annual meeting of the Medical Benevolent Society of Birmingham was held on May 19th at the Grand Hotel, Mr. M. A. Messiter, of Dudley, presiding. The annual report showed that the amount of funds invested was over £15,000 and that there was, in addition, a balance of £49 at the bank. The annual value of the grants varied from £20 to £40, and the sum expended in this way was £755. The directors regretted that owing to the large number of annuitants they were unable to give any donations at Christmas, as had been done in previous years. Eighteen annuitants were on the books at the commencement of last year, one of whom had died, and five new annuitants had been added to the list. The total number of benefit members of the Society at the end of the year was 414, which was a slight decrease on the previous year. The retiring president, Mr. M. A. Messiter, in proposing the adoption of the report, pointed out the great necessity of increasing the membership of the Society, in order that the directors might be able to meet all the cases of genuine distress that were brought before them. Dr. Malins was elected president for the ensuing year.

BRITISH MEDICAL ASSOCIATION.

bscriptions to the British Medical Association for he year 1904 are now due and should be forwarded y postal order or cheque to the amount of 25s. o the General Secretary, 429, Strand, London, W.C., r, in the case of Colonial members, to their Branch reasurer.

British Medical Journal.

SATURDAY, MAY 28TH, 1904.

FRIENDLY ADVERTISEMENT.

ood many people who pride themselves on their wledge of the world and of human nature fondly gine that they display their shrewdness by deriding the s and prescriptions of the medical profession which id its members to advertise. It is jealousy they say, ousy of an enterprising rival, a love of mystery and a re that medical knowledge should not be too widely ributed. They see no professional jealousy in the rule of Stock Exchange which forbids its members to advertise would be shocked if their family solicitor took to tout for clients by delivering circulars from door to door. by some obscure psychological process which we not attempt to explain they would apply a different dard to the profession of medicine. The British ical Association has been accused of attempting to olish "a new tyranny" because it has expressed the ion that medical men should be as reticent in this ect as stockbrokers, and should not enter into competi- with the lithographed circulars of the money-lenders, neatly-printed quarto epistles of the spirit dealers, or rimy card of the chimney sweep.

e have said again and again that medical men who ct themselves do not advertise, and the patient who nits his health and life to the care of an advertising itioner shows no wisdom, or shrewdness, or know- of the world, but rather folly, stupidity, and credulity. estrictive rules have been framed, or rather, they have n up by the operation of long experience through many ations, in the interest of the public quite as much as profession. The settled country of every profession rounded by a borderland inhabited by folk who live cket shops, and into this marsh land wander some bers of the regular profession who have found ncy and steady industry beyond their capabilities or ow in yielding results.

practice of advertising may take many forms, and e constantly consulted on points occasionally of some but more often of obvious simplicity. We can only r that anything which savours of an advertisement be avoided. It is, we are glad to admit, only in nstances that the advertisement to which attention led is of the barefaced kind in which successful sts and tea-dealers indulge. Even when the tisement partakes of this character inquiry usually an assurance that the publication was due to cious friends, and that the practitioner was not ly responsible. This was the explanation offered by loete Smith when charged last year before the al Medical Council with having systematically to attract practice and patients by means of ars, circular letters, and inspired articles in the lay press, the circulars and circular letters printing his name, and in some cases his address, and publishing his name as surgeon of an institution called the Free Hospital for Medical Treatment of Cancer by Electricity, which publicly advertised treatment of cancer by electricity.

It appeared that a lady had contributed to the *Pall Mall Gazette* in February, 1903, an article entitled "A Triumph of Electricity," in which the doctor who was interviewed "in a handsome house not a hundred miles from Hyde Park," is said to have informed the writer that "electricity is the elemental force that controls all nature for good or for ill," and added that the main fact to be brought before the public was that there had been and were a sufficient number of cases of different varieties of cancer cured, improved, or held in check to prove the efficacy of the new electrical treatment, and to induce certain persons pecuniarily uninterested to open a small hospital where patients suffering from inoperable or otherwise incurable cancer, and unable to afford treatment, could be taken in hand immediately free of charge. Subsequently this article was reprinted and issued with a covering letter signed by the lady. This letter asserted of the high-frequency current that "by the exceeding force and strength of its oscillations (120,000 per second, equal to 1,000 volts) it kills the germs of the disease, causing the fibres and feelers running to the cells to, so to speak, lose their hold or grip, thus preventing them from sucking up fresh nourishmen and generating new life." The letter went on to say very few private doctors had yet been able to go in for this treatment not only because the complete apparatus was enormously expensive but also because very few medical men were deep students of electricity. The writer added that one of the first and foremost of these few was Mr. E. Cloete Smith, whose address was given. Sir William Church, President of the Royal College of Physicians, wrote as Chairman of the Executive Committee of the Cancer Research Fund to the *Pall Mall Gazette*, pointing out that the article headed "A Triumph of Electricity" was calculated to mislead the public, and the reprinted article and circular letter were brought to the notice of the General Medical Council by the Medical Defence Union. Mr. E. Cloete Smith denied that he was responsible for the letters issued or had inspired the article, and the authoress also denied that the circular referred to Mr. Cloete Smith. The Council after deliberation appears to have accepted these statements, which were not made on oath, for it came to the conclusion that the facts alleged against Mr. Cloete Smith had not been proved to its satisfaction. One result of the inquiry, however, was, we understand, that the so-called hospital was shortly afterwards closed.

As will have been seen by a brief report published in the BRITISH MEDICAL JOURNAL of May 21st, Mr. Cloete Smith has since made a somewhat unfortunate appearance in the King's Bench Division. It appeared from the evidence given that a lady who had been for twelve years a patient of Mr. H. Huxley was operated upon about five years ago by Sir Victor Horsley. The operation was successful and the growth did not recur; but in September, 1902, the lady suffered from pneumonia. As convalescence was delayed she was advised to go to St. Leonards in February to undergo the open-air cure. The lady's husband, while in a state of great anxiety with regard to his wife's health, was shown by her sister the circular about the wonderful results of the high-frequency currents administered by Mr. Cloete Smith. The husband, apparently under pressure from his wife's family, had an

interview with Mr. Smith. The evidence was that at this interview high-frequency treatment was alone mentioned. The husband consulted Sir Victor Horsley and Mr. Huxley, who gave the opinion that while it could probably do no good it was probably equally powerless to do harm. Shortly afterwards Mr. Cloete Smith visited the patient at St. Leonards and arranged for apparatus for administering not only the high-frequency current but also *x* rays, which he alleged he had mentioned to the husband at the interview; this treatment was carried out by an electrician of St. Leonards. At the patient's instance the high-frequency current was given up after a short time and *x* rays persisted in. Though the patient lost weight she was said to have improved generally under the treatment, but eventually developed severe *x*-ray dermatitis, which proved intractable under treatment. The husband, when he realized the very extensive injury which had been inflicted upon his wife by the *x*-ray burns, assaulted Mr. Cloete Smith, and for this assault the jury gave damages to the amount of forty shillings, but upon the main issue they not only declined to find that Mr. Cloete Smith was entitled to his fees, but gave damages against him to the amount of £100. They awarded these damages because they found that Mr. Cloete Smith's treatment was improper, negligent, and unskilful. This finding of the jury, after a patient hearing extending over four days, is in somewhat striking contrast to the adulatory phrases contained in the article and circular letter in praise of the treatment administered at the Free Hospital for the Medical Treatment of Cancer by Electricity, to which Mr. Cloete Smith was, we believe, the sole medical officer. The exact nature of the illness from which the patient was suffering when she was treated by Mr. Cloete Smith at first with high-frequency current and *x* rays combined, and afterwards with *x* rays alone, was not disclosed during the hearing of the action, but apparently it was not cancer but some general condition of debility due to, or associated with, pulmonary disease.

Now, whatever the excellence of the effects produced by the *x* rays in the treatment of external affections, such as rodent ulcer, they are not credited by those who have given special study to the subject with any noteworthy influence on diseases of internal organs or on general debility. Nevertheless Mr. Cloete Smith treated this patient for six or seven weeks by the repeated application of the *x* rays, which, according to the article in the *Pall Mall Gazette* on his triumph of electricity, have this disadvantage that they "excoriate and injure the sound skin." Unfortunately in this instance they did produce severe dermatitis, and a jury has found that the treatment was improper, negligent, and unsilkful, so that the administrator was not only disentitled to a fee, but liable for damages. In this case, then, the result of accepting the preposterous claims put forward in the advertisement was that the patient was not subjected to the treatment there advocated, which might have done no harm, but to other treatment which was clearly mischievous. On the whole, therefore, it would seem that it would have been better for this patient had the advertisement never been published, and better also for Mr. Cloete Smith, who was brought into relation with the patient by the advertisement which he told the General Medical Council did not refer to him, but which he admitted in the High Court, through his counsel, applied to him and his treatment of cancer with high-frequency currents.

DEMENTIA PRAECOX AND SIMULATION.

THERE are few problems in practical medicine so in-r-ently difficult to determine as that of estimating ne accountability of any malefactor for his actions. n important cases, where expert opinion is procurable, ne risk of punishing an irresponsible individual is reduced o a minimum, but it is to be feared that in a certain num-er of the large class of mentally-deranged delinquents, ci-l and military, various punitive measures—dietary pun-ments, close confinement, and even flogging—have b-n repeatedly and uselessly resorted to before their tu-e mental state has been understood. That this number i-n all probability small we are glad to believe, but ne bare possibility of such an occurrence is eno-h to make the most careful scrutiny of all qus-tionable cases by specially-qualified men a necessy. That such cases should occur is from the very natur-of things inevitable, and it must lie within the experience-of many an alienist to have had under treatment individus, drawn mainly from the lower strata of society, who h-e been frequently punished for civil or military offences-r which, viewed in the light of their subsequent develo-ment, they should not have been held responsible. Sc-e cases of epilepsy, in which the attack takes the form c-a merely momentary loss of consciousness, are extrem-y difficult to recognize, but may be followed, as Hughli-s Jackson and many others have pointed out, by a pt-epileptic vesania lasting it may be several days, in wh-h criminal acts may be perpetrated. In confinement, t-, for what reason we do not know, paranoia and high-gr-e inbecility approaching the normal, and not easily rec-nizable as such, appear to become accentuated and obsc-e the diagnosis; and further, there appear to be crimi-l lunatics, as Rüdin[1] has recently shown, who are extrem-y difficult to place within the usual categories. A manif-t complication, of course, is due to the fact that whilst-n ordinary life it is rarely advantageous to feign insanity, -n prison successful simulation may be the means of evad-g punishment.

The danger therefore of treating as a malingerer -e subject of one of the obscurer psychoses is obvious, a-d indeed at times unavoidable. These points are treated -t considerable length in an important publication on -e psychoses of military prisoners by Professor Schultze, -f Bonn.[2] He was struck by the disproportion between -e large number of military prisoners who were sent into -s asylum for treatment and the number of lunatics giv-n in the statistics for the State of Prussia as occurring -n military hospitals and prisons, and on communicating -s views to the Society of Alienists of the Rhine Province w-s induced to publish the result of his investigations.

Certainly the most interesting part of this book, whi-h in addition treats of imbecility, hysteria, and the psychoses Kraepelin terms maniacal-depressive insaniti-, is that dealing with dementia praecox and its differenti-tion from simulation. This disease, dementia praec-, about which there has been the liveliest discussion f- some time, is almost as protean in its forms as hyster- and includes, according to Kraepelin and many Continen-l authorities, hebephrenia, catatonia (*Spannungs-Irresein* Kahlbaum) and paranoid dementia. There is, says Pr-fessor Schultze, scarcely a psychosis which gives so ma-

[1] E. Rüdin, Eine Form akuten halluzinatorischen Verfolgungswahns, der Haft, etc. *Allg. Ztschr. f. Psychiat.* (Bd xvi. Heft 6.) 1903.

[2] *Ueber Psychosen bei Militärgefangenen nebst Reformsvorschlägen* (T- Psychoses of Military Prisoners with some Suggestions towards Refor- Professor Ernst Schultze. Jena: Gustav Fischer. 1904. Pp. 276.

rent clinical forms, which are only united in their final inevitable dementia. It is a markedly chronic process, which the onset may be so mild that it remains long unnoticed as a morbid condition. The patient complain of pains in the head and back and be ed as a neurasthenic; by his associates and riors he may be considered a dissembler, lazy, lent, spiteful and obscene, and as a soldier unished many times for disobedience, negligence in ce, mutiny, and desertion. During some imprison- t, suddenly and with no history of antecedent mental tion, he may become either stuporose or wildly excited. n placed under medical observation he may exhibit most extraordinarily contradictory phenomena. He lie in bed absolutely apathetic and indifferent to his undings, deaf to all questions, apparently insensitive n-pricks, and refuse all food, and yet secretly steal a y inmate's food and show by his subsequent behaviour he has a complete appreciation of his surroundings. l simple questions, his answers—if he answers —are often irrelevant and ludicrously incorrect, and here may be well-grounded reasons for the belief he correct answer was on the tip of his tongue. He ppear intellectually well endowed, and at the same here may be for him no antic too absurd, no con- oo bestial. Objective signs are frequently entirely ng, with the possible exception of persistent ptyalism. ve no intention here of giving a complete clinical e of any form of dementia praecox, and have merely ed from Professor Schultze's book a few points to ate the difficulty of diagnosis at times encountered, demonstrate the urgent necessity of a special train- mental diseases for all medical men who may be ly required to decide the question of an offender's sibility and fitness for punishment.

conditions of military service in the German and itish armies are so different that the recommenda- of Professor Schultze—amongst others a two-years' g in mental diseases for all army medical men— e inapplicable in this country, but we hold it tly desirable that there should be an investigation mental history and character of all recruits and ates for the army, a period of mental observation persistently refractory soldiers, and adequate pro- or the employment of mental experts in all doubtful

THE GOVERNMENT LUNACY BILL.

resting debate was raised in the House of Commons ohn Batty Tuke on the vote for the expenses of the Commission. A brief summary of the discussion en in the BRITISH MEDICAL JOURNAL of May 21st, and a full report will be found at page 1279 issue. Among the several points discussed John Tuke in supporting his demand for a ommittee to inquire into the whole subject of the most important was the treatment of incipient able insanity. He maintained that there was not vision in England for dealing with cases of this ion in the pre-asylum stage, and he drew a between the practice of Scotland and England, n favour of the former. The Attorney-General neat retort. He said that the Government had ed a Lunacy Bill containing the very machinery y for bringing English procedure up to the level ish perfection; but the House of Commons had more than once neglected to pass that Bill. However, the Government has promptly given the House an early opportunity of remedying the defect by producing a short Bill, the text of which will be found in the SUPPLEMENT.

Beyond containing a few provisions of minor interest, the Bill deals only with the foregoing subject and with one other matter of importance. The clause which relaxes the present law in favour of the less formal regulation of early mental disease is the one which has appeared in the Lunacy Bill in several sessions. It was in the first instance suggested to the Lord Chancellor by the Joint Committee of the British Medical and Medico-Psychological Associations. It enacts that if a medical practitioner certifies that a person is suffering from mental disease, but that the disease is not confirmed, and that it is expedient, with a view to his recovery, that he be placed under the care of a person whose name and address are stated in the certificate for a period therein stated, not exceeding six months, then during that period no offence under the Lunacy Act shall be created by the patient's reception, as would be the case now, and until this clause becomes law. Regulations follow for ensuring the due notification to the Commissioners of the reception, discharge, or death of the patient. It further provides that after the lapse of the six months specified in the certificate no fresh certificate of the same nature shall be granted for the patient until the expiration of two years therefrom.

As will be seen by the interesting letter from Professor Clifford Allbutt printed in another column, the principle embodied in the clause does not command absolutely unanimous support, but it has, we believe, received the general approval of the majority of those concerned, whether authorities or lunacy practitioners, or those practitioners who are habitually consulted about early cases. The reference to the need for such provision made during the debate raised by Sir John Batty Tuke in the House of Commons appears to have been favourably received, and it is hard to resist the evidence of success in the sister kingdom.

The other important provision (Clause 3) aims at affording protection to those who often need it, and can find none at present in any department of lunacy practice. It should have a far-reaching and beneficial effect. It is probably not generally known to the public that, though the Court of Chancery may have control over the property of a minor of feeble intellect, it must resign that control on the owner arriving at majority if there be no sufficient ground for certificates of insanity. It is the want of that continued control which leads to the dissipation of fortunes or the snapping-up of feeble heiresses by adventurers. The section of the Lunacy Act which it is proposed to extend to such cases gives the Court full powers for the administration and management of the estates of the insane. This proposal, also, should speedily find its way into actual law with general acceptance.

Though the passing of this short Bill will gratify those who are interested in the welfare of the insane, it must not be forgotten that it embodies an instalment only of those suggestions which have for some time past been pressed on the authorities by experts. The law will without doubt be beneficially relaxed by the contemplated legislation, but it should be made possible for a weak-minded person to reside with a friend or other person voluntarily without having to undergo certification, for which, in many cases, there is no justification;

yet such residence is a breach of the law if the head of the house receives a penny towards the expenses of the household. The law as it now stands is so inconveniently harsh that if Miss Betsy Trotwood received the smallest possible remuneration for Mr. Dick's board, she would be liable to prosecution for a misdemeanour in harbouring him unless he had been certified by two medical men to be fit for detention and treatment as a person of unsound mind. Could Mr. Dick have been certified in these terms? The expression "lunatic" should also be caused to disappear altogether as offensive and frequently harmful.

THE GENERAL MEDICAL COUNCIL

The General Medical Council assembled for the summer session on Wednesday last, when the President delivered an address, which is printed at page 1280. The second day of the Council was devoted to a consideration of cases which had been before the Penal Cases Committee, and the President was able to express the hope that the Council would find it possible to deal with all the cases on a single day, leaving it free to proceed to the more general business, which, as will be seen from his address, will probably consist mainly of the reception and discussion of the reports of the various Committees. The President announced that the Executive Committee had appointed Mr. Bryant—until recently the representative of the Royal College of Surgeons of England on the Council—to succeed the late Sir George Duffey as Inspector of Final Examinations. The manner in which this appointment was made led to some discussion, as the Council generally does not appear to have understood that the matter had been remitted to the Executive Committee. Sir Victor Horsley also expressed the opinion that it would have been wiser to have appointed a surgeon still actively engaged in teaching, but the selection of Mr. Bryant was defended on the ground that it was desirable to appoint some person possessing a knowledge of the resolutions of the Council as well as familiarity with the conduct of examinations. The appointment was approved, and after receiving the statistics annually furnished by the Directors of the Navy, Army, and Indian Medical Services, the Council spent the rest of the first day of the session in considering *in camerâ* certain questions with regard, as it would appear, to a proposed sale of its house in Oxford Street.

ST. BARTHOLOMEW'S HOSPITAL.

The authorities of St. Bartholomew's Hospital have just received the welcome announcement that the King will lay the foundation stone of the new buildings some time during the first week in July, the precise date to be fixed later. On the retirement of the King from the office of President the Governors decided to commemorate that illustrious Presidency, which had extended over a period of thirty-four years, by procuring, by subscription amongst themselves, a portrait of His Majesty. That portrait, with His Majesty's gracious permission, has now been painted by Mr. Luke Fildes, R.A. It is a replica of that artist's well-known picture exhibited in the Royal Academy in 1901, and has been placed in the Great Hall of the hospital.

WELSH MEDICAL DINNER.

The first Welsh medical dinner was held on May 25th at the Prince's Restaurant, Piccadilly, when Sir John Williams took the chair, and members and friends of the Welsh colony in London attended in full force, and many Welsh medical men from the provinces and the Principality itself were also present. After the usual loyal toasts had been duly honoured, Sir John Williams proposed the toast of "The Welsh Medical Profession." He commenced by congratulating the Honorary Secretaries, Mr. T. Beddoes and Mr. W. Lloyd, and those who with them had organized that union of Welsh medical men. He passed rapidly in review the societies of Welshmen that had been formed in London from time to time, and expressed the opinion that much might be expected in the future as a result of the gathering formed that night. The object of the movement was to form a bond of union between Welshmen in the metropolis and elsewhere, so that the scattered individuals should be gathered together into one coherent whole to exercise an influence on the prospects in life of the Welsh in England and more particularly in London. He advocated that in the future a Welsh club should be formed in London. This toast was responded to by Dr. Garrod Thomas, who was loudly cheered when he declared that the foundation of the University of Wales marked an era in the progress of the Principality. Already a movement was on foot to enable the University to give a degree in medicine. He urged that the University should direct the attention of those in the profession of architecture to improving the sanitary condition of the Welsh cottages and places of worship. Dr. Thomas roundly declared that the latter were monotonous in their ugliness and ugly in their monotony, and referred to the number of colds that had been caught in their comfortless and grey interiors. Mr. Robert Jones, of Liverpool, who also responded to the toast, said that the new University must have the power to grant degrees not only in arts, but also in medicine. Sir R. Douglas Powell proposed the toast of "The University of Wales." The University had already the power to grant degrees in arts and music, and he had no doubt that it would soon—perhaps next year—have the power to grant degrees in medicine. The claims of ladies were well cared for in the new University, and perhaps in time to come some gifted lady would hold the office of Vice-Chancellor. Sir Isambard Owen, Deputy Chancellor, who responded, detailed the difficulties experienced two years ago in procuring from Parliament the charter for the new University. Ten years ago there was reason to apprehend that if application had been made for the power of giving degrees in medicine much opposition would have been excited, and at that time even a little extra opposition would have been fatal to the chance of the charter getting through Parliament, and as a matter of fact it only got through by the skin of its teeth. It was now proposed at the first convenient time, which he hoped would be in a few months, to fill up the gap left ten years ago, and to apply for the powers omitted from the original charter to give degrees in medicine and surgery. It was high time to do this; the power was needed because in the interest of the University of Wales it was necessary to retain the capable medical students educated there. He did not see why these students should not be granted degrees in medicine and surgery in the University of Wales. Mr. Edmund Owen, in a racy speech proposed the toast of "The Guests," which was replied to by Mr. J. Tweedy and Mr. W. Gorcombe John, A.R.A. Dr. F. T. Roberts was received with much applause on rising to propose the health of "The Chairman," which he did in a charming speech. Sir John Williams, in acknowledging the toast, was evidently touched by the warmth of the reception accorded to him by his compatriots. The evening concluded by the singing of the Welsh National Anthem.

RADIUM AND RADIO-ACTIVITY.

On May 20th Professor Rutherford, Professor of Physics in the McGill College, Montreal, whose researches on radium were described in our columns last July by his former assistant, Mr. Soddy, gave an evening lecture at the Royal Institution on radio-activity. He devoted the earlier part of his lecture to a discussion of radium, describing the properties of the alpha, beta, and gamma rays, and the effects produced upon them when brought within a magnetic field. He illustrated by experiments the power of radium to excite phosphorescence, and to discharge a charged electroscope, and then discussed the emanation given off, which behaves like a gas and could be condensed by cold. Though exceedingly minute in quantity, it possessed all the properties and most of the characteristi

wer of radium. If it were possible to collect a cubic
ch of it, the tube in which it was contained would
obably be melted, while a few pounds would supply
ough energy to drive a ship across the Atlantic,
ough seventy pounds of radium would be required
r each pound of emanation. He advanced the theory
at radium was continuously producing the emanation,
nich was itself continuously being changed into some-
ing else. This was due not to atomic but to molecular
anges, the immediate result being the formation of a
ies of transition elements, and Sir William Ramsay had
own that it was able to produce helium. The mass of
lium was therefore constantly wasting itself away, and
obably in about 2,000 years its radio-activity would fall to
-half, and after some 50,000 years it would cease to
st. As, however, radium was produced from minerals
ich must be assumed to be more than 50,000 years old,
nust itself be produced from something else, and was
s a transition element. Radium was very widely distri-
ed, in fact it was present everywhere, though in exceed-
ly minute quantities. The question as to the amount
heat these minute quantities of radium were able to
vide then arose, and gave grounds for the further ques-
n whether the gradual increase of temperature found in
deeper strata of the earth could thus be accounted for.
believed that the amount of radium present, if uni-
nly distributed, would be sufficient to account for all
heat lost from the earth, and would explain the tem-
ature gradient as measured to-day. Lord Kelvin had
ulated that the earth, allowing for the rate at which a
te-hot globe would cool, could not be 100,000,000 years
and was probably not more than 20,000,000 years old.
s period was not enough to satisfy the geologists, and
l Kelvin in making public his calculation had qualified
estimate of the earth's age by using the phrase "unless
e new source of energy were discovered." Lord Kelvin
thus shown his foresight, and Professor Rutherford
ved that in radium the new source had been found.
theatre of the Royal Institution was crowded, and
essor Rutherford was much applauded.

CANCER RESEARCH AT THE MIDDLESEX HOSPITAL.

second report[1] of the Cancer Research Laboratories
ne Middlesex Hospital is edited by Mr. A. G. R.
erton, who until recently was Director of Research un-
the Cancer Investigation Committee. It contains
s by workers in the laboratories and tables relating
ses of malignant disease admitted during the years
02. There is also a paper by Professor Pearson, of
ersity College, London, dealing critically with sta-
s supplied to him from the hospital. It is stated that
e alleged discoveries of a causative parasite of malig-
disease have been carefully considered and fully tested
periment, and that of the several claims not one has
red to present such an element of inherent proba-
as to demand detailed notice in the report. There
nsequently no account given of the nature, extent,
esults of these negative researches, an omission
appears to us to be a matter for regret as they
undoubtedly have been useful to others engaged in
research. The subject of the first paper is the Pan-
in Cases of Carcinoma, by Mr. W. T. Hillier and
Strickland. After giving an account of the structure
normal pancreas, primary carcinoma is then con-
d, though the disease, as a rule, runs a rapid course,
many cases is preceded by symptoms that suggest
orm of chronic local irritation which may be etio-
ly related to it. The symptoms are accounted for
by the position of the growth and its physical effects
y any physiological action on the part of the neo-
A rare type of the disease arises in the islands of
hans; in the ordinary types these structures
a remarkable persistence, though they may
be completely surrounded by the disease. In malignant disease not affecting the pancreas, the organ exhibits no constant pathological change; secondary infection of the organ with carcinoma is not less common than the primary disease. Mr. J. W. Glenton Myler contributes a highly-interesting paper on some empirical methods in the treatment of inoperable cancer. The methods passed in review are oöphorectomy, thyroid extract, high-frequency currents, *x* rays, cancroin, violet leaves, marigold ointment, liquor ammon. fort., molasses, chian turpentine, and aniline chloride. With the exception of the first four these "cures" appeared to exercise no influence on the disease. Four cases of oöphorectomy for breast cancer are recorded and two for uterine cancer; the operation had no good effect at all on the latter, in the former slight but temporary improvement was noted. Thyroid extract alone or in conjunction with oöphorectomy produced no beneficial effect; high-frequency currents have not given the results anticipated, and the method will probably be abandoned; in the *x* rays, however, we have an agent capable of doing more for superficial cancer than any other hitherto known. The report on these various measures is followed by a section on the general management of inoperable cancer, full of valuable suggestions for the alleviation of symptons. The third paper is by Mr. W. T. Hillier and Mr. J. Tritsch on Heredity in Cancer, and is based on cases collected from the records of the hospital from 1856 to 1902. A historical review is given of opinions as to heredity in malignant disease, and as to its relationship to tuberculosis. Three thousand cases are tabulated, and the figures obtained are analysed by Professor Karl Pearson, F.R.S., with very interesting results. It would appear from these statistics that the age of modal incidence of cancer is rising in women and falling in men; that the age of cancer incidence is more variable in men than in women; that the disease is more likely to occur in childhood in the male than in the female, and is more common in very old women than very old men. Most important was the discovery that the figures pointed to the conclusion that cancer was largely free from any hereditary influence. With regard to tuberculosis, the conclusion drawn from the data was that there is little or no relation between the presence of cancer and a tuberculous family history, but that there is a relation between the presence of cancer and the presence of tuberculosis. A paper by Mr. Cecil R. C. Lyster gives some clinical histories illustrating the beneficial effect of the *x* rays on ulcerating carcinomata. The last paper is is by Mr. A. G. R. Foulerton on the treatment of carcinoma with subcutaneous injection of fresh extract of thymus and thyroid glands. In seven squamous-celled growths the results of the treatment were on the whole negative; on the other hand, in four out of seven cases of breast cancer an improvement was obtained, which suggests that further tests of the method should be undertaken. The appendix to the report consists of statistical tables of the cases admitted to the hospital during the period 1900-2; it is compiled by Mr. A. G. R. Foulerton and Mr. W. T. Hillier. The cases of carcinoma and of sarcoma are separately tabulated according to site, age, and sex; and the other tables show the frequency and site of secondary deposits corresponding to the various primary growths, and give outlines of the clinical course of each case.

[1] *ves of the Middlesex Hospital.* Vol. II. Second Report from the esearch Laboratories, Edited by Alexander G. R. Foulerton, London: Macmillian and Co. 1904. (Demy 8vo, pp. 239. 5s.)

WHEN IS A BANANA RIPE?

It is not infrequently asserted that as a nation we are not sufficiently appreciative of the value of fruit as a food, and that in consequence our ordinary diets are often defective in this respect. Some years back the grounds for this charge were greater than at the present time, for there can be no doubt that there has been a marked increase in the consumption of fruit by all classes. In proof of this we need only point to the now immense and still increasing use of the banana. Not long ago it was only occasionally seen on the tables of the well-to-do, but now it is universally sold on the humblest barrows and stalls, and forms a not inconsiderable item in the diet of the poor. In spite

of vast additional quantities of the fruit having been imported during the last three years from places as far off as the West Indies and Costa Rica, the supply in no way meets the demand. Added to its pleasant qualities to many as a fruit, it is credited, and no doubt correctly, with nutritional properties of a high order. Considering this, and the proportions to which the use of the fruit has attained, it is a matter of no small importance to settle not only when bananas are in the best condition for consumption, but also as to when they have passed the stage at which they are fit for human food. In their native countries they are seldom eaten before the skin is discoloured and the pulp of so soft a consistence that it can be scooped out with a spoon. Under the artificial conditions they are placed in these climes they undergo somewhat rapid changes, and the times at which they are best suited for consumption may be short and difficult to predict with any degree of precision. Authorities, however, claim that they are habitually eaten here before they have reached their most suitable stage. Before they are thoroughly matured, moreover, they are apt to be insipid in flavour, and to cause dyspepsia and other forms of intestinal disturbance. They should not be eaten before the skin is blackened in places, or when there is any reluctance in the skin to separate from the pulp. Housekeepers know how bananas will change in the course of a single night from a manifestly sound condition to one in which the skin is blackened and the pulp soft and slightly discoloured. Now, children infinitely prefer these last bananas to those that are apparently sounder, although their elders may hesitate to gratify their taste in this respect from a fear as to the wholesomeness of such fruit. Attacks of gastric or intestinal disturbance from the use of unsound bananas are far from common, and it may well be that in this instance the natural inclination of the child covers more wisdom than the caution of its elders; in fact, experts say that the banana, like the medlar, can hardly be in too ripe a condition for eating. With the rapid changes the fruit undergoes it is hardly surprising that cases of friction between the sanitary authorities and the vendors should be of frequent occurrence as regards the fitness, or not, of the fruit for sale or consumption. A case lately brought to our notice will serve as a type of numerous others that we are informed occur almost daily. Here, on the one side, the sanitary inspector and medical officer of health swore, honestly enough no doubt with present convictions, that certain bananas were unsound, decomposed, and unfit for consumption. On the other side, one of the firm of the largest importers gave expert evidence that the condemned bananas were perfectly sound and in the very primest condition for eating. In proof of the correctness of this opinion it may be pointed out that the condemnation of the sanitary authorities was restricted to only a few bananas in each bunch, whilst the rest were admittedly sound and wholesome. In the conflict of testimony the magistrate had no option but to convict and impose a small fine. It would seem to us that in many such cases the importers and retail dealers have a possible grievance, and their contention that sanitary inspectors require a more thorough knowledge of the different phases bananas undergo is a valid one. The general public, too, would seem to need convincing that at present they habitually eat their bananas in far too hard and immature a condition.

THE DEVON AND EXETER BENEVOLENT MEDICAL SOCIETY.

THIS Society was founded in 1806 for the benefit of the widows and orphans of medical men who have practised in the County of Devon and who have failed adequately to provide for their families. The annual subscription is small, and the benefits in proportion are large. There is no canvassing for votes necessary, all urgent cases being immediately relieved, until the next annual meeting, when their claims are considered and a yearly grant made, which is regulated by the available funds of the Society. At the annual meeting held at Plymouth on May 12th, under the presidency of Dr. E. B. Thomson, grants were made to four widows who applied for assistance. The honorary secretary is Mr. G. Fortescue Webb, of Moretonhampsted, Devon, who will give all information respecting this valuable Society. It is to be regretted that comparatively few medical men in the county think it worth their while to subscribe to this Society, which combines in a unique manner philanthropy and self-help. There is a considerable funded property (over £3,000), the interest of which, together with the subscriptions, is divided between the beneficiaries. Those who do not require the help offered have the satisfaction of assisting their more needy brethren. Those who require it, either for themselves or those they leave behind them, are assured of having made at a small cost to themselves some provision for a rainy day.

MINERS' ANAEMIA AND ANKYLOSTOMIASIS.

AT a recent meeting of the Academy of Medicine, Pas, M. A. Manouvriez contributed a very interesting paper upon the anaemia of miners and its possible cause. Anaemia in epidemic form occurred among the miners at Anzin in France as long ago as 1803-4, and from this date onwards to 1820 it was sometimes epidemic and at other times endemic. An acute abdominal type of the malady was mentioned, in which the onset was sudden, there were violent abdominal pains, dark stools, and oedema of the limbs. In the chronic abdominal form colic, with constipation, digestive derangements, and sallowness of the skin were prominent symptoms. Between 1872 and 1882 Manouvriez had experience of a form of miners' anaemia in which the skin was pale and transparent and there were headaches, syncope, dyspnœa, palpitation of the heart with functional murmurs, cold, pains in the limbs, drowsiness, and great muscular weakness. These symptoms might continue for years, and occasionally there were skin eruptions resembling urticaria or eczema. Thirty years ago miners' anaemia was fairly well distributed through the mining districts of France. Various causes were assigned to it, such as the elevated temperature found in the mines and the vitiation of the atmosphere by the gases given off from the coal. In 1880, during the tunnelling of the St. Gothard, Perroncito of Turin demonstrated that the anaemia of miners was due to a parasite—the ankylostoma duodenale. On Perroncito's recommendation, Lesage sought for and found the ova of the ankylostoma in the faeces of miners at Anzin. Miners may be infested by other parasites—for example, the anguillula intestinalis and the larva of the pseudo-rhabdis stercoralis; but usually there is very little difficulty in detecting the ova of the ankylostoma in the stools by mixing a small quantity of faeces with weak salt solution (1 in 100) and examining microscopically. While many of the symptoms are directly traceable to the presence of the worm in the intestine, some are probably the result of the toxins which it forms. The parasite effects an entrance into the body by the mouth and through the skin. Ankylostomiasis is prevalent among miners in Belgium, Germany, and Hungary; it also exists among the tile and brick makers in the neighbourhood of Cologne. It is an interesting fact that although negroes in South America may be the subjects of ankylostomiasis they do not suffer from anaemia, a circumstance to be explained either by an immunity to the toxins of the parasite or the supposition that the ankylostomes which infest them are less virulent than in the case of white men. The physical conditions in coal mines—a fairly high temperature and moisture—are such as favour the development and spread of ankylostomiasis. The presence of one infected workman, if he be careless in the disposal of his faeces in the mine, is sufficient to contaminate all the men who are working therein. By means of personal cleanliness on the part of the miners and the fulfilment of hygienic requirements in the mines by the proprietors, ankylostomiasis can be completely got rid of.

HOSPITALS IN NEW YORK.

THERE are, according to the *New York Medical Journal*, 100 hospitals in Greater New York, exclusive of nearly

ylums and homes maintained by public and private arity. These hospitals have a capacity for nearly 12,000 ds. Nevertheless, the provision for the care of the sick New York is inadequate at certain seasons of the ar. During the visitations of influenza that sweep over e city in the early spring every hospital, with the excep- n of those designed for special cases, is overcrowded. the hot weeks of the summer the capacity is taxed the utmost. Even now the city has but scanty provision the care of special cases. Patients suffering from irium or alcoholism and requiring isolation cannot find ·ommodation.

INFLUENZA IN THE HORSE.

. HENRY GRAY, M.R.C.V.S., has recently delivered an ress[1] on some of the phases of influenzal complaints of horse. The disease is attributed to a cocco-bacillus ich has been found experimentally to produce death in guinea-pig, rabbit, and horse by subcutaneous inocula- . It exhibits the following bacteriological charac- : It is decolorized by Gram's method of staining; it er forms streptococci when grown in liquid media, and s aërobic. It grows well upon gelatine, but neither lifies peptone broth, nor coagulates milk, nor ferments ose. The disease appears to be highly contagious, and y manifest itself clinically by the appearance of either monary, cardiac, renal, or intestinal symptoms, or it attack the central nervous system. Specific sera e been employed both for prophylactic purposes and liminish the severity of the disease after its onset.

USE OF CHLOROFORM IN THE PREPARATION OF VACCINE.

EAR ago[2] we commented upon a paper read before the al Society by Dr. Alan B. Green in which he described observations on the use of chloroform as an agent for elimination of the extraneous organisms of vaccine ph. By the use of a solution of chloroform in distilled r extraneous organisms were, as he showed, eliminated rom one to six hours, whilst the specific element ained fully potent for vaccination. Only the non-spore- ing bacteria were killed by the process; but, as the or pointed out, the spore-bearing organisms found in sands of vaccines in the Government lymph labora- s were non-pathogenic varieties. Lastly, vaccinations rmed with the lymph thus prepared had produced lent results. In a second communication on the sub- recently read before the Royal Society, Dr. Green s that his further experience is that the use of the hs, thus freed from non-spore-bearing extraneous ria, has resulted in high "case" and "insertion" ss. He has further investigated the effect of tempera- in the elimination of extraneous micro-organisms crude calf vaccine by the chloroform process by two of experiments, and finds that the temperature at the bacteria in question are killed most quickly, specific germ being left meanwhile in state ll activity, lies probably between 18° C. and . He has also experimented with several species of bacteria, which have never been found f lymph at the Government laboratories, and finds n every instance the bacteria of experiment were by exposure to the chloroform vapour and air, er the experiments were made by inoculation of emulsions or vaccine emulsions. Lastly, the keeping ties of chloroformed vaccines have been tested in s ways, and their use for vaccination has been ed with results showing high "case" and "inser- success. Moreover, it is demonstrated that "chloro- l calf vaccine, if originally of sufficiently high y, will, when prepared and stored under suitable ions, retain for a considerable time a high degree of y, and this notwithstanding that the extraneous sms had been rapidly eliminated from it in an early f its preparation.

[1] *Veterinary Record*, March 19th, 1904.
[2] BRITISH MEDICAL JOURNAL, May 23rd, 1903, p. 1125.

THE LONDON SCHOOL OF TROPICAL MEDICINE.

IT may be remembered that Sir Francis Lovell, C.M.G., Dean of the London School of Tropical Medicine, who, in the early part of last winter undertook an expedition to the tropics for the purpose of enlisting support on behalf of the school, was prevented by illness from carrying out his intention at the time appointed. We are pleased to be able to state that he is at present discharging his public-spirited mission. He left England on February 9th, and spent a few weeks in Burmah, where he succeeded in arousing interest in the aims of the school. He received very valuable assistance from Lieutenant-Colonel Dantra, M.D., I.M.S., now retired and practising in Rangoon, who has been appointed the local representative of the school. From Rangoon Sir Francis Lovell went on to Singapore, where he has been able to interest the Chinese in the object of his mission. His efforts have been greatly assisted by Mr. Barnes, the Protector of Chinese, and by Dr. Lim Boon Keng, who has been a Member of the Legislative Council of Singapore for several years and is also a prominent member of the medical profession. Two other members of the Council, the Honorable Seah Leang Seah and the Honorable Tian Jack Kim, were very helpful to Sir Francis Lovell in bringing the object of his mission to the notice of the Chinese in Singapore and inducing them to contribute to the funds of the school. Considering that it is only two years since a similar appeal was made to them their contributions must be regarded as generous. There is a strong feeling among the European merchants in Singapore that the school should be supported by the Home Government, and there is much to be said in favour of this contention. Sir Francis Lovell paid a visit to the Federated Malay States and to the Institute for Medical Research at Kuala Lumpur, of which Dr. Daniels is the Director, and with his help he succeeded in holding several meetings which were well attended by the various sections of the community. As a result of these meetings a substantial amount was contributed towards the school. During his stay at Singapore Sir Francis Lovell attended two meetings of the Malaya Branch of the British Medical Association, of which Dr. Kirk is President and Major Ritchie, R.A.M.C., Secretary. At one of these, held in March, he brought the work of the London School of Tropical Medicine before the Branch, and the members expressed themselves as being entirely in sympathy with the objects of the school and ready to assist in obtaining support. A committee of the Branch was appointed which will from time to time endeavour to obtain contributions for the school. Dr. McDowell, C.M.G., Principal Civil Medical Officer of the Straits Settlements, has been appointed local representative of the school in the Straits Settlements, and he will convene the meetings of the committee when necessary. It may be mentioned incidentally that the Malaya Branch is very active and flourishing; the attendance at the monthly meetings is large, and much useful scientific work is done. Sir Francis Lovell had intended to proceed to China, but as the present unsettled condition of affairs in the Far East renders the time unpropitious for appeals for scientific purposes, he will probably return to England early in June.

THE ROYAL MILITARY TOURNAMENT.

THE Royal Military Tournament, which opened at the Agricultural Hall on Thursday, promises to be at least as great a success as any of its predecessors. An entirely new feature, and one which will certainly prove most attractive to young and old alike, is pushball. This is a species of football played by horses under the guidance of their riders. The ball has the shape of that used at the Association game, but is some 6 ft. in diameter and weighty in proportion. The human players, three a side, ride without saddles and are not allowed to touch the ball, the whole of the work being done by the horses, who push the ball in front of them with their chests and fore legs or stop it with their haunches. It is really a most attractive and humorous exhibition alike of horse intelligence and horsemanship. Another excellent item of the daily programme

is a pageant in which the rise of the Royal Artillery is traced from the days of Crecy to the South African war. The ventilation of the hall and its annexes, which upon some previous occasions has not been beyond the reach of criticism, appears this year to be very good, a number of electric fans having been introduced into corners in which before air was liable to stagnate. The medical arrangements are, as they have been for several years past, under the care of Surgeon-Lieutenant-Colonel Crooke-Lawless, of the Coldstream Guards, whose experience enables him to judge exactly what is required for the due care of the 1,200 or more men who reside at the hall during the fortnight which the tournament lasts.

THE Harveian Festival of the Royal College of Physicians of London will be held this year on June 21st. Dr. Richard Caton of Liverpool will deliver the Harveian Oration on that day at 4 p.m.

IN addition to Mr. Eve, Mr. Bland-Sutton, and Mr. Gilbert Barling, whose names were mentioned in the BRITISH MEDICAL JOURNAL of May 21st, Mr. Bruce Clarke is also a candidate for one of the vacant seats on the Council of the Royal College of Surgeons of England. We may remind our readers that the election will take place on July 7th.

AT the meeting of the Royal Medical and Chirurgical Society on Tuesday next, at 8.30 p.m., Drs. Herringham and Wills will read a paper, to be followed by a discussion, on the elasticity of the aorta, being a contribution to the study of arterial sclerosis.

WE understand a Committee has been appointed by the Army Council to consider the whole subject of antityphoid inoculation. It consists of Dr. J. Galloway and Colonel David Bruce, F.R.S., of the Advisory Board for Army Medical Services; Dr. Bruce Low, of the Local Government Board; Dr. A. E. Wright, Pathologist to St. Mary's Hospital; Dr. Caiger, Medical Superintendent of the South-West Fever Hospital; Major W. B. Leishman, Professor of Pathology, R.A.M.College; Dr. C. J. Martin, Director of the Lister Institute (Chairman); Professor Macfadyen, Lister Institute; Dr. William Bulloch, Bacteriologist to the London Hospital. Lieutenant-Colonel B. M. Skinner, R.A.M.C., is the Secretary to the Committee. The Committee, which has already begun work, is to consider the question not with reference to any particular serum but from the broadest point of view.

MEDICAL NOTES IN PARLIAMENT.

[FROM OUR LOBBY CORRESPONDENT.]

The Adjournment for Whitsuntide.—The debate last Thursday week on the motion to adjourn for the Whitsuntide holidays brought out some topics of medical interest. Dr. Farquharson argued that the old plan of having a short sitting on Wednesdays was healthier and in many ways more convenient. The week end plan as now existing threw heavier work on members attending regularly in favour of those who wanted the longer break at the end of the week. He then congratulated the Attorney-General on the introduction of The Lunacy Acts Amendment Bill, which had been presented formally in the early part of the sitting of Wednesday and read a first time. He complained that there had been no opportunity under the mode in which the Bill was presented of having any explanation of its contents. He understood that its object was to assimilate the English law to the Scottish, and to enable patients to be treated in the early stages of disease, and so give them a better chance of cure. The Attorney-General was not only a distinguished lawyer, but a graduate in medicine of Edinburgh, and he was sorry that he had not an opportunity of explaining a Bill which would create a beneficent change in the cure and treatment of the insane. It was a noteworthy result of the debate of last week that the Bill had been presented so quickly. Mr. Balfour defended the rules under which the House did its business, and said that the criticism was founded on forgetfulness of the pinch of the old system. Later on in the debate, Sir E. Sassoon drew the attention of the President of the Local Government Board to the increasing and embarrassing difficulties confronting local authorities in their efforts to abate the nuisance caused by the growth of consumptive homes and so-called sanatoria in the midst of popular resorts and populous districts. They were, he asserted, unaccompanied by the checks and safeguards suggested by medical science. Local authorities had either to acquiesce or to undertake costly law proceedings, and he argued that as tuberculosis was a most infectious disease, the President of the Local Government Board ought to obtain further powers to deal with the evil or to instruct local authorities how to deal with it. Mr. Long replied that he must be satisfied that proofs were required before he undertook to ask for legislation. In the case of Sandgate in the honorary member's constituency he could not find any sufficient proofs. Only 45 deaths were there referred to consumption, and of these 43 were passed in the consumptive home. Consumption was no doubt highly infectious, but how could a district be protected by regulations? The home was not the cause of the offence, as the hospital was in the case of small-pox and cholera. The consumptive was more dangerous to the public when not confined in a home, because he was able to go about until quite late in the stage of the malady. Later on in the debate, Mr. Weir drew attention to the large number of deaths which were unregistered in the Highlands of Scotland, and the Lord Advocate replied that the people in the Highlands made no grievance of this matter. It would be a useless expenditure of public money to insist that every death should be certified by a doctor. Shortly after this the House adjourned.

Vivisection and the Royal College of Physicians.—Mr. asked the Secretary of State for the Home Department whether he had yet received the Report of the Committee appointed by the Royal College of Physicians to ascertain whether, in their judgement, experiments on living animals before classes were necessary for the education of medical students, and, if so, if he would state the nature of the opinion expressed.—Mr. Secretary Akers-Douglas answered that he presumed the honourable member referred to the special consideration which the Royal College of Physicians had given, as requested, to the question whether experiments on living animals (under anaesthetics) were necessary for the proper teaching of pharmacology. He had received the opinion of the College on this question, and it was to the effect that science could only be adequately taught with the aid of demonstrations which involved, in the case of physiology and pharmacology, experiments on living animals.

The Health of the Hampshire Regiment at Aden.—John Hutton asked the Secretary of State for War, whether he could state what had lately been the condition with regard to health of the 1st Battalion Hampshire Regiment at Aden; whether he was aware that many men had died of fever, and that on one occasion only one officer was fit for duty; why the battalion had been detained at Aden beyond its time for want of a transport; and, if so, whether he would explain the reasons why a transport had not sooner been found to bring them home. Mr. Secretary Arnold-Forster answered that there had been considerable sickness from malaria in the battalion due to service in the Aden hinterland, and that the latest returns of sickness at Aden, those for March, showed 7 admissions and 1 death; this was the only death so reported during 1904. Of the officers 5 were sick out of 9 in May. The battalion was primarily detained for military exigencies in the Aden hinterland, and subsequently the accident to the *Assaye* caused further delay; thot ship would bring the battalion home.

The Poor-law Officers' Superannuation (Scotland) Bill read a first time last week. It was presented by Mr. Ma and supported by Sir W. Arrol, Sir Lewis McIver, Dr. Farquharson, Mr. A. Cross, Colonel Denny, Mr. Ure, and Mr. Charles Renshaw. It seeks to extend to Scotland the provisions of the English Act of 1896.

Bills sent Down from the Lords.—The Weights and Measures (Metric System) Bill and the Bill intituled "An Act for the Better Prevention of Corruption" have both passed the Upper House and were sent down to the Commons before the Whitsuntide adjournment.

Scotland.

Lunacy in Scotland.

The Forty-sixth Annual Report of the General Board of Commissioners in Lunacy for Scotland contains 92 pages, in seven sections. There are 181 pages of appendices.

Present Number of the Insane.

At January 1st, 1904, there were in Scotland 16,894 insane persons of whom the Board had official cognizance, including inmates of training schools for imbecile children and of the lunatic department of the General Prison at Perth. Of these, 2,532 were maintained from private sources, 14,309 by parochial rates, and 53 at the expense of the State. This was an increase of 236 over the previous year.

Increase of Lunacy in Proportion to Population.

Since 1858 the number of lunatics under the jurisdiction of the Board had increased 190 per cent. The increase of the population during the same period had been 52 per cent. In 1858 the total number of lunatics per 100,000 of the population was 192. The average for the five years 1866-70 was 215, for 1876-80 248, in 1886-90 it had risen to 290, for 1891-5 it was 313, for 1896-1900, 337, while in 1904 it had reached 359.

Statistics of Lunacy for 1903.

On January 1st, 1904, there were 3,935 lunatics in Royal asylums, 7,910 in district asylums, 125 in private asylums, 508 in parochial asylums, 1,152 in lunatic wards of poorhouses, 1 in private dwellings, 53 in the lunatic department of the General Prison, and 426 in training schools. During the past year there had been an exceptionally small increase of pauper patients and a large increase of private patients in establishments. Of registered lunacy as a whole the increase of 205 (excluding the General Prison and training schools) was the smallest increase recorded since 1891. Of the 205 only 80 were pauper patients, the smallest increase of this class during the last nineteen years. This may be a mere passing phenomenon or may mean that the great increase of pauper lunacy in proportion to the population has at last reached a point beyond which it will not materially rise.

Want of Accommodation for the Poorer Class of Private Patients.

As in the thirty-ninth annual report this defect is again strongly urged, and the opinion repeated that permissive powers should be given by statute to District Lunacy Boards to provide accommodation for private patients under certain conditions. Legislation in the direction indicated would tend to relieve the rates and would be approved of by District Lunacy Boards. These views are strongly supported by the statistics of the past year.

Lunacy in North and South Uist.

Section IX deals with this subject and is of great interest. The area is limited and the figures small on which to rest general conclusions, but the lunacy statistics of these two islands show such remarkable contrasts persistently throughout a long period as to make them an interesting record. The contrasts are best brought out by two tables:

Table I.

	Population at Census of 1901.		Pauper Lunatics at January 1st, 1903.		Proportion of Pauper Lunatics per 1,000 of Population.	
	Males.	Females.	Males.	Females.	Males.	Females.
North Uist ...	1,864	2,027	16	10	8.6	4.9
South Uist ...	2,689	2,827	10	9	3.7	3.2
Scotland ...	2,173,755	2,298,348	6,681	7,285	3.1	3.2

It will be seen from these figures that while both parishes, and Scotland as a whole, show a preponderating proportion of pauper lunatics, this preponderance is slight in South Uist so marked in North Uist as almost to be the reverse of what is found in Scotland generally.

The following table shows the number of females to every 100 males in the population as at census 1901, and of female pauper lunatics to every 100 male pauper lunatics at January 1st, 1901, in the two parishes, in Shetland (the county in which, owing to migration of males, the disproportion between the sexes is greatest), and in Scotland:

Table II.

	Number of Females to every 100 Males in the Population.	Number of Female Pauper Lunatics to every 100 Male Pauper Lunatics at January 1st, 1901.
Shetland	127	118
North Uist	109	57
South Uist	105	114
Scotland	106	109

In all these cases the larger female population produces a larger number of female pauper lunatics, except in North Uist, in which, though the proportion of females to males is larger than in Scotland or in South Uist, the proportion of female pauper lunatics is not much more than half that of male pauper lunatics.

Finance.

Section X deals with this question, and comparative tables are given in illustration. Three sentences will show the drift of the section: "We have for long urged upon District Lunacy Boards that all asylum buildings should be of the utmost simplicity compatible with efficiency for their special purpose, and that no expenditure should be incurred on external ornament or in other similar directions which are contrary to a strict economy, and which in no way contribute to the amelioration of the condition of the insane." "On the whole, there is no better method of showing the comparative cost of asylums than by measuring such cost by the amount which the ratepayer has to pay to meet the entire outlay. The cost of an asylum can thus be traced from year to year, and it forms a perfectly reliable measure of cost, because it is wholly real and omits nothing."

The remainder of the report deals with expenditure for pauper lunatics, dangerous lunatics, alien lunatics (36 were removed from Scotland during 1903), lunatics under judicial factors, and the question of protection of establishments for the insane from fire suggested by the calamitous event at Colney Hatch.

Forty-Ninth Annual Report of the Registrar-General for Scotland.

This Report has just been issued. It falls into two parts. The first is concerned with Scotland as a whole. The second part, which is more detailed, relates to eight of the principal towns of Scotland.

I.—*Scotland as a Whole.*

Population.

The population of Scotland at the middle of 1903 was estimated at 4,579,223, the males numbering 2,229,414, the females 2,349,809. Of the total population 44.29 per cent. were in the Principal Town districts; 12.99 per cent. in the large town districts; 20.10 per cent. in the Small Town districts; 20 10 per cent. in the Mainland Rural districts; and 2.59 per cent. in the Insular Rural districts.

Births.

133,499 births were registered during the year 1903. This is equivalent to a birth-rate of 29.2 per 1,000 of the estimated population, and is the same as the birth-rate for 1902, and is smaller than that for all other preceding years. Of the births, 68,074 were males and 65,425 were females, which is equivalent to 104 male births to 100 female births. The male birth-rate per 1,000 of the estimated male population amounts to 30.5; the female birth-rate per 1,000 of the estimated female population amounts to 27.8. The birth-rate was highest in the Large Town districts and smallest in the Insular Rural districts; 6.13 per cent. of the total births were registered as illegitimate. This is the smallest rate of illegitimate births recorded for Scotland.

Deaths.

75,973 deaths were registered in Scotland during 1903, which is equivalent to an annual mortality of 16.59 per 1,000. The actual number is less than in any year since 1896, and the mortality-rate is the smallest recorded since the opening

of the office of the Registrar-General for Scotland, now nearly fifty years ago. The rate of mortality was, as usual, highest in the Principal Town districts, where it was 17 7, and smallest in the Mainland Rural districts, where it was 15.2. Compared with 1902, the mortality in the Principal Town districts shows a decrease of 0.8, or 4.3 per cent., that of the Large Town districts 4.6 per cent., that of the Small Town districts 1.3 per cent., that of the Insular Rural 5.9 per cent. The greatest mortality was in the first quarter (18.5) of the year, and the least (14 4) in the third quarter. The daily average number of deaths for the entire year was 208. In January it was highest with 261. The mortality of males per 1,000 living was 17.1, and of females 16.1.

Marriages.

32,320 marriages were registered, a marriage-rate of 7.06 per 1,000 of the population, nearly the same as in 1902.

II.—*Eight of the Principal Towns of Scotland.*

The following statistics refer to eight of the principal towns of Scotland, namely, Glasgow, Edinburgh, Dundee, Aberdeen. Paisley, Leith, Greenock, and Perth, which had a combined population, estimated to the middle of 1903, of 1,702,912. As nully 37 per cent. of the population of Scotland live in these towns, and fully 37 per cent. of the births and 40 per cent. of the deaths occur in these towns, it may be assumed that the conditions observed in them fairly accurately indicate those of Scotland.

Births.

The births of 50,697 living children were registered, equivalent to a birth-rate of 29.8 per 1,000, practically the same as for 1902 and 1901. From 1856 to 1884 the birth-rate exceeded 35, from 1885 to 1900 it was between 30 and 35, and since 1901 it has been below 30. The highest birth-rate (31.9) was registered in Glasgow, and the lowest in Edinburgh (24.8), and Perth (24.4); 6.6 per cent. of the births in these towns were illegitimate. Of the total births there were 102.5 boys born for each 100 girls.

Deaths.

30,863 deaths were registered in these towns during 1903, equivalent to a death-rate of 18.1 per 1,000 of the estimated population, the lowest death-rate recorded for these towns since these reports were started. The lowest previous record was in 1894 and 1896 with 18.9. The highest death-rate was in Glasgow (19.2 per 1,000), and the lowest in Leith (16.2). In Edinburgh it was 16.9, and in Perth 16.7. There was, as compared with 1902, an increased mortality in Leith, and a decreased mortality in the other seven towns.

Infant Mortality.

The total number of children under 5 living in these towns was estimated at 196,349, while the number of deaths was 10,937, equivalent to a mortality of 55.7 per 1,000. The number of deaths of children under 1 year was 6,966, equivalent to an annual mortality of 137 per 1,000 living births.

Proportion of Deaths Generally.

In these eight towns, from all causes, there were 1,812 deaths to every 100,000 persons living. For Glasgow there were 1,915 to every 100,000 living, in Edinburgh 1,687, in Dundee 1,809, in Aberdeen 1,703, in Paisley 1,729, in Leith 1,617, in Greenock 1,890, and in Perth 1,668.

Deaths from the Chief Epidemic Diseases.

The principal epidemic diseases in these towns caused 148 deaths per 100,000 of the population, and this amounts to 815 deaths out of each 10,000 deaths registered. The absolute number of deaths from these epidemic diseases was 2,494. Compared to the previous year, the absolute number is found to be 50 less, the rate per 100,000 of the population to be 5 less, and the proportion per 10,000 total deaths to be 9 more. The rate was highest in Glasgow (182 per 100,000 of the population), and the lowest in Perth (72) and Dundee (74). Of these epidemic diseases, whooping-cough was the most fatal, causing 971 deaths, being equivalent to a mortality of 58 per 100,000 of the population, and accounted for 318 out of every 10,000 deaths. Next to whooping-cough measles was the most fatal of the infectious diseases, causing 615 deaths, equivalent to a mortality of 36 per 100,000 and to 201 per 10,000 of the total deaths. Scarlet fever accounted for 63 per 10,000 of the total deaths, diphtheria 72, influenza 68, and "fevers" 84.

Deaths from other Diseases.

To pneumonia 910 per 10,000 of the total deaths in these to is was due. All tuberculous diseases gave 1,358 per 10,000 deaths, and phthisis alone 899 pr 10,000. The relative mortality fm all tuberculous diseases was highest in Perth, with 10 (out of a total of 4,149), and lowest in Paisley, 5. Diarrhoea (infective enteritis) accounted for 194 per 10 deaths from all causes, malignant diseases 482, develmental diseases of children 476, inflammation of bn 222, convulsions 159, cerebral haemorrhage 528, bronchs 750, diseases of stomach (not malignant) 163, enteritis, gas enteritis 209, all liver diseases 90, Bright's disease 136, ad old age 357 per 10,000 deaths. One female died at the ago of 103, another 101, and another 100. Deaths from viole e numbered 1,251, equivalent to a mortality of 74 per 100,00 of the population. There were no deaths by execution.

Marriages in these Towns.

The total number was 15,074, equivalent to an annual re of 8.9 per 1,000 of the population. The rate was greatest n Edinburgh (9.3) and least in Leith (7.0).

Weather and its Influence on Mortality.

The year 1903 was characterized by a subnormal mean te perature and by a very excessive rainfall. The average f the mean annual temperature of the last twenty years is 4 the mean temperature of 1903 was 45.9. The aver rainfall of the last twenty years is 39 in.; the rainf of 1903 amounted to 51.5 in. During the last twen years there have been five years with excessive rainfalls, l in no other has there been excessive rain combined with a l mean temperature. Of the previous wet years, two ha mortality less than the average, one a mortality of aver amount, and one of more than the average. In 1903, with very excessive rainfall, the mortality has been considera less than the average. It would thus appear that recent perience tends to show that an excessive rainfall is not necessity an unfavourable weather condition, and does n necessarily mean a large mortality.

GLASGOW AND WEST OF SCOTLAND BRANCH OF THE BRITI MEDICAL ASSOCIATION.

The annual meeting of this Branch of the British Medi Association was held in the Royal Infirmary, Glasgow, May 20th. After the statutory business meeting and aft noon tea, the members attended an interesting demonstrati by Dr. John Macintyre, the President-elect, on Recent Elect therapeutic Methods of Treatment.

The same evening the annual dinner took place in the St. Enoch's Station Hotel, the guest of the evening being M. Andrew Clark, F.R.C.S., the Chairman of the Council of t British Medical Association. Dr. J. C. McVail, the Preside of the Branch, was in the chair, and the croupiers were D. William Findlay and Dr. Ebenezer Duncan, Vice-President After the toast of "The King" had been honoured, D. Duncan proposed "The British Medical Association," a after referring to the objects of the Association as soci ethical and scientific, he welcomed Mr. Andrew Clark as th guest and one to whom the Association was much indeb for his labours in connexion with the new constitution.

Mr. Andrew Clark, in reply, gave a historical account the Association, and pointed out the recent rapid develo ment, till at the present time there there were 19,0 members. He referred to certain public questions in whi the Association was interested, and in regard to which t public, and even members of Parliament, needed furth education. Many of the schemes which medical men adv cated would bring more work to the profession, but they we mainly for the public good and not for the enrichment medical men.

Professor MCCALL ANDERSON acknowledged the toast "The Glasgow University," and in referring to the prese extension of the University Buildings he pointed out that t enlarged and additional laboratories being provided wou cost a considerable sum of money for upkeep, and that furth generosity on the part of the friends of the University wou be required in addition to the grants from the Carneg Fund.

Dr. D. C. MCVAIL proposed "The Other Scottish Branches and in doing so suggested the question of quackery in med cine as a subject which the Association ought seriously consider. As an indication of the extent to which quacke flourished he pointed to the advertising pages of every new paper in the country and to the fact that last year the Gover

nt pocketed £330,000 for quack medicine stamps. There s too little publicity about medical matters, and the public ıst be educated to know the difference between the methods true medicine and of quackery.

Small-pox in Scotlald.

)uring the period from April 16th to May 15th inclusive cases of small-pox have been intimated to the Local vernment Board. These were distributed over 16 counties. or to the period of this report no cases of small-pox had n intimated to the Board this year from no less than 17 alities. During the period in question the local incidence s greatest in Falkirk, being 11.95 per 10,000 of the popula- n as compared with 6.44 in Bo'ness, 2.78 in Ayr, 2 37 in t Glasgow, 2.14 in Clydebank, 2.05 in Greenock, 1.26 in sgow, and 1.22 in Hamilton. As to actual number of es Glasgow heads the list during the period in question h 96 cases, Falkirk 35. Greenock 14. Edinburgh 13, Ayr 8, an 8, Paisley 7. and Bo'ness 6. During the week ending l-day of Saturday, May 14th, only one fresh case was noti- t to the public health authorities.

The Indian Medical Service.

he Secretary of State in Council has been pleased to oint Dr. F. W. N. Haultain, F.R.C.P.E., Examiner in lwifery and Diseases of Women for the Indian Medical vice.

Ireland.

The Medico-Psychological Association.

he spring meeting of the Irish Division of the Medico- chological Association of Great Britain and Ireland, after completion of election of officers and other formal busi- , Dr. Drapes read a paper on a Case of Acute Hallucin- y Mania of Traumatic Origin. The patient, a man aged ealthy save for some left-sided deafness and otorrhoea result of accident), received a blow on the head while ing hockey. He experienced difficulty in walking next and began to suffer from severe occipital headache, with of temperature. These passed off in a few days, and it a fortnight later he was able to go into the country. at once became worse, the headache returned, he was ess, and in a week was delirious, with hallucinations, gh all through he was rational at times. He gradually vered, and was mentally well about six weeks after the t of mental symptoms. He was able to give a vivid account of his hallucinations, which assumed shape of orderly sequences of events, somewhat like ms but more vivid. The latter took the form of ling adventures, mostly terrifying and unpleasant, h involved combined hallucinations as real to the nt as the events of ordinary life. Dr. Drapes was pinion that the pathological condition was a slight ngo-cerebritis, which acted by abolishing the higher al centres, while the lower were irritated into increased ity. The prevalence of delusions of persecution and cion he considered to be explicable as a reversion to eval conditions.

Conolly Norman considered that the fact that the nt was able at times to concentrate his attention and rationally when addressed was incompatible with Dr. es's theory of the genesis of the hallucinations. It was sting that some of the hallucinations so strongly ıbled those of toxic origin.

e paper was also discussed by Drs. Rainsford, Eustace, eeper; and Dr. Drapes replied.

Rainsford described two cases in which epileptiform res had occurred. The first was that of a lady, aged 57, ing from attacks of recurrent mania at intervals of or four months. In one of these epileptiform seizures red, and she had 282 in all, and was thought to be dying ur days. The fits ceased under hypodermic injections rphine, but were followed by a six weeks' attack of acute . Since then she had remained physically well for three but was slightly demented. The other case was that imbecile boy aged $13\frac{1}{2}$, who suddenly developed fits at l. He was sent to hospital, where the fits continued, e was so troublesome and insubordinate that he had to charged. At the Stewart Institution, to which he was admitted, the reality of the fits was doubted, and the threat of being douched with cold water put an end to them. The boy was now doing well.

Dr. Drapes regarded the second case not as one of malingering, but as due to a neurotic condition.

Dr. Norman considered the treatment of mania and pseudo-epileptic states with morphine to be dangerous.

Drs. Woods and Fitzgerald also joined in the discussion.

Dr. Rainsford, in replying, said that he considered the second case to be one of hysteria.

Dr. Eustace read an account of a case of dementia praecox. The patient was a boy aged 20, with some neurotic heredity, who had always been excitable, idle, and conceited, a confirmed masturbator, and very eccentric. He became restless six weeks before admission, and then maniacal, with quick pulse and high temperature. Delusions, chiefly of a religious and grandiose type, were present. In about three weeks stupor appeared, and from that time had alternated with excitement, while various katatonic symptoms—verbigeration. catalepsy, "jargon aphasia," mannerisms, etc.—developed from time to time. Thyroid administration proved of no value, and after about seven months the patient was no better mentally, though his memory, understanding, and perceptive powers were good. He therefore was an excellent example of this form of mental disease.

Dr. Leeper was strongly of opinion that the disease was incurable. His experience with thyroid had also been unfavourable.

Dr. Norman thought that too many cases had been classed as dementia praecox, and therefore as of bad prognosis, but cases showing an alternation of excitement and stupor were unfavourable. He considered cases of the melancholic type more likely to recover.

Dr. Drapes also spoke, and Dr. Eustace replied.

Dr. Conolly Norman exhibited two patients suffering from unilateral deafness, with auditory hallucinations of the same side.

Sewage Purification Scheme for Belfast.

A second or *ad interim* report by Dr. Letts, Professor of Chemistry in the Queen's College, Belfast, on the scheme of sewage purification has been printed in pamphlet form. It occupies 57 pages, and contains, as a frontispiece, a coloured plate, shewing some of the seaweeds which Dr. Letts thinks play a not unimportant part in the problem of sewage purification. There are also diagrams showing the effects of the contact bed and of the contact bed preceded by septic tank, and a sketch map of Belfast showing sewers, rivers, etc.

The first report furnished in 1901 discusses several important questions involved in the scheme of purification then proposed, and Dr. Letts was empowered by the City Council to make the necessary experiments.

These problems were, first, the very serious nuisance which occurs annually in the upper reaches of the Lough from June to November, traceable to the decomposition of certain varieties of seaweed, chiefly the ulva latissima, which are driven ashore by the winds; the decomposition of this seaweed is marked chiefly by the evolution of sulphuretted hydrogen, and the growth of such immense quantities depended upon the large volume of sewage in the Lough. The next problem was to ascertain the extent to which the sewage could be purified by the scheme then proposed, and the probable effects on the Lough. The "contact," "bacteria," or "Dibdin" bed treatment was explained and the method of treatment examined. Laboratory experiments on growing seaweed in sea water artificially polluted were also detailed; these showed the remarkable power of the kinds of seaweed found of assimilating nitrogen in the form of ammonia or nitrates.

Dr. Letts also showed that the effluent from the bacteria beds which should contain nitrites and nitrates equivalent in amount to the unoxidized nitrogen, actually showed a comparatively small amount of nitrite or nitrate in relation to the unoxidized nitrogen disappearing; and that this phenomenon was due to the fact that a considerable quantity of nitrogen was evolved in a gaseous state, appearing in solution in the purified effluent or diffused in the atmosphere, and so escaped detection; and also that a considerable quantity of nitrogen passed into the tissue of the swarms of minute insects (podura aquatica) and of worms which were very abundant. He finally recommended that the effluent should flow into ponds containing sea water, and the growing ulva, where it would lose much of the excess of nitrogen, being allowed to remain only four or five hours, so that the ponds could be tidal, or to use the language employed before the Royal Commission on Sewage Disposal, Dr. Letts advocated an "aquatic or marine sewage farm."

New contact beds have been added in 1902 and 1903, so that at present there are twelve large and fourteen small experimental beds, which are able to treat the sewage equivalent to a population of over 50,000, or about one-sixth of the total population. Nine complete series of analyses were made of the screened and settled sewage, and of the resulting effluents from the septic tank and the upper and lower series of contact beds, and from the Stoddart filter; the results of these experiments are given in Tables I to V; the most important and noteworthy feature is the high purification indicated as regards the free ammonia, the actual purification effected being on an average 87 per cent., as compared with 51 per cent. previously found in treatment by contact beds only. Dr. Letts draws the important conclusion that it will be possible to reduce the effects of Belfast sewage on the Lough, so far as the foreshore nuisance is concerned, to practically one-tenth of its past amount. The loss of albuminoid ammonia was 73 per cent. The reduction of the free ammonia is much the more important, as the ulva cannot absorb the albuminoid.

The results as regard the Stoddart filter were not as favourable as expected. As regards the nitrogen appearing as the salts of nitric acid, Dr. Letts finds that the nitrates are increased from 8.04 per cent. to 21.68 per cent. after treatment in contact beds preceded by septic tank. This is of little moment in the problem of sewage purification in an inland town, but has an important bearing in Belfast owing to the seaweed question, as these salts furnish a food for the seaweed. A series of experiments were made with regard to the decomposition of nitrates when added to the effluent from a septic tank, and to the cause of these changes. It was found that a certain quantity of nitrates is decomposed, but not when added above a relative proportion; and the decomposition is effected in twenty-four hours. This decomposition is caused entirely by the vital processes of certain micro-organisms and not by enzymic or chemical action, as it did not take place when the microbes were removed by means of Chamberland filter.

As far as the experiments have gone it would appear that the bacillus coli communis liberates nitrogen from a nitrate in broth culture; but that the bacillus lactis aërogenes does not do so.

Two most interesting facts are brought to light by Dr. Letts's experiment. From an excess of chlorine in the sewage he pointed out that there must be some leakage of the river water, which is tidal, into the main sewer. Some 17 samples were taken at different places at exactly the same time, and it was found that the high-level sewage does not vary to more than a very slight extent; the average is seven parts per 100,000; with the low-level system the case is different; it is normal at the extreme end or beginning, but suddenly rises to nearly thirty times the normal amount; it then falls gradually again owing to dilution with sewage, and near the end it is 156.2 parts per 100,000.

A second interesting phenomenon is in connexion with the seaweed. Several small experimental sewage ponds or "aquatic farms" had been constructed to test the purifying effects of seaweed; these showed that the ulva would grow for months in a mixture of sea water and effluent containing 20 per cent. of the latter; but in the meantime patches of a green growth had made their appearance on some of the lower contact beds, and later on in a marshy pool at the pumping station, into which the effluent from the septic tank and experimental contact beds passed. These growths soon developed into ulva latissima and two species of enteromorpha, the spores of which had evidently found their way from the River Lagan by the leakage into the low-level sewer and so into the contact beds. An examination of these forms of seaweed from the contact bed, from Belfast Lough, and from Larne Lough, where the sewage is relatively small, gave the following results:

Ulva Latissima.

	Percentage of N.	Percentage of Ash.
From contact beds	8.94	9.41
,, Belfast Lough	6.18	15.07
,, Larne Lough	3.01	29.00
Enteromorpha Compressa.		
From sewage effluent	7.44	16.05
,, Larne Lough	1.96	28.60

The report closes with some general conclusions and a summary. There is an appendix on the value of the ulva latissima as a manure and as a source of commercial ammonia. The experiments are being continued.

Canada.

Sanatorium in Southern Alberta.

A sanatorium for the treatment of pulmonary diseases is being erected in Calgary by Dr. Wills. The climate of Southern Alberta is particularly salubrious, and life on these plains has been effectual in curing many cases of phthisis in the past.

Snow and Lake Water.

The immense increase in surface drainage consequent on the rapid melting of the snow and the breaking up of the ice on the lakes seriously affected the purity of the lake water for some distance from the shores. In a series of sixteen tests of Toronto city water the colon bacillus was found ten times, and doubtless an increase in the number of cases of typhoid reported was due to this cause.

Canadian Medical Association.

The thirty-seventh annual meeting of the Canadian Medical Association will be held at Vancouver, B.C., on August 23, 24th, 25th, and 26th, 1904. The railway fares from Montreal are $68 and from Toronto $62.40. Dr. Simon J. Tunstall, Vancouver, is President, and Dr. George Elliott, 129, John Street, Toronto, is Secretary.

Leprosy.

The annual report of Dr. A. C. Smith, Superintendent of the Leper Hospital at Tracadie, N.B., seems to support the opinion of Mr. Jonathan Hutchinson that the disease is due to the eating of badly-cured or decayed fish. The former states: "I am informed by some of our older people that in former days, and even as late as thirty years ago, the inhabitants living along our shores would not eat fresh or well-cured fish, but laid it aside until tainted. They wished to have some taste to it."

Imperial Service Order.

An interesting ceremony took place at the Province building at the end of March, when Lieutenant-Governor Jocelyn presented the Imperial Service Order to Dr. Edward Gilpin, Deputy Commissioner of Works and Mines, as a token of His Majesty's recognition of his quarter of a century in the public service.

Toronto University.

A deputation of the alumni of Toronto University waited on the Premier of Ontario to petition for the erection of a new laboratory for physics and the establishment of a department of forestry did not receive much encouragement to hope that assistance in the matter would be accorded.

The Senile Insane.

The buildings at Penetanguishene, until recently occupied as a reformatory for boys, are being altered and improved for an asylum for the senile insane; it is expected that accommodation for 500 will be provided in this way. The inmates of the reformatory have been provided for, partly in foster homes and partly in the Blairtyre Home and Industrial School, to which commitments of juvenile delinquents will hereafter be made.

Kidney Decapsulation.

In a paper read before the Montreal Chirurgical Society the results of some interesting experiments on dogs were given which tend to show that after decapsulation the kidney becomes surrounded by a new and probably more unyielding covering than before. They would seem, however, also to support the contention that the effects of operation on healthy kidneys may differ from those in diseased kidneys, and we must guard against too readily drawing conclusions with regard to the latter from the former. The opinion to which the experimenter inclined was that a partial stripping of the kidney only should be performed, so that while tension was relieved the formation of a new and complete capsule would be avoided.

The Treasurer of Epsom College Royal Medical Foundation acknowledges, with grateful thanks, the receipt of an anonymous donation of £25, through Messrs. Coutts and Co.

LUNACY LEGISLATION.

The Debate in the House of Commons.

e Government Lunacy Bill introduced into the House of mmons on May 18th by the Attorney-General and backed by the Solicitor-General is printed in the Supplement his issue, page 140. Before proceeding to consider its visions it will be desirable to refer somewhat more at rth than has yet been possible to the debate raised in the se of Commons on the vote for the Lunacy Commission Sir John Batty Tuke on May 12th.

r John Batty Tuke, in moving a reduction of the vote in r to call attention to the constitution of the Lunacy Comsion, said that the Commissioners were hard-working ials, eminent in their profession, who were not reisible for the faults of which he complained. The Comsion consisted of one unpaid chairman, three or four un- commissioners, and three medical and three legal missioners, each receiving £1,500 a year. While the duties he unpaid commissioners were confined to the office, paid commissioners visited and reported on 114,000 ified lunatics in England; there was only one medical missioner to every 38,000 lunatics, while in Scotland e was 1 to every 4,100; thus the supervising power was times as great in Scotland, yet from his own experience orty years he could assert that the Scottish Lunacy mission was not overmanned. In Scotland every patient visited by a medical commissioner twice a year, in land only once. The result was that in Scotland none hose scares and scandals took place which were of frequent occurrence in England. The numerical inuacy of the English commission was growing worse; e the number of its members was the same as in 1845, the fied lunatics had increased from 25,000 to 114,000. le he admitted that lawyers were absolutely necessary ie Commission he held that their duties should be ned to the Board room; they were useless for inspec- and two standing counsel would do all the work red at a much lower cost. A Commission so undered on the medical side must necessarily work unsymetically and without elasticity. The first step to establ public confidence in lunacy administration in England to establish thorough supervision by dividing the try into four or five districts with a resident medical nissioner in each. At the present day medical men precluded from treating lunacy adequately during its critical stages, the beginning and the end. Among the yed classes in whom these stages could be properly d lunacy had not increased, but among the poorer classes s necessary to wait until the case was sufficiently unced to warrant certification before anything be done. Of the patients treated in the institution cipient cases, established by Glasgow thirteen years o per cent. had been discharged cured. With regard to nal stage he pointed out that when a patient was dised from an asylum he was relegated to the miserable tion in which he was first attacked by insanity, no term valescence was allowed, and the percentage of recoveries ned in the asylums was reduced by relapses from 40 to 35 per cent. He urged the appointment of a Select ittee to consider the question, and pointed out that the last twenty-five or thirty years the conception of ty had undergone a great change. The insane person o longer regarded as a psychological curiosity, but as a logical study.

Michael Foster supported this contention, and said large increase in the number of the medical commiss in lunacy was an urgent necessity, whether the in- should be by way of the appointment of assistant al commissioners was a matter of detail. In no branch ience had there been greater progress during st generation than in the knowledge of the brain he central nervous system, and whereas when the laws were framed they were based more or less on the hat the case of a person of unsound mind was hopeless, heir main purpose was to protect the lunatic from tment and the public from the lunatic, now medical was daily gaining a greater command over the treatof brain diseases. Yet though medical science had d other diseases, notably tuberculosis, lunacy, if anywas on the increase. One main reason was the preate of the lunacy laws, which, if they did not hinder, ly did not facilitate, the application of science acy, especially in the early stages. At present an insane person could not be brought adequately under treatment without the certificate of two medical men, a petition and a declaration and a magistrate's order; that was an advertisement of insanity, and stood in the way of the application of medical science to the cure of insanity in its early stages. In Scotland, on the certificate of a responsible medical man an insane person could be kept in a private house under proper treatment. On the analogy of the notification of infectious diseases there would be no difficulty in the notification of a change in the central nervous system, and notification would be a very different thing to the advertisement under the present system.

Dr. Farquharson said that in a Bill introduced in the House of Lords four years ago there was a provision to carry out the beneficent arrangement in force in Scotland, which allowed cases on the borderland to be taken into the house of a private person, and treated there for six months during the period when treatment gave the best hope of a successful result. Insanity should be looked upon as a disease, and studied as such in special hospitals or special wards with special pathological institutions; there should be a notification of lunacy to the local authorities with power to the medical officer to visit the lunatic, and, if he thought it necessary, to appeal to the Commissioners for a further opinion. The number of commissioners in England was altogether inadequate to the enormous increase in the work; a single commissioner was often supposed to inspect 800 or 1,000 persons in a day which was a farce.

After Mr. Brigg had referred to the increasing charges placed upon the ratepayers for lunacy purposes, and Mr. Gibson Bowles had deprecated any change in the law on the ground that it might involve a certain deprivation of the liberty of the subject,

Dr. Hutchinson said that a decrease in the number of legal commissioners and an increase in the number of medical commissioners was urgently needed. Medical science had made rapid progress, and the legal members were no longer so necessary.

After Lord E. Fitzmaurice had asked whether there had not been inquiries and commissions enough, Sir J. Dorington, senior commissioner, said that the Commission was shorthanded, and had memorialized the Lord Chancellor on the subject. He thought that the arrangement by which medical members had the assistance of legal members was a happy one, and believed that the Commission worked extremely well.

The Attorney-General (Sir R. Finlay) said he could not agree with all that had fallen from Sir John Batty Tuke. He was not satisfied that an actual increase in the amount of lunacy had been proved, and he thought that it was too much to say that there was in England an atmosphere of distrust in regard to the administration of the Lunacy Law; on the contrary he believed there was very general and well-founded confidence. With regard to the increase in the number of commissioners he thought that the first point would be to ascertain whether the work of the existing staff could not be rearranged with advantage. He believed that a great deal could be done by relaxing the provision of the law as to the association of a legal and medical commissioner when visiting; he knew that strong objection had been taken to legal commissioners visiting the houses and lunatics in company with the medical commissioners, but he believed the association was useful. With regard to the question of incipient or threatened lunacy he was disposed to think that the jealousy for personal liberty, in its origin noble and honourable, had been pushed to an extent which interfered with adequate steps being taken to prevent a patient from being stamped as a lunatic. The Bill, which had passed more than once through the House of Lords, and had been prevented from passing through the House of Commons, contained clauses dealing with that very matter. It would relax the provisions of the law in a way which he believed would be found to give facilities for preventing insanity, while yet providing adequate security against abuse. That proposal had been made by the Government, and it was very much to be desired that something of the kind should be carried out, but he did not admit that a case had been made out for the appointment of a Royal Commission or a Committee. Finally, in reply to Dr. Farquharson, he said he was unable to give a pledge that the Lunacy Bill would be introduced this session.

The Committee divided, when there were for the reduction 126, against 216; majority against, 90.

The Government Lunacy Bill.

In spite of the guarded answer which the Attorney-General gave on May 12th, he found an opportunity on May 18th, as already stated, of introducing the Bill, which is printed in the Supplement, p. 140.

Following hard upon this useful debate, with its various alarums and excursions, came the short Bill to Amend the Lunacy Acts, introduced into the House of Commons by the Attorney-General and the Solicitor-General. Of this the main and by far the most important feature consists of the provisions modifying the existent means—or rather for supplying non-existent facilities—for the temporary care of incipient lunatics.

Divested of part of its legal phraseology, the clause in the short new Lunacy Bill to which we refer is to the following effect:

For the temporary care of incipient lunatics it is provided that if a medical practitioner certifies that a person is suffering from mental disease, but that the disease is not confirmed, and that it is expedient, with a view to his recovery, that he be placed under the care of a person whose name and address are stated in the certificate for a period also stated, but not exceeding six months, then it shall be lawful. The medical practitioner signing such certificate shall, within one clear day after signing, send a copy of it to the Commissioners in Lunacy, who may visit the patient. The medical practitioner who signs cannot receive the patient under his own care. The person who receives a patient under any such certificate shall, within one clear day after receiving the patient, give notice to the Commissioners of his reception; and there are further provisions for giving due notice of the death of the patient, or of any change in the place of residence of the person receiving, or of cessation of his care of the patient; and also for making report, on expiration of the period mentioned in the certificate, as regards the recovery or not of the patient, and in what manner he was dealt with at the end of that period.

Default in sending any notice or report, as above, makes the party guilty of misdemeanour, and liable to penalty not exceeding £50.

Not more than one patient may be received under this provision at the same time by any one. Another certificate under this section shall not be given in respect of the same patient within two years of the date of the expiration of the previous certificate.

In general tenour this is by no means either a new proposition or policy; it is not even new as a provision of a drafted Lunacy Bill. Its bearing is practically the same as that of the provision so long contended for by the Conjoint Committee of the British Medical Association and the Medico-Psychological Association. Formed some seven or eight years ago, this Conjoint Committee expended much labour on this subject, and was successful in inducing the Lord Chancellor to introduce into his Lunacy Bill adequate provisions relevant thereto. But other and contentious matter has prevented the Bill of Lord Halsbury from passing through the House of Commons and finding place on the Statute Book.

To those who have worked on that Conjoint Committee, and to this Journal, it is eminently pleasing and satisfactory to find that there is now a probability of securing the passage of this very short Bill, the pith and marrow of which is the provision for temporary care of incipient cases.

Long after the labours of the Conjoint Committee had been successful in getting their view embodied in proposed legislation others took up the subject with scanty knowledge of what had already been accomplished.

Of this short Bill, the main feature is practically an extract from the Lunacy Bill, introduced several years ago in the House of Lords. The brevity of this last Bill may give it a successful passage through the Houses—an issue unlikely to be reached by a full measure of wide scope in the present state of Parliament and parties.

Examination for Sanitary Inspectors.—At the examination for sanitary inspectors under the Public Health (London) Act, 1891, held in May by the Sanitary Inspectors' Examination Board, seventeen candidates were successful; of these six received instruction at the Sanitary Institute, five at the Bedford College for Women, two from the National Health Society, and one each at University College, King's College, and the Heriot Watt College, Edinburgh, while one candidate was in office.

GENERAL COUNCIL
OF
MEDICAL EDUCATION AND REGISTRATIO

The seventy-ninth session of the General Medical Coucil was commenced at the offices of the Council in Oxford Stet on Wednesday, May 25th, 1904.

President's Address.

Changes in Council.

Gentlemen,—When I delivered the address at the mencement of our last session, I stated that the ne established University of Liverpool had obtained an A of Parliament, which entitled it to choose a representative be a member of the General Medical Council, but that we ad not received intimation of the election by the universityf a representative. Two days after the termination of thes- sion the Vice-Chancellor of the university intimated the p- pointment of Dr. Richard Caton, and we welcome him to ay at the Council Board. I may perhaps be permitted to ay that it is especially gratifying to me to receive as a new pl- league a former pupil, who now occupies so importa position in the youngest of the two vigorous universitie in the great county of Lancaster.

We shall miss at our Council Board a member who for ma years has taken a prominent part in our work. As one of ur Treasurers, as Chairman of the Examination Committee, nd as a member of the Executive Committee, Mr. Bryant has be active in our deliberations and in the discharge of our d- ministrative duties. Every member of Council is familiar wh his unfailing geniality; but those of us who are more specia y engaged in the executive work of the office, both during s- sion and in the interval between sessions, can speak fr m direct personal knowledge of his loyalty to the Coun l, and can testify that he spared neither time nor labour in e transaction of its business. Personally, I wish to express y thanks to him for the invariable courtesy shown me, and e support which he has given me during my occupancy of is Chair. Mr. Bryant's period of office as representative of e Royal College of Surgeons of England expired in the month March, and as he did not seek re-election, the Council of e College has appointed as his successor Mr. Henry Morris, e of its distinguished Fellows. The representatives of e English College of Surgeons on this Council have, from r foundation by statute in 1858, taken an active interest in r proceedings and work, and we look to Mr. Morris to maint n the honourable tradition of his College.

Inspector of Examinations.

The Council will recollect that the severe illness, follow by the death, of Sir George Duffey, prevented the inspect r during last year of the final examinations of the universities Scotland, and delayed the completion of the series of insp- tions in which the Council was then engaged. The arran- ment for the appointment of an inspector to succeed r George Duffey was referred to the Executive Committee. I may remind the Council that the office of inspector of fi al examinations, since it became statutory in 1886, has be filled by a Fellow of a Royal College of Physicians, and th on several occasions it has not been possible to arrange t the association with him as a visitor of a member of t- Council representing the surgical side of our profession. T- final examinations, therefore, of some of the bodies have be reported on by medical rather than surgical experts. E another aspect of the subject also presented itself. It w advisable, seeing that we had lost an inspector of great a varied experience, that the work of inspection should p- ferably be entrusted to one who was familiar with the condu of examinations, and had a knowledge of the resolutions the Council bearing on them. The retirement of Mr. Brya from the Council, assuming that he were disposed undertake the duties, seemed to give us the opportuni of obtaining the services of an inspector who, both personal and on professional grounds, was admirably fitt for the office. I accordingly put the matter before him behalf of the Executive Committee, and after giving consideration he consented to undertake the duties duri the present year, and the commission of appointment inspector has been issued to him. It has also been arrang that at each final examination he will be accompanied by Fellow of a College of Physicians as visitor, and the repor for the present year will thus be framed by experts in the tw great branches of our profession.

Preliminary Scientific Examinations.

.t the meeting of Council on November 27th, a Committee s appointed to consider the report of the Examination nmittee on the questions raised in the reports of the pector and Visitor of the Preliminary Scientific Examina- is of the three Conjoint Boards and the Apothecaries' iety of London. Before the termination of that session the nmittee adjusted the terms of a letter which I addressed to he licensing bodies in the United Kingdom, and to the ntific teaching institutions recognized by them and ap- ed by the Council. During the winter replies were received the great majority of the bodies and institutions. These ies were summarized in the office by the Registrar, sted by two of the clerks, and a proof in type was sub- ed to me early in April. It was obvious, if a report were e drawn up by the Committee, circulated amongst mem- of Council, and properly considered during the present ion, that it would be necessary to call the Committee ther before the meeting of Council, and to frame a report hich should be embodied the recommendations to be nitted to the Council. This was accordingly done, and eport has been for some days in your possession. As two hree additional replies have been received since the t was circulated, I propose to hold a meeting of the mittee this afternoon, when the Council rises, to make a adjustment, but I do not think that any material change be made in the character of our recommendations. All icensing bodies have now sent in answers to the ques-

Conjoint Board in England.

ving an intimate bearing on this report is the amended ne of professional study for students of the first year, the subjects of and mode of conducting the First ssional Examination of the Conjoint Board in nd, which has been adopted by the Royal Col- of Physicians and Surgeons in London, and intimated to the Council three weeks ago. I t propose to anticipate the statement which the repre- tive of the two Colleges intend doubtless to make on the ded scheme, further than to say that the report of the il's visitor to the first professional examination of the int Board has obviously been carefully considered by olleges, and that the suggestions made therein have n several particulars adopted.

Bills in Parliament.

ain Bills have been introduced into Parliament which n the Medical Acts. More than once I have referred in ening address (*Minutes*, vol. xxxix, p. 107, 1902, and , pp. 5, 106, 1903), to the attempts made to promote stablishment of reciprocal relations between the ion of Canada and the United Kingdom in regard actice and admission to their respective Medical ers. Up to this time, notwithstanding the efforts ave been made both in Canada and in the Parliament e, a working scheme has not been arrived at. General , whose name is associated with the attempts at ion in question, has this session introduced into the of Commons a Bill to meet the difficulty occasioned of the provincial legislatures in Canada declining to ce its present power of independent legislation and to t to the formation of a register for the whole Dominion, ovided for, subject to the consent of the local legisla- n the Canada Medical Act, 1902. This Bill provides is Majesty may, if he thinks fit, declare by Order in l that where any part of a British possession is under l and also a local legislature, as is the case in Canada ne other Colonies, the part under the local legislature r the purposes of the Medical Act, 1886, be deemed a e British possession. Should General Laurie's Bill law, Part II of the Medical Act, 1886, could be applied province in Canada which, in the opinion of His , should afford to registered medical practitioners of ited Kingdom such privilege of practising in the e as to His Majesty might seem just.

have also been introduced during the present session ament to facilitate the adoption of metric weights and es in this country in substitution for our present s. The interest which, as a Council, we have in such in connexion with the *British Pharmacopoeia*, and it is kely that the Pharmacopoeia Committee may refer to ect in their report. Mr. Jackson has also given notice tion calling the attention of the Council to this

Building and Finance.

Members of Council will doubtless have observed as they came to the office this morning that the adjoining building on the east has been taken down and operations for the erection of a new building, several stories, it is understood, in height, have been commenced. In consequence of this, of the completion of the lofty pile of premises on our immediate west, and of an offer respecting the Oxford Street portion of our freehold property, I propose that the Council should consider this afternoon *in camerâ* the offer in question. In order that the Council may have before them such information as I possess, I have circulated as highly confidential documents the minutes *in camera* on this subject of February 22nd, 1904, a resolution of the Executive Committee, and a memorandum by our Solicitor of date March 28th, 1904.

I wish to ask attention to a statement relating to the financial position of the Council which I made to the Executive Committee on February 22nd, and which is embodied in the *camera* minutes of that date. These have been circulated by my direction, and the Council will doubtless desire to express an opinion on the matter.

The Companies Acts.

Copies of a decision of the High Court of Justice in Ireland on a question submitted to the Court, whether the word "person" in Section 111 of the Dentists Act, 1878, means exclusively natural person or includes an artificial person, such as a corporation or company, have, I understand, been sent to each member of the Council. The question arose in connexion with the case of O'Duffy *v.* Jaffe, when it was contended that the practice of dentistry could not be pursued by a company entitled Jaffe, Surgeon Dentists, Limited. The Court decided that the Dentists Act as worded is directed against a natural person only and not against a company. The effect of this judgement is to show that a company practising dentistry cannot be prosecuted under the Dentists Act.

Since the judgement in the case of O'Duffy *v.* Jaffe was given, another case relating to the practice of dentistry by companies has been before the High Court of Justice in Ireland. The case arose on an application for the issue of a mandamus to compel in Ireland the Registrar of Joint Stock Companies to register under the Companies Act, 1862, the memorandum of a company to be styled "S. G. Rowell, Dentist, Limited." An elaborate judgement on the case was was delivered by Chief Baron Palles, who, with his colleagues, declined to grant the mandamus.

The questions involved in these cases before the High Court of Justice in Ireland will be brought before the Council by Sir Charles Ball, who will move that the Council take action in terms of his motion.

Reports.

The Council will receive during the session reports from the Executive, Education, Finance, Public Health, Pharmacopoeia, and other Committees. Thursday, May 26th, is set aside for the consideration of cases which have been before the Penal Cases Committee, and it is satisfactory to note that in all probability they will not occupy more than one day of our sitting.

INTERNATIONAL MEDICAL CONGRESS.

The fifteenth International Congress of Medicine will be held at Lisbon, April 19th to 26th, 1906, under the august patronage of Their Majesties the King and Queen of Portugal.

Executive Committee.

The Executive Committee is composed as follows: President, Councillor Costa Alemao; General Secretary, Professor Miguel Bombarda; Treasurer, Dr. Alfredo Lopes; Secretaries, Drs. Antonio de Azevedo, Mello Breyner, Azevedo Neves, Mattos Chaves; Members, Drs. Annibal Bettencourt, Professor Clemente Pinto, Professor Daniel de Mattos, Professor Ricardo Jorge, Dr. Silva Carvalho, and Dr. Zeferino Falao.

Sections.

The scientific work of the Congress will be distributed among seventeen Sections as follows:

I. Anatomy (Descriptive and Comparative Anatomy, Anthropology, Embryology, Histology).
II. Physiology.
III. General Pathology, Bacteriology, and Pathological Anatomy.
IV. Therapeutics and Pharmacology.
V. Medicine.
VI. Paediatrics.

VII. Neurology, Psychiatry, and Criminal Anthropology.
VIII. Dermatology and Syphiligraphy.
IX. Surgery.
X. Medicine and Surgery of the Urinary Passages.
XI. Ophthalmology.
XII Laryngology, Rhino'ogy, Otology, and Stomatology.
XIII. Obstetrics and Gynaecology.
XIV. Hygiene and Epidemiology.
XV. Military Medicine.
XVI. Forensic Medicine.
XVII. Colonial and Naval Medicine.

LANGUAGE.

French is the official language of the Congress. In the general meetings, and in the Sections, German, English, and French may be employed. In the Sections any other language may be used, provided one of the members present supplies an immediate translation of what is said into one of the languages officially recognized.

NATIONAL COMMITTEES.

The following is the list of National Committees so far constituted:

Bosnia-Herzegovina.

President: Dr. G. Kobler, head of the Sanitary Department of Bosnia.
Secretary: Dr. Theophilus Koetschet.

Colombia.

President: Dr. LL. Barreto President of the National Academy of Bogota.
Secretary: Dr. Pedro M. Ibañes.

Croatia and Slavonia.

President: Dr. Ladislav Rakovac.
Secretary: Dr M. de Cackovic, Editor of the *Liecnicki Viestnik*.

Denmark

President Professor Oscar Bloch.

Greece

President: Professor E. Kallionlis
Secretary: Dr. S. Kanellis.

Hayti.

President: Dr. Roche Grellier, Professor of Operative Surgery in the National School of Medicine.

Norway.

President: Dr. M. Holmboe.

National Committees are being organized for Great Britain by Dr. F. W. Pavy; for Spain by Professor Julian Calleja, of Madrid; for the United States by Dr. J. H. Musser, of Philadelphia; for Australia by Dr. Crivelli, of Melbourne; for Argentina by Dr. Emilio Coni, of Buenos Aires; and for Egypt by Dr. Hassan Mahmoud Pacha, of Cairo.

ASSOCIATION NOTICES.

THE COUNCIL OF THE ASSOCIATION.

IN the List of Members published in the SUPPLEMENT of May 14th, was included the names of members of the Council, but the co-opted members were unfortunately omitted, namely: Surgeon-General G. J. H. Evatt, C.B., Mr. D. A. O'Sullivan, Mr. Edmund Owen, Professor R. Saundby, and Dr. J. Roberts Thomson.

NOTICE OF QUARTERLY MEETINGS OF COUNCIL FOR 1904.

MEETINGS of the Council will be held on Wednesdays, July 6th, and October 19th, in the Council Room of the British Medical Association, 429, Strand, London, W.C.

ELECTION OF MEMBERS.

ANY candidate for election should forward his application upon a form, which will be furnished by the General Secretary of the Association, 429, Strand. Applications for membership should be sent to the General Secretary not less than thirty-five days prior to the date of a meeting of the Council.

BRANCH MEETINGS TO BE HELD.

BATH AND BRISTOL BRANCH: BATH DIVISION.—The annual meeting of this Division will be held at the Royal United Hospital, Bath, on Monday, June 20th, at 6.15 p.m., Mr. R. J. H. Scott in the chair, for the purpose of electing officers, members of the Branch Council (there are five vacancies), and for such other business as may be done at an annual meeting.—W. M. BEAUMONT, 4, Gay Street, Bath, Honorary Secretary.

BATH AND BRISTOL BRANCH: BATH AND TROWBRIDGE DIVISION.—A meeting of these Divisions will be held at the Royal United Hos al Bath, on Monday, June 20th, at 6 p.m., for the purpose of appoint Representative of the Divisions in Representative meetings of the As ia tion.—W. M. BEAUMONT, Bath, J. TUBB THOMAS, Trowbridge, Hon Secretaries.

BIRMINGHAM BRANCH.—The fiftieth annual meeting of this Branch will be held in the Medical Institute, Birmingham, on Thursday, Jun at 3.30 p.m. The retiring President, Professor Jordan Lloyd, will intro the President-Elect, Dr. T. E. Underhill. The annual dinner will be on the same date at the Grand Hotel, Birmingham.—J. T. J. MORR F.R.C.S., 5, Great Charles Street, Birmingham, Honorary Secretary.

BORDER COUNTIES AND NORTH LANCASHIRE AND SOUTH WESTMOR BRANCHES.—Notice is hereby given that nominations for a represen member on the Council for these Branches, signed by three me thereof, must be sent to me on or before May 29th.—FRANCIS R. 62, Warwick Road, Carlisle, Honorary Secretary, Border Counties Br

DUNDEE DISTRICT BRANCH.—This Branch will meet on Friday, 3rd, to consider the business of the Representative Meeting; to the Representative and other officers; and other business.— BUIST and G. HALLEY, Dundee, Honorary Secretaries.

EAST ANGLIAN BRANCH.—The annual meeting of this Branch w held at Lowestoft, on Thursday, June 23rd. Members wishing t papers or show cases should communicate with Dr. Gutch, Ipsw soon as possible.—B. H. NICHOLSON, M.B., East Lodge, Colch Honorary Secretary.

EAST ANGLIAN BRANCH: SOUTH SUFFOLK DIVISION.—The a meeting of this Division will be held at the Crown and Anchor Ipswich, on Thursday, June 2nd, at 3 30 p.m. Business: 1. Adopt Ethical Rules. 2. Election of officers of the Division. 3. Elect Representative on Branch Council. 4. Election of Executive Comm 5. Election of Ethical Committee. 6. Election of Representati Representative Meetings. 7. To receive the annual report of the E tive Committee. 8. To consider the business of the Annual Represen Meeting, as published in the SUPPLEMENT to the BRITISH M JOURNAL, May 7th. 9. To transact any business that may be trans at an ordinary meeting.—JOHN GUTCH, 28, Fonnereau Road, Ips Honorary Secretary.

EAST ANGLIAN BRANCH: SOUTH AND WEST SUFFOLK DIVISION.—A meeting of these two Divisions will be held at the Crown and A Hotel on Thursday, June 2nd, at 4.30 p.m., to elect the joint Repr ative of the two Divisions for the Representative Meetings of the As tion.—JOHN GUTCH, 28, Fonnereau Road, Ipswich.

EAST YORK AND NORTH LINCOLN BRANCH.—The annual meeting Branch will be held at the Royal Infirmary, Hull, on Saturday, Jun at 4 p.m., to be followed by the annual dinner the same evening.— HAINWORTH, 16, Albion Street, Hull, Honorary Secretary.

EDINBURGH BRANCH: SOUTH-EASTERN COUNTIES DIVISIONS.—The a meeting of this Division will be held in the King's Arms Hotel, Me on Thursday, June 16th, at 3 p.m. Business: (1) Election of bearers. (2) Consideration of motion, of which Dr. Hamilton (Hawic given notice, "That the Division invites all the members of the Edinb Branch to meet at Hawick in July"; and of a further motion, " alternately, the annual meeting of the Branch be held in one county towns within its area, and that it be held next year at Hav (3) Consideration of agenda of the Annual Representative Meeting held at Oxford, in order to instruct the Representative of Division lines to follow when the various questions come under discussio Consideration of the Contract Practice inquiry issued by the M Political Committee.—W. HALL CALVERT, The Laurels, Melrose, Hon Secretary.

EDINBURGH AND FIFE BRANCHES.—The names of candidates for tion as members of Council to represent these Branches must be s Dr. Logan Turner, 27, Walker Street, Edinburgh, on or before Ju Each candidate must be nominated in writing by three members Conjoint Branches, which are entitled to elect two representati NORMAN WALKER, 7. Manor Place, Edinburgh, and A. LOGAN TU 27, Walker Street, Edinburgh, Secretaries of the Edinburgh Bra R. BALFOUR GRAHAM, Sea View House, Leven, Secretary of the Branch.

GLASGOW AND WEST OF SCOTLAND BRANCH.—Nominations fo office of Representative of this Branch on the Council (the Branch ing two), each signed by three members, must be in the hands Honorary Secretary on or before June 15th.—JAS. H. NICOLL, 4 Woo Place, Glasgow, Honorary Secretary.

LANCASHIRE AND CHESHIRE BRANCH: CHESTER AND CREWE DIVIS —The annual meeting of the members of the above Divisions will be at the Chester General Infirmary, in the Board Room, at 5 p.m., on day, May 31st. Agenda: (1) Minutes of the last meeting. (2) A report of the Committee. (3) Election of officers for 1904-5 (Rules 5, 9). (4) Election of the Representative of the Divisions of Chester Crewe on the Branch Council. (5) Election of the Representative o Divisions of Chester and Crewe at the British Medical Association an meeting. (6) To make or alter any rules. (7) To consider whether me witnesses should meet in consultation. (8) Any other business. (provided by the Honorary Secretary) will be served at 4.30 p.m.— KING, M.D., 26, Nicholas Street, Honorary Secretary, Chester Divisio

LANCASHIRE AND CHESHIRE BRANCH: SALFORD DIVISION.—The an meeting of this Division will be held at the Palatine Hotel, Manche on Tuesday, May 31st. The business will include the election of off

representatives and consideration of the notices of motion to be ght before the Annual Representative Meeting.—J. H. Taylor, ccles New Road, Salford, Honorary Secretary.

ITA AND MEDITERRANEAN BRANCH.—The annual meeting of the ch will be held at No. 76, Sda. Teatro, Valletta, on May 30th, at 5 p.m. da: 1. Confirmation of minutes. 2. Correspondence. 3. Ordinary ess. 4. Reading of papers. 5. Election of officers and members of ncil. 6. Election of Representatives for Representative Meetings. nual report of Council. The Secretary would be pleased to receive nunications from any member who wishes to read a paper or show or specimens.—T. M. Zammit, Valletta, Honorary Secretary.

TROPOLITAN COUNTIES BRANCH: HAMPSTEAD DIVISION.—The annual ng of this Division will be held at the Hampstead Conservatoire, Cottage, N.W., on Friday, June 3rd, at 4.30 p.m. Dr. Ford Anderson preside. Agenda: (1) Minutes. (2) Election of officers (Chairman, Chairman, and Secretary); election of two Representatives on the ch Council; election of seven members of the Executive Committee. ection of Representative of the Division in Representative Meetings Association. (4) To receive annual report of Executive Committee. consider the business of the Annual Representative Meeting (Notices tion have been published in the British Medical Journal of April nd 30th). Amongst them are the following: By the Hampstead Divi- (1) That it is advisable that all Association business notices be with- from the Journal and be collected and published in the Supple- , so that the Journal be purely medical. (2) That it is advisable he good idea of the Year Book be developed; that it should contain mes and addresses of all members, medical regulations, and other s of general interest to make it a real handbook of medical informa- (3) That it is advisable that, having regard to the purity and relia- of the lymph supplied to public vaccinators by the Local Govern- Board, every practitioner should be placed on the same footing as vaccinators in respect to the Government supply of vaccine lymph. eration of Rules of the Division. Rule 5 to read: The officers of the on shall be a Chairman, Vice-Chairman, Secretary, who shall also Treasurer, and Assistant Secretary. Rule 6 to read: The officers e elected annually in the annual meeting of the Division, "the nan being eligible for re-election for one year, after which he may ld the same office within five years." (7) General business.—J. Dill LL, F.R.C.S., Osman House, Fortis Green, N., Honorary Secretary.

AND BRANCH.—The last day for sending in nominations of elective ers of Council for this Branch is May 31st.—F. M. Pope, 4, Prebend Leicester, Honorary Secretary.

AND BRANCH.—The annual meeting of this Branch will be held Exchange, Nottingham, on Thursday, June 9th, under the pre- y of F. R. Mutch, M.D. Full particulars in the circulars sent to ember. Any member having any communication to make or to read is requested to communicate with Honorary Secretary, M. Pope, M.D., 4, Prebend Street, Leicester.

THERN COUNTIES OF SCOTLAND BRANCH.—In accordance with 22 of the Constitution the election of a Representative in the Council of the Association must be made by voting papers sent member, and the candidates' names must be sent to the under- on or before May 28th, and the nomination paper signed by members.—J. Munro Moir, 4, Ardross Terrace, Inverness, ry Secretary.

H LANCASHIRE AND SOUTH WESTMORLAND BRANCH.—The annual t of this Branch will take place at the County Hotel, Ulverston, on th, at 3 p.m. There will also be a joint meeting of the Furness dal Divisions to elect their Representative. Members willing to ses, specimens, etc., are requested to communicate as soon as pos- th the Honorary Secretary, A. S. Baeling, High Street, Lancaster.

H OF ENGLAND BRANCH.—The annual meeting of this Branch will at South Shields on Wednesday, June 8th, at 2.30 p.m. Further ars will be given by circular.—Alfred Cox, Cotfield House, v Road, Gateshead, Honorary Secretary.

H OF ENGLAND BRANCH: NORTH NORTHUMBERLAND DIVISION.— ual meeting of this Division will be held at the residence of Dr. , Bondgate Without, Alnwick, at 3.30 p.m. on Thursday, June siness: To elect officers (see rules of Division); any other busi- . B. Robson, M.B., Alnwick, Honorary Secretary.

WALES AND SHROPSHIRE BRANCH.—We hereby give notice that ions for a Representative on the Council of the Association, y three members of the Branch, must be received not later than , by W. Jones Morris, Is-y-Coed, Portmadoc.—W. Jones Morris, Macleod, and H. Jones Roberts, Honorary Secretaries.

-EASTERN BRANCH.—The sixtieth annual meeting of this Branch held at Grand Hotel, Eastbourne, on Wednesday, June 22nd, at . Mr. J. H. Ewart (President-elect) kindly invites members to the hotel from 1 to 2 p.m. Agenda: In addition to the business inary meeting. 1. To receive the report of the election of new who shall thereupon take office. 2. To receive the report of the on the affairs of the Branch and the annual financial statements. ke new rules or alter or repeal existing rules (if so desired). rking gives notice that he will move: That in the opinion of this the present South-Eastern Branch should be divided into two separated by a line running roughly between London and and that the opinion of the Divisions concerned be obtained on ion. After the meeting drives will be arranged to Beachy Head nsey Castle. Dinner at the hotel at 6.45 p.m., charge 6s. 6d. be provided by the local members). Those who propose to be t lunch or dinner are requested to signify their intention to Dr. Chiswick Place, Eastbourne, not later than Monday, June 20th. ER VERRALL, 97, Montpellier Road, Brighton, Honorary Secre-

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SOUTH-EASTERN BRANCH: NORWOOD DIVISION.—The annual meeting of this Division will be held at the Art Club, Blackheath, on Thursday, June 9th, at 4 p.m., Mr. Herbert Buxton, F.R.C.S., of Blackheath, in the chair. Agenda: (1) Minutes of last meeting. (2) To decide where the next meeting shall be held and to nominate a member of the Division to take the chair thereat. (3) To elect officers, the Representatives of the Division on the Branch Council, and ordinary members of Executive Committee. (4) To elect the Representative of the Division in Representative Meetings of the Association. (5) To receive annual report of Executive Committee. (6) To consider business of Annual Representative Meeting. (7) To consider existing rules and discuss whether any alterations are necessary. (8) Any other business. Several papers are promised, the particulars of which will be announced. A dinner will follow the meeting.—Henry J. Prangley, Tudor House, Anerley. Honorary Secretary.

SOUTH MIDLAND BRANCH.—The annual meeting of this Branch will be held at Winslow, Bucks, on Thursday, June 16th, under the presidency of Dr. Kennish. Mr. Horace Savory (Bedford) will read a paper on a Case of Benign Papilloma of Renal Pelvis; Haemothorax, Nephrectomy, Recovery. Members wishing to read papers or show cases or specimens must communicate with the Honorary Secretary not later than June 6th. —E. Harries Jones, 45, Sheep Street, Northampton, Honorary Secretary.

SOUTH MIDLAND BRANCH: NORTHAMPTONSHIRE DIVISION.—The annual meeting of this Division will be held at the Library, General Hospital, Northampton, on Thursday, June 2nd, at 12 noon, under the presidency of Dr. Buszard. Agenda: Minutes of annual meeting, 1903. Election of officers. To receive Divisional report. To discuss: (1) The question of the advertising of medical practitioners in connexion with hydropathic establishments. (2) Whether it is desirable that the medical witnesses engaged on each side in legal cases should meet in consultation. (3) The formation of a Medical Defence Committee of the Association.—E. Harries Jones, 45, Sheep Street, Northampton, Honorary Secretary.

SOUTH WALES AND MONMOUTHSHIRE BRANCH.—The annual meeting of this Branch will be held in the Board Room of the Infirmary, Newport, on June 9th, at 4 p.m.—D. R. Paterson, Cardiff; F. G. Thomas, Swansea, Honorary Secretaries.

SOUTH WALES AND MONMOUTHSHIRE BRANCH: SOUTH-WEST WALES DIVISION.—The annual meeting of this Division will be held at the Stepney Hotel, Llanelly, on Tuesday, May 31st, at 2.30 p.m. Agenda: 1. President's address. 2. Minutes of last meeting. 3. Report of Executive Committee. 4. Election of officers. 5. Discussion on Medical Defence Scheme of British Medical Association. 6. Consultation of medical witnesses on each side in legal cases. 7. Advertising of medical men in hydros. 8. Contract practice. 9. Report on Midwives Act. 10. Any other business. 11. Mr. D. J. Williams, F.R.C.S.: (*a*) Case of appendicitis with unusual complications; (*b*) cases illustrating conservative surgery of foot. Dr. Sydney J. Roderick: Cases illustrating *x*-ray treatment. Dr. Edgar Davis: Paper on inversion of uterus. Dinner will be provided for 5.30 p.m. for all those who signify to the Secretary on or before May 28th their intention to be present.—S. Glanville Morris, Maerdy, Glamorgan, Honorary Secretary.

STAFFORDSHIRE BRANCH.—The annual meeting of this Branch will be held at Wolverhampton, on Thursday, June 16th.—E. Petgrave Johnson. Brook Street, Stoke-on-Trent, Honorary General Secretary.

WORCESTERSHIRE AND HEREFORDSHIRE AND GLOUCESTERSHIRE BRANCHES.—Nominations for the election of a Representative on the Central Council for these grouped Branches must be sent, signed by three members, on or before May 31st, to Dr. G. W. Crowe, Worcester, Honorary Secretary.

YORKSHIRE BRANCH.—Preliminary Notice.—The annual meeting of this Branch will be held at Leeds on Wednesday, June 22nd. Members wishing to read papers or show cases or show cases or specimens are requested to communicate with the Honorary Secretary as soon as possible. Annual dinner at 6.30.—Adolph Bronner, 33, Manor Row, Bradford, Honorary Secretary.

YORKSHIRE BRANCH.—Notice is hereby given that nominations of Representative Members of Council for this Branch must reach me not later than June 6th.—Adolph Bronner, 33, Manor Row, Bradford, Honorary Secretary.

SPECIAL CORRESPONDENCE.

VIENNA.

A Trio of Anniversaries.—The Antituberculous Campaign.—Contract Medical Practice.

THREE of the most prominent members of the medical faculty of the University of Vienna have recently celebrated the anniversary of the day upon which they obtained their M.D. degree and were received into the profession. The anniversaries thus celebrated are the fiftieth, fortieth, and thirtieth: the fiftieth in the case of Weinlechner, Professor of Surgery; the fortieth in that of Toldt, Professor of Anatomy, and the thirtieth as regards Zuckerkandl, also Professor of Anatomy. Weinlechner, who just now had to retire from practice on account of old age and weakness, is well known by his book, *The Principles of the Surgery of the Heart*. He enjoys also a well-earned reputation for his work on conservative treatment of tuberculous affections of surgical nature. Professor Toldt

is perhaps the most eminent anatomist in the German world now Virchow and His have gone. His strict scientific manner of lecturing makes his words the more valuable since there is not a single unnecessary syllable used. He teaches and taught his pupils to make their remarks in brief fashion, saying only what is absolutely necessary, and relying only upon facts visible and demonstrable to all. His main work is the anatomy of the brain, which owes much to his classical studies of the fibres of nerves and nervous tissue from the point of view of comparative zoology. President of the Anthropological Society, he has also been a great advocate of the international uniform terminology in medical works throughout the world. Professor Zuckerkandl is the very reverse of his colleague. Quick wit along with excellent observation and love of the humorous side of things make his lectures a brilliant series of ingenious remarks. He is the idol of the younger students, and his way of bringing home to them anatomical facts is unsurpassed for its thoroughness. His best known works are *The Anatomy of the Sinuses of the Nose*, *The Histology of the Ear*, *The Histology of the Mucous Membranes of the Digestive Organs*, and the well-known *Anatomical Atlas*, which has been translated into several different languages.

The question of dealing with tuberculosis in Austria has been the subject of a brilliant gathering, where a number of professional men, together with influential politicians and business men, listened to an address delivered by Dr. Löw. He advocated (1) the establishment of Government supervision over the milk supply; (2) foundation of "homes" for diseased children on our warm sea coast; (3) regular examination of the school children by specially appointed qualified men; (4) reforms in the housing of the poor. A certain number of sanatoria for poor tuberculous patients have already been erected near the principal towns in Austria but mostly on private initiative, and their annual reports show the benefit of such institutions to the general public.

For the last fourteen years it has been a legal obligation on all trades-unions to make arrangements for contract medical attendance, and so many evils have resulted to medical men that resolutions condemning it are constantly being passed. The present pay is ridiculously low, a doctor receiving often not more than £60 or £70 a year, and for that sum having to treat all cases of sickness among three or four thousand members. Drapers' assistants, tailors, shoemakers, ironfounders, labourers—in short every class of workers has a sort of "provident society" to which they are bound by law to belong, and thus have the benefit of free professional advice, medicine, and sick pay of between 1s. 6d. and 3s. Thus a great part of the population does not require the help of private practitioners, whilst those under contract are overworking themselves. The present "Board of Doctors" (*Aerztekammer*) is considering in what way the evil can be met.

MANCHESTER.

Increase of Rates and Instruction in Cookery.—Dirty School Children.—Re-erection of Dr. Schunck's Laboratory at Owens College.—Self-supporting Convalescent Homes.

Manchester lately, like other communities, has been groaning under the burden of its rates, but Sir James Hoy, in moving the adoption of the estimates of the Education Committee in the City Council, while admitting that a large part of the increase rested with Parliament, foreshadowed a matter of profound importance when he said that he believed the committee would have to face a large expenditure, not only for schools "which were insufficient and insanitary, but for the teaching on a large scale of domestic economy and cookery, for which he believed there was absolute need..... There was nothing the city council could do to lighten the lot of the working folk of the town comparable with what might be done in the adequate teaching of those subjects to those who were to become the mothers of the community in a few years." This is the kernel of the matter, expressed pithily and, so far as the corporation is concerned, convincingly, for they voted the sum required. It is refreshing and encouraging to read such outspoken truths, and still more so to find that the sinews of war are provided for impressing these truths on "those subjects who are to become the mothers of the community."

Let this be writ large. "The filthy condition of the children is, of course, chiefly due to the carelessness and indifference of the mothers." This is a statement made, according to the lay press, by Dr. Williamson about school children in Ancoats: "The majority of schoolgirls suffer from pediculi. Scabies is a common affection, and the children's clothing usually con n fleas in the warmer half of the year."

A short time ago Manchester through Roscoe felt itsel n touch with Bunsen, of Heidelberg; on July 1st the asso a- tion between Liebig, then of Giessen, and H. E. Schunck l become a tangible reality. The secret of coloration d colouring matters lies hidden in the recesses of the lo r organisms or lowly cells. It is the same story in vegeta le and animal function. Dr. Schunck made his first investa- tion on the colouring matters obtained from certain lich s. Schunck's first paper dates back to 1841. From the ind o plant he isolated the glucoside, which he named indi n. During his lifetime he made arrangements for carrying on the work that lay near his heart. He set aside money or the endowment of chemical research in Manchester, and e- queathed his laboratory and library to Owens College un r certain conditions as to site. Conditions have been arran d between Dr. Schunck's executors and the College under wh h the whole "laboratory and library" are now about to d themselves transported and, phoenix-like, resuscitated o new ground, where they will prove accessible and fulfil in e highest degree and to the fullest extent the desire and e- long wish of the generous and distinguished donor. It a happy augury for their success that Dr. Perkin, se or F.R.S., one of the oldest friends of Dr. Schunck, has b n asked and has consented to open the transported Schu k Laboratory.

The desirability of providing self-supporting convales nt homes for the working people of Greater Manchester a s considered at a meeting held on May 19th, and a resolu n was adopted approving such provision. A sum of £10,00 is required for the first home, and this it is proposed to r se by a bazaar. The contributions made to medical charitie by the working classes in Manchester are greatly behind th se collected in Leeds and Birmingham. In Birmingham last a the amount collected by the Hospital Saturday Fund a £18,603 and in Leeds £11,136, but in Manchester and Salf d —the "twin cities"—it was only £4,536.

HONG KONG.

Bubonic Plague During the First Seven Months of the Year 19

The report of the Acting Medical Officer of Health on h epidemic of bubonic plague during the first seven month o 1903 has been published in the *Government Gazette* of M y 25th. The period dealt with extends over seven mon s namely, January to July inclusive. The following table sh w number of cases, nationality, and sex:

No. of Cases.	Nationality.	Sex.	Per Cent.	Total.
824	Chinese	Male	66·2	1,245 Chinese
421	,,	Female	33·8	
29	European	Male	85·3	34 Europe s.
5	,,	Female	14·7	
37	Indian	Male	86·1	43 Indians
6	,,	Female	13·9	
17	Portuguese	Male	77·3	22 Portugue
5	,,	Female	22·7	
10	Japanese	Male	71·5	14 Japanes
4	,,	Female	28·5	
5	Others	Male	100·0	5 others.
Nil	,,	Female	0.0	
1,363				1,363 total ca s.

The types of plague returned from the public mortuary a shown in the following table:

—	Bubonic.	Septic.	Pneumonic.	Tota
Males	370	224	30	62
Females	233	111	15	35
	603	335	45	98

From the first table it will be seen that the percentage cases amongst Chinese females is still very high, being per cent. of the total Chinese cases. Of children unde years of age, 162 females and 155 males have been attack showing a very high figure for females.

The total number of known deaths has been 1,206, wh gives a mortality-rate of 88.4 per cent. If this be analy with regard to sex it is seen that out of 922 male cases th were 792 deaths, giving a male mortality of 85.9 per ce

and out of 441 female cases there were 414 deaths, giving a female mortality of 93.8 per cent. The death-rate for this year is therefore the smallest since the outbreak of plague in 1894.

The following are the death-rates for each epidemic since 1894:

Death-rate per Cent.

1894.	1896.	1898.	1899.	1900.	1901.	1902.	1903.
92.7	89.5	89.0	96.1	93.5	95.2	97.5	88.4

The hospital death-rate is 60.6 per cent., which is also the lowest on record in the Colony. In a table Dr. Pearse shows that the highest death-rate was amongst Chinese females, and was 95.72 per cent.

The following table shows the number of cases which have occurred, grouped into different age-periods both for males and females, with the number of deaths, recoveries, and rate of mortality for each group:

Age and Sex Distribution of Plague.

Age Period.	Total Cases.	Per Cent.	Sex.	Cases.	Per Cent.	Deaths.	Recoveries.	Death-rates.
								Per cent.
Under 1 year	29	2.13	M.	12	41.4	12	*Nil*	100 0
			F.	17	58.6	17	*Nil*	100 0
1 year to 5 years ...	92	6 74	M.	51	55.5	51	*Nil*	100.0
			F.	41	44.5	38	3	92.6
5 years to 15 years ...	196	14.30	M.	92	47.0	89	5	94.5
			F.	104	53.0	104	*Nil*	100.0
15 years to 25 years ...	313	22.90	M.	221	70.7	170	51	76 9
			F.	92	29.3	81	11	88 0
25 years to 45 years ...	530	38.80	M.	411	77.6	346	65	84.2
			F.	119	22.4	110	9	92 4
45 years to 60 years ...	125	9 10	M.	97	77.6	89	8	91.7
			F.	28	22.4	28	*Nil*	100.0
Over 60 years	56	4.10	M.	30	53 6	30	*Nil*	100.0
			F.	26	46.4	24	2	92 3
Age unknown	22	1.60	M.	8	36.4	7	1	87.5
			F.	14	63.6	12	2	85.7
Total	1,363	—	M.	922	67.6	792	130	85 9
			F.	441	32.4	414	27	93.8
						1,206	157	

The lowest figure is that for European females, in which there were 5 cases but no deaths. The rate for European males and females is still the lowest (11.76). The Chinese community show not only the highest percentage mortality (95 per cent.) but also the highest figure for each sex, the male mortality being 91.9 per cent. and the female 95.7 per cent.

Four hundred and thirty-three bodies have been found in the streets or on the hillsides, no doubt having been placed there to avoid the disturbance caused by disinfection of the house in which a case is found. A great many houses, therefore, which ought to be disinfected escape this precaution, and of course the undoubtedly infected clothing and the personal effects of the dead person made use of straight away by other people may be a ready means of spreading the disease. The percentage of bodies found in the streets and hillsides for the past six years has been:

Year 1898.	Percentage of bodies found		23.1
,, 1899	,,	,,	24.2
,, 1900	,,	,,	29.5
,, 1901	,,	,,	19.7
,, 1902	,,	,,	34.6
,, 1903	,,	,,	31.7

Dr. Pearse has shown by a special diagram that a definite relationship exists between rat plague and human plague. If looked at closely it will be noticed that the first notable rise in the rat infection at the sixth and seventh weeks is accompanied by a sudden rise of human plague in the sixth week, followed by a sudden fall in seventh week. The next point of note in the rat plague in the ninth and tenth weeks is accompanied by a continuous rise in human plague from the tenth to eleventh weeks, and again the rise in rat plague in the twelfth and thirteenth weeks is accompanied in the fourteenth and thirteenth weeks by a high rise in the human plague curve and followed by a great rise in the fourteenth week. The fall in rat plague of the fourteenth and fifteenth weeks corresponds to a heavy drop in human plague during the fifteenth week. The sudden rise again in the sixteenth week of rat plague accompanies a corresponding rise in the human curve, but the sudden fall again in the rat curve for the seventeenth week is not answered by a fall in the human curve. It is interesting to note that whereas the rat plague curve continues to ascend, reaching its maximum at the twenty-fourth week, yet the human curve reaches its maximum in the twenty-first week, and after that, with the exception of a slight rise in the twenty-third week, very rapidly falls, so that by the twenty-sixth week the human curve is lower than it was in the thirteenth week, although the rat curve is nearly 50 per cent. higher than it was at the thirteenth week. From the behaviour of the curves at the rise of the epidemic one would have expected to see the human curve keep up with the continued high level of the rat curve during the twenty-third to twenty-sixth weeks inclusive, but the fact that this is not the case must not be ignored. The epidemic of plague amongst rats evidently follows very much the same curve as does the human epidemic, but it seems to begin earlier and to endure longer, as though there were some factor or factors in the shaping of the epidemic which affected the rats earlier, and of which the influence passed off later from these animals than in the case of human beings. It is highly probable that rats have been imported into the Colony, but the price paid has been the same throughout the year (5 cents per head). Although the figures for the percentages of rats infected with plague may not represent the numbers of such rats properly belonging to the city, yet it is probable that the general trend of the rat curve is correct.

During the height of the epidemic it was discovered that poultry were being found dead in the markets more frequently than usual, which on bacteriological examination were found to have died from plague. The district from which these fowls were obtained could not be definitely ascertained, but they were probably bred around Canton. Two cats sent from houses where human plague had occurred were returned as plague-infected.

The preventive measures taken with a view to check the course of the epidemic have been: (1) The disinfection of houses in which plague has occurred; (2) the closure, especially at the beginning of the epidemic, of various blocks of houses where the disease had broken out, until such time as the houses could be disinfected and rendered rat-proof; (3) rat-preventive measures. The Sanitary Board offered shelter to the people turned out of the blocks, but very few availed themselves of the offer.

This year 352 men were inoculated (between March 11th and June 19th) with Haffkine's prophylactic fluid. Five men who had been inoculated afterwards developed plague. One was a European inspector, 2 were engaged in rat-catching work, 1 was an artisan in the Board's employ, and 1 a disinfecting coolie. The 2 former died, while the 2 latter recovered. The European inspector recovered.

On April 18th a gentleman requested that his house might be cleansed because he had noticed rats dying there. This was done and the family all removed to another house, all being apparently in good health. On April 20th the gentleman's mother died of plague. On April 21st the house where she died was disinfected, as well as the house from which the family had removed. The family in the meanwhile removed to a third house. In this house a daughter of the family was taken ill on April 24th and died in Kennedy Town Hospital on the 27th. This third house was disinfected on the 28th. After disinfection the family reoccupied this house, but on May 3rd removed to a fourth house, when another daughter was taken ill with plague on May 5th, but had felt indisposed from May 3rd. From this fourth house on May 21st the gentleman himself (the son of the family) was admitted to hospital with plague. From inquiries it was found out that the first case in this household was that of an amah who, however, left the family on first feeling unwell, and died two days later in the house of her own friends on April 16th. When cleansing the original house of the family on April 19th a dead rat was found under the bed which had been occupied by the amah, and on again cleansing and disinfecting the house after the report that the mother was suffering from plague, three more rats were found dead. These rats were not proved to have died of plague on examination, but it is possible that they may have done so, and that decomposition prevented a positive diagnosis.

In every case the disinfection was as thorough as possible, the gentleman's clothes which he had on being even disin-

fected (other clothes having been lent him for the time). It seems probable that the series of cases was brought about by personal contact. The sixteen days elapsing between April 28th and May 10th are more than the generally accepted incubation period, but the fact that the daughter reported on May 11th had been indisposed since May 3rd reduces the time elapsing between the two cases to nine days. The gentleman also was unwell for several days before he finally went to hospital on his own initiative to be examined.

CORRESPONDENCE.

THE GOVERNMENT LUNACY BILL.

SIR,—In a dislike of controversy, which is perhaps pusillanimous, I am apt to shrink from public discussions. But certain editorial comments in the BRITISH MEDICAL JOURNAL of May 21st on a Bill to amend the Lunacy Acts seem to me to call for further consideration, if not for dissent. You may be right: in the treatment of early insanity Scotland may be in advance of England; certification is no doubt troublesome; "asylum life" may be "exacting and depressing;" by it "patients trembling on the borderline of insanity" may be "hardened and crystallized into permanent insanity;" moreover, it may be "harsh, cruel, and vindictive" of the law to assert itself against those who for their own satisfaction actively or passively resist it, or break it. Perhaps when these statements are put with less asperity, and are brought into harmony with many other unregarded considerations, they may prove to have some truth and persuasion in them. My excuse for troubling you in the matter is that my experience of the treatment of the insane is intimate and yet detached from all or any personal or official tie. Although I never had charge of an insane person, I know the inside of every asylum and "licensed house" in England; I have had no little experience in mental disease, yet my attention has not been restricted to these maladies. So far, then, as my capacity goes, I should be able to look at the matter intelligently and dispassionately.

My first difficulty is to understand what is meant by a "borderline case," how to define it even in the rough practical way that one separates, let us suppose, insanity from sanity. For the phrase may mean an incipient case, or it may be applied to a patient who is perpetually a little crazy. For instance, a convalescent from influenza complains for a few days of intense depression, otherwise he is sane enough; yet in a few days more he has shot himself. Another young man suddenly devotes himself inordinately to prayer; and a few days later runs naked into the market to proclaim the Coming of Christ. For your expert readers I will forbear to quote more of such cases—cases plentiful as blackberries, of incipient, plausible, and usually curable but yet wayward and often very dangerous insanity. Are these borderline cases? If so, for how long do they remain on the hither side of the border? and when may we fairly decide that the border has been crossed? "Incipient insanity" I understand, as I understand incipient typhoid fever; but what is borderline typhoid fever? Again, a lady surprises her friends by manifesting some "harmless" delusion, remaining otherwise fairly sensible. Is this a borderline case so long as the delusion hurts no one but herself, and ceases to be so when her friends are inconvenienced—say, by prima facie legal advances of large sums of money to some needy philanthropist? Another kind of "borderline case" may be that of persons who are rather silly—rather too silly for free home life; but these persons are not the "tremblers" who drop into health or drop into chronicity; they are of an unhopeful kind, and, wherever they are put, will get as little harm as good.

That "asylum life".....".excites and depresses incipient lunatics into permanent madness" is a grievous charge. If this judgement be intended to refer only to the large pauper asylums—in which palaces, no doubt, there is much to desire and to regret—I must answer that we are now discussing well-to-do folk who pay three to six guineas a week to one of the "hospitals" or "licensed houses"; or, in your alternative, for "single care" in a private house, say, of a medical man. Now, if the results of the system of treatment, say, at the Retreat at York—which as the leading house on modern methods I may name, but only as first among its peers—if the results of this treatment, at the sixteen hospitals and the principal licensed houses, is such as you describe, surely the urgent need is to make another destructive change—another revolution—in asylum management. For do your words not suggest to us not only that these institutions work evil rather than good, but that all and any elaborate treatment of the insane is hitherto futile? To return to the example of typhoid fever: if a patient fall of this disease, no matter how mild and early the stage of it, we organize, while we may, a manifold system of treatment; we engage physicians and nurses, we arrange extern conditions, peculiar foods, equipments, medicines, and so o similarly for the insane these institutions, for good or evil in sheer waste of time and money, have been gathering abo them for half a century or more, all that science and practi can conceive or devise for a special and most difficult class sufferers. Physicians fitted for the peculiar work—partly natural bent, partly by arduous training, a highly complex a costly equipment—not to be extemporized, and not indeed practicable for occasional needs; nurses who, if trustworthy a efficient, are rare, and far too valuable to be set free occasional cases—all this has been built up; yet you say aft all rather than let the patient come under such influenc you will clap him into the house of some country physicia who has many other professional interests, who m possess no natural gifts nor acquired skill in this obscu subject, who is necessarily without special equipment a staff, and cannot easily attain them if he woul and whose house is retired from public observation. Th is scepticism indeed; and, if justified, our institutions f the wealthier insane had better be burnt to the ground. may be asked, What is this equipment which is so slow built up and cannot be extemporized? Well, it is not ea to delineate briefly and by bits a system which has slow grown up from many sides and under many influences. B to take one feature of it only; it is a canon of alienists th to attract the patient into some occupation is of the first i portance; yet to what various, all-pervading and elastic me cal system of the kind can a patient in "single care" be i troduced? The "girls" soon tire of getting up lawn tenn for him, and of cajoling him to play; the horse is oft wanted for market or railway station; and ere long, after few good-natured attempts, the patient is directed to weed t garden while his physician is out on his rounds.

Within a certain period I visited most, if not all, t "single patients" in England; speaking generally, I fou them well provided with bodily comforts; they had as mu attention as any other patient on the physician's list; wi and daughter were usually good-natured, not often very in mate, rarely skilful companions; to such a share as might convenient in other people's amusements the patient w admitted; but if there be any such thing as expert a systematic treatment for insanity certainly the "sing patient" did not get it.

To cure the incipient case the whole house must be ma subordinate to this one arduous purpose; but, as things a the final cause of the single patient is, let us say, the high laudable purpose of sending Jack to the University. *A ces pères de famille.* Let us be thankful that in the obscuri of these English homes I found, or rarely found, any positi evil; but let me ask what is the current medical opinion mental therapeutics? that a case of insanity needs as mu apparatus as a laparotomy? or as little as the measles?

Then there are the certificates. Well, Sir, if you suppo that the English people are going to let a word from A. or I or even from Sir William Gowers, deprive one of themselv of his personal liberty—and this under circumstances of st closer retirement—you are very much mistaken; or, if y prove right, the English people and the Lord Chancellor, f better or worse, have undergone a strange turn of temp since the Act of 1890 was under discussion. Remember, t "borderline lunatic" is not always a lamb. If he refuses h soup, unskilled persuasion may get him fed; but what if h throws his soup in the attendant's face, if he insists on u dressing with the gas on and the blinds up? Who is to master, and by what methods? If he insist on going out midnight to look at the moon, is the common law to be su pended, and by whom? If the word "certificate" is an ug one, change it for another; but surely there must be some publ guarantee. A sensible justice signs his order without goi near the patient or his friends, unless specially invited; a surely it is no extravagance to require two physicians to p their opinions in writing. But, it is urged, the "mere fac of having been "under certificates"—of having been in an i stitution—presses very hardly on the patient in after-lif Now, the truth is that the hardship lies, not in the certificate nor even in the institution; it lies in the terrible nature the misfortune itself. A few years later, generally on question of marriage, people mutter that he or she was on

put away somewhere"—where or how, no matter; their fair is with the substance not with the form.

The force of your criticisms, Sir, lies in this that the prevalent ethods of treatment of insanity are not even yet individual nough. County asylums have too much of the barrack, retreats r the wealthy too much of the hotel. For the poorer we want e village system; for the richer a farther extension of the lla system which of late years has made much way. Public thorities have now powers to provide retreats for the althier insane. How great a work might they do if, instead of regarding insanity as a disease to come and go as comprehensibly as sunshine and cloud, they would lay out the patients villas and bungalows in a park about a central ovision of all that science and art can conceive for the elioration of their estate, all that skill and variety can apt for each, all the means and conditions which correond to particular frailties. If such resorts were legally rested with exceptional powers of control, exercised under e eye of justice and commissioner, no certification would be essary; every case would be investigated officially on application, and the patient detained or dismissed on the rits. Moreover, many nervous maladies not mental, or but h in part only—such as hysteria, neurasthenia, chorea, omnia, and so forth—would also be admitted to the adtages of electrical means, massage, hydrotherapeutics, sic and the drama, arts and crafts, games and sports, and ny other such influences; so that residence in such parks ld not necessarily denote an attack of mental insanity lf. This is no impracticable notion; as things now are, mere cost of such an establishment is incurred over and r again.

conclusion, if we are satisfied that all organization of means the cure of diseases of the mind are vain, we may return to signments of patients upon whom has fallen the first low of the most appalling of bodily calamities to the neat es, occasional bismuth mixtures, and friendly insigance of us country doctors—though, for my part, I should very helpless in dealing with my charge; but if, on the r hand, we hope that, however painfully and imperfectly, ntion and organization of mental, moral, and physical cies for the cure of insanity are making some considerable advances, such obscurantist proposals must be either a sel of despair or pills for an earthquake.—I am, etc.,

nbridge, May 23rd. T. CLIFFORD ALLBUTT.

THE ASSOCIATION AND MEDICAL DEFENCE.

,—Dr. Verdon-Roe's suggestion that non-members may the medical defence scheme of the Association, on pay- of 10s. per annum, is a sound one, although little pathy need be felt for those who refuse to join an Associa- which is now actively endeavouring to defend the ests and honour of the medical profession. This exten- of the privileges of the scheme at any rate removes one he only forcible argument against it.

amalgamation of existing defence unions and the tion of the present undignified competition between are urgent needs, and if the officials of the Medical ice Union succeed in wrecking the present attempt at gamation under the aegis of the Association, it is their us duty to use their best endeavours in the immediate to join hands with the other defence societies, and to n end for ever to the unseemly bickerings which have d the past relations of the two leading societies.

hough in the past the Medical Defence Union has ren- good service in the promotion of union among us, it is loing us great disservice by sowing dissension and by ing amalgamation.

e listen to officialdom, and are so foolish as to persist intaining several societies, with councils, secretaries, and other costly appendages, to do the work of one, we deserve the taunt so often levelled at us that in ss matters we are but as little children. On those who for themselves, and who assess at their proper value guments of officialdom, I urge the acceptance of the t medical defence scheme, not because it is perfect or e it fulfils all our requirements—for in my opinion it mplete—but because it is a fair workable compromise, cause it is a first instalment and "an earnest of a good." Let us for once combine and get the scheme h. There will be plenty of time after for improving, g, and amending it.—I am, etc.,

Hempstead, May 23rd. A. G. WELSFORD.

—At the meeting of the Wandsworth Division on May 12th, when this subject specially came under discussion, it was argued by Sir Victor Horsley that the superior financial position of the British Medical Association, as compared with the medical defence societies, must necessarily make medical defence by the former preferable to the present system. Demurring to this, I contended that it had not been shown that the amount available for medical defence out of the Association funds was greater than the income of the two defence societies. Sir Victor Horsley at a later stage said that my objection was an "obvious truism," and that I had entirely misunderstood his argument. I fear I am still in the same predicament. He continued, "that he was only quoting the turnover of the Association to show that a body with a large financial income and expenditure was a stronger body than one with a smaller income and expenditure." I must confess I fail to grasp the argument.

If the expenditure in the two cases were for the same objects, no doubt a comparison might be drawn; but where they are in no way comparable, it seems to me that the turnover of the larger Association is nothing to the point. If there is an underlying assumption that the British Medical Association is going to obtain in addition to its ordinary turnover a special income for medical defence equal to that of the existing defence societies, then it might fairly be argued that medical defence under the auspices of the former would rest on a firmer basis. But that is assuming that the proposed scheme must be successful, a very big assumption.

If the Medical Defence Union and London and Counties Medical Protection Society persist in continuing their corporate existence, I do not think any scheme instituted by the British Medical Association involving an extra subscription from members would be likely to succeed. Even if the London and Counties Medical Protection Society were willing to wind up—which I doubt—the result would be, in my opinion, more in favour of the Medical Defence Union than the British Medical Association, that is, more of its old members would join the former than the latter.

There is also one other point. Medical defence is essential to the welfare of the whole profession. The British Medical Association, although no doubt by far the largest professional body, cannot fairly be said to be identical with the profession. Is it desirable—nay, is it right—that every medical man should be compelled to join the Association to obtain the advantage of medical defence?—I am, etc.,

London, N.E., May 21st. MAJOR GREENWOOD.

APPENDICITIS AND OVARIAN CYST.

SIR,—The interesting case mentioned in the BRITISH MEDICAL JOURNAL by Mr. T. D. Ransford, F.R.C.S., to-day, entitled Case of Appendicitis complicated by the presence of an Ovarian Cyst, may make one wonder whether the diagnosis of trouble in an appendix from trouble in an ovary is quite as easy a matter as one is almost led to believe in the present day.

Some years ago I had a patient, a lady, who for a long time had suffered from frequent attacks of pain in the right iliac region, which had been diagnosed by an eminent obstetric surgeon as an ovaritis; she eventually died from suppurative peritonitis from a ruptured appendix!

Once I was removing a large ovarian cyst when I found attached to it, by firm adhesions, a large and long appendix, which I removed at the same time. This possibly may have accounted for the right iliac pain suffered from previously.

About two years ago I was removing an appendix in a woman who, from the history given, frequent attacks of pain, and a high temperature, had suffered from several attacks of appendicitis. On opening the abdomen, not thinking that the appearance of the appendix sufficiently accounted for her symptoms, I felt into the pelvis, and found a small ovarian cyst about the size of a walnut, and this I removed at the same time. It always seemed to my mind that this woman's symptoms may have been as much due to the small cyst as to the trouble in the appendix.—I am, etc.,

York, May 7th. W. H. JALLAND.

"TESTING THE EYESIGHT OF A NATION."

SIR,—I cannot permit Mr. Aitchison's letter in the BRITISH MEDICAL JOURNAL of May 14th to go unchallenged.

Is Mr. James Aitchison the person who has half a dozen shops in various parts of London? If so I would ask how can he guarantee to the public anything approaching personal superintendence?

Next, as a complaint against the whole class of prescribing opticians, I beg to state that in most instances in which a

patient has applied to me for advice as to simple errors of refraction, having previously gone to some prescribing optician, I have found that the charge made by the shopkeeper for the glasses has been more than my fee *plus* the charges of a firm like Curry and Paxton (who do not prescribe glasses) for the glasses they supply. When once a patient realizes this fact, and that there is no guarantee that the testing was done by a qualified man, his feelings towards the shopkeeper undergo a considerable change.

Where, as is often the case, the refractive trouble is simply presbyopia, these enhanced prices for rule of thumb prescriptions are downright robbery. In cases of astigmatism, on the other hand, inasmuch as thyroid enlargement, cardiac disease, and other troubles so often underlie the error of refraction, the routine prescription of spectacles is an offence against the patient, even if the prescribing shopkeepers have done the work accurately, which is often and often not the case. Progressive myopia is even less fit for such treatment, demanding as it does the most careful consideration of the general health.

To sum up: Of all medical impositions on the public that of the shopkeeper deciding upon glasses is probably the most pernicious. A few bottles of some quack remedy do little harm, but a few months of improper or incomplete treatment of eye troubles may mean, and do mean in many cases, irreparable disaster.—I am, etc.,

London, E.C., May 13th. A. OGIER WARD, M.D.

CONGENITAL HOUR-GLASS STOMACH, ETC.

SIR,—I have read with considerable interest the paper by Mr. W. F. Brook upon this subject in the BRITISH MEDICAL JOURNAL of May 7th. The case which Mr Brook relates undoubtedly furnishes strong evidence of the existence of this deformity as a congenital condition. In none of the cases whose records I have read is the likelihood of the congenital origin of the deformity so apparent as in this. There are several points, however, upon which further information would have been desirable, the relative thickness of the walls in the two cavities, for example, and the condition of the mucous membrane in each. In spite of the naked-eye appearance it is possible that ulceration had been present and had caused the constriction. After carefully considering the case I am inclined to agree with Mr. Brook that the condition was congenital. Dr. Batten has recently told me that there is a specimen in the museum of the Children's Hospital in Great Ormond Street showing an hour-glass stomach in a child. I have not yet had an opportunity of seeing the specimen, but it seems more than likely that it affords positive proof of the congenital origin of the deformity in some cases. In the paper to which Mr. Brook makes such kind reference I remarked that there was no inherent improbability in the congenital origin of the condition, but that no specimen and no record of which I had knowledge furnished any conclusive evidence upon the point. In any case it is an undoubted fact that in the very great majority of instances the deformity is acquired, and is the result of chronic ulceration or of malignant disease.

In Mr. Gilbert Barling's paper upon gastro jejunostomy there are several points which call for comment. The method of anastomosis used by Mr. Barling is almost precisely the same as that which I have described in papers before the Clinical Society and elsewhere, and in my judgement it is without doubt the best of all methods. In my early cases I used the Murphy button and Laplace's forceps, but I cannot agree that these or any other mechanical appliances have any advantage whatever over the method of simple suture. With practice the sutures can be applied as quickly as the button, which in all cases, if safety is to be assured, must be reinforced with one or more interrupted stitches. When the anastomosis is completed by simple suture there is nothing to fear from any defect in the method, whereas in the most skilful hands the button has given way at the end of a few days, and death has occurred from leakage. Even in malignant cases I do not think that any other method than that by simple suture should be practised. In applying the inner stitch, in the method I have described, it is essential that all the coats should be included. The mucosa, after removal of the ellipse, is sometimes elusive. Care is necessary to ensure that the needle picks up all the coats each time that it is passed. The stitch should be drawn tight so as to constrict the vessels in the cut edge. If this be done it is never necessary to ligature any vessel, though occasionally an extra interrupted stitch may be needed. The method which I described in the paper I have mentioned is, I find, very similar to that practised by Professor Hartmann in Paris. I had recently the opportunity of seeing him perform a gastro-enterostomy for simple stenosis of the pylorus, and I find that his method and mine are in principle very much the same. In both there is an inner haemostatic suture and an outer supporting suture. The difference is that I make each stitch continuous throughout, whereas Professor Hartmann has several points of fixation.

I do not quite agree with Mr. Barling as to the point on the jejunum which should be chosen for the anastomosis. Five or seven inches from the flexure seems to me to be quite low enough. The jejunum from the flexure to the anastomosis should form a straight line, not a loop. The loop is probably the chief cause of regurgitant vomiting, as it induces the formation of a kink at the new opening. The jejunum should be pulled tightly from the flexure, and the point which reaches the lowest part of the greater curvature chosen for the position of the new opening. If this is done, regurgitant vomiting does not occur. In 142 cases of gastro-enterostomy for simple diseases I have had 2 cases of regurgitant vomiting, and in each a loop was, I think, the cause. In my last 90 cases I have performed the operation as I have described, and no regurgitant vomiting has been seen. Patients after gastro-enterostomy indeed vomit less than any other patients upon whom abdominal operations have been performed. Regurgitant vomiting is a thing of the past. The fact that Mr. Barling selects so low a point on the jejunum would seem to me to account for the frequent reference he makes to regurgitant vomiting. It is certainly not the fact that the suture method is "more apt to be followed by regurgitant vomiting." The fault is not in the suture line, but in the selection of the wrong place for the anastomosis. A point about 4 to 6 or even 7 in. from the flexure upon the jejunum and the lowest part of the greater curvature of the stomach should be united, and I have found it an advantage to make the opening oblique.—I am, etc.,

Leeds, May 7th. B. G. A. MOYNIHAN.

THE OLIVER-SHARPEY LECTURE.

SIR,—In my address to the Royal College of Physicians on March 28th I inadvertently spoke of Dr. George Oliver, who recently founded and endowed the Oliver-Sharpey Lectureship at the College, as formerly of Harrogate—an expression which may, I am afraid, lead the Fellows of the College and others who may see my address to conclude that Dr. Oliver has left Harrogate. He informs me that he has no intention of leaving, and that he will in the future, as during the last fifteen years, reside and practise as a consulting physician in Harrogate during the summer months from June to October. Regretting the mistake I made and the annoyance I fear it has occasioned to our benefactor.—I am, etc.,

Belford, Northumberland, May 24th. W. S. CHURCH.

X RAYS IN THE DIAGNOSIS OF PULMONARY TUBERCULOSIS.

SIR,—In your report of the last meeting of the Clinical Society,[1] in the discussion on Dr. Stanley Green and Mr. Brook's paper on *X* Rays in the Diagnosis of Pulmonary Tuberculosis, I am represented as saying "that microscopical cavities could always be diagnosed by auscultation," which is the very opposite of my meaning. I intended to convey that auscultation, when properly applied, ought to detect all cavities except (1) microscopical ones, and (2) those where, for some reason or other, the bronchus was blocked. I also dwelt on making the patient cough before auscultating cavities.—I am, etc.

London, S.W., May 21st. C. THEODORE WILLIAMS.

PUERPERAL SEPSIS.

SIR,—I was greatly interested in the letter on this subject in the BRITISH MEDICAL JOURNAL of April 30th, as there is nothing which causes more worry to the general practitioner than cases of septicaemia after confinement. I think the number of cases can be greatly minimized if attention is paid to the following two points, as my experience and observation convince me that one of the two factors can always be found in cases of puerperal sepsis. The first is that there is some tear of the perineum which, of course, may be of the slightest, and not requiring any stitching, but which, if overlooked, is the cause of septic matter being absorbed, giving rise to temperature, etc. This source can be prevented if the parts are kept thoroughly cleansed and a little boracic acid dusted on

[1] BRITISH MEDICAL JOURNAL, May 21st, 1904, p. 1194.

daily. The other source is retention of some of the secundines, and no matter how careful one may be in expressing the placenta, sometimes a portion of membrane may be cut off, and to prevent this I advocate, in every case where there is the slightest suspicion of a portion of the membrane being retained, exploring the uterine cavity to make sure. I know many medical men object to this procedure as being dangerous and possibly a source of infection, but I think with due antiseptic precautions there need be no fear, and I venture to say that if these two points are carefully looked after in cases of confinement the cases of puerperal sepsis will be considerably diminished.—I am, etc.,

Mountain Ash, May 7th. ARTHUR T. JONES.

OBITUARY.

ETIENNE JULES MAREY,

Paris.

Professor in the Collège de France and Member of the Institut.

WE have to deplore the death of the distinguished occupant of the Chair of "Histoire Naturelle des Corps Organisés," Professor of the Collège de France and Member of the Institute—Etienne Jules Marey, which took place at Paris on May 16th. Like many who brought lustre to the Collège of François I. by their works, investigations, and discoveries—to mention only recent names associated in the great discoveries in biological science, Magendie, Bernard, and Ranvier—Marey was born in the Sunny South in the wine district of Beaune, in the Department of the Côte d'Or, on March 5th, 1830, just two years before the death of the illustrious Cuvier, and one before Magendie was nominated Professor in the Collège de France, as successor to Laennec.

So well known are some of Marey's investigations, and so familiar are their applications in practical medicine, that it seems almost unnecessary to narrate them. It is just because the name of Marey is so intimately associated with physiological research and with discovery that it is well to recall the results of his labours, and to point to his life of strenuous endeavour and successful achievement as a beacon light to illumine the path of the younger generation, and encouragement to go on in well-doing and diligent devotion to research. Marey pursued his medical and scientific studies in Paris. After a brilliant career he gained the bronze medals awarded by the hospitals in 1854 and again in 1858. During his residence as *interne* in various hospitals in Paris he directed his attention more particularly to the study of the functions and diseases of the circulatory system, and that on graduating in 1859 he presented a thesis entitled *Recherches sur la Circulation du Sang à l'Etat Physiologique et dans les Maladies.* The copy of the thesis now lying before the writer of this article is the one presented by the author to "Claude Bernard de l'Institut." Marey dedicated his thesis to his father, mother and friends, to Velpeau, Trousseau, Civiale, Milne-Edwards, Ricord, Malgaigne, Maisonneuve, Nélaton, and others. These names mark a great period in the history of medicine in the Parisian capital; it was also the period of Cruveilhier in pathological anatomy and of Piorry in clinical medicine. The thesis itself is divided into two parts, one dealing with the elasticity of the arterial wall, the other with vascular contractility, and these two properties of the vessels along with the beat of the heart were held to explain the movement of the blood in the vessels. Some of the diagrams, experiments, and schemata frequently repeated in his later works are to be found here. In fact, the study of motion and movement in every form and modification was the life-work of Marey, and the phenomena connected with the circulation of the blood remained throughout life a subject of enduring interest, always studied from the mechanical point of view and its phenomena explained by ascertained physical laws. Precision with regard to all these processes, both as regards form and time, was the dominant note of Marey's work.

After visiting Germany and making the acquaintance of Ludwig in Leipzig, Marey returned to France. In 1860 he invented his well-known sphygmograph.[1] Marey was not the first, however, to invent a "pulse writer." Vierordt of Tübingen in 1851 invented a rather clumsy form of this instrument, quite useless for the clinician. Marey used a light lever which was kept pressed on the artery by means of a spring. Breguet, the famous mechanician in Paris, made a clockwork arrangement to move the recording surface, and practically the handy sphygmograph as he knew it for clinical and other purposes was complete. In 1862 Marey gave a public course on the experimental physiology of the circulation and diagnosis of diseases of the heart and blood vessels. In 1864 he fitted up a small private laboratory where he carried on his researches chiefly on the circulation.

In 1867 Marey was appointed to the chair of "Histoire Naturelle des Corps Organisés," the chair of Cuvier and Duvernoy in the Collège de France, as successor to Flourens, who had died in the previous year, but who had ceased to lecture for many years previously—indeed, since 1848. The whole aspect of the subject of the chair changed under Marey. Flourens, although his name is associated with researches on bone and on the effects of removal of the brain, was also Perpetual Secretary of the Institut, was essentially a historian. His history of the circulation of the blood is well known, and so is his work on longevity and the discovery of the so-called "noeud vital." Marey, indeed, in 1868, in his first lecture on *Du Mouvement dans les Fonctions de la Vie*, specially points out that Flourens in his discourses had passed in review the life works of the "Naturalists" of the sixteenth, seventeenth, eighteenth, and nineteenth centuries. Marey proposed another course. The titles of Marey's works indicate the scope of his labours:—*Physiologie Médicale de la Circulation du Sang, basée sur l'Etude Graphique des Mouvements du Coeur et du Pouls Artériel* (1863); *Etudes Graphiques des Battements du Coeur et des Mouvements Respiratoirs* (1865); *La Machine Animale* (1874), translated into English under the title *Animal Mechanism: A Treatise on Terrestrial and Aërial Locomotion* (1874), *La Méthode Graphique principalement en Physiologie et en Médecine* (1878). The second edition in 1885 had this addition amongst others—*Sur le Développement de la Méthode Graphique par la Photographie. La Circulation du Sang a l'Etat Physiologique et dans les Maladies* (1881). In 1876 there appeared the first of four volumes, *Physiologie Expérimentale*, being reports of some of the work done in Marey's laboratory. Only four volumes appeared and the series closed in 1880. Marey along with Chauveau, d'Arsonval and Gariel was one of the directors of the recent *Traité de Physique Biologique*, to which he contributed the article on Animal Locomotion. To grasp fully the significance of Marey's work one must cast a glance at the times. Ludwig was born in 1816, Bernard, Donders and du Bois-Reymond in 1818, Brücke in 1819, Helmholtz in 1821, Pasteur in 1822, Chauveau in 1827, Fick in 1829, Marey himself in 1830. Of all these great men the veteran Chauveau, the co-worker and friend of Marey, alone survives. Already before Marey's first publication the basis of the graphic method had been laid and the method itself applied to the study of physiological problems by the German school of physiologists. Ludwig invented the kymograph in 1847, and recorded the blood-pressure with its cardiac and respiratory variations. Helmholtz in 1850 invented a simple form of myograph by means of which he recorded a muscle curve and determined its extent, duration, and time relations, and by the same means he measured the velocity of the excitatory change propagated along a motor nerve of a frog—a problem which his master Johannes Müller only shortly before declared to be incapable of solution. Du Bois-Reymond had for years been studying the electro-physical phenomena of living tissues and was busy with his "Frosch-strom," while in 1862 Fick in Zurich had invented his pendulum myograph. These and the work of E. H. Weber are the chief investigations cognate to the work of Marey. In his preface to his work on movement Marey justly claimed that he had introduced into France the graphic method as applied to biology. But Marey did more: he did much to extend its domain, and above all by the invention of mechanical appliances he enormously increased the armamentarium of the physiologist and also of the clinician. By using light recording levers, and by the application of various forms of tambours, receiving and recording, whereby movements could be transmitted by air pressure in tubes to any distance, and by applying, along with Chauveau, balloons containing air in inaccessible regions—for example, the cavities of the heart, the movements of organs both invisible and inaccessible by ordinary means, were accurately recorded. The most striking example of this is the cardiographic records of the classical experiments made by Marey and Chauveau in 1863 on the heart of a horse when Chauveau was Professor in the Veterinary College in Lyons. Chauveau gave a demonstration of this classical experi-

[1] *Recherches sur le Pouls au Moyen Appareil Enregistreur: Le Sphygmographe*, 1860.

ment at the Liège meeting of the Physiological Congress six years ago. The original tracings were shown at the International Exhibition in Paris in 1900. It was but a step from the study of the phenomena of the circulation and respiration by means of sphygmographs, cardiographs, and stethographs, to the study of muscular phenomena. With the aid of Secretan and Verdin—most competent mechanicians—new forms of recording apparatus were devised, so that the duration, form and extent of any movement could be accurately recorded and measured in all their relations. The recording drums of Marey are known and used everywhere. He adapted the regulator of Foucault to vary the speed; the speed itself was measured by electrical time-recorders or electric signals, of which Marey invented several varieties, all based on the vibrating tuning fork first used for this purpose by Thomas Young. Then followed the researches on the movements of man and animals on land, in water, and in air. To his aid Marey summoned the photographic camera with magazine plates, so as to take a series of instantaneous photographs which could be recombined to represent the actual movements. In his later years the City of Paris erected a laboratory for Marey just outside the fortifications, where the movements of man, horses, and other animals could be studied. In the *Travaux du Laboratoire* of 1876 we find Marey's important researches on the electrical phenomena of the torpedo, and also in 1875 under the title *Des Excitations artificielles du Coeur* the account of what is known as the "refractory period" of the heart during systole, that is, during systole the excitability of the heart is greatly lowered, and it does not respond to stimuli that are adequate during the phase of relaxation or during the pause. The immense importance of this phenomenon is obvious, and involves the conclusion that the heart cannot be tetanized as is the case with a skeletal muscle. This work was the complement to the researches of Bowditch made in Ludwig's laboratory on adequate and inadequate stimuli applied to the frog's heart, and to the further discovery the phenomenon of the "staircase" or "treppe" of the heart. In the same year (1875) he published his important memoir "On the means of using the motor work of man and animals" in which he showed the important part played by elasticity in saving the expenditure of energy as in traction and other processes. Indeed, the value of elasticity in saving energy is a subject that early attracted his attention and there are several most useful models and schemata invented by him by which this fact can be readily demonstrated to students. He made a profound study of the rate of propagation of waves in tubes filled with fluids as a basis for the study of the pulse waves. Amongst Marey's pupils are to be mentioned François-Franck, who for many years acted as Marey's "suppléant" at the Collège de France, and delivered lectures there; Ch. Richet; Tarchanoff and Mendelssohn of St. Petersburg; Tatin, whose researches on the flight of birds are well known; d'Arsonval, the successor of Cl. Bernard at the Collège de France, and Salathé who studied specially the cranial circulation.

In the latter years of his life Marey's health was indifferent, and even earlier a little extra physical exertion left its mark. Latterly he suffered from an affection of the veins and thrombosis. Marey was a member of numerous learned societies, and was elected to the Institut in 1878; his competitors were Charcot and P. Bert. He was elected to the chair in the Institut vacant by the death of Bernard. Only a year ago his friends and pupils presented him with an address, and in his honour a beautiful medal—in reality a plaque designed by Paul Richer—was struck. Marey was chairman of the Committee appointed at the Cambridge meeting of the International Physiological Congress to codify the units of measurement.

To understand Marey's position in regard to physiology it must be remembered that he was a Professor in the Collège de France, and not in the Faculty of Science nor in that of Medicine. He was free to prosecute his subject as he chose. The problems of physiological chemistry and histology were left untouched; the accurate study of mechanical movements in all their phases as exhibited by living beings, or parts thereof, attracted and arrested his attention. It was by his accuracy and conscientiousness that he was successful in advancing knowledge on these subjects, and his name, his methods, and his results are part and parcel of the science of physiology. The whole purpose and aim of the Professors in the Collège de France—with its motto "*Omnia docet*"—is not, however, to give didactic disquisitions on established facts, but, as Bernard put it, the professor has to regard himself as an explorer and investigator, and endeavour to fill in the gaps or lacunae which his scienc presents: "Il doit avoir les yeux tournés vers l'inconnu ve l'avenir." In the highest regard Marey, like Bernard, fu filled this idea of the generous founder of this uniqu institution.

Marey possessed a charming personality, modest and u assuming, but endowed withal with a gracious, stately, an unfailing courtesy. He was gifted with a ready power utterance, his thoughts were always expressed in graceful an choice language, and with a precision that left no doubt as his meaning. He did much work in connexion with th Academy of Sciences, in whose business he ever took a active part. Marey remained unmarried, travelled a goo deal, and was a welcome guest on the occasions of his all t rare visits to our shores. Like many of his countrymen, h dreaded the *mal de mer* and all its attendant evils, and fo him unpleasant consequences. It may be said of him, a Bernard said of Magendie, that he was "l'une des gloires d la médecine et de la physiologie française." To know h work was to respect and honour the man; to know the ma was to love him. Used in a physical sense "equity to th line, and justice to the plumb-line" might serve as th motto to be written large over the works of Etienne Jule Marey.

We are indebted to Sir Lauder Brunton for the followin personal note:—

The death of Professor E. J. Marey will be felt by many a a personal sorrow. For he had the faculty of endearing him self to all who knew him by his modesty, courtesy, and kind ness, at the same time that he compelled their admiratio by the greatness of his talents. I first made his acquaintanc in 1867, four years after the publication of his epoch-makin work, *Physiologie Médicale de la Circulation*. He had then hi laboratory in an attic in the Rue de l'Ancienne Comédie, an there had an old mechanician at work making various instru ments for examining the circulation. Although I was litt more than a student, he received me with a kindness whic won my heart, and as years went on I only learned the bett to know how kind he was. To Marey clinical medicine owe an immense debt of gratitude, for he introduced self-recordin instruments to the bedside. Vierordt had invented a sphy mograph several years before Marey, but it only recorded o a large cylinder, and its use was consequently confined t the laboratory, while by attaching a small clockwork t his instrument Marey rendered it available everywher Marey's investigations into the movements of the limbs i animals and man, and of the wings in birds and insects, a of the greatest possible interest and value as physiologic studies. But it is by his work on the circulation that he known best, and deserves best of the medical profession. Pe haps a hundred years hence, when the facts he discovered hav become so much a part of general knowledge that it will b forgotten who discovered them, he will be best remembere as the inventor of the method of registering movements b pneumatic transmission, and the introducer of recording in struments at the bedside. To his methods I owe myself deep debt of gratitude, for it was by one of Marey's haemod namometers that I examined the action of digitalis on bloo pressure, and by one of Marey's sphygmographs, lent to m by my friend Professor Arthur Gamgee, that I was able t ascertain the rise of arterial tension which occurs in som cases at least of angina pectoris, and thus led to use nitrite amyl for its relief.

P. J. HAYES, M.D., F.R.C.S.EDIN.,

Dublin.

WE have to record with regret the death of Mr. P. J. Hayes, Dublin, who until a year ago was in the active practice of hi profession. Qualified in 1859 as a Licentiate of the Roya College of Surgeons in Ireland, he became in 1879 a Fellow of th Royal College of Surgeons of Edinburgh. Early in his caree he was elected Surgeon to the Mater Misericordiae Hospita and this office he held until his recent retirement from prac tice owing to ill-health. He held various other appointments the most important being that of Lecturer on Surgery in th Catholic University Medical School. This position brough him within the arrangement existing between the Roya University and that body, and he was made a Fellow an Examiner in Surgery. Mr. Hayes was a most retiring mar but he was an enthusiastic and most competent surgeon, an his work in the Mater Hospital was of a high class. No being a Fellow of the Irish College, he never reached th presidential chair, a matter which was the subject of muc

gret to his friends. His kindliness was proverbial. A uple of years ago he showed symptoms of nephritis, and a vere attack of uraemia followed, but he rallied after some me. The disease, however, continued its progress, and ded in his death, to the great regret of a large circle of tients and friends.

ROBERTS BARTHOLOW, M.D., LL.D.,
Philadelphia.

E regret to announce the death of Dr. Roberts Bartholow, neritus Professor of Materia Medica and Therapeutics in e Jefferson Medical College of Philadelphia, and recog- zed throughout the medical world as an authority therapeutics. He was born in Maryland in 1831, d, after graduating in arts at Calvert College, he died medicine in the University of Maryland, taking doctor's degree in 1852. He joined the medical ff of the United States army in 1856, and after ving for eight years accepted the professorship of the ctice of medicine in the Medical College of Ohio at Cin- nati. In 1879 he migrated to Philadelphia, and was appointed the Chair of Materia Medica and Therapeutics in the ferson Medical College. Dr. Bartholow was the author *A Practical Treatise on Materia Medica and Therapeutics* and a treatise on *Practice of Medicine*, both of which were y successful and brought him wide reputation. The former hese works is now in its eleventh edition, while the latter been translated into Japanese. He was also the author ectures on the *Antagonism between Medicines and between edies and Diseases* delivered in New York in 1880, of a tise on hypodermic medication, etc.

R. GEORGE KARAMITSAS, Professor of Medicine in the versity of Athens, died on May 2nd. He was born at ylene in the island of Lesbos in 1834, and studied at the versity of Athens. After completing his studies he pro- ed to Wurzburg where he graduated in 1858. In 1870 he ified as Lecturer in Pathological Anatomy, and in 1875 as appointed Professor of Nosology and soon afterwards of the Municipal Hospital of Athens. In 1883 he was inted head of the Medical Clinic of the University. He ded a medical journal entitled *Asklepios*. He translated neyer's treatise on *Special Pathology and Therapeutics* into k, and was the author of a number of original works on ria, blackwater fever, and leprosy.

E regret to announce the death of Dr. GILLES DE LA RETTE, which occurred a day or two ago at Lausanne. t four years ago he was disabled by a stroke of apoplexy ght on, it was considered, by overwork. He has since in the greatest retirement, but has succumbed to a er haemorrhage. He was a *professeur agrégé* of the Paris lty, and a hospital physician. He was a favourite pupil harcot, whom he assisted for many years at the trière. He had won for himself a high reputation as a logist, and was the author of many valuable contri- ns to medical literature and the editor of the superb *graphie Médicale de la Salpêtrière.*

ATHS IN THE PROFESSION ABROAD.—Among the members e medical profession in foreign countries who have tly died are Dr. Camille Miot, of Paris, one of the ers of otology in France and author of numerous writings ubjects pertaining to that department of medical ice, age 66; Dr. W. F. Holcombe, sometime Professor of halmology and Otology in the University of New York; A. B. Arnold, formerly Professor of Medicine and logy at Baltimore; Dr. Francois Jouon, Professor of my in the Medical School of Nantes; and Dr. C. et, Emeritus Professor of Physiology in the University ntpellier.

ORRECTION.—Fleet Surgeon C. Marsh Beadnell, R.N., to point out some errors in a notice appearing in the SH MEDICAL JOURNAL of May 21st, p. 1226, relative to omotion. (1) He entered the navy medical service on 3th, 1896 not 1886. (2) He was specially promoted to staff n on May 2nd, 1900. (3) His staff surgeon's commission y 2nd, 1900, was antedated in 1903 to May 2nd, 1896. a special Order in Council the antedated staff surgeon's ission was altered from May 2nd, 1896, to May 13th, 1896, te of his entry into the service. It was said he could ve his commission dated on a date prior to his entry he service. (5) He was promoted to fleet surgeon on 3th, 1904.

ROYAL ARMY AND NAVY MEDICAL SERVICES.

ROYAL NAVY MEDICAL SERVICE.

FLEET SURGEON JOHN DOWSON is placed on the Retired List May 14th. He was appointed Surgeon, February 11th, 1884, and Fleet Surgeon, February 11th, 1900.

Fleet Surgeon HENRY HARRIES has been placed on the Retired List at his own request, May 21st. He joined as Surgeon, February 11th, 1884, and was made Fleet Surgeon, February 11th, 1900. He served with the Naval Brigade in the expedition against the Sultan of Vitu, in East Africa, 1890, was the Senior Medical Officer of the advanced Guard during the night attack of October 25th, and was commended by his commanding officer for his treatment of the wounded (mentioned in dispatches, medal with clasp).

The following appointments have been made at the Admiralty: JAMES D. C. MILLN, Surgeon, to Haslar Hospital, May 27th; HUGH W. MACNAMARA, Fleet Surgeon, to the *Impregnable*, June 1st; SAMUEL W. VASEY, Fleet Surgeon, to the *President*, for hospital course, May 19th; EDWARD C. CRIDLAND, M.B., Staff Surgeon, to the *Forte*, May 19th; WALTER J. BEARBLOCK, Staff Surgeon, to the *Northampton*, May 19th; HUGH L. NORRIS, Surgeon, to Haslar Hospital, May 23rd; HENRY WOODS, M.B., Surgeon, to the *Andromache*, for the *Onyx*, lent, May 19th.

ARCHIBALD L. PENTLAND-SMITH, civil practitioner, has been appointed Surgeon and Agent at Elie, May 16th.

ROYAL NAVAL VOLUNTEER RESERVE.

ROBERT M. LITTLER, F.R.C.S., has been appointed Surgeon, and attached to the Mersey Division, May 17th.

Honorary Surgeon C. O. B. HARDING to be Honorary Staff Surgeon, and attached to the Sussex Division, May 17th.

ROYAL ARMY MEDICAL CORPS.

EXCHANGE.

The charge for inserting notices respecting Exchanges in the Army Medical Department is 3s. 6d., which should be forwarded in stamps or post-office order with the notice, not later than Wednesday morning, in order to ensure insertion in the current issue.

A SENIOR MAJOR with about twelve months more time at home is willing to exchange to Punjab or Bengal command.—Apply, A.B.C., c.o. Messrs. Holt and Co., 3, Whitehall Place, London, S.W.

MAJOR R.A.M.C., with some time at home, wishes for an exchange to the Punjab, part tour preferred.—Address, No. 2591, BRITISH MEDICAL JOURNAL Office.

Colonel J. M. BEAMISH, M.D., Principal Medical Officer, Allahabad and Nerbudda Districts, Bengal Command, is appointed to officiate as Principal Medical Officer, Bengal, with the temporary rank of Surgeon-General, from March 30th.

Lieutenant-Colonel T. B. MOFFITT is granted the temporary rank of Colonel while officiating as Principal Medical Officer, Allahabad and Nerbudda Districts.

Lieutenant N. E. DUNKERTON, from the Seconded List, to be Lieutenant, May 2nd.

Lieutenant-Colonel W. KEAYS has been selected for the appointment of Principal Medical Officer, Third Division, First Army Corps, vice Lieutenant-Colonel H. C. Kirkpatrick.

Lieutenant-Colonel W. L. LANE, M.B., whose retirement was announced in the BRITISH MEDICAL JOURNAL of May 14th, holds the Queen's medal for service in South Africa, with three clasps.

INDIAN MEDICAL SERVICE.

GOVERNMENT RESTRICTIONS ON MEDICAL FEES.

THE following extraordinary order has just been issued by the Government of India:

The Governor-General in Council is pleased to direct that the following shall be substituted for paragraphs 3 and 4 of the Home Department Notification No. 437, dated July 25th, 1893, amended by the Home Department Notifications of 1900 and 1901 regarding the remuneration of medical officers for attendance on native chiefs and nobles and native gentlemen of high position in a native State. The native chief or gentleman may offer any medical officer of the Government attending him such fee as he thinks fit to make, and it will be reported by the medical officer to the political agent or other officer of the Government exercising political functions in the State of which the said chief, noble, or gentleman is a resident, for the consideration of the local government within whose jurisdiction the native State is situated. This report will state the period during which he was in attendance, and the number of visits paid. The medical officer will at the same time submit to the administrative medical officer or inspector-general of hospitals, to whom he is subordinate, a full medical statement of the case, showing the nature and extent of the relief afforded, the importance of the case from a professional point of view, and the circumstances in which he attended the patient. The local government is required to satisfy itself that the fee proposed is not out of proportion to the relief afforded and to the circumstances of the case, and has authority to sanction the acceptance of a fee not exceeding Rs. 2,000. In considering these questions it will, if necessary, refer to the administrative medical officer or inspector-general of civil hospitals as the case may be. If the proposed fee exceeds this sum, the matter will be submitted with a full report by the local government for consideration and orders of the Government of India. The reports prescribed in the preceding paragraph will not be required from a medical officer when the fee does not exceed Rs. 50 a visit, or Rs. 1,000 in the aggregate, for repeated visits in the course of a year.

This order may be looked at from several points of view.

The absurdly low fee allowed to be paid by a native chief with a huge income, of £3 6s. 8d. for a single visit, however many hundred miles the doctor may have travelled, except by special sanction of the local government (which means an officer of the Indian Civil Service, the notorious jealousy of which is well known to the cause of these absurd rules) is sufficient to reveal the spirit in which the rules have been framed. There is, however, nothing new about this part of the ruling, which was recently characterized by the Naval and Military Committee of the British Medical Association as "an insult to the medical profession." A case recently occurred in which it is said that a medical officer performed a successful operation for cataract on a native chief, but the very moderate fee offered by the patient was materially reduced by the civilian officer to whom it had to be reported for sanction. On the patient requesting the surgeon to operate on the other eye he declined on the ground that the local government would not allow him to take a fee which would compensate him for the loss of time in going to the native State in question and remaining for several days to ensure the success of the operation. He was then ordered by the local government to go and do the second operation for the fee fixed by them. Such a condition of affairs is intolerable, and reveals the petty spirit in which the rules are carried out in practice.

In the new rules, however, a more serious question than the mere monetary one crops up, for under these new rules the medical officer is compelled to report the details of his patient's illness and of his treatment to a civilian non-medical man; the latter will then assess the amount of the fee to be received, for it will be observed that it is stated that the reference to the administrative officer is not obligatory, but will only occur when the civilian officer considers it to be necessary to do so, and in any case the final orders are issued by the civilian officers. In the first place, this order raises the very important question as to whether a medical officer is justified in revealing professional secrets as to his patients to any one, even under the orders of the Government. The inquisitorial nature of the whole proceedings is also most objectionable, and these orders may very well result in a self-respecting medical man refusing to attend any native chief except one of whom as he may be in medical charge as part of his routine duties. Whether a medical officer would be justified in refusing to furnish any information as to the condition of his patient or the fee received by him on the grounds that he cannot reveal professional secrets is a delicate one, but such a course of action, whether right or wrong, would only lead to his being severely punished by the Government by being removed from his appointment, and sent to some undesirable station.

In Bondage writes as follows with regard to the above orders: In my humble opinion the order in question is an insult both to the native chief and to the medical officer. It enforces a complete violation of the obligation incumbent upon every medical man to respect the confidences of his patients, whether of high or low degree. It is surely not improbable that a native chief might strongly resent "a full medical statement of his case" being sent to the Local Government or Government of India. The order presupposes that medical officers are unscrupulous money-grubbers, and frames rules for treating them as such. "An officer exercising political functions in the State" may use the resources of the State in the shape of horses, carriages, and Heaven knows what else. A Viceroy may even "acquire" a costly suite of furniture from a native nobleman in return for the present of a rifle, but the unfortunate medical officer may not accept a fee of Rs.51 (a little over £3) if offered him, without complying with the offensive conditions laid down in the order. The only result of such orders will be that self-respecting gentlemen will no longer seek to enter a service in which they are not treated as such. The prospects of the Indian Medical Service civil officer are poor enough as it is, and treatment of this sort is likely to prove the proverbial "last straw."

Lieutenant-Colonel (temporary Colonel) D. Wilkie, M.B., Bengal Station, is promoted to be Colonel from April 2nd. He was appointed Assistant Surgeon, April 1st., 1873, and became Brigade Surgeon Lieutenant-Colonel May 1st, 1899.

Lieutenant-Colonel G. J. Kellie, Bengal Establishment, is appointed to officiate at Principal Medical Officer, Derajat District.

Major C. L. Williams, M.D., Madras Establishment, is appointed Surgeon to his Excellency the Governor of Madras.

VOLUNTEER RIFLES.

Supernumerary Surgeon-Lieutenant (Hon. Lieutenant in the Army), J. Clay, M.B., 2nd Volunteer Battalion the Northumberland Fusiliers, to be Surgeon-Captain, May 21st.

William P. Thomas to be Surgeon Lieutenant in the 1st Volunteer Battalion the Northamptonshire Regiment, May 21st.

ROYAL ARMY MEDICAL CORPS (VOLUNTEERS).

Lieutenant W. R. Matthews, M.B., the Manchester Companies, to be Captain, May 21st.

Harry W. Pritchard to be Lieutenant in the Manchester Compani... May 21st.

VOLUNTEER MEDICAL ASSOCIATION: AMBULANCE CHALLENGE SHIELD.

The annual competition for the ambulance challenge shield of the Volunteer Medical Association will take place on June 4th at Wellington B... racks, London. The squads will fall in at 3 p.m. Further particulars c... be obtained on application to Lieutenant E. C. Montgomery-Smith, H... Secretary, 36, Abbey Road, London, N.W.

RETIRED PAY OF NAVAL MEDICAL OFFICERS.

R.N. writes: With reference to retired pay of naval medical officers t... Regulation says: "After 20 years' full-pay service (including proporti... of half-pay time):

	Year of 365 Days.	One day.
"Fleet Surgeon	£365	£1 0 0"

In the King's Regulations, 1899, Article 225, Paragraph C, Medi... Officers, it says: "*Time on half-pay will count ⅓ service for increase of retired pay*, but not for any other purpose, except as provided for ... Article 248, as regards promotion to staff surgeon. Acting time is n... to count for increase of full and half pay." Now the Addenda N ... Article 225, Paragraph C, reads: "Acting time is not to count ... increase of full and half pay in the superior rank."

Why has the Admiralty thought fit to leave out in the addenda (whi... cancels the paragraph C in the King's Regulations of 1899) the fact th... time on half-pay will count one-third service for increase of retir... pay? There is nothing now to guide any naval medical officer as... what is meant by "proportion of half-pay time." Up to the time th... the addenda were published it was quite clear that if a medical offic... had three years' half-pay, then one of these counted towards pensi... At the present time, however, a medical officer who is reckoning up h... time in the service for pension does not know how much he shou... allow for half-pay time. The medical officers were formerly the on... naval officers who had it clearly laid down for them that half-pay ti... counted a third for pension; the remainder of the naval officers ha... lived for years in the glorious uncertainty as to what is meant ... "proportion of half-pay time." It is highly unsatisfactory to t... medical officers of the navy that this valuable information has be... left out of the existing Regulations.

CIVIL SURGEONS AND GRATUITIES.

Civil Surgeon writes: In the Service column of the British Medic... Journal, of May 14th, page 1171, it is stated that the reason why t... civil surgeons were refused payment of the gratuity mentioned ... Article 601 B pay warrant was because the "civil surgeons were under ... contract at the rate of £270 per annum inclusive." If the terms we... "inclusive," how comes it that travelling expenses and allowances wo... paid, as also a field allowance during the time that a civil surge... performed duty in a camp? Another reason which was advanced ... the non-payment of the gratuity was that "the civil surgeons were ... doing duty with the Imperial Forces, that is that they were not comm... sioned."

Although they did not actually hold a commission yet a commissi... was undoubtedly implied, for they had to perform all the duties of ... officer of the Royal Army Medical Corps *pro tem.*, including those ... an orderly medical officer in a station hospital. This is surely beggi... the question, for had the civil surgeons been actually commission... they would, as a matter of course, have ceased to be civilians, a... would have been entitled to the gratuity mentioned in Army Order 1... June, 1901, but under a different heading. It has never been me... tioned who were the civilians entitled to the gratuity mentioned in th... order, and I consider that the civil surgeons have good grounds f... complaint, and it is to be regretted that there was never any combin... tion amongst them. Could not the British Medical Association a... the Royal Colleges take up the question with advantage?

THE ARMY COUNCIL.

Surgeon-General Evatt, C.B. (retired), in a letter published in a rece... issue of the *Broad Arrow*, gives expression to the apprehension so gene... ally entertained that the exclusion of the Director-General from th... Army Council will work no good to the Army Medical Service. He trac... the exclusion to naval influences, and supports our conclusion that, ... the nature of the case, naval and military medical administration mu... always be very dissimilar, and cannot be conducted on the same line... He contends that administrative and executive duties, when centraliz... in a Director-General, are beyond the powers of one man, and oug... therefore to be separated. In the division of duties and responsibilitie... he suggests a Chief of the Medical Staff, through whom, as a member ... the Army Council, would be issued administrative orders to Surgeo... Generals, charged with executive and inspectorial duties, in the sever... branches of the medical service.

MEDICO-LEGAL AND MEDICO-ETHICAL.

INSPECTION OF BOOKS AFTER SALE.

A. B. sold his practice to his assistant. According to the deed of sale th... buyer purchased the practice with the stock in trade, but not the boo... debts. The vendor now requires certain books in the possession of h... late assistant, as part of the stock in trade, in order to recover the boo... debts, which were not sold. Access to these is refused. What is h... remedy?

*** We are advised that "A. B." can obtain an order from the coun... court to inspect and take necessary copies from any of the books i... question.

LIABILITY FOR INSURANCE CERTIFICATE.

Peto writes that he was called in to attend a farm labourer, injured by ... bullock while at work. In the course of the attendance he was require... to fill in an insurance certificate, in order that the owner of the bullo... might obtain a sum of money from the insurance company to compe...

te the patient. The farmer was charged 5s. for this certificate, but clined to pay on the ground that he was not liable. Is he liable?

*** If our correspondent was called in by the farmer then the latter uld be liable, but not otherwise. As, however, our correspondent sides in Scotland, it might be well for him to consult a Scotch licitor, as the law of England is not quite the same as that of otland.

THE TREATMENT OF DISEASE BY UNQUALIFIED PERSONS.

RRESPONDENT encloses a card which has been left at his house by a rson who apparently expects to be patronized by the medical pro- sion. The card describes her as "Miss —— Hygienic Face Treat- nt, Manicure," etc. In one corner is, "Special facial and neck treat- nt by electricity"; in another, "Electrical treatment of the hair by w method"; and in another, "Rusmak, the new and rapid treatment the removal of superfluous hairs. Consultations free by appoint- nt." Then follow two addresses and the hours of consultation.

*** We can only say that if medical practitioners lend themselves to support of such persons they must be regarded as giving direct couragement to encroachments on medical practice by unqualified sons.

MEDICAL ETHICS.

submits the following case: A. sells his practice to his partner B. former patient of A.'s, does not wish to employ B., and calls in C. ttend his child of 2½ years. C. finds a very loud mitral *bruit*, and learning from the parents that they have never been told of the stence of this *bruit*, asks the father of the child to find out from A. e had noticed it, and, if so, whether it was congenital or not. A. re- s to answer this question, as it would be a breach of his contract B. not to practise; then B. writes to C. and says he will waive his it with regard to A., and will allow A. to meet C. in consultation on ment of a fee of five guineas. C. answered that no consultation was gested or desired, and he thinks that A. could, and should, answer question, especially as A. and B. had both been in attendance on child, and the answer could have no bearing on the medical treat- t of the child. Were A. and B. justified in the course taken by

* A. was under no obligation to answer C.'s question. If the answer uld have no bearing on the medical treatment of the child," A. it fairly say, Why was the question asked? C. was, in fact, asking a ur from persons who doubtless considered themselves injured by ; hence the refusal.

REPRINTS OF MEDICAL PAPERS.

ve received the following communication from Mr. J. Burnham European and Colonial Manager of the Denver Chemical Manufac- Company:

Colin Campbell has called our attention to the fact that our Com- nas attached to a reprint of his article in the *Medical Press and* the letters L.R.C.P., and 'Late Surgeon to the Tamworth Cottage al.' Apparently these have been used by our Company through or inadvertance. As a matter of fact, we reprinted the articles t Dr. Campbell's knowledge, in New York; and, equally, as a matter I did not know of the reprint until I received 40,000 or 50,000 from our house there, and, like Dr. Campbell am not responsible inaccuracy that may have occurred in the printing.

n sending to-day to New York, requesting the proper correction to e; and am writing to you to advise you in this matter, because Dr. ell seems to be somewhat troubled over what he regards as our ency, and attacking something 'de trop' to the pamphlet."

PUBLIC HEALTH AND OOR-LAW MEDICAL SERVICES.

THE REGISTRAR-GENERAL'S QUARTERLY RETURN.

[Specially Reported for the British Medical Journal.]

ristrar-General has just issued his return relating to the births ths during the first quarter of this year, and to the marriages in e months ending December last. The marriage-rate during that as equal to 16.7 per 1,000 of the population, and was 0.9 per 1,000 e average rate in the corresponding quarters of the ten preceding

rths registered in England and Wales during the quarter ending ast numbered 240,117 and were equal to an annual rate of 28 5 o of the population, estimated by the Registrar-General to be persons in the middle of the year. In the first quarters of the eding years the birth-rate had averaged 29 8 per 1,000. The birth- st quarter ranged, in the several counties, from 21.6 in Sussex, Cornwall, 22.6 in Herefordshire, 22.8 in Dorsetshire, 23.0 in Bed- e, 23.5 in Hertfordshire, and 23.9 in Oxfordshire, to 32.1 in mamshire, 32.6 in Warwickshire and in Northumberland, 33.5 in shire, 35.8 in Durham and Glamorganshire, and 35.9 in Monmouth- n seventy-six of the largest English towns, including London, t-rate last quarter averaged 29.7 per 1,000, being slightly in excess neral English birth-rate. In London the rate was 28.7 per 1,000, averaged 30.1 per 1,000 in the seventy-five other large towns, ed from 16 2 in Hastings, 18.8 in Bournemouth, 20.1 in Hornsey, n Halifax, to 37.4 in Middlesbrough, 37.6 in Tynemouth, 39.6 in Tydfil, and 41.8 in Rhondda.

ths registered in England and Wales during the quarter under ceeded the deaths by 86,862: this represents the natural increase pulation during that period. From returns issued by the Board it appears that 68,448 emigrants embarked during the three for places outside Europe, from the various ports of the United Kingdom at which emigration officers are stationed. Of these 68,448 emigrants, 31,298 were English, 5,661 Scottish, and 4,073 Irish, while 27,416 others were of foreign nationality. Compared with the averages in the corresponding quarters of the three preceding years the proportion of emigrants in the population of the several parts of the United Kingdom showed an increase of 17.5 per cent. English, 40.1 per cent. Scottish, and 6.8 per cent. Irish.

During the first quarter of the year the deaths of 153,255 persons were registered, equal to an annual rate of 18.2 per 1,000 persons living; this rate was 1.2 per 1,000 below the mean rate in the corresponding periods of the ten preceding years. The lowest county death-rates last quarter were 14.6 in Middlesex, 14.8 in Bedfordshire, 15.0 in Essex and in Kent. 15.3 in Surrey, 15 4 in Northamptonshire, and 15.5 in Sussex; while the highest rates were 20.4 in Glamorganshire, 20 5 in Lancashire, 20 7 in Cumberland, 21.5 in Monmouthshire. 22.0 in Carmarthenshire, 22.2 in Herefordshire, and 25.5 in Denbighshire. In seventy-six of the largest towns, with an aggregate population of more than fifteen millions, the mean rate of mortality was 18.7 per 1 000; in 142 smaller towns, containing in the aggregate upwards of four and a-half millions, the death-rate averaged 17 2 per 1,000: while in the remaining, and chiefly rural, parts of England and Wales, the rate was 18.0 per 1,000. In London the death-rate was 18.3 per 1,000, while among the seventy-five other large towns the rates ranged from 8.8 in Hornsey, 11.2 in Walthamstow, 12.1 in East Ham, 12.2 in Leyton, 12.5 in King's Norton, and 12.9 in Willesden, to 22.6 in Liverpool and in Manchester, 23 2 in Wigan, 23 8 in Warrington, 24.9 in Preston, and 26.6 in Merthyr Tydfil.

The 153,255 deaths from all causes registered in England and Wales last quarter included 11,364 which were referred to the principal infectious diseases; of these 3,934 were attributed to whooping-cough, 2,795 to measles, 1,536 to diphtheria, 1,381 to diarrhoea, 945 to scarlet fever, 678 to "fever" (principally enteric), and 95 to small-pox. The mortality from diarrhoea was equal to the average, that from whooping-cough was in excess, while that from each of the other principal infectious diseases showed a decline. Of the 95 fatal cases of small-pox registered last quarter 15 belonged to Gateshead, 8 to London, 8 to Nottingham, 5 to Felling, 4 to Ashton-under-Lyne, 3 to St. Helens, 3 to Hull, and 3 to Tynemouth.

The rate of infant mortality, measured by the proportion of deaths among children under 1 year of age to registered births, was equal to 143 per 1,000, against an average rate of 142 in the corresponding quarters of the ten preceding years. In the several counties the rates of infant mortality ranged from 108 in Middlesex, 111 in Dorsetshire, 113 in Bedfordshire, 115 in Surrey, 116 in Gloucestershire, and 117 in Sussex and in Essex, to 168 in Cumberland, 190 in Glamorganshire, 191 in Monmouthshire, 201 in Denbighshire, and 231 in Carmarthenshire. In the seventy-six large towns the mean rate was 145 per 1,000; in London the proportion was equal to 136 per 1,000, while it averaged 149 in the seventy-five large provincial towns, among which the rates ranged from 81 in Hornsey, 92 in King's Norton, 95 in Tottenham, 101 in Great Yarmouth, and 103 in Walthamstow and in Burton-on-Trent, to 186 in Rhondda, 188 in West Hartlepool, 192 in Grimsby, 198 in Walsall, 207 in Preston, 219 in Swansea, and 240 in Merthyr Tydfil.

The mortality in England and Wales during the three months under notice among persons aged between 1 and 60 years was equal to an annual rate of 8.7 per 1,000 of the population estimated to be living at this group of ages, and was 1.0 per 1,000 below the mean rate in the ten preceding first quarters. In the seventy-six large towns the death-rate at this group of ages averaged 9.7 per 1,000; in London this death-rate was 9.6 per 1,000, while among the seventy-five large provincial towns the rates ranged from 3.3 in Hornsey, 5 1 in Walthamstow, 5.6 in King's Norton, 5.7 in Hastings, 6,0 in Willesden and in Leyton, and 6.1 in East Ham, to 12.4 in Manchester and in Preston, 12.5 in Wigan, 13.0 in Merthyr Tydfil, and 14 0 in Warrington.

Among persons aged 60 years and upwards the death-rate last quarter was equal to 85.3 per 1,000 of the estimated population at this age-period. In the seventy-six towns the death-rate at this age-group was 89 6 per 1,000; in London the rate was 86.0 per 1,000, while among the seventy-five other large towns the rates ranged from 56.1 in Leyton, 63.7 in Devonport, 63.8 in Bournemouth, 68.2 in Hornsey, 71.8 in East Ham, and 71.9 in Hastings, to 110.1 in St. Helens, 110.4 in Bury, 115.7 in Manchester, 121.1 in Preston, 120.6 in Hanley, and 127.3 in Wigan.

The mean temperature of the air during last quarter was slightly below the average, the highest shade readings of the thermometer varying at most stations from 55° to 60°, and the lowest being about 20°. The amount of rainfall measured in London was 6.3 in., being 1.4 in. in excess of the average. The duration of bright sunshine in London during the quarter was 136 hours, being 15 per cent. of the possible amount, and 26 hours less than the average.

HEALTH OF ENGLISH TOWNS.

In seventy-six of the largest English towns, including London, 8,570 births and 4,532 deaths were registered during the week ending Saturday last, May 21st. The annual rate of mortality in these towns, which had been 16.3, 14.9, and 16.1 per 1,000 in the three preceding weeks, declined again to 15.5 per 1,000 last week. The rates in the several towns ranged from 6.9 in Northampton, 7.1 in Hornsey, 7.9 in Handsworth (Staffs.), 8.0 in Walthamstow, 9 4 in Kings Norton, 9.6 in Reading, 10.1 in Plymouth, 10.5 in Croydon, and 10.6 in Willesden, to 19.6 in Manchester, 20.0 in Leeds, 20.4 in Preston, 20.5 in Blackburn, 20.6 in Tynemouth, and 21.7 in Norwich and in Birmingham. **In London the death-rate was 15.1 per 1,000, while it averaged 15.6 per 1,000 in the seventy-five other large towns. The death-rate from the principal infectious diseases averaged 1.8 per 1,000 in the seventy-six large towns; in London this death-rate was equal to 1.7 per 1,000, while it ranged upwards to** 3 4 in Birmingham and in Leeds, 3.5 Manchester, 4.1 in Salford, 5.1 in Blackburn, 5.2 in Burnley, 6.1 in Warrington, and 6.2 in Brighton. Measles caused a death-rate of 1.1 in Croydon, 1.2 in Hull, 1.4 in Walthamstow, 1.7 in Manchester and in Leeds, 4.1 in Burnley, and 5.0 in Brighton; scarlet fever of 1.5 in Warrington and 1.6 in Hanley: diphtheria of 1 4 in Merthyr Tydfil and 2.0 in Great Yarmouth; and whooping-cough of 1.2 in Leeds, 1.3 in Derby, 1.6 in Grimsby and in Salford, 1.8 in Bury, 2.1 in Birmingham and in Coventry, 2.3 in Birkenhead, 3.9 in Blackburn, and 4.6 in Warrington. The mortality from enteric fever and from diarrhoea showed no marked excess in any of the large towns. One fatal case of small-pox was registered in Nottingham, 1 in Oldham, 1 in Gateshead, and 1 in Cardiff, but none in any other of the seventy-six large towns. The Metropolitan Asylums Hospitals contained 96 small-pox patients at the end of last week, against 104, 88, and 99 at the end of the three preceding weeks;

18 new cases were admitted during the week, against 12, 14, and 26 in the three preceding weeks. The number of scarlet fever patients in these hospitals and in the London Fever Hospital, which had been 1,541, 1,590, and 1,600 on the three preceding Saturdays, had further risen to 1,630 on Saturday last, the 21st instant; 222 new cases were admitted during the week, against 185, 242, and 239 in the three preceding weeks.

HEALTH OF SCOTCH TOWNS.

DURING the week ending Saturday last, May 21st, 1,050 births and 619 deaths were registered in eight of the principal Scotch towns. The annual rate of mortality in these towns, which had been 20.0, 18.0 and 17.9 per 1,000 in the three preceding weeks, increased again last week to 18.7 per 1,000, and was 3.2 per 1,000 above the mean rate during the same period in the seventy-six large English towns. Among these Scotch towns the death-rates ranged from 13.0 in Leith and 16.2 in Aberdeen, to 20.0 in Perth and 23.2 in Greenock. The death-rate from the principal infectious diseases in these towns averaged 1.8 per 1,000, the highest rates being recorded in Glasgow and Greenock. The 299 deaths registered in Glasgow included 2 which were referred to small-pox, 10 to measles, 3 to scarlet fever, 10 to whooping-cough, and 7 to diarrhoea. Three fatal cases of whooping-cough were recorded in Edinburgh: 3 of whooping-cough and 3 of diarrhoea in Dundee; 4 of whooping-cough in Aberdeen; and 3 of measles in Greenock.

DISTRICT MEDICAL OFFICERS' HOLIDAYS.

DISTRICT MEDICAL OFFICER wishes to know the law and custom as to acquainting the guardians when he goes away on holiday. Last year he went away and notified the clerk to the guardians on the day of his departure (the arrangements were hurried) that he was off, leaving a qualified man in charge. He got a letter afterwards saying such a notice was not proper as the guardians wished to have the chance of agreeing or otherwise to his choice of deputy.

*** There does not appear to be any law or regulation on the point in question, and the custom varies in different unions; but we believe, when a deputy has been formally sanctioned by the guardians in compliance with Art. 200 of the General (Consolidated) Order, July 24th, 1847, the district medical officer is not expected to apply for leave of absence when about to take a short holiday. If, however, he should wish to be absent for any time over a fortnight—the period which usually intervenes between two consecutive Board meetings—we think it would be advisable for him to obtain the permission of the guardians before absenting himself from his duties. This Order is as follows:

"Every medical officer shall, as soon as may be after his appointment, name to the guardians some legally-qualified medical practitioner to whom application for medicine and attendance may be made in case of his absence from home or other hindrance to his personal attendance, and who will supply the same at the cost of such medical officer," etc.

REFUSAL OF MIDWIFERY FEE.

VIATOR writes: During the last three years I have been attending a woman, a parish case, for chronic Bright's disease, visiting her twice a week. She became pregnant, and I attended her in confinement. The guardians now refuse to give me a fee, and the husband refuses to pay. As I was in constant attendance I could not do otherwise than go to her when in labour. The guardians granted her medical attendance in her last confinement. I should be obliged if you would inform me whether it is possible to recover a fee.

*** If the patient in question was actually receiving relief, or if for any reason she was entitled without any special order to claim the services of the district medical officer for any ordinary illness, she was also entitled to claim his services for midwifery, and if she did so the district medical officer would be entitled to his special fee.

UNIVERSITIES AND COLLEGES.

UNIVERSITY OF OXFORD.

PHILIP WALKER STUDENTSHIP IN PATHOLOGY.

THE Reader in Pathology gives notice that an election to this Studentship will take place in the end of June next.

The Studentship has been founded "for the furtherance of original research in pathology." It is of the annual value of £200 (payable quarterly in advance), and is tenable for three years. The student may be of either sex, and need not necessarily be a member of the University of Oxford, nor be legally qualified to practise the profession of medicine. While holding office the time of the student must be devoted to original pathological research; no business or profession may be systematically followed nor any educational or other work engaged in, which, in the opinion of the Reader in Pathology and of the Board of Managers, would interfere with the pursuit of original inquiries. The place and the nature of the studies of the student are subject to the approval of the Reader in Pathology, but the student is bound to pursue these studies within the University during at least three terms of his tenure of the Studentship. This requirement may, however, in special cases be dispensed with. If the work done by any student be of exceptional promise, the Studentship may be extended for a second period not exceeding two years.

The regulations provide that the Reader in Pathology shall report to the Board of Managers on the qualifications of candidates, and shall at the same time nominate the person best qualified, in his opinion, for election. The managers thereupon either elect the person so nominated or such other of the candidates as they may unanimously agree to elect. If no suitable candidate comes forward the election may be postponed.

Intending candidates are requested to send letters of application, along with three testimonials (one of which should vouch for the candidate's personal character and general education), so that these shall be delivered to the Reader in Pathology, University Museum, Oxford, on or before June 20th; ten copies of these papers must be submitted. In the letter of application the candidate should state age, training, and particulars of posts already held. Published records of work done may be submitted, but the previous prosecution of original research by a candidate is not essential to success. Candidates should also state in general terms the lines of pathological research they think of following if appointed. Testimonials ought to be framed with a view to setting forth the candidate's capacities for undertaking research work, and the greatest weight will be attached to those granted by heads of laboratories in which a candidate has worked. Candidates are further requested to give the names of persons to whom their work and capacities are well known, and to whom reference may be made by the Board of Managers.

The full text of the regulations relating to the Studentship will be found in the *Oxford University Gazette* for February 2nd, 1904, and copies of these regulations can be had on application to the Reader in Pathology.

UNIVERSITY OF EDINBURGH.

UNIVERSITY COURT.

THE Edinburgh University Court met on May 16th. The minutes of special meetings of March 17th and 30th, relating to the purchase of the site of the old City Hospital, with the buildings erected thereon, were read and approved. Proposals by the Senatus for a reconstruction of the medical curriculum were remitted to a Committee for consideration and report. The Court appointed Dr. J. O. Affleck and Dr. Claude Ker Consulting Physician and Medical Superintendent respectively in the City Hospital, to be University Lecturers on Infective Fevers. Recognition for purposes of graduation was granted to the following extra-academical teachers in the South African College, Cape Town: (1) Henry H. W. Pearson, M.A. (Ext. under Ordinance 16); (2) Arthur Dendy, D.Sc. (Zoology, under Ordinance and Ordinance 12, first B.Sc. Examination); (3) J. C. Beattie, D.Sc. and Alex. Brown, B.Sc., conjointly (Physics, under Ordinance 16). Recognition was also granted to J. T. Morrison, M.A., B.Sc., Victoria College, Stellenbosch, Cape Colony (Physics, under Ordinance 16).

UNIVERSITY OF DURHAM.

THE HEATH SCHOLARSHIP.

THE scholarship founded in accordance with the will of the late Professor G. Y. Heath, M.D., D.C.L., F.R.C.S., President of the University of Durham College of Medicine, has been awarded by the Professor of Surgery in the University of Durham to Mr. W. G. Richardson, M.B., F.R.C.S., of Newcastle-upon-Tyne, for his essay on The Development, Anatomy of the Prostate Gland, together with an account of its injuries and diseases and their surgical treatment. This scholarship is awarded every second year, and is of the value of £200. A further grant from the scholarship funds to the extent of £50 was awarded to Mr. Richardson, half of which is for the purpose of reproducing the drawings that accompanied the essay, and the other half to enable Mr. Richardson to mount satisfactorily his valuable collection of wet specimens, about 70 in number, which illustrated the essay. These will form an important addition to the museum of the University of Durham College of Medicine, Newcastle-on-Tyne.

ROYAL COLLEGE OF SURGEONS IN IRELAND.

ACADEMIC COSTUME.

THE authorities of the College have recently adopted the following regulations for academical costume:

Fellows.

The general body of the Fellows are authorized to wear a black Master of Arts gown, faced with a St. Patrick's blue Irish poplin not 5 inches wide, narrowing round the collar behind, and extending to the end of the gown in front. Inside of the blue poplin there shall be a crimson Irish poplin lining, 5 inches in width, and of similar extent to the blue. A black velvet college cap, with St. Patrick's blue and gold tassel.

This gown and cap may be worn at all public functions, official ceremonials, State and civic public meetings, and on all occasions when academical costume is worn by the general body of the Fellows of the Royal Colleges of Surgeons of England and Edinburgh.

Licentiates.

The general body of the licentiates are authorized to wear a black Master of Arts gown, faced with a St. Patrick's blue Irish poplin not two inches in width, not extending round the collar behind, but continuing to each end of the gown in front. Inside of the blue poplin facing shall be a crimson Irish poplin lining, two inches in width, to a similar extent as the blue. A black cloth college cap with black tassel.

This gown and cap may be worn at all public functions, College ceremonials, State and civic public meetings, and on all occasions when academical costume is worn by the general body of the Members of the Royal College of Surgeons of England and Licentiates of the Royal College of Surgeons of Edinburgh.

FELLOWSHIP EXAMINATION.

The following candidates, having passed the necessary examination, have been admitted Fellows of the College: L. E. Hardy, M.S.Univ. Dub., J. F. L. Keegan, L.R.C.S.I., R. H. Kennan, M.Ch.Univ. Dub., J. C. Martine, L.R.C.S.I., J. M. S. Levis, L.R.C.S.I., J. J. O'Hagan, L.R.C.S.I., H. Stevenson, B.Ch.R.U.I.

The following candidates passed the Primary Part of the Examination: E. H. F. Gilligan, H. M. Harrison, T. T. O'Farrell, G. Petit, A. Sheppard.

TRINITY COLLEGE, DUBLIN.

THE following candidates have passed the Final Examination in Surgery: J. G. Wallis, H. St. M. Carter, H. M. Crawford, W. Mitchell, Goldsmith, C. J. Coppinger, D. Gray, J. W. Leech, J. H. C. Thompson, F. W. Bury, J. A. Sibthorpe, W. Thunder, H. T. Marrable, L. Myles, G. B. M'Caul.

OSPITAL AND DISPENSARY MANAGEMENT.

HE HOSPITAL FOR DISEASES OF THE SKIN, BLACKFRIARS.
report of the Hospital for Diseases of the Skin, Blackfriars, London, the year 1903 shows that the ordinary expenditure exceeded the ne by some £42, while the patients numbered 6,726, against 6,201 in preceding year. The light department was in constant operation. ts outfit has been improved. In the laboratory an endeavour is being to acquire a representative collection of diseases of the skin for ing purposes. To render the institution still more useful to the ing classes the hospital is to be open on one evening in the week. umber of beds available is considered inadequate, and donations sked in order that their number may be increased. To encourage a g of self-dependence and to relieve a class of persons above the sitous poor, the Committee, with the consent of its medical officers, etermined to admit such persons to the privileges of patients on ent to the hospital funds of from one to ten shillings for four s' attendance.

EDICAL VACANCIES AND APPOINTMENTS.

VACANCIES.

ist of vacancies is compiled from our advertisement columns, where full iculars will be found. To ensure notice in this column advertisements be received not later than the first post on Wednesday morning.

BEN: CITY (FEVER) HOSPITAL.—Resident Physician. Salary, £100 per um.
EMOUTH: ROYAL VICTORIA HOSPITAL.—Honorary Medical Officer in ge of Electrical Department.
TON: HOVE AND PRESTON DISPENSARY.—House-Surgeon. Salary, £160 annum.
RBURY: KENT AND CANTERBURY HOSPITAL.—House-Physician, resident. ry, £90 per annum.
AL LONDON OPHTHALMIC HOSPITAL, Gray's Inn Road, W.C.—House-geon, resident. Salary at the rate of £50 per annum.
SHIRE ROYAL INFIRMARY.—Resident House-Surgeon Salary, £100 per nm.
A HOSPITAL FOR SICK CHILDREN, Southwark.—Surgeon to Out-nts.
AL FOR SICK CHILDREN, Great Ormond Street, W.C.—House-Physician, ent. Salary, £20 for six months.
ROYAL INFIRMARY.—Fourth House-Surgeon, resident. Salary, £50 per m.
OBA UNIVERSITY.—Professorships of Botany, Physics, Chemistry, and ology. Salary, 2,500dols.
): RADCLIFFE INFIRMARY.—Honorary Assistant Surgeon and Registrar.
ALE INFIRMARY.—Resident Medical Officer. Salary, £100 per annum.
HAM HOSPITAL AND DISPENSARY.—Assistant House-Surgeon. Salary, er annum.
FREE HOSPITAL, Gray's Inn Road, W.C.—(1) Senior Resident Medical Officer. y, £100 per annum. (2) Clinical Assistants.
LONDON OPHTHALMIC HOSPITAL.—Third House-Surgeon, resident. Salary, er annum.
DITCH: PARISH OF ST. LEONARD.—Senior Resident Assistant Medical rat the Infirmary. Salary, £150 per annum.
COUNTY HOSPITAL.—Second House-Surgeon, resident. Salary, £60 per n.
A HOSPITAL FOR CHILDREN, Tite Street, S.W.—House-Surgeon, resident. rarium £25 for six months.
N GENERAL DISPENSARY, Marylebone Road.—Second House-Surgeon, nt. Salary, £80 per annum.
DING ASYLUM, Wadsley.—Fifth Assistant Medical Officer, resident. Salary, ising to £160 per annum.

APPOINTMENTS.

W, George W., M.B., M.R.C.S.Eng., L.R.C.P.Lond., Resident Medical Officer at roat Hospital, Golden Square.
DE BOINVILLE, Vivian, M.B., Ch.B.Edin., Assistant Director of Cancer Re-, Liverpool University.
J. Jackson, M.B.Lond., F.R.C.S., Surgeon to the North-west London Hos-
W. E., M.R.C.S., L.R.C.P., District Medical Officer of the Thetford Union.
H., L.S.A., District Medical Officer of the Mansfield Union.
P. I., M.B., B.Ch.R.U.I., District Medical Officer of the Halifax Union.
J., L.S.A.Lond., International Quarantine Board of Egypt, posted to Suez ses Wells, to date from April 5th, 1904.
F., M.B.Lond., F.R.C.S.Eng., Infirmary and District Medical Officer of the k Union.
IE, John Alexander, M.B., B.Ch.Aberd., Resident Medical Officer at the Old-neral Infirmary.
D., L.R.C.P.& S.Edin., Certifying Factory Surgeon for Coxhoe District, County m.
., I., M.B., B.Ch., B.A.O.R.U.I., Medical Officer for the Cushendall and ot Dispensary Districts, Surgeon to Cushendall Coastguard Station, and l Attendant to the Cushendall and Knocknacarry Police Stations.
E. F., M.B.Lond., M.R.C.S., Certifying Factory Surgeon for the Rothwell Dis-ounty York.
F. Knowsley, M.D.Camb., M.R.C.P., Physician to the North-West London il.
ND, G. A., M.D.Edin., F.R.C.P., Physician to the North-West London Hos-
N, George, M.B.Edin., F.R.C.S., Surgeon to the North-West London Hospital.
M., M.D.Cantab., Clinical Assistant to the Chelsea Hospital for Women.
Francis Kenneth, M.B., B.S.Lond., M.R.C.S.Eng., L.R.C.P.Lond., District Officer and Public Vaccinator, Walsham-le-Willows District of the Stow vice Dr. Poignand, resigned.

DIARY FOR NEXT WEEK.

MONDAY.

gical Society of Great Britain, 20, Hanover Square, W., 8 p.m.—communication by Mr. William Rushton. Paper by Mr. Leonard Matheson.

TUESDAY.

edical and Chirurgical Society, 20, Hanover Square, W., 8.30 p.m.—, Herringham and Dr. W. A. Wills: On the Elasticity of the Aorta, being a t on to the study of Arterial Sclerosis.

WEDNESDAY.

Obstetrical Society of London, 20, Hanover Square, W., 8 p.m.—Short communication:—Dr. J. M. Munro Kerr: Certain details regarding the operation of Caesarean Section in cases of Contracted Pelvis based on a series of 26 cases. Papers: Dr. T. W. Eden: A case of Primary Hydatid Disease (Echinococcus) of the Fallopian Tube. Dr. C. J. Cullingworth and Mr. H. H. Clutton: Note of a case of Hydatids of both Ovaries, Right Broad Ligament, Liver, Omentum, Mesentery, and other parts. Specimens by Dr. Lockyer, Mr. Bland-Sutton, and Dr. Herbert R. Spencer.

THURSDAY.

North-East London Clinical Society, Tottenham Hospital, 4 p.m.—Clinical Cases.

FRIDAY.

West London Medico-Chirurgical Society, West London Hospital, Hammersmith, W., 8.30 p.m.—Mr. J. Jackson Clarke: Objects and Limits of the Surgical Treatment of Paralytic Deformities. Dr. C. H. Fennell: A Paper.

Laryngological Society of London, 20, Hanover Square, W., 5 p.m.—Cases, specimens, etc., will be shown by Dr. St Clair Thomson, Mr. Waggett, Dr. Kelson, Mr. Cresswell Baber, Dr. Scanes Spicer, Dr. A. Brown Kelly, and others.

POST-GRADUATE COURSES AND LECTURES.

Charing Cross Hospital, Thursday, 4 p.m.—Demonstration of Medical Cases.
Hospital for Consumption and Diseases of the Chest, Brompton, Wednesday, 4 p.m.—Lecture on Pleurisy, its Causation and Treatment.
Hospital for Sick Children, Great Ormond Street, W.C., Thursday, 4 p.m.—Lecture on Mastoid Disease in Children.
Medical Graduates' College and Polyclinic, 22, Chenies Street, W.C.—Demonstrations will be given at 4 p.m. as follows: Tuesday, Medical; Wednesday, Surgical; Thursday, Surgical; Friday, Eye. Lectures will be delivered at 5.15 as follows: Monday, Diseases of the Lymphatic System; Tuesday, the Treatment of Inebriety in Relation to Insanity; Wednesday and Thursday, Pulse Tracings and their Clinical Significance.
Mount Vernon Hospital for Consumption and Diseases of the Chest, 7, Fitzroy Square, W., Thursday, 5 p.m.—Lecture on Nervous Affections of the Respiratory System.
National Hospital for the Paralysed and Epileptic, Queen Square, W.C.—Lectures will be delivered at 3.30 p.m. as follows: Tuesday and Friday, On Neuritis.
Post-Graduate College, West London Hospital, Hammersmith Road, W.—Lectures will be delivered at 5 p.m. as follows: Monday, Practical Surgery; Tuesday, Dyspepsia; Wednesday, Practical Medicine; Thursday, Drugs which act on the Pupil, their Effects and Uses; Friday, Measles.
St. John's Hospital for Diseases of the Skin, Leicester Square, W.C.—Thursday, 6.15 p.m., Lecture on Eczema.
St. Peter's Hospital, Henrietta Street, W.C.—Wednesday, 4 p.m., Lecture-Demonstration on Cases in the Wards.

BIRTHS, MARRIAGES, AND DEATHS.

The charge for inserting announcements of Births, Marriages, and Deaths is 3s. 6d., which sum should be forwarded in post-office orders or stamps with the notice not later than Wednesday morning, in order to ensure insertion in the current issue.

BIRTHS.

DENT.—On Thursday, May 19th, at 12, Bayshill Terrace, Cheltenham, the wife of Ernest A. Dent, M.B., C.M.Edin., of a son.
GLEDDEN.—On April 13th, at 22, College Street, Hyde Park, Sydney, N.S.W., the wife of A. Maitland Gledden, M.D., a son.
HELME.—On May 25th, at Mayfield, Victoria Park, Manchester, the wife of T. Arthur Helme, M.D., M.R.C.P.Lond., F.R.S.E., of a daughter.
TURNER.—On May 20th, at Oak House, New North Road, Huddersfield, the wife of F. Douglas Turner, M.B., of a son.
WEBSTER.—On May 19th, at Westfield, Longford, Coventry, the wife of Harold G. Webster, M.R.C.S.Eng., L.R.C.P.Lond., of a daughter.

MARRIAGE.

BLACKALL—ELDRID.—May 24th, at New Road Baptist Church, Oxford, by Rev. J. Parry, assisted by Rev. E. Blackall (uncle of the bridegroom), William E. Blackall, M.A., M.B.Oxon., to Ethel Gray, eldest daughter of Ernest Eldrid, both of Oxford.

DEATHS.

GREER.—On May 21st, at 11, Warkworth Street, Cambridge, Thomas Greer, M.A., M.D., eldest son of the late Rev. Thomas Greer, M.A., Annahelt, county Down, aged 57 years.
MOORE.—On the 18th inst, at Warneford House, Moreton-in-Marsh, John New Moore, J.P., M.R.C.S., L.S.A., aged 63.

LETTERS, NOTES, AND ANSWERS TO CORRESPONDENTS.

COMMUNICATIONS respecting Editorial matters should be addressed to the Editor, 2, Agar Street, Strand, W.C., London; those concerning business matters, advertisements, non-delivery of the JOURNAL, etc., should be addressed to the Manager, at the Office, 429, Strand, W.C., London.

ORIGINAL ARTICLES and LETTERS *forwarded for publication are understood to be offered to the* BRITISH MEDICAL JOURNAL *alone, unless the contrary be stated.*

AUTHORS desiring reprints of their articles published in the BRITISH MEDICAL JOURNAL are requested to communicate with the Manager, 429, Strand, W.C., on receipt of proof.

CORRESPONDENTS who wish notice to be taken of their communications should authenticate them with their names—of course not necessarily for publication.

CORRESPONDENTS not answered are requested to look at the Notices to Correspondents of the following week.

MANUSCRIPTS FORWARDED TO THE OFFICE OF THIS JOURNAL CANNOT UNDER ANY CIRCUMSTANCES BE RETURNED.

IN order to avoid delay, it is particularly requested that ALL letters on the editorial business of the JOURNAL be addressed to the Editor at the Office of the JOURNAL, and not at his private house.

TELEGRAPHIC ADDRESS.—The telegraphic address of the EDITOR of the BRITISH MEDICAL JOURNAL is *Aitiology, London.* The telegraphic address of the MANAGER of the BRITISH MEDICAL JOURNAL is *Articulate, London.*

TELEPHONE (National):—
EDITOR, 2631, Gerrard.
GENERAL SECRETARY AND MANAGER 2630, Gerrard.

☞ *Queries, answers, and communications relating to subjects to which special departments of the* BRITISH MEDICAL JOURNAL *are devoted will be found under their respective headings.*

QUERIES.

B.R. will be glad to have a reference from any service members to a military dictionary giving information as to technical military terms, as is done by Young's *Nautical Dictionary* for the sister service.

SOUTH AFRICA would be glad of any information with regard to the possibility of bilharzia haematobia being communicated from husband to wife, also as to whether the uterus would form a suitable nidus for the parasite, and whether it would be likely to affect the ovum.

Rusticus would be much obliged for suggestions as to treatment of yellowish-brown pigmented patches on the face of a lady, aged 36. They first appeared during her first pregnancy nine years ago, and have persisted more or less ever since. There is no marked constitutional diathesis. The continued administration of small doses of sulphur had no effect.

Rosemount asks for advice as to the treatment to adopt in a case of prostatorrhoea with premature ejaculation of semen in a young man (age 24) whom he has been treating for some time without success. He has tried blisters to the perineum, passage of bougies, administration of belladonna, iron and arsenic, cold baths, and gymnastics, but the condition does not seem to improve The parts seem quite normal, except that the prostatic portion of the urethra is somewhat more sensitive than the rest of the canal.

F. C. F. asks for a book on recent epidemics of small-pox, with arguments for and against vaccination, which would be likely to be useful for town council work.

*** We are aware of no book summarizing the experiences of recent epidemics of small-pox. The information is to be found in the Reports of Medical Officers of Health for Glasgow, Liverpool, Bristol, and elsewhere. Also the Metropolitan Asylums Board's reports may be consulted. For more general information Dr. Edwardes's little volume on European Small-pox, and the pamphlet, Facts about Small-pox and Vaccination, issued by the Council of the British Medical Association, and obtainable at the offices here, will be found valuable.

Large Ovarian Cyst.

Dr. Sidney H. Carr (China Inland Mission, Kaifing-fu, Honan) writes: I recently took 96 lb. of fluid from an ovarian cyst. Would any of your correspondents inform me as to what is the largest amount of fluid tapped from such a cyst?

A Cancelled Ticket.

Motorist asks whether he can legally claim a fee from an Irish guardian who issued to a patient a ticket which was afterwards cancelled by order of the Board of Guardians. The patient refuses to pay any fee.

*** It may be possible to claim and obtain by law a fee from the person who issued the ticket, but it is very doubtful whether it would be in other ways desirable to adopt such a course.

Oedema after Phlebitis.

St. Just asks advice as to treatment of protracted oedema of both legs following phlebitis of the large veins. The patient is an elderly clergyman of very feeble circulation. He was knocked down by a bicycle last July, and was in bed over 3 months with concussion of brain and spine. The inflammation of the veins occurred in the right leg in November, and in the left at the end of December. There is no albumen in the urine. He has had Easton's syrup and a generous diet: massage was not tolerated.

Ether Vapour.

H. L. D. asks what are likely to be the advantages and disadvantages of having the vapour of boiling ether as an inhalation for producing anaesthesia. Ether boils at about 104° F. He has devised a safe, simple, and accurate apparatus for the production and administration of the vapour.

*** There is no accurate information as to the physiological effects of pure ether vapour. Ether vapour warmed by passing through a hot-water coil has been employed both for pulmonary inhalation and rectal anaesthesia, but the temperature 104° F. was not, we believe, attained in the cases mentioned. The safety of so high a temperature would have to be determined by experiment upon the lower animals before use in surgery. Ether vapour of high temperature produces rapid anaesthesia, and in this respect is an advantage, but, on the other hand, the higher the temperature of ether vapour the greater the risk of the pulmonary mucous membrane being injuriously affected and of bronchitis being caused. The subject is interesting, and worthy of careful research.

ANSWERS.

Dr. F. C. Wood (London, N.).—Chloride of ethyl and its mixtures can be given by rapidly pouring the anaesthetic into the ether chamber of a Clover's smaller portable regulating inhaler, but unless it is done with great dexterity and rapidity the result is less satisfactory than when another inhaler is used. With practice, however, good results may be obtained, and the plan has been recommended by competent anaesthetists.

Dr. Laville's Antigout Remedies.

Dr. T. Garneys Wales (Downham, Norfolk) writes: In the British Medical Journal of May 21st, p. 1236, Dr. C. Haslewood states that Laville's liquor is said to be a tincture of colocynth. Many years ago when the late Sir James Paget met me in consultation in the case of a wealthy patient suffering from gout he informed me that Laville's liquor had for its active properties a solution of "sabadilla," from which "veratrine" is obtained, and that he had frequently observed its "knock-down" effects.

Dr. Wm. G. Sutherland (Norbiton) writes: The composition of Laville's gout pills is: Extract of winter cherry 15 parts, silicate of soda 5 parts, made into 5 gr. pills, of which 4 to 10 are taken daily (Capaun Carlowa in *Medicinische Specialitäten*). The mixture contains, according to the same authority: Spanish or Malaga wine 800, alcohol 100, water 85, extract of colocynth 2.5, quinine and cinchonine (=amorphous quinine) 50, potassium bicarbonate 4 5.

LETTERS, NOTES, Etc.

Treatment of X-ray Burns.

Dr. H. Lyle (Senior Surgeon, Liverpool Hospital for Cancer and Skin Diseases) writes: In your issue of May 21st, p. 1, 27, in which the report of the case of Smith *v.* Pare appears, one of the witnesses stated of the burns caused by the *x* rays as the most intractable known. In my experience at this hospital I have not found it so, although a... I certainly had some difficulty in curing them, but since I have used the following ointment I have found them amenable enough to treatment and the dermatitis soon disappears: R Plumbi oxid. 3ij, zinci carb. 3ij, glycerini 3j, ol. olivae 3ss, adipis ben ad 3j. M. Ft. ung. To be applied freely.

LETTERS, COMMUNICATIONS, Etc., have been received from:

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BOOKS, Etc., RECEIVED.

Tuberculosis and Acute General Miliary Tuberculosis. By Professor Dr. G. Cornet. Nothnagel's Encyclopaedia of Practical Medicine. English Edition. Edited by Walter B. James, M.D. Authorized translation from German, edited by Alfred Stengel, M.D. Philadelphia, New York, and London: W. B. Saunders and Co. 1904. 21s.

University of Manchester. Public Health Laboratory. Industrial Effluvium Nuisances. The Characters of the Yeasts Occurring in Tanning Materials and in Tannery Liquors and Effluents. By J. R. Carver, M.D., D.P.H. Manchester: University Press. 1904. 1s. 6d.

How to be Happy, though Married. By a Graduate in the University of Matrimony. London: T. Fisher Unwin. 1904. 6d

Manual of Surgery. By Alexis Thomson, M.D., F.R.C.S.Edin., and Alexander Miles M.D., F.R.C.S.Edin. Volume Second. Regional Surgery. Edinburgh and London: Young J. Pentland. 1904.

International Clinics. A Quarterly. Edited by A. O. J. Kelly, A.M., M.D. Vol. I, 14th Series. 1904. London: J. B. Lippincott Co. 1904.

The Pathology of the Eye. By J. Herbert Parsons, B.S., D.Sc.Lond., F.R.C.S.Eng. Vol. I, Histology, Part 1. London: Hodder and Stoughton. 1904. Subscribers £2; separate volumes 15s.

Olive Latham. By E. L. Vovnich. Lon... W. Heinemann. 1904. 6s.

Stereoskopischer Gerichtsärztlicher Atl... Von Dr. Adolf Lesser, Dritte abtheilung Tafel 101-150. Breslau: S. Schottlaender. 1904.

Elements of General Radio-Therapy for Practitioners. By Dr. Leopold Freu... Translated by G. H. Lancaire, M.D.Brux., M.R.C.S.Eng., L.R.C.P. Lond. New York and London: Rebman Limited. 1904. £1 1s.; half leather £1 5s.

On the Diminishing Birth-rate. Presidential Address delivered before the British Gynaecological Society, Feb... ary 11th, 1904. By John W. Tay... M.Sc., F.R.C.S. Eng. London: Baillière, Tindall, and Cox. 1904. 1s.

Die physikalische Therapie im Lichte der Naturwissenschaft. Von Dr. ... Mueller. Jena: Gustav Fischer. M.2.40

Manuel d'Orthopédie Vertébrale. Par... A. Chipault. Paris: A. Maloine.

Sac Lombaire et Allégé. Par le Méd... major 2e classe Barthélemy avec la collaboration du Capitaine Eyc... Paris: A. Maloine. 1904. Fr.2.

Verhandlungen des Vereins Süddeutsch... Laryngologen, 1894-1903. Herausgeg... im auftrage des vereins vom sch... führer Dr. med. Georg Avellis. W... burg: A. Stuber. 1904. M.15.

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An Address

ON

RTERIAL SCLEROSIS AND HYPERTONUS IN THEIR RELATION TO DIET AND TO THE DIGESTIVE SYSTEM.

BY WILLIAM RUSSELL, M.D., F.R.C.P.EDIN.,
Assistant Physician, Royal Infirmary, Edinburgh.

BMIT me at the outset of my remarks to indicate to you e meaning I attach to the term "arterio-sclerosis." Clinicy, the word means a thickening or induration of the terial wall, perceptible to the sense of touch, the ordinary nical method of examining vessels.

My own observations[1] on persons who have shown the istence of this condition during life, and whose bodies I ve examined after death, have led me to the conclusion at the changes present are (1) a hypertrophy of the middle muscular coat, and (2) a fibrous hyperplasia of the internal at. These changes are present in the radial arteries, and, re or less, in the arteries in all the more important situans in the body. The thickening in the radial arteries is ry commonly spoken of as atheroma; but it differs from heroma as entirely as other morbid processes differ from e another.

TONUS.

In the next place you must bear with me while I deal with rtain elementary phenomena connected with the arteries. e all know the word "tone" as applied to the radial pulse. nus, or tone, may be used as indicating, or as including, e actual degree of contraction of the muscular coat. There an average or normal tonus which in its sustained ythmical response to the rhythmical flow of the blood sembles elasticity, such elasticity as is manifested by the lls of the pulmonary alveoli in stretching during inspiran and retracting during expiration. The arterial movent, however, is not a mere mechanical one of that kind; t is, on the contrary, presided over by a tissue—involuntary uscle fibre—which has the power of active contraction and axation, and even initiates these movements under the fluence of stimuli of one kind or another. This continuous d unceasing rhythmic movement of involuntary muscle is ly seen in heart and vessels. Emphasis has to be laid on is property in arteries because of the tendency to regard culatory phenomena from the purely physical side—the art a pump and the vessels a mere system of elastic tubes. hile this purely mechanical conception is applicable, as I ve said, to the vesicular movements in respiration, it leads serious misapprehension if undue prominence is given to when dealing with circulatory conditions. In the consideron of circulatory manifestations—manifestations which lie the very foundation of such a large part of our professional rk—it cannot be too strongly insisted on that this active d sensitive responsive power of the living muscle fibres of e arterial wall must be given a place second only to the ving power of the left ventricle.

While an average tonus may be postulated, the average is a riable measure, varying within considerable limits, varying m day to day, and even from hour to hour. Some of the luences which determine the tonus will be considered sently.

The next point is that the degree of tonus affects the lumen the vessel. Any over-tonus—hypertonus as I have called lsewhere—necessarily means diminution of lumen. You not have the muscular coat contracting without a corresponding constriction of the tube it embraces. This further int may, I think, be accepted as incontrovertible.

BLOOD PRESSURE AND HEART POWER.

We turn now to the question of blood pressure or arterial sion, and the effect which alterations of tonus have upon Whenever the question of blood pressure or arterial tenn is raised the driving power of the left ventricle at once omes the factor of supreme and determining importance. this connexion the heart of average vigour has a fairly wide rgin. The existence of this reserve of force is fully recoged as enabling the average organ to respond to the strain sudden and of varying degrees of physical effort. This rgin of reserve, however, diminishes with the advance of ars in the vast majority of people. This is the explanation the breathlessness which impedes and finally limits within narrow bounds the physical activities of advancing years. You must not regard my insistence on this as the assertion of a mere platitude, for I shall show you presently that it has a practical significance and application which is by no means universally recognized.

THE RELATION OF TONUS AND TENSION.

As to the relation between tonus and tension, there is what may be called the physiological aspect and the clinical aspect. The physiological aspect is based on experimental data which are doubtless correct so far as they go, and so far as they go they guide us, but they do not cover the whole ground, although this is what sometimes seems to be claimed for them. In the average normal or healthy animal the arterial tension is mainly determined by two factors—the power of the left ventricle and the measure of contraction, that is the tonus, of the arterial walls. We have postulated an average arterial tonus, and we may postulate an average ventricle power, both tonus and power possessing a considerable margin. Experiment shows that if the tonus is artificially increased the blood pressure or arterial tension at once rises. The explanation is that any diminution in calibre of arteries acts as an obstruction, and requires more power on the part of the heart to carry on the circulation. This increase of power is available in the average heart in virtue of its margin of reserve power in the first instance. If continued long enough it leads to hypertrophy of the ventricle.

This broad physiological law, that if the arteries contract the blood pressure rises, has quite properly been accepted by the clinician, but it has been applied with much too little reserve in practical medicine. One of the curious outcomes of this has been that there is often a want of clearness in the conception of and distinction between the terms "tonus and tension" and "tonus and blood pressure." I certainly frequently find the terms "high pressure" and "high tension" applied to a radial artery which is only unduly thick in its wall either from excessive contraction or from permanent structural change, and the use of the term is justified by the argument that such changes in arteries lead to the raising of blood pressure.

This brings me to the practical application of my argument and it is this: That, while the broad physiological law is correct, so long as you are dealing with average people in early life, it is not true, or only partially true, of people below average vigour, and of many persons after middle life.

There is, however, an important number of persons in whom the physiological law is strictly and clearly illustrated through middle life, and on into later life, if they escape for so long a time the vascular dangers to which they are continuously exposed.

If we seek, as we all do, to interpret aright, and thereby to utilize aright the indications afforded by the phenomena of the circulation in individual cases, we must keep rigidly apart the two factors, (1) the arterial contraction or tonus, and (2) the blood pressure, and yet both must be recognized and estimated. A third point is in some respects the most difficult; it is the determining whether a thickened artery is thickened from hypertonus or from arterio-sclerosis. The age of the patient and the character of the symptoms help in the differentiation. For practical medical work it is indeed of the utmost importance to be able to recognize hypertonus, and it is especially, often urgently, important when we are dealing with people in and beyond middle life; not that it is confined to that period of life, for it occurs frequently in early life, but adaptability, elasticity, and endurance are greater then, and there may be no symptoms complained of.

HYPERTONUS: VISCOSITY.

If I have made my argument so far clear, it will be understood that hypertonus in vigorous people leads at once to heightened blood pressure and raised arterial tension. This active response on the part of the heart to increase of peripheral resistance to the blood flow may be continued into and beyond middle life. Degenerative changes in cerebral arteries are often present—indeed, are prone to be associated with this ready production of increased tension. This combination occurs in the persons who supply the examples of early cerebral haemorrhage. But hypertonus also occurs in people whose hearts are not vigorous, and such people may or may not have degenerated arteries. In them thickened arteries are associated with a low blood pressure, for they have no sustainable margin of reserve in their hearts. A temporary excitement gives increased cardiac action and raised blood pressure, but as soon as the one subsides the other disappears.

This point of the existence of hypertonus without increased blood pressure is dealt with more fully later.

These thickened vessels present another difficulty; the thickened artery is looked upon as arterio-sclerotic, and this is not uncommonly regarded as a condition requiring no further serious consideration—as a structural change for which we can do nothing.

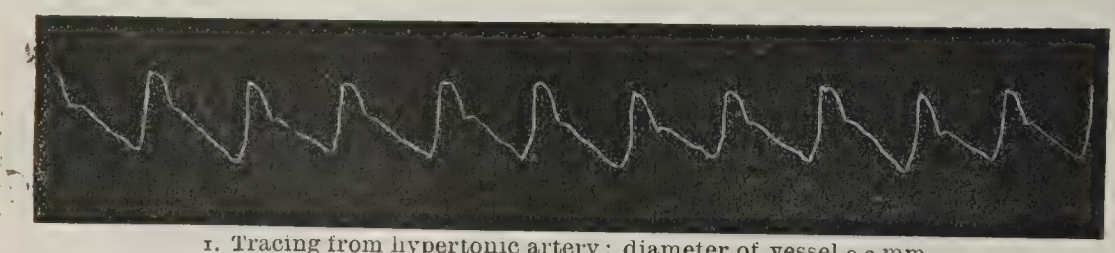
I need not dwell upon the prevalence of thickened arteries during and after middle life; but I desire very strongly to impress upon you the fact that those thickened vessels may owe much of what may appear to be structural thickening to what I have called hypertonus. Whatever of true structural thickening may be present cannot be removed, but whatever thickening is due to hypertonus can be removed.

The acceptance of the occurrence of hypertonus as I have defined it, and the recognition of it, either with or without a raised blood pressure, enables us to do more for our patients than perhaps the recognition of any other single phenomenon in practical medicine.

I must, however, support this thesis by further fact and argument. Take a simple and commonly recognized type of case—the person with good appetite, the hearty and large feeder, who partakes freely of proteid food two or three times a day and drinks wine, spirit, or malt liquor regularly. When a person of this type gets a "bilious attack" it is well known that his arterial tension is raised; but this arterial tension is usually, probably always, associated with hypertonus. Mark the significance of this latter; it means that the heightened tension is not due to deleterious substances acting directly on the heart, stimulating it to more powerful contraction, with a consequent over filling of the arterial system. The primary and initial influence is on the vessels. The arteries are irritated or stimulated, and become hypertonic; this calls out increased cardiac action, which is in reserve, and increased tension results. Does this point require to be argued? Is the truth of it not apparent as soon as it is expressed?

One argument appeals to us—the effect of mercury on the condition is universally recognized; it promptly lowers the arterial tension, not by acting on the heart and diminishing its vigour, but by relaxing the hypertonus. I need not at present discuss how the mercury has this effect. It is the power of producing this effect that makes the drug a dangerous one to give in many conditions; it is this which makes it specially dangerous in hypertonic vessels where the blood pressure is not raised, and where the heart has largely lost the power of easily and promptly adapting itself to vascular changes.

Pulse tracings of hypertonic arteries and of the same arteries after the hypertonus has been removed show that there is not only a marked difference in the swing of the needle of the sphygmograph, but that the hypertonic vessel has a smaller diameter than the same vessel when its hypertonus is relaxed. The two tracings given below illustrate this. In my opinion this repeated or continued hypertonus leads to the hypertrophy of the middle coat, which is one of the changes present in arterio-sclerosis, as that term is used in this communication.



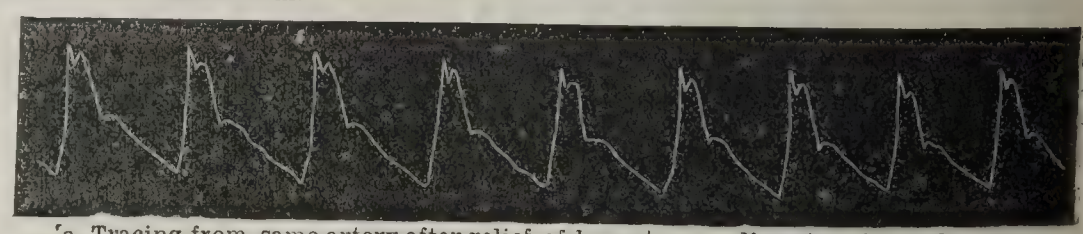
1. Tracing from hypertonic artery; diameter of vessel 2.2 mm.

Let us look at another explanation which has been suggested of the phenomena in such cases as I have just referred to. This suggestion is, that the deleterious substances in the blood heighten its viscosity, and correspondingly impede its flow through the capillaries; that this leads to a measure of damming back of the blood in arterioles and arteries; and that this again stimulates the heart to greater effort, the result being increased arterial tension. Whether the presence of such deleterious substances in the blood so modifies its physical characters as to impede its flow is, I I venture to think, doubtful; that they act so as to produce hypertonus of arterioles and arteries I have no doubt. That they also lead to capillary contraction is, I think, most probable. What the substances are which so act is a question of great interest; but, whether they are to be expressed in terms of uric acid, of purins, or of something else, must be left for the future to determine. There is, however, a side-light from which we can take some assistance. I refer to our knowledge of the influence of the secretion of the thyroid and adrenal glands respectively on arterial tonus and tension.

The Influence of Blood Conditions on Tonus.

The first point I have sought to establish is the active response of the arterial wall to impressions and influences which places it in a totally different position to that which it occupies if it is regarded solely or mainly as an elastic tube.

The second point—that blood conditions are amongst the influences which so act upon the arterial wall—I wish to examine more fully. We may, I think, assume it to be generally accepted that generous feeding, and the free use of alcoholic and malt liquors. lead to high arterial tension, especially if there is not full, free, and daily evacuation of intestinal contents. I include under the phenomena of arterial tension the important part taken by arterial contraction or hypertonus. This is the gross type, and I think it is more common in some parts of this island than in others; and it occurs without doubt more commonly in some classes than in others. This type is so prominent that it seems to me as if other types were so overshadowed by it as to be overlooked; and yet there are other types. One of these is found in persons who are moderate or even sparing eaters and very moderate drinkers, but who in later life present sclerosed arteries, and from time to time an unsatisfactory measure of arterial tension. This increase of arterial tension is in my experience always due to hypertonus. I have had the opportunity of watching for years a case of this kind in a gentleman, in easy circumstances, who ultimately died well on in the seventies. My main work for several years for this old gentleman was the restraining of a marked tendency to hypertonus, and along with that a corresponding raising of arterial tension. The case illustrates several points of great practical interest: the first I may mention was the marked effect the hypertonus produced on the brain. It is, indeed, the symptoms referable to the cerebro-spinal system which often lead to medical opinion and counsel being sought for in such cases. The patient to whom I am referring became unusually somnolent after meals; his speech became a little thick and blurred but what annoyed him most was that he began to spell words incorrectly in his letters, a thing he had never done before; his gait also became slightly unsteady. In fact his condition at the time to which I refer, and some years before he died, was such as to suggest rapid cerebral degeneration. I was however, satisfied that the symptoms were due to hypertonus of cerebral vessels curtailing local blood supply. I knew that in eating and drinking he was very moderate, as judged by ordinary standards, yet after careful consideration I strongly advised him to give up the glass of claret he took at lunch and dinner. Fortunately my patient and his wife, when they saw I was in earnest, at once fell in with my advice; and we were rewarded by the disappearance in a very short time of the symptoms which had given us so much concern; and along with this there was a corresponding reduction of hypertonus and arterial tension. I mention this case because it is illustrative of a type, and because it was my privilege to watch this patient very closely, and to be allowed to regulate his living as I deemed expedient.



2. Tracing from same artery after relief of hypertonus; diameter of vessel 2.4 mm.

There was in this case a very marked readiness on the part of the arteries to tighten up a little, and for long periods a small quantity of potassium iodide was sufficient to control it. After the continuance of such a period there would be some deviation from the ordinary austerity, some proteid added to the dietary, or some small measure of alcoholic fluid taken at lunch or dinner, and as sure as this occurred there was a threatening of the former symptoms. The total quantity of proteid—and, indeed, of every kind of food taken—was

tively small; and the same was true of the amount of
or of spirit. A more regular and temperate man could
lly be found, and yet he was constantly threatened with
gers more associated with the opposite habit. How are
o look at a patient of this kind? Are we to be content
gard him, as is not unusual, merely as an old man whose
ength" has to be kept up? This view, when acted upon,
speedily in disaster. I submit that this man showed
later life in a concrete form what had been his
siological standard during life. There was in him
hysiological barrier to his being a large feeder
a big drinker. We all know such persons—per-
who cannot eat big dinners daily, or take alco-
c liquor of any kind regularly save in small quantity.
may have no more virtue in it than the declining
o what experience soon teaches brings about unpleasant
lts. The barrier is really a physiological one; the organs
erned are not capable of dealing with the amount or kind
ork thrown upon them, and auto-intoxication or toxaemia
ne kind or another results. Fortunately it is not a question
rst-rate importance what the precise composition of the
-intoxicant is, but I believe it is of great importance that
hould recognize that, whatever its name, it has the power
cting upon the blood vessels—tightening up arteries and
rioles, modifying the capillary circulation, and affecting
l function. Neither is it necessary to dwell upon the
ed symptoms which can be manifested during the intoxi-
n. Recent observations suggest that we may have to alter
t has hitherto been our standpoint as to what the primary
initial defect may be, in some at least of our patients. The
ibility that thyroid secretion, on the one hand, or, on the
r hand adrenal secretion, may be materially influenced by
uantity of proteid in our food puts the whole matter a step
ier back; for were this fully established it only gives a fuller
anation, a more detailed account of the physiological
s by which the auto-intoxication is brought about. In the
nt to whom I have particularly referred it may be that
mall doses of potassium iodide given to him acted by
ing the thyroid secretion to counteract the adrenal secre-
a too active condition of the latter being, perhaps, the
titutional basis for the prolonged continuance of pheno-
a which ended in arterial thickening, in kidney changes,
in a final upsetting of equilibrium that we endeavoured
in to restore. Be this as it may, it is to my mind clear
it is primarily to the feeding and to the gastro-intestinal
that we have to look for the explanation of the vascular
omena and the conditions associated with them, with
h I am dealing. I think it probable that the kind and
tity of food taken may produce evil effects owing to
ient thyroid secretion; but also that under corresponding
itions the adrenal secretion may be over-stimulated. I
however, hardly believe that all auto-intoxications follow-
upon dietetic errors act through those special glands,
ugh the cases where vessel changes are pronounced may
ys have a close relationship to a constitutional, con-
al, or inherited tendency on their part. We fortunately
wait for the final solution of those most interesting
lems; and meanwhile, we can move forward.

Hypertonus without Increased Blood Pressure.

w I wish to draw your attention to a class of person in
life who also has sclerosed arteries, whose arteries still
n a measure of adaptability, and are not mere tubes re-
ng a degree of elasticity, but in whom hypertonus
not lead to a rise in blood pressure. I deliberately dis-
tish this class of case, and it comprises a large body of
ns, although to some of my clinical friends my position
rs to be heterodox. I am physician to an institution
e I see scores of old and feeble people of the respectable
n class. It is half a paying home and half a hos-
. The feeding is simple and spare. From my ob-
tions there, as well as in other directions, there
be no doubt that hypertonus occurs without increase
ne blood pressure; that is, no increased sustaining
e column of blood in the hypertonic artery, but the
se. This hypertonic condition of arteries leads to a
ber of interesting manifestations in those old people; it
give rise to insomnia and nocturnal restlessness; it may
r an inmate who was moving with freedom about a ward
rday unable to get out of bed to-day without being lifted
eatly helped by the nurse; and it may lead to hemiplegia
aphasia. When these things occur the diet is carefully
ated, the gastro-intestinal condition is attended to; drugs
ven in some instances to relieve arterial spasm; whisky
is given in some, in others strophanthus. These cases return to their ordinary routine in due time as a rule. The condition is most commonly the result of gastro-intestinal auto-intoxication due to error in diet. The quantity of food taken is not large as measured by ordinary or popular standards, but it is over the limit for the individual, and the boundary is easily passed. Practically it is not of much importance what particular share of responsibility can be attached to the various organs for the production of the symptoms; but it is of essential importance that the condition be recognized as an auto-intoxication, caused by over-feeding or wrong feeding, by the absorption of the products of intestinal decomposition, or by the slow eliminating power of deteriorated kidneys; these act and react on one another, and the two last can in a measure be influenced by the first, can even be determined by it. The recognition of the condition puts the remedy in our hands, although it is not always easy, or indeed possible, to apply it thoroughly, owing to popular ignorance and prejudice.

The interest of these cases is not, however, confined to this aspect of them. As has been already indicated, the arterial hypertonus does not lead to an increase of cardiac power; in fact, it is often associated with, or followed by, a definite threatening of heart failure. It becomes, indeed, in some of these cases, somewhat of a fine art to determine which is the best line of treatment, or, it would be more correct to say, the lines of treatment to adopt, for diet, gastro-intestinal condition, hypertonus, and threatening cardiac failure are collectively presented for consideration and decision; and that in persons who are at best living on a narrow debit and credit account from the physiological or metabolic standpoint. The ledge is sometimes so narrow that even the measures adopted may precipitate the end. If the art is a fine one, is it not art growing out of knowledge which makes our work so attractive? Sometimes it is asked, "Is the result worth the trouble?" To the physician it certainly is, for it gives him an understanding which is an invaluable possession, while the acquiring of the skill is an education which moulds every side of his professional work. Other aspects of the question I readily leave for others to determine.

Gastro-intestinal Disorders Causing Hypertonus.

I seek in the next place to refer more directly, than I have so far done, to the influence of gastro-intestinal disorder, including of course food, in causing arterial changes. I have referred to the big feeder and free drinker, with his recurring attacks of "biliousness," and to the condition of his vessels. He often dies in comparatively early life from the result of vascular changes in his brain or kidneys. Now this gross type is readily accepted in all its bearings, but there is often a failure to recognize that there are minor degrees of the same class of phenomena as those presented by it. I have also referred to phenomena of this nature in persons with already sclerosed vessels. The point I would now specially submit to you is that in many persons in early and middle life suffering from one or other form of gastro-intestinal functional disorder—some form of dyspepsia or of constipation—there occurs an auto-intoxication of long duration, but relatively mild in its manifestations. It may manifest itself by a variety of subjective symptoms; it may be recognized by urine reaction. In a considerable proportion of cases of this class arterial hypertonus is to be noted. Very commonly the thickened arterial wall is regarded as a sclerosis occuring in early life, while as a matter of fact it is a hypertonic vessel and not a permanent thickening. That it is so is shown by the disappearance or dimunition of the thickening under treatment, a result which could not follow were the thickening due to hyperplasia or hypertrophy of the tissues of the arterial coats. I am not prepared to say that all gastro-intestinal morbid conditions cause hypertonus, but when they do I believe we are face to face with the first step in the development of the sclerotic changes which are so common in middle and later life, and which materially determine the duration of individual life. I have seen vascular degeneration in persons who in early manhood had been martyrs to dyspepsia; such marked degeneration of the cerebral as well as of the general arterial system that by the age of 60 years repeated local brain softenings had rendered them physical and mental wrecks. This in persons who were moderate eaters, practical abstainers, and who neither in themselves nor in their children suggested any suspicion of syphilitic taint.

A measure of indigestion and constipation rank in the public mind as such commonplace conditions that the one is accepted as an inevitable accompaniment of life in the present time, with its buzz of mental activity and strain, and the other as only demanding alleviation after prolonged intervals of neglect by a dose of cascara or of some widely-advertised liver pill. It is my conviction that this combination of conditions, common though it be, leads slowly, insidiously, and surely to vascular changes in a great number of people.

The problems surrounding indigestion and constipation are too large to be entered upon fully at present; they are intimately bound up with the problems connected with food, and the general attitude of the medical and the lay mind to food problems. It may, however, be noted that the raising of the standard of comfort has, as has been shown by official returns, led to a great increase in the consumption of flesh amongst all classes. Along with this has unfortunately come the fixed popular idea that flesh is the only strength-giving food, that it is the essential part of the daily dietary. Now, there is no question that an excess of proteid food throws a strain upon excretory functions, it does not as a rule favour free bowel action; it becomes, in fact, a potent source of auto-intoxication. In some persons living on ordinary and very simple food, yet suffering from marked and even grave symptoms of auto-intoxication, you will find that by materially reducing the proteid element and increasing the carbohydrate you remove those symptoms, and in addition you will arrest arterial changes and remove much of what appeared to be established. You are often in such cases met with the cry that you are reducing strength. People seem to have forgotten that the stalwart men who were to be found on every farm in Scotland fifty years ago were reared and maintained on carbohydrate food and milk for breakfast, dinner, and supper. I fancy constipation was not then a common complaint, and judging from some of those who remain, vascular degeneration was not an early development.

Indigestion, constipation, and feeding are so interwoven that we hardly see their relations until we induce some of our patients to submit to a revolution in their diet habits. The reduction in quantity of the more pure proteid food with an increase in the more pure carbohydrate food is the change which has to be effected. The latter—that is, the carbohydrate food, is mainly provided by the cereals. The true place for cereals in a rational and healthy dietary begins to be recognized in some measure, if we can estimate it by the number of these introduced to the public within the last few years. It is, however, a matter for surprise that all the enterprise in supplying us with novelties in the way of ready or readily cooked, or of partially digested, cereals is supplied by our friends across the Atlantic.

REFERENCES.

[1] *Lancet*, June 1st, 1901. *Encyclopaedia Medica*, vol. xiii, article Vessels.

ABSTRACT OF

Two Lectures

ON THE

ESSENTIAL SIMILARITY OF INNOCENT AND MALIGNANT TUMOURS.

Delivered before the Royal College of Surgeons of Edinburgh on March 4th and 11th, 1904.

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AFTER some introductory remarks Mr. Cathcart pointed out that the subject of the lecture had an important bearing on many of the problems now under discussion with regard to malignant tumours. He meant the title to indicate that there was no hard-and-fast line of demarcation between innocent and malignant tumours. He held that the differences were those of degree and not of kind, and that the contrast was not even so great as might be drawn between the characters of a benevolent man and one who had given himself up to crime. While many pathologists had taken up the position which Mr. Cathcart proposed to defend, long before he did, there were still a large number who opposed the view either directly or indirectly, and there were possibly a larger number who were unable to make up their minds definitely on the subject. It seemed, therefore, worth while to try to concentrate attention on this proposition and to bring all the arguments in favour of it together so as if possible to establish it as a recognized principle in pathology. Instances were given of pathologists opposed to and of those uncertain as to this view, while those in favour of it would be mentioned in the course of the lectures. In order to have a clear understanding of what was meant by innocent and malignant tumours reference was made to Mr. Bland-Sutton's discussion of the subject in the recent edition of his book on *Tumours*. The key to the difference is, as he expressed it, that "the baneful effects of innocent tumours depend entirely upon their environment, all malignant tumours destroy life whatever their situation." Mr. Bland-Sutton describes the characters of malignant tumours under the following five heads: (1) Infiltration, (2) gland infection, (3) recurrence, (4) dissemination by the blood, (5) inevitable destruction of life. If these characters, which are accepted by all, are analysed, the lecturer thought they might be stated in tabular form as follows:

Essential Feature of Malignant Growths.		*Manifested by*
Growth...		Type retained.
Without restraint	(*a*)	Indefinite size.
	(*b*)	Local dissemination
	(*c*)	Local infiltration.
	(*d*)	Gland dissemination
	(*e*)	Blood dissemination

Recurrence, due either to *b*, *c*, or *d*.

An explanation of this table may be made shortly as follows: Malignant tumours follow the structure of the tissue or organ in which they originated, in the majority of cases so closely that the similarity is quite recognizable, both in the primary and secondary deposits. This may be taken as sufficient illustration of the view that they are modifications of growth. But that they are not under the restraining influence that the normal tissues are, is indicated by (1) their continuous growth, leading to an "indefinite size." This local overgrowth may call "local malignancy," and although some people object to the latter expression, it seems a perfectly satisfactory one to explain one of the ways in which these tumours "inevitably destroy life." (2) By their cells leaving the original mass so as to produce secondary growths in the neighbourhood, even when the original mass seems encapsuled. This is what is meant by "local dissemination," and the same breaking-up tendency is shown by (3) infiltration of the surrounding tissues where there is no capsule, and by (4) dissemination through the lymphatic system, or (5) through the vascular system in the epithelial and connective-tissue types of malignant tumour respectively. Recurrence could in some cases be traced to local dissemination where a capsule was present, in others to infiltration of the surrounding parts where the knife had passed through the actual extension of the tumour, or in others to involvement of glands.

The lines of argument which were to be followed out in support of the view taken by the lecturer were indicated as follows:

1. The presence of gradation in malignancy as shown in series of specimens selected and arranged to illustrate different degrees of malignancy in the same kind of tumour, taken from different individuals.

2. Transformations in character, where a tumour of a certain kind had changed from innocent to malignant in the same individual.

3. Combinations of characters where tumours otherwise innocent have shown certain characters which are generally believed to belong only to the malignant forms.

These lines of argument were supported by appeals to specimens examined both by the naked eye and microscope and illustrated by lantern slides thrown upon the screen; by reference to published cases, and by reference to published opinions of well-known pathologists. The greater number of the specimens illustrated were in the museum of the Royal College of Surgeons of Edinburgh, some had been selected from other museums in Edinburgh, and one from the Hunterian Museum in London. It had been impossible to cover all the ground that might have been covered, but it was hoped that the specimens were sufficiently illustrative for the purpose in view.

1. GRADATION IN MALIGNANCY.

The gradation series specially worked out were those of bone tumours. The museum of the Royal College of Surgeons of Edinburgh is relatively rich in this class of tumour, and the latter is also one which lends itself to lantern illustration.

(1) Cartilaginous tumours formed the first series; innocent forms were shown first and their microscopic characters illus

ted. Afterwards specimens were shown which illustrated succession local overgrowth, recurrence with apparent capsulation, and at the end of the series local overgrowth th dissemination by the blood.

2) Bony tumours were then taken up and were followed t in the same way, illustrations being given of local over-wth and local recurrence, until the tumours were reached ich are usually described as sarcoma, where malignancy anifests itself with such marked features.

3) Central tumours were next taken. These showed the sily recognized character of myeloid cells not only in the nple forms, but in others which had malignant characters, d the similarity was traced on as in the previous class till e undoubted sarcoma group was reached, where the esence of malignancy was beyond dispute.

In reviewing the three series, the lecturer drew attention to what might be called the milder stages of alignancy, or half-way characters—namely, local overowth, and local dissemination with the presence of capsule, the latter being apparently present before finite infiltration took place, although it was no doubt esent, also, along with infiltration. Attention was so drawn to the similarity of structure, not only of the rious tumours which formed each series, but also of the rious parts of the individual tumours, the importance of e latter point being that a tumour which had some parts sembling an innocent, and some parts resembling a alignant, tumour showed a gradual transition from the one the other, and not a mixture of two kinds, distinct from e another.

Gradation in malignancy in other forms of tumour were iefly indicated, thus:

4) *Fibrous Tumours.*—Illustrations of semi-malignant forms fibrous tumour were taken from "recurrent fibroid mours," also from those fibrous tumours which, although parently encapsuled, returned locally after removal, while eir structure had in some places the naked-eye and micro-pic characters of an innocent fibroma, but in others those a sarcoma. Allusion was also made to Virchow's remark connexion with these tumours, where he says: "It is a atter of great importance to remember that the boundaries" what he calls "tuberous fibroma are not clearly defined m those of other tumours, especially those of sarcoma, ere being undoubtedly transition forms which exist between em."[1]

5) *Renal Growths.*—The following quotation was made from . Kelynack's work on *Renal Growths*, as supporting the ssibility of a gradation series of renal growths:

No very definite line can be drawn between the various forms of enomatous growth. They shade off one into another. Some, pecially the "trabecular cystomata," as they have been termed, with pillary ingrowths, are particularly prone to take on indefinite growth d to manifest malignant characters. This seems to have been recog-ed by several pathologists.

Delafield has pointed out that sometimes adenomata behave like lignant growths, especially those forms which are very vascular. he well says, "The adenomata, which run a malignant course with formation of mestatic tumours, are often called carcinomata." ker has also met with a malignant form of trabecular cystoma. It of very great practical importance to remember that, although from eir microscopical characters they might be considered simple, yet quently they prove malignant. This was well illustrated in a case ently recorded by Willet.

6) *Sebaceous Adenoma.*—Illustrations of various degrees of alignancy in this type of tumour were given in specimens the museum of the Royal College of Surgeons, Edinburgh, ere the tumours, all having the same microscopical cha-ter, showed various degrees of malignancy from simple dunculated forms to those in which there was local dis-mination and infiltration of surrounding tissues.

7) *Breast Tumours.*—Allusion was made to Professor Halsted's per in vol. xxviii of the *Annals of Surgery*, where he described series of cases of what he called adeno-carcinoma of the east, which he showed to stand half-way between adenoma d carcinoma. A paper by Mr. Thorburn in the *Illustrated edical News* for September 14th, 1899, was also referred to in pport of the possibility of finding specimens which bridged e interval between innocent and malignant forms of breast mour.

8) *Cystic Tumours of the Testicle.*—The opinion of Mr. Eve was oted when, after a careful examination of many tumours of e testicle, he came to the following conclusion: "There is genetic difference between the innocent and malignant stic tumours of the testicle; they are merely varieties of e same form of tumour."[2]

9) *Multilocular Cystic Epithelial Tumours of the Jaw.*—Mr. Eve was again quoted as having come to a similar conclusion with regard to this class of tumour, to which he had given special attention, and the exact nature of which we owe to his careful work. He says:

The general impression formerly existing, that all the multilocular cystic tumours are innocent, is entirely unfounded. Recurrence has taken place in many recorded cases after the cysts have been opened and their contents sponged or imperfectly gouged out. . . . . Recurrence sometimes takes place after the complete removal of the affected portion of the jaw. . . . . In completion of the evidence showing the truly malignant nature of some of the cystic tumours I am able to quote the following case, for the notice of which I am much indebted to Mr. R. W. Parker, who also gave me microscopic sections of the morbid growths.[3]

(10) *Chorion-epithelioma.*—Dr. Teacher, whose work on this kind of tumour has entitled him to speak with authority, states in his monographon the subject:

It seems at present impossible to draw a sharp distinction between the simple moles and the malignant moles and chorion-epitheliomata, either in respect of their early clinical history or the histological appearances.[4]

(11) *Tumours of the Bladder.*—Mr. Hurry Fenwick, in his work on *Tumours of the Urinary Bladder*, makes the following allusion to villus-covered malignant growths:

On examining the cystoscopy of villus-covered malignant growths, and on analysing their clinical and operative histories, we cannot avoid the inference that they form an intermediate class between benign papilloma on the one hand and malignant infiltrating growth on the other. They resemble the former in their comparative indolency and in their superficial structures when they are in their earlier stages, whilst they are akin to the latter in their basal tissues when far advanced.

In concluding the exposition of the first line of argument the lecturer drew attention to the way in which various workers had independently come to a conclusion similar to that which was embodied in the gradation series of bone tumours which he had brought before the audience by means of the lantern.

2. Transformation of Innocent into Malignant Tumours.

(*a*) The transformation of innocent into malignant tumours in the same person, and, what may be considered as a part of the same argument, (*b*) the simultaneous presence of innocent and malignant growths of a similar kind in the same individual.

(*a*) A number of specimens were shown, and others alluded to, which illustrated this transformation:

(1) Fibroma of scalp becoming malignant (Museum Catalogue of R.C.S.Edin., **12**, 104). This was one of many soft fibrous tumours which had been present from infancy in this patient. It had only begun to increase when the patient was aged 47, but it had then grown rapidly, and had broken down and ulcerated; it had been removed, and showed fibrous tissue well developed in some places, but in an early stage of development in others.

(2) Cast of a sebaceous cyst having become malignant (Museum Catalogue, R.C.S.Edin., **12**, 71). This was one of many wens which had been present on the scalp of a woman, aged 60, for about thirty years. One of these had begun to enlarge about three months before the patient sought advice, and had rapidly involved the surrounding tissues, and caused enlargement in the glands. The case was inoperable, and the patient died in a lunatic asylum, not long after having been discharged from the infirmary.

(3) Epithelioma of the hand following a congenital wart. A case recorded by Oliver Pemberton on page 117 of his large book *On Cancerous Growths*. Several similar cases recorded in the same book were also referred to.

(4) Melanosis (Museum Catalogue, R.C.S.Edin., **12**, 60 and 61). A specimen was shown of melanotic tumours which had originated from a mole on the back of a woman's loin. Several had been removed, but with recurrence. Patient died with symptoms of diffusion of the tumour. This case was, however, complicated by the presence of scirrhus of the breast, which had developed between two of the operations for melanotic recurrence.

Reference was made to Oliver Pemberton's statement that 15 out of 34 cases of melanosis which he had investigated had developed in or near a congenital mole.[5]

(5) Tumour of the parotid becoming malignant (Museum Catalogue, R.C.S.Edin., **17**, 45.) The original tumour had been for many years of small size but had begun to grow a few months before the woman sought advice. It had increased rapidly, was removed by Sir Patrick Heron Watson but returned in eighteen months. On section, some parts seemed to be of a simple and others of a more rapidly growing and malignant character.

(6) Uterine fibroids becoming malignant. Reference was made to Mr. Bland-Sutton's account of this occurrence, and the case described on p. 184 of his book was quoted. Reference was also made to Professor Senn's account of a similar case on p. 81 of his work on *Tumours*. Attention was also drawn to the fact that Senn, although admitting that tumours may become transformed in character from innocent into malignant, was yet an opponent of the view that there could be any transition stage between them.

(7) Benign adenoma transforming into rectal cancer. Reference was made to Professor Ball's lecture in the BRITISH MEDICAL JOURNAL, vol. i for 1903, p. 413, where he mentions a case of this sort.

(8) Simple thyroid tumour becoming malignant. An illustrative case was referred to which is quoted in Mr. Hutchinson's *Archives*, vol. iv, p. 65.

(9) Bladder tumour of simple nature becoming malignant. What seems to be a good illustration of this is quoted by Mr. Fenwick in his work on bladder tumours, p. 41.

(10) An instance of a simple form of neuro-fibromatosis becoming malignant was quoted from Mr. Alexis Thomson's *Monograph on Neuroma*, p. 86.

(*b*) Illustrations of the simultaneous presence of innocent and malignant tumours of a similar kind, were taken from the multiple polypoid growths which are found in the rectum and colon. These might, perhaps, be taken as illustrations of the transformations from simple into malignant tumours if the full history of the cases were known. It is obvious, however, that it would be impossible to say whether the malignant specimens of such tumours had been innocent at first, or whether they had been malignant from the first, when it is remembered that they can only be examined after death. Abstracts of such cases are recorded in the *Annals of Surgery*, vol. xxvi, p. 398, and in the EPITOME in the BRITISH MEDICAL JOURNAL for April, 1899.

3. COMBINATION OF CHARACTERS.

The presence, in certain otherwise apparently innocent tumours, of characters which are usually believed to belong only to malignant tumours. Such characters are (*a*) local overgrowth, (*b*) local, and (*c*) general infectiveness. Of these the first had been illustrated in the gradation series, the second was undoubted, but had not been generally appreciated in its bearing on the present subject, while the third might be open to question.

(*b*) *Local Infectiveness.*—(1) Ruptured dermoid cysts producing secondary dermoids throughout the peritoneal cavity. Mr. Bland-Sutton describes such cases—one especially was referred to—on page 418 of his book on *Tumours*.

(2) Leaking parovarian cysts spreading warts all over the peritoneal cavity, which subsequently disappeared. These also are described by Mr. Bland-Sutton on page 469 of his book. A specimen from a case of the kind operated upon by Mr. Caird was exhibited, where, eight years ago, when such a cyst was removed the whole pelvic peritoneum was found studded with warts, but where the patient had recovered and was now well without any symptom of trouble.

(3) *Venereal Warts.*—The lecturer alluded to his paper published in the *Journal of Pathology*, 1896, where he brought forward arguments to show that venereal warts are really a contagious form of innocent tumour, and he also referred to drawings in the museum from a case where warts had been transferred from the anus to the penis by scratching, there having been apparently no history of venereal affection of any kind, and certainly no such disease present.

(4) The contagious tumours in dogs which had been described by Dr. Washbourn,[6] Dr. White, and others were considered to be illustrations of a similar phenomenon.

(5) The ingraftation of an abdominal wound by innocent ovarian adenomata which is described by Mr. Bland-Sutton on p. 239 of his book seemed to be a further illustration of the local contagious power of certain tumours which were otherwise simple.

(6) As an illustration of the possible general infectiveness of an innocent tumour, attention was drawn to what has been called general thyroid malignancy, where apparently innocent tumours of the thyroid had been associated with multiple thyroid tumours in the bones. The secondary deposits showed indications of malignancy, although the structure and clinical behaviour of the original thyroid tumour seemed to be indistinguishable from that of an innocent tumour. Even although it might eventually be proved that in such cases the original thyroid tumour was really not innocent but malignant in part at least, the discovery would only shift this phenomenon of thyroid malignancy from the third line of argument back to the second.

With reference to the local infectiveness of certain epithelial tumours attention was drawn to the peculiar circumstances which permitted of the spread of the disease. The cells in these cases have the opportunity of escaping on to a free surface, and then of finding a suitable soil on which they may develop. It was thought right to consider such cases along with those of local dissemination which had already been pointed out as "halfway" in character in various forms of connective-tissue tumour. From the fact that these connective-tissue tumours were embedded in the tissues it was [illegible] difficult to see that if they manifested this character of local dissemination it was in spite of there being less facility [illegible] it than in the epithelial tumours in question. Consequently [illegible] greater degree of malignancy might be presupposed in the [illegible] than was present in those locally contagious superficial epithelial tumours.

Attention was drawn to the fact that in each line of argument evidence had been brought forward from many different and independent observers; and, further, that the three lines of argument mutually supported one another. It was therefore considered right to conclude:

1. That innocent and malignant tumours are essentially similar to one another.

2. That both forms of tumour might equally be considered as due to growth broken free from normal restraint.

CONCLUSIONS.

A plea was then made for accepting these conclusions without fear of the deductions which naturally followed from them. The lecturer believed that many pathologists had not the courage of their opinions in regard to this question because the conclusions, if logically carried out, seemed to antagonize many of the views which might be called fashionable at the present time. He ventured, however, to indicate some of these deductions as follows:

(1) That every type of tumour has associations with malignancy, no class being exempted. The general principle however, might be stated that the more highly organized and formed the tissue of a tumour, the more it belonged to the simple class, and vice versa. All forms of connective tissue tumours seemed to converge to the round-celled sarcoma type, and all forms of epithelial tumour to converge to the encephaloid cancer type, there being, however, many tumours which were quite characteristically malignant although considerably removed from the extreme malignant structure.

(2) Attention was drawn to the difference that exists between the behaviour of the developing cells of a tumour and that of an embryo, although under the microscope their appearance might be indistinguishable. The caution was therefore thrown out that mere structure did not necessarily indicate clinical behaviour.

(3) With regard to the etiology of tumours, the general principle was enforced that no theory of tumour growth could be considered satisfactory which would not apply equally to innocent and malignant tumours. The bearing of this on the parasitic and other theories was shown.

(4) With regard to treatment, it was pointed out how the view as to the similarity of all forms of tumour would put the surgeon always on his guard, while the views of those pathologists who held that certain kinds of tumours were invariably innocent would have an opposite effect. Further, with regard to the search for a cure for cancer, it was shown how the view of abnormal growth was consistent with many apparently inexplicable statements as to the behaviour of malignant growths. Thus it made it more easy to understand that the life of the tumour cells might be more precarious in some ways than those of the normal tissues, and thus that spontaneous subsidences might occur, or, again, that the cells of tumours might be injured by toxins, *x* rays, or even by mental influences. The lecturer thought that mental influence might explain the effect of many vaunted cancer cures, all probably useless in themselves except so far as they might affect the mind of the sufferer.

(5) With regard to the influence of this view on classification of tumours, the opinion was expressed that it was undoubtedly best to divide tumours primarily according to the type of tissue or organ from which they arose, and in each class to arrange the individuals according to the degree of malignancy which they manifested. In cataloguing the museum specimens in the Royal College of Surgeons of Edinburgh the lecturer had adopted this method, and was convinced that although from the absence or imperfection of clinical histories the proper position of the tumours was often difficult to determine, the results were much more satisfactory as a help for clinical work than those given by any other method of arrangement with which he was acquainted.

REFERENCES.

[1] *Krankheiten geschwulsten*, Band i, p. 348. [2] *Trans. Path. Soc.*, vol. xxxviii, p. 213. [3] BRITISH MEDICAL JOURNAL, 1883, i. p. 3. [4] *Journ. of Obstet. and Gyn. of the British Empire*, July, 1903. [5] Op. cit., p. 84. [6] *Journal of Pathology*, 1898.

THE OBSTETRIC SATCHEL: A PROBLEM IN ASEPSIS.

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HE speed of a fleet of ships is the rate at which the slowest ssel in that fleet can sail. The measure of the strength of a fence is found in its weakest point. The degree of immunity om septic infection in obstetric practice depends upon the mpleteness of the aseptic precautions adopted; the pre-ution which fails determines the quality of the success of e prophylaxis. If the fleet is to sail faster it is useless to celerate the swift cruisers and destroyers to thirty knots ile the other vessels can only do fifteen or eighteen; if the fending wall is to stand sure it is the weak part that re-uires to be strengthened and not the strong; and if obstetric epsis is to be perfect it is the defective detail that must be rrected. To condense this wide argument down to a single int: I am hesitating about the adoption of rubber gloves in stetric practice because I am not sure about the state of my idwifery bag. The meaning of this somewhat cryptic state-ent will become clear as the discussion advances.

To understand the position of aseptic midwifery at the esent time it is necessary to cast a glance backward; it need t be a long look, but it is essential. In 1867 a new word gan to be seen in the medical literature of the day: that rd was *antiseptic*. It was not truly a new word (new things ing altogether rare things in this world now so old), but it gan to carry to the hearer's mind a new idea and to have w and beneficent associations. It was really an old word, it was in use as far back as 1751 in the sense of "anti-trescent"; we can read in the *Gentleman's Magazine* of that ne that "acids *per se* are most powerful antiseptics." It s employed figuratively, also, as something preventing ral decay; and Thomas Carlyle, in his *Latter-day mphlets*, published in 1850, characterized certain indi-luals as "not divine men, yet useful antiseptic products of eir generation," a characterization which we obstetricians ght well strive to earn for ourselves. Be this as it may, in 7 Lister published his articles on A New Method of Treat-g Compound Fracture and On the Antiseptic Principle in e Practice of Surgery,[1] and launched the word afresh on its yage down the stream of time with a new significance ached to it. I need not relate how Lister had grasped the important result of Pasteur's research on the microbic ses of putrefaction, "a secret wrung from Nature's close serve," and had translated it into the practical everyday rk of the surgeon; the marvel of thirty years ago has be-me the commonplace of to-day and requires no re-telling me. It is well, however, for us to remember that during decade that followed Lister's discovery surgeons relied on the antiseptic rather than upon what we now call the ptic principle in their management of wounds; the crobes that ventured near the operator perished (or were posed to perish) in the noisome spray or were killed by ong carbolic lotions in the incision, and the tissue of the und themselves did not always escape the fate prepared for invading hordes of bacteria.

n the year 1868 carbolic lotion was being employed in asgow for the washing out of the uterus in puerperal pticaemia, as we learn from Professor J. G. Wilson's short te in the *Glasgow Medical Journal* (i, p. 322, 1869), and about same time Bischoff paid a visit to Lister and took back h him to Basel the idea of obstetric antisepsis. In 1870 dtfeldt of Copenhagen systematized the new plan of nducting midwifery cases, and it is worth while remember-; that the Danish obstetrician emphasized personal dis-ection, the washing of the hands in carbolic lotion, and daily bathing of the genitals with the same during the erperium, as well as the employment of vaginal douches. hough this was so, yet there can be no doubt that during ten or fifteen years that followed 1870 the outstanding ture of the treatment was the *post-partum* and puerperal ginal douche. As we now know, this was not so essential a t of obstetric antisepsis as was thought, and was founded n imperfect knowledge of the bacteriology of the vagina l uterus; more than this, it became in the hands of some eal danger. Nevertheless, much good was done by the new parture in the management of midwifery cases, how much (then Dr.) Halliday Croom demonstrated in a paper which read before the Edinburgh Obstetrical Society in Novem-, 1880;[2] the mortality in obstetric practice fell rapidly and the morbidity also decreased, sure indications of the success of any method of treatment. Still better things, however, were yet in store for the parturient and puerperal patient.

Asepsis is a newer and a better thing than antisepsis, for prevention is better than cure, and is very much better than a cure that brings dangers with it inherent in it. In a sentence, it is better to prevent the access of pathogenic organisms to the uterus than to pursue them there with strong antiseptics, which seriously reduce the vitality of the uterine tissues themselves and may do harm also in other ways. Chiefly through the painstaking investigations of the Germans a knowledge of the bacteriology of the genital tract from uterine fundus to vulva was built up during the last two decades of the nineteenth century, and the information thus obtained is being applied to the elaboration of a more perfect system of dealing with the risks of septic infection in labour and the puerperium. Under normal circumstances the uterine interior in pregnancy and labour is sterile; the cervical plug of mucus, while it does not kill bacteria, makes it at any rate difficult for them to pass in; by a germicidal action of the vaginal mucus, and possibly by other protective mechanisms of a more complex kind, microbes introduced into the vagina from without are rendered innocuous; the gush of liquor amnii—practically a normal saline solution—which takes place at the close of the first stage of labour, and which is to some extent repeated at the end of the second, helps to wash away any microbes which the vaginal mucus, perhaps becoming scanty, has failed to kill; and finally, the placenta, like a huge sterilized sponge, sweeps through the passages, carrying clots, shreds of membrane, meconium, vernix, and all such putrescible matters before it. Outside the vaginal orifice, however, a very different state of matters exists; there are congregated multitudes of pathogenic and pyogenic organisms which may be carried in on examining finger, on instrument, and on douche nozzle; near the anus in particular there lurks, in all probability, the bacillus coli communis, more to be feared in its later developments than all the rest, because not vulnerable to the antistreptococcus serum.

As soon as the new conception of the bacteriology of the genital tract in labour began to become the common possession of obstetricians, so soon the methods of management of parturient patients began to undergo revision. The idea of a genital tract sterile in its upper (uterine) part, with self-protecting microbicidal mechanisms in its middle (vaginal) portion, and with a lower (vulvar) part swarming with dangerous micro-organisms—this idea revolutionized obstetric practice. If mischief had its abode outside the vagina, then it behoved the obstetrician to keep it there or to remove it further off. It was obvious that the examining finger of the attendant passing in and out over the vulva might carry in bacteria with it. These might, it was true, be rendered innocuous in the vagina, but there was, of course, a limit to the microbicidal powers of that canal, and there was no certainty that in the uterus any protective mechanism at all existed. The same conclusion applied to instruments or to the douche tube introduced over the vulva. The finger, douche, or forceps blade might all be aseptic when they reached the vulva and might yet be contaminated by contact with the skin over the perineal body and at the sides of the pudenda.

The attention of the careful obstetrician was now concentrated upon the vulva. Thorough cleansing of the external genitals and surrounding parts from before backwards began to take the place of importance formerly occupied by the vaginal douche; soap and water and an antiseptic lotion (sublimate, carbolic, lysol, creolin) were brought into operation, and special care was taken to remove sources of danger from the neighbourhood of the anus. Further, the obstetrician, when introducing his fingers or any instrument into the vagina, was careful to hold aside the labia so as to avoid contact therewith. The number of vaginal examinations was also reduced to a minimum, and careful abdominal palpation in great measure replaced the vaginal touch. All these precautions are wise, and must, to my mind, be in no way altered; they are essential to the safe practice of obstetrics. Further developments of the aseptic system soon appeared. More and more rigid methods of hand sterilization were adopted, culminating in the wearing of rubber gloves, and the care of the finger-nails was made almost a science. In maternity hospitals, at any rate, and to some extent in private practice, the boiling of instruments before their introduction into the vagina and uterus became a matter of routine. Operating coats began to be worn, and in this connexion I may say that since about 1894 or 1895, when

I commenced wearing an ovariotomy apron at my private cases, I have used this precaution. In all these ways the technique of obstetric asepsis was elaborated and established. Now, having very rapidly and cursorily enumerated the precautions usually taken at a midwifery case at the present time, I may proceed to discuss the question of the midwifery bag.

The midwifery bag is, to my mind, the weak point in the obstetric defence of the woman in labour against the assaults of sepsis. The bag is, indeed, no worse than it was years ago, in some respects it is, perhaps, a little better; but in its evolution it has not kept pace with the progress of the technique and armamentarium of modern obstetrics. While danger has been largely excluded from many directions, the midwifery bag still brings it to not a few cases of confinement. Edgar says that "the ordinary obstetric leather bag which has been from one case to another, in cabs and street cars, which of necessity has had its interior soiled by bloody fingers and instruments, green soap, ergot, or other drugs, has no place in the lying-in room in the present age of aseptic surgery." The words are strong, but I do not think they overstate the facts. Some years ago the contrast between the aseptic precautions I was adopting for abdominal sections and other gynaecological procedures and those with which I was contented at an instrumental delivery began to come home to me with some force; and it was not long before I began to try to bring the two groups of cases more into line. It was comparatively easy to approximate the protective procedures in most of their details; but I still found myself starting off to do, say, an ovariotomy, with all my instruments, swabs, and ligatures sterilized and in a metal sterilizer, while, when the call to a forceps or craniotomy case came, I picked up my midwifery bag and trusted that I should be able to sterilize its contents at the patient's house.

I do not think my methods differed much, if at all, from those in use by my medical brethren; but in obstetrical literature, and more especially in that of Germany, there began soon to be indications that the conscience of the profession was being exercised about the safety of the midwifery bags in common use. As far back as 1890 Professor Simpson showed to the Edinburgh Obstetrical Society a German midwives' obstetric bag, in which there was an attempt to overcome some of the more obvious risks;[3] and in 1892 Veit demonstrated to the Gesellschaft für Geburtshilfe und Gynäkologie in Berlin his obstetric and gynaecological operating bag, containing a metal carrier for instruments which could be sterilized.[4] In 1895 Professor von Herff brought out a somewhat complicated instrument-holder of aluminium,[5] and Fehling a midwifery bag (*Geburtskoffer*) of the same metal about the same time.[6] Towards the close of 1895 Albers-Schönberg described his new obstetric bag, shaped like a portmanteau, and covered with canvas.[7] So recently as October of last year (1903) Dr. R. de Seigneux proposed to obtain an aseptic system by placing all the armamentarium in little sterilizable bags inside an ordinary obstetric leather bag;[8] and in the fine work on obstetrics of Professor Edgar, of New York, published a few months ago, a good description is given of a midwifery bag, consisting of a double metal sterilizer containing the various instruments in canvas bags. To Edgar's bag I shall return immediately.

Meanwhile, my midwifery bag was, so to say, following in the wake of the inventions of Germany and America. At first it was an ordinary leather bag such as is commonly seen in the hands of the medical man, then it was exchanged for one of the same kind but with a detachable and washable lining—a step in the right direction I have no doubt when I remember what was the state of the lining of the former bag after some years' use. With this I suppose I was satisfied till some time ago when I began carrying my obstetric instruments about with me in a metal sterilizer; this was not a success, as it suggested to the lay mind the idea of a surgical operation, and there is such a thing as obstetric conventionality which calls for respect. So I immediately bought an ordinary midwifery bag to place the sterilizer in; but it had to be a big bag to contain it and it was very heavy and not a complete success. I then relaxed my efforts until the appearance of Professor Edgar's book, with his obstetric bag described in it, stimulated me to a fresh attempt.

At first I thought that Edgar's bag might be suitable for general use in this country, but, after obtaining one from New York, I discovered that it had features which I imagined might be modified with advantage. What these features were I shall mention immediately after I have stated very briefly wherein the bag differs from ordinary ones. The complete description is to be found in Edgar's *Practice of Obstetrics* (p. 50), and I need only refer to its general characters. The bag consists essentially of two trays or vessels with a leather cover of a portmanteau shape fitting over them both. The trays are of sheet iron, enamelled in white; one of them, the female, is shallower than the other, but slightly longer and broader, and in it the deeper but shorter and narrower male tray rests when the bag is ready for transportation. The male tray does not pass entirely within the female, a small space being left in the latter, in which is a canvas tray for the accommodation of the glass ware of the bag. The deep male tray contains the obstetrician's operating coat or apron, his douche, his dressings (iodoform or sterilized gauze, etc.), and his instruments (forceps, scissors, needles and needle-holder etc.). Over the two metal trays, fitted together as above there is passed the leather skeleton of a portmanteau of the extinguisher shape, and the whole is held together by two strong straps. The bag is 18 in. long, by 9 in. high and 8 in. wide, and it weighs when empty between 10 lb. and 11 lb. I may add that the instruments and other things in the deep tray are contained in small canvas bags. The bag, without the canvas tray, cases, and contents, can be obtained through instrument makers on this side of the Atlantic for about £3 3s.

Now, it seemed to me that the principle upon which Professor Edgar had proceeded was perfectly sound. The bag as a whole was simple; it did not contain the elaborate and complex arrangements sometimes seen for holding the various parts of the armamentarium. It was also sterilizable by boiling in all its parts except the cover; and it consisted of trays in which the various instruments might be sterilized beforehand or at the confinement. Further, it had a sufficient resemblance to the ordinary bag not to offend against the conventional. It appeared to me that if it could be made lighter and cheaper, and if a washable cover could be devised for it, there was the possibility of obtaining a bag which might be useful to the general practitioner and specialist alike, and yet fulfil all the requirements of the strictest aseptic regimen. Accordingly I asked Mr. Young to make for me the model which I now exhibit.

In the first place it seemed to me that it was necessary to give a name to the new bag which would denote that it differed essentially from the old one. I therefore propose that the name "obstetric satchel" be set aside for any form of metal sterilizer contained within a washable or leather cover, while the old name "midwifery bag" be retained for the ordinary bag closing with a lock or clasp. The word "satchel" has already been used in several slightly different senses, as any bag or sack or other means of carrying books or papers, and there is no violent dislocation of its significance in employing it in the way I suggest.

In the second place it was obvious that the satchel, if it were to become anything else than the appanage of the obstetric consulting physician, must be procurable at a lower price, and this suggested whether the material of the trays might not be advantageously altered. Cheaper and lighter were the essentials which were present in my mind. Aluminium occurred to Mr. Young and myself; but this metal, although light, has the disadvantage that it requires to be beaten out into the form needed for the trays, as it cannot be soldered together easily, and this would, of course, increase the cost. Copper was thought of, but was abandoned on account of its weight. Finally, it struck me when I happened to look at my ordinary small sterilizer (Caird's pattern) which had been in use for several years, and was looking none the worse, that tin was after all the material we were in search of. Tin it is, therefore. I may add that my objection to enamelled ware as used by Edgar is not only the price and weight, but the liability to chipping. In the bag which we got from New York the enamel was already badly chipped when it reached this country, and the possibility of keeping it quite aseptic thereby lessened.

In this way the price of the satchel was cut down and its weight lessened. In the next place it seemed to me that the trays were unnecessarily wide, and that they might fit more more closely to each other. So instead of having the trays 18 in. by $8\frac{1}{2}$ in. by $3\frac{1}{2}$ in., and $16\frac{1}{2}$ in. by 8 in. by 6 in., I got them to measure $17\frac{1}{4}$ in. by $7\frac{3}{4}$ in. by $3\frac{1}{2}$ in., and 17 in. by $7\frac{1}{2}$ in. by 6 in. In this way the weight was further diminished and the satchel was narrowed slightly, approximating its form to that of the ordinary midwifery bag.*

* For ordinary midwifery practice the height and width of the satchel may be still further reduced; the above measurements are for a consultant's satchel capable of holding all the obstetric instruments. Messrs.

A minor modification was the abolition of the cross bar sts in the corners of the female tray, which seemed to pre- nt the easy cleansing of the tray, and to provide awkward arp edges in manipulation. Instead of them, external ass ribs or flanges, four in number, were fixed (soldered on) the exterior of the male tray; these prevented the male ay descending too far into the female, and so preserved the ace in it for the canvas holder for the glass ware. They so provided us with a means of lifting the male tray out of e female, which is a distinct convenience (Figs. 1 and 2).

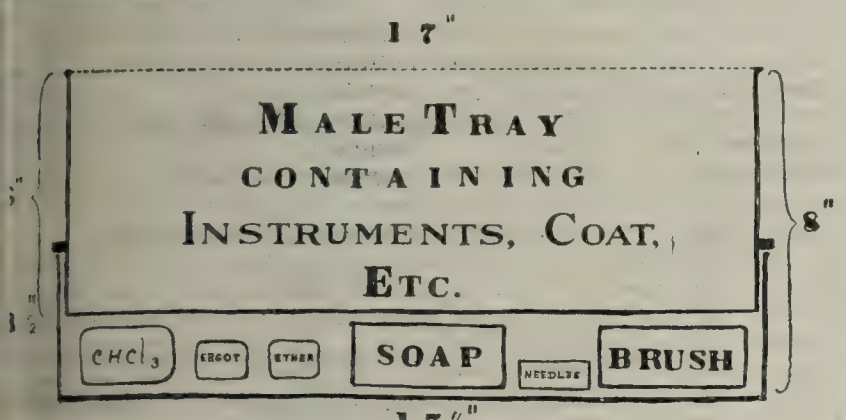

Fig. 1.—Longitudinal section.

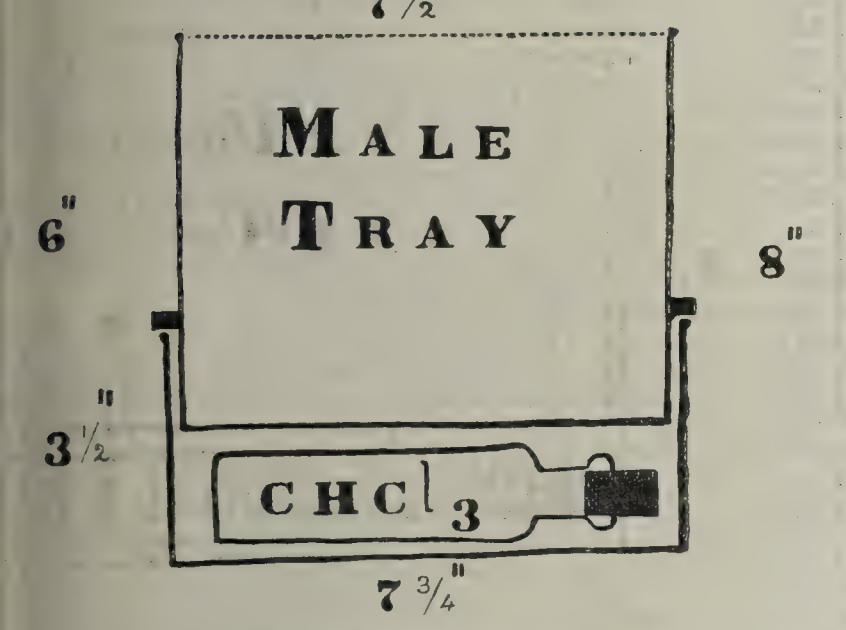

Fig. 2.—Transverse section.

The satchel has a cover of washable brown canvas, which I gard as an advantage, for it also can be thoroughly cleansed w and again by boiling and is at the same time lighter than ather. Instead of having it fit over the trays like an ex- nguisher, an arrangement which almost necessitates a cond pair of hands to hold it in order to extract the trays om it, it is so constructed that it opens at the side (not low), and easily allows the contents to be withdrawn or placed. A single leather strap with a handle traverses its per surface longitudinally, and surrounds it (Fig. 3).

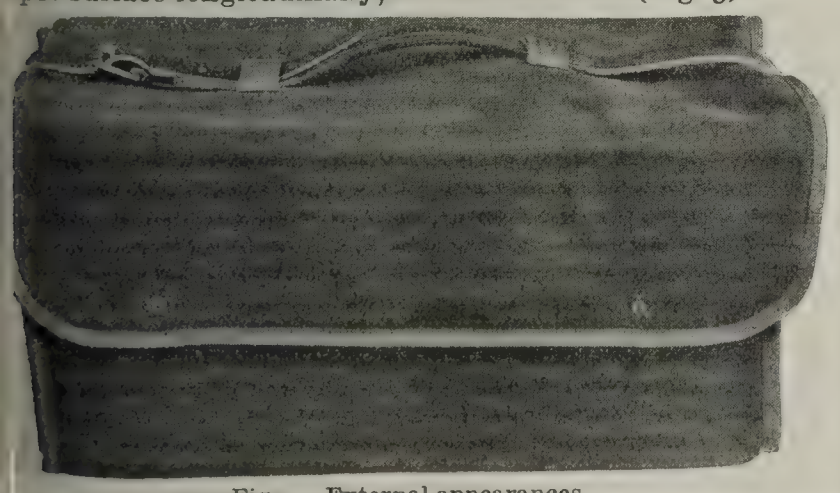

Fig. 3.—External appearances.

Young and Son. Forrest Road, Edinburgh, have the satchel in both es. I may add that at a recent labour with grave complications I found e satchel most serviceable.

By these modifications the weight of the empty satchel and cover is reduced from 10½ lb. to 8 lb., and the cost from £3 3s. to between 35s. and 30s.; the cover also can be easily washed. Further, when it is placed on a hard surface, being surrounded on all sides with canvas, it does not rattle, and so gives no audible indication that it is aught else than a conventional bag. I may add that the glass ware inside as well as the instruments, being enclosed in canvas sacks and in sterilized towels, make no noise, and are ready for use when needed.

The advantages of such a satchel as I have described are many, but chief among them is its cleanness. After a case is over everything can be put into the tins and taken home; the instruments can then be boiled and put ready for the next case; the coat or apron can be washed and boiled and dried by ironing; so can the towels or canvas bags and cases; the tins also can be thoroughly sterilized. Then when another confinement comes on we can go to it with clean things in a clean bag; that at any rate is made certain; but if we are still in doubt as to the condition of any parts of our armamentarium we have a ready means with us to sterilize any or all of them afresh.

Then, at the confinement, as Edgar well points out, there is much to be gained. The deep tin, for instance, may be used for washing the hands in, and it is large enough to admit the whole forearm, which is useful when such an operation as version is in contemplation. The shallower female tin tray may be used as a sterilizer; the forceps pinned up in a towel may be placed in it and sent to the kitchen to be boiled; the water can be poured off and the tray and forceps still in its cover can then be brought back to the bedroom and used if occasion should arise. In an emergency, the two trays, deep and shallow, may be employed as baths with hot and cold water for the resuscitation of an asphyxiated infant. The canvas tray in the inside of the shallow tin has the advantage of keeping all the bottles and glassware together in a noiseless fashion. As a rule only the forceps need be carried, but if we suspect a serious operative labour the deep tin is large enough to contain a basilyst, a Braun's cranioclast, and a Bossi's dilator as well. Finally, the satchel has a perfectly conventional appearance and can be carried through the streets without attracting any attention, as I have personally proved.

It may be objected that there are disadvantages connected with its use. So there undoubtedly are. It is rather large in size; its contents are not so easily got at as when they are in a bag which opens in a second of time with a catch arrangement (which, I may add, sometimes does not catch, with unhappy results); the tins may rust or leak (an ordinary bag may also get a hole in it); and the price is a little above that of the small leather midwifery bag. But what do all these amount to? Simply this; We are taking more pains in order to get a better result. The best results are built up upon attention to details; detail, in the long run, here, as elsewhere, overcoming dash. Doubtless it is easier for the surgeon to do an operation with a scalpel taken out of his waistcoat pocket; but the surgeon does not on that account neglect to boil his instruments nor to study with painstaking exactitude all the minutiae of aseptic technique. The surgeon has accepted the principle of asepsis in surgery, and he tries to carry it through in detail; in obstetrics we obstetricians have also accepted the aseptic plan, and we must likewise be thorough in the carrying of it out. At present the midwifery bag is the weak point; I hold it to be our duty to strengthen this point. After it has been dealt with, I am ready and willing to consider whether I ought to wear rubber gloves.

It may be objected that midwifery is not surgery, and that a confinement differs from an abdominal section. There is some force in this objection; at the same time, the obstetrician has often to be the chirurgeon, if we will keep in mind the etymology of that word; and further, although a labour may not resemble an ovariotomy or hysterectomy, yet it has much in common with any operation performed within a mucous cavity, such, for instance, as the removal of adenoids, and every one knows that such internal operative work requires asepsis as well as that in which the incision is a skin one. There is perhaps another objection that may be urged: Some one may say, "I have been carrying an ordinary midwifery bag for twenty years and have never lost a mother in labour in my private practice, and why should I change now to a more complicated method?" My reply is that this is not a question of mortality, but of morbidity. I do not hold that absence of mortality is cause for boasting, but rather for deep thankfulness; further, can it be said that there has been no morbidity, no slight attacks of cellulitis, no subinvolution,

no salpingitis, no threatenings of phlegmasia alba dolens? Is it not possible that with a more rigid system of sterilizing our instruments, our hands, and our midwifery bag, we might reduce that troublesome morbidity also to a vanishing point? Credo.

REFERENCES.
[1] *Lancet*, 1867, i, p. 326; ii. p. 353. [2] *Trans. Edin. Obst. Soc.*, vi, p. 3, 1881. [3] Ibid., xv, p. 119, 1890. [4] *Centralbl. f. Gynäk*, xvi, p. 440, 1892. [5] Ibid., xix, p. 1033, 1895. [6] Ibid., p. 1062. [7] Ibid., p. 1361. [8] Ibid., xxvii, p. 1240, 1903.

A Lecture

ON

THE VALUE OF THE IMPERFECTLY-DESCENDED TESTIS, THE ADVISABILITY OF OPERATION, AND THE VALUE OF THE OPERATIONS PERFORMED FOR ITS RELIEF.

A Post-graduate Lecture delivered at the Hospital for Sick Children, Great Ormond Street.

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GENTLEMEN,—It is my intention to put before you as clear an account as is possible of the physiological value of the imperfectly-descended testicle, both before and after operation. The more common name of "undescended testicle" has been discarded as clumsy and inexact, and the above one has been employed in its stead. The lecture naturally falls into the three parts indicated by the title, the intermediate section dealing with the advisibility of operation so leading from the one to the other of the above divisions. The first section on the value of the imperfectly-descended testis cannot be anything like adequately treated in the scope of this lecture, and an attempt only has been made to place before you some of the grounds which lead to the belief that the imperfect descent of the testicle is only the outward, anatomical and visible sign of an inward and much more extensive physiological defect. In order to estimate the value of the testis it is necessary to make inquiries along two lines: first, the capacity of the gland to produce spermatozoa, and, secondly, its effect on the perfection of the so-called secondary sexual characters of the organism, of which two the latter is by a very long way the more important with regard to the imperfectly-descended testis, and will naturally be considered first.

THE VALUE OF THE IMPERFECTLY-DESCENDED TESTIS.

It has been the custom of late to regard the testes and ovaries as responsible for the differences that exist between the sexes and to overlook the more obscure and probably more far-reaching cause or causes which have led to the differentiation of those glands themselves, and which may have given rise also to other sexually distinctive formations. On the latter view the testes or ovaries become merely incidents, though by far the most important, in the sexual development of the individual.

To bring before you the great importance of this more widely-acting and general factor in the sexual development of the individual or ontogeny, examples of very early sexual differentiation will be brought to your notice. The endothelium from which these glands are developed has been called the "germinal" epithelium, and is situated along the inner side of the Wolfian body or primitive kidney. The cells first elongate, becoming columnar; subsequently by division two layers are formed instead of one, further multiplication results in the presence of several rows of cells. The underlying tissue or mesoblast also becomes thickened and helps to give prominence to the germinal endothelium, so forming the genital ridge. At this very early stage of fetal life and before the generative glands or gonads are themselves formed, the first known sexual distinction can be found. In the female sex the germinal epithelium is several layers thick and grows down into the subjacent tissue or mesoblastic stroma in the form of columns of cells. In the male, the germinal epithelium is not nearly so thick and only small glands of cells grow down into the stroma. It will be observed that the distinction lies rather in quantity than in quality. The same property that gave rise to the testes and ovaries also causes the formation of the other external and internal genitalia, so that it is very doubtful if the principal glands have anything to do with influencing these formations, which apparently are independently. A good deal later, both glands undergo considerable changes in position. The ovary descends only as far as the side of the uterus, very occasionally it reaches as far as the groin. The testis, during the sixth month of fetal life is at the internal abdominal ring, during the seventh month is in the inguinal canal, and in the eighth month it enters the scrotum. These facts clearly indicate that the cause of the primary sexual characters of the organism are the results of inherent tendencies of the ovum, and are not due to any action of the ovaries or testes. Professor Arthur Thomson, of Oxford, emphasizes this early differentiation of sex by showing that sexual distinctions can be found in the pelves at an early date when presumably the generative glands or gonads are not yet inactive. "My results, obtained independently, strikingly confirm what I believe is Fehling's main contention, that the differences of form and appearance are such as enable the observer to discriminate between the pelves of the male and the female as early as the third month" of fetal life.

Nowadays a gland is looked upon as having both an internal as well as an external secretion. And it has been supposed that the secondary sexual characters are developed as the result of the action of the former. As yet we know nothing of the possible action of internal secretions during intrauterine life. But as in that period we are supposed to climb up our anatomical genealogical tree, so may we also ascend a similar physiological staircase. But, at least, it is unlikely that a gland can accomplish much before it is fully differentiated and functionally active. It may be further pointed out that some of the so-called secondary sexual differences exist at birth. For instance, male infants are already heavier and taller than female, their chest girth is greater; later they show more variations, different rates of growth, different ages for the incidence of puberty, etc. It may in consequence be suggested that many, if not all, of these so-called secondary sexual distinctions are independent for their origin of the testes and ovaries. Rather do they give the idea of being dependant on some innate property of the ovum, being found early and probably before those glands are active. At puberty all sexual differences are exaggerated and some new ones initiated, such as the growth of hair on the face, the breaking of the voice, etc. If the testes are removed before puberty many of the male characters do not appear to develop at all. But if a careful examination is made it will be found that these features are not absent, but are only very slightly developed. For example, one may instance the outward bodily form of the eunuchs of the East, or the more familiar bullock. But we are not interested at this moment in cases of absence of the testes, but rather in poorly-developed ones. For their origin the secondary sexual features are most probably dependent on the same obscure cause that brings about the advent of puberty, as well as the changes in the testes themselves; but, for their perfectation the good development of those generative glands is necessary. When, however, these secondary characters are once established they seem to be independent of the integrity of those same glands. Now, by far the most important point in the treatment of imperfectly-descended testes is how to make the best of this factor for the development of manly characters, or how to estimate the value of the internal secretion of the testes. That an imperfectly-descended testis can so bring about the acquisition of manly beauty is certain. For instance, in its widest sense, one sees many and widely-varying degrees in the sexual development of cryptorchids. But this may be more neatly illustrated in animals than in man. A horse when young had had its only descended testis removed. The animal soon displayed the so-called rig or vicious and troublesome tendencies. Mr. Hobday, the veterinary surgeon, explored the inguinal canal and removed a mass at the top, which he thought might the missing testis. For two years the animal remained fairly tractable, but then recommenced his rig habits. Mr. Hobday opened the abdomen and successfully removed the hidden testis. After this the animal became quiet and was no longer subject to attacks of sexual excitement.

The above must suffice for the subject of the internal secretion of the testicle and serves well enough to indicate that both primary and secondary sexual characters probably originate independently of the growth of the testes, though for their perfect development that growth is necessary. Again, the value of an imperfectly-descended testis depends almost entirely on this internal secretion and it must be our foremost duty to do our best to foster it.

The most important function of the normal testis is that of producing spermatozoa and so ensuring the perpetuation of

he race. In this respect an imperfectly-descended testis practically lacking. Few, if any, absolutely authentic cases f an imperfectly-descended testis producing spermatozoa ave been recorded. But a few instances of cryptorchids ecoming parents have been reported. These and some like ases go to show that although the imperfectly-descended estis is sufficiently highly developed to subserve this function n rare instances, one can never deny the possibility of the are occurrence of such an event. The evidence in favour of he existence of such a period of prosperity or activity goes to rove also that it is only of very short duration as the organ peedily undergoes retrograde changes.

I would therefore look upon the descent of the testis as the ecessary accompaniment of the proper or full development f that organ. And that its imperfect descent is like a cleft of he palate in the development of the upper jaw, or the dis-ocation of the hip in the evolution of the thigh, or talipes quino-varus in that of the foot. The simile is added to by he fact that any of these errors in ontogeny may be unilateral r bilateral. Although the testis is sometimes atrophic or mperfectly developed when fully descended, perfect develop-ment never goes with imperfect descent. There seems to be o obvious reason for this; and the fact still further trengthens the idea that in these cases an anatomical and a hysiological malformation go together.

To sum up, the imperfectly-descended testis can very rarely r practically never produces spermatozoa, though there is a int possibility of this occurring about the age of twenty nd lasting a year or two. But it is endowed with very arious capabilities with regard to assisting the development nd perfectation of other sexual features. The extent of these owers it is impossible to estimate, as the failure of the testis ay be due to the same fundamental cause that has led to he absence of beard, male voice, etc. When the condition is ilateral the outlook is bad, as there is no known remedy for rors of development, But, if the failure is only unilateral, here need be no alarm for the perpetuation of the species and he assumption of manly grace.

THE SIGNIFICANCE OF PAIN IN THE IMPERFECTLY-DESCENDED TESTIS.

The symptom of pain in these cases is one on which I believe good deal of reliance may be placed. The most obvious use of pain is a direct injury to the organ, either from a ow or sudden and violent flexion of the thigh. Except that ey may cause orchitis these are not very important or far-aching in their effects. Often-repeated slight injuries are uch more important in leading to sclerosis of the organ. ut when one considers the matter quite dispassionately, it is ard to conceive that the imperfectly-descended testis is ally more liable, if indeed it is not less liable, to slight juries than the gland that is normally situated. One is erefore inclined to give up this most popular notion of the use of the sclerosis and atrophy of the imperfectly-descended stis. Now, it is perfectly well recognized that fibrosis is no ngenital abnormality. How then does this condition come out and also so quietly? I believe that an explanation can offered for this. At St. Thomas's Hospital, Great Ormond reet, and in practice I have done exactly 30 operations r this condition. And in no less than 16 I have noted at the testis had undergone some torsion of the cord. ore than this, it was noted that a distinct history of attacks pain, frequently on exertion, was almost always accom-nied with the discovery of the torsion at the operation; and e cannot help correlating the two things and inferring that e pain was due to an increase of the twist. And the very atomical causes that would bring about the torsion, mely, "movements and exertion," are the very ones that ve been employed, and so are most likely to have increased e twist.

If one considers the course that far the majority of perfectly-descended testes take at the groin, it will be seen at. lying on the external oblique, they tend to ascend to-rds the anterior superior spine of the ilium on account of e movements of the flexion of the thigh, like a femoral rnia does. Such a course will lead to the formation of a re or less of a fixed point for the cord at the external dominal ring, and the movements of the thigh will tend to l the testis on the abdomen, so producing torsion, which a dden violent exertion may increase sufficiently to beget stound of pain. If one examines the recorded cases of sion of testis, it is found that a number of the cases give istory of many previous attacks of pain. And finally the t attack brings about an acute strangulation. At the oper-ation, one finds perhaps as many as three or four complete twists of the cord. Yet one cannot suppose for a moment that the testis suddenly spun round giddily four times, but rather that these turns represent the total aggregate of many twists, spread over a long period of time. Imperfectly-descended testes seem very prone to suffer torsion, and the majority of cases of acute torsion of the testis have occurred in this variety. I would therefore like to put this hypothesis forward to explain the occurrence of attacks of pain in the testis, and also the frequency of fibrosis of the organ as a result of the twist interfering with the venous return from the imperfectly-descended gland.

The presence of the twist is usually easily noted if the tunica vaginalis is opened at the earliest opportunity at the operation and the position of the testis and epididymis noted. A little care is necessary to check any errors that a superficial examination sometimes leads one to make. On this hypothesis, pain takes a somewhat more serious appearance, as it indicates that there is in all probability a mechanism at work which will sooner or later bring about physiological destruction of the already under-developed gland. Its presence, even in a mild form, should raise the question of speedy operation.

The significance of pain in these cases leads to the question as to whether an "undescended" testis should ever be left alone. And it seems, in the present state of our knowledge, that only harm is likely to accrue to the organ from its remaining in such a position. Exception must be made of those instances in which the gland is nearly at the bottom of the scrotum. On the whole, it seems that the imperfectly-descended testis has a better chance of developing to the fullest extent of its limited capacity by being returned to the abdomen. And though direct proof is wanting, the sooner that this is done the better. From experimental knowledge it does not seem that it will even then progress to the extent of becoming spermatogenetic, this function seems, in almost all cases, quite beyond its capacity. As has been already said, the most important power of the imperfectly-descended testis is that of ministering to the development of the secondary sexual characters, and beyond this no more can be expected. The whole question is, "Is this best obtained by protecting the organ from pathological change such as in the abdomen?" For my own part I think so. It is very difficult to obtain direct proof in support of this on account of the long time that must elapse before results show themselves. There is no evidence that the testis develops any further or any less far just outside the abdomen than it does just inside. And the latter position has the advantage of being, so far as we know, more or less out of the way of harm. There is certainly no evidence that the retained testis is more liable to undergo malignant change than the fully-descended and developed organ. Therefore, it seems best to return them to the abdomen.

There is also another and a very important factor in deciding on the performance of an operation. This is the presence or not of a hernia. Out of the 30 cases on which I have operated no less than 22 had communications between the tunica vaginalis and the peritoneal cavity. In some it was found that a hernia had previously come down. The presence of this communication is found the more frequently that it is looked for. The presence of an imperfectly-descended testis in almost every case contraindicates the use of a truss, if it does not do so in every case on account of the injurious pressure that is exerted on the vessels of the spermatic cord.

It is almost needless to point out that some of the most serious cases of the strangulation of a hernia occur in conjunction with imperfect descent of the testis. The presence of a hernia is in consequence a most powerful incentive to operation. And as it occurs in so large a percentage, in reality or in potential, there really seems but little more needed to urge the need of operative interference. Beyond what has been said of the significance of the pain and the nearly universal presence of a hernial sac, potential or otherwise, no more will be added.

To sum up, if the testis is allowed to remain long in its imperfectly-descended position it will become largely functionless on account of undergrowing sclerosis, which may be hastened by torsion of the cord. Attacks of pain probably indicate spasmodic increments of that torsion, and abortive suicidal attempts at strangulation by the organ. Also, a hernia sac is found in about 70 per cent. or so of the cases. Hence operation should be considered in every case of imperfectly-descended testis and adopted in a large number.

OPERATIONS.

Before considering the various operations that have been performed for the relief of this condition, let me again recall to you the fact that we are dealing with an organ which can practically never become spermatogenetic, certainly for more than a year or two, but whose internal secretion may be of the greatest value to the organism.

Orchidopexy or Orchidorrhaphy.

By these terms are meant the fixation of the testis at the bottom of the scrotum. The chief reasons that have given rise to this practice are, first, the organ is placed in the natural anatomical position; and, secondly, in such a position it is hoped that it may develop properly and also cease to worry the patient. Unfortunately, after the operation, the testis often does not remain in the new position, but reascends; again, it never attains the size and development of the normal organ, but becomes smaller and harder from fibrosis probably secondary to the operative measures. Fortunately I have had the unique opportunity of examining microscopically a testis which had been successfully sutured in the scrotum two years previously. There was hardly a trace of testicular tissue left! It is therefore a great deal more than doubtful if a physiological triumph can be obtained by these means, that is, orchidopexy. Neither can an intelligent patient's mind be soothed by the presence of a small hard mass in one side of his scrotum, in striking contrast to the healthy testis on the other side. The presence of tension such as demands the employment of some rack or mechanical contrivance, to retain the organ in position, is far more likely to do harm than good, and is a distinct contraindication to the operation.

The most favourable class of case that can be selected for this operation is that in which a fairly large hernia coexists with an imperfectly-descended testis and the tissues have been slowly stretched by the hernia. When the sac has been divided and freed, it is extraordinary with what ease the testis can be brought sometimes into the scrotum. In these cases the testis seems also to be the best developed. The next best class is that in which the testis has been driven far up the groin in the direction of the anterior superior spine, much the same as the femoral hernia is. Unfortunately in this position the testis is frequently sclerosed, although there is sometimes sufficient length of cord for an easy transplantation. And still more unfortunately, the mere size or consistence of the organ is no guide at all as to its functional capacities.

As the operation of orchidopexy necessitates considerable dissection for freeing the cord sufficiently to allow of the transplanting of the organ, with it is bound up the question of the reaction of the testis to interference with its blood supply and duct, the vas deferens.

A.—The Blood Supply.

In the operation for the relief of varicocele, the spermatic artery and the pampiniform plexus of veins are resected, whilst the vessels with the vas are left. During my tenure of the offices of Surgical Registrar and Resident Assistant Surgeon to St. Thomas's Hospital, my attention was attracted to the fact that a considerable number of those who had had a varicocele removed, in the course of a few months or a year or two had hardening and diminution in size of the testicle of that side. The frequency of such cases is infinitely greater than is suspected. A somewhat similar result was seen after radical cure of hernia in which the veins had been at all extensively removed. Halsted's operation is the one in which this was the most frequent. These instances show that he surgeon who aims at the improved nutrition of the testis, as in orchidopexy, must be extremely careful in dealing with its nutrient vessels. I may add that in one case an atrophic testis was excised along with a huge varicocele. Microscopic sections showed similar changes of fibrosis, absence of spermatozoa, and extreme scantiness of true testicular tissues.

B.—Division of the Vas Deferens.

It has been my misfortune on two occasions whilst performing the operation of radical cure of an inguinal hernia to divide the vas deferens. One of these cases I have seen four years later and there was no obvious change in the testicle. Similarly, nothing could be detected in the other case. Two-and-a-half years ago in doing a prostatectomy the vasa efferentia were torn across. There is no noticeable testicular change now nor is there any diminution of sexual desire. The microscopical alterations that occur as a consequence in the gland are unknown. But I believe that fatty degeneration takes place which accounts for the absence of any obvious change in volume. Degeneration of the gland structures also explains the rarity of the formation of retention cysts.

Cases for orchidopexy must be very carefully selected with regard to all factors that might interfere with the fullest development which the gland is capable of. Regarding the frequent anatomical and almost invariable physiological failure of this operation, and the appearance of regression rather than further development of the testis, and that on the view put forward the gland is originally both anatomically and physiologically malformed, orchidopexy will be an operation which is but rarely called for.

Orchidectomy.

In the next series, consisting of 16 cases, the organ was excised. This was done for a variety of reasons, such as acute torsion of the cord, inability to transplant the gland into the scrotum, severe neuralgia, etc. In none of these, so far as I am aware, did the microscopic examination prove them to be spermatogenetic, even though many of the subjects were over puberty. The ages varied from 31½ to 46. There was no evidence to think that wrong action had been taken, but looking back one cannot but help feeling that some would have been better if the gland had been put back in the abdomen. When the secondary sexual characters are well developed and after the age of 23 or so has been passed, that is apparently the only time when the organ has any chance of becoming spermatogenetic, the gland may be sacrificed on one side if a more radical cure can be done to a hernia or for a like reason. From the point of view of the individual the course of his imperfectly-descended testis has been run, and he will experience no harm bodily, and most probably mentally, from its removal.

Orchidocoelioplasty.

In my later series of operations for this condition the testis has been returned to the abdomen. Experimentally a testis returned to the abdomen does undergo some development, though not so much as does a normally situated gland. One returned to the abdomen after puberty soon loses its spermatogenetic capabilities, becoming microscopically like the imperfectly-descended organ. That an abdominal testis can produce sexual excitement is seen from the case of Mr. Hobday's horse already quoted. And double congenital cryptorchids have been known to develop manly characters, and have been alleged to have become parents. Therefore, it would appear that there is some benefit to the individual if the testicle be returned to the abdomen. And, as we are quite unable to accurately gauge the true value of an immature testis, it seems that we have no right to deny to the subject of that condition any value that may accrue to him from the presence of the gland. Naturally, many years must elapse before any definite results can be brought forward in support of this contention. And we have at present to work rather on *a priori* grounds. Apparently this operation has several advantages over the other two. The operation is easily and quickly performed, there need be no fear of interfering with the vascular supply of the gland or injury to its duct, the inguinal canal can be completely closed, the subject can receive all the benefit that the gland can give him, there seems to be very little opportunity offered for any steps of the operation to miscarry or fail, and so forth. Orchitis need not result from the procedure. And there is no evidence that the abdominal testis is more prone to undergo malignant change than the fully scrotal one. It, in consequence, seems advisable, whenever the testis cannot be quite easily brought into the scrotum and the subject is under 23, to return the organ to the abdomen.

THE VALUE OF THE ABDOMINALLY-REPLACED TESTIS.

In this connexion it will be valuable from the point of view of prognosis that the value of the abdominally-placed testis, whether primarily or secondarily so, should be shortly discussed. Mr. Joseph Griffiths, as the result of experimental work, found that "when the testis of a young animal is replaced within the abdomen it undergoes but little change, growing somewhat but not so much as the normally placed organ until the onset of puberty." "After the onset of puberty it continues to grow to some extent, though but little; the seminal tubules are seen to be lined by a single layer of columnar epithelium lying on the tunica propria with delicate prolongations extending into and occupying the lumen of the tubules; the central cells, from which in the normal state spermatozoa are produced, do not exist, and

ermatozoa are accordingly not forthcoming." "The testicle mains in this state, at least we have no evidence that it ndergoes further change." A fully-grown testis replaced in te abdomen undergoes retrograde changes until it becomes milar in structure. This structure is precisely similar to that und in imperfectly-descended testes. Therefore, from the oint of view of procreation, no harm is at all likely to be one by returning the testis to the abdominal cavity, whilst s subsequent growth and the presence of apparently nctional cells points to the probable value to the ganism of its presence, as for the perfection of the condary male characters.

Last, I have left the selection of cases which do not need peration. In primis, the extremely difficult task of excluding e co-existence of a hernia must be accomplished. Secondly, our present state of knowledge it may be taken that the ss imperfectly the organ is descended the more likely is it to velop satisfactorily at puberty. That is to say, those cases which an orchidopexy seems most likely to be successful e the very ones in which the testis may be left alone, for if is operation is to be successful the testis will most probably close to the scrotum. At the other extreme of the serial grees of the descent or imperfect descent of the testis, at is, when it is abdominal, it should be left alone.

SUMMARY OF OPERATIVE PROCEDURES.

1. Orchidopexy is only applicable in mild cases of perfectly-descended testis, and perhaps even then it may t often be called for.
2. Orchidectomy is only justifiable under special pathological conditions, for example, torsion, severe neuralgia, treme atrophy and so forth, and in older cases, that is after e occurrence of puberty and a possible and problematical riod of testicular activity and spermatogenesis has passed, y from 23 upwards.
3. Replacement in the abdomen is indicated in far the jority of cases, and should be always done before puberty d, perhaps, up to the age of 20 or thereabouts. It would pear that the earlier the operation is performed the tter should be the result.
4. No operation may be called for in mild cases when the tis is close to the bottom of the scrotum, or when the tes are abdominally retained.
5. Operative interference is demanded in most cases on count of the secondary changes of an inflammatory and erotic nature in the testis, which the position of imrfect descent leads to. Again, there is the frequent existence of a hernia with this condition. And in cases where does not often or has never previously come down, the rrow opening or neck of the sac may cause one of the most ngerous varieties of strangulation.

THE ACQUIRED IMPERFECTLY-DESCENDED TESTIS.

As an appendix to the foregoing part of this lecture, it ms advisable to attract attention to the various ways in ich an imperfectly-descended condition of the testicle can acquired. This is almost always the result of an operon for the radical cure of a hernia. Previous to that eration the testis was at the bottom of the scrotum. There three ways in which this may be brought about. In the t, the testicle was originally imperfectly-descended, but ing to the propulsion of a hernia behind it, the organ has umed a lower or more descended position. It therefore appears to be fully descended. When at the operation hernia sac has been freed and divided, ligatured, etc., the tis is apt to resume its original position, so reproducing imperfect descent. Secondly, if the hernia sac is not ficiently freed from the cord, and after ligature the sac been reduced into the abdomen, it will pull the testis up o a higher position. Thirdly, in bandaging up a case after operation, as for instance the radical cure of a hernia, the an may become adherent to the scar of the operation. By s is meant the internal rather than the external cicatrix. o not believe that this last is anything like so frequent as two former factors in the causation. Similarly the second tor can be excluded in the hands of competent surgeons. d one is led to look upon the first cause, original imfect descent, as the most important. And also to a ery general conclusion, namely, we recognize that imperdescent of the testis is frequently accompanied by a nia; and we may now recognize that a hernia may be ompanied by an imperfectly-descended testis, especially n children and when the sac is a congenital one. A further eralization may be made. The proper closure of the processus vaginalis that leads to the congenital discontinuity or separation of the tunica vaginalis and the peritoneum is dependent, wholly or in part, on a perfect descent of the testicle and that the failure of this procedure very likely represents one of the earliest and smallest developmental defects, which in a more severe form is recognized as an imperfectly-descended testis. The presence of a congenital sac should always place the surgeon on his guard for the presence of a testicular anomaly. The imperfect descent of the testis is merely an example of a series of degrees of developmental errors.

A great deal of harm may result to the individual from this oversight on the surgeon's part, on account of imperfect maturation of the gland, which becomes exposed to all the changes that result from its position. The condition should be recognized and treated *secundum artem* at the first operation, and it is merely necessary that attention should be called to it for this to be done. Clinical experience emphasizes this point. The consequent healing of the wound with matting of the cord may lead to interference with the blood supply and to impoverishment of the nutrition of the gland. Also the same process does bring about a more or less complete fixation of it, so that later operations for transplanting the organ to the scrotum or the abdomen cannot be carried out, and one is left with the choice of protecting or excising the gland. Recurrent attacks of pain and orchitis usually precipitate the latter procedure. Or the organ wastes and becomes practically a mass of fibrous tissue.

FOUR ABDOMINAL CASES.

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THE following cases which lately came under my care in the Dundee Royal Infirmary are of sufficient interest to make it desirable that they should be recorded:

CASE 1.—*Hernia into the Ileo-caecal Fossa: Enterectomy.*

Mrs. F., aged 56, admitted December 3rd, 1903.

History.—Illness commenced five days before with abdominal pain and vomiting. The vomiting was incessant for twenty-four hours and then abated somewwhat after a slight movement of the bowels. It only troubled her occasionally for the next three days and then again became very frequent, and continued so till her admission thirty hours later. There was no further movement of the bowels or passage of flatus.

State on Admission.—She was very exhausted; pulse weak; temperature 99°. Complained of abdominal pain, chiefly about umbilicus. Abdomen was distended and tympanitic all over. There was pain on palpation, but no localized tenderness. In the left groin at the femoral opening there was a small tumour of doughy consistence and without impulse on coughing. Soon after admission she had two attacks of faecal vomiting.

Operation.—An incision was made down to the tumour in the left groin to determine its nature. It was found to be, not a hernia but an enlarged gland, and was removed. The abdomen was then opened by a median incision below the umbilicus. The intestines were distended and congested. The obstruction was found to be due to the engagement of a loop of the small intestine into a peritoneal pouch, the mouth of which lay to the inner side of the caecum and appendix. The loop, which was about 4 in. in length, was so constricted that the mouth of the sac had to be incised in order to disengage it. It was distinctly gangrenous, particularly at the constricted parts, which were of an ashy-grey colour, and there was a perforation through which some faecal matter escaped. The sphacelated bowel was then withdrawn from the abdomen, enterectomy performed, and the ends brought together by means of a Murphy button. About 8 in. of bowel was removed. As the pulse was very weak at the end of the operation, 2 pints of saline solution were infused into the median cephalic vein, and a hypodermic injection of strychnine given. The patient made a satisfactory recovery, and the button was passed on January 17th, six weeks after the operation.

REMARKS.—I used a Murphy button in this case in preference to suture, on account of the very unequal size of the two openings, due to the dilated state of the bowel above the obstruction; and also because the exhausted state of the patient necessitated as speedy a termination of the operation as possible. Varied descriptions have been given of the peritoneal fossae in the region of the caecum. The three principal fossae are the ileo-colic, the ileo-caecal or ileo-appendicular, and the subcaecal or retro-colic. They are rarely the seats of hernia, and in the cases which have been recorded the condition has usually been discovered on *post-mortem* examination. Hernia into the ileo-colic fossa has not been observed. Moynihan in his work on retroperitoneal

herniae states that four cases of hernia into the ileo-caecal fossa have been published. Of the retrocolic form he has discovered eleven cases, but the majority of these he does not accept as authentic examples. Treves states that "about twelve cases in all of pericaecal hernia have been published." From the position and relations of the sac, the case which I have related evidently belonged to the ileo-caecal variety. There is no recorded instance in which that form of hernia has been treated by operation.

Case II.—*Rupture of Gall Bladder, Laparotomy, and Choledochotomy.*

L. M., aged 35. Admitted January 18th, 1904.

History.—During the past eleven years he has had, at intervals of a year or more, attacks of epigastric pain and vomiting, sometimes beginning with a rigor, lasting for periods varying from a few hours to a fortnight, and terminating sometimes suddenly at other times gradually. Each attack was followed by more or less jaundice, which passed off after some days. The existing attack was the eighth. It commenced in the usual way nine days ago. The pain, which was very intense at first, commenced suddenly while he was lifting a heavy load. Dr. Watson, of Coupar Angus, who was called to see him two days afterwards, stated "that jaundice had then commenced, and that there was tenderness and dullness on percussion in the region of the gall bladder; he seemed exhausted and was slightly delirious: pulse was 120, temperature 102°; the fever continued, ranging from 101° to 103°, up till his admission into the infirmary, and he was delirious at night, and had mental wandering at times during the day."

State on Admission.—He was very prostrate and markedly jaundiced. In the epigastric and right hypochondriac regions there was bulging, tenderness, and muscular rigidity. The percussion note was dull nearly down to the umbilicus and into the right lumbar region. The urine contained bile. During the night he had a severe rigor, the temperature rose to 106.6° F., his pulse was very rapid, and he was restless and delirious.

Operation.—The abdomen was opened on the morning of January 19th by a vertical incision extending downwards from the tip of the tenth costal cartilage. The gall bladder was not visible, and the colon, omentum, and other adjacent structures were adherent to the visceral surface of the liver. Upon gently separating the adhesions there was a sudden gush of dark-coloured fluid. I arrested it temporarily by sponge pressure in order to shut off the general peritoneal cavity by the insertion of gauze compresses. On removing the pressure the fluid continued to flow for some time, and, towards the end, it had a greenish colour. I estimated its quantity at from two to three pints. Upon further examination I found that it had been confined in a space bounded by the under surface of the liver above, the adhering viscera below, and communicating with the lesser sac of the peritoneum. From the upper wall of the space I removed a small calculus which appeared to be embedded in the orifice of the cystic duct. Another small calculus lay free in the cavity. The wall of the gall bladder was undefinable. I then proceeded to examine the common duct, and in it there was a small movable calculus. I extracted the calculus, after incising the duct, and closed the opening by silk Lembert sutures. There was some distension of the intestines, but no evidence of any general peritonitis. A counter-opening was made in the lumbar region, and a drainage tube passed through it into the space below the liver. Another drain was inserted through the abdominal wound down to the seat of incision in the common duct. The wound was closed by interrupted sutures passed through the whole thickness of the wall. The patient rallied well after the operation, and made a satisfactory recovery. There was only a slight discharge of bile-stained fluid for a few days from the drainage tube in the loin, and the jaundice had disappeared two weeks after the operation. When the patient was discharged the wound was quite healed, and his general condition was excellent.

Remarks.

The usual attacks to which this patient was subject were obviously due to obstruction of the common duct. His recent illness, however, judging from the intensity of the symptoms and the condition found at the operation probably did not begin as a gall-stone colic, but was due from the first to a ruptured gall bladder. The explanation of how this occurred appears to be, that there was distension of the bladder from obstruction of the cystic duct, and that the strain caused by the extra exertion which he mentioned, and which coincided with the onset of the symptoms was the determining cause of the rupture. Fortunately the extravasation was confined by adhesions; some of them probably of old formation from pericholecystitis.

Rupture of the gall bladder is not a lesion of very frequent occurrence. A few cases due to pure injury have been reported, and according to Bricka, as quoted by Moynihan, there have been 35 reported cases of spontaneous rupture—23 due to gall stones and 11 to typhoid fever. In the majority the extravasation was into the general peritoneal cavity.

Case III.—*Cancer of Stomach: Gastrectomy.*

Mrs. R., aged 48. Admitted February 26th, 1904.

History.—For two or three years she had been troubled with attacks of sickness, unaccompanied by vomiting. With that exception her health was moderately good till five weeks ago, when her appetite began to fail; since then she had been losing flesh and feeling weak, and had had uncomfortable dragging sensations in her abdomen. For two weeks there had also been abdominal pain, which had been much worse during the past few days. Two or three months ago the motions from the bowels were dark in colour for some days, and this happened again two days before admission.

State on Admission.—The patient was a pale, worn-looking woman. There was fullness of the abdomen, especially at the sides, and on palpation a very hard and tender tumour about the size of a hen's egg could be felt immediately to the left of the umbilicus. The tumour was movable, and could be displaced upwards under the left costal cartilages, but not downwards. It was the seat of constant pain, which radiated irregularly over the abdomen, and was increased by movement and full inspiration. The percussion note was tympanitic all over the abdomen except in the region of the tumour. There was no evident dilatation of the stomach. The liver and spleen were not enlarged. She had loss of appetite, occasional nausea, and a bad taste in the mouth, but there was no pain after food and no vomiting. Pulse 60, of small volume; temperature normal. A systolic murmur was audible in the mitral area, and the aortic and pulmonary second sounds were accentuated. There were some dry bronchitic *râles* in the lungs.

Operation.—On March 5th, chloroform was administered and the abdomen opened by a vertical incision slightly to the left of the middle line, and extending from the ensiform cartilage to a little below the level of the umbilicus. The tumour, which was a carcinoma of the stomach, extended from the pylorus along two-thirds of the length of the greater curvature, and involved half the breadth of the posterior, and a small portion of the anterior wall. No enlarged gland could be felt, and the other viscera appeared to be healthy. The stomach was mobile, and not much dilated. I proceeded to perform gastrectomy. The curvatures were freed by tying off the small and large omenta at a suitable distance from the gastric borders. Two clamps were now placed on the first part of the duodenum, and it was divided between them. The stomach was then lifted up, and its separation completed by an incision between two clamps placed one on either side of its junction with the oesophagus. Bleeding points having been tied, the upper opening, which was slightly larger than that of the divided duodenum, was reduced to a corresponding size by the introduction of a few sutures. The two openings, which could be brought together without tension, were then united by two rows of sutures over a Robson bobbin—a continuous one through all the coats, and an outer interrupted Lembert through the serous and muscular coats. A stab opening was made in the left lumbar region, and a drainage introduced up to the seat of the operation. The abdominal wound was closed by interrupted sutures passed through the whole thickness of the wall. The pulse was never very good during the course of the operation, beating slowly, and irregular in force. A hypodermic injection of strychnine was given, and 5 pints of saline solution were infused into the median basilic vein. The operation lasted one hour and three-quarters.

After progress.—In the evening she had revived considerably—she was quite warm, the pulse was 80 and regular; there had been slight retching. For the first three days she was fed entirely by nutrient enemata, and had a saline enema once or twice daily. On the third day there was a good deal of retching with abdominal distension, but this passed off after movement of the bowels effected by a turpentine enema. She was then allowed to have chicken tea in frequently-repeated small quantities, beef-tea in two days afterwards, and in ten days she had peptonized milk in addition. Her scale of diet has been gradually extended, and at the present time—ten weeks after the operation—she has the following daily: Milk, bread and butter, porridge, beef-tea or soup, fish or chicken and potatoes, custard or rice pudding. She is fed every two or three hours. There are no digestive troubles, and her bowels move regularly.

Remarks.

Professor Sutherland examined the stomach and reported that the tumour was a columnar-celled carcinoma. The patient has gained considerably in weight during the past two or three weeks, and is in a better state of health than she was on her admission into the hospital. She has passed the immediate dangers of the operation, but it has to be seen how long she will remain free from a recurrence of the disease. Sufficient time has not elapsed since gastrectomy became a recognized surgical procedure to form a proper estimate of its worth. Since the first successful case by Schlatter in 1897, 9 or 10 recoveries have been reported, and the cases have shown that digestion and nutrition can be carried on moderately well in the absence of the stomach. Early recurrence of the disease, however, seems to have been the rule.

Case IV.—*Intestinal Obstruction Due to an Adherent Appendix Vermiformis.*

Mrs. B., aged 28, admitted on March 15th, 1904.

History.—Six months ago began to be troubled with diarrhoea, which continued for four months. For the past two months she had been constipated and had had pain in the stomach, usually coming on about two hours after food. Vomiting commenced six days before admission and had continued intermittently since. There had been no movement of the bowels or passage of flatus since the vomiting began. She had never had any previous serious illness.

State on Admission.—She had a pinched and anxious expression. Pulse 140, weak; temperature 97.6° F. Complained of frequent paroxysmal pain above and to the right of the umbilicus, extending

ound to tpe back. The abdomen was moderately distended and showed arked bulging in the iliac regions. It became tense during the attacks pain and peristalsis was visible. There was tenderness on deep palation, but no tumour could be detected. After admission large enemata ere tried, but without result.

Operation.—On March 17th the abdomen was opened by a mesial ncision below the umbilicus, the intestines were distended and conested, and in the right iliac region a loop of bowel was found to be ıared under the appendix vermiformis, which was firmly adherent by s free extremity to the mesentery, close to the ileum, and about 3 in. om the lower end of the latter. There were no signs of recent inflamation of the appendix. The implicated portion of bowel was easily berated and the appendix was then removed. The latter was above ıe average length, and for about an inch at its extremity it was imperous and cord-like. On the evening after the operation the owels moved several times and the patient made an uninterrupted ecovery.

REMARKS.

Although there was no distinct history of appendicitis ıe adhesion was evidently the result of some previous ıflammatory condition. Such an adhesion of the appendix a recognized but extremely rare cause of intestinal ostruction.

MEMORANDA:

EDICAL, SURGICAL, OBSTETRICAL, THERAPEUTICAL, PATHOLOGICAL, ETC.

ATMOSPHERIC PRESSURE AND APOPLEXY.

page 835 of the BRITISH MEDICAL JOURNAL for April 9th, r. Walter suggests that atmospheric pressure plays an imrtant part in determining attacks of cerebral haemorrhage. is worth while to consider how far this theory is correct. is argument is as follows:

1. At certain times cases of cerebral haemorrhage are in exss of the average.
2. These occurrences are coincident with a marked rise in e barometer, showing increased atmospheric pressure.
3. Therefore the increased atmospheric pressure is probably e cause of the excessive number of cases of cerebral emorrhage.

Most medical men will, I feel sure, agree with the first two these statements, and will also go further and say that at e same time many cases of cardiac and renal disease tend become aggravated.

t is with the third statement that I venture to differ. ithout going into meteorological statistics, which any one n ascertain for himself, in the British Isles a cyclonic disbance with a low barometer is coincident with a warm, ist south-west wind. With a rising or high barometer wind will always veer to the north-west, north, northt, or east, with less humidity and a lower temperature. e cold and comparative dryness of the atmosphere cause ıtraction of the peripheral vessels, and a larger amount of od is driven into the internal circulation, so causing ater strain on the heart, and the blood pressure is raised all the internal arterial system. Hence the efficacy of Dr. lter's suggestion as to treatment by suitable purgatives, t is bleeding, as a relief.

dmouth, Devon. G. A. LEON.

have frequently noticed the same thing as that to which Hensleigh Walter referred in the BRITISH MEDICAL RNAL of April 9th, and quite expect to be called to a case cerebral haemorrhage when the barometer has risen high become anticyclonic. This high pressure is known to se a feeling of exaltation, similar to what is frequently iced (after the event) when an old man or woman has a ke. How frequently one is told that the patient was er better in his or her life than just before the occurrence. the man of 65 to 70 with degenerate vessels be cautious, Dr. Walter suggests, when the glass rises sharply to a h point.

have often thought that very little attention is paid to ospheric conditions as possible causes of various ailments h as rheumatism, asthma, croup, etc. How often it pens that all asthmatics are bad at the same time, and se on certain evenings, notably still, damp evenings before

feel sure that if time could be spared from the modern n for new things, some useful lessons might still be learnt a Nature, did we but try to understand her moods.

encester. CHARLES P. HOOKER, L.R.C.P.Edin.

Like Dr. Hensleigh Walter, I have for may years looked upon sudden changes in the weather as very likely to produce cerebral or other haemorrhages in persons otherwise predisposed thereto. My feeling, however, has always been to look to a rapid rise of temperature after a long continuance of cold weather as the more common exciting cause. This, of necessity, applies to the winter time.

On the other hand, I can call to mind epidemics of minor haemorrhages like epistaxis or haemorrhoids when keen cold weather supervenes on great heat. Sudden changes in temperature are sure to be accompanied or preceded by rapid changes in barometric pressure. Changes of temperature must involve great differences in blood pressure on account of the large surfaces of skin and mucous membranes affected thereby; and in those who have diseased blood vessels it is this sudden alteration in pressure which causes the rupture. I think it quite likely that the barometric pressure may affect arterial pressure more than the venous or capillary vessels; also that great changes in temperature affect more these latter.

It is very evident that two independent observers have noticed the connexion between sudden changes of weather and cerebral haemorrhage. What is required is a little more extended study of physiological physics to explain the exact details of the changes in the various parts of the vascular system that may be expected to take place when there is rapid change in temperature and of atmospheric pressure.

London, S.W. J. KINGSTON BARTON.

NON-PERFORATING WOUNDS OF THE ANTERIOR CAPSULE OF THE LENS.

I CANNOT help thinking that, contrary to the views of some ophthalmic surgeons, the anterior capsule of the lens (although a bloodless but not a serumless structure) can be wounded (not perforated) without traumatic cataract resulting. I have just seen a case bearing this out, the injury having occurred to his eye twelve months before, for which he was also under my care. A year ago the cornea was perforated by a blunt piece of sheet-iron which was thrown by another boy, and a bead of lymph appeared on the front of the lens corresponding in position with the corneal perforation.

No traumatic cataract appeared, though the lenticular capsule was wounded and now, twelve months after the accident, the lens is present and is not damaged, though a posterior synechia is present at what was the bead of lymph. From this I conclude that the anterior capsule covering a soft and slightly moveable (very) lens was wounded but not perforated. And this, I take it, is the cause of some cases of so-called pyramidal cataract. The theory putting pyramidal cataract down to corneal ulcer (which has perforated and so led to collapse of the anterior chamber) or inflamed cornea does not explain all cases of pyramidal cataract which are not congenital and is unsatisfactory. Some pyramidal cataracts are, I believe, due to wound of the anterior capsule itself.

Forest Gate. ALBERT CORNER.

PULMONARY HYDATID.[1]

ON February 2nd a girl, aged 7, was brought to my consulting-room from the country. She had a hectic appearance, frequent short "unsatisfactory" cough, and was very emaciated. I diagnosed empyema before examining her. On examination I found the right side of the chest quite dull, no expansion, no vocal fremitus, no breath sounds; the apex was displaced to the left; no medical man had seen her.

The condition had come on gradually with dyspnoea, great wasting and sweats, etc. The previous day she had coughed up phlegm with great fetor. There had never been any pleuritic pains. I sent her into a nursing home and operated on her at 5 p.m. the same day under chloroform. I introduced a hypodermic needle and drew out pus. I made an incision far back and pus came freely, then shreds of hydatid membrane, and finally several large sheets of adventitious membrane as big as large sheets of notepaper. The fetor was horrible. When I opened the pleura the trachea became flooded with pus, and she was nearly asphyxiated by it. There was not much haemorrhage as frequently happens in operations on pulmonary hydatid. The patient vomited a little blood when back in bed. Judging from the amount of adventitious membrane I extracted and which came out quite easily the cyst must have been a large one and evidently communicated with the bronchial tubes.

[1] From notes of cases read before the Canterbury (New Zealand) Section of the New Zealand Branch of the British Medical Association.

The patient is now taking nourishment well. There is not much discharge and it is not offensive. There is very little cough and no expectoration. The temperature is normal. The lung has evidently been severely compressed for some considerable time, but there is every indication that the patient will do well.

This was evidently a large "barren" cyst as there were no "daughter" cysts in it. March 10th. The patient is now convalescent. The wound is quite healed. Air enters the lungs freely. She has gained seven pounds in weight since the operation.

Pulmonary hydatids are not very common here. According to London, hepatic hydatids are met with in the proportion of five to one as compared with pulmonary. The absence of pleuritic pain in this case was of great interest. Dr. Dougan Bird suggests that the embryo reaches the lung by way of air being inhaled intact; its shell is digested by the warmth and moisture of the air cells aided by the mucous secretion, or the embryo may reach the lung by way of the portal and pulmonary veins and burrow into the cavity of an air cell.

New Zealand. RICHD. W. ANDERSON.

ADRENALIN CHLORIDE IN HAEMORRHAGE.

HAVING had to deal with a case of severe haemoptysis just lately, and having employed the usual remedies without satisfactory result, I tried adrenalin chloride. After three 5-minim doses at three-hour intervals, the haemoptysis ceased, and for two months has not recurred. I, of course, kept the patient quiet for some days after.

In a case of severe menorrhagia, having tried, as in the above case, the usual methods without having recourse to plugging, I prescribed adrenalin, ergot, and strychnine, with the most satisfactory result, as after twenty-four hours the haemorrhage had practically ceased. As this had proved a most obstinate case, I consider the action of the drug most encouraging.

A third case was one of haemorrhage from the lower bowel; in this case, also, the beneficial result of adrenalin was immediate.

Adrenalin seems to me a most valuable addition to the remedies for haemorrhage. In none of the three cases quoted were any ill-effects observed from its use.

Netherton, Dudley. A. ST. LAWRANCE-BURKE.

SOME SUGGESTIONS IN ADRENAL DIAGNOSIS.

THE presence in Professor Kerr's wards of two patients suffering from conditions in which adrenal involvement is a possibility has led to an almost fruitless search of adrenal literature in hope of obtaining useful diagnostic aids. The following facts and suggestions are offered as perhaps being of some service in the diagnosis of adrenal growths.

1. That owing to the very close proximity of the right adrenal to the inferior vena cava[1] a tumour of that body is more likely to hinder the flow of blood in that vessel than any other lateral abdominal tumour; that the latter class of tumours press upon the lateral abdominal veins, and in such cases, the current of blood in the enlarged superficial veins over the tumour is from above towards the femoral veins and thence to the inferior vena cava, this being the most convenient indirect route, even occurring in ascites due to cirrhosis of the liver[2]; that, on the other hand, when we have an adrenal growth with its tendency to involve the inferior vena cava, we should expect the current of blood in the superficial veins to be from below upwards towards the superior epigastric and internal mammary veins and hence onwards into the superior vena cava.

2. That in the differentiation of left adrenal growths from splenic enlargements in addition to those clinical aids mentioned in books on clinical diagnosis, two other signs suggest themselves:

(*a*) That since the stomach is in internal relation with the spleen, enlargement of that organ should push the stomach to the right; that, as the left adrenal forms a part of the posterior gastric bed,[3] enlargement of that organ should push the stomach forwards without displacing it inward, and consequently it is advisable in doubtful cases not only to determine the relative position of the colon, but also to inflate the stomach for a like purpose.

(*b*) That, whilst in many cases of chronic splenic enlargement the apex beat is displaced upwards and inwards,[4] in adrenal growths we would expect a displacement upwards and outwards, seeing the adrenals are more mesial than the heart's apex.

3. That, owing to the anatomical position of the adrenals bodies,[5] pressure upon the eleventh dorsal nerve may in some cases be confidently expected, and therefore one should examine the areas supplied by those nerves for abnormal cutaneous sensibility.

4. That in some cases adrenal tumours, or a tumour connected with the upper pole of the kidney, remains up under the ribs, and is clinically impalpable, the growth, however often pushing the diaphragm upwards.[6] The fluoroscope shows this displacement more accurately and more clearly than any other mode of examination, and such a fluoroscopic view may sometimes direct our thoughts into the right channel.

5. That, whilst in cases in which we have a tumour arising from misplaced adrenal tissue in the kidney, the injection of animals with urine from that kidney (as advocated by Neusser[7]), with a view of determining any resulting rise of blood pressure, is a logical experiment, it requires more laboratory skill and apparatus than most practitioners possess; and the writer suggests that, in lieu, such urine be injected along the central vessels of the rabbit's almost transparent ear, and also be applied to the rabbit's conjunctiva, and any constriction of these vessels or blanching of the tissues noted.

6. That, in view of Herter's work upon suprarenal glycosuria,[8] the urine be not only tested for sugar, but Straus's so-called liver test, or a suitable modification of it, be made in cases of suspected adrenal involvement.

7. That in view of the increased production[9] and possibly the varying production of adrenal secretion in some of these tumours and the diminished functionating power in other adrenal affections, accurate blood-pressure measurement might be of service in the differentiation of such conditions.

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San Francisco. University of California.

REFERENCES.

[1] *Textbook of Anatomy*, edited by D. J. Cunningham, p. 1152; Albarran and Cathelin *Anatomie des Capsules Surrénales*. [2] Hale White, BRITISH MEDICAL JOURNAL, March 7th, 1903. [3] *Textbook of Anatomy*, Cunningham, p. 1153. [4] Brill, *Amer. Journ. Med. Sc.*, April, 1901. [5] *Textbook of Anatomy*, Cunningham, p. 1194. [6] *Inter. Textbook of Surgery*, vol. ii, p. 594. [7] Neusser *Nothnagel's Encyclopaedia*; Dis. of Suprarenal Glands. [8] Herter. *Amer. Journ. Med. Sc.*, January, 1903; *Med. News*, October 25th, 1902. [9] Neusser *Nothnagel's Enclyclopaedia*; Dis. of Suprarenal Glands.

ANTENATAL RIGOR MORTIS.

IT may interest Dr. Fraser (BRITISH MEDICAL JOURNAL April 30th, 1904, p. 1014) to hear that I also have recently had a case, one only out of 575 labours during the last three years presenting this peculiar condition. I cannot give the family history but recollect that the woman was a primipara, and that in consequence of the weakness of the pains I accelerated birth by the use of forceps; though labour thus assisted proved both speedy and easy I was surprised to find on delivery that the child (apparently healthy and well nourished) gave no sign of life, on attempting artificial respiration I was puzzled to find this impossible, the arms, instead of being flaccid and limp, being quite rigid, as were also the legs.

Swindon. W. BOXER MAYNE, M.R.C.S., L.R.C.P.

ON THE ALLEGED TRANSMISSIBILITY OF THE MALARIA PARASITE FROM MOTHER TO INFANT.

MY attention was drawn sometime ago to the following passage in Mannaberg's papers on the malaria parasites, published by the New Sydenham Society, vol. cl, p. 415:

> That the malarial parasites, or the blood capsules infested by them, can pass through the placenta is proved by the cases in which the fetus has been infected by the suffering mother, as shown by the works of Dinstl, Schramm, Duchek, and Playfair.

As it appeared a matter of some interest to investigate this point I have examined the blood of a number of women coming to this hospital to be confined, especially selecting those who resided in malarious localities. Four cases were found heavily infected with malaria parasites, three being cases of malignant tertian infection, while the fourth contained both malignant tertian and quartan parasites. Immediately on delivery, and daily for some time afterwards, blood films were prepared from the infants, stained by the Romanowsky method, and submitted to prolonged and repeated search. No parasites were found in these nor were any other indications of malaria, such as melanin granules in the leucocytes, observed. All the infants were somewhat feeble. Their temperature was taken at frequent intervals

ut showed no abnormal variations. Quinine was entirely ithheld from the mothers while these observations were eing made. It would seem probably that the infants on hich Dinstl and others made their observations were bitten hortly after delivery by infected mosquitos, although it is onceivable, in view of the success of inoculation experiments, iat haemorrhages may take place in the placenta and let ose a number of parasites into the fetal circulation.

Jamaica. M. GRABHAM, M.A., M.B.Cantab.

REPORTS

ON

MEDICAL AND SURGICAL PRACTICE IN THE HOSPITALS AND ASYLUMS OF THE BRITISH EMPIRE.

SHEFFIELD ROYAL INFIRMARY.

RUPTURED GASTRIC ULCER.

y ARTHUR CONNELL, F.R.C.S.Edin., Surgeon to the Infirmary; Lecturer on Operative Surgery, University College, Sheffield.)

S., aged 44, a circular-saw grinder by trade, was admitted o the infirmary on December 23rd, 1903, suffering from ite pain in the abdomen.

istory.—Two years ago he was treated by my colleague, Dr. Porter, in medical wards for an attack of haematemesis from which he quickly overed. During the last three or four months he had had pain re- ed to the stomach after each meal, but did not pay any attention to n spite of his previous experience, On the day of admission he at work as usual, and had his dinner between one and two o'clock. s, he said, was a "very hearty dinner of half a pound of rump steak" l a pint of tea. Immediately after this meal the pain in the stomach e on and gradually grew worse, until about half-past five o'clock it so severe he was compelled to go home. On arriving he was vio- ly sick, the pain at this time being at its worst; he was given some cocoa, with a view to relief, but only swallowed a mouthful when omited a second time. As the pain seemed to grow worse his ical attendant was sent for, who, recognizing the gravity of the case, him into the infirmary.

ate on Admission.—I found the patient, a short ricketty man, lying is back with blue lips and a more or less pained expression of face. however answered my questions in a strong voice and with intelli- e. The pulse was soft and 92 to the minute. The temperature was F. On inspecting the abdomen it was found to be quite flat, the e semilunares were most evident, and the muscles well developed. novement of the abdominal walls could be made out, but the down- l or inspiratory effort of the diaphragm was clearly evident and in character. The most gentle palpation of every part of the ab- inal surface gave pain, and it was easy to elicit that most important l physical signs in acute lesions, namely, pronounced rigidity of bdominal muscles. The liver-dullness was not obliterated, nor was croached upon. There were no signs of dullness in the flanks or e hypogastrium.

eration.—The diagnosis of a ruptured gastric ulcer having been he was taken to the theatre. As soon as he was sufficiently anaes- sed the skin was thoroughly prepared by an assistant and the man led into the operation room. An incision of 4 in. was made above mbilicus and on opening the peritoneum a milky-looking fluid a sour smell immediately made its way out of the wound. The obe of the liver having been hooked up by the assistant's fingers ight portion of the stomach including the lesser curvature was ayed, and revealed a spot through which the stomach contents issuing with each descent of the diaphragm, On mopping this n quickly the perforation was definitely located and steps were to deal with it promptly. The perforation was situate near the curvature and about 2 in. from the pylorus in the midst of a of considerably thickened sero-muscular wall. There were no of adhesion between the anterior surface of the stomach and the

Excision of the ulcer was decided on and an elliptical incision ade around the ulcer and carried through all the coats of the ch. The mucous membrane was closed by a continuous catgut whilst the sero-muscular coats were closed by fine silk. This f the operation occupied fifteen minutes. The next step was to an opening above the pubes sufficient to admit a full-sized Keith's ube. On the introduction of this tube a large quantity of the fluid escaped. The glass tube of the irrigating apparatus was ntroduced into the peritoneal cavity through the upper wound th it the left hand, which, carried down into the pelvis, lifted ew upwards the small intestine. This manipulation was imme- followed by a rush of more of the milky fluid through the s tube. The intestines were set free once more and the irrigating as made to search all possible points such for example as the n of Winslow, the under-surfaces of the liver and of the stomach, al and splenic pouches; finally the pelvis was treated in the r described above. As the solution was returning quite clear at l of fifteen minutes and had done so for a few minutes previously, the wound was closed with through-and-through silkworm sutures. The solution used for irrigation was sterile salt solution at a temperature between 105°F. and 110°F.

Result.—He was taken back to bed, and the head of the bedstead was raised on blocks, as there was little or no shock, the pulse being of good volume and only 96 per minute. He passed a restful night, and had no vomiting. There is nothing of importance to note in the after-condition; the temperature reached its highest point during the illness at 2 o'clock the next day, when it was 99.6° F., and the pulse 100 per minute. Convalescence was rapidly established, and he returned to his work at the end of six weeks. He was seen on April 18th, and assured me that he was quite well and had had no inconvenience after food. He has been warned that if he has any pain or vomiting he is at once to present himself, as the expediency of gastro-jejunostomy must be considered.

REMARKS.—There are some points in the case which are doubtless open to criticism. It is partly on this account and partly from the point of view of statistics that it appears desirable to publish the case. That immediate operative interference was essential few can deny. Excision of the ulcer was practised owing to the unhealthy immediate surroundings of the perforation, for had the ulcer been turned in it would probably have added to the increasing obstruction at the pylorus, for a very much larger piece of stomach wall must have been included between the sutures than was actually used. Again, flushing was resorted to in this case owing to the universal soiling of the abdominal contents. The success of the case is in all probability due to the following facts as far as one is able to judge: (1) The short interval between perforation and operation, namely, five hours; (2) the absence of marked shock, dependent on the short time occupied by the operation and the stimulating effect of the irrigation; (3) the personal idiosyncrasy of the man, for he never appeared one atom concerned about his illness, and was most exemplary in carrying out the after-treatment. Whether or not the fact that he is a total abstainer played any considerable rôle must remain a moot point. That he was given half an ounce of brandy in a rectal saline injection before being wheeled into the theatre is on record in the sister's report as having been ordered by myself.

I must express my best thanks to the house-surgeon, Mr. Rupert Hallam, and to the sister for their assiduous care and attention in carrying out the details of the treatment.

ROYAL NAVAL HOSPITAL, PLYMOUTH.

OSTEO MYELITIS: AMPUTATION AT THE HIP-JOINT: RECOVERY, WITH NEW BONE GROWTH.

(By Deputy-Inspector-General Cox.)

[Forwarded by the Director-General, Medical Department, Royal Navy.]

H. N., aged 16, a delicate-looking lad, was admitted October 31st, 1900, with considerable swelling and deep-seated pain in the right thigh. His temperature in the morning was 99.4°, and in the evening 104°. Under chloroform an exploratory incision was made down to the femur, but no pus was reached. From November 5th till November 11th, temperature ranged from 101° to 104°, and the patient went through an attack of pneumonia involving both bases.

November 12th.—Temperature: Morning, 102° F.; evening, 103° F. There was much tenderness over the lower third of the femur, so an incision was made on the outer side of the quadriceps extensor down to the bone; no pus being found the femur was trephined, and 4 or 5 drachms of pus evacuated.

November 25th.—The patient losing ground. Discharge of varying extent. Femur again trephined higher up, and a large drainage tube passed through the popliteal space.

Operation.—On December 17th the patient's condition was most unsatisfactory, so it was decided to remove the limb. Under chloroform amputation at the middle of the thigh was rapidly performed by anterior skin and posterior transfixion flaps; the bone was found to be extensively diseased right up to the trochanter major, so after the vessels had been secured the upper half of the femur was removed at the hip-joint by the Furneaux Jordan method, the periosteum being divided but not removed. The patient lost but little blood, and the amount of shock was not so great as might have been expected in his low state.

A dissection of the limb afterwards showed that besides the whole shaft of the femur the knee-joint was extensively involved.

December 18th.—Temperature: Morning, 99° F.; evening, 99.4° F. The patient passed a fair night, but showed some tendency to collapse some hours after the operation. The

pulse, however, responded to stimulants given per rectum. He was now cheerful and free from pain. Pulse 120, fair volume.

Result.—From this date the lad slowly recovered, and beyond suppuration of the edge of the posterior flap the stump gave no trouble. On March 4th, 1901, while waiting discharge invalided, the patient drew my attention to a central induration of the stump, which latter he could move at will. He was discharged to his home on May 29th, prior to which a radiograph taken showed that what was apparently a new bony growth had developed from the periosteum. He was subsequently fitted with a substitute for the limb, and can get about very well without a crutch, and has been earning his living by office work ever since.

REMARKS.—The interest in this case lies, of course, in the new bone growth, which converted a fleshy stump—which in time would have contracted—into one that enables the patient to be independent of crutches. As far as I am aware the case is unique. I have recently heard from the man, who continues to do well, over three years having elapsed since the amputation.

COLONIAL HOSPITAL, FREETOWN, SIERRA LEONE.

A CASE OF POISONING BY THE FRUIT OF THE CHAILLETIA TOXICARIA (RATSBANE).

(By Dr. W. RENNER, Medical Officer).

J., a Mendi labourer, aged about 24 years, was admitted on the morning of November 18th, 1903, at 10 a.m. He could not speak English fluently, and the following history was obtained from his friends.

On the morning of November 18th, 1903, some fish, on which had been sprinkled the powdered fruit of the ratsbane for the purpose of killing rats, having been given to him to throw away he ate the largest portion of it. In about half an hour afterwards he had vomiting followed by looseness of the bowels and general trembling. On his admission into hospital about 10 a.m. he again vomited, and his condition then as described by himself through an interpreter was as follows: "He was feeling very weak and unable to walk, his legs were dead, he was losing power over his arm and he was feeling very bad." On examination in the ward it was found that the patient was suffering from paralysis of the lower extremities. The tendon reflexes were abolished. There was marked hyperaethesia of the inner side of the thigh and legs. Firm pressure of the muscles of the calves gave unusually severe pain. The action of the bladder and rectum remained undisturbed. Although the pupils were normal yet the patient's vision was not acute. There was some want of co-ordinating power in the muscles of the upper extremities. The power of deglutition was not affected. The patient's condition was stationary for about a fortnight when signs of improvement began, and this continued gradually until January 22nd, 1904, when he was discharged with only a slight inability to walk.

The case is unique, as it is, I believe, the first instance of poison by ratsbane in man which is recorded. The symptoms observed in this case have been observed in sudden cases of paralysis of the lower extremities in young persons of both sexes and of various ages, but especially in those between the ages of 20 to 40.

The origin of this disease has been veiled in great obscurity, even experienced medical men have been baffled in their efforts to discover it. The disease has generally been regarded as mysterious by the people. For the country doctors, who have the true knowledge of the cause of the disease, keep it a secret, attributing it to some mysterious influence of the devil or to witchcraft or something occult, and thereby make much profit from their knowledge, and wield great power over the masses.

There is now no doubt in my mind that the many cases of sudden illness resulting in paralysis are due to poison by the ratsbane, and the numerous deaths commonly reported to be from poison may also be attributed to the effective use of this substance. The symptoms observed in the domestic animals when under the influence of this poison are the same as in man. Cats and dogs which may happen to be poisoned by eating fish sprinkled with the powdered fruit show in a few minutes great distress, have vomiting, rush about frantically, and their legs soon become paralysed. They then lie down helplessly, breathing quickly, the forearm twitching and quivering; they ultimately die, apparently from paralysis of the respiratory muscles.

This poison is derived from the fruit of the chailletia toxicaria, natural order *Chailletiacae*. It grows in West Africa and South America. In Sierra Leone it is commonly called "broke back," from its effect in producing paralysis of the lower limbs. In the hinterland it is known by the Mendis as "magbevi" and by the Timnes as "manuch."

British Medical Associatio

CLINICAL AND SCIENTIFIC PROCEEDINGS

BATH AND BRISTOL BRANCH.

Bristol, Wednesday, May 25th, 1904.

BARCLAY J. BARON, M.B., President, in the Chair.

Cases, etc.—Dr. H. J. HARRISON and Dr. KENNETH W showed cases of rodent ulcer, eczema, acne, lupus, Raynaud's disease, illustrating the beneficial effects of *x* rays in these diseases. They also showed cases of psori presenting unusual features.—Mr. E. W. HEY GROVES sho a series of microscopic sections illustrating (1) inflammat and (2) benign tumours of the breast, and remarked on difficulty of diagnosis from histological characters only. also showed a case of sarcoma of the lumbar region. MOLE commented on these cases.

Sinus Thrombosis.—Mr. J. LACY FIRTH read a paper on t cases of sinus thrombosis following suppurative disease the middle ear. In each case a radical mastoid operation done, and the sinus scraped out with successful result. the first case recovery was more rapid than in the seco because the patient came under observation at an earl stage. In the second the rigors recurred for a short t after ligation of the jugular. In the third case sympto arose after the first operation, pointing to an intracra abscess. A second operation at which a few drops of were removed from the cerebellar surface resulted in relie symptoms.—Mr. MOLE and Dr. MICHELL CLARKE discus the cases.

Rheumatic Infection through Air Passages.—Dr. WAT WILLIAMS read a paper on infection through the upper re ratory tract in acute rheumatism. He pointed out the m relations between rheumatism and throat affections, drew the conclusion that acute rheumatism was a secon infection, and that in a large percentage of cases the port infection was the upper respiratory tract, most often tonsils, and that the secondary rheumatic symptoms bore relation in severity to the primary throat affection.—T PRESIDENT, Drs. SYMES, BOWKER, and WALKER DUNBAR cussed the paper.

Cardiac Neuroses.—Dr. MICHELL CLARKE read a pape some cardiac neuroses. The cardiac disorders of hysteria neurasthenia were alone considered, and the difficult diagnosis between these two diseases and further in s cases of both affections from organic heart disease, was cussed.—In the discussion which followed, the PRESID Drs. NEWMAN, NEILD, ALEXANDER, WATSON WILLIAMS, WALKER DUNBAR took part.

NORTH OF ENGLAND BRANCH.

Newcastle-on-Tyne, Tuesday, May 3rd.

RUTHERFORD MORISON, F.R.C.S., in the Chair.

Gumma of Cord.—Dr. BEATTIE brought forward a m aged 42, exhibiting a peculiar gait due to ataxia of the r leg and spasticity of the left. In the ataxic leg, knee- was abolished and superficial reflexes impaired, while t was also anaesthesia. In the spastic leg reflexes were increased, there being knee clonus, ankle clonus, Babinski's toe phenomenon; old syphilitic scars were parent. Dr. Beattie explained the peripheral manifestat by a lesion occupying the posterior columns and poste cornua on the right side of the cord and pressing upon lateral columns of the left side. He considered the cas be probably one of gumma of the cord, and invited discus concerning the diagnosis. The man had improved under doses of potassium iodide.

The Surgical Treatment of Tuberculosis.—The CHAIR showed the following cases illustrating the surgical treatm of tuberculosis:

Tuberculous Knee: Erasion.—A man, aged 44. Four y ago the joint was erased for extensive disease, involving whole of the synovial membrane. There were now no sig

ase. The movements were limited to one-third of the nal. He walked very well.

uberculous Knee: Excision.—A girl aged 12. Four and a-half 's ago the joint was excised for disease involving the bone. re was now a small tuberculous focus about the centre of in- on. The bones were firmly ankylosed in a slightly flexed tion. She was able to walk well; shortening was very slight.

uberculous Ankle: Excision of Astragalus.—A man aged 25. years before admission the right ankle-joint became llen and painful sinuses appeared for which he was twice ated on in different hospitals. During the two months eding admission he lost flesh rapidly. He looked thin ill and there were the signs of tuberculous disease of the le with sinuses. Four years ago the astragalus was ex- d and all diseased tissues removed. When shown he was and strong. There were no signs of disease, the move- ts of the new joint were normal, he could run and walk ectly well. A girl of 3. Four years ago she was admitted to ital with advanced tuberculous disease of the ankle with ptic sinus on the outer side. The astragalus was excised the joint thoroughly erased. After this two further oper- ns were necessary on account of persistent high tempera- . When shown the new joint was quite sound. The foot assumed the position of talipes varus. Movement was ted but she could walk fairly well.

uberculous Disease of Spine: Psoas Abscess: Radical Opera- .—A girl of 9, for two years before coming to hospital plained of pain in back. When admitted, four years ago, e was rigidity and slight angular deformity in the lower al spine, together with two large psoas abscesses. Both esses were opened by incisions extending from either loin ards to the middle of Poupart's ligament. The whole y was thus exposed, and on the right side the focus in vertebra was scooped out and swabbed with iodoform. incisions were sutured in layers without drainage. nd some tuberculous infection of the scar the nt made a complete recovery, and was sent home ing a poro-plaster spinal jacket. At the present time atient was quite well. Both incisions were sound, and igns of active disease had disappeared. She still wore ket.—A man, aged 43. He was admitted to hospital with ge psoas abscess extending below Poupart's ligament. e were the signs of caries of lumbar spine. Four years he same operation was carried out as in the previous case. ncision extended from the right loin behind downwards orwards to below Poupart's ligameni. Several sequestra found—a focus in the vertebra was scooped out. At the nt time the scar was perfectly sound; there were no signs tive disease. Patient had worked for some time at a ry. He had gained 3 stone.

berculous Disease of Palmar Bursa.—A lad, aged 19. Was tted with disease of bursa extending into little finger bove wrist. In latter situation there were sinuses lead- nto the sheaths. Three years ago as much of the sed synovial membrane as possible was dissected away; remainder was swabbed with pure carbolic and orm, the hand being kept on a splint for seven hs. He had now perfect use of the hand, and was no disease evident, working regularly as a man.—A man, aged 24. Six months before admission elling appeared in the palm; four months later an on was made into it. The palmar bursa, with its ex- ns to the thumb and little finger, was involved. A ar operation to that described above was carried out. time later the extension to the little finger had to be ately dealt with. Now, four years after operation, he erfect use of the hand and there were no signs of disease. al other cases were also shown.

tured Duodenal Ulcer: Laparotomy.—Mr. H. B. ANGUS d the following case: R. E., aged 56, was admitted into oyal Infirmary, suffering from severe abdominal pain, ril 12th, 1904. History: April 11th, at 11.30 p.m., when ng in the pit, he was seized with severe abdominal accompanied by slight vomiting. He was brought home ffered great pain all night; April 12th, pain severe; s slightly moved. Previous history: Five years ago had stion, which lasted three years and then passed off till esent illness. Condition on admission: Collapsed and ed. Pulse 96 and compressible (complained of general inal pain). Nothing found in the chest. Abdomen: In- on: Slight distension, limited abdominal breathing. ssion: Liver dullness gone, flanks resonant. Palpation: like muscles, nothing felt, very tender. Diagnosis: red duodenal ulcer. Operation: April 12th (fourteen hours after rupture) Mr. Angus performed median laparotomy. Rupture of the anterior wall of the first part of duodenum was found just beyond the pylorus. The whole pyloric area was infiltrated and friable. One suture (catgut) approximated the hole, and the omentum was stitched over the top, as no Lembert suture would hold. The abdominal cavity was washed clean with normal saline solution. Drainage tubes were placed in both flanks and the suprapubic parietes closed with through-and-through silk, supplemented with silkworm gut for skin. Subsequent progress: The man went on all right till the second week, when he got some superficial pyaemic abscesses, from which he was recovering. A point of interest in the after-treatment was the fact that the house-surgeon gave him hypodermics of tinct. digitalis ℥xx, liq. strychninae ℥vi, every hour for three days.

A Case of Post-operative Myxoedema with Tetany.—Dr. GEORGE MURRAY showed a woman from whom a goître had been removed three years previously by Mr. A. Martin. A portion of the goître left at the time of the operation had proved to be functionally inactive, and soon after the operation symptoms of tetany and myxoedema had rapidly developed. These had disappeared under treatment by thyroid extract. The patient, who was seven months pregnant, had ceased to take thyroid extract for a time, and symptoms of myxoedema and tetany had both reappeared.

Extensive Cavernous Angioma.—Mr. A. M. MARTIN showed a man, aged 50, who had as a child a small naevoid swelling on the tongue. During the past few years this swelling had increased very rapidly. Now the naevoid condition involved the whole of the tongue, the lower lip, and the left cheek. It extended down the front of the neck as far as the sternum, and passed backwards in the mouth into the left anterior pillar of the fauces. The tongue was so swollen and heavy that when it was protruded it could not be replaced by the use of its own muscles. The lower lip was drooping and everted. Several smart haemorrhages had occurred as the result of injuries from the teeth, etc., and lately the size of the tongue had caused some difficulty in swallowing. As regards treatment, it was difficult to say what had best be done. Electrolysis had been tried on the lip with temporary benefit. Anything such as excision was, Mr. Martin feared, out of the question, as it would be impossible to get beyond angiomatous tissue. The patient was extremely anxious to have the size of the tongue reduced and was willing to face any risks of treatment.

Congenital Dislocation of Hip.—Mr. A. M. MARTIN showed a girl, aged 5, who did not walk until she was over the age of 2 years. It was then noticed that she had a distinct limp, going down on the right side when the weight of the body was transmitted to the right leg. On examination shortening to the extent of 1 in. was found, the trochanter was 1 in. above Nélaton's line, and there was some limitation of abduction and evertion. No pain or tenderness was complained of. On fixing the pelvis and pulling downward the right foot the trochanter could be felt to move downwards. The head of the bone could be felt lying beneath the anterior superior spine. The condition was therefore one of congenital dislocation of the right hip-joint. As regards treatment after preliminary extension Mr. Martin proposed to replace the head of the bone by the open operation with every hope of a successful result.

SOUTH-EASTERN BRANCH: SEVENOAKS DIVISION.

Infantile Paralysis.—At a meeting held on May 26th, Mr. TUBBY gave a lecture on infantile paralysis with reference to its treatment in the early and late stages. He regarded the probable cause of the disease as a toxin manufactured in the alimentary canal. In the early stages the patient should lie prone to diminish the hyperaemia of the anterior cornua. For this purpose also ergot, or ergot and bromide, were useful. To prevent deformities the affected muscles should be determined by the reaction of degeneration, and they should be put at rest by means of splints to neutralize the action of their antagonizers. He particularly recommended splints of malleable iron. The circulation in the muscle should be stimulated by massage, and the nutrition improved by vigorous tapotage with a muscle beater. He had little faith in electricity. In advanced cases great improvement could be effected by judicious muscle grafting, and lost movements restored. In selection of muscles for this purpose there was much room for surgical ingenuity. For example, in paralysis of the deltoid part of the pectoralis major could be used, and a portion of the triceps might replace the lost action of the biceps. Several cases of this treatment with most gratifying results were quoted.

Lancashire and Cheshire Branch.—At a meeting held at Liverpool on May 18th, Mr. Alex. Hamilton, President, in the chair.—Dr. Grossmann demonstrated the following cases of disease of the eye: (1) Congenital unilateral anophthalmos and coloboma cyst in the lower lid, with coloboma of the choroid in the other eye, (2) synchysis scintillans, (3) retinitis proliferans, (4) luxation of lens into vitreous, (5) albuminuric retinitis, (6) human lens with double focus, detached retina in the other eye.—Dr. Barendt showed the following cases of disease of the skin: (1) Xerodermia, (2) scrofulodermia, (3) varicella prurigo, (4) lichen ruber planus, (5) lichen urticatus.—Mr. Bark showed the following cases of disease of the larynx: (1) Hemilaryngectomy for epithelioma, (2) thyrotomy for epithelioma (seven years after operation), (3) frontal sinus after operation.—Dr. Barr showed cases of disease of the spleen and heart, and demonstrated the following instruments: (1) A new recording cardiograph, (2) the latest model of his aspirator and injector, (3) Leonard Hill's sphygmograph.—Dr. W. B. Warrington showed the following cases of disease of the nervous system: (1) Myasthenia gravis with ophthalmoplegia. Rapid fatigue of most of the body muscles without wasting and with normal reflexes. Facial pariesis especially in the muscle used in smiling. Ptosis and paresis of external eye muscles greatly increased by voluntary action. (2) Paralysis of the lower part of brachial plexus. Result of blow on the back about a year ago—paralysis of the sympathetic for the eye, of the small muscles of hand and of all muscles moving the wrist except the radial extensor and flexor. Marked analgesia and thermo-anaesthesia on the whole inner side of upper limb.—Mr. R. A. Bickersteth read a paper on the intravesical separation of the urines coming from the two ureters, as an aid to diagnosis in surgical diseases of the kidneys. The principle underlying the construction of the instruments for this purpose was the temporary establishment in the bladder of a vertical watertight septum. Mr. Bickersteth explained the instrument constructed by Dr. George Luys of Paris, and demonstrated its mechanism. Specimens of urine thereby obtained of the two different sides were exhibited; also urine from a case where one kidney had been excised. Dr. Alexander concurred in the high praise of the instrument.—Dr. Alexander read notes of a case of colectomy for obstruction of the bowels caused by malignant disease. Colotomy was first performed to relieve the obstruction, and then the piece was cut out of the colon and the cut ends stitched together. Afterwards the colotomy wound was closed.

REPORTS OF SOCIETIES.

ROYAL MEDICAL AND CHIRURGICAL SOCIETY.

Sir R. Douglas Powell, K.C.V.O., President, in the Chair.

Tuesday, May 31st, 1904.

The Elasticity of the Aorta.

Drs. W. P. Herringham and W. A. Wills communicated this paper as a contribution to the study of arterial sclerosis. Of 128 aortas examined all recoiled to their original length when the pressure was removed, but they varied greatly in the degree to which they stretched. The cases were almost equally distributed among all ages over 20. The following conclusions were drawn:—The aorta followed the law laid down by Wertheim for the elasticity of organic bodies. Its width increased with age as the result of the internal pressure exercised upon it by the natural forces of the circulation. The more it thus became dilated the less was it capable of being further stretched. When stretched by weights up to 200 grams, aortas, even when dilated, retained the power of returning to their original volume. No simple mathematical relation obtained between dilatation and loss of elasticity. Elasticity depended chiefly upon the tunica media, and the loss of it chiefly on changes in this. These changes did not lie in the muscular tissue. The amount of muscular tissue, though varying in individuals, probably, except in rare cases, remained the same in each individual throughout adult life. The tunica media increased in substance with age. This increase was to be ascribed to the elastic or to the structureless connective tissue, or to both. It was to changes in these latter tissues that the loss of elasticity was to be ascribed. The histological alterations, other than simple increase, were not sufficient to account for this loss.

Professor Clifford Allbutt had taken great interest in the cardio-vascular changes at different periods of life. It was of great importance to take into account the *post-mortem* contraction of the aorta, which might last six or seven days. He had long held that the changes in the aorta were secondary to hypertrophy of the heart, and this the paper tended to bear out. The aorta did not shorten as it dilated during the systole, and in their elongation the closed arteries did not obey the laws of the elasticity of the excised vessel. A relaxed artery lengthened more than a contracted one. If there were universal contraction it would be antic. that much tortuosity would not occur.

Dr. Auld said that with the late Professor Coats years ago, he had made histological researches on the which confirmed in every particular but one the results paper. They had clear evidence that the elastic lam some cases underwent a granular degeneration. This s to have a bearing on the loss of elasticity. Such ch although not seen in all cases, would yet suggest fun changes in all. An increase of connective tissue wou produce stiffening of the vessel wall.

Dr. Alexander Morison wished to have a definition term "tunica media," and suggested the synonym "su cular coat." He had also seen degeneration of elastic but the loss of elasticity probably depended, not on th on the bulk of the produced tissue.

Professor Finlay said he would welcome similar ob tions on the arteries of syphilitic and alcoholic patients

Dr. Seymour Taylor said he would like similar ob tions made on arteries naturally tortuous—a tortuosity probably depended on supplying parts of the body sub movement, and did not seem to be concerned wit resistance of systolic shock.

The President alluded to the observation that hypertrophy had no connexion with loss of elasticity aorta. This seemed to be borne out clinically. It was teresting fact that the widening of the aorta reach acme about the age of 40. The varied pressures due t dition of stress, as was known clinically, began to tell that period of life.

Dr. Herringham replied.

CLINICAL SOCIETY OF LONDON.

Frederick Taylor, M.D., F.R.C.P., President, in the

Friday, May 27th, 1904.

Pyopneumothorax.

Professor D. W. Finlay (Aberdeen) read notes o following case:

The patient was a boy, aged 17, admitted into the Aberdeen Infirmary suffering from tuberculous pneumothorax on the left si apex of the right lung also showing the ordinary signs of tuberc Effusion was present, at first serous, but later on becoming pu After preliminary tapping, free incision, with removal of port two ribs, was practised (the signs at the right apex having sub and a large quantity of pus was evacuated. On two occasions quently considerable portions of the fifth, sixth, seventh, and ribs were resected, and the boy was treated for many months open-air on the balcony of the ward. The result had been that measure of health was regained whereby he was enabled to resu occupation of gardening. But there was still a discharging sinus cavity of the capacity of 1½ oz., the daily discharge of pus being drachm. The tuberculous process at the right apex had bee pletely arrested, but for some time the urine had contained all suggesting the necessity for further operative procedure.

Professor Finlay put forward the view that the radical ment of such cases offered a fairer prospect of benefit, cases of ordinary empyema, than the practice hi generally adopted of leaving the fluid alone or of remov by repeated tappings, having regard more especially to improvements in the mode of treatment of pulmonary culosis. Two other cases were referred to in which evacuation of pus was practised. In one of these the p seemed to be neither better nor worse for the operati the other such an improvement was obtained that h able to return to his employment.

Dr. J. Porter Parkinson remarked that the lat Fagge had related several cases of recovery from pyopn thorax without operation. Was it worth while going th such an ordeal to obtain comparatively little benefit?

Dr. Percy Kidd considered that medical practit should not be unduly influenced by older methods of ment. The difficulty often was to determine the amou disease present.

Professor Finlay replied.

Tumour of Left Auricle.

Dr. H. T. Thompson and Dr. C. U. Aitchison commun

two cases. The first was that of a girl aged 15, under of Dr. Percy Kidd in the London Hospital, into e had been admitted for pains in the chest and

had good health until twelve months before admission, when hortness of breath appeared, afterwards followed by occa- iting and oedema of the legs. There was no history of rheu- chorea. On examination the heart was enlarged, and pre- l systolic murmurs were heard at the apex. The liver was nd tender. The case was considered to be one of mitral id was treated accordingly. An attack of thrombosis of the ian vein occurred two months after admission, followed by of obstruction in the right dorsalis pedis artery. Six months ied of subacute nephritis. Tho presystolic murmur disap- ards the last. At the necropsy, a pedunculated tumour was ging from the auricular septum and protruding between the the mitral valve. Microscopically it was a fibroma.

nd case was that of a woman, aged 51, under the care rner.

suffered from dyspnoea for five years. The heart was much nd a presystolic and a systolic murmur were heard at the ites and albuminuria were present. A week after admission she was seized with right-sided hemiplegia and died. At sy a rounded mass was found attached to the auricular septum tion of the fossa ovalis, which microscopically consisted of is tissue.

ases had been recorded, some of which showed how the heart was of these tumours. By Dr. Léon on the following points were regarded as suggestive ra-cardial tumour: (1) Absence of rheumatic history vidence of progressive endocarditis; (2) signs of ailure together with embolic symptoms. A well- resystolic murmur had been observed in the case re- Sir W. T. Gairdner, in which a fibroma of the right as found at the necropsy.

Pasteur remarked that the condition was rare, and K. Fowler had reported a case to the Pathological n 1893. A large pedunculated clot was found in the le attached close to the foramen ovale, the usual of these tumours.

W. Chapman suggested that the vomiting was due to tion of the kidneys.

Ewart described a similar case. The clot, which d in the left auricle, had caused during life an inter- locking action of the mitral valve.

Porter Parkinson had exhibited to the Society for y of Disease in Children a case in which three thrombi existed in the right auricle, one of them unculated.

Osteitis Deformans.

Stephen Paget exhibited a case of this disease.

Annual Meeting.

port of the Council and Treasurer's statement of were read; the election of officers and Council took l votes of thanks to the retiring officials were passed. wing officers were elected, namely: Dr. Frederick s President; Mr. G. H. Makins, C.B., as Treasurer; V. Pasteur and Mr. W. G. Spencer, M.S., as Honorary s.

REVIEWS.

PHYSICAL DETERIORATION.

Rosebery, with his happy knack of suggestive phrase, , "An empire is but little use without an imperial d Mrs. Watt Smyth has very appropriataly quoted g as the final moral of her book *Physical Deterioration, and the Cure*,[1] in which she has brought together a s of information, and pointed out with much acumen y the conclusions to which the facts bring an im- udent.

bject is one which has attracted a great deal of atten- is country during recent years, and more especially emergency of the Boer war revealed the fact, to words of the book before us,

hose who wished to serve their country in her day of trial a mber were found physically unfit to carry a rifle, and that se who passed the recruiting officer a large proportion were the physical stamina and the moral qualities which go to ier.

ndering due honour to Major General Sir Frederick early writings on the subject, and after analysing the report of the Royal Commission on Physical Training in Scotland, the Director General's Memorandum on the recruiting statistics for 1902, and the recent reports of the Royal Colleges of Physicians and Surgeons on the subject, Mrs. Watt Smyth goes on, in her third chapter, to examine the nature of the evidence that the population of Great Britain shows signs of physical deterioration. In spite of the impressive facts set out in official statistics and reports there are those who maintain that the existence of physical deterioration has not been proved. Some who lean to this opinion have asked for anthropometrical statistics, while others have argued in the high *a priori* style that as improved sanitation means better health, and a great chance that children shall develop normally, and, as attention to sanitation was one of the dominant notes of the later Victorian era, therefore an improvement in the national physique must have occurred. Those who would argue thus are met by the writer of this volume in their own vein by reference, first, to the statistics of the Registrar-General, showing the enormous growth of the urban as compared with the rural population, and the continued heavy infant mortality; and, secondly, to the fact that compulsory education, which has swept all children into schools, has added a new factor to the problem, the full force of which is only now beginning to be perceived. The fact that the urban population has increased out of all proportion to the rural is well known, but it may not be so generally understood that the rural population of England and Wales enumerated at the census of 1901 was less than in 1881, and practically the same (7,471,242) as in 1861 (7,369,704), whereas the urban population had nearly doubled (in 1861 it was 12,696,520, and in 1901 it was 25,054,268). Again, it is pointed out that "the ratio of town to country residents, which was 212 to 100 in 1881, and 258 to 100 in 1891, was found at the last census (1901) to have risen to 335 to 100." These facts are illustrated by some very striking diagrams which are among the most convincing we have ever seen. The rates of mortality among infants and children in town and country are then compared, and tables are given, founded on the returns of the Registrar-General; it is shown that the excessive mortality among children bred in towns does not cease with the first year, but is very clearly to be perceived when the rates for children under 5 years of age in urban and rural counties are compared. It is seen that a large part of the excess is due to diarrhoeal diseases. This part of the subject is summed up as follows:

> It is seen, therefore, from the evidence of vital statistics, that town conditions are, as compared with country, inimical to the survival of infants and young children. Surely no one will have the temerity to deny that this terrible toll of infant life means also a corresponding toll on the health of those infants who live on into childhood. We know that the diseases causing the greater part of this mortality are of a kind which produce a lasting effect on nutrition, impairing digestion, deforming the skeleton, and stunting growth generally.

For our part we are prepared to uphold the conclusion here implied and to maintain that the onus of proving the contrary lies on those who would contend that town conditions producing, as they do, increased morbidity and mortality among infants and children, do not tend to produce likewise a low standard of physical development. The point might be settled by anthropometrical statistics of school children, but none exist on a scale to convince those who do not wish to be convinced. The statistics tabulated by the Anthropometric Committee of the British Association in 1883, and those collected last year by Dr. William Hall, of Leeds, are quoted as showing that the average town child is inferior in height and weight to the country child, and that a similar contrast is to be observed between the well-cared-for child in a large town and the neglected offspring of impoverished parents in the same town. But statistics which would enable a comparison to be made between the physical development of the average child, youth, or adult of to-day and of twenty years ago do not exist. Mrs. Watt Smyth pleads forcibly for the organization of a system for recording at least the height and weight of all school children twice a year, and has devised a plan by which the observations might be quickly made and recorded by the school teachers. The introduction of compulsory education just a generation ago has altered the conditions of child life, and its effect on growth has not been adequately studied. We may quote the following passage, which sums up the position very fairly: "Broadly speaking, the answer to the question whether, in respect to physical development, the good or evil prevails, depends on the degree of wisdom and public spirit shown by the local educational authorities. Overcrowded, ill-ventilated, ill-lighted

[1] *eterioration: its Causes and the Cure.* By A. Watt Smyth. don: John Murray. 1904. (Cr. 8vo, pp. 334. 6s. net).

schools; want of a well organized system of instruction in physical exercises, cookery and domestic hygiene; and inadequate playgrounds, can only aggravate other injurious influences which the town child has to encounter. Well-constructed school buildings, intelligent teaching in drill and gymnastics, and open-air games, on the other hand, must tend to healthy growth, and help to make up to the town child for the loss of the free life enjoyed by the country child."

The injurious influence of overcrowding and all that it implies on the health of mothers during pregnancy and lactation, and on the health and growth of infants and children is next discussed, and the authoress displays much practical knowledge of existing evils and a keen insight in suggesting remedies; we must, however, pass on to the chapter on the medical inspection of school children, which is of particular interest to the medical reader as containing the conclusions of a thoughtful lay writer upon a matter in which the medical profession is directly concerned. The opinions expressed are very much in advance of those commonly held or acted upon in this country. It is difficult to do justice by an abstract to the argument which is fortified by references to what is done on the Continent and in the United States, and we must refer our readers to the book itself, but its main outline may be thus stated. The State having decreed education compulsory, it is the interest and duty of the State to see that the children are in such a state of physical health as to profit by the education, and to prevent the occurrence of epidemic diseases, which interrupt the attendance of individual children at school, and may cause permanent injury; while failure to detect early cases may lead to a great fall in the attendance of children from the whole district, and even to closure of schools. It is not reasonable to rely upon school teachers to diagnose the early stage of, for example, measles or scarlet fever; the most they can be expected to do is to detect at the opening of the class that a child is not well. It follows that arrangements should be made for a medical man to attend the school every morning, and that the class teachers should be required to refer every child who seems out of sorts to him. He would, of course, do a great deal more than merely detect infectious diseases, but, as we have said, the scheme ought to be studied in the original; it may alarm our conservative educational authorities, but they may find comfort and encouragement in the facts given as to the ease and economy with which similar systems work in the United States and Germany.

The topics to which we have alluded, together with the discussion of the effects of underfeeding and of labour out of school hours and its regulation, occupy about two-fifths of the book, and prepare the way for suggestions for the remedy of the evils described. Before describing the systems of physical training followed in this and other countries, an account is given of the methods of the ancient Greeks, who are still our masters in this respect inasmuch as they were deeply imbued with the idea that education meant the cultivation of the whole man—body, mind, and character. Of the modern systems that followed in Sweden is singled out for special commendation, but the good features of that adopted in London under the direction of Mr. Chesterton are described; it is pointed out, however, that

> As a matter of fact it is hardly correct to call the system we employ the Swedish system, as the most important part of it is left out. In Sweden all school children are measured and weighed, and are medically examined with their clothes off at the beginning and end of each term. Records are kept which are of the greatest value in noting the benefit or injury done to the children from physical exercises. Besides this, the weakly or physically unfit are weeded out of each class, and formed into a group where special suitable exercises are given.

In the next chapter the importance of giving systematic instruction in domestic subjects, especially to girls, is insisted on, and the excellent system introduced into elementary schools in Germany by the influence of the Grand Duchess of Baden, daughter of the first German Emperor, is described. This leads by a natural transition to a consideration of the diet of the labouring classes, illustrated by family budgets quoted from official sources. Then follows a chapter on rural conditions, in which the means which may be devised to retain the people in the country and to bring back some of those who have flocked to the towns are discussed. The writer appears to place most reliance on the institution of small holdings, and on the encouragement of co-operation, especially in fruit growing. There is a chapter on alcoholism, with special reference to the health of mothers, and to its influence in producing the abject poverty of the slums. In the next chapter it is pointed out that a large propo the children living in the poorest quarters of large to no playground but the streets, where they may be s up to midnight waiting for their parents to open to t apology for a home which is all these unfortunat The efforts of Mrs. Humphry Ward to establish re classes are praised, and a most encouraging account the success of those conducted under her personal sup at the Passmore Edwards Settlement.

A chapter is given to the question of the milk s large towns in which the defects of the existing syst unsparingly laid bare. The milk depôts under strict supervision, which have yielded such excellent re Paris, are described as models to be imitated in this In a concluding chapter the general argument of the summed up, and the volume closes with a series of ap in which certain officials documents referred to in the set out in full.

The book is well planned and the writer's style is di concise, so that the reader gains a clearer view of a subject than can be obtained from any other publicat which we are acquainted. The book is, indeed, uniq conception, and its execution leaves nothing to be We would commend its perusal to all our readers, a well worthy of the careful study of persons inter education, whether as teachers or as members of e authorities.

Mr. J. B. ATKINS has reprinted in a small volume, *National Physical Training: an Open Debate*,[2] a series and "reports of conversations" which appeared *Manchester Guardian* some months ago. Among tributors were Mr. R. B. Haldane, M.P.; Dr. Mac M.P.; Mr. John Burns, M.P.; Dr. Newsholme, Si Brunton, and Mr. Eustace Miles. To some of the ar called attention at the time, and it will be found w whole series is read together that the writers diffe themselves on not a few points. Mr. Atkins has chapter headed "Conclusions" which may be regard most valuable part of the book. The discussion, happens, did not follow exactly the lines propose beginning, for such subjects as food, housing, ope and alcoholism interested the contributors mo systems of physical exercise or drill. At the stage this is not altogether to be regretted, althoug Atkins observes, reform in all these particulars exempt us "from the duty of putting straight our system of education," and by lop-sided he means solely to the mind while neglecting the body. M recognizes clearly that the question is bound up ins with the other question of feeding, and makes the su that simple food should be provided by the schools, parents should pay the cost price of it, unless they c that their child is having adequate food at home. we may express our agreement with his conclusion t whole question of physical education is largely a question." This, he says, is one of the things bro most clearly by the discussion, and it is to be hope the Physical Improvement League, a draft scheme f Mr. Atkins publishes in an appendix, comes into e women may be encouraged to become its mos members.

SURGERY.

MR. MAYO ROBSON, in the latest edition of his we book on the *Diseases of the Gall Bladder and Bile Du* found it necessary, in consequence of the rapid pr the pathology of these affections, and of recent impro in the technique of the various operations on these o present in the place of a mere revision of previous much enlarged and almost new work. Several new have been added, many additional cases furnished, whole book has been brought up to date. This in the preparation of which Mr. Robson has been by Mr. J. P. Dobson, may be regarded as the most authoritative work on the subjects with

[2] London: Isbister and Co. 1904. 8vo, pp. 254.

[3] *Diseases of the Gall Bladder and Bile Ducts, including Gall* A. W. Mayo Robson, F.R.C.S., Hunterian Professor of Surgery ology, 1897, 1899, and 1903: and Vice-President Royal College of of England, 1902. Assisted by J. P. Dobson, M.S.Lond., F.R.C Resident Surgeon to the General Infirmary at Leeds. Thi London: Baillière, Tindall, and Cox. 1904. (Demy 8vo, pp. 5 trations. 15s.)

and is most valuable in being the personal record of inical and scientific research of one who has done so towards developing and perfecting this now important of practical surgery. Of the many instances of real e in surgery of the gall bladder and biliary passages sed, the most important, it seems to us, is that of the on of choledochotomy to the class of practicable, safe, deed, relatively simple operations. The mortality of rocedure, owing to the method for complete exposure ited here, has in Mr. Robson's practice been reduced in urse of the last three years from 10.2 to 1.9 per cent. tain methods, such as needling and crushing, are held quite unnecessary in most cases, and in his experience ases of choledochotomy for the removal of stones from mmon and hepatic ducts Mr. Robson has never found o use the instrument known as Halstead's hammer. ng record of cases in the appendix, showing the results much brilliant and successful practice would, we are ed to think, be found more interesting and instructive nged in distinct groups of biliary affections, rather than onological order.

subject matter of the third volume of the thirteenth of *International Clinics*[4] is classified into four groups—pers on diseases of the gall bladder and gall ducts, ich that by M. Lejars of Paris, on the value of dications for surgical intervention in cholelithiasis is of special mention—four papers on treatment, of the most remarkable is one by Dr. Albert Robin on dical treatment of cancer, by which he means effort to the patients' sufferings, to feed them and prolong lives, an effort he would always make if the case too far advanced for pylorectomy, and before the ion of gastro-enterostomy was seriously considered—n general medicine, of which that by Lieutenant C. F. of the United States Army, on malarial infections, arasitology, symptomatology, diagnosis and treatment, as it is on a study of 3,000 cases in which the parasites iscovered in the blood, is worthy of most careful atten-nd six papers on general surgery, including local and l anaesthesia, and a paper on asepsis and antisepsis by sor Lucas-Championnière in which he argues for aseptic methods in abdominal surgery but for anti-in all other.

G. Grey Turner's essay on *Some Surgical Aspects of dicitis*[5] is really a welcome and instructive continuation bject which it is acknowledged in the preface is a well-ne. It presents in a readable form the results of much entious work in the surgical wards and in the *post-m* room, and throws some light on certain complications endicitis—intestinal obstruction, for instance—to which tle attention has hitherto been given.

F. G. Lloyd's little book on *Diseases of the Appendix rmis and their Treatment*,[6] which is a reprint of papers usly published in medical journals, is a much-com-d and not very satisfactory compilation on a subject of the author's experience is, as he acknowledges, com-ely limited.

Manual of Operative Surgery, by Professor E. von Berg-nd Dr. H. Rochs,[7] was designed in the first instance for of army surgeons taking out the course of operations cadaver which the writers conduct. It is divided into rts; the first treats of the ligature of arteries, amputa-nd resections, the principles of plastic surgery, and a the more frequently-performed special operations. The part is a new feature in this, the fourth, edition, and with operations on the skull, spine, thorax, and ab-. By the addition of this part the book has become a te handbook of operative surgery. Part I, published , followed the familiar lines of similar publications; in each instance an operation of choice is fully described, and the comparative advantages of the various recommended procedures are examined. The descriptions are clear, and the illustrations sufficient and good. As the writers state, the performance of operations on the brain, thorax, and abdomen of the cadaver is of little practical value, and in this respect Part II stands on a different footing from the first. The book has suffered from this attempt to fulfil two functions, and the compass of the second part is not sufficient to permit of an adequate description of the numerous procedures mentioned. As a rule, however, these descriptions are excellent; especially good are those of operations on the gall bladder and ducts, on hernia, and on the branches of the fifth nerve; but renal operations are too briefly considered, the ureter is barely mentioned, the prostate not at all. As in the first part, the illustrations are good, particularly those of abdominal operations, and although unequal, the whole book is well up to date, serviceable, and accurate.

Dr. Gunning's *Aids to Surgery*[8] is an instance of much industry and skill in the condensation of the surgical teaching of some of the best modern authors, but represents a type of work which any advanced student should be well able to prepare for himself, and which is not likely to do much service to any one save the author.

In the second edition of his *Manual of Operative Surgery*[9] Mr. Waring has, by careful revision of the original issue, and by the addition with the help of colleagues, of many new sections, successfully maintained the practical utility of this work. Many additions have been made throughout the volume by the author himself, and important changes have been made in the special chapters on ophthalmic and gynaecological operations, and on the operative surgery of the thyroid gland, by those who have ably assisted in the preparation of both editions. The book thus carefully revised and improved, may be regarded as a good and useful handbook for the surgical student, and an efficient guide to instruction in both general and special operative work. The technical details of each operation are, as a rule, full and accurate, and the illustrations, though not of the artistic excellence of those usually found in works on this subject, are abundant, and on the whole sufficiently clear and helpful. The small and convenient compass of this volume adds much to its utility, but it would have been well, we think, had its bulk been still further reduced by the omission of clinical matter which, in a work intended exclusively for classwork and for students instructed in operations on the dead body, might be considered as unnecessary. Whilst acknowledging the decided value of this work as a practical manual for the use of surgical students, we regret to note in this edition a tendency to hold by old and obsolete methods and to ignore recent modifications in certain operative procedures. For instance, no mention is made of Kocher's latest operations for the removal of the tongue and for the radical cure of inguinal hernia, which in this surgeon's practice have, it seems, superseded the older methods exclusively described by Mr. Waring. The section on gastro-enterostomy is not quite satisfactory, as it contains no allusion to the methods of intestinal anastomosis practised for the prevention or relief of the evils of the "vicious circle." We find no reference to the simple but really important and useful modifications that have been made by Mr. Mayo Robson in the technique of operations on the gall bladder and the biliary passages.

DISEASES OF THE HEART AND LUNGS.

Dr. Lindsay's *Lectures on Diseases of the Lungs and the Heart*[10] are well worth reading carefully, for they bear on every page the stamp of practical experience as opposed to the mere reproduction of textbooks. The lectures are in substance those delivered to the clinical classes at the Royal Victoria Hospital, Belfast, and are framed throughout from the clinical standpoint. Each chapter commences with a summary of its

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national Clinics. A Quarterly of illustrated clinical lectures and ly prepared original articles. Edited by A. O. J. Kelly, A.M., Volume III. Thirteenth Series. London: J. B. Lippincott 3. (Demy 8vo, pp. 314. 10s. 6d.)

Surgical Aspects of Appendicitis. By G. Grey Turner. Newcastle-ne: *Daily Journal* Office. 1903. (Crown 8vo, pp. 76. (For private ion.)

ses of the Appendix Vermiformis and their Treatment. By F. G. M.R.C.S.Eng., L.R.C.P.Lond. London: John Bale, Sons, and son, Ltd. 1904. (Fcap. 8vo, pp. 37. 2s.)

itende Vorlesungen für den Operations-Cursus an der Leiche. (Hand-Instruction for a Course of Operative Surgery on the Cadaver.) fessor E. von Bergmann und Dr. H. Rochs. Fourth edition. Parts . Berlin: A. Hirschwald. 1903. (Crown 8vo, pp. 478. M.9.)

[8] *Aids to Surgery.* By Joseph Gunning, M.B., B.S., F.R.C.S.Eng., Senior Resident Medical Officer, Royal Free Hospital. London: Bailliere, Tindall and Cox. 1904. (Foolscap 8vo, pp. 394. 4s. 6d.)

[9] *Manual of Operative Surgery.* By H. J. Waring, M.S., M.B., B.Sc.Lond., F.R.C.S., Assistant Surgeon, Lecturer on Surgical Anatomy, and Demonstrator of Practical Surgery, St. Bartholomews's Hospital; Consulting Surgeon, Metropolitan Hospital; Member of the Board of Examiners, Royal College of Surgeons, England. Second edition. Edinburgh and London: Young J. Pentland. 1904. (Crown 8vo, pp. 659, 472 illustrations. 10s. 6d.)

[10] *Lectures (Chiefly Clinical) on Diseases of the Lungs and the Heart.* By James Alexander Lindsay, M.D., F.R.C.P., M.A. London: Baillière, Tindall, and Cox. 1904. (Demy 8vo, pp. 455. 9s.)

contents, so arranged as to facilitate reference and to allow a rapid survey of the essential points discussed in the texts. The opening chapters on diagnostic methods and physical examination are excellent. Here, as elsewhere throughout the book, there is no lack of references to other writers, but their opinions are subjected to well-weighed criticism and not accepted indiscriminately. In discussing the difficult subject of the variations in the percussion note in different morbid conditions of the chest, the addition of some further reference to the variations in resistance would sometimes be of value and assistance. There are chapters relating to the diagnosis, prognosis, and treatment of pulmonary phthisis, the causes and management of haemoptysis, and some of the rarer forms of pulmonary disease. The second half of the book is devoted to diseases of the heart and blood vessels, and here, also, there are chapters on physical examination, the study of cardiac symptoms, diagnostic problems in connexion with heart disease. prognosis, and, finally, treatment of valvular disease of the heart. In every subject discussed in these lectures the practical rather than the academic view is kept prominently before us. The chapters on the early diagnosis of pulmonary phthisis, and on conditions which simulate pulmonary phthisis are of special interest in view of the importance of the early detection of pulmonary tuberculosis. Dr. Lindsay points out that to withhold a diagnosis until either bacilli are found in the sputum or definite physical signs are detected in the lungs means in many cases the sacrifice of the patient's best, perhaps his only, chance of recovery, So also the use of such euphemisms as "a delicate chest." "weak lungs," or "a tendency to consumption" tend towards a similar unfortunate result. With regard to treatment, Dr. Lindsay's experience with tuberculin has been unfavourable, and treatment with antiseptics has appeared to him, after a somewhat extensive trial, to be futile. The hygienic treatment is the most satisfactory in its results, but Dr. Lindsay enters a *caveat* against two common features of sanatorium treatment—forced over-feeding and the frequent taking of rectal temperatures. A very good summary of the essential features of different climates and their suitability in the treatment of various classes of phthisical cases is given in the lecture on therapeutical problems. The same careful review of the clinical problems which is the notable feature of the chapters on pulmonary diseases characterizes the lectures on diseases of the heart. We agree with Dr. Lindsay's pupils that it is good to have these lectures in a permanent form, and their publication will extend the number of those who will be able to profit by his teaching.

Professor RUMPF[11] of Bonn has published an essay on the general principles of treatment appropriate to failure of the heart and circulation, in which he insists on the necessity of considering the other factors, besides the heart, concerned in carrying on the circulation, when the symptoms of failure are to be treated. He summarizes the chief symptoms as enlargement of the liver through stasis, oedema of the feet independent of local causes, shortness of breath without lung affection, albuminuria, and a rapid, unequal, irregular pulse. The plan of treatment given includes an attempt to explain how the methods recommended act. He sets out with a discussion on the subject of rest in bed, and explains how it is that certain cases of cardiac failure cannot lie flat on their back. One factor is that the abdominal contents fall back and interfere with the play of the diaphragm, and embarrass the heart's action. Another factor is the pressure that a dilated heart may cause on nerve structures, while the position of the heart may interfere with the flow of blood to the aorta. In discussing the diet he insists on starting the treatment by limiting the amount of food for from eight to ten days to 1 litre of milk daily, afterwards gradually increasing the amount. The question of diet is considered in some detail. He lays stress upon the advantages of diaphragm exercises as helping the heart in its work. He passes in a short review the various advantages to be obtained from other exercises and from health resorts, and insists on restrictions in the indulgence in sports. The usual cardiac drugs are recommended without any new facts being elicited. His remarks on the treatment of angina pectoris are somewhat perfunctory, although he enters with considerable detail into the treatment of this complaint when it is due to the deposit of chalk in the coronary arteries. Not only does he prescribe a diet whose contents he chemically analyses to show how little chalk they contain, but he prescribes medicine which he hopes will dissolve the chalk in the blood vessels; he neglects, however, to inform us how we are to recognize this special form of disease. While on the whole this work gives a useful indication for the treatment of patients who can be in a hospital or who can afford to go to a health resort, little help is afforded the physician who has to treat patients who have to earn their daily bread by the sweat of their brow in spite of their cardiac insufficiency. This is a problem that confronts the majority of medical men, and it is a problem rarely touched upon by writers of books. To read such a work as this one would imagine that the author's patient never died. Yet surely in all patients suffering from chronic disease a stage is reached when recovery can no longer be looked for. A wise physician should recognize this fact and devote his energies to rendering the later days of his patient as comfortable as possible. Yet here again authors usually fail to help us.

In a *Practical Guide to the Administration of the Nauheim Treatment in England*,[12] Dr. THORNE THORNE sets himself to describe the methods in such detail that medical men who have had no previous practical knowledge of it may avail themselves of this therapeutic agent for the treatment of chronic affections of the heart. He divides his subject into the action and administration of the baths, the administration of the exercises, and the selection of cases suitable for treatment. The strength, temperature, frequency, and duration of the baths are noted as being of importance and as should be regulated to suit each individual case. A suitable commencement is "a three or four minutes bath, at a temperature of 97° or 98° F., containing 4 lb. to 5 lb. of Droitwich salt, and 5 oz. to 6 oz. of calcium chloride." If the amount of water in the bath were stated it would help in regulating the strength of the bath. The exercises to be administered are not described. The last chapter is devoted to examples of cases which have derived benefit from the treatment. The text is illustrated by sphygmographic tracings of the pulse before and after treatment, showing the good effects produced upon the circulation. The diagrams of cardiac dullness are not quite so convincing. To those who wish to employ these baths this book will be helpful.

NOTES ON BOOKS.

THE *Textbook of Histology*,[13] which has been prepared by EMMA L. BILSTEIN as translator, and by Dr. ALBERT SCHAPER as editor, is a version in English of the tenth German edition of the well-known work of Professor Philip Stöhr, of Wurzburg. The first translation was brought out some eight years ago, and was so well received that three editions have since appeared, the same translator and editor being responsible for all of them. The present volume constitutes a fifth edition, and like the German edition upon which it is founded has been thoroughly revised, and many additions have been made. Among these are 50 new illustrations, many of them coloured, and some new chapters on the form of the glands based upon the investigations of Maziarski, on the spleen following Weinrich, and on the urinary bladder and seminal passages following Lendorf and Felix respectively; the book, in short, appears to be as closely abreast with recent investigation as any translation ever can be. As regards the style in which it is printed, illustrated, and published, it leaves nothing to desire, and the fact that so many successive editions have been called for within such a brief space of time as eight years seems to indicate that the manner in which the information contained is presented meets the needs of students.

The twenty-eighth volume of the *Transactions of the American Gynecological Society*[14] records the work of the twenty-eighth session of a society of somewhat different character to that of the majority of medical societies elsewhere. The number of members is strictly limited to 100 active and 25 honorary Fellows, and every candidate for active Fellowship has to submit a paper or papers for the examination and consideration of the Fellows at least two months before the date of e

[11] *Herz- und Kreislaufstörungen.* Von Dr. Th. Rumpf, Professor e. o. an der Universität Bonn. Jena: Gustav Fischer. 1904. (Demy 8vo, pp. 50. M. 1.)

[12] *A Practical Guide to the Administration of the Nauheim Treatment in Chronic Diseases of the Heart in England.* By Leslie Thorne Thorne, M.B.S. London: Baillière, Tindall, and Cox. 1904. (Crown 8vo, pp 2s. 6d.)

[13] London: Rebman, Limited. 1904. (Demy 8vo. pp. 485. 14s.)

[14] Philadelphia: W. J. Dornan. 1903. (Demy 8vo, pp. 343.)

The Society meets only once a year, the session lasting days and being held in various cities in successive Full notice of all communications to be made at these ngs has to be given in advance, and, consequently, the ssions and the papers which introduce them are all, so to of the full-dress order. The volume contains twenty-apers, many of which are well illustrated. One is a de-record of a curious and apparently entirely successful to convert a pseudo-hermaphrodite of feminine general eteristics, but with a very well developed male organ, a normal female. The volume is well worth the ion of those interested in gynaecology and abdominal y.

Dental Annual[15] made its first appearance last year, he favourable reception then accorded to it is more justified by the second edition. The editor, whose does not appear upon the title page, has taken advan-of the comparatively liquid stage of the book's existence roduce several new features. One of these has led to ldition to the formal title of the book, and converts was merely a dental year book into a Dental Directory. ames of all registered practitioners of dentistry now r arranged topographically according to the towns in they reside. English dentists established in foreign ries being included. The general scheme of the book is range the whole of the subject matter in alphabetical In this way it is easy to hunt up any information re-l as to dental education and organization, and as to the ns of the General Medical Council in respect of dentistry. equal ease may be discovered summaries of recent l work and research, references to journals, the transac-of societies, lists of manufacturers, dealers, and dental s. A further useful feature of the volume is the inclu-of a diary in which the dates of meetings of all scientific ies are recorded, space being left for notes as to those ich the user of the book may be specially interested.

LITERARY NOTES.

University of Pennsylvania Medical Bulletin for March ins an article entitled "Medical Paris during the Reign uis Philippe," by Professor Chalmers Da Costa. In the of the bourgeois King medical students flocked to Paris all parts of the earth. The Quartier Latin was then the ination of Grub Street and Alsatia so vividly depicted *Vie de Bohème* by Henri Murger, who, however, repu-l his own creation with his dying breath. It is more tically described by Dr. Gibson, a former Professor of ry in the University of Pennsylvania, as a quarter

> the streets are so narrow and filthy, and without pavements or lks, as to endanger life at every corner; where the houses are so ld-fashioned, and gloomy as to resemble jails or penitentiaries, arly shut out the light of heaven; where the catacombs—those positories of human bones, the accumulated collection of ages, eath the feet—extend unknown distances, and seem to respond ow groans to the tread of the foot passenger, and rumble beneath of cumbrous vehicles and the tramp of clumsy animals that are ntly threading the narrow defiles above their desolate but us domains; where innumerable smells of concentrated vigour tivity and varied odour assail the olfactories from every quarter; loud and discordant cries of wandering tribes of vagabonds g their peculiar animal and vegetable productions fall upon the ve and startled tympanum of the stranger like strokes of the hammer or harsh gratings of the saw-pit; where the barking of ne screams of parrots, and the chattering of monkeys are mixed e gabble of old women and men; where the bowing and nod-nd scraping and salutations, and recognitions of street passengers g against and shouldering each other, followed by the incessant erlasting apology . . . . afford the most amusing and melan-ixture of pleasurable and disagreeable sensations that can pos-conceived.

Mason Warren found the students of the Thirties, as a editious, coarse, licentious, extravagant, and not over they were free from the slightest check of public n, and could without criticism indulge to the limit in pleasing vice. As a New England Puritan Dr. Warren at of place in this society, and viewed his associates onsiderable suspicion. That there was good reason for ttitude is shown by the fact duly noted in his journal, medical student stole his umbrella. In 1837 his father, hn C. Warren, paid a visit to Paris, and records that warned him under no circumstances to leave his cloak room or ward. During the reign of Louis Philippe Paris contained the best organized hospitals in the world. The death-rate in the hospitals was extremely high, varying from 1 in 15 in some of the smaller hospitals to 1 in 8 in the Hôtel Dieu. Among the great names which made the period illustrious are those of Cruveilhier, Andral, Trousseau, Dubois, Chomel, Louis, Gay-Lussac, Roux, Cloquet, Velpeau, Dupuytren, and Lisfranc. The spirit of brotherly love did not reign among those famous men. Warren wrote in 1837:

> The jealousy and hatred among the medical men in Paris are excessive. It is dangerous to speak of one in the presence of another.

The younger Warren in his memoir says:

> A lecture by Lisfranc is a flourish of bludgeons and daggers. He lashes Velpeau and Roux, and even stabs Dupuytren in his winding-sheet, but he has as many lashes in return.

In a public lecture Lisfranc gracefully alluded to Dupuytren as "le brigand," and he was wont to call him "le grand boucher du bord de l'eau." Dupuytren retorted with remarks to the effect "que sous une enveloppe de sanglier on portrait parfois un coeur de chien couchant." Victor Hugo relates that Lisfranc and Récamier once had an argument in the arena of the Medical School concerning the divinity of Christ, and almost came to blows in the presence of the students. There was much brilliant operating, but it was largely a matter of art for art's sake, and the patient fared somewhat badly. Warren says:

> More than two-thirds of their patients die after amputation. It seems to be rather an object to study the natural history of disease and to perform an operation beautifully than to save the life of the patient.

Referring to Dupuytren, he says:

> His operations are always brilliant and his diagnoses sometimes most extraordinary. He is one of the most suspicious persons that I have ever encountered. He is continually seeking to convince us that he is a great man, and that we do not sufficiently value his talents. He likes much to make a show, and generally talks during the whole operation.

Elsewhere Warren says in regard to the same surgeon:

> For brutality I do not think his equal can be found, If his orders are not immediately obeyed, he makes nothing of striking a patient and abusing him harshly. A favourite practice of his is to make a handle of a man's nose, seizing him by it and pulling him down on his knees, where he remains, half in sorrow and half in anger, until he is allowed to rise and describe his symptoms.

Sir Astley Cooper informed J. C. Warren in 1838 that a short time before he had been going through the Hôtel des Invalides with Larrey, the surgeon-in-chief of that institution, who informed him that he had never in his life lost a case of amputation at the shoulder-joint. They soon afterwards entered the deadhouse, where there was a dead body upon which amputation at the shoulder-joint had recently been performed. Sir Astley asked Larrey the cause of the man's death, and the latter calmly and without a smile replied, "Inflammation of the lungs." Lisfranc used to go to the hospital early in the morning, and would pass through the wards arrayed in a blood-stained white apron, and wearing upon his head a black skull cap like that of a hanging judge. He was an extremely large and powerful man, and wore a long-waisted, snuff-coloured coat, with a long tail reaching to his heels and shaped like the tail of a kite. His pantaloons were baggy about the hips and fluttered in the wind as he walked. His shoes were always large and ill-fitting, and he used to stride like a burly, careless giant through the streets of Paris. His voice was loud and his accents emphatic, and he denounced in unsparing terms every human being who ventured to differ with him in the slightest particular. His hand was against every man, and every man's hand was against him; and he seemed thoroughly to enjoy the situation. Of the surgeons of that time the most honest and probably the most truly scientific was Velpeau. There is a charming description of him in Daudet's *Rois en Exil* under the name of Buchereau.

THE MEDICAL DEFENCE UNION.

THE annual general meeting of the Medical Defence Union was held on May 26th at 11, Chandos Street, Cavendish Square, with Mr. M. A. MESSITER, the President of the Union, in the chair.

The annual report and statement of accounts for 1903 were presented.

REPORT OF COUNCIL.

The report stated that the addition of an entrance fee had made for increased strength, and had not prevented members of the profession from seeking the protection of the Union, and, from a financial point of view, it had increased the assets of the Union to no small degree. Over 1,000 cases had been brought before the Council of the Union for consideration, and, in addition, a number had been dealt with by the General

Dental Annual and Directory, 1904: A Year Book of Dental Sur-London: Ballière, Tindall, and Cox. (Demy 8vo, pp. 522. 7s. 6d.)

Secretary directly. The Council had continued the same principles which guided the policy of the Union in the past—that is to say, to deal with all cases involving professional principle promptly, and to take legal action in defence of members, regardless of cost, in all cases in which evidence was presented and obtained justifying in the opinion of the solicitor recourse to the courts. In addition to the large number of cases in respect of individual defence, the Council had also undertaken what was termed collective defence, such as prosecutions of unqualified practitioners. Although there had not been many prosecutions under the Medical Act, more cases would be undertaken if the Medical Act were amended so as to make convictions certain, and the Council hoped that the British Medical Association, which had a Medical Acts Amendment Bill in preparation, would be able to carry it through the Legislature; every possible help and assistance would be afforded by the Union. The Medical Defence Union could not attempt by itself to promote Bills in Parliament, as its means were not sufficiently great; but in the opinion of the Council the work could and should be done by the British Medical Association, and to accomplish this duty would add to its prestige and power. In reference to the draft scheme for medical defence prepared for the consideration of the Divisions of the British Medical Association the report of the Council of the Union contained the following passages:

"The Council, after carefully considering the scheme in all its details, decided unanimously, at a meeting held February 18th last, to do all in its power to maintain the integrity of the Medical Defence Union as at present existing, and trusts that it will receive the full support of its members in so doing. . . . The Council has received a very large number of letters from members in all parts of the United Kingdom, in which cordial expressions of support and agreement with the action taken by the Union are to be found. The Council has in this instance only adhered to the opinions expressed in 1898, when the British Medical Association, at the annual meeting held at Edinburgh, decided by a considerable majority that medical defence should not be undertaken by the Association, and this decision rested almost entirely upon the fact that the work of defence was carried on so ably by the Union that there was no necessity to alter the Memorandum and Articles of Association in order to provide for such work."

SOLICITOR'S REPORT.

The Solicitor to the Union, Mr. W. E. Hempson, prefaced his report for 1903 with a brief retrospect and analysis of the legal work during the last eight years.

The following paragraphs contain some of Mr. Hempson's observations on his work:

I find that within this space of eight years there have been placed in my hands—as the legal adviser to the Union to be dealt with in my official capacity as their solicitor—1,194 separate cases, which work out at an average of 150 cases for each of such years.

The maximum was reached in the year 1897, the total number of legal cases arising in that year on behalf of members and involving prosecution of unauthorized practitioners and the suppression of unqualified practice being 182, and this notwithstanding the fact that the membership for that year was some 2,500 less than for the past year of 1903, when 165 cases were referred to me to be legally dealt with.

My view in relation to this matter is that the full strength of the Union's policy and tactics had not at this period been fully appreciated or sufficiently widely felt by the impecunious litigant or the speculative solicitor on whom he has to rely for the prosecution of his suit, and both of whom always regard the medical man as a fair target to be shot at provided that but a scintilla of evidence more or less circumstantial be forthcoming as affording grounds of action. Each succeeding year brings with it more conclusive testimony to the respectful regard and wholesome fear in which the Union is held by people of the class to which I refer in connexion with speculative litigation.

Of the total of 1,194 cases embraced within the eight years mentioned, 322 relate to the defence of members in libel and slander actions incident to which were allegations against or imputations upon their professional good name and reputation; 214 are attributable to the defence of members in malapraxis actions brought against them by patients who have considered themselves either aggrieved or injured by the treatment which they received; some 150 are to be assigned to matters in which the Union has intervened by way of arbitration between members who have been so unfortunate as to be involved in professional disputes and differences; 110 pertain to the prosecution of unauthorized practitioners and the suppression of unqualified practice; and the remaining 398 relate to personal and miscellaneous actions and matters undertaken on behalf of members, amongst which may be mentioned the defence of members under the Diseases Notification Act, of which there have been some 15 to 20 cases, the representation of members at Local Government Board, Lunacy and other inquiries of a kindred nature, the adjustment with public bodies of members' claims arising under the Poor-law Officers' Superannuation Act, the solution of questions connected with the application and working of the Midwives Act, and the defence of members in a multiplicity of relationships and positions in which professional principle was involved.

From the total figures which I have given above it will be observed that the greatest risk and danger to which the medical man is exposed is that of libel and slander as the assistance rendered members during the eight years with which I am dealing amounts to 322 cases of the total of 1,194, thereby forming upwards of one-fourth of the entire cases as attributable to this particular offence. It is now, I think, generally appreciated throughout the profession that in the suppression of this evil the Union has rendered better service than perhaps in any other branch of its work. In each and every one of these 322 cases the honour and interests of the medical man who has been involved have been vindicated, and never in a single instance have offers of compromise, which have been made, been entertained unless and until the reputation of the member concerned has been fully and thoroughly cleared.

The report of the Solicitor also contained an account of the legal work of the Union for the year 1903. The number of cases referred to him for prosecution and defence on behalf of members and in connexion with the prosecution of unauthorized practitioners and the suppression of unqualified practice was 165. Of these, 47 fell within the category of libel and slander actions, malapraxis actions numbered 71, against 36 for the year 1902, and falling within the definition of personal and miscellaneous actions there were 31 cases; 16 cases were attributable to the prosecution of unauthorized persons and the suppression of unqualified practice.

STATISTICS.

The following statistics for the year 1903 showed the position of the Union at the end of that year:

Number of members on register, 5,882.
Number of new members from January 1st to December 31st, 471.
Number of members deceased, 48.
Number of resignations and erasures, 94.
Number of life members, 33.
Amount of guarantee fund, £8,344 19s. 6d.

ANNUAL MEETING.

The CHAIRMAN, in moving the adoption of the report, said that the great characteristic of the Medical Defence Union was promptitude. The best talent it was possible to get was employed to do the work of the Union without consideration of cost. The Union never compromised in action and that taught people to fear it. Another characteristic was that the Union hit hard; it did not hesitate to put any one into the Bankruptcy Court if necessary, and by so doing the Union became a power in the land. Referring to the British Medical Association scheme for medical defence, he said that the advocates of that scheme ought to show that it was something better than they had got already. The Medical Defence Union possessed stability and age, and that meant experience. The Union was quick to act, and undoubtedly in the minds of the legal profession the name of the Union was a great tower of strength. There were various reasons why it would not be wise for the Union to dissolve. It had 1,600 members who did not belong to the British Medical Association, and if the Union could fall in with any offer to merge itself in the Association those 1,600 men would have to be considered; they would have to pay for medical defence an annual subscription of 35s. The Union was the pioneer of medical defence, and in nineteen years had enrolled practically 6,000 members. The Union could not be taken over *en bloc* by the British Medical Association, because the Union would have to dissolve and get rid of all its money and start *de novo*.

Dr. J. G. GLOVER, in seconding the motion, said that to dissolve the Union would be a suicidal mistake. It would be a hardship on the 1,600 members. The sentiment of the medical profession was overpoweringly in favour of continuing the existence of the Medical Defence Union.

Dr. VINRACE suggested that there should be a strangers' gallery for those who wished to hear the discussions at the meetings of the Council of the Union.

Dr. WALTER SMITH explained the necessity of the Council working with closed doors.

The adoption of the report was then put to the meeting and carried.

Dr. F. J. BUCKELL moved the following resolution:

That this meeting of the members of the Medical Defence Union cordially approve of the action taken by the Council of the Union with reference to the scheme proposed by the British Medical Association in respect of medical defence, and agrees to aid the Council of the Union in maintaining the integrity of the Union in its entirety as at present existing.

Mr. P. Macleod Yearsley, in seconding the resolution, id he was one of the 1,600 members of the Union who did t belong to the British Medical Association. If the Union re dissolved it would only mean that another medical fence society would have to be started.
Dr. E. R. Fothergill said that he could not see why dical men could not join together to form one society for dical defence.
Mr. W. S. Nockolds suggested that the members of the itish Medical Association should join the Medical Defence ion.
Mr. J. T. Macnamara observed that if one medical defence ciety was formed there was no guarantee that at the end of elve months another would not be formed because it was en to any one to do so.
The resolution was then put to the meeting and passed.
Mr. T. G. Alderton proposed and Dr. M. Beverley conded the adoption of the accounts, and this was duly rried.
Mr. S. Felce proposed and Mr. J. Roche Lynch seconded e usual resolution authorizing payment of the railway fares provincial members attending Council meetings, which was rried.
Mr. M. A. Messiter, Dr. M. Beverley, and Mr. M. Hallight were re-elected members of Council.
A cordial vote of thanks was passed to Dr. Bateman, the neral Secretary, and to Mr. W. E. Hempson, the Solicitor; d, after these gentlemen had replied, the meeting ended th a vote of thanks to the Chairman.

EPSOM COLLEGE.

E annual general meeting of the Governors of Epsom llege was held at the office in Soho Square on Friday, ay 27th, Dr. Holman, Treasurer, in the chair. Amongst iers present were Dr. Galton, Mr. Felce, Rev. E. W. rthey, Dr. Thomson, Mr. Geo. Croft, Sir R. Douglas well, Mr. George Eastes, Mr. Kiallmark, Sir W. S. Church, . Baines, Mr. Propert, and Mr. Reginald Harrison.

The late Sir Edward Sieveking.

In moving the adoption of the report of the Council for 03 the Treasurer referred to the fact that since the last nual general meeting the Council had suffered a great s in the death of Sir Edward Sieveking, M.D., a Vice-Presint and one of the Honorary Consulting Physicians. Sir ward was the first Honorary Secretary of the College, and many years was a member of the Council. His interest the College was unbounded, and at meetings of the Council d of Committees he was a regular attendant.

The Financial Position.

The Treasurer also called attention to the satisfactory aracter of the financial statement. This showed a surplus income over expenditure of £2,763; but it had to be borne mind that this was entirely owing to the most successful tival dinner which was held in June, under the presidency His Royal Highness the Prince of Wales, when the record n of about £7,000 was collected.

The Change of Name.

An extraordinary general meeting was held in November t, at which it was unanimously decided to change the me of the institution from "The Royal Medical Benevot College" to "Epsom College," under the powers given the amending Act of Parliament. Few objections were sed to the proposed change, and some of those who were posed to the alteration had been amongst the first to accept ally the decision of the governors expressed at the general eting. The Council believed that the school would greatly nefit by the change, and they had no reason to fear that benevolent side of the institution would suffer.

School Statistics.

The numbers of the respective classes of boys in the school re as follows: Forty-nine Foundation scholars, 9 Council nibitioners, 133 other boarders in the College, 34 boarders masters' houses, 10 day boys.

Distinctions won by Pupils.

The value of the training given at the College was shown the fact that since the last report G. E. Neligan had gained open Exhibition for Natural Science of £70 at Exeter College, Oxford; and C. E. Seccombe, a Foundation Scholar' had gained the first open Scholarship for Classics at Keble College, Oxford. Nine boys had passed the whole or a part of the Preliminary Scientific Examination for the degree of M.B. of the University of London; four boys had passed the University of London Matriculation Examination in Division I, and two in Division II; nine boys had gained the higher certificate of the Oxford and Cambridge Schools Examination Board, seven distinctions being obtained, and thirty-six had gained the lower certificate.

Admission of Roman Catholic Boys.

The report stated that Roman Catholic boys had been admitted to the College in the past as paying scholars, when permission to attend the local Roman Catholic church had, of course, been granted. Since the last annual general meeting the question had been submitted to the Council whether, in the event of the election of a Catholic Foundation Scholar, facilities would be afforded for the practice of, and for instruction in, his religion. This was the first time such an application had been made, and after careful consideration the Council decided that such facilities should be afforded, as was the case at Eton, Harrow, and other public schools.

Donation from Mr. Thomas Moreton.

The Treasurer announced that Mr. Reginald Harrison had just handed him a munificent donation of £500 from Mr. Thomas Moreton, J.P., who was Honorary Local Secretary and Treasurer for Northwich. Mr. Moreton had made no reserve in giving this donation, so that the Council could use the money as it considered best.

A vote of thanks to the Chairman, proposed by Sir R. Douglas Powell, Bart., and carried unanimously, brought the proceedings to a close.

CENTRAL MIDWIVES BOARD.

We have received the following report from the Secretary of the Central Midwives Board:

At a meeting of the Central Midwives Board, held at the Board Room, 6, Suffolk Street, S.W., on May 26th, the following business was transacted:

Present: The Chairman (Dr. F. H. Champneys), Mr. J. Ward Cousins, Dr. Cullingworth, Miss Oldham, Miss Paget, Dr. Sinclair, Miss Wilson, Mr. E. Parker Young.

1. The further consideration was resumed of letters from the Royal Academy of Medicine in Ireland, the Rotunda Hospital, Dublin, the Coombe Hospital, Dublin, and the Belfast Maternity Hospital, asking for a modification of the Board's rules so as to facilitate the admission of Irish-trained pupil midwives to the Board's exnminations.

After discussion it was resolved that the Privy Council be asked to sanction the appending of the following Note to Rule C. I (2):

Note.—A certificate to the effect that the candidate has nursed 20 lying-in women during the *eight* days following labour will be accepted in place of the above in cases (1) where the course of special training in a hospital has extended over a period of six months, or (2) where a course of three months' special training in a hospital has been preceded by a full course of training in general nursing.

It was also resolved that the Privy Council be asked to sanction an alternative form of certificate under Form IV in the Schedule, to meet the modification contemplated by the above Note.

2. Resolved that the reporters of the recognized medical and nursing journals be invited to attend the meetings of the Board.

3. The following institution was approved as an institution for the training of Midwives under Section C of the Rules:

Chester Benevolent Institution.

4. The following were approved as teachers under Rule C.I. (3):

P. E. Barber, M.R.C.S.
Robert Boxall, M.D.
H. Spencer Browne, M.R.C.S.
H. Caudwell, L.R.C.P.
Francis Chown, M.B.
F. W. Culhane, M.R.C.S.
J. W. Fordham, sen., M.R.C.S.
G. R. Harcourt, M.B.
David Charles Rayner, F.R.C.S.
William Shaw, L.R.C.P.
A. L. Hall Smith, M.R.C.S.

5. The following were approved as certified midwives for the purpose of signing Forms III and IV under Rule C. I. (2):

S. A. Messenger.
Katherine Twining.
M. A. Webster.
L. E. Young.

6. After consideration of applications for certificates the names of 878 women were passed under Section 11 of the Act and ordered for entry on the Roll.

The following table shows the separate numbers of the various qualifications at present appearing on the Roll:

Royal College of Physicians of Ireland	1
Obstetrical Society of London	1,434
Rotunda Hospital	64
Coombe Hospital	28
Queen Charlotte's Hospital	99
Liverpool Lying-in Hospital	57
British Lying-in Hospital	4
Glasgow Maternity Hospital	49
St. Mary's Hospital, Manchester...	85
Manchester Maternity Hospital	1
City of London Lying-in Hospital	10
Royal Maternity Hospital, Edinburgh	11
Salvation Army Maternity Hospital	5
National Maternity Hospital, Dublin	2
Women in bona fide practice July, 1901	3,480
Total enrolled	5,330

[We are informed that the alternative form to which reference has been made is as follows:

FORM IVA.

I certify that . . . . . (to whom this certificate refers), being a person who has received a course of midwifery training in a hospital approved by the C.M.B. extending over a period of six months, or, * being a person who has received a course of midwifery training in a hospital approved by the C.M.B. extending over a period of three months, preceded by a full course of training in general nursing, has, to my satisfaction, nursed twenty lying-in women during the eight days following labour.

Signed, etc.

* Strike out the words "not applicable."

When the proposal was before the Board Mr. Ward Cousins proposed the following amendment, which was seconded by Dr. Sinclair:

That the further consideration of the matter be deferred until an invitation had been forwarded to the Irish maternity institutions requesting them to reconsider the existing difficulties, and to offer suggestions to the Central Midwives Board.

The amendment having been put from the Chair was declared to be lost; and after some discussion the resolution was carried by a majority of 2.]

MEDICAL NEWS.

THE Sultan has conferred the Order of the Medjidie, First-Class, on Professor Nothnagel, of Vienna.

DR. D. ARTHUR DAVIES has been appointed a Justice of the Peace for the county borough of Swansea.

DR. J. KERR, Medical Officer to the London Education Committee, has been elected a member of the Council of the Childhood Society.

MLLE. JOTEYKO, Doctor of Medicine and Lecturer on Psychology in the University of Brussels, has been elected Vice-President of the Neurological Society of Belgium.

THE late Miss Susan Sympson, of Lincoln, subject to a life interest in her estate, has left £100 each to the Lincoln County Hospital, the Lincoln General Dispensary, Epsom College, the Mablethorpe Convalescent Home, and the Alexandra Hospital at Woodhall Spa.

A CONFERENCE of Charity Organization Societies is to be held at Kendal this month, commencing on Monday, June 13th, and terminating on the following Thursday. Among the discussions on the agenda is one upon charity organization societies in relation to consumption, which will be introduced by Dr. W. Rushton Parker.

THE Royal Medical Benevolent Fund of Ireland will hold its annual general meeting at the Royal College of Surgeons, Ireland, on Tuesday, June 7th, when the President of the College will take the chair at 5 p.m. Among the speakers will be the President of the Royal College of Physicians in Ireland and the President of the Irish Medical Association.

THE BRITISH BALNEOLOGICAL SOCIETY.—At the concluding meeting of the Society for the session 1903-4, Dr. Bowen Davies, J.P., of Llandridod Wells, was chosen President-elect. The report of the Council showed that the Society was very flourishing and numbered 400 members. Sir Dyce Duckworth gave an address entitled Observations on British Winter Health Resorts, and in the evening the Fellows met at dinner, under the presidency of Sir Hermann Weber, who has succeeded to the post of Honorary President, vacant by the death of the late Sir Edward Sieveking. The proceedings terminated in a smoking concert, provided by the President of the Society, Dr. Alfred Street.

MINERS' PHTHISIS.—Mr. T. J. Britten, formerly manager of the Wolhuter Gold Mines, has been awarded the first prize of £500 and the gold medal offered by the Transvaal Chamber of Mines for the best appliance for the prevention of miners' phthisis. The suggested remedy is damping the dust by means of a water jet while drilling is in progress and while the blasting is taking place.

PRESENTATION.—Dr. James A. Wilson has, on the occasion of his leaving Springburn, been presented by his friends and patients with an illuminated address and a purse of 50 sovereigns. He was also the recipient of a dressing bag and emblem of the Order from the local Boilermakers' Society and of a pair of Goerz binoculars from the Primrose Lodge of Free Gardeners.

PROFESSOR MIKULICZ, of Breslau, will be the guest of the evening at the annual dinner of the Post-graduate College and past and present members of the West London Hospital to be held on June 25th at the Trocadéro Restaurant. Members of the profession not connected with the hospital, but desirous of being present, may obtain full particulars from the Dean, Mr. L. A. Bidwell, 15, Upper Wimpole Street, W.

ILLUSTRATED ADVERTISEMENTS.—A Bill has been introduced into the New York Assembly, the object of which is to prohibit the publication in any newspaper or other publication periodical, except medical or surgical journals, of "any picture, device, or representation, of one or more man, woman or child, or of the features or any part or parts of the human body in connexion with or as part of any advertisement of any patented medicine, drug, or surgical instrument."

ITALIAN PAEDIATRIC CONGRESS.—The fifth Italian Paediatric Congress will be held this year at Rome in October. The following are the subjects proposed for discussion: (1) Infantile Tuberculosis; (2) Infantile Anaemias. The President of the Organizing Committee is Professor L. Concetti; the Secretary, Professor F. Valagussa.

MAJOR BIRD, who was sent to Cabul to treat a bad gunshot wound of the hand from which the Ameer was suffering, has returned to India, leaving his patient with the wound practically healed. We should be curious to learn whether for this important political as well as medical service any fees offered him are to be considered by the non-medical authorities upon the footing of the regulations recently issued, to which we drew attention on May 28th, at page 1291.

BRITISH MEDICAL TEMPERANCE ASSOCIATION.—The twenty-eighth annual meeting of the British Medical Temperance Association was held on May 26th at the London Temperance Hospital. Professor Sims Woodhead presided. The report showed that there had been 33 new members (abstaining registered practitioners) and 28 new student associates (abstainers) enrolled during the year, and that there were now 568 members and 298 student associates. After the business meeting a *conversazione* was held, at which short addresses were given by Professor Sims Woodhead and Mr. A. Pearce Gould, one of the Vice-Presidents. Mr. W. Chataway exhibited some fine natural-colour photographs with the aid of electric lantern.

GUY'S HOSPITAL LADIES' ASSOCIATION.—At the ninth annual meeting of this Association, held in the Court Room of Guy's Hospital on May 28th, the President, Princess Christian, was present. Before the meeting several ladies, secretaries of local branches in London and the country, were presented to Her Royal Highness. Mrs. Pye-Smith, the Honorary Treasurer, presented the accounts, which were adopted. The annual report, read by the Honorary Secretary, Mrs. L. E. Shaw, drew attention to the increased success of the Association during the past year. There was a recommendation from the Committee that £150 should be voted from the funds to support three beds in the maternity ward. Two new branches had been instituted during the year, and more garments made for the use of patients. The Countess of Bective and Mrs. Arbuthnot Lane were elected to fill vacancies on the Committee. A cordial vote of thanks to Her Royal Highness was passed with acclamation. The needlework contributed during the year was inspected, and the Princess was entertained at tea by Mrs. Benyon.

BRITISH MEDICAL ASSOCIATION.

criptions to the British Medical Association for year 1904 are now due and should be forwarded postal order or cheque to the amount of 25s. the General Secretary, 429, Strand, London, W.C., in the case of Colonial members, to their Branch asurer.

British Medical Journal.

SATURDAY, JUNE 4TH, 1904.

DETERIORATION AND DEVELOPMENT.

book on physical deterioration which is reviewed in er column suggests certain reflections of a speculative which it may not be unprofitable briefly to pursue. ery suggestion that the British race, or perhaps, as ndemnation is one in which the Celtic members of tion will not wish to share, we may be permitted to ie Anglo-Saxon race, is deteriorating, while it has many anxious for the truth and for a remedy if the be as suggested, has roused in others a passion of t which has not yet perhaps found full expression .t.

e are people of intelligence unable to resist the ce, statistical and other, that the proportion of indi- s of inferior physique in our population is unduly who appear disposed to argue that the stream of cy is towards a race physically inferior, but intel- ly superior, to the average of to-day. This has been a te theory with romance writers of a certain type. ave imagined the man of the future a diminutive e, with a preposterous head, lean shanks, and an ed abdomen. If this be, indeed, the increasing purpose uns through the ages one may very well exclaim, What is man! But is there a tittle of evidence in favour view? Is there any ground for believing that Europe has produced men of greater intellectual nents than ancient Greece, or that there is a higher mental calibre in the people? The sum of human dge has increased, but that is a very different The human form now is, at its best, what it was, est, in ancient Greece; and the Sandows of to-day ice the extravagant muscular development of the s of old. What period of time, then, do the rs of this hypothesis require? Apparently they d all that Professor Rutherford can give them to ost powers of radium or its progenitor.

hers it seems to have been assumed that the accept- the opinion that physical deterioration exists in- he belief that the deterioration was progressive rent to offspring, and that this belief ran contrary heory, or, rather, the hypothesis, of Weismann, now ally accepted by biologists. But assuming for the t that the increase in the number of individuals of nal physique in the population alleged to exist is arents of such quality producing children of like ity, this is not exactly the same thing as the trans- of an acquired deformity. It would be the trans- of deficient cell energy, a quantitative and not alitative change which we must conclude that nn and his followers have in view.

here is no need to assume a progressive deteriora- transmission from parent to offspring to bring the subject within the sphere of practical politics. It is sufficient to show that the conditions making for physical inferiority are affecting a progressively-increasing proportion of the population. That this is the case in Great Britain must be evident to any one who will compare the distribution of population forty years ago and now, and those who do not like statistics may consult the graphic diagrams in the admirably comprehensive work to which we have referred. The remarkable influence which environment and nurture exercise on the development and growth of the child, as well as upon the standard of physical excellence attained by the adult, has been established beyond all question by the reports of the Anthropometrical Committee of the British Association, and the investigations reported to the Royal Commission on Physical Training in Scotland by Professor Matthew Hay and Dr. Leslie Mackenzie. A pure atmosphere and proper food are the chief essentials for the building up of a good physique, but those who would seek to enforce these facts upon public attention are not able to appeal to comparative statistics, because the school authorities have not hitherto recognized the importance of making anthropometrical observations upon their charges.

Professor D. J. Cunningham and Mr. J. Gray, the President and Secretary of the Anthropometrical Committee of the British Association, have suggested in a memorandum submitted to the Physical Deterioration Committee now sitting a very elaborate scheme for an anthropometric survey of the United Kingdom. They propose that the country should be divided into 400 districts, each containing on an average 100,000 persons; they estimate that there would be about 80,000 adults available for measurement in each district. It is proposed that 2,000 adults should be measured in each district as a sample, and that from 1,000 to 2,000 children in each year of school life should likewise be measured, that is to say, practically the whole of the children in the primary schools. Altogether, the scheme proposes the measurement of 800,000 adults and 8,000,000 school children.

To do this it would be necessary to have a staff of twenty surveyors working 250 days a year for ten years. Without questioning the value of the results which may thus be obtained, it may yet be said that the scheme is open to the obvious objection that the period over which the work must extend would be far too long. The record which it is proposed should be made of each person examined would imply nine separate observations: (1) Height, (2) chest girth (maximum and minimum), (3) weight, (4) length, breadth, and height of head, (5) breadth of shoulders, (6) breadth of hips, (7) vision tested by Snellen type, (8) colour vision, and (9) degree of pigmentation. It is also suggested that information regarding parentage, district of birth, conditions of life, etc., should also be obtained. Even so Professor Cunningham appears to consider that the observations might be made by school teachers, one for each school, or one for each sex, specially instructed in the methods of measurement and observation, were it not that he holds that if precise information is to be obtained regarding the national physique and its tendencies it will be necessary to measure large samples of the adult people every ten years or so. He rejects the employment of school teachers in favour of specially educated and selected "surveyors," and argues that the cost of this alternative would be less than the cost of employing teachers. We shall be curious to see what view the Committee on Physical Deterioration takes of this

proposal; for our own part we believe that the rejection of school teachers is a fatal defect. As Sir John Gorst pointed out, there would be great advantage in interesting class teachers in the physique of their pupils, and we cannot see that there is any insuperable difficulty in training school teachers, or the great majority of them, to make simple anthropometric observations.

HOME DEFENCE AND COMPULSORY SERVICE.

THE report of the Royal Commission on the Militia and Volunteers, of which an abstract will be found on p. 1348 of this issue, is a document of much interest, for it is the first time for very many years that any responsible body of men of the stamp and experience of those who formed this Commission has admitted the necessity and suggested the introduction of any element of compulsion into our military system; this principle has the support of nine out of the eleven Commissioners, including one of those who refused to sign the general report. The Commissioners were handicapped in their work by the failure to supply them with a clear statement of all the indications which the forces under consideration were to fulfil. They were thus under the necessity of putting forward alternatives to meet the needs of two possible contingencies, and it is this alternative of suggestion which has prevented the Commission from throwing the whole weight of its influence into one scale or the other.

The lessons of the present war prove that even the best of navies may not constitute a line of defence which can be thoroughly relied on; with submarine boats, torpedoes, and mines even the most perfectly-equipped navy may fail. The Japanese, with all their audacity, all their keen intelligence, all their skill and watchfulness, lost in a moment, without previous warning of any sort and without any fault or indiscretion of their own, one of their finest battleships. Submarine boats are yet in the experimental stage, but those who are in a position to know believe that they will be even more terrible in their results than mines. The necessity for an efficient force for home defence becomes, then, more apparent than ever, but the problem must be thought out soberly and quietly. The report of the Royal Commission is the result of the first public inquiry made into the subject since the conditions of modern warfare have been studied, and it is not necessary to assume that its recommendations contain the only possible solution of the problem.

In the first place, the suggestion that the age of 20 should be that at which military training should be made compulsory is one which would be likely to be accepted by the people of this country only if they were actually assured that some great war would take place within a year or two. The age of 16 or 17 would be at once more popular and more practical. A year taken out of a youth's life at this period would not affect his career so seriously as a little later, and the drill and discipline would do him good both morally and physically; it would take him away from the street, would have a steadying effect upon his character, and would probably diminish hooliganism. The suggestion that military education should be commenced in the schools is one to which we cannot subscribe. The plan was tried in France with much enthusiasm after the Franco-German war, but its general effect upon the boys was found to be so disastrous that the whole scheme has now been defi te abolished. Brigades for boys between the ages of 1 a 17 would be a different matter. They would be use l gradually preparing them for their definite military a ing if it began at the age of 17.

The conclusion of the Commission that compulso s vice should be enforced upon all young men of 20, e e ing only the sons of widows and those unable to pa t medical examination, is too off-hand and the details n not been considered with sufficient care. Some s e might be drawn up by which young men who o produce evidence of exceptional brain work done, o w are likely to shine in civil employments, would be a w to continue where they were instead of being a into uncongenial surroundings where they would nco become unsettled, but where they would never do a good. They might be required to produce teachers e ficates showing that they were likely to become s civilians. It would be the worst policy to try to n soldiers of plodding studious citizens, and it seems n ness to take away youths of 20 from an employm t which they have been working steadily and we several years. The Boer war proved only too clearl h difficult and often impossible it was for reservists t f employment when they returned. They left good t tions to fight for their country, and found them filli when they came back.

The War Commission reported last year tha "military system will be satisfactory which does not c t powers of expansion outside the regular forces Crown." There can be no doubt, therefore, that som h will be done, and there seems every likelihood th something will take very much the form of the sugge put forward on his own behalf by Sir Ralph Knox. suggestions, whatever their military value may be, i distinct and very desirable bearing upon the healt physique of the nation, for they advocate the enco a ment of cadet corps and of all forms of military ex among the general population, the confineme Volunteer enlistment to youths between the ag 18 and 20, and the administration to every recruit of months' continuous instruction upon his first joini Volunteer force. Finally, it is suggested that unless managed the Volunteer and Militia forces can be tained at the desired combined strength, the Militia shall come into action automatically, and apply to al of the age of 21, the Volunteer force being allowed to With this possibility held over their heads, it will be interest of employers and employed alike to foster teering in every possible way; and with this must c spirit which cannot but make for good as regard physique and healthy amusement of the whole yo the country.

HUMAN AND BOVINE TUBERCULOSIS.

THE Royal Commission to inquire into the relatio human and animal tuberculosis which was appoint August, 1901, immediately after Professor Koch had deli to the International Congress of Tuberculosis in Lond address in which he maintained that the bacillus of t culosis in the bovine animal is specifically distinct fro bacillus of human tuberculosis, has presented an in report, which was published on June 1st. This cours been taken because the Commission has obtained str experimental results which controvert Professor K hypothesis.

The experiments were made by feeding or inoculating ovine animals (calf, heifer, cow) with tuberculous material human origin containing living tubercle bacilli. More an twenty different strains of tuberculous material ere used, that is to say, material taken from more than enty cases of tuberculous disease in human beings, cluding sputum from phthisical patients and the seased parts of the lungs in pulmonary tuberculosis, esenteric glands in primary abdominal tuberculosis, berculous bronchial and cervical glands, and tuberculous ints. The effects were compared with those produced by veral different strains of tuberculous material of bovine igin.

The results are, as the Commissioners say, striking. Of e twenty strains of human origin, seven gave rise at once cattle to acute tuberculosis with widespread affection of ngs, spleen, liver, lymphatic glands, etc. In some inances the disease was of remarkable severity. The other ains, with two exceptions, produced a more or less alised lymphatic infection, with at most a very small ount of tubercle in the lungs and spleen. Tuberculous terial, however, taken from the bovine animals thus ected and introduced successively into other bovine imals, or into guinea-pigs from which bovine animals re subsequently inoculated has, in the case of five these strains, ultimately given rise in the bovine imal to general tuberculosis of an intense character. In case of two strains the tuberculous disease produced the inoculation was limited to the spot where the terial was introduced. This occurred in two instances y at the very beginning of the inquiry. The disease thus up in the bovine animal by material of human origin s compared with that set up in the bovine animal by terial of bovine origin, and the Commissioners report t the one, both in its broad general features and in finer histological details, was identical with the er. They have failed to discover any character which the one could be distinguished from other, and state that their "records contain ounts of the necropsies of bovine animals infected h tuberculous material of bovine origin which ght be used as typical descriptions of ordinary bovine erculosis."

Having obtained such results the Commissioners were doubt fully justified in making them public. The fact t tubercle of human origin can give rise in the bovine mal to tuberculosis identical with ordinary bovine tuberosis is, as the report points out, sufficient to make it clear t it would be most unwise to frame or modify legislative asures in accordance with the view that human and ine tubercle bacilli are specifically different from each er, and that the disease caused by the one is a wholly dift thing from the disease caused by the other. The Comsioners have used over 200 bovine animals in the course he experiments, the results of which they now report, hat though the details of the experiments are not given, results may be accepted with considerable confidence. se details, as well as others with regard to the ience of dose and of individual and racial susceptiy, the specific virulence of the different strains of lli, and the relative activity of cultures of bacilli and lsions of tuberculous organs and tissues, are promised further report.

e are told also that the question why the Commisers' results differ from those of some other observers also be discussed in the further report. We venture to hope that this part of the coming report at least will not be long delayed. The Commissioners are Sir Michael Foster, K.C.B. (Chairman), Professor Sims Woodhead, Professor Sidney Martin, Professor J. McFadyean, and Professor Rubert Boyce. Their names will command respect, but their present report would carry still more conviction if we were told why their results differ so remarkably from the conclusions of Professor Koch. We should then be better content to wait another period of three years for the details of the experiments.

THE IRISH POOR-LAW MEDICAL SERVICE.

THE British Medical Association has reprinted in a quarto pamphlet the reports which have appeared in the pages of the BRITISH MEDICAL JOURNAL during recent years, showing the serious defects in the present system of giving medical relief under the Poor Law in Ireland, and embodying suggestions for reform. In a general introduction the action which the Association and its Irish Branches have taken in the past is recalled, and it is pointed out that at the annual Representative Meeting at Swansea last summer resolutions which had been passed by the Dublin Branch of the British Medical Association and by the Irish Medical Association were unanimously adopted. These resolutions expressed the opinion that the conditions of the Irish Poor-law Medical Service require amendment in the following respects: (1) the provision of adequate salaries for Irish Poor-law medical officers; (2) a proper system of superannuation; and (3) the recognition of the right to an annual holiday. During last autumn Surgeon-General Evatt, C.B., who had recently retired from the Army Medical Service after serving for several years as Principal Medical Officer of the Second Army Corps, was commissioned to visit Ireland, and to make a very thorough inquiry into the present condition of the Irish dispensary system. His report, which pointed out many defects and suggested certain remedies, was published as a SUPPLEMENT to the BRITISH MEDICAL JOURNAL of March 26th, 1904. This report is now reprinted as the first part of the pamphlet; the second part of the pamphlet consists of the report on the case of the Irish dispensary doctors which was made by Sir William Thomson, C.B., in 1891, as the result of special inquiries made at that time. It contained a summary of the views of the sufferers themselves upon those grievances which were most pressing. It was widely noticed in the Irish press, and the British and Irish Medical Associations sent deputations to the Local Government Board and to various Chief Secretaries. The Local Government Board, while expressing its sympathy, pleaded inability, mainly on financial grounds, to remedy the grievances, but eventually issued an order directing the guardians to grant the dispensary medical officer a holiday and to pay a substitute; this order gave great offence in some quarters, and has not been universally acted upon, but we believe that distinct improvement in this respect has occurred, and that the greater unity displayed by the medical officers themselves, supported as they are by the whole of the profession in Ireland, is resulting in the establishment of the principle. The third document in the reprint is a condensation of a series of reports on the nursing and administration of Irish workhouse infirmaries made to the JOURNAL in 1895 by Miss C. J. Wood, formerly Lady Superintendent of the Hospital for Sick Children, Great Ormond Street, and now Superintendent of the Nurses' Hostel, London. Miss Wood's inquiry was directed to the nature of the hospital system under the Irish Poor Law, to the methods of nursing the sick, to the conditions of the lunatic class, of the aged and the infirm, and to an examination of the sanitary appliances, domestic furniture, and the care of infants. The report was founded upon personal inspection of twenty-eight unions in various parts of Ireland, the selection being made at random except that it included workhouses in each of the four provinces. It showed that in all the respects mentioned the administration of these institu-

tions as a rule, to which there were few exceptions, left very much to be desired. The reports as now reproduced are abridged by the omission of matters not directly bearing upon the question of medical administration. As is pointed out in the concluding note to the pamphlet an effective system of superannuation can only be provided by Act of Parliament, and it is hoped that the reports which have now been placed in the hands of members of Parliament, will enable them to realize the necessity for the adoption of such provisions as are contained in the Poor-law Medical Officers (Ireland) Superannuation Bill introduced into the House of Commons by Mr. T. W. Russell on April 18th, 1904, and backed also by Mr. Harrington and Dr. Thompson. In order that the salaries of Irish Poor-law medical officers may be made adequate, it is necessary to procure the co-operation of the Irish Local Government Board and Boards of Guardians in Ireland, for, whereas in many districts Boards of Guardians have refused to pay suitable salaries, in others a proposal to increase the salary made by a Board of Guardians has been negatived by the Local Government Board in Ireland. The British Medical Association will give its cordial support to the movement in favour of an amelioration of the present unsatisfactory conditions, but the tone of the reply of a former Chief Secretary of Ireland to a deputation must be remembered; he argued that the conditions of the service could not be so unsatisfactory as was represented, seeing that there was no dearth of candidates. This official view clearly places upon the members of the medical profession at large the duty of supporting the British Medical Association, acting in co-operation with the Irish Medical Association. Medical practitioners would do well, we believe, to decline to enter the Irish Poor-law Medical Service while conditions incompatible with efficiency are maintained. The title of the pamphlet is *Reports on the Poor-law Medical System in Ireland*, and a large number of copies have been issued to persons interested in the questions involved. Further copies can be obtained on application to the office of the Association, 429, Strand, London, W.C., price 6d., post free.

MEDICAL REFEREES UNDER THE WORKMEN'S COMPENSATION ACT.

On May 30th the Departmental Committee of the Home Office, appointed to inquire into the working of the Workmen's Compensation Act, 1897, heard evidence from representatives of the British Medical Association as to those clauses of the Act in which the medical profession is specially concerned. The members of the Committee present were Sir Kenelm Digby, K.C.B., late Permanent Under-Secretary of State at the Home Office; Judge Lumley Smith, K.C., Judge of the City of London Court; and Mr. G. N. Barnes, the General Secretary of the Amalgamated Society of Engineers. The witnesses on behalf of the Association were Dr. H. Langley Browne, a member of Council and of the Medico-Political Committee of the Association, and a medical referee appointed under the Act, and Mr. Whitaker, the Medical Secretary of the Association. The latter gave evidence based upon the information supplied and suggestions made by medical referees in response to the inquiries addressed to them by the Medico-Political Committee in February 1903, while Dr. Langley Browne testified as to his personal experience as a referee, and the results of his study of the matter as a member of the Medico-Political Committee. The evidence given was addressed chiefly to the following points: (1) Out of 314 referees, 230 replied to the inquiries of the Committee, of whom only 26 stated that they had been employed to give certificates under Schedule I, Section XI, while under Schedule II, Section XIII, only 51 had been required to furnish reports to judges, and only 7 had sat as assessors with judges. (For the information of those who have not studied the Act it may be stated that under Schedule I, Section XI, a workman who, in connexion with a claim under the Act, is dissatisfied with the report of the medical practitioner engaged by his employer to examine him, may call in the official referee, whose report is conclusive under Schedule II, Section XIII, a judge or arbitrator, in case under the Act in which conflicting evidence on medical points, has been given, may call upon the referee to furnish a report based upon notes of the evidence given, or to sit with the judge as assessor in the further hearing of the case). (2) The special causes of the non-employment of referees under Schedule I, Section XI, were believed to be ignorance of workmen concerning the protection offered them under this clause, and defects in the provisions of the clause, namely, that the workman is required to pay the fee of the referee (a State official), that the employer has no power to call in the referee, and that the workman can only call in the referee on appeal from an opinion previously given by a doctor engaged by the employer. It was suggested that either party should be free to call in the referee, and at any stage—that is, immediately after the accident if desired—and that his fee should not be paid by one party only. (3) The special difficulties under Section XIII of Schedule II appear to be the disinclination of many judges to employ referees, and that a judge can only call in the referee after the case has been partly heard, and a conflict of evidence has arisen. (4) That in some districts the formation of Conciliation Boards and other systems of contracting out have apparently fulfilled the intention of the Act in another way, and to that extent have rendered the employment of Section referees unnecessary. (5) That many referees have suffered serious loss through accepting the appointment on account of the requirement that they should give up other appointments, and should refuse private work of kinds which might be held to prejudice the impartiality of their decisions as referees. On the other hand, their remuneration as referees being entirely dependent on the amount of work done in their official capacity, they had received little or no compensation for the sacrifices made. (6) If the office is thought to be worth continuing in the public interest, then it will be found necessary to modify the conditions of appointment or the service will cease to attract medical men whose experience and professional character will command the respect which the position demands.

THE NEW EDUCATION AUTHORITY FOR LONDON.

The presentation of degrees at the University of London was this year shorn of some of its usual interest by the self-restraint exercised by the Chancellor and the members for the University who have generally utilized the occasion to address to the newly capped, and through them to the world at large, some academic reflections upon education in general and the work of the University of London in particular. The only address at the recent function was accordingly that of the Principal. In his opening remarks he justly emphasized as the most important event in the past academic year in London, the constitution of the London County Council as the education authority for the metropolis. He added that the Chairman of the Education Committee of the Council (Sir W. J. Collins) was, and had been for many years, a senator of the University, and that there was every reason for believing that the harmonious relations which had existed between the late Technical Education Board and the University would continue under the new régime. It is well to bear in mind that under the Education Acts of 1902 and 1903 the London County Council is now free to supply, or aid the supply, of education in the widest sense and with no limitation on the money it may raise by rate for the purpose. Primary, secondary, technical, and higher education may now for the first time be systematized and coordinated as one organic whole, through the agency of the one authority. The work is vast and most attractive, and the London County Council through its Education Committee has lost no time in addressing itself with its accustomed energy to this new department of municipal activity. In view of the great work of elementary education which has now passed from the late School Board to the Council

nd of the system of technical education fostered by the ate Technical Board during the last ten years—both oing concerns—which are now combined under the ouncil, the immediate work in hand has been to effect he necessary transition with as little disturbance of the ork as possible. The task is no light one, and we have re- ained from comment or criticism because we realize its agnitude and administrative complexity. Later on the rganization of secondary education will, we understand, e seriously grappled with, and we also have ground for elieving that the needs of higher education and research ill receive appropriate attention. The London County ouncil has insisted that for the present, at any rate, all ie decisions of the Education Committee shall be reported the Council and full opportunity there afforded for dis- ission and approval, or modification, of the policy laid own by that Committee. On the other hand, the Education ommittee has wisely devolved the detailed con- deration of the various branches of its work to some ght relatively small subcommittees, and during the onth of May these subcommittees and their parent ommittee have been in almost constant session. A rtain section of the press has urged that the Education mmittee should sit in public, but having regard to the ct that little or no executive power has been delegated the Committee (which is required to report all its pro- edings), and in accord with the habitual practice of the uncil this has not been agreed to. We have sometimes d occasion to regret that the Senate of the University of ndon has not permitted greater publicity to its pro- edings than is vouchsafed in the rather fragmentary cords which are permitted to appear in the *Gazette*. all that concerns public education, whether higher or wer, full publicity is clearly demanded, and if we had or ve reason to believe that due publicity is not to be ured by the method adopted by the County Council, we ll have no hesitation in proclaiming our opinion. In t Saturday's *Times* appeared an article dealing a somewhat critical fashion with the Council's ucational work. It was suggested that there was disposition on the part of the County Council to lervalue the ripe experience of many of the old cials of the late School Board, and even to lose benefit of their continued service. From inquiries have made we understand there is little or no basis such criticism, and we observe that our contemporary ecially exempts the case of the medical officer from indictment. The able medical officer of the School rd is, we gather, to be associated with the medical er of the county in a combined Health Department. can recall in years gone by some rather unedifying re- ts to rival authorities on the influence of school life on incidence of diphtheria and other infectious diseases. portunity for such official warfare will now cease, and can see great advantages both to public health and to ool hygiene in an efficient combination under one hority of the administration concerned in each, and ch, from a sanitary point of view, ought never to have n separate.

POST-OFFICE MEDICAL APPOINTMENTS.

sr of our readers are probably aware from personal erience that the Post Office authorities are at the present e seeking to extend very considerably the system of con- ting with resident practitioners for medical attendance ch has been in force for a good many years in most e towns. Originally the contract included practically ing beyond medical aid in sickness; but gradually Post Office has imposed fresh duties on the medical ers, and has, in fact, sought to create a postal medical ice the members of which would be directly respon- to the Postmaster-General not only for attendance on sick, but also for giving certificates, detecting malinger- and supervising the sanitation of each office. At the ent time medical men who accept these Post-office intments are required to examine candidates for ap- tment, to attend either at the office or at their own es, and to supply with medicines, all the servants of the Post Office whose pay does not exceed £150 a year, while with regard to those whose pay exceeds this amount the medical officer is required to give advice to them during an epidemic. A servant of the Post Office is held to include not only a person holding an established appointment, but others, provided that they are continuously employed, and in particular all rural postmen who reside in the town or start from it. The medical officer is required, on the application of the postmaster, to visit any one absenting himself from duty on the plea of illness, and to give a certificate; he is also required to certify as to the unfitness or otherwise for further duty of all applicants for superannuation, and to attend "especially" to the sanitary condition of the post-office. For these services the remuneration offered is at the rate of 8s. 6d. a year for each man placed under the care of the medical officer, whether medical attendance is given or not; in addition a fee of 10s. is paid for each candidate examined for appointment to the service, but this is held to cover all examinations either on nomination or during probation. In making his application the attending medical officer must undertake to attend personally to all Post-office cases, and to give the same attention to them as to private patients. These terms and conditions when applied in a town where many men are employed by the Post Office have been accepted in the past by many medical men, but when it is sought to apply the same conditions to small towns and villages, where the Post Office employs only a few men, the terms become much more onerous. It should be understood that the shortest absence from work on the plea of illness must be verified by a certificate given by a medical officer, and this must often mean a special visit to the officer perhaps, at night. Altogether we gather that the postal authorities are disposed to take a very high hand with the medical officers who accept these appointments, and to make exactions of an irritating nature which are unnecessary to the attainment of the object in view and savour too much of red tape. The way in which the regulations may work to the disadvantage of the medical officer was shown in a note published in the British Medical Journal on May 28th, page 1262, and the letter from a well-informed correspondent which we publish at page 1346 will satisfy readers that the case has been by no means overstated.

A SIDELIGHT ON MEDICAL EDUCATION.

A series of tables which commence on the first page of the Supplement will be found interesting by those who take an interest in the comparative results of medical education as carried on in different parts of Great Britain, and as represented by competition among those who hold the diplomas or degrees of different licensing bodies. It is an analysis of the results of the examinations for admission to the Royal Navy, Army Medical and Indian Medical Services communicated by the Directors of the three services to the General Medical Council; it is drawn up upon the same lines as that which we published on December 5th last year, but covers three examinations only instead of five. It is of interest as showing the extent of the competition for each service, the divisions of the country which are now supplying the majority of the candidates, and also because, since these examinations are the only form of general post-graduate competitive examination which exist, the results throw a light not otherwise obtainable upon the comparative powers shown by candidates of different classes. It will be observed that in spite of the discontent at present existing in the Indian Medical Service and of the comparative content now reigning in the Royal Army Medical Corps, the competition for vacancies in the former, though diminished, remains considerably higher than that for vacancies in the latter. The competition now is twenty-one for every ten posts in the Indian Medical Service against five competitors for every two posts last year, and nineteen for every fifteen vacancies in the Royal Army Medical Corps instead of nine for every five as last year; while the competition for admission to the Royal Naval Medical Service is reduced

from three competitors for every two posts to nearly *nil.* It will be noted, too, that the extent to which the candidates were supplied by English colleges and universities was even greater than last year, and equal to 50 per cent., while they carried off between them nearly 60 per cent. of all the vacancies. Of more particular interest in this direction, however, is the fact that taking the men who failed totally, that is to say, who were successful neither in competition nor in reaching the qualifying standard, only 10 per cent. held English diplomas or degrees as against 26 per cent. of all Irish candidates, and as many as 37 of all Scotch candidates. A point of further interest is the continued success of candidates holding the Conjoint diploma of the English Colleges alone. As last year they compare very favourably with the candidates from Scotch and Irish universities and colleges, 85 per cent. of all of them being successful in competition. Moreover, they show well as compared with the whole of the candidates, since they occupy the higher places in all the examinations, carrying off all but one of the first six places in the naval examination and the first in the army medical; while in the examination for the Indian Medical Service out of the forty-two candidates the first held the English Conjoint diploma and the L.S.A., and the second the English Conjoint diploma alone. Of the English university candidates, there were six from London University and one each from Oxford and Cambridge. They all held other diplomas and were all successful. Of provincial universities, Durham won two places with four candidates, and Manchester one with two candidates.

THE LAW OF NEGLIGENCE.

A case which was heard in the Hammersmith Coroner's Court recently naturally turns attention to the law of negligence as it affects members of the medical profession. It was established by His Majesty's judges over half a century ago that a surgeon does not impliedly undertake to perform and cure, nor does he undertake to use the highest possible degree of skill. This view has been reaffirmed on several occasions since, but the action of Lamphier *v.* Phipos still, perhaps, remains the leading case. In this Tindal, C.J., used the following words: "Every person who enters into a learned profession undertakes to bring to the exercise of it a reasonable degree of care and skill....There may be persons who have higher education and greater advantages than he has, but he undertakes to bring a fair, reasonable, and competent degree of skill; and the question is, whether the injury must be referred to the want of a proper degree of skill and care in the defendant or not." In another case, which was an action against a surgeon for unskilful treatment, the plaintiff, a whitesmith, walked into the surgery of the defendant and asked to be bled, saying that he had found relief from it before, and was thereupon bled by the defendant's apprentice in the basilic vein where there was an old cicatrix. The plaintiff's arm afterwards became considerably swollen and discoloured, whereby he was rendered sick and was confined to the house for a month. Tindal, C.J., in summing up, said: "A surgeon does not become an actual insurer; he is only bound to display sufficient skill and knowledge in his profession. If, from accident or some variation in the frame of a particular individual, an injury happens, it is not a fault in the medical man. It does not appear that the plaintiff consulted the defendant as to the propriety of bleeding him; he took that upon himself, and only required the manual operation to be performed. The plaintiff must show that the injury was attributable to want of skill; you are not to infer it. If there were no indications in the plaintiff's appearance that bleeding would be improper, the defendant would not be liable for the bleeding not effecting the same result as at other times, because it might depend upon the constitution of the plaintiff. The question is, whether the plaintiff has proved that the injury resulted from the inexperience or want of previous knowledge on the part of the apprentice.' Verdict was given for the defendant.

THE INFANT ORPHAN ASYLUM.

Most people would be surprised to learn that at this da it was possible to find any institution designed as a hom for large numbers of young children, and yet unprovide with suitable arrangements for the isolation of cases infectious disease, or with a staff of trained nurses take charge of its infirmary. This, however, is the ca at the Infant Orphan Asylum, a place no further q than Wanstead, which purports to take full charge ar give every attention to upwards of five hundred orpha children, and which up to the present has been ab to claim that the welfare of the children was supervised b a medical staff of distinguished consultants in Londo The failure to make those provisions for sickness whic even by the majority of laymen, have long since bee recognized as absolutely essential in any institutio devoted to children, would alone be sufficiently remar able, and but for the letter which we publish to-day in o correspondence columns it might be deemed incredible th any responsible committee should omit to make the necessa arrangements not simply from ignorance but deliberate after full warning. Under the circumstances detailed the letter, the signatories have taken the only possib course open to them, and we learn that the Consultin Aural Surgeon, Mr. A. E. Cumberbatch, and the Consultin Ophthalmic Surgeon, Mr. Holmes Spicer, have handed their resignations upon the same grounds. The i stitution is one which depends for its existen mainly upon voluntary subscriptions and public su port, so that the conduct of the Committee is n only in itself a grave dereliction of an obvio and elementary duty, but absolutely suicidal. Nowada the public is sufficiently enlightened to refuse its suppo to any charity the affairs of which will not bear the mo minute scrutiny; and though it is possible that the nee for proper medical arrangements in a home for childre may not be so immediately obvious to the general publ as it is to the medical profession, the simultaneous resign tion of a staff of well-known medical men cannot b convince the public that there is something serious amiss with the administration of this institution.

WHAT IS BRANDY?

The case of the Islington Borough Council *v.* Hillyer an others, which was decided on May 30th by Mr. Fordham the North London Police Court, raised a point as to th definition of the term "brandy." A wine and spirit me chant of Hornsey Road was summoned for selling a bott labelled "Fine old pale brandy," which was not of the natur substance, and quality demanded by the purchaser. Th constitutes an offence under the Sale of Food and Drugs Act According to the evidence of Dr. Teed, upon which th prosecution was based, analysis of a sample from th bottle which was found in the possession of the defendan showed that the alleged brandy contained 60 per cent. spirit not drawn from the grape, whereas pure brand should be derived entirely from the grape. It appeare that the analyst arrived at this conclusion by a estimate of the amount of so-called impurities in th sample which was before him. While it is of course im possible to say whether the ethyl alcohol which forms th chief ingredient of every spirit is derived from grape grain, it appears to be recognized that brandy derive from the grape should contain ethers in the proportion of 8 parts in 100,000. The analyst found that the alleged sample brandy contained only 40 parts of ethers, and he apparentl deduced from this that the spirit must have come from grai and not from grape. The magistrate said: "It is not necessar for me to rule as to whether highly rectified spirit flavoure with grape spirit is brandy or not. It is enough for th purposes of this case for me to hold that brandy is a alcoholic liquid, the spirit of which is obtained by the dis tillation of wine from the grape." In giving this definitio the magistrate appears to have been influenced by th *British Pharmacopoeia*, which states that brandy is ex clusively derived from the spirit of the grape. This, sai the magistrate, was important, because it was commo

knowledge amongst buyers, sellers, and consumers that brandy is largely used as a medicine. In the event the defendant was convicted and was ordered to pay a fine of £5 and £50 costs. This case is likely to have far-reaching consequences. It is an authority for the proposition that the consumer is entitled to have what he asks for. It is to be observed, however, that for a prosecution under the Sale of Food and Drugs Act to be successful the sale must be to the prejudice of the purchaser. Thus it was found in a case tried in 1901 that it was not an offence to sell marmalade which contained a certain amount of glucose.

INFANTILE MORTALITY.

DR. H. MEREDITH RICHARDS, Medical Officer of Health for Croydon, has recently published a useful essay on the causes and prevention of infantile mortality in an interim report to the sanitary authority of the borough based upon a special inquiry into the subject. Croydon, with its mixed population and extensive area, or rather aggregation of areas, presents none of those extremes in the matter of population and general sanitary surroundings which are to be found for instance in Hampstead on the one hand, and in Shoreditch on the other. It is an excellent locality, therefore, in which to carry on a study of a very complex problem, some factors of which are apt either to be brought into undue relief or robbed of their real importance in localities at one or other extreme of the hygienic scale. Whatever assistance Dr. Richards may have derived from this fact, his study of the problem in Croydon has enabled him to produce a report which is noteworthy for its clear recognition of the possible value of each one of the many factors concerned, and though there is nothing very original in the conclusions at which he has arrived the considerations relating to them are stated very clearly, and much care is exercised to avoid drawing himself or tempting others to draw any deductions more sweeping than those which the figures given absolutely justify. His general views are that the chance of any average child surviving for one year from its birth depend on the character and intelligence of its mother, on the general sanitary and other conditions under which it lives, and on the food-supply available for its nourishment. As regards the second point, the maleficence of overcrowding, domestic uncleanliness, municipal neglect in the way of street and other cleaning, atmospheric temperature, and employment of mothers all receive due notice, and it is suggested that the death and sickness returns of recent years supply ground for the assumption that wet scavenging is preferable to dry, leading as it does to the subdual of dust. As regards the nourishment of infants, the views advocated by Dr. Richards are practically identical with those advanced by us a year ago in an exhaustive series of articles on the milk supply of large towns, which have since been published at this office in pamphlet form. Dr. Richards suggests that in default of mother's milk efforts should be made to obtain a supply of naturally sterile cow's milk, milk that is brought from controlled dairy farms, and drawn, transported, sold, and kept under such conditions as shall preclude contamination by dust, dirt, or any foreign body whatever. He recognizes that absolutely sterile natural milk cannot be obtained in practice, but considers that if milk be drawn with adequate care, rapidly cooled, and kept at a low temperature, it forms a suitable basis for preparing food for children. Of ordinary milk sterilization he recognizes the disadvantages as far as babies are concerned, and in any infant food dépôt formed in Croydon he would employ milk treated as above and not heat sterilized except when the earth temperature reaches 56°. He is also careful to point out how great a part intelligent care plays whatever food a child be fed on, and reminds his readers that in comparing the mortality of differently fed infants it is the food which they were taking when they fell ill and not that which was used towards the last which must be kept in view. Upon the education of actual and possible mothers he does not say much and his views are probably summed up in the concluding paragraph of a quotation from Herbert Spencer which he uses as a preface. It is so very much to the point that it may well be reproduced here for the convenience of medical officers engaged in the same kind of crusade. "Seriously, is it not an astonishing fact, that though on the treatment of offspring depend their lives or deaths, and their moral welfare or ruin; yet not one word of instruction on the treatment of offspring is ever given to those who by and by will be parents? Is it not monstrous that the fate of a new generation should be left to the chances of unreasoning custom, impulse, fancy—joined with the suggestions of ignorant nurses and the prejudiced counsel of grandmothers?"

THE INTERNATIONAL CRUSADE AGAINGT TUBERCULOSIS.

THE Council of the International Association for the Prevention of Tuberculosis held its spring meeting at Copenhagen last week, concluding its proceedings on May 29th. It was attended on behalf of the National Association for the Prevention of Consumption in England by Sir Wm. Broadbent, Dr. Nathan Raw, of Liverpool, and Dr. Alfred Hillier. The delegates from all the different States were entertained at dinner by King Christian, and the general proceedings were presided over by Professor Brouardel, of Paris, telegrams being sent to and received from the various rulers of Europe who are honorary presidents of the Association. A good deal of work of work was got through in the three complete days which the conference lasted. A proposal made by Dr. Hillier that the police should in all countries co-operate in putting a stop to the practice of spitting in public places met with a good deal of opposition, especially from the German and Austrian delegates, and was eventually referred to a committee. Finally, upon the report of that body a resolution was adopted that the police should interfere in the case of spitting in covered places, but not as regards spitting in the streets or open air. Among other resolutions adopted was one, upon the motion of Dr. Heron, appointing one delegate for every State to urge the introduction of instruction in elementary hygiene into all schools, with an examination therein at the end of the school course, and also an examination in hygiene at the various universities and other places of higher education. A proposal to urge upon each Government the compulsory notification of tuberculosis also met with approval, and was duly converted into a resolution. Finally, it was determined to form a special subcommittee to consider the question of hereditary predisposition towards tuberculous disease. At the concluding meeting reports were read as to the progress of preventive measures in all the countries represented at the conference. In the course of the proceedings Dr. Nathan Raw read a paper, in which he briefly sketched out what could be, and to some extent was already being, done in certain places in England to prevent the spread of phthisis. He described the action which should be taken by the central Government, health authorities, county councils, Boards of Guardians, education authorities, and by the people themselves. He maintained that infection was mainly acquired from direct contact with advanced cases and from the consumption of the milk of tuberculous cows. Consequently he advocated isolation of cases of advanced disease from healthy persons, the formation of consumption colonies in the neighbourhood of all large towns, the steady education of the people as to what they could themselves do to avoid infection or to cure themselves when only slightly affected, and the elimination of all tuberculous cows from dairy farms.

THE BIRMINGHAM CONSULTATIVE INSTITUTE.

THERE has been some attempt to rake over the extinct ashes of this institution in the *Birmingham Daily Mail*, which asks what has become of it and of the assertion of Mr. Arthur Chamberlain that it was not dead but sleeping. We do not of course know what may be the intention of Mr. Arthur Chamberlain and his friends, but we are informed that the item has been dropped as an asset from

the accounts of the Birmingham Hospital Saturday Fund, and that the consulting rooms occupied in Newhall Street have been let to a consulting physician and a dentist, who presumably would not have accepted their tenancies with the liability to be turned out whenever the Institute desires to resume business, or the possible alternative of sharing the tenancy with such an occupant. The article in the *Mail* has drawn forth a few letters, of which one is from a correspondent who complains that a shop assistant acquaintance of his was refused consultation at the reduced fee of half a guinea, although he pleaded that a promise to this effect had been made by Dr. Saundby on behalf of his professional brethren. It may, however, be pointed out that a shop assistant as such does not necessarily come into the category of those for whom such a reduction was promised. The arrangement entered into with the Birmingham Ebenezer Provident Sick Society, which was made public in the press two years ago, shows that Dr. Saundby was able to carry out his promise, for he announced that no less than fifty-three of the consultants of Birmingham agreed to see working-class patients for half a guinea. That this promise is being kept is shown by a letter in the following issue of the *Mail* signed "Verax"; the writer says that he is a working man, and expresses his gratitude for the kindly manner in which he was received by a throat specialist who saw him for half a guinea, and he testifies that he could not have been treated with greater consideration if he had paid four times the fee. However, a more important contribution than either of these is made by a correspondent who signs himself "Lozells," who urges that a society should be formed to create a fund for the payment of occasional consultation and operation fees for its members. He makes no proposal to ask for reduced fees, and this plan seems to be based on the sound prudential principles of foresight and co-operation.

THE FIFTEENTH INTERNATIONAL CONGRESS OF MEDICINE.

AT a recent meeting of the National Committee for Great Britain and Ireland, Dr. Pavy, F.R.S., in the chair, Sir William Church, Bart., Sir Dyce Duckworth, Mr. Reginald Harrison, and others were present. It was resolved that "in view of the confusion and disorder attending the last assemblage of the Congress—attributable it is considered to the deviation from former procedure in admitting as members of the Congress others than members of the medical profession and savants—this Committee deems it important, in order to avert threatened disastrous consequences to call the attention of those entrusted with the organization of the forthcoming Congress at Lisbon to the matter and to urge that no departure from the rule relating to membership in force at the Paris Congress in 1900 should be permitted to occur." This resolution was forwarded to the President and Secretary-General of the fifteenth Congress, which will be held at Lisbon in April, 1906. The rules governing the Congress have just been issued, and it is satisfactory to find that the rule as it stood at the time of the Paris Congress has been restored. The recommendations of the Subcommittee as to the future constitution of the National Committee were approved, and it was decided that in future the Committee should consist of a President and two Secretaries, who should invite the co-operation of: (1) His Majesty's chief medical advisers in the navy, the army, the Indian army, Lunacy and Local Government Boards; (*b*) the President for the time being of each medical corporation in the United Kingdom; (*c*) the President of the General Medical Council; (*d*) a Professor of the faculty of medicine from each University; (*e*) the President for the time being of the Royal Medical and Chirurgical Society of London, of the Academy of Medicine in Ireland, and of the Medico-Chirurgical Society of Edinburgh; (*f*) the President for the time being of the Incorporated Society of Medical Officers of Health; (*g*) a representative of the National Medical Press Association; (*h*) eight persons practising medicine and surgery in England, including Wales, four general practitioners practising in Scotland, and f general practitioners from Ireland; (*i*) such oth persons as it may be found desirable from ti to time to invite to the National Committee. Pavy was asked to continue in the office of Preside and Mr. D'Arcy Power as Secretary. Dr. Horton-Sm regretted that he was unable to act as Secretary to Committee. His resignation was accepted with reg and a cordial vote of thanks was tendered to him for services. Dr. Clive Riviere was nominated in place. It was proposed by Dr. Sutherland that, "i order to allay the feelings of irritation and d appointment rankling in the minds of those wh attended the Madrid Congress and to reassure the and others who may contemplate attending the Lisb Congress the Honorary Secretaries be instructed to send note to the BRITISH MEDICAL JOURNAL and the *Lancet* the effect that the British National Committee intend take steps by which they hope to prevent or reduce t minimum at the Lisbon meeting the annoyance, discomf and disappointment experienced in Madrid in regard travelling facilities, lodging accommodation, etc., and attain this end it is desirable to have a local British Co mittee at Lisbon to keep in touch with the executive the Lisbon Congress." The proceedings terminated wi a vote thanks to the Medical Society for its kindness putting the Society's rooms at the disposal of the Natio Committee.

POST OFFICE CENSORSHIP OF ADVERTISEMENTS

IT is stated that the New York Post Office Department h decided to establish a censorship over newspaper advertis ments in an endeavour to prevent the publication of tho of an offensive or fraudulent character. Newspape printing such advertisements will be barred from the po The advertisements aimed at are said to be chiefly those the lowest class of patent medicines, about twenty which are being examined by the Bureau of Chemistry see if they correspond with the claims of their proprietors

MEMBERS intending to visit Oxford on the occasion of th annual meeting are informed that a full list of lodgin available will be published in the next issue of the BRITI MEDICAL JOURNAL.

WE are asked to state that Mr. Golding-Bird, Surgeon Guy's Hospital, is a candidate for election to the Counc of the Royal College of Surgeons of England. Mr. Goldin Bird became a Member in 1872 and a Fellow in 1874.

THE Queen has consented to become President of th London Hospital. Her Majesty has on previous occasion shown her interest in the hospital, and especially in it light department, the establishment of which was, in larg measure, due to her influence.

IT has been presistently rumoured during the last fe months that Professor Koch intended to take up his per manent abode in South Africa. A question was recentl asked by Count von Oppersdorff in the Prussian House o Lords. The Cultus-Minister, Dr. Studt, in reply, said tha the Prussian Government will continue to have the advan tage of Professor Koch's valuable services. He declared that the rumours referred to were absolutely unfounded Professor Koch, who is at present in Rome, will shortl return to Germany.

THE monument to Benjamin Rush, for which funds hav been collected for many years, is at last an accomplished fact. President Roosevelt has consented to accept the monument on behalf of the United States as a gift from the American Medical Association. The ceremony, which will take place at Washington on June 11th, will consist of an introductory address by the President of the American Medical Association, an oration on Benjamin Rush by Dr. J. C. Wilson, Philadelphia, and finally an address by the President of the United States.

MEDICAL NOTES IN PARLIAMENT.

[FROM OUR LOBBY CORRESPONDENT.]

After the Recess.—The attendance was small when the ouse met on Tuesday, less than 200 members being present, en at 5 o'clock. In the early part of the sitting several contentious Bills, mostly private measures, obtained a third ading, and among these was the Leeds University Bill. ie business of the day was the consideration of Civil Service timates, and the first vote taken was for the Customs. A bate was raised on a motion for the reduction of the staff, t the motion was defeated by a majority of two to one; 110 55. The grievances of the Customs boatmen were after-rds considered, and eventually the vote was agreed to fore six o'clock. The vote for the Inland Revenue Depart-nt was then taken, and after a long discussion on the come-tax difficulties of Friendly Societies, the vote was car-d. Later when a grant of £290,900 for sundry public build-gs was reached, Mr. Weir discovered that a sum of £28,000 s for new buildings for vaccination purposes. This was a eat opportunity for starting a conversation on vaccination, d Mr. Weir proceeded to develop his case. This alarmed e chief Government Whip, Sir Acland Hood, who pru-ntly suggested that the vote should be postponed. The mmittee agreed to this, progress was reported, and the ouse adjourned at 7.30, making only half time on the first y after the holidays.

Tuberculosis in Animals.—The Tuberculosis (Animals) mpensation Bill was ordered after the second read-g to be referred to a Select Committee, and Sir land Hood, on behalf of the Government, nominated . Barran, Dr. Farquharson, Mr. Field, Mr. Ernest Gray, . Hutchinson, Captain Jessell, Mr. Kilbride, Mr. Grant wson, Mr. A. K. Lloyd, Mr. Price, Mr. Spear, John Stirling Maxwell, Sir E. Strachey, Sir Mark Stewart, l Mr. Austin Taylor, to form the Committee. Mr. anning has put down a motion for an instruction to the mmittee to consider from what sources compensation can given to owners of stock condemned to be slaughtered on ount of tuberculosis. This instruction will necessitate a ate, and the appointment of the Select Committee is con-uently in some jeopardy. The interim report just pub-ed by the Royal Commission on the relations of human l animal tuberculosis gives additional interest to the sub-t, inasmuch as the Commissioners advance strong proofs n a large number of experiments that human and bovine erculosis are identical. The evidence of the transmissibility uman tuberculosis to the cow seems conclusive, and has sed much interest among members.

ntitoxin and the Lister Institute.—Mr. Robert Cameron ed the Secretary of State for the Home Department on sday whether his attention had been called to the report the Lister Institute of Preventive Medicine, in which it admitted that the injection of antitoxin caused a large nber of rashes, inflammation of joints (ascribed to some-ng inherent in the serum of the horses or other animals), l also an increased number of cases of paralysis; and ether, in view of this statement, he would consider the ad-ability of taking steps to prohibit the manufacture of um in laboratories licensed under the Vivisection s. Mr. Secretary Akers-Douglas answered that manufacture of serum was a procedure outside scope of the Cruelty to Animals Act, and he was not pre-ed to act on the suggestion of the hon. member. As ards the first part of the question, he presumed the hon. mber referred to a pamphlet which the Lister Institute l thought it right to issue by way of a warning, in order to vent unnecessary alarm, that in some cases certain results, h as rashes and joint pains, might follow the therapeutic of serums. These results, it was stated, were of a temporary ure, and caused no bad after-effects. The words of the uphlet with reference to diphtherial paralysis did not vey to his mind the meaning attributed to them by the . member.

The Shop Hours Bill.—Soon after seven on Wednesday this l came on for second reading, and gave rise to a long and eresting discussion. Sir Charles Dilke, who has another l dealing more drastically with the subject, moved an in-uction declaring that the Bill hampered local authorities unnecessarily, and moreover failed to provide for the regulation of the hours of labour of shop assistants. Captain Norton seconded the instruction, and on it the debate mainly turned. Sir Francis Powell, Mr. Robertson, and Dr. Farquharson supported the Bill and argued against the instruction, while Sir F. Banbury supported it. Mr. Cochrane, the Under-Secretary for the Home Office, quoted the Lords' report on the hours of shop assistants, and said the Bill was an earnest attempt to deal with a serious evil. Sir Walter Foster pointed out that the evil was admittedly great and that the Bill was small and weak, and on that account he should vote for the instruction as a protest. The evils reported by the Committee were grave enough to justify a Bill more drastic in its provisions. The debate was continued by Mr. Ernest Gray, Mr. Theodore Taylor, Dr. Macnamara, and others, and finally the instruction was defeated by 130 to 42. The Bill was then read a second time, and referred to the Standing Committee on Trade after another division.

GENERAL MEDICAL COUNCIL.

NOTES.

THE session of the General Medical Council, which began on Wednesday, May 25th, was brought to a conclusion on Tuesday, May 31st. This is, we believe, the shortest general session which the Council has held for a good many years; and this brevity was in part due to the relatively small number of penal cases which had to be considered. Some of the matters before the Council were of first-rate importance to medical education, and on the whole they were discussed with greater brevity and in a more business-like way than has sometimes been the case. Some members of the Council, however, seem to believe that there is room for still further improvement in this respect, and Dr. Payne has given notice that at the next session of the Council he will move a resolution to put a time limit upon speeches.

The Royal Colleges in England.—A good deal of the time of the session was occupied by the consideration of the position of the Royal Colleges of Physicians and Surgeons in England. The Colleges submitted conjointly new regulations and synopses for the first year of the medical curriculum of professional study. Sir Victor Horsley, who, in a previous session had moved a resolution to the effect that the courses then in force were insufficient, on this occasion brought forward a similar motion with regard to the new courses of study. The regulations state that the minimum courses specified need not run concurrently nor be completed in one year, and Sir Victor Horsley argued that this ran contrary to the resolutions of the Council, and would, in fact, permit a boy at school to begin the course at any age; the Council, he pointed out, had also decided against the proposal that the courses might be commenced or attended before the preliminary examination in general education. He contended that the only concession the Colleges had made was in the regulation which provided that study in an institution other than a recognized medical school could not be counted for more than six months, but he argued that this practically reduced the medical curriculum to four years and a-half. He urged that the curriculum of education should be divided in an orderly manner, and that the principle applied to anatomy and physiology should be applied also to the preliminary sciences. Dr. Windle, however, argued that a boy who had spread his courses in the preliminary sciences over five or six years would be very unlikely to pass the examination, and also contended that though it would be possible under the new regulations for a student to obtain his diploma in four years and six months after leaving school, it was very unlikely that many would do so. The Council did not adopt Sir Victor Horsley's resolution, and it would appear therefore that it has again given way to the Royal Colleges in England; but upon another point it took a very distinct stand, and the speech made by Dr. Norman Moore can only emphasize the fact that in determining to seek statutory powers to establish and maintain registers of medical and dental students the Council was in reality taking another step in its long contest with the English Colleges. The statutory power to establish and maintain registers of medical and dental students, and to impose a fee not exceeding £1 for registration therein, would give the Council the necessary control it should possess over the preliminary

education, examination, and courses of study of medical and dental students. The Council therefore decided to request the Lord President of the Privy Council to introduce into Parliament a Bill to confer upon it such statutory powers. Dr. Norman Moore saw in this reasonable proposal a dark and insidious plot to undermine the charter rights of the Royal College of Physicians of London, and he roundly declared that the proposition was in reality a move on the part of the Council to secure more power for the satisfaction of its insatiable greed in that respect. Sir John Batty Tuke in introducing the subject to the Council was applauded on all sides when he said that it was a measure in the interest of the public. But, according to Dr. Norman Moore, such a plea was but an empty pretence to wring more money out of the public for the use of the Council. As Sir William Thomson said, in an able and temperate speech, there was neither justification nor reason for attempting to brand the members of the Council as bandits thirsting for illegal wealth and greedy for tyrannical rights and powers. In the debate on this subject Sir William Turner, the President, spoke last; without the slightest trace of bitterness but nevertheless in an extremely incisive manner he caustically pointed out what the consequences would be if all the bodies interested in medical education held fast to their uttermost rights under their several charters. The common aim of all concerned should be for the advancement of the cause of medicine, and he invited the representatives of the Royal Colleges of Physicians and Surgeons to remember that charters drawn up many generations ago could not possibly be expected to contain provisions suitable for the complex conditions of modern methods of thought and scientific progress. The General Medical Council has seldom heard a speech so earnest and convincing.

Biology.—The existing courses of study in the branches of elementary biology are to be considered by the reappointed Preliminary Scientific Committee of the Council and to be reported upon next session, that is to say, at the end of the year. Under one guise or another the question of the teaching of biology and its value to the medical student has been under discussion for a considerable number of hours during this session of the Council. Dr. Mackay unsuccessfully tried to induce the Council to refer to the Preliminary Scientific Committee a suggestion that biology should be retained in the curriculum, but that it should not be regarded as necessary that a professional examination in the subject should be demanded, provided the student had attended and duly prepared the work of a satisfactory course of instruction in the subject as a part of the curriculum of a university or duly-recognized college or school of medicine. It is improbable that Dr. Mackay expected to carry this motion, as he was practically suggesting a principle new to medical education. The idea that a student could receive instruction without examination was evidently disquieting to many members of the Council, and when Professor Windle proceeded to dilate on the virtues of a system whereby the teacher and his methods of instruction should be submitted to examination rather than his students, the far-reaching consequences of Dr. Mackay's motion sufficed to raise a considerable amount of hostile criticism and opposition. The judgement that has been often passed on the Council that it is opposed to all new ideas was shown, in connexion with this matter at any rate, to be undeserved, for Dr. Mackay succeeded in passing a resolution requesting the Education Committee of the Council to collect information and report on the question of the possibility of including certain subjects in the curriculum without requiring examination in them.

The Metric System.—That the metric system of weights and measures should after a sufficient period be fixed by law as the one legal system for the preparation and dispensing of drugs and medicines is the opinion of the General Medical Council, and its President has been requested to inform the Lord President of the Privy Council to that effect. The General Medical Council would also view with favour the passing of the Weights and Measures (Metric System) Bill now before Parliament, and would be prepared on that Bill, which was printed in the SUPPLEMENT to the BRITISH MEDICAL JOURNAL of March 19th, 1904, page 41, passing into law to take all necessary steps to make the sequential modifications in the *British Pharmacopoeia*. The motion dealing with this matter was introduced to the Council by Mr. Jackson, who had the satisfaction of securing a unanimous vote in favour of his views. The question was a o before the Council in the report of the Pharmacop a Committee. In the *Pharmacopoeia* of 1898 a transitio method is adopted. Doses are expressed in the fami Imperial system only, the directions for pharmaceuti processes are given in both the Imperial and the metric s tem, whilst the directions for analytical operations are pressed in the metric system only. In the opinion of Pharmacopoeia Committee if the metric system were become within a few years the one legal system in this co try the work of the Committee would be simplified, thoug would probably still be necessary to insert, in reference doses at least, the equivalents expressed in the old Impe terms. In other words, the report intimates that in t matter the physicians would probably lag behind chemists.

Practice by Companies.—The use by companies of ti which would be likely to lead the public to believe that members of such companies were registered dentists medical practitioners when such is not the case is an e that can, according to Sir Charles Ball, be met in two wa either by applying to the Courts of Law to restrain co panies from thus acting unlawfully or by causing Registrar of Joint Stock Companies to refuse to regis any company seeking to deceive the public in this m ner. On the motion of Sir Charles Ball, the Cou has decided to send to the Lord President of the Pri Council for his information copies of the judgements Chief Baron Palles restraining the Registrar of Joint St Companies from placing certain companies on the regis The General Medical Council has decided, also, to expr to the Privy Council the hope that the Government will t such steps as may be necessary to restrain the Regist of Joint Stock Companies from registering any new co pany unlawfully using the term "dentist" or any simi title which would be likely to lead the public to believe t the members of such company were registered dentists wh such is not the case. It appears that it is unlawful any company to adopt a title which will tend to dece the public, and it is open to any of the dental socie to apply to the Courts to prevent companies alrea registered from continuing unlawfully to use the te dentist or any similar title which would be likely to lead t public to believe that the members of such companies w registered dentists when such is not the case. The o disturbing element of doubt in regard to all this whether the judgement of Chief Baron Palles Ireland can be considered as binding in English a Scottish Courts, but in any case the judgement would rece very full consideration from these Courts. To make t judgement really binding in England and Scotland it appea that an appeal must be carried to the House of Lords, and present there seems to be no probability of this being don Great expectations have been based upon this judgement Chief Baron Palles, and many hope that by its means t necessity for any further legislation in regard to societies a companies carrying on dental and medical work will rendered unnecessary.

Ireland.

THE IRISH POOR-LAW MEDICAL SERVICE AND THE GRADUATE ASSOCIATION.

A SPECIAL general meeting of the Irish Medical Schools' an Graduates' Association was held on May 25th at 11, Chand Street, London, W., to consider the disabilities of the Iris Poor-law Medical Service.

The chair was taken by Dr. Macnaughton-Jones, who sai that he was qualified to speak on the subject, as he had bee for several years a Poor-law medical officer both in a larg city and in a country district, and nearly lost his life in the di charge of his dispensary duties. The complaints of th dispensary doctors might be classified as follows: (1) The abus of dispensary tickets. (2) No allowance for travelling expense (3) No definite arrangement for annual vacation. (4) No super annuation or pension for the widows and orphans of those officer who lost their lives in the discharge of their duties. (5) N arrangement for extra professional service. The Chief Secre tary for Ireland had taken a definite stand on the recen

rt of the Local Government Board for Ireland, and in y to a question asked by Dr. Thompson in the House of mons stated that the report contained all the information ired, and there was no occasion to appoint a Royal Com- sion. There was evidence that the Local Government rd was aware of the disaffection existing in the medical ice, but while it did not venture to express its sympathy the medical officers, it was in full sympathy with those rds of Guardians who might desire to improve the con- n of the medical officer. The Board proposed to meet demands of the officers by reducing their number and ing the dispensary districts, thus increasing the duties responsibilities of the few remaining officers. As rded the salary, one was tempted to think that the rd believed the medical officer could find in the poor ns throughout his district, in tracts of uncultivated land, in depopulated areas patients wealthy enough not only ay for all the expenses connected with his profession and support of his family, but to provide for him in his old and enable him to leave enough to prevent his widow orphans from being dependent upon charity.

he Chairman then proposed that "this special meeting of Irish Medical Schools' and Graduates' Association having re it the recently issued Report of the Local Government rd for Ireland on the Irish Poor-law Medical Service, res to express its opinion that the attitude of the Board xpressed in that report does not adequately deal with the onable demands of the Poor-law medical officers, and s no permanent settlement of the difficulties now dis- ing the relations between the public and the Poor-law ical Service."

rgeon-General Cuffe, C.B., seconding, said he felt strongly his subject, and after reading the recently-published report he Commissioner sent by the British Medical Association indignant when he considered the manner in which his her medical officers in Ireland were treated by the inistrators of the Poor-law Medical Service. This service ld never be efficient until made a State service and the ission regulated by competitive examination. At present ical officers served under persons who were entirely out ympathy with their work. Then as to private practice in ote districts, he considered it a farce to make such a estion, as there was either none to be obtained or much time was occupied in travelling over the rict that the medical officer could not undertake tever practice there might be. He could not under- d why medical men entered this service, and con- red it ought to be boycotted by all the medical schools Ireland, and all students discouraged from joining ntil the present conditions were improved. It was undig- d for any medical man to accept £100 a year for his ser- s when the cost of living and education had increased so h. The medical officers had his sympathy, and he would port the resolution.

r. Tabuteau stated he had been medical officer under the l Government of Ireland for nine years, and con- red his circumstances were more satisfactory than great majority of his brother medical officers. went to this appointment full of enthusiasm for work, and fresh from his hospital, willing to his best for the poor people. He soon found his efforts trated, and that amidst conflicting interests he could her do justice to his patients nor credit to himself. He not know of any service which was more likely to sap the ngth morally and physically of any young man than the r-law Medical Service of Ireland. The resolution was n put to the meeting and carried unanimously.

r. P. J. Freyer then moved the following resolution:

at this special meeting of the Irish Medical Schools' and Graduates' ciation desires to express its hearty sympathy with the laudable s of the Irish Poor-law medical officers to improve the present ution of the Poor-law Medical Service in Ireland.

speaking to this resolution Mr. Freyer said that the re- t report of the Commissioner revealed facts which formed hetic reading and moved one to tears. The position of Poor-law medical officer was a disgrace to humanity, and man ought to be placed in such a position—one in which it impossible to perform his duties to his patients, who e of the poorest and most destitute class. The amount of ry allowed was about equivalent to that given to a con- bulary officer for the keep of one horse, and no one could iently serve the sick poor under such circumstances.

r. Hugh Woods supported the resolution, and said the evances of the medical officers were obvious while the pay was totally inadequate. The remedy, however, seemed to him to be evident, and that was combination and co-operation among the medical men themselves. This would place the medical officers in the position of being able to refuse to accept an inadequate salary and also of knowing that no other medical man would accept it either. If under these circumstances the guardians would not increase the salary, then by the dismissal of a few police sufficient would be obtained to pay a medical man a reasonable salary.

The resolution was then put and carried unanimously.

Mr. John Murray then proposed that copies of the foregoing resolutions be sent to the medical press, the Chief Secretary for Ireland, and the President of the Irish Medical Association.

Irish Medical Association.

At the recent annual meeting of the Belfast and District Branch of the Irish Medical Association, held in the Medical Institute, Belfast, the following were elected office-bearers for 1904-5: *President*, Professor J. W. Byers, M.D. *Vice-Presidents:* Dr. S. B. Coates and Dr. H. C. Manley. *Secretary and Treasurer:* Dr. A. G. Robb. *Council:* Dr. H. D. Osborne, Dr. R. Hall, Dr. St. C. Boyd, Dr. J. C. Ferguson, Dr. R. J. Munn, Dr. W. R. Davison (Ballymena), Dr. A. Mussen (Glenavy), Dr. J. G. Jefferson (Lisburn), Dr. D. Gaussen (Dunmurry).

Royal College of Surgeons in Ireland.

The election of officers of the Royal College of Surgeons in Ireland will take place on Monday, June 6th, between the hours of 1 and 3 o'clock. The new President will be Mr. Arthur Chance and the new Vice-President Mr. H. R. Swanzy. For the Council the following new candidates appear: Mr. J. W. Hillis, Mr. Hugh Auchinleck, Mr. J. G. McArdle, Mr. L. A. Byrne, Mr. A. J. M. Blaney, Mr. Denis Kennedy, Mr. A. W. Oulton, Mr. R. Charles B. Maunsell, and Mr. R. J. Harvey.

A meeting of the Fellows will be held on June 4th, at 1 p.m., when the annual report of the Council will be submitted by the Secretary and the President of the College will make some explanatory remarks on the report.

The late President of Queen's College, Cork.
Proposed Memorial.

No President, since the Queen's College, Cork, was established in 1849 did more to advance the educational status of the institution over which he presided than the late President Sullivan. For seventeen years he watched with almost paternal solicitude over its welfare, and when his death occurred in 1890 it was felt that the College had met with an irreparable blow. Not alone was his death felt in the immediate vicinity of his college, but education in Munster, and indeed in Ireland, lost in him one of its most worthy exponents. He had an almost European reputation, not merely as a man of science, but also as a great educational organizer and reformer. He did much to bring his college into touch with the active life of the city of his adoption, and as the result of his efforts he was able to secure the interest of the late Mr. Crawford in the great work he was carrying on. As a consequence Mr. Crawford presented a valuable library and botanical gardens to the College, besides other gifts. His influence was also exerted in securing from the Government monetary concessions for the better equipment in arts and sciences. His annual reports to Parliament contained powerful and weighty arguments in favour of the educational claims of Cork and Munster. It is therefore with pleasure that his old students and the people of Cork view the proposal of those who have inaugurated a fund to perpetuate his memory and his work. That memorial is, we understand, to take the form of a portrait to be painted for presentation to the College and a scholarship to bear his name for competition amongst the students of Queen's College, Cork.

Consultation Fee in a Doubtful Case of Small-pox

Some few weeks ago Dr. Donnan, Medical Officer of the Castlereagh Dispensary District, was called to a dispensary patient suffering from signs and symptoms strongly suspicious of small-pox; he immediately called in consultation Dr. Robb, Physician to the Poor-law Fever Hospital for Belfast, who has been commissioned by the Belfast City Council to take charge of the temporary small-pox hospital at Purdysburn, and to see any doubtful case occurring in the city. The Castlereagh District is about four miles from Belfast, and is outside the city boundary, although included in the Poor-law district. Small-pox was present in Belfast at the time, and every one was charged to keep the keenest

look-out for suspicious cases. Immediately afterwards Dr. Donnan wrote to the Board of Guardians detailing the circumstances and asking for the fee of 2 guineas for Dr. Robb. But the request was refused, and the Chairman said that Dr. Donnan "had acted with great audacity." Dr. Donnan then wrote to the Local Government Board, and a copy of his letter was forwarded back to the guardians. At the next meeting of the guardians, on May 24th, the Chairman said that this was a misrepresentation, and that his words were that "the request for the payment of 2 guineas was an audacious one!" He ended his speech by saying, "The dispensary doctors complain of their salaries being too low, but the members of the profession meet in the Medical Institute to play billiards, smoke cigarettes, drink champagne, and so on." Dr. Macintosh, a medical member of the Board, promptly contradicted this statement, and said that no intoxicating liquors were permitted inside the Medical Institute. But the Chairman, not to be baffled, rejoined, "Well, they adjourn to some place." Statements so palpably and absolutely groundless make one feel sad that the chairman of an important public Board should so far forget dignity and fairness. Although several members refused to fall in with his views, the Chairman at the end of the discussion said that Article 21 of the regulations under which the claim was made, stated that the guardians could refuse to pay the fee, if they were not satisfied that the extra assistance was necessary; and finally it was agreed to reply to the Local Government Board, that "the dispensary doctors should be of such experience in their profession as to be able to diagnose the diseases of the poor who might require their professional care. We further say that where a dispensary doctor has doubts as to the disease from which a patient is suffering, he should have such a patient sent into this house." This extraordinary resolution appears all the more extraordinary when it is recalled that in 1902 nineteen cases out of a total of thirty in the whole town originated in the Union Infirmary from the very course the adoption of which is now urged, namely, a doubtful case being sent in, not diagnosed. At the time the whole place was in a ferment; students and visitors were stopped, and preventive resolutions were passed in sheaves. It is scarcely necessary to add that Dr. Donnan has the unanimous and complete approval of the whole profession and educated public for his very wise action in a case of doubt of the kind.

Scotland.

The Otological Society of the United Kingdom.

This Society met in Glasgow on May 21st under the presidency of Dr. Thomas Barr. There was a numerous attendance of Scottish members, with representatives also from London, Liverpool, Manchester, and Belfast. The forenoon meeting took place in the hall of the Faculty of Physicians and Surgeons, where papers were read by Professor Cleland, of Glasgow University, Dr. McBride, Edinburgh, Mr. Parry, Glasgow, and Dr. J. H. Nicoll, Glasgow. Important cases and preparations were likewise exhibited and discussed. Later the members visited the University, where Dr. Colquhoun, in the absence of Professor McKendrick, gave an interesting demonstration in the physiology class room on the nature of the vowel sounds and their action upon the organ of hearing.

THE PLAGUE.

Prevalence of the Disease.

India.

During the weeks ending April 23rd and 30th the deaths from plague in India numbered 38,748 and 44,783 respectively. The principal figures during these weeks were: Bombay City, 563 and 520; Bombay Districts, 3,723 and 3,027; Calcutta, 440 and 270; Bengal Districts, 1,439 and 1,062; North-West Provinces and Oudh, 4,279 and 2,965; the Punjab, 24,714 and 33,953; Rajputana, 1,072 and 865; Kashmir, 578 and 627; Karachi, 249 and 219; Central India, 1,288 and 732. It will be seen that in all districts plague has declined, except in the Punjab, where the deaths during the week ending April 30th exceed by over 3,000 the highest number of deaths recorded for plague in all India during any week in 1903.

South Africa.

Cape Colony.

Port Elizabeth.—During the weeks ending April 30th and May 7th the fresh cases numbered 1 and 0, and the deaths 0 and 0. Five cases remained under treatment on May 7th.

No cases of plague were found in any other town in Cape Colony during the weeks in question. At Port Elizabeth alone were mice and rats found infected by plague, 18 rats and 14 mice being found infected out of [illegible] and 54 mice bacteriologically examined.

Transvaal.

During the weeks ending May 14th and May 21st, the fresh cases of plague in the Transvaal numbered 7 (2 whites) and 14 (2 whites), respectively: the deaths during these weeks numbered 2 (1 white), and [illegible] whites).

Up to May 21st the total number of suspected and proved cases amounted to 140 (24 whites).

Mauritius.

During the week ending May 26th the fresh cases of plague numbered [illegible] and the deaths from the disease 3.

Hong Kong.

During the weeks ending May 17th and 26th, the fresh cases of plague in Hong Kong numbered 28 and 39; and the deaths from the disease [illegible] and 35 respectively.

THE METROPOLITAN STREET AMBULANCE ASSOCIATION.

Our readers have been kept informed of the movement of this society from the beginning of its effort to bring about the organization and administration of a complete ambulance for Inner and Outer London, and are aware therefore of the activity with which they have been conducted. The Association, which is entirely a medical one, has grown so rapidly and the demands for information upon the general question of ambulances have been so great, that the expenditure incurred has been much larger than was anticipated, although the 110 medical men who did such useful work as local secretaries in canvassing the candidates for election to the London County Council, and in endeavouring to create local interest in the subject conducted operations at their own, and sometimes considerable, expense. To meet, therefore, both present and future needs it has been decided to form a fund of about £70 or £80 from voluntary subscriptions, and the following is a list of donations received up to the present:

	£	s.	d.
Mr. Reginald Harrison (President) ...	2	2	0
Mr. James Berry	1	1	0
Mr. A. A. Berry	2	2	0
Dr. R. J. Collie	1	1	0
Dr. F. W. Cock	1	1	0
Sir W. Selby Church	1	1	0
Dr. Arthur James	2	2	0
Sir E. Cooper Perry	2	2	0
Dr. H. D. Rolleston	1	1	0
Mr. Cuthbert Wallace...	1	1	0
Dr. F. P. Wightwick	0	10	6
P. H.	0	5	0
F. W.	0	2	6
I. R.	0	7	6
M. I.	0	5	0
Anon.	0	2	6
	16	7	0

The whole movement up to the present has been very successful, and in view of the favourable reception accorded by the London County Council to the deputation on May [illegible] there seems every likelihood that the County Council will, as desired, now take the matter in hand seriously. More work, however, still remains to be done, and as it would be regrettable that the movement should languish for want of a little financial support, the fund is one which may be recommended to the attention of readers. Subscriptions of any amount will be gladly received either by Mr. Anthony Bowlby or by the Honorary Secretary, Dr. Arthur James, 69, Gloucester Terrace, Hyde Park, W.

THE REVACCINATION BILL, 1904.

The Revaccination Bill introduced into the House of Commons by Sir John Batty Tuke lost its chance of a discussion on the second reading, owing to the fact that the day on which it was down was taken for Government business. It has now been introduced into the House of Lords by the Duke of Northumberland. The following petition in support of the Bill has been sent by the County Council of Salop:

In Parliament.

Session 1904.

Revaccination Bill.

The Humble Petition of the County Council of the Administrative County of Salop under their Common Seal.

Sheweth as follows:

1. A Bill (hereinafter referred to as "the Bill") is now pending in your Honourable House intituled "An Act to pro-

for the Revaccination of Children after the age of e."

he object of the Bill is to apply to revaccination the ions of the Vaccination Acts, 1867 to 1898, subject to me safeguards, penalties, and exemptions, and subject ticular to the provisions of the first paragraph of Sec- 1 of the Vaccination Act, 1898, exempting the "con- ious objector" from penalties.

our petitioners believe that it will be to the advantage enefit of the community if revaccination is made tory as proposed in the Bill.

Your petitioners therefore humbly pray your Honourable House that the said Bill may pass into law.

And your petitioners will ever pray, etc.

ommon Seal of the County ncil of Salop was hereunto ed in the presence of :

Signed) J. BOWEN-JONES, Chairman.

ASSOCIATION NOTICES.

ICE OF QUARTERLY MEETINGS OF COUNCIL FOR 1904.

NGS of the Council will be held on Wednesdays, th, and October 19th, in the Council Room of the Medical Association, 429, Strand, London, W.C.

BRANCH MEETINGS TO BE HELD.

AND BRISTOL BRANCH: BATH DIVISION.—The annual meeting of ision will be held at the Royal United Hospital, Bath, on Monday, h, at 6.15 p.m., Mr. R. J. H. Scott in the chair, for the purpose of officers, members of the Branch Council (there are five vacancies), such other business as may be done at an annual meeting.—W. M. NT, 4, Gay Street, Bath, Honorary Secretary.

AND BRISTOL BRANCH: BATH AND TROWBRIDGE DIVISIONS.—A of these Divisions will be held at the Royal United Hospital, Monday, June 20th, at 6 p.m., for the purpose of appointing a ntative of the Divisions in Representative meetings of the Associa- '. M. BEAUMONT, Bath, J. TUBB THOMAS, Trowbridge, Honorary ies.

NGHAM BRANCH.—The fiftieth annual meeting of this Branch will in the Medical Institute, Birmingham, on Thursday, June 9th, m. The retiring President, Professor Jordan Lloyd, will introduce ident-Elect, Dr. T. E. Underhill. The annual dinner will be held ame date at the Grand Hotel, Birmingham.—J. T. J. MORRISON, , 3, Great Charles Street, Birmingham, Honorary Secretary.

NGHAM BRANCH: WEST BROMWICH DIVISION.—The annual meetis Division will be held in the Board Room of the West Bromwich Hospital on Wednesday, June 29th, at 4 p.m. Business: To elect 1. Two Representatives on Branch Council. 2. Ordinary mem- Executive Committee. 3. Representative in Representative of the Association. To receive report from Executive Com- To consider the business of Annual Representive meeting. To memorandum from Exeter Division. Other business.—H. B. MER, 54, Birmingham Road, West Bromwich, Honorary Secre-

IDGE AND HUNTINGDON BRANCH.—The annual meeting of this will be held at Cambridge on Thursday, June 30th. Members de- make communications should write to the Honorary Secretary as possible.—F. E. APTHORPE WEBB, 25, Newmarket Road, Cam- Honorary Secretary.

T AND WEST HANTS BRANCH: WEST DORSET DIVISION.—The meeting of this Division will be held at the County Hospital, Dor- on Wednesday, June 8th, at 3 p.m. Business: To elect officers presentatives of the Division. To consider the business of the Representative Meeting of the Association, to be held at Oxford. ices of motion for discussion at this meeting were published in PPLEMENT to the BRITISH MEDICAL JOURNAL of May 7th, 1904, p. consider the following matters referred to the Divisions for their thereon: (1) The advertising of medical practitioners in con- with hydropathic establishments. (2) The advisability of con- between medical witnesses engaged on each side in legal cases. ss the proposal for undertaking Medical Defence by the Associaeneral business.—T. HENRY JONES, Oriel, Weymouth, Honorary y.

ANGLIAN BRANCH.—The annual meeting of this Branch will be Lowestoft, on Thursday, June 23rd. Members wishing to read r show cases should communicate with Dr. Gutch, Ipswich, as possible.—B. H. NICHOLSON, M.B., East Lodge, Colchester, y Secretary.

ANGLIAN BRANCH: WEST NORFOLK DIVISION.—The annual meethis Division will be held in the Card Room, Town Hall, King's y permission of the Mayor, on Thursday, June 9th. 11 a.m.— Meeting of the Division. Agenda: 1. Election of Chairman. 2. of Vice-Chairman. 3. Election of Secretary. 4. Election of a ntative of the Division on the Branch Council. 5. Election of s of the Executive Committee. 6. Election (jointly with Norwich resentative at the Representative Meeting of the Association. 7 Annual Report of the Executive Committee. 8. To consider business for the Annual Representative Meeting. 12 noon.—Public meeting, to which all medical practitioners are invited, when an address will be given by the Chairman on Some Survivals of Mediaeval Medicine in East Anglia. 1 p.m.—Luncheon, by invitation of the Chairman. 2 p.m.—Conference on Contract Practice, to which all medical practitioners in the district are cordially invited. Dr. A. Gardiner will move a resolution. 3 to 6 p.m.—Garden Party and *al fresco* musical and dramatic entertainment, by invitation of Dr. and Mrs. Plowright, in the High School Garden, King Street, by permission of the Directors.—A. GARDINER, M.B., King's Lynn, Honorary Secretary.

EAST YORK AND NORTH LINCOLN BRANCH.—The annual meeting of this Branch will be held at the Royal Infirmary, Hull, on Saturday, June 4th, at 4 p.m., to be followed by the annual dinner the same evening.—E. M. HAINWORTH, 16, Albion Street, Hull, Honorary Secretary.

EDINBURGH BRANCH: NORTH-EAST EDINBURGH DIVISION.—The annual meeting of this Division will take place on Tuesday, June 14th, at 8 p.m., in the Royal College of Physicians, 9, Queen Street.—G. KEPPIE PATERSON, 19, Albany Street, Edinburgh, Honorary Secretary.

EDINBURGH BRANCH: SOUTH-EASTERN COUNTIES DIVISIONS.—The annual meeting of this Division will be held in the King's Arms Hotel, Melrose, on Thursday, June 16th, at 3 p.m. Business: (1) Election of office-bearers. (2) Consideration of motion, of which Dr. Hamilton (Hawick) has given notice, "That the Division invites all the members of the Edinburgh Branch to meet at Hawick in July"; and of a further motion, "That, alternately, the annual meeting of the Branch be held in one of the county towns within its area, and that it be held next year at Hawick." (3) Consideration of agenda of the Annual Representative Meeting to be held at Oxford, in order to instruct the Representative of Division what lines to follow when the various questions come under discussion. (4) Consideration of the Contract Practice inquiry issued by the Medico-Political Committee.—W. HALL CALVERT, The Laurels, Melrose, Honorary Secretary.

EDINBURGH BRANCH: SOUTH EDINBURGH DIVISION.—The adjourned annual meeting of this Division will be held in Room 3, Oddfellows' Hall, Forrest Road, Edinburgh, on Tuesday, June 7th, at 8.15 p.m. Business: The further consideration of the scheme of Medical Defence. Dr. Cullen's motion regarding the administration of the out-patient department of the Royal Infirmary. Any other competent business. Members are requested to inform the Honorary Secretary whether or not they are in favour of the Medical Defence Scheme proposed by the Council of the Association.—MICHAEL DEWAR, 24, Lauriston Place, Edinburgh, Honorary Secretary.

GLASGOW AND WEST OF SCOTLAND BRANCH.—Nominations for the office of Representative of this Branch on the Council (the Branch electing two), each signed by three members, must be in the hands of the Honorary Secretary on or before June 15th.—JAS. H. NICOLL, 4 Woodside Place, Glasgow, Honorary Secretary.

LANCASHIRE AND CHESHIRE BRANCH.—Preliminary notice. The annual meeting of this Branch will be held in Blackburn on the afternoon of Thursday, June 30th. The Honorary Secretary will be pleased to hear from any member desirous of reading papers, etc.—T. ARTHUR HELME, 3, St. Peter's Square, Manchester, Honorary Secretary.

LEINSTER AND SOUTH-EAST OF IRELAND BRANCHES.—Nomination of candidates for election as members of the Central Council must be in hands of undersigned on or before June 18th.—ARTHUR H. WHITE, Derrybawn, Rathgar, Dublin, Honorary Secretary.

METROPOLITAN COUNTIES BRANCH: KENSINGTON DIVISION.—The annual meeting of this Division will be held at the Kensington Town Hall, High Street, Kensington, at 5 p.m., on Wednesday, June 15th, Dr. H. Campbell Pope, in the chair. Business: (1) To elect officers for 1904-5 as follows: Chairman, Vice-Chairman, Secretary and Treasurer, four Representatives of Division on Branch Council, seven Ordinary Members of Executive. (2) To elect the Representative of the Division in Representative Meetings of the Association. (3) To receive the annual report of the Executive Committee. (4) To consider the business of the Annual Representative Meeting. (5) To make new rules, or alter or repeal existing rules. (6) To receive—(*a*) Result of voting for Medical Defence Scheme. (*b*) Communication from Medico-Political Committee. (*c*) Communication from Ethical Committee.—G. CRAWFORD THOMSON, M.D., 111, Sinclair Road, West Kensington, W., Honorary Secretary.

MIDLAND BRANCH.—The annual meeting of this Branch will be held at The Exchange, Nottingham, on Thursday, June 9th. The President-elect invites members to luncheon at the above place at 1 p.m. The Branch Council will meet at 2.30 p.m. The meeting of the Branch will be held at 3 p.m. Agenda: Minutes. Resolution of sympathy with Mrs. Newman, of Stamford, on the death of Dr. Newman. Report of Branch Council. New rule proposed by Branch Council. Add to Rule 7a: Each candidate for membership shall be proposed by two members of the Association to whom he is personally known. Election of Branch Officers. Resolution inviting the Association to hold its annual meeting in Leicester in 1905, under the presidency of G. C. Franklin, Esq., F.R.C.S., and nomination of deputation to the annual meeting at Oxford in July next. Any other business. Address by new President. The following communications, etc., are promised: Dr. Ransom: The Sanatorium Treatment of Consumption. Is it worth while? Mr. Anderson: Note on Case of Pancreatic Cyst. Mr. C. J. Bond and Dr. Frank Pope: A Case of Papilloma Coli and of Colitis Polypora (?) Dr. Jacob will show a series of cases illustrating *x*-ray treatment of skin disease. Dr. Pratt will show stereo-photographs of medical interest. Other exhibits will be welcomed. A meeting of the new Branch Council will be held after the annual meeting. The annual dinner will take place at the Victoria Hotel at 6.30 p.m. Price 7s. 6d. each, exclusive of wine.—FRANK M. POPE, 4, Prebend Street, Leicester, Honorary Secretary and Treasurer.

NORTH LANCASHIRE AND SOUTH WESTMORLAND BRANCH.—The annual meeting of this Branch will take place at the County Hotel, Ulverston, on June 29th, at 3 p.m. There will also be a joint meeting of the Furness and Kendal Divisions to elect their Representative. Members willing to show cases, specimens, etc., are requested to communicate as soon as possible with the Honorary Secretary, A. S. BAELING, High Street, Lancaster.

NORTH OF ENGLAND BRANCH.—The annual meeting of this Branch will be held at South Shields on Wednesday, June 8th, at 2.30 p.m. Further particulars will be given by circular.—ALFRED COX, Cotfield House, Benshaw Road, Gateshead, Honorary Secretary.

NORTH WALES AND SHROPSHIRE BRANCH: SHROPSHIRE DIVISION.—The first meeting of the Clinical and Pathological Section of this Division will be held on Tuesday, June 7th, at the Salop Infirmary, at 5 p.m.—HAROLD H. B. MACLEOD, Clive House, Shrewsbury, Honorary Secretary.

PERTH BRANCH.—The summer meeting of this Branch will be held in the Club House, Moncreiffe Island, on Friday, June 10th, at 3.45 p.m. Business: (1) Appointment of Representative of the Branch to Representative Meetings. (2) Discussion on Medical Defence. (3) Any other business.—WILLIAM A. TAYLOR and ALEXANDER TROTTER, Perth, Joint Honorary Secretaries.

SOUTH-EASTERN BRANCH.—The sixtieth annual meeting of this Branch will be held at Grand Hotel, Eastbourne, on Wednesday, June 22nd, at 2.15 p.m. Mr. J. H. Ewart (President-elect) kindly invites members to lunch at the hotel from 1 to 2 p.m. Agenda: In addition to the business of an ordinary meeting. 1. To receive the report of the election of new officers, who shall thereupon take office. 2. To receive the report of the Council on the affairs of the Branch and the annual financial statements. 3. To make new rules or alter or repeal existing rules (if so desired). 4. Dr. Larking gives notice that he will move: That in the opinion of this meeting the present South-Eastern Branch should be divided into two Branches separated by a line running roughly between London and Hastings, and that the opinion of the Divisions concerned be obtained on the question. After the meeting drives will be arranged to Beachy Head and Pevensey Castle. Dinner at the hotel at 6.45 p.m., charge 6s. 6d. (wine will be provided by the local members). Those who propose to be present at lunch or dinner are requested to signify their intention to Dr. Merry, 2, Chiswick Place, Eastbourne, not later than Monday, June 20th. —T. JENNER VERRALL, 97, Montpellier Road, Brighton, Honorary Secretary.

SOUTH-EASTERN BRANCH: CANTERBURY DIVISION.—The annual meeting of this Division will be held at the Kent and Canterbury Hospital, on Thursday, June 23rd, at 4 p.m., Dr. Gogarty in the chair. Agenda: 1. To read minutes of the last meeting. 2. Election of officers. (*a*) Chairman; (*b*) Vice-Chairman; (*c*) Representative on Branch Council; (*d*) Honorary Secretary and Treasurer; (*e*) Executive Committee (additional member). 3. To consider a communication from Dr. Gosse. 4. To consider the proposed resolutions and other business for the forthcoming Representative Meeting at Oxford (*vide* SUPPLEMENT, May 7th, 1904). 5. To consider existing rules and discuss whether any alterations are necessary. 6 To consider a communication from the Exeter Division of the South Western Branch. 7. Any other business. 8. Possibly an address by Mr. Smith Whitaker, Medical Secretary of the British Medical Association.—A. R. HENCHLEY, 1, London Road, Canterbury, Honorary Divisional Secretary.

SOUTH-EASTERN BRANCH; ISLE OF THANET DIVISION.—The annual meeting of this Division will be held at the Board Room, Minster Union, on Tuesday, June 7th, at 4.30 p.m., Dr. A. M. Watts in the chair. Agenda: To elect officers for the year. To receive the report of the Executive Committee. To consider the business of the Annual Representative Meeting. [*Vide* BRITISH MEDICAL JOURNAL, April 23rd, 1904.] Dr. Watts: Some Remarks on Acute Rheumatism. Dr. Powell will show and read notes on some cases in the Union Infirmary. Tea will be served at 4 p.m. Dinner will be served at 7.30 p.m., in a private room of the Bell Inn, Minster (close to the Church), 5s. each, exclusive of wine. Members wishing to dine are requested to inform the Secretary at the commencement of the meeting. All members of the South Eastern Branch are invited to attend these meetings and to introduce professional friends, but will not be entitled to vote on Divisional questions.—HUGH M. RAVEN, Barfield House, Broadstairs, Honorary Divisional Secretary.

SOUTH-EASTERN BRANCH: NORWOOD DIVISION.—The annual meeting of this Division will be held at the Art Club, Blackheath, on Thursday, June 9th, at 4 p.m., Mr. Herbert Buxton, F.R.C.S., of Blackheath, in the chair. Agenda: (1) Minutes of last meeting. (2) To decide where the next meeting shall be held and to nominate a member of the Division to take the chair thereat. (3) To elect officers, the Representatives of the Division on the Branch Council, and ordinary members of Executive Committee. (4) To elect the Representative of the Division in Representative Meetings of the Association. (5) To receive annual report of Executive Committee. (6) To consider business of Annual Re resentative Meeting. (7) To consider existing rules and discuss whether any alterations are necessary. (8) Any other business. Mr. Charters Symonds: The Management of Ruptured and Diffused Appendicular Abscess. Dr. E H. Colbeck: The Treatment of Cardiac Failure. Dr. W. J. Gow: The Rôle of Caesarean Section in Modern Midwifery. A dinner will follow the meeting.—HENRY J. PRANGLEY, Tudor House, Anerley, Honorary Secretary.

SOUTH MIDLAND BRANCH.—The annual meeting of this Branch will be held at Winslow, Bucks, on Thursday, June 16th, under the presidency of Dr. Kennish. Mr. Horace Savory (Bedford) will read a paper on a Case of Benign Papilloma of Renal Pelvis; Haemothorax, Nephrectomy, Recovery. Members wishing to read papers or show cases or specimens must communicate with the Honorary Secretary not later than June 6th. —E. HARRIES JONES, 45, Sheep Street, Northampton, Honorary Secretary.

SOUTH WALES AND MONMOUTHSHIRE BRANCH.—The annual meeting of this Branch will be held in the Board Room of the Infirmary, Newport, on June 9th, at 4 p.m.—D. R. PATERSON, Cardiff; F. G. THOMAS, Swansea, Honorary Secretaries.

SOUTH-WESTERN BRANCH.—The annual meeting of this Branch will be held on Tuesday, June 21st, at the Public Hall, Paignton, at 3 p.m. Dr. Thompson will resign the chair to Dr. J. Alexander, who will deliver his inaugural address. The report of the Branch Council and the financial statement for the year 1903-4 will be presented to the meeting and the officers of the Branch be elected for the year 1904-5. The Branch Council will submit to the meeting for approval a code of rules to regulate procedure in ethical matters, and will propose the following alterations in Rule 15, Sections C and D: Section C to read—Exhibition of Clinical Cases. Section D to read—Reading of Papers. Luncheon, by kind invitation of the President-elect, will take place from 1 p.m. to 2 p.m., at the Public Hall. After the meeting a garden party will be held at the Queen's Park, when the President and Mrs. Alexander will receive members and their wives. The annual dinner will be held at the Public Hall, at 6.45 p.m. Tickets (exclusive of wine), 6s. 6d.; after which, some play by amateurs will be given. All members who wish to stay over the next day have leave to play golf on the Churston Links by the kind consent of the Committee of the Churston Golf Club. All members attending the meeting will be honorary members of the Paignton Club by kind consent of the committee. The Esplanade and Gerston Hotels afford accommodation for members wishing to stay the night. The Hon. Secretary will be obliged if those members who purpose attending the dinner will inform him on or before June 14th, and at the same time forward the amount of the dinner ticket.—G. YOUNG EALES, 1, Lansdowne Terrace, Torquay, Honorary Secretary.

STAFFORDSHIRE BRANCH.—The annual meeting of this Branch will be held at Wolverhampton, on Thursday, June 16th.—E. PETGRAVE JONES, Brook Street, Stoke-on-Trent, Honorary General Secretary.

WEST SOMERSET BRANCH.—The annual meeting of this Branch will be held at the Crown Hotel, South Petherton, on Tuesday, June 28th, at 12.30 p.m., under the presidency of Mr. A. W. Sinclair. Agenda: Minutes of last meeting. Annual report of Council. Treasurer's report. Address of President-elect. Election of other officers. Election of Ethical Committee. Ethical case: Report of Committee on case recently before the Council. Resolution: The following will be proposed: "That members of the Council attending ordinary meeting of the Council at Taunton shall receive their second-class return railway fare." President's address: Neurasthenia. Luncheon will be served at the Crown Hotel at 1 p.m. —W. B. WINCKWORTH, Sussex Lodge, Taunton, Honorary Secretary.

YORKSHIRE BRANCH.—Notice is hereby given that nominations of Representative Members of Council for this Branch must reach me not later than June 6th.—ADOLPH BRONNER, 33, Manor Row, Bradford, Honorary Secretary.

YORKSHIRE BRANCH.—Preliminary Notice.—The annual meeting of the Branch will be held at Leeds on Wednesday, June 22nd. Members desirous to read papers or show cases or specimens are requested to communicate with the Honorary Secretary as soon as possible. Subject to dinner at 6.30.—ADOLPH BRONNER, 33, Manor Row, Bradford, Hon. Secretary.

SPECIAL CORRESPONDENCE.

PARIS.

The Académie de Médecine: Dr. Albert Robin on the Influence of the "Nascent State" in the Properties of Drugs and its Therapeutic Applications: Professor Budin on the Breast Feeding of Infants of Factory Hands: the Death of Professor Marfan: Dr. Netter elected as Successor to Professor Proust in the Academy of Hygiene.

DR. ALBERT ROBIN has made an interesting communication to the Académie de Médecine on the influence of the "nascent state" on the properties of drugs and its application in therapeutics. It is a well-known fact that the nascent state increases the activity of bodies, and by the use of such bodies it is possible to obtain the maximum effect with a minimum dose. Thus oxygenated water, thanks to the nascent state of the oxygen when in contact with organic tissues, is one of the most powerful antiseptics known. Wiede, Meliof and Saedel have just shown that oxygenated water can form molecular combination with salts, and can take the place in part or of all their water. Willstaetter has remarked that oxygenated water as water of crystallization was a common phenomenon. Thus if ammonium sulphate is dissolved in 30 per cent. oxygenated water, and then left with sulphuric acid, crystals are formed containing one molecule of oxygenated water of crystallization. Sodium sulphate behaves in the same way, but holds its molecule of oxygenated water more firmly than its molecule of ordinary water of crystallization. Borax, alum and sodium acetate are other examples. The therapeutic importance of this discovery is manifest; double salts have always the same composition, and we can thus dose exactly the quantity of oxygenated water. Dr. Robin has found that it is possible to modify and increase the therapeutic effects of salts which contain oxygenated water in their composition, thus associating for instance a strong antiseptic action to the astringent action of alum, or by mixing common sodium sulphate

ium sulphate containing a molecule of oxygenated water
ts composition to obtain simultaneously the evacuation of
intestine and its antisepsis. Dr. Robin then spoke of the
allic peroxides which give off nascent oxygen when they
e into contact with the tissues and in which the metallic
ecule plays a secondary rôle.
ne peroxides of calcium and magnesium liberate all their
ve oxygen in the presence of the gastric juice; given in
tine capsules they become remarkable intestinal anti-
ics. They diminish the fetidity of the stools and the
rhoea better than any other drug, but on the condition
this diarrhoea is caused by fermentation. This fact may
serve as a means of diagnosis, having no effect in tuber-
us, bilious, nervous, and other diarrhoeas not of fermen-
e origin. Sodium peroxide, which acts in the same way,
commended by Unna for the treatment of sebaceous acne
ne face. Zinc peroxide can be used, say Fromayer and
é, as a purifying antiseptic in dermatology, and recently
ut before the Société de Chirurgie recommended its use
place iodoform in dressings for uterus and vagina, and to
infected and torpid wounds. All these salts owe their
ity to their nascent oxygen, but the value of the nascent
in therapeutics may be shown by other synthetic
s. Thus monochloral antipyrin or hypnol of Bordet is
osed of a molecule of chloral hydrate and a molecule of
yrin, which in the organism breaks up into its com-
nts, each in the nascent state. It is an analgesic of the
al nervous system by its antipyrin and hypnotic by its
al. Moreover, a dose of 1 gram is enough to almost
s induce sleep and calm the pain, and weight for
t is more active than its two components.
rin breaks up into acetic acid and salicylic acid in the intestine.
more active and has a greater analgesic action than sodium
ate.
matin gives salicylic acid and quinine in the nascent state. As
rheumatic agent it is more powerful than salicylate of sodium,
is also an antiseptic. It is thus indicated in the grave, hyper-
. or very painful forms of acute articular rheumatism, as well as
isceral complications.
al is a quinate of piperazine, nowadays used in the treatment of
d the uric acid diathesis. By its quinic acid, which breaks up
organism into quinone and benzoic acid, it combines with glyco-
us slowing down the formation of uric acid. By its piperazine,
orms with uric acid the most soluble ufate known, it favours the
tion of this salt. This double effect is obtained with relatively
m doses of sidonal, which frees its component parts in the
state. With 50 cgr. of sidonal daily, taken in two doses, the
ion of uric acid is sensibly reduced, and this dose can be
ed for some length of time without causing any injury.
Robin has introduced two agents into therapeutics
are remarkable examples of this exalted action of drugs
nascent state, that is, iodized sulphur and erythrol, or
ible iodide of bismuth, of bismuth, and cinchonidine.
d Sulphur was discovered by L. Prunier, and its ready dissocia-
Dr. Robin to employ it in the treatment of gastric fermentations.
advised him to use the form with the formula S^{16} 1, which gives
e nascent state iodine and sulphur of such great chemical activity
es of 10 cgr. to 30 cgr. given in a cachet in the middle of meals
s excellent effects without any drawbacks. It has but little
n acid fermentation, and should be given for gaseous fermenta-
h flatulence. It may also be employed in keratin capsules for
fermentations of the intestine. It can replace iodoform in
its action is more powerful and it is much cheaper, but the
st be a small one on account of the strong action of iodine
nascent state.
ol also owes its value to the action of nascent iodine. Dr.
st used it for putrid ulcerating surfaces. The cinchonidine is a
t of the spinal cord and medulla, and it is probable that this
ng action is also effective on the nerve terminations with which
irect contact, which would explain the tonic action of erythrol
ls which look more healthy and heal rapidly. Dr. Robin has
it for gastric and intestinal fermentations, and it has given
ults in cases accompanied with fetid breath. He gives it in
5 cgr. to 10 cgr. in a cachet with 10 cgr. of precipitated car-
lime.

sor Budin made a communication on the practical
f fighting infantile mortality by making it possible
ners who work in manufactories giving the breast to
ants. Thus recently Messrs. Bhir and Bhir, large manu-
s at Elbeuf, in order to encourage their employés to feed
vn children, have advised them to place them at the
the municipality which is close to their works. Every
is given to the mothers to get away at regular inter-
the purpose of giving the breast to their infants, and
ion Fr. 100 will be placed in the savings bank in the
ame in every case where the mother shall herself have
ught up her infant. Professor Budin called on the
of Finance, and explained to him the situation. The Minister said that in nearly all the manufactories under his control, such as the tobacco and match factories, the mothers were authorized to give their infants the breast, the latter being collected in *crèches* either inside or outside the factory, or else are placed in a room set aside for this purpose. The Under-Secretary of State, who has charge of the postal telegraph and telephone services, has promised as soon as possible to take the necessary steps that all mothers in his employ may be able to give the breast to their infants.

The President of the Académie, Professor Tillaux, eloquently traced the scientific career of the late Professor Marey, who had been President of both the Académie de Médecine and the Académie des Sciences.

Dr. Netter has been elected to the Académie de Médecine to fill the vacancy in the Section of Hygiene caused by the death of Professor Proust. Dr. Netter is Professeur-Agrégé and Physician to the Trousseau Hospital and a member of the Comité Consultatif d'Hygiène Publique of France.

MANCHESTER.

Removal of St. Mary's Hospital.—Other Changes in Hospital Distribution.

QUAY Street stands in the midst of unattractive and gloomy surroundings. It was the cradle of the present Owens College over fifty years ago; it was also for forty-eight years the site of St. Mary's Hospital for Diseases of Women and Children. St. Mary's was housed in a building ill-adapted to the modern necessities of a hospital, but it was only at the end of last week that the old unattractive, warehouse-like building was emptied of its patients, who were transferred to the new wards prepared for their reception in the new building, which has been erected at a busy corner in Oxford Street. The new out-patient department was open for the first time for the reception of patients on May 30th. The history of this institution goes back to 1790, when its site was on Salford Bridge—now Victoria Bridge; and, after several removals, its *locus* in and after 1856 was in Quay Street.

A few years will see great changes in the hospital accommodation of Manchester. Already along the length of Oxford Street we have St. Mary's with about one hundred beds. A couple of years will see on a better site the new Southern Hospital for Women and Children. These two hospitals, situated in the same street and not far apart, are doing the same kind of work, so that it is difficult to see why there should not be some common action between them, either by a division of labour or other arrangement whereby all unnecessary expenses connected with management may be saved, Then there will follow the erection of the buildings of the new Royal Infirmary on the Stanley Grove Estate, in close proximity to the Southern Hospital. The Medical School of the University will then stand in the centre between this congeries of hospitals. Such a condition of affairs should greatly improve the already large facilities afforded by the Manchester School of Medicine. Co-ordination is a great agency for efficiency in the biological world, and so should it be in connexion with those institutions which exist for the prevention and cure of disease. It is as necessary in the one case as the other.

SYDNEY.

The Plague.—Boracic Acid in Milk.—Queen Victoria Homes for Consumptives.—Annual Meeting of Branch.—The Hospital for Sick Children, Sydney.—The Prince Alfred Hospital.—Death of Dr. Blaxland.

Two sporadic cases of bubonic plague have recently occurred in Sydney in the neighbourhood of Darling Harbour, the main centre for the reception and distribution of produce of all kinds. Only a day or two before the last case was reported the City Health Officer, Dr. W. G. Armstrong, reported to the City Council that the plague prevention gang of ten men had been engaged in a thorough and systematic search of the produce stores in Sussex Street, with results that up to that time had been entirely negative so far as the discovery of plague-stricken rats or mice was concerned. During the course of the work over 4,400 bags of grain, 5,500 bags of chaff, 700 bags of bran, and 1,900 packages of miscellaneous produce had been moved and handled. The stores examined had been found to be particularly free from rats and mice, especially the former; only 152 rats and 549 mice had been captured by the gang. The rigid clearance of all premises in the neighbourhood of the infected locality of rats and mice harboured by them and the non-discovery amongst those animals of any

infection by plague made it highly probable that all fear of an outbreak was at an end. It was only a day or two after this report that a case was discovered in the person of a man who worked in this district. The premises in which he worked were found to be in very good condition, and the source of the infection appeared to be doubtful until the discovery of a plague-infected rat in a store on the opposite side of the street cleared up the source of the infection. No further case has been reported, and in view of the strict precautions which are being constantly taken by the Board of Health and the City Health Authorities it appears extremely unlikely that anything like a severe outbreak will recur again.

The Board of Health some time ago passed some stringent regulations prohibiting the use of more than the one-thousandth of a grain of boracic acid to a pint of a milk as a preservative. These regulations were opposed by a concentrated milk company, which succeeded in getting a Select Committee of Parliament to draw up a report favourable to their practice of using a much larger quantity than this in the preparation of their concentrated milk. The Board of Health has declined so far to act upon this Parliamentary Report, and the manager of this company was recently prosecuted in the police court, for a breach of the public health regulations, and fined £2 or seven days' imprisonment. As the fine was not paid, the prosecuting officer applied to a magistrate for a warrant of commitment. This the magistrate declined to grant, stating that he was acting under instructions from the Minister of Justice. Further action was then taken, and the matter was brought before a Supreme Court judge, an application being made for a rule *nisi* to call upon the magistrate to show cause why he should not do what was required of him as to the issue of a warrant. This will show how hard a battle the Board of Health has to fight in the interests of the public health against powerful companies with vested interests.

The sixth annual report presented to the subscribers to the Queen Victoria Homes for Consumptives Fund gave some interesting details as to the present position of these homes and the work accomplished in them during the year. There are two homes in the country, the one a recently-built sanatorium on the Blue Mountains, which is reserved for male cases in the very early stages; and the other a hospital at Thirlmere, which accommodates both men and women to the number of 42. This hospital is reserved for cases a little more advanced, but only those who are likely to be sufficiently improved to be able to resume light work are admitted. The sanatorium on the Mountains was only opened in February last year, and the first report of Dr. McIntyre Sinclair, the Resident Medical Superintendent, stated that the available accommodation (20 beds) had been fully taxed. Fifty cases had been admitted to this institution, and of these 25 were discharged with the disease either completely arrested or much improved, and 20 of them were able to return to ordinary working conditions, and 5 to selected light employment. The average residence required to effect complete arrest was one hundred and twenty-eight days. Of the 50 cases admitted 41 were from the metropolis and 9 from the country. Sixty-eight per cent. of the cases were between the ages of 20 and 35 years; and of the 50 admissions 40 were employed indoors all day, the remaining 10 being engaged out-of-doors. The average number of beds occupied had been 18, and the annual cost per bed for the first ten months had been £61 16s. 2d. Of the 50 cases admitted 28 were natives of New South Wales, 6 of other Australasian States, 13 of the United Kingdom, 1 China, 1 Chili, and 1 India. All but three had contracted the disease in New South Wales, and the majority of those who were not natives of New South Wales had been resident there for the greater part of their lives. A regulation has now been passed which requires an applicant to have been resident in New South Wales for at least three years just prior to his application for admission. A total of 113 patients had been admitted to the hospital at Thirlmere—68 males and 45 females. A total of 99 had been discharged—60 males and 39 females. Of those discharged 78 were benefitted and 21 unrelieved; 12 had died. The daily average number of patients was 41, and the average cost per bed per annum had been £41 11s. 11d. The cost of maintenance of the two homes for the year amounted to nearly £3,700. Subscriptions and donations for the homes from the public had totalled £1,432, proceeds from various sources amounted to £370, leaving a balance for maintenance to be drawn from the fund's capital account.

At the annual meeting of the New South Wales Branch of the British Medical Association, the retiring President, Dr. A. J. Brady, was unfortunately unable to be present, as business had called him away on a trip to England. address was read by the Acting Secretary, Dr. G. H. A The following officers have been elected for the ensuing President: Dr. A. MacCormick; Vice-President: Dr. Be Councillors: Drs. Hankins, Crago, Rennie, Abbott, Mai Newmarch, Hinder, Pockley, Hood, Dick, Worrall, and Dr. Hankins has been re-elected Honorary Secretar during his absence Dr. Abbott has been elected Honorary Secretary. Dr. W. H. Crago has been re-e Honorary Treasurer of the Branch, and Manager *Australasian Medical Gazette*. Dr. G. E. Rennie has be elected Editor of the *Australasian Medical Gazette*.

At the annual meeting of the subscribers to the H for Sick Children, the twenty-fourth annual report was The statistics of the work done during the year sho increase in the number of in-patients of 53. The diph cottage has now been closed, as it was impossible to ca the work in it owing to the state of disrepair into which fallen, and the large amount of money which wo required to put it into a fit state. The committee had s a site for a new hospital, and the floor plans of the pr new building had already been prepared and approved building committee, as well as by several medical me hospital experts to whom they had been submitted. building, which has been designed as a pavilion ho would provide eventually for 175 cots with all nec administrative requirements, and with an entirely s nurses' home, though it was proposed at present t sufficient for 115 cots. The cost of the whole building estimated, will be about £55,000, of which from £25, £30,000 are required at present. A donation of £5,0 been given by Mr. Todman, and this with previous don brings the building fund up to £15,600, and it is hope it will shortly be sufficiently augmented to allow of an diate commencement being made with the building.

This year is the twenty-first anniversary of the open Prince Alfred Hospital. The Chairman of Directors fessor Anderson Stuart, is at present away on a six m tour of England and America, and the Acting Chairma James Fairfax, at the annual meeting dwelt at some len the history of the hospital and the progressive work d it, especially in the number of surgical operations perf as compared with twenty years ago. It was pointed o with the additional beds provided in the new Queen V Pavilions the annual expenditure will be considera creased, and the Directors will be hard pressed to fi necessary means to carry on the hospital. The r amount contributed by the general public is much less was several years ago.

Much regret is felt at the sudden death of Dr. H Blaxland, the Medical Superintendent of the Hospital Insane at Gladesville, and the Senior Medical Officer Lunacy Service. He was a native of Sydney, and s medicine at University College, London. He to diplomas of the Royal Colleges in 1878, and was S rgeon to Mr. Christopher Heath. He returned to S shortly afterwards and entered the Lunacy Service, in he remained up to the time of his death. He died in hi year of cerebral haemorrhage, and leaves a widow, thre and one daughter. His funeral was largely attende representative gathering, which testified to the p esteem in which he was held.

CORRESPONDENCE.

THE ANNUAL MUSEUM AT THE OXFORD MEE

SIR,—Our Association is to hold its annual meetin year in Oxford. This brings to my memory the fact was in Oxford thirty years ago that the Annual Mu which has since grown into such a large affair, was ini Like many similar undertakings the development o museum has not been exactly on the lines which some o who took an active share in its formation hoped for. designed chiefly to collect together what the year affor novelty in reference to the observation of disease a treatment. Not without a little misgiving did we adm exhibits of drugs and foodstuffs, which latter, as known, soon swamped the more strictly professional the scheme. At present those who contribute their dra models, photographs, or specimens are but a small mi of the British profession, and a very large amount of m

his kind which would prove most instructive if brought vard into the light remains stowed away in the private tfolios on the shelves of hospital museums. Year year I observe with much regret that our annual collection iore and more left to depend for its contents upon the rts of the Local Committee. This ought not to be, and I uld like to suggest that it would be appropriate this year, n we again meet in the city which saw its birth, that an rt should be made to restore this department of our seum to something more nearly approaching the original ception of its scope. No one can doubt that it would aid tly to the advance of knowledge if in this annual collec- there were really brought together the sum of the pictorial ical work of the year. The art of photography has much loped during the long quarter of a century which has sed since the date referred to, and the use of the rays opened to us a quite novel and most productive field. It it perhaps not be unsuitable to make, at our coming ing, radiographs a special feature. If that be thought arge an order, I would suggest that a few subjects in con- on with it, say of fractures and dislocations, be taken. e are various practical questions which wait solution by means.

e last fasciculus of the New Sydenham Society's *Atlas* rms itself, amongst other topics, with the question her in ordinary forms of Colles's fracture splints are of use. In connexion with this, it becomes necessary to e whether under the methods of treatment now pursued 'ea' rectification of the position of the fragments is ly effected. To determine this point we want radiographs (1) before any attempt at reduction, (2) after such pts and when the limb has been put up in splints or in a r case, and, lastly, at the conclusion of the treatment. ugh thousands of radiographs of Colles's fracture have taken, any one who should make inquiry on these s will find exceedingly little material ready to his hand. could have a collection at Oxford bearing upon this l point it might go far to settle some most important cal questions, and might, perhaps, prevent many ied wrists.

er special subjects suitable for collective demonstration, perhaps, better ones, will I am sure occur to others. ject in the present letter is not to go into any detail, erely to suggest that at the Oxford meeting a little extra should be made by the profession generally to develop dical and surgical department of our Annual Museum. ose in authority give for it some good rooms, with of space and in an accessible position, and let it be a of duty to us all to see that they are creditably filled.—

etc.,

on, W., May 26th. JONATHAN HUTCHINSON.

[It is much to be hoped that Mr. Hutchinson's appeal eet with success. We shall publish an article on the ements made for the Pathological Museum in our next but we may say at once that good rooms, with plenty of and in an accessible position, have been provided. A many valuable exhibits have been promised, but we tand that the response, so far, from London has been inting. The Secretary of the Pathological Museum ittee is Dr. Ainley Walker, University College Oxford.

THE CENTRAL MIDWIVES BOARD.

—It will be satisfactory to many of your readers to hat at a meeting of the Board held on Thursday, th, a resolution was carried to the effect: "That rs of the recognized medical and nursing journals be to attend the meetings of the Central Midwives But for the adoption of this resolution I should lt compelled to raise the veil which has so long con- proceedings affecting so many important interests, and me the duties of descriptive writer until relieved by ional reporters from the self-imposed but ungrateful Now that reporters are to be admitted, it seems to me ufficient to state, with your permission, my estimate xisting position of affairs, while explaining some facts ent incidents which have produced the present situa- n future your readers interested in the administration Midwives Act will be able to follow events by the of what they can confidently assume to be incontro- accurate and unbiassed reports of proceedings.

"Midwives Act, 1902," was a sadly defective piece of ve work. It incorporated in an Act of Parliament icy of the Midwives Institute as distinct from, and even in opposition to, the interests of the medical profession, and, as I strongly believe, the interests of the working class public of England and Wales. The amendments suggested by the medical profession of Great Britain could be safely ignored by the sponsors of the Bill, while for reasons transparently clear at the time of the final Parliamentary struggle, the opposition of the Irish members was weakened by illusory and temporary concessions to the Irish schools of midwifery.

One of the obvious defects of the Act, which at the same time clearly revealed the influences at work, was the constitution of the Central Midwives Board created to administer the Act. The Board proposed in the Bill of 1900 would have been representative, strong, and efficient; the most zealous partisan supporter of the Act of 1902 could hardly say the same of the now existing Board. This Board, created to control purely medical affairs, was so constituted that three at least of its members must be non-medical women, and of the total of nine members five might not belong to the medical profession. For purposes of representation, the "Incorporated Midwives' Institute" was placed on a footing of equality with the Royal College of Physicians; and the Universities whose medical graduates engage to a large extent in general practice were not represented at all.

The Act contains provisions which imply the most tender solicitude for the midwife; it is ominously silent where the interests of the medical profession are concerned. The midwife, having made her own arrangements with her client, is required to send for medical assistance under certain contingencies, but there is not a word about the remuneration of the medical practitioner who responds to the summons and comes to the rescue. Contrast this with the explicit enactment with regard to legal expenses incurred in the administration of the Act (Clause 15).

Again, the authors and sponsors of the Bill obviously contemplated that the Central Midwives Board should consist of merely a London coterie, for there is no provision for the payment of expenses incurred by members, as in the case of the General Medical Council; and no regulations with regard to meetings of the Board are even hinted at. Consequently the two country members must submit to mere harassment or fail to perform the duties which they have undertaken. They are required to attend once a month, or oftener, meetings of the drawing-room type, with afternoon tea, for a short time after lunch, to sacrifice a day's work when called upon, and to pay all contingent expenses. It may be objected that these are paltry domestic details, any reference to which should be beneath the notice of a member of the Board. I hold a different opinion, else I would not mention them. They seem to me to be of the essence of the efficiency of a Board created to administer on Act of Parliament affecting the whole of England and Wales; and I maintain that the proceedings of a Statutory Board ought to be arranged for and conducted in a manner adequate to the dignity of its origin.

When the Board, thus constituted, commenced to frame rules and regulations for midwives the policy underlying the Act soon became apparent. The fee for the enrolment of certain classes of midwives was fixed at the paltry sum of 10s., the fee for examination at one guinea. This decision was certainly in the spirit, and partly in compliance with the letter, of the Act; but it should be remembered in judging Act or rules that these sums represented the total expenses of obtaining a privileged position which was to secure special advantages for earning a professional income.

Let us now look to some of the evidence of a policy contained in certain rules which were framed by the majority of the Board, even if some of them had to be greatly modified or abandoned before the completed rules were sent to the Privy Council for approval. The majority refused to sanction any rule requiring pupil midwives to prove the possession of some definite minimum standard of common school education; fixing any minimum period for training; specifying the minimum number of lectures or lessons comprised in a course of systematic instruction; or giving clear and exact instructions with regard to the contingencies which demand an appeal for medical assistance during parturition or in course of the puerperium. On this last head the matter was to be left to the judgement of the midwife; she was to send for a medical practitioner only when, in her opinion, the progress of the woman or child was "not satisfactory." Under such loosely-framed regulations it would have been next to impossible to make the most ignorant and negligent midwife answerable for her conduct. On the other hand, some regulations originally framed to

magnify the office of midwife were definite enough. She was, for example, to be required to baptize feeble babies in certain events, and she must always produce conjunctivitis by irritants, introduced if possible even before complete birth, as a prophylaxis against gonorrhoeal ophthalmia.

Several of the worst defects in the rules were remedied owing to the acceptance by the Privy Council of certain suggestions embodied in a "minority report" signed exclusively by medical members of the Board. But still the rules are stamped with the policy of the Midwives Institute; it is to be made cheap and easy for a humble illiterate class of female persons to become midwives, when so disposed; and they are to be relieved, as far as a sympathetic and benevolent interpretation of the Act will permit, from irksome restrictions inserted in the interests of mere child-bearing women of the working classes.

Owing to an accidental interruption at this stage of my letter, I have had the timely opportunity of reading in the *Lancet* of to-day (May 28th, p. 1543) a concise report of the Proceedings of the "Association for Promoting the Training and Supply of Midwives." Kindly permit me the liberty of making a few short quotations from this instructive report:

"The chair was taken by Miss Wilson, President of the Midwives Institute and member of the Central Midwives Board.

Free or assisted training was given by the Association.

Reference was made to the Training Home at East Ham in connexion with the Plaistow Maternity Charity started by the Association last year.

The sum of £1,000 would train 50 midwives.

This report is to me a curious revelation of fact explaining the antagonism of principles in the Central Midwives Board, which has been to me hitherto only a distressing and inexplicable phenomenon—on the one hand, the benevolence of a largely non-medical contingent towards illiteracy and inefficiency generally; on the other, the futile struggle of a medical minority to raise the standard of education so as to secure a better quality of midwife in the future. During the long agitation to obtain an Act of Parliament for the education, registration, and medical supervision of midwives who ever heard a complaint about the lack of women ready to assume the name and functions of a midwife? Every argument in favour of every Bill was founded tacitly or explicitly on a promise to eradicate for ever the ignorance and consequent incompetence which were the roots of all the worst scandals arising arising from the practice of midwives. But the policy and methods of the Midwives' Institute do not possess even the germs of progress. What good to the community can result from encouraging to leave their suitable occupation a class of women who develop a thoughtful turn of mind only because they have never learned to read? We may well despair if the midwife of the future is to be turned out in fourteen weeks at the average cost of £20 a head!

Coming, now, to the present situation as far as the actual proceedings of the Central Midwives Board are concerned, it appears to me that the first question demanding attention and solution is the dispute between the Dublin lying-in hospitals and the Central Midwives Board. There are two points at issue: (1) The efficiency of the practical teaching of pupil midwives, narrowed down to a question as to the number of patients to be personally and exclusively delivered by the individual pupil before she can receive certain certificates, and (2) the number of days after labour during which the pupil must have the patient under observation, so as to gain sufficient knowledge of the puerperium.

1. For a clear understanding of this difficulty the wording of the rules of the Central Midwives Board must be kept in mind. One of the certificates which the candidate must put in before admission to the examination is to the effect that she has under approved supervision "attended and watched the progress of not fewer than twenty labours, making abdominal and vaginal examinations during the course of labour, and personally delivering the patient" (*Rules*, Form iii).

Such a rule as this, applied as it has been to the exclusion of the Dublin schools of midwifery, is in my opinion impracticable and mischievous. It has been interpreted literally to imply that each individual pupil has attended at least twenty cases, no one of which has been reckoned for the certification of any other pupil. It is not conceivable that this rule could ever have been so framed and interpreted and enforced by a Board consisting of medical men or women experienced in the details of the training in obstetrics of students of medicine and midwife pupils, and capable from professional experience of appreciating the reasons for some rule. Such a rule, interpreted literally, is not in force in any school of midwifery in Europe or America; it almos[t] pels evasion, or at least interpretation according dictates of practical common sense. Every one enga[ged] the actual clinical teaching of midwifery must kno[w] two, or even three pupils, learn more individually [on] single case than the solitary student; they sharpe[n] another's wits by conversation about the case, and b[y] parison of observations, and there is consequently [a] exact sustained attention, and no shirking or apathy.

The training of midwives at the Dublin lying-in ho[s]pit[al] is notoriously the best in the United Kingdom. The [pu]pil "reside for a period of six months in the hospital, receive systematic instruction during the whole ten residence far superior to the requirements of the [Ire]land Midwives Board. Probably, in the consciousness superiority, the Master of the Rotunda Hospital repe[at]ed interrogatories in a frankly truthful fashion; and the[re]on quence is, that on this narrow technical point in recently formulated, the Dublin hospitals are declare[d] majority of the Central Midwives Board to be disqu[al]i from granting to their pupils the certificates necessary enable them to enter for examination. The unfitness [of] Board as at present constituted to exercise judicial fu[nc]ti is well illustrated by the somewhat irrelevant but sugg[es]t remark of one of the members during the discussion [of] question to the effect that the Dublin people send [so] many midwives, and by the rhetorical question in the [co]urse of a formal speech by another member, "Are we go[ing] climb down?"

2. The second point to which I wish to call atten[tion] the difficulty with the Dublin institutions is a very atte[n]uating difference indeed. The Central Midwives Board in d[ra]wing its rules thought that ten days was a reasonable time [for] pupil midwife to be required to nurse her twenty pati[ents] the puerperium. As all medical practitioners know the [is] special scientific sanction for ten days. The period finally [fix]ed was the result of a compromise. Accordingly, the can[di]date before admission to the examination must send in a [cer]tificate that she nursed twenty lying-in women during ten days following labour" (*Rules*, Form iv.). Now, this re[gu]lation framed in blank ignorance of an important fact with[in] the Board became acquainted for the first time [by] hearing a letter read from the Master of the Rotunda H[os]pital writing in his official capacity. He stated *inter alia* [that] would be impossible for our resident nurses to follow [the] course of the puerperium for ten days, as Irish women [do] not remain in the hospital for more than eight days." [I] not believe that a single medical member of the [Central] Midwives Board would have voted in favour [of] ing ten days as the minimum period of rest in the puerperium if it had been known at the time framing the rules that the Dublin hospitals would have excluded in consequence.

The Dublin grievances were discussed after the [read]ing of a letter from the President of the Royal Acad[emy] of Medicine in Ireland at a meeting of the Board on February 25th, when eight of the nine members were present. To a *non possumus* resolution to the effect "the rules.....having been approved by the Privy Council is impossible for the Board to alter them," one of the minority proposed, and another seconded, an amendment regretting that the Board was not made aware of the circumstances of the midwifery training schools in Ireland before the rules were sent to the Privy Council, and stating that this Board sympathizes with the Irish institutions in their difficulties, and will give every assistance in order to obtain a revision of the rules by the Privy Council." For this amendment only the proposer and seconder voted, against the members. For the "it-is-impossible" resolution the substantively there voted six, against it the same two.

Owing to the persistence of the authorities of the [Dublin] lying-in hospitals the question came up again on April 2[8th] and although an excellent way out of the difficulty was proposed in a resolution by one of the lay members, the [matter] was practically the same. The subject was again under consideration on Thursday last (May 26th) on a motion which appeared to indicate weakening on the part of the opposition but in reality offering no practical help to Ireland. [An] amendment once more offering sympathy and assistance there voted the same two; all the rest were opposed. [That] is how the question stands at the present moment. [The] Central Midwives Board is not always so pedantically [exact] in guiding its conduct by its own rules. In the minutes of the meeting of March 24th, which I was unable to at[tend]

the following record. "Mrs. H. stated that she had ndertaken cases without doctors, but had been advised medical man that she need not be afraid to do so, and l that she herself did not feel in any way afraid of so g." Curious and by no means lucid as the diction is, the l appears to have grasped the intention of the applicant, Resolved that in the opinion of the Board it is desirable Mrs. H. should be certified, as it appears from her letter she is quite prepared to take a case alone." An example of overbially fatal mistake of assigning the reason for a judge- What untrained midwife was there ever yet who was not e prepared" to undertake any case, and preferably alone? s episode appears to have taken its origin and reached nclusion under "Correspondence" on the agenda paper. etter was read from the Deputy Clerk" of a county il enclosing an inquiry from this Mrs. H., and the reso- quoted above was at once passed.

printed minutes received a month later afforded me rst and only information regarding this almost in- le violation of the rules. One of the certificates which an applicant for admission to the Midwives' Roll is ed by the rules to send in with her application is ing to Form viii: "I hereby claim to be certified under n II of the Midwives Act, on the ground that I have n bona-fide practice as a midwife since"—one year at efore July 31st, 1902; and the application must be sup- by a certificate in Form ix that she "has, to my per- knowledge, been in bona-fide practice as a midwife —one year at least before the 31st of July, 1902—"and that trustworthy, sober, and of good moral character." But pplicant appears to have produced no evidence what- ccept a statement as to her own mental condition—that f-confidence—and a secondhand opinion from an nous medical man; and she also testified to the Board t herself to the effect that she was practising as a ly nurse, and had not been at any time in bona-fide e as a midwife.

rast the levity and inconsistency of the resolution of oard in this case with the persistently correct and attitude towards the Dublin lying-in hospitals.

resolution of the Board to dispense with certificates the applicant is avowedly a monthly nurse who is prepared to undertake a case alone" is a breach of its les; it contravenes or evades the intention of the Act; it for the imbecility of the definition of a "midwife" ed in the Midwives Act, it would have been obviously t contravention of the Statute.

nother grave decision of the Central Midwives Board I o call the attention of the medical profession without At the meeting of the Board on April 28th a resolution roduced by a lay member to the effect that the Board r it desirable "to appoint an inspector to visit institu- pplying for recognition and to report thereon." The r of this resolution explained that by the term inspec- meant "a trained woman." It is fair to assume that ntion was to appoint a midwife. A few months ago it posed from the same quarter that midwives be author- give the courses of systematic instruction to pupil es. This proposal was not carried, and consequently can be authorized to give the systematic instruc- midwifery except a registered member of the profession. But by the recent resolution "the woman" who is to be appointed and sent pect, will have, no doubt, to report on the y of the teaching of those qualified men and who are engaged in giving systematic instruction to es in our lying-in hospitals, on the character of the ent and organisation for systematic and clinical g, the sufficiency of the staff, the sanitary arrange- f the hospitals, including the air space per bed and ognate matters. It was strongly objected by one of nority that such an appointment was not likely to n efficient inspection and reliable reporting, that it e a slight to the medical profession generally, and lt to the individual lecturer to have an inferior f non-professional person thrust upon him or her porter. It was also pointed out, in opposition to lution, that the county councils and county borough have almost universally appointed their medical of health as executive officers for the administration Midwives Act, and, considering the local know- d the independent position of such medical officers, tial reports from them concerning institutions their areas could be entirely relied upon by the Central Midwives Board as unbiassed and accurate and trustworthy. On the other hand, the irresponsible report of the "trained woman" could not be relied upon unless it was intended for publication, and probably not even then. On a vote being taken with seven members present, three voted for the resolution, two of them being non-medical members, and one voted against it. Three members, two of them medical men, declined to vote, so the resolution was carried. None of the proceedings of the last eighteen months more thoroughly demonstrates the defective composition and the consequent bias and sort of moral incompetence of the Central Midwives Board. On an important question of principle like this, involving a suggestion of degradation of the medical profession, and magnifying the office of midwife, three men out of five present, not taken at unawares, because the motion had been repeatedly on the agenda paper, refused to vote, and so this serious decision was carried by the votes of one-third of the whole Board, only one of the four medical members present recording his vote against it.

But there appears to be even a worse thing in store for us. Probably at the next meeting in June the report of the Standing Committee on the examinations to be instituted by the Board will come up finally for consideration. The meeting of the Standing Committee, which sent its unanimous recommendations to the ordinary meeting of the Board, consisted of four London members, two only being medical men. There are still two non-medical members in reserve, so that at a full meeting a majority supporting the Standing Committee will be almost certainly secured. *Inter alia* they recommend under the head of "examinations" that "one or more women who hold or have held the post of matron of a lying-in hospital or midwife, if otherwise qualified, may be appointed examiners." The only reason for this decision that I have heard stated in the Board is that it will be necessary to include "bedmaking" among the subjects of the examination. So at the beginnings of the administration of an Act of Parliament, which was brought into existence because of the notorious ignorance and incompetence of English midwives, it is seriously proposed to grant to the Midwives Institute the privilege of nominating as examiners its own protegés, women with untrained intellects, and equipped with only midwife, *Scotticé*, "howdy," experience, to set the standard of examinations, and take their places on Examining Boards on equal terms with qualified practitioners and teachers of midwifery. Surely the Examining Boards and reporters on examinations ought, in the early stages at least, to be exclusively composed of medical men and women.

The professors of bedmaking might gracefully postpone the assertion of their claims, and wait a bit until the system of examination in mere midwifery has been set on its legs and had a fair start.

The medical profession should keep a critical eye on the recognition, by the Central Midwives Board, of institutions as training schools and of members of the profession as teachers of midwife pupils. An abuse of considerable magnitude appears to be in course of creation. To the credit of the Board it may be recorded that there is some hesitation with regard to workhouse infirmaries; but, on the other hand, it seems that hardly any of the "ladies' charity" type of institution is too ill-organized and inefficient and untried and paltry to escape recognition as a school.

As to the professional instructors or lecturers for the training of midwives in midwifery, I have so far failed to discover any principle of action guiding the Board either in the recognition or rejection of applicants. As matters are shaping at present, there must at no very distant time be a teacher of midwifery in every township. The only satisfaction in contemplating extravagant proceedings is the rather remote prospect opening out behind them, that a reconstituted Board must act on diametrically opposite principles, and reverse the policy of their predecessors by compelling aspirants for privileges, which will secure them a professional income for life or good conduct, to seek their professional training within efficiently equipped institutions in the great centres of population and of intellectual activity.

There is still, however, some room for hope that wiser counsels may yet prevail under the enlightened and benevolent criticism of the medical profession, now at last enabled to watch events and by unofficial advice and assistance to minimize the injury to the public interests resulting from the inadequate representation of their profession on the Central Midwives Board.—I am, etc.,

Manchester, May 28th. W. J. SINCLAIR.

THE GOVERNMENT LUNACY BILL.

SIR,—Professor Clifford Allbutt's letter on this subject in the BRITISH MEDICAL JOURNAL of May 28th seems to be unanswerable. I have felt very strongly the objections which he urges to the legalization of the Scotch practice in this country. Yet, in spite of those objections, I allowed myself to be placed on the joint Committee which urged the Lord Chancellor to legalize the practice. I did so with many misgivings, and only because I recognized that the advice, to treat in institutions all persons of unsound mind, is a counsel of perfection which will not be followed. When we cannot do the best thing, we must be content to do the best practicable thing; and it is on this ground alone that I have given the proposal my support. The statement that "asylum life..... excites and depresses incipient lunatics into permanent madness" is stigmatized by Professor Allbutt as a "grievous charge." A writer with less self-restraint and less polished courtesy might call it a vulgar error. Nevertheless, it is an error that is widely spread and firmly held, even by those who should know better. Professor Allbutt's assertion that the hardship to the patient lies, not in the certificates, nor even in the institution, but in the terrible nature of the misfortune itself, is true through and through. But the public does not think so, and cannot yet be made to think so. Until the public is educated out of the fatuous beliefs that residence in a curative institution, under curative circumstances, will of itself render a patient worse; and that the "stigma" of insanity lies, not in the insanity itself, but in the name by which it is called and the means taken to deal with it: until then, we must be content to see a large number of cases of insanity treated by means which are not the best; until then, we must be content to accept, and even to support, makeshift legislation.

For what are the circumstances? Fathers, mothers, husbands, wives, are so steeped in prejudice against the "asylum" and the "certification" that, law or no law, they will not send their relatives to the institutions in which the patients would have their best chance of recovery. The consequence is that, in hundreds of cases, the only course to which consent can be got is to place the patient in private care, without legal formality. This is what is done, and this is what will continue to be done, whether the course is legalized or not. Is it then not better—this is the question that I put to myself—is it then not better that a course, which will be followed whether we allow it or not, should be legalized, and at the same time hedged about with some safeguard, however incomplete, rather than that the law should be continually violated? It seemed to me that I must answer this question in the affirmative, and I supported the proposal.

But it must be understood that the legislative change cannot end here. If the law formally permits persons of unsound mind to be placed for a season in private care without the customary safeguards which are required in cases indistinguishable in gravity from theirs; then it must, sooner or later, provide that the persons, in whose care the patients are placed, are fitted by training and special knowledge to undertake the task. No one has more reason than I to speak with respect and admiration of the knowledge and skill of the general practitioner, in whose ranks I served my time; but he, like the rest of us, has his limitations. We do not lay upon him the responsibility of an operation for cataract; we do not require of him a knowledge of tropical diseases; neither can we reproach him for a lack of knowledge in a speciality at least as remote as these from his daily practice; but it would be folly not to recognize the lack. which he himself would indeed be the first to admit. We cannot expect that those, to whom the care of an insane patient is but a small incident among many multifarious occupations, should attain to the same skill as those whose lives are absorbed in that single duty; but we must at least secure a certain minimum of knowledge in persons who undertake so heavy a responsibility as the care of the insane at the most critical period of their malady.—I am, etc.,

Catford, S.E., May 28th. CHAS. MERCIER.

SIR,—The interesting and weighty remarks of Professor Clifford Allbutt upon this subject in the BRITISH MEDICAL JOURNAL of May 28th will, I trust, receive the attention they merit. Those of us who treat cases of mental disorder in institutions have to complain that we commonly do not get them early enough. In which of the classes under which the admissions are grouped does the asylum medical officer like to see his patient? Naturally in Class I (first attack within three months of admission). The new amendment to the Lunacy Act proposes, if the disorder is "not confirmed," "incipient," to allow it to be treated, with the absence of formalities now necessary, for six months under the care of "person" with a stated name and address, "with a view to recovery." *Per contra*, if it is confirmed, pronounced, then may be looked upon as a case for the asylum, there to be delegated, not specially with a view to recovery. This latter may not be the view of the law, but will come to be the view of perhaps a growing section of the public. Yet some of us, with a view to promoting earliest possible admission, have been spending years in the endeavour to soothe the fears, allay the apprehensions, and overcome the repugnance of the public in respect of and towards the institutions with which we are associated, in face of the difficulties unnecessarily created and perpetuated by lawyers by the employment of such terms as "lunatic," "lunacy," "asylum," which are as antiquated and discredited as the system of weights and measures. And we have further struggled to impress on asylum governing bodies the "hospital" conception and the desirability of thoroughly-equipped "acute blocks" for reception and treatment of early recoverable cases: with the result when our representations have been successful, no little expense has been caused to ratepayers. Nay more, many of us consider the establishment of psychiatric cliniques and wards for early and acute cases in connexion with our lunacy teaching hospitals very desirable, alike in the interests of patients and lunacy specialists; and we shrink from comparison in this regard with Continental towns of second and third rate importance in size, but of the first rank in intelligence.

Perhaps it is time to have done with all such vaulting ambitions and extravagant aspirations, and to remodel our asylums on the corridor-barrack principle, and place our population of irrecoverables under the Poor Law, to be superintended by a disciplinarian "master," and visited by the district medical officer. May we expect to find the budding Griesingers and the future Kraepelins under the guise of "persons" with a stated name and address? They may, indeed, hereafter loom out of the "obscurity" of Professor Allbutt's "English homes."

Sir M. Foster is reported as having said in the recent debate in the House of Commons that the present state of the lunacy laws did not facilitate the application of science to lunacy, especially in the early stages. However that may be, are we to understand that the contemplated amendment is calculated to facilitate this? It would be pleasing to find that the promotion of facilities for the application of science to any purpose is a matter near to the hearts of our legislators.

The new amendment may be regarded as a suave attempt on the part of the law to bring within its fold those erring and wayward sheep which have so long eluded its grasp. But there is, perhaps, some risk lest the latest compromise, known as the six-monthly certificate, should create a modified species of conscientious objector, who will avail himself thereof to avoid placing those for whom he is responsible under the organized and elaborate system of care provided with much pains, but unfortunately endowed with an appellation so repellant as to give him the basis for his conscientious scruples.—I am, etc.,

Carmarthen, May 30th. EDWIN GOOD.

WHAT IS DEGENERATION?

SIR,—Dr. Mercier asks[1] for a definition of "degenerate." Surely it means that condition which is not capable of being raised to the ordinary standard. There are numbers of persons who have fallen from the standard, but are yet capable of reclamation. There are others who, though not up to the standard owing to want of proper conditions, are still educable when placed in suitable environment. Neither of these classes can properly be said to be "degenerate." Where the condition is such that no amount of care and training can elevate a given subject to the standard, then one may be said to have a "degeneration." The "degenerate" and the "deteriorate" is past improvement or elevation to the normal.—I am, etc.,

May 31st. T. G.

THE INFANT ORPHAN ASYLUM, WANSTEAD.

SIR,—The Infant Orphan Asylum at Wanstead is a charitable institution, supported by the public, containing over 1,000 children of both sexes, all of whom are of an age when they are particularly liable to infectious diseases, and, even

[1] BRITISH MEDICAL JOURNAL, April 2nd, 1904, p. 808.

adults, require skilled nursing when attacked by

Committee have lately, by refusing to make arrange- for the proper isolation of infectious cases, and still by dismissing their staff of trained nurses, taken so ade a step that we think it our duty to draw the atten- the public thereto.

sk you, therefore, to find space for the following letter ing the resignation of our respective positions as con- physician and consulting surgeon to the asylum.—We

W. P. HERRINGHAM.
W., May 30th. ANTHONY A. BOWLBY.

May 3rd, 1904.

To the Chairman of the Infant Orphan Asylum.

ir,—Three years ago your Committee requested one of your ng Medical Staff to report upon the arrangements for the care of sickness occurring at the asylum.

port advised:

; certain alterations should be made in the existing infirmary.
; adequate provision should be made for the isolation of infec- es, and for the disinfection of clothes and bedding, by building on block and by purchasing a steam disinfector.
the infirmary and isolation block should be under the charge ed nurse of the status of a hospital sister, with at least one urse under her orders.

port was approved by your Committee at the time. Within nonth your Committee has decided:

at an isolation block will not be provided."
at trained nurses will be abolished as permanent staff, and the will be under the charge of an untrained head nurse."
t the mild cases now composing and termed out-patients will by their own nurses in the main building."

e decisions have been arrived at without asking the opinion of r medical staff.

informed you that we consider that these arrangements do adequate provision for the health and treatment of the These number more than five hundred, many of them are d all are of an age at which they are specially prone to many disorders.

ider that so long as our names appear as members of your staff we may be held responsible for these arrangements. sked for an opportunity to meet your Committee in company local medical officer that we may state our opinion and dis- uestions that have arisen.

uest has not been granted, and we have therefore no alternative er you our resignation.

ve to ourselves the right to publish this letter.

We remain,

Yours faithfully,

W. P. HERRINGHAM, M.D., F.R.C.P.,
ANTHONY A. BOWLBY, C.M.G., F.R.C.S.

ESTING THE EYESIGHT OF A NATION."

r. Ogier Ward, in the BRITISH MEDICAL JOURNAL th, shows himself to be under so much misapprehen- I, also, am constrained "not to let his letter go ged." He asks how Mr. Aitchison can guarantee to anything approaching personal superintendence? is nothing in Mr. Aitchison's letter offering or such a system as his personal attention to every uestion seems futile. As a matter of fact, the ist at each establishment is thoroughly qualified by nd experience as much as Mr. Aitchison himself.

gard to the fees charged, Dr. Ward evidently does the facts. Having sent a good many patients to itchison for the correction of errors of refraction, I the fee charged included the supplying of suitable the first visit, but it also included retesting the or twice a year afterwards, and the supply of fresh enever necessary, and this for an indefinite period. rther charge. Did Dr. Ward know this he would mit that Messrs. Aitchison's charges were perfectly .

to me that the position of the optician, having a tween the hospital patients on the one hand and e consulting ophthalmic surgeon on the other, is to that of the general practitioner in our own pro- ho has his *clientèle* also, between those who frequent als and those who go to consultants. It is quite y mind, that there is a large class of individuals t poor enough, or do not wish to go to hospital for refraction simply, and on the other hand cannot fford two guineas for a visit to an ophthalmic

pecially is it the case, so frequently cropping up, tient is presbyopic or hypermetropic and of course e refractive error to be re-estimated and stronger plied at constant intervals. My experience is that the refraction is corrected perfectly by the competent optician and the medical man seeing the prescription and also the patient from time to time, afterwards, can soon see if all is as it should be.

The "improper and incomplete treatment of eye troubles," by the optician, mentioned by Dr. Ward, could thus never occur if medical men knew as much about the eye as they should, because they would only send cases to the optician suitable to his attainments, namely, the correction of refractive errors only and not those with underlying disease, which, after all, form but a small proportion of the total number of cases of defective eyesight.

Finally, I might add, that it would probably surprise Dr. Ward and many others if they knew what a number of medical men are sending patients to opticians in this way with complete satisfaction to all concerned.—I am, etc.,

London, S.E., May 31st. F. DUGON.

SIR,—The following may be of interest to your correspondents as throwing a light on the methods of "prescribing opticians."

Quite recently a lady at a fashionable seaside town on the South Coast lost her glasses and consulted an optician in the place, who professed to know a good deal about sight testing. She told him her lenses were numbered "D. something," and were supplied by Messrs. Curry and Paxton, who had registered the prescription. He replied each firm had its own method of numbering glasses, and one would not recognize the system of another. She was, unfortunately, induced to buy a pair (at a high price considering the quality of the goods) which did not suit her sight at all.

As I happened to be in the place for a few hours, I went with her to the shop, explained to the man that the glasses were not suitable, and from a trial set I made a proper selection. When I remarked there was a system of nomenclature for lenses well known throughout the civilized world, the assistant behind the counter promptly took me to task, and said I was wrong. He insisted that the inch-system was in use. I then informed him he was speaking to a medical man who understood sight-testing, and was aware of the British and French systems, the latter being universally adopted. He replied he did not care who I was or what my qualifications were, but that he knew just as much about it as I did, and he asked me to correct my statement, adding at the same time there were three systems in use—the inch, millimetre, and dioptre! On being asked what he meant by the word "dioptre," he was unable to explain; he knew nothing about the focal length of a lens, yet he insisted I was wrong. His insolence was so outrageous that I told him he deserved a box on the ears, which I was very willing to administer. He toned down somewhat when a threat was made to report him to the owner of the shop.

The prescribing optician and the prescribing druggist (the word "chemist" is a misnomer and should be applied only to analytical chemists) should be prevented from trading on the ignorance of their customers. Unfortunately, they are patronized by people in the upper circles of society who ought to know better. Only the other day I saw in an optician's shop in Oxford Street a private letter, from a well-known Admiral on the active list, thanking him for glasses supplied. This letter was placed in the shop-window as a profitable advertisement.—I am, etc.,

May 29th. B.Sc., M.D.

TREATMENT OF INEBRIETY BY DRUGS.

SIR,—I have read with much interest the correspondence that has appeared in the BRITISH MEDICAL JOURNAL on the subject of the Treatment of Inebriety by Drugs. Like Dr. Donald and Dr. Stewart, I find it impossible to conceive how any known drug can act upon the condition scientifically recognized as inebriety.

The vendors of sundry secret remedies have been telling us for upwards of fifteen years that their medicines, which include many preparations of strychnine or chloride of gold, are practically specifics, and more than this, perfect cures for inebriety.

At the present time, when quackery in drink cures is so rampant, I think it behoves us to express ourselves carefully, so that we may not seem to give colour to the quack contentions, or in any way that we can help, play into their hands.

Of course strychnine, as well as numerous other drugs and methods of treatment, are in every day use by medical men,

not as "cures" but as valuable means for combating various morbid physical symptoms of inebriety. Their action is perfectly well known to us and their use needs no apology so long as we do not claim them as cures.

The chloride of gold and sodium may be a valuable drug; it is interesting to hear from medical men that they have found it so. Those whom I have asked about it tell me that they consider it has valuable alterative and tonic properties.

I have only come across one definite account of the action of the drug and in that account it is stated that its therapeutic and toxic effects are precisely analogous to the corresponding salt of mercury.

A word about that blessed word "cure." Dr. Backwell Fenn and Dr. McBride do not actually use it, but it does not seem to me that they are sufficiently careful not to imply it. Dr. Backwell Fenn says: "In the great majority of cases four weeks is sufficient to transform the drink-sodden victim of intemperance into a healthy and sober man or woman."

Now "healthy" is a big word, but I suppose when a man is not drinking we are justified in calling him sober. If he never relapses again we may call him cured of his drinking, but not necessarily of his inebriety.

If we speak of recovery, restoration, or cure with regard to that condition I think we justify Dr. Donald's and Dr. Stewart's suggestion that we are failing to appreciate the real character of the disease. It is important never to speak as though our treatment could impart to a man even one day's immunity from the possibility of relapse. To do so would only be to discredit ourselves, for we all know that relapses are of deplorably common occurrence. The problem is surely not how to "pull a man up" and knock off his drinking bout; that kind of success is by no means difficult to accomplish. The problem is how to keep the lifelong inebriate from touching his lifelong snare—drink; how to make him grasp the fact that he can never be rendered insusceptible to this one particular poison.

It is certainly remarkable that a man may be an inebriate all his life and yet, after one particular "pull up," not again relapse. It is just as remarkable that a man may drink all his life and never be or become an inebriate. But a long period of isolation in a home is something very different from the treatment by drugs given in the acute physical stages of the disease. It is an advisable treatment in order to deal not with a man's drunkenness (for he cannot get drunk there), but with his inebriety. The superintendent of such a home once put the matter very well to me. She said, "My patients are here to rest, to get strong, to have the opportunity for undisturbed reflection, to learn about themselves, their social responsibilities and about their inebriety. They come here to think, and I see that they do it. But I do not find them capable of much steady thinking until they have been here six months." I am disposed from my own experience to agree with this conclusion. Even if Dr. McBride and Dr. Backwell Fenn find their patients able to take a sane and wholesome view of their condition during the three or four weeks following a drinking attack, still, there does seem to be rather a lot for the most willing patient to do during the time. I have always found myself that even very minute personal reforms have a way of taking me longer than that.

As regards treatment by drugs my own experience has been that patients who have been in homes nearly always ask me for a tonic and, when they do, invariably specify strychnine. Two, who have never relapsed, have asked me for it at intervals over the last four and six years respectively. I never give it them when they ask for it, for they own that they ask because they believe it to be a "stimulant." I encourage them to resist it and the desire for all other drugs as part of the same morbid craving, and I believe that they do very much better without it.—I am, etc.,

Cuckfield, May 24th. M. GORDON.

DIMINISHED CARDIAC DULLNESS IN CANCER PATIENTS.

SIR,—In a recent communication to the Medico-Chirurgical Society[1] Dr. W. Gordon called attention to the diminution of the cardiac dullness in cancer patients, and suggested that it might be due to changes in the lungs, involving loss of elasticity, etc. This is evidently a factor that must be taken into consideration; for of 123 necropsies on the bodies of women who had died of uterine or mammary cancer, I find that there were signs of pulmonary emphysema in 35, or 1 in every $3\frac{1}{2}$.

[1] BRITISH MEDICAL JOURNAL, vol. i, 1904, p. 606.

A still more important item, probably, is the great dilation in the size of the heart, aorta, and large arteries nearly always takes place in the course of this disease. It has been pointed out by Beneke that cancer patients in the earliest stage of the disease or prior to its onset, have small hearts and wide arteries, with small lungs; and this accords with what I have myself observed. Yet, in cases that have run their natural course, the necropsy always reveals a small heart, with corresponding dimin in the aorta and chief arterial trunks. These changes be secondary to alterations in the blood, which take during the course of the disease; for not only are its physical, chemical, and physical properties changed, the experiments of Louis show, its total quantity is diminished.—I am, etc.,

Clifton, Bristol, May 21st. W. ROGER WILL

POST-OFFICE MEDICAL APPOINTMENTS.

SIR,—A most important point in connexion with positions which does not come out in the letter correspondent "Medicus" (BRITISH MEDICAL JOURN 28th, p. 1262) which has come to my knowledge, and cannot I think be too widely known, is that these re placed postal officials if absent from their work on of illness for only one hour are required to ha time covered by a medical certificate, and in to be in a position to grant that certificate compulsory on the medical officer, on pain of di that the man should be actually seen during the absence by the official doctor. There are, I have found other equally harrassing regulations which do not a have been disclosed to "Medicus." The fact is, t Office appears, from what I can learn, to be an institut on the lowest type of commercial lines, which consist payment of huge salaries, inclusive of sick leave, leave, and pensions to a select few whose duty it is to show at the lowest possible cost by availing themselve lowest market price of labour, skilled or unskilled quently, so long as there is disunion and internecin amongst the members of the medical profession, a publicly known that one medical man is only too accept what another man has refused, so long may w it as hopeless to expect any better terms to be offe medical officers of the Post Office than those referred your correspondent.—I am, etc.,

MULTUM IN P

MEDICAL ACTS AMENDMENT BILL.

SIR,—If this is the right time, there are two remark made on the new edition, less by way of criticism suggestion.

1. The University of Birmingham is to elect a memb the twelve medical schools associated with the great hospitals have no representative. Surely one or two bers should answer for them. The constituency, of would be the governing committees of the metro hospitals, perhaps with the addition of the members staffs. For the Universities are to be represented su centres of education, and no one will place Birming Liverpool before any one of the metropolitan schools.

2. Some—not all—of the subsequent proposals ar as should be properly decided by the General Council and ratified by Parliament; the one-portal for instance, or the £1 fee for annual registration. If trial of a few years, it seemed advisable to reduce the fee to 1s. (which is quite enough) you could not do so again appealing to Parliament, which is absurd. Su grant of £200 were given from the Exchequer, then ther be on the Estimates a yearly discussion of the Counc ceedings, which would keep us in touch with the ture.—I am, etc.,

London, W., May 31st. G. CRIC

THE FEE FOR RESTORATION TO *MEDICA REGISTER.*

SIR,—I am afraid that even after reading Mr. Wesl son's letter criticizing my interpretation of Section XI Medical Act 1858 I am unable to alter my original stat Fortunately for the profession generally there is a Court of Justice which can decide matters in dispute when laymen disagree. I venture to think, however, w I trust, any egoism, that my reading of the Act would b ported by the learned Judges on the point that restora practically the same as registration, and that a medica

as been removed from the *Register* for any reason what- s placed in a similar position to an unregistered person. esley Wilson may rest assured that the General Medical il will never administer the clause in this respect with justice to any individual, and that the fears which he ses are not justified.—I am, etc.,

on, W., May 26th. A. George Bateman.

HE IRISH DISPENSARY SERVICE REPORT.

—I beg you will allow me, as your late Special Com- ner deputed by you to report on the condition of the Poor-law Medical Service, to place on record the great nd sympathetic support I received throughout my our from Dr. Leonard Kidd of Enniskillen, the Presi- f the Irish Medical Association. Although not him- nember of the important Poor-law Service, he has for fficials the warmest sympathy and the fullest feeling radeship; and throughout my tour I received unceasing ce and help from his local knowledge. My tour was d out by his own hand, and I feel that, without his elp, I should not have achieved whatever measure of may have attended my tour. From each and all the rs of the Irish Infirmary Medical Service I received st kindly help; but I should fail in my duty if I did cially place on record my debt to Dr. Leonard Kidd.

etc.,

Special Commissioner, British Medical Journal, Reporting on Irish Poor-law Medical Service, 1903-1904.

)-CALLED "PANCREATIC REACTION" IN THE URINE.

In the British Medical Journal of April 2nd, 1904, . Cammidge gives the substance of his Arris and Gale on The Chemistry of the Urine in Diseases of the s. Therein he describes a reaction in the urine le in all cases of pancreatic disease, and occasionally diseases "where active tissue-change is taking place." ction, taken in conjunction with the physical signs symptoms, he considers of great aid in the diagnosis reatic cases, and even as yielding a means of iating the various forms of such disease one from

as we can discover from the Arris and Gale Lecture, ion was based on the fact that fat necrosis, sometimes ertain diseases of the pancreas, was due to the split- f neutral fats, in certain situations, into glycerine r corresponding fatty acids. It was supposed that rine so liberated entered the circulation, was elimi- the kidneys, and might in the urine be detected by n into glycerose, testing for this latter with phenyl- e. The scientific basis for the above seems to us ubtful, but in view of the importance to be derived liable test for pancreatic disease, we submitted the o careful investigation.

nes experimented on were those of normal persons, tients in one of the general wards of this hospital, ar as we could ascertain, were not suffering from any c disease.

periments were as follows:

urines were tested for the two reactions "A" and the method described by Dr. Cammidge followed etail, with the exception that the flask was heated stos gauze instead of in a sand-bath, the result being ghtly more concentrated solution would probably n if the latter had been used.

id that in all the cases thus examined the typical stals in rosettes and sheaves were obtained, pro- solution was sufficiently concentrated; and, even oo dilute, a deposit was generally found on leaving -four hours—the presence or absence of the crystals ed therefore depending on the concentration of the ontinuing our observations, we were led to think action we obtained might be connected with the f a lead salt, and, to see if this were so, the follow- ments were undertaken:

e same urines were used as before, only this the solution had been neutralized with lead car- l filtered, ammonium sulphide was added to the e, and a black precipitate of sulphide of lead was This was filtered off, and the filtrate, now free salts, was heated to drive off the ammonia and ed hydrogen, and the precipitated sulphur then separated off by filtration. To this solution was now added the requisite amount of sodium acetate and phenyl-hydrazine hydrochlorate. Under these conditions no rosette-shaped crystals appeared, no matter how great the degree of concentration.

Secondly, distilled water was used to replace the urine, and the test carried out exactly in the same way as Dr. Cammidge described in reaction "A." Similar rosettes of crystals, only paler in colour, were obtained unless the lead had been previously removed by ammonium sulphide.

Thirdly, lead acetate solution was treated with sodium acetate and phenyl-hydrazine hydrochlorate, and again the typical fine needle-shaped crystals in rosettes and sheaves were found. Similar crystals were, of course, not obtained if sodium acetate and phenyl-hydrazine hydrochlorate were heated together alone.

The addition of a saturated solution of perchloride of mercury to the urines had, so far as we could discover, no effect on the formation of the crystals. And, indeed, we fail to see why, in pancreatic cases, this test should be of any use in distinguishing between crystals found in cases of acute pancreatitis and those in cases of chronic pancreatitis or malignant disease of that organ.

We have unfortunately not had the opportunity of examining many urines from patients known to be suffering from pancreatic disease as proved *post mortem*, but those we have tested did not give the typical rosettes of crystals, as described by Dr. Cammidge, if the lead salts had been carefully removed.

To sum up, then. We have always been able to find, in any urine examined by us, yellow needle-shaped crystals in rosettes and sheaves, apparently identical with those described by Dr. Cammidge as being frequently associated with pancreatic disease.

In view of the importance of the test, we should be very glad if these points above referred to could be cleared up.—We are, etc.,

Chas. E. Ham, M.B.Lond.
J. Burton Cleland, M.D.Sydney.
(From the Pathological Institute, London Hospital.

THE NECESSITY FOR IMPROVING THE TEACHING OF MASSAGE IN ENGLAND.

Sir,—As massage and exercises are now recognized in England as valuable therapeutic agents, it is time that something was done to improve the training of the English masseur or masseuse. This is the only way of stopping the "invasion of England" by the Scandinavian "medical gymnast."

The mechanical manipulations that are now taught to nurses under the name of "massage" are useless for the treatment of local affections. I have seen massage carried out in large London hospitals in a way that has been nothing but an often elegant and intricate but useless playing about on the skin. Beyond a slight stimulation of the superficial nerve endings, the effect of such a massage must be absolutely *nil*.

The French and the Germans have attempted to make an "art" of massage, and have invented an enormous number of complicated movements that can only appear ridiculous to an intelligent practitioner. As a handicraft, massage is very simple and can be learnt in a few days, but it is absolutely necessary that the masseur should have a knowledge of the muscles and their actions and the position of the principal blood vessels and nerves to be able to carry out instructions intelligently.

The treatment must necessarily differ according to the structure one wishes to reach. For instance, the emptying of the superficial blood vessels is effected by means of a superficial "effleurage;" a wasted muscle is kneaded or "pétrissaged" in its whole extent, and the breaking down of adhesions or muscle infiltrations is effected by means of a localized friction over the affected area. Suppose I have a patient suffering from the common affection of supraorbital neuralgia with palpable thickening of the nerve sheath, and wish to cure this by massage, how is the masseur to carry out my instructions if he does not even know the position of the nerve? For the proper giving of exercises—and without additional exercises massage is not often indicated—the knowledge of the action of the muscles is essential, as every one knows that the number of muscles implicated in any muscular action varies with the primary position of the

patient. The correct giving of the exercises is of special importance in the treatment of lateral curvature.

The superiority of the Swedish masseur does not depend on the knowledge of any specially effective manipulations, but simply on the fact that he is taught the necessary anatomy and can therefore intelligently carry out one's instructions.

At the two chief gymnastic institutes in Stockholm the training extends over two years, but this includes the teaching of drill and some theoretical teaching that would be considered unnecessary in England. I believe that a year's, or even a nine-months', training would be sufficient for an intelligent person to become a useful masseur or masseuse, especially as massage has at present only a limited use in in England.

If the medical profession object to this training from the fear of turning out yet another set of unqualified practitioners it will be necessary for them to self-undertake cases of local massage if they wish to obtain such good results from this treatment as is obtained on the Continent.—I am, etc.,

G. B. Jacobi.

London, W.

ROYAL ARMY AND NAVY MEDICAL SERVICES.

THE ROYAL COMMISSION ON MILITIA AND VOLUNTEERS.

The Royal Commission on Militia and Volunteers—the report of which was issued on May 27th—was appointed just a year ago, its duties, briefly summarized, being to consider what changes, if any, were required to secure the military efficiency and adequate strength of these two forces. The Commission, with the Duke of Norfolk as its President, included eleven persons, and, amongst others, four colonels in command of auxiliary forces, and the late permanent Under-Secretary for War, Sir Ralph Knox.

Thus constituted the Commission sat eighty-two times, and in addition to hearing some hundred and thirty-four witnesses received replies to questions addressed in writing to every Militia and Volunteer unit.

The final report is signed by eight out of the eleven Commissioners, while of the others Sir Ralph Knox appends a a memorandum conveying certain views of his own, while two of the auxiliary colonels sign a minority report. The contents of these latter documents will receive attention later on.

The Problem.

The report of the majority states that it first essayed to determine what constitutes adequate strength and military efficiency as regards the forces named. Failing to obtain any direct definition of these from the Committee of Defence or elsewhere, it formed it own conclusions upon the following among other grounds. The conditions in the way of home defence which may have to be met now are materially different to what they were formerly. The standing armies of foreign Powers are much larger than they used to be, their armaments are much more formidable, and rapid concentration of troops and transport of the same by land and sea is much easier than heretofore. The Commission recognizes that the country has as implicit confidence in the navy as it had in days gone by, but while glad that this is so, it considers that the growth of foreign navies should be borne in mind, and the fact not forgotten that there is a good deal of uncertainty as to the way in which modern war ships would behave under the conditions of a great naval war. It does not think it safe, therefore, to take it for granted that the navy would constitute an absolute guarantee against invasion under all the conditions in which the country might find itself placed. It is assumed, therefore, that the auxiliary land forces should be capable of repelling not merely a raid of five or ten thousand men but even an invasion in force. For these and various other reasons the commission estimates that the auxiliary force required is an effective body of 300,000 men or 100,000 Militia and 200,000 Volunteers, in other words much the same number as that at which the Militia and Volunteers at present stand upon paper.

The Militia.

The Militia at present on the establishment already equal the number stated to be required, but as regards efficiency at least one-third of the men are under the age at which, according to Continental views, men are fit for soldiers; their training too is insufficient, the strength of the different battalions very unequal, and many if not most of the officers merely join in order to qualify for commissions in the regular army. Other defects also exist, and after considering them the Commission concludes that the Militia at pres is, from causes beyond the control of the officers and unfit to take the field in defence of the country.

The Volunteers.

Much the same considerations apply, and, if anything, increased force to the Volunteers; their numbers not sufficient but apart from their training being insufficie put them on fair terms with the regular forces of fo countries, the whole force is to a great extent a ra one; from age and other causes a very large p portion of the men would prove ineffectives if the regi were called up for active service in the field. Of the o moreover, although there are many who have taken pains with their work that they would be considered useful officers in any army in the world, this is not th with all; many are absolutely incompetent both as re theory and practice, and the general result is that th such inequality in the efficiency, not only of different but amongst the officers of the same regiment, that und conditions of war that cohesion which is absolutely es would be entirely lacking.

Remedies.

The Militia equally with the Volunteers are at pres voluntary soldiers, for though a Militia Ballot Act exis use is ever made of it. Their function is to serve i within or out the country as circumstances may requi the force forms a recruiting ground for the regular ar the extent of some 16,000 men every year. The funct Volunteers is purely home defence; the force has a great effect in educating the people of Great Brita think of the army as a national institution, and the same time has enlarged the ideas of profes soldiers as to the means and methods of military ing. The Commission would deprecate any modifica of the conceptions which underlie the organization of two bodies unless it formed part of a scheme which led formation of an entirely new body. Whether such a ne is essential depends upon whether it is reasonably conc that circumstances might arise in which the i defence of the country would depend mainly, entirely, upon the auxiliary forces. If this q be answered in the negative, no responsibility rest upon the Militia and Volunteers, beyond of supplementing the efforts of the regular force this case the Commission thinks that the remedy present inefficiency might be found in increasing the of the training and in improving the organization auxiliary forces. While not quite certain of this poi Commission conceives, however, that circumstances arise in which attack might have to be met when the co was practically denuded of regular troops or that the might intentionally be sent out of the country with tention of meeting attack by counter-attack. If this sible the remedy lies quite in a different direction.

To improve the Militia as it at present stands, the Co sion suggests that Militiamen should be enlisted for years, receiving six months' continuous training at the of regular officers during the first year of service a weeks at the hands of their own officers in the second and fourth years, and a fortnight's training only for maining four years. The officers also should attend for ing six weeks every year instead of for a month, and receiving commissions should, like the men, recei months' continuous instruction.

The difficulties as regards increasing the efficiency Militia are largely financial; those in respect of the teers depend entirely upon the fact that Volunteers a who earn their own living, generally in permanent situ and that it is impossible to make any prolonged de upon their time. No suggestions, therefore, are put f for increasing the length of training, and those made deal with the formation of a central and special admi tion, modifications in the way in which capitation gra paid so as to remove the temptation now offered to com ing officers to secure the paper efficiency of large num men rather than real efficiency on the part of a few, a concentration of all training upon duties which eac ticular battalion may expect to have to carry out in wa

The Alternative.

The report does not say so in so many words, bu obvious that the Commissioners have no faith in the

ıy of the remedies which they suggest, and which lie in way of improving the existing forces, and as an alterna- to all of them it suggests the formation of a home army. reate this it is advanced that every man on arriving at ıge of 21 should be liable to be called up for a year's mili- instruction, followed by a fortnight for two or three years . In this way it believes every need of the country as ·ds home defence would be efficiently met, and in a way h would do neither the young men themselves nor any else any harm; that it would prove, in short, less expen- than the present arrangements, and not interfere materi- with the labour market. As regards the force in which it d result it is calculated that when all due exemptions on ınt of health, etc., have been made there would be some ɔo young men to train every year.

e Commission concludes its report by a statement that, the remedies suggested would improve the efficiency e auxiliary forces, a home defence army capable of pro- ıg the country against invasion in the absence of the e or greater portion of the regular forces can be raised naintained only on the principle that it is the duty of citizen of military age and sound physique to be trained e national defence and to take part in it should the ɛency arise.

THE MINORITY REPORTS.

he reports put in by those who did not sign the general of the Commission, only that of Sir Ralph Knox appears notice. Like the majority of his fellow commissioners, ieves that the time has come for the introduction of element of compulsion in raising and training the needed to form the second line of the military forces of npire. He also agrees that circumstances may arise in the country may have to rely for home defence entirely he auxiliary forces. He thinks, however, that provided terior training of these were good there would always be o bring them into thorough fighting condition between ne that war was declared and the time that the need ɔulsion of an actual invasion became a possibility. y of securing this anterior sufficient training he would en the first and subsequent training of the Militiaman mit enlistment in the Volunteers to young men n the ages of 18 and 20, and in his first year he Volunteer recruit three months' continuous train- ɔ be reduced to two if, before enrolment, the re- hould have reached a stipulated standard in mus- The Volunteer recruit would be enlisted for five and in the two years following the first he would camp for fourteen days, and also do twenty drills, nceateverythingexceptmusketrybeingvoluntaryinthe al years as regards both volunteers and militia. At the ime Sir R. Knox would encourage everything in the way tary exercises and musketry on the part of the general tion. At the age mentioned he believes that young uld be spared from their ordinary vocation for volun- rk for the necessary time quite easily. The element ɔulsion he would introduce in the following way:—He fix in advance the number of Volunteers and required for the defence of the country, and voluntary enlistment to those between the ages and 20 who possess the necessary physique, ıo in addition, as regards the Volunteers, have d a certain standard of education, say the sixth d of an elementary school. If in any year the total or either force was not made up by a given date he ɔut the Militia Ballot Act into operation and raise the ry number from men in their twenty-first year, the ɛer force thereafter ceasing to exist. He believes that way a strong stimulus would be brought to bear both mployers and employed not only to maintain the of Volunteers but to keep up those of the Militia also.

ROYAL NAVY MEDICAL SERVICE.

ɔwing qualified candidates for the Naval Medical Service have ɛred as Surgeons in His Majesty's Fleet and appointed to the ɔ, for Haslar Hospital, all to date May 23rd:—HARRY A. KELLOND- HUGH B. GERMAN, DOUGLAS D. TURNER, ALFRED B. COX, M.B., MOIR, BRITON S. ROBSON, M.B., ALFRED A. CHANCELLOR, RMAN B. V. JACOB, HERBERT STONE, M.B., B.A., GERALD NUNN, CK, WILLIAM L. HAWKINS, JOHN H. MCDOWALL, M.B., GEORGE TON. M.B., JOHN D. KEIR, GEORGE O. M. DICKENSON, M.B., MARSH, B.A., JAMES MCCUTCHEON, M.B., B.A., JOHN M. GORDON, LIAM C. B. SMITH, THOMAS E. BLUNT, LESLIE C. ROBINSON, M.B., E. MCCUNE, FRANK R. FEATHERSTONE, WALTER T. HAYDON.

M. HORSFALL, M.B., is also appointed Surgeon in H.M.'s 23rd.

lowing appointments have been made at the Admiralty: DAVID RY, Surgeon, to the *Apollo*, lent, June 2nd: HENRY B. BEATTY, ɛeon, to the *Osborne*, May 25th; HENRY W. M. REES, Surgeon, to the *Enchantress*, May 28th; ROBERT HICKSON, Fleet Surgeon, and A. H. S. RICHARDSON, Surgeon, to the *Minerva*, June 9th; JOHNSTON H. ACHESON, M.B., Fleet Surgeon, to the *Prince George*, June 9th; EDWARD W. LUTHER, Fleet Surgeon, to the *Durham*, June 6th; WILLIAM G. H. BARNES, M.D., Fleet Surgeon to the *Cæsar*, June 6th; WILLIAM R. WHITE, C.B., M.B., B.A., Fleet Surgeon, to the *Fire Queen*, June 6th; CHARLES E. GEOGHEGAN, Fleet Surgeon, to the Portsmouth Division Royal Marines, June 6th; GUY L. BUCKERIDGE, Surgeon, to the *Racer* (lent), June 9th; JOHN C. FERGUSON, Fleet Surgeon, M.B., B.A., to the *Boscawen*, additional, for the *Boscawen III*, June 3rd; FRANCIS J. GOWANS, Surgeon, to the *Leda* (lent), May 31st.

ROYAL ARMY MEDICAL CORPS.

CAPTAIN AND BREVET-MAJOR A. F. TYRRELL, from temporary half-pay, to be Captain and Brevet-Major, May 11th.

INDIAN MEDICAL SERVICE.

DEPUTY SURGEON-GENERAL ALFRED SANDERSON, M.D., late of the Madras Establishment, died recently at Douglas, Isle of Man, aged 76. He was appointed Assistant Surgeon, October 20th, 1853, and Deputy Surgeon-General, December 20th, 1883, when he retired from the service.

LANCASHIRE FUSILIER VOLUNTEER INFANTRY BRIGADE BEARER COMPANY.

THE KING has been pleased to approve of the Bearer Company of the Lancashire Fusilier Volunteer Infantry Brigade being formed into an independent unit, to be designated the "Lancashire Fusilier Bearer Company, Royal Army Medical Corps (Volunteers)."

MEDICO-LEGAL AND MEDICO-ETHICAL.

MEDICAL ADVERTISING IN LAY NEWSPAPERS.

WE have always maintained the principle that medical men should not advertise for patients in the lay press (see BRITISH MEDICAL JOURNAL, June 20th, 1903, p. 1471: July 4th, 1903, p. 36). The matter will be referred to the Ethical Committee.

NEWSPAPER NOTICES OF MEDICAL PRACTITIONERS.

A CORRESPONDENT sends us a cutting from the *Westminster Gazette* for May 21st, containing a notice headed "Studies in Personality," by Harold Begbie, of a well-known medical hypnotist. We regret that the *Westminster Gazette* should publish such notices, as they are generally distasteful to their subjects and disapproved by the medical profession, but there is nothing in the article to which our attention has been drawn to suggest that its subject had lent himself to its publication.

MEDICAL CONTRIBUTIONS TO THE LAY FRESS.

J. F., M.B.—We dealt with the person of whom our correspondent complains in the BRITISH MEDICAL JOURNAL for November 24th, 1900, in the ethical column, under the heading of "The Remunerative Art of Puffing." We do not think we could express ourselves more plainly respecting his conduct than we did on that occasion.

"FACE TREATMENT."

LAMBDA would like to have an expression of opinion as to whether a medical man should continue to employ a masseuse who has done good work under various members of the profession on her purchasing and becoming personally connected with an establishment for the practice of "face treatment," the latter including massage and the selling of various compositions for the complexion.

*** In our opinion much would depend upon the way in which the business was carried on; but, on the whole, it might be more desirable to avoid any appearance of giving support to such an establishment.

THE ATTITUDE OF THE MEDICAL PROFESSION TOWARDS UNQUALIFIED PERSONS WHO PROFESS TO TREAT DISEASE.

M. S. sends us a type-written letter addressed to him by the International Vibro-Massage Company, which is stated to be "commanding attention generally in the medical profession." Enclosed are illustrations of the appliances used, and a list of over thirty diseases for which it is stated to be beneficial, among which we notice paralysis agitans and sterility!

*** We may remind our correspondent that the question of the relation of the medical profession to such institutions was raised recently in the BRITISH MEDICAL JOURNAL, p. 980, by Dr. Lewis Jones, and dealt with in a leading article on p. 1090. We regret that there should be any ground for the accusation which our correspondent repeats that such unqualified persons are patronized by even well-known physicians and surgeons, who send their patients to them for treatment, but we fear that there is some foundation for this charge. The principle we have laid down is that the application of these physical remedies must be under the direction of a registered medical practitioner.

MEDICAL ETIQUETTE.

L. L. writes that he has bought a practice, being third in descent from the vendor, who sold it four years ago and who still practises five miles away, but who agreed in the contract of sale to observe a line of demarcation drawn between the two practices. He says that the vendor has given him notice that he no longer intends to be bound by the undertaking.

*** The question appears to be one which can only be determined by legal means, as it depends upon the wording of the contract. If the covenant not to practise within a certain area has been legally determined we do not think it would be possible to maintain that there was any breach of medical ethics.

UNIVERSITIES AND COLLEGES.

UNIVERSITY OF CAMBRIDGE.

HONORARY DEGREES.

AT the special Congregation held at Cambridge on May 28th for conferring honorary degrees on delegates from foreign academies, two of the six honorary degrees in science were conferred on the distinguished anatomists undermentioned.

The following are the speeches delivered by the Public Orator, Dr. Sandys, in presenting them for their degrees:

Emeritus Professor Retzius, of Stockholm.

Scandinavia, cuius etiam Regem inter doctores nostros numeramus, auspiciis optimis ad nos misit anthropologiae physicae conditoris insignis filium illustrem, qui anatomiam olim praeclare professus, eidem scientiae etiam otium suum et annos emeritos destinavit. Peritis nota sunt volumina illa maxima, eademque et typorum et imaginum splendore pulcherrima, et cerebri ipsius et sensuum omnium anatomiae et physiologiae explicandae dedicata. Idem, patriae non immemor, etiam Scandinaviae priscae "crania antiqua," arte eximia depicta, in libro singulari ordinavit. O terram felicem, quae non modo regia in domo artium et scientiarum tot cultores, tot patronos, numerat, sed etiam inter professores suos virum munificentia prope regia insignem non immerito admiratur.

[Sweden, whose King we also number among our doctors, has sent to us under the happiest auspices the illustrious son of the famous founder of physical anthropology, who after teaching anatomy with brilliant success, has devoted his years of leisure and retirement to the same science. Specialists are well acquainted with those magnificent volumes, most exquisite in their typography and in the beauty of the plates, devoted to the exposition of the anatomy and physiology of the brain itself, and of all the senses. Not unmindful of his country, he has also classified the antique skulls of primitive Sweden, in a monograph illustrated with consummate art. Happy indeed is the land that not only numbers so many students, so many patrons, of the arts and sciences in its Royal house, but, even among its professors, not undeservedly admires a man distinguished for his almost royal munificence.]

Magnus Gustav Retzius is the son of the famous anatomist Anders Adolf Retzius (1796-1860) and was born at Stockholm on October 17th, 1842. He studied at the Universities of Upsala and Stockholm, and took his Doctor's degree at Lund in 1871. In 1877 he was appointed Extraordinary Professor of Histology, and in 1889 Ordinary Professor of Anatomy in the Caroline Institute. He resigned his Chair in 1890 in order to devote himself to research. For purposes of anthropological investigation he travelled much in Europe and America. He has been the recipient of many distinctions, including the Monthyon Prize of the Institute of France. He is the author of works on the organs of hearing in osseous fishes (1872); Studies on the Anatomy of the Nervous System, in conjunction with Axel Key (1875 6); *Finska Kranier* (1878); The Organs of Hearing in Vertebrates (1881-4); *Biological Researches* (1881-2). The works especially referred to by the Public Orator are Professor Retzius's *Das Menschenhirn* (1896), and his *Crania Suecica Antiqua* (1899).

Professor Waldeyer of Berlin.

Academiam Berolinensem, et in scientiis et in litteris celeberrimam, oculis nostris quasi praesentem hodie reddit vir eximius, Academiae ipsius in scientiis physicis et mathematicis alter e ministris praecipuis, qui anatomiae in provinciis plurimis plurima cum laude versatus, vitae nascentis praesertim e studiis famam singularem est adeptus. Neque vitae ipsius circa limina obscura moratus, etiam urbium magnarum in lucem progressus est. Is certe, qui morum urbanitate et sermonis eloquentia anatomiae professores illos antiquos, Herophilos et Erasistratos, sine dubio superavit, est profecto, velut alter Hippocrates medicinae pater a Celso laudatus, "vir et arte et facundia insignis."

[The Berlin Academy, most renowned both in science and in letters, is to-day brought, as it were, before our eyes by an illustrious man, one of its two principal officers in the class of physical and mathematical sciences, who, having worked with the greatest distinction in many provinces of anatomy, has won especial fame by his studies in embryology. He has not, however, been content to haunt the dark portals of life, but has come forth into the light of great cities. One who, by the urbanity of his manners and the eloquence of his speech, has undoubtedly excelled those old teachers of anatomy, a Herophilus or an Erasistratus, is assuredly (like a second Hippocrates, the Father of Medicine praised by Celsus) "a man illustrious both for his skill and his eloquence."]

Heinrich Wilhelm Gottfried Waldeyer was born at Hehlen, on the Weser (Brunswick) on October 6th, 1836. He went to Göttingen in 1856, where he first studied mathematics and physics. Afterwards he turned his attention to medicine, devoting himself to anatomy under Henle. In 1858 he went to Griefswald as Assisiant to Budge in the Anatomical Institute. At the same time he worked in the clinics of Bardeleben, Niemeyer, and Rühle. Migrating to Berlin, where he worked under Du Bois-Reymond, he took his doctor's degree in 1862 with a thesis entitled De Claviculae Articulis et Functione. From 1862 to 1864 he was assistant to Willich in the Physiological Institute of Königsberg. From 1864 to 1865 he was assistant to Heidenhain at Breslau. In 1865 he was appointed Extraordinary Professor of Morbid Anatomy at Breslau, becoming Ordinary Professor two years later. In 1872 he was appointed Professor of Normal Anatomy and Director of the Anatomical Institute in the new German University of Strassburg, where he organized the anatomical department. There he continued to teach till 1883, when he accepted an invitation to become the head of the Anatomical Institute of Berlin. His chief works are treatises on the ovum and ovary (1878); the structure and development of carcinoma and ovarian cystoma; the structure of the teeth; the process of ossification and the topography of the female pelvis. He is one of the two Permanent Secretaries of the Class of Physics and Mathematics of the Royal Academy of Sciences, Berlin.

Degrees.—Professor C. S. Sherrington, F.R.S., has been approved for the degree of Doctor of Science. At the congregation on May 26th the following medical and surgical degrees were conferred. *M.B.*: F. D. Nicholson, King's; H. S. D. Browne, Trinity; W. E. Hume, Pembroke; E. Higson, Magdalene; W. B. Crowfoot, Emmanuel; H. J. Shone, Emmanuel. *B.C.*: H. Falk, King's; R. G. Elwell, Trinity; E. Ward, Clare; R. A. Worthington, Clare; W. E. Hume, Pembroke; K. H. A. Kellie, Caius.

Pathology.—An election will take place during the summer to the John Lucas Walker Studentship for Research in Pathology. The studentship is open to non-members of the University, and is worth £200 a year for three years. Applications are to be addressed to Professor Sims head not later than June 27th.

Surgery.—Professor Howard Marsh has generously offered to pro stipend for a Demonstrator of Surgery. The need for such an offic become urgent owing to the size of the classes in surgery and efforts which are being made to utilize fully the resources afforded new buildings of the Medical School. The General Board of Stud commend that the demonstratorship should be established.

Experimental Psychology.—The General Board similarly propose th new office of Demonstrator of Experimental Psychology should be lished, and that Dr. C. S. Myers should be appointed thereto.

Theses for M.B.—The Special Board for Medicine proposes that i of the variety of subjects which are offered for M.B. Acts, the Do Professor of Medicine, the Professor of Surgery, or the Professor o ology may be appointed as deputy for the Regius Professor in decid the merits of the exercises.

Anthropology.—The proposal to establish a Board of Anthropo Studies was opposed in the Senate, but was carried by 102 votes to 8

UNIVERSITY OF OXFORD.

Degrees.—In a congregation held on Thursday, May 19th, the fol degrees were conferred:—*Doctors of Medicine:* Edgar William New College; William Arthur Pernow Waters, Brasenose College. *cliffe Travelling Fellowship:* Hubert M. Turnbull, M.A., B.M., Ma College, has been elected to a Radcliffe Travelling Fellowship for years.

Examinations for the Degree of Bachelor of Medicine.

The examinations for the degree of Bachelor of Medicine in T Term will commence in the Examination Schools on Thursday, Jun They will be held in accordance with the following time-table:

First Examination: Thursday, June 16th, Examination Sch 9.30 a.m., human anatomy; 2 p.m., physiology. Friday, June Examination Schools—9.30 a.m., organic chemistry. Departm Chemistry, Museum—2 p.m., practical examination in organic che and viva voce. Saturday, June 18th, Examination Schools—9 30 materia medica. Department of Chemistry or Pharmacology, Mus 2 p.m., practical examination in materia medica, and viva voce. M June 20th, Department of Physiology, Museum—10 a.m., practi amination in physiology and histology. Tuesday, June 21st, Depa of Human Anatomy, Museum—10 a.m., practical examination in anatomy, and viva voce. Department of Physiology, Museum—1 viva voce examination in physiology.

Second Examination: Thursday, June 16th, Examination Schools—9. pathology; 2 p.m., principles and practice of surgery. Friday, Jun Examination Schools—9 30 a.m., principles and practice of med 2 p m., midwifery and diseases of women. Saturday, June 18th, Exa tion Schools—9.30 a.m., forensic medicine and hygiene. Medical L ment, Museum—2 p.m., practical examination in pathology. M June 20th, Medical Department, Museum—9.30 a.m., viva voce in ology; 2 p.m., practical examination in chemical and micro methods of medical diagnosis. Tuesday, June 21st, Radcliffe Infirm 10 a.m. and 2 p.m., clinical examination in medicine; written repo cases, and viva voce at bedside. Thursday, June 23rd, Radcliffe Infi —10 a.m. and 2 p.m., clinical examination in surgery; written repo cases, and viva voce at bedside. Friday, June 24th, Radcliffe Infirm 9.30 a.m., examination in surgical anatomy, the methods of opera and instruments. Medical Department, Museum—2 p.m., viva v medicine, surgery, and midwifery.

Examination for the Degree of Master in Surgery.

The examination for the degree of Master in Surgery in Trinity will commence at 10 a.m. in the Medical Department at the Muse Thursday, June 23rd.

PUBLIC HEALTH AND POOR-LAW MEDICAL SERVICE

HEALTH OF ENGLISH TOWNS.

IN seventy-six of the largest English towns, including London births and 4,507 deaths were registered during the week ending Sat last, May 28th. The annual rate of mortality in these towns, whic been 14.9, 16.1, and 15 5 per 1,000 in the three preceding weeks, fo fell last week to 15 4 per 1,000. The rates in the several towns r from 3 9 in Kings Norton, 5 5 in Devonport, 8.7 in Willesden and in H in Bradford. 20.1 in Plymouth, 20.4 in Sunderland and in South Sh 20.7 in Rochdale, 21.3 in Burnley, 21.7 in Warrington, 22.0 in Bootl 22.8 in Hanley. In London the death-rate was 14.3 per 1,000, wh averaged 15.8 per 1,000 in the seventy-five other large towns. death-rate from the principal infectious diseases averaged 1.8 pe in the seventy-six towns; in London this death-rate was equal per 1,000, while among the seventy-five other large towns the rates r upwards to 3 4 in Rhondda, 3.5 in Coventry, 3.6 in Salford a Rotherham, 3.9 in Aston Manor, 4 3 in Wallasey and in Blackburn, and Birkenhead. Measles caused a death-rate of 1 6 in Burnley a Huddersfield, 1.7 in Leeds, 1.9 in Walthamstow, 2.1 in Brighton, Birkenhead and in Rotherham, and 3 5 in Wallasey; whooping-co 1.4 in Plymouth, 1.5 in Bolton, 1.8 in Birkenhead, 2 1 in Coventry, Merthyr Tydfil, 2.3 in Walsall, 2.5 in Bootle, and 3.2 in Aston Mano in Birkenhead; and diarrhoea of 1.6 in Hanley and in West Brom The mortality from scarlet fever, from diphtheria, and from enteric showed no marked excess in any of the large towns. Two fatal ca small-pox were registered in London, one in Stockport, and one in ford, but none in any other of the large towns. The Metropolitan As Hospitals contained 118 small-pox patients on Saturday last, May against 88, 99, 96 on the three preceding Saturdays; 33 new cases we mitted during the week, against 14, 26, and 18 in the three preceding w The number of scarlet fever cases in these hospitals and in the Lo Fever Hospital, which had been 1,590, 1,600, and 1,630 at the end o three preceding weeks, had further risen to 1,663 at the end o week; 194 new cases were admitted during the week, against 242, 23 222 in the three preceding weeks.

HEALTH OF SCOTCH TOWNS.

the week ending Saturday last, May 28th, 958 births and 582 were registered in eight of the principal Scotch towns. The rate of mortality in these towns, which had been 18.0, 17.9, and 1,000 in the three preceding weeks, declined again last 17.6 per 1,000, but was 2.2 per 1,000 above the mean rate during period in the seventy-six large English towns. Among these towns the death-rates ranged from 14.9 in Paisley and 15.3 in 0, to 20.0 in Edinburgh and 21.5 in Perth. The death-rate from the infectious diseases in these towns averaged 1.9 per 1,000, the rates being recorded in Dundee and Paisley. The 262 deaths d in Glasgow last week included 9 which were referred to g-cough, 5 to diarrhoea, 2 to measles, 2 to diphtheria, 1 to r, and 1 to scarlet fever. Five fatal cases of whooping-cough, rrhoea, and 2 of measles were recorded in Edinburgh; 9 of g-cough, 3 of measles, and 3 of diarrhoea in Dundee; 4 of whoop- and 2 of diarrhoea in Aberdeen; 3 of measles in Paisley; and les in Greenock.

HEALTH OF IRISH TOWNS.

he week ending Saturday, May 21st, 563 births and 379 deaths stered in six of the principal Irish towns, against 578 births and 3 in the preceding period. The mean annual death-rate in these ich had been 21.7, 19.9, and 21.2 per 1,000 in the three preceding se to 22.4 per 1,000 in the week under notice, this figure being 6.9 e mean annual rate in the seventy-six English towns in the ding period. The figures ranged from 15.0 in Limerick and rk to 23.8 in Dublin and 33.1 in Waterford. The death-rate from ipal zymotic diseases during the same period in the same owns averaged 1.4 per 1,000, or the same as during the preced- the highest figure, 2.2, being reached in Belfast, while Limerick no death under this heading at all. From measles 2 deaths rded in Belfast and 3 in Dublin; from scarlet fever, 1 in d 2 in Belfast; from whooping-cough, 7 in Belfast, 5 in d 1 each in Cork and in Londonderry. Diphtheria caused 1 ublin, and enteric 2 in Dublin, 3 in Belfast, and 1 in Cork.

ICAL VACANCIES AND APPOINTMENTS.

VACANCIES.

' vacancies is compiled from our advertisement columns, where full rs will be found. To ensure notice in this column advertisements ceived not later than the first post on Wednesday morning.

AM: CITY ASYLUM.—Junior Assistant Resident Medical Officer. Salary, nnum.

: HOVE AND PRESTON DISPENSARY.—House-Surgeon. Salary, £160 n.

S UNIVERSITY.—John Lucas Walker Studentship, annual value, £200.

OSPITAL, Fulham Road, S.W.—Assistant Anaesthetist. Honorarium, 25 er annum.

AY: KENT AND CANTERBURY HOSPITAL.—House-Physician, resident. 0 per annum.

ONDON OPHTHALMIC HOSPITAL, Gray's Inn Road, W.C.—House- resident. Salary at the rate of £50 per annum.

NDON HOSPITAL FOR DISEASES OF THE CHEST, Victoria Park.— st. Salary, 100 guineas per annum.

ND AND WESTMORELAND ASYLUM, Garlands, Carlisle.—Junior Assist- al Officer, resident. Salary, £130, rising to £150 per annum.

E ROYAL INFIRMARY.—Resident House-Surgeon. Salary, £100 per

MPSTEAD: WEST HERTS INFIRMARY.—House-Surgeon, resident. 00 per annum.

OR CONSUMPTION AND DISEASES OF THE CHEST, Brompton.— louse-Physicians. Honorarium, £25 for six months.

OR SICK CHILDREN, Great Ormond Street, W.C.—Ophthalmic Surgeon.

L INFIRMARY.—Fourth House-Surgeon, resident. Salary, £50 per

INFIRMARY.—Assistant House-Surgeon, resident. Salary, £80 per

DISPENSARIES.—Assistant Surgeon, resident. Salary, £100 per annum.

INFIRMARY FOR CHILDREN.—House-Surgeon, resident. Salary, £100

SPITAL.—Cancer Research Scholarship value £150.

COUNTY ASYLUM.—Assistant Medical Officer as locum tenens, resident. 4s. per week.

NFIRMARY.—Resident Medical Officer. Salary, £100 per annum.

E HOSPITAL, Gray's Inn Road, W.C.—Senior Resident Medical Officer. 0 per annum.

ON OPHTHALMIC HOSPITAL.—Third House-Surgeon, resident. Salary, um.

OSPITAL SOCIETY. Greenwich.—House-Surgeon for the Branch Hospital, Salary, £50 per annum.

RUTLAND AND GENERAL INFIRMARY.—House-Surgeon, resident. 0 per annum.

D GENERAL EYE HOSPITAL.—Resident Medical Officer. Salary, £75

OSPITAL FOR DISEASES OF THE NERVOUS SYSTEM, PARALYSIS EPSY, Welbeck Street.—Honorary Assistant Physician.

ON HOSPITAL, Hammersmith Road.—House-Physician, resident. Ap- for six months.

G ASYLUM, Wadsley.—Fifth Assistant Medical Officer, resident. Salary, to £160 per annum.

PTON AND STAFFORDSHIRE GENERAL HOSPITAL.—Assistant ician, resident. Honorarium at the rate of £75 per annum.

APPOINTMENTS.

M.D.Edin., C.M., Medical Officer and Public Vaccinator for the Failsworth he Prestwich Union.

rt W., F.R.C.S.Eng., Surgeon to the Tottenham Hospital.

ohn, M.B., Ch.M.Melb., Government Medical Officer and Vaccinator at N.S.W., *vice* D. Moffit, resigned.

asmus, M.D.Brux., M.R.C.S.Eng., L.R.C.P.Lond., L.S.A.Lond., Clinical St. John's Hospital for Diseases of the Skin, Leicester Square, W.C. M.D., Visiting Surgeon to the Gaol at Cootamundra, N.S.W., *vice* Dr.

. E., M.B., B.S.Durh., Medical Superintendent of the Shoreditch Work- nfirmary, *vice* E. Norton, M.R.C.S., L.R.C.P., D.P.H., resigned.

onard, M.R.C.S.Eng., L.R.C.P.Lond., Honorary Assistant Surgeon to the d Hospital, Bath, *vice* H. L. Brownlow, F.R.C.S., resigned.

T., M.R.C.S., F.R.C.P.Lond., Resident Medical Officer, West Derby Union

DIARY FOR NEXT WEEK.

TUESDAY.

Royal College of Physicians of London, 5 p.m.—Dr. J. Rose Bradford On Bright's Disease and its Varieties (Croonian Lecture I).

WEDNESDAY.

Dermatological Society of London, 11, Chandos Street, Cavendish Square W., 5.15 p.m.—Demonstration of cases of interest.

THURSDAY.

Royal College of Physicians of London, 5 p.m.—Dr. J. Rose Bradford On Bright's Disease and its Varieties (Croonian Lecture II).

South-West London Medical Society, Municipal Buildings, Lavender Hill, Clapham Junction, 8.45 p.m.—Bolingbroke Lecture by Dr. W. H. Allchin on Some Special Features of Diseases of the Colon.

Ophthalmological Society of the United Kingdom, 11, Chandos Street, Cavendish Square, W., 8 p.m.—Specimens and Cases by Dr. Louis Werner, Mr. E. E. Henderson, and Mr. G. W. Roll. 8.30 p.m.—Papers. Mr. S. Snell: (1) Optic Atrophy from Lead; (2) Optic Atrophy from Uterine Haemorrhage; (3) Glioma in Each Eye; (4) Two Cases of Glioma in One Family. Mr. S. Mayou: On Microphthalmos.

POST-GRADUATE COURSES AND LECTURES.

Charing Cross Hospital, Thursday, 4 p.m.—Demonstration of Dermatological Cases.

Hospital for Consumption and Diseases of the Chest, Brompton, Wednesday, 4 p.m.—Lecture on the Diastolic Murmurs of High Tension in the Pulmonary Artery.

Hospital for Sick Children, Great Ormond Street, W.C., Thursday, 4 p.m.—Demonstration of Dental Cases.

Medical Graduates' College and Polyclinic, 22, Chenies Street, W.C.—Demonstrations will be given at 4 p.m. as follows: Tuesday, Medical; Wednesday, Surgical; Thursday, Surgical; Friday, Throat. Lectures will be delivered at 5.15 as follows: Monday, the Treatment of Malignant Diseases of the Large Intestine; Tuesday, Epistaxis, its Causes and Treatment; Wednesday, on Affections of the Eyelids; Thursday, Glaucoma.

Mount Vernon Hospital for Consumption and Diseases of the Chest, 7, Fitzroy Square, W., Thursday, 5 p.m.—Lecture on Nervous Affections of the Heart.

National Hospital for the Paralysed and Epileptic, Queen Square, W.C.—Lectures will be delivered at 3.30 p.m. as follows: Tuesday, Some Forms of Paralysis in Children; Friday, Sclerotic Diseases of Spinal Cord.

North-East London Post-Graduate College, Tottenham Hospital, N., Wednesday, 4.30 p.m.—Lecture on Some Common Affections of the Scalp.

Post-Graduate College, West London Hospital, Hammersmith Road, W.—Lectures will be delivered at 5 p.m. as follows: Monday, Practical Surgery; Tuesday, Pelvic Haemorrhage; Wednesday, Dyspepsia; Thursday, Insanity and the Neuroses (at Hanwell Asylum); Friday, Typhus Fever.

St. John's Hospital for Diseases of the Skin, Leicester Square, W.C.—Thursday, 6.15 p.m., Lecture on Lichen.

St. Peter's Hospital, Henrietta Street, W.C., 3.30 p.m.—Lecture-Demonstrations will be given as follows: Monday, Cases in the Wards; Thursday, Electro-Illumination of the Urethra and Bladder.

BIRTHS, MARRIAGES, AND DEATHS.

The charge for inserting announcements of Births, Marriages, and Deaths is 3s. 6d., which sum should be forwarded in post-office orders or stamps with the notice not later than Wednesday morning, in order to ensure insertion in the current issue.

BIRTHS.

ELKINS.—On the 30th May, at Leavesden, Herts, the wife of Frank Ashby Elkins, of a son.

WAKLEY.—On Friday, May 27th, 1904, at 16, Hyde Park Gate, S.W., the wife of Thomas Wakley, Junr., L.R.C.P.Lond., of a son.

LETTERS, NOTES, AND ANSWERS TO CORRESPONDENTS.

COMMUNICATIONS respecting Editorial matters should be addressed to the Editor, 2, Agar Street, Strand, W.C., London; those concerning business matters, advertisements, non-delivery of the JOURNAL, etc., should be addressed to the Manager, at the Office, 429, Strand, W.C., London.

ORIGINAL ARTICLES and LETTERS *forwarded for publication are understood to be offered to the* BRITISH MEDICAL JOURNAL *alone, unless the contrary be stated.*

AUTHORS desiring reprints of their articles published in the BRITISH MEDICAL JOURNAL are requested to communicate with the Manager, 429, Strand, W.C., on receipt of proof.

CORRESPONDENTS who wish notice to be taken of their communications should authenticate them with their names—of course not necessarily for publication.

CORRESPONDENTS not answered are requested to look at the Notices to Correspondents of the following week.

MANUSCRIPTS FORWARDED TO THE OFFICE OF THIS JOURNAL CANNOT UNDER ANY CIRCUMSTANCES BE RETURNED.

IN order to avoid delay, it is particularly requested that ALL letters on the editorial business of the JOURNAL be addressed to the Editor at the Office of the JOURNAL, and not at his private house.

TELEGRAPHIC ADDRESS.—The telegraphic address of the EDITOR of the BRITISH MEDICAL JOURNAL is *Aitiology, London.* The telegraphic address of the MANAGER of the BRITISH MEDICAL JOURNAL is *Articulate, London.*

TELEPHONE (National):—
EDITOR, 2631, Gerrard.
GENERAL SECRETARY AND MANAGER, 2630, Gerrard.

☞ *Queries, answers, and communications relating to subjects to which special departments of the* BRITISH MEDICAL JOURNAL *are devoted will be found under their respective headings.*

QUERIES.

TREATMENT OF WHOOPING COUGH.

P. asks for advice in the treatment of pertussis. Bromoform, sodium benzoate, belladonna, bromides, alum with ol. succini incorporated with liniments externally, have been tried, but no one line of treatment appears satisfactory.

SYPHILIS AND PREGNANCY.

S. writes: A man who has had syphilis and undergone thorough mercurial treatment for one and a-half to two years married about one year after the last appearance of any symptoms. Ten months later one testicle became affected in apparently late secondary or early tertiary manner, the epididymis being especially affected. For this he was treated with potassium iodide. Just at this time his wife became pregnant for the first time. (1) Is there any likelihood of the child being contaminated with the disease? (2) Is it advisable for the wife to undergo any specific treatment?

*** (1) It is likely that the child will show signs of disease. (2) The wife should be treated with mercury throughout pregnancy.

INCOME TAX.

G. H. P. writes: I have been called upon to make a return of my income. (1) What proportion of the rent of my house may I deduct? (2) Can I deduct cost of fittings to surgery—drugs, and surgical instruments, and speaking tube? (3) What other deductions may I make? I started in practice on January 1st, 1903, and did not purchase any nucleus.

*** (1) Such proportion, not exceeding two-thirds, of the rent may be deducted as represents the value of the rooms used solely for professional purposes. (2) Cost of drugs, yes; the other items, no, for they are regarded as capital outlay incurred in starting the practice. Cost of subsequent repair or renewal of such articles may be deducted when incurred. (3) See the BRITISH MEDICAL JOURNAL for April 11th and June 20th, 1903, article, "Income-Tax Assessment."

MOLYBDENUM.

INQUIRENS writes: Is anything known of the physiological action of the salts of molybdenum, or of their action on bacteria? Have any of the compounds of molybdic acid, for example, the molybdates of ammonium and sodium, been exhibited internally, and if so, for what? What is a safe dose of these molybdates? Are there any recorded cases of poisoning by molybdenum? I have a recollection of a statement made by my chemistry professor to the effect that a cow had been found dead in a field surrounded by a wall in which was built a block of molybdenite, MoS_2, which strongly resembles graphite, and the death of the animal was attributed to its licking this mineral.

ANSWERS.

NURSING MOTHERS AND MALARIA.

FAR EAST.—(1) If the mother is suffering from malarial fever she must be treated by quinine in adequate doses. The child then must be hand-fed. (2) Quinine is said to be excreted by the milk, and it might cause some minor disturbances in the child. (3) There is no ground for supposing that quinine taken by the mother could cause otitis media in the child.

CYTOLOGY.

J. B. C. asks us to recommend him a good English work on cytology.

*** We advise him to read Wilson's *The Cell in Development and Inheritance*. (London: Macmillan and Co. 1900. 14s.)

GERM CELL, who inquires where an account can be found of "the methods of altering the development of germinal cells as described by experimental embryologists," cannot do better than consult the same book.

FACIAL PIGMENTATION.

DR. HENRY WALDO, (Physician to the Bristol Royal Infirmary, and in charge of the Department for Skin Diseases) writes: In reply to "Rusticus" my friend and colleague, Dr. Shaw, sent me about two years ago a young unmarried lady with very marked pigmentation of the skin of the forehead of eighteen months' duration. I tried, as an application, solution of sodium hyposulphite, adrenalin with resorcin, and the *B. P.* solution of peroxide of hydrogen without much effect. I then suggested hydrozone (an aqueous solution of peroxide of hydrogen, and three times as strong as the *B. P.* solution) with a very satisfactory result. I warned the patient of the explosive nature of this solution.

ARTIFICIAL EYE FOR A CHILD.

A.—An artificial eye should not be used in a child until he is old enough to understand its use. It is usually quite soon enough to wear one when school life begins. It should always be removed at night, and, in fact, the less it is used the less likely will it be to cause irritation and contraction of the socket, though it may be used all day, as a rule, without discomfort. No special form of artificial eye is recommended, but it should fit well, as if it is too large or too small it will cause trouble.

LETTERS, NOTES, Etc.

DR. THOS. WHITELAW (Portobello) writes: With reference to the question, Is atmospheric pressure a possible determining cause of cerebral haemorrhage? raised by Dr. Hensleigh Walter, I beg to refer him to a paper of mine which you were good enough to find space for in the BRITISH MEDICAL JOURNAL of May 30th, 1896. The article is entitled, Haemorrhages: Their Relation to Barometric Pressure.

A CAUTION.

FROM a communication received from a correspondent in the South of England, we are led to repeat a caution given some years ago to the effect that medical men who may receive letters from a person calling herself Mrs. Etheridge, should, before giving assistance, communicate with the Secretary of the Charity Organization Society, 15, Buckingham Street, Strand, London, W.C.

FIRST-AID TREATMENT OF CUT ARTERIES.

Dr. C. F. WIGHTMAN (Royston) writes: I think Dr. Parry's experience, as expressed in his letter to the BRITISH MEDICAL JOURNAL of May 14th, was also the experience of most examiners up to the last year or two. Recently, however—I am speaking as an examiner of some years' standing—candidates have been better prepared, and I should say it is the exception rather than the rule to get a wrong answer to the above question. Such, at any rate, is the case in the classes conducted by the London County Council Schools (late School Board for London). This point in treatment is especially emphasized in *First Aid in Accidents*, by Collie and Wightman, the textbook used by the majority of lecturers and scholars in the schools.

METHOD OF ARRESTING AN EPILEPTIC FIT.

INTERESTED writes: The treatment of epileptic fit described by Dr McConaghey is of very ancient date. In the Seventies, while a medical student, having met with a few such cases, common sense led me to turn the patient at once on his side, and keep him so, my reason being that while the patient lies on his back unconscious the tongue falls back into the glottis, obstructing the atmospheric highway, and on turning the patient on his side the tongue follows, and allows the respiration to be re-established. I presume the pain in the ankle felt by the militiaman was the premonitory symptom of the "epileptic aura," and the a may have had the effect—if applied in time—of preventing the fi is also ancient treatment, but "there is nothing new under the s

LETTERS, COMMUNICATIONS, ETC., have been received from:

A Dr. H. G. Adamson, London; Dr. H. Armstrong, Liverpool; Mr. J. B. Atkins, L
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BOOKS, ETC., RECEIVED.

Malvern. Edited by George W. May. London: The Health Resorts Association. 1904.

Lehrbuch der speciellen Chirurgie. Von Dr. Franz Koenig. Achte Auflage. I Band. Berlin: August Hirschwald. 1904. M. 15.

Lehrbuch der speciellen Chirurgie. Von Dr. Franz Koenig. Achte Auflage. II Band. Berlin: August Hirschwald. 1904. M. 17.

Medical Jurisprudence for India. By J. B. Lyon, C.I.E., F.C.S., F.I.C. Revised and brought up-to-date by L. A. Waddell, M.B., C.I.E., LL.D., F.L.S. Third Edition. Calcutta: Thacker, Spink, and Co. 1904. 18s.

The Fertility of the Unfit. By W. A. Chapple, M.D., Ch.B., M.R.C.S., D.P.H. Preface by Rutherford Waddell, M.A., D.D. Christchurch, N.Z.: Whitcombe and Tombs, Ltd. 2s. 6d.

Golden Rules of Anaesthesia. By R. J. Probyn-Williams, M.D. "Golden Rules" Series, No. XIV. Bristol: John Wright and Co. 1s.

Victoria University of Manchester Health Laboratory: Prevent Control of Infectious Disease. on Vaccination, its Pathol Practice, by S. Monckton M.A., M.D., F.R.C.P., D.P.H. on April 25th, 1904. Manchest versity Press. 1904. 1s. 6d.

Medical Monograph Series. No. Palate and Hare-lip: the Operation on the Palate. By Owen, M.B., F.R.C.S. London: Tindall, and Cox. 1904. 2s. 6d.

Transactions of the American logical Association for the Y Volume XIX. Philadelphia: Climatological Association. 190

Proceedings of the Philadelphia Medical Society. Vol. XXV March 31st, 1904. New Series. Edited by John M. Swan, M.D. delphia: Philadelphia County Society. 1904

National Physical Training: An bate. Edited by J. B. Atkin don: Isbister and Co. 1904. 2s

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A Clinical Lecture
ON
CANCER OF THE PANCREAS.

Delivered at St. Bartholomew's Hospital,
BY SIR LAUDER BRUNTON, M.D., F.R.S.

ERE are two cases to which I wish to draw your attention lay because they are both of extreme interest, and they n presented the common features of jaundice, pain, and ciation.

CASE I.

he first case was that of a woman aged 44. When admitted complained of pain in the chest and back and abdomen. months prior to admission she had been suffering from pepsia, and three weeks before admission she took to her for weakness, pain in the back, and sickness in the morn-

When admitted she was very pale, there was a slight olic murmur over the pulmonary artery and another limited over the left nipple. Both of those seemed to be simply mic, very soft and of limited distribution. On examining abdomen the stomach was not found to be dilated use, although you might almost imagine from the draw- which I have made, and in which you see the stomach hing nearly to the umbilicus, that it was dilated, that is so. I have made many hundred observations on the posi- of the lower margin he stomach in women have found that in great majority it nes down to the um- us. So I should re- this as the normal ion of the great cur- re of the stomach in en, although in men a position would in- e a very considerable nt of dilatation. On ation distinct resist- was felt a little above mbilicus in the mid- ne. I was uncertain e time whether this due to some tumour e stomach itself or ly to the hardness of ecti contracting so as ield a tender spot in tomach below. But Von Bergen was more nate, and he was able d a distinct nodule in tomach. As I have occasion to show you e, the pylorus varies much in its position time to time, and a ic tumour may be in almost any part e epigastric or in mbilical regions, or ther side of the middle line as far as the ribs on the side. Some days afterwards this swelling had not changed its character but it was felt much more ctly to the right. Those symptoms I have described led naturally to the diagnosis of cancer of the stomach. But a little while longer the patient began to get jaundice and jaundice became very deep and the emaciation exceed- rapid, so much so that I was inclined to think we had al here not with a case of simple carcinoma of the stomach one in which cancer of the pancreas was superadded. emaciation was progressive and rapid, and finally the nt died. On *post-mortem* examination cancer was found in tomach, forming a large ulcer near the pyloric orifice with what thickened edges but without any great thickening. floor of the ulcer was smooth, and then came the nation of the intense jaundice which the patient pre- d. The glands about the pancreas and in the hilum of the were invaded by new growth, forming a very firm mass. pancreas itself was not involved.

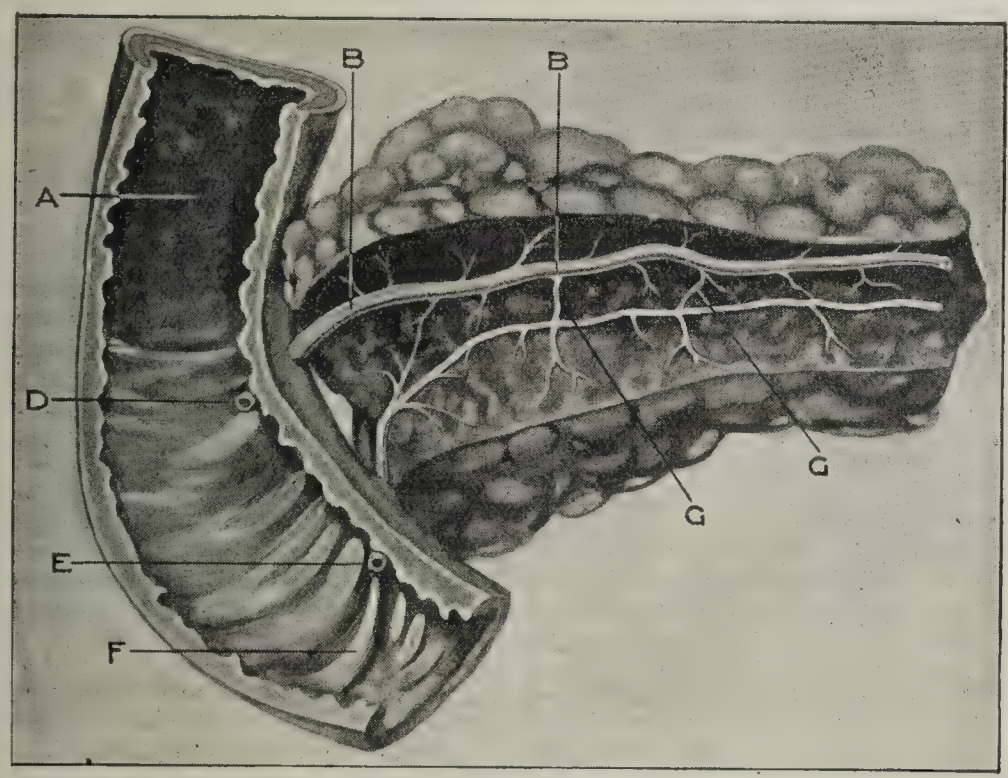

Fig. 1.—Portion of human pancreas and duodenum from a person who had been executed (after Claude Bernard, *Physiologie Expérimentale*, 1856, Tome ii, p. 185), showing a condition in which pancreatic juice may enter the intestine, although the gall duct is obstructed. A, Duodenum showing the projections formed by Brunner's gland. B, B, The large pancreatic duct. C, C, Anastomoses between the small pancreatic duct and the large pancreatic duct. D, Opening of the superior pancreatic duct into the intestine. E, Opening of the small inferior pancreatic duct into the bile duct. F, Ampulla of Vater.

The fact was that the mass of glands invaded by cancer was firmly pressed against the pancreas and had no doubt caused obstruction of the common bile duct; whether it entirely prevented the flow of pancreatic juice into the bowel I cannot say, but I am inclined to think that it must have done so to a great extent judging from the very rapid emaciation of the patient. Here, then, we have to deal with a case of cancer of the stomach in which the glands were so much involved secondarily as to bring about the symptoms of pancreatic cancer, although the pancreas itself was absolutely free from the disease.

CASE II.

The next case is one of cancer of the pancreas. H. B., aged 54, a porter, admitted complaining of pain in the abdomen. Twelve weeks before admission he had pain in the epigastrium and in the back, with a feeling of weight after his meals. Two days after the commencement of this pain his eyes became yellow, and in three more days his skin was yellow. He noticed also that his motions were light coloured. He had no vomiting and no diarrhœa. When the patient was admitted he looked thin and rather emaciated. His chest was somewhat barrel-shaped and the costal angle was very wide. There was accentuation of the second sound over the aortic orifice. The apex beat was in the normal position, the first sound was slightly prolonged, but there was nothing amounting to a real murmur. The liver was very large, and the edge of it was quite smooth. But the feature which most attracted one's attention was that under the ribs, on the right side, was a rounded boss circular in outline. It was not tender on pressure and there was no rise of temperature, the patient's temperature being normal. That seemed to dispose of the idea that we might have here a case of abscess in the liver. The surface of the liver was so smooth that at first the thought occurred to me that although the general appearance of the patient suggested malignant disease, it might possibly be a case of hypertrophic cirrhosis. But a few days afterwards a projection was found from the lower part of the liver, which was hard and triangular; indeed, it felt exactly like a nodule of malignant disease. Then I had no doubt that the liver was affected by cancer. A few days after this the patient passed a dark tarry motion, and the pain continued very severe, and was only alleviated by the use of morphine. He lost strength rapidly and then had a one-sided convulsion and died about a fortnight later, his temperature for the two days before death having risen to 100°F. and 101°F.

There is very little doubt that the convulsion was due to a uraemic condition; the kidneys were not excreting the waste products of metabolism.

THE DIAGNOSIS OF PANCREATIC CANCER.

Now, in a paper written by Dr. Herringham, and published in the *St. Bartholomew's Hospital Reports*, vol. xxx, 1894, he lays down these conclusions:

That when a patient who suffers from deeply-seated pain in the epigastric or the hepatic region, along with progressive emaciation, but without signs definitely indicating gastric cancer, has jaundice and dilatation of the gall bladder without a history of biliary colic, by far the most probable diagnosis is that he has primary cancer of the pancreas.

Here then we have the symptoms indicated by Dr. Herringham: (1) The deeply-seated pain, which in this case was very severe; (2) the progressive emaciation; (3) the absence of signs indicating gastric cancer, there having been

no vomiting in this case; and (4) the jaundice occurring without a history of biliary colic. Those are the symptoms. In looking up the subjective signs as given by Fitz in Clifford Allbutt's *System of Medicine*, I find that he says that the "most characteristic sign of cancer of the pancreas is a tumour in the epigastric or umbilical region, which is to be observed as a deep-seated rounded or elongated, sometimes nodulated, swelling varying in density and defined with difficulty."

Now we had here, as a very striking feature of the case, a tumour in the epigastric region, but it differed from the tumour as described by Fitz in several respects. It seemed to be higher up than one would expect any tumour of the pancreas to be, and instead of being deeply seated it seemed to be quite superficial. What we felt was almost certainly not the pancreas itself but the liver, which was raised over a large mass of pancreatic cancer. The specimen is here. The pancreas was infiltrated with new growth throughout its whole structure, part of it was soft and part was hard, and the hard part at the head of the pancreas had pressed upon the bile ducts so as to completely obstruct their course, and, indeed, the bile duct seemed to pass into the mass. You will notice that the liver is deeply stained with bile, and the ducts are much distended throughout the organ. At the necropsy these ducts, on the slightest pressure, exuded a very thick and very dark bile, almost like tar, and the ducts, for some considerable distance up, were very largely dilated. You see that the liver itself seems to be free from infiltration by new growth, and the new nodule that we felt really appears to have been the enlarged gall bladder which was extremely tense, and projected beyond the edge of the liver. It was so tense that it gave one's fingers the feeling of not being a soft elastic structure such as the gall bladder usually feels to be, but to be a hard nodular growth. The other organs were very fairly healthy. The mitral valves were slightly adherent together, and to this was no doubt due the somewhat prolonged first sound. This specimen is particularly interesting in regard to the methods of diagnosis which have been proposed by Fitz, because it dismisses a number of things that have been supposed to be methods of ascertaining the presence of cancer of the pancreas. For example, it has been supposed that in cancer of the pancreas you would find glucose in the urine. Such was not the case here. But Fitz has proposed, as the surest way of ascertaining the presence of cancer of the pancreas, alterations either in the food or physic introduced into the intestinal canal, and he mentions that in cases of cancer of the pancreas, if the patient be fed upon meat, large quantities of undigested muscular fibre are to be found in the stools, the reason being that if the pancreatic juice does not enter the intestine the muscular fibre will remain undigested. Another method that he proposed is for salol to be given in doses of one drachm per diem in divided portions. The effect of the pancreatic juice upon this drug, which is a salicylate of phenyl, is to split it up, forming salicylic acid and phenol. The phenol is excreted in the urine, and there its presence can be ascertained by bromine water. Now, these tests were not applied in this case, and it is a pity they were not, but if we had applied them we should in all probability have come to a wrong diagnosis, because, oddly enough, although the hard nodule in the head of the pancreas presses upon the gall ducts, and these are completely prevented from emptying themselves yet a duct of the pancreas remains free (cf. Fig. 1) and some pancreatic juice entered the intestine, for you see here a certain amount of *post-mortem* digestion by the pancreas. In this case, then, if we had applied those tests we should have found evidence of the presence of pancreatic juice in the intestine, and we should have come to the conclusion that there was in all probability cancer of the liver but no cancer of the pancreas. So that at present you see that the tests which were thought to be reliable cannot be implicitly trusted, and we must fall back upon the symptoms that I have mentioned to you before—deep-seated pain, progressive emaciation, jaundice, and distension of the gall bladder. The round swelling may or may not be there, and the presence or absence of sugar in the urine does not help very much. But excessive pain in this case was a very marked symptom, and the difficulty in such cases is to distinguish between the pain due to pancreatic disease and pain due to perihepatitis. Of course in perihepatitis you may hear a friction if the part of the liver affected happens to be under the abdominal wall; but if the upper surface of the posterior surface of the liver be affected with perihepatitis there may be a great deal of pain and yet no friction. The difficulty is so great in distinguishing between the pain due to perihepatitis and cancer of the liver and pain due to cance the pancreas, that I suppose we have practically to fall ba to a great extent upon the very rapid emaciation. In case o cancer of the liver without cancer of the pancreas he malignant disease may be present for many months toget sometimes I believe for years together. But in cancer of he pancreas the course of the symptoms is very rapid, and yo will have noticed that the present one only lasted mo months from the first symptom to the fatal termination.

As far as treatment is concerned, medicines are of litt good except in so far as you are able by them to relieve he pain by sedatives, such as morphine. Operation, as you ll have seen, would be out of the question.

I have brought those cases before you because, meetin a medical colleague a little while ago, he seemed to do whether cancer of the pancreas could be, with any degree o certainty, diagnosed during life. I think that altho these cases show how some of the signs upon which the great amount of reliance can be placed are not trustworthy, yet by attending to those rules which Dr. Herringham laid do we may come to a fairly accurate diagnosis. Still the ca which I have put before you of cancer of the stomach sho you must be on your guard against assuming the presence of cancer in the pancreas if you have already got indication of cancer in the stomach, because the glands there may becc so much affected as to simulate the presence of cancer of e pancreas.

[NOTE.—Since this lecture was delivered a new method of examining e urine, which seems likely to be of great service in the diagnosis of cance of the pancreas, has been described by Cammidge, *Lancet*, March 19, 1904, p. 782, and Abstract in BRITISH MEDICAL JOURNAL, April 2nd, 19 p. 776.]

An Address

ON

THE MODERN PURSUIT OF NOVELTIES IN MEDICINE.

Delivered before the Reigate Division of the South-Eastern Branch of the British Medical Association at Dorking.

BY SIR DYCE DUCKWORTH, M.D., LL.D., F.R.C.P.,
Physician and Lecturer on Clinical Medicine, St. Bartholomew's Hospital.

GENTLEMEN,—You are aware that the changes in medic education which have gradually come about in the last ha of this century are numerous, and some of them so radic that they amount to a complete transformation of t student's curriculum. There are many reasons for the changes. Not the least of them is the general and astoundi advance in all the sciences, and in those especially on whi the art of medicine is based, by which I mean those biology.

I hope you have no misunderstanding with respect to th position of medicine itself. It never was, and it never wi be, a science; yet it is scientific, and its foundations lie, ar must ever lie, on the bedrock of many sciences. Medicin as physicians understand it, is an art, and all good physician are good artists. It is possible to be a great medical scientis and an inferior medical artist. We may hold that true phys cians, like true poets, are born and not made, if we safeguar the assertion by adding that their best qualities do not com by instinct, ready-made, but are reached only by assiduou study and unceasing accurate observation. There is no roya road to their attainments, however keen their wits or precis their logic. The mental temper which alone befits the pur scientist would never quite become the investigator o disease, or the student of clinical problems, and for thi reason, that the latter has to act promptly and mak the best of the facts before him, often without attaining th certainty and exactness of the requirements of the physicist The difficulties and abstruseness in the particular case befor the physician may never be entirely cleared up, and thes constitute distressing factors which sadly exercise the purel scientific mind and tend to avert it from the practice of ou art. This has indeed often happened, and men who hav eagerly taken up our work have found themselves unable t combat with the oft-recurring uncertainties which are inevit able in practice. They have gone off into other fields o research for which their mental qualities were better fitted We cannot afford to sit down and bewail our inabilities, o shrink from the alluring problems which await us. For what is the reason of our existence in the body politic? Is it no

aptly to combat these difficulties, to do our best by the
t of fully-trained experience to meet them, and to try to
g comfort, relief, and restored vigour to the sick and
ring? Are we to look on or pass by and do nothing,
ing till we can fully disentangle all the problems which
ent themselves? That cannot be, and so we have to act
e we toil on, thinking, trying, studying, comparing, and
ng, too, for that fuller light which is dawning and draw-
is on; and assuredly, gentlemen, that light is ever waxing
by day; we are working by its luminous beams, all of us,
:her we realize it or not. We enter into other men's
urs, even if we labour not ourselves. We cannot stand

We are in our day the products of our age, and hence
:houghts and practice differ a good deal from those of our
ecessors of some fifty years since.
hen progress is active in any department of life, we are
ys apt to think that we have reached a standpoint which
our forefathers very much into the shade. We regard
as worthy, and as having acted up to their knowledge,
ve are prone to believe that we possess higher attain-
ts than they did, that now the meridian is above us, and
we should mightily astonish them if they could now
n to the scenes of their former labours and see us at
. Gentlemen, I believe we should indeed astonish them,
for one should be sorry to be the performer before some
em.

way of contrast to the plan of study which was pursued
or fifty years ago, we may note the great increase not
in the subjects to be studied now, but the greater
teness and elaboration of these subjects themselves.
s human anatomy was practically perfect at the earlier
d, and is hardly more exact now, but histology has
ne a considerable addition to it, and must be mastered.
what shall I say of physiology as it is recognized to-day,
mparison with that taught even in my time? I am I
skating on thin ice now, but I will not hesitate to say
this subject now bulks so largely that, for the actual
bilities of the student, to say nothing of his comfort and
uity, it has become a burden very hard to bear. Art is
and a five years' curriculum too short to enable the in-
ed outspread of this subject to be soundly grasped. We
ask, can nothing be done to adapt the teaching of it
precisely to the actual needs of the majority of future
itioners of medicine? Fifty years ago physiology was
t by the practising physician or surgeon, but now it is
if ever treated from their standpoint, and is in the
s of pure professors of the subject.
n none the less of the opinion that physiology is one of
eat foundations of our art, and must always be so, but
ve seriously to bear in mind that medical students are not
eparing to be scientific physiologists. The development
biological side has been great during the time of which
ak, but I regret to find that the study of botany is now
y reckoned within the compass of modern medical educa-
I rarely come across a pupil who knows the natural
of plants or could name properly any six of our common
row flowers. I regard this as a lamentable decadence,
distinct loss, since I have always reckoned a training in
y as one of the very best for the future medical man.
ere names and details may be safely forgotten, but the
of specific distinction and differentiation is invaluable
mental training for future clinical work. So I feel
ful that I had three courses of botanical lectures in my
and spent some of the happiest days of my life in filling
sculum in the glorious Highlands of Scotland under
the greatest masters of his time. These happy chapters
dent life are now almost unknown. Fifty years ago
y was held to be of importance, and its study, no doubt,
uch to encourage accurate appreciation and clearminded-

mistry was at that time a comparatively simple science.
velopment of it in respect of organic matters has been
ing, and even small departments of it now constitute
s for a lifetime. It is strange to think that the import-
nd significance of albuminuria were hardly recognized
century back by the rank and file of the profession,
Bright, Prout, Christison, and a few pioneers of animal
stry were then disclosing the meaning and associations
The stethoscope was scoffed at by meany of the fore-
nen of that day, and pulmonary tuberculosis was still
sticated by the pulse, and the tendency of the sputa
t or sink when poured into water. Cardiac hypertrophy,
we regard as a kind act of nature, was then attacked as
my, and its vehemence reduced by prostrating drugs.

Clinical thermometry was hardly recognized and its significance unknown. Every hard pulse afforded an indication for venesection. Leeches were used by the hundred. Blistering and counter-irritation were in daily use. An inflammatory process anywhere was the signal for the free use of mercury. People were regularly bled every spring. Aperient doses were copious, nauseous, and drastic. Fever patients were usually starved. Graves, of Dublin, however, remonstrated against the practice, and deserved for his epitaph the simple sentence—"He fed fevers." I might add to this list did time permit, but I have stated enough to convince you of the mighty changes in the outlook of to-day. And all that I have mentioned went on in the great schools of medicine at the time I speak of. What shall we say of it? While we venerate our predecessors who carried out these practices, we think we have fallen on better times, and know much that they did not and could not know. This is the case. Times have changed and we have changed with them. Are we then to believe that much was wrong in medicine in the lifetime of our fathers and that all is right to-day? Some ardent and sanguine spirits among my auditory and elsewhere may affirm this, but I am prepared to join issue with them. I propose to state my position, therefore, and to do so by laying down and contending for two main propositions: first, that our predecessors in the profession were not all ignorant, unobservant, or unwise men; and secondly, that the constant pursuit of novelties in medicine is beset with snares, and that a practice rapidly accommodated to such pursuits is not that of the wise and rightly trained physician.

First, then, it is not to be supposed that the great physicians of the earlier part of this century were ignorant of many of the great truths in medicine. They used the light and the opportunities they had. The plentitude of knowledge that has come to us in the recent past has tended to obscure the fact that many of the clinical problems presented to them were apparently simpler and more readily unravelled than they now appear to us. They set themselves to question these by their unaided senses and well-trained wits, and they did so with an assiduity of observation and attention to details which we are perhaps too apt now to discard. We are almost debauched, if I may say so, by the number of revealing instruments and methods which are available to-day for the prosecution of clinical research, and we are rather too ready to apply these and too little disposed to use our wits and unaided powers of observation in individual cases. We make short cuts with instrumental aids to arrive at a diagnosis, and do not always reach the real inwardness of things even then. The experience of the older physicians was great, and they set themselves to forward Morgagni's dictum: "*Nulla autem est alia pro certo noscendi via, nisi quam plurimas et morborum et dissectionum historias, tum aliorum tum proprias collectas habere, et inter se comparare.*" We are too apt to forget that many of the practices I have just enumerated, and which are flippantly condemned to-day, contain germs of truth. They were certainly somewhat blindly followed, often in obedience to traditional authority which is apt to be dangerous. But it is certain that germs of truth may long lie dormant, and but slowly develop, and their full growth may be reached in very different circumstances from those in which the genius of the discoverer first detected them. Indeed, what is true, was, is, and ever will be true, and no time or fashion of a day can alter it. Moreover, that which is likely to endure is commonly of slow growth, and, not seldom, he who sets forth an original idea to-day may never see the ultimate outcome of his discovery. Again, new ideas, as they are conceived, must always be enshrined in the current thoughts and language of the time they are disclosed. The latter inevitably change with the progress of time. The setting of the jewel may be varied and beautified, but the gem itself remains unaltered.

Hence, we have often but to reset the ideas of our predecessors in physic, and to accommodate them to the mode of our own time, or perhaps to recast them, and so render them available for to-day's use. Our temper should then not be that of the relentless iconoclast. If we intrude into the old shrines, and break up the images, we should look carefully for the hidden gems they almost certainly contain. Let me apply these views and deal with some concrete instances to make clear my meaning. We find that abuses in practice crept in owing to routine habits, false doctrines, and the tyranny of tradition. The practice of bleeding so prevalent early in this century fell into disuse, and five-and-twenty years ago was practically abolished. The lancets rusted, and

the trade in leeches greatly declined. But, gentlemen, there is a time to bleed and a time to abstain from it. The prudent and observant physician knows this, and he is quite uninfluenced by any prevalent fashion which either encourages or discourages the practice. The oculist, who sees what he is doing better than the physician, never gave up the practice in deference to those who condemned it as an enfeebling procedure. There were, and there are, and always will be, cases in which it is proper to employ abstraction of blood. There was, therefore, a not inconsiderable measure of truth underlying this practice of our predecessors. Many of them outran discretion, and the knowledge of their time forbade their recognizing the exact conditions in which alone bleeding was a sound practice.

Again, the hard, or, as we should say, the tense pulses, which to them always indicated venesection, are now recognized by us as sometimes salutary, or as demanding more benign eliminative methods of treatment. But some of the conditions thus manifested were clearly appropriate for the lancet, and were wisely thus treated, and with benefit; and the same holds good now—albeit, I think there is still too much hesitation to bleed, owing, not a little, to prejudices on the part of the patient or his friends.

With respect to the employment of mercury, we find much the same comment to make. It is true that the great value of this drug has been rediscovered in recent years. It was certainly grossly abused, as was bleeding; and equally stormy disputes occurred regarding its value, especially in relation to its power of reducing inflammatory processes. It was credited with virtues it did not possess, but it did unquestionable good in many cases. We now recognize its usefulness in reducing pulses of high tension, and know that no agent so well and so promptly relieves gastric and biliary catarrhal states. The disuse of mercury led to much continued suffering on the part of patients, and so its several compounds had to be brought back into use by those who had been diligently instructed not to employ them. This was my case. In my student days mercury was largely out of fashion for all ailments, and was, in the Edinburgh School especially, denounced at that time as a remedy for lues venerea. With many others I had quickly to unlearn this teaching, and to discover how very wrong it was. So here, as in other cases, we find that a reformation is attended with much that is wrong in itself and undesirable, but good comes of it in the end when the pendulum swings calmly once more. Our predecessors then were not altogether in error. They had a modicum of the truth of these matters, and we have been, with further light and experience, enabled to find more clearly wherein the truth lies. (I might here throw out a suggestion that the calomel of our predecessors' days was a more efficient drug than the chemically, perhaps too chemically, pure salt used to-day. It appears to have been more prompt in action, more aperient, than ours, possibly owing to some admixture with bichloride of mercury.)

Again, it was formerly the practice to employ purgative medicines to a far larger extent than is now done. We may recall the famous prescription of Mr. Abernethy, of blue pill and black draught, which was greatly in vogue, and which has now been replaced, often inefficiently as I believe, by doses of aperient mineral waters. The fashion set in against purgatives, not improbably because many of them were drastic, griping, and lowering. Modern pharmacy has, however, removed many of the crude qualities of the drugs which were used fifty years ago, and we may therefore now employ them with more certainty, and, as the old doctors said, *jucunde*, for the same purposes our predecessors were wont to use them.

Once more, the older physicians held strongly by the conception of certain bodily habits or proclivities which they termed diatheses. They were impressed by the varied manifestations which attached to particular families or individuals in respect of their tendencies to certain ailments and diseases. They were led, too speculatively, no doubt, after the fashion of their time, to elaborate a variety of these conditions or diathetic states, and they over-elaborated them with an unwarrantable refinement with which we now find it impossible to agree. For many years past these doctrines have been discarded and forgotten, and members of the human family have come to be regarded by those who oppose these views as so many indifferent units, items, or ninepins, void of any textural peculiarities or proclivitics. Some amongst us, however, have come to see that there was a basis of truth in some of these neglected observations, and that if we honestly use our wits we can find abundant evidence to satisfy us that several diathetic habits of body exist. I will only allude to the ... fulous and rheumatic diathesis, and in respect of these ... affirm that the most recent achievements in medicine, ... of bacteriology, tend to confirm the truth of the older ... trines in regard to them. The proof lies in a recogniti... the fact, for fact I believe it to be, that certain familie... individuals are, either by heredity or acquirement, impr... with textural proclivities in the direction of one or the ... of these conditions. We recognize the tissues of such pe... as being specifically apt to react mischievously, or to be ... cially vulnerable, to the attacks of microbic parasites, ... culate, as in the case of tuberculosis, particulate also ... toxic, as in that of the infection of rheumatism, whic... now regard as a toxaemic condition due to invasion by ... microbe of the streptococcal genus. To entertain any d... on these matters is, in my opinion, to be possessed of sle... clinical instincts.

Were they not amongst the certainties of medicine for ... of us, it might suffice to remark that Sir James Paget he... these doctrines and taught them. Thirty years ago they ... taught by Laycock of Edinburgh, who impressed their ... portance on his pupils; but, as I well remember, his v... was at that time as of one "crying in the wilderness." T... of us who sat under him have long had good reason to ... his teaching and realize the truth and value of it.

I have tried to show you that some of the best-establi... methods of older times were not altogether wrong or ... taken, but that we have in our day come to improve t... and to find more certain indications for their applica... This I believe to be a sound and rational practice—one w... helps to establish more firmly the principles of medi... What we have carefully to do is to learn by observation ... to employ the methods which have long been proved to ... value in the treatment of patients' ailments, to master ... art, and to equip ourselves soundly with the general ... ciples of successful treatment.

I now pass on to declare, secondly, that this is not wh... now being done in the whole field of medicine. A very ... ferent plan, indeed, is followed, and, as a consequen... venture to affirm that our art has not improved so much ... might have done, that many of the acquired certainties ... benefits of therapeutics have been lost, and that we do ... afford to our patients the full and prompt measures of r... that are possible for them.

What, we may ask, then, is the mischievous element in ... modern system of therapeutics? I would express it thus ... perpetual pursuit of novelties, an untiring effort to proc... new remedies, the enjoining new methods of dietary, and ... all this, the inevitable loss of any well-acquired principle ... treatment as founded on long experience of others, or of ... sonal experience laboriously acquired for oneself. When ... men learn that what is new is not always true? I see ... stantly examples of the employment of remedies which no ... has any trustworthy experience of. I meet with prescript... composed of many drugs of whose existence I have no kn... ledge, and which are in no pharmacopoeias. Every wee... am informed from German and American sources of s... new synthetical compounds and so-called foods, gener... with unpronounceable names, which I am invited to ... on the strength of monstrous assertions and the raw exp... ence of some young and imperfectly-trained physici... The documents setting forth the encomiums on these so-ca... remedies go quickly into my waste-paper basket, someti... with parcels of these strange compounds; but I fear that t... often enlist the interest of some practitioners, who, believ... this nonsense, forthwith set to work to try their effects ... patients. This is very bad, and unworthy of well-trai... practitioners. The state of mind it reveals is lamentable, ... it is simply impossible to acquire sound experience in ... such way. I therefore maintain that the mental attitude wh... is content to be always in pursuit of the latest novelty, an... be expert with the newest product of the chemical laborat... or tradesman, is not that of the calm and level-headed p... sician. How can any one in full practice take note of, ... keep pace with, the new things that are daily foisted on ... attention? If he attempts a small part of it, he at once f... in his duty to his patients; he weakens his clinical instin... and loses hold of well-defined principles, which should alw... be his main guides in practice. And so—I regret to say ... we have frivolous minds amongst us at work in therapeut... This is the danger of it, and it is high time to rebuke t... spirit, which has already taken too much hold upon many ... our profession. I, at all events, have lived long enough ... see how many of these novelties have had their little day ...

ve vanished; how strange remedies and curious dietaries—ich were always useful, we were told, while they were in gue—have been forgotten. Hence, I often ask myself, when iew drug or a new method is in repute, How will it be in ree years' time with it?

But we have novelties even in the matter of ailments and ged morbid states. These come, and they go. To-day we d weak hearts asserted to be very prevalent; lately gastric atation was perpetually before us; then neurasthenia; xt, phimosis became of extraordinary frequency, while hlitis and naso-pharyngeal adenoid growths are heard of all sides in society. To-morrow there will be something e. What, then, are we to do in these hurrying, feverish 7s? I will tell you, as I conclude. We are to be calm, and are to keep our heads, to be level-headed, to see all things due proportion, to hold fast by all we have learned to see most certain and dependable in medicine. We are to ex-t difficulties, to be patient in our failures, to seek alone what is true, to be as accurate as we can, and in and ough all to have cheerfulness and strong hope. On these es we shall do best, and we shall at least not be in danger frittering away our time and energies in the empty suit of novelties. We are now often told that the young lomates sent out from the schools are ill equipped for the ies immediately awaiting them. If this is true, it con-utes a serious reflection on the teachers in these schools. ere can be no doubt that too much of the average student's e is now spent on biological and chemical studies and in rts to pass examinations on these subjects, and t too little time is thus left for clinical study observation. The fifth year of the modern curriculum, ch was designed for the latter purpose, has been cap-ed by the chemists and the physiologists, who now nnously override the course of ordinary medical study. ld that this is not fair to the average student who has force to make his way as soon as possible to a daily ctice of his art. It may be demanded for aspirants to a ree in medicine, or from those who seek to attain a leading e as teachers or consultants. We recognize that the best wledge for practice comes solely from practice, and we e to resist this tendency to overload the earlier studies ond what is absolutely necessary.

astly, I will urge very strongly the value and importance of titioners acquiring a full knowledge of the *British Phar-opoeia*, and of the art of prescribing appropriately. As examiner, I am constantly aghast at the ignorance displayed candidates of these subjects. Few matters are of greater portance to the successful practitioner than a good know-ge of pharmacy, and of the action of our best and most ted old remedies, but now we find that more attention is d to drugs and preparations which have no place in our rmacopoeia, and are urged upon our attention by persons know little or nothing of their properties. Some amongst are for ever experimenting with these, and all the le neglecting remedial agents of long approved e. Of many of these our younger men know little nothing. They either ignore them, or only venture ly and ineffectively to use them. The untidy, lequate, and inappropriate prescriptions which are commonly written readily display the imperfect know-e respecting our best remedies which is widely spread. y not seldom excite the contempt and pity of the well-ned pharmaceutical chemists of to-day, as I well know, we cannot rest content to merit such opprobrium from quarter.

et us then see to it, that we be rather less keen in the uit of new remedies, and more careful to learn what is wn of the older ones. If we do this, we shall certainly fit our patients, and acquire in our practice such fixed ciples as shall guide us both safely and more successfully ur daily duties.

expressing these sentiments, I decline to be regarded as old Tory in medicine, or a pre-scientific fossil. As a cal teacher I have to teach all parts of medicine, and t not fall behind the best knowledge of the day. The new s and theories, and the fresh acquirements in our art all to receive our attention, and no less the most careful tiny, but we do ill if we at once proceed to adopt them, replace our best acquired clinical experience by methods hich we know little, and whose solid value is still to be ed. Much of our work at the best is sufficiently experi-tal. We need be in no hurry to wander away in deeper rimentation. We have always to bear in mind that we to treat patients and not diseases.

The modern tendency is to produce remedies for diseases. This is the Continental method, but it is not the fashion in the more humane and sensible practice of the best British practitioners. That practice is hardly to be found recorded in books. It is best learned at the feet of those who, by long and mature experience, with full responsibilities, have gone through the chastening fires of daily and anxious practice, who have little time to record their experiences, but are ever the best masters of our art.

An Address

ON

THE ORGANIZATION OF THE HOME TREATMENT OF PULMONARY TUBERCULOSIS.

Delivered before the Fourth International Home Relief Congress at Edinburgh on June 9th, 1904.

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Among the important subjects which will occupy the attention of the present International Congress there is probably none of more immediate significance to our communities than the organization of the home treatment of pulmonary tuberculosis. The home treatment of tuberculosis occupies a different platform from the home treatment of most other diseases. In the case of acute illness poor patients—if they have been reasonably provident—can generally face the situation, including enforced cessation from work, without serious inconvenience either to themselves or their household. Moreover, in the case of fevers, where the danger of communication to other members of the household is recognized, municipal and other authorities have made provision for the isolation, maintenance, and treatment of the individual while the disease runs its course.

The Extent of the Issue.

In respect of persons affected with pulmonary tuberculosis—more especially when belonging to the poorer classes—the conditions are very different. In the first place the disease is more disastrous in its effects, both physical and pecuniary. At the best the illness must be a long one. It reduces the patient frequently from the state of an able-bodied to a more or less disabled working man. For months or years the individual may be unable to work, or may have to limit himself to part time, or may have to take to a less remunerative occupation. Further, his medical treatment, if it is to be effective, is relatively costly. Continued, as it must be, for long, it forms a serious drain on the individual's resources. All the time, moreover—or at least during a large part of the illness—the patient is a source of danger, more or less pronounced, according to the relative care or carelessness exercised, to those living under the same roof or coming into close contact with him. The risk of infection, comparatively slight as it may be in large, well-ventilated houses, becomes accentuated in the contracted dwellings of the poor. The danger of communication is enhanced by the short commons which advancing poverty brings to the household and the physical strain put on delicate dependents in their effort to undertake work for which they may be unfit.

The picture is sufficiently wretched. And yet those who have been brought into intimate relationship with the disease and its effects among the poor will be the first to admit that it is far from overdrawn. The distress is in many cases infinitely greater than I have outlined. The miserable drama drags its weary course, it may be, for two, three, five years or longer.

Has the Issue been adequately Conceived and Faced?

It may well be asked whether we have seriously faced the problem. Have we really attempted to deal with the issues as they deserve? Have not communities, more especially our larger centres, a distinct responsibility in the matter, (1) in respect of the individual sufferer, and (2) in respect of those who are dependent upon him, and who are so closely associated with him as to be necessarily exposed to risk?

There appears to exist at the present time a popular notion that the solution of the tuberculosis problem has been found

in the establishment of sanatoria for consumption in different parts of the country. It is far from my wish to suggest for one moment that sanatoria do not play an important part. On the contrary, it has been my lot to have had something to do with the foundation of such an institution for the poor of this district. The establishment of sanatoria in different countries has been an immense step forward. An increase in their number, proportionate to the needs of communities, on sufficient and inexpensive lines, is certainly to be desired. None the less, it must be frankly admitted that the establishment of sanatoria and hospitals meets only one aspect of the question. Pulmonary tuberculosis is a disease of extremely varying complexion. Only a certain number of cases, and those preferably the early cases, are suitable for sanatorium treatment. In respect of such patients, existing sanatoria can undertake the care of a small number only.

I greatly doubt if the frequency of the disease is distantly realized by most of our citizens. Have you ever asked yourself how many cases of pulmonary tuberculosis exist in any large city with which you may be acquainted? Take, for example, Edinburgh. On an average some 500 persons die annually of the disease. This in no sense represents the number of persons affected by the disease during that period. Is it possible to make an estimate? Certain contributions towards an estimate are available. Taking a wide statistic, the average duration of a case of pulmonary consumption may be reckoned at, say, five years. This is probably within the mark. That means accordingly that in such a city as this there are at least some 2,500 persons presently affected who will finally die of the disease. It is to be kept in view also that a large proportion of persons die of pulmonary tuberculosis whose death is, from one cause or other, recorded in other terms, such as pleurisy, broncho-pneumonia, bronchitis, debility, childbirth, and the like. Were the necessary correction made it would probably increase the figure at least 25 per cent., making the total some 3,125 cases. Further, it is well known that vast numbers of persons who actually die of other diseases are or have been affected more or less seriously with pulmonary tuberculosis. At least one-third and probably one-half of all persons dying bear traces of the disease in one or other stage. The approximate total mortality per annum of the city of Edinburgh amounts approximately to 5,600. Deducting 600 for the already reckoned tuberculosis mortality, and taking one-fourth of the remainder as representing the number affected by pulmonary tuberculosis not already included in the estimate—say 1,250, and adding it to the 3,125 already quoted—we have a total of 4,375. This figure may be taken as much within the mark. I believe that it might be added to largely. Accepting the figure, however, for the purpose of the present argument, and keeping in view that the great majority of the persons thus included belong to the poorer classes of the community, what possibility exists for the adequate treatment and supervision of the disease either in sanatoria or hospitals for the dying?

Even were it possible, is it from the condition of things desirable? Once more, keep in view that the disease is a slowly progressive one, and that for months, perhaps for years, the patient may be able to do a fair day's work, or part day's work, or undertake some lighter occupation, such as that of caretaker or the like. Admitting that he may safely, and in many cases must remain at home, the problem is, How best are we to afford him relief from suffering and distress? How best are we to minimize the risk of his becoming a source of danger to other persons?

The issues involved in the problem are most practical and far-reaching. How are we to prevent or limit the effects of the prolonged physical and financial drain which, unless timeously checked, reduces from a state of comparative comfort to one of absolute poverty? From the other point of view the problem is, How to limit most effectively the communication of the disease from the already affected person to other members of his household, to the dwelling itself (which may be vacated to-morrow and—without any effort at disinfection—be occupied by another family) and also to persons brought into contact with the affected person at work or elsewhere? When regard is had to the wide bearings of the subject it will be admitted that a community can ill afford to trust to haphazard handling of the problem—a handling which, in most instances, amounts to little at all.

Supervised Home Treatment Essential.

It is eminently worthy of the best efforts of such an International Congress to discuss and plan out some scheme by which the present hopeless state of affairs may be corrected. I believe that *in the solution of the tuberculosis problem a plan of supervised home relief must play a chief part.* Such relief must be based on an exact knowledge of the facts, a clear conception of the necessity and the possibilities and must be well organized. What I have to submit in the way of practical proposal is the outcome of considerable experience and thought in relation to the practical solution of the question in Edinburgh.

In the foreground I must ask the Congress to excuse me if I introduce a certain element of narrative, which I do so in order thereby better to illustrate some of the points and to explain that the conclusions submitted are not those of the mere doctrinaire.

Experience in Edinburgh.

Up to 1887 there was in Edinburgh no central or concerted action in relation to the treatment of pulmonary tuberculosis. Patients were received and excellently treated in the Royal Infirmary and other hospitals, so long as it was possible to keep them. The general dispensaries of the city received and prescribed medically for those consumptive patients who presented themselves for treatment. Such treatment necessarily consisted largely in the prescription of some form of cough mixture. The duration of the patient's treatment depended on the continuance of the more aggressive symptoms and his faith in the prescriber or prescription. Consumptive patients, when too ill to come to the dispensary, were commonly relegated to the list of chronic or troublesome patients, visited occasionally by a frequently changing series of medical students whose conceptions of treatment, doubtless excellent as far as they went did not extend very far. As an officer of the Royal Infirmary and a large public dispensary, one felt frequently heart-sick at the evident ineffectiveness of the assault made on so tremendous an evil. Such considerations led naturally to the practical question whether some more definite and organized effort might not be made. Accordingly, in the autumn of that year, having satisfied myself that a well-directed movement towards the end in view would have the approval of those who might take the trouble to think of the matter, I succeeded, with the help of a few kind friends, in establishing the Victoria Dispensary for Consumption in the heart of Edinburgh. Its object was to afford a central institution towards which all poor persons affected with consumption might be directed. The scope of the institution was a large one, and included:

(*a*) The reception and examination of patients at the dispensary, and the keeping of a record of every one thus received, with an account of his illness, history, surroundings, and present condition, the record being added to on each subsequent visit.

(*b*) The instruction of patients how to treat themselves and how to prevent or minimize the risk of infection to others.

(*c*) The dispensing of necessary medicines, disinfectants and sputum bottles, and, where the family conditions seemed to warrant it, of food stuffs and the like.

(*d*) The visitation of patients at their own homes, more especially of patients confined to the house or to bed, and this for the double purpose of treatment and of investigation into the state of the dwelling, the general conditions of life, and the risk of infection to others in the neighbourhood.

(*e*) The selection of more likely patients for hospital treatment, either of early cases for sanatoria, or of late cases for some incurable institution.

(*f*) The guidance generally of patients, and friends of patients and other inquirers on questions related to consumption.

The programme as rapidly sketched above has been carried out during the past seventeen years by a staff of willing colleagues, nurses, and a Samaritan Committee of ladies, all of whom have taken part, not merely in the general work of the dispensary, but have especially undertaken the surveillance of consumptive patients at their own homes. Altogether, up to the present time over 13 360 patients are on our books. As many as 87 patients have attended on one day. The majority of these have paid many attendances to the dispensary. Some have attended for many years. A very large number have been supervised at their own homes.

In addition to the routine work of the institution, more detailed investigations have been carried out from time to time with a view to ascertaining the distribution of the disease in the city. These investigations include at the present time a systematic record as to the home conditions of the patient

rding to the accompanying schedule, the inquiry being ully undertaken at the patient's home by a trained nurse, visits, with a view to assist the patient, under the super- idence of one of the medical officers.

VICTORIA DISPENSARY FOR CONSUMPTION.

SCHEDULE OF INQUIRY REGARDING DISPENSARY PATIENTS.

o. in Ledger..... *Date of Report*.....

ne Age

iress Married or single?

upation Has patient changed occupation?

e to work full time? Or part time?

nable, confined to bed?

v long ill?

ation of House (area, ground floor, 1st, etc.)?

nber and Ages of Inmates?

nber and Description of Rooms?

eral aspect of House (clean, damp, dusty, smelly)?

nber of Windows? Can they open?

they kept open (*a*) by day?

(*b*) by night?

e they always been kept open?

s Patient sleep alone (*a*) in Bed?

(*b*) in Room?

is Washing of Clothes done?

long in present House?

as moved within two years, previous Addresses?

e there been illnesses or Deaths in House?

(*a*) In own time?

(*b*) In previous occupancy?

osed to infection (*a*) at home?

(*b*) at work?

(*c*) among friends?

ent health of other members of household?

t precaution taken to disinfect?

. in sputum?

. in dust of room?

ral dietary? Teetotal?

ral condition (well-to-do, badly off)?

imate income of household?

sted by Societies, Church, Friends, Rates?

Signed.....*Reporter.*

.....*Medical Officer.*

have now a considerable mass of such records con- g most valuable statistics and information regarding isease. These are being steadily added to from day to I may say that we have found no difficulty whatever in ning the desired information.

dispensary, as at present arranged, contains two con- g rooms (with a dark room for laryngoscopical examina- one large waiting-room two dressing rooms, a general where names are entered, a laboratory for bacteriological nation, and a drug and food store. An officer lives on emises, to afford information when the dispensary is not lly open, and to receive requests from patients for medi- endance in the absence of the doctors. The same officer es and enters the names of patients in the afternoons the dispensary is open. This officer is conversant with me and work conditions of many of the patients. The urther consists of two honorary visiting physicians, ttend when the dispensary is open and supervise the two qualified assistant medical officers, who devote a ime to the work, receiving a small honorarium, a nurse d in modern open-air methods, who visits the homes and most of the inquiries under the superintendence of one r of the medical men, and a volunteer Samaritan Com- of ladies who, in conference with the doctors, take in the more distressing cases with a view to assist in any at seems proper. The operations of this Committee gulated in fortnightly meeting and a minute of the ss is kept.

Tuberculosis Dispensaries.

r as I am aware, this was the first attempt to deal in ystematized fashion with the great crowd of tubercu- ty poor. During the 17 years which have elapsed since ndation, it has been my lot to be in constant touch very department of the work. There can be no doubt rough the operations of the institution a propaganda iderable importance has been established, and not a ntributed towards the relief and prevention of con- on in the city. It is from the experience obtained by articipation in the work of the institution that I ven- recommend the system, in its main features, as one of development in every large centre.

ist be kept in view that the institution which I propose thing much more elaborate than at present exists in to the out-patient departments of many consump- tion hospitals or general dispensaries. These doubtless do excellent work so far as their arrangements permit. My contention is that their plan of operation has not been sufficiently developed and systematized, and that their efforts have been limited too much to the medical treatment of the individual applicant.

Within more recent years the idea of tuberculosis dispensaries has, it would seem, occurred independently to workers in other countries. Dispensaries, resembling more or less that which I have described, have been founded by voluntary effort, especially in France and Belgium. Here I would desire to pay a special tribute to the work effected in this direction by Professor Calmette of the Pasteur Institute, Lille, to whom the establishment of the Emile Roux Anti-tuberculous Dispensary (founded in 1900) is due. Regarding this and other forward movements in the same direction in France and Belgium, and the special characteristics of these, I hope the Congress will have the opportunity of hearing directly from Professor Calmette and others. In Germany a movement, though of somewhat different conception, is on foot. The various aspects of the subject were considered at the Tuberculosis Congress held in Berlin in November, 1903. It would appear from the discussion, however, that the recently-established Polyclinik for Tuberculosis partakes rather of the character of the ordinary out-patient department of one of our consumption hospitals, largely restricting its operations to the medical treatment of the individual applicant. There was expressed a strong feeling in favour of the development of institutions of the dispensary type, the name, *Wohlfahrtstelle für Lungenkranke*, being suggested as a fitting description.

Relation to Local Authorities.

If we are to make a serious forward movement against tuberculosis, it seems to me essential that the organization should expand on all the lines I have indicated. We must go even further. We cannot afford to trust to individual effort or even to wider benevolent enterprise. The evil to be faced is one of vast proportions, and affects the best interests of the community. There exists a clamant need that each community should face the question for itself, in the interests of the public health no less than in the interests of the affected individual.

On whom then should fall the responsibility of such an organization? The answer seems to me emphatically, on the the local authorities, municipalities, parish councils, Boards of Guardians, and the corresponding bodies in different countries. In our cities the institution should be municipal. The tuberculosis dispensary or bureau, or whatever it is called, should be placed under the medical officer of health. It should, however, form a *separate* department of his activity.

Plan of Operations.

The department should include a dispensary to which consumptive patients of the poorer classes and patients with chronic colds or persistent ill-health should be invited to come. Consumptives presenting themselves at other dispensaries, infirmaries, and hospitals should be directed to the consumption dispensary. At the dispensary such patients should receive information regarding the prevention and treatment of the disease. Printed instructions of a clear and practical sort should be issued to every patient, and distributed freely in all likely places. Spitting flasks and disinfectants should be also freely dispensed.

By means of one or several visiting medical officers charge should be taken of patients too ill to attend the dispensary and too poor to pay for sufficient medical attendance at their own homes. By means of the dispensary, the disinfection and cleansing of infected houses and patients should be carried out. At the laboratory of the dispensary the bacteriological diagnosis of the disease should be undertaken. By means of the addresses communicated by the patients to the authorities, a system of voluntary notification would be immediately established which, pending the institution of compulsory notification, would afford much valuable information regarding the distribution of the disease. This would be further enhanced by a systematic inquiry regarding the home conditions of the patients on the lines I have proposed. Not the slightest difficulty need be feared in relation to the carrying out of this, if the matter be gone about in a commonsense and sympathetic fashion. Up to the present, in the experience of the Victoria Dispensary, no case of refusal has occurred. Contrariwise, the patients visited have welcomed the nurses and doctors and facilitated the inquiry in every possible way.

The dispensary should be in relation, or at least in close touch, with the various hospitals prepared to receive cases of pulmonary tuberculosis, and would direct suitable patients, on the one hand, to sanatoria, and, on the other hand, to hospitals for iucurable or dying cases.

If the proposal were more practically realized (which I made some half-dozen years ago in the BRITISH MEDICAL JOURNAL[1]) that tuberculosis colonies should be established where poor patients might be enabled for long periods and under hygienic conditions to maintain themselves honourably by contributing to the common good of the residents, it would be a further function of the dispensary to select suitable patients for the colony, explaining to them its advantages in the shape both of physical and pecuniary benefit. Our experience for many years at the Victoria Hospital—where the conception has taken practical shape—abundantly proves that the idea of a tuberculous colony is a practicable one. At the present time the major portion of the non-medical staff of the hospital, including garden workers, engineer, carpenter, bath attendants, maid servants, and other workers, is constituted by tuberculous patients who have been restored to health at the hospital but whose chances of permanent cure would have been prejudiced by an immediate return to their previous employment.

The dispensary would also play an important part in the relief of the pecuniary distress which the disease so often entails. The families and dependents of affected persons must not only be safeguarded in respect of their health, and thus kept fit for work, but where necessary—as when the chief wage-earning member is affected—the dispensary should take cognizance of the household means and, if desirable, put the household in touch with one or other public or charitable fund. Reference to the inquiry schedule at present used at the Victoria Dispensary will show that it includes inquiry on such lines; nor has any inconvenience been found in obtaining the information.

Another valuable aspect of the dispensary's operations would be the determination of suitable lines of employment of a light and open-air kind for consumptive patients not requiring hospital treatment. This has been found in my experience one of the most valuable if sometimes a difficult part of the dispensary's operations. Many families have been saved from destitution by the timely suggestion of such work. Were tuberculosis colonies only more widely developed, a large part of the difficulty would be removed. To the care of the dispensary would naturally return patients who, after sanatorium treatment, remained still on doubtful ground in respect of permanence of cure. These would be similarly advised as to occupation, residence, continuance of treatment, and from time to time would report themselves for fresh examination.

School children already affected with the disease would be removed from the prejudicial influences of school life, and their education supervised on physical lines. This would constitute an important move in preventive medicine in the interest both of the infected child and of the other school children.

COST OF MAINTENANCE.

As to cost. I feel satisfied from experience that in a town of the size, say, of Edinburgh a sufficient organization of the kind might be effected for an annual outlay of about £1,000. This sum would admit of the maintenance of the dispensary and a sufficient staff of medical assistants, nurses, a clerk, and officer. The institution is necessarily capable of wide extension, with correspondingly greater outlay. I am confident that for the sum mentioned the essentials of the scheme could be carried out effectively. This outlay is trifling as compared with the cost of provision and maintenance of hospital accommodation for such patients, while in many instances the benefit to the individual would be as satisfactory. The advantage to the community would be incalculable, and should thoroughly justify the discharge of public money for the purpose.

COMPLETE ANTITUBERCULOSIS ORGANIZATION.

I have elsewhere[2] had occasion to indicate that a complete organization against pulmonary tuberculosis must include for our large cities:

1. A home for dying patients, chiefly in the interests of other persons.
2. A sanatorium or sanatoria for selected patients who, with a view to the cure of the disease, require a special *régime* not procurable in their own homes.
3. Colonies for the after-life and supervision of patients in whom the disease has been sufficiently arrested to make selected open-air employment feasible and desirable.
4. A tuberculosis dispensary with the functions and relations I have attempted to outline.

In the conflict with tuberculous disease, which every progressive community is called on to wage, each of these factors will play a part. They should be in close organic connexion. They will all be found serviceable. Resting on experience gained in the gradual evolution of a plan of campaign during the past seventeen years, my belief is that an *officially recognized* tuberculosis dispensary is essential as the base for further operations. In this belief, I recommend to every considerable community the establishment of such an institution which will serve at once as the developmental centre and uniting point of all other agencies.

REFERENCES.

1 On the Universal Applicability of the Open-air Treatment of Pulmonary Tuberculosis, BRITISH MEDICAL JOURNAL, July 23rd, 1898. 2 Loc. cit.

PREGNANCY AFTER REMOVAL OF BOTH OVARIES FOR DERMOID TUMOUR.

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DURING the course of the past few years a certain number of instances of pregnancy originating subsequently to the removal of both ovaries have been reported in medical literature. The conditions requiring operation have generally been described as chronic inflammatory disease of the uterine appendages, or occasionally as cystic disease of the ovaries, and in most of the cases the subsequent occurrence of pregnancy has been explained on the supposition that some portion of one or other ovary was left behind at the operation, usually by accident, but in some instances intentionally with the object of avoiding interference with the menstrual function. The following case illustrates the possibility of pregnancy after double ovariotomy for advanced dermoid disease under circumstances admitting of no doubt as to the complete extirpation of both ovaries, and seems therefore worthy of being recorded.

History.

The patient, 35 years of age and recently married, was first seen on May 14th, 1901, in consultation with Dr. Godson, whom she had visited with a view to securing his attendance at her confinement. She was well nourished, and had always enjoyed good health, having been accustomed to lead an active out-of-door life up to the time of her marriage about two months before. She had not noticed any recent loss of flesh and had been quite unaware of the existence of any abdominal enlargement until within a week or so of her visit to London. Menstruation had always been regular, the flow usually lasting for six days without suffering. The last period had terminated seven weeks before, the flow on this occasion having been scanty in amount and accompanied by a good deal of pain. For some eight weeks she had been troubled with nausea, and she believed herself to be pregnant.

Condition on Examination.

The abdomen was found to be moderately distended by a somewhat irregular and obscurely fluctuating tumour extending upwards on the right side to within two fingerbreadths of the costal arch, and to a somewhat higher level on the left of the middle line. This latter portion was apparently separated by a definite sulcus from the main mass of the tumour, and gave the impression of an independent growth. The base of the larger tumour, of more solid consistence than its abdominal portion, was found to be firmly wedged in the pelvic cavity, which it practically filled, displacing the cervix upwards and to the left. The enlarged body of the uterus was situated above and to the left of the pubes in front of the tumour, where its dimensions could be precisely accurately determined on bimanual examination.

Diagnosis.

Double ovarian cystoma, probably dermoids, complicated by early pregnancy of some eight weeks' duration.

Operation.

May 16th, 1901. On opening the abdomen, the omentum was found firmly adherent to the parietes from the umbilicus to the pubes, overlying a small collection of free fluid which had evidently prevented adhesion to the subjacent tumours. The upper cavity of the main cyst on the right side having been emptied by aspiration, the lower portion of the growth—which, although non-adherent, was so firmly lodged in the pelvis as to render its extraction without previous puncture a troublesome business—was brought up and the whole was removed after ligature of a pedicle measuring nearly 2 in. in length. The tumour on the left side—a smooth pyriform cyst of the size of a cocoanut, with a pedicle fully 3 in. long—was removed unpunctured. The abdominal cavity was then freely flushed out with sterilized water and closed without drainage.

Both tumours were found on examination to be typical examples of ermoid growth, containing abundance of fatty material and hair. In oth instances the elongated pedicle, including the Fallopian tube and arian ligament, was purposely tied and divided as far as possible from s uterine extremity, in the hope of avoiding subsequent miscarriage. n the third day after operation, however, uterine haemorrhage began, id after persisting for forty-eight hours culminated in the expulsion of vesicular mole. The patient's convalescence was somewhat retarded y a well-marked attack of influenza, but was otherwise uneventful.

After-history.

In the following April (1902) I saw this lady in excellent health shortly ter her return from the Riviera. She then informed me that in nuary and February she had noticed a coloured "show" lasting on ch occasion for forty-eight hours, and that in March, after travelling rough from Nice to London, she had seen a normal "period" of four ys' duration. On pelvic examination I found the uterus perfectly tural as to size, position, and mobility; the sound passed readily in., and caused no bleeding. No trace of any pelvic deposit or ickening could be detected.

During the next eleven months—from the beginning of April, 1902, til the end of February, 1903—menstruation continued regular with t two exceptions in the course of the summer and autumn of 1902. n each of these occasions the flow recurred somewhat profusely the llowing month, but did not exceed the usual five days' duration.

Pregnancy.

In 1903 the February period ended on March 1st and failed to reappear wards the end of that month, when she began to be troubled with usea, which persisted for the next twelve weeks. No return of menruation occurred in April, May, June, or July, and towards the end of is latter month she began to feel movements at intervals. In the end August she slipped and fell on a hard wood floor, an accident immeately followed by severe pain and haemorrhage, which in the course a few hours resulted in the birth of a well-developed fetus at about e fifth month. She made a perfectly smooth recovery from this mishap der the care of her usual medical attendant. Menstruation recurred o months later in October, 1903, and has since then continued gular.

In 1902 Mr. Alban Doran[1] read before the Obstetrical Society interesting paper founded upon a case which had been nder his own care. The patient in question, having had her ft ovary removed for cystoma by Dr. Robert Barnes in 1880, veloped a cystic tumour of her right ovary some thirteen ears later, which was taken away in 1894 by Mr. Doran, who oted at the time the absence of any remaining trace of the ft ovary. This second operation was followed by a recurnce of normal menstruation, and two years later by the rth of a child. The tumour removed by Mr. Doran is deribed as a true multilocular ovarian cyst, of which the base rrowed to some extent between the layers of the right oad ligament. The author concluded that some detached ea of ovarian tissue must have escaped removal during the ucleation of the deeply-seated base of the growth, a view hich offers a sufficient explanation of the subsequent hisry of the case. Some doubt existed in his mind as to the clusion of the right Fallopian tube in the ligatures applied the main vessels at the base of the cyst; but this quesn does not materially affect the possibility of conception, proved by the well-known fact of pregnancy following the tempted sterilization by ligature of both tubes after esarean section.

In my own case, the re-establishment of menstruation, folwed by pregnancy, is of course to be explained only by the eory that some portion of ovarian tissue capable of maturing llicles was left untouched by the operation, and, further, at the patency of one or other Fallopian tube was subsetently restored. The possibility of this latter occurrence s been fully established, and need not, therefore, be disssed. On the other hand, the question of the probable e of the oöphoritic tissue which escaped removal requires me brief consideration.

The supposition that some portion of one or other ovary s accidentally left behind at the operation, as may well ppen during the removal of small adherent ovaries or of a ssile or burrowing cyst, may, I think, be entirely discarded the present instance. Both tumours, as already stated, re connected with the uterus by long and exceptionally ll-defined pedicles, which, although purposely secured at me distance from their uterine extremity, afforded ample ace on the distal side of the ligatures for the avoidance uring division of any interference with the base of the mours.

The possible existence of a third ovary has been often conctured, and the occurrence of such an abnormality has been tually recorded in German literature[2]; but in every such stance the presence of a third Fallopian tube would appear have been also noted—a condition in accord with what might be expected under such circumstances. Now, although one might well overlook the presence of an accessory ovary in the course of an operation, it is unlikely that a third Fallopian tube would escape notice, and I feel certain that no such abnormality existed in the case under consideration.

The only alternative supposition is that the ovarian tissue in question consisted of an outlying portion in connexion with the uterine extremity of one or other ovarian ligament. Such a condition—originally noted by Dr. Lockyer, and referred to by Mr. Doran in his Harveian Lectures[3] as having been discovered in a specimen of uterine tumour removed, with both appendages attached, by abdominal hysterectomy, would fully account for the return of menstruation followed by pregnancy in the case of my patient; and this I believe to be the true explanation of it.*

A point of considerable importance to be here noted is the general advisability of a guarded prognosis as to the possibility of pregnancy after double ovariotomy. Until recently the consideration of such a possible sequence to the operation in question had been practically set aside; but this can no longer be the rule, as recorded cases, although few in number, are sufficient to establish the fact of its occasional occurrence under favourable circumstances.

So far, the majority of instances would appear to have followed upon the removal of chronically inflamed appendages where some small portion of one or other ovary has been accidentally left behind, presumably on the proximal side of the ligature; and it should be borne in mind that this same thing may occur during the removal by enucleation of any sessile or intraligamentous growth.

The so-called conservative treatment of diseased ovaries, originally advocated with the view of avoiding interference with the menstrual function and the consequent disadvantages of a premature menopause, has recently been practised on the Continent and elsewhere with the further object of avoiding subsequent sterility, and with occasional success.[5] That the general adoption of such treatment is invariably judicious admits, I think, of considerable doubt, since it may well expose a patient to a recurrence of disease in the remaining portion of ovary without necessarily affording her a prospect of motherhood. At the same time, however, I am inclined to believe that in young women suffering from double ovarian cystic disease of a simple type, one is justified in purposely leaving a portion of normal ovarian tissue connected with the pedicle when possible to do so. On the other hand, in cases of rapidly growing adenomatous tumours, of colloid or papillomatous cysts, and of dermoid growths, no such attempt should be made, as the risk of recurrence in these conditions far outweighs any possible benefits to be derived from such treatment.

Finally, bearing in mind the occasional existence of follicular elements in connexion with the ovarian ligament, it is advisable, I think, in any case involving removal of both ovaries for cystoma of a non-malignant type to aim at transfixing the pedicles at a point sufficiently remote from the uterus to ensure non-interference with the root of the ligament, since by so doing one may afford the patient a possible chance of subsequent maternity, as was unwittingly done in the case here related.

REFERENCES.

[1] *Trans. Obstet. Society*, 1902. [2] Thumin, Ueberzählige Eierstöcke, *Arch. f. Gyn.*, 1898. [3] *Lancet*, February 7th, 1903, p. 352. [4] *Amer. Journal Obstet.*, December, 1902. [5] Condamin, *Annales de Gynéc. et d'Obstet.*, March, 1904.

NOTES OF EXPERIMENTS TO DETERMINE THE RELATIVE EFFICIENCY OF SOME SURGICAL DRESSING MATERIALS.

BY

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THE experiments were undertaken for the purpose of determining the relative absorptive power of the commoner surgical dressing materials. The need for some such experiments was suggested by the unsuitability, in practical clinical work, of the materials for drainage purposes in general use. The earlier experiments showed that a wide

* A similar abnormally situated mass of ovarian tissue, in close relation to the base of the ovarian ligament, has been described by Dr. Baldwin,[4] who discovered it during a second operation undertaken for the relief of persistent menorrhagia in a patient, both of whose ovaries he had previously removed.

range of materials and a variety of tests were essential. It soon became evident that dressings must be examined, first, to discover their absorptive—perhaps better called hygroscopic—powers; secondly, their powers of conveying fluid to a distance by capillary attraction; and, thirdly, the spreading or dispersive properties—presumably a combination of the previous two—by which fluids are conveyed from the point of contact and spread over a larger area.

The inception of these tests was due to the observation that on the withdrawal of a gauze drain from a discharging cavity a gush of fluid frequently followed the gauze. The gauze in these cases had acted as a cork and had bottled up the discharge instead of conducting the fluid to the surface dressing. It became necessary to find out, if possible, the cause or causes of the cessation of action of the drainage materials. It is a common experience that many conditions exist in which a cavity containing pus, blood, or other fluid has to be drained in such a way that gravitation is of no assistance—that is, where an opening cannot be made at the most dependent part. Where tubes alone are used in these cases only the overflow discharge reaches the dressing. Under these circumstances the general practice nowadays seems to resolve itself into the use of iodoform or other gauze drains with or without a rubber or glass drainage tube for the purpose of conveying the contents of the cavity to the covering dressing. It may be noted here that we do not refer to cavities of small size which are filled with packing material for other purposes than drainage.

A preliminary investigation by the simple means of dropping scraps of dressing materials on to the surface of a basin of water elicited the fact that some samples of iodoform gauze failed to absorb water to any appreciable extent while other samples became saturated quickly. There were decided variations in many of the other materials.

Experiment 1.

The first experiment had for its object the determination of the amount of water that each material was able to hold in suspension when saturated and when compressed "dry."

A quantity, 20 gr. by weight, of each variety of the commoner surgical dressings was dropped into a basin containing a large quantity of water. On complete saturation each piece was picked out separately with artery forceps and allowed to drip until the drops ceased. The pieces were then weighed and it was found that the absorbent wool had increased to 473 gr., wood wool wadding to 443 gr., cellulose wadding (Tillman's paper dressing) to 290 gr., plain gauze to 176 gr., boracic lint to 150 gr. They were squeezed dry, and again weighed to show the amount of retained moisture. A full list of results is shown on Table 1.

TABLE I.—*Showing the Amounts of Water, by Weight, Absorbed by the Various Materials when Saturated, and with the Excess Squeezed Out.*

Material.	Dry.	Saturated.	Weight of Water in Saturation.	Proportion in Terms of Weight of Material.	Weight when Squeezed "Dry."	Weight of Water Retained.
	gr.	gr.	gr.	Times	gr.	gr.
Absorbent wool { B.	20	370	350	17 50	70	50
Absorbent wool { McF.	20	473	453	22.60	95	75
Wood-wool wadding { McF.	20	443	423	21.15	80	60
Wood-wool wadding { H.	20	330	310	15.50	90	70
Cellulose—B.	20	290	270	13.50	60	40
Boracic lint { McF.	20	150	130	6.50	50	30
Boracic lint { B.	20	240	220	11.00	45	25
Plain gauze { McF.	20	176	156	7.80	62	42
Plain gauze { B.	20	240	220	11.00	50	30
Iodof. gauze { McF. No. 1	20	125	105	5.20	55	35
Iodof. gauze { B.	20	240	220	11.00	40	20
Crimean cloth	20	170	150	7.50	67	47

Experiment 2.

The next experiment was devised to determine the rate of conveyance of water through a given length of material, of approximately the same breadth and thickness, in other words, to find the rate of capillary attraction for water.

Strips of the various materials were cut as nearly as possible of the same bulk, and their ends placed simultaneously into a basin of acidulated water. The strips dropped perpen c larly, and free from a ledge, 3 in. above the water, at w c point a piece of blue litmus paper was attached to each s i The acid solution travelled up the 3 in. of cellulose wad n in three minutes, boracic lint in four and a-half min e and plain gauze in six minutes. In the absorbent wool n wood-wool wadding the water had only travelled 1 i i fifteen minutes, showing that these latter, though p hygroscopic (see Experiment 1) were markedly deficie capillary attraction. Though plain gauze and MacFarl e No. 1 iodoform gauze carried up the water in six min e other gauzes were very much slower, and some speci z would not absorb at all. The full results are show Table II.

TABLE II.—*Showing the Rates of Conveyance of Water an through 3 in. of Various Materials of Approximately the Breadth and Thickness.*

Material.	Water.	Pus.	Time tak Absor drachm o u
Cellulose wadding...	3 minutes	5 minutes	4 hou
Boracic lint (McF.)	4½ ,,	8½ ,,	1½ ,,
,, ,, (Baird)	8 ,,	20 ,,	2 ,,
Gauze—plain...	6 ,,	8 ,,	2 ,,
,, ,, (Baird)	7 ,,	15 ,,	2 ,,
Iodof. gauze (McF. No. 1) ...	6 ,,	8 ,,	2 ,,
Crimean cloth	8 ,,	8½ ,,	2½ ,,
Lint	10 ,,	20 ,,	7 ,,
Cyanide gauze	18 ,,	not tested	not tes
Sal alembroth gauze	18 ,,	,, ,,	,, ,,
Linton's moist iodof. gauze ...	22 ,,	23 minutes	4½ hou
Gauze with dry iodof. crystals..	23 ,,	24 ,,	4 ,,
Ribbon iodof. gauze	23 ,,	24 ,,	4 ,,
Absorbent wool	approx. 1 hr.	nil.	not tes
Wood-wool wadding	,, 1 hr.	,,	,, ,,
Iodof. gauze (Baird)	,, 1 hr.	practically none	6 hou
Iodof. gauze (McF. No. 2) ...	none	none	none

Experiment 3.

Recognizing that in the actual conditions of surgical w the carriage of water is not the only desideratum, and a the removal of pus cells, fibrin, and débris is also necess the third experiment was carried out on the following line

An acid pus with a specific gravity of 1010 was used to the capillary attraction of dressings for a fluid contain solids in suspension; 2 drachms of this pus were put t each of a number of urine glasses, and strips of the vari materials loosely packed down narrow glass tubes w simultaneously lowered, one into each urine glass. Th inches above the surface of the pus was placed, as befor piece of blue litmus paper. The acid pus travelled up 3 in. of cellulose wadding in five minutes, plain gauz eight to fifteen minutes, boracic lint in eight and a-hal twenty minutes. The cellulose wadding absorbed 1 drac of pus in four hours, then stopped; when it was transfe to a glass containing water it did not absorb any of that fl The plain gauze absorbed 1½ drachm of pus in four ho after which it absorbed neither pus nor water. The bor lint absorbed 2 drachms of pus in four hours, and thoug would absorb no more pus it absorbed 2 drachms of w when transferred. In the latter half of this experiment tops of the drains were covered with cotton-wool.

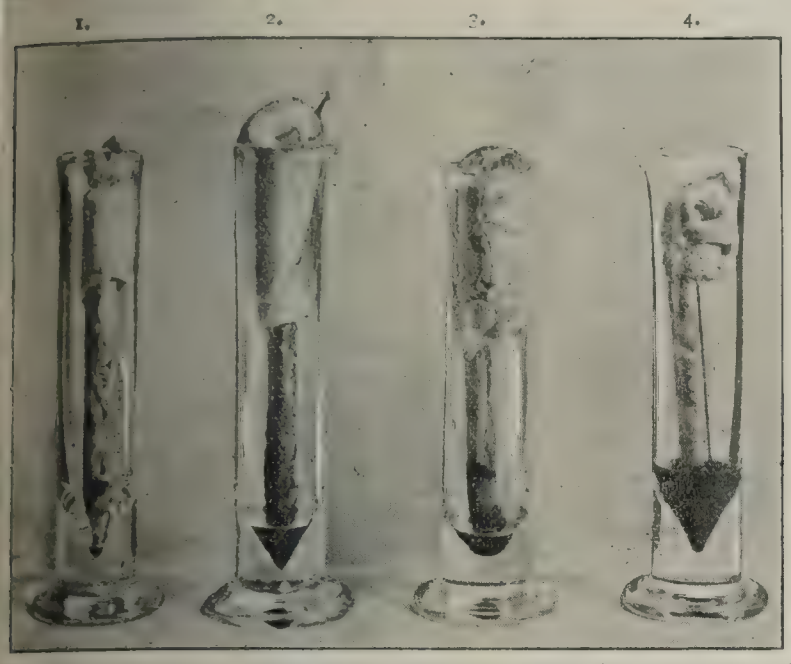
Microscopic examination of the fluid at different level each material discovered pus cells and débris in the boracic fully ½ in. above the original level of the pus, but in the ot materials these were only found in that part of the dress which had been actually immersed in the pus. From thi would seem that a factor in the stoppage of the drainage a blocking of the meshes of the drain by solid matter. order to see if this was the only factor another experim was performed.

Experiment 4.

The drains were used as in Experiment 2, but in t instance their free ends were allowed to hang over the ed of the urine glasses. It was found that as soon as the dr became saturated with water the capillary action in all ca ceased. No drops fell from the free end, thus showing t saturation of the material stops capillary action.

On consideration of the results of the foregoing exp ments it was manifest that the materials most suitable capillary action were not those of the highest hygrosco quality, and it was also seen that when pus was used

oint of saturation in a 3-in. drain of average thickness was ached in four hours when no covering dressing was used.



ig. 1 (Experiment 5). Photograph taken an hour after the start of an experiment. 1. Cellulose drain and cover. 2. Boracic lint drain and cover. 3. Plain gauze drain and cover. 4. Iodoform gauze drain and cover.

Experiment 5.

Inasmuch as the saturation of a drain depends on the idity with which the covering dressing removes the fluid m the drainage material, a number of samples of marked groscopic power were employed as covering materials in periment 5. Half an ounce of methyl blue solution was t into various urine glasses; 3-in. strips of materials were n lowered into each through glass tubes, and covered with e same or other material. The length of time taken by h combination to remove the $\frac{1}{2}$ oz. of fluid was noted, and e following are the principal results:

ellulose wadding drain with cellulose wadding cover took half an ir.

lain gauze drain with cellulose wadding cover took an hour and alf.

lain gauze drain with plain gauze cover took three hours.

oracic lint drain and boracic lint cover took an hour and a-half.

here absorbent cotton or wood-wool wadding was used as a ering material the whole of the $\frac{1}{2}$ oz. of fluid was not sorbed, showing that the power of the material to convey fluid from the point of contact with the drain is not dependent on the hygroscopic power alone. (Fig. 1 from a photograph shows four of these tests in process.) For this purpose a spreading or dispersive quality is most suitable, and this seems to be a combination of capillary attraction and hygroscopic power.

Experiment 6.

In order to measure this quality the sixth experiment was undertaken. Pieces of the different materials were cut into squares of nearly the same size and thickness. On the centre of each square, from a height of 3 in., 10 drops of a coloured solution were allowed to fall from a pipette. The following are some of the results:

Boracic lint, plain side up, stain on proximal side 1 in. in diameter; distal $\frac{1}{2}$ in.

Boracic lint, face side up, stain on proximal side $\frac{1}{2}$ in. in diameter; distal 1 in.

Wood-wool wadding, stain on proximal side 1 in. in diameter; distal $\frac{1}{2}$ in.

Cellulose wadding (Tillman's paper), stain on proximal side 2 in. in diameter; distal $\frac{3}{4}$ in.

Plain gauze, stain on proximal side $1\frac{1}{2}$ in. in diameter; distal $1\frac{1}{2}$ in.

In the second photograph the upper row shows the stain on the proximal side; the under row shows the stain on the distal side.

Conclusions.

To recapitulate these results shortly, it has been found:

1. That the most suitable drainage material for the conveyance of fluids with solids in suspension is dry boracic lint; cellulose wadding is almost as efficient, but its friability renders it unsuitable for drainage purposes, unless enclosed in a gauze envelope.

2. That the best covering materials for the speedy removal of the discharge from the distal end of the drain are cellulose wadding and gauze.

3. That the covering material should be sufficient in amount to continue in action as long as the drain, and prevent saturation of the latter.

4. That, as the blocking of the drain takes place in four to eight hours, a more frequent dressing than usual is indicated.

It should be stated that the variations in the iodoform gauzes were probably due to the preparation of the material, and certainly not to the influence of the iodoform, as the specimens used were all 10 per cent., and some of them acted as efficiently as plain gauze.

In reviewing the conclusions of these experiments the obvious objections arise that the influences of temperature, surface evaporation, coagulation of fibrin, and drugs will all modify the results. Since it is practically impossible to test all the materials for every varied condition, and as it is likely that the modifying circumstances will give proportionately similar results, it is hoped that the above experiments will be of use in actual practice.

In the search for a suitable drainage material many substances have been tested, those noted above being only a few of the best. It is hoped that a more efficient drain may yet be discovered, and to this end we shall be glad to receive suggestions as to materials and references to other researches.

Our thanks are due to Messrs. Baird Brothers and others who have supplied us with samples.

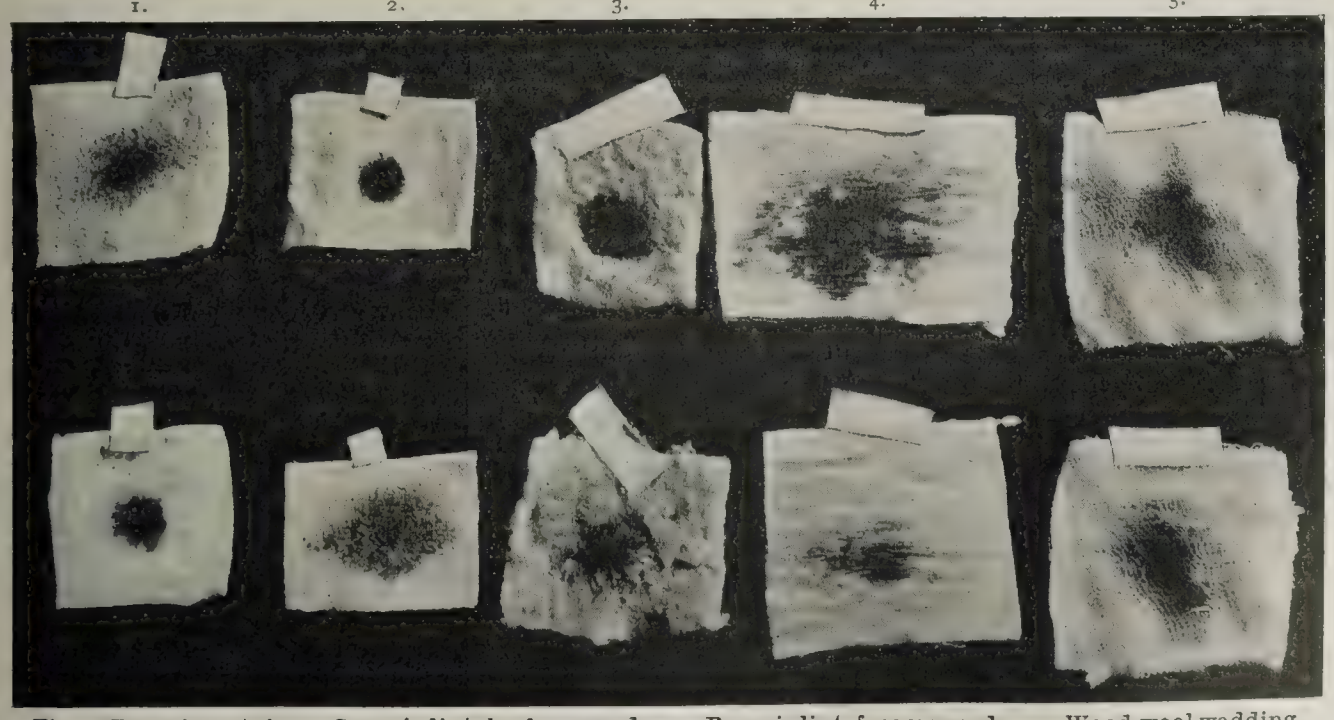


Fig. 2 (Experiment 6).—1. Boracic lint, back upwards. 2. Boracic lint, face upwards. 3. Wood-wool wadding. 4. Cellulose. 5. Plain gauze.

A BACTERIOLOGICAL INQUIRY INTO THE STERILIZATION OF HANDS.

BY J. RUPERT COLLINS, M.D., B.CH. (UNIV.DUB.),
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THERE exists still a remarkable uncertainty as to the best method to be used for disinfecting the skin. At a recent meeting of the Gloucestershire Branch of the British Medical Association opinions ranged from the use of very strong chemical solutions to the opinion, skilfully maintained, of using no chemical whatsoever for the preparation of the hands before an operation.

In the simple experiments given here an attempt has been made to represent in a practical way the changing bacteriological picture presented by the hands of the surgeon in the successive stages of the ordeal through which they pass prior to an operation.

Sterile Petri dishes with a layer of agar-agar at the bottom were prepared in the usual way. An imprint was then taken on the surface of the agar-agar of Plate I. of the first three fingers of each unwashed hand. The hands were then scrubbed and dried either with a sterilized towel or by holding them in front of the fire so as to avoid any liquid, septic or antiseptic, remaining on the plate, and an imprint of the same six fingers was taken on Plate II. The hands were then soaked in an antiseptic solution, dried as before, and an imprint of the same fingers was taken on Plate III. The three plates were then placed in the oven and the number of the colonies which grow counted. In the washing the whole of both hands and the arms up to the elbows were scrubbed, the finger imprints representing six separate samples of the area of skin cleansed.

The effects on the skin of a chemical antiseptic were found to persist for a considerable time, for this reason each of the experiments recorded was performed at intervals of, roughly, twenty-four hours, no antiseptic being applied to the hands in the interim.

In the first two experiments, the nail-brush employed was one which was kept in the soap-dish in the surgery. After these two experiments this brush was promptly seized and burnt by the house surgeon, and the nail-brush was in future kept in carbolic acid 1 in 40. With this carbolized brush the remainder of the experiments were performed. When washing in plain water, three changes of water were used; when washing in antiseptics two changes. The soap used throughout the experiments was unmedicated.

Non-Carbolized Nail-brush: Number of Colonies.

Plate I. Unwashed.	Plate II. Washed 10 min. in warm water.	Plate III. Antiseptic.	Plate III. Antiseptic used.
12	70	0	Carbolic acid, 1 in 40, 5 min.
17	44	0	$HgCl_2$, 1 in 1,000, 5 min.

Carbolized Nail-brush: Number of Colonies.

Plate I. Unwashed.	Plate II. Washed 10 min. in warm water.	Plate III. Antiseptic.	Plate III. Antiseptic used.
8	3	0	Carbolic acid, 1 in 40, 5 min.
Overgrown	35	0	Carbolic acid, 1 in 40, 3 min.
Overgrown	6	0	Carbolic acid, 1 in 40, 3 min.
56	4	0	$HgCl_2$, 1 in 1,000, 3 min.

The period of the scrubbing was then shortened to five minutes, and the difference between hot water (meaning water as hot as one could comfortably bear) and tepid water contrasted. At the same time different antiseptics for different periods of time were used for the final cleansing.

Number of Colonies.

Plate I. Unwashed.	Plate II. Washed 5 min. in tepid water.	Plate III. Antiseptic.	Plate III. Antiseptic used.
45	51	0	Carbolic acid, 1 in 40, 3 m
62 + overgrown	61	0	Carbolic acid, 1 in 40, 3 m
30	163	0	Carbolic acid, 1 in 40, 3 m
32	Overgrown	8	Carbolic acid, 1 in 40, 3 m
Overgrown	35	0	Perchloride of mercury, 1 1,000, 3 min.
29	130	0	Perchloride of mercury, 1 1,000, 1 min.
150	200	3	Perchloride of mercury, 1 1,000, 1 min.
33	7	0	Perchloride of mercury. 1 500, 1 min.
196	2	1	Perchloride of mercury. 1 500, 1 min.
47	0	0	Perchloride of mercury, 1 500, 1 min.
	Washed 5 min. in very hot water.		
105	4	0	Carbolic acid, 1 in 40, 3 m
40	5	0	Carbolic acid, 1 in 40, 3 m
312	18	0	Carbolic acid, 1 in 40, 3 m
76 + overgrown	106	0	Carbolic acid, 1 in 40, 2 m
62 + overgrown	65	7	Carbolic acid, 1 in 40, 2 m
132	12	1	Carbolic acid, 1 in 40, 1 m
191 + overgrown	34	0	Perchloride of mercury, 1 1,000, 1 min.
90	40	30	Perchloride of mercury, 1 1,000, 1 min.
122	50	0	Perchloride of mercury, 1 500, 1 min.
13	1	0	—

The effect was now tried of introducing an antiseptic into th first scrubbing and shortening the final soaking to one minut making thus a period of six minutes for the entire process.

Number of Colonies.

Plate I. Unwashed.	Plate II. Washed 5 min. in lysol 1 in 1,000 hot.	Plate III. Antiseptic.	Plate III. Antiseptic used.
248	0	0	Perchloride of mercury, 1 500, 1 min.
186	0	0	Perchloride of mercury, 1 500, 1 min.
148	0	0	Perchloride of mercury, 1 500, 1 min.
255	0	0	Perchloride of mercury, 1 500, 1 min.
41 + overgrown	0	0	Perchloride of mercury, 1 500, 1 min.
290	0	0	Perchloride of mercury, 1 500, 1 min.
103	0	0	Perchloride of mercury, 1 500, 1 min.
234	0	0	Perchloride of mercury, 1 500, 1 min.
211	0	0	Perchloride of mercury, 1 500, 1 min.
74 + partly overgrown	0	0	Perchloride of mercury, 1 500, 1 min.
	Washed 5 min. in biniodide of mercury 1 in 1,000, hot.		
204	0	0	Carbolic acid, 1 in 40, 1 min
280	0	0	Carbolic acid, 1 in 40, 1 min
62 + overgrown	0	0	Carbolic acid, 1 in 40, 1 min
68	0	0	Carbolic acid, 1 in 40, 1 min
63 + overgrown	0	0	Carbolic acid, 1 in 40, 1 min
108	0	0	Carbolic acid, 1 in 40, 1 min
19	0	0	Carbolic acid, 1 in 40, 1 min
195	0	0	Carbolic acid, 1 in 40, 1 min
42 + overgrown	0	0	Carbolic acid, 1 in 40, 1 min
94	0	0	Carbolic acid, 1 in 40, 1 min

The precise nature of the micro-organisms present is not given as it is irrelevant to the main point at issue. They were those usually present on the skin.

When the plate is mentioned in the above tables as being overgrown, it is meant that a rapidly-growing mould had spread over the surface of the agar-agar. It will be noticed that this occurs in only one case after washing, apparently moulds do not penetrate the skin as deeply as do bacilli and cocci.

brief consideration of the structure of the integument ch has to be cleansed will show that we might have ved, reasoning *a priori*, at the same conclusion as we are to by practical experiment.

ne skin presents a surface of superposed, flat, horny, scale- cells; loosely attached and overlapping one another. more superficial cells are continually undergoing desqua- ion, while fresh cells are thrust up in their place from the per layers as they pass through the successive stages from tum Malpighii to stratum corneum. There is thus a outer porous coating on the epidermis, the interstices of ch are swarming with micro-organisms. If the hands be ed in an antiseptic solution for a short time the micro- nisms on the surface are killed, but any friction removing e outer cells will lay bare the remainder of this porous ing rich in micro-organisms. The following experiment nplifies this. The unwashed hands gave a growth of nteen colonies on agar-agar; the hands were then nersed for three minutes in 1 in 1,000 perchloride of cury solution, dried in front of the fire, and an imprint n on a second plate. This second plate showed a thin al growth along one finger print. The hands were then ed on a sterilized towel and an imprint was taken on a d plate. This third plate showed all the finger prints rich rowth, and from them a large part of the surface of the -agar was overgrown.

ne first step to be taken in the cleansing of hands is to ove by friction this outer coating of feebly adherent cells the contamination they enclose. Strict asepticians ntain that they can perform this without any chemical nfectant whatever. My experience is against this, and if washing is not prolonged it probably only aggravates ters by simply ploughing up without detaching the ing of loose cells. It is important to dissolve off the r layer of the soap which must be considered septic. n this is done the soap is probably aseptic, inasmuch as s to be boiled in the making; and such tests as I have e on the interior of an unmedicated soap prove it to o.

the same time I believe that people vary much in the icity of their skins. The frequent use of antiseptics lers the skin hard and glazy, and in that case the hands more easily sterilized. Mr. Curtis, late house surgeon to hospital, very kindly performed for me some experiments er precisely the same conditions as I employed on my hands, with, as will be seen, very different results.

Number of Colonies.

Plate I. Unwashed.	Plate II. Washed 5 min. in hot water.	Plate III.	
		Antiseptic	Antiseptic used.
154	0	0	Perchloride of mercury, 1 in 500, 1 min.
ergrown	13	0	Perchloride of mercury, 1 in 500, 1 min.
314	0	0	Perchloride of mercury, 1 in 500, 1 min.
ergrown	8	0	Perchloride of mercury, 1 in 500, 1 min.
214	16	0	Perchloride of mercury, 1 in 500, 1 min.

is duties necessitated frequent scrubbing of his hands and use of strong chemical antiseptics, with the result that septic porous layer was reduced to a minimum, and the per layers of the skin were probably imbued to a con- rable extent by chemical substances. The penetrating er possessed by these chemical agents is shown by the s of poisoning arising from the external application of ng mercurial and carbolic lotions. The following experi- t indicates the durative of the effects of antiseptically nsing the skin.

ter performing a *post-mortem* examination lasting some rs the hands were cleansed in lysol 1 per cent. and then ed in perchloride of mercury 1 in 1,000. The exact tion of the washing was not timed but the whole did not, hink, exceed five minutes. Three hours later when nined in the usual way by plates the result was:—

Number of Colonies.

Plate I. Hands unwashed.	Plate II. Washed 5 minutes in hot water.	Plate III. Carbolic acid 1 in 40 for 3 minutes.
Lineal growth along one finger print.	0	0

The use of very hot water in scrubbing the hands is important. In the first place it softens and removes the outer layer of skin more easily than tepid water. In the second place, passing through the skin are the ducts of sweat and sebaceous glands. The heat and increased circulation will aid in squeezing out the possible septic contents of these glands, and if the hands are then immersed in a cold antiseptic solution the physical result must be to suck up some of this solution into the ducts and thus seal them off from all fear of their contents doing harm.

As surgeons are naturally anxious to cleanse their hands rapidly, not to use an antiseptic miscible with soap in the preliminary washing, seems, to say the least of it, an unecessary waste of valuable time, inasmuch as the final soaking in an antiseptic must be in that case longer.

To test the genuineness of the sterility of the hands produced by the last two methods adopted, lysol, followed by corrosive sublimate and biniodide of mercury, followed by carbolic acid, the following experiments were performed. A sterile jar containing sterile nutrient broth was prepared. After the completion of one out of each of the series of plate experiments recorded in the above tables, the whole hand and wrist was inserted in this jar so that the entire surface of the hand and wrist was submerged in the broth and was kept there for one minute. The jar was then closed and incubated. The broth remained sterile in the case in which lysol and corrosive sublimate had been used, in the case of the other jar where biniodide of mercury and carbolic acid had been used to cleanse the hands, a fungus growth formed on the surface of the broth. The opportunity for aërial contamination in the passage of the hands from the lotion to the broth is very great, and the fact that the infection was a mould renders it likely that this was the cause of the failure of the hands to stand the test in this instance. I hope, however, to repeat this experiment which, I think, must be regarded as a stringent test.

As it has been definitely established that some micro-organisms have relatively a selective tolerance for certain antiseptics a different antiseptic was used in the final soaking from that which was used in the primary scrubbing. There are, of course, many other antiseptics which would act as well, but those mentioned were selected as being the commonest of the two great groups of tarry extracts and mercurial compounds. They also have the advantage of costing little.

The biniodide of mercury solution was an aqueous solution of the potassio-mercuric iodide, HgI_2, 2KI., prepared by the interaction of perchloride of mercury and potassium iodide. I think it is worth mentioning that there are three solutions of biniodide of mercury in common use, a solution in potassium iodide and water, a solution in 90 per cent. of alcohol, and a solution in ether. The alcohol and ether solutions have the objections that in the first place they cannot be used with soap, in the second place they readily evaporate, leaving solid particles of the red mercuric iodide which is excessively irritating to the skin and, being practically insoluble in water, is not readily washed off. The addition, also, of more than 10 per cent. of water will cause precipitation of HgI_2, from even an absolute alcohol solution.

One of the factors which has delayed the determination of the best method of sterilizing the skin more than anything else is the extraordinary power healthy tissues possess of overcoming and apparently killing micro-organisms. The result is that good and even brilliant results have been obtained with faulty methods; and when in a weak individual suppuration takes place after an operation performed under similar conditions as provided at the previous successes, the tissues of the patient are blamed, and not the technique of the surgeon. I believe that when surgeons operate with the same scientific accuracy in every detail of an operation as must prevail at any bacteriological experiment, he will be as little inclined to blame the tissues of his patient for post-operative suppuration as is the bacteriologist to blame his culture media and not technical error for any contamination taking place during his experiments.

I think the above experiments, as far as they go, at least point to, if they do not justify, the following conclusions:

1. The nail-brush used should be either boiled before use, or better still, kept always in an antiseptic solution.
2. Vigorous scrubbing is required for at least five minutes.
3. The water should be as hot as can be comfortably borne.
4. Chemical antiseptics of efficient strength should be used for cleansing the skin, and it is preferable that they should be used in the primary washing as well as in the final soaking.
5. With sufficient time and care sterilization of the skin is not impossible.

The mode of preparing the skin of the patient for operation will be similar to that found best for sterilizing the hands of the surgeon, though probably less friction will be required in cleansing the skin of other parts of the body than is required in the cleansing of the hands and feet.

Besides the skin, there exists as a source of infection the instruments and dressings, and the air of the operating theatre. The instruments and dressings can be sterilized by heat. There remains the air of the theatre, the importance of which as a septic agent and the adequacy of the methods adopted to meet it I hope to show by experiments shortly, together with further investigations on the question of skin sterilization.

FURTHER OBSERVATIONS ON THE THERAPEUTIC VALUE OF RADIUM AND THORIUM.

By J. M. H. MacLEOD, M.A., M.D., M.R.C.P.,

Assistant Physician for Diseases of the Skin, Charing Cross Hospital; Physician, Skin Department, Victoria Hospital for Children.

In January of this year my colleague, Mr. Mackenzie Davidson, contributed a paper to the British Medical Journal on some cases treated by exposure to radium bromide. The results obtained in two of these cases which I had the opportunity of watching while under treatment were so striking that I was induced to try the effect of this powerful salt in a number of cases under my care at Charing Cross Hospital. I have employed this treatment in suitable cases since last autumn, and though sufficient time has not yet elapsed to be certain with regard to the permanence of the results, still brief notes on a few of these cases and a record of my experience of radium as a local therapeutic agent may be of some interest.

The principal cases in which I have tried the effect of radium bromide have been lupus vulgaris, both the nodular and verrucose varieties, lupus erythematosus, rodent ulcer, and epithelioma, and, with the kind permission and under the supervision of my colleague, Dr. Amand Routh, two cases of cancer of the cervix uteri.

The radio-activity of the radium bromide which I employed has been estimated at 600,000 units, taking the activity of uranium as the unit. It was put up in quantities of 5 mg. in sealed glass tubes. I also used a tube containing the same quantity of radium bromide of two or three times the activity of the other tubes. In this communication I will designate the two types of tubes as "strong" and "weak" tubes.

Mode of Application.

The fact that the radium bromide was contained in a sealed tube made of glass has been criticized as interfering with the full activity of the salt. Various forms of apparatus have been introduced to obviate this, in which the radium is contained in a small metal capsule with a platinum end, which is believed to be more transparent to the rays than glass, or in capsules of vulcanized rubber covered with mica and enclosed in a sheet of brass with a central aperture. Practical experience, however, has shown that the rays which penetrate the glass are sufficiently active not only to have a therapeutic effect on the skin, but, unless their action be carefully limited, to produce a radium burn. I will not attempt to discuss the subjects of the various types of rays which are given off by radium in the solid state, and of the relative value of the different radiations; these problems I must leave to the physicist. Suffice it to say that the general consensus of opinion seems to be that it is the so-called beta rays which have the chief therapeutic value, and that these readily pass through glass. Recent researches have shown that radium has the power of inhibiting the growth of various bacteria, and certain experimenters, such as Dixon and Wigham, consider it probable that it is to the beta rays that radium this inhibitory power.

Another obvious criticism of the method of applicati radium bromide in a sealed glass tube of about 1½ i length is that such a small quantity as 5 mg. of the salt i to get spread about the tube, and will not keep in position. This is a just criticism, and though in most the radium may be satisfactorily applied in such a tube i care, still it is practically impossible to do so when it h be applied in situations such as the inside of the nos To obviate this difficulty I have had a special tube with an hour-glass constriction at one end containing salt. This small tube can be easily inserted into the nos and with the patient in the recumbent position can b tained there with no difficulty or discomfort.

At first I was in the habit of fixing the tubes in pos on the skin by means of adhesive plaster. This necessit considerable handling of the tubes, and, to minimize risk of breaking them, I now place them in a metal (Fig. 1) on a bed of sterilized cotton-wool and fix them bandage. The tray and the tube are contained when n use in a metal box, as shown in the diagram.*

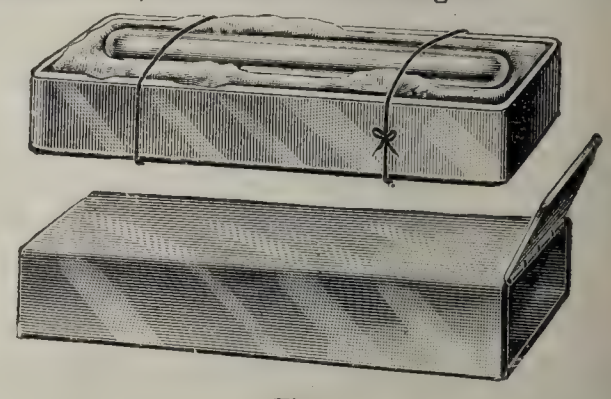


Fig. 1.

For the purpose of applying the tubes in cavities such the throat and vagina I have also had a catheter-like hol made with a malleable metal extension on which a piec indiarubber can be fixed for the teeth to bite against (Fig.

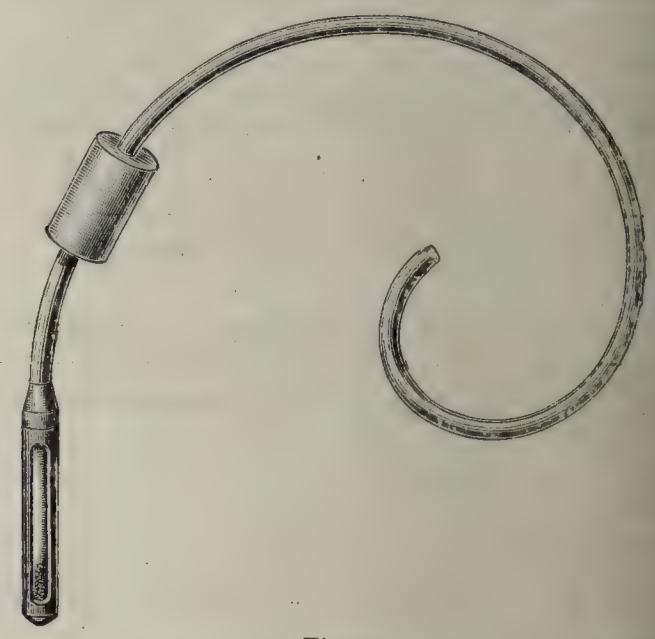


Fig. 2.

Every part of the diseased area was exposed *seriatim* a then at least a week was allowed to elapse. If no inflamm tory reaction occurred daily exposures were given for a we and then the treatment was intermitted for a fortnight a followed by a second cycle of exposures, and a third necessary.

The length of time of the exposures depended chiefly on t purity and activity of the radium bromide in the tube, a also on the characters of the diseased area. With the str tube exposures of ten minutes' duration were ample, but get the same effect with a weak tube an hour or more w required. Where there was much thickening of the e dermis, as on the border of a rodent ulcer or in the verruco type of lupus vulgaris, longer exposures could be given wi safety than in the case of a nodular lupus where the e dermis was thin. Every precaution was taken to under-expo rather than over-expose the lesions, as the best results we

* For the trouble in preparing the apparatus and for the loan of t more active radium tube I am deeply indebted to Mr. W. Martindale.

btained when the exposures were stopped as soon as any sign of reaction appeared. In several instances, before the importce of avoiding a reaction was recognized, where too long or o frequent exposures had been given, burns which develped into indolent ulcers were produced, and these took veral weeks to heal. The action of the rays from radium, ke that of the *x* rays, appears to be cumulative. They cause cellular degeneration of weakly resistant diseased cells, and hen this reaches a certain degree an inflammatory reaction secondarily induced, and, as this occurs in an impaired ssue, an indolent ulcer is the result.

The application of the radium was associated with no discomfort at the time. As a rule, a slight sensation of prickling burning was felt next morning, and this persisted for a day two. In a number of the cases subjective symptoms were olly absent. There seemed to be a certain amount of diosyncrasy with regard to the sensation produced by the ys on different individuals. In a few cases neuralgic pains lowed the exposures, but whether they were *post hoc* or *opter hoc* I was unable to decide.

NOTES OF CASES TREATED BY RADIUM BROMIDE.

CASE I.—*Lupus Verrucosus of the Back of the Left Hand.*

The patient was a boy, aged 14 years, who came under my observan at the Victoria Hospital for Children in October of last year. The eased patch was situated on the ulnar aspect of the hand and exded from the metacarpo-phalangeal joint of the fourth finger up to wrist. It was bounded externally by the ulnar border of the hand l centrally by an irregular warty border about 6 mm. in width and ied about 2 mm. above the level of the surrounding skin. This der was the most marked portion of the lesion, and was deep red in our and covered by adherent scales. Above the wrist several wnish-red nodules about the size of a split pea were present. A nce at the photograph (Fig. 3) will show the extent and general racters of the lesion.

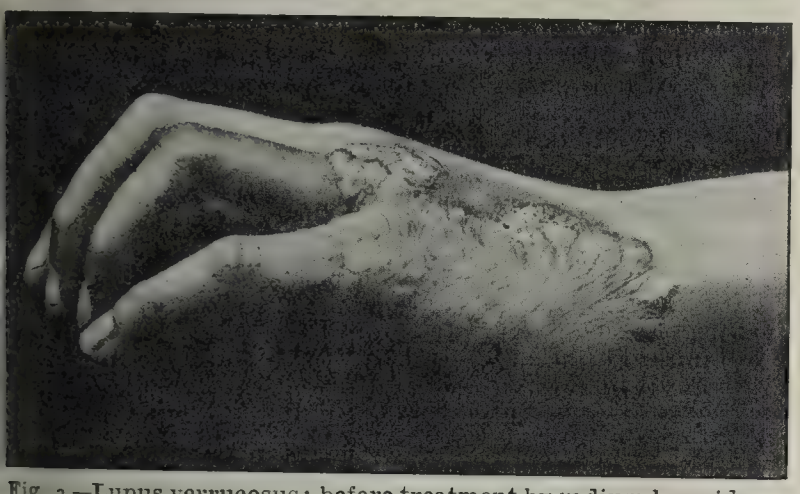


Fig. 3.—Lupus verrucosus; before treatment by radium bromide.

Fig. 4.—Lupus verrucosus; after treatment by radium bromide.

e boy was otherwise healthy, and there was no history of tuberis in his family. The disease began when he was about 2 years Soon after this he came under the care of my colleague, Mr. H. terhouse, who treated him by cauterization and salicylic collodion reatly improved the condition, but when treatment was remitted wly recurred.

ce he came under my charge he has been treated with radium ide, and the result so far has been most satisfactory, though it is sible to tell if it will be permanent. The treatment was begun on er 27th, 1903, and the condition at that time is shown in Fig 3. es of exposures to a weak tube were given, the tube being applied fferent parts of the lesion for an hour at a time. The exes were continued twice a week till February of this year, when cond photograph was taken. He had had at that time 48 expo-

The subjective symptoms produced by the rays were slight, and ted of itching or prickling sensations which came on soon after the exposure, and lasted for about 24 hours. After the first few exposures the thickened skin began to peel off, and the warty patch gradually faded without the production of any marked inflammatory reaction, except on two occasions when exposures of two hours were tried, which resulted in causing inflamed and painful spots, and these ulcerated and took about a fortnight to heal. On several other occasions equally long exposures were given to the indolent warty lesions, with no serious sequelae, but with considerable benefit. The second photograph (Fig. 4) shows the great improvement produced by the treatment. The raised patch which limited the lesion had by that time become flattened down to the level of the rest of the skin, and with the exception of a certain amount of atrophy of the skin, the result was eminently satisfactory. I think, however, that an equally good result might have been obtained by means of the *x* rays.

Note.—This case was demonstrated at the Dermatological Society of London in December, 1903, and a description of it may be found in the *British Journal of Dermatology*, January, 1903, p. 23.

CASE II.—*Lupus Vulgaris; Patch about the Size of a Sixpence at the Junction of the Lobule of the Ear and the Cheek.*

The patient was a healthy-looking woman, aged 19, and there was no history of tuberculosis in her family. The lesion was a patch of nodular lupus and had a smooth non-ulcerated surface. Besides this patch there was the scar of an earlier lesion on the left malar eminence which had been treated.

Treatment with radium bromide was begun on October 15th. Exposures were given once a week and afterwards at intervals of a fortnight or three weeks. After the third exposure the lesion became sore and smarted, but did not become much inflamed. On May 18th after 18 exposures the lupus had almost completely disappeared, but she is still having an occasional exposure to minimize the risk of a recurrence.

The result in this case was satisfactory, but slow. An equally good result and in a shorter time might have been obtained by a few exposures to a Finsen lamp followed by the cauterization of the remaining deep-seated nodules by a fine pointed actual cautery.

CASE III.—*Lupus Vulgaris affecting the Right Temple.*

The patient was a little girl, aged 11, and the disease began when she was 5 years old, The lesion was about the size of half-a-crown and involved the outer half of the right eyebrow, from which the hairs had disappeared, and it spread down on the upper eyelid and upwards on the temple for about ½ in. It was a patch of ordinary nodular lupus, the infiltration being most marked at the margins, while in the centre the disease had partly been replaced by scar tissue as the result of having been scraped. When she first came under observation at Charing Cross Hospital she was treated by Finsen light and the diseased area improved, but owing to the situation on the eyelid it was difficult to get sufficient pressure, and exposures to radium bromide were substituted. She has had a large number of exposures to the radium salt, about 70 in all, and though it has not yet entirely disappeared the raised borders have flattened down and the improvement is most marked, hardly any trace of the granuloma being left and only a certain amount of redness which is the result of the action of the radium.

Soon after the treatment was commenced, and before there was any sign of a reaction, the raised border began to flatten appreciably. Then the lesion seemed to become very sensitive, and even a short exposure to a weak tube caused a slight reaction. On one occasion a severe reaction took place almost immediately after exposure to the upper eyelid; this was associated with smarting, redness, and swelling of the lid, which did not subside for 48 hours. On another occasion a reaction occurred, which culminated in the formation of a small ulcer, which took a fortnight to heal; but as it was situated in the diseased tissue it did no definite harm.

CASE IV.—*Rodent Ulcer situated at the Junction of the Nose and Forehead.*

The patient was a strong-looking man, aged 56 years, and the ulcer was first noted at 32 years of age. It began as a small lesion midway between the supraciliary ridges. He sought relief at St. Mary's Hospital, where the lesion was cauterized and finally excised under an anaesthetic by Mr. Malcolm Morris; but owing to the position of part of the lesion on the left eyelid a total extirpation was not advisable, as he was a sculptor, and it was feared that the consequent contraction produced by a complete excision would have interfered with his eyesight; the part of the lesion on the eyelid was treated at that time by the cautery.

Before coming to Charing Cross Hospital he had had no treatment for seven years. When he came under observation there was an irregular scar about the size of a shilling above the root of the nose. Extending from the inner canthus of the right eye, across the nose and on to the left upper eyelid, there was an ulcerated patch covered by a haemorrhagic crust, and associated with this were several small nodules about the size of a split-pea and covered with a scab. The ulcerated area was gradually spreading, and the lesion was accompanied by itching, burning, and occasional shooting pains. Treatment by radium bromide was begun on February 12th, 1904, when the first of the two photographs was taken (Fig. 5). Exposure of half an hour with the weak tube or about ten minutes with the strong tube were given, and the second photograph was taken after 46 exposures on April 26th (Fig. 6). At that time the ulceration had healed, and the crusts had entirely disappeared; a smooth scar had been produced, and the subjective symptoms had gone. The exposures caused him no discomfort, and he was only aware of a slight feeling of warmth soon after them. An inflammatory reaction was carefully avoided.

CASE V.—*Rodent Ulcer on the Left Cheek.*

The patient was a healthy woman, aged 59 years, who came up for treatment to Charing Cross Hospital suffering from a small rodent ulcer about the size of a threepenny piece, situated on the left cheek immediately below the left eyelid. The lesion was a typical rodent ulcer with the characteristic rolled "cartilaginous border" which was incomplete and a depressed excoriated centre (Fig. 7). It began when she was 56 years of age, and had had no treatment till she came to the hospital. The ulcer was treated by radium bromide. She had altogether 18 exposures, the length of time depending on the activity of the tube employed. An inflammatory reaction was carefully avoided, the only approach to one occurring after the third exposure, when an intermittent pricking sensation and some redness was produced which lasted for about a couple of days. Soon after this the rolled edge and the central portion came off like a crust of impetigo, leaving a denuded surface which soon healed over. As the scar still presented a glossy appearance and was slightly thickened, the exposures were continued until it appeared to be healthy (Fig. 8).

In this case the radium acted brilliantly. Doubtless the Roentgen rays would have given a good result also, but the simplicity of the radium applications commended itself. The position of the lesion, immediately below the left eyelid, rendered excision apt to produce tension on the lower lid when the wound healed, and a like consequence might have followed the destruction of the lesion by the actual cautery.

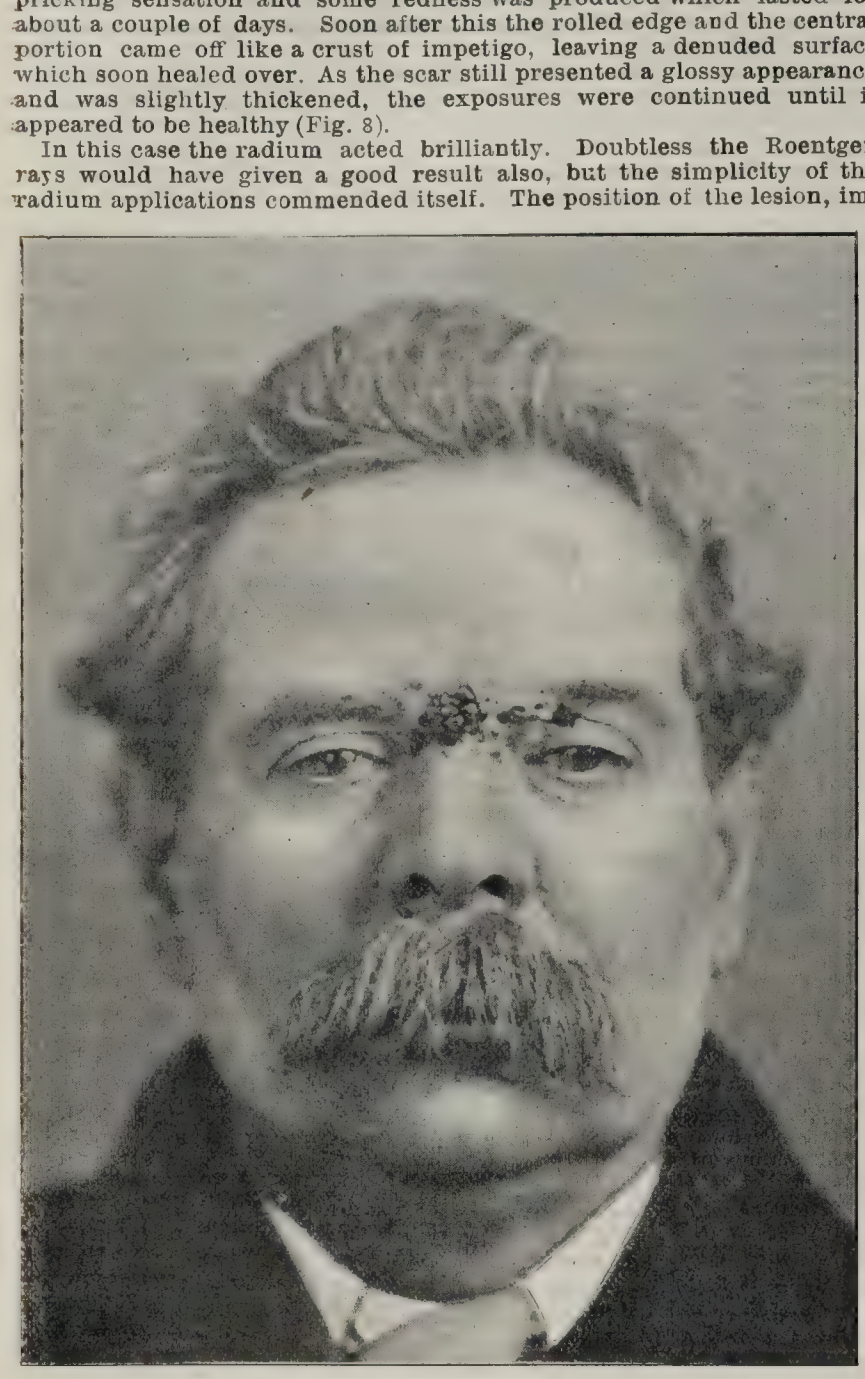


Fig. 5.—Case IV; rodent ulcer before treatment by radium bromide.

CASES VI and VII.—*Two Cases of Inoperable Carcinoma of the Cervix Uteri* (under the care of Dr Amand Routh).

For the following notes on the cases I am indebted to Mr. C. L. Lakin, his house-physician:

CASE VI.—The patient was 45 years of age, the mother of six children, and her symptoms had been present twelve months before coming under observation. On examination on March 2nd there was a mass of hard growth in the cervix. It was about the size of a billiard ball and involved the anterior lip. There was also an extensive infiltration of the recto-vaginal septum. A microscopical examination showed it to be a rapidly-growing epithelioma. On March 8th the chief mass of the growth was cut away. From March 11th to April 5th the patient had 13 insertions of the strong radium tube of half an hour each. After the first few insertions there was some pain, but later there was no discomfort from the application of the radium bromide. When examined on March 29th the disease was found to be extending in the recto-vaginal septum in spite of the treatment. After April 5th the patient ceased to come up for treatment, and was not seen again till May 27th, when she declared that since she left the hospital she had felt quite well and had been able to continue her arduous occupation of portress at Covent Garden Market. On examination, however, it was found that the disease had been spreading rapidly and had invaded the anterior vaginal wall, and that posteriorly there was a hard mass apparently about to ulcerate into the rectum. In this case the number of exposures had been insufficient to produce any effect in preventing the extension of the disease.

CASE VII.—The second case was that of a married woman, aged 5 years, who had suffered from haemorrhage for about fifteen months before coming to the hospital. On examination the uterus was found to be fixed, and the cervix to be involved in a mass of growth with a crater-like cavity. On March 15th a portion of the growth was removed and the cervical canal was scraped and sufficiently enlarged for the insertion of the radium tube. A microscopical examination showed that the lesion was an alveolar carcinoma. Radium treatment was begun from March 18th to April 12th, and 12 exposures of half an hour each to the strong tube were given. On March 29th the uterus was found to be slightly more movable, and the cavity in the endocervix was distinctly larger and extended higher up into the uterus, owing to destruction and absorption of part of the growth. After April 12th the patient failed to appear again. The result in this case was more encouraging than in the last, and the exposure seemed to have had a beneficial effect in breaking down and diminishing the amount of malignant tissue.

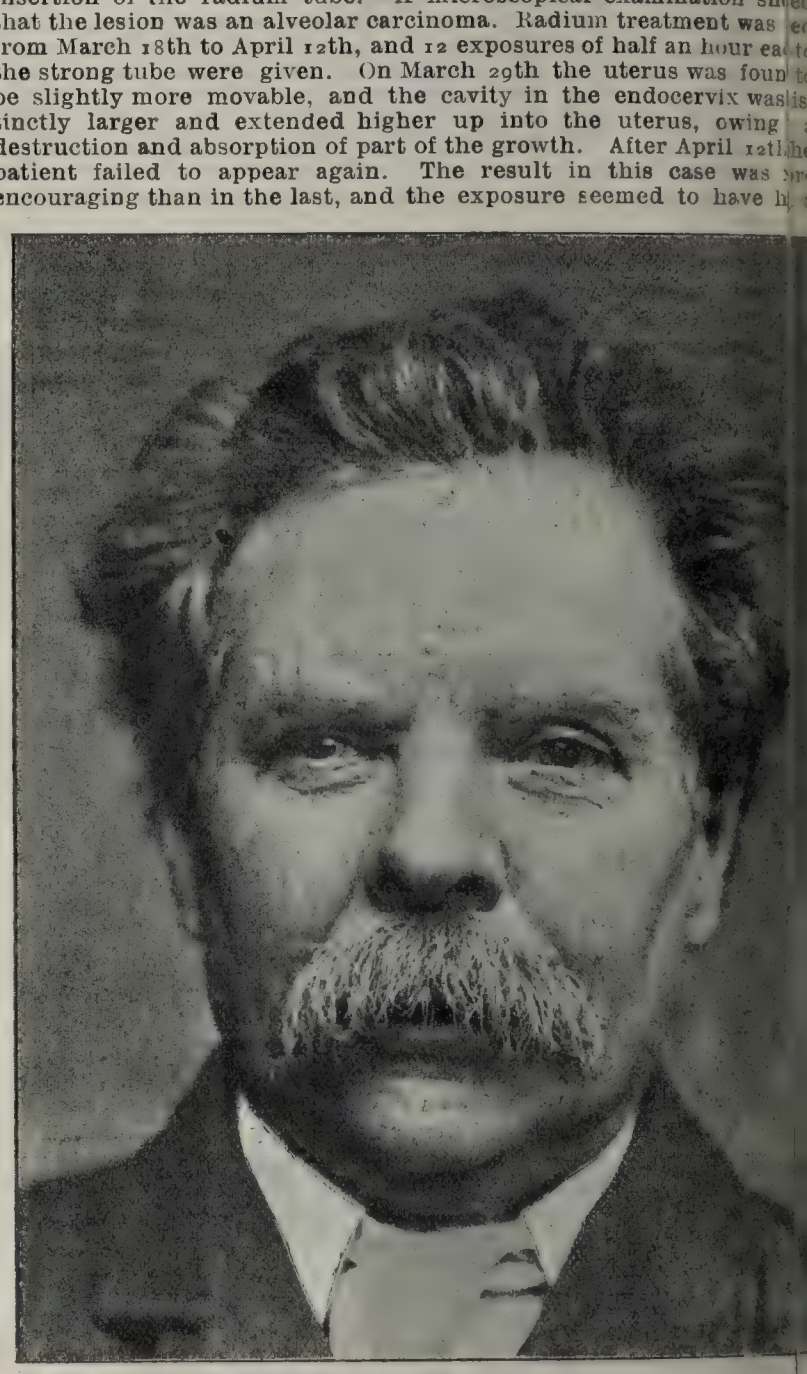


Fig. 6.—Case IV; rodent ulcer after treatment by radium bromide.

Among the other cases in the treatment of which radium bromide was employed reference may be made to the following:

In another case of rodent ulcer, in which the lesion was about the size of a crownpiece, treatment was begun with radium bromide, but though improvement did take place, especially at the rolled edge, it was so slow on account of the size of the diseased area, that it was discontinued in favour of the *x* rays.

In a superficial epithelioma about 3 in. in diameter situated on the side of the neck, radium exposures were tried, but they were followed by no distinct benefit, and on several occasions severe neuralgic pains resulted, which prevented the patient from sleeping.

In two cases of lupus erythematosus of the discoid type a series of exposures to radium bromide were employed, but these were discontinued as they did not appear to be in the least degree beneficial.

In three cases of lupus vulgaris, involving the mucous membrane of the nose, considerable benefit was derived from

osures of half an hour to a weak tube inserted in the trils. After two or three exposures the patient felt more ıfortable, could breathe more easily through the nostrils, where a discharge was present, the rays appeared to dry it This is a field of utility for radium which merits an extended l. In a very large percentage of cases of lupus vulgaris he face, the nasal mucosa is involved, and the treatment uch cases is specially difficult. It is impossible to apply sen light to the inside of the nostrils, and it is difficult to a good result with the *x* rays, and though excellent results occasionally be obtained by experts, by scraping and terization, in many instances a recurrence takes place in e of the most careful treatment. Exposures to radium mide furnish a valuable adjunct to the surgical procedure, l it is possible that further experience may prove them to reliable substitute. In the case of a large vascular vus of the face (port-wine stain) radium bromide was ılied a number of times with no distinct benefit. In cribing the effects of radium bromide in these cases I have

. 7.—Case v; small rodent ulcer before treatment by radium bromide.

l to be as critical as possible and have felt the importance negative evidence, for on account of the mystery and ance associated with the discovery of radium and the ggerated reports of its powers which have appeared not in the lay press but occasionally in the medical journals e is a tendency to be carried away with the glamour of it to overestimate its value.

General Conclusions.

conclusion my experience of the therapeutic value of um bromide, so far, may be thus summarized:

s chief utility is in the treatment of rodent ulcer, and in case of small rodent ulcers it acts almost like a charm. odent ulcers of a diameter larger than that of a shilling tment by the *x* rays is more practical, as the whole of the r can generally be exposed at once and not piecemeal as the small quantities of radium at present at our disposal. ome cases of rodent ulcer, however, which have been sub-d to a long series of exposure to the *x* rays, the rays seem se their effect and the healing process becomes stationary; then exposure to radium may be used with advantage and the healing again stimulated. With regard to epithelioma my experience is disappointing, but it is insufficient to base any definite conclusion upon. I am inclined to regard it of little value and to urge again the necessity of immediate excision and the postponement of treatment by the various radiations till after operation. In the case of cancer of the uterus further experience is necessary before any definite statement can be made; it is possible that the radium may prove a useful adjunct to the surgical treatment.

In lupus vulgaris radium causes the disappearance of the granuloma and a replacement of it by healthy scar tissue, but except in very small lesions this treatment is not at present practical. It is a useful adjuvant to the Finsen light and *x* rays, however, as it can be applied to positions which are difficult to get at, such as about the eyelids and the mucous membrane of the nose. In the verrucose type of lupus vulgaris, however, it is superior to the Finsen light.

In lupus erythematosus its value seemed to be negligible.

Fig. 8.—Case v; small rodent ulcer after treatment by radium bromide.

Note on Thorium.

I have tried the effect of thorium on two cases of lupus vulgaris. A quarter of a pound of hydroxide of thorium was sealed up in a flat rubber bag. It was thought that as the thorium was radio-active, though its activity was only 1 in 1 000,000 of that of radium, still the large quantity used and long exposure might have an appreciable effect. In one case in which it has had an extensive trial, namely a case of tuberculosis cutis in which there was an ulcerated patch about 2 in. in its long diameter, situated above the left heel in a young girl, the thorium did not seem to produce the slightest effect, even though it was worn bandaged over the part every night, while the girl was sleeping, for a fortnight. She was then seen. and the bag applied each night for another fortnight, and so on. It did not even set up an inflammatory reaction, and it produced no impression in reducing the hyperaemia or in healing up the lesion. Nor did it seem to be the rubber of the bag which prevented the thorium rays from causing changes in the diseased tissue, for during one of these fortnights the bag began to leak, and the ulcerated surface was found to be dusted over with thorium each morning without any appreciable effect.

MEMORANDA:

MEDICAL, SURGICAL, OBSTETRICAL, THERAPEUTICAL, PATHOLOGICAL, ETC.

FIRST MANIFESTATION OF HEART SYMPTOMS ABOUT THE AGE OF 40.

AT the meeting of the Royal Medical and Chirurgical Society on May 31st, the President, Sir R. Douglas Powell, in his concluding remarks on Dr. Herringham's paper on the elasticity of the aorta, observed that varied arterial pressures usually began to tell on patients about the age of 40.

The truth and practical import of this observation seem to me to have been illustrated many years ago in the manner of death of that distinguished man, Dr. Thomas Arnold, at Rugby, in the year 1842.

Dr. Arnold was 46 years old at the time of his death, and always had much pleasure in active muscular exercise. He retired to rest in perfect health on the night of June 11th, and early next morning died in his first attack of angina pectoris.

The remarkable fact disclosed at the necropsy by Dr. Bucknill was the presence of only one coronary artery; this was of unusually small calibre, and very slightly atheromatous. The walls of the heart were thin, and a few atheromatous patches were found on the aorta. This one small coronary artery had kept the heart going until the age of 40 was well passed over.

Bognor. JOHN C. THOROWGOOD, M.D., F.R.C.P.

AN OBSCURE CASE OF SCARLET FEVER.

AN able seaman, aged 20, serving as one of the crew of the Admiral's galley of H.M.S. *Alacrity*, reported himself ill on February 9th, 1903, when the ship was at Sandakan, on the east coast of Borneo. On examination his temperature was found to be 104.2°, pulse 120, eyes suffused, his tongue looking like a white strawberry, the pillars of the fauces and soft palate injected and swollen; a red rash composed of small red spots scattered over a subcuticular flush was uniformly spread over the trunk and upper extremities. He complained of a heavy feeling in the head. There had been no vomiting, and he only felt ill the day before placing himself in the sick report. I thought the case would probably turn out to be one of scarlet fever, and decided to land him at once.

Causation.—I went into the history of the case to find out how he could have contracted the disease, and found that (1) he had not been on shore since January 14th, except alongside jetties in his boat; (2) he had had no washing done on shore; (3) he received a home (English) letter once a month, but in these letters no mention had been made of any illness among his relatives. The incubation period of this disease is so well known to be less than a week, in fact often two days, that it is usually an easy matter to trace the infection.

Differential Diagnosis.—(1) He had eaten no tinned foods, no fish, and had been taking no drugs. (2) In "dengue fever," single cases in a ship like this do not occur.

I inquired from the authorities on shore if there would be any objection to land a case of scarlet fever, but as the disease had occurred before in the Colony, no objection was offered. I landed him the same forenoon, and the principal medical officer, Dr. H. Meredith Harrison, of the British North Borneo Company, agreed with me that the case presented the features of scarlet fever. The patient did not know if he had suffered from the disease before or not.

After-history.—He remained in hospital at Sandakan forty-five days. The temperature fell to normal at the end of the first week, and desquamation followed. Dr. Harrison reported the case to be scarlet fever. During convalescence he contracted and suffered from an attack of remittent malarial fever.

He rejoined this ship on April 10th, and I examined his urine and it showed nothing abnormal.

I record this case because (1) scarlet fever is rare in the tropics; (2) I have been unable to trace how the infection can have taken place; and (3) no other cases occurred in the ship.

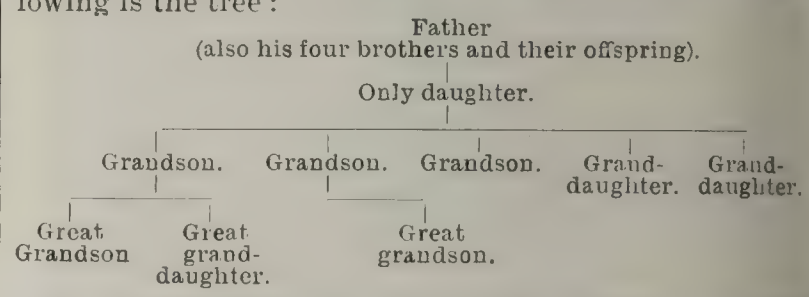
ROBERT J. MACKEOWN,
Surgeon, H.M.S. *Alacrity*.

DIGITAL DEFORMITIES.

THE genealogical tree of the family with supernumerary digits mentioned by Dr. H. D. Hey in the BRITISH MEDICAL JOURNAL of May 28th reminds me of a family, five members of which in three generations I was able to show at the Liverpool Medical Institution a year ago. In them the deformity was a *deficiency* of one, two, or all of the phalanges of one or more fingers. In the cases seen the deformities were symmetrical in the different individuals, but were only the same in two; the thumbs were always unaffected.

The family came originally from Norfolk, and the old lady who headed the group told me with pride that their case had often been reported (I gathered in the lay press), and ascribed their plight to a curse laid involuntarily by her grandfather upon his wife, then pregnant. In a rage at some trivial theft he had invoked Heaven that the thief's children might be fingerless from generation to generation, and the culprit being his own wife, he was subsequently satisfied, if not gratified.

Which of the two, the curse or the deformities, is *post* and which *propter* may be open to doubt. The more interesting point is whether such cases show true heredity, or whether maternal impressions, despite the discredit thrown upon them, probability, may play a part in their production. The following is the tree:



There were several others in the third generation unaffected while the last three were unmarried. The fourth generation were children.

Liverpool. HUBERT ARMSTRONG, M.D.Vict.

TREATMENT OF OPHTHALMIA NEONATORUM.

A TREATMENT of this disease which does not get the attention amongst the profession it deserves is the instillation of one drop of nitrate of silver solution (gr. j ad ℥j) each hour in the daytime, and every two hours of a night, into the eye, the discharge having first been gently washed away with boracic lotion, and the edges of the eyelids anointed with weak boracic ointment before the child is put back to bed.

I consider that this treatment would cure most of the cases of this disease, and is greatly to be preferred to the painting of the conjunctiva with strong caustic solutions (general sol. argent. nitrat. gr. x to gr. xx to the ounce), which leave behind it intense congestion of the eyelids, caused by the manipulation, the baby's crying, and the application of the great irritant (which causes too much reaction).

Should the eyelids be actually everted for the painting, it does much harm by causing secondary congestion.

Forest Gate, E. ALBERT CORNER.

THE EARLY DETECTION OF *RALES* IN PHTHISIS.

THE first sign of commencing phthisis consists often of fine *râles* in the suprascapular region. As in this situation the breath sounds are fainter than in any other, and adventitious sounds are correspondingly difficult to hear, I have frequently, with great success, tried to verify the presence of doubtful *râles* by the simple device of making the patient lie on the affected side, with the arm drawn downwards and forwards, so as to leave as large a space as possible above the scapula. I have never seen mentioned the fact—which will be obvious to every observer who will make the experiment—that in this position the breath sounds, and with them the adventitious sounds, are very much louder over the lung in the inferior position than over the other. Only to-day I fancied I heard the finest *râles* over the left apex posteriorly while the patient was sitting up; but the respiratory murmur was very faint in this situation, and the supposed *râles* were fainter still. I laid the patient on her left side and listened again; the inspiration was quite loud and clear. There were no *râles*, and I enjoyed confidence instead of suffering the fear that on my next examination the fact that my patient had phthisis would be manifest.

The same method may be applied to crepitation at the base in early pneumonia, but does not in this case supply such as felt want.

CHARLES HAZLITT UPHAM, M.R.C.S., L.R.C.P.
Lyttelton, New Zealand.

REPORTS
ON
EDICAL AND SURGICAL PRACTICE IN THE HOSPITALS AND ASYLUMS OF THE BRITISH EMPIRE.

NORTH LONSDALE HOSPITAL, BARROW-IN-FURNESS.

PRIMARY QUADRUPLE AMPUTATION: RECOVERY.

der the care of J. T. WILLIAMS, M.R.C.S., Honorary Surgeon to the above Hospital.)

W., aged 28 years, was admitted to the above hospital eptember 15th, 1898. He was working on some iron ore trucks; in crossing some points there was a jerk and he fell between the wagons. The wheels passed over both elbow-joints, completely smashing the articulations and the bones both above and below for some 2 in. The left foot was quite pulpified and the right nearly separated from the posterior half and reduced almost to powder.

There had been great loss of blood, but happily there were several ambulance men amongst his comrades and tourniquets were soon applied, and he was accompanied to the hospital by two first-aid men who found it necessary to apply digital pressure as well. I saw him almost immediately after his arrival. Shock was not so great as might have been expected. Brandy had been freely given at the works.

Chloroform was very carefully and sparingly administered. I removed the arms first, one by the circular method and the other by flap operation as the local condition required. The foot on the left side was removed by Syme's operation and in the case of the other by the excellent plan of Chopart. As each member was removed, after bleeding had been controlled, the stump was enveloped in gauze and I went on to the next. After the removal of all the injured parts, it was found necessary to give brandy enemata and hypodermics of strychnine.

Under these remedies he quickly rallied and his condition thenceforward was quite uneventful. He left the hospital on December 16th in excellent health, having put on flesh to a considerable extent.

It is gratifying to relate that his fellow workmen took the case in hand, provided him with artificial substitutes for his mutilated extremities, bought him a house and set him up in business. These contributions, added to what he got from the works and under the Workmen's Compensation Acts, render his future in a pecuniary aspect pretty easy. The accompanying photographs give a good idea of the appearance of the injured parts, and will form a sort of companion picture to the case published by Dr. Harrison, of Hull, in the BRITISH MEDICAL JOURNAL of February 20th, 1904.

MARGATE COTTAGE HOSPITAL.

REMOVAL OF UTERINE FIBROID WITH A GANGRENOUS OVARIAN CYST.

(By W. GREENWOOD SUTCLIFFE, F.R.C.S.Eng., Honorary Surgeon to the Hospital and the Royal Sea Bathing Hospital.)

THE following case illustrates the difficulties of diagnosis in acute abdominal inflammatory conditions:

The patient, a very stout widow of 56 years, was first seen by me in consultation with Dr. Watts, of Minster, on December 26th, 1903. She had a history of severe abdominal pain, with constipation and vomiting, attacks of which had been in progress for more than a week. A slight improvement had taken place two days before I saw her as the result of several enemata partially relieving the obstruction, but the pains had returned at intervals

he temperature had throughout the attack been 101° at night. On examination, the abdomen was and distended, and a hard solid tumour could be ringing from the pelvis, rising nearly to the umbili- ile the pelvic cavity could be made out to be blocked umour obviously a uterine fibroid. The diagnosis was e fibroid was causing pressure symptoms; its removal cided on, and the patient was brought into the Cottage al.

operation was performed on December 31st, Dr. R. on kindly acting as assistant. Under the anaesthetic on of the abdominal walls revealed a second tumour e of a fetal head in the splenic region; it was freely le and apparently unconnected with the uterine growth, thought at the time to be a subperitoneal fibroid, noval of the first tumour was proceeded with in ual manner. Owing to its size great difficulty was nced in delivering it from the pelvic cavity, but it was ally brought out and removed after securing the broad nts and uterine arteries, the peritoneal flaps over the uterine stump being sewn up in the usual way. An investigation of the left broad ligament then revealed a long pedicle passing upwards to the splenic region ending in an ordinary multilocular cyst which, owing to the pressure of the fibroid on its root, was in a nearly gangrenous condition. The pedicle was tied and the cyst removed without rupture, it being fortunately free from adhesions.

The patient was much collapsed after the operation, but soon rallied, and eventually made a sound recovery in spite of the reappearance of the ligature placed on the infiltrated and half-crushed pedicle. A Keith's drainage tube was used for the first forty-eight hours, but with the exception of some difficulty in re-establishing regular actions of the bowels the convalescence was uneventful.

Fibroids associated with ovarian cysts are, of course, not uncommon, but pressure on the pedicle sufficient to produce gangrene is I think rare, and in this case sufficed to explain the febrile symptoms associated with the chronic obstruction noticed before operation.

REPORTS OF SOCIETIES.

EDINBURGH MEDICO-CHIRURGICAL SOCIETY.

Professor John Chiene, C.B., President, in the Chair.

Wednesday, June 1st, 1904.

The Anatomy of the Prostate.

Mr. Alexis Thomson, in a paper on the anatomy of the enlarged prostate and its relation to the operation of prostatectomy (with lantern demonstration) said that prostatic hypertrophy was due to diffuse hyperplasia of the gland tissue, hyperplasia of the fibro-muscular stroma being exceptional and usually very limited in extent. The glandular hyperplasia was most marked in the lateral and retro-urethral portions of the gland. There was apparently both a new formation of gland epithelium in the shape of buds extending outwards from the acini into the surrounding stroma, and also a dilatation of the existing gland spaces which were occupied by granular débris and corpora amylacea. The fibromuscular stroma frequently suffered from the hypertrophied gland tissue, becoming rarefied and to a large extent absorbed. In a series of forty prostates he had never met with an encapsulated tumour either adenomatous or fibro-adenomatous, and he doubted if such existed. At the periphery of the gland the fibromuscular stroma was condensed and formed a definite laminated capsule. This was least developed on the vesical aspect of the gland. The outer layers of this capsule were chiefly composed of non-striped muscle fibres. In the normal prostate the capsule was so intimately and firmly united to the general stroma of the organ that their separation was possible only by cutting. But in the common glandular hyperplasia the peripheral stroma was so thinned out that the capsule could easily be separated by the finger. When the gland was then enucleated the line of separation was within the proper capsule. The line of cleavage might pass between the layers of the capsule or through the peripheral zone of the parenchyma, leaving a variable amount of this behind. If enucleation were effected within the capsule, there was no risk of injury to the periprostatic plexus of veins or to the seminal vesicles. When the gland was enucleated *en masse* the prostatic urethra was also necessarily removed, but when the organ tore along the mesial plane into two lateral masses, the wall of the urethra might remain in a more or less intact state. In a patient who died suddenly on the eighth day after suprapubic prostatectomy he had found that a considerable amount of prostatic tissue had been left behind on those aspects of the organ which were in relation to the seminal vesicles and rectum, whereas little, if any, remained on the vesical and pubic aspects.

Dr. Waterson also gave a demonstration of the surgical anatomy of the prostate (with lantern illustrations) in which access to the organ through the perineum was considered. Some photographs of formalin preparations showed that the superficial layer of the triangular ligament was not intimately related to the urethra, but was attached round the margin of the bulb, and that Cowper's glands lay in intimate relation to the deep aspect of the latter, and were not separated from it by a strong membrane. This explained the course followed by extravasated urine in cases where the membranous urethra was torn. He next considered the musculature of the perineum; as a result of the complex nature of its arrangement its full description was omitted from most anatomical textbooks. But recent advances in operative work in this region had led to descriptions by several writers of structures which were of surgical importance, such as the muscle passing from the anal canal to the membranous urethra. This muscle was shown, and attention was directed to the thick anterior part of the levator ani muscle, and to the strong character of the deep layer of the triangular ligament which was pierced by the urethra and supported the prostate. He showed also the sheath of the prostate, derived from the vesical pelvic fascia. The prostate could be shelled out from this sheath in the manner first described by Dr. Stoney. In some cases of even moderate enlargement of the gland, it was possible to tear the urethra out of the prostate, carrying with it a coating of prostatic tissue. Similarly it would be quite possible to remove a considerable part of the gland, leaving the urethra intact. When the gland was enucleated from its fibrous capsule a definite amount of tissue was left behind—the so-called "capsule," which microscopically consisted of laminated bundles of muscular and fibrous tissue, and was really part of the gland substance.

The President spoke of the confusion which existed between the terms "sheath" and "capsule" of the pros and suggested that the sheath should refer only to the c ing which the gland received from the pelvic fascia, an term capsule to the fibro-muscular coat.

Professor Cunningham considered that the Presid suggestion was a good one. He mentioned that five-sixt the organ was composed of gland tissue and one-sixt muscular tissue, which was chiefly found round the g and by its contraction expressed the prostatic fluid.

Mr. Nichol considered that two types of prostatic h trophy existed—one a glandular type, which could be e enucleated; and the second a hard tough type, which was very difficult to remove.

Mr. Stiles and Mr. Wallace also spoke.

Cases.

The following cases were shown:—Dr. Norman Walker: (1) cases of lupus complicated by epithelioma; all had been treat lupus by the *x* rays; the epithelioma developed when the trea had been applied for a considerable time; special attention was to the circumstance that the malignant changes had occurred un line of treatment now frequently employed for their cure; (2) psoas treated by the *x* rays; rapid improvement was occurring in a case of spread character.—Mr. George Chiene: (1) A patient after ope for rupture of the middle meningeal artery and laceration of the tem sphenoidal lobe resulting from an accident; hemiplegia and aph developed on the fifth day; the skull was trephined, the opened, and as oozing of blood persisted, the middle me geal artery was ligatured; (2) two cases of intussuscep in one of them the patient had been operated on for this when 4½ months old, and again when 18 months old.—Dr. Jamieson: (1) Keloid on the breast treated by the *x* rays; fort exposures of about five minutes' duration had been made, and the had almost disappeared; (2) case of naevus pylosus, in which result by treatment with the *x* rays was anticipated.—Dr. Stevens: A case of infantile paralysis. The muscles of the sho girdle were completely atrophied, and little remained of the bicep triceps muscles.—Dr. Edwin Bramwell: Case of Klumpke's par resulting from an accident. The muscles of the upper arm were tically intact; but there was marked atrophy of the muscles o inner side of the arm and hand, and also of the flexors and add of the thumb. The lesion was one of the eighth cervical and first nerve roots.—Mr. Cotterill: A patient on whom he had op for a large lipoma nasi; a most excellent result had been obtain Dr. Gibson: A case of hypertrophic pulmonary osteo-arthropathy. metacarpal bones were slightly enlarged, and also the ends o phalanges of the fingers and toes.

Card Specimens.

Mr. Scot Skirving: A prostate successfully removed by Fr method in a patient aged 86 years.—Mr. Cotterill: (1) Ampu at the shoulder joint for spontaneous fracture of the humerus du neoplasm; (2) tuberculous testis from a child aged 2 years. Gibson: Skiagraphs from the case of hypertrophic pulmonary arthropathy.

ROYAL ACADEMY OF MEDICINE IN IRELA

Medical Section.

Sir A. V. Macan, President, in the Chair.

Friday, May 13th, 1904.

Myxoedema.

Dr. Drury read a paper on a fatal case of this disease:

A woman, aged 42, the mother of ten children, had been ill f indefinite period, but had been confined to bed at home for fou a-half months without having had medical treatment. She was adm to Sir Patrick Dun's Hospital on February 29th in a conditi profound asthenia; though conscious, neither pulse nor heart so could be made out, and no available clinical thermometer would re her temperature. She presented unmistakable signs of adva myxoedema. On the second day a suitable thermometer showe temperature to be 86° F.; the pulse and heart could with difficul made out, the rate being 52 per minute. Slight wheezing was no in the lungs. This developed during the next two days to ge bronchitis, and she died early on the morning of the fifth day. highest temperature recorded was 89.6°, the lowest 82° F. She put on thyroid extract 1¼ gr. twice a day at once. The imme cause of death was considered to be bronchitis, induced by the ext severity of the weather on the last day of February, when she was rem to hospital. No necropsy could be obtained.

Dr. James Craig was interested in the lumbar pain plained of by Dr. Drury's patient. He had seen a gentle aged 32, who suffered great pain in his back at the ons acute myxoedema. Though the case was severe and acu good recovery was made on thyroid extract. Poss sufficient thyroid extract in the fatal case recorded had been given.

Radium in Therapeutics.

Dr. C. M. O'Brien exhibited two cases of lupus treate radium bromide.

ıale, aged 30, with a small patch over the eyebrow of two years' cured after twenty applications of ten minutes each, extending weeks.

male, aged 16, with a patch on the cheek of seven years' standing, n size and depth to the preceding. She had received already applications extending over twelve weeks, twenty of ten without any perceptible change, twenty of half an hour with dness and itching, and six of one hour's duration. Her con- is improved, but not cured.

ne specimen of radium was employed in each case and ike conditions. The exhibitor thought that personal ibility of patient, so important a factor in both the light and *x* rays, might also have to be reckoned with :ment by radium rays. He preferred detailing what en achieved and how he achieved it, rather than ing an opinion on the merits of the metal which n any way prevent other workers from putting it to . Radium, to be of practical use in medicine, must coming in larger quantities of a guaranteed standard of ,and at a very much cheaper rate. By way of comparison bited a number of lupus cases treated by the Finsen d *x*-ray methods, some of which he had shown as relve months ago, and which had remained so without atment meantime. He also exhibited cases of lupus iatosus, psoriasis, and verruca plana, treated with ıg results. His experience of the *x* rays in rodent d large tracts of ulcerated lupus, and in lupus of the as very encouraging. For superficial circumscribed nd finishing off after *x* rays, the Finsen method was , but sittings of not less than an hour's duration enforced.

IRKPATRICK had seen good results from the radium nt of lupus. He thought it more efficient when used quantity than Dr. O'Brien had done.

ALTER SMITH recounted his experience of the use of n cases of rodent ulcer. The result was good in all .

REVIEWS.

RUCTURE AND FUNCTIONS OF THE CENTRAL NERVOUS SYSTEM.

w edition of the well-known lectures by Dr. L. the fifth edition of which was reviewed in the MEDICAL JOURNAL of July 6th, 1901, is now appear- somewhat altered and to our mind improved form in mes. The first, which was issued recently, deals structure of the mammalian brain, and especially t of man, and is arranged for medical men. With ect in view, the important relation of structure to and clinical medicine is more fully discussed than evious editions. The results of experimental investi- nd pathological anatomy are co-ordinated with the otained from anatomy. In the successive lectures— general introduction—this applied knowledge is italics. Very considerable improvement is also made lustrations, and a method is adopted whereby the of any section in relation to the external form of an part thereof is admirably shown. The second volume with the anatomy of the brain of the lower verte-

neral introduction—Lectures I to IV—remains largely d. One of the most thoughtful early lectures deals with the "neuron" theory. While admitting that ts support the view of the "neuron" as the histo- nit of the nervous system, there arises the question, everal neurons actually always anatomically distinct re there actual fibrillar bonds of union between neur- researches of Apáthy on the *Vermes* have shown that ss from nerve cell to nerve cell. This leads to the the essential part of the nervous system is com- a complex fibrillar network, while the ganglion cells areas of intercrossing and exchange. Although was primarily put forth in connexion with the glionic networks found in invertebrates, it is f extension to vertebrates. The ganglionic cells are ed as the "dépôts" of "areas as aggregation" of ble nerve fibrils which pass into them, or meet in view supported by Nissl and Bethe.

n out of the twenty-three "*Vorlesungen*" are de- the "special anatomy of the mammalian brain."

The lecture form makes the work far more agreeable for the reader than a didactic systematic description, however terse. The importance of the precise topographical origin of the various spinal nerves is fully dwelt on (Lecture VII), and justice in this regard is done to the work of Gowers, Bruns, and Horsley. As an example of the new method followed throughout these lectures, the lecture on conduction in the cord may be taken. After a clear exposition of the anatomical tracts there follows a special terse, short chapter on "Function and Diagnosis."

In the lectures dealing with that Clapham Junction of the central nervous system known as the "bulb" some excellent new figures are introduced. The schemata showing the connexions of the peripheral end-organs, such as the eye, semicircular canals, organ of Corti, with their lower centres are admirable. The movements of the eyeball in relation to their innervation and focal disease are specially studied and exemplified by references to the results of pathological anatomy and clinical observation. Physiologists who have to teach the course of the higher sensory paths will find an excellent and clear description of the course of the fillet—a subject not always made clear in works on anatomy.

Perhaps the following may be taken as a sample of a terse and pregnant summary regarding the functions of an organ:

To the cerebellum are conducted by well-known paths impulses which arise in muscles, joints, tendons, etc. To these must be added those connected with static equilibrium and which arise in the labyrinth. In the cerebellum there is generated the necessary regulation of the tonus of the muscles, and of their finer motility. There also are regulated those movements of the eyeballs which are so necessary for static equilibrium. Probable all these co-ordination processes take place simultaneously, and these are to a small extent crossed in their action. The cortex of the cerebrum and the thalamus act upon a motor mechanism, already in part under a regulative mechanism. The cerebellum is specially concerned in regulating the tonus and the co-ordination of the neck and trunk, and thus is intimately associated with the regulation of the erect attitude and with progression.

Equally good is the summary of the relations and probable functions of the thalamus, which is such an important part of the brain of the lower vertebrates (p. 284).

The sections on the external form of the brain (XVIII) and on the pallium (XIX) contain the latest results derived from comparative anatomy and the most recent methods of histological investigation. The relative importance of experiments on animals and the careful study of a human being with certain limited areas of the cortex cerebri diseased are admirably contrasted. The limits and advantages of both methods are fairly indicated. We hope it will not be long before Dr. Edinger's new edition appears in an English garb, for we are sure it will be welcomed by the anatomist, physiologist, clinician, and practitioner who may not be able to refer to it in the original. Although Frankfort, the Free City on the Maine, never was the seat of a university, it rejoices in its Senckenberg Institute, wherein work together Edinger and Weigert, whose researches have done so much to illumine the dark thicket of the central nervous system.

gen ueber den Bau d. nervösen Zentral-organe des Menschen und der Dr. L. Edinger. Vol. I. Seventh edition. Leipzig: F. C. W. 4. (Roy. 8vo, pp. 398, 268 illustrations. M.12)

THERAPEUTICS.

IN the third edition of his well-known work on *Materia Medica, Pharmacology, and Therapeutics*,[2] Dr. C. D. F. PHILLIPS has made extensive alterations in the text, as well as certain changes in the general plan of the different articles. The descriptions of the processes used in manufacturing drugs have been entirely omitted, and much of the materia medica has been relegated to a less prominent position than it previously occupied. It is scarcely necessary to remark that these changes are in conformity with the trend of present-day opinion, and that they are decided improvements in a work so distinctly therapeutical in its main aim. The text has been so thoroughly revised in many parts that the labour and pains spent on the revision of these cannot have fallen much short of what would have been necessary to rewrite them entirely, and much credit is due to the author for his accurate review of recent literature. The section on baths and waters has always been an important feature of the book, and in the present edition the latest scientific and clinical observations have been incorporated, including radiant heat and light baths, open-air baths, and an account of helium and argon in this relationship. The light treatment of lupus has also received notice. The most recent additions to our knowledge of the important remedies iron and arsenic have

[2] *Materia Medica, Pharmacology, and Therapeutics.* Inorganic Substances. By Charles D. F. Phillips, M.D., LL.D., F.R.S.E., F.R.C.S.E. Third Edition. London: Longmans, Green, and Co. 1904. (Demy 8vo, pp. 921, 213.)

been fully considered, and there is an excellent critical account of the therapeutical value of cacodylic acid and its compounds. The newer preparations of iodine and silver are also described, and several non-official remedies such as gold, uranium, barium, and a few others are fully discussed as regards their actions and clinical applications. The author shows a wide acquaintance with therapeutical literature, but the work has an added value from its being so largely the reflection of his own experience. In many instances, however, there is a marked tendency to describe methods of treatment which are no longer in use or which have been replaced by newer and better procedures. Some of these were never of much value, others have at best only a historic interest at the present time, while others, again, are mentioned only to be condemned. The use of antimonials in such conditions as melancholia, puerperal eclampsia, and puerperal mania, and the value accorded to phosphoric acid in certain conditions, or to iodoform in gout, hardly accord with present usage or experience. The preparations and doses are given with great attention to detail and accuracy, and there is a very excellent index of diseases and remedies, which should prove a most useful addition to the volume and enhance its practical value in furnishing suggestions for treatment.

The ultimate therapeutical value of the organic compounds of phosphorus has yet to be proved, but in his short treatise on *Phosphorus Medication*[3] M. Labbé has produced a very interesting and suggestive contribution on the question. Starting with the statement that phosphorus and the ordinary salts of phosphoric acid have had a very mediocre success as remedies, he holds that phosphorus must nevertheless play an important part in the physiological processes of the healthy body, and that the forms in which it exists in the tissues—glycero-phosphates, lecithins, and nucleins—may have important therapeutical applications. The chemistry, physiology, and distribution of these substances in animals and plants are discussed at length, and their stimulant action on the growing organism is described. They have been recommended and used in such conditions as rickets, phosphaturia, diabetes, neurasthenia, anaemia, and similar diseases of altered metabolism and malnutrition. A chapter is devoted to the best methods of prescribing them. The book may be strongly recommended to those interested in the subject.

The French translation of Dr. Mortimer's large and comprehensive work on the *History of Coca*[4] presents the original in a greatly abridged form. The translator states, however, that while he has eliminated a great deal of matter regarding the Incas, and the history, customs, and antiquities of ancient Peru and its inhabitants, he has endeavoured to retain the spirit of the original text, and to incorporate into a much smaller compass all that is of scientific and medical interest regarding the coca leaf. In the process the book has lost its distinct characteristics, but has gained considerably in terseness and in usefulness to those desiring information regarding coca in its various aspects. The history of the plant is traced from the earliest times, and includes the methods of using it, the attitude of the Christian missionaries towards it, the discovery of its active principles, and other matters of interest. Its botany, culture, chemistry, and physiological action are all described with a wealth of detail and citation of authorities which seem exhaustive, and which leaves little to be done by succeeding workers in the same field. Its uses in medicine are discussed at great length, and there is a complete bibliography and a good index. As a book of reference on all that pertains to coca, either the present volume or its original deserves a place in medical libraries.

NOTES ON BOOKS.

Obstetrics for Nurses[5] is a work intended for the monthly nurses of wealthy Americans. The keynote is struck in the following sentences: "Except in women of perfect health, labour is not a physiologic process, and is always be dangers of no little gravity to both mother and infant most rigorous antiseptic precautions are detailed. L to be preceded by a thorough soaping and a shower ba pubic hair is to be clipped, or, if an operation is ex shaved, and then the patient is to be dressed in st underclothing. This is very thorough and laudable, b are always with us a majority of the population wh afford shower baths and sterilized underclothing, a like the whole animal world below mankind, are comp regard parturition as a physiological process. For th have to attend the poor this book is unpractical; f who want to make a fuss to impress rich ladies wi skill and knowledge it is excellent.

The *Reports* of the Registrar, Resident Medical Offi the Pathologist of University College Hospital,[6] whi recently been published, cover the work of the year 1 are therefore rather belated. Nevertheless, someth been gained by the delay since thereby it has been po include details of the after-history of some of the c corded. The information given in the classified re abdominal operations, and of strangulated hernias wi this part of the report of distinct value to those who d weigh the comparative value of different operations w abstract which the pathologist furnishes as to the wo by him is sufficiently detailed to be really informing. necessary difficulty in referring to the volume is, h introduced by paging each of the reports separately have also been unable to find any reference to the occ or otherwise of deaths from anaesthetics, informatio which point should be included in every report character.

[3] *La Médication Phosphorée: Glycero-phosphates. Lécithines, Nucléines.* Par Henri Labbé. Paris: J. B. Baillière et Fils. 1903. (Crown 8vo, pp. 96. Fr. 1.50.)

[4] *Histoire de la Coca.* By Dr. W. Golden Mortimer. Traduction de la deuxième édition (1902) par H. B. Gausseron. Paris: A. Maloine. 1904. (Demy 8vo, pp. 328. Fr. 12.)

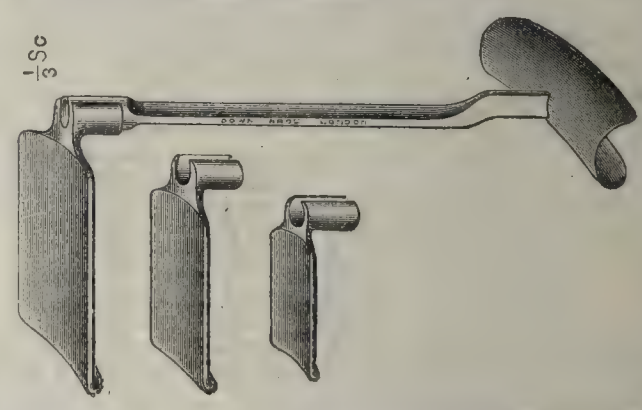
[5] *Obstetrics for Nurses.* By Joseph B. De Lee, M.D., Professor of Obstetrics, North-West University Medical School; Obstetrician to Mercy, Wesley, Provident, Cook County, and Chicago Lying-in Hospitals, etc. Philadelphia, New York, and London: W. B. Saunders and Co. 1904. Demy 8vo, pp. 460. 12s.)

[6] London: H. K. Lewis. 1904. (Demy 8vo, pp. 268.)

REPORTS AND ANALYSES
AND
DESCRIPTIONS OF NEW INVENTI

MEDICAL AND SURGICAL APPLIANCES

A Set of Portable Retractors.—Mr. Brennan Dyball F.R.C.S. (Exeter) writes: The set of retractors illu will. I be fou ful in with d cisions abdo work. ject of is to the nec having differe of retra the o handle



terns, and, by having various size retractor blades made common handle, economize space and weight. The made for me, consists of three retractor blades, whic to one handle, on the same lines as Bozemann's specula. The blades are slightly curved transverse measure $2\frac{3}{4}$ in., $1\frac{3}{4}$ in., and $1\frac{1}{4}$ in. deep by 2 in., $1\frac{1}{2}$ in., a wide respectively. At the lower and posterior edge is a blunt ridge to give a better hold on the tissue handle is T-shaped; the stem (with the exception male part of the joint) is merely a flat smooth bar $5\frac{1}{2}$ i while the cross piece ($2\frac{3}{4}$ in. in length) is a hemi-cylind in diameter, forming a surface which provides a goo and which in actual use has proved most comfortable t The joint by which the retractor blades engage wi handle is similar to that now made for some sets of mann's specula, and will be best understood by refer the illustration. Both male and female halves of th are slightly coned, giving a joint as firm as if the bla handle were forged in one piece, but disengaging and ing the blades is a matter of a few seconds only, while are no catches or corners to harbour dirt. I am mu debted to Messrs. Down Brothers, St. Thomas Street for the care and trouble they have taken in carrying o suggestions.

TUBERCULOSIS IN CHILDHOOD.

PREVENTION AND TREATMENT.

Introduction.

E is perhaps no disease in the prevention and cure of
general hygiene plays so large a part as in tuberculosis.
ct of the natural laws of health predisposes the organ-
o the attacks of the tubercle bacillus, which finds in
tated constitutions conditions favourable to its evolu-
Want of fresh air and sufficient food, dirt, and all that
rowding in houses and workshops mean, are chief
g the conditions which produce the predisposition.
m the medical and surgical staffs of all the hospitals
anatoriums about to be described comes the same de-
—that cases should be admitted in the earliest stage. The
of such institutions should be to a large extent prevent-
Unfortunately in this country, where the importance of
ting the zymotic diseases was first recognized, and where
health legislation was first put into force, there has
singular slowness in applying the same principle to
ulosis. Even at the present time, when we see open-air
riums springing up all over the three kingdoms for
suffering from pulmonary tuberculosis, very little is
done for children, although they suffer in large
ers from tuberculosis, not alone of the lungs, but of
and bones, which, even when recovery eventually takes
generally leaves them crippled for life. The Sea-

Fig. 1.—Berck-sur-Mer: Hôpital Maritime, sea front.

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. Dr. Ménard, whose long experience at the large hospi-
children, maintained by the city of Paris at Berck-sur-
nables him to speak with authority, declares that a period
e years' systematic treatment by good food and fresh
necessary for the cure of an established case of tuber-
of bones or joints, and that every large city with slums,
s exist in London and Paris, ought to have a thousand
or children at seaside hospitals for every million of
tion. Speaking of the relative numerical importance
ases in relation to child-life, he said, with a forgivable
mmatic exaggeration, that there were but two which
d—alcoholism in the parents and tuberculosis.
medical profession have, we conceive, a duty to per-
instructing the public as to the importance of treat-
erculosis in children in its earliest stage, not merely
rative measures, but by the application of sound
ic principles which have both preventive and curative
This principle has been recognized in France as we
opose to show.
Assistance Publique of Paris is responsible for all the
ls of Paris, with the exception of those, few in number
all in size, which are maintained by private benevo-
and for a system of dispensaries, for the care of the aged
firm paupers, and for destitute children. The children
number some 30,000, and in addition to the Hôpital des
s Malades with 750 beds and the Hospice des Enfants
s with nearly 1,000 beds, it maintains certain other
ls for children at the seaside, the most important of which are the Hôpital Maritime at Berck-sur-Mer on the English Channel about 20 miles south of Boulogne, and the hospital at Hendaye on the Bay of Biscay close to the Spanish frontier. A very large proportion of the children received at Berck and Hendaye suffer from tuberculosis. At Berck all the tuberculous cases are suffering from what is commonly called surgical tuberculosis, that is to say, tuberculous, or so-called scrofulous disease of the glands, joints, and bones including the spinal column, while Hendaye is used rather as a prophylactic hospital for cases suspected of tuberculosis of internal organs. In addition to the institutions maintained by the Assistance Publique, which derives its funds partly from the Municipality of Paris and partly from an annual State grant, there are two philanthropic organizations devoted to the prevention and treatment of tuberculosis—the one is the Oeuvre Générale des Dispensaires Antituberculeux founded in 1900 by Dr. Bonnet-Léon to establish in every populous centre, not only in Paris but also in the provinces, dispensaries which shall search out workpeople threatened with, or suffering from, tuberculosis, and provide the treatment and food necessary, together with instructions for the prevention and cure of the disease. This organization has nine dispensaries in Paris, and, so far, two in provincial towns. The other organization in the Oeuvre des Enfants Tuberculeux d'Ormesson, which was recognized by the State in 1894. Its General Secretary is Dr. Léon-Petit, and its object is to treat children of both sexes suffering from pulmonary tuberculosis.

The great manufacturing localities in the north-east of France, of which Lille is the centre, have felt the necessity for special seaside hospitals for children suffering from tuberculosis, and a few years ago a sanatorium at St. Pol-sur-Mer, near Dunkirk, was recognized as a public institution. It contains over 400 beds, and is about to be replaced by a larger sanatorium to contain 900 beds.

The Hôpital Maritime at Berck-sur-Mer.

The Maritime Hospital of Berck-sur-Mer (Pas de Calais), established in 1861, is situated on the North Coast of France, and is maintained by the Assistance Publique of Paris, the patients received being chiefly recruited from the children's hospitals in Paris, where they have been previously inmates. The hospital, which is an old three-storied building, built in two wings, facing the sea (Fig. 1), contains 716 beds, which are usually full. The patients are received in batches of about thirty twice a month from Paris, whence they are conveyed in a special ambulance carriage, the convalescents being sent back in the same carriage. The period during which they are kept at the Berck Hospital varies according to the case, some being allowed to remain four or five years. Of the 716 the great majority (over 600) are suffering from tuberculosis of the bones and joints or glands, cases of pulmonary tuberculosis not being admitted. About 10 per cent. are suffering from rickets, and a few from anaemia or syphilis. The two wings of the hospital, which stands in its own not very extensive grounds, are divided into two equal parts for boys and girls respectively, each section being again roughly divided into two parts containing patients who can get up and go out and those who are confined to bed. Among the latter the majority are suffering from tuberculous disease of the hip-joint or vertebral column; but there are also many cases of disease of the ankle and knee. These are, as a rule, treated by plaster-of-paris

splints, and the patients got up as early as possible. The routine treatment of hip joint disease is by weight extension, while cases of spinal caries are put into plaster jackets; cervical caries is treated by a plaster jacket without gallows. Most of the cases of psoas abscess appear to be treated by aspiration, which may have to be performed four or five times. But in disease of the hip and other large joints Dr. Ménard, the surgeon in charge of the hospital, is opposed to repeated operations, and after the initial operation, usually necessary when a patient arrives, he is prepared to wait patiently for results. With the exception of the slighter affections of the extremities, in which there is a single focus of disease, he estimates that, for the cure of a large joint or of vertebral caries, a period of three years' continuous treatment is necessary. The prognosis of cases with multiple lesions, as of both ankles, or, as in one or two cases we saw, with lesions of both ankles and both wrists he considers most unfavourable, even with prolonged treatment at Berck. When the acute stage is past the patients are drafted into other wards, where they are allowed to be more out in the open air. So much importance is attached to the air at Berck as a curative measure that it is regrettable that the wards are not more amply ventilated, especially at night. During the day patients enjoy an open-air life when the weather permits. Those patients confined to bed are conveyed in special tramways from the house to a portion of the grounds in which there is a large pavilion covered overhead but open in front, facing the sea, and at the sides. Under this are disposed wooden frameworks upon which mattresses are laid, and where the patients may lie from 9 in the morning till 5 in the afternoon (Fig. 2). Those who are well enough to walk with or without the aid of crutches, go down on to the beach, which they only leave for meals. Much stress is also laid upon feeding, four meals a day being given. Breakfast at 7, consists of bread and milk; déjeuner at 11.30, when the patients are given soup, meat, or eggs, with vegetables, and dessert. The smaller children drink milk, while the elder have beer. At 3 there is a *gouter*—bread and fruit or bread and jam. The last meal, consisting of soup, fish or meat, vegetables, and fruit, is at 5, and the children go to bed at 7 30 or 8. The hospital has a dairy farm containing 25 cows, and patients are allowed as much milk as they like.

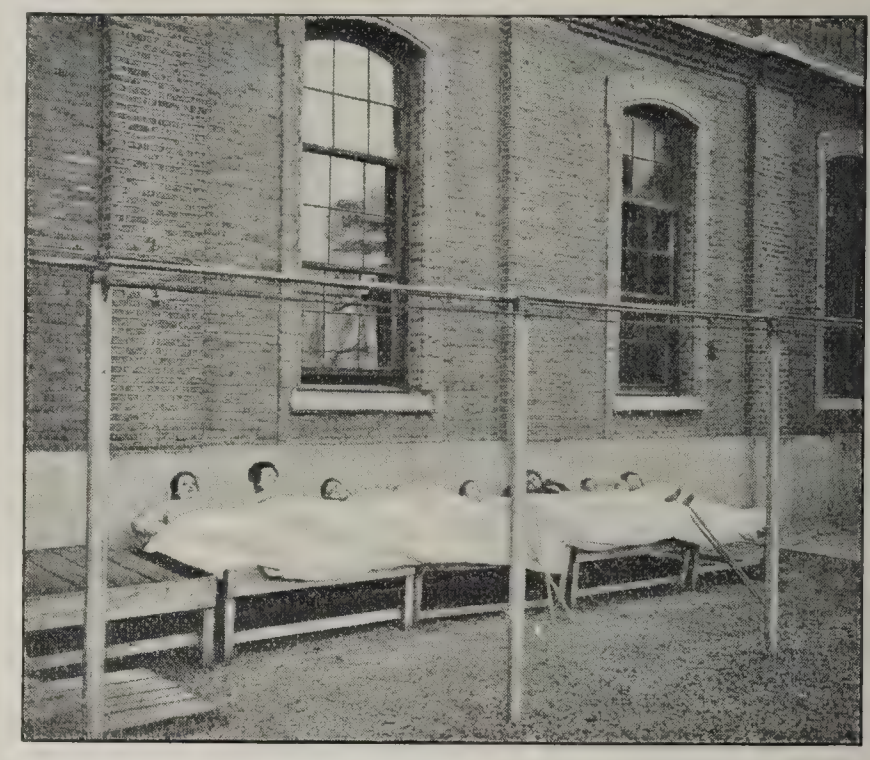

Fig. 2.—Berck-sur-Mer: Patients in a verandah.

Each ordinary ward (Fig. 3) contains 36 beds, and the cubic space in the majority is 1,310 c.m. The windows are opened in the daytime on the side from which the wind is not blowing, while at night small upper ventilating windows are opened down one side in fine weather. This is inadequate.

Fig. 3.—Berck-sur-Mer: Hôpital Maritime, one of the dormitories.

Dr. Ménard has three *internes* (house surgeons) appointed from among the successful candidates at the Paris examination. The usual time they remain at Berck hospital is one year, but they sometimes remain on longer for the sake of the experience. Most of the cases at this hospital are s[ev]ere and in an advanced stage, and it is admitted that the ma[jo]rity of them are incurable. There are numbers of cases of [la]meness through tuberculous disease of the hip, knee, and [an]kle, and nearly all the patients look ill. The change of air [an]d good diet benefits them, but so many have to [re]turn to unfavourable conditions that in many cases [th]e final result is far from satisfactory.

Some of the nurses are [fr]om Paris hospitals; others [ar]e these stay longer and are [mo]re contented—are from the [ne]ighbourhood.

There is a large bath-[ho]use supplied with water from [th]e sea, and in this those [chil]dren not bedridden or suffering from infectious complaints are bathed in relays. It is [to] be doubted whether this [pla]n is as wise as single [ba]th rooms.

Another point which [is] open to debate is [whe]ther the sand, which on [windy] days blows in blinding [sheets] along the beach, can be [good] for any one, and [is] especially for delicate [child]ren.

Nevertheless much [good] is done by the air, [feed]ing up, and plenty of [sea] and although perhaps [not] many complete cures [as] could be desired by [enthu]siastic surgeons are [ob]tained, much good must be done to the general health of the patients.

THE HÔPITAL ROTHSCHILD AT BERCK.

The Hôpital Rothschild at Berck for children suffering from tuberculosis of the bones, joints and glands, contains 100 beds for boys and girls respectively. The hospital was founded by Baron James de Rothschild in memory of his father, and it is maintained by Baron James's widow out of her private purse. [Each] ward contains about [twenty] beds, and at one end of the ward is a cubicle where the nurse on duty sleeps; at the other end is a [well-]appointed lavatory. The bath-rooms, in which [hot] and cold sea water is laid on, are downstairs, where also are the consulting room, a well-equipped operating room, the dining rooms, and the kitchen. There are also school rooms for the boys and girls respectively who are well enough to do lessons. There is no limit to the age at which girls are received, but no boy is kept on after 13.

The hospital is a model of its kind in every respect except one. Sufficient importance indeed does not appear to be attached to fresh air, and at night no windows are open. We even remarked that the windows were double; another drawback, in our opinion, is the accumulation of drifting sand forming into a high bank and greatly interfering with the ventilation and the view of the sea from the lower windows.

These are not mere details in a cure which admittedly depends in a large measure upon an open-air tre-

. A great many of the patients are said to be
l at the hospital, but the permanence of the cure
ıds upon their surroundings after they leave the hos-
. As is to be expected in a work of private philan-
y, the hospital is thoroughly well appointed, and,
ugh the children are from the poorest quarters of Paris,
h child could have better treatment or more comfort.

THE SANATORIUM AT ST. POL-SUR-MER.

sanatorium at St. Pol-sur-Mer is situated on the coast of France, three miles from Dunkirk. Two
s of children are
ed at this hospi-
ı) *enfants hospita-*
that is to say,
en sent from the
tals of Lille or
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2) children for the
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ı, either to com-
their recovery or
rophylactic meas-

Fig. 4.—Sanatorium of St. Pol-sur-Mer. General view of pavilions.

sanatorium is
combination of hospital and convalescent home,
ı the departments are distinct. The surgical
which are open all the year round, have a con-
g staff composed of members of the faculty of Lille.
are three surgeons, each of whom visits the hospital once
k, and specialists for diseases of the eyes, nose, ears,
roat; there is also a resident surgeon.

History.

ill be interesting to follow the history of the sanatorium.
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urther because the patients did not receive
surgical attention. In spite of this the results
elatively so good that it was judged advisable to
sh a sanatorium near the sea, where the
n would receive skilled attention. Thanks to the
g exertions of M. Vancauwenberghe, the Mayor of
-sur-Mer, who is not only a philanthropist but a very wealthy and enlightened man, the sanatorium, from small beginnings in 1888. has grown into a large, well-equipped hospital of 450 beds.

The New Sanatorium.

When scarcely finished, however, the ground upon which the sanatorium is situated was required by the State for an extension of the docks of Dunkerque, and a new sanatorium is in course of erection and will be opened next year at Zuydcoote, a few miles north of Dunkerque. planned by MM. Maritiane and Berger, architects to the Paris Municipality, under the immediate supervision of M. Vancauwenberghe. This hospital will have the advantage of being planned and completed under the eyes of men who have watched for nearly twenty years the administration of the present buildings, instead of being added to bit by bit as is the case with most hospitals where the large sums necessary are to be had only by degrees. Much the same plans will be adopted with regard to the buildings, one-storied pavilions being everywhere used, but more room will be given, for the site is ample, extending for a kilometre along the sea front. Here all overcrowding will be avoided, and wards which at present have three rows of beds for want of adequate space will there only have two. Dr. Le Fort, of Lille, who courteously conducted us over the sanatorium, explained that this expedient had been adopted in view of the largely-increased demands for admission. The new sanatorium will contain 900 beds, and a feature of it, as in the Hôpital Maritime de Middelkerque in Belgium, will be that there will be day wards, connected with the sleeping wards by a covered way, to which those patients confined to bed may be wheeled during the day, and have absolutely fresh air night and day. The day wards will have long windows facing the sea, so that the patients will get plenty of light and air. This plan cannot be too highly commended, for with every admiration for the splendid work done in French sanatoriums, it is impossible to deny that the ventilation is insufficient at night for all the patients, and inadequate by day for those too ill to leave the sleeping wards. Plenty of windows exist, but they are usually shut at night, and only small upper windows opened. This is insufficient.

Fig. 5.—Sanatorium of St. Pol-sur-Mer. Pavilion for young children.

The Existing Buildings.

While erring in this—probably from over-care—the sanatorium of St. Pol-sur-Mer is in every other respect a model of excellent organization. The buildings, in pavilion style of

one story only (Figs. 4 and 5), with the inner roof dome-shaped like a ship turned upside down, are constructed of wood inside, and outside of brick and tiles, with a space between containing a volume of air. By this means the extremes of heat and cold are avoided. Each large pavilion is 80 metres long, 9 metres wide, and 7 metres in height, and is raised 80 centimetres above the ground.

Besides the wards for the patients, there are two large wards containing 100 beds each for the colonies scolaires, or children coming for convalescence or for prophylactic reasons; there are school rooms for the boys and girls respectively, refectories, kitchen, linen room, and wardrobe room. Here the children's clothes are stored and mended—no light task, for the institution does not supply a distinctive dress, except for Sunday wear, and as the children come from poor homes their clothes are often very scanty or worn. Each ward has a room for dressings, and, in addition, there is a well-appointed operating theatre. There is an electric sterilizer for instruments; dressings are placed in cans and sterilized in an oven in the engine house, as is also the water used for operations. The sanatorium possesses its own laundry, a bakery, a brewery, where excellent beer is brewed, for those patients for whom it is ordered, as well as a poultry and dairy farm.

The Farm and Milk Dépôt.

A double responsibility attaches to the farm, inasmuch as besides supplying the hospital with milk, it also sends out all that is used by the largely-attended infant milk dépôt in Dunkirk. Therefore, doubtless, in the new buildings at Zuydcoote due importance will be given to the scientific management of the dairy farm, which at present is somewhat primitive, probably because the authorities are obliged to utilize existing—not too good—buildings. As a matter of fact, it is proposed that at Zuydcoote the elder convalescent children shall be trained and encouraged to become farm hands and agricultural labourers, in order to keep them away from their unhealthy surroundings at home, chiefly in mining or industrial districts. Most of the children come from Lille, Roubaix, Turcoing, and other manufacturing towns of north-eastern France, where extremes of the most abject poverty or great riches are practically the only existing classes.

Results.

Though the general health of the children on admission is commonly very bad, improvement is rapid, for not only are they removed from poisonous air into the sea air so favourable to tuberculous disease in childhood but they have plenty of nourishing food and plenty of sleep. Dr. Le Fort is of opinion that the sea air is of great assistance in the treatment of surgical tuberculosis, and that the patients are treated to much greater advantage there than in city hospitals. The number of operations necessary is reduced and the proportion of recoveries increased. He is averse to operating unless when absolutely necessary, but to obtain recovery much patience is shown, many of the cases being kept in for several years. No patient is discharged unless by the surgeons' orders or on the demand of the parents, who, however, seldom insist upon withdrawing their children. The statistics show that 87.84 per cent. of the children received are treated successfully, while even the incurable cases are much benefited. There is a room for *x* rays, much importance in diagnosis being attached to the skiagraphs obtained. There is also a small apparatus for the Finsen light cure, but this has been found so far from successful in the treatment of lupus that patients suffering from it are not now received in the hospital.

The severest cases are usually hip-joint disease and spinal caries. Many cases of spinal caries are treated without jackets, as the nurses are supposed to exercise sufficient influence over the patients to induce them to lie still. Scrofula and rickets are treated with conspicuous success, the sea air being the chief factor in the cure, and operations being performed only when quite unavoidable. It may be mentioned that girls are received from 2 to 15, boys from 2 to 12 years. A payment of 1.50 fr. a day is made by municipalities sending patients to the sanatorium. It is calculated that 2.50 fr. is the actual cost, except in cases in which it is necessary to change dressings and bandages frequently, when the cost is sometimes 4 fr. or 5 fr.

It is curious to note that there are no trained hospital nurses in this sanatorium. All the women in charge of the patients are engaged for choice when they are young and trained to their special duties in the sanatorium. At first they are given light, unimportant duties; they are allowed to assist at the bandaging and dressing of wounds by the surgeons, and then gradually allowed to do it themselves. We were told that the nursing done by these women is beyond all praise, that they attach themselves to their patients, are careful, and gentle, and perform their duties skilfully.

The colonies scolaires are an interesting feature of the sanatorium. Boys up to 12 and girls up to 18 suffering from debility, weakness, or predisposition to tuberculous affections of the joints, or convalescing after acute illness, are received during the summer for periods of four weeks. They are out on the beach all day, and are given a nourishing and plentiful diet. Often by these preventive means disease is arrested and great benefit derived. Unfortunately, owing to want of space and the numbers of applications, it is impossible to keep them longer than one month. In summer all those who are able bathe, while in cold weather warm sea-baths are administered in bath rooms.

For those patients who are necessarily obliged to remain years in the hospital, and not too ill to attend, there are school-rooms where they do lessons for short periods, and the elder girls are allowed to assist in the kitchen and thereby learn cooking, besides helping in the sewing and housework.

Much importance is attached to the weighing and measuring of the patients. The chest measurements are carefully noted, and it is found that after a year's treatment the average chest gain is 29 millimetres, just double the development of ordinary children. This is attributed to the continual inspiration of sea air. The gain in weight and height is proportionately large. Patients are photographed on arrival and departure. In short, in every detail the sanatorium is managed with skill and care, and may well serve as a model. Indeed, were the hospital destined to receive the afflicted children of rich parents instead of the poor and starving, nothing further could be done to cure them *tuto et jucunde*.

THE SANATORIUM FOR TUBERCULOUS CHILDREN AT HENDAYE.

The Sanatorium de la Ville de Paris at Hendaye is a prophylactic home maintained by the Assistance Publique of Paris.

The sanatorium is situated in a bay on the seashore three miles from Hendaye, the frontier town between France and Spain, and facing the picturesque old Spanish town of Fontarabia, which still gives a vivid impression of a fortified Spanish town of the Middle Ages. For the purpose of a convalescent home for children suffering from tuberculosis the situation, by the edge of a sandy bay with fields and woods running down to the beach, is ideal. The hospital is built in a series of pavilions six in number. Four of these buildings, divided into fourteen wards, are used for boys and girls respectively; one is used as an infirmary for children suffering from any definite illness, while the sixth pavilion is an observation ward for the reception of children on first arrival. Here they are kept under observation for three weeks to ensure that they are not in the incubation stage of any of the infectious diseases. If at the end of this period they have not developed symptoms, they are transferred and allowed to mix with the other patients.

The staff of nurses consists of three trained nurses for the boys' wards, and three for the girls', with four *filles de service* (ward maids), two nurses and one *fille de service* for the infirmary, and one nurse and three *filles de service* for the observation pavilion. The sanatorium contains 250 beds, and in the course of the year an average of 475 children are received, some 35 a month arriving in batches, and staying five months.

The pavilions (Fig. 6) are built of wood, and have long French windows. These have upper parts which can be opened at night and regulated according to the temperature. The children received have all applied for medical relief at the Paris hospitals or dispensaries, and are all of the poorer classes. They are chiefly those who have been treated for pulmonary tuberculosis and anaemia, although rachitic cases are also received.

The treatment consists in an open-air life and good nourishing food. Patients who on arrival have no appetite after a few days in the sea air become hungry, and quickly begin to pick up. Four meals are given—bread and milk chocolate or coffee, at 7 a.m.; lunch at 11.30, consisting of soup, meat, and vegetables, with some fruit; a gouter at 4, when the children are given bread with some dry chocolate or fruit, and finally at 6 dinner, soup, meat, vegetables, a

ssert. The patients get up at 6, and go to bed at 7 or 7.30, ording to their ages, which varies from 3 to 17.
Although five months is the time prescribed for the cure, it is thought wise to extend the period patients are kept on iger. If after their return home they have a relapse, they e received back again for further treatment. Most of the ildren, however, are sent home completely cured, and while the sanatorium they put on ight so quickly and look so althy that it is sometimes ficult to believe they have en ill. When the weather rmits they are out all day ig, and batches of them ys and girls separately) may met along the road, or seen ting on the beach or on ssy slopes, in charge of rses. A certain amount of cipline is kept up, but the rses are bright and cheerful d enter into the games of children, who are sorry en the time comes to go k to their homes.
The cases are followed up as ch as possible by district itors, and most of them m to be completely curable. is when the conditions of ne life are bad that relapses ur. A boy put to work in close and vitiated air of a kshop suffers, but those o lead moderately healthy s keep well.

Fig. 6.—Sanatorium of Hendaye: the pavilions.

he floors of the wards are of polished boards, the beds of n, and there is no superfluous furniture. At the end of h ward is a small room in which a night nurse sleeps, and ched to each pavilion are bath rooms and lavatories. As children's heads are shaved before they are admitted, ch trouble is avoided and it is easy to keep them clean. ing the summer months they bathe in the sea, for which pose there is a special bathing house on the sandy beach w the sanatorium. All ex- ses are borne by the Assist- e Publique, even to the way fares and clothing of children, and the institu- does admirable work for poor classes utterly unable ford to give their children necessary change of air proper care. The visitor truck by the strict sim- ity of everything about sanatorium. All the ar- gements are most com- e, but there is no super- us luxury or unnecessary enditure. The object of the itution is to check by care, air and proper feeding, rculosis in children whose lition, if they were sent ight home from hospital ld, in all probability, ually become worse until ope of cure would be past. the majority of patients n in at Hendaye are sent ght from hospital, and are ly in the early stages, percentage of deaths is in- esmal while there is every ce of cure.

Fig. 7.—L'Oeuvre des Enfants Tuberculeux d'Ormesson: garden front.

L'OEUVRE DES ENFANTS TUBERCULEUX.

Oeuvre des Enfants Tuberculeux is a Society in Paris, ded by Dr. E. P. Léon-Petit, who is now its secre- general.
cept for two grants of 150,000 francs and 130,000 s respectively, made by the Ministry of Agriculture, that the Assistance Publique pays for children sent by it to its sanatoriums, the work is entirely maintained by private benevolence.
The Society has for aim to receive, in convalescent homes, children from 2 to 14 who have been treated in hospitals in Paris, or at home, for tuberculosis (of the lungs chiefly) and who require special conditions for their convalescence, impossible to be obtained in a town. The principal of these is fresh bracing air and the Society has been fortunate in securing ideal sites for its sanatoriums on the plateau of Ormesson and Chennevières, 120 metres above the level of the sea, overlooking the great battlefield of Champigny and the valley of the Marne. Here within a few miles of each other are the sanatoriums of Ormesson, Villiers-sur-Marne and Noisy-le-Grand, all belonging to the Oeuvre.
In 1888 a small house was taken at Ormesson, and the first twelve patients received. But little money was forthcoming, and in order that the public should become familiarized with the new idea of convalescent homes for tuberculous children, series of lectures were given by the medical staff, while Sisters of Mercy set themselves to do the practical work of organizing and nursing. The following year two wooden pavilions were purchased at the Paris Exhibition and set up at Ormesson. These pavilions held 100 beds. The next step was to buy the land the buildings stood upon. This the committee was enabled to do by the generosity of benefactors who had already taken the scheme to heart.
The next step was to establish a small dispensary in Paris, which in 1896 was transferred to large premises at 31, Rue de la Boëtie. Here not only do consultations take place every Monday, but every effort is made to instruct mothers on the measures to be taken in order to combat tuberculosis by hygiene and the physical education of children. Here also Sisters of Mercy are instructed in simple hygiene.
The Central Committee, with Dr. Blâche as President and a small secretarial staff, receives applications and employs voluntary workers as visitors to find out cases and to follow them up afterwards.
After six years the wooden pavilions, being found inadequate, were pulled down and in their place large substantial buildings were erected.
The ground plan of the Ormesson hospital covers 1,956 metres, or ten times the extent of the original building. The work grew so rapidly in popularity that in 1891 a second hospital was established at Villiers-sur-Marne, close to Ormesson; and finally another at Noisy-le-Grand close by.

Ormesson.

Ormesson receives boys only, from 3 years to $8\frac{1}{2}$ years of age. Sometimes children under 3 are taken in, provided they can walk and do not require constant attention, but $8\frac{1}{2}$ is the outside limit of age.
The hospital (Fig. 7) is built in the shape of the letter H—two parallel wings connected by a central hall, which is used in wet weather as a play-room. In one wing is the chapel and

the administrative block, while the other is divided into two large wards containing 74 beds—to be shortly increased to 100. There are seven Sisters of Mercy, trained as hospital nurses, in charge. All the work in connexion with the hospital, such as cooking, cleaning, etc., is done by Sisters, as well as the nursing, but there are few serious cases, and the children, living an open-air life, soon recover their appetite and strength. The cure really consists in an outdoor life and good nutritious food. The majority of patients come from the poorest quarters of Paris and react to the treatment with astonishing rapidity, and it is only when admitted in the most advanced stages that they are incurable; this, happily, is the exception.

The wards are lofty rooms, with French windows, having smaller windows immediately over them. Some of these are opened at night according to the temperature, but the larger windows are kept closed. This seems inadequate for an open-air cure, or even for ordinary purposes of ventilation, for some forty children are congregated together in one ward. At either end of the ward is a small room in which a Sister sleeps with her door open and a curtain drawn, so that should a child require attention she at once hears its call. The wards are absolutely free from all furniture except beds, which are of iron, with a mattress and white coverings. The floors are of pitch pine, paraffined in such a manner as to fill up all the interstices, so that it is impossible for dust to accumulate. Instead of sweeping, a duster dipped in antiseptic is carefully passed over the floors every day, and once a month they are thoroughly scoured. Dust is considered the chief foe to be combated. The cost of paraffining the floors is estimated at 30 centimes the square metre, but in the long run it saves much labour. Opening out of each ward is a small room in which cases considered to be contagious are isolated. Those too weak to run about lie during the daytime on long couches in the central hall or in the garden; the majority of the children spend the day playing in the grounds, which are large enough to allow them sufficient liberty without disappearing too far out of sight.

There are four meals a day—breakfast, consisting of bread and milk, or chocolate or coffee and bread at 7.30; déjeuner at 11.30 of soup, meat, vegetables, and fruit; gouter at 3 of bread and chocolate or fruit; and dinner at 6.30, which is a repetition of déjeuner—soup, meat, vegetables, and fruit. The children are given wine and water to drink at meals, and between meals are allowed to ask for milk. They rise early and go to bed early. There is no systematic instruction; they are merely given a little religious teaching. They are treated for five months, no charge of any kind being made to their parents. Before being received their heads are shaved and they are supplied with clothes at the hospital. It was found necessary to shave their heads for hygienic reasons and to check the spread of ringworm. The children all seem happy and contented; they attach themselves to the Sisters, and are sorry to go back to their homes.

If the Assistance Publique sends patients to Ormesson, Villiers, or Noisy it pays for their keep, and on one occasion the Chambre des Députés voted a sum to meet capital expenditure. Otherwise these admirable institutions are maintained by voluntary effort. The cases discharged as cured are followed up by voluntary workers who are employed as visitors. It is found that the children keep well unless they are put to work in dark, dusty workrooms, in which case they sometimes relapse. As a rule the cases discharged as cured remain in good health. The voluntary workers also point out deserving cases, while other patients are sent by subscribers interested in them. The hospitals are visited by a medical man who practises in the neighbourhood, as well as by members of the consulting staff.

Villiers-sur-Marne.

The Sanatorium of Villiers-sur-Marne about three miles from that at Ormesson, was commenced in 1890, and is admirably situated, facing south, and surrounded by large grounds in the midst of open country. The building, 300 metres long, consists of two wings connected by a long open verandah on the ground floor, with a covered verandah above with large windows. These are used for the air cure for patients not strong enough to be up. The hospital, which is for boys of from $8\frac{1}{2}$ to 14 only, at present contains 120 beds, but when the extension now in progress is finished, there will be 160 beds.

The right wing of the building is divided into small wards, reserved chiefly for the worst cases, so that they may be as quiet and isolated as possible. The left wing, on the contrary, is one enormous double-storied ward, containing eighty beds. The hall is surrounded by windo opening on to the gardens, and the beds are dispos round the ward, while the centre is railed off as hall, in which are tables and chairs and a number of gre plants that give it a cheerful appearance. Running rou this ward is a wide gallery, and in this is disposed a seco series of beds. There is an elaborate system of ventilatio including a large skylight with perforated panes of glass, a it is calculated that each child has an allowance of 120 cu metres of air, but the advisability of this double dormito may be doubted, especially as there can be no question scarcity of building land. There is not even a saving staff, for upstairs and downstairs at opposite corners sm rooms opening into the wards are occupied by male sup intendents.

This great ward is called "Pavillon des Enfants de Franc and its history is touching, inasmuch as the funds for its co struction were chiefly subscribed by healthy children for t sick and poor. Bricks were sold at 1 franc each; by givi 100 francs the title of "bienfaiteur" was earned, and 1,000 francs that of "fondateur." A stirring appeal was ma by François Coppée in the *Figaro*, with the result that with a few days more than 100,000 francs were subscribed.

The floors of the hospital are all paraffined, and nothing seen in the wards but beds. The adjacent bath roo and lavatories are on the latest principles, with constant water supply. As at Ormesson, the nurses a Sisters of Mercy, and open air, good plentiful food, a long hours of sleep are relied on for the cure much more th drugs. Indeed it is curious to note that drugs are given on in the most serious cases, hygiene working miracles children transplanted into the real country from the poore quarters of Paris. Children who have never seen a bath a regularly bathed, and in order to harden and strengthe them they are thoroughly rubbed after bathing, a in some cases are given cold douches. By th means the circulation is improved, the skin ac better, and night sweats are checked. The treatment al strengthens the nervous system. Coarse woollen garmen are worn next the skin. The food is plain but excellen patients get meat twice a day, milk and eggs, with plenty vegetables and fruit. Care is taken to accustom the childr gradually to the open-air cure, for at first it has the effect exciting them, producing headache and insomnia. It h been found by experience that it is best in all cases to ke the patients lying down on couches during the first few day the excitement is then less marked, digestion and appeti improve, and the fever or cough diminish. As soon as th general condition is bettered, short walks are commence during which breathing exercises are done—five six deep breaths every 100 paces. Patients lying dow are taught to take ten or twelve breaths every fi minutes. This soon becomes a habit, and the lun are well filled with pure air. Care is taken not to overtax th strength at first, but gradually the walks are lengthene until the patient after a time falls into a healthy ordina life. The cure of a child in the early stage from pulmona tuberculosis depends much in breaking it of bad habits ar in teaching it good ones which will serve as a guide for i future life. Thus every child is trained not to cough unle it wants to expectorate; this cures with marvellous rapidi the nervous habit of constant coughing, which retards th process of healing in the lungs.

The Œuvre recognizes the possibility that patients wh return to unfavourable surroundings will develop again th symptoms they had lost. A Colonie Sanitaire has therefo been established, where convalescents are admitted and taugh gardening and farming. Great hopes were entertained tha this would be a means of attaching young lads to a countr life and of getting them away from hurtful town surroun ings. Unfortunately, it is found almost impossible to retai them; the town influence is too strong in them, and the never settle down happily to country life. This is very u fortunate, but it is to be hoped that the effort will be co tinued, as it would be a most valuable factor in the eradic tion of pulmonary tuberculosis, not only tending completel to cure the patients themselves, but, by removing them fro healthy subjects, preventing the risk of the contamination others.

The Sanatorium of Villiers, on account of its closeness to th station of Villiers on the main line to Paris, serves as a com missariat for the sister sanatoriums of Ormesson and Noisy-l Grand. Here the boots are made—no light undertaking, fo

he children are on their feet in the grounds all day long. Here it is that all the clothes are washed, and great importnce is attached to the disinfecting of linen by steam. As much work is done by machinery as possible, not only to iminish labour but to avoid chances of infection. All the othes worn by ie patients of l three hositals are made y tailors on the remises, the othes in which ie children rive being disfected and put ide until they e leaving.

Noisy-le-Grand.

Noisy-le-Grand the hospital for rls suffering m pulmonary berculosis. The ilding is really very large untry house ich has been apted as a spital. It nds in a large autifully-oded park, ere the childlive during e daytime, y going in for als. There are beds disposed two dormito-; but here in, unfortunately, we noticed that the beds were arranged hree rows, which amounts to overcrowding, especially as at ht the windows are only opened slightly at the top. The rs here also have gone through the process of paraffining. ere are six ters in charge o do all the k, including king. The ie *régime* of n air during daytime and ling is purd here, and children revery satisorily to the tment. They periodically ghed and sured, and found to n rapidly. re is a dairy n of fifteen s, which not y supplies sanatorium, also those of esson and iers. Vegees and fruit supplied a well-ked kitchen en, as also sh eggs. e also an en-our has been e to interest elder children in outdoor occupations, but with small ess. Town instincts are as firmly rooted in the girls n the boys.

Fig. 8. Margate, Royal Sea-bathing Hospital. Patients in the verandah.

Fig. 9. Margate, Royal Sea-bathing Hospital. View from one of the wards, showing general situation, and one of the airing grounds.

It is interesting to learn that more children pass through the sanatoriums now than formerly, inasmuch as it shows that the endeavour to get children in the earliest stages is attended with more satisfactory results, enabling them to be dismissed as cured much more quickly than those in a more advanced stage. The importance of preventive measures is thus strikingly emphasized. The cases are followed up by district visitors, and it is found that in 25 to 27 per cent. the cures are absolute, but that relapses occur when the children go back to really bad surroundings, such as dusty and close workshops and great overcrowding. It has been found advisable, since the beginning of this year, to alter the system of examining the patients at a dispensary in Paris to one of visitation in the home. The name and address of a patient seeking admission to one of the hospitals is sent in to the central office with a medical certificate. An inquiry by a lady inspector is made at the house of the child, where an insight is gained into its surroundings, parentage, etc. This is found of great assistance, and much expense and fatigue to the patient is saved, while much sound instruction is indirectly given to the parents of deserving children, and abuse of the institutions by parents well able to pay is avoided. In visiting these sanatoriums, one cannot but be struck by the healthy appearance of the majority of the children and by their gaiety. With the exception of those in a stage too advanced to warrant any hope of recovery, the patients look so happy that it is difficult to imagine that the germs of the fell disease are lurking in each small frame. The admirable work done by the Oeuvre des Enfants Tuberculeux is worthy of all praise and imitation.

The Royal Sea-Bathing Hospital, Margate.

The Royal Sea-Bathing Hospital, Margate, founded in 1791, is the only institution in the United Kingdom comparable to those at Berck and St. Pol, inasmuch as it is not a convalescent home, but a hospital for the treatment of tuberculosis, especially tuberculosis of bones, joints, and glands, by appropriate surgical means. The hospital contains 150 beds, and the average daily number of patients is 138.6; the total number of in-patients in 1903 was 530. Of these, 127 suffered from diseases of the joints, 104 from caries of the bones, 109 from tuberculous disease of the lymphatic glands—in most cases cervical—and 154 from tuberculous lesions of other organs, including 59 cases of phthisis. The number of operations was 264, 98 being for removal of lymphatic glands. Of the 530 patients treated during the year, the report states that 77 were cured and 223 were greatly benefited, so that about 56 per cent. were treated successfully. The mean duration of residence for each patient in the hospital was seven weeks (seventy-six days). The by-laws state that the usual term of residence of an in-patient in the hospital shall be four weeks, but the visiting surgeon has power to extend the term in suitable cases. This power is commonly exercised and patients kept on for five or six months, and even for a year or more. There are some free patients, but the majority (called ordinary patients) must be provided with a subscriber's letter, and must pay, adults 12s. and children 8s. a week. Full-pay patients are charged £1 10s. 0d. a week, and the average cost of an occupied bed, calculated on the ordinary expenditure, was in 1903 £1 5s. 10d. At the end of eight weeks an ordinary patient must present a fresh letter or pay the charges of a full-pay patient.

Half the patients are adults—men and women—and half are children—boys and girls. Patients who are confined to bed are, as far as possible, kept in a verandah, with a freely open front (Fig. 8) the beds are only taken into the wards in the very worst weather. The verandah forms three sides of a square in the middle of which there is a garden, the men, women and children being separated by screen partitions.

The meals of the patients are carried out to them, and they never leave the verandah except for bathing purposes. There are seventeen bath-rooms with hot and cold sea water, and in summer convalescents bathe in the sea. When in bad weather they have to sleep in the wards, all the windows on both sides are left open, so that there is a thorough draught. This open-air treatment is considered very beneficial. The patients get five meals a day: early morning breakfast with tea or milk and eggs or bacon; lunch of bread and butter; dinner of meat, vegetables, and pudding; tea with bread and butter, and supper of bread and cheese and beer.

The hospital is an old-fashioned stone house surrounded by grounds of 8 acres and situated at the edge of the sea with the beach immediately beyond (Fig. 9.) Those patients able to leave their beds, sit out in the garden or on the beach all day long. Owing to the beds being moved out into the verandah, the wards have an unsmart appearance, and the white deal boards, which are merely washed and not paraffined, add to this impression. Still the great importance of fresh air for the patients is here recognized as paramount to every other consideration. The honorary staff consists of three surgeons and an assistant-surgeon. There are two resident surgeons. There is a general staff of fifty persons.

The general results of the treatment vary with the stage of disease at which the patient enters the hospital; the earlier the happier the results, and the proportion of cases in which cure or satisfactory improvement is obtained would be largely increased were more patients to enter during the early stages. In 1901, when an inquiry was instituted concerning 464 cases, it was found that only 85 patients were sent in during the first six months of their illness while 119 were admitted four or more years after the first symptoms of tuberculosis became apparent.

The Senior Surgeon to the hospital reports that after fifteen years' constant work in the wards of the hospital he is convinced that the knife plays a very subsidiary part to climatic and general influences. In many cases the magnitude and shock of the operation so diminish the vitality and power of resistance of the patient that the tubercle bacilli are enabled to start fresh mischief elsewhere. When operations become absolutely necessary, progress is much more rapid when patients can live an outdoor life in the sea air. The great principle to instil into the public is that patients should enter the hospital as soon as the very earliest symptoms of the disease are observed. This applies equally to pulmonary tuberculosis and tuberculosis of the joints, bones, an glands.

The hospital is not open to children under 6 years of ag and in this we find a serious mistake. At the French ho pitals they are received as early as 2, and it is at this ag that so many children with diseases of the joints or ricke may be saved permanent deformity by speedy operation an after-treatment in good surroundings. At 6 years a chil with tuberculous disease is often past cure. If preventiv measures were taken and children in their earliest years wer admitted, the hospital would eventually be able to dispens with its grown-up patients, for there would be none; and, i deed, in England, where so much is done for adult sufferer from tuberculosis and little for children, it seems regrettab that the whole of the accommodation at Margate should n be devoted to them. Great improvement in the ph sique of the nation might thus be effected. At present th hospital is handicapped by the beds being blocked by a larg proportion of chronic and unbenefitable cases—patients, a the report states, who could be equally well cared for at man other institutions for incurables and convalescents.

It is time that the public, who, with the worthiest inte tions, yet tie the hands of the hospital authorities by th letter system, should be educated to know that there are suc things as prophylactic measures, and that by prophylact means a hundredfold more good can be done than by tinke ing cases already past permanent cure.

MEDICAL NEWS.

The annual dinner of the Poor Law Officers Association England and Wales will be held at the Trocadero Restaura on June 28th at 7.30 p.m.

The Prize Distribution of the Medical School of S Thomas's Hospital will be held in the Governors' Hall of th Hospital on Friday, 24th June, at 3 p.m. Sir Thomas Barlow Bart., K.C.V.O., M.D., will give an address, and a garde party will follow in the grounds.

Northampton General Hospital.—Two new wings of th hospital were recently declared open by Earl Spencer, Lor Lieutenant of Northamptonshire. They replace portions of th fabric dating from the eighteenth century. Towards the cos of the new additions, which amounts to £32 000, donation of £1,000 each have been received from Lord Spencer, th Marquess of Northampton, Lady Wantage, Sir Henr Burdett, and several others.

The Vivisection Question in Germany.—On the occasio of the presentation of the Budget for the Universities in th Bavarian Chamber of Deputies, the Minister, Dr. Von Wehle referred to a petition which had been addressed to the legis lature, asking for the suppression of vivisection. He pointe out that experiments on animals were necessary for purpose of medical research. His statement was received wit approval on both sides of the House.

Homoeopathy in Bavaria.—It may be remembered tha some time ago the Bavarian Chamber of Deputies in a momen of temporary aberration voted in favour of the establishmen of a Chair of Homoeopathy in one of the Universities Recently, in the course of a discussion on the Educatio Estimates, the Cultus-Minister took occasion to point out tha as homoeopathy has no scientific foundation, there is nothin in it that can suitably be made the subject of instruction The medical councils of all the Bavarian Universities ex pressed opinions strongly adverse to the proposal.

International Congress of Tuberculosis.—The fift meeting of this International Congress will be held a Paris from October 2nd to 7th, 1905. It will comprise a medica and a social section; in each of these three subjects will b proposed for discussion. The programme of the medica section is as follows: The treatment of lupus by the new methods; the early diagnosis of tuberculosis by the new methods; comparative study of the different forms of tubercu losis. The social section will discuss: The etiological factor of tuberculosis; the value of the different methods of treat ment of tuberculous patients; optional assurance and mutua aid in relation to the struggle against tuberculosis. There will also be a technical section or museum in which will be exhibited histological, pathological, and bacteriologica specimens and preparations; statistics, plans of hospitals sanatoria, and dispensaries; publications and document relative to antituberculosis leagues and institutions.

BRITISH MEDICAL ASSOCIATION.

iptions to the British Medical Association for year 1904 are now due and should be forwarded postal order or cheque to the amount of 25s. ie General Secretary, 429, Strand, London, W.C., n the case of Colonial members, to their Branch surer.

British Medical Journal.

SATURDAY, JUNE 11TH, 1904.

THE OXFORD MEETING.

PPLEMENT for this week contains an illustrated on Oxford, and full particulars of the arrangements or the annual meeting which will begin there under sidency of Dr. William Collier, Physician to the e Infirmary, and Litchfield Lecturer in Medicine in versity, on Tuesday, July 26th. Oxford is a name ire with among all English-speaking people. The e which she always retains over her pupils, so ly illustrated by the provisions of Mr. Cecil s will, is felt, perhaps unconsciously, even by those e never looked on the tower of Magdalen or rested shade of College gardens. We make no doubt ery large number of members of the British Medical ion will take this opportunity of learning to under- mething of her charm, and we feel sure that by so hey will best show their apppreciation of the le welcome offered by the University and its

ll be seen from the programme of business, the general meeting of the Association at noon on , July 26th, will be preceded by a service in Christ Cathedral, and in the evening the President will is address. It will describe the growth and develop- the Oxford Medical School, and will contain refer- some of the eminent medical men who have been con- ith the University. The Address in Medicine will be l by Sir William Church, Bart., K.C.B, President oyal College of Physicians of London, on Wednes- ing, and that in Surgery by Sir William Macewen, rofessor of Surgery in the University of Glasgow, sday afternoon. All these addresses will be given eldonian Theatre of the University. On Thursday Dr. G. Bagot Ferguson, who was President of the on in 1901, when it met in Cheltenham, will give r lecture in the Town Hall.

PPLEMENT also contains a full statement of the ents for the scientific work of the meeting, and instances it has been possible to publish abstracts pers which will be read by those who have under- introduce the subjects selected for special discus- e Sections. As will be seen, these discussions r a very wide field, and it will go hard if every of the Association does not find in them some- special interest to him. Thus the Section of will give particular attention to the treatment of us pleural effusion and pneumothorax (to be d by Professor Osler), the serum treatment of nd the treatment of chronic renal disease. In n of Surgery the subject of the present aspects and antisepsis (to be introduced by Professor heyne) will doubtless lead to a lively debate, while the discussion on the indications for and methods of performing hysterectomy will raise a matter of great importance to all abdominal surgeons. There will also be this year for the first time a Section of Dental Surgery, which has been organized in response to the request of members of the Association engaged in the practice of dentistry. The Section of Obstetrics and Gynaecology will discuss the highly practical subjects of accidental haemorrhage and of so-called ovarian pain. In the Section of Pathology the subject of immunity will be discussed, as well as that of the part played by lymphocytes, and the chemical pathology of gout, and some distinguished foreign guests have expressed their intention of taking part in both these discussions. Special efforts have been made this year to increase the general interest and value of the pathological museum, and the comprehensive notice of the special committee of the museum, of which Dr. Ainley Walker, University College, Oxford, is secretary, will be found at p. 180 of the SUPPLEMENT. In the Section of Physiology there will be discussions on colour vision introduced by Professor Gotch of Oxford, and on chloroform anaesthesia, introduced by Sir Victor Horsley, while the Section will hold jointly with that of Anatomy a discussion on the thalamic region. Demonstrations will be given in this Section, and it is also intended to hold an exhibition of apparatus and objects of physiological interest. The subject of giants and dwarfs will be introduced by Professors Cunningham and Windle in the Section of Anatomy, which will also hold an exhibition of anatomical and histological preparations and of apparatus. In looking over the programme of the Sections devoted to the special departments of medicine it will be observed that in most instances the subject selected for discussion have a direct bearing upon general medicine and surgery, thus in the Section of Ophthalmology Mr. Marcus Gunn will open a discussion on retro-ocular neuritis, and Dr. Hill Griffith will raise the subject of intra-ocular haemorrhage and systemic disease. In the Section of Dermatology the subjects selected are the treatment of pruritus ani, the comparative value of old and new methods of treating lupus and other skin diseases, and the relative importance of the bacterial and other factors in the causation of skin diseases. This Section also will form a collection of recently-executed drawings and photographs of cutaneous diseases. The Section of Laryngology and Otology will discuss such practical subjects as the etiology and prognosis of innocent growths of the larynx, intranasal disease as a determining factor in producing laryngeal and pulmonary affections, spasmodic and catarrhal, and the treatment of non-suppurative disease of the middle ear. In the Section of Tropical Medicine the principal discussions will be concerned with matters which have recently been engaging the attention of workers in this department of medicine. The subjects selected include trypanosomiasis, to be introduced by Colonel Bruce, F.R.S., the prophylaxis of malaria, introduced by Dr. J. W. W. Stephens, and the significance of the Leishman-Donovan bodies introduced by Major W. B. Leishman. This Section also hopes to make a collection of pathological specimens, drawings, photographs, and microscopic preparations, and to hold demonstrations. There remain three Sections which deal with subjects on the borderland between medicine and sociology, and here persons of authority not members of the medical profession have been invited to take part in the discussions

Thus in the Section of State Medicine a discussion on poverty and public health will be introduced by a paper on pauperization by Mrs. Bosanquet and one on alcohol by Mr. T. P. Whittaker, M.P.; the President, Dr. J. S. Haldane, of Oxford, will bring forward the subject of standards of ventilation, while a discussion on the control of the milk supply will be opened by Dr. Newman. There will also be on this occasion for the first time a Subsection of Forensic Medicine, over which Dr. Stevenson will preside. In the Section of Psychology, Dr. Max Nordau has promised to take part in the discussion of criminal responsibility and degeneracy, to be opened by the President, Dr. Mercier; while the subject of heredity will be introduced by Dr. J. Beard and Dr. König of the Dalldorf Asylum, Berlin. This Section also will hold microscopical demonstrations upon subjects connected with the pathology of insanity. Finally, in the Section of Navy, Army, and Ambulance, the question of the organization during peace of civil, medical, and ambulance aid to ensure an immediate reserve of trained assistants on the outbreak of war will be opened by Colonel J. Squire, V.D., R.A.M.C. (Vol.), and may be expected to lead to a discussion of interest not only to the profession but to the public.

The Annual Representative Meeting, which will assemble immediately after the conclusion of the annual general meeting on Tuesday and will adjourn from day to day as may be necessary, will have a great amount of important business to transact. It will receive reports from the Council and the Medico-Political and Ethical Committees, and will have before it the report and minority report presented by the special Medical Defence Committee. The report of the Council [1] is necessarily, in the main, historical, a record of work done, but the other reports and the notices of motion given by Divisions [2] will raise many matters affecting the regulations or working of the Association or its policy in matters concerning the profession generally, upon which a definite formal expression of the opinions and wishes of the Association are required. Upon the principle of the Medical Acts Amendment Bill, the preparation and revision of which has been among the most onerous duties of the Medico-Political Committee during the year, there is apparently very general agreement, but its details will no doubt be found to offer opportunities for discussion.[3] In this connexion may be mentioned also the draft scheme[4] drawn up by this Committee in compliance with the instruction of the last Representative Meeting for the nomination by the Association of candidates for the office of direct representatives for England and Wales on the General Medical Council, as well as the notice of motion given by the Birmingham Central Division to the effect that the representation of the medical profession in Parliament is at present inadequate alike in the interests of the public and the profession, and instructing the Council to consider how an improvement may be effected. The proposal that the Association should undertake the medical defence of its members will no doubt come before the Representative Meeting, and the representatives will have had the advantage of reading the report [5] of the special committee appointed by the Council last year containing the scheme now before the Divisions, together with the minority signed by Mr. Messiter and Dr. Beverley.[6] The result of the poll of the Divisions will be submitted to the Annual Representative Meeting, which will also have to consider a resolution sent up by the Gateshead Division instructing the Council to take the necessary steps to obtain alterations in the Memorandum of Association, which are not only a condition precedent to the adoption of a scheme of individual medical defence, but also appear to be necessary to enable the Association to carry out to the full its task of defending the interests of the profession at large. The working of the new constitution is being tested in an interesting way by the Nurses Registration Bill. Although the Bills do not, like the Midwives Act, propose to create a new class of practitioners, their provisions cannot fail to affect the medical profession. The profession failed to influence midwives' legislation as fully as was desirable, mainly owing to the great difference of opinion disclosed during the prolonged discussion of successive Bills and the absence of any machinery for bringing the internal conflict to an issue. The Association now possesses the necessary machinery, and if the Divisions instruct their representatives the opinion of the Association can be obtained at the meeting in Oxford.

We have here touched only upon a few of the more striking matters of business which must come before the Annual Representative Meeting, but the mere enumeration of these matters would carry us beyond our present limits. It is greatly to be hoped that every member of the Association will take his share in its work by attending the meetings of the Divisions shortly to be held, at which the business of the Annual Representative Meeting will be further discussed.

[1] SUPPLEMENT, May 7th, 1904, p. 96.
[2] Ibid, p. 118.
[3] The revised draft of this Bill was published with an explanatory memorandum in the SUPPLEMENT bearing date May 28th, 1904, p. 125.
[4] SUPPLEMENT, January 30th, 1904, p. 5.
[5] Ibid., March 19th, p. 31.

EUTHANASIA.

THE *Daily Express* may be called the Fat Boy of journalism, for it seems to be always on the outlook for an opportunity of making the public's flesh creep. With this form of enterprise in a general way we have no concern. We think it unfortunate, however, from every point of view that the materials of cheap sensationalism should so often be sought for in the hospital ward or the pathological laboratory. From day to day the reader's nerves are racked with accounts of horrible and mysterious ailments and highly coloured descriptions of surgical operations, or his imagination is morbidly excited by the announcement of discoveries of infallible cures. In nothing does the new journalism better deserve the epithet of "feather-brained" given to it by Matthew Arnold than in its manner of dealing with medical work and research. It is a painful matter that panting science toils after the invigilating reporter in vain; but it is a most serious thing that people should be misled and false hopes excited in the breasts of the victims of incurable disease. A newspaper which does this seems to us to have an imperfect sense of its responsibility as the instructor and guide of public opinion within its sphere of influence.

A particularly offensive example of the sensationalism against which we protest is afforded by some articles which recently appeared in our contemporary under the heading "Merciful Murder." It was there stated as a fact that several medical men in the United States openly advocated the view that in certain stages of hopeless suffering it was permissible to hasten the patient's death if he expressed a wish to that effect. It was added that although this

[6] SUPPLEMENT, p. 33.

not likely to find much public support among mem- of the medical profession in this country, "the te conviction of English doctors that such mea- would in reality be desirable and humane seems gaining ground." The ground for this statement is to be that "several well-known physicians who are alists on lingering and painful diseases" had confided epresentative of our contemporary that "this growing ction" is kept private because "they hesitate to dize their careers by suggesting an innovation which certainly bring them into conflict with various rities, and which would possibly result in a great outcry that they were, or wished to become, erers." In reading the reports of interviews of known physicians," which from time to time appear newspapers, we often find ourselves harbouring a ion that if their names were given they would prove those of men who are little known—or perhaps too nown—to the profession. But whoever the alists on lingering and painful diseases" referred y be, we have no hesitation in saying that the aces attributed to them are absolutely opposed to neral sentiment and conviction of the medical ion not only in this country, but throughout the d world.

be true, as alleged by the *Daily Express*, that the e of euthanasia is advocated by some medical practi- in the United States, it may safely be assumed ey are not men to whom the profession looks for leading. It happens that the question has recently ised in more than one quarter in America, but in se the suggestion that euthanasia should be made in certain circumstances has been put forward by responsible person outside the medical profession, s been strongly condemned by the representative l journals. The opinion of our American brethren subject was well expressed by Dr. Dock in the in Medicine delivered by him this week at the meeting of the American Medical Association. few months," he said, "some one—usually not a an—proposes that people with incurable diseases be killed by some painless method. The plan offers y opportunities for crime that it would be difficult out, but aside from that it involves important es. The difficulty of telling when the proper time e would often be insuperable. Aside from examples ude and other virtues exhibited by the dying, ch the world would have lost if a chronic invalid enson had had the cord of his life snapped at one imes when the *æs triplex* of his soul seemed bat- rough! To take a less selfish view, we can think of tures of human patience, the visions of ripened r, which have been revelations and inspirations ations of mankind' (Phillips Brooks), and see eated daily in sickrooms of all degrees, while the ifice and kindness developed in others at such annot but be of untold benefit to the race. physicians the suggestion of any planned g of life must be abhorrent. For countless ns they have been doing their utmost to lengthen lessen disease. They have shown how to prevent ues that formerly made life almost as bad as a l illness for the survivors, and they have also w many deaths can still be prevented. On the d, they can in most cases so treat the dying man bitter anguish often associated with death is absent, that life is not only less painful but actually longer, so that they will continue to follow the rule of the Father of Medicine, and 'give no deadly medicine to any one, even if asked, nor suggest any such counsel.'"

These words put the case in the true light, and will be accepted by the whole medical profession as expressing what is not merely a noble sentiment but the very law of its being. As Desgenettes told Napoleon when he suggested that the plague-stricken soldiers should be "mercifully murdered" and as Sir Henry Holland told Mehemet Ali when he asked for a sure poison for his enemies, the business of a physician is to heal not to kill. It would be dishonourable to the profession and dangerous to the public if any departure in practice from this clear principle were sanctioned.

It is true that legalized euthanasia has been advocated on humanitarian grounds by some men entitled to be heard with respect. Sir Thomas More, *vir pietate gravis* if ever there was one, and a practical statesman besides, speaks with no uncertain sound. "Such as be sicke of incurable diseases they comforte with sittinge by them, with talkinge with them, and to be shorte, with all maner of helpes that may be. But yf the disease be not onelye uncurable, but also full of contynuall payne and anguishe: then the priestes and the magistrates exhort the man, seinge he is not hable to doo anye dewtye of lyffe, and by overlyvine his owne deathe is noysome and irkesome to other, and grevous to himselfe: that he wyl determine with himselfe no longer to cheryshe that pestilent and paineful disease. And seinge his lyfe is to him but a tormente, that he wyl not bee unwillinge to dye, but rather take a good hope to him, and either dispatche himselfe out of that payneful lyffe, as out of a prison, or a racke of tormente, or elles suffer himselfe wyllinglye to be rydde out of it by other. And in so doinge they tell him he shall do wysely, seing by his deathe he shall lose no commoditye, but ende his payne. And because in that acte he shall followe the counsel of the pryestes, that is to saye of the interpreters of goddes wyll and pleasure, they shewe him that he shall do lyke a godly and a vertuous man. They that be thus persuaded, finyshe theire lives willynglye, either with hunger, or elles dye in theire sleape without anye fealing of deathe. But they cause none suche to dye agaynste his wyll, nor they use no lesse dilygence and attendaunce aboute him, belevinge this to be an honourable deathe. Elles he that killeth himself before that the pryestes and the counsel have allowed the cause of his deathe, him as unworthy either to be buryed, or with fier to be consumed, they caste unburied into some stinkinge marrish."

It may be questioned how far this view represented More's serious opinion. In any case the euthanasia which he describes is carried out under the eye of the law and the Church with every safeguard against abuse.

In an essay entitled The Cure for Incurables, Mr. Lionel Tollemache, who admits that he holds a brief for euthanasia, pleads strongly for its adoption. After describing the lingering agony of certain modes of death, he proceeds: "If a summary remedy could be applied to this suffering, there would be the further advantage that persons of a morbid and brooding nature might gain confidence through life, and that, knowing that death would be deprived of its sting, they would have a sort of negative stimulus, or (if I may so say) an antipreventive to exertion. Then, again, we must consider the friends, who, besides the immediate suffering of nursing the sick man, often

permanently impair their constitutions and nervous systems, and who, moreover, are thus exposed to a sort of moral suicide; I mean they curtail their own powers of usefulness far more than a dose of laudanum would curtail those of their dying friend. It should also be observed that if, on these accounts, the legislating of a modified *harikari* in England be reckoned a good, the good would in each case be much increased by the force of example; each person who availed himself of the new method of giving relief to himself and his friends would be doing what in him lay to break down the old prejudice and to make the proceedings, so to speak, fashionable, and would thus be a public as well as a private benefactor. On the whole, it cannot be doubted that the benefits resulting from a change in the law would be simply enormous; so that, unless a yet more enormous advantage can be shown from obliging the sufferers to die in agony, the Euthanasiasts must be admitted to have gained the day."

It is not clear by whom the euthanasia contemplated by Mr. Tollemache is to be carried out, but from the expression "modified *harikari*" it may perhaps be gathered that it is by the patient. This is an altogether different thing from "merciful murder," with the doctor playing the part of murderer. If Mr. Tollemache's argument is held to justify *harikari*, however modified, as a means of escape from physical pain, it would equally justify suicide as a cure for the pangs of despised love or as a protest against the law's delay. An unhappy sufferer who, worn out by pain and hopeless of relief, seeks to hasten the inevitable end, is probably scarcely to be held accountable for his action; in any case it is not for us to judge him. But a medical practitioner who should make himself the instrument of carrying out such a wish would be guilty of a crime against his patient, against society, and against his profession.

THE MEDICAL SERVICE OF THE NAVY.

THE articles on the medical service of the navy which were published in the BRITISH MEDICAL JOURNAL of March 19th and April 23rd have been received with approval by those best able to judge of the accuracy of the statements therein made. The only note of criticism that has reached us comes from a correspondent who is altogether unconnected with the navy. As, however, he professes to be in a position to speak from "first-hand information," we feel it our duty to take some notice of his remarks. We may begin with a confession of error; by a slip of the pen we spoke of the Secretary of State instead of the First Lord of the Admiralty. The more serious statements of our critic may conveniently be summarized in the following propositions:

1. It is "absolutely untrue" that the Director-General has not direct access to the First Lord, whom he can go and see "as often as he likes and when he likes."

2. There has never, as far as our correspondent's knowledge goes, been an officer appointed contrary to the Director-General's wishes, but the First Lord reserves the power of so doing.

3. It is "a grotesque mistake" that the Director-General has not full power within his own province; "the Board holds the Medical Director-General and nobody else responsible for the health of the navy, and in such matters he is never over-ruled by the caprice of Naval Lords or commanding officers."

4. It is "really untrue" that cabins are assigne t medical officers in a capricious manner; "an exce cabin is allotted and set apart from the first fo medical officers, just as one is set apart for the navig officer or chief engineer."

Our correspondent is good enough to add tha thought we might like to hear all this, "as the BR MEDICAL JOURNAL ought not to be misled or to mis On the last point it is, we hope, needless to say we fully agree with him. In dealing with the que our endeavour has been to state the case fairly temperately in exact accordance with the inform which we have been at considerable pains to collect all available sources. Our correspondent must pard if we decline to accept his description of his informati "absolutely first-hand"; it so faithfully reflects the of view that we cannot help suspecting that it is insp Now, the official view at best can only be taken as r senting what ought to be or was intended to be; it ca be accepted as showing what is. The official natu shares the complacent belief of Pangloss that all is fo best in the best of all possible worlds; it is from the pa experience of Candide that we learn how little this li is justified by the hard facts of life. Our correspond letter affords an excellent illustration of the great gul is fixed between official theory and actual practice.

It is true that the Director-General could probabl the First Lord if he wished. But what would be the re His opinion would have little chance of prevailing ag that of the Second Lord on any question conce *personnel*, or against that of the Junior Lord on the s of stores or any other matter connected with *materie* is more than probable, too, that the days of his fu tenure of office would be few and evil.

With regard to the posting of officers, our correspon knowledge does not go very far if he has not hea appointments being cancelled against the wish o Director-General. For obvious reasons we cannot specific instances, but the fact is notorious. It m added that cases have been known in which officers a been specially promoted, though not qualified, witho superior authorities even thinking it necessary through the ceremony of consulting the Director-Gen

It is also true that the Director-General and no one held responsible for the health of the navy. This is just we complain of in view of the fact that he has no corres ing authority. It is very far from the truth that he is over-ruled in matters belonging to his special provin Naval Lords or commanding officers. So little is he in his own house that he has no control whatever ov sick berth staff, and knows nothing of their capabilit requirements. The whole management of the sick staff is nominally in the hands of the Command Chief at the Nore; in reality it is under the contro Commander for Drafting Duties at Chatham, obviously cannot have the special knowledge req for the proper discharge of such a duty. The Dir General cannot even inspect a ship in commission u he is granted special permission for the purpose b Board of Admiralty. He can indeed inspect naval pitals, but only in a strictly medical sense.

We take this opportunity of pointing out that acco to the terms of Paragraph 1,132 of the King's Regula the sick berth itself and the sick berth staff on shi entirely under the direction of the medical officer. "direction," however, is nominal rather than real

ss the medical officer is an exceptionally strong man, authority given him by the Regulations is apt to be ped by executive officers.

r correspondent says that he cannot understand why dical officer "having work of the utmost importance in connexion with the care of health should desire to his time wasted with administrative details and matters of discipline." If he had any practical ledge of the requirements of the service, he would ly understand how much the work of the medical r may be hindered by the vexatious interference of executive officers in petty matters of discipline and l.

ain, it is true that a cabin is set apart for the senior cal officer; it is not true, however, that the cabin can y stretch of the official imagination be described as llent." As a rule it is the worst cabin in the ship in d to position, size, and ventilation. The senior cal officer may indeed think himself fortunate if one e soil pipes of the ship does not run through his . As showing the absurdity of the present system of ing cabins, it may be mentioned that it occasionally ns that the senior medical officer is much worse modated than his own junior, who may perhaps just entered the service. We are aware that some vement has lately been made in regard to this matter case of ships fitted as flag-ships but not having an al on board. But this arrangement even if loyally d out—always a matter of doubt in the navy—s after all only to a limited number of ships.

remedy for the existing anomalous state of things is cabin should be specially allotted to the principal al officer in every new ship on the advice of the al department, and should remain allotted for that e throughout its existence. We have dwelt on this on at some length, because it is one of the greatest ance to the comfort and health of medical officers. ustly felt to be intolerable that an officer who may only the oldest man on the ship, but probably the as regards rank of the ward room officers, should atically and apparently of malice aforethought ndemned to live in a cabin which is little than a horse-box when it is not a sewer. rst Lord might with advantage make personal in- into this matter; we are sure that if he knew e state of things really is, he would lose no time in ng a crying grievance.

he general question of the reforms necessary to he medical service of the navy what it ought to be, e nothing to add to what has been said in previous . The suggestions which we have made on behalf nedical officers resolve themselves into this: that it utely necessary for the efficient discharge of the nt work which they have to do that they should be pered in its performance by executive officers; and y should have control over the sick bay staff in nd over nurses and other attendants in hospitals. ord, if the service is to be thoroughly efficient, the officers must, within their own province, have y commensurate with their responsibility.

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nderstand that a special Committee, comprising tatives of the Naval, Military, and Colonial Services, has been formed under the auspices of al Society for the purpose of investigating Mediter- ever.

THE TREATMENT AND PREVENTION OF TUBERCULOSIS IN CHILDHOOD.

MORE than a year ago Mr. A. H. Tubby, Surgeon to the Westminster Hospital and to the Evelina Hospital for Children, published in the BRITISH MEDICAL JOURNAL a paper on the Urban Hospital Treatment of External or Surgical Tuberculosis, founded upon an inquiry which he had been good enough to undertake on behalf of this JOURNAL. He showed that the results of treatment in urban children's hospitals were for the majority of patients unsatisfactory, and pointed out that there was great lack of system in the present method of treating these cases, so that money is now spent and hospital accommodation used in giving relief which was in too many instances only temporary. He estimated that the cases of external tuberculosis constituted one-tenth of the total number of children admitted to urban children's hospitals. At that time there was some hope that the London County Council might see its way to devote some of the mansions in the midst of parks recently acquired by it to the purpose of branch hospitals for the treatment of tuberculosis in children. Although for reasons which we need not now discuss this hope has not been realized, it has not altogether been abandoned. At present the only hospital in a country place which is devoted to the treatment of tuberculosis in this country is the Royal Sea-bathing Infirmary at Margate, although the regulations of the Liverpool Country Hospital have been framed on lines sufficiently comprehensive to allow it eventually to treat both internal and external tuberculosis in children. In France this question has attracted far more attention than it has here, and the city of Paris has long maintained at Berck, on the north coast of France, a large hospital for children, the great majority of whom are suffering from external tuberculosis. In view of the importance of the subject from the view not only of treatment but of prevention, we publish this week an article which contains a description of the hospital at Berck, and of another, and, as we conceive, better designed institution at St. Pol, near Dunkirk, in which tuberculous children from the manufacturing districts of north-east France are received. A description is given also of the sanatorium at Hendaye, on the Bay of Biscay, near the Spanish frontier, maintained by the city of Paris for the reception of children suspected to be suffering from the earliest stage of pulmonary tuberculosis or predisposed to the affection. We are also able to give an account of the organization of the Oeuvre des Enfants Tuberculeux. This is doing work of a kind which might well be imitated in London and other large towns in this country; it maintains three sanatoriums in an elevated and healthy situation a few miles from Paris. One of these was once a private house, so that the analogy to the mansions in the parks of the London County Council is here very close. The majority of patients treated by this philanthropic organization suffer from internal tuberculosis, and the results obtained are remarkably good. This is in a large measure due to two facts: first, the patients are admitted in an early stage, and secondly, they are kept in the sanatoriums until, in the opinion of the medical staff, they are cured of their disorder. The baneful system of letters which does so much to diminish the usefulness of British sanatoriums has not been permitted, for the enlightened directors of the Oeuvre recognize that it is better from every point of view to cure one patient than to give temporary relief to half a dozen.

THE CAUSES AND PREVENTION OF MINERS' PHTHISIS.

AT a recent meeting of the Institute of Mining and Metallurgy, held in Burlington House, Piccadilly, a paper on the Causes and Prevention of Miners' Phthisis, by Dr. John Haldane, F.R.S., Oxford, and Mr. Thomas, Manager of the Dolcoath Mine, Cornwall, was read. The paper, it was stated, had been kept back for a few months on account of

the report prepared by the authors, with the assistance of Mr. Martin, H.M. Inspector of Mines, which, although presented to the Home Secretary, had not yet been published. For the reading of the paper the Home Secretary, however, had given permission. Dr. Haldane and Mr. Thomas drew attention to the high rate of mortality in metalliferous miners (excluding iron-stone miners) compared with men employed in coal mines, a circumstance which the late Dr. Farr, in his evidence before the Royal Commission in 1864, attributed to the dust of metalliferous mines being harder and therefore more likely to irritate the lung when inhaled. The various supposed causes of miners' phthisis were enumerated and discussed, while stress was laid upon the two most likely causes—dust and the tubercle bacillus. In about 70 per cent. of samples of sputum examined Dr. Ritchie of Oxford had found the microbe of tubercle. Nevertheless, Dr. Haldane and Mr. Thomas attach importance to the part probably played by dust in the inception of the malady. The statistics they quoted showed how fatal the disease was at the age of 35 to miners who had been rock-drillers. Many of the men who had died in Cornwall had worked as rock-drillers in the gold mines on the Rand. At the conclusion of the paper the President of the Institute, Mr. Hennen Jennings, called upon Dr. Oliver, of Newcastle-upon-Tyne, who in the main supported the views put forward by the authors of the paper. Dr. Oliver stated that he attributed very little importance, so far as the causation of miners' phthisis was concerned, to the influence of gases in the mine, but he thought that fatigue and rapid variations of temperature made the miners subject to pulmonary catarrh, and that this probably paved the way for the dust in the mine, when breathed, acting harmfully upon the lung. Dr. Oliver, who has written upon the subject of miners' phthisis and whose opinion is based upon clinical experience of the disease, is in favour of the dust theory of the malady and, like Dr. Haldane and Mr. Thomas, has recommended the play of jets of water during the operation of rock drilling. Dr. Harrington Sainsbury, in discussing the various theories advanced in the paper, expressed the opinion that the tendency of the times was to regard tubercle as playing too great a part in miners' phthisis. Dr. R. H. Bremridge, who had just returned from the gold mines in India, stated that he had gone to the Mysore district in the expectation of finding a large amount of phthisis among the natives employed in the mines. His expectations, however, had not been realized. He believed that there was something peculiar about the dust itself that caused the disease. Several mining engineers and managers of mines abroad took part in the discussion, and Mr. Thomas, joint author of the paper, was invited to demonstrate the means employed at Dolcoath for wetting the dust during rock-drilling. The discussion, which was well sustained throughout, was kept up until a late hour, when it was agreed to adjourn so as to give other members the opportunity of speaking and Dr. Haldane time to elaborate his reply.

THE NOBEL PRIZE, 1902.

IN 1902 the Nobel prize was awarded to Professor Ronald Ross for his work on the elucidation of the propagation of malaria, and the author now publishes his prize lecture in a pamphlet bearing the title *Researches on Malaria*.[1] In this will be found a complete and accurate account of the solution of one of the most interesting medical problems the world has ever known. Laveran in 1880 led the way by discovering that malarial fever was due to an amoeboid parasite which inhabited the red blood corpuscles of man. Research was thus stimulated to discover how a parasite residing in the blood could pass to other individuals, and the clue was undoubtedly afforded to Manson's brilliant discovery in 1879 of the metamorphoses of the filaria nocturna in the mosquito. In 1894 he came to the conclusion, based on certain anatomical features of the malarial parasite, that this organism mi also pass a stage of its existence in the mosquito. His ar ment was published in our columns at the time, and Ma Ronald Ross, then serving in India as an officer of t Indian Medical Service, determined to endeavour to pro the truth of Manson's induction. The main part of s Nobel prize essay is devoted to showing how, though be by difficulties, he eventually succeeded in proving t point. In reading the details of the work in India one can but be struck by the apathy and indifference exhibited every point by those in authority; instead of helping Ross in every way, they hampered him by sending h to a station where scientific work could not be pursu thus delaying a discovery which meant so much India and the world generally. In 1897 the first pigmen cells in the mosquito's stomach were seen, and this rea meant the recognition of the fundamental principle of whole work. In 1898 similar bodies were found in mosqui which had been fed on birds with proteosoma parasi in their blood; the development was studied day by d and eventually uninfected birds were given the disease the transmission of the sporozoites by the bites of t infected insects. Thus was proved Manson's original id and scientific workers in other countries quickly began confirm and extend it. In respect to this latter work it perhaps unfortunate that the author should have tak up the position he has against some of the Italians, es cially as his priority is undoubted and clear to all wo know the history of recent malaria researches. T award of the Nobel prize was another proof of it, if t were wanted, and the receipt of so important an hon is a fitting crown to a splendid piece of painstaking a trying work.

[1] Les Prix Nobel, 1902. Abstract. *Researches on Malaria*, being the Nobel Medical Prize Lecture for 1902. By Ronald Ross, F.R.C.S., F.R.S., C.B., Professor of Tropical Medicine, University of Liverpool. Stockholm: P. A. Norstedt and Söner. 1904. (Demy 8vo, pp. 88, 9 plates.)

THE REPORTER IN THE SICK ROOM.

ONE of the penalties of celebrity in these days is fierce light of publicity that beats on the sick bed of great. When a monarch shows signs of indisposition must give up reading the newspapers if he does not care learn all the possibilities of his case as they present the selves to the imagination of scribes fed on ill-digest scraps of knowledge got from supposed authorities. I statesman has the misfortune to fall into the hands of surgeons the public is initiated more or less accurat into all the mysteries of the procedure. A French sta man who recently underwent a severe surgical operat might lighten the tedium of convalescence by readin detailed account of it given in the *Gazette Médicale*, w the help of an *apparatus criticus* of diagrams, portrait the physicians and surgeons in attendance, a description the disease, and a clinical commentary of the case in its bearings; or he might find a less realistic but m amusing narrative in the Paris Correspondence of *Tr* Omniscience is the foible of the clever lady who c tributes this, and in nothing is the foible more visi than in her treatment of medical matters. Discuss the case she gravely expresses the opinion that "if th was an induration of the bile duct, a relapse herea is to be feared." This prognosis is based on what Toby Belch would call the exquisite reason that "remo by the knife will not destroy a tendency of the tissue harden and thicken." For confirmation of this enlighten statement we are referred to "any chiropodist." T however, is merely, in Lord Beaconsfield's phrase, babbling of irresponsible frivolity. To say that the pati has the satisfaction of being highly profitable to th surgeons and seven doctors, is perhaps nothing w than questionable taste. But when it is insinuated t the patient has been "a victim of the vivisection ma of the surgical profession, not on animals alone, but patients of all classes, and particularly of the weal class, which can afford fees ranging from 5,000 fr. to 1500 or more," it is no longer a question of taste but of tr There are enthusiasts in surgery as in every other sp of human activity, who may sometimes act on the p ciple of art for art's sake. But that anything deserv the name of "vivisection mania" is at all common am

rgeons is simply false: and the statement that it has origin in mere love of gain is a calumny as foolish as is malicious.

ATHLETICS BY PROXY.

E understand that when Owens College is merged in the iiversity of Manchester, as will shortly happen, the iiversity authorities will appoint a President of the ctoria University of Manchester, and that the Duke of vonshire, who is now President of Owens College, has isented to accept election to the new office. Earl encer is Chancellor of the University of Manchester. e Duke of Devonshire, as President of the College, ended the athletic sports of the College at Manchester June 4th, and, in responding to a vote of thanks to the chess, his Grace made some interesting remarks about letics, and spoke of what some regarded as the undue ention which was paid at our schools and colleges to nes and athletic exercises, to the disparagement of ellectual work. He was one of those not at all disposed grudge the time given to healthful athletic exercise. "what perhaps was somewhat to be regretted was immense amount of time and attention now given by irge section of the public to the performances of other ple in the matter of sport. There were many who gined that by looking at cricket or football matches or thletic sports, or even by reading about them in their spapers, or even by betting about them, they were nselves indulging in healthy and useful exercises." Duke also spoke of the excesses, and perhaps some- t absurd excesses, to which attention to such sports carried in some quarters.

TRAINING AND NATIONAL DEGENERATION.

W. BEACH THOMAS, who has contributed an article on ning and National Degeneration to the June number he *Monthly Review* (John Murray) while admitting the recruiting statistics suggest cause for alarm, ks that this may perhaps only mean that a r stratum of society has been tapped, and that, nuch as Waterloo was not won by giants, so our pre- recruits may very well achieve victories as brilliant. is surely a mistaken view, for to rest satisfied with men ferior physique does not mean merely standing still, hat progressive deterioration shall be allowed to go on. er should we aim at the very highest standard in order y rate to secure a fair approximation to it. Mr. Beach las recognizes that much of the physical deterioration o the migration to towns of the rural population is iated with diminished mental initiative. In illustra- of this point he quotes the experience of a builder during a business career of thirty years never had a an in his works who had not been born and in the country. The stock of country appren- has diminished or run out, and good foremen or rs are now difficult to find. If the country population t be prevented from migrating to towns Mr. Beach as suggests that they should be trained to adapt elves to town conditions in such matters as diet and se. He truly says that inasmuch as freedom of is removed from individuals by parents, school- rs, social reformers, and the State—thus making oration inevitable by failing to discover for urban s common and sensible means of adaptation to their ndings—compulsion should be put on the school to take the right sort of exercise, the right sort of nd attend to the seeing of his eyes, the hearing of rs, and the cleanliness of his teeth. Children be taught to breathe and walk and to be natural. ulk of the population should be taught how to Not only proper food and exercise are neces- ut also interest in the training, so that physical ration may be due to want of interest in l exercises. Mr. Thomas declares that no manner esting children has been found so effective as some other of military organization, as conducing to ess, and indirectly to self-respect. "The brigade," he should be made a centre of a wider education, the excuse or occasion for lessons in hygiene, for testing the adequacy of the senses and muscles, for providing units for competition, it may be, for taking holidays in the country, or even, on the analogy of the Naval College at Greenwich, for teaching that handiness which is at the root of success in many trades. From the brigade may issue instruction, more effective than that of the class room, for teaching children regularity in the smaller concerns of the physiology of daily life, from the neglect of which deterio- ration most directly springs. It may teach every form of neatness, even to the mending of clothes." There is equal need for some organization which shall give girls "interest in making a home—the necessity of exercise, of regularity, of conservation of the senses, and especially of clean cooking"—in short, personal training should be made an integral and interesting part of daily education, and in this conclusion the medical profession will, we believe, unanimously concur.

ADVERTISING BY RETAIL OPTICIANS.

THE *British Optical Journal*, in commenting upon the correspondence between the Medical Secretary of the British Medical Association and the Clerk of the Worship- ful Company of Spectacle Makers, admits that advertising which conveys the suggestion that there are no causes of defective sight lying outside the scope of those remedial measures available to opticians, is "misleading to the public." The article goes on to say that "even a fully qualified oculist would be going to an unjustifiable length, we think, in offering a guarantee to correct *all* errors of refraction, and the optician who does so not only traverses the regulations of the Company, but offends against the canons of good taste," and although the editor of the *British Optical Journal* is so charitable as to think that such advertising is probably due to nothing worse than thoughtlessness, he points out that now attention has been drawn to the matter there will be no excuse for such announcements in the future. We are glad to find that the *British Optical Journal* has got so far at this, and we trust that the advertisements of the diplomates of the Spectacle Makers' Company will in future be free from those objectionable features to which correspondents have repeatedly drawn our attention.

DR. EDWIN RICKARDS OF BIRMINGHAM.

AT the monthly meeting of the General Hospital, Bir- mingham, on Friday, June 3rd, the resignation of Dr. Edwin Rickards, Senior Physician, was received with every expression of deep regret. Dr. Rickards has been for thirty years physician, and has served the hospital alto- gether for thirty-four years. This long service, which has been rarely equalled in the history of the hospital, and exceeded only in one or two instances, will probably, owing to recent changes in the laws, never again be attained. Dr. Rickards, who is a graduate in Arts and Medicine of the University of Oxford and a Fellow of both the Royal Colleges, went to Birmingham in 1870 as Resident Pathologist to the General Hospital, and was subsequently appointed Resident Medi- cal Officer. In 1874, as it became necessary to increase the staff of the hospital, owing to the growth of the out- patient department, Dr. Rickards was appointed an addi- tional Physician. This arrangement not proving sufficient to cope with the growing magnitude of the practice of the hospital, three years later the posts of Assistant Physician and Assistant Surgeon were created, and the number of Physicians again reduced to four. Dr. Rickards has been Senior Physician to the hospital since the re- tirement of Sir Willoughby Wade in 1892, and his resignation is greatly regretted by his colleagues, with whom he has always worked in a loyal and sympathetic spirit. He has abundantly earned the right to seek relief from the responsibilities of hospital practice, and carries with him the hearty good wishes of his colleagues for his health and happiness. A Committee has been appointed to collect a fund to found a memorial of Dr. Rickards's services to the hospital, and to give him per- sonal testimony of the appreciation with which those

services are regarded by the governors of the hospital. By this resignation Dr. Saundby becomes Senior Physician, and the post of Physician has been declared vacant. It will be filled up by election on Friday, June 24th. The Assistant Physicians are Dr. T. S. Short and Dr. J. Russell, from one of whom the selection will probably be made, although external candidates possessing the necessary qualifications may apply.

ST. BARTHOLOMEW'S HOSPITAL.

As announced by us some three months ago, His Majesty the King has promised to lay the foundation stone of the new St. Bartholomew's Hospital, and though the date of the ceremony is not yet definitely fixed, it is now expected to take place in the second or third week of July. A leading principle of the scheme upon which this great hospital is to be rebuilt is that the whole of the new institution shall be completed without interruption of current work. This will of course to some extent hamper the building operations, but the object in view, namely, that the poor shall not be deprived even temporarily of the advantages which they at present derive from the hospital, is excellent, and there is every reason to believe that the idea is one capable of being carried out, for apart from the feats of which modern engineering skill is now capable, many of the new buildings will occupy sites other than those filled by the present blocks. The building which is first to be taken in hand is the new out-patient department, the need for which is admitted on all sides to be the most urgent, and by laying the foundation stone of this department His Majesty will initiate the realization of the whole scheme. It is a matter for general congratulation that His Majesty has been pleased to undertake this office, since his doing so cannot but help to open the pursestrings of the richer folk in London, and stimulate the efforts of those who are engaged in raising a rebuilding fund.

THE INFANT ORPHAN ASYLUM.

In our last issue we drew attention to the striking fact that the consultants who have hitherto given their services to the Infant Orphan Asylum, Wanstead, had resigned in a body as a protest against the action of the Chairman and Committee of the institution, first, in refusing to introduce those arrangements for the isolation and treatment of infectious disease now universally recognized to be essential in any institution intended as a home for hundreds of children of tender age, secondly, in abolishing the staff of trained nurses which had been established in the general infirmary of the institution. Upon being apprized of these remarkable resolutions the Consulting Physician and the Consulting Surgeon asked for an opportunity of laying their views personally before the Committee of Management, and this not being granted they, together with their colleagues, relieved themselves of further responsibility in the matter by resignation of office. It would appear that the question of putting the internal arrangements of the asylum into proper order has not now come up for the first time, but that three years ago the Committee called for and eventually approved a medical report which embodied suggestions covering the arrangements necessary for the treatment of sick children in general, and those suffering from infectious disorders in particular. The principles and methods of carrying them out having been thus approved so long ago, this sudden reversal of policy would seem to point to the introduction of some personal equation into the management during the interval which has elapsed. This is a question which it is the duty of those who subscribe to the support of the institution, but who are not connected with the governing body, to investigate. It is to be noted that this is not the first occasion upon which the management has come in for unfavourable public criticism, for in the published report of the medical officer of health for the district in which the asylum stands we find the following statement: "I visited this asylum in October, 1902, after the reconstruction of drains and before the children were allowed to return. I th reported that the infirmary was not finished and that th was no disinfector. I am of opinion that the prese infirmary accommodation is quite inadequate for t requirements of such an institution, containing, as it do nearly 600 inmates. My main point is this: That ev apart from the ordinary beds, where cases of rin worm can be treated, there is no separate block wh infectious diseases can be isolated. The disinfec which is now relied upon is useless for the purpos The report from which this passage is quoted refers to t events of the year 1903 and from the tables which it co tains we gather that 25 per cent. of all the cases of scar fever and diphtheria within the district were in th asylum, while the cases of chicken-pox in the asylum ceeded those of the whole of the rest of the district.

THE SCOTTISH POOR-LAW MEDICAL SERVICE.

THE Report of the Departmental Committee of the Lo Government Board of Scotland on the Scottish Poor-l Medical System, a long notice of which appeared in the S PLEMENT to the BRITISH MEDICAL JOURNAL of April 30th, p. has been the means of giving rise to an interesting disc sion on the subject in the *Scotsman*. "W. B.," who sta that he held for twenty years the post of Poor-law medi officer in the Highlands, agrees with "One of Them," wh also writes on the subject, that to make the position medical officers in the Highlands of Scotland satisfacto it is necessary to improve their pay, assure them of go and rent-free houses, enable them to have holidays, te parish council paying for a substitute, and give th security of tenure. "W. B." suggests that the parish Po law medical officer should be made a local assist medical officer of health and receive a liberal salary attending to the public health work of the parish, and a that he should medically attend all notified cases of int tious sickness, and grant the necessary certificate closing and opening schools. It is to be hoped that medical profession in the Highlands will use ev endeavour to get the recommendations of the Dep mental Committee carried into effect. A deputation to Secretary for Scotland might help to expedite legislation the subject.

METROPOLITAN HOSPITAL SUNDAY.

EVERY contributor has the happy assurance t Mr. George Herring will lay a five-shilling piece on top of every pound which reaches the coffers of the Me politan Sunday Fund from the churches and chapels London which hold hospital collections on Sunday, J 12th. It is, indeed, a princely game which Mr. Herr has invented, and which he is ready to play against whole of the metropolis, only limiting his opponents' st to £100,000. Up to the present he has been the winner, so far—very much, we feel sure, to his regret—the pu has not succeeded in making him pay more than £12, The utility of Mr. Herring's offer, however, does not with the amount which he invites the world to extract fr his pocket. A greatly-increased value must attach t when it is adequately recognized that it is not the offe a mere millionaire-philanthropist, but that of a busin man, who, as the long-time treasurer of the North-W London Hospital, really understands what hosp work is and should be, and who at the s time has the same knowledge of general hosp finance questions as other men have of stocks and sha That a layman of this description—and one, moreover, in other respects is believed to be of an unusually reti disposition—should feel the recurring need of makin picturesque offer by way of stimulating the public to scribe freely towards one of the two great collection the year, is as striking a proof of the need for that co tion as could well be given. It is true that the great tension of hospital work which the last quarter of a tury has witnessed is not regarded by all members of medical profession with unqualified approval, and we h no wish to pretend that everything in the hospital w

precisely as it might and should be. There is a strong eling, for instance, that out-patient administration stands need of reform, and that as at present conducted at any hospitals the out-patient work encroaches upon the ssibilities of private practice in a fashion which is mediately detrimental to the well-being of many edical men and not to the eventual benefit of the public elf. The recollection, however, that such questions exist ed not deter any medical man from doing whatever lies his power to help to gain financial support for the stitutions themselves. They are places for which, apart m a recognition of their utility, of the essential need their existence, and of the good which they effect, edical men must feel a kind of affection for old associa- n's sake, and those upon whose toes they sometimes seem tread may remember that it is usually poverty, and not alth, which is the cause of hospital doors being some- nes thrown open more widely than they should be, for it he hope of the managers of some of the hospitals that, showing great numbers of out-patients treated, they y obtain the more readily the support which they tainly require, and on other grounds deserve to eive.

PATHOLOGY AT THE VICTORIA UNIVERSITY OF MANCHESTER.

E evergrowing complexity of the subjects included in dical education, and the increasing application of dical science to practical affairs, is well illustrated by decision of the Council of the Victoria University to ide the Chair of Pathology into two. The Proctor air in Owens College, to which Professor Delépine appointed in 1891, included general pathology morbid anatomy, but the Professor was also ected to give the necessary pathological and teriological instruction to public health students. work of the Chair on this side has greatly increased ing the last twelve years, and although the staff of stants and servants has also been increased it has grown the present arrangement. A Committee of the ncil, appointed at Professor Delépine's request, came to conclusion last summer that the best solution would be ivide the Chair, giving the teaching of medical students paring for medical qualifications to one professor, that of public health students and advanced or graduate students to the other, who would also be ctor of the public health laboratory. Professor Delépine selected the new Chair, and a vacancy in the Chair athology and Pathological Anatomy is now advertised. hoped that the incumbent of this Chair will in future also as pathologist to the Royal Infirmary, since it is that the professor who gives instruction in morbid omy should be in a position to teach in the *post-em* room. The increase in the number of students work- n the pathological department has been rapid, thus in session 1901-2 there were 128 students, many whom took more than one class, and of this ber 28 were working in public health subjects. he session 1902-3 the total number was 173, of m 45 were working at public health subjects and t clinical pathology. Thirteen years ago the whole rtment consisted of one classroom, two rooms for ical work and a part of the medical museum; at the nt time it consists, in the first place, of laboratories e medical school, which include two large laboratories norbid histology and bacteriology respectively, one ical laboratory, three private laboratories, two al rooms, two preparation rooms, collection room, room for experimental pathology, and a lecture In the second place, there are in the public h section three large laboratories for bacteriology, istry, and research respectively; one experimental , one private research room, a large library, and offices. understand that among the candidates for the new are Dr. I. Walker-Hall, at present Professor Delépine's ant, and Dr. F. C. Moore, a former assistant. The cil, however, wishes it to be understood that the ap- ment is quite open.

AT a meeting of the Senate of the University of London on June 8th Dr. Philip Henry Pye-Smith, F.R.S., was re-elected Vice-Chancellor for the year 1904-5.

DR. SHERRINGTON, Professor of Physiology in the University of Liverpool, has been elected a member of the Imperial Academy of Medicine, Vienna.

THE Cavendish lecture before the West London Medico-Chirurgical Society will be delivered by Professor von Mikulicz at the Town Hall, Hammersmith, on Friday, June 24th, at 8.30 p.m. The subject selected is experiments on the immunization of operation wounds.

WE learn that the Police Committee of the Corporation of the City of London, which has had before it for some time the question of introducing a horse ambulance system into the City, will receive a deputation from the Metropolitan Street Ambulance Association on June 29th. The representations of this Association will, we understand, have the support of the St. John Ambulance Association.

SIR SAMUEL WILKS announced his recovery from the operation which he underwent not long ago in a charming letter, which was published in the *Guy's Hospital Gazette*. We are glad to be able to state that he is now restored to his former vigour of body and mind. The whole profession will join with us in wishing him many years of pleasant life.

INSPECTOR-GENERAL HERBERT MACKAY ELLIS, R.N., has been selected for the appointment of Director-General of the Medical Department of the Royal Navy, in succession to Inspector-General Sir Henry Frederick Norbury, R.N., K.C.B., Honorary Surgeon to His Majesty, who will shortly resign the office. Inspector-General Ellis is an officer with a distinguished record of service in various parts of the world. He is personally popular with all branches of the service, and the appointment will, we believe, give great satisfaction to the medical officers of the navy.

WE publish at page 1395 an interesting letter dated Tokyo, May 1st, from Sir Frederick Treves. In the course of a tour round the world during which he has travelled some 4,000 miles by rail in India and visited Burmah, Ceylon, China, Hong Kong, Penang, Singapore, he found himself in Japan at the date mentioned. Sir Frederick Treves has, we understand, visited many hospitals in all the countries mentioned, and is now on his way home by way of America, where, by the way, we observe he is to receive an honorary degree from the University of Pennsylvania next week. He will probably reach this country at the end of the month, and we may hope that he will find some opportunity of giving a fuller account of his surgical pilgrimage.

MEDICAL NOTES IN PARLIAMENT.

[FROM OUR LOBBY CORRESPONDENT.]

The Local Government Board Vote.—On Thursday last week, the vote first taken in Committee of Supply was that for a sum of £227,089 for the Local Government Board. The taking of this vote is the occasion on which a general criticism is made of the administration and policy of the Board. This year the debate was less productive of criticism than usual, for the vote came on somewhat unexpectedly. After some conversation about the working of the Motor Car Act of last year, Sir Ernest Flower called attention to the barrack-school system. He said that since the condemnation of the system by the Departmental Committee's report of 1895, interest in the question had steadily grown. The schools that still remained had improved, but there were some still that ought to be abandoned. It was a mistake to allow guardians to create large central institutions, which were more costly and less efficient than scattered homes, or the boarding-out system. Mr. Herbert Samuel called attention

to the emigration of Poor-law children to Canada, and urged the advantages of the system as long as there were no special institutions there to mark the children as Poor-law children. He condemed the proposal to establish homes or certified schools in Canada for these children, as virtually the creation of a wing of the English Poor-law system in a Colony, and a means of perpetuating the pauper taint, of which it was most important to free the children. Sir John Gorst supported this view, and then went on to complain that there were now, ten years after the report of 1895, 10 per cent. more children in metropolitan workhouse infirmaries than in 1895. Taking the whole country, one-third of the Poor-law children were still in workhouses. He referred to the school at Hanwell as an old building, ill suited for the purpose, which was still in use, and contained 817 children although certified for 746 only. He urged the adoption of the scattered home or the boarding-out system, and advocated improved methods of inspection by inspectors with some medical knowledge. The Local Government Board ought not to check local authorities in experiments in these directions, by giving official preference to the system of grouping in village communities. The question of dealing with vagrants was most urgent, and should be attempted next session. He commended the methods of the Salvation Army for dealing with tramps. Mr. Crooks followed, and specially urged the claims of pauper children to education, and especially to education in elementary schools outside the workhouse influence. He pointed out some of the difficulties in connexion with boarding-out, and congratulated the Board on its action with regard to mentally defective children. Mr. Hutton referred to the condition of many of the rural workhouses as disgraceful, and asked for a Committee to visit country workhouses, and report on the condition of the inmates, especially the imbeciles and weak-minded. Sir A. Hayter, Mr. W. Russell, Mr. Claude Hay, and Mr. T. Taylor also spoke; and Mr. Long replied. He said that for the first time the attack on the Department had been very much reduced, and there had been generally satisfaction at the improved treatment of pauper children. The whole energy of the Department would be devoted to this object. As between one system of treating children outside the workhouse and another the Board must be neutral, but he agreed that the appointment of a medical inspector for pauper children might be desirable. As regards the Hanwell school, the figures were not so bad as had been stated, and the Board had in no case sanctioned any extension of a barrack school, except to improve existing accommodation. He said the Government had set up a Departmental Committee to consider the vagrancy question. The condition of the rural workhouses, he thought, could be dealt with without a Committee, and he spoke favourably of the work done by some Poor-law consumption hospitals at Liverpool and Skipton. Mr. Kearley afterwards called attention to the adulteration of milk, the prevalence of which was steadily increasing. The percentage at present was 11.6 for the whole country; in London it was 15.6, and for the 20 next largest towns 10.3. In 6 of the leading metropolitan boroughs it was 28 per cent. He asked what the Local Government Board intended to do to enforce the Adulteration Acts. Mr. Grant Lawson defended the metropolitan boroughs, and pointed out that the number of samples taken in different places varied greatly, and so made general conclusions misleading. The Board of Agriculture was taking great interest in the matter. Mr. Kearley expressed dissatisfaction with the reply, and then Mr. Weir raised the question of a national supply of vaccine lymph of uniform quality. Mr. Long declined to undertake this duty. It would be difficult for any Government to undertake such a task, and he saw no necessity for it, as the commercial lymph was of admirable quality. A division was challenged on Mr. Weir's motion for a reduction, but when it was called the Chairman asked the members who challenged to stand up in their places, and as only fifteen were in the House the division was not taken. Much dissatisfaction was afterwards expressed by members of the Opposition on the ground that many had gone into the division lobby to vote, and so the members in favour of a reduction were not accurately represented by those standing up in the chamber. The vote was then agreed to.

The Registration of Nurses.—Mr. Tennant asked the First Lord of the Treasury, on Monday, whether he was prepared to set up the Select Committee on Nursing and the State Registration of Nurses, and to state what would be the reference to the Committee. Mr. Balfour replied, that he hop the Committee might be set up shortly. He did not thi there ought to be any difficulty as to the terms of referen but he was not yet in a position to state them to the Hou He did not know whether it might be worth while addir that there were two Bills now before the House dealing wi the subject, which, if the House were content to read the formally a second time, might be referred to the Committ In answer to a further question as to whether the Gover ment would assist the two Bills, Mr. Balfour said they wo not put any obstacle in their way, but he did not think could promise Government time.

Antityphoid Inoculation.—Mr. E. Wason asked the Secret for War whether the Committee appointed by the Royal C lege of Physicians of London to investigate and report up the efficacy of antityphoid inoculation had completed th inquiries and made their report. Mr. Arnold-Forster repli that the Committee appointed by the College to consider a report on the safety and prophylactic value of Dr. A. Wright's antityphoid inoculation had made their report, b the whole question of antityphoid inoculation was being co sidered by a body of experts.

Nursing at Military Stations.—Sir John Colomb asked t Secretary of State for War whether any communications h been issued from the War Office containing proposals to p vide military stations with a nurse trained in maternity a general nursing to attend the wives and families of soldi without expense to them; and, if so, to whom were su communications made, and what was their general purpo Mr. Secretary Arnold-Forster answered that letters were se to all General Officers Commanding asking for an expressi of opinion as to the best means of providing nursing for t wives and families of soldiers in places where hospitals w not provided. The replies had not yet been received from the officers concerned.

The Army Medical Vote.—On Thursday in last week L Farquharson asked the Prime Minister to give an assuran that an early opportunity would be given to discuss the ar medical vote in view of the great interest taken in the qu tion, and the possible effect of delay on the supply of su able candidates. Mr. A. J. Balfour said in reply that doubt more time would have to be devoted to the ar estimates, but several days had already been occupied them, and he could not at the present give any promise as when the consideration of them would be resumed. T Army Estimates are to be taken again next Thursday, and opportunity may then arise for discussing the new scheme relation to the Army Medical Service.

Poor-Law Medical Relief in Scotland.—Mr. Tennant ask the Secretary for Scotland whether the Local Governm Board had considered the advisability of holding an inqu into the system of boarding-out pauper children in Scotla and if so whether they would appoint a Committee. T hon. member also asked if a Bill was to be introduced prohibit pauper nursing in Scottish poorhouses. The L Advocate replied that the Local Government Board were present considering the report of the Departmental Co mittee on Poor-Law Medical Relief, with a view to hav effect given to such of the recommendations as were advisa which did not require legislation, and to proposing legislat so far as may be necessary. It was impossible to say legislation could be proposed this Session.

The Water Supply of Scotch Schools.—Mr. Weir ask the Secretary for Scotland, in view of the statement contai in the last report of the medical officer of health for Ross a Cromarty in regard to the necessity for a suitable supply pure water for the public schools would he state how many the 135 public schools in Ross-shire have a water supply on to the premises. Mr. Graham Murray replied that he not the details of all the schools, but of 53 schools on mainland, 13 had water laid on, and 40 were supplied fr wells and streams. In the Lewis almost every school ha supply laid on. In reply to a separate question put by Weir, Mr. Graham Murray said that the water supply Erbusaig School, Ross-shire, thought ample at present, conducted into the premises from a shallow surface well, a was liable to be affected by drought. A plentiful supply good water was, however, always obtainable within 80 yds. the school.

Scotland.

OUTBREAK OF SORE THROAT COINCIDENT WITH A TEAT ERUPTION IN A HERD OF COWS SUPPLYING MILK.

WEEN April 23rd and May 28th a series of cases of sore at occurred among the staff of the Belvidere Fever and ll-pox Hospital, Glasgow; the cases included 17 nurses, eaners and maids, 4 patients, 3 storekeepers, 2 physicians, embers of the dispensary staff, an assistant matron, and mbers of the steward's household. On investigation by A. K. Chalmers, medical officer of health, it became clear in a few instances only could a suggestion of direct ndary transmission among persons closely associated in e be entertained. Assuming the outbreak to be due to an ctive process, it appeared that the explanation was more y to be found in a distribution of infection direct to each vidual from a common source, and the circumstances that s were occurring in the small-pox hospital and also in house steward's family, the milk supply in both cases g the only circumstance in common with the fever hos- suggested that this point should be the next investi- d, although the fact that the children in the hospital and hildren of the house steward and his wife (who were both ted) escaped militated against the hypothesis. The milk ly for the fever hospital was scalded from May 17th ird, and no cases occurred there subsequently; but owing n error in the transmission of instructions a portion of delivered to the small-pox hospital was not scalded till 23rd, and on May 27th one other case occurred there.

. Chalmers visited the farm accompanied by Dr. anan and Mr. A. M. Trotter. It was ascertained that, a considerable interval without change among the stock, w cow was added to the herd, which numbered 72, on 23rd; each milker is given a separate group of cows, he new animal was first added to one group, and then few days transferred to another. Towards the end of the group to which the new cow had first been added n to suffer from a teat eruption, and very shortly after- s a similar affection broke out in the second group and d until about 30 per cent. of the herd were attacked. outbreak reached its height about May 6th, and it was in llowing week that 19 of the hospital cases occurred; g the course of the outbreak the hands of four out of the milkers were affected. About one-seventh (20 gallons) e total supply of milk was sold in a neighbouring vil- and although it was not possible to trace the particular which supplied this milk, it was ascertained from the al practitioner in the village that he had under his nent 4 cases of sore throat, in 3 of whom, on bacteriolo- examination, evidence of septic infection was found. wo physicians of the Belvidere Hospital who suffered both in charge of diphtheria wards, and in one of them mptoms were frankly those of diphtheria. In the other ian, and in certain other cases, an organism was re- d which had some of the morphological and cultural ters of the diphtheria bacillus, but it was not fatal to ls.

Chalmers has no hesitation in regarding the majority cases of throat affection at the hospital as directly due tic infection arising from the growth of secondary sms on the affected teats and conveyed to the patients milk. All the cases were mild, and 13 of them did ek medical advice. Mr. Trotter reports that the dura- f the disease in the cows, as judged by the time during they gave trouble in milking, was about three days; er respects the animals appeared to be in good health. cluding his report Dr. Chalmers writes:

ugh the outbreak is now over, there is an obvious administrative n the incident which should not be overlooked. A similar out- ccurring elsewhere than in a selected group of population such ospital afforded might readily escape notice. Yet teat eruptions cattle are of fairly frequent recurrence. Section LXXXIV (3) of gh Police (Scotland) Act, 1903, provides for notification by the an of tuberculosis of the udder, and it would be to the interest onsumer were epizootic teat eruptions added thereto. The clause several dealing with milk infection which are included in the e portion of the Act.

CONGRESS ON HOME RELIEF AT EDINBURGH.

Fourth Annual International Home Relief (Assistance ale) Congress began its sittings at Edinburgh on the g of Tuesday, June 7th, when the President, the Right Lord Balfour of Burleigh, K.T., gave the opening address at 9 p.m., in the Assembly Hall of the United Free Church. The sectional meetings on Wednesday, Thursday, and Friday took up the subjects of children (the feeding of infants and school children, the prevention of cruelty to children, the boarding-out of pauper children, and the methods of organising home-relief for cripples); old age (old-age pensions, the general question, old-age pensions from the point of view of Friendly Societies, the Danish and German systems of relief and their moral and economic effects, the Scottish practice and experience of boarding-out aged paupers); able-bodied adults (hereditary paupers, compulsory detention of in-door poor or vagrants, the domestic conditions which affect the prison population, the punishment of crime, prisoners' aid societies, the treatment of the habitual offender, model lodging-houses, inebriates, and Le Foyer du Buveur); sick adults (parturient women in large centres, pulmonary tuberculosis, relation between hospital and home relief of sick poor); insane and epileptics (home care, after-care of those from asylums, epileptic colonies).

GLASGOW'S SEWAGE SCHEME.

Another step has been taken towards the completion of the great sewage scheme by which all the sewage of Glasgow and district is to be purified before passing into the river. This is a matter of great sanitary importance, as may be best understood by those who have seen the river on a hot summer day. For some years the eastern district of the city has been served by the sewage works at Dalmernock, which have given great satisfaction. The rest of the city north of the Clyde is now connected with large new sewage works at Dalmuir, the western district section. These works have been five years in construction, and were formally opened on May 31st. The whole of the district south of the Clyde is being dealt with at present. though it will be some time before the work there can be finished. By the time all these works are completed the city will have spent on them about £1,000,000. The method of sewage purification adopted in Glasgow is that by chemical precipitation, the principal difficulty in dealing with which is the disposal of the sludge, which has little commercial value, and has to a large extent to be taken down the river in steamers, and deposited in the Firth.

The opening of this western district section at Dalmuir marks the completion of the major portion of the whole scheme for the city, which, next to the undertaking of the London County Council, is the largest of its kind in the world. A large and representative company was present at the inaugural ceremony; the extensive works were inspected, and then the four sluice valves were opened simultaneously by the Lord Provost and other prominent officials. At a luncheon held afterwards various interesting speeches were made, the growth of the scheme being sketched and the hope held out that soon the river would be so much improved that the Clyde might regain its ancient reputation as a salmon river. Ere this occurs, however, much will need to be done by the cities on the higher reaches of the river, which must also adopt purification measures such as Glasgow has faced with so much energy and skill.

ABERDEEN STUDENTS' MEDICAL SOCIETY.

The Students' Medical Society of Aberdeen University held its last meeting for the session 1903-4 on June 3rd, when a lecture on the Application of Electricity to Medicine and Surgery was delivered by Dr. Levack, medical electrician to the Royal Infirmary. Professor Cash, Honorary President, occupied the chair. The lecturer dealt in a most interesting and able manner with his subjects under the heads of Static, Galvanic, and Faradic Electricity, describing succinctly the production and uses of each. He then went on to consider the *x* rays, Finsen light, and high-frequency currents, and in the course of his remarks gave expression to the opinion that the *x* rays were quite as useful and beneficial in the treatment of lupus and rodent ulcers as was the Finsen light. The lecture was fully illustrated by the exhibition of electrical apparatus, and by a number of experiments. By means of the lantern the value of *x* rays in the diagnosis of fractures, of the presence and location of foreign bodies, of pulmonary tuberculosis, of aneurysm, etc., was demonstrated.

On the motion of the Chairman, Dr. Levack was accorded the hearty thanks of the meeting for the manifest care and trouble he had taken in the preparation of his experiments, and for his excellent and instructive lecture.

Under the new constitution formulated some six years ago, by which the Society's membership is confined to students of medicine and to graduates of not more than two years' standing,

the Society continues to flourish. During the past session the papers by students have been, many of them, of high merit and vigorous discussion has been the rule.

Small-pox in Edinburgh.

In the week ending midday, May 28th, two cases of small-pox were intimated to the Public Health authorities, while in the week ending June 4th, five cases were intimated. On the latter day thirteen cases of small-pox remained in the City Hospital at Colinton Mains, as against fifteen cases on the former date.

Ireland.

The Irish Medical Association.

The annual general meeting of the Irish Medical Association was held at the house of the Royal College of Surgeons of Ireland on June 7th. At the opening of the proceedings the chair was occupied by the retiring President, Dr. L. Kidd, of Enniskillen, who after a few words introduced his successor, Mr. Tobin. His presidential address dealt with the Irish Poor-law Medical Service, but we are compelled by pressure on space to defer a full report of the meeting. In the evening the members to the number of over one hundred dined together in the College.

The Mirus Bazaar.

During the past week and on Monday of this week the great Mirus bazaar in aid of the funds of Mercer's Hospital has been in full swing in the premises of the Royal Dublin Society. Thousands of people have visited the beautiful scene and have contributed to the success of the enterprise. The Committee has left nothing undone to secure success, and it is believed that the hospital will benefit to the extent of several thousand pounds.

Visit of the Lord-Lieutenant to Belfast; Inspection of Hospitals.

On June 3rd His Excellency the Lord Lieutenant visited the Royal Victoria Hospital, Belfast; he was received by the Lord Mayor, who introduced the Chairman of the Board of Management, Mr. William Crawford. Mr. Crawford subsequently introduced some other members of the Board and several members of the staff. His Excellency was accompanied by his host, the Earl of Shaftesbury, and first visited the Shaftesbury Ward, so called in recognition of the generosity of the late Countess, who, with the consent of the present Earl, gave the site of the old hospital free to the Hospital Corporation. Subsequently other wards, clinical rooms, and operating theatre were inspected, and the various points of novelty in the construction, warming, and ventilation of the building explained. His Excellency spoke to several patients and inquired kindly after their condition. Before leaving a visit was paid to the electric department, where the Roentgen rays and Finsen light were explained. A large number of medical students who had just finished the clinical work of the morning helped to add to the spontaneity and warmth of a loyal welcome.

In the afternoon His Excellency, with Lord Shaftesbury, visited the Mater Infirmorum Hospital; they were received by the Roman Catholic Bishop, the Most Rev. Dr. Henry, and the medical staff; the passages were beautifully decorated with flowers, and "Cead Mille Failthe" placed within the entrance hall; the viceregal colours were displayed in orchids of white, yellow and purple. The wards, operating theatre, garden roof were all inspected, and numerous patients were sympathetically spoken to. A handsomely bound copy of the annual report, and an illuminated album of tinted photographs of the institution were presented by the Lady Superioress. In both institutions His Excellency expressed his kind appreciation of the arrangements and general management, and of the up-to-date character of the buildings.

Cork District Asylum.

At the meeting of the Committee of Management of the Cork District Lunatic Asylum, held at Youghal, Dr. Woods, Resident Medical Superintendent, presented his report. The admissions, 37, have again largely exceeded the average, and notwithstanding that 15 patients have been removed to the auxiliary asylum during the month, the numbers are three more than a month ago. Altogether 112 patients have been sent to the auxiliary asylum, but the population is only 64 less than it was on January 1st of this year, and is 38 more than it was in January, 1903. The continued overcrowd affecting the management of the asylum very seriously want of sufficient hospital accommodation being espe felt. He regretted that there was no room for the numb epileptics in the different union hospitals of the county that the Youghal auxiliary was unsuited for their treat The overcrowding in the parent institution was so great there were 350 inmates more than accommodation wa vided for.

The Economies of the Local Government Boar

The Limerick Board of Guardians passed a resolution time ago requesting the Local Government Board to the increase of salary sanctioned by them to Dr. Shan Medical Officer of No. 3 City Dispensary District, to effect from January 1st, 1900, the guardians drawin attention of the Board to the fact that in the case o medical officers of the other two unions to whom incr had been granted in 1901, they were permitted to date back to 1899. In this case the guardians voted an incre £50 a year, but the Local Government Board cut dow amount to £30.

Conjoint Board of Management.

Mr. Greenwood Pim having retired from the positi Secretary to the Conjoint Board of Management, owing health, the Committee met on June 4th to appoint a su sor. The salary is £250 a year, and there were very candidates. After careful consideration the Comm appointed Dr. Trevor Smith to fill the position.

Hospital Appointments.

Mr. Francis T. Heuston, M.D., F.R.C.S.I., Senior Sur Adelaide Hospital, has been appointed Consulting Su to the Rotunda Hospital in succession to the late Sir H Crampton Smyly. Mr. Denis Kennedy, F.R.C.S.I., has appointed Visiting Surgeon to Jervis Street Hospital Kennedy is Surgeon to the Children's Hospital, Te Street.

Ballinasloe Asylum.

The Lord Lieutenant has assented formally to the app ment of Dr. Kirwan to the position of medical superinte of Ballinasloe Asylum. The circumstances are already known. There is a good deal of hostile criticism of the a of the Government. It is felt that it was a great mista make any inquiry as to the reasons for the selection o Kirwan instead of Dr. Mills, unless there was an intenti act firmly. The only result has been a rude snub t Castle authorities and the complete triumph of the as committee.

Health of Belfast.

At the monthly meeting of the City Council, held on 1st, the Medical Superintendent Officer of Health reporte notification of 159 cases of zymotic disease, including small-pox. There were 948 births and 594 deaths. The deaths from zymotic affections were 61, of which 36 wer to whooping-cough; 113 deaths were due to phthisis. average annual death-rate was 21.6. In proposing the a tion of the report, the Chairman of the Health Comm Dr. King Kerr, urged strongly on the public the necess revaccination and the wickedness of concealment of case

Canada.

Qualification by Private Bill.

The Taschereau Bill brought before the Quebec Legisl in the past session has raised a storm of protest from members of the medical profession of the province. doctors can be made by law, and granted licences to pra when positively disqualified by a Board elected for th pose of regulating medical affairs, is scandalous. Neve less, year after year, attempts are made, too often suc fully, to pass unqualified men by means of a private B the Legislature. In 1896 Lieutenant-Colonel Pinault i duced a Bill to allow a number of men, who had comme their medical studies without taking the matriculation mination, to enter the profession. It was understood this was to dispose of the matter for ever, but at the same session several private Bills were passed allowing men to enter.

In 1900 Mr. Roy passed a measure of a precisely si nature, and, as a result of this, in 1903 a safeguard was p in the general law, to the effect that the King's printer

ccept a notice of a private Bill for publication, nor the k of the House accept notice of such, unless the con- ing body of the profession endorse the application. Now Taschereau appears with a Bill which provides that all nts enrolled before September, 1903, in any university of province, shall be admitted to practise and be licensed e College of Physicians and Surgeons. This would have tted 250 men who had not thought it worth while to rm to the requirements, or who had been unable to the established tests.

explaining his Bill Mr. Taschereau said that there were medical students both at McGill and Laval Universities had been led by prominent members of the profession to ve that if they continued with their medical studies the lature would regularize their original failure to qualify udents, provided they passed their finals in medicine actorily. He contended that after years of study given idents it would be manifestly unfair to refuse them ght of admission to the profession and to apply rigor- to them the decision arrived at last session to pass ore Bills of this nature. The whole question hinges the matriculation examinations, upon entering the course dy, and Mr. Taschereau's contentions are inaccurate, e regulations are printed and in the hands of the McGill nts, and are well known by the Laval men. Further, urth of those who are following the medical course at l are above the provincial regulation, in that they have a B.A. degree, and of the remainder those who intend to se in Quebec have taken the necessary examinations.

medical societies, French and English, of Montreal, c, and Sherbrooke held special meetings and sent dele- o the Legislature, headed by Dr. Lachapelle, President Board of Physicians and Surgeons, and as a result the is modified to pass those men who, having made a com- ourse of classical studies before November 1st, 1903, ving passed the required examinations for the Bacca- e, had obtained an average standing of 50 per cent.; aving only one of the above inscriptions, had passed mination for the other before the College of Physicians rgeons. This change was quite as much as could be d, for it is understood that the candidates most in- d had a very influential political backing—at all events alifies over two hundred of those seeking a short cut ical practice.

Canadian Medical Association.

gements for the thirty-seventh annual meeting of the an Medical Association, to be held at Vancouver on 23rd to 26th, are almost complete, and the reduced rates have just been published. From Halifax to ver the fare will be 81 dols., with intermediate places ortion. Special inducements have been held out to rs wishing to see the Exposition at St. Louis. Mr. obson will be a guest of the Association, as well as Dr. Mayo, of Rochester (Minn.), and probably Professor ek, who is to be in Montreal during the summer.

Queen's University, Kingston.

een's University, Kingston, 37 students have passed al medical examinations, and have been granted the of M.D. The Medal in Medicine was won by H. B.A., and that in Surgery by W. Gibson. The number nts enrolled in medicine was 216, and of these 37 held ee of B.A. upon admission. The results of the London College have also been announced. Eighteen ed with the degree, and E. Spence received the gold A. J. Manard, who was a close second, obtained the edal.

Waterborne Typhoid.

ost interesting instance of an epidemic due to water n that has come to the notice of public health officials da for a long time occurred in the city at Kingston, yphoid was rife for some weeks. The Kingston city pply is derived from the St. Lawrence river by an iron ose intake is 1,500 ft. from the shore, and this pipe is ply on the bottom of the river, passing as it does a zone where the water is contaminated by the outlet ty sewage system. Samples of water taken from the nalysis showed colon bacilli and streptococci in many giving presumptive evidence of sewage contamina- mples of water taken from the river at the intake some distance inland were innocuous, but nearer the owed the organisms. Acting on this evidence the examined, and after careful search a large opening d some 500 ft. out from shore. On inquiry it was found that during the previous fall a vessel had had its anchor foul there and had attempted to pull it up by tugs, but the cable had broken and the anchor was left and was found at the leak. The break allowed a comparatively large quantity of inshore water to enter the conduit. The opening was stopped up and in a couple of weeks the new cases of typhoid became much fewer, while the analysis after the repair showed almost complete absence of the colon bacillus. This incident shows the importance attaching to the discovery of this bacillus under such circumstances in drinking water.

Tinned Foods and "Improved" Milk.

During the month of April a series of thirty-four examinations were undertaken by the Laboratory of the Provincial Board of Health of Ontario; twenty-three of these were on canned vegetables, fruits, and jams, and all were the product of Ontario canneries and of the cheaper grades, for example, those which sell for ten cents a jar. None of them showed poisonous metals in harmful quantities; metals, indeed, were present, especially zinc and copper, but these are incidental to the process of manufacture, namely, the preserving in cans. None of the ordinary preservatives were found. Seasonings and flavourings were few. The cheap jams were filled with apple or turnip pulp, only enough of the fruit being present in some cases to give a seed here and there throughout the mass. Aniline dyes were used for colouring purposes.

A specimen of "cream albumenoid" "1 lb. of which added to 28 gallons of thin cream will produce 32 gallons of thick cream" was sent by the Medical Health Officer of Hamilton. It was found to contain cane sugar, lime, and gelatine, and was used to "improve" milk.

Bacteriological Diagnosis.

Dr. W. T. Connell, of Kingston, has been appointed Assistant Bacteriologist for Ontario, and will undertake the examination of specimens from the eastern part of the province, thus permitting more rapid returns. At the central laboratory 344 specimens were examined in April.

MEDICAL ASPECTS OF THE RUSSO-JAPANESE WAR.

By Sir Frederick Treves, Bart., K.C.V.O.

Tokyo, Japan, May 1st, 1904.

Wounded Russian Sailors at Hong Kong.

During my stay at Hong Kong I visited, with Dr. Atkinson, the principal medical officer of the colony, the wounded Russian sailors who had just come down from the action at Chemulpo. They were in the General Hospital and were all doing well. Their injuries were mostly shell wounds and wounds from splinters. One case only was serious, and in this instance the tissues of the forearm had been much torn up by a flying fragment. The men were all of exceptionally fine physique, and they lost no opportunity of expressing their satisfaction with their surroundings. The sisters said they made excellent patients, and it was wonderful how easily everything was managed, considering that their language was intelligible to none. I also saw, at the request of the Italian commander, a young Russian officer who had been wounded in the same engagement, and who was lying on board the Italian cruiser *Elba*. He had a severe lacerated wound from a shell fragment over the front of the knee, but the joint had fortunately escaped. He was doing well, and was moved to the Colonial Hospital at Hong Kong as soon as the necessary permission was obtained. At Hong Kong I had an opportunity of seeing the very ample and admirable arrangements made by Dr. Atkinson for the treatment of infectious disease and for meeting the annual visitation of plague. In addition to a very large new hospital, there is an excellent hospital ship.

A new military hospital is in process of building on the hillside at Hong Kong, and it promises, when completed, to be one of the finest hospitals of its size in the service.

Mobilization in Japan.

In Japan there is very little evidence that this wonderful nation is at war. Steamers have to be piloted into the harbours of Nagasaki and Yokohama on account of the mines laid in those places. In the inland sea six transports passed us all laden with troops, and the strange wooden erections which hamper the decks of such vessels were precisely similar to those which were so very familiar at Capetown and Durban in 1899. All over the country mobilization is being carried on, but very quietly and methodically. As the railways are very largely taken over for military purposes, travelling for the ordinary person is slow and uncertain, and a journey of 100 miles may very easily take fifteen hours. Moreover, all sleeping and dining carriages have vanished since the war began.

Most excellent arrangements are made by the Red Cross and other societies to secure every possible comfort for the soldier on his way to the transport, and no opportunity is lost to give him a good "send off." At a level crossing on the railway, as it passes through a small town, will often be a placard to indicate at what hours trains with soldiers for the front are passing by. When the train does pass, the little town turns out with flags of all kinds, and very hearty cheering and expressions of good wishes, so that the soldier—on what may possibly be his last journey through Japan—has a very royal reception the whole way, from the dépôt to the sea. Seeing a train off, full of men for the front, is much the same, whether the station be at Kyoto or at Waterloo.

The Japanese Medical Service.

Thanks to the kindness of Surgeon-General Koike, the Director-General of the Army Medical Service, I was able to visit military hospitals and to learn something of the organization of the service he so ably controls. There is at Tokyo also Lieutenant-Colonel Macpherson, R.A.M.C., who is the medical attaché appointed by the English War Office, and his report of the condition of the Japanese Army Medical Service will be of great value and interest. Nursing sisters are not employed by the Japanese Medical Corps nor indeed have female nurses any part in the organization of the department. The field equipment of the Army Medical Corps in Japan is excellent, light, simple, and inexpensive, and full of ingenious devices in almost every department.

In addition to the officers of the corps there are non-commissioned officers who act as ward masters and undertake the duties performed by like officers in the R.A.M.C. The nursing is in the hands of male sick attendants. They are not soldiers, and do not therefore correspond to the orderlies in an English military hospital. To each regiment a certain number of orderlies is attached; the number is small and the men, who are soldiers, correspond rather to the regimental orderly in the home service. Their work is mainly with the bearer sections.

The Japanese Red Cross Society.

In times of war the Red Cross Society supplements the medical work of the service. This society is remarkable in its size, its many branches all over the country, its important work, and its very admirable organization. It is a society of voluntary workers. It has no direct official connexion with the Army Medical Corps, but the utmost use is made of its invaluable services.

It not only maintains hospitals for soldiers in Japan, but it supplies an immense staff of civil surgeons and nurses. More than that it concerns itself in every way with ev thing that relates to the comfort of the soldier in time war. The officers, non-commissioned officers and sick attendants accompany the troops of the front. military hospitals in Japan are thus emptied of their and are taken over by the Red Cross Society. Society provides civil surgeons for these hospitals female nurses. The nurses are, of course, Japanese, are well trained. Three years' training is required. Red Cross Society is able to supply through its va branches no less than 3,000 female nurses and 2,000 nurses. Female nurses will not be sent to the but will undertake duty in Japan in the military and Cross hospitals in various parts of the country. needless to say, therefore, that the military autho need neither surgeons nor nurses and it is dif to understand how foreign nurses with no k ledge of the language and little insight into Jap modes of living could be made use of. Pecuniary su to the Red Cross Society is the most practical way of ing the Japanese in their efforts to provide liberally fo sick or wounded soldier.

The Attitude of the People.

During a residence of two months in Japan I have greatly struck by the admirable bearing of the peopl all classes of society—in connexion with the war. Japanese are intensely patriotic, but their patriotism solemn sentiment and not a temporary neurosis. The no boasting and no bragging, and no symptom or tra "Mafficking." In discussing their successes the always modest, and their attitude towards an enemy has experienced a temporary reverse is almost sympat If the attitude of a people during a time of war can b cussed as a matter of taste, it may be appropriate t that the attitude of the Japanese has been characteriz such good taste that it is worthy of imitation.

CONTRACT MEDICAL PRACTICE.

Post Office Medical Appointments.

We are requested to publish the following letter, whic been addressed to the Medical Secretary of the British M Association by the Honorary Secretary of the South Man ter Division:

Dear Sir,—I am instructed by the Executive Commit the South Manchester Division of the Lancashir Cheshire Branch to acquaint you with the results of discussion of the medical appointments recently offer the Post Office authorities in various parts of the countr

The Committee is of opinion that the fees should be from 8s. 6d. to 10s. a year, and that special fees sho paid for special visits under the following paragraphs re to (1) malingering, (3) and (4) special examinations, (5) annuation, (6) sanitary reports upon Post Office building

The gross remuneration in each district is very smal the Committee thinks that the rate of payment should least as high as the rate for attendance upon the police as the amount of sickness is likely to be proporti greater.

The Committee suggests that you should make su representations to the Postmaster-General in furthera these changes in the scale of remuneration.

Signed for the Committee,
Percy McDougall, M.B.,
Honorary Secretary and Treasu

Surgeon's Position on Dissolution of Benefit Soci

A Correspondent writes that he has been surgeon to a benefit in connexion with some lead mines for thirteen years. He was the ordinary contract system at the rate of 5s. per annum per m residing in his district. The lead mines have now ceased worki the benefit society is about to be dissolved, the accumulated fund divided among the members. He wishes to know whether he ca any compensation for the abolition of his office: or only arr salary up to the time of dissolution with an allowance in notice.

*** Our correspondent has no legal claim to compensatio will be entitled to arrears of salary and to such notice—or c satory payment—as is due to him under the agreement on w was elected.

NOVA ET VETERA.

ME SURVIVALS OF MEDIAEVAL MEDICINE IN EAST ANGLIA.

ddress delivered before the West Norfolk Division of the ast Anglian Branch of the British Medical Association,

By C. B. PLOWRIGHT, M.D., F.R.C.S.(Hon.).

SURVIVALS OF WITCHCRAFT.

NIC diseases are more frequently assigned to this cause cute ones. I have met with cases of dyspepsia, melan-

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ysis, and
legia. One
e common-
nedial mea-
is to burn
ai full of
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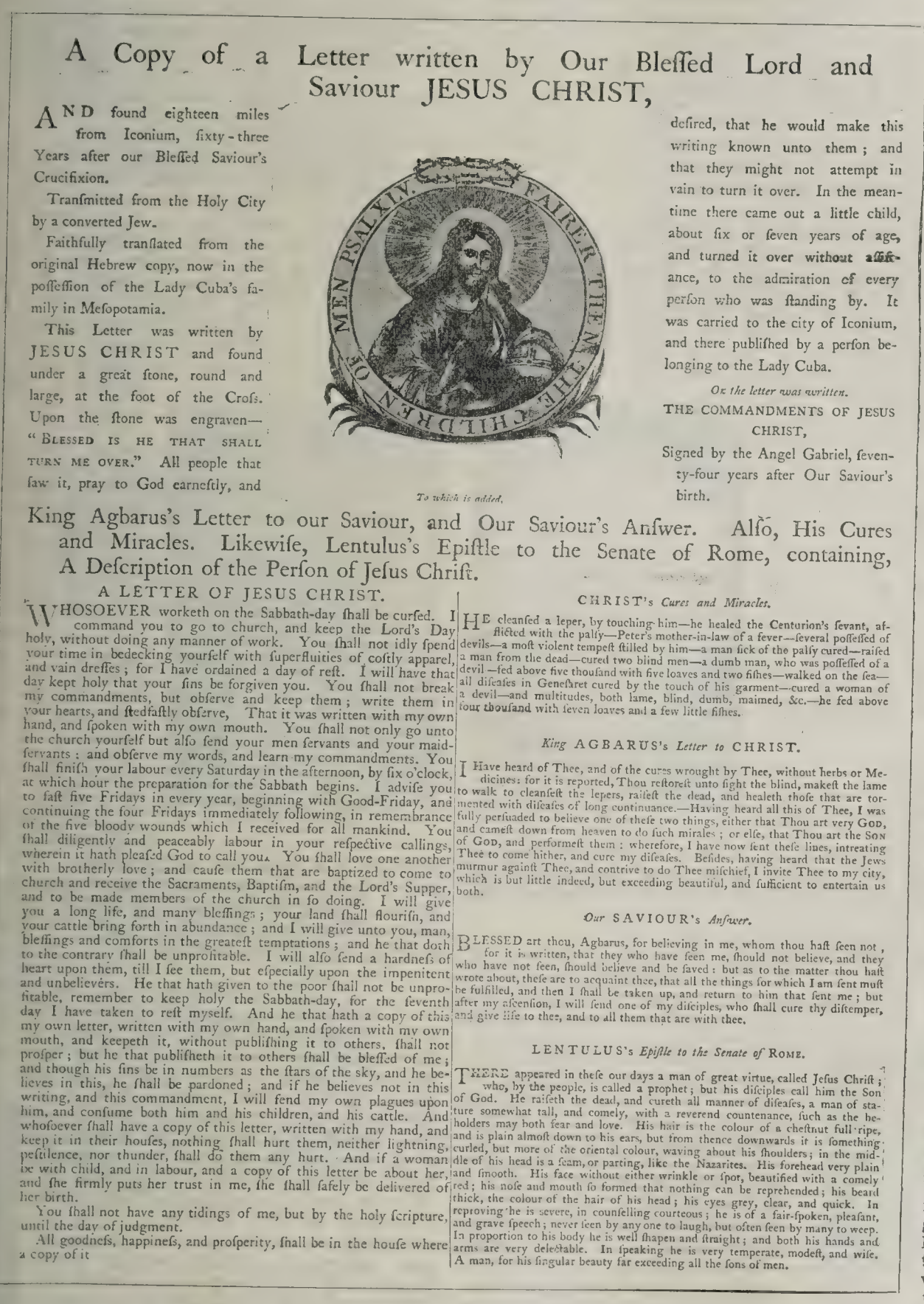
his personality[1] can be obtained upon which to operate. This same explanation applies to the custom of burning hair clippings, nail parings, but especially in Norfolk of throwing an extracted tooth of the first dentition into the fire "lest a dog's tooth should come in its place." The rag with which the umbilical cord is dressed is always first purified by fire.

SURVIVAL OF AMULETS.

Carrying camphor about the person is much in vogue as a protection from infectious disease. Chemists sell small boxes for the purpose. "Galvanic rings" are frequently worn as amulets against rheumatism by persons in all ranks of life—the poor have a simple zinc and copper ring, the rich use one with an outer casing of gold. Rings have been used as amulets from very early times. To go no further back than the fourteenth century, we find Edward II blessed rings, *Annuli medicinales*,[2] which were worn as preservatives against cramp and epilepsy. Very numerous are the amulets now in use against rheumatism, such as mole's feet, hare's feet, pieces of sealing wax, bones, sulphur, alum, etc. One of the most interesting as a survival is carrying a stolen potato in the left hand trousers pocket. Years ago it was the root of the mandrake (mandragora officinalis, a member of the same natural order) which served the purpose. The mandrake legend is thus told by Mr. Andrew Lang.[3]

If an hereditary thief who has preserved his chastity gets hanged, the broad-leafed, yellow flowered mandrake grows up in his likeness beneath the gallows from which he is suspended. He who desires to possess a mandrake must stop his ears with wax so that he may not hear the dread-



A Copy of a Letter written by Our Bleſſed Lord and Saviour JESUS CHRIST,

AND found eighteen miles from Iconium, ſixty-three Years after our Bleſſed Saviour's Crucifixion.

Tranſmitted from the Holy City by a converted Jew.

Faithfully tranſlated from the original Hebrew copy, now in the poſſeſſion of the Lady Cuba's family in Meſopotamia.

This Letter was written by JESUS CHRIST and found under a great ſtone, round and large, at the foot of the Croſs. Upon the ſtone was engraven—"BLESSED IS HE THAT SHALL TURN ME OVER." All people that ſaw it, pray to God earneſtly, and deſired, that he would make this writing known unto them; and that they might not attempt in vain to turn it over. In the meantime there came out a little child, about ſix or ſeven years of age, and turned it over without aſſiſtance, to the admiration of every perſon who was ſtanding by. It was carried to the city of Iconium, and there publiſhed by a perſon belonging to the Lady Cuba.

On the letter was written.

THE COMMANDMENTS OF JESUS CHRIST,

Signed by the Angel Gabriel, ſeventy-four years after Our Saviour's birth.

To which is added,

King Agbarus's Letter to our Saviour, and Our Saviour's Anſwer. Alſo, His Cures and Miracles. Likewiſe, Lentulus's Epiſtle to the Senate of Rome, containing, A Deſcription of the Perſon of Jeſus Chriſt.

A LETTER OF JESUS CHRIST.

WHOSOEVER worketh on the Sabbath-day ſhall be curſed. I command you to go to church, and keep the Lord's Day holy, without doing any manner of work. You ſhall not idly ſpend your time in bedecking yourſelf with ſuperfluities of coſtly apparel, and vain dreſſes; for I have ordained a day of reſt. I will have that day kept holy that your ſins be forgiven you. You ſhall not break my commandments, but obſerve and keep them; write them in your hearts, and ſtedfaſtly obſerve, That it was written with my own hand, and ſpoken with my own mouth. You ſhall not only go unto the church yourſelf but alſo ſend your men ſervants and your maid-ſervants: and obſerve my words, and learn my commandments. You ſhall finiſh your labour every Saturday in the afternoon, by ſix o'clock, at which hour the preparation for the Sabbath begins. I adviſe you to faſt five Fridays in every year, beginning with Good-Friday, and continuing the four Fridays immediately following, in remembrance of the five bloody wounds which I received for all mankind. You ſhall diligently and peaceably labour in your reſpective callings, wherein it hath pleaſed God to call you. You ſhall love one another with brotherly love; and cauſe them that are baptized to come to church and receive the Sacraments, Baptiſm, and the Lord's Supper, and to be made members of the church in ſo doing. I will give you a long life, and many bleſſings; your land ſhall flouriſh, and your cattle bring forth in abundance; and I will give unto you, man, bleſſings and comforts in the greateſt temptations; and he that doth to the contrary ſhall be unprofitable. I will alſo ſend a hardneſs of heart upon them, till I ſee them, but eſpecially upon the impenitent and unbelievers. He that hath given to the poor ſhall not be unprofitable, remember to keep holy the Sabbath-day, for the ſeventh day I have taken to reſt myſelf. And he that hath a copy of this my own letter, written with my own hand, and ſpoken with my own mouth, and keepeth it, without publiſhing it to others, ſhall not proſper; but he that publiſheth it to others ſhall be bleſſed of me; and though his ſins be in numbers as the ſtars of the ſky, and he believes in this, he ſhall be pardoned; and if he believes not in this writing, and this commandment, I will ſend my own plagues upon him, and conſume both him and his children, and his cattle. And whoſoever ſhall have a copy of this letter, written with my hand, and keep it in their houſes, nothing ſhall hurt them, neither lightning, peſtilence, nor thunder, ſhall do them any hurt. And if a woman be with child, and in labour, and a copy of this letter be about her, and ſhe firmly puts her trust in me, ſhe ſhall ſafely be delivered of her birth.

You ſhall not have any tidings of me, but by the holy ſcripture, until the day of judgment.

All goodneſs, happineſs, and proſperity, ſhall be in the houſe where a copy of it

CHRIST's *Cures and Miracles.*

HE cleanſed a leper, by touching him—he healed the Centurion's ſervant, afflicted with the palſy—Peter's mother-in-law of a fever—ſeveral poſſeſſed of devils—a moſt violent tempeſt ſtilled by him—a man ſick of the palſy cured—raiſed a man from the dead—cured two blind men—a dumb man, who was poſſeſſed of a devil—fed above five thouſand with five loaves and two fiſhes—walked on the ſea—all diſeaſes in Geneſaret cured by the touch of his garment—cured a woman of a devil—and multitudes, both lame, blind, dumb, maimed, &c.—he fed above four thouſand with ſeven loaves and a few little fiſhes.

King AGBARUS's *Letter to* CHRIST.

I Have heard of Thee, and of the cures wrought by Thee, without herbs or Medicines: for it is reported, Thou reſtoreſt unto ſight the blind, makeſt the lame to walk to cleanſeſt the lepers, raiſeſt the dead, and healeth thoſe that are tormented with diſeaſes of long continuance.—Having heard all this of Thee, I was fully perſuaded to believe one of theſe two things, either that Thou art very GOD, and cameſt down from heaven to do ſuch mirales; or elſe, that Thou art the SON of GOD, and performeſt them: wherefore, I have now ſent theſe lines, intreating Thee to come hither, and cure my diſeaſes. Beſides, having heard that the Jews murmur againſt Thee, and contrive to do Thee miſchief, I invite Thee to my city, which is but little indeed, but exceeding beautiful, and ſufficient to entertain us both.

Our SAVIOUR's *Anſwer.*

BLESSED art thou, Agbarus, for believing in me, whom thou haſt ſeen not, for it is written, that they who have ſeen me, ſhould not believe, and they who have not ſeen, ſhould believe and be ſaved: but as to the matter thou haſt wrote about, theſe are to acquaint thee, that all the things for which I am ſent muſt be fulfilled, and then I ſhall be taken up, and return to him that ſent me; but after my aſcenſion, I will ſend one of my diſciples, who ſhall cure thy diſtemper, and give life to thee, and to all them that are with thee.

LENTULUS's *Epiſtle to the Senate of* ROME.

THERE appeared in theſe our days a man of great virtue, called Jeſus Chriſt; who, by the people, is called a prophet; but his diſciples call him the Son of God. He raiſeth the dead, and cureth all manner of diſeaſes, a man of ſtature somewhat tall, and comely, with a reverend countenance, ſuch as the beholders may both fear and love. His hair is the colour of a cheſtnut full ripe, and is plain almoſt down to his ears, but from thence downwards it is ſomething curled, but more of the oriental colour, waving about his ſhoulders; in the middle of his head is a ſeam, or parting, like the Nazarites. His forehead very plain and ſmooth. His face without either wrinkle or ſpot, beautified with a comely red; his noſe and mouth ſo formed that nothing can be reprehended; his beard thick, the colour of the hair of his head; his eyes grey, clear, and quick. In reproving he is severe, in counſelling courteous; he is of a fair-ſpoken, pleaſant, and grave ſpeech; never ſeen by any one to laugh, but often ſeen by many to weep. In proportion to his body he is well ſhapen and ſtraight; and both his hands and arms are very deleſtable. In ſpeaking he is very temperate, modeſt, and wiſe. A man, for his ſingular beauty far exceeding all the ſons of men.

Apocryphal letter of our Lord to Abgarus King of Edessa; a roughly printed broad sheet of the eighteenth century in which the King's name is spelt "Agbarus," formerly much used as an amulet against ague.

alone. Its origin is not difficult to trace: it is a protecure. The bewitchment of a person is greatly facilitated ing belonging to him or intimately connected with ful yells which the plant utters when it is being dragged out the earth. Then before sunrise on a Friday morning with a dog the would-be gatherer must make three crosses round the

drake, loosen the soil about the root, tie the root to the dog's tail, and offer the beast a piece of bread. The dog runs for the bread, drags out the mandrake root and falls dead, killed by the horrible yell of the plant. The root is taken up, washed with wine, wrapped in silk, laid in a casket, bathed every Friday, and clothed in a little new white silk smock every new moon.

1.

The possession of a mandrake shielded the owner from various ills and especialy protected him from disease. In the nineteenth and twentieth centuries the potato has taken its place.

Personally I am inclined to believe that the above amulets do alleviate the sufferings of those who carry them, otherwise they would not be in such general use. Their action—if they have any—can only be through the central nervous system, an influence of the mind over the body, a state of credulity which is lacking in most of us to whom they would be perfectly useless, but akin to the credulity which some centuries ago afforded a ready credence to the miraculous. In other words the wearers are in a state of chronic hypnotism.

An amulet now seldom seen, but not uncommon some years ago, is a printed copy of the apocryphal letter of Our Lord to Abgarus, King of Edessa. It conferred many blessings on its possessor, but it was principally used in Norfolk as a protection against ague. It was commonly fastened to the walls of the kitchen or living room for the benefit of the whole household. The suspension of roots rounds the necks or bodies of young children to protect them from disease is a very widespread practice. Professor Elliott Smith of Cairo, who very kindly made some inquiries amongst his Egyptian pupils about the mandrake, finds that the above custom is prevalent in that country "as a protection against, or as a cure for, diseases of all kinds," roots or twigs of the "mandoorah" (zizyphus spini Christi) or "mokhayt." The last named must be cut before sunrise on one particular day in the year Sham-el-Nasîm—a spring festival when every one goes out into the fields "to smell the breezes."[4]

3.

In West Norfolk we tie a penny "violet root," the rhizome of iris florentina, round our babies' necks with a piece of tape, in the hope that the infant will bite it, and so help his teeth through, but the practice is none the less a survival which owes its existence as such to a real or fancied benefit.

Survivals of Charms.

A disease often cured by charms when the methods of the regular practitioner have failed is that causing warts on children's hands. The charms are numerous and diversified, but it matters little which is employed, the warts generally take their departure. I am now speaking of the clusters of warts which disfigure the hands usually just prior to puberty, not of the isolated warts on the hands of adults due to local irritation, which are practically identical in their etiology with corns. Who ever heard of a corn being charmed away! Children's warts, popular belief in Norfolk has long told us, are contagious; they may be caught by washing in the same water or wiping on the same towel as a previous sufferer. Further, if a wart be injured the blood from it, as every school boy knows, causes fresh warts to grow wherever it happens to fall. As it has been recently said, "they, as a rule, disappear spontaneously as if by magic."[5] They are due to "bacillus parri"[6] described by Majocci, Corni... Babes. Their disappearance is in reality due to an immunization of the patient, as Sabouraud has shown c... in ringworm, leaving the child immune for the rest ... life. These wart charms are survivals from very remote times, but they are not now applied until the warts have become so numerous as to cause disfigurement, and the patient well on the high road to immunity.

5.

4.

A similar explanation holds good in the case of whooping-cough, for which many charms are employed.

2.

Survivals of Saxon Medicine.

Among our Saxon ancestors from whom many of us here derive our surnames as well as our fair hair, medicine was a... ebb. The herbal of Apuleius, the writing of Sextus Pla... and a portion of Dioscorides exist in Anglo-Saxon. The... well as three Leech books, have been translated fro... Anglo-Saxon MS. of the tenth century.[7] In them we find a... of superstition and absurdity. The most diverse prop... are assigned to plants now regarded as inert. For inst... the common betany (betonica officinalis) is credited ... being of use in no less than twenty-nine different ailm... such as the prevention of frightful visions and dreams ... eyes, constipation, vomiting, adder bite, gout, etc. Ve... (verbena officinalis), or, a... Saxons called it, "ashth... is recommended as a charm ... dried root being tied ... the neck for strumous ... ation. This is a com... Norfolk plant, and its u... a charm for strumous ... still survives.[8] In the ... work[9] we learn that "fo... pressed hard-drawn breat... a fox's lung sodden and ... into sweetened wine and ... ministered wonderfully hea... which credence still surviv... the "syrup of foxes'-lung" ... commonly given to the chi... of the poor. This syrup as ... supplied by chemists ne... to say contains nothing ... fox, which was at one tim... placed by lung-wort (pulmo... officinalis), but even that ... disappeared from its composition. We do find, how... that colchicum autumnale is recommended for "so... joints,"[10] and in the Leech book[11] warm "henbane ... dripped into the ear" for earache, but these are almos... only rational remedies in the book.

Survivals of Arabian Medicine.

At the time our ancestors were living in thatched mud ... under the Saxon kings, the great Arabian Universi... Cordova was at its zenith. We hardly appreciate how ... medicine owes to the Arabian schools. Of these there ... two more or less antagonistic, the Western and the Eastern. The latter had its centre at Bagdad in the time of Haroun el Raschid of *Arabian Nights* fame—although there were schools at Damascus and elsewhere. To these belonged Rhazes, the first writer to differentiate small-pox from measles, and Avicenna, whose works were translated into Latin and formed for many centuries the textbook of medicine. Both these were Persians by birth. To the former we owe hiera picra pills and to the latter our present pil. aloës c̄ myrrhâ.

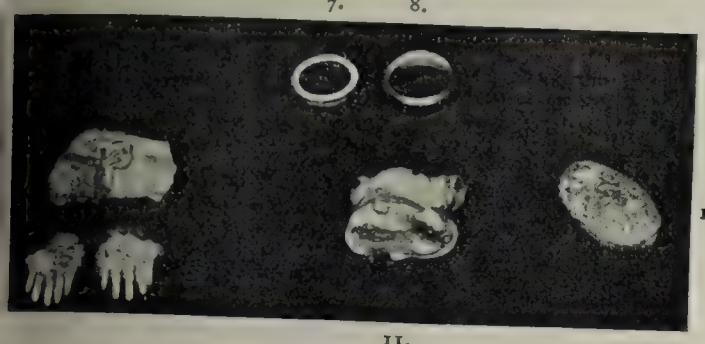
6.

The Western or Hispano-Moorish school had centr... Seville, Cordova, and Granada. At El Zahra, near Cor... Abulcasis was born. He wrote a medical encyclopae... *Altasrif*—the surgical portion of which was for several cent...

textbook of surgery in Europe. Avenzoar was considered how more practical knowledge in his writings than enna. He was the first to recommend rectal feeding for ture of the oesophagus. Averroes of Cordova, his con- porary, was an eminent physician, as well as the founder ie Averroist school of philosophy. Both these writers followers of Galen and Hippocrates and lived in the th century.

e Arabians were great pharmacists, and introduced from last several valuable medicines, such as opium, camphor,

7. 8.

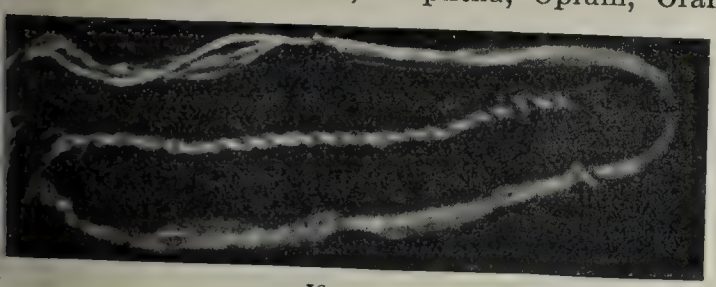


10.

11.

ne pomegranate. The first *London Pharmacopœia* was based upon a treatise on the subject by Meusa the er, of Damascus. It is to him we owe the Syrupus *B.P.*, Pil. Aloës et Assaf. *B.P.*, Diachylon Plaster and on Ointment.

how the influence the Arabians had upon pharmacy s the number of pharmaceutical terms derived from anguage still in use: Alcohol, Alkali, Alembic, Amber, gris, Attar, Camphor, Chemistry, Civet, Elixir, Jar, , Lime, Mattress, Musk, Naphtha, Opium, Orange,

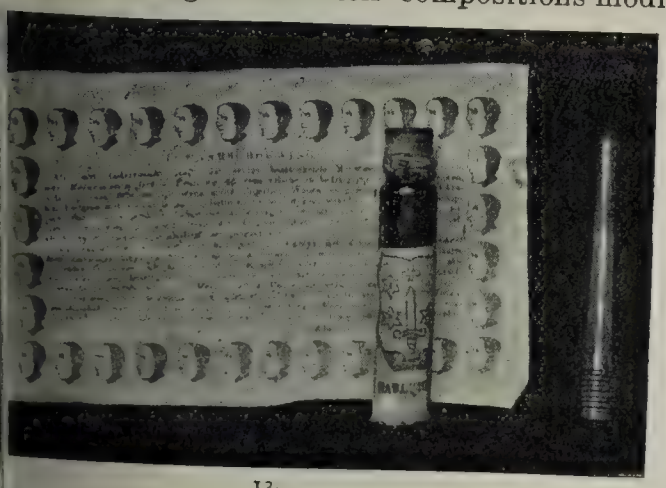


12.

Syrup, Tamarind. So that when we speak of a syrup camphor julep, we are using the language of our predecessors. The signs ℈, ʒ, and ℥ have the same

LS FROM THE FIRST "LONDON PHARMACOPOEIA" (1618).

are too many for enumeration. Some have come most unchanged—for example, Aqua Cinnamoni, Scillae, Vinum Antimoniale, etc.; while others have r names changed and their compositions modified—



13. 14.

ple, Pil. Cochiae is now Pil. Colocynth. Comp. Pil. ow Pil. Aloes c. Myrrhâ, Ung. Basilcon Flav. is nae, etc. Some very remarkable survivals from this *poeia* are still in use among the poor. Of these the llows (Oleum Hyrundinum) is one; this was origin- by boiling young swallows in oil with certain herbs, May butter. It is used externally in rheumatism pe that the stiffened and distorted joints of the ay become as lithesome as those of a swallow. Oil or Oil of St. John's Wort as it should be called, owed its place in the *Pharmacopoeia* in the first instance to the beautiful red colour the yellow flowers of *hypericum perforatum* impart to oil.

Oil of worms, Oleum Catellorum, was made by boiling earth worms, live puppies, and Venice turpentine in oil. It is interesting to the surgeon because it was with this oil that Ambrose Parey[12] dressed the gunshot wounds received by the French soldiers during the Continental wars of the sixteenth century. Prior to this all gunshot wounds were cauterized either by the actual cautery or boiling oil.

Several of the syrups survive, as those of orange, lemon, poppy, rhubarb, and squill. In fact, syrups were much used in bygone times. It was about this period that certain Dutch artificers settled in Lambeth, and manufactured those interesting blue Delft pharmacy pots that are still to be seen in some old country surgeries. Delft or faience ware is made of a soft earth covered with a thick tin glaze. The latter varies from white to greenish. Some consider the colour of the glaze to be an indication of the pottery at which the ware was made—pure white at Lambeth, bluish or greenish at Bristol, Leeds, or Liverpool.

These pharmaceutical vessels vary in form as they were intended for oils, syrups, conserves, ointments, pills, etc. They are found not only in England but also in the Netherlands, in France, Italy, and Spain, differing somewhat in form and composition.

Survivals of Astrology.

Considering the close connexion this subject had with medicine in bygone days the survivals are comparatively few. In common with all professional men we still put the crossed ℞ at the top of our prescriptions. A survival of the time when the planet Jupiter ♃ was the "Great Benefic," and when it was all important to have him "well placed" in the "decumbature" or horoscope constructed for the time the physician first saw the patient. We speak of lunatics or moon-struck people, and some consider the waxing and waning of the moon influence the condition of such patients. We further speak sometimes of the "moon getting on its back," a sad and serious portent for the afflicted. The temperaments have retained their association with the planetary influences, inasmuch as we say a man is mercurial, jovial, saturnine, or martial. We speak, too, of venereal diseases.

Survivals of Alchemy.

These are fewer still. We, like other people, call the metal mercury, and the caustic "lunar," but we have practically ceased to designate the preparations of lead, saturnine, or or those of iron, martial as the last generation did. There is, however, a secret remedy still, I believe called solar elixir. Dissolved gold *aurum potabile* was thought by the alchemists to be the elixir vitae; the idea probably survives in the double choride of gold and sodium.

Domestic Remedies.

Domestic remedies still in use are many but decreasing. Some of the more important may be enumerated:

Black beer	internally	for bruises.
Dutch drops	externally	,, cuts, internally for gravel.
Cow-dung poultices	,,	,, boils, whitlows, and suppuration generally.
Barberry bark	internally	,, jaundice.
Celandine	,,	,, ,,
Rosemary	externally	as a hair wash.
House leek	,,	with cream for erysipelas.
Sage	internally	for sore throat.
Nettle tea	,,	,, urticaria.
Dock tea	,,	,, acne.
Twitch tea	,,	,, vesical irritation.
Parsley tea	,,	,, ,, ,,
Venice turpentine	,,	,, kidney discomfort.
Lily leaves	externally	,, cuts.
Agrimony tea	,,	,, ?
Pile wort	,,	,, piles.
Syrup of foxes' lungs	internally	,, coughs.
Cochineal	,,	with potassii subcarb. for whooping-cough.
Saffron tea	,,	for measles.
Puff ball	externally	as a haemostatic.
Bramble leaves	internally	for diarrhoea and piles.
Plantain leaves	externally	fresh for cuts.
Viper fat	,,	for viper bite.
Eel fat	,,	,, deafness.
Poppy-head tea	internally	,, catarrh.
Tansey tea	,,	as a stomachic.
Balm tea	,,	for fever.
Snails	,,	,, phthisis, externally for weak muscles.
Elderberry wine	,,	,, catarrh.

Certain of the foregoing owe their origin to the "doctrine of signatures"—that is, to some resemblance, fancied or otherwise, to the disease for which they are employed. The barberry (*Berberis vulgaris*) has a yellow bark and the celandine (*Chelidonium majus*) a yellow juice; therefore they are good for the yellow disease—jaundice. The sting of the nettle (*Urtica dioica*) produces a rash resembling urticaria, therefore nettle tea is good for that disease. Haemorrhoids resemble the little tubers of *Ranunculus ficaria*, therefore they are indicated in this disease. The fox is a good runner and "long-winded," so his lungs are good for shortness of breath and coughs.

Dutch drops and black beer are foreign remedies; the former, a very typical survival of the past, comes from Haarlem, the latter from the Baltic ports.

The use of the cow-dung poultice, although not readily acknowledged, is common enough; testimony is strong in favour of the relief to pain it affords and the rapid maturation it causes when applied to a boil. The only feasible explanation apparent is that, being a highly septic application, it acts as the septic tank does upon sewage—the saprophytic organisms destroy the pathogenic.

Few farmhouses are without a dried puff-ball (*Lycoperdon giganteum*) for use in case any member of the family cuts himself—a haemostatic which, once fairly introduced into a wound, effectually prevents union by first intention.

For the photographs with which this paper is illustrated my thanks are due to Mr. Basil H. Pain, M.R.C.S., House-Surgeon of the West Norfolk and Lynn Hospital.

DESCRIPTIONS OF PLATES.

BLUE DELFT PHARMACY POTS.

1. P. RUFFI. A small pill jar 3⅜ in. high, pure white glaze, with original black cover. The pill survives as the pil. aloes cum myrrhâ. It has the same composition as the pilulae pestilentiales Avicennae; hence Arabic in origin. From Norfolk.

2. O. HYRUNDIN. Oil of swallows; an oil jar of smaller size; from a chemist's shop in King's Lynn.

3. C. PRYNELL. Conserve of sloes, the fruit of *Prunus spinosa*; this is probably the Rob prunorum acidorum of the first London *Pharmacopoeia*; the conserve of sloes. *Prunellorum sylvest* of Quincy's *Pharmacopoeia Officinalis* (1730). The Conserva prunorum sylvestrium of the Edinburgh *Pharmacopoeia* (1792). The glaze has a reddish tinge, and the pattern and lettering are very rough; from Mr. Wallace W. Crisp, M.P.S., Lynn.

4. THERIAC: ANDRO: "Theriaca Andromachi. The treacle of Andromachus commonly called Venice treacle." An electuary in the first *Pharmacopoeia* containing 61 ingredients, among which were dried vipers, opium, squills, etc., an alexipharmic said to have been devised by Andromachus, the Emperor Nero's physician. Quincy says "that the vipers and squills may not be lost in this let a dozen vipers be put alive into half as much wine as is here required." They were then distilled, dried, powdered, etc., etc., *secundum artem*. A fine jar 7½ in. high, with delicate greenish glaze. H. Stear, Esq. From Saffron Walden.

5. Oil j r labelled O: HYPERIC: "Oil of John" or the oleum hypericum of the first London *Pharmacopoeia*; a large oil jar the property of Sir Alan Manby, in whose family it has been for three generations.

AMULETS.

6. T ething amulet; piece of violet root (iris florentina) with tape by which it was suspended to Mrs. P.....'s baby; 1904. 7. Zinc ring, with inner band of copper; purchased 1903. 8 Zinc and copper ring, with outer casing of gold; purchased 1904. 9. Small parcel containing a pair of "moles' hands" (as shown below it) given by the wearer, Mr. B.....g; 1904. 10. Potato carried by Mrs. B.....k for many years: given 1904. 11. "Cramp bone": astragalus of sheep; taken from the pocket of Mrs. P.....t after her death; 1870. 12. Skein of red silk tied with three knots (probably symbolic of the Trinity) to be put round the neck of a child while its nose is bleeding; Miss B.....g. 13. Dutch drops, with advertisement in Dutch, surrounded by 32 heads with antique head dress; the bottle is not corked but closed by bladder tied on wet, as was the custom when this *medicamentum gratia probatum* was first made by Claas Tilley in 1696; purchased 1903. 14. Bone tube 3⅜ in. long, formerly used for giving rectal injections in West Norfolk; at the lower end are a number of parallel groves, round which a bladder containing the fluid to be injected was tied. The bladder was grasped by the hands and compressed in a twisted manner until the contents were forced into the rectum; donor the late Mrs. L.....e.

NOTES AND REFERENCES.

[1] W. G. Black, *Folke Medicine*, 1883, p. 16. [2] *Finger Ring Lore*, Wm. Jones, 1898, 8vo., London. p. 522-5 [3] *Custom and Myth*, 8vo, 1898, p. 144. [4] Professor Elliott Smith was unable to find the real mandrake in use at present in Egypt, but specimens can be purchased by tourists. [5] *Textbook of Surgery*, Gould and Warren, 1900, 8 vols., vol. i, p. 481. [6] Ibid., vol. ii, p. 892. [7] *Leechdoms: Wortcunning and Star Craft of Early England.* Collected and edited by the Rev. Oswald Cockayne. Two vols, 8vo; 1864-5. [8] Mr. F. C. Highe, of Castleacre, tells me that the dried root enclosed in a black silk bag and tied round the child's neck is still employed for the "king's evil." Some years ago a child came to the Lynn Hospital with a root probably of this plant tied round its neck. [9] Cockayne, loc. cit., vol. i, p. 341. [10] Cockayne, loc. cit., vol. i, p. 15. [11] Cockayne, vol. ii, p. 41. [12] *The Workes of that famous Chirurgion Ambrose Parey*, folio 1634. Translated by Thomas Johnson from the 1579 Paris edition. P. 409.

EXPERIMENTS ON LIVING ANIMALS.

A RETURN showing the number of experiments performe on living animals during the year 1903 under licences gra ed under the Act 39 and 40 Vict., c. 77, has just been issued Parliamentary paper.*

ENGLAND AND SCOTLAND.

The Home Office Inspector, Professor G. D. Thane, in his report states that the total number of licensees in Engl and Scotland during 1903 was 347, of whom 97 performe no experiments. These numbers include 28 licensees, w se licences expired on February 28th, 1903. None of these er formed experiments in 1903.

The total number of experiments—other than those of h nature of simple inoculations, hypodermic injections o similar proceedings—was 2,171. Of these there were e formed:

Under licence alone†	1,059
,, Certificate C.	153
,, Certificate B.	721
,, Certificate B.+EE.	246
,, Certificate B.+F.	1

The experiments of the nature of simple inoculatn hypodermic injections, and similar proceedings perfo e without anaesthetics was 16,913. Of these there were e formed:

Under Certificate A.	16,712
,, Certificate A.+E.	173
,, Certificate A.+F.	28

The total number of experiments performed during the was therefore 19,084, an increase of 4,178 as compared i the number returned for 1902. The increase in the numb experiments other than inoculations, etc., was 41, and in of these latter, 4,137.

With regard to the operations involving a serious oper it is pointed out that in the larger number—1,203 al formed under licence alone and under Certificate C pain was felt by the animal which is kept under an a thetic during the whole time; moreover, if the pain is to continue after anaesthesia has ceased or if any s injury has been inflicted, the animal must be killed it recovers from the influence of the anaesthetic. The ber of experiments performed under Certificate B. linked with EE. or with F., was 968. In these experi the initial operations are performed under anaesthetics the influence of which the animals are allowed to re The operations are performed aseptically, and the ing of the wounds, as a rule, takes place without pai suppuration occurs, the animal must be killed. In the of a subsequent operation being necessary, a condit attached to the licence requiring all operative procedu be carried out under anaesthetics of sufficient power t vent the animal feeling pain. In no case has a cutting tion more severe than a superficial venesection been al to be performed without anaesthetics.

The other experiments were mostly inoculations, but were feeding experiments or the administration of v substances by the mouth, or the abstraction of a n quantity of blood for examination. All these were formed without anaesthetics. In no instance has a cert dispensing with the use of anaesthetics been allowed experiment involving a serious operation. Inoculatio deep parts, involving a preliminary incision in ord expose the part into which the inoculation is to be must be performed under anaesthetics. The experi in these cases lasts during the whole period from the ad tration of the drug, or injection, until the animal re

* London: Printed for His Majesty's Stationery Office by Ey Spottiswoode, Printers to the King's Most Excellent Majesty. An purchased, either directly or through any bookseller, from Ey Spottiswoode, East Harding Street, Fleet Street, E.C., and 32, A Street, Westminster, S.W.; or Oliver and Boyd, Edinburgh Ponsonby, 116, Grafton Street, Dublin.

† In experiments performed under licence alone, the anima during the whole of the experiment be under the influence anaesthetic of sufficient power to prevent the animal feeling pa the animal must, if the pain is likely to continue after the effec anaesthetic has ceased, or if any serious injury has been inflicted animal, be killed before it recovers from the influence of the ana which has been administered. Certificate C. allows experimen performed, under the foregoing provisions as to the use of anaes in illustration of lectures. Certificate B. exempts the person per the experiment from the obligation to cause the animal on wh experiment is performed to be killed before it recovers from the i of the anaesthetic; and when the animal is a dog or a cat Certific is also necessary. Certificate A. allows experiments to be per without anaesthetics; and when the animal on which the experi performed is a dog or a cat Certificate E. is also necessary. Certi is required in all cases of experiments on a horse, ass, or mule.

he effects, or dies, or is killed, possibly extending over days, or even weeks. The substance administered ive rise to poisoning, or set up a condition of disease, of which may lead to a fatal termination. To administer nimal such a poison as diphtheria toxin, for example, nduce such a disease as tuberculosis, although it may accompanied by acute suffering, is held to be a pro- "calculated to give pain," and therefore experiments kind referred to come within the scope of the Act. In prolonged action of an injected substance, even when fatally, the animal is generally apparently well, and s food as usual until a short time before death. The illness may last only a very few hours, and in some is not observed at all.

very large number of experiments of the nature of ion, etc., the results are negative, and the animals o inconvenience whatever. In the event of pain as the result of an inoculation, a condition attached cence requires that the animal shall be killed under etics as soon as the main result of the experiment has ained.

considerable increase recorded in the number of ions and similar proceedings is attributed mainly to gressive importance attached to biological tests y in practical medicine for the diagnosis, treatment, ention of disease, and to the more widely recognized such experiments on the part of those responsible are of the public health. Several county councils icipal corporations have their own laboratories in cteriological investigations are carried on, including ssary tests on living animals; and many others have ients by which similar observations are made on alf in the laboratories of universities, colleges, and titutions.

ge farm is registered as a place in which experi- living animals may be performed in order that the of the effluent may be tested by its effects on the fish. The Board of Agriculture has two places e registered for the performance of experiments r their object the detection and study of the diseases ls. In other laboratories experiments have been behalf of the Home Office, the Local Government e Board of Agriculture, and the Dangerous Trades e. A very large proportion of the experiments have performed either on behalf of official bodies with the preservation of the public health, or directly diagnosis and treatment of disease. Seventeen return together 3,617 experiments, nearly the whole were performed for Government departments, uncils, or municipal corporations; 1,313 experi- e made by four licensees for the Royal Commission ulosis; and six licensees performed 4,776 inocula- esting antitoxic sera and vaccines. The number of made during the year 1903 for the diagnosis of lgs was 88.

the year the usual inspections of registered places by Professor Thane and Sir James Russell. They animals everywhere suitably lodged and well cared he licensees desirous of acting in every way in with the letter and spirit of the Act. Only two regularity were noted, neither of them involving y to animals.

Ireland.

iam Thornley Stoker, the Inspector for Ireland, t the certificates in existence or allowed were :

o 3 licensees.	E. to 3 licensees.
, 10 ,,	E&. ,, 3 ,,
. 3 ,,	F. ,, 1 licensee.

eriments performed were 172; 113 being under ne, and 59 under certificates. Three licensees per- experiments. The animals experimented on were: 5; guinea-pigs, 47; mice, 18; dogs, 11; goats, 6; birds, 5; cats, 2; horse, 1.

eriments performed have been of the nature of s or injections with the exception of 18 of a al character. Of these seven were done in illus- ectures under Certificate C. All the inoculations ons seem to have been of a useful pathological Some were done in pursuance of the study of the causation of enteric fever, of pneumonia and its and of the nature of tuberculous diseases. The al experiments dealt chiefly with the localization ions of the brain and with considerations regard- ressure. Many of the investigations bore on questions concerning diseases of cattle and dogs and the economic conditions of live stock.

The inspection of licensed places showed that in Dublin their condition was satisfactory and the provisions of the Act observed. In Belfast and Cork inspections have been made by the Medical Inspectors of the Local Government Board. In Cork no experiments were performed, and in Belfast the conditions of the Act were properly complied with.

LITERARY NOTES.

Messrs. J. and A. Churchill have ready for immediate publication a work by Dr. Thresh entitled *The Examination of Waters and Water Supplies.* According to the preface, "the chief object of the work is to show how to examine sources of supply, and how to use the information thus acquired in the interpretation of results obtained from the examination of the waters yielded by these sources, and to demonstrate that it is more important to consider the quality than the quantity of the organic and inorganic constituents found in waters from whatever source derived."

M. Jules Clarétie states in the *Temps* that the late Dr. Gilles de la Tourette took a scientific interest in the stage. For years he had closely studied the manifestations of mental disorder in plays, and he published in the *Revue Hebdomadaire* a series of articles on the subject, which it was his intention to gather into a book, to be entitled *La Folie au Théatre.* It is to be hoped that the essays will be published, as the judgements of so competent an authority as Dr. Gilles de la Tourette would make his work especially interesting and valuable. It may be mentioned that he took a leading part in the movement for the erection of a statue to Theophraste Renaudot, a physician of the seventeenth century, who was the founder of modern journalism and of the system of outdoor relief for the sick poor, which, in the form of the outpatient department, has grown into a considerable abuse. M. Clarétie recalls the fact that he dined with Dr. Gilles de la Tourette at the Salpétrière, and that he drank wine which was the produce of a vineyard that had belonged to Rabelais.

In his preface to the pretty little edition of Oliver Wendell Holmes's *Autocrat of the Breakfast Table* recently published by Messrs. Blackie and Son, Mr. G. K. Chesterton calls attention to the influence which the author's profession had on his literary work. A good doctor, he says, is by the nature of things a man who needs only the capricious gift of style to make him an amusing author. A doctor is alone in combining those verbally similar but profoundly diverse things, a knowledge of the cosmos and a knowledge of the world. The result of this fusion is a certain quaint wisdom, a certain variegated experience which is characteristic of Holmes, and of the one other man in literary history who bears a curious resemblance to him, to wit, Sir Thomas Browne. In both we have the same bewildering ingenuity of allusion and comparison, the same saturnalia of specialism, the same topsy-turvydom of learning. Holmes, as fully as Browne, has the notion that these scientific minutiae, and these physical ingenuities with which he has become acquainted as a doctor, are symbols of a certain rude and awful benevolence in the nature of things, a Providence that speaks like a candid doctor.

Professor Fournier presented to the Paris Académie de Médecine, at its meeting on May 31st, a booklet by Dr. P. Rodet, bearing the cryptic title *Por niaj filoj kiam iti estos dek-okjaraj.* This, being interpreted, is said to mean "for our sons when they are 18." It is a translation into Esperanto of Professor Fournier's Guide to Youth, the French title of which is *Pour nos fils quand ils auront dix-huit ans.* It is said to be the first medical book published in Esperanto. We are tempted to say that we hope it may be the last.

The House Beautiful, the first number of which we noticed favourably a few months ago, has already gained for itself the *droit de cité* in the journalistic world. The contents are varied and interesting, and the illustrations are excellent. The current number contains an article by Miss Annie A. Smith on left-handed drawing, a note on Nuremberg by Mrs. Ernest Hart, who edits the journal, an article by Mr. B. Wyand, C.E., on building a house, and others on lost and vanishing London, and rambles through London streets in search of the beautiful. A feature of special interest to medical readers is a series of recipes for dishes for diabetics, contributed by Mrs. Ernest Hart, whose book *Diet in Sickness and Health* is well known to the profession.

ASSOCIATION NOTICES.

NOTICE OF QUARTERLY MEETINGS OF COUNCIL FOR 1904.

MEETINGS of the Council will be held on Wednesdays, July 6th, and October 19th, in the Council Room of the British Medical Association, 429, Strand, London, W.C.

ELECTION OF MEMBERS.

ANY candidate for election should forward his application upon a form, which will be furnished by the General Secretary of the Association, 429, Strand. Applications for membership should be sent to the General Secretary not less than thirty-five days prior to the date of a meeting of the Council.

LIBRARY OF THE BRITISH MEDICAL ASSOCIATION.

MEMBERS are reminded that the Library and Writing Rooms of the Association are fitted up for the accommodation of the members in commodious apartments, at the office of the Association, 429, Strand. The rooms are open from 10 a.m. to 5 p.m. Members can have their letters addressed to them at the office.

GUY ELLISTON, *General Secretary.*

BRANCH MEETINGS TO BE HELD.

BATH AND BRISTOL BRANCH: BATH DIVISION.—The annual meeting of this Division will be held at the Royal United Hospital, Bath, on Monday, June 20th, at 6.15 p.m., Mr. R. J. H. Scott in the chair, for the purpose of electing officers, members of the Branch Council (there are five vacancies), and for such other business as may be done at an annual meeting.—W. M. BEAUMONT, 4, Gay Street, Bath, Honorary Secretary.

BATH AND BRISTOL BRANCH: BATH AND TROWBRIDGE DIVISIONS.—A meeting of these Divisions will be held at the Royal United Hospital, Bath, on Monday, June 20th, at 6 p.m., for the purpose of appointing a Representative of the Divisions in Representative meetings of the Association.—W. M. BEAUMONT, Bath, J. TUBB THOMAS, Trowbridge, Honorary Secretaries.

BIRMINGHAM BRANCH: COVENTRY AND TAMWORTH AND NUNEATON DIVISIONS.—The joint annual meeting of these Divisions will be held at the Coventry and Warwickshire Hospital on Wednesday, June 29th, at 3 p.m. Agenda: 1. Election of a Representative for the Annual Representative Meeting. 2. Instructions to be given to such Representative on the matters arising at the Representative Meeting. (These matters are fully set out in the SUPPLEMENT to the BRITISH MEDICAL JOURNAL of May 7th; members will probably find it a convenience to bring that SUPPLEMENT with them.)—F. L. HARMAN BROWN, Clive House, Warwick Road, Coventry, Honorary Secretary.

BIRMINGHAM BRANCH: WEST BROMWICH DIVISION.—The annual meeting of this Division will be held in the Board Room of the West Bromwich District Hospital on Wednesday, June 29th, at 4 p.m. Business: To elect officers. 1. Two Representatives on Branch Council. 2. Ordinary members of Executive Committee. 3. Representative in Representative Meetings of the Association. To receive report from Executive Committee. To consider the business of Annual Representive meeting. To consider memorandum from Exeter Division. Other business.—H. B. W. PLUMMER, 54, Birmingham Road, West Bromwich, Honorary Secretary.

BORDER COUNTIES BRANCH.—The annual meeting of this Branch will be held on Thursday, June 30th, in the County Hotel, Carlisle, at 3 p.m. Business: 1. Reports of election of new officers. 2. Election of six members of Council. 3. President's address.—FRANCIS R. HILL, 62, Warwick Road, Carlisle, Honorary Secretary.

CAMBRIDGE AND HUNTINGDON BRANCH.—The annual meeting of this Branch will be held at Cambridge on Thursday, June 30th. Members desiring to make communications should write to the Honorary Secretary as soon as possible.—F. E. APTHORPE WEBB, 25, Newmarket Road, Cambridge, Honorary Secretary.

EAST ANGLIAN BRANCH.—The annual meeting of this Branch will be held at Lowestoft, on Thursday, June 23rd. Members wishing to read papers or show cases should communicate with Dr. Gutch, Ipswich, as soon as possible.—B. H. NICHOLSON, M.B., East Lodge, Colchester, Honorary Secretary.

EDINBURGH BRANCH.—The annual meeting of this Branch will be held in the Hall of the Royal College of Physicians (No. 9, Queen Street) on Friday, June 24th, at 4.15 p.m. Business: Election of office-bearers, etc. —NORMAN WALKER, A. LOGAN TURNER, Edinburgh, Honorary Secretaries.

EDINBURGH BRANCH: NORTH-EAST EDINBURGH DIVISION.—The annual meeting of this Division will take place on Tuesday, June 14th, at 8 p.m., in the Royal College of Physicians, 9, Queen Street.—G. KEPPIE PATERSON, 19, Albany Street, Edinburgh, Honorary Secretary.

EDINBURGH BRANCH: SOUTH-EASTERN COUNTIES DIVISIONS.—The a meeting of this Division will be held in the King's Arms Hotel, M on Thursday, June 16th, at 3 p.m. Business: (1) Election of bearers. (2) Consideration of motion, of which Dr. Hamilton (Hawic given notice, "That the Division invites all the members of the Edin Branch to meet at Hawick in July"; and of a further motion, ' alternately, the annual meeting of the Branch be held in one county towns within its area, and that it be held next year at Ha (3) Consideration of agenda of the Annual Representative Meetin held at Oxford, in order to instruct the Representative of Divisio lines to follow when the various questions come under discussi Consideration of the Contract Practice inquiry issued by the M Political Committee.—W. HALL CALVERT, The Laurels, Melrose, Ho Secretary.

GLASGOW AND WEST OF SCOTLAND BRANCH.—Nominations f office of Representative of this Branch on the Council (the Branch ing two), each signed by three members, must be in the hands Honorary Secretary on or before June 15th.—JAS. H. NICOLL, 4 W Place, Glasgow, Honorary Secretary.

LANCASHIRE AND CHESHIRE BRANCH.—Preliminary notice. The meeting of this Branch will be held in Blackburn on the aftern Thursday, June 30th. The Honorary Secretary will be pleased t from any member desirous of reading papers, etc.—T. ARTHUR HE St. Peter's Square, Manchester, Honorary Secretary.

LANCASHIRE AND CHESHIRE BRANCH: MANCHESTER AND LI DIVISIONS.—*Oxford Meeting:* Arrangements are being made to special car attached to a train leaving London Road for Oxford o day, July 25th. Members desirous of joining the party will help b ing their names to Dr. Bagley, 229, Clowes Street, Manchester, S.E., July 1st, stating whether morning or afternoon will suit them be which route they prefer. The Great Central is the quickest, leavi don Road at 10 a.m., 12.30 p.m., and 2.15 p.m.; the Great Western and 2.10 p.m.

LANCASHIRE AND CHESHIRE BRANCH: ROCHDALE DIVISION.— meeting of the Bury and Rochdale Divisions will be held at the sary, Knowsley Street, Bury, on Thursday, June 23rd, at 4. Business: 1 The election of Joint Representative for the Annual sentative Meetings. 2. Consideration of notices of motions to cussed at the annual meeting. 3 Consideration of the revised Medical Act Amendment Bill as published in the SUPPLEMENT BRITISH MEDICAL JOURNAL of May 28th.—W. C. BURNS, M.B. McMASTER, M.D., Joint Honorary Secretaries.

LEINSTER BRANCH: DUBLIN DIVISION. — The annual general m of this Division will be held in the Royal College of Physicians a on Wednesday, June 22nd.—L. G. GUNN, M.D., 43, Fitzwilliam Honorary Secretary and Treasurer.

LEINSTER AND SOUTH-EAST OF IRELAND BRANCHES.—Nomina candidates for election as members of the Central Council mus hands of undersigned on or before June 18th.—ARTHUR H. WHITE, bawn, Rathgar, Dublin, Honorary Secretary.

METROPOLITAN COUNTIES BRANCH: KENSINGTON DIVISION.—The meeting of this Division will be held at the Kensington Town Ha Street, Kensington, at 5 p.m., on Wednesday, June 15th, Dr. H. C Pope, in the chair. Business: (1) To elect officers for 1904-5 as f Chairman, Vice-Chairman, Secretary and Treasurer, four Represe of Division on Branch Council, seven Ordinary Members of Ex (2) To elect the Representative of the Division in Representative M of the Association. (3) To receive the annual report of the Ex Committee. (4) To consider the business of the Annual Repres Meeting. (5) To make new rules, or alter or repeal existing rules. receive—(*a*) Result of voting for Medical Defence Scheme. (*b*) Co cation from Medico-Political Committee. (*c*) Communication from Committee.—G. CRAWFORD THOMSON, M.D., 111, Sinclair Road, W sington, W., Honorary Secretary.

METROPOLITAN COUNTIES BRANCH: RICHMOND DIVISION.—The meeting of this Division will be held at the Greyhound Hotel, Ric on Wednesday, June 22nd, at 8.45 p.m. Agenda: 1. To elect offic Representatives of the Division on the Branch Council, and the m of the Executive Committee. 2. To elect the Representatives of t sion in Representative Meetings of the Association. 3. To rece annual report of the Executive Committee. 4. To consider the b of the Annual Representative Meeting.—J. R. JOHNSON, 3, Ellerk Richmond, Honorary Secretary.

METROPOLITAN COUNTIES BRANCH: WESTMINSTER DIVISION.— ing of this Division will be held at 20, Hanover Square, on Tuesda 14th, at 5 p.m.; Sir Isambard Owen will preside. Agenda: 1. M 2. To elect one member on Executive Committee. 3. To consi business of the Annual Representative Meeting (notices of moti been published in the BRITISH MEDICAL JOURNAL of May 7th, p 4. To consider the question of the Association adopting a sc medical defence. 5. Any other business.—W. KNOWSLEY SIBLE Honorary Secretary.

NORTH LANCASHIRE AND SOUTH WESTMORLAND BRANCH.—The meeting of this Branch will take place at the County Hotel, Ulver June 29th, at 3 p.m. There will also be a joint meeting of the and Kendal Divisions to elect their Representative. Members w show cases, specimens, etc., are requested to communicate as soo sible with the Honorary Secretary, A. S. BARLING, High Street, La

NORTH WALES AND SHROPSHIRE BRANCH.—The annual meeting held at Shrewsbury on or about the 7th day of July. Members papers to read or cases to communicate are requested to notify

ecretaries on or before June 25th.—W. JONES MORRIS, Portmadoc; ES ROBERTS, Penygroes; H. H. B. MACLEOD, Clive House, Shrews-Honorary Secretaries.

H-EASTERN BRANCH.—The sixtieth annual meeting of this Branch e held at Grand Hotel, Eastbourne, on Wednesday, June 22nd, at m. Mr. J. H. Ewart (President-elect) kindly invites members to at the hotel from 1 to 2 p.m. Agenda: In addition to the business rdinary meeting. 1. To receive the report of the election of new s, who shall thereupon take office. 2. To receive the report of the d on the affairs of the Branch and the annual financial statements. nake new rules or alter or repeal existing rules (if so desired). Larking gives notice that he will move: That in the opinion of this g the present South-Eastern Branch should be divided into two ies separated by a line running roughly between London and gs, and that the opinion of the Divisions concerned be obtained on estion. After the meeting drives will be arranged to Beachy Head vensey Castle. Dinner at the hotel at 6.45 p.m., charge 6s. 6d. vill be provided by the local members). Those who propose to be t at lunch or dinner are requested to signify their intention to Dr. 2, Chiswick Place, Eastbourne, not later than Monday, June 20th. NNER VERRALL, 97, Montpellier Road, Brighton, Honorary Secre-

H-EASTERN BRANCH: CANTERBURY DIVISION.—The annual meeting Division will be held at the Kent and Canterbury Hospital, on ay, June 23rd, at 4 p.m., Dr. Gogarty in the chair. Agenda: 1. To inutes of the last meeting. 2. Election of officers. (*a*) Chairman; -Chairman; (*c*) Representative on Branch Council; (*d*) Honorary ry and Treasurer; (*e*) Executive Committee (additional member). nsider a communication from Dr. Gosse. 4. To consider the pro-esolutions and other business for the forthcoming Representative g at Oxford (*vide* SUPPLEMENT, May 7th, 1904). 5. To consider g rules and discuss whether any alterations are necessary. 6. To r a communication from the Exeter Division of the South-Western . 7. Any other business. 8. Possibly an address by Mr. Smith er, Medical Secretary of the British Medical Association.—A. R. EY, 1, London Road, Canterbury, Honorary Divisional Secretary.

-EASTERN BRANCH: FAVERSHAM DIVISION.—The annual meeting Division will be held at the Cottage Hospital, Faversham, on ay, June 16th, at 3 p.m. Agenda: 1. Confirmation of minutes of ting. 2. Time and place of next meeting. 3. Annual report of the ry Divisional Secretary. 4. Election of the following officers: n, Vice-Chairman, Secretary and Treasurer, Member of Branch Executive Committee. 5. A communication from the Exeter . 6. To consider the business of the Annual Representative . 7. Paper by Dr. S. R. Alexander. 8. Any other business. All s of the South-Eastern Branch are invited to attend these meet-to introduce professional friends.—WILLIAM GOSSE, Westdene, ourne, Honorary Divisional Secretary.

MIDLAND BRANCH.—The annual meeting of this Branch will be he New Schools, Sheep Street, Winslow, Bucks, on Thursday n, June 16th, under the presidency of Dr. Kennish. The Pre-quests the pleasure of members' company to luncheon at the el, Winslow, at 1.30 o'clock, and will be obliged by the favour of addressed to himself, not later than the morning of June 12th. Minutes of autumnal meeting. New members elected by Letters and communications. Papers and cases. President's Mr. Whitelocke (Oxford): Some Cases of Ectopic Gestation y Operation. Mr. Savory (Bedford): Case of Benign Papilloma Pelvis, Haemothorax, Nephrectomy, Recovery. Dr. Milligan npton): Case of Acute Perforative Appendicitis in which Abdo-tion had to be performed a second time, with remarks gener-ppendicitis.—E. HARRIES JONES, 45, Sheep Street, Northampton, y Secretary.

WESTERN BRANCH.—The annual meeting of this Branch will be uesday, June 21st, at the Public Hall, Paignton, at 3 p.m., when pson will resign the chair to Dr. J. Alexander, who will deliver ural address. The report of the Branch Council and annual statement for the year 1903-4 will be presented to the meeting, fficers of the Branch be elected for the year 1904-5. The Branch ill submit to the meeting for approval a code of rules to regu-edure in ethical matters, and will propose the following altera-Rule 15, Sections C and D: Section C to read—Exhibition of Cases. Section D to read—Reading of Papers. Luncheon, by tation of the President-elect, will take place from 1 p.m. to 2.30 he Public Hall. After the meeting a garden party will be held een's Park, when the President and Mrs. Alexander will receive and their wives. The annual dinner will be held at the Public 45 p.m. Tickets (exclusive of wine), 6s. 6d.; after which a short nateurs will be given. All members who wish to stay over the have leave to play golf on the Churston Links by the kind con-e Committee of the Churston Golf Club. All members attending ng will be honorary members of the Paignton Club by kind con-e committee. The Esplanade and Gerston Hotels afford good dation for members wishing to stay the night. The Honorary will be obliged if those members who purpose attending the ll inform him on or before June 14th, and at the same time for-amount of the dinner ticket.—G. YOUNG EALES, 1, Matlock orquay, Honorary Secretary.

DSHIRE BRANCH.—The annual meeting of this Branch will be olverhampton, on Thursday, June 16th.—E. PETGRAVE JOHNSON. eet, Stoke-on-Trent, Honorary General Secretary.

MERSET BRANCH.—The annual meeting of this Branch will be e Crown Hotel, South Petherton, on Tuesday, June 28th, at undes the presidency of Mr. A. W. Sinclair. Agenda: Minutes ting. Annual report of Council. Treasurer's report. Election nt-elect. Election of other officers. Election of Ethical Com-thical case: Report of Committee on case recently before them. 1: The following will be proposed: "That members of the Council attending ordinary meeting of the Council at Taunton shall receive their second-class return railway fare." President's address on Neurasthenia. Luncheon will be served at the Crown Hotel at 1.30 p.m. —W. B. WINCKWORTH, Sussex Lodge, Taunton, Honorary Secretary.

YORKSHIRE BRANCH.—Preliminary Notice.—The annual meeting of this Branch will be held at Leeds on Wednesday, June 22nd. Members wishing to read papers or show cases or specimens are requested to communicate with the Honorary Secretary as soon as possible. Annual dinner at 6.30.—ADOLPH BRONNER, 33, Manor Row, Bradford, Honorary Secretary.

SPECIAL CORRESPONDENCE.

MANCHESTER.

The Chair of Pathology and Pathological Anatomy in the University.—Royal Infirmary.—Citizens' Life-Saving Classes.—Insanitary Houses in Salford.

LESS than a quarter of a century ago in 1881 Dr. Julius Dreschfeld, the present Professor of Medicine in Owens College and in the University, was nominated Professor of Pathology, and many who were students at and after that period remember with what success that important department of medicine was taught. In 1891, the Proctor trustees, by a timely gift, enabled the Council of the College to endow the Chair, and Professor Delépine was elected. Since then much has happened. The subject has greatly extended. Bacteriology has made great strides, both in its application to disease and to the prevention of disease. Moreover, the subject of public health has grown greatly and demands much time on the part of those who have to teach it and to meet the requirements of corporations. The Council of the University has now taken a step of great importance in the interest of the College and the University on the one hand and certain corporate institutions on the other. A new Chair of Comparative Pathology and Bacteriology has been founded, and Professor Delépine is the first occupant. He is also Director of the new public health laboratories which are being erected near the new site of the Royal Infirmary, as he was of the older public health laboratory on the Stanley Grove Estate. This arrangement still leaves the subject of pathology and pathological anatomy, as it is taught to students of medicine, to be provided for. It is proposed to appoint a Professor of Pathology and Pathological Anatomy. There is more, however, it appears, in contemplation. Should an agreement be come to between the College and the Royal Infirmary, the professor would have certain duties in connexion with the pathological department of the infirmary, whereby he would be responsible for the conduct of necropsies and other matters incidental thereto.

Progress is reported in respect of the new infirmary. The Board of Management has referred the tenders for the work of clearing the Stanley Grove estate to the Estates Subcommittee to accept a tender and proceed with the operations. The Board has accepted estimates for a chapel to be built in connexion with the hospital at Cheadle at a cost of £3,122. The infirmary has received a legacy of £1,000 under the will of the late Mr. Frederick Midgley, of Manchester and Huddersfield, and another of £500 under the will of Mr. James Jewitt.

It appears that the Manchester Corporation was the first, and is still the only corporation which has arranged citizens' life-saving classes. The number of pupils exceeds 500, and the tuition has been given at the public baths. Instructors and books are provided free by the Corporation. Nearly 300 of those who were trained acquitted themselves successfully. The object of the training is to encourage the cultivation of the art of swimming. The Corporation offers special inducements to scholars, and awards a free ticket to those who succeed in gaining the Life-saving Society's proficiency certificate. Special advantages are also offered to policemen and firemen—qualification for the Life-saving Society's proficiency certificate entitles them to free admission to the baths as long as they remain in the employment of the Corporation.

The past has an inveterate tendency to remain in the present, and of this there are few more striking examples than those that exist in connexion with insanitary property, which is not only an evil in itself, but a source of danger to the community. The Health Committee of Salford recommended the Council of the borough to issue a closing order in respect of certain dwelling-houses, on the ground that they were unfit for human habitation. A sharp distinction must be drawn between a "closing order," and one for demolition. What was asked for was a closing order to

compel the owners to put the houses into a sanitary condition. This is the condition of the houses—as set forth by the advocate of the motion—which seems to afford ample justification for the recommendations of the medical officer and his staff.

The houses in certain streets were of the back-to-back type, and to thirty-two houses there were only nine closets. Ten of the houses were not supplied with internal water fittings, and the houses were very dark. In Frederick and Back Frederick Streets the houses were also back to back, and two closets served for twelve houses. Access to these closets was by a covered passage, and along with the ashpits they were fixed under the bedrooms. Other of the houses were back to back and also had ashplaces under the bedrooms.

If confirmation be needed it is supplied by the remarks of another councillor, who stated that in the districts concerned the death-rate was 30.7 per 1,000, as against 14.7 in Broughton; while the death-rate for infants under 1 year of age was 223 per 1,000, as compared with 123 in Broughton. In one of these houses lived a man and his wife and his four children, the "accommodation" consisting of a kitchen and one bedroom. "The water-tap was under the stairs, and it dripped on the flags placed beneath it, causing a bad smell." The resolution was carried.

LIVERPOOL.

Summer Post-graduate Courses.—Proposed Appointment of an Assistant Gynaecological Surgeon to the Royal Infirmary.—District Nursing.—The Expedition to the Congo for the Study of Sleeping Sickness.

THE Faculty of Medicine in the University has issued a prospectus of two comprehensive courses of post-graduate lectures and demonstrations, one of which will be given in June and July and the other in August. Both courses will cover laboratory and clinical work, and practitioners can take out as many of the subjects as they desire. The first course is arranged to meet the convenience of practitioners in the neighbourhood; the second is intended especially for practitioners who may desire to spend some time in Liverpool for the purpose of study. The laboratory work, which will be carried out in the laboratories of the University, will include morbid anatomy and general pathology, bacteriology, biochemistry, haematology, parasitology, electrical methods and ophthalmoscopy, ; the clinical work, which will be carried out in the general and special hospitals recognized by the University for clinical instruction, will consist of lectures and demonstrations by members of the various staffs. The classes in June and July will meet once or twice a week, but in August the classes will run on from day to day, so as to cover as much ground as possible in a short space of time. The laboratory course will run from August 2nd till August 13th inclusive and the hospital course from August 16th till August 27th inclusive. Further information may be obtained on application to the Dean of the Faculty of Medicine.

A proposal is on foot to increase the staff of the Royal Infirmary by appointing an assistant gynaecological surgeon. When the present building was opened, in 1892, there was only one assistant honorary officer—an assistant surgeon. Next year an assistant physician was appointed and two more assistant surgeons, and a few years later a second assistant physician. The work of the institution has kept pace with the increase of the staff, who have always abundance of work to do. The gynaecological department, internal and external, has shared in the general growth of the hospital, and the time has come when it is considered desirable to provide further help in carrying on the work. The Medical Board and the Committee have agreed on the desirability of appointing an assistant surgeon to the department, but before this can be done a meeting of the trustees must be called to make certain changes in the laws of the institution.

The system of district nursing, which has now spread throughout the country, took its rise in Liverpool in the early Sixties, owing to the initiative of the late Mr. William Rathbone. For many years the district nursing was carried on in connexion with the Royal Infirmary School of Nursing, but in 1898 the work was taken over by the Queen Victoria District Nursing Association. Since that time the work of the Association has undergone a large increase. Thus in 1898 there were 27 district nurses, who attended 5,269 cases, and last year there were 45 nurses, and the cases dealt with numbered 7,349. In addition to this the Association has established a system of school nursing, in connexion with which no less than 53,675 dressings were made last year. The growth of the city and the removal of a large working-class population to what were recently rural districts ha made it essential that new nursing centres shou established if the sick poor are to be effectually attend The Association is unfortunately in debt to the ex £1,200, but, owing to a generous offer of £600 from Mr Rankin and to the assistance of other friends of the A tion, it has been possible to open a new home in the Ol district, which will be worked by a matron and three The building was lately opened formally by the Mayoress. Mr. Meade-King, who was one of the sp drew attention to the support which was being given hospitals by the working men of Liverpool, and said th looked forward to the time when the hospitals wo maintained by the City, and subscriptions would be s for the support of institutions like the District Nurs Homes.

A communication has been received in Liverpo regard to the Congo Expedition, which the Liverpool of Tropical Medicine dispatched to the Free State, request of the King of the Belgians, for the purpose of ing trypanosomiasis and sleeping sickness, in the aut 1903. The expedition consists of Dr. J. E. Dutton and L. Todd, who formed the recent trypanosomiasis expl of the school to Senegambia, and Dr. C. Christy, who member of the Royal Society's Commission sent to Ug study sleeping sickness. The expedition left Englan in September last and proceeded direct to Boma, we stayed till the end of the year. At Boma the authorities attached a State medical officer, Dr. Heib the expedition. Dr. Heiberg was at one time a studen Liverpool School of Tropical Medicine. After six week at Boma the members of the expedition proceeded by routes to Leopoldsville. A stay of over four mont made at Leopoldsville, where the Government p spacious bungalow at the disposal of the expedition, a sequently built a hospital for the special study of sleeping sickness. Thanks to this, the members of t dition were enabled to make careful observations ex over several months, under the most favourable co possible, and to work without encountering the obst frequently met with by expeditions in similar climes. cases of sickness were very numerous, a great am material was available, and the expedition was able t closely all the different types of cases. The expedition in the highest terms of the unfailing courtesy an assistance it has received everywhere from the officials of every grade.

BIRMINGHAM.

Sir Robert Ball's Address at the University.—The Resig Dr. Rickards.—The Queen's Hospital.

A MEETING of the Guild of Undergraduates was held medical theatre of the University of June 2nd for the of hearing an address by Sir Robert Ball, who is the W the guild, having succeeded Lord Avebury. The su of Sir Robert Ball's address was a consideration of t during which the sun had been dispensing its beams time the earth had lasted as a globe in anything present condition. He pointed out how vast was the of time that geologists thought necessary for the gr of shaping the earth and the enormous period require biologists for the production of all the animals and p the action of evolution. Sir Robert Ball said the ti the sun had been shining seem to be the limit of the time that there could have been life upon the earth, calculated from its present rate of contraction, the s not have been dispensing its beams for a sufficient l time to meet the demands of geologists and biologist led Sir Robert to speak of radium, and he remark although the evidence as to the presence of radium i was a little uncertain, yet the energy contained by t stance was so enormously great that he thought th various ways by which it was possible to get over mendous difficulty of the discrepancy between the f the astronomers and those of the geologists. The ad greatly appreciated by a large gathering of undergradu their friends.

At a meeting of the Board of Management of the Hospital, on June 3rd, the resignation of Dr. Edwin I senior physician to the hospital, was announce Rickards has been associated with the hospital for years, as he was appointed resident registrar and pa in 1870, and his resignation was received with the

t, not only on account of the great skill he has shown he attention he has devoted to the patients under his but also on account of his ever-courteous manner and ntiring interest he has shown in the welfare of the insti-n. A resolution was unanimously passed, expressing gret of the members of the Board of Management upon esignation of Dr. Rickards, and it was further resolved e next meeting of the governors to recommend, in deration of the eminent services rendered to the institu-luring the last thirty years by Dr. Rickards, that he be nted Consulting Physician to the hospital.

Queen's Hospital has received a sum of £230 from the nal Trades Exhibition, which has been held in Bingley luring the last ten weeks. The gift is 5 per cent. of the gate money, and is slightly more in amount than that ed from this source by the hospital in 1903. During st six years similar sums have been given to the hospital manager of this exhibition, the total amount received nearly £1,600.

NEWCASTLE-UPON-TYNE.

Infirmary Buildings.—Durham College of Science.—New oratories, College of Medicine.—Death of Mr. Weston, il Infirmary Dispenser.—Death of Dr. Mann, of Wash-n.—Bridge Construction and Caisson Disease.—Extensions ity Infectious Hospital.

uilding of the new infirmary on the Leazes continues e satisfactory and rapid progress. For the last few s the Nurses' Home has been roofed in, and it was that the home would have been ready for occupation nonth, but a good deal of internal decorative work e done and fittings put in before the nurses can occupy lding. The five pavilions of the infirmary proper are in, and at the present time the administrative block is rapidly proceeded with. It will, however, be fully n months yet before the infirmary will be ready to patients. It is a matter of regret that the Corpora-d Freemen of Newcastle did not give a larger piece of The want of this to some extent mars the effect of lding,

in a stone's throw of the new infirmary, and com-g an admirable view of the Leazes, is the University am College of Science. Extensions are at present in s which will cost nearly £70,000. When the final completed the College will, so far as structural ap-es and internal accommodation are concerned, com-ost favourably with other similar institutions in the . It says much for the position which the College s in the world of science that its professors and should be so frequently called upon to occupy chairs lder universities of England and Scotland.

ision has not yet been finally arrived at in regard to ns for the new wing at the College of Medicine in he physiological and bacteriological laboratories are ommodated, and in which the Students' Union is to d. It is the wish of the College of Medicine to pro-oratories built on the most modern lines which will teaching requirements for many years to come. ese objects in view the architects have visited the ies of other schools.

udents of the Royal Infirmary will read with deep e announcement of the death of Mr. Weston, who for wenty-two years has occupied the post of head dis-t the Infirmary. He was a faithful servant to the ee, courteous to the patients, and kind and helpful udents when learning their practical pharmacy. For few months he had been in indifferent health, and under the care of Dr. Beattie and Dr. Limont. The leath was uraemic coma.

known figure in the county of Durham has just been by the death of Charles F. G. Mann, M.B., C.M., of ton, at Craig Lutha, Dulnain Bridge, Strathspey, ther he had gone on account of his health. Energetic, ys fully occupied in the large practice—private and which he had made for himself in Washington, Dr. ealth a few months ago became a cause for some On consulting his medical friends, Professor Oliver Walter Ridley of Newcastle, who found evidence of us throat and lung disease, he was advised to relin-practice and seek rest and life in the open air. He ng survive his retirement from practice. Dr. Mann was in his 39th year when he died. He will be much missed in the neighbourhood where he worked, for he was an enthusiastic Volunteer, a good ambulance instructor, and could always be relied upon to support the various sports in his district. Few local charitable objects were ever brought before him without receiving his financial help. Dr. Mann leaves a widow, but no family.

With the new high-level railway bridge which is to span the Tyne rapid progress continues to be made. At the present time the foundations of the principal pier are in course of progress. Considering the large number of men that are employed, the depth at which they are working below high-water level mark, and the pressure employed, it is to the credit of the Cleveland Bridge Company that there have been so few cases of caisson disease and ordinary surgical accidents. There have been no fatal cases of caisson disease; of the half a dozen patients admitted into the infirmary, only in one man were the symptoms at all severe.

Small-pox lingers on in Tyneside. From time to time patients are still being sent into the small-pox hospitals in Newcastle, Gateshead, and elsewhere. The difficulty of stamping out the disease is greater than was at one time anticipated. In connexion with this and with infectious diseases generally the subject of hospital extension was discussed by the Newcastle City Council last week, and a decision of great importance to the district was reached. Alderman Henry Newton, who is a medical practitioner, in moving the adoption of the report of the Sanitary Committee recommending an extension of the hospital for infectious diseases at Walker, pointed out that when in 1888 the present hospital was built the population of the city was 159,000; to-day it is 220,000, and the prospects of a considerable increase are immediate, as it is proposed to incorporate some of the outlying townships. It is desirable to bring the hospital accommodation up to 208 beds and to provide in addition accommodation for 38 nurses. Dr. Adam Wilson, in seconding the motion, wisely remarked that, while there would be no financial return for the expenditure, the citizens of Newcastle would have one of the best assets possible. The proposal was unanimously adopted by the City Council.

SOUTH WALES.

The Housing Question in Merthyr.—Infectious Diseases.

THE Merthyr Board of Guardians have decided to call the attention of the Merthyr District Council to what they consider to be the frightful state of housing of the poor of the parish. It was stated that the parish was the worst slum district in Wales. We do not believe that this is so, nor that the District Council is so utterly indifferent to its responsibilities, as some of its critics try to make out. It has been doing excellent work for some time past, in the matter of the conversion of unwholesome dens into habitable dwellings. It is important that medical officers of health in counties and county boroughs should emphasize to their respective authorities the urgent need of putting into force the means at their disposal for remedying this evil, which causes such terrible loss of life and impairment of the physique of workmen and their children. Some, and amongst these, the Medical Officer for Merthyr, have been very active in this direction; but others content themselves with pressing forward substitutes for healthy houses in the form of isolation hospitals, sanatoria, etc. The action taken by the Merthyr Board of Guardians may be advantageously followed by other local bodies, and by the members of the Glamorgan County Council in particular. The Sanitary Committee of this body meets this week, and on the agenda, strange to say, there is no reference to housing questions, but the provision of isolation hospitals—as to the value of which eminent experts are, to say the least, extremely doubtful—occupies a very prominent place. This is by no means worthy of a body possessing such a preponderating progressive majority as the Glamorgan County Council.

Two cases of small-pox were notified at Cardiff during the week ended June 4th. A few weeks ago five cases were notified during one week; these were isolated and one proved fatal. All the cases were traced to the same source, and it is hoped that through the incessant vigilance of the sanitary officials the outbreak is now at an end. A localized outbreak of typhoid fever occurred some time ago at Fochriw, a parish of Gelligaer, which the medical officer of health attributed to the exposure of infected blankets contaminating the milk in a house.

CORRESPONDENCE.

THE ANNUAL MUSEUM AT THE OXFORD MEETING.

SIR,—I read with much pleasure the interesting letter of Mr. Jonathan Hutchinson on the Annual Museum at Oxford. For several years it has appeared to me that this scientific and instructive exhibition has not received that amount of attention which its importance warrants. On one or two recent occasions the room, or rooms, devoted to this Section have been out of the way and difficult to find. I have always thought that the addition of one or two permanent officials to the Local Committee would be a distinct advantage, inasmuch as the experiences of one year would prove valuable upon the next occasion.

There is undoubtedly a very large amount of valuable material in the keeping of private individuals, apart altogether from museum specimens. A register of members of our profession who take an interest in the application of photography to medicine would prove of great service. It is a well-known fact that for every voluntary exhibitor ten could be induced to add their mite by means of a little pressure. I think the suggestions of Mr. Jonathan Hutchinson are admirable, but would go a step further; I would advocate the inclusion of a collection of up-to-date apparatus used in all branches of pathological research, including photography. Demonstrations of methods might also be given with distinct advantage.

In the practical application of photography to medicine we have at hand perhaps the most useful method of disseminating knowledge, and increased knowledge of its capabilities would undoubtedly induce fresh workers to apply it. A demonstration of up-to-date colour photography would impress many with the vast field of possibilities which might accrue from an extended application of this branch of science to medicine.

If the space available at Oxford is sufficient I would further suggest that a lantern room be provided which can be used for the exhibition of slides independently of those which are shown as illustrations to the papers read before the Sections.—I am, etc.,

Birmingham, June 7th. JOHN HALL-EDWARDS.

THE GOVERNMENT LUNACY BILL.

SIR,—Dr. Clifford Allbutt, in his letter which appeared in the BRITISH MEDICAL JOURNAL of May 28th, does not appear to me to have treated the subject he discusses with that clearness and cogency which we are accustomed to expect from him.

He fails to understand what is a "border-line" mental case, and attempts to clear his views by comparing it with a border-line case of typhoid, thus, I venture to suggest, contrasting a matter of fact with a matter of opinion. The typhoid bacillus is microscopically demonstrable, but the question whether a case of insanity requires to be altogether restrained of his liberty is a matter of opinion, in respect to which in a given case six men may entertain one view and six another.

Then Dr. Allbutt appears to urge that there is no possibility of recognizing an incipient case of insanity which is probably curable from one which is likely to need absolute restraint. He exemplifies this by the case of a convalescent from influenza who, after a few days' depression, shoots himself. But are influenza and the insane act the only factors in such a case? Was not the patient predisposed by heredity, by associated toxic conditions, by worry, etc., to his fatal loss of self-control, and would not the presence or absence of these guide the physician to decide whether he should put the patient under control or not? Dr. Allbutt, I am sure, does not advocate that every case of influenzal depression should be certified and put in an asylum.

Dr. Allbutt also appears to argue that because asylums are so good, there is no need of any other mode of treatment, and that the care of incipient insanity as suggested, must necessarily be bad because he had been so unfavourably impressed with the indifferent treatment given to single certified cases of an entirely different class. This, of course, condemns the Scotch boarding-out system, which had been so much vaunted, but I wish to add that while I have seen some unsatisfactory single-care cases, I have seen many very satisfactory ones, and that I consider his sweeping condemnation unjust to many medical and lay persons who have devoted themselves to this work.

Dr. Allbutt recognizes the importance of individuality of attention in the treatment of the insane; and I venture to assert that in no asylum, or at least in only a few of the type of private houses can such an amount of individual attention be concentrated on the patient as in a suitably situated and arranged private house, with thoroughly qualified nurses and companions, under an experienced medical man acting under the direction of an able physician. As I have said elsewhere, single care may be the very best or the very worst form of treatment.

If this Lunacy Bill becomes law, it will ultimately necessitate the restriction of single care to persons and conditions that are suitable for carrying it out. At present any one, be he an ex-convict, habitual drunkard, insane fanatic, or ex-pugilist, may undertake the care of a single case, and under the present state of the law, no especially in regard to the incipient cases, it is the persons who have least to lose who are most ready to undertake this most important duty.

I am glad to see that Dr. Allbutt, in his asylum Utopia contemplates the possible abolition of the lunacy certificate. I have for many years expressed my conviction that it is the greatest curse of the modern lunacy system, but hitherto have felt its abolition to be beyond the range of practical possibilities. With his concurrence I shall indulge in a hope of seeing the question at least brought under discussion.

In conclusion, I would add that the proposed clause is far from increasing the number of incipient cases treated in private homes will, I believe, considerably diminish them. There will no longer be half a dozen of such cases to be found in a single so-called nursing home, nor will they be kept on for years in the genteel back parlour of the reduced gentlewoman.—I am, etc.,

London, W., June 7th. H. RAYNER.

SIR,—Dr. Mercier and Dr. Goodall correctly appreciate the scope of this subject from the point of what is best for the patient, and they naturally take the view which as physicians to asylums they might be expected to do. The legal authorities, whilst having doubtless the interests of the patient at heart, introduce the element of regard for the susceptibilities of the relatives as well. On many occasions a bias in favour of the sanity of the patient is shown by exponents of the law even when medical experts have been quite clear that insanity was actually present, and that the rules for care and detention as laid down in the Lunacy Acts were being violated. How often have prosecutions, even by the Lunacy Commission, failed, not out of consideration especially for the patient, but because the Bench and the public have ideas of their own as to what constitutes insanity, and also because they have considerable regard for social eccentricities.

It may be a pity that the public have such unreasonable notions about the "stigma" incurred by certification and asylum treatment, but it is a fact that families where these processes have been carried out are viewed askance both in matrimonial and other social functions, whilst no notice is taken of any one who has lived away from home, even a doctor's house, for a short "nervous" attack.

There are many patients now under private treatment who would be better in institutions, but there are also many for whom institutional treatment is not necessary, and I cannot but think that, following the opinion of the majority, a great concession has been made by the Government, backed up as it is by medical men of position, not all of them lunacy experts.

I am not apprehensive of risk to the patients from the want of proper qualifications in the receiver, for the medical man who is mainly responsible, the consultant, will in his own interests be careful whom he selects. Moreover, under the new rule something will be gained in the way of supervision for all who are temporarily removed must come under the cognizance of the Lunacy Commission. Up to now there has been broken with impunity. The new arrangement is unlikely to be expensive, and most private institutions will compete successfully in point of cost with other methods of treating the insane, and I do not anticipate that there will be any lessened demand for accommodation in the private asylums. Both systems appear to be required, and the one not antagonistic but complementary the one to the other.—I am, etc.,

London, W., June 6th. T. CLAYE SHAW.

THE CENTRAL MIDWIVES BOARD.

SIR,—The members of the medical profession are no indebted to Professor Sinclair for his letter in your issue

th on the proceedings and conduct of business of the l Midwives Board, and no time is to be lost before g our protest against this method of interpreting an Parliament which was intended to improve the educad to provide suitable medical supervision of midwives. as hoped and confidently expected that the Central es Board would so frame their regulations as to admit e more intelligent of the class of women who seek a ery training, and that the instruction and training d should tend to an increase of efficiency, and thus be rial value to the poor women whom they would be pon to attend. Apparently the policy is the reverse and we are to add registration to inefficiency, unless cy is altered.

hardly necessary to encroach upon your space by dis- the absurdity of the latest propositions as to the ment of midwives as inspectors of training institud as examiners, but it is of such gravity as to at once a protest from those of us who are interested in carry- the Act for the improvement in training and consenefit to the poor.—I am, etc.,

J. E. Gemmell,
Honorary Medical Officer, Ladies' Charity and Lying-in Hospital, Liverpool.

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t is sincerely to be hoped that the members of the profession will not interfere with the squabbles of o are engaged in the administration of the Midwives

ofession as a profession opposed the legislation, but table citizens its members, when the proposed Bill w, have accepted the situation. It appears to me desirable, if the best interests of the profession are sulted, for its members to do so much as lies within er to assist the authorities in carrying out the pro- the Act. The taking part in a faction fight, as sug- Dr. Sinclair, is certainly bad policy, and will pospearance of impropriety.

moters of the legislation never intended the medical to have effective control, and the Legislature has led such control; it is therefore absolutely a waste to attempt to minimize the injury to public alluded to in Dr. Sinclair's letter by enlightened, t, or any other sort of criticism.—I am, etc.,

une 6th. Lovell Drage.

THE IRISH DISPENSARY SYSTEM.

e annual report of the Irish Local Government most misleading document, and one which gives a idea of the state of affairs with which it professes to

ed reduction of 20 per cent. in the number of cases ade 1893-1902 as compared with that of fifty years erely a reduction on paper—there is no real reduc- had the Local Government Board, instead of half a century for their comparison, confined themodern times, they could not have shown a reducn paper. Fifty years ago, and even more recently, rule in practically every dispensary district to upon each red ticket, and few men went oftener exceptional cases, with the result that the doctors received and registered several red tickets for one me case. Now, on the contrary, all dispensary ardians, and wardens know that one red ticket e until the patient is either better or dead, and a t is practically never tendered to the doctor. As fact, the dispensary doctors are doing more work er before, in spite of the diminution in the popuuse the people now look for treatment to the dis- tor for trivial ailments for which some years ago not have sought his advice, and they also expect re, visited much more frequently than was forle.

strict, and no doubt in many others, the decrease lation has been most marked in the small and rmer class—a class which pays fees; these emigrated, and their farms have been abtheir more prosperous neighbours, with the all over the district one can see a owned by a farmer who employs several spensary patients) in place of two, three, four, or nall farms, each of which formerly supported a paid for their medical attendance. Result—increased dispensary or unpaid work and diminished private practice. If the average salary is larger now than fifty years ago (and I am not quite satisfied that it really is) so also are the extra duties and also unfortunately the cost of living and expenses of practice. Horses and vehicles are dearer and more of them required owing to increased work, and wages are much higher.

I was told the other day by a patient that he remembers when a labourer's daily wage was fourpence, now it is two shillings or more. The standard of living has in every class in the community been raised very much since 1853. Is the dispensary doctor to be content to live as his predecessor of fifty years ago lived—in hopeless misery and grinding poverty? But as a matter of fact he is worse off than his predecessor, because fifty years ago the greater number of the dispensary doctors were subsidized directly by the landlords for attendance on their labourers, and also attended these landlords and their households at £1 1s. per visit. Now owing to the reduced circumstances of the landlord class generally these subsidies are in practically every case discontinued and the labourers attended as dispensary patients, and the landlords are either out of the country or are keeping much smaller households, and have in many cases reduced the fee which they pay from £1 1s. to 10s. 6d.

The suggestion of "Ethics" that the report on the Irish dispensary system should be brought under the notice of the King is an excellent one, and by whom could this be done more fitly than by a prominent member of the British Medical Association at the request of the Association?—I am, etc.,

Newtownstewart, May 16th. W. Lyle.

MESSAGES TO MEDICAL MEN.

Sir,—In reference to the above question, on which there is an annotation in the British Medical Journal of April 16th, I have been in the habit for some years past of trying to educate the public in my immediate neighbourhood, in the great importance of sending proper messages—especially in urgent cases. This I have tried to do by relating one or more of the following incidents in my ambulance lectures:

1. A little girl called one morning with the message: "Please will you call and see Ma this morning." On taking down the name and address it appeared most convenient to me to make that my last visit, as the message was not urgent. The patient was nearly dead from haemorrhage when I did arrive; but fortunately made a tardy recovery.

2. I received a telegram while at dinner one day to the following effect: "Please come as quickly as possible." I left the table, got a bicycle, and rode my hardest for three miles; arriving breathless and perspiring I met the sender of the wire strolling slowly back from the office, and in response to my rapid inquiries as to what had happened was told that his sister had been ill in bed for a week, and they wanted my opinion before post time—some hours later.

3. One night I answered a ring at my night bell by the usual inquiry down the speaking-tube: "Who's there?"; in response an agitated voice shouted up: "I think he's dead." Failing to get any further information I hastily dressed; but on arriving in the street there was no one about; shortly, however, a policeman strolled up, but he had not seen the messenger. I went back to bed, and learned next day that a child had died suddenly within five minutes' walk of my house. In this case, though, it is doubtful if my services would have been of any avail; and the ambiguous message was due to the natural agitation of the father at the loss of his only son.

These cases—or similar ones which could doubtless be matched in the experience of any man in practice—I have found to considerably impress my audiences at ambulance lectures, and have, I think, had a beneficial effect on the kind of messages I have received of late.—I am etc.,

Newark-on-Trent. Percy Sharp.

FOUL CONVALESCENT HOMES.

Sir,—Within the last few months patients of mine, who had been sent to different convalescent homes, have complained that dormitory windows were never opened at night, notwithstanding that several patients were sleeping in one room. It seems astounding that the managers of such homes could tolerate such a preposterous obstacle to quick and satisfactory recovery from any and every kind of ailment as to poison their inmates during at least one-third of their stay. But it is well for medical practitioners to be aware that a

convalescent home may be a place where convalescence is practically impossible.—I am, etc.,

Kendal. W. RUSHTON PARKER, M.D.

TREATMENT OF INEBRIETY BY DRUGS.

SIR,—I am certainly in agreement with your correspondents in discussing the reported cures (?) of drunkenness. I know of four cases in the immediate neighbourhood that have been treated away, and each without exception has relapsed into its former habits of intemperance.—I am, etc.,

Whitehaven, June 4th. CHARLES HARRIS, M.D.

ROYAL NAVY AND ARMY MEDICAL SERVICES.

CHARGE ALLOWANCE FOR STATION HOSPITALS IN INDIA.

WE have received vigorous protests against the following recent ruling regarding charge allowance for station hospitals; it is dated May 7th, 1904.

The Government of India have ruled that an officer of the Royal Army Medical Corps transferred to station carrying a higher rate of charge allowance must be viewed as transferred to a more lucrative appointment for the purposes of Paragraph 103 (2) Army Regulations, India, vol. x.

The paragraph in the regulations above quoted runs as follows:

The provisions of this rule (free passage for wives and families) are not applicable to the families of officers . . . . transferred to a more lucrative appointment, or with the view to succeeding to one about to become vacant.

The scale of charge allowance is as follows:

300 beds	...	...	240 rupees per month
200 beds	...	...	180 ,, ,,
100 beds	...	...	120 ,, ,,
50 beds	...	...	60 ,, ,,
Specialist pay	...	...	60 ,, ,,

It is argued that by the ruling any officers transferred from no charge allowance to the lowest rate, or to specialist pay; or from the lowest rate of charge allowance to a higher, will have to pay for the passage of his wife and family.

Concrete examples of the effect of the ruling on the pockets of medical officers are given, wherein those with families moved between stations probably many hundreds of miles apart, will have to spend hundreds of rupees in travelling, on the ground that they may take up, for ever so short a time, a charge allowance of perhaps Rs. 60 per month!

One of our correspondents says that those experienced in the ways of the Indian Government had been wondering how the charge allowance would be evaded, or the recommendations of Mr. Brodrick's Committee nullified, and here it is!

Many an injustice and absurdity has been perpetrated with regard to the regulation upon which the ruling is based. Years ago an officer, just at the time of his promotion to surgeon-major, was ordered post-haste by *dák* to a cholera camp, and was refused travelling allowance, on the ground that he was "proceeding on promotion to take up a lucrative appointment"!

There can be no doubt the ruling in question will operate disastrously and unfairly in many instances, as it is not improbable a whole year's charge allowance may be thus swallowed up in a single move. We trust the ruling may be reconsidered and equitably modified.

ROYAL NAVY MEDICAL SERVICE.

INSPECTOR-GENERAL HERBERT MACKAY ELLIS has been selected for the appointment of Director-General of the Medical Department of the Royal Navy, in succession to Sir Henry F. Norbury, K.C.B., M.D., Honorary Surgeon to the King, who will shortly relinquish the position. Inspector-General Ellis was appointed Surgeon, September 30th, 1875; Staff Surgeon, November 18th, 1882; Fleet-Surgeon, January 27th, 1891; Deputy-Inspector-General, August 23rd, 1899; and Inspector-General, February 18th, 1904. He was with the Battalion of Royal Marine Artillery throughout the campaign in Egypt in 1882, being present at the two engagements at Kassasin on August 28th and September 9th, and at the battle at Tel-el-Kebir (mentioned in dispatches, promoted to Staff Surgeon, medal with clasp, and Khedive's bronze star). Whilst Fleet Surgeon he was wrecked in H.M.S. *Victoria*, which was sunk off Tripoli, on the Syrian coast, in collision with H.M.S. *Camperdown*, when the Admiral, 21 officers, and 350 men were drowned, June 22nd, 1893.

The appointment of Surgeon WILLIAM C. B. SMITH to the *Fire Queen*, for Haslar Hospital, has been cancelled.

ROYAL ARMY MEDICAL CORPS.

LIEUTENANT-COLONEL R. C. GUNNING retires on retired pay, May 25th. He entered the service as Surgeon, February 4th, 1877; became Surgeon-Major, February 4th, 1889; was granted the rank of Lieutenant-Colonel, August 4th, 1897; and made Brigade-Surgeon-Lieutenant-Colonel, August 9th, 1899. During the recent war in South Africa he was Principal Medical Officer of the 22nd General Hospital, and was in various operations in the Transvaal and Cape Colony.

Lieutenant-Colonel J. T. CAREY, M.B., also retires on retired pa... 25th. His commissions are dated: Surgeon, February 4th, 1877; Su... Major, February 4th, 1889; and Surgeon-Lieutenant-Colonel, Febru... 1897. He was in the Afghan War in 1879-80, being present at the ... of the Peiwar Kotal (mentioned in dispatches, medal with ... and in the Egyptian War in 1882 (medal and Khedive's ... star).

Captain W. R. P. GOODWIN is appointed to officiate as Personal ... tant to the Principal Medical Officer, Punjab Command.

Surgeon-Major W. C. BEEVOR, M.B., C.M.G., from the Scots Gua... be Major, with seniority next below R. J. A. Durant, May 25th.

EXCHANGE.

The charge for inserting notices respecting Exchanges in the Army ... Department is 3s. 6d., which should be forwarded in stamps or p... order with the notice, not later than Wednesday morning, in order ... insertion in the current issue.

JUNIOR LIEUTENANT-COLONEL R.A.M.C., due for foreign service ... next trooping season, desires exchange. Communications, giving ... and date of return home, to be sent to "Exchange," c.o. Messrs. H... Co., 3, Whitehall Place, London, S.W.

ARMY MEDICAL RESERVE.

SURGEON-MAJOR J. ADAM to be Surgeon-Lieutenant-Colonel, May ...

Surgeon-Captain J. H. G. WHITEFORD, M.B., to be Surgeon-... May 7th.

Captain F. D. WOOLLEY, R.A.M.C. (Volunteers), to be Surgeon-... June 4th.

Surgeon-Lieutenant J. R. WILLIAMS, M.B., 3rd Volunteer Battalion ... Royal Welsh Fusiliers, to be Surgeon-Lieutenant, June 4th.

INDIAN MEDICAL SERVICE.

THE undermentioned Captains, who entered as Lieutenants, ... 30th, 1892, are promoted to be Majors from January 20th, 1904: ... SETON, Bengal Establishment; R. H. ELLIOT, M.B., R. K. MITTE ... and W. E. A. ARMSTRONG, Madras Establishment.

The undermentioned, who joined the department as Lieuta... January 29th, 1901, are promoted to be Captains from January 29: ... C. W. F. MELVILLE, M.B., R. MCCARRISON, M.B., J. MASSON, M.B.; ... WELLS, M.B., W. M. ANDERSON, M.B., E. H. B. STANLEY, W. H. L... A. W. C. YOUNG, M.B., J. G. G. SWAN, M.B., R. MCL. DALZIEL, M.... ROBB, M.B., SHAIK ABDUR RUZZAK, R. B. B. FOSTER, M.B.

Colonel C. W. CARR-CALTHROP, M.D., Bengal Establishment, has ... from the service, from April 2nd. He was appointed Assistant ... April 1st, 1869, and became Surgeon-Colonel, April 2nd, 1899. He ... the Afghan war in 1879-80, and was in the action at Ali Khel ... operations around Kabul in December, 1879 (medal with clasp). ... the Dongola Expedition in 1896 he was Principal Medical Officer ... ing the British and Khedive's medals.

Lieutenant-Colonel T. H. POPE, M.D., Madras Establishment, ... retired from the service from March 1st. He joined as Assistant-... March 30th, 1878, becoming Surgeon-Lieutenant-Colonel, March 3... He was in the Afghan war of 1878-80, receiving the medal.

Major W. MOLESWORTH, M.B., Madras Establishment, is ap... Surgeon to the Governor-General of India, from May 1st.

Lieutenant-Colonel R. MACRAE, M.B., Bengal Establishment, is ... the temporary rank of Colonel, while officiating as Admin... Medical Officer and Sanitary Commissioner, Central Provinc... April 15th.

Lieutenant-Colonel P. H. BENSON, M.B., Madras Establishm... granted the temporary rank of Colonel while acting as Principal ... Officer of a district, from April 11th.

Captain C. J. ROBERTSON-MILNE, M.B., Bengal Establishment, ... placed on special duty under the orders of the Director-General ... Medical Service, from December 31st, 1903.

VOLUNTEER AMBULANCE CHALLENGE SHIELD.

THE annual contest for the Ambulance Challenge Shield of the V... Medical Association was held on June 4th at Wellington Barrack... the Director-General and the Deputy Director-General of the Arm... cal Department were present, and nine teams, each of four m... peted. Five of these were sent by corps in London, two from ... ford, one from Liverpool, and one from Glasgow. In the event th... was won by the team from the 2nd Volunteer Battalion Royal Fu... City of London Regiment. The same corps has won the shield u... occasions since 1892, and the score upon this occasion was 310 p... of a possible 350. Second came the Glasgow Highland team, ... points behind, while other good positions were attained by squa... the 1st Cadet Battalion King's Royal Rifles, London Rifle Brig... Volunteer Battalion Essex, and 2nd Middlesex. In presenting th... to the winners the Deputy Director-General drew attention to ... that the lowest proportion of possible marks had again been give... aid, a part of the work in which the men should be at least as go... drill and bandaging, since first aid was a necessity of civil as w... military life. The judges were Surgeon-Captain E. J. Callander, ... Harper, R.A.M.C.(Volunteers) for drill; Surgeon-Captains T. H. ... and Norman Evans for first aid; Surgeon-Major W. A. Dingle and ... E. W. St. Vincent Ryan for bandaging; and Surgeon-Captains G... Boyd and C. Goullet for anatomy and physiology.

MEDICO-LEGAL AND MEDICO-ETHICAL

AN OVERLOOKED SPONGE.

ON June 2nd, 3rd, and 6th Mr. Justice Bruce and a special j... occupied with the trial of an action brought by Miss Byrne, ... keeper, against Miss Mary Thorne, M.D.Brux., F.R.C.S.I., to... damages for alleged negligence in leaving a sponge or swab ... wound after an abdominal operation.

Mr. Clavell Salter, K.C., and Mr. Woodfin appeared for the ... Mr. Dickens, K.C., and Mr Fraser (instructed by the solicito... Medical Defence Union) for the defendant.

It appeared that in April, 1903, the plaintiff consulted the de... The defendant recommended an abdominal operation which ...

ntly performed at a nursing home belonging to a Mrs. Palmer. The ration was successful, but subsequently the patient experienced her discomfort. Being then at Brighton, she consulted Dr. Calvert, advised another operation, which was performed at the Sussex pital. It was then found that an abscess had been caused by a tress sponge which had not been removed after the first operation. r this operation the plaintiff rapidly recovered. She now brought action to recover the expenses to which she had been put and for ages for the alleged negligence.

er the plaintiff had given evidence, Dr. Calvert was called. He was pinion that sponges should be counted both before and after the ation by the surgeon as well as the nurse. This was the practice at Sussex Hospital. In cross-examination, he said that he understood many surgeons accepted the counting of the nurse, but this was not ractice.

the conclusion of the plaintiff's case, Mr. Dickens submitted that was no evidence of negligence to go to the jury. The Judge having that the case must proceed, Mr. Dickens, in opening the case on the of the defendant, drew attention to the fact that although on Sep- er 30th the plaintiff had written to the defendant expressing grati- and thanks, a solicitor's letter asking for damages was sent on mber 9th. It was clear that the defendant had performed a very ılt operation with a satisfactory result, as the plaintiff's medical sses had admitted that she would have died if the operation had en performed. Coming to the alleged negligence, the suggestion hat the defendant should have counted the sponges herself. He tted that an operating surgeon was not called upon to perform this f the work, as his attention should be concentrated on the operation ndition of the patient. He would call evidence in support of this Here the defendant had left the counting of sponges to a skilled and he would submit to the Court at the proper time that the iant was not responsible for the acts of the nurse.

his point his Lordship intimated that this was a question for the

Mary Thorne gave evidence in support of counsel's opening state- She said that she had held various hospital appointments between ıd 1898, and since 1898 had been in private practice at 10, Notting- lace. She had a cheap day for poor patients, and it was on one of days that Miss Byrne visited her in April, 1903. She found that Byrne was suffering from a large tumour in the pelvis. On April fendant saw Miss Byrne in consultation with Miss Aldrich-Blake, t was considered justifiable to operate. The patient was sent to a belonging to Mrs. Palmer, in whom the defendant had confidence. endant asked Mrs. Palmer to make arrangements as she had done vious operations. The operation involved the removal of a large which was adherent to the uterus and the tube leading to one of ries. Two large mattress sponges and twenty-four swab sponges rovided. Mrs. Palmer was in charge of the sponges, and handed s required. After the operation defendant twice asked Mrs. whether the sponges were correct. Receiving satisfactory s she closed the abdomen in the usual way. The plaintiff made an ıt recovery. In defendant's view it was sufficient to leave the g of the sponges to a competent nurse. She had never seen it the surgeon, though she had seen it done herself during the last ıths. She had received no fees for the operation, but had charged rne 17s. 6d. for three prior attendances.

oss-examination, witness said that she left the conduct of the he Medical Defence Union. She had checked the number of in- ıts used, but not the number of sponges. She took out all the which she saw. It was difficult to distinguish sponges in the ıal cavity when they were wet.

examination, defendant explained that Mrs. Palmer carried on a independent business as superintendent of a nursing home. no idea until she came into court that the sponge left in was a sponge.

Court: The surgeon has control of every one in the operating The sponges would be counted by the nurse when put into the

S. A. Griffith, who had heard Miss Thorne's evidence, said that ation was one of unusual difficulty. The practice as to counting varied. Sometimes, where an emergency operation was per- ınd the operator had assistants to whom he was unaccustomed, have to count the sponges himself. In other cases, however, it e interest of the patient to delegate the duty to an experienced n cross-examination he said that a sponge left behind would to cause injury. The duty of putting the sponges in position was ed either by the surgeon or the assistant-surgeon. A skilled ould not say whether sponges had been removed or not unless he sponge was protruding from the wound. A sponge of the duced might easily lie unnoticed in the abdominal cavity. In his e was no carelessness on the part of the surgeon if he delegated of counting to a competent assistant. It was usual for the surgeon or his professional assistant to perform all the vital he operation. The head nurse employed at a private operation ly selected by the operator.

I here read an extract from Sir Frederick Treves's book, in which r described the leaving of a sponge in the peritoneal cavity as rtunate lack of care."

ter Tate said he had performed about 600 abdominal operations. uite possible for the sponge produced to lie hidden in the He had never counted the sponges in any of his own cases; ways left it to the nurses. In cross-examination he said it was a natter for a person to have a sponge left behind The operator s justified in leaving the counting to the nurses. In the witness's as undesirable that the operator or his assistant should leave ıt to handle septic sponges. It was only by means of the fingers ould be possible to make the count, as the sponges were often ther. There was nothing to prevent the surgeon standing over ring the nurse except the delay.

nglas Drew, F.R.C.S., and Miss Aldrich-Blake, M.B., etc., also ence on the part of the defendant.

timer, the proprietress of the nursing home, said she had he sponges before and after the operation. There were twenty- es used. It was her practice to count and recount in threes. asion in question she had made a note of the figures on a piece She was still certain that she had made a correct count.

having addressed the jury, the learned Judge, at the conclusion mming-up, asked the jury to answer the following questions: defendant guilty of a want of due and reasonable care in the counting or superintending the counting of the sponges? (2) Was Mrs. Palmer employed by the defendant as assistant during the operation? (3) Was Mrs. Palmer negligent in counting the sponges? (4) Was the counting of the sponges a vital part of the operation which the defendant undertook to see properly performed? (5) Was Mrs. Palmer under the control of the defendant during the operation?

After an absence from court for an hour and a-half, the jury answered all the questions in the affirmative, but stated that it was not a case for damages, which they assessed at one farthing.

Mr. Dickens having asked for judgement, the Judge directed that the jury should again consider the question of damages. They then left the court. Upon their return the foreman announced that, "in the opinion of the jury, the plaintiff was entitled to not more than £25 for pain and suffering." Judgement accordingly.

His Lordship said he was glad to find that by their verdict the jury made no imputation upon the skill of the defendant as a surgeon.

A stay of execution was granted on the usual terms.

PROSECUTION OF AN UNQUALIFIED DENTIST IN SCOTLAND.

ON May 26th, at Stirling Sheriff Court, Robert Robertson, 50, Tillie Street, Glasgow, and Denny, Stirlingshire, was charged at the instance of the Medical and Dental Defence Union of Scotland, Limited, that he did, by public advertisement in the newspapers "pretend to be or take or use the name or title of surgeon-dentist." This was the first prosecution at the instance of the Defence Union, which was represented by Mr. Findlay, of Turnbull and Findlay, solicitors, Glasgow.

Mr. J. C. Muirhead, solicitor, Stirling, appeared for the accused, who intimated a plea of not guilty. Mr. Muirhead also took three objections to the relevancy of the complaint: First, that the Defence Union had no title to sue; secondly, that it was no contravention to pretend to be a surgeon-dentist; and thirdly, that no alternative to the fine that might be imposed in case of conviction was stated in the complaint.

The Sheriff held that the Union was entitled to prosecute, and that it was not necessary to state in the complaint, seeing that it was under the Summary Jurisdiction Act, the alternative penalty if a fine was not paid. In the case of the other objection, however, that it was no offence to "pretend to be" a surgeon-dentist, the complaint was bad on this point, as undoubtedly it was not a contravention to "pretend" so long as nothing else followed. The complaint, however, might be amended by deleting the words "pretend to be" a dentist, and the charge restricted to "using the name or title of a surgeon-dentist."

Mr. Muirhead said, to save the time of the Court, he would admit the publication by the accused of the advertisements complained of. This had gone on for a long time, and the accused's attention was never before called to its being wrong.

Mr. Findlay: The accused has been moving about from place to place, doing this though he gave me a personal undertaking in January last to cease the practice.

The Sheriff: There is no question he represented himself to be a surgeon-dentist.

The plea of not guilty was then withdrawn, and one of guilty made.

The Sheriff said that the maximum penalty was £20, but, as the accused had given the undertaking to withdraw the circulars and advertisements complained of, the fine would be modified to £5, with £1 2s. 6d. expenses, or thirty days' imprisonment.

VALUE OF PRACTICE.

M.A. writes: A. and B. are practitioners in the same village. A. has much the larger practice, which he has held for nearly twenty years. B. has only recently acquired the smaller practice, but is better qualified than A., and has every possibility of cutting into A.'s practice. A. is prepared to negotiate with B. for the sale of his practice, and B. wishes to know whether it would be unreasonable on his part to demand two years' purchase on the present value.

*** A. could not be advised on business principles to give as much as two years' purchase for such a practice.

UNIVERSITIES AND COLLEGES.

UNIVERSITY OF OXFORD.

Representative on the General Medical Council.—Joseph Frank Payne, D.M., Magdalen College, has been re-elected a member of the General Medical Council.

Appointment of Examiners.—Sir Arthur V. Macan, B.M., M.S.Dub., has been appointed an Examiner in Midwifery; William Williams, D.M., D.P.H., non-collegiate, has been appointed an Examiner in Preventive Medicine; Marcus Seymour Pembrey, D.M., Christ Church, has been appointed to examine in physiology in the First B.M. Examination *pro hac vice*.

UNIVERSITY OF CAMBRIDGE.

Professor of Surgery.—Professor Howard Marsh, M.A., Fellow of King's College, has been approved for the degree of Master of Surgery.

Gift of Drawings.—Two portfolios of drawings, one of diseases of the eye, the other of diseases of the eye, have been presented to the University by Dr. Ole Bull, of Christiania. They will be exhibited by Professor Clifford Allbutt at the meeting of the British Medical Association to be held next month in Oxford.

Appointments.—Dr. W. H. R. Rivers, Fellow of St. John's College, has been appointed a member of the Special Board for Moral Science. Dr. Humphry, Dr. S. West, Dr. W. Hale White, and Dr. J. Rose Bradford have been appointed Examiners in Medicine; Dr. Handfield-Jones and Dr. Herman, Examiners in Midwifery; Mr. C. T. Dent, Mr. E. Owen, Mr. C.W. Mansell Moullin, and Sir Hector C. Cameron, Examiners in Surgery, for the ensuing academical year.

UNIVERSITY OF LONDON.

THE following candidates have passed the M.B. Examination:

First Division.—H. H. Greenwood, Yorkshire College; Beatrice Mary Kidd, London School of Medicine for Women; E. G. Pringle, St. Bartholomew's Hospital; P. Rees, B.Sc., Charing Cross Hospital; H. T. Smart, Guy's Hospital; S. M. Smith, St. Mary's Hospital.

Second Division.—F. H. Alexander, University College; J. H. Arthur, London Hospital; O. F. H. Atkey, King's College; J. G. Atkinson, St. Bartholomew's Hospital; Sophie Grace Banham, B.Sc., London School of Medicine for Women: Alice Marian Benham, London School of Medicine for Women; Victoria Evelyn M. Bennett, London School of Medicine for Women; Ruth Levy Bensusan, London School of Medicine for Women; A. J. Blaxland, University College; Agnes Maud Brown, London School of Medicine for Women; H. H. Carter, Guy's Hospital; J. H. Clatworthy, Guy's Hospital; E. L. Clay, University of Birmingham and Queen's and General Hospitals; Helen Mary Collen, London School of Medicine for Women; J. M. Collyns, St. Bartholomew's Hospital; P. C. T. Davy, University College; J. T. D'Ewart, Victoria University; Laetitia Nora Ede, University of Durham; R. Félix, Middlesex Hospital; J. A. Ferrière, University College; J. W. Fox, London Hospital; P. A. M. Green, London Hospital; P. W. Hamond, Guy's Hospital; G. M. Harston, Charing Cross Hospital; B. Hart, University College; W. H. Harwood-Yarred, B.Sc., St. Thomas's Hospital; G. S. Hett, University College; C. D. Holdsworth, University College; Margaret Hudson, B.A., London School of Medicine for Women; C. E. Iredell, Guy's Hospital; J. James, King's College; F. A. Johns, London Hospital; S. Johnson, St. Mary's Hospital; C. H. F. Johnston, Charing Cross Hospital; E. W. Jones, University of Birmingham and Queen's Hospital; F. W. Jones, B.Sc., London Hospital; H. S. Jones, Guy's Hospital; R. M. Kalapesi, St. Bartholomew's Hospital and Grant Medical College, Bombay; H. R. Kidner, B.Sc., St. Bartholomew's Hospital; Elizabeth Knight, London School of Medicine for Women; Kate Knowles, London School of Medicine for Women; Jessie Augusta Lewin, London School of Medicine for Women; A. Lewthwaite, University College; M. G. Louisson, Guy's Hospital; C. E. W. Lyth, London Hospital and University College, Sheffield; F. C. McCombie, King's College; N. Macfadyen, St. Bartholomew's Hospital; E. C. Mackay, St. Bartholomew's Hospital; H. C. C. Mann, Guy's Hospital; J. A. Milne, London Hospital; B. Moiser, Guy's Hospital; E. C. Myott, Guy's Hospital and Victoria University; P. A. Peall, Guy's Hospital; C. B. Penny, Guy's Hospital; F. B. Pinniger, Charing Cross Hospital; Kate Anne Platt, London School of Medicine for Women; Marian Theresa Pool, London School of Medicine for Women; J. J. Rainforth, London Hospital; J. E. Richards, Charing Cross Hospital; C. M. Roberts, St. Thomas's Hospital; G. W. Russell, Guy's Hospital; A. C. Stark, Westminster Hospital; Louisa Graham Thacker, London School of Medicine for Women; E. F. Travers, St. Bartholomew's Hospital; Laura Sobey Veale, London School of Medicine for Women; C. R. Verling-Brown, St. Bartholomew's Hospital; Ada Miles Whitlock, London School of Medicine for Women; S. R. Williams, University College and General Hospital, Bristol; W. B. Winston, B.Sc., St. Thomas's Hospital; R. S. Woods, London Hospital; F. R. E. Wright, St. Thomas's Hospital; S. Zobel, University College.

[N.B.—This list, published for the convenience of candidates, is issued subject to its approval by the Senate.]

ROYAL COLLEGE OF SURGEONS IN IRELAND.

THE annual meeting of the Royal College of Surgeons in Ireland was held on Saturday, June 4th; Sir Lambert Ormsby, President, in the chair.

The report showed receipts for the year, £4,139 18s. 10d.; disbursements, £3,558 4s. 9d., leaving in bank to credit, £581 14s. 1d. The investment account shows a sum of £10,407 7s. 11d. Ten candidates were admitted to the Fellowship of the College: 55 received the Conjoint Diploma; 25 the Conjoint Diploma in Public Health; 8 the licence in Dental Surgery, and 43 passed the Conjoint Preliminary Examination; 16 Fellows, 55 Licentiates, and 1 Licentiate in Dental Surgery died. There are at present living 435 Fellows, 2,834 Licentiates, 181 Diplomates in Public Health, and 515 Licentiates in Dental Surgery.

The President made a short address, and referred specially to the death of Mr. H. G. Croly, Sir P. C. Smyly, Professor Sir George Duffey, and Mr. Austin Meldon.

On the motion of Sir William Thomson, seconded by Sir P. Myles, the report was adopted.

At a meeting of the Fellows held on June 6th the following were elected President, Vice-President, Honorary Secretary and Council:—*President:* Mr. Arthur Chance. *Vice-President:* Mr. Henry R. Swanzy. *Secretary of ths College:* Sir Charles A. Cameron, C.B. *Council:* Mr. Edward Hallaran Bennett, Mr. William Stoker, Sir Charles Alexander Cameron, C.B., Mr. John B. Story, Sir William Thomson, C.B., Sir Charles B. Ball, Sir Thomas Myles, Mr. John Lentaigne, Mr. Richard D. Purefoy, Sir Lambert Ormsby, Mr. Henry G. Sherlock, Mr. R. Bolton M'Causland, Mr. John S. M'Ardle, Mr. Robert H. Woods, Mr. Thomas Donnelly, Mr. William Taylor, Mr. Edward H. Taylor, Mr. G. Jameson Johnston, and Mr. R Charles B. Maunsell.

CONJOINT BOARD IN IRELAND.

AT a special examination for the Diploma in Public Health, the following were successful: M. A. Curry, L.R.C.P. and S.I., Edward Carnell, L.R.C.P.I.

TRINITY COLLEGE, DUBLIN.

CANDIDATES have passed examinations as under:

Final in Midwifery.—J. G. Wallis, A. W. Goldsmith, R. S. Smyth, W. Thunder, J. A. Sibthorpe, W. J. M'Ivor, W. P. Tate, C. E. Fawcett, W. Mitchell, G. A. Crowley.

B. A. O. Degree.—R. Moore.

PUBLIC HEALTH AND POOR-LAW MEDICAL SERVICES.

HEALTH OF ENGLISH TOWNS.

IN seventy-six of the largest English towns, including London, 9,279 births and 4,277 deaths were registered during the week ending Saturday last, June 4th. The annual rate of mortality in these towns, which had been 16.1, 15.5, and 15.4 per 1000 in the three preceding weeks, further declined last week to 14.6 per 1000. The rates in the several towns ranged from 5.5 in King's Norton, 7.7 in Handsworth (Staffs.), 8.[illegible] Burton-on-Trent, 8.7 in Newport (Mon.), 9.0 in West Hartlepool, [illegible] East Ham, 9.5 in Smethwick, 9.6 in Hornsey, and 0.9 in Coventry, [illegible] in Stockport, 18.9 in Middlesbrough, 20.3 in Norwich, 21.3 in Prestor[illegible] in Newcastle-on Tyne, 22.5 in Huddersfield, 24.0 in Warrington, and [illegible] in Wigan. In London the rate of mortality was 13.2 per 1000, wh[illegible] averaged 15.2 per 1000 in the seventy-five other large towns. The deat[illegible] from the principal infectious diseases averaged 1.7 per 1000 in the sev[illegible] six towns; in London this death-rate was equal to 1.6 per 1,000, [illegible] among the seventy-five large provincial towns the rates ranged up[illegible] to 3.1 in Burnley and in Sunderland, 3.2 in Leeds, 3.4 in Salford, [illegible] Huddersfield, 4.1 in Hanley, 4.3 in Rhondda, 4.7 in Walthamstow, a[illegible] in Warrington. Measles caused a death-rate of 1.6 in Newcastle-on-[illegible] 1.8 in Norwich, Birkenhead, and St. Helens, 2.1 in Burnley a[illegible] Rhondda, 2.3 in Leeds, 2.7 in Huddersfield, and 3.7 in Waltham[illegible] scarlet fever of 1.6 in Hanley and 2.3 in Warrington; diphtheria [illegible] in Hanley and 3.0 in Stockton-on-Tees; whooping-cough of 1.1 in[illegible] mingham and in Swansea, 1.2 in Blackburn, 1.7 in Smethwick, [illegible] Bolton, and 3.9 in Warrington; and "fever" of 1.7 in Wigan. One [illegible] case of small-pox was registered in Leicester and one in Halifax[illegible] none in any other of the large towns. The Metropolitan Asylums [illegible] pitals contained 96 small-pox patients on Saturday last, June 4th, a[illegible] 99, 96, and 118 on the three preceding Saturdays; 10 new cases [illegible] admitted during the week, against 26, 18, and 33 in the three prec[illegible] weeks. The number of scarlet fever patients in these hospitals [illegible] the London Fever Hospital, which had been 1,600, 1,630, and 1,663 at [illegible] end of the three preceding weeks, had further risen to 1,673 at [illegible] end of last week; 207 new cases were admitted during the week, a[illegible] 239, 222, and 194 in the three preceding weeks.

HEALTH OF SCOTCH TOWNS.

DURING the week ending Saturday last, June 4th, 1,071 births an[illegible] deaths were registered in eight of the principal Scotch towns. T[illegible] annual rate of mortality in these towns, which had been 17.9, 18.[illegible] 17.6 per 1,000 in the three preceding weeks, rose again last week t[illegible] per 1,000, and was 3.5 per 1,000 above the mean rate during the[illegible] period in the seventy-six large English towns. Among these St[illegible] towns the death-rates ranged from 10.8 in Perth and 13.0 in Leith, [illegible] in Greenock and 23.0 in Dundee. The death-rate from the princi[illegible] fectious diseases averaged 1.9 per 1,000 in these towns, the highest [illegible] being recorded in Edinburgh and Greenock. The 278 deaths regi[illegible] in Glasgow included 2 which were referred to small-pox, 3 to meas[illegible] to whooping-cough, and 7 to diarrhoea. Four fatal cases of measles, [illegible] whooping-cough, 2 of scarlet fever, 2 of diphtheria, and 2 of diar[illegible] were recorded in Edinburgh; 3 of measles and 2 of diarrhoea in Du[illegible] 3 of whooping-cough and 2 of diarrhoea in Aberdeen; 2 of whoo[illegible] cough in Paisley; and 6 of measles in Greenock.

HEALTH OF IRISH TOWNS.

DURING the week ending Saturday, May 28th, 497 births an[illegible] deaths were registered in the same six towns, against 563 birth[illegible] 379 deaths in the preceding period. The mean annual death-ra[illegible] these towns, which had been 19.9, 21.2, and 22.4 per 1,000 i[illegible] three preceding weeks, fell considerably to 16.9 per 1,000 in the we[illegible] der notice, this figure being only 1.5 above the mean annual ra[illegible] the seventy-six English towns during the corresponding period [illegible] figures ranged from 9.6 in Limerick and 13.9 in Londonderry, to [illegible] Belfast and 22.4 in Dublin. The death-rate from the principal zy[illegible] diseases during the same period and in the same six towns averag[illegible] per 1,000, or 0.6 below the figure for the two preceding weeks, the [illegible] figure, 0.7, being recorded in Cork, while Londonderry and Wat[illegible] registered no deaths under this heading at all. The whooping-cou[illegible] throughout Ireland showed very satisfactory improvement, th[illegible] being 6 deaths in Belfast and 4 in Dublin. Diphtheria caused [illegible] 1 death in Cork and 1 in an outlying small town. From enteric th[illegible] death in Ireland was 1 in Dublin. From scarlet 2 deaths occur[illegible] Dublin, and 1 in an outlying small town.

During the following week ending Saturday, June 4th, 582 birt[illegible] 366 deaths were registered, against the 497 births and 343 deaths [illegible] above. The mean annual death-rate, which had been 21.2, 22.4, and 19[illegible] 1,000 during the three preceding weeks, suddenly rose again to 2[illegible] 1,000, this figure being practically double that recorded for the sam[illegible] in the seventy-six English towns, namely, 14.6 per 1,000. The [illegible] ranged from 19.3 in Belfast and 20.6 in Dublin to 31.4 in Limerick a[illegible] in Waterford. The death-rate from the principal zymotic diseases [illegible] the same period and in the same six towns averaged 1.1 per 1,000 [illegible] above the figure for the preceding week, the highest figure, 2.6, [illegible] recorded in Belfast, while Limerick and Waterford registered no [illegible] under this heading at all. From whooping-cough there were 7 dea[illegible] Belfast and 9 in Dublin. From measles, 4 in Belast and 5 in Dubl[illegible] Belfast also there were three deaths from diphtheria, 2 from enter[illegible] 1 from scarlet fever.

THE NOTIFICATION OF MEASLES.

The Sanitary Committee of the Corporation of Wigan has adopt[illegible] recommendation of the medical officer of health that the voluntary [illegible] fication of first cases of measles in a household should be continue[illegible] further period of three years.

MEDICAL VACANCIES AND APPOINTMEN[illegible]

VACANCIES.

This list of vacancies is compiled from our advertisement columns, wh[illegible] particulars will be found. To ensure notice in this column adverti[illegible] must be received not later than the first post on Wednesday morning.

BIRMINGHAM AND MIDLAND EYE HOSPITAL.—House-Surgeon, resident. S[illegible] £75 per annum.

BIRMINGHAM: GENERAL HOSPITAL.—(1) Honorary Physician; (2) [illegible] Surgeon, resident. Salary at the rate of £50 per annum. (3) House-Phy[illegible] Salary, £20 for six months.

BIRMINGHAM UNIVERSITY.—Second Demonstrator in Anatomy. Stipend, £[illegible] annum.

CAMBRIDGE UNIVERSITY.—John Lucas Walker Studentship, annual value, £[illegible]

CANCER HOSPITAL, Fulham Road, S.W.—Assistant Anaesthetist. Honorari[illegible] guineas per annum.

RBURY: KENT AND CANTERBURY HOSPITAL.—House-Physician, resident.
r, £90 per annum.
RLAND AND WESTMORLAND ASYLUM, Garlands, Carlisle.—Junior Assist-
Medical Officer resident. Salary, £130, rising to £150 per annum.
SHIRE ROYAL INFIRMARY.—Resident House-Surgeon Salary, £100 per
m.
A HOSPITAL FOR SICK CHILDREN, Southwark.—Clinical Assistants for
out-patient Department.
NORTHERN CENTRAL HOSPITAL. Holloway Road.—(1) Second House-
on. (2) Third House-Surgeon. (3) Junior House Physician. Salary at the
of £30 per annum each.
HEMPSTEAD: WEST HERTS INFIRMARY.—House-Surgeon, resident.
y, £100 per annum.
AL FOR CONSUMPTION AND DISEASES OF THE CHEST, Brompton.—
ent House-Physicians. Honorarium, £25 for six months.
AL FOR SICK CHILDREN, Great Ormond Street, W.C.—Ophthalmic Surgeon.
SWOOD HOSPITAL.—Resident Medical Officer. Salary, £120 per annum.
OL: DAVID LEWIS HOSPITAL. — (1) Second Honorary Anaesthetist.
nior House-Surgeon. Salary at the rate of £70 per annum.
OL DISPENSARIES.—Assistant Surgeon, resident. Salary, £100 per annum.
OL INFIRMARY FOR CHILDREN.—House-Surgeon, resident. Salary, £100
num
OL: ROYAL SOUTHERN HOSPITAL.—Ambulance Surgeon. Salary, £1 1s.
ek.
HOSPITAL.—Cancer Research Scholarship value £150.
LOCK HOSPITAL, Harrow Road.—Registrar.
STER: VICTORIA UNIVERSITY.—Professor of Pathology and Pathological
ny.
OLITAN ASYLUMS BOARD.—Two Male Assistant Medical Officers for the
n at Darenth, resident. Salary, £150 per annum, rising to £170.
FFORDSHIRE INFIRMARY, Hartshill. — Assistant House-Surgeon,
t Honorarium, £25 for six months.
HOSPITAL SOCIETY, Greenwich.—House-Surgeon for the Branch Hospital,
t. Salary, £50 per annum.
ET INFIRMARY.—Resident Junior House and Visiting Surgeon. Salary at
e of £70 per annum
'S HOSPITAL MEDICAL SCHOOL, Paddington.—Lecturer on Chemistry.
D HOSPITAL FOR DISEASES OF THE NERVOUS SYSTEM, PARALYSIS
PILEPSY, Welbeck Street.—Honorary Assistant Physician.
GENERAL DISPENSARY, Marylebone Road, N.W.—Honorary Ophthalmic
.
AMPTON AND STAFFORDSHIRE GENERAL HOSPITAL.—Assistant
Physician, resident. Honorarium at the rate of £75 per annum.

APPOINTMENTS.

., M.B.Lond., M.R.C.S., District Medical Officer of the Hastings Union.
.., M.R.C.S.Eng., District Medical Officer of the Hungerford and Ramsbury
H, L.R.C.P.I., L.F.P.S.Glasg., Certifying Factory Surgeon for the New-
am District, County Tipperary.
Harry, M.B., B.S.Durh., Assistant Surgeon to the Ingham Infirmary, South
L.R.C.S.I., L.A.H.Dub., Certifying Factory Surgeon for the Cashel District,
Tipperary.
rasmus, M.D.Brux., M.R.C.S.Eng., L.R.C.P.Lond., L.S.A.Lond., Clinical
to the National Hospital for Diseases of the Heart, Soho Square,
W.
, M.R.C.P., L.S.A., J.P., Medical Officer to the Blaenau Festiniog Postal
harles H., M.A., M.D.Oxon., M.R.C.P.Lond., Second Assistant Medical
Tooting Bec Asylum (Metropolitan Asylums Board).
., M.D., B.S.Dub., District Medical Officer of the Saffron Walden Union.
, J., L.R.C.P. & S.Edin., Certifying Factory Surgeon for the Cappawhite
County Tipperary.
acM., L.R.C.P. & S.Edin., L.F.P.S.Glasg., District Medical Officer of the
nion.
M.D., C.M.Edin., Surgeon to the Out-patients at the Bristol Royal Hos-
ick Children and Women
ancis T., M.D., F.R.C.S.I., Consulting Surgeon to the Adelaide Hospital,
e Sir Philip C. Smyly, deceased.
M.D., B.S.Lond., Honorary Medical Officer to the Royal Halifax Infirmary.
nes H., M.D., B.S., B.Hy.Durh., Assistant Surgeon to the Ingham
South Shields.
'. D., F.R.C.S.Edin., L.R.C.P., District Medical Officer of the Medway
.R.C.S.I., L.A.H.Dub., Certifying Factory Surgeon for the Dundrum Dis-
ty Tipperary.
, M.R.C.S Eng., District Medical Officer of the Parish of Alcester.
) C., M.R.C.S., L.R.C.P.Lond., House-Surgeon to the General Hospital,
John, M.B., C.M.Edin., Assistant Surgeon to the Ingham Infirmary,
ds.
lugh, M.R.C.S., L.R.C.P., Senior Resident Medical Officer of the Notting-
workh use Infirmary.
M.D., M.Ch.R.U.I., Certifying Factory Surgeon for the Templemore Dis-
y Tipperary.
, L.R.C.P. & S.I., Certifying Factory Surgeon for the Tullaroan District,
kenny.
, M.B., M.S., Port Health Officer for Wynard and Table Cape, Tasmania.
D. M.B., C.M.Edin., Medical Officer of Health, Snap Urban District.
Dunlop, M.R.C.S Eng., District Surgeon, Barrydale, Cape Colony.
L.C.P.Edin., L.R.C.S.I., Certifying Factory Surgeon for the Borrisoleigh
unty Tipperary.
ard J., M.B., B.S., Senior House-Surgeon to the Hobart General Hospital,
ice Dr. Lines resigned.
m A., M.R.C.S., L.R.C.P., Medical Officer to H.B.M. Legation, Bangkok,
., C.M., Clinical Assistant to the Chelsea Hospital for Women.
d.R.C.S., L.R.C.P., D.P.H., Certifying Factory Surgeon for the Overton
nty Flint.
M.R.C.S., L.R.C.P., Certifying Factory Surgeon for the Kirby Moorside
nty York.
M., M.A., M.B., Ch.B.Aberd., Senior Resident Medical Officer, Govern-
c Asylum, Kingston, Jamaica
M.R.C.S., L.R.C.P., Clinical Assistant, Chelsea Hospital for Women.
ROYAL INFIRMARY.—The following appointments have been made:
sicians: J. de V. Mather, M.B., Ch.B.Vict., and H. Hodge, M.B.,
geons: H. Buck, M.B., Ch.B.Vict., and L. Clay, M.B., Ch.B.Vict.
HOSPITAL. The following gentlemen have been selected as House-
June 7th, 1904:
ouse-Physicians.—H. C. Lecky, M.A., M.B., B.Ch.Oxon.; C. H. Latham,
.C.P.
sicians to Out-patients.—B. Higham, M.R.C.S., L.R.C.P.: W. Haward,
gh, M.R.C.S., L.R.C.P.
House-Physicians.—(Senior) C. N. Sears, M.B., B.S.Lond., M.R.C.S.,
nior) J. P. Hedley, M.A., M.B., B.C.Cantab., M.R.C.S., L.R.C.P.
partments. Throat.—G. R. Rickett, M.A., B.C.Cantab. Skin.—G. R.
, B.C.Cantab.
r gentlemen received extensions of their appointments.

BIRTHS, MARRIAGES, AND DEATHS.

The charge for inserting announcements of Births, Marriages, and Deaths is 3s. 6d., which sum should be forwarded in post-office orders or stamps with the notice not later than Wednesday morning, in order to ensure insertion in the current issue.

BIRTHS.

CORNER.—On June 2nd, the wife of Edred M. Corner, of a daughter.

DEVITT.—On April 21st, 1904, at her residence, Ravenswood, North Queensland, the wife of Richard E. Devitt, M.B., B.Ch. R.U.I., J.P., Government Medical Officer, etc., of a daughter.

HODGENS.—May 18th, at Newcastle, Jamaica, the wife of Captain C. O'C. Hodgens, R.A.M.C., of a daughter.

MARRIAGES.

KNIGHT—VERDON.—At Christ Church Streatham Hill, S.W., on June 1st by the Rev. C. Nicoll, George David Knight, M.D.Aberd., to Dorothy Leseelme, only daughter of H. Walter Verdon, M.D., of Streatham, S.W.

MORRIS—HARBOTTLE.—At Trinity Wesleyan Church, Whitley Bay, on June 1st, by the Rev. J. Harryman Taylor, M.A. (brother-in-law of the bride), assisted by the Rev. Bruce W. Rose, Robert Alexander Morris, M.B., B.S., M.R.C.S., L.R.C.P., to Louisa, youngest daughter of the late Anthony Harbottle, of Newcastle-upon-Tyne. At home, West End, Bridlington, July 20th and 21st. No cards.

PRESTON—CAIRNS. At University Road Methodist Church, Belfast, on June 1st, Charles Edward Preston, B.A., M.B., Ch.B., to Elizabeth Cairns.

DEATH.

IVES.—On May 31st, at 61, Belmont Road, Portswood, Southampton, Robert Ives, M.R.C.S.Eng., L.R.C.P.Edin., second son of the late Dr. Charles James Ives, and grandson of Dr. Thomas Ives, both of Chertsey, Surrey.

DIARY FOR NEXT WEEK.

TUESDAY.

Royal College of Physicians of London, 5 p.m.—Dr. J. Rose Bradford: On Bright's Disease and its Varieties (Croonian Lecture III).

Medico-Legal Society, 20, Hanover Square, W., 8.15 p.m.—Mr. R. Henslowe Wellington: Suicide whilst Temporarily Insane—a Fallacy. Dr. W. McCallum: A Note on Legal Procedure in Lunacy. Earl Russell: The Limitations of Medical Evidence.

Royal Medical and Chirurgical Society, 20, Hanover Square, W., 8.30 p.m.—Dr. Arthur Newsholme: Protracted and Recrudescent Infection in Diphtheria and Scarlet Fever.

THURSDAY.

Royal College of Physicians of London, 5 p.m.—Dr. J. Rose Bradford: On Bright's Disease and its Varieties (Croonian Lecture IV).

POST-GRADUATE COURSES AND LECTURES.

Charing Cross Hospital Thursday, 4 p.m.—Demonstration of Medical Cases.

Hospital for Consumption and Diseases of the Chest, Brompton, Wednesday, 4 p.m.—Lecture on Aortic Dilatation, its Causes and Treatment

Hospital for Sick Children, Great Ormond Street, W.C., Thursday, 4 p.m.—Lecture on Resting Deformities in Children.

Medical Graduates' College and Polyclinic, 22, Chenies Street, W.C.—Demonstrations will be given at 4 p.m. as follows: Tuesday, Medical; Wednesday, Surgical; Thursday, Surgical; Friday, Ear. Lectures will be delivered at 5.15 as follows: Monday, the Relation of Fibrosis to Tubercle; Tuesday and Wednesday, Diseases and Injuries of the Female Bladder and Urethra; Thursday, Some General Principles of Local Treatment in Dermatology.

Mount Vernon Hospital for Consumption and Diseases of the Chest, 7, Fitzroy Square, W., Thursday, 5 p.m.—Lecture on Aortic Stenosis (illustrated by cases).

National Hospital for the Paralysed and Epileptic, Queen Square, W.C.—Lectures will be delivered at 3.30 p.m. as follows: Tuesday, Diagnosis of Tumours of Spinal Cord; Friday, Syringomyelia

North-East London Post-Graduate College, Tottenham Hospital, N., Wednesday, 4.30 p.m.—Lecture on The Various Types of Eczema and their Treatment.

Post-Graduate College, West London Hospital, Hammersmith Road, W.—Lectures will be delivered at 5 p.m. as follows: Monday, The Summer Diarrhoea of Children and its Treatment; Tuesday, Pelvic Suppuration; Wednesday, Practical Medicine; Thursday, Practical Surgery; Friday, The Administration of Anaesthetics.

St. John's Hospital for Diseases of the Skin, Leicester Square, W.C.—Thursday, 6.15 p.m., Lecture on Syphilis.

St. Peter's Hospital, Henrietta Street, W.C., 3.30 p.m.—Lecture-Demonstrations will be given as follows: Tuesday, Surgical Diseases of the Kidneys; Saturday, Diagnosis in Urinary Disease.

LETTERS, NOTES, AND ANSWERS TO CORRESPONDENTS.

COMMUNICATIONS respecting Editorial matters should be addressed to the Editor, 2, Agar Street, Strand, W.C., London; those concerning business matters, advertisements, non-delivery of the JOURNAL, etc., should be addressed to the Manager, at the Office, 429, Strand, W.C., London.

ORIGINAL ARTICLES and LETTERS *forwarded for publication are understood to be offered to the* BRITISH MEDICAL JOURNAL *alone, unless the contrary be stated.*

AUTHORS desiring reprints of their articles published in the BRITISH MEDICAL JOURNAL are requested to communicate with the Manager, 429, Strand, W.C., on receipt of proof.

CORRESPONDENTS who wish notice to be taken of their communications should authenticate them with their names—of course not necessarily for publication.

CORRESPONDENTS not answered are requested to look at the Notices to Correspondents of the following week.

MANUSCRIPTS FORWARDED TO THE OFFICE OF THIS JOURNAL CANNOT UNDER ANY CIRCUMSTANCES BE RETURNED.

IN order to avoid delay, it is particularly requested that ALL letters on the editorial business of the JOURNAL be addressed to the Editor at the Office of the JOURNAL, and not at his private house.

TELEGRAPHIC ADDRESS.—The telegraphic address of the EDITOR of the BRITISH MEDICAL JOURNAL is *Aitiology, London.* The telegraphic address of the MANAGER of the BRITISH MEDICAL JOURNAL is *Articulate, London.*

TELEPHONE (National):—
EDITOR, 2631, Gerrard.
GENERAL SECRETARY AND MANAGER, 2630, Gerrard.

QUERIES.

DISINFECTION AFTER DIPHTHERIA.

M.D. asks: What steps ought to be taken to disinfect a cottage or that part of a cottage occupied by a case of diphtheria where there are several children in the house?

*** Fumigation with sulphur or formic aldehyde is the usual practice. Probably spraying the walls, floors, etc., with chloride of lime (1 to 2 per cent.) or formalin is preferable. Thorough cleansing is also essential.

Examination for F.R.C.S.I.

H. B. would be pleased for any information respecting the examination for F.R.C.S.I. for practitioners of over ten years' standing. What are the best books to read on surgery, surgical anatomy, and surgical pathology? Is it necessary to read a special work on surgical pathology?

*** An ordinary textbook—such as Erichsen's *Surgery*—will be sufficient. Any of the smaller books on surgical anatomy and pathology would suffice.

ANSWERS.

B. M. A.—The term "gonion" (from γωνία, an angle) is applied by anthropologists to the region of the angle of the lower jaw, and is so used by Topinard.

Treatment of Whooping-cough.

Dr. Fitzgerald Isdell (London, W.C.) writes: In reply to "P." I have found carbolic acid almost a specific for uncomplicated pertussis, and the dose need only be small. For instance, on May 26th I saw an infant, aged 1½ year, who had had the complaint about a fortnight and was just beginning to whoop badly. I prescribed acid. carbol. gr. $\frac{1}{15}$, tinct. camp. co. m 1½ every four hours, the child not to be disturbed when asleep. In four days the attacks were only a quarter as frequent. Of course the opiate would lessen the violence of the attacks, but by itself would not probably affect their frequency.

Dr. Seymour Taylor (London, W.) writes: If "P." will try the effects of morphine in whooping-cough he will probably be surprised and gratified. The youngest child can tolerate the drug. Let "P." begin with $\frac{1}{60}$ gr. and gradually increase the dose; and in my experience the patient is cured in two weeks. Of course, I anticipate that the patient is free from albuminuria.

G. writes: In reply to "P." may I say that since adopting Niemeyer's treatment of pertussis, by nursing and potassium bicarbonate, I have hardly ever had a case go beyond the fortnight or develop any complication. Where there has been a longer duration of the disease, it has been because the treatment was not given a fair chance.

Large Ovarian Cyst.

Dr. A. J. Martineau (Hove) writes: In answer to Dr. Sidney H. Carr, I find there is a case recorded in the *Philosophical Transactions*, vol. lxxiv, by my ancestor Mr. Philip Meadows Martineau, who was Surgeon to the Norfolk and Norwich Hospital. The patient in the course of twenty-five years was tapped eighty times, a total amount of 6,631 pints being removed. The greatest amount taken away at one time was 108 pints. The figures for the last year of her life are instructive as showing the rapidity with which the fluid collected—

1783. February 14th, tapped 104 pints.
May 11th, " 100 "
July 20th, " 98 "
August 11th, necropsy 78 "

The specimen, which showed a cyst of the left ovary with two loculi, was sent to John Hunter for his museum.

LETTERS, NOTES, Etc.

When is a Banana Ripe?

Mr. A. Roger Ackerley (London, W.C.) writes: Referring to the able article on bananas in the British Medical Journal of May 28th, and being the expert whose evidence was quoted therein, you will perhaps excuse me if I draw attention to the fact that it still leaves one somewhat in the dark as to when a banana really is ripe, and therefore enjoyable to eat. The best guide to the general public is, to my mind, to take especial notice that any banana with the least trace of green at either end is still unripe. Unfortunately for the public, most fruitdealers prefer to get rid of them while in this condition, but the result to the purchaser is practically the same as the experience of the man who eats a badly-cooked potato, instead of one properly cooked and steamed into that floury condition which we all like but can so seldom get.

In the very interesting and instructive article you gave space to in the columns of the Journal lately on the physical deterioration of our race proper and careful feeding of children naturally took a prominent place, and therefore any influence your columns can bring to bear to educate the public mind on what is admittedly becoming an important and healthy food for our children, will be, without doubt, influence exerted in the right direction. The fruiterer himself, whether he has a shop, or is only the happy possessor of a humble barrow, is really very ignorant, and perhaps careless as to whether the banana he sells is fit to eat at once. His main object is to sell it as soon as possible, and buy some more.

With a pear, an apple, a plum, in fact with almost any fruit one can mention there is always the chance that the child may eat skin as well as fruit, or in some cases swallow a stone or pip. The banana labours under none of these disadvantages. There is no fear of any child nowadays swallowing a banana skin, and children are safe in so far as contamination or dissemination of disease in a fruit so well protected as a banana by its own skin, which is promptly cast aside by the twentieth century child. The salient point for a housekeeper to remember when she happens to have bananas in the house which are showing any tinge of green is that she must treat the fruit pretty much as she would treat a delicate child. The banana is particularly susceptible to chill, whether coming from a draught or from actual low temperature. The effect of a chill on bananas is to render them more or less insipid to the palate; hence they should be placed in a room where the temperature is never below 56° or above 65° Fahrenheit. Above all things they require to be protected from a draught.

Many interesting notices have already appeared in consequence of your excellent article, but I feel sure that a further intimation to the public to the effect that they have only to see that their bananas are thoroughly ripe before they eat them, to appreciate them as they deserve, will not be wasted.

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BOOKS, Etc., RECEIVED.

The Seaside and Inland ABC Holiday Guide to all Health and Pleasure Resorts in the United Kingdom. London: Wentworth Publishing Company. 1904. 1s.

Medical Tuberculosis: Its Rational and Natural Cure, Its Several Stages, and Relationship to Cancer. By R. C. Searle, L.R.C.P., M.R.C.S., L.S.A. London: The Scientific Press. 1904. 1s.

Für die Türkie. Selbstgelebtes und Gwolltes von Dr. Robert Rieder Pascha. Band II. Jena: Gustav Fischer. 1904. M 14.

An Atlas of Human Anatomy. By Carol Toldt, M.D., assisted by Professor Alois Dalla Rosa, M.D. Translated from 3rd German edition by M. Eden Paul, M.D. Brux., M.R.C.S., L.R.C.P. Fourth section. E. Splanchnology. London: Rebman, Limited. 1904. 9s. 6d.

Guide to the Analysis of Potable Spirits. By S. Archibald Vasey, F.I.C., F.C.S. London: Bailliere, Tindall, and Cox. 1904. 3s. 6d.

Handbuch der Anatomie des Menschen. Herausgegeben von Professor Dr. Karl von Bardeleben. Siebenter Band. Zweiter Teil. Abteilung 2. Die männlichen Geschlechtsorgane. Von Professor Dr. C. J. Eberth. Jena: Gustav Fischer. 1904. M 10.

Les Lois Naturelles, Réflexions d'un Biologiste sur les Sciences. Par Felix le Dantec. Paris: Félix Alcan. 1904. Fr. 6.

Handbuch der Anatomie und Mechanik der Gelenke. Von Rudolf Fick. Erster Teil: Anatomie der Gelenke. Jena: Gustav Fischer. 1904. M. 18.

Transactions of the American Pediatric Society. Fifteenth Session held at Washington, D.C., May 12th, 13th, and 14th, 1903. Edited by Walter Lester Carr, M.D. New York; E. B. Treat and Co. 1903.

Our National Recreation Parks. By Nicholas Senn, M.D., Ph.D., LL.D. Chicago: W. B. Conkey Company. 1904.

Africa and National Regeneration. By F. Chidell. Second edition. ... Thomas Burleigh. 1904. 1s.

Physiologie des Menschen. Von D... Luciani. Ins Deutsche übertra... bearbeitet von Dr. Silvestro ... und Dr. Hans Winterstein, me... Einführung von Dr. Max V... Erste Lieferung. Jena: Gustav ... 1904. M. 4.

Zur Lehre von den Blutgefass... normalen und kranken Gehirn... Von Dr. med. Richard Freund ... Gustav Fischer. 1904. M. 18.

The Oxford and Cambridge Year-Bo... Part II. Cambridge. Edited by ... Holland. London: Swan Sonnensch... and Co., Limited. 1904. 3s. 6d.

Radium and other Radio-active Ele... By Leonard A. Levy and Henry ... Willis. London: Percival. [illegible] and Co. 2s. 6d.

Harwich and Dovercourt. By Geo... May. London: The Health ... Association. 1904.

First Conditions of Human Prosperity... the Hon. R. Russell. London: Jo... mans, Green and Co. 1904. 2s. 6...

Radio-Activity: an Elementary Tre... from the Standpoint of the Disi... tion Theory. By Fredk. Soddy. ... London: "The Electrician" Print... and Publishing Company. 1904.

Cours de Massage accessoire de S... d'accouchements. Par le D... Frumerie. Paris: Vigot Frères. ... Fr. 2.

Notions de Traitement Manuel. ... Dr. de Frumerie. Paris: Vigot ... 1904. Fr. 2.

Les Rayons X et l'Extraction des ... tiles. Par Ch. Remy et P. ... Paris: Vigot Frères. 1904. Fr. 6.

Traité Elémentaire et Pratiq... Maladies de la Gorge du Phary... Larynx. Par le Dr. E. J. ... Paris: Octave Doin. 1904. Fr. ...

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REPORT LXXXVI.

REACTION OF PROTOPLASM IN RELATION TO CHEMIOTAXIS.*

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[From the physiologisches Institut, Göttingen.]

present paper deals with the influence exerted upon rotoplasm by acids and alkalies acting under conditions imitate or exaggerate those under which the phenomena of iotaxis are produced. If any relationship exists between iotaxis, in respect of acids and alkalies, and the staining chemical reaction of protoplasm, it appeared not bable that it would be found on further investigation to determining factor in chemiotaxis, and to throw light the essential nature of this phenomenon. As the work essed, it was found that it extended beyond the original of inquiry, but it has been thought better to publish count of the investigation in its present form, apart its later developments, which are not yet ended. Only experiments as have been made in respect of paramecium aurelia are here described, and only such changes ced by acids and alkalies as affect living protoplasm within the range of investigation.

term reaction in the strictly chemical sense refers to esence of free acid or alkali, and indicates the relative nderance of hydrogen or hydroxyl ions respectively in uid tested. In an acid it is to the concentration of the ons that the potentiality of the fluid for catalytic action e, and similarly, an alkaline fluid is strong or weak ding as the concentration of its OH^- ions is great or . The chemical reaction of protoplasm was investigated ans of indicators, use being made of the results arrived Friedenthal.[1]

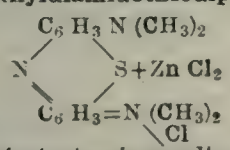
the second meaning in which the term reaction is em- I we are dealing with a different phenomenon, namely, ction of so-called acid and basic dyes, a phenomenon dent upon the side groups which the molecules of ble tissue constituents possess. When the latter have uilding side chains which react with dyes possessing an ite acid or basic character, then the tissue constituents selves are described as basic or acid. Reaction of proto- in this sense can be investigated only when such staining ocesses are employed as can be regarded as of the nature hemical reaction between two salts. Purely physical ng methods cannot be employed.[2]

THE DETERMINATION OF STAINING REACTION.

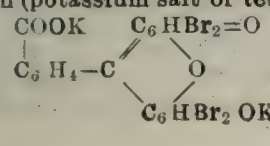
basic (oxyphile) and acid (basophile) character of cell plasm was studied by means of methylene-blue-eosin,[3] affords a delicate test of the reaction of tissue conents, and offers a much simpler means of differentiating en acid and basic characters than the successive appli- of methylene blue and eosin. Moreover, the use of lene-blue-eosin, consisting of a salt† possessing specific ters and not being a mixture of two dyes, renders it a that the resulting red and blue staining are brought by a chemical combination of cell constituents with id and basic radicals of the dye, a purely physical ation of the differentiation obtained being excluded.

ork is here given in abstract. The full paper will be found in the *Zeitschrift für allgemeine Physiologie*, 1904, 4. 87-104.

hylene-blue-eosin is formed by the reaction of two molecules of ue blue (tetramethyldiamidothiodiphenylamin)



e molecule of eosin (potassium salt of tetrabromfluorescein)



The Action of Acids.

The action of acids upon the cell protoplasm of paramoecium differs in its effect in respect of the staining reaction according as the concentration employed is the minimal lethal concentration or is of considerably greater strength. If a paramoecium is placed in a solution of hydrochloric, nitric, sulphuric, tartaric, formic, lactic, citric, oxalic, carbonic, or boric acid, sufficiently dilute to kill in ten to thirty minutes, and is then washed in distilled water, it stains with methylene-blue-eosin like a normal paramoecium. There is no intensification of the blue staining, nor is any tendency exhibited by that portion of the cell which normally stains red to take on a purple tint, nor do any of the constituents of the cell which are achromophile become coloured. Thus dilute acids, the duration of whose action is limited to the time necessary to kill the paramoecia, do not alter the staining reaction. Repeated experiments have shown that no difference can be recognized between stained specimens of paramoecia, so killed, and paramoecia untreated with acids.

If, however, a stronger concentration of acid is employed for a somewhat longer period of time, then a different result is obtained. To produce this a 0·02N concentration of sulphuric, nitric, or hydrochloric acid must be used. A solution of a weaker acid of greater molecular concentration may also be employed, but it is not quite so effective. The protoplasm of paramoecia, so treated, when stained with methylene-blue-eosin, exhibits the change familiar to histologists in tissues whose staining characters have been "accentuated" by acids. The nucleus stains deeply blue, and the cell protoplasm takes on a diffuse blue or purple colour close to the periphery of the cell. In the cytoplasm a slight tendence to granularity is observable, but the oxyphile granules, normally present, are not recognizable. The cell pellicle, trichocysts and cell crystals, normally unstained, are unchanged in aspect. The cilia, which remain free from colour, are frequently unrecognizable; sometimes they are so changed as to be individually indistinguishable, but are fused together so as to form a broad layer round the periphery of the cell. The change induced by the prolonged action of acids, which persists after thorough washing in distilled water and in alcohol, consists therefore in an intensification of the normal combination with the blue radical of the dye, while the cell constituents which normally stain red become purple or bluish in colour, the basic radical of the dye tending to replace the acid radical.

The Action of Alkalies.

The influence of alkalies in respect of the staining reaction of the protoplasm of paramoecia differs according as the action is or is not limited to that affecting living protoplasm only. Thus if the hydrates of sodium, potassium, lithium, calcium, strontium, barium, or ammonium are employed in strength sufficient to kill paramoecia in ten to thirty minutes, and the organisms before disintegration takes place are rapidly washed in alcohol, and then stained with methylene-blue-eosin no definite change in staining reaction is observed. The behaviour of protoplasm in respect of alkalies of minimal lethal concentration is therefore similar to that of acids under the same conditions. No tendency to intensification of the redstained constituents of the cells is present, nor does basophile material show any diminution of staining capacity.

A marked alteration in staining reaction is produced by the prolonged action of a solution of sodium or potassium hydrate considerably above the minimal lethal concentration. If paramoecia are put for two hours into a 0·02 N solution of alkali, to which 50 per cent. or more of alcohol has been added in order to prevent the occurrence of disintegration, and are then thoroughly washed in alcohol, the organisms, on staining with methylene-blue-eosin, exhibit a weakening of the combination of the cell constituents with the basic radical of the dye, while the combination with the acid radical is intensified. Thus the basophile material in the cell is but faintly tinted blue, the nucleus and basophile granules being indistinct, while the cell protoplasm takes on a diffuse red tint. The staining characters of the rest of the cell remain negative. In other words, an "accentuation" of acid staining occurs, forming the complement of that produced by the action of strong acids.

The Action of the Constant Current.

It is a point of considerable interest to ascertain how far the staining reaction of paramoecium, changed by the action of the constant current, is in harmony with the staining response of this organism when submitted to the action of acids and alkalies. Verworn[4] attributed the galvanotaxis

of paramoecia to an attempt to escape from a stimulus applied to one end of the organism. Loeb and Budget[5] attempted to carry this explanation a step farther, putting forward the hypothesis that the constant current produces a development of acid and alkali at the pointed and swollen extremities of the organism respectively.

It was found when paramoecia were submitted to the action of the constant current until the cathodic end had become swollen and was commencing to disintegrate, while the anodic end had become pointed, that on subsequent treatment with methylene-blue-eosin, the staining reaction of the organism was only affected quantitatively in so far as it was weakened or strengthened by the swelling and condensation of the cell protoplasm, but that no qualitative change occurred. At the pointed end the oxyphile granules were numerous and the cytoplasm appeared deeper in colour, while at the swollen extremity these granules were separated by fluid and the tint of the cytoplasm was correspondingly lighter, The staining of the basophile constituents of the cell protoplasm and nucleus was similarly unaltered. The constant current thus resembles that of acids and alkalies in minimal lethal concentration in the negative character of its influence upon the staining response of the protoplasm of paramoecia.

Before concluding this section the following commentary on the preceding observations may be offered.

In considering the relation of chemiotaxis, in respect of acids and alkalies, to the staining reaction of cell protoplasm, we are concerned only with such action as is exerted upon living protoplasm. When, however, acids and alkalies considerably above the minimal lethal concentration are employed, their action is no longer exerted solely upon living, but, on the contrary, is essentially exerted upon dead protoplasm, and this action has no direct bearing upon chemiotaxis. In this latter process, that is to say in the prolonged action of strong acids and alkalies upon paramoecia, producing an intensification of basic and acid staining respectively, a chemical combination of protoplasm with acids and alkalies occurs which influences the affinity for dye radicals of such of the constituents of the cell whose molecules bear appropriate haptophore side groups. When, on the other hand, acids and alkalies of minimal lethal concentration act upon living protoplasm, the condition of the haptophore groups remains unaltered. In this case, either no combination of protoplasm with acid and alkali occurs, or, if such takes place, it must be of a different character to that exerted by strong acid and alkali upon dead protoplasm.

If instead of applying staining methods to dead protoplasm, living protoplasm is stained, the results obtained are similar to the above described. Thus, when paramoecia are put into a dilute solution of methylene-blue-eosin, intra-vitam staining with the basic radical of the dye takes place. If previous to staining the organisms are placed for some hours in dilute acid or alkali insufficient to cause death, it is then found that the surviving organisms stain in the same way as paramoecia untreated with acid or alkali.

THE CHEMICAL REACTION OF PARAMOECIUM.

As already stated, the chemical reaction of paramoecium was studied with the aid of indicators, these, from their ease and rapidity of application, possessing advantages of considerable moment in dealing with material so liable to change as is living protoplasm. The delicacy with which observations can be made by means of indicators is, however, much less in the case of cell protoplasm than in colourless fluids. By actual trial it was found that only a small thickness of cell protoplasm (obtained by centrifugalizing paramoecia) could, owing to the opacity of the protoplasm, be studied in respect of colour. Further, by using acid and alkaline fluids, coloured by the indicators employed, and observed in the same thickness as the protoplasm under consideration, it was found that the limit of colour reaction which was recognizable with certainty when phenolphthalein and methyl-orange were used, was represented by a concentration of not less than 1×10^{-3} H^+ or OH^- gramme-ion per litre.[6] In addition to the above mentioned indicators, congo-red, lacmoid, litmus, sodium sulphalizarinate, neutral red, rosolic acid and B-nitrophenol were employed, but the first two were found to be the most useful. Too much indicator must not be used, since there is then some risk of the tint changing as the result of mass action.[6]

When paramoecia are put into a 0.0001 N solution of methyl-orange for periods of time extending up to twenty-four hours, no red tint is observable in the organisms on subsequent centrifugalization. In a solution of phenolphthalein of the same concentration paramoecia cannot be kept alive long, owing to the presence of alcohol necessary to keep the indicator in solution, but, during the period preceding death no red tint is developed. If the indicators are used in 0.001N concentration, there is still no appearance of colour. From these experiments it follows that the reaction of living protoplasm is less than that of a 0.001N concentration of H^+ or OH^- ions.

The Action of Acids.

If paramoecia are immersed in hydrochloric, nitric, or sulphuric acid of 0.001 N concentration, in which they usually live for periods of five to thirty minutes, and after death occurs are rapidly removed by centrifugalization, washed in distilled water, and transferred to a solution of methyl-orange, no red tint is observable in the protoplasm, though the liquid in which the organisms are contained may, as the result of imperfect washing, assume a red colour. From this experiment it may be inferred that either acid is not absorbed by living protoplasm, or that if it is taken up it does not exist in the free state or in the form of a loose, reversible combination, but, on the contrary, forms a firm, irreversible combination. These observations can only be made with strong acids; with weak acids methyl-orange is not reliable.

The Action of Alkalies.

When similar experiments are made with the bases employed in the previous section, phenolphthalein being employed as indicator, the protoplasm of paramoecia fails to assume a pink tint, so that here again, as when acids are employed, it is permissible within the limit of observation given by the indicator to infer that the alkali either enters into a firm combination with protoplasm or is catalytic in its action in that no loose combination occurs.

The Action of the Constant Current.

A number of experiments were performed to investigate the action of the constant current upon the chemical reaction of paramoecia. The usual method employed consisted in passing the constant current through a solution of methyl-orange or phenolphthalein, and then observing the appearance of the paramoecia singly under the microscope or in bulk after centrifugalization. The experiments were varied by soaking dead paramoecia in methyl-orange or phenolphthalein and then submitting them to the action of the current. In each case no evidence was obtainable of the presence of free or loosely combined acid or alkali in the protoplasm of paramoecia either when examined in bulk, or when the pointed and swollen ends of the organism were observed under the microscope.

SUMMARY.

1. Exposure of paramoecia to acids or alkalies of concentration sufficient to kill in twenty to thirty minutes does not affect the staining reaction of the organisms.

2. Prolonged exposure of paramoecia to acids or alkalies of higher concentration causes the well-known appearance of "accentuation" of basic and acid staining respectively, but this is a change affecting the protoplasm after death, and therefore of a different order from that occurring in relation to chemiotactic phenomena.

3. Paramoecia killed by the constant current resemble paramoecia killed by acids and alkalies of minimum lethal concentration in respect of the absence of any alteration in staining reaction.

4. The chemical reaction of the protoplasm of paramoecia cannot be determined by means of indicators in respect of a concentration of H^+ and OH^- ions, which is less than 0.001N. Within this limit the protoplasm, living or dead, gives no evidence of acid or alkaline reaction.

5. The protoplasm of paramoecia killed by mineral acids or by alkalies of low concentration gives no evidence of acid or alkaline reaction with methyl-orange or phenolphthalein.

6. Paramoecia killed by the constant current do not exhibit any acid or alkaline reaction.

In conclusion, I gratefully express my indebtedness to Professor Max Verworn, in whose laboratory this work was carried out, for his kind assistance and advice throughout the course of the investigation.

REFERENCES.

[1] Ueber die Reaktion des menschlichen Harnes, *Arch. f. Anat. Physiol.*, 1903, 397-411; also, *Verhandl. d. physiol. Ges. zu Berlin*, Jahrg. 1902-3, No. 10.11; Ueber die Reaktion des Blutserums der Wirbelthiere. *Zeitschr. f. allg. Physiol.*, 1903, 2, 56-66. [2] *Cf.* A. Pappenheim, *Grundriss der Farbchemie*, 1901, S. 286 ff.; also, Gustav Mann, *Physiol. Histol.*, 1902, 327-370. [3] Scott, *Journ. of Path. and Bact.*, 1901. [4] *Pflüger's Arch.*, lxv, 515. [5] Ibid, 1889, xlv, 1; 1890, xlvi, 267: 1896, lxii, 415; 1897, lxv. [6] *Cf.* Friedenthal, loc. cit.

IQUE CASE OF "FLOATING KIDNEY," IN WHICH NEPHRORRHAPHY WAS SUCCESSFULLY PERFORMED:

E KIDNEY WAS WITHIN THE PERITONEAL CAVITY AND HAD A MESONEPHRON.

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SPLACEMENTS of the kidney may be divided into three ds—simple misplacements without mobility of the organ, ovable kidney," where the kidney is perceptibly mobile ind the peritoneum, and "floating kidney," where the itoneum forms a mesonephron which attaches the kidney sely to the spine. The terms "movable kidney" and oating kidney," as used by most writers, are synonymous. rris, in his excellent work on *Surgical Diseases of the Kidney Ureter* (p. 95), remarks: "A 'floating kidney' is one ich, whether it possesses a mesonephron or not, moves ely forward, so as to rise or 'float' towards the anterior dominal wall, as well as vertically and laterally. This rward' movement or 'floating' makes the distinction ween it and the 'movable kidney.' It is not possible to tinguish until the abdomen is opened or the kidney is exed through the loin, whether a 'floating kidney' has a sonephron or not." And again, at p. 97, he says: "For venience of description the terms 'movable' and 'floating' ney will be used indiscriminately, except when one or the er type is specially referred to. It will then be designated the term 'movable behind the peritoneum,' or 'floating ney without a mesonephron,' or 'floating kidney with a sonephron,' as the case may be."

he distinction between "movable kidney" and "floating ney" is clearly an anatomical one. Clinically the two ditions cannot be distinguished, although it may be said t in all cases of "floating kidney" the mobility is great. ll, it must be admitted that in cases of "movable kidney" hat is to say, kidneys without a mesonephron—the mobi- may be equally extensive. It is to be regretted that a ter of Morris's distinction has chosen to perpetuate the fusion in the minds of the profession in this matter. In ier to have a clear understanding of the pathology of the ject, as also for the sake of treatment, it is well to have an ct mode of expression and an accurate knowledge of the ieties of the malpositions which may be met with in prac-. In cases of "movable kidney" the organ is mobile be- d the peritoneum, either within its adipose capsule or in ac formed behind the peritoneum and the muscular wall of abdomen, whereas in cases of "floating kidney" the ney moves about within the cavity of the peritoneum, and ttached by a mesentery to the spine.

n my book on *Surgical Diseases of the Kidney* (p. 72) I erved, in regard to "floating kidney," "objections may be ed to this division on the subject, seeing that, as a matter ustom, both the terms are used synonymously by most ters, and that, clinically, the diseases are not distinguishe from one another. It is only after the abdomen is opened t the presence or absence of a mesonephron can be demonated. It is necessary, however, from the surgical standnt, particularly when operative interference is contemted, carefully to separate the two conditions from one ther. In "movable kidney" the organ can be exposed hout opening the peritoneum, whereas in "floating ney" it cannot. These varieties of displacement are renized, not only by being distinct anatomically, but also by ir etiology being different. "Floating kidney" is always ongenital condition, whereas movable kidney is usually uired. The earlier writers on the subject looked upon gation of the renal vessels as a proof of the affection not ng acquired. They, however, did not distinguish between two forms, but grouped all displacements of the kidney ociated with mobility in one class.

t would, indeed, be difficult to explain how a mesonephron, perly so-called, could be formed otherwise than congeniy, unless by supposing that the displaced kidney has hed before it a fold of peritoneum, the surfaces of which e become adherent around it and united to each other ng the line of the renal vessels. That such a condition ght arise as a result of localized peritonitis seems possible. re are, however, no cases recorded where there is any dence of this having taken place. When inflammation occurred in cases of movable kidney it has in most instances led to an adhesion of the layers of the peritoneum, not only to the kidney and to one another, but also to the surrounding parts, the result being that the kidney ceased to be movable, and became fixed in an abnormal position.

The point of importance to be attended to in connexion with floating kidney is that it cannot be reached by an operation from behind without opening the peritoneum, and is therefore not so favourable for nephrorraphy as movable kidney. This should be borne in mind while operating. It is not possible, however, previous to the operation, to differentiate by physical examination the two conditions.

Some authorities have expressed the opinion that floating kidney is more freely movable than movable kidney, and use this as a basis for diagnosis. This is an error. In not a few cases of movable kidney the organ can be pushed with perfect freedom up under the ribs, down into the pelvis, and for a short distance across the middle line. What greater freedom of movement could be shown? It is true that in some instances of movable kidney the excursion may be limited to an up-and-down motion in a plane parallel to the lumbar muscles, as is seen when the sac in which the kidney moves is formed by the adipose capsule, without the capsule being detached from its seat behind the peritoneum. Where, however, the peritoneal covering has become raised from the posterior abdominal wall less impediment is offered to movement, and so what was clearly at first a case of movable kidney gradually may assume the physical signs of the more mobile form, and may pass, according to some observers, from the class of movable kidneys into that of floating ones.

Fortunately, floating kidney is a very rare condition, but nevertheless it must not be entirely overlooked where an operation is contemplated for the cure of the more common variety of displacement with mobility.

As far as I can ascertain, the case about to be described is the first one in which nephrorrhaphy was performed for a mobile kidney with a mesonephron, and to this condition I would like to see the term "floating kidney" limited.

The patient, C.A., was advised to consult me by Dr. Palton Petrie, of Strathaven.

History.

In his account of the case he informs me that the patient is aged 37, single, housekeeper in her father's house. Her general condition of health was never quite satisfactory, and during the past three years she has been getting steadily worse, and within the last three months she became unfit to perform her household duties. There was considerable abdominal disturbance, characterized by a feeling of distress rather than of pain, and at times considerable quantities of mucus were passed per rectum, evidently due to a subacute colitis. On examination of the abdomen there was distinct tenderness along the course of the transverse and descending colon, and Dr. Petrie, on palpating in the right renal region, found the kidney to be freely movable. The pulse was very feeble, and the patient suffered from great "nervous prostration." At this time Dr. Petrie kept her in bed for three or four months with considerable advantage, so that she was able to be removed to Dunblane, where she remained a fortnight. During her residence at the hydropathic establishment there she was subjected to high-frequency electrical treatment with the view of improving the condition of the bowel, but owing to the mobility of the kidney the treatment was not pushed, and she returned home for the purpose of consulting me as to the question of operation.

In her school days the patient suffered greatly from headache, the attacks sometimes being of two or three days' duration. They were always preceded by a very uncomfortable feeling about the waist, which passed up her back and culminated in a severe headache. She was very fond of active exercise in childhood, but if this was indulged it was certain to be followed by sudden and violent reaction, so as to make her feel completely exhausted, and the attacks of headache were certain to follow. When 16 years of age she had abdominal swelling of a few days' duration—at first at irregular, but afterwards at regular intervals. Shortly after this, on account of her mother's death, she, being the eldest daughter, had to undertake the household duties of the family, consisting of a father and six brothers. After eight years of this work, with occasional complete breakdown, her health became so much impaired that she was quite unfit for any kind of work, and on account of the pain in the right kidney she found it necessary to wear her corsets both night and day. She also suffered from sleeplessness. At this time she was ordered to remain in bed for three months, and with that treatment considerable improvement occurred. Since that time she enjoyed rather better health than previously, until within three years ago. She has always had to guard against the slightest overexertion or sudden excitement.

Condition When First Seen.

When I saw the patient on June 16th, 1903, I found her pale, emaciated, and highly "neurotic." She complained of what she described as "abdominal distress," which really meant a sense of weight and dragging in the right loin, with occasional attacks of severe sickening pain, which was induced by any exertion or sudden movement of the body. Digestion was very feeble and appetite poor, but she informed me that she was now rather better than before she went to Dunblane.

On examination of the abdomen I found the right kidney freely movable, it could be pushed well beyond the middle line in front and down into the pelvis, and upwards under the ribs, but when it was once reduced to its normal position it remained there, and could not be readily disturbed unless the patient walked about for some time. Deep inspiration sometimes forced it downwards, and then it would suddenly shoot from the margin of the thorax towards the umbilicus. On palpation the whole organ could easily be caught up in the hand and its form traced. The kidney was unusually firm, a little smaller than normal, and the slightest pressure of the hand caused sickening pain. So long as it was not pushed under the costal margin it could be rolled from side to side freely, and very often suddenly slipped out of the hand in a downward direction. The percussion over the kidney gave a dull, tympanitic sound, and in the loin, whether the kidney was replaced or not, there was a deficiency of resistance compared with the opposite side.

Operation and Result.

On June 18th the ordinary incision was made through the parietes in the lumbar region, but the kidney could not be found in its normal position, and when pressed up to the depth of the wound by the hand it was found that in order to reach the organ the peritoneum required to be opened. On opening the peritoneum a careful examination was made, when the kidney was found to have a distinct mesonephron, and showed the organ was surrounded by peritoneum on all sides. An incision was made through the peritoneal layer covering the kidney, the fibrous capsule was split, and the kidney parenchyma brought in position to the edges of the parietal wound. There was no fatty capsule. Four sutures were inserted into the kidney and the depth of the wound packed with iodoform gauze. The patient made an uninterrupted recovery, gained rapidly in strength, the appetite rapidly increased, and she was dismissed from the Sandyford Home on August 10th.

Dr. Petrie, writing to me on October 1st, says "that since the patient returned home she has gradually improved, is sleeping better than she has done for years, and the right kidney seems securely anchored. She is looking altogether healthier and plumper, and is able to take a short walk daily without discomfort."

A CASE OF LEUKANAEMIA

WITH GREAT HYPERPLASIA OF THE SPLEEN AND PREVERTEBRAL HAEMOLYMPH GLANDS AND WITH INCREASE OF CONNECTIVE TISSUE IN THE BONE MARROW.*

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By leukanaemia (W. Von Leube[1]) I understand a morbid condition in which clinical symptoms found in pernicious anaemia are combined with blood changes and anatomical changes in the organs characteristic of leukaemia or pseudo-leukaemia, whether of the "lymphocytic" or "mixed-cell" type. The present case seems to combine certain features of pernicious anaemia with those of a "mixed-cell" pseudo-leukaemia. I intend first to give an account of the case, including the anatomical-pathological findings, and then to draw what conclusions I can as to its pathological nature.

The patient, P. von E., a German, aged 58 years, was admitted under my care at the German Hospital on December 10th, 1903, suffering from great anaemia, progressive weakness, anorexia, and tinnitus.

History.

The history was that he had enjoyed fairly good health till twelve months ago. In fact he seems to have been able to insure his life about one year before admission. The symptoms of his illness, wax-like pallor and weakness, with anorexia, commenced about that time—that is to say, about the end of 1902; but at first there seems to have been improvement under treatment.

He had never suffered from malaria or been out of Europe. He had lived in England since 1865. He had had attacks of gonorrhoea, and in 1868 had had a chancre, but apparently without any signs of secondary syphilis. He had never had any kind of haemorrhage.

Condition after Admission, in December, 1903.

The patient is somewhat fat, flabby, and very pale. His faint-yellowish wax-like pallor and puffy appearance are such as Addison described in pernicious anaemia. There is no evidence of anything abnormal in the heart or lungs, excepting a soft systolic murmur at the cardiac apex, and a few crepitations at the base of the left lung. The liver and spleen are greatly and uniformly enlarged. The hepatic dullness commences above at the sixth rib in the right nipple line, and in the same line the lower edge can be felt at the umbilical level. The splenic dullness commences above at the eighth rib in the left axillary line, and the organ is so enormously enlarged that its lower edge can be felt in the hypogastrium below the level of the anterior superior iliac spine, and in the front of the abdomen its right margin is felt considerably to the right of the navel. No distinct ascites. Some oedema of lower extremities and loins. Urine, of specific gravity 1016, free from albumen and sugar (see later note). Bowels open regularly. No vomiting. No cough. Pulse about 88 per minute, regular. Radial arteries somewhat thickened.

* Microscopic preparations were shown at the Pathological Society on May 17th when the paper was accepted as read.

After-history.

In spite of treatment, the patient steadily lost strength. The oed increased and became very noticeable in the face. At last he ha had strength to swallow, and died quietly early on January 15th, 19

There was slight fever (about 100° F.) during the first days in hospital, but afterwards the temperature seldom rose above 99° The pulse, as recorded on the chart during the last days of life, va between 76 and 96 per minute.

The *urine* was of specific gravity 1014 to 1020. pale, acid, and from albumen and sugar. On only two occasions was a lower spe gravity noted, and on only two occasions was a trace of albumen detec The amount of urine was at one time below the normal, but during last period reached about 1,800 c.cm. per diem.

The Blood.—On admission (Dr. Campiche, December 11th, 1903), red corpuscles numbered 1,800,000, and the white cells 3,000 per c millimetre, the haemoglobin was 25 to 30 per cent. of the normal. there was a good deal of poikilocytosis. The following differen count of the white corpuscles was made by Dr. G. L. Eastes, January 1904 :—Small lymphocytes 49.4 per cent., large lymphocytes 9.6 (t lymphocytes 59.0), polymorphonuclear leucocytes 37.5, eosinophi leucocytes 0.5 ; myelocytes, 3.0 ; no eosinophile myelocy During the count of 400 white cells, 30 erythroblasts normoblasts, 2 microblasts and 4 megaloblasts) were seen. There poikilocytosis and polychromatism (neither extreme) and likewi leucopenia. On January 14th (the day before death) a rough bl count was made, the red corpuscles being estimated as about 1,200, the white cells as about 12,000 in the cubic millimetre, and the haemoglobin richness as about 25 per cent. of the normal. During the days of life, therefore, the number of white cells appears to h considerably increased.

Necropsy (January 15th, 1904).

Brain.—Examination not permitted.

Thorax.—The heart showed nothing noteworthy, and weighed 11 (312 grams). There were some pleuritic adhesions over part of t left lung and great hypostatic congestion of the left lower lobe, otherwise the lungs appeared free from disease. There was a moder amount of serous fluid in the pericardium and both pleurae.

Abdomen.—There were many small peritoneal petechiae.

The spleen was enormously enlarged, weighed 66 oz. (1,872 gram and its capsule was slightly thickened. On section the splenic s stance appeared normal to naked-eye examination, excepting that contained one pale nodule below the capsule, of about the size of a lar cherry, which subsequent microscopic examination showed to be infarct.

The liver was uniformly enlarged and weighed 88 oz. (2,496 gram but to naked-eye examination showed no cirrhosis or other distin structural changes.

The kidneys were of normal size and weighed together about 10 (256 grams). The cortical substance was not diminished and the capsul stripped fairly well. At one or two spots below the capsules there w slight increase of connective tissue (that is, by subsequent microscop examination). The right kidney contained a few small cysts. In t left kidney was a minute cystic papillary adenoma, with the remains a haemorrhage into it.

Nothing abnormal was found by naked-eye examination in the pancrea suprarenal glands, stomach, or intestines excepting a few small petechi in the gastric mucosa.

The *lymphatic glands* generally were not obviously enlarged, but t prevertebral tissue about the bifurcation of the aorta was studded wit small red haemolymph nodes. Most of these were small and oval i shape, about 3 mm. by 4 mm., but their sizes varied and some wer much bigger (10 mm. by 20 mm. or so), and some alongside of the aort owing to their elongated shape, or because they lay close together en to end, might almost be compared to leeches[2] in appearance.

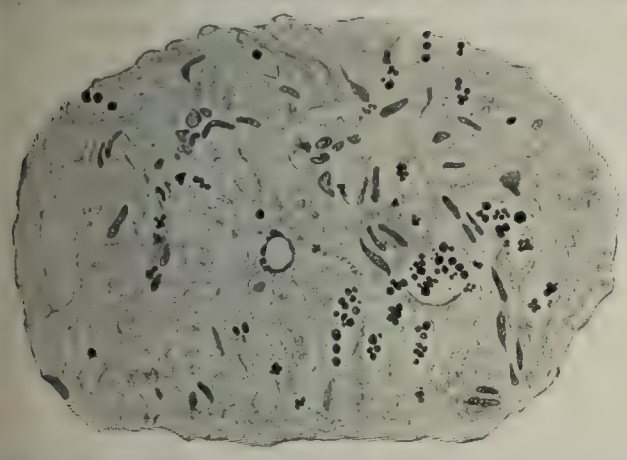
Bone Marrow —The left humerus was sawn through longitudinally and the whole of the fatty marrow of the shaft was found to hav undergone transformation into a red substance (red metaplasia) o unusually firm consistence. Owing to the markedly firm texture of thi bone marrow no good films were obtained for microscopic examination (For the examination, however, of microscopic sections see later.)

MICROSCOPIC EXAMINATION.

Sections were stained with eosin and haematoxylin, an haematoxylin alone, and by Ehrlich's triacid stain, Mann's long eosin-methyl-blue method, and by some other blood stains.

The bone marrow (from the shaft of the left humerus) wa almost destitute of the normal fat vesicles. It showed a stroma of a kind of loose connective tissue containing blood, myelocytes, non-granular large mononuclear cells[3], and abundance of erythroblasts. The erythroblasts, conspicuous by their deeply and almost homogeneously stained nuclei, were not uniformly distributed, but, as usual, occurred here and there in greater numbers, that is, in clusters. They were of various sizes, some large, some small, but mostly of medium size (normoblasts). Many of them possessed more than one nucleus or a partially divided nucleus, and often the nucleus appeared to have been split up into many fragments or droplets. There were likewise a good many giant cells in the bone marrow, and a few coarsely granular eosinophile cells were seen. The fibrous stroma was best seen in a portion of

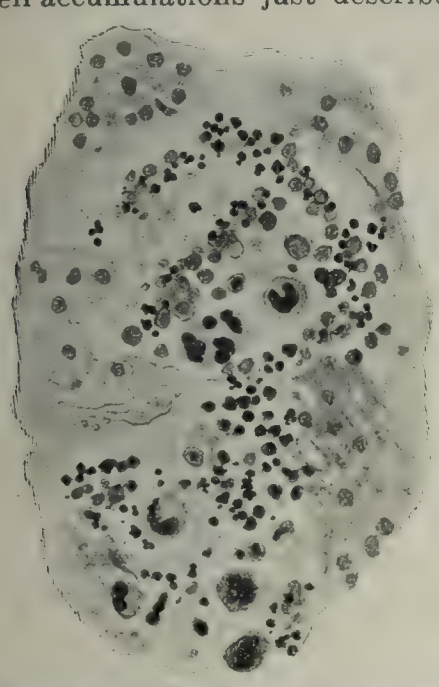
marrow which was paler than the rest, and contained blood. In this portion (see Fig. 1) the bone marrow had



1.—Illustrating the connective-tissue change in a portion of the bone marrow. The nuclei and fragments of nuclei of erythroblasts are represented by deep black dots. × 220.

practically converted into a kind of loose connective ue containing conspicuous groups of erythroblasts. I rd this connective tissue change in the bone marrow as of the most remarkable features in the case.

e Liver.—Microscopic examination revealed a very re-kable condition, which, however, was not equally well-ked in all parts of the organ. The columns of hepatic were separated and seemed to be pressed on by groups lls which on the whole were similar to those described r on as forming peculiar "clumps" in the spleen. The ps of cells which thus separated the columns of hepatic , were chiefly composed of myelocytes, non-granular e mononuclear cells and erythroblasts (or the nuclei only rythroblasts), but scattered about here and there were wise coarsely granular eosinophile cells, and (in some s) giant cells. The presence of these giant cells in some ions of the liver (they were not found in the spleen) ued one of the conspicuous features of the case (see 2). The cell accumulations just described occupied the



g. 2.—From a section of the liver, showing erythroblasts (their nuclei and fragments of nuclei are represented by deep black dots), giant cells, and white corpuscles accumulated together in an irregular space between the hepatic cells. × 220.

itions normally occupied by the intra-acinous hepatic illaries. In some places the cells seemed to be actually hin the walls of capillaries, but in other places they seemed form regular "growths," and that they could not have n in the circulating blood stream at the time of death is ved not only by the examination of the blood shortly re the patient's death, but also by the appearance of the od as seen in rather larger blood vessels in the micro-pic sections. Moreover, no similar accumulations of s were present in or about the capillaries of the pan-as and liver. It is difficult to imagine how the circula-n in the liver could have been carried on during life, seeing t the spaces normally occupied by the hepatic capillaries e stuffed by the cell accumulations of which I have been aking. This difficulty was especially noted by Mr. S. G. ttock, whom I have to thank for kindly looking through the microscopic preparations of the case with me. It must be remembered, however, as I have already stated, that not all parts of the liver were affected to the same extent.

The Spleen.—In regard to the small infarct, I need not add anything to what I stated in the account of the necropsy. The Malpighian corpuscles (and the lymphocytes in them) appeared normal. The splenic pulp, however, was permeated with erythroblasts and mononuclear cells similar to those found between the columns of hepatic cells. Here and there were coarsely granular eosinophile cells. All these kinds of cells were fairly equally distributed throughout the splenic pulp, just like the red blood corpuscles were, excepting at certain spots where they occurred, without admixture of erythrocytes, crowded together in dense circular or elongated clumps. Some of these "clumps" were evidently within splenic capillaries and blood sinuses (see Fig. 3) whilst others appeared to be filling up mere clefts in the splenic stroma.

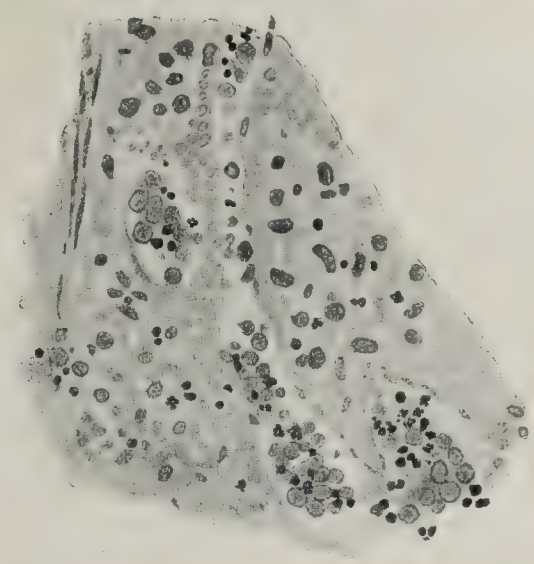


Fig. 3.—From a portion of the splenic pulp showing erythroblasts (deep black nuclei) and other cells (nuclei only represented) occupying a splenic capillary and sinus. To the left of the capillary is one of the small "clumps" referred to in the text. Red corpuscles are only faintly indicated. × 220.

The sections of the kidneys showed nothing noteworthy beyond what has already been mentioned. The pancreas appeared not to be diseased. The haemolymph glands resembled lymph glands in structure excepting for the presence of blood in the sinuses. Besides lymphocytes and erythrocytes they contained erythroblasts and large mononuclear cells apparently similar to those permeating the splenic pulp; also a few coarsely granular eosinophile cells and a few giant cells.

Sections of the different organs were also stained with methyl-violet for amyloid changes, but with negative result. Microchemical tests failed to show the presence of free iron in sections of the spleen, liver, and kidney.[4]

Remarks.

The main features of the case may be summed up as follows:—

1. Progressive waxy pallor and asthenia with maintenance of subcutaneous fat.

2. Changes in the red blood corpuscles rather similar to, but not so extreme as, those met with in true pernicious anaemia.

3. Absence of true leukaemic changes in the blood, but presence of slight myelocythaemia and presence of the inverted proportion of lymphocytes to polymorphonuclears which is found in cases of lymphatic pseudoleukaemia (Hodgkin's disease, etc.).

4. No abnormal amount of pigment in the urine.

5. Changes found after death in the haemopoietic tissues similar to those which occur in cases of "mixed-cell" leukaemia or pseudoleukaemia.

6. Abnormally firm consistence and increase of connective tissue in the bone marrow from the shaft of a long bone.

7. Absence of enlargement of the ordinary lymph glands, but great hyperplasia of the spleen (haemal gland) and pre-vertebral haemolymph glands.

8. Absence of any reaction in sections of the spleen, liver, and kidneys for free iron such as is found in pernicious anaemia.

Charcot-Leyden crystals were not noticed in the bone marrow, etc., but were not specially looked for.

In spite of the poikilocytosis the disease in the present case

seems not to have been secondary to any excessive haemolysis, but to have been primary in the bone marrow, and I would regard it as a myelogenic form of splenic anaemia of adults, doubtless allied to what French authors[5] have termed "anémie splénique myéloide." Therefore the case cannot be adduced as an example of pernicious anaemia being followed by or becoming transformed into leukaemia, though it is probable that similar cases have been erroneously supposed to illustrate such a course of events. It is also highly probable that similar cases, owing to enlargement of spleen and liver, have been clinically regarded (in spite of the poikilocytosis) as examples of Banti's disease.

In the German cases, I believe, enlargement of haemolymph glands was not noted.

It is very tempting to suggest that in the present case both the spleen (haemal gland) and the prevertebral haemolymph glands were actively engaged in supplementing the erythrocyte-forming functions of the diseased bone marrow, but I have no conclusive evidence to support such a supposition. From what has been lately written on the subject[6] it seems that no really satisfactory evidence has been brought forward to show that in adults erythrocytes are produced in the spleen and haemolymph glands either in health or in disease.

NOTES AND REFERENCES.

[1] W. von. Leube, *Deutsche Klinik*, Berlin, 1902, No. 42; and J. Arneth's haematological account of Leube's case in *Deut. Arch. für klin. Med.*, Leipzig, 1901, vol. lxix, p. 331: also H. Luce, "Ueber Leukanämie," *Deut. Arch. für klin. Med.*, Leipzig, 1903, vol. lxxvii, p. 215. "Leukanaemia" is obviously a term coined out of "leukaemia" and "anaemia," and will, I believe, be found well suited as a clinical term for the present class of cases. [2] This comparison of the appearance of very long prevertebral haemolymph glands to leeches has been borrowed from Dr. H. D. Rolleston. [3] I do not use the term "large mononuclear cell" in the limited special sense often attached to it. [4] No Prussian blue reaction was obtained by the "long" method employed by Abbott for pieces of tissue which had been lying in formalin (*Vide Trans. Path. Soc. London.* 1900., vol. li, p. 76). [5] *Vide* Vaquez and Aubertin, "Nature de l'Anémie Splénique Myéloide," Société de Biologie, Paris, May 14th, 1904. [6] See especially "The Pathology of Pernicious Anaemia with special reference to the changes occurring in the Haemolymph Nodes," by Dr. A. S. Warthin, *American Journ. Med. Sci.*, 1902, vol. cxxiv, p. 674.

NOTE ON THE ANTI-HAEMOLYTIC (HAEMOSOZIC) PROPERTIES OF NORMAL URINE.

BY

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NORMAL aseptic human urine does not, as a rule, dissolve human red blood corpuscles, even when the mixture of urine and red blood corpuscles is kept for many days at the temperature of the room (20° C. to 30° C.). The red blood corpuscles of many pathological urines also sink to the bottom of the vessel and often remain apparently intact, even when no care is taken to secure the asepticity of the urine. In a previous paper we showed the serum of rabbits which had received injection of human urine dissolved human red blood corpuscles in vitro.

We were thus led to inquire whether normal urine contained an antihaemolytic (haemosozic) substance neutralizing the haemolysins present in the sera of animals previously injected with urine.

Experiments showed that a serum markedly haemolytic for sheep's red blood corpuscles is obtained by injecting sheep's urine into rabbits, and that the injection of the urine of the ox produces serum haemolytic for the red corpuscles of the ox. Miss B. Sheldon Amos, working in this laboratory, has found that the injection of small doses of urine produces marked changes in the composition of the blood, and that, occasionally, the injection of so small a quantity as 2 c.cm. of normal urine into a rabbit causes the serum of that animal to become haemolytic.

In connexion with these experiments, it must be remembered that rabbit's serum always dissolves to some extent sheep's red blood corpuscles, and less frequently it haemolyses slightly those of man.

In order to demonstrate the haemosozic property of normal urine, we mixed a given quantity of human red blood corpuscles, previously washed twice in normal salt solution and centrifugalized, with a given quantity of haemolytic serum. In another tube, we added to a similar mixture a certain quantity of freshly passed normal urine. In order to avoid errors due to greater or lesser dilution, physiological salt solution or normal rabbit's serum was added whenever necessary, so that each tube contained exactly the same quantity of fl The following experiment may serve as an example.

EXPERIMENT.—Rabbit (No. 23) received on the first, fifth, and th days 3 c cm. of normal human urine (total 9 c.cm.). The serum was fo haemolytic for human corpuscles. The serum of this animal we Serum 23.

	Serum 23.	Serum normal (rabbit).	Human urine.	Red corpuscles (human).	Result.
Tube I.....	20 drops	0	20 drops	2 drops	+ in 18 ho
,, II. ...	20 ,,	20 drops	0	2 ,,	++++ ,,
,, III....	10 ,,	0	30 drops	2 ,,	oo
,, IV....	10 ,,	30 drops	0	2 ,,	+++ in 18 ho

(N.B. ++++ means complete haemolysis. + means slight haemolysis: that is, red corpuscles remain undissolved at the bottom of tube, the supernatant serum being slightly tinged with haemoglo ++ and +++ are immediate stages. oo indicates that no haemoly has taken place.

Haemolysis, therefore, was only very slight or tota absent in the tubes to which urine had been added.

Similar experiments made with various samples of haemolytic sera (produced by the injections of urine) always ga the same results.

The haemosozic property of the urine of the same individu varies, for whereas 20 drops of urine passed by one individu at 9 a.m. may prevent the haemolysis of a given quanti of haemolytic serum, the same quantity of urine of the sam man passed at 11 a.m. may no longer prevent the haemoly of the same serum, though all the other conditions of t experiment remain the same.

The red corpuscles remaining in contact for some hou with urine, when removed from the medium, washed a suspended in haemolytic serum are haemolysed just li those which have never been in contact with urine, and t urine in which such corpuscles have been suspended for tw or more hours loses none of its haemosozic properties. T red corpuscles, therefore, do not absorb in that time a haemosozic substance present in urine. The haemosoz substance or substances have not been isolated from t urine, but the following properties have been ascertained.

First, the haemosozin is practically destroyed by heating t 120° C, or to 100° C for 30 minutes.

Secondly, the haemosozin is precipitated almost completel by absolute alcohol, but a slight quantity of haemosozic sub stance is always found in the filtrate. One may argue, eithe that the haemosozin is slightly soluble in alcohol, or tha there are two haemosozins one of which is soluble in alcoho and the other is not.

Thirdly, the haemosozin is precipitated almost entirely b saturating the urine with ammonium sulphate. The precipi tate dialysed until it is entirely free from salts has marke haemosozic properties.

THE DETERIORATION OF VISION DURING SCHOOL LIFE.*

BY ETTIE SAYER, M.B., B.S.,

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THERE are nearly a million children attending the Board schools in London and such a large number of these ha obvious defects of vision that two years ago the Board decide thoroughly to investigate the condition of the children's eye sight. The children in our schools are divided into three departments:

1. Boys between 8 and 14 years of age.
2. Girls ,, 8 ,, 14 ,,
3. Infants ,, 4 ,, 8 of both sexes.

The work was carried out on purely scientific principles. A child was taken to have normal vision who distinguished objects subtending an angle of one minute, this being determined by the ability to recognize letters 9 millimetres square from a distance of six metres. Only children in the boys' and girls' departments were to be included in the test, and it may

* Paper read at the International Congress of School Hygiene at Nuremberg, 1904.

stated briefly that 10 per cent. of boys and 11 per cent. of
ls on an average throughout school-life were found to have
h serious defects of vision that their visual acuity was $\frac{6}{18}$
worse.
n addition to this I last summer very carefully tested the
ual acuity of 1,864 infants between 6 and 8 years old,
of each sex for every three months increase of age. With
ldren younger than this it was impossible to get trust-
rthy results.
is a large number of these infants did not yet know their
ters, the letter E was made in various sizes and positions
correspond with Snellen's test types $\frac{6}{6}$, $\frac{6}{24}$, etc. The infant
s placed six metres away, given a large E to hold, and told
turn it in the same direction as the one indicated—
wards, downwards, backwards, or forwards—and rewarded
h a sweet every time it got it the right way upon the first
al.
The results were very surprising, for it was found that at
ctly six years of age 81 per cent. could read $\frac{6}{6}$ with each
e separately, and only 3.5 per cent. had such serious defects
it they could only see $\frac{6}{18}$. The defects, however, steadily
reased with every quarter of a year of age, until at 8 years
only 77 per cent. could see $\frac{6}{6}$ with each eye, whilst 8 per
nt. had serious defects.
These results were so contrary to statistics published
herto that Dr. Kerr, the Principal Medical Officer to the
ard, suggested submitting a large number to re-examina-
n by the ordinary methods, and he and I together went
er them. It was now found that when tested with the
linary Snellen's test types a much larger number
parently had bad vision, but with this method of E the
ion of infants was as is stated above.
The reason for this difference I shall endeavour to prove is
nply that the higher brain centres are as yet undeveloped,
d that the methods hitherto employed for testing the eye-
ht of very young children have been at fault. Defective
ual acuity, in short, has been confused with want of per-
ption by the brain and the serious defects among children
ed 6 years are only 3 per cent., a percentage which steadily
reases until at 11 years old it reaches 11 per cent., and then
s somewhat better again.
This great deterioration is extremely serious. The eye being
e chief inlet for knowledge it means that at least 25,000
ildren are being seriously handicapped in all their pursuits.
e shortsighted child cannot see the blackboard, a ball in play
nes suddenly out of nowhere, a human face is an expres-
nless patch, and, never seeing its expression, he grows up
thout any power of estimating character from observation.
he does not care to look at what he cannot see his chief
light is to pore over a book. This, as I shall show, only in-
reases his defect of vision, and, moreover, since he sits all
ubled up with his head bent low over the book, the move-
nts of respiration are hampered, which predisposes him in
er-life to organic diseases of the heart and lungs.
Therefore, it is of the utmost importance to discover what
he cause of the deterioration of vision, and to prevent it
cure it as the case may be.

Normal Changes in the Eye from Birth to Old Age.

A normal eye is one in which the focal length of the lens
rest is equal to the axial length of the eyeball posterior to
e lens, and in which the retina is of normal structure and
nsitiveness to receive the disturbances and vibrations of
ier known as light. Given these conditions a perfect image
hrown on to the retina from every object which is placed in
nt of it at a sufficient distance for rays of light from it to ar-
e on the front of the eye practically parallel. In order that
rect images of near objects should be accurately focussed
to the retina the normal eye possesses three faculties: (1)
aptation, (2) accommodation, (3) convergence. The intelli-
nt appreciation and interpretation of things visible, how-
er, is a function of the very highest order, necessitating
t only that the eye should be perfect as an optical instru-
nt, but in addition that the higher visual centres situated
the occipital cerebral cortex and elsewhere in the brain
ould be fully developed and in good physiological working
der.

The changes which occur in the eye itself during life are chiefly concerned with accommodation which de-
nds partly on muscular contraction and partly on the
sticity of the lens. If, therefore, that elasticity is
minished (as it is in old age) beyond a certain point, accom-
odation will fail. The eyeball in infancy is short or flat and
permetropic, but the lens is relatively larger, more hemi-
spherical, and much more elastic than it is in after-life; therefore its amplitude of accommodation is greatest at birth—so much so that the shortness of the eyeball is then more than compensated. By about 11 years of age the eye-ball has grown and elongated so as to be emmetropic—that is to say, the focal length of the lens equals the length of the posterior chamber. Throughout life the elastic tissue in the whole of the body gradually lessens, and the elastic tissue in the coats of the eyeball shrinks, causing it to become some-what flatter again. The lens itself loses its elasticity most markedly and steadily, and with this loss the amplitude of accommodation gradually diminishes until by the age of 50 the normal eye is incapable of accommodating for objects nearer than 10 in.

Changes during Life in the Visual Centres of the Brain.

The dissociation between the reception of visual impressions by the eye and the perception of them by the brain is a matter of everyday experience. Who is there amongst us that has not at some time or other pulled out a watch, looked at it, and after replacing it in the pocket realized that the time had not been noticed? There is a distinct remembrance of the facepiece having been impressed upon the retina, but owing to the ultimate visual cerebral centres or the passages to these centres having been obstructed by thoughts or cerebration on other subjects the details of the facepiece of the watch passed unnoticed, and failed to arouse any con-sciousness of their significance.

Somnambulism is another familiar example of the cutting off of these higher from the lower centres. Here all actions are performed automatically, visual impressions being received and acted upon without the concurrence of conscious thought. The young infant, whose higher centres are only partially developed, will be unable to explain which letter is D and which is G and to give a name to them, but yet the eye may be capable of receiving a perfectly accurate visual impres-sion, and by exercising the faculty of mimicry (which is developed extremely early and is present in several of the lower animals), it may copy the position of an E held up to it every time it receives the impression; especially will it do this if its sympathies are engaged by its being rewarded every time it gets the position right on the first trial.

The progress of the development of these higher centres is best watched by noting the development of the fusion faculty —that psychical blending of the two sets of visual impressions when the two eyes act together as a pair which produces binocular vision. A newborn child fixes a light from a mirror flashed into its eye only momentarily, therefore the fixation must be purely reflex. In two or three weeks it fixes it for two or three seconds, but does not converge accurately. It is only by the fifth or sixth month that experiments with prisms show a distinct desire for binocular vision.

During the first few months want of control by the higher centres resulting in muscular inco-ordination causes the movements of the eyes to be uncertain, the slightest disturb-ance, even a little flatulence, causing one or other eye to deviate. But by the end of the first year the desire for binocular vision is so strong that unless there is some in-superable obstacle the vision of one eye will be suppressed in preference to enduring diplopia. Experiments with Worth's amblyoscope prove that this fusion faculty is not fully de-veloped normally until the sixth or seventh year. Therefore the higher centres cannot be developed until then.

The Cause of the Rapid Deterioration of Vision during School Life.

At 6 years of age 3 per cent. have seriously bad vision, and 88 per cent. can see $\frac{6}{6}$ with each eye; at 11 years of age 11 per cent. have seriously bad vision, and only 58 per cent. see $\frac{6}{6}$ with each eye. The rest have slight defects.

In farming districts, where vocations demand no accurate vision, no necessity for care of the eyes arises; but if children from these communities are sent to school the problem of how to prevent injury to the eyes soon obtrudes itself by the appearance of headache, pain in the eyes, impaired vision, undue sensitiveness to light, and increased lachrymation. Examination reveals tonic cramp of accommodation and hyperaemia of the optic nerve, choroid, and retina. These symptoms subside under rest, and recur when work is resumed.

If accommodation and convergence are not sufficient to overcome the hypermetropia of infancy, the child brings its eyes very low down on to its work, as the larger retinal image and increased illumination more than compensate for the less

accurate definition and the muscles of accommodation are strained to their utmost. A sustained and strenuous effort is demanded of all the ocular muscles. The continuous contraction of the internal recti renders them liable to overpower their antagonists and become a factor in the causation of squint. More important is the pull which the muscles of accommodation exert upon their points of insertion; they distort the eyeball and tend to lengthen it antero-posteriorly. This elongation produces myopia, which when caused in this way is more likely to attain a high degree and become ultimately perilous than when it existed as an original proportion. All recorded cases which have passed from hypermetropia to myopia have done so by astigmatism, no one having been emmetropic at any stage.

The small or hypermetropic eye is always found in animals, in infants, in uncivilized races, and in those who pass their lives in employments of the grosser sort. whilst myopia is almost unknown under these conditions of life. It is with the greatest rarity that the adult Indian outgrows his hypermetropia. Unfortunately I did not take statistics, but, when doing a large practice amongst Kaffirs, I was never once consulted about short sight, or even asthenopia.

Myopia results only under the stress of those employments which require the protracted use of the eyes for near work. Half a century ago Professor Donders laid down the law that "the myopic eye is a diseased eye." Myopia increases steadily with the progress of pupils in school; it is the characteristic of the student or of the artizan who began accurate near work early in life. Among the compositors of Breslau, Cohn found that no less than 51 per cent. had myopia. Risley found the same great percentage among the compositors and brass-founders of Philadelphia. Among the students in various German universities Cohn found 22 per cent. to 28 per cent. were myopes. Erisman showed that among 1,245 myopic children in St. Petersburg, only 5 per cent. were free from pathological conditions of the choroid. Horner kept 1,875 myopes under observation, and no less than 34 per cent. developed the greatest complications later on, such as haemorrhages into, or detachment of, the retina, optic atrophy, etc.

Indications for Treatment.

A child compelled to struggle with a sign is negligent of the thing signified. Its nervous energies cannot be directed into two channels at the same time. Therefore if its senses are defective it cannot take the full advantage of its education.

The public duty of providing an education which is to be the preparation for the child's after-life should include the duty of ascertaining whether that education is likely to inflict serious and permanent physical injury upon it.

It is only reasonable to expect some degree of physical deterioration will result from depriving the child of its freedom and confining it to lessons, and since the eye is the organ upon which the greatest strain falls, it will be the eye which is most likely to suffer.

All eyes should be tested immediately on the child beginning its education: (1) As to visual acuity; (2) as to rapidity of perception; (3) as to colour blindness.

All children whose visual acuity is subnormal should be atropinized at once, and if there is any excessive degree of hypermetropia simple *plus* lenses should be worn until it is outgrown. Spectacles for them should be regarded not as an evil, but as a temporary protection against the evil of defective vision.

With regard to commencing myopia, it is very questionable whether the child should be allowed to continue its studies at all. Certainly no more near work should be done than is absolutely necessary. A special curriculum should be devised for these children which will fit them for a congenial career in after-life and not involve any strain on the eyes.

Children with errors of refraction always get as near to their work as possible. The hypermetrope, to get a larger image; the myope, to get any image at all—spectacles may do away with the necessity, but the objectionable habit may be formed. The thing to do is to use a face rest which will keep the face at least 10 in. off the book. Kallman's of Breslau is the best.

Squint occurs when there is an error of refraction combined with a defect in the "fusion faculty." I have found it present in 4.5 per cent. of children under 8 years of age. It is of the utmost importance to cure squint with the greatest speed as early as possible. Before the child is 6 years old it is easy to do so by correcting the refraction and training the fusion faculty with Worth's amblyoscope. After this it is a matter of considerable difficulty. Only 30 per cent. of squ can be cured by glasses alone, the rest requiring opera treatment, etc. Squinting eyes become amblyopic from tinued suppression of vision to prevent diplopia.

Colour sense is as often untrained as absent, there attempts should be made to develop it.

The Type of Children's Books.—It has already been most pointed out by Dr. Kerr that pens, pencils, paper, etc., utterly out of place in an infants' school. They are too minute. Infants should only be allowed chalk on board. Reading should be learnt from the blackboard. Every child in a 6-year-old class should be able to its name in 6 in. letters on the blackboard with free arm. Fine writing should be absolutely forbidden. In order to be distinguished, letters must subtend an angle at least five minutes, and the lines of which they are compo at least one minute. This requires the utmost endeavou an emmetrope, being the limit of normal acuity of visi Therefore it is obvious that a hypermetropic infant sho not be set to small print. At no time during school should type smaller than pica be used.

Parents among the lower orders are so astoundin ignorant with regard to the care of their children's eyesig that it is impossible to rely on them to get defects attend to. They invariably imagine the child will in time "gr out of" any defect. Glasses they regard as a disfigurem worse than sore eyes, or else as an adornment for Sunda Many children also run grave risks by their parents taki them to sight-testing establishments, certified opticians, e who are rightly prevented by law from using atropine, a who therefore prescribe wrong glasses.

Conclusion.

No child's eyes were intended by Nature to undergo t strain of accommodating over lessons for six or seven ho every day of their lives between 4 to 14 years of age.

If, however, compulsory education enforces it, it becom the duty of the Board of Education annually to separate tho 20,000 children or more whose vision is so defective that th are unfit physically, to devise for them a specially modifi curriculum, and to provide them with glasses if their paren are too poor or too ignorant to do so. This is the type of cas common enough, I am referring to.

Boy, aged 13; rest of his class I examined yesterday, but he w absent, as he stopped at home to help his mother (who is a widow wi five younger children) do the washing. He suffers from headache squints, sees double, and has blepharitis. His class is at present doi algebra, a subject in which he makes no progress, as sometimes t figures are all a blur and at others they jump about.

Such children are as unfit to become students as cripp are to become soldiers.

There is plenty of skilled manual work to be done by th class which is so poor that the public has to pay for the education, and they should be taught from their earlie infancy to regard this as their special lot in life.

For if the child with defective vision has its weak eye overstrained, not only does he as an individual suffer, bu also future generations, to whom the welfare of the nation i to be entrusted, it being a well-proved fact that there is n defect more likely to be transmitted from parent to child tha that of defective eyesight.

OBSERVATIONS ON AN EPIDEMIC OF SCARLATINA

By BERTRAM THORNTON,

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The following notes on a recent epidemic of scarlatina will b of interest on account of the mildness of the symptoms in a large proportion of the cases, only 31 children out of a tota of 96 showing any signs of a rash.

The not infrequent occurrence of very mild cases of scarla tina, with little or no perceptible rash or indisposition, is no dwelt upon with sufficient emphasis in the usual textbooks.

The epidemic occurred in a school of 300 children (boarders). to which I am medical officer, and was a source of much anxiety on account of the absence of all symptoms of illness in a large proportion of cases and the consequent difficulty o selecting cases for isolation. At the outset I may note that the milk supply was above suspicion, and that there was no scarlatina in the neighbourhood.

Early in October, 1902, my attention was called to a child

was clearly peeling after an undiscovered attack of scarna; the child had apparently been in the best of health, as far as was known, had not been in contact for at least or eight weeks with any but her fellow school children. I anticipated from an exactly similar experience on a ner occasion, this case was soon followed by others, and outbreak continued till June, 1903, before it was stamped

efore dealing with statistics, I will note the following parlars relating to examination and isolation.
n the discovery of the first case, all the children were mined by myself, and subsequently, twice daily, by the ron and two nurses, who had all had considerable expeice of scarlatina, for the slightest evidence of any rash, throat, or peeling; cases of the least suspicion were ined for my inspection. All cases of sore throat were ially isolated, however slight. Undoubted cases were ediately sent to the District Fever Hospital till it was ble to take any more. The remainder were nursed in the itution infirmary, an isolated building in the school nds. The Committee engaged a large empty building side the town, and to this house all the convalescent s were drafted till the peeling stage was accomplished.
ll the children who were peeling had a daily hot bath carbolic soap, and were subsequently rubbed with carc oil; some of the more obstinate cases of feet peeling e subjected to the more heroic measures of strong soda er and pumice stone. The usual precautions were taken ending the children back to school.
he total number of cases was 96; this number includes 3 dren who had two distinct attacks.
S., October 13th to April 17th, rash etc.; June 12th to October 4th, ng.
W., December 15th to February 19th, rash, etc.; May 29th to October peeling.
M., October 15th to December 15th, rash, etc.; June 11th to October peeling.
boy sent to the District Fever Hospital with rash and er typical symptoms on May 27th developed another ck with rash, sore throat, and temperature of 104° F., le he was still in hospital on August 7th—that is, seventy- days after admission; this boy did not return to school eighteen weeks.
he cases may be divided into three classes:
lass I (31 cases).—Typical cases, with rash, sore throat, elevation of temperature, usually not more than one or degrees.
lass II (19 cases).—Children who had no observable rash, only slight redness of tonsils and from one to two de- s of fever, with characteristic peeling beginning during second or third weeks. These were all isolated on suson.
lass III (46 cases).—Children who simply peeled, and ough specially examined daily, showed no signs of the htest indisposition.
ith reference to the cases under Class I, I may add that were all fairly typical, though most of them were not at time really ill. Nearly all of these were sent to the Dist Fever Hospital and mixed with scarlatina cases from er sources, as well as a large proportion of cases from sses II and III; none of them contracted a fresh attack r admission, except the boy mentioned above. This fact be taken to prove that all the cases were bona-fide cases carlatina. My diagnosis was also in all cases confirmed Dr. Lorimer Sawers, the acting medical officer to the Fever pital.
ne remarkable feature of the epidemic was the unusual gth of time occupied by the process of desquamation. It be seen from the subjoined table that the mildness or nce of symptoms was not necessarily followed by a ter period of peeling, but if anything the process of quamation was prolonged in the cases which showed no al symptoms of illness.
or precautionary purposes, I considered cases were unfit return to school in which there was any appearance of ed skin about the hands and feet, but I did not regard ed patch of hard skin on the sole of the foot as technical eling," and therefore infectious, after eight or nine weeks the beginning of the disease. Doubtless, infection had ed in many instances before I felt justified in permitting n to return to school.
is not improbable that some of the cases of prolonged ling were due to reinfection without general symptoms.
a few instances the children discharged from the District er Hospital with desquamation apparently quite accomplished, started peeling again a few days after admission to the convalescent house to which I sent all children previous to allowing them to return to school.

Duration of the Disease till the End of Desquamation.

*Weeks ...	5	6	7	8	9	10	11	12	13	14	16	17	18	19	22	23	24	26
Class I, cases ..	—	1	—	7	7	2	1	—	1	1	3	1	4	—	—	1	1	1
Class II, cases	—	6	3	3	2	1	1	—	—	2	—	1	—	—	—	—	—	—
Class III, cases	3	4	4	2	10	2	2	1	2	2	9	—	3	1	1	—	—	—

* Portions of weeks omitted.

Although a large staff of teachers and servants were exposed to infection no adult contracted the disease. There was no case of serious illness except one boy who developed an attack of acute tuberculous pneumonia (Osler), and died after his return home, about four months after he contracted scarlatina. There was one case of suppurative adenitis.

The main school buildings were fumigated by the local sanitary authorities and by the school staff two or three times during the outbreak, but as the exposed surfaces of the school rooms, dormitories, corridors, etc., amounted to several acres of wall, floor, and ceiling, it was not possible to be certain that every corner of the building was efficiently disinfected.

My own view, however, was that the children themselves were chiefly instrumental in passing the disease from one to another before they showed any symptoms which justified their isolation.

The total extra cost to the institution of house hire, nursing, and disinfection was approximately £950.

This sum does not include the cost of feeding the children, the cost of maintenance at the Fever Hospital, or the provision of a new supply of school books, etc., to replace the whole outfit which the Committee ordered to be burnt.

It is unnecessary to comment on the appalling cost to a public institution of such an epidemic, but in the present state of public and professional opinion, it is not possible to relax any of the usual precautions; the well-known fact that scarlatina varies so much in virulence in different epidemics makes it compulsory to treat the disease with respect. In conclusion, I would suggest that from a financial point of view, it is most desirable that an attempt should be made to come to some definite conclusion as to the duration of the period of infectivity in scarlatina.

Dr. Klein and Dr. Mervyn Gordon have been making investigations on the bacteriology of scarlatina, and have, I believe, come to the conclusion that the micrococcus scarlatinae is the active agent in this disease, that it can easily be found in the throat secretions, and is rarely to be found in the nose, in the ear discharges or in the cuticle. If these observations are correct, the time is approaching when it may be possible to materially limit the detention of scarlatinal cases in quarantine, and the present rule-of-thumb method of detaining patients till desquamation and ear discharges have ceased may be superseded by the more precise and scientific proceeding which now obtains in diphtheria. The saving in time and money to the community if it is possible to shorten the time of isolation and limit the number of return cases will be enormous.

Health authorities might also take into consideration the possibility of economizing public funds by providing, on the sites of fever hospitals, an annexe for convalescent desquamating patients, which need not be constructed on such expensive lines as is necessary for the treatment of the disease in its acuter stages.

THE SURGICAL TREATMENT OF ABDOMINAL ANEURYSM.

By R. CHAS. B. MAUNSELL, M.B.Univ. Dub., F.R.C.S.I.,
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In discussing the subject of abdominal aneurysm I will not refer specially to aneurysm of the iliac arteries, as I think that ligature or possibly Matas's operation, referred to later on, would be the only methods of operative treatment considered at the present day. With regard to aneurysm of the other smaller abdominal vessels, ligature or excision appears to be indicated if a surgeon should meet with one of these rarities. Henry Morris states[1] that there are only 21 cases of

aneurysm of the renal arteries on record. Caton[2] could only find 11 cases of aneurysm of the hepatic artery; whilst aneurysm of the splenic and mesenteric arteries are merely pathological curiosities.

Aneurysms of the abdominal aorta are not common; they form but 5 to 10 per cent. of all aortic aneurysms; men are about seven times more subject to them than women; they occur most frequently between the ages of 25 and 50, chiefly, if not altogether, in those who have suffered from syphilis some years previously.

With regard to the syphilitic origin of non-traumatic aneurysms in general, Etienne[3] states that in 376 cases collected by him 70 per cent. had syphilis. Heller[4] strongly upholds the view that the disease begins as a syphilitic process in the tunica media.

Within the last few years I have seen 6 cases of abdominal aneurysm, five men and one woman; the ages varied from 24 to 37 years; four of the men stated positively that they had suffered from syphilis; one man, the case related in this paper, had a chancre and a bubo eight years previously; the woman had a history of miscarriages and dead-born children which pointed strongly to syphilitic infection, also the necropsy showed extensive arterial disease.[5]

It is generally estimated that at least 50 per cent. of abdominal aneurysms arise from the aorta above the superior mesenteric artery, the origin of the coeliac axis being the part usually most involved; about half these tend to grow at the expense of the anterior wall of the aorta, the remainder growing backwards, eroding the vertebrae or ribs. The aneurysm may be fusiform, sacculated, or dissecting, or may present a combination of these primary forms.

It is important to remember that general arterial disease frequently coexists, and that in many cases intrathoracic aneurysm may be present. It is beyond the scope of this communication to enter into a discussion on symptoms and diagnosis, but I would point out the frequency of stomach symptoms, emaciation, obstinate constipation and pains referred to the shoulder or back, which often lead to an erroneous diagnosis, and to the fact, pointed out by Foot,[6] that in women the symptoms may be few and the disease entirely overlooked.

Spontaneous cures are not unknown and from time to time consolidated aneurysms are found in persons dying from some other complaint, but the ordinary termination of the disease is death from internal or external haemorrhage, within a period varying from a few months to three years subsequent to coming under observation.

The treatment of Bellingham[7] and Tufnell[8] by absolute rest and starvation, etc., is now rarely used in its original form as patients resent it, cure by it is extremely doubtful and its scientific accuracy is impugned by many, it is however frequently used in a modified form in connexion with any of the more modern methods. The administration of large and increasing doses of potassium iodide appears to be both scientifically correct and to have done good in many cases. Calcium chloride is undoubtedly establishing itself in the favour of surgeons, but the gelatine treatment of Lancereaux and Paulesco[9] is hardly yet worth serious consideration although further use may lead us to acquiesce to its great French reputation.

Of the more distinctly surgical procedures we need merely mention the "needling" of Macewen, or the galvanopuncture of Velpeau, as they are both uncertain, but if ever had recourse to, the only safe method of using them would be after laparotomy and exclusion of the aneurysm.

In 1864 Charles H. Moore,[10] of the Middlesex Hospital, passed a fine trocar and cannula into a large aneurysm of the ascending aorta, which was protruding in the second and third intercostal spaces, and introduced twenty-six yards of fine iron wire through the cannula, pushing the end home by means of a blunt trocar. The patient seemed much relieved, but died on the fifth day from acute sepsis. *Post mortem*, the aneurysm was found full of solid clot firmly engaged in the coils of wire.

Loreta in 1885[11] was the first to apply this method to an abdominal aneurysm. He performed laparotomy, and through a cannula passed 6 ft. of fine silvered copper wire into the sac, which was very large. The patient left hospital in ten weeks with the aneurysm reduced to a hard non-pulsating mass the size of a walnut, but died three weeks later from rupture of the aorta below the aneurysm.

G. L. Hunner[12] has collected all the published cases of this operation, both thoracic and abdominal, up to 1900. There were 14 operations, with 3 cures and 11 deaths; in 9 of the 11 fatal cases a necropsy was obtained, and all showed the presence of the wire had induced firm clotting.

In a search through surgical literature I have been ab find eight cases of abdominal aneurysm treated by Mo method, with three cures of the aneurysm.[13] The opera were Loreta, Morse, Pringle and Morris, Lange, Steven Langton, Parnham, and D'Arcy Power. The cases which best were those in which from 5 ft. to 6 ft. of wire were u and Moore himself considered that he had used too m wire in his thoracic case.

In 1879 Corradi[14] modified Moore's method in a cas aneurysm of the ascending aorta, by passing 17 in annealed wire through a cannula, passing a current fro galvanic battery of 16 cells for 25 minutes, the anode b attached to the wire which was subsequently pushed ur the skin. The patient improved, but died thirteen w later. No necropsy was obtained. G. L. Hunner[15] collected 23 cases of thoracic and abdominal aneury treated by this method with 4 cures, 1 considera benefited and life prolonged, and 10 in which death probably hastened.

I have been able to find 7 cases of abdominal aneury treated by the Moore-Corradi method, which I think re sents all cases published up to the present date. operators were Stewart, Noble, Halsted, Finney, Re Finney, and Matas, which, with the present case, brings total to 8.

In this list we can only claim one cure, which compa badly with Moore's method, but the cases are too few definite conclusions, and careful study of all cases, b thoracic and abdominal, besides experimental data and sci tific reasoning, lead steadily to the opinion that Corra modification is the better operation. D. D. Stewart,[16] w has written a most valuable article on this subject, thi highly of the method. He considers that the wire should fine drawn, so that it will tend to coil spirally, and should made of silver, gold, or platinum, not of steel or hard iron, it may snap or perforate the sac; not of soft iron, as it w be decomposed by the electric current, leading to embolis In his opinion too much wire is used by most operators. a sac of 3 in. diameter 3 ft. to 5 ft. of wire is sufficient, and a very large sac 8 ft. to 10 ft. He recommends that the an should be connected to the wire, and the cathode connect to a clay plate applied to the patient's back or abdomen. current of 40 milliampères to 80 milliampères being pass for forty-five minutes to an hour and a half.

Rudolph Matas[17] is very despondent; he says that, thorough clotting were to take place in the coeliac region, t blood supply would be cut off from the abdominal viscer that there is a danger of throwing extra strain on weak spo in the sac; the sac may be perforated by the wire, or the wi may travel up the aorta to the heart. Gangrene may follo clotting; rupture of the sac may follow diminished pressu when the abdomen is opened, etc.

He thinks that the operation should only be performe when the patient is young; when the sac is small and thic walled, arising below the superior mesenteric, or, if abo this, when on the side or posterior aspect of the aort G. L. Hunner[18] is more enthusiastic and hopeful; he adv cates using 10 to 20 ft. of fine-drawn wire, 75 parts copper t 1,000 silver, passed through a cannula insulated by Fren lacquer. He says that on no account should both poles b connected with the sac, nor should the cathode be connecte with the wire, as gas would be evolved with the formation o soft clot, and not firm clot such as is formed around th anode. He says that clot is formed better on silver than o steel, as it presents less resistance, and also is more corrode by the current. Twenty to 100 milliampère currents were use by him in experiments upon dogs, the clotting being as goo with the smaller current, whilst the stronger current dis tinctly injured the aortic wall, where the wire came in con tact with it; therefore he advocates comparatively weak cur rents. The reasons given by him in favour of the copper an silver alloy are that it is finer and coils better than silver; i coils closer and is more easily corroded than steel, thus affording a good clotting surface.

I will now briefly relate the history of my case, and describ the technique of the operation as carried out on it.

W. B., male, aged 28, storeman, stated that eight years ago he was treated for a chancre and bubo, but he does not appear to have been treated for syphilis.

History.—About a year ago he began to suffer from cramp-like pain in the region of the stomach and shooting pains in his back; he sometimes found difficulty in swallowing, and pain and vomiting occurred after meals. During the past six months he had wasted considerably.

fe on Admission.—He was sent to hospital as a case of gastritis or ic ulcer, but my colleague Dr. Lumsden, under whom he was ad- ed, found upon examination that there was a distinct pulsating our in the left epigastric region. Upon closer examination this our appeared to be about the size of an orange, was firm, and ated in an expansile manner; it descended slightly upon inspira- , and then appeared to onnected with a larger which descended from ath the left costal mar- The apex beat of the t was situated outside ipple line in the fourth rcostal space, but there a diffused pulsation all the lower part of the chest. The second sound ie heart was accentuated the aortic area, and a h systolic *bruit* could be d over the tumour and r left chest, but could be heard behind. The ent was kept under ical treatment for a th, but as the tumour dly increased in size and ated more vigorously, Lumsden requested me ake charge of the case, a view to operative tment, as the patient his relatives were ex- ely anxious that some- g should be done, no ter how risky the pro- re might be.

eration.—On July 22nd, , ether having been ad- istered, the abdomen opened by an incision nding from the ensiform ilage almost to the um- us. The aneurysm was found to be very large, filling the whole cupola of the diaphragm, pushing the liver over to the right; the nach was stretched like a strap across its lower and left aspect; gastro-hepatic omentum was incorporated with its anterior wall. aorta could be felt above the tumour, which appeared to insinuate lf between the crura of diaphragm, but below transverse mesocolon aorta could be easily le out. The small tumour, clinically, was the over- ging lower margin of the e aneurysm, which at point appeared very l-walled and progressive. pursestring suture of 4 plaited silk was now ed enclosing an area size of a shilling on anterior aspect of the our, and the ends were ped in a forceps. The itoneal cavity was packed with gauze pads, and a trocar and cannula nged through the sac in area surrounded by the are, the point of the an being directed to- ds the left and upwards. cannula had been pre- usly insulated by coating ith ordinary sealing wax. re are some practical nts which might be here ntioned. The trocar and nula should be sterilized boiling, then the oper- r or his assistant, having ilized his hands, holds cannula in the flame of irit lamp until it is fairly next he places a few ps of previously melted ling wax on the cannula, l, by alternately rotating it and passing it through the flame, ms a thin even coat of sterile wax, which is now hardened placing the cannula in cold sterilized water until needed at the ration. The cannula should not be placed in carbolic lotion, as this tens the wax and renders it useless. Having withdrawn the trocar y a drop or so of dark blood came through the cannula, and now a piece of No. 28 silver wire, previously sterilized by boiling, was passed into the aneurysm, always keeping the cannula pointed to the left so that the wire might not enter the aorta. The wire passed freely through the cannula, and when six yards had been introduced the remaining portion of the wire was removed from the reel, passed through a sterilized rubber tube, and attached to the anode of a galvanic battery; the circuit was completed by attaching the kathode to an electrode which rested on gauze pads, soaked in salt solution, which were placed on the patient's sternum. During the first five minutes the current was increased from 1 to 65 milliampères, at which strength it was maintained for thirty minutes and then again brought to 0. The battery should be fitted with a collector which prevents the shock of make and break whilst increasing or diminishing the current. The wire was now cut short, the end pushed home, and the cannula withdrawn. Fairly smart haemorrhage came from the cannula puncture but was easily stopped by tightening the purse-string suture. The abdomen was closed in layers by sutures of silk and silkworm gut. During the passage of the current the tumour became firmer, smaller, and pulsated much less distinctly.

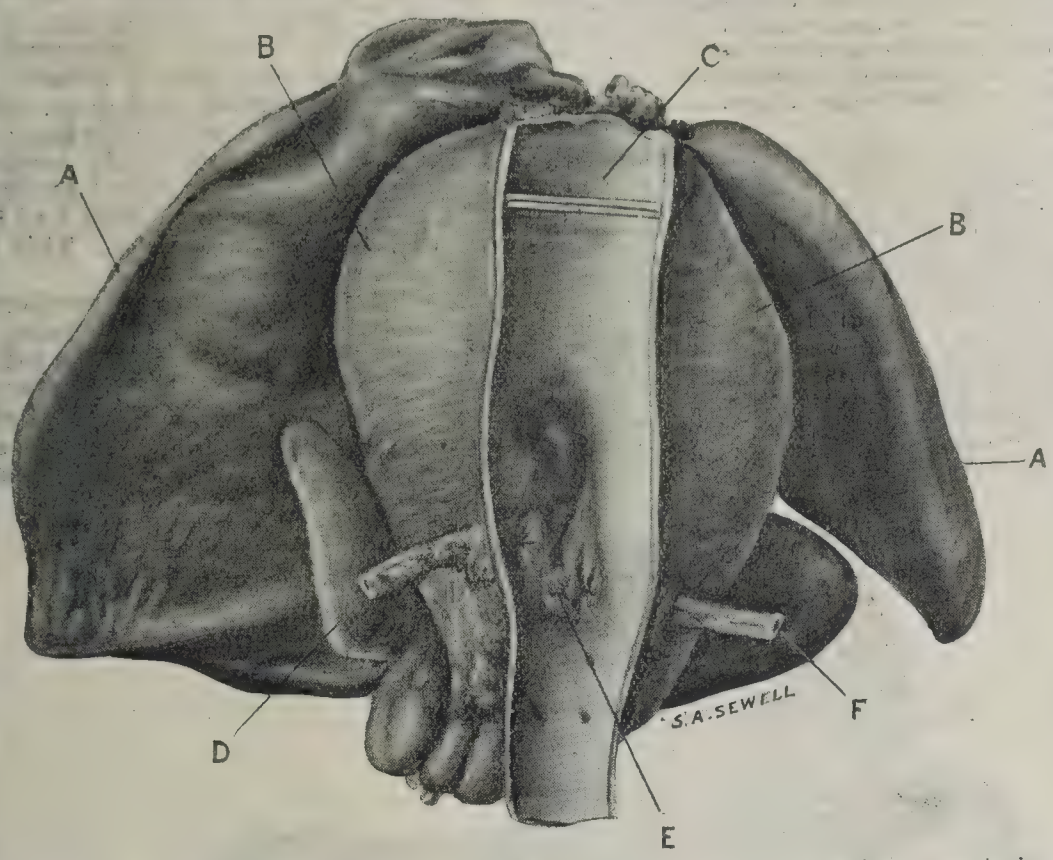


Fig. 1.—A, stomach; B, aneurysm; C, aorta; D, pancreas; E, superior mesenteric artery; F, renal artery.

After-progress.—After the operation the patient's pulse was 112 and respirations 24, but in a few days both resumed a perfectly normal rate. The temperature throughout remained normal, except on the eleventh day after operation, when it reached 101° for a few hours owing to a superficial infection of the scar, which had been healed and without dressing for some days. The after-treatment consisted of fluid in small quantities for the first ten days, then a small amount of bread and milk puddings until the thirtieth day, when he was allowed chicken, etc. For the first few days rectal injections of gelatine solution were given, but they irritated the bowel and were stopped. After the first week he was given 30 gr. of calcium chloride three times daily, but this seemed to cause dryness and itching of the skin, with branny desquamation, and was stopped in a fortnight. The patient periodically suffered from pain in the abdomen and back, for which morphine was given, but he expressed himself as feeling better than he had been for the past year, and he certainly looked well and enjoyed life very fairly. For a fortnight after the operation the aneurysm appeared bigger than before, and the heaving of the left side of the chest was very marked, but from that period onwards it grew smaller and smaller, the pulsation ceased in the chest, the heart resumed almost a normal position, and the impulse felt in the epigastrium was no longer expansile in character.

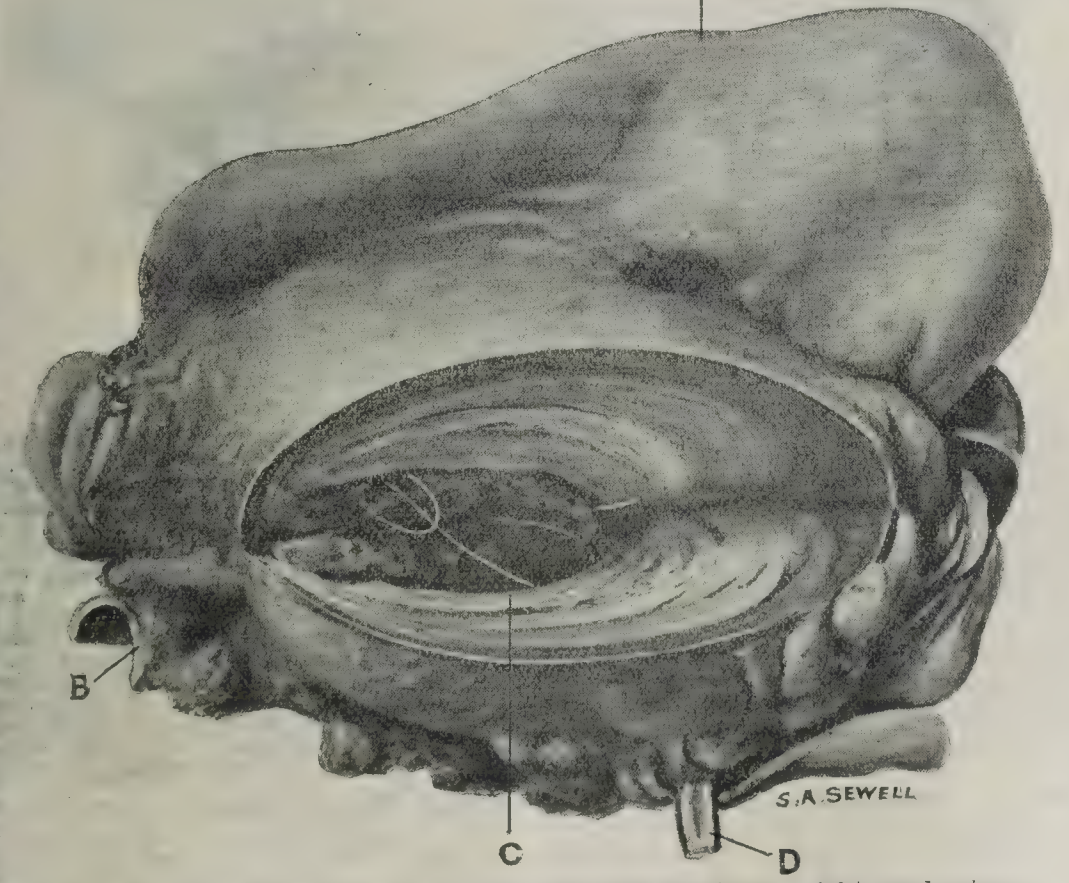


Fig. 2.—A, stomach; B, aorta; C, laminated clot and wire; D, right renal artery.

Result.—About forty days after the operation he complained of pain in the point of his left shoulder, which became constant and severe, needing repeated injections of morphine for its relief. On the forty-fifth day he vomited several times; on the forty-sixth day he vomited blood and became weak; on the forty-seventh day he became progressively weaker and died.

Necropsy.—Leave was with difficulty obtained to reopen the abdominal wound and examine the aneurysm. The stomach and intestines were

found full of blood. The aneurysm, stomach, and adjoining parts were removed for dissection.

The three accompanying drawings and the specimens show clearly the conditions found. Fig. 1 is a back view of the aorta, aneurysm, and stomach. The aneurysm is pear-shaped, about 4 in. long and 3½ in. wide: it springs from the anterior wall of the aorta at the origin of the coeliac axis, and communicates with the aorta by an opening 1½ in. long and ¾ in. wide: immediately below the aneurysmal opening are the openings of the two renal arteries and superior mesenteric artery, which are indeed actually springing from the base of the aneurysm; the aorta below the aneurysm is small, compared to that above, but the portion removed appears free from disease.

Fig. 2 shows the antero-lateral aspect of the aneurysm, cut open, and demonstrates the immense thickness of a firm laminated clot which had formed, almost filling the sac, and the small central cavity filled with a few coils of wire and more recent but yet *ante-mortem* clot. The six yards of wire are well covered in the organized clot, as only one or two loops are visible in the centre of the section, thus proving that the clot formation was subsequent to the operation.

Fig. 3 shows a left lateral view, the stomach being laid open from cardia to pylorus; it shows that the aneurysm had opened up the gastro-hepatic omentum, and that the lesser curvature of the stomach actually forms part of the sac; the cardia is acutely bent over the upper end of the aneurysm, and about 1½ in. from it, in the centre of the adherent lesser curvature, is a round ulcer, about the size of a shilling, through the base of which shreds of organized clot protrude; on introducing a finger deeply into it coils of wire can be felt firmly imbedded in the clot which fills the sac.

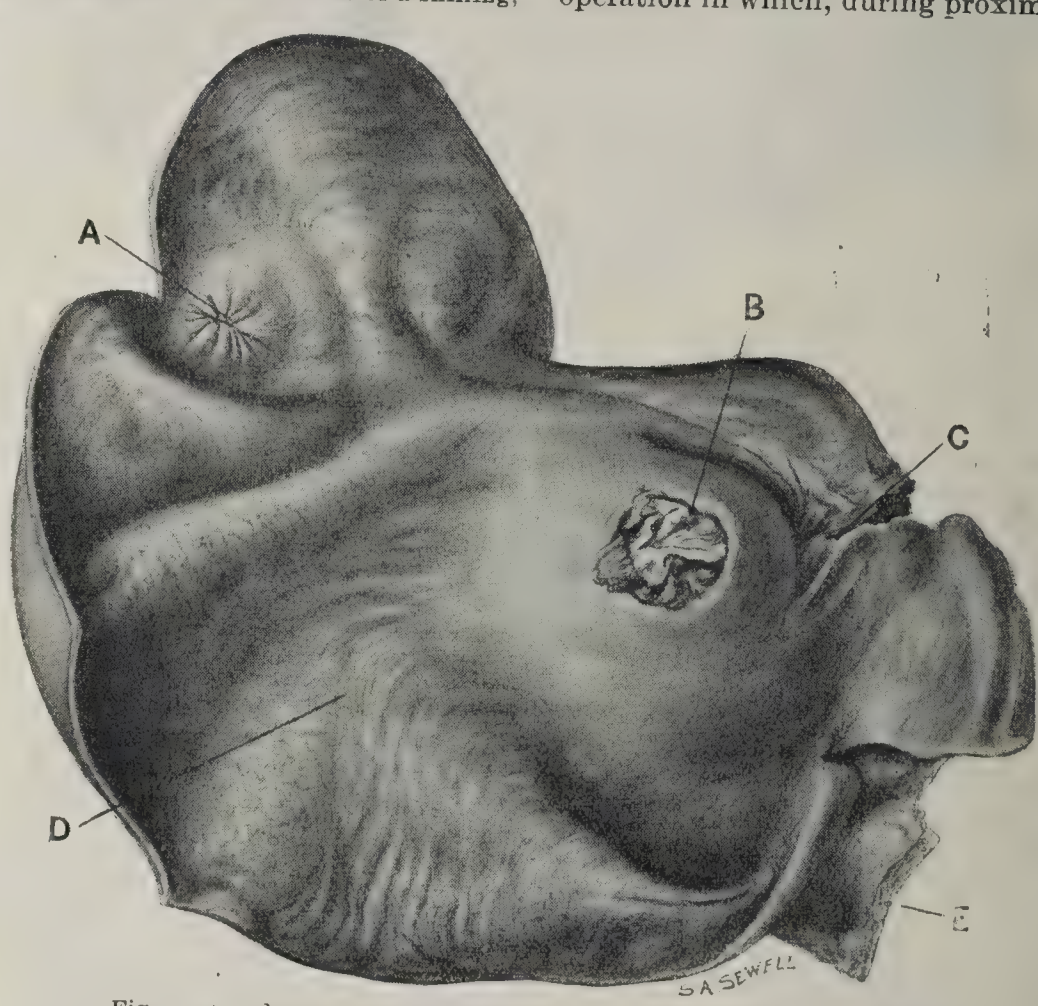


Fig. 3.—A, pylorus; B, point of rupture; C, cardiac orifice; D, interior of stomach; E, aorta.

REMARKS.

The appearance of the specimen when fresh, and indeed even now, suggests that the fatal issue was due to ulceration spreading from the stretched portion of stomach, and not from progression of the aneurysm, which, but for the unfortunate position of the stomach in relation to it, was evidently fairly on the road to permanent cure, by consolidation and organization of its contents. I will not discuss the subject of the Moore-Corradi method further, but will leave this case to speak for itself, as most certainly the conditions here found plead better than I could for a further trial of this ingenious operation. In this case the branches of coeliac axis could not be traced, and, although certainly obliterated, no serious symptons followed as collateral circulation had already been established.

From time to time some daring surgeons have ligatured the abdominal aorta, and I find 13 cases of permanent proximal ligature of the aorta have been recorded; 9 of these were for iliac aneurysm; 2 for haemorrhage from the iliac artery and 2 for aortic aneurysm. All these cases ended fatally, in from a few hours to forty-eight days, from shock, secondary haemorrhage, or gangrene and sepsis. The two cases in which the operation was performed for aortic aneurysm deserve consideration, as the operators have made most useful suggestions.

Milton,[19] of Cairo, ligatured immediately below the renal arteries, in a case of ruptured aneurysm of the mesenteric region, with a fatal result on the following day from anaemia and shock. Milton suggests that temporary proximal compression might be applied to the aorta by means of an elastic band passed through the lumbar muscles, the ends off the band, protruding behind, being drawn on at will.

W. W. Keen[20] ligatured above the renal arteries, for a ruptured aneurysm of the mesenteric region, with a fatal result on the forty-eighth day from secondary haemorrhage. He has since made experiments upon dogs, and suggests that temporary proximal clamping of the aorta could be used in man; he has devised an instrument for this purpose. He states that in dogs, the aorta may be clamped for as long as twenty hours, or to one hundred and ten hours without causing permanent changes in the parts below the obstruction. More lately Robert T. Morris[21] records a case in which he used a distinctly new procedure, namely temporary distal ligature by means of a rubber catheter passed around the aorta, at a point immediately below the aneurysm, and 1½ in. above the aortic bifurcation. He removed the constricting band in twenty-seven hours, the aneurysm being completely consolidated, but unfortunately the patient died three days later from sepsis due to sloughing of a piece of intestine which had been injured by the clamp which secured the catheter. This method seems well worthy of further trial.

R. T. Stratton[22] records several experiments made upon dogs and advocates the gradual occlusion of large arteries by means of a waxed tape, worked on the principle of an *écraseur*, but tightened or rendered slack by means of a special instrument. The latest suggestion which has been made is that of Rudolph Matas,[23] who has devised—and practises—an operation in which, during proximal control of the circulation, the sac is laid open, cleared of clot, a portion isolated to represent the original vessel, and the edges of the walls infolded by means of several layers of sutures. He has performed this operation successfully four times for aneurysms of the extremities. R. T. Morris[24] has used this method in a fusiform aneurysm of the popliteal artery, and thinks that it could be easily applied to abdominal aneurysms. Doubtless many abdominal aneurysms are beyond receiving benefit from any form of treatment, but I think that, with careful choice of one of the methods of operation mentioned in this communication, we may yet save a fair proportion of these cases which are by many considered doomed to certain death.

REFERENCES.

[1] *Lancet*, October 6th, 1900. [2] *Trans. Clin. Soc. Lond.*, 1886. [3] *Annales de Derm. et de Syph.*, January, 1897. [4] *Münch. med. Woch.*, December 12th, 1899. [5] Maunsell, *Trans. Roy. Acad. Med. Ireland*, vol. xvii, 1899, p. 45. [6] Ibid., vol. v, 1887. [7] *Dub Med. Press*, vol. xxvii, p. 81. [8] The Successful Treatment of Internal Aneurysm by Consolidation of the Contents of the Sac, London, 1875. [9] *Bulletin de l'Acad. de Méd. de Paris*, 1897. [10] *Med. Chir. Trans.*, vol. xlvii, p. 129. [11] *Memoires Roy. Acad. Bologne*, vol. 6, series iv. [12] *Bulletin Johns Hopkins Hosp.*, November, 1900. [13] See detailed list, *Trans. Roy. Acad. Med. Ireland*, vol. xxii, 1904. [14] *Lo Sperimentale*, April, 1879, pp. 445. [15] Loc. cit. [16] *Philadelphia Med. Journ.*, November 12th, 1898. [17] *American Medicine*, June 22nd, 1901. [18] Loc. cit. [19] *Lancet*, 1891, vol. i, p. 85. [20] *Amer. Journ. Med Science*, September, 1900. [21] *Annals of Surg.*, vol. xxxv, p. 207, 1902. [22] Ibid., August, 1903, p. 256. [23] Ibid., February, 1903, p. 161. [24] Ibid., October, 1903, p. 493.

THE UNITED STATES AND UNDESIRABLE EMIGRANTS.—A Bill is now before the New York State Legislature which provides for a State Board of medical experts to be stationed at Ellis Island to inspect immigrants, for the purpose of excluding those who exhibit such evidences of mental decline as would warrant the probability of their becoming public charges. It is believed that the United States Commissioner of Immigration favours the proposition, and that the necessary permission can be obtained from the Government.

CASE OF PERMANENT CLOSURE OF THE JAW RESULTING FROM INFANTILE PARALYSIS.

BY W. EDWARD MEADS, L.D.S.ENG.,
Bexhill-on-Sea.

July 12th, 1903, I was consulted dentally by a patient, ss E. B., aged 28, to know if I could do anything to relieve r acute toothache. Upon examination, I found the case s one of permanently locked jaws, and the following is the story and particulars of the case :

History.—The patient gave me the following history of her case. en about 18 months old she had a severe attack of whooping-cough, i during convalescence she was given a hot bath. This was followed two fits in quick succession, and she was taken to St. Mary's Hos- al, Paddington, where it was found she had considerable paralysis on the right side, affecting the lower jaw and the right leg. She re- ined at that hospital about eighteen months and the lower jaw be- ne firmly closed. From that time to the present the patient had ver opened her mouth. The patient had at various times been to eral hospitals and seen many medical men. Besides St. Mary's ddington, she had attended as an out-patient at The Children's Hos- al, Great Ormond Street. Paddington Green Hospital, St. George's, Thomas's, and the Middlesex. She had also attended the West London spital, Hammersmith, for two months in each of three consecutive rs. Last time she went there she was told that nothing more could done except a general operation (I presume from the patient's re- rks either excision of the condyle or Esmarch's operation was con- mplated). Other medical men had confirmed this opinion. At one spital they made seven attempts under chloroform presumably to eak down adhesions surmised to exist at the articulation of the ndible. The patient had during these years eaten most usual foods, up finely, and with pepsinogen ; and for years she had fed herself pushing the food up between the upper and lower incisors (the mer I conclude being somewhat anteriorly protruded), and had worn wn her finger nails in the process. Some five years before I saw e case a dentist had operated under gas, and had broken off the owns of three upper and three lower incisors, leaving the roots still

Through the aperture thus gained the patient had since fed herself th more ease and comfort.

State on Examination.—The patient, small and somewhat fragile in pearance, but otherwise apparently healthy, had her lower jaw almost movably fixed, with the lower teeth in close contact with the upper th. The patient possessed a complete set of permanent teeth, which re interlocked and the jaw firmly fixed. On the right side the whole the upper and lower teeth and the outer gums were covered by a ield-like mass of tartar, which the patient imagined was some bony velopment on her jaw. Most of the teeth were more or less carious, d the immediate cause of the patient coming to me was pain in about the second upper right molar. The whole mouth was in ost septic condition, with much tartar, spongy gums, and me pus exudation, while the breath of the patient was so ensive that it was becoming more and more detrimental to r in her business—that of a lady's hair-dresser and wig-maker. e patient had the crowns of three upper and three lower incisors ssing, but the roots were still remaining. These were the roots left from the operation referred to above. The patient had no temporary eth or roots remaining, though how these were disposed of I could t ascertain. The patient informed me that her temporary teeth were ite close together, though she thought not so locked as the permanent eth. She had never had any temporary teeth extracted. There was trismus of the muscles. and the jaw could be moved to the smallest ssible extent by the patient. This movement was at the most not more an $\frac{1}{16}$ in. between the front teeth, and, though this was perceptible, all practical purposes the lower jaw was immovably fixed. This ght movement, however, seemed to indicate that the muscles re not in a state of trismus or tension, and also that the fixture the jaw was not due to ossification of the mandibular condyle. yond this very slight movement referred to no further move- ent of the mandible could be obtained by passive manipulation. ving to the mandible never having been used it presented a markable example of non-development from non-use. The mandible s narrow, thin, and apparently fragile, the horizontal ramus passing nost imperceptibly into the ascending ramus without the develop- ent of much angle. Neither was the general contour of e chin developed, there being practically no chin apparent, t passing from the neck to the face gradually. Both these normalities were more conspicuous on the right—the paralysed— le than on the left, where more development of the angle had ken place. This atrophy, or rather non-development, of the wer jaw, the patient informed me, was not noticeable in earlier e, and did not become so till she was about 12 years old. Although e proper contour of the lower part of the face was thus altered, pecially on the right side, the angles of the mandible could be felt their undeveloped state. At the angle there appeared to be either a dule of bone or a groove on the lower edge slightly anterior to the gle, probably caused by the lack of development in this locality. ne centre of the chin and lower part of the face were displaced wards the left side apparently about an inch—although this appear- ce was increased by the non-development of the right side— and the left corner of the mouth was slightly drawn downwards. On the face the masseter muscle, though small, showed some development owing to the slight active movement the patient could obtain in this muscle, but most of the other mu cles in that region of the face and neck were in an undeveloped condition. Two points of considerable significance were that there was no loss of sensation anywhere, either in the mouth or on the face, and no loss of hearing, and although I inquired I could not find there ever had been any such loss. The paralysed right leg was affected only from the knee downwards. Every other part of the body, except the right lower jaw, was normally developed, and there had been no deformity or loss of power in the right arm or hand. In early years the patient had walked with the right foot very much on one side and had worn leg irons for some time. These, however, were discarded owing to constant break- ages, and since then the leg had developed much more rapidly. When I saw the patient she was able to walk well in ordinary boots, though, the right leg being somewhat shorter, there was a limp. One other point was noted. For years before I saw the patient she had had a bilious attack on an average about once in one to two months. When her teeth had been extracted these ceased.

Diagnosis.—I had before seeing the case thought that some trismus of the muscles might have been set up by irritation from an impacted wisdom tooth or some such cause. This, however, was negatived by the extreme fixture of the jaw, even under passive manipulation, and the history of the case. I concluded that central paralysis had occurred as a result of the fits, and had caused paralysis of the right side. During the years that followed, owing to the non-use of the lower jaw, it had become firmly fixed by fibrous adhesions at the mandibular articula- tion, but without ossification, thus allowing the very slight amount of movement that was perceptible.

Treatment.—Till I saw the patient except for the attempt, apparently, to break down the adhesions above referred to, no general treatment appeared to have been carried out, and the only suggestion was that mentioned by the patient, probably excision of the right mandibular condyle (which for financial reasons the patient was unable to carry out). Dentally the only treatment appeared to have been the breaking off of the six incisors also referred to above. Owing to the septic condition of the patient's mouth and the increasing liability to dental trouble from the carious teeth it seemed to me that, if pos- sible, the first treatment was to remove all the teeth, which were not only useless for mastication, but most septic and unsightly. The patient had already suffered a great deal from toothache, sometimes acutely, and the prospect of the increasingly frequent dental trouble in any or every tooth in her mouth was a source of considerable anxiety to her, since she had so repeatedly been told that no further treatment for this could be given, and it was im- possible to treat it in the ordinary dental way. With the patient's con- sent, therefore, I proceeded to attempt the extraction of all the teeth. During a succession of visits I scaled the teeth, as far as possible prescribing antiseptic mouth lotions from the commencement, and I extracted all the front teeth and the roots which which had been left in. This I carried out with a local (cocaine solution) anaesthetic hypo- dermically injected as far as possible. The difficulty was considerable, as I could only inject the outer alveolus for the first extractions, and further I could not properly grasp the teeth with the forceps, but had to exercise a forward levering movement, breaking down the outer alveolus. This treatment I carried out with all the anterior teeth back to about the first bicuspids on either side. Then I found myself unable to extract the teeth further back owing to the pain the required leverage gave the patient in the right condyle when forcing the teeth from their occluded position. In consultation with Dr. Deck, of St. Leonards, I decided to try and extract the remaining posterior teeth under a general anaesthetic.

On September 27th Dr. Deck administered A.C.E. to the patient, and in the course of an operation lasting over an hour I managed, with considerable difficulty, to extract about ten teeth by taking out the anterior teeth and then levering the next tooth forward and outwards into that socket. Owing to the haemorrhage and the condition of the mouth I left four of the posterior and most difficult teeth for a future operation when the mouth should have healed, and more space would have been obtained by absorption of the alveoli. On November 5th Dr. Deck again administered A.C.E., and later chloro- form, and I operated and removed the remaining four posterior teeth. These operations became increasingly difficult as I came to the posterior teeth, since the upper and lower second molars on either side were tightly fixed, crown to crown, with a space of not more than half an inch between the upper and lower alveoli. The difficulties were also increased by the risk of dropping a tooth on to the patient's glottis when in a recumbent position, since the space available rendered this more difficult to avoid and the ordinary methods of recovery almost impossible.

RESULT AND OBSERVATIONS.

The teeth were all of good size originally, but almost all were decayed. Several of the roots of the teeth tended to be slightly bulbous, probably owing to pressure while developing and erupting. This pressure also accounted for the interlocking of the teeth and the slightly forward direction of the anterior ones.

The patient's mouth in the course of a month had very satisfactorily healed and the gums were in a healthy condi- tion, with the alveoli absorbing. The jaw, however, remained still firmly fixed without any further ability to close than to

open it, either actively or passively. The health and comfort of the patient had also considerably benefitted by the operation.

The patient was instructed to exercise the muscles actively as far as she could by contracting them regularly and systematically for a few minutes several times a day. This she could do moderately well as regards the masseter and some of the infra-mandibular muscles. In this way, with the help of massage, etc., it was considered that in course of time, failing some more radical treatment, some movement of the mandible might be obtained.

On December 20th I requested Dr. Lee to give his opinion on the case, and he kindly made a short statement of his views, as follows:

"As far as can be ascertained from the account your patient is able to give of herself, she had two attacks of 'convulsions,' which are the usual cause of infantile paralysis. The right leg was chiefly affected, and as there is now a difference in length of nearly an inch between the right and left leg, and the right foot is partially paralysed, there is no doubt of the nature of the nervous lesion that occurred. So far as can be ascertained there was no paralysis of the muscles of the arm, and as the right hand has always been used freely, and preferably to the left, it may be concluded that the lesion which caused the paralysis of the right leg was below the cervical region of the spinal cord. The singular feature of your case, however, is the difference between the two sides of the face, and the paralysis that apparently has affected the muscles which are supplied by the seventh nerve. The same conditions as are presented in the right lower limb seem to be present on the right side of the face. As the sense of hearing on that side is perfect, and the sense of touch, we must conclude that the auditory branch of the seventh nerve, and the facial branches of the fifth nerve have not suffered. It would be well to ascertain if you can whether the two attacks of convulsions followed very closely on one another, for it appears as if one, and probably the first, was the cause of the paralysis of the leg, while the second may have been a central cerebral lesion affecting the seventh nerve and causing the facial paralysis which has made your case one of great interest. It is probable that by gentle and continued treatment greater movement of the lower jaw may be obtained.

"It occurs to me that possibly the action of the muscles of the left side have been the chief cause of the jaws remaining closed for so many years. From a dental point of view the accurate diagnosis of such a case is important, as of course the prospects of improvement are far greater in your case than if there had been spastic paralysis and strong muscular tension had been exerted on the jaw.

"(Signed)
"Robert Lee."

I have since ascertained that the two attacks of convulsions occurred within a week, though I have been unable to ascertain whether the leg was first affected or not.

The physical treatment mentioned by Dr. Lee was already being practised, and there are indications that the movement of the jaw may slowly increase.

MEMORANDA:

MEDICAL, SURGICAL, OBSTETRICAL, THERAPEUTICAL, PATHOLOGICAL, Etc.

APPENDICULAR COLIC.

On August 26th, 1903, I was consulted at my house by a youth, E. H., aged 19, with reference to a pain in his side, felt for the first time five days before; since then it had kept "coming and going," being sometimes very severe. On being asked where the pain was he placed his finger exactly over McBurney's point after feeling about in the neighbourhood for a few seconds. There was no history of anterior appendicitis, but I at once sent him home to bed.

State on Examination.—On the following day I found his temperature and pulse normal, but a distinct tenderness over the above-mentioned spot, the resonance being tympanitic and a gurgle produced on pressure. There was no enlargement of the spleen, nor could I detect any constitutional disturbance. During the following week I treated the condition by the administration of carminatives, the pain being sometimes absent for a day and sometimes for two days, but returning on the third day. As he did not desire to remain in bed, and, as the temperature and pulse still continued normal, he was allowed to go about the house. This state of affairs continued for two more weeks without any rise in temperature or alteration in pulse; but towards the end of this period the attacks became very severe, the pain being excruciating and producing almost a state of collapse, otherwise there was no alteration in the local condition. He was now kept in bed, copious soap-and-water enemata being given, 5-minim doses of nepenthe every four hours, together with carminatives. This treatment was continued without effect until the following Friday, there still being no elevation of temperature or alteration in pulse. Although there were no apparent constitutional effects being produced except during the attacks of "colic," it became evident that something surgical would have to be done in order to relieve him of condition and enable him to follow his occupation. After explaining matters I therefore removed the appendix the following morning. His convalescence was a little protracted owing to the development of a tricuspid murmur, which latter, however, disappeared with extra rest in bed; except for this he made an excellent recovery, as one would naturally have expected, there being no adhesions, and the operation therefore, a comparatively simple one.

Remarks.—On cutting open the excised appendix a dark brown, semi-solid, foul-smelling substance oozed out. In the interior were found two or three small pockets containing a similar substance with faecal odour, and separated from each other by distinct constrictions free from such contents. Two things struck me at once, namely, the risk which would have existed if operative interference had not been undertaken, and the uselessness of medical treatment in such a condition. Had the doses of opium been large the only symptom would probably have been masked, and a pericardial abscess, or maybe fatal peritonitis, have followed.

I think the lessons to be learned from this case are obvious and worthy of remembrance.

Cardiff. W. Hesketh Evans, M.D.

SPORADIC CRETINISM.

Cretinism being uncommon in England, the following account of what I believed to have been a sporadic case may be of interest:

History.—The patient had the following history: She was not a "bright" infant, and was 8 months old before she appeared to take an interest in her surroundings. It was longer than usual before she could hold up her head when she was nursed; she did not begin to crawl until she was 15 months old, was 3 years of age before she could stand, and only began to walk at 3½ years. The "head opening" closed early; the first teeth came at 2 years of age, and dentition was not complete at 4½ years. She began to protrude her tongue as an infant, but there was no unusual dribbling. The child did not "coo or talk" like other babies, and could only say a few words at the time of her death and could not make a connected sentence. The appetite was usually good but not abnormal; she was a "clean and good child." She did not play as other children, but latterly developed powers of mimicry and wanted to do what other children and people did.

State on Examination.—When I first examined her she was 4 years old, was unable to talk, and could only walk slowly and imperfectly. She was puffy, fat, of ashy-yellow colour, had a coarse skin, a swollen abdomen, and was of stunted growth. The head was larger than normal, that is, it was expanded at the sides, and flattened at the top and somewhat "bumpy;" the forehead was broad, the eyes wide apart, the nose flattened and broad, indeed the face appeared flattened; the lips were swollen, the tongue large and nearly always protruded, the palate was high-arched; the thyroid was deficient, and there were well-marked supraclavicular swellings. She was mentally "slow," sometimes easily amused, not passionate, generally "good." She was languid and apathetic; she could understand and be interested in many things which delight other children of the same age, but everything seemed to be much trouble to her. Her muscular power was feeble, but the palmar reflex, as shown by tickling, was apparently normal.

Progress.—The child was put under thyroid treatment, and she improved considerably; whether due to the drug or not, she certainly gained in mental and physical vigour; she walked better, used more words, made herself better understood, took interest not only in childish but other things among her surroundings. The treatment, however, was intermitted. When I next saw her she was suffering from purpura, to which she succumbed.

I made the diagnosis of cretinism because the child had none of the deformities or degenerative stigmata so common in idiocy, such as asymmetry of head or body, squint, nystagmus, or look of vacancy; her ears were perfect, there was no fissure, no supernumerary ear, or Darwinian tubercle. On the other hand, she had the broad, flattened head, the wide-set eyes, the flattened nose, the abnormal-sized tongue, the high-arched palate, the late dentition, walking and speaking of the cretin, as well as the elastic lumps between the sterno-mastoid muscles and the clavicles. A further point in the diagnosis was the improvement, both mentally and physically, which followed the administration of thyroid. The skull was by no means microcephalic; it was modified in shape, expanded at the sides, and flattened at the top, but "bumpy"—that is to say, owing to a precocious union of the bones, the growing brain had a tendency to cause a compensa

xpansion of the thin parietal and frontal bones. Bris- says children are born cretins, or with that peculiar scence of the bones at the base of the skull which neces- s the gradual development of cretinism in childhood. onnexion with this, Virchow points out the close mity of the base of the skull and the thyroid body in the that arrest of development in one organ might, also, an arrest of development in the other.

WILLIAM TIBBLES, L.R.C.P., M.R.C.S., L.S.A.
ingham.

ACUTE OR PERNICIOUS BERI-BERI.

I had experience of a case of beri-beri of a similar type to that described by Dr. A. Jubb, in the BRITISH CAL JOURNAL, April 9th, 1904. The patient was one of ty of Chinese firemen, (shipped, I believe, at Shanghai), picked to work out a ship from England. At en, Sumatra, about a fortnight's sail from Shanghai, the nt was brought to me with a history of a few day's pains reakness in his feet and legs, and previous good health. ras a well-built young adult, somewhat anaemic and id, with some flattening of plantar arches and tender- of soft parts of feet and legs.

ere was no oedema, no ankle clonus could be elicited, o knee-jerks. Fever, cramps, paresis, and finally para- of limbs and lower trunk muscles supervened and the nt died at Port Said after about three weeks' illness, respiratory and cardiac paralysis. There was much ng of leg and arm muscles; the phrenic and vagus s were markedly affected, but there were no trophic ler or rectal disturbances. No necropsy was allowed.

ave seen other cases, but never such a rapid one as this, h compares with that quoted by Dr. Jubb. It was iated with overcrowding and the heat of August in the a seas. The isolation of the patient in a well ventilated of the ship is indicated.

F. G. BUSHNELL.
outh.

OCAL TREATMENT OF SPECIFIC CUTANEOUS ULCERS.

NG seen some striking cases of clearing up of ocular in- nations following subconjunctival injections of mercury ide I think it may be interesting to draw attention to a od of treating syphilitic ulcers of the skin, which in- bly healed them in a few weeks, even when they had treated in vain with iodoform treatment for months or s.

e method consists in first dabbing the ulcer with a lotion ercury perchloride (2 gr. ad. ℥j) and then applying a ing of silver nitrate (5 to 10 gr. ad. ℥j). Although I r tested the part played by the latter there is little t that the principle of the treatment is the local attack ie morbific agent by the mercurial salt. Mercury must been freely administered internally in many of the cases ed with iodoform, but apparently without effect. In this exion it is necessary to warn the military surgeon that ng soldiers invalided from the tropics there are many of a solitary large ulcer just above the ankle. These pear with marvellous rapidity when hot boracic fomen- ns are constantly applied, and are evidently not of fic origin, although commonly assumed to be so. Where rned the above-described method of treating the specific I cannot remember, but must have read it in some book when a student.

M. KELLY, Major, R.A.M.C. (Retired).
sbaden, Germany.

HYDATID CYST IN THE ABDOMINAL WALL.

, a male, aged 25, was admitted into the Lincoln County ital, under the care of Dr. W. H. B. Brook, to whom I ndebted for permission to record the case.

the anterior abdominal wall, above and to the left of the ilicus, was a circular, flattened, and rather nodulated ling, about 3½ in. in diameter. The swelling was adherent e skin over it, which was red, and at one place had given to allow a little sero-purulent discharge to escape. The nt had only noticed the swelling for a month, during h time it had gradually increased in size. He stated he rather avoided green vegetables than otherwise, and no special association with dogs.

incised the swelling and evacuated pus from a multi- ar cyst situated in front of and to certain extent embedded e muscular wall of the abdomen. From one loculus a of hydatid membrane with the typical laminated struc- ture was removed, but no scolices or hooklets could be found in the pus. Between the loculi were thick worm-eaten septa, and upon these Mr. Targett (for the Clinical Research Association) reported:

A number of giant cells resembling those of tubercle are present, but as no bacilli can be found, they are probably phagocytes, such as are likely to be present in a suppurating focus.

The abscess cavities were swabbed out with pure carbolic, and sutures inserted and tied in a few days.

W. P. GOWLAND, M.B., B.S.Lond., M.R.C.S.,
Lincoln. Late House Surgeon, Lincoln County Hospital.

REPORTS
ON
MEDICAL AND SURGICAL PRACTICE IN THE HOSPITALS AND ASYLUMS OF THE BRITISH EMPIRE.

KIDDERMINSTER INFIRMARY AND CHILDREN'S HOSPITAL.

SUPRAPUBIC PROSTATECTOMY IN A MAN, AGED 84 YEARS.

(By Mr. J. LIONEL STRETTON, Senior Surgeon to the Infirmary.)

M.B., within a month of his 84th birthday, was admitted on September 21st, 1904, suffering from complete retention of urine which had existed for forty-eight hours.

History and State on Admission.—He was a well-nourished intelligent old man and had suffered from symptoms of prostatic obstruction for several years. A catheter was passed and two and a-half pints of fetid urine drawn off. This had a specific gravity of 1010 and contained a trace of albumen and pus.

Per rectum, the prostate was felt to be considerably enlarged. He continued in a very miserable condition, constantly wet from dribbling urine and requiring regular catheterism. As diet, medicine, and antiseptic treatment of the bladder failed to relieve him he consented to operation.

Operation.—October 3rd. Under ether a suprapubic incision was made into the bladder. On introducing the finger the left lobe was felt to be considerably larger than the right. A snip was made, with a pair of scissors, through the mucous membrane covering its most prominent part and through this the finger was able to separate both the lobes and shell them out. The separation of the deeper portions was much facilitated by the finger of an assistant in the rectum. The bleeding, which was not excessive was easily controlled by hot water irrigation. A large soft rubber drainage tube was fixed in the bladder. A considerable thickness of fat over the abdomen increased the difficulty of the operation, but in spite of this it did not occupy more than a quarter of an-hour. The gland removed weighed 3½ oz.

Result.—There was nothing remarkable in the after-history of the case. The tube was removed on the second day; he was up and dressed on the ninth day. He passed water naturally for the first time on the thirty-ninth day, and was discharged cured on November 25th. He then had complete control and was able to empty his bladder.

REMARKS.—This case appears to be worthy of record because, so far as I can ascertain, he is the oldest patient who has had the operation performed upon him, and the result was entirely satisfactory, Dr. W. Miles of Bewdley, who sent him to me, reports that he died from "decay" in the middle of January without suffering any recurrence of his bladder trouble. The operation is exceedingly simple, and the rapidity with which it can be performed is a most important factor in old and feeble people. Elaborate details which would increase its length are therefore to be avoided. When the miserable condition of such patients is considered, the pain they suffer, how they lie in a cesspool of fetid urine which sooner or later will lead to excoriation and bedsores, to say nothing of the nuisance they must be to those who are obliged to attend to them, an operation which will entirely remove their distressing symptoms must be a welcome blessing; and, even if they only live for a short time afterwards, that time must be infinitely more pleasant both to them and their friends.

[Since writing the above I notice that Mr. Freyer has successfully operated on a man aged 84.]

THE King of Spain recently presided at the ceremony of the reception of Dr. Huerte as a member of the Royal Academy of Medicine of Madrid.

BEQUESTS.—Under the will of the late Mr. Edward Hulton, newspaper proprietor, of Manchester, the Manchester Children's Hospital, Pendlebury, and the St. Mary's Hospital and Dispensary for Diseases of Women and Children, Manchester, are to receive the sum of £1,000 each.

REPORTS OF SOCIETIES.

ROYAL MEDICAL AND CHIRURGICAL SOCIETY.

Sir R. DOUGLAS POWELL, K.C.V.O., President, in the Chair.

Tuesday, June 14th, 1904.

PROTRACTED AND RECRUDESCENT INFECTION IN DIPHTHERIA AND SCARLET FEVER.

DR. ARTHUR NEWSHOLME read a paper on this subject, in which he gave instances of protracted or recrudescent infection when there had been contact or no contact with other acute cases of the same disease; when there had been several weeks' interval between the occurrence of the "return" case and the latest exposure of the infecting patient to the infection of other patients; and when the patient had been treated alone at home. The various explanations of "return" cases were considered. Instances were given of infectivity continuing over 110 days, and of the infectivity of ear discharges in diphtheria. "Return" cases were relatively rare, and did not seriously invalidate the utility of isolation hospitals. They occurred generally in connexion with rhinorrhoea and otorrhoea. Post-isolation supervision of both home-treated and hospital-treated cases of scarlet fever and diphtheria was required. In some instances dormant infection was again roused into activity by catarrhs, etc. The close analogy between diphtheria and scarlet fever, as regards both protracted and recrudescent infection, was urged. Protracted infection probably explained the persistent belief in the infectiousness of late desquamation. The bearing of these considerations on the hospital treatment of these diseases was discussed. It was reasonable to believe that the scarlatinal germs multiplying in the patient himself, and collecting on the rhinorrhoeal lesion with which the patient was usually admitted, would be in larger numbers and more efficient to produce secondary infection than the relatively minute number that could obtain ingress from other patients. The notion that increased infectivity was caused by hospital aggregation was borrowed from the like theory for small-pox, and in both instances was a theory to support a theory. The bearings of relapses of scarlet fever on this theory were discussed, and the analogy of enteric fever, in which such relapses could not be caused by fresh external infection was pointed out.

Dr. E. W. GOODALL said that the Asylums Board had been investigating this subject of protracted infection for two or three years, and gave instances from the evidence already collected. The infectiousness was not, he believed, due to hospitalism. Information was wanted as to the frequency of return cases in private practice. Of 369 cases recently under his care, 24 per cent. had some complication on admission, such as some discharge; this was rhinorrhoea in 15 per cent., and 14 per cent. more got it while in hospital. Instances had been seen of mild cases of scarlet fever developing into severe ones while under strict isolation. It might be that ordinary streptococci could set up inflammations of the mucous membranes and so light up the virus proper. It was probable that the discharges were more than mere carriers of the infection. Return cases were more common from hospitals for acute cases than from the convalescent hospitals. Reference was made to the French method of placing each patient in a closed glass cubicle.

Dr. CALDWELL SMITH said that in 1902 he had a percentage of 4 5, and last year of 6 2 return cases, and in a large number of these there was no clear evidence of mucous discharges. Of 1,600 cases of scarlet fever he had only met with one home return case, but 400 only of these were treated at home. There was need for active measures to avoid the frequent occurrence of return cases.

Professor W. R. SIMPSON did not believe that protracted infection was part of the natural history of the disease. It was necessary to inquire into the condition of the hospitals, especially in respect of isolating patients in large wards. In the cubicles of the hospitals in Paris disinfection of the surroundings was exercised every day. The effects of aggregation of infectious cases was illustrated by plague cases in South Africa, in which the severity of the disease seemed to be intensified in the ward and decreased when they were separated in tents.

Dr. BUTLER said whether return cases of scarlet fever were due to hospitalism or not was one of the most important public points; he himself was persuaded that to account for them hospitalism was quite inadequate; the attendants on the patients did not carry infection. It seemed to be impossible to fix a time when infection after scarlet fever ceased. The incidence of return cases seemed in one series of cases to depend on driving convalescent patients home in the winter in an open vehicle thereby, as it seemed, setting up discharges—at any rate the return cases were much more frequent after leaving hospital. Desquamation seemed to him to be evidence of a pathological process set up by the virus if not of direct infectivity.

Dr. C. J. THOMAS had investigated cases for the London School Board, and in regard to diphtheria most of the return cases had never been near an infectious hospital. One lesson was that the responsibility of the sanitary officer did not cease with the time the patient left the hospital. In deciding on the question of school closure it was necessary to examine swabs from all the children.

Dr. BOND said that among 144 notifications of scarlet fever there were only 3 return cases. Strict isolation of patients should be aimed at on the lines of the hospital at the Pasteur Institute.

Dr. NEWSHOLME replied.

EDINBURGH OBSTETRICAL SOCIETY.

N. T. BREWIS, M.D., F.R.C.S.E., President, in the Chair.

Wednesday, June 8th, 1904.

CAESAREAN SECTION IN ECLAMPSIA.

SIR HALLIDAY CROOM read a paper on this subject. After narrating two cases of his own he reviewed a series of 54 cases which had been collected by Koettlitz and Streckeisen. The maternal mortality amounted to about 50 per cent., which was considerably higher than that in eclampsia generally. It was to be remembered, however, that this operation was undertaken only in the severest and most complicated cases. After brief reference to theories of the causation of eclampsia and to its prevalence during the autumn and spring months he pointed out that in the vast majority of cases the eclamptic attacks ceased when the uterus had been emptied. This could be effected by four different methods: (1) Duhrssen's cervical incisions; (2) rapid dilatation of the cervix by Bossi's dilator; vaginal Caesarean section; (4) Caesarean section proper. Duhrssen's procedure did not meet with his approval, owing to the risks from infection and haemorrhage. Dilatation by the instruments of Bossi and Fromme achieved its purpose in many cases; but at the same time delivery of the fetus was not necessarily rapid, and the use of those instruments was also not free from risks. Vaginal Caesarean section was both a difficult and complicated operation. In certain cases he considered that Caesarean section was the best means of rapidly evacuating the uterus, because as now performed the operation was practically free from all danger, and the only objection which could be urged against it was the possibility of a ventral hernia through the abdominal scar.

The PRESIDENT considered that for rapidity of delivery Caesarean section proper was only equalled by vaginal Caesarean section, which was not so difficult an operation on the pregnant woman; but on the whole, he preferred Caesarean section proper.

Dr. JARDINE was in favour of extirpation of the uterus in cases of eclampsia where Caesarean section had been performed. He thought that this reduced the risk of recurrence of the seizures during the puerperium.

Drs. HART, RITCHIE, BALLANTYNE, HAIG FERGUSON, LACKIE, NICHOLSON, and WEBSTER also discussed the paper; and Sir HALLIDAY CROOM replied.

TUBAL ABORTION.

Dr. BERRY HART read a short paper on tubal abortion. After narrating two cases he expressed his opinion that in the production of tubal abortion there was first extravasation of blood between the gestation sac and its tubal attachment, and that the gestation itself became converted into a mole from blood extravasation between the amnion and chorion. The mole, if completely detached, and if the ostium abdominale were patent, might then be expelled by blood effusion and tubal muscular action into the pelvis. Thus complete tubal abortion might be produced. The same mechanism might account for incomplete tubal abortions.

The paper was discussed by Sir HALLIDAY CROOM and Drs. BALLANTYNE and HAIG FERGUSON; and Dr. HART replied.

SPECIMENS.

The following specimens were shown:—The PRESIDENT: (1) Tubal abortion, the fetus had escaped into the peritoneal cavity. (2) Uterus removed for menorrhagia which had persisted for three years. Curett-

d led to no improvement. Microscopical examination showed a hyperplasia of the endometrium. (3) Uterus removed for rhagia and metrorrhagia. The organ had been curretted on two ons, but no improvement followed; it was then removed by pan- ectomy. Subsequent examination did not reveal any malignant es. (4) Myoma and fibroma separate in a uterus which had been ed.—Dr. BALLANTYNE: (1) Obstetric satchel of a small size, suit- or ordinary use; (2) fetus with apparently a large cystic kidney; as existed; the penis was small and hypospadiac; (3) fetus show- omphalos.—Professor KYNOCH: (1) Microscopical section from a f epithelioma of the clitoris; (2) two vesical calculi, the nuclei being d by hair from a perforating dermoid tumour of the left ovary.

SGOW OBSTETRICAL AND GYNAECOLOGICAL SOCIETY.

. NIGEL STARK, M.D.Edin., President, in the Chair.

Wednesday, May 25th, 1904.

SPONTANEOUS RUPTURE OF THE UTERUS.

MUNRO KERR read notes of a case of spontaneous rupture e uterus during pregnancy through the cicatrix of a arean section wound. Mrs. M., 3-para, was admitted on ber 28th, 1901, to the Glasgow Maternity Hospital. In the previous labours the children were dead. On the occasion craniotomy was done. On this occasion Dr. performed Caesarean section, employing Fritsch's fundal ion. The patient was not sterilized. On her second ssion the patient was judged to be in her thirtieth week. an enema given about midnight she complained of pain e epigastrium, but shortly afterwards fell asleep. Next ing the pain had spread over the whole abdomen, but was no vomiting and the pulse was not accelerated. in the day tenderness became more marked; the pulse to 90, the temperature became subnormal, and the hing more rapid. The patient lay with her feet slightly n up, and, on palpation, the fetal parts could be made with great readiness. There was some blood-stained al discharge. Laparotomy was performed the same day. he abdomen being opened a large quantity of dark- red blood escaped, and the intact membranes and nta with the enclosed fetus presented. The uterus lay cted behind, and was found to have a transverse rupture gh the cicatrix of the previous Casearean section. The is was removed by supravaginal hysterectomy. The nt was dismissed well a month after operation.

MESENTERIC CYST.

fessor MURDOCH CAMERON read notes of a case of large nteric cyst. The patient, aged 32, was admitted to the ern Infirmary on September 26th, 1903, with the history velling of the abdomen of twelve years' duration. The ling had given no trouble until a fortnight before admis- when the patient had an attack of severe pain in the n of the umbilicus. Fluctuation was very distinct, but odules could be made out. Examination per vaginam negative. On September 29th abdominal section was rmed and thirty-three pints of thin greenish yellow were evacuated. The cyst was very thick-walled and rent over the whole surface; it seemed to be entirely cled by omentum. The ovaries were quite healthy. patient made a good recovery. The fluid from the cyst slightly alkaline and of specific gravity 1011. It con- d considerable numbers of exceedingly fatty leucocytes larger cells resembling endothelial cells. Free fat ules were also present, as well as a small number of red l corpuscles. The fluid also contained a small amount of men. The cyst was practically unilocular, although ial septa existed. The thickness of the wall varied from .. to 1 mm. Microscopical examination of the cyst wall ved that the thin portion consisted entirely of finely llated connective tissue with no trace of a specialized g. The thicker portion of the wall proved to be kidney ue, interrupted here and there by connective tissue and ocyte infiltration.

DIAPHRAGMATIC HERNIA.

rs. LINDSAY and TAYLOR read notes of a case of diaphragm- hernia in a seven-months fetus. Twelve months previously mother had given birth to an eight-months child. The or in attendance stated that the heart was beating on the t side. The same thing was noted with the specimen vn. Dissection of the fetus demonstrated that the right of the diaphragm was complete; there was a large round ing in the left half of the diaphragm. The stomach, denum, most of the small intestine, the caecum and appendix, the ascending and transverse colon, the spleen and the left lobe of the liver, were thrust through the diaphragmatic opening, carrying before them the pleura and peritoneum, which together formed a complete hernial sac. The left lung was crowded into the upper part of the thorax. The heart and pericardium were normal, except that the apex of the heart lay to the right of the middle line.

OPHTHALMOLOGICAL SOCIETY OF THE UNITED KINGDOM.

JOHN TWEEDY, P.R.C.S., President, in the Chair.

Thursday, June 9th, 1904.

PRIMARY OPTIC ATROPHY DUE TO LEAD.

MR. SIMEON SNELL (Sheffield) related a case occurring in a boy aged 16. The sight had commenced to fail for rather more than a year before the patient was first seen in October, 1903, and had rapidly become worse during the past three months. The vision was: right, $\frac{2}{60}$; and left, $\frac{1}{60}$; both optic papillae were white and atrophic, but did not suggest preceding neuritis. The family and personal history were good. For two or three years the boy had worked as a file cutter, which exposed him to the influence of lead, and he had the ordinary symptoms of lead poisoning. The optic atrophy was, in Mr. Snell's opinion, due to this cause, and all other causes had been eliminated. Mr. Snell, after mentioning a similar case, stated that among file cutters he had observed several instances in which the optic nerves were affected either directly by the lead or in association with kidney or brain disease.

OPTIC ATROPHY AFTER POST-PARTUM HAEMORRHAGE.

Mr. SNELL related the following case, in a lady, aged 28, who was seen last February a few days after recovery from puerperal mania. Both papillae were atrophied but there was no evidence of past neuritis. There was no perception of light, and the pupils were dilated and motionless. On October 3rd, 1903, she was delivered of her first child at full term, but an hour afterwards she had considerable haemorrhage, and although the amount lost was not very great yet she had never seemed to have really recovered from it. It was doubtful when the failure of sight had commenced, but it had been suspected for some time. She had probably not seen at all for two months. There was no albumen nor throughout the pregnancy anything to suggest kidney disease. Mr. Snell referred to a previous case he had seen in which the sight was greatly affected by the same cause, and he also alluded to cases collected by Chevallereau.

OPTIC GLIOMA.

The following case was narrated by Mr. SNELL. In a baby, aged 1 year and 10 months, first seen on April 1st, 1897, glioma of the retina was diagnosed. One eye was excised on April 7th, and the tumour found to be confined to the globe, but was rather large. On January 7th, 1899, the child was again seen with a similar condition in the other eye. This was excised on March 1st, and at the present time the child was alive and well. Mr. Snell referred to the small number of cases in which both eyes had been removed for glioma without a fatal result. Other cases related were as follow: A girl, aged $4\frac{1}{2}$ months, was sent to Mr. Snell on December 18th, 1903, with glioma of the right eye; the eye was removed on December 22nd, and the growth found to be confined to the globe, which it nearly filled; there was no recurrence. Another member of the same family had suffered from glioma of both eyes, which had proved fatal, the parents having refused to allow the removal of both eyes; there was one other child between these two who was alive and healthy. Mr. Snell mentioned that until recently no instances had been published in which glioma had occurred in more than one member of the same family. Up to the present time three observers, besides himself, had recorded cases.

The PRESIDENT, Mr. STANFORD MORTON, and Mr. DEVEREUX MARSHALL mentioned cases they had had of glioma bearing on the points brought forward by Mr. Snell.

ON MICROPHTHALMOS.

Mr. STEPHEN MAYOU gave a lantern demonstration of the anatomy of three cases of microphthalmos which he had examined.

CARD SPECIMENS.

Card specimens were shown by Dr. LOUIS WERNER, Messrs. E. E. HENDERSON, G. W. ROLL, E. W. BREWERTON, and Dr. D. RAYNER BATTEN.

OBSTETRICAL SOCIETY OF LONDON.

Edward Malins, M.D., F.R.C.P., President, in the Chair.

Wednesday, June 1st, 1904.

Primary Carcinoma of the Ovaries.

Dr. Cuthbert Lockyer showed a specimen of carcinoma of both ovaries removed by operation from a woman 47 years of age. Both Fallopian tubes, though apparently normal, under the microscope were found to be infiltrated with cancer elements. On this account, Dr. Lockyer suggested that in similar cases the tubes, even though apparently healthy, should be removed along with the ovaries.

Miss Thorne, F.R.C.S.I., described a case in which the left ovary was removed by operation in a patient aged 46, the other at the time of the operation being apparently healthy. The patient died four months later, when a deposit was found in the right ovary; the ileum had been implicated by recurrence at the original site of operation and secondary nodules had formed in the liver.

Cancer of the Body of the Uterus.

Dr. Herbert Spencer showed a uterus removed by combined vaginal and abdominal hysterectomy from a woman aged 36. Fibroids coexisted in the case. He remarked on the slow growth of the tumour and the fact that the patient still remained free from recurrence six and a-quarter years after the operation.

Dr. F. E. Taylor adduced the reasons which led him to regard the growth as having originated in a diffuse adenomyoma of the body of the uterus.

The specimen was referred to the Pathological Committee.

Fibroids Complicating Pregnancy.

Mr. J. Bland-Sutton showed a fibroid uterus and its contents removed by panhysterectomy at the sixth month of pregnancy. An interstitial fibroid occupied the anterior wall near the fundus, and a larger fibroid grew from the posterior aspect of the cervix and almost completely occupied the cavity of the true pelvis. Both fibroids showed signs of degeneration.

Dr. Handfield-Jones remarked on the manner in which fibroids in the cervical area were drawn up and elongated, so as to render the passage of an infant possible even in the most unpromising cases. He narrated a case in point.

Dr. Eden, who had seen the patient before the operation was performed by Mr. Bland-Sutton, found one arm of the fetus prolapsed with the hand outside the vulva, and a large swelling behind almost filling the pelvis. Moreover, the uterus was firmly retracted. He regarded attempts at version as impracticable, and he judged that there was considerable risk of spontaneous rupture of the uterus if the labour were allowed to continue.

Hydatid Disease in the Pelvis.

Dr. T. W. Eden recorded a case of primary hydatid disease of the Fallopian tube.

The patient, 40 years of age, had been married for thirteen years, but had never been pregnant. When she presented herself at the Chelsea Hospital for Women in July, 1903, she complained of pain in the back and left side. On examination a small pelvic tumour was found in the pouch of Douglas, which from its position and characters was thought to be a dermoid cyst of the right ovary. Operation was performed on September 10th, 1903, when the tumour was found to be the distended and densely adherent right Fallopian tube, filled with detached hydatid vesicles. The ovary was quite separate, and unaffected except by adhesions. The tube and ovary of the left side were adherent, but otherwise unaffected. There was no trace of hydatid disease elsewhere. The patient made a good recovery.

Dr. Eden believed that only one other case of primary hydatid disease of the Fallopian tube was on record, namely, that described by Doléris in 1896. With regard to the ovary, he believed that only one case of primary hydatid disease of this organ had been recorded, namely, that described by Péan in 1895. Pelvic hydatids usually began in the peritoneum or connective tissue.

Dr. Cullingworth and Mr. Clutton described a case of the same disease.

It had been under their joint care from time to time during the last eight years. The patient, a young lady, first came under observation in the summer of 1896, when 24 years of age, with a rounded, fixed, fluctuating swelling in the suprapubic region, which was thought to be a cystic tumour of the ovary or of the broad ligament. At the operation there were found hydatid cysts of both ovaries and of the right broad ligament, and, in addition to those, hydatid cysts of the omentum, mesentery, and anterior abdominal wall. A larger cyst was also observed in the right loin, and a second one beneath the lower end of the sternum. The cysts connected with the ovaries and the broad ligament, and as many as possible of the omental cysts were re The operation lasted two hours and a-half, and the patient's co towards the end became extremely alarming. Three months la October, 1896, Mr. Clutton made an incision above the umbilicus view to dealing with the remaining cysts. He found three lar several smaller cysts attached to the liver. All except two w moved entire; the ectocystic walls of the two largest were red size and attached to the abdominal incision. The shock of the o tion was extreme. Another large cyst felt towards the spleen ha left for a subsequent operation. In November of the same year cyst in the left iliac fossa was evacuated, and a week later a sup ing hydatid cyst discharged its contents per rectum. Betwe time and December, 1903, the patient was operated upon on eig ferent occasions at varying intervals, the longest interval bei years. Once the operation consisted in evacuation of a large h cyst in the pelvis by means of an incision through the vagina The other severe operations were performed through the ar abdominal wall, several of them without opening the peritoneal They could not, of course, say that the patient would ha further development of hydatid cysts, but as the cas now extended over a period of eight years it was thoug good opportunity to place on record the history of to the present.

The President said that in the case narrated by Cullingworth it was difficult which to admire most, th sistence of the surgeons or the fortitude and endura the patient. The success ultimately attained justifie repetition of the operation and the wisdom in dealing i the recurrences. He had seen one case of hydatid i pelvis, where a cyst some 3½ in. by 2 in. was taken fro side of the uterus and front of the right broad ligam From its intimate connexion with subjacent structu bore out the opinion of Mr. Bland-Sutton that these originated in the subserous tissue. There was no eviden hydatids elsewhere in the body; in this instance it w single cyst, isolated in the situation found, and possessin the characters of echinococcus growth.

Mr. Clutton, speaking as a general surgeon, could no any reason for supposing that hydatids in the pelvis diff from hydatids in other parts, or that anything was like be gained by considering them separately.

Mr. Bland-Sutton some years ago had taken great pai study records relating to primary echinococcus colonies o ovary. He found them unreliable, and ventured to sug tha t Dr. Cullingworth's specimen should be re-examine determine whether the colony really arose in the ovary o the connective tissue of the broad ligament, and as it creased in size flattened the ovary over its periphery. had recorded a case of this kind. It would also be fo that if the distribution of echinococcus colonies among abdominal viscera were critically examined it would be s that, in the great majority of instances, the parasite re selected the subserous tissue. The loose connective tissu the mesosalpinx and the adjacent portion of the broad l ment formed admirable environments for the maturation of six-hooked embryo of taenia echinococcus. The multipli of lesions depended on the number of ova swallowed; a the cysts and colonies gave rise to clinical signs accord to the rate at which they grew; this varied with the favou ble nature of their position and the character of the tiss It seemed also certain that brood-cysts might be sown i the connective tissue round the wounds made for th removal.

Dr. F. E. Taylor thought the situation of the cyst in t case described by Dr. Eden lent support to the view expres by Mr. Bland-Sutton.

Dr. Cullingworth replied.

Bradford Medico-Chirurgical Society.—At a meeting May 17th, Dr. Angus, President, in the chair, Mr. P. Mia read a paper on Causation in Medicine.—Drs. Crowley a Eurich recorded some observations on two outbreaks of dip theria which recently occurred in Bradford, and discussed t means by which the disease spread and the measures whi should be adopted to prevent it. The first was a small ou break of 5 cases at the Union Hospital; the second was a epidemic of some 80 cases occurring in St. Stephen's School Bradford, in the early months of the present year. On Ma 6th cultures were taken from the throats of all the teache and children in the infant department, 93 in number; these, 51 gave a negative result, and 42 showed diphtheri bacilli in varying numbers. While the swabbing of th throats was in progress no clinical evidence of sore throat wa observed in any of the cases. Of the 42 giving positiv results, there was no history of any illness in the household

in 6 there was illness in the house, and in 7 cases no y was obtained as the people had left. A control iment at Frizinghall School, where there has been no neria lately, gave a negative result in all of the 30 per- xamined. The following propositions were submitted: iphtheria is seriously on the increase at Bradford. cilli indistinguishable from B. diphtheriae are said to in the throats of persons who are healthy, who are not known to have been in contact diphtheria; such an occurrence is probably very rare. resence of B. diphtheriae in the throats of 42 out of 93 rs at St. Stephen's Schools points to this as being a important factor in the continuation of the epidemic. om the above facts, indirect means of infection at once st themselves, for example, the use of slates and pencils mon. (5) The removal of bacilli from such throats is y effected, but to take the necessary steps when the nic is advanced is not practicable. (6) Whatever is here will always be two classes of cases causing danger, rst being those who pass through an attack without ing medical attention, the second consists of those in the disease is of an aberrant type and has assumed ters usually associated with other less serious throat ons. In times of epidemic it is highly advantageous mit all the inflamed throats to bacteriological investi- . (7) If every child suffering from diphtheria, and ed by a doctor, were refused permission to return to until the throat was free from diphtheria bacilli, and ry other scholar in the same house were similarly l, the chances of an outbreak of diphtheria would be diminished.—The PRESIDENT and Drs. BAMPTON, ELL, BRONNER, and S. JOHNSTON discussed the paper, rs. EURICH and CROWLEY replied.

ETY FOR THE STUDY OF DISEASE IN CHILDREN.—At a ng on May 20th, Mr. WATSON CHEYNE, C.B., F.R.S., in air, a case of congenital dilatation of the colon in a boy s old was shown by Dr. GEORGE CARPENTER, in order to an expression of opinion as to the advisability of sur- nterference. The child, which had suffered from chronic pation from its birth, had an abdomen 27 in. in circum- e, the movement of coils of intestine being plainly . Mr. WATSON CHEYNE was in favour of simple colo- —Mr. HAROLD J. STILES (Edinburgh) and Dr. STUART VALD (Edinburgh) contributed a paper on delayed form poisoning, a condition to which attention s country had first been drawn by Dr. Guthrie. latest paper Dr. Guthrie contended that the fatty liver s observed *post mortem* were not due to chloroform ing alone, and that the latter merely set up functional uacy and consequent accumulation of toxins in a sub- eady the subject of a fatty liver. The new cases brought d by the authors were two children, one of whom died lays after operation for the radical cure of hernia, the wenty-six hours after an osteotomy for knock-knee. It own that death could not have resulted either from c-acid poisoning, from fat embolism, or from sepsis. osteotomy case the fat emboli in the lungs were only t in the smallest vessels, and were so scarce that death ot be attributed to them. Some of the sublobular and veins contained a considerable amount of oil, for the art in free droplets, but occasionally in the interior of were evidently disintegrated liver cells. No fat monstrated in branches of the hepatic artery, nor ny be discovered on the aortic side of the circulation. evident, therefore, that the fat in the lungs was d from that which had gained access into epatic veins from the disintegrated liver cells. thology and symptoms of delayed chloroform poison- d, up to recently, been either overlooked or wrongly eted, so that the mortality could not be estimated until ndition had become generally recognized by surgeons thologists. With one exception the cases recorded in untry had all occurred in children while under treat- either in the Paddington Green Children's Hospital or Royal Edinburgh Hospital for Sick Children, these wo hospitals where special attention had been directed condition. In Germany, on the other hand, almost all orted cases had been in adults, and the greater propor- these had occurred after a somewhat severe operation ective abdominal conditions such as suppurative sal- s, appendicitis, etc. The element of sepsis with which ases were complicated rendered it difficult, in the present of knowledge, to say how far they helped to solve the problem of delayed chloroform poisoning. If it could be shown that the critical condition (persistent vomiting of a more or less haemorrhagic type; small, rapid, and often irregular pulse; extreme restlessness, collapse, etc.), in which patients were occasionally found forty-eight hours or so after operation was in any way brought about by degenerative changes set up by the chloroform, the question of substituting ether would have to be seriously considered even in the case of children. Unfortunately, however, the mortality in children from the effects of ether on the respiratory tract would probably be as great, if not greater, than that due to the after-action of chloroform. As regards the treatment the authors agreed with Guthrie in strongly condemning the use of morphine. Rectal and subcutaneous injections of normal saline solutions and, if necessary, intravenous injections must be employed. If the vomiting were copious the stomach should be washed out and an endeavour made to get it to retain some calomel or grey powder. Cardiac stimulants must be used, but in moderation. The paper was discussed by Mr. WATSON CHEYNE, Dr. GUTHRIE, Dr. HEWITT, Mr. BURGHARD, Dr. SILK, Dr. NOBLE, and Mr. MCCARDIE (Birmingham).

OTOLOGICAL SOCIETY OF THE UNITED KINGDOM.—At an extra-metropolitan meeting held at Glasgow on May 21st, Dr. THOMAS BARR, President, in the chair, Professor CLELAND gave a demonstration of the development of the mastoid and the tympanitic plate. He showed that the external surface of the mastoid was not formed by a descending plate of the squama, and that the so-called squamo-mastoid suture was produced by the entrance of branches of the posterior auricular artery into the mastoid bone.—Notes of a case of otitic cerebellar abscess in which absence of the mastoid antrum from pathological causes was observed were read by Dr. PETER MCBRIDE. A discussion followed on the occasional absence of the antrum. The general opinion expressed was that in the healthy state the antrum was always represented, but that prolonged osteitis might lead to its obliteration.—Dr. R. H. PARRY had performed section of the eighth nerve for severe tinnitus aurium, after prolonged treatment by several aural surgeons. The route chosen was the upper or anterior surface of the petrous bone. In dividing the eighth nerve the seventh was also injured. The result of the operation was partial relief of the tinnitus, while facial paralysis and complete deafness were caused. It was explained that the patient had refused to submit to any operation short of the most radical. "Facial-accessory" anastomosis was performed with the usual result.—Mr. C. A. BALLANCE advocated the cerebellar fossa route for section of the eighth nerve; and remarked that facial-hypoglossal anastomosis gave better results than the one chosen.—A successful case of removal of all the semicircular canals on one side for the relief of vertigo was reported by Mr. RICHARD LAKE. Shock lasted for one hour after operation; cerebral irritation, nystagmus and inability to turn to one side continued for a few days. In four weeks the patient was able to do anything without fear of falling. Fourteen weeks had elapsed since the operation without any return of the vertigo. Tinnitus was not affected by the operation.—Dr. MILLIGAN mentioned three cases in which he had performed this operation, one of which was completely successful.—Dr. NICOLL discussed the indications for operative interference upon the lateral sinus and internal jugular vein. He classified the operations as follows: (1) Obliteration of the sinus: (*a*) On account of some involvement of the walls or contents of the sinus itself; (*b*) on account of some affection of the jugular vein. (2) Ligation of the vein with or without excision: (*a*) On account of some affection of the vein itself, wound of the vein, involvement in a mass of cervical glands requiring removal; (*b*) disease or injury of the lateral sinus. (3) Ligature of the vein as a preliminary to mastoid operations: (*a*) tuberculous cases with enlarged cervical glands; (*b*) where it was probable that the disease extended to the lateral sinus.—Cases were shown by the PRESIDENT, Dr. NICOLL, Dr. GALBRAITH CONNAL, Dr. BROWN KELLY, Dr. W. S. SYME, and Dr. FULLERTON; and specimens by Mr. ARTHUR CHEATLE, Dr. KERR LOVE, Dr. ALBERT GRAY, and Mr. MACLEOD YEARSLEY; and the following gentlemen took part in the various discussions: The PRESIDENT, Professor URBAN PRITCHARD, Messrs. BALLANCE, CHEATLE, YEARSLEY, and HUGH JONES, and Drs. TILLEY, KERR LOVE, and MILLIGAN.—In the afternoon Dr. COLQUHOUN, in the absence of Professor MCKENDRICK, gave a demonstration at the

University on recent researches on the physical nature of vowel tones and their bearing on the movements of the tympanic membrane.

REVIEWS.

MEDICAL INSPECTION OF SCHOOL CHILDREN.

IN the *Medical Inspection of School Children*[1] Dr. W. LESLIE MACKENZIE and his colleagues, on a basis of the work done for the Royal Commission on Physical Training (Scotland) have produced a book in which all is set down and nothing omitted, and although the infinitude of detail makes it difficult to read, yet the index and contents make the information its pages contain very accessible.

In Part I the report of the Commission is used extensively to demonstrate the need and form of medical inspection. The powers available and the organization of such inspection are also set out. Dr. Mackenzie is rather in favour of tacking this work on to the medical officer of health. It might be useful to do this in smaller districts, and only the other day it was decided to pay £15 per annum at Accrington, whilst Chester can afford £45, for the effective carrying out of medical supervision of schools by the medical officer of health. For larger districts he suggests whole-time assistants to the medical officer of health; but why not medical officers for schools at once? The work of school supervision is so different from that of the medical officer of health that it would be best left to the educational authorities to make their own arrangements, and to provide for the satisfactory carrying out of this work as part of the school duty which the Board of Education supervises as a condition for grant. By appointing ten inspectors of medical conditions in schools the Board of Education could effect all the changes desired slowly, surely, and without disturbance.

A high standard of what is possible in the way of medical supervision for schools is set up, but it is doubtful whether, even with the present interest in the physical welfare of the nation, any considerable public opinion would support such extensive medical inspection of school children as is sketched; neither teachers nor parents can be said to be ready to take advantage of it. A chapter on what the teacher can do to assist in medical inspection considerably over-estimates the teachers' abilities in this direction, although there is little doubt that the provision of a reasonably cheap and efficient medical inspection can only be obtained by using trained teachers for much preliminary work, and by insisting, as has been done in a recent official report, on the necessity for a preliminary training of the teachers in school hygiene.

Part II, which is concerned with the practice of medical inspection in school work, might be abbreviated, as it gives much detail with which any one fit to be trusted with the responsibility of medical inspection should have familiarity. retinoscopy, for instance, taking up four pages. Treatment is given for eye diseases, and also for separate skin disorders; but it is generally understood that the school medical officer should take no part in actual medical treatment, and this we think is the only safe rule.

Part III, dealing with school anthropometry, gives the various measurements and instruments likely to be useful. Half a dozen pages are given to head callipers and four more to head measurements. Nevertheless, the authors "hesitate to recommend that the ordinary health inspection schedule should be burdened with head measurements" (p. 78).

The numerous verbatim quotations from official sources add to the value as a work of reference, but the form of the book has somewhat suffered in that it is also practically a commentary on the report of the Royal Commission. With such an indictment as is furnished by that report, and still more by this book, one wonders how long it will be until medical inspection is a requirement in the State schools. But there is also to be read between the lines the misery that about one third of the population endures.

> The stress on the one-roomed child is always greater. By overcrowding he is robbed of oxygen. By parental neglect he is left uncleaned. By poverty he is starved of food. By the clamour and nervous stress incident to over-aggregation he is spoiled of sleep. Unbreathed, under-fed, under-slept, under-clad, over-stimulated, he lives too fast and too much.

It is not by medical inspection that this will be remedied unless it directs attention to the land laws which make healthy lives so impossible to many. The book can be recommended to all who are interested in medical knowledge as a sociological factor.

[1] *The Medical Inspection of School Children.* By W. Leslie Mackenzie, M.A., M.D., assisted by Edwin Matthew, M.A., M.B. Edinburgh and Glasgow. Hodge and Co. 1904. (Demy 8vo, pp. 474, 10s. 6d.).

MEDICINE AND DIETETICS.

DR. APERT's book[2] is an interesting, though unequal, summary present knowledge regarding gout. Among the subjects which are well treated is the question of the symptomatology gouty predisposition in children. The author states that fants with a podagric taint are often big and heavy, with high colour, which is a source of parental pride. As a too, they eat and drink too much, and are frequently constipated; later on they become subject to various paroxysmal affections, of which the most striking are migraine, nocturn dyspnoea, intractable vomiting, and enterocolitis. All these affections may appear in violent bouts, the patient appearing perfectly well in the intervals. Another subject to which Dr. Apert is instructive is the radioscopic diagnosis between chronic forms of rheumatism and gout. He states that when examined by the *x* rays tophi are transparent while osseous and cartilaginous proliferation is opaque in gout, therefore, the tophi throw a faint and diffuse shadow while in chronic rheumatism exostoses and enchondroses cast one which is dark and well marked. With regard to abarticular gout, he has little which is new to say, but he lays special stress upon the liability to renal colic. From the prognostic point of view, he states that the more painful gout is the less it threatens life. This statement is more epigrammatic than accurate. The account of the etiology of the disease is by no means up to date. Due stress is laid upon the three chief factors—heredity, overfeeding. and insufficient exercise—but a sketch of the dietary conditions which the author imagines to obtain in England is ridiculously inaccurate. With regard to treatment, the author is, on the whole, sound. He permits the use of a sound light wine of medium age diluted with three volumes of water, but it is curious that he should allow kidneys, liver, brains, and oysters to be eaten while forbidding sweetbreads. With respect to drugs, he describes both the alkali treatment and that by means of phosphoric acid devised by Joulie, but is unable to decide as to their respective merits. He points out that the modern tendency is to withhold colchicum during the acute attack, and that the uric acid solvents have not as yet won a permanent place in the treatment of the disease. The book is clearly written, and forms an excellent specimen of the series to which it belongs.

The issue of a fresh edition of Sir JAMES SAWYER's *Contributions to Practical Medicine*[3] only two years after the last publication indicates that there has been no lack of appreciation of the practical suggestions contained therein, which are the outcome of careful observation and ripe experience. Several of the articles are reprints of lectures which were published in this JOURNAL at the time of their delivery. Among these are the chapters on the value of inspection in the diagnosis of diseases of the lungs and pleurae, on the accentuation of the pulmonary second sound of the heart, and on intestinal obstruction. When dealing with the question of obstruction, Sir James Sawyer lays great stress upon the necessity of early resort to surgical interference and deprecates wasting time in the vain expectation of spontaneous recovery. In an early chapter valuable advice is given as to the management of extreme faecal retention. Some advantage would apparently be gained if, in a future edition, these two articles were to be combined so that the conditions might be compared and the symptoms indicating the need for immediate surgical treatment pointed out. Sir James Sawyer has frequently written on the value of arsenic in chorea, and once more points out that the drug is usually administered in doses too small to be effective. The book concludes with a carefully arranged dietary for diabetics; the author considers with Mossé that potatoes, far from being harmful, may form a useful food for sufferers from this malady. Altogether the book will be found to contain many useful hints both as to diagnosis and treatment.

Sir JAMES SAWYER has also issued the first two chapters of this book (those dealing with *Insomnia*[4] as a sepa

[2] *La Goutte et son Traitement* [Gout and its Treatment]. Par Dr. E. Apert, Médecin des Hôpitaux de Paris. Paris: J. B. Baillière. 1903. (Crown 8vo, pp. 96. Fr. 1.50.)

[3] *Contributions to Practical Medicine.* By Sir James Sawyer, M.D. Fourth edition. Birmingham: Cornish Bros. 1904. (Crown 8vo, pp. 227. 3s).

[4] *Insomnia: Its Causes and Cure.* By Sir James Sawyer, M.D. Birmingham: Cornish Brothers. 1904. (Crown 8vo, pp. 66. 1s. 3d.)

volume). It is founded on two clinical lectures published in the BRITISH MEDICAL JOURNAL in 1900. Cases of insomnia are divided into two groups called by the authors "symptomatic" and "intrinsic" respectively. The various forms of intrinsic insomnia are very fully analysed and the importance of noting the temperament of the sufferer pointed out. Under the head of toxic influences the effect of tobacco and alcohol in the production of sleeplessness are discussed, while many persons are in the habit of taking a dose of alcohol as a nightcap. Every one must have met with cases in which an unaccustomed glass of whisky and water is found to be followed by a bad night. In the treatment of insomnia Sir JAMES SAWYER finds the bromides occupying the most useful place although he recognizes that many cases require more potent hypnotics. It is doubtful whether the tincture of hop has ever cured any sleeplessness deserving the name of insomnia, and the same may perhaps be said of the various medicated pillows offered to the public.

It is a little difficult to say for what class of reader Dr. VALENTI's book on *Aromatics and Nervines in Alimentation*,[5] the latest of the excellent series of Hoepli manuals, is intended. It attempts too much to be satisfactory to the student; in the space at the author's disposal it would be almost impossible to do adequate justice to the subject on the lines laid down, and for the general reader too many technicalities are introduced. Under the term aromatics he discusses such things as salt, vinegar, sugar, pepper, ginger, mustard, cloves, cinnamon and mace, giving in each case a brief account of their source, mode of preparation, character, and physiological action. The nervines are alcohol in its various forms, coffee, tea and its congeners (guarana, kola nut, and cacao), and tobacco. Out of the twenty chapters into which the book is divided no less than eleven are given up to the discussion of alcohol, its mode of preparation, sources, action, use, and abuse. Beyond the fact that it may, when well diluted and taken at meal times, be of some assistance to digestion, he cannot find no scientific ground for the use of alcohol in dietetics. Practically all the substances discussed in the book would be treated in the ordinary course in a manual of dietetics, and it is questionable whether anything is gained by separating this particular group and giving it special treatment.

PHYSIOLOGY AND HISTOLOGY.

"WRITTEN at the solicitation of students who have attended my lectures for the past eight years" are the first words of the preface to Dr. OTT's *Textbook of Physiology*[6]. This is rather an ambiguous statement, but, leaving that point aside, we may say the book professes to be an "elementary work containing the chief facts of physiology which are necessary for the student who wishes to apply them in the practice of his profession." Twenty-one chapters, making up over three-fifths of the book, deal with the cell, chemical constituents of the body, digestion, absorption, the blood, and the nervous system, and its sense organs in regular order. The text is essentially elementary and contains a good deal of anatomy and a little of histological detail. We are told that peptones "give a pink colour with potash and a trace of cupric sulphate, while all other proteids give a violet colour." What about albumoses? We also meet with a not uncommon change from the descriptive to the assertive. "As you go down the small intestine you find," etc. The description given of an intestinal villus would not suffice even for a South Kensington standard. Actually, the obsolete diagram of Fünke is reproduced (p. 104) to show the relation of the epithelium to the lymphoid. That the "large intestine encircles the abdomen in its course." The bile ducts have their origin "in the cement-substance joining the hepatic cells" are curious statements. We are afraid little success would attend any one who attempted to perform Pettenkofer's experiment according to the directions given. No mention is made of the fact that the bile pigments do not exist as such in the bile. We are also told that "the plasma of the blood is constantly osmosed through the capillary wall." "Each cell is bathed in a plentiful supply of plasma." Surely well-defined terms ought to be properly applied. The muscular fibres of the auricles of the heart are said to be of two kinds, while the author only means that they are arranged in two different ways. A curious function is attributed to the auricles themselves. In the experiment of Stannius the record reads as if the frog's heart had only one auricle. The account of the nervous system and its sense organs leaves very much to be desired. Diabetic puncture is said to be made in the "median line." The account of the topography of the motor areas of the cerebrum is innocent of the researches of Sherrington. A couple of pages suffice for the lymphatic system, and these are given chiefly to anatomical details. No doubt the work has some merits, but it has many shortcomings, and it is not likely, at least in this country, to supplant or even act as an adjuvant to well-known textbooks already in the hands of the medical student. Most of the illustrations are taken from well-known textbooks and their source duly acknowledged.

Professor LOEWENTHAL"S *Atlas* of the comparative histology of vertebrates[7], is an evidence of his industry, and of a capability of producing excellent black and white drawings of histological preparations. When the science of microscopic anatomy was in its infancy as when Dr. Klein produced his famous histological atlas, the utility of such a production would have been obvious. The early drawings of histologists showed what was possible in the way of technique, and formed a permanent record of the structure of tissues and organs. Nowadays, when so many excellent atlases already exist, it is difficult to see any reason why another should be added to the list. If any important new truths or even new methods were illustrated, there would be a justification for the issue of such a book. But we have failed to discover anything new or striking in the present work, and would undertake to produce from any ordinary class of English medical students, many drawing books of equal, or nearly equal merit. The teacher of naked-eye anatomy very properly obliges his students to study that subject by actual dissections, and not from the contemplation of drawings or museum specimens, however excellent. The teacher of histology pursues the same method, and the only drawings to which he attaches importance are those which his students themselves make of their preparations. These may not be artistically so perfect as those which he will find in atlases, but they are infinitely more useful. It is difficult to see where purchasers of such works come from; the present atlas is far too expensive for the student, and as for the teacher and researcher, he no doubt already has a sufficient number of atlases to satisfy his needs.

NOTES ON BOOKS.

THE *City of London Directory*,[8] which has reached our hands recently, is the thirty-fourth annual edition of a work which probably suffers somewhat from its title. The average Londoner who does not happen to be in the habit of using the book is apt to take for granted that it is much the same thing as the *Post Office London Directory*, but on a smaller scale, as being applicable only to a part of the whole subject. This, however, it is not, but a work which, while it covers the same ground as does the *Post Office London Directory* so far as the latter relates to the City, goes far beyond it in many directions. Thus, in the alphabetical section, not merely the name and address but also the occupation of every person mentioned is given. The official section is also unusually informing. The sections, which deal with the educational establishments connected with the City, the livery companies (their histories, powers, privileges, and incomes), the public companies section (with information as to purpose, capital, administration, and latest financial statements), contain much detail not easily to be found elsewhere. Another feature of the work is an excellent map, in which by the use of various colours the boundaries of the various wards and parishes are clearly defined. Altogether, therefore, the book stands by itself, and will be of value to those whose work requires that they should have full and accurate information as to the City ready to hand. That the book is up to date is shown by the fact that the successor of the late Duke of Cambridge as president of one or more charities is duly named.

We have received the *Reports* of 1903 and 1904 of the

[5] *Aromatici e Nervini nell'Alimentazione* [Aromatics and Nervines in Alimentation]. Dott. Adriano Valenti. Milan: Ulrico Hoepli. 1904. (Fcap. 8vo, pp. 354. L. 3.)

[6] *Textbook of Physiology*. By Isaac Ott, M.D. Philadelphia; F. A. Davis and Co. 1904. (Demy 8vo, pp. 563, 137 illustrations. 3 dols.)

[7] *Atlas zur vergleichenden Histologie de Wirbeltiere nebst erläuterndem Texte*. (Atlas of the comparative histology of vertebrates, with explanatory text). Von N. Loewenthal, Professor der Histologie an der Universität Lausanne. Berlin: S. Karger, and London: Williams and Norgate. 1904. (Royal 8vo, pp. 109, 51 plates, containing 318 illustrations. 36s.)

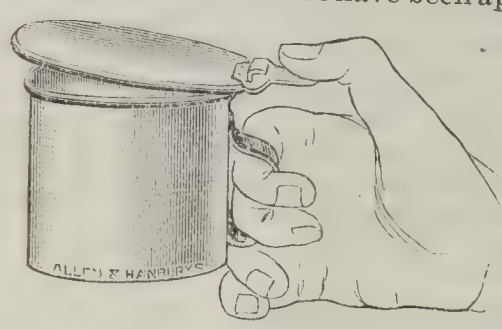
[8] *City of London Directory* Thirty-fourth Edition. London: W. H. Collingridge. 12s. 6d.

Oxford Eye Hospital. In the former is a review of the work by Mr. R. W. Doyne, and in the latter the corresponding article is by Mr. Ogilvie. The *x*-ray apparatus has been obtained and is now in full use. The Oxford Eye Hospital has this great advantage that it is not too near any other large town, so that the patients, instead of wandering from hospital to hospital, as is so common in London and other large centres, remain to be seen and watched for years, and this greatly enhances the value of the work from a scientific point of view. The hospital also possesses another advantage in having linked with the surgeoncy the Margaret Ogilvie Readership in Ophthalmology, established in 1902 for the purpose of encouraging research in ocular matters. Mr. Doyne at present holds this office. It was at Oxford that Mr. Doyne first tried the administration of retinal extract for the treatment of certain diseases of the optic nerve and retina; these investigations are still being carried on, and we are looking forward to hearing the results of the more recent cases as well as the later results of those whose early history has already been published. The report is interesting, and the work will bear comparison with that done at any British hospital.

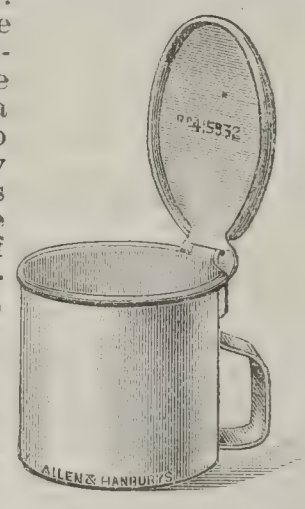
REPORTS AND ANALYSES
AND
DESCRIPTIONS OF NEW INVENTIONS
IN MEDICINE, SURGERY, DIETETICS, AND THE ALLIED SCIENCES.

MEDICAL AND SURGICAL APPLIANCES.

A Bedside Spittoon.—Dr. SYDNEY R. WILLIAMS (London, W.) writes: The numerous and weighty objections to the bedside spittoon in common use have been apparent for long, especially to those who have the care of phthisical patients. In the ordinary earthenware pot with a loose funnel some of the sputum usually dries on the latter and becomes a source of danger, in addition to presenting an unsightly appearance. The same objection applies to all spittoons with loose covers. The difficulty of keeping them clean is the chief objection to the forms with hinged lids; sputum lodges and dries in the hinge, which is speedily destroyed if attempts are made to sterilize the spittoon by boiling. The various spittoons with loose paper or card linings are advisable, but their cost prevents their extensive use in hospital practice.



Whilst Resident Medical Officer at the Mount Vernon Hospital for Consumption consideration of how to overcome these objections by the provision of a suitable bedside spittoon led me to design one which has been made by Messrs. Allen and Hanburys, and has been in use at the hospital for some months. It is strong, being made of enamelled iron, cheap, and not unsightly. It is easily kept aseptic, as it is not injured by boiling, and it has no crevices in which sputum can lodge. As will be seen from the illustrations, the handle is placed lower down than is usual, and from this rim above it a small curved projection passes backward and engages a small slip in the lid, forming an efficient hinge. It will be seen that the lid is easily removed and is opened by pressing in its projecting process when raising the cup. The spittoons are made and sold by Messrs. Allen and Hanburys.



A Plug for Antral Perforations.—Dr. ALBERT WESTLAND M.D. (Aberdeen), writes: From occasional contributions to your columns it would seem that there is still felt a want of a satisfactory self-retaining plug for perforations into the antrum of Highmore which it is desirable to maintain open. I have recently had manufactured to my design a hollow indiarubber plug shaped like a slender soda-water bottle, with a flat flange round the mouth, which, so far, has found most comfortable and perfectly self-retaining. It is introduced by a straight probe without any bulge on the and is easily withdrawn by the finger-nail slipped under edge of the flange. So far I have not tried it for very perforations, but for such as are made by an ordinary dentist's burr it has answered admirably. The plug made for me by Messrs. Pettie and Whitehall, surgical instrument makers, Aberdeen. If an open drain is preferred a plug, an opening can be made with a scissors on the the plug at any point.

Pessary for Prolapsus Uteri.—Mr. DERHAM-REID (Bolton-le- writes: I notice in the BRITISH MEDICAL JOURNAL of May 21st munication from Dr. Hughes Davies commenting upon my pillar pessary for the treatment of procidentia uteri, recently figur described in the pages of the JOURNAL, and referring to an inv of his own as "essentially forestalling that now put forward Derham-Reid as a novelty." I trust that you will find room fo than a simple contradiction, and insert a brief description cont the two instruments, which will at once and conclusively refu critic's contention. Dr. Davies's instrument consists of a rigid pessary supported by a widely-forked stem; the extremities fork are attached to opposite points of the lateral margin of the by means of hinged joints which permit the pessary proper to freely through an arc of about 45 deg. It is especially claimed i freedom of oscillation that it permits the instrument to adapt it the "swing of the broad ligaments." My pessary consists of a fl ring supported by an undivided stem, the upper end of which is in the centre of the plane of the ring, where it is sustained by a verse spiral spring in the diameter of the ring. By this devi easy lateral compression of the ring to facilitate introduction interfered with. Finally, a front spring extends from the c pillar to the anterior margin of the ring. This is an important fe of the design, my contention being that if the descent of the an margin of the ring can be prevented the instrument cann expelled. It will thus be perceived that the points of diffe between the two instruments are numerous and fundamental. In clusion, I am anxious to refute even the most remote suggesti plagiarism, and to assure Dr. Davies that prior to the publicati my design in the JOURNAL I had never seen his pessary or heard description of it whatever.

Erratum.—The name of Mr. Sheffield Neave, whose improved m scope razor sharpener was noticed in our issue of January 16th, now stated, and not as previously published. He is now usi more finely-ground powder than that then described.

THE PLAGUE.

PREVALENCE OF THE DISEASE.

INDIA.

DURING the weeks ending May 7th and 14th the deaths from pla in India numbered 41,607 and 35,413 respectively. The principal figu during the two weeks were: Bombay City, 373 and 265; Bombay tricts, 2,335 and 1,623; Calcutta, 171 and 134; North-West Provinces Oudh, 2,229 and 1,303; Punjab, 34,685 and 30,723; Kashmir, 313 and Karachi, 175 and 123; Central India, 296 and 100. Plague is reported have broken out at Kalka and every effort is being made to keep disease from reaching Simla.

ADEN.

Three cases of plague were reported at Aden on May 15th.

SOUTH AFRICA.

Cape Colony.

Port Elizabeth.—During the weeks ending May 14th and 21st the fre cases of plague numbered 1 and 2 (Europeans), and the deaths from t disease 0 and 1. Six cases remained under treatment on May 21st.

No cases of plague in human beings elsewhere, nor were any rats fou suffering from plague, except at Port Elizabeth, where of 1,047 rats a mice examined during the two weeks in question, 74 were found infect

Transvaal.

During the weeks ending May 28th and June 4th, the fresh cases plague in the Transvaal numbered 5 and 2; and the deaths from t disease 3 and 1 respectively.

The total of suspected and proved cases since the commencement the outbreak to June 4th amounts to 139 (24 whites).

MAURITIUS.

During the weeks ending June 2nd and 9th the fresh cases of plag numbered 3 and 0, and the deaths from the disease 2 and 0.

HONG KONG.

During the weeks ending May 28th and June 6th, the fresh cases plague numbered 27 and 36; and the deaths 27 and 37 respectively.

QUEENSLAND.

On April 8th a case of plague occurred at Brisbane; the last fresh cas in Brisbane was reported on February 18th. Between March 30th an April 7th the rats found infected with plague in Brisbane amounted to 7

PERU.

According to a telegram from Guayaquil, Ecuador, and published i the *Times*, June 13th, bubonic plague is spreading rapidly at Puyta, Peru and a state of panic prevails. Ten persons died on June 10th.

NOTES ON HEALTH RESORTS.

KREUZNACH.

ZNACH is situated on the Nahe, a tributary of the Rhine, miles from Bingerbrück. The town, consisting of an d a new part, is built on the banks of the Nahe, and ected by bridges. On an island between the two is the aus standing in charming gardens. There also is the ipal spring—the Elizabeth-Quelle—used chiefly for ing purposes. The baths in the Kurhaus are supplied e Nahe and Victoria-Quellen, and are very well fitted up, h the yellowy brown colour, which they are painted to ise the brown stains made by the brine water, prevents from looking as tempting as they otherwise would. are thirty-four baths only in the Kurhaus, but all the s and lodging-houses are supplied with water from the gs—indeed, it is impossible for love or money to get any

e water used for bathing purposes from all the springs iding the Oranien-Quelle, which supplies the Oranien- and the Karl's Halle, which supplies the houses in the) is simply brine water. A warm salt-water bath, be- having a stimulating effect upon the skin, also, it is erted, ses the hing to ne deeper quieter the pulse ger and regular, s which not pro- l by a fresh- bath. salt baths ase by abolism, also im- e the ap- e, so that general h and arance of patient are efited. suppurat- wounds resses of e water elieved to nish the nd assist k healing. reas it is to follow effects of brine upon diseases of the skin or open nds when it comes in direct contact with the ies, it is less easy to understand how it acts healthy skin. This, according to the latest ions, is not penetrable by water or the minerals con- ed in water. Nevertheless, for some days and even weeks the brine bath, a fine deposit of salts has been found ring the whole skin, and it has been supposed that the icles in a state of solution penetrating the external parts of skin are, after the evaporation of the water, left as fine tals, and exercise a chemical and physical stimulus on nearest nerve terminals, affecting the whole nervous em.

s a matter of fact, very little seems to be known, and up the present physiological investigation has failed to blish a logical connexion between curative methods and lts.

ne of the features of the Kreuznach cure is the addition of other-lye" to the ordinary brine baths by means of which strength of the water can be increased by degrees rding to the requirements of the patient. The quantity odium chloride in the springs is so large that salt can be racted in bulk from the brine. "Gradier" houses have n established, where the brine is evaporated until it contains from 14 to 16 per cent. solid constituents. The brine is slowly boiled in large pans, and the salt is in great measure extracted by crystallization. The yellowish-brown fluid which remains after the salt has been extracted is called Kreuznach mother-lye. About 350,000 litres of mother-lye are produced annually. A good deal of this is evaporated and the salt sold; the rest is used in the baths.

Invalids suffering from various disorders of the throat or chronic catarrh of the mucous membranes of the nose, larynx, and bronchi receive benefit apparently from inhaling the salt air. For this purpose there is a thorngradier house roofed over to enable people to take advantage of it on wet days.

Besides this, there is in the Kurhaus building an inhalatorium capable of holding forty people, where the Wasmuth system is in use. In the roof are two pulverizing machines which expel a fine briny mist which is breathed by patients, who, on entering the room, remove their hats and coats and put on a large mackintosh cloak and hood to keep them dry. The atmosphere is so dense that one cannot see a yard in front of one. There is also special apparatus in another room for individual inhalation.

Besides these there are the Roman, Irish, and Russian baths, and many kinds of douche baths and electric baths. In the Russian bath the patient lies on a wooden couch with a wooden pillow, and the room is heated to a very high temperature by steam. The principal drinking fountain is the Elizabeth-Quelle in the Kur Park, although some patients are ordered the stronger water of the Oranien-Quelle in the Louisen Promenade. A third drinking spring is the Theodor's Halle. The springs contain an important amount of calcium and sodium chlorides, not in quantities likely to induce acute diarrhoea, in proportion to be absorbable by the stomach, and cause a gentle stimulus. The appetite and digestion are improved, the solid constituents of the urine, especially the urea, increased, and the bowels act more regularly. As a consequence, the general health improves and weight and strength are gained.

Kreuznach. The Elizabeth-Quelle and Park from the River.

The water of the Elizabeth-Quelle is cold, and contains 10 per mille common salt and 1.9 per mille calcium chloride. The water is drunk cold as a rule, and is not so unpalatable as many mineral waters. It is usually taken before breakfast, but is also ordered sometimes to be drunk at meals. The baths are exhausting and rest is desirable after them.

The diseases chiefly treated at Kreuznach are rheumatic and gouty disorders, and uterine affections, while chronic catarrh of the throat, larynx, bronchi, and nose are often treated successfully; some obese subjects derive benefit from the vapour and hot-air baths. In the park the band plays three times a day in the season to soothe breasts rendered savage by a rigorously carried-out cure, and walks may be taken to picturesque places in the immediate neighbourhood. There is a grape-cure at Kreuznach and the hillsides are covered with vines, while fishing may be had in the river Nahe. About a mile up the Nahe is the village of Münster-am-Stein, where patients anxious for extreme quiet and seclusion may drink waters and take baths similar to those of Kreuznach in all respects, except that they are hotter.

Kreuznach is about nineteen hours from London via Cologne

and Bingerbrück to Bad Kreuznach station. There are excellent hotels and particularly good lodgings supplied with mineral baths, and so many doctors that it is a case of "Choisissez! il n'y a pas de choix."

The following analysis by Mohr shows the composition of the principal springs.

Kreuznach.

In 1,000 Parts.	Elizabeth Spring (Fresenius, 1804) p. M.	Victoria Spring (Fresenius 1894) p. M.	Oranien Spring, Knapp and Liebig.	Chief Spring of Carlshall.	Drinking Spring of Theodorshall.
Sodium chloride	10.521036	10.376384	14.1530	11.799	11.3300
Potassium chloride ...	0.152410	0.143813	0.0590		0 0391
Lithium chloride... ..	0.062923	0.065562		With bromide of calcium	0.0042
Ammonium chloride ...	1.022121	0 022130			Small amount.
Calcium chloride... ...	0.975215	2 033263	2.9600	1.468	1.4160
Barium chloride	0.064620	0 089280			
Strontium chloride ...	0.079579	0.084169			
Magnesium chloride ...		0.153013	(Mg. Br.)		0.3898
Sodium bromide	0.049917	0 058959	0.2310 (Mg. I.)		0.0052
Sodium iodide	0.000431	0.000383	0.0014		Slight traces.
Lime carbonate	0.126232		0.0320		0.2225
Magnesium carbonate ...	0.237174	0.140585	0.0169	0.199	0 0299
Protoxide of iron... ...	0.030284	0 028340	0.0450	8.098	0.0033
Manganese	0.000888	Small amount		With alumina and silicic acid	
Oxide of zinc	0.007052	Small amount			
Lime borate	0.002367	0.002299			
Lime arsenate	0.000405	0.000376			
Alumina phosphate ...	0.000435	0.000441	0.0117		
Alumina silicate	0.000043				
Silycic acid	0.013317	0 013317	0.1280		0.0029
Total amount of salts ...	13.346449	13.212323	17,6380	13,564	13 4429
Free and semi-combined carbonic acid	0.317432	0.344496			
Temperature Celsius ...	12°	13°	12.5°	23.8°	21.25°

STATE EXAMINATION IN THE UNITED STATES.

[FROM A CORRESPONDENT.]

Recent issues of the British Medical Journal have shown a development of interest in the conditions of practice in the United States. The impressions of an English practitioner recently settled there may, therefore, be not ill-timed or uninteresting. The burning question is that of the licence to practise in any particular State, and it is a question which affects not only the medical immigrant from the old world but the immigrant from one State into another. I am told that only Nevada now grants a licence without examination on mere payment of a fee. A licence is necessary to enable a practitioner to practise legally, no matter what his diploma may be. In San Francisco, for example, the University diploma does not entitle its possessor to practise until he have also passed the examination of the State Board of Medical Examiners. This Board is elected from among the practitioners of the State, and is totally unconnected with the University of the capital of the State. The examinations in California are held three times a year, and sometimes as many as sixty candidates present themselves. The fee is twenty dollars (£4). Some half the candidates are practitioners of other countries or States: the rest are recent graduates of the State University. It is a question whether the same examination is suitable for both these classes. More book knowledge might reasonably be expected of recent graduates, but more clinical experience from practitioners of some years' standing. The fact that the examiners are drawn from the practitioners of the whole State tends to make the examination less technical than might be the case were it conducted by University professors. The last examination showed a marked tendency to make the papers such as every ordinarily well-educated practitioner should be able to answer without any arduous preliminary study. Such has not always been the case. The surgery paper for December, 1903, for instance, included the following questions: "What is Labordé's method of producing artificial respiration?" "Describe in detail Schleich's method of local anaesthesia." "Define enteroptosis, pyelophlebitis, cholecysto-gastroenterostomy, angiotripsy, Wyeth's bloodless method." Since only ten questions were given, and no selection allowed, and a standard of 75 per cent. necessary in order to pass, obviously a practitioner m fail in such a paper who was yet perfectly qualified ordinary practice. Many of us perform artificial respira or induce local anaesthesia or perform bloodless operat without being able to name the surgeon whose method follow; and such terms as "cholecysto-gastroenterosto are very wisely avoided, even by surgeons capable of perfo ing the operation. The paper of April, 1904, was such any one could pass who was fit to be licensed as an ordi practitioner. The questions were such as the followi "What condition would necessitate the amputation limb?" "Discuss briefly wound drainage." "Give ca and treatment of iritis." "How would you treat a guns wound of the abdomen?"

The chemistry and toxicology are extremely easy, as b an examination at which the candidates may be practitio with grey hairs. It is a question whether the pathology bacteriology are not unnecessarily difficult, and certainly t are difficult out of all proportion to the chemistry. It m be urged that these subjects are far more practically imp tant to the practitioner than chemistry; but on the ot hand, it is rarely that ordinary practitioners can find t and the laboratory skill and material for such specialities bacteriological and pathological investigations. It might wiser to set up one or two State laboratories in each State which practitioners could have their specimens reported by specialists. The examination in bacteriology especia presumes a laboratory training which would form a seri obstacle to a practitioner of even ten years' standing movi say for reasons of health, to a new State. The paper is which might very fairly be set to recent students, and is no means to be despised, the questions being thorough practical and up-to-date. For example, "Give the bact ologic findings in dysentery and abscess of the liver," "W what micro-organisms may the gonococcus be confounded "Describe the search for tubercle bacilli in the urine," "D scribe the findings in appendical abscess and in the suppu tive lesions of scarlet fever," "Describe in detail the mo of conducting a necropsy in a case of suspected bubo plague."

The practical part of the whole examination was very sma being limited to examination of cultures and slides in bacte ology and of microscopic and gross specimens in patholog though one excellent feature was the examination of *x*-r plates, which, be it said, were remarkably good, as were lik wise all cultures and slides.

The order and method of an English examination hall we wanting; the atmosphere was so thick with tobacco smo that one of the candidates suffered from nicotine poisonin and had to take that part of the examination over again. was not made sufficiently clear how many specimens had be reported on, some candidates going conscientiously to eve microscope, others keeping to one. Candidates were allowe to select another *x*-ray plate if their first was not clear to them The examination was held in a police-court, which seeme somewhat incongruous.

The list was published within forty-eight hours, and th standard of 75 per cent. in all subjects (except anatomy, phy siology, and pathology, in which 60 per cent. sufficed) wa rigidly exacted. An English practitioner obtained the secon highest place.

Prosecutions are being regularly undertaken against an who practise as a physician and surgeon without the licence and a verdict is usually obtained. At the same time a goo deal of toleration is evinced for what in England would b denounced. A practitioner of "osteopathy" is allowed t practise so long as he or she clearly states their persuasion o "osteopathy" on their "sign." At some of the examinations different papers are issued according as the candidate is homoeopath, or "eclectic," or "orthodox."

It may at once be acknowledged that the State licence is a distinct step towards exacting a minimum of knowledge, and necessary, in view of the still existing bodies which grant diplomas after insufficient instruction or without examination. The great hardship is that the practitioner who may have recently passed a creditable examination to enable him to practise in a certain State must be re-examined if he move to another town six miles away, if it happens to be over the border and in another State. Thoughtful practitioners here are aiming at unifying the standard of all State examinations, so that a licence obtained in one State may be used on removal to another without re-examination, although registration and probably the payment of a fee, will be enforced in

e of the practitioner's new place of abode. Consider-
mmense stress and strain of a modern practice and
o means large pecuniary returns, it seems foolish for
see daily the effects of nervous wear and tear to be
to urge on the feverish desire for constant re-exami-

AMERICAN MEDICAL ASSOCIATION.

fty-fifth Annual Session of the American Medical
ssociation, opened at Atlantic City on June 7th.

The Oration in Medicine.[1]

tion in Medicine was delivered by Dr. George Dock
Arbor, Michigan, who took for his subject—Diagnosis,
ory and Practice. He said the older prognosis was
n the observation of symptoms alone, and, con-
or unconsciously, took the standpoint of humoral
gy or some equally imperfect theory. It was almost
acking in anatomical, and totally without chemical,
Whatever shortcomings medicine might have,
t be admitted that diagnosis was much more
than ever before. In proportion as diagnosis
come subdivided, specialized, and enlarged, and
wledge of morbid processes had become more
, so prognosis had become more intricate. It was
y true that some prognostic aids furnished by the
, such as changes of the physiognomy, were now
neglected. On the other hand, much more accurate
s of ascertaining the constitutional factor were avail-
n formerly. The physician had more accurate means
mining the condition of the heart, arteries and veins,
force of the circulation than before. He could usually
e fairly well the efficiency of the blood-forming
he could determine with reasonable accuracy the
for work of the stomach and intestines, as well as a
ails of nutrition and metabolism; he was rapidly
beyond the limitations of Falstaff's doctor in fixing
tomical and functional ability of the kidneys, and he
king towards methods of testing the functions of liver,
, and nerves. When all these factors were thoroughly
gated it was probable there would be little need of the
catrix naturae, now an essential part of prognosis. With
rate prognosis based on exact and thorough examina-
nowledge of the natural course of the disease and of the
the physician foresaw the course of the malady and
pared for changes, emergencies, and complications.
ot easy to say how much the patient should share
eknowledge, and how it should be conveyed to him.
y cases the patient did not ask an opinion, and in
thers, either because the present disease seemed too
r for other reasons, the physician did not proffer one.
as good mental discipline to work out the prognosis
case, as a complement to the diagnosis, and in many
lts should be stated to the patient. No disease should
ed on as insignificant. In acute diseases the best
rule was still that of Hippocrates (*Prognostics;* 19,
): "In acute disease it is not quite safe to prognosticate
death or recovery." A case of this kind, however,
not be considered likely to die unless from a complica-
from the effect of a pre-existing disease, though in
diseases, such as scarlet fever and diphtheria; the
of a sudden change and of death should be made known
beginning. In some other acute diseases the study of
sis prepared the physician not to be unduly elated by
nissions that were so reassuring to relatives. The
ary amelioration in meningitis and peritonitis, in
the patient seemed almost free from symptoms, might
tioned. Less disappointing, but still ominous, was
asional lull in broncho-pneumonia. In such cases,
r, it was rarely advisable to bring the unfavourable
ilities too strongly before the patient. On the other
t was a serious error not to point out, after recovery
ertain acute diseases, the possibility of sequels, some-
months or years afterwards, and the advantage of
ations at intervals for the purpose of detecting them
they become inveterate. In chronic diseases there
w exceptions to the rule that the patient should be
the nature of his case as fully as possible.
ts with tuberculosis, heart disease, kidney dis-
and disease of the alimentary tract could not
he best possible results unless they understood
why they should do certain things and avoid others. It was much easier to advise in cases that had a strong tendency to recovery than in those that had not; and there was room for difference of opinion and of practice in the latter, because the conditions varied with patients according to individuality and accidental factors. In hopeless cases it too often happened that treatment was abandoned too early in the case. Patients with cancer of the stomach or other inoperable tumours, cirrhosis of the liver, and many other diseases were permitted to drag out their existence without relief. Sometimes families, having been told the truth about such a patient, refused all further medical aid, even when the conscientious physician who gave the information pointed out what could still be done. Improvement in methods of treatment had an important relation to prognosis, in that many diseases considered hopeless at one stage of knowledge, might in another offer many chances for recovery or alleviation. Therefore, it was necessary for the practitioner to keep up with the advance of medical science. The physician who did not inform himself quickly of the value of surgical treatment in various disease as it was developed—in pelvic diseases, brain diseases, diseases of the appendix, biliary tract, stomach and pancreas—came very near deserving the reputation of an unscrupulous practitioner. But could one always act from the standpoint of simple diagnosis and prognosis, or must not the weakness, fears, and prejudices of people be at times taken into consideration? In trying to get the best light on this subject he had for many years noticed the opinions of patients and their relatives, as well as of non-medical writers, and it was instructive to learn how those who were not physicians approached the subject. Many physicians had been influenced by the views of Percival, from whose work on *Medical Ethics* some of the best parts of the old Code of the Association were taken. Percival[2] said:

> A physician should not be forward to make gloomy prognostications, because they savour of empiricism, by magnifying the importance of his services in the treatment or cure of the disease. But he should not fail, on proper occasions, to give to the friends of the patient timely warning of danger when it really occurs, and even to the patient himself if absolutely necessary. This office, however, is so peculiarly alarming when executed by him that it ought to be declined whenever it can be assigned to any other person of sufficient judgement and delicacy, for the physician should be the hope and comfort to the sick; that by such cordials to the drooping spirit he may smooth the bed of death, revive expiring life and counteract the depressing influence of those maladies which rob the philosopher of fortitude and the Christian of consolation.

In general this furnished a useful guide to conduct, nevertheless required some examination. In the first place, the truth was not always so alarming to the patient, painful as it often was to the physician. To the sick man, whose thoughts had been turned toward the end longer than others supected, intimation of a fatal end often brought no shock, but rather relief from the ending of a painful uncertainty. According to the rules of the Roman Catholic Church, a timely announcement should always be given, and those who had witnessed the last days of members of that faith could confirm the statement that good often followed, speaking merely from the medical standpoint, and rarely harm. The same thing was true of many of other faiths or of no faith. The rule in regard to giving the patient a good prognosis and the relatives a bad one, could often be followed, but was a very fallacious one on the whole. In cases where the patient should know the truth, the physician was often the best one to state it, and he should see that this was done before it was too late. Exceptions to the rule of candour might occur in the case of children, in women with no spiritual obligations or business responsibility, or in exceptional cases in men. The discussion might be indefinitely prolonged, but one could never get far away from the principle intimated in the beginning—that in practical prognosis one must individualize, just as one had to in therapeutics, with the patient's welfare ever the object of our activity.

Address on State Medicine.

The address on State Medicine was delivered by Dr. Hermann M. Biggs, General Medical Officer, New York City Department of Health, and Professor of Therapeutics and Clinical Medicine, University and Bellevue Hospital Medical College, New York. He said that a high morbidity and a mortality in any urban population depended largely on some remediable feature of an insanitary character, such as the

[1] Advanced proofs of this oration and the addresses which follows we ebted to the courtesy of the Editor of the *Journal of the American Association.*

[2] *Medical Ethics;* or a Code of Institutes and Precepts, adapted to the professional conduct of physicians and surgeons, with an appendix containing a discourse on hospital duties; also notes and illustrations, by Thomas Percival, M.D, Manchester. 1803, p. 31.

sewerage of the city, the occupations, habitations, food and water supplies, and the habits of the inhabitants—all factors which lay to a great extent within their control. Hence, when any city in modern times had a high annual death-rate, for example, 30 or 35 per 1,000, as was formerly the case in New York, Liverpool, and other cities, instead of a death-rate of 17 to 18 to 19 per 1,000, as now existed in London, Berlin, and New York, it was because conditions were permitted to exist partly from the neglect, indifference, and ignorance of the people, and partly from the lack of proper facilities and necessary efficiency on the part of the authorities. It had long seemed to him that the work of the sanitary authorities was too much restricted, and the general conception of the scope of their functions was too narrow. Until in very recent years the operations of the health officers had been almost solely confined to the measures adopted for the prevention of the more readily communicable diseases commonly called contagious. These usually included only small-pox, diphtheria, and scarlet fever, and at intervals yellow fever, cholera, epidemic dysentery, and typhus fever. More recently typhoid fever and measles, and indirectly the diarrhoeal diseases of infants, had been generally added to this list. But even in regard to the disease referred to, the measures adopted had been of a most unsatisfactory character. General prophylaxis should include the supervision, not only of those diseases which had generally come within their surveillance, but also all the infectious diseases which from their nature were to a greater or less extent preventable, in addition to all other forms of disease which were the result of insanitary living, occupations, habitations, or surroundings, including those arising from manufacturing, mining, or other industries. It should also include, with greatly increased powers and breadth of jurisdiction, the surveillance of the food and water supplies and the sewage disposal. There was a large class of different types of the infectious diseases well recognized as being more or less preventable which were not included in the registration returns. Mention might be made in this connexion not only of tuberculosis in all its forms, whooping-cough, mumps, chicken-pox, and cerebro-spinal meningitis—which had been included in the registration returns by some authorities but had not as a rule been dealt with by them—but also of puerperal fever, erysipelas, pneumonia, the diarrhoeal diseases of infants, dysentery, malarial fever, influenza, the contagious diseases of the eye, and certain parasitic diseases of the skin, as well as some of the rarer diseases occurring in both animals and man, such as rabies, tetanus, anthrax, and glanders. Pulmonary tuberculosis was included in the list of communicable and reportable diseases by the New York City Board of Health ten years ago, and the measures adopted for its surveillance had been gradually extended and the lines for its restriction had been drawn closer and closer as each year had passed. During the past year measures to ensure the registration of tuberculosis in all its forms had been adopted in New York. The importance of registration of epidemic cerebro-spinal meningitis arose not so much because of the evidence of its communicability as because of the importance of fuller information as to the conditions under which it arose and became disseminated. The infectious diseases of the eye—trachoma and suppurative conjunctivitis—should be included because of the importance of the adoption of preventive measures in the public schools. Puerperal septicaemia should be included in the registration returns because modern aseptic midwifery had shown that in most instances this was a strictly preventable disease. No one, he thought, would seriously question the propriety of including erysipelas and whooping-cough in the registration returns. So far as the United States were concerned he assumed that typhus fever, Asiatic cholera, plague, leprosy and yellow fever were diseases which would never again call for anything more than occasional or emergency measures for the disposal of isolated cases or small groups of cases. The registration of cases of malarial fever should be required, not because close surveillance of individual cases was necessary, but because the sanitary authorities should know where the sites of infection were, where the breeding places of the *Anopheles* mosquitos were to be found, in order that they might adopt proper means for determining such areas of infection and the proper measures for their removal. Acute diseases of the respiratory tract, namely, influenza, lobar pneumonia, and broncho-pneumonia should be registered, because they were infectious, because they were of prime importance as causes of death, and in order that general and special investigation might be instituted for the collection of data bearing o modes of infection and the sources and cau their prevalence and their distribution. He firmly b that these diseases could be to a very considerable exte vented, but the means and the methods were yet to be mined. A large new field had just been opened by recent o tions with regard to the specifically infectious character o of the cases of summer diarrhoea and dysentery, both of i and of adults. The results of the investigation of the s authorities in recent years in many large cities had that these diseases were to a very large extent preven and it seemed probable, from recent investigations, tha forms at least were preventable and curable by the u specific curative serum. These diseases should be notifiable. Notification of the parasitic diseases of th should be required chiefly because of the liability to the of these diseases among children in the public schools annual cost of typhoid fever in sickness and death thro the United States would be computed in terms of t millions of dollars. All of this loss was certainly preven Unfortunately the city sanitary authorities were often a powerless, as their jurisdiction did not extend over the sheds which supplied with water the people under thei and a supervision by them of the sources of the milk s was also frequently absolutely impossible. Some mor prehensive measures were urgently demanded to exte jurisdiction of the authorities in the supervision of th plies of milk and oysters and other foods. What wer possibilities of preventive medicine as concerned the centres of population? In New York City it might be ass that the present tuberculosis death-rate of 2.7 might proper surveillance with certainty be reduced to 1.2. The theria death-rate should certainly be reduced to one-th what it was at present (0.6 per 1,000 population). Si reductions should be possible in the death-rate from ty fever, measles, and scarlet fever. The diarrhoeal dis of infants had already been reduced in the last twelve to one-half of their former prevalence, and should be reduced more than 50 per cent. The most fatal affec with which they had now to deal in New York were acute respiratory diseases, including influenza, lobar p monia, broncho-pneumonia, and acute bronchitis. The ave death from this group now exceeded 3 per 1,000 of population, and in years when there was an epidemic valence of these diseases the death-rate might be 4 or The advances in preventive medicine had as yet not had no influence in reducing the death-rate from this g of diseases, but, on the contrary, there had been a slow continuous increase. He could not at that moment p out the method or means by which a reduction was t brought about, but he firmly believed that with f knowledge such a reduction would become possible in great cities where these diseases were so prevalent. So thing could be accomplished through the closer sani surveillance of the occupations and conditions under w the lower classes worked, especially the noxious tra His investigations had shown that in New York City a l increase had taken place during the last twenty years in a respiratory diseases, cancer, and diseases of the circulat apparatus and the kidneys. The increase in cancer amou to about 15 per cent. A very important sanitary problem here presented to the health authorities. What were factors in the lives of the inhabitants of large cities wh had caused such a remarkable increase in the prevalence these affections, and how were these factors to be remove Some of the directions in which the scope of prevent medicine could be extended had been indicated. With s extensions, and many others not mentioned, the future p sibilities of preventive medicine seemed to be even gre than the past achievements, for almost every development bacteriology opened up a new field of work for the sanit authorities.

The Oration in Surgery.

The Oration in Surgery was delivered by Dr. W. J. Ma Surgeon to St. Mary's Hospital, Rochester, Minnesota, w took as his subject the Association of Surgical Lesions the Upper Abdomen. He said the surgical borderland of t day lay in the upper region of the abdomen, a locality un recently considered almost purely medical. Surgery must judged on three grounds: First, the mortality of the oper tion itself and the question whether this was greater tha under the expectant plan; secondly, the permanence of cu contrasted with medical treatment; thirdly, the question disability, either introduced by the operation itself

natural length of time which the healing pro- involved. On each one of these considerations could say that earlier operation would reduce mortality and increase the permanence of cure ssen the disability. In the upper abdomen they had pted to study the stomach independent of the associated s, the liver and bile passages, the duodenum and pan- The result had been a confusion in diagnosis and nent. The palm of a hand might cover a serious lesion y one of these organs, and that, too, at the point of st liability. Not only so, but any one of this group start a pathological process which might extend to any others. As illustrations he pointed to the disturbance e stomach which occurred with gall-stone disease, the ions to the duodenum, and the pancreatitis, an associa- irect as it was vital, and chronic ulcer of the stomach adhesions adherent to the bile passages or gall bladder. an operative experience of over 1,400 cases of this descrip- e had no hesitation in saying that mistakes in diagnosis still common, and in many instances unavoidable. ne majority of cases a pathological diagnosis was ble, and one could say with certainty, "This is gall-stone se," or "This is ulcer of the stomach, but in a consider- inority they could only say: "In this locality is a ed process which requires operative treatment, the nature of which must be determined by incision." mical considerations taken in conjunction with the ological origin justified the grouping of the surgical s of the upper digestive tract, and at once ed the diagnostician to associate the symptoms and the n to direct his attention, not to one, but to the entire of organs. The art of the diagnostician lay in the r valuation of the signs and symptoms of disease in s of associated function and pathology. For instance, e value of the colic in the diagnosis of gall stones be . The typical attack came on and stopped abruptly, was ed by vomiting or a feeling of movement of gas, was lar in time, in regard to food, and not accompanied by erature or pulse elevation, and left the patient able to l his duties almost immediately after cessation of the While the pain lasted it was excruciating, felt in its st intensity in the epigastrium, radiating upward behind ernum and into the back, The distress penetrated to ght side, but occasionally to the left, and lasted from a inutes to six or eight hours. When the patient came for e it might be years since the typical attacks; he might forgotten them, the present trouble complained of being digestive disturbance, and tenderness on deep pressure he gall-bladder region. The history of the early attack vorth more than the physical examination in many The pain in gastric or duodenal ulcer might be just as e, but lasted a day or two longer, especially when due to alperitonitis, and was accompanied by gastric symptoms cal tenderness. The symptoms lasted more or less for some r weeks, and the interval of apparent cure gave some s or months of comparative health. Acute perforations organs of this group were relatively common and gave symptoms which would be at once recognized if they red in the region of the appendix, but occurring in the abdomen too often went to a fatal issue unoperated. The l symptoms, whether of the gall bladder, the duodenum, ch, or acute perforation of the pancreas with necrosis, were remarkably alike. The onset was tially the same in each. Sudden extreme epigastric with collapse ushered in the attack, and muscular ty, as a rule, came on early. In 811 operations e gall bladder and bile tract there were 4 acute per- ons of the gall bladder, with but 1 recovery, although verage mortality in the benign series was but 4.47 per In 45 operations for duodenal ulcer, 4 acute perforations red, with 2 recoveries, while in 41 operations for sub- and chronic ulcer there was only 1 death. In 469 tions on the stomach, 5 perforations occurred, with 2 s. In 32 operations for diseases of the pancreas, there nly 1 operation for acute pancreatitis and fat necrosis, recovery. This gave 14 cases of acute perforation, with rtality of 50 per cent., and why? Because the operation sually too late. The death-rate in over 1,150 operations bacute and chronic benign conditions of this group of s averaged a little less than 5 per cent., counting as a from operation any patient dying in the hospital without d to cause or time elapsed between the operation and the issue. If there were added to this mortality of 50 per in operations for acute perforation, the cases seen in a moribund condition beyond even attempt at relief, and the still larger number in which death occurred without an *ante-mortem* diagnosis, one got some idea of the appalling nature of the disaster. To be successful operation must be immediate. Few operated on later than ten hours after perforation recovered. As a rule the history and location of the early acute pain would furnish evidence as to the origin of the trouble. Preceding perforation of the gall bladder there were often symptoms of several days' duration with a history of gall stones. The acute pain occurred in the gall-bladder region. Early drainage with removal of the gall-bladder should give a mortality not exceeding 10 per cent. Duodenal perforation usually occurred in cases of chronic ulcer with years of symptoms preceding; but the immediate onset was exceedingly acute. The location of the early pain was just to the right of the median line. Operation for acute perforation of the duodenum was rarely successful after eight hours. Suture of the perforation with suprapubic pelvic drainage, and after-treatment in the sitting posture in early cases should give 80 per cent. or more of recoveries. Gastric perforations occurred on the anterior wall, according to Brunner, 7 times to 1 posterior, and near the cardiac ends 5 times to 3 times in the pyloric portion, and near the lesser curvature 122 times to 16 times near the greater curvature. The initial pain was usually to the left of the median line. Only 10 per cent. occurred without previous symptoms of chronic ulcer. The symptoms of perforation of the pancreas from inflammation with resulting fat necrosis, were sudden pain in the epigastrium, collapse and early extreme distension of the abdomen. On opening the peritoneal cavity, free fluid, often of a haemorrhagic character, was evacuated. The little fatty masses in every direction and the enlarged pancreas called attention to the source of the trouble. The group of acute perforations gave an unsatisfactory mortality, with a prolonged period of disability from drainage, and without a certainty of permanent cure of previous underlying conditions. This would not long continue. Like acute gangrenous appendicitis, the condition would be recognized early with corresponding improvement in results. The diagnosis of the chronic infective lesions of the organs of this group was in a far more satisfactory condition. The general mortality of gall-stone operations was not above 5 per cent., taking the cases as they came, but even this was too high. Grouping the cases in which the entire process was limited to the gall bladder, the mortality was from 1 to 2 per cent., and depended to a large extent on the general condition of the patient. Secondary complications, chiefly those which involved the hepatic and common ducts with resultant cholangeitis, pancreatitis, and so forth, were responsible for the death-rate. As practically all the patients had symptoms on which a diagnosis could be based previous to the complications it would not be long before early operation in patients otherwise in good health would be the rule as it was now in chronic and relapsing appendicitis. The average stay in the hospital for uncomplicated gall-stone patients was slightly less than seventeen days; the convalescence of the complicated duct cases was prolonged one or two weeks. Chronic infections of the pancreas were usually secondary to gall-stone disease, and, as a rule, did not occur excepting where the common duct had been directly irritated by the presence of calculi. The results of drainage of the gall bladder and bile ducts were extremely satisfactory. In their series of 32 cases there were but 2 deaths; these patients had coincident suppurative cholangeitis. The primary mortality of operations for chronic infective lesions of the stomach with ulcer was in a fairly satisfactory condition, but as to ultimate results nothing definite could be said. The dilated stomach with retention or stagnation of food suggested at once drainage operations with gastro-jejunostomy as the type. They had patients of this description alive and well more than twelve years after operation. Chronic ulcer without mechanical obstruction gave a less promising outlook. Their results in operations of this kind of lesion furnished a considerable percentage of secondary operations and failures to relieve. In briefly calling attention to the malignant diseases of this group of organs, Dr. Mayo emphasized the possibilities of cure by means of operation. In the gall bladder he found 4 per cent. of cases at the operating table had malignant disease, and all these had gall stones present, or evidence that they had been present at one time. Since it had become the practice to remove all thick-walled gall bladders as useless and a possible source of future trouble, many cases of malignant disease in an early stage had been in this way, it might be said, accidentally cured. He had met with several such instances. The radical

treatment of gastric carcinoma was now on sure ground, with a mortality of 10 per cent., or less in favourable cases, to 20 per cent. in late but still operable disease. The only necessary thing for success was an early diagnosis, and this must be on clinical grounds supplemented by early exploratory incision. In 46 gastric resections for pyloric cancer they had 7 deaths.

FOURTH INTERNATIONAL HOME RELIEF CONGRESS AT EDINBURGH.

THE fourth International Home Relief (Assistance Familiale) Congress held its sittings in Edinburgh on Tuesday, June 7th, and the three following days.

INAUGURAL MEETING.

The first meeting was at 9 p.m. on Tuesday, in the Assembly Hall on the Mound, when the PRESIDENT (Lord Balfour of Burleigh) was called to the chair by the LORD PROVOST of EDINBURGH, who, on behalf of the City Corporation, extended to those not resident in the city a most cordial welcome to Edinburgh and an assurance that the municipality would do everything possible to make their visit a pleasure and the Congress a success.

After letters of apology had been read by the SECRETARY, Sir JOHN SIBBALD made a statement explanatory of the steps which had led to the Congress. He said they had to thank Her Majesty Queen Alexandra for her gracious kindness in allowing the Congress to be held under her Royal patronage. They were glad to have as President of the Congress Lord Balfour, the most representative of living Scotsmen. They had to thank the Marquis of Lansdowne for having helped them in their communications with foreign Governments. The Local Government Board had given generous and valuable help. The Conseil du Departement de la Seine had sent Dr. Marie, who was the Secretary and the inspiring genius of the first Home Relief Congress which met in Paris in 1901, and who had now organized the contingent of guests from France, and had superintended the French papers to be submitted to the Congress. They had to welcome Dr. Peeters, delegated by the Belgian Minister of Justice; M. Sano, delegated by the municipality of Antwerp; M. Deferon, by the Governor of the Province of Liége; and Mr. W. L. Micks, the Chairman of the Irish Poor Law Commission.

PRESIDENT'S OPENING ADDRESS.

LORD BALFOUR expressed his thanks for the compliment done to him in asking him to act as President, and welcomed those members who had been good enough, at considerable expense both of time and money, to come to attend the Congress.

Relief of the Poor.—Scotland had always taken an independent line in all matters pertaining to relief of the poor. She had worked out her own problems in a way suitable to her needs and to her circumstances, but few would suggest that she had nothing to learn from the other great nations of Europe and America. Such conferences as this led to greater knowledge of one another, and so tended to promote friendly international relationship.

Object of Congress.—The general object of the Congress was to discuss those methods by which help could best be given to our weaker and less fortunate brethren, without relegating them to special institutions where recipients of relief were congregated together, but its motive was in no way antagonistic to that important branch of charitable work which was carried on in hospitals and similar institutions.

Organized Aid to the Poor.—The international character of the Congress should give special interest to what was said, and it would be impossible to appreciate the points of view from which speakers belonging to different countries regarded such proposals without careful reference to the laws in each country which regulated the giving of help at the public expense, and under official supervision, or by any of the channels of private benevolence. The dangers which confronted a civilized community in managing its system of relief were of universal application. They were not peculiar to any race or nation. They were to prevent poverty and to avoid starvation, but to mitigate distress and to lessen suffering, and yet in every case all this must be done in such a way as to avoid the danger of destroying hope, and without impairing the economic competence of the individual citizen.

Various Systems in Various Nations.—There were probably at least as many systems as nations represented in th Perhaps it would not be going too far to say that the more systems than there were national representati few things would probably surprise some of those so much as to discover what great differences existed islands between the different systems of poor relief in England and in Scotland respectively, and this in the fact that we had been one kingdom for three ce and under one Parliament for nearly 200 years. Lord then referred to some of the differences betwe English and the Scotch systems. The English syste from the well-known Act of Elizabeth in 1603; while i land they had no recognized system—at any rate, th none involving compulsory contribution till the middl century. Up to that time the Scottish system was main voluntary and in the hands of a parochial eccles body. It might have been, as was alleged, inadequate never was so extensive, so ubiquitous, so absolutely proper safeguards, as was undoubtedly the case in E more particularly in the southern parts, before the gr form of 1834, and it was certain that Scotland had ne to discuss the question of pauperism as a great pra question. For full discussion, however, of the in all its bearings in these islands it was ne to go to England. The independence of the ind citizen in his own home was the ideal organization of a and any system of public relief ought to interfere as lit possible with that organization. The effect of relief habits of the people was largely influenced by the from which it was drawn. Therefore it was impossible exaggerate the importance of utilizing, so far as possib agency which brought the least danger in its train. T English Poor Law ignored this consideration altogethe with disastrous consequences, and the real problem th to be solved by the reformers of 1834 was how to apply in tice the maxim that Poor-law relief should not be criminate.

The Scottish Ideal.—The Scottish ideal was always dif from the English. The foundation of the Scottish law wa against ordinary pauperism—that was, pauperism other that of the able-bodied; it was not thought necessa institute a test. The Scottish law simply ignored the bodied pauper. It altogether prohibited relief to hin they had not in their system, as originally designed, the house as a test, but as an asylum. Later, to some exte English use of the poorhouse as a test had been forced Scottish administration in self-defence. But the Scot system had always been, and would probably always be, n an outdoor system. The abstract legal right to relie better defined in Scotland than in England, but always the limitation that able bodied persons were not onl entitled to relief, but the administrative authority wa allowed to give it.

Children.—It would, then, appear to be indicated that case of children would first claim the attention of Congress. All matters respecting the treatment of those in early life became dependent on public support presented special difficulties of their own. Apart from the general qu tion how far was it right to relieve parents of their respo bilities, it was probably true that many things could attempted by private or voluntary action which it was easy for the State to do. The care of the children sh obviously be the responsibility of their parents. It was be for the children that this principle should be mainta even when their parents were not as wise or as fit for responsibility as they might be, and except in extreme ca or cases where the children must be removed to a spe institution, it was better to make every effort to teach parents to perform their duty rather than to relieve the those duties altogether.

Orphans.—They might, Lord Balfour thought, claim that care of orphans, and children deserted and separated fr their parents, had always been a special feature of the Scot system. In May, 1903, there were of all these classes ta together 7,110 children chargeable on the rates, of whom fewer than 6,195 were boarded out, or 87 per cent. of the wh number. The figures of the last ten years showed that number of orphans and deserted children had slightly creased, while those separated from their parents had creased from 1,296 in 1903 to 2,920 in 1904. There were m orphans than ten years ago, but their relatives and priv charity were doing more than was formerly the case, thou it might perhaps be said that the increase in the number children separated from their parents included many w

ıave been deserted if the law had not stepped in and
i them from their parents before actual desertion.
y some share in contributing to this result might be
to the operation of the Prevention of Cruelty to
n Act which was passed in 1894.

ing-out System.—Two efforts had been made to gauge
ılts of the boarding-out system, one by Sir John
in 1880, and a second by Mr. Peterkin in 1892. Sir
:elton dealt with the twenty years preceding the date
ıper, and came to the conclusion that the proportion
re was under 3 per cent., and that the boarding-out
by enabling children to lead a healthy life, produced
and manlier type of character than was the case of
ho had been from their earliest infancy shut up in
ıstitutions. Mr. Peterkin's results practically con-
the figures and inferences of Sir John Skelton.
linburgh, of 4,563 adult poor chargeable in
last, only 5 per cent. were known to have
reviously chargeable as boarded-out children; in
only one case of a former boarded-out child was
argeable; and in Glasgow, between 1882 and 1903,
ɔarded-out children were taken off the roll of the
ɔr of poor and absorbed in civil life, and only 52
own to have turned out badly, and had entered the
ıse. Forty-one others had become chargeable,
ɔn account of ill-health or insanity, but in many
ıe failure was due to constitutional incapacity.

ı Widows with Children.—Lord Balfour thought that in
e of young widows with children there was no
hardship in removing the boys from such a home.

lge Pensions.—He asked why old age was specially
as the risk from which individual responsibility
ɔe relieved at the public expense. It was not a sud-
r unexpected misfortune. It was in the indi-
discharge of this and similar responsibi-
that the economic competence of a nation
rnt and established as a character and habit. These
ons could not be remitted to the individual without
the centre of gravity of the community at large and
y with disastrous effect. Contributory schemes were
erred to.

ɔodied Adult Paupers.—On the question of able-bodied
ıupers, he thought that in many cases the authorities
use sufficiently the powers which they already possessed.

ment of the Sick Poor.—In dealing with this sub-
ord Balfour said:—"The whole question of the
ent of the sick poor is a most important one, and is
ɔrthy of the serious attention of those who are here
led. It has recently been made the subject of a most
tive and useful inquiry by a Committee of the Local
ment Board under Mr. Patten Macdougall, one of the
rs, but I cannot go at length into the conclusions at
hey have arrived. I venture only to say that I regard
ıdency in this country, which is, I am afraid, a
g tendency to put the whole treatment of the sick
ɔn an eleemosynary basis as both impractic-
d mischievous. Do I go too far when I say that the
ɔractice of our hospitals, infirmaries, provident dis-
es, friendly society, insurance, and even the work of
vate medical practitioner amongst the humbler classes
population is in a hopeless state of disorganization?
o much to hope that the treatment given by hospitals,
erly organized, could be made supplementary to the
ent of the sick poor by their own friendly society doctor
r own medical adviser, who, inasmuch as he knows the
nd habits of his patient, is better qualified to advise
ıe over-worked medical attendant in the out-patient
ment of a great hospital. If a second opinion, or it
an operation, is required, the privilege of obtaining
ght be put at the disposal of the friendly society or
b, and those who are deserving might be referred to
spital, or, in the last resort, to the Poor-law authori-
Everything should be done to encourage the head of
nily to become a subscriber of some form of medical
nce. I urge the discussion of whether some such
n of work might not be made. I dread the
on in which we are tending, and I believe our
ıls can never obtain enough money to meet the
g demand which the present policy seems to invite.
he said, and perhaps with truth, that the tendency to
I have alluded is less marked in Scotland than in
ıd. It is in the metropolitan area that it has come
ɔrominently within my notice, but it is not confined to
ea, and I am satisfied that those who look below the surface of things would acknowledge that a great and serious reform is needed if things are to be placed on a really sound and proper footing. If the Congress can do anything to educate public opinion in this matter it will have well justified its existence. I do not think I go too far when I say that there is no settled organization at the present time, and the work will have to be begun from the foundation."

Co-operation between Voluntary Agency and Public Relief.—On the question of co-operation between voluntary agency and public relief he thought that no system for relief of the poor would ever be really satisfactory unless there was full and organized co-operation between the two.

Family Life.—One of the most valuable elements in the social constitution of a nation was family life. Let them then cherish what there was of healthy home life in the community. Even among the rich this should not be forgotten. It was a fine and useful feature in a man to try to acquire a home of which he should be proud, for which he would have an affection, in which he would see a family grow up for whom he would be responsible. It elevated his tone of thinking and feeling not only in regard to private conduct, but also in regard to social and political duty, and it tended to produce the mental and moral conditions in which the highest form of patriotism would flourish.

Dr. Marie (Physician to the Ville Juif Asylum, Paris), who was the originator of the first Congress, then spoke.

The Earl of Mansfield moved a vote of thanks to Lord Balfour, who replied.

Sections.

The business of the five sections (Children, Old Age, Able-bodied Adults, Sick Adults, and Insane and Epileptics) was begun on Wednesday, June 8th.

Section I. Children.—The Earl of Mansfield presided, and there was a large attendance of persons of note. Miss M. Horn, of the London School Board, read a paper on Home Relief in Relation to the Feeding of Infants and School Children. Her object was to show that from the experience of the managers of Tower Street School the feeding of children from the school as a centre was an essentially bad method of relief, but that many other modes of home relief which tended to induce self-respect and independence on the part of parents could be successfully carried out by capable managers with the intelligent co-operation of the teachers. Experience went to prove that where they had carried out energetic and enlightened home visiting no child need fail to obtain relief if it required it; and, secondly, that private charity was sufficient to meet the demand for relief in schools. The demand for help was largely an artificial one, and was created in schools where it was known that relief was likely to be freely given. The parents were the proper persons to feed them, and the proper place to feed them in was the home. More systematic teaching was advocated in schools, girls' clubs, and mothers' meetings, of girls and women in the care of infants, young children, and the hygiene of the home. Managers should interest themselves in the housing condition of their districts. Charitable committees might be established in every school to promote hygiene, thrift, etc.

Dr. H. Wright Thomson, Assistant Surgeon, Glasgow Royal Infirmary Ophthalmic Institute, read a paper on home relief in relation to certain eye diseases in children.

Dr. Sandwith, delegate from the Infants' Health Society, London, described the objects of that organization, which had been called into being because "of the physical deterioration of the British race" and the enormous infantile mortality.

Dr. Robertson, Medical Officer of Leith, urged the importance of the due feeding of children, and the education of the very poor in the up-bringing of their children. At present between 70 and 80 infants a day were being fed from their local milk dépôt, and it was found that at the end of the year the death-rate among children so fed was practically *nil*.

Dr. Ronaldson (Haddington) made a plea for something being done to see that the feeding of children attending country schools, who had to walk several miles, was properly looked after.

Dr. Chalmers (Medical Officer of Glasgow) also urged the desirableness of the proper feeding of children.

Dr. Leslie Mackenzie, of the Local Government Board, said if they were to make anything of the race at all they must begin with the child.

Dr. Caverhill (Edinburgh) urged co-operative societies to undertake the distribution of milk in rural districts.

Miss Flora Stevenson (Chairman of the Edinburgh School Board) wrote from London, enclosing a statement as to the

method adopted by a committee in the City for feeding and clothing poor children, with the view of aiding the School Board in securing the more regular attendance of the children at school.

Miss FRANCES ZANETTI, Inspector of the Chorlton Union, Manchester, read a paper on The Protection afforded to Children by existing Poor-laws, and the necessity for further Legislation. The amendment of the Infant Life Protection Act was also urgently needed, in order to bring under inspection every case in which children were received or maintained, apart from their parents, for hire or reward.

Mrs. INGLIS, one of the Directors of the Edinburgh Committee, read a paper on The National Society for the Prevention of Cruelty to Children—Scottish Branch—and its Relation to the Home, the Law, and the State. Prevention was its aim. Its object was to find out and check the beginnings of evil that worked for cruelty and neglect. Home life was respected by the Society; parental control was strengthened, not weakened.

Dr. CLOUSTON spoke on the medical and scientific side of cruelty to and neglect of children. Continued excess in the use of alcohol weakened the moral faculty, and thus suspended and paralysed the great faculty of the love of offspring. He moved:

That, in the opinion of this Congress, measures be taken to obtain an amendment to the present Inebriates Act to the effect that "if continued neglect of children by a parent or guardian through intemperance be proved, such parent or guardian may on conviction be committed to a home for inebriates."

Mr. HECTOR MUNRO FERGUSON seconded, and the motion was adopted.

The PRESIDENT afterwards proposed the following two motions:

That, in the opinion of this Congress, a State children's council should be appointed by Government, either as a separate department or as an extension of the Education Department, with powers for the promotion and control of all measures relating to children, with a special view to the codification and amending of existing Acts. Also for the promotion of any further measures in Parliament that may be found necessary for the good of the nation through the children, who constitute the asset on which the future of the State depends.

That, in the opinion of this Congress, a committee be appointed to frame a Bill to consolidate and amend the existing law relating to children, and to provide for juvenile courts and a probation law, and conferring on such courts jurisdiction over all cases in which children are concerned, and that this committee do all in their power to insure that meantime all such cases be tried at a different time or in a different place to adults, and that children be kept apart from adults before, at, and after trial.

Mrs. INGLIS seconded the first motion, which was supported by Mr. JOHN MACDONALD, W.S., and adopted.

Mr. R. W. RENTON, Procurator-Fiscal of Midlothian, seconded the second motion, which was supported by Dr. CAVERHILL, and also adopted.

(To be continued.)

MEDICAL NEWS.

THE late Mr. Alderman J. S. Bartrum, of Bath, has bequeathed £250 to the British Medical Benevolent Fund.

PROFESSOR CLIFFORD ALLBUTT will present the prizes to the London (Royal Free Hospital) School of Medicine for Women on Thursday, June 23rd, at 4 p.m.

THE annual meeting of the State Children's Association will be held on Tuesday next at 13, Carlton House Terrace. The chair will be taken by the Earl of Crewe at 4 p.m.

THE King has selected Wednesday, July 6th, as the day on which he will lay the foundation stone of the new out-patient department of St. Bartholomew's Hospital. The ceremony will take place at 12.30 p.m.

THEIR Royal Highnesses the Prince and Princess of Wales have consented to open, on June 25th, the new sanatorium and convalescent home near Camberley which is to work in connexion with the Brompton Hospital for Consumption.

MR. WILLIAM FAIRBANK, Surgeon to His Majesty's Household at Windsor Castle, and Surgeon-in-Ordinary to their Royal Highnesses Prince and Princess Christian, has been appointed a magistrate for the county of Berks.

A SPECIAL general meeting of the Association of Public Vaccinators of England and Wales will be held at the Queen's Hotel, Leeds, on July 8th, at 4 p.m., to be followed at 7 p.m. by a dinner. Further particulars will be found in our advertising columns.

DR. D. HARVEY ATTFIELD, Director and Principal Medical Officer of the Suez Quarantine Office, has received the Imperial Licence to accept and wear the Imperial Ottoman Order of the Osmanieh, Fourth Class, conferred upon him by the Khedive.

AT a recent meeting of the Health Committee it was unanimously resolved that an honorarium of £30, together with an expression of thanks, should be offered to Mr. John H. Marsh, Medical Officer of Health for Macclesfield, in acknowledgement of the great services rendered by him last year in connexion with an outbreak of small-pox.

PROFESSOR ALFRED HEGAR of Breslau, who is now in his 75th year, will at his own wish resign his chair on October 1st. In recognition of his great services as a teacher and practitioner of obstetrics and gynaecology, the distinction of Privy Councillor of the First Class, with the title of Excellency, will be conferred upon him.

A FRENCH COMMITTEE OF MILITARY HYGIENE.—The President of the French Republic has signed a decree constituting a Superior Committee of Military Hygiene and Epidemiology. The Committee consists of Professor Brouardel (Chairman) and Drs. Bouchard, Cornil, E. Roux, Chantemesse, Chauffard, Kelsch, Claudot, Deldre, Catteau, Vallin, and Kermorgant.

THE annual meeting of the Poor-law Medical Officers' Association of England and Wales will take place on Tuesday, June 28th, at the Trocadero, Regent Street, W., at 6.30 p.m. At 7.30 the members and their guests will dine together. Dr. Farquharson, M.P., the President, being in the chair. Among the guests are expected to be present Dr. Hutchinson, M.P., Dr. Copeman, F.R.S., the Hon. Claude Hay, M.P., and Surgeon-General Evatt, C.B. Any Poor-law medical officer wishing to be present is requested to communicate with the Honorary Secretary, Dr. Major Greenwood, 9, Copthall Avenue, London Wall, E.C.

THE new Nurses' Home in connexion with the Northamptonshire Infirmary was formally opened at the end of last month. Its foundation met at first with a good deal of opposition, but the view was successfully urged that the interests of patients demanded that they should be tended by healthy and happy nurses of the best class, and that to secure these fresh accommodation was essential. The appeal made was finally so successful that the home has been started free from debt, and with something in hand by way of endowment. The movement was initiated by Mr. W. H. Folker, who, commencing as its house-surgeon, has now been connected with the infirmary over fifty years.

CHELSEA CLINICAL SOCIETY.—The seventh annual dinner of the Chelsea Clinical Society was held at the Criterion Restaurant, Piccadilly Circus, on June 9th, with the President of the Society, Dr. Vincent Dickinson, in the chair. After the usual loyal toasts had been duly honoured, the Chairman proposed the toast of "The Chelsea Clinical Society." He said that for the first time in the history of the Society the Honorary Treasurer, Dr. Cooper, was able to report that there was a credit balance. This was due to the increase in the number of members, and that increase he ascribed to the success which had attended the debates of the Society, especially the annual clinical debate. He then referred to the fact that one of the large medical journals had been compelled through want of space to forego printing the usual short accounts of their debates. But he was glad to be able to report that one of the monthly medical journals would in future publish a report of their proceedings, and the Council had appointed Dr. Foster Palmer as Editorial Secretary, for the purpose of preparing such reports. Sir Isambard Owen responded to this toast, and explained how the pressure of his work had prevented him from attending as often as he had wished at the meetings of the Society. The toast of "The Visitors" was entrusted to Dr. J. B. Ball, and this was replied to by the Mayor of Chelsea and by the Rev. Dr. Collison. Mr. Noble Smith proposed the toast of "The President and Officers of the Society," which was suitably acknowledged by the Chairman, who concluded his remarks by proposing the health of Dr. Foster Palmer, the newly-appointed Editorial Secretary, who in his reply said that he hoped that the reports would prove of value for those members of the Society who were unable to attend the meetings. One of the pleasant features of the evening was the musical entertainment contributed by the Rev. D. Collison and other amateurs.

BRITISH MEDICAL ASSOCIATION.

scriptions to the British Medical Association for ie year 1904 are now due and should be forwarded r postal order or cheque to the amount of 25s. the General Secretary, 429, Strand, London, W.C., , in the case of Colonial members, to their Branch reasurer.

British Medical Journal.

SATURDAY, JUNE 18TH, 1904.

HE HOME TREATMENT OF POOR CONSUMPTIVES.

treatment of the consumptive includes much les the endeavour to improve the health of the indivi- In tuberculosis, as in all communicable diseases, ment must aim at protecting others as well as at ving the patient. The treatment of tuberculosis is, s wider aspect, a matter of public health, and the er provision for treating consumption becomes thus a ern of the community.

preventive medicine incomplete measures are a e of danger since they give a delusive sense ecurity. It is well, therefore, to inquire ner our provision for the treatment of con- tion is adequate to meet the requirements ll classes and of the different stages of the se. Unfortunately, it is a disease which espe- affects the poorer classes, who are the able to afford either the money or the time requisite treatment. For these, therefore, some provision is d to make proper treatment possible. The establish- of consumption hospitals and sanatoriums, important seful as these institutions are, fulfils a part only of quirements. Only a minority of the consumptives ould be willing to enter these institutions can be ted, and many prefer, for various reasons, not to seek sion. Even those who obtain treatment in a hospital atorium cannot remain more than a comparatively time, and the treatment of consumption must lly be continued for months, and possibly years. large proportion of the sufferers from consumption e treated in their homes for at least part of their ill- nd supervision is desirable throughout. Amongst ll-to-do this is not unattended with difficulty; st the poor supervision is too often entirely absent. organization of home treatment for the poorer con- ves is a matter which demands more attention than far been accorded to so important a prophylactic e, and from the point of view also of the patient's ing supervision of home treatment is necessary. ll recognized that patients who leave a sanatorium mproved frequently relapse on return to their homes mer occupations, and the sanatorium treatment of ption is already being discredited by some because relapse of cases after discharge. It is not, however, atorium treatment is less satisfactory than was an- d by those who had studied the possibilities. The leteness of the results is due to the incompleteness of atment, which requires a longer time than most of er patients are able to spend in complete cessation rk. That the public has been brought to see the need for sanatoriums is a great thing, but already people are beginning to realize the limitations of the sanatorium treatment, and to express disappointment that the results are not so great as they had hoped. This attitude of the public makes the time most opportune for insisting on the necessity for more complete provision for ensuring home treatment amongst the poor.

The address on the Organization of the Home treatment of Pulmonary Tuberculosis, by Dr. Philip of Edinburgh, published in last week's issue of the BRITISH MEDICAL JOURNAL, draws attention to a scheme which has been in active operation in Edinburgh for the past seventeen years with marked success. The essential feature of the scheme is the establishment of dispensaries for consumptives, such as have more recently been founded by Professor Calmette, of Lille, and others in various places abroad. The scope of the Victoria Dispensary for Consumptives in Edinburgh, which may well serve as a type of what is needed, goes beyond the mere examination of patients at the dispensary. Careful records are kept of every patient, and visits are paid to the patients at their homes for the double purpose of treatment and of investigation into the state of the dwelling, the general condition of life, and the risk of infection to others. All who have visited the poor consumptive at home in any large town will recognize the need for some supervision of the kind indicated.

In Edinburgh the staff of the dispensary is assisted by nurses and a Samaritan Committee of ladies, who undertake the surveillance of the consumptive patients at their own homes. Although over 13,000 patients have been attended from the Victoria Dispensary there has been no refusal on the part of the patients to give all information that was sought, and the visits of the medical officers and nurses to their homes have been welcomed by the patients. This speaks well for the tact of those engaged in the work of the institution, and disposes of the possible objection to the scheme that the patients might resent or refuse the visits.

Some such scheme for the organization of home treatment of poor consumptives is greatly needed in London and other large centres of population, but it is doubtful whether we can rely on voluntary benevolent enterprise for the required organization. Local authorities—municipalities and Boards of Guardians—have already interested themselves to some extent in the matter of sanatoriums for the treatment of poor consumptives. Such bodies might well take into consideration the provision of consumption dispensaries and the organization of home visits to consumptives. The advantage to the community would more than justify the expense involved, and in all probability more valuable results would be obtained for a given sum in this direction than could be obtained for a like amount expended on a sanatorium.

The organization of home treatment of consumptives does not in itself form a complete plan of campaign against the scourge of tuberculosis any more than does the provision of sanatoriums. Both are needed, as well as homes for the advanced cases and colonies for the employment, under supervision, of the arrested cases until these may safely be left to themselves.

The provision of consumptive dispensaries with home supervision would, however, be a great step towards the more efficient control of tuberculosis, and the time is ripe for entering with energy on this further stage of the campaign.

THE PROPHET OF THE NEW ZION.

IF the secret of greatness lies, as one is often tempted to think in these days, in notoriety, John Alexander Dowie may justly be looked upon as one of the greatest men of this or any other century. Even Barnum was not more widely advertised. Barnum, however, paid for the advertisements of his show, whereas the newspapers seem to vie with one another in advertising Dowie for the pure love of the thing. That the doings of a man, the least offensive part of whose vulgar personality is that he is a blatant quack, should for days fill columns of our principal papers, suggests the reflection that our race is undergoing moral as well as physical deterioration. Dowie's "descent" on London, his visit to Berlin, and his "invasion" of New York a year or two ago, are like nothing so much as an immensely-enlarged reproduction, with the humour left out, of the chapter in Henri Murger's *Vie de Bohème*, in which the thrilling story of the hunt of the five-franc piece is told. It is pitiful, however, to read of the paralysed men and ailing women and children waiting in vain in simple faith for the coming of the Prophet whose precipitate Hegira must have been felt by them as an abandonment. The whole career of the man is a striking illustration of the ease with which an impudent impostor can make the world his oyster. The qualities needed for success are in the words of Danton, *De l'audace, de l'audace, toujours de l'audace.*

Dowie's theological pretensions as founder of the "Christian Catholic Church in Zion" and "Elijah the Restorer" do not concern us, but as one of the chief professors of the faith-healing which now finds so many devotees among people who call themselves educated some account of him may not be out of place in a medical journal. He was born at Edinburgh in 1847. When he was thirteen he went with his parents to Adelaide, South Australia. He was in no way remarkable as a boy. For seven years he earned his living as a clerk in a store. At the age of twenty he returned to Edinburgh and studied for the ministry. In due course he was ordained in Australia, and was called to the Congregational Church at Sydney. In 1878 he was moved to build a tabernacle for himself in Melbourne, and there, founding himself on the promise made to those who have faith that "they shall lay hands on the sick and they shall recover," he claimed the power of healing. His first patient was his wife, whom he cured of headache by the laying on of hands. Encouraged by this success, he at once began the war against scientific medicine which he has continued to wage ever since. He collected all the works against medicine that he could find, and searched them diligently for material with which to attack doctors. He founded a Divine-Healing Association, of which he made himself the President. His ambition grew with success, and in a short time his Association was absorbed into the International Divine-Healing Association, of which, also, he appointed himself President. Going to America on an evangelizing tour, he reached Chicago in 1890. He was remarkably successful in one of the elements of missionary enterprise—the collection of funds. In 1893 he planted himself near the World's Fair gate in Chicago. There he preached, day and night, seven days a week, and when not preaching he was healing the sick. It is estimated that hundreds of thousands must have gone to him during the World's Fair. Sometimes he laid his hands on more than a thousand persons in one week, and by hundreds of these his praises were sounded all over the States. His success, it is said, was not confined to cases of hypochondriasis. Cripples came to him on crutches and went away cured; paralytics were borne in on litters and took up their beds and walked. Each of these cures was advertised by Dowie as a direct testimonial from God. At the back of his pulpit he put up crutches and other *ex-votos*, and by means of these he worked on the minds of the people. Contributions flowed in from the faithful, who rapidly increased in number. Then came "persecution" to put the martyr's crown on the Prophet's popularity. In 1895 he was arrested about a hundred times for violating ordinances as to the care of the sick, but he managed always to get bail in time to avoid being locked up. When fines were inflicted he appealed, and before the end of the year he had spent £4,000 in lawyers' fees and costs. But he defeated the ordinances and won his cases, and the advertisement was doubtless worth the money.

The International Divine-Healing Association becoming too narrow for his expanding genius, he formed a larger organization, the Christian Catholic Church in Zion, and appointed himself General Overseer, a position which gives him absolute control not only of the faithful but of the funds. Under the business-like direction of its astute pontiff Zion prospered exceedingly. But after a time the "healing" practice made Chicago too hot to hold him. The authorities showed so great a disposition to bring him before the grand jury on a charge of malpractice whenever his patients died—as they sometimes had the bad taste to do—that he found it convenient to seek fresh fields and pastures new. He collected money sufficient to purchase six thousand acres of the finest land in Illinois on the shore of Lake Michigan, forty-two miles north of Chicago. There he built Zion City, which has now ten thousand inhabitants. Of this city Dowie is not only the spiritual head but the absolute autocrat. The curious spectacle is thus presented of a community forming part of the great Republic of the West living under the despotic sway of one man. The use of alcohol, tobacco, pork, and oysters is strictly forbidden to Dowie's subjects, and medical practitioners are excluded from Zion City; in the terse formula of the prophet there must be "no pigs, no pills, no physicians." It is not only practitioners of rational medicine that he denounces; he is just as fierce in anathematizing rival faith-healers. In New York he called Mrs. Eddy an anti-Christian impostor.

It is claimed that Zion is an exceptionally healthy city, and as industry is made compulsory and the rules of natural hygiene are enforced, we are willing to believe that there is a corresponding absence of preventable disease. As quack medicines are prohibited as strictly as scientific remedies, a fertile source of ill-health in America is closed to the citizens of Zion. Dowie's son is reported to have stated not long ago that during the previous two months not a single death had taken place in Zion City among persons under 35 years of age. He added that plenty of babies had been born during that period, but "doctor's medicine and instruments played no part in childbirth, the mothers being attended by competent maternity deaconesses." A very different version of the mortality rates in Zion City was, however, given by a person who had visited the cemetery in that place, and who reported that the death rate was something over 35 per 1,000, a very large proportion of the deaths being of infants under 1 year.

However this may be, it is certain that, although Dowie

ld over his followers may be primarily due to belief in s spiritual powers, it has been immensely strengthened his supposed gift of healing. It need not be doubted at "cures" of functional diseases have been cured by th in him, as they are known often to yield to suggesn from the most diverse sources. Naturally organic eases defy his praying machine, but he shows wonderingenuity in explaining away his failures, even when ey are, like Falstaff's lies, gross as a mountain, open, lpable. The death of his own daughter was attributed him to her "sin" in using a spirit lamp in order to curl r hair; in other cases the misadventure is said to be the uit of want of faith. One notorious case may be cited, it well exemplifies the subtle quality of Dowie's logic. A man, supposed to be actually in childbirth, who had been orously prayed for by the Prophet, died. An inquest was d, and the medical evidence showed that there had been confinement, but that death had been caused by cerebral morrhage. As it was admitted that her life could not e been saved by medical treatment, Dowie was uitted. He was challenged, however, to explain how it that his prayers had failed. He replied, "If one has sufficient faith, God cannot cure him. Mrs. —— had , and she died." To a further inquiry, "How do you w she had not?" he calmly answered, "Because she d." The most extraordinary part of the story is that woman's husband, a hard-headed man of business, perfectly satisfied with this explanation.

nother excuse frequently put forward for failure ure is that the patient has not paid his tithes. Every nber of Dowie's church must contribute a tenth of his me. The amount thus given into his hands is enors, but no account of it is vouchsafed by the Prophet. his "cures" no fee is charged, but he does not refuse ings from grateful patients. There have been many ours of financial embarrassment in the Church of Zion, there can be little doubt that the object of Dowie's asions" of London, New York, and other places, has not so much the spread of his evangel as the collecof funds. Dowie's personal property is estimated at 00,000.

e combination of religiosity and quackery is always cially repugnant to persons in whom the sense of sty, which is an elementary instinct of normal anity, is not obliterated; and this combination has r been exhibited in a more loathsome form than by mpostor who calls himself "Elijah the Restorer." The sh people is to be congratulated on the good sense h it has shown in decisively rejecting him and his gel and his pretended gift of healing.

THE EDUCATION (SCOTLAND) BILL.

Education (Scotland) Bill, a measure from which results are anticipated, has been passing through the nittee stage in the House of Commons this week. lly, the Bill proposes to abolish the parochial school of the past, and to substitute therefor much larger of administration, including four very large nerated districts"—Glasgow (including the contiguous al areas of Govan, King's Park, Partick, and Ruther- Edinburgh (with Leith), Dundee, and Aberdeen. e rest, it is proposed that the rural Local Government icts," formed under the Local Government Act of with any burghal areas that may lie within their s, shall form the units of administration both for primary and secondary education. It is provided, however, that on the appeal of any of the parties concerned, the Secretary for Scotland may unite "districts" into county units of administration. All this implies something of the nature of a revolution in matters educational in Scotland, and the provisions of the Bill are at the moment the subject of animated discussion over the breadth of the land.

While the purely educational aspect of the Bill has been exposed to a quite microscopical review, it contains provisions having great potentialities in relation to the physical well-being of the nation, which have almost escaped attention. One clause provides that School Boards may expend money in providing for the physical training and recreation of the pupils within their education district, and for their medical examination and supervision. Another clause empowers the Education Department, out of a central fund, to undertake "such sanitary or medical or other special examination or supervision of schools under the inspection of the department, as the department may from time to time see fit to undertake."

At the first blush these proposals appear deserving of all praise. Indeed, they mark a great advance in public sentiment on the subject of physical training and medical inspection. More closely examined, practical difficulties and objections begin to appear. In the first place, it is seen that the establishment of a system of medical inspection and physical training is not obligatory upon the new educational authorities. They "may" carry out such a system. Again, no uniform standard or system of medical inspection and physical training is suggested. Under the Bill each educational authority would be a law unto itself. In this way a fine opportunity is likely to be lost of establishing a scientific system of physical examination of children upon uniform and comparable lines over the whole country. This examination might not enter into detail in the same degree all over the land, but up to a certain point of detail it ought to be possible to compare the results of the physical examination of children in every parish from the Solway to John O'Groats. In time this would result in a large collection of illuminating facts.

Again, under the Bill as it stands it is possible for the following complication of jurisdiction to arise: First, the sanitary authority and the medical officer of health will continue, under the Public Health Act, to deal with the plans of new schools so far as health conditions are concerned, with the sanitation (heating, ventilation, sanitary conveniences, cleanliness, etc.) of existing schools, with infectious diseases amongst children, and in connexion with schools (there are special powers in Scotland dealing with this subject). Secondly, it will be open to the Education Department to appoint inspectors to cover exactly the same ground; and, in the third place, the educational authorities may appoint medical inspectors for the medical examination of school children, and to deal with suspected cases of infectious disease amongst the children and in the households from which they come. In all this there are possibilities of endless trouble and friction between the sanitary authority, the local educational authority, and the Education Department, and more particularly between the officers of these various bodies.

We are very clearly of opinion that while the Education Department may require the services of a medical officer to advise them in supervising and co-ordinating a system

of medical inspection of school children and schools; for the rest, the best results would be obtained by developing the existing local machinery in co-ordination with the work of the educational authority. We trust that it may yet be found practicable to formulate a scheme under the Bill which will secure a national and uniform system of medical examination and physical training for school children over Scotland, without the erection of rival and clashing jurisdictions.

THE LOCAL GOVERNMENT BOARD IN ENGLAND.

The Committee appointed by the Treasury on July 18th, 1903, to consider "the position and duties of the Board of Trade and the Local Government Board, and .... whether any, and if so what, alterations should be made in the constitution and status of those offices; also whether in the interests of administrative efficiency any rearrangement of duties between those and other Government departments is desirable," has presented its report. The Committee considered that by the terms of the reference its attention was confined to the constitution of the departments as exemplified by the position of their political chiefs, and in certain other respects has taken a somewhat narrow view of its functions. The Committee reports that Sir Michael Foster, who appeared before it on behalf of the Public Health Committee of members of the House of Commons, suggested that the duties of the Local Government Board in the matter of public health should be separated from the other duties of the Board and entrusted to a distinct staff, under the direction of a Parliamentary Secretary for Public Health. The proposal was advocated principally on the ground that the work of the Department was so heavy that the staff had no time to "look adequately ahead." The Committee also had before it a Memorandum[1] from the British Medical Association urging, first, that the President of the Local Government Board should be a Secretary of State, and that the department in all matters of State emoluments should be placed on an equality with the departments of Secretaries of State; secondly, that the President should be assisted by a Board, meeting for the transaction of business, and containing expert members, one of whom at least should be a registered medical practitioner, in accordance with the precedent established by the recent creation of a Scottish Local Government Board; and, thirdly, that the duties of the Local Government Board should be extended so as to comprehend those in respect of the administration of the Medical Acts, the Dentists Act, the Midwives Act, and the Pharmacy Act now imposed upon the Privy Council. It was further pointed out that the propriety of transferring the duties under the Adulteration Acts and Factory Acts to the same Board called for consideration. Lord Jersey's Committee, in dealing with the Local Government Board, has practically confined itself to recommending that the salary of the President should be raised to £3,000 a year, that of the Parliamentary Secretary to £1,500, and that of the Permanent Secretary to £2,000. With regard to the salaries of other officers of the Local Government Board, the Committee merely points out that their salaries are fixed at a lower rate than in certain other departments, but states that it does not understand that the question was specifically referred to it, and that the remuneration of the clerical establishment was settled in accordance with the recommendations of a committee which reported in 1897. With regard to the suggestion put forward by Sir Michael Foster, the Committee reports that a separation of duties would in practice be attended by considerable difficulty, and that the change would do away with or diminish the advantages of the present system, under which the President can rely not only upon the professional opinion of the medical officer of the Board, but also on the general administrative experience of the Permanent Secretary. The Committee furt reports against proposals to transfer business from o departments to the Local Government Board, on the gro that it would be undesirable to add to its labours. Ic tically the Committee has left matters very much as were, and it will, therefore, be necessary for the Assoc tion to continue to bring to public notice the rea which have led to the conclusion that the reorganiz of the Local Government Board in England is necessar the interests of public health.

[1] Supplement to the British Medical Journal, March 19th, 1904, p. 35.

THE RESPONSIBILITY OF A SURGEON FOR H ASSISTANTS.

The case of Byrne *v.* Thorne, reported in the Brit Medical Journal for June 11th, page 1408, raises cer points of interest to the medical profession, especiall operating surgeons. The case was one in which a spo left behind in an abdominal operation, subsequently ro rise to an abscess, and was extracted at a second opera by another surgeon. The first operation was performe a nursing home, and the duty of keeping a tally of t sponges was delegated to the superintendent of the ho who is a trained nurse. The operation was complic and difficult, and no question arose as to the skill w which it was performed. It may be noticed in pas that the surgeon received no fee for the operation. questions left to the jury were: (1) Was the defen guilty of a want of due and reasonable care in the coun or superintending the counting of the sponges? (2) a the nurse who counted the sponges employed b the defendant as assistant during the operati (3) was the nurse so employed negligent in coun the sponges? (4) was the counting of the sponge vital part of the operation which the defen undertook to see properly performed? (5) was the n under the control of the defendant during the operati The jury found a verdict for the defendant on all th points. The form in which the questions were left to t jury appeared to show that the judge in this case held a the question whether the operator is to be held liable every accident that happens, and responsible for every i on the part of assistants and nurses, is one to be left the jury in actions of this nature. If this principle been followed in this case in the spirit as well as in l letter the pecuniary consequences to the defendant w have been less serious, and the importance of the cas the medical profession at large would have been m smaller. The jury, after prolonged consideration, w answering in the affirmative all the questions a enumerated stated that in their opinion it was not a for damages, which they assessed at one farthing. We probably right in assuming that the jury intended it to understood that the term "negligence" could applied to Miss Thorne's conduct only in a techn sense; and we shall perhaps be correct in conclud that the jury were influenced by the consideration that surgeon who has to conduct a long and difficult opera may justifiably delegate to an experienced assistan nurse such a detail as that of counting sponges and ins ments, and that it would not be to the ultimate advan of the patient that the surgeon's mind should be tracted by this added source of anxiety. In cases wh have been decided in the High Court it has been laid d that a surgeon is liable only for the natural and reasona consequences of the proper carrying out of his directi and not for injuries which are the result of the negli of other people in improperly carrying out his instruct The judge, however, who appears to have made up mind at an early stage of the case, refused to accept opinion of the jury that the damages should be nomi He stated that the finding with regard to dama was inconsistent with other findings and sent the j back to reconsider the matter; they returned into c and expressed the opinion that the case was not one damages, the operation having been performed without but were again sent back to consider to what extent plaintiff was damaged. The defendant's counsel made

effectual protest against the intervention of the judge. hen the jury eventually returned into court they said at the plaintiff ought not to have more than £25 for pain d suffering. This verdict, of course, carries costs, and ile the Medical Defence Union, of which the defendant a member, bears all the charges of the defence, the nages and the costs of the plaintiff fall upon the endant personally. If Mr. Justice Bruce, who has ce retired, is to be followed by other judges in the w he took of the responsibility of a surgeon for ry detail, and for the act of every person engaged or about the operating room, the result of s action must eventually have a serious influence operative surgery. Apparently Mr. Justice Bruce uld have held that if, for instance, a surgeon directed a on to be prepared of a certain strength, and an assistant de a mistake so that some injury was done to the ient, the surgeon should be held responsible in damages. case, indeed, opens up an unpleasant vista of possi- ties, and it is not surprising to hear that surgeons are ously considering whether it may not be necessary to an indemnity from the patient. It is not to the in- st of the public that legal technicalities should be per- ed to intrude between the patient and the relief which gery can now give in so many cases formerly con- ned to hopeless suffering or early death. A generation in all probability no surgeon would have ventured perate on this patient at all. To-day she is alive and and her surgeon is mulct in damages and costs he amount of some £250. The only satisfaction h Miss Thorne can obtain from this verdict is that the judge and jury found that she had shown elf to be a most skilful and accomplished surgeon. this we fear she must be satisfied as we hear owing to certain circumstances in connexion with judge's ruling rendering it unlikely that an appeal d succeed, the verdict must be accepted. As we have Miss Thorne becomes liable for the damages awarded lso for the plaintiff's costs, which together are estimated nount to about £250. As will be seen from a letter shed in another column, a fund is being raised to Miss Thorne in meeting this expense, and subscrip- will be received by Dr. Walter Tate, 32, Queen Anne t, London, W.

THE PATHOLOGICAL MUSEUM AT OXFORD.

ill have been gathered by those who have read the es which have appeared in our columns at various since last December, the Committee which has taken the duty of collecting specimens and exhibits e Pathological Museum to be held during the annual ng of the British Medical Association at Oxford at nd of July has made great efforts to render the tion interesting and useful. Apparently the sugges- made by Mr. Jonathan Hutchinson in a letter hed in our columns on June 4th were all more or ticipated by the Committee, which issued a circular[1] ovember explaining the arrangements it was pro- to make. As will be seen by the article published Supplement to the Journal last week (p. 180), the ts will be classified under seven headings, and lition to microscopical preparations, photographs, gs, and skiagraphs, there will be an exhibi- lustrating colour photography, and of apparatus in pathological and clinical laboratories. Special ions of specimens bearing on the discussions various Sections will also be arranged. The ttee has now issued a further circular embody- e facts contained in the article published in the Medical Journal of June 11th, and stating e Museum will occupy the dissecting room at the ment of Human Anatomy, University Museum, which is in close contiguity to the meeting places he Sections. It is hoped also that it will be pos- arrange for demonstration of specimens and in- nts by the exhibitors at stated times. The circular s the additional statement that, as the preparation of the museum catalogue will shortly be begun, notices of the exhibits must be received by Dr. Ainley Walker, Secretary of the Committee, University College, Oxford, not later than June 20th. There is, we understand, every promise that the museum will be a great success.

[1] British Medical Journal, December 12th, 1903.

THE RISKS TO LIFE IN LONDON.

The Police Committee of the Corporation of the City of London, which is to receive a deputation from the Metropolitan Street Ambulance Association on June 29th, will have an advantage not always possessed by official bodies which are called upon to accord interviews. To a considerable degree it will be able to meet the expert deputation on its own ground, and the chances of a happy outcome to the interview should be thereby greatly enhanced. In spite of the fact that over fifteen hundred and more street accidents happen within the City boundaries every year, there has never yet been any organized method of removing the sufferers to the hospitals, and it is frankly recognized that this state of affairs is not only dangerous to the individual, but not altogether creditable to the greatest and otherwise one of the best managed cities in the world. No definite step towards remedying matters was taken for a long time, but early last year the Police Committee called upon its principal executive officer to consider the matter, and to put in a report as to what might be done. This instruction was duly carried out, and Captain Nott-Bower presented an elaborate review of the whole question, which contained a detailed scheme by which both the needs of the City as regards ambulance work and its needs as regards a small body of mounted police were met by the same organization. So far the City, though it requires and uses horses for a variety of purposes connected with the police, has never had a mounted force of its own, but when mounted men have been required for escort or street clearing has either borrowed or hired them from other corporations. The scheme to which reference has been made will, if carried out, put the City in advance of the rest of London as regards ambulance work and make it self-dependent for mounted police duties, and, while the nett cost is estimated at considerably less than £1,500 a year, it would appear, from a medical point of view so far as we are acquainted with its details, to be everything which could be desired. Thus two definite ambulance stations are provided. One worked in connexion with St. Bartholomew's, and the other, situated midway between Guy's and the London Hospital, each with a horse ambulance summonable, either by private telephone or from street call boxes, and placed in constant day and night medical charge of a fourth-year medical student. Fresh from its consideration of this report, the Police Committee will be in a position to discuss the matter with the deputation in all its bearings and in sympathetic vein. A favourable ending to the interview would, indeed, appear inevitable, for, with public opinion at its back, a complete scheme ready to hand, and an executive officer of special experience in this connexion, in the person of the Commissioner of Police (Captain Nott-Bower, formerly of Liverpool), at its command, the Police Committee is not likely to refuse to face the situation.

VISION OF UNIVERSITY STUDENTS.

At a meeting of the Aberdeen University Anatomical and Anthropological Society, recently held under the presidency of Professor Reid, Dr. Stoddart read a paper on "statistics obtained from observations of the eyes of 400 students." The observations had been made in the Anthropometrical Laboratory at Marischal College for the most part by Dr. Usher, and with his assistance Dr. Stoddart compiled the statistical results, a compilation unique in the history of British university anthropometry. Dr. Stoddart reviewed the subject under the following heads. As regards acuteness of vision, the statistics obtained compared favourably with those obtained by other observers. The proportion of Aberdeen students with short sight was shown to be much smaller than that found by similar observations in German and American universities. In the Aberdeen University the proportion of short-sighted

students was only 18.7 per cent., compared to 28 per cent. in some American universities and 59 per cent. at Breslau University. Another point brought out was that short sight was much more frequently found in students coming from towns than in those from country districts. The present idea that in short-sighted eyes the pupil was usually larger than in eyes with normal vision was contradicted by these observations, which showed a larger average pupil in long sight than in short sight. With regard to the colour of the eye, it was shown that dark eyes were much commoner in those with dark hair and skin. In the group of those with red hair a larger proportion of the eyes were of a grey colour than in the other groups. Acuteness of vision was found to depend little, if at all, on the size of the pupil or the colour of the eye. Light-coloured eyes were found to have a slightly larger pupil than dark or grey-coloured eyes. Three per cent. of the students were found to be colour-blind.

FORMALIN AND SKIN DISEASE.

DR. MONCKTON COPEMAN'S Report to the Local Government Board on an Outbreak of Epidemic Skin Disease at the Central London Sick Asylum, Hendon, which has recently been issued, points to a danger from the employment of certain preservatives in milk, and possibly in other articles of food. In September last an outbreak of dermatitis occurred in the Hendon Hospital of the Central London Sick Asylum District which Dr. Copeman was instructed by the Local Government Board to investigate. The malady appeared to be the same as has been noted in various metropolitan infirmaries, and which was described in 1895 and 1896 as "epidemic skin disease." In the Hendon epidemic the type of the disease was less severe than in previous outbreaks, and though 68 persons were attacked there were only 2 deaths. In previous outbreaks there had been reason for suspecting that the milk supply had played some part in the causation of the disease. In this instance also inquiry pointed to the milk as a probable cause, and on those suffering from the malady being put on Swiss milk they all began to improve. Samples of the milk remained good for so long (three or four days), in spite of unfavourable weather, that there was consequently strong presumption that some preservative had been added, though this was denied by the contractor. A subsequent analysis of some of the milk showed the presence of formalin. The presence of formalin in milk is undesirable for reasons apart from its possible connexion with epidemic skin disease. If, as is stated, 15,000 gallons of formalin (40 per cent. solution of formic aldehyde) have been sold to milk vendors in one year, some check must be put on the use of this preservative in milk.

WAR AGAINST CANCER.

DR. R. LOMER, of Hamburg,[1] in an article published in a German periodical does not despair even of "inoperable" cases of cancer. He implies that a free use of the actual cautery as well as of the curette may convert a case of this kind into one suitable for operation. The article deserves careful study; its principles are preferable to those enunciated in certain paragraphs on "merciful murder," to which we have recently had occasion to allude. Lomer believes that the cachexia and anaemia in themselves have an influence in checking the advance of the terrible malady, and may be made use of in association with treatment. Winter, of Königsberg,[2] has engaged in a deliberate "campaign against uterine cancer" in East Prussia. In 1902 he sent round a kind of pamphlet or syllabus to all members of the profession in that province, a printed paper of instructions to all midwives, and a note to every operating specialist asking for a note of each case of uterine cancer under his care. He likewise took the somewhat original course of causing a *Mahnwort an die Frauenwelt* or exhortation to womankind to be published in the leading East Prussian newspapers. The text of these pamphlets and notices is given in full in Winter's monograph on the subject. The results of his efforts, now published in the *Zentralblatt*, include reports of 84 cases under observation in 1903. Even quacks were consulted, for there seem to be "cancer curers" in Tilsit as elsewhere, and Winter mentions incidentally that they have been the cause of litigation. But they have not, it would appear, condescended to reply. The legitimate practitioners and midwives have been very careful in looking out for haemorrhages and other familiar primary symptoms, and they as well as the women of East Prussia seem to have recognized the importance of an early examination. Indeed 45 cases of cancer were first detected by the patients' usual medical attendant, and Winter shows that the practitioner is much more on the alert now than he was a few years ago, so that soon he will insist on an early examination as a matter of course. In the present group of cases no less than twenty-five pieces of doubtful tissue from the cervix, fragments procured by curetting and other suspicious structures were sent to him and one-fifth showed undoubted signs of malignancy. It is highly advisable that medical men should be encouraged to send histological samples of this kind to experts. Winter's statistics, resulting from one year's work, are of high interest. He registered under each case the space of time between the day that the patient noticed the first symptom and the day that she sought medical advice, and also the time between the reception of medical advice and the operation. The conclusion is that women in East Prussia submit much more readily to operation than they did a few years since, and seek medical advice much more frequently and earlier, thanks it would appear to the judicious alarm inspired by the exhortations in the East Prussian press. Winter considers that his campaign against uterine cancer has proved highly successful. It is certainly of interest to us, especially in relation to the efforts of the Cancer Research Associations in London, Liverpool, and elsewhere.

[1] Zur Frage der Heilbarkeit des Carcinoms. *Zeitschrift f. Geb. und. Gynäk.*, vol. 1, Part 2.

[2] "Der Erfolg der 'Bekämpfung des Uteruskrebses' in Ostpreussen," *Zentralbl. f. Gyn.*, No. 14. 1904, p. 441. See also Winter's monograph, *Die Bekämpfung des Uteruskrebses.* Stuttgart: Enke, 1904.

THE FISH THEORY OF LEPROSY.

IT will be remembered that a few months ago the *Times* took the fish theory of leprosy under its wing in the shape of a leader couched in very decided terms. Apart from the fact that the leading newspaper has no medical authority to speak on the subject in such a dogmatic way, it may have been remarked that apparently no contagionist was permitted to express the generally accepted opinion of the medical profession on the point at issue. The contributions, lengthy and frequent, of Mr. Hutchinson to the *Times* have brought us a letter, also lengthy, from Dr. W. P. Rodrigo, of Bangkok, Siam, whose experience of leprosy in Ceylon is in opposition to the fish theory. He points out that even among the poorest in Ceylon there is a greater loathing for decomposing flesh and fish than in England, and no one eats any fish or flesh that is not thoroughly cooked. He insists, further, that this is a fact nobody can gainsay, and yet leprosy is common. On the other hand, Dr. Trail Skae has distinctly stated in these columns[1] that much decomposed fish is still consumed in Shetland and Orkney nevertheless, he is not aware of any case of leprosy occurring in those islands within living memory. As far as Dr. Rodrigo is concerned, it may be added that he considers the bacillus leprae has a telluric existence outside the human body, much like the bacillus of tetanus, and has a predilection for fish-clogged soil. He is of opinion, however, that the bacillus soon dies outside the human body. He is of opinion, also, that the micro-organism is introduced into the human body by inoculation and not by ingestion. Some of the objections brought forward by Dr. Rodrigo have been made before, but the foregoing is briefly the gist of his lengthy communication. It should be pointed out here that Continental leprologists have long ceased to discuss the fish theory, and they are a little astonished to see so much

[1] BRITISH MEDICAL JOURNAL, vol. ii, 1903, p. 1

tion given to it in this country. Practically the only lder of it is Mr. Hutchinson himself, and he has tted that there is good reason for believing that the se is communicable from person to person. This alls "commensal communication," which is merely ıer name for contagion.

A PARADISE OF REST IN THE PACIFIC.

ICHOLAS SENN, the well-known American surgeon, has holiday making in Tahiti, and records his experience ecent number of the *Journal of the American Medical iation*. From his description Tahiti might be the land ich it seemed always afternoon, where the lotus-eaters t the weariness of the oar and the hardships and ers of their wandering life. Dr. Senn thinks that, notstanding all that has been written of the beauty of the l, justice has not been done to its manifold charms. peaceful, sleepy little island is, he says, an ideal for physical and mental rest. Nature has provided ntifully for the wants of the natives that there is no for them to toil or to spin. The climate of Tahiti, h tropical, is favourably influenced by the trade and frequent showers; the breezes from ocean and keep the heated atmosphere in motion most of the nd night. The whole island, from the shore to ighest mountain peaks is covered with forests and ant vegetation which retain the moisture and attract ouds, securing throughout the year a sufficient rainfeed the numerous streams, and to water the rich the mountain sides and valleys, and the lowlands the shore. The temperature seldom exceeds 90° F., uring the coldest months, March and April, it onally falls as low as 65° F. For a winter holiday offers special attractions; the best time to go is ry and February, which are spring months there. To who are in need of rest and are fond of a long ocean e and enjoy tropical scenery, Dr. Senn strongly mends a visit to the island, which he calls a little se in the vast expanse of the Pacific. The invasion island by Europeans during the last century ne much to destroy the original Polynesian type tive. Dr. Senn thinks that the beauty of hitian women has been exaggerated by impress- writers. Robbery and murder are almost unknown, ty thefts are common. The morality of the natives eteriorated since they have come into close tion with white men, and civilization has, as usual, t disease and death in its train. The island has epopulated by measles, whooping-cough, influenza, berculosis. The people, who, according to Cook, red 200,000 in 1767, were less than 20,000 in 1797, and 5,000 in 1803; now the population is about 11,000. ench Government has recently sent three phyarmed with full powers to enforce all the sanitary ions which they may deem necessary. Malaria is lthough plasmodium-carrying mosquitos are nu-. No case of typhoid has been known to originate island; this exemption is attributed to the nt supply of pure drinking water from numerous in streams. Varicose veins, varicocele, and hydro- very common. Venereal diseases are widespread, hilis runs a mild course. Leprosy is not so pre- as in the Hawaiian Islands; segregation has een attempted, and sufferers are not shunned. f them, however, who are much disfigured by the usually withdraw to an island where a leper colony n formed. Elephantiasis in its worst forms has firm hold on the natives, and Europeans become ble to the disease after prolonged residence. The hospital at Papeete is the only one in the French possession of the Society Islands which have a ion of 30,000. As some of these islands are more miles apart, the natives have no help in sudden r injury, and transportation of the sick by small rs or canoes to Tahiti from far-off islands is slow etimes dangerous. The hospital admits about 350 each year. There are only two educated doctors in he Government physician and a retired medical officer of the French navy, who is the only private practitioner in the whole group of islands. The Tahitians pin their faith on the native doctors, who are to be found in nearly every village, and who are important members of the community in which they practise. They make use of roots, bark, and herbs, which together with advice are given freely to all comers without charge.

MISSIONARIES AND MEDICINE.

LIVINGSTONE COLLEGE, Leyton, held its annual Commemoration Day on June 9th, the special feature of this year's meeting being the installation of some new laboratories. We discussed the objects of this institution and the general subject of missionaries and the practice of medicine at considerable length last year,[1] and have little to add to what was then said. We believe that the education given in elementary medicine and tropical hygiene at this College is sound, and that so far as the object in view consists in teaching the future missionary how to take advantage of modern science and guard himself and his dependents from the risks to which he and they will be subjected in tropical countries it deserves the fullest approbation. It is indeed a self-evident proposition that men intended to work in isolated positions in the tropics should be taught how to keep themselves in reasonable health, and it is not a little surprising that the great missionary societies make so little use as they do of the facilities offered by this College. Any approval, however, accorded to the second object of the instruction given at this College must be of the most qualified nature. This is to help the missionary to take advantage of the confidence which the "native" all over the world shows in the white man as a doctor. The only thing in this respect which can be said in favour of the College is that possibly those who have been taught there for the full term of nine months may be more ready to recognize their own limitations than the ordinary run of unqualified practitioners. The general principle, however, remains the same. As to the individual missionary who tries, as far as he can, to relieve the sufferers whom he encounters, or who occasionally yields to the temptation to take advantage of the influence which an assumption of a knowledge of medicine will give him among the natives whom he is trying to convert, we have nothing to say. But the conduct of those who are responsible for the general administration of missionary enterprise is a different matter. It cannot be right that missionaries should be encouraged to buy the confidence of the native with coin which he believes to be gold, but which is really base metal. As we suggested last year we believe that a very strong indictment might be brought against missionary enterprise in this respect, and in this Livingstone College might have to be included, especially as it no longer adheres to the principle which it originally laid down, and now accepts students for a shorter period than the full session of nine months.

THE SANITATION OF THE PANAMA CANAL.

COLONEL WILLIAM C. GORGAS, of the Medical Department of the United States Army, chief of the sanitary staff of the Panama Canal, has sketched out a plan of campaign to be followed in the attempt to lessen the unhealthiness of the isthmus. He says that, including the two cities of Colon and Panama, there is at present a population of about 40,000 people along the canal strip. The great majority of these people suffer from malaria, and should a large force of foreign labourers be sent to the isthmus now they would eventually be infected, just as the French were. In order to give time for the establishment of a better state of things, Colonel Gorgas thinks it likely that a year will be allowed before any large force of labourers is thrown into the isthmus. He has no fear of yellow fever, as the same principles that were so successful in extirpating the disease in Havana will be applied to the Isthmus of Panama. Quinine will be used universally among the infected population, and a

[1] BRITISH MEDICAL JOURNAL, vol. i, 1903, p. 1454.

system of hospitals will be established capable of accommodating about 7,000 patients. All breeding grounds of mosquitos will have to be destroyed, and this will require a competent inspecting force. Two hundred medical men will be needed along the line of the canal to care for the sick. The sanitation problem, such as street cleansing, sewerage, and waterworks, will be solved in the same way as in American cities. Colonel Gorgas speaks with the authority of experience, for it is to him that is largely due the transformation of Havana into a comparatively healthy city.

CREMATION IN FRANCE.

THE Société pour la Propagation de l'Incineration held its annual meeting in Paris recently. The proceedings opened with a funeral oration in honour of the late Sir Henry Thompson, delivered by the General Secretary, M. Georges Salomon. Dr. Bourneville, President of the Society, stated that the number of cremations in Paris during 1903 amounted to 6,628 as against 6,710 in 1902. He expressed a confident hope that when the fine crematorium in the Père-Lachaise Cemetery is complete, as it will be at no distant date, the number of incinerations will largely increase. The General Secretary then read a report on the progress of cremation in various countries. In the United States the number of bodies disposed of in that manner has increased from 2,685 in 1901 to 3,160 in 1902. Great Britain has nine crematories, in which 452 bodies were incinerated in 1902 and 479 in 1903. In Germany there are 86 cremation societies, counting among them 20,000 members; there are 8 crematories, and the number of bodies burnt was 692 in 1901, 861 in 1902, and 1,074 in 1903. These figures are the more noteworthy since cremation is still forbidden in Prussia, Saxony, Bavaria, Würtemberg, and some other parts of Germany. In Italy there were 340 cremations in 1902. In Switzerland there are crematories at Zurich, Geneva, Bâle, and Saint-Gall. Denmark has 1, Sweden 2. There are crematories at Montreal, at Buenos Aires, and at Adelaide in Australia. In Japan there are 7. Dr. Bourneville was re-elected President; M. Salomon, General Secretary; and among the Members of Council are Professor Cornil, MM. Camille Flammarion, and Yves Guyot.

POST-GRADUATE CLINICAL TEACHING IN GERMANY.

A NEW ordinance has lately been promulgated in Germany granting to towns which have hospitals of fair size the power to create in connexion therewith institutes of post-graduate clinical teaching. Every newly-qualified practitioner must serve a year after graduation in a hospital fixed by the proper authorities or in one of the hospitals with a teaching institute attached. The teaching staff of those institutes will be supplied by the nearest universities, the institutes in return paying the university the cost of maintenance of a certain number of patients sent to its clinics by the town. For instance, the city of Cologne will have to pay the University of Bonn the equivalent of a fixed number of days of maintenance up to £6,000 a year. The new system will, it is hoped, afford a wide field of practical instruction for young medical graduates, and will make it possible to utilize the vast clinical material, hitherto to a large extent lost to medical teaching, of towns like Hamburg, Frankfort, etc.

THE EDUCATIONAL WORK OF THE LONDON COUNTY COUNCIL.

THE educational duties, formerly discharged by the London School Board and the Technical Education Board, together with the additional work contemplated by the recent Education Acts, are gradually and systematically being undertaken and co-ordinated by the Education Committee of the London County Council. Some fifty pages of report from this Committee were presented to the meeting of the Council held last Tuesday, and were duly discussed and passed. The new principal officers are being appointed. Dr. Garnett, formerly Secretary to the Technical Education Board, was elected Educational Adviser before e Council rose for the Whitsuntide recess, and n Tuesday Mr. R. Blair was elected Executive Offic Mr. Blair, who is M.A. of Edinburgh and B.Sc. of Lond has recently been successfully engaged under r Horace Plunkett in organizing technical education n Ireland. We understand that the duties of the Execute Officer will consist in seeing that all the decisions of e Council relating to educational matters are duly carr d into effect. He will superintend the administrative w k of the Council's inspectors, will advise the Education Co- mittee in regard to sites, new buildings, alterations f existing buildings, and transfer of school buildings. e will see that all by-laws and regulations are duly p- mulgated and enforced, and in consultation with e Educational Adviser he will exercise a general supervisn over the Council's schools and colleges. His salary s £1,000 per annum. Much will depend upon the ene y and capabilities of this new officer, and the past car r of the candidate selected justifies the belief that he s well equipped for this most onerous and import t position.

TUBERCULOSIS IN CHILDHOOD.

THE Secretary of the Royal Sea-Bathing Hospital, Marg e, informs us that good results have followed the issue l t year of a circular to some 10,000 practitioners of medic e, inviting their co-operation in rendering the hospital m e useful. The circular pointed out that septic, profus y suppurating, or incurable cases are not admissible, d that most varieties of tuberculosis, if sent early enou h were treated with advantage in the dry bracing air of e Isle of Thanet. The Secretary adds that children un r 6 years of age are not absolutely excluded, but as th e are no separate wards for them they can be received d y when there is no great pressure on the beds. In the art le published on this subject in the BRITISH MEDICAL JOUR of June 11th, it was suggested that it would be desirabl to devote the whole of the Margate Hospital to children, the Secretary informs us that it has frequently b n necessary to fill several of the children's beds with ad l patients simply because there were no children applica s For some time past nine beds intended for girls have b n occupied by women and there are at present twenty-n approved adults waiting for admission but no child n We hope, with the Secretary, that the additional publi y which has been given to the object of the hospital by article published in the BRITISH MEDICAL JOURNAL of Ju e 11th may have the effect of preventing such a state o things recurring in the future.

YELLOW FEVER IN TEXAS.

A GREAT effort is to be made to prevent the reappeara of yellow fever on the Texas-Mexican border. Laredo Texas, where the disease prevailed last autumn, is a geographical centre of operations. A house-to-ho inspection has been maintained there for more than months, with the result that no case of yellow fever been found. The city council has made ordina embodying provisions recommended by the Public He and Marine Hospital Services. Every patient suffe from fever discovered by the inspectors is immedia covered with mosquito netting until the case is proved to be yellow fever. The Government furnishes nettin persons too poor to buy it. At the same time, the w barrels in common use in Laredo are either tre with petroleum or covered with a close wire scr the Government also furnishing this screen w necessary. Laredo itself is at the present time consid to be free from yellow fever infection. From that p as a centre, inspections have been made of all to along the lines of railway from Laredo to San Ant from San Antonio to Corpus Christi, and from Co Christi back to Laredo. Several working parties comp of employés who have had experience in sanitary wor Laredo have been sent out along these lines, each bein charge of a medical man. These parties are visiting to along these lines of railway, disinfecting places w

low fever prevailed last year, and demonstrating the thod of destroying mosquitos. They are organizing in h town a citizens' league to continue the work; they also circulating short but comprehensive leaflets of truction describing the method and calling attention to necessity of its being enforced. In the Republic of xico, where there was so much yellow fever last year, Superior Board of Health is actively engaged in itary measures. As the result of an understanding ered into between the Public Health and Marine-Hos- l Service of the United States and the Superior Board Health of Mexico, not only has the Superior Board of lth agreed to give prompt notification of the reappear- e of yellow fever, but it has cheerfully acquiesced in ts of inspection being made from time to time by Public lth and Marine Hospital Service officers to the dis- s where the disease prevailed last year. All places, ost without exception, where yellow fever prevailed in ico, north of the City of Mexico, have been inspected reported on by the United States Public Health ice.

ESTRUCTION OF THE MOSQUITO IN AMERICA.

Scudder introduced, on April 28th, into the National se of Representatives a Bill providing for the appoint- of a Commission to investigate the question of re- otion of swamps and marshes in New York and New y with a view to improve sanitary conditions and minate the *Anopheles* mosquito. The measure pro- that the Commission shall be appointed by the Pre- t, and shall serve without remuneration.

AN ANTIDOTE FOR RATTLE-SNAKE BITE.

earn from the *Medical News* that at the annual iet of the Association of American Physicians held ashington on May 10th, it was announced that as the of researches by Dr. Noguchi, of Japan, working a grant from the Carnegie Institution, a positive ote for rattle-snake venom had been discovered. The ncement was made by Dr. S. Weir Mitchell, of Phila- a, who read a letter from Dr. Noguchi, who is now at rum Institution in Copenhagen, where he has been g his researches for several months past. From the of the announcement it is believed by the medical ioners who were present that the serum which Dr. hi says he has discovered will prove to be of great n human therapeutics. The fact that the announce- f the discovery was made by Dr. Weir Mitchell is of lar interest, as more than forty years ago that dis- hed physician worked long and unsuccessfully at blem which Dr. Noguchi now claims to have solved. panese investigator found that guinea-pigs that had d injections of rattle-snake poison up to twelve the amount necessary to produce death and had ceived injections of the anticrotalic serum experi- no evil effects from the poison. Dr. Noguchi also s that this discovery will lead shortly to the dis- of serums for other poisons, and that it will not be fore the serums will be placed on the market, par- y in regions where venomous snakes lend variety itement to life.

COUNCIL OF THE ROYAL COLLEGE OF SURGEONS OF ENGLAND.

last being the latest day on which the applica- candidates for election to the Council of the Royal of Surgeons of England could be received, the list complete. Seven Fellows will present themselves 7th, and as there are only three vacancies the com- seems relatively active. The seven are Mr. -Bird (Guy's, F. June, 1874), Mr. Harrison Cripps tholomew's, F. June, 1875), Mr. T. S. Eve (London, mber, 1878), Mr. Bruce Clarke (St. Bartholomew's, , 1879), Mr. Bowlby (St. Bartholomew's, F. June, Mr. Gilbert Barling (Birmingham, F. December, d Mr. J. Bland-Sutton (Middlesex, F. June, 1884). The most remarkable feature in the list is the presence of three names from one metropolitan school. All these belong to surgeons of deservedly high repute. Mr. Golding-Bird is also a distinguished member of a great school. Mr. F. S. Eve is known as a teacher equally strong in pathology and in surgery, whilst Mr. Bland-Sutton, relatively young, has gained a high reputation and many friends. Mr. Gilbert Barling, also a surgeon of wide reputation, is the only candidate from a provincial medical school, and on this ground alone his claims upon the suffrages of the Fellows appear to be strong.

PROPOSED VISIT OF FRENCH MEDICAL MEN TO LONDON.

A number of French medical men who take an interest in English medicine and surgery propose to visit London next October in order to see something of the hospitals and laboratories. An influential committee has been formed in Paris, and a small organizing committee, of which Dr. Triboulet is President. It has been felt that some arrangement should be made in London in order to make the visit of our French colleagues instructive and agreeable, and Sir William Church, President of the Royal College of Physicians, has consented to take the chair at a meeting at the College on Thursday next, June 23rd, at 5 p.m. It is hoped that members of the staffs of the London hospitals, who may not have received a private communication, will nevertheless find it convenient to be present at this meeting, when it will be proposed to appoint an executive committee. Among the senior members of the Paris faculty who have expressed their intention of joining the party are Professors Bouchard, Lucas-Championnière, Chauffard, Landouzy, Lermoyez, Marie and Sebileau.

On June 9th the Administrative Council of the Pasteur Institute in Paris appointed Dr. Roux Director in the room of the late Dr. Duclaux. At the same time Drs. Chamberland and Metchnikoff were appointed Sub-directors.

We are informed that cholera is spreading to a serious extent in the province of Kermanshah, in north-western Persia. At the end of May there was an average daily mortality of 30 in the town of Kermanshah, and the districts of Maidasht, Songur, Sarat, and Hamadan are infected. Quarantine measures applied on the Turkish frontier and at Bisitun are seriously interfering with trade through Bagdad.

MEDICAL NOTES IN PARLIAMENT.

[From Our Lobby Correspondent.]

The Business of the Week.—The first three days of this week were occupied by the Education Bill for Scotland. Thursday had been set aside for the army estimates, and the expected statement of the Secretary of State on the changes in the War Office. On Wednesday the Prime Minister said that the statement must be deferred as Mr. Arnold-Forster had been unable to get his statement ready. Under these circumstances the opportunity of discussing the position of the Army Medical Department under the new scheme is indefinitely postponed. Next week the Finance Bill will occupy the early days and Irish estimates will be taken on the Thursday.

Infant Mortality and Medical Relief.—Sir Walter Foster asked the President of the Local Government Board whether his attention had been called to the high infant mortality in the large towns of the kingdom; whether, with a view to lessening this mortality, he would inquire whether the facilities for granting outdoor medical relief were sufficient in the great provincial towns and in districts like St. George-in-the-East, Whitechapel, Limehouse, and Stepney; and, if not, whether he would take steps to improve the methods of grant-

ing medical out-relief. Mr. Long replied that he was aware of the figures referred to as to infant mortality. Except that in some places additional relieving officers might be appointed, he had not at present seen any reason to suppose that the existing facilities for granting outdoor medical relief were insufficient; but, so far as the metropolis was concerned, a special investigation was at this moment being made by one of the assistant inspectors of the Department, as to the arrangements for outdoor medical relief. Sir Walter Foster also asked whether some Boards of Guardians had largely reduced the number of applications for medical out-relief, by means of giving all medical out-relief on loan in the first instance (subject to subsequent cancelling of the loan if the guardians thought fit), or by compelling parents to appear before the Board or a committee; and, if so, whether he proposed to take any action in the matter. Mr. Long answered that his attention had been called to one instance in London, where a system of the kind above-mentioned had been introduced, and where it was said that the result had been to reduce the applications for outdoor medical relief. But as he had stated in reply to another question that day by the hon. member, a special investigation was being made by one of the assistant inspectors of the Department as to the arrangements for outdoor medical relief in the metropolis.

Nursing in Workhouses.—In reply to Sir Harry Samuel, the President of the Local Government Board on Tuesday said that he had received a large number of representations from Boards of Guardians on the report of the Departmental Committee on Nursing which had led to the proposal to issue an order, and these representations had been duly considered. He could not undertake to afford to Boards of Guardians generally any further opportunity of making representations on this subject; but he would consider the suggestion to furnish a draft of the Order to the Poor-law Unions Association.

Ringworm and Ophthalmia among Poor-law Children.—Sir Walter Foster asked the President of the Local Government Board on Monday if he would state the number of Poor-law children of the metropolis who were at present suffering from ringworm and ophthalmia respectively, differentiating between those housed in the Metropolitan Asylums Board special homes, those in workhouses and workhouse infirmaries, and those in the district and separate Poor-law schools. Mr. Long replied that he was informed that the number of metropolitan Poor-law children at present suffering from ringworm and ophthalmia respectively in the special homes and institutions under the control of the Metropolitan Asylums Board was as follows:

Ringworm.	Ophthalmia.
566	345

The following was the number of these children in workhouses and workhouse infirmaries and in district and separate Poor-law schools on April 2nd last, which was the latest date for which he could give the figures desired:

	Ringworm.	Ophthalmia.
Workhouses and workhouse infirmaries	184	236
District and separate schools, including cottage homes and scattered homes...	159	156

Alcohol as a Cause of Insanity.—Mr. Hunter Craig asked the Secretary of State for the Home Department whether he would grant a return showing the total number of lunatics in the lunatic asylums in the United Kingdom who had lost their reason through excessive use of intoxicating liquor. Mr. Secretary Akers-Douglas replied that the question of the causes to which cases of insanity could be attributed was a very difficult one. It was frequently dwelt on in the annual reports of Lunacy Commissioners, which gave full information on the subject; in particular he might refer to pp. 98 and 158-9 of the last report for 1902.

Phosphorus Necrosis.—Mr. Crooks asked the Secretary of State for the Home Department whether his attention had been called to a case of death from phosphorus poisoning that occurred at the Poplar and Stepney Sick Asylum, due to a recent attack of phossy jaw; and, if so, would he say what steps he intended to take in view of the fact that the patent used by Messrs. Bryant and May was stated to be innocuous. Mr. Secretary Akers-Douglas answered that this case had been reported to the Factory Department and carefully investigated by the district medical inspectors as well a[s] the certifying factory surgeon. There seemed to be no d[ou]b that the case was one of phosphorus necrosis, but not n[o] was elicited at the inquiry or at the inquest showing ho[w] when the disease was contracted. It appeared that the wo[m]an who died on May 19th, 1904, had not worked at Bryant[&] May's factory since the autumn of 1902, except for one s[hor]t period of three days. There did not appear to be any fu[r]ther action that he could take.

The Registrar-General and the Supply of Information to the Press.—Sir Walter Foster and Mr. Mansfield both a[s]ked the President of the Local Government Board last [w]hy the local Registrars of Births and Deaths had [b]een ordered to cease to supply a list of deaths to provin[cial] weekly newspapers. Mr. Long replied that he was aw[are] that in a certain number of cases lists of deaths had [b]een supplied to the press by registrars. This, however, had [b]een done in contravention of the regulations on the subject. [T]he Registrar-General had received complaints as to the publ[ica]tion of particulars which might lead to the identificati[on] of individuals, and he considered that any such publica[tion] tended to make persons unwilling to give information [for] registration purposes, and consequently to impair the ri[gh]t bility of vital statistics. He had recently issued a circ[ular] with a view to the strict observance of the regulations in [the] future.

The Use of Humanized Vaccine Lymph in Scotland.—[Mr.] Weir asked the Secretary for Scotland, having regard to [the] fact that the medical officers for the nine parishes in Scotl[and] who applied last year for humanized lymph in preferen[ce to] glycerinated calf lymph based their preference on the assu[mp]tion that the former lymph was more potent, if he would [state] whether the Local Government Board for Scotland had t[aken] steps to point out to these officers that statistics showed the [per]centage of successful vaccination with glycerinated calf ly[mph] to be distinctly higher than the percentage of successes [with] humanized lymph. Mr. Graham Murray said he was infor[med] that the reason given by the medical officers referred t[o] preferring humanized to glycerinated calf lymph was not [that] the former was more potent, but that it kept its potency [for a] longer period. The Local Government Board for Scotl[and] saw no reason for directing the attention of those office[rs to] the statistics of relative success of the two varieties of lym[ph]. Mr. Weir also asked the Secretary for Scotland whether [Dr.] Cadell, as superintendent of vaccination at the new town[al] pensary, Edinburgh, still collected vaccine lymph from [the] arms of children vaccinated by him, and thus supp[lied] humanized lymph to the Central Vaccine Institution for [Scot]land, and, seeing that the last report of the medical su[per]intendent of that institution showed that the percentag[e of] successful vaccination with glycerinated calf lymph was hi[gher] than the percentage of success with humanized lymph, w[ould] the question of using glycerinated calf lymph for the wh[ole] the work of parochial vaccinators in Scotland be consid[ered] especially having regard to the fact that the use of humani[zed] lymph had been widely condemned? Mr. Graham Mu[rray] said that he was informed that Dr. Cadell still supp[lied] humanized lymph to the Central Vaccine Institution of [Scot]land. The difference in the percentage of successes bet[ween] glycerinated calf lymph and humanized lymph did not ap[pear] to constitute a sufficient ground for ceasing to sup[ply] humanized lymph, which was still in demand.

Epidemic Sore Throat in Glasgow.—Mr. Weir asked [the] President of the Local Government Board whether he [was] aware that the epidemic of sore throat which recently b[roke] out at the Belvidere Hospital, Glasgow, was, like tha[t at] Woking last autumn and at Finchley early this year, attri[but]able to the milk taken from cows out of health; and, s[ince] that Dr. Chalmers, the Medical Officer of Health for Glas[gow] stated that the outbreak in that city was due to teat eru[ption] in the stock at the farm from which the milk supply [was] obtained, if he would consider the expediency of introduci[ng] an early date such legislation as might be necessary to in[sure] the occasional examination by a veterinary surgeon [of] cows kept for the purposes of a public dairy. Mr. [Graham] Lawson, who replied, said that the President of the [Local] Government Board had no jurisdiction in Scotland in re[gard] to sanitary matters. With regard to the suggested legisla[tion] he could only repeat the answer given on March 29th, th[at he] could not promise to introduce legislation.

Canada.

SANATORIA FOR CONSUMPTIVES.

IFFICULTIES surround the establishment of the sanatorium r tuberculosis in Toronto. The city has voted 50,000 dols. aid in establishing it, but is unwilling to undertake it as a unicipal enterprise, which would render it responsible r its maintenance and possible deficits; and it suggests at private benevolence should establish such an institution would recommend itself to the city as deserving of this ant, and likely to use it wisely and successfully. This is e position at present, and it is hoped that the Anti-Conmption Leagues, or some other of the organizations at esent in existence, may evolve a scheme that will command pport.

The last published report of the British Columbia Board of ealth advocates the establishment of a sanatorium for conmptives at or near Kamloop. The situation on the North ompson River fills all the requirements of an ideal site an altitude of 1,100 ft., in what is known as the dry belt, th a rainfall as low as 1.55 in. and in a wet season a aximum of 6.25 in. The extremes of temperature are 93.4° d 10.1°, but both are exceptional. The soil is dry and rous, and pine forests abound.

NOTIFICATION OF TUBERCULOSIS IN ONTARIO.

Dr. Hodgetts, Secretary of the Provincial Board of Health, quite determined that the notification of tuberculosis shall made compulsory, and will, if necessary, seek legislation. Quebec a statute was passed making obligatory the notiation of all cases which have reached the suppurative or pectorative stage.

ANTHRAX.

An interesting investigation of a very long-continued series anthrax cases has been made at Ancaster, Ontario. In the mmer of 1902, on a farm adjoining the village, some cattle d after very short illnesses, pronounced to be anthrax by e veterinary surgeon; a necropsy was performed on one of em on a barn floor, and a good deal of bloody fluid from the ous cavities ran over on the floor and down into the basent cellar below. The lesions in this case did not seem consive, and while the other bodies were burned, this one was gged to the opposite side of the road and buried in an oat-d. Mangolds were stored in this cellar, and when later in e year those in contact with the ground where the fluids l run were fed to the cattle, three died with all the symms of anthrax. About April, 1903, an animal died that was rtered in one of the stalls where earlier the others had died. e carcass of this animal was put in a shallow hole l covered with lime, but one foot stuck out from the lime. Amyot, Provincial Bacteriologist, on examination later nd anthrax bacilli in material from this foot, from the lls of the barn basement, and from the carcass that had n buried the previous fall. On following up the history of s case, it was found that cattle and horses had died on this m, and a couple to the east of it (all the farms were situated the low land to the west of a small stream which ran north oss the main street of the village) from time to time for rty years or more at intervals of a year or two in batches three or four from short illnesses. The farms were situated hat side of the stream over which flood water passed, and outbreaks usually took place in seasons when, on account he failure of pasture at other places, the flat lands were in ater demand for grazing. During the spring of 1903 an mal died on a neighbouring high land field with symptoms nthrax, but it was found that earth had been brought n one of the infected fields to this one.

ear where the stream crossed the road were the runs of an tannery, which had been burned some twenty-eight years viously, but which had tanned only local hides; the tan k had been drawn to the fields in the neighbourhood, but e had shown anthrax except these low-lying fields mened. Near the main road on the stream extensive ruins t at an old woollen mill, which had been burned down nty-five years before, after running for many years; and as found that foreign as well as domestic wool had been d in it, and it is thought probable that the original ction is to be traced to this mill and not to the tannery.

his outbreak is of interest in showing the longevity of nrax, each new outbreak giving it renewed life, and it is nous in the evidence of its gradual distribution, and of danger of infection from foreign wools, reinforced by the evidence of another case in the province, where the infection originated from a similar cause.

Six of the large tannery districts have anthrax in them, and all of these use foreign hides. Some action would seem to be indicated to prevent further importation of this dread disease into the country.

A case in the human subject came under observation a short time ago—a freight handler employed in sorting and loading foreign hides. The lesion was local, and yielded to excision and disinfection.

SEWAGE DISPOSAL IN TORONTO.

The Provincial Board of Health of Ontario has under discussion a number of schemes for the disposal of sewage in Toronto. Several schemes are proposed, one of which—the carrying of the sewage to a point nine miles east of the place in the lake where the intake for the water supply is situated—has received considerable support; but a series of experiments which have been conducted seem to give ground for apprehension that, under certain circumstances, the lake currents would render this distance an inefficient protection. The other plans suggested are methods of sewage treatment and filtration. A new aspect of the water supply problem has arisen since the recent disastrous fire, and it is probable that a separate system for pumping water for fire-protection purposes will be required; the ordinary system, with the great and constantly increasing demand for ordinary use, does not give sufficient pressure.

INSTRUCTION IN PUBLIC HEALTH.

The Ontario Board of Health has appointed a Committee to combine with a Committee of the University of Toronto in the discussion of a scheme for the establishment of a course in public health to be given in the laboratories of the University and of the Board. It is the intention of the promoters that this course shall be made available, not only for medical men with a view to work as public health officers, but also to persons who wish to qualify themselves as sanitary inspectors for service under these officers.

MUNICIPAL SUPPLY OF DIPHTHERIA TOXIN.

A decidedly progressive action was taken by the town of Brockville when they decided at the beginning of 1903 to supply antitoxin free to all cases of diphtheria, and also in immunizing doses to those exposed. The amount paid out by the corporation was during the year 277 dols. for a total of 186,500 units. The object of so doing was to ensure the use of this treatment in as many cases as possible and so accustom people to its use: the results shown by the vital statistics were very gratifying. From January 1st to the October 23rd 82 cases were reported with a mortality of 4.

COMPARATIVE PATHOLOGY.

The museum of the McGill Medical College has received a a valuable addition to its collection of anatomical and pathological specimens from Dr. McEachran, Dean of the late Veterinary Faculty. This gift comprises the entire museum of the recently disbanded Faculty of Comparative Medicine. A very complete set of skeletons and preparations of normal animals, together with examples of diseases and malformations of bone in the horse and cow, make up the main body of the collection, but in addition there are a number of rarer conditions, including monstrosities, and parasites of domestic animals. Although the museum has been recently improved and enlarged there is already some mention made of still further increasing its capacity, on account of this acquisition. The library of the old Veterinary College has also been presented to the McGill Medical Library, making a substantial addition of several hundred volumes.

HOSPITALS, REFUGES, AND ORPHANAGES OF ONTARIO.

The thirty-fourth annual report of the hospitals, refuges, and orphanages of the Province of Ontario has just been issued. Many improvements in the hospitals are noted, but the Inspector, Dr. Chamberlain, points out that in some cases proper attention is not paid to the poor patients, the management devoting more consideration to the care of private patients who pay for their accommodation, and spending too much money on elaborate private wards. The number of patients treated during the year was 35 912, not including outdoor cases. The number of deaths was 1,997, and the total number of days' stay of patients in the hospital was 882,200. The provincial grant to total expenditure was 14 per cent., the remaining amount being obtained from the other sources of income of the hospitals. At the recent session the Govern-

ment amended the law in such a way that the income of the hospitals will be helped very materially.

NOTIFICATION OF BIRTHS.

A by-law has recently been passed in Montreal, compelling physicians to report all births occurring in their practice. An attempt to enforce a similar enactment at St. John, N.B., met with such opposition that it was withdrawn. No such trouble seems to be anticipated in Montreal, and the physicians appear to regard it as a measure which will remove a difficulty in the way of the Board of Health, which has had some trouble in obtaining a reliable birth registration up to the present time.

Scotland.

EDINBURGH HARVEIAN FESTIVAL.

AT the 122nd Harveian Festival, held in the Hall of the Royal College of Physicians of Edinburgh, Dr. Somerville, of Galashiels, gave the Harveian Oration.

The Edinburgh Medical School, 1855 to 1859.

Dr. Somerville said that it was not too much to assert that the reputation of the Edinburgh Medical School was higher at this period than that of any other medical school at that time existing either at home or abroad. None of the teachers in those days impressed Dr. Somerville more than John Goodsir. He had been a pupil of Dr. Knox, that extraordinary man, of whom Dr. Lonsdale had written:

The plainest-visaged man in Edinburgh, Knox was gay in dress, with embroidered purple vests, gold chains in profusion, and dandyism. Moreover, he was a courtier in manners, and dramatist in action, and possessed of a wonderful rhetorical faculty.

Dr. Somerville said: "Goodsir was the opposite of all this: tall and gaunt, with massive and rather expressionless features, and suffering from locomotor ataxia. But once seated in his chair and surrounded by his class, with a favourite topic to discourse on, he was no ordinary man. I can see him yet, a preparation of the knee-joint and its ligaments in his hands, pointing out the accuracy and beauty of this double joint, warning us against imagining that the condyles were semicircular, and showing that their curvature was really that of a spiral, and indicating the admirable way in which the ligaments regulated and checked the movements of the bones. His admiration of the arrangements was unbounded; it amounted to enthusiasm. Nor was he less interesting in describing a microscopic structure such as the minute anatomy of the liver. Huxley once wrote of Goodsir that he could not write intelligible English, and it must be confessed that his published papers are some of them not very easy reading. But his students had no reason to complain of being unable to understand him. When he depicted the histology of the liver, every word he uttered had its share in building up in the minds of those who heard him a living model of the structure. I have never come across any man who had this gift as Goodsir had it. But it was his constant allusions to comparative anatomy that made his lectures so interesting. It was a great delight to himself to trace the modifications of a bone through the various genera and species of vertebrate animals, and he caused it to be equally delightful to his pupils. At that time, Darwin's *Origin of Species by Natural Selection* had not been published, and we had no suspicion of the common parentage of allied types. But Goodsir laid great stress on the existence of such types, and on the relations between them. And I should think that to no men was the acceptance of Darwin's teaching more easy than to those who had profited by the teaching more easy than to those who had profited by the teaching of John Goodsir. He used to tell us that it was not possible to arrange animal types in a line; nor could it be done even on a flat field. 'To place them in their correct mutual relations you must use all three dimensions. You have then each type neighboured, above and below, and on every side, with those most allied to it.'

"Goodsir was loved by his students. They recognized in him a man of great simplicity and truthfulness of character. He had one fault, however—his life was all work and no play. All who were students of anatomy at that time must have a vivid recollection of the demonstrations given in the afternoon by Mr. Turner, now the highly-honoured Principal of the University. It was the last class of the day, but it was the most regularly attended.

"There were few men of wider reputation, or of more striking personality, in those days than John Hughes Bennett, the Professor of the Institutes of Medicine. His career from h student days had been most brilliant. He did much to bri the microscope into general use and to develop the study histology. But it was as a clinical teacher that he was mo distinguished. No physician had as large a following in t wards of the Royal Infirmary as he. The thing he combat most was the influence of authority in medicine. He wou have nothing but facts and legitimate deductions therefro He was very sceptical as to the good done by drugs. H thoroughly believed in cod-liver oil, which, indeed, was i troduced by him into medical practice in this country. H was far in advance of his medical contemporaries in h views as to the proper treatment of phthisis, and as to t benefit to be obtained by the enfeebled lung fro the inhalation of fresh, pure, outside air; if he cou now come back and visit our medical institution our sanatoria for the treatment of consumption, t open-windowed wards and the outside shelters would n be a great surprise to him. He was an excellent and eloque speaker, with much dramatic power, and I can nev forget a clinical lecture he gave in the pathologic theatre of the old Royal Infirmary, in which he enforc his views as to the open-air treatment of consumpti in contrast to the prevailing custom of shutting up t invalid and destroying his appetite; afterwards trying restore it by the administration of nauseous drugs, quassia f instance. Bennett became an active and uncompromisi opponent of blood-letting in febrile conditions. There had, is true, been previously a considerable modification of t practice, mainly brought about in Edinburgh by the la Dr. George Balfour.

"Dr. Christison, afterwards Sir Robert, was a man of who the Edinburgh medical school had reason to be prou Physically, intellectually, and morally, he was a man eve inch of him. He was devoted to the interests of the Unive sity, and no man did more for its prosperity. He was one its Professors for more than half a century, and it was di appointing that the distinguished services he rendered it we not crowned by his being elected to the Principalship. H laid great stress on the physiological action of medicine arguing that unless we had clear ideas as to their effects upo persons in health we could not adequately understand the influence upon disease. His prescriptions were simple co pared with those of many of his contemporaries. He w acknowledged by the Scottish judges of his time to have bee the best medical or scientific witness that ever came befo them, the most upright and unbiassed, and, at the same tim clear and definite as to what he had to testify.

"As Christison was the first of Scottish physicians, Jam Syme was the chief of Scottish or rather of British surgeon Sir Alexander Grant calls him the Wellington of surger He had not the prepossessing appearance of his friend, D Christison. They were very unlike. But if Syme's greatne was not visible at first sight, it was apparent enough in h life and work. He was, at this time, at the zenith of h fame. Like most great surgeons, he had devoted his earl years to the study and teaching of anatomy. In the Roy Infirmary wards he taught surgery as it had never bee taught before. Syme was not a good speaker—a great los indeed—for he never in his life uttered a word that was u necessary. He was a sceptic as to the action of medicine It was Syme who got Lyon Playfair made Parliamentar representative of the Universities, foreseeing, as he did, tha once in Parliament Playfair was bound to take a most di tinguished place in the political world. Lister in those day was Syme's assistant.

"Simpson, too, was at the height of his reputation, and the busiest period of his busy life at this time. Eight or te years previously he had introduced the inhalation of su phuric ether in obstetrical practice. He was not satisfie with it. Further search in the chemical laboratories foun chloroform. He was an interesting lecturer. He began t speak the moment he entered the lecture room, and he wa well through his first sentence before he got to the readin desk. He spoke with great fluency, and punctuated hi discourse with numerous anecdotes.

"The Chair of Pathology was occupied by Dr. Henderson who afterwards became a homoeopathist, and Gregory wa Professor of Chemistry. Then there were Laycock, who wa not appreciated at his true worth; James Miller and Jame Spence, both admirable surgeons; Matthews Duncan William Gairdner, and Warburton Begbie. Such, then, wer our chief teachers in the Edinburgh Medical School, most o them men of mark. Their pupils were proud of them. Bu

me of those gifted men were not faultless in this respect, at they failed to show becoming esteem and honour for ch other. Rumours reached us that all was not harmony Mount Olympus. But in our after-lives we were thankful r having had the privilege of being taught by such structors. The study of medicine and surgery in their nds was a living and progressive thing, and the advance-ent of medicine since their time has in no inconsiderable easure been due to their work and to the spirit in which ey carried it on."

The Dinner.

After the Oration dinner was served. "The King, Queen, d Royal Family" were given by the President, "The perial Forces" by the Vice-President (Dr. Underhill), The Immortal Memory of Harvey" from the Chair, "The ests" by Dr. Joseph Bell, and "The President" by Dr. awford Renton. "Floreat res Medica" concluded a very ccessful festival.

EXTENSION OF CHALMERS HOSPITAL, EDINBURGH.

The Faculty of Advocates, on consideration of a requisition m the Directors of Chalmers Hospital for a grant of ,000 from the capital of the Trust to enable them to carry t certain extensive alterations and improvements with the w of renovating and modernizing the hospital, unanimously anted the requisition. It was pointed out that sufficient gacies had been received in the past to justify the Faculty permitting this encroachment on the capital of the Trust. is understood that the directors intend to construct a new t-patient department and an operating-room with every dern appliance. They have resolved to close the hospital the 30th June to allow of the work being done. The spital will probably remain closed till 1st October, when . Harold J. Stiles will enter on duty as surgeon to the spital with Mr. C. Balfour Paul as assistant surgeon.

THE GLASGOW SANATORIUM FOR CONSUMPTION AT BELLEFIELD.

The establishment of the Bellefield Sanatorium marks other stage in the warfare against consumption in the asgow district. Mr. Quarrier's sanatorium at Bridge of ir has for many years given accommodation for female es. Males of the humbler ranks of society have been so unprovided for, but Bellefield will supply the want. ough some few weeks will elapse before the sanatorium l be ready for the reception of patients, the formal opening emony was performed on the afternoon of June 7th. A ge company of ladies and gentlemen travelled from Glasgow special train. The Lord Provost of Glasgow, Sir John Ure mrose, presided, and in a few appropriate remarks com-nded the work. Lady Primrose performed the opening emony, and expressed the expectation that the new insti-ion would bring much hope and comfort as well as physical ngth to the patients. The sanatorium is beautifully ated within a mile of Lanark, and on the opening day was in glorious weather at its best. The original mansion se of the estate will be used as the main administrative rters, in which the matron, the medical officer, and the eral staff will be accommodated. The new buildings, ch will provide for thirty patients, and have just been pleted, have been erected by Messrs. Speirs and Co. on ir patented system, a combination of iron and wood, which the important advantage of being comparatively inex-sive. A handsome pavilion with a southern aspect will vide a ward with ten beds, five double-bedded rooms, and mmodious dining-room, with, in addition, the necessary hen, lavatory, and other accommodation. Besides this, e are five double roomed wooden châlets in the grounds pen-air sleeping purposes. The drainage system for the buildings is being arranged on the septic-tank principle. ilar sanatoria have been in use for consumptive patients he Glasgow District Board asylums at Woodilee and dloch for some time, and have given great satisfaction. It oped that before long the Bellefield Sanatorium Com-tee will be in a position to double the accommodation are at present supplying.

THE GLASGOW INEBRIATE REFORMATORY.

he third annual report of the "Girgenti Home" for riates has just been issued and is rather a discouraging tment. This home was established as an experiment by Glasgow magistrates for female cases coming under the riate Acts, and especially for cases that gave some prospect ure. During the three years the home has been open 78 s have been dealt with, and of 35 inmates who have passed through the home and are out on licence only 17, or less than 50 per cent., may be said to be doing well. That is a somewhat disappointing record, although of course it must be remembered that the people dealt with are of the criminal class and at the very bottom of the social scale. There were 40 people in the home at the end of 1902, and during 1903 there were 12 admissions, and 39 inmates remained on December 31st, 1903. The expense of the undertaking is considerable, being £1 5s. 3d. a week for each person, of which the Government pays 10s. 8d. and the Corporation 14s. 7d. The farm and gardening work were not so successful last year, owing to the wet season, but these departments supply suitable work for many of the inmates. An unfortunate circumstance mentioned in the report is the persistence of efforts to escape. During the year, of an average daily number of 42.07, no less than 24 were concerned in escaping or attempting to escape. The managers again bring before the Secretary of Scotland the question of what provision can be made for inmates whose sentences will shortly expire. Any good they may have derived from the treatment in the home may be undone unless some employment or permanent detention is found for them after their discharge. The managers suggest that it might be advantageous to give them some control over the inmates after the expiry of their term.

ANNUAL REPORT OF GLASGOW SANITARY DEPARTMENT.

The sanitary report for the year ending December 31st, 1903, has just been issued by Mr. Fyfe, the Chief Sanitary Inspector of Glasgow. It is interesting to note that last year's death-rate was the lowest in the history of the city, being only 18.4 per cent., instead of 20 and 21.2 for 1902 and 1901 respectively. There were 1,049 fewer deaths during the year than in 1902 in a population estimated by the Registrar-General as 11,460 more. It is reported that 13.4 per cent. of the total deaths were from zymotic diseases. The total number of zymotic cases registered during the year was 16,487, or 3,055 more than in the previous year, and of these, as usual, measles furnished the greater number, no less than 9,161. The report also deals with the question of the clearing away of uninhabitable areas and overcrowding. The number of "ticketed" houses is now reduced to 19,145, and regular visits of inspection are paid to these and to some extent also to the larger working houses where overcrowding is suspected. It is hoped that the authorities will soon have powers to "ticket" houses up to 2,600 cubic feet, instead of 2,000 as at present, so that they may have a better grip of this growing evil. Inspection of factories and workshops is carried on in co-operation with the inspectors of factories. The markets are supervised, and much unsound fish and game were destroyed during the year. Considerable improvement is reported in the matter of the smoke nuisance, many of the offending manufacturers having improved their furnaces, and greater care is being exercised by the workers. Continued attention to this department, with persistent use of the legal powers the authorities possess. should effect considerable progress towards a purer atmosphere.

ABERDEEN BRANCH OF THE BRITISH MEDICAL ASSOCIATION.

The summer meeting was held at Edzell, Forfarshire, on Wednesday, June 8th. Some fourteen members left Aberdeen by train in the morning and drove from Laurencekirk to Edzell, where the meeting took place in the Glenesk Arms Hotel, Dr. Henry, Kemnay, President of the Branch, in the chair. The business was mainly the question of what resolutions were to be supported by the representative of the Branch at the Oxford meeting. Thereafter Professor Stephenson was reappointed Branch representative. The members then lunched together, and the afternoon was spent by some in visiting places of interest in the neighbourhood and by others in golf matches, for which the excellent links at Edzell provides good scope. In the evening at dinner several of the local medical men joined the company, and an exceedingly interesting social hour was spent.

ABERDEEN HOSPITAL FOR INCURABLES.

The annual meeting of the managers and subscribers of the above hospital—which in future is to be known commonly as Morningfield Hospital—was held on June 8th, when the report for the past year was submitted. The average number of patients in the hospital during the year was 77, and these were maintained at an average daily expenditure of 1s. 7d. per patient, a slight increase on the previous year. Like most

of the other charitable institutions in Aberdeen in recent years, there is a considerable deficit in the income as compared with the expenditure. This has been entirely made good, however, by special legacies—one donation of £1,000 being given by Mr. William Knox, of Craigton. The Primrose Trustees, who have done so much recently for many important charities in Aberdeen, have also subscribed to this hospital the handsome sum of £5,000, to be devoted to capital expenditure. Taken as a whole, therefore, the report was looked on as satisfactory.

Aberdeen Royal Infirmary.

Mr. Thomas Fraser, M.B., Ch.B., M.A., D.P.H.Aberd., has been appointed Second Assistant Anaesthetist to the Royal Infirmary. During the last few years there has been a very great increase in the amount of work done on the surgical side in the above hospital. To facilitate matters somewhat the staff recommended the appointment of a third anaesthetist, and this recommendation was accepted by the directors at a recent meeting.

Ireland.

Irish Medical Association.

Annual Meeting.

The annual general meeting of the Irish Medical Association was held on Tuesday, June 7th, in the College of Surgeons, Dublin. Dr. L. Kidd occupied the chair, and there was a large attendance.

The adoption of the report of Council and financial statement for the past year was proposed by Mr. Tobin, seconded by Dr. Scott, and adopted.

The Chairman said he had received a resolution which had been adopted by the Irish Medical Schools' and Graduates' Association in England, expressing their view on the recently issued report of the Local Government Board for Ireland, that the attitude of that Board, as expressed in that report, did not adequately deal with the reasonable demands of the Poor-law medical officers, and offered no permanent settlement of the difficulties now disturbing the relations between the public and the Poor-law Medical Service. They also expressed their sympathy with the objects of the Association.

The newly-elected President, Mr. R. F. Tobin, then took the chair.

Dr. Hercules M'Donnell, J.P., of Dundalk, proposed, and Dr. Kinkead, of Galway, seconded, a vote of thanks to the outgoing President for the manner in which he had filled that office during the past year, and for the valuable assistance he had given in the furtherance of the Poor-law medical reform.

Mr. Tobin delivered an address which will be published in full.

A vote of thanks was passed to the British Medical Journal on the motion of Dr. Donnelly.

On the motion of Sir William Thomson, seconded by Dr. J. H. M'Auley, a vote of thanks was passed to the Irish Schools' and Graduates' Association.

Dr. Thompson, M.P., of Omagh, moved:

That the Council be instructed to take every advisable step in furtherance of the Medical Officers Superannuation (Ireland) Bill, introduced in the House of Commons on April 18th by Mr. T. W. Russell, M.P.

Dr. Scott seconded the resolution, which was passed.

The meeting then resolved itself into committee for the purpose of considering the scale of salaries and fees fixed by the Conference at Enniskillen in June, 1903.

It was subsequently announced that the following resolution had been adopted:

That this general meeting of the members of the Irish Medical Association reaffirms the scale of salaries and fees as fixed by the Conference at Enniskillen on June 17th, 1903.

Dr. Thompson, M.P., proposed:

That in order to facilitate dispensary medical officers in the discharge of their public duties travelling expenses should be allowed as in other public departments.

It was resolved, on the motion of Dr. Morrison, seconded by Dr. Olphert:

That every effort be made to obtain an alteration of Dispensary Rule 28, so as to give the medical officer a definite leave of absence of one month in each year.

Dr. Kidd proposed, and Dr. Scott seconded, the following resolution, which was carried:

That, as in the opinion of this meeting the scale of fees (£2 2s., irrespective of time, distance, or the nature of the operation) allowed for "extra professional services" to consultants for difficult midwifery and operative surgical cases, is inadequate to the responsibilities incurred and the time occupied therein:

(*a*) Every Board of Guardians be served with notice to that effect and informed that no member of the Irish Medical Association will act as consultant in such cases until the scale of fees is amended to enable the consultant to be paid what to him seems a fair and reasonable fee, in proportion to the services rendered, taking the hour and the distance at which such services are rendered, as well as all the circumstances of the case, into consideration;

(*b*) Every Board of Guardians be respectfully informed that the responsibilities arising in default of consultations arising in such cases rest entirely with them.

Proposed by Dr. Hamilton, seconded by Dr. Hennessy, and resolved:

As our efforts to induce candidates to abstain from seeking vacant dispensaries have in almost every case been unsuccessful, that the Council of the Irish Medical Association be requested to take into their earnest consideration the question of appointing paid organizers for this purpose.

Proposed by Dr. Delahoyde, seconded by Dr. Murphy, and resolved:

That a Committee be formed, consisting of the President, Vice-Presidents, and the Honorary Secretary, with power to add to their number, to confer with the Local Government Board and Boards of Guardians, etc., to bring about a settlement on the lines laid down by the Enniskillen meeting, with power to negotiate for such terms as that meeting may seem necessary, and to report same to the Council.

The proceedings concluded with a vote of thanks to the President.

The Dinner.

In the evening the members, to the number of over a hundred, dined in the College. The speakers were the President, the President of the Royal College of Physicians, the President of the Royal College of Surgeons, Surgeon-General Evatt, C.B., Colonel Crimmin, V.C., I.M.S., Colonel Rogers, Mr. O'Connor, K.C., and Dr. Leonard Kidd.

The toast of "The Irish Bench and Bar," given by the Chairman, was acknowledged by Mr. Charles O'Connor, K.C.

Surgeon-General Evatt, C.B., proposed "The President, the Out-going President, and Officers of the Irish Medical Association." He spoke of Mr. Tobin's devotion to the cause of the Irish dispensary medical officers, and felt sure he would leave his mark during his year of Presidency. Surgeon-General Evatt said he was much indebted to Dr. Kidd for arranging the itinerary which he should follow for the purpose of the report published as a Supplement to the British Medical Journal, and said that the Editor of that Journal desired him to say that his efforts were entirely at their service. England, Surgeon-General Evatt believed, was anxious that this blot on the medical organization of the three countries should be removed.

The toast was duly honoured, and the Chairman, Dr. Kidd, and Dr. Donnelly responded.

Royal Medical Benevolent Fund Society, Ireland.

The sixty-second annual meeting of the Royal Medical Benevolent Fund Society was held on June 8th in the Royal College of Surgeons, Dublin. The President of the Royal College of Surgeons presided.

The report of the Central Committee regretted the great loss sustained by the deaths of Mr. H. Gray Croly, Sir Philip Crampton Smith, and Sir George F. Duffey. Dr. Conolly Norman and Dr. Richard Ivy had been elected to fill the vacancies on the committee. Ten applications for grants were considered in anticipation of the regular annual distribution. Three were ineligible. Grants amounting to £80 were made; 86 applications were considered during the year, of which were from widows of medical men; £1,167 was the amount recommended since last distribution. The amount given in grants was so large that the resources were strained.

The Honorary Treasurer's report showed that during the year the grants paid by the Central Committee were £1,204 10s., which was £100 than the last amount previously distributed. More than the annual income was derived from investments. The Society's account was frequently overdrawn, and except there was a definite increase in subscriptions it would be impossible to continue distributing grants at the same rate. The subscriptions paid through the Central Treasurer were £164 14s., and the branch treasurers forwarded £325 17s. 11d., which was £200 less than that of the previous year.

The President of the College of Physicians moved the adoption of the report and statement of accounts, and announced his intention as President of the College of Physicians of subscribing 20 guineas to the fund.

Mr. R. F. Tobin, President of the Irish Medical Association, seconded the resolution, and pointed out that relief never entered the minds of the executive when considering the applications. He would be glad if it were generally known that while the majority of subscribers were Protestants the majority of the recipients were Catholics.

The resolution was adopted.

Dr. Leonard Kidd, Enniskillen, moved a resolution conying the warmest tha ks of the meeting to the committee d officers of the parent society, as well as those of the proicial branches, for their zeal in the society's beneficent rk, and also to those of the students who had contributed. said there were 2,500 registered practitioners in Ireland, d if each only subscribed 5s. annually it would put £600 at disposal of the society.

Sir Thornley Stoker, in seconding the resolution, said an plicant's religion was not even known to the committee. e only questions ever considered were the necessities of applicants and their want of means.

On the motion of Dr. Denham, seconded by Dr. Ringwood, Central Committee and officers and honorary secretary d treasurers of branches for the ensuing year were elected. Dr. Tweedy was moved to the chair, and a vote of thanks s passed to Mr. Chance for presiding.

A "Rest for the Dying" at Dublin.

On June 10th His Excellency Earl Dudley opened a 'Rest the Dying" in Camden Row, Dublin, for the use of Protants suffering from incurable diseases. The Archbishop Dublin conducted the dedication service, and explained t the home had been established through the benevolence a gentleman who gave £5,000 towards it. The Roman holics had a hospice for the dying, and it was felt that the otestants should have a like institution under the manageit of their own Church. Dr. Little and Sir John Moore the Consulting Physicians, Sir Charles Ball and Sir rnley Stoker Consulting Surgeons, and Dr. W. A. Winter Dr. George Peacocke Medical Superintendents. The lding will accommodate twenty-four patients.

Degrees for Women in the University of Dublin.

he Senate of the University of Dublin at its meeting on e 11th gave effect to the new policy of admitting women egrees by conferring the honorary degrees mentioned in University Intelligence (p. 1468). The Provost referred he King's letter by which they were enabled to open the ees of the University to women. The resolution to apply permission was carried by 77 to 11. They had now a perly free hand for treating women in this regard on terms of ect equality with men as to degrees in Arts and Medicine, the exception that they cannot become members of the orate body of Fellows and scholars. They can, however, nade non-foundation scholars. In the case of women ying elsewhere, but who have been hitherto excluded the University of Dublin, they will get credit as far as ible for the work so done, and will not be compelled to n *de novo*. Those educated in Oxford and Cambridge will eated (subject to a time limitation) as if they had been itted to the academic status in those universities corre.ding to their educational exercises.

Dublin Hospitals.

e Board of Superintendence of Dublin Hospitals have ented to Parliament their report for the past year. The ber of patients admitted for treatment during the year 11,732, or, adding those in hospital at the close of the , 12,753. The mortality amounted to 477, or 5.43 per cent. 1,373 cases. The total daily average of beds occupied in nine hospitals which received aid from the annual grants 960.52, and the time spent in hospital by each averaged days. Clinical teaching continues to be as vigorous and essful as ever. The Board suggest that grants in aid, o exceed one-half, ought to be given for the installation ay, radium, and Finsen light apparatus. The Governors, peaking of the Rotunda Hospital, enter a protest in ence to the action of the Central Midwives Board.

a training school for maternity nurses the most thorough and al instruction is given, which makes them welcome and helpful at all obstetric cases. It was, therefore, with surprise that we ed that the "Central Midwives Board," in framing their rules, no account of the Rotunda and Coombe Hospitals, and rushed gh the Privy Council a set of rules which exclude all Irish trained ives. We trust that the objectionable clauses that bear on this t may soon be deleted; and we cannot help observing that it have been more courteous and wise for the "Central Midwives " to have first communicated with the masters of our maternity als, and elicited their opinion on the rules that had been drawn ore presenting them to the Privy Council for approval.

Ballinasloe Asylum.

the meeting of the managing committee of the Ballin- Asylum on Monday last, Right Rev. Bishop McCormack e chair, Mr. Millar moved that the salary of Dr. Mills, who was passed over in the recent election of medical superintendent, be increased from £233 6s. 8d. to £333 6s. 8d. The principle of granting an increase was adopted by 11 to 6: but although it was mentioned that the Roman Catholic archbishop was the first to suggest a substantial increase the sum ultimately agreed upon as an addition was only £50. It was further stated that Dr. Mills had not applied for any increase.

Alcoholism in Ireland.

Dr. T. J. O'Meara at the request of the Irish Temperance Association gave an interesting address on the causes, effects, and prevention of alcoholism in Ireland at a recent meeting in Skibbereen. There were, he said, three principal causes of alcoholism in Ireland: First came the excitable, high-strung, nervous temperament of the Irish race, next the erroneous views of hospitality which prevailed, and, finally, the widespread and mistaken idea that the consumption of alcohol was positively beneficial to health. In addition to these principal causes, contributing but minor causes doubtless existed, such as the wretched and uncomfortable homes of the poor, the excessive number of public-houses, the late hours to which the latter remained open, the insufficient punishments meted out by the courts for drunkenness and crimes arising therefrom, and the lethargic, compassionate tolerance with which drunken men were regarded even by temperate persons. The Irishman was essentially neurotic and mercurial, easily overjoyed and as easily depressed, and accustomed to treat both conditions by whisky. Hospitality was widespread, and it was barely possible to enter an Irish home without being offered a drink. The beneficial effects of alcohol were altogether over rated. In disease the people regarded it as nourishment; but there was no nourishment in whisky, for alcohol was not a food but merely a fuel. A certain amount could be absorbed by the system, and upon certain occasions it might be desirable to administer it to stimulate vital processes, but never except under medical direction. In most cases it was harmful, and in many directly poisonous even in small quantities. There were four mental results from alcohol—simple acute drunkenness, the alcoholism of the chronic degenerate soaker, the state of the man with delirium tremens, and of him who had passed into a condition of alcohic insanity.

It was alcoholism which helped to fill the asylums, for, besides its direct effects, it helped to bring out latent insanity from other causes. As regards its effects on the body, abuse of alcohol caused or predisposed to apoplexy and to inflammation (whether acute or chronic) of the stomach, liver and kidneys; also to bronchitis, pneumonia and consumption, not to mention neuralgia. The pneumonia of alcoholics was peculiarly fatal. Finally, the children of drunkards were more delicate than those of other people. To lessen alcoholism in Ireland, the first thing was to develop in an excitable people a more reasonable condition of mind, and, at the same time, remove the subsidiary causes which had been mentioned. People should recollect that there was no nourishment in alcohol, and that its stimulating effects were but transitory. Further, the Government should make it a duty to see that all whisky sold was really pure. The mistaken ideas of hospitality should be amended, and amongst other things wakes should not be permitted except in very few cases. Apart from the whisky-drinking to which wakes led they were dangerous in themselves, for it was now recognized how many of the common diseases, such as pneumonia, influenza, consumption, acute rheumatism, measles, and whooping-cough were infectious. Wakes no longer served the purpose for which they were initiated. Finally, keeping in mind the excitable temperament of the race, a higher standard of morality in respect of the drink question should be developed. People should be taught to keep ever before their eyes the dire effects of excessive drinking upon their bodies and minds and on future generations. Each one should endeavour to exert his will power, and refuse to drink except in extreme moderation. No one should drink except at meals, and then take only such a quantity as the body could consume by way of fuel. That was about one glass of whisky or two bottles of porter in twenty-four hours. More than this would do great harm, and less would be all the better. The average Englishman drank more than the average Irishman, but he drank at his meals, and frequently, also, ate with his drinks. Thus, therefore, he suffered from alcohol in body and mind less than did the Irishman. The man who was ruining himself fastest was he who began the day with alcohol, and continued to take drinks during the day on the slightest pretext.

At the conclusion of this address, the Bishop of Ross expressed the hope that the newspapers would give a full account of what Dr. O'Meara had said, in order that the people might assimilate the valuable information conveyed at their leisure, and bring it to the notice of their friends.

CONTRACT MEDICAL PRACTICE.

A Burial Club.

Some account of certain incidents which had occurred recently in connexion with a burial club at Macclesfield and led to the resignation of the medical officers connected with it, was published in a recent issue[1]; subsequently we published a letter signed by some fourteen of the leading medical practitioners of the town in which our account of the incidents was confirmed and the hope expressed that no medical practitioner would be found to accept the positions vacated. The matter seems to have attracted a good deal of notice in the local press, but though a great deal of space has been devoted to a general account of matters and to more or less unreasoning letters from members of the burial club, the medical men have not, so far as we are aware, taken any public steps to influence the possible trend of public feeling in the matter. The question of the conditions of contract practice is one in which the general public of any comparatively small locality may be considered to have considerable interest, even though the majority of its members may not form part of any society which has the provision of contract medical attendance in view.

These societies were originally brought into existence for the benefit of the poorer classes, and their continued existence may legitimately be defended upon the ground that the working classes are thereby enabled to provide for themselves while in health the medical attendance which in misfortune they would have to seek from medical men remunerated out of the public purse. These societies are, however, open to grave abuses, and when either large numbers of well-to-do persons—for whom they were never intended—are allowed to creep into them, or the fees paid to the medical officers are cut down below a certain level, the general balance of the public interest is entirely against their continued existence. In such case there is a danger that medical men of the best stamp may cease to find it worth while to continue to work in the town. It is contrary to the public interest that in any place a large section of the working class should be enabled to set local medical opinion at defiance and say We will pay you as little as we please. This fact has been recognized in the majority of places at which contests have occurred, such as that which appears to be threatened at Macclesfield, and we are also bound to admit that where contests have been in any way prolonged it has been less the fault of the working man himself than of those whom he has permitted to fight in his name. While individual members of the working classes may be ready to recognize their obligations, their united action is usually determined in such cases by the personal interest of officials or of others who have either crept into the societies when already well-to-do people or who, at one time legitimate members of a medical benefit society, have grown rich but yet refuse to abandon the advantage of cheap medical attendance cheerfully conceded to them under earlier circumstances.

Almost all the difficulties which have arisen from time to time between medical benefit societies and the medical profession are due to these two factors, and it is to them that the real interests of the true working man have been sacrificed.

In the case at Macclesfield it is stated that the Society concerned has obtained for the present the services of Mr. William Thomas Gardner Robinson, M.D.Glasg., hitherto the medical officer of the Friendly Societies Medical Institute at Hull. The Society, therefore, will have one medical man in its service instead of two, and how far either it or allied societies in Macclesfield will be eventually benefited remains to be seen. The upshot depends partly upon the view which the indirectly interested public may take of matters and partly upon the capacity which the local medical profession may show for unity of action and firm adherence to broad-minded principles. This, it may be expected, will be exhibited in adequate degree, for the small grievances which sometimes divide the medical men of a place will presumably be laid aside.

Contract Practice at Collieries.

A case of some interest to medical men holding colliery appointments was recently decided at the Flint County Court.

[1] British Medical Journal, May 14th, p. 1162; and May 21st, p. 1218.

Dr. Lunt sued twenty-four colliers for contributions due to him under an agreement, whereby it was laid down at the time he was appointed colliery surgeon that the contract could only be terminated by three months' notice on either side. According to a report in the *Liverpool Mercury* of May 20th, Dr. Lunt only received a fortnight's notice, and had already recovered upwards of £30 for fees due after his dismissal, and he now sought the balance. Counsel for the defence urged that the £30 recovered was really damages for breach of contract, and that nothing further could be recovered. His Honour Judge Sir Horatio Lloyd disagreed with the contention, and gave judgement for the plaintiff, but said that he considered half a dozen cases would have been fully sufficient to test the law on the subject.

The decision is satisfactory. Colliers, like other people, should be taught that when they contract with a medical man who is willing and desirous to carry out his share of the agreement, they on their side are similarly bound. One of the worst features of contract practice among the working classes is the laxity with which the latter are prone to regard contracts with their medical officer. While regarding with the utmost jealousy the slightest infraction on the part of the medical officer, on their own side not infrequently they imagine they can vary the terms at pleasure. It often happens that in such disputes the medical officer is glad to get rid of his appointment at any cost, and does not trouble to obtain the legal redress to which he is entitled. Dr. Lunt is to be congratulated that in enforcing his own rights he has also been maintaining those of his profession.

The General Medical Council and Systematic Canvassing.

Dr. G. A. Phillips, President of the Walsall Medical Society, writes to express the astonishment with which he has read the report of the action of the General Medical Council on Dr. Lindsay Steven's motion with regard to systematic canvassing. He points out that the Council some time ago decided that a medical man who was associated with an insurance society, and whose name was printed on the cards, was guilty of "infamous conduct" because a canvasser went from house to house asking people to join that Society. The same thing used to be done in Walsall, and, after the Council decided that that practice was illegal, nearly every medical man in that town agreed to give up employing canvassers. Now the Council turn round and say: "We do not say the practice of systematic canvassing is illegal; this sort of work constitutes a 'new offence,' and we are not prepared to pronounce upon it as a practice; but, if the medical men of Walsall like to arraign some dozen or so of their brethren, and bring them before us, we will then express an opinion which will be binding on those men of Walsall, but will not apply to any of the men in Wolverhampton or West Bromwich or neighbouring towns." If the General Medical Council would have adopted Dr. Lindsay Steven's proposition, and stated that they considered the employment of a canvasser going from house to house in a town, touting for his employer, to be illegal, it would, Dr. Phillips believes, at once have put a stop to the practice, at all events to the wholesale practice of it such as goes on in some towns.

Club Practice in Germany.

An order issued by the Royal Local Government Board of Saxony, and just received by the President of the Local Sick Bureau at Leipzig, abolishes the system of district medical officers; in future each patient will be allowed to choose his own doctor. The contracts of the medical men will be with the district medical societies, and arrangements will be made for settling all disputes by arbitration or courts of equity. Where there is no question of medical attendance on members of one family, the honorarium will be at the rate of five marks a head per annum.

LITERARY NOTES.

The Umberto I. prize for the best work or invention relating to orthopaedic surgery is open to medical practitioners of every nationality. It is of the value of £140, and will be awarded by the Rizzoli Orthopaedic Institute of Bologna in accordance with the decision of the Provincial Council of Bologna. The competition is open till December 31st, 1904. Application should be made to Professor Rodolfo Silvani, President of the Rizzoli Institute, from whom all necessary particulars may be obtained.

In the June number of the *Edinburgh Medical Journal*, Dr. David Rorie gives some interesting illustrations of folk-medicine, which is by no means yet extinct in Fifeshire. Recently he was told of a "cure" that was got "frae an auld wife wha got it when she was a young woman frae a man wantin' the legs that was drawn aboot by twa black dogs." The "cure" was the application of sheep's kidney fat and Archangel tar to a "scabbit heid efter inockilation wi' maitter." Tinkers and tramps are credited with skill in the use of simples. To a man laid up with a "poisoned ar[m] which was slow in healing, came an old beldame w[ho]

commended that three puppies should be split up and plied hot to the diseased surface. The arm got well spite of the treatment. Within the last few months r. Rorie came across a boy suffering from enuresis to whom as being administered thrice daily a tablespoonful of liquor which a mouse had been boiled. Another method is to ast the mouse after decapitation, and reduce it to powder. sovran thing for the prevention of cramp is a piece of lphur sewn in a garter and worn round the leg. Dr. Rorie s seen a portion of sulphur candle left by a sanitary spector used for this purpose—a curious victory of perstition over science. Black slugs "masked in a apot with water and salt supply an oil which makes an cellent application for rheumatism." White slugs aced in a flannel jelly bag with a handful of salt furnish oil which is given to consumptives. The bedding and thes of a patient who has died of consumption are rnt, but it is a popular belief that the infection cannot conveyed from a younger to an older person. The specific whooping cough is "change of air," but this term is sometnes apt to be interpreted in a startling sense. Dr. Rorie ls of a father who took his young child down a pit and held for ten minutes in a strong draught in an air course, with e result that it died in two days of pneumonia. The idea of cting rid of disease by transference to another lies at the ttom of a good deal of folk medicine. This belief, it is well own, often leads to criminal assaults on young children. . Rorie lately saw a case in which a nursemaid had delicately infected a child with the object of curing herself of petigo contagiosa. A relic of the belief in demoniacal ssession is found in the fear which prevents many sufferers m eating lest they may feed the disease. "He's burst himf," explains all skin eruptions, from "plooks" to pemigus. The usual cause of a "burst" is a chill following eating, but it may also be the consequence of a "rash nk o' water." Boils are looked upon as a sign of rude lth, and the presence of pediculi on the head is regarded a proof that a child is strong. A woman has been known collect these parasites and transplant them to the head of ickly child in the fond belief that they would give it ngth.

n a communication presented not long ago to the Société dico-Chirurgicale de Brabant, Dr. Dubois-Havenith, the l-known dermatologist of Brussels, pointed out that taire had partly anticipated the crusade undertaken the Ligue Internationale pour la Prophylaxie de la philis. In his short story *L'homme aux quarante Ecus* re is a chapter devoted to the subject. From the deption of the disease it is evident that in his it was of a type the reverse of mild. Mercurial tment was employed with a vigour unknown nowas; the two pretty cousins of the man with forty vns got rid of the affection at the cost of heads swollen balloons during six weeks, the loss of half their teeth, great enlargement of the tongue, only to die of lung ase. The diffusion of syphilis is shown by the fact that n two Christian armies of 30,000 men take the field against other it can safely be wagered that 20,000 on each have syphilis. The only way to lessen the ravages of scourge is said to be that all the kings of Europe should d themselves together in a new crusade against syphilis. would be much more reasonable to unite to fight the mon enemy of the human race, than to be continually hing for a favourable opportunity of laying waste territ and covering the fields with dead, in order to rob one's hbour of two or three towns and a few villages."

he Warren Triennial Prize of the value of £100, in the gift he Massachusetts General Hospital, has just been awarded Dr. Max Borst, Extraordinary Professor of Pathological tomy in the University of Wurzburg, for a dissertation tled Neue Experimente zur Frage der Regenerationsgkeit des Gehirns, in which the regeneration of medull nerve fibres in the central nervous system after injury is onstrated. The prize was founded by the late Dr. J. on Warren in memory of his father. His will provides the accumulated interest of the fund shall be awarded y three years for the best dissertation on some subject in siology, surgery, or pathological anatomy. The number ssays received was larger than on any previous occasion; came from widely-distant parts of Europe as well as from erica.

essrs. Longmans, Green, and Co. have in the press a *tbook of Medical Practice* edited by Dr. William Bain.

British Medical Association.

SEVENTY-SECOND ANNUAL MEETING AT OXFORD.

SPECIAL RAILWAY ARRANGEMENTS.

To members and their friends attending the annual meeting at Oxford the railway companies of the United Kingdom will grant return tickets, on payment at the time of booking, at a single fare and a quarter. To secure this concession each passenger must produce a special voucher, and these may be obtained on application to the General Secretary, 429, Strand, London, W.C. The reduced fares will be available from July 22nd to August 2nd, both dates inclusive.

Members attending the annual meeting, but staying at places outside Oxford, may, on production of cards of membership, obtain return tickets at a single fare and a quarter (minimum charge 1s.), from Oxford to any station not more than fifty miles distant to which through bookings are in operation; these tickets will be available to return on the same or following day. Members availing themselves of this privilege should use the original return ticket for the first journey to and the last journey from Oxford. The member's ticket which is obtained at the Reception Room, when registering attendance, will enable members to get the reduced fares from Oxford to places within the fifty-mile radius for any intermediate journeyings.

ASSOCIATION NOTICES.

COUNCIL.

NOTICE OF MEETING.

A MEETING of the Council will be held in the Council Room of the Association, at 429, Strand (corner of Agar Street), London, on Wednesday, the 6th day of July next, at **2 o'clock** in the afternoon.

June, 1904. GUY ELLISTON, *General Secretary.*

ELECTION OF MEMBERS.

ANY candidate for election should forward his application upon a form, which will be furnished by the General Secretary of the Association, 429, Strand. Applications for membership should be sent to the General Secretary not less than thirty-five days prior to the date of a meeting of the Council.

LIBRARY OF THE BRITISH MEDICAL ASSOCIATION.

MEMBERS are reminded that the Library and Writing Rooms of the Association are fitted up for the accommodation of the members in commodious apartments, at the office of the Association, 429, Strand. The rooms are open from 10 a.m. to 5 p.m. Members can have their letters addressed to them at the office.

GUY ELLISTON, *General Secretary.*

BRANCH MEETINGS TO BE HELD.

BATH AND BRISTOL BRANCH: BATH DIVISION.—The annual meeting of this Division will be held at the Royal United Hospital, Bath, on Monday, June 20th, at 6.15 p.m., Mr. R. J. H. Scott in the chair, for the purpose of electing officers, members of the Branch Council (there are five vacancies), and for such other business as may be done at an annual meeting.—W. M. BEAUMONT, 4, Gay Street, Bath, Honorary Secretary.

BATH AND BRISTOL BRANCH: BATH AND TROWBRIDGE DIVISIONS.—A meeting of these Divisions will be held at the Royal United Hospital, Bath, on Monday, June 20th, at 6 p.m., for the purpose of appointing a Representative of the Divisions in Representative meetings of the Association.—W. M. BEAUMONT, Bath, J. TUBB THOMAS, Trowbridge, Honorary Secretaries.

BIRMINGHAM BRANCH: COVENTRY AND TAMWORTH AND NUNEATON DIVISIONS.—The joint annual meeting of these Divisions will be held at the Coventry and Warwickshire Hospital on Wednesday, June 29th, at 3 p.m. Agenda: 1. Election of a Representative for the Annual Representative Meeting. 2. Instructions to be given to such Representative on the matters arising at the Representative Meeting. (These matters are fully set out in the SUPPLEMENT to the BRITISH MEDICAL JOURNAL of May 7th; members will probably find it a convenience to bring that SUPPLEMENT with them.)—F. L. HARMAN BROWN, Clive House, Warwick Road, Coventry, Honorary Secretary.

BIRMINGHAM BRANCH: DUDLEY DIVISION.—The annual meeting of this Division will be held in the Town Hall, Dudley, on Thursday, June 30th, at 3 p.m.—M. A. MESSITER, Cappoly, Dudley, Honorary Secretary.

BIRMINGHAM BRANCH: WEST BROMWICH DIVISION.—The annual meeting of this Division will be held in the Board Room of the West Bromwich District Hospital on Wednesday, June 29th, at 4 p.m. Business: To elect officers. 1. Two Representatives on Branch Council. 2. Ordinary members of Executive Committee. 3. Representative in Representative Meetings of the Association. To receive report from Executive Committee. To consider the business of Annual Representive meeting. To consider memorandum from Exeter Division. Other business.—H. B. W. PLUMMER, 54, Birmingham Road, West Bromwich, Honorary Secretary.

BORDER COUNTIES BRANCH.—The annual meeting of this Branch will be held on Thursday, June 30th, in the County Hotel, Carlisle, at 3 p.m. Business: 1. Reports of election of new officers. 2. Election of six members of Council. 3. President's address.—FRANCIS R. HILL, 62, Warwick Road, Carlisle, Honorary Secretary.

BORDER COUNTIES BRANCH: SCOTTISH DIVISION.—A meeting of this Division will be held at Stranraer on Saturday, June 18th, at 5.45 p.m.—GEORGE R. LIVINGSTONE, Honorary Secretary, 47, Castle Street, Dumfries, N B.

CAMBRIDGE AND HUNTINGDON BRANCH.—The annual meeting of this Branch will be held at Cambridge on Thursday, June 30th. Members desiring to make communications should write to the Honorary Secretary as soon as possible.—F. E. APTHORPE WEBB, 25, Newmarket Road, Cambridge, Honorary Secretary.

EAST ANGLIAN BRANCH.—The annual meeting of this Branch will be held at the Royal Hotel, Lowestoft, on Thursday, June 23rd. Agenda:—11.30 a.m: Meeting of Council at the Royal Hotel. 12 noon: General meeting at the Royal Hotel. (1) Minutes of last meeting. (2) Report of the Council. (3) Report of elected officers for 1904-5. (4) The following resolution will be proposed by Dr. Edgar Barnes: "That any certificate of inability to attend school required by the education authorities should be paid for by such authority, and that the East Anglian Branch be requested to take steps to confer with the education authorities on the question. (5) W. K. Hatch, F.R.C.S. (Norwich) will read a paper on a case of Ectopion Vesicae treated by Implanting the Ureters into the Rectum. (6) H. H. Brown, M D., F.R.C.S. (Ipswich) will show a specimen of Hair Ball removed from the stomach of a child, with notes. 1 p.m.: Luncheon at the Royal Hotel by the kind invitation of the President-elect (Mr. H. B. Walker), and members of the Branch in Lowestoft 2.30 p.m.: Resumed general meeting. (7) Introduction of Mr. H. B. Walker as President of the Branch; thanks to the retiring president. (8) Opening remarks by the President, Mr. H. B. Walker; vote of thanks to Mr. Walker. (9) Miss L. Garrett Anderson, M.D., will read notes on a case of Uterus Bicornis with Haematometra of one Horn. (10) W. W. Sinclair, M.D. (Ipswich) will show specimens and read notes on (*a*) a curious Accident to an Eye; (*b*) a case in which a large Foreign Body was Successfully Removed from the Interior of the Eyeball by means of the Electro-magnet. (11) Mr. A. E. Lyster (Great Baddow) will read a paper on the Open-air Treatment of Tuberculosis, with notes of 11 cases treated in a new shelter. (12) Mr. A. Y. Pringle (Ipswich) will read notes and show a specimen case of Chronic Obstruction of the Bowel. 4 to 5 p.m: Afternoon tea, by kind invitation of the President and members in Lowestoft, to which ladies are invited. Surgical instruments will be shown by Messrs. Down; drugs, etc., by Burroughs, Wellcome, and Co.; books by Saunders and Co., etc.—B. H. NICHOLSON, Colchester; H. A. BALLANCE, Norwich; J. GUTCH, Ipswich, Honorary Secretaries.

EDINBURGH BRANCH.—The annual meeting of this Branch will be held in the Hall of the Royal College of Physicians (No. 9, Queen Street) on Friday, June 24th, at 4.15 p m. Business: Election of office-bearers, etc. —NORMAN WALKER, A. LOGAN TURNER, Edinburgh, Honorary Secretaries.

LANCASHIRE AND CHESHIRE BRANCH.—Preliminary notice. The annual meeting of this Branch will be held in Blackburn on the afternoon of Thursday, June 30th. The Honorary Secretary will be pleased to hear from any member desirous of reading papers, etc.—T. ARTHUR HELME, 3, St. Peter's Square, Manchester, Honorary Secretary.

LANCASHIRE AND CHESHIRE BRANCH: MANCHESTER AND LIVERPOOL DIVISIONS.—*Oxford Meeting:* Arrangements are being made to have a special car attached to a train leaving London Road for Oxford on Monday, July 25th. Members desirous of joining the party will help by sending their names to Dr. Bagley, 229, Clowes Street, Manchester, S.E., before July 1st, stating whether morning or afternoon will suit them best, and which route they prefer. The Great Central is the quickest, leaving London Road at 10 a.m., 12 30 p.m., and 2.15 p.m.; the Great Western, 12 noon, and 2.10 p.m.

LANCASHIRE AND CHESHIRE BRANCH: ROCHDALE DIVISION.—A joint meeting of the Bury and Rochdale Divisions will be held at the Dispensary, Knowsley Street, Bury, on Thursday, June 23rd, at 4.15 p.m. Business: 1 The election of Joint Representative for the Annual Representative Meetings. 2. Consideration of notices of motions to be discussed at the annual meeting. 3. Consideration of the revised draft of Medical Act Amendment Bill as published in the SUPPLEMENT of the BRITISH MEDICAL JOURNAL of May 28th.—W. C. BURNS, M.B., A. B McMASTER, M.D., Joint Honorary Secretaries.

LEINSTER BRANCH: DUBLIN DIVISION.—The annual general meeting of this Division will be held in the Royal College of Physicians at 5 p.m. on Wednesday, June 22nd.—L. G. GUNN, M.D., 43, Fitzwilliam Square, Honorary Secretary and Treasurer.

METROPOLITAN COUNTIES BRANCH.—The annual meeting of this Bra will be held at the Hotel Cecil on Tuesday, June 28th, at 6 p.m. The annual dinner (8s. 6d., exclusive of wine) will follow the meeting a for 7.30 p.m., Dr. H. Radcliffe Crocker, President, in the chair. ROWELL, 6, Cavendish Place, W.; F. J. SMITH, M.D., 138, Harley Street Honorary Secretaries.

METROPOLITAN COUNTIES BRANCH: RICHMOND DIVISION.—The ann meeting of this Division will be held at the Greyhound Hotel, Richmo on Wednesday, June 22nd, at 8.45 p.m. Agenda: 1. To elect officer Representatives of the Division on the Branch Council, and the mem of the Executive Committee. 2. To elect the Representatives of the Di sion in Representative Meetings of the Association. 3. To receiv annual report of the Executive Committee. 4. To consider the bus of the Annual Representative Meeting.—J. R. JOHNSON, 3, Ellerker Richmond, Honorary Secretary.

NORTH LANCASHIRE AND SOUTH WESTMORLAND BRANCH.—The a meeting of this Branch will take place at the County Hotel, Ulverst June 29th, at 3 p.m. There will also be a joint meeting of the Fu and Kendal Divisions to elect their Representative. Members will show cases, specimens, etc., are requested to communicate as soon a sible with the Honorary Secretary, A. S. BARLING, High Street, Lanc

NORTH WALES AND SHROPSHIRE BRANCH.—The annual meeting w held at Shrewsbury on or about the 7th day of July. Members h papers to read or cases to communicate are requested to notify eit the Secretaries on or before June 25th.—W. JONES MORRIS, Portm H. JONES ROBERTS, Penygroes; H. H. B. MACLEOD, Clive House, Sh bury, Honorary Secretaries.

SOUTH-EASTERN BRANCH.—The sixtieth annual meeting of this B will be held at Grand Hotel, Eastbourne, on Wednesday, June 22 2.15 p.m. Mr. J. H. Ewart (President-elect) kindly invites memb lunch at the hotel from 1 to 2 p.m. Agenda: In addition to the bu of an ordinary meeting. 1. To receive the report of the election officers, who shall thereupon take office. 2. To receive the report Council on the affairs of the Branch and the annual financial statem 3. To make new rules or alter or repeal existing rules (if so des 4. Dr. Larking gives notice that he will move: That in the opinion meeting the present South-Eastern Branch should be divided int Branches separated by a line running roughly between Londo Hastings, and that the opinion of the Divisions concerned be obtain the question. After the meeting drives will be arranged to Beachy and Pevensey Castle. Dinner at the hotel at 6.45 p.m., charge (wine will be provided by the local members). Those who propose present at lunch or dinner are requested to signify their intention Merry, 2, Chiswick Place, Eastbourne, not later than Monday, June —T. JENNER VERRALL, 97, Montpellier Road, Brighton, Honorary tary.

SOUTH-EASTERN BRANCH: CANTERBURY DIVISION.—The annual m of this Division will be held at the Kent and Canterbury Hospit Thursday, June 23rd, at 4 p.m., Dr. Gogarty in the chair. Agenda: read minutes of the last meeting. 2. Election of officers. (*a*) Chai (*b*) Vice-Chairman; (*c*) Representative on Branch Council; (*d*) Hon Secretary and Treasurer; (*e*) Executive Committee (additional me 3. To consider a communication from Dr. Gosse. 4. To consider th posed resolutions and other business for the forthcoming Represen Meeting at Oxford (*vide* SUPPLEMENT, May 7th, 1904). 5. To co existing rules and discuss whether any alterations are necessary consider a communication from the Exeter Division of the South-W Branch. 7. Any other business. 8. Possibly an address by Mr. Whitaker, Medical Secretary of the British Medical Association.— HENCHLEY, 1, London Road, Canterbury, Honorary Divisional Secr

SOUTHERN BRANCH.—The annual meeting of this Branch will be at the South Western Hotel, Southampton, on Thursday, July 7th. President kindly invites the members to luncheon at the hotel at 1 the general meeting will be held at 2 p.m. The following resolution be moved from the chair:—(1) That each candidate for election Association by the Council of the Southern Branch (excepting offic the army, or navy, or Indian Medical Service on the Active List) sha nish a certificate from two members of the Association, to whom personally known. (2) That a donation of 5 guineas be made t Epsom College. N.B.—This donation will entitle the Branch to v the next election of pensioners and foundation scholars. Mem desirous of reading papers are requested to forward the titles t Honorary Secretary at once. An address will be delivered by Mr. Bullar, M.B., President. After the address visits will be paid to pla interest in the town and neighbourhood. Tea will be served at the from 4.30 to 6. Members intending to be present at luncheo requested to communicate with Dr. Wade, 28, Carlton Crescent, S ampton, not later than July 6th.—H. J. MANNING, Laverstock H Salisbury, Honorary Secretary and Treasurer.

SOUTH-WESTERN BRANCH.—The annual meeting of this Branch w held on Tuesday, June 21st, at the Public Hall, Paignton, at 3 p.m. Dr. Thompson will resign the chair to Dr. J. Alexander, who will de his inaugural address. The report of the Branch Council and ar financial statement for the year 1903-4 will be presented to the me and the officers of the Branch be elected for the year 1904-5. The Br Council will submit to the meeting for approval a code of rules to late procedure in ethical matters, and will propose the following a tions in Rule 15, Sections C and D: Section C to read—Exhibiti Clinical Cases. Section D to read—Reading of Papers. Luncheo kind invitation of the President-elect, will take place from 1 p.m. t p.m., at the Public Hall. After the meeting a garden party will be at the Queen's Park, when the President and Mrs. Alexander will re members and their wives. The annual dinner will be held at the P Hall at 6.45 p.m. Tickets (exclusive of wine), 6s. 6d; after which a play by amateurs will be given. All members who wish to stay ove next day have leave to play golf on the Churston Links by the kind sent of the Committee of the Churston Golf Club. All members atter the meeting will be honorary members of the Paignton Club by kind

nt of the committee. The Esplanade and Gerston Hotels afford good commodation for members wishing to stay the night.—G. YOUNG LES, 1, Matlock Terrace, Torquay, Honorary Secretary.

ULSTER BRANCH.—The annual meeting of this Branch will be held in lfast on Wednesday July 20th. Any member having any communica-n to made or any business to bring before the meeting should kindly orm me on or before July 12th. Nominations for the offices of Presi-nt, Representatives on the Council of the Association (two when com-ied with Connaught Branch), Honorary Treasurer, and Honorary retary should reach me not later than June 30th.—WILLIAM CALWELL, D., 1, College Square North, Belfast, Honorary Secretary.

WEST SOMERSET BRANCH.—The annual meeting of this Branch will be ld at the Crown Hotel, South Petherton, on Tuesday, June 28th, at 30 p.m., undes the presidency of Mr. A. W. Sinclair. Agenda: Minutes last meeting. Annual report of Council. Treasurer's report. Election President-elect. Election of other officers. Election of Ethical Com-ittee. Ethical case: Report of Committee on case recently before them. solution: The following will be proposed: "That members of the ncil attending ordinary meeting of the Council at Taunton shall re-ve their second-class return railway fare." President's address on rasthenia. Luncheon will be served at the Crown Hotel at 1.30 p.m. V. B. WINCKWORTH, Sussex Lodge, Taunton, Honorary Secretary.

WORCESTERSHIRE AND HEREFORDSHIRE BRANCH.—The annual meeting this Branch will be held at the Infirmary, Hereford, on Friday, ne 24th, at 4 p.m. Business: To elect officers for the ensuing year. Fitzsimons: President's Address—The Influence of Hospital Isolation on Scarlet Fever in Hereford. A discussion will take place on the stion of the Association undertaking medical defence. Mr. Edgar rris: Notes of some recent operations for Appendicitis. Dr. Paul pman: Demonstration on the Administration of Chloroform by ois's Method.—GEORGE W. CROWE, 43, Foregate Street, Worcester, norary Secretary.

WORCESTERSHIRE AND HEREFORDSHIRE BRANCH: HEREFORD DIVISION. ne annual meeting of this Division will be held in the Board Room of Herefordshire General Hospital, Hereford, at 3 p.m. on Friday, e 24th.—HERBERT JONES, Bankside, Hereford, Honorary Secretary.

ORKSHIRE BRANCH.—Preliminary Notice.—The annual meeting of this nch will be held at Leeds on Wednesday, June 22nd. Members wishing ead papers or show cases or specimens are requested to commu-te with the Honorary Secretary as soon as possible. Annual ner at 6.30.—ADOLPH BRONNER, 33, Manor Row, Bradford, Honorary etary.

SPECIAL CORRESPONDENCE.

MANCHESTER.

ter Manchester.—Cost of Epileptic Homes.—Physical Degeneration in Prussia.—Largest Reservoir for Water Supply in e Country.—Post-graduate Courses.

H the passing into law of the Manchester Corporation , which is now in sight, a very considerable increase will ade in the size of the city. With the incorporation of large Withington district and the smaller but even e closely-related and densely-populated area of Moss the area of Manchester will be about 19,000 s, an increase of nearly 30 per cent. The popula- will be increased by about 60,000, and the rateable e by nearly £400,000. Manchester itself was incorporated 38, when its area was 4,293 acres. A gradual process of rption has gone on, and township after township has been n in, and now there is a real "Greater Manchester." Im-iately after incorporation (in 1841) the population was 83. In 1871 it was 351,489. In 1881, by additional ab-tion, it reached 462,303; while in 1904 the population of ter Manchester, it is calculated, will reach 604,000.

ileptic homes are being erected at Langho, near Clitheroe, e Chorlton and Manchester Joint Asylum Committee at t of £78,500. Of this sum Manchester's contribution will 41,210. The Local Government Board must first give sanc-for an application to borrow this sum. It is suggested of the amount required by Manchester £30,343 should be d in thirty years, and the other £10,687 in fifteen years.

nchester is deeply interested in the question, now so ly discussed, regarding physical deterioration. An mely important communication has been made to the ct by Mr. T. C. Horsfall, who takes so deep and practical nterest in the housing problem. From Mr. Horsfall's nunication we gather that in 1824 the attention of the sian Minister of State was called to the fact that the work ills was seriously affecting the physique of the popula- and a few years later General von Horn reported to the of Prussia that the inhabitants of the manufacturing districts could not supply their due proportion of soldiers to the army. This led to factory legislation and a series of efforts to improve the condition of the people in the manufacturing districts and those in the poorer quarters of the towns. At a meeting held last month, the Secretary of State, Count Posadowsky, when calling attention to the urgent need for getting rid of the causes of tuberculosis stated the striking and indeed appalling fact that in 1902 of the young men who in Berlin reached the age at which they ought to serve in the army only 33 per cent. were physically fit for service, while in the German empire, as a whole, 57 per cent. of the men of that age were unfit for service. In Germany a very complete system of weighing and measuring the growing youths is in operation, and this system makes it possible to discover the shortcomings, and in most cases to indicate the remedy. In 1877, it was found from statistics collected by the Prussian Statistical Bureau that out of 17,246 young men who were entitled by education or other satisfactory circumstance to spend only one year with the colours, only 20 per cent. were fit for service, while of ordinary recruits who belonged to less well-to-do classes and whose health had not been injured by excessive study, 50 to 55 per cent. were fit for service. The immediate effect was a reform in the curriculum of the secondary schools. In the Kriegsschulen at the present time great attention is given to daily outdoor physical exercises, and timely daily pauses for recreation are sandwiched between the hours of study. "The future will belong to the nation which keeps itself most able to resist disease, and therefore to resist its its foes. He, therefore, who struggles to maintain life and health for the masses, struggles also for the strength and the future of his Fatherland."

Not long ago Manchester acquired a great open park—Heaton Park—which is situated some distance beyond the city boundary. The General Powers Bill promoted by the Corporation provides for the construction of an extensive reservoir in Heaton Park. The storage and service reservoir will be one of the largest in the country. It will take several years to complete it, at a cost estimated at £1,215,000. It will hold 500,000,000 to 600,000,000 gallons, or about eighteen days' supply for the city and the extensive area of surrounding townships which are supplied by the Manchester Water Department. A storage system is necessary to meet contingencies under which the supply from Thirlmere might have to be temporarily cut off. A considerable area of low-lying land in the park has been selected for the site of this new artificial lake, which will be over half a mile long and about one-third of a mile broad. There are at present reservoirs at Prestwich, but they only contain 41,000,000 gallons.

For many years Owens College offered courses of post-graduate instruction in various branches of applied medicine, then followed a few years when no courses were given. This summer post-graduate courses have been resumed, a wide choice of subjects being offered. Some are carried on at the College and others at the Royal Infirmary, or institutions devoted to special branches of medicine. Each course consists of six meetings, and deals with a limited range of selected subjects.

SANATORIUM FOR NEWCASTLE AND NORTHUMBERLAND.—The Newcastle and Northumberland branch of the National Association for the Prevention of Consumption is at length, after many difficulties, in a position to commence the building of the sanatorium which it was proposed to found in commemoration of the Coronation of His Majesty. The public meeting for giving effect to the project had to be postponed in consequence of the King's serious illness two years ago, and the arrangements for the postponed meeting had to be modified at the last moment. The selection of a site was rendered more difficult in consequence of the exaggerated fear of infection which prevented the committee from obtaining sites which seemed suitable. A site, has, however, now been obtained in the North Tyne district, about three miles from Barrasford Station. The sanatorium is planned for 100 patients, and the estimated amount wherewith to build, equip, and endow was £50,000. Between £12,000 and £13,000 has been actually received, and the committee propose, therefore, to commence building. The administrative block will be made capable of serving the full number of patients, but provision for only half—fifty patients—will be made at first. A site, liberally offered by Lord Armstrong, the president of the branch, on his estate could not be utilized because of the absence of an adequate water supply.

CORRESPONDENCE.

THORNE DEFENCE FUND.

SIR,—Every medical man engaged in surgical work must feel sympathy with Dr. Mary Thorne in the recent action which she has been called upon to defend, and which resulted in an unfavourable verdict against her. Although the expenses of Miss Thorne's defence were defrayed by the Medical Defence Union, of which she is a member, she is herself responsible for the damages awarded against her, and also for the plaintiff's costs, which together amount to about £250. It has therefore been decided to raise a fund to assist Miss Thorne in meeting this expense and as a means of showing the practical sympathy of the medical profession with her.—We are, etc.,

WALTER S. A. GRIFFITH,
WALTER TATE,
DOUGLAS DREW.

London, W., June 14th.

Dr. Tate, of 32, Queen Anne Street, W., will be pleased to receive and acknowledge any subscriptions to the fund. The following is the first list of subscribers:

	£	s.	d.		£	s.	d.
Dr. Cullingworth	5	5	0	Sir W. Broadbent, Bart. ...	2	2	0
Dr. Walter S. A. Griffith ...	5	5	0	Sir Victor Horsley, F.R.S....	2	2	0
Dr. Walter Tate	5	5	0	Mrs. Elizabeth Wilks, M.D.	5	5	0
Mrs. Garrett Anderson, M.D.	5	5	0	Dr. Harrington Sainsbury...	3	3	0
Mrs. Scharlieb, M.D. ...	5	5	0	Mr. Battle	2	2	0
Mrs. Stanley Boyd, M.D. ...	5	5	0	Dr. Arthur Stabb	2	2	0
Dr. Herbert Spencer... ...	3	3	0	Mr. Mayo Robson	1	1	0
Mr. Douglas Drew	2	2	0	A Friend...	1	1	0
Mr. J. Berry	2	2	0	Dr. Maynard Horne... ...	1	1	0
Mrs. Dickinson Berry, M.D.	1	1	0	Dr. Herbert Scharlieb ...	1	1	0
Dr. Amand Routh	2	2	0	Miss Scharlieb...	1	1	0
Mr. Stanley Boyd	1	1	0	Dr. Herman	2	2	0

THE POWERS OF THE GENERAL MEDICAL COUNCIL.

SIR,—Many of your readers may not have realized the importance of the recent decision of the General Medical Council to apply to Parliament for power to compel all students of medicine to be entered on a register under their control. Such a power would be far-reaching, since it must necessarily carry with it the right to refuse registration to the student of any university or licensing body which would not be prepared to modify its requirements in the precise way in which the Council might choose to demand.

The great services rendered by the Council are recognized by all members of the profession, but there can be little doubt that its present legal powers, taken together with the moral weight which it derives from the individual eminence of its members, are amply sufficient to effect the ends it has in view. Already it acts as if it claimed to be possessed of such powers as the following:

1. The right to inspect any examination which forms a necessary part of the medical curriculum, including even the earlier examinations in literary and scientific subjects, and to require such changes in scope and method as they think fit, including even the adoption of a particular system of marking.

2. The power to prescribe the precise order in which the different examinations shall be taken, and to require that certain intervals of time shall elapse between them.

3. The power to require examining bodies to demand from a candidate before admitting him to examination evidence that he has gone through a particular "course of study," lasting for a particular period of time, conducted in particular institutions approved by them and taken at a particular stage in his career.

Attempts have actually been made by the Council to exercise each of the above-mentioned powers, and it is apparently only the fact that their claim to possess them rests upon a doubtful interpretation of the Medical Acts of 1858 and 1886 which has hitherto prevented their enforcement.

There is a widespread conviction among many of those concerned with medical education that, if these autocratic requirements indicate the spirit in which the Council conceives it to be its duty to act, a further extension of their powers must lead to an annihilation of present rights and independence, which it is the duty of every self-respecting university or licensing body to resist to the uttermost.—I am, etc.,

Oxford, June 14th. W. RAMSDEN, D.M.

IRRIGATION OF OPERATION WOUNDS WITH SOLUTIONS OF CHEMICAL IRRITANTS.

SIR,—In the following remarks reference is only made to incisions which pass through healthy skin into tissues which, prior to operation are free from bacteria, the class of wo in which primary union is aimed at by the surgeon. bacteria referred to are those capable of producing pus.

It may be granted that, in spite of every precaution, bact gain access, during the operation, to the majority of o operation wounds. In practice the surgeon regards the occ rence of primary union without inflammatory reaction as working test of the relative success of his efforts to exc bacteria without destroying the vitality of the tissues which the immediate healing of the wound depends. Cho cals, to act as germicides, must be used in strong solut applied for a considerable period to the body to be rend free from living bacteria, with which the chemicals must in direct contact. A chemical solution has no sele action or special affinity for bacteria, but when poured in wound containing bacteria attacks impartially the tissues the bacteria and fluids lying on these tissues. The tis beneath the surface of the wound, with any bacteria among these tissues, are beyond the reach of the chem solution. The chemical solution, if it is not neutralized the albuminous fluids of the wound, and if used of suffi strength and for a sufficient period of time, is capab killing simultaneously the tissues and the bacteria with it comes in contact. Chemical solutions sufficiently st to act as germicides are apt to interfere with primary u and on this account many surgeons decline to irrigate i anything stronger than sterile saline solution or b water.

What becomes of bacteria which have during an opera gained access to a wound which heals *per primam?* Irrig of the wound, prior to closure of the skin incision, washe many of these bacteria, together with blood clot and se but some bacteria are frequently left behind embedded i tissues. The fate of these adherent bacteria depends to extent on their number and virulence, but to a far greater d on the integrity of the patient's tissues and powers of r ance—that is, of destroying or neutralizing bacteria and toxins. It is immaterial whether the bacteria lying loos wound are killed or not, provided that they are washed the wound. Since this can be effected by irrigation wit unirritating fluid, such as sterile saline solution, solutio chemical irritants are unnecessary. The primary uni divided tissues largely depends on their vitality. This vit is, in some degree, unavoidably impaired by injuries in by the surgeon's instruments and hands. Further inju the application of a chemical irritant is unnecessary, and harm by rendering the tissues less capable of either un soundly or of dealing with any bacteria which may rem the wound after irrigation and closure of the skin inci In fact, primary union taking place after irrigation of a w with a solution of chemicals, which under favourable c tions has been known sometimes to act as a germicide, o in spite of, rather than because of, the chemical irr employed. The real credit for the primary union be partly to the irritating fluid in which the chemical i solved and which mechanically removes many of the ba together with blood clot and serum, and partly to the pa tissues, which by means of their germicidal and anti properties effectively deal with those bacteria which e removal by irrigation, and whose vitality has been suffi in spite of the trauma inseparable from the operation an action of the chemical irritant, to produced sound imm healing. The practical deductions from the above are:

1. That the surgeon, while employing every known m to prevent the access of bacteria to an operation w should recognize the fact that in spite of his precautions teria do usually gain access to the wound.

2. That there are at present no methods which are ca of destroying these bacteria *in situ* without at the same destroying the patient's tissues.

3. That irrigation of the wound with an unirritating s liquid will wash out the majority of the bacteria just a caciously as a solution of a chemical irritant, which ha drawback of impairing the vitality of the patient's tiss

I am, etc.,

Plymouth. C. HAMILTON WHITEFO

THE SO-CALLED "PANCREATIC REACTION" IN URINE.

SIR,—The suggestion of your correspondents Dr. C Ham and Dr. J. B. Cleland in their letter, published i BRITISH MEDICAL JOURNAL of June 4th, that the "panc reaction" is due to lead salts is at once disposed of b

t that other acids and neutralizing agents than hydro-oric acid and lead carbonate give precisely similar results chose I have described. For instance, by using a ½ c.cm. sulphuric acid to 10 c.cm. of urine and, after boiling for n five to ten minutes, neutralizing with barium carbonate ical crystals can be isolated in pancreatic cases, while mal urines give no result.

he fact that they have obtained crystals from normal nes and distilled water is conclusive evidence that their nique is at fault, and suggests that some oversight in ir manipulation of the lead carbonate or lead chloride pre-tate is the source of their difficulties. The lead salt crystals ained by your correspondents are in no sense identical h the "pancreatic" crystals. The latter have definite ting points and other characters which clearly show that y are osazones derived from carbohydrate bodies.

heir method of removing lead from the solution by means mmonium sulphide, with subsequent heating, introduces factors into the operation which are calculated to inter-with the succeeding stages of the "A" reaction. It is to that their failure to obtain crystals in pancreatic cases is, lieve, to be ascribed and not to the absence of the lead, ch, as I have pointed out above, does not influence the lt one way or the other.

y own experience with a considerable number of cases, pancreatic and non-pancreatic, since the publication of ecture, and various communications I have received from r observers, has only served to strengthen my conviction in competent hands the test is a useful aid in diagnosis n considered in conjunction with the clinical symptoms.

my lecture it was distinctly stated that the theory con-ing fat necrosis was only a working hypothesis, and what-the doubts of Drs. Ham and Cleland may be as to its ntific basis it has provided a useful starting point for a interesting series of observations.—I am, etc.,

don, W., June 10th. P. J. CAMMIDGE.

—The microscopical and chemical characters of the als ("yellow needle-shaped crystals in rosettes and ves") obtained by Dr. P. J. Cammidge in the urines of nts the subject of pancreatic disease[1] require more definition. Doubtless fuller details, as promised, will ven as knowledge of the reaction accrues, beyond the esting and extended observations already made by Dr. nidge.

ave been fortunate enough to carry out the test, on April n a man aged 55, suspected to be suffering from pan-tis, in addition to hepatic and splenic enlargement (of ful origin) with jaundice, under the care of Mr. W. L. lcombe, F.R.C.S.Edin., and Dr. E. L. Fox, at the South n and East Cornwall Hospital, Plymouth; and to verify ndition by *post-mortem* observation on May 3rd.

two occasions I obtained yellow needle-shaped crystals ettes and sheaves by method "A." (in which the urine ated with hydrochloric acid, neutralized with lead car-e and tested with sodium acetate and phenyl hydrazin chlorate); and by method "B" (in which, in additon, rated solution of perchloride of mercury is previously). This is to be interpreted, I believe, as evidence of the ce of pancreatic inflammation. I may add that the rance, numbers, and size of the crystals differed quanti-ly only, being fewer, shorter, stouter, and less markedly in method "B." The similarity in grouping, etc., was s to make exact discrimination difficult or impossible though I am familiar with osazone crystals, and I re-l the urine as negative "pancreatic reaction" (so-called).

mortem the pancreas was found to be hard and en-to about 8 oz., without abscess, haemorrhage, or . There was no fat necrosis. There was general inter-r fibrosis with some intralobular increase of con-e tissue and round-celled infiltration about certain of ucts, which showed desquamative catarrh under the scope. The islands of Langerhans appeared normal. was tubular nephritis, and the kidneys weighed 8½ oz. oz. on right and left sides. The liver weighed ; oz.; the hepatic ducts contained several gall stones re inflamed (cholangitis); the gall bladder (which had trained) was shrunken and contained no stones; no were present in any of the ducts of liver or pancreas, ese were patent. Cocci and bacilli were demonstrated perivascular lymphatic spaces of the pancreas and in rtal lymphatic glands in places by carbol thionin staining method, but no bacilli were seen by Gram-Weigert stain.

Similarly I have obtained crystals as described above by carrying out Dr. Cammidge's test with a normal urine from a healthy subject, but I did not obtain any yellow crystals when distilled water was substituted for the urine.—I am, etc.,

Plymouth, June 4th. F. G. BUSHNELL.

[1] Bradshaw and Gale Lecture on the Chemistry of the Urine in Diseases of the Pancreas.

"TESTING THE EYESIGHT OF A NATION."

SIR,—I see that Mr. Dugon espouses the cause of the prescribing optician. It seems strange in these days, when cries are heard on all sides against poaching on medical preserves, that any member of the profession should assume this attitude, and especially in the case of Mr. Dugon, whose letter implies his full ability to deal with refractive troubles, and who is, I see, also a "member of the Optical Society."

As to fees, I can only repeat that I know for a fact that presbyopics have in many cases been charged by vendors of spectacles more than they need have paid in fees to a doctor and for glasses to a dispensing optician. Only last week a patient remarked to me that she had found one optician, "one of a hundred" as she said, who had advised her to consult an oculist.

But I am bewildered by one thing. Since Mr. Dugon is capable of prescribing glasses, why does he delegate the work to any optician? It is surely better for him to prescribe the glasses than to risk any chances and involve his patient in the double cost of his own fee and the high charges of the prescribing optician.

With all respect to Mr. Dugon I must decline to accept his statement that the fee charged by Mr. Aitchison "included retesting the sight once or twice a year afterwards and the supply of fresh glasses whenever necessary, and this for an indefinite period with no further charge." It is not the experience of my own patients.—I am, etc.,

London, E.C., June 15th. A. OGIER WARD.

SIR,—Dr. Ward's letter in the BRITISH MEDICAL JOURNAL of May 28th, commenting upon mine in that of the 14th, is further evidence, if any were needed, that greater freedom of intercourse between the medical man and the optician would be to their mutual advantage.

One of the principal grievances which the optician has against the ophthalmic surgeon is that the latter does not utilize to its fullest extent the whole art of the former. It is a most lamentable fact that spectacle glass work is the crudest and commonest work in the whole of the trade. This is not altogether the fault of the opticians who work for the oculists. The surgeon sets the standard and his optician is quite content to let things slide, because it pays. The surgeon only requires a moderate standard of excellence, and very rarely appreciates the difference between a pitch polished and a cloth-polished surface lens; he never requires the most mechanically hard or the most transparent glass to be used for his spectacle work, and through being out of touch with modern optical science and methods, he does not avail himself of the advantages to be obtained in many cases by the use of high refractive index glasses to reduce curvatures in high power lenses and so reduce spherical aberration and improve the definition. How many medical men will understand what I refer to when I speak of the interference method of checking curvatures as practised in my own workshops? In fact, I think I may claim that the method of working to test plates is almost unknown in the spectacle trade, and is certainly not practised anywhere else for spectacle work.

These questions will never be settled until the medical profession know more of what the first-class optician is doing. Sarcasms, recriminations, and personalities will not remedy the matter. Personally I do not make any secret of my optical work. In my workshop at 428, Strand, next door to your own offices, is in progress every day some of the finest optical glass work which can be produced; lenses are made in which an error of radius of curvature of one-thousandth part of a millimetre would ensure condemnation. Any medical man, on presentation of his card, can at any time inspect what we are doing, and, if it helps to convince him that the sight-testing optician is not a mere money-grabbing shopkeeper, I shall not begrudge the interruption of work which is one of the slight penalties of entertaining visitors.—I am, etc.,

London, W.C., June 7th. JAMES AITCHISON.

POOR LAW MEDICAL RELIEF IN SCOTLAND.

SIR,—In reply to Mr. Weir's question in the House of Commons *re* uncertified deaths in the Highlands of Scotland, the Lord Advocate is reported to have said that the people in the Highlands made no grievance of this matter.

I do not think this question is one at all likely to disturb the minds of the laity in the Highlands, but it is surely one calling for immediate inquiry.

Unqualified practice, sale of dangerous drugs and scheduled poisons by small shopkeepers, interference with the doctor's orders by busybodies, and want of trained nursing, are the chief causes of uncertified deaths in remote parishes. I speak from experience gained after many years' work in the Highlands.

The medical officers dare not raise their voices against these practices, as the chief offenders are in many cases parish councillors, and the doctors would very soon be dismissed if they were the means of bringing their masters into trouble. The Departmental Committee have suggested the appointment of additional medical officers to meet the difficulty. These doctors no doubt will be invited to court poverty on the "supply and demand" principle, like so many navvies, scavengers, or coolies to be obtained at the lowest rate of pay.

Would it not be wisest for the Local Government Board to get the Irish dispensary ticket system under way as soon as possible, and then no one need die for want of a parish doctor?

This would fit in well with the "supply and demand" idea, as any medical officer who presumed to object to be imposed upon by a parish councillor could easily be sent about his business and another man appointed. The present "emoluments" (an alluring word that) of parish doctors can hardly keep body and soul together, so the men to be appointed will have a happy time of it.

However, any medical officer, when he found that the allurements held out in the specious advertisement of the parish council were illusory, as they usually are, might start horse dealing, or take a croft, or even set up a shebeen, all of which are particularly lucrative undertakings in most Highland parishes. The latter occupation especially would give him a *locus standi* in the parish to which he would never attain as a "parish hack," and further be a stepping stone to a seat on "The Council."—I am, etc.,

June 2nd. ANOTHER PARISH DOCTOR.

FOUL CONVALESCENT HOMES.

SIR,—Dr. Rushton Parker does well to draw attention to the defective ventilation of convalescent homes, particularly during the night hours. In a recent article by a nurse entitled One Day in a Children's Convalescent Home, published in a weekly contemporary, there is a description of how the day begins, when "nurse draws up the blinds and opens the windows. In comes the sun flooding the ward in a blaze of light; with him comes the fresh morning air, bringing the scent of new-mown hay and honeysuckle and wild roses." Presumably the windows are closed at night, excluding the fresh air and the various botanic odours, but retaining the human ones.

Before starting on instructing nurses and the public generally, would it not be well if medical men were more generally and genuinely converted to the importance of promptly getting quit of "sewage air"? A walk up Harley Street in the early morning hours will reveal a remarkably small number of open windows, even in summer. In most of those where the ritual is observed of "opening the window a few inches from the top" the blind is carefully pulled down to act as an efficient obstruction to the free circulation of air.

To realize how little the profession practically adopts the "policy of the open window," it is sufficient to endure the effects of the devitalized air of our committee rooms, medical societies, or festival dinners. On the question of fresh air the attitude of the profession as a whole reminds one of Sydney Smith's experience with the ladies of Scotland. He could find very few to discuss love with him, and they would only do so "in the aibstract."—I am, etc.,

London, W., June 15th. STCLAIR THOMSON.

ATMOSPHERIC PRESSURE AND APOPLEXY.

SIR,—I have read with interest the recent communications in the BRITISH MEDICAL JOURNAL, under the heading of Atmospheric Pressure and Apoplexy, and ask permission to make a few remarks. There seems to be a general agreement among your correspondents that cases of apoplexy are causally connected with weather conditions, but they differ as to the factor or factors with which an increase of cases of apoplexy is associated. For instance, Dr. Hensleigh Wedgwood and Dr. Hooker note an increase during the prevalence of high atmospheric pressure, to which the former directly, and the latter indirectly, attributes it, while Dr. Leon notes an increase during the passing away of a cyclonic disturbance, attributing it, however, not to the coincident rise of atmospheric pressure, but to the accompanying fall of temperature.

Then, again, Dr. Kingston Barton considers that a rapid rise of temperature after the continuance of cold weather in the winter, is a common exciting cause. But this rise of temperature in the winter coincides with cyclonic disturbances, and therefore with low atmospheric pressure. I may say in passing that Dr. Leon's statement as to the coincidence of N.W., N., etc., winds, and a rising barometer with low thermometer, applies mainly, if not exclusively, to the winter months, the fall of temperature during the passing away of a cyclone in the summer-time being prevented by the influence of the sun in a sky becoming clear of clouds. And here is one means of deciding whether the fact of the increase of apoplexy (if fact it be) under the conditions which Dr. Leon mentions, be due to increasing atmospheric pressure, or decreasing temperature. If the former, the cases should occur with a rising barometer, independently of the seasons, but if the latter, mainly in the winter, when and where is the decrease in temperature marked.

But I would point out that there is a means of raising the subject above the level of conjecture and impression. The atmospheric pressure and temperature have been daily recorded at, say, Greenwich for many years past, and these records are no doubt accessible. Similarly, the date of admission of apoplectics into the London hospitals are recorded, and accessible to any one having the time and interest in the subject necessary for their extraction. These two sets of facts have only to be compared, to determine what, if any, is the connexion between apoplexy and atmospheric conditions.—I am, etc.,

FRANK BELBEN, M.B.Cantab., F.R.C.S.Eng.

Bournemouth, June 6th.

ROYAL NAVY AND ARMY MEDICAL SERVICE.

INDIAN MEDICAL SERVICE.

ANNUAL DINNER IN LONDON.

THE annual dinner of the officers of the Service took place at the Café Monico on June 9th. Surgeon-General Sir Anthony De Renzy, K.C.B., occupied the chair.

The usual loyal toasts were very heartily received; Colonel W. R. Cates proposed "The Sister Services." Inspector-General Sir James Dick, K.C.B., R.N., responded on behalf of the navy. Surgeon-General A. Keogh, C.B., responded for the Army Medical Service. The toast of "The Guests" was proposed by Sir Joseph Fayrer, Bart., K.C.S.I., F.R.S., who remarked that it was the eighth anniversary of the dinner, and that it was pleasant to know that it was doing so much good. Sir R. Douglas Powell, Bart., K.C.V.O., replied.

Mr. Jonathan Hutchinson, in proposing the toast of the evening, "The Indian Medical Service," mentioned the different cities and districts visited by him in his recent tour through India, and his appreciation of the high standard of professional attainment which he found prevailing amongst the different medical officers with whom he came in contact. Great zeal characterized the profession through India. He had also learned much from several natives. The medical profession was, in his opinion, one of the most foremost forces in rendering the white race acceptable to the natives of India, even more so than were the missionaries; and he thought it would be to the advantage that country if all the missionaries were medical men. He wished success in every way to the Indian Branch of the Medical Service.

The Chairman, in responding, said that he thought the Government might easily make more use of the medical service in the reconcilement of the natives to British rule. In passing, he mentioned the fact, which Mr. Hutchinson would appreciate, that in Burmah the natives suffered severely from leprosy, and that they ate freely of stinking fish. The Postal, Telegraph, and Forest Departments in India had all been established by medical officers, whilst a still more glorious field yet remained for them to conquer in bring

infectious diseases so terribly prevalent in India under ater control. He stated that Surgeon-General Colvin ith, C.B., should have presided at that banquet, but was able to be present, and he concluded by proposing the toast the Hon. Secretary," who organized and kept up these asant annual meetings.

Lieutenant-Colonel P. J. Freyer responded, and mentioned great benefit conferred on the Indian Medical Service by editors of the BRITISH MEDICAL JOURNAL and the *Lancet*.

The following is the list of the officers present:

rgeon-Generals—W. W. Beatson, A. M. Branfoot, C.I.E., Sir A. C. C. Lenzy, K.C.B., Sir J. Fayrer, Bart., K.C.S.I., F.R.S., C. Sibthorpe, C.B., V. Sutherland.

lonels.—C. W. Carr Calthorp, W. E. Cates, W. Gray, D. Erskine hes, C. H. Joubert, Sir George King, K.C.I.E., F.R.S., M. D. Moriarty, Sutherland, W. A. S. Wynne.

utenant-Colonels—J. Anderson, M. L. Bartholomeusz, S. Biggar, R. H. rles, A. Crombie, C.B., E. F. Drake-Brockman, A. O. Evans, P. J. er, T Granger, P. de H. Haig, J. B Lyon, C.I.E., R. W. S. Lyons, C. P. is, D. P. MacDonald, J. Moorhead, T. R Mulroney, D. Mullen, P. F. nnor, C.B., W. A. Sykes, W. H. Thornhill, J. F. Tuohy.

jors.—A. Buchanan, W. S. Caldwell, F. Carter, G. A. W. Hall, C. Her-, C. Mactaggart, R. C MacWatt, J. Penny, W. H. B. Robinson, R. Ross, F.R.S., S. Browning Smith.

ptains.—H. Burden, E. M. Illington, F. O. Mell, Hayward Pinch, C. E. iams.

utenant.—F. W. Sumner.

ROYAL NAVY MEDICAL SERVICE.

T SURGEON W. S. LIGHTFOOT is placed on the retired list, with the of Deputy Inspector General, June 9th. He was appointed Surgeon, h 31st, 1880; Staff Surgeon, March 31st, 1892; and Fleet Surgeon, h 31st, 1896. He was Surgeon of the *Decoy* at the bombardment of the ndria forts in 1882 and during the Egyptian campaign (medal with , and Khedive's bronze star), and during the operations in the rn Soudan in 1884 (clasp).

pector-General MAXWELL RODGERS, M.D., died at Southsea on the stant, aged 71 years. His commissions were thus dated: Surgeon, mber 28th, 1857; Staff Surgeon, December 8th, 1868; Fleet on, March 6th, 1880; Deputy Inspector-General, May 4th, and Inspector-General, on retirement, May 7th, 1893. the Royal Navy List we learn that as Assistant Surgeon erved in the *Belleisle*, and attended on wounded during operations at the Peiho forts in 1858 (medal); was Acting on of the *Assurance* during an outbreak of cholera and fever on in 1865, when in the River Danube and Black Sea; Fleet Surgeon e *Monarch* at the bombardment of Alexandria in 1882, and at the ation of Port Said (medal with clasp and Khedive's bronze star). He warded the Greenwich Hospital Pension in 1896.

following appointments have been made at the Admiralty: RICHARD SS, M.B., Surgeon, to Portland Hospital, June 13th; JAMES G. WATT, on, to the *Vivid*, June 13th; HUBERT HOLYOAKE, Fleet-Surgeon, and E. BOLTON, Surgeon, to the *Swiftsure*, June 21st; ROBERT H. OLSON, Fleet Surgeon, and JOHN K. RAYMOND, M.B., Surgeon, to the *le*, undated; ROBLEY H. J. BROWNE, Staff Surgeon, and ALEX. T. RD, Surgeon, to the *Terrible*, June 21st, and to the *Albion*, undated; VAL M. MAY, Staff Surgeon, and WILLIAM N. BLATCHFORD, Surgeon, *Triumph*, June 21st; THEODORE M. THOMAS, Surgeon, to the *Robin*, nmissioning; JAMES G. WALLIS, M.B., Surgeon, to Chatham Hos- June 22nd; GEORGE ROSS, M.B., B.A., Surgeon, to the *Albion*, on missioning; ALOYSIUS F. FLEMING, Surgeon, to the *Empress of India*, 21st; CHARLES G. GODDING, Inspector-General, to Haslar Hospital, st; PERCIVAL T. NICHOLLS, Surgeon, to the *Mutine*, April 28th; JOHN ES, Surgeon, to the *Lizard*, April 28th.

ROYAL ARMY MEDICAL CORPS.

EXCHANGE.

arge for inserting notices respecting Exchanges in the Army Medical rtment is 3s. 6d., which should be forwarded in stamps or post-office with the notice, not later than Wednesday morning, in order to ensure tion in the current issue.

R LIEUTENANT-COLONEL R.A.M.C., due for foreign service early rooping season, desires exchange. Communications, giving terms te of return home, to be sent to "Exchange," c.o. Messrs. Holt and Whitehall Place, London, S.W.

NURSING REGULATIONS.

notified in Army Orders that the following will be inserted after aph 140 of the Regulations for Army Medical Services: "140A. As s medical and sanitary matters and work in connexion with the e matrons, sisters, and staff nurses are to be regarded as having ity in and about their hospitals next after the officers of the Royal Medical Corps, and are at all times to be obeyed accordingly and to the respect due to their position."

tenant-Colonel W. KEAYS, F.R.C.S.I., retires on retired pay, 11th. He was appointed Surgeon, February 3rd, 1878; Surgeon- February 3rd, 1890; granted the rank of Lieutenant-Colonel, ry 3rd, 1898; and selected for increased pay, April 10th, 1901. He d the thanks of the High Commissioner of Cyprus for his services Civil Government during a virulent epidemic of fever in Nicosia . He was in the Egyptian war in 1882 (medals and Khedive's star), and in the Soudan campaign in 1855, being present in the ments at Hasheen and Temai (clasp).

eon-General W. F. BURNETT, Principal Medical Officer, Bengal, has ppointed Honorary Surgeon to the Governor-General of India, lay 1st.

de-Surgeon WILLIAM FFOLLIOTT, F.R.C.S.I., died at Hove on th, aged 65, from heart failure following an attack of influenza. ered as Assistant Surgeon, October 1st, 1862; became Surgeon, 8th, 1873; Surgeon-Major, April 28th, 1876; and Brigade-Surgeon on ent, September 25th, 1889. He served in the Afghan war of receiving the medal.

CHANGES OF STATION.

THE following changes of station amongst the officers of the Royal Army Medical Corps have been officially reported to have taken place during the last month:

		From.	To.
Lt.-Col.	H. C. Kirkpatrick, M.D.	Bordon	Southampton.
,,	W. Keays	—	Bordon.
,,	C. Seymour, M.B.	Southampton	Chelsea Hosp.
,,	C. R. Woods, M.D.	Cork	Dublin.
,,	W. Heffernan	Limerick	Fermoy.
,,	L. W. Swabey	Fermoy	Limerick.
,,	J. Carmichael	Dublin	Warley.
Major	N. Manders	Devonport	Salisbury Pl'n.
,,	J. J. O'Donnell, M.B.	York	Leeds.
,,	B. J. Inniss	Cork	Limerick.
,,	C. W. Reilly	Newbridge	Dublin.
,,	A. Wright	Portsmouth	Halifax, N.S.
,,	A. L. Borradaile, M.B.	Bodmin	Brecon.
,,	W. E. Hardy	Dover	Shorncliffe.
,,	H. N. Dun, M.B.	Abyssinia	Woolwich.
Captain	H. W. H. O'Reilly, M.B.	Dublin	Limerick.
,,	A. E. Master, M.B.	Bristol	Devonport.
,,	P. H. Collingwood	Bombay	Cork.
,,	R. L. Popham	Halifax, N.S.	Victoria, B.C.
,,	O. Challis	Aldershot	Colchester.
Lieutenant	M. G. Winder	Dublin	South Africa.
,,	J. E. Skey	Woolwich	Salisbury Pl'n.
,,	B. G. Patch	,,	,,
,,	H. H. J. Fawcett	Netley	,,
,,	N. D'E. Harvey, M.B.	Curragh	Cork.
,,	C. R. Bradley	Netley	Salisbury Pl'n.
,,	G. S. Mackay, M.B.	,,	,,

Lieutenants T. J. Wright and A. C. Osburn appointed on probation August 31st last, are stationed at Woolwich and Netley respectively.

The undermentioned officers on retired pay, have been placed in medical charge of troops at the stations specified: Lieutenant-Colonel J. E. Nicholson, Fleetwood; Lieutenant-Colonel J. T. Carey, M.B., Manchester; Lieutenant-Colonel W. L. Lane, M.B., Hamilton; Major E. H. Myles, M.B., Guernsey.

Lieutenant-Colonel G. E. Twiss has been selected for increased pay under Article 362 of the Royal Warrant.

ROYAL ARMY MEDICAL CORPS (MILITIA).

A MODIFICATION of the nomenclature of some of the militia companies of the Royal Army Medical Corps is being effected with a view to bringing their titles more into accord with those of the districts to which they are allotted, the general idea being that each military district shall have a militia medical company in its service. Now therefore, without any change in the *personnel* of the companies themselves, No. 2 South-Eastern District Company will become the Thames District Company with head quarters at Chatham, and No. 1 South Eastern District Company will be known as the South-Eastern District Company with head quarters at Dover, while the Southern District Company will have head quarters at Portsmouth instead of at Netley. The 2nd Dublin District Company similarly will be known in future as the Curragh District Company. Titular changes of the same nature were effected some little time ago in the case of the present Woolwich and Aldershot Companies.

ROYAL GARRISON ARTILLERY (VOLUNTEERS).

CONSEQUENT upon the division of the 1st Cheshire and Carnarvonshire R.G.A. (Vols.) into two corps, designated respectively the 1st Cheshire R.G.A. (Vols.) and the 1st Carnarvonshire R.G.A. (Vols.), the undermentioned officers are transferred as shown below, with effect from June 4th, and are considered to have received, in their new corps, commissions of the same rank and date as those previously held by them in the consolidated corps: 1st Cheshire: Honorary Assistant Surgeon R. E. OWEN, Surgeon-Major A. M ARCHER, M.D., Surgeon-Captains R. B. WRIGHT and T. G. LUSK, M.B. 1st Carnarvonshire: Surgeon-Lieutenant-Colonel E. J. LLOYD, M.D., Surgeon Lieutenant C.W. OWEN. The foregoing announcement is substituted for that which appeared in the *Gazette* of June 7th, under the heading of the "1st Carnarvonshire R.G.A. (Vols)."

Surgeon-Lieutenant Colonel E. J. LLOYD and Surgeon-Lieutenant C. W. OWEN are transferred from the 1st Cheshire and Carnarvonshire Royal Garrison Artillery (Volunteers) to the 1st Carnarvonshire, June 4th.

IMPERIAL YEOMANRY.

SURGEON-CAPTAIN A. BRUMELL, Northumberland (Hussars), is promoted to be Surgeon-Major, June 4th.

Surgeon-Lieutenant (Honorary Captain in the Army) E. HOPKINSON, M.B., D.S.O., Oxfordshire (Queen's Own Oxfordshire Hussars) resigns his commission, June 4th.

ARMY MEDICAL RESERVE.

SURGEON-LIEUTENANT G. R. LIVINGSTONE is promoted to be Surgeon Captain, June 5th.

VOLUNTEER RIFLES.

SURGEON-LIEUTENANT-COLONEL D. E. FLINN, 5th (Irish) Volunteer Battalion the King's (Liverpool Regiment), resigns his commission, and is granted the honorary rank of Surgeon-Colonel, May 28th; he retains his uniform.

Surgeon-Lieutenant J. G. MOYLES, M.B., 5th (Irish) Volunteer Battalion the King's (Liverpool Regiment), resigns his commission, May 28th.

Lieutenant H. M. BAYER, 5th (Irish) Volunteer Battalion the King's (Liverpool Regiment), resigns his commission, and is appointed Surgeon-Lieutenant, May 28th.

Captain and Honorary Major J. C. NICHOL, retired, to be Surgeon-Lieutenant in the 4th Volunteer Battalion the Manchester Regiment, May 28th.

Supernumerary Brigade-Surgeon-Lieutenant-Colonel D. COWIE, M.B., Senior Medical Officer, Highland Light Infantry, Volunteer Infantry Brigade, resigns his commission, is granted the honorary rank of Surgeon-Colonel, and retains his uniform, May 28th.

Surgeon-Lieutenant-Colonel A. NAPIER, M.D., 3rd Lanarkshire, to be Brigade-Surgeon-Lieutenant, and is borne as supernumerary whilst holding the appointment of Senior Medical Officer of the Scottish Rifle Volunteer Infantry Brigade, May 28th.

Surgeon-Lieutenant H. S. Baker, 1st Volunteer Battalion the Northamptonshire Regiment, to be Surgeon-Captain, May 28th.

Surgeon-Captain Edmund Percival Isaacs, 2nd (South) Middlesex, is permitted to change his name to Edmund Percival Isaacs Coke.

Surgeon-Captain W. F. O'Grady, 1st Volunteer Battalion the Manchester Regiment, to be Surgeon-Major, June 4th.

Surgeon-Major J. G. Saville, 5th (Ardwick) Volunteer Battalion the Manchester Regiment, resigns his commission and is granted the honorary rank of Surgeon-Lieutenant-Colonel, June 4th; he retains his uniform.

Surgeon-Lieutenant A. C. Elliman, 1st Cadet Battalion the Queen's (Royal West Surrey Regiment), is promoted to be Surgeon-Captain, June 11th.

Supernumerary Surgeon-Major A. D. Moffatt, 3rd (the Blythswood) Volunteer Battalion the Highland Light Infantry, is appointed to command the Highland Light Infantry Bearer Company Royal Army Medical Corps (Volunteers), vice Surgeon-Major Q. Chalmers, 5th Volunteer Battalion the Highland Light Infantry, who has vacated the appointment, June 11th.

Supernumerary Surgeon-Major Q. Chalmers, 5th (Glasgow Highland) Volunteer Battalion the Highland Light Infantry, is appointed Brigade-Surgeon-Lieutenant-Colonel whilst holding the appointment of Senior Medical Officer to the Highland Light Infantry Volunteer Infantry Brigade, and to remain supernumerary, June 11th.

Surgeon-Major J. Adam, M.D., 1st (Ross Highland) Volunteer Battalion Seaforth Highlanders, to be Surgeon-Lieutenant-Colonel, June 11th.

Surgeon-Lieutenant J. F. Robertson, M.D., 7th Volunteer Battalion the Gordon Highlanders, to be Surgeon-Captain, June 11th.

ROYAL ARMY MEDICAL CORPS (VOLUNTEERS).

Captain J. Harper, the London Companies, to be Major, May 28th.

David B. Chiles-Evans to be Lieutenant in the Gloucester and Somerset Bearer Company, May 28th.

Captain J. M. H. Martin, M.D., North-East Lancashire Bearer Company, to be Major, May 28th.

Mr. John Forbes to be Lieutenant in the 4th or City of London Bearer Company, May 28th.

Major C. Downing, Welsh Bearer Company, to be Brigade-Surgeon-Lieutenant-Colonel whilst holding the appointment of Senior Medical Officer to the Welsh Volunteer Infantry Brigade, January 23rd.

Captain E. Lloyd-Williams, 3rd London Bearer Company, to be Major, June 4th.

Surgeon-Major H. J. Mackay, M.B., from the 2nd Volunteer Battalion, the Duke of Edinburgh's (Wiltshire Regiment), to be Major, Wilts and Dorset Bearer Company, and to command, June 11th.

Surgeon-Captain R. G. Worger, from the 1st Volunteer Battalion, the Prince Albert's (Somersetshire Light Infantry), to be Captain (Wilts and Dorset Bearer Company). June 11th.

MEDICO-LEGAL AND MEDICO-ETHICAL.

THE POSITION OF THE MEDICAL ATTENDANT IN CRIMINAL CASES.

We have received from the President and Secretary of the Midland Medical Union the following note, prepared by Mr. W. Duncan, M.B., of Clay Cross, near Chesterfield, on the position of the medical attendant in criminal cases:

The criminal cases that appear from time to time in the courts where the crux of the charge rests on the evidence of the medical attendant seldom fail to bring into prominence the unsatisfactory state of things at present prevailing in regard to medical attendants coming forward with suspicions of foul play which they may entertain.

If, as in the Maud Marsh trial, the judge or the jury comment adversely on the fact of the medical attendant not having given information earlier, the publicity given to such comments brands the practitioner as incompetent in the eyes of quite a number of the public and of his patients.

If, on the other hand, he does communicate his suspicions to the police as soon as they are aroused (and while the patient in, say, a supposed poisoning case, is still alive), the suspicions expressed will almost certainly reach the ears of the party concerned. Should they be well founded, a crime may be frustrated; but, should the symptoms be capable of an innocent explanation, the medical man finds himself in an awkward fix indeed; and, even if no legal proceedings are taken against him, he is bound to alienate a large number of his patients, and may have to leave the district altogether.

The knowledge of the above may well make a man put off saying anything from day to day, in the hope that each day will bring clearer evidence, till perhaps the patient dies; and, while still discussing with himself the pros and cons and unable to be certain that the symptoms are not capable of a natural explanation, he signs a death certificate bearing the most prominent symptom, and his unspoken suspicions remain unsolved.

This is not as it should be. In the interests of justice it is essential that a medical attendant's suspicions should be voiced at once; in the interests of the practitioner it is also essential that while those suspicions are being weighed and sifted there should be no possibility of anything leaking out till the suspicions become practical certainties; while, in the event of their proving unfounded, they would remain as if they had been unspoken.

Such a state of things can be easily attained by the appointment of "Crown Consultants," selected and paid by the Home Office, not by the local authorities. They would be in every centre, and would be drawn from the ranks of medical men who have made themselves specially proficient in forensic medicine.

It would be open to the perplexed practitioner to discuss his case with one of these consultants, and be guided by expert advice. If the suspicious symptoms cleared up, or could be explained away by the consultant, there would be an end of the matter. If, on the other hand, the consultant saw grounds for supposing criminal intent, he would, as soon as his suspicions were confirmed, inform the police, and take the responsibility for doing so.

The foregoing will make it clear in what cases it would be intended for the practitioner to make use of the services of the Crown consultant, namely, in those cases where a crime is being committed under his nse and in which an attempt is being made to use him as a covering in ru ment.

In other cases where he is consulted openly and straightforwardly nd where no attempt is being made to interfere with the medical man's rs duty—the cure of the sick or injured—any information gleaned in a re fessional capacity would be under the seal of professional secrecy, a present.

We are informed that the following resolutions have been passed by Branches of the Midland Medical Union:

Chesterfield and Mansfield Branches.

That a statement setting out the unsatisfactory position of the me attendant in criminal cases be submitted to the British Medical As tion and the General Medical Council, together with a suggestion memorial be presented to the Home Secretary that Crown consulta appointed and paid by the Home Office, the duty of such Crown co ants being to undertake the responsibility of examining in cases o picion and of reporting to the police authorities.

The Nottingham Branch.

That (1) the Nottingham Branch of the Midland Medical Unions opinion that the note prepared by Dr. W. Duncan is worthy of conse tion; but the Branch does not definitely adopt his particular sugge (2) The Branch is further of opinion that the whole question of th tion of medical men to criminal cases needs investigation, and is cially drawn to this conclusion by observation of the alarming in of the practice of using preparations of lead such as diachylon f purpose of procuring abortion.

The Secretary of the Midland Medical Union is Mr. O'Rorke, M.A., LL.D., Albion Chambers, King Street, tingham.

ACTION AGAINST SIR PATRICK HERON WATSON FOR ALL SLANDER.

In the Outer House of the Court of Session at Edinburgh action been raised, and will be tried by jury, in which a married woman apart from her husband claims two sums of £2,500 each for a wounding of feelings and injury of character on the one han alleged slander on the other. The father of the woman also claims for alleged slander. The actions arise out of proceedings in the D Court in which Sir Patrick Heron Watson, who had previously se plaintiff professionally, in October, 1903, gave evidence on the side defending husband. Plaintiff attributes her want of success in the against her husband to Sir Patrick Heron Watson's actings.

FEES TO MEDICAL WITNESSES.

We understand that at the recent assizes at Wells, medical men re over three miles from the assize town were allowed fees for profes attendance at the rate of two guineas daily. The correspondent who us this information thinks it will be of general interest to know tha officials at least are disposed to act in accordance with the spirit recent order.

EXEMPTION OF MEDICAL PRACTITIONERS FROM JURY SER

M. G. E. and D. T. E.—Under "The Juries Act, 1870," all registered cal practitioners, if actually practising as such, are exempt from returned to serve, and from serving upon any juries or inquests w ever. It is necessary, however, that a person whose name may be jury book as a juror should claim exemption at the revision of th lists by the Justices of the Peace, for, if the name is returned, the will be liable to serve.

FRIENDLY ADVERTISEMENTS.

Mr. E. Cloete Smith writes with reference to an article under thi published in the British Medical Journal of May 28th, saying t did mention the *x* ray treatment as being necessary in such a c Mrs. Pare's,[1] as described to him—namely, recurrent cancer of and other parts.

Another correspondent traverses our implied statement that solicitors do not tout for clients by delivering circulars from d door, and endeavours to establish his point by instancing the adv ment of partnership notices, rewards, property sales, and wit wanted, with solicitors' names attached. Our correspondent ently ignores the fact that we spoke of touting for practice. An of the kind is strictly forbidden to solicitors, and if a case were br before the notice of the Council of the Law Society, it would, we b be severely dealt with.

MEDICAL ADVERTISING.

A Correspondent sends us a cutting from the *Kidderminster* in which the illness of a lady of title in the neighbourhood is anno and the name of her local medical attendant given.

*** Newspapers look upon illnesses of persons who occupy pro positions as fair subject for news, and the name of the medical atte as part of the information to be made public. Although it is p that in some instances the practitioner concerned may be respo for communicating the information to the press, in the absence direct evidence we do not think the imputation is fair, and we that members of the medical profession do their best to avoid thi of publicity.

M.D.(Oxon).—Although we hold and constantly express very d opinions respecting advertising for practice, there seems to be position on the part of some of our correspondents to object appearance of the name of a medical practitioner in any publ nouncement, and to see in every instance of the kind a latent at to secure personal advertisement and so to obtain practice. We cate this disposition as there are unfortunately quite enough inst of advertising and touting for practice. Censure loses its force i applied to every trivial matter.

[1] British Medical Journal, May 21st, 1904, page 1227.

MEDICAL ETIQUETTE.

X.—A. disposes of his practice to B., giving several months' intro-ction. On hearing the rumour that A. is leaving the town, another ctitioner, C., applies to the superintendent of police for the police ointment held by A., although A. had not resigned or any vacancy n declared.

** It is usually considered improper to apply for or make any open rt to obtain an appointment until a vacancy is formally declared, such action usually prejudices the applicant.

THE ADVERTISING OF HEALTH LECTURES.

RRESPONDENT sends us a leaflet, copies of which, he says, were dis-uted in all the pews of the parish church, announcing a series of ures on the feeding and treatment of infants by a local practitioner. se lectures deal not only with the feeding of infants, but with their ases and treatment.

*The object of the lectures is undoubtedly excellent, but it is lent that the practice of distributing leaflets of the kind referred to pen to abuse.

THE DISABILITIES OF A CONSULTANT.

—We have never heard that a consultant was disqualified from mining cases for life assurance. On the contrary, such work in don and other large centres of population is for the most part in hands of this class of practitioner.

INSPECTION OF BOOKS AFTER SALE.

ther reply to the correspondent whose question was published in BRITISH MEDICAL JOURNAL, May 28th, p. 1292, we can only say that not clear that the books do belong to the vendor. There is no ot he can claim to inspect them and to make copies if necessary. quite possible they might be included in the "stock in trade." would be a matter for a court of law to decide.

A QUESTION OF FEE.

RED asks for our opinion as to what is a fair fee to charge the owner factory for complying with his request that he should write a letter newspaper stating that he had attended no fever patient who worked certain mill, and also that the epidemic had ceased in the locality. ter was duly drafted in consultation with the owner and sent to the r, apparently in reply to a previous letter which had appeared in same newspaper, and required contradiction. "Badgered" has ently had some difficulty about payment of a fee, and wishes to what would be a reasonable fee to charge for his services in con-on with the matter—such a charge as would be upheld in a court of

It is not advisable for a medical attendant to send a letter to a paper on behalf of a client, except under very exceptional circum-es. This case, however, appears to be an unusual one. It would been better for "Badgered" to have arranged about the fee to be before the letter was written. We are afraid that if the case went urt only a small fee would be allowed, probably not more than a a, and it may be argued that the charge is not a legal one. If igered" had examined all the workers in the mill, and had given tificate that he had done so, and found them free from infection, uld have charged a fee for each individual examined.

SALE AND SUBSEQUENT PRACTICE.

ESPONDENT writes that, owing to pecuniary difficulties, he sold his ice some years ago for a very small sum to a rival practitioner. atter has since gone away after selling the practice to another, who ecome unpopular in the district. Our correspondent is invited to n, and wishes to know whether he can legally do so, and whether return would be in accordance with medical etiquette.

If no agreement was entered into at the time of the sale as to e practice in the district, our correspondent could not be restrained again practising there. But it is never in accordance with medical ette for a practitioner after sale of his practice to another to vour to recover it again either from the latter or his successor. uld be certainly better, as he suggests, to come to some terms with resent owner of the practice.

EMPLOYERS' LIABILITY.

writes: A practitioner was called in to attend a farm labourer who let with an accident, by his employer. The latter, he believes, is ed against such accidents, and our correspondent wishes to know ier to send his account in to the employer or to the insurance any.

Our correspondent should send his account to the person who him in, that is, the employer. He has no claim on the insurance any.

CHARGES FOR ACCIDENT ASSURANCE CERTIFICATES.

ESPONDENT writes that he has been recently attending a patient accident, who was in receipt of £8 a week from two insurance ies. During the illness he was required to fill in six certificate each of which was very complicated and necessitated a special He charged a guinea for each certificate, but his patient declines . He wishes to know: (1) Whether the charge is reasonable; ether it is customary to make charges for such certificates?

1) Our correspondent is entitled to charge his ordinary fees for sits; but the rate of a guinea each for the certificates alone is what high under the circumstances. If the guinea includes the visit, and the usual charge per visit is half a guinea and upwards, it would be otherwise. (2) It is customary to make a charge.

CHARGES AGAINST A HOSPITAL STAFF.

LANCASHIRE.—Such allegations as those contained in our correspondent's letter amount to charges of want of due skill and care against the staff of the hospital. We think our correspondent is bound to accept the invitation given him by the Medical Board to meet and discuss the matter with them in the hope that they may be able to give a satisfactory explanation. Should he not be satisfied he can apply to the Managing Committee, but we would remind him that he is raising very serious issues; if he proves his charges the members of the staff concerned can hardly retain their posts, and he had therefore better take legal advice and proceed with proper caution, or he may find himself involved in serious difficulties.

CONSULTATIONS WITH HOMOEOPATHS.

A CONSULTANT writes: Many members of the profession take an entirely different view on the subject of consultations with homoeopaths from that expressed on p. 1228 of the BRITISH MEDICAL JOURNAL of May 28th. The question is not in any sense one of practice, but of ethics. The average general practitioner takes a much more correct view of the matter than many consultants, and the latter are much to blame for the countenance which they have given to homoeopaths, and therefore to homoeopathy. A man who gives himself out to the public as practising a special system of therapeutics is not one that any consultant who has the honour of his profession at heart should be willing to meet. There is a sordid aspect of this support given by consultants to homoeopaths which all the sophistry talked on the matter cannot hide. The profession of homoeopathy would probably have vanished by this time if the attitude of consultants towards those who profess it had been correct.

*** Our correspondent forgets (1) that practice and ethics are not so entirely opposed as he thinks, and (2) that the foundation of medical ethics is not the good of the profession or a section of it, but the good of society, and especially of those members of it who are sick and in need of medical and surgical assistance. Rules forbidding consultations with individuals who have rendered themselves objectionable to the general body of the profession for any reason can never be enforced absolutely; it is always necessary to allow for those cases in which, in the interest of the patient, such objections must be waived. Operating surgeons are particularly liable to be summoned to cases in which their prompt attendance is necessary if life is to be saved; and it would be a grave scandal to the medical profession if a patient's life were to be sacrificed to a scruple respecting the therapeutic doctrines held by the medical practitioner in attendance.

PARTNERSHIP INTRODUCTION.

FAIRNESS asks if it is usual, where the vendor of a practice gives an "At Home" to further the introduction of his successor to the neighbourhood, to require the latter to pay half the expenses.

*** It would not be customary to ask the successor to share such an expense, unless the "At Home" had been mutually arranged on that basis.

UNIVERSITIES AND COLLEGES.

UNIVERSITY OF OXFORD.

THE Board of the Faculty of Medicine gives notice that the examinations for the Degree of Bachelor of Medicine, which will commence in the Examination Schools in Michaelmas Term, 1904, on Thursday, December 8th, and in Trinity Term, 1905, on Thursday, June 22nd, will be held in accordance with the following time table:

First Examination: Thursday, December 8th, 1904; June 22nd, 1905, Examination Schools—9.30 a.m., human anatomy; 2 p.m., physiology. Friday, December 9th, 1904; June 23rd, 1905, Examination Schools—9.30 a.m., materia medica; 2 p.m., organic chemistry. Saturday, December 10th, 1904; June 24th, 1905, Department of Chemistry or Pharmacology, Museum—9.30 a.m., practical examination in materia medica, and viva voce. Department of Chemistry, Museum—2 p.m., practical examination in organic chemistry, and viva voce. Monday, December 12th, 1904; June 26th, 1905, Department of Physiology, Museum—10 a.m., practical examination in physiology and histology. Tuesday, December 13th, 1904; June 27th, 1905, Department of Human Anatomy, Museum—10 a.m., practical examination in human anatomy, and viva voce. Department of Physiology, Museum—10 a.m., viva voce examination in physiology.

Second Examination: Thursday, December 8th, 1904; June 22nd, 1905. Examination Schools—9,30 a.m., pathology; 2 p.m., principles and practice of surgery. Friday, December 9th, 1904; June 23rd, 1905.—Examination Schools.—9.30 a.m., principles and practice of medicine; 2 p.m., midwifery and diseases of women. Saturday, December 10th, 1904; June 24th, 1905 —Examination Schools.—9.30 a.m., forensic medicine and hygiene. Medical Department, Museum.—2 p.m., practical examination in pathology. Monday, December 12th, 1904; June 26th, 1905.—Medical Department, Museum,—9.30 a.m., viva voce in pathology; 2 p.m., practical examination in chemical and microscopic methods of medical diagnosis. Tuesday, December 13th, 1904; June 27th, 1905.—Radcliffe Infirmary.—10 a.m. and 2 p.m., clinical examination in medicine; written reports of cases and viva voce at bedside. Thursday, December 15th, 1904; June 29th, 1905.—Radcliffe Infirmary.—10 a.m. and 2 p.m., clinical examination in surgery; written reports of cases and viva voce at bedside. Friday, December 16th, 1904; June 30th, 1905.—Radcliffe Infirmary.—9.30 a.m., examination in surgical anatomy, the methods of operations and instruments. Medical Department, Museum.—2 p.m., viva voce in medicine, surgery, and midwifery.

UNIVERSITY OF CAMBRIDGE.

Appointments.—Dr. D. MacAlister and Mr. Strangeways have been appointed additional Examiners for the Third M.B. Examination, Part I. Mr. W. J. Sell and Mr. H. J. H. Fenton have been appointed University

Lecturers in Chemistry, Mr. S. Ruhemann University Lecturer in Organic Chemistry. Mr. A. E. Shipley University Lecturer in Animal Morphology (Invertebrate), Mr. W. L. H. Duckworth University Lecturer in Physical Anthropology. Mr. R. C. Punnett has been elected Balfour Student in Animal Morphology. Mr. C Shearer and Mr. W. E. Agar have been selected for work at the Naples and Plymouth Zoological Stations respectively. Dr. F. H. H. Guillemard and Dr. A. Macalister have been appointed members of the Board of Anthropological Studies.

Degrees.—At a Congregation on June 9th the following degrees were conferred:—*M.D.:* W. P. S. Branson, Trinity; A. R. M. Brenan, Trinity; B. N. Tebbs, Queens'. *M.C.:* Professor Howard Marsh. King's. *M.B. and B.C.:* C. L. Nedwill, Trinity; C. R. Howard. Pembroke; W. Hastings, Christ's; C. Burrows, Emmanuel. *M.B. only:* H. R. Fisher, Emmanuel. *B.C. only:* T. G. M. Hine, King's; R. E. Whitting, King's; B. N. Tebbs Queens'.

UNIVERSITY OF LONDON.

Chemistry in the Medical Curriculum.—The Senate has resolved that the Examination in Organic Chemistry for internal and external students in the Faculty of Medicine shall be passed at a period subsequent to the Preliminary Scientific Examination, but not later than one year previous to the Intermediate Examination in Medicine. It was also resolved that the course in Inorganic Chemistry for the Preliminary Scientific Examination for internal students should consist of not less than sixty lectures and 120 hours of practical work during an academic year, and a new syllabus for both internal and external students was approved, as was also a syllabus of Organic Chemistry for the Examination of internal and external students in the Faculty of Medicine. The course in Organic Chemistry for internal students must consist of not less than sixty lectures and sixty hours' practical work during an academic year. A Special Examination in Organic Chemistry will be held in January, 1905.

Brown Animal Sanatory Institution.—Dr. T. G. Brodie, F.R.S., Professor-Superintendent of the Brown Animal Sanatory Institution, will deliver five lectures on the Etiology and Comparative Pathology of Chronic Nephritis and of Uraemia on Thursday, June 23rd, and the four following Thursdays, at 5 p.m. These lectures, which are open to the public, will be delivered in the Physiological Laboratory of the University of London, South Kensington.

UNIVERSITY OF GLASGOW.

PROFESSOR OF GEOLOGY.

AT a meeting of the Glasgow University Court last week, Mr. John Walter Gregory, D.Sc., F.R.S., Professor of Geology in the University of Melbourne, was appointed the first Professor of Geology in Glasgow University. Hitherto Geology has been only a lectureship which was held by the Professor of Natural History, but now the University will have independent Professors of Zoology and Geology. Dr. Gregory, the new Professor, is a graduate of the University of London, in which he took the degree of B.Sc. in 1891 with honours in Geology, and the D.Sc. in 1893. From 1887 to 1900 he was an assistant in the Geological Department of the British Museum. In 1900 he was appointed Professor of Geology at Melbourne, and since 1901 he has also held the office of Director of the Geological Survey of Victoria. Dr. Gregory's experience of geological work has been extremely varied, and he has contributed much to the literature of the subject. His official duties in the British Museum led him to devote many years to palaeontology, and he has also done important geological work in such widely-distributed parts of the globe as the Western States of North America, the West Indies, British East Africa, and Spitzbergen. He was elected a Fellow of the Royal Society of London in 1901.

UNIVERSITY OF DUBLIN.

DEGREES FOR WOMEN.

AT a meeting of the Senate on June 11th the degrees were conferred for the first time on women. The University Caput consisted of the Vice-Chancellor (Mr. Justice Madden), the Provost (Dr. Traill), and the Senior Master Non-Regent (Dr. Cathcart).

Litt.D.—The honorary degree of Litt.D. was conferred on Miss Jane Barlow, the novelist; Mrs. Sophie Bryant, Principal of the North London College for Girls; and the following: T. R. Holmes; Professor F. Leo, Göttingen; W. M. Lindsay, Professor of Humanity, St. Andrews.

Sc.D.—J. Dewar, Jacksonian Professor of Experimental Philosophy, Cambridge, and Fullerian Professor of Chemistry at the Royal Institution; Professor J. H. van't Hoff, Berlin; Professor F. Klein, Gottingen; Major R. Ross, C.B., F.R.C.S., Professor of Tropical Medicine, Liverpool; J. J. H. Teall, F.R.S., Director of the Geological Survey of the United Kingdom; W. H. Thompson, King's Professor of the Institutes of Medicine.

LL.D.—Isabella Mulvany, head of the Alexandra School for Girls; Hon. W. H. Irvine, late Premier and Attorney-General of Victoria; Right Hon. J. H. M. Campbell, K.C., M.P., Solicitor-General for Ireland; Sir T. W. Snagge, J.P., D.L., Judge of County Courts, Oxford.

DEGREES IN DENTISTRY.

The Senate of the University of Dublin has passed the grace for the degrees of L.D.S. and M.D.S., and at the next commencement the higher degree will be conferred on Mr. A. Baker, M.B., F.R.C.S.I., who will thus enjoy the distinction of being the first Master of Dental Surgery of this University.

UNIVERSITY OF MANCHESTER.

PROFESSOR WILLIAM STIRLING has been re-elected Dean of the Faculty of Medicine.

Mr. Arthur Sellars, M.D., D.P.H., has been appointed assistant lecturer in comparative pathology.

The following scholarships, exhibitions, and prizes have been awarded: Sidney Renshaw Exhibition: D. Dougal. Senior Platt Exhibition in Physiology: W. Wilson.

UNIVERSITY OF BIRMINGHAM.

Examiner in Surgery.

MR. THOMAS BRYANT has resigned his position as External Examiner in Surgery owing to his having been appointed Visitor to the General Medical Council, and having to be present at an examination in St. Andrews which takes place at the same time as that in Birmingham. Professor Howard Marsh has been elected to fill this vacancy.

Degrees for Birmingham Students: Extension of Time.

The Council of the University has adopted a temporary ordinance, which will be confirmed at the next meeting of the Court of Governors, extending the period of years during which past students of the Birmingham School of Medicine are entitled to present themselves for the degrees of the University from five to seven years.

Anatomical Department.

The Council has also agreed to increase the staff of the Anatomical Department by adding a Second Demonstrator, who will devote his entire time to the work of the department.

Russell Memorial Prize.

Dr. R. M. Simon has been appointed Examiner for the Russell Memorial Prize for this year.

ROYAL COLLEGE OF SURGEONS OF ENGLAND.

AN Ordinary Council was held on June 9th; Mr. John Tweedy, President, in the chair.

Final Fellowship Examination.

Diplomas of Fellowship were issued to sixteen candidates found qualified at the recent examination.

Licence in Dental Surgery.

Diplomas were issued to forty-six candidates.

The Relations of the Medical Profession to the Coroner's Court.

A letter from a Committee appointed by the College was received and entered on the minutes. Its main contents were as follows:

"Knowing that the British Medical Association and the London County Council were considering the subject, the Committee thought it desirable to obtain information as to what had already been done by these or other public bodies.

"They found that the Medical Society of London had formerly had the subject under consideration, but had recently taken no action.

"They ascertained that the British Medical Association had for some years been in communication with the Coroners' Society with regard to the amendment of the law, and in 1902 the Association had drawn up and adopted a Bill, which was reconsidered by the newly-appointed Medico-Political Committee at the end of that year, when communications were reopened with the Coroners' Society, with the result that that Society at the end of March, 1903, declined to co-operate, on the ground that no alteration of the Coroners' law should be undertaken by the Lord Chancellor or the Home Secretary.

"Failing any immediate prospect of legislation, the London County Council have been able to introduce certain improvements under the existing system, and have shown their willingness to consult the medical profession in matters more immediately concerning it by seeking the assistance of the leading hospitals of London in the preparation of lists of skilled pathologists who would be willing to undertake *post-mortem* examinations and give evidence in inquest cases of a special nature.

"It will thus be seen that the Committee have been able to obtain ample proofs of the desirability of alterations in the present laws. The questions involved are, however, varied, and include matters of administration, such as the rearrangement of coroners' districts, with which the medical profession is not immediately interested.

"Having regard, therefore, to the various interests concerned, and the failure of other institutions to induce the Government to initiate legislation, the Committee are of opinion that it would not be expedient for this College to take any action in the matter at the present time."

Diploma in Tropical Medicine.

A report from a Special Committee was received, favouring an examination and the granting of a diploma. The Royal College of Physicians was invited to appoint representatives to confer with representatives of the Royal College of Surgeons regarding a letter received from the Secretary of State for the Colonies.

Appointment of Examiners for the Ensuing Year.

Board of Examiners in Anatomy and Physiology for the Fellowship.—Anatomy: L. A. Dunn, A. Keith, C. Addison, W. McA. Eccles. Physiology: E. W. Reid, E. H. Starling, L. E. Hill, De B. Birch.

Conjoint Examining Board.—First Examination.—Elementary Biology: H. W. Lyle, W. G. Ridewood, T. G. Stevens, H. W. M. Tims. Second Examination.—Anatomy: H. J. Waring, A. Keith, C. Addison, J. E. Lane. Physiology: W. H. Thompson, T. G. Brodie, J. B. Leathes. Third Examination.—Midwifery: W. Duncan, J. H. Targett, G. F. Blacker, A. Lewers. Examination in Public Health.—Part I: A. G. R. Foulerton. Part II: H. T. Bulstrode.

Analyst to the Home Office.

The President laid before the Council a letter which he had received from the Home Secretary, and reported that, in pursuance of the request contained therein, he proposed to recommend Dr. William Henry Wilcox, of St. Mary's Hospital, as Official Analyst to the Home Office in the vacancy occasioned by the resignation of Dr. A. P. Luff.

Revised Regulations in Regard to Dental Surgery Examinations.

The following motion was carried: "That the revised regulations as to study in chemistry and physics do apply to those who register as dental students, as well as to those registering as medical students, on or after June 1st, 1904, and that the new synopsis of the examination do come into effect in the case of dental students, as well as in the case of medical students, in and after March, 1905.

Vacancies on the Council.

The President reported that a meeting of the Fellows would be held on Thursday, July 7th, for the election of three Fellows into the Council, the vacancies occasioned by the retirement in rotation of Mr. Thomas Bryant, by the resignation of Mr. Thomas Pickering Pick, and by the death of Mr. Thomas Richard Jessop, and to state that Mr. Thomas Bryant did not propose to offer himself for re-election.

The Council passed a vote of thanks to Mr. Bryant for his services which extended over a period of 24 years.

PASS LIST.

The following gentlemen, having passed the necessary examinations and conformed to the by-laws, have been admitted Members of the College:

A. J. Arch, Birmingham University; J. W. Barber, Yorkshire College and General Infirmary, Leeds, and St. Mary's Hospital; A

Barclay, Cambridge University, Owens College, and Royal Infirmary, Manchester, and London Hospital; S. Bazalgette, St. Thomas's Hospital; H. O. M. Beadnell and J. Bromley, Guy's Hospital; H. D. Bell, St. Bartholomew's Hospital; A. E. Blackburn and C. H. Booth, Yorkshire College, and General Infirmary, Leeds; J. C. O. Bradbury, Cambridge University and Guy's Hospital; W. G. Cheatle, St. Mary's Hospital; R. A. Clapham, B.A.Camb., Cambridge and London Hospital; J. A. Cowie, B.A., B.Sc New Zeal., New Zealand and Glasgow Universities; A. H. Curtis, University College Hospital; H. J. de Brent, St. Thomas's Hospital; K. A. C. Doig, Westminster Hospital; P. T. Drabble, Sheffield and University College Hospital; T. Drysdale, B.A.Camb., Cambridge University and St. George's Hospital; J. J. T. R. Felix, Middlesex Hospital; W. H. Flint and C. K. Gettings, Birmingham University; C. A. Flintoff, Charing Cross Hospital; G. R. Footner, Cambridge University and St. Thomas's Hospital; H. P. Gibb, B.A.Camb., Cambridge University and St. Bartholomew's Hospital; K. M. Gibbins, St. Mary's Hospital; C. A. Godson, St. George's Hospital; R. H. C. Gompertz, B Sc.Lond., King's College Hospital; J. F. Goodchild, M.D., C.M.Canada, B.Sc.Edin, Queen's University, Kingston, Ontario, and Glasgow University; F. W. Goonetilleke, L.M. and S. Ceylon, Ceylon Medical College and King's College Hospital; A. A. R. Green, Birmingham University; F. R. Harris, St. Mary's Hospital; H. F. Halfield, Guy's and St. Bartholomew's Hospital; W. Haward, Durham University and St. Thomas's Hospital; V. G. Heseltine, St. Bartholomew's Hospital; N. W. Hill, London Hospital; D. A. Hingston, B.A., M.D.Laval, University of Laval and King's College Hospital; C. D. Holdsworth and R. E. Humphry, University College Hospital; H. F. Horne, B.A.Camb, Cambridge University and London Hospital; A. C. Hudson, M.A., M.B., B.C Camb., Cambridge University and St. Thomas's Hospital. J. G. Ingouville, St. Bartholomew's Hospital; N. B. V. Jacob and D. G. Lloyd, London Hospital; W. H. Kaye, Owens College and Royal Infirmary, Manchester; W. N. Kingsbury, Middlesex Hospital; J. Lambert, B.A Camb., Cambridge University and London Hospital; W. K. Legassick, University College Hospital; H. C. Ling, L.R.C.P.Edin., University College and Royal Infirmary, Glasgow and Yorkshire College and General Infirmary, Leeds; J. T. Lloyd, University College, Liverpool; D. MacBane, M.B Toronto, Toronto University and Middlesex Hospital; S. M. Mackenzie, B.A.Camb., Cambridge University and London Hospital; C. W. McLeay, B.A.Toronto, M.D.West Univ., Western University, London, Ontario; F. McTavish, Toronto University; N G. Maitland, Birmingham University; P. A. Mansfield, B.A.Oxon., Oxford University and King's College Hospital; H. S. Matson, St. George's Hospital; B. Moiser, G. Nunn, and C. S. Morris, Guy's Hospital; A. R. Moore, B.A.Camb., Cambridge University and London Hospital; R F. Moore, B.A Camb., Cambridge University and St. Bartholomew's Hospital; S. Murray, M.B., Ch.B.Vict., Owens College and Royal Infirmary, Manchester; B. R. O'Reilly, M.D., T.C.D. Trinity, Toronto, Trinity College Toronto and University College Hospital; F. Paine, Middlesex Hospital; F. H. Parker, B.A., M.B.Camb., Cambridge University and Guy's Hospital; J. S. Pascoe, Charing Cross Hospital; S. G. Penney and B. Pick, St. George's Hospital; W. C. Pickering, St. Bartholomew's Hospital; H. F. Powell, University College Hospital; J. M. B Rahilly, St. Mary's Hospital; T. V. Rees, University College, Cardiff, and London Hospital; G. R. Rew, King's College Hospital; C. S. S. Rigby, Birmingham University; E. E. Roberts and M. W. Shutte, St. George's Hospital; E. W. Routley and H. L. Shelton, Guy's Hospital; F. H. Rudge, University College, Bristol; A. Schapiraff, M.D.Geneva, University of Geneva and King's College Hospital; J. C. Smyth, M.B., Ch.B. Vict., Owens College and Royal Infirmary, Manchester; W. G. Speers, St. Mary's Hospital; R. D. Sproat, M.B.Toronto, University of Toronto and University College Hospital; J. K. Syms, University College Hospital; J. B. Taylor, B.S., M.D.Michigan, Michigan University and University Hospital; W. T. Thomson, King's College Hospital; C. E. Treble, M.B.Toronto, Toronto University and University College Hospital; J. H. Trench, B.A.Camb., Cambridge University and University College Hospital; H. J. D. Walker and L. Warren, London Hospital; J. Ward, L S.A.Lond., University College, Sheffield; J. D C. White, Cambridge University and London Hospital; E. K. Williams, B.A.Camb, Cambridge and St. Andrews Universities and St. Bartholomew's Hospital; H. W. Wiltshire, M.A.Camb., Cambridge University and King's College Hospital; R. S. Woods, Queen's College, Belfast, University College, and London Hospitals; H. M. Woodward, B A Oxon., Oxford University and Guy's Hospital; T. F. Woolferden, University College, Liverpool; G. P. Young, King's College Hospital.

TRINITY COLLEGE, DUBLIN.

The following candidates have passed the Final Examination in Medicine:

Wallis, G. B. M'Caul, H. Stewart, W. M. Wade, W. P. Tate, T. Wilson, C. J. Coppinger, H. T. Marrable, E. G. Scroope.

The following candidates have passed Section A of the Final Examination in Medicine:

T. S. Haughton (high marks), J. D. Sands, P. B. Egan, T. T. H. Robinson, W. F. Samuels, W. J. Thompson, F. J. Usher, W. C. MacFetridge, T. B. W. MacQuaide, A. C. Elliott, E. D. Atwell, G. Dougan, J. M. Harold, E. C. Phelan.

ROYAL COLLEGE OF SURGEONS IN IRELAND.

The Anatomical Prize for 1905.—A prize of £21 is offered for competition is open to any student whose name is on the Anatomical Class of any school in the United Kingdom. The prize is offered for a dissection of the left pneumogastric nerve, limited to its pharyngeal divisions, and including their connexions. The preparation must be sent to the Curator of the Museum, Dr. A. H. White, Royal College of Surgeons, Dublin, from whom further particulars can be obtained.

SOCIETY OF APOTHECARIES OF LONDON.

LIST, May, 1904.—The following candidates passed in:

Surgery.—C. W S. Boggs (Section I), Leeds; E. Morris, St. Bartholomew's Hospital; M. B. Potts (Sections I and II), Leeds; F. P. Rose, London and St. Mary's Hospital; J. P. B. Snell (Section I), Middlesex Hospital; M. C. Vivian (Sections I and II), Royal Free Hospital; P. B. Whittington (Sections I and II), London Hospital.

Medicine.—A. J. Ambrose (Sections I and II), Westminster Hospital); W. S. Gibson (Sections I and II), Manchester and Middlesex Hospital; F. W. Higgs (Sections I and II), St. George's Hospital; M. B. Potts (Sections I and II), Leeds; G. W. Rogers (Sections I and II), Cardiff and St. George's Hospital; A. B. S. Todd (Section I), Leeds.

Forensic Medicine.—A. J. Ambrose, Westminster Hospital; J. B. Barnes, Manchester; L. F. Cope, St. George's Hospital; A. Lazar, Vienna and St. Mary's Hospital; M. B. Potts, Leeds; G. W. Rogers, Cardiff and St. George's Hospital; H. P. Shanks, St. Bartholomew's Hospital; A. B. S. Todd, Leeds; S. H. R. Welch, Charing Cross Hospital.

Midwifery.—T. R. Roberts, London Hospital; L. Sells, St. Thomas's Hospital.

The diploma of the Society was granted to W. S. Gibson, F. W. Higgs, and F. P. Rose.

PUBLIC HEALTH AND POOR-LAW MEDICAL SERVICES.

HEALTH OF ENGLISH TOWNS.

IN seventy-six of the largest English towns, including London, 8,987 births and 4,136 deaths were registered during the week ending Saturday last, June 11th. The annual rate of mortality in these towns, which had been 15.5, 15.4, and 14.6 per 1,000 in the three preceding weeks, further declined last week to 14.1 per 1,000. The rates in the several towns ranged from 7.0 in Walthamstow, 7.1 in Willesden and in Aston Manor, 7.7 in Hornsey and in Smethwick, 8.0 in Great Yarmouth, 8.5 in Leyton, 8.7 in Newport (Mon.), 9.0 in West Hartlepool, and 9.2 in Plymouth, to 18.9 in Middlesbrough and in South Shields, 20.0 in Stockton-on-Tees, 20.4 in Sunderland and in Newcastle-on Tyne, 20.5 in Liverpool, 22.6 in Tynemouth, and 25.6 in Warrington. In London the rate of mortality was 13.3 per 1,000, while it averaged 14.5 per 1,000 in the seventy-five other large towns. The death-rate from the principal infectious diseases averaged 1.7 per 1,000 in the seventy-six large towns; in London this death-rate was equal to 1.5 per 1,000, while it ranged upwards among the seventy-five other towns, to 3.0 in Ipswich and in Rhondda, 3.2 in Norwich and in Salford, 3.5 in Wallasey, 3.6 in Blackburn, 4.6 in Warrington, 5.0 in Birkenhead, and 5.7 in Hanley. Measles caused a death-rate of 1.8 in Croydon, in Norwich, in Salford, and in Rotherham, 1.9 in Walthamstow, 2.1 in Rhondda, 2.4 in Hanley and in Rochdale, 2.6 in Wallasey, and 3.2 in Birkenhead; diphtheria of 1.6 in Hanley; whooping-cough of 1.6 in King's Norton and in Grimsby; 2.2 in Swansea; 3.1 in Warrington, and 3.2 in Blackburn; and diarrhoea of 2.0 in Reading. The mortality from scarlet fever and from enteric fever showed no marked excess in any of the large towns. Two fatal cases of small-pox were registered in Bradford, and one each in Leicester, Derby, Manchester, Newcastle-on-Tyne, and Tynemouth, but none in any other of the large towns. The Metropolitan Asylums Hospitals contained 95 small-pox patients at the end of last week, against 96, 118, and 96 at the end of the three preceding weeks; 21 new cases were admitted during the week, against 18, 33, and 10 in the three preceding weeks. The number of scarlet fever cases in these hospitals and in the London Fever Hospital, which had been 1,630, 1,663 and 1,673, at the end of the three preceding weeks, had declined again to 1,647 at the end of last week; 193 new cases were admitted during the week, against 222, 194, and 207 in the three preceding weeks.

HEALTH OF SCOTCH TOWNS.

DURING the week ending Saturday last, June 11th, 1,034 births and 536 deaths were registered in eight of the principal Scotch towns. The annual rate of mortality in these towns, which had been 18.7, 17.6, and 18.1 per 1,000 in the three preceding weeks, declined again last week to 16.2 per 1,000, but was 2.1 per 1,000 above the mean rate during the same period in the seventy-six large English towns. Among these Scotch towns the death-rates ranged from 11.2 in Greenock and 13.0 in Leith, to 22.3 in Paisley and 29.2 in Perth. The death-rate from the principal infectious diseases averaged 2.2 per 1,000, the highest rates being recorded in Paisley and Greenock. The 247 deaths registered in Glasgow included 3 which were referred to small-pox, 8 to measles, 2 to scarlet fever, 9 to whooping-cough, and 12 to diarrhoea. Four fatal cases of measles and 4 of whooping-cough were recorded in Edinburgh; 2 of diphtheria, 2 of whooping-cough, and 3 of diarrhoea in Dundee; 3 of whooping-cough and 3 of diarrhoea in Aberdeen; 2 of whooping-cough and 2 of diarrhoea in Paisley; 2 of diarrhoea in Leith; and 3 of measles in Greenock.

HEALTH OF IRISH TOWNS.

DURING the week ending Saturday, June 11th, 558 births and 328 deaths were registered in six of the principal Irish towns, against 582 births and 366 deaths in the preceding period. The mean annual death-rate in these same towns, which had been 22.4, 16.9, and 29.1 per 1,000 in the three preceding weeks, fell abruptly to 18.4 per 1,000, this figure being 4.3 per 1,000 above the mean annual rate registered in the seventy-six English towns during the corresponding period. The figures ranged from 7.8 in Waterford to 24.6 in Limerick. The death-rate from the principal zymotic diseases during the same period and in the same six Irish towns averaged 0.8 per 1,000, or 0.3 per 1,000 less than during the preceding week, the highest figure, 2.0, being registered in Belfast, while Limerick and Waterford recorded no deaths under this heading at all. The whooping-cough rate fell considerably, only 1 death from this cause being registered in Dublin and 4 in Belfast. Scarlet fever caused 1 death in Dublin and 1 in Belfast, and measles 4 in Belfast and 1 in Dublin. To enteric 1 death was ascribed in Dublin, and 2 in Belfast. From diphtheria the only death was in Londonderry.

POPULATION OF THE UNITED KINGDOM.

A. F. M. P.—We understand that the Registrar-General estimates the population of the United Kingdom at the middle of this year at 42,786,466.

REGULATIONS AS TO PUBLIC VACCINATORS' CONTRACTS WITH GUARDIANS.

DOUBTFUL writes to ask: (1) Whether it is compulsory for a public vaccinator to reside in his district? and (2) whether he can be dismissed without an appeal by the guardians to the Local Government Board?

*** It is not necessary for a public vaccinator to reside in his district; (2) a public vaccinator's contract made between the guardians and himself stipulates that the contract may be put an end to by either of the parties concerned giving twenty-eight days' notice in writing to the other party respectively of the intention to put an end to the same. This termination of the contract does not require the sanction of the Local Government Board.

VACCINATION FEES.

DELTA.—The minimum fees are fixed by the order of the Local Government Board, who would refuse to sanction any such arrangement, nor would they allow any successor to be appointed under such conditions, if the present public vaccinator were given notice of termination of contract. He has no choice but to insist upon the present rate of payment.

VACCINATION (SCOTLAND) ACT.

"MEDICUS" asks the following questions in connexion with the Vaccination (Scotland) Act. (1) Is a public vaccinator (having made a visit at the house of an objector) at liberty to consult the husband at his shop, business, etc., in order to obtain his sanction or otherwise? Would such visit be held legal; in event of prosecution could an objector refuse to give his opinion unless at his house? (2) How many vaccination marks is a public vaccinator expected to aim at, or if the number of marks is optionable?

*** (1) We are informed that it has been decided that it is necessary for a public vaccinator to obtain the sanction or refusal of the father of the child that he has been requested to vaccinate. It is not sufficient for him that the mother refuses. As to where he consults the husband that is not a matter of consequence, as long as he obtains his sanction or otherwise, so that in our opinion he is quite at liberty to consult the husband at his place of business, and we consider that such a visit would be held legal in the event of a prosecution following. (2) The number of vaccination marks necessary for vaccination is not laid down, this matter being left in the hands of the public vaccinator. He is required to be in a position to certify that the vaccination is successful.

POWERS OF GUARDIANS UNDER SUPERANNUATION ACT, 1896.

DOUBTFUL asks whether it is optional on the part of guardians to grant superannuation allowance to a union medical officer on his retirement, either owing to his having attained the age limit, or from incapacity to perform his duties by reason of sickness or accident.

*** To become entitled to superannuation allowance under the Act of 1896, an officer of the guardians must have served for a period of not less than ten years. To enable him to claim superannuation on the ground of incapacity to perform his duties, he must produce satisfactory evidence to the guardians that his incapacity arises from permanent infirmity of mind or body, or from old age, and if the incapacity arises from old age he must have completed the full age of 60 years. Otherwise he must have attained the full age of 65 years.

OBITUARY.

LOUIS L. JENNER, M.B., B.CH.OXON.,

Formerly Superintendent of the Clinical Labaratory, St. Thomas's Hospital.

WE regret to announce the death of Dr. Louis Leopold Jenner, which took place at St. Thomas's Hospital on June 2nd from enteric fever. He was the fourth son of the late Sir William Jenner, Bart., and was educated at Marlborough and Trinity College, Oxford. He entered as a student at St. Thomas's Hospital in 1890, and after obtaining his degrees of Bachelor of Medicine and of Surgery he was appointed House-Physician in 1895; then, abandoning the clinical for the purely scientific side of his profession, he was appointed Superintendent of the Clinical Laboratory and Demonstrator of Morbid Histology at St. Thomas's, which post he held for about three years. It was during this period that he paid special attention to the histology and pathology of the blood, and his name is associated with his well-known method of staining. Not wishing to do so much routine work, necessarily associated with a laboratory in a large hospital, he resigned his post to devote his time specially to bacteriological chemistry. For this purpose he worked at the Pharmaceutical College and latterly at the Lister Institute, where he was engaged in research work in connexion with enteric fever. His early death is deeply lamented, especially by those who had the privilege of working with him, and who recognized his wholeheartedness in striving to advance our knowledge in his own special branch of medical study.

RICHARD J. DEARDEN, M.R.C.S., J.P.

Divisional Surgeon, City Police, Manchester.

WE have to record the sudden death, on June 11th, of Dearden, at the early age of 49. After taking his diplom in 1879 Mr. Dearden acted as a House Surgeon in the R Infirmary, Manchester, and he also held office in conne with the Chorlton-upon-Medlock Dispensary. He settled in practice in Oxford Road, Manchester, where he well known and much respected. Amongst other pu appointments Mr. Dearden held the office of Divisi Surgeon to the City Police. The immediate cause of d was extensive cellulitis of the arm, axilla, and trunk, follo upon the performance of a necropsy. Mr. Dearden under just a week before his death to do a necropsy for a fri Blood-poisoning rapidly followed. In spite of the watc care of his surgical friends, within a week from the tim the injury and absorption of the poison, a fatal result ens References were made at the City police-courts and by Coroner to the untimely death of one who a few days ea was the picture of health and vigour, and who by the s scientious discharge of his duties as a surgeon and a m strate had earned the esteem of all who knew him, and fell a martyr in the exercise of his profession.

BY the death of ROBERT IVES, of Portswood, Southamp the district has lost one of its few remaining representa of the older generation of medical practitioners. Bo Chertsey, Dr. Ives was at first intended to enter the Chu and to carry out that purpose he went up to Magd College, Oxford. He was, however, the son, grandson great-grandson of medical practitioners, and the family coming out in him strongly. Robert Ives, the fourth o line, entered as a medical student at St. Thomas's Hosp the medical school at which both his father and gr father had been students. In 1857 he became M.R and L.M., and after taking the diploma of L.R.C.P. three years later, he started practice in Portswood an mained in that neighbourhood for the rest of his life. was medical officer of the Second District of the Ston Union for some forty years, was highly esteemed and pa a very busy life. Much of his success as a medical pr tioner he probably owed to his sympathetic and kindly ma and to the fact that he was always very firm in exacting his patients entire obedience to his advice and s adherence to the rules which he laid down for their guid He was too busy to take any part in the public affairs o locality, but made an exception in favour of the cho St. Denys Church. Of this he was the originator, and he tinued to take an interest in it long after his retirement practice some eight years ago. Dr. Ives's father and gr father were both in practice at Chertsey, the latter ha been at one time in the Royal Navy and a Surgeo H.M.S. *Victory*. Upon his retirement he became me attendant to H.R.H. the Duke and Duchess of Yor Oatlands Park, and was one of the habitués of Holland H The medical instincts of the family do not yet appear exhausted, for Dr. Robert Ives left a medical son who practice in Portswood, and also a grandson who is at pre a medical student at Edinburgh. Dr. Ives also left a w and two daughters. Until a year or two after his retire he remained a member of the British Medical Associatio

MEDICAL VACANCIES AND APPOINTMENT

VACANCIES.

This list of vacancies is compiled from our advertisement columns, wh particulars will be found. To ensure notice in this column advertise must be received not later than the first post on Wednesday morning.

ABERDEEN UNIVERSITY.—An Additional Examiner in (1) Materia Medica Patnology; (3) Surgery.
BIRKENHEAD BOROUGH HOSPITAL.— Junior Resident House-Surgeon. Sa £80 per annum.
BIRMINGHAM AND MIDLAND EYE HOSPITAL.—House-Surgeon, resident. Sa £75 per annum.
CUMBERLAND AND WESTMORLAND ASYLUM, Garlands, Carlisle.—Junior As ant Medical Officer, resident. Salary, £130, rising to £150 per annum.
COVENTRY AND WARWICKSHIRE HOSPITAL.—Assistant House-Surgeon, resi Salary, £60 per annum.
DOUGLAS: NOBLE'S ISLE OF MAN GENERAL HOSPITAL AND DISPENSA Resident House-Surgeon. Salary, £82 per annum.
DERBYSHIRE ROYAL INFIRMARY.—(1) Senior House-Surgeon. (2) Assis House-Surgeon. Salary at the rate of £100 and £60 per annum respectively.
EVELINA HOSPITAL FOR SICK CHILDREN, Southwark.—Clinical Assistants the Out-patient Department.
HOSPITAL FOR CONSUMPTION AND DISEASES OF THE CHEST, Brompt Resident House-Physicians. Honorarium, £25 for six months.
HOSPITAL FOR SICK CHILDREN, Great Ormond Street, W.C.—(1) Ophthalmic geon. (2) House-Physician Salary, £20 for si months.

LL ROYAL INFIRMARY.—Casualty House-Surgeon, resident. Salary, £50 per annum.

ERPOOL: DAVID LEWIS HOSPITAL. — (1) Second Honorary Anaesthetist. (2) Junior House-Surgeon. Salary at the rate of £70 per annum.

ERPOOL: ROYAL SOUTHERN HOSPITAL.—Ambulance Surgeon. Salary, £1 1s. per week.

DON LOCK HOSPITAL, Harrow Road.—Registrar.

RGATE: ROYAL SEA-BATHING HOSPITAL.—Resident Surgeon to act as junior and senior for six months each. Salary at the rate of £80 and £120 per annum respectively.

DDLESEX COUNTY ASYLUM, Upper Tooting.—Third Assistant Medical Officer, resident. Salary, £200 per annum.

STH-EASTERN HOSPITAL FOR CHILDREN, Hackney Road.—(1) Assistant Surgeon, (2) House-Surgeon, resident. Salary at the rate of £60 per annum.

STH STAFFORDSHIRE INFIRMARY, Hartshill. — Assistant House-Surgeon, resident. Honorarium, £25 for six months.

MARY'S HOSPITAL MEDICAL SCHOOL, Paddington.—Lecturer on Chemistry.

CKTON-ON-TEES: STOCKTON AND THORNABY HOSPITAL.—House-Surgeon. Salary, £250 per annum.

OAT HOSPITAL, Golden Square W.—Honorary Anaesthetist.

STERN GENERAL DISPENSARY, Marylebone Road N.W.—Honorary Ophthalmic Surgeon.

APPOINTMENTS.

ROW, G. A., M.R.C.S., L.R.C.P.Lond., Honorary Anaesthetist to the Manchester Northern Hospital for Women and Children.

WELL, Harold, M.B.Lond., F.R.C.S.Eng., Surgeon Laryngologist to the Mount Vernon Hospital for Consumption.

IES, H. E., L.R.C.P., M.R.C.S., Certifying Factory Surgeon for the Lutterworth District, Leicestershire.

LES, W. McAdam, M.S.Lond., F.R.C.S.Eng., Examiner in Anatomy for the Fellowship of the Royal College of Surgeons of England.

DMAN, W. M., M.R.C.S., L.R.C.P., Surgeon to ss. "Merion" (American Line).

RCHER, R. B., M.B., Ch.B.Vict., reappointed Senior Resident Medical Officer at the St. Mary's Hospital for Women and Children, Manchester.

TON, A. F., L.R.C.P. M.R.C.S., District Medical Officer of the Malmesbury Union.

ON, S. Herbert, M.R.C.S., L.R.C.P.Lond., Honorary Anaesthetist to the Manchester Northern Hospital.

T, Sydney, B.S.Lond., F.R.C.S.Eng., Chief Assistant in the Aural Department, St. Bartholomew's Hospital, London, and Surgeon to Out-patients, Evelina Hospital for Sick Children, London.

COX, W. H., M.D., B.Sc.Lond., D.P.H., Medical Registrar to St. Mary's Hospital.

DIARY FOR NEXT WEEK.

TUESDAY.

Royal College of Physicians of London, 4 p.m.—The Harveian Oration, by Dr. Richard Caton.

POST-GRADUATE COURSES AND LECTURES.

ng Cross Hospital, Thursday, 4 p.m.—Demonstration of Surgical Cases.

ital for Consumption and Diseases of the Chest, Brompton. Wednesday, 4 p.m.—ecture on Cases in the Wards, Pneumothorax, Chronic Pneumonia, Mitral Stenosis, c.

ital for Sick Children, Great Ormond Street, W.C., Thursday, 4 p.m.—Lecture on iorea.

al Graduates' College and Polyclinic, 22, Chenies Street, W.C.—Demonstrations ill be given at 4 p.m. as follows: Tuesday, Medical; Wednesday, Surgical; Thursy, Surgical; Friday, Eye. Lectures will be delivered at 5.15 as follows: onday, Some Remarks on the Symptoms and Treatment of the Intracranial Comications of Middle-ear Disease. Tuesday and Wednesday, Degenerative Diseases the Spinal Cord and some Unusual Forms of Nervous Disease; Thursday, Propse of the Uterus.

t Vernon Hospital for Consumption and Diseases of the Chest, 7, Fitzroy Square, .. Thursday, 5 p.m.—Asthma: its Pathology and Diagnosis.

nal Hospital for the Paralysed and Epileptic, Queen Square, W.C.—Lectures ill be delivered at 3.30 p.m. as follows: Tuesday, Some Ocular Symptoms of sease; Friday, Ocular Paralyses.

t-East London Post-Graduate College, Tottenham Hospital, N., Wednesday, 0 p.m.—Lecture on Diseases of the Skin attacking the Face.

Graduate College, West London Hospital, Hammersmith Road, W.—Lectures will delivered at 5 p.m. as follows: Monday, Heart Disease in Children: Tuesday, gh-frequency Currents illustrated by lantern slides; Wednesday, Practical Medie; Thursday, Hernia; Friday, Surgical Cases.

hn's Hospital for Diseases of the Skin, Leicester Square, W.C.—Thursday, 6.15 p.m., cture on Syphilis.

ter's Hospital, Henrietta Street, W.C., Wednesday, 3.30 p.m.—Lecture-Demonstran on Cases in the Wards.

BIRTHS, MARRIAGES, AND DEATHS.

Charge for inserting announcements of Births, Marriages, and Deaths is 5d., which sum should be forwarded in post-office orders or stamps with notice not later than Wednesday morning, in order to ensure insertion in current issue.

BIRTHS.

ISS.—On June 12th, at 5, Gay Street, Bath, the wife of Richard Arthur Bayliss, R.C.S.Eng., L.R.C.P.Lond., a son.

ING.—On Wednesday, June 1st, at 305 Glossop Road, Sheffield, the wife of Tusting Cocking, M.D.Lond., of a daughter.

ON.—On June 11th, at 3, Barnfield Crescent, Exeter, the wife of W. Gordon, M.D., C.P., of a son.

.—On June 10th, at Toronto House, West Bromwich, the wife of Raymond tchell Heggs, L.R.C.P.Lond., M.R.C.S., of a son.

NTOSH.—On Friday, May 27th, at Corner House, Platt's Lane, Hampstead, N.W., wife of J. S. Mackintosh, M.R.C.S.Eng., L.R.C.P.Lond., of a daughter.

MARRIAGES.

ELL—TAYLOR.—At St. Thomas's Episcopal Church, Edinburgh, on June 7th, by Rev. H. J. Colclough, Patrick Edward Campbell, M.B., C.M., Caterham Surrey, Edith, second daughter of W. B. Taylor, Esq., Preston House, Prestonpans.

FELTON.—On June 7th, at Bradford, Richard Alexander Ross, L.R.C.P. & S.I., inger son of the Rev. James Ross, to Eleanor Sheila, younger daughter of the e Captain Felton.

MACOTT—HOWDEN.—On June 11th, at Holy Trinity, Paddington, by the Rev. J. Challenor, Rector of Christ Church, Moss Side, Manchester, assisted by the V. J. Horrocks, Curate of the Parish, Frederic Hibbert Westmacott, B.Sc.Vict., M.C.S.Eng., L.R.C.P.Lond., of 8, St. John Street, Manchester, eldest son of G. H. stmacott, of Crumpsall Grove, Manchester, to Margaret Carlota, third daughter the late Alexander Howden, and of Mrs. Alexander Howden, of 125, Gloucester race, W.

DEATHS.

ISON.—On March 12th, 1904, at his residence, Hamilton House, Church Walk, erston, John Anderson, M.D., aged 71 years; born at Hamilton, Lanarkshire, N.B.

ER.—On Thursday, June 2nd, at St. Thomas's Hospital, Louis T. Jenner, B.Oxon., of the Lister Institute of Preventive Medicine, fourth son of the late William Jenner, Bart., G.C.B., and of the Dowager Lady Jenner, of Greenwood, Hop's Waltham, Hants, aged 38.

LETTERS, NOTES, AND ANSWERS TO CORRESPONDENTS.

COMMUNICATIONS respecting Editorial matters should be addressed to the Editor, 2, Agar Street, Strand, W.C., London; those concerning business matters, advertisements, non-delivery of the JOURNAL, etc., should be addressed to the Manager, at the Office, 429, Strand, W.C., London.

ORIGINAL ARTICLES and LETTERS *forwarded for publication are understood to be offered to the* BRITISH MEDICAL JOURNAL *alone, unless the contrary be stated.*

AUTHORS desiring reprints of their articles published in the BRITISH MEDICAL JOURNAL are requested to communicate with the Manager, 429, Strand, W.C., on receipt of proof.

CORRESPONDENTS who wish notice to be taken of their communications should authenticate them with their names—of course not necessarily for publication.

CORRESPONDENTS not answered are requested to look at the Notices to Correspondents of the following week.

MANUSCRIPTS FORWARDED TO THE OFFICE OF THIS JOURNAL CANNOT UNDER ANY CIRCUMSTANCES BE RETURNED.

IN order to avoid delay, it is particularly requested that ALL letters on the editorial business of the JOURNAL be addressed to the Editor at the Office of the JOURNAL, and not at his private house.

TELEGRAPHIC ADDRESS.—The telegraphic address of the EDITOR of the BRITISH MEDICAL JOURNAL is *Aitiology, London.* The telegraphic address of the MANAGER of the BRITISH MEDICAL JOURNAL is *Articulate, London.*

TELEPHONE (National):— EDITOR, 2631, Gerrard. GENERAL SECRETARY AND MANAGER, 2630, Gerrard.

☞ *Queries, answers, and communications relating to subjects to which special departments of the* BRITISH MEDICAL JOURNAL *are devoted will be found under their respective headings.*

QUERIES.

E. M. asks whether mud baths are obtainable anywhere in England.

ANSWERS.

IGNORANT will find information on the clothes which should be prepared for an expected baby and many other related points in Ashby's *Health in the Nursery.* (London: Longmans, Green, and Co. 1898. 3s. 6d.)

J. E. S.—Metropolitan police surgeons are appointed by the Home Secretary on the recommendation of the Chief Surgeon. Their salaries vary with the number of police under their care. There is no way to find out when there are vacancies. Appointments in connexion with the Post Office are made by the Postmaster-General.

B.—The only advice we can prudently give our correspondent is to apply to some lunatic hospital, such as Bethlem (just now closed), or some large private asylum receiving cases at cheap rates, such as Bethnal Green House, Bethnal Green, London, E.

TREATMENT OF WHOOPING-COUGH.

DR. DOUGLAS MACDONOGH (Bettws-y-Coed) writes: In reply to "P."s query in the BRITISH MEDICAL JOURNAL of June 4th, I would recommend him to try formalin tabloids burnt in the room. I had a most inveterate case which yielded rapidly to this treatment, and I think it worth a more extended trial. Drugs are all more or less unreliable.

THE EXAMINATION FOR M.D. EDINBURGH.

O. R.—We understand that the examination for the degree of M.D. at the University of Edinburgh under the new regulations is a searching one. Partial or slipshod knowledge will not secure a pass. Fairly good men have been rejected. Full and accurate knowledge of recent methods of examination and analysis of urine, excreta, blood, etc., both macroscopic and microscopic is insisted on. A sound working knowledge of the use of the laryngoscope, ophthalmoscope, sphygmograph, and other instruments is necessary. Probably the wisest course for "O. R." would be to attend some of the coaching or tutorial classes in Edinburgh or elsewhere. "What reading is necessary in general and special work" is difficult to answer. In general work some such good textbook as Osler's *Medicine*, and on special work some of the larger textbooks such as Clifford Allbutt's *System* would be necessary. On clinical methods such a book as the last edition of Hutchison and Rainy should be read. On bacteriology, Professor Muir's book. Whether a very busy practitioner can prepare himself in six months must depend on how much he now knows. If he is rusty he would have to give a fair amount of time daily.

ETHER VAPOUR.

MR. C. W. KROHNE (London) writes: The query put by "H. L. D." in the BRITISH MEDICAL JOURNAL, May 28th, p. 1296, was definitely answered by Dr. John Snow at the Westminster Medical Society, January 16th, 1847. Dr. Snow said that the great effect of temperature over the relations of atmospheric air with the vapour of ether had apparently been overlooked in the construction of the instruments hitherto used for its administration. This circumstance would explain, in some measure, the variety of the results, and account for some of the failures. The administrators did not at present know the quantity of vapour they were exhibiting with the air; it would vary immensely according to the temperature of the apartment, as would be seen by some calculations he had made and suspended in the room. One hundred cubic inches of air, saturated with the vapour of ether at the temperature of—

40° F.	contain	27	cubic inches of the vapour	
54°	,,	34·3	,,	,,
64°	,,	43·3	,,	,,
74°	,,	53·6	,,	,,
84°	,,	66.6	,,	,,

being doubled by a rise of only 30°. On January 23rd, 1847, Dr. Snow exhibited before the same Society an inhaler for inhaling the vapour of ether, from very little upwards to 40 per cent. with which he never failed to produce perfect and safe anaesthesia in patients of all ages and conditions. Dr. Snow spoke of the necessity of being able to regulate the proportion of ether vapour and of air. At 30° F. 100 cubic inches of air take up 26 cubic inches of vapour, and become 126 cubic inches; at about 67° they take up 100, and are expanded to 200 cubic inches; above this temperature the quantity of vapour increases with enormous rapidity, till at 100° it excludes the air entirely. With an apparatus consisting of glass and sponges, the quantity of vapour could not even be ascertained, for the air was very much cooled in passing through

such an inhaler. The use of hot or even warm water was very improper about an inhaler, and by it a risk was incurred that the patient might get all vapour and no air.

PROSTATORRHOEA.

C. W. L. writes: In the absence of any local irritation "Rosemount" (BRITISH MEDICAL JOURNAL, May 28th) should look carefully into his patient's general health. Of three similar cases I met with one had dilated heart, aortic incompetence, and dilated stomach; the second had been long resident in India, and had enlarged liver; the third was a schoolmaster, and had an irritable brain and nervous system. Any defect which tends to engorge the lower abdomen or pelvis with blood would give rise to the symptoms. The first of the above cases was the most troublesome, and derived most benefit from regular long walks, dry meals, breathing exercises (especially practising breathing slowly), small doses of tincture of hyoscyamus and digitalis, an occasional grey powder and Epsom salts in the evening, with encouragement to keep at work and not consider his case as serious. A mild cigar did much good occasionally, while pipe or cigarette smoking aggravated the trouble; an occasional glass of good wine at meals was the only alcohol the patient could tolerate; while tea, coffee, and butchers' meat were greatly reduced in quantity. He got rid of his symptoms gradually, and with strict and persistent adherence to general rules of health, early rising, and early hours in the evening, etc.

Dr. ARTHUR M. THOMAS (Boscombe) considers the case is neurotic. He advises "Rosemount" to direct his patient's mind away from sexual matters, and leave the cure to Nature.

LETTERS, NOTES, Etc.

LUXATION OF THE JAW DURING SEA SICKNESS.

Dr. VICTOR F. CONNOR, R.M.S. *Saxonia*, writes: I beg to report a rather unusual complication of sea sickness—namely, double dislocation of the lower jaw. This occurred in a young Scandinavian woman of 24, on the voyage to Canada, last month, in ss. *Southwark*, of which I was in medical charge. There was no trouble in reducing the luxation, as she fainted at the sight of a little blood, the result of a dental extraction made on a man just previously. In my 2¼ years' experience at sea this is the first time I have seen or even heard of a similar case.

BELLADONNA POISONING.

DR. R. WILKINSON (Upper Norwood, S.E.), writes: A few days ago I ordered equal parts of ung. hydrarg. and ung. belladonnae for an inflamed testicle. After two applications well-marked toxic symptoms developed—dry mouth, flushed face, dilated pupils, and dysuria. These passed off in a few hours. Months previously glycerine of belladonna for phlebitis had been used for a considerable length of time with impunity.

PASSAGE OF A RENAL CALCULUS THROUGH A LUMBAR SINUS.

DR. WILLIAM WOODWARD (District Surgeon, Rouxville, Orange River Colony), in a communication dated May 1st, writes: I note in the BRITISH MEDICAL JOURNAL, of April 9th, 1904, p. 834, a case of renal calculus passed by fistula in flank. A man in this town passed a facetted calculus, about a week ago, by way of an old fistula seemingly connected with the right twelfth rib. He declines operation and will be interesting to watch, as there are evidently more to come.

THE METRIC SYSTEM OF WEIGHTS AND MEASURES.

MR. J. SCOTT BYRNE, M.B.Vict., M.R.C.S.Eng., writes: I see in the BRITISH MEDICAL JOURNAL of June 4th that the Pharmacopoeia Committee is desirous of the metric system of weights and measures being adopted as the one legal system for the preparation of drugs and medicines. It seems to me that the great objection to this would be the possibility of errors arising from the fact of the decimal point being the only guide. It has been pointed out more than once how easy it would be to mistake such figures as 6.35 and 63.5. A chemist in dispensing a prescription might easily mistake the position of a decimal point, or a small blot might make a considerable difference in the dose of the drug intended to be ordered. The following suggestion would obviate such possibilities and help us to have accurate and easily-read prescriptions. The decimal fractions could be written about half the size of the whole numbers and in addition enclosed by a circular line. If this were done there would be no possibility of confusion, and if the metric system is introduced I think some such method ought to be adopted.

EARLY PREGNANCY.

DR. JOHN J. BINGHAM, (Alfreton) writes: On January 16th, 1904, E. G., aged 12 years last November, died from acute phthisis in the fifth or sixth month of her pregnancy. She was a slightly built girl, and looked more like 8 or 9 years than 12. The history of menstruation was not complete. The mother died from phthisis shortly after the birth of this girl. The aunt with whom she lived had noticed blood on her drawers on several occasions, but was very uncertain as to the time and recurrence, but she felt sure none had been seen since July. I had some hesitation in the beginning of November, when I first saw her, of making a vaginal examination, but there was not much need for it. The first finger was easily introduced, and if it had been necessary the second might have followed without distressing the girl. A week after I examined her under chloroform. She accused a young boy of 13 of being the cause. When gathering flowers in the lane near her home he did something to her, and told her she must not tell any body. No pain at the time and no bleeding followed. That was the only occasion. She stuck to this tale from first to last. The boy as stoutly denied the whole tale.

HAEMOGLOBIN SCALE.

DR. T. W. TALLQVIST, Lecturer on the Practice of Medicine at the University at Helsingfors, writes: On account of the fact that imitations of the haemoglobin scale, invented by myself, have appeared in the English market, and which, as I have been able to convince myself, are not to be relied upon, I consider it necessary to call the attention of the profession to this circumstance, and to state that the correct and authorized edition of my scale, manufactured under my personal superintendence, can be obtained only at Messrs. Allen and Hanburys, Limited, London, who are the sole agents for this scale in the United Kingdom.

LETTERS, COMMUNICATIONS, ETC., have been received from:

A Messrs. Armbrecht, Nelson, and Co., London; Mr. S. B. Axford, Falmouth; Mess. Armour and Co., London. **B** Mr. L. A. Bidwell, London; Dr. R. C. Buist, Dun; Dr. E. A. C. Baylor, Ash; Dr. J. J. Bingham, Alfreton; J. S. Byrne, M.B., Doncas; British Viavi Company, Manager of, London; B.Sc.; Messrs. Baillière, Tindall, a Cox, London; H. E. Barnes, M.B., London; B. Blacklock, M.B., Tarkastad. **C** V. F. Connor, Liverpool; C. D; P. J. Cammidge, M.B., London; H. S. Clogg, M., London; M. Collier, M.B., London; Dr. E. M. Calender, London; Dr. J. A. C. Wolverhampton; Mr. E F. Cyriax, Rosendale. **D** Doubtful; Mr. D. J. Drake, T. urbari; Director-General of the Medical Department of the Admiralty, Lon. **E** Enfadadiza; Equity; Mr. D. T. Edwards, Taff's Well; Mr. E. D. Evans, Wrexh; Mr. W. H. Eves, London; Dr. M. G. Evans, Caerphilly; Mr. T. F. Edgeworth, Bris; Mr. J. F. Elliott, Verulam, Natal. **F** Dr. W. J. Fleetwood, Liverpool. **G** Gene Practitioner; Dr. W. Gosse, Sittingbourne; Dr. L. G. Gunn, Dublin; Dr. K. Grasmann, Liverpool; Messrs. C. Griffin and Co., London. **H** F.R. Hill, M.B., Carli; Mr. F. J. Hyam, London; Dr. H. R. Harley, Wealdstone; Mr. J. Hartley, Darling; Dr. W. J. Horne, London; Mr. J. Houston, London; N. B. Harman, M.B., Lond; Messrs. E. and J. Hardy, London; Dr. C. F. Harford, London; Mr. E. Hollins, Ilworth; Mr. R. H. A. Hunter, Watchet; Dr. S. G. Hurtado, Madrid; Dr. P. Hamilton, Hawick. **I** Mr. W. R. Y. Ives, Southampton; Messrs. Ingram and Ro, London; Ignorant; I.M.S **J** Mr. H. E. Jones, Liverpool. **K** Dr. T. N. Kelyn, London; Dr. H. W King, Chester; Mr. F. W. E. Kinneir, Horsham. **L** Dr. Lumsden, London; Mr. P. G. Lee, Cork; Dr. J. L. Loudon, Hamilton; Mr. C. Lawson, Rothbury; Miss F. Lankester, London. **M** M.D.; Mr. J. D. Macdonn, Bettws-y-Coed; Dr. E. McCarthy, Southsea; Dr. S. G. Morris, Mardy; Dr. D. McKenzie, Leytonstone; Dr. R. Maclaren, Carlisle; Dr. J. Matthews, Liverpool; r. J. MacMunn, London; Miss F. Mousley, Bournemouth; W. J. McCardie, M.B., rmingham; Mr. H. J. Manning, Salisbury; Dr. C. Muthu, Wells; Dr. J. J. Man, Cheam. **N** Mr. S. Neave, Ingatestone; Mr. A. Nash, London. **O** Oculus; r. G. S. O'Rorke, Nottingham; Dr. C. M. O'Brien, Dublin. **P** Miss M. Pike, Lond; Mr. N. Porritt, Huddersfield; Dr. C. B. Plowright, King's Lynn; Captain A. H. Pinch, London; Dr. F. M. Pope, Leicester. **R** R. W. M; T. Russell, M.B., Glasg; Mr. H. M. Raven, Broadstairs; Messrs. Reynolds and Branson, Leeds: Dr. A. Ro, Woodford Green; J. D. Rawlings, M.B., Dorking; H. Rutherfurd, M.B., Glasg; Mr. G. Rowell, London; Dr. H. D. Rolleston, London. **S** Mr. S. N. Scott, Ilstock; D. Sommerville, M.B, London; Dr. W. Sheen, Cardiff; Mr. E. C. Sth, London; Messrs. W. B. Saunders and Co., London: J. Scott, M.B., Kermanshaw; r. W. H. Symons, Bath. **T** Messrs. Turnbull and Findlay, Glasgow; R. Turner, M., York; Mr. H. W. Thomas, Liverpool; Dr. H. H. Thomson, Bridge of Weir; Dr. Turner, Liverpool; Mr. W. H. Theobald, London; Mr. R. F. Tobin, Dublin; Dr. T. Tallqvist, Helsingfors **W** Dr. H. F. Waterhouse, London; A. A. Wood, M.B., Ineaton; Dr. J. Weiss, Basle; J. S. F. Weir, M.B., London; Dr. F. Willcocks, Lond; Mr. T. S. Worboys, Winterton; Dr. R. Wilkinson, London; D. C. Watson, M.B., Inburgh; Dr. A. Westland Aberdeen Dr. L. Williams, London; Mr. W. F. A. Wa, Dinas Mawddwy.

BOOKS, ETC., RECEIVED.

Tenby. By Douglas A. Reid, M.D. London: The Health Resorts Association. 1904.

Obstetric and Gynecologic Nursing. By Edward P. Davis, A.M., M.D Second Edition. Philadelphia, New York, and London: W. B. Saunders and Co. 1904. 8s.

Diseases of the Intestines and Peritoneum. By Professor Dr. Hermann Nothnagel. Edited, with additions, by Humphrey D. Rolleston, M.D., F.R.C.P. Authorized translation from German edited by Alfred Stengel, M.D. Philadelphia, New York, and London: W. B. Saunders and Co. 1904 21s.

Notes on Percentage Calculations. With examples by Frank R. Dudderidge, F.C.S. Newcastle-on-Tyne: T. and G. Allan. 6d.

Scientific Memoirs by Officers of the Medical and Sanitary Departments of the Government of India. (New Series.) No. 9. Second Report of the Anti-malarial Operations at Mian Mir, 1901-03. By Lieutenant S. R. Christophers, M.B., I.M.S Calcutta: Office of the Superintendent of Government Printing. 1904. As. 10, or 1s.

Kurzes Lehrbuch der Desinfektion. Von Dr. med E. Czaplewski. Bonn: Martin Hager; and London: Williams and Norgate. 1904. 2s 6d.

Questions and Answers on Midwifery for Midwives. By A. B. Calder, M.B., M.R.C.S. London: Baillière, Tindall, and Cox. 1904. 1s 6d.

The Prevention of Disease in Armies in the Field. By Robert Caldwell, F.R.C.S., D.P.H., Major R.A.M.C. London: Baillière, Tindall, and Cox. 1904. 5s.

The Ragged Messenger. By W. B. Maxwell. London: Grant Richards. 1904. 6s.

Childhood in Health and Sickness. By J. Roberson Day, M.D.Lond London: Kegan Paul, Trench, Trübner, and Co., Limited. 1904 5s.

Clinique Chirurgicale. Par A. le Dentu. Paris: J. B. Baillière et Fils. 1904.

A Treatise on Applied Anatomy. by Edward H. Taylor, M.D.(Dub. Un), F.R.C.S.I. London: Charles Griffin and Co., Limited. 1904. 30s.

Emergency Pocket Case Book. Desig by a Captain in the R.A.M.C. Lea: Reynolds and Branson, Limited. 6(

Aberystwyth. Edited by George W. Ly. London: The Health Resorts Asso tion. 1904.

Studies from the Rockefeller Institute Medical Research. Reprints. Vol. 1904. New York: Published by the Institute.

Pharmacopoeia of the University Colle Hospital. 1904. Edited by Ha Wilson, B.Sc.Lond. London: Jam Truscott and Son, Limited. 1s. 9d.

On the Electrolytic Methods for the Det tion and Approximate Estimation Minute Quantities of Arsenic in Fr Malt, and Food Stuffs, etc. By Will Thomson, F.R.S.E., F.I.C. Manches: Manchester Literary and Philosophi Society. 1904. 1s. 6d.

The Treatment of some Acute Visc Inflammations, and other papers. y David B. Lees, M.A., M.D.Cant., F.R.C.P.Lond. London: John Murr. 1904. 6s.

Chirurgie Nerveuse d'Urgence. Par Le A. Chipault. Paris: J. B. Baillière Fils. 1904. Fr. 1 50.

Traitement de l'Appendicite Aiguë. Indications opératoires. Par Dr. V. Ma Paris: J. B. Baillière et Fils. Fr. 3.

Archivio Italiano per le Malattie nervo mentali. Anno XXXXI. Rivista Spimentale di Freniatria e Medicina Le delle Alienazionie Mentali. Org della Società Freniatrica Itali Diretta dal Prof. A. Tambur in unione ai Profri. C. Gi E. Morselli, A. Tamassia, E. Ta Redatorri Dri G. C. Ferrari, C. St Volume XXX. Fascicolo I. Reg Emilia: Tipografia di Stefano derini e Figlio. 1904.

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The Harveian Oration

ON

I.—I-EM-HOTEP, THE EGYPTIAN GOD OF MEDICINE; EGYPTIAN VIEWS AS TO THE CIRCULATION.

II.—REST IN INCIPIENT VALVULAR DISEASE.

Delivered at the Royal College of Physicians of London on Tuesday, June 21st.

BY RICHARD CATON, M.D., F.R.C.P.,
Consulting Physician, Liverpool Royal Infirmary.

MR. PRESIDENT AND GENTLEMEN,—The officials, Fellows, and friends of this College assemble to-day, as we and our predecessors have assembled year by year for two centuries and a-half, to commemorate the services which William Harvey has rendered to mankind, and in order to keep alive in our minds the wise counsels which he addressed to us, the memory of which he desired us ever to renew at the festival which he founded. We are to honour our great profession, to continue in mutual love and affection among ourselves, and to search and study out the secrets of Nature by way of experiment, in order to prevent suffering and ameliorate human life.

In commencing the pleasing duty which the kindness of our President has placed in my unworthy hands, it is needful to comply with the desire of our founder that we commemorate the names of benefactors of this College. The lengthy and honourable roll was so fully dealt with by the learned orator of last year, that I shall merely add to his recital the names of those who since that time have given of their substance for the advancement of medicine. Dr. Horace Dobell, of Parkstone Heights, Dorset, gave the sum of £500 to encourage research into the ultimate origin, evolution, and life-history of bacilli and other pathogenic micro-organisms: Dr. George Oliver, Fellow of this College, of Harrogate, and Farnham, Surrey, has given £2,000 to found the Oliver-Sharpey Lectureship or Prize, in memory of William Sharpey of University College, and to encourage the application of physiological knowledge, for the prevention and cure of disease, and for the prolongation of life: Lady Clarke has presented to us a bust of our revered and lamented former President, Sir Andrew Clark.

No student of the works of Harvey can fail to bear in mind the great loss we have sustained this year, in the decease of Sir Edward Sieveking, who in his Harveian Oration, drew special attention to the Prelectiones Anatomiae, and in conjunction with Dr. George Johnson and other Fellows of this College, arranged for the admirable autotype reproduction of Harvey's Manuscript, which we possess.

Desiring to render this address as little wearisome as may be, I propose to divide it into two parts: the first archaeological, dealing with Egyptian medicine, the god of medicine, and the earliest inquiries known to have been made concerning circulation and the circulatory diseases—namely, those of the physicians of ancient Egypt, a department of pre-Harveian work, and perhaps the only one, which has not been dealt with in this room. Secondly, I wish to speak with great brevity on the more practical subject of the preventive treatment of certain forms of circulatory disease.

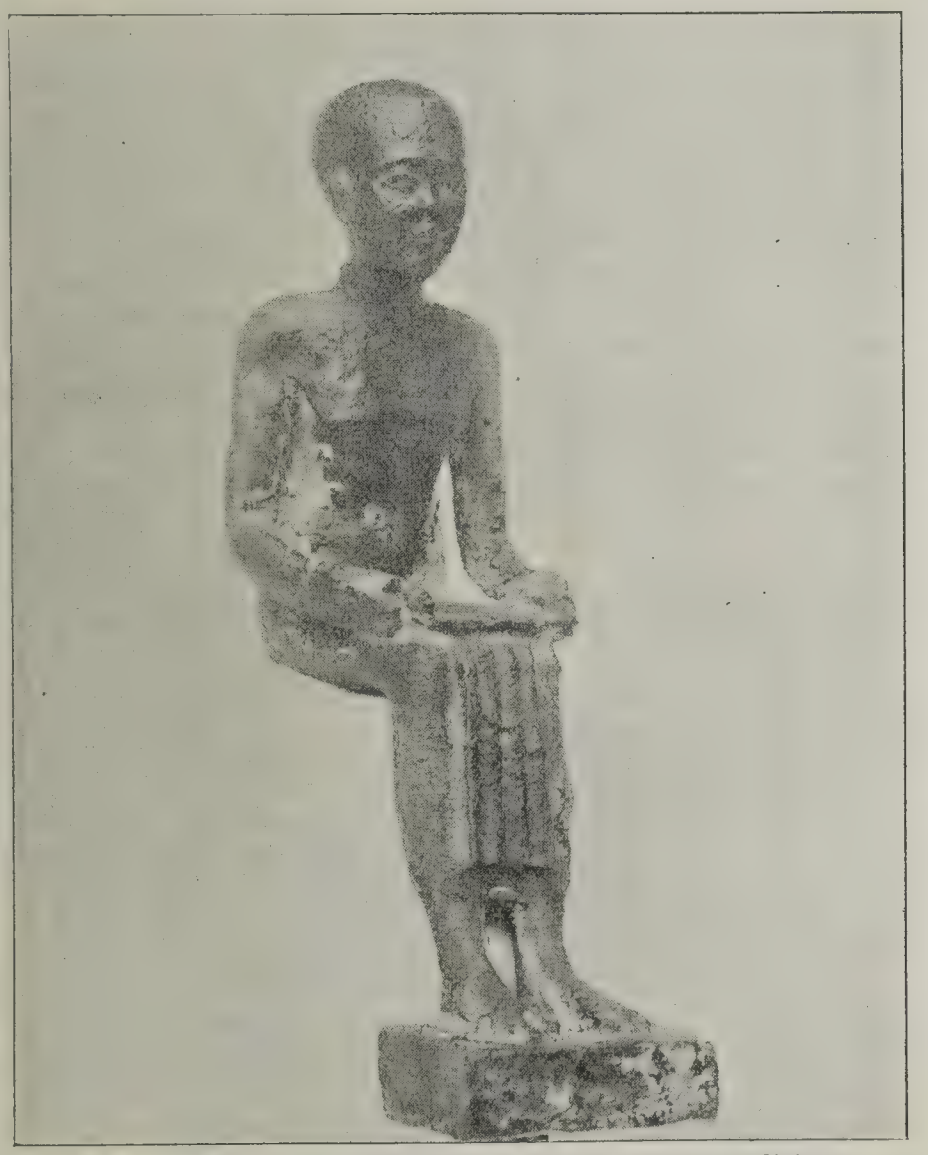

Fig. 1.—Ancient bronze of I-em-hotep, Egyptian god of medicine.

I.

ANCIENT EGYPTIAN RESEARCHES ON THE CIRCULATION.

To all who love our venerable and beneficent profession the spectacle of our predecessors in early ages striving in darkness and difficulty to acquire that hidden knowledge to which we have partially attained is interesting, and should awaken our sympathy. As was remarked by the learned Harveian Orator of 1896, "The past is worth our study, and ever more so the further we advance."

The information which archaeological research has of late afforded, though in a fitful and partial manner, as to the earliest history of medicine, and particularly in regard to that department in which our founder laboured, is not unworthy of our attention.

The first evidence of definite inquiry, in any degree worthy to be called scientific by a body of men specially educated for and devoting their lives to medical service, occurs in the early history of Egypt. The ability, learning, and artistic skill shown during the early dynasties, which all Egyptologists recognize, is paralleled by the remarkable interest then manifested in medicine. Works on anatomy and medicine are stated to have been written even by the early Sovereigns of Egypt. Athothis, the son of Menes, who lived 6 000 years ago, is stated in the Berlin Papyrus to have written a book on medicine, and I shall soon have to quote from the anatomical writings of the Pharoah Usaphais, one of his successors: Semti, the seventh monarch of the same dynasty, pursued similar investigations. It is clear, that, like the Greeks, these men in the childhood of the world believed that ὑλαίνειν μὲν ἄριστον ἐστιν. Sanitation was to them the first of the sciences.

The Medicine God, I-em-hotep.

During the third dynasty, about the year 3500 B.C., there lived a learned physician, probably a priest of Ra, the sun god, the founder of a cult, whose eminence was such that in course of ages he is deified, and becomes for later generations the special god of medicine.

His temples were places of healing for the people. His name is I-em-hotep, meaning "he who cometh in peace." According to ancient inscriptions he was the son of a certain architect named Kanofer, but when raised in popular esteem to the rank of a demi-god he is called the son of the supreme god Ptah, the Hephaistos of Egypt, and he becomes one of the great god-triad of Memphis. I-em-hotep is described as the good physician of gods and men, a kind and merciful god, assuaging the sufferings of those in pain, healing the diseases of men, giving peaceful sleep to the restless and suffering: he is called the creative god who giveth life to all men, who comes unto them who call upon him in every place, and who gives sons to the childless. He was great in magic and all learning. He and his followers had to do with the embalming of the body, and he protected the soul of the dead man from all spiritual enemies after it had left the body. In the ritual of

embalment the dead man was encouraged by these words "thy soul uniteth itself to I-em-hotep, while thou art in the funeral valley, thy heart rejoiceth because thou dost not go into the dwelling of Sebek, but thou art like a son in the house of his father."

From the testimony of temple inscriptions and papyri as well as from the writings of Manetho it is clear that the temple of the medicine god I-em-hotep was established first in early times at Memphis, and there his priests carried on the work of healing; similar temples were also erected elsewhere. I-em-hotep was represented in art as a bald-headed man, usually in a sitting posture, bearing on his knees an open papyrus scroll, and holding in his hand the symbol of life. As the centuries and milleniums passed on his cult seems to have become more and more popular. In later times when Greek colonists appeared in Egypt they gave him the name Imouthes, and applied to his temples the Greek term "Asklepieia," clearly regarding him as alike in kind to the Greek Asklepios, and his temples as hospitals for the sick. The great temple stood outside the eastern wall of Memphis, close to the serapeum. Some of us who are present to-day, when visiting the site of the temple of I-em-hotep, have naturally been impressed by the thought that on this spot, long before Asklepios, or Hippocrates, commonly called the father of medicne, were born, probably before the Homeric poems were written, before the Israelites were in Egypt, before the stone age had passed, learned men devoted themselves to the consideration of the nature of human life, strove to prolong it, to assuage suffering, and to cure disease. They studied and treated many of the ailments familiar to us, such as tubercle, leprosy, plague, anaemia, and other diseases prevalent in Egypt to-day.

Near the site of this temple, securely sealed in an earthen vessel which had been hidden in the sand, was found one of the medical papyri from which I shall quote some passages. Doubtless it belonged to an early physician who sought, perhaps during the invasion of Ethiopian or other barbarians, to preserve for mankind the precious knowledge that seemed in danger of extinction.

Necropsies made by the Egyptian Priests.

It is of some interest to note that these priests of I-em-hotep, themselves learned men, not only saw and prescribed daily for vast numbers of sick persons, but also performed innumerable necropsies. They removed the heart, large blood vessels, viscera, and brain from the bodies of deceased persons, also from the bodies of sacred animals, prior to embalmment. The heart was placed in a separate jar by itself, the remainder of the viscera in a larger vessel, thus these men had an opportunity of learning something of anatomy; they may have gained some insight into the intricate problem of the action of the heart, the movement of the blood, and the changes of heart and vessels produced by disease; no nation of antiquity had such opportunities. Did they discover anything? I think I can demonstrate to you they did obtain a partial knowledge of the circulation; they did not solve the problem, but they approached it as nearly as did the Greeks, and probably from them the Greeks obtained such knowledge as they possessed in early times.

References to the Circulation in the Medical Papyri.

Certain of the contents of the medical papyri are at present almost incomprehensible on account of the difficulty of translating technical terms; these parts I shall not refer to at all; those portions which are more easily understood still present difficulties, and translations must necessarily be free and at times vague; where the sense is important I have had the help of one or two of the most learned living Egyptologists; and here I must express my acknowledgements to Dr. Budge, Professor Kurt Sethe, Dr. Brugsch, Dr. Joachim, Dr. Leemans, Dr. Withington, Dr. Sandwich, Mr. Garstang, Professor Carrington Bolton, and others, for help orally or from their writings, without which, in my ignorance, I should have done little. Let me read you one or two extracts from the work of the Pharoah Usaphais quoted in Ebers's papyrus, "Man hath twelve vessels proceeding from his heart, which extend to his body and limbs, two vessels go to the contents of his chest, two vessels go to each leg, two to each arm, two vessels go to the back of the head, two to the front of the head, two branches go to the eyes, two to the nose, two vessels go to the right ear, the breath of life goes through them, two go to the left ear and through them passes the breath of death, they all proceed from the heart." The concluding sentence is the earliest example I know of the ancient superstition that the left side of the body is sinister and evil. This is very early anatomy professing to be at least 6.000 years old, we must not expect it to be quite accurate. Turning to a comparatively recent period, the only copy existing of Ebers's papyrus (found in a tomb at Thebes) was written in or before the sixteenth century B.C.; no doubt most, if not all, its contents are much older than that date: the passage which I am about to read commences thus, "From the secret book of the physician, a description of the action of the heart and of the heart itself. From the heart arise the vessels which go to the whole body: if the physician lays his finger on the head, on the neck, on the hand, on the epigastrium, on the arm or the leg, everywhere the motion of the heart touches him coursing through the vessels to all the members" (the reference is clearly to the pulse), "thus the heart is known as the centre of all the vessels. Four vessels go to the nasal chambers, of which two convey mucus and two convey blood; there are four vessels within the temples or skull, from these the eyes obtain their blood: the four vessels divide inside the head and spread towards the hinderpart." The Berlin papyrus speaks of the division into thirty-two vessels within the skull and implies that air traverses, at any rate, some of them. Returning to Ebers's papyrus—"When the breath enters the nostrils it penetrates to the heart and to the internal organs and supplies the whole body abundantly," this idea that certain of the vessels convey air you will observe is identical with the Greek conception and probably was its source. "Three vessels traverse the arms and extend to the fingers: three vessels also pass down the leg and are distributed to the sole of the foot; a vessel goes to each testis, and one to each kidney. Four vessels enter the liver conveying fluid and air; these may be the seat of various diseases, as they are mixed with the blood. Four vessels convey fluid and air to the intestine and spleen; two go to the bladder, and from them the renal secretion is produced. Four vessels convey fluid and air to the lower abdomen, going to the right and left sides; from them is formed the alvine excretion." These vessels here described are clearly the iliac arteries and veins. "When the heart is diseased its work is imperfectly performed; the vessels proceeding from the heart become inactive, so that you cannot feel them" (no doubt this is a reference to changes in the pulse); "they become full of air and water. When the heart is dilated the vessels from it contain effete matter. If a suppurative or putrefactive disease occur in the body" (abscess, I imagine, for which various localities are suggested) "then the heart causes it" (apparently the septic material) "to traverse the vessels; fever or inflammation of various kinds occurs in the body; the heart is in a morbid state while the fever continues. In heart disease there is either disturbance of the action of the heart, or the heart is congested or over-filled with blood: the heart is moved downwards, comes nearer the precordia, and suffers weakness and nausea. When the disease affects the base or lower mass of the heart there is shortness of breath, the heart is displaced on account of the volume of blood from the abdomen" (probably the old idea of the rush of blood entering the heart from the liver). "There may be fever or inflammation of the heart." Now comes a passage of some therapeutic interest, "The heart during such disease must be made to rest to some extent if it be possible." Here we have wise advice from the ancient Egyptians, advice the importance of which we have scarcely as yet recognized, and which we may to-day follow with advantage. "If the heart is atrophied (or wastes itself) there will be an accumulation of blood within it. When the disease of the substance of the heart is accompanied by dropsy there is a lessening (in strength probably) in the ventricle or cavity. When the weakness of the heart is due to old age there is dropsy. When there is raising or increase of the heart, it presses towards the left side, it is increased by its own fat and is displaced, there may be much fat contained within its covering or pericardium. If in a suppurative disease the heart is pushed forward, it floats or sinks in the fluid and is displaced." Here we surely have a reference to pericardial effusion. "If the heart trembles or palpitates, has little power, and sinks downwards, the disease is advancing. When there is much beating at the precordia, with a feeling of weight, when the mouth is hot and languid and the heart is exhausted, the disease is a fever or inflammation." In another place (folio 102) the heart is spoken of as

being full of blood, which comes or flows from it again. In folio 39, after a description of symptoms, follows a statement to the effect that the heart is distended, the sick man is short of breath, because the blood has stagnated and does not circulate." This is an interesting expression, but judging from other parts of the papyrus the word translated circulate can only have a vague meaning, implying movement to and fro, just like the expression "*περίοδος ἄιματος*" in the Hippocratic writings, which seems to imply the circuit of the blood, but in reality has only a similar indefinite meaning. It is evident that the Egyptian knew that blood flowed from the heart, but like the Greeks they never seem to have realized that the heart is a pump, nor did they recognize valves.

The Leyden medical papyrus speaks of a paralysis or disturbance of some sort in the blood vessels of the head, causing blindness and disorder in the body and in the limbs: this seems to be a description of the results of cerebral haemorrhage. Remedies are suggested to subdue the vascular activity occurring in certain diseases.

The various papyri from which I quote deal, of course, with practical medicine, and not with physiology: no distinct definition as to structure or function is to be looked for in them, only as associated with diagnosis, prognosis, or treatment do we get statements as to the nature of the heart, the vessels, and the movement of the blood.

Fig. 2.—Step pyramid of Sakkara, tomb of Tosorthros, supposed to have been built by I-em-hotep.

Importance of Medicine and Sanitation of Ancient Egypt.

It is clear from the study of these medical papyri that medicine advanced considerably among the Egyptians, and from them medical and sanitary knowledge has descended to us by two channels, namely, by the Greeks and through the Jewish race, while probably much of it was lost irrecoverably. Josephus quotes from Manetho a statement that Osarsiph, who Josephus says was the great Hebrew leader Moses, was a priest at Heliopolis, where medicine was taught. It is highly probable that the sanitary laws of the Jews were derived from the Egyptians. Just as the Jews remembered the diseases of Egypt (Deut. xxviii, 60) so they also remembered the sanitary and remedial measures they had learnt there.

Those of us who have seen in the later excavations at Knossos the evidences of sanitary knowledge of a somewhat high type, possessed by the Cretans at a remote period, exemplified by drainage pipes scarcely excelled by our own to-day, knowing, as we do, the close connexion between Crete and Egypt, may well believe that here we have an example of sanitation derived from Egyptian sources.

In England we have overlooked the importance of Egypt as a primary source of the science and art of medicine. If we regard with reverence the dim traditional form of Asklepios as a founder of our art, and the Asklepieia where throughout Greece and Magna Graecia medicine was practised and taught, in greater degree should we reverence the much more venerable I-em-hotep, and view with interest the primaeval medicine temples and hospitals of Egypt. In the ancient writings of the Pseudo Apuleius, Hermes is described as speaking to the youthful Asklepios as follows: "Thine ancestor the first discoverer of medicine hath a temple consecrated to him in the Libyan mountains near the Nile, where his body lies; while his better part, the spiritual essence, hath returned to the heavens, whence he still by his divine power helps feeble men, as he formerly on earth succoured them by his art as a physician."

Fig. 3.—Temple of Edfu, founded by I-em-hotep,

Probably many of the present audience have seen in the Cairo Museum the sepulchral stele of Shemkhetnankh, a great physician of the fifth dynasty, who was contemporary with King Sahura, and who is described in the stele as the Principal Physician of the Royal Hospital. His name, which is doubtless a title given to him by the monarch, means "he who possesses the things that give life." It is interesting to find that five thousand years ago a hospital should exist associated with and under the patronage of the Pharaoh, and having its own staff of physicians. And it is manifest that our calling held a distinguished position at the time when art and learning in Egypt were at their zenith.

Testimonies as to I-em-hotep.

I-em-hotep rises before us as one of those intellectual giants who take all knowledge for their province. In his comprehensiveness he surpasses Leonardo da Vinci, or our own Linacre. He is distinguished as a physician, a minister of the king, a priest, a writer, an architect, an alchemist, and an astronomer; great in all, but greatest in medicine, in the view of Egypt he is a god. In the reign of Tosorthros, of the third dynasty, some five thousand years ago, we meet with the wise I-em-hotop in an inscription referring to the seven years of famine which befell Egypt in consequence of a succession of low Niles. He is there the adviser of Pharaoh, to him the king applies in his trouble for counsel and help. In the incriptions in the temple of Edfu he is described at length as the great priest I-em-hotep, the son of Ptah, who speaks or lectures, perhaps his discourses or lectures were on medicine. Elsewhere he is described as the writer of the divine books. It may here be remarked that probably Ebers's papyrus was one of the six divine books attributed to Thoth ceremonially, but not improbably in large part the work of I-em-hotep. Manetho, while speaking of his eminence as a physician, refers to him also as an architect, the first to build with hewn stone. Not improbably he built the step pyramid of Sakkara, the tomb of his patron Torsothros. Manetho also suggests that I-em-hotep improved and completed the hieroglyphic script of Egypt. In the Hermetic literature he is famed for his knowledge of astronomy or astrology; the Westcar papyrus describes him further as an alchemist and magician; these powers were always associated with medicine, and even to-day in the popular view are not entirely dissociated from it.

What share I-em-hotep may have had in these early discoveries of the movement of the blood we do not know; it does, however, seem clear that the Egyptians had discovered certain elementary facts, and knew as much as the Greeks, as much as we find in the Hippocratic writings or in those of Aristotle and the later Alexandrian school, and the hypothesis seems a natural one that the knowledge possessed by the Greeks was acquired from Egypt.

Methods employed by the Egyptian Physicians.

I may mention, in passing, that although the medical papyri which have come down to us are no doubt only an insignificant fraction of those possessed by the Egyptians, we nevertheless find in them abundant reference to medicine and surgery. In the Kahun papyrus obstetrics is dealt with. Gynaecology, also ophthalmology, materia medica, and dentistry are dealt with in others, and even veterinary medicine was treated of in a papyrus, a fragment of which was found by Professor Flinders Petrie.

As regards materia medica the Egyptians possessed the following drugs: Lactuca; various salts of lead, such as the sulphate, with the action of which in allaying local inflammation they were well acquainted; pomegranate and acanthus pith as vermifuges, peppermint, sulphate and acetate of copper, oxide of antimony, sulphide of mercury, petroleum, nitrate of potash, castor oil, opium, coriander, absinthe, juniper (much used as diuretic), carraway, lotus, gentian, mustard, ox gall, aloes, garlic, and various bitter infusions; mandragora, linseed, squills, saffron, resin, and various turpentine products; cassia, certain species of cucumis, cedar oil, yeast, colchicum, nastertium, myrrh, tamarisk, powdered lapis lazuli, vinegar, indigo; the oasis onion, mastic and various gums, mint, fennel, hebanon or hyoscyamus, magnesia, sebeste (a tonic and a cough medicine), lime, soda, iron, and a great number of other agents the names of which no one can at present translate.

Surgical instruments and the actual cautery were in use, also steam inhalations, massage, ointments, plasters, poultices, suppositories, injections, and emetics, and the importance of temperature in disease was recognized to some extent.

Prescriptions were written out in due form, and sometimes at great length, fully equalling those of the most enthusiastic therapeutist of our own day. The longest prescription I have read contained thirty-five ingredients. To read it was a formidable task; to take it I should think a perilous one. Some prescriptions are wise and rational, a few strange and repulsive; some are associated with charms and spells. Human nature is the same in all ages; hence one was not surprised to meet with hair invigorators, hair dyes, cosmetics, pain killers, insect powders, and a soothing syrup containing opium, for small children, in use 3,500 years ago. It was rather interesting to find that the symbol for a 1/2 tenat, often used in their prescriptions, is identical with that indicating a drachm with us, though the amounts are not the same. I trust the drachm will soon be as obsolete as the tenat.

II.

A Suggestion in regard to Preventive Treatment of Valvular Disease.

I have referred to certain facts, mostly of recent discovery, bearing on the existence of our profession in the remote past, and to the partial knowledge to which the priests of I-em-hotep attained as to the circulation of the blood, a subject not without a certain interest; but, the advances of that knowledge made subsequently which have on more than one occasion been dealt with in this room, those now making, and those yet to be made in the future, are of more practical importance to us. Harvey first clearly unfolded the great secret of the course of the circulation, thus opening a wide door for the work of others, physiological and therapeutic. The principles of blood pressure, the action of vasomotor nerves, and other advances have followed; we have attained to a larger, though I believe as yet only to a partial and provisional, hold of truth in these matters. As such we shall regard our knowledge if we are wise; the great mistake in all times has been that of believing that the truth already attained was the whole, and that nothing remained behind. Our father Harvey has exhorted us ever to search, and to study out the secrets of Nature by the way of experiment. Will you pardon me if I devote the remainder of this paper to a brief description of an experiment dealing with a yet unsolved problem in the pathology of the circulation, to which I have devoted twenty five years of my life? It is better to speak on a novel point, with which one is fairly well acquainted, though it be of minor importance, rather than to utter commonplaces on greater questions with which every one is familiar. Valvular defect is one of the most important and perhaps the most common of circulatory diseases. It is one which probably we shall never be able to cure, and is thus one of the opprobria of medicine; is it possible to treat it by prevention? This is the problem upon which I wish to speak a few words. I am the more encouraged to do this because I know that various Fellows and Members of this College hold similar views to those I desire to unfold.

Joints Recover: Why does the Endocardium Fail to do so?

There are in this audience many who have treated cases of acute rheumatism and cases of valvular disease in hundreds of instances. We are all aware that in acute rheumatism however severe the joint lesion may be however great the swelling, the pain, the local pyrexia, and the effusion, yet in the large majority of cases after the usual treatment all these grave symptoms subside, or if they linger in any joint many of us know how certainly they will vanish if we stimulate the trophic and vasomotor nerves by small blisters applied to the adjacent skin; the final issue in most cases being the restoration of every joint to a normal condition.

But alas, we also know that when the endocardium covering the mitral or aortic valve cusps is in like manner attacked, a like restoration does not take place spontaneously, excepting in few and rare instances. When regurgitation through the valve, shown by an apex *bruit* with accentuation of the second pulmonary sound has occurred in acute rheumatism, if, after treating the rheumatism, we leave the affected heart to its own course, and the patient to his, persistent *bruit*, persistent pulmonary accentuation, hypertrophy, dilatation, in fact lifelong heart disease, and its train of attendant evils follow in a large majority of cases, and mar or shorten life.

Why should the rheumatic heart be so much more intractable than the rheumatic joint?

The Rheumatic Joint Rests but not the Rheumatic Heart.

No doubt the reason is that the joint can rest. The merciful influence of pain in the part affected insures repose for each affected joint. Suppose it were otherwise, imagine pain absent, and conceive for a moment that we could flex and extend an acutely rheumatic knee or elbow sixty or eighty times per minute continuously what would be the fate of the joint? Is there any probability that restoration would follow? Few of us I think would expect it, for it is a physiological law that repair in a diseased organ cannot coincide with full functional activity. When the endocardium and valve cusps are inflamed, pain does not give the signal for rest, for indeed, pain or no pain, the toiling heart cannot intermit its labours.

Disastrous Results of Valvulitis if not Specially Treated.

During my thirty-five years of experience as a hospital physician and in private I have watched with special interest the fate of the numerous cases of endocarditis which came under my charge, endeavouring, as far as possible, to trace the later history of such cases for a lengthened period. During the earlier years I merely treated the rheumatism, believing, as I had been taught, that little or nothing could be done to prevent disaster to the heart. I had the pain of discovering that many—indeed, most—of these cases merged into permanent valvular disease. This distressing experience induced me to experiment on various methods of preventive treatment. Of these, one has apparently proved successful, and has been constantly employed by me for twenty years.

The method is very simple; it is merely to give the heart the same advantages, the same opportunities for repair, so far as we can, as the joints enjoy; in other words, the most absolute quiet is enjoined; the patient lies with head at a low level; pain and fever are subdued; no excitement is permitted. The patient is made as comfortable as we can make him, and sleep is encouraged; in fact, we seek to attain physiological rest. We follow the precept of our ancient Egyptian brother, declared so many thousand years ago; we give the ailing heart the nearest approach to quiescence that is practicable. In addition, we administer sodium or potassium iodide, partly to help in the absorption of morbid exudations, but chiefly to lower vascular tension just as we give those drugs in cases of internal aneurysm. Lastly, we endeavour to

fluence the cardiac vasomotor and trophic nerves reflexly gentle and almost painless stimulation of those cutaneous rves which we know from physiological data and from the idence of the referred pains of angina to be in close relation th the heart, namely, the first four dorsal nerves.

I believe, however, that by far the most important factor the abortive treatment of endocarditis is rest, rest for many eks, the slowing of the heart, the lengthening of the astole, which is the only rest-time possible, the careful oidance of high blood pressures, which the weakened and ftened valve cusps cannot sustain without peril, and the dimi-tion of the volume of blood to be moved. Only then, when nctional activity is minimized can we hope for repair of ischief, reformation of de-troyed endothelia, and absorp-on of effusion in the valve cusps. Moreover repair is only ssible during the early stages of endocarditis, later the mis-ief is permanent, unalterable by any form of treatment.

I submit that these measures are rational, their objects ing, by affording rest, to give opportunity for the exercise the *vis medicatrix Naturae*, which is our sheet-anchor; nay, deed, to stimulate that natural reparative process which one can effect restoration.

Two Objections to the Proposed Method.

It may be objected that there are two difficulties in our path. rst, in regard to diagnosis: How are we to distinguish the gns of commencing endocarditis from those of mere dilata-on?

In the great majority of instances in which marked and ntinuing *bruit* occurs endocarditis is present, and not mere latation, but I admit that in some cases discrimination is fficult. The wisest course is, if in doubt, treat as endocard s. Secondly, some physicians complain, as those at the hns Hopkins Hospital have recently done, that they find fficulty in inducing private and hospital patients to submit a sufficiently long period of rest. Occasionally that is so the case of foolish or thoughtless persons, but in general, if e danger to which the heart is exposed be calmly and plainly ated to the patient, and also if the hope of perfect recovery held out to him through the agency of prolonged rest, he ll agree to give this method a fair trial. Such at least has en my experience.

Successful Results Obtained.

For twenty years continuously this method has been carried it. The results have been striking. The comparative absence permanent heart disease after endocarditis has been in arked contrast to its frequency prior to the adoption of the eatment by rest. So striking, indeed, is the change that I nfess it now seems to me that it would be an immoral act my part to omit these measures in any recent case of endo-rdial disease.

If we make it a rule to watch carefully for incipient valvul-is, and, if when we find it we secure for the heart prolonged st, I believe it is in our power to diminish in a most aterial degree the frequency of chronic valvular disease of e heart.

An Address

ON

THE IRISH POOR-LAW MEDICAL SERVICE.

elivered at the Annual Meeting of the Leinster Branch of the British Medical Association.

BY JOSEPH O'CARROLL, M.D., F.R.C.P.I.,
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THE LEINSTER BRANCH.

ENTLEMEN.—I thank you for electing me to the honourable sition of President of the Leinster Branch of the British edical Association, though I pro oundly regret the sad occa-on of my promotion. By the death of Sir Philip Smyly the edical profession in Ireland has lost one of its chief orna-ents and most respected members, and you have lost a resident whose skill in public affairs and invariable courtesy dealing with men of all opinions would have lent dignity your deliberations. During the past year also we have had e misfortune to lose Sir George Duffey, the founder of this anch. He was a tower of strength to any cause which he abraced. Men felt that he was single-minded and safe to follow, and so this Branch rapidly became a success. Still more recently we have lost a former member who had also been President of the Irish Medical Association, in the person of Dr. Austin Meldon, who to great ability and great interest in the welfare of our profession joined a geniality of disposition which fitted him to be a connecting link between the most discordant elements. It is largely to men like Smyly and Duffey and Meldon that the profession in Ireland owes the social and academic position which it has so long enjoyed, and which it must be our aim to assure in the future.

My position is not made easier by the fact that my immediate predecessor has been Dr. Finny. No more earnest President has ever occupied your chair, none who has more fully sacrificed his time to your business. His year of office has been an exceptionally busy one, inasmuch as it has witnessed the reconstruction of the British Medical Association, a new birth which has entailed a vast amount of labour on all who were concerned in it. I confess that I would have striven to direct your choice of a president in succession to him to other shoulders than mine, but that I thought it would be a discourtesy to you not to take up the honourable burden entailed by having been one of your vice-presidents. I am encouraged by the hope that I may rely for help in my difficulties on Dr. Craig, our able representative on the General Council of the Association, and on our secretary, Professor White, whose untiring energy and tact are only equalled by the skill with which he manages to persuade us that it is we, and not he, who are doing all the work.

THE MAYO RESOLUTIONS.

The British Medical Association is at once a scientific society and a political organization. Its work in science is attested by the production every week of a JOURNAL which is one of the best exponents of medical progress in the world. In politics it confines itself to forwarding and defending the interests of the profession, not as a trade society or a social caste, but as an important and necessary member of the body politic, whose mutilation or restricted growth would mean detriment and often more than detriment to the whole community. Thus it has ever been foremost in advancing questions of sanitation and preventive medicine, and when it has pushed what seemed special professional interests, as in its advocacy of improvement in the Army Medical Department, it has been proved by subsequent experience to have been doing a great public service.

In April last year this Branch issued a circular to all of its members who were in the Irish Poor-law service inviting them to a conference on the grievances under which that service confessedly labours. As a result of that conference we adopted what are known as "the Mayo resolutions," thus bringing ourselves into line with the Irish Medical Association in demanding for the Poor-law medical officer a fair return for his labour, an annual respite from toil, and a pension for his declining years. The movement for the amelioration of the Poor-law Medical Service, already far advanced in Ireland by the energy of the Irish Association, was thus formally put in train for discussion at the Annual Meeting of the British Medical Association at Swansea. Transferred to an arena that could not be suspected of local bias, the statement of the grievances of our Poor-law Service made by Dr. Frederick Kidd so impressed the Representative Meeting that the Mayo resolutions forwarded by us were adopted with enthusiasm, and Dr. Leonard Kidd, the President of the Irish Medical Association, was elected by a large majority to represent our views on the Medico-Political Committee of the Association.

THE REPORTS OF SURGEON-GENERAL EVATT AND SIR WILLIAM THOMSON.

At this juncture the Editor of the BRITISH MEDICAL JOURNAL, who had attended and spoken at our Annual Meeting last year, with something of that reasoned precipitation which so often wins battles, sent over a Commissioner on the part of the JOURNAL to inquire into the conditions of the Poor-law Medical Service and the measures necessary for its amelioration. The result of that inquiry has been a report which to my mind is one of the most valuable documents ever presented to the public on an Irish social question, and is equalled only by the report on the same subject prepared by Sir William Thomson for the BRITISH MEDICAL JOURNAL in 1892. The labour undertaken at that time by Sir William Thomson can hardly be fully estimated now. To read hundreds of replies from men who

till that time had groaned under their burden, but hardly inquired where it hurt, entailed an amount of work which would have deterred almost any man whose own withers were unwrung. That report has this enduring merit that for the first time it formulated, even to its own members, the grievances and the injustice of the Poor-law Medical Service, and may fitly be styled its first declaration of rights. The recent report of the BRITISH MEDICAL JOURNAL Commissioner adds to and rounds off Sir William Thomson's report, besides dealing with some matters which were not within its purview.

Of course such declarations of rights are pooh-poohed by Government and Government departments. A warm approval of whatever is and the drawing of a moral in favour of its perpetual continuance constitute for the most part the science and art of Irish government. Thus did Lord Carlisle forty years ago congratulate the country on the emigration statistics of that period, and speak with elegant, if vapid, oratory of the approaching millennium when this country should be "the fruitful mother of flocks and herds." One finds a similar example of this frame of mind in the Report of the Local Government Board for 1903 just issued.

As a contrast to this method the Commissioner compels my admiration. Right to the heart of things he goes, and he brings a heart with him. You have all, I know, read his report, and therefore it needs no analysis at my hands. No one could read it without recognizing that he puts the case of the Poor-law medical officer on a plane which it hardly reached before. It is not the doctors' case he advocates; it is that of the poor of Ireland. What are his conclusions as to their medical treatment? That their dispensaries throughout the country for the most part are little better than comfortless barns; that their medicines must be "stock" medicines, because the doctor has no time for individual prescribing; that in their homes, over the western half of Ireland at least, they have neither food nor air-space sufficient; that the journey *for* the doctor, and the journey *of* the doctor, and the journey *back* for the medicine often over long distances, cause such loss of time in the treatment of any serious disease that it is a wonder that people in outlying districts send for the doctor at all. They see their doctor ever on the road, never sure of his meals; clerk, bottle-washer, apothecary, physician, rolled into one; ill-paid, over-worked, dying early, or lingering late in harness, the servant of many masters, protected by none. Is it any wonder that between the long distances and the loss of time on the one hand and an intelligent distrust of sweated labour on the other, the number of deaths of persons registered as not having received any medical treatment mounts in many districts to a shocking figure? A dispensary doctor informs me that in his district, by no means a very large nor yet a very wild one, the number of such deaths reaches 73 per cent. of the total registered.

THE VIEWS OF THE LOCAL GOVERNMENT BOARD.

"All seems well," says the BRITISH MEDICAL JOURNAL Commissioner; "only one thing is ill, and that 'thing' is but 'Ireland' in the shape of the peasant in his home and his wife and children dying on the hillside." Sentimental bosh! says, in effect, the recent report of the Local Government Board.

The enormous diminution in the population of this country—from 6,552,055 in 1851 to 4,458,775 in 1901—and the consequent falling-off in the amount of work performed by the dispensary medical officers tend to support the opinion which we have formed that in many unions a reduction of the staff of medical officers is not only feasible but is called for by the altered local circumstances. Moreover, the abolition of a medical officership enables a Board of Guardians, without adding to the charges on the union funds, to deal liberally in regard to extra remuneration with those members of their medical staff to whom increased duties would be assigned. On the occurrence of vacancies in future in the dispensary medical staff we propose to consider, in each instance, whether the then vacant post could be abolished, and if so whether the other dispensary medical officers in the union could be placed in the charge of extended areas and in the possession of increased salaries, and their positions thereby substantially improved, without inflicting any real hardship on the sick poor or imposing further burthens on the ratepayers.

Which being translated means this: that the greater the reduction in the population, the fewer the medical officers will be needed. The fewer needed, the larger will be the amount of money available for each of the survivors, a proposition which could be evident, I may remark, only to an Irish department. The drives will be longer, no doubt, and meal time will be shorter, but the few surviving doctors will be cheered on their lonely journeys by the reflection that they are each several men rolled into one. It is the "Yarn of the Nancy brig" applied in political administration. remember Gilbert's shipwrecked mariner who had eaten his companions and who ever afterwards sang:

> Oh, I am a cook and a captain bold
> And the mate of the "Nancy" brig,
> And a bo'sun tight, and a midshipmite,
> And the crew of the captain's gig.

Do I belie the Local Government report when I summarize its last work on the question of salaries thus: "Gentlemen you shall dine—off one another"? I can imagine the dispensary doctor of the future reporting himself thus to the Local Government Board:—

> I drive all day, and I drive all night,
> And I sleep in my motor car.
> My patients are few, but I've much to do,
> For they live so very far.
>
> And I never laugh, and I never smile,
> And I never have time to rest;
> But as on I roll I cheer my soul
> With this Local Government jest:
>
> "Oh, we're the dispensary doctors bold
> Of the neighbouring counties three.
> You ask where the rest of the fellows are?
> Why, bless you! they're inside me."

I wonder has the Local Government Board itself acted on this policy. Has it reduced its staff as the population fell away; and have the improved conditions of salary and superannuation since 1851 been secured only on the Nancy brig principle?

I am quite at one with the BRITISH MEDICAL JOURNAL Commissioner when he suggests that the Nancy brig principle, though he does not call it by that name, should be put in operation with the judiciary, the magistracy, the police, and I would add, the officials who suggest that the dispensary doctor's salary should not be doubled till the population has fallen to half what it is at present. It is hardly worth while to discuss the short-sightedness of the political economy which lies at the bottom of such a suggestion. Suffice it to say that it is quite on a level with that of Lord Carlisle's dictum already quoted.

The uncertainty of superannuation when broken down by a life of ill-paid hardship is the second serious grievance of the Poor-law medical officer. Superannuation is permissible but not compulsory, the local rates bearing the whole burden.

In those unions, where it has been customary to grant superannuation to officers (says the Local Government Board Report), the Boards of Guardians have not, as a rule, acted ungenerously towards the medical officers, and have often awarded them better terms than those authorized by the scale of the Treasury for civil servants. The refusal of pensions has always entailed much hardship on old officials who are forced to cling to their posts although weakened by age for the active discharge of their duties, and we should be glad to see a general agreement amongst Boards of Guardians in favour of making Section cxviii of the Local Government (Ireland) Act applicable to all dispensary medical officers who would in due course be qualified for pensions under the existing law.

I take up the report at an earlier page in order to complete this set of "pious opinions" on superannuation.

It was never intended, however, that the salary of a dispensary medical officer should be a remuneration for his whole time; it was given to secure a first claim upon his services for the sick poor of his dispensary district, and, unlike the other officers of unions, it is not necessary in the case of a medical officer that he should have devoted his whole time to the services of the union in order that he may qualify on retirement, for a superannuation allowance.

Most dignified, but most cynical. Let us see how it works out. A doctor holds a dispensary in a good city district or in a good country town; there may be a hundred such positions out of 810 in the whole service. He does a fair private practice in addition to his dispensary work. If he desires to retire at 60 or 65 it may be no great hardship on the district to provide him with a moderate pension. But take the other 700 districts where the private practice is little or none. For these any provision for the old age of the doctor must come wholly out of the rates. I quote a description of such a district—Knocknalower, comprising 104 square miles, from a circular of Lady Dudley's relative to her Nursing Fund. Let me say in passing that her sympathy for the helpless peasant adds honour to her high position, and that no more worthy object could occupy her energies than that of bringing skilled nursing into the cabins of the West.

In this bleak moorland district of 70,000 acres there is scarcely a dwelling of any kind except the wretched cabins of the 5,000 small landholders, and so utterly poverty-stricken is the place that it is difficult to find a doctor who will remain. In this district the valuation

only 12s. 2d., while the rates amount to 5s. 10d. on houses and 2s. 9d. lands. In many parts of the district the people have to journey a ole day across the bogs to obtain medical relief.

t was never intended, says the Local Government Board, at the doctor of Knocknalower should regard his salary as a nuneration for his whole time; it was given only to secure irst claim upon his services for the sick poor of his district, e greater part of his income to be provided by his private actice.

Gentlemen, Knocknalower, so far as private practice goes is t very exceptional. Speaking a day or two ago to the dow of a dispensary doctor, who was thrown from his horse d killed last year, I asked her what had been her husband's tal income; £200 from all sources, out of which he had to ovide the horse which killed him—"he could not afford a r"—pay boat hire, and support a wife and three children. is orphans are now dependent upon charity, his wife is a urse. The doctor who brought the corpse home to his wife s since died of typhus fever. The BRITISH MEDICAL URNAL Commissioner has shown that the average salary of e dispensary doctor is only a few pounds over the amount lowed to a constabulary officer for the keep of a horse and e wages of a groom. Lady Dudley estimates the average pense of maintaining a nurse and providing her with a cycle at a sum within a few pounds of the average salary of dispensary doctor. May I read you a letter which I came ross by accident in a country paper of the 16th April? I cognize the writer of it as an old class fellow of mine for hose professional ability and honour I can vouch.

To the Guardians of Castlerea Union.

Gentlemen,—It is now close on eighteen years since I was appointed edical Officer of Castlerea dispensary district. Previous to my pointment there were two dispensary dépôts to be attended to—each ie day in the week. On my taking up duty a third dépôt was tablished fourteen miles distant from me, and which I have to attend ie day in each week. The salary then allowed was the reduced one of 00 per annum, and this remained my salary down to the year 1898, nen my then committee strongly recommended me, as a matter of justice rough largely-added work, an increase of £20 per annum. This increase e Local Government Board refused to sanction, but ultimately, after the ardians repeatedly sent it back, setting forth the justice of my claim, e Local Government Board sanctioned £10, thus leaving my salary 10 per annum—a sum less than my predecessor enjoyed fifty years o, when he had much less work to do, less expense to incur, and hen the working expenses and the expenses of living were 50 per cent. ss than they are to-day. Added to this I may mention that my prede- ssor of fifty years ago received a considerable annual salary from the te Mr. Sandford for attendance on his household and employés. hrough additional work and largely-increased duties enforced under ie Act of 1898 the opportunities of private practice have been very much ecreased—as a matter of fact, I now find it impossible to reach all my fficial duties, and I am from time to time so much in arrears with the uties of my minor appointments it seems I must resign one or other of iem. I work one of the largest and most populous districts in the est of Ireland (area 51,000 statute acres, population about 12,000), and is absolutely necessary for me to keep two horses. After defraying ie keep and maintenance of two horses, a servant, traps, and harness, c., out of my salary of £110 I solemnly state that not one shilling emains to my credit. I have for the past nineteen years done my best discharge duties almost physically impossible of performance, avelling from 140 to 200 miles per week, ministering to the sick poor, ndeavouring to improve the situation of my district, battling with pidemics and endemics, notably typhus fever, to which, contracted in ie discharge of my duties, I was near proving a victim myself—in a ord, to the best of my ability discharging duties of the first importance the State and people without fee or reward other than my bare work- ig expenses. I ask you, then, gentlemen, to take my case into con- deration and to grant me such an increase in salary as will leave me me reasonable remuneration for my services over and beyond my bare orking expenses.

I remain, Gentlemen,
Your obedient servant,
P. DONNELLAN.

In connexion with this question of increasing the salary of lispensary doctors the following facts are of importance. Half the salary of the doctor was paid by the Union, and half y the Treasury, up to and subsequent to the passing of the ocal Government (Ireland) Act, 1898. By that enactment a arge amount of power passed into the hands of local elective odies, and amongst their powers was that of increasing the alaries of their officers. The Local Government Board ctually insisted on the salaries of some of the county or listrict officers being raised, but, because the Treasury was artly responsible for the doctors' salaries, all attempt on the art of the local bodies to raise them was, as in the case I ave related, either negatived by the Local Government Board or cheeseparingly sanctioned. Finally when the Local Government Board saw that the local bodies—to whom I think the BRITISH MEDICAL JOURNAL Commissioner hardly does justice—were likely to go in for raising the doctors' salaries as far as they could afford, the Local Government Board caused a clause to be inserted at the last moment, when there was no opportunity for debating it, in the Local Government Amendment Act, 1902, by which the Treasury is freed from obligation to pay any part of such increases in the future. I have no doubt the Local Government Board will now, with a show of economic hesitation, permit the guardians to give my friend another £20 a year out of the rates.

THE THREE P'S.

So much for the claims of the Poor-law Medical Service for better pay and guaranteed pension. I would hope that the statement of the Commissioner has sufficiently impressed his readers as to the necessity for some form of promotion within the service. The three P's—pay, promotion, and pension—are the present declaration of rights. Two forms of promotion seem to be possible and desirable; first, the natural movement from a less lucrative or more difficult district to one of richer population or easier work; and second, the movement from executive to administrative positions. Here I must to some extent join issue with the Commissioner. In order to facilitate this system of promotion, and for other reasons as well, he suggests that the Irish Poor-law Service should be entered by a Government examination, and should be practically a Government department. I am afraid that that suggestion savours too much of an Indian habit of thought to be quite acceptable in this country. I have no objection to the establishment of a one-portal examination, subsequent to the taking of university or college diploma, for all Irish medical students. But I believe there would be a very general objection to making the medical profession in Ireland the creature of a Government office, and this not more on the part of one section of Irishmen than of another. The Commissioner himself, coming over here untainted by local bias, speaks of the present Government system as "generally mistrusted by all classes in Ireland." "Ireland," he says, "has not been governed by Irish ideas, but by a body of officials who are members of these statutory and almost independent Boards, and these really carry out a species of Castle Home Rule, which is neither English nor Irish, but bureaucratic."

I am pretty sure that the Poor-law Medical Service is not likely to desire a transformation into a purely Government department. The Council of the Irish Medical Association has very definitely stated its hostility to such a proposal. I suspect that apart from other considerations, they have not found the Local Government Board so sympathetic in the past that they are in any hurry to throw themselves helplessly into its arms for the future. They recognize that the first duty of an Irish department is to safeguard the Treasury, and that the Treasury has been the real sweater of the Poor-law Medical Service. It is with the Treasury that the real battle for better conditions will have to be fought. However it may be possible for about one quarter of the unions in Ireland to improve the pay of their medical officers out of local resources, in the remaining three-quarters it is almost out of the question. As for superannuation, it is evident that over a large part of the country it will be practically impossible till the obnoxious clause of the Act of 1902 is not merely repealed, but amended so as to make the Treasury responsible for half the pension as well as half the salary. Nor, even if this were achieved, do I think that the Poor-law Medical Service would be wise in accepting the Treasury as its direct employer. If a strike against injustice be difficult now, it would be ten times more difficult when the Treasury or its Irish agent would be the sole employer, and could keep on its roster the names of hundreds of men, perhaps not Irish at all, willing to do "blackleg" or emergency duty for it, in Ireland.

The second form of promotion, requisite for the Poor-law service, is that of a larger admission to administrative posts. In the inspection of union administration in Ireland, largely concerned as it is with questions of sanitation, lunacy, workhouse structures, and workhouse management, I know no class in the community more fit for such work than those who have had experience in local Poor-law administration, and I include not merely the medical officers, but the lay officers of the Poor-law system. It is from these two classes that the inspectorial staff of the Local Government Board should be mainly, if not entirely, chosen. No elementary knowledge of law such as is gained by sitting in the back benches of the Four Courts, no knowledge of militia tactics, however these qualifications (!) may be backed by social or political influence, are of any value in enabling a man to approach Irish Poor-

law administration with sympathy, or to tackle its many grave problems with efficiency. I hope I shall have your support then, when I say, that the highest administrative posts in the Poor-law service should be opened to the Irish Poor-law doctors in much larger proportion than is at present the case, and that the inspectorial staff, as at present constituted, is not the best, either for the service or the country.

The Financial Question.

I come now to a matter which I believe lies at the bottom of this whole question, that is the question of finance. I have said that in at least three-quarters of the country it is difficult to squeeze further pay for the doctors out of districts which are undergoing a progressive impoverishment. Opinions as to the cause of the decay of this country may differ; as to the fact there can be no doubt. The Local Government report gives some instructive figures. The population has fallen from over 6½ millions in 1851, to under 4½ millions in 1901. The total number of dangerous lunatics certified from 1853 to 1862 inclusive was 5,040. The total number from 1893 to 1902 inclusive was 21,354, more than four times the number. The number of persons resident in the workhouses at the beginning of 1873 was 40,834; at the beginning of 1903, the population having fallen by a million in the meantime, the number was 42,784. The total number of admissions to the workhouses in the year 1873 was 206,482; in the year 1903 it was 333,137. The marriage rate in this country is the lowest in Europe; the average age of marrying is the highest, *pace* Mr. Filson Young; the average number of children to a marriage among the lowest. In the year 1903, 39 789 young persons emigrated permanently from this country, or more than 1,000 more than emigrated a quarter of a century ago, when the population was a million greater.

In contrast to this picture, look on this. Some eight years ago, a Royal Commission, having among its members representatives of the Treasury, after a long inquiry, in which the Treasury was fully heard, reported that Ireland was being taxed far beyond its capacity, in proportion to the rest of the United Kingdom, the actual amount of money exacted in excess being estimated at 2½ millions yearly. Any inequality, far from being lessened during the period which has elapsed since then, has been magnified by the increased taxation of the past three or four years, probably to close on £4,000 000 a year. That report has lain a dead letter ever since. That it must be acted upon eventually is certain if Ireland is not utterly to perish. This is no matter of party politics or I should certainly not discuss it here. It is a matter which has been lifted out of the region of party discussion by a verdict from which there has been no appeal by any party. When we ask for execution of the verdict, we are asking not for charity, but for justice. In this direction lies the best hope for the material improvement of this country. What capital can accumulate in a country of this size compelled to pay so monstrous and so unjust a tribute? My immediate purpose however is to indicate that it is largely by the aid of the Treasury, when it comes to settle its account with Ireland, that the financial grievances of the Poor-law Medical Service, will have to be satisfied. Nothing that I say can lessen the moral obligation of those districts which can afford it, to pay and pension their medical officers in proportion to their power to do so. But we shall waste our strength in internecine feuds, and force the Unions into the arms of the Treasury in a mutual defence against our claims, if we demand from the rates of districts which are impoverished or barely solvent pay and pension which it is impossible for them to give. I would rather say to the Poor-law Medical Service: Educate public opinion in Ireland and in Great Britain on your grievances. Above all things, educate the Irish people on the injustice of the financial relations between this country and Great Britain, and, finally, combine, combine, combine, so that in each district there shall be united action on the part of the profession and the highest standard of mutual loyalty.

Thus standing by one another and by your country, you will obtain the largest measure of support and sympathy from your countrymen. Do not imagine that in doing this you are delaying the redress of your wrongs. The financial rearrangement with Great Britain will not come suddenly, like a thunderclap: it will come gradually, instalment after instalment of justice being slowly gained. I believe that if you educate the country and stand well together yours will be one of the first instalments paid. And when that day comes it will be realized, as we realize it and the British Medical Journal Commissioner realizes it now, that the battle of t Irish Medical and the British Medical Associations for t Irish Poor-law service was not a selfish battle for a sing class, but was fought to obtain a larger measure of health a comfort for the Irish peasant, to elevate one of the noble professions, and to promote, as far as lay in our power, t prosperity of our dear Mother Ireland.

An Address

ON

THE STRIKE IN THE IRISH POOR-LA MEDICAL SERVICE.

Delivered at the Annual Meeting of the Irish Medical Associatio June 7th, 1904,

By RICHARD F. TOBIN, F.R.C.S.I.,
President; Surgeon, St. Vincent's Hospital.

My first utterance on rising from this chair must be words thanks to you for having conferred on me a position esse tially honourable in itself, and one made still more honourabl first, by the unanimous and unsolicited manner in whic you have called me to it; secondly, by the ability and hig standing of those who have gone before me, and by the difficu and critical nature of the problems which we are at this tim called upon to solve.

Happily we are not responsible for the question which wi chiefly concern us to-day, that is, the present position of t Poor-law Medical Service in Ireland. Happily, also, we ar by our our mode of life, peculiarly fitted to consider it. A sembled as we are in consultation on a case vitally concernin every interest in the country, it is unnecessary for me to as you to approach it with all that earnestness, that calmnes and respect for one another's opinions which men of our pr fession, differing in religious, political, fiscal, and dieteti views, can command when a patient is in question.

What we desire for the Irish Poor-law Medical Service is t put it in its true position—the first service in the land. Tha is how it should stand. That is where it *will* stand when mor enlightened views prevail. What is the first of the assets o a country? Its inhabitants. If they are great, it is great. I is what its people make it. What is the first of the assets o an individual? His health, and by his health I mean the con dition of being and remaining for as long as possible in th highest state of development. What is a medical doctor? H is a minister of health. These statements may sound to yo truisms, but they are not. A truism is a truth that is widel accepted; these are only received in a partial and half-hearte way, which robs them of general efficiency. The value o health is grasped by cultured persons individually, but i their public capacity they put it on one side. An educate and well-to-do man puts for his own immediate circle, healt before everything—before education, before worldly advance ment. He says I would rather see my children well-develope and sound than with any other endowment, and he acts ac cordingly; but when he comes to deal, in his public capacity with a question of general health and the medical treatmen of the poor, he looks at things and behaves in a totally dif ferent fashion. Health is put last. No public purse-opening force is generated in him by his views, and what should be one of the great services of the State is dealt with by means o bazaars and other eleemosynary methods. If this were no so, the position of the medical officers of the State—such a are the Poor-law medical officers—would to-day be very dif ferent to what it is.

Contrast it with that of the officers of the Church, I mean the Established Church in England, with its endowments, its social, and legislative prestige. Contrast it with that of the officers of the law, bearing in mind the appointments open to barristers and the honours bestowed upon them. While they and their descendants are crowding one another in the House of Lords, in the Privy Council, and other offices of State, the unhappy officer of health wearies through life at an impossible task, and if in his department you look for the trappings of success, you see them worn by the diseases that walk jubilant over the land. When we are quarrelling with Poor-law guardians as to our status we should bear these facts in mind.

The all-embracing nature of our work no doubt accounts to some extent for this estimation. There is no service, how-ever menial, which a fellow-creature in distress cannot claim

t our hands, or which we consider ourselves as above giving. Ve surrender ourselves in a most complete way to the ser- ice of humanity, and for us there is no high or low in what 're do.

Now there are many minds who cannot rise to this concep- ion of work, and they naturally classify us by the things hey find us doing, not realizing that the more complete the 'ork the more complete the mastery. Consequently we are elegated to a position to which we object, and which we shall truggle against for one reason only, namely, that it limits in most serious way our field of usefulness.

I dwell on this point because I think it throws light on the athology of the case we are considering. It is particularly lear to me because I have personal knowledge of a similar ondition of things in the Army Medical Service. You all now how army medical officers struggled against ignorance nd prejudice to improve the health and condition of the British soldier. When I entered the service and was sent to Aetley, I found there Parkes, whose name is synonymous vith hygiene, battling with problems the answers to which re now current coin. Inspired by him, his successors made hemselves unpopular by carrying on a determined war with he military authorities insisting on the enforcement of the aws which govern health. The result of their work is to be ead in the health statistics of the army. Now, how was, till ately, this achievement appreciated? You may judge from ne instance, for it is notable. At page 208 of the *Story of a Soldier's Life* Lord Wolseley states:

> No one ever fell sick (on the Red River Expedition). I was asked to ave our senior doctor promoted when the expedition came to an end, ut refused because he had nothing to do, there never having been any ick for him to cure.

Do not think, however, that this attitude is a monopoly of he military mind. Look round and consider; the air is full f cries of "forward"—literary education, technical educa- ion, industrial enterprises, agricultural development, and so n. But where in all this clamour does the great question that ffects them all come in—the question of public health? That s left to the medical officer of health—a man located in a ovel and paid like a sweep. Only the doctors, and even not ll of them, give the matter a thought and raise a voice of emonstrance.

Three men of note have recently given us books on matters alling for criticism and reform in Ireland. In *Ireland at the Cross Roads*, Mr. Filson Young's clear vision sweeps the ountry from north to south, noting the domes of the churches, he cells of the monks, the empty halls of the gentry, the full sylums; but it never lights on the wretched cabin which tands in most villages, with "Medical Officer of Health" in etters over the door, where the medical science of the wentieth century reaches its culminating point for the people f the district.

The next book is by one who has, in a most thorough and oble way, devoted his thoughts and energy to the better- nent of Ireland. Able, enlightened, practical, inspiring, e stands out as an excellent illustration of the point before s, and therefore he must excuse me if I bestow a few words f criticism on his *Ireland in the New Century*. I read t with interest from cover to cover, pencil in hand. I noted is keen inclusive view, his courage in giving expression to is thoughts, and yet, to my amazement, I found him too— hough also with an eye for architecture—leaving unnoticed ur village halls of science; and silent on all that is meant o a people by a neglect in the past and present of the hysical laws governing their development.

Does the apostle of what Mr. Filson Young calls "The New Economy" entertain, with public purse- pening force, my estimate of the economic value f health? This term "public purse-opening force," you will find a no bad test of a man's sincerity in this matter. Does he know that the science of public health is now fixed n sure foundations, that its teachings are clear and explicit, nd could, if properly applied, wipe out one of the great auses of inefficiency, misery, and sorrow? Does he know what a properly paid, properly-equipped medical officer could effect in a poor district? Does he know the present position f the medical services of Poor Law and Public Health, and, f he does, will he excuse my asking him why there is no men- ion of anything bearing on these important questions in his ook? I trust it is not any feeling of goodwill to the inisters of health that has kept him silent. Surely when uch great interests are at stake it would be a greater compli- nent to arraign than to ignore us.

The third book is a "Report on the Poor-law Medical System in Ireland," by Surgeon-General Evatt. You know it from cover to cover; it needs no eulogy from me. If Sir Horace Plunkett is wise he will, with Surgeon-General Evatt's leave, which I know will be readily granted, include this excellent report in the next edition of his work. He owes some such reparation to what will be, before the new century is old, the most important service in the State.

Gentlemen, had I time to continue the study of the lay mind I would make plain to you two lessons. First, the necessity of educating the educated public; secondly, that if we are to play in life the part it behoves us to do in the interests of ourselves and the public, we must not calmly accept any position assigned to us, but we must formulate, as I am now trying to do, what our true position is, and by every means in our power try and attain that position, and, having attained it, worthily live up to it.

When a body of men are about to move in any effort, the question of organization should first claim attention. For this purpose the Irish Medical Association exists, and our first act at every meeting should be to number our ranks till we find that they include every registered practitioner in Ireland. To do this effectually we should, I think, be better acquainted than we are with the names of those who are in the Association and of those who are not. I would suggest, therefore, that our Secretary issue each year a small medical directory for Ireland, in which the names of our members would be entered in a particular type. He need not burden it unnecessarily with other qualifications. There should be a general list, as well as one arranged by counties, and it should contain the name of every practitioner. Such a book lying on one's table might be found useful when rival candi- dates, of whose personality one knew but little, were seeking votes. Some such action, backed by gentle, persistent re- monstrance, will, I hope, soon put us all in one fold, and enable us to move forward as one body to the ends we have in view.

There is, I think, unanimity amongst us that the first question for consideration is, how we can increase the effi- ciency of the Poor-law Medical Service. It is important that we should put the question in this way. Let there be an end to medical officers' grievances, the grievance is the public's, not ours, and by any practical scheme that will give us an efficient service we are ready to abide.

Let us define the pathology of the ailment. First, does it lie in the inefficiency of the doctors as they are when ap- pointed to the service. To this I say an emphatic "No." Let any committe you like to select take a list of those appointed by the old Poor-law Boards and those by the new up to the period of "the strike," and it will be seen that while both are good, the latter day men judged by prizes, diplomas, and other qualifications as set forth in the *Medical Directory*, are in no way inferior to those who have gone before them. Of these I and many others here can speak from our own know- ledge. For myself, I stand grieved at men of ability, promise, and enthusiasm whom I have known the Poor law Service swallow up. Many have, thank God, survived its blighting influences, but others have gone under as they would not have gone under happier conditions.

Were I a Poor-law guardian, and were I asked to substitute competitive examination for the existing system, I would reply somewhat as follows:—"Here are men who have gone through a five years' medical curriculum, been examined and found qualified by colleges whose standards are second to none in the world; holding credentials telling me what their teachers think of them; some of them personally known to me. The points to be estimated are individuality, tact, good sense, rectitude, and fitness for the district. Under these circumstances the present system, that is selection by those most directly interested, is that by which I shall abide."

At the same time it is no doubt quite true that as things now are, what goes on at the election of candidates often leaves much to be desired; but it is due to a national char- acteristic. When we take a man up we fight for him to the death. Why, gentlemen, a certain amount of commotion has not always been absent from the presidential elections of the Royal College in the hall of which we are assembled, nor nepotism from high appointments in the State, yet no one proposes to open these positions to competitive examinations. I pass from this point, asserting that, in my opinion, the Poor-law Medical Service by the present system gets good men suitable to the district in which they have to live.

The next point is, do they, after entering the service, main- tain their efficiency? And if not, what is the cause? My answer to this is—That in the majority of dispensaries, once

a man has started on his career, it is a question of survival, not of development. A strong man combats his surroundings; an ordinary one accommodates himself to them. We have strong men in the Irish medical service, not a few of whom are present in this hall; we have others who go with the tide, or who ply only a flagging oar against it. Quite lately I asked a man, than whom no one knows more of the conditions under which dispensary doctors do their work, and who from his own strength is given to make light of difficulties, to tell me briefly the tendency of these conditions. He used but one word—"Stagnation."

Our immediate business to-day is with two of these conditions; the pay and superannuation of medical officers. I shall chiefly concern myself about the former, as there are differences of opinion. Let us tackle it and see what we can make of it. This time last year, at Enniskillen, the moderate demand for a salary of £200 a year was affirmed by us. We saw that there would be difficulty in getting the guardians to vote this amount, because Clause 6 of the Local Government Act prevented the Local Government Board, which pays half the medical officer's salary, from sharing this increase. We hoped that this Act would be altered, but we have hoped in vain, and I believe will continue to do so until we get some force other than we now have to bear upon Parliament.

This being so, the question is, Shall we proceed with the Enniskillen resolution in its present form, or shall we alter it to meet the position raised by the present impossibility of getting Clause 6 removed? I can imagine men pressing this demand for quite different reasons; some with the bona-fide intention of getting increased pay; others in order to bring about an *impasse* and so force a Civil Service on the country—all is fair in war.

To the first, having carefully watched the signs of the times, I say decidedly: "You will get much more speedily and certainly the increase in question by separately asking the guardians and the Treasury to do their parts than by pressing for it indefinitely, since when you so proceed both bodies can elude you by slipping in turn one behind the other." You should first formulate your demand to the guardians, I think, in this way. The average salary of dispensaries is £109; the Enniskillen demand is £200—a difference of £91, which we hoped to get in the shape of £45 10s. from the rates and £45 10s. from the Treasury. Now, by adding £45 10s. to £109 we arrive at £154 10s., and if we knock off the £4 10s., inasmuch as we approach the ratepayers in the first instance, we come to a sum of £150. This we might make, as an initial step, an average minimum salary all over Ireland. If this were considered expedient, I do not think that we should, as at present, confine our attention to vacant dispensaries, but we should make a demand for an immediate increase in every union through the land.

I would begin with the home counties—form a Committee of our Association to act in conjunction with local committees, and bring our whole force to bear on the guardians of one union after another. I would approach the bishops and clergy of every denomination, and all persons of influence in each district, and demonstrate to them that it is to their individual, as well as to the public, interest that the efficiency of the Poor-law Medical Service be increased; then lay before them the steps by which we hope to attain that end. We would promise that if they did their part we would do ours—namely, try and raise in every way the tone and efficiency of the service, and see that all unworthy members be excluded. This latter we should see to at once, for surely it is a fact that when men are banded together ninety-nine true men cannot live down the opprobrium that one worthless fellow can cast upon them. I can scarcely realize the failure to any extent of such an appeal, if properly put forth. I feel myself unable to do so until it is tried, but if tried and it fails, then surely we would be stronger than we are now in any extreme attitude we might determine to take up.

To the second class of men who believe that it is possible only to do good work through a Civil Service I beg to submit the following considerations: Is it practicable? Remember that your lot, whether you like it or not, is cast in democratic days, and that, therefore, a change requiring an Act of Parliament, a large expenditure, and being one of which the taxpayers, as well as our Parliamentary representatives, and a large number of the officers immediately concerned, do not approve—could only be effected by one with power to put back the hand of time.

But supposing it to be practicable, is it expedient? When I returned to this country after a twenty years' absence, I was all in favour of a Civil Service, but experience has caused me to change my mind. The position of an officer of health, like that of a priest, must be founded in the respect and estimation of the people. You cannot improve a man's body, any more than his soul, against his will. The first condition in carrying out our work is that the people believe in us. Which of us ever forced our views of health even on a friend whom we sought to benefit with satisfactory results. The position of our profession must stand on the broad base of the people's goodwill. As things are now in Ireland that is not compatible with a Civil Service, I do not consider why, but I state a fact. It may not be always so. A time may come when the policeman will be honoured in the streets of every village.

I pray for that time and also for that when the peasant will think so highly of the blessing of health that the getting of it will weigh down all other considerations. He may then turn round and say—This thing may better be worked as a State service than as it now is.

An ideal state of things, in my mind, would be one in which there was no more a question of a doctor's fee from the sick man than there is of a policeman's fee from the malefactor. In that good time the doctor paid by the State will rule a district, and every case of illness not due to age will be an offence for which somebody will be called to account; but these days are not yet, and so we have to make our way into the minds of the people, and centre ourselves on their good judgement. This being so, it seems to me that in matters affecting public health and Poor-law relief, the Government is wise in doing as it does in matters of agriculture, namely, allowing the people to work out their own salvation, at the same time advising them and giving the pecuniary help.

But why go on discussing an impracticable alternative? Let me, therefore, as time is pressing, give you a summary of my views. I think we should ask the guardians at once to level up from the rates the salaries of all dispensary doctors to a minimum of £150 a year, and of infirmary doctors to a relative sum, except in very poor districts, where we should ask the Congested Districts Board to give the necessary increase. This accomplished, or well on foot, we should, with the help of the guardians and the Parliamentary representatives, press forward and insist on the Treasury completing what the people have begun for themselves. I should prefer that that demand be for quinquennial increases, graduated to the requirements of the case, and given under conditions that would insure efficiency and zeal in the recipients. Let us formulate no more at present. This question, once the shell is broken, will assume divers shapes, little thought of at present, for it is a young and great one.

With those prefatory remarks I leave it in your hands. I for one am not afraid to entrust our cause to the good sense of the people. Why? Because I judge, as perhaps also can some of you, by taking a line through one sprung from them—me myself—because our interest and theirs in this matter are one; because our cause is true, and they are quick to grasp a great truth if properly put to them; because on them only can our profession rest in safety, honour, and strength. Let us not think, however, that we will have our way by just graciously turning towards them. We must first educate them; but they are quick at a lesson when it is properly put. Let me give you an instance. A doctor living in the country—I can't see if he is here present, but he is a member of our Association—was awakened one night by a knock at his door. He went down, and found two men standing outside, one of whom said to him: "I want you to come to see my son." "All right," said my friend, "I'll be with you in a minute." "But you must come for the same fee as Dr. So-and-So," mentioning the name of a new arrival who had started a low scale of fees, and who happened not to have been very successful with his first few cases. "No, thank you," said my friend; and, having shut the door, he turned into his study to get a book. The window was open, and he could hear the two men talking outside. "What would you do?" said one. "Faith," said the other, "I'd giv' him what he asks. Shure, the funeral 'ud cost more than the differ." With this they came back, knocked again, and the difficulty was at an end.

This is the lesson in a nutshell—the costliness of death, the economic value of health, the progress of medicine, the interest of the people in this progress, the fact that sanitary science is now exact and most diseases preventable—let us teach it to them, and believe me there will soon be a change to a better economy—less important philanthropic undertakings will be relegated to "Mirus" bazaars and such wind-raising methods, and an efficient medical service for the poor

l an efficient public health service for all will become a
:t charge on the public purse.
n the meantime rest assured that you will have the
chers in every school in the three kingdoms with you.
.et us not be afraid of beginning with small demands, lest
se being granted there be an end. You do not think the
n assembled in this room have come together to wring a
v pounds out of the ratepayers, and that we are organizing
e whole profession for such a paltry end. No. Our end is
position in which we can efficiently and honourably do the
rk to which our lives are devoted. When that is attained
shall rest, but not till then.
Let it not be thought, however, that because we are making
ese efforts for our efficiency we are not grateful to our fellow-
untrymen for what they have done for us in the past, and
what many of them are still doing. Things are out of
ape, but that is due to the fact that medical science has
own fast of late, and society has not yet adjusted itself to
e new condition—

> The old order changeth, yielding place to new,
> And God fulfils Himself in many ways.

We have come in rather suddenly for a great inheritance.
ir claims are undoubted, and we are a little irritated
cause there is some hesitation in these claims being
owed. However, if we press forward temperately and
mly all will come right, because although we may differ as
details we are all animated by the same spirit and striving
the same end; because hearts are hearts, and Irishmen
e Irishmen, and because we belong to a profession which,
nile it recognizes neither north nor south, nor upper class
r lower class, should make us at one and the same time the
:vants and the masters of all.

ONGENITAL HYPERTROPHIC STENOSIS OF THE PYLORUS: PYLOROPLASTY: RESULT.

A CONTRIBUTION TO THE ETIOLOGY AND TREATMENT OF THE AFFECTION, WITH NOTES OF A CASE.

BY

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) those who are brought much into contact with the ail-
ents of infants it is a matter of common knowledge that
ilure to make satisfactory progress after the first few weeks
life is not very infrequent, and this, too, in spite of the fact
at the child draws its nourishment from the breast of the
other. Suspicion naturally falls upon the secretion, and it
decided to abandon the breast in favour of an artificial
ixture. From this time forward the art of infant feeding is
xed to the utmost to find a substitute for the breast that
ll be taken and retained, and the various cream mixtures,
e proprietary foods, and lastly peptonized milk, are given a
ial in turn, with the uniform result that the infant not only
es not make progress and gain weight but actually loses ground
eadily from day to day, and scales at the end of the first six
eeks a pound or so less than it did at birth. It soon becomes
parent, not alone to the medical attendant, but also to the
other, that the unsatisfactory condition of the child is due
t to any inability on its part to take nourishment, for it
ems always ready and eager for its feedings, but to the fact
at the greater portion of what it takes into the stomach is
turned after a varying interval. Vomiting, therefore,
comes one of the earliest, as it is also the most prominent
d persistent, symptom of congenital stenosis of the pylorus,
d the characteristics of it merit the most careful attention;
t before considering these the following short statement
garding the stomach of the infant may not be out of place.
ie stomach is very small at birth, its capacity being about
e fluid ounce. It increases steadily in size, so that by the
d of the first month it will contain three, and at the sixth
onth six ounces of fluid. Its position is nearly vertical, the
ndus being but slightly developed. Owing to the weakness
its muscular layers dilatation is readily induced and gases
e apt to accumulate. Gastric digestion is at this early
riod only a partial one, the stomach serving more the
nction of a reservoir from which the food is passed on into
e intestine. To return now to the symptom of vomiting, we
d that it possesses some peculiarities in congenital stenosis
the pylorus. At first the quantity brought up is not very large, an ounce or so, but this amount is vomited at frequent intervals, for the reason that dilatation of the stomach to any considerable degree has not as yet taken place. Gradually, however, with increasing dilatation, larger quantities are brought up, and the intervals between the vomitings are increased, until in a well-marked example of this affection the child takes and retains several feedings and ejects a large portion of them at one time. Such a sequence of events is very characteristic of pyloric obstruction and should direct attention to this condition. The vomiting is unaccompanied by nausea or sign of collapse, and the fluid returned is never seen to contain bile—a further evidence of the condition of the pylorus. The vomited matter consists largely of a fluid resembling whey, and contains some flocculi or small curds. The tongue is usually clean and raw-looking; the breath is sweet, and not rarely the buccal cavity is affected with parasitic stomatitis. Where large quantities of fluid are vomited at one time dilatation of the stomach is assumed, and the condition may be verified by inspection, palpation, and percussion. With the infant stripped and placed in a good light the outline of the dilated stomach can be clearly defined, and it will be seen to extend downwards as far as, or it may be to beyond, the umbilicus. Visible peristalsis of the stomach is generally well-marked, the contractions passing across the abdomen in waves from left to right. It is most important to palpate the pylorus if this is possible, but it is not always practicable, owing to its deep position, to the struggles of the child. and to the resistance of the abdominal muscles. A few whiffs of chloroform may be given, and under its influence it can, as a rule, be located. It is generally felt as a hard nodule about the size of a hazel nut but more elongated, and it gives one the sensation of a firm, fibrous body. This pyloric tumour, then, which consists of hypertrophy of the circular muscular fibres, is undoubtedly the prime factor in the causation of this affection, but that it ever gives rise, of itself, to complete obstruction to the passage of the food out of the stomach we have good reason to doubt. In a paper published in the *Lancet* of March 5th, 1904, in which Dr. Cautley gives a detailed account of a case that ended fatally "from marasmus, induced by starvation, from insufficient food passing through the pylorus," the necropsy disclosed the fact that while a probe could be passed through the pylorus it was not found possible to squeeze any of the contents of the stomach through this opening, and he therein expresses the view that the obstruction was due "to hypertrophy with secondary contraction of the hypertrophied muscle." This view may be correct, and with it we have no fault to find, but examination of the stomach immediately after death in our case has convinced us that there is another and most important factor at work which is of paramount importance in making the incomplete pyloric obstruction absolutely complete, and this fact or is the condition of the gastric mucous membrane. With a condition of more or less stenosis of the pylorus the efforts of the stomach to overcome the obstruction lead to hypertrophy of the muscular and mucous coats, and the longer such obstruction remains unrelieved the greater this hypertrophy becomes. In our case life was prolonged sufficiently for quite an astonishing degree of hypertrophy to develop, the stomach walls having become very thick and the mucous membrane abundant and corrugated. On testing the patency of the pylorus by filling the stomach with water, not a drop passed through in spite of pressure made to force it along, although the pylorus admitted an ordinary cedar pencil, and on examination this very effectual obstruction was seen to be caused by two folds of the much hypertrophied mucous membrane falling down over the pyloric orific in a way that vividly recalled the action of the mitral valve. We are, therefore, persuaded that this hypertrophied condition of the mucous membrane becomes a most important factor in these cases, inasmuch as we believe it effectually blocks the already contracted pylorus, and whatever form of operation is adopted it should be done with the object of, first, relieving the obstruction; and secondly, of dealing with the mucous membrane in such a way as would prevent the possibility of the valve-like action referred to. The condition of the bowels in pyloric obstruction in infants is one of constipation as a rule, but the character of the motions will vary with the amount of nourishment that finds its way out the stomach. Speaking generally, the motions are small, infrequent, and dry, and scybalae may be felt in the colon, but it is by no means unusual for two or three small and fairly normal motions to be passed daily.

The following statement gives the most important points in the history and course of our case:—

L. G. C., was born at full term, was healthy and well-developed in all

respects. For the first fortnight the mother's breast was the sole nourishment About this time, according to the mother he began to vomit, and thereafter he steadily lost ground. The vomitings were small in quantity and occurred shortly after the nursings. Thinking that the breast was not agreeing with him, it was abandoned, and a mixture of condensed milk and water substituted. This change was given a trial for a fortnight, and no benefit or progress being apparent, I was asked to see the child in consultation with the family physician, Dr. Dempsey. I visited the infant on August 29th, 1903, on which date he was four weeks old. The child was fairly nourished, but the mother said he was not as weighty as when he was born. The bowels acted about twice daily, and the motions were small, not constipated, and contained some curds. There was a rather copious eruption of thrush over the tongue and cheeks. No dilatation of the stomach was noted at this visit. A whey and cream mixture was recommended, and a powder consisting of hyd. c. cret. gr. ½, and salol gr. j. was ordered to be given each night and morning. I was asked to see the baby again on September 20th. For a fortnight the whey and cream mixture agreed well and was retained better than anything previously tried. After this the child became much worse and the symptoms assumed a more definite character. The intervals between the vomitings became much longer and the quantities brought up much larger, indeed the description of the mother at this visit was most graphic as well as very suggestive, namely, "that the child drank well all day and threw it all off at night." Dr. Dempsey, who had seen the child at frequent intervals, was now of opinion that some obstruction existed to the onward passage of the food. On examination I found the child greatly wasted. The stomach was now much dilated and extended downwards to the umbilicus

Peristaltic waves crossed the abdomen from left to right at short intervals. The pylorus was not palpable. The temperature was 97.4° F in the rectum; the pulse was 130 and feeble. The motions were small in quantity, dark in colour, not constipated and were curdy-looking; two or three of these small motions were passed daily, but occasionally a day passed without any action of the bowels. The urine was very scanty and stained the diapers a brick-red colour. Stenosis of the pylorus was diagnosed, and operative measures recommended, but the parents were unwilling to consent to this. A nurse from the Children's Hospital was obtained, and under her skilled attention matters improved considerably, and the child gained one pound in weight. Eventually, however, the obstruction became more complete, and the operation of pyloroplasty was undertaken by Mr. Campbell under anything but encouraging conditions.

DESCRIPTION OF OPERATION BY MR. CAMPBELL.

As the child was in an extremely weak and emaciated condition, it was evident that no prolonged operation for the relief of the obstruction could be borne. I consequently determined to perform pyloroplasty, because I considered that it would relieve the obstruction more satisfactorily than dilatation, and would not be attended with the same immediate risks as gastro-enterostomy. When the abdomen was opened, a tumour the size of a walnut was at once seen at the gastro-duodenal junction, and the stomach was found to be greatly dilated and to have an abnormally thick wall. When the longitudinal incision was made through the pylorus, the mucous membrane was found to be loose and redundant, a very well-marked longitudinal fold being seen on the posterior wall. The incision was quickly closed transversely by three Halsted sutures covered by a continuous Lembert suture. The child bore the operation fairly well, but the vomiting continued as before, and it was noticed by the Sister in charge of the case that the vomiting was more frequent when the child was nursed on the right side. In the account of two other cases published by Mr. Clinton Dent, I had been struck by the fact that the vomiting only gradually ceased, and I came to the conclusion that this was probably due to the redundant mucous membrane. To obviate this I had determined to insert a bone bobbin to keep the canal patent, but was unfortunately unable to obtain one small enough. The vomiting continuing, the child gradually became weaker and died on the sixth day. At the necropsy the line of suture was found perfectly intact, and so covered in as to be only visible on close inspection. The peritoneum was quite normal. When the stomach was opened I found that the pylorus readily admitted a cedar pencil, but when the stomach was filled with water under the tap not a drop passed into the duodenum. This was found to be due to the redundant mucous membrane at the pyloric orifice falling together in folds and blocking the canal. The transverse suturing had also produced a slight bend in the canal, which possibly facilitated the obstruction by the mucous membrane.

The small intestine was so small and collapsed that its lumen was almost obliterated. It would therefore have been absolutely impossible to have performed a satisfactory gastro-enterostomy, which in such cases has been attended by a prohibitive mortality. Dilatation also appears to be accompanied by considerable risk from laceration of the bowel. Notwithstanding the unfavourable termination of this case, I should be inclined to try pyloroplasty again, endeavouring to obviate the danger of blocking by free resection of the redundant mucous membrane and the insertion of a small bone bobbin.

DONATIONS TO HOSPITAL.—The Tunbridge Wells Hospital has received donations of £1,000 each from Miss Stanley Puckle and Mr. Stanley Puckle, of Tunbridge Wells.

ACUTE DERMATITIS PRODUCED BY SATIN WOOD IRRITATION.

BY H. E. JONES, M.B., C.M.GLASG.,
Ibrox.

IN 1898 an outbreak of acute dermatitis occurred amongst a number of joiners and cabinet makers employed in the joiners' shop of a Govan shipbuilding yard. At that time I saw several of the patients and made a careful study of the cases.

The first of the patients who consulted me at that time was a cabinet maker about 35 years of age. He called to see me regarding the condition of his face and neck, hands and wrists, which were all in a state of acute inflammation and much resembled that of erysipelas, so much so that I called the following day at his house to satisfy myself on that point. His face, neck, and ears were very red and swollen; his eyes were almost closed, his skin was hot, yet he was not feverish. He had no pain and no sickness. He said that for five weeks his skin had been, on and off, in a condition such as when I saw him, and in consequence he had to cease working from time to time. He had on several occasions during that period been well or almost so, but whenever he commenced his work the inflammation almost immediately reappeared in all the exposed parts—face, neck, ears, hands, and wrists, and soon again compelled him to leave off work. The inflamed area became moist, and this was followed by desquamation.

He told me that several of his fellow-workers were similarly affected. I saw a number of them and found exactly the same state of matters. In each case improvement followed cessation from work, and in each case the illness reappeared when work was resumed.

The history of the illness was sufficient to satisfy me that the cause was some irritant in the dust arising from foreign wood with which the men were working at the time—East Indian satin wood.

I consulted an eminent professor interested in diseases of the skin, and he corroborated my previously-expressed opinion that the cause was due to something connected with the wood, and suggested that the men should paint the exposed parts with a preparation of gelatine. Some of the men preferred going idle; one or two went to work elsewhere and got along without any further trouble.

Within the last few weeks another outbreak, almost identical with the foregoing, has come under my notice. It occurred in another Govan joiner's shop where five of the men working with satin wood have been affected. Three of these have had to cease work; the other two, not being so bad, are still at business.

As in the first outbreak, so with this, the exposed parts are those affected. The men state that they first experience a feeling of irritation on the skin, that later on the parts become hot and red, and subsequently become swollen and uncomfortable, and although not painful, sufficient to keep them off their sleep. This is followed by moisture and complete desquamation of the skin over the affected parts.

The first attack is rather slow in its onset, but relapses come on with great rapidity.

One of the men, a joiner of about 40 years of age, tells me that he was handling satin wood for about six weeks before he had to discontinue his work. Having remained off work for some time he made a fair recovery and again made a start, but was only able to remain at work for three days. He kept off work for eleven days more, and then made another attempt, but was only able to continue on duty for two days. After another interval of ten days' idleness he again resumed his work, but had to discontinue in two days. For ten days more he went about idle, then entered the shop once more, but had to cease work after three and a-half days. Since then he has remained idle.

Another joiner, 50 years of age, stated that he commenced to feel uncomfortable one month ago, but was able to continue at work for two weeks; after remaining off duty for nine days he made a start, but was compelled to cease in seven hours and has not since tried to resume his work.

Assuming that the satin-wood dust be the cause of the dermatitis, the question may be asked: Why are not all the men who work with it similarly affected? My answer is, that some skins are more easily irritated than others, and that probably those affected were of that type. This is practically borne out by the fact that three of the sufferers who came under my notice showed slight traces of eczema.

The speedy recurrence of subsequent attacks is accounted for by the fact that the skin having desquamated, the new skin would be more easily irritated than its predecessor. And as this occurred again and again the parts would be more easily irritated with each subsequent attack.

As regards treatment, it has been suggested that the men should remain off duty till the epidermis is fairly strong, and that then vaseline or some oily substance should be smeared over hands and face, and allowed to remain there while the men were at work in the joiner's shop.

As an alternative, the men might seek a job in the open air or else in another establishment.

MEMORANDA:

MEDICAL, SURGICAL, OBSTETRICAL, THERAPEUTICAL, PATHOLOGICAL, ETC.

INTRAUTERINE INFECTION OF THE FETUS IN SMALL-POX.

IT is stated that children born of mothers suffering from small-pox usually show signs of the disease at birth or so soon after birth as to warrant the conclusion that they received the infection while still *in utero*. Of the former none have come under our observation; of the latter we have seen the following three cases:

No. 1.—The child was born on December 24th (evening), 1902, and the eruption of small pox appeared on the morning of January 3rd, 1903. The attack was confluent, and the child died on January 13th. It was unvaccinated. The mother had an overlooked attack of small-pox, having sickened on December 20th, and the eruption having appeared on December 24th.

No. 2.—The child was born on June 26th, 1903, and was vaccinated the same day. The mother had sickened with a discrete attack of small-pox on June 25th, date of rash being June 26th. The child's vaccination took well, but on July 3rd the rash of severe discrete small-pox appeared, and the child died on July 15th.

No. 3.—The child was born on April 14th, 1904. The mother sickened on April 12th and died on April 16th, the dark purpuric rash of purpura variolosa having appeared on April 14th. The child was vaccinated on April 16th, but although this was successful the rash of discrete small-pox appeared on April 21st.

Taking the interval between infection and the appearance of the rash as the usual one of fourteen days, it follows that in the first case the child must have been infected on or about the date of onset of the mother's illness and three or four days before birth; in the second case six days before the onset in the mother and seven days before birth; and in the third case five days before the mother sickened and seven days before birth. These children were all born about full time.

Two other cases are of interest in this connexion. One was that of a woman in the seventh month of pregnancy who developed a discrete attack of small-pox. She was discharged from hospital about a month after admission. The child was born about a month after discharge, and showed no signs of having had small-pox, and in addition it was successfully vaccinated. Thus there was no immunity conferred on the child by the mother's attack. The other, a 5-months fetus born in the fourth week of the mother's illness, showed no signs of small-pox.

The five cases mentioned above include all the cases of which we know, in which variola attacked pregnant females. They seem to bear out McCombie's statement that the liability of the fetus to small-pox appears to increase directly with its age.

JAMES M. COWIE, M.D., D.P.H.,
DUNCAN FORBES, M.D., B.Sc.,
Assistants to the Medical Officer of Health, Manchester.

EMPHYSEMA IN A CHILD.

ON February 2nd, 1904, I was called to see D. E. F., a child aged 1 year 10 months, which had been ill for three days with sickness, rapid breathing, and occasional cough.

No food had been retained, but the bowels had acted once or twice since the commencement of vomiting, and the stools were normal. The first glance at the patient gave the impression that she was suffering from pneumonia with a failing heart, and death appeared to be imminent. Temperature was subnormal; respirations about 40 per minute; the pulse 160 per minute; there was little or no movement of the ribs, though the diaphragm was moving freely, and there was marked epigastric pulsation. The face and lips were pale and cyanosed, the expression anxious, and the eyes dim. On examining the chest I found to my surprise that the lungs were everywhere fully resonant, and the cardiac dullness imperceptible over the ordinary area. Some fine crepitations could be heard at the bases of the lungs, but no rhonchi. Strychnine gr. $\frac{1}{60}$ with 15m of brandy was at once injected hypodermically, and the child rallied somewhat, the pulse becoming fuller, while the pallor gave place to a cyanotic flush. Thinking there might be some bronchial obstruction, I then gave two teaspoonfuls of ipecacuanha wine and placed a mustard poultice over the cardiac area with a view to relieving pressure within the right ventricle. The child then coughed and vomited freely, but the respirations did not change in rate or character. The temperature was subnormal. The following treatment was ordered: Peptonized milk 1 oz. with brandy 1 drachm by rectum every two hours, and one teaspoonful of peptonized milk by the mouth every quarter of an hour unless the child slept. On the following day the condition appeared somewhat better; the pulse had improved, being only 140 per minute, but respiration continued as before and the physical signs were unchanged. The child had spoken one or twice, and nearly all the food had been retained, while she had slept a little at intervals. Food was now given more freely by the mouth, and the rectal feeding was ordered at four-hour intervals.

Necropsy.—On the following morning, February 4th, at about 7 a.m., the child died, and in the afternoon of the same day a necropsy was made. On removing the sternum the lungs bulged forward and were seen to be pale and typically emphysematous in appearance, a lobule of the left lung overlapping the upper part of the pericardium. Further examination showed that the emphysema involved the whole of both lungs except for a few patches of collapse. On pressure with the hand they were found to be soft, non-elastic, and slightly crepitant. There was no marked oedema at the bases, nor was there any pleuritic or pericardial effusion. The bronchi contained a little muco-purulent material, but there was no sign of tracheal obstructien, nor were the bronchial glands enlarged. The right auricle was distended and contained *ante-mortem* clot, but the ventricle was contracted and empty. The heart in all other respects appeared to be quite normal.

REMARKS.—So far as could be ascertained the sole cause of death appeared to be the extreme condition of emphysema from which the child was suffering, rendering impossible, as it did, any effective interchange of air in the pulmonary alveoli. There was no subcutaneous emphysema. I had attended the child on two previous occasions when it was suffering from bronchitis with blocked bronchial tubes, and on each occasion an emetic of vin. ipecac. had relieved the symptoms immediately, while during the interval the child had seemed strong and healthy. I have ventured to report this case, as it seemed a very uncommon one, and I do not remember seeing or reading of any other exactly similar. What should have caused so extreme a degree of emphysema is difficult to conjecture. The elasticity of the pulmonary tissue must doubtless have been below normal, but it can scarcely be supposed that the degree of dilatation found at death had existed for more than a few days. Idiopathic emphysema is a strange term, but there is certainly a temptation to apply it in this case.

Felixstowe. G. J. CONFORD, B.A., M.D., B.Ch.Oxon.

ECTOPIC GESTATION: EARLY DIAGNOSIS: OPERATION: RECOVERY.

MRS. A., aged 23, married early in August, 1903, was quite regular up to the middle of September. About the middle of October, at the usual time, she was unwell, but only for one day. I saw her first on October 30th, when she complained of flatulence and other symptoms of dyspepsia. On November 8th I was called to see her, because, while taking supper, she was seized with a sharp pain in the lower abdomen, and felt rather faint. I saw her half an hour after this; she was not faint at that time, but complained of a good deal of pain. The next day she said that she was unwell and had passed several clots of blood. I examined all that had passed, but could find nothing particular. I also made an examination of the patient, but as she was very sensitive I could not make out anything unusual—in fact, I could only just reach the os. She continued to pass blood for about five days. At the end of ten days she got up, feeling quite well.

On November 25th, that is to say, seventeen days after her first attack of pain, I was sent for to see her as she, whilst walking quietly with a friend, got a very sharp pain in the lower part of the belly and felt and looked very faint, and had to be driven home (less than half-a-mile). I arrived at the house before she did. On arrival she had quite got over the faintness, complained of pain, not acute, in the belly, and was able to walk upstairs and get into bed unaided. I examined her but could detect nothing, but urged that she should be examined under an anaesthetic.

The next day, November 26th, Dr. F. Carey having got her under chloroform, I was able to make a careful and thorough examination. The os was rather high up and the uterus pushed rather to the right side. A small round tumour about the size of a large walnut was felt to the left of the uterus, and quite distinct from it; it was quite movable. I diagnosed

an early ectopic gestation threatening to rupture, and urged operation as soon as it could be arranged. The next day Mrs. A. was removed to the Cottage Hospital, and the operation was performed the following morning, November 28th. I was assisted by Drs. F. and C. Carey. On opening the peritoneal cavity a small quantity of serous fluid escaped, slightly tinged with blood. I then removed the left tube, which contained an early gestation. The cyst was just on the point of giving way at the upper part; in fact, it ruptured just as I was removing it. The cyst was situated at the inner third of the left Fallopian tube, and was quite closed off from both the uterus and the outer end of the tube. The after-progress of the case was uneventful.

Remarks.—Early diagnosis of ectopic gestation is known to be difficult. One great difficulty of this case was the fact that the patient was quite unaware that she was pregnant, as she had been regular quite up to the time of the first attack of pain. My suspicions were first roused by this attack, and I feel sure that if I had given her an anaesthetic at that time that I should have diagnosed the case eighteen days earlier than I did.

Melrose, Guernsey. E. Laurie Robinson.

HYPODERMIC INJECTION OF QUININE SULPHATE.

It may interest some to know that I find that ordinary quinine sulphate mixed with about one and a-half times its own weight of vaseline makes a suitable mixture to inject under the skin of the natives here to lessen the malarial index. A mass containing 15 to 20 gr. of quinine after injection takes about three and a-half months to absorb. During that time I have failed to find malarial parasites in the children on whom I have tried this mixture.

I have asked Messrs. Allen and Hanburys to make a suitable syringe, as certain difficulties arise with an ordinary syringe, especially in the tropics. But an ordinary metal hypodermic syringe will suffice.

The mixture of quinine and vaseline should be pressed into a glass tube of the same calibre as the syringe, the tube then corked and placed in boiling water for fifteen minutes; the mixture can on cooling be easily pushed into the syringe. A clamp to close down the piston of the syringe is an advantage.

The whole proceeding must be done under aseptic precautions, and the puncture closed with collodion or some similar substance. It is wise, I think, to give at the same time a dose of quinine by the mouth or an intramuscular injection of the same drug. About 103° F. is the temperature at which the unmixed vaseline I have used loses its heat most slowly, when passing from a liquid to its semisolid condition. A small amount of thickening of the subcutaneous tissue is left after absorption.

I have not at present sufficient data to say to what extent the mixture would act as a preventive of malaria in a European. The left side of the abdomen near the flank is the most suitable site for injection.

G. F. Darker, M.R.C.S.Eng., L.R.C.P.Lond.,
District Medical Officer Sapeli, Southern Nigeria,
British West Africa.

PUERPERAL ECLAMPSIA TWICE IN THE SAME PATIENT.

Early on January 18th I was called to see Mrs. A. B. When I arrived I found her in a somewhat dazed and drowsy condition, and she complained of intense headache. Her history was as follows: Just a year previously, when pregnant for the first time, she was seized with eclampsia, and labour had to be induced at the sixth month. Convalescence was prolonged, and albumen did not disappear from the urine for three months. During her present pregnancy she had lived almost altogether on milk and farinaceous foods, taking only now and then a little chicken. She had enjoyed excellent health the entire time, and felt perfectly well when going to bed the night before.

On examination I found that she was about seven months pregnant, and that labour had set in, the os being about the size of a florin. There was little or no sign of oedema, except just above the ankles, where there was slight pitting on pressure. A small quantity of dark smoky urine was drawn off with a catheter, and, on roughly heating it in a teaspoon over the flame of a candle, a dense precipitate of albumen appeared, the specimen boiling almost solid. While I was examining the patient she was seized with a very severe attack of convulsions, so I gave her a hypodermic of morphine, and as soon as possible placed two drops of croton oil on the tongue, and prepared to give a wet pack. While the necessary things were being got ready she was again convulsed, so chloroform was administered. I found, however, that whenever the patient came from under the influence of the anaesthetic she became very restless, and was with great difficulty controlled; moreover, the attacks followed each other rapidly. Dr. Rice, for whom I had sent, now arrived, so we kept the patient fully under the chloroform, and, after some trouble, delivered her of a stillborn baby. Shortly after the placenta was expelled, and the effects of the anaesthetic had begun to pass off, she was seized with a most severe fit, the heart's action apparently ceasing—in fact, for several seconds we thought she was dead. However, she rallied, and from this on there was no repetition of the attacks. Her after-progress was all that could be desired, and the albumen disappeared at the end of three weeks.

I have to thank Dr. Rice for his kind assistance in this case, in which, although the attacks were not excessively numerous, still each seizure was a terribly severe one.

I need only add that there was no uncertainty about the nature of the previous illness. The patient's mother gave me such an accurate description of her daughter's former confinement as to leave no room for doubt regarding the genuineness of the convulsions. The case seems worth reporting because it has been stated, and I believe on good authority, that one attack of puerperal eclampsia confers future immunity.

A. E. McCann, L.R.C.P.I. & S.I.

Mountmellick, Queen's Co.

"KIDNEY COUGH."

Whilst reading Dr. Smith's interesting paper on Cough and its Significance, in the British Medical Journal of May 28th, there was one sentence which particularly arrested my attention, namely, "I know nothing about the kidneys or organs below the stomach giving rise to cough."

I should like to complete the anatomical picture, as I had a case of "kidney cough" some time ago. The patient, a female, aged 35, came to see me for pain over the lower ribs, on the left side, and cough. The pain was not severe, but the cough—which had lasted for six weeks—was one of such intensity and severity that it made a marked impression on the patient's mind, as well as on the mind of those who saw her. It hardly ever ceased night or day.

On examining the patient nothing was found wrong with lung or pleura; there was a mass in the left loin. I performed nephrectomy, and evacuated a very large primary abscess (18 oz. pus), still surrounded by kidney tissue and capsule. There was a great mass of sound kidney remaining. The sinus closed, and there was no more trouble with the cough.

The cough had its anatomical explanation in the fact that the right pneumogastric sends numerous branches to the left renal plexus.

Leeds. J. Stewart.

HEREDITARY DEFORMITIES.

Dr. Hey's interesting contribution on supernumerary digits[1] reminds me of an infant born here a year ago—a female—minus the left hand and lower third of forearm, whose great-grandmother was born with the same deformity, the males and females of intervening generations being in every way normal.

Jura, N.B. D. S. Macdonald, M.B., C.M.

Life on the West Coast of Africa.—The climate of the West Coast of Africa has always been renowned for its deadliness, and much has been written concerning it in the medical and lay press. The *Gold Coast Leader* has recently published an article by a correspondent on the life and its risks there. Special emphasis is laid on the poor condition of the dwellings in which Government officials have to reside, and the want of opportunities for relaxation and amusement. There is a considerable amount of truth in some of the statements, but after all, one must remember that the pay is high and leave is better than in other tropical colonies. Much of the disease which used to exist can now be avoided if people will follow out a careful mosquito prophylaxis based on the recent researches into the etiology of malaria, and there is not the slightest doubt that the sanitation and health of the coast is improving year by year.

[1] British Medical Journal, May 28th, 1904, p. 1254.

REPORTS
ON
MEDICAL AND SURGICAL PRACTICE IN THE HOSPITALS AND ASYLUMS OF THE BRITISH EMPIRE.

LAWRENCE MILITARY ASYLUM, SANAWAR, PUNJAB.

CASE OF CONTINUED FEVER WITH LEISHMAN-DONOVAN BODIES.

(From Notes by the Medical Officer, Captain J. G. SWAN, I.M.S.

THE following are the notes of a case of splenomegaly with continued fever, in which Leishman-Donovan bodies were found in the spleen and liver. The patient was a boy 8 years old, who was born in Calcutta, and had lived most of his life in Lower Bengal. He had had several attacks of supposed malarial fever previous to admission to this asylum; the last attack in September, 1903, lasted for six weeks altogether; since then he has been quite well. I was unable to ascertain if the diagnosis of malarial fever was confirmed by the finding of malarial parasites in the blood. I admitted him into hospital on January 20th, and examined his finger blood several times, but found no malarial parasites.

At intervals of seven days that is, on February 28th, March 5th, and March 12th, I tested his blood serum by Widal's reaction for both typhoid and Malta fever, with negative results. I then punctured his spleen four times—on February 23rd, February 27th, March 8th, and March 10th; on the last occasion I drew off some blood from the liver also. The films were stained by Leishman-Romanowsky stain. I also inoculated one agar tube with blood the second time I punctured him; no growth resulted. On the first occasion no bodies were found in the film; on the other occasions numerous bodies were found. They were oval in shape, with a distinctly marked capsule; the matrix stained a faint blue, the spherical nucleus a ruby red, and the rod-shaped centrosome ruby red also. They were of different forms: (1) Discrete bodies resembling Fig. 1 of Manson and Low's diagram in the BRITISH MEDICAL JOURNAL of January 23rd, 1904, with the rod-like centrosome at right angles, or parallel to the spherical nucleus, which was at one side of the capsule; (2) a few were joined in groups of two and three; (3) in one spot I found about 20 of these bodies lying in a granular mass of faintly-stained protoplasm; (4) four of the bodies were lying around, and seemingly attached to, the outer membrane of a pale blue cell, in which no bodies were present; this, I take it, was a later stage of the rosette form depicted by Manson and Low in Fig. 5 of their paper; in several cases the bodies were found contained in phagocytes, in one phagocyte I observed 11, in another 9, and in another 3. In the liver films the bodies were all separate. The puncture of the spleen seemed to have a beneficial influence in reducing temperature for about twenty-four hours.

History.—The father of the patient died last year, cause of death unknown; the mother is a Eurasian. Personal history: the patient has had several attacks of malarial fever, the last terminated in October, 1903; he was admitted to the Institution on January 10th he was very anaemic and badly nourished; there was no oedema of extremities, the skin was harsh and dry, his temperature on admission was 101°, the tongue clean at tip and edges, dirty at centre, the bowels regular; the liver extended 2 in. below the margin of the ribs, this enlargement, which affected chiefly the right lobe, was smooth and not painful, the spleen reached to within 1 in. of the umbilicus, and was not tender; the heart and lungs were quite healthy.

The patient was kept in bed, and put on milk diet, his temperature remained above normal for about twenty days, so quinine was given by the mouth, but without effect; it was then given hypodermically, still with no effect; then sodium salicylate was tried. On February 23rd his temperature fell to normal for the first time for five weeks. His blood count on March 12th was as follows:

Red corpuscles, 2,148,000 per cm.	Large mononuclear, 28 per cent.
White corpuscles, 2,400 per cm.	Lymphocytes, 50 per cent.
Haemoglobin (Fleisch's haemoglobinometer), 20 per cent.	Coarse-grained eosinophiles, 1.5 per cent.
Polynuclear leucocytes, 20 per cent.	Basophile, 5 per cent.

In conclusion, I have to express my thanks to Lieutenant-Colonel Semple, R.A.M.C., and the staff of the Pasteur Institute, Kasauli, for kindly looking over my films and confirming my diagnosis of the presence of these bodies in the blood.

LEICESTER INFIRMARY.

A CASE OF RUPTURED BLADDER AND DIAPHRAGMATIC HERNIA.

(By F. BOLTON CARTER, M.S.Lond., F.R.C.S., House-Surgeon.)

A MAN, aged 34, was brought from Market Harborough (eighteen miles) to the Leicester Infirmary on April 27th, 1904, about 11 p.m., with the history that a safe weighing about 2 tons had fallen on to his left side about 6 p.m. the same day.

State on Admission.—He was very collapsed, and complained of pain about the sacrum and coccyx. He had passed no urine since the accident, but a little dried blood was present at the end of the penis. There was a simple fracture of the upper end of the right ulna. No mobility or crepitus could be made out on careful palpation of the pelvic bones, and this caused no pain, although marked tenderness was present over the lower part of the back. There was some dullness above the pubes and a desire to micturate, which patient was told to repress. A ruptured urethra was suspected, and a catheter was carefully passed with slight difficulty and tied in, having drawn off several ounces of blood-stained urine.

Operation.—The next day the catheter was not draining the bladder properly, the eye constantly getting blocked with blood clot, and dullness above the pubes resulting. An extraperitoneal rupture of the bladder was now diagnosed, and a suprapubic opening was made under ether by Mr. C. J. Bond, under whose care the case was admitted, when a good deal of bloodstained urine was found in the prevesical space, issuing from a rent in the anterior surface of the neck of the bladder. The urethra was opened in the perineum by cutting on to a metal catheter passed from the suprapubic wound and a small lithotomy tube introduced into the bladder, while the prevesical space was freely drained. No crepitus or undue mobility of pelvic bones was detected at the operation.

Progress.—The bladder drained well, and next day patient seemed better, although during the night he had much pain, necessitating the administration of morphine. On the following day, April 30th, his condition appeared greatly improved, but on May 1st, about 8 a.m., he had sudden acute pain in the left side of his chest and abdomen, followed by collapse, cyanosis, and death at 8.30 a.m.

Necropsy.—Marked hyper-resonance was noticed over the left side of the chest, with absence of cardiac dullness. On opening the abdominal cavity there was a small quantity of free blood in the peritoneum, and the left side of the diaphragm was seen to be bulging down tensely in front. Neither stomach nor transverse colon could be seen. The sternum and costal cartilages being carefully removed the left pleural cavity was found to be occupied by the stomach, transverse colon and 8 ft. of jejunum, the left lung being pressed up into the apex of the cavity, and quite collapsed, while the pericardium and heart were pushed over to the right. In the diaphragm was a rent extending from the oesophageal opening forwards and somewhat to the right, large enough to admit the closed fist, through which the abdominal viscera had passed. Careful examination of the pelvis disclosed a fracture through the distal end of each pubic ramus, so that the entire pubes was completely separated from the rest of the pelvis. No fracture of the posterior part of the pelvis could be discovered. The other organs were uninjured.

REMARKS.—Whether the catheter passed on admission went into the bladder or into the prevesical space is difficult to say—probably the latter from its constant blocking with blood clot. The effusion of blood and urine in front of the bladder gave all the signs of a distended bladder. The abdominal viscera could only have passed into the pleural cavity shortly before death, but the tear in the diaphragm was probably made at the time of the injury, although possibly the rent was not complete, but gave way later during some straining effort of the patient. No signs of intestinal obstruction were ever present.

RAILWAY HOSPITAL, NAIROBI, EAST AFRICA.

A CASE OF LIVER ABSCESS.

(By A. R. SIEVEKING, L.R.C.P. and S.Edin., late Senior Medical Officer, Uganda Railway.)

K., an Indian coolie, was admitted into the Railway Hospital at Nairobi, East Africa, on April 16th, 1903, complaining of "fever" and of pain in the hepatic region.

State on Admission.—His tongue was covered with fur. There was tenderness over the whole of the anterior surface of the liver. This viscus was enormously enlarged downwards and to the left, where it encroached on the splenic region. Slight jaundice was present. The spleen was slightly enlarged. Pulse 100, thready and intermittent. Temperature normal. He had had two attacks of dysentery, nine months and three months ago respectively; and recently he had been in another railway hospital for malaria. He was evidently very ill.

Progress.—He was ordered a mixture of ammon. chlor. with ammon. carb. t.d.s., and stupes to be applied to the abdomen. The temperature was irregular, not rising above 99° for the first few days. There were rigors in the evenings and also night sweats. Constipation was relieved by calomel followed by enemata. Latterly there was considerable bulging of the liver below the right costal margin. The pain on no occasion extended to the shoulder.

Operation.—Carbolic fomentations having been applied for twenty-four hours under chloroform, the largest trocar of a Potain's aspirator was used to locate the pus. The first puncture was made just below the right costal margin, and proved successful. Forty-one ounces of pus were withdrawn. The patient's condition was so alarming that further operation was deferred and the puncture was sealed with collodion. Four days later the patient was again put under chloroform and an incision was made over the aspiration puncture.

The liver was firmly adherent to the abdominal wall, and, after dividing the capsule on a director, an opening was made into the liver with finger and artery forceps sufficiently large to admit a full-sized drainage tube. Typical liver pus at once began to well up through the tube, about 15 oz. escaping. The cavity was washed out with 1 in 40 carbolic.

Progress and Result.—The after-progress of the case was uneventful: The temperature became quite normal in a day or two, and the cavity gradually filled up. The tube was omitted on the twelfth day after operation, and the patient discharged cured on the forty-sixth day after admission.

British Medical Association.

CLINICAL AND SCIENTIFIC PROCEEDINGS.

HONG KONG AND CHINA BRANCH.

Hong Kong, Friday, March 25th, 1904.

Colonel W. E. Webb, R.A.M.C., President, in the Chair.

Fracture of Fibula.—Staff Surgeon Parker, R.N., read notes on and showed a case of fracture of the head of the fibula in a naval officer, exhibiting a skiagraph of the injury.

Caries of Ischium.—Dr. E. A. R. Laing read notes on a case of caries of the ischium which occurred in a European aged 23 years. A skiagraph was shown which clearly demonstrated the disease and its extent.

Specimens.—Dr. Laing showed the following pathological specimens: (1) An angiomatous-adenoma tumour of the parotid gland which he removed from a Chinese adult of 25 years; the weight of the tumour of three and a-half years' growth was ½ lb.; (2) a round-celled sarcoma weighing 2¼ lb., which he removed from the left shoulder of a Chinese female aged 25 years; the tumour was growing for fourteen months; there was no history of injury, etc; a skiagraph was shown demonstrating that the growth was not adherent to the periosteum of the humerus; photographs of the case before and after operation were shown; (3) a portion of the small intestine showing typical perforating typhoid ulcer, in a case which showed Widal's reaction positive on the sixth day, and perforation took place on the thirteenth day.

Mixed Infection in Tuberculosis—Dr. Hunter read a paper on this subject. He explained the pathological difference between chronic pulmonary phthisis and chronic pulmonary tuberculosis, though clinically both were looked on as synonomous. The latter in the uncomplicated form was rarely recognized clinically because of the absence of any definite symptoms produced by it in the majority of instances, as it was solely caused by the presence of the tubercle bacilli. In chronic pulmonary phthisis, however, the action of the bacillus tuberculosis was increased by the acute influence of pyogenic organisms whose potentiality for evil was much greater. To prove that uncomplicated pulmonary tuberculosis was more than common, Dr. Hunter quoted the result of 162 necropsies by Barlow, who found that 25 per cent. of cases dying from other diseases showed evidence of having at one time or another suffered from localized pulmonary tuberculosis. Quoting still further, Dr. Hunter stated that Otto Naegeli at the Pathological Institute of Zurich found that out of 500 consecutive necropsies 99 per cent. of cases over 30 years presented undoubted evidence of active or latent tuberculosis. Dr. Hunter then mentioned the common bacteria and cocci which caused mixed infection in tuberculosis, but stated that the cocci were the predominating organisms. Having briefly described the method by which mixed infection occurs he read an extract from an editorial published in the British Medical Journal which stated that "the bulk of the distressing and dangerous features of phthisis pulmonalis are not due to the tubercle bacilli but to the streptococci and other pyogenic organisms." Other writers, for example Schroder, considered that the pyogenic cocci had little or no influence on the tuberculous process. In conclusion Dr. Hunter stated that the truth probably lay in the middle. Some acute cases were caused by the tubercle bacilli alone, whereas others were the result of mixed infections.—The paper was discussed by the President, Major Strickland, I.M.S., Surgeon McKeown, R.N., Staff-Surgeon Clayton, R.N., Dr. Robert Gibson, Dr. McLean Gibson, and Dr. G. P. Jordan.

REVIEWS.

GYNAECOLOGY.

Dr. Morrow's *Social Diseases and Marriage*[1] is a work designed to impress upon the medical profession its duties in regard to the prevention of the communication of gonorrhoea and syphilis by diseased husbands to healthy wives. It will be seen at once that this is a very narrow subject wherewith to fill a volume of 390 pages; and therefore no reader will be surprised when we say that the book contains a great deal of repetition and a great deal of grandiloquent amplification of commonplace advice. Every medical man knows that it is his duty to prevent, if he can, a man with gonorrhoea or syphilis from marrying a healthy young girl. It is, we suppose, conceivable that a man with a contagious disease in a virulent stage might go to a doctor and announce to him his intention of marrying the next day; and in such a case the doctor might be puzzled as to his duty. It is conceivable that our imaginary patient might threaten him with an action for slander if he communicated with the relatives of the prospective bride. It is hardly conceivable that if for such conduct an action were brought a British jury would find that it constituted a claim for damages. The necessary precaution would be that the doctor should be very sure as to his facts, and, if they were disputed, should demand an immediate consultation. But such a dilemma, although conceivable, can hardly ever occur in ordinary practice, for the simple reason that a man who contemplated such an iniquity, would take care not to consult a doctor who could be aware of his matrimonial intentions. Dr. Morrow's work is a rhetorical didactic treatise: it is not in any way an embodiment of scientific research. When it seems to the author that his views need support, he quotes statements by French or German, and occasionally by American authors: he hardly ever does an English surgeon the honour of referring to him. He makes no attempt to estimate the value of the assertions he relies upon, by weighing the evidence on which they are based; and some of the statements he quotes are obviously valueless, because based on no evidence. It is perhaps hardly to be expected that an American writer on this subject should refrain from quoting Noeggerath to the effect that of "every thousand men married in New York, eight hundred have or have had gonorrhoea, from which the great majority of wives have been infected." Further on, we are told (p. 72) that "the most sombre chapter of marital syphilis is the murderous influence of the disease upon the offspring, but the no less potent agency of gonorrhoea as a factor of depopulation . . . is by no means adequately appreciated." Then the author quotes a Frenchman who says, "If we compare from a social point of view, the importance of gonorrhoea with that of syphilis, gonorrhoea is to syphilis as 100 to 1." We will not venture to question these statements as applying to America or France; but as to England they are gross exaggerations. The proportion of sterile marriages in the English population generally is about one in ten; so that if gonorrhoea were responsible for the whole of the sterility, it can only be blamed in one marriage out of ten. But every practising gynaecologist knows that, of the patients who consult him for sterility, very few are suffering from the effects of gonorrhoea. We doubt if a practitioner could be found in England, having been in family practice for twenty years or more, who could not tell of many patients whom he has treated as young men for gonorrhoea, who have afterwards married, and whose wives as well as themselves have remained perfectly healthy, and been fertile. We believe that at the Lock Hospital the proportion of cases in which gonorrhoea

[1] *Social Diseases and Marriage*: Social Prophylaxis. By Prince A. Morrow, A.M., M.D., Emeritus Professor of Genito urinary Diseases in the University and Belle Vue Hospital Medical College, New York, etc. London: Sidney Appleton. 1904. (Demy 8vo, pp. 390. 15s.)

s found to spread upwards to the peritoneum is not more than bout 5 per cent. Still, shrieks which call attention to an vil are sometimes useful, even if their shrillness and repeition are out of proportion to the magnitude of the damage. Dr. Morrow's book may do good in preventing those who ead it from forgetting the latent possibilities of gonorrhoea nd syphilis.

A review of the first edition of *Practical Gynecology*[2] apeared in the BRITISH MEDICAL JOURNAL for November 23rd, 901, and we may congratulate Dr. MONTGOMERY on the publiation of a second issue within a relatively short space of ime. It is a very solid treatise of high value to specialists nd teachers. The arrangement of the text is original, division into chapters is avowedly discarded, and in this edition nany changes have been made in the separation of subjects nto sections, which experience has led the author to believe o be beneficial to the student. One of these alterations consists in placing the injuries incidental to parturition under he heading of "traumatisms," so strong is the tendency mongst contemporary writers on gynaecology to amalgamate bstetrics and surgery. The illustrations, good in the former dition, have been greatly improved, several errors being corected, whilst the microscopic drawings are far superior to hose which appeared in the first issue. The new technical nethods of illustrated journals, well suited for portraits of elebrities and beauties, are not always so satisfactory when pplied to the teaching of normal and morbid histology; he author was therefore judicious in preferring good drawings. We agree with him in commending the excellence of Miss . L. Clark's and Miss Karin M. Hall's drawings of microcopic sections. They "show," as a tutor or demonstrator ould say; many photomicrographs in current textbooks how nothing owing to defective printing and not to faults in he original block. Educational diagrams like Nos. 421 and 22 are of importance and in these two instances fairly nstructive, but we hope that in a future edition the author, nstead of importing drawings from the works of Auvard and ourty, will replace them by original sketches from his own reparations. It is highly advisable that the student should horoughly master the distinction between intraperitoneal nd extraperitoneal pelvic haemorrhages. Illustrations of oyen's hysterectomy have been introduced; it is rather a angerous operation to teach, but this work is largely for xperienced gynaecologists. Lastly, our readers will be nterested in Dr. Montgomery's opinions about ventrifixation and ventrisuspension" in respect to recent correspondence n our columns. He admits that the operation is not without anger, and refers to cases of fatal strangulation of intestine. entrifixation certainly gives benefit when properly done, but s to what is the best method authorities differ.

The first edition of Dr. JELLETT'S *Short Practice of Midwifery*[3] was noticed in the BRITISH MEDICAL JOURAL of January 19th, 1901. The main features of he book remain as they were. It is clear and readble, but the author has not yet reached the point of deiding for himself between different "authorities;" he is still nder the influence of his teachers. He still talks about the terine canal being flexed at an angle, although no such thing as ever been seen except in a diagram; and he thinks the ffect of adhesions in pulling the uterus this way or that is mportant. Nearly half the book is descriptive of operative ethods, and the author describes different ways of doing the ame thing, labelling each by a special name. Thus he gives hree ways of mending a ruptured perineum, all essentially he same, differing only in trifles; and two ways of amputatng the uterine body, which differ only in the order in which he different steps of the operation are taken. We would uggest that in his next edition he should give one method nly, and that the method which he has himself found best.

The *Textbook of Gynecology*[4] edited by Dr. CHARLES A. L. REED, is, as we observed in a notice of the first edition, a "system" made up of essays by the author and thirty other contributors. The book has proved a success; one peculiarity about it is the practice adopted by the editor of placing a full quotation from the text under each drawing. Thus, under Fig. 145, instead of the simple inscription "Perforation of Uterus," we find: "W. E. Ashton reports an interesting case in which . . . . a false passage was made from the internal os through the anterior uterine wall." The inverted commas applied to a passage taken from the writer's text close by seem unfamiliar in a scientific book, though often seen in works of travel and fiction; but passages explain better than titles. Myomectomy is not recommended, but there is little new matter in the present issue excepting revised details about treatment and methods of operating. The edition has not been made too bulky. Altogether the *Textbook* deserves the success which it has attained.

FORENSIC MEDICINE.

IN *Les intoxications*,[5] by M. BROUARDEL, arsenical, phosphorus, copper, mercury, and lead poisoning are discussed at considerable length. The subject of poisoning generally—criminal, accidental, and industrial—is fully reviewed. The author devotes 176 pages of the 516 in the book to arsenical poisoning. In the historical account he mentions that arsenic was not employed by the Greeks and Romans, and that it was in the Middle Ages it first came to be used as a poison. The metal has long been employed as a vermin destroyer. An interesting point is that rats seem to take cognizance of their diminishing numbers when thus poisoned, and emigrate into other parts of a town not so infested. In dealing with the channels by which arsenic gains entrance into the human body the alimentary canal is usually that which is resorted to for criminal purposes. It is also that by which accidental poisoning may occur, as witness the contamination of bread at Wurzburg, where 373 cases of poisoning occurred in consequence of the addition of arsenious acid to flour, also the cases reported by Taylor, in which 340 pupils were poisoned by eating bread. Mention is made of the epidemic of acrodynia in Paris in 1828, during which 40,000 persons are said to have suffered. Acrodynia is a painful affection of the extremities accompanied by swelling, and while at the time the malady was not explained it was subsequently demonstrated to have been due to drinking wine contaminated by arsenic. The epidemic resembled that which broke out in the Midlands in 1900, and was shown to have been due to the presence of arsenic in beer. It is seldom that we hear of arsenic being used for the purposes of procuring abortion, but Brouardel states that in Austria it has been resorted to by the laity for this purpose, and as the method consisted of inserting arsenious acid into the vagina, it is at once apparent how serious must have been the effects, both local and general. The genitalia became swollen and gangrenous, uncontrollable vomiting was induced, followed by enteritis, and death occurred before abortion could take place. The subject of industrial poisoning by arseniated hydrogen is dealt with, and the symptoms of haematuria and haemoglobinuria to which Dixon Mann and Clegg drew attention are mentioned, as well as jaundice due to the breaking-up of the red blood cells. The three cardinal symptoms of acute arsenical poisoning are vomiting, diarrhoea, and abdominal pain. Vomiting has supervened as early as five minutes after the drug has been swallowed. The lesions of the skin and nervous system are all fully dealt with, and a differential diagnosis is made between alcoholic, lead, diphtherial, and arsenical paralysis, while the various medico-legal questions that may arise in arsenical poisoning are carefully considered and ably handled. This part of the book is an important contribution to our knowledge of the subject. In dealing with phosphorus poisoning Brouardel observes that everything that is phosphorescent is not phosphorus, and mentions that decomposing animal tissues may become luminous, adding that this is prevented in the bodies exposed to public view in the Morgue by refrigeration. Industrial phosphorus poisoning and necrosis of the jaw receive adequate consideration. Acute poisoning by phosphorus is not always easily recognized when jaundice has developed, although by some physicians a diagnosis is attempted on the depth of the tint of the jaundice. In acute yellow atrophy of the liver it is well to remember that this organ is small from the first, whereas in phosphorus poisoning it is primarily

[2] *Practical Gynecology: A Comprehensive Textbook for Students and Physicians.* By E. E. Montgomery, M.A., LL.D., Professor of Gynecology, efferson Medical College; Consulting Gynecologist to the Philadelphia ying-in Charity. Second edition. London: Rebman, Limited. 1904. Demy 8vo, pp. 900, 539 illustrations. 25s.).

[3] *A Short Practice of Gynaecology.* By Henry Jellett, M.D., etc., Ex-Assistnt Master, Rotunda Hospital, Examiner in Midwifery Royal University f Ireland and Royal College of Physicians, Ireland. Second edition. ondon: J. and A. Churchill. 1903. (Demy 8vo, pp. 406; 223 illustrations. 8s. 6d.)

[4] *A Textbook of Gynecology.* Edited by Charles A. L. Reed, A.M., M.D., rofessor of Clinical Gynecology in the Medical Department of the Uniersity of Cincinnati, etc. Second edition. New York and London: D ppleton and Co. 1904. (Demy 8vo, pp. 900, 356 illustrations. 21s.)

[5] *Les Intoxications.* Par P. Brouardel. Paris: J. B. Baillière et Fils. 1904 (Demy 8vo, pp. 516; Fr. 12.)

enlarged and then undergoes contraction. Extreme fatty degeneration of the liver as revealed by the microscope is not always a proof of phosphorus poisoning, although admittedly the usual consequence, for in diphtheria the hepatic cells may undergo a similar change. Several pages are devoted to the study of copper and mercurial poisoning, but it is to lead poisoning that most of the remainder of the text is devoted. Poisoning by metallic lead is not very frequent, and yet Brouardel gives some very interesting examples of this. The channels of absorption and elimination of lead compounds, as well as such chemico-pathological questions as the organs of the body in which lead is found after death, are fully discussed. The chapter devoted to the symptoms of saturnine poisoning is an excellent piece of work. The evil effects of lead upon maternity, and upon the human offspring are stated. In a Prussian valley where the parents are employed in pottery works, many of the children are said to suffer from saturnine cachexia. During the first five or six years of infant life the mortality reaches as high as 50 per cent., and of the children who survive some are the subjects of hydrocephalus or megalocephalus. Brouardel, like his compatriot Constantin Paul, and our own countryman Thomas Oliver, is of opinion that those industries which expose to lead poisoning are particularly unhealthy for women, especially when pregnant. The book closes with an appendix, in which illustrative cases of poisoning by the metals discussed are given in detail, also a table of 111 trades wherein lead is employed, the special process stated in which the metal is used, the mode of entrance into the human body, and the name of the lead compound. Altogether *Les Intoxications* is an interesting work and a comprehensive study of metallic poisoning. It fully sustains the reputation which M. Brouardel has gained, not only in his own country but on this side of the Channel as well.

Both volumes of the *Textbook of Legal Medicine*, edited by Drs. PETERSON and HAINES,[6] have now been issued and form a substantial and well-printed book. The illustrations are not so numerous as is frequently the case in works coming from the other side of the Atlantic, but they are quite sufficient, and have been well selected, being chiefly drawn from Hofmann's *Atlas of Legal Medicine*, issued by the same publishers. The aim of the editors has evidently been to provide a book which shall be equally useful to both the legal and medical professions, not only as a textbook, but also as a work of reference, and one of the most interesting chapters is that written by the editors upon expert evidence. This is, in fact, a philosophical essay in which the authors discuss the difficulties and dangers that beset the path of the witness, and the still greater dangers and difficulties that lie in wait for those who have to hear and decide weighty matters upon the evidence that the expert gives. The following list of the chief sources of error is interesting and suggestive: (1) Deliberate fraud, as in all species of quackery; (2) wilful perversion of facts by pseudo-scientists; (3) objective errors through limitation and defect of the senses; (4) limited horizon through defective experience and education; (5) insufficiency of the imaginative faculty; (6) vitiation of evidence under influence of the emotions; (7) the innate tendency of the mind to completeness, to dramatic unity in unravelling a mystery. The section on the examination of the dead body is complete and comprehensive, special directions being given for the inspection of newborn children and for the restoration of the body after the necropsy has been completed. Questions concerning identity, signs of deaths, and cadaveric changes, all receive full attention, the phenomena accompanying putrefaction being especially well described. The inclusion of carbonic acid under the heading of death from choking is quaint and perhaps somewhat pedantic, for though it is true that death due to the inhalation of large amounts of this gas is in reality the result of asphyxia, yet other factors so often also enter in that it would certainly be more convenient to treat of carbonic acid poisoning in the section dealing with poisonous gases only, instead of in both, as is done in the present work. The chapter on death and injuries caused by lightning and electricity is excellent, and is the fullest account we remember to have seen in any book upon legal medicine. Another subject which is exceedingly well discussed is that of gunshot wounds, special attention having been devoted to the important question of how much information as to the proximity of the weapon is obtainable fr the character of the wound and the burning and tattooing the skin. The difficult cases that so constantly arise in co nexion with railway and other accidents, and the thor subject of traumatic hysteria, are fully considered, and t conclusions drawn are for the most part sound. Life a accident insurance receive full and necessary attention, a such matters as the disorders of speech, the relationsh of inebriety to will-making power and crime, and the medic legal aspects of degeneracy, are thoughtfully discussed, and i sanity, idiocy, and mental perversions are adequately dealt wi Much consideration is naturally given to subjects, the i portance of which is greater in the United States than England; thus malpractice, the law of divorce, and the varyi statutes in the different States regarding lunacy are all dea with at length and with a fullness of detail which would quite unnecessary in a book written in this country. On t other hand, the sections treating of pregnancy, abortio infanticide, and rape, though containing the essentials, mig be amplified with advantage. The second part of the wo occupies rather more than two-thirds of the second volum and deals with toxicology and the examination of blo stains. The more important poisons are discussed, and most instances fairly fully, this part, however, is by no mea exhaustive, and in some cases there are even somewhat su prising omissions with regard to important facts. The illu trations in this section are exceptionally good and interestin Chapters are included on the *post-mortem* imbibition poisons, on death from pounded glass, and other mechanic irritants, and on the responsibilities of pharmacists and the agents. On the whole the work is comprehensively planne carefully arranged, and well executed, and will form a val able addition to the already somewhat large number of boo that at present exist on the subject of forensic medicine.

Dr. LESSER, the well-known Professor of Medical Juri prudence in Breslau, has now issued two more series plates, each consisting of fifty stereoscopic photographs i illustration of medico-legal cases. They fully maintain the hig standard of the first fifty; they are well selected, careful photographed, and, when viewed through the stereoscop present most vivid and realistic pictures of various cond tions met with in suicidal and homicidal injuries to th regions dealt with—the tongue, the larynx, the neck, th chest, the blood vessels, and the abdomen. The earlie plates represent marks on the neck, which have been pr duced by hanging, scratching, and stabbing; injuries to th tongue are next dealt with; then those affecting the laryn and the neighbouring parts are portrayed. Finally, the are a series of most interesting and valuable photographs conditions in the heart and lungs, resulting from wound embolic infarction, and malignant endocarditis, injuries t the heart and large vessels, and to the abdominal and pelvi organs, including the uterus. Increasing use is being mad of stereoscopic plates in the illustration of subjects, in whic the opportunities for actual observation are of necessit limited, and when the photographs are as well executed a are those in Dr. Lesser's *Atlas*,[7] important help to the studen is undoubtedly afforded in enabling him to gain a mor realistic impression of the subjects depicted than woul otherwise be possible. The value of the illustrations i enhanced by brief descriptions of the important features o the cases from which the photographs have been obtained.

About fifty pages have been added to the third edition of Dr CHAPMAN'S *Manual of Medical Jurisprudence, Insanity an Toxicology*,[8] but it is still far too brief to be of any grea practical value either to the medical or the legal practi tioner. It may be of service to the American student i giving him a general idea of the principal facts of the subject but it cannot be recommended to Englishmen, for legal prac tice in the United States differs in so many respects fro that of either England or Scotland, that its perusal woul only lead to confusion and uncertainty in regard to importan matters of detail. In many respects, too, there is a singula absence of perspective, for whilst the methods for th measurement of blood corpuscles and the early stages of de velopment of the embryo are treated at some considerabl

[6] *A Textbook of Legal Medicine and Toxicology.* Edited by F. Peterson, M.D., and W. S. Haines, M.D. In two volumes. Philadelphia and London: Saunders and Co. 1903. (Demy 8vo, pp. 1,555. 42s.)

[7] *Stereoskopischer gerichtsarztlicher Atlas.* Von Dr. Adolf Lesser. Zweite und Dritte Abtheilung. Breslau: S. Schollaender, 1903 (Fcap. 8vo., II pp. 74, 50 plates; III. pp. 72, 50 plates. M. 15 each).

[8] *A Manual of Medical Jurisprudence, Insanity and Toxicology.* By Henry C. Chapman, M.D., Professor of Institutes of Medicine and Medica Jurisprudence in the Jefferson Medical College of Philadelphia. Third Edition. London: W. B. Saunders and Co. 1903. (Demy 8vo, pp. 329. 8s.

igth, insanity is dismissed in eighteen pages and the whole toxicology in seventy-seven. The latter subject is, indeed, st inadequately considered, even allowing for the necessity condensation in so small a manual. At times, too, the tements made are incorrect, as for instance, when Marsh's t is recommended as the most trustworthy for the detection rsenic, Reinsch's being said to be of value only for a preinary investigation.

DERMATOLOGY.

E second volume of Dr. SABOURAUD'S work on diseases of scalp[9] is a bulky tome containing a number of figures, stly reproductions of the author's preparations. It repreits a vast amount of personal labour and research. The pe and extent of the task which Dr. Sabouraud set himself y perhaps best be said to be a disintegrating criticism of so-called eczema seborrhoicum, which has been made to lude all sorts of morbid conditions. The author certainly ws that pityriasis capitis is distinct from seborrhoea, ema, and psoriasis. As to the last-named, it is an entity l not one end of the eczema seborrhoicum chain. Sabou-d's conclusions, which are based on actual investigation, very convincing, for he has attacked the problem most roughly, and from all sides. He deserves great credit for exhaustive way in which he has dealt with a variety of n conditions of everyday occurrence. The book appeals cially to those engaged in dermatological practice, and ches on points which have led to endless discussion. An nabetical index would have been of great assistance to lers, but unfortunately it is lacking.

he third and fourth parts of the English edition of Proor JACOBI'S *Portfolio of Dermochromes*[10] have now been ied in one volume. The first volume, consisting of Parts id 2, was reviewed in the BRITISH MEDICAL JOURNAL of ober 17th, 1903, pp. 990, and it may be said at once that two concluding parts now before us are well up to the idard of the former. Part 3 is made of 48 plates devoted non-venereal diseases, whereas Part 4 contains but 21, ch represent venereal affections, mainly syphilitic. The strations are reproductions from models in Paris, Berlin, slau, Vienna, Freiburg, etc., and not from actual living jects; this does not destroy the value of the present work, the models are well done, as every one knows who has ted, for instance, the Hôpital Saint-Louis, or gone through collection of the Royal College of Surgeons of England. s atlas must prove of great use to those whose work is specially dermatological. Moreover, the quality of the strations, taken in conjunction with the reasonable price at ch the work is published, will no doubt recommend it to ıy. Although praise must be given to the plates and also to way in which they have been selected, the letterpress, on other hand, is inadequate and weak, especially as regards tment. It would be well, therefore, to read up the various ases in some standard book on the subject with the rings before one.

PROSTATIC HYPERTROPHY.

he present time Dr. CIECHANOWSKI'S book on prostatic rtrophy[11] is of more than usual interest, dealing as it with the problem of the causation of prostatic hyperhy, atrophy, and of those complex symptoms that make he clinical picture of enlarged prostate. The earlier part ıe work deals with the relation of atheroma and arterial rosis to the condition known as "prostatismus." The 's of the older French school are discussed, after which author gives the results of his own laborious investigas. These may be summarized as follows: (1) The changes d in the urinary bladder, in the prostate gland, and in the eys are, in cases of "prostatismus, neither synchronous nor stand in any relation to arterial sclerosis"; (2) the omical basis of the "bladder-insufficiency" is to be ht in a quantitative change of the component parts of the bladder wall at the expense of the muscle tissue; (3) this quantitative change is found without mechanical obstruction to the outflow of urine, but in more marked degree in cases of prostatic hypertrophy, and in most marked degree when the bladder has been the seat of a chronic inflammation. The disturbance of the "vesical sphincter" and the causation of prostatic incontinence are discussed, but nothing new or of particular interest is offered. A chapter is devoted to the pathological histology of prostatic hypertrophy, and the opinions of many observers on the interpretation of the appearances presented by microscopic sections are passed in review. The author then states his own interpretation of the histological appearances, laying special stress on the dilatation of the alveoli, the occurrence of areas of round-celled infiltration and of connective-tissue proliferation. It is contended that the latter, by its contraction, produces a blocking of the glandular channels and a consequent dilatation of the gland alveoli. It is therefore argued that prostatic hypertrophy is a question of the formation of a series of retention cysts, and has nothing in common with the formation of adenomata such as occur in other organs. It is admitted that well-defined nodules can be enucleated from the enlarged organ, but, since these are nothing more than dilated glandular acini, the name "pseudo-adenomata" is suggested as a convenient term by which to describe them. In short, the author believes that the enlargement of the prostate is not of a neoplastic nature. A chapter is devoted to etiology, and the author states his conviction that the causation of enlarged prostate and of certain forms of atrophy must be attributed to a latent chronic inflammatory process.

Dr. OVERALL of Chicago has "devised and perfected instruments with which to apply the combined properties of medicines, electrolysis, and cataphoresis for the purpose of stimulating vasomotor contraction, relieving thereby congestion and inflammation, dissipating morbid tissue, and chemically decomposing or breaking up lime or earthy concretions that form in the ducts and follicles of the prostate." The results of more than twenty years' experience of these methods, together with illustrative cases, are now given in *A Non-surgical Treatise on Diseases of the Prostate and Adnexa.*[12] Subacute or chronic prostatitis, "congested enlarged prostatitis," and senile hypertrophy of the prostate, as well as some affections of the seminal vesicles, all come within the scope of one or other of Dr. Overall's modes of treatment, for the carrying out of which he has invented special electrodes whereby the prostate can be attacked from the urethra or from the rectum, or from both. In certain cases of senile enlargement that refuse to yield to the milder measures an instrument similar to Bottini's, except that the cauterizing part is flat instead of a blade, is used to sear the indurated surface. This operation, Dr. Overall states, converts the hard tissue into a soft granular surface, which "admits the action of cataphoresis and atrophy of the obstruction without danger to life." The majority of men who suffer from hypertrophy of the third lobe require treatment for at least a year, when the gland, he asserts, becomes reduced to such an extent that they are rendered comfortable for the remainder of their lives. Those who wish for details should consult the book itself, which also includes an appendix on electrophysics.

NOTES ON BOOKS.

IT is with more than ordinary satisfaction that we have this year received the two volumes of *Saunders' Year Book*[13] which, as in previous years, has been compiled under the general editorship of Dr. George M. Gould. A new and admirable feature of the issue is an endeavour (which, unfortunately, has extended only to the volume dealing with medicine) to place at the head of each chapter a summary of the more noteworthy advances and discoveries made during the year under review. By this plan, which we hope will be continued, attention is directed to those points which either promise to be of permanent importance or are at the time of

aladies du Cuir Chevelu. II, Les Maladies Desquamatives. Pityriasis opécies Pelliculaires. [Diseases of the Scalp. II. Squamous Dis-. Pityriasis and Desquamative Alopecias.] Par le Dr. R. Sabouraud. : Masson et Cie. 1904 (Roy. 8vo, pp. 715, 122 illustrations. Frs. 22.)

[10] *ortfolio of Dermochromes.* By Professor Jacobi of Freiburg-im-Breisgau. sh adaptation of the Text by J. J. Pringle, M.B., F.R.C.M. Parts 3 . London: Rebman, Limited. 1903. (Demy 4to, 68 coloured and ncoloured plates, pp. 180. Parts 1 to 4, 5os.: leather, 63s.)

[11] *natomical Researches on the so-called "Prostatic Hypertrophy" and Processes in the Bladder and Kidneys.* By S. Ciechanowski. orized translation. Edited by R. H. Greene, A.M., M.D. London; y Kimpton. 1903. (Demy 8vo, pp. 175.)

[12] *A Non-surgical Treatise on Diseases of the Prostate Gland and Adnexa.* By G. W. Overall, A.B., M.D., formerly Professor of Physiology in the Memphis Hospital Medical College. Chicago: Marsh and Grant Company. (Crown 8vo, pp. 207, 26 illustrations. 2 dol.)

[13] *Saunders' Year Book of Medicine and Surgery.* Edited by George M. Gould, M.D. In 2 volumes. London: W. B. Saunders and Co. 1904. (Demy 8vo., pp. 1354. 26s.)

special interest, and in this respect the device will be an undoubted boon to the busy man. Of such matters to which special notice is directed may be mentioned paratyphoid infections, the intercommunicability of human and bovine tuberculosis, metabolism and diet in nephritis, the parasitic theory of cancer (the papers summarized, it may be remarked, strongly emphasizing its inconclusiveness), the communicability of syphilis to monkeys, and the occurrence of cell changes in multiple neuritis. In the first volume, in addition to medicine and children's disease, materia medica and pharmacology, physiology, forensic medicine and public health are included. The second volume which, besides surgery proper, includes obstetrics, gynaecology, ophthalmology, and diseases of the nose, throat, and ear, does not seem to refer to so much recent matter of outstanding interest. Among the surgical questions to which special prominence is given are the surgery of the stomach and intestinal tract, in which the treatment of appendicitis bulks largely, and diseases of the bladder and rectum, including the burning question of prostatectomy. The defects of the book are mainly trivial; indeed, mostly in the matter of inaccuracy of names, as far as we have observed, for example, a paper on stammering is attributed to a Dr. Langwell, meaning Langwill, and an H. D. Bolleston is credited with the record of two cases of hereditary oedema. A large proportion of the abstracts are from papers published in the British Medical Journal and other British periodicals devoted to medicine, while a large number of those of papers from foreign sources have had a counterpart in the Epitome. The worst or the best of this Year Book is that it creates a desire to read it through from beginning to end, which may be considered a most reprehensible effect for any book of the sort to produce in these strenuous days.

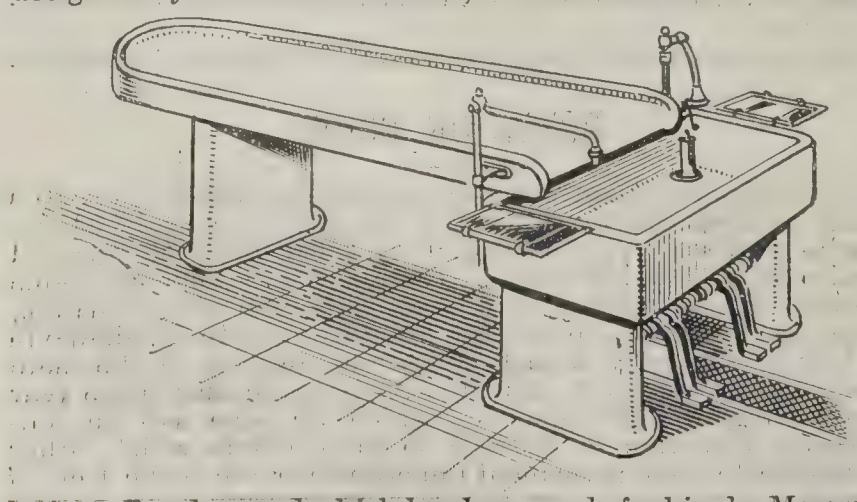
The *A. B. C. Holiday Guide for 1904*[14] is a little book likely to prove of service to those in search of a new place at which to spend a holiday. It contains succinct accounts of several hundred towns, villages and districts in England, Scotland, Wales, and Ireland which have attractions for visitors, together with information as to how to reach them.

A new edition of the *Pharmacopoeia of University College Hospital*[15], which has just appeared, is a neat little work, for which Mr. Harold Wilson, B.Sc., is responsible. Dr. F. H. Thiele has rewritten the pages on urine and blood testing, and metric as well as ordinary measures are given in the directions for dispensing the special preparations in use at the hospital.

REPORTS AND ANALYSES
AND
DESCRIPTIONS OF NEW INVENTIONS
IN MEDICINE, SURGERY, DIETETICS, AND THE ALLIED SCIENCES.

MEDICAL AND SURGICAL APPLIANCES.

A New Post-mortem Table.—The annexed figure represents a table for *post-mortem* examination purposes, which has been designed by Dr. Lloyd Smith, of the Manchester Sanatorium, Bowdon, and which has been made for him by Messrs. Doulton and Co., Lambeth. The material used is strong, white glazed fire clay, with rounded corners and rolled edges.



At the foot the table rests upon a sink fitted with a vulca
standing waste removable for sterilizing purposes. Attac
to the sides of this sink are slides for the examination
weighing of viscera, and made of ground glass in order
detection of abnormalities may be facilitated. At ei
corner of the sink is a jet and spray fitted with unive
joint and operable by a pedal arrangement. The advant
noted by Dr. Lloyd Smith are that everything required
necropsy is provided at one table, that the latter can be
sweet and clean without trouble, that it is durable and
expensive, and that, as no viscera need be carried about
room cleanliness is ensured, while owing to the water
rangements all unnecessary wetting of the body or anyth
else may be easily avoided.

An All-rubber Ormsby Inhaler for Ether and Ethyl Chlori—Mr. W. J. McCardie, B.A., M.B., B.C.Cantab. (An
thetist to the General, Dental, and Ear and Throat Hospi
Birmingham) writes: There is no better inhaler than
Ormsby for maintaining ether or inducing ethyl chlo
narcosis, hence it is admirably suited for the ethyl chlo
ether sequence, which is certainly the quickest, and perh
the most convenient, method of anaesthesia known for se
operations. The Ormsby inhaler is very simple in form,
thinking that it could be made even more convenient
carrying about and packing in the anaesthetic bag, I h
had one made altogether of red rubber, and therefore ab
lutely flexible, so that it can be crumpled up in the ha
and carried in the pocket or packed away in any corner of
bag. It has no valves, wire cage, or hot water chamber.
rubber is of the red variety, and therefore will stand boi
for a few minutes. I have used the Ormsby largely for
administration of ether, ethyl chloride, somnoform,
ethyl bromide, and think that for this purpose it cannot
excelled. Messrs. Weiss and Son, of 287, Oxford Street, h
made this inhaler to my order, and have produced a ve
handy article.

[14] *Seaside and Inland A. B. C. Holiday Guide*. London, Wentworth Publishing Co. (Crown 8vo., pp. 310. 1s.)

[15] London; James Truscott and Son, 1904. (Fcap. 8vo, pp. 65. 1s. 9d.).

FOURTH INTERNATIONAL HOME RELIEF CONGRESS AT EDINBURGH.

(Concluded from page 1442.)

Section II. Old Age.—This section was presided over
Mr. A. W. Black, M.P., when papers were read on
Problem of Age in Modern Industry, Old-age Pensi
The General Question, Prospect of Old-age Pensions
the United States, and these were followed by a gen
discussion, the drift of which was plainly antagonistic to
provision of old-age pensions by the State.

Section III. Able-bodied Adults.—Sir Charles Cameron
sided over a large attendance and gave an introduc
address, referring to a few facts which were brought u
the notice of a Departmental Committee (over which he
sided) appointed to inquire into and report on habi
offenders, vagrants, beggars, and inebriates in this countr

Mr. William Lawson Micks, Chairman of the Poor-
Reform Commission, Ireland, read a paper on heredit
pauperism and the means of checking it; Mr. J. R. Mot
Inspector of Poor, Glasgow, a paper on compulsory deten
of indoor poor or vagrants. Lieutenant-Colonel McHar
C.B., Chairman of the Prison Commissioners for Scotla
opened the discussion.

Section IV. Sick Adults.—Mr. Malcolm Morris, F.R.C.S
(London), presided, and in his introductory remarks said t
in his opinion the disease in which the home treatment of
sick adult in existing circumstances was likely to be m
useful was tuberculosis. In spite of all that had been d
in the past few years for the mitigation of the scourge, t
were still at the very beginning of the campaign. Sanato
were springing up all over the country, and municipalit
were waking up to the duty incumbent on them of provid
for the consumptive poor. That provision, howev
was limited to cases still in the early stage, wh
the disease was curable, while the advanced cas
which formed a large majority of the whole m
of sickness, there was little or no provision. C
sumption hospitals could do comparatively little in the f
of the enormous numbers of tuberculous sick. The probl
of tuberculosis was therefore essentially a question of ho
treatment. The most hopeful way to stamp out the dise
was to attack it in its cradle, to look out for the really in
pient cases, and deal with them either by removal to sa
toria or by such applications of the modern treatment
might be practicable in the circumstances. The peo

uld be educated in the laws of hygiene. Drugs were of le use. Compulsory notification was as necessary as work of the Intelligence Department was in a campaign. rofessor W. JAPP SINCLAIR (Victoria University, Manster) introduced a discussion on the means of home ndance on parturient women in large centres, and a comnication from Mrs. SCHARLIEB, M.D., London, was read. fessor STEPHENSON (Aberdeen), Dr. D. BERRY HART, Dr. DINE (Glasgow), Dr. ELSIE INGLIS, Dr. JESSIE MACGREGOR, . CHALMERS WATSON, M.D., Dr. OLIPHANT NICHOLSON, Madame BOULIER (Paris) spoke, and the CHAIRMAN nd up the discussion.

ection V. Insane and Epileptics.—The MASTER OF POLWARTH sided and made some introductory remarks on the board--out system for the insane, and deprecated the building of e and magnificent buildings to be pointed out as show ces.

r. ALEXANDER ROBERTSON (Consulting Physician Glasgow trict Lunacy Board) read a paper on the Scottish system oarding-out the insane poor in private dwellings; and Dr. ARLES MACPHERSON (Deputy Commissioner in Lunacy for tland) a paper on the boarding-out of the insane poor in tland.

he Rev. Canon O'REILLY (Glasgow) gave his experiences of boarding-out system. It was not the heaven-born one t had been represented.

r. CONOLLY NORMAN (Medical Superintendent, Richmond lum, Dublin) spoke on the subject of the need of family e of persons of unsound mind in Ireland.

r. PEETERS (Superintendent of Gheel, Belgium) gave an ount of the Belgian system; and Dr. FALIBOIS (Nice) of the nch system.

n the subsequent discussion, Dr. J. F. SUTHERLAND (Dey Commissioner of Lunacy), Dr. MARIE (Paris), Dr. ERON (France), Dr. W. R. TURNBULL (Springfield, Cupar, e), Dr. JULES MOREL (Inspector of Asylums, Belgium), and SPENCE (Secretary of the General Board of Lunacy for tland), spoke.

SECOND GENERAL MEETING.

general meeting of the Congress was held at 3 o'clock in afternoon, for a discussion on Labour Colonies. Sir ARLES CAMERON, Bart., occupied the chair, and there was rge attendance.

Reception.

n the evening the Executive and Ladies' Committee gave ighly successful reception in the Hall of the Royal College Physicians. The guests were received by Sir JOHN and ly SIBBALD, the DOWAGER COUNTESS OF MORAY and Lady AINGER STEWART.

SECTIONS.

he Sections met again on Thursday, June 9th.

ection I. Children.—Dr. LESLIE MACKENZIE presided over rge attendance.

Ir. J. PATTEN MACDOUGALL, a member of the Local vernment Board for Scotland, opened a discussion on the rding-out of pauper children. He said it was a sponeous growth without statutory basis. Its aim was to ieve the children of the stigma of pauperism, and to bring m up and provide them with the surroundings of home ; so that when they went out into the world they should untainted with the poor-house.

Iiss AIKMAN, a member of the Glasgow parish council, also d a paper on the boarding-out of parish children.

liss MASON, Senior Inspector of Boarding-out of Children, al Government Board (England), gave an account of the rding-out system in England.

I. L'Abbé TOITON also contributed a paper.

A long discussion followed.

ection II. Old Age.—Mr. A. W. BLACK again presided. l-age pensions from the point of view of Friendly Societies s the subject under consideration, and it was started by a per of Mr. CLAVERHOUSE GRAHAM, Past Grand Master of Manchester Unity of Oddfellows.

ection III. Able-bodied Adults.—Sir CHARLES CAMERON, rt., the President, was again in the chair, and the CHAIRMAN THE PRISON COMMISSION FOR SCOTLAND began the proceedgs with a paper on the domestic conditions which tend to duce prisoners in Scotland. Papers on the punishment of me, discharged prisoners' aid societies, and the treatment habitual offenders were also read, and a general discussion lowed.

ection IV. Sick Adults.—Mr. MALCOLM MORRIS again preed, and Dr. R. W. PHILIP, Senior Physician to the Victoria spital for Consumption, Edinburgh, read the paper published in the JOURNAL of June 11th, page 1357, as an introduction to a discussion on The Organization of Home Treatment of Pulmonary Tuberculosis.

One of the SECRETARIES read a paper by Professor CALMETTE (Lille) describing the work of the Pasteur Institute in that town. Professor LINDSAY (Queen's College, Belfast), Dr. JANE WALKER (Physician to the New Hospital for Women, London), Dr. G. LOVELL GULLAND (Junior Physician to the Victoria Hospital for Consumption, Edinburgh), Dr. OGILVIE GRANT (Medical Officer of Health, Inverness), Dr. CAVERHILL (Edinburgh), Dr. STIRLING (Perth), and Dr. FRASER (England) spoke; and in closing the discussion Dr. PHILIP moved the following resolution, which was unanimously carried:

> That in the opinion of this Section an organized effort against consumption is required. The Section believes that this will be best effected by the establishment of a properly-equipped tuberculosis dispensary under the direction of the municipality or the local authority.

Section V. Insane and Epileptics.—The MASTER OF POLWARTH again presided, and Dr. CARLYLE JOHNSTONE, Roxburgh District Asylum, Melrose, read a paper on "The after-care of friendless patients discharged from asylums, as provided for by the Scottish probationary procedure."

Dr. JULES MOREL, Inspector of Asylums, (Belgium); Dr. CLOUSTON (Edinburgh); the Chairman, Dr. JOHN CARSWELL (Glasgow); Dr. J. F. SUTHERLAND, Edinburgh; Sir JOHN SIBBALD, Miss LINCOLN (Massachusetts), the Rev. H. HAWKINS (London), Dr. VAN DEVENTER (Holland), Dr. GIRVAN (Maybole), and Dr. FRITZ SANO (Antwerp) took part in the proceedings.

Receptions.—In the afternoon an "At Home" was given by Mr. and Mrs. T. A. Nelson, St. Leonards, close by Arthur Seat and the Salisbury Crags. In the evening a reception was given by the Lord Provost and Magistrates in the Museum of Science and Art, at which there was a large attendance.

The Sections met again on Friday, June 10th.

Section I. Children.—Miss E. S. HALDANE (Cloanden) presided, and the subject of discussion was the organization of relief for cripples. Four papers were read by ladies, and a discussion followed. About a hundred ladies and gentlemen were present.

Section II. Old Age.—Mr. A. W. BLACK, M.P., again presided. "The Danish and German systems of relief and their moral and economic effects," was the first subject for the day, and four contributed papers were read by the SECRETARY. Discussion followed. "The Scottish practice and experience of boarding-out aged paupers," was the next subject discussed by paper and otherwise.

Section III. Able-bodied Adults.—Sir CHARLES CAMERON, Bart., again presided. Sir SAMUEL CHISHOLM, Glasgow, opened the proceedings with a paper on "Model lodging houses, *pro* and *con*." "What to do with our inebriates," was the next subject under consideration. Both were discussed.

Section IV. Sick Adults.—Mr. J. B. SUTHERLAND, S.S.C., one of the Vice-Presidents, was in the chair. In the absence of Sir Henry Burdett, K.C.B., Dr. BRUCE (Dingwall) introduced a discussion on The Relation between Hospital and Home Relief of Sick Poor.

The CHAIRMAN gave an account of the progress, aims, and methods of the Royal Society of Home Relief to Incurables, Edinburgh.

Discussion followed, and the proceedings concluded with the following motion proposed by Dr. R. W. PHILIP, which unanimously carried:

> That, in the opinion of this Congress, the time has now come when, with a view to the proper direction of charitable effort and the prevention of hospital abuse, close relation should be established between the hospitals, dispensaries, the medical profession, and the public for the regulation of indoor and outdoor relief of sick poor by the institution in every populous centre of a general hospitals committee, composed of representatives of (1) hospital, dispensary, and nursing Boards, (2) hospital and dispensary staffs, (3) general practitioners, (4) contributors, and (5) wage-earning members of the community, for the purpose of determining, *inter alia*, (A) the conditions of admission to hospital and other medical relief, (B) the collection of revenue, (C) the prevention of overlapping, and (D) such other questions as experience may suggest.

Section V. Insane and Epileptics.—The MASTER OF POLWARTH presided, and epileptic colonies and the Chalfont Colony for Epileptics, were the subjects of consideration.

Professor REID (Glasgow) thought that Scotland was shamefully behind in the way of provision for the treatment of epileptics.

Dr. MARIE (Paris) suggested that a committee should be

appointed to report to the next Congress the steps taken with reference to epileptics.

CLOSING GENERAL MEETING.

The closing general meeting of the Congress was held at 3 p.m. to discuss the question of the "Home care of mentally defective and backward children." The MASTER OF POLWARTH presided. Miss MARY DENDY, Joint Secretary of the Lancashire and Cheshire Society for the Permanent Care of the Feeble-minded, Dr. HENRY ASHBY (Manchester), Dr. FLETCHER BEACH (London), Dr. CARSWELL (Glasgow), Dr. J. F. SUTHERLAND (Edinburgh), and Dr. JOHN THOMSON (Edinburgh) took part in the discussion.

It was agreed that next year's Congress should be held at Liége. Votes of thanks closed the proceedings.

CONGRESS DINNER.

In the evening about a hundred ladies and gentlemen attended the Congress dinner in the Royal Hotel. Sir JOHN SIBBALD presided, and Drs. R. W. PHILIP and JAMES CRAUFORD DUNLOP were Croupiers.

LITERARY NOTES.

MR. A. FORBES SIEVEKING intends to write a life of his father, the late Sir Edward Henry Sieveking. For that purpose he will be grateful to friends in England and abroad for the originals or copies of any of Sir Edward Sieveking's letters, and for notes, memoranda, or anecdotes throwing light on the character or career of the distinguished physician, "not excluding criticism of, or dissent from, any of his acts, opinions, or conclusions." Mr. Forbes Sieveking (whose address is 12, Seymour Street, Portman Square, W.), intends to preface the memoir with some account of his grandfather's ancestry and relatives, who as citizens and senators of Hamburg, helped to make the history of the famous Free City.

In a thesis for the degree of Doctor of Medicine recently presented to the University of Paris, M. Jean Barrier has embodied the results of a historical research on the therapeutic preparations of animal origin employed by the ancients. In the Asclepeia of Greece bull's blood and ass flesh were prescribed for consumptives. Preparations of serpent were also largely in use. Hippocrates, although he mostly used simples, occasionally prescribed ox-gall, human placenta, the dung of asses and goats, etc. Celsus recommended fox's liver or lung in asthma and the hot blood of a newly-killed gladiator in epilepsy. Pliny's *Natural History* is an encyclopaedia of organotherapy. From him we learn that the ancients used the testicles of the hare, the stag, the horse. the pig, and the hyaena, as aphrodisiacs, and as remedies for epilepsy, a disease for which the human brain was also employed. Renal colic was treated with hare's kidneys, boar's bladder was in repute for dysuria, the hyaena's heart for cardiac palpitation, the partridge's stomach for colic. Similar medication found favour with the Arabian physicians. Albucasis taught that the human brain could be nourished and strengthened by eating cock's brains; hen's gizzard was excellent for the stomach; in short each organ could be kept in order or functionally improved by the administration of the corresponding organ of an animal. The principle was formulated by Jerome Cardan as follows: *Omne simile a similibus confirmatur*. M. Barrier traces this therapeutic method through the Middle Ages to the beginning of the nineteenth century. In 1701 Rousseau collected a number of formulae in a work in which he says that "the beautiful and divine harmony found among the parts, whereby a member is suitable for the relief of the same member and the same part, proves how evident and certain it is that very effective remedies can be got from the human body, like things being preserved by means of like." In an elementary course of materia medica by Desbois de Rochefort, Doctor-Regent of the Paris Faculty of Medicine, published in 1779, we find the testicle, lungs, liver, etc., of animals recommended. Bile is good for jaundice and engorgements of the lower abdomen, and oil extracted from the human skull is said to be antispasmodic and antiepileptic.

Professor Byers has collected into a booklet published by William Strain and Sons, Belfast, the sayings and proverbs and illustrations of the humour of Ulster. "The northern Irish are," he points out, "a mixed people, and the Ulsterman, from his heredity, is a product by himself. Through his veins there courses a stream of Scotch, English, French Huguenot, and Irish blood, and so in the same individual you may sometimes find the pluck and grit of the Englishman, the tenacity and forethought of the Scot, the industry of the Huguenot, with the keen sympathy, pugnacity, and rely wit of the native Irishman." The predominant elemen in this racial amalgam is Scottish, but the Ulster race is nv, and has long been, as distinct from the Scotch as ie American race is from the English. The late Lord Duffe, himself an Ulsterman, said Ulstermen were Scotchm improved by three hundred years' residence in Irelal. The characteristics of a race so constituted naturally fd expression in quaint sayings and proverbs, and in a kind of humour inspired by shrewd observation of men ad things. Clergymen and doctors who are brought into ini-mate contact with the people in country districts hear thm most frequently. Among the forms of superstition whh still survive in some parts of Ulster is the use of "cures" ad charms for disease. There are special charmers credited wh the power of conjuring away erysipelas, which is believedco be a result of fairy malice. Professor Byers remembe, when a boy, seeing children with whooping-cough pasd three times under and over a donkey's body. Another c'e for that complaint was the giving of two articles of food, sth as bread and milk or bread and cheese, obtained from to first cousins who were married. A cure for mumps is to place a donkey's bridle or winkers on the child's hd and the bit in his mouth. The child is then blindfold with a handkerchief and led to a stream or well, of whh he is made to drink three times in the name of te Trinity, the charmer repeating his incantation the wh. He is then led back, the bridle or winkers and the hankerchief are removed, and he is pronounced to be cur. The Ulster proverb, "He's getting long in the teeth and sht in the steps," gives a graphic description of old age. A mother harassed by the constant crying of a child will sy she is "heart-scalded"; another will say of a weakly chi that she could "lap" it round her little finger. Of a womn who is constantly complaining, unsympathetic neighbos may say, "Och! she's like a layin' hen, more onaisy thn sick." A person on whose face small-pox has written its mav is said to be "pock-arr'd," "arr" being an old word of Sca-dinavian origin meaning a scar. A person with a harelip "hare-scart" (hare-scarred). One who talks through a clt palate is said to "sneevle" (an obsolete form of "snivel) Going into hospital one day Professor Byers overheard o patient say to another, "Is your chicken soup thin?" T reply was, "Ay, the bird only walked through it," whi brought the retort, "Maybe it was on stilts." Dr. Byer little book is full of the most interesting things. Not on the lover of folklore, but the philologist, the archaeologi and the general student of mankind will find matter in it his particular taste. It may be said of it with perfect tru that there is not a dull page in it.

Herr Reiser, a German dentist whose hobby is palaeon ology, has, from a study of a number of prehistoric skull come to somewhat remarkable conclusions. Unlike mo other obsèrvers, he holds that dental caries was largely pr valent among our forbears of the stone and bronze ages, th incisors being in many cases worn away to the root. Th "dining-room furniture" of primeval man was, in fact, i Herr Reiser's experience, as scanty and dilapidated as it is i his civilized descendant. He says he has found traces f filing on teeth which he examined, from which he infers tha there were dentists in prehistoric times. It may be pointe out that the wearing down of the teeth frequently seen i primitive skulls is not generally believed to be due to caries.

The *Boudoir*, a new "magazine for gentlewomen," i beautifully printed and illustrated, while its literary content are of a quality much superior to what we are accustomed t find in periodicals of the class to which it belongs. In th June number Lady Frances Balfour discusses the questior which is of special interest at the present day, "What shoul our spinsters do?" She says that women, for want of definite occupation, sink into depression and eccentric ways and too often take to drink. A woman nowadays has n excuse for being unoccupied. They teach "from women' colleges, down through all the grades of the profession, t the simplest infant school. No avenue of learning but i 'manned' by some women. Horticultural colleges sen out a swarm of qualified and expert gardeners. Thei brass plates are on the doors of streets where doctors mos do congregate. They seem to hold the Post Office in thei right hand. Journalism in all its branches is oper to their energy, and no woman can feel any bar is erected against her effort to earn a living wage." Never theless, though many are called, few are chosen. What is to be done with those who cannot find work? Lady Frances sees

field for them in the Colonies. In the Greater Britain cross the foam there is work of all kinds, for all classes; besides there are prospects of marriage, which is the fulfilment f woman's destiny in this world. Lady Frances Balfour suggests that our superfluous spinsters might carry the ideal of amily life to "those dominions which are ours only in name they are not filled by what is best and truest of our own nstitutions."

We hear a good deal in these days of "degenerates"—a erm of opprobrium which has not even the merit of clearly enoting what is meant. Would it not be simpler as well as ess offensive to call those unfortunate persons "deviates?" Ir. William A. Hovey, at a meeting of the Boston ociety of Psychiatry and Neurology read some verses on the ubject. After pointing out that

> This deviation is a thing
> Heredity alone can bring

nd that

> It comes because you're built that way
> And when it comes, it comes to stay.

e goes on to say

> It isn't nice, at any rate,
> To call your friend "degenerate"
> Because his hands are large or small,
> Because in height he's short or tall,
> Because his eyes, one brown, one blue,
> To normal standards are not true.
> And if he be much bigger, stronger,
> With every chance of living longer,
> Than any man you've seen or known—
> A man with powers all his own,
> You may call him a "deviate"
> But surely not "degenerate."

fter describing supernormal and what might be called subormal types of man, he proceeds:

> Another man I have in mind
> A doctor of the country kind.
> He practises among the lowly
> And criminals, and men unholy.
> Quite frequently his talk reverts
> To curious cranks and queer perverts.
> And, nothing strange, he holds the view,
> And some of you may hold it too,
> That too much smoking, too much drinking
> And toxic drugs of which I'm thinking
> Will make men take to dreadful things
> Whose very names would make you cringe.
> No doubt he's right. But these he'll rate
> As men who are degenerate,
> In other words, he'll say to you,
> And this is quite a common view,
> That when you say "degeneration"
> You mean a moral degradation.
> Now that's not what you mean to say
> And yet, there is the deuce to pay
> If you call one "degenerate"
> Who really is a "deviate."

We have received a reprint of an interesting paper by r. Robert Jones, of Claybury, on the psychology of Jane akebread, which appeared in the *Journal of Mental Science* or April. The name of Jane Cakebread was long familiar to aders of police reports. Her tale of nearly three hundred onvictions for drunkenness must be almost a "record" in ie long and complex annals of the police-court. But her life as not altogether a failure, for she was, we learn from Dr. ones, the proximate cause of the passing of the Inebriates ct of 1898. For many years the intervals of enforced sobriety hich diversified her normal existence were passed alterately in prison and in the workhouse. At last she drifted o the Claybury Asylum, where she found rest for iree years till her death. She had delusions of an xalted and grandiose character, and was a difficult atient to manage. She was vain, jealous, untruthful, and eficient in self-control; "her inhibition was so affected that ie passed suddenly and almost instantaneously from blandess and graciousness to blasphemy, vituperation, and ouse." She had few greater joys than to read cuttings or xtracts about herself in the police news, but if this is to be iken as a mark of insanity, it is indeed a mad world, my iasters. She had a decided *penchant* for the opposite sex, ut it was, Dr. Jones says, an impersonal love, and more an esthetic interest in those about her than a romantic motion. "During her whole residence in the Clayury Asylum no suggestion or suspicion ever arose iat her life had been sexually perverted, and no eference to immoral conduct was ever known to have passed her lips." She was given to hymn singing and to copious quotations from the Bible, and was looked upon as eminently religious. Dr. Jones believes, however, that this emotion in her was built on egotism and selfishness. She could brook no contradiction, and Dr. Jones seems inclined to connect this with her religiosity, for he says, "We know that the authority of the Church is often such that its apostles will brook no contradiction, and there is no more intolerant class than belongs to the religious hierarchy." We venture to think that the scientific hierarchy could run the Church pretty close in the matter of intolerance; fortunately, however, it has never yet had much chance of persecuting heretics on a large scale. Jane Cakebread was also a liar, but so was Pagett, M.P., and so, according to a venerated authority, are all men. Her case would, indeed, appear to show that the line of demarcation between soundness and unsoundness of mind is that the lunatic, having lost the power of self-control, which is the cloak of virtue which we wrap around us, shows himself naked and unashamed as he really is, making parade of all the bad qualities which the sane man is able to hide. In the case of poor Jane Cakebread a very small amount of drink was enough to bring all the evil of her nature to the surface.

THE HEATHERSIDE SANATORIUM AND CONVALESCENT HOME OF THE BROMPTON HOSPITAL FOR CONSUMPTION.

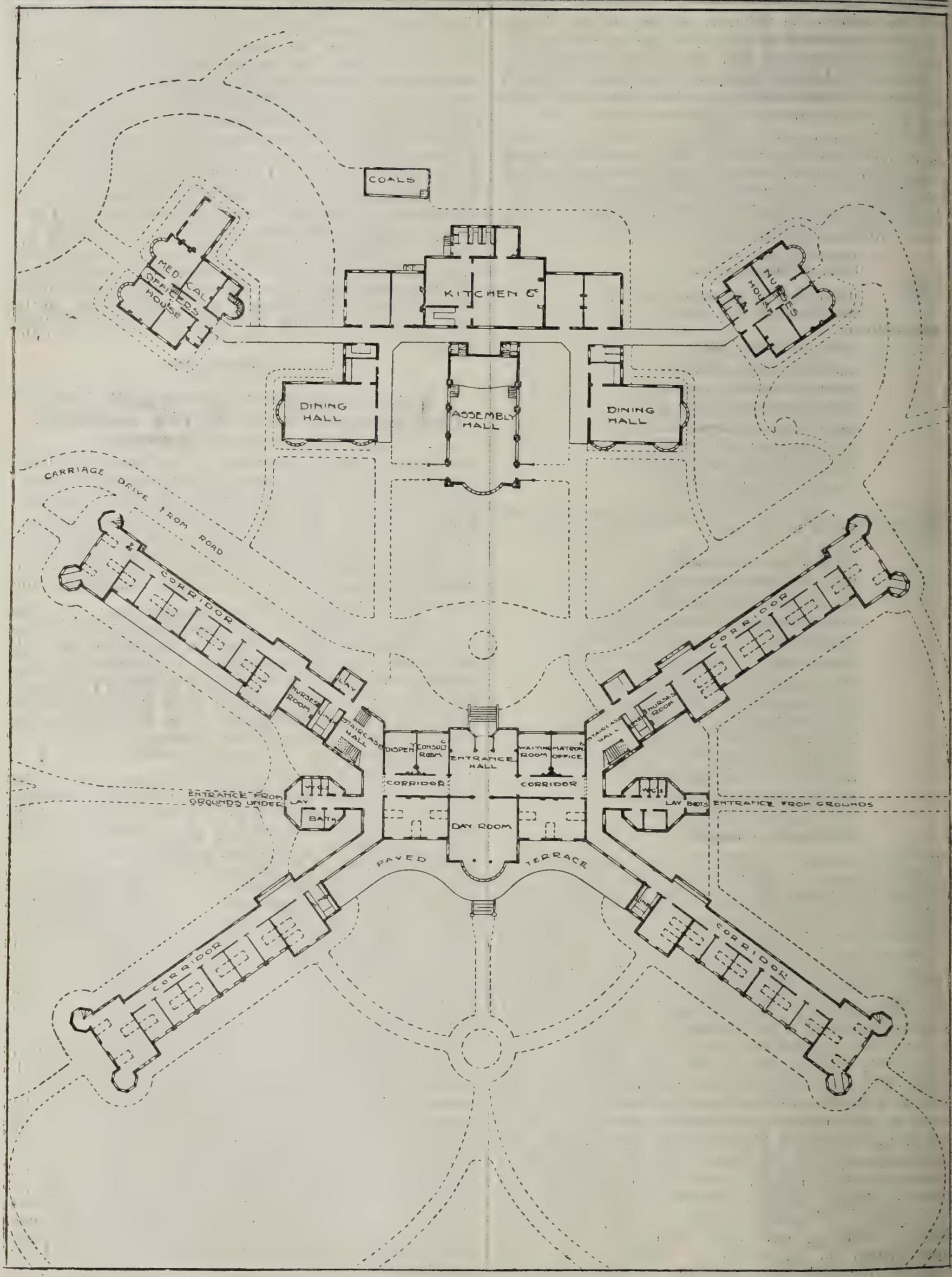
THE want of a convalescent home in the country which had long been felt by the management of the Brompton Consumption Hospital has latterly been made more urgent by the unwillingness of the general convalescent homes to admit consumptive patients. The development of the principle of open-air treatment emphasized the importance of a country branch, and the Committee has been well advised to make the institution near Camberley, which is to be opened by the Prince and Princess of Wales this day (June 25th), a sanatorium and convalescent home combined.

The site in the neighbourhood of Bagshot Heath, notorious in the days of highwaymen, is in the midst of some of the most beautiful country to be found in the South of England. On the crest of the Chobham Ridges it overlooks the wild common land round Aldershot, the view extending over miles of pine woods and heath to the Hog's Back and Crooksbury Ridges in the distance. Standing 400 ft. above sea level the building is surrounded by the pine woods of the Heatherside Estate, of which the twenty acres acquired by the Brompton Hospital formed a part. These pine woods afford shelter from the winds from the north and north-east.

No better place could be imagined in which to place the town dweller, pulled down by illness, to regain his strength, or for the early consumptive to pass the weeks of enforced idleness which are necessary at the commencement of treatment. The building itself, which has taken two years to complete, has been designed by Mr. Edwin T. Hall, F.R.I.B.A., who has kept in view throughout the idea of making the institution appeal to the inmates as a holiday home rather than as a hospital. He has aimed at making the sanatorium bright, cheerful, and comfortable, and appears to have succeeded in his object. The plan of the main building is stellate in form, like a St. Andrew's cross, with a central administrative block, from which the four arms containing the patients' bedrooms run in such a manner that all the rooms face S., SSE., and SSW., and no portion of the building is shaded by another. The administrative block is of three stories—the wings of two stories only.

There are no balconies, but the lower rooms open on a terrace which can be shaded by sun blinds. Every attention has been given to the various details required for the health of the inmates, whether patients or staff. Most of the bedrooms are for single patients. Free ventilation is provided by large windows opening on the French plan, and with falling lights above, which can remain open if the other part of the window has to be closed. The heating is by hot water radiators, and the institution is lighted throughout by electricity generated on the premises. A separate block of buildings contains two dining-rooms, the kitchens, and a large recreation hall, the medical officers' and the nurses' quarters being on either side of these. A machinery block at some little distance from the sanatorium and close to the road comprises the engine house, the electric plant, laundry, and disinfecting room.

The institution is arranged for the accommodation of 100



Ground plan of the Brompton Hospital Sanatorium and Convalescent Home, Heatherside, Camberley

ents. In order to minimize the risk from fire each wing ne building is provided with an emergency staircase at the furthest from the main staircase, and two of the wings are off from the rest of the block by a corridor of fire-resisting struction with a glass roof. Nothing seems to have been lected which could in any way add to the comfort of the ients or which is needed for the treatment of early con-ıption. This addition to the Brompton Consumption spital will enable the charity to increase still further the efits which it has been able to confer on the consumptive r since its foundation seventy years ago.

PREVENTION OF CONSUMPTION.

CANADA.

Association for the Prevention of Tuberculosis.—At a recent eting of the Executive Council of the Canadian Association the Prevention of Tuberculosis, a Committee consisting of P. H. Bryce, convener; Dr. J. D. Lafferty, Calgary, W.T.; Dr. C. J. Fagan, Victoria, B.C.; Dr. Gordon Bell, nnipeg, and several laymen, was appointed to take steps secure the co-operation of municipalities and of the vernments of the several provinces, and of the Govern-nt of the Dominion of Canada, for the establishment of large sanatorium in each province for the treatment of ısumption. The Secretary of the Association was instructed visit Prince Edward Island, Nova Scotia, and New Bruns-ck in August and September to lecture on the cause and vention of consumption, and to lecture in Ontario during ne and July; and, in addition, a special Committee was ointed of all members of Association resident in Ottawa, h Dr. H. B. Small as convener, to take steps to organize the work in that city.

Nova Scotia.—The Province of Nova Scotia, by an Act ssed March 30th, 1900, appropriated a sum of money for erection of a sanatorium for tuberculous disease of the gs. The institution has been formally opened, and will be dy for patients on July 1st. The sanatorium is situated out three-quarters of a mile from the town of Kentville, out 70 miles from Halifax. The building, which cost 000 exclusive of furniture, has accommodation for patients. The Act provides that there shall be ap-inted two examining physicians, and that both shall be idents of Halifax, but these have not as yet been selected. ere will be no resident physician, but one of the practi-ioners of Kentville will pay frequent visits to the insti-ion.

UNITED STATES.

Massachusetts.—We have received a reprint of a paper by . S. W. Abbott, Secretary of the Massachusetts State Board Health, on the Decrease of Consumption in New England. says the six adjoining States (Vermont, Connecticut, New mpshire, Maine, Rhode Island, Massachusetts) known as w England, form a distinct division of the United States, ving the advantage of a fairly accurate system of vital tistics, extending over a period varying from 1842 in one ate and from 1892 in another, down to the present time. ıe populations of these States present variable conditions as density, occupations, the people, and other social condi-ns. His conclusions are: (1) The death-rate from con-mption in New England at the present time is somewhat ss than 20 per 10,000 living inhabitants. (2) The death-rate m this cause has diminished largely in all the New Eng-nd States, in some, with fairly accurate registration, as uch as 50 per cent. in the half century; and this decrease pears to be going on now more rapidly than in earlier years.) The death-rate of women from consumption has decreased ore rapidly than that of men, and is now less than that of en; while in earlier years it was greater. (4) The death-te from consumption at every age of life has also decreased, it more at higher than at lower ages.

A MEDICAL DIPLOMATIST.—The statements which have cently appeared in various quarters that there is some ıance of an agreement being come to between the Pope and ıe King of Italy recalls the fact that a similar arrangement as contemplated in 1860 by Cavour. The negotiations were nducted by Dr. Diomede Pantaleone, a physician of Rome. here is said to be still extant a minute of the proposals vised and corrected by Cavour himself. Owing to his sudden ath the negotiations came to nothing. It may be added at Dr. Pantaleone was a strong advocate of professional presentation in legislative assemblies.

PROPOSED REMOVAL OF ST. GEORGE'S HOSPITAL.

A SPECIAL Court of the Governors of St. George's Hospital was held at Westminster Palace Hotel on June 21st to receive the report of the Committee appointed at a special Court held on March 20th, 1903, to consider the desirability of removing the hospital to a larger site.

The chair was taken by Lord WINDSOR, and the reports of the majority and the minority of the Committee were presented by Mr. A. W. WEST, the Treasurer of the hospital. The majority report was in favour of leaving the hospital on its present site, the minority report in favour of removal.

A memorandum circulated at the meeting contained the following summary of arguments in support of the opinion of the Medical School Committee, that it is not desirable to move the hospital from Hyde Park Corner:

1.—The hospital only possesses a fraction over two-fifths (26,145 sq. ft. out of 61,645 sq. ft.) of the present site.

2.—It is assumed by the Financial Sub-Committee of Governors appointed to consider the question that £325,000 to £425,000 might be obtained for our interests. Even if this assumption prove correct the sum is quite insufficient to justify removal.

3.—As no offer is before us after sixteen months' publicity of the fact that the Governors are prepared to receive offers, we are justified in assuming that even this sum is not likely to be forthcoming in the immediate future.

4.—St. George's Hospital is wanted where it is. The demand for admission and the number of out-patients treated at the present time are as great or greater than ever. The number of accidents and emergencies treated in 1903 was 20,817.

5.—The position and accessibility of the hospital cannot be equalled in London.

6.—The removal of the hospital would be a hazardous experiment, and as a result the financial position of the hospital and the welfare of the school might be wrecked.

Mr. C. G. HEATHCOTE then moved:

That it is not desirable at the present time and under existing circumstances to remove St. George's Hospital from its present site.

He said the Governors of the hospital were asked to give up a position at Hyde Park Corner the surroundings of which were unequalled in any large town in the world for healthiness, convenience, and access. The position filled so large a space in the public eye that the hospital had great benefactions in the past and might expect them in the future. Mr. Heathcote concluded a long speech by appealing to those present not to sacrifice for a shadow or a dream the great advantages which the hospital possessed in the finest site in the world.

Mr. C. T. DENT, in seconding the resolution, said that the three cardinal points to be considered were: First, was St. George's Hospital to be moved or not? secondly, it was essential that the matters in dispute should be definitely decided at that meeting; and, thirdly, it was of importance to avoid arriving at any sort of compromise. Mr. Dent explained that at the outset of the discussion some time since he thought that it might be advantageous to move the hospital, and he was at any rate wholly in favour of ascertaining if such were the case, but he had been forced step by step to the conviction that it was impossible, and that if it were possible it would be unwise; in fact it would be almost fatal to the institution to do anything in the way of removing the hospital from its present site. He had been forced to that conviction not only by the arguments of those who thought the hospital ought to remain where it was, but also by the arguments of those who considered that the hospital ought to be removed. Referring to the criticisms of Sir Henry Burdett, every one admitted that the criticisms themselves contained their own refutation and contradiction. It was like putting an acid with an alkali, so that the result of Sir Henry Burdett's criticisms was a "fizzle." He pointed out, with regard to moving the hospital from its present site, that the wards of a hospital were filled more in consequence of its reputation than because of the site it occupied. No one would be more pleased than the medical staff to work in an up-to-date hospital, but experience taught them that in the course of a few years the medical staff would not be satisfied, because more improvements would then be obvious. While, however, the medical staff would be very pleased to have an entirely new hospital, nevertheless by a majority of 21 to 3 the medical staff were in favour of remaining as they were. Mr. Dent considered that the burden of proof rested on those who said the hospital ought to be moved. He believed that any endeavour to remove the hospital as suggested would be prejudicial to the interests of the institution. It was said that the hospital occupied too valuable a site, and Mr. Dent asked for proof that it was of such value. There had been much

talk about the price to be given, but no offer had ever been received. Referring to the proposal to extend the present hospital buildings at Hyde Park Corner, Mr. Dent said that experience in the past showed that money could be got from the public if the necessity for help was made manifest.

Mr. R. H. C. HARRISON, who had signed the minority report, then spoke in favour of the hospital being moved from its present site, and in this he was supported by Mr. R. THORP, who had also signed the minority report.

On the resolution against the removal of the hospital being put to the vote the CHAIRMAN declared that it was carried by large majority.

The following was next moved by Mr. HEATHCOTE, and seconded by Mr. DENT:

That the present is not a favourable opportunity for appeal to the public for funds to rebuild the hospital on the present site.

Sir ISAMBARD OWEN said he thought the proposition was injudicious. The Governors had decided that they would not have the hospital removed. They must, therefore, at once face the question of rebuilding it at Hyde Park Corner, and it would not conduce to the successful raising of the necessary funds if the resolution put forward was passed. They must appeal to the public on the very first opportunity. The state of the hospital was urgent. Certain extensions were required if the work of the hospital was to be carried on properly. These could not be properly considered until the whole question of rebuilding the hospital had been thought out. He deprecated passing the resolution, because it was useless. There was no conceivable object to be gained in passing it, and it could only prejudice the Governors in their future work.

The resolution was put to the meeting and lost.

The following resolutions were moved by Mr. HEATHCOTE, seconded by Mr. DENT, and carried:

That the newly-acquired site in Knightsbridge should be utilized for the immediate requirements of the hospital as soon as occasion shall serve, provided that no building be commenced and placed on the land recently acquired in Knightsbridge, unless the building is of such a kind that it will form a definite and convenient part of a new hospital, or until a complete plan of this new hospital has been carefully considered.

That it is desirable at once to negotiate with the Duke of Westminster for the purchase of the leaseholds on the terms proposed in the letters from His Grace's solicitors of March 10th, 1899, and January 6th, 1904, at the price of £33,700.

A letter was then read from Dr. ROBERT BARNES, who considered the hospital best fulfilled its purpose on the present site, and promised to subscribe £1,000 towards the improvement of the Medical School. After this announcement had been cheered, a vote of thanks to the Chairman concluded the meeting.

MEDICAL NEWS.

THE Lord Chief Justice will preside at the annual presentation of prizes and awards to the students of St. Mary's Hospital Medical School on Wednesday, June 29th, at 4.45 p.m.

Dr. F. M. SANDWITH has joined the teaching staff at the London School of Tropical Medicine, and is lecturing there on pellagra, ankylostomiasis, and bilharziosis.

THERE is to be a jubilee celebration at Görbersdorf on July 3rd, which will be the fiftieth anniversary of the well-known sanatorium founded there by Dr. Brehmer.

Sir W. J. COLLINS will distribute the prizes to the students of the Royal Dental Hospital of London at a *conversazione* to be held at the Royal Institute Galleries, Princes' Hall, Piccadilly, at 8 p.m., on Wednesday, July 13th.

THE fourth annual South African Civil Surgeons' dinner will be held at the Hotel Cecil, London, on Tuesday next, when the chair will be taken by Mr. G. H. Makins, C.B., at 7.30 p.m. All further information can be obtained from Dr. C. Gordon Watson, 44, Welbeck Street, Cavendish Square, W.

THE total amount received as the result of the collection on June 12th by the authorities of the Metropolitan Hospital Sunday Fund at the Mansion House up to Thursday morning, June 23rd, was £31,000. As usual, the money is coming in very slowly, but it is expected that the total will not fall short of that of last year.

IT has been stated in certain quarters that Dr. A. E. Boycott, Gordon Lecturer in Experimental Pathology at Guy's Hospital, has himself contracted ankylostomiasis in the course of his researches on that disease. The *Guy's Hospital Gazette* is in a position to state that there is no truth in the report, and that, "far from being a martyr to science, Dr. Boycott is in perfect health."

THE St. Petersburg Institute of Experimental Medicine h received an order from the Russian Ministry of War for t delivery of 5,000 tubes of antidysentery serum by July 1 The serum is being prepared in the laboratory under t direction of Dr. A. Wladimiroff.

M. DOYEN, the well-known surgeon, is a candidate for seat in the Chamber of Deputies as representative of one the arrondissements of Paris. He has stated to an inte viewer that he is not a politician and intends if elected take an independent line, giving his attention mainly social and hygienic questions.

WE are asked to state that a meeting will be held at t Westminster Palace Hotel at 4.30 p.m. on this day, Frida June 24th, under the auspices of the East India Associatio to discuss the salt tax in India. The chair will be taken b Mr. Jonathan Hutchinson.

A MERCURIAL COMMEMORATION.—The fortieth anniversa of the introduction of subcutaneous injections of calomel the treatment of syphilis was celebrated recently in Ital A Committee, consisting of Drs. Domenico Maiocchi, Ambrog Bertarelli, and Mario Truffi, with Professor Camillo Golg Rector of the University of Pavia, as Honorary Presiden presented a gold medal to Dr. Angelo Scarenzio, to whom attributed the invention of the method.

ROYAL STATISTICAL SOCIETY.—The seventieth annu general meeting of the Royal Statistical Society was hel on June 21st, when Sir Francis S. Powell, Bart., M.P was elected President for the ensuing year. It was announce that the subject of the essays for the Howard medal to b awarded in 1905, with £20 added, was "A Critical Inquir into the Comparative Prevalence of Lunacy and other Menta Defects in the United Kingdom during the last fifty years."

A PROVINCIAL meeting of the Society of Medical Officers Health will be held in the Town Hall, Newcastle-on-Tyne on Saturday next, when a paper will be read by Dr. John J Boyd, M.O.H. South Shields, entitled, Observations on th Incidence of Scarlet Fever in different Districts of the sam Town. In the afternoon a visit will be paid to the Newcastl Isolation Hospital, where Dr. Armstrong will show th Newcastle excreta sterilizer.

THE annual general meeting of the Brussels Medica Graduates' Association will be held at the Trocadero Regent Street, W., on Tuesday, July 5th, at 6.30 p.m. A 7 p.m. for 7.30 p.m. the members and their guests will din together, Dr. Major Greenwood, the President, being in th chair. Among the guests expected to be present are Si Hugh Beevor, Bart., Sir Isambard Owen, M.D., and Dr. F de Havilland Hall. Any Brussels medical graduate wishing to be present is requested to communicate with the Honorary Secretary, Dr. Edwards, Camberwell House, Camber well, S.E.

THE annual conference of delegates of charity organization societies was held last week in Kendal. The principal business on the first day was a discussion of the paper by Dr. W. Rushton Parker on consumption. He urged that in order to abolish tuberculosis it was necessary to attend to general sanitation, to isolate cases in infectious stages in refuges and sanatoria, to establish notification, to suppress spitting, and to prevent the consumption of tuberculous meat and milk. Dr. Paget Tomlinson dwelt on the necessity of sanatoria for consumptives in the early stage, and of isolation homes for advanced cases. He also advocated home visitation by members of charity organization societies. Mr. Railton spoke on the necessity for providing healthy occupation for convalescents.

THE annual meeting of the State Children's Aid Association was held at 13, Carlton House Terrace, on June 21st. The Earl of Crewe, who presided, said that while there was a general desire that every child should have an equal chance in life those who were brought up in workhouses were handicapped. It was estimated that of the 61,000 children dependant in the State 22,000 were in rate-supported institutions; the Association favours the system of scattered homes and had done much useful work in securing the adoption of the principles by Boards of Guardians. Mr. R. B. Haldane, M.P., also insisted upon the advantages of homes in place of large institutions for Poor-law children, and Mrs. S. A. Barnett, Honorary Secretary, dwelt on the desirability of establishing separate courts of justice for children such as were established many years ago in Massachusetts and subsequently in other parts of the United States.

BRITISH MEDICAL ASSOCIATION.

ubscriptions to the British Medical Association for the year 1904 are now due and should be forwarded by postal order or cheque to the amount of 25s. to the General Secretary, 429, Strand, London, W.C., or, in the case of Colonial members, to their Branch Treasurer.

British Medical Journal.

SATURDAY, JUNE 25TH, 1904.

THE IRISH POOR-LAW MEDICAL SERVICE.

HE problem of betterment for the Irish Dispensary edical Service is week by week coming more fully under scussion, and lights are breaking in on the subject from rious sources. It is now evident that for several years to me this important element in the very existence of the ish people must claim a large share of medical attention, d no British statesman can afford to pass the subject htly by.

Happily the report of our Special Commissioner, issued March 26th last, offers so clear a statement of the needs the case, and so stimulating a summary of proposals for tterment, that all utterances on the subject can now be re fully understood by readers outside Ireland than has retofore been possible. What was until a few years ce purely of parochial importance has now, after passing ough the stage of national discussion in Ireland, well h assumed the position of an Imperial question, for the ll-being, progress, and happiness of the Irish people is coming day by day a growing factor in English political blems.

The aim of the report on the Poor-law Medical Service of land was primarily to supply information, and we feel that more the subject is studied and the more opinions are forward on suggested methods of betterment the greater l be the gain not for Ireland only but for the Empire.

This week we present to our readers two important lresses devoted entirely to the Poor-law medical better- nt question in Ireland. It happens that both the Presi- t of the Leinster Branch of the British Medical Associa- n, and the President of the Irish Medical Association e recently been installed in their office, and have devoted usual annual addresses to this subject.

would be difficult in Ireland to find two medical men e thoroughly representative than the two whose resses deal so fully with the subject before us. Dr. arroll and Mr. Tobin are both recognized as leading ds in the Irish medical world. Both belong to that d which is professed by the great mass of the Irish ple, and both possess that sympathy for their native l which is so strong a characteristic of those who claim and as their motherland. Dr. O'Carroll is the physician great Dublin hospital, and his representative position ngst his professional brethren in Ireland is shown by election to the Presidency of one of the largest Branches he British Medical Association in Ireland, which has a *nnel* of 350 members, in itself a very high honour.

r. Tobin occupies an almost similar position in the em of the medical profession. The Irish Medical ciation, numbering upwards of 800 medical men, this year elected him as its President. Before settling in Dublin he had for twenty years served the State in the military profession, and held important positions in the medical staff of the army. In peace and war he had varied experience, and his tact and clear insight into medical questions combine to make him a model President of the Irish Medical Association in this crisis of its history. Both these gentlemen, it may further be added, agree in looking on the report of our Special Commissioner as of great value. Dr. O'Carroll considers the report to be "one of the most valuable documents ever presented to the public on the Irish social question." Of the Commissioner he writes, "right to the heart of things he goes and brings a heart with him." "He puts the case of the Poor-law medical officers on a plane which it hardly reached before." Mr. Tobin calls it "an excellent report, known by his audience from cover to cover," and needing no eulogy from him, and proposes that Sir Horace Plunkett should include it in his next edition of *Ireland in the New Century*.

Thus far both speakers are in complete unison, and both speak forcibly of the need of betterment for their bretheren of the Poor-law Medical Service. When however we come to study the remedial measures which they favour, we do not find the same accord of ideas, and the point of divergence is, now as ever, whether remedial measures are to be sought from the local authorities in each union or from the State. This is the classical division of opinion which arises in all public questions. Dr. O'Carroll speaks in a tone of marked and indeed pathetic sympathy with his native land. He mourns over her declining population, the grave extent of pauperism, the appalling growth of lunacy, the long-deferred age of marriage, and the apparent decadence by emigration of the race. He pierces through and through with the rapier of his satire the blundering and unsympathetic defence by the Local Government Board authorities of the *status quo* in Ireland, and is even tempted to indite some witty verses on the wretched proposals of the same Board to combine the dispensary districts and so crush out the agitation, but the keynote of his address is the clear fixation of the financial responsibility for betterment on the central authorities of the State, and his reiteration of the view that the great majority of the local authorities are unable, owing to the poverty of their districts, to deal suitably with these proposals. After dwelling on the heavy weight of imperial taxation, he asserts that any undue pressure on the local guardians might drive them into unison with the Treasury in a combined refusal to consider the dispensary medical officers' demands.

Mr. Tobin, however, does not rely on this direct frontal attack on the Imperial Treasury as the main line of assault. Undismayed by the past he still has hope to move the hearts of the guardians. He thinks that by the aid of the clergy and of the educated public opinion of Ireland the Irish Medical Association may induce the guardians to respond to the demands for the betterment, and that then the Treasury, for very shame's sake, will wake up and do its duty. He says, "I think we should ask the guardians at once to level up the salaries to £150 a year and the infirmary doctors to a relative sum, except in the very poor districts, where we should ask the Congested Districts Board to give the necessary increase."

Our readers, looking on as it were from the bench and hearing the arguments of both advocates, will draw from the different suggestions the conclusion that there is much to be said for both lines of advance. Mr. Tobin, who is not

himself a Poor-law medical officer, having just become President of the Irish Medical Association, may, perhaps, have more optimistic views as to the effect of private influence in moving the hearts of the Irish guardians than those who have fought in the past in this most difficult fight, but there is no reason whatever why he should not move all the forces of his Association and its friends in the direction he suggests, and so perhaps make some advance. Assuredly no man in Ireland is more likely to capture certain positions in such a fight than is Mr. Tobin himself so far as moderation of demands, clear-sightedness, and definite views as to what is needed are concerned, and we are sure all will wish him the fullest success in his efforts. Dr. O'Carroll has, however, much in favour of his more drastic proposals. He can probably unite behind him the whole force of Irish opinion in impressing on the Government authorities in Ireland the need of doing their share in the much needed national improvement. He may, we know, reckon on the friendly and sympathetic assistance of the whole British Medical Association. For let it be remembered that this is not solely an Irish question. The authorities finally responsible to the empire for the well-being of the remaining millions of the Irish people are not merely the local guardians of far-away and isolated Irish unions, remote from educated public opinion, without a full knowledge of all the facts and their imperial bearings, and with a horizon bounded by the limits of the neighbouring parishes. These guardians, pressed by electors suffering themselves from grinding poverty and with little hope of immediate betterment, are not likely to be ready to increase their own local taxation, with the very remote hope that one day, from the example of their self-sacrifice, the far-away Imperial authorities will learn the true duty of a civilized State. The existing opinion of Government action in Ireland is not, unhappily, such as to justify in the minds of an Irish countryside the idea that by further contributing to the relief of the poor they will shame the Imperial authorities into action. The true guardians of the Irish poor ought to be the central governing authorities of the empire, who presumably have the facts before them, who have highly-paid officials on the spot cognizant of all the conditions of the case, and blessed, let us trust, with sympathetic hearts to appreciate the deplorable conditions around them. To those in high authority we must look for an example of human sympathy that will by its example react on the Irish people as a guiding force, and so tend to draw into closer union the English and Irish people.

If the statesman studying Ireland to-day will on the map of Ireland draw a line from Carndona in the remoteness of the Inishowen peninsula in the extreme north of Ireland to Cape Clear in the extreme south of Ireland, he will cut off to the westward of that line a portion of Ireland containing within it a poverty-stricken land marked with the brand of a special pauperism. Within this region, which can be reached in from twenty hours from London, lie the Congested Districts where destitution is so positive and so marked as to be recognized even by the least observant. These districts are admitted even by the officials to be so poor that special grants of money are set aside for their betterment, and special portions of the "Church Fund" are allotted for their help. Within these districts a body of public servants of the State entitled to justice and full consideration are carrying out their humane duties as medical men with pay-rates as defective as they well can be, and ridiculous in their grotesque insufficiency.

If poverty such as this clearly exists, why are the dispensary medical officers not specially dealt with and specially paid—not by the districts, but by grants in aid from the State? If to-morrow £15,000 was set aside by the State, grants of £100, £150, and in certain cases of £200 could be made within these impoverished districts and a hundred medical officers greatly benefited, given some hope in their trying lives, and enabled to do better work for the relics of the disappearing peasantary that remain in the extreme West of Ireland.

When this is done by the State, it is then and then only that the State will fulfill its highest functions as a Government, and then too the Irish Poor-law guardians, struck by the generosity and the justice of the State, may perhaps in their own districts carry out a similar reform.

It is thus by the example of the State and the co-operation of the districts that the hopes of Dr. O'Carroll and Mr. Tobin may best be realized, and the dreams of the Irish dispensary medical officers slowly fulfilled, and none will rejoice at their betterment more than the members of the British Medical Association scattered everywhere throughout our Empire.

THE FUTURE OF ST. GEORGE'S HOSPITAL.

The meeting of Governors of St. George's Hospital held on Tuesday last at the Westminster Palace Hotel will hardly, we apprehend, augment the reputation of that aristocratic body for business qualities. In March, 1903, a special court was convened at Grosvenor House to decide whether in the event of a sufficient sum being offered for the hospital's interest in its present site, the Governors would be willing to dispose of it and to use the proceeds to establish the hospital elsewhere. After a protracted debate the meeting resolved that the Governors would be ready to consider the removal of the hospital if a suitable site could be found within the area ordinarily served by St. George's Hospital, and if the interest of the Governors in its present site and buildings could be disposed of to such advantage as to enable them to acquire a new site, and to erect thereon a complete modern hospital of not less than the present number of beds, and to meet all contingencies connected with the removal. A Committee was then appointed to examine and inquire into all the facts and questions involved and to treat with intending purchasers of the present site and buildings, and to negotiate for the purchase of a new site accordingly, and to take any other steps that might be necessary in the matter.

What the Committee had been about in the interval between March, 1903, and May, 1904, is a little difficult to make out from the report finally issued to the Governors. The two members of the staff originally appointed on it withdrew, for some reason not stated, and their place was taken by four others, apparently of an opposite way of thinking. After eight months of deliberation the Committee, we are told, had advanced to the point of appointing a Subcommittee "to consider the financial aspects of the question." At the end of seven months more a report is issued of a curiously futile character. We look in vain in it for any sign that the Committee had endeavoured to bring itself into relation with any possible purchasers; it is frankly admitted that no inquiries as to fresh sites had been made. The length of document submitted to the Governors is made up

the report of the above-mentioned Finance Sub-mmittee; (2) a letter from one of the Deans of the edical School, setting forth with considerable ability the sumed disadvantages of removal; (3) a letter from Mr. mothy Holmes to the Chairman of the Medical School mmittee; (4) a couple of resolutions of the Medical hool Committee objecting, for reasons not stated, to the moval of the hospital, and urging the imminence of the ed of rebuilding the whole of it on the present site; and, ally, the sole contribution of the Committee itself in e shape of four resolutions, only one of which has y relevance to the matter contained in the terms reference. The resolutions were to the effect: That it is not desirable at the present time and under isting circumstances to remove St. George's Hospital m its present site; (2) that the present is not a favour-le opportunity for an appeal to the public for funds to uild the hospital on the present site; (3) that the newly-quired site in Knightsbridge should be utilized for the mediate requirements of the hospital as soon as occasion all serve; and (4) that it is desirable at once to negotiate th the Duke of Westminster for the purchase of certain seholds at the price of £23,700.

This remarkable hotch-potch, however, seems, as will be n from the report published at p. 1497, to have been quite ficient for the majority of the Governors who assembled the second meeting held this week. The adoption of the t resolution having been duly moved and seconded, a ll-known financier rose to state the case on the other e, but was listened to with unconcealed impatience; a ond opponent was granted a hearing only on the personal eal of the Chairman. All further opposition was mally closured, and the motion was rapidly carried by a ge majority. The meeting was proceeding placidly to pt resolutions 2 and 3, when certain members of staff came energetically to the rescue, and by ting the former negatived and the latter amended, ceeded in practically pledging the meeting to an early sideration of a complete scheme for rebuilding on the sent site. The cost of such a scheme, it appears, is mated at £340,000, for which an appeal will have to be de to the public. While it would be churlish not to wish Governors of the hospital every success in raising this , we confess that such a method of dealing with a stion of great complexity and profound gravity as was played at the meeting on Tuesday does not seem to us ly to inspire the business-like portion of the public h any profound faith in the present mode of managing affairs of the hospital.

THE PREVENTION OF OLD AGE

FESSOR ELIE METCHNIKOFF of the Pasteur Institute is, nay be gathered from the title-page of a recent work,[1] ptimist; we may, indeed, go farther, and say that he n enthusiast. Some years ago there appeared in a is newspaper an article in which it was not obscurely ed that he had discovered the elixir of life. The pro-or explained that the report was, as Mark Twain said premature announcement of his own demise, "greatly gerated." Within the last week or two, however, he again confided to various interviewers his belief that age is a chronic disease, not in its nature incurable. s is so startling a doctrine that most medical practi-ers will doubtless be disposed to dismiss it at once as a figment of the scientific fancy. Any opinion deliberately expressed by so distinguished a scientific authority as Professor Metchnikoff is, however, worthy of serious attention, and we think many of our readers may be interested by a summary of his views on the prevention of old age as they are put forward in the work to which reference has been made.

After a review of senile degeneration, as it is seen throughout the animal and vegetable kingdoms, Professor Metchnikoff points out that the pathological change characteristic of old age in man is sclerosis, which may affect the liver, the kidney, and other organs, but which is mostly seen in the arteries. Some pathologists have attributed all senile changes throughout the body to arterio-sclerosis, but as Professor Metchnikoff points out, this is an exaggeration inasmuch as the condition is not seldom absent in old people. On the other hand, the bones, instead of becoming harder and more solid, grow thin and brittle with advancing age. Professor Metchnikoff, who has given much attention to the pathology of senile decay, has found that it consists essentially in atrophy of the "noble," that is to say, specific elements of the tissues, and the replacement of them by hypertrophied connective tissue. In the brain the nerve cells subserving the intellectual and sensori-motor functions disappear, giving place to lower elements or neuroglia. In the liver the hepatic cells recede before the invasion of connective tissue. In the kidney a similar process occurs. In the ovary the specific elements which serve for the propagation of the species are in like manner replaced by cells of the granular layer. In short, old age is a struggle between the "noble" and the simple or primitive elements of the organism, in which the latter are always the conquerors. The effects of this victory are seen in weakening of the intelligence, disturbances of nutrition, difficulty in purifying the blood, etc. The battle, according to Professor Metchnikoff, is no figure of speech. The phagocytes—erstwhile the guardians of the bodily commonweal—become its undoers. In the kidneys they gather around the tubules, and absorb them, leaving connective tissue in their place. An analogous process takes place in other organs. The part played by phagocytes in the process of decay is well exemplified in the whitening of the hair, which is often the first visible manifestation of old age. The normal hair is full of pigment granules, scattered through the two layers which constitute its substance. At a given moment the cells of the medulla of the hair are aroused to new activity and devour the pigment within their reach. The hair thus robbed of its colouring matter becomes grey and then white. Professor Metchnikoff thinks it likely that the porosity of the bones of old people depends on a similar absorption of the osseous lamellae. This activity of the phagocytes in old age is closely related to the phenomena observed in certain chronic diseases, such as interstitial nephritis and general paralysis.

Old age is therefore, according to Professor Metchnikoff, a pathological, not a physiological, process, but he sorrowfully admits that no remedy for the disease has yet been found. He suggests, however, that something may be done towards its prevention by strengthening the most valuable elements of the organism on the one hand, and on the other, weakening the aggressive tendency of the phagocytes. Although the problem has not yet been solved the solution is not, in Dr. Metchnikoff's opinion, impossible. He points out that the properties of cellular elements easily become altered under various influences. There is therefore

[1] *des sur la Nature Humaine: Essai de Philosophie Optimiste.* Paris, 1903.

nothing unreasonable in seeking for means of re-enforcing them. There are serums that dissolve only the red corpuscles of certain animal species, leaving the other elements untouched. It is possible also to prepare a serum capable of stopping, almost instantaneously, the movements of human spermatozoa, while it has no influence on those of other mammals. The principle of the preparation of those serums is the same. A cellular element, hepatic or renal, a blood corpuscle or a spermatozoon, is injected into an animal of a different species. After several injections the serum of that animal becomes toxic in regard to the cells that have been introduced into its organism. It has been established that small doses of those "cytotoxic" serums, instead of killing or dissolving the specific elements of tissues, strengthen them, somewhat in the same way as digitalis, which in large doses kills, in small doses improves the condition of certain elements. It has been observed that small doses of a serum capable of dissolving red blood corpuscles increase the number of those elements in a man to whom they are given.

Professor Metchnikoff sees in these facts an indication of the way to be followed in the endeavour to re-enforce the "noble" elements of the human organism and prevent them from being clawed in the cruel clutch of age. All that has to be done is to inject into horses or other animals human organs, such as the brain, heart, liver, or kidney, pounded to a pulp, and a few weeks later serums, capable of acting on those organs, would be obtained. There is, he admits, a difficulty in procuring the organs required from the human subject; and even when they can be procured it will be difficult to test the efficacy of different doses of cytotoxic serums. Diseases, especially syphilis and alcoholism, which have a tendency to produce arterio-sclerosis, are factors in the production of senile decay. Rheumatism, gout, and infectious diseases play an altogether secondary part. Taking it that syphilis and alcohol account for 45 per cent. of cases of arterio-sclerosis, what is responsible for the rest? Professor Metchnikoff finds the deteriorating agency in poisoning by the countless hosts of microbes which swarm in the intestinal canal. Among these, though there are many that are harmless, perhaps even useful, there are unquestionably a very large number which are noxious to health and dangerous to life. He quotes Strassburger, who estimates the number of bacteria that may be found in the intestine in one day at 128,000,000,000. Of these, comparatively few inhabit the parts of the intestine where digestion goes on. Most of them haunt the large intestine, where the remains of undigested food, the mucous secretions, and the faecal matter combine to make a very favourable medium for their multiplication. These microbes give rise to the formation of many poisonous substances which may cause the most serious disturbances of health. The large intestine itself is, we are assured, a useless legacy from our remote ancestors, and is now simply a cesspool, which is a constant menace to the well-being of the economy. Professor Metchnikoff does not go so far as to suggest the removal of the large intestine, but he hints that perhaps this operation will at some future time come within the province of legitimate surgery. In the meantime the most rational plan is to take action against the injurious microbes which dwell therein. Certain microbes cause milk to turn sour, transforming milk sugar into lactic acid, which has an antagonistic action to the microbes of putrefaction. This explains how lactic acid often checks certain forms of diarrhoea, and how milk diet has so good an effect in diseases caused by intestinal putrefaction. Kephyr, that is to say milk which has undergone lactic and alcoholic fermentation, is, according to Dr. Metchnikoff, particularly valuable as a means of neutralizing the slow intoxication which rouses the phagocytes to active aggression and weakens the resistance of the "noble" elements. Better still is sour milk, which is distinguished from kephyr by the fact that it does not contain alcohol. Another measure of safety is the prevention of the invasion of the intestine by "wild" microbes. With this object people should eat nothing that has not been cooked or sterilized. The re-enforcement of the resistance of "noble" cells and the transformation of "wild" into cultivated intestinal flora are the means recommended for the prolongation of human life.

Professor Metchnikoff has clearly not discovered the secret of eternal youth as one of his interviewers announces. And it must be owned that he has not taught us how to prevent old age. His re-enforcing serums are still in a somewhat nebulous stage, and his proposal to extract elixirs from certain organs is suggestive of the dead-house rather than of new birth. It does not appear that any of these things has been tried in practice, and even as to kephyr all the evidence he produces is that he has known some persons who derived benefit therefrom.

Dr. Metchnikoff will doubtless be interested to learn that his half-hearted suggestion about the large intestine has been acted on by Mr. Arbuthnot Lane for the cure of obstinate constipation. In a paper published in the *Clinical Journal* of January 20th, 1904, Mr. Lane states that in certain cases in which he had removed the appendix and divided constricting bands which controlled the lumen of the large bowel, following up the surgical treatment with purges, enemata, massage, exercise, etc., a recurrence of the symptoms ensued. It was apparent that these patients lost as much by the absorption of ptomaines from the faeces during their prolonged stay in the large intestine as they gained from the absorption of any nutritious or useful material. Not believing that the colon plays a very important part in the present state of civilization, Mr. Lane determined to divert faecal matter altogether from this part of the bowel and to convey it directly from the ileum into the upper part of the rectum or into the sigmoid. The result was successful in two cases which he records. Mr. Lane says he is sure that the principle involved in cutting off from the intestinal tract almost the entire length of the large bowel, which in a certain class of persons is much more dangerous than useful, will have a very extensive application in future in surgical practice. We have no doubt that Mr. Lane's operation would add to the comfort of a good many people who have difficulty in emptying their intestinal "cesspool." It remains to be seen, however, whether man's days in the land will be lengthened by the shortening of his gut.

EARLSWOOD ASYLUM.

THE appeal on behalf of Earlswood Asylum, which is published at p. 1515, will, it is to be hoped, meet with a prompt and generous response from the charitable. The institution is one of the greatest public usefulness, and has through unforeseen and unmerited misfortune fallen upon evil days in the full tide of its beneficent activity. Earlswood Asylum has had a somewhat chequered history, but for many years past, thanks to the unsparing efforts of a few devoted men, it has been fulfilling the purpose of its foundation in a manner at once thoroughly efficient and

strictly economical. Its continued usefulness is now seriously threatened by the consequences of bad workmanship on the part of those responsible for its original construction. They did not work in the spirit of the old builders, who

> Wrought with the greatest care
> Each minute and unseen part;
> For, the gods see everywhere.

The asylum was built on clay without any proper foundation; the walls were mere shells filled with rubbish. The wonder is that so jerry-built a structure stood so long as it did. The pitiless rainfall of the last three years has, however, sapped the insecure foundation; subsidence of the whole building followed, the walls cracked, and it seemed as if the asylum would fall about the ears of the inmates. Immediate action had to be taken, and the expense so far incurred has swallowed up the available funds, while the work is still far from being completed. The total cost of the necessary repairs is estimated at £30,000; a sum of £12,000 has already been spent, and £300 has to be found weekly to meet the labour bill. The men responsible for all this have long been beyond the reach of human law. The Asylum Committee has therefore only the charity of the public to look to for means to enable them to tide over the sea of financial troubles that threatens to overwhelm an institution which has done excellent work in the past, and which, if freed from its present embarrassment, is certain to do much more in the future.

The Earlswood Asylum has a special claim on the benevolence of those who recognize the duty which the kinship of humanity lays upon them. There is no more terrible affliction than the total absence of intelligence, or such defect in its development as practically cuts a child off from the human family. It was for the care of idiot and imbecile children that Earlswood Asylum was founded in 1847. Its benefits have been confined to no class. The policy of its managers has been based on Napoleon's principle of making war support war; that is to say, the payments made for the children of the rich have gone to the maintenance of those of the poor. Each class has been tended with equal care as regards the essentials of medical and hygienic treatment. The asylum has a twofold function: it relieves the home of a child which is a burden to those about it, and which cannot be properly looked after even by the tenderest mother; and it gives the child a chance of mental and moral improvement. Defective children are not infrequently epileptic, and in such cases removal from the home is imperative in the interest of the other children. Idiots cannot be cured, but their lives can be to a certain extent brightened by the wholesome influences with which they are surrounded at Earlswood. Imbecile children are often greatly benefited; the dormant mental faculties are awakened, not indeed to the full light of intellectual day, but to a degree sufficient to make the patient capable of taking some interest in his environment and sometimes of pursuing a useful occupation.

In the great work of rescuing imbeciles from the darkness of mind to which, in the absence of proper care, they are doomed, and of making the lives of idiots comfortable and harmless, the founders of the Earlswood Asylum were the pioneers in this country. For fifty-six years the work has been carried on, notwithstanding many difficulties, with success that has earned for the institution the confidence of the medical profession, and fully deserved that accorded by the public. It exists for the succour of the most helpless members of the community, and any interruption or crippling of its work would be a widely-felt calamity. We commend the appeal of the Committee to all philanthropists who in the multiplicity of calls on their benevolence may find a difficulty in selecting the most deserving object for assistance. The need of the Earlswood Asylum is great and urgent; and at the present moment there is no direction known to us in which charity could be bestowed with greater certainty of its proving fruitful of good.

THE MEDICAL SERVICE OF THE ARMY.

IF it be true that the Government intends to shelve the question of army organization till next session, no opportunity will arise for the discussion by Parliament of the recommendations of Lord Esher's Committee as to the Medical Service. At present the position of the Service is not altogether unlike that of the subject of Mr. Montagu Tiggs's famous riddle, "When is a man in gaol like a man out of gaol?" We have it on that gentleman's authority that the answer to this riddle has never been found; but we hope that a solution of the medico-military problem may soon be forthcoming. In the meantime, it may be worth while to review the actual situation. According to the letter of the War Office Reconstitution Committee, which was published in the SUPPLEMENT to the BRITISH MEDICAL JOURNAL of May 7th, p. 115, the health of the army is now in the care of three distinct and more or less independent authorities, the Director-General, the Advisory Board, and the Hospitals Committee. The Director-General, who is nominally the executive head of the Army Medical Service, is *ex officio* Chairman of the Advisory Board. He is to some extent under the control of that Board, but, according to the recommendations of Lord Esher's Committee, he can be summoned independently of the Board to the Army Council "whenever his advice and specialist knowledge are required." With the Hospitals Committee he has nothing to do. The Director-General may possibly find it as easy to separate his different capacities as Harpagon's servant found it to divest himself of the character of cook and assume that of coachman. To the ordinary mind, however, his complicated official personality is a mystery almost theological in its subtle elusiveness. In the letter to which reference has been made, it is stated that the Advisory Board "remains unaffected," except that the Director-General—"if necessary associated with a Civil representative of the Board"—may be invited to advise the Army Council independently of the Board. This practically gives the military authorities the power of dispensing with the counsel of the Advisory Board, or of going behind its decisions whenever they please. Again, the Board, which used to make its recommendations directly to the Secretary of State for War, is now under the Adjutant-General, among whose multifarious functions the supervision of "medical and sanitary matters" occupies a relatively insignificant place. As soon as the third part of the Report of Lord Esher's Committee was issued direct communication between the Advisory Board and the Secretary of State was cut off, and it was ordered to send its recommendations to the Adjutant-General. This at once reduced the Board to the position of a Greek chorus—a fate which, at the time of its formation, we predicted would be likely to befall it. As long as Mr. Brodrick remained in office, however, he loyally gave effect to his professed intention, and the Board exercised a real controlling influence, and its work, on the whole, made for efficiency. But under the new arrangement the Board was made directly subordinate to a purely military authority. The Adjutant-General could deal pretty much as he pleased with its recommendations, and there was no security that they would even reach the Army Council. We understand that this system, which obviously tends to neutralize whatever power for good the Board might have, has been so far altered that instead of the recommendations being submitted to the Adjutant-General, they are now sent to the Secretary of

the Army Council. This at least affords assurance that the recommendations will be brought to the knowledge of the superior authority of the army. But how can a Council on which medical science has no representative profitably discuss the recommendations of a medical Board? That, as has more than once been pointed out in the JOURNAL, is one of the weak points of the system proposed by Lord Esher's Committee. Another is the independent position given to the Hospitals Committee, which is in organic relation with the Works Branch, and reports upon all plans for new hospitals and standard plans for barracks and standing camps, and selects sites for new hospitals—without reference either to the Director-General or the Advisory Board. Here, then, we have three authorities without a co-ordinating centre. The medical service has, in fact, three arms without a head. This is not reform but retrogression, and we fear that if it is put to the test of war it will break down even more disastrously than the old system which was abolished by Mr. Brodrick.

THE HARVEIAN FESTIVAL OF THE ROYAL COLLEGE OF PHYSICIANS OF LONDON.

THE Harveian oration before the Royal College of Physicians of London, which used to be delivered on St. Luke's Day, October 18th, was given this year on June 21st, a date thought likely to be more convenient to the majority of those who might desire to attend. The interesting oration given by Dr. Richard Caton, of Liverpool, is published in full in this issue. As will be seen, Dr. Caton selected as his main topic a discussion of the views as to the circulation held in ancient Egypt. Dr. Caton has found relaxation from the more serious labours of an arduous life in the study of certain departments of archaeology nearly related to medicine, and our readers have already had the opportunity of reading the results of some of his researches in Greece. Dr. Caton on this occasion takes us much further back—to an era long before Hippocrates to the fourth millennium B.C., when there flourished a physician, I-em-hotep, who was in after-ages deified and whose great temple stood outside the eastern wall of Memphis. At this temple it would appear that the priests of I-em-hotep not only prescribed daily for many sick persons, but also performed many necropsies, and thus learned something of human anatomy. Dr. Caton believes that they obtained a partial knowledge of the circulation, and approached a solution of the problem as nearly as the Greeks; although they do not seem to have realized the action of the heart as a pump, they seem to have known that blood flowed from the heart, and, apparently from one passage quoted by Dr. Caton, they recognized the part played by the circulation in pyaemia. Dr. Caton showed that not only medicine, but sanitary science, had made considerable progress in Egypt, and he believes that some of the knowledge then acquired has descended to modern times through two channels, the Greeks and the Jews. Though the ancient theories of physiology and ancient methods of treatment were crude, Dr. Caton, perhaps by way of inculcating modesty in his hearers, concluded his oration by a reference to the unsatisfactory results which have attended efforts to prevent the onset of valvular disease in the course of rheumatic fever, and made once more a suggestion which he has previously stated at greater length in these columns. In the evening the Fellows dined together, and among the guests were the Bishop of St. Albans, Lord Strathcona, Lord Justice Cozens-Hardy, and Admiral Sir W. J. Lloyd Wharton, K.C.B., F.R.S., hydrographer to the Navy, and a lineal descendant of that Dr. Wharton who remained in London throughout the period of the great plague, and whose name is familiar to all students of anatomy.

"O'DWYER THE MAN."

AN interesting address on this subject, by Dr. W. P. Northrupp, of New York, brings into sympathetic relief the attractive personality of the inventor of intubation.[1] His life story well illustrates the struggles and possibilities of the general practitioner. The germ of the idea of intubation slowly developed in his mind while he was harassed with the cares of 3,000 obstetric cases in poor surroundings. Time had to be snatched to make observations on cadavers under disadvantageous conditions. The first instrument designed for insertion in the larynx was like a bivalve uterine speculum, about an inch long. Even when the tube form had been evolved from this, O'Dwyer worked on its development for five full years. We must remember that he knew of no predecessor in the work, that it required much courage to initiate what must at first have appeared a risky, and even brutal, treatment, and yet that what he has given to the world was so complete, so careful, and so long thought over, that little has since been added to it or taken away. No one disputes his sole ownership of his invention. What did O'Dwyer reap from it? Apart from a name amongst the heroes of medicine, his only rewards were worry, anxiety, and early death. He died a poor man at the age of 57, of arteries older than his years. Whatever the cause may have been—excessive modesty, great diffidence, or physical languor—he seemed unable to "grasp the skirts of happy chance"—although it was no chance in his case—when Fortune swept past him. He had not the business capacity to achieve position and money. He was offered opportunities of giving lectures, but declined to continue them. He did get some consulting practice in connexion with intubation, and then found it necessary to let some of his general practice go. For a time there was some compensation. Then came antitoxin, and with it there was less need of intubation and fewer consultations in diphtheria cases. Finally, others acquired the facility for intubation, and many of these were hustling and pushful, so that intubation first made and then killed the modest O'Dwyer. It would appear that a more modest man never lived. At gatherings in his honour he was diffident and shrinking. Like many such characters he had, to reverse a well-worn phrase, the good qualities of his defects. No man lives, says Dr. Northrupp, who can come forward and say O'Dwyer did an unmanly act, made knowingly an untrue, unwarranted, or unkind statement. He left a memory among his colleagues of a purity of character, an uncompromising honesty and uprightness which is almost childlike. His word once given constituted an obligation which no circumstances could weaken. He had no enemies. The proof of this is that although he left no fortune to educate his three boys, he left so many friends, bound to him with such imperishable bonds that all the boys have had the best training, and are equipped for their life-work. Dr. Northrupp describes intubation as an operation supplanting tracheotomy, gaining ground every year and never losing it. We cannot speak of the progress of intubation in America or other countries, but we very much doubt if it is gaining ground in Great Britain, and we are inclined to think its sphere of usefulness has been somewhat circumscribed lately. We are averse to contrasting it with tracheotomy as if both were applicable to identical conditions. Intubation has certainly supplanted tracheotomy in certain cases of laryngeal diphtheria under certain conditions. The chief of these conditions is the constant close accessibility of a medical man. Hence, with us at least, intubation has its chief sphere of usefulness in the wards of fever hospitals. In other directions it appears to have gained little ground. It is seldom seen in general hospitals, the subject is rarely discussed at medical societies, and many laryngologists do not even possess an intubation outfit. From time to time we have published articles by members of the staff of fever hospitals which appear to agree in admirably defining the indications for intubation in diphtheria. We have sometimes also, it must not be forgotten, to record the troubles or disasters resulting from prolonged intubation or from inspired tubes. But we cannot say that intubation is gaining ground, for interest in it appears to be languid. Here, surely, is a suitable subject for general discussion at some international congress. No one can peruse the literature of various countries without being struck by the

[1] Reprinted from the *Medical Record* (New York), 1904.

unequal prominence given to the consideration of intubation. Do other countries claim too much for it? Are we backward in taking full advantage of it? Whatever fate may be in store for intubation in the evolution of medicine, the memory of Joseph O'Dwyer will still be that of an honourable man.

QUINTUPLE TWINS.

A GENUINE case of quintuplets has recently been reported before the Berlin Obstetrical Society [1] by Professor Nijhoff, of Groningen. The mother was 34, and came of what may be called a very twin-bearing stock. Her own mother had once borne twins, the wives of two of her maternal uncles had each borne twins once, and one maternal aunt had been the mother of triplets. Twin pregnancies were unknown in the patient's father's family. The patient herself had given birth to a healthy boy seven years before. She believed that she aborted at the second month in 1902, then she menstruated once, on January 20th, 1903, and immediately afterwards became pregnant. During gestation she felt well, but the abdomen grew unusually large. After the beginning of May a little blood and serous fluid occasionally escaped from the vagina, quickening was noticed early in June, and on July 12th she gave birth within an hour to the five twins and the placenta. None survived their birth. The first and second child were female, the third a male, the fourth and fifth females. The first and third fetuses were enveloped in their membranes when delivered. The first and third were head presentations, the others footlings. The placenta followed the fifth child within a quarter of an hour, after gentle pressure. There was a considerable amount of flooding, and many coagula came away during the puerperium, but recovery was rapid and complete. The obstetrician, Dr. De Blécourt, who delivered the children, took care to invest each fetus at once with a band on the arm bearing a number and to mark its funis. The quintuplets and placenta were preserved in formol, each child being re-united to its funis. The placenta was single, but divided into three unequal parts, with irregular disposition of the chorion and amnion. Professor Freund, in discussing Professor Nijhoff's case, noted that he had attended one case of quadruplet pregnancy where two of the children were living, and one was a fetus papyraceus. Holländer, he added, had observed an authentic case of quadruplets, but the alleged sextuplets born in Silesia proved to be spurious, which we can well understand. Olshausen remarked that the Dutch were a prolific nation, as Nijhoff's case helped to show. He himself knew of a family where the women had on three occasions borne triplets, and had no less than twenty-five times given birth to twins. Nijhoff expressed his intention of shortly issuing a monograph on quintuplets. He shows that the only preparations illustrating the condition which have been preserved are in the Museum of the Royal College of Surgeons of England, and in a Dublin collection, though in neither is the placenta preserved. We understand that an illustrated clinical report of Professor Nijhoff's case will be published in an early number of the *Journal of Obstetrics and Gynaecology of the British Empire*. We find that there are two specimens of quintuplets in the Museum of the Royal College of Surgeons, neither with the placenta. The first (No. 3,681, Physiological Series) is Hunterian; the second (No. 3,681A) was presented by Dr. Arthur Farre in 1877. All the fetuses are females.

[1] "Fünflinge mit ihrer Nachgeburt," *Zentralbl. f. Gynäk.*, No. 23, 1904, p. 750.

THE BOOM OF THE BONESETTER.

THE apostolic succession of bonesetters seemed to be interrupted by the recent death of "Professor" Atkinson, but certain newspapers are doing their best to supply the missing link in the chain of continuity. A few days ago, as if at a signal given, they broke forth in a choral chant of "Ducdame" (Jaques's invocation to call fools in a circle), proclaiming to the world the coming of a new healer of cripples. The wise men of the London press somehow saw the star of the unknown bonesetter in the North and found him at Blantyre, a little village near Glasgow. The thaumaturgist's name is William Rae. For thirty years he worked as a miner, but one day accident revealed to him that he possessed the gift of bonesetting. He then, we are told, "set himself to study anatomy and physiology, and with characteristic determination he conquered his difficulties." But surely a heaven-born bonesetter has no need of such futilities as anatomy and physiology, and as the skill which he is supposed to possess is a "gift" it is not easy to see what "difficulties" there could have been in its acquisition. If the account of his method given by a sympathetic interviewer is to be believed, his scientific studies have no influence either on his theory or his practice. His doctrine appears to be that bone disease is an invention of the doctors; the proof of this is that neither he nor any one else has ever seen a diseased bone in a living man! The secret of spinal curvature, hip disease, and every other condition causing deformity or lameness, is contained in the single word "Bluid." "Where that's wrong," says this pathological oracle, "aw the rest's wrong." As to his method, we are told by a learned Theban who writes in the *Daily News* that "he does not follow the prevailing practice of breaking deformed limbs and resetting them by a liberal use of finger and thumb." He straightens them out by the simple process of pressing the spine or pulling the leg. It is admitted by one of the sacred bards whom he has found in such numbers to hymn his praise that "in no case was the cure instant. There always seemed to be a little lameness after the operation." We are rather surprised to hear this, for we have no difficulty in believing that if the gifted one occasionally fails in straightening a crooked back, he is most successful in leg pulling. A sapient person informs the readers of the *Daily Express* that Rae's treatment is "that known as bloodless surgery," while another states in the *Daily Chronicle* that Rae's "methods in bloodless surgery are proving more successful than those of Professor Lorenz." A like claim was put forward by "Professor" Atkinson and his numerous admirers in the press. That such "odorous" comparisons should be possible is surely a most striking proof of the discredit brought on the medical profession by newspaper publicity. The "boom" touches nothing without soiling it. The Blantyre bonesetter, however, doubtless finds some compensation for the evils of the "boom" in his fees, which are said to amount to £100 a day. It may here be said that the element of myth seems to enter into statements as to the enormous earnings of bonesetters. "Professor" Atkinson, whose practice was so large that he had, we believe, to employ a dozen assistants working in separate consulting-rooms, and who had hosts of what Warburton called "the better vulgar," and even royal personages among his clients, left less than £900. It is noteworthy that nearly all Rae's patients come from a distance, Lancashire and Bolton furnishing the largest contingent. No one in Glasgow appears to have heard of him. This may perhaps be explained by the fact that no man is a prophet in his own country; we prefer, however, to see in it a proof of the hard-headedness which is characteristic of the Scot. There is nothing in this wondrous tale of the "collier surgeon" that will surprise those who know how little Education Acts have done to dissipate the clouds of ignorance and credulity which darken the public mind. The really interesting point to know would be how so foolish a thing was made the subject of a successful "boom."

AUTOMOBILES FOR MEDICAL MEN.

THE *Autocar* published on the last Saturday of May a special number devoted to the subject of automobiles for medical men. While it is in many ways interesting it is in others disappointing, and this opinion, it would appear, is shared by some of our own readers who have come across the number. Like them we had hoped that it would throw some fresh light on a problem of considerable difficulty and anxious thought to many medical men. The number is worth the perusal of those who have already practically

made up their minds, and who only want a good excuse to throw aside further consideration of the pros and cons, and at once exchange from horses to a car. To such the number may be thoroughly recommended inasmuch as that they will find pages and pages of letters from enthusiastic medical automobilists. Apart, however, from the fact that the experience of many of the writers is obviously very limited, no one's views are more dangerous to accept than those of an enthusiast, even though he really know his subject well. Motoring is doubtless a delightful pastime, but, when regarded from the point of view of the most satisfactory way of getting through the work of a busy practice, there is a good deal to be said upon both sides. In such case it is a question to be approached in a perfectly cold-blooded fashion, strict utility and the balance of profit and loss in pounds, shillings, and pence being alone kept in view. Those of our readers, therefore, who are at present debating the problem of cars *versus* carriages we advise not to be influenced by the paeans of praise which this number of the *Autocar* contains, should it be brought under their notice, but instead to study the articles in this JOURNAL, to which reference has already been made, and which appeared on January 16th, p. 142, and January 23rd, p. 199. During the months which have since elapsed, no developments in manufacture have occurred which make any modification of the views then expressed upon the general subject desirable. A great many cars of sufficient power and moderate cost are now upon the market; choice between them is not easy, and the results of the Reliability Trials, of which we published a carefully-compiled analysis in the articles mentioned, still form the safest guide in default of private advice of a very special character. The cars which figured specially well at these trials were, in the class for cars sold at £200 or less, the 5-h.p. Baby Peugeot, the 6-h.p. de Dion, the 6½-h.p. Cadillac, and the 5-h.p. and 6-h.p. Oldsmobiles. In the class for cars sold at £300 or less, the correspondingly successful competitors were the 8-h.p. M.M.C, the 6-h.p. Swift, the 9-h.p. Argyll, the 9-h.p. Beaufort, and the 9-h.p. Darracq. We are far from saying that there are not many equally good cars to be found at corresponding prices, but these are the cars about which the public has at present the most favourable information from authoritative and impartial sources. It may be noted that motor manufacturers are now quite awake to the big market which awaits them among medical men, and cars—one de Dion, for instance—may now be found specially fitted out with a view to the needs of medical work. We may, at the suggestion of a correspondent, utter one word of warning on the subject of secondhand cars. Owing to slight changes of pattern, and to the fact that automobiles, so far, have been mainly the playthings of the rich, there are already an enormous number of secondhand cars upon the market. Their prices, appearance, and power are often tempting, and many of them are no doubt worth the price asked. In a general way, however, it is even more risky to buy them than to purchase an unknown horse at a public auction. Any one, therefore, who is tempted by a car offered him in this way should either pay a motor engineer, and one who cannot possibly get into touch with the would-be vendor, to thoroughly overhaul it, or get its condition and present value investigated by the original maker.

THE AMERICAN MEDICAL ASSOCIATION.

THE American Medical Association held its fifty-fifth annual session at Atlantic City on June 7th, 8th, 9th, and 10th, under the presidency of Professor John H. Musser. The attendance was larger than at any previous meeting, no fewer than 2,437 members having registered their names up to the morning of the second day. At least 500 more were expected. The President took for the subject of his address "Some Aspects of Medical Education." He said that if there were any doubt about the value of a degree in arts to a man entering the medical profession, it could be set at naught since the report of the Mosely Education Commission. The student ought to know that the purchase of the best education, whether reckoned in time or money, was the most economical investment, inasmuch as a thorough education at first is a saving of time in later years and the money outlay is returned more quickly in immediate work and larger pay. Dr. Musser pleaded strongly for greater facilities for clinical study in hospitals. He pointed out that in hospitals in which teaching was carried on the patients seldom complained. With the object of removing the suspicion which still existed in the public mind he suggested the organization of associations of prominent people in the teaching centres of the United States who should agree to have any operation, any feature of disease, witnessed by medical students, according to the judgement of their physician. It would be well, he added, if the members of such an association would agree first to undergo hospital treatment; secondly, to be the objects of observation by students; thirdly, in case of death to have a necropsy performed. "Such associations would rob hospitals of their terror and teaching of its dread." By the courtesy of Dr. George H. Simmons, Editor of the *Journal of the American Medical Association*, we were enabled to publish abstracts of the Orations in Medicine and Surgery and the Address in Public Medicine in our last issues. We hope to publish in the EPITOME abstracts of the more important papers read in the Sections. The report of the Secretary showed that the membership of the Association in June, 1903, was 13,545; during the past year 2,413 new members had been added, and 919 had been dropped on account of death, non-payment of dues, etc. The membership at present was 15,039. The total membership of the State societies was about 44,360. The report of the Board of Trustees showed that the Association owned real estate valued at £20,000 and that it had other investments in more convertible securities, to the amount of £8,000, which also provided for the reserve fund of £30,000, which the Association desired should be set aside for use in emergency before any change should be made in its fiscal policy. This fund, however, was not to be made up at the expense of the *Journal*—that was, by curtailing in any way that which would effect its ideals. This report also showed that the average weekly circulation of the *Journal of the American Medical Association* was 28,615 copies, which indicated an increase of 3,613 copies for the past year. Among the resolutions passed by the Association was one approving the recent action of the Postmaster-General in checking the transmission of quack remedies and fraudulent and obscene advertisements through the post.

A GOOD EXAMPLE.

THE United States Post Office Department is making a determined effort to acquit itself of any complicity in the distribution of advertisements which are either indecent or fraudulent. All drugs and nostrums will be referred to the Department of Agriculture for analysis in order to determine the genuineness of their medical claims, and the data in all cases will be finally referred to the Law Department for final action. The action of the Post Office has received the approval and has the co-operation of the American Newspaper Publishers' Association and a large number of medical men and scientists. The attorney for the Post Office Department has held that any contract for advertisements of such objectionable matters is void when the Post Office Department has decided in an adverse sense on the character of the advertisement. We commend the example of the United States Postmaster-General to our own postal authorities as one they might imitate with great advantage to the public.

ST. BARTHOLOMEW'S HOSPITAL.

UPON the occasion of the laying of the foundation stone of the new out-patient department for St. Bartholomew's Hospital next Wednesday week, Their Majesties the King and Queen will attend in semi-state and will be received upon their arrival by the President of the hospital, H.R.H. the Prince of Wales. The procession will enter the hospital premises through a new entry at the corner of the medical school buildings in Giltspur Street, and after com-

letion of the ceremony will drive across the ground ac-ıired from Christ's Hospital to the Little Britain Gate of . Bartholomew's, enter and transverse the quadrangle ɜtween the four principal ward blocks, and leave by the d gateway in Smithfield. A very large number of patients, udents, and other persons will therefore have an oppor-ınity of seeing some part of the proceedings in addition those for whom special provision is being made. A ered stand built round three sides of the site of the undation stone will provide three thousand seats. For ıese no charge is to be made, but it is expected that those ho accept invitations to occupy them will make suitable ɔnations. One part of the ceremony will be the reading Her Majesty the Queen the charge always addressed to .ose who are elected to the office of a Governor of the in-itution, one which Her Majesty has recently accepted. In-ead, however, of the long white wand of office which must familiar to old "Bart.'s" men, a small model will be ten-ɜred for Her Majesty's acceptance. The religious part of .e proceedings will be conducted by the Bishop of London, ıd Madame Albani will be present to sing Elgar's setting the National Anthem with the assistance of other tistes.

GUARDIANS AND TUBERCULOSIS.

. LIONEL A. WEATHERLY has recently printed a very ll and interesting paper on the subject of Boards of Guar-ans and the crusade against consumption in *Tuberculosis*, e organ of the National Association for the Prevention of ınsumption. The paper has been compiled by Dr. eatherly from the answers received in reply to a cir-lar sent out to all the Boards of Guardians in this untry, to whom the following questions were addressed: Have you made separate provision for the treatment of nsumptive cases, and what?" "Have you made pro-ɜion for isolating them?" Replies came from 608 out of otal of 695. They show that, in spite of the lectures ıich have been delivered through the help of the National sociation for the Prevention of Consumption and its ıny branches, no less than 576 Boards are doing nothing atever in this great crusade against one of the worst ɜmies of mankind. This is the more regrettable as only ɜently, in a paper on the subject of the Boards of Guar-ns and consumption in Ireland, it was shown that 50 cent. of the Irish unions are taking active steps to nbat this foe, while in England and Wales the per-ıtage of Boards doing anything is under 18 per cent. e paper is full of valuable information and suggestions, l we strongly recommend it to the perusal of Poor-law dical officers throughout the country. The paper has ɜn reprinted in a pamphlet of twenty pages, and copies ı be obtained from the National Association for the Pre-ıtion of Consumption, 20, Hanover Square, London, W., ce 2d.

THE PRESIDENCY OF THE GENERAL MEDICAL COUNCIL.

hear a rumour that Sir William Turner, K.C.B., con-ıplates resigning the presidency of the General Medical ıncil at the November session, and we understand that names of Dr. Donald MacAlister and Dr. Pye-Smith have n mentioned in connexion with the presidency should vacancy occur. Some members of the Council, how-r, we believe would like to see the chair occupied by an ıh member.

(FORD MEETING: VICE-CHANCELLOR'S SOIREE.

MBERS of the British Medical Association who have ibits of exceptional scientific interest, and who would willing to show the same at the Vice-Chancellor's ée on Wednesday evening, July 27th, are requested to ımunicate as early as possible with Mr. D. H. Nagel, ıity College, Oxford, who, in the event of their accept-e, will make the necessary arrangements for having them ibited. Academic robes will be worn on this occasion.

IR ANDERSON CRITCHETT has been elected an honorary nber of the Gesellschaft der Aerzte of Vienna.

THE Emperor Francis Joseph on June 21st laid the foundation stone of the New General and University Hospital for Vienna, to replace the old general hospital built 120 years ago.

PROFESSOR ROBERT KOCH, who has been absent from Germany prosecuting scientific researches in South Africa and elsewhere, has returned to Berlin, and has resumed charge of the Institute for Infectious Diseases, of which he is Director.

AT a meeting of the Paris Académie de Médecine on May 31st a paper was read by Madame Macaigne. This is said to be the first time that the Académie has extended such a privilege to a lady.

A MEETING of the Pathological Society of London will be held at the Lister Institute, Queensberry Lodge, Elstree, on Saturday, July 2nd, in the afternoon. A train leaves St. Pancras at 1.50 p.m. and returns from Elstree at 6.23 p.m., reaching St. Pancras at 7 o'clock. The station is Elstree and Boreham Wood on the Midland main line.

DR. A. P. LUFF has resigned his appointment as Scientific Analyst to the Home Office, owing to the increasing demands of practice, and, as already announced, Dr. W. H. Wilcox, also of St. Mary's Hospital, has been recommended by the Council of the Royal College of Surgeons of England, as his successor.

MR. TRIMMER, of whose life we are enabled to give some account in another column, was at the time of his death in his 78th year, and had served the Royal College of Surgeons for forty-two years—for thirty-six as Secretary. He was a very capable officer, and, though he sometimes had unpleasant duties to perform, his genial manner made it easy for every one to distinguish between the official and the man. He was well known to most Fellows and Members now living. Closely associated with him was Thomas Madden Stone, who was attached to the College as Assistant Librarian and then Clerk in the Secretary's office for exactly half a century, dying in 1894, aged 79, whilst Mr. Searle, nephew of Professor Kiernan, also a former clerk in the Secretary's office, is still living.

MEDICAL NOTES IN PARLIAMENT.

The Revaccination Bill.—Last week the Duke of Northumberland moved the second reading of the Revaccination Bill in the House of Lords. The Bill, he said, dealt solely with revaccination, which experience had shown to be necessary for complete protection. He referred to the report of Dr. Low, of the Local Government Board, on the practice in Germany, where small importance was attached to isolation, and reliance was placed on vaccination and revaccination. In Germany the deaths from small-pox during the last twelve years had been less than 13 per million living, while in England they had been 207 per million. If revaccination were insisted on in this country the difficulties of supplying glycerinated calf lymph to meet the sudden demands at the time of epidemics would be removed, and the need for isolation hospitals would disappear. This would be a great saving to the ratepayers. The Bill proposed to revaccinate all children within twelve months after they were 12 years of age. This, it was believed, would give protection till middle life. There would be no interference with adult labour as now, when the breadwinner had to be revaccinated. The Bill threw the responsibility on parents of having their children revaccinated, and obliged local authorities to supply the vaccination authority with a list of all children of 12 years of age. Lord Lansdowne said the Government was in no way hostile to the principle of the Bill; the Government considered revaccination a desirable thing. The evidence seemed conclusive; it showed that in Germany in twelve months there were only 667 deaths from small-pox in a population of 56 millions, while in this country during the same period there were 6,750 deaths in a population of 32 millions. The Royal Commission had stopped short of recommending compulsory revaccination, and the Government had accepted their view. They had done all in their power to encourage and facilitate revaccination. He could not help thinking that the Local

Government Board had been wise in attempting to lead rather than drive the people towards revaccination. He was told that whereas in 1898 there were only 54 per cent. of the births successfully vaccinated, that in 1901 the proportion was no less than 76 per cent. The Government had not thought it desirable to legislate for compulsory revaccination, and obviously it was impossible to contemplate the passing of such a measure during the present session. Being in favour of revaccination the Government did not desire to oppose the second reading, but it must be understood that they did not in any way commit themselves to the details of the measure. Lord Newton reminded the Government that when in 1898 they established the existence of the conscientious objector, the Bill was only passed on the understanding that the Government would subsequently bring in a Revaccination Bill. He could not on this account regard the statement of Lord Lansdowne as satisfactory. Lord Tankerville, who made his maiden speech, expressed very serious doubts of the alleged efficacy of vaccination and suggested the appointment of a Committee to examine the evidence. It seemed contrary to natural laws that the injection of animal poison into human flesh could produce health. He challenged a division on the second reading, but did not persist, and the Bill was read a second time. The Committee stage was formally fixed for Thursday, June 23rd.

The Mortality in South African Mines.—Last Monday Lord Coleridge, in the course of a speech on Chinese labour in South Africa, dwelt on the high death-rate among the miners in the Transvaal. He quoted from Mr. Cook's official report the statement that there was "steady and uninterrupted progress" in the treatment of the natives, and yet in that very year the death-rate had been 61 per 1,000. In May it was 79, in June 88, and in July, the month after the report, it was 112. For the six months succeeding June, 1903, it was 81 per 1,000. The high mortality had been referred to influenza, but the Committee of Doctors appointed to examine the causes of the mortality did not mention influenza. In some mines the death-rate varied from 123 to 137 per 1,000, while in other mines quite as large it was only 24 to 31. This proved that the mortality was largely preventable. The deaths occurred among men in the prime of life, the corresponding death-rate in English mines being only 6 per 1,000, and in the Cornish mines, which most nearly resembled those in the Transvaal, it was only 14 per 1,000. He contended that before any Chinese labour was admitted the mine-owners should be compelled to reduce this heavy mortality. Lord Harris, speaking as one interested in South African mining, said that he admitted the high death-rate and deplored it. The use of the rock drill as in Cornish mines produced a serious danger from phthisis. The Transvaal mine-owners had offered prizes for the best means of preventing the dust caused by drilling and were anxious to overcome this source of danger to the workers, but the drill-men themselves oftentimes would not assist. The high mortality from pneumonia was due, he thought, to climatic causes. The Duke of Marlborough, speaking for the Government, contended that the state of the natives working in the mines as regards food and sanitation was carefully looked after. The high mortality was largely due to pneumonia which occurred soon after the labourers had arrived at the mines, while they were impoverished and not acclimatized to the more severe climate of the Transvaal. He showed by figures that there was reason to hope that the steps taken by the Transvaal Government were beginning to have effect, as during the last four months the death-rate has been considerably reduced. Lord Carrington, Lord Onslow and the Marquis of Ripon also spoke, and the debate then closed by the withdrawal of Lord Coleridge's motion.

Beri-beri and the Coolies.—There was quite a lively scene in the House on Wednesday over this subject. Dr. Hutchinson asked the Colonial Secretary whether an outbreak of beri-beri had occurred among the Chinese coolies, whether those in contact with them had been sent on to the compound, and whether, owing to the infectious character of this disease, steps could be taken to prevent its spread. Mr. Lyttelton said that he had telegraphed to Lord Milner, but had not yet received a reply. He had every confidence, having regard to the admirably-prompt measures taken with the plague, that every possible precaution would be taken. Thereupon Dr. Hutchinson rose and said that after the extremely unsatisfactory reply he would ask leave to move the adjournment of the House, in order to call attention to the imminent danger which arose from the introduction of a new, highly-infectious, and very fatal disease known as beri-beri into South Africa. The Deputy Speaker said that notices of motion on the paper covered the notice, and he therefore could not put the adjournment. Quite a storm of protest arose from Mr. John Redmond, Mr. Lambert, Mr. Sydney Buxton, Mr. Bowles, and others. Mr. John Redmond appealed to the Prime Minister to prevent the House of Commons being reduced to a state of impotence by an obscure individual putting down a notice wide and vague enough to cover anything. Mr. Balfour said that the House would recognize that it was a matter of great difficulty for him to exercise any influence in the direction of limiting notices of motion. He thought the subject of the outbreak of beri-beri could be much better discussed on the Colonial Secretary's salary, because the Government had no information on the subject. Dr. Hutchinson said it was a matter of great urgency and appealed against delay. The matter finally dropped and the motion for adjournment was not allowed.

Cholera in Persia.—Sir Walter Foster asked the Under-Secretary of State for Foreign Affairs whether he had received information of a severe outbreak of cholera at Kermanshah, and of the infection of the districts of Maidasht, Songur, Sarat, and Hamadan, in Persia; and whether he would take care that the quarantine arrangements at Bisitun, and on the Turkish frontier, were not unnecessarily injurious to British trade through Bagdad. Earl Percy answered that the Foreign Office was aware of the existence of cholera in all the districts except Sarat, as to which no information had been received. His Majesty's Minister at Teheran had reported that the measures taken by the Persian authorities did not appear to be in excess of those allowed by the Venice Convention. Sir A. Hardinge had asked for the suspension of these measures in the interests of trade when cholera seemed to be dying out at Kermanshah about a month ago, and would no doubt renew his endeavours when circumstances permitted. The Turkish authorities at Bagdad had imposed 5 days' quarantine at Khanikin on arrivals from Kermanshah.

The Distribution of Poor-law Children.—Sir Ernest Flower asked the President of the Local Government Board if he would state the number of children at present accommodated in metropolitan district and separate Poor-law schools, metropolitan workhouses, and metropolitan infirmaries respectively. Mr. Long replied that the numbers on June 4th were as follows:

In district and separate schools (including 827 in scattered homes and 278 in separate receiving homes)	10,902
In workhouses	1,342
In infirmaries...	1,980

Out-relief for Children.—Sir Walter Foster asked the President of the Local Government Board whether Boards of Guardians had printed or written scales of relief which provide for out-relief in money and bread according to the number of children needing relief; and, if so, whether the Local Government Board would either direct their inspectors to advise, or issue a circular advising, an allowance of milk in the case of young out-relieved children needing milk, and also to nursing mothers in receipt of out-relief. Mr. Long replied that he believed that some Boards of Guardians had scales of relief of the kind referred to. He thought Boards of Guardians might be trusted to use their discretion as to the granting of allowances of milk in the cases mentioned in the latter part of the question; but he would bring the matter under the notice of the inspectors.

The Registrar-General and the Supply of Information to the Press.—Sir Walter Foster returned to this subject last week, and asked the President of the Local Government Board whether he would communicate with the Registrar-General with a view to the issue of an order to the registrars of births and deaths to place every week in a convenient position in their offices, accessible to the public, a list of deaths registered by them with the date of death in each case, but not specifying the causes of death, so that the public might be informed of the names of persons whose deaths were registered in each registration district. Mr. Long replied that he had communicated with the Registrar-General on this subject, and he found that it would not be practicable to give effect to the suggestion of the hon. member, apart from any question of the expediency of so doing.

The St. Bartholomew's Hospital Bill which had come down from the Lords was read a third time and passed with slight amendments on Tuesday last.

Scotland.

EDINBURGH ROYAL INFIRMARY RESIDENTS' CLUB.

tenth annual meeting of the Edinburgh Royal Infirmary idents' Club was held in the Caledonian Station Hotel, nburgh, on June 10th, Sir William Mitchell Banks presiding. r seventy members of the Club were present. The Secre- reported that there were now 399 ordinary and several orary members. Professor Annandale was appointed Presi- t for the coming year, and Dr. Edwin Bramwell was unani- isly elected Secretary in the place of Dr. Claude B. Ker, had resigned. It ought to be said that the origin and vigour of the Club were mainly due to Dr. Ker. The dinner r the meeting was a great success. Among those present Professor Chiene, C.B., Dr. Yellowlees, Dr. David istison, Dr. Byrom Bramwell, and Dr. McBride, while ogies were received from Sir J. Halliday Croom, Professor . Simpson, Dr. P. H. McLaren, and many others. Sir iam Mitchell Banks made a most genial Chairman, and many amusing reminiscences of his time as a resident. present Royal Infirmary residents gave a highly successful estral performance, and songs were contributed by Drs. nedy and H. P. Thomson, and by Messrs. F. M. Caird and ge Chiene. A very clever hit also was Dr. Robert chison's suggestion for a special diet for resident medical ers.

ABERDEEN COMPANIES R.A.M.C. (Vols.).

e annual inspection of this corps was held on June 18th in the grounds of the Aberdeen Grammar School. Major Riddell, in the absence of the Commanding Officer, r Mackenzie Booth, was in command, and the parade bered considerably over two hundred, including the *nnel* of two field hospitals with transport, and the Gordon ade Bearer Company, which is now attached to the deen Companies R.A.M.C. (Vols.) for purposes of organi- n, discipline, and finance. The inspecting officer was r Scott, R.A.M.C., Edinburgh, representing the P.M.O. e Scottish District. During the two hours of inspection at variety of work was shown, including march past in er column, infantry drill, stretcher drill, Yeomanry foot by unmounted portion of transport section, and mounted by the others. The Brigade Bearer Company estab- l collecting and dressing stations, and brought in ded from the field, and were then submitted to stringent examination. At the close Major Scott addressed the rs and men, and was highly complimentary in his re- s on the standard of efficiency exhibited in the work of ctions. In the evening the officers dined together in rand Hotel, under the presidency of Captain Lister, President, and among the guests were Major Scott, in Boyle, R.A.M.C., Brigade-Surgeon-Lieutenant-Colonel nnachie, I.M.S. (retired), Surgeon-Captains Edmond, mson, and Christie, 1st Volunteer Battalion Gordon anders, etc. The Aberdeen Companies go into camp tley on July 16th for a week.

ST. ANDREW AMBULANCE ASSOCIATION.

year 1903-4 has been one of marked activity in ambu- work in the district which has Aberdeen as its centre. e city at least five large classes have been held, with al practitioners as instructors, including one under the es of the School Board—an evening class for ladies, cted by Dr. Anne Mercer Watson—first aid and home ng both being taken up. In the country districts the n has been no less successful, and the classes held at rie, Turriff, Maud, Huntly, Kemnay, Kintore, and other have all been well attended, and the examinations d good results. One very striking and immediately development of this excellent work has been the union eral country parishes or districts for the purpose of ob- g and keeping up a thoroughly equipped ambulance ge for the comfortable conveyance of accident cases to al or to their homes. The Garioch district was one of st in this respect, and a week or two ago a first-class ance was handed over to a committee of management entative of the districts which had subscribed. The or such a vehicle and its usefulness have been amply strated, for in the first few weeks it has traversed l hundred miles. The annual meeting of the Local ittee was held on June 17th, Professor Ogston pre- . The accounts and reports for the year were sub- mitted, approved, and considered very satisfactory. Colonel Douglas Duncan was appointed chairman for the ensuing year and Professor Finlay vice-chairman. Thereafter the following medical men were appointed to act as examiners during the year 1904-5: Drs. W. Irvine Fortescue, Thomas Fraser, A. Henderson, J. Innes, F. Kelly, W. R. Pirie, A. Ogston, J. Smart, and J. A. Watt (all in Aberdeen); Drs. D. G. Campbell (Elgin), P. Claron Garson (Huntly), and D. D. Macintosh (Aboyne).

MEDICAL WOMEN PRACTITIONERS IN SCOTLAND.

A private conference of medical women practising in Scotland, on the suggestion of Dr. Emily Thomson, met in Edinburgh on June 18th. Women from all the large centres of Scotland, many from country districts, fifty-three in all, were present. The questions under discussion were (1) the lines on which the future medical education of women should be carried on in Scotland; and (2) the possibility of obtaining for medical women admission to the Membership and Fellowship of the Royal Colleges of Physicians and Surgeons.

INFANTS' MILK DÉPÔT AT GLASGOW.

The scale of charges to be made for milk supplied by the sterilized milk dépôt of the Glasgow Corporation was fixed at a recent meeting of the Committee on Infantile Mortality. For infants under 3 months the price will be 2d. for the nine bottles, which constitutes a day's food. From 3 to 6 months the price will be 2½d., from 6 to 8 months 3d., and from 8 to 12 months 4d. The 2d. milk will be two-thirds water, the 2½d. milk half-and-half, the 3d. milk two-thirds milk and one-third water. Cream will be added to all the qualities in varying proportions. The charge of 2d. is 1d. under that which similar dépôts in other towns receive, but the Committee wishes to popularize the supply, especially for the youngest children.

LEITH AND CONSUMPTION.

At the last meeting of Leith Town Council, Dr. Robertson, Medical Officer of Health, submitted a report on the subject of consumption in which he advised that the Council should aid the medical practitioners of the burgh in the diagnosis of cases of phthisis pulmonalis by making, when necessary, bacteriological and microscopical examinations of specimens of sputa; that the medical practitioners should be urged to make full notification in a voluntary way, and with the consent of their patients, of cases of phthisis occurring in their practice; and that steps be taken for the isolation and treatment of early cases which the medical officer of health might consider suitable. As regards the last point, he suggested that they should meanwhile limit the numbers to 12 patients, 6 male and 6 female. Each patient would remain in hospital on an average about six weeks, and the cost to the burgh would be comparatively small. He did not at present advise the Council to accept the suggestion of the medical practitioners at their meeting in January last, when they urged upon the local authorities the advisability of adopting some method by means of which suitable and especially advanced cases of phthisis pulmonalis might be isolated and treated. The Council decided to delay consideration of the medical officer's report.

SMALL-POX IN SCOTLAND.

During the period from May 16th to June 15th, 199 cases of small-pox were intimated to the Local Government Board. These were distributed over eleven of the counties of Scotland. Glasgow burgh heads the list with 102 cases. Edinburgh burgh stands second with 11 cases. Govan burgh had 7 cases; Dundee, Greenock, and Falkirk had each 6 cases; and Rutherglen 5 cases. During the period in question small-pox appeared in fifteen districts where no previous cases had been intimated to the Board during this year. In the week ending Saturday, June 11th, only two cases were intimated to the Public Health authority of Edinburgh, while in the week ending Saturday, June 18th, not a single case was notified. As the period of incubation from the last cases that had occurred, and even from those last placed in quarantine, is now more than covered, Edinburgh may be said to be meanwhile at the end of the outbreak of small-pox. But with the disease at 42 different localities in Scotland in the month ending June 15th, and especially in view of the continued prevalence of the disease in Glasgow, there will be no relaxation of vigilance on the part of the Public Health and sanitary authorities of the city. On Saturday, June 18th, there remained 8 cases in the small-pox pavilion of the City Hospital at Colinton Mains.

Ireland.

Adelaide Hospital, Dublin.

The report presented to the annual meeting of the supporters of the Adelaide Hospital, Dublin, which was held on June 14th under the presidency of Lord Langford, stated that the number of out-patients treated was 15,300. The admissions numbered 1,251, and 759 operations were performed. The mortality was 3.3 per cent. The sum of £3,513 18s. 2d. is due on building, and on the general account £1,153 11s. 3d., or, in all, £4,667 9s. 5d. The speakers were the Chairman, Dr. Wallace Beatty, Rev. Charles Dowse, Mr. W. C. Stubbs, Mr. S. S. Battersby, Dr. James Little, Captain R. Wade Thompson, and Mr. Ormsby.

Cork Branch of the National Association for the Prevention of Consumption.

The first annual meeting of the Cork Branch of the National Association for the Prevention of Consumption was held on June 11th. The President, the Earl of Bandon, K.P., assured the meeting of the great pleasure it was to be at the first annual meeting of so useful an Association. A letter was read from Dr. Browne, Bishop of Cloyne, regretting his non-attendance, and suggesting that the Association should solicit the practical help and co-operation of the Board of National Education. Some of the excellent pamphlets on this subject ought to be embodied in the reading-books of the national schools, and a direction given to the teacher to see that these lessons were read by the pupils in the course of the year would not be out of place.

Alderman Dale, in proposing the adoption of the annual report, congratulated the President on the fact that the Branch had been firmly established. He might also thank their Chairman, Dr. Cremen, for the untiring energy he had shown in bringing this Branch of the Association to its present position. One of the objects of the Association—the better housing of the poor and the improving of the sanitary conditions of their dwellings—the Corporation, he was glad to say, had taken in hand with a good deal of determination. The work specially engaging the attention of the Association during the past year was the procuring of a sanatorium in which curable cases of consumption might be treated. The members of the Committee had gone round the country from district council to district council, and all the authorities throughout the county and city of Cork had agreed to tax themselves to the extent of a penny in the pound to defray the cost of the sanatorium. Another matter to which the Association devoted attention was the project of providing a home for incurable cases of consumption—a home where these cases could be isolated, and where they would cease to be, as they now were, centres of infection to those around them, and where by proper care and nourishment they might lead as comfortable lives as were possible under the circumstances. The dissemination of knowledge and the question of notification were most important points, and in reference to the first of these he thought Dr. Browne's suggestion a valuable one, so that the rising generation might grow up with a knowledge of the great evil that disease was and the steps that might be taken to prevent its spread. In conclusion, he referred to the necessity for increased funds to meet especially the expenses connected with the dissemination of knowledge, and appealed to the philanthropic public of the city and county of Cork to provide money to carry on the good work.

Mr. L. Beamish seconded the adoption of report, and Rev. Dr. Meade, Bishop of Cork, proposed the second resolution:

That the best thanks of this, the Cork Branch of the National Association for the Prevention of Consumption, be given to the Chairman of the County Council of Cork, and the members of that body, to the Right Honourable the Lord Mayor of Cork, and the members of the Borough Council, and to the Chairman and councillors of the Urban and Rural District Councils of the County of Cork, for their kindly and benevolent support. That in connexion therewith we desire to record our high appreciation of the humanity and public spirit as shown in granting—in all cases by a unanimous vote—the necessary contributions to secure the establishment of a sanatorium for the treatment of early cases of consumption, a malady so direly afflicting all classes, and in particular the poorest of the community, for whose benefit this work is carried on.

Mr. Clery, J.P., seconded the resolution, and Dr. T. Gelston Atkins proposed another resolution calling attention to the necessity for providing funds to a moderate extent to defray the current expenses of the Association. The report showed that a sum of £114 odd had been subscribed, and the amount of work the Association had done for such a small amount of money was marvellous.

Mr. Stanley Harrington, J.P., in seconding the resolution drew attention to the fact that the expenses of the Association were quite distinct from the money that had been voted by the various public bodies. He appealed to the general public to help to promote the establishment of the splendid institution by giving moderate subscriptions, which were necessary—absolutely necessary—for carrying on the work. He did not think the meeting could sufficiently thank Dr. Cremen and the other gentlemen who were associated with him on the Committee for the really efficient and splendid work they had undertaken and were carrying out so well.

The Bishop of Cork (Dr. Meade) having been moved to the second chair, Dr. Cremen proposed that the best thanks of the Association be tendered to their respected President, the Right Honourable the Earl of Bandon, for the interest he had taken in promoting the success of the Association. Personally he wished to thank his lordship for the able and willing assistance which he had so readily given when he had to be consulted with reference the many difficulties that had to be encountered in providing funds for the working and maintenance of the proposed sanatorium. The interest which his lordship took in these matters was ably seconded by the Countess of Bandon.

The motion was seconded and passed by acclamation. Lord Bandon duly returned thanks.

Cork District Lunatic Asylum.

Dr. Woods's Annual Report.

The annual meeting of the members of the Committee of Management of the Cork District Lunatic Asylum was held on June 14th. Dr. Woods read his annual report, which both as regards the increase in insanity and the overcrowding in the Cork Asylum, was rather depressing. There were in the asylum on January 1st, 1903, 871 males and 742 females—total, 1,613; while there were admitted 185 males and 174 females—total, 359. The whole number under treatment was 1,056 males and 916 females—total. 1,972. The number of patients discharged recovered was 115, relieved 29, not improved 4, not insane 2. There were 106 deaths. At the end of the year there were 1,711 inmates (910 males and 801 females), with a daily average number resident of 1,650 (883 male and 767 female). From these figures it will be seen that there has been a total increase of 105 patients during the year, the increase for the previous year having been 23. The total number under treatment was 74 more than in 1902, and the daily average number resident 37 more. On January 1st the asylum was overcrowded by 432.

Dr. Woods calls attention in the report to the number of admissions, 359, as being much the largest in the annals of the asylum and 51 over the average of the past ten years. The discharges, 148, were below the average, and Dr. Woods accounts for this by the recoveries being slightly less than usual, and by the fact that no patients were discharged as "relieved" to the workhouses, owing to the completion of the Youghal Auxiliary Asylum. The death-rate has remained low, but 42 per cent. was due to pulmonary tuberculosis, and owing to the continued overcrowding it has been impossible to isolate these infectious cases in a satisfactory way. Dr. Woods lays stress on the fact that hospital accommodation has not been increased for the past twenty-five years, although patients have more than doubled, and patients have daily to be removed from hospital and acute wards to other wards of the asylum before they are fit in order to make room for more urgent cases, while space has been reduced by night from 80 superficial feet to 50, and in most of the wards of the new building from 60 superficial feet to 40 ft. Although the death-rate has not been high, dysentery, which is almost always present, and tuberculous disease, show the congestion of the wards. Dr. Woods urges that steps to reduce the overcrowding should be taken at once. In 1898, when the number of patients was 200 less than it is at present, it was decided to increase the hospital accommodation by 185, but this has not been carried out, the auxiliary asylum being built instead.

As to the causes of insanity Dr. Woods remarks that there is little new to record—heredity and intemperance standing prominently as the main causes. He says:

Although slow to believe it, the more I inquire into the facts the more convinced I am that insanity is increasing. The decrease in the population shows, of course, an increased proportion of insane. but this does not account for the difference now and fifty years since. The propo

50 was 1 in 600 for the whole of Ireland; in 1891 for the County of it was 1 in 319 of the population; now it is 1 in 194. The admis- show an increase of adolescent insanity; the present generation ars less capable of battling with the severe competition in life and critical epoch in life break down. Emigration, I believe, accounts his by the removal of the best out of the country, leaving at home a e stock to procreate a race more feeble than themselves. These raise a very serious question for the future of this try."

SMALL-POX IN BELFAST.

ithin the last week several new cases of small-pox have n discovered in Belfast. There were on June 15th 28 cases ie special Small-pox Hospital at Purdysburn, of which 7 been admitted within the week; they were from the ynacarrett district. The utmost care was taken to disin- the houses and burn the furniture, and 60 persons were ined as suspects in the intercepting hospital at the Twin nds. On June 16th 3 more patients were removed from same district—all women—and all those who had come contact were put under observation as suspects, and e June 17th 3 more cases have been removed from the e district. Another case, a man recently arrived from was sent from the Belfast Union Workhouse, and a fifth, man from Lisburn Workhouse, and her sister on June . Notices have been again issued by the Health Com- ee as to the necessity of revaccination and as to the im- nce of immediately reporting every case when there is lightest suspicion. The authorities have been most suc- ul during the last few years in stamping out threatened emics, which have been all traced to imported cases, and gain adopting the same vigorous measures. As the nmodation for females is now filled several of the special ital tents designed by Messrs. S. Wilson and Sons have ordered, and are in readiness. The disease is not of a ent type. Some cases have been discovered near vady, Co. Derry, and prompt measures adopted to stop isease spreading.

DISPUTED CONSULTATION FEE IN A CASE OF SMALL-POX.

s interesting to report that the Local Government Board sued an order to the Belfast Board of Guardians to pay ee of 2 guineas applied for by Dr. Donnan for Dr. Robb, aw with him in consultation a suspicious case.

ROYAL VICTORIA HOSPITAL: EXPENSES OF WORKING.

James Davidson, the Honorary Treasurer, made an in- ing statement on the finances of this hospital at the last ng. Considerable interest has been taken as to the cost plenum system, and now experience for both winter mmer months has furnished data for a fairly accurate ate. With the three units, or six wards, still unused, penditure runs to nearly £14,000 in round numbers for le year; the expenditure for a unit, or 32 beds, is calcu- at £1,100 a year, so that the total cost of running the 00 beds would be £17,000 per annum; the estimate the hospital was opened was £18,000; so that the expense will probably be within the estimate. This out at between £55 to £60 a bed per annum, a not agant figure. As regards ventilation, the pleasantness plenum system in summer is beyond doubt. In winter, temperature is raised above 60° F. or 62° F., some com- s are made of a slight stuffiness.

CONTRACT MEDICAL PRACTICE.

FEES FOR OPERATION.

ESPONDENT writes that he recently performed an operation on a patient, on the understanding that he was to receive a special fee s convalescence the patient refused to pay on the ground that s entitled as a member of the club to all medical and surgical ment. Our correspondent subsequently sued him in the county but the judge decided for the defendant, and said that there was ng in the rules of the club showing that operations were to be or, and even refused to order the defendant to pay the guinea at had been paid by the plaintiff to an anaesthetist. The plaintiff ced a letter from the secretary of the club, stating that in his n operations were not included in the contract with the medical ; but the judge refused to admit the letter as evidence, and asked he secretary had not been called personally.

t is to be feared that the judge's decision was strictly in accord- with law. In accepting contracts at inadequate rates, practi- s should not forget the responsibilities they may unwittingly Our correspondent might have refused to operate, for although ear that he could not recover a fee from a club patient, it is ly that his patient could compel him to operate. Even, if the t does voluntarily pay a fee, it is usually very inadequate, and ften than not is sooner or later brought up against him before nagement of the club.

EMPLOYMENT OF CANVASSERS.

E. R. B.—The employment of a private canvasser or collector for the purpose mentioned is certainly unprofessional, and any one resorting to it might find himself in a serious position if he were brought up before the General Medical Council. It makes no difference whether the collector is employed by one or more doctors.

THORNE DEFENCE FUND.

THE following subscriptions have been received on behalf of this fund, in addition to those published in our issue of last week, p. 1,462:

	£	s.	d.
Amount previously subscribed	97	4	0
Dr. E. W. Roughton	1	1	0
Dr. Douglas Cowburn. ...	1	1	0
Dr. Cuthbert Lockyer ...	1	1	0
Dr. Rosa Turner	1	1	0
Dr. Adeline Roberts	1	1	0
Dr. Isabella Macdonald ...	2	2	0
Mr. Alban Doran	1	1	0
Dr. Maud Chadburn	1	1	0
A Layman	1	1	0
Dr. J. S. Fairbairn	1	1	0
Dr. J. Walter Carr	1	1	0
Mr. Edmund Owen	1	1	0
The Dowager Lady Jenner..	1	1	0
Miss M. Adey	1	1	0
Dr. Urban Pritchard	1	1	0
Dr. Mary Rocke	1	1	0
Dr. Amy Sheppard	2	12	6
Dr. Frances Ede	2	12	6
Dr. Aldrich Blake	5	5	0
Mr. L. A. Bidwell	2	2	0
Mr. H. C. Crouch	1	1	0
Dr. Garrod Thomas, Newport	1	1	0
Dr. Alice McLaren, Glasgow	1	1	0
Dr. Elizabeth Pace, Glasgow	1	1	0
Dr. Samuel West	1	1	0
Mr. A. Pearce Gould... ...	2	2	0
Per Dr. Sophie Jex-Blake: Grant from Trust Fund ...	20	0	0
Dr. Helen Webb	1	1	0
Mr. Bernard Roth	2	2	0
Mr. Furneaux Jordan, Birmingham	1	1	0
Dr. Everina Massey, Limerick	1	1	0
Dr. Lucy Buckley	0	10	6
Dr. Ursula Chaplin	0	10	6
Dr. Rawlings, Dorking ...	2	2	0
Dr. Domett Stone	1	1	0
Dr. A. R. Simpson, Edinburgh	3	3	0
Dr. Lloyd Roberts, Manchester...	5	5	0
Dr. Edward Malins, Birmingham	2	2	0
Mr. James Taylor, Chester	1	1	0
Dr. G. A. Simmons	0	10	6
Dr. R. G. Hebb...	1	1	0
Mr. C. A. Ballance	1	1	0
Dr. Peter Abercrombie ...	1	1	0
Dr. C. O. Hawthorne ...	1	1	0
Mrs. Lorimer Hawthorne, M.B.	1	1	0
Dr. Julia Cock...	2	2	0
Dr. W. T. Law	1	1	0
Dr. Lawrence Winter ...	1	1	0
Dr. Margaret Sharpe ...	1	1	0
Dr. Annie Clark	1	1	0
Mr. William Haslam... ...	1	1	0
Dr. Dundas Grant	2	2	0

Dr. Tate, 32, Queen Anne Street, Cavendish Square, will be pleased to receive and acknowledge any subscriptions.

British Medical Association.

SEVENTY-SECOND ANNUAL MEETING AT OXFORD.

VICE-CHANCELLOR'S SOIRÉE.

The Vice-Chancellor and members of the University will give a *soirée* on Wednesday evening, July 27th, and members of the Association who may have exhibits of exceptional scientific interest and are willing to show them are requested to communicate as early as possible with Mr. G. H. Nagel, Trinity College, Oxford.

SECTION OF OPHTHALMOLOGY.

We are requested to state that all members proposing to attend the Section of Ophthalmology who have applied for accommodation in Keble College have had rooms allotted to them.

GOLF MATCH.

It has been decided to hold an International Golf Match during the meeting between teams representing England *versus* the Rest. Residence, not birth, will be the qualification for inclusion in the teams. English and Irish players may send in their names with their club handicaps to Dr. Proudfoot, 43, St. Giles, Oxford, while Dr. Norman Walker, 7, Manor Place, Edinburgh, will receive names and handicaps from Scotch players. Professor Symington, Queen's College, Belfast, is also prepared to receive the names and handicaps of Irish players.

THE PATHOLOGICAL MUSEUM.

We understand that the response to the appeal of the Committee of the Pathological Museum for specimens and other exhibits has been so satisfactory that the large space at the disposal is now nearly full up, and the collection is almost complete.

SPECIAL RAILWAY ARRANGEMENTS.

To members and their friends attending the annual meeting at Oxford the railway companies of the United Kingdom will grant return tickets, on payment at the time of booking, at a single fare and a quarter. To secure this concession each passenger must produce a special voucher, and these may be obtained on application to the General Secretary, 429, Strand, London, W.C. The reduced fares will be available from July 22nd to August 2nd, both dates inclusive.

Members attending the annual meeting, but staying at places

outside Oxford, may, on production of cards of membership, obtain return tickets at a single fare and a quarter (minimum charge 1s.) from Oxford to London or to any station not more than fifty miles distant to which through bookings are in operation; these tickets will be available to return on the same or following day. Members availing themselves of this privilege should use the original return ticket for the first journey to and the last journey from Oxford. The member's ticket, which is obtained at the Reception Room when registering attendance, will enable members to get the reduced fares from Oxford to London and to places within the fifty-mile radius for any intermediate journeyings.

ASSOCIATION NOTICES.

COUNCIL.

NOTICE OF MEETING.

A MEETING of the Council will be held in the Council Room of the Association, at 429, Strand (corner of Agar Street), London, on Wednesday, the 6th day of July next, at **2 o'clock** in the afternoon.

June, 1904. GUY ELLISTON, *General Secretary.*

ELECTION OF MEMBERS.

ANY candidate for election should forward his application upon a form, which will be furnished by the General Secretary of the Association, 429, Strand. Applications for membership should be sent to the General Secretary not less than thirty-five days prior to the date of a meeting of the Council.

LIBRARY OF THE BRITISH MEDICAL ASSOCIATION.

MEMBERS are reminded that the Library and Writing Rooms of the Association are fitted up for the accommodation of the members in commodious apartments, at the office of the Association, 429, Strand. The rooms are open from 10 a.m. to 5 p.m. Members can have their letters addressed to them at the office.

GUY ELLISTON, *General Secretary.*

BRANCH MEETINGS TO BE HELD.

BIRMINGHAM BRANCH: CENTRAL DIVISION.—Notice is hereby given that a general meeting will be held at the Medical Institute, Edmund Street, at 4 P.M on Thursday, July 14th. Business: (1) The consideration of a suggested new rule for Division. (2) To consider and instruct the Representative upon various reports of the Medico-Political Committee. (3) General. Members are particularly requested to make a note of this meeting, as individual notices will not be sent out on this occasion.—E. D. KIRBY, 106, Hagley Road, Birmingham, Honorary Secretary.

BIRMINGHAM BRANCH: COVENTRY AND TAMWORTH AND NUNEATON DIVISIONS.—The joint annual meeting of these Divisions will be held at the Coventry and Warwickshire Hospital on Wednesday, June 29th, at 3 p.m. Agenda: 1. Election of a Representative for the Annual Representative Meeting. 2. Instructions to be given to such Representative on the matters arising at the Representative Meeting. (These matters are fully set out in the SUPPLEMENT to the BRITISH MEDICAL JOURNAL of May 7th; members will probably find it a convenience to bring that SUPPLEMENT with them.)—F. L. HARMAN BROWN, Clive House, Warwick Road, Coventry, Honorary Secretary.

BIRMINGHAM BRANCH: DUDLEY DIVISION.—The annual meeting of this Division will be held in the Town Hall, Dudley, on Thursday, June 30th, at 3 p.m.—M. A. MESSITER, Cappoly, Dudley, Honorary Secretary.

BIRMINGHAM BRANCH: WEST BROMWICH DIVISION.—The annual meeting of this Division will be held in the Board Room of the West Bromwich District Hospital on Wednesday, June 29th, at 4 p.m. Business: To elect officers. 1. Two Representatives on Branch Council. 2. Ordinary members of Executive Committee. 3. Representative in Representative Meetings of the Association. To receive report from Executive Committee. To consider the business of Annual Representive meeting. To consider memorandum from Exeter Division. Other business.—H. B. W. PLUMMER, 54, Birmingham Road, West Bromwich, Honorary Secretary.

BORDER COUNTIES BRANCH.—The annual meeting of this Branch will be held on Thursday, June 30th, in the County Hotel, Carlisle, at 3 p.m. Business: 1. Reports of election of new officers. 2. Election of six members of Council. 3. President's address.—FRANCIS R. HILL, 62, Warwick Road, Carlisle, Honorary Secretary.

CAMBRIDGE AND HUNTINGDON BRANCH.—The annual meeting of this Branch will be held at Cambridge on Thursday, June 30th. Members desiring to make communications should write to the Honorary Secretary as soon as possible.—F. E. APTHORPE WEBB, 25, Newmarket Road, Cambridge, Honorary Secretary.

DORSET AND WEST HANTS BRANCH: BOURNEMOUTH DIVISION.—A meeting of this Division will be held at the Medical Society's rooms, Shaftesbury Hall Chambers, Bournemouth, on Monday, July 4th, at 3.15 p.m. Agenda: Cases, if any. Instructions to delegate of Division at Oxford meeting. Dr. Snow will open a discussion on Obesity. Members having papers to read or cases to communicate are requested to notify the Honorary Secretary as soon as possible.—C. H. WATTS PARKINSON, St. Margarets, Wimborne, Honorary Secretary.

EDINBURGH BRANCH: NORTH-WEST EDINBURGH DIVISION.—The annual meeting of the Division will be held on Tuesday, June 28th, at 4.15 p.m. in the Hall of the Royal College of Physicians, Queen Street. Business: (1) Minutes of previous meeting. (2) Election of officers and members of Executive Committee. (3) Election of two Representatives of the Division to the Branch Council. (4) Election of Representatives of the Divisional Representative Meetings of the Association. (5) Annual Report of the Executive Committee. (6) To consider the business of the Annual Representative Meeting at Oxford. (Notices of motions have been published in the BRITISH MEDICAL JOURNAL SUPPLEMENT of May 7th). (7) To consider the following questions referred to the Division for its opinion thereon: (*a*) Whether it is desirable that the medical witnesses engaged on each side in legal cases should meet in consultation (see SUPPLEMENT to BRITISH MEDICAL JOURNAL, March 19th, 1904) (*b*) The question of the advertising of medical practitioners in connexion with hydropathic establishments (loc. cit.). (*c*) Shall medical defence be undertaken by the Association? (In connexion with this question, the Honorary Secretary would feel much obliged if members who approve of this scheme will fill in and return to him immediately the form of agreement enclosed with the Medical Defence circular. Those disapproving of the scheme might advise the Secretary before the date of meeting.) (8) To consider communication from the Edinburgh Southern Division regarding the administration and regulations for admission to the out-patient departments of the Royal Infirmary. (9) Any other competent business.—T. CAVERHILL, 6, Manor Place, Edinburgh, Honorary Secretary.

LANCASHIRE AND CHESHIRE BRANCH.—Preliminary notice. The annual meeting of this Branch will be held in Blackburn on the afternoon of Thursday, June 30th. The Honorary Secretary will be pleased to hear from any member desirous of reading papers, etc.—T. ARTHUR HELM, St. Peter's Square, Manchester, Honorary Secretary.

LANCASHIRE AND CHESHIRE BRANCH: MANCHESTER AND LIVERPOOL DISTRICT.—*Oxford Meeting:* Arrangements are now being completed with the Great Western Railway Company to attach a special car to the 12 o'clock noon train for Oxford on Monday, July 25th, from London Road, Manchester. Members will leave Liverpool Great Western at 11.30 a.m to join the party at Crewe about 1 p.m., due at Oxford at 4. The car will be attached to the train leaving Oxford at 6.12 p.m. on Sunday, picking up members at Leamington or Warwick who have availed themselves of the invitation by the Corporation of Leamington and the Countess of Warwick, as mentioned on pages 168 and 169 of the SUPPLEMENT to the BRITISH MEDICAL JOURNAL of June 11th. Members intending to join this party should send word as early as possible to Dr. Bagley, 229, Clowes Street, Manchester, S.E., so that he may know how many will be going.

METROPOLITAN COUNTIES BRANCH.—The annual meeting of this Branch will be held at the Hotel Cecil on Tuesday, June 28th, at 6 p.m. The annual dinner (8s. 6d., exclusive of wine) will follow the meeting at 7.30 p.m., Dr. H. Radcliffe Crocker, President, in the chair.—C. ROWELL, 6, Cavendish Place, W.; F. J. SMITH, M.D., 138, Harley Street, Honorary Secretaries.

NORTH LANCASHIRE AND SOUTH WESTMORLAND BRANCH.—The annual meeting of this Branch will take place at the County Hotel, Ulverston, on June 29th, at 3 p.m. There will also be a joint meeting of the Furness and Kendal Divisions to elect their Representative. Members willing to show cases, specimens, etc., are requested to communicate as soon as possible with the Honorary Secretary, A. S. BARLING, High Street, Lancaster.

NORTH WALES AND SHROPSHIRE BRANCH.—The annual meeting will be held at Shrewsbury on or about the 7th day of July. Members having papers to read or cases to communicate are requested to notify either the Secretaries on or before June 25th.—W. JONES MORRIS, Portmadoc; H. JONES ROBERTS, Penygroes; H. H. B. MACLEOD, Clive House, Shrewsbury, Honorary Secretaries.

SOUTHERN BRANCH.—The annual meeting of this Branch will be held at the South Western Hotel, Southampton, on Thursday, July 7th. The President kindly invites the members to luncheon at the hotel at 1 p.m. The general meeting will be held at 2 p.m. The following resolutions will be moved from the chair:—(1) That each candidate for election to the Association by the Council of the Southern Branch (excepting officers of the army, or navy, or Indian Medical Service on the Active List) shall furnish a certificate from two members of the Association, to whom he is personally known. (2) That a donation of 5 guineas be made to Epsom College. N.B.—This donation will entitle the Branch to vote at the next election of pensioners and foundation scholars. Dr. Ward Cousins will move: "That, as the Midwives Act of 1902 contains no provision for the payment of medical practitioners, the members of the Southern Branch hope that the Council of the Association will take steps to promote an amendment of the Act for the purpose of providing remuneration for medical men called to assist midwives in cases of danger and difficulty." Papers will be read as follows: Mr. Childe: "Cases of Abdominal Hysterectomy. Dr. Ward Cousins: The Treatment of Post-nasal Adenoids. Dr. Purvis: Remarks on Three Recent Cases of Malignant Disease of the Tongue. An address will be delivered by Mr. Bullar, M.B., President. After the address visits will be paid to places of interest in the town and neighbourhood. Tea will be served at the hotel from 4.30 to 6. Members intending to be present at luncheon are requested to communicate with Dr. Wade, 28, Carlton Crescent, Southampton, not later than July 6th.—H. J. MANNING, Laverstock House, Salisbury, Honorary Secretary and Treasurer.

ULSTER BRANCH.—The annual meeting of this Branch will be held in Belfast on Wednesday, July 20th. Any member having any communication to made or any business to bring before the meeting should kindly inform me on or before July 12th. Nominations for the offices of President, Representatives on the Council of the Association (two when combined with Connaught Branch), Honorary Treasurer, and Honorary Secretary should reach me not later than June 30th.—WILLIAM CALWELL, M.D., 1, College Square North, Belfast, Honorary Secretary.

WEST SOMERSET BRANCH.—The annual meeting of this Branch will be held at the Crown Hotel, South Petherton, on Tuesday, June 28th, at 2.30 p.m., under the presidency of Mr. A. W. Sinclair. Agenda: Minutes of last meeting. Annual report of Council. Treasurer's report. Election of President-elect. Election of other officers. Election of Ethical Committee. Ethical case: Report of Committee on case recently before them. Resolution: The following will be proposed: "That members of the Council attending ordinary meeting of the Council at Taunton shall receive their second class return railway fare." President's address on Neurasthenia. Luncheon will be served at the Crown Hotel at 1.30 p.m. —W. B. WINCKWORTH, Sussex Lodge, Taunton, Honorary Secretary.

SPECIAL CORRESPONDENCE.

VIENNA.

Statistics as to Small-pox and Diphtheria.—The Fight against Tuberculosis.—Foundation of New Clinics.

STATISTICS are now available in regard to the proportion of morbidity and mortality in the part of Lower Austria under the jurisdiction of the General Health Council. Not a single case of hydrophobia, small pox, or anthrax has came to the knowledge of the medical officers in 1903, a record of immunity of which there has been no previous example in the last ten years. Small-pox is practically stamped out throughout the greater part of Austria, an area nearly of the size of the United Kingdom. Only in some districts bordering on the Balkan States and Russia, a case is now and then reported, but an outbreak is quickly suppressed. This result is to be attributed to the enforcement of compulsory vaccination; children must bring a certificate of revaccination before they are admitted to any school, and it must be remembered that school attendance is compulsory. Moreover, every man entering the army for his period of compulsory service is revaccinated. The result is, that amongst the younger members of the medical profession there are very few if any, who have seen a case of small-pox eruption, except in the pictures of an atlas of dermatology. The report of the Council, however, shows a very high prevalence of measles and whooping-cough, especially in Vienna. The present epidemic of measles is of a mild character, though likely to lead to complications of the ear and joints. In regard to whooping-cough, experiments on a large scale have been conducted by Professor Monti in the Poliklinik, with the object of shortening and mitigating the disease. The children are brought to rooms where the air is charged with special gaseous substances. The results are said to be encouraging. Diphtheria is no longer the dread of medical practitioners, thanks to Behring; whilst the number of cases is not much smaller than in the corresponding years of the previous decades (1880-90, 1890-1900), the mortality is markedly lower—lower even than two years ago (10.75 per cent. to 14 per cent.). It must be kept in mind that these reports represent chiefly the results of private practice in rural and county districts, where parental carelessness makes it difficult to adopt stringent measures enforced in hospitals. In the large hospitals the mortality from diphtheria is even lower than that shown in the figures just quoted.

An interesting chapter in the report deals with the question of fighting tuberculosis. As yet there are only a few sanatoriums in which the open-air treatment is carried out, and they are in need of funds. But a great deal of propaganda work has been done by means of handbills, posters, lectures, and pamphlets, in which the nature of the disease, the means of prevention, and the chief lines of treatment are set forth in plain language. In a number of trades in which dusty material has to be handled or much dust is produced (stone-grinders, builders, scavengers, street-sweepers), instructions have been given that dust should be as far as possible damped with water. Spitting has been forbidden in public streets and buildings, and a number of towns, especially the numerous health resorts, have issued laws against ladies using gowns with trails.

The foundation stone of the new clinics, which are to take the place of the present antiquated General Hospital, was laid last week by the Emperor Francis Joseph in the presence of a brilliant gathering of scientists and Government functionaries. The Lord Mayor of Vienna, the Rector Magnificus of the University of Vienna, the Prime Minister and his colleagues, the chief magistrates, along with the Archbishop and Grand Rabbi of Vienna, witnessed the scene. An address was presented to His Majesty by the Director of the present hospital, to which His Majesty graciously replied that it was a pleasant duty of the wealthy to help suffering mankind. The hospital to be erected will be the largest of its kind in the world, providing ample room for all branches of the art of healing, together with laboratories and other institutions of scientific research. The entire teaching staff of the Medical Faculty in this city will find there accommodation for its needs.

MANCHESTER.

A Memorial Portrait of the late Dr. Sam. Woodcock.—Neglect of Children.—Clearing the Site for the Infirmary.

FOR many years the late Dr. Sam. Woodcock was honorary superintendent of a mission in the district wherein his practice lay. Sir James Hoy recently unveiled a memorial portrait which is to be hung in the mission hall which was the scene of his Sunday labours on behalf of the youth of the district. He preached there every Sunday night for years, he managed all its affairs, and smoothed away all its difficulties. He was a grand man, a true friend, and a shining example of what a good citizen ought to be. Sir James Hoy recalled his gifts as a witty conversationalist and as a ready public speaker, his unfailing urbanity, his kindliness of manner, his robust manliness, and his love of work, political and social, which counted for the common good. Dr. Woodcock's example stood out, he said, with singular brilliance in Manchester life as that of a busy professional man who yet found time ungrudgingly to give much service to his fellow-men. He was actuated by a deep-seated love of the old straight Puritan life, the principles of which he endeavoured to work out and develop in a variety of ways for the common good. He hated humbug, pretentiousness, and flunkeyism; he had a real love for common folk and a continuing sympathy with them in their hard struggles. In his intercourse with his fellow-men he showed how a close study of the literature of Hood and Waugh and the utterances of John Bright might shape and develop the keenest human sympathies and the surest bonds of a common brotherhood.

At the annual meeting of the Manchester and Salford Branch of the National Society for the Prevention of Cruelty to Children, which was held on June 17th, it was stated that the inspectors do not merely enter a house and, if they find ill treatment and neglect, warn the parents or guardians, but they keep on paying visits, either until there has been an improvement, or until the parents have been prosecuted and some provision made for the children. During last year the officers of the Society investigated 1,711 cases, affecting the welfare of 4,796 children, 2,399 of whom were insured for a total of £14 000. There were 1,607 instances of neglect. In 1,443 cases warnings were given. There were 117 prosecutions, and of the 138 persons prosecuted 112 were sent to prison and four were fined. The inspectors come across a great many cases due to poverty. "The principal causes of cruelty and neglect of children other than drink—which still remains responsible for nearly all cases in which the Society's supervision is required—are ignorance and laziness. It is in dealing with this class of cases that the Society shows the best results."

The contract for clearing the site of Stanley Grove for the erection of the new infirmary has been let to a contractor, and workmen are busy demolishing the houses and putting everything in readiness for the builders when the plans have been passed—which will necessarily be a long and anxious task—and other arrangements completed.

LIVERPOOL.

The Consumption Hospital and the Delamere Sanatorium.—The Isolation of Measles and Whooping-cough.—Epileptic Home, Maghull.—Health Report for Bootle.

ON the occasion of the annual meeting of the Hospital for Consumption and the Delamere Sanatorium a visit was paid to the latter institution by the Lord Mayor and a large party of subscribers and others, who were shown through the wards

and the bungalows. An annual report, which is the fortieth of the hospital and the second of the sanatorium, was presented to the subscribers. It states that, pending the reconstruction of the hospital in Mount Pleasant, the work of the institution is carried on in temporary premises in Hope Street. The out-door work has been continued without interruption; there were over 17,000 attendances, the new cases being 1,942. The Committee has acquired the freehold of the site of the new building. A larger number of cases apply for admission to the sanatorium in the earlier stage of the disease than was formerly the case, showing that the public more generally realizes the advantages of early treatment. An offer has been made by the President, Mr. W. P. Hartley, to increase the accommodation at his own expense, but the Committee has not seen its way to accept it, since its annual income would not cover the cost which the increased accommodation would entail. During the year 1903 there were 150 patients under treatment in the sanatorium, of whom 40 remained in the institution at the end of the year. Out of the 110 patients who were discharged, 72 received very great benefit, and most of them were able to work. Some are continuing the treatment in their homes or in the country. Of the cases remaining 19 received distinct benefit; in 18 only was there little or no improvement, and there was one death.

At a recent meeting of the Health Committee attention was drawn to the prevalence of measles and whooping-cough, and one of the members inquired whether some steps could not be taken to ensure isolation of such cases. Dr. Hope said that the difficulties of isolation were, first, the lack of hospital accommodation, no provision having been made in existing hospitals for such cases, and secondly, the tender age of the patients, usually under twelve months, which would render it necessary to provide not only for the patient but also for the mother. Moreover, it would be impossible in many instances to induce the mother to leave her household to go into isolation with her child.

The annual meeting in connexion with the Home for Epileptics at Maghull took place recently. The report stated that the enlargement of the farmhouse at Chapel House was completed during the year, and that this gave accommodation for eighteen more patients. The vacancies at the other homes, except the Harrison Home, had also been filled, so that the total number of patients in residence had risen during the year from 174 to 204. There were still a few vacancies for first-class patients in the Harrison Home, but in all other classes there were more applications than the Committee could find accommodation for, and consequently a considerable delay took place between the acceptance of patients by the Committee and their admission. They had now a full year's experience of the new farm, and it had given fresh proof that selected epileptic males, after a preliminary training, were capable of a fair amount of sustained labour, and might be relied upon, under proper supervision, to undertake agricultural work of all kinds and in all seasons. The institution is in debt to the extent of nearly £10,000. The Home was started a few years ago with thirty patients; there are now 204. It is doing a great and beneficent work among a class of persons who deserve help, and it is to be hoped it will not be allowed to languish through lack of funds.

Dr. W. Naylor Barlow, Medical Officer of Health for Bootle, has just issued his third annual report on the health of the borough. The sanitary condition is satisfactory. The births during 1903 were 2,010 and the deaths 1,108. Dr. Barlow considers the prevailing practice of encouraging children below the age of 5 to attend infants' schools to be a danger to the public health, and states that 40 per cent. of all scarlet fever cases were in children between the ages of 3 and 5, and 50 per cent. between the ages of 5 and 10, and that at least three-quarters of all the cases of scarlatina occurred among children who would attend infants' schools. He considers that infants' schools are also largely responsible for the spread of measles and whooping-cough. He is strongly opposed to reducing the age for commencing school attendance, and considers that reforms are necessary in the direction of shorter school hours, improved washing accommodation, and in many instances improved school rooms. Small-pox occurred, and 25 cases were noted; but, owing to the prompt measures taken, the disease never got out of control. Dr. Barlow's bold outspoken views on the connexion between intemperance in the parents and the occurrence of summer diarrhoea in the children, embodied in a previous special report, have already been noticed in the Liverpool Correspondence of the Journal.

BRISTOL.

The Provincial Meeting of the Society for the Study of Diseases of Children.—Small-pox.—Diphtheria.

The proceedings of the meeting in the city of the Society for the Study of Diseases of Children will be published later, but the record of medical matters in Bristol would be incomplete without a reference to the dinner that was held on June 18th at the Clifton Down Hotel, under the genial presidency of Dr. Frederick Taylor. About thirty members and visitors were present, and, in spite of a lengthy menu and a more lengthy toast-list, the diners managed to leave the premises by closing time. The dinner was a successful ending to a very pleasant meeting.

The Medical Officer of Health, in his report of June 21st, among other matters, refers to the several introductions of small-pox that have taken place during the past months. The disease has been introduced four times into the city. The first case occurred at Avonmouth. It was immediately recognized and reported. The second, a mild form, occurred in Bedminster, and resulted in 10 cases in the city and 12 in the neighbouring county. All these cases had been followed up and it is believed that further trouble from them is at an end. On May 29th a tramp with the disease came to Bristol, and infected several others, and on June 16th another tramp with it visited several common lodging-houses and infected an unknown member. In all 37 cases are now under treatment in the hospital ship. Dr. Davies called the attention of the Health Committee to the very inadequate accommodation for small-pox in the city. Taken as a whole Bristol is not a well-vaccinated city, for according to Dr. Davies, there are more unvaccinated here than in Leicester. It is true that there has been little of the disease for some years, but the recent occurrence of mild and often unrecognized cases constitutes a grave danger and should an epidemic of even small proportions arise the resources of the city for nursing the cases would be seriously tried.

For some time the district of Fishponds has been greatly troubled with diphtheria. For the past nine weeks special precautionary measures have been carried out, not without considerable interference and passive resistance from the residents. There still appear on Dr. Davies's showing to be a large number of cases, as many as 165 suspicious ones alone being dealt with at the out-patient hospital.

SOUTH WALES.

Glamorgan County Council and the Training of Midwives.—Small-pox.—Sewerage of Ely and Fairwater Grove.—Aberavon Water Supply.

The Education Committee of the Glamorgan County Council on June 21st received a deputation of medical men, and members of the South Wales and Monmouthshire Branch of the British Medical Association. The deputation consisted of Professor Hepburn, Drs. E. J. Maclean, D. R. Paterson, Alfred Rees, and Dr. W. Williams, County Medical Officer. Dr. Williams, in introducing the deputation, gave an account of the action taken by the County Council under the Midwives Act, 1902. He explained that the Council had delegated its powers under the Act to an Executive Subcommittee, with himself as Executive Officer. The objects of the Act were (1) to secure better training of midwives, and (2) to regulate their practice; but it contained no suggestions or provisions for securing this better training. He felt confident that supervision of the midwives' work would be well carried out, and it was the question of the better training of midwives that the deputation wished to bring before the Committee. Dr. E. J. Maclean dwelt at some length upon the mortality in child-birth amongst mothers and infants in South Wales, especially in Glamorgan, and emphasized the urgent importance of having in the mining centres and elsewhere trained and skilled midwives. He suggested the establishment in connexion with the Cardiff Medical School of a training school for young women intending to become midwives, and pointed out that the Committee could do a great deal to help on this good work by including the training of midwives under the term technical instruction. After some discussion the Committee delegated the consideration of the matter to a subcommittee of six members, representing each division of the county, together with Mrs. E. B. Williams, the Chairman, and the County Medical Officer. It is felt that the Committee, acting on the advice of their Chairman

)r. T. H. Morris), will take up the question in their usual whole-arted manner and set an example to other county councils. One case of small-pox was notified in Cardiff in the week ding June 11th. With this exception the whole of the ministrative county and South Wales were free. Dr. alford, Medical Officer of Health, reported to the Cardiff ealth Committee on Tuesday, June 14th, that there had en 8 cases of small-pox in the borough since May 18th. ey were all infected by one person, who had been ill some eks before the disease was recognized. The last case curred on June 5th. Councillor Dr. Smith expressed the inion that the Committee was in an invidious and incon-tent position, because it notified employers of labour that certain employé had small pox in his house, but it allowed e man to use its tramways to go about the streets without or hindrance. He was also of the opinion that if workmen re kept from work during the quarantine period, or any rtion of it, they should be compensated.

)n Tuesday, June 14th, Mr. H. Ross Hooper, A.M.I.C.E., behalf of the Local Government Board, conducted an quiry at Ely into the application of the Llandaff and Dinas wis Rural District Council for sanction to borrow £7,000, works of sewerage and sewage disposal for Ely and Fair-ter Grove. The Corporation of Cardiff opposed, and the puty Clerk and County Medical Officer watched the pro-dings on behalf of the Glamorgan County Council. Great erest was evinced in the proceedings, there being a heavy endance of large ratepayers and others from the district.

t the meeting of the Highway Committee of the Aberavon vn Council on Tuesday, June 14th, Dr. J. Arnallt Jones, dical Officer, mentioned the adverse report from the nty Bacteriologist on the quality of the town water, and l he had conferred with the Borough Surveyor, who in-ned him that the carcasses of sheep in varying stages of rescence had from time to time recently been found in the er courses feeding the reservoir. A bi-weekly or tri-weekly pection of the gathering area was desirable. The Surveyor lertook to exercise a close supervision over the area. The ncil desired it to be known that there was not a water ine at Aberavon as had been reported.

CORRESPONDENCE.

EARLSWOOD ASYLUM.

R,—More than fifty years ago the need of an institution provide for idiot and imbecile children was keenly felt, the result that the asylum at Earlswood was founded. e then the institution has been open to the children of classes; the rich have been enabled to pay for that ient care and proper tuition which only such an asylum provide, and the poor have been relieved of a burden h weighs heavily on a hard-worked woman—the charge useless, perhaps noisy, uncleanly, or mischievous child. incubus becomes even greater when the child is also an eptic, when the scenes witnessed by the other children in home are very demoralizing. The founders of the Asylum e the pioneers in this work, and a great want has been plied. To curtail the numbers of the inmates—nearly would be to inflict a great social, one could fairly say a onal, injury.

)w, however, a crisis has occurred in the history of the um, owing to considerable structural defects which call immediate attention. These, as in the case of other lar institutions, are the result of faulty work in the erec-of the original buildings, in times when the supervision cal authorities was not as it is now. The Asylum stands the Wealden clay. Practically no foundation was pro-d, and the walls were filled with rubbish; hence, owing uccessive wet seasons, the whole building began to ide, with the result that the walls cracked. Eminent itects were at once summoned, and they insisted that, he safety of the inmates, the repairs should be imme-ly taken in hand, at an estimated cost of £30,000.

e funds available for these necessary operations are tically exhausted, so that, unless immediate substantial is forthcoming, the progress of the work must be ped. In this case the Committee will have to do what can to make the buildings secure for the approaching er, and the cost of resuming the work next year will be ly increased, for it must be done. Already a sum of)0 has been spent, and the labour bill is still £300 a . No legal redress is possible after such a lapse of time. e asylum had been placed in a position of comparative financial security, but now all available securities have been sold and the institution is heavily in debt to the bankers. The public must at times experience difficulty in deciding which charitable institutions to select for their beneficence, but surely no eloquent voice is needed to plead for those who cannot plead for themselves. As the institution is open to all classes, and as no question is raised as to denomination, or even nationality, the Committee has confidence in appealing to the public in general.

No one can deny that the immediate good done by the asylum in the past has been great; and it is difficult to estimate the potential good done to the community at large in fostering any germs of intelligence that may be found in the patients, with the result that many children who were worse than useless at home have been returned in the course of a few years to prove a comfort to the family, and even to become breadwinners.—We are, etc.,

C. C. P. HULL, J.P., C.C.,
Chairman.
C. HOLMAN, M.D.,
Member of Board of Management.
H. HOWARD,
Secretary.

36, King William Street, E.C., June 20th.

POOR-LAW MEDICAL REFORM IN SCOTLAND.

SIR,—I am sure that every one acquainted with the working of the Poor-law system in the Highlands and Islands of Scotland will endorse what "A Parish Doctor" says.

Many a tale could be told of how the medical officer is hampered in his work by these same "skeelful persons," who are often parish ministers and merchants, and who from their training must have a good knowledge of medicine!

These persons are in the habit of visiting patients after the medical attendant has made his call; they will look at and taste the medicine supplied, feel the pulse and take the temperature, criticize the treatment and advise something quite different, and because it can be shown in the "Incomplete Herbalist" that so-and-so is good for this or that symptom which "you have," the doctor must be wrong.

I have known a patient to take five different patent medicines at the same time that he was supposed to be following the advice and taking the medicine prescribed by a qualified practitioner.

Newspaper advertisements of patent medicines, etc., are also directly responsible for much of the sickness and consequent "uncertified deaths." When these medicines fail to cure, as they generally do, the poor parish doctor is called, or rather ordered to visit when it is too late to be of any use, but of course it is his blame if the patient dies, he is "nae doctor ava," and he is criticized by the gangs of idlers who love to congregate at the local merchants' shops for the sake of the latest gossip and scandal.

There has been a great deal said about medical men dispensing, but has anything been done in Scotland to prevent merchants prescribing and dispensing?

A few raids into merchants' shops in the outlying districts of Scotland would reveal a very curious state of affairs which would no doubt be of great interest to the Pharmaceutical Society, and a cause for at least some "uncertified deaths" might be found in the shape of scheduled poisons sold under no restrictions.

It is no use to say that people in the Highlands and Islands cannot afford to pay the doctor's fees. I cannot believe that many medical men would refuse to attend a poor person because he knew there was no fee to be got.

The people who complain most about the doctor refusing to attend are those who are well enough off always to have their "wee drap i' the hoose in case o' an emergency, ye ken," who summon the doctor many miles by wire after this fashion: "Come immediately,—just living" (the case may only be a gumboil), and who never have the slightest intention of paying. I myself have walked a distance of nine miles, in a blinding snowstorm, to find when I got there that nothing was the matter but a slight pain in the back, but "we never expected you on such a night"—and that was the only fee I ever got for my trouble.—I am, etc.,

May 28th. A PARISH MEDICAL SLAVE.

THE MODERN PURSUIT OF NOVELTIES IN MEDICINE.

SIR,—Let us hope that you will soon publish another charming, honest address such as Sir Dyce Duckworth's.[1] It

[1] BRITISH MEDICAL JOURNAL, June 11th, 1904, p. 1354.

is refreshing to those of a conservative turn of mind to hear the old and tried men of medicine speaking out fearlessly now and again. Some of your readers who have been assistants to medical men of the old school value very much the very useful things they have learnt from them. I remember well treating a man for severe lumbago in the usual way, not even forgetting antipyrin. "Dry-cup him well," said Dr. Wallace, of Turriff, N B., and the man was cured.

As regards new "cures," I remember a medical officer of health in Aberdeenshire asking me if I knew of the new cure for consumption. I blushed, ashamed of my ignorance. Guaiacol carbonate was what he had up his sleeve. What of it now?

One is often asked, "Have you tried Dimetafiddlesticke in Botheritis?" If you boldly say "No," a look of pity meets you. If one could read thoughts, they are wondering how you possibly could make a living at all!

One often sees absurd reliance upon laboratory diagnosis. For example, a medical man refused to report a case as enteric fever which had all the cardinal symptoms, including severe haemorrhage, till he had the report as to the agglutination test.

Speaking of the growth of biological science, Professor Ogston recently said at Aberdeen that the medical student was seriously overburdened nowadays. How much of it all will "bring comfort, relief, and restored vigour to the sick and suffering?" It would take a seer of the first water to say how much preliminary science is necessary for the practice of medicine, surgery, and midwifery, but too often the lecturers seem to think they are teaching B.Sc. students alone.—I am, etc.,

Bootle, June 11th. ROBERT TURNER, M.A., M.D.Aberd.

ATMOSPHERIC PRESSURE AND APOPLEXY.

SIR,—The observations of your correspondents on this subject are well worthy of more careful attention and discussion, but at the outset it is advisable to bear in mind the results of much valuable experimental work performed more than twenty years ago by Jourdannet and Paul Bert, as well as that of late years by Mosso, von Liebig, Paul Regnard, Kronecker, and others, and, in our own country, by Professors Hill and McLeod, which establish more or less definite points from which to draw any conclusions.

In the first place, there is very much to be said in favour of the theory that the mechanical influence of changes of pressure (whether increase or decrease) do not affect the body in any way except in so far as they alter the volume of the gases contained in the blood.

Experiments have been repeatedly performed on men and animals showing that a rapid change from 760 mm. to 400 mm. or even 300 mm. (equal to about 14.18 in. and 18.12 in. fall of the barometer respectively) can be endured while at rest, with very little change in the respiratory and circulatory mechanism and without the appearance of any symptoms.

In dealing with higher pressures than that of the ordinary atmosphere, it has been shown, especially by Professors Leonard Hill and McLeod in their recent experiments, that the most important effect of pressures up to even three and four atmospheres (representing an increase of 60 in. of Hg.) is the solution of a greater volume of gases in the blood, and the danger to health is only when, after enduring this pressure for a certain length of time, the restoration to the normal atmosphere is undertaken too rapidly, producing gas-embolism.

When we consider these points, it is a little difficult to attribute the severe symptoms produced in the cases described by your correspondents to the direct effect of a rise or fall of only 2 in. in the barometer, even allowing for differences in the heart and blood vessels of healthy youth and degenerate old age. It seems to me more likely, as Drs. Leon and Kingston Barton suggest, that the phenomenon has more to do with the changes of temperature in the air under such circumstances affecting the blood-pressure rather than with any purely mechanical effect. The restoration of the pressure to normal is accomplished also without any disturbance.—I am, etc.,

MALCOLM L. HEPBURN, M.D., F.R.C.S.

Lowestoft, June 6th.

THE SO-CALLED PANCREATIC REACTION.

SIR,—Possibly the following brief experience with the reaction published by Dr. Cammidge will be of interest. The cases in which the test has been applied are all patients in this hospital.

No.	Name.	Age.	Nature of Case.	Result of Test.
1	D. W.	57	Cholecystotomy for gall stones.	Negative.
2	M. L.	48	Cholecystotomy.	"
3	A. H.	13	Diabetes.	A. and B. positive after fermentation of urine.
4	L. L.	35	Gall-bladder adhesions.	Negative.
5	R. B.	—	Gall stones; cholecystotomy.	A. positive.
6	J. B.	55	Cholecystotomy.	Negative.
7	J. S.	56	Chronic bronchitis.	A. positive.
8	M. B.	9	Carcinoma of pancreas.	Both negative.
9	E. B.	58	Carcinoma round bile ducts.	"
10	E. I.	50	? Carcinoma of pancreas.	"
11	K.	56	Gall stone; cholecystotomy; diabetes mellitus.	"
12	E. A.	44	? Carcinoma about bile ducts.	Both positive.
13	A. B.	45	? Carcinoma of pancreas.	"

* Slow solution of crystals.

From this table it will be seen that positive results are by no means usual; healthy urines have not always given the test. Crystals obtained by lead-salt solutions have no semblance to those of the positive "pancreatic reaction." Moreover, the test has failed in undoubted cases of "carcinoma" of the pancreas. Case 7 had no pancreatic disease *post mortem*. The diagnosis of Case 8 was that shown by laparotomy.—I am, etc.,

Pathological Laboratory, Leeds General Infirmary, June 21st. O. C. GRUNER, M.B.

A STEPPING STONE TO THE METRIC SYSTEM.

SIR,—In your notes on the metric system in the BRITISH MEDICAL JOURNAL of March 26th you call attention to several points which should undoubtedly facilitate the introduction of this system.

But there are many members of the profession to whom figures of any kind are a bugbear, and who will probably not endeavour to grasp the significance of the points to which you call attention. For the benefit of these and of many others who have learnt their posology in grains and minims I venture to submit a method which I hit upon some eight years ago, and which I have used ever since.

1 gram = 15.432 grains
1 cubic centimetre = 16·9 minims

Taking each of these figures as 16, and dispensing always sixteen doses, it is obvious that for every grain or minim per dose one wishes to give it will be necessary to weigh out or measure 1 gram or 1 c.cm. Now, 8-oz., 4-oz., and 2-oz. bottles contain respectively 16 tablespoonsful, 16 dessert-spoonsful, and 16 teaspoonsful. Therefore, by using only bottles of these given sizes the factor 16 becomes constant, though the size of the draught varies.

Again, for powders 16 may be very conveniently dispensed, or, if that be too many, 8 are as easily calculated. An example will make the method clear:

℞ Tr. nuc. vom. ♏v. — ♏v × 16 = 5 c.cm.
Ac. nitro. mur. dil. ♏x. — ♏x × 16 = 10 c.cm.
Spt. chlorof. ♏x. — ♏x × 16 = 10 c.cm.
Aq. ad ℥ss. — Aq. chlorof. ad ℥viij, or 224 c.cm.
Ft. M. M.
Mitte ℥viij.

(N.B.—♏v becomes 5 c.cm.; ♏x becomes 10 c.cm.)

All that is necessary, therefore, is to provide oneself with a set of gram weights, a small graduated cubic centimetre measure, and bottles of 8-oz, 4-oz, and 2-oz. capacity.

A little consideration will show that the error involved in taking the equivalent 16 as above is not very serious. In any case it will not be greater than the limits of the dose of the substance being dispensed, and probably will be less than the error of dispensing by the British system, and taking the nearest approximate figure in drachms or scruples. In the case of grains, for each grain there will be actually given $\frac{156}{160}$ part of a grain, an error on the safe side. In the case of minims there will be actually given for each minim $\frac{168}{160}$ ♏, roughly $\frac{1}{17}$ ♏ in excess.

This is not a scientific method, and on that account is not to be recommended to those who have the opportunity of taking up the metric system from the beginning, but to those persons I have described it appears to me likely to be a great boon, for it will enable them to continue thinking in grains and minims while writing their prescriptions, according to law, in the metric system. It will also facilitate

ansition to the new sizes of bottles. There are several inor advantages which are soon perceived when the method tried.—I am, etc.,

C. M. H.

FOUL CONVALESCENT HOMES.

SIR,—Dr. Rushton Parker's letter under the above title, hich appears in the BRITISH MEDICAL JOURNAL of June 11th, .lls attention to a state of matters for which his adjectives astounding" and "preposterous," though of unequal pplicability, are not one whit too strong. They are indeed, my judgement, not strong enough.

It is surely nothing short of "preposterous" that patients no, being sent to homes situated in the country and at the aside in order that they may enjoy the hygienic and climatic vantages which there obtain, should be forced to spend the nole night, or about half their time, in inhaling the excreta om the air passages of other invalids; for apart from the sgustingly unclean aspect of the question, it would be diffi- lt to imagine anything better calculated to retard, or even ogether to check, the convalescence which is the object of eir sojourn.

That the behaviour of the managers in permitting such a ate of matters is "astounding" is, however, a proposition which it is more difficult to subscribe. In one sense it is ily astounding that any body of enlightened and educated en can be found to tolerate anything which falls short of e highest obtainable degree of atmospheric purity; but, ving regard to the lukewarm attitude of the profession nerally towards this matter, one can hardly be surprised at the laity should still tarry in the tents of the ungodly.

It may be that the majority of the members of the profes- n preach the advantages of the open window. That they not practise it, however, is immediately brought home to y one who endeavours to obtain adequate ventilation at etings of societies, hospital dinners, and the like; and I am d (I admit the general tendency towards exaggeration) by ople of ordinary veracity that the atmosphere in the "tube" ring the five o'clock rush represents a refinement of purity en compared to that of some of the Harley Street con- ting rooms towards one o'clock in the afternoon.

lying at the root of this deplorable apathy in the cause of e of the most important elements in prophylaxis and thera- asis is the ignorant, pernicious and wholly indefensible r of draughts and chills; and until the profession purges lf of the senseless and monstrous heresy which these ns represent, it is idle to expect the laity to cultivate, even to understand what is meant by, atmospheric clean- ess.—I am, etc.,

ndon, W., June 13th. LEONARD WILLIAMS.

"TESTING THE EYESIGHT OF A NATION."

IR,—Mr. Aitchison, in his letter dated May 15th, writes t the objection of ophthalmic surgeons to sight-testing by icians "is based upon insufficient knowledge of what is ng done; they do not come in contact with the sight- ing optician, know little of his ways . . . etc., etc." I assure your correspondent that our objection to the scribing optician is not based upon ignorance of his ways, upon positive knowledge of them. Take such an instance his, which has recently occurred in my own practice. oung fellow of 20 consulted me in respect of some eye ptoms, for which he had been to a prescribing optician. had been told by the latter that the condition of his right was serious, and that he must wear glasses. The glasses plied were 0 25 D cylinders, axes vert. The cost of them 25s., and when my patient expressed surprise at the price, vas told they were very special ones, involving great diffi- y in the grinding It is true that he was informed something at having the lenses changed if required, free of cost, or at being subsequently tested without further payment. my point is this. A young fellow, whose refraction was that no glass was needed (and the shopman evidently gnized this from the lenses supplied), was frightened into hasing a pair of glasses at a price much above their value, e being told the advice given was free.

his is one of the ways of certain opticians which the eon objects to. But, secondly, he objects because he iders—and he is the highest authority upon the subject— the optician has not the requisite knowledge to enable to deal fully with the subject of the sight. Sight-testing ot merely a question of optics. The surgeon may grant many opticians have considerable knowledge of optics, but his view is this, in following his pursuit as an optician, the best man has not had opportunities for getting the necessary experience required for dealing fully with errors of vision.

Dr. Dugon, though he be ill-advised to send his patients to opticians, has put his finger on the weak point in our system of sight-testing, namely, the high fees charged by most ophthalmic surgeons.

A small tradesman or clerk—or, indeed, the great mass of the lower middle class—cannot afford a fee of 2 or 3 guineas. I have been told that the Civil Service Stores, Whiteley's, and other large establishments make arrangements with surgeons to see their customers for a guinea. But the man in the street has the notion that an eye specialist's fees are prohibitive, and to the persons I mention, they are.

If an authoritative opinion could be obtained for a guinea fee, I feel certain we should hear less of the prescribing optician.—I am, etc.,

June 8th. OCULUS.

MEDICAL PRACTICE IN BUSSORAH.

SIR,—We, the undersigned managers of the principal British firms doing business in Bussorah, Turkish Arabia, have had our attention drawn to a letter written by Dr. W. R. Scroggie to you, entitled "Medical Practice in Bussorah," which was published in the BRITISH MEDICAL JOURNAL of September 26th, 1903; and, as we consider that this article is misleading, we therefore beg that you will in the interests of the community here give this, our reply, a space in your valuable and influential columns.

The four firms whom we represent guarantee to pay the doctor for his services £150 sterling per annum for attendance on our several staffs (this sum does not include cost of medicines). Further, H.B.M.'s Government, through the consul here, pays the doctor a sum of £80 sterling as consulate doctor, and again the sea steamer agents pay the doctor a retaining fee of £2 2s. for each sea steamer that comes into this port to load. The number of steamers that were liable for this amount from January 1st to December 31st, 1903, were 52, making a total amount of £109 4s. sterling, and as we can see no reason why the trade of this place should decrease, but very great probability of its increasing, we consider that the above may be considered as practically a regular income. Furthermore, there are a large number of wealthy and intelligent natives who live in Bussorah and its suburbs, who quite well appreciate the value of a European doctor's advice and are perfectly willing to pay liberally for same. And on the whole, although we cannot guarantee the same (for the obvious reason that a medical man must depend upon his own skill, tactfulness, and energy to work up an outside practice), we believe that we are giving a very conservative estimate when we say that a European doctor here makes at least £600 or £700 per annum from all sources and probably much more.

With regard to Turkish doctors and the American medical missionary, we would say that the doctor employed by the European firms, provided his charges are not exorbitant, is always preferred to the Turkish doctors by the wealthy and influential natives, and the American missionary doctor has his hands quite full enough with the conduct of his mission work, mostly amongst the poorer classes, so that he does not enter materially into competition.

With regard to house rent, a very comfortable and convenient house can be rented in the centre of the doctor's district for from £50 to £60 per annum. Outside this, the expense of living, including a sufficient number of servants, food, and contingent expenses, should not exceed £150 per annum, and can be done for less.

With regard to the climate, on the whole we consider it healthy, so far as Eastern cities go. We have very hot and dry weather for about five months, and the remaining seven months are very pleasant indeed, and quite like the weather in the late autumn in England (without the excessive rainfall).

So far as amusements go, we have a club-house, centrally situated, where billiards, etc., can be had; and also a golf links, and as ships of His Majesty's Navy are frequent visitors to this port, we think that we can safely say that the life here from a social point of view is much more healthy and bearable than in a majority of the Indian and other Eastern stations, and in support of this we can also point to Dr. Scroggie's recent application for a two years' extension of his

agreement, which, however, we could not see our way to extend for more than one year from December 28th, 1903, when we will be prepared to consider further applications.

Apologizing for the length of our letter, which we consider necessary in order to remove any erroneous idea that your readers may have regarding the terms, climate, and society of this place.—We are, etc.,

W. Forbes Garden,
Manager of Messrs. Gray, Mackenzie and Co.
J. E. Mackie,
Manager of Messrs. Frank C. Strick and Co., Limited.
R. D. Marshal,
Manager of Messrs. Busreh Trading Company.
W. F. Havemeyer,
Manager of Messrs. Lynch Brothers.

Bussorah, May 12th.

MEDICO-LEGAL AND MEDICO-ETHICAL.

AN ABOMINABLE OLD WOMAN.

An inquiry was held at Morecambe on June 10th into the death of a woman after an abortion. The evidence, as detailed in the *Morecambe Chronicle*, was of a very inconclusive character, but tended to prove that the deceased had upon two occasions brought about abortion in her own person by the use of drugs, and that upon the first occasion, if not upon the last, she had received medicine intended for that purpose from a woman named Barber. The latter admitted having given the deceased some twenty-four pills because she had a "cold" upon the first occasion, and that she had done the same in the case of other women. She gave an account of the ingredients of the remedy she used, among which appears to have been a strong purgative. Dr. Mannix, who had seen the deceased during life, and who had also made a necropsy, informed the court that he had accused the deceased of having dosed herself with a view to aborting. She had died from the effects of the abortion, but at the same time was suffering from chronic lead poisoning. The jury having brought in a verdict in accordance with the medical evidence, the coroner summoned the woman Barber before him, and informed her that she was "an abominable old woman," who was no doubt following, or had been following, a criminal practice, and that in this particular case she had stood in great risk of being tried for murder.

UNQUALIFIED PRACTICE.

P. F. C.—We should advise our correspondent to communicate the matter of the complaint as to unqualified practice to the General Secretary, Medical Defence Union, 4, Trafalgar Square, W.C. He would, we have no doubt, set the law in motion should evidence be procured as to infringement of either Medical or Apothecaries' Acts.

A DISCLAIMER.

Dr. C. W. Saleeby (London) writes: I find to my annoyance that a brief article written by me for a monthly magazine on a dietetic method lately studied in the Carnegie Research Laboratory, New York, is being sent to various persons in this country as an advertisement by a commercial firm. I wish to disclaim any intention of, or connivance at, its being thus used in a fashion which I discovered only by being myself a recipient of the advertisement in question last week. The possibility of such an accident will not occur again. I am taking steps to suppress the circulation of this reprint.

SCHOOL CERTIFICATES IN SCOTLAND.

W. W. (Scotland).—We are advised that if sickness is put forward as the excuse for the child's non-attendance, the burden of proving it rests on the parent. The Board would be entitled to ask the parent to produce a medical certificate, and, in the event of his refusal or failure to do so, would be justified in treating the excuse as not proved, and in acting accordingly.

MEDICAL AID SOCIETIES.

A. B., M.D.—We doubt whether the formation of a medical aid department in connexion with an existing co-operative society would in itself be regarded by the General Medical Council as touting for practice, and so far as the circular sent us discloses the plan, there is no mention of outside medical practitioners being introduced. Everything will depend upon the way in which the scheme is worked, and we should advise our correspondent to communicate with the Medical Secretary of the Association, to whom we will send the papers, and who will, we are sure, advise our correspondent as to the steps he should take.

VALUE OF NUCLEUS.

M. B. S.—The value of a nucleus which has been in existence for one year and nine months, the gross receipts during that time having been £173, would be very small, and it would be impossible on the data to mention any specific price.

FEE FOR ACCIDENT ATTENDANCE ON EMPLOYÉ.

C. J.—The employer is not compelled to provide medical attendance for injured workmen. Such injuries as are described—compound comminuted fracture of right ankle and a compound fracture of left leg—would generally be treated at the hospital, as the workman is evidently unable to pay adequate fees. The fee charged to the company should be for the first attendance only without reference to any afterwards necessary. The scale laid down by the Poor-law authorities is not relevant, as all after-attendances is included in them. Probably 3 guineas would be considered a fair fee to ask for under the circumstances quoted.

PARTNERSHIP AGREEMENTS.

A., a practitioner of nine years' standing, sells B. a half share of his practice. In the deed of partnership it is agreed that either party on giving six months' notice during the first five years shall be entitled to retire from the partnership, receiving two years' purchase (the price paid by B.) for his share. Eighteen months from the date of partnership A. gives B. notice quite unexpectedly. B. having no private means and the profits for the two years being exceedingly small, is unable to pay the first instalment. He wishes to know: (1) There being a breach of the spirit of the covenant, how would A.'s conduct be regarded by the General Medical Council? (2) In event of A. suing for the amount due under the deed, would B. be allowed to pay by annual instalments in proportion to the profits, extending over a number of years?

*** (1) We do not think it at all probable that the General Medical Council would consent to adjudicate. (2) The court would probably require B. to pay according to the tenour of the deed; but if A.'s notice rendered it impossible for B. to find the necessary money, it was open to him to give A. a similar notice, the result of which would have been to necessitate a sale of the whole practice, and a division of the proceeds among the two partners.

THE METHODS OF SOME SPECIALISTS.

A general practitioner writes to complain that a patient who was complaining of chronic dyspepsia, and who subsequently died from internal malignant disease, consulted without our correspondent's knowledge a skin specialist, who prescribed a patent pepsin preparation and gave advice as to diet. A few days after the patient received a card in the following terms:

Telephone 000
O. Piedish Square, W.,
May 24th, 1904.

It is time Dr. Blank Dash saw Mr. Guinea Pig.

Our correspondent asks whether such doings are not sufficient to explain the reason why so-called specialists are avoided and disliked by general practitioners?

*** We entirely sympathize with our correspondent's protest, but fear that these little arts are beyond the range of ethical censure. We believe that these specialists who render themselves obnoxious by such means are eventually punished by the loss of professional esteem and support.

ROYAL NAVY AND ARMY MEDICAL SERVICES.

ROYAL NAVY MEDICAL SERVICE.

The following appointments have been made at the Admiralty: George D. Walsh, Surgeon, to the *Halcyon*, on commissioning, June 18th; Edward A. Evans, Surgeon, to the *Amphitrite*, June 15th; George Macleod, Surgeon, to the *President*, additional, for hospital course, July 1st; John D. Henwood, Fleet Surgeon, to the *Eagle*, June 20th; Thomas E. H. Williams, Fleet Surgeon, to the *President*, June 20th; Herbert W. G. Doyne, Fleet Surgeon, to the *President*, for the Royal Naval Rendezvous, etc., June 20th; Frederick W. Stericker, M.B., M.A., to the *Mercury*, June 20th; Frederick Fedarb, Staff Surgeon, to the *Doris*, June 19th; Herbert W. B. Shewell, M.B., M.A., Surgeon, to the *Vivid*, June 16th.

ROYAL ARMY MEDICAL CORPS.

Lieutenant R. C. Wilson is promoted to be Captain, May 3rd.

Lieutenant E. G. Ffrench, M.B., to be Captain, May 28th.

Captain F. P. Lauder, who is serving in the Madras Command, is appointed Personal Assistant to the Principal Medical Officer, Madras Command.

EXCHANGE.

The charge for inserting notices respecting Exchanges in the Army Medical Department is 3s. 6d., which should be forwarded in stamps or post-office order with the notice, not later than Wednesday morning, in order to ensure insertion in the current issue.

A Senior Major due for foreign service early in forthcoming troopship season is desirous of an exchange with an officer recently arrived from abroad, or with one with at least eighteen months' home service to go. Apply, stating terms and giving position in roster to "Home Service," care of Sir C. R. McGrigor, Bart., 25, Charles Street, St. James's Square, S.W.

ARMY MEDICAL RESERVE.

Surgeon-Lieutenant V. Graham to be Surgeon-Captain, June 5th.

IMPERIAL YEOMANRY.

Colin C. McCall, gentleman, is appointed Surgeon-Lieutenant in the Glamorganshire Regiment, May 23rd.

ROYAL ENGINEERS (VOLUNTEERS), SUBMARINE MINERS.

Surgeon-Captain J. H. G. Whiteford, M.B., Clyde Division, to be Surgeon-Major, June 18th.

VOLUNTEER RIFLES.

Surgeon-Lieutenant C. W. Crawshaw, M.B., 2nd Volunteer Battalion, the East Lancashire Regiment, to be Surgeon-Captain, June 18th.

John Buckley, gentleman, to be Surgeon-Lieutenant in the 2nd Volunteer Battalion, the Sherwood Foresters (Nottinghamshire and Derbyshire Regiment), June 18th.

ROYAL HOSPITAL, CHELSEA.

Lieutenant-Colonel C. Seymour, M.B., R.A.M.C., to be Physician and Surgeon, *vice* T. Ligertwood, M.D., retired, June 3rd. Lieutenant-Colonel Seymour's commissions are as follows:—Surgeon, August 4th, 1878; Surgeon-Major, August 4th, 1890: and Lieutenant-Colonel, August 4th, 1898. He was in the Soudan campaign in 1885 (medal with clasp and Khedive's bronze star), and with the Soudan Frontier Field Force in 1885-6, including the action at Giniss. He is seconded whilst holding the appointment now made.

OBITUARY.

SIR DAVID PALMER ROSS, M.D., F.R.C.S.ED., C.M.G.,

Late Surgeon-General, British Guiana.

SIR JAMES CRICHTON-BROWNE writes: Those who were medical students in Edinburgh in the early Sixties will have pleasant recollections of David Palmer Ross, whose genial disposition made him a universal favourite and, who without aiming at academic honours, won for himself a distinctive place in the University by his lively fancy, his urbanity, and his unfailing good humour.

Born in Penang, where his father enjoyed a large medical practice, Ross was sent home at an early age and confided to the care of a lady in Dumfries, who had superintended the education of other members of his family, and became a pupil at the academy there, which has been the nursery of many eminent men. Translated from tropical sunshine and the luxurious ease of an oriental home into a sombre climate and the austere discipline of Presbyterian school, he bated no jot of his natural vivacity, but was ever lithe and affable, and succeeded in taking a good place in his classes, making up for lack of diligence by quickness of apprehension. It seemed to be Ross's fate to be placed in circumstances antithetical to his temperament, for when, having completed his education at Dumfries, he went to Edinburgh he became a boarder in the house of Mr., afterwards Professor, James Spence, who was popularly known as "dismal Jimmie." But here again his sprightliness was sustained and triumphed over difficulties, for instead of being subdued by the solemnity of his preceptor, he communicated to him some of his own gaiety. Those who "walked" the Edinburgh Infirmary in these days must well remember how the worthy and able surgeon of the glabrous wig and patent leather boots relaxed his dourness when Ross approached him, and took complacently from the perky dresser comments and hints which had they come from a house-surgeon or junior colleague would have been received with stern reprehension.

At the Royal Medical Society of Edinburgh, which he joined and attended regularly, Ross was fortunate in being associated with a brilliant group of young men, many of whom have since climbed high in their profession. He counted amongst his friends Professor Crum Brown, Sir Thomas Fraser, Sir Dyce Duckworth, Professor Chiene, Professor Ettigrew, Sir Robert Bannatyne Finlay, Sir William Mitchell Banks, Dr. Eddison, and the late Professor Rutherford and Dr. John Duncan. He rarely intervened in the debates, but when he did so it was always with some sound practical observation, and in the library downstairs, where frugal refreshments, coffee and bread and butter were dispensed—smoking was forbidden in the precincts in these days—he was invariably the life of the party. He has often acknowledged the debt of gratitude he owed to the Royal Medical Society which supplied much that in these ante-tutorial and post ante-union times the University did not offer, and set him thinking and working. Whether under its influence or impelled by his own growing sense of responsibility, he did apply himself to work and to think, and took his degree with credit in 1863, when only 22 years of age.

With no family ties in this country, and with predilections born of childhood's memories, Ross resolved to seek service abroad, and soon after his graduation settled in Kingston, Jamaica, where, as medical officer to the Public Hospital and in private practice, he won golden opinions, and attained a position of great usefulness and influence. He was skilful and cheerful, kind and firm, attentive not less to the poor than to the rich, and became a most successful and esteemed practitioner. He married there a lady whose family came from near that part of Scotland in which he had himself been brought up, and children arrived, and then he took a step which revealed the strength and bravery of his character. He had reached the summit of his possible earnings in Jamaica, but his income was insufficient to provide for his children the education he desired for them, so he determined that he would double his income by taking the risks of the deadly West Coast of Africa. He knew these risks—none better; he knew, apart from these risks how tedious and trying his life there would be, but under a sense of duty and with a strong faith in his power to grapple with malaria, he accepted the post at which so many good men have fallen—that of Colonial Surgeon at Sierra Leone. His devoted wife insisted on accompanying him, and for nine years—with intervals—they lived at Freetown—that death-trap for Europeans—keeping the enemy at bay and enjoying good health all the time. These were pre-*Anopheles* days, but Ross was a keen sanitarian, and insisted on surface drainage and domestic cleanliness, and by these means as well as by the timely and copious use of quinine, he notably diminished the mortality of the district. He totally abstained from alcohol, avoided going out after dark as much as possible, and always slept under a mosquito net, and to these precautions he attributed his immunity from disease. By his vigilant watchfulness over the health of the community, by his unstinted attention to the sick and suffering of all classes, and by his ever-cheery and hopeful demeanour, Ross made himself beloved on the West Coast. He was not only consulted, but deferred to by the Civil authorities on all hygienic questions, and his departure was regarded as a public calamity.

When last on leave in this country Ross suffered severely from rheumatic gout, which was somewhat relieved by a sojourn at Harrogate, but before he had fully recovered he had to proceed to British Guiana, where he was Surgeon-General, to complete the term of service entitling him to a retiring pension. That term would have been completed in August next, and in anticipation of his freedom, he had planned a visit to Scotland, so that with the attached friend, who writes these lines, he might renew his acquaintance with the scenes amongst which his boyhood was spent. But a larger freedom has come to him; and worn out before his time, he rests in one of those Crown Colonies for which he has laboured so long and so well. He was a light-hearted, valiant, faithful man, and his works do follow him.

There is not much to add to what Sir James Crichton-Browne has written, but we may say that Sir David Ross graduated M.D.Edin. in 1863, became M.R.C.S.Eng. in the following year and in 1875 F.R.C.S.Edin., and in the same year that he was admitted to the English College of Surgeons he entered the medical department of the army. His army career was brief, for he was sent at once to Jamaica and two years later married the daughter of the Hon. Alexander Heslop, then Attorney-General of the island, and accepted a small appointment under the Civil Government. He rose so rapidly that the year 1872, when he was still barely 30 years of age, found him holding an acting appointment as Superintending Medical Officer of the island. During the following thirteen years he occupied one or other of the principal medical posts in the island. He was then offered the appointment of Colonial Surgeon of Sierra Leone. This he accepted and held for nine years when he was selected for the Surgeon-Generalship of British Guiana, a position which he occupied up to the time of his death. The rapidity of his moves in the early part of his service gave him an immense fund of valuable experience in all forms of work required by Government; in Jamaica he organized the Lock and Small-pox Hospitals, institutions the foundation of which was much opposed but which the circumstances of the time made very necessary, and when Chief Medical Officer of the public hospital did much to put its work upon a proper footing.

In Sierra Leone again he managed to get a large number of sanitary reforms carried out, his task in this respect being materially helped by the fact that he was selected by Government as an official member of the local legislative body. It was this work which brought him in 1890 the decoration of C.M.G. Five years later he was selected to succeed Dr. Robert Grieve as Surgeon-General of British Guiana at a time

when the medical department of the Colony was considered to be weighing unduly upon its finances. After spending a year or so in examining matters, he recommended extensive changes which reduced the annual cost by some ten thousand pounds. Five years after his arrival in the Colony the success of his work as an administrator was acknowledged by the Home Government creating him a Knight Bachelor. The reconstruction of the medical service of British Guiana was not effected without a good many hard sayings, but he pursued unswervingly what in his judgement was the right course. Two days after his death the Government *Gazette* of British Guiana contained the following tribute to his memory:

By the death of Sir David Palmer Ross, C.M.G., the colony has been deprived of a Surgeon-General who from his arrival maintained his Department in a state of high efficiency and ever consulted the best interests of the State. To him the Government is greatly indebted for the great economies effected and still to be effected in his Department, and for the energetic and successful measures taken under his auspices to combat the recent epidemic of small-pox in the colony. His exemplary devotion to duty will not be forgotten by his colleagues.

Sir David Ross had been a member of the British Medical Association for a great number of years, having joined it almost as soon as he graduated. At the time of his death he was a Vice-President of the British Guiana Branch. The year after his arrival in the colony he was elected President, an honour which, in virtue of a local custom, he might have continued to hold throughout his time as Surgeon-General. It is, however, perhaps typical of the man that he thought it right to abolish this custom and so throw the post of President open to other members of the Branch.

Sir David Ross lost his wife in 1898, but he is survived by a daughter and four sons. The former is the wife of Mr. Justice Lucie Smith, with whom Sir David Ross was staying at the time of his last illness; and of his sons, one holds a medical appointment in Jamaica, another is a magistrate in Lagos, and a third is in the service of the Gold Coast Government. The remaining son, Dr. Forbes Ross, is in practice in London.

We are indebted to Sir Dyce Duckworth for the following: My recollections of Sir David Palmer Ross relate exclusively to the time of our undergraduate life in Edinburgh, for I have never had the happiness to meet him since we parted in 1863. He was there universally beloved, bright, frank, and clean-minded. We joined the Royal Medical Society in the same year. There was nothing about him at that time to lead me to forecast any specially brilliant career for him, or to distinguish him in respect of high professional attainments, but he was steady, diligent, and dependable—well grounded in all parts of his profession, and therefore well equipped for any line of duty that might open before him. His after-career showed that he always carried with him a high sense of the dignity and usefulness of the medical art; that he commended himself by his tact and right-mindedness to his superior officers; and that he left an honourable record and example behind him. He has accomplished what we should all strive to attain—to wit, so to live and secure the respect and affection of those we live amongst, that we may be regretted and much missed when we are gone. I feel sure that a similar testimony to this would be borne by many of his old fellow-students and brother-graduates. *Requiescat in pace!*

EDWARD TRIMMER, M.A.,

Formerly Secretary of the Royal College of Surgeons of England.

IN his 78th year, Mr. Edward Trimmer, formerly the well-known Secretary to the Royal College of Surgeons, has passed away after some months of illness. His death was due to malignant disease.

It seems but the other day that we published a notice of his retirement in full health from the office he had held for so many years, and he has lived for only three years to enjoy the liberal pension granted to him by the College. Mr. Trimmer leaves a widow to mourn his loss, and we feel sure that in her bereavement she has the sympathy of his many friends.

Mr. Trimmer possessed a genial, open and strong personality. He was an authority on all matters of medical education at home and abroad, and was gifted with a wonderful memory. Not only could he tell without reference the year in which any event took place, but he would frequently say, "You will find the record of it on the lower part of the left-hand page in volume so-and-so of the minutes"—perhaps ten or fifteen years back. Mr. Trimmer, too, had a distinctly legal turn of mind: he knew the charters and by-laws of the College and the Medical Acts almost by hear and his opinion on all such matters was generally foun to be correct. He was very conservative and somewh old-fashioned in his views; but on the other hand, he w always ready to consider any new proposals with an ope mind. As Secretary to the College he had on several oc sions to bear the brunt of events, which at the time caused certain amount of excitement; as a case in point it ma be remembered that when an attempt was made by certa Fellows and Members to meet at the College without t authority of the Council, Mr. Trimmer had the unpleasa task of seeing that the meeting did not take place within t College precincts. That he was a loyal and conscientio officer of the College every one who knew him will unhes tatingly admit.

Mr. Edward James Alfred Trimmer was born on Janua 19th, 1827, at Turnham Green. He was the son of t Rev. Edward Trimmer, and a great-grandson of the authores Mrs. Sarah Trimmer. He was educated partly at a school Hammersmith and at his father's school at Putney. Lat he entered Jesus College, Cambridge, where he graduat in arts. Soon after leaving Cambridge Mr. Trimmer enter the India Office, where he remained some years, until, on vacancy arising in the office of the Royal College of Surgeon he joined the staff and was appointed Assistant Secreta in 1859 under Mr. Edmund Balfour. In this positi he remained until Mr. Balfour's death in 1865, when became Secretary. He was also Secretary to the Hunteri Trustees. In 1872 he was appointed Joint Secretary, wi Dr. Pitman, of a committee consisting of representatives the various universities and medical corporations in Englan appointed to draw up a scheme for conducting a conjoint e amination of all the Bodies for a licence to practise. Fe now remember this attempted scheme, but Mr. Trimmer wa with Sir James Paget, Dr. Pitman, and Dr. Acland, of Oxfor most energetic in his endeavour to bring the negotiations a successful conclusion. The attempt, however, failed, a in 1879 the committee ceased to exist. When later on t suggested combination with the Royal College of Physicia of London was under consideration, Mr. Trimmer acted secretary to the delegates, and on the establishment of t Conjoint Board in 1884 was appointed Secretary to t Committee of Management, and this appointment he he until in 1887 the Examination Hall on the Embankment w opened, when all the examinations, and the business co nected with them, were transferred to that department.

Mr. Trimmer was a good French scholar, a keen Freemaso an entertaining companion, an excellent "raconteur," an to those who knew him intimately, a kind and genial frien He was rather fond of the old-fashioned pun, and could n resist making one even in the presence of Royalty. On t occasion of His Majesty's visit to the Museum, as Prince Wales, after his return from India, when he was shown t skeleton of the tiger presented by himself with the fa bullet shown in the neck, Mr. Trimmer remarked that it w "the last Royal bullet-in."

For forty-two years Mr. Trimmer served the College fait fully under thirty-two Presidents; his name is signed many thousands of Fellows' and Members' diplomas, a his memory will be held in respect by all who knew him.

THE death of Mr. H. SELBY LITTLE, which occurred on t last Saturday of May under somewhat sad circumstances, w continue to be a cause of deep regret to many persons both Reading, where his practice lay, and elsewhere. On t Wednesday preceding his death he was found on a road ne Finchampstead under his bicycle in a semi-conscious con tion, and it was at first thought that he had had an accide It was afterwards, however, found that he had probab attempted to lie down on account of a sudden attack of gid ness, and and without ever recovering full consciousness passed away quietly three days later. His medical attenda was able to certify that the death was due to natural caus and consequently no inquest was necessary. His frien from the first had little hope that he would recover, for had been in bad health for some time and had been very mu overworked. Mr. Little was born in Hampstead in 1848, a received his medical education at St. Bartholome Hospital. He became M.R.C.S. and L.S.A. in 18 and took the degree of B.A. in the University of London fo years later. Upon leaving St. Bartholomew's he was elect assistant house surgeon at the Metropolitan Hospital, a after fulfilling this office went to Ryde as Resident Medic Officer and Secretary of the Royal Isle of Wight Infirma

er he joined his father in practice at Reading, becom- medical officer of the Reading Dispensary and of the St. es's district of the Reading Union. He was a member of R ading Division of the Oxford and Reading Branch of British Medical Association, and at the time of his death of the oldest members of the Reading Pathological iety. Both as a man and as a medical practitioner he oyed the highest esteem of all who knew him, and quent testimony to the regard felt for him was afforded by attendance at the funeral; it comprised numbers of the rer classes, who rightly feel that they have lost in Selby ile an untiring, kindly friend. Mr. Little was married is survived by his wife, but left no family.

[. JEAN DAVID, of Montpellier, the oldest member of the dical profession in France, died last week in the 104th year his age. He was born at Murviel-les-Montpellier on Feb- ry 3rd, 1801, qualified as an *officier de santé* in 1824, and up a very advanced age he practised his profession at Grubels r Montpellier. He retired in 1892. Up to that time he led the hard life of a country doctor, making his rounds, ter and summer, on horseback. His sphere of practice ered a very extensive and mountainous region. He was many years Mayor of his commune. He was a man of rous constitution and very temperate habits. During the few years of his life he suffered from blindness, caused by ract, but his mind remained perfectly clear to the end. David was the author of an essay on the efficaciousness of tics in whooping-cough, and had a great local reputation his special skill in the treatment of malignant pustule.

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r. L. A. JOSEPH MICHON, who died recently, was for many s physician to several members of the Orleans family, the heads of which he was on terms of close intimacy. n Marshal Macmahon was President of the French ublic, he was Prefect of the Loiret and the Puy-de-Dôme artments. He took his medical degree at the Paris ulty in 1860, his thesis being entitled Unpublished Docu- ts relative to the Great Plague of 1348. Dr. Michon was a Doctor of Letters, a degree for which he presented, in a French thesis entitled *Des Céréales sous les Romaines;* a Latin one entitled *Quid Lybicae geographiae auctore io Romani contulerint.* Dr. Joseph Michon was a son of Louis Marie Michon, Surgeon to the Paris hospitals, and ember of the Académie de Médecine, who died in 1866.

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ron ANTONIO EVARISTO D'ORNELLAS, sometime Minister ipotentiary of Portugal in France who died recently, was ctor of Medicine of Paris and Oporto. He took his degree aris in 1854, the subject of his inaugural thesis being the oid anatomy and treatment of the fibrous polypi of the of the skull known as naso-pharyngeal. He was also the or of a monograph on the physiological action of emetine h was published at Paris in 1874 and of a paper on vomit- which appeared in the *Bulletin Thérapeutique* (1873).

UNIVERSITIES AND COLLEGES.

UNIVERSITY OF OXFORD.

miner in Medicine.—George A. Gibson, M.D.Edin., has been appointed aminer in Medicine.

resentative on the General Medical Council.—The announcement, made authority of the University Gazette, of the election of a representa- n the General Medical Council was erroneous. No election has place.

rees.—In a Congregation held on Thursday, June 16th, the following es were conferred: Doctors of Medicine: Gustave Isidore Schors- M A., B.M.Christ Church, F.R.C.P., and Arthur Edwin Boycott, M B., Brasenose College.

following candidates have passed the First M.B. Examination in ubjects indicated:

anic Chemistry.—M. Bates, St. John's College; S. Nockolds, Keble College; W. W. Wells, Merton College.

eria Medica and Pharmacy.—M. Baines, Exeter College; M. Bates, St. John's College; C N. Biuney, Corpus Christi College; L. C. Brigstocke, Jesus College; A W. Burnyeat, Queen's College; H. G. Butterfield, Wadham College; R. Evans, Jesus College; N. Flower, Exeter College; P. H. C Fowell, St. John's College; M. H. Nash, Exeter College; S. Nockolds, Keble College; E. A. Ramsden, New College; A. H. Savage, New College; P. T. Spencer-Phillips, New College; B W. Stone, Brasenose College.

tomy and Physiology.—H. H. Carleton, Keble College; E. A. Cock- ayne, Balliol College; E. P. Cumberbatch, Keble College; M. Davidson, Trinity College; M. W. Flack, Keble College; N. Flower, Exeter College; J. F. Hornsey, Wadham College; G. R. Hughes, Exeter College; S. E Whitnall, Magdalen College; W. C. Wigan, St. John's College; A. P. Yonge, Exeter College.

The following candidates have passed the Second M.B. Examination in the subjects indicated:

Pathology.—P. E H. Adams, Exeter College; O. E. Berkeley-Hill, Trinity College; H. W. Brodribb, University College; E. Burstall, Trinity College; H. R. Dean, New College; P. J. Dear, non-collegiate; J Freeman, University College; J. H. Hebb, St. John's College; J. G. Priestley, Christ Church; R. H. Sankey, Christ Church; H. G. F. Spurrell, Merton College.

UNIVERSITY OF CAMBRIDGE.

THE following candidates have passed the First Examination for medical and surgical degrees in the subjects indicated:

Part I. Chemistry and Physics.—C. W. Archer, Trin.; G. R. Batterbury, Cai; R. L. Barker, Cai; J. P. Benskin, Christ's; L. Bromley, Cai.; J. S. Burn, Trin.; A. S. Cane, King's; H. G. P. Castellain, M.A., Trin.; H. F Comyn, King's; C. H. Cox, Jes.; J. H. Crofton, Pemb.; C. C. Dobell, Trin.; E. A. Dyson, Jes; A. Feiling, Pemb.; J. E. Ferrar, Sid Suss.; R. H. W. Fisher, Emm.; R. Gamlin, King's; R. W. B. Gibson, Jes.; P. K. Gilroy, H. Selw.; S Gordon, Pemb.; A. R Hargreaves, Trin.; T. W. Haward, King's; C. B. Hawthorne, Cla.; G. Holmes, Cai.; B. Hughes, B A., H. Selw.; J. M. Jarvie, Emm.; A. P. Methuen, Trin.; G. W. Mitchell, Cla; P. Newton, Cla.; T. E. Osmond, Emm.; G. M. Parker, Emm.; W. M. Penny, Jes; H. F. Percival, Trin.; F. H. Robinson, Queens'; L M. Routh, Cai; E N. Russell, Trin; J. H. Ryffel, M.A, Pet.; J. G Sauer, Cai.; M. R. Sawhny, Down.; H. Scott, Trin.; R. M. R. Thursfield, H. Selw.; R. H. Vercoe, Joh; P. B. Wallis, Pemb.; E. P. W. Wedd, Cai.; J. M. Weddell, Christ's; M. M. Woods, Cla.

Part II. Elementary Biology.—J W Adams, Cai.; F. S. Adams, Christ's; G. C. Alderson, Cai; W. B. G. Angus, Christ's; C. W. Archer, Trin.; H. L. Attwater, Pemb.; H J. Baldwin, B.A., Emm.; R. L. Barker, Cai; G. R B tterbury, Cai.; J. P. Benskin, Christ's; A. S. Cane, King's; H G P. Castellain, M.A., Trin.; F. G. Cawston, Cai; H F. Comyn, King's; C. H. Cox, Jes.; J. H. Crofton, Pemb.; J. H. Cumming, Pemb.; C. C. Dobell, Trin.; C. A. Dottridge, Cla.; A. Feiling, Pemb.; R. H. W. Fisher, Emm: R. Fisher, Sid. Suss.; R. Gamlin, King's; G. Gamlin, Pemb; W. Gillison, Pet.; P. K. Gilroy, H. Selw.; S. Gordon, Pemb.; A. H. Gosse, Cai; C. C Harrison, Cai.; R. H. P. Hick, Christ's; R. F. Higgin, Cai.; S. J. Higgins, Cai.; B. Hughes, B.A., H. Selw.; J. M. Jarvie, Emm.; J. S. Jobson, Sid Suss; H. D. Lander, Cai.; A. C. C. Lawrence, Trin.; J. C. Marklove, Cai.; C. C. Messiter, Cai; B. L. Miles, Pemb.; G. W. Mitchell, Cla.; H. G. Monteith, Pemb.; V. H. Mottram, Trin.; C. J. Nicholson, Cai.; H. M. D. Nicoll, Cai.; T. E. Osmond, Emm.; G. M. Parker, Emm.; F. H. Robinson, Queen's; E. N. Russell, Trin.; J. H. Ryffel, M.A., Pet.; J. G. Sauer, Cai.; M. R. Sawhny, Down; H. Scott, Trin.; A S. Seabrooke, Christ's; I. Singh, Pemb.; R. M. R. Thursfield, H. Selw.; R. H. Vicary, Cai; E. T. Willans, Emm.

The following candidates have passed the Second Examination for medical and surgical degrees in the subjects indicated:

Human Anatomy and Physiology.—P. H. Bahr, B.A., Trin.; G. G. Butler, B.A., Emm.; R. N. Chopra, Down.; E. B. Clayton, B.A, Cai.; G. G. Collett, Trin.; A. F. Comyn, B A., Pemb.; A. J. W. Cunningham, Trin.; H. E. T. Dawes, B.A., Joh.; G. W Dryland, B.A., Cai.; H. G. Earle, Down.; T. G. Elger, Cai.; D. Embleton, B.A., Christ's; G. B. Fleming, B.A, King's; C. L. Forde. B.A., Cla.; T. R. Glynn, B.A., Cla.; J. W. Grice, B.A., King's; R. E. V. Hale, B.A, Cai.; P. Hamill, Trin.; G. A. F. Heyworth, B.A., Trin.; F. H. Holl, Trin.; W. D. Hopkins, Trin. H.; A. F. Jackson, Pet.; W. M. Jeffreys, B.A, Trin.; R. P. Lamb, B.A, Trin.; K. A. Lees, B.A., King's; S. G. Luker, B.A., Pemb.; B. K. Nutman, B.A., Jes.; M. W. B. Oliver, B.A., Trin.; J. H. Pratt, B.A., Trin; C. E. Redman, B.A., Pemb.; A. C. H. Rothera, B.A., Emm., C. E. F. Salt, B.A, Pemb.; H. A. Smith, B.A., H Selw.; H. H. Taylor, B.A; Pemb.; C. H. Treadgold, B.A., Cla.; P. J. Verrall, Trin.; T. N. Wood, B.A., Pemb.; O. K. Wright, B.A, Christ's.

The following candidates have passed the Third Examination for medical and surgical degrees in the subjects indicated:

Part I. Pharmacology and General Pathology.—R A. Clapham, B.A., Emm.; S. W. Cole, M A., Trin.; A. I. Cooke. B.A., Cai; W. D. Coplestone, B.A., Jes; A W. D. Covenden. B.A., Trin.; G. W. Craig, B.A., Emm.; H. P. Crampton, B.A., Cla; W. L. Cripps, B.A., Trin; L. G. Davies, B.A, Trin.; G. B. Davis, M.A., Corp. Chr.; A. N. Dixon, Down; L. Dukes, B.A., Trin.; A. C. D. Firth, B.A., Trin.; D. H. Fraser, B.A., Cai.; H. P Gibb, B.A., Sid. Suss.; G. F. Greenwood, B.A, Sid. Suss.; C. F. Hadfield, M.A., Trin.; E. Harrison, B.A., Trin.; N. G. Harry, B.A, Jes.; E. C. Hughes, B A., Cla.; R. O Lee, B.A., Emm.; W. B, Marshall, B.A., Joh.; T. M. Neatby, M.A., Joh.; W. H. Newton, B.A., Emm.; R G. Nothwanger, M.A., Joh.; S. A. Owen, B A., Trin; G G. Packe, B.A., Trin.; C. H. W. Page, M.A, Corp Chr.; P. N. Panton, B.A, Trin.; D. G Pearson, B.A, Pemb.; C. T. M. Plowright, B.A., Joh.; R. H. Robbins, B.A., Trin.; O. L. Scarborough, B A., Joh.; F. Shingleton-Smith, King's; H. F. Skrimshire, B A., Jes.; W. H. R. Sutton, B.A, Down.; C. B. Ticehurst, B.A., Joh.; W. S. Tresawna, B.A., Sid. Suss.; S. L. Walker, B.A., Sid. Suss.; B. Wallis, B.A., Trin; H P. Weaver, B.A., Trin.; H. W. Wiltshire, B.A., Cla.; L. Worrall, B.A., Christ's.

Prize.—The Raymond Horton-Smith Prize, for the best M.D. Thesis of the year, is awarded to Dr. F. A. Bainbridge, M.A., Trinity; Dr. B. N. Tebbs, Queens', receives honourable mention.

Surgery.—Dr. H B Roderick, M.A, Emmanuel, has been appointed Demonstrator of Surgery to Professor Howard Marsh

Botany.—An election to the Frank Smart Studentship in Botany, value £100 a year, will take place in July. It is open to graduates of the University of less than fourteen terms' standing. Application is to be made to the Vice-Chancellor by July 13th.

Tropical Medicine. The examination for the University Diploma in Tropical Medicine and Hygiene will take place on August 9th and 10th in Cambridge, and on August 11th in the Dreadnought Seamen's Hospital, Greenwich.

Degrees.—On June 18th the following degrees were conferred: *M.D:* W. H W. Attlee, St John's. *D.Sc:* Professor C. S. Sherrington, F.R.S., Caius. *M B.:* C. Stiebel, Trinity Hall. *B.C.:* C. A. W. Pope, Trinity. On June 16th the following degrees were conferred: *M.D.:* G. R. Slade, Trinity; E. E. Prest, St. John's. *M.B.:* H. F. Horne, King's; A. S. Bradley, Caius; E. Gardner, Caius; E. T. Harris, Christ's; G. A. Wright, Christ's. *B C.:* H. F. Horne, King's; H. Rischbieth, Trinity; A. E. Barclay, Christ's; J. Lambert, Downing; H. L. Wilson, Host. Selwyn.

UNIVERSITY OF ABERDEEN.

UNIVERSITY COURT.

The late Sir William Henderson.

BEFORE the ordinary business of the University Court, on June 14th, Principal Lang made fitting reference to the death of Sir William Henderson, one of the most useful and honoured citizens of Aberdeen. He was connected with and was the promoter of all the benevolent and useful institutions in the city. The University knew him as one of her honorary graduates, and this distinction had been conferred on him on account of his services, the width of his sympathies, and his interest in all matters connected with the University. He was a liberal contributor to the extensions of the buildings which were now proceeding towards completion. Day by day he had gone with the Principal to various friends in the city, and by representations and by the assurance of his co-operation very large gifts were secured for the University. Sir William Henderson was also the chief promoter of the scheme to commemorate the jubilee of the late Queen Victoria in 1887 by the erection of the surgical block in the Royal Infirmary—a matter which he carried to a most successful issue, and in this regard his great services were commemorated by the ward which is named after him. The Principal then moved that the University Court enter on its minutes an expression of its deep regret on account of the death of Sir William Henderson, an honorary graduate of the University, whose interest in the welfare and progress of the University was expressed in munificent gifts and in active exertions on its behalf. The Court will offer its deepest sympathy to the bereaved family. The motion was unanimously passed.

Pharmacy Degree Regulations.

The proposed regulations for a degree in Pharmacy B.Sc. (Pharm.) were formally approved.

Education in Forestry.

A number of resolutions adopted at the Conference on Education in Forestry, held in Edinburgh on May 27th, were submitted by Professor Traill, who represented the University on that occasion. These resolutions had to do mainly with the question of what part the Universities were to play in Forestry education and the granting of degrees on this subject. It was decided to record the resolutions in the minutes.

Botany Examinership.

Mr. Robert J. Harvey Gibson, M.A.Aberd., Professor of Botany in the University of Liverpool, was appointed additional examiner in botany.

UNIVERSITY COLLEGE, CARDIFF.

ON Monday night last, Principal Griffiths received the distinguished honour of being elected an honorary Fellow of his old College, Sidney Sussex, Cambridge. Principal Griffiths is the first honorary Fellow of this College to be elected for three hundred years, and the honour he has received is the highest that can be conferred upon any member. Welshmen have reason to be proud of their countryman, who is probably the most distinguished scientist whom Wales has ever produced, and who by his academic status and services to science is entitled to rank with those whose names are universally known in the realms of science. Past and present students must feel proud of being connected with a College presided over by a man upon whom his Alma Mater and learned societies confer their highest distinctions.

PUBLIC HEALTH
AND
POOR-LAW MEDICAL SERVICES.

HEALTH OF ENGLISH TOWNS.

IN seventy-six of the largest English towns, including London, 8,595 births and 4 029 deaths were registered during the week ending Saturday last, June 18th. The annual rate of mortality in these towns, which had been 15.4, 14 6, and 14 2 per 1,000 in the three preceding weeks, further declined last week to 13.8 per 1,000. The rates in the several towns ranged from 1.7 in Handsworth (Staffs.), 4 5 in Ipswich, 6 5 in Southampton, 6.6 in Leyton, 6.8 in Bootle, 6.9 in Tottenham, 7.0 in King's Norton, and 7 5 in Willesden and in Walthamstow, to 17.9 in Hanley, 18.1 in Preston, 18.6 in Leeds 18 7 in Liverpool, 20 0 in Manchester, 20.6 in St. Helens, 22.6 in Tynemouth, and 23.7 in Stockport. In London the rate of mortality was 12.8 per 1,000, while it averaged 14 2 per 1,000 in the seventy-five other large towns. The mean death-rate from the principal infectious diseases in the seventy-six large towns was 1.5 per 1,000; in London also this death-rate was equal to 1.5 per 1,000, while among the seventy-five other large towns the rates ranged upwards to 2.6 in Derby, 3 0 in Oldham, 3.1 in Burnley, 3.2 in Aston Manor, 3 6 in Blackburn and in Rotherham, 4.1 in St. Helens, and 6.2 in Warrington. Measles caused a death-rate of 1 4 in Croydon, in Norwich and in Birkenhead, 1 6 in Hanley, in King's Norton and in Burnley, 1.7 in Derby, 1.8 in Hull, and 2 4 in St. Helens; scarlet fever of 1.3 in York and 1.5 in Warrington; diphtheria of 1.8 in Rotherham; whooping-cough of 1.3 in East Ham, 1.9 in Aston Manor, 2.0 in Blackburn, and 3.1 in Warrington; and diarrhoea of 1.3 in Aston Manor. The mortality from enteric fever showed no marked excess in any of the large towns. One fatal case of small-pox was registered in Stockport, but none in any other of the seventy-six towns. The Metropolitan Asylums Hospitals contained 80 small-pox patients at the end of last week, against 118, 96, and 95 at the end of the three preceding weeks; 7 new cases were admitted during the week, against 33, 10 and 21, in the three preceding weeks. The number of scarlet fever cases in these hospitals and in the London Fever Hospital, which had been 1,663, 1,673 and 1,647, at the end of the three preceding weeks, had further declined to 1,630 at the end of last week; 206 new cases were admitted during the week, against 194, 207 and 193 in the three preceding weeks.

HEALTH OF SCOTCH TOWNS.

DURING the week ending Saturday last, June 18th, 1,022 births and 563 deaths were registered in eight of the principal Scotch towns. The annual rate of mortality in these towns, which had been 17.6, 18.1, and 16.2 per 1,000 in the three preceding weeks, increased again last week to 17.0 per 1,000, and was 3.2 per 1,000 above the mean rate during the same period in the seventy-six large English towns. Among these Scotch towns the death-rates ranged from 9 7 in Leith and 14 i Greenock to 19.1 in Dundee and 20 0 in Perth. The death-rate fro principal infectious diseases in these towns averaged 2 0 per 1,00 highest rates being recorded in Paisley and Greenock. The 275 d registered in Glasgow included 3 which were referred to smal 3 to measles, 2 to diphtheria, 11 to whooping-cough, and 12 to diarrh Four fatal cases of measles, 2 of diphtheria, 2 of whooping-cough, of diarrhoea were recorded in Edinburgh; 6 of whooping-cough of diarrhoea in Dundee; 2 of diarrhoea in Aberdeen; 2 of "feve Paisley; and 5 of measles in Greenock.

HEALTH OF IRISH TOWNS.

DURING the week ending Saturday, June 18th, 483 births an deaths were registered in six of the principal Irish towns, against 558 and 328 deaths in the preceding period. The mean annual death-r these same towns, which had been 16.4, 29.1, and 18.4 per 1,000 three preceding weeks, rose to 20.1 per 1,000 in the week under r this figure being 6.3 per 1,000 above the mean annual rate registe the seventy-six English towns during the corresponding period. figures ranged from 7.6 in Londonderry and 13 6 in Waterford to 2 Limerick and 30 8 in Cork. The death-rate from the principal zy diseases during the same period and in the same six Irish towns ave 0.9 per 1,000, or 0.1 higher than in the preceding week, the h figure, 2.9, being recorded in Belfast, while Londonderry, Limeric Waterford recorded no deaths under this heading at all. Whooping-c was still the principal cause of death from zymotic diseases, but m caused 6 deaths in Belfast and 2 in Dublin. No deaths anywhere in Ir were registered from either small-pox, scarlet fever, typhus, diphth or simple continued fever, but to enteric 2 deaths were ascribed in B and 1 each in Dublin and Cork.

COMPETITION FOR POOR-LAW MEDICAL APPOINTMENTS.

WE gather from the *Cambridge Weekly News* that at a recent meeti the Risbridge (Suffolk) guardians the appointment of a medical offi the Fourth District of that Union had to be considered and, if po settled. It appears from the report before us that in consequen the vacancy in question the guardians had instructed their clerk to to two medical gentlemen residing in the neighbourhood in for them that the stipend of the office was £52 per annum and at the time inviting them to attend the next following Board meeting. were Dr. J. R. H. Walker and Dr. T. H. Goodman, both of Haverhil they attended as requested. Each was separately interviewed Board, and after their retirement from the room, each was formall posed and seconded to fill the vacant appointment.

The guardian who proposed Dr. Goodman followed up his recomm tions by stating that Dr. Goodman had authorized him to infor Board that he was willing to take the vacant office for a salary this being £7 per annum less than the guardians had offered to pay

The proposal to pay a lower salary than that already fixed Board was ruled to be out of order by the Chairman, and Dr. was subsequently appointed at the salary first offered, £52. twen members of the Board voting for him, and four only for Dr. Goodm

It is not often that we have had occasion to draw the att of our readers to a case of this description. It is generally ac ledged that Poor-law medical officers throughout the rura tricts of England and Wales have never been adequately remunerat the responsibilities necessarily associated with the duties of th pointments, and we had supposed that the time had long passed fo such offer to be made as that announced at the recent meeting Risbridge Board. It is to be hoped that the idea of accepting a salary than that offered by the guardians did not originate with the date who is said to have authorized his proposer to make it result of the election is sufficient to show clearly that even Boa Guardians, holding, as most do, very economical ideas in ref to the remuneration of their medical officers, are not pr to place confidence in any candidate who may be repre to be willing to work professionally for a lower salary that which they regard as just and reasonable. Apart this, medical officers of the Poor-law Service, and all candida such appointments, ought to know that this form of competition sanctioned by the Local Government Board. It is very many years tenders were allowed to be advertised for, so as to enable guard fill up vacant appointments at the lowest possible cost to themselv it is not likely that any such objectionable procedure will ever ag allowed to come into operation.

MILK SUPPLY OF LONDON.

A REPORT from the Public Health Committee, adopted at the last m of the London County Council, recommended that application sho made in the next session of Parliament for powers enabling the Co prohibit the supply, within the county, of milk from a dairy within o out the county, if the medical officer be of opinion that infectious di caused, or is likely to be caused, by consumption of such milk; enabl Council to prohibit the supply within the county of milk causing o to cause tuberculosis; providing for appeal against the decision Council in the above matters; authorizing or requiring the C according to the nature of the case, to allow compensation in the ev a milk supply being prohibited; enabling the Council to take sam milk within the County; providing for penalties against perso knowingly sell, or suffer to be sold or used, for human consu within the county the milk of any cow which is suffering from culous disease of the udder; imposing upon dairymen within the an obligation to notify cases, or suspected cases, of tuberculous di the udder; requiring the isolation of any cow suffering from such and enabling the Council and sanitary authorities within the co deal with the milk which on examination appears to be so filthy a unfit for human food.

Two dogs suffering from hydrophobia were examined laboratory of the Chicago Health Department during and the Director has again issued a warning recomme that all dogs should be muzzled, not only for the safety people at large, especially children, but also for the saf the dogs themselves.

MEDICAL VACANCIES AND APPOINTMENTS.

VACANCIES.

list of vacancies is compiled from our advertisement columns, where full rticulars will be found. To ensure notice in this column advertisements st be received not later than the first post on Wednesday morning.

UNGHAM AND MIDLAND EYE HOSPITAL.—House-Surgeon, resident. Salary 5 per annum.

HTON THROAT AND EAR HOSPITAL.—Non-resident House-Surgeon. Salary the rate of £75 per annum.

RNEMOUTH: ROYAL BOSCOMBE AND WEST HANTS HOSPITAL.—House-rgeon, resident. Salary, £80 per annum.

ERBURY: BOROUGH ASYLUM.—Assistant Medical Officer, resident. Salary, 40 per annum.

STRY AND WARWICKSHIRE HOSPITAL.—Assistant House-Surgeon, resident lary, £60 per annum.

BERLAND AND WESTMORLAND ASYLUM, Garlands, Carlisle.—Junior Assist-t Medical Officer, resident. Salary, £130, rising to £150 per annum.

AYSHIRE ROYAL INFIRMARY.—(1) Senior House-Surgeon (2) Assistant ouse-Surgeon. Salary at the rate of £100 and £60 per annum respectively.

NPATRICK: DOWN COUNTY INFIRMARY.—House-Surgeon, resident. Salary, 0 per annum.

INA HOSPITAL FOR SICK CHILDREN, Southwark.—Clinical Assistants for Out-patient Department.

INGDON GENERAL DISPENSARY, 17, Bartlett's Buildings, E.C.—Resident dical Omcer. Salary, £120 per annum.

DER-FIELD INFIRMARY.—Junior House-Surgeon, resident. Salary £40 per num.

ROYAL INFIRMARY.—Casualty House Surgeon, resident. Salary, £50 per num.

RPOOL: ROYAL SOUTHERN HOSPITAL.—Ambulance Surgeon. Salary, £1 1s. week.

OON TEMPERANCE HOSPITAL, Hampstead Road.—Resident Medical Officer. ary, £200 per annum.

ON THROAT HOSPITAL, Great Portland Street, W.—House-Surgeon. Hono-ium at the rate of £50 per annum.

IATE: ROYAL SEA-BATHING HOSPITAL.—Resident Surgeon to act as junior l senior for six months each. Salary at the rate of £80 and £120 per annum pectively.

OPOLITAN HOSPITAL, Kingsland Road, N.E.—Assistant Physician.

ONAL HOSPITAL FOR DISEASES OF THE HEART, Soho Square, W.—Assist-Physician.

H-EASTERN HOSPITAL FOR CHILDREN, Hackney Road.—Assistant Surgeon.

AR HOSPITAL FOR ACCIDENTS.—Assistant House-Surgeon, resident. Salary the rate of £80 per annum.

ARY'S HOSPITAL MEDICAL SCHOOL, Paddington.—Lecturer on Chemistry.

FORD, RUTLAND, AND GENERAL INFIRMARY.—House-Surgeon, resident. ary, £100 per annum.

IPORT INFIRMARY.—Resident Junior House and Visiting Surgeon. Salary at rate of £70 per annum.

PORT INFIRMARY.—Junior Assistant House-Surgeon, resident. Salary at the of £40 per annum.

TON-ON-TEES: STOCKTON AND THORNABY HOSPITAL.—House-Surgeon. ary, £250 per annum.

RROMWICH DISTRICT HOSPITAL.—Resident Junior House-Surgeon. Salary, per annum.

APPOINTMENTS.

s, Edmund C., M.A., M.B., B.Ch Oxon., M.R.C.S., L.R.C.P., Honorary Assistant geon to the Radcliffe Infirmary, Oxford.

, J. M., M.R.C.S., L.R.C.P.Lond., Public Vaccinator St. Giles's and St. Andrew's ricts of the Northampton Union.

, Austin, B.A., M.D. B.Ch., Honorary Assistant Anaesthetist to St. John's Hos-l for Diseases of the Skin, Leicester Square.

ORD, W. T., M.B., Medical Officer to the Worksop Union Infirmary.

Henry J., M.A.Cantab., etc., M.R.C.P.Lond., Assistant Physician in charg of the ot and Ear Department, West London Hospital.

F. R., M.R.C.S., L.R.C.P.Lond., Medical Officer of Health, Bedale Rural rict.

NGOULD, Robert, M.A., M.D.Oxon., Pathologist to the City of London Hospital Diseases of the Chest.

, K., M.B., Certifying Factory Surgeon for the Orrell District, Lancaster.

. H. Overton, M.D., Egyptian Government Inspector to the Baths and Springs, man, Egypt, *vice* W. Page May, M.D., D.Sc., F.R.C.P., resigned.

, G. S., M.B., C.M.Edin., Medical Officer of Health to the Failsworth Urban rict.

GHEY, F. H., M.B., B.S.R.U.I., Resident Assistant Medical Officer to the Brad-Union Workhouse.

CKEN, J. S., M.B., C.M Edin., Honorary Physician to the Hospital for Sick Child-Newcastle-upon-Tyne.

OMERY, W. M., M.B., D.P.H.Camb., District Medical Officer of Health for the ern Transvaal.

, D., L.R.C.P.&S.Edin., L.F.P.S.Glasg., District Medical Officer of the Durham n.

, R. G., L.R.C.P. &S.I., Medical Officer of Health to St. Just District Council.

DS, T., L.R.C.P., M.R.C.S.Eng., District Medical Officer of the Cardiff Union.

ON, George Wm., M.B., C.M.Edin., F.R.C.S.Eng., Surgeon to the Western Ophth-Hospital, Marylebone Road.

, J. R. Hall, M.D Edin., Medical Officer and Public Vaccinator for the Fourth rict of the Risbridge Union.

MS, R. M., M.B., District Medical Officer of the Bangor and Beaumaris n.

E, W. I. de Courcy, Visiting Surgeon to Mercer's Hospital, Dublin.

. J. Hamilton, L.D.S., R.C.S., Honorary Dental Surgeon to St. John's Hospital iseases of the Skin, Leicester Square.

DIARY FOR NEXT WEEK.

MONDAY.

ological Society of Great Britain, 20, Hanover Square, W., 8 p.m.—ual General Meeting. Valedictory Address by the President. Casual com ications by Mr. Vernon Knowles, Mr. E. Preedy, and Mr. J. F. Colyer.

SATURDAY.

logical Society of London, Lister Institute Queensberry Lodge, Elstree, 3 afternoon.

POST-GRADUATE COURSES AND LECTURES.

Cross Hospital, Thursday, 4 p.m.—Demonstration of Gynaecological Cases.

for Consumption and Diseases of the Chest, Brompton, Wednesday, 4 p.m.—ure on Chest Disease and Life Assurance.

for Sick Children, Great Ormond Street, W.C., Thursday, 4 p.m. Lecture on illustrating the results of Surgical Treatment of Infantile Paralysis.

Medical Graduates' College and Polyclinic, 22, Chenies Street, W.C.—Demonstrations will be given at 4 p.m. as follows: Tuesday, Medical; Wednesday, Surgical; Thursday, Surgical; Friday, Throat. Lectures will be delivered at 5.15 as follows: Monday, Observations on Diet: Tuesday, Cardiac Failure; Wednesday, Some useful Appliances in the Treatment of Diseases of the Ear, Throat, and Nose.

Mount Vernon Hospital for Consumption and Diseases of the Chest, 7, Fitzroy Square, W., Thursday, 5 p.m.—The Treatment of Asthma (illustrated by cases).

National Hospital for the Paralysed and Epileptic, Queen Square, W.C.—Lectures will be delivered at 3.30 p.m. as follows: Tuesday, Syphilitic Diseases of the Nervous System; Friday, Cerebral Diplegia.

North-East London Post-Graduate College, Tottenham Hospital, N., Wednesday, 4.30 p.m.—Lecture on the Induction of General Anaesthesia.

Post-Graduate College, West London Hospital, Hammersmith Road, W.—Lectures will be delivered at 5 p.m. as follows: Monday, Practical Surgery: Tuesday, Idiocy and Imbecility (at the Asylum for Idiots, Earlswood, at 2.30 p.m.); Wednesday, Development of the Teeth; Thursday, Hernia; Friday, Public Health.

St. John's Hospital for Diseases of the Skin, Leicester Square, W.C.—Thursday, 6.15 p.m., Lecture on Tuberculosis of the Skin.

St. Peter's Hospital, Henrietta Street, W.C.—Lecture-Demonstrations will be given at 3.30 p.m. as follows: Monday, Cases in the Wards; Thursday, Electric Illumination of the Urethra and Bladder.

Samaritan Free Hospital for Women, Marylebone Road, N.W.—Thursday, 3 p.m.—Lecture on Inflammation of the Uterus.

BIRTHS, MARRIAGES, AND DEATHS.

The charge for inserting announcements of Births, Marriages, and Deaths is 3s. 6d., which sum should be forwarded in post-office orders or stamps with the notice not later than Wednesday morning, in order to ensure insertion in the current issue.

BIRTHS.

FAIRLEY.—On June 17th, at West Bank, Gravelly Hill, Birmingham, Helen Fairley, L.R.C.P.&S., wife of S. B. Fairley, M.D., of a son.

GRIFFITH.—June 16th, at 1, Hargrave Terrace, Terenure Road, Dublin, the wife of Albert E. Griffith, L.R.C.P. & S.E., of a son.

MURRAY.—On June 15th, at 6, Langham Mansions, Earl's Court Square, S.W., the wife of William Murray, M.B., Ch.B.Edin., D.P.H.Lond., of a son.

TURNER.—Oundle, Northamptonshire, June 15th, the wife of B. Roworth Turner, M.B., of a son.

VISE.—On June 11th, at 302, High Street North, East Ham, the wife of J. Neville Blithe Vise, M.R.C.S., L.R.C.P.Lond., of a son.

MARRIAGES.

SAWARD—WHITTEN.—On June 20th, at St. George's, Hanover Square, W., by the Rev. F. P. Woodward, M.A., Arthur H. M. Saward, M.R.C.S.Eng., L.R.C.P.Lond., of Richmond, Surrey, to Violet, eldest daughter of the late A. J. Whitten, I.C.S., of Upper Norwood.

STABB—RANSOME.—On June 20th, at Holy Trinity, Marylebone, by the Rev. H. O. Ransome, M.A. (brother of the bride), assisted by the Rev. W. S. King, M.A., Dr. Arthur Francis Stabb, of 132, Harley Street, W., to Florence Gertrude, second daughter of James Edward and Alice Ransome, of Holme Wood, Ipswich.

WILL—PILBROW.—On June 22nd, at St. Andrew's Presbyterian Church, Upper Norwood, by the Rev. J. G. Tram, H. Chisholm Will, M.R.C.S., L.R.C.P., L.S.A., son of J. H. Will, Esq., of Finsbury Park, to Jessie, daughter of J. S. Pilbrow, Esq., of Sydenham Hill.

LETTERS, NOTES, AND ANSWERS TO CORRESPONDENTS.

COMMUNICATIONS respecting Editorial matters should be addressed to the Editor, 2, Agar Street, Strand, W.C., London; those concerning business matters, advertisements, non-delivery of the JOURNAL, etc., should be addressed to the Manager, at the Office, 429, Strand, W.C., London.

ORIGINAL ARTICLES and LETTERS *forwarded for publication are understood to be offered to the* BRITISH MEDICAL JOURNAL *alone, unless the contrary be stated.*

AUTHORS desiring reprints of their articles published in the BRITISH MEDICAL JOURNAL are requested to communicate with the Manager, 429, Strand, W.C., on receipt of proof.

CORRESPONDENTS who wish notice to be taken of their communications should authenticate them with their names—of course not necessarily for publication.

CORRESPONDENTS not answered are requested to look at the Notices to Correspondents of the following week.

MANUSCRIPTS FORWARDED TO THE OFFICE OF THIS JOURNAL CANNOT UNDER ANY CIRCUMSTANCES BE RETURNED.

IN order to avoid delay, it is particularly requested that ALL letters on the editorial business of the JOURNAL be addressed to the Editor at the Office of the JOURNAL, and not at his private house.

TELEGRAPHIC ADDRESS.—The telegraphic address of the EDITOR of the BRITISH MEDICAL JOURNAL is *Aitiology, London.* The telegraphic address of the MANAGER of the BRITISH MEDICAL JOURNAL is *Articulate, London.*

TELEPHONE (National):—
EDITOR, 2631, Gerrard.
GENERAL SECRETARY AND MANAGER, 2630, Gerrard.

☞ *Queries, answers, and communications relating to subjects to which special departments of the* BRITISH MEDICAL JOURNAL *are devoted will be found under their respective headings.*

QUERIES.

WE would request correspondents who desire to ask questions in this column not to make use of such signatures as "A Member," "A Member B.M.A.," "Enquirer," and so on. By attention to this request much confusion would be avoided. Correspondents are asked to write upon one side of the paper only.

L. H. would be glad to hear suggestions as to the cause of three cases of simple jaundice occurring amongst the children of a household. The children were all strong and healthy and the cases followed one another, and all happened within a month.

VETERINARY SURGEON'S CHARGES.

H. R. who has received a bill for £3 5s. 6d. from a veterinary surgeon in a country village for attending his horse for ten days asks whether the charges are reasonable; the charge for a visit was 1s., and for a drench, 2s., as many as three drenches a day being given.

*** We have made inquiries and are informed that the charge for a drench for a horse varies from 1s. 9d. wholesale to 2s. 6d. retail; the charge of 1s. a visit is regarded as very cheap, even though the veterinary surgeon lived quite close by. The daily average for the attendance of a veterinary surgeon including the drenches may be taken to be about 5s.; three drenches daily would not be excessive in certain cases. On the whole it may be said that the charges are not excessive.

PUZZLED will feel extremely obliged to any member who will suggest a town or district in the Midlands suitable for permanent residence for rheumatic and gouty subjects. A large town preferred, but not essential, and sheltered from cold winds. Any hints will be highly appreciated.

A PARASITIC TICK.

DR. ARTHUR COX (Long Buckby, Rugby) writes that a patient residing in the country felt an itching under the knee at tea time on a Saturday, and on Monday or Tuesday showed her knee to a neighbour, who pronounced it to be a wart, but on Thursday a creature came out of the leg. It caused some swelling of the leg, which had gone when examined on the following morning, but there was still a small hole left.

*** Mr. S. G. Shattock (Pathological Curator, Royal College of Surgeons of England), who has kindly examined the specimen, writes: The object sent to the College is a tick, the habit of which is to bore into the skin till the head is practically out of view. The small wound left after its removal would, of course, have resulted from the cause mentioned.

DEGENERATION OF MUCUS-SECRETING GLANDS.

CADENUS would be much obliged for the following information, in reference to some observations he is making on the processes which precede nasal polypus formation. (1) Would the degeneration of the mucus-secreting glands in the mucous membrane (say of the middle turbinal and middle meatus) cause oedema of the submucous tissue in that region? (2) Is there a constitutional tendency to degeneration of similar mucus-secreting glands in certain individuals, or in certain districts (for example, Yorkshire)? (3) Can mucus-secreting glands degenerate without antecedent inflammation of the mucous membrane?

*** (1) There is no reason for thinking that oedema of the surrounding tissue would follow a degeneration of the mucous glands of the middle turbinal, etc. (2) There is no reason for thinking that there is any constitutional tendency to degeneration of mucous glands. (3) There are no observations pointing to degeneration of mucous glands except such degeneration as arises in the course of the different varieties of rhinitis. It would appear, therefore, that if our correspondent has any evidence upon the point it would be worth while to pursue the subject.

ANSWERS.

INCOME-TAX AND LIFE INSURANCE.

D. F.—Our correspondent should have forwarded his premium receipts to the surveyor, who, in calling for their production, was following the usual practice of the Inland Revenue Department. If the tax has not been paid, and the receipts are sent at once to the surveyor, the allowance can still be obtained. If, however, the duty has been paid, repayment of tax on the amount of the premiums can be claimed on a form to be obtained from the surveyor, and forwarded, together with the receipts, to Somerset House.

LETTERS, NOTES, Etc.

THE *Report of the Interdepartmental Committee on the Model Course of Physical Exercise*, summarized in our issue of April 30th, 1904, page 1026, is published at 6d., by post 8d., and not 3d., as printed on the advance copies of the report.

THE RESPONSIBILITY OF A SURGEON FOR HIS ASSISTANTS: A CORRECTION.

BY an unfortunate oversight it was stated in one place in the article on this subject published in the BRITISH MEDICAL JOURNAL of June 18th, 1904, p. 1446, that the jury found for the defendant on the five questions submitted. The fact, as appears abundantly from the text, and, as also stated in the report of the trial published on June 11th, p. 1408, was that a verdict was found for the plaintiff.

MEDICAL GOLF MATCH.

THE annual golf match between the North of England Medical Golf Club and the Royal Colleges Golf Club, Edinburgh, was played at Alnmouth on June 11th with the following result:

Edinburgh Royal Colleges.		North of England Golf Club.	
R. H. Blaikie	½	Walter Ridley	0
J. M. Cotterill	1	C. L. Fraser	0
F. W. N. Haultain	0	J. Limont	1
T. R. Ronaldson	1½	E. S. Robson	0
P. A. Young	0	M. Gover	1
D. Wallace	0	J. F. Thomson	0
A. Ballantyne	0	W. B. Mackay	1
H. Littlejohn	0	F. Anderson	1
G. H. Melville Dunlop	0	Adam Wilson	1½
H. J. Stiles	0	W. C. Beatley	1
C. W. MacGillivray	1	T. Ouston	0
Alexis Thomson	0	R. Howden	1½
	4		8

IRRIGATION OF OPERATION WOUNDS WITH SOLUTION OF CHEMICAL IRRITANTS: A CORRECTION.

DR. C. HAMILTON WHITEFORD (Plymouth) writes: In my letter on the above in the BRITISH MEDICAL JOURNAL of June 18th last the words "irritating fluid," twenty lines from the end of the letter, should read "unirritating fluid."

LETTERS, COMMUNICATIONS, ETC., have been received from:

A. S. B. Atkinson, M.B., London. **B** J. E. Blomfield, M.B., Sevenoaks; Mr. R. J. Bland, London; Dr. J. M. Beattie, Edinburgh; A. H. Burgess, M.B., Manchester; Dr. F. T. Bond Gloucester; Mr. E. S. Bishop Manchester; Brux; Mr. A. F. Bradshaw, Oxford; Mr. L. A. Bidwell, London; Mr. H. N. Barnett, Belfast; Dr. A. Baxter, Jawan. **C** Dr. E. Cureton, Shrewsbury; Mr. J. Crowley, Ballycastle; J. Carlie, M.B., London; Sir E. H. Currie, London; Dr. W. Collier, Oxford; Messrs. Callard and Co., London; Dr. C. Coombs, Bristol; Dr. W. H. Calvert, Melrose; T. F. S. Cahill, M.B., Edinburgh; C. M. H.; Sir W. S. Church, Bart., K.C.B., London; A. Cambell, M.B., Newcastle-on-Tyne. **D** Dr. M. Dewar, Edinburgh; Dr. D. Drew, London; A. Duke, M.B., Newcastle-on-Tyne; Sir D. Duckworth, London; Durham; Messrs. Davies Gibbons, and Co., Derby. **E** Mr. G. H. Edwards, London; Enquirer; Mr. H. Edwards, London. **F** Dr. E. J. Farmer, Carlow; Mr. W. Fairbank, Windsor; R. Forsyth, Leeds; Mr. H. W. Fagge, Lutterworth; D. Fleck, M.B., Bristol. **G** V. T. Greenver, Hove; Mr. W. F. Garden, Bussorah; Mr. G. P. Gaskell, London; Miss L. M. Grant, London. **H** H. R.; F. R. Hill, M.B., Carlisle; Mr. R. Harris, London; Mr. F. Hodson, Bourne; Humber Limited, Manager of, London; Dr. Herschell, London. **I** Mr. W. R. Y. Ives, Southampton; Independent. **J** Mr. Jones, Hereford; Dr. J. H. Joy, Tamworth; J. F. B. C.; Mr. R. D. Joyce, Dublin; R. Jones, Blaenau Festiniog; J. G. **K** Dr. J. Kerr, London; Mr. W. G. King, London; Mr. F. W. E. Kinneir, Horsham; Mr. O. P. Kerrigan, Castletown, Geoghegan; Kay, M.B., Cockermouth. **L** Mr. E. M. Little, London; Dr. B. Laquer, Wiesbaden; L. B.; Messrs. E. and S. Livingstone, Edinburgh; Dr. A. W. H. Lindsay, Halifax, N. S.; Dr. A. P. Luff, London; G. C. Low, M.B., London. **M** Dr. S. G. Moore, Mardy; M. B. S.; C. G. MacVicker, M.B., Street; D. S. Macdonald, M.B., Jura; D. B. Maunsell, M.B., Dublin; R. R. Mowll, M.B., Surbiton; Dr. G. N. Meachen, London; Messrs. Mather and Crowther, London; Moorraker; Mr. J. H. Mummery, London; Mr. G. Y. Myrtle, Harrogate; Mr. D. Massy-Burnside, Brynmawr; Dr. J. Metcalfe, Bradford; Miss I. Mears, Edinburgh; Dr. H. C. Miller, Aviemore; Messrs. Mayer and Meltzer, London. **O** Major W. O. Owen, Mamla. **P** A. F. M. Powell, M.R., Minehead; Dr. R. M. Philip, Edinburgh; Dr. F. M. Pope, Leicester; P. F. C.; Dr. W. R. Parr, Kendal; Captain A. E. H. Pinch, London; Dr. F. G. Proudfoot, Oxford; Mr. D. Parr-Dudley, Dover; Miss J. M. Price, Promley, Kent; Messrs. J. and J. Pall, London; Mr. E. Penrose, London. **R** Mr. F. W. Reynolds, Leeds; Dr. W. Ransom, Oxford; Dr. S. J. Ross, Bedford; Mr. C. F. Rudd, Stalham; Mr. W. H. Rowthorn, Rotherham; Royal Dental Hospital, Dean of, London; Dr. W. B. Ransom, Nottingham; R. M. **S** St. Mary's Hospital Medical School, Secretary of, London; S. Stephenson, M.B., London; St. Thomas's Hospital Medical School, Secretary of, London; J. L. Stretton, Kidderminster; Sceptic; S. H. B.; D. L. Smith, M.B., Bowden; Dr. W. Saleeby, Edinburgh. **T** Dr. W. H. Tate, London; Taylor's Tonic Tea Co., Manager of, London; Dr. J. M. Taylor, Philadelphia; Mr. W. H. Theobald, London; Mrs. Thistlethwaite, Manchester; Dr. R. S. Trotter, Bedlington. **W** Mr. J. H. Wild, London; Dr. B. C. A. Windle, Birmingham; Dr. A. O. Ward, London; Dr. W. W. Wagstaffe-Saul, Lancaster; Dr. E. F. Willoughby, London; Dr. B. Walker, Newcastle-on-Tyne; A. L. Whitehead, M.B., Leeds; Dr. H. F. Waterhouse, London; Dr. W. Wingrave, London; Dr. F. Willcocks, London; Mr. M. Westcott, London; Mr. Whiteford, Plymouth; D. C. Watson, M.B., Edinburgh. **Y** Yacht; Dr. E. S. Young, Manchester; etc.

BOOKS, ETC., RECEIVED.

Practical Prescribing and Dispensing. By William Kirkby. Manchester: University Press. 1904. 4s. 6d.

A Primer of Clairaudience. By J. Barker Smith, L.R.C.P. Upper Norwood: Imperial Press. 1904. 1s.

A Manual of Ambulance. By J. Scott Riddell, C.M., M.B., M.A. Fifth Edition. London: Charles Griffin and Co., Limited. 1904. 4s.

Victoria University of Manchester; Public Health Laboratory; Statistical Methods. Lecture on the Construction of Life Tables, and on their Application to a Comparison of the Mortality from Phthisis in England and Wales during the decennia 1881-90 and 1891-1900. By T. E. Hayward, M.B.Lond., F.R.C.S. Eng., on Thursday, May 26th, 1904. Manchester: Sherratt and Hughes. 1904. 1s. 6d.

Technique du Traitement de la Coxalgie. Par le Dr. Calot. Paris: Masson et Cie. 1904. Fr. 7.

A Manual of Surgical Diagnosis. By James Berry, B.S., F.R.C.S. London: J. and A. Churchill. 1904. 6s.

Uric Acid; an Epitome of the Subject. By Alexander Haig, M.A., M.D.Oxon., F.R.C.P. London: J. and A. Churchill. 1904. 2s. 6d.

A Descriptive Catalogue of the Pathological Specimens in the Museum of the Hospital for Consumption and Diseases of the Chest, Brompton. By Percival Horton-Smith, M.A., M.D., F.R.C.P., and William Thomas Mullings, M.A., M.D. London: Adlard and Son. 1904.

Dutch Self-taught with Phonetic Pronunciation. By Captain C. A. Thimm. London: E. Marlborough and Co. 1904. 2s. 6d.

Report on the Work of the Pathological Department of the Brompton Hospital during the three years April, 1900, to April, 1903. London: McCorquodale and Co., Limited. 1904. 1s.

Swimming. By Ralph Thomas. London: Sampson, Low, Marston, and Co. 1904. 10s. 6d.

Transactions of the Life Assurance Medical Officers' Association, London; comprising the Report of the Proceedings for 1902 and 1903. London: Life Assurance Medical Officers' Association.

Lehmann's Medizin-Handatlanten. Band xxxi. Atlas und Grundriss der Lehre von den Augenoperationen. Von Professor Dr. O. Haab. München: J. F. Lehmann. 1904. M. 10.

Royal Leamington Spa. Edited by George W. May. London: The Health Resorts Association.

The Examination of Waters and Water Supplies. By John C. Thresh, D.Sc. Lond., M.D.Vict., D.P.H.Camb. London: J. and A. Churchill. 1904. 14s.

Ueber den Schluckmechanismus. Von Professor Dr. Julius Schreiber. Berlin: August Hirschwald. 1904. M. 3.

Anleitung zum chemischen Arbeiten für Mediciner. Von Dr. F. Rohmer. Zweite Auflage. Berlin: S. Karger, and London: Williams and Norgate. 1904. 4s.

Beiträge zur Anatomie der Tubenschwangerschaft von Dr. Fritz Kermauner. Berlin: S. Karger. London: Williams and Norgate. 1904. 4s.

A Dictionary of Medical Science. By Robley Dunglison, M.D., LL.D. Twenty-third Edition. Revised by Thomas Stedman, A.M., M.D. London: J. and A. Churchill. 1904. 34s.

How to become a Certified Midwife. By L. C. Appel, M.B., B.S., B.Sc. London: The Scientific Press. 1s.

De la Escoliosis. Por el Doctor Saturnino Garcia y Hurtado. Madrid: Idamor Moreno. 4 pesetas.

Estudio del Pie Plano. Por el Dr. D. Saturnino G. Hurtado. Madrid: Establecimiento Tipográfico de Enrique Teodoro. 1904. 1 peseta.

Arquitectura del Aparato de Sustentacion en los Vertebrados. Por el Dr. Saturnino García Hurtado. Madrid: Idamor Moreno. 1904. 5 pesetas.

Cycle and Camp. By T. H. Holding. London: L. de Vere and Co. 1s.

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THE JOURNAL OF THE BRITISH MEDICAL ASSOCIATION.

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OF

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INDEX TO THE EPITOME FOR VOLUME I., 1904.

The Figures in this Index refer to the Number of the Paragraph NOT the Page.

A.

Abdomen, treatment of penetrating wounds of, 229
Abdominal pain, 102
——— wall, method of incision of in the performance of laparotomy 261
Abel, vaginal or abdominal operations in gynaecology, 175
Abortion, miliary phthisis following, 112; traumatic tubal, at fifth month, 161
Abrin, poisoning by, 100
Abscess of the liver in temperate climates, 123; puerperal, of uterus, death, 163
Absorption of fat, 137
Abuladse, secondary perineorrhaphy in childbed, 93
"Accouchement force" and premature labour, 23
Acetabulum, rectal exploration in fracture of the, 156
Acid treatment (Leo's) of pruritus, 321
Acne, hypertrophic, of the nose, treatment of, 401
Acro-hyperplasia, a case of, 273
Actinomycosis, circumscribed mobile intestinal tumours due to, 29
Adeno-carcinoma of uterus in age, 303
Adeno-myomata of the uterine end of the Fallopian tubes, 218
Adolescence, osteitis deformans in, 36
Adrenalin and cocaine, 191, 349
Aelargin, gonorrhoeal vulvo-vaginitis of children treated by, 323
Age, cancer and uterine fibroid in, 234; adeno-carcinoma of uterus in, 303
Agglutination of staphylococci, 403
Air passages, upper, the relation of non-tuberculous diseases of to phthisis, 17
Albumen diet-cure, the, 52
Alcoholism, disease of corpus callosum caused by, 171
Alkan, theocin, 253
Alopecia areata, treatment of, 98
Ammonuria and phosphaturia, 244
Amputation of cervix, dystocia after, 200
Anaesthesia, local, 60; morphine-scopolamine, 75; local, goitre, operations under, 174
Anaphrodisiac, heroin as a, 69
Anatomy, surgical, of the ductus choledochus, 127
Ancel, surgical importance of hepatic accessory ligaments, 216
Angina, Vincent's, 1
Antitoxin, diphtheria, the stability of, 366
Aorta, percussion of the vertebrae in diseases of, 390
Aponeurosis, prevention of post-operative abdominal hernia by overlapping of the, 248
Aporti, meningism, 241
Appendectomy, treatment of the stump in, 48
Appendicitis in the French army, 76
Appendicular origin, errors of diagnosis caused by pain of, 184
Appendix vermiformis, the, and lead poisoning, 57
Aristochin, note on, 201
Army, French, appendicitis in the, 76
Arnheim, theocin, 253
Arnone, a case of acro-hyperplasia, 273
Arsenic, action of on the kidneys of children, 97
Artery, femoral, and liver, simultaneous gunshot injury of, 106
Articulation, crico-arytenoid rheumatism of the, 294
Asmus sclerokeratitis rheumatica, 125
Asphyxia, traumatic, 330
Association, American Clinatological, stages of pulmonary tuberculosis, 312
Atkinson, pneumonia, 326
Atresia, traumatic, of the vagina, Caesarean hysterectomy in, 317
Auto-suggestion, hysterical, in children, 183
Azwanger, central rupture of the perineum by the elbows in breech presentations, 160

B.

Bacilli, of tubercle, in the urine, 223; of tubercle, in milk, 257; in different tuberculous diseases, 309; human and bovine tubercle, 370
Bacillus, an antituberculous, 40; the Koch-Weeks, 256; a, present in syphilitic lesions, 352
Bacteriology, of variola, 28; of fluid in hernial sac, 206
Bakes, a new procedure for the operative treatment of chronic nephritis, 329
Ballantyne, Bossi's dilator, 378
Banti, leukaemia, 154
Banti's disease. See Disease
Bar, glycosuria and hypertrophied thyroid in pregnancy, 332; urinary chlorides and pulmonary oedema in pregnancy, 379
Barjou, the curve of Damoiseau, 389
Basedow's disease. See Disease
Battara, prophylaxis against malaria, 238
Battlefield, first dressing on the, 213
Baum, aristochin, 201
Baumgarten, rheumatism of the crico-arytenoid articulation, 294; urogenital tuberculosis, 337
Bayliss, proteolytic action of pancreatic juice, 74
Beach, traumatic asphyxia, 330
Beck, human and bovine tubercle bacilli, 370
Beck, heroin as an anaphrodisiac, 69
Becquerel rays, action of on the skin, 208
Behring, treatment of gonorrhoea in the male, 385
Bendix, urticaria in childhood, 259
Berger, surgical treatment of cancer of the tongue, 228
Bertalozzi, pneumonia treated by calomel, 54
Besta, penicillum glaucum and the pathogenesis of pellagra, 193
Betti, treatment of galactophoritis in the newborn, 96
Biggs, prevention of tuberculosis in children, 383
Bignami, disease of corpus callosum caused by alcoholism, 171
Bile ducts, aberrant, cystadenoma of, 138
Biliary passages, surgery of the, 47
Birch leaves, infusion of as a solvent of renal calculi, 268
Bjorkquist, carcinoma of clitoris, 109
Blackwater fever. See Fever haemoglobinuric
Bladder injected in error in absence of vagina, 390
Blöte, treatment of mixed infection in phthisis, 165
Blood, detection of traces of in the stools, 373
——— changes in dementia paralytica, 140
Bocchi, pyramidon in the treament of sciatica, 271
Bockenheimer, agglutination of staphylococci, 403
Boissard, dystocia after amputation of cervix, 200
Bókay, v., Moser's polyvalent scarlatina streptococcus serum, 222
Bone suture in simple fractures, 340
Borelius, circumscribed mobile intestinal tumours due to actinomycosis, 29
Borgljerg-Axel, the etiology of hyperchlorhydria, 16
Bossi's dilator, 378
Bouffée de Saint Blaise, obstruction to suckling, imperfect nipples, cyst of nipple, 131
Boulud, action of x rays upon nutrition, 113
Bourcart, resuscitation by sub-diaphragmatic massage of the heart in, 12
Brain, the effect of certain common essences on the circulation in the, 114; gunshot wound of the, 126; the manifestation of tumours of the motor region of the, 247
Brasch, hetol in tuberculosis, 267
Braun, cocaine and adrenalin, 191, 349
Brazil, cystadenoma of aberrant bile ducts, 138; report of French mission to on yellow fever, 205
Breech presentation, central rupture of the perineum by the elbow in, 160
Brinda, action of arsenic on the kidneys of children, 97
Bromide (dietetic) treatment of epilepsy, 51
Bryant, digestibility of vegetables, 95
Buckmaster, the dry mouth of fevers, 116
Bürger, prolapse in a newborn child, 363
Burckhardt, inherited predisposition to phthisis, 355

C.

Caesarean section, vaginal, and uterine cancer, 129; three times in one patient, 217
Calculi, renal, infusion of birch leaves as a solvent of, 268
Calculus, incision of hepatic duct for, 6; in the ureter, 358
Calkins, the life-history of the organism of small-pox, 15
Calomel, pneumonia treated by, 54
Campanella, the symptomatology of dyspepsia, 151
Campani, desquamation in pneumonia, 209
Camphor, percutaneous application of in tuberculosis, 367
Cancer. See Carcinoma
Cannon, passage of foodstuffs from the stomach, 374
Carcinoma, gastric, surgical treatment of, 7; secondary, of ovary, its clinical import, 81; of clitoris, 109; uterine, and vaginal Caesarean section, 129; the treatment of by its own toxin, 133; of the tongue, surgical treatment of, 228; primary, of vulvo-vaginal gland, 251; removal of the uterus for, 301; primary, of the bulbous urethra, 315; of clitoris in a woman aged 78, 318; of ovaries in a girl aged 14, 361 and fibroid of body of uterus coincident, 395
Carnett, surgical treatment of sterility in the male, 35
Carrier, the x rays in mycosis fungoides, 221
Cataphoresis in the local treatment of diseases of the stomach, 146
Cavaillon, perigastritis consecutive to gastric ulcer, 375
Cavazzani, digastroscopy, 243
Cazin, cysts of the clitoris, 233
Cells with eosinophile granulations, 324
Cellular changes in the formation of hyperplastic tissue, 72
Ceni, penicillum glaucum and the pathogenesis of ozaena, 193
Cephalopin, note on, 269
Cerebral. See Brain
Cervix uteri. See Uterus
Chaput, the surgical uses of peroxide of zinc, 343
Charmeil, treatment of alopecia areata, 98
Chauvel, appendicitis in the French army, 76
Child, injury to eyes of in difficult labour, 263; newborn, prolapse in, 364
Childbed, secondary perineorrhaphy in, 93

Childhood, disappearance of endocardial murmurs in, 212; urticaria in, 259
Children, tuberculosis of the pharynx in, 30; action of arsenic on the kidneys of, 97; spasmodic croup in, 139; hysterical autosuggestion in, 183; Theinhard's soluble food for, 307; gonorrhoeal vulvo-vaginitis of treated with aelargin, 323; prevention of tuberculosis in, 383
Chlorides, urinary, and pulmonary oedema in pregnancy, 379
Chloroform syncope, resuscitation by subdiaphragmatic massage of the heart in, 12
Chorea of the heart, 210
Chrysarobin, pyaemia from the local application of, 26; in ringworm, 53
Cionini, influence of faradization on the functions of the stomach, 66
Circulation, cerebral, effect of certain common essences on the, 114
Cirrhosis of the liver, venous pulse in the forearm in, 153
Climates, temperate, abscess of the liver in, 123
Clitoris, carcinoma of, 109; cysts of the, 233; cancer of in a woman aged 78, 318
Club-foot, treatment of, 61
Cobb, traumatic asphyxia, 330
Cobra poison, Indian, 255
Cocaine and adrenalin, 191, 349
Cohn, therapeutic experiments with electro-magnets, 335
Coley, action of x rays in sarcoma, 240
Colic, renal, diagnosis of, 339
Colombo, therapeutic massage, 42
Connell, local anaesthesia, 60
Contagiosity of icterus, 226
Corpus callosum, disease of caused by alcoholism, 171
Corsini, treatment of gall stones, 84
Costa, contagiosity of icterus, 226
Coudert, dystocia after amputation of cervix, 200
Court, fracture of forceps in delivery, perfora- of cervix, 64
Crisafi, the iodophile reaction and glycosuria in pertussis, 182
Crisafulli, thyroid functions and epilepsy, 227
Croup, spasmodic, in children, 139
Crurin in gonorrhoea, 27
Cruveilhier, the therapeutic value of injections of antidiphtherial serum, 202
Cunningham, hypernephroma, 150
Curve of Damoiseau, the, 389
Cyst, juxta-intestinal, of intestinal structure, 186; of cervix simulating fibrous polypus, 188; of mesentery, obstruction after operation, 380
Cystadenoma of aberrant bile ducts, 138
Cysts, bilateral ovarian, and vesicular mole, 162; of the clitoris, 233

D.

Damoiseau, the curve of, 389
Daniel, obstetrical aspects of pelvic exostosis, 21
Daunay, urinary chlorides and pulmonary oedema in pregnancy, 379
D'Auria, Durante's injections in the treatment of phthisis, 368
Davis, surgical treatment of trifacial neuralgia, 376
Death, caused by uterine sound, 65; in diphtheria, causes of, 101; in ruptured pyosalpinx, 237
Deaver, the surgical treatment of pancreatitis, 197
Deformity, acquired, of the leg, special variety of, 357
Degeneration, malignant, of cervix uteri after hysterectomy, 78; sarcomatous, of fibroids, 177; sarcomatous of a uterine myoma in a young subject, 232
Delagenière, incision of hepatic duct for calculus, 6
Delay, hernia of ovaries, absence of uterus and vagina, 319; perigastritis consecutive to gastric ulcer, 375
De Lee, spondylolisthesis, 333
Delivery, fracture of forceps in, 64
Delsart, typhoid pericarditis, 196
Dementia paralytica, blood changes in, 140
De Paoli, g. ît̂ref 181
Dermoid of both ovaries and pregnancy, 190
De Rossi, early treatment of acute nephritis, 258
Deseniss, vesicular mole and bilateral ovarian cysts, 162
De Smeth, treatment of hydrocele, 342
Desquamation in pneumonia, 209
De Villiers, rhizomelic spondylosis and tuberculosis, 119
De Vries, primary echinococcus of uterus, 346
De Waele, the bacteriology of variola, 28
Diabetes, "symposium" on, 195
Diagnosis, splenic puncture in, 32; tuberculin as a means of, 44; errors of in regard to extra-uterine pregnancy, 49; of enteric fever, 58; of phthisis, 73; errors of caused by pain of appendicular origin, 184; bacteriological, of diphtheria, 225; of renal colic, 339
Diefendorf, blood changes in dementia paralytica, 140
Diet-cure, the albumen, 52
Dietetic bromide treatment of epilepsy, 51
Diagastroscopy, 243
Digestibility of vegetables, 95
Dilator, Bossi's, 378
Dimethylamidobenzaldehyde reaction (Ehrlich's), 121
Dionin, note on, 384
Dionisio, treatment of ozaena, 192
Diphtheria, causes of death in, 101; and its bacteriological diagnosis, 225; and epistaxis, 245; chronic, 354
——— antitoxin. See Antitoxin
Disease, Banti's, splenectomy for, 91
——— Basedow's, resection of the cervical sympathetic in, 392
——— Hodgkin's, pathological histology of, 170
Diseases of the knee, 141; of the stomach, cataphoresis in the local treatment of, 146
Dislocation, voluntary, of the hip, 297; old, of the hip, operative treatment of, 328
Donath, the appendix and lead poisoning, 57
Donati, experimental production of gastric ulcer, 402
D'Ormea, the effect of certain common essences on the cerebral circulation, 114
Drainage of the pericardium, 155
Dreyer, the treatment of sensitized tissues by light, 14; light treatment by the method of, 399
Dreyfus, inoperable procidentia, 62
Drugs, antagonistic action of, 68
Dubreuilh, treatment of hypertrophic acne of the nose: 401
Duct, hepatic, incision of for calculus, 6
Ductus choledochus, surgical anatomy of the, 127
Du Mesnil du Rochemont, serum treatment of typhoid fever, 239
Dunbar's serum in hay fever, 305
Duprat, serumtherapy of plague, 147
Durante's injections in the treatment of phthisis, 368
Duret, the manifestation of tumours in the motor region of the brain, 247
Duval, splenectomy for Banti's disease, 91
Dyer, red mangrove bark in leprosy, 117
Dysentery, a new treatment for the serum of, 347
Dyspepsia, the symptomatology of, 151
Dystocia after amputation of cervix, 200

E.

Ebstein, exodin, 67
Echinococcus, primary, of uterus, 346
Eclampsia, and large placenta, 108; and hydramnion, 219; experience of 100 cases of, 249; puerperal, masking pleuro-pneumonia, 302
Edsall, chronic polyarthritis, 122
Effusion, pleural, treatment of, 203
Ehrlich's, dimethylamidobenzaldehyde reaction, 121
Ektogan and hopogan, 167
Elbow, central rupture of the perineum by in breech presentation, 160
Elder, treatment of elephantiasis, 369
Electro-magnets, therapeutic experiments with, 335
Elephantiasis, treatment of, 369
Elliot, Indian cobra poison, 255
Embryoma in the mediastinum, 136
Enge, protracted pregnancies, large fetus, 235
Enteritis, catarrhal, and pelvic disease, 159
Eosinophile granulations, cells with, 324
Epilepsy, dietetic bromide treatment of, 51; late, 207; thyroid functions and, 227
Epistaxis, diphtheria and, 245
Erb, syphilis and locomotor ataxy, 172
Erysipelas and nephritis, 388
Essences, certain common, effect of on the cerebral circulation, 114
Etiology of hyperchlorhydria, 16
Euguformum solubile, note on, 220
Eumydrin, a new mydriatic, 41
Evelt, sarcomatous degeneration of fibroids, 177
Ewald, hysterical autosuggestion in children, 183
"Excochleation" of the prostate, 19
Exodin, note on, 67
Exostoses, pelvic, obstetrical aspects of 21
Exudates, pleural, 372
Eye, healthy and blind, action of radium rays on, 334
Eyes, child's, injury to in difficult labour, 263

F.

Faber, causes of death in diphtheria, 101
Faeces, nocturnal incontinency of due t enlarged tonsils, 296
Fairbairn, necrobiosis in fibromyomata of th uterus, 10
Falkenstein, treatment of gout, 178
"Family," spasmodic tabes, 31
Faradization, action of on the functions of th stomach, 66
Fat, absorption of, 137
Faure, protection of ureters by Kelly's hystere tomy, 94
Fedeli, the medical treatment of tuberculou peritonitis, 400
Female, ureteritis in the, 8
Femur, treatment of acute osteo-myelitis of th upper extremity of, 391
Ferisch, v., primary cancer of vulvo-vagina gland, 251
Ferrannini, mitral pseudo-insufficiency, 46
cataphoresis in the local treatment of dis eases of the stomach, 146
Fetron ointment, 270
Fetus, resistance of to maternal disease, 11 large, in protracted pregnancies, 235; torn-o head of in parametrium, 393
Fever, the treatment of in phthisis, 135
——— enteric, diagnosis of, 58; serum treatmen of, 239; with arterial complication, 260
——— hay, serum treatment of, 305; treatmen of, 364
——— haemoglobinuria, preventive treatmen of, 306
——— nervous, note on, 4
——— scarlet, protozoon-like bodies in, 169
——— yellow, report of French mission to Brazi on, 205
Fevers, the dry mouth of, 116
Fibroid, malignant uterine, 55; uterine in age 234; and cancer of the body of the uterus coincident, 395
Fibroids, sarcomatous degeneration of, 177
Fibromyoma of the round ligament of th uterus, 362
Fibromyomata of the uterus, necrobiosis in, 10
Fick, treatment of hay fever, 364
Finsen's light treatment, heat rays in, 381
First dressing on the battle field, 213
Fisker, diagnosis of enteric fever, 58
Fissure of the tibia, 262
Fistula, uretero-vaginal, treatment of, 198 rectal, after vaginal hysterectomy, 250
Fistulae, pulmonary treatment of, 356
Fixation of spleen and omentum, 142
Flaischlen, adeno-carcinoma of uterus in age 303
liess, the treatment of ozaena with paraffin 252
Fluid, in hernial sac, bacteriology of, 206
Food stuffs, passage of from the stomach, 374
Forceps, fracture of in delivery, 64
Forearm, venous pulse in the in cirrhosis of th liver, 153
Foreign bodies in the stomach, 20
Foreign body, external oesophagotomy in cases of, 105
Fothergill, hypertrophy of the fetal thyroid, 265
Fournier, Caesarean hysterectomy in traumatic atresia vaginae, 317
Fracture, of forceps in delivery, 64; of the acetabulum, rectal exploration in, 156
Fractures, simple, bone suture in, 340
Fraenkel, hopogan and ektogan, 167
Francine, gastroptosis, 152
Fratti, oesophageal stenosis from lordosis, 299
Fredenwald, foreign bodies in the stomach, 20
Freeman, infantile tuberculosis, 338
Freudenberg, phosphaturia and ammonuria, 244
Friedlander, treatment of paralysis agitans, 348
Fritsch, treatment of post-partum haemorrhage, 143
Funke, adenomyomata of the uterine end of the Fallopian tubes, 218

G.

Galactophoritis in the newborn, treatment of, 96
Galdi, chorea of the heart, 210
Gall stones, treatment of, 84
Gallavardin, congenital torticollis, 118
Garavini, voluntary dislocatiou of the hip, 297
Garceau, ureteritis in the female, 8
Garovi, treatment of uretero-vaginal fistula, 198
Garré, treatment of pulmonary fistulae, 356
Gastric. See Stomach
Gastroptosis, observations on 100 cases of, 152
Geisthovel, vaginal ovariotomy during labour, 63
Gentili, the pathogenesis of icterus, 308

rngross, perityphlitis and leucocytosis, 71
station beyond term in rudimentary cornu, 79
illini, treatment of club-foot, 61
lmore, catarrhal enteritis and pelvic disease, 59
l, aged 14, cancer of ovaries in, 361
ınd, vulvo-vaginal, primary cancer of the, 51
ckner, secondary cancer of ovary, its clinical nport, 81; removal of the uterus for cancer, 91; cancer and fibroid of the body of uterus oincident, 395
cosuria, and the iodophile reaction in per-ıssis, 182; and hypertrophied thyroid in regnancy, 332
tre, exophthalmic, 120; a study of sixty ıses of, 181
tre operations, local anaesthesia in, 174
dberg, action of Becquerel rays on the skin, 98
ıorrhoea, crurin in, 27; in the male, treat-ent of, 385
tschalk, operation for myoma of the cervix, ; cancer and uterine fibroid in age, 234
ıt, pathology of, 43; treatment of, 178
eff, action of the radium rays on the healthy ıd blind eye, 334
cco, exophthalmic goître, 120; treatment of esity, 320
ldrini, haemostasis in hepatic surgery, 185
bé, rectal exploration in fracture of the etabulum, 156
nard, errors of diagnosis caused by pain of pendicular origin, 184
ıshot injury, simultaneous, of liver and moral artery, 106
ıshot wound of the brain, 126
ot, treatment of acute osteo-myelitis of the per extremity of the femur, 391
aecology, stypticin in, 9; vaginal or abdo-nal operations in, 175

H.

natocele and tubal pregnancy, operation or pectant treatment? 187
natometra in undeveloped uterine cornu, noglobinuria, paroxysmal, 211
noglobinuric fever. See Fever
norrhage, traumatic, of spleen, surgical atment of, 124; post-partum, treatment of, nostasis in hepatic surgery, 185
n, resistance of fetus to maternal disease, erstädter, light treatment by Dreyer's thod, 399
effects of purin on the body tissues, 86; tadenoma of aberrant bile ducts, 138; mary carcinoma of the bulbous urethra, mer, tuberculin as a means of diagnosis, 44
l infection, peculiar forms of, 313
lfield-Jones, retroversion of the gravid rus, 22
is, treatment of penetrating wounds of the omen, 229
nann, accidental wounding of the inferior a cava in nephrectomy, 158; menopause 9, 266
vig, acute primary pyelitis in infants, 45
ins, antagonistic action of drugs, 68
ever. See Fever
torn-off fetal, in parametrium, 393
, resuscitation by subdiaphragmatic mas-e of in chloroform syncope, 12; wound of 59; chorea of the, 210; percussion of the ebrae in disease of, 390
rays in Finsen's light treatment, 381
nhain, cyst of mesentery, obstruction r operation, 380
itol, note on, 398
el, death caused by uterine sound, 65
otay, cyst of cervix simulating fibrous pus, 188
ic. See Liver
o-cholangio-enterostomy, 215
a, of the ovary, 130; obturator, of ovary ciated with osteomalacia, 189; ventral, ian tumour in a, 236; post-operative abdo-al, the prevention of by overlapping of the ureteroses, 248; of ovaries, absence of uterus vagina, 319
n as an anaphrodisiac, 69
s zoster as a complication of mumps, 295
eimer, the external treatment of psori-254
Vincent's angina, 1
in tuberculosis, 267
oluntary dislocation of the, 297; operative ment of old dislocation of, 328
eclampsia, 249
Histology, pathological of Hodgkin's disease, 170
Hitschmann, venous pulse in the forearm in cirrhosis of the liver, 153
Hochaus, miliary phthisis following abortion, 112
Hodara, chrysarobin in ringworm, 53
Hodgkin's disease. See Disease
Hoelscher, human perspiration, 208
Hoffa, diseases of the knee, 141
Hopagan and ektogan, 167
Hragh, pyaemia from the local application of chrysarobin, 26
Hueppe, neutralization of toxins, 274; on tuberculosis, 387
Hueter, urogenital tuberculosis, 337
Hydramnion and eclampsia, 219
Hydrargyrum hermophenylicum, 25
Hydrobromatie of scopolamine, the uses of, 322
Hydrocele, treatment of, 342
Hygric sensibility altered, case of, 325
Hyperchlorhydria, etiology of, 16
Hypernephroma, definition of, 150
Hypertrophy, of the fetal thyroid, 265; of the os uteri, 331
Hysterectomy, successful vaginal, in grave puerperal infection, 37; malignant degeneration of cervix uteri after, 78; Kelly's, protection of ureters by, 94; vaginal, rectal fistula after, 250; Caesarean in traumatic utresia vaginae, 317
Hysteria simulating gastric ulcer, 246
Hysteropexy, dangers of a utero-parietal band, 110

I.

Icterus. See Jaundice
Immunity, natural, new studies in, 70
Incision, of hepatic duct for calculus, 6; of abdominal wall in laparotomy, method of, 261
Incontinence, nocturnal, of faeces due to enlarged tonsils, 296
Inertia of the uterus, 128
Infants, acute primary pyelitis in, 45
Infection, grave puerperal, successful vaginal hysterectomy, 37; mixed, in phthisis, treatment of, 165; of hands, peculiar form of, 313
Inhalation of lime dust and tuberculosis, 56
Injections of antidiphtherial serum, the therapeutic value of, 202; Durante's on the treatment of phthisis in, 368; epidural, 382
Inoscopy, Jousset's, value of, 224
Iodine, test for, 3
Iodism, the recognition of prevention of, 88
Iodophile reaction, the, and glycosuria in pertussis, 182

J.

Jaboulay, the surgical treatment of nephritis, 34
Japha, spasmodic croup in children, 139
Jassniger, value of Jousset's inoscopy, 224
Jaundice, contagiosity of, 226; pathogenesis of, 242, 308
Jayle, bilateral tubal pregnancy, 360
Joachim, detection of traces of blood in the stools, 373
Johnson, effect of smokeless powder on the skin, 377
Joint, new, formation of by metallic supports, 103
Jonnesco, resection of the cervical sympathetic in Basedow's disease, 392
Joseph, crurin in gonorrhoea, 27; euguformum solubile, 220
Joussett's inoscopy, value of, 224

K.

Kamann, rectal fistula after vaginal hysterectomy, 250
Karpow, traumatic tubal abortion at fifth month, 161
Kaufmann, the albumen diet-cure, 52
Kaurin, nervous fever, 4
Kehr, hepato-cholangio-enterostomy, 215
Keleman, helmitol, 398
Kelly's hysterectomy. See Hysterectomy
Kidneys, of children, action of arsenic on, 97
Kiparski, gestation beyond term in rudimentary cornu, 79
Kirmisson, a special variety of acquired deformity of the leg, 357
Klein, tubal pregnancy and haematocele, operation or expectant treatment? 187
Klopstock, agglutination of staphylococci, 403
Knee, diseases of the, 141; outward luxation of complicated with laceration of the external popliteal nerve, 314
Koch, percutaneous application of camphor in tuberculosis, 367
Kochmann, the preparations of valerian, 115
Koebisch, rheumasan, 13
Koehler, Leo's acid treatment of pruritus, 321
Koenig, eclampsia and large placenta, 108; bone suture in simple fractures, 340
Koermoeczi, value of Jousset's inoscopy, 224
Koetschau, does symptomless retroflexion require treatment? 111
Koplik's spots as an early symptom of measles, 2
Korakow's psychosis, 311
Kouznetsky, cancer of ovaries in a girl aged 14, 361
Kraemer, urogenital tuberculosis, 337
Kramm, triferrin, 166
Kraus, Theinhard's soluble food for children, 307
Kufferath, grave puerperal infection, successful vaginal hysterectomy, 37

L.

Labour, premature, and "accouchement forcé," 23; vaginal ovariotomy during, 63; some of the obstructions to, 92; difficult, injury to child's eyes in, 263; premature, the induction of, 300
Laceration of the external popliteal nerve complicating outward luxation of the knee, 314
Lambotte, ligature of the lateral sinus in formidable operations on the neck, 230
Laparotomy, method of incision of the abdominal wall in, 261
Lassar, treatment by radium, 365
Lavenson, chronic polyarthritis, 122
Laveran, trypanosomes, 371
Lavy, congenital torticollis, 118
Lead poisoning, the appendix and, 57
Lécene, juxta-intestinal cyst of intestinal structure, 186
Leg, a special variety of acquired deformity of the, 357
Legueu, simultaneous gunshot injury of liver and femoral artery, 106
Leo's acid treatment of pruritus, 321
Lepage, obstruction to suckling, 131; puerperal abscess of uterus, death, 163; elderly primiparae with fibroid uterus, 316
Lépine, action of the x rays upon nutrition, 113; antithyroid serum, 134
Leprosy, red mangrove bark in, 117
Lesser, the recognition and prevention of iodism, 88
Leucocytosis and perityphlitis, 71
Leukaemia, paper on, 154
Levi, surgical treatment of sterility in the male, 35
Liebreich, fetron ointment, 270
Liepelt, the uses of hydrobromate of scopolamine, 322
Life-history of the organism of small-pox, 15
Ligament, round, of uterus, fibromyoma of, 362
Ligaments, accessory hepatic, surgical importance of, 21
Ligature of the lateral sinus in formidable operations on the neck, 230
Light-treatment, of sensitized tissues, 14; Finsen's heat rays in, 381; by Dreyer's method, 399
Lime dust, inhalation of and tuberculosis, 56
Lindenmeyer, eumydrin, a new mydriatic, 41
Lithopaedion, does it demand operation or expectant treatment? 264
Littauer, obturator hernia of ovary associated with osteomalacia 189; dermoid of both ovaries and pregnancy, 190
Liver, and femoral artery, simultaneous gunshot injury of, 102; abscess of the in temperate climates, 123; venous pulse in the forearm in cirrhosis of the, 153; haemostasis in surgery of the, 185
Locomotor ataxy and syphilis, 172
Lomer, does lithopaedion, demand operation or expectant treatment? 264
London, action of Becquerel rays on the skin, 298
Longcope, pathological histology of Hodgkin's disease, 170
Loose bodies in the peritoneum, 149
Lordosis, oesophageal stenosis from, 299

Lorenz, callous penetrating ulcer of stomach, 5; the treatment of fever in phthisis, 135
Lucas-Championnière, twin tubal pregnancy, 132; treatment of traumatic tetanus, 214; ovarian tumour in a ventral hernia, 236
Lupus, treatment of by high-frequency sparks, 145
Luxation, outward, of the knee, complicated with laceration of the external popliteal nerve, 314

M.

McAldowie, human plantar reflexes, 33
McCallum, action of saline purgatives, 83
McCourt, treatment of cancer by its own toxin, 133
McDill, the Koch-Weeks bacillus, 256; peculiar forms of hand infection, 313
Macfadyen, intracellular toxins, 99
Maffucci, tuberculosis in different species, 194
Maher, an antituberculous bacillus, 40
Malaria, prophylaxis against, 238
Male, surgical treatment of sterility in the, 35; treatment of gonorrhoea in the, 385
Malignant growths, treatment of by high-frequency sparks, 145
Mallory, protozoon-like bodies in scarlet fever, 169
Manasse, Koplik's spots as an early symptom of measles, 2
Mangrove bark (red) in leprosy, 117
Mantoux, pregnancy with nephritis and syphilis, 107
Maragliano, tubercle bacilli in the urine, 223
Marchiafava, disease of corpus callosum caused by alcoholism, 171
Marchoux, on yellow fever, 206
Marshall, inertia of the uterus, 128
Martin, surgical treatment of sterility in the male, 35
Marx, the stability of diphtheria antitoxin, 366
Marzocchi, occlusion of the salivary duct, 85
Massage, sub-diaphramatic, of the heart in chloroform syncope, resuscitation by, 12; therapeutic, 42
Matthew, treatment of elephantiasis, 369
Maximow, cellular changes in hyperplastic tissue, 72
Maygrier, puerperal eclampsia, masking pleuro-pneumonia, 302
Mazzochi, pathogenesis of jaundice, 242
Measles, Koplik's spots as an early symptom of, 2
Mediastinum, embryoma in the, 136
Membrane, persistent pupillary, with anterior synechiae, 104
Meningism, note on, 241
Menopause, at 19, 266; precocious, 344
Mental disease, veronal in, 168
Mesentery, cyst of, obstruction after operation, 380
Metallic supports, formation of new joint by 103
Metzler, syphilis as a cause of the neuroses. 327
Michel, hysteropexy, dangers of a utero-parietal band, 110
Michelazzi, splenic puncture in diagnosis, 32; diphtheria and its bacteriological diagnosis, 225
Mikulicz, v., gastric and duodenal surgery, 173
Milk, bacilli of tubercle in, 257
Milner, digestibility of vegetables, 95
Mintz, drainage of the pericardium, 155
Mitral pseudo-inefficiency, 46
Moeller, the relation of non-tuberculous diseases of the upper air passages to phthisis, 17; bacilli in different tuberculous diseases, 309
Mole, vesicular, and bilateral ovarian cysts, 162
Mond, absence of vagina, bladder injected in error, 396
Montagnini, veronal in mental disease, 168
Moore, absorption of fat, 137
Morphine-scopolamine anaesthesia, 75
Mortagne, uterine cornual pouches in normal pregnancy, 231
Moser's polyvalent scarlatina streptococcus serum, 222
Mother, resistance of fetus to disease of, 11
Mouchet, inoperable procidentia, 62
Mouth, the dry of fevers, 116
Moynihan, removal of prostate, 137
Mumps, herpes zoster as a complication of, 295
Murmurs, endocardial, disappearance of in childhood, 212
Musser, abdominal pain, 102
Mycosis fungoides, the x rays in, 221
Mydriatic, a new, eumydrin, 41
Myoma of the cervix, operation for, 39; uterine, sarcomatous degeneration of in a young subject, 232

N.

Naudrot, bilateral tubal pregnancy, 360
Neck, ligature of the lateral sinus in formidable operations on the, 230
Necrobiosis in fibromyomata of the uterus, 10
Negri's bodies, the minute structure of, 272
Neisser, light treatment by Dreyer's method 399
Neoplasms, malignant, the nucleus in, 386
Nephrectomy, accidental wounding of the inferior vena cava in, 158
Nephritis, the surgical treatment of, 34; pregnancy with, 107; acute, early treatment of, 258; chronic, a new procedure for the operative treatment of, 329; erysipelas and, 388
Neri, loose bodies in the peritoneum, 149
Nerve, external popliteal, laceration of complicating outward luxation of the knee, 314
Nervous fever. See Fever
Neufeld, chronic diphtheria, 354
Neumann, syphilitic spondylitis, 77; podophyllin as a vermifuge, 180
Neuralgia, trifacial, surgical treatment of, 376
Neuroses, syphilis, as a cause of, 327
Neutralization of toxins, 274
Newborn, treatment of galactophoritis in, 96
Nipple, cyst of, 131
Nipples, imperfect, 131
Nose, treatment of hypertrophic acne of, 401
Nucleus, the, in malignant neoplasms, 386
Nutrition, action of the x rays upon, 113
Nyrop, erysipelas and nephritis, 388

O.

Obesity, the treatment of, 320
Obstetric practice. See Practice
Obstetrical aspects of pelvic exostosis, 21
Obstruction, to suckling, 131; after operation for cyst of mesentery, 380
Obstructions to labour, 92
Occlusion of the salivary duct, 85
Odebrecht, sarcomatous degeneration of uterine myoma in a young subject, 232
Oedema, pulmonary, and urinary chlorides in pregnancy, 379
Oesophagotomy, external, in cases of foreign body, 105
Oesophagus, stenosis of from lordosis, 299
Omentum, fixation of, 142
Operations, vaginal or abdominal, in gynaecology, 175; under the direct guidance of the Roentgen rays, 341
Organism of small-pox, the life-history of, 15
Orlandi, wound of the heart, 59
Orta, herpes zoster as a complication of mumps, 295
Orthmann, uterine cancer and vaginal Caesarean section, 129
Os uteri. See Uterus
Osler, pneumonia, 326
Osteitis deformans in adolescence, 36
Osteomalacia, obturator hernia of ovary associated with, 189
Osteo-myelitis, acute, of the upper extremity of the femur, treatment of, 391
Ovaries, dermoid of both and pregnancy, 190; hernia of, absence of uterus and vagina, 319; cancer of in a girl aged 14, 361
Ovariotomy, vaginal, during labour, 63
Ovary, secondary cancer of, its clinical import, 81; hernia of the, 130; obturator, hernia of associated with osteo-malacia, 189
Ovazza, disappearance of endocardial murmurs in childhood, 212
Ovenstaedt, inhalation of lime dust and tuberculosis, 56
Oxaluria, note on, 353
Ozaena, treatment of, 192; treatment of with paraffin, 252

P.

Padula, surgical anatomy of the ductus choledochus, 127
Pain, abdominal, 102; of appendicular origin, errors of diagnosis caused by, 184
Pancreatic juice, proteolytic action of, 74
Pancreatitis, acute, surgical treatment of, 90; surgical treatment of, 197: acute, 293
Paraffin, treatment of ozaena with, 252
Paralysis agitans, treatment of, 348
Parametrium, torn-off fetal head in, 393
Pardo, trachoma treated with Roentgen rays, 350
Pascale, formation of new joint by metallic supports, 103
Paterson, the nucleus in malignant neoplasms, 386
Pathogenesis of pellagra, penicillum glaucum and, 193; of jaundice, 242, 308
Pathology of gout, 43
Pedicle, twisted, of spleen (?) in pelvis, 50
Pellagra, penicillum glaucum and the pathogenesis of, 193
Pelvis, twisted pedicle of spleen (?) in, catarrhal enteritis and disease of, 159
Penicillum glaucum and the pathogenesis of pellagra, 193
Pennington, surgical treatment of sterility in the male, 35
Percussion of the vertebrae in diseases of the heart and aorta, 390
Perforation of cervix, 64
Pericarditis, typhoid, 196
Perigastritis consecutive to gastric ulcer, 375
Perineorrhaphy, secondary in childbed, 93
Perineum, ruptured, suture of, 38; central rupture of by elbow in breech presentation, 16
Peritoneum, loose bodies in the, 149
Peritonitis, tuberculous, the medical treatment of, 400
Perityphlitis, remarks on, 18; and leucocytosis, 71; in pregnancy, 80
Peroxide of zinc, the surgical uses of, 343
Perspiration, human, 208
Perthes, operations under the direct guidance of the Roentgen rays, 341
Pertussis. See Whooping-cough
Perugia, "family" spasmodic tabes, 31
Pfeil, pathology of gout, 43
Pharynx, tuberculosis of in children, 30
Phosphaturia and ammonuria, 244
Phthisical patients, treatment of on arrival at a sanatorium; 336
Phthisis. See Tuberculosis, pulmonary
Pic, rhizometic spondylosis and tuberculosis, 119
Pisani, treatment of pleural effusion, 203
Pituitary body, clinical aspects of tumours of 87
Placenta, large, eclampsia and, 108
Plague, serumtherapy of, 147
Plantar reflexes, human, 33
Pleasants, pneumonia, 326
Plehn, prevention and treatment of blackwater fever, 306
Pleural exudates, 372
Pleuro-pneunomia, puerperal eclampsia masking, 302
Pneumonia, treated by calomel, 54; desquamation in, 209; discussion on, 326
Podophyllin as a vermifuge, 180
Poisoning, by abrin, 100
Polidoro, thiocol, 148
Polyarthritis, chronic, 122
Polypus, fibrous, cyst of cervix simulating,
Porro's operation, modified, 345
Pouches, uterine cornual, in normal pregnancy, 231
Powder, smokeless, effect of on the skin, 377
Pozzi, twisted pedicle of spleen (?) in pelvis,
Practice, students' outdoor obstetric, 199
Predisposition, inherited, to phthisis, 355
Pregnancies, two asynchronous, in the same tube, 164; protracted, large fetus, 235
Pregnancy, extrauterine, errors of diagnosis in regard to, 49; perityphlitis in, 80; with nephritis and syphilis, 107; twin tubal, 132; interstitial and ovarian tumour, 144; the urine in 176; tubal and haematocele, operation or expectant treatment? 187; dermoid of both ovaries and, 190; normal, uterine cornual pouches in, 231; glycosuria and hypertrophied thyroid in, 332; coincident tubal and intrauterine, 359; bilateral tubal, 360; urinary chlorides and pulmonary oedema in, 379
Pregowski, treatment of phthisical patients on arriving at a sanatorium, 336
Preparations, some new, 82
Primiparae, elderly, with fibroid uterus, 316
Procidentia, inoperable, 62
Proescher, Ehrlich's dimethylamidobenzaldehyde reaction, 121
Prolapse in a newborn child, 363
Prophylaxis against malaria, 238
Prostate, "excochleation" of the, 19; removal of the, 157
Prostatectomy, partial perineal, 89
Proteolytic action of pancreatic juice, 74
Protozoon-like bodies in scarlet fever, 169
Pruritus, Leo's acid treatment of, 321
Pseudo-eclampsia, 394
Pseudo-inefficiency, mitral, 46
Psoriasis, the external treatment of, 254
Psychosis, Korakow's, 311
Pulse, venous, in the forearm in cirrhosis of the liver, 153
Puncture, splenic, in diagnosis, 32
Puppel, some of the obstructions to labour,
Purgatives, saline, action of, 83
Purins, effects of on the body tissues, 86

aemia from the local application of chrysarobin, 26
elitis, acute primary, in infants, 45
osalpinx, rupture of, death, 237
ramidon in the treatment of sciatica, 71

Q.

inu, splenectomy for Banti's disease, 91

R.

binowitsch, tubercle bacilli in milk, 257
dio-active and x-ray solutions, the relation of to examination of the stomach, 310
dium, action of rays of on the healthy and blind eye, 334; treatment by, 365
hn, dionin, 384
pport, the relation of non-tuberculous diseases of the upper air passages to phthisis, 7
venna, the pathogenesis of icterus, 308: a case of altered hygric sensibility, 325; the influence of bovine tuberculosis on human health, 351
ymond, late epilepsy, 207; hysteria simulating gastric ulcer, 246
tal exploration in fracture of the acetabulum, 156
noval of the prostate, 157
section of the cervical sympathetic in Basedow's disease, 392
suscitation by sub-diaphragmatic massage of the heart in chloroform syncope, 12
roflexion, symptomless, does it require treatment? 111
roversion of gravid uterus, 22
umasan, note on, 13
umatism of the crico-arytenoid articulation, 294
ci, osteitis deformans in adolescence, 36
helot, malignant degeneration of cervix uteri after hysterectomy, 78
del, "excochleation" of the prostate, 19; treatment of the stump in appendectomy, 48; cal anaesthesia in goitre operations, 174
gworm, chrysarobin in, 53
chie, embryoma in the mediastinum, 136
ecchi, the induction of premature labour, 0
iella, bacteriology of fluid in hernial sac, 206
ntgen-ray and radio-active solutions, relations of to examination of the stomach, 310
ntgen rays, action of upon nutrition, 113; the treatment of tinea, 204: in mycosis fungoides, 221; action of in sarcoma, 240; operations under the direct guidance of, 341; tracoma treated with, 350
pke, diagnosis of phthisis, 73
ovin, tests for iodine, 3
enhaupt, clinical aspects of tumour of the tuitary body, 87
enthal, foreign bodies in the stomach, 20; a w serum for the treatment of dysentery, 7
si, abrin poisoning, 100
offzeff, perityphlitis in pregnancy, 80
land, intracellular toxins, 99
ture, central of perineum by elbow in breech esentation, 160: of pyosalpinx, death, 237
gier, partial perineal prostatectomy, 89; erative treatment of old dislocation of the p, 328

S.

raud, x rays in the treatment of tinea, 204
hernial, bacteriology of fluid in, 206
abeni, on yellow fever, 206
ari, surgery of the biliary passages, 47
ary duct, occlusion of, 85
ter, two asynchronous pregnancies in the ne tube, 164
oma, action of x rays in, 240
let fever. See Fever
assi, fixation of spleen and omentum, 142
atter, fissure of the tibia, 262
itzler, hernia of the ovary, 130
Schoetz, tuberculosis of the pharynx in children, 30
Scholtz, heat rays in Finsen's light treatment, 381
Schonholzer, surgical treatment of gastric cancer, 7
Schulz, perityphlitis, 18
Sciallero, cephalopia, 269
Sciatica, pyramidon in the treatment of 271
Sclerokeratitis rheumatica, 125
Scofone, action of arsenic in the kidneys of children, 97
Scopolamine hydrobromate, the uses of, 322
Seaside, the indications and contra-indications of treatment at the, 397
Seegall, hydragyrum hermophenylicum, 25
Seitz, rupture of pyosalpinx, death, 237
Sencert, surgical importance of accessory hepatic ligaments, 216
Senn, surgical treatment of traumatic haemorrhage of the spleen, 124; first dressing on the battlefield, 213
Sensibility, altered hygric, case of, 325
Serum, antithyroid, 134; antidiphtherial, the therapeutic value of injections of, 202; Moser's polyvalent scarlatina streptococcus, 222; treatment of typhoid fever by, 239; Dunbar's, treatment of hay fever by, 305; a new, for the treatment of dysenteay, 347
Serumtherapy of plague, 147
Sigel, some new preparations, 82
Signorelli, diagnosis of renal colic, 339; percussion of the vertebrae in diseases of the heart and aorta, 390
Silvestre, nocturnal incontinence of faeces due to enlarged tonsils, 296
Simond, on yellow fever, 207
Simpson, coincident tubal and intrauterine pregnancy, 359
Sinclair, Caesarean section three times in one patient, 217; hypertrophy of the os uteri, 331
Sinus, lateral, ligature of the in final operations on the neck, 230
Sippel, interstitial pregnancy and ovarian tumour, 144
Siredey, precocious menopause, 344
Skin, action of Becquerel rays on, 298; effect of smokeless powder on the, 377
Small-pox, the life-history of the organism of, 15
Somers, serum treatment of hay fever, 305
Sorgo, the treatment of laryngeal tuberculosis with reflected sunlight, 179
Sound, uterine, death caused by, 65
Sparks, high-frequency, treatment of lupus and malignant growths by, 145
Spencer, fibromyoma of the round ligament of the uterus, 362
Spleen, twisted pedicle (?) of in pelvis, 50; surgical treatment of traumatic haemorrhage of the, 124; fixation of, 142
Splenectomy for Banti's disease, 91
Spondylitis, syphilitic, 77
Spondylolisthesis, case of, 333
Spondylosis, rhizomelic, and tuberculosis, 119
Stability of diphtheria antitoxin, 366
Staphylococci, agglutination of, 403
Steele, gastroptosis, 152
Steiner, typhoid fever with arterial complications, 260
Stenosis, oesophageal, from lordosis, 299
Sterility in the male, surgical treatment of, 35
Stern, on diabetes, 195
Stomach, callous penetrating ulcer of, 5; surgical treatment of cancer of, 7; foreign bodies in the, 20; action of faradization on the functions of, 66; cataphoresis in the local treatment of diseases of the, 146; the relation of x-ray and radio-active solutions to examination of, 310: passage of food stuffs from the, 374
Stools, detection of traces of blood in the, 373
Strauss, epidural injections, 382
Strebel, treatment of lupus and malignant growths by high-frequency sparks, 145
Stump, treatment of the in appendectomy, 48
Stypticin in gynaecology, 9
Suckling, obstruction to, 131
Sugg, the bacteriology of variola, 28
Sunlight, reflected, treatment of laryngeal tuberculosis with, 179
Surgery, of the biliary passages, 47; gastric and duodenal, 173; hepatic, haemostasis in, 185
Surgical treatment, of nephritis, 34; of sterility in the male, 35
Suture of ruptured perineum, 38
Sympathetic, cervical, resection of in Basedow's disease, 392
Symptomatology of dyspepsia, 151
Syncope, chloroform, resuscitation by sub-diaphramatic massage of the heart in, 12
Synechiae, anterior, persistent pupillary membrane with, 104
Syphilis, pregnancy with, 107; and locomotor ataxy, 172; as a cause of the neuroses, 327
Syphilitic lesions, a bacillus present in, 352

T.

Tabes, "family" spasmodic, 31
Tenny, calculus in the ureter, 358
Terrier, juxta-intestinal cyst of intestinal structure, 186
Tetanus, traumatic, treatment of, 214
Theinhard's soluble food for children, 307
Theocin, note on, 253
Thiocol, note on, 148
Thorndike, hypernephroma, 150
Thyroid gland, functions of and epilepsy, 227; fetal, hypertrophy of, 265; hypertrophied, and glycosuria, in pregnancy, 332
Tibia, fissure of the, 262
Tinea, the x rays in the treatment of, 204
Tissue, hyperplastic, cellular changes in, 72
Tissues, sensitized, treatment of by light, 14; of the body, effects of purins on, 86
Toepfer, oxaluria, 353
Tongue, surgical treatment of cancer of, 228
Tonsils, enlarged, nocturnal incontinence of faeces due to, 296
Torticollis, congenital, 118
Toubert, external oesophagotomy in cases of foreign body, 105
Tousey, the relation of x-ray and radio-active solutions to examination of the stomach, 310
Toxin, its own, treatment of cancer by, 133
Toxins, intracellular, 99; neutralization of, 274
Trachoma, treated with Roentgen rays, 350
Triferrin, note on, 166
Trypanosomes, reports on, 371
Tube, the same, two asynchronous pregnancies in, 164
Tuberculin as a means of diagnosis, 44
Tuberculosis, pulmonary, the relation of non-tuberculous diseases of the upper air passages to, 17; of the pharynx in children, 30; inhalation of lime dust and, 56; pulmonary, diagnosis of, 73; miliary pulmonary following abortion, 112; rhizomelic spondylosis and, 119; pulmonary, treatment of fever, in, 135; pulmonary, treatment of mixed infection in, 165; laryngeal, treatment of with reflected sunlight, 179; in different species, 194; betol in, 267; pulmonary, stages of, 312; urogenital, 337; infantile, 338; bovine, influence of on human health, 351; pulmonary, inherited predisposition to, 355; percutaneous application of camphor in, 367; pulmonary, Durante's injections in the treatment of, 368; prevention of in children, 383; Professor Hueppe on, 387
Tuberculous diseases, different bacilli in, 309
Tubes, Fallopian, adeno-myomata of the uterine end of, 218
Tumour of the pituitary body, clinical aspects of, 87; ovarian and interstitial pregnancy, 144; ovarian, in a ventral hernia, 236
Tumours, circumscribed mobile intestinal, due to actinomycosis, 29; of the motor region of the brain, the manifestation of, 247
Turro, new studies in natural immunity, 70
Twin tubal pregnancy, 132
Typhoid fever. See Fever, enteric

U.

Ugolino, pathogenesis of jaundice, 242
Ulcer, callous penetrating, of stomach, 5; gastric, hysteria simulating, 246; gastric, perigastritis consecutive to, 375; gastric, experimental production of, 402
Ulesko-Stroganowa, malignant uterine fibroid, 55
Ureter, calculus in the, 358
Ureteritis in the female, 8
Ureters, protection of by Kelly's hysterectomy, 94
Urethra, bulbous, primary carcinoma of the, 315
Urine, the, in pregnancy, 176; tubercle bacilli in the, 223
Urticaria in childhood, 259
Uterus, necrobiosis in fibromyomata of the, 10; gravid, retroversion of, 22; operation for myoma of cervix of, 39; malignant fibroid of, 55; inoperable procidentia of, 62; perforation of cervix of, 63; death caused by sound of, 65; malignant degeneration of cervix of after hysterectomy, 78; gestation beyond term in rudimentary cornu of, 79; inertia of the, 128; cancer of and vaginal Caesarean section, 129; puerperal abscess of, death; 163; cyst of cervix of simulating fibroid polypus, 188; dystocia after amputation of cervix of, 200; sarcomatous degeneration of myoma of in a young subject, 232; fibroid of and cancer in age, 234; removal of for cancer, 301; adeno-carcinoma of in age, 303;

haematometra in undeveloped cornu of, 304; fibroid. elderly primiparae with, 316; absence of in hernia of ovaries, 319; hypertrophy of the os of, 331; primary echinococcus of, 346; fibromyoma of the round ligament of, 362; cancer and fibroid of body of, coincident, 395

V.

Vagina, Caesarean hysterectomy in traumatic atresia of, 317; absence of in hernia of ovaries, 319; absence of, bladder injected in error, 396
Valerian, the preparations of, 115
Van Gehuchten, the surgical treatment of trifacial neuralgia, 376
Vargas-Suarez, pleural exudates, 372
Variola, the bacteriology of, 28
Vautrin, outward luxation of the knee complicated by laceration of the external popliteal nerve, 314
Vegetables, digestibility of, 95
Vena cava inferior, accidental wounding of in nephrectomy, 158
Vermifuge, podophyllin as a, 180
Véron, hydramnion and eclampsia, 219
Veronal, note on, 24; in mental disease, 168
Vertebrae, percussion of in diseases of the heart and aorta, 390
Viellard, diphtheria and epistaxis, 245
Vignolo-Lutati gonorrhoeal vulvo-vaginitis of children treated with aelargin, 323
Vincent's angina, 1
Volkmann, morphine-scopolamine anaesthesia, 75
Volpino, the minute structure of Negri's bodies, 274
Vragnizan, abscess of the liver in temperate climates, 123
Vulvo-vaginitis, gonorrhoeal, of children, treated with albargin, 323

W.

Waelsch, a bacillus present in syphilitic lesions, 352
Wagner, modified Porro operation, 345
Wallace, method of incision of the abdominal wall in laparotomy, 261
Weber, cancer of the clitoris in a woman aged 78, 318; torn-off fetal head in parametrium, 393
——— E, fissure of the tibia, 262
——— L. W., veronal, 24
Weissbart, stypticin in gynaecology, 9
Welch, pneumonia, 326
Westphal, Korakow's psychosis, 311
Wettendorff, the indications and contra-indications of treatment at the seaside, 397
Wherry, the Koch-Weeks bacillus, 256; peculiar forms of hand infection, 313
Whooping-cough, the iodophile reaction and glycosuria in, 182
Williams, W., premature labour and "accouchement forcé," 23
Willson, the urine in pregnancy, 176
Winn, students' outdoor obstetric practice, 199
Winslow, the prevention of abdominal hernia by overlapping of the aponeuroses, 248
Winternitz, infusion of birch leaves as a solvent of renal calculi, 268
Wintersteiner, persistent pupillary membrane with anterior synechiae, 104
Woman, aged 78, cancer of clitoris in, 318
Woolsey, surgical treatment of acute pancreatitis, 90; acute pancreatitis, 293
Wound of the heart, 59
Wounding, accidental, of the inferior vena cava in nephrectomy, 158
Wounds, penetrating, of the abdomen, treatment of, 229
Wyeth, gunshot wound of the brain, 126

X.

X rays. See Roentgen

Y.

Yellow fever. See Fever
Young subject, sarcomatous degeneration of uterine myoma in a, 232

Z.

Zweifel, suture of ruptured perineum, pseudo-eclampsia, 394

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AN EPITOME
OF
CURRENT MEDICAL LITERATURE.

MEDICINE.

(1) Vincent's Angina.

HESS (*Deut. med. Woch.* October 15th, 03) deals with the clinical aspect and cteriological find of *angine diphthéroide bacilles fusiformes et spirilles*, or Vinnt's angina. He states that this conition is important for the following asons: (1) It is characterized by exution on the tonsils, swelling of the ands in the neck, difficulty in swallowg, and fever, and has therefore a likess to diphtheria, but runs a rapid and ild course; (2) it can be confounded th syphilis; (3) it is easily recognized the bacteriological find; this consts in the most characteristic cases in symbiosis of a bacillus and a spirillus. ie clinical conditions are typical. On e first day one tonsil shows an easily tachable exudation, on the second y this membrane is found to rest on ulcerated surface, and on the third d fourth days it becomes thicker and fter. In a few cases the membrane en becomes detached at its edges, and is is then either coughed up or swalwed. The surface is slightly ulcered. On it a new thin membrane rms, which is got rid of in the course a few days. There is moderate fever d swelling of the cervical glands. iese cases are termed "croupous," d only the fusiform bacillus is found. the majority of cases the ulceration epens under the membrane during e first four days. The pseudo-membane is soft, grey, yellowish-grey, or eenish in colour, the surrounding issue is reddened and oedematous. vallowing becomes very difficult; there much salivation, and there is fetor *ex* . As a rule, the constitutional changes e mild in comparison with the local ndition, but these may also be severe. ter about eight or ten days the membane becomes detached, and the ulcered surface soon gets clean. Complete moval of symptoms and signs rapidly llows. However, there are some cases which the local and general changes sted much longer. The prognosis is od, and while the former class of cases sembles diphtheria closely, the more mmon form is only diphtheria-like at st, and later becomes ulcero-membanous. The bacillus fusiformis is stinguished from the Loeffler bacillus its length, which is from 6 to 12 μ, and its arrangement. It is pointed at its ds, and is somewhat bulging in its ntre. The bacilli are arranged frently in pairs as diplobacilli, in ndles, radiating or at an acute angle one another; at times they lie irrelarly. They form vacuoles and other generation forms, and do not form ores. They do not stain by Weigert Gram, but take up fuchsin and meylene blue, but the staining is often egular, since the centres are more tensely stained than the extremities. ie bacillus is possessed of long gellae, one at each end and two on ch side, and has very free movement. ire cultures have not been made. The spirillus (spirochaetis denticola) is thin and long, does not stain by Gram, and does not take up fuchsin so readily as the bacillus, has free movement, but no flagellae. It has not been cultivated in pure culture. Hess goes into details of the cultural characteristics of both micro-organisms in the presence of other bacteria. Both are regarded as saprophytes of cavity of the mouth, but both can overcome their saprophytic habit and become pathogenic in the presence of other micro-organisms.

(2) Koplik's Spots as an Early Symptom of Measles.

THE opinions expressed as the significance of Koplik's spots in measles differ considerably, although the majority of observers regard the spots of diagnostic importance. M. Manasse (*Die Heilkunde*, vii, No. 10) has been able to see 48 cases of measles in a very early stage, and has watched for Koplik's spots. These spots are small bright red spots, with irregular shape and with bluish-white glittering centres, and occur especially opposite the molars on the buccal mucous membrane or on the palate. In 45 of his 48 cases, the spots were well marked and appeared about twenty-four hours after the initial symptoms, and could be easily separated from the actual eruption of measles, which appeared two, three, four, and even five days after the beginning. In cases of rötheln and scarlatina the spots were not to be found, and he therefore comes to the conclusion that Koplik's spots are easily differentiated from the real exanthem of measles, and are seen in the majority of cases; when seen they form an important early diagnostic sign.

(3) Tests for Iodine.

ROGOVIN enumerates the known tests for iodine (qualitative) and gives the results of his applications of each test (*Berl. klin. Woch.*, September 21st, 1903). He used the urines and exudations of patients who were taking potassium iodide in definite doses by mouth, as well as iodine added to urine and to water, to determine the sensibility of each test. The patients were convalescing from acute diseases, and received no other medicaments at the time of testing. The urine was passed half an hour after the dose, and was examined by all the methods. As an example he cites the case of a young lady, aged 29 years, who was given 0.01 gram of potassium iodide. The urine gave the following reactions: with nitric acid, weakly positive; with nitric and sulphuric acids (Harnack's method), strongly positive with sulphuric acid and potassium nitrate strongly positive; with nitric acid and starch paste, with Bourget starch paper and with Deniges's starch paper, weakly positive; with sulphuric and nitric acids and starch paste, strongly positive; while Jaffe's, Obermeyer's, and Jolles's tests, and with the perchloride of iron and the chlorine bromine tests, it was negative. He found that one could mostly find iodine in the urine, after a single dose of 0.005 gram of potassium iodide, and even after 0.002 to 0.003 gram. The two methods of Harnack (nitric acid and sulphuric acid, and nitric acid, sulphuric acid and starch paste) proved to be the most sensitive. Sandland's method is also capable of detecting small quantities of iodine, but the pink colour disappears very rapidly, and when there is an excess of sodium nitrite solution the test may fail to demonstrate the iodine. The nitric acid test is much less delicate. Rogovin gives an example of the incorrectness of Jolles's statement, that his test is more reliable and more delicate than Sandland's and the other tests. In this case the patient was given 0.0025 gram of potassium iodide, and 600 c.cm. of urine was collected or examination. All the tests proved negative save the nitric acid, sulphuric acid and starch paste, and the nitric acid, sulphuric acid and chloroform. Jolles's method has the great disadvantage that urine containing indican gives the same reaction as that containing iodine, and further that the urine in Jolles's test often assumes a pink tint, which is also the case in urine containing skatol. When there is a large quantity of iodine present, one can avoid this confusion by shaking up with chloroform, but when there is only a trace this method must be regarded as unreliable.

(4) Nervous Fever.

EDVARD KAURIN (*Tidskrift for den Norske Laege*, p. 1, 1903) calls attention to the changes in temperature which are frequently observed in patients resident in sanatoria for tuberculosis. Nervous fever appears to depend upon some nerve or functional change in the centres for the regulation of heat. The temperatures are raised when the patient is in fair health and when no objective changes are visible. The condition is most frequent amongst women and in those who know that much depends upon changes in their body temperature. Kaurin has found that this condition rapidly disappears if a thermometer is used in which the graduation is concealed from the patient's view.

SURGERY.

(5) Callous Penetrating Ulcer of the Stomach.

DURING the past few years a number of cases of a certain type of ulcer of the stomach have been described; and when Brenner called them callous penetrating ulcers, he had already had a fair number in his own practice. These ulcers are characterized by the capability of spreading into the neighbouring organs, for example, liver, spleen, pancreas, etc., and in causing a great deal of connective tissue formation, so that the walls of the penetrated ulcers form considerable tumours. H. Lorenz (*Wien. klin. Woch.*, No. 41) says that this type of ulcer of the stomach is by no means rare. Although Brenner obtained very excellent results by means of treating these ulcers by resection, Lorenz thinks that few surgeons would be able to get equally good results on account of the great difficulty of the operations and the considerable skill required in the performance. In order to show that one can obtain a perfect cure without resection, he describes two cases operated on by Hochenegg. The first was a woman, 57 years old, who was first attacked

with severe gastric pains in the spring of 1894. There was much flatus and constipation, and the symptoms persisted in spite of all the remedies which could be tried. The pains disappeared after a course at Carlsbad but returned a little later, and during the following six years the patient was troubled with the symptoms from time to time, the intervals becoming shorter and shorter. She became very much affected, both in mind and body, and had recourse to morphine. She made several attempts to commit suicide. In the beginning of 1901, she was so tired of her sufferings that she applied to the General Policlinic in Vienna for operative treatment. Hochenegg made a median epigastric incision. The stomach was found to be contracted and to be lying low down. The greater curvature was natural in appearance, while the lesser curvature was entirely covered by the contiguous lobe of the liver. On attempting to raise the liver, it was found that the left lobe was firmly adherent to the lesser curvature, and that the anterior wall of the stomach was inflamed and infiltrated. In attempting to detach the adhesions, the base of the ulcer tore and was left firmly attached to the liver. The opening in the stomach was larger than a crownpiece. The condition of the patient and the extensive adhesions forbade a resection, and the infiltrated and rotten edges of the ulcer soon proved incapable of holding any sutures which might hold the edges together. Hochenegg only succeeded in reducing the size of the perforation to a very slight extent, and thereupon packed it with iodoform gauze, placed a drainage tube into the space between the liver and lesser curvature, and performed gastro-enterostomy retrocolica posterior. The patient did very well. The drain and gauze were removed on the eighth day, and the wound behaved well, and closed three weeks later. Since then the patient has enjoyed excellent health, and there is now no traces of any thickening in the old site. The second case was that of a woman, aged 52 years. She had been gradually becoming mentally affected for some years, and on and since December, 1902, she had suffered from gastric pain after food. The patient had recently lost flesh rapidly. On February 1st she was suddenly attacked with a profuse haematemesis and became unconscious, and all the symptoms of gastric trouble became increased. In March she was again able to get up, but the symptoms continued, and a tumour in the epigastrium was felt; she was admitted under the care of Hochenegg on April 16th. He found an ill-defined tumour of about the size of an apple, which was very tender, and did not move much with respiration under the left costal arch. Under the impression that he was probably dealing with a case of callous penetrating ulcer of the stomach, Hochenegg proceeded to perform laparotomy. The tumour was found to be loosely adherent to the peritoneum of the anterior abdominal wall, and densely adherent to the left lobe of the liver. On attempting with great care to loosen the adhesions some fluid, containing "coffee-grounds"-like masses escaped from a small opening which lay in a deeply-situated part. A tube was introduced into the stomach through this opening, and the contents of the stomach removed. Around this tube he packed some strips of gauze. Gastro-enterostomy retrocolica posterior with suture was performed; the uppermost part of the jejunum, as near as possible to the duodeno-jejunal fold being chosen for anastomosis. Two layers of gauze were laid above to the right and below to the left, and these with the packing around the tube were brought out at the upper angle of the wound. In spite of difficulty which was experienced in feeding the demented patient, the wound healed well, and eventually the patient was able to leave the hospital on June 23rd in a good state of health. Lorenz discussed the possibility of the accidental tearing open of the ulcer playing a part in the ultimate healing of the condition. He says that it is just possible that by draining the ulcer one may succeed in rendering the condition for healing more favourable than by leaving it quite alone. The tissue becomes more mobiie, and the walls and edges are relieved of tension. He thinks that these two cases show that gastro-enterostomy and drainage of the ulcer form a safe and good method of treating callous penetrating ulcer of the stomach.

(6) Incision of Hepatic Duct for Calculus.

DELAGENIÈRE, of Le Mans (*Arch. Prov. de Chir.*, April, 1903) about five years since operated on a case of calculus in the hepatic duct (ib., 1898). He broke up the stone by external manipulation, and then slit up the cystic duct and the adjacent part of the hepatic duct: the calculus could then be extracted in fragments. Early this year he operated in a case where the calculus lay high up in the hepatic duct, and concealed a second. The patient was a woman, aged 41, subject for over ten years to attacks of biliary colic with jaundice. A free incision was made along the right rectus. The gall bladder was much contracted and hidden in adhesions, which included a small calculus that had escaped through an old rupture in its walls. The gall bladder and cystic duct were slit up, after the operator's method, to reach a calculus which could be felt in the transverse fissure. Then it became clear that the calculus lay very high up. The edge of the liver was drawn upwards, and pushed back by a retractor, a small incision was made through the duct, over the calculus with a bistoury, and enlarged by scissors until the stone could be removed; the incision reached up to the liver tissue. A second calculus was now detected, and proved difficult to remove. The two lay in a wide dilatation of the hepatic duct. The edges of the duct were closed by a continuous hempen ligature. Then a drainage tube was passed into the diseased gall bladder, which was also closed by suture. Lastly, a gauze drain was passed under the ducts and the gall bladder. At first bile flowed away from the wound, especially through the tube inserted into the gall bladder, but the tract was completely closed by the nineteenth day. Delagenière strongly advocates the free slitting up of the gall bladder and even of the cystic duct as far as the common duct if necessary; calculi in the latter can often be extracted with ease in this manner. But direct incision of an obstructed common duct has often been practised, even close to the duodenum, and Delagenière claims by the success of his case that incision of the hepatic duct under the same circumstances is good surgery. A duct or gall bladder thus opened should always be closed by suture when the calculus has been extracted, whilst drainage through the fundus of the gall bladder will prevent both tension on the sutures and the risk of effusion of bile into the peritoneal cavity.

(7) Surgical Treatment of Gastric Cancer.

SCHONHOLZER (*Beitrag. z. klin. Chir.*, Bd. xxxix, 1903) reports on 264 cases. Of these 67 were inoperable, or declined operation; in 73 exploratory laparotomy was done; 74 were treated by gastro-enterostomy and 50 by resection. Of the first set (exclusive of 14 who refused operation and who lived for an average of 200 days) life was prolonged for an average of 73 days. Hereditary taint was present in 13 per cent. The mortality of the exploratory cases was 9½ per cent.; that in the gastro-enterostomy cases 24 per cent. The patients were lightly anaesthetised with ether during the skin incision, but not during the rest of the operation. Seventeen cases lived an average of 410 days; 17, 141; and 21 an average of 64 days. The author regards the operation a beneficial one when the disease is not too extensive.

MIDWIFERY AND DISEASES OF WOMEN.

(8) Ureteritis in the Female.

GARCEAU (*Amer. Journ. of the Med. Sci.*, February, 1903) publishes a long article on the above subject. Simple acute or chronic ureteritis is generally part of some other affection of the genito-urinary tract, and its symptoms are masked by those of the bladder or kidney. The valve at the ureteral opening in the bladder probably acts as a strong barrier against the entrance of germs from the bladder. The most important sign on physical examination is the increased tenderness of the affected ureter when pressed upon vaginally. This pressure usually causes a strong desire to urinate. On cystoscopic examination distinct swelling of the ureteral eminence on the diseased side may be observed; it is invariably red and at times streaky. The urine from that side (best collected by Kelly's instrument) is distinguished by a predominance of desquamated epithelium, especially when compared with the amount of pus. The amount of urea is diminished on that side. The prognosis is poor if the disease has lasted long, but if recognized early and suitably treated, it is encouraging. All possible sources of disease elsewhere should be removed, the diet regulated, plenty of water drunk, and the skin functions attended to. If the urine is acid, potassium acetate in large doses is useful, as are sandal-wood oil, sodium bicarbonate, urotropin, and general tonics. Morphine should be religiously avoided. Trional is useful for the sleeplessness. Vesical lavage with 5 to 10 per cent.

$)_3$, 5 per cent. protagol, or 50 per ichthyol are useful. The author used with success injections of ic acid 2 per cent. and $AgNO_3$ cent. into the ureter itself by s of a special instrument. If these ures fail, the only remedy left is ake a vesico-vaginal fistula. He discusses ureteral obstruction ial or complete). Gonorrhoea is usual cause of the fibrous stric-. Dilatation by ureteral bougies is ssful in some cases, or the ureter be exposed extraperitoneally, tricture dealt with, or the ureter planted into the summit of the er (if the stricture is near the er). It should be remembered here are normal narrowings in the r, (1) 4 to 7 cm. from the renal ; (2) where the ureter curves over elvic brim; (3) at the junction of esical and ureteral portions. In lete obstruction, the kidney be- hydronephritic and may some- go on to complete destruction ut any pronounced symptoms. ever nephrectomy should be per- d or after removal of the obstruc- ttempts be made to wash out the pelvis with antiseptic solutions, cussed by the author. Calculous uberculous ureteritis also receive leration. In tuberculous ureter- ttacks of colic with passage of s of tissue should excite suspicion the nature of the disease. The esults obtained up to now by total rtial ureterectomy encourage the that this operation will be per- d more commonly in the future. t alone future complications are sure to set in.

(9) Stypticin in Gynaecology.

ving his opinion of stypticin in cological practice, Weissbart (*Die* , vii, No. 10) says that at first it would seem superflous to report rug which has been in use for ten but as different clinicians have to such different conclusions as to ion, it appears to him to be wise dy the subject carefully, and to h his results. He classifies his as follows: Pure climacteric rrhage, in three cases the drug red exceedingly well, arresting ss without producing any un- nt side-effects; menstrual rrhage, these cases did not e cases with changes in the or appendages. In some the cted well, and in others it failed; tter result was met with in two while in all others arrest of the ng was obtained. The drug did roduce any sedative effect. In ed haemorrhage of the uterus it particularly well, the action being t and certain. In fungoid endo- is it was absolutely powerless. ne bleeding only stopped after ng. In subinvolution *post partum st abortum* it acted well; in these he found stypticin more active rgot or hydrastis, and when it to arrest the loss he always found mnants of membranes were left uterus. In two cases of threaten- rtion he employed stypticin; in e it stopped the bleeding, but did vent the expulsion of the uterine ts, while in the second case it —together with opium—succeeded in preventing the abortion, It did not induce any pain, and in fact the contractions of the uterus ceased after giving the two drugs. He therefore believes that stypticin is a very useful drug for arresting haemorrhage in gynaecological conditions, and recommends it for general use. He usually gives it in tablet form, each tablet containing 0.05 gram, of which he gives two three times a day making a daily dose of 0.3 gram, or about 5 grs. At times he found that the patients did not take the tablets willingly, and then he prepared a solution of 1 gram of stypticin in 10 grams of cinnamon water, of which he gave ten drops three times a day.

(10) Necrobiosis in Fibromyomata of the Uterus.

J. S. Fairbairn contributes to the *Journ. of Obstet. and Gyn. of the Brit. Emp.*, August, 1903, a study of one of the varieties of necrotic change—the so-called necrobiosis—in fibromyomata of the uterus. He proposes that the traditional classification of uterine fibroids into hard and soft varieties should be abandoned. The softened tumours are merely examples of the ordinary fibroids which have undergone retrograde change and not a distinct variety. On external examination nothing is noticed beyond softness. On section a fleshy red staining is usually seen, but it varies much in intensity. The mass usually has a slight stale smell, probably due to amines formed as a result of the breaking down of the proteids of the tumour. It attacks especially interstitial fibroids of medium size, and is found probably in about 6 per cent, of fibromyomata removed by operation. Pregnancy—quite apart from the accidents of labour or the puerperium—seems to have some influence in the causation of this necrotic process. As to the immediate causation of the change no satisfactory evidence is forthcoming. Most of the explanations offered assume the existence of some interference with the circulation, but such interference has not been proved to exist. Probably the last change undergone by the softened tumour is a cystic transformation. The general symptoms of the degenerative change are those of an auto-intoxication—dirty, sallow complexion, chronic gastric disturbances, feeble circulation, nervousness, and hypochrondriasis. They are the symptoms usually present in patients who have long suffered from fibroids. Additional evidence of auto-intoxication is afforded by the presence of acetone and indican in the urine. But the indican is perhaps more likely to be caused by a coincident constipation than by absorption from the tumour. Another important symptom is pain. Cullingworth, in his analysis of 100 cases of fibromyoma, found pain a well-marked symptom in two-thirds of the necrotic cases, but he also calls attention to the fact that pain was found in about one-third of the uncomplicated cases—cases where there was nothing to account for it. The temperature is usually normal or very slightly raised.

(11) Resistance of Fetus to Maternal Disease.

Hahn (*Zentralbl. f. Gynäk.*, No. 43) discussed the important question before a meeting of the Versammlung deutscher Naturforscher und Aerzte in Kassel. He had observed some cases of acute infective diseases during pregnancy. One of his patients had erysipelas in the ninth month; she recovered, and a live child was born fourteen days after the disappearance of the rash. In a second case typhoid fever occurred during the eighth month, it passed away without fatal results, and a child was delivered alive seventeen days over the calculated date of term. Another patient had an attack of pneumonia in the middle of the seventh month. After convalescence a living child was born at term. Hahn further reported several instances, in his experience of tuberculosis and pleurisy with temperatures in pregnancy, followed by the safe delivery of living children. These cases showed that the resisting power of the fetus may be very strong, at least in respect to several acute diseases.

THERAPEUTICS.

(12) Resuscitation by Sub-diaphragmatic Massage of the Heart in Chloroform Syncope.

Bourcart gives a short historical summary of the literature of resuscitation in death under chloroform (*Rev. Méd. de la Suisse Romande*, October, 1903). Among recent writers, Batelli published certain experiments on dogs, in which he succeeded in restoring animation even after the heart had ceased to beat for fifteen minutes by rhythmical massage of the heart by the hand introduced through a thoracic incision combined with artificial respiration. But the animals survived the operation at most a few days. Similar operations in man, in which both the thorax and pericardium were opened, have been performed by Tuffier and Hallion, Maag, Prus, and others, but always unsuccessfully. To avoid the dangers inherent to massage of the heart after thoracotomy and pericardiotomy Bourcart recommends that laparotomy should be performed and the heart compressed through the diaphragm. His experiments were all performed on dogs. In order to secure complete relaxation of the diaphragm the animals were placed on their backs with the hind-quarters slightly raised, and the usual apparatus to fix the limbs in an extended position was dispensed with. Chloroform was given until the respiration and heart-beats had ceased completely. Tracheotomy or intubation was then performed, and the tube was connected with the bellows of an artificial respiration apparatus. Median laparotomy was performed, and three or four fingers, or even the whole right hand, according to the size of the animal, were introduced through the wound, and passed above the stomach and liver to the diaphragm, which was not incised. Artificial respiration was begun simultaneously with cardiac massage. This consisted in rhythmical compression of the heart between the fingers, passed behind it nearly to the base and the thoracic wall in front. At the end of each squeeze the heart was allowed to glide away from the fingers, but never to elude the finger tips completely. The left hand was placed on

the middle of the chest, and controlled the position of the right. Occasionally, owing to the relaxed condition of the diaphragm, the heart may be displaced upwards under the sternum. Before massage is begun it must be gently replaced; otherwise the bronchi may be compressed and artificial respiration is impeded. If the heart begins to beat massage should be discontinued, but the hand should not be removed until the occurrence of spontaneous respiratory movements, and of contraction of the pupil, the restoration of diaphragmatic tonicity, and the regularity of the cardiac beats indicate that recovery is permanent. The writer's experiments are divisible into two groups. The first demonstrated that subdiaphragmatic massage of the heart is capable of maintaining the blood pressure at its normal height after the heart has ceased to beat. In the second, attempts at resuscitation were made. In one of four animals the heart began to beat about ten minutes after apparent death. The laparotomy wound was closed and the animal recovered. In another case the animal was resuscitated, but died the following morning from oedema of the lungs, through the accidental aspiration of liquid choloroform at the time of the experiment. In the third the cardiac beats were re-established, but spontaneous respiration could not be restored. In the fourth the animal was inverted when spontaneous efforts at respiration and cardiac movements appeared. Massage was then continued without it being perceived that the heart had become displaced upwards and was compressing the bronchi. Bourcart point out that subdiaphragmatic cardiac massage, would by easier in man, owing to the width of the thorax, than it is in dogs. He is apparently unaware that this method has already been employed successfully by Arbuthnot Lane, in a case in which, during an operation for appendicitis under ether, pulse and respiration stopped together (*Lancet*, November 22nd, 1902).

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(13) Rheumasan.

F. Koebisch (*Deut. med. Woch.*, September 17th, 1903) reports on a new antirheumatic preparation called rheumasan. It is an over fatted soap cream containing 10 per cent. of free salicylic acid, is said to be easily absorbed and to be absolutely stable. It has a pleasant odour. Koebisch employed it by rubbing it into a large surface, which had previously been well washed and dried, and covering the surface with a thin layer of wool. He used about 10 grams at a time, and removed it after about 12 hours before reapplying it. In all he employed it in 25 cases, including chronic rheumatic polyarthritis, lumbago, sciatica, tabes dorsalis, gout, traumatic neuritis and alcoholic neuritis. He particularly points out that in one case of tabes the lightning pains which had not been improved by any form of treatment tried, disappeared rapidly. In a second case of the same nature the preparation did no good, while in a third the lightning pains were removed, but the painful cramps in the calves resisted the treatment. In acute and chronic rheumatic affections the rheumasan acted very well. It failed only in one case of trigeminal neuralgia, in one case of arthritis of the elbow-joint, and in one case of hemiplegia with pain, as well as the tabes case already mentioned. In all others the pain was either completely removed or at all events greatly diminished. He found that at times the preparation produced an irritating effect on the skin when applied twice a day, and therefore advises that it should be rubbed in as a rule only once in twenty-four hours.

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(14) The Treatment of Sensitized Tissues by Light.

Georges Dreyer (*Dermat. Zeit.*, Bd. x, H. 6, p. 578), continuing his researches on the action of light rays on animal tissues sensitized by the preliminary injection of erythrosine solution (British Medical Journal, November 28th, 1903), gives details as to the practical application of his method to the therapeutical treatment of lupus and other cutaneous lesions. One part of erythrosine (Grübler) is dissolved in 1,000 parts of sterile 0.85 per cent. sodium chloride solution. From ½ c.cm. to 1 c.cm. of this is injected into the cutis (after Schleich's method) or the subcutaneus tissue, over an area from 4 to 6 sq. cm., and four to eight hours later the area so sensitized is exposed to the cone of light rays from a Finsen lamp or other strong source of light for from fifteen to twenty minutes. If the sensitized area involves cicatricial tissue the exposure should be shorter. It may be added that the author will be glad to hear of the results obtained by this treatment.

PATHOLOGY.

(15) The Life-History of the Organism of Small-pox.

Gary N. Calkins delivered a lecture on this subject at a meeting of the Biological section of the New York Academy of Sciences on November 9th, 1903 (*Medical Record*, November 14th, 1903). He said that Councilman had pointed out that the organisms found in vaccinia were limited to the cell bodies of the Malpighian layer of the skin, whereas in small-pox they were found both in the cell bodies and the cell nuclei. He also showed that the inclusions were protozoa. The lecturer said that in the parasitic diseases due to the protozoa there was usually some phase of the disease which corresponded with some phase in the asexual development of the parasite. The ordinary asexual development of the organisms took place in the cell bodies of the Malpighian layer of the skin, while the more important sexual reproductive processes occurred in the nuclei of those cells. Calkins had been fortunate enough to be selected by Councilman to work out the life-history of the organism of small-pox, and through the courtesy and liberality of the same gentleman he was permitted to present those results at this time. Most of the work had been done in connexion with the epidemic of small-pox in Boston. His own work had been done mainly upon 22 cases, representing nearly every variety of small-pox. It was below the pustule that one found the organism of small-pox. This organism was a minute, homogeneous body situated in the cell protoplasm. Calkins described in detail the various phases of the life-history of this organism, the Cytoryctes variolæ Guar, by the aid of a series of lantern slides, many of them photographs from actual specimens. He pointed out that in vaccinia only gemmules formed, the remainder of the process of development being, for some reason, inhibited. In the late vesicle stage of true small-pox there was found a most characteristic process of reproduction, an auto-infection, that is, the formation of the pan-sporoblast. As long ago as 1896, while making some cultures from the protozoa of another class, Calkins had noticed that the nucleus of these forms was invested in many cases by a peculiar body, at the time unknown to him. The specimen was labelled "A Parasite in the Nucleus" and was not thought of again until he became acquainted with Councilman's specimen in the spring of 1903. The specimen was then looked up, and found to be apparently identical with the small-pox germ. Although there was about one chance in several millions that this specimen represented the exogenous phase of the small-pox organism, it was thought proper to study it thoroughly, and remove every doubt on this point. Personally, however, he believes it was a similar parasite, but not identical with the small-pox organism. In conclusion, he compared the cycle of malaria, a disease due to a protozoon, with the cycle of small-pox. Brinckerhoff, in discussing this paper, said that he had inoculated twelve apes with this organism, and in each case there had been a development of a lesion analogous to the vaccinia lesion; indeed, the disease in the monkey was found to be comparable in its clinical course, in the evolution of the lesions, and in the general constitutional reaction with variola inoculata in man. In every case in which a secondary exanthem developed, the lesion was found in that. It had been possible by this mode of experimentation to determine quite accurately the time relation between the various stages of the parasite and the evolution of the lesion, and these findings were perfectly in accord with the results obtained by Calkins on the human lesion. The monkey was subject to both vaccinia and variola, and hence the animal was particularly well suited for the final demonstration of the minute details of the complete life history of the organism of variola.

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(16) The Etiology of Hyperchlorhydria.

Borgbjerg-Axel (*Nordsk. med. Ark.*, p. 11, 1903) reports some clinical studies upon 278 cases of digestive disorder. In these he observed hyperacidity in 50 cases. The condition was most frequent in persons whose ages ranged from 30 to 40 years, 46 per cent. were men, 54 per cent. women; in 67.7 per cent. there was marked chronic constipation, and this symptom was almost invariably the first sign of the condition, whilst its treatment yielded the best results. The author remarks that of the men 80 per cent. smoked and drank in excess. In these cases he found that the alone meat diet was of no practical value.

AN EPITOME

OF

IRRENT MEDICAL LITERATURE.

MEDICINE.

The Relation of Non-tuberculous Diseases of the Upper Air Passages to Phthisis.

ELLER and RAPPOPORT (*Zeitschrift Tuberk. und Heilstt.*, July, 1903) attri- great importance to disease of the er air passages as a condition favour- to tuberculous invasion of the gs. The upper respiratory passages, des forming a channel for air filter, sten and warm it. To the last func- the authors attach little import- , since air entering by the mouth is ie same temperature as air entering lungs through the nose. The sture received by the air in passing ough a healthy nose is of great im- ance, and prevents the air from irri- ng the delicate epithelium of the er air passages. But the most im- ant function of the nose is that of nsing, by its epithelium and its ous secretion, the incoming air, ch is frequently laden with bacilli arious kinds and other small foreign ies in the shape of dust. Any dis- of the nose, pharynx, larynx, or hea changes the character of the us and weakens its bactericidal er. Most of the more common dis- s of the nose—for example, hyper- hic rhinitis, polypi, deviations of septum, crests, and spines, tumours se obstruction to nasal respiration lead to mouth breathing with plete loss of the respiratory func- is of the nose. To some extent same thing holds good of the osite condition of atrophy of the al mucous membrane, and in cases ozaena bacteria grow freely in the al secretions. In all such cases the ent is very liable to suffer from onic irritation of the mucous mem- ne of the pharynx, larynx, trachea, bronchi. The most striking in- ce of this sequence of events is in bronchitis of children following rgement of tonsils. On all such ditions pulmonary tuberculosis is to supervene. A well-known ance of such infection is the super- tion of tuberculosis on the chronic monary processes due to the inhala- of dust in some industrial employ- nt—for example, siderosis in tin ers and anthracosis in coal miners— dust causing a locus minoris resis- tiae, and the tubercle bacillus fixing this weak spot. A disease of the er air passages, which to a very cial degree predisposes to phthisis, zaena. Alexander found in 50 cases ozaena, 22 cases of pulmonary hisis, 7 suspected cases, 4 cases of -tuberculous disease of the lungs, 17 cases free from lung disease. same author, examining the records *ost-mortem* examinations in 22 cases ozaena, found that phthisis was well blished in 68 per cent., was the se of death in the greater number of es and was only completely absent in one case. The secretions in ozaena no longer wash the nasal mucous membrane or destroy the growth of micro-organisms, but dry up into a scab and allow numerous kinds of bacteria to flourish. Thus what should be a filtering apparatus becomes a focus of infection and the unfiltered air causes severe irritation in the lower air passages. These more general considerations are supported by the account of a detailed inquiry into 120 cases of phthisis in which the nose, pharynx, larynx, and ears were carefully examined and classified as normal or pathological with further information in the pathological cases. The authors regret that they are unable to compare these statistics with similar figures for 120 non-tuberculous cases, but they had no such cases at hand and the figures obtained are sufficiently striking to establish the point raised without control observations on the air passages of healthy people. The essential fact is that in 120 phthisical patients 84 per cent. had disease of the nose, 76 per cent. of the pharynx, 42 per cent. of the larynx and only 26 per cent. of the ears. The diseases of these organs were usually some form of chronic inflammation, or in the case of the nose some nasal obstruction. The ear disease was probably in many cases secondary to nasal disease and the authors do not suggest that it was a cause of phthisis. The bacteriological part of the examination was carried out by inoculating glycerine-agar plates with the nasal secretions and incubating at 37° C. In healthy noses the micro-organisms were for the most part confined to the area within 2 or 3 centimetres of the anterior extremity of the nostril, the parts behind this being found sterile. Twenty different sorts of bacilli are enumerated as having been found by the authors in one or more of their 120 cases. They found that the cultivations from diseased noses gave many more colonies than those from healthy noses. They investigated the virulence of similar bacteria cultivated from healthy noses and from noses the subjects of coryza and found that there was no appreciable difference of virulence—the distinction was one of quantity rather than quality. Friedlaender's bacillus, sometimes in almost pure culture, was obtained especially from cases of ozaena. Pseudo-diphtheria bacilli were found in some cases, but never true diphtheria bacilli. In cases of otitis media purulenta they found usually either streptococcus pyogenes, staphylococcus pyogenes, or diplococcus pneumoniae.

(18) Perityphlitis.

SCHULZ offers some remarks from his experience and some advice on the subject of perityphlitis to the general practitioner (*Deut. med. Woch.*, October 22nd, 1903). The first point dealt with is that of an early diagnosis. When the cardinal symptoms are present there is no difficulty; these are pain, fever, and vomiting, to which may be added stoppage of the bowels, tympanites, and perityphlitic tumour. However, these symptoms are only rarely all present, and for this reason the diagnosis is very often not easy. Pain is the most constant sign, but it is by no means always localized to the right iliac fossa. When the peritoneum is affected widely the pain will be diffuse, and there may not even be tenderness particularly marked in the region of the vermiform appendix. However, pain and tenderness must remain a valuable symptom in this condition. Neither fever nor vomiting are characteristic of the affection in themselves, and it must be borne in mind that the severity of the case must not be judged by the height of the fever. Intractable vomiting is a bad sign, but vomiting at the beginning of an attack may be of no importance. Tumour or resistance in the ileo-caecal region is met with in a certain number of cases, but at times the resistance may be felt at other portions of the abdomen, where the caecum occasionally is placed. Meteorism is mostly present, but at times, even in very severe cases, this too may be absent, and may lead to a wrong diagnosis until the affection is far advanced. As a rule the bowels are confined, but there may be diarrhoea at the beginning, or in the prefebrile stage. It usually lasts for five or more days, and if it is associated with profuse vomiting, it may be taken as a bad prognostic sign. It appears therefore necessary that the general practitioner must always bear in mind those diseases which may be confounded with perityphlitis if he would improve his diagnosis of this condition. In the first place, Schulz says that obstruction of the intestine by scybala may present much the same clinical picture as perityphlitis. The effect of enemata and castor oil will, however, help to clear up this point. Next he mentions inflammatory and ulcerative processes of other portions of the intestines, including duodenal ulcer, catarrhal, diphtherial, tuberculous, and at times also typhoid ulcers of the gut. These are often only to be distinguished from perityphlitis by the localization of the pain and tenderness. Gall stones and affections of the gall bladder may also simulate perityphlitis. The same may be said of renal calculi and inflammatory affections of the uterine appendages. Tumours and actinomycosis must also be borne in mind. In touching on the point of prognosis he states that a large number of cases are naturally mild, and may with safety be treated throughout medically. To his mind, the pulse offers valuable evidence as to the severity of the case. In proportion to the temperature it is neither very small, nor very rapid, in mild cases, and may be relied on. But one should always remember that mild cases may develop into stormy ones at any moment, and the practitioner must be careful in making a prognosis. He goes on to describe that moderately severe and severe cases depend on the extent and nature of the anatomical lesion, and refers the reader to such classical accounts as that of Rose, Sonnenburg, and others. Dealing with the treatment, he finds that the usual means adopted are ice, opium, milk diet, absolute rest in bed. He finds that hydropathic applications, such as cold compresses or poultices, may be used at times, and he feels inclined to advise ice only when the temperature is very high and when the abdomen is not too distended. With regard to opium, he states that one should never give it during the first few

days. The bowels must be first freely opened before one may use opium. Later on, when the bowels have been well opened and there is still increased peristalsis, it is in place. If one has to employ narcotics, codeine or morphine may be given subcutaneously with care. The bowels are best opened with ol. ricini, with an enema following; injections of glycerine into the bowel are also useful. He next deals with those cases which get rapidly or suddenly worse. The pulse exceeds 120, there is a rigor, while the temperature remains about the same level as before. The abdomen becomes tympanitic and more painful, and the signs of general collapse set in. Such symptoms render the patient's life in great danger, and it is obviously bad treatment to await their development. One should always be on the look-out for these stormy symptoms, and as soon as one can anticipate them the patient should be operated on without loss of time. He illustrates this and other points in the treatment of perityphlitis by cases. In conclusion, he describes some points of interest in connexion with the operation and with the after-treatment.

SURGERY.

(19) "Excochleation" of the Prostate.
RIEDEL has often noticed that the liver and prostate present a tough and firm consistency after death, but during life are both friable and soft. If one drew conclusions from the *post-mortem* conditions, it would appear practically impossible to apply "excochleation" to the prostate, but in reality this is quite feasible (*Deut. med. Woch.*, October 29th, 1903). He states that it is quite easy to remove large or small portions of the organ by means of a sharp spoon, and not only of the glandular substance, but also of the muscular tissue. His first attempt in this direction was a case of blennorrhoeic urethritis complicated with chronic prostatitis in a young individual seven years ago. The patient had been forced to use a catheter for two years, as he was completely incapable of passing his urine spontaneously. At the operation the prostate was exposed, and Riedel extirpated small pieces from both sides of the organ, but did not venture to remove large portions. The result was not satisfactory, and a *boutonnière* with drainage had to be performed, which led to the complete restitution of the power of voiding urine. The majority of patients suffering from prostatic hypertrophy are old decrepit subjects, on whom one cannot think of performing a severe operation. He states that the *boutonnière* with drainage for eight days is the best form of treatment for these cases, and is convinced that castration cannot help in the least. In dealing with Bottini's operation, he says that since the middle lobe is very rarely the seat of the hypertrophy, the chief chance of this procedure is lost, and considers that not only is one not at all safe in obtaining a satisfactory result, but one may do much harm. He warns against performing an operation which is more dangerous than the condition which it is intended to cure, and urges that as hypertrophy is not in itself dangerous to life, the treatment of it should be free from any special danger. In August of last year he again carried out the operation of excochleation. The patient was 53 years old, and had been forced to use a catheter for two years. The left side of the prostate was chiefly enlarged. He made an incision in a curved line anterior to the anus. The prostate was exposed from this situation, the capsule divided first on the left side and several nodular pieces of tissue removed by means of the sharp spoon. The cavity left was as large as a pigeon's egg. The same was done on the right side and care was taken not to injure the urethra. The cavities were plugged with gauze. The patient was able to pass urine the same evening, and made a rapid recovery. When seen in May of this year he was able to pass his urine easily, and even after he had drunk two glasses of beer in an evening he only had to get up once or twice during the night to urinate. The second case was that of a man of 64, and the result was fairly good. He had, however, to be catheterized twice after the operation, and when examined nine months after he could pass his water, but there was a considerable amount of residual urine which Riedel puts down to insufficiency of the vesical musele and not to the prostatic trouble. The third case was a complicated one. The operation relieved the retention of urine at first, but was particularly difficult on account of the abnormally high situation of the prostate. Five months later he was again attacked with retention. The prostate was quite small then, so Riedel performed a *boutonnière* and left the tube *in situ* for eight days. After this it was found that urine trickled from the perineal wound, and a little later it was found impossible to pass a catheter. A diverticulum was diagnosed, and on opening the abdomen this was found to be the case. The diverticulum was of large size and lay to the left side. An attempt to remove it was made, but although the technicalities were mastered the patient sank and died on the following night. At the necropsy it was found that he was suffering from pulmonary tuberculosis of both lungs, granular kidneys, thrombosis of a vein of the right kidney, while the wound in the bladder was quite closed and there was no peritonitis. In the fourth and fifth cases Riedel relates an accident which is difficult to avoid under certain circumstances—that is, wounding of the urethra. The result was that a small fistula persisted in each case, but the retention of urine was cured. In summing up, he says that there is wonderfully little bleeding inside the cavity made in the prostate, and with a little care very little blood need be lost during the whole operation. He describes the details of the operation carefully in order to stimulate other surgeons to try it on suitable cases.

(20) Foreign Bodies in the Stomach.
FREDENWALD AND ROSENTHAL (*New York Med. Jour.*, July 18th, 1903) report on 90 cases of gastrotomy for the removal of foreign bodies in the stomach. Most of the bodies were swallowed in fits of insanity; others as a means of livelihood. They consisted of nuts, safety pins, pins, wire, lead, sword blades, buttons, hooks, forks, knives, false teeth, and hair. In three cases a stomach tube was broken and had to be removed by operation, and in one case a Murphy's button. The length of time during which the bodies remained in the stomach varied from a few hours to several years. The symptoms are not distinctive and consist of pain in the epigastrium and between the shoulders, anorexia, vomiting and emaciation. Diagnosis is made by the *x* rays. Prognosis is good in early cases, but in long-standing cases there may be atrophy of the mucous membrane and thinning of the muscular wall or perforation. During antiseptic times 71 cases were operated on. Early operations 28, 26 recoveries, and 2 deaths. Late operations 29, 25 recoveries, and 4 deaths. Time unknown, 14 cases with one death and 13 recoveries.

MIDWIFERY AND DISEASES OF WOMEN.

(21) Obstetrical Aspects of Pelvic Exostoses.
DANIEL (*Ann. de Gyn. et d'Obstét.*, September, 1903) insists that by "pelvic exostoses" should be understood osteogenic exostoses proper, as defined by Dupuytren and Broca. Inflammatory, trophic, and neoplastic growths must be excluded, as must those enormous tumours so often figured and described before anatomy and pathology had reached their present development. True exostoses of the pelvis arise at the points of union of the three elements of the innominate bone, the ischium, ilium and pubes, or at the junction of points of ossification in each of these elements. The special feature of these exostoses is that, appearing during the early period of development of the skeleton, they grow in proportion with the normal bones, and, what is of special importance to the obstetrician, they cease to grow when the skeleton has reached its adult proportions. Diagnosis is often easy, as osteogenic exostoses are often multiple, and are to be detected on the long bones of the extremities. When absolutely localized to the pelvis they are harder to diagnose. In a doubtful case their special situation at points of union of the different elements of the pelvis and a history of slow growth, or of no increase in size at all, will distinguish them from malignant tumours of the bone, hypertrophic osteitis, bony spines representing ossification of tendon, ossification of cartilage, and callus on fractures of the pelvic bones. The radiograph is of the highest value for diagnosis, and consequently for prognosis, when the subject is pregnant. It aids the obstetrician in defining whether spontaneous labour be possible or if not, what operation will be called for.

(22) Retroversion of the Gravid Uterus.
M. HANDFIELD-JONES (*Journal of Obstetrics and Gynaecology of the British Empire*, October, 1903) describes two cases of retroversion of the gravid uterus causing acute disease of the bladder. Both patients were multiparae whose previous confinements had been

ormal, and in both the pregnancy in uestion had advanced to between the ourth and fifth months. About a nonth before admission both suffered rom retention of urine, followed by fre- uency of micturition and by incon- inence. The first patient on admis- ion was found to have a temperature of oo.2°, pulse-rate over 100, and 45 oz. of ffensive alkaline urine were withdrawn y catheter. A vaginal examination howed the cervix high up, immediately ehind the symphysis, and a rounded lastic swelling occupying the upper art of the hollow of the sacrum. It as judged that interference with the ow of urine and pressure on the lower art of the bladder had set up a septic rocess in the lining membrane of the ladder. The patient was put to bed, irected to assume the genu-pectoral osition for a quarter of an hour three r four times daily, the part of the terus lying in the pelvic cavity was ushed up each day, and the bladder ashed out with boracic acid lotion. While under treatment the patient assed two casts of the bladder, the first omewhat of the nature of a diphtherial xudation, the second an exfoliation of he mucous membrane of the bladder, ogether with some of the deeper tissues f its wall. The patient improved, nd a healthy child was born at erm; the incontinence of urine finally isappeared only after the confinement. he second patient when seen before ad- ission was unable to lie down because f the tense and distended state of the bdomen. A swelling, dull on percus- ion, reached to within two finger- readths of the xiphoid cartilage, and rine was constantly dribbling away. er vaginam a large elastic swelling lled the pelvis and pushed down the osterior vaginal wall almost to the ulvar orifice; 144 oz. of foul blood- tained alkaline urine were withdrawn y catheter, and attempts having been ade unsuccessfully to push up the terus, a large ring pessary was inserted nd the patient put to bed. Under eatment during the next seven days e uterus rose somewhat, but a con- iderable part remained in the pelvis; e urine became clearer and less offen- ive. The patient's condition then began o grow steadily worse, signs of intes- nal obstruction became apparent, while e womb still seemed unable to rise out f the pelvis. An operation was decided pon, and on opening the abdomen it as found that the bladder wall was ickened and adherent on all sides to mentum and loops of small intestine; e uterus was held down by the adherent oils, and intestinal obstruction was eing caused by the forward growth of e intestine. Some of the adhesions ere separated, but it was not found pos- ible to separate all, nor could the uterus e raised from the pelvis. Room to llow the uterus to develop anteriorly ad, however, been secured, and nothing rther was attempted, as the patient's ondition had become critical. She died ter in the day. The necropsy gave the llowing results: The uterus was en- rged by a five-months pregnancy, its alls thin and its tissue extensively de- enerated; a widespread peritonitis sur- ounded it, causing numerous adhesions o neighbouring structures. The mucous embrane of the bladder presented the appearance of diphtherial cystitis and small cavities containing pus were widely scattered throughout the thickened walls. These two cases demonstrate the serious complications which may arise from unrelieved retroversion of the gravid uterus.

(23) Premature Labour and "Accouchement Force."

IN contracted pelves, W. Williams (*Amer. Gynec.*, July, 1903) is against the induction of premature labour—nearly 70 per cent. of the cases are born spontaneously, and the chances of life in premature children are small, at any rate amongst the poor. He lets his patients go to term, and go on to the second stage of labour, and if at the end of two hours of this the head shows no sign of engaging, and the mother and child are in good condition, Caesarean section should be performed. This, however, is rarely necessary. The only cases where the author would induce labour in contracted pelvis are those where, in a prolonged pregnancy, labour does not come on at the expected time, or where, from the previous history, one is led to suspect an unusually large child. Induction of labour is indicated in marked toxaemia where uraemic symptoms occur—the amount of urea steadily decreasing whilst the albumen increases. In placenta praevia again, the author advises the induction of labour as soon as a positive diagnosis is made. In ordinary cases the best method of inducing labour is the introduction of a sterile bougie. Champetier de Ribes bag is more rapid in its action. When more rapid dilatation is needed (*accouchement forcé*), as, for example, in eclampsia, the author speaks most highly of Harris's method, which is available as soon as one finger can be introduced into the cervical canal—the thumb is gradually forced up alongside it, then two fingers and a thumb, etc., the back of the thumb being used as a dilator. By this method the canal can be dilated in five or six minutes, but it is better to take twenty or thirty minutes over it. The author has practised this method in 87 cases (eclampsia 30, toxaemia 13, placenta praevia 10, to hasten labour 34), with three deaths directly attributable to the operation. To the average practitioner it is a safer method than the use of metallic dilators—for example, Bossi's.

THERAPEUTICS.

(24) Veronal.

L. W. WEBER (*Deut. med. Woch.*, October 1st, 1903) has tested the action of veronal, a new hypnotic, which has been introduced by E. Fischer and v. Mering, and which has been favourably reported on by various observers. He points out that the action of a narcotic depends on its sleep inducing properties, on its quieting properties, and, lastly, on its anodyne effects. Veronal was tried on the inmates of the Psychiatrical Clinic in Goettingen, and the effects in all the three directions were carefully noted. The influence of suggestion was excluded as far as possible by administering the drug at times in tea, beer, wine, and soup, without calling the attention of the patients to the fact that they were receiving any hypnotic. As a rule, 0.6 to 1 gram were given, while the highest dose employed was five times 0.3 gram. in one day. No effect could be detected on the quality of the pulse, respiration, temperature, blood pressure, or urine. In cases needing treatment for simple sleeplessness, 0.6 gram produced sleep in from half to one hour as a rule. The cases which reacted best to the drug were those in which the sleep necessary for the recovery and improvement of metabolism was wanting on account of overexertion or mild apprehensive excitability. These cases did not react to mechanical or hydropathic means. Weber finds that the action is like that of hedonal, but requires less large doses; he prefers this drug to chloral, trional, and sulphonal. It acts less well in the sleeplessness of recent exhaustion-psychoses and of mild maniacal excitability. Turning to the second action, he found that veronal is well adapted for combatting conditions of excitability. For the patients who were suffering from hallucinations with marked excitability it acted extremely well. He exemplifies the action by citing some cases in which it worked rapidly and effectually. In epileptical mania it acts well and promptly if the condition is not very extreme; while in the motor restlessness of the mania of general paralytics it also acted as a rule. The effect of veronal on pain could only be controlled in one case of tabes, in which it worked satisfactorily. The action lasted for a considerable time in all cases, and it appears to Weber that in veronal one has a reliable hypnotic. The effect of the drug seems to become less powerful after about four days' administration. Ill-effects have not been observed by him.

(25) Hydrargyrum Hermophenylicum.

G. SEEGALL (*Berl. klin. Woch.*, October 19th, 1903) has experimented with a mercury preparation, which has been particularly recommended by some French observers. This preparation is called hydrargyrum hermophenylicum, and is obtained by dissolving the oxide of mercury in bisulphite of carbolic sodium. It has the chemical formula $C_6H_2O(SO_3Na)^2Hg$, and occurs in the form of a white amorphous powder, containing 40 per cent. of Hg. It is extremely soluble in water, and is said to act bactericidally, but not to irritate the tissues or to produce poisonous symptoms. Seegall describes the accounts which the French observers give of its use. He tried it in 32 cases of secondary syphilis and 3 of tertiary affections. At first he injected 4 c.cm. of a $\frac{1}{2}$ per cent. solution subcutaneously, but as this method produced pain he changed the injections to intramuscular. The dose was gradually increased, but lately he has found that it is safe to use 1, and later 2, per cent. solutions, and to inject first 1 gram and later 2 grams. In 9 cases he observed intoxication symptoms, including gingivitis, stomatitis, mercurial exanthema, and diarrhoea. Albumen did not appear in the urine of any case, and, indeed, in one case of albuminuria, in which other preparations of mercury had been productive of signs of irritation of the kidneys, the amount of albumen diminished during the exhibition. The infection had taken place from five weeks to eleven years

before the treatment was begun. In 7 cases recurrence of symptoms took place during the treatment, and in 6 immediately after. As a rule, the symptoms diminished after about five injections, and after twenty injections disappeared, but in 8 cases this preparation did not suffice to entirely cause them to go away. In the tertiary cases it acted promptly, but the trouble soon returned. In summarizing his results, Seegall comes to the conclusion that Hg hermophenylicum is not reliable in its action, and is certainly not so valuable as the perchloride or as the insoluble salts of Hg. He cites a number of cases in support of this conclusion. He considered it advisable to try its effect in gonorrhoea, since it is said to be non-irritating and to act as a bactericide. In this disease, too, he found that it was incapable of producing a cure; in one case only did the cocci and the discharge disappear by this treatment alone. In some cases the gonococci disappeared after injections of 1 in 300, and the discharge had to be dealt with by other remedies; while in other cases even this result was not attained.

(26) Pyaemia from the Local Application of Chrysarobin.

J. Hrach (*Wien. med. Woch.*, July 11th, 1903) reports the case of a soldier who was admitted to hospital for vomiting and diarrhoea. The gastro-enteritis subsided under bismuth and diet. It was then noticed that there were patches of psoriasis on the limbs. On July 2nd daily inunctions of chrysarobin ointment were ordered, and were continued with good effect until August 15th, when high pyrexia, cardiac palpitation, and vomiting appeared. The chrysarobin was discontinued till August 20th, when, as the general condition was satisfactory, the inunctions were resumed. They were continued till September 3rd. He was then seized with a rigor, and the temperature rose to 103° F. There were stabbing pains in the sacral region and a dry cough. The ointment was discontinued. On September 5th a tender oedematous swelling appeared in the skin of the back, and there was dullness at the left base posteriorly with faint bronchial breathing. The pulse was 96. The urine was scanty and contained albumen. Nephritis and left pleurisy were diagnosed. There was intense headache. He remained in this condition until September 8th, on which date the pulse was 120, the temperature 101.8° F., the tongue dry, the face pale and puffy, and the general condition alarming. On the back were a few small patches of psoriasis, and two circular, excoriated, granulating surfaces which were covered with yellow, tenacious pus. These were evidently due to the irritation of the ointment and had given entry to the organism of pyaemia. The pleural dullness extended up to the angle of the scapula. The cardiac dullness was enlarged and there were occasionally systolic and diastolic murmurs (myocarditis). The shoulder-joints became painful and swollen, the pulse rose to 140, and there were frequent attacks of collapse, which necessitated injections of camphor. On September 12th, 13th, and 14th there were rigors and occasional attacks of general clonic convulsions, which were probably of uraemic origin. After September 17th the convulsions ceased, the urine became clearer, and the pleural dullness diminished. On September 24th the albumen was less and the pulse 84 and regular. On the back of the neck and the left arm four deep abscesses appeared. They were incised. Streptococci and staphylococci were found in the pus. The general condition rapidly improved, and the urine contained only traces of albumen. But on October 3rd there was a rigor, and about 35 abscesses appeared in the skin and muscles of the arms and body. These continued to appear in successive crops until a total of more than a hundred was reached. The last appeared on October 11th. They were all incised, and treated with fomentations and perchloride of mercury baths. He was discharged cured on November 9th, but was not fit for work owing to cardiac weakness for another three months.

(27) Crurin in Gonorrhoea.

Crurin, a chinolin rhodonate of bismuth, having the formula of $(C_9H_7N.HSCN)_3$ Bi $(SCN)_3$ was introduced into practice by Max Joseph for the treatment of ulcer of the leg. R. Stern (*Deut. med. Woch.*, March 19th, 1903) has employed a glycerine emulsion in the treatment of gonorrhoea. He says that it is non-irritating, renders the disease process milder, and shortens it and prevents the advent of complications. The preparation for injections is made without starch, and is known as crurin purum.; 1 gram is made into a paste with water and glycerine (5 grams of each), and then distilled water is added to 200 grams: 49 patients were treated with this injection fluid, and gave the following results: 32, that is, 65 per cent., were cured: 13, that is, 28 per cent., were improved, the discharge being free from gonococci, and 1 was not improved; 3 were useless for statistical purposes, on account of too short or irregular attendance. Thus, of 42 cases 41 were freed from gonococci, and the other 7 had either no cocci in the discharge when the treatment was begun or had taken other means to remove the cocci; 6 cases had complications, including urethritis posterior in 4, and epididymitis and prostatitis in 1 case each. Stern thinks that crurin is an excellent means of killing the gonococcus, and has found it act when other measures have failed. He has not been compelled to combine other means with the injections. He is, further, satisfied with its astringent properties. The patients do not complain of pain or discomfort, and only in very acute cases does a 1 per cent. emulsion cause any sensation of burning. In recommending it he says that he is satisfied that it cures acute gonorrhoea in a shorter time than other remedies do.

PATHOLOGY.

(28) The Bacteriology of Variola.

De Waele and Sugg (*Arch. Internat. de Pharmacodynam. et de Thérap.*, xii, 3 and 4) publish a lengthy memoir based upon observations made in the recent small-pox epidemic at Ghent. In every one of the 27 fatal cases they succeeded in obtaining from the heart-blood a streptococcus which they believe to be specific. It was always in pure culture and predominated during the papular and vesicular stages of the disease. They also got it in pure culture from the blood of living small-pox patients, particularly when taken at the height of the eruption. It was agglutinated by the blood of all variolous patients, and the blood serum of any such patient agglutinated all the streptococci found in small-pox cases. The serum of vaccinated subjects also caused agglutination, though in less degree; but that of newborn infants and non-vaccinated persons did not. The agglutinant power was also present in the serum of the vesicles; other forms of antistreptococcus serum did not agglutinate this specific organism. They found the latter in the scabs and in the air of rooms of which there were small-pox patients; they consider it is propagated by dust and infects the human subjects by means of the respiratory passages. The authors state that small-pox begins in two-thirds of the cases by an infective sore throat, corresponding to the primary rise of temperature; the streptococcus then spreads by means of the blood, and settles in the skin, where it causes the rash and the second rise of temperature, this peripheral infection being overcome by leucytosis in the pustular stage. They claim to have found the microbe in post-variolar abscesses and septicaemia. They state that from various vaccines they have obtained a streptococcus having identical agglutination properties, and in particular that it is agglutinated by the serum of vaccinated persons. They hold that the two streptococci are identical. When glycerine is added to the vaccine the streptococcus is after a time difficult to discover by cultivation, but it can still be found in the vesicles produced by inoculation. They hold that the agglutination properties described by them are specific for this streptococcus, and establish the possibility of the serum diagnosis of small-pox. The injection of non-specific antistreptococcus serum is of no use in small-pox.

(29) Circumscribed Mobile Intestinal Tumours due to Actinomycosis.

Borelius (*Nord. med. Arkiv.*, Afd. I, No. 6, 1903) reports 3 cases in which the actinomycosis occurred as distinct circumscribed mobile abdominal tumours. They were fibrous, hard, dark in colour, and showed typical actinomycotic granules, quite contrary to the usual conditions in which actinomycosis usually occurs, as gastro-intestinal disturbances accompanied by symptoms due to mixed infection. These growths gave symptoms resultant from mechanical causes. In the later stages, however, two of them demonstrated the nature of the infection by occasional rigors and high temperature. Radical removal was practised in each case, and the patients were healthy eighteen months after discharge from hospital. Such treatment, therefore, apparently offers better results than the conservative treatment of evacuation, and the fact that actinomycosis may occur as distinct abdominal tumours should be helpful in the diagnosis of obscure abdominal swellings.

AN EPITOME OF CURRENT MEDICAL LITERATURE.

MEDICINE.

(30) Tuberculosis of the Pharynx in Children.

THOUGH it was believed but a few ırs ago that children do not suffer m tuberculosis of the pharynx, some es have been recorded during recent rs, and Seifert makes the statement t faucial tuberculosis may affect per- s of any age. P. Schoetz has had) such cases under his care in the ly part of last year, and reports on m in the *Deut. med. Woch.* of Octo- 15th, 1903. The first patient was 10 ırs of age, and was brought to the ıpital on January 8th on account of e throat, which had been present for) days. There was a general exten- e pharyngitis, the soft palate was dened and swollen, and the naso- ırynx, the posterior pharyngeal wall l velum were covered by a tough ıerent whitish membrane. The epi- ttis was oedematous, and the voice ; somewhat hoarse. The regional nds were enlarged and the tempera- e was raised. The case was con- ered to be one of diphtheria, and ısferred to a colleague to be treated ıome. After four weeks the practi- ıer who had been treating the case ırned the child, with the remark that eated bacteriological examinations l proved negative, and that the clini- course did not correspond to diph- ria. On examination, Schoetz now nd that all the membrane had dis- ıeared, the velum presented a bright , glossy, swollen appearance, and ; speckled with grey and yellow nts; at one situation there was a ıerficial lenticular tumour. The pos- or pharyngeal wall presented the ıe appearance, and the lymphatics e more swollen than previously. ere were difficulty of swallowing, re- gitation of fluids through the nose, well as fever up to 104.4°, and phy- ıl signs of tuberculosis of the left x, including tubercle bacilli in the tum. On account of the bad pro- ısis which Schoetz made and told to parents, the child was taken to a balist, whose treatment failed to ck the progress of the disease. She ; then admitted into a hospital, and March 15th it was found that she ; in a very pitiable condition. The cous membrane of the velum, uvula, ces, and posterior pharyngeal wall wed greyish-white, dirty, ulcerated faces. The lymphatic glands had ome greatly enlarged, and one had ken down into an abscess. The pul- nary tuberculosis had likewise made t progress. The child died on March h, but no necropsy was allowed. The ond case was that of an 8-years-old r. He was first seen on February h, when the whole posterior ıryngeal wall showed greyish-white ıy exudation and general swelling. e velum was slightly oedematous l was occupied by many grey tules. There was retronasal pharyng- itis. The lymphatic glands at the angle of the jaw were indolent and hard. Some catarrhal reddening of the interior of the larynx and nose was seen. No tubercle bacilli were found in the exudation in the throat, but only streptococci and diplococci. There were moderate general symptoms, but after a few days the temperature began to be considerably raised, and the patient was admitted into the wards. On March 1st several superficial ulcers were seen on the pharynx; a few days previously there had been some left-sided otorrhoea. On March 10th a profuse rash appeared over the arms, chest, and abdomen, and some on the back. This proved to be erythema exudativum multiforme. The ulcers on the pharynx spread during the following days, but on the 26th appeared to be becoming cleaner. The left tympanum showed a second perforation, and a little later the right ear began to discharge also. The lungs began to be affected, and diarrhoea set in. The patient passed a number of segments of tapeworm, and he complained of great pain in the abdomen and at the anus. He wasted rapidly, and died on May 6th. Schoetz discusses the points of interest in these two cases, and also the salient points in the few other published cases of tuberculosis of the pharynx in children.

(31) "Family" Spasmodic Tabes.

PERUGIA (*Gazz. degli Osped.*, July 26th, 1903) reports two cases of spasmodic tabes occurring in the same family. The parents were alive and well, but very poor. The father was of low intelligence. Five brothers healthy in mind and body. Both children (boy and girl) were born normally at term, and were well up to about a year old, when they had bowel trouble. Their mental development was very slow, their speech elementary and poor. Nocturnal enuresis was present. At the time of examination the boy was 19, the girl 25. Both suffered from ataxic, hesitating uncertain gait, with muscular rigidity of the lower limbs, and a marked exaggeration of the tendon reflexes. The superficial reflexes exhibited nothing special. The general sensibility and muscular sense were unaffected. There were no marked disturbances of electrical excitability or of vasomotor irritability, and the sphincters were normal. No muscular atrophy was present. The pupils were equal, and reacted to light and accommodation. On closing the eyes marked swaying of the body occurred in the erect position. Mentally they were torpid and semi-imbecile. Strabismus was present. The thyroid was slightly enlarged in the boy, and in the girl the left lobe was considerably enlarged. There was no epilepsy. Some good result may be brought about by careful training in these cases if they are taken early enough.

(32) Splenic Puncture in Diagnosis.

MICHELAZZI (*Gazz. degli Osped.*, November 8th, 1903) pleads in favour of the practice of splenic puncture in the differential diagnosis of typhoid. His experience has taught him that pure Eberthian infection is comparatively rare; other micro-organisms are constantly present, some of which—for example, the staphylococcus pseudotyphus—give clinical symptoms almost exactly like typhoid. Cultivations made from liquid taken by puncture of the spleen offer this advantage over blood cultures, that they give positive results quite early in the disease, and before certain results can be obtained from the blood in the ordinary way. The importance of this in differential diagnosis is obvious, for it is just in the early stages of a supposed typhoid that the difficulties in diagnosis are most severely felt. By this method the author was able in the early stages of the disease to classify two cases of supposed typhoid into streptococcaemia, one into B. coli infection, and one into miliary tuberculosis.

(33) Human Plantar Reflexes.

IN a paper read before the Royal Society of Edinburgh (May 18th, 1903) Dr. Alex. McAldowie states that the human plantar reflexes possess the distinctive features of adaptation—they are movements of defence or preservation adapted to withdraw the part from the source of irritation. The purely spinal plantar reflex is seen in the case of the infant before it begins to walk. If the sole of the foot is tickled, the great toe is at once drawn upwards (extension), then the rest of the toes are extended and separated, the foot is everted and the ankle dorsiflexed, after which the knee and hip are drawn up. This infantile plantar reflex differs materially from the later or adult plantar reflex. The infant's foot has a tendency to make prehensile or grasping movements. Hepburn has shown that the muscles leave their imprint on the skin of the sole of the foot, which is thrown into folds separated by grooves, and that in the foot of the apes and of newborn infants the same general arrangement of transverse and longitudinal lines prevails. After the child's food has become an organ of support and locomotion the character of the grooves undergoes change. The primitive grooves are smoothed out while a new set makes its appearance. The plantar extensor reflex of the infant is a modified prehensile reflex, as it withdraws the foot from contact with any irritating object to which the sole might be applied. Collier states that this infantile reflex is precisely similar to the plantar reflex of monkeys. If, on the other hand, we stimulate the sole of the foot of a child after it has learnt to walk, the character of the movements elicited is the exact antithesis of the preceding. The thigh is the first to respond. It is drawn up, then the ankle is dorsiflexed, the toes are fixed and adducted, and the foot is inverted. This is a plantigrade reflex, and is gradually developed as the use of the limb is acquired for support and locomotion. The economic significance of this reflex is clear. In plantigrade progression, if an irritating object comes in contact with the sole of the foot, the flexors of the hip, acting at a greater mechanical advantage than any other muscles, withdraw the foot from the offending object, "while the flexion of the toes and the inversion of the foot render the skin of the sole lax, so that any sharp object will penetrate less rapidly." This second-stage reflex appears in perfection only after the second year. The reflex function of the

earlier or primary lumbar centre is not destroyed, but modified, and it only requires withdrawal of the inhibitory influence of the higher and later centre for the primary reflex to manifest itself. If, owing to disease, the secondary reflex is destroyed or abolished, the primary reflex reasserts itself in the form of the now well-known Babinski's reflex. Such abolition may be brought about by alcoholic or uraemic poisoning, or by severe epileptic fits, which produce a state of brain exhaustion, or by disease or degeneration affecting the cortical motor-pyramidal cells of the pyramidal tract. But, whatever the theory of its origin, the fact remains that we are possessed of two distinct and antagonistic plantar reflexes, one of which predominates and the other is in abeyance during health.

SURGERY.

(34) The Surgical Treatment of Nephritis. Jaboulay (*Arch. Gén. de Méd.*, November 17th, 1903) gives an extract upon this subject from his book, which is shortly to be published. Although this therapeutic measure has been criticized as too daring by some and illogical by others, he maintains that his results are an answer to both these objections. He relates the case of a woman, aged 41, who enjoyed excellent health until the age of 38. She had never suffered from scarlet fever or other infectious disease, except measles; she had borne four children without complication. For three years she suffered from attacks of a dull heavy pain in the right lumbar region, followed on the next day by the passage of a brick-red sandy deposit in the urine. No calculus or concretion was ever seen. As the pain passed off the urine resumed its normal colour. The attacks becoming more frequent, and dyspnoea developing, work was rendered impossible. At no time was the pain of the character of ureteric colic, nor did the urine contain any blood. Albumen was observed in the urine for fifteen months before the operation; specimens passed during the day or night, after exercise or rest, all contained it. A strict milk diet for eighteen days did not affeet it. After repeated trials 9 gr. per litre was the maximum urea excretion. A subcutaneous injection of 1 c.cm. of methylene blue solution commenced to appear in the urine after half an hour, and continued for over forty-eight hours. The separation of urine from each kidney was tried and failed. In the right lumbar region a swelling was felt, which, from its relation and shape, was identified as the kidney. The arterial tension was raised, and the first cardiac sound was prolonged. The liver and pelvic contents were normal. With regard to the nature of the swelling, a malignant growth was negatived by its three years' duration and the absence of haemorrhage; tuberculosis, by the absence of pus, blood, and the negative results of bacteriological examination. A diagnosis of nephritis was made and the kidney explored by a lumbar incision. The perirenal fat was abundant, and firmly adherent to the capsule by vascular adhesions; these were secured between forceps and the kidney explored. The capsule, on incision, was thickened, and the kidney was found enlarged and grey. The capsule was completely stripped from the parenchyma and resected. Haemorrhage was slight. The pelvis of the kidney was free. On the eighth day after the operation the albumen commenced to diminish, and on the twelfth had completely disappeared. At the same time the quantity of urea progressively increased to 12½ gr. per litre. Lumbar pain ceased. The urinary syndrome disappeared. When seen later the cure was maintained. This therapeutic measure was the outcome of the experience of surgeons who were struck by the happy results obtained by incision of the capsule in cases of nephritis which had been wrongly diagnosed before operation. Harrison proposes incision of the capsule in acute nephritis, comparing it with acute glaucoma; and Pousson uses similar measures for chronic nephritis, comparing it with chronic glaucoma. Edebohls, in addition to the mechanical production of anaemia by the thickened and contracted capsule, attributes to it an interference with the establishment of a collateral circulation, and advocates complete capsulectomy, by which fresh vascular channels are opened up in the surrounding adhesions. The existence of these vascular adhesions has been proved experimentally by Claude and Balthazard. Edebohls's capsulectomy aims at the regeneration of the kidney substance by improved blood supply, and not at a temporary relief to congestion, as in capsulotomy. The author has been struck by the large numbers of albuminuric cases which have been cured, not only by capsulectomy, but also by capsulotomy and by decapsulization, and advances the hypothesis that all these several operations act by a traumatism inflicted on the sympathetic system situated in the renal pedicle; and, in support of this, adduces the argument that in the case quoted above the rapidity of amelioration is a proof of a vasomotor modification of the circulation induced by the surgical intervention which had not had sufficient time to establish a new intrarenal arterial blood supply.

(35) Surgical Treatment of Sterility in the Male.

Martin, Carnett, Levi, and Pennington (Reprints of contributions from the William Pepper Laboratory of Clinical Medicine, No. 3) have made a number of studies upon spermatozoa with a view to establish the morphological conditions which are associated with fertilizing power. They believe that the best test of this is motility, and that on general principles the persistence of motility is of more importance than their vigour. Abnormal forms such as those with twin heads or twin tails were not observed by the authors to move, and are hence inferred by them to be devoid of fertilizing power. They were unable to determine whether passage through the epididymis and vasa deferentia exercised any influence on the fertilizing power of the spermatozoon, although they found some evidence of a morphological change during the process. They further turned their attention to the problem of remedying sterility resulting from an azoospermia consequent upon a doub obliterating epididymitis. Three e periments were performed upon dog in which a portion of the vas was e cised and the remainder attached to a incision in the epididymis; in all the cases it was found that spermatoz were ejaculated after the wounds ha healed. An operation was then unde taken upon a man in whom repeate examinations had shown presence of a azoospermia following gonorrhoeal ep didymitis, which the authors conside very rarely to lead to complete oblitera tion of the passage. In this case th obliteration, as usually happens, oc curred in the tail of the epididymis Nineteen days after the operatio motile spermatozoa, apparently healthy were emitted; they belonged to th type observed in the epididymis whe removed after death. Whether th anastomosis which had been forme was persistent, and whether the sperm atozoa were fertile, had not been deter mined when the paper was written.

(36) Osteitis Deformans in Adolescence. Ricci (*Gazz. degli Osped.*, December 20th 1903) reports the following rather un usual case of bony deformity. A boy aged 16, born normally and free from infantile ailments, but always excitable and irascible, so that he had to be sen to a reformatory, began to complain o pains in the leg bones and both hands the epiphyses of the long bones enlarged and the legs became bowed; these sym ptoms gradually increased, and the patient was admitted into hospital on May 22nd. The muscles were well developed, and there was some doubtful evidence of congenital syphilis. The head was dolicocephalic, and showed no signs of enlargement in the frontal region. Dentition was complete and healthy. The articular heads of both clavicles were enlarged and on the left side. There was a marked dorsilumbar lordosis with curvature to the left; no angular deformity or tenderness of the spine. The thorax was cylindrical in shape; the ribs and pelvis were not deformed. Both humeral heads were enlarged, and the radial and ulnar epiphyses were also enlarged. Both femora were curved, with the convexity outwards; the diaphysis was normal, but the great trochanter and condyles were enlarged. Similar conditions existed in the tibia and fibula. In the upright position the distance between the two knees was 15 cm. Walking was difficult owing to pains, but sensation and reflexes were normal. The author discusses Paget's osteitis deformans, rickets, and osteomalacia, and finds it difficult to decide to which class the case belongs. On the whole, he is inclined to classify it as possibly a case of arrested osteomalacia. Antisyphilitic treatment gave no results, but a certain amount of improvement followed good feeding and tonic treatment.

MIDWIFERY AND DISEASES OF WOMEN.

(37) Grave Puerperal Infection: Successful Vaginal Hysterectomy.

Kufferath (*Bull. de la Soc. Belge de Gyn. et d'Obstét.*, vol. xiv, 1903-4, No. 2) reports a case where a woman was admitted into a maternity on November

th, 1902, undelivered after being in abour, near term, for several days. The raters had begun to escape nearly a reek before admission, the pains were trong and rapid, the breech presented. The patient showed marked symptoms f sepsis, pulse 130, temperature 105°, nd there was a very fetid vaginal dis-harge. The patient had been three imes pregnant before, and gestation rent to term twice, but ended in the eventh month on the third occasion. The left hip was ankylosed, but the elvis was normal. The child was de-ivered under chloroform; it was a male nd living, yet a quantity of fetid fluid scaped from the uterine cavity after its xtraction. One hour later it was found ecessary to detach the placenta manu-lly, considerable flooding ensued. ntiseptic intrauterine injections, swab-ing of the uterine walls with a concen-rated solution of carbolic acid and iodo-orm-gauze drainage were practised. uring the ensuing week the lochia be-ame more and more fetid, and rigors nd sweats occurred. As the uterus was vidently the focus of sepsis, vaginal ysterectomy was performed on Novem-er 11th. A rigor, followed by free per-piration, occurred half an hour later, ne temperature rising to 104°. Arti-cial serum was injected, a bedsore ormed on the buttocks, but the patient ecovered. The interior of the uterus owed no traces of placental relics, the ssues were sloughy. In this case the nfection had become well established efore delivery, its source remained un-iscovered. It was not true puerperal epticaemia, where the infective pro-ess repeats itself in organs beyond that herein it arose. It was putrid infec-on caused by germs which had no ablastic properties, but infiltrated the erus, whence their toxins and pto-aines were distributed through the cir-ulation. The necrosing uterus was re-oved, and the patient was cured, the at of infection being extirpated. Had e affection been true puerperal septic-mia, no local operation, from injections hysterectomy, could have saved the tient. The distinction between putrid fection and septicaemia is, therefore, ost important as regards treatment.

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(38) Suture of Ruptured Perineum.

MEDICAL man in Germany can be fined o marks (about £45) and sentenced to ree years' imprisonment, beside hav-g to pay compensation to the patient, r neglecting to suture a ruptured rineum. Dealing with an actual case which a medical man was charged th this neglect, Zweifel (*Deut. med. ochen.*, January 1st, 1903) puts the atter in a clear light. He does not gard the position of the general prac-ioner as being worse in this respect an that of any other man, since there no suggestion that he is responsible the rupture. He is, however, sponsible for the discovery of the pture, and for an attempt to rectify The defence in this form of case y rely on an opinion that ruptures capable of healing spontaneously. eifel says that he, at all events, has ver seen a ruptured perineum heal , that is the torn surfaces were never proximated in those cases in which healing was left to Nature. Dealing h ruptures of the third degree, he says that every one will have the same opinion that spontaneous repair is im-possible. Since the law will not allow for any lack of knowledge in a practi-tioner, this defence must fail in the court. The next possible defence is that exhaustion on the part of the practitioner, or severe flow of blood, which could occlude the view of the parts might hinder the suture, but this is no excuse for not suturing it the next day. Another excuse offered in this particular case was that the practitioner did not feel justified in giving an anaesthetic by himself, and he could not obtain the services of another practitioner. Zweifel points out that the injection of a 1 per cent. solution of cocaine will overcome the difficulty. The last defence offered was that an attempt to repair a rupture of the third degree would have been unsuccessful, and therefore he thought it wiser to advise the patient to have the repairing operation performed by a specialist after she had got over her lying-in. Zweifel thinks that there is good reason to advise primary suture, since this is much more likely to lead to good results than the second operation. He admits that it is frequently a failure on account of faulty methods, and to avoid this disappointment he gives a clear account of what he regards to be the best method of performing the opera-tion, and of conducting the after-treat-ment. This description is easily under-stood by glancing at the diagrams which he appends to his paper, and to which we must refer the reader.

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(39) Operation for Myoma of the Cervix.

GOTTSCHALK (*Deut. med. Woch.*, October 2nd, 1903) describes an operation for the removal of myoma of the cervix per vaginam, which he claims offers several advantages over other methods. Pure submucous myomata are mostly removed through the vagina, but the majority of surgeons are afraid of attacking large interstitial myo-mata, although they are easily reached through the vagina. The usual mode of procedure has proved to be very dangerous, as the cervix is always con-siderably damaged, and it is impossible to produce a satisfactory reposition of the whole uterus after this operation. The patients mostly die of sepsis. Gott-schalk has operated on a case by a new method, with complete success, and says that the dangers of the ordinary vaginal operation do not apply to his operation. The patient was 51 years of age, and complained of symptoms of pressure on the bladder, so that she could only pass a few drops of urine at a time, and of much bearing down. There was also irregular haemorrhage. On examination a large interstitial sub-mucous myoma of the cervix was found to fill the whole pelvis. The anterior cervical lip was represented by a very small ridge, which it was just possible to seize with forceps, but not to draw down. The vagina was therefore incised *in situ*, and the neck of the uterus was divided from the bladder and broad ligament. Next, the posterior wall of the vagina was separated from the rectum, and Douglas's pouch was pushed upwards but not opened. In the pos-terior portion of the tumour, which was thus exposed, an incision of about 2 in in length was made to the right and behind the external os in an oblique sagittal direction, through the neck of the uterus. In order to protect Douglas's pouch from being damaged, the posterior edge of the wound was provisionally sutured to the posterior edge of the vaginal wound. The tumour was then shelled out of the surrounding wall as far as possible by the finger, and a wedge-shaped piece cut out and re-moved. The rest of the tumour was then removed piecemeal, until the last segment, which was about the size of a fetal head, was removed, when con-siderable haemorrhage took place from the cavity of the uterus. Intrauterine packing with iodoform gauze soon arrested this. The sac in which the tumour had been situated, after the latter had been removed, lay inverted, hanging out of the wound in the neck of the uterus. This was pulled as far as possible out of the wound, and liga-tured above a clamp close to the uterus. It was then cut off between the clamp and the ligature, and after Gottschalk had satisfied himself by digital examination that the mucous lining of the cervix was in good apposi-tion and quite smooth, the vaginal vault was again closed, care being taken that the wound in the cervix was well covered. Packing behind the uterus acted as a counterpressure to the intra-uterine packing. The case did well. He claims for this operation that it is conservative, that it is comparatively free from danger, the ureters being secured against wounding, and severe bleeding being avoided, that the bed of the growth is very simply dealt with, and that the mucous membrane of the uterus is not touched. In this way the chances of sepsis are reduced to a minimum.

THERAPEUTICS.

(40) An Antituberculous Bacillus.

AT a meeting of the New Haven Medical Association held on December 16th, Stephen J. Maher read a paper on Some Investigations of Bacterial Treatment of Tuberculosis (New York *Med. Rec.*, December 26th, 1903). Six years ago he found that the last micro-organism to remain alive in some samples of milk from a tuberculous cow was a spo-rogenic, liquefying, facultative-anaërobic bacillus. Later he learned that this bacillus could be injected into animals without harming them, and was closely akin to, if not identical with, bacillus mycoides III (Conn.). He had injected pure live cultures of this bacillus into nearly one hundred patients suffering from pulmonary tuberculosis. He em-phasized the following points: (1) This bacillus can with safety be injected alive and in pure culture into the human system. (2) After its injection it remains alive in the human system often for weeks, and does no other harm than occasionally to cause slight suppuration. (3) After its injection it causes a variable febrile reaction which is never serious. (4) After its injection it has been found in the urine, blood, and sputa. (5) After its injection into the groins of persons suffering from tuberculosis there is often a subjective

sense of local reaction at the site of the tuberculous lesion. (6) After its injection into the connective tissue about a tuberculous fistula in ano a marked improvement, even to the closing of the fistula, was followed. (7) A cure of tuberculous otitis media in several instances followed a local injection of the cultures. (8) After its application on gauze or cotton packing to sinuses leading from carious bone supposedly tuberculous, such sinuses have healed with surprising promptness. (9) Its hypodermic injection into patients suffering from tuberculosis of the lungs has been followed in many cases by relief of such symptoms as cough, fever, night-sweating, wasting, anorexia, diarrhoea, and haemorrhage. (10) Its instillation into the open tuberculous pleural cavity has caused the drying up of a purulent discharge that was resistant to ordinary methods of treatment. (11) Its hypodermic injection into consumptive patients has in several demonstrable cases been followed by the apparent cure of the disease. (12) As a valuable scavenger of the tuberculous human system, this bacillus claims the interest of the medical profession for the further reasons that it grows in acid or alkaline media, that its product is alkaline, that it grows in the presence or absence of air, that it feeds only on dead matter, that it grows more quickly, and has more vitality than the ordinary pus-producing germs, and that its introduction into the human tissues is followed by a marked diminution of the number of pus-producing germs present in the body. (13) Some—as yet incomplete—investigations would seem to show that this bacillus is not without beneficial effect in other pathological conditions than tuberculosis. In conclusion Maher said that while he realized that many of his statements needed confirmation by other bacteriologists, and that it was probable that some of them would fail of such confirmation, still he had felt that it was time to invite his brother physicians to look at the vision that had been before his eyes for so long.

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(41) Eumydrin, a New Mydriatic.

Lindenmeyer (*Berl. klin. Woch.*, November 23rd, 1903) reports on a new mydriatic called eumydrin. It is a white odourless powder, which is readily soluble in water. It is obtained from atropine, and is supposed to be so constituted that while its action on the pupil is not lessened, its poisonous effect on the central nervous system is greatly lessened. It is said to be fifty times less poisonous than atropine. Lindenmeyer has used it in 1, 2, 5, and 10 per cent solutions, and applied in each case three drops of the solution chosen. One and 2 per cent. solutions cause dilatation of the pupil after ten to twenty-five minutes, after a further twenty to fifty minutes, the dilatation reaches its maximum, and after remaining in this condition for about twelve hours, the pupil slowly returns to its normal size again. A little later than the mydriasis a paralysis of the muscles of accommodation is noticed. In the majority of cases this becomes complete after the course of from two to three hours. The duration of this paralysis varies very markedly according to the age of the patient and to other factors; 5 and 10 per cent. solutions produce the dilatation of the pupil after from eight to fifteen minutes. The maximal dilatation is reached after from twenty to thirty minutes, and the size of the pupil becomes again normal after from three to five days in the case of the 5 per cent. solution, and after from four to seven days in the case of the 10 per cent. solution. The accommodation paralysis is complete in every case with both strengths. In nearly all the cases the paralysis of accommodation cleared up at the same time or before the mydriasis. In no case did he see any toxic symptoms. In normal eyes he found that the weaker solutions took a midway position between 1 per cent. homatropine and atropine, while the stronger solutions were nearly as active as atropine and the paralysis of accommodation did not last so long as with the last named. He then tested it in pathological cases, and employed the weaker solutions in irritative conditions, such as phlyctenular affections, foreign bodies in the cornea, etc. In this class of case homatropine produces too short a dilatation, while atropine produces an unnecessarily long-continued action. The solutions were highly satisfactory. With the stronger solutions he was able to break down adhesions (synechiae) in iritis, and when it failed he found that atropine also was incapable of doing better. He found it useful in both acute and chronic iritis cases. He does not think that eumydrin should be used instead of homatropine for dilating the pupil for diagnostic purposes, for he considers the production of a paralysis of accommodation lasting two or three days unjustifiable. In no case did the preparation produce any ill-effects, and the patients only occasionally complained of a slight burning sensation after the drops had been applied.

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(42) Therapeutic Massage.

Carlo Colombo (*Gazz. Med. Italiana*, December 17th, 1903) gives an account of numerous experiments on the effect of massage, and deduces from them the following conclusions: (1) After massage of the muscles there is always a rise of blood pressure, which is greater or less according to the greater or less extent of the body surface to which the massage has been applied (except when the abdominal surface has been massaged). (2) The increase of pressure is found in all energetic forms of massage of the muscles, varying in degree according to the method employed: With deep friction, from 65 mm. to 100 mm. of mercury; with kneading, from 63 mm. to 105 mm. of mercury; with percussion, from 65 mm. to 115 mm. of mercury. After percussion the increase of blood pressure reaches the highest point, but the subsequent change from this high pressure to normal limits comes more quickly after percussion than after deep friction or kneading. (3) Light and gentle massage in the form of stroking and vibrations provokes a very slight increase of blood pressure, sometimes almost imperceptible. This is more noticeable in massage of the muscles of the limbs and back than in abdominal massage. (4) Mixed massage of the muscles of the limbs and of the back followed energetically with all the manipulations (deep friction, kneading, and percussion), produces a rise of blood pressure (from 64 mm. to 100 mm. of mercury) which lasts for a considerably longer time than that caused by any one of the methods used separately. This elevation does not reach beyond that caused by percussion alone. (5) Energetic massage of the abdomen always causes a distinct lowering of the blood pressure (from 65 mm. to 50 mm. of mercury) whatever form of massage is employed. (6) The effects of mixed general massage, extended over the whole surface of the body (limbs, back, thorax, and abdomen) and applied energetically with all the massotherapeutic manipulations (deep friction, kneading, stroking and percussion) are complex and vary according to whether the massage of the abdomen precedes or follows that of the muscles of other regions. In both cases there is a moderate rise of blood pressure (from 60 mm. to 85 mm. or 95 mm. of mercury) which returns gradually to normal limits in the first case, and in the second case falls suddenly (to 75 mm. of mercury) before becoming normal. (7) The pulse, the respiration, and the rectal temperature follow in every case an opposite course, but with an intensity proportional to that of blood pressure. The more the blood pressure rises the more the pulse frequency, the rate of respiration, and the rectal temperature diminish and vice versa. There is, however, an exception to this rule in the case of gentle massage (stroking and vibrations) to whatever part is is applied, whether to the abdomen or to the muscles. In this case there is an increase of pulse-frequency, of respiration-rate, and of rectal temperature, although the blood pressure is raised.

PATHOLOGY.

(43) Pathology of Gout.

In the *Zeit. f. phys. Chemie.* for December, 1903, three papers are devoted to the study of gout. The first by Pfeil, records a number of observations on the excretion of uric acid on various diets in normal individuals, and in the two subsequent papers Soetbeer compares with these normal figures those which he obtained from the study of gouty patients. It is known that the administration of nucleic acid, which usually is followed by an increased secretion of uric acid, does not produce the same effect in the gouty. In agreement with this, Soetbeer found that during an acute attack feeding with flesh was followed by no rise of uric acid in the urine. In chronic gout, at a time when there were no attacks, the addition of meat to the diet was followed by the usual rise in uric acid, but the excretion of that substance was irregular. Analyses of the total acids and bases in the urine were made; the ammonia and the potassium were found to be diminished in quantity; a comparison of the total acid and the total bases in one gouty and two healthy individuals showed also the higher acidity of the gouty urine.

AN EPITOME
OF
URRENT MEDICAL LITERATURE.

MEDICINE.

Tuberculin as a Means of Diagnosis.
MMER (*Beit. f. Klin. der Tuberk.*, Band Heft 4) has during the last two years ployed tuberculin in the out-patient partment for purposes of diagnosis. ch patient is instructed how to take l register his own temperature. This done four times a day, the injection being made until the temperature been normal for eight days. The ctions are made with antiseptic pre- tions in the suprascapular or inter- pular regions, not oftener than twice week. The doses administered are, rule, those recommended by Beck— nely, 1 mg., 5 mg., and 10 mg. succes- ly, the last dose being repeated if essary. When Hammer first began treatment doses of 1 mg., 3 mg., g., and 10 mg. successively were e generally given, and the same rse is still followed when the general dition points to the likelihood of a ere reaction. Where Beck's doses e used it was found that an average hree doses per patient was needed, le 3.2 doses were needed with the der method. Since the latter method used where a severe reaction was ected, it seems probable that with llel cases Beck's method calls for dedly fewer injections than the r. With the milder method the ght of reaction is more slowly ined, and there is probably some- t less risk of serious symptoms. As as the injections are begun the perature is taken six times a day ead of four, the patients are told to o bed as soon as the reaction sets nd, if necessary, to call in a district or. They are provided with suit- bottles for the collection of sputum, der that the effect of the tuberculin he sputum may be traced. The re- of treatment of 180 cases are given. 64, that is, 91 per cent., the result positive, and in 16 cases, that is, per cent., negative or doubtful. hundred and thirty of the cases in the first stage of phthisis, 8 in second, and 1 in the third. In 41 ocal signs were present, except that was occasionally deficient mobility ne side of the chest, but the general lition led to the suspicion of isis. Of the 16 negative or doubt- ases 7 showed no rise of tempera- . One of these had been treated a before by tuberculin as a curative sure, and the absence of reaction, bined with an absence of perceptible ge in the local condition, led to the lusion that there was no active rculous mischief. The remaining 9 s showed a transitory rise of tem- ture up to 99.7° F., occurring usually he day of the injection. They red also from night sweats, loss of tite, headache, and in one case general weakness. Subsequent tions produced no further reaction. cases might be kept under observa- to see whether phthisis developed, or to make further injections after an interval. The typical reaction was ushered in by a rigor, and a feeling of intense heat accompanied by sweating. There was loss of appetite, *malaise*, intense headache, and often dizziness. Pains in the back and limbs sometimes suggested an attack of influenza. The patient's appearance was often that of a severe illness. The sleep was usually disturbed, there was some excitement, and in one case there was delirium at the height of the fever. Nausea was frequent; actual vomiting rare. There was pain in the abdomen with or without diarrhoea; an enlargement of the spleen could occasionally be detected, and in one case enlargement of the liver. The urinary system was, as a rule, unaffected, but pain on urination and polyuria were sometimes found, and febrile albuminuria was not uncommon. Tachycardia and irregularity of the pulse, with palpitations and occasionally angina-like pain were the most serious cardiac symptoms. A cough was often present during the reaction, seldom needing treatment, and disappearing with the fever. An already existing cough was not, as a rule, aggravated. The sputum if changed in character, became more fluid and serous, or thicker and more purulent, and it was occasionally blood-stained. In one case bacilli were demonstrated in the sputum after injection where they had been absent before. The following objective signs were among those detected in the lung in the different cases: The appearance of rhonchi, their constant instead of occasional presence, change in the character of the rhonchi, and the appearance of prolonged instead of normal expiration. Two deaths occurred in the 180 cases. In one case the patient had an attack of typhoid three weeks after the injection, and after his recovery developed a general miliary tuberculosis of lung. In the second the tuberculin as a cause of death could be positively excluded. Although there were in the 180 cases no complications such as to detract seriously from the value of tuberculin as a means of diagnosis, the number of cases was small, and it is well to study also the serious complications recorded by other authors. Among these may be mentioned the aggravation of an already existing nephritis, cardiac weakness resulting in death in three cases, dyspnoea especially severe in lupus or laryngeal tuberculosis, and in one case necessitating tracheotomy, the onset in one case of fever and haemoptysis, fresh infiltration of large parts of the lung and gangrene at the site of injection. These serious complications are only found, however, in cases where the phthisis is at an advanced stage at the time of the injection, and especially where in addition there is tuberculosis of some other organ. They demonstrate the extreme care which should be employed in the selection of cases, and are not any contraindication to the treatment when properly carried out. The value of the treatment has been already recognized in the case of animals, where the correctness of the results can be afterwards tested on *post-mortem* sections. The value of so exact a method of early diagnosis cannot be exaggerated, especially at the present time, when advanced cases are rejected by sanatoria. Yet the subject is one which still requires more investigation; and it is conceivable that the risks of the method may finally prove too great and lead to its rejection.

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(45) Acute Primary Pyelitis in Infants.
M. HARTWIG (*Berl. klin. Woch.*, November 20th, 1903) deals with a condition which he considers may not be very rare. The difficulty in securing the urine in infants is probably the reason why this condition has not attracted attention until now. He finds that acute primary pyelitis is more like typhoid clinically than anything else. At first the temperature rises and no other sign is present. The spleen cannot be definitely made out to be enlarged, Widal's test is negative, and there are no physical signs in the lungs. The diagnosis of meningitis may be thought of, but the want of other symptoms soon puts this out of court. If the urine is then examined it is found to be turbid, full of bacteria and pus cells; there are no casts, and the amount of albumen corresponds to the amount of pus. The treatment appears to be a thorough cleaning of the genitals, and urotropine and turpentine. Hartwig suggests that symptomatic antipyresis and sodium bromide may assist in warding off eclamptic symptoms. He makes a special point of the separation of these cases from those of secondary pyelitis, dependent on pyaemia, vulvovaginitis, and says that if one will only take the opportunity of examining the urine in cases of infants who have febrile disturbances, insufficient to explain the cause of the fever, it will soon be found that primary pyelitis is by no means rare.

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(46) Mitral Pseudo-Insufficiency.
FERRANNINI (*Clin. Mod.*, August, No. 39) under this title describes certain physical signs and clinical conditions met with in cardiopaths, resembling in many respects those of true mitral insufficiency, but not associated with this condition pathologically. He gives details of some illustrative cases. Just as in true mitral insufficiency an apex murmur systolic in time, and with its maximum intensity at the apex, signs of pulmonary stasis and lowered blood pressure in the arteries may exist, but the lesions actually present vary from slight mitral stenosis, with thickening of the mitral valve (but no insufficiency) to stenosis of the pulmonary veins or ectasia of the first part of the aorta, or again, chronic arterio-sclerotic myocarditis, with pericardial thickening and compression of the coronary artery, aneurysm of the pulmonary artery, or lastly, transitory functional insufficiency. In doubtful cases, if the systolic murmur is heard along the paravertebral line in the posterior cardiac area (fourth to eighth dorsal vertebra) we have to do with a true mitral insufficiency or aneurysm of the descending thoracic aorta. In other cases the presence of a clanging first sound is of assistance, this being against the presence of mitral insufficiency. Variability in appearance, left-sided ventricular dilatation, with ptosis of the left note of ascending aorta and vertical cardiac distopia are also in favour of pseudo-insufficiency. Neither the

presence of right-sided ventricular dilatation nor reduplication of the second pulmonary sound is a certain sign of mitral insufficiency whether organic or not.

SURGERY.

(47) Surgery of the Biliary Passages.

Salvatore Salinari (*Bull. del. Scien. Med.* for September, October, and November, 1903) discusses the surgery of the biliary passages, finishing with a confessedly incomplete bibliography containing references to more than 300 papers on the subject. For calculous obstruction of the hepatic duct he recommends the digital fragmentation of the calculus whenever possible, if the fingers can be got beyond the stone so that the operator may be sure that he is not pushing it back towards the liver. Where calculi are embedded in the liver itself it is impossible to give any rules for operation. The difficulty of the cases depends partly on the difficulty of diagnosis before exploration and partly on the fact that the separate cases differ much from one another. For cicatricial obliteration of the ductus choledochus the best operation is cholecystenterostomy, but if any special condition of the gall bladder makes this impossible it may be necessary to excise the obliterated part and join the two ends or to make a biliary fistula. Cholecystenterostomy is both a long and a delicate operation. If possible the gall bladder should be united to the duodenum; if that be impossible the colon at any rate should be avoided. When the operation has to be performed quickly, Murphy's or some similar button should be used. When the patient can stand a rather longer operation the author prefers suture by Colzi's method. With regard to the acute dilatation of the stomach sometimes met with after such operations he states that the proper treatment is preventive, hygienic, and dietetic, but that when the condition is established the abdomen should on no account be opened again and the treatment should be purely expectant. A second attack of gall stones, after the gall bladder and ducts have been thoroughly cleared, is very uncommon, the cases which are supposed to be of this nature usually proving to arise either from some complication of the operation or from some cause altogether unconnected with the biliary passages. There is therefore no sufficient reason for removing the gall bladder as a matter of routine, but since the possibility of a relapse cannot be denied, it is worth while for the patient after recovering from the operation to undergo a prolonged course of prophylaxis. The treatment of cancer of the gall bladder is purely surgical. The whole of the gall bladder should be removed. If the liver also be affected by the new growth, as is very likely to be the case by the time a new growth is diagnosed, the resection of a part of the liver adds very greatly to the difficulties of the operation and is impossible when the patient is much debilitated. Haemorrhage after a comparatively slight operation of this kind may sometimes be stopped by touching with the thermocautery, at other times the vessels need to be tied, or the wound to be plugged with tampons of iodoform gauze. The excision of the neighbouring lymphatic glands is attended with great danger to the vena porta, the hepatic duct, and the ductus choledochus, and has seldom been attempted. If the growth be too extensive for removal, or too adherent to the neighbouring parts, cholecystostomy is generally indicated, and extension of the growth to the pylorus may make it necessary to perform gastro-enterostomy at the same time. In a strictly limited cancer of the hepatic duct it might be possible to excise the growth and fix the stump in the small intestine, but it has not yet been successfully accomplished. A cancer limited to the ductus choledochus might conceivably be removed and the extremities of the divided duct reunited. When this is impossible the next best course is to tie both ends and make use of the gall bladder by performing a cholecystenterostomy. Usually the tumour involves the insertion of the choledochus in the small intestine, and cannot be completely removed. Palliation may then be attempted by making a communication between the small intestine on the one hand and the gall bladder, the hepatic duct, or the ductus choledochus on the other. The bile ducts are sometimes compressed by tumours of the head of the pancreas. There is then sometimes the opportunity of choosing between cholecystenterostomy and cholecystostomy. The former operation is the better, having in several cases been followed by a prolongation of life for from five to fourteen months, besides being attended by less immediate danger to life; but it takes longer to perform, and can hardly be done if the patient be much debilitated. The author recommends that all operations of this sort should be sparingly performed in cases of malignant disease, since the best success is the prolongation of an existence worse than death, and death after operation is likely to be attributed to the operation rather than to the disease. For primary infections of the biliary passages the author recommends cholecystostomy. In suppuration round the gall bladder the abscess cavity should be opened, and the gall bladder, if inflamed, should be opened, washed out, and fixed. If the removal of the gall bladder be necessary, it should be performed after the subsidence of the acute symptoms. Chronic abscesses of the gall bladder, the result of advanced tuberculosis, should not be interfered with, but acute abscesses may be opened when the gall bladder is found or made adherent to the abdominal wall; and if the affection be limited to the gall bladder, that may be excised. The best treatment for a wound of the gall bladder is the removal of the organ, though there are at least two cases reported in which it has been successfully fixed to the abdominal wall. The cystic duct, if wounded, should be ligatured and the gall bladder should then be excised. Wounds of the hepatic duct are particularly serious. The only possible immediate treatment is drainage while protective adhesions are forming in the abdominal cavity. Partial section of the ductus choledochus may be treated by suture. It is best to insert also a drain of sterilized gauze. A safer procedure is to tie the two extremities of the duct and perform cholecystentero-ostomy. Intervention in wounds of the biliary passages may also take the form of removing collections of bile from the abdominal cavity. This has been known to cure, but such a result can hardly be expected.

(48) Treatment of the Stump in Appendectomy.

Riedel (*Zentralbl. f. Chir.*, No. 51, 190[illegible] holds that the usual method of dealing with the stump after removal of a diseased appendix, by stitching over it a dissected cuff of periosteum, is very questionable practice. If the sutures remain in place the apposed serous surfaces very soon adhere together, and the end of the stump is enclosed within the cavity of the caecum, where it can do very little if any harm. On the other hand, however, if the serous and muscular coats of the caecum be soft in consequence of inflammatory infiltration, the stitches may be detached and the stump exposed on the free surface of the intestine. If the ligature also be detached a free communication is thus established between the interior of the intestine and the general peritoneal cavity. Efficient drainage of the wound might protect the patient against a fatal result of such accident, but a faecal fistula is likely to occur. A description is given of the method of covering the stump of the appendix that has been practised in the author's clinic at Jena in both acute cases and in "interval" operations, with, it is held, very satisfactory results. This method, which seems to differ but slightly from other modifications that have elsewhere been practised, is intended to combine the advantage of dispensing with a ligature around the buried or inverted stump, and that of preventing during this final stage of appendectomy any discharge over the seat of operation of the faecal contents of the large intestine. The appendix, after it has been detached from its mesentery, is constricted near its attachment to the caecum by a temporary ligature of catgut and afterwards divided midway between this ligature and a second one applied about $\frac{1}{2}$ in. on the distal side. The extremity of the stump is now deprived of its mucous lining, and the opposed margins of the serous and muscular coats are brought together by three interrupted sutures. The catgut ligature around the base of the stump is cut away, and the stump after it has been inverted into the caecal cavity is now completely buried by two rows of sutures, the first of silk the second of catgut, including the serous and muscular coats of the caecum.

MIDWIFERY AND DISEASES OF WOMEN.

(49) Errors of Diagnosis in regard to Extrauterine Pregnancy.

A. Sittner (*Deut. med. Woch.*, October 8th, 15th, and 22nd, 1903) discusses the difficulties and common errors of diagnosis in connexion with extrauterine pregnancy, pointing out that although there is a typical clinical picture of this condition, one not infrequently meets with cases which offer many

possibilities of mistake. First, he finds that in the early months of ectopian gestation the signs may be so masked that the fetal sac lying near the uterus may be mistaken for a simple tumour of the uterine appendages. When the usual signs of pregnancy are present the body of the uterus may be enlarged and the diagnosis be made of normal pregnancy complicated with tumour of the appendages; or, if the fetal sac lies close behind the uterus in Douglas's pouch, it will be mistaken for a retroflexed gravid uterus. Conversely, a retroflexed or laterally-flexed gravid uterus may be mistaken for an extrauterine pregnancy, or even, in the absence of a pregnancy, a tumour of the appendages, leading to enlargement of the uterus and metrorrhagia, which are so often associated with ectopic gestation, may give rise to the same diagnostic error. In the second half of pregnancy the signs of pregnancy are unmistakable, but even then the extrauterine position of the fetal sac may be overlooked when it lies close to the body of the uterus, or when in a normal pregnancy the uterine wall is very thin the fetal parts may be so plainly felt that the condition is taken for an ectopic gestation with the fetus lying free in the abdominal cavity, or when the thinning of part of the wall leads to a lateral touching of the body of the uterus, this may be regarded as the ectopic fetal sac. In forming a diagnosis the symptom of shedding the decidua must be borne in mind, but unfortunately this only occurs in a very small proportion of cases, and when it does the diagnosis is already clear in a certain number. Even if the decidua be obtained for examination by curetting, one is not protected from a wrong diagnosis. Anomalies of uterine bleeding are also another important sign, but cannot always be relied on. Dealing with cases in which the ectopic gestation is overlooked, Sittner says that the most common erroneous diagnosis made is complete abortion. In this case there has been a missing of one or more menstrual periods; then there has been irregular haemorrhage and passing of shreds of decidua. There are colicky pains, the uterus is found on examination to be enlarged and the os patulous, and above it are felt loose shreds of membranous substance. The danger of such a mistake lies in the probability of the practitioner undertaking a curetting, and thereby rupturing the sac. The next most common error is diagnosing an early ectopic gestation as an attack of perityphlitis. This error is extremely common, and at times a correct diagnosis is almost impossible. Gall-stone colic may also be diagnosed in error, and it must be borne in mind that beside the possibility of the pains in ectopic gestation being very much like those of this condition, both in situation and character, there may be jaundice in the extrauterine pregnancy, due either general circulatory difficulties or by intraperitoneal haemorrhage lowering the portal tension, and causing a suction of bile into this portion of the circulation. Inflamed or non-inflamed tumours of the appendages of the uterus may also be diagnosed instead of extrauterine gestation, and ovarian cysts, pyosalpinx, myoma, parametric exudation, haematocele, and other conditions have been diagnosed by eminent observers and extrauterine pregnancy found at the operation. Sittner deals at some length with the mistakes made in mistaking the condition under consideration for a pregnant uterus, and emphasizes the dangers of rupture of the sac in attempting to replace a supposed retroflexion. In the second class of mistakes an ectopic gestation may be diagnosed when another condition is present. It is possible that this diagnosis might be made after rupture of the pregnant uterus and escape of the fetus into the abdominal cavity. Such cases have been reported, and in one case, after an abortion, a chorionic epithelioma destroyed the uterine wall and escaped free into the abdominal cavity. In these cases the collapse and signs of internal haemorrhages can easily simulate a rupture of an extrauterine pregnancy. He explains how it comes about that tumours and other affections of the uterine appendages have led to mistaken diagnoses of extrauterine pregnancy, and mentions especially salpingitis haemorrhagica and retrouterine haematocele, as favourable for this mistake. Lastly, he mentions the mistake of diagnosing an extrauterine pregnancy when there is a normal pregnancy. This may be caused by a thinning of the uterine wall, as has been already mentioned, in response to excessive physiological pregnancy, softening of tissues, or in response to pathological processes, as metritis, perimetritis, degeneration of the myometrium, etc. Such cases have been operated on, and only after the abdomen has been opened has the true condition of things been recognized. One must bear in mind that the thinning of the wall may be complete or may be partial, in which latter case palpation may lead to the belief that the pouch-like portion of the uterus is a fetal sac outside the uterus. Malformations of the uterus also can lead to the same result. Having dealt with the mistakes not uncommonly made, he recites a very instructive case in which no less than eight mistakes in diagnosis were made one after the other. (For details of this case we must refer the reader to the original paper.) He points out that one will avoid some of the mistakes by bearing in mind the possibility of such mistakes being made, and that it is important that one should know which conditions may be confounded with ectopic gestation.

(50) Twisted Pedicle of Spleen (?) in Pelvis.

POZZI (*Rev. de Gynéc. et de Chir. Abd.*, September-October, 1903) received recently into his wards a young woman with a pelvic tumour which was diagnosed as intra-ligamentary, though whether a cyst or a fibroma was not clear, since palpation was apparently difficult. An operation was undertaken, and then a tumour of the size of a fetal head was detected between the uterus and bladder. It was oblong, tuberous, and very dark; above it was covered with the great omentum which formed for it a kind of pedicle bearing engorged veins. Extirpation was easy. On examination a large infarct was detected in the interior of the tumour, which showed none of the appearances seen in tumours of pelvic origin. The tissues were very degenerate, and though much trabecular structure recalling what is seen in the spleen was detected, not a trace of a Malpighian corpuscle was to be found. Pozzi considers that as the patient was at Jaffa when a child and had malarial fever, followed by enormous enlargement of the spleen, the tumour which he removed was undoubtedly splenic. It had twisted, atrophied, and become adherent by inflammatory bands to pelvic structures. Pozzi could only find 17 analogous cases reported. Delbet, in discussion, stated that he once operated for what seemed to be salpingitis on the right side. The swelling proved to be a contracted kidney which had burrowed between the layers of the broad ligament. Lejars was well aware that all kinds of errors of diagnosis were possible in cases of displaced and axially rotated spleens. Chronic torsion of the splenic pedicle was quite a different complication from acute torsion. He once operated to remove a tumour which seemed to be a new growth in the omentum or mesentery, but when exposed it was found to be a very hard deformed spleen invested with omentum and intestine; its pedicle was twisted twice. Routier suggested that in Pozzi's case the spleen had separated after torsion of its pedicle, for malarial spleens are usually very friable.

THERAPEUTICS.

(51) Dietetic Bromide Treatment of Epilepsy.

IN 1889 Richet and Toulouse introduced a method of treating epilepsy by limiting the amount of chlorides in the diet and thus giving the bromides a better chance of acting. The diet suggested consisted of 1 litre of milk, 300 grams of beef, 300 grams of potatoes, 200 grams of flour, 5 eggs, 100 grams of coffee, and 40 grams of butter, all prepared without the addition of salt. It has been estimated that such a diet supplies the patient with not more than 2 grams of NaCl pro die. Since this time the diet has been modified by various clinicians, but the point of the whole question lies in the value of hypochlorizing, that is, reduction of chlorides to a minimum. R. Meyer has made some observations in Jolly's clinic and publishes his results in the *Berl. klin. Woch.*, November 16th, 1903. He submitted four patients to a test treatment. Three of these were observed for two, three, and five months respectively. In each of these cases the diet consisted of cocoa or coffee, made with water, 2 litres, milk 3 litres, bromopan (that is, bread made with bromide of sodium instead of common salt), 3 eggs, and fruit. The bromopan contained 1 gram of NaBr per 150 grams of bread, and each patient received 450 grams, that is, 3 grams of bromide of sodium pro die. The effect on the three patients was a good one; the attacks became weaker and less frequent, but in two cases the number of attacks was increased at first. After from three to ten days the improvement was

marked. In the fourth case Meyer kept the patient under observation for twelve months (with an interruption of fourteen days). The tests were carried out in five periods as follows: First period: Four weeks of bromopan diet. The attacks were frequent during the first ten days, but during the next twenty-one days no fits occurred. During the last six days only 1.5 gram of NaBr was given each day, and then this was stopped. In the course of a few days the old type of attacks again returned. Second period: Ordinary diet with NaBr, starting with 3 grams, gradually increasing to 8 grams, then diminishing to 3 grams, and lastly ceasing (seven to eight weeks). When 8 grams of bromide were reached the attacks ceased for twenty days, but returned and became frequent as soon as 3 grams were again reached, and when the bromide was stopped there was an increased number of strong fits. Towards the end of this period the type of the epilepsy changed—free intervals of from three to eight days, and then one to three fits in one day. Third period: Six weeks with ordinary diet and Poehl's opocerebrin. Not the least change took place in this period. Fourth period: Bromopan and 3 grams NaBr pro die for eight weeks. The diet was adhered to for two and three-quarter months. After fourteen days, during which time the fits took place as before, no more took place for two and a-half months. The first ten days after the end of this period no fits took place, then six very slight ones on one day. The patient then spent a fortnight at home, and returned with the epilepsy again in full swing. Fifth period: Five weeks without medicament; the bromopan treatment, which had been suggested had to be discontinued as the patient wanted to return home. On the whole the fits took place less frequently than before the beginning of the treatment, and the mind was in general clearer. After two and a-half months the patient was suddenly taken in a state of stupor, and admitted in this condition into hospital. Meyer points out that one must be particularly careful that the patients eat the diet prescribed. Any loss of weight will be found to be due to the abstaining from food rather than from the want of chlorides, for the bromopan diet is trying for the patient. All 4 patients actually gained in weight during the test. Acne appeared quickly and became general, and in one there were signs of marked intoxication. Both, however, disappeared gradually when the treatment was stopped. Meyer points out that the chief effect of the treatment lies in the withdrawal of the chlorides and substituting bromides. At the end of each period it will be found necessary to be careful not to stop the bromide or begin the chloride too suddenly. He suggests some methods of doing this. In conclusion, he believes that the dietetic bromide treatment may be useful in combating epilepsy, and recommends a trial to the general practitioner.

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(52) The Albumen Diet-Cure.

KAUFMANN (*Zeitschr. f. Diät. u. Physik. Therap.*, November 1st, 1903) has made a large number of experiments upon the excreta of patients treated on Weir-Mitchell's system and fed on greater or less quantities of proteids. He holds that the present state of our knowledge does not admit us to give a definite answer as to the optimum amount of proteids which should be given in a diet-cure; the probability is that this amount will vary with different circumstances and for different patients. In one class of cases in which an increase in the body fat would be harmful, but an improvement in the proteid content is desirable, it would be a mistake to attempt to improve this by increasing the carbohydrates and fats in the food; it is much better to augment the nutritive proteid according to the method of Bornstein. On the other hand, in cases where the subject requires fattening, it is advisable to give the other proximate principles as well, if the proteid content is to be assisted. The two methods will obviously have exactly the opposite indications, and it is to decide what these are that further research is so necessary Bornstein has drawn a somewhat doleful picture of the unhappy subject of the Weir-Mitchell treatment, isolated, with nothing to think of but his ailments, and gradually approaching the condition of an animal being crammed for market. Kaufmann, however, would not restrict the application of the treatment to so great an extent as Bornstein has suggested. He does not deny that the severity of the method was formerly apt to be too great; he does not think that it need always be carried out with the utmost rigour, but prefers, in mild cases, to allow the patient to be out of bed most of the day, and even to permit him a little walking exercise. Patients also need not, in his opinion, be deprived of their freedom or isolated with absolute strictness. He believes that exercise is indeed of some value as helping in the absorption of proteid when taken together with large quantities of fat. By this method he claims that, almost without exception, 10 lb. to 15 lb. weight may be gained without detriment, and his investigations upon chloride metabolism convince him that at the same time the proteid content of the patient is favourably influenced. He concludes therefore that a carefully conducted diet-cure is, nowadays, in a better established condition than ever.

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(53) Chrysarobin in Ringworm.

HODARA (*Journ. des Mal. Cut. et Syph.*, August, 1903) uses a solution of equal parts chloroform and glycerine, containing 5 to 10 per cent. chrysarobin. After shaving the hair this is applied to the patches daily; if the case is disseminated the whole scalp is treated. The lotion is applied till erythema and slight oedema are produced. All traces of chrysarobin are thus removed, and the treatment omitted till the irritation has subsided. The head is then washed with soap, and the application renewed. This is continued till a cure takes place, usually in four or five months. The scalp is covered with a light woollen cap. The author continues treatment for a month after apparent cure to prevent relapse. The histological changes are oedema of the epidermis, the upper layers of which become desquamating and parakeratotic. These lamellae contain the trichophyton, and are thrown off, being replaced by a new stratum corneum containing no parasite. At the follicular orifices a similar oedema and desquamation take place in the root sheath, and the lamellae accumulate at the follicular orifices, and surround the débris in the follicles of the old trichophytous hairs, and thus eliminate the parasite.

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(54) Pneumonia Treated by Calomel.

BERTAZZOLI (*Gazz. degli Osped.*, November 15th, 1903) reports 6 cases of pneumonia successfully treated by free doses of calomel. The author adds scammony to the calomel, and as the result of some years' experience believes this method of treating pneumonia to be worthy of imitation. By this means, he says, he reduces fever, cerebral congestion, and delirium, and helps the system to get rid of the poisonous products of disease, and checks the phenomena of absorption. In other words, by its diuretic, vaso-motorial, disinfecting, and purgative action, calomel may be looked upon as one of the most active and most efficacious remedies in the treatment of pneumonia.

PATHOLOGY.

(55) Malignant Uterine Fibroid.

ULESKO-STROGANOWA (*Monats. f. Geb. u. Gyn.*, September, 1903) has had opportunities of examining no less than 12 cases of malignant fibroid or leiomyoma malignum uteri; in two of this series she was able to examine sections, but not the tumours themselves. She claims to have distinguished two forms of malignant fibroid, the first being practically sarcoma, though the muscle cells undergo changes; this form, "myoma malignum," is very malignant. In 5 cases the character of the tumour was proved by metastases and by recurrence. (1) Removal of ovaries for checking the growth of a fibroid; later on, supravaginal hysterectomy, and four months later a mass reached to above the umbilicus and downwards to the posterior fornix, and death occurred within two months. Sarcoma of the abdomen and metastases in the omentum and lungs were discovered. (2) A metastatic growth was noted in one round ligament when the uterus was removed entire for malignant myoma; recovery, but no further history. (3) Panhysterectomy, very rapid recurrence, death three months later. (4) Panhysterectomy, a few distinct growths were noted in both round ligaments. A large tumour developed, and the patient died within six months. (5) Panhysterectomy, some sarcomatous bodies were detected in the posterior part of the inner wall of the uterus near the fundus. Shortly after convalescence the patient died with symptoms attributed to metastases in the right lung. Ulesko-Stroganowa distinguishes a second form where structures with the characters of young plain-muscle cells make up the tumour; this form is leiomyoma malignum proper. It is a little less malignant than myoma malignum. These malignant changes are most frequent in pure myomata, rarer in fibro-myomata.

AN EPITOME

OF

CURRENT MEDICAL LITERATURE.

MEDICINE.

(56) Inhalation of Lime Dust and Tuberculosis.

ORKMEN suffering from tuberculosis th bacilli in their sputum were said have recovered after some months' ıployment with burned lime, or have considerably improved. This s reported from Ovenstaedt, and on quiry from other lime works it was ıted that there had been no cases of berculosis among the workmen. The ne report was received from the ınagers of a certain plaster-of-paris rk, where no consumption had been own of during seventeen years. That ıe and plaster-of-paris dust are less rmful than other forms of dust has ıg been recognized, and some servers have gone as far as to con-.er that the workers in lime dust quire an immunity against pulmonary berculosis. In order to form an nion as to the effect of lime dust on tuberculous process in the lungs, Reckzeh (*Berl. klin. Woch.*, Novem- 9th, 1903) treated 8 cases of phthisis inhalations of this dust. He gives physical signs and past history of h case briefly. These cases include ld affections of one apex as well as erer cases, and even the worst cases destructive processes of both lungs. e lime was freshly baked and very ly divided, and the inhalations were ried out by enclosing the dust in en bags, hung up close to the patient, l made to pervade the air freely by ping of the bags. The inhalations e continued at first for five minutes e a day, but later they were given re frequently and for longer periods, ween the meals, so that disturbance ppetite might be avoided. The eyes . ears were protected during the in-ations. Before he subjected his pa-nts to this treatment, Reckzeh con-ced himself by experiment on him-and on a colleague that the dust did produce any unpleasant effects ond a slight burning in the throat . stimulation to coughing. In no were either the physical signs or body weight or temperature influ-ed by the inhalations. He finds that re is not the least ground for sup-ing that any effect is produced on tuberculous process by the lime t, but believes that the reason why loes not act harmfully on the lung ue is mechanical. One has only to pare the magnified appearance of dust with granite dust to under-nd how the latter can damage the gs, and not the former. In his cases kept an accurate count of the num-of bacilli in each field of the sputum parations which were made daily, failed to find any diminution. rly all the patients complained of unpleasant effects of the inhala-s, which consisted in increase of gh, headache—which was at times severe—loss of appetite and nausea, le in one case there was considerable vomiting. He is, therefore, forced to come to the conclusion that further experiments with lime-dust inhalation as a method of treatment for phthisis are not needed to show that it is of no use, and is mostly accompanied with unpleasant and undesirable symptoms.

(57) The Appendix and Lead Poisoning.

TENDERNESS over McBurney's point may occur in other conditions than appendicitis, for instance, in spastic constipation, and, as the ureter is in this position accessible to palpation, in renal colic. J. Donath (*Wien. klin. Runds.*, October 25th, 1903) has frequently observed it in lead colic. (1) The colic may be limited entirely to the ileo-caecal region or be most intense over the appendix. McBurney's point is exceedingly tender. Usually the attack begins in this way, and later becomes generalized over the abdomen; but in slight cases the initial localization may persist to the end. Some believe that the symptoms are due to a combination of appendicitis and lead poisoning, but this view is improbable in the absence of dullness, resistance to pressure, and pyrexia. A worker in lead was seized with abdominal pain of a spasmodic character, and chiefly localized in the right side. There were constipation, nausea, vomiting, and a blue line on the gums, and the urine contained lead. The temperature was normal or subnormal. The abdomen was rigid, and McBurney's point extremely tender. There was no dullness over the right iliac fossa, and no swelling could be felt. Similar attacks of colic recurred frequently, but after four days' treatment the pain and tenderness over McBurney's point had almost disappeared. (2) In other cases of lead poisoning McBurney's point is tender, though there is at the time no colic, or at most slight diffuse pain. There is usually a history of former attacks of colic, or the tenderness appears as the colic is subsiding, or more rarely as the first symptom of a typical attack. Thus a man had repeated attacks of lead colic. The whole abdomen was somewhat tender, though most markedly at the umbilicus and McBurney's point and over the descending colon. After the attacks of colic had ceased, the tenderness at McBurney's point persisted for several days. It is common for tenderness to be present over McBurney's point in lead workers who have no acute symptoms of poisoning. Cases have been published by French writers in which laparotomy was performed for appendicitis, when the true condition was lead poisoning. Possibly appendicular colic occurs both in appendicitis and lead poisoning. In the former the cause is an obstructed lumen, in the latter it is the irritation of lead.

(58) The Diagnosis of Enteric Fever.

M. FICKER (*Berl. klin. Woch.*, Nov. 9th, 1903) considers that although the Gruber-Widal serum test of enteric fever is of the utmost importance, it is highly desirable to introduce a method which is more simple and more easily at the disposal of the practitioner. In attempting to improve on the test for practical purposes, he kept the following points in mind. (1) The test must be carried out without the necessity of emplying living typhoid cultures; (2) the material, which contains the specific agglutinating body, must be stable, and not lose its power rapidly; (3) it must not tend to clear spontaneously during the time allotted for the reaction; (4) the reaction must be clear to the naked eye, and be absolutely definite in its result; (5) the reaction must be completed in a comparatively short time, and not occupy two hours of the practitioner's time, as is necessary at present; (6) it must be carried out at ordinary room temperature, and not in an incubator; (7) the preparation must be influenced by the measured dilutions of the serum in precisely the same way and to the same degree as is the living suspension of B. typhosus. Ficker states that he has succeeded in preparing a fluid, which is capable of replacing the culture of living typhoid bacilli. The third and seventh conditions were very difficult to fulfil, but he has been able to overcome these difficulties. His preparation is a slightly turbid sterile fluid, which can be kept for more than nine months if preserved in a cool and dark place. It ought to be shaken up from time to time. He advises that the serum which is to be examined should be diluted with ten times its bulk of sterile physiological solution, and 0.2 c.cm. and 0.1 c.cm. of this be transferred to a suitable tube, No. 1 and No. 2 respectively. The tube No. 1 contains 0.8 c.cm. of the diagnostic fluid, and tube No. 2 0.9 c.cm. A third tube contains only the diagnostic fluid. The tubes are then corked up and the contents well mixed. They are then set aside at ordinary room temperature, but not in a strong light. After ten, twelve, or fourteen hours the result will be clear, and therefore the physician may leave the tubes and return to them after the lapse of this time. The tubes must not be left longer than twenty hours. The positive reaction will be clearly seen by the clearing up of the turbidity of the fluid, while if one uses tubes pointed below one can also see the clumping together of the agglutinating substance. In this way Ficker claims that he has been able to offer the practitioner a method of carrying out the agglutination test for enteric fever without the living culture, without an incubator, and without a microscope. He says that the results which have been obtained in some large clinics with this preparation testify that the method is reliable.

SURGERY.

(59) A Wound of the Heart.

ORLANDI (*Il Morgagni*, October, 1903) records a remarkable case of perforation of the left ventricle, fatal only after two and a-half hours. The patient, a man of 26, walked home a distance of about 190 metres before discovering that he was seriously injured. He then began to bleed profusely, and set out to walk to the hospital, but only managed to walk 150 metres, being carried the rest of the way. An hour and three-quarters after the infliction of the wound, the

thorax was opened, and the wound on the front of the left ventricle closed by two silk sutures. The patient survived the operation and retained consciousness until he died three-quarters of an hour after the end of the operation. At the necropsy the pericardium was full of blood, and the left pleural cavity three-quarters full. The knife had pierced the third left intercostal space, wounded the left pleura, and entered the left ventricle, half-way from apex to base and one centimetre from its left edge, inflicting on it a V-shaped wound two centimetres in length, dividing its substance in a more or less transverse direction, and raising a flap of the heart wall which had been accurately sutured in position at the operation. Both sutures were found to be in position and well tied, but broken. On the inner surface of the ventricle it was at first difficult to find the wound, but when the tendons of the papillary muscles were cut, an irregularly quadrilateral wound measuring two centimetres across became evident in front of and close to the base of the anterior papillary muscle. The case suggests an inquiry why the patient lived so long, and why, after so long a time and after the completion of an operation which the necropsy showed to have been well executed, he died. Orlandi answers that he was a strong man with a strong and thick-walled heart, while the wound was small and oblique, but that the chief reason why the patient survived so long and was capable of so much exertion was that from the position of the wound on the inner surface of the ventricle it was almost closed during diastole by the anterior papillary muscle, while during systole the V-shaped flap cut on the outer surface of the ventricle acted as a valve and to some extent prevented the haemorrhage which would otherwise have occurred. Under these comparatively favourable conditions recovery might have seemed possible, but the transverse direction of the wound on the outer side of the heart made it impossible to avoid an enormous strain on the sutures at each systole. It was therefore merely a question whether the heart substance or the stitches should yield. In an earlier work Orlandi has pointed out that a transverse wound of the ventricle causes much more profuse haemorrhage and much more rapid death than a similar but vertical wound. This case shows that even temporarily-successful application of sutures does not invalidate the rule. Possibly some further development of the technique of the operation may improve the prognosis. The distance travelled by the patient may well give the case medico-legal importance. It also illustrates another medico-legal point of great interest. In six case of knife-wound of the heart examined by Orlandi no two wounds have been of the same shape, and he lays down the rule that the distortion of the wound caused by the complex movements of the heart, especially if the blow take effect during systole, makes it impossible to draw with safety any inferences from the shape of the wound as to the instrument with which it was inflicted or the relative positions of the sufferer and the striker.

258 B

(60) Local Anaesthesia.

Connell (*Ann. of Surg.*, December, 1903) though not an advocate of the promiscuous use of local anaesthesia, urges an appreciation of the fact that Schleich's infiltration method is safe and practicable, and better than general anaesthesia in many cases in which the latter is commonly employed. There can be no rational doubt, he states, that there are many cases in which local anaesthesia is markedly contraindicated, but on the other hand, it may be accepted as a fact that general anaesthesia is often employed unnecessarily. The following are given as the chief advantages to be derived from the use of local anaesthesia: (1) Removal of the danger of death on the table; (2) avoidance of the after-effects of general anaesthesia on the heart, liver, kidney and lung; post-operative pneumonia, it is asserted, seems to occur about as frequently after local as after general anaesthesia; (3) no period of post-operative nausea, vomiting or unconsciousness; (4) patient being conscious is able to assist the operator in various ways. Reference is made to the practice advocated by Braun of adding adrenalin chloride to the infiltration solution. This agent is thus used as a cardiac stimulant for overcoming the depressing effect of cocaine or eucaine, and also on account of its haemostatic action. In the proportion of from 1 to 5,000 or even 1 to 20,000 it will be found, Connell states, to decrease the capillary haemorrhage to practically nothing. Adrenalin, however, cannot be regarded as an absolutely safe addition to an anaesthetic injection, as it has been recently pointed out by Neugebauer (*Zentralbl. f. Chir.*, No. 51) that when used with cocaine or eucaine with the object of rendering the seat of operation anaemic, it is liable to result in local gangrene of the skin.

(61) Treatment of Club-foot.

Cesare Ghillini, of Bologna, (*Bolletino delle Scienze Mediche*, October, 1903) looks upon congenital club-foot as an instance of the adaptation of shape to external conditions, and regards it as of hopeful prognosis whatever be the gravity of the case or the age of the patient. He quotes Dupuytren's case of spontaneous cure at the age of 12 years and Young's at the age of 36 years. Ghillini begins treatment on the first day of life by gently manipulating the deformed foot and applying more force later on if necessary. If cure be not effected by the age of 1 year he cuts the tendon of Achilles subcutaneously and makes an open incision through the soft parts from a point corresponding to the internal malleolus to the inner side of the neck of the astragalus, cutting through all the tissues which resist the effort to place the foot in good position. If this incision (Phelps's operation) prove insufficient, which it very rarely is, never in Ghillini's congenital cases, he cuts through any bony obstacle to good position, laying down no rules except that the bones are to be interfered with as little as possible. To obtain good position is not usually difficult. To maintain it is not so easy, and is equally important. After the operation, Ghillini puts up the leg on a rectangular wooden splint. After eight days the wound is dressed for the firs time, and the foot is put up in plaste with the deformity somewhat ove corrected. After another eight days a opening is made through the plaster t dress the wound, which is treated i this way until cicatrization is complete Plaster, renewed every month, is kep on for a long time (for example, fo seven months in a child of 2 years) The results obtained have always bee very good, both for shape and function Perfect cure has resulted from thi operation in the case of a patient 1 years of age. In conclusion, Ghillin repeats that club-foot is much more disease of muscles than of bones, an that operative interference with th bones is seldom necessary or desirable.

MIDWIFERY AND DISEASES OF WOMEN.

(62) Inoperable Procidentia.

Mouchet and Dreyfus (*Bull. et Mém de la Soc. Anat. de Paris*, June, 190 report the last illness and necropsy of woman, aged 62, subject for twelve year to prolapse. She had only twice bee pregnant, but was very fat, and had small umbilical and a large primar ventral hernia. Palliative treatmen had recently been tried, whilst, as th patient had chronic bronchitis an heart disease, no operation was a tempted. A large characteristic mas projected from the vulva, a small fissur at its most prominent part represente the os externum. The patient die rather suddenly. At the necropsy it wa found impossible to reduce the prolaps before opening the abdomen, but whe the peritoneal cavity was laid open th small intestines were found free, whils the brim of the pelvis seemed covere over by a floor of peritoneum. Th great intestine passed through this floo posteriorly, a small fold in front of i representing the neck of the sac. Not trace of the internal genitals nor of th bladder could be seen. Pressure wa applied to the prolapse from outside, a in a living patient, whilst the bowel wa pulled upwards from the abdomina side. Then the prolapse was reduced though with some difficulty. First, long piece of rectum came up, then th uterus and appendages, lastly th bladder. A capacious sac, big enoug to receive two fists, was left behind. I is interesting to find that the uteru was quite normal and, like th ovaries and Fallopian tubes, atrophie as in a subject of the same age withou prolapse. A calculus of the size of cobnut lay in the bladder. The kidney were placed very low in the loins; i other words, they were drawn down There was pyonephrosis on both sides and extensive disease of the glandula tissue; the ureters were torn when th kidneys were drawn upwards to thei normal level, and much green pu escaped. The ureters were much di lated and their walls thickened; no les than 9 in. of these ducts lay in the sa of the prolapse. This case, the author observe, shows the futility of operation in advanced cases of prolapse in old sub jects. The removal of the uterus in thi case would only have removed one fea ture in the lesion; indeed, that orga was small and healthy. Independently

the dangers due to renal complications, an old-standing prolapse is too complex for operative treatment.

(63) Vaginal Ovariotomy during Labour.

EISTHÖVEL (*Monats. f. Geb. u. Gyn.*, October, 1903) describes a case where a primipara was in labour at term. The pelvis was normal. Labour was impeded by a cyst in the pelvic cavity, which had hitherto escaped observation. The os was fully dilated, the membranes had ruptured over fifteen hours when Geisthövel was called in, and after twenty-four hours since the beginning of the pains the fetal head was still arrested in the pelvis. A firm, elastic tumour was detected, impacted between the head and the sacrum. An attempt to push up the tumour under anaesthesia failed. The patient lived seven miles away from the nearest hospital. It was thought better to operate at her home, so an incision was made into Douglas's pouch, and the tumour opened and gently drawn out of the vaginal wound. The pedicle, very thin, was ligatured and divided; it at once retracted into the peritoneal cavity. No sutures were applied to the vaginal wound. Two hours later the child was delivered alive by forceps. The patient recovered. The tumour was a dermoid, over a pound in weight. In discussing this case Neugebauer preferred abdominal section, and utterly deprecated paracentesis. Müller of Bern considered the vaginal operation dangerous, as the toilet of the peritoneum could not be carried out thoroughly.

(64) Fracture of Forceps in Delivery: Perforation of Cervix.

COURT (*Quarterly Med. Journ. for Yorkshire and Adjoining Counties*, vol. xi, pt. 2, 1903) employed a Simpson's long forceps in a case of lingering labour; the presentation was vertex, arrested at the brim. The patient was 40 years old and in her eighth labour. The application seemed easy, but after a few minutes' traction the patient screamed and Court removed the lower blade, but found that he could not extract its fellow. The posterior limb of the upper blade passed into the uterus through the os externum, but the anterior limb entered the uterus through the anterior fornix. After careful exploration it became evident that there was no rent in the os, but a gap in the anterior limb of the forceps which had cracked 1½ in. above its insertion into the handle. At the moment that the limb snapped it must have allowed the margin of the os to enter the tenestrum, and then on closing had perforated the uterus. Being far from home, Court was compelled to use a carpenter's file to release the blade, removing with it about an inch of the broken limb below the fracture, a manœuvre which under the circumstances proved difficult. After liberating the instrument delivery was completed by another pair of forceps. There was no ill-effect of any kind.

(65) Death caused by Uterine Sound.

HENKEL (*Monats. f. Geb. u. Gyn.*, October, 1903) recently exhibited before the Berlin Obstetrical Society the internal organs of a woman aged 20 who had died of tuberculous meningitis after a sound had been passed into the uterus. After death a tuberculous focus was found in the tissue of the fundus; there was tuberculous inflammation of the left tube, and a cyst of the size of an apple was intimately connected with the back of the uterus. The diagnosis had been "haematometra with retroflexion fixed by adhesions."

THERAPEUTICS.

(66) Influence of Faradization on the Functions of the Stomach.

E. CIONINI (*Il Morgagni*, September, 1903) points out that there is practically complete unanimity as to the increase of gastric secretion which follows faradization of the stomach, but there seems to be no agreement as to the effect of electricity on the motor function of the stomach. The faradization of the stomach is confidently recommended by some on the ground that it increases the contractions of the stomach walls when applied through the skin. To test the effect of faradization on secretion, Cionini kept two dogs fasting for twenty-four hours, and having then faradized the stomach through the skin, opened it and found in it a thick yellowish fluid containing hydrochloric acid. As a control experiment he made a gastric fistula in a dog, and, after keeping the animal fasting for twelve hours and making sure that the stomach was empty, massaged the organ through the skin. After a few minutes there flowed from the fistula a liquid identical with that obtained by faradization. He therefore concludes that the secretion obtained by faradization is probably due to the mechanical stimulation of the abdominal walls, necessarily involved in such treatment. To determine the motor effects of gastric faradization applied through the skin, Cionini employed a bladder introduced into the stomach and inflated with air. The bladder communicated also with a tube, at the top of which a feather, rising and falling with the expressed air, recorded on a drum the variations of pressure inside the stomach. A similar and simultaneous record was made in every experiment of the movements of the abdominal wall due to respiration. When the faradic current was turned off the two records showed two series of waves closely resembling one another, and in each series, respiration being regular, the waves were alike. The experiments were made on patients suffering from dilatation of the stomach, on healthy persons, and on dogs. Five graphic records are shown marking the points at which faradization began, and, if it was of more than instantaneous duration, the points at which it was discontinued. These records show that the rhythmical movements of the abdominal walls were interrupted or varied by the application and during the continuance of faradization. They show also that such irregularities were communicated to the stomach, and there determined variations of pressure sometimes very closely resembling the variations in the abdominal movements, but at other times slight and hardly noticeable. In no case is there any indication of independent stimulation of the stomach walls. Cionini therefore concludes that faradization of the stomach through the abdominal walls is of no use as a means of determining contraction of the stomach walls. He thinks it probable that the same thing is true of galvanism, and bearing in mind the results of his experiments showing that the increased secretion attributed to faradism was really due to mechanical stimulation of the parietes, he attributes to suggestion and to massage any good results which may follow the electrical treatment of the stomach through the skin.

(67) Exodin.

W. EBSTEIN (*Deut. med. Woch.*, January 1st, 1903) reports on exodin. It is an oxyanthrachinon derivative, as are emodin and purgatin. Its chemical composition is diacetyl-rufigallic acid-tetramethyl-aether. It exists as a yellow powder, melting at 180° to 190° C. It is insoluble in water, little soluble in alcohol, and has neither smell nor taste. In doses of 0.5 and 0.75 gram (about 7½ and 11¼ gr.) it is said to induce semisolid motions in human beings. Ebstein has given it in a number of cases, and says that it does not produced any unpleasant effects, either in the mouth or stomach. The appetite is not affected, and it does not cause any nausea or belching. It does not appear to matter whether the patient takes it after food or on an empty stomach, and the motion follows in from eight to twelve hours. The effect is painless and without difficulty. In cases of severe constipation with hard scybala in the lower bowel, it occasionally produces some colic, and Ebstein does not advise it for such cases. Exodin rarely fails to open the bowels, and although it produces a soft motion as a rule, it hardly ever causes a diarrhoeic stool. Its action lies midway between the laxatives and the purgatives. In the cases of spastic constipation with scybala in the colon, sigmoid, and rectum he finds it necessary to soften the hardened masses with oil injections, and often this will not have the effect of driving the stool out of the bowel. As a means of obtaining the motion after the faeces have been softened, he finds that exodin acts very well. In comparing the action of exodin with purgatin, he points out that the latter stains the urine and the linen, which latter is particularly unpleasant to the patient. Exodin darkens the colour of the urine, but does not stain linen. In other respects he prefers the action of exodin, which is given in smaller doses than purgatin. Emodin, the other purgative obtained in a similar manner, is so dear that it cannot be employed at present in ordinary practice. The dose of exodin is 0.5 gram for children and up to 1.5 gram for adults. He finds that tablets containing 0.5 gram useful, but advises that the tablets be allowed to break up in water before they are swallowed. The preparation can also be given in powder form.

(68) Antagonistic Action of Drugs.

HASKINS (*Amer. Journ. of Med. Sci.*, December, 1903) conducted several experiments to ascertain whether drugs which were antagonistic in their effect also lessened the histological lesions.

The effect of strychnine on alcohol poisoning was negative, since the alcohol did not produce the lesions expected, and the strychnine did not in any marked degree prevent the alcohol symptoms. Four experiments upon cats and guinea-pigs resulted in no constant difference being observed between nerve cells from the normal and from the poisoned animals. In order to study the effects of the simultaneous action of stimulants and depressants on yeast cultures, the influence of certain drugs upon the quantity of gas formed by yeast was investigated by specially-modified methods, control experiments being conducted in each instance. No reliable stimulant was discovered, alcohol giving various results, and bichloride of mercury showing but slight action at temperatures above 30° C. In another series of experiments the effect of different temperatures was ascertained, it being found that between 35° and 40° C. was the best for fermentation in undrugged tubes. The action of drugs was the same at 30° C. as at 35° to 40° C., but bichloride of mercury showed marked stimulant action at 30° C., but very little at higher temperatures. All the drugs used were either those reported as stimulating yeast activity or those having a known stimulant action upon animal cells. Further experiments were made upon the effect of heat as a physical stimulant and of the antagonistic action of strychnine in preventing the stimulation by elevation of temperature. Up to 45° C. heat was found to be a reliable stimulant, but the antidotal action of strychnine, by not giving uniform results at successive temperatures, showed that its antagonism was not a simple one. The conclusions drawn from these experiments were that the pulse does not seem to be affected by strychnine given simultaneously with alcohol, though strychnine appears to counteract the depressing effect of acute alcoholism on the respiration, and to delay the onset of paralytic symptoms. It seems probable that strychnine in large doses would prove useful in the treatment of poisoning from lethal doses of alcohol.

(69) Heroin as an Anaphrodisiac.

F. BECKER (*Berl. klin. Woch.*, November 23rd, 1903) has tested the anaphrodisiac action of heroin in Leser's clinic, and reports favourably of its effects. He says that it appears that in order to obtain an action on the sexual organs one must give relatively high doses of the drug, and therefore recommends doses of 0.01 gram (=0.15 gr.), and gives 0.03 gram (=3.45 gr.) as a maximum dose. Such small doses as 5 to $7\frac{1}{2}$ milligrams are inactive. In some cases the action of heroin becomes weaker after it has been given for some time, but as a rule one can avoid raising the dose by stopping the drug for a few days, during which time some other drug must be given, and when one again returns to the heroin it will be found that the original doses have regained their power. In one case the author witnessed a profuse urticaria as a result of heroin, but this disappeared after three days when the drug was discontinued. The indications for its use as an anaphrodisiac are painful erections in gonorrhoea, in which cases the heroin prevents the erections but does not act as an analgesic; pathological increase of sexual inclination; to prevent erections during and after operations on the penis; and, lastly, repeated pollutions. Becker says that he has not had any experience with this drug in the treatment of sexual neurasthenia, but warns us that we were promised great things in the treatment of various forms of neurasthenia by codeine some years ago without the promise having come true. In all Becker considers that we have a valuable drug in heroin for the diminution of sexual excitability, and that it may take an important place in the local and general treatment of gonorrhoea in the future.

PATHOLOGY.

(70) New Studies in Natural Immunity.

TURRO (*Arch. Lat. de Méd. et de Biol.*, November 20th, 1903) records a series of experiments on the stimulation by various substances of the bacteriolytic power of rabbits. He made a fluid, which he calls oviserum, by dissolving the yolk of egg in its own white; he finds that this solution acquires, in the space of twenty days or a month, an enormous bacteriolytic power, so that it will destroy a culture of anthrax bacilli equal to one-fourth of its own weight; this power is not lost in the process of destruction, for the experiments can be repeated two or three times. When 5 gram of this serum per kilo. of body-weight are injected subcutaneously into a rabbit, and anthrax virus is inoculated one or two days later, the death of the animal is delayed for from nine to seventeen days, as compared with a control subject. Intravenous injection of 5 grams of oviserum in 45 grams of distilled water, produces the same effects; $2\frac{1}{2}$ grams delay death for from five to nine days; 1 gram has no appreciable effect, and doses larger than 5 grams produce no further result. If anything happens to disturb the normal physiological condition of the rabbit between the time of the injection and that of the inoculation, the immunizing action of the oviserum is diminished or abolished; as this immunizing action does not appear for some time it appears probable that the cause of the increased resisting power, acquired by the rabbit, is the addition of the bacteriolytic power of the oviserum by a process of physiological synthesis to that of the alexins which are normally present in the body fluid. A 1 per cent. emulsion of the splenic pulp in physiological saline solution produced similar effects in rabbits to those of the oviserum. The injection of 50 grams of physiological saline solution per kilo. of body weight, followed twenty-four hours later by an inoculation of a drop of anthrax virus, retards the death of rabbits from the latter for from ten to fourteen hours. The injection of 100 grams per kilo. in similar circumstances produces a most extraordinary phenomenon; according to the author the rabbits do not die from the bacterial infection. This action is fugitive, lasting only from one to three days.

(71) Perityphlitis and Leucocytosis.

R. GERNGROSS (*Münch. med. Woch.*, September 15th, 1903) reports some observations which he has made with regard to the leucocytosis in connexion with perityphlitis. Curschmann, who first drew attention to the subject, says that cases without abscess formation either show no increase of the white blood cells, or show a slight rise in the number during the beginning of the illness, which rapidly passes away. Distinct increase of the number of leucocytes only occurs in non-suppurating cases at the onset, and rarely exceed 20,000 to 22,000. When the number is raised materially, and all other causes of leucocytosis—for example, pneumonia—can be excluded, one can definitely diagnose abscess and proceed to operate. Gerngross first gives the clinical details of cases, in which the number of leucocytes were either only temporarily raised or were not raised at all, and coincided with the mild clinical course. In one case the count showed 12 000 on the first, 30,000 on the second, and 22,000 on the third day, after which the number sank to 10,000. In all the 12 cases recorded he found that the absolute height of the number of leucocytes was not so important as the gradual rise, and he considers that one can be more safely guided by the curve of the number of leucocytes than by a single record. The next series of cases exemplifies the fact that when the leucocytes increase in number, the condition of the patient becomes proportionately worse. In two cases an operation was performed—once in response to the result of an exploratory puncture, and once on account of the general condition. In both the leucocytes were increasing in number. In a third case the gradual increase went hand in hand with the deepening of signs and symptoms, and diminished as these passed off. He gives an account of a case in which the perityphlitis took a favourable course, and an operation was postponed until after the recovery from the attack. Here the number gradually diminished from the beginning. He next exemplifies the absence of leucocytosis in a rapidly fatal case in which perforation of the gangrenous appendix led to purulent peritonitis. In another case the leucocytosis rapidly passed off after perforation, probably because the organism was so weakened that it was incapable for reaction in the usual way. In conclusion, he finds that his experience supports Curschmann's statements, and that the count of the colourless blood cells is a useful diagnostic help, although it must not be taken as a sure indication for or against an operation. The general condition of the patient and the physical signs must decide this point.

(72) Cellular Changes in the formation of Hyperplastic Tissue.

A. MAXIMOW (*Centralbl. f. Pathol.*, 1903, p. 741) says the greater part of the cells appearing in the tissue near to an inflammatory focus consist of mononuclear leucocytes which have emigrated from the dilated vessels. The smaller number arise from the clasmatocytes of the part. After emigration the small lymphocytes change into round amoeboid polyblasts, and later become fixed clasmatocytes.

AN EPITOME OF CURRENT MEDICAL LITERATURE.

MEDICINE.

(73) Diagnosis of Phthisis.

). Roepke (*Beit. zur Klinik der Tuber-ulose*, Band i, Heft 3) has carefully xamined 298 cases of phthisis under reatment at his sanatorium with re-pect to their previous history, the ethod of diagnosis, and the condition n admittance. The patients were all nen, of whom 57 per cent. were married. 'he age of onset of phthisis was in 75 er cent. of the cases between the 18th nd 35th year; 65 per cent. had pre-iously been employed in indoor work. 'he social position of the patients is oughly indicated by the fact that only 6 per cent. paid their own expenses at he sanatorium, but before admission ne majority at all events had had nough food, and those married men ho did not live in large towns had een well housed. The unmarried men ad often slept in overcrowded, badly-entilated rooms. Although the history f cases in the third stage of the disease ay be unnecessary either for diagnosis r prognosis, it was nevertheless always refully taken, and is useful in the rly stages for prognosis, for deciding n the advisability of sanatorium treat-ent, for insurance purposes, and to me extent for diagnosis. Thus it may d in determining whether a haemor-age has been from the lung or omach, whether a cavity is tuber-lous or bronchiectatic in nature, and hether a lung is tuberculous or philitic. Of the 298 patients, 144, or .5 per cent., were in the first stage, .5 per cent. in the second, 29 per cent. the third. In 65 the disease was ereditary, in 233 non-hereditary. ose in whom the disease was ereditary had suffered to a substan-ally greater extent in childhood from ng affections, and decidedly fewer of em had been considered fit for military rvice at the normal age. It would pear indeed that a constitutional eakness due to the presence of thisis in the family tends to de-are itself especially at puberty. In per cent. of the whole number of tients the onset of phthisis had fol-wed some other lung affection, which all probability had itself been tuber-lous in character. Although the work the lower classes almost necessarily edisposes to phthisis, the occupations n be divided into the more and less ngerous, and to the former division per cent. of the cases belonged. The ne of entering the sanatorium was, as rule, early, 30 per cent. having come the first three months of illness. any of those in the first stage came raight from work, and here the pro-osis was good both with regard to covery and to a return to full work. 42 per cent. haemoptysis was the itial symptom, and was the cause of e patients consulting a doctor at an rly period. A cough was present in arly all cases of the first stage. In per cent. the cough was hard and dry, and thus very characteristic of early phthisis; 55 per cent. complained of pain. A complaint of pain in the shoulder is of importance, and the pain should not be confounded with rheumatism. Wasting, combined as a rule with a good appetite and sufficient food, was present in 66 per cent. of the early cases; 26 per cent. were still in a state of good nutrition on admission, but in 58 per cent. the general appearance or that of the chest suggested the presence of phthisis. In auscultation Roepke urges the importance of listening to the breath sound immediately after a cough, as the fine dry *râles* are then most readily elicited. Clinically he divides all cases into three classes: (1) With physical signs of catarrh, (2) of infiltration, (3) of infiltration, with catarrh going on to cavity formation. Of the cases in the first stage, 4.2 per cent. belonged to the first class, 25.7 per cent. to the second, and about 30 per cent. might, therefore, be said to present difficulties in diagnosis; 10 per cent. more of the hereditary than the non-hereditary cases showed the presence of a cavity. The disease at an early stage was more frequently at the right than the left apex, perhaps because of the position and greater capacity of the right bronchus, which offers a more easy passage for dust, etc., to the lung than does the left bronchus. Two of the cases where the disease was at the left apex were left-handed, a fact pointing to the muscular activity of the right side as a possible predisposing cause. In 77 per cent. the disease was bilateral; 18 per cent. showed laryngeal complications, and this was more frequent in the hereditary than the non-hereditary. Only 7.7 per cent. of the patients had tuberculosis of other organs, and complications of a non-tuberculous nature were also rare. Roepke suggests that the albuminuria of early phthisis noted by many observers may often be transitory in character and due to over-nutrition. The examination of the sputum is of the utmost importance, but the results may be misleading. In a third of the patients in the second stage the results were negative, while in some cases with scanty sputum the presence of the pseudo-tuberculous bacillus may lead to error. The use of tuberculin is indicated for suitable cases. In 99 per cent. of 3,000 cases Koch obtained by its use a correct diagnosis, and *post-mortem* results have confirmed its accuracy. The reaction is obviously an unpleasant matter, and the tuberculin should be so given as to obtain the reaction speedily. Pickert's method of small doses combines certainty of diagnosis with a minimum of unpleasantness; 145 of the author's patients received injections. The results were negative in two instances, and, as the physical signs pointed to the same conclusion, these cases are not among those described in the article. Fifty-nine per cent. reacted after the first injection, 28.5 per cent. after the second, and thus in almost 90 per cent. a positive diagnosis was arrived at within week. Fever contra-indicated the use of tuberculin.

(74) Proteolytic Action of Pancreatic Juice.

Bayliss and Starling point out (*Journ. of Phys.*, August 24th, 1903) that all our modern ideas on this subject are based on experiments not made with the juice, but with extracts of the gland. They confirm the original statement of Claude Bernard that the real juice has no action on proteids. A substance, enterokinase (Pawlow) which is present in the succus entericus, is necessary to "activate" the juice—that is, to make active trypsin out of its inactive precursor, trypsinogen. By an interesting series of experiments they show that trypsinogen cannot be converted into trypsin by any other means than the action on it of enterokinase. Trypsin is not a mixture of enterokinase and trypsinogen, but is a specific substance; it is the most powerful proteolytic ferment known and digests itself rapidly, especially if no dissolved proteid is present for it to act upon. Observations have also been made upon enterokinase, and these observers conclude that this substance is a true ferment, and is produced only in the small intestine.

SURGERY.

(75) Morphine-Scopolamine Anaesthesia.

Since Schneiderlein first introduced his method of anaesthesia in 1900, 280 cases have been published by various observers, and although the advantages of this form of anaesthesia are generally accepted, great differences of opinion have been expressed as to the proper dosage, and recently a few accidents have also been reported. G. Volkmann publishes the results of his observations, which extend over a series of 17 ases. (*Deut. med. Woch.*, 17th December, 1903). To these 17 cases he is able to add 3, which were anaesthetised in Zimmerman's private practice, so that he is able to report on 20 cases in all. The operations included removal of the vermiform appendix, laparotomy for extrauterine gestation, removal of goître, gastrostomy, and the like. Instead of injecting 3 or 4 mg. (about 0.045 gr. or 0.06 gr.) of scopolamine and 1 cg. (about 0.15 gr.) of morphine as recommended by Schneiderlein, he found it advisable to give 12 mg. (about 0.18 gr.) of scopolamine and 1½ cg. (about 0.23 gr.) of morphine, four hours before the operation, he then repeats the same doses two hours later, and ¼ of an hour before the operation, he gives 3 mg. (about 0.045 gr.) of scopolamine and 0.5 cg. (about 0.075 gr.) of morphine. A few times, in the case of old people, or patients suffering from diseases of the internal organs, he found it wiser to employ smaller doses. In 3 out of the 20 cases, the dosage given sufficed to keep the patient anaesthetic during the operation, and in the rest of the cases, the anaesthesia had to be deepened by ether inhalation (given drop by drop). In the majority of these cases, the quantity of ether used was very small and did not exceed 40 grams in the hour. Volkmann emphasizes the fact that he did not inject larger quantities of morphine as some others have done, as he regards the bad effects in some published cases as being due to overdoses of this drug, for example, 12 cg. (about 1⅘ gr.). It is quite possible that one may do without any ether inhalation if one uses these large doses of morphine, but Volkmann

looks upon the ether as rather an advantage than a disadvantage. The action of scopolamine on the mucous membranes is to paralyse the glandular activity, and since ether irritates the mucous membranes and increases the secretion of the glands, it may be taken that small doses may act as a corrective to the alkaloid and as an adjuvant to the anaesthetic action of morphine. He never experienced any retching or vomiting, tracheal gurgling or asphyxia, and in not a single case was there any ill side-effect. The patients always lost consciousness by means of the injections, even when the anaesthesia had to be deepened by ether, and since this unconsciousness is attained before the operation, while the patient is still in bed, there is none of that disagreeable struggling and anxiety which are so often seen with inhalation anaesthesia. The sleep lasted on an average for six hours, the shortest duration being three hours. The muscles were completely relaxed in 4 cases, while in the others they lost markedly in tone, and relaxation was easily obtained by a few inhalations of ether. The vessels of the skin became dilated, showing the action of scopolamine over the morphine. The pulse was generally increased in rate to from 90 to 120, and the pressure was also increased. He recommends this anaesthesia especially for hospital practice, at all events until more experience has been gained.

(76) Appendicitis in the French Army.

Chauvel (*Bull. de l'Acad. de Méd.*, November 3rd, 1903) states that statistics which he published as to the results of the treatment of appendicitis in the French army in 1899 have been misinterpreted as indicating an extremely high rate of mortality, whereas they were based only upon severe cases of special clinical interest. He has now summarized the operations for this disease which have been performed in the French army during the years 1897 to 1902 inclusive. In 1897 there were 49 cases with 7 deaths; in 1898 78 cases with 9 deaths; in 1899 106 cases with 22 deaths; in 1900 142 cases with 24 deaths; in 1901 166 cases with 21 deaths; and in 1902 188 cases with 23 deaths, making a grand total of 711 operations with a mortality of 14.9 per cent. Among the most striking points to be noticed, are first the steady and persistent increase in the number of cases, which has multiplied nearly fourfold in six years. For some unexplained reason the post-operative mortality rose in 1899 to 20.7 per cent.; in 1900 it was 16.8 per cent., since when it has returned to the normal figure of about 12½ per cent. Statistics as to the total of cases of the disease in the French army are only available for the years 1901 and 1902, when they amounted to 403 and 668 respectively. The mortality in cases medically treated was 1.5 per cent. and 1 per cent., and the total mortality 5.2 per cent. and 4.2 per cent. in the two years under notice. In the German army from 1888 to 1894 the average case-mortality from appendicitis was 3.2 per cent. In the Roumanian army from 1896 to 1899 it was 5 per cent. With regard to the morbidity a very striking difference was noted as regards the Algerian as compared with the other divisions of the French army; in the latter the number of soldiers attacked by the disease was 1.26 per 1,000; among the French troops in Algeria and Tunis the proportion was 0.64 per 1,000, or just one half; while among the native troops in Algeria it was only 0.14 per 1,000. Similar results are recorded by Schneider, the Court Physician of the Shah of Persia, and both he and Chauvel believe that the rarity with which Mohammedans are affected is due to the fact that their dietary is largely vegetarian, and that when meat is eaten it is always overcooked. Among Europeans living in Mussulman countries the liability to appendicitis appears to vary directly with the persistence with which they maintain Western methods of alimentation. Moreover, appendicitis appears to be increasing among the Algerian and Tunisian soldiery owing to many of them adopting European notions as to diet. In the discussion which followed Chauvel's paper, his views were strongly supported by Lucas-Championnière.

(77) Syphilitic Spondylitis.

Syphilitic disease of the vertebrae is seldom seen by pathologists, as it usually subsides under treatment. The following case described by Neumann (*Wien. med. Presse*, January 3rd, 1904), which was under observation for eleven years and in which a necropsy was held, is thus of special interest. A man, aged 37, contracted syphilis in April, 1892. In January, 1896, an ulcer appeared on the posterior pharyngeal wall. Between 1897 and 1899 there was ulceration of the lips and of the skin over the temples and forehead, and the uvula and left half of the soft palate were destroyed. In the spring of 1900 the ulcer of the pharynx was of the size of a florin and covered with a thick yellow discharge. At its upper part a probe reached to rough exposed bone. In January, 1903, there were pain and tenderness over the spinous processes of the third and fourth cervical vertebrae, and movements of the neck were consequently restricted. The pharyngeal ulcer had increased in size, had callous edges, and a funnel-shaped necrotic base, at the bottom of which was bare bone. There were dry crepitations over both lungs and constant occipital pain. In April, 1903, he wore a jury-mast for the neck and was extremely emaciated. There were evening elevations of temperature. The mouth could scarcely be opened, owing to cicatrices. The head was held rigidly, and could not be extended. There was dullness over the left lung, especially at the apex, and dry crepitations over both sides. The pupils reacted normally, and the patellar reflexes were not exaggerated. On July 1st deglutition became so painful that he was fed entirely per rectum; on July 8th there was great dyspnoea, with dullness at both bases; on July 10th death occurred. A radiograph prepared three months before death showed a dark shadow of the size of a hazel-nut in the upper and anterior part of the body of the third cervical vertebra. *Post mortem* it was found that phlegmonous inflammation had spread from the pharyngeal ulcer downwards, anterior to the vertebrae, to the level of the third cervical vertebra, and had destroyed the intervertebral disc between the third and fourth vertebrae, so as to produce a forward dislocation of the fourth cervical vertebra on the third. The bodies of the third and fourth vertebrae were carious. From the front of the longi colli muscles on either side the pus had tracked forwards along the ribs, and on the right side had ruptured into the pleural cavity, and produced an encapsuled empyema beneath the posterior ends of the fourth and fifth ribs. There were purulent bronchitis, patches of broncho-pneumonia, and amyloid degeneration of the spleen. Microscopically the changes were those of inflammation, and were not typical of syphilis. Thus the pharyngeal gumma had eroded the periosteum and the bone, but the terminal suppuration with evening rises of temperature was due to a mixed infection with ordinary pyogenic organisms. The cervical spinal cord was intact, though there was purulent pachymeningitis. Including this case 36 cases of syphilitic disease of the cervical vertebrae have been reported. Thirty occurred in males 6 in females. Twenty-one ended in recovery and 15 (= 40.5 per cent.) were fatal. These 36 cases form the great majority of all reports on syphilitic spondylitis. The atlas was affected in 6, the odontoid process of the axis in 10, the third cervical vertebra in 11, the fourth in 9, the fifth in 5, the sixth in 1, and the seventh in 2 cases. The disease of the bone was usually secondary to gummatous ulceration of the posterior pharyngeal wall. Occipital pain and tenderness of the spinous processes of the affected vertebrae were almost always present. Sometimes sequestra were extruded per os. The anterior arch of the atlas, a portion of the second cervical vertebra, and the transverse process of the axis have all been obtained in this way, and in one case the patient himself extracted almost the entire fourth cervical vertebra with the intervertebral disc and a portion of another bone. Disease of the odontoid process has been followed by dislocation or fracture with symptoms of compression of the cord or sudden death. In one case there was angular lordosis opposite the seventh cervical vertebra. In rarer cases the syphilitic process arises in the spinous or transverse processes of certain vertebra, and leads to tenderness, localised periosteal thickenings, and occasionally to exostoses. The roots of the spinal nerves are not infrequently compressed, and radiating neuralgic pain results. In this form the spinal cord is never affected. On the other hand, extension of syphilitic disease from the spinal cord or medulla oblongata to the vertebrae has been observed in children by Jürgens.

MIDWIFERY AND DISEASES OF WOMEN.

(78) Malignant Degeneration of Cervix Uteri after Hysterectomy.

Richelot (*L'Obstét.*, October, 1903) devotes an article to the careful discussion of the relative merits of panhysterectomy and the supravaginal retroperitoneal operation. He admits that the latter is excellent, indeed it is pre-

rable under two conditions, first, when ie lower segment and cervix are greatly ivolved, and secondly, when the abominal walls are very thick and the terus almost fixed so that the surgeon obliged to operate at a disadvantage pecially as to manipulations deep in ie pelvis. But the stump is a source danger after the operation. It is useless and may become the seat of cancer. ichelot admits that this complication rare, but it has occurred three times his own practice. The first patient as 39, six months after the operation ncer of the vaginal portion of the rvix was detected, invading the igina. He admits that the disease ssibly existed at the time of the operion and was overlooked; but this ssibility must be taken into account in y case and the operator must bear in ind that incipient cancer cannot alys be recognized during a supraginal hysterectomy. The second tient was 38, three years after the eration advanced cancer of the portio" was detected. Lastly, Richelot tected the same complication in a man from whom another surgeon had iputated the fibroid uterus above the rvix. Experience is very varied, however, and several authorities consider at cancer of the stump is so rare that need not be taken into consideration respect to the merits of the supraginal operation (Zweifel, Bouilly). ll a certain number of cases have en recorded, and are quoted by chelot; sarcoma, not unknown, must remembered, it probably implies in ry case that the fibroid was a myocoma, a recognized condition. A roid does not become carcinomatous, t the hypertrophied glands of unlthy uterine and cervical mucosa very possible foci of cancerous deeration. For that reason Richelot ds that the cervix should be removed h the fibroid uterus and further intains that myomectomy, save in es where the uterus can evidently be fit for future pregnancy after reval of the fibroid is a bad operation pathological and surgical grounds. eaves behind a useless organ liable ery prejudicial changes. Tuffier retly exhibited a cancerous uterus ch he removed some time after cessful myomectomy. Had he left uterus at the first operation, there uld have been no subsequent cancer.

Gestation beyond Term in Rudimentary Cornu.

ARSKI (*Monats. f. Geb. u. Gyn.*, Noiber, 1903) reported a case where the ent was 23 and had borne a child 2½ rs before observation. The puerum was normal, but the child died weeks old. Then the period aped, but in the fifth week intermitfever set in, and the period ceased a whole year. At first, for three iths, the abdomen enlarged, then it in to diminish in size, and at the of the year the period returned. It ceased for eight weeks when the ent was examined. The uterus was verted and enlarged, as in the nd month of pregnancy; the left ndages felt swollen. A firm tumour, l in places and softer in others, out fluctuation being perceptible at any point, lay to the left of the uterus, and connected with the corresponding cornu by a distinct pedicle as thick as a little finger. At first either ovarian dermoid or fibromyoma was diagnosed, but on further examination crepitation was detected and the fontanelles of a fetal skull defined. Then it was evident that there was either an interstitial tubal pregnancy or cornual gestation. Abdominal section was performed, and the latter condition detected. The placenta lay on the lower part of the inner wall of the cornu. The patient recovered.

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(80) Perityphlitis in Pregnancy.

ROSTOFFZEFF (*Zentralbl. f. Gynäk.*, No. 49, 1903) sums up the previous literature on this subject, and reports 12 cases under observation in a Russian hospital. In 6 the disease was circumscribed, in 6 diffused; 6 died. In 6 cases an operation was performed; 2, in both of which the disease was diffused, ended fatally; 3 unoperated cases died, all of the diffused type; 1 death was unclassified. In 4 out of 9 of the above patients it was recorded that spontaneous abortion or premature delivery occurred; 4 cases died after artificial induction of labour. Thus the combination of perityphlitis and pregnancy is an exceedingly unfavourable condition. Infection having its primary seat in the vermiform appendix may extend to the placenta, and cause not only abortion but also secondary puerperal infection. The transit of the infective process to the placenta may be effected through the peritoneum (as when general peritonitis occurs), through the ligamentum appendiculo-ovaricum, or through adhesion of the uterus to a perityphlitic focus. Secondary infection of the appendix from puerperal sepsis is rare. Early operative interference is indicated when perityphlitis occurs in pregnancy. Rostoffzeff notes how very unsatisfactory are the results of inducing abortion, a practice which must be utterly rejected under these circumstances.

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(81) Secondary Cancer of Ovary: Its Clinical Import.

GLOCKNER (*Monats. f. Geb. u. Gyn.*, August, 1903) analyses 10 cases of secondary cancer of the ovary. The primary seat was the stomach in 6, the uterus in 2, the intestine in 1, and the breast in 1. He believes that in many cases of bilateral cancer of the ovaries the disease is secondary. Indeed, the primary tumour is not rarely overlooked. On that account the alimentary canal and uterus should always be submitted to carefnl clinical examination. The curette and examination of scrapings is to be employed when there is the least suspicion of uterine disease.

THERAPEUTICS.

(82) Some New Preparations.

ALTHOUGH it is impossible to test the actions of all the new pharmaceutical preparations which are thrown on the market, it appears to be considered a duty to employ some of the more promising drugs on the patients in Ewald's clinic in Berlin. J. Sigel (*Berl. klin. Woch.*, January 4th, 1903) reports briefly on some of the new preparations which he has studied clinically. First he deals with pegnin, which has been introduced by von Dungern. It is a combination of rennet and milk sugar, and has the property of coagulating milk outside the body and the coagulum, when formed, is capable of being finely divided by shaking or beating up. The milk is boiled in a glass bottle for a half an hour and then allowed to cool to 32° R. (= 104° F.), when one tablespoon of pegnin powder is added to each litre. In a few minutes the milk will curdle, and then one shakes the bottle vigorously until the coagulum disappears. The milk is then ready for use, but must not be heated much again. The taste and nutrient properties are not altered. It has been used chiefly for infants, but Sigel has given it largely to adults suffering from chronic gastritis, achylia gastrica, neuroses of the stomach, and for gastric ulcer. He feels justified in recommending it in these conditions. Pneumin is a creosote preparation, which is said to have certain advantages over other creosote preparations. It is obtained by allowing formaldehyde to act on creosote, and exists as a yellow-white powder, having little smell or taste. Patients take it well in doses of ½ gram three or four times a day. In expressing his opinion of its therapeutic value, Sigel says that it is difficult to estimate how far any beneficial effects are due to the pneumin and how far to other measures, among which he mentions specially hydrotherapeutic treatment. He found that pneumin has a favourable action on the appetite during the first weeks, and does not irritate the digestive functions, but after a few weeks this effect appears to become weaker. In some cases the cough and sputum were diminished. He does not feel inclined to hazard an opinion as to whether the pneumin was active in the general improvement which took place in many of the patients; but, nevertheless, he is inclined to prefer it to other creosote preparation, since it is easy to give, is pleasant to take, and is not dear. Hetol, which Landerer introduced as a means to treating phthisis, has already been tried in Ewald's clinic, but Sigel has continued testing the efficacy of it in some 50 fresh cases. Ewald stated that the intravenous injections of hetol did not produce the results which the experience of Landerer and others had led one to hope for, but considered that it was worth a more extensive trial. In the majority of the cases Sigel obtained the same results as had before been obtained in the clinic: in laryngeal phthisis it proved absolutely negative, and the same was seen in 2 cases of early lung disease. The rest of the cases, except 2 very advanced cases, showed very varying results. He recites the histories of 2 cases which appear to have been greatly influenced by the hetol injections. These were cases of severe acute disease, and it therefore appears that Landerer's indications for the treatment—namely, that it should be applied in early cases with little fever—meet some contradiction. He cannot explain the results he obtained. Rodagen has been recommended for the treatment of Graves's disease. It is

dried powder of milk, obtained from thyroidectomized animals. The doses given are 10 grams daily. In three cases Sigel was unable to obtain the least beneficial effect, but although he does not wish to express an opinion on the value of the powder from such a small experience, he considers it his duty to report negative as well as positive results. Atoxyl is an anilide preparation of arsenic, and is applied by intramuscular injections of a 20 per cent. solution. He gives 0.04 gram at the first injection, and then doubles the dose until 0.02 gram is reached. Then he injects the same dose every other day. In this dosage the preparation is absolutely non-poisonous. The tonic effect in several cases was unmistakable, and the alterations in the blood improved considerably. It was used for blood diseases. He speaks well of this new remedy. Theocin: This is a valuable diuretic, especially suited for cases of cardiac and kidney affections, complicated by ascites and oedema. The action is prompt, and during the first few days the amount of urine secreted is enormous; the secretion then diminishes somewhat rapidly, but it can be again increased by giving the patient a rest from the drug for several days. He gives it in doses of 0.3 gram two or three times a day. The only undesirable effect was the occurrence of vomiting, but this could be avoided when once it had taken place by giving the drug in suppositories. He did not see any signs of irritation of the nervous system. Veronal is a new hypnotic, which he finds acts well in all sorts of sleeplessness, if given in doses of 0.25 gram to 0.5 gram. One gives 1 gram to heavy drinkers. It also acts well as a sedative. It rarely fails to work, but in a few cases the patient remains very somnolent for the following twenty-four hours. Trigemin is a combination of pyramidon and chloral hydrate. It is recommended for neuralgic affections in doses of from 0.5 gram to 1.5 gram. In 12 cases Sigel found that its action was quite good, but in 2 of these cases he met with a very severe urticaria. He fails to appreciate the advantages of this drug over a number of other antineuralgic remedies. Mesotan is a salicylic acid preparation, which is applied externally. Its advantages have been freely reported on, so Sigel contents himself with noting the occurrence of an unpleasant side-effect in the shape of a dermatitis. It has been suggested to combine ichthyol with the mesotan and olive oil to overcome this disadvantage. Rheumatin is another good external antirheumatic, but is unfortunately not cheap. Lastly, he deals with the suggestion of von Noorden to treat severe cases of diabetes with oatmeal. It is said that diabetics can be freed from their glycosuria if one gives them large quantities of oatmeal, together with a pure butter and some simple albumen substance, such as roborat. At the same time as the sugar diminishes in quantity, the acetone and ammonia also disappear. Sigel has tried this treatment in 4 cases, and found that the quantity of sugar in the urine was diminished in 2 cases, and remained at the same level in the other 2; the acetone disappeared completely in 1 case, was markedly diminshed in 2 others, while in the fourth case no improvement took place, and the patient died a few days later of coma. He agree with Mohr that oatmeal is the best known treatment for acid auto-intoxications, whether diabetic or not.

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(83) The Action of Saline Purgatives.

The action of the saline purgatives is usually explained by saying that these salts are absorbed with difficulty; if they are administered in strong solution they are believed to cause the passage of water into the intestine from the lymph and blood by their osmotic pressure; if sufficient water is given with the salt then the result is the same, the quantity of saline solution filling the gut stimulates contraction of its walls, and the whole is passed out together with the faecal contents. J. B. McCallum (*Amer. Journ. Phys.*, November, 1903) has recently published a series of experiments carried out on rabbits, which furnish a striking challenge to the usually accepted theories. He states that in general the saline purgatives act not only when introduced into the intestine, but also when injected subcutaneously or intravenously. Sodium citrate solution, for example, injected into a vein of a rabbit produced peristalsis within one minute; if given subcutaneously, or by the intestine, peristalsis did not take place for ten or fifteen minutes. Similar results can be obtained with sodium fluoride, sulphate, tartrate, oxalate, and phosphate. This peristalsis, the first effect, is followed by a secretion of fluid into the intestine simultaneous with an increased flow of urine and of saliva. This is the opposite to the usual theories, according to which the peristalsis follows after the accumulation of fluid in the gut. Since the intravenous administration acts more rapidly than the intraintestinal, the inference is that normally the salt must first be absorbed into the blood before it can act on the intestine. The purging action of these salts is attributed to a hypersensitive condition of the nervous system controlling the intestine which is produced by these substances, and such a condition can also be induced in the skeletal neuro-muscular apparatus by larger doses of the same drugs. It has long been pointed out that the salts which form insoluble calcium compounds have the strongest purgative action. McCallum has found that the active peristalsis produced by the intravenous injection of a minimal dose of any purgative sodium salt can be almost entirely suppressed by the subsequent injection of an equivalent quantity of calcium chloride solution. This striking experiment suggests that the purgation is produced by the abstraction of calcium ions from the tissues, and this is in line with the observations of Loeb that the salts which produce rhythmical contractions in voluntary muscles are those which are liable to decrease the concentration of the free calcium ions. The question is one of great clinical importance, and many conditions suggest themselves in which the possibility of safely administering a simple purgative such as a saline solution intravenously or subcutaneously would be of great value.

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(84) The Treatment of Gall Stones.

Corsini (*Gazz. degli Osped.*, Novembe 15th, 1903) in reporting a case of typhoi fever with gall-stone colic as a complica tion or early sequela takes occasion t discuss the medical treatment of gall stones. For the attack itself, if it is a all severe, morphine is practically th only effectual remedy, although good re sults have been obtained with dionin. I milder attacks hot fomentations, drink ing hot water, chloroform (but if sligh anaesthesia, troublesome reflex is ap to occur, and deeper narcosis bring risks of its own, moreover there is th danger of inducing violent vomiting belladonna, which is supposed to para lyse the sphincter muscles near the am pulla of Vater, chloral again or antipyrin are occasionally useful. In the interval between the attacks attempts at "dis solving" the calculi may be made, an probably the free drinking of warm alkaline waters, preferably at a sp (for example, Carlsbad, Gerez, Vichy Marienbad, etc.), holds out the best pro spect, not so much in virtue of renderin the bile alkaline, but more likely by di luting it, increasing the flow and gene rally stimulating action. Salol an salophen are more useful than salicyli acid or the salicylates. Oleate of sod may be beneficial and favourable report have been given of a mixture of turpen tine and sulphuric ether. In cases as sociated with constant pain and feve calomel has proved useful. Large dose of oil (olive, cod-liver and castor mixed if tolerated may do good. When th stomach resents this treatment lipani may be tried, or glycerine in Vich water.

PATHOLOGY.

(85) Occlusion of the Salivary Duct.

Marzocchi (*Arch. per le Scienze Med* vol. xxvii, No. 13), as the result experimental work on this question finds that simple occlusion of th excretory duct of the salivary glan leads—with variations according t the animal employed in the e periment—to atrophy of the glan itself, but never to cystic formatio The secretion, which in the early days the occlusion is still produced by th gland, may form a temporary cyst, bu the contents are soon absorbed by th parietes and passed into the surroundin connective tissue. To form true rete tion cysts other factors must come in play beside mere occlusion of the duc There must be some diminution or su pression of the absorptive power of th parietes of the glandular apparatu Probably, also, there is a diminution the resisting power of the walls of th excretory ducts or of the acini.

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(86) The Effects of Purins on the Body Tissues.

Walker Hall (*Virchow's Archiv*, 190 Bd. clxxiv, p. 359) says that hypoxanth injected into rabbits does not produ any increase in the blood pressur When a small daily dosage is extend over several months, it is followed endarteritis, increase in the basophi leucocytes of the blood, and slight p toplasmic and nuclear changes in t cells of the liver. Whether similar sults occur in man is yet to be dete mined.

AN EPITOME
OF
CURRENT MEDICAL LITERATURE.

MEDICINE.

(87) Clinical Aspects of Tumour of the Pituitary Body.

In recording a case of sarcoma of the pituitary body, H. Rosenhaupt (*Berl. klin. Woch.*, September 28th, 1903) points out some facts connected with the physiological functions of this organ. The patient was a woman, aged 39 years, and was admitted into hospital on April 2nd, 1902. She stated that she had been taken ill four weeks previously, with symptoms of fever, increased thirst and much increased diuresis. During the four weeks she had suffered from very acute headaches and the skin of the head had become very tender. She further complained of indistinctness of vision. During the four weeks she had been losing blood almost continuously per vaginam. On examination the isthmus of the thyroid gland was found to be nodular and to be very hard. The lobes were not enlarged or hardened. A few scattered bronchial *râles* were heard all over the lungs; the heart was natural, pulse rapid and soft, but regular and not dicrotic. The spleen was enlarged; otherwise no physical signs revealed abdominally. Urine, acid, no sugar or albumen, very plentiful. Eyes, right convergent strabismus, fundus (right), the papilla was somewhat reddened on the temporal half. Knee-jerks slightly increased, otherwise no abnormal signs in examining the nervous system. On April 4th the temperature rose, and the patient became increasingly drowsy. On April 6th she felt well, but had great thirst, and passed a large quantity of urine. She complained later of sore throat, and a few enlarged glands were felt in the submaxillary region. On April 8th, 100 gr. of glycose were given, but only traces of sugar were found in the urine. On the following day, she was attacked with fits of sneezing; the eosinophile cells in the blood were found to be increased in number. No headache on April 11th, but on April 12th again severe headache; in spite of the serious condition of the patient, and in spite of the fact that she was fully conscious, she maintained a childishly-happy, almost skittish, mood. On April 14th more sore throat and difficulty in swallowing; coughed after drinking; the thyroid gland was much swollen, the respiration impeded, and the pulse small. During the night she died suddenly. The necropsy revealed sarcoma of the pituitary body and of the isthmus and right lobe of the thyroid gland and thrombosis of the right jugular vein. There was also a myoma of the uterus. On taking the brain out it was seen that the hypophysis was enlarged and transformed into a white mass; the region of the infundibulum was thickened and likewise transformed into a white tumour, which was intimately connected with the altered hypophysis cerebri. The clinical course of the illness suggested some inflammatory change, and as the thyroid was steadily increasing in size from day to day the diagnosis of strumitis was reasonable. The fever and the quantity and quality of the urine were difficult to reconcile together, while the only signs pointing definitely to changes in the central nervous system were the optic neuritis and the fits of sneezing. It was only after death, which took place suddenly and was ushered in by difficulty in swallowing and oedema of the lungs, that the diabetes insipidus could be definitely ascribed to a central change, and the most probable location was thought to be the floor of the fourth ventricle. In discussing the peculiarities of the case. Rosenhaupt says that, according to Cyon, the pituitary body possesses a chemical and a mechanical function. The former is analogous to that of the thyroid gland, and consists in the secretion of a substance which excites the regulating nerves of the heart and its vessels. Pressure on the body is said to strengthen the beat of the heart, to slow the rate, and to increase blood pressure. Friedmann and Mass, on the other hand, found that the pituitary body can be removed without disturbing the vital conditions of the whole body or interfering with the growth of it. Rosenhaupt is loth to assume that the polyuria and the fever in his case were due to the changes in the hypophysis cerebri, since there are no physiological grounds to support this view, but suggests that in view of the hyothetical existence of a so-called diabetes centre close to the centre for heat, the tumour may have exercised pressure through the tuber cinereum on these two centres and so produced the symptoms of polyuria and fever. The small amount of changes in the optic nerve was possibly due to the fact that the chief pressure of the tumour was in the direction of the infundibulum, and therefore very little was produced on the optic nerve or its vessels. In conclusion, he says a few words on the coexistence of sarcomatous growths in the pituitary body and the thyroid gland.

(88) The Recognition and Prevention of Iodism.

Lesser (*Deut. med. Woch.* November 12th, 1903) says that it has been supposed that the symptoms of iodism are caused by the setting free of iodine by the nitrous salts which are formed in the organism. This nitrite hypothesis has, however, been disproved and various other explanations have been suggested. Lesser points out that it is by no means proved that the poisoning symptoms are in reality due to free iodine. It is said that since no free iodine has ever been found after taking pure iodides, the free iodine is at once bound by the albuminous substances. He therefore tested the blood after giving alkaline iodides, and failed to find any compound of iodine and albumen, but that all the iodine was present in the form of iodide. He even found iodide in the blood corpuscles, and therefore feels justified in stating that there is every evidence that iodides are not split up, but act as iodides. Other authors have also been able to prove that after giving alkaline iodides no albuminous compounds of iodine can be found in the organs, with the exception of the thyroid, which normally contains an iodine albumen compound. He next deals with iodipin, which has the characteristic of never producing iodism when injected subcutaneously, but producing it freely when taken by the mouth. He found by careful analysis that in both cases iodipin is excreted in the urine as iodides, but that the difference lay in the quantity of circulating iodide at any given time. Iodipin taken by the mouth behaves much as alkaline iodine does, that is, it is rapidly transformed into iodide and appears in the blood after a few minutes. After subcutaneous injection, however, it is only very slowly absorbed, and he found that if 20 c.cm. of iodipin are injected daily for 10 days iodides can be detected after six months. In this case, the largest quantity of iodide circulating in the blood and in the organism in one day was 0.3 gram. Iodism therefore depends on a mass absorption of the iodine compound, in the form of iodide. So far neither free iodine nor albumen iodine compounds have been found in the organism, and Lesser believes that we ought to speak of alkaline iodism, and not iodism. The methods which he suggests for preventing these symptoms are as follows: (1) By giving iodides in slimy substances, such as mucilages, which prevent the rapid absorption of the iodide; (2) by dividing the daily doses into a number of small single dose; (3) by giving enemata of sodium iodide per rectum, possibly together with opium, in order to slow the absorption; (4) by substituting for iodides albuminous iodine compounds, and; (5) by injecting iodipin subcutaneously. This latter method has the disadvantage that too little iodine is absorbed at one time to act sufficiently, but in cases of iodiosyncrasy against iodides it may be used with advantage.

SURGERY.

(89) Partial Perineal Prostatectomy.

Rydygier (*Zentralbl. f. Chir.*, No. 1, 1904) claims priority for the introduction into practical surgery of a partial and yet efficient method of resection in cases of hypertrophy of the prostate. This method, described as intracapsular resection or rather eccochleation of the gland, was devised with the object of meeting the indication that in very old and decrepit subjects it is necessary to diminish as far as possible the risks of operative treatment. The external wound in the author's operation is a simple median incision extending from the posterior insertion of the scrotum to the front of the anus, this being regarded as less serious than the curved incision made from side to side. The capsule of the enlarged prostate having been exposed by careful dissection, is incased on one side, preferably the left, of the median line. Through this slot in the capsule as much as possible of the prostatic tissue is enucleated without opening the urethra or bladder. It is held, that total extirpation, provided the operation be an intracapsular one, is impossible, and that any attempt to remove the whole gland under this condition is likely to result in wounding of the urethra, the bladder, and the rectum.

Perforation of the walls of the urinary or intestinal tracts must, it is held seriously interfere with the success of the operation, and care in avoiding such complication is much more urgently indicated, the author believes, than any endeavour to make a total extirpation of the enlarged prostate. It is pointed out that in partial removal or eccochleation of the enlarged gland, it is possible to save the ejaculatory ducts, and thus avoid any cause of complaint as to the results of their operative treatment by patients not very far advanced in years. It is pointed out that as the prostate is not only a secreting gland, but also a muscular valve at the outlet of the bladder, total or very extensive removal of this body is not unlikely to result in incontinence of urine. Partial intracapsular resection, the author holds, cannot fail to do so much, even though it be not completely successful, in all cases except those of simple enlargement of the middle lobe of the prostate in which other operative treatment is indicated. The author states that partial intracapsular resection of the prostate, which is regarded as much less serious than other operations and not liable to be followed by any bad effects, should be performed in an early stage of the disease. The sooner the mechanical obstruction in the flow of urine from the bladder is removed, the more effectually will the patient be protected against the bad results of morbid changes in the vesical walls.

(90) Surgical Treatment of Acute Pancreatitis.

Woolsey (*Annals of Surgery*, November), in a paper on the diagnosis and treatment of acute pancreatitis, gives a summary of three cases of this affection successfully dealt with by laparotomy and drainage. The first two cases were operated on in the early stage—the first on the third day, and the second twelve hours after the onset. The first case was a haemorrhagic one, and showed fat necrosis; the second case showed no fat necrosis or bloody fluid, but the latter appeared on the removal of the gauze drain two days after the operation. In the third case there was marked but temporary glycosuria. The two conditions likely to be confounded with acute pancreatitis and to give rise to difficulty in differential diagnosis are acute obstruction in the upper part of the intestinal canal and peritonitis from a perforating gastric or duodenal ulcer, both of which, it is pointed out, can only be relieved by surgical treatment. The author advocates early incision and drainage in cases in which the symptoms are those of commencing pancreatitis. The operation, it is held, should not be delayed until the symptoms of collapse have passed off, as experience has proved that this condition may be overcome by evacuation of the septic peritoneal exudation. The argument that the percentage of mortality will be less if the surgeon waits for the formation of a local abscess appears to the author to be fallacious, as it takes no consideration of the large percentage of those who die before such a favourable result is presented; and, in the second place, many patients never develop a local abscess, the process being diffuse from the outset. It is not safe, and therefore not wise, to wait until the patient has got over the collapse and the symptoms of obstruction, and has developed a local abscess. The high mortality of an early operation in acute cases is attributed to the fact that in many of these fatal instances intestinal obstruction was suspected, and the collapsed patients were subjected to a prolonged search for the seat of the supposed intestinal lesion. The author, in a cursory review of recent literature, has found several successful cases to add to the three recorded in this paper, and sums up his views by stating that if by a simple operation in the acute stage of pancreatitis, performed under cocaine anaesthesia, we can both combat the collapse and remove the morbid condition, the operation not only may but should be done.

(91) Splenectomy for Banti's Disease.

Quénu and Duval (*Rev. de Chir.*, No. 10, 1903), in discussing the scanty results of operative intervention in cases of primary enlargement of the spleen complicated with anaemia and hepatic cirrhosis, a condition known as Banti's disease, consider under what conditions and at what stage of this disease splenectomy is indicated. From a careful study of this subject the authors conclude that operative treatment is indicated by extreme enlargement of the spleen. Such treatment, it is urged, is required not in every case of Banti's disease, but only in those in which the patient is suffering from splenomegaly. Splenectomy acts on the general condition and probably on the hepatic lesions, but it cannot be positively admitted that the operation itself can ameliorate or cure them. Beyond an enormous increase of the volume of the spleen, together with consequent abdominal troubles and intense anaemia, there are no other indications for operative treatment in cases of Banti's disease. In a paper on the same subject in the *Annals of Surgery* for October, Levison reports a case in which he removed the spleen in Banti's disease with good results. An instructive review of our present knowledge is here given, and reference is made to a number of cases of splenic anaemia and Banti's disease treated by splenectomy which, in the author's opinion, prove that much can be accomplished by surgical measures. In conclusion, he holds that Banti's disease forms a distinct chapter in the surgery of the spleen, and that early operation offers a favourable prognosis. The gravity of the operation, it is pointed out, increases *pari passu* with the size of the spleen, and the disease, if not surgically treated, usually terminates in death.

MIDWIFERY AND DISEASES OF WOMEN.

(92) Some of the Obstructions to Labour.

E. Puppel (*Deut. med. Woch.*, December 17th, 1903) deals with some of the obstructions to labour produced by anomalies or disease of the maternal tissues. First, he records some cases of contraction of the pelvis. The first of these cases was one of a flattened rachitic pelvis. The patient had had one spontaneous premature birth in the seventh month, with a macerated fetus, and one full-time pregnancy at the end of which perforation and craniotomy had to be performed. The conjugata vera measured $2\frac{5}{8}$ in. As the patient was extremely anxious to have a live child, and the measurements of the pelvis lay been relative and absolute indications for Caesarean section, it was decided to carry this out. The patient was removed into hospital after she had been in labour for three hours. The membranes ruptured during the transport, and the cord prolapsed on arrival. Chloroform was administered at once, but the patient took it badly, owing to a quantity of food in the stomach. She vomited a great deal. On account of the condition of the woman, as soon as the child was delivered and made to breathe, the uterus was included by a ligature around the cervix, and removed above the ligature. The patient developed a severe bronchitis on the second day, and died of broncho-pneumonia on the eighteenth day. The wound had healed by first intention and the peritoneum was intact. The second case was that of a primipara, with a flattened rickety pelvis, with a conjugata vera of $2\frac{3}{4}$ in. The child was freely movable above the inlet of the pelvis, with the vertex presenting in the second position. The fetal head appeared to be large, and as it could not be pressed into the pelvis it was decided to perform Caesarean section. The operation was carried out without difficulty, and the child was delivered alive through a longitudinal incision in the anterior wall of the uterus. The tubes were tied in two places and divided in between the ligatures. The patient left hospital well in three weeks. The points in favour of this case were intact membranes, no infection of the uterus, and good heart sounds of the fetus. The next case was that of a woman in the ninth month of pregnancy who had borne four children with instrumental help, of which three had died during the birth. The pelvis was a flattened rickety one, with a conjugata vera of $3\frac{3}{5}$ in. An attempt to induce labour prematurely by means of bougies caused profuse haemorrhage but no pains. It was therefore decided to wait till the end of the pregnancy and then to perform Caesarean section, but after ten days the membranes ruptured and profuse bleeding again took place. Placenta praevia was diagnosed and the vagina was plugged. As the haemorrhage continued in spite of this, the patient was removed into hospital and Caesarean section was performed. The fetal heart sounds could not be heard and the cervix was found to be pervious for one finger, through which placental tissue but no fetal parts could be felt. The uterus was incised transversely through the fundus and a dead child was extracted. Porro's operation was completed, as the woman was so anaemic that it was necessary to curtail the length of the operation. The stump was dealt with extraperitoneally. The patient made a good recovery. The next case was that of a woman with an osteomalacic pelvis. She had gone through five labours, of which the last three were supposed to have been footlings. At each pregnancy she had suffered from "joint rheum-

tism." This got better after each birth. he presented herself in the second ıonth of pregnancy, and the diagnosis f osteomalacia with a typical pelvis as easily arrived at. She was treated ith phosphorus and cod-liver oil for ven months but without effect. It as therefore considered advisable to ıggest Caesarean section to the patient, ıd, as she agreed to this, she was imitted into hospital eight days before ıe expected full time. Porro's opera- on was carried out, and both mother ıd child left the hospital six weeks ter well. The second series of cases al with obstruction to labour due to ıe condition of the pelvic organs. The st case was that of a woman with cer- cal carcinoma of the size of a goose's g in the ninth month of pregnancy. ıe patient was chloroformed; lapar- omy was performed. The child ıs delivered through a longi- dinal incision in the anterior ıll; the uterus was then amputated pravaginally and an elastic ligature plied. The abdominal wound was ɔsed. The carcinoma of the cervix was noved with the Paquelin cautery per ginam and the stump of the vagina tirpated. She made a good immediate covery, but died three years later of recurrence in the left parametrium. ppel discusses the advantages of this thod of dealing with such a case as ıinst empytying the uterus after ating the cervix and then vaginal al extirpation, against the classical al extirpation per abdomen, against classical extirpation per vaginam, l against vaginal Caesarean section h total extirpation. He next deals h cases of myomata of the uterus, tructing labour. In one case the dwife had examined freely per vagi- n before sending for assistance, and admission into hospital there was ady a fetid discharge. In this case carried out a Porro's operation. The er pelvis was completely filled by a ge myoma. A second case was uliar. The child was born spon- eously, but was found to be dead macerated. The placenta did follow. Expression and attempts remove it manually failed, and on mination by the gynaecologist from hospital, it was found that the us was very large and hard; the ix was dilated to allow two fingers pass, and was extremely long. At ut the level of the internal os a myoma he posterior uterine wall was felt. cervix was plugged, and the patient oved into hospital. There was haemorrhage. As a curette could be passed, the cervix was again ged and the uterus was washed out. ing the next few days the patient several rigors. The cervix was then sed and an attempt to remove the enta was made; this, however, was n unsuccessful. The cervix was efore sutured and a total extirpa- of the uterus through the abdominal was carried out. Lastly, he deals 1 2 cases of labour obstructed by ian tumour. He says that in the of ovarian cysts one should always cture during labour, and undertake removal at a later date, but with l tumours, if the tumour cannot be aced, Caesarean section must be idered.

(93) Secondary Perineorrhaphy in Childbed.

Abuladse (*Monats. f. Geb. u. Gyn.*, September, 1903) believes that a ruptured perineum should be carefully repaired during the later stage of the puerperium. As an operation performed for the repair of a damage during labour, it should be undertaken during convalescence from that labour, so as to anticipate very disagreeable complications as well as cicatricial changes prejudicial to the success of a surgical proceeding later on. It is simple under the circumstances, free from danger, and, as a rule, successful. Hence it is, in Abuladse's opinion, obligatory on the obstetrician to repair a torn perineum at the end of the puerperium when discharges have ceased. The primary operation, undertaken immediately after labour, obviates complications if successful, but the writer knows that it is by no means always followed by success, and a weak perineum is a frequent result. Indeed it is unsurgical to sew up a deep rent with lacerated edges. He gives a series of secondary operations in his own practice, where in several cases he had failed in a primary operation, the sutures cutting through or the wound suppurating. All his secondary operations proved successful. He adds much evidence in favour of his practice from older records.

(94) Protection of Ureters by Kelly's Hysterectomy.

Faure (*La Gyn.*, August, 1903) dwells on the great dangers to which the ureters are exposed during the enucleation of large uterine tumours opening up the broad ligament and of burrowing or widely adherent ovarian tumours. In one case of the latter type, where the uterus was drawn high up on the anterior surface of a multilocular cyst, the bladder happened to be similarly displaced and was wounded during the opening of the abdominal cavity. The laceration was closed and the bladder dissected down off the face of the tumour, which was then tapped. In separating adhesions on the left side the iliac vessels were laid bare, the parietal peritoneum covering them being pushed inwards. With the displaced piece of peritoneum went the upper pelvic portion of the ureter, and Faure feared to damage that duct by working in the dark from above downwards. He therefore determined to work the other way, and divided the supravaginal cervix with scissors. A long-bladed pressure forceps was placed on the lower end of the uterus, which was next drawn up. Then the uterus and appendages were detached from below upwards, a manœuvre which proved quite easy. The displaced parietal peritoneum, with the left ureter, was then exposed and easily pushed back. The tumour being removed, the cervix was closed with a catgut continual suture and the pelvic peritoneum repaired; the pelvic cavity was drained and the patient recovered. Faure speaks in the highest terms of Kelly's method of beginning an operation of this kind by dividing the uterus at the isthmus and dissecting it upwards with its appendages. Bisection is also very useful in many cases. It allows of the removal of a large tumour much more rapidly than by working from above downwards, and moreover saves the ureters from damage.

THERAPEUTICS.

(95) Digestibility of Vegetables.

Although many observations are recorded of the digestibility of various vegetables *in vitro* and in animals, very few attempts have been made to estimate accurately their values in man. Bryant and Milner (*Amer. Journ. of Phys.*, October, 1903) report careful observations made upon themselves and a student. A diet consisting of constant proportions of meat, bread, butter, milk, and sugar was taken for some days, and the composition of the food and of the faeces determined. Then a vegetable, either cabbage, potatoes, beetroot, apple sauce, or green corn was added, and the effect upon the composition of the faeces ascertained. The results of most practical interest were those relating to potatoes and cabbage. The former food can be classed as one of the most digestible for a healthy man; 91 per cent. of the total energy of the potato was available in the body. Cabbage proved, as would be expected, not so digestible, less than 60 per cent. of its energy being available. Beetroot and apple sauce were, like potato, mostly utilized. As regards proteid or fat, these substances are, as is well known, of little value, but the carbohydrate, which they contain in large quantity, is well digested and absorbed. The effect produced, however, does not entirely depend on the value of the vegetables themselves, for it was found that the digestibility of the rest of the diet may be improved by the addition of these foods. Vegetables supply organic acids and mineral salts, make the diet pleasanter to eat, and by their bulk maintain a healthy activity of the intestine, and their beneficial action is probably largely due to these factors.

(96) The Treatment of Galactophoritis in the Newborn.

Betti (*Il Morgagni*, November, 1903) considers that inflammation of the breast is more common in newly-born children than has been supposed. He has attempted without success to find evidence in favour of the view that it is usually caused by blows. He considers the treatment with compresses moistened with boracic acid solution inadequate, and recommends that as soon as swelling and redness show the onset of inflammation sublimate of mercury solution (1 in 3,000) should be used for preparing the compresses. In female children even slight suppuration in the breast may lead to serious results, and Betti recommends that as soon as there is any appearance of pus the puriform liquid in the breast should be carefully squeezed out, as recommended by Budin. If the patient's breast and the operator's hands have been properly prepared no bad result can follow this operation, which should be performed without waiting for the onset of fever or lymphangitis. Compresses of some efficient antiseptic should be applied again after the operation, and cure may be expected in a day or two, as in the two cases of his own which Betti quotes.

(97) The Action of Arsenic on the Kidneys of Children.

SCOFONE AND BRINDA have reported that the therapeutic use of arsenic causes hyaline and granular cylinders, of renal epithelium and of red blood corpuscles in the urine. To investigate this observation Gianasso (*Giornale della R. Accad. di Med. di Torino*, November, 1903) carefully examined the sediment from the urine of 22 children all treated hypodermically, or by the mouth, by large doses of arsenic. In three of the cases the drug was pushed beyond the limits of tolerance, but the symptoms were gastric and intestinal, not renal. In no case were casts, renal epithelium, or blood corpuseles discovered in spite of repeated examinations, Gianasso therefore concludes that in the case of children whose kidneys are healthy to begin with, the therapeutic use of arsenic is free from danger.

(98) Treatment of Alopecia Areata.

CHARMEIL (*Echo Méd. du Nord*, p. 345, 1903) remarks that alopecia areata develops by preference on a nervous soil. General treatment is hence important, and sea air, exercise, massage, etc., are recommended. Internally arsenic and phosphates are useful. Locally the author recommends epilation round the periphery of the patches, as it causes a slight irritation of the skin. Acetic acid is applied to the bald places either pure or diluted as follows: ether 25, hydrate of chloral 1 to 4, acetic acid ½ to 2 parts. The author also uses pencils of chrysarobin made up with paraffin, cacao, and vaseline. In rebellious cases a blister may be used, followed by the application of silver nitrate. In addition to the local treatment the whole scalp may be treated by friction with the following lotion: alcohol, 90 per cent., 300 grams; alcohol of lavender, 100; bichloride of mercury, 0.6 centigram; tincture of cantharides, 15; hydrate of chloral, 5; castor oil, 2 grams. Other methods, such as massage, faradization, high-frequency currents, and light treatment have been tried, but simply act in the same way by causing irritation.

PATHOLOGY.

(99) Intracellular Toxins.

MACFADYEN AND ROWLAND publish researches on the intracellular constituents of the typhoid bacillus (*Centralbl. f. Bakt.*, Bd. xxxiv, No. 7, October 9th and 21st, 1903). The investigations had a special object in view, namely, the study of certain of the intracellular factors in health and disease by obtaining directly the cell constituents and eliminating as far as possible excreted substances and those formed by the cell in a given environment. No specific toxin produced by the typhoid bacillus has been demonstrated although it has been assumed by analogy with other organisms; the writers again investigated the subject by growing the bacillus in culture fluids approaching in constitution the natural body soils, and inoculating the filtered cultures. In no case was an extracellular toxin developed comparable in any way to those obtained from pure cultures of undoubtedly extracellular toxin-producing organisms, for example, the diphtheria bacillus. The fresh cell plasma of the organism was in the next series of experiments obtained by triturating large quantities of culture and filtering with the aid of a hydraulic press. The fluid obtained was used for immunizing experiments, and these showed that the typhoid cell plasma possesses active physiological properties, and that on injection it affords a certain protection against virulent typhoid organisms in virtue of specific bacteriolytic properties developed in the blood of the treated animals. In these observations, while the immunizing properties of the cell juices, as regards the typhoid organism, had been demonstrated, acute and definite toxic effects had proved remarkable by their absence. As an intoxication of the system in the case of enteric fever is a grave and perhaps the cardinal factor to be considered in the treatment of the disease, the search for an active toxin in the cell plasma is the matter of greatest importance. It seemed probable that the lack of success in demonstrating the presence of such a toxin was due to the filtering method employed. The disintegration of the organisms by a method which did not necessitate filtration was attempted and successfully carried out by trituration in a frozen condition at the temperature of liquid air. In addition to the typhoid bacillus, other bacteria and other types of vegetable cells, also animal tissues, were treated in this way, and their intracellular juices obtained. The results which are now published concern the typhoid organism. The mass obtained by trituration at 190° C. was mixed with salt solution and centrifugalized. The fluid obtained on inoculation into animals in small doses invariably proved toxic or fatal, and it was therefore concluded that the typhoid bacillus contains within itself an intracellular toxin. The toxicity of the fluid varied directly with the virulence of the living bacilli, in one instance a 10 per cent. toxin was obtained, of which 0.003 c.cm. killed within twenty-four hours. The specificity of the fluid was demonstrated by the constant appearance in the blood of agglutinating properties. The fluid was then used for immunizing experiments, and it was shown that the serum of the monkey after injection of the typhoid cell juices possessed antibacterial and antitoxic properties, and also curative and preventive properties. This observation has for the first time furnished proof that in the case of one species of pathogenic organism the intracellular juices when injected into a suitable animal give rise to the production of a serum which is both bactericidal to the organism itself and antitoxic as regards a toxin contained in its substance. The method promises a possibility of obtaining bacterial vaccines of greater purity and capable of more accurate standardization in the case of enteric fever, plague, and other diseases, the symptoms of which may depend upon the presence of intracellular toxins in their specific organisms.

(100) Abrin Poisoning.

GILBERTO ROSSI (*La Clin. Mod.*, December 9th, 1903), with a view to further studies on the alterations of development of the eggs of hens recently immunized against abrin, has investigated the lesions produced in fowls by abrin poisoning. He injected into the peritoneal cavity 4 mg. of the poison for each kilog. of the bird's weight, choosing healthy and well-grown birds weighing 2,500 grams or a little more. The six animals experimented upon all died with similar symptoms in from thirty to eighty hours. Rossi supplies a detailed account of the histological examination of one of the birds which died between thirty and forty hours after the injection. The conclusions at which he arrived are as follows: Fowls possess no natural immunity against abrin. The alterations produced by the poison do not differ much from those produced in mammals or from those produced in mammals by ricin poisoning. All the organs are more or less profoundly altered, and the longer the duration of the case the more distinct are the alterations. Vascular congestion is one of the most noticeable point, small haemorrhages being scattered through all the organs. Cellular alterations also are everywhere to be found, the liver and intestine being most affected and the kidneys comparatively, but not absolutely, unchanged. In none of the glandular organs, with the exception of the kidneys, was it possible to find any sign of granules of secretion. This relative immunity of the kidneys, both from congestion and cellular degeneration, is probably the result of the route by which the poison tends to be eliminated from the body. It leaves the body by the intestine, and it is in the intestine that the changes are best marked. Though the vascular congestion, with extravasations and other circulatory changes, was everywhere found, there seems to be no reason for agreeing with Werlzovsky that the changes in the organs are entirely secondary to circulatory disturbance. On the contrary, there is a general toxic action. In fowls in which the course of the illness lasted two or three days the congestive phenomena were diminished and the cellular alterations were more profound and more widely diffused.

(101) Causes of Death in Diphtheria.

ERIK FABER, in a dissertation for the M.D. degree of Copenhagen, points out that the cause of death in diphtheria depends upon the intensity of the infection, the disturbance of the circulatory apparatus, and the respiratory lesions, paresis and general complications. Out of 56 cases of which studied with special regard to changes in circulation, he was able to ascribe five distinct series of alterations. In two groups death occurred through the action of the toxin upon the vaso-motor centre, in another the lethal symptoms were those of poisoning by carbon dioxide, in another group there were no important changes in the cardiac muscles. Faber did not observe any distinct cardiac paralysis. He considers that death in this group was due to paralysis of the respiratory centre. In most of the cases the blood pressure was unaltered; in the worst cases it always fell during the first fourteen days, and only returned to normal about the beginning of the fifth week.

AN EPITOME
OF
CURRENT MEDICAL LITERATURE.

MEDICINE.

(102) Abdominal Pain.

.T a meeting of the Medical Society of ne State of New York held on January 5th, 27th, and 28th (*Medical Record*, anuary 30th), abdominal pain formed he subject of a discussion. John H. Musser (Philadelphia), speaking of pasm, or rigidity of the abdominal uscles, said it should be remembered iat in women with enormously dis-ended and relaxed abdominal walls gidity was not likely to be present. toxaemia were present, or there were moderate leucocytosis, too much stress ust not be laid upon muscular spasms s an evidence of pain. On the other and, in athletic individuals even mode-te abdominal pain was likely to give se to excessive muscular spasm. It ad long been known that in some cases Bright's disease, particularly in preg-ant women, pain occurred in the upper alf of the abdomen as a forerunner of 1 attack of uraemia. Then there might e cases of supposed abdominal pain ependent upon hysteria. In consider-g abdominal pain the occurrence of eumatism of the diaphragm and aphragmatic pleurisy should not be rgotten. With the onset of pneu-onia, particularly in children, the mptoms complained of might be en-rely abdominal and lead to a suspicion appendicitis or a localized peritonitis. ain due to gastric disease was not by ay means confined to the region of the omach. Pyloric spasm was often con-unded with gall-bladder disease. A rge proportion of the cases of sup-sed gastralgia that he saw proved to cholelithiasis. Pericarditis and gina pectoris were well known to be sociated with pain referred to the domen. Every known method of vestigation must be employed in fferentiating gastric, hepatic, renal, d pancreatic pain. The disappear-ce of pain was often also of much gnificance, pointing frequently to the set of toxaemia. Again, there were ses in which pain was absent when should be present. A notable ample of this was intestinal ob-ruction with paresis of the bowel.—D. Bryant (New York) read a paper abdominal pain referable to the abdo-inal walls. He said that inflamma-on of the visceral layers of the peri-neum did not cause pain of such verity as to be of much diagnostic portance in most instances. The rve supply of the abdominal walls ould be borne in mind in connexion th this subject. A hyperaesthetic rface sometimes overlaid an inflamed ea of peritoneum. Involvement of at portion of the pleura supplied by e dorsal nerves would sometimes use pain, hyperaesthesia, and rigidity the abdominal wall. An infection calized in the abdominal wall itself ight be mistaken for intra-abdominal volvement.—F. H. Wiggin (New York) alt with abdominal pain of intestinal gin. He said that abdominal pain was common to all disorders of the intestine. In a general way, sharp persistent abdominal pain indicated involvement of the peritoneum, while dull aching pain indicated involvement of the connective tissue. Tenesmus pointed to implication of the lower third of the intestinal tract. Colicky pains occurring several times a year, in a person not constipated, pointed strongly to ventral stenosis. Involvement of the colon was shown by diarrhoea, limitation of the pain, and sensitiveness of the course of the large bowel. Colicky pain in the left iliac fossa, with tenesmus and blood-stained stools, suggested inflammation of the sigmoid flexure of the rectum. In disease of the upper part of the duodenum there was pain in the right hypochondrium, and occurring a few hours after eating. The diagnosis of appendicitis should never be made until after exploration of the chest had excluded disease of the lungs or pleura. Severe abdominal pain in the region of the umbilicus, associated with constipation and collapse, suggested external hernia, and should lead to a careful examination of all the various hernial openings, and also a search for a tumour in the linea alba. Subacute symptoms of obstruction, occurring in a man over 40 years of age, giving a history of constipation and associated with rapid distension of the bowel, pointed to volvulus. In all cases of persistent abdominal pain of obscure origin, exploratory operation should be done. R. F. Weir (New York) called attention to a recent communication by Ellsworth Eliot (New York) on the behaviour of the aortal arches as an aid to diagnosis. If, with the thumbs directed towards the sternum and the fingers crowding the aortal arches inwards and towards the vertebral column, an abnormal resistance was encountered, it was very significant of some pathological condition in the region of the liver, pancreas, duodenum, or pylorus, and was sometimes present when there was no rigidity of the rectus muscles. With this resistance there was oftentimes an additional pain. Eliot had met with one case of pancreatitis in which leucocytosis was present; so the surgeon could no longer rely implicitly upon absence of leucocytosis as an indication of pancreatitis. McBurney had told the speaker of one case in which the rigidity of the abdominal wall was not due to some intra-abdominal lesion but to beginning tetanus. Although it has been shown that "McBurney's point" did not accurately represent the position of the appendix, the method of examination known as "finger pressure" suggested by McBurney was in itself so valuable as to warrant the association of his name to it. It was often exceedingly difficult to feel the appendix, and it was well to remember that this palpation could be very greatly facilitated by directing the patient to raise the leg a little outside of the median line. This would cause the psoas muscle to contract, and as the appendix was usually resting on this muscle or near it the appendix would be lifted up within reach of the examining finger. In the case of a young child much information could be obtained by passing the finger up into the bowel.

SURGERY.

(103) Formation of New Joint by Metallic Supports.

PASCALE (*Rif. Med.*, December 2nd, 1903) in the first part of an interesting communication reports the case of a lad, aged 19, whose humeral head and part of the shaft of the humerus were removed for a sarcomatous growth, and a new joint made by attaching the humerus to the scapula by means of stout metallic wire. The result so far is excellent, both as to function and non-return of growth. Another case of the author's similarly treated concerned the ileo-femeoral articulation. The first patient dated his trouble from a fall on December 3rd, 1901. As pain and swelling occurred he consulted various surgeons, and in January, 1902, he was narcotized and the arm thoroughly examined with a view to a possible dislocation; no displacement was, however, detected. At the further operation a distinct sarcomatous tumour was found growing from the head of the humerus. The upper and external segment of the humeral head was unaffected, but the tumour affected the remaining portions and spread down below the surgical neck and into the attached muscles. All these diseased parts were freely removed, but it was found possible to preserve part of the attachment of the deltoid and pectoralis major. After the haemorrhage, which was troublesome, was arrested, the various muscles were carefully attached, a stout thread of silver was passed through the whole of the shaft of the humerus and thickest part of the glenoid cavity and twisted up on the external surface of the humerus. The post-operative course was excellent, and after twelve days the large wound was completely healed. The limb was fixed for about twenty days, and after that passive movements were commenced. About a month later the limb was found very little shorter, the shoulders lowered, and less prominent, but covered with a good firm mass of muscle tissue. There was no pain and the junction was good. The patient was able to dress himself unaided, and except the movements of abduction and elevation which were diminished, had an excellent range of movement.

(104) Persistent Pupillary Membrane with Anterior Synechiae.

WINTERSTEINER (*Graefe's Archiv f. Ophthal.*, October 13th, 1903) discusses the above condition with regard to its etiology and subsequent course. The following are his conclusions: That the cause of anterior synechia of a persistent pupillary membrane is (though not invariably) to be found in a blenorrhoea neonatorum which has led to ulceration and perforation with prolapse of the fetal pupillary membrane, which at that early age has not yet entirely disappeared, and with adhesion formation between it and the corneal cicatrix, which develops later. That the cicatrix clears up later, leaving a very small scar which lies in the deepest layers of the cornea. All previous observations have been made clinically on cases which have arrived at a stationary condition, coming under observation some months or years after birth, which

renders a conclusion as to how far resolution has taken place impossible. Wintersteiner has examined anatomically a case in an infant of six weeks old, the microscopic diagnosis of which was the following: central, fresh, richly vascularized corneal cicatrix, perforating the entire depth of the cornea centrally, and connected with the lens by a strand of loose tissue, and with the pupillary edge by a persistent pupillary membrane; commencing anterior polar cataract. That the anterior synechia really consists of pupillary membrane, and not of inflammatory new-formed, connective tissue there can be no doubt on account of (1) the appearance and non-inflammatory nature of the tissue; (2) its origin from the anterior surface of the iris, near its pupillary margin. The nature of the anterior adhesion of the lens is more doubtful, whether it is to be regarded also as a pupillary membrane or as new-formed connective tissue from the cornea. In cases previously observed no synechiae between lens and cornea have been found, but these cases were seen at a much later period, and if the synechiae consist of remains of pupillary membrane nothing is more likely than that an almost complete resolution takes place, leaving the lens free and perhaps only an anterior polar cataract, as evidence of the previous adhesion. It may be objected that in the case described the corneal scar was thick and extensive, while in the cases previously observed the cornea was, for the most part, clear, and only opaque at a point corresponding to the point of attachment, but to those who have observed the almost incredible capacity for resolution in the cornea of young children this difficulty will not be a serious one. He cites two other cases, of 4 and 7 years respectively, to prove his points.

(105) External Oesophagotomy in Cases of Foreign Body.

T. TOUBERT (*Bull. et Mém. de la Soc. de Chir. de Paris*, No. 39, 1903) communicates a case of successful removal by external oesophagotomy of a denture impacted in the oesophagus just above the sternal notch. This surgeon holds that in cases of this kind it is advisable to practise immediate extraction by external oesophagotomy without making any attempt to extract the foreign body by the mouth. Such attempt, it is held, is dangerous, and in most instances quite useless, on account of the nature of the metallic denture, which, by its irregular shape, acts, when seized and pulled by forceps, as a contusing, cutting, and puncturing body. It is necessary, however, before resorting to external oesophagotomy, to obtain an immediate and sure diagnosis not only of the presence of the foreign body in the oesophagus, but also of its seat and position. This diagnosis, it is pointed out, can be readily determined by radioscopic examination, which, in cases of impacted body in the oesophagus, may be regarded as an indispensable method, and as invaluable in indicating immediate removal by external incision, and in contraindicating any difficult and dangerous attempts at extraction by the natural passages.

(106) Simultaneous Gunshot Injury of the Liver and the Femoral Artery.

LEGUEU (*Bull. et Mém. de la Soc. de Chir. de Paris*, No. 36, 1903) reports a case of deep gunshot injury of the right lobe of the liver, successfully treated by laparotomy and plugging of the hepatic wound. The patient, a young woman aged 22, was much collapsed when first seen about two hours after the receipt of injury, and the peritoneal cavity contained a large quantity of coagulated blood. The incision in the abdominal wall was made over the outer margin of the right rectus muscle. On the upper surface of the liver was a wound into which the whole length of the finger could be passed, and on the inferior surface near the hilum was found the orifice of the cut. After an interval of twelve days a radiographic examination was made of the patient with the object of finding the bullet, which, to the author's surprise, was finally discovered in the upper part of Scarpa's triangle of the right thigh. Extraction was immediately followed by free arterial haemorrhage, and it was made out that the bullet had produced a lateral wound of the femoral artery. As it was impossible to arrest the bleeding by ligature the opening in the vessel was closed by pressure forceps. The patient ultimately made a complete recovery.

MIDWIFERY AND DISEASES OF WOMEN.

(107) Pregnancy with Nephritis and Syphilis.

MANTOUX (*Bull. et Mém. de la Soc. Anat. de Paris*, June, 1903) reports a case where the relationship of these three conditions was very uncertain. The patient was a short, pale, emaciated single woman, aged 24. She had never been pregnant before, and the present pregnancy had reached the fifth month, whilst the dates of syphilitic infection and impregnation must have been close or even simultaneous. She was admitted into the Broca Hospital, Paris. Roseola was observed with severe stomatitis and diarrhoea; she stated that she had been taking mercurial pills from the beginning of her illness. There was also severe nephritis, with scanty excretion of highly albuminous urine. It was difficult to decide what was primarily due to the cachexia, to the kidney disease, to the presence of syphilis, to the evident mercurial poisoning, and to the pregnancy. The patient was retained in hospital until delivery at term and puerperium. The stomatitis was treated locally; the patient kept on milk diet for several weeks, then vegetables, thick soups, and eggs allowed. Mercury could not be given save in small doses, and for a very short time, as the stomatitis reappeared quickly. The child died within a few hours after birth. The patient went home and rested, but did not confine her diet to milk. Some mucous patches appeared in the mouth, no mercury was taken. Four months after delivery she was readmitted with threatening anaemia; headaches, giddiness and vomiting had existed for several days. The urine almost solidified on boiling. An attack of uraemic convulsions occurred, and the patient died within a few minutes in the middle of the night. The kidneys showed advanced inflammatory lesions, both interstitial and parenchymatous. Endarteritis was particularly evident. Mantoux believes that this vascular change might be imputed to syphilis, even so recent as in this instance. Brault has noted widespread endarteritis, largely obstructive in a case of renal syphilis. Massalongo detected this change as the predominating appearance in a case of nephritis in a syphilitic infant aged 6 months; albuminuria and anasarca preceded death. Lastly, however, Mantoux reminds us that the auto-intoxication of pregnancy and the mercurial poisoning must have played an important part in respect to the kidney disease in his patient. The extreme susceptibility to salivation in this case prevented perfect antisyphilitic treatment during pregnancy, so that the share of syphilis in causing the advance at least of the kidney disease may have been considerable. It is remarkable that no fresh syphilitic symptoms developed during the patient's residence in hospital.

(108) Eclampsia and Large Placenta.

KOENIG (*Zentralbl. f. Gyn.*, No. 40, 1903) publishes a case where these two conditions were combined, yet he could not feel certain whether there were or were not any causal connexion between them. The patient was a small, sickly woman, aged 36, her two previous labours were instrumental, the pelvis was of the flat, ricketty type. On this occasion labour set in at term, with headache and oedema of the legs. A severe fit occurred; Bossi's dilator was used; the forceps could not be applied; craniotomy was practised, but the cranioclast proved a failure, and turning was necessary to complete delivery. This manœuvre was very difficult owing to the rotation of the fetal body being impeded by a bulky placenta, which was afterwards detached manually. It weighed 1,620 grams, or over 3½ lb., while the fetus weighed but 3,360 grams, or hardly 7 lb. 6 oz. The diameter of the placenta was 10 in., its thickness 2¼ in. Neither to the naked eye nor microscopically did its tissue show any morbid condition. The patient had two more violent fits. Vapour baths and other remedies were given, but she died a few hours after delivery. Koenig admits that in seven cases of severe eclampsia recently under his observation the placenta was normal. A big placenta is nearly always associated with a large fetus, especially in robust, big-boned multiparae with flabby uterus. Syphilis, according to Pinard, plays a part in causing hypertrophy of the placenta. In this case the fetus was small, whilst the placenta was nearly half its weight. Possibly it played a prejudicial part in fetal tissue changes and was thus more or less associated with the eclampsia.

(109) Carcinoma of Clitoris.

BJORKQUIST (*Mitteil. aus der gynäk. Klinik des Prof. Engström*, vol. vi., 1903) has recorded 68 cases recorded in literature, adding 2 in Engström's practice. The first patient was a girl aged 21: in her case there was a distinct history of a blow on the part caused by a fall, the neighbouring lymphatics were enlarged

Both the clitoris and the infected glands were removed. A year later recurrence was observed, and it soon proved fatal. The second patient was 49, recurrence followed removal of the clitoris about as soon as in the previous case. Traumatism and pruritus seem to be definite exciting causes of this disease. The climacteric does not seem to be a predisposing cause. Many of the patients had repeatedly been pregnant. Carcinoma of the clitoris is not satisfactory for surgical treatment. About 7 months' immunity from recurrence and one year of life after operation are the very unsatisfactory averages given by the 70 cases in Bjorkquist's statistics.

(110) Hysteropexy: Dangers of a Uteroparietal Band.

Michel (*Zentralbl. f. Gynäk.*, No. 39, 1903) describes a case where a fibrous band nearly 6 in. long was found running between the parietal peritoneum and the fundus uteri, three years and five months after a Fritsch's hysteropexy had been performed for retroflexion of a bulky uterus, at the same time that a large dermoid cyst of the left ovary was removed. Abdominal pains became frequent, especially during constipation. A small hernial protrusion was detected by Michel in the upper part of the abdominal cicatrix, there was also a reducible inguinal hernia on the right side. The uterus was small and anteflexed. The herniae were treated radically and when the peritoneal cavity was opened the band was discovered. It was as thick as a stout straw and is figured in Michel's report. A portion of the tissue of the fundus was excised with the uterine attachment of the band and the other end was dissected from the peritoneum. The uterus was once more fixed to the parietes by two silkworm-gut sutures passed through the uterine attachment of the round ligaments. The dangers of a band of this kind, already detected in other cases where hysteropexy has been performed, are self-evident.

(111) Does Symptomless Retroflexion Require Treatment?

Goetschau (*Monats. f. Geb. u. Gyn.*, October, 1903) answers this question in the affirmative, denying that it is old-fashioned (unmodern) to treat a case where the uterus is distinctly bent backwards on the cervix but has not given rise to pain or complications. Küstner has shown that retroflexion represents a distinct disturbance of the equilibrium of the pelvic organs, and inevitably leads if untreated to descent or prolapse. The displacement must therefore be treated independently of symptoms.

(112) Miliary Phthisis following Abortion.

Lochaus of Cologne (*Monats. f. Geb. u. Gyn.*, November, 1903) writes of a woman, aged 22, who aborted at the fourth month, and became feverish on the fifth day. There was no discharge except a little leucorrhoea, which ceased after injections and the use of the curette. There was dullness at the right apex and bronchitis, but no tubercle bacilli were detected in the sputum. The fever and high pulse continued, and death occurred on the thirty-eighth day. Diffused miliary tubercle was discovered, involving lungs, liver, spleen, and peritoneum. An old focus occupied the apex of the right lung. Lastly, there was not only cheesy salpingitis, but also a caseating focus at the placental side on the inner wall of the uterus. Hochaus considered that the focus at the apex was undoubtedly the origin of the tuberculous disease which involved the genital tract, but the latter was no doubt the source of the general infection after abortion, which proved fatal to the patient.

THERAPEUTICS.

(113) The Action of X Rays upon Nutrition.

The destructive action of the *x* rays upon the skin and nerve centres, and the fact that they have caused retrocession of malignant tumours in many reported cases have caused Lépine and Boulud to make a series of experiments with penetrating rays upon animals (*Lyon Méd.*, December 13th and 20th, 1903). The first guinea-pig died on the seventh day, having had one to two hours' exposure per diem to the rays. It had lost only 18 per cent. of its original weight, but the nitrogenous food given had been insufficient. The second animal, also a guinea-pig, was exposed twice daily for three-quarters of an hour at once. For the first four days the appetite remained good, and the only apparent effect of the rays was a rise of temperature. On the fifth day it became collapsed and convulsed, and death seeming imminent it was killed in order to estimate the amount of glycogen in the liver, but this was too small for accurate estimation, although the loss of weight was only 6 per cent. Schiele, Langhans, and others having found considerable amounts of glycogen in tumours, especially when growing rapidly, it was sought to determine whether the rays had a definite glycolitic action or no. The liver of a fresh-killed healthy guinea-pig was therefore divided transversely; both parts were placed in the same chamber at the same temperature, but only one was exposed to the action of the rays (with the interposition of a thin plate of of aluminium). The glycogen isolated from 100 gr. of the exposed liver was 3.17 gr., while from the same quantity of the part which had not been under the rays 3.63 gr. was obtained. Next, the blood from the carotid of a dog was allowed to flow into three sterilized test tubes. One was kept as a control test, the other two were submitted to the rays, one behind an aluminium plate, the other without interposition. All three were kept at a temperature of 20° C. After half an hour sugar was added to the three tubes. The reducing matter in the control tube was 0.66 gr.; the other two each contained 0.54 gr. Another more elaborate experiment showed the rays to cause a distinctly glycolytic power in the blood without inducing any change in polarimetric deviation. In other cases, however, the deviation has been sensibly increased. The pancreas of a dog was also used for experiment. The part exposed to the rays for one and a-half hour caused increased conversion of starch to sugar, the proportion of sugar to that in the control test being 471 : 413 after four hours' action upon the starch. In all the experiments it was found that the interposition of the aluminium plate prevented the oppressive lassitude and anorexia which the direct action of the rays tends to produce.

(114) The Effect of Certain Common Essences on the Cerebral Circulation.

By means of a series of carefully-devised experiments on dogs A. D'Ormea (*Arch. Italiennes de Biologie*, T. xl, Fas. 1) has discovered that the essences of aniseed, lemon, mint, cinnamon, and camphor, which are used not only as medicinal agents but also, freely, for flavouring purposes, have a very decided effect on the cerebral circulation, which is entirely independent of the general condition of the vascular system. All the essences mentioned produce a very decided fall in the blood pressure in the vessels of the circle of Willis at the base of the brain, whilst, at the same time, they cause a distinct rise of the subarachnoid pressure. They are not, however, equally potent, camphor being the most active; whilst aniseed and lemon are least active, and mint and cinnamon occupy an intermediate position. Although the effect of these commonly-used preparations is very evident they are none of them so powerful as absinthe, which had previously been investigated by Cavazzani, and which produces similar but more powerful results. The investigators believe that the results they have observed are due to the chemical action of the agents on vasomotor centres which govern the vessels in the brain substance, and if this is the case it is obvious that the use of the essences should be carefully avoided in certain cerebral conditions.

(115) The Preparations of Valerian.

Many centuries ago Columella recommended the root of valerian for the treatment of epilepsy, and since that time one has learned that valerian preparations have a distinct pharmacological action. In more recent times, however, some observers have doubted whether this drug is of any practical value in the treatment of disease. M. Kochmann (*Deut. med. Woch.*, January, 1904) finds that the preparations are very unstable, and has inquired into the cause of the changes which take place. He states that the active principle is the oleum valerianae. This oil is gained from the dried root and in its fresh condition is yellowish or light brownish in colour, has a slightly acid reaction, and possesses a very characteristic, not unpleasant, odour. Old oil is dark brown in colour, is very acid, and has a very unpleasant smell. This change is due to the splitting up of the left bornyl-ester of acetic, butyric, and valerianic acids by the action of air and water into left bornyl and the volatile acids. Kochmann tested a variety of preparations, including the officinal oil, the tincture valerianae, tinctura valerianae aetherea, an infusion of valerian root (5 per cent.), Kneipp's tincture and the dialysatum radicis valerianae, and lastly diethyl-amide of valerianic acid (valyl). The tests were carried out by testing the reaction with litmus paper, then titrating with soda solution or sulphuric acid, the indicator being phenolphtalin;

then allowing 5 c.cm. of each preparation to be exposed to the air in open vessels for two days, and afterwards repeating the titration. The watery preparations were further subjected to the influence of a stream of air, sucked through the fluid by the water pump. The tinctures proved to most varying in their stability, and were all distinctly acid from the first; the oil and infusions, as well as the dialysate, also showed a considerable degree of variability, and isovalerianate of bornyl-ester was also unsatisfactory. Valyl alone appeared to remain neutral and not to increase in acidity. Kochmann hopes that the reputation of valerian may be regained by the freer use of valyl.

(116) The Dry Mouth of Fevers.

A. H. Buckmaster of the University of Virginia (New York *Med. Journ.* and Philadelphia *Med. Journ.*, January 30th,) says that about ten years ago he saw a case of typhoid fever in consultation. It was suspected, at first, that the case was one of pelvic abscess, but when he reached the patient the symptoms were unmistakable. At that time the young woman was lying in a condition of semi-consciousness with a dry mouth and sores on the tongue, which was dry and cracked. The practitioner who asked him to see the patient complained that he knew no way of preventing this distressing symptom so often found in bad cases of continued fever. He had used the usual remedies but they were unsatisfactory. Since then the treatment by the cold bath has done much to prevent, but has not entirely prevented, the dry mouth. At the time Buckmaster suggested that, as the trouble arose from the weakness of the patient allowing the mouth to remain open, thus permitting evaporation from the moist surfaces of the tongue and buccal cavity, the use of an apparatus such as in customary with a fractured jaw might, by keeping the mouth closed, relieve the trouble. Quite recently the doctor mentioned this case, and said that he had frequently made use of the suggestion with unvarying success. Whenever, in such cases, the mouth became dry he used a wire cup and bandage under the lower jaw, and in a few hours relief was always obtained.

(117) Red Mangrove Bark in Leprosy.

Isadore Dyer (*Journ. Cut. Dis.*, February, 1904) says that in 1899 P. Guichard, of Key West, a druggist, called attention to the use of this remedy, and A. Moreno employed the several preparations of the bark, relating excellent results as a consequence. Except for some newspaper notoriety, little attention was paid to the report, coming in an irregular way. Within the past two years, however, Duque and Alfonso, in Havana, have given the watery extract, and one case at the San Lazaro is looked upon as cured after this treatment. In the treatment, Duque with Moreno believes that the effects are evident in early cases in from six to ten months; later cases improve, but cure is not established. The preparations employed are a watery extract of the red mangrove (rhizophora, L.) bark, a dried extract after percolation, and salves made from powdered bark. The powder itself is employed in the baths. Ten grams of the extract are given night and morning, with a daily increase until 80 to 100 grams are taken each day. Duque is quite enthusiastic over the treatment, but no results have been published yet. A series of cases at the Louisiana Leper Home were put on dried extract of the mangrove bark in 1899, and this treatment was maintained for nearly two years, without result. It is fair to say, however, that there was no systematic observation of the cases at that time, and the treatment may have been irregular. It is proposed to essay a new set of cases, under strict observance of the Havana *régime*, both as to medication and bathing as well as diet.

PATHOLOGY.

(118) Congenital Torticollis.

Gallavardin and Lavy (*Lyon Méd.*, November 22nd, 1903) have recently made a histological examination of the nervous system in a case of congenital torticollis. Their patient died at 60 years of age from cancer of the oesophagus. He had suffered from torticollis since birth, the face being rotated to the left, and the right sterno-mastoid forming a hard, prominent cord. The right side of the face and head were atrophied, both the soft parts and bones being involved. At the necropsy a careful dissection showed that the sternal half of the muscle had undergone tendinous transformation throughout its whole extent, from the sternum to the mastoid process. It formed a large uniform cord, with no sign of localized sclerosis or cicatrix. The clavicular half had not undergone fibrous transformation, but was shortened and ill-developed or atrophied. Nothing abnormal was found on examination of the peripheral nerves, although the spinal roots, the trunk of the cervical sympathetic, and the sympathetic ganglia, upper and lower, were all examined under the microscope, but sections of the upper cervical portion of the spinal cord showed well-marked atrophy of the right anterior horn, the cells of which were much diminished in size. There were, however, no pigmentary deposits nor chromatolysis, nor signs of neuroglial sclerosis. There was simple atrophy without inflammatory signs. It would seem, then, that the changes in the sterno-mastoid and facial and cranial tissues were due to a primary medullary lesion, an anterior poliomyelitis. (The facial and cranial atrophy has been seen in syringomyelia involving chiefly the cervical cord.) But against this hypothesis it might be urged that there were no signs of old inflammation in the cord, and that the atrophy of the anterior horn might be "retrograde" or secondary to the muscular lesion. On the other hand, there were no inflammatory signs in the muscle itself, no scar or perimuscular adhesions such as traumatism would leave; and an absolute separation of the two halves of the muscle, one-half only undergoing fibrous transformation, would be most improbable if a muscular infection had been primary. Again, the involvement of the cranial bones of the right side is an argument in favour of primary medullary origin. The inflammatory changes o the cord might well leave little trace i sixty years; and, although the diseas had always been attributed by th patient and his mother to instrumenta delivery, it was not absolutely certai that they were really congenital. Ever if the onset of the disease occurred i early infancy, it would bring the so called congenital torticollis into ver close relationship with infantile para lysis.

(119) Rhizomelic Spondylosis and Tuberculosis.

In 1898 M. P. Marie gave the nam "rhizomelic spondylosis" to an affec tion characterized by rigidity of th spinal column with more or les ankylosis of the hip-joints and shoulde joints. Pic and de Villiers (*Lyo Méd.*, October 4th, 1903) record tw cases in which the symptoms cor respond with Marie's definition. Thei first patient, a man 44 years of age had suffered from torticollis with radi ating pain for four years. So localize was the pain on pressure that a dia gnosis of caries was made and tempo rary relief was obtained from a support The pain afterwards spread to th shoulders, the dorsal and lumba regions, and to the hips. The spin became rigid and kyphotic, movemen at the hip-joints and shoulder-joint became less and less possible, and th patient died from pulmonary tube culosis. At the necropsy the inte vertebral discs were found thinned an containing islets of bone. The hip-joint and shoulder-joints were the sites o chronic inflammation with bony ove growth. In the second case the patien also died of pulmonary tuberculosi At the necropsy tuberculous broncho pneumonia was seen and also old standing tuberculous patches. Th spinal lesions were the same as in th first case, but there was true bon ankylosis of the hip-joints. The spina curvature in this disease is more or les characteristic. The lower two-third are almost flat; at the junctio of the upper and middle third is a sharp kyphotic curve, often ass ciated with scoliosis. In both cases th hip-joints were involved before th shoulders, and at the necropsies the lesions were much more severe. The ga was peculiar, the patients walking wit bent knees, and rotating the whole trun at each step. In one case the pain persi tedintermittently tillthe end; in the oth pain was only a prominent symptom a the beginning of the illness. In neith case was there any history of gono rhoea. One of the patients had had chancre, but there were no signs syphilis. In July of last year Pouc showed a man at Paris suffering, as h said, from ankylosing tuberculo rheumatism, whose skeletal sympton were those of Marie's rhizometic spo dylosis, and he suggested that this la disease was a variety of tuberculo rheumatism. In the two cases record fibrous transformation was seen various situations, such as the lung pleura, myocardium, and kidneys. I direct evidence of tuberculosis w obtained from the bone lesions, but is at least possible that these lesio were the result of a fibro-formati evolution of chronic tuberculosis.

AN EPITOME OF CURRENT MEDICAL LITERATURE.

MEDICINE.

(120) Exophthalmic Goitre.

Grocco (*Riv. Crit. di Clin. Med.*, January 2nd, 1904) discusses the cardiac symptoms of Basedow's disease with a special view to diagnosis. During the attacks of tachycardia, even in the earliest stages of the disease, dilatation of the heart is never wanting, though it may be transitory and very slight. It may be brought on, for diagnostic purposes, by slight fatigue, as in climbing steps or lifting a weight. In neurotic palpitation of the heart such exertion will not cause dilatation. There is usually an intimate connexion between the amount of dilatation and the degree of general asthenia, not necessarily between either of these and the severity of the tachycardia. Severe dilatation of the heart involves auricles as well as ventricles, and even when there is a relative insufficiency of the auriculo-ventricular valves the dilatation of the auricles may go beyond the natural consequences of such insufficiency. Rapid, intense, and transitory changes in the bounds and shape of the heart are a marked feature of the disease. In many cases the aorta is dilated, and the resonance on percussion over the sternum is diminished. The dilatation of the large vessels causes throbbing at the root of the neck, and arterial pulsation in the liver and spleen and under the nails. Very similar symptoms may also arise in this disease as a result of mitral incompetency. It is best not to make sure that the cardiac symptoms of exophthalmic goitre are permanent. In some cases they disappear completely. In other cases all the other symptoms may clear up and the heart remain hypertrophied, though free from valvular lesions. The disease is not unlikely to recur after an apparently complete recovery. From cardiac disease arising from other sources Basedow's disease may be distinguished, even in the infrequent event of thyroid enlargement and exophthalmos being absent, by the predominance of tachycardia and by the aspect of the patient, who almost always presents a characteristic look of terror, with agitation and psychical depression. Angina pectoris may be closely simulated, but Grocco has not met with true, typical angina as a complication of Basedow's disease. It is most important to distinguish exophthalmic goître from chronic myocarditis, since the prognosis must be very much worse in the latter case than in the former. The sequence of events is different in the two cases, and rapid changes in the heart murmurs, the size of the cardiac cavities, and the resonance over the sternum are not found in simple degeneration of the heart wall. It must be remembered that rheumatic or other disease of the heart may complicate Basedow's disease, and the presence of one is an insufficient ground for affirming the absence of the other. It is also not improbable that Basedow's disease predisposes to endocarditis.

(121) Ehrlich's Dimethylamidobenzaldehyde Reaction.

In a short paper on Ehrlich's reaction Proescher gives a brief account of the work done by German observers and deals in more detail with the result of Papenheim's observations. (*Deut. med. Woch.*, December 3rd, 1903.) The urine contains a substance which gives the reaction in normal as well as pathological conditions, but the red coloration is always pathological. Papenheim considers that this substance is urobilin. The author points out that in a previous communication he stated that the reaction does not take place with any of the known constituents of urine. That it is not urobilin is proved by the fact that, extracting this by shaking the urine up with chloroform and testing, the urobilin-chloroform solution yields negative results. Again, if one saturates the urine, which has previously been acidified with hydrochloric or sulphuric acid, with ammonia sulphate, the precipitate will contain practically all the urobilin. After filtering the filtrate gives the reaction well, but the dissolved precipitate does not do so. This precipitate can be shown by chloride of zinc solution to contain urobilin (fluorescence). He further points out the errors of Papenheim's arguments. So far he has been able to show that the substance which produces the reaction is probably an acetyl-glucosamin; the pento-acetyl-glucosamin which can be obtained by allowing acetic acid to act on glucosamin does not give the colour change, but it drives off some of the acetyl by crystallization; the remaining fluid gives the reaction typically. Whether this is a mono or di-acetyl-glucosamin he leaves undecided until he has completed his researches on the subject.

(123) Chronic Polyarthritis.

Edsall and Lavenson (*Amer. Journ. of. Med. Sci.*, December, 1903) investigated the suggested possibility that some cases of chronic rheumatism, arthritis deformans, and even conditions simulating acute rheumatism, might be due to a form of tuberculosis of the joints. By the use of tuberculin in 18 cases, including arthritis deformans and chronic rheumatism, results were obtained suggestive of the fact that tuberculosis was the cause in several instances. The frequent occurrence of pulmonary tuberculosis in the subjects of chronic polyarthritis and in the family history of such cases, together with several instances in which injections of fluid from such joints produced tuberculosis in guinea-pigs, point to the existence of certain relations between joint tuberculosis and chronic polyarthritis. In a series of skiagraphs obtained by other observers the characteristic points of rarefaction in the ends of the bones were considered as being identical with the condition found in tuberculosis of the epiphyses. In one case—an instance of Still's type of chronic polyarthritis associated with marked glandular and splenic enlargement—intense local symptoms in the joints followed tuberculin injections. From the further fact that the glandular enlargement, both in its situation and progress, was in apparent relation with, and followed the onset of, the joint disease, it was inferred that the latter condition was in close causative relation with the glandular enlargement, and that the same factor produced both. From this and other cases examined it seems probable that many cases of chronic polyarthritis of the type described by Still may constitute a peculiar form of tuberculosis of the joints; and if this be so the virulence of the affection would appear to be of a lower degree than ordinary joint or bone tuberculosis. In three other cases the effect of tuberculin was definite in its reaction either by the production of fever or by setting up marked pain and tenderness in the joints. The reactions in the other cases cannot be regarded as of the same importance from the point of view under consideration, since the existence of pulmonary mischief or the absence of joint symptoms negatived their value in this respect. Although healthy joints may become painful after tuberculin injections, thus showing that the development of a tuberculin reaction in chronic joint disease must not be regarded as conclusive, the authors consider that their observations in one marked instance point to the possibility of the reactions in the remaining cases being due to tuberculosis of the joints. The value of deductions from *x*-ray pictures are questionable, as it is exceedingly doubtful how much reliance can be placed upon such methods for a final proof of the presence of tuberculosis in bone.

SURGERY.

(123) Abscess of the Liver in Temperate Climates.

Vragnizan (*Il Policlin.*, An. 9, f. 51), whilst admitting the influence of hot climates in the causation of liver abscess, points out that the *modus operandi* is probably somewhat the same in hot and in temperate climates—namely, through the gastro-enteric tract. In hot climates abscess of the liver accounts for 5 per cent. of the total death-rates, whilst in temperate climates it is only from 0.66 to 1.55 per cent. In Dalmatia the author believes this percentage is higher, as he himself has treated some 25 cases. One of the chief difficulties in the diagnosis lies in the polymorphic character of the symptoms, depending as these do so much on the stage and situation of the disease. Increase in size in the liver, especially in malarious districts, unless the increase is rapid, is not of much aid in differential diagnosis. As for contraction of the right abdominal rectus, the author never observed it in a single case. Pain over the liver or in the right shoulder is not a constant symptom. Marked jaundice was only seen once, but there was generally some change in the complexion, which became earthy, pallid, or sub-icteric. Pyrexia was usually of the intermittent type. True rigors were never observed, but slight shivering was fairly common. As to the existence of the so-called hepatic cough the author is a little doubtful. In treatment the author prefers laparotomy in two stages, opening the abscess on the second operation some eight or ten

days after the preliminary opening of the abdominal cavity.

(124) The Surgical Treatment of Traumatic Haemorrhage of the Spleen.

Senn (*Jour. Amer. Med. Assoc.*, November 21st, 1903) points out that in the spleen as in the liver and kidneys the loss of blood in injury is more frequently due to parenchymatous and venous than arterial haemorrhage. Reference to the recent statistical researches of Berger on injuries of the spleen and their surgical treatment, and a report of a series of experiments by which Senn has proved the haemostatic value of marginal crushing of wounds of this organ, are followed by a discussion of the different methods of dealing with splenic haemorrhage due to injury. Splenectomy, it is stated, is the operation of necessity in such cases if the organ itself is diseased or if the wound implicates the main trunk of the splenic artery. If the lower part of the spleen has been extensively crushed or lacerated, or if a transverse wound has divided two-thirds of the diameter of the organ, removal of the injured or partially detached portion of the organ is indicated. The amputation should be effected by crushing forceps, and the crushed tissue should be covered by omentum stitched over the raw surface with catgut sutures. Suturing as a means of haemostasis has had, the author asserts, a fairly good record and may be resorted to in appropriate cases. In bullet wounds a circle of through-and-through mattress sutures will usually succeed in arresting the flow of blood. Aseptic tamponade in cases of wound of the spleen meets with a decided disadvantage in the absence of an adequate resistance to pressure. It will prove of value if the haemorrhage be venous or parenchymatous, but cannot be relied on in the treatment of arterial haemorrhage. The actual cautery has an exceedingly limited, if any, sphere of usefulness, as it is not reliable and may inflict serious damage on important adjacent structures. The author holds that the most reliable procedure in arresting traumatic haemorrhage from the spleen in all cases in which the wounded organ can be saved is marginal crushing, followed by suturing the crushed margins with catgut. The haemorrhage is arrested the moment the forceps are applied, and the blood vessels in the crushed tissues are speedily occluded by thrombosis, recurrence of the bleeding being thus prevented.

(125) Sclerokeratitis Rheumatica.

Edward Asmus (*Klin. Monatsbl. f. Augerheilk.*, September, 1903) records 13 typical cases of sclerokeratitis rheumatica treated successfully with sodium salicylate. At first he was in doubt as to the nature of the disease, and treated the cases as corneal ulcers; he was only put on the track of their etiology by their marked reaction to large doses of the salicylate. The symptoms complained of in these cases vary from a slight feeling as of a foreign body in the eye to the most acute ciliary neuralgia; in the same way the injection varies from slight pericorneal reddening to an involvement of the whole conjunctiva, in the latter cases iritis was almost always present. The corneal opacities are found deep in the parenchyma, of porcelain-white appearance, old foci appearing to be more superficial, dull grey, and slightly excavated, simulating an ulcer, the epithelium over the affected part often has a stippled appearance. The foci approach the limbus, from which they are usually separated by a clear zone, over which fine vessels from the limbus are seen to cross. Either one focus is present, or several, which have a chain-like appearance, the single foci often confluescing. Fluorescin seems to have no certain colouring effect, and he quotes Pfalz, who says that in 4 of his cases, two only, which showed also hyperaemia of the iris were stained with fluorescin. These cases occur in damp and cold periods of the year, and tend to appear in damp localities. The disease seems to occur not only in rheumatic individuals, but also in otherwise apparently health persons, as result of sudden chill, etc. The average of the 13 patients was 50 years, only 2 patients being under 40. He concludes (1) that these cases present the clinical picture of sclerokeratitis described by Pfalz; (2) That salicin is to be recommended in those cases, also when the diagnosis is still doubtful, particularly when the patient is suspected to be a rheumatic subject.

(126) Gunshot Wound of the Brain.

At a recent meeting of the Medical Society of the State of New York, John A. Wyeth reported a case of gunshot wound of the brain (*Med. Rec.*, January 30th). The patient was a man of 23, who had received a pistol-shot wound of the head on August 11th, 1903. The wound was 1 in. to the right of the median line, and about the same distance from the junction of the interparietal with the fronto-parietal suture. No effort was made to locate or remove the missile. There was mental impairment from the time of the injury, and, on coming under Wyeth's observation five months later, he talked incoherently and was restless. The bullet was located. The skull was cut through just above the eyebrow, and a rubber drainage tube was inserted to drain an abscess that had formed. Although there had been considerable loss of the substance of the right anterior lobe, the man recovered promptly with only slightly diminished intelligence.

(127) The Surgical Anatomy of the Ductus Choledochus.

Padula (*Ann. d. Med. Navale*, November, 1903) points out that the increasing frequency of surgical interference with the bile ducts increases the importance of an exact knowledge of their calibre. Some well-known anatomical authorities give no precise information on this point, and others give figures which differ widely. The only point on which they agree is that the choledochus is the largest of the bile ducts. Padula states that for purposes of measurement it must be divided into three parts. The first part runs in the epiploon, bordering the foramen of Winslow, from the extremity of the hepatic duct to the posterior surface of the duodenum, and is called by Padula the epiploic or supra-duodenal portion. The second or retro-duodenal portion runs between the duodenum and the head of the pancreas, sometimes in a groove on the pancreas and occasionally in a canal through the substance of the gland. The third or transduodenal part runs in the wall of the duodenum. The first part of the duct is larger than the hepatic duct. It gradually diminishes in calibre, and the second part is as narrow as the hepatic duct or sometimes more narrow. The third part is as narrow as the cystic duct or sometimes more narrow. To be more exact, in a well-developed adult, the first portion attains, with the distention which produces injection on the cadaver, a diameter of seven or eight millimetres, or even eight and a half; the second portion does not surpass five, and the last does not surpass three and a half. These limits differ very widely from any of those quoted by Padula from other authors. Very exceptionally, only in 3 cases out of 165 examined by him—the author finds that the epiploic portion of the ductus choledochus, of normal size at its commencement, may diminish gradually to a diameter of five millimetres. Thus the three determining causes of stoppage of a calculus in the ductus choledochus are: (1) Spasm of the sphincter of Oddi; (2) the calculus catching in a depression of the mucosa of the choledochus; (3) a reduction of the normal diameter of the duct.

MIDWIFERY AND DISEASES OF WOMEN.

(128) Inertia of the Uterus.

G. Balfour Marshall (*Journ. of Obstet. and Gynaec. of the Brit. Empire*, November, 1903) describes a case of complete inertia of the uterus occurring during the first stage of labour. The patient first came under observation in 1896 when the right annexa were removed for an unruptured tubal gestation, about the fifth week. She was at that time a woman of 32, who had been married six years, and was the mother of two children. She had three subsequent confinements. In the second of these the second stage was prolonged owing to inertia, and delivery was effected by forceps. In her last confinement, the one now under consideration, the membranes ruptured when the os was the size of a two-shilling piece, and from that time there was cessation of pain with complete inertia, in spite of frequent hot douching. After twenty-six hours the cervix was dilated by a succession of Barnes's rubber bags, followed by Champetier de Ribes's bag, forceps were applied, and the child delivered. No chloroform was used for fear of *post-partum* haemorrhage, and ergot was injected as the head was passing over the perineum. The uterus contracted well, and remained hard and contracted till after death; there was no *post-partum* haemorrhage. The patient was exhausted, but not abnormally so after the termination of labour. An hour after birth she suddenly complained of a choking sensation, oppression in the cardiac region, and a great fear of impending death. The face became pale and covered with cold sweat, the lips bluish, and the extremities cold.

Respiration was rapid and the pulse rapid, small, and feeble. In spite of treatment no improvement took place, and the patient died in about five and a-half hours. In considering the cause of death, it is to be remembered that the patient was in good health, and muscularly well developed; the uterine muscle had not been exhausted by frequent pregnancies; there was no obstruction to labour, and uterine fatigue did not play any part. Although deficiency of liquor amnii and dry labour, by permitting the uterus to contract on the fetus, may render it incapable of exerting its normal force, it is not easy to discover in this case the cause of the early rupture of the membranes, nor of the complete inertia. The diagnosis of the cause of death rests between shock, rupture of the uterus, and pulmonary embolism. Shock is excluded by the late onset of the symptoms. Rupture of the uterus in the absence of retractions could only occur through violence. This can be excluded, as neither the dilatation of the cervix nor the delivery presented special difficulty, and no tear was discovered when an intrauterine douche was given after labour. The symptoms were in the main characteristic of pulmonary embolism, in spite of the absence of air hunger. The last point of interest in the case is that the child suffered from slight intracranial haemorrhage, although the only visible injury was a slight bruising of one side of the scalp.

(129) Uterine Cancer and Vaginal Caesarean Section.

Orthmann (*Monats. f. Geb. u. Gyn.*, November, 1903) discusses at full length the question of uterine cancer and the merits and technique of vaginal Caesarean section. He demonstrates by numerous tables the relative merits of abdominal and vaginal section, and publishes full records of his own experience of the latter operation. It is not easy to come to any very definite conclusions, since the cases are seldom homologous, early pregnancy with incipient cancer being a very different condition from early pregnancy with advanced cancer and so forth, whilst the pregnancy itself may be quite normal in one instance and very complicated in a purely obstetrical sense in another. Orthmann points out the high fertility of cancer patients. In his own opinion in all cases where the vaginal operation is to be taken into account so far as the extent of the malignant disease is concerned, and where at the same time delivery through the naturai passages is obstetrically possible, then that operation is the right course both in good surgery and good midwifery. In most cases, particularly in multiparae, simple opening up of the anterior wall of the uterus will allow of the delivery of the child even at term. Turning and extraction are the best means of ending the obstetrical stage of the operation. Excellent results follow the subsequent immediate removal of the uterus through the vagina, provided the cancer is limited to the portio or early involves a small area of the cervix. But in all cases of advanced cancer of the cervix preference must be given to the old abdominal operation.

(130) Hernia of the Ovary.

Schnitzler (*Zentralbl. f. Gyn.*, No. 51, 1903) recently exhibited before a society in Vienna an ovary and tube with strongly twisted pedicle discovered in the sac of a left inguinal hernia. It was compared with similar cases reported by Lockwood and Edmund Owen. The patient was a girl aged six months when the operation was performed; the case was not of the type where hermaphroditic malformation is present. Shortly after birth the rupture was detected; it ultimately became irreducible. A radical operation was performed; the ovary being sloughy was removed with the tube. Wertheim, in discussion on this case, related another where a young woman suffered for several years from bad pains in the right iliac fossa. He found the right ovary extremely tender and much displaced forwards, yet deep in the pelvis, and advised the patient to send for him when a bad attack of pain came on. She sent for him accordingly, and he found the ovary greatly swollen. The attacks grew so distressing that she begged for operative relief. Wertheim operated, and found the ovary incarcerated in a serous pouch behind the broad ligament. He drew it out and sewed up the pouch. Three periods occurred after convalescence whilst the patient was still under observation, and contrary to what had been the case before operation they were unaccompanied by any pain.

(131) Obstructions to Suckling: Imperfect Nipples: Cyst of Nipple.

Bouffée de Saint Blaise (*Comptes Rendus de la Soc. d'Obstét., de Gyn., et de Péd. de Paris*, vol. v., 1903) writes a full clinical report of a woman, aged 37, delivered of her fifth child. An abscess developed in the right breast at the sixth month of the fifth pregnancy. That breast, however, had never discharged its functions, but its fellow, though never the seat of abscess, was also useless for suckling. Milk filled both after each pregnancy, and the right breast had already suppurated twice. On further inquiry it transpired that this patient had been warned before the birth of her first child, by her own mother, who had borne ten children and suckled them all from the left breast only. The patient herself had given up all attempts to suckle after her second pregnancy. The nipples were retracted, yet easily drawn out, not a trace of any duct orifice could be detected on the right side, but one, and one only, was discovered in the left nipple, a little milk exuding after firm pressure. The breasts were strapped and their secretion suppressed.—Lepage (ib.) reports a case where a primipara, aged 29, was unable to suckle from the right breast. A pedunculated papilloma two-fifths of an inch in length was attached to the inner aspect of the nipple. The infant insisted on drawing it, and not the rest of the nipple, into its mouth. The tumour was therefore excised under chloride of ethyl analgesia, and the child afterwards took the nipple naturally.

(132) Twin Tubal Pregnancy.

Lucas-Championnière (*Rev. de Gynéc. et de Chir. Abdom.*, July-August, 1903) operated on a doubtful case of abdominal effusion, suspected to be appendicitis. No distinct swelling could be detected in the region of the uterine appendages. A quantity of blood was found free in the peritoneal cavity; then a tubal sac was discovered. It was not ruptured, but bled freely from its surface. In raising it laceration occurred and a pair of fetuses escaped. The sac was removed, The patient recovered.

THERAPEUTICS.

(133) The Treatment of Cancer by its own Toxin.

At a recent meeting of the Medical Society of the State of New York, P. J. McCourt (*Med. Rec.*, January 30th) read a paper on this subject. He said that the method of preparing this toxin had been described by him in a paper read in November, 1899. In cases of cancer death commonly resulted from a toxaemia produced by the cancer cells. The accuracy of this statement, he declared, was attested by a very large number of cases. In his first communication he had made no claims further than that this treatment afforded marked relief. Since that time he had furnished the toxin to practitioners applying for it in all parts of the world. All stimulants, and especially malt liquors, were poison to the cancer patient, and served to hasten the fatal climax. The diet should be carefully regulated, and but little meat should be taken. A suitable dose of the toxin was usually administered morning and evening when the stomach was empty. It produced the following effects: (1) Diuresis and the discharge of much fetid dark urine; (2) local exudative erythema; (3) diarrhoea, and (4) diaphoresis. There was rarely elevation of the temperature, and all symptoms were markedly relieved in a short time. In 5 per cent. of advanced and extremely malignant cases this method of treatment was entirely valueless; 90 per cent. were relieved of pain, fetor, haemorrhage, insomnia, vesical and rectal tenesmus, etc., general improvement occurred and life was materially prolonged. In 14 per cent. of the cases indurated glands had become normal, ulcers had healed, body-weight had increased, there had been complete cessation of objective and subjective symptoms, and the patients were apparently cured.

(134) Antithyroid Serum.

Jean Lépine (*Lyon Méd.*, November 29th, 1903) has obtained a serum for the treatment of Basedow's disease by a method analogous to that used in the preparation of antidiphtherial serum. The serum obtained from thyroidectomized animals by Burghardth and Blumenthal and others has caused distinct amelioration of the symptoms of certain patients suffering from hyperthyroidism, but it has not been very satisfactory, and has caused serious symptoms when given in large doses. Lépine attempted to immunize a goat by feeding it with gradually-increasing quantities of the thyroid gland of a sheep or another goat. Injections of the triturated gland were also tried, but were discontinued on account of the impossibility of securing asepsis. It

was found enough to begin with four lobes of a sheep's thyroid by the mouth, given every two or three days. Large doses at first caused diarrhoea, tachycardia, exophthalmos, and dyspnoea. After several months the animal could tolerate 20 to 25 lobes of the gland without suffering from any poisonous symptoms. The serum obtained from the goat was then injected into the cellular tissue of a dog. In doses of 10 c.cm. to 20 c.cm. it caused diminution of the excretion of urea and increase of weight. When 40 c.cm. were given somnolence was observed, with loss of flesh and slight slowing of the heart. The temperature was not influenced. Even after large doses the toxic symptoms were not comparable in severity to those caused by the serum of thyroidectomized animals.

(135) The Treatment of Fever in Phthisis.

H. Lorenz (*Zeits. f. Tuberk. und Heil.*, Bd. v, Heft 2) emphasizes the importance of absolute rest in bed as the treatment of fever in phthisical patients. It has been proposed to employ antipyretics to reduce the temperature, and to then allow a limited amount of movement. At Halila, in Finland, when this course has been adopted, even to the small extent of allowing the patient to lie in the open air during the day, the influence of antipyretics on the temperature at once became less and the daily rise of temperature greater. Whatever the cause of this may be—whether the patient does not get such absolute rest during the day, or whether the sharp changes of temperature to which he is exposed are harmful—it shows clearly, at any rate, that he is better in bed in a thoroughly ventilated room than moving into the open air. A great factor in the prognosis of phthisis is the amount of lung tissue involved, a favourable termination being possible, even after the formation of a cavity, if the extent of the inflammatory process becomes limited. The importance of a rise in temperature is very great, because it shows the presence of an active destructive process. Motion on the part of the patient tends to the spread of this process, and it is well worth while to keep the patient in bed, even for months, in order to obtain its limitation. The ordinary medicinal and other subsidiary measures are not neglected. Compresses are found to aid expectoration and prevent the accumulation of inflammatory products. The body is daily rubbed with diluted spirit. As disinfectants, ichthyol and guaiacol are specially useful; and of antipyretics, pyramidon has the best effect on the general condition. Two cases are described in which prolonged rest in bed finally reduced the temperature to normal, the patients making good recoveries. The first was a man, 34 years of age, who had suffered from cough for two years before admittance, and in the last two months had severe cough and pain in the side, fever, and night sweats. Tubercle bacilli were present in the sputum. The patient was emaciated, the breathing quick and superficial. On examination there was impairment of resonance at the left apex, reaching in part to the third rib and behind to the spine of the scapula, with bronchial breathing, and behind moist *râles*. A second similar area was present below and beneath the angle of the scapula. The patient was kept in bed for five months after admittance before the temperature finally became normal. On leaving the sanatorium at the end of ten months residence the only physical signs to be detected were slight impairment of note at the apex and the angle of the scapula, with some prolongation of expiration over the lower area. No tubercle bacilli could be found in the sputum. He has remained well up to the present time—that is, for a period of three years. The second patient showed marked signs of disease at both apices and of a small cavity at the left apex. The temperature became normal after five and a-half months in bed, and he was able to leave the sanatorium at the end of seven months. He has since returned twice to the sanatorium at long intervals, and in between has done his work as an officer in the army. When last heard of he was in excellent health. Recovery in cases of such widespread disease speaks well for the treatment adopted.

PATHOLOGY.

(136) Embryoma in the Mediastinum.

Ritchie (*Journal of Obstetrics and Gynaecology of the British Empire*, July, 1903) gives an account of a case where a dermoid cyst occurred in the anterior mediastinum, and where there was associated with this common tumour a malignant growth of very unusual characters. The patient, a man, aged 24, was admitted to hospital with symptoms of a malignant tumour in the mediastinum, pressing especially on the root of the left lung, with secondary growth or growths in the right lung, causing pleurisy. At the necropsy the tumour was found to consist of two parts. On the left, and inferiorly, was a cyst filled with sebaceous matter, and containing fine hairs projecting from the inner wall. Above and to the right was a solid growth continuous with the wall of the cystic tumour. Its main naked-eye character was the presence of great areas of haemorrhage, and its substance could be very easily broken down. Both lungs, the liver, and the spleen contained small circular tumours resembling this solid growth. Sections were examined under the microscope, and it was found that the solid tumour was composed largely of dead tissue but contained areas of living cells. These cells were of three main types—(*a*) closely-packed polyhedral cells, with both nucleus and cytoplasm much vacuolated; (*b*) enormous protoplasmic sheets, multinucleate, and with intensely staining cytoplasm, which sheets were largest when bounding blood sinuses; (*c*) small cells, not in such large numbers as the other two types, whose staining reactions conformed closely with those of the second group of cells, but which were frequently mononucleate. The solid tumour and the secondary growths are, in other words, histologically identical with chorion epitheliomata. The large protoplasmic masses correspond to the syncytial cells derived in the chorion epithelioma from the similar cells covering the chorionic villi; the polyhedr cells correspond with similar cells the uterine tumours which are suppose to come from the Langhans' layer of th villi, and the intermediate cells are al found in the other growths. Cases this sort are probably very rare, but similar case has been described b Schlagenhaufer. With regard to th pathology of the growths, Ritch states that two views are possible either the tumour is really a teratom formed from an ovum included in th thorax, or from an aberrant division the cells of the ovum from which th individual in whose body it was foun was formed, or less probably there wa a dermoid caused by an inclusion of th epiblast of the third visceral cleft i connexion with which the thymu gland is developed, and along with th a sarcoma of a special kind happened be formed.

(137) The Absorption of Fat.

Fats are believed to be split up in fatty acid and glycerine in the sma intestine, and absorbed into the ep thelial cells either as fatty acid or soa and there reconverted into fat. Evi ence of this synthesis has been large based upon the observation of fat gra ules in the basal parts of the cells aft appropriate staining. B. Moore (Physio Lab. Univ. Coll., Liverpool, 1903) pu lishes some experiments on this su ject, and points out that as fatty ac give the same appearances as fat, th evidence is inconclusive. He has, ho ever, made chemical estimations whi establish the correctness of the abo view. The washed and scraped-d mucous membrane of a digesti animal contained 15 to 35 per cent. its fat as fatty acid, while in the flu of the lacteals, obtained by sucking up into capillary tubes, 96 per cent. the fatty material was present neutral fat. Hence the synthesis w completed in the mucous membrane the intestine.

(138) Cystadenoma of Aberrant Bile Duc

Walker Hall and W. H. Braz (*Med. Chron.*, January) describe the ca of a girl aged 6 years who had alwa been delicate, but there was no histo of entozoa. The abdomen was larg but the growth was not diagnosed un shortly before death, which occurr from a supposed attack of scarlet feve At the necropsy it was found that t tumour arose from the under-surface the liver. No hydatids were observe and the kidneys and peritoneum we free from cysts. The growth was cyst and it was only adherent to the liver. D finite connexions were noted, howeve with the right hepatic duct, and the were found to consist of small bile duc degenerate in structure, but true in typ It is inferred that these ducts were p sistent aberrant bile ducts arising the neighbourhood of the longitudin fissure, and ultimately becoming p liferative. The interest of the case l in the extrahepatic position of t growth and its demonstrable connexi with embryonic remains.

Erratum.—In paragraph 69 of the Epito of January 30th, it was stated that heroin co be given in doses of "0.01 gram = gr. 0.15 up 0.03 = gr. 3.45." The last dose should be gr. 0

AN EPITOME
OF
CURRENT MEDICAL LITERATURE.

MEDICINE.

(139) Spasmodic Croup in Children.

ERTAIN local cramps in children are garded by some observers as being ologous to tetany in adults. A. Japha als with this subject in the *Berl. klin. 'och.*, December 7th, 1903). After total tirpation of the thyroid gland, and in nsequence of severe motor disturbces of the stomach, adults sometimes hibit tetany, which is evidenced by mp attacks affecting the hands and t, and between the attacks by the so-lled latent symptoms. These latent mptoms are divided into three groups Chvostek's phenomenon, which con-ts in a contraction of the muscles of e face on the same side, and at times the opposite side also, after percus-n of a branch of the facial nerve low the hyoid bone; (2) Trousseau's enomenon, which consists in the pro-ction of the "gynaecological" posi-n of the hand after pressure on the ernal bicipital groove; and (3) Erb's enomenon, which consist in the in-ased irritability of the nerves to ctric currents. The reasoning for asidering spasmodic croup of children a tetany is that these local cramps, neral convulsions, and croup accom-ny one another as the nervous sym-oms of rickets. Much difference of inion has been expressed as to the rectness of this view, and several emi-nt observers refuse to regard any case thout the manifest cramps as tetany, en when the three classical symptoms latent tetany are present. Of the t-named symptoms, the facial phe-menon is without doubt of the least gnostic importance, and it may be t with in other conditions. Most thorities regard Erb's phenomenon as re important than the median nerve lex, and Japha therefore turns his ention especially to it. It is not all y to determine whether the irrita-ity of a nerve to electrical stimuli is reased or not, since it is not fair to mpare the results with various faradic paratus and with galvanic currents, ting the kathodal closing contraction CC) as the test, not only will very ak currents elicit a contraction, but rmally the strength will be found to ry within wide limits. Mann and iemich have offered a solution to this oblem by showing that there is a law contractions; if one places one ctrode of a galvanic current on e sternum, as the "indifferent" ctrode, and the other on the rve as the "different" electrode, and sses a very weak current through, one ll be able to determine the time when ontraction is only obtained on closing e current when the different electrode represented as the kathode. On in-asing the strength of the current one tains an increased kathodal closing ntraction (KCC), and also an anodal sing contraction (ACC); when the rent is still further strengthened re is added an anodal opening con-traction, and, when it is still further increased, a kathodal opening contraction as well. The order of the law of contraction is therefore: KCC, ACC, AOC, KOC. They found that in tetany at times the AOC appeared before the ACC, and, more frequently still, one obtains a KOC with quite weak currents. There can be no doubt that there is increased electric irritabiiity when a KOC is obtained by currents of under 1 milliampère. Japha tested all the cases of children whose mothers stated that the child had suffered from croup, numbering 119 in all, and found increased Erb's phenomenon in 71 per cent.; but, since some of these must be excluded from belonging to true cases of spasmodic croup, he estimates that the real percentage will lie between 80 and 90 per cent. In order to give this find a good ground he tested normal children, and found that among 304 17 per cent. only showed any departure from the contraction law. He, however, points out that many of the children had suffered from various nervous disorders, and that some of them may, perhaps, have been disposed to a form of tetany. With regard to Trousseau's phenomenon, he found that only 44 per cent. of the children suffering from spasmodic croup whom he examined for it showed the peculiar position of the hand, and states that in 22 per cent. of the children there was a spontaneous "gynaecological" position of the hand. In dealing with the pathogenetic conditions of spasmodic croup he states that very little is known as to the actual causes of it, but as the attacks are most frequent in winter time, when the hygienic house conditions are at their worst and the disease is only met with in children who are fed on cow's milk, one can assume some causal connexion between these factors and the disease. The cramps often disappear rapidly on stopping the milk from the diet, and, with careful dieting, one may succeed in preventing a recurrence of the symptoms. The influence of the diet appears, however, only to make itself evident secondarily in response to a functional disturbance of various organs.

(140) Blood Changes in Dementia Paralytica.

Diefendorf (*Amer. Journ. of Med. Sciences*, December, 1903) gives the results of regular and systematic microscopical examinations of the blood in 11 cases of dementia paralytica. The haemoglobin was uniformly estimated with a Fleischl's haemometer and the erythrocytes counted with a Thoma-Zeiss haemocytometer, and the greater part of the work was done by one observer. The examinations were made weekly and sometimes biweekly, at the same time of the day, upon the same day of the week, the diet of all the patients being uniform. The haemoglobin in all the cases showed a moderate anaemia, becoming more marked as the disease advanced. During the terminal state the average percentage was higher than during the immediately preceding period. The erythrocytes showed a normal average in nearly all the cases, and in no instance was there an average subnormal count, though occasionally the number of cells sank to a low normal. During the period immediately prior to the terminal state the erythrocytes tended to sink, but during the terminal state a marked rise was noted which was even greater in degree than that seen in the haemoglobin during that state. Observations upon the relationship between the condition of nutrition and the number of erythrocytes showed that the slight diminution in the number of cells corresponded as the disease advanced with the gradual loss of weight, but in the terminal state, when the loss of weight was exceedingly marked, the number of cells increased considerably. The examination of the leucocytes did not give any uniform results. In three of the cases a gradual fall was noted, while in three others in which they were low at the time of the first examination they remained low, and in three more they varied during the whole period. In all these cases, however, a rise in the number of leucocytes, amounting in most to a leucocytosis, was recorded during and immediately preceding the onset of the terminal state. In examining the percentage of the different forms of leucocytes by differential counts a uniform pathological increase of the polymorphonuclear variety occurred in all but one of the 11 cases. This increase was most pronounced during the terminal stage with the exception of one case, in which it was at its height during a stage of excitement some months before, though in this case the average highest percentage occurred during the terminal state. The progressive moderate anaemia, involving especially the haemoglobin, and the tendency to a polycythaemia and an increase in the percentage of the haemoglobin in the terminal state were the conditions of most importance noted; while of the pathological conditions in the leucocytes the most important were the appearance of a terminal leucocytosis and the presence of a leucocytosis in paretic attacks of an epileptiform nature, together with the uniform increase throughout the disease of the polymorphonuclear variety. The presence of a leucocytosis in the terminal state and during paralytic attacks suggests the toxic origin of the disease.

SURGERY.

(141) Diseases of the Knee.

A. Hoffa deals with some of the more common diseases of the knee-joint, which have one symptom in common, on account of which the patient usually seeks advice, namely, pain in the knee (*Berl. klin. Woch.*, January 4th and 11th, 1904). The conditions were formerly classified together under the collective name of joint neuralgia. The first condition is arthritic muscle atrophy. Typically the patient is a strong, otherwise healthy man, who has fallen on his knee, and a bloody effusion takes place into the joint. The knee becomes swollen and very painful, and is treated by rest and applications. After about a week he is able to resume his occupation, but still has pain in the joint. In spite of bandaging, massage, and the like, the pain does not disappear. On examining the joint at this stage one finds that there is no inflammation, and indeed is objectively absolutely normal.

On turning one's attention, however, to the condition of the extensor muscles, one finds a very marked atrophy of the quadriceps. The rectus femoris appears to be mostly affected, and is not only smaller than the corresponding muscle on the unaffected side, but is very much weaker. The quadriceps extensor is the muscle which renders the capsule of the joint tense, and when this set of muscles is affected the capsule becomes slack. In this condition the capsule is frequently jammed between the patella and condyles of the femur or between the condyles of the femur and of the tibia. This jamming of the capsule is the cause of the pain. The treatment consists in the application of massage and gymnastics to the quadriceps. As a rule, it is possible to cure the condition in about six weeks. Hoffa emphasizes the importance of never neglecting to examine the condition of the quadriceps in cases where the patient complains of pain in the knee-joint. The next disorder of the knee-joint is the so-called internal derangement, in which the articular cartilages are either torn away from their attachments or dislocated. It is rare that both cartilages are dislocated; or, to speak more correctly, displaced, after a rupture of the attachments. The most common is the detachment of the anterior insertion of the inner cartilage. As a rule, the trauma which leads to this condition is not very severe, and generally takes the form of a sudden rotation movement. At times a series of slight injuries lead to it. The typical condition is that the patient experiences pain at the time of the accident, and the joint swells and becomes useless. The leg cannot be fully extended, and the patient walks on his toes. On the outer or inner side of the joint one finds an elastic soft swelling, which is very tender to pressure. On applying rest, massage, and cold applications the joint becomes functional again and the swelling disappears, but the joint does not become normal. Attacks of pain and difficulty in walking take place from time to time. On examining the joint at this stage it appears at first sight to be perfectly normal, but it will be found that the leg is kept more or less flexed, and the leg is rotated on the thigh outwards in the case of a displacement of the inner cartilage and inwards in the case of displacement of the outer cartilage. On palpating the space between the condyles of the femur and tibia, one finds that the spot in which the displaced cartilage is lying is extremely tender. This local tenderness is typical and of great diagnostic importance. Mostly one feels in the joint space a narrow, hard ridge, which protrudes on extending the leg and disappears on flexing it. The differential diagnosis between a dislocated articular cartilage and a loose body in the joint can be made by means of Roentgen rays. In speaking of the treatment, the author admits that some cases can be cured by reduction of the displaced cartilage and bandaging, but this is not common. One sometimes is able to obtain satisfactory results by other forms of conservative treatment, such as rest, bandages, massage, splints, and the like. One should always attempt to cure the patient by one of these conservative means, and when this fails an operation must be performed. The removal of the cartilage is a safe procedure if undertaken with due aseptic precautions, and is certain to lead to a cure. Hoffa recites the histories of patients on whom he has performed this operation. In intimate connexion with this condition he describes another affection of the knee-joint which produces almost the same symptoms. This is a certain form of lipoma in connexion with the joint. Lipoma may occur in the form of solitary subsynovial tumours, as lipoma arborescens, or as the condition of which he is speaking. This is an inflammatory fibrous hyperplasia of the fat tissue which is normally present below and to both sides of the ligamentum patellae. This hyperplasia is caused by a trauma or by a chronic irritation, such as a foreign body in the joint. The overgrowths take the form of irregular lipomatous-like masses, and often protrude free into the joint between the condyles of the femur and tibia. The typical course of such a case is that the patient meets with an accident in the form of a direct blow or an indirect injury to the knee, which produces severe pain. The joint is, however, not markedly swollen as a rule, and the pain soon passes off with a suitable treatment. The pain returns in attacks, generally in the inner side of the joint. The difficulty in flexing or extending the leg varies in different cases. On examining the joint in this later stage one finds that there is a swelling immediately below and on both sides of the patella. This swelling is elastic and presents pseudo-fluctuation, and the patella floats. The joint is free, and there are are no tender points in the space between the femur and the tibia. The treatment consists in the removal of the tumours. In conclusion, Hoffa adds a few words on loose bodies in the knee-joint.

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(142) Fixation of Spleen and Omentum.

Schiassi (*Bull. del. Sci. Med.*, October, 1903) proposes the surgical development of a double epiplo-lienal circulatory compensation as a treatment of some diseases of the liver and spleen. The liver is exposed to the action of toxins derived both from the spleen and the intestine, and Schiassi's proposal is to protect it from some of these toxins by carrying them into the general circulation, where they are quickly destroyed, and also to treat ascites by drawing off some of the blood which in cases of hepatic cirrhosis is unable to pass quickly enough through the portal system. He expects his operation to be especially useful in cases of non-alcoholic cirrhosis of the liver, particularly those of splenic origin. It consists in fixing both the omentum and the spleen into wounds of the abdominal wall; it was suggested by the dense and very vascular adhesions met with in separating the spleen from the neighbouring surface in operations for the removal of that organ, and it is to some extent justified *a priori* by the successful issue of cases where the splenic vein has been occluded by a thrombus, and of the cases of animals in which the splenic vein has been tied fifteen days after the fixation of the spleen to the abdominal wall. The operation is performed as follows: A point is taken on the left costal arch, as much to the left of the sternu as the middle point of the clavicl From this point two incisions are mac at right angles to one another, or across the middle line of the body, th other parallel with the long axis the body. These incisions run throug all the tissues down to the peritoneum A small opening is then made in th peritoneum and the ascitic fluid allowed to drain away slowly. A tr angular flap containing the skin muscles, and fasciae is then turne down from the peritoneum, the apex the triangle being at the point of mee ing of the incisions, and its base turne towards the umbilicus. The peritoneu is cut through in the line of the tran verse incision, and the epiplöon drawn through the wound, sutured b its upper and lower peritoneal covering to the upper and lower edges of th wound in the peritoneum, turned dow along the plane of the peritoneum, an stitched to it at its lower end. Nex the peritoneum is opened along th line of the other original cutaneo muscular incision, the enlarged splee is brought into view, drawn into th wound, and packed with gauze at it upper and lower extremities. Th cutaneo-muscular flap is now replaced covering the epiplöon, and coming int contact along its left border, with th right border of the spleen in the wound Deep sutures are now inserted, passin through fascia, muscle, and peritoneu on the left side, transfixing th spleen, and coming out agai through the same structures on th right side of the wound. The skin an muscles composing the flap are now su tured in position, the strips of gauz withdrawn from the two ends of th spleen and the buried sutures passin through the spleen are tied. Th gauze was inserted partly to catc any blood which might otherwis remain in the abdominal cavity and partly to promote subsequen adhesion between the spleen and the ab dominal walls. The spleen was not in serted between the peritoneum and th muscles in the same way as the omentum because in the sort of casss for which th operation is suited the spleen is apt t be too large for such a position. It i recommended that the whole operation be done at one sitting. If the omentum be fixed first and the fixation of th spleen postponed, the patient is apt t be satisfied with the single incomplet operation. The whole operation is s well borne that there is nothing gained by postponing a part of it. The effects claimed for the operation are, first, the blood pressure in the splenic vein and the whole portal system is lowered by the escape of blood from the splenic vessels into those of the abdominal wall. Secondly, the blood thus diverted carried with it into the general circulation toxins which are easily eliminated or neutralized. Thirdly, the more rapid circulation through the spleen leads to more active and less harmful metabolism. The operation is therefore recommended for cases of primary splenomegaly with hepatic cirrhosis—Banti's disease—and for malarial splenomegaly with hepatic cirrhosis. A modified operation with fixation of the spleen alone is recommended for splenic anaemia in adults and in children, for cases of Banti's disease

efore the developmont of ascites, and or the splenomegalic cirrhosis of the opoff-Gilbert type.

MIDWIFERY AND DISEASES OF WOMEN.

(143) The Treatment of Post-partum Haemorrhage.

URING the last thirty years new heories and new methods of treatment ave been freely brought forward with egard to *post-partum* haemorrhage, but early all of these have been found to ail just when the practitioner is most n need of a reliable method of treatnent. H. Fritsch describes the nethods which he has employed luring the past thirty years which ave always stood him in good stead, nd warmly recommends them to the eneral practitioner (*Deut. med. Woch.*, anuary 1st, 1903). In the first place, ne must be able to distinguish without oss of time whether the haemorrhage s due to uterine atony or to tears. In he first case, he states that one can o much prophylactically. If the terus is pressed on or massaged imnediately after the birth of the child ne must expect that the placenta will e partly detached and therefore the onditions for *post-partum* haemorrhage ill be present. Still, in certain cases ne will not be able to avoid it. Bleedng from atony is particularly dangerous n those cases where we are called in fter the baby has been born, and where ne midwife has been clumsy or imatient in trying to get the placenta way. One sees the patient lying lmost bloodless, and on making the ttempt to express the after-birth one surprised that it comes away so asily. It had become detached in ne interval since the midwife has been xpressing. At times one has to insert ne hand, but one rarely finds any difculty in delivering the placenta. The igh degree of anaemia has rendered terine contraction almost impossible, nd if one attempts to apply massage, old, or ergotin the patient will probably ie. The haemorrhage is the cause of newed haemorrhage. Fritsch recomends the following method for these ases: The hand is pressed between the ecti muscles in a sort of massage-like anner, and the uterus is caught hold f. The blood which it contains is ready lost for the patient, and must nerefore be expressed. One then brings ne uterus forwards by pressing both ands behind it, and forces it into a osition of anteflexion, over the symhysis pubis. In this way there will e a deep funnel-shaped hole behind ne uterus, into which one packs owels, or balls of wool if one has it at and. A binder (a bandage) or two owels fastened together are then very ghtly applied, so that the pad is rmly driven downwards, while the terus is held in front of the pubes by ne same bandage. It is impossible for ny further bleeding to take place while ne binder lies *in situ*. After twelve ours it can be taken off, when it will be ound that the vessels have thrombosed. he patient does not attempt to move; ne has the fear of death on her, and as rule her sensorium is affected. The head is kept low, and the foot of the bed is raised. Hot-water bottles, ether, camphor, and saline fluid injection can be carried out without disturbing the position; and later, if there is need, the catheter can be passed. In pointing out the advantages of this method, he says that the pressure on the abdomen answers better than temporary pressure on the abdominal aorta, and then bandaging of the legs. (2) The bleeding cannot return, since the cavity of the uterus does not exist as long as the binder is in position. (3) Tamponade is by no means easy, and in the hands of an inexperienced practitioner the patient will often bleed to death before he has been able to pack the interior of the uterus. (4) One loses no time in disinfecting since the whole of the method can be applied from without. (5) After the binder and pad are in place, the patient is not disturbed. (6) Since one does not work through the vagina, there is no risk of sepsis. Lastly, there is no need of an after-treatment. On taking the binder and pad away, the uterus falls into its place. The second cause of *post-partum* haemorrhage is laceration. This can be recognized without difficulty, for the bleeding takes place directly after the birth of the infant. The uterus is small and hard, and one can often feel the sudden giving way of the uterus during the birth. Fritsch has not found suture reliable in these cases, and explains the reason of this. The tear is not only in the cervix; it extends far into the parametrium, and sometimes creates a very deep cavity, in which large vessels are torn across. To pull the cervix down by vulsella and to suture the tear in the cervix must be useless, for one cannot pull the parametrium down at the same time. Plugging, too, cannot reach the bleeding vessels, and therefore will prove useless frequently. In these cases he applies double pressure. First, he expresses or extracts the placenta, which is always easy in these cases. As soon as the after-birth is delivered, he presses with the right hand firmly on the antiflexed uterus as deep into the pelvis, until all coagulum is expelled; then he forces the labia majora with the left hand as far as possible upwards toward the sacral prominence, as if he wished to push the whole of the pelvic floor into the cavity of the pelvis. In a woman, who has just been delivered, it will be found quite easy to apply the pressure from above and from below, so that no further bleeding can take place. The left arm can rest on the bed and will not tire easily, but if the right hand finds difficulty in keeping up the pressure, the nurse or some other person can be instructed to press with both hands on the practitioner's right hand. It does not matter if the tear is situated to the right or left, one must always press directly in the middle line. After half, three-quarters of an hour, or even longer, the pressure is gradually taken off. The right hand is first taken away, and it will be found that the uterus remains lying low down, and that the bleeding has ceased. In the place of the hand, one places a sandbag or some other weighty substance, of about 3 kilos. The patient is kept quite still and then the left hand is taken away. No after-treatment is required, and it will be found that even enormous haemorrhages can be stopped almost at once by this method, not to recur again.

(144) Interstitial Pregnancy and Ovarian Tumour.

Sippel (*Monats. f. Geb. u. Gyn.*, December, 1903) diagnosed interstitial or tubo-uterine gestation before rupture and operated. The patient had twice been pregnant, labour being normal in both cases. When a period was fourteen days overdue she believed that she must again be pregnant, and complained of severe pains in both iliac fossae. Examined under anaesthetics the uterus could be felt to be somewhat enlarged, a tense elastic tumour as big as a hen's egg lay on its right side. A prominence of the size of a cherry could be defined on the left cornu and was taken to be a myoma; the tube could be felt running from it, and the left ovary was in its normal situation. The diagnosis was left tubal gestation, with haematoma (*sic*), fibroid in the left cornu. At the operation the left tumour was found to be a unilocular ovarian cyst, and the swelling in the left cornu an interstitial pregnancy. Both tumours were removed, the fetal sac being detached by a wedge-shaped incision in the cornu; the ovum lay in a dilatation of the uterine portion of the Fallopian tube. Sippel remarks that had exploration been practicable without narcosis, the tense ovarian cyst might have been correctly diagnosed, since it would not have been tender to touch like a tense tubal sac.

THERAPEUTICS.

(145) The Treatment of Lupus and Malignant Growths by High-frequency Sparks.

H. Strebel reports on his method of treating lupus by continuous, high tension, high-frequency spark currents, which he believes causes a molecular disintegration of the growth (*Deut. med. Woch.*, January 7th, 1904). Several investigators, especially French, have attempted to treat lupus by means of high-frequency currents, but have not obtained definite results. Strebel, however, has modified the method and has obtained excellent results. He uses a large induction machine, such as is employed for Roentgographic work; the secondary current is directed to the usual primary solenoid; and from thence to a properly constructed resonator. He lays great stress on the last item. The sparks obtained from his apparatus flow almost continuously, and as soon as the electrode is approached to the skin of the patient, long sparks pass. These are of no value, but the sparks which he uses are obtained when the point of the electrode is within 1 mm. or 2 mm. from the skin. After about five seconds, a white spot appears on the treated portion of the skin, the epidermis becomes raised, at times cracks, and any visible blood vessels disappear. He applies the sparks for about ten to twenty-five seconds. The patient feels a sharp burning of the part, but this pain is not of such a character to necessitate any local or general anaesthesia. On the following day, the skin will be found to

have been cast off, and an artificial ulcer will have formed. The inflammation is circumscribed, and lasts for about three weeks, and resolves in the formation of smooth cicatricial tissue. He claims to have obtained excellent curative and cosmetic results not only in lupus vulgaris, L. erythematodes, but also in acne rosacea and naevus. In a very few words he mentions that he has further tried this treatment on malignant growths, but that his investigations in this direction are not yet completed. He finds that an enormously powerful apparatus is necessary for these experiments, the usual induction machines even with long spark lengths being unsuitable.

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(146) Cataphoresis in the Local Treatment of Diseases of the Stomach.

Ferrannini (*Rif. Med.*, January 6th, 1904), impressed by Bouchard's remarks on the relatively large proportion of a drug which appears to be wasted as compared with the small percentage of it to which the improvement in the local conditions may be attributed, has tried to increase the local action of drugs by cataphoresis, and for this purpose took diseases of the stomach as test cases. Cataphoresis consists in the transmission of fluids by means of the electric current from the positive to the negative pole. The ordinary electrical gastric sound was used, the oval end was connected with the positive pole, whilst the negative pole was applied to the epigastrium by means of a large electrode. About 5 milliampères was the strength of the current, and the application lasted from five to ten minutes. In some preliminary experiments a solution of pot. iod. ($\frac{1}{2}$ gram in 500 water) was inserted into the stomach, care being taken that none got into the mouth, and the influence of electricity on the time of absorption noted. It was constantly found that under cataphoresis absorption was much quicker—for example, iodine could be detected in the saliva four minutes after injection into the stomach when electricity was used, whereas without cataphoretic action it took ten to twelve minutes to appear. Good results were obtained in patients—for example, one case with constant anchlorhydria of functional origin, and daily vomiting which had not responded to ordinary treatment, speedily recovered under small doses of strychnine administered cataphoretically. Similarly good effects were obtained with atropine in cases of hypersecretion and hyperchlorhydria.

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(147) The Serumtherapy of Plague.

Duprat (*Ann. de l'Inst. Pasteur*, September 25th, 1903) reports the results of the treatment of forty-five cases of plague with the Roux-Yersin serum. At the commencement of the epidemic the doses employed were from 60 c.cm. to 80 c.cm., repeated or not, every twenty-four hours, according to circumstances. Sixteen cases were treated in this manner, with a mortality of 31.25 per cent. Subsequently this dosage was largely increased up to an initial dose of 300 c.cm. in one case. The results thus obtained were much better than those obtained with the smaller dosage, and the mortality fell to 13 per cent. A number of cases are related, of which the following may be taken as an example: A child aged 10 years when first seen had a temperature of 39.8° C., pulse 130 and compressible, rapid respiration and marked collapse. He could with difficulty be got to answer questions, and had a very painful bubo in the left inguinal region. He received a first injection of 100 c.cm., followed twelve hours later by 120 c.cm., then at the same interval 80 c.cm., and, twenty-four hours after, 60 c.cm. Recovery took place, complicated by general articular pain — a frequent effect of the serum injection. The injections were all subcutaneous, and Duprat comments on the difficulties of Calmette's method of intravenous injection.

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(148) Thiocol.

L. Polidoro, in a communication to the thirteenth Congress of Internal Medicine of Padua (Reprint, Foggia, 1903) discusses the question of a possible substitute for quinine in cases where that drug is not well tolerated, or where it has failed for any reason to cure malaria. He states that quinine has been commonly pushed much too far in cases of malaria, as is shown by the numerous cases of quinine haematuria, and that it has also been freely used in non-malarial cases, its failure to cure being made a reason for increasing the dose instead of revising the diagnosis. He particularly criticizes the hypodermic use of the drug, which is frequently administered with a septic syringe and causes abscesses, which again are treated with quinine. He compares quinine with mercury, a most useful drug, but one which easily lends itself to abuse. More briefly condemning phenocol, methyl blue, and preparations of arsenic, he passes on to thiocol. As the result of his own experiments he states that it is useful in phthisis, in tuberculosis of glands, bones, and joints, in lupus, leukaemia, pneumonia, and other febrile diseases, in syphilis, and finally in malaria. In ordinary doses it is easily tolerated, giving rise to no unpleasant gastro-intestinal symptoms. It has a not unpleasant taste, is very soluble and unirritating when given hypodermically. Polidoro administered it to adults usually in two doses each of 1 gram. four hours and three hours before the expected return of a malarial attack. In 176 cases the result was immediately satisfactory; in 7 cases only the dose had to be doubled. Fever and acute enlaagement of the spleen and a small hepatic engorgement disappeared, the urine became limpid, and any existing gastro-intestinal disorder was usually alleviated. Chronic enlargement of the spleen usually showed some reduction. In 13 cases microscopical examination of the blood was made, and showed immobility or diminished mobility of the parasites with loss of segmentation. The author deprecated attempts at prophylaxis by means of quinine alone, or quinine, iron, and arsenic, and recommends a daily dose of 1 gram of thiocol, and washing exposed parts of the body with an aromatic solution to drive away mosquitos.

PATHOLOGY.

(149) Loose Bodies in the Peritoneum.

Neri (*Il Policlin.*, January, 1904) reports three cases where free bodies were found in the peritoneal cavity. In the first case the nodule, which was about the size of a pea, was found in the sac of an inguinal hernia, and was probably of tuberculous origin, as it contained typical giant cells. In the second case two free bodies, one the size of a pea and the other the size of a pigeon's egg, were found in the sac of a large hernia of ten years' duration. From the structure of these bodies it appeared probable they originated as an enormously thickened epiploic appendix, at one time pedunculated, and becoming free by atrophy of the peduncle. In the third case a similar body was found free in the peritoneum in the course of a laparotomy. In all these and similar instances the free bodies are covered with smooth serous membrane, and surrounded by a more or less thick connective tissue envelope. The centre is often partially necrosed and in process of time these bodies become calcified. Their nutrition is kept up by imbibition through the serous coating. Probably the majority of the free bodies originate as pedunculated growths, which lose their pedicle either from mechanical or chemico-biological reasons. Certain experiments made on guinea-pigs seem to support this view as to their origin; in one animal, for example, free and pedunculated bodies were found as the result of experiment.

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(150) Hypernephroma.

Thorndike and Cunningham (*Boston Med. and Surg. Journ.*, 1903, p. 611) say that the term "hypernephroma" includes any growth originating from adrenal cells and occurring in the kidneys. Such neoplasms are generally situated just beneath the kidney capsule, are extremely vascular, and extend mainly through the blood stream. They occur in adult males, grow rapidly, interfere with the renal functions by compression and direct destruction. Metastases appear in bones, lungs, and liver. The chief signs of their presence are recurrent attacks of haemorrhage associated with frequent urination and impaction of blood clots in the urinary passages. The urine is generally diminished and there is considerable pain, referred chiefly to the "glans." During the intermittent periods there is marked pain in the back, which is only relieved by the attacks of haematuria. Cytoscopic examinations frequently reveal clots obstructing the ureter. The pain may be distinguished from the pain produced by calculi, since the pain in the latter condition is increased at the time of the haemorrhage. The writers report three cases in which operative measures were undertaken. In one case the patient was alive and doing ordinary work nine months after removal of the tumour. In a second case the patient was discharged as thoroughly healthy seven weeks after the operation. In the third case death occurred.

AN EPITOME
OF
CURRENT MEDICAL LITERATURE.

MEDICINE.

(151) The Symptomatology of Dyspepsia.

AMPANELLA (*Gazz. degli Osped.*, October 11th, 1903) divides the symptoms of yspepsia into three groups: (1) Chemical; for example, hyperchlorhydria and ypochlorhydria, achlorhydria, and organic hyperacidity. (2) Neuromotor symtoms; for example, vomiting, pyrosis, ramps, tormina, eructations, atony, nd insufficiency. (3) Sensory; for exmple, gastralgia, hyperaesthesia, anesthesia, nausea, and anomalies of the ppetite. In hyperchlorhydria starchy oods are slowly digested, whilst albuminoids are rapidly consumed; hence lbuminoid diet eases these patients; hilst on the other it aggravates yrosis and the gastralgia of fermentaion. Gastralgia is usually aggravated y taking food, whereas in hyperhlorhydria food often gives temporary elief. Myalgia has to be differentiated om true gastralgia. Asthenic dyspepia is essentially characterized by a ense of fullness and tension, with ains in the epigastrium and general orpor. Gastric distension tends to ork upwards against the thorax, hilst in gastric dilatation the tenency is downwards. The specific haracters of hyperchlorhydria are abundnce of gastric juice, little mucus, few limentary residues, no fermentation, ppetite unimpaired, but pain and epiastric fullness. In gastro-succorhoea he gastric juice is increased in amount, here are frequent fermentations, polyipsia, hyperorexia, intense pain reachng its maximum intensity (in the hape of colic) at the end of digestion, ilatation, meteorism, and hyperesthesia. In hyperchlorhydria or chlorhydria fermentations are excesive, the mouth is slimy, there is a itter taste and foul breath, vomiting is evere, diarrhoea or constipation, and the ood is slightly digested or not at all. In rganic hyperacidity the symptoms are ery much like those of hyperhlorhydria, but the burning sensation nd the pyrosis are more marked. 'ain is spasmodic and often accomanied by vomiting. It is in this form f dyspepsia that examination of the astric juice is most useful.

(152) Gastroptosis.

TEELE AND FRANCINE (*Univ. of Penn. Med. Bull.*, December, 1903) give the esults of two years' experience in gasroptosis embracing observations upon ver 100 cases. Their data were based pon a series of 28 cases which have een kept under observation for a year r more. The position of the stomach n every instance was determined by nflation with air and the chemical nalysis of the gastric contents was onfirmed by several examinations after est breakfasts and test meals. Gastroptosis appeared to be directly responible for the symptoms in 11 of the ases since downward pyloric displacenent was the only lesion discoverable and external mechanical support alone gave relief. In these there was found a moderate diminution of hydrochloric acid secretion, the stomach being free from organic disease and presenting no dilatation or impaired motility. The symptoms were those of malnutrition, gastric fermentation, frontal headache, and a sense of dragging and lack of support in the abdomen. The condition, may, however, be entirely unaccompanied by symptoms, the downward displacement of the pylorus being incidentally discovered during a routine examination. It may also form part of the symptom-complex of other morbid states: for example, gastric neuroses from nerve exhaustion, gastric motor insufficiency and dilatation, and passive congestion of the stomach from weakness of the cardiac muscle; and in such connexion its importance as a complication was shown by the great relief afforded by mechanical support. All the primary and uncomplicated cases were distinctly improved and remained practically free from symptoms for more than a year. In these cases no other treatment was adopted beyond external support with the exception of a suitable diet and attention to the bowels, cascara being given when needed, and hydrochloric acid or an alkaline antiseptic mixture to check any excessive fermentation, but drugs were used so little that the improvement could not have been due to their employment. In 18 cases where the condition was merely a part of the symptom-complex of other morbid states relief was obtained by mechanical support, but it was found that, although this was effectually applied over long periods, averaging 17 months, the stomach was not permanently restored to its normal position. In two cases, however, the belt was discarded at the end of a year without a return of the symptoms, and in these cases it is probable that, although displacement still existed, a compensatory change had been brought about, enabling the stomach to perform its function successfully.

(153) Venous Pulse in the Forearm in Cirrhosis of the Liver.

HITSCHMANN (*Zentralbl. f. inn. Med.*, January 16th, 1904) has frequently observed that the subcutaneous veins of the forearm in cases of atrophic hepatic cirrhosis pulsate vigorously. The pulsation is synchronous with the cardiac action. Inspiration produces marked collapse of the vein, and there is a negative venous pulse. This applies also to the jugular veins. The phenomenon may be temporary or may persist during the whole course of the disease. It is most marked in the cutaneous veins on the radial side of the arm. If it temporarily disappears it can be made to return by warming the arm or allowing it to hang by the side until the veins become distended. Aspiration of ascitic fluid has practically no influence on it. The variety of cirrhosis is immaterial, and a venous pulse may occur in alcoholic, syphilitic, or cardiac cirrhosis in the atrophic stage. It is, therefore, probably due to a modification of the venous circulation by pressure on the portal vein at the porta hepatis.

(154) Leukaemia.

G. BANTI read a paper on leukaemia before the Congress of the Italian Society of Pathology, October, 1903 (*Lo Sperimentale*, Fasc. vi, 1903). He classifies the disease as lymphatic and myelogenous. With regard to lymphatic leukaemia, he states that there exists in the lymphatic organs a lymphadenoid tissue, atypical both in the quality of its cells and the character of its reticular formation. This invades other organs, while the follicles with their germinating centres atrophy and disappear. It invades the capsule of the gland and then the periglandular tissues. It invades the walls of the blood vessels, at first only up to the endothelium, but it afterwards penetrates the endothelium, and its cellular elements mingle with the normal elements of the blood. We find, also, a true metastasis of this lymphadenoid tissue in parts where normally no lymphatic tissue exists. By the atypical character of this lymphadenoid tissue, which is substituted for the normal lymphatic tissue, by its tendency to invade neighbouring tissues, by its invasion of the vessel walls and destruction of the endothelium, and by the existence of metastases leukaemia lymphatica presents the morphological characteristics of neoplastic rather than of hyperplastic growth. Similar statements may be made with regard to myelogenous leukaemia. The myeloid tissue existing first in the medulla of the long bones, and afterwards in other organs is usually atypical, both in its cells and its reticulum. There is invasion of the vessel walls, and the penetration within them of myeloid elements. These, transported to other organs, determine the production of metastatic foci of myeloid growth. Thus the extra white cells circulating in the blood are not lymphocytes or myelocytes, but neoplastic sarcomatous cells, and the author defines leukaemia as a systematic lymphadenoid sarcomatosis of the lympho-poietic and haemopoietic organs. The author states that leukaemia is one of the infective diseases, but he offers no opinion as to its etiology, his researches having hitherto been without result. Banti defined, also, a pseudo-leukaemia, lymphatic and myeloid, differing from the true leukaemia only in the fact that the newly-formed lymphadenoid or myeloid tissue may invade the vessel walls, but does not pass the endothelium, and there is, therefore, no excess of white cells in the circulation.

SURGERY.

(155) Drainage of the Pericardium.

MINTZ (*Zentralbl. f. Chir.*, No. 3, 1904) states that resection of the fifth costal cartilage for the exposure and incision of the pericardium in cases of suppurative pericarditis fails to afford efficient drainage, as the opening in the thoracic wall does not correspond with the lowest part of the pericardial sac. Dissections of this region in a large number of subjects, of varying ages from 9 to 70 years, have convinced the author that by the following method the heart can be readily and promptly exposed without wounding of the pleura

or peritoneum. An oblique incision is first made over the lower margin of the seventh costal cartilage on the left side, commenced at the angle formed by the base of the ensiform process and the costal margin, and carried outwards along an extent of about three inches. The abdominal muscles having been carefully detached from the posterior surface of the exposed seventh cartilage, and the cartilage itself divided near the inner and outer angles of the external wound, the detached portion together with the adherent soft parts is stripped away from the diaphragm and turned upwards. After the internal mammary artery has been divided between two ligatures, the diaphragm is pressed downwards so as to expose the antero-inferior margin of the parietal pleura to the inner side of and slightly above which may be seen the dense pericardium. Incision of this sac in the dead subject is usually followed by a discharge of serous fluid, which fact is regarded by the author as a proof that his operation will be found of service even in cases in which there is but a small amount of fluid exudation. Resection of the seventh costal cartilage will, it is stated, be found very useful in subjects presenting a very acute epigastric angle. In cases in which the ensiform process is displaced backwards and to the left side, resection of this portion of the sternum without interference with the continuity of the costal cartilage will afford sufficient exposure both of pleura and pericardium.

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(156) Rectal Exploration in Fracture of the Acetabulum.

Guibé (*Rev. de Chir.*, No. 1, 1904) holds that in cases in which fracture of the acetabulum is suspected the surgeon should never fail to make an examination by the rectum. In the female in cases of this kind rectal is preferred by Boeckel to vaginal examination. Pressure by the finger introduced into the rectum will, in a case of fracture of the acetabulum, excite pain at a fixed point corresponding to the bottom of the cavity. This, the author states, is a very important sign in injury of the pelvis and a sure indication of fracture involving the acetabulum. It will not, however, help the surgeon to distinguish between a starred fracture caused by impaction of the head of the femur, and a fissure prolonged from a fracture in some other part of the pelvis. Rectal examination will often afford other and more distinct signs, and enable the surgeon to feel on the inner surface of the acetabulum a firm, bony projection which may become larger and more prominent when the lower limb is forced upwards, and diminish when the limb is extended. Sometimes if the head of the femur has been forced into the pelvic cavity, the finger introduced into the rectum will distinguish the rounded extremity and follow the movements given to this projection by displacement of the thigh Crepitus may also be made out by rectal examination during upward pressure or extension of the limb.

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(157) Removal of the Prostate.

Moynihan (*Annals of Surgery*, No. 1, 1904) publishes a synopsis of 12 cases in which he removed, after suprapubic cystotomy, the prostate together with the prostatic urethra for senile enlargement of this gland. Of these cases 1 proved fatal. In discussing the question as to the priority in the method of enucleation of the prostate, the author states that to Freyer belongs the credit of calling surgeons back to the rational operative treatment unquestionably employed by McGill and Atkinson, and afterwards abandoned for a time in favour of castration and vasectomy. It is held that, whether actually the whole of the prostate is removed in Freyer's operation, or whether a portion remains behind with the capsule or sheath, is a matter of little more than academic interest. The method adopted by the author in the series of cases published in this paper consists of the removal of the whole, or what may count as the whole, prostate, with the prostatic urethra in one mass. It is pointed out that operations upon all subjects suffering from the complications of senile enlargement of the prostate are necessarily serious, and consequently it is as a rule only in the cases in which catheter life is impossible or has ceased to be a relief that operation is advisable. Notwithstanding the fact that those suffering from advanced and complicated hypertrophy of the prostate are without exception bad subjects for operation, their recovery after such treatment is rapid and remarkable. The author states that the after-treatment requires considerable care and expenditure of time, and that the patient should be allowed to sit up, if possible, within two or three days after the date of the operation.

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(158) Accidental Wounding of the Inferior Vena Cava in Nephrectomy.

Hartmann (*Bull. et Mém. de la Soc. de Chir. de Paris*, No. 2, 1904) publishes a case in which in the course of removal of a large pyonephrosis by the anterior and transperitoneal method, the vena cava was accidentally torn along its right lateral margin. The bleeding having been immediately arrested by digital pressure, the author found that the rent, which was about 3 cm. in length, terminated above about 3 cm. below the renal pedicle. The large venous trunk was ligatured above and below the wound in its wall. The patient, who was 56 years of age, made a good recovery. Slight oedema over the malleoli was observed in the evening in the early stages of convalescence. The fact that oedema of the lower extremities was so slightly marked in this case is attributed to the importance of the collateral branches of the vena cava in front of the spine. The author holds that in a case of lateral laceration of this venous trunk ligature of the vessel above and below the rent is indicated, unless the injury involve the region of the renal pedicle. It is evident, he points out, that if the rent corresponded to the attachment of the renal vein, such practice would cause an interference with the circulation of blood in the remaining kidney, and that, consequently, it would be advisable to attempt to close the opening in the vein by lateral suture.

MIDWIFERY AND DISEASES O WOMEN.

(159) Catarrhal Enteritis and Pelvic Disea

R. T. Gillmore (*Amer. Journ. of Obst*, December, 1903) describes cases f catarrhal enteritis in women, wh closely simulate pelvic disease. T patients are often treated by gynaeco gists without success, and they a finally labelled as neurasthen Among the primary causes of catarrh enteritis perhaps the chief is the ing tion of unsuitable food, especially f large amounts of uncooked fruit a fresh vegetables. A neurotic tempe ment has not appeared to the author be a predisposing cause. In one of h cases enteritis followed an attack f bloody dysentery, but none of the othe has it followed any previous serio disease. The symptoms vary. T most constant is that of alternati constipation and diarrhoea. There a bearing-down sensations in the low part of the abdomen, simulating t approach of a menstrual period, sor ness in various parts of the abdome distension after food, colicky and lanc nating pains, especially noticeab before an action of the bowels, naus and sometimes vomiting. Frequent there is irregular menstruation, esp cially amenorrhoea and leucorrhoea. Slo progressive loss of flesh, anaemia, e haustion, desire for sleep, nervousnes and depression may all be presen The alternating constipation and dia rnoea is frequently not mentioned b the patient until she is closely que tioned, and without this symptom th simulation of pelvic trouble is marke The examples given emphasize th difficulties of diagnosis. One patie had previously been treated for co gested and prolapsed ovaries, anothe for "inflammation of the womb another had undergone laparotom by way of achieving a psychol gical cure, while still another ha been suspected of early pregnancy Catarrhal enteritis may also be mistake for chronic catarrhal appendicitis floating kidney, and tuberculous ente itis. The diagnosis is best made b examination of the stool. This varie in colour and consistency, but the pal clay-coloured stool is specially patho gnomonic. The faeces are frequentl filled with bubbles and froth due t fermentation, and in the majority o cases there are small undigested part icles of food. When the small intestin is involved, small shreds of mucus are found. It is well to point out to the patient these abnormalities of the stool to help in obtaining her intelligent co-operation in the treatment. The treatment is mainly dietetic in character. Even in marked cases the diet may be generous; clear soups, eggs, one or two quarts of milk daily, buttermilk, rice, small quantities of twice-baked bread, custards, roasted and boiled meats may all be given. Vegetables are at first entirely forbidden, as well as all uncooked fruits, pastry, cakes, etc. The action of the bowels is carefully regulated, and cascara especially is useful in these cases. The treatment requires patience, but the results obtained are absolutely satisfactory. The psychological effect on the patient is also good, as her attention is diverted from the pelvic

region, to which it may have been directed for years.

(160) Central Rupture of the Perineum by the Elbow in a Breech Presentation.

CENTRAL perineal ruptures are rare. R. Azwanger (*Wien. med. Presse*, January 31st, 1904) records a case which is probably unique. He was called to a healthy, well-built primipara, aged 22, when the breech, which was in the second position, had already engaged in the pelvis. When such progress had been made that the breech could just be seen between the labia, a strong pain occurred and the half breech was born. On gently raising the breech a conical mass of the size of a pigeon's egg was seen to protrude between the posterior commissure and the anus. It was the left elbow. Before the advent of the next pain it was replaced in the vagina and delivered without rupture of the bridge of perineum, measuring about 1 in., which remained behind the vagina. The rupture became complete when the head was delivered. At the moment when the strongest pain occurred the left arm of the child was doubtless in the direct line of pressure.

(161) Traumatic Tubal Abortion at Fifth Month.

KARPOW (*Monats. f. Geb. u. Gyn.*, November, 1903) reports a case where a woman in the fifth month of pregnancy believed to be normal, slipped off a stool, and at once felt violent pain, vertigo, and faintness. The abdomen was tender, and there was hypogastric fullness, reaching to within three-fingerbreadths of the umbilicus; fluctuation was distinct. Soft resistance, such as is produced by coagula, was detected in the posterior and lateral vaginal fornices, much dark blood and clot was found free in the peritoneal cavity; the uterus was of about the size reached in normal pregnancy at the third month. The left tube was as thick as two fingers; the placenta was becoming extended from its dilated and fistulous ostium. Thence the umbilical cord ran up to the left of the epigastrium, where a fetus of the fifth month was found. The tube was removed with the placenta and fetus. A severe attack of pneumonia followed, complicated by pleurisy, for which resection of a rib was necessary. Ultimately the patient recovered.

(162) Vesicular Mole and Bilateral Ovarian Cysts.

DESENISS (*Monats. f. Geb. u. Gyn.*, October, 1903) removed a pair of cystic ovaries twelve days after a vesicular mole had been expelled from the uterus. Three weeks after the ovariotomy he was sent for on account of severe internal haemorrhage. The uterus was removed entire by the combined operation, the cervix being first freed from the vagina, and the whole organ then removed through an abdominal incision. The patient recovered quickly. A tumour had developed in the muscular tissue, and had produced perforation, detected during the operation. When preparations from the tumour were exhibited before the Hamburg Obstetrical Society, doubt was expressed by Desseniss whether it was a true chorion-epithelioma.

(163) Puerperal Abscess of Uterus: Death.

LEPAGE (*Rev. de Gyn. et de Chir. Abdom.*, July-August, 1903) reports a case in which a woman had a rise of temperature on the fourth day of her fourth confinement, accompanied by high pulse, vomiting, and pain in the right iliac fossa. Appendicitis was diagnosed, and medical treatment proved satisfactory for a few days. But a fortnight later the symptoms recurred, with all the signs of a peritonitis. Abdominal section was performed, and an abscess was found in the region of the right cornu of the uterus. It had opened spontaneously. The patient died a day later. Possibly appendicitis and disease of the right appendages coexisted, the two purulent foci separating when the uterine abscess gave way; but it appears that there was no necropsy. Lepage considers that hysterectomy should have been performed. Porak observed that abscess of the uterus was very rare, but Schwartz remarked that 19 cases had been collected. Pinard considered that a solution of this question was difficult, as the symptoms of abscess of the uterus are not definite.

(164) Two Asynchronous Pregnancies in One Tube.

SANITER (*Monats. f. Geb. u. Gyn.*, October, 1903) exhibited in June before the Berlin Obstetrical Society a Fallopian tube removed by abdominal section. It contained two fetal sacs, both ruptured and apparently in different stages of pregnancy. The larger corresponded in size to a two-months pregnancy, the fetus was 1½ in. long, the smaller had hardly reached the fourth week, according to its dimensions. The elder ovum lay nearer the ostium, the younger nearer to the uterus. A corpus luteum was found in the corresponding ovum. Saniter believed that this case might have been an instance of superfetation with external migration, but he admitted that it might have been a double-ovum twin pregnancy, the development of one fetus being delayed by some complication.

THERAPEUTICS.

(165) Treatment of Mixed Infection in Phthisis.

ALTHOUGH the production and maintenance of a raw suppurating surface was at one time highly esteemed as a treatment for many diseases, it has of late fallen into complete disuse. H. W. Blöte (*Zeit. fur Tuberk. und Heilstatt.*, Bd. v, Heft 2) recommends its reintroduction in the treatment of phthisis. A chief cause of death in phthisis is the occurrence of a mixed infection, staphylococci and streptococci being the bacilli most frequently found. Went examined the sputa of 24 phthisical patients and found streptococci present in all, while Schröder and Mennes only once failed to find the same organism in 30 specimens of sputum from 21 patients. Wherever a caseous area communicates with the air this infection may occur, and the pyogenic organisms are able to attack and destroy tissues already weakened by the action of the tubercle bacilli. This theory of the virulence of the pyogenic organisms in phthisis is not generally accepted. Schröder and Mennes assert that they do no harm, or next to none, in phthisis, but other observers have isolated bacilli of great virulence from the sputum of tuberculous patients. According to Went, they can only play an active part in tissue destruction when the patient's strength is diminished and his tissue vitality lowered. In support of his opinion he cites the long-continued immunity of the walls of bronchi and alveoli, although they are constantly in contact with infected sputum. Blöte explains this immunity as the result of antitoxins formed in the body, whose action is not strong enough, however, to protect the lung tissue already attacked by tubercle bacilli. That antitoxins are formed when suppuration is present is shown by the failure of pus from an abscess to infect other wounds in the same patient, in spite of being dangerous to another person. The production of a suppurating wound in a phthisical patient will therefore lead to a greater formation of antitoxins, and will be an additional protection to the lung tissue against the action of pyogenic bacilli. Few risks are run from the presence of a suppurating ulcer. In the *Archives Générales de Médecine* from 1822-77, when the use of the seton was common, only one case of necrosis is reported and from it the patient recovered. The danger of amyloid disease cannot be forgotten, but in none of ten patients who had each had an open wound for more than three years could any sign of it be discovered. In case of need the healing of the ulcer is only a matter of a few days. To produce the ulcer an incision of about 2 cm. length is made on the left arm above the elbow, an irritant placed in the wound and a plaster bandage applied. At first the doctor controls the wound and applies fresh irritants if there is a strong tendency to healing. When the operation is a prophylactic measure to prevent suppuration in the lung, precautions are taken to avoid a very acute suppuration in the arm at first, but there is no danger of this kind if the suppuration in the lung be already well established. Blöte's conclusions are that a suppurating wound will immunize a tuberculous patient against purulent infection of the lung, or, if such infection is already present, will increase the tendency towards healing and limit the extent of the destructive process in the lung.

(166) Triferrin.

THE new iron preparations with which the market has been flooded of late have been for the most part complicated organic substances, holding iron in firm combination, and whose animal prototype is haemoglobin. The more experienced physicians have remained more or less true to the older preparations, the metallic iron, the inorganic and organic iron salts, and organic iron substances containing iron in loose combination. W. Kramm (*Therap. Monats.*, October, 1903) recognizes that under these conditions a new iron preparation can awaken interest only if it be superior to others in being more pleasant to take, causing less digestive disturbance, and being more readily absorbed. Such superiority he claims for triferrin. It is a brownish yellow powder, insoluble in water and in weak acid solution, soluble

in concentrated acid or in alkaline solutions from which it can be reprecipitated unchanged. It contains 21.87 per cent. of metallic iron, and 2.55 per cent. of phosphorus. Experiments on rabbits point to its being readily absorbed, the amount of iron in the liver being increased threefold by its administration for ten days. Its therapeutic effects have been tested and approved by Mahrt, Klemperer, and by two American authors, Warner and Latimer. Between December, 1901, and April, 1903, Kramm has given triferrin to 35 patients. He has used it in three forms, in a powder, a tablet, and a mixture, the liquor triferrini compositus. It is taken after meals in doses calculated to allow of 0.15 to 0.18 gram of metallic iron being taken per day. No special precautions as to diet are needed during its use. The faeces become dark brown or black, and need to be examined chemically from time to time to prevent the possibility of overlooking small haemorrhages from the stomach should these occur. To 3 of the 35 patients—one suffering from cancer of the stomach, another from chronic gastritis, and a third from chronic enteritis—triferrin was given experimentally to observe its effect under such conditions. It gave rise to no trouble in any of the cases; 20 of the remaining patients suffered from chlorosis and 12 from secondary anaemia; 5 cases of chlorosis were complicated by gastric ulcer, 1 by duodenal ulcer, 2 by subacid gastritis, and 6 showed an atonic condition of the stomach with slight motor insufficiency; 7 of the cases had had no previous attacks of chlorosis, 13 were chronic or relapsing cases. The deficiency in haemoglobin was of severe grade in 5 cases, of moderate grade in 10, and so slight in the remaining 5 that the condition could only be positively diagnosed by the symptoms. The taste of the powder was disliked by one patient and of the tablet by another, who, however, took the liquor readily. The effect of any iron preparation on the digestive system is of such importance that any complaint on this score was most carefully noted. One patient complained of nausea, one of pain in the stomach for the first two days of taking the powder, another of pain on one day and vomiting on another. That the complaints were so few and trifling speaks well for the drug when it is remembered that many of the patients already suffered from serious digestive disturbance. It is specially noteworthy that in no case did the drug diminish the appetite or produce any tendency to constipation. although the amount of metallic iron taken per diem was large, and the treatment often continued uninterruptedly for more than six weeks. The effect on the composition of the blood still remains to be considered. Setting aside the 3 patients to whom it was given experimentally, 2 who took it only from eight to fourteen days, and 7 whose blood condition was not tested at the end of the treatment, there remain 23. In one case the haemoglobin only rose from 50 per cent. of the normal to 55 per cent. This patient had normal stools throughout, and it is probable, therefore, that he did not take the triferrin with any regularity. In the remaining cases the results were excellent; in one the percentage of haemoglobin rose from 35 to 80, in another from 45 to 90, and at the end of treatment it was only, in 4 cases, as low as 75. A phthisical patient with chlorosis showed its effect well. Before her admittance to a sanatorium, and after she left, the blood condition improved under triferrin; but while she was in the sanatorium, and triferrin was no longer given, the blood condition deteriorated, in spite of improvement in other respects.

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(167) Hopogan and Ektogan.

Fraenkel (*Deutsche Aertzl. Zeitung*, January, 1904) recommends hopogan, the magnesium peroxide, and ektogan, the peroxide of zinc, the former as an internal, the latter as an external antiseptic. Both substances readily give up free oxygen in the presence of an acid. They have previously not been much employed as therapeutic agents because of the technical difficulties in their production, but they can now be obtained from the firm of Kirchhoff and Neirath in Berlin. Hopogan is prepared in two forms—as compressed tablets or as a powder. Six to eight of the tablets or three to four teaspoonsful of the powder in water may be taken daily. The powder acts more rapidly than the tablets. The action of the gastric secretion causes hopogan to give up its free oxygen, and in this way to act as a strong but harmless antiseptic in the stomach. Hopogan gives excellent results in the treatment of flatulence due to fermentative processes in the stomach, and of pyrosis. It acts well, also, in the different forms of anaemia, in general weakness, and loss of appetite. This is consistent with the well-known improvement in blood or general conditions which follows the removal of gastric disorders, and it seems probable, also, that hopogan, in addition to its antiseptic action, has a stimulating effect on the metabolism generally. It may be given for diarrhoea in the form of a pill. Ektogan makes a good dusting powder for discharging wounds, but its antiseptic action is most marked when it is made into an ointment in combination with some weak acid of the aromatic type. In this form it will often lead to the healing of chronic ulcers which have resisted other treatments, and gives good results in cases of burns, moist eczema, furunculosis, sycosis, etc.

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(168) Veronal in Mental Disease.

Montagnini (*Gazz. degli Osped.*, November 29th, 1903) has tried, with success, the new hypnotic—veronal—in mental cases, chiefly dementia agitata. Veronal is a white, crystalline, inodorous, slightly bitter powder, only slightly soluble in cold water. The dose is half a gram up to 2 grams. As a rule, sleep followed in half an hour after taking the drug, and lasted from two to ten hours. No cumulative effect was observed, and no loss of action after repeated dosage in the same patient. The pulse and respiration were only slightly affected by the drug. In some cases flushing, diaphoresis, oliguria, nausea, and vomiting were noticed, but never to any serious extent.

PATHOLOGY.

(169) Protozoon-like Bodies in Scarlet Fever.

Mallory (*Journ. Med. Research*, January, 1904) found in the skin of a boy who died forty-eight hours after the appearance of a scarlet fever eruption certain bodies which he considers of protozoon nature. They were present in the protoplasm of the epithelial cells of the epidermis, between these cells and free in the lymph vessels and spaces of the corium beneath the epidermis. They vary in size from a little less than 2 microns to 7 microns in diameter; they present a series of forms with definite morphology, suggesting that they are the various developmental stages of a protozoon. In this case they were not found in the blood or in any internal organ. In 3 other cases examined they were also found; in the second case they were numerous in the skin; in the third they occurred occasionally as small clumps in the skin, and in the fourth they were found in small numbers only in the epidermis of the tongue. In 6 other cases where death occurred early in the disease no bodies were found, and a number of cases in the desquamating stage were examined with negative results. The skin was fixed in Zenker's fluid and stained with methylene blue and eosin. Mallory does not consider that the bodies can be either artefacts or degenerations; they forms a series including the formation of definite rosettes with numerous segments which are closely analogous to the series seen in the asexual development of the malarial parasite.

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(170) Pathological Histology of Hodgkin's Disease.

Longcope (*Bull. of the Ayr Clin. Laboratory*, Pennsylvania Hospital, No. 1, October, 1903) has prepared an interesting monograph on Hodgkin's disease with numerous drawings of cases, lymphoid tumours, and microscopic sections from clinical material in the Pennsylvania Hospital. From his own observations he feels justified in drawing the following conclusions:—(1) Hodgkin's disease should be considered as a distinct clinical and pathological entity. (2) The lesions in the lymph glands and other organs are specially characterized by the early increase in the lymphadenoid tissue, with later proliferation of endothelioid cells, formation of uni- nuclear and multinuclear giant cells, thickening of the reticulum, and finally overgrowth of connective tissue. Eosinophiles, though not specific, are frequently found in great abundance. Together with the abundance of eosinophiles in the lymph glands, the eosinophilic leucocytes and myelocytes of the bone marrow are increased. (3) The process originates in lymphoid tissue, and during the course of the disease new lymph glands are constantly being formed which ultimately become the seat of the lymphomatous growths. (4) In rare instances the retroperitoneal lymph glands may be the only group affected. (5) The etiology of Hodgkin's disease is so far unknown. The tubercle bacillus plays no part in the production of the lesions.

AN EPITOME OF CURRENT MEDICAL LITERATURE.

MEDICINE.

(171) Disease of Corpus Callosum caused by Alcoholism.

MARCHIAFAVA AND BIGNAMI (*Rivista di Patologia nervosa e Mentale*, December, 1903) describe three cases of alcoholic patients, in all of whom the necropsies revealed a well-marked and clearly circumscribed affection of the corpus callosum not previously observed. The first case has been already published by Tarducci in 1898. It was that of a peasant, aged 50, a great drinker, who had presented for three years before his death symptoms of mental disorder attributed to alcoholism. In February, 1898, he fell into a state of depression, and on March 4th had an attack of clonic convulsions limited to the right half of the body, and lost consciousness. Similar attacks occurred on several successive days, but in the intervals he was able to walk, but not to talk or to retain his urine. Four days before his death he fell into a state of coma, with deviation of the head to the right side and a temperature of 39° C. In the urine were found cylindrical casts and albumen. At the necropsy, besides the cephalic conditions described below, nothing noteworthy was found except broncho-pneumonia with fibrinous pleurisy. About the symptoms of the second case nothing is known, but he was certainly alcoholic. The third patient was also alcoholic, and was not syphilitic. He was 65 years of age. About two years before his death he had suffered from frontal headache and convulsive attacks. There was some disturbance of his articulation. In March, 1903, he again suffered from intense headache, with convulsions. He became comatose, and died a week after the beginning of the attack. He was found to have granular kidneys and diffuse arterio-sclerosis, as well as hyperaemia of the cerebral meninges and the peculiar condition of the corpus callosum which remains to be described. In all these three cases there was no abnormality of the cortex, the grey masses at the base of the brain, the cerebellum, the pons, or the medulla. The corpus callosum showed, on section, a diffused grey colour, though on its surfaces, both dorsal and ventral, there was still visible the mother-of-pearl white of ordinary white brain matter. This alteration ceased abruptly a few millimètres from the emergence of the bundles of nerve fibres from the hemispheres. Pieces of the corpus callosum were kept in Müller's liquid treated with alcohol and coloured with carmine, haematoxylin, and eosin, and by the Weigert-Pal method. Sections then presented the appearance of three zones—a middle one, to which the change was confined, and dorsal and ventral zones, running the whole length of the corpus callosum, and presenting no change. The middle one, when examined with low powers of the microscope, differed from the normal tissue chiefly in being less compact and in being manifestly more vascular and having its vessels full of blood. The nuclei of the neuroglia were increased in number, but not much. Examination with higher powers showed that the vessel walls were not much infiltrated or thickened, but the nuclei of the neuroglia and the epithelial nuclei in the vessel walls were somewhat swollen. Some of the vessels, especially the small arterial, were surrounded by a zone of hyaline substance, probably due to hyaline degeneration of perivasal neuroglia. The great mass of the tissue was composed of a network of neuroglia and naked cylinders which had lost their medullary sheaths. To this loss of medullary sheaths the grey colour and the rarefaction of the tissue were due. In some preparations in which the degeneration was less advanced there was a certain amount of cellular infiltration, and small accumulations of granular cells were found round the vessels. In preparations with more advanced degeneration small serous cysts were found surrounded by neuroglia. There were also small haemorrhagic infiltrations, evidently of very recent date, since the red corpuscles were unchanged. The degeneration was of much the same intensity in all parts affected except in the neighbourhood of the median sagittal line, where it was less intense. Preparations stained by the Weigert-Pal method showed a few fibres of a varicose appearance running through the degenerate zone and drops of myelin representing the remains of the medullary sheaths. The thickness of the normal zones as compared with the whole thickness of the corpus callosum was substantially the same throughout. The striae of Lancisi were normal. Microscopic investigation showed the degeneration extending a few millimetres into the substance of the centrum ovale and then ceasing abruptly. The convolutions of the cortex, the internal capsule, and the bundles of fibres running across the walls of the ventricles were all normal. There was thus a complete absence of secondary degenerations. The authors consider that the affection begins as an interstitial change of the neuroglia of an irritative and proliferative character, determining a secondary degeneration confined to the medullary sheaths, and they entertain no doubt as to the alcoholic origin of the whole process.

(172) Syphilis and Locomotor Ataxy.

W. ERB (*Berl. klin. Woch.*, January 4th, 11th, 18th, and 25th, 1904) separates male patients into two classes—those of the upper classes, that is, of education, and those of the lower level of life. The statistics gained from the former are much more reliable than those gained from the latter or from females of either class. Dealing with the first class, he finds that of 1,100 cases of tabes 89·45 per cent. certainly had syphilis previously, while of the remaining presumably not infected 10·54 per cent., only 2.8 per cent. gave a history and presented signs which revealed no trace of syphilis. Comparing these figures with those gained from 10 000 persons of the same class suffering from illnesses other than tabes, he found that only 21.5 per cent. had previously been infected, and 78.5 per cent. revealed no grounds for a diagnosis of previous syphilis. He thinks these comparative figures must prove a causal connexion between the two diseases. Dealing with the date of the appearance of the tabes after the infection with syphilis, he finds that this is much more common between six and twenty years after the infection than earlier or later. In dealing with males of the lower orders and with females, he says that one must be prepared to find syphilis denied much more frequently than in males of the educated classes. His statistics in these directions show this, but in the comparative figures give about the same result as with the educated classes. In his opinion, therefore, he is justified in stating that in the overwhelming majority of cases syphilis is the most important of the conditions which are connected with tabes. In the next place he inquires how gonorrhoea and tabes stand together. It appears that 90 per cent. of his tabes cases of the educated males had had this disease, while 50 per cent. of males over the age of 25 of the same class suffering from diseases other than tabes had had gonorrhoea. But he points out that the men who have put themselves into a position of acquiring syphilis have run the risk of gonorrhoea as well, and as the latter is much more common than the former, one must be careful not to exaggerate the importance of a previous attack of gonorrhoea. Of the men who had had gonorrhoea and afterwards became tabetic, 88 per cent. had had syphilis as well for certain. Returning to syphilis, he objects to the argument at times used in opposition to his views, that one should inquire how many syphilitics become tabetic. Many other undoubted syphilitic manifestations are rare, but are nevertheless syphilitic. Erb comes then to the conclusion that tabes is a somewhat rare post-syphilitic affection. Erb believes that there are other conditions which are necessary to produce tabes as well as syphilis. Cold, exertion, trauma, sexual excess, congenital or acquired weakness of the nervous system, certain poisons, such as alcohol, tobacco, ergotin, certain infectious illnesses especially influenza and probably many other factors play a part in determining an attack of tabes. Erb has continued his investigations as to the antisyphilitic treatment of certain cases of tabes and many are "practically cured" by this method. In conclusion, Erb states that tabes is undoubtedly in the majority of cases a syphilogenic affection, but at present it cannot be said for certain, although it is highly probable, whether it is always so.

SURGERY.

(173) Gastric and Duodenal Surgery.

VON MIKULICZ (*Ann. of Surg.*, No. 2, 1904) in opening the discussion of a paper communicated by Mayo to the Philadelphia Academy of Surgery, stated that the important question as to which is the best operation for establishing a new communication between the stomach and the small intestine has not yet been finally decided. From the standpoint that the best operation

is that which most completely restores the physiological relations, pyloroplasty stands at the head. Next in importance is gastro-duodenostomy. If these operations should not be feasible, the surgeon has then to consider posterior gastro-jejunostomy, which, if correctly performed, yields excellent results. Least to be recommended is the operation of anterior gastro-enterostomy, which von Mikulicz considers permissible only in cases of gastric carcinoma in which the normal acidity of the gastric juice is absent. This surgeon, though he does not use Murphy's button in operations for benign affections of the stomach, states that he has found it very useful in operations for gastric carcinoma, and in resection regards it as indispensable. In considering the relation between the number of benign and malignant diseases of the stomach he had been impressed with the fact that in America the former, especially gastric ulcer, formed the more numerous class, while carcinoma of the stomach occurred relatively less frequently. In Germany this proportion is reversed; at least he, as a surgeon, has seen four times as many gastric carcinomata as gastric ulcers. The frequency of gastric ulcer in America may, it is suggested, be associated with the not very natural nourishment which the American ingests, namely, ice-cold drinks and highly seasoned food. With regard to the indications for operative intervention in cases of gastric ulcer, it is pointed out that in this disease medical treatment is able to contribute much benefit. Surgical experience in this direction is still far too meagre to enable one to positively contend that in operative treatment there is an infallible remedy for gastric ulcer itself. In acute haemorrhage German surgeons refrain, as a rule, from looking for the bleeding ulcer, and perform gastro-enterostomy and at the same time a jejunostomy. By means of this additional operation the patient may be exclusively nourished for weeks, and only in this way can the functional activity of the stomach be eliminated. Although in necropsy of gastric cancer the pylorus is usually found involved, the disease, in von Mikulicz's experience, primarily attacks the lesser curvature of the stomach in 40 per cent. of cases and the pylorus in only 20 per cent. For the last eight years this surgeon in performing gastrectomy has not only extirpated all the lymphatic glands along the greater curvature, but also the whole omentum with the lymph glands and lymph channels as far as the cardia. The permanent results of resection of gastric carcinoma are, it is stated, in the main quite encouraging. The author's statistics show that 16 per cent. of those operated upon remain free from recurrence for over three years. In those cases also which are not radically cured resection of the stomach yields more than gastro-enterostomy, metastases developing at a distance from the stomach and the patient remaining free from gastric disturbances.

(174) Goître Operations under Local Anaesthesia.

Patients who suffer from large bronchoceles dipping down into the chest mostly suffer from chronic bronchitis. When they are operated on general anaesthesia—either chloroform or ether—is always a real danger. The same may be said of Graves's disease patients, who are also easily attacked by bronchitis. For these patients local anaesthesia is a great boon, and Riedel (*Berl. klin. Woch.*, March 16th, 1903) describes the operation under this form of anaesthesia and its results. When the patient is awake during the operation the surgeon must use every care and skill, not only not to produce pain but also to avoid sudden severe bleeding from cut arteries, to avoid causing dyspnoea by too energetically displacing the goître, and to avoid allowing air entering the veins. He describes at some length the reasons why he prefers making his skin incision in the form of a flap, reaching from immediately below the pinna nearly to the manubrium sterni and ending just below the opposite ear. The whole of this enormous incision has to be infiltrated with eucaine solution beforehand. Next the flap is dissected upwards, and then the sterno-cleido-mastoideus muscle is dissected out. Each vein must be tied directly it is cut, as must be the arteries, and on no account may pressure forceps be used; these can only distress the patient. The inferior subcutaneous colli nerve can mostly be saved. The muscles of the neck are now infiltrated with the same solution, and later the excess may be withdrawn by the syringe. The omo-hyoid and sterno-thyroid muscles are cut through about ½ in. above the incision and the freeing of the goître is now begun. In doing this one should attempt to tie the superior thyroid artery and vein before dividing them, and the same when one comes across other veins and arteries. As far as is possible one should work without introducing the finger into the wound, slowly and deliberately. The upper horn on the right side is first to be dealt with, and in so doing one must look out for the superior laryngeal nerve and avoid damaging it. Riedel describes very minutely each step of the freeing of the goître and mentions each of the important vessels which must be dealt with. He points out that before the inferior thyroid artery is tied and cut one must find the recurrent laryngeal nerve, and this is not always easy, since the parts are somewhat altered in appearance by the infiltration. The artery must be tied twice with catgut on each side of the recurrent nerve. Having freed the right side, the isthmus is ligatured with stout silk, and the right half is removed. When the recurrent nerve cannot be followed, or be found, as may take place in large goîtres, one must be very careful, and it is best to cut through the goître about ¼ in. from the trachea, the goître being held up, and the parenchymatous haemorrhage stopped by means of gauze. The surgeon next turns over to the left side, and after this has been freed as far as possible, the superior thyroid vessels having been avoided, one looks for the left branch of the vena thyroidea, ima and sinistra, and ties these before dividing them if possible. The left recurrent laryngeal nerve may give a lot of trouble, but, with great care, both it and th inferior thyroid artery can be le uninjured. The goître is then lifte out, and, lastly, the inferior laryng eal artery is tied and divided. Th upper part of the left side is to b left, and then the removal of the le half of the goître is to be undertake The organ is held in the hands, and cu through, each spirting vessel is seize with forceps, and the capsule, whic contains the chief vessels, is compresse manually. The thyroid tissue retract and leaves the capsule, which can easil be ligatured, alone in the finger Packing with sterile gauze is the bes means of dealing with the late capillar haemorrhage, and the wound is suture completely save at the lower borde Riedel describes the method he adopt of bandaging and dressing the head an wound. He claims to have obtaine better results with this method tha with any of the other methods used.

MIDWIFERY AND DISEASES OF WOMEN.

(175) Vaginal or Abdominal Operations i Gynaecology.

In dealing with the advantages and dis advantages of the vaginal method o performing gynaecological operations K. Abel points out that the subject ha a practical importance for the genera practitioner, even if he refers all hi patients for operation to the specialis (*Berl. klin. Woch.*, December 7th, 1903) The chief drawbacks of laparotomy ar the possibilities of air infection in spit of asepsis and antisepsis, shock on open ing the peritoneum, on handling th intestines, etc., and, later on, intestina obstruction due to adhesions. The general practitioner has an excellen chance of observing the ultimate fate of patients whose abdomens have been opened for the removal of ovarian tumours and other gynaeco logical conditions; and it is a common experience to find symptoms which are often as disastrous to the patient as the original disease was. One meets with ventral herniae which cannot be avoided always. Even when the scar holds well many women cannot get rid of the fear that something may happen to the scar and suffer not inconsiderably from this idea. The actual mortality of ovariotomies, according to Hofmeier, is about 13 per cent., which Abel says cannot be looked on with any satisfaction. At first, when Abel tried the vaginal method of Dührssen, he obtained such bad results that he was obliged to return to abdominal operation, but for the last three years he has returned to the vaginal method, and has found out that the reason why he appeared to be working in the dark, why he had not been able to prevent damaging the uterus and neighbouring tissues accidentally, and why he had not been able to carry out as strict an asepsis as in his abdominal operations was that he had not mastered the real method of operating. The technique is not so difficult but that it can easily be mastered by every surgeon, but it requires skill and presence of mind. The chief difficulty is the mastering of the suturing, instead of applying pressure forceps. Abel says that no one can

earn this operation from books, but one must watch some one else who knows how to operate correctly. In the first place the method has a great advantage after laparatomy in the ease by which one can keep the peritoneum aseptic. That the vagina is not free from bacteria cannot be cited as an objection, for in practice infection of the peritoneum is far less common than after the abdominal operation. It is further a mistake to suppose that the uterus is more pulled about when exposed through the vulva than through the abdominal wall. Vaginal coeliotomy may be employed instead of laparotomy for misplacements of the uterus, new growths of the appendages, inflammatory conditions of the tubes and ovaries, tubal gestation, and myoma of the uterus. In recommending the method for fixed retroflexion of the uterus Abel deals in some detail with the reasons why he considers that it is best to operate in all cases rather than to try the various treatments. Of the ovarian growths which are suitable for the method of operation he says that cysts, dermoid cysts, and small solid tumours can readily and safely be dealt with, but malignant tumours and solid tumours of a size of over a child's fist must be dealt with per abdomen. In all Abel has performed 121 vaginal coeliotomies, and has lost 2 cases—that is, 1.6 per cent. mortality. As additional advantages of the method, he adds that a scar hernia has not yet been described in the vagina, that convalescence after this operation is infinitely less severe than after laparotomy, and lastly, the patients consent more readily to the operation when they hear that the belly is not to be cut open. In dealing separately with the question of the treatment of myoma uteri, he states that it may be a serious mistake to discard the idea of an operation because the disease is benign. The symptoms which are frequently produced by myomata are actually threatening to life, and the most important of these are bleeding and secondary heart degeneration. Next he mentions twisting either of the whole myomatous uterus or of the pedicle of a subserous tumour, with subsequent gangrene and death from peritonitis. If one waits before operating until the heart has degenerated, or until the patient's life is threatened by profuse bleeding, anaemia, or peritonitis, one will often operate too late, and fail to save the patient. One has no hesitation in removing a myoma, if one discovers it accidentally as an obstruction to a birth, and Abel is at a loss to see why one should not remove it when one ends it gynaecologically, since the vaginal operation offers a safe method. The only rational treatment for uterine myomata is removal.

(176) The Urine in Pregnancy.

WILLSON (*Amer. Journ. of Med. Sci.*, February, 1904) discusses from experience the significance of the analysis of the urine in pregnancy, with especial reference as a warning of impending eclampsia. As a general rule, normal urinary findings are indicative of normal conditions in pregnancy, but abnormalities may exist in the specific gravity, urea excretion, and in the presence of albumen or glucose, which are followed by normal labour. Of a considerable number of urine analyses during pregnancy only a small percentage showed entire freedom from albumen and glucose, but in no instance, provided there was no serious renal change, did the urine fail to return to normal after labour, except in a few cases where fatal eclampsia occurred. Small traces of albumen may be due to pressure by the gravid uterus causing renal congestion, but careful microscopic examination for granular and epithelial casts affords the only reliable guide as to the state of the kidneys themselves. The presence of glucose in small quantities is in itself of little moment as regards the outcome of the pregnancy, but when it represents a diabetic condition it is of grave import. After advocating the periodical examination of the urine in all cases of pregnancy, and with greater frequency as term is approached, the author points out that the most dependable indications of impaired renal function and possible eclampsia are the presence of decided quantities of serum-albumin, the diminution in urea excretion, and the presence of casts, etc. In young women even with normal urine the possibility of eclampsia must be borne in mind, and, should it arise, it may be equal in severity to those cases in which morbid conditions of the urine have given warning of its occurrence. Though not an unfailing guide, urine analysis affords the most trustworthy warning of danger that we possess, and, in the event of eclampsia arising, venesection and normal saline transfusion are the most reliable remedies.

(177) Sarcomatous Degeneration of Fibroids.

EVELT (*Monats. f. Geb. u. Gyn.*, November, 1903) recently opened an instructive discussion on this subject, especially in relation to the relative merits of supravaginal amputation and panhysterectomy. Out of 120 cases of fibroids the subject of operation, afterwards examined by Evelt, sarcomatous degeneration was detected in 3. He dwelt (1) on the rarity of this condition, especially of primary melano-sarcoma observed in one of his cases; (2) on the difficulty of clinical diagnosis; one case had been for ten years under the observation of several competent doctors, who had all diagnosed the tumour as myoma, the second was diagnosed as such just before the operation, but no malignancy was suspected until sections were examined microscopically; on the other hand, sarcoma was suspected in the third case, although no very distinct malignancy was to be seen in pieces of the tumour removed from the uterine cavity seventeen days before the operation; (3) on the age of the patients, the first being 58, the second 42, and the third only 30; (4) on the fact that in all cases the tumour was primarily a fibromyoma in a distinct capsule; (5) on the after-histories. The first case died eight months after hysterectomy in consequence of widespread metastases. The second case, where the tumour was a primary melano-sarcoma, underwent a second operation thirteen months later on account of a hernia, yet no metastases could be found. The third case had but recently left hospital. Abdominal panhysterectomy was performed in all three cases, which in Evelt's opinion showed how the innocence of a myoma is uncertain, and how necessary is operative interference when a tumour of this class suddenly begins to increase in size. In the discussion Klein declared that he had observed 3 cases of sarcomatous degeneration in 120 operations. Mirabeau discovered degeneration of a fibroid of very long standing in a case of fatal obstruction; the growth had burst into intestine. In three other cases he traced the malignant change to the connective tissue; not to the muscle cells. Von Winckel found that recurrence might occur in two years, but sarcomatous degeneration of a myoma was so rare that he had failed to detect it in a whole decennium of his practice. Therefore he preferred supravaginal amputation to panhysterectomy, which was liable to be followed by great discomfort. Klein observed that he also saved the cervix and as much of the uterine body as possible. Evelt, in reply, stated that in his cases it was the muscle cells themselves that were the origin of sarcomatous degeneration.

THERAPEUTICS.

(178) Treatment of Gout.

FALKENSTEIN (*Berl. klin. Woch.*, January 18th, 1904) finds that there is only one fact in regard to the pathology of gout on which all observers are agreed, namely, that there is an excessive quantity of uric acid in the organism. It is still impossible to prove whether there is an excessive production or a diminished destruction of the acid, or a lessened excretion of it, and whether the condition is due to a primary kidney lesion, or to a lesion in the liver or to a neurosis. The author points out that clinically a peculiar form of dyspepsia is found to be present in gout cases. This has long been recognized. In order to make himself clearly understood, he briefly describes the function of the gastric glands. Beside the glands, which secrete pepsin, certain cells in the fundus of the stomach have the capability of secreting hydrochloric acid. It is only when the gastric juice is acid that pepsin is able to dissolve insoluble or coagulated albumen. The pepsin is not used up, while the acid is, so that if one adds fresh acid to the gastric juice, additional quantities of fibrin can be digested, without any further replacing of pepsin. When the acid secreting cells are diseased, not only will the digestion be insufficient, but the substances from which the hydrochloric acid is derived in the blood will lead to pathological conditions in the body. One regards a gouty person as a person who abuses the pleasures of the table, but in reality, he is incapable of digesting the ordinary food stuffs. His gastric glands are diseased. Excess of food is negotiated in healthy subjects by increased supplies of hydrochloric acid, and the products are oxidized to urea, but in the gouty there is abnormal fermentation, insufficient oxidation, and the substances containing quantities of nuclein are partly prevented from being further split up, and partly favour the synthetic formation of uric acid In this way the faulty secretion of the gastric glands leads to an exces-

sive formation of uric acid. The gastric juice, however, is frequently hyperacid, but this is due to organic acids, such as butyric, lactic, and acetic acids. Basing his treatment on these ideas, Falkenstein tried on himself, as well as a number of patients, the following: He gives from 40 to 60 drops of pure hydrochloric acid in a large quantity of effervescing water each day. The water is drunk during the meals, and the quantity is arranged so that the patient is struck by the acid taste. The diet is then an ordinary one. The dyspeptic symptoms disappeared and the attacks of gout became less frequent and much less severe. Pfeiffer's experiments with injecting uric acid appear to have led to the same results. Uric acid dissolved in salt solution injected hypodermically always led to an attack of gout, but when the patient was given 5 to 8 c cm. of hydrochloric acid in water, no attack took place. He discusses at some length the *rationale* of his treatment. In discussing the older methods of treating gout, he praises the action of morphine, as not only relieving the pain but by favouring perspiration acts directly curatively on the gout. The "pyrins," and especially aspyrin, is also of value. Of colchicum he says that he is convinced that it does much harm. It may shorten an attack and lessen the pain, but inasmuch as it interferes with the excretion of uric acid, it acts by producing a condition of *status quo ante*, and is therefore likely to lead to a rapid return of the symptoms.

(179) The Treatment of Laryngeal Tuberculosis with Reflected Sunlight.

JOSEF SORGO (*Wien. klin. Woch.*, January 7th, 1904) has treated a case of laryngeal tuberculosis with reflected sunlight with encouraging results. At first the laryngoscopic mirror was held in position by a physician for 45 or 60 minutes; later the patient himself learned to reflect the light. He sat astride a chair with the sun at his back. An ordinary looking-glass was fastened to the back of the chair somewhat above and anterior to the head, so that no light was intercepted. The sun's rays were thus reflected from the looking-glass on to the laryngoscopic mirror. The patient acquired such dexterity that he could see part of the right bronchus and observe the progress made. This simple method of employing sunlight has not been previously tried, probably because it was thought to be useless. If sunlight could cure tuberculous lesions without concentration of the ultra-violet rays, lupus of exposed parts should frequently heal spontaneously. Moreover, it appeared probable that the uncooled rays would increase the already present laryngeal hyperaemia, and that the ultra-violet rays would be largely absorbed by the blood. It occurred to the writer, however, that these objections did not necessarily apply to the larynx, which is never exposed to light, and which is on that account probably more sensitive to its action than the skin, which has been exposed since birth. The patient, a man, aged 24, had the first symptoms of phthisis in the autumn of 1901, and became hoarse a year later. When seen in August, 1903, both apices were infiltrated and tubercle bacilli were present in the sputum. The right false vocal cord was swollen so that the true cord appeared narrowed. The right true vocal cord was reddened and of an uneven velvety appearance. On its free border was a groove-like ulceration, the base of which was reddened and in parts of a greyish white colour. The left vocal cord appeared narrowed and was hidden posteriorly by the swollen false cord. Between the true and false vocal cords about opposite their middle was a conical tumour of the size of a pea the apex of which projected internally beyond the margin of the false cord. Its surface was reddened but not ulcerated. There was almost complete aphonia. The light treatment was given for thirty minutes daily from August 21st to 25th, for an hour on August 27th, 28th, 30th, and 31st, for forty-five minutes on September 1st and 2nd, and one hour daily from September 6th to 9th, in addition to several shorter periods. On September 9th the right false vocal cord was almost normal, so that the true vocal cord appeared of natural width, the ulcer on the right cord was smaller, the left true vocal cord was less hidden by the false cord, and the tuberculous tumour was less prominent. From September 10th to 22nd, though the treatment was interrupted, the improvement continued. This is explicable, as light and chemical rays are distinguished from heat rays by the fact that their action on the skin is often not apparent for some time. After further treatment, between September 23rd and October 15th, with interruptions of one, four, and six days respectively, the tumour on the left side had almost disappeared. The treatment was resumed between October 20th and 24th, and then practically abandoned owing to the absence of sun. On December 4th the right vocal cord was merely reddened and swollen, and the ulcer had almost healed. On the left side the position of the tumour was indicated by a tiny whitish nodule. Figures are given which show at a glance the striking improvement attained. The patient was under treatment in a sanatorium, and improved in general health. To what extent this was responsible for the improvement in the condition of the larynx it is impossible to say. But Sorgo intends to give the method an extended trial during the coming summer. A case of syphilitic laryngitis was similarly treated, but without result.

(180) Podophyllin as a Vermifuge.

NEUMANN (*Deut. med. Woch.*, January 28th, 1904) has had a number of cases of ankylostoma worms to deal with, and says that the treatment with calomel and with filix mas has proved unsatisfactory. In the majority of the cases the patient exhibited no symptoms at all, other than the presence of the eggs of the worms in the faeces. In most cases he gave very large doses of calomel and of extract of filix mas, and noticed that the eggs disappeared more readily when toxic symptoms of these drugs were manifested. It occurred to him that the clearing out of the worm was less likely to be due to the poison circulating in the blood vessels as to the local damage which the two drugs produced on the epithelium of the intestinal tract. Since podophyllin attacks the intestinal epithelium he thought it would be to watch the effect of this drug on the eggs and worms. In actual practice he found that it acted well in many cases, and where it failed he found that a subsequent dose of filix mas on the fifth day after the podophyllin had been taken sufficed to remove the worms. It appears that the podophyllin possesses a peculiar property of changing the mucous membrane of the intestine, and thereby hindering the worm from remaining attached. He considers that its action is much more specific than that of calomel, and is not nearly so dangerous.

PATHOLOGY.

(181) Goitre.

DE PAOLI (*Annal. della Fac. di M...*, vol. i, f. 1, 1901, Perugia) gives the results of a careful study of 60 cases of goître operated upon at various times. A truly normal thyroid is rare. In patients suffering from other diseases the author found changes in the thyroid—for example, inequality of development in its various parts, limited alterations, nodules which might under given circumstances develop into goîtres. The colloid substance secreted by the thyroid is carried into the general circulation by the lymphatics. Since the colloid substance found in the lymphatics differs somewhat (optically and chemically) from that found in the thyroid, it probably does not pass direct into the lymphatics. Possibly some process akin to the passage of drops of fat across the epithelium of the digestive glands occurs in the case of the external secretion of the thyroid. In the histological study of goître particular attention should be paid to the colloid substance. In every case where the function of the gland is more or less maintained, and where the chief signs of true tumour formation are absent, the goître should be looked upon as functional, and the chances of recovery under medical and palliative treatment are considerable. The author describes the various types of goître and proposes a classification into three chief types: (1) Goîtres due to a diffuse alteration of the gland tissue; (2) goîtres due to development of nodules in the interior of an unaltered gland; (3) cystic, single or multiple. Of the 60 cases recorded, 26 belonged to the first group, 10 consisted of a solitary cyst, 18 contained nodules, cysts, adenoma, and 12 were various—for example, cancer, 2; endothelioma, 2; tuberculosis, 1, etc. Twenty-seven cases were, for one reason or another, operated upon without general anaesthesia. Extirpation, with preservation of a small piece of thyroid, is preferable to enucleation. The post-operative fever which appears in about one-third of the cases is sometimes due to bronchial catarrh excited by irritation of the recurrent or vagus nerve, sometimes to absorption of pyogenic germs included in the thyroid and set free by the operation. Relapses after operation are not common. They are most likely to occur after enucleation of multiple nodules of fetal structure. The remains of thyroid left after operation as a rule do not hypertrophy, but undergo atrophy and seem to disappear.

AN EPITOME OF CURRENT MEDICAL LITERATURE.

MEDICINE.

(182) The Iodophile Reaction and Glycosuria in Pertussis.

D. CRISAFI (*Il Morgagni*, October, 1903) insists first on the difference between iodophile granules and eosinophile granules. It was pointed out by Ehrlich and Frerichs that the presence of granules of glycogen in some leucocytes might be shown by exposing them to the action of iodine or its vapour, after which exposure the granules showed a deep mahogany-red colour. Some investigators have been satisfied with a yellowish coloration—a less significant phenomenon. The eosinophile granules, at a certain focal distance, may appear to be of a brownish colour, but never of the characteristic red. The difference between the two sets of granules is evident when it is stated that iodophile granules are found in lymphocytes and in polymorphonucleated neutrophile cells. Crisafi's method was to make cover-slip films of blood, dry them in the air, and suspend them for half an hour just over a vessel containing crystals of iodine. They were then examined with an immersion lens on white slides—a greenish slide would obscure the red colour. In cases yielding a positive reaction one then saw in the protoplasm of the neutrophile leucocytes, less often in the eosinophiles, and still more rarely in the lymphocytes, one, two, or three small granules of a colour (from mahogany-brown to wine-red, surrounded by a clear zone without any yellow tint. In some rare cases where the granules were abundant they were disposed in clumps towards the periphery of the leucocyte. Examining 20 cases of pertussis, Crisafi found that 16 of them gave a positive and 4 a negative reaction. Ehrlich and Frerichs originally described the reaction as frequent in the blood of diabetic patients, and rare under other circumstances. Glycosuria has also been said to be frequent in pertussis, and it is natural to ask whether the iodophile reaction is common in pertussis simply because glycosuria is common in pertussis. Examining his patients for glycosuria, Crisafi found that only four of them presented this symptom, and in only one of the four cases was it well marked. The relation therefore between the symptoms is not of the simple character suggested above. On the other hand, the existence of some relation is made more probable by the observation that the blood of animals previously giving no iodophile reaction can be made to give it by injecting sugar into the abdominal cavity or by extirpating the pancreas. Crisafi's explanation is that in pertussis the specific toxins which cause the convulsive cough by stimulating the peripheral terminations of the vagus and the fifth nerve caused in the same manner a liberation of glycogen by the liver, leading to hyperglycaemia, to the presence of glycogen granules in the leucocytes, and whenever the oxidative power of the organism is defective, to glycosuria. Whether the theory be correct or not, Crisafi anticipates that his observations, when confirmed, will supply an additional means of diagnosis for obscure cases of pertussis.

(183) Hysterical Autosuggestion in Children.

C. A. EWALD (*Berl. klin. Woch.*, September 21st, 1903) discusses cases of less fully developed types of hysteria in children, which he considers are best termed "hysterical autosuggestion." Such cases, he says, are not uncommon in practice, and the diagnosis presents considerable difficulties. The first case was that of a boy of 9 years, whose family history did not suggest any neuropathic taint. In September of 1900 he had an attack of hepatic inflammation with jaundice, which was said to have been followed by an affection of the brain. The practitioner who undertook the treatment of the case, however, had no knowledge of the brain affection. In November Ewald was called to see the child, on account of intractable vomiting, which had lasted for over four weeks, when the boy was supposed to have swallowed a small bone. The boy believed that he felt the bone in the left iliac fossa, and the practitioners in charge were seriously considering the advisability of performing laparotomy. The child had been fed by nutrient enemata for the last two days, since which time the vomiting had diminished somewhat. The general condition was very good considering the fact that the child had taken food badly for some time. His account was given with marked clearness. There were absolutely no physical signs to be made out, and the urine contained neither albumen, sugar, nor an increased amount of indican. Regarding the case as one of some neurotic and probably hysterical nature, he arranged for the child to be placed in a home, where he could be kept under observation and medical control. After a short time, during which attention was paid to the digestive functions, the boy was told that the bone had been found in the motions, and from that time the vomiting gradually got less and less, and eventually he was able to be sent home well. In January, 1902, he again complained of feeling unwell. At first the symptoms were limited to sleeplessness and constipation, and in April the old pains in the left inguinal region returned. He did not ascribe the pains this time to the swallowed bone, but appeared to be attacked suddenly with recurring severe pains. The pains only appeared when he had been walking or playing, but were absent during rest in bed. He gave a very exact account of the method of onset, situation, and character of the pains. No improvement followed the various forms of treatment carried out (Ewald again took the view that the condition was hysterical), although no physical signs could be made out. Before giving up the "suggestion" treatment in favour of laparotomy, Ewald had the child put under the influence of an anaesthetic, and made an incision of about 1½ in. in length, only dividing the skin. This incision was reunited by means of two sutures, and properly dressed. The child had submitted to the prospective operation with suspicious readiness, and took a morbid interest in describing to the nurses all about the two sutures, but was very disappointed that he did get "wound fever." He watched the process of healing with anxiety, and felt the pains in the wound. He had been carefully told that at the operation the affected part would be removed so that the pains would not return. He was kept in bed for eight days, and from that time there have been no further returns of the pains. Ewald next describes another case of a child of 7 whose symptoms pointed to the existence of perityphlitis. Here, too, Ewald succeeded in banishing the pains by assuring the mother in his presence that there was no perityphlitis, and by applying a small umbilical pad over an insignificant umbilical hernia. The third case which he relates was that of a 9-year-old Jewish boy, who was a very self-willed spoiled child. Vomiting had appeared shortly after he had been in for and had passed a small examination, and lasted for six weeks. On going with his mother into the country the vomiting disappeared, but returned when he came back and had to go to school again. On being admitted to the "home" he exhibited well-marked signs of being a spoiled child. Yelling when his father left him for a minute, and refusing all food or vomiting it when forced upon him, it was clear to Ewald that what was wanted was more in the nature of disciplinary than medical treatment. Sending the father away, he had a "serious talk" with the young gentleman, and succeeded in reducing some of the yelling and noise. The child was kept in bed and fed for three days exclusively per rectum. At first he succeeded in bringing up a good amount of mucus from the stomach, and as the enemata began to be returned after three days, and the pulse and general condition showed signs of failing, he was given some milk, sugar, and tea. The abdomen was galvanized with weak currents, and later he was given tepid douches. The diet was fairly rapidly supplemented, and the child was allowed to get up. There was a slight relapse during this treatment, but in the course of twenty-one days Ewald was successful in obtaining normal conduct. In conclusion, Ewald points out that the saying that it is not the medicine but the doctor who cures hysteria might be extended in the case of children to "it is not the doctor but the disciplinarian who cures."

SURGERY.

(184) Errors of Diagnosis caused by Pain of Appendicular Origin.

IN a communication presented to the Paris Société de Chirurgie on January 20th (*Sem. Méd.*, January 27th) Guinard called attention to a series of errors of diagnosis committed in the case of patients suffering from chronic appendicitis, of very mild type, without crises, and presenting only one symptom—namely, pain (appendicalgia). This pain is not always referred to McBurney's point; the site of greatest intensity is often found lower down near Poupart's ligament, sometimes even on

the left side. Guinard refers to a case of appendicalgia in a woman who had been treated successively for gastric disturbance, hepatic colic, uterine fibroma, and femoral hernia. In a man who came to be operated on for an inguinal hernia of old standing he found a diseased appendix, which certainly was the starting point of paroxysms of pain from which the patient had frequently suffered, and which had been supposed to be due to renal colic. In a third case Guinard, after performing a radical cure of hernia, was compelled to do a further operation for the removal of the appendix, as the pain of which the patient had previously complained did not cease after the operation and were certainly connected with the appendix. On the other hand, uterine fibroids are not painful unless they are associated with tubal lesions, and when a woman suffering from fibroma complains of pain on the right side, the surgeon should always think of the possibility of a concomitant appendicitis. Of 18 women operated on by Guinard for fibroids who complained of pain, the appendix was diseased in 12, while the others had an affection of the adnexa. The pain from which women with ovarian cysts sometimes suffer originates most frequently from changes in the appendix, as was shown in 2 cases operated upon. Guinard has also observed 11 cases in which appendicalgia coincided with tubal lesions. A sclero-cystic ovary may also be the cause of error in diagnosis. Thus a woman who complained of abdominal pain, and who had been operated on five years before by a surgeon for sclero-cystic ovary did not get rid of her pain till the appendix, which contained a calculus, had been removed. In 2 cases Guinard erroneously attributed appendicalgia to movable kidney, having overlooked the existence of lesions of the appendix. In another case he performed perineorrhaphy for prolapse of the uterus in a woman suffering from appendicalgia whose appendix had afterwards to be removed. He also curetted and amputated the cervix in a woman suffering from abdominal pain which he failed to connect with appendical trouble; some time afterwards an acute attack of appendicitis occurred for which an operation was performed by another surgeon. In a patient under treatment for metritis who had for four years suffered from pain, vaginal palpation revealed in the right Douglas's pouch a mass which was taken to be due to inflammation of the adnexa. Guinard, however, on performing laparotomy found the adnexa absolutely healthy; the mass consisted of the adherent epiploon, and the appendix which he removed had certainly been the starting point of all the symptoms. In two other cases of similar nature the pain ceased only after removal of the appendix. Guinard concludes that there is a class of painful affections of the abdomen in dealing with which the surgeon should always bear in mind the possibility of appendicalgia. When laparotomy is performed, the wound should never be closed till the appendix has been examined.

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(185) Haemostasis in Hepatic Surgery.

Gualdrini (*Gazz. degli Osped.*, February 28th, 1904) discussing the various methods for arresting haemorrhage in the liver finds they may all be reduced to (1) simple suture, (2) intrahepatic ligature, (3) pegged sutures, (4) thermocautery, (5) superheated steam, (6) plugging with gelatine, fibrin, decalcified bone, gauze, epiploon, and intestinal parietes, (7) tamponment. Each method is carefully discussed and its merits and demerits pointed out. In wounds of the liver where prompt intervention is necessary the author recommends plugging with epiploon or gauze—simple suture may sometimes give good results in these cases. He records one case where epiploon was used with good results, but some months later a second laparotomy had to be performed for pyloric stenosis due to the formation of bands, after these were freed the patient remained uninterruptedly well. The hepatic scar was sound. Adrenalin is a valuable additional haemostatic. The author has carried out a series of experiments with parenchymatous injection of adrenalin which lead him to assert that it may safely be trusted as a haemostatic as far as the small vessels are concerned. If secondary vaso-dilatation occurs it comes on so long after the vasal constriction that there is little fear of its causing haemorrhage. The larger vessels would, however, need tying as before.

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(186) Juxta-intestinal Cyst of Intestinal Structure.

Terrier and Lecène (*Rev. de Chir.*, No. 2, 1904) publish a review of our present knowledge, both pathological and clinical, of the rare form of cystic growth known as juxta-intestinal cyst presenting intestinal structure, for which the name "enteroid" is suggested. This review is based on a full clinical report of a case in which Terrier removed from the postero-external surface of the caecum in a woman, aged 23 years, a loose subperitoneal cyst of the size of a large orange, which contained a clear fluid, and the inner surface of which was studded over by polypoid vegetations. In their comments on this case the authors state that several varieties of cyst differing in origin and structure have been observed in more or less intimate relation with intestine and the mesenteries. Of these the most frequent are lymphatic cysts, which are usually multilocular. Closely allied with regard to structure to these lymphatic cysts are the very rare cystic lymphangiomata of the mesentery. To these two forms of juxta-intestinal cyst may be added dermoid and hydatid cysts, and, lastly, the variety of cyst of which the growth removed by Terrier affords a good example, the wall of which is formed by smooth muscular fibres resembling the muscular structure of normal intestine, and the inner lining by mucous membrane provided with cylindrical epithelium and often with Lieberkuhn's glands. These cysts, known as "juxta-intestinal cysts of intestinal structure," have been found in a very large majority of cases at the caecal end of the ileum or in the ileo-caecal angle; they are almost always unilocular, and contain ropy fluid, varying in colour from pale yellow to brown. The situation of the cyst in relation to the intestinal wall varies in different cases; the growth may be submucous, intramuscular, or subserous, and, as a rule, it does not communicate with the intestinal lumen. This form of juxta-intestinal cyst has been usually observed in young infants. The submucous cyst is probably developed at the expense of débris of the omphalo-mesenteric duct, and consequently may be regarded as closely allied to Meckel's diverticula. The intramuscular and subserous forms may be due, the authors suggest, to a detachment and secondary inclusion of a portion of intestinal wall in the course of development. These cysts, which are usually unexpectedly revealed in necropsies, have no special symptoms, but, like other growths in connexion with intestine, may cause stenosis, invagination, occlusion by flexure, or volvulus. The authors doubt whether it will ever be possible to make a clinical diagnosis of this variety of juxta-intestinal cyst without an operation. The growth is usually a small one, not larger than an apple or an orange; it causes no symptoms peculiar to itself, and the surgical interventions in the course of which it has been exposed have always been practised for some secondary affection such as occlusion. The sole point of importance is that the surgeon should be aware of the existence of this form of cyst and of its anatomical connexions, and thus, if he meet with such a growth in the course of an abdominal operation, know how to deal with it. The treatment would consist, according to the situation of the tumour with regard to the intestinal wall, either in simple enucleation or in resection of the involved portion of intestine.

MIDWIFERY AND DISEASES OF WOMEN.

(187) Tubal Pregnancy and Haematocele: Operation or Expectant Treatment?

Klein (*Monats. f. Geb. u. Gyn.*, December, 1903) disputes Veit's well-known theory that when the ovum has died in early tubal pregnancy an operation is indicated if it still lies in its tubal sac, whilst, when it has been expelled from the sac, expectant treatment will be sufficient unless symptoms of severe haemorrhage recur. In rupture of the tubal sac operation is always indicated. Klein, while agreeing with Veit as to conditions where the latter advocates operation, is opposed to expectant treatment, even when the dead ovum has been expelled and all symptoms of haemorrhage have subsided. In the course of eleven years, ending in the summer of 1903, Klein has treated 22 cases of tubal pregnancy. In 15 of this series the sac was amputated, and through an abdominal incision in all but one instance, where it was removed through the vagina. Two out of the 15 operative cases were unconscious through extreme acute anaemia, and died when the abdominal incision had just been completed; no anaesthetic was administered in either case. One out of the 7 cases treated expectantly was lost; the patient in this case had a distinctly definable haematocele following symptoms of internal haemorrhage after the

iod had ceased. Five days later the se suddenly became worse; the pa- it died whilst preparations were being le to operate. There was a well-en- suled haematocele; nevertheless, a ond and fatal attack of haemorrhage occurred. A discussion followed the ding of Klein's paper. Gossmann ad- ated morphine injections into the sac kill the ovum, but admitted that it not always easy to be sure that the m was not dead already, and that the rphine had not entered a haematocele tead of a tubal sac. As a haemato- so often subsides statistics of this n of treatment were unreliable. ly "prophylactic" diagnosis of tubal tation was not practicable. The ma- ty probably ended in very early death he ovum, with more or less haemor- ge. Hofmann, in the course of a very le experience in *post-mortem* work for legal authorities in Vienna, came oss eight cases of fatal haemorrhage n tubal gestation in twelve years. doubt the eight might all have been ed by an experienced operator, but it a mistake to teach the profession in ieral that every tubal sac should be ated as a malignant tumour. Diagno- and operation were alike difficult to tors not specially experienced in aecology. Gossmann declared that knew that the mortality of operated es in the hands of the inexperienced at least as high as that of non- rated cases under their care. Fatal morrhage was an unfortunate excep- . Klein differed entirely from Goss- nn. In many cases reported as tubal tation cured by expectant treatment or of diagnosis was possible, and of of spontaneous healing was at the ne time wanting, whilst evidence of th from haemorrhage obtained un- ectedly at a necropsy was of course vincing. There must remain many es of sudden or relatively sudden th from rupture of a tubal sac which never recognized, and are lost to ical literature. Like Gossmann, in admitted the danger of inexperi- ed operating, but it supported his ws that in one case an incision had n made into the sac through the ina and infection ensued, he re- ved the sac by an abdominal opera- n, and succeeded in saving the ient. Amann and Brünings both eed with Klein as to negative evi- ice. Thus in Bavaria when the cause sudden death is certified as "per- ating gastric ulcer," no necropsy equired, and in cases of slower death ors of diagnosis must be very often istered in certificates.

(188) Cyst of Cervix simulating Fibrous Polypus.

NROTAY (*Bull. de la Soc. Belge de Gyn. Obst.*, vol. xiv, No. 3, 1903-4) attended ingle lady aged 43, who, after two rs of irregular menstruation as in a nopause, noticed that a slight dis- arge of blood had continued without y cessation, though without any in- ase in quantity, for two months. nrotay recognized her as a patient on whom he had performed Citta- i's modification of Alexander's opera- n five years previously to his entire isfaction. On examination a little, m, hard tumour, as big as a nut, ald be detected on the anterior wall of the cervical canal; the os externum was patulous. Fibroid polypus was very reasonably diagnosed. An operation was performed under chloroform as the hymen had to be incised. On applying the volsella to the tumour it burst and some opalescent fluid escaped; then it became evident that there was no polypus, but a cyst, the pathological nature of which was not evident.

(189) Obturator Hernia of Ovary associated with Osteomalacia.

LITTAUER (*Zentralbl. f. Gyn.*, No. 1, 1904) treated a patient under his observation for years with phosphates for mollities. At length she died of pulmonary disease. He preserved the pubic bones with the symphysis and a hernial sac occupying the left obturator foramen. The sac contained no intestine, but half of the corresponding ovary, which was easily drawn out, being free from adhesions. Littauer, when exhibiting the specimens at Leipzig, was able to declare that the patient had never suffered pelvic pains even at period, nor was there ever any kind of symptom indicating obturator hernia.

(190) Dermoid of Both Ovaries and Pregnancy.

LITTAUER (*Zentralbl. f. Gyn.*, No. 1, 1904) removed both ovaries from a pregnant woman. The stage of gestation is not stated, but, although there was no febrile reaction nor other complication frequently associated with ovariotomy, abortion occurred on the sixth day. The left tumour was a dermoid of the usual type; the right was smaller, and contained a cavity of the size of a walnut, from the inner wall of which sprang a small outgrowth bearing a single tooth. There was also the corpus luteum corresponding to the pregnancy in the same ovary. Littauer remarked that almost at the same time he removed a single dermoid ovary from a pregnant woman without interrupting the pregnancy.

THERAPEUTICS.

(191) Cocaine and Adrenalin.

IN dealing with the action of local anaesthetics H. Braun (*Berl. Klin.*, January, 1904) speaks chiefly of cocaine. Introduced in 1884 by Koller, this medicament has gradually gained a firm place in our list of therapeutic agents. Corning pointed out that any drug which possessed a marked chemical affinity for the peripheral nerves must act powerfully on the heart and central nervous system, if it enters the circulation in concentrated solution. Cocaine is found to have a local toxic effect on all forms of protoplasm, and if it is introduced or obtains access into the circulation in sufficient quantities and sufficiently rapidly it exerts a general poisoning. It therefore follows that the slower it is absorbed from the point of injection, the more active it will be as a local agent. Constricting an extremity will be sufficient to alter a fatal poisoning into a mild one, and cooling the part, for example, with an ether spray, also delays the resorption of the solution. A more important means of delaying the absorption is found in the action of adrenalin. It has been found that mere traces (0.000000245 gram of an extract of the gland per kilo. for a dog) will cause a rise in blood pressure. The action of the suprarenal capsules depends on the contraction of the blood vessels, by direct action on the contractile tissue of the vessels. It acts powerfully locally. Injecting solutions of adrenalin in strengths of 1 in 1,000,000 subcutaneously, the tissue becomes bloodless, and when stronger solutions are employed even arteries and veins of medium size scarcely bleed when cut through. Even large arteries can be almost completely contracted by the injection of strong solutions. Very small quantities of adrenalin with cocaine increase the local anaesthetic action of the latter. In employing this combination for local anaesthesia it is necessary to determine a safe dosage. On a mucous surface the drug does not act toxically; Doenitz found that $\frac{1}{2}$ mgr. of adrenalin in a solution of 1 in 2,000 could be injected into the subdural sac of human beings without ill-effect. Subcutaneous injections, however, have to be carried out with great caution, and in order to fix a safe dose, Braun experimented on himself; 0.0005 gram in solution of 1 in 1,000 produced general symptoms. Five minutes after the injections he felt a sense of oppression on the chest, palpitation, and had to lie down. These symptoms passed off in one and a-half minute. The drug produced less effect on Doenitz. If one injects $\frac{1}{2}$ mgr. of adrenalin with cocaine, the patient may feel a tightness of the chest, but this passes off without any further symptoms. Braun recommends using the solution of adrenalin in a dilution of 1 in 10,000, and points out that very weak solutions of cocaine will have the same anaesthetic effect if combined with the adrenalin as strong solutions without it. One has to be careful in using the mixture to avoid the occurrence of secondary haemorrhage. If the adrenalin acts strongly, even large vessels may be firmly contracted, and may escape the notice of the surgeon. If they are not ligatured, they will naturally bleed later. It is therefore necessary to plug the wound or to seek every vessel of any size, before closing it. Care has to be used, too, with cocaine when introduced into the bladder, as a 1 per cent. solution may give rise to alarming symptoms. The addition of adrenalin to very weak solutions of cocaine will be found advisable. Braun describes the method which he employs for anaesthetising the female urethra. He dips a plug of wool into 1 c.cm. of a 1 per cent. solution of cocaine to which 3 drops of a 1 in 1,000 solution of adrenalin have been added, and swabs out the urethra with this. For infiltrating according to Schleich, he finds that a solution of cocaine of 0.01 per cent., with 3 to 5 drops of adrenalin solution (1 in 1,000) to each 100 c.m. added, absolutely sufficient. He points out that an inflamed region should never be directly infiltrated, but one should always make a circular infiltration. The same solution can be used for Oberst's method of injecting into the subcutaneous tissue in the neighbourhood of nerve trunks, for anaesthetising a finger and the like. For extraction of teeth he recommends 0.01 to 0.015 gram of cocaine in from 1 to

2 c.cm. of saline fluid, with the addition of from 2 to 3 drops of adrenalin solution. Half of this is injected behind the tooth and half in front of it, about the level of the fang, and as near the periosteum as possible. The condition of the tooth may be as bad as possible; with this injection one will be able to extract it without pain. Lastly, he mentions Doenitz's experiments with intradural injection of 1 c.cm. of adrenalin (1 in 1,000), to be followed by 0.0075 to 0.015 gram of cocaine. The anaesthesia is said to be very satisfactory after this method, and no ill-effects were noted.

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(192) Treatment of Ozaena.

Ignazio Dionisio describes (*Gazz. Med. Ital.*, January 28th and February 4th) his modification, for the purpose of treating ozaena, of Finsen's treatment. In a preliminary discussion of the nature and customary treatment of ozaena he adopts the hypothesis that the disease is a trophoneurosis, causing atrophy of the mucosa and the bones of the nose, and the characteristic change in the secretion which loses its bactericidal power, is deficient in water, and easily dries up into crusts. He denies the possibility of cure by cleansing and antiseptic irrigations, though they are essential to the patient's comfort, and in many cases their application suffices to destroy all fetor as long as they are regularly used. He has also obtained good results, but not cure, from vibration treatment, which stimulates the circulation and the glandular secretions. He disapproves of all the methods of treatment which involve any destruction of mucus or other tissues, on the ground that the disease quickly spreads again, and involves the whole area within the nose. The chief modifications introduced into Finsen's treatment by the author are that he produces anaemia of the tissues by cocaine and adrenalin rather than by pressure, and that instead of operating on a small area at a time he projects the rays freely into the nose, and thus treats a large area at once. His apparatus consists of an arc lamp of 300-candle power surrounded by a glass screen containing water in circulation, to intercept the calorific rays. Each application of the rays lasts two hours, and the author has been in the habit of considering 200 sittings necessary for the cure of a severe case, and 40 sittings for a mild case, that is, one in which the characteristic fetor is absent, when irrigation is regularly carried out once a day. But since the technique of the method has been improved the necessary course of treatment is not so long. Notes are given of 11 cases treated, though others have been treated in the same way and invariably with good results. In nearly all the cases it is stated that the fetor has disappeared, and in most it is found that the cure is maintained since the treatment has been discontinued, usually several months or a year. The improvement is not confined to the more accessible parts of the nose. The power of smell, previously lost, has in many cases been recovered. The author claims that there is a real *restitutio ad integrum*, and that after a sufficiently long course of treatment normal conditions are restored in every case, other forms of treatment, such as irrigation, becoming unnecessary. Since these good results have been obtained, Casassa has investigated the action of light on the micro-organisms most commonly found in cases of ozaena, but its influence on the nutrition of the tissues is still unexplained, for the author does not in any way accept the theory that the micro-organisms are the cause of ozaena. The author has employed the same means of treatment for cases of suppurative otitis media which did not yield to ordinary remedies. The results obtained have been good and more rapid than in cases of ozaena.

PATHOLOGY.

(193) Penicillum Glaucum and the Pathogenesis of Pellagra.

Ceni and Besta (*Riv. Sperim. di Fren.*, December, 1903) describe their observations of the effects on animals of poisoning with two varieties of penicillum glaucum. The experiments are part of a larger series not yet concluded. The results seem to the authors to deserve immediate publication, but they insist on the tentative character of all deductions that may be drawn from them. Of the two varieties of penicillum glaucum (called provisionally A and B), A has not previously been studied, but it is widely disseminated in Nature and may readily be obtained from mouldy maize and from numerous other vegetables. It prevails especially during the cold months from October to April. Its growth in cultures is very slow. Either in cultures or on maize it has a characteristic fusty smell. Variety B is probably the variety studied by Di Pietro. It is found in similar surroundings to those of A, but flourishes most during the hot months. The pathogenic power of the germs was studied by the direct (endovenous and endoperitoneal) introduction of the germs into the organism, by feeding animals on maize or polenta infected by penicillum, and by the injection into animals of the toxins extracted by alcohol from cultivations of the germs. The chief results of poisoning with A were shock, general depression, and muscular relaxation. The symptoms of poisoning with B were those of neuromuscular exaltation—muscular spasm, tremors, and exaggeration of reflexes, though it is noted that after injection of the toxic extract of B, the animal after a period of excitement passed into a phase of relaxation which resembled the effects of A. In each variety the effects are practically the same whether the toxic principle is injected separately, or the germ introduced into the circulation or the peritoneal cavity or into the alimentary canal. In each variety the germ, whether spore or mycelium, acts only by the toxin which it contains, and to produce symptoms of equal intensity it is necessary to introduce approximately equal quantities of the germ. In this respect penicillum differs markedly from aspergillus which has somewhat similar effects, produced often by small quantities of the micro-organism. Small quantities of penicillum or of its toxic principle are quickly neutralized or eliminated. The local reaction (more marked in the case of A than B) is the same whether the toxins are injected or the spores themselves introduced. A decided phagocytosis rapidly removes the poison. When animals are fed on infected maize intense gastro-intestinal lesions may be produced, but they are much inferior to those similarly produced by aspergillus. The authors admit that the symptoms recorded by them are due to penicillum do not justify any claim that it is the sole cause of pellagra, and do not even entitle it to such a place as aspergillus occupies in the etiology of the most acute form of the disease. The common phenomenon, for instance, of a patient admitted to hospital with slight symptoms of pellagra and suddenly developing an acute attack several days after his complete removal from all possibility of further poisoning is quite unlike anything that occurs in experiments with penicillum. But the chronic or subacute form of pellagra resembles in many respects the results obtained with the A variety of penicillum glaucum. It is suggested that pellagra is the result of a mixed infection, the symptoms varying as one or another germ predominates, and that valuable results may be obtained by recording the nature and effects and seasonal prevalence of different germs.

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(194) Tuberculosis in Different Species.

Maffucci (*Lo Speriment.*, Fasc. vi, 1903) described to the recent Congress of the Italian Society of Pathology his experiments with tubercle bacilli of various origin, from which he concludes that (1) The bacillus of bovine tuberculosis is very strongly pathogenic to oxen. (2) The bacillus of human tuberculosis determines in oxen a transitory lesion which heals, generating trophic disturbances which may slowly disappear. (3) Oxen are capable of becoming habituated to strong doses of virulent bacilli of human tuberculosis injected into the veins. (4) Tuberculous products from the human cadaver, when inoculated under the skin of a calf, cause a lesion which remains local and undergoes cure, but when the products of bovine tuberculosis are inoculated under the skin of a calf the lesion is progressive and spreads to other parts of the organism. (5) Calves into whose veins the bacilli of human tuberculosis have been injected present after 50 days grey miliary tubercles undergoing retrogressive changes throughout the lungs; but after eight months they show no trace of infection. (6) The bacillus of human tuberculosis may remain alive in the tissues of a calf if the abscess which is formed become encapsuled. (7) The tuberculous products of chickens are very toxic to calves if injected into their veins. (8) Sheep and oxen show tuberculosis by giving a positive reaction to tuberculin prepared from the bacilli of human tuberculosis. (9) Sheep resist human tuberculosis less than calves if the bacilli are injected into the veins. They may recover from the injections of human bacilli and afterwards die of tuberculous septicaemia when treated with bacilli from chicken tuberculosis or bovine tuberculosis. (10) Oxen are capable of being made refractory to tuberculosis by preventive treatment with virulent cultures of human tuberculosis.

AN EPITOME OF CURRENT MEDICAL LITERATURE.

MEDICINE.

(195) Diabetes.

A FEATURE of the annual meeting of the Medical Society of the State of New York held on January 26th, 27th, and 28th was a "symposium" on diabetes (*Medical Record*, January 30th). Heinrich Stern, New York, discussed the occurrence of diabetic and non-diabetic glycosuria in the same individual. He said that the diabetic state might be well established before glucose was excreted by the urine. Diabetic glycosuria was nothing more than the salient feature of the second stage of the diabetic deterioration. Glycosuria was a symptom of manifold other disturbances of ectogenous as well as of endogenous causation. With the assistance of various discrepitant factors we were enabled to differentiate clinically between the diabetic and non-diabetic forms of glycosuria, Duplex melituria was the result of two concurrent or intercurrent affections of dissimilar character having the one symptom, glycosuria, in common. The recognition of duplex melituria depended on the alternate prominence of one set of symptoms including the respective glycosuria. Discussing the pathology of the disease, R. M. Pearce, of Albany, said that in only half of the cases of diabetes was any gross lesion of the pancreas to be found. He showed two definite forms of chronic pancreatitis: (1) An interlobular; (2) an interacinar form. The latter also invaded the islands of Langerhans. In the first variety diabetes practically never occurred, but in the second variety diabetes was present in 11 out of the 20 cases studied. He had collected 23 cases of cancer of the pancreas, and in only 3 had glycosuria been present. Two of these 3 were typical cases of diabetes. In both diabetic cases the cancer was in the heads of the pancreas and obstructed the pancreatic duct. In the 3 cases also, it should be noted, there was distinct involvement of the islands of Langerhans by fibrous tissue. He had studied the development of these islands, and had found that they arose from the duct-secreting glands, but, at a certain stage, took on a new form and became thoroughly differentiated. It was well known that there was seldom any such glandular differentiation without the structure being endowed with a special function. It was also significant that the islands of Langerhans were more resistant than other parts of the pancreas to destructive processes. Pearce did not believe that all forms of diabetes were due to the pancreas, but recent discussions to our knowledge had certainly given us a more satisfactory basis. Dr. Edsall, of Philadelphia, dealing with the physiological chemistry of diabetes, said that it was no longer believed that there existed in the blood stream an important glycolytic ferment. It had been shown that diabetes did not occur if the liver as well as the pancreas was extirpated in birds and frogs. It was a remarkable fact that in birds extirpation of the pancreas caused a disappearance of the glycogen from the tissues and an excess of sugar in the blood, and yet glycosuria did not occur. Sugars were probably far more varied in their nature than they were now known to be. The difficulty in diabetes might be one of glycogen construction or one of excessively rapid conversion of glycogen into sugar. William H. Thomson, New York, discussed the medical treatment of diabetes. A glycosuria lasting more than a year he generally pronounced diabetes. The presence of diacetic acid in the urine was generally indicative of confirmed diabetes. The younger the patient the worse the prognosis. The daily output of urea should be determined, for, even though the patient was obese, if the percentage of urea were continuously high emaciation was really going on. He very rarely prescribed codeine or any other of the opium derivatives in diabetes; on the contrary, he condemned their use, for he believed that medicines of this class —"functional medicines"—could not permanently affect the tissues. For many years he had advocated cod-liver oil for diabetes, and especially urged its use in young subjects. This was an undoubted empirical fact, though he was unable to state the nature of its action in this disease. Nevertheless, obesity contraindicated the use of cod-liver oil, and its administration was not advisable in persons leading a sedentary life. Next to cod-liver oil he would place iron. Arsenic was also beneficial, and was given by him usually in the form of arsenious acid. When the output of sugar was so large as to require prompt relief, he gave 15 gr. each of antipyrin and sodium benzoate four times a day. After a time he would substitute 15 gr. of aspirin and 10 gr. of bismuth salicylate. Alkaline waters had for a long time deservedly held a high place, but it should be remembered that the continued use of such waters in persons who were emaciating was always prejudicial. Diabetes was always a very grave disease, because it necessitated the elimination of an important element from the diet, and eventually the system would secure the sugar it so much craved by the conversion of its own proteids. Then would come a condition of toxaemia. An impending diabetic coma was often heralded by the kidneys in the deposition of a peculiar form of casts. With regard to the general management of diabetes, F. C. Shattuck, of Boston, said very little could be done in the preventive treatment. Except in very mild cases the diet should be at once restricted. If diacetic acid and acetone were present in the urine a radical change in diet was dangerous. The patient should be weighed at short intervals, and should learn in a general way the quantity of each of the articles of diet to be taken. In the milder cases a strict diet should be maintained for a month or two, and then the toleration of starch should be tested. In the severer cases one must be more careful in giving bread. He made but little use of the manfactured diabetic breads, having found them unreliable. No diabetic bread which was palatable was safe to use for any great length of time. If in spite of a rigid diet the sugar in the urine persisted, a certain amount of bread should be allowed. Diabetics were sensitive to cold and therefore should be warmly clothed. Rest both of body and mind was highly important. Exercise should be taken in moderation, and the best general rule in this regard was that, if after exercise and rest for an hour the feeling of weariness had not passed off, too much exercise had been taken.

(196) Typhoid Pericarditis.

PERICARDITIS is a rare complication of typhoid fever, and but few cases are on record. Delsart describes some, and summarizes the literature on the subject (*Thèse de Paris*, 1903). The evolution of typhoid pericarditis varies according to the form taken by the latter disease. The course and duration of typhoid do not seem to differ in those cases in which pericarditis is a complication. Friction diminishes slowly, and disappears by the time the pyrexia subsides. In some cases friction persists during the whole period of convalescence, and only disappears by the time the patient is completely restored to health. The writer has not been able to trace any fatal cases of typhoid directly to pericarditis. In some cases the myocardium appeared to be severely affected. To this death may be attributed rather than to pericarditis. Thus, in the event of pericardial friction being heard in a case of typhoid, careful attention must be paid to the pulse and the character of the sounds, for irregularity of the former, feebleness and incompetence of the latter with cyanosis, and cold of the extremities, indicate a myocardial extension. Typhoid pericarditis occurs as a rule in the sero-fibrinous form. Purulent pericarditis is very insidious, as the symptoms and signs are masked by myocarditis on one hand and typhoid on the other. Purulent effusion forms rapidly in some cases of typhoid, and a fatal termination may be expected in six or seven days.

SURGERY.

(197) The Surgical Treatment of Pancreatitis.

AT a meeting of the Medical Association of the Greater City of New York, held on February 8th, John B. Deaver, Philadelphia, presented a communication on the surgical treatment of pancreatitis (*Med. News*, March 5th). He said that the indications for operation in acute pancreatitis were furnished by the pathology of the disease and the history of the cases so far reported. The extraordinary rapidity with which death so often followed shortly after the onset made any delay inadvisable; yet the diagnosis was so difficult and the symptoms so ill-defined that the mortality following operation was very high. In many forms of acute pancreatitis the disease appeared to be a destructive infiltration of tissues by ferment, often associated with infection, and only in those cases where local areas of pus produced necrotic foci did it limit itself. For this reason he believed that the early operation, rationally conducted, as Mikulicz expressed it, would finally give the best re-

sults. The technique of such an operation varied with the condition present. On opening the abdomen, fat necrosis, if present, was a symptom of great moment, and, of course, decided the diagnosis. The gall bladder should be palpated for calculi and the common duct explored with the finger. The intestines and surrounding viscera must be protected by gauze pads with great care. The pancreas might be reached (1) through the gastrocolic omentum, below the stomach; (2) through the gastrohepatic omentum, above the stomach; or (3) through the transverse mesocolon, behind the colon and stomach. The first method was the most applicable for the purpose of drainage. The bleeding in haemorrhagic pancreatitis was often hard to check, and might require the extensive use of gauze tampons or even the introduction of sutures. The latter was to be avoided, if possible. Progressive necrosis of the pancreatic cells from the action of the ferment, while not to be checked by operation, might be prevented to a great extent by free drainage. Infections from the duodenum involving the pancreas required the usual treatment for infected areas elsewhere—free incision and drainage. If the pancreas merely presented a swollen, tense, oedematous appearance, and there was no marked peripancreatic involvement, an incision should be made in the long axis of the organ, extending its entire length, if necessary. Drainage to this opening, though uphill, would sufficiently provide for the serous effusion and broken-down products. When the peripancreatic involvement was severe loin drainage was required after free incision of the pancreas. Abscess, necrosis, and gangrene of the organ required identical treatment. Before completing the toilet of the abdomen the area of disease should be carefully walled off from the general peritoneal cavity by gauze. In cases in which the presence of stones in the gall bladder or bile ducts was discovered the operation was considerably complicated as the incision was too far to the left for the best performance of cholecystostomy. After alluding to the work of Senn, published in 1886, Deaver said it was principally to Mayo Robson that we owed the impetus given to the surgical treatment of chronic inflammatory enlargements of the head of the pancreas. He then gave a summary of the essential lesions of chronic disease from the standpoint of surgery, and went on to say that the cause of the disease must be removed, if a biliary or pancreatic stone, and temporary or permanent drainage of the bile provided for. Most surgeons preferred the external opening or cholecystostomy, and the great advantage of the latter method was the possibility of keeping the drainage under constant observation. When the stone was localized as being in the ampulla of Vater, it was best to open the duodenum and slit up the papillae, such a procedure not requiring any suture to reclose the duct. Choledochotomy was required if the calculus was in some other position. Pancreatitis without stone was frequently completely relieved by a simple cholecystostomy. When there was glycosuria without obstruction of the biliary apparatus great relief might be afforded by cholecystostomy, but, theoretically, an operation offered no hope for cure, as the diseased islands of Langerhans were not dependent on any lesion ascending through the ducts. In cases with obstruction of the pancreatic duct by a calculus, the operation required depended upon the situation of the latter, and while it might be reached by opening the papillae and duct through the duodenum, the operator must be prepared to open the lesser peritoneal cavity and cut down through the gland itself. The operative procedure in pancreatic cysts would depend upon the degree of adhesion to surrounding structures. In only a small proportion of cases could the cyst be dissected out. Aspiration of the cyst should be performed only when the patient was seriously ill from diabetes or the effects of pressure. Whenever practicable the abdomen should be opened by a median incision above the umbilicus, through either the gastrocolic omentum or the transverse mesocolon, after which the contents of the cyst should be withdrawn by an aspirator, the puncture being closed with one or more haemostats as the needle is removed. The cyst wall was next drawn to the wound, sutured to the parietal peritoneum, and drained. When the cyst was small and could not be brought to the abdominal wound, a rubber drainage tube should be introduced into the cyst cavity, surrounded by gauze packing to prevent leakage.

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(198) Treatment of Uretero-vaginal Fistula. LUIGI GAROVI (*Gazz. Med. Ital.*, February 25th, 1904) describes Boari's method of implantation of the ureter on the bladder, and publishes a detailed description of a completely successful case performed by himself. The method is founded on the anatomical investigations of Margarucci, who showed that the ureter depends for its main blood supply on a small artery passing from the under surface of the renal artery, running for a short space on the anterior surface of the ureter, and then dividing into two branches, one on either side of the ureter, which accompany it to its lower extremity, giving off smaller branches to form a plexus in its walls; thus, in spite of communications with the spermatic and vesical arteries, the ureteral arteries themselves supply the ureter with as much blood as it needs, and therefore the lower end of the ureter may be safely lifted and separated from its surroundings without its vitality being destroyed. Boari, after determining which ureter is wounded, performs laparotomy, cuts down on the ureter, ligatures it below the wound, and cuts it off above, placing gauze compresses in the pouch of Douglas to catch any urine extravasated during the operation. He then invaginates the free extremity of the upper part of the ureter over a hollow button containing a spring. He surrounds with a pursestring suture the point on the surface of the bladder at which implantation is to be effected, makes there an incision large enough for the insertion of the button into the bladder, puts the button in position, and fixes it by tightening and tying the suture. The spring dilates the ureter, and keeps it, throughout its circumference, in contact with the bladder. More substantial adhesion is obtained by stitching together the peri-vesical and peri-ureteral tissues, and by cutting two small flaps from the muscular layer of the bladder and fixing them a little way up the sides of the ureter. A further advantage obtained from this last manœuvre is that the ureter is made to enter the bladder obliquely, as it does in its natural position. The operation is complete when the button has come away in the bladder and been removed, leaving the ureter and bladder firmly adherent, with an unobstructed passage for the urine. Garovi states that 4 cases of implantation of the ureter on the bladder are on record, 10 of them being operations of necessity and 3 operations of election. Eight different operators in ten operations have employed Boari's button. Garovi's own operation was done on a woman of 20, who after a severe instrumental labour suffered from vesico-vaginal fistula, passing all her urine through the vagina. The fistula was closed by a plastic operation, and it was then discovered that a little urine entered the vagina though there was no longer any direct communication between that cavity and the bladder. A minute fistulous communication between ureter and vagina was thus discovered. The operation was carried out with the patient in the Trendelenburg position, and was impeded by old pelvic adhesions, by the small size of the pelvis, and by the presence of the uterus and its adnexa organs which have often been removed before this operation becomes necessary. There was no fever after the operation though the patient, by injudicious diet on the second day, brought on a violent attack of vomiting, which left her so weak that for thirty-six hours she was in great danger of dying. She was able to leave her bed on the thirteenth day. On the seventeenth day the button became free in the bladder, and caused slight tenesmus till it was removed through the dilated urethra. On the twenty-third day from the operation the patient left the hospital completely cured.

MIDWIFERY AND DISEASES OF WOMEN.

(199) Students' Outdoor Obstetric Practic JOHN F. WINN'S report of his student out-clinic in obstetrics at the University College of Medicine, Richmond, Virginia, is published in the *Journal of the American Medical Association*, Octob 3rd, 1903. The total number of cas was 1,000. The mortality was low, deaths in the whole number, or one-ha of 1 per cent. One death occurred fro post-partum hemorrhage, one fro eclampsia, one from septic peritoni supervening upon rupture of gonorrhoe pus tube as revealed by necropsy, o from shock complicated by late stag of tuberculosis, and one from apople induced by eclampsia. The mortali rate contrasted with clinics older a better known gave this clinic the seco place in point of low mortality, t others referred to being the Fraue klinik, Berlin; the Obstetric Clin Prague; Baudelocque's Clinique, Pari and the Society of Lying-in-Hospit New York City. Considering that mo

of the deliveries were under insanitary surroundings, the results were all the more satisfactory. The aim had been to impress on the students the danger of infection, and, without making any great array of aseptic paraphernalia, to reduce the system of disinfection to the simplest possible technique. Special care was observed in making vaginal examinations, but the antepartum vaginal douche was not employed. Efforts were made to keep the hands, and particularly the examining hand, sterile, and both genital and hand disinfection was repeated before each examination. Vaseline was not employed as a lubricant. Reliance was placed on thorough scrubbing of the hands and forearms of each attendant, followed by immersion in mercury bichloride, 1 to 1,000, not less than five minutes, and in lysol 1 drachm to the pint. The very favourable results were believed to be due in part to the scrupulous care bestowed on the genital tract during the third stage of labour, not only in guarding against the invasion of pathogenic organisms, but also in observing the time for and the manner of delivering the placenta. The author holds that the hasty or precipitate resort to Credé's method is largely responsible for the incomplete delivery of the placenta and membranes and for the sepsis frequently dependent thereon. For this reason the management of this important part of delivery is based upon the cardinal principle that Nature has her own time for separating and expelling the placenta at full term, as indicated by a signal easy of recognition, and that any method designed to excite uterine contraction before Nature indicates that the placenta is ready to be cast off must be regarded as not in accord with natural processes. The uniform rule in Winn's clinic is to place one hand over the uterus immediately after the child is born; but no friction is made, nor is any effort exerted to excite uterine contractions so long as the uterus remains firm. The slight rising of the fundus, while firm, is the signal that the uterus is ready to expel the placenta. The lifting up of the uterus may occur before the average "twenty minutes" or it may be delayed. As soon as it is observed by the "sentinel hand," the uterus is grasped firmly with one or both hands and pressed downward in the axis of the superior strait. If, after waiting three-quarters of an hour, there is still no sign of placental separation, the Credé method is resorted to without further delay. The membranes, instead of being twisted into a rope, as recommended by many, are allowed to trail out, which they will readily do during that normal relaxation which follows uterine contraction. In a general way, all attendants act on the principle that every placenta, at full term, has its own time to separate, and that it is better to wait until that time arrives before resorting to artificial stimulation of the uterus. By the rigid observance of this rule it has been a rare occurrence to have even a retained placenta, and no cases of adherent placenta have been met with at all. All students are strictly enjoined to avoid interference with the genital tract after the child is born, and experience has demonstrated that, just in proportion as this rule is regarded, the puerperium is marked by fewer deviations from the normal.

(200) Dystocia after Amputation of Cervix.

Boissard and Coudert (*L'Obstét.*, January, 1904) report a labour in the eighth month, where the patient had undergone, five years previously, amputation of the cervix uteri by Schröder's method for hypertrophic metritis. The pelvis was contracted. A few hours after the first pains the patient's general condition became unfavourable, the cervical canal was slightly opened by clots, and the fetal heart sounds had disappeared. Retro-placental haemorrhage was diagnosed. The membranes yielded, but no dilatation followed. The os was represented by a firm cicatricial ring, not half an inch in diameter. Dilatation by the fingers proved impossible. Morphine injections and saline solutions were administered, and the patient was benefited by rest. By the morning the os was as wide as a 5-franc piece. Tarnier's *écarteur* was applied with great difficulty. About twenty-four hours after the beginning of the labour basiotripsy was practised, not without much trouble owing to the cicatricial tissue and the narrowness of the pelvis. About 2 lb. of clot came away from behind the placenta. On the fourth day signs of infection appeared and caused anxiety for a week. The cause of haemorrhage and detachment of a normally-inserted placenta was not clear. There was neither traumatism nor a violent fit of passion, nor fear, nor shortness of the cord. Pinard prefers an abdominal operation in a case of this kind, but Boissard and Coudert observe that, the child being dead, it was not right to put the mother to risk. Should she become pregnant again Caesarean section was indicated.

THERAPEUTICS.

(201) Aristochin.

H. Baum (*Die Heilkunde*, June, 1903) has used aristochin, a derivative of quinine, in the treatment of malaria as an antipyretic and as an analgesic. He describes its effect on 7 cases of malaria. The first was that of a child, 12 years of age, suffering from a severe form of malaria with high fever, vomiting, great enlargement of the spleen, and before treatment was begun frequent relapses. A dose of ½ gram (=7.7 gr.) of aristochin given four hours before the rise of temperature was expected produced no effect, and in spite of it the temperature rose to 104.9° F. On the next day 3 grams were given in ½-gram doses, but the temperature again rose, this time to 104.0° F. On the following day 3½ grams were given, and on this day the temperature remained normal and the spleen began to diminish in size. Smaller doses were given each day for the next fortnight and no further relapses occurred. In the other 6 cases three ½-gram doses were given daily while the fever lasted, and the same or a smaller quantity for a few days afterwards to prevent any fresh access of fever. In the second case described the treatment did not prevent the occurrence of two relapses in the first fortnight, but after that time the patient remained well. In a third case aristochin was given for three days before the temperature finally became normal. In a fourth there were two relapses in spite of treatment with aristochin. The supply of this drug then gave out and another quinine derivative was employed. After a third relapse the patient permanently recovered. The occurrence of relapse under both drugs points to some peculiarity of the case other than the particular form of quinine employed being responsible for the return of the fever. In 2 of the cases the symptoms disappeared finally within 24 hours from the beginning of treatment. The last case was one of a febrile malaria where the diagnosis rested on the presence of the malarial parasite in the blood. The symptoms were fairly typical, and there was concomitant neuralgia. Aristochin brought about the disappearance of both the general symptoms and the neuralgia. To test the antipyretic action of the drug it was given to more than 40 cases of erysipelas, 1 of typhoid, 3 of severe sepsis, but in all the cases except one little or no effect could be demonstrated either on the temperature or the general condition. In one case, a relapse after a severe attack of erysipelas, there was a marked fall of temperature and in the case of typhoid the aristochin was thought to have a good effect. The author believes that these results show the slight influence of quinine itself on fever as such rather than any failing in the special derivative employed. As an analgesic aristochin gave moderately good results. Its effect was produced fairly quickly, but did not last very long. The dose was ¼ gram or more generally ½ gram given three times three, two, and one hour before the pain was expected to begin. Aristochin is insoluble in saliva, and is thus tasteless and readily taken by the patients. Although used in 70 cases, in two only were unpleasant after-effects observed, in one vomiting and in the other the development of a rash. Baum's conclusions are that aristochin possesses the advantages of quinine without its disadvantages, and is (1) a specific against malaria, (2) an antipyretic in certain forms of fever, and (3) a fairly good analgesic for periodical neuralgia.

(202) The Therapeutic Value of Injections of Antidiphtherial Serum.

L. Cruveilhier (*Ann. de l'Inst. Pasteur*, January, 1904) has made some experimental observations relative to the dosage, the repetition and the method of administration of antidiphtherial serum. The experiments were made on guinea-pigs inoculated in one series with cultures in a second series with the toxin; they were designed to answer the questions whether massive doses are more efficacious than mean doses, whether there is advantage in repeating doses, and what method of injection is to be preferred. The results obtained in the first series were as follows. Subcutaneous injection of $\frac{1}{10}$ c.cm. of serum was successfully used ten hours after inoculation of the

animals with a standard lethal dose of culture; the period was extended to twelve hours by the injection of massive doses and repeated doses also lengthened the period of successful injection. Intracerebral injection further lengthened the period to from twelve to fourteen hours, but intravenous injection was still more efficacious up to about sixteen hours. In the second series in which the animals were inoculated with toxin similar effects were obtained, intravenous injection being efficacious later than either subcutaneous or intracerebral. The writer concludes from his experiments that in diphtheria as in tetanus there is a period after which antitoxin is of no value administered; the injection of a primary massive dose is useful and necessary; the dose should be repeated at least in all serious cases; intracerebral injections are more efficacious than the subcutaneous, but intravenous injection is the method of choice and a most valuable therapeutic measure.

(203) Treatment of Pleural Effusion.

ANTONIO PISANI (*Gazz. Med. Ital.*, March 3rd, 1904) says rational treatment involves early and complete removal of fluid and the restoration of the pleural sac to its natural condition of a virtual rather than an actual cavity. The ordinary method of simple aspiration—as, for example, with Potain's aspirator—can hardly effect complete removal of fluid; it is apt to cause an oppressive sense of constriction of the chest, and to leave an actual cavity, which invites a return of the effusion, and is incompatible with complete recovery of function. A further disadvantage is the danger of oedema of the lung. All these drawbacks are avoided by the use of Forlanini's method of pneumatic aspiration, in which sterilized air is made to take the place of the effusion. The whole of the effusion can thus be withdrawn. There is no high negative pressure in the chest to cause pain during the operation. There is little danger of relapse. After a few days the artificial pneumothorax thus produced disappears, and the patient is left without deformity and free from interference with the respiratory function. The method is particularly recommended for cases of extensive and long-standing effusion. It is described as being at least equal to the old method in simplicity and superior to it in safety. Out of a large number of cases observed by himself Pisani quotes in detail that of a child of 9 years, from whom he removed 1,600 c.cm. of fluid, which had probably been in the pleural cavity for eleven weeks During the operation he insufflated 1,000 c.cm. of air filtered through cotton wool and slightly impregnated with formaldehyde. At the end of the operation part of the air was removed by aspiration. The striking and complete success of the treatment he attributes to the method of operation.

(204) X Rays in the Treatment of Tinea.

JABOURAUD (*Ann. de l'Inst. Pasteur*, January, 1904) writes on the use of *x* rays for epilation in tinea tonsurans and tinea favosa, and describes a form of apparatus designed particularly to avoid accidents in the use of the method and to regulate the intensity of the application and the limitation of the area treated. A Crookes-Villars tube is used at a distance of 15 cm., the resistance is checked by the radio-chronometer of Benouist, and the rays measured by the apparatus of Holzknecht. The resistance is maintained at a constant point by the use of the so-called osmo-regulator of Villars and the detonators of Destot and Williams. The restriction of the area to be treated is regulated by metallic cylinders of varying diameters, which are applied to the head of the patient. The length of the exposure usually necessary is about forty minutes with this apparatus. It is necessary to use rays with a mean penetration, the less penetrating are liable to give rise to dermatitis. Experiments showed that it is possible to use five exposures consecutively of forty minutes each on a child's head without bad effects, but it is impossible to command immobility of the head for such a length of time. Much care is necessary in mapping out the areas to be acted upon by the rays. About seven days after the application the hairs fall out spontaneously and leave the patch entirely bare.

PATHOLOGY.

(205) Yellow Fever.

THE report of the French Mission, consisting of Drs. Marchoux, Salimbeni, and Simond, sent to Brazil to investigate the etiology of yellow fever was was published in the *Annales de l'Institut Pasteur* for November, 1903. The following are their conclusions: (1) The serum of a patient is virulent on the third day of the disease. (2) On the fourth day the blood no longer contains virus even when fever runs high. (3) One tenth of a cubic centimetre of virulent serum injected under the skin is sufficient to produce yellow fever. (4) The virus deposited on an abrasion of the skin caused by removal of the epidermis does not produce the disease. (5) In the serum of a patient the virus passes through the Chamberland F. bougie without dilution. (6) In similar conditions it seems not to pass through bougie B. (7) Virulent serum kept exposed to the air at a temperature of 24° to 30° C. is inert at the end of forty-eight hours. (8) In defibrinated blood kept under vaseline oil at a temperature of 24° to 30° C. the microbe of yellow fever is still living at the end of five days. (9) At the end of eight days defibrinated blood kept under similar conditions no longer contains active virus. (10) Virulent serum becomes harmless after exposure for five minutes to a temperature of 55° C. (11) A preventive injection of serum that has been exposed for five minutes to a temperature of 55° C. produces a relative immunity which, if followed by the inoculation of a very small quantity of virus, may become complete. (12) The injection of defibrinated blood, kept in a laboratory under vaseline oil for at least eight days, produces a relative immunity. (13) The serum of a convalescent possesses definite preventive properties. (14) The immunity produced by the serum of a convalescent is still appreciable at the end of twenty-six days. (15) The serum of a convalescent appears to have therapeutic properties. (16) As has been shown by Reed, Carroll, and Agromonte, yellow fever is produced by the bite of *Stegomyia fasciata*. (17) For the production of the disease in man, it is necessary that that used should first have infected itself by absorbing blood from a patient suffering from yellow fever during the first three days of his illness. (18) The infected mosquito is dangerous only after an interval of at least twelve days has elapsed since the ingestion of the toxic blood. (19) The bite of two infected mosquitos may give a grave form of the disease. (20) The mosquito seems all the more dangerous the longer after the time of infection he bites. (21) The bite of infected mosquitos does not certainly produce yellow fever. (22) When it has had no effect, the bite of infected mosquitos does not produce immunity against an injection of virus. (23) In the region of Rio de Janeiro as in Cuba no other species of *Culex* but the *Stegomyia fasciata* plays a part in the transmission of yellow fever. (24) Contact with a patient, his clothes, or his excreta cannot produce yellow fever. (25) Apart from the bile of an infected *Stegomyia*, the only known means of producing the disease is the injection into the tissues of a susceptible individual of blood from a person suffering from the disease obtained during the first three days of the illness. (26) Yellow fever can assume a contagious character in regions where the *Stegomyia fasciata* is found. (27) The prophylaxis consists entirely in the adoption of measures to prevent that insect from biting sufferers and healthy people. (28) The fact must be kept in view that the period of incubation may be prolonged to thirteen days. (29) The *Stegomyia fasciata* is frequently infested by parasitic fungi, yeasts, and sporozoa; no such parasite hitherto met with has any relation to yellow fever. (30) Neither in the mosquito nor in the blood have Marchoux, Salimbeni, and Simond so far succeeded in discovering the causative agent of the disease.

(206) Bacteriology of Fluid in Hernial Sac.

RODELLA (*Rif. Med.*, November 18th, 1903) examined the fluid contained in the hernial sac of 5 cases of strangulated hernia. In 1 case the hernia had been strangulated for three days. In every case the bacteriological results were completely negative both in aërobic and in anaërobic cultures. Some authors believe this result is due to a supposed bactericidal action of the hernial fluid; but *in vitro* hernial fluid has only a very weak bactericidal action, and cases of infective hernial fluid have been described. A more probable explanation is to be found in the sterile character of the small intestine when empty, as shown by the recent experiments of Kohlhugge on animals. With a view to ascertain how far this explanation can be applied to human beings, the author suggests that in the course of a laparotomy the small intestine might be punctured with a fine needle and its contents examined bacteriologically.

AN EPITOME OF CURRENT MEDICAL LITERATURE.

MEDICINE.

(207) Late Epilepsy.

In a clinical lecture delivered at the Salpêtrière Raymond states that epilepsy occurring in late life may give rise to difficulty in diagnosis (*Journ. de Méd. et de Chir. Prat.*, December 10th, 1903). A patient, aged 50, and who had always enjoyed good health, had a convulsion when 20 years of age. He remained free till 35, when other seizures appeared, occurring more and more frequently and severely, especially after the age of 40. The patient would go to bed in his usual health and sleep quietly for a couple of hours. He would then become restless, muttering incoherently, walk about his room, open doors, and perform other purposeless acts, these symptoms lasting from ten to fifteen minutes. He would then return to bed, or lie down on the floor, and be seized by a convulsion in a very short time. During the attacks involuntary micturition occurred. On waking up he would not remember anything that had passed. The following day there would be a sense of fatigue and slight restlessness. The indications, therefore, of this case were, first, a period of agitation and restlessness; secondly, a convulsive crisis. The diagnosis of such a case might present considerable difficulty unless one were fully acquainted with its history and course. Such cases might be mistaken for somnambulism. It is usually stated that late epilepsy is rare, but Raymond believes that such is not the case. In his opinion cases easily escape recognition on account of the unusual characters they present. The older the patient the more serious he considers the disease. In the case under consideration energetic treatment resulted in complete suppression of the seizures. He recommends ammonium, strontium, and potassium bromide and salts given in one dose at night. The amount which the patient can tolerate must be ascertained in every case, and it is well to add arsenic. An important item in the treatment is to disinfect the intestinal tract, and for this he recommends salol. As far as possible the diet ought to be lacto-vegetarian.

(208) Human Perspiration.

Julius H. Hoelscher, of Chicago, has published reports of experiments on the human perspiration under the influence of drugs and in certain pathological conditions (*Medical News*, March 8th). After a thorough cleansing he enveloped his subjects in sterile gauze, and over this secured an oil cloth. The subject was then subjected to dry heat, not over 120° F., for one to two hours. When the point of tolerance had been reached, the soaked gauze was quickly removed, submitted to pressure, and the sweat collected, the amounts ranging from 3 oz. to 32 oz. He offers the following deductions from the experiments conducted: (1) The hot air causes an aseptic fever or temperature elevation, despite the antipyretic action of acetanilide, sodium salicylate, and quinine; (2) the hot-air bath is of decided value in acute and chronic uraemia, shown by the fact that the perspiration contains a considerable excess of urea and nitrogen; (3) in articular rheumatism in conjunction with salicylates the hot-air bath gives more rapid results and lessens cinchonism; (4) certain types of myocarditis seem to be benefited by the hot-air bath, and he reports a case; (5) pilocarpin should never be used without the aid of hot-air application to the body; so combined there is no sialagogue and less toxic drug effect and far more sweating than otherwise; (6) three cases of catarrhal jaundice were sweated; all the tests failed to show bile pigments, only the epithelial débris containing bile deposits; (7) modern sugar tests failed to reveal sugar in the sweat from diabetes; (8) a case of chronic constipation and indicanuria did not disclose the presence of indol or skatol in the sweat; (9) as regards the function of eliminating normal and abnormal substances, the skin is not to be compared with the kidneys; (10) free sweating seems to favourably affect psoriasis, though further study is required, as also the effect on other skin diseases; lastly, 1,000 c.cm. of sweet contains about 11.5 grams of solids (nearly 3 drachms), one-half inorganic and one-half organic, and about 0.6 gram (9 gr.) of urea and 0.47 gram (8 gr.) of nitrogen.

(209) Desquamation in Pneumonia.

Campani (*Gazz. degli Osped.*, December 27th, 1903) reports 5 cases of pneumonia occurring in young soldiers, followed by desquamation, without any previous skin eruption. All the cases recovered, and in each case the pneumonia was on the right side, benign, and without complication. In 4 out of the 5 the right lower lobe was the part affected. The cases occurred in the springtime. The desquamation always affected the face, and particularly the nose, and had the same objective and subjective characters in each case, and was never preceded by any exanthem whatever. Philipponisch's palmo-plantar symptom was present, and one case had jaundice. The scales were irregular, lamelliform, and of various sizes, but never very large, easily detached, and not friable; the skin underneath was pale and of normal appearance. There was no burning or itching sensation. Peeling lasted about a week.

(210) Chorea of the Heart.

Galdi (*Il Policlin.*, November 21st, 1903), after discussing and accepting the existence of true chorea of the heart, draws attention to certain signs which indicate this disease. There are, first and most important, a marked and spontaneous variability in the diameters of the heart as estimated by careful percussion and triangulation of the area of cardiac dullness. This variability is still more manifest under the influence of stimuli, whether general or local. The heart, like other parts of the system, and more particularly the psychical elements, becomes in chorea more infantile in type, and responds more readily to stimuli, whether internal or external. The other two important symptoms are arrhythmia and a murmur. As illustrating the changes in size which may occur, the author quotes the case of a girl of 16 with left hemichorea and cardiac chorea, where the base line varied in the course of forty days' observation from 9 3 to 6.5 cm., the right ventricular line 9.6 to 6.2 cm., and the left ventricular line 9.7 to 6.9 cm.

(211) Paroxysmal Haemoglobinuria.

In a synthetic review of recent work on the above disease, the writer (*Rif. Med.*, October 4th, 1902) distinguishes three main clinical types: (1) Paroxysmal or essential haemoglobinuria; (2) symptomatic; (3) forcic or experimental. Probably the first is only a variety of the third. It is a disease which as a rule does not threaten life, and in a large number of cases is clearly associated with exposure to cold. Whether the destruction of the red corpuscles takes place in the kidneys or in the circulation is still a moot question, and distinguished names are to be found on each side. In support of the haemoglobinaemic theory an abnormal condition of the haematopoietic organs has been assumed, and one cause of this abnormal condition is said to be syphilis. Paroxysmal haemoglobinuria is said to be more common in syphilitics. The red corpuscles are said to be less resistant than usual to the action of carbonic acid. The presence of a haemolytic toxin is not unlikely, and certain recent experiments have shown that the blood serum of haemoglobinurics possesses globicidal properties. In normal subjects these haemolytic toxins are excreted by the kidneys, but in haemoglobinurics some vasomotor changes occur which cause retention of these toxins, and hence destruction of the red corpuscles. The rapid destruction of red corpuscles causes albuminuria, fever, and shivering, and a certain amount of renal irritation. A certain amount of splenic and hepatic enlargement is a secondary result of the same thing.

(212) Disappearance of Endocardial Murmurs in Childhood.

Ovazza (*Giornale della R. Accad. di Med. di Torino*, November, 1903) collects a number of cases in which children have presented a mitral systolic murmur believed to be due to organic disease of the mitral orifice and have ultimately recovered completely. He quotes two cases of his own—a choreic and rheumatic child of 12 years who suffered from acute endocarditis for a month and afterwards had a systolic murmur for a year which then disappeared and remained absent for at least two years, and a child of 7 years with a murmur distinctly present till she reached the age of 13 years, but disappearing gradually during the next ten months and not returning for at least six years. Ovazza therefore does not agree with Huchard and other authors who consider such lesions incurable if they have lasted two years. He believes that the capacity for repair disappears or is much diminished as soon as puberty is established. He considers childhood a favourable time for repair of cardiac lesions because the disturbances of later life such as pregnancy, auto-intoxica-

tion, alcoholism, syphilism, etc., have not begun, and because the small size of the body and the large size of the arteries minimize the work of the heart, as is shown by the fact that in childhood the reserve force of the heart sometimes enables a dilated heart to carry on the circulation satisfactorily without hypertrophy. In these cases of apparent cure, though they may be of long duration, and verified (as are his own cases) by repeated careful examination under such unfavourable conditions as fatigue and fever, Ovazza recommends a guarded prognosis. He suggests that many cases classified in later life as cases of reflex cardiac disturbance may be instances of the apparent, but not really complete cure of endocarditis in childhood.

SURGERY.

(213) First Dressing on the Battlefield.

Senn (Reprint from the *Journal of the Association of Military Surgeons of the United States*, 1903) in a paper presented to the Military Section of the Madrid International Medical Congress, insists on the importance in military surgery of first-aid dressing applied as soon as possible after the receipt of injury. Behind the firing line preliminary disinfection of the wound is not only unnecessary, but harmful. The two main principles first brought out clearly by von Bergmann and Reyher, which govern the modern treatment of gunshot wounds, are the value of a first-aid antiseptic occlusive dressing in the prevention of local infection, and the importance of immediate immobilization of gunshot fractures. For obvious reasons the methods employed in military surgery for the prevention of wound infection must be made as simple and effective as possible. The first-aid packet must be of minimum size and weight, compatible with the purpose for which it is intended. The dressing material, it is held, must be hygroscopic, and from it must be excluded all impermeable stuff —waxed paper, for instance—likely to interfere with the rapid drying of the wound secretion. The most desirable antiseptic agent is, in the author's opinion, a combination of boracic and salicylic acid in the proportion of four to one. Every first-aid packet should contain two strips of rubber adhesive plaster with which to fasten the dressing in place. Von Esmarch's triangular bandage and the ordinary roller bandage cannot, the author holds, be relied upon in preventing the displacement of the dressing. The dressing material, consisting of a compress of sterile absorbent cotton, should be connected with the retaining bandage, and the adhesive strips fastened to it, and two safety pins to the terminal end of the bandage. A dry crust formed by the desiccated blood, together with the hygroscopic material by which it is absorbed, constitutes the most efficient occlusive dressing. It is pointed out that practically all recent gunshot wounds are aseptic. To avoid infection care must be taken to bring nothing in contact with the wound prior to the application of the first-aid dressing. Consequently no recent gunshot wound should be touched with finger or probe. The first-aid dressing should be applied as soon as possible, and transportation of the wounded to the rear when it is safest and most practicable. In the absence of positive indications the first-aid dressings should not be removed until the wound has healed.

(214) Treatment of Traumatic Tetanus.

Lucas-Championnière (*Bull. et Mém. de la Soc. de Chir. de Paris*, No. 8, 1904), in the course of a discussion of a communication by Protherat, pointed out that the question of the treatment of tetanus will always be a very difficult one to decide, as this affection, notwithstanding its grave character, is still susceptible of spontaneous or therapeutical cure. Tetanus, unlike hydrophobia, is not invariably fatal, and there is a probability to attribute to a therapeutical agent what is really the result of the patient's resisting power or of the mediocre intensity of the infective phenomena. The antitetanus serum, though a marvellous prophylactic, has not hitherto given any satisfactory therapeutical results, and its inventor has but little faith in its curative properties. Lucas-Championnière, however, has not lost faith in this agent, and he alludes to some few cases, one under his own observation, in which there were good grounds to believe that the serum had had a favourable influence. The serum treatment has undergone some developments, such as the method of intracerebral injection, and quite recently a fresh element has been imported into the question by the results of observations in which the quantities of the serum injected both into the brain and into cellular tissue have been very much increased beyond those hitherto employed. Vallas has published cases in which by daily and progressive doses of from 30 to 40 grams from 300 to 600 grams of antitetanus serum were injected into the same subject. In one case as much as 1,800 c.cm. of serum was injected into a negro. Lucas-Championnière mentions as a record instance of this method of treatment a case in which Galliard administered to a single patient 500 grams of chloral by mouth and rectum, and subcutaneous injections of 2,380 c.cm. of antitetanus serum. The results of this treatment are not given by the speaker, but it is suggested that the successes have been sufficiently numerous to attract the attention of investigators.

(215) Hepato-Cholangio-Enterostomy.

Kehr (*Zentralbl. f. Chir.*, No. 7, 1904) reports a case of cicatricial stenosis of the common bile duct in which he carried into practice with favourable results, a plan suggested by Baudouin and Langenbuch, of establishing a direct communication between the hepatic parenchyma and the intestinal canal. In this case the margins of an incision, about 6 cm. in length made in the duodenum were sutured to the margins of a deep wound made in the lower edge of the liver. This operation, to which is given the name of hepato-cholangio-enterostomy is suitable only in very rare conditions. Obstruction, whether of common or hepatic duct, by impaction of a calculus can now be safely and, in most instances, readily overcome by direct measures. It is not indicated, the author states, in cases of obstruction of the common bile duct caused by primary or secondary carcinomatous growths on the under-surface of the liver. If the obstruction be due to the results of inflammation, this operation may enable the surgeon to overcome threatening cholaemia and to save the patient's life. There are no indications in this case, it is stated, of any disturbance of the liver tissue in consequence of the direct contact with it of intestinal contents, but such disturbance, the author points out, can only be proved by necropsy an opportunity for which, he anticipates, will be long deferred in this instance.

(216) Surgical Importance of Accessory Hepatic Ligaments.

Ancel and Sencert (*Arch. Prov. de Chir.*, No. 2, 1904) point out that from a surgical point of view the presence of accessory perihepatic ligaments has some importance in relation to the technique of operations practised on the biliary ducts. The directions usually followed in exposing the common duct will very often be found inapplicable in the numerous instances of excessive development of the cystico-duodeno-epiploic ligament. In such instances it is necessary before the duct can be explored to completely expose and divide this ligament. In drainage, which is so indispensable in operations on the biliary passages, the cystico-duodeno-epiploic and the anterior hepato-renal ligaments will enable the surgeon in a great number of cases to form a cavity closed on all sides, and which will afford a direct discharge of secreted fluids from the wound in the common duct to the surface. With regard to the topography of infrahepatic encysted collections, whatever may be the origin of these, the cavities enclosed by the accessory ligaments have, the authors state, a decided influence on the limitation of effusions.

MIDWIFERY AND DISEASES OF WOMEN.

(217) Caesarean Section Three Times in One Patient.

W. J. Sinclair (*Journ. of Obst. and Gyn. of the Brit. Emp.*, January, 1904) describes the successful performance of Caesarean section three times upon the same woman. The patient was much deformed, the left hip being ankylosed, with the knee pressed upon the abdomen; the true conjugate measured 2 in. The patient was first seen in April, 1896, when labour pains had already set in, and the operation was not performed until twelve hours after their commencement. It was complicated by the position of the left thigh, and from this cause some laceration of the lower end of the wound took place as the fetus was extracted. The uterine incision was made without eventration. On this but not on the following occasions a drainage tube was inserted, at the close of the operation, into the lower end of the wound, and was left in position for twenty-four hours. The child was healthy and vigorous. Convalescence was retarded by the slow healing of the abdominal wound, by the occurrence of broncho-pneumonia caused by the

anaesthetic, and by the formation of an abscess over the sacrum. At the patient's last examination before leaving the hospital the uterus was found adherent to the abdominal wall, as after ventrifixation. The patient next presented herself in August, 1901, being then fully eight months pregnant and having experienced during pregnancy no ill-effects from the former operation. The abdomen showed an irregular, firm cicatrix. The operation was performed without waiting for the onset of labour, and the abdomen was opened through the old scar. No trace of the previous incision could be found in the uterus. The patient vomited just as the uterus was incised, and the strain caused a small opening to be made in the peritoneum. Convalescence was satisfactory, and mother and child left the hospital in good health in September. The third operation took place in June, 1903, after the beginning of labour. This time the uterus, after being emptied, did not readily contract, and there was a fair amount of haemorrhage; while, in spite of the utmost care, a small opening was again made into the peritoneal cavity. The abdominal wound healed somewhat slowly, but in other respects convalescence was not remarkable. The author holds that convalescence is, as a rule, more satisfactory when operation precedes the onset of labour; that "sterilization," if not effected at a first operation, involves in any later one such weaking-down of adhesions as to form a serious complication, and that a second operation is safer the more firm and extensive the adhesions present.

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(218) Adeno-myomata of the Uterine End of the Fallopian Tubes.

Funke (*Deut. med. Woch.*, December 3rd, 1903) discusses the clinical diagnosis of adeno-myomata of the uterine end of the Fallopian tube (*Tubenwinkel* = angle of the tube), illustrating his remarks by cases. The first case is that of a woman aged 35 years, in whom he was able to diagnose the adeno-myoma, and at the operation he was able to confirm the diagnosis. The patient made a good recovery and was freed from her symptoms after the operation. The second case was that of a voluminous adeno-myoma of the posterior wall of the uterus, growing from the angle of the tube downwards. Here, too, he was able to remove the tumour with good result. The third case was also a voluminous adeno-myoma, and the diagnosis rested between malignant disease or adeno-myoma. In both the last and second cases there were extensive adhesions, and the tubes were involved in the tumours. In the last case there was a right-sided hydropinx. In discussing the first case, he states that the diagnosis of adeno-myoma of the angle of the tube can be made from the following points: First, the localization of the tumour at one or other angle of the tubal openings in the uterus; secondly, the diffusely infiltrated consistency of the growth; thirdly, the painfulness on palpation; fourthly, the severe symptoms which so small a tumour can produce; fifthly, the absolutely normal condition of the tube itself; sixthly, when there is a circumscript infiltration of part of the uterus, with healthy surroundings, this cannot be due to inflammatory processes. The diagnosis of voluminous adeno-myoma is next dealt with. Of the objective signs, the most important are the localization and direction of growth of the tumours, and the complication with chronic pelveo-peritonitis and tumour of the appendages. As a rule the tumours are situated at the posterior wall of the uterus and grow from the angle of the tube downwards. It is mostly difficult to palpate the posterior wall of the uterus in these cases, but if one presses the fundus backwards and the cervix forwards, one can tilt the whole organ backwards and thus gain access to the hinder wall. There one feels irregularities, nodules, and protrusions, which have a different consistency to the rest of the uterus. One also feels the indurated chronic inflamed tissue around. The palpation will be found to be distinguishable from that of intraparietal myoma. In speaking of the adhesions, Funke says that the voluminous adeno-myomata more frequently have firm and extensive adhesions than submucous myomata. Returning to the symptoms of adeno-myoma of the angle of the tube, he points out that dysmenorrhoea is worthy of note. The pains are referred to a circumscribed area, and are very severe during the whole period. These pains are, in his opinion, due to the marked congestion of the tumour, which is very vascular, during the menstrual flow. The tumour in itself is very tender, and when it becomes more hyperaemic than usual the pain is greatly increased.

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(219) Hydramnion and Eclampsia.

Véron (*L'Obstét.*, January, 1904) attended a woman admitted into a maternity eight months pregnant. The breech presented, and there was marked hydramnion. Five gr. of potassium iodide were given daily, and a litre ($1\frac{3}{4}$ pt.) of milk. Anasarca of the lower extremities and suprapubic integuments appeared a week later, without albuminuria. Five pints of milk ordered daily. Three weeks later the membranes ruptured at 9 a.m., the pains began three hours later, meconium was detected coming away at 4 a.m. on the next day, the os was dilating steadily. At 6.50 p.m., after a fairly easy day, a fit occurred, lasting a miuute; at 7.30 p.m. another set in and was not over until two minutes had elapsed. Chloroform was then given; vomiting occurred; chloral was prescribed at 10 p.m. By 9 a.m. on the third day the patient was in a torpid condition; the fetus was delivered by Mauriceau's method, dilatation being complete at the time. The fetus was a female, weighing $7\frac{1}{4}$ lb. The placenta came away naturally, and convalescence was normal. There clearly was auto-intoxication during pregnancy in this case. Milk diet is advisable in cases of hydramnion where syphilis, heart disease, and tubercle are not present, as then auto-intoxication is highly probable even when, as in this case at first, the urine remains free from albumen. Véron observes that the eclampsia was anticipated in this case by the milk diet, yet there were two bad convulsions. Had the diet not been adopted, it is reasonable to believe that the consequences would have been very grave.

THERAPEUTICS.

(220) Euguformum Solubile.

Tar preparations, in dermatological practice, have become indispensable on account of their excellent effect in quieting itching and in causing a regeneration of the epidermis. Max Joseph finds, however, that they have for the most part two disadvantages; they sometimes act as very strong irritants, and therefore do more harm than good in inflammatory conditions of the skin, and they produce a very unpleasant odour, which almost prohibits their use in better class practice (*Deut. med. Woch.*, January 21st, 1904). The best tar preparation hitherto introduced is the liq. carbonis detergens (Wright), which has the advantage of being almost colourless and odourless. Empyroform is said to be odourless, but Joseph finds that is not so; it has nevertheless excellent qualities. In some cases Joseph finds that liq. carbonis deterg. is not sufficiently active to obtain those results which one can get with the oil of cade, and in spite of its evil smell he has had to return to the latter preparation. In this respect it appears desirable to obtain some improvement on Wright's preparation, and a new substitute has recently been introduced bearing the name of euguform. It is prepared from guaiacol and formalin, and the combination of these two bodies form the methylene-di-guaiacol. This is dissolved in boiling glacial acetic acid, and by pouring the acetic solution into cold water, the preparation is purified and partly acetylified Euguform contains about 6 or 7 per cent. of acetyl. This preparation possesses an anaesthetic and an antiseptic action; it quiets itching and eases pain, and helps to dry up discharging surfaces. After much experimenting, it has been found possible to dissolve euguform, so that it may be applied as a fluid. Euguformum solubile is made by dissolving euguform in acetone, and represents a 50 per cent. solution. Max Joseph has obtained good results in prurigo, lichen simplex (chronic), and pruritus; for strophulus infantum he advises an emulsion, consisting of 10 parts of euguform. solub., 20 parts each of oxide of zinc and starch, 30 parts of glycerine and water to 100. No covering or other dressing will be found necessary over this application. For tyloma palmare et plantare, he employs euguform in the form of a 20 per cent. ointment, and gets good results. He states that he will be pleased if other observers will obtain the satisfactory results which he has got.

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(221) The X Ray in Mycosis Fungoides.

Albert E. Carrier (*Journ. Cutan. Diseases*, February, 1904) reports a case of apparent cure of mycosis fungoides by means of the *x* ray. The patient, aged 75, was a most intelligent man, and his business (doing detail work among physicians for manufacturing drug houses) had brought him in contact with doctors, who had examined him frequently during the earlier period of the affection as well as the later, and having frequently discussed it with the patient had kept him familiar with the changes occurring during the whole course of the affection. The symptoms

were those typical of mycosis fungoides, and their first appearance dated from twelve years before he came under observation. Distributed over the whole cutaneous surface with the exception of the face, hands, and arms, and the legs below the knees were over three thousand tumours, which varied in size from a pin head to a small orange, for the most part dome-shaped, freely movable, and, with the exception of one in the groin and one in the axilla, were the colour of the normal skin. They did not itch, and their surface was free from scales, the larger lesions were quite hard, but the smaller ones were soft. No. lesions had ever disappeared, and new ones were continually making their appearance. In front of the right axilla were three ridges, $3\frac{1}{2}$ in. long, $\frac{1}{2}$ in. high, and $\frac{1}{2}$ in. wide. In the right groin were three similar ridges, only a little larger. The patient stated that in the groin lesion there was at one time some ulceration between the ridges, but that it had healed under the use of a powder. This was the only time in which any evidence of the tumours breaking down had been noticed. In the left groin was a walnut-sized lesion, and over the perineum and scrotum were several large lesions. The largest lesion was just above the left popliteal space; it was oval in shape, 3 in. in its long diameter, 2 in. wide, and $\frac{1}{2}$ in. in height. This was the first of the tumour lesions to appear, and had been growing for three years; it was dark-brown in colour, surrounded by a dense, infiltrated, ribbon-like band, 1 in. wide, which was more deeply pigmented than the tumour; this in turn was surrounded by a zone of lighter pigmentation which did not shade into the bordering skin, but was abrupt, the outlines of the patch being sharply marked. The top of the tumour was flat, a little depressed in the centre, and covered with scales; it was quite hard, but very much softer than the band of induration that surrounded it. Many of the lesions were so small that the aid of a glass was necessary to discern them. Between the posterior borders of the scapulae were a number of split-pea sized dark brown lesions on a level with the skin, and not scaling. The itching was always in the scaling lesions. The patient only asked for relief from the pruritus, and as he had always been told that his disease was eczema he did not realize the gravity of the affection. Efforts were made to overcome the pruritus by various local applications but without any effect, and from the benefit derived by using the *x* ray in other pruritic affections, Carrier decided to use it in this case, but without any expectation that its use would cause a disappearance of the lesions. He began treatment with the *x* ray, August 17th, 1903, giving daily exposures to the plaques on the front and back of the thorax, using a 6-in. tube of moderately low vacuum, limiting the exposures to five minutes at a distance of 5 in. Every other day he exposed as much of the surface which had not been treated as he could in a *séance* of one hour. On August 20th, the first effect of the rays was noticed; this was a bronzing of the skin, no erythema. The pruritus was less severe, the tumours were not affected, and new ones were appearing. On September 2nd the skin had become darker in colour, and in parts there was a slight erythema. The pruritus had been entirely relieved, some of the smaller lesions that had been marked for identification had disappeared, and fewer new ones were developing. The scaling on the plaques was very slight. From the effect produced on the tumours it was decided to direct special attention to their treatment, and selecting a space 12 in. square on the left side of the thorax where 300 tumours had been counted, Carrier began with daily exposures, using a tube of higher resistance at a distance of 5 in. for five minutes. He noticed improvement from the first, the tumours rapidly disappearing, and no new ones developing. On November 10th there was present no evidence of the disease (with the exception of pigment in the sites of the larger tumours), no induration, no scaling, no erythema, no tumours, and no pruritus; and whatever benefit the patient had derived must be traced to the use of the *x* ray, for at no time during its use was any medicine given internally, nor was any applied externally. It was of course too soon to predicate anything for this treatment in mycosis fungoides, but in this instance it had undoubtedly stayed the progress of the disease. The patient is being kept under observation.

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(222) Moser's Polyvalent Scarlatina Streptococcus Serum.

IN the *Deut. med. Woch.* of January 1st, 1903, J. von Bókay discusses the value of Moser's scarlatina serum and gives his own experience with it. The causal organism of scarlet fever has been the subject of much dispute during the past; Moser and others consider that it is now proved that the streptococci, which are so freely found in the complications of scarlet fever, such as necrosis of the fauces, joint affections, inflammation of the serous membranes, etc., are the casual micro-organisms of the disease. Moser found that he was able to cultivate these streptococci from the heart blood of 63 out of 99 cases, of patients who had died from scarlatina. In two cases he cultured the cocci from the clear cerebro-spinal fluid during life. The cultures were mostly pure and as Marmorek and Behring had shown that one can produce immune bodies in the blood of animals treated with streptococci, Moser attempted to prove that the streptococci were the causal organisms by producing an immune serum. Marmorek had employed streptococci which had been rendered virulent for the laboratory animals by many passages through these animals, but his antistreptococcus serum was found to be inert in scarlatina. Moser cultured the streptococci, obtained direct from the human blood on artificial media, and after many subcultures inoculated horses with it. He used a number of different sources for his cultures, all of which, however, were cases of scarlatina, and after preparing each culture, injected several subcultures in his immunizing. After from seven to eight months, he obtained an active antistreptococcus serum. His clinical results with large injections of the serum were satisfactory. Several clinicians tried the serum also with good results. Bókay's own experience extends over twelve severe cases selected for the purpose. The smalle single dose injected was 100 c.cm., ar the largest, 200 c.cm., while in tw cases he gave a second injection, th first being 160 c.cm. and the secon 100 c.cm. in each case. The first effe noted was a marked improvement in th general condition of the patient and rapid clearing up of cerebral distur ances. During the first twenty-fou hours the temperature fell from 3.4° t 0.9° C. The average fall was 2.1° (The patients did not show any signs collapse, in spite of a critical fall (i three cases) in the temperature. Whe the fever was lessened the patients too food well. The rash was also favourabl influenced. Ordinarily it soon began t pale; when it was only developing did so mildly, and in variegated e anthems or dusky papulous rashes after twenty-four hours it became normal punctate pale erythema. Th pulse frequency was diminished an the quality of the pulse improve Necrosis of the fauces spread le rapidly after the injections, and did no attack the tissues deeply. Two case showed nephritic changes during con valescence; of these one took the for of a haemorrhagic nephritis, but ende in resolution, while the other cases fo lowed a mild course. One case wa attacked by multiple joint affection and one showed a short-lived arthralgi In 4 cases the lymphatic glands of th neck became inflamed severely. I 3 cases this went on to suppuration and in 2 of them it led to septic pyaemia. Suppuration of the middle ea occurred in several cases, but was neve severe, and did not last long. The in jection in 1 case led to a local abscess which soon healed. In 7 cases ther was an antitoxin rash, and were no severe. The 2 cases of septico-pyaemia following severe suppuration of th lymphatic glands in the neck, died. I all, he is satisfied that the serum exert an antitoxic action, in spite of the fac that he has only been able to test it. s far, on a small number of cases. Th serum is now being prepared by a larg manufacturing chemist, but it will b several months before it can be obtaine by the medical profession. He warn the practitioner not to confuse Moser' serum with that of Aronson, which i entirely different.

PATHOLOGY.

(223) Tubercle Bacilli in the Urine.

V. MARAGLIANO (*Gazz. degli Osped.* January 17th, 1904) has examined th urine of 12 cases of pulmonary tubercl (the urinary tract being unaffected) t see if tubercle bacilli could be detected Although several methods were tried the result was completely negative in every case. The urine was repeatedly centrifugalized, and the sediment mixed with a drop of glycerinated albumen fixed by heat, treated with alcohol and ether to remove all fat, and stained by Ehrlich's fluid. Even under the more drastic mode of preparation recommended by Joussett, no bacilli could be detected. Injections of the centrifu galized fluid proved sterile in guinea pigs.

AN EPITOME OF CURRENT MEDICAL LITERATURE.

MEDICINE.

(224) The Value of Jousset's Inoscopy.

E. KOHRMOECZI AND K. JASSNIGER discuss the question of the tuberculous etiology of the so-called "primary" pleurisies (*Deut. med. Woch.*, March 3rd, 1904). The methods, both direct and indirect, to prove the tuberculous origin of the effusion are all more or less open to objection. Cultural means, either in the test tube or in the animal body, take too long to be of great service, and the modern "cyto-diagnosis" yields results which are so contradictory that this method cannot be relied on at present. They therefore have been interested in testing a method which Jousset recently introduced, which is said to render the bacilli more easily findable than any other. This method is called inoscopy (*is*, *inos* = fibrin). The exudation is collected into vessels which have been cleaned with scrupulous care, and it is then allowed to stand until the fibrin flakes have formed. The fibrin is then caught up in a cloth filter which has been boiled in an alkaline solution; then the fibrin is washed with distilled water, and scraped from off the cloth with a sterile platinum spatula. This fibrin suspension is then thrown into a vessel provided with a glass stopper, and to it is added from 10 to 30 c.cm. of the digesting fluid, according to the size of the flakes. The digestion is allowed to go on for from two to three hours in a temperature of 38° C., the fluid being shaken up every half hour. The fluid contains 1 to 2 per cent. of pepsin (P. en paillettes, titre 50 du *Codex*), 1 per cent. each of pure glycerine and hydrochloric acid, 3 per cent. sodium fluorate, in distilled water. According to Jousset tubercle bacilli can be detected by this method with certainty. The authors followed out the directions most carefully, save that they relaxed the precautions as to perfect asepsis, this not being necessary in the tests which they were carrying out. As far as technical difficulties are concerned, they found that it was very difficult to fix the particles, which were gained from the fluid after digestion and centrifugation, on the cover-slips. Again, they found that very small scratches on the cover-glass often take up the stain and give the same appearance as tubercle bacilli, but with a little care this source of error can be almost entirely eliminated. The third possibility of error rests on the production of blood-pigment crystals, which are somewhat altered by the decolorization fluid, and may present great likeness to bacilli. They examined pleuritic effusions, blood from a corpse dead of miliary tuberculosis, blood of a corpse dead of tuberculous meningitis, and the like, and ascitic fluid from cases of simple hepatic cirrhosis and from tuberculous peritonitis. Only 3 of the cases of pleural effusions disclosed tubercle bacilli, while the signs of tuberculosis were absolutely manifest (tubercle bacilli in sputum, and so on). Only 1 case of tuberculous blood out of 4 samples revealed the bacilli, and both classes of ascitic fluid failed to show any tubercle bacilli. They therefore come to the conclusion that Jousset's method is not capable of helping the diagnosis in all cases.

(225) Diphtheria and its Bacteriological Diagnosis.

ALBERTO MICHELAZZI (*Il Policlin.*, February, 1904) first discusses the opinions of other writers on the subject of micro-organisms in diphtheria, and then quotes the histories of 37 consecutive cases of infection of a diphtherial nature as far as clinical characteristics went, with the results of bacteriological examination in every case except one. It is known that false membranes of a diphtherial appearance are not always the result of the action of the Loeffler bacilli. They may be caused by streptococci or staphylococci, and Seitz describes a case where the only micro-organism present was the bacterium coli. To the number of bacilli which can cause lesions simulating diphtheria Michelazzi adds Friedlaender's diplo-bacillus, which was found in 2 of his cases. The author's 37 cases were all of them clinically indistinguishable from diphtheria. Only 15 of them were found to contain Loeffler's bacillus, 19 were due to different forms of cocci, 2 to Friedlaender's diplo-bacillus, while in 1 case it was impossible to obtain material for a satisfactory examination. Of the 15 cases of true diphtheria, 8 needed tracheotomy, and out of these all but two recovered, the two exceptions being children who were very seriously ill on admission and died from cardiac paralysis. Amongst the 21 non-diphtherial cases were 12 cases of tracheotomy, all but one of them being unsuccessful. These failures were not due to operative difficulties but to subsequent infection of the lungs. All the cases were treated by prompt and repeated injections of antitoxin, irrespective of bacteriological diagnosis. These injections did not give, in the streptococcal cases, the obviously good results obtained in the cases in which Loeffler's bacillus was found, but the author recommends them for all cases of either kind. Michelazzi concludes that true diphtheria is a much less common disease than is supposed by those who rely only on clinical characteristics, the greater number of cases thus classified depending in reality on cocci, especially streptococci; that diagnosis is impossible without bacteriological examination, since all the symptoms of diphtheria, including paralysis, may be present without Loeffler's bacillus; that, in particular, it is a mistake to suppose that the localization of the disease in the larynx raises any presumption of the existence of true diphtheria; that the prognosis is decidedly worse in the coccal than in the true diphtherial form of infection, the greater danger from pulmonary complications in the former case outweighing all other considerations.

(226) The Contagiosity of Icterus.

S. COSTA (*Rev. de Méd.*, February 10th, 1904) relates the history of an epidemic of icterus, in which he is convinced that the disease spread by contact. The epidemic occurred in a battalion of infantry, consisting of six companies. In all, from July 7th to January 24th, 77 cases of jaundice were treated. The disease was mild in form, and many cases occurred in which the patients did not report themselves sick. The ordinary symptoms of epidemic icterus were noted—discoloration of the skin, increase of urinary pigment, vomiting, and occasionally clay-coloured stools. The average duration of the cases was about fifteen days. The troops were operating in a hilly country, where malaria was unknown, and none of the civilian population were known to have suffered from jaundice. Until towards the end of the epidemic the recruits and young soldiers escaped, only the old soldiers being attacked. The recruits were separated from the regular men. The six companies, being engaged in manœuvres, were constantly being moved, and as each was moved near to a company already infected, the jaundice spread to it. At first the water supply of the camp in which the main body of troops was stationed was suspected, and the men were prevented drinking the water and served with tea at meal times. This did not check the spread of the epidemic, and cases occurred in the neighbouring camp, which had a different and irreproachable water supply. In the course of the operations there was only one stretch of country which all six companies had traversed. Cases of jaundice occurred in all the companies, but the first case of the epidemic was found in a company which did not perform this journey till a week after the man attacked had been sent to hospital. The two last patients were young soldiers who did not join the battalion till November after the manœuvres were over. They were not affected until twenty-four days after the case immediately preceding. Their illness was slight. Costa believes that this epidemic proves the contagiosity of icterus.

(227) Thyroid Functions and Epilepsy.

CRISAFULLI (*Il Morgagni*, April, 1903) reports the case of a man, aged 20, who began to suffer from epileptic fits and simultaneously enlargement of the thyroid gland. Two years of bromide had no effect. Treatment of the thyroid with electricity and iodine brought about a reduction in size of the thyroid and complete cessation of fits. The positive electrode was wrapped in wool, soaked in iodine, and applied to the gland. Other writers have proved that there is a definite relationship between epilepsy and the thyroid, and this is supported by experiments on animals.

SURGERY.

(228) The Operative Treatment of Cancer of the Tongue.

BERGER (*Bull. et Mém. de la Soc. de Chir.*, No. 11, 1904), in a discussion on a communication by Poirier, who advocates extensive excision of glands on both sides of the neck, in removal of cancer of the tongue, stated that such a procedure would increase very much the length of the operation and the risks attendant on prolonged anaesthesia and shock. Special attention, it was held,

should be paid to the glands in the floor of the mouth, and those seated in the submaxillary region and at the angle of the mandible. As the subhyoid method of removing the cancerous tongue has failed in Berger's experience to afford sufficient access to the base of this organ, and free removal of diseased structures in the floor of the mouth, this surgeon advocates, in cases in which extensive and almost total removal of the tongue is indicated, median section of the lower jaw, and excision of the submaxillary glands. Extensive operations of this kind are, it is acknowledged, very grave, and attended with a mortality of almost 50 per cent. death being due to shock or exhaustion rather than to septicaemia, which, it is held, can be avoided by free drainage and frequent cleansing of the mouth. When successful, however, such formidable procedures are followed by complete and durable success. Simple removal of the cancerous portion of the tongue, though very rarely fatal, results as a rule in speedy recurrence of the disease. In concluding his remarks, Berger stated that, although not rejecting altogether operative treatment of extensive cancer of the tongue, he considers that in cases of this kind such treatment presents a gravity disproportionate to the chances of long survival of the patient. Extensive operations, it is held, should be reserved for cases of cancer of limited extent, in which they may be followed by excellent and durable results, although even under the most favourable conditions the patient cannot be guarded against the danger of recurrence. Berger has been convinced by his own observations that recurrence takes place not so frequently in the lymphatics as in the lingual stump, the muscular tissue of which was invaded by invisible cancerous deposit at the time of the operation.

(229) The Treatment of Penetrating Wounds of the Abdomen.

HARRIS (*Ann. of Surg.*, March, 1904) hopes that his experience of sixteen penetrating wounds of the abdomen may aid in the solution of the difference of opinion existing among surgeons as to the best method of dealing with these injuries. Instead of the usual mortality-rate of 60 to 70 per cent. following operation the author has obtained 90 per cent. of recoveries, the reasons for this success being, in his opinion, promptitude in operating and drainage when the gastro-intestinal tract has been opened. In discussing the indications for operative intervention the author states that, with the exception of haematuria pointing to some injury to the urinary tract and haematemesis to injury of the stomach, there is absolutely not a single known symptom or group of symptoms which indicates a penetrating wound of any of the abdominal viscera. Except those relating to general shock all symptoms following such wounds indicate either internal haemorrhage or peritonitis. As to wait for symptoms of perforation of the intestine means to wait until peritonitis has developed, every bullet or stab wound penetrating the abdominal cavity should, it is argued, be operated on at the earliest possible moment in order to anticipate the advent of peritonitis. No time, the author holds, should be wasted in attempting to demonstrate the presence or absence of intestinal perforation by such means as the rectal insufflation of gases or vapours, or the analysis of air or liquids injected into and withdrawn from the peritoneal cavity. It is held to be essential to systematically examine the entire gastro-intestinal canal in all cases, regardless of the point of entrance of the wounding body. The point of entrance of a bullet or its apparent direction is regarded as absolutely unsafe as evidence upon which to speculate that this or that portion of the intestine cannot have been injured. Whenever the alimentary canal has been perforated suitable drains should be placed either through the operative incisions or through counter-incisions.

(230) Ligature of the Lateral Sinus in Formidable Operations on the Neck.

LAMBOTTE (*Journ. de Chir. et Ann. de la Soc. Belge de Chir.*, No. 1, 1904) reports a case in which as a haemostatic measure in the removal of a large ulcerating cancerous growth of the parotid, he exposed and ligatured the lateral sinus midway between the occipital protuberance and the mastoid process. Having failed in his original intention of ligaturing also the carotid below the growth, haemorrhage from this vessel and its two branches was arrested during the operation by the application of two forceps which were afterwards kept in place for twenty-four hours. The author states that there was very little haemorrhage during the operation, although the internal jugular vein was freely torn. The patient recovered from the immediate effects of the operation, but on the twentieth day, when apparently in a state of convalescence, died suddenly in consequence of sudden and profuse arterial haemorrhage from the large granulating surface on the side of the neck. This case, the author states, presents two points of interest. In the first place, ligature of the lateral sinus proved certainly useful in diminishing the loss of blood at the time of the operation, and, secondly, the haemorrhage which carried off the patient indicates that it would have been well to have secured, if possible, the common carotid and to have avoided the use of pressure forceps. Preventive ligature of the lateral sinus by trephining between the occipital protuberance and the mastoid process is likely, the author thinks, to be of service in certain operations on the side of the neck, such, for instance, as removal of large and deep-seated tumours of the parotid and the wall of the pharynx, and total resection of the mastoid.

MIDWIFERY AND DISEASES OF WOMEN.

(231) Uterine Cornual Pouches in Normal Pregnancy.

MORTAGNE (*L'Obstétrique*, January, 1904) reports a case where pregnancy was intrauterine, but diagnosis much obscured owing to great distortion of the uterus. Early in gestation a soft tumour was detected in the left iliac fossa, just above the groin, and as pregnancy advanced a swelling firm and globular was detected to the inner side of the softer mass, and separated from it by a groove. Bar examined the case and diagnosed at the end of the third month intrauterine pregnancy in an abnormally developed left cornu. The patient was delivered at term of a living child $7\frac{3}{4}$ lb. in weight. On examination after the placenta came away the uterus was found to lie very obliquely, and its outline showed that the left cornu was more developed than the right. Bar (ibid.) himself reports a case where, as in Mortagne's, there was a uterus with distinctly unsymmetrical cornu, not so marked as to represent uterus bicornis, nor with any septum, but sufficient to show much irregularity of consistence and outline when pregnancy developed. The patient had twice passed through normal pregnancies, and never had aborted. Towards the end of the second month of the third pregnancy the right cornu formed a soft tumour apparently separated from the firm uterus. This deformity is common, and tends to disappear later in gestation. (See Note sur la Greffe de l'Oeuf dans une Corne Utérine, *Bull. de la Soc. d'Obstét. de Paris*, March, 1902, p. 168.) In the middle of the third month abortion occurred. The decidua showed a process on the left side marking the uterine end of the tubal canal. but there was no such process on the right. Budin, discussing Bar's case, remarked that the placenta was sometimes incarcerated in a pouch of this kind, which in other instances lodged an excess of liquor amnii.

(232) Sarcomatous Degeneration of Uterine Myoma in a Young Subject.

ODEBRECHT (*Zentralbl. f. Gynäk.*, No. 2, 1904) demonstrated before a German Society last autumn a uterus and a piece of tumour previously removed from it. The patient was a virgin, aged 25, anaemic but not cachectic; she had suffered for two years from haemorrhages. There was clearly a tumour, and it was taken at first for a somewhat soft fibroid. This tumour was easily removed by *morcellement* without opening of the peritoneum; it was submucous. On microscopical examination the new growth proved to be undoubtedly a sarcoma; the uterus was therefore removed. The sarcoma had developed into a fibromyoma. The patient recovered. Gessner collected 131 cases of sarcoma of the uterine wall, and in only 1 of this series was the patient a young woman.

(233) Cysts of the Clitoris.

CAZIN (16me Cong. de l'Assoc. Franç. de Chir., Paris, October 24th, 1903) refers to recent literature on this subject by Peckham and Resinelli. Out of 22 cases of non-malignant tumours of the clitoris, only 4 were true cysts. Cazin in 1903 removed a multilocular cyst of the clitoris. The patient was a woman aged 40; the tumour formed a bulky mass attached by a narrow pedicle to the inner surface of the prepuce of the clitoris. The contents consisted of a milky, slightly-viscid fluid; the loculi were lined with a single layer of cortical epithelium. Cazin observed, in a discussion on his case, that these poly-

ystic tumours of the clitoris were possibly confounded in some instances with molluscum; and Témoin of Bourges admitted that he diagnosed molluscum in a case under his observation, but it proved to be a polycystic tumour. Pédenat of Montpellier had never seen a cyst of this type on the clitoris, but he had on several occasions detected cystic growths precisely similar on the labia minora.

(234) Cancer and Uterine Fibroid in Age.

SCHOTTSCHALK (*Monats. f. Geb. u. Gyn.*, January, 1904) exhibited before a Berlin Society on November 2nd a cancerous growth which had developed on the mucous membrane over a submucous fibroid of the size of a fetal head in a patient, aged 77. The fibroid lay in the posterior wall. The malignant growth was absolutely limited to the mucosa. It was removed through the vagina without anaesthesia; the patient did not feel much pain. Locally all went well, but the patient died of cerebral haemorrhage four weeks later.

(235) Protracted Pregnancies: Large Fetus.

ENGE (*Inaug. Dissert.*, Leipzig, 1903) follows up the researches of von Winckel, and has made use of the register of the Leipzig Maternity for the seventeen years preceding the issue of this thesis. In 175,333 births there were 821 children over 4 kilog. ($9\frac{7}{8}$ lb.) in weight and over 50 cm. ($19\frac{1}{2}$ in.) in length. The ratio of female to male infants was 100 : 110; 314 mothers had correctly reckoned term from the first day of the last period, 61 from the last coitus, and 81 from both factors. In 40 of these accurately reckoned cases the period lasted over 302 days, the maximum being 321. The average length of the children in these cases was 53.5 cm. (20 in.).

(236) Ovarian Tumour in a Ventral Hernia.

LUCAS-CHAMPIONNIÈRE (*La Gynéc.*, December, 1904) discovered an ovarian cyst in a capacious ventral hernia the result of a previous operation. The tumour lay almost entirely outside the abdominal cavity and was surrounded by thinned integument and a peritoneal sac to which it adhered completely. The greater part was removed, but the base of the cyst had to be "marsupialized." The fluid contents amounted to about 10 pints. Pozzi once removed a pedunculated fibroid from a ventral hernia.

(237) Rupture of Pyosalpinx: Death.

REITZ (*Monats. f. Geb. u. Gyn.*, December, 1903) reports a case where a pyosalpinx ruptured into the rectum, but it is important to note that it was developed in association with very acute puerperal sepsis after abortion. The patient was 31 years old, and had been delivered of a child at the seventh month, five months before she came under observation when she was admitted into hospital a week after an abortion at the sixth week. The ovum had been removed manually, and hypogastric pain and fever had set in. Left parametritis and general peritonitis were diagnosed. Death occurred on the second day. There was chronic suppurative peritonitis with bilateral pyosalpinx and secondary perforation of the right suppurating tube into the rectum. This tube was dilated to the size of a fist and communicated with an abscess cavity representing Douglas's pouch. The cavity had opened into the rectum more recently. There was suspicion that the original lesion in the tubes was tuberculous.

THERAPEUTICS.

(238) Prophylaxis against Malaria.

R. BATTARA (Supplement to *Rivista Medica*, 1903, Comm. 15), after an introductory statement of the problem and account of its difficulties, relates with full details his own very satisfactory experiments in the protection against malaria of the inhabitants of Nona. He states that man is the only host capable of harbouring the malaria parasite all the year round, and the mosquito the only means by which infection can be carried from man to man. Hence the importance of regarding every patient with malaria as a public danger. The effect of introducing malaria into a community of healthy men is shown by the history of the epidemic on the little island of Turi in 1901. Turi is 20 kilometres from the mainland. Its only water supply is a collection of rain-water at the bottom of the valley, in which almost all the inhabitants live. In spite of this the island was singularly healthy, and malaria was unknown. In June, 1901, a malarial patient came to his house at Turi from the mainland. At the end of June other cases began to appear, until, two months later, out of a population of 534, there had been 195 cases, with 5 deaths. The epidemic then came to an end, and its cessation is ascribed to the fact that a very hot summer dried up the pond of rain-water—the only water supply of the island—and drove away the mosquitos which had flourished there so completely that it was impossible to find any when they were sought for to explain the epidemic. Malaria may be prevented by destroying the parasites in man or by destroying, through a wide region, the *Anopheles* which cause fresh infection. The direct destruction of *Anopheles* by petroleum and similar agents is very difficult to carry out completely. The experiments of Rivas, undertaken at Koch's suggestion in the island of Brioni, were only partially successful. If all are not destroyed the remainder multiply, and the work has to be done again. Even complete temporary success is not necessarily final. The *Anopheles* are transported far and easily, and may thus be reintroduced into a region apparently free from them. At any rate such means are only suited to islands and other secluded neighbourhoods. The drainage of swamps is often useful, but it is extremely expensive, and has not yet succeeded in freeing any Italian district from malaria. We are therefore reduced to the method of destroying the parasite in man. Quinine is the agent to which one turns first, and its success in curing acute malarial fevers has led to the hope that it may also serve as a prophylactic. But quinine is not fatal to the parasite in all stages of its existence. In small doses it is useless, and in large doses it cannot be taken long with impunity. The most favourable results obtained from the prophylactic use of quinine alone are those of Duncan, who states that it reduces by one-half the number of attacks of malaria. A systematic attempt was made by Koch and Frosch to stamp out malaria in Brioni in 1901 by means of quinine. All cases were treated with a gram of quinine daily for three days, and afterwards on the tenth and eleventh days. Similar treatment was carried out at the nearest places on the mainland in order to prevent the importation of the parasite. The results seemed satisfactory as long as treatment continued, but the disease reappeared in the spring of 1902, when the dose of quinine was doubled, and attempts were also made by mosquito nets and by systematic destruction of the *Anopheles* to protect the inhabitants. The results again fell short of success. The author's own scheme of prophylaxis is on different lines. It is based on the radical cure of all cases of malaria, acute and chronic, and he suggests that if this be carried out in the non-malarial season when there are no adult mosquitos, the next season's mosquitos will have no means of infecting themselves and subsequently communicating malaria to man. He considers that in a malarious district, any one with an enlarged spleen and an earthy pallor of the skin is almost certainly suffering from chronic malaria, and if there be a history of intermittent fever no microscopical examination of the blood is considered necessary. In several cases a hasty examination of the blood was made, but parasites were found only in one case, that of a patient suffering at the time from fever. The town of Nona, the scene of the experiments, is situated in a swamp. The inhabitants almost all suffer from malaria. They have enlarged spleen and profound anaemia. They are listless and indolent, and quite resigned to their sufferings. They make some attempt to protect themselves by bitter decoctions and small doses of quinine taken irregularly. At first they objected strongly to the examination and medication instituted by the author, but he implies that after experience of his method and its results they have become convinced of its advantages. Out of the 288 inhabitants 266 stated that they had suffered from malaria within the last year, and 45 were actually suffering from intermittent fever when the experiment began in July, 1902. Fifteen refused to be examined, and in only 19 out of the remaining 273 cases was it impossible to feel the spleen. In 70 cases the spleen reached down to or below the umbilicus. It was therefore decided to treat all the inhabitants on the assumption that they suffered from malaria, and each adult received six pills every morning, which he was expected to take—two at 5 o'clock, two at 8 o'clock, and two at 11 o'clock. Pregnant women took their six pills daily with longer intervals, and did not seem to receive so much benefit as others. Children received proportionally equivalent quantities of a liquid preparation with the same ingredients as the pills. Each pill contained bichlorate of quinine 0.1 gr., citrate of iron 0.03 gr., arsenious acid 0.001 gr., and bitter extract 0.15 gr.

This treatment was prescribed for fifteen days in every case. At the end of that time the cure was considered to be complete, and a prophylactic treatment was begun which consisted in the administration of two pills a day to adults. Speaking roughly, the results of the initial treatment were very good, and the prophylactic course was extremely useful but not completely successful because it was not universally taken. Full details are given of the change in the size of the spleen of all the patients. At the end of treatment instead of 70 only 15 spleens extended to the umbilicus or below it, and instead of 19 spleens only being impalpable there were 92 which could not be felt. In the neighbourhood of Nona (excluding the persons treated) the malarial season was exceptionally bad, hardly any of the inhabitants escaping fever. In Nona itself the death-rate was exceptionally low, there being only 1 death in the second half of 1902, the numbers for the corresponding periods during the previous six years being 6, 10, 4, 4, 7, 5. There were only 45 cases of malaria in Nona, and only 5 of these patients were amongst the 213 inhabitants who had regularly followed the whole course of treatment and prophylaxis. On the other hand, out of 40 inhabitants who had not satisfactorily undergone either treatment or prophylaxis 30 suffered from fever. These figures are selected from tables which give a full account of the health of all the inhabitants.

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(239) Serum Treatment of Typhoid Fever.

Du Mesnil du Rochemont (*Therap. Monats.*, January, 1904) deals with the serum treatment of typhoid fever. The value of this treatment is still doubtful. Chantemesse, after a relatively large experience, states that a visible improvement in temperature, pulse, and general condition can be seen when the serum is used or the disease runs a milder and shorter course. In 507 of his cases he had a mortality of only 6 per cent. as opposed to a mortality of 12 per cent. obtained in the Paris hospitals by other methods; the danger of perforation was decidedly diminished. Amongst 50 children treated by Josias with Chantemesse's serum the mortality was 4 per cent. only, but the length of the illness was not necessarily shortened nor the possibility of relapse excluded. Mendez treated 65 patients with only 1 death. He found that the best results were obtained if the injections were begun early. The effect of treatment was not constant, and some days were needed for its development. Local reaction appeared as a rule on the second day, the temperature began to fall after forty-eight hours, falling gradually if treatment had begun early, but suddenly if during the second or third week of the illness; Diazo-reaction and albuminuria ceased to be present on the second or third day in the moderately severe cases, and by the fifth or seventh day the general condition had become normal, although the rash might still be visible and the spleen enlarged. Du Rochemont treated 6 cases with serum from the Swiss Institute, and obtained moderate results. The rise of temperature was checked and the general conditions improved, but there was no evidence that the attack was cut short. Jez obtained an extract of the thymus, spleen, brain, and bone marrow of a guinea-pig, which had been strongly immunized, and this gave unexpectedly good results. Eichhorst used Jez's preparation successfully in 12 severe cases of typhoid. In 1 case a normal temperature was reached on the seventh day, in the others on the fourth or fifth day after the treatment began; the general condition improved, and delirium, if present, rapidly disappeared. Pometta, on the other hand, employed the same method in 10 cases without being able to trace any appreciable result. One patient died; the temperature of another seemed to be on the whole lower and his delirium less after the treatment was begun, but fever still continued for five weeks. Du Rochemont tested the extract on 6 patients and speaks well of it. In the mild cases a speedy fall of temperature ensued, and those cases which threatened to be severe ran a milder course; no unpleasant symptoms followed large doses, the patients feeling better for the treatment. The rash and the swelling of the spleen might persist after the fall of temperature. Convalescence seemed to be unusually prolonged in some cases and needed especial care.

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(240) Action of the X Rays in Sarcoma.

W. B. Coley (*New York Med. Journ.*, August 8th, 1903) reports on 36 cases of inoperable sarcoma with the *x* rays. In 4 cases the tumours disappeared entirely, but in each case there was recurrence. With regard to the relative merits of the mixed toxins and the *x* ray treatment, Coley remarks that experience is too limited to decide at present. In several cases in which the toxins had been tried and failed the *x* rays caused disappearance of the tumours, but with speedy recurrence. On the other hand, the tumours have disappeared under the toxins and remained well for three to ten years. In spindle-celled sarcoma the toxins have a better effect than the *x* rays. The *x* rays have the better effect in round-celled sarcoma. In deep-seated growths the toxins are better than the rays. Better results may follow the combination of both methods. The danger of the *x* rays consists in the possibility of toxaemia, which may follow the rapid breaking down of tumour tissue by a too powerful application of the rays. In conclusion, Coley thinks that *x* rays should only be used in inoperable cases, except in sarcoma of the extremities, which would mean amputation. The *x* rays have been shown to have a decided inhibitory action on sarcoma, in certain cases sufficient to cause entire disappearance of the tumour. But there is a tendency to recurrence, and in no instance has sufficient time elapsed to consider the patient cured.

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(241) Meningism.

Aporti (*La Clin. Mod.*, An. 9, N. 38) reports some cases of the above interesting condition, and discusses the subject at large. The causal factors may be classified: (1) Reflex causes; (2) toxo-infections; (3) intoxications; (4) hysteria. As there are different causes, so the symptomology varies considera y Some authors make a special type of last group under the name pseu meningitis psychogena. Owing to variability in symptoms it is almost n possible to give a schematic definit n of the disease—it is a clinical pheno enon, and not a true morbid enty. Briefly speaking, the symptoms m comprise all or any of those which re usually associated with true inflamm tory meningitis. The best aid in dif ential diagnosis is to be found in care examination of the cerebro-spinal flu The most important criteria here are clinical, microscopic, and bacteriologi characters of the fluid. The presence albumen in any marked degree is v strong evidence in favour of true menin itis as against meningism. The p sence, too, of leucocytes, mononucleat or lymphocytic cells speaks in favour meningitis. If bacteriological resear is positive, that is definite evidence, b the absence of bacteria is no pro against meningitis, as they may be e gaged in the meshes of the inflamm tory process, or may have disappeare Further aid may be gained from examination of the urine in relation its phosphates. In meningitis t normal relation between the earthy a alkaline phosphates ($\frac{1}{3}$ and $\frac{2}{3}$) is mai tained, whilst in meningism, as in hy teria, this relation is either inverted the phosphates are present in pret nearly equal quantities. Kernig's sig which was thought to be present only true meningitis, is not reliable in diffe ential diagnosis, as it has been four indifferently in both types.

PATHOLOGY.

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(242) The Pathogenesis of Jaundice.

Ugolini and Mazzocchi (*Il Policlin* October, 1903) record the results of experiments on dogs, whose bile an thoracic ducts they tied, coming to th conclusion that biliary absorption occu through each set of vessels. The found that whenever the ductu choledochus was ligatured, whether th thoracic duct was tied or not, jaundic supervened. In many experiments i was found that the bile appeared in th lymphatics before it could be detecte in the blood, but it should be remem bered that the dilution in the blood i much greater and the detection of smal quantities of bile not easy. That ab sorption takes place by the blood vessel only when the thoracic duct is closed i disproved by certain experiments made by the authors, for jaundice occurre equally well when this duct was slit s as to make a fistula instead of being ligatured. If a double intracellula reticulum exists, as is described re cently, but which the authors were unable to recognize, the problem o biliary absorption would be much sim plified. Absorption of bile may take place in the interlobular spaces, o within the lobule by the passage of the bile from the intercellular biliary ducts into the lymphatic vessels, or again it may be transferred to the small cana liculi which carry the glycogen and urea into the blood. Probably what determines which of these three modes of absorption should take place is the nature and duration of the obstruction

AN EPITOME OF CURRENT MEDICAL LITERATURE.

MEDICINE.

(243) Digastroscopy.

Cavazzani (*Riv. Crit. di Clin. ed.*, January 9th, 1904) describes a new ethod of investigating the existce and the degree of gastroptosis or strectasis. The method is founded on e observation of Bouveret and Chapo-, that after the division of the stomach to two main cavities connected by a nstricted portion, a condition somenes found as a result of tight lacing, iphragmatic respiration causes a gurng sound produced by the liquid and seous contents of the stomach rolling m one cavity to the other. The tient lies on a couch, bares his abdo-n, and relaxes the abdominal muscles much as possible. The observer, cing his hand at right angles to the ne of the couch, and transversely to abdomen, exercises with the radial der of the hand a steady pressure on abdominal wall between the sternum l the umbilicus so as to bring the lominal wall as far back as possible vards the vertebral column. The ated stomach is thus temporarily ided into two cavities, and when the ient breathes with the diaphragm, observer's other hand laid flat on the lomen can distinguish the fremitus sed by the gas and liquid passing kwards and forwards. In this man-the limits of the stomach may be dered perfectly clear. When the lominal walls are thin and yielding it often possible to see the disturbance sed by the action of the diaphragm. e method is not invariably successful, l greater importance is to be attached a positive than to a negative result. e author has used it for two years, and ls that it yields important evidence in great majority of cases. It has an vantage over some other methods of gnosis in gastric cases, inasmuch as auses no inconvenience to the patient. many cases, after the size of the mach has been estimated by digastropy, the estimate has been proved to very exact by insufflation through oesophageal tube. The method is ble to fail in cases of complete ptosis the stomach, and in the very rare es where the dilated stomach is comtely empty of gas and liquids. It not be applied very well when the lominal walls are very thick. An essive dilatation of the colon may be a source of error in very rare es, though the author has not found o be so in any of the cases tested by use of the oseophageal tube.

(244) Phosphaturia and Ammonuria.

Freudenberg points out that we are ght that normal urine is either acid neutral, when voided, or alkaline by ed alkalies. Occasionally it has been d that normal freshly voided urine tains mere traces of ammonia. rked ammoniacal urine is said ays to be urine in which the urea been decomposed into ammonium bonate by the action of bacteria. He states, however (*Deut. med. Woch.*, September 17th, 1903), that there is an exception to this rule. Phosphatic urines have always an ammoniacal reaction. In typical and uncomplicated phosphaturia there are no bacteria in the urine, and therefore the ammonia must be formed in the organism and passed out in the urine as such. At times the urine in these conditions is alkaline from fixed alkalies, but this need not be the case. Freudenberg speaks of the urines which contain phosphates and carbonates in excess and are rendered turbid as "real or manifest phosphaturia." The urines which are clear when passed, but which become clouded on boiling, may be termed "latent phosphaturia." It is only a slighter degree of the manifest phosphaturia. It, too, shows an ammoniacal reaction. In the case of the manifest phosphaturia it is sufficient to hold a piece of sensitive litmus paper, which has been moistened over the urine glass at the ordinary temperature. In the case of the latent phosphaturia it is necessary to heat the urine and allow the steam to act on the wet red litmus paper. The reaction is best carried out by filling a test-tube two-thirds full with urine and spreading a piece of the wet litmus paper over the top. The upper layer of the urine is heated, care being taken not to allow the fluid to boil up, so that it might come into contact with the paper. Of course the water which is used to moisten the red litmus paper must be free from alkali, and one must see that the part of the test tube where the paper is resting is not wet with urine. A still slighter degree of the same condition is met with, and he chooses to call this "ammonuria." The urine remains clear on boiling, and has an acid reaction when the litmus paper is dipped into it. In spite of this, there is a distinct ammoniacal reaction. All three forms occasionally occur in healthy persons, in response to an alkaline diet or mental over-exertion, etc.; and very rarely one meets with it without being able to ascribe any cause. In cases where the reaction is constant one may regard it as a sign of neurasthenia. Freudenberg does not suggest that one should base a diagnosis of neurasthenia on this sign alone, but considers that it may be looked on as a suspicious sign. He has not come across ammonuria in hysterical subjects, but states that the majority of his neurasthenic patient gave the reaction.

(245) Epistaxis and Diphtheria.

Ernest Vieillard has collected a series of observations, in which he points out the importance of coryza and epistaxis in diphtheria (*Journ. de Méd. et de Chir. Pratiques*, December 10th, 1903). Epistaxis in diphtheria does not always depend upon the separation of false membranes. It appears sometimes at the beginning of, and even before, the symptoms of coryza, and thus belongs to the prodromal period. Appearing thus early, it is a grave symptom, even should the amount be small. In some cases, on the other hand, there may be a considerable amount of haemorrhage. The writer refers to a case of nasal diphtheria quoted by Sanne which ended fatally at an early date. In all cases of diphtheria haemophilic patients run a great risk of severe haemorrhage. The earlier the appearance of epistaxis the worse the prognosis, and, in cases of intensely malignant angina, epistaxis is an initial symptom. Thus, in 25 cases of epistaxis occurring before the appearance of coryza death occurred in 20 (80 per cent.). In all cases in which epistaxis appeared at a later date—that is to say, consecutive to diphtherial coryza—the mortality was 70 per cent. In a series of 6 cases of early epistaxis collected by Geyott (*Thèse de Paris*, No. 445) 5 terminated fatally. Such haemorrhages, he says, are of considerable importance from the point of view of prognosis, as they are an indication of the severity of the infection. It is in these cases that sudden death from cardiac toxemia occurs. Vieillard states that occasionally the discharge from the nose may be an oozing the colour of liquorice juice. Examination of the nasal mucosa shows that it is covered by bloody mucus and dark-coloured false membrane, or even blood clot. He regards all cases in which such discharge occurs as particularly malignant.

(246) Hysteria Simulating Gastric Ulcer.

The following case recorded by Raymond (*Journ. de Méd. et de Chir. Pratiques*, December 10th, 1903) shows the importance of carefully examining patients previous to major operations, which are now so common. A woman, aged 27, had suffered in girlhood from indigestion. Later she had frequent attacks of vomiting. A month after admission to hospital she had a severe attack of vomiting, suggesting the existence of gastric ulcer, only there was no haematemesis. The abdominal cavity was opened, with a view to surgical treatment of an ulcer. None was found. She recovered completely from the operation, but her symptoms were unaffected. A little later a small cyst was removed from the thyroid gland. After the operation she had periods of aphonia. Since then from time to time she has had gastric crises, left hemianaesthesia, and mental symptoms of hysteria. together or alternating. This case demonstrates the importance of always bearing in mind the possible presence of hysteria in female patients who complain of subjective gastric symptoms. Unfortunately, a surgical operation in such cases does not even present the consolation of having a good moral effect, as in the experience of the writer the hysterical symptoms are often aggravated.

SURGERY.

(247) The Manifestations of Tumours of the Motor Region of the Brain.

Duret (*Rev. de Chir.*, No. 3, 1904), in the introduction to an important contribution on cerebral surgery, points out that the manifestations of tumours of the Rolandic region have especial interest from the facts that with regard to topographical diagnosis, on the one hand, they present a character of reliable precision, and, on the other hand, they can, as a rule, be readily determined. Up to the present time surgical interventions have for the most part been practised in this region. In a

table of successful cerebral operations prepared by the author, out of 344, 214, or 63.52 per cent. were performed in the motor region. The evolution of Rolandic tumours, when effected without complications, presents in most cases several distinct phases, which, however, are not always separated by regular intervals. There are, it is pointed out, the phases of spasms and convulsions, of paralyses and contractures, and of muscular atrophy, any of which may be associated with sensory disturbances. A study of the clinical records of tumour of the motor region will, it is stated, reveal the remarkable fact that during an interval often very long and extending over several months, and even years, general disturbances are either quite absent or are limited to occasional attacks of headache or of convulsions. This the authors regard as a favourable condition, of which advantage should be taken in the interest of the patient. The medical attendant should endeavour, by studying the characters of the convulsive attacks and their localization, to make an early diagnosis, and not to wait, if he can possibly avoid any delay, for the appearance of papillary oedema, of vomiting, of vertigo, and other indications of general disturbance. The subjects of Rolandic tumour retain their intellectual faculties for a long time, and the psychical weakness accompanying the convulsive attacks is usually of brief duration. Except in cases of deep-seated, widely-diffused, and rapidly-growing tumour, cerebral torpor usually comes on gradually after repeated epileptic attacks, in an advanced stage of the affection, and when the growth has acquired a considerable size. After dealing at some length with the general indications of Rolandic tumours, and with the special signs of (1) small and superficial growths of the meninges; of (2) growths of the superior Rolandic region and the paracentral lobe; and of (3) growths of the middle and inferior regions, the author discusses the symptoms of large tumours which involve several departments of the motor zone. In conclusion, it is pointed out that the wide extent of the region involving the cerebral hemispheres, that is occupied by the sensory-motor region, accounts for the clinical fact that the manifestations of tumours there developed present great variety and very diverse characteristics. In order to obtain a satisfactory diagnosis, it is necessary for the physician not only to study with care the different motor and sensory symptoms which reveal a growth, but also to consider their date of appearance, their order of evolution, their relations with the topography of the cortical centres, and, moreover, to bear always in mind that the sensory-motor disturbances may have some other origin than that of tumour, which origin fortunately may be made out by attention to certain special symptoms in relation with the region to which they are referred.

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(218) Prevention of Post-operative Abdominal Hernia by Overlapping of the Aponeuroses.

Winslow (*Ann. of Surg.*, No. 2, 1904), assuming that the aponeurotic coverings are the chief supporting structures of the abdominal wall, and that approximation by overlapping, in doubling the strength of the aponeurotic layers, doubles the strength of the abdominal wall at the seat of incision, holds that it is advisable to employ this principle in closing abdominal wounds. The following description is given by the author of the technique practised for closing an incision made in the middle line, or one for attacking a diseased appendix or gall bladder. The integument and subcutaneous tissue are incised down to the aponeurosis, which is then laid bare by reflecting back the skin and fat for an extent of an inch and a-half on each side of the incision. The aponeurosis is next incised in the same line and directly beneath the skin incision, and two flaps, one on each side of the incision, are raised from the underlying muscle by blunt dissection, one flap of aponeurosis being freed for an inch or so from its cut margin; the other for about half that distance. The incision through the rest of the abdominal wall is then completed. When the wound is closed the peritoneum is approximated by a continuous suture. The muscular layers if well developed are brought together by interrupted sutures. Then the cut margin of the aponeurotic flap which was but slightly freed is stitched to the base of the opposing flap by interrupted or mattress sutures. The free margin of the opposing flap is lapped over the other flap and stretched down to its surface. The margins of the skin are then brought together in the usual way.

MIDWIFERY AND DISEASES OF WOMEN.

(219) Eclampsia.

Barton Cooke Hirst (*Proc. Penn. Co. Med. Soc.*, December 31st, 1903) gives the results of his experience of more than 100 cases of eclampsia. He says there are three points on which clinical experience throws light: etiology, the premonitory signs and the treatment, preventive and curative. In regard to etiology, he says it has been his experience that pregnant women with nephritis or with a hereditary predisposition thereto, almost invariably require active treatment to combat a gestational toxaemia, and usually a premature termination of pregnancy is necessary. There is nothing therefore in clinical experience to shake belief in insufficient renal activity as a cause of eclampsia, and we should hold fast to the lesson taught by many a bitter experience that nephritis in pregnancy is one of the gravest complications, demanding constant care and never to be regarded with indifference. Among the premonitory signs of eclampsia there is nothing comparable in value to the experienced physician, with albumen in considerable and increasing quantities in the filtered urine. It is true that a certain proportion of cases occur without precedent albuminuria, but their proportion is not nearly so large as one would infer from the report of sporadic cases with which recent medical literature is filled. In all his cases there were only two in which albumen was absent. In one of these the necropsy showed a chronic nephritis dating from an attack of scarlet fever five years before. In a recent report of 322 cases of eclampsia from the Charité in Bern albumen was absent in only 6. There is no other symptom of a gestational toxaemia and threatened eclampsia so constant and characteristic as this. The urea excretion is valueless in comparison. Pregnant women excrete anything from 3 to over 30 grams a day, but usually less than the normal 20 to 40 grams. He has repeatedly seen a very low output without the slightest disturbance of health, and occasionally a rapidly increasing toxaemia with an excretion of more than 30 grams. Any one who is ill-advised or inexperienced enough to attach much importance to urea elimination as a sign of gestational toxaemia or threatened eclampsia will be constantly making blunders in diagnosis and treatment. Casts other than hyaline should of course be looked for, but their quantity cannot be measured. It is a clinical rule, with few exceptions, that albuminuria precedes the other signs of gestational toxaemia, that the gravity of the woman's condition can be measured by the steady increase in the amount of albumen in spite of treatment, and a constant premonitory sign of eclampsia than we possess at present. The preventive treatment consists, as every one knows, of mild diet, diaphoresis, diuresis, and catharsis, with extra precautions against chilling the skin. The use of thyroid extract as proposed by Nicholson is still on trial. Increasing experience has forced Hirst to the conclusion that the rapid evacuation of the uterus is not the proper treatment. He is better satisfied with the treatment directed solely to the eclampsia without regard to the uterine contents until such a degree of dilatation of the os is secured spontaneously that delivery can easily be secured without violence. In antepartum eclampsia evacuation of the uterus is only indicated if, after the eclampsia is controlled, the patient's urine is persistently albuminous and filled with casts, or if other symptoms of gestational toxaemia continue to a degree that excites anxiety. In such a case it is better, if possible, to induce slowly by bougies or the Voorhees bags rather than to resort to a forced delivery. Meanwhile the eliminative treatment by diuresis, catharsis, and diaphoresis should be actively employed. It necessarily follows that any one holding these views cannot approve of Caesarean section for eclampsia. There is no treatment of the disease with such a high mortality except the pilocarpin treatment. One has a mortality of over 40, the other of over 60 per cent. As to the treatment of the convulsions, it is well understood that we must employ two sets of remedies: one to eliminate the poison, the other to quiet nervous irritability and muscular activity. It is generally agreed that normal salt injections, sweats, and purgation are the most reliable measures under the first heading. Diuretics during eclampsia are of no use, because the kidneys during the attack are practically non-existent as excretory organs. There is usually anuria or a scanty quantity of bloody, albuminous urine, in which, by the way, the percentage of urea is often

normal for a pregnant woman. Venesection should be classed among the eliminative measures; but after resorting to it almost routinely at first, he now rarely does so. Among the sedatives, chloral and opium dispute the field. Hirst confesses to a prejudice against the latter, because it antagonizes the eliminative treatment, and there is, it would seem, danger of fatal poisoning from the large doses required, in view of the inactivity of the kidneys. For the relief of the arterial tension and spasmodic contraction of the arterioles we have always used veratrum viride. An experience of twenty years with it confirms the good impression originally conceived. Finally, he urges the advantages of treating eclampsia in a well appointed hospital. Nothing is more disheartening than the inadequacy of this treatment observed, in consulting practice in private houses. If cases of eclampsia were transported in an ambulance without delay to a hospital well appointed for their treatment and with a staff thoroughly drilled in the management of such cases, the mortality could be kept at or under 13 per cent., which is less than half what it is in private practice. In other words, a patient would have more than double the chance of recovery that she has in her own home.

(250) Rectal Fistula after Vaginal Hysterectomy.

Kamann (*Zentralbl. f. Gynäk.*, No. 5, 1904) reports that Strassmann operated successfully for a very high recto-vaginal fistula, the result of a total extirpation of the uterus undertaken seven years earlier. No less than nine attempts had been made to close the fistula; it opened high in the rectum above the dilatation, which was dragged forward by the cicatricial process so that a large diverticulum had developed. Strassmann dissected away the fistula and then made a long incision, beginning in the anterior vaginal wall just in front of the hysterectomy scar, and carried downwards along the left side of the vaginal wall to the same side of the anus. The vagina was dissected from the rectum, the hysterectomy scar from the bladder, and the bladder from the higher part of the large intestine in the pelvis. The rectum was next set free from its attachments to the left side of the pelvis and its diverticulum resected. The bowel was closed with silk sutures tied on the inner side after the muscular and fibrous coats had been sutured separately with catgut. The vaginal incision was then sutured with silk. The rectum was attached to the left side of the pelvis by catgut. The lower part of the long incision involving the perineum was not completely closed with sutures, whilst the big pararectal wound was drained with sanoform gauze. The rectum healed thoroughly.

(251) Primary Cancer of Vulvo-vaginal Gland.

Von Ferisch (*Monats. f. Geb. u. Gyn.*, January, 1904) reports a case of this rare condition under his own observation, adding references to the few earlier cases recorded in medical literature. His own patient was 77 years old, and had enjoyed perfect health until three years before observation. She had borne eight children, and the menopause had set in at 50. A mucous discharge set in when she was 74, and soon a swelling was noticed in the vulvar cleft. The discharge grew fetid. There was a very granular mass of the size of a walnut attached to the right side of the vulvar orifice posteriorly; it was covered with transparent mucus, which welled up again directly it was wiped away. There was enlargement of the inguinal glands on both sides. The vagina and uterus were healthy. As the patient had emphysema and arterial sclerosis local anaesthesia was employed when the tumour was removed with the right labium minus. Microscopically, the new growth resembled a papilloma of the bladder, and was seen to arise from the duct of the vulvo-vaginal gland. The glandular tissue of that structure had entirely disappeared as a normal result of senile atrophy. There were distinct evidences of inflammatory changes in the new growth itself, including a small suppurating focus. The surface of the tumour was ulcerated. Hence the enlargement of the inguinal glands seemed largely due to inflammation rather than to infection. The patient recovered from an attack of bronchitis and pleurisy during convalescence after the operation, but no further after-history is published.

THERAPEUTICS.

(252) The Treatment of Ozaena with Paraffin.

Since Gersuny introduced injections of hard paraffin into the subcutaneous tissue for the filling up of defects in the scrotum, in the palate, etc., the uses of these injections have been considerably extended. Among the conditions for which it has been employed one finds the atrophic form of rhinitis with ozaena. H. Fliess says that inasmuch as there is a connexion between ozaena and abnormal wideness of the nasal passages he has tried the paraffin injections into the inferior turbinated, in order to narrow the passage and thus to influence the course of the ozaena (*Berl. klin. Woch.*, March 7th, 1904). The technique, he says, is very simple. He prefers to follow Eckstein's instructions, but chooses a longer needle shaped like a bayonet. The nasal cavity is first carefully cleaned from all crusts, then cocainized, especially in the region of the lower turbinated, the floor, and the septum. The syringe should have been prepared during the time which is used for preparing the nose, and as soon as the cocaine has acted sufficiently he injects the paraffin into that portion of the lower turbinated which shows the most atrophy. He finds it necessary to vary the procedure according to the conditions, but as a rule he succeeds in narrowing the nose sufficiently at one sitting. So far he has treated twelve patients in this way, and although he realizes that one cannot speak of cures, since the cause of the ozaena is not alone the enlargement of the nose, the results have been very satisfactory. He has obtained much more relief by this means than he has ever been able to get with any other form of treatment. He used paraffin with a melting point of from 50° to 52° C., because no case of pulmonary embolism has yet been observed with this, while with the softer forms having a melting point of from 36° to 42° C. severe and even fatal cases of embolism of the lung, of the central retinal artery, etc., have been recorded. From a symptomatic point of view the treatment yields the best possible results, and he recommends it for this reason.

(253) Theocin.

L. Alkan and J. Arnheim (*Therap. Monats.*, January, 1904) have tested the action of theocin and the similar preparation theophyllin, in order to find how far they replace the older diuretics such as diuretin, calomel, and digitalis, and how far they may be advantageously employed in combination with one of the latter. No difference was noted between the action of theocin and theophyllin. The following were typical examples of the results obtained. The first case was that of a man 72 years of age with general arterio-sclerosis, chronic interstitial myocarditis, much oedema and ascites; treatment by digitalis had been ineffectual. Three doses of theocin in all 0.6 gram, were given on the first day, with the result that the amount of urine excreted rose from about 400 to 6,500 c.cm. in the twenty-four hours. On the next day, although theocin was still given, only 480 c.cm. of urine were passed and no further substantial increase followed. After some days digitalis was again tried, this time with excellent results, and the oedema disappeared within three weeks. A different course of events was noted in the case of a woman suffering from chronic interstitial nephritis, myocarditis, and arterio-sclerosis, with oedema of the legs and ascites. Theocin was no benefit until the oedematous fluid had been removed by scarification and the heart muscle somewhat recovered itself. The use of theocin for the next six days resulted in an output of 1,200 c.cm. of urine a day instead of the 400 c.cm. which had been passed before; on the sixth day the amount diminished. The heart now reacted to digitalis, although the amount of urine passed increased only slowly. The treatment adopted was, therefore, to give, first, digitalis for several days, next theocin for one day, and so on. The amount of urine increased, and on the three days after the administration of theocin was 2,000 c.cm., 4,000 c.cm., and 3,000 c.cm. respectively. The patient was able to leave the hospital free from symptoms. A case in which theocin was absolutely useless was that of a man in whom the return of blood from the lower half of the body was obstructed by the pressure of a growth on the vena cava. In a case of large white kidney, where the illness was of a year's duration, administration of the sodium derivative of theocin resulted in an increase of the quantity of urine, but also in a large increase in the amount of albumen in the urine and of erythrocytes, that is, a fresh inflammatory process was set up. It would appear that theocin acts as an irritant of the healthy kidney tissue, and has no influence primarily on the heart or the pulse tension. With such a mode of action theocin succeeds or fails in cases

of dropsy, whether cardiac, hepatic, or renal in origin, according to the state of the kidneys. The best results are obtained in cases of chronic interstitial nephritis, where there is always some healthy kidney tissue to react to the drug. Its use should never be continued for more than one or two days at a time, and in the intervals digitalis, calomel, or diuretin should be given. In diffuse injury to the kidney from general or local obstruction, theocin acts only after the removal of obstruction by some other method, as by the use of digitalis or, as in the example above, by the removal of oedematous fluid. Should it be impossible, as in the third case described, to disembarrass the circulation, theocin is of no use. It is contra-indicated whenever there is diffuse injury to the kidney parenchyma following acute inflammation, and also in recent inflammation of the kidney, even although only slight.

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(254) The External Treatment of Psoriasis.

K. Herxheimer (*Deut. med. Woch.*, January 28th, 1904) deals with the external treatment of psoriasis, but points out that he does not mean to advise external treatment in the place of internal treatment with arsenic, but that he suggests it together with the latter. Of chrysarobin and pyrogallic acid, he says that both have disadvantages, and many patients know only too well how disappointing the results of these drugs are. He considered that it would be worth while studying the effect of oxidation of the part, and chose the peroxide of zinc as the most likely means of obtaining the result he desired. Unna had previously employed the peroxide of soda chiefly for acne and rosacea pustulosa, and claimed that it acted by depigmenting and by softening the skin. The former action is not possessed by the zinc compound, while the latter is. The zinc peroxide takes the form of a while crystalline substance, and is relatively pure from a chemical point of view. Herxheimer employs a fine and a coarse powder. The fine preparation is well suited for making into ointments, but fats may not be used with it. He generally makes it up as a 10 per cent. ointment with vaseline. The coarse powder is made into a 10 per cent. soap, and applied directly to the affected area. He found that 16 patients out of 30 treated as out-patients were cured; 7 of these also took arsenic. The average duration of the treatment was three months. Of 6 in-patients, 3 were cured and 3 much improved; the cured cases were under treatment for 30 days. It is at times advisable to combine the zinc peroxide treatment with a tar treatment, and for this purpose he has tried a new preparation called lithanthrol. To the zinc peroxide ointment he added 50 per cent. lithanthrol as well as smaller quantities (from 10 per cent.). Some cases were treated with lithanthrol without the zinc. His results in both were very satisfactory, and, although he owns that one needs more experience of the treatment before one can draw conclusions, he finds that his results compare favourably with other methods and have many advantages.

PATHOLOGY.

(255) Indian Cobra Poison.

A paper on the Action of Indian Cobra Poison, by Captain R. H. Elliot, I.M.S., was communicated to the Royal Society on February 25th. The object of the research was to ascertain the precise part played by the various important centres, nerves, and organs in the production of death from cobraism. His conclusions are summarized as follows: (1) Cobra venom acts directly on the muscular tissue of the blood vessels, or through their vasomotor nerve endings, constricting the arterioles, and thus raising the arterial blood pressure. It probably affects all organs alike. In the frog vessels the action can be traced down to dilutions of 1 in 10,000,000. In a cobra-bitten man the concentration of venom in the blood is probably at least thirty times as great as this. (2) Cobra venom also acts directly on the isolated frog ventricle, killing it in a position of firm systole, if the solution be concentrated, and stimulating it if a weaker strength be employed. The limit of the speedy lethal action on the isolated heart is reached at a concentration of about 1 in 500,000. The stimulating action can be traced down to a dilution of 1 in 10,000,000. This action of cobra venom brings it into line with the glucosides of the strophanthin group. Its action is more rapid than that of strophanthin, and is certainly not inferior to it in strength. Atropine sulphate and cobra venom, when acting in the same solution, intensify each other's action, and produce more summation of effect than one would have anticipated. This detracts from the value of the atropine salt in the treatment of cobraism and makes it a dangerous remedy. The blood-pressure work has confirmed this view of the case. (3) Cobra venom powerfully affects the isolated mammalian heart, when solutions of it are perfused through the coronary circulation. The action appears to be a dual one—namely, (*a*) a direct action on the muscular fibre, or on the nerve endings, closely resembling that which is produced on the isolated frog ventricle; and (*b*) an action on the intracardiac vagal mechanism, which makes for inhibition. Cobra venom interferes with the circulation through the heart in a marked manner; this is probably due (*a*) to a constriction of the coronary vessels, brought about by the direct action of the venom on the vessel walls, and (*b*) to the condition of tonus into which the heart is tending to pass. (4) When given subcutaneously in low lethal doses cobra venom kills by paralysing the respiratory centre. There is a gradually-increasing venosity of the blood, and in consequence thereof all the harmful results of slow asphyxiation are produced. By applying cobra venom directly to the exposed medulla oblongata of the rabbit, the respiratory centre can be paralysed without the phrenic nerve ends or the heart being appreciably affected. If very large doses of venom are injected death may take place by cardiac failure before the respiratory mechanism has given way. (5) Cobra venom, when given in low lethal doses subcutaneously raises the general blood pressure. In the asphyxia, convulsions which herald death a further steep rise of blood pressure takes place; this is soon followed by a sudden and very rapid fall to death. (6) Cobra venom, when injected in large doses, and especially when given intravenously, causes (*a*) a sudden fall of blood pressure, (*b*) a subsequent rise, provided the dose has not been too large, and (*c*) a final fall to zero. When the dose of venom is a very large one the direct muscular stimulation may be so intense as to overcome the maximum inhibitory impulse, and then the heart dies in systole with a quickened beat, and is found after death as hard as a contracted *post-partum* uterus.

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(256) The Koch-Weeks Bacillus.

McDill and Wherry (*Reports from Government Biological Laboratory of Manila*, No. 10, 1903) describe two cases of acute suppuration of the hand due to an infective organism which was found to exhibit the cultural characters of the Koch-Weeks bacillus or bacillus conjunctivitidis. The first case was that of a hospital surgeon who had previously been treating some cases of acute suppurating conjunctivitis, and had also operated on a case of leg infection which ended in septicaemia. The second case occurred in a nurse who lanced the doctor's hand and pricked her own finger during the operation. The clinical symptoms were severe in both cases, and the nurse's finger required amputation owing to the incidence of gangrene. Great difficulty was found in obtaining the first culture, as the organism would not grow upon ordinary media; but at length success was obtained with ascitic fluid agar. It was then subcultured with ease upon ordinary media. From its similarity of behaviour upon culture media, its staining reactions, and its morphological characters, the authors believe that the organism is identical with or closely allied to the Koch-Weeks bacillus.

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(257) Tubercle Bacilli in Milk.

Lydia Rabinowitsch (*Zeits. f. Thiermed.*, Bd. viii, 1904, p. 202) reviews recent literature on the controversy as to the infectivity of milk obtained from tuberculous cows. She maintains her opinion, previously expressed at the London Tuberculosis Congress, that cows which react to tuberculin may secrete tubercle bacilli in their milk without there being any clinical indications of udder disease. Various authors have investigated the question by testing, with the aid of animal experiments, the milk of cows which reacted to tuberculin but had no disease of the udder. Their results are at variance with one another, some authors maintaining whilst others deny the danger of infection. In criticizing the experiments which gave negative results Rabinowitsch points out the fallacy which may arise through inoculating too small a number of animals or animals which are not highly susceptible. Stenström, for example, obtained negative results from animal experiments with the milk of 50 tuberculous cows; but he only inoculated 83 animals altogether, and 50 of these were rabbits. Moreover, though a cow may secrete tubercle bacilli in its milk, their presence is not constant but varies from day to day.

AN EPITOME OF CURRENT MEDICAL LITERATURE.

MEDICINE.

(258) Early Treatment of Acute Nephritis.

De Rossi (*Il Policlin.*, February, 1904) describes and justifies Baccelli's treatment of acute nephritis in its earliest stage. The essential points in the treatment are bleeding from the foot and a restricted diet, with the free administration of distilled water. The amount of bleeding recommended is 300 c.cm. or more for an adult, and proportionately less for a child. If necessary, this may be repeated on the same day or on later days, the operation being performed in some cases as often as four times. This treatment is advised on the ground that in all severe cases of nephritis a venous stasis in the kidneys plays an important part. It is this which makes the elimination of toxic substances difficult, and, by injuring or destroying the renal epithelium, prevents recovery. The blood is to be taken from a vein in the foot, on the ground that the greater the distance between any organ and the vein from which blood is drawn the greater is the relief afforded to the organ. Bleeding in this affection was recommended by Bright and other authors at a time when it was a more fashionable therapeutic measure than now, and fell into disfavour along with bleeding for other phlogistic diseases. There have always been those who recommended bleeding as a treatment of uraemia; but this is quite a different thing from Baccelli's treatment, which is based on a consideration of the special circumstances of the circulation through the kidney, which are such as to expose the renal epithelium to irreparable injury if congestion be not quickly relieved. The treatment cannot be begun too soon, and is useless if delayed till the epithelium has been destroyed. Baccelli denies that the loss of such an amount of blood as he removes can exercise a debilitating effect on the patient. He rejects the suggestion that congestion should be reduced by nephrotomy, considering that too dangerous an operation. His method has been in use for some years in the Royal Medical Clinic at Rome, and has given very good results, being especially attended in most cases by a well-marked and immediate diminution in the amount of blood in the urine. Any good results which can be obtained by cupping or leeching the lumbar region he claims as an additional proof that his measures will do still more good. In opposition to Senator, who advises local bleeding for the relief of very severe pain, and for that only, he argues that such pain can only be relieved by relieving the renal congestion, and therefore any measure which relieves pain must promote recovery. Baccelli's second maxim—that large doses of distilled water are to be given with a milk or milk and hydrocarbon diet—was enunciated many years ago, on clinical grounds, and has been justified by recent researches into the action of neutral salts in cases of oedema. Widal and Javal found that, without making any other change in diet or treatment, they could increase or diminish oedema at will by suddenly increasing or diminishing the amount of sodium chloride administered. Achard increased the amount of pleural effusion in a patient with heart failure by giving a large dose of sodium chloride. Strauss has pointed out that a large excretion of the same salt forms part of the polyuria which sets in when cardiac compensation is re-established by means of drugs after a long period of insufficient action of the heart. Baccelli's treatment is also sustained by the results of Loeper's researches into the effect on the excretion of water of liquids with different osmotic tensions. He found that hypotonic solutions quickly produced polyuria with the excretion of substances dissolved in the blood.

(259) Urticaria in Childhood.

The frequent occurrence of urticaria in early childhood, its chronic course, frequent relapses, and difficulty of treatment make it a subject of importance to children's doctors. B. Bendix (*Deut. Aertze Zeit.*, January, 1904) describes a case in which acute urticaria with oedematous swelling of parts of the face invariably followed the ingestion of an egg. The child when first seen was 13 months old, and had typical urticaria on the chin and cheeks and oedematous swelling of the eyelids. The skin over the rest of the body was unaffected, and except for slight signs of rickets the child was healthy and well developed. The mother stated that the eruption had first appeared, when the child was 4 months old, after she had given him egg albumen as treatment for intestinal catarrh. He had a second similar attack from the same cause when he was 7 months old, and the mother began to suspect the egg albumen as the cause, because between the attacks he had never tasted an egg. When he grew older and the milk diet began to be occasionally varied by an egg it was found that urticaria always followed in whatever form the egg was given. Bendix found on three occasions that the reaction followed the administration of an egg in five, seven, and eight minutes respectively. On the last occasion the whole face became covered with typical wheals, the eyelids were swollen so as to half close the eyes, and the conjunctivae were injected. There was much itching. The attack only lasted for a quarter of an hour. To prove that it was caused by absorption from the intestine egg albumen was rubbed on the skin and gave rise to no reaction. The child was able to take the albumen of milk or meat without trouble. Cases in which acute urticaria has followed the ingestion of a sound egg are very rare, but Baginsky gives two examples, both occurring in young children. These cases suggest the possibility that eggs may be harmful in the diet of adult patients suffering from urticaria, and that they should be forbidden absolutely at first and only gradually returned to. The author has adopted this treatment for two chronic cases with success. The only local treatment he now employs for urticaria is the use of an ointment of which anaesthesine and menthol are the chief constitutents, usually in equal parts. The ointment is applied after the child has been first bathed and rubbed with acetic acid and the skin allowed to dry. The itching diminishes in a few hours, and the swollen and reddened places dry up. Medicinal treatment by salicin, antipyrin, and calcium chlorate is adopted to prevent a fresh attack, and should these measures fail a course of treatment at Carlsbad or Kissingen may be tried.

(260) Typhoid Fever with Arterial Complication.

Steiner (*Amer. Journ. Med. Sci.*, February, 1904) reports a case of typhoid fever with an arterial complication, which was probably an arteritis. After reference to previously reported cases in which the symptoms were attributed to thrombosis, he suggests that, as some of the cases were in young patients with ultimate complete recovery, an arteritis only existed, as would seem to have occurred in the instance recorded. A boy, aged 9, complained of headaches and general *malaise*, which ultimately necessitated his going to bed. On examination, about a fortnight after he first complained of feeling ill, his temperature was 101.8° and his pulse 100, and there was a systolic apical cardiac murmur extending upwards and heard loudest over the pulmonic area. No rose spots were present, and there was no abdominal distension, though palpation elicited pain generally and not localized. Widal negative. The following day abdominal distension occurred, followed by rose spots, and the spleen became palpable. On the twenty-second day of the illness a relapse occurred, accompanied by a fresh crop of rose spots and marked bronchitis. Fourteen days later he became delirious, with a small thready pulse, which recovered under treatment, and in four days his temperature was normal. After an interval of two days, on the forty-first day of his illness, he complained of numbness and tingling in the right index finger, and on the following day the right radial pulse was distinctly smaller in volume than the left, while pain radiated along the course of the brachial artery, though there was no swelling or tenderness on pressure. The next day the pulse in the right radial, brachial, and axillary arteries was absent, and the vessels could be felt, the overlying skin being somewhat swollen and inflamed. The right upper extremity was colder than the left, and the hand and fingers became blue and cyanotic, giving fears of gangrene. With the exception of a return of the axillary pulse, the condition remained stationary for about two days, during which the temperature showed a slight evening rise, but at the end of this time the temperature rose, and two days later reached 105.2°, with a fresh crop of rose spots and intense delirium. During this period coarse mucous *râles* were present over the whole of the right lung, and a systolic murmur, loudest at the aortic area, was detected. For the next few days the patient seemed almost moribund, but on the fourth day the delirium ceased and improvement began. It was not, however, until the thirty-fifth day after the onset of the arteritis that returning pulsation in the right radial and brachial arteries was

noted, and three days later no difference between the right and left side could be detected. Urinalysis was negative throughout. The author regards the arterial complication as one of the peripheral arteritides, since the complete re-establishment of radial and brachial pulsations is against the view of thrombus formation, while the delirium is accounted for by the second relapse.

SURGERY.

(261) Method of Incision of the Abdominal Wall in the Performance of Laparotomy.

A. J. WALLACE (*Journ. of Obst. and Gyn. of the Brit. Emp.*, December, 1903) reviews the different incisions of the abdominal wall used in the performance of laparotomy. The attempts at improvement made of late have been in the direction of varying the methods of closing the wall, the linea alba still remaining the site of incision, although the fact that the normal linea alba is often found in parous women to be expanded and thinned points to its being naturally a weak part of the wall, and one, therefore, to be avoided if possible when making an incision. Moreover, the present method of suturing the edges of each component layer of the abdominal wall separately to one another is not in itself an adequate protection. It is difficult to secure accurate apposition of the edges; inversion frequently occurs, and tags of fat are often caught between the edges as the sutures are tightened. Still more important is it that the resulting cicatrix does not differ practically from that obtained by mass suture. A cicatrix is efficient only when its continuity is interrupted by the interposition of intact muscular fibre to support and protect fascia weakened by incision, and when there is no interference with the freedom of movement possessed originally by each separate layer. Wallace recommends the following procedure: A skin incision is made about 1 in. from the mid-line on one or other side. The sheath of the rectus is cleanly exposed and all bleeding points ligatured. The sheath is then opened about $\frac{3}{4}$ in. from the linea alba, the opening enlarged to the needful extent vertically, and the inner half of the sheath separated, first by the handle of the scalpel and then by the fingers, from the underlying muscle. At this stage the patient is placed in the Trendlenburg position. The rectus is drawn outwards to expose the posterior sheath, and which, with the peritoneum, peritoneum, is incised. The wound seldom needs to be enlarged, as the rectus can be drawn aside, but should a long incision be necessary it is made slightly crescentic in shape with, its concavity directed inwards in order to preserve the relations of the skin and fascial incisions to the inner border of the rectus. During the operation the peritoneal edges are carefully clamped to those of the skin. In closing the wound a continuous silk suture is used for the posterior sheath, a small drainage tube being inserted when the sheath is almost closed and while the patient is brought to a horizontal position, to enable air to escape. The median edge of the rectus is attached to the inner border of the sheath by one stitch or two, the anterior sheath closed by a continuous suture, and the skin edges brought together by a continuous subcuticular iodized catgut suture. To prevent haemorrhage a flat sandbag, whose weight varies from 6 lb. to 9 lb. according to the amount of fat in the abdominal wall is placed over the dressings and kept in position for twelve hours. When drainage is needed a slight modification of the above procedure enables a glass tube to be inserted, but for the most part in such cases Wallace has employed a gauze drain passing externally per vaginam. He has employed his incision in forty-eight cases for the pathological conditions usually found in the female pelvis. The cases chosen have been clean at the outset, for the risk of infecting extensive connective tissue planes would be too great to justify its use in cases known to be infective before opening the abdomen. Up to the present time there has been no failure, even where suppuration has occurred, and no patient has subsequently needed to wear an abdominal belt. Pfannenstiel has recommended a transverse incision of the anterior sheaths of both recti. His method is good, but has the disadvantage of wounding the linea alba. When modified so as to leave this intact, Pfannensteil's incision is admirably adapted to the performance of ventrifixation of the uterus.

(262) Fissure of the Tibia.

SCHLATTER has recently demonstrated by means of radiography the true nature of a hitherto unsuspected lesion of the knee. Frequently pain in the right knee and limping is due to a fissure of the tibia. E. Weber (*Rev. Méd. de la Suisse Rom.*, November 20th, 1903) describes such a case. A boy, aged 14, had complained for several days of pain in the right knee, which was not severe, and caused a scarcely perceptible limp. The pain was aggravated by attempts to run, prolonged walking, and contraction of the quadriceps extensor. There was localized tenderness over the anterior surface of the right superior epiphysis of the tibia, and especially over the tubercle, to which is attached the ligamentum patellae, which was slightly more prominent than the left tubercle. The insidious onset, the localization of the pain and swelling over the tubercle, its aggravation by contraction of the quadriceps, and the retention of the power to walk were together characteristic of fissure of the superior epiphysis of the tibia. This fissure is vertical, and runs from below upwards and backwards behind the tubercle, which belongs to the upper epiphysis, and is thus separated from the diaphysis. To appreciate its direction radiographs should be taken in profile. It occurs chiefly between the ages of 12 and 17, and usually as the result of muscular effort, which is not necessarily violent, or more rarely of direct injury. The lesion is almost invariably mistaken for inflammation of the bursa under the ligamentum patellae, or for tuberculous periostitis or osteitis, especially as the slight difficulty in walking persists, unless the nature of the lesion is recognized, for weeks or months. The treatment consists in immobilization of the limb; recovery is then rapid and complete. The lesion appears to be common, as a number of cases have been diagnosed since the appearance of Schlatter's paper in the *Beiträge zur klin. Chir.*, Bd. xxxviii, fasc. 3.

MIDWIFERY AND DISEASES OF WOMEN.

(263) Injury to Child's Eyes in Difficult Labour.

IN a paper published in the *Transactions of the Ophthalmological Society*, vol. xxii, W. Ernest Thomson (Glasgow) records three cases in which injury of the cornea was caused in infants during difficult labours and delivery with forceps. At first there was subconjunctival ecchymosis and opacity of the cornea, and after a few weeks the haze became less, and finally showed only as a white linear scar extending obliquely across the cornea. The first case was seen a year later, and although the scar was distinctly visible, yet it was not so dense as it had been. In the next volume (xxiii), of the *Transactions* this subject is dealt with in an exhaustive paper by Thomson and Leslie Buchanan, and after examining much material they come to the conclusion "that almost anything is possible in the nature of injury to internal structures." The literature of the subject is fully entered into, and the clinical history of six cases they have been able to observe is given. They recognize traumatic keratitis in three forms: (1) indeterminate in shape and position, due to oedema of the cornea; (2) is due to the formation of scar tissue, and follows a rupture of the posterior elastic lamina, and sometimes of the corneal laminae themselves, these remaining more or less permanent: and (3) an intermediate condition between these two, in which there is oedema with inflammation following it in some instances, while in others there is in addition a stripping off of the posterior elastic lamina, which gives rise to a diffuse opacity which is permanent. As the result of very great pressure such as that exerted in craniotomy, the lens and vitreous have been found to be retroverted, and the eyeball has been known to be extruded.

(264) Does Lithopaedion Demand Operation or Expectant Treatment?

LOMER (*Zentralbl. f. Gynäk.*, No. 7, 1904) discussed before a German medical society a case which had been under his observation for over fourteen years. Three years earlier Staude had operated on the patient, opening the peritoneal cavity; he detected the tumour, closely covered in by multiple adhesions and apparently irremovable; but it appeared that he also detected a tumour that was renal, or at least, certainly retroperitoneal. Diagnosis was not clear, but afterwards the tumour assumed the characters of a lithopaedion. Under Lomer, the patient frequently consulted him for occasional attacks of peritonitis. On the whole, the patient's health was fairly good, and she refused operative interference from first to last on that account. The circumference of the abdomen was $35\frac{3}{4}$ in. in 1890, 41 in. in 1896, and once more just under 40 in.

1903. There was some discussion as whether adhesions around sacs did ot break down, or at least, soften in ourse of time. Lomer admitted this ossibility, but since Staude's operation ere had been repeated attacks of peri-nitis, so that adhesions were probably nser than ever. Lomer admitted that e Roentgen rays could not be success-lly used, as the tumour followed osely the respiratory movements. bsolute certainty of diagnosis re-ained to be determined.

(265) Hypertrophy of the Fetal Thyroid.

. E. Fothergill (*Journ. of Obstet. and yn. of the Brit. Emp.*, January, 1904) eports a case of hypertrophy of the tal thyroid with maternal eclampsia. ie case is an example of the use of yroid in the management of eclampsia id as being one of five recorded in-ances of hypertrophy of the fetal yroid following the administration of tassium chlorate to the mother iring pregnancy. The patient was a out woman, 37 years of age, of gouty cestry. She had suffered from re-ated abortions, and during the preg-ncy in question potassium chlorate is given on the hypothesis that the ortions had been caused by placental rombosis. Slight swelling of the nds and feet occurred in the eighth nth of pregnancy, and 0.2 per cent. of oumen was found in the urine. The tient was ordered to rest, to have getarian diet, and to take 10 gr. of yroid substance daily. The condition proved, but later, after an unsuitable eal, headache and vomiting set in. uria followed, and the patient finally d two prolonged eclamptic seizures d became comatose. The anuria per-ted for two days after the seizures; the first day nine 5-gr. tabloids of yroid were given and on the second ven tabloids. Urine was then passed. bour began on the following day, a all female child being safely de-ered. The child was alive at birth, t died after a few minutes from the sence of a large solid tumour, com-sing the whole thyroid gland. The ther suffered from complete anuria twenty-four hours after delivery, l took during this time 30 gr. of roid. She then passed urine and condition steadily improved, becom-normal in a few days. After his perience in this case the author would e thyroid substance an extended trial the auto-intoxications of pregnancy. e case is a good example also of the -obstetric treatment of eclampsia, l because it may be reasonably sup-ed that patients have at times suc-nbed to the combined effects of ampsia and *accouchemement forcé* who uld have survived eclampsia alone, author would use the artificial in-tion of labour as a preventive asure, but not when convulsions or na have supervened. On examining fetal tumour all the elements of the roid were found to be hypertrophied l the gland to be about seventeen es heavier than normal. From the ords of the administration of assium chlorate during pregnancy it y be stated that: (1) In many cases habitual abortion continuous ad-nistration of small doses of potassium orate is frequently followed by the extension of pregnancy to its normal limit. (2) Microscopic examination of the abortive ova expelled by these patients shows that the death of the ovum is due as a rule to extensive thrombosis within the intervillous spaces. (3) Large doses of potassium chlorate are known to produce destructive changes in the blood, the therapeutic use of the drug having occasionally caused death in this way. The conditions under which hypertrophy of the fetal thyroid followed the administration of potassium chlorate to the mother in five instances are not understood.

(266) Menopause at 19.

Hartmann (*Comptes Rendus de la Soc. d'Obstét. de Gyn. et de Paed. de Paris*, January, 1904) describes a remarkable case. The patient was an artist's model, aged 24. At 15 the catamenia appeared and were regular; six months later she cohabited and the period ceased for four months, so that pregnancy was suspected, but they returned and became regular, painless, and scanty, as before, lasting only for a day. When the patient was 19 they ceased abruptly. In the course of the next year she was troubled with flushings, replaced a year later by attacks of sickness when she lowered her head. When 22 the gastric symptoms ceased, and painful periodical swellings of the breasts occurred. These attacks ended within a year, and since then the patient has had no local or constitutional troubles. The uterine body was found to be ill-developed, otherwise there was no abnormal condition in the genital tract or elsewhere.

THERAPEUTICS.

(267) Hetol in Tuberculosis.

G. Brasch (*Deut. med. Woch.*, February 25th, 1904) considers that in hetol we have the best method of treating tuberculosis known up to the present time. He has employed it in some 52 cases, and these he divides into four classes (after Landerer): First, patients with moderately advanced lung changes, without fever, and with fairly good body nutrition. Of these he had 28 patients, and claims that 9 have been completely cured, 8 have been so far improved that they can follow their employment (*Wirtschaftlicheheilung*), 7 were only under treatment for a short time, and have not been followed up, and 4 are still under treatment. Of the 8 improvements, he says that he is sure that they might have have been cures, had the patients not discontinued the treatment so soon. The second group includes advanced lung changes with cavity formation, reduced body nutrition, but no fever; of these he treated 7, 1 of which is completely cured, and 4 *Wirtschaftlichegeheilt;* 2 interrupted the treatment. The third group includes cases with advanced lung signs, continuous fever, and very reduced nutrition. Of these he treated 8; 1 was improved, 1 was not improved, 1 died, and 5 discontinued the treatment. The fourth group includes those cases generally known as "galloping consumption." He improved 1, 1 was discharged unimproved, and 7 died. He found that even tuberculous laryngitis was healed up at times by the hetol treatment. The difficulty in the treatment appears to be that a certain amount of skill is required to carry out the intravenous injections correctly. Hetol is put up in tubes containing 1, 2, and 5 per cent. solutions, all properly sterilized and ready for use. Each tube contains 1 c.cm. of the solution. The syringe must be kept for the purpose, and may not be used for anything else. It is best kept in sterile water in some suitable vessel, and the needle in alcohol. The technique is easily learned, and when the injections are properly carried out there is no danger. He has injected hetol more than 6,000 times, and has not made one bad experience. At first one gives 1 mg.—that is, $\frac{1}{10}$ of a c.cm. of a 1 per cent. solution. The injections are carried out three times a week, and the temperature is taken regularly three times a day. The dose is increased by $\frac{1}{2}$ to 1 mg. until 10 mg. are reached. At times he went up to 15 mg. or even to 20 mg., but this is seldom necessary. The injections can be carried out in the consulting room, and the patients can go to their business immediately after. This, of course, applies to feverless patients. The symptoms rapidly disappear, and the patients soon much improve in general health. Weight is gained early. He warns one not to use a bottle of hetol solution after it has been open for any time, but always to use fresh bottles.

(268) Infusion of Birch Leaves as a Solvent of Renal Calculi.

Infusion of birch leaves has been recommended by Winternitz as a bland diuretic, Jaenicke (*Zentralbl. f. inn., Med.*, April 2nd, 1904) states that its diuretic action is unimportant, but that it is a good solvent of renal calculi. In one case an eminent surgeon had decided to operate, and the presence of calculi had been demonstrated by radiography. For two years the man had had pain in the left side which radiated downwards to the sacrum and forwards to the thigh. The urine became turbid and there was occasional haematuria. Treatment by mineral waters and drugs was useless. Later renal colic appeared. Before consenting to an operation the patient consulted the writer. About 35 oz. of urine were passed in the twenty-four hours. It was acid turbid, yellowish-white, and occasionally haemorrhagic. On standing a grey or reddish-grey sediment appeared, which consisted of pus cells, urates, renal epithelium, and a few hyaline casts. There was from 3 to 5 per mille albumen. A cupful of infusion of birch leaves was ordered to be taken twice daily, and Lig. ferri perchlor. was given to combat the haemorrhage. A generous meat diet with sometimes a small amount of wine was substituted for one which consisted chiefly of milk. Six weeks later the general condition had improved, the attacks of colic were less severe and less frequent, and the strangury was scarcely noticeable. The condition of the urine was practically unchanged. But after another six weeks the general condition was excellent. No severe attack of colic had occurred for some time, and the urine was in all respects normal. There was

neither pain nor strangury, and the patient could go for long walks without inconvenience. He has remained in good health ever since (about nine months). A radiograph recently taken gave no indication of renal calculi. The patient stated that after he had taken the "tea" for some time the stone began to be dissolved and was passed in the urine in fragments, some of which were of the size of peas. Later only rough sand was passed. He gained 12 lb. in weight. The birch leaves should be collected early in summer and dried. A heaped teaspoonful of the powdered leaves is infused for five minutes in about 9 oz. of boiling water. The infusion is then boiled for five minutes and strained. This quantity is freshly prepared and taken twice daily, before breakfast and at 5 p.m. It should be taken continuously for six months and then during alternate months for some time. The writer claims to have cured many cases of renal calculi by this means.

(269) Cephalopin.

SCIALLERO (*Rif. Med.*, January 27th, 1904) describes certain experiments with an oily extract of cerebral substance. There are objections to the glycerine extracts. The author found that the same effects were produced by oily solutions of cerebral substance as by the cerebral substance itself; and that chemical examination gave corroborative results. Perhaps the most definitely ascertained action of cerebral substance is its antispasmodic action. So, too, it was found that an oily extract materially lessened the effects of strychnine in patients. Whilst the ordinary extracts in doses of 1 c.cm. contained 300 antistrychnine units, ½ c.cm. of the oleous cephalopin contained 900 antistrychnine units. A dose of 2 c.cm. of cephalopin rendered many animals immune against a fatal dose of strychnine even when inoculated one or two days after. Clinically it seems most likely to be of use in neurasthenia, hysteria, tic, chorea, and epilepsy. In seven cases of epilepsy treated with 1 to 5 c.cm. the results appear to have been encouraging, and no ill-effects were reported.

(270) Fetron Ointment.

O. LIEBREICH (*Berl. klin. Woch.*, March 21st, 1904) states that the medication by ointments has been more or less saved and placed into scientific safety by the study of lanolin. The quality of the vehicle of an ointment is a matter of great importance, and while ointments meant to be absorbed are usually made up with lanolin, those which are meant to protect the surface are made up with vaseline. Fetron, which Liebreich has recently introduced into medical practice, takes a midway position between these two named vehicles, and, while it has a certain resorptive faculty, its high melting point and other chemical properties render it more valuable than vaseline as a protective. The esters of fatty acids with three atomic alcohols have the character of very readily becoming rancid; while those combinations of non-atomic alcohols with certain fatty acids do not possess this quality. Liebreich mentions a number of these compounds, which he states have not been introduced into "ointment therapy." Of these compounds he found that stearinic acid-anilid is one of the most staple of all, and is not even decomposed after prolonged boiling in watery alkalies. When mixed with paraffin or vaseline the melting point is actually raised. He therefore mixes American vaseline with 3 per cent. of the anilid, and the resulting mixture has a melting point of between 65° and 70° C. This mixture he calls fetron. Fetron possesses a fair capability of taking up water, which is necessary when one wishes to include aqueous solutions of drugs, and this can be materially increased if one adds some anhydrous lanolin. Liebreich has employed fetron in combination with a large number of drugs, and states that the results obtained in practice were absolutely satisfactory. He recommends the use of fetron to all dermatologists.

(271) Pyramidone in the Treatment of Sciatica.

BOCCHI (*Gazz. degli Osped.*, January 10th, 1904) speaks favourably of the above drug in the treatment of sciatica. Pyramidone is a derivative of antipyrin, being a dimethyl-amido antipyrin. It is a crystalline, yellowish-white powder, almost tasteless and soluble in water (1 to 10). The usual dose is 25 gr. to 30 gr. The author used a syrupy solution of 1 gram in 100 and administered four to five spoonfuls of this per diem. No ill-effects were observed and in the 10 cases where it was administered, very distinct relief was obtained.

PATHOLOGY.

(272) The Minute Structure of Negri's Bodies.

G. VOLPINO (*Gazz. Med. Ital.*, March 31st, 1904) refers to his previously-expressed opinion that the bodies described by Negri in cases of rabies are not parasitic protozoa, because they have no nuclei, show no reproductive forms, give no evidence of protoplasmic structure, and have a great affinity for eosin and picric acid. Moreover, he has never succeeded in reproducing experimentally the bodies of Negri in animals experimented upon by him. He now describes the bodies as special dispositions of hyaline substance produced by the action of the virus in the protoplasm of the nerve cells—involution forms due to the specific action of parasites contained within the bodies and now first described by himself. He does not propose to publish a complete description of his methods of histological examination until they have been perfected. The bodies of Negri are round or elongated formations containing small masses. In very thin sections it is possible by a special method of coloration to see inside these contained masses very minute corpuscles. Using the ferric haematoxylin stain, in a special manner which Volpino does not explain, one sees that the formations described by Negri inside his bodies appear uncoloured like clear spaces. Inside each of these clear spaces are large numbers of minute corpuscles. Colouring the sections with a mixture of methyl-blue and eosin in a manner not yet described, one sees these corpuscles of an azure colour, whilst all the remaining substance, forming the groundwork of Negri's bodies, is coloured red. Thus the minute corpuscles are clearly distinguished from the rest of the bodies. They are of very various forms, rod-like, punctiform, rounded, and annular. Assuming the specificity of Negri's bodies, and being satisfied for the reasons mentioned above that they are not protozoa, the author considers it extremely probable that these minute bodies described by himself are the real infecting elements of rabies. Such a fact would be in keeping with what, from filtration experiments, we already know of the very small dimensions of the infecting agent in rabies.

(273) A Case of Acro-hyperplasia.

UNDER the above title, Arnone (*R. Med.*, March 30th, 1904) describes a peculiar form of gigantism affecting the extremities only. The patient was 7 years old, and presented an abnormal length of digits in both upper and lower extremity—for example, the three phalanges of the right index finger measured 5.8 c.cm. in length, and similar for all the other phalanges. The fingers and toe were not only exceptionally long but also slender and tapering. The limbs were fairly well developed. There was some scoliosis of the spinal column from the fourth dorsal to the fifth lumbar vertebra, and the skull presented dystrophic stigmata (marked dolicocephaly, frontal bosses, and marked depression behind the fronto-parietal suture). In other respects the child was healthy. There was a well-marked history of syphilis in the father. Syphilis, it is well known, may be a cause of gigantism, and is probably a chief cause in the local gigantism which this child presents acting by influencing the growth of the germinal buds. The author enters fully into the possible mode in which the result before us is brought about by syphilis or by other toxic agents, but syphilis is by far the most potent of those hitherto recognized. Photographs and radiographs are given to illustrate the case.

(274) Neutralization of Toxins.

HUEPPE, in a critical article (*Festschrift zum sechzigsten Geburtstage von Robert Koch*, Jena, Gustav Fischer, 1903, p. 463) on the action of antitoxins and their therapeutical application, expresses the view that the specificity of the body cells is the true ground for the specificity of toxin neutralization. This specific effect is therefore nothing more than the intensification of a natural and inherited property of the protoplasm in the tissue cells. Susceptibility to toxic infection is not to be regarded as the mere negation or absence of immunity, but as something of a positive nature. It constitutes the phase of incomplete development of the defensive mechanism, and an artificial advance to the stage of toxin neutralization is only possible as a further development of this hereditary receptivity in response to specific stimuli. Susceptibility and resistance to toxic infection are therefore correlative properties, and not independent of, or antagonistic to, each other.

AN EPITOME OF CURRENT MEDICAL LITERATURE.

MEDICINE.

(275) Effect of Posture on Pulse-rate in Health and Disease.

G. Galli (*Il Policlin.*, March, 1904) describes and explains his researches into the variations of the pulse-rate which depend on changes in position. He agrees with other observers that in health there is a difference of from fourteen to seventeen pulsations a minute between the pulse-rates in the vertical and horizontal positions. In convalescents and in patients suffering from other diseases than those of the heart Galli finds that this normal physiological relation is maintained or exaggerated. Thus an anaemic person or one convalescent from typhoid may have a pulse rate higher by forty or fifty in the vertical than in the horizontal position. One suffering from aneurysm or arterio-sclerosis without valvular or myocardial complications will probably show the normal relation between the two rates. In cases of cardiac disease the rule is not found to hold good, except when the disease is recent or in process of formation, and the myocardial force good. When the disease is well compensated there is a difference of from four to six beats per minute between the pulse-rates in the horizontal and the vertical position. When compensation fails and there is visceral stasis the pulse-rates in the two positions tend to approximate, and the pulse-rate in the vertical position may even become lower that in the horizontal position. The relation between the two pulse-rates is much more variable in cases of mitral than in cases of aortic disease, probably because of the greater strength of the left ventricle. These generalizations are subject to exceptions, of which Galli quotes several instances. Galli considers that the differences depend mainly on disturbances of the cerebral circulation, but that alterations of blood pressure, increase of muscular contraction in the vertical position, and altered action of the vasomotor nerves, all play their part, and the complexity of the conditions determining the existence of the exceptions noted above. To determine the effect of changes of the cerebral circulation, Mantegazza, experimenting on rabbits, found that tying the carotid arteries increased the pulse-rate and tying the jugular veins lowered it. Both these results failed when the vagi were cut. He concluded that anaemia of the bulb caused an increase, and congestion of the bulb caused a diminution in the pulse-rate. Galli attempted to verify his principle by experiments carried out harmlessly on human beings. He produced cerebral congestion by suspending the subject by his feet, or by raising the foot of the bed on which the subject lay, but this congestion was attended by a distinct increase in the pulse-rate. He concludes that in human beings cerebral congestion increases the pulse-rate. In most cardiac diseases cerebral congestion is present, and is relieved by raising the head. Thus the patient finds his most comfortable position to be with the head and shoulders raised in bed, and in correspondence with this fact is the clinical observation that in this position the pulse-rate is lower than in the horizontal position.

(276) Tuberculous Meningitis.

Maragliano (*Gazz. degli Osped.*, January 10th, 1904) points out the unsatisfactory character of that conception of tuberculous meningitis which rests satisfied with the view of the disease as an inflammation of the cerebral meninges, due to tuberculosis, associated with certain symptoms, and always fatal. A more careful pathological study helps to explain some of the clinical phenomena. He draws attention to the moniliform distribution of the granulations along the vessels and lymphatics, to the varieties and distribution of the exudation with its compressive and adhesive effects on the brain substance and cranial nerves, to the effect of blockage of arterioles on the nutrition of the brain, to the state of the ventricles, which if full may place the brain substance between two fires, as it were—pressure from internal secretion and from external exudation as well. *Pari passu* with these various pathological changes the clinical symptoms may be observed to vary also. Death is certainly not due to toxaemia alone, although this may play a part, but the chief cause is the complexion; and, although there might be some hope that a tuberculous antitoxin could relieve the symptoms so far as they were due to toxaemia, it is not reasonable to suppose to suppose they could do much *quâ* the exudation, which unfortunately is the chief cause of death. Valuable as the diphtheria antitoxin has proved, it will not alone and unaided by the knife remove the products of exudation when they threaten life mechanically. One should bear in mind these facts in considering statements as to the specific treatment of tuberculous meningitis made by those whose life is passed in the midst of thermostats and culture tubes rather than at the bedside or in the *post-mortem* room.

(277) The Nose and Malaria.

Ziem (*Arch. Ital. di Otol., Rinol., e Laringol.*, November, 1903) publishes a number of opinions and observations on malaria not altogether in accordance with the generally received views. He states that malaria is caused: (1) By injection of malarial blood; (2) by mosquito bites; (3) by bad drinking water; (4) by inhalation of putrid marsh vapours; and he considers the last of these causes the most frequent and important. He attributes suppurations of nose and breast, often of an obstinate nature until their cause is recognized, to the malarial exhalations from marshy ground, from damp cellars, and to the inhabitation of houses built on infected earth. Hence the danger of sleeping on the bare earth; but if the couch be raised from the ground he considers it safe to sleep without special protection from mosquitos, such as is afforded by nets. He considers that a change from a less healthy to a more healthy house is frequently indicated in the treatment of nasal suppuration, and state that an enlargement of the spleen is frequently associated with an infective coryza. He attributes some cardiac neuroses, noises in the ears, sclerosis of the middle ear, and suppuration of the hip and other joints to malaria. He illustrates the causation of these and other symptoms by a history of his own illnesses from the age of 4 years onwards. The striking features of these illnesses have been suppuration of the hip-joint, obstinate inflammation of the elbow, nasal inflammation, headache, sweating, and fever. They have proved intractable when treated by quinine, and have been treated with great success from time to time by change of residence, and by what is now known as the open-air treatment. The symptoms are all attributed to malaria, because there has been enlargement of the spleen, and the illness began when he was in the near neighbourhood of a marsh. By quotations from the *Decameron* he shows cause for believing that Boccaccio was acquainted with the connexion between malaria and nasal disease, and on the evidence of Suetonius he attempts to prove that Augustus Octavius was a sufferer from malaria.

SURGERY.

(278) Perforated Gastric Ulcer.

H. Howitt (*Amer. Journ. of Obstet.*, November, 1903) reports a fourth consecutive successful operation for acute perforated gastric ulcer. Early diagnosis is a matter of vital importance in these cases, and is comparatively easy when a history pointing to the presence of gastric ulcer can be obtained. Even without such a history, the pronounced shock, severe pain in the epigastrium, rigidity of the abdominal walls, and the thoracic nature of the respiration help to a diagnosis. The situation of the ulcer is to a certain extent indicated by the history and the symptoms. Thus the position in which the patient has been accustomed before the perforation to obtain relief from gastric pain is of importance. Again, slight point pressure over an unperforated gastric ulcer in the anterior wall often causes severe pain, but this can only be elicited on deep pressure should the ulcer be on the posterior wall. When pain is caused by the irritation of food before perforation, it radiates to the right and perhaps downwards if the ulcer be near the pylorus, but in other cases it radiates to the left side, often to the left shoulder. After rupture the position of the pain is at first unaltered, but more agonizing pain is soon felt, which follows the passage of the contents of the stomach downwards in the abdomen. In perforation of the anterior wall this pain is quickly felt, and follows the course of the descending colon; in perforation in other situations it is slower in onset and generally follows the course of the ascending colon. With respect to the method of dealing with septic infection of the peritoneal cavity the author is in favour of a large incision and a thorough toilet of the cavity. Where abdominal distension is a prominent symptom of general infection of the peritoneum, and the stomach is collapsed and crowded under the ribs, a temporary enterotomy and evisceration is an essential pre-

liminary to a successful suture. The case recorded in the article was one of ulcer on the anterior surface of the cardiac end of the stomach. On perforation there was severe pain in the epigastrium, radiating to the left side of the thorax and the left shoulder. Later the site of most intense pain was in the left side of the abdomen, near the anterior superior spine of the ileum.

(279) Treatment of Lupus and Cancer by Light and "X" Rays.

Wild (*Med. Chron.*, December, 1903) gives the results of two and a-half years' practice in the treatment of lupus and cancer by Finsen-light and *x* rays. Out of 51 cases of lupus, 29 were healed and 22 much improved. The proportion of healed cases was higher in the case of Finsen light and the scars were better. The Lortet-Genoud lamp was found to be inferior in effect to the original Finsen lamp or the *x* rays. For large areas and ulcerated surfaces to which pressure could not be applied the *x* rays were preferable, but great care was necessary to avoid too strong a reaction. Wild recommends the combined treatment, using the *x* rays to heal the ulcerated surfaces, and the Finsen light to cure the remaining nodules. For rodent ulcer the *x* rays alone were used. Twenty-two cases were treated, of which 13 were healed and 2 unimproved. In the 2 latter cases the ulceration had spread to the cartilage of the nose. The author believes that free excision is still the best method when practicable; but when this would cause deformity, as in the eyelids, the *x* rays should be used. In epithelioma the results were not satisfactory. Wild concludes that in rodent ulcer the *x* rays are useful, and should be continued for some time after apparent cure; but in carcinoma the rays do not appear to lessen the necessity for early and radical surgical treatment. In recurrent and inoperable cases of cancer the *x* rays relieve pain, lessen discharge, and cause shrinkage of the growth.

(280) Congenital Dislocation of the Hip.

Motta (*Arch. di Ortoped.*, An. 20, N. 3) reviews at some length recent literature on the above subject, gives his own experience and practice, and sums up his results in the following conclusions. In congenital dislocation one ought to interfere as soon as the diagnosis is made, by suitable manipulations, massage, weight extension, etc., in order to prevent further dislocation. Next, bloodless methods of immediate reduction should be attempted, even at 2 years of age, although 3 years is a more suitable age, but if the dislocation is bilateral it is better not to wait. In reduction one should bear in mind the resistance of the anterior part of the capsule, the position and state of development of the pelvis, the constitution and shape of the upper extremity of the femur, the form and insertion of the head, and length and direction of the neck of the femur. If unsuccess follows a first attempt at bloodless reduction it is better to try again by the same method rather than have recourse to open-wound treatment. It is not necessary to use great violence in the so-called myorhexis adductorum. External rotation of the time can usually be corrected by educative treatment and by time, and seldom requires any operation.

(281) Intubation in Ulceration of the Cricoid Region.

Tommasi (*Arch. Ital. di Otol., Rinol., e Laringol.*, November, 1903) gives reasons for preferring the operation of intubation to that of tracheotomy in laryngeal stenosis, but he recognizes that there are cases where tracheotomy is to be preferred, and quotes an illustrative case of his own. A child of 4 years, who had suffered for some time from disturbed sleep and noisy respiration, always breathed through his mouth, and showed other symptoms of adenoids, was attacked by diphtheria. On the fifth day intubation became urgently necessary, and was performed only just in time. On the same day, and on several later days, he received an injection of 1,000 units of antidiphtherial serum. Two days later the tube was expelled in a fit of coughing, along with offensive pus and fragments of membrane; increasing dyspnoea made it necessary to replace the tube. Two days later the same thing happened twice over. After the eleventh day the fever disappeared, and the patient gradually gained strength, but the tube was still expelled every few days, in spite of all possible care in the selection of different sizes and patterns of tubes. At length, on the sixty-fifth day from the beginning of the illness, the patient having, while he was asleep, dislodged the tube in a fit of coughing, was unable to breathe, and died at once. When his doctor came there was still some movement of the heart, but natural respiration could not be induced, though the tube was replaced. At the necropsy it was found that the cricoid cartilage was denuded of perichondrium, and the cartilage itself was roughened. The mucous membrane showed very numerous little ulcerations and some larger areas of destruction corresponding with the sites of the chronditis and perichondritis. Commenting on the case Tommasi states that the friends of the patient would not consent to any further operation than intubation. He attributes the ulcerations not to the length of time during which the tube remained in position, for that has often been exceeded without any bad results, but to the infectivity of the original disease, and to the unhealthy condition of the mucous membranes in a patient with adenoids of old standing. His conclusions are that: (1) If in a stenosis of the larynx due to an acute infection, intubation should become necessary, it does not follow that it need be repeated, especially if there be ulceration of the cricoid mucous membrane, and more particularly if we suspect perichondritis and caries of the cartilage; (2) in such a case it is more reasonable to follow up the intubation by a trachaeotomy done with the fullest preparation; (3) such ulcerations and inflammations are shown by spontaneous rejection of the tube, by muco-purulent and blood-stained expectoration after each rejection of the tube and after its insertion, and by the difficulty of keeping it in the larynx in spite of the utmost care in selecting a tube of suitable pattern and size.

(282) Large Lipoma of Spermatic Cord.

Stori (*Clin. Mod.* An. x, No. 10) reports the case of a man, aged 66, who said that the left scrotum had always been larger than the right, but the swelling had only increased rapidly since five years ago. As it continued to grow (having reached the size of a man's head) walking became difficult and advice was sought. Some caustic was applied to the lower part and caused an ulceration which did not heal. The maximum longitudinal diameter of the mass was 75 cm. and the maximum transverse diameter 49 cm. The surface was smooth, the skin normal, with considerable vascular development. There was no prolongation of the swelling into the inguinal canal. The penis was buried in the mass. The right testis could be felt and appeared normal. The left could not be felt, but testicular sensation was present on pressure. There was no translucency. The swelling was elastic (almost fluctuating in feel) and lobulated—no glands could be felt. On operation the mass was found to be a pure lipoma of the cord and weighed 8,900 grams (without the blood). About 50 c.cm. of sanguinolent serum were found in the sac. The subsequent history was satisfactory. The left testis was found normal.

MIDWIFERY AND DISEASES OF WOMEN.

(283) Amenorrhoea and Eye Disease.

Blondel and Sendral (*La Gynéc.*, February, 1904) describe an instance of grave ocular complications associated with amenorrhoea in a mature woman, and relieved by emmenagogue treatment. The patient was 34 years old. The period began at 12, and remained regular until the illness under treatment began. At 26 she miscarried and the curette was used; at 29 she lost her husband, then the period became irregular, and at the end of a year ceased altogether. At the same time the left eye became painful and vision gradually deteriorated. At the age of 32 the patient underwent sympathectomy; the pain was relieved, but the sight was lost, and then iridectomy was performed as painful symptoms recurred. The eyeball, however, became the seat of intense pain radiating to the circumorbital region. Blondel and Sendral examined the pelvis and genital tract. The uterine cavity increased detected marked senile degeneration in the only 1½ in. in length. The patient was very neurotic and excitable. The left eyeball was very hard, with operative coloboma and cataract. A large vascular ulcer occupied the inner half of the right cornea; the eyeball was hard and photophobia extreme. Emmenagogue treatment was prescribed, consisting of ovarine capsules, apiol tabloids, and cachets of aloes and potasso-tartrate of iron. Within a week the pains in the left eye diminished, and the ulcer of the right cornea began to heal. At the end of a month the period reappeared, the left eye had become painless and the ulcer had healed. After three months' emmenagogue treatment the sight of the right eye was restored, though a little affected by the cicatrix of the corneal ulcer. The useless left eyeball

was removed. When the above report was published some seven months after the emmenagogues were first taken the patient was very well, the period continued although scanty and not strictly regular, and the sight of the right eye good. The drugs had been discontinued after about three months of treatment.

(284) The Benefits of Operations for Prolapse and Retroflexion.

BAATZ (*Monats. f. Geb. u. Gyn.*, March, 1904) analyses a long series of operations of this class with after-histories, and concludes that: (1) All cases of prolapse of the vagina without retroversion of the uterus are best treated by plastic operations on the vagina itself. (2) Ventrifixation of the uterus and plastic treatment of the vaginal canal according to the circumstances of the case are indicated in all cases of prolapse of the vagina with retroversion of the uterus but without loss of mobility, in women during the child-bearing time of life, also in primary uterine prolapse in vaginal prolapse with irreducible retroflexion, and in total procidentia in women capable of bearing children. (3) Ventrifixation and plastic vaginal operations combined are also advisable in reducible retroversion and vaginal prolapse and in total procidentia in patients who have attained the change of life. (4) Ventrifixation alone is the best treatment for retroversion reducible or fixed and not complicated by vaginal prolapse. (5) Supravaginal amputation is necessary in all cases of considerable elongation or hypertrophy.

(285) Uterine Infection Due to Constipation.

CAPALDI (*Arch. di Ostet., e Ginecol*, an. x, N. 8, 1903) publishes certain experiments on the above subject which he has carried out on guinea-pigs. He produced complete faecal retention in these animals by sewing up the rectum, and in every case after a time a migration of B. coli from the intestine into the peritoneum and uterus was to be observed. No bacilli were found in the blood. The mechanical action of the loaded rectum, the absorption of putrefactive chemical products, and the slight lesions of the intestinal epithelium all render the passage of so mobile a bacillus as the B. coli an easy matter. In the endometrium distinct evidence of slight inflammation, undoubtedly due to the presence of micro-organisms, could be made out. Blood infection only occurred much later. Possibly some cases of abortion in association with constipation may be explained by migration of B. coli, and the author relates some experiments in gravid guinea-pigs which give some support to his hypothesis. The conditions of the experiments differ so much from those of constipation as usually seen in practice that too much value cannot be given to them; they, however, suggest that in addition to symptoms due to resorption of putrefactive products, some phenomena may be due to local migration of bacilli into the female genital passages.

(286) Vaginal Caesarean Section.

ALESSANDRO REGNOLI (*Il Policlin.*, February, 1904) describes 4 cases of this operation performed by him, laying special stress on the fourth case. The first operation was for eclampsia at the eighth month. Mother and child lived, and the child is now 4 years old. The second operation resulted in the recovery of the mother and the birth of a 7-months child which lived twenty-five days. The third operation was for the extraction of a dead fetus, and resulted in the recovery of the mother. The last case was one in which the placenta had become partially detached at the end of the sixth month of pregnancy. There was great haemorrhage and severe pain: There was no softening of the neck of the uterus, and the operation was decided on because of the delay and increased pain involved in forcible dilatation. Considering that in any future pregnancy the pressure of the child's head would be exercised chiefly on the anterior and lower part of the uterine wall, Regnoli determined not to incise it, and his only anterior incision was through the cervix. He made the ordinary posterior incision, extracted the child rapidly, not without some elongation of the anterior cervical incision, but without much haemorrhage and without any laceration of the peritoneum. The wounds were sutured and the patient made a good recovery, the sutures being removed on the fifteenth day. The author recommends the operation, especially with his own limitation of the anterior incision to the cervix. He states, however, that he has not yet tested the results by observing in any of his cases the course of a succeeding pregnancy and parturition.

THERAPEUTICS.

(287) Thiosinamin.

A. HARTZ (*Deut. med. Woch.*, February 18th, 1904) was induced to try the effect of thiosinamin in a case of stenosis of the pylorus, and reports on his results. Thiosinamin is an allyl-thiourea (rhodallin), and represents a substituted urea, in which an atom of hydrogen of an amido group is replaced by allyl "rest." It is prepared by heating an alcoholic solution of mustard with ammonia to 100° C. under pressure. It occurs as colourless bitter-tasting prisms, and is soluble in water, alcohol, and ether. It is said to have the physiological action of softening and stretching cicatrices. Hartz's patient was a man, aged 56 years, who had been ailing from early youth. The signs of a gastric disturbance appeared when the man was 28 years old. On two occasions he had had haemorrhage from the stomach, and at the age of 47 he had been treated by lavage and bismuth subnitrate. In 1903 the signs of fibrous stricture of the pylorus with secondary dilatation of the stomach and motor insufficiency were apparent. The operation of gastro-enterostomy was recommended, but as the patient had a great objection to an operation he sought for further advice before submitting to this. Massage was tried without success, and then Hartz thought that it might be worth while trying thiosinamin before pressing the operation. He injected a 15 per cent. solution in alcohol into the subcutaneous tissue of the back. At first he gave ½ c.cm. of the solution, and on the fourth day he injected 1 c.cm. The next four injections were made twice a week, and were 1 c.cm. each, except the last one, which was 1½ c.cm. This produced marked disagreeable symptoms of distension, etc. Subsequently he was only given 1 c.cm. The patient noticed within a short space of time that the food passed out of the stomach much more easily than before, and lavage was soon less frequently required. After the ninth injection the fluid used in the lavage returned clear. After the eleventh injection his symptoms had nearly disappeared, he could take his food well and with appetite, and the constipation had given place to a regular stool. After twenty-three injections he feels well, has no symptoms of his previous trouble, and can digest all food easily. Hartz owns that the result surprised him not a little, since he tried the remedy without much hope of attaining any benefit. He considers that suggestion or imagination could not have played any part in the good result, for the patient had been through too many varieties of treatment without success to allow of much faith in a new form of treatment. Hartz thinks that thiosinamin may prove useful in some cases of gynaecological conditions depending on scar formation.

(288) Thiosinamin for Contractures.

P. LENGEMANN (*Deut. med. Woch.*, March 24th, 1904) reports on the after-histories of two cases treated for Dupuytren's contracture with thiosinamin. He reported on the favourable effect of the treatment in June of last year, and since in both these cases no return of the contractions has taken place he feels justified in strongly recommending this mode of treatment. He is further in a position to add a third case of Dupuytren's contracture which he has cured by injections of thiosinamine. Another case treated in the same way was that of the thumb of a hand which had been injured in a printing press, and which had become useless from the contraction of the scar tissue. The result obtained was very satisfactory. He states that he has sought for reports from other practitioners who have used this preparation and has only received good reports. No case of failure has been communicated to him. In conclusion he calls attention to the fact that the injections must not be carried out instead of massage and active and passive movements, but that these must be employed as well.

(289) The Haemolytic Properties of Extracts of Internal Organs and of Malignant Growths.

MICHELI AND DONATI (*Rif. Med.*, September 23rd, 1903) have made a series of experiments on the above lines. Various animals were used, and the chief organs examined were the pancreas and the thymus. To avoid putrefaction, small doses of thymol were added. The pancreatic extracts showed strong haemolytic properties with every kind of blood; the thymic extracts were much more uncertain in their results. The haemolytic action did not cease when the acid extracts were neutralized with soda. Heat did not destroy this haemolytic property, nor alcohol. The

haemolytic substances are also soluble in ether, but not with the same constancy as in alcohol. Filtration through a Chamberland candle weakens but does not always destroy the haemolytic property. The addition of blood serum (with the exception of dog serum in small doses) destroys the haemolytic power. In preparing extracts from malignant tumours fifteen growths were used (six carcinomata of the breast, one uterine, one rectal, one pharyngeal, one epiploic, two fibro-sarcomata, two spindle-celled sarcoma, and one endothelioma). Seven of these were quite inactive, but the others possessed haemolytic properties in varying degrees of intensity. In each case the haemolytic substance was clearly not the same as the complex haemolysins derived from serum. The inconstancy of the results under conditions which appeared the same, their autolytic properties, their behaviour towards heat, alcohol, and ether, all show this. As to how these haemolytic substances are formed it is not easy to say, probably they are related in some way to the death of the cell, and in all likelihood there is more than one substance—*cf.* the effect of filtration through a Chamberland filter. The extracts derived from malignant growths, whilst behaving in many ways just like those derived from the pancreas, differed in being non-resistant to heat and in their insolubility in alcohol.

(290) Gonorrhoeal Epididymitis and its Treatment.

G. BAERMANN (*Deut. med. Woch.*, October 1st, 1903) reviews the opinions held with regard to the pathogenesis of gonorrhoeal epididymitis, and, in spite of the work of Eraud and others, finds that there is every reason to refuse the suggestion that the so-called orchiococcus is the responsible micro-organism, but that there is but little doubt that the gonococcus acts locally, causing the change in the epididymis. The path of infection is probably the mucous membrane, and in support of this view he finds that the vas deferens is more commonly thickened than is usually supposed; that the epididymitis is frequently ushered in by a vesiculitis, involving the corresponding half of the prostate, as well as a deferenitis; that the *post-mortem* changes in certain cases are analogous to the strictures of the urethra; and, lastly, because the gonococcus is more or less a mucous membrane parasite. He has studied the question closely in a series of cases, and has sought for the gonococcus by puncturing the epididymis. The cases included some with more or less widespread abscess formation, and with inflammatory hydrocele. From his experiments he came to the conclusions that every epididymitis which occurs in the course of gonorrhoea is due to a local invasion of the gonococcus, and this micro-organism can be cultured from the fluid gained by puncture; that in the overwhelming majority of cases a hitherto undiagnosable abscess formation takes place rapidly, this suppuration represents either congestion or pseudo-abscess, or it may be explained as a pure suppuration caused by the cocci. In the former case the wall of the vas epididymis undergoes secondary degeneration. In the cases complicated with abscess there is always some hydrocele, which is due to the infection of the tunica vaginalis by gonococci; further, that, under certain conditions, gonococci can be found in the remains of epididymitic infiltration years after the acute attack; that those epididymitis cases which are due to, or rather follow, non-gonorrhoeic urethritis, are caused by the invasion of the local tissues by the same micro-organism causing the urethritis; that early puncture of acutely-inflamed epididymis is to be recommended, since by this means pseudo-abscesses, or abscesses situated in the connective tissue may be evacuated, and the vas epididymis may be protected from being implicated in the destructive process; and, lastly, that puncture of the hydrocele is also to be recommended on the ground that the disturbed conditions of the circulation are improved, and the chances of resorption are thus favoured.

PATHOLOGY.

(291) Ileo-caecal Tuberculous Tumours.

ACCORDING to Conrath, the ileo-caecal region is the seat of election of intestinal tuberculosis, and is affected in 85 per cent. of all cases. D. Epstein (*Wien. klin. Rundschau*, February 28th, 1904) states that tuberculosis in this position may occur in two forms. There may be tuberculous ulcers, which, as in other parts of the intestinal tract, may heal and be followed by stenosis, or advance to perforation. In the form which is less generally recognized the tuberculous infiltration of the caecum results in the formation of a tumour (*tumor ileo-caecalis tuberculosus*). The walls of the caecum are thickened at the expense of its lumen, which is almost always narrowed, and may become impermeable. The morbid process consists in the new formation of fibrous tissue, in which are embedded scattered tubercles. These may occur in the mucosa, submucosa, or subperitoneal tissue, or in all three layers simultaneously. The subserous form is commonest in children, and is due to direct infection from tuberculous mesenteric glands. The tubercles contain but few bacilli, and have little tendency to break down. Hence the process usually remains localized, and the lungs are seldom found to be extensively diseased. The writer has collected 82 cases of tuberculous ileo-caecal tumour. The youngest patient was 12, and the oldest 60; most cases occurred in the second, third, and fourth decades. The progress of the disease is as follows: The general health fails, and there are anorexia, dyspepsia, and disinclination for mental or physical exertion. Local signs are absent, or consist at most of vague sensations in the ileo-caecal region. But soon there are symptoms of obstruction, and constipation alternates with diarrhoea. There are usually severe attacks of colic, which occur chiefly after food. Constipation becomes more pronounced until the bowels never act except after enemata. The patient becomes emaciated, weak, and prostrate. There is an ill-defined sausage-shaped swelling in the iliac fossa, or in advanced cases an obvious solid tumour, which is more freely movable laterally than vertically, and e- tains the typical shape of the caecu. Occasionally during an attack of col a coil of intestine may be seen and lt through the thin abdominal walls. Tis is the lower end of the dilated ad hypertrophied ileum in a state of active peristalsis. It is situated abe and to the inner side of the caecum, ad is perceptible as long as the attack f colic lasts. At last a hissing, splashi, or musical sound is audible, and e coil disappears from view. This phe- menon is due to the obstruction situa d at the ileo-caecal valve. Tubercle bac i may be found in the faeces. Their d- gnostic value in a case of caecal infilt- tion is disputed. The writer reports a ce which is typical in every detail exc t the age of the patient. A girl, aged , had suffered from vague abdomi l pains since 2. Emaciation and ede appeared, and the pain became locali d in the caecal region. There was a tumour of the size of a goose's egg n the position of the caecum, and ob- nate constipation. The temperat e was normal and the lungs were t affected. Laparotomy was perform . The ileum was greatly distended. Te caecum and lower part of the ascend g colon were thickened and embedded n adhesions, and their peritoneal coat ws studded with tubercles. There ws stenosis of the ileo-caecal valve. Ow g to adhesions resection of the caecu was impossible. Entero-anastomos was therefore performed between t ileum and transverse colon. Th months later the child was in splen d health, and had gained 22 lb. in weig . The bowels acted normally, though te tumour was still palpable in the rig t iliac fossa.

(292) Typhoid Fever with Absence of Wi Reaction.

BATTIGNANI (*Rif. Med.*, March 21, 1904) reports the case of a patient, ag 18, who was admitted into hospital a developed all the signs and symptoms f typhoid fever of fairly severe ty . Many attempts were made right throu the illness to obtain a Widal reactio but the result was always negati . There was no evidence of malaria, a no trace of the malarial parasite cou be detected in the blood. A bacill was detected in the blood, which c- responded in every way to the Eber - Gaffsky bacillus. In 98 cases of u- doubted typhoid observed during t last three years in hospital at Siena t Widal reaction never failed once; b in this case, which appeared clinica to be undoubted typhoid of a fai severe type, although not fatal, no - action could be obtained, even in di- tions of 1 in 50. Most of the cases typhoid where the Widal reaction fa are severe, hence it is assumed that t toxins are so powerful in these cases to paralyse the defensive mechanism f the organism and so check the form- tion of agglutinating substances. this view the production of agglutinati substances would vary inversely wi the power of the toxins. Another vi is that the agglutinating substance bacteriolytic, and formed by the bacte themselves before dying; where there an insufficient organic reaction f bacilli die, hence few bacterioly enzymes are formed.

AN EPITOME
OF
CURRENT MEDICAL LITERATURE.

MEDICINE.

(293) Acute Pancreatitis.

OOLSEY (*Ann. of Surg.*, November, 03) comprehends under the term cute pancreatitis" those cases which mmence suddenly with abdominal in, vomiting, hiccough, and intense idity of the abdominal muscles. The mperature is usually subnormal, the tient rapidly collapses, and dies out five days after the commencement the illness. A mistaken diagnosis of us or perforation peritonitis is not common. Alcoholism, adiposity, gall nes, arterio-sclerosis, and abdominal uries predispose to the condition, ich is essentially an acute infection the pancreas. The head of this organ enlarged; haemorrhages into its sub- nce are not always present. In the ly stages fat necrosis is usually sent, but usually appears later. The acute cases are more difficult of gnosis; glycosuria in the early stages en disappearing later; fat and undi- ted muscle in the stools are aids to gonsis. The treatment of acute ncreatitis consists in the performance laparotomy as early as possible, the cuation of the infective fluid in the itoneal cavity and drainage. Relapse y occur. The writer gives details of ee cases successfully treated, two e operated on on the third day of the ease, the third twelve hours after the et of symptoms. In one case fat rosis was found; in all three there enlargement of the head of the pan- as. The fluid in the peritoneal cavity tained in one case streptococci, in ther diplococci, in the third it was not mined bacteriologically. The writer cludes that when such fluid is not cuated early a general septic peri- itis must follow.

) Rheumatism of the Crico-arytenoid Articulation.

crico-arytenoid joint possesses a e capsule, and may be implicated rheumatism. If it is the only culation involved, the condition is ably mistaken for acute peri- ndritis, as the laryngoscopic appear- es are similar. Egmont Baumgarten *en. med. Woch.*, October 17th, 1903) orts such a case: A man, aged 40, had hoarseness for three days and i on swallowing, and especially on aking. The region of the right enoid cartilage, including the false al cord and the lower portion of the enoid-epiglottic fold, was greatly llen. The true vocal cord was lened posteriorly and was fixed ost in the middle line. The larynx tender externally. The man had syphilis many years previously, incipient, probably syphilitic, peri- ndritis was diagnosed. But anti- nilitic treatment was not pre- ed as there were no other signs yphilis. The swelling increased, on the third day of observation ssium iodide was given. On the h day the oedema disappeared, and a few days later all signs of swelling had vanished. The iodide was discontinued. The vocal cord was still immovably fixed. It was then elicited that four weeks previously there had been acute rheumatic arthritis of the phalangeal joints of the left hand. Rheumatic arthritis of the crico-arytenoid articulation was diagnosed and daily mud-baths were ordered. A week later movement of the right vocal cord was much freer, and in a short time the function of the aryteno-epiglottic joint was normal. Rheumatic crico-arytenoid arthritis may be acute or subacute. If acute, there is always pyrexia, and the condition is bilateral, or other joints are involved. If subacute, there may be no pyrexia, and the arthritis is almost always unilateral. The crico-arytenoid may be the first joint to be attacked in acute rheumatism, or it may be involved simultaneously with, or later than, the others. In the writer's and Dr. Baurowicz's cases the arthritis of the laryngeal joint was a manifestation of a relapse. In all acute cases there is dyspnoea, and the necessity for tracheotomy may appear to be urgent. But the laryngeal symptoms subsided as rapidly as they came. In no reported case has ankylosis occurred. The following case suggests that gonorrhoeal rheumatism may attack the crico-arytenoid joint: A medical student who had gonorrhoea had been hoarse for two days, and had painful deglutition. The region of the right arytenoid cartilage from the processus vocalis to the middle line of the posterior laryngeal wall was swollen. Externally, the right side of the larynx was tender. There were no tubercle bacilli in the sputum, but tuberculous perichondritis was suspected. A fortnight later one knee became swollen and painful. The laryngeal symptoms then rapidly subsided, though abduction of the right vocal cord was restricted for long afterwards. Probably there was gonorrhoeal arthritis of both the crico-arytenoid and knee joints.

(295) Herpes Zoster as a Complication of Mumps.

ORTA (*Gazz. degli Osped.*, November 1st, 1903) reports three cases of mumps complicated by herpes zoster. The cases formed part of a general epidemic of mumps. In each case the herpes appeared in the course of the second week of the attack of mumps. The first case, aged 18, developed mumps on May 3rd, high fever two days, bilateral swelling of the parotids, headache, etc. On May 11th the parotid swelling had almost gone, and there was no fever, but there was a characteristic eruption of herpes zoster in the right intercostal region at the level of the fifth and sixth ribs. The eruption lasted fourteen to sixteen days, and pursued its usual course. (2) Aged 14, left-sided mumps May 20th; eight days later severe pain in fifth and sixth intercostal space, followed 36 hours later by a definite crop of herpes. (3) Aged 16, double parotitis, which pursued a mild course; nine days later herpes zoster in the left second intercostal space and axillary line.

(296) Nocturnal Incontinence of Faeces due to Enlarged Tonsils.

SILVESTRE (*Gazz. degli Osped.*, January 10th, 1904) reports the case of a boy, aged 7, who developed enlarged tonsils at 3 years, due to an attack of tonsillitis, and ever since had been troubled with nocturnal incontinence of faeces. Occasionally there was enuresis as well. The child always had a desire to defaecate when shut up in ill-ventilated rooms. There were no psychical defects, no epilepsy, and the child was well looked after by its parents. The curious thing was that on removal of the tonsils (which were very large) all trouble with the bowels ceased immediately and has not returned. The connexion between enuresis and adenoids has often been pointed out, and is attributed to excess of CO_2, and probably a similar explanation would be applicable in the author's case.

SURGERY.

(297) Voluntary Dislocation of the Hip.

GARAVINI (*Arch. di Ortoped.*, An. 20, f. 6, 1904) reports the case of a boy aged 11 who suffered from infantile paralysis when 8 months old, affecting the right lower limb. The leg partially recovered, but, as he was unable to use it, a complicated, heavy orthopaedic instrument was fitted, which he wore from about 4 years of age untii the present time. At 5 years dislocation of the right hip was noticed after certain slight passive movements, and was reduced by severe movements; somewhat later the boy was able to produce and reduce the dislocation at will. The ease with which it slipped out effectually prevented the child from walking without artificial support. There was no history of injury, and congenital dislocation could be excluded. The whole limb was much atrophied and shortened, slightly flexed on the pelvis, abducted and rotated outwards. Passive movements were possible in every direction. The adductors of the thigh were quite atrophied. The abductors, external and internal rotators were active, but not as much as on the opposite side. The flexors were normal. To produce the dislocation the knee is slightly flexed; then the thigh, which is carried into a position of adduction as far as possible. The limb, being then left to itself, rotates and dislocates outwards. There is no pain. Radiographs showing the limb in the two positions are given. The adductor muscles gave no reaction to the induced current, whilst the glutei and flexors answered well. On May 4th, 1902, ether was administered and the joint examined. The capsule was found intact but very relaxed; the head of the femur was a little small, and the ligamentum teres sound, and about 4 cm. long. The cotyloid cavity was a little enlarged, especially above. The ligamentum teres was completely excised and the capsule shortened and sutured. At the same time an arthrodesis, with transplantation of the tendons, was performed upon the foot. The ultimate result was excellent.

(298) Action of Becquerel Rays on the Skin.

GOLDBERG AND LONDON (*Dermatol. Zeit.*, Band x). One of the authors applied 75 mg. of radium bromide to his arm for three hours. On the fourth day a red area appeared which developed a

zone of infiltration around it. A bulla formed which ulcerated; this increased in size and acquired heaped-up edges and a sloughy base. On the sixteenth day new patches formed on the same arm similar to the original one. Two weeks later patches appeared on the chin, thigh, and right hand. The original sore was unhealed three months later in spite of treatment. In 2 cases of rodent ulcer successfully treated exposures were given of one hour and a half in 1 case and one hour in the other, followed by exposures of half an hour and an hour respectively.

(299) Oesophageal Stenosis from Lordosis. Fratti (*Gazz. degli Osped.*, December 27th, 1903) reports the case of a woman, aged 65, admitted on January 23rd for simple fracture of the left thigh and left humerus, due to a fall. The patient complained of indefinite wandering pains especially down the spine, which were very susceptible to changes in the weather, but did not respond to anti-rheumatic treatment. About forty days after admission, and when the first fractures were united, the patient whilst sitting up in bed fractured her left humerus just below the original fracture; a little later she fractured her fourth and fifth ribs, apparently as the result of cough. Gradually the spinal column became more and more curved and the sternum deflected inwards in its upper third. Two months before death (on June 23rd) dysphagia set in and gradually became worse until even liquids could not be swallowed. The sound was arrested about the level of the manubrium. At the necropsy nothing abnormal was found in the oesophagus, but this was compressed between the spinal column, which showed a marked forward convexity, and the sternum which was curved inwards. The vertebral bodies were very soft, and there was distinct evidence of osteomalacia. There was no lumbar lordosis.

MIDWIFERY AND DISEASES OF WOMEN.

(300) The Induction of Premature Labour. Paolo Robecchi (*Giorn. dell. R. Accad. di Med. di Torino*, December, 1903) traces the history of this operation from the sixteenth century to the present time. From 1855 to 1870 the maternal mortality was over 25 per cent., and the fetal mortality over 76 per cent. according to Porro. The author estimates the fetal mortality of to-day at 20 per cent. and the maternal mortality at zero. The fetal mortality is composed of two elements, deaths due to injuries received during labour and deaths due to the causation of parturition before the foetus is old enough to have much chance of surviving. This second group of cases is probably capable of considerable diminution by the exercise of more care in the after-treatment of premature children, by greater exactness in the determination of the pelvic diameters and of the age of the fetus, and more especially by the substitution of Caesarean section for premature parturition in all cases in which the obstetric conjugate diameter of the pelvis is less than $7\frac{1}{2}$ cm. Assuming that attention is paid to these points, the author enunciates the rule that premature parturition should be excited whenever the existence of pregnancy involves, or parturition at term will involve, a greater danger to the mother. After an enumeration of the many other methods of operation, he describes the method pursued in Professor Tibone's clinic at Turin—the Kiwisch-Krause-Tibone method. This consists in the passage of a sound between the uterus and the membranes in the case of primiparae and the use of Champetier de Ribes's bag in multiparae, the patient being prepared in either case, if time permits, by vaginal douching with hot water. The most careful antiseptic precautions are employed, and repeated if possible for three days before operation. The action of Champetier de Ribes's bag is assisted by fastening to it a weight of 100 to 300 gr. by a string passing over the end of a bed. The sound is succeeded by a bag, and a small bag by a larger one in all cases in which parturition is much delayed. By external manipulation the position of the placenta is discovered if possible, and the presentation is changed if necessary into a head presentation, and the condition maintained by a suitable bandage. When pains do not proceed satisfactorily after the expulsion of the bag Tarnier's dilator is used. By these methods a process is initiated which closely resembles spontaneous parturition, and in an experience of more than a hundred cases Robecchi has never known the membranes to be ruptured by the sound, nor the placenta to be partially detached. The drawback to the method is that it is very slow, the bag sometimes remaining in the uterus longer than twenty-four hours, and the sound not being dislodged for three or four days. To overcome this difficulty Robecchi has invented a method of applying electricity to the interior of the uterus which very decidedly hastens the onset of labour. The advantages of electricity are that it acts quickly and rhythmically, that the intensity of the stimulus can be accurately regulated, and that there is no danger of injuring the fetus. In all these respects its action is in marked contrast with that of ergot. Robecchi's method of applying electricity is to surround the sound near its extremity by two rings of very thin and flexible copper wire, in communication with two conducting wires which run down the inside of the sound and are united with a battery. When the instrument is used as the author recommends, the two wires are both attached to the same pole of the battery, and the other pole is attached by another wire to the skin of the abdomen above the umbilicus; a sufficient current can then be used to start uterine contractions without causing much, or perhaps any, pain to the patient. At first the current is turned on from five to seven minutes at a time, and almost immediately causes contractions, feeble at first, but gradually increasing, so that the electrical stimulation can be gradually diminished in duration and intensity. By the skilful manipulation of a button interrupting the current the contractions of the uterus may be made to simulate very closely the natural contractions of spontaneous parturition. The copper rings are near the further extremity of th sound, because in that position the stimulate the uterus near its fundu where it is most sensitive to stimula tion. By a very similar contrivanc Champetier de Ribes's bag is su rounded with copper wires in com munication with a battery. In thi case the stimulation is applied to th inferior segment of the uterus, an has a special utility in cases o spasmodic rigidity of the neck of th uterus, which it relaxes probably b something of the nature of catalyti action. The author also recommend the bag as a useful medium for th application of electricity to the uteru in the treatment of puerperal sub involution. Robecchi gives a fu account of two cases treated by hi method, and states that in no case ha he known any harm caused to mothe or child.

(301) Removal of the Uterus for Cancer. A. Glockner (*Die Heilkunde*, June, 190 describes the results obtained in th treatment of cancer of the uterus at th Royal University clinic at Leipzig. Th number of cases seen between Apri 1887, and July, 1901, was 974, and of thi number 260 or 26.9 per cent. wer operated upon. The mean age of th patients was $45\frac{1}{2}$ years, but the averag age of these patients suffering from ca cinoma of the fundus was higher tha that of the patients with carcinoma o the cervix. The meonopause wa already passed in 23.7 per cent. of al cases, and in 78 per cent. of the cases o carcinoma of the fundus. The majorit of the patients did not present them selves until more than three month from the beginning of the symptoms and 12 not until more than twelv months. The primary position of th growth was in the cervix in 90 per cent and in the fundus in 10 per cent. of th cases. In a third it had passed beyon its primary locality when first seen Total extirpation of the uterus pe vaginam was undertaken in 85.5 pe cent. of the cases, and in four case only the abdominal method was chosen Twenty-two out of the 260 patients die from the operation. Of these two were suffering from diabetes and died o coma. If they are excluded the mor tality from the operation itself was 7.7 per cent. The mortality from th vaginal method was 5.5 per cent. an from the sacral was 28.5 per cent. Som form of septic process was the cause o death in 82 per cent. of the cases. In giving the results of these operations a lasting cure is not said to have been obtained until a period of five years from the operation has passed without a relapse, and the results are given of those 132 operations only which took place five years or more ago. After this time relapses are so rare as to be negligible. Of the 132, 85 suffered relapse and 47, or 35.6 per cent., were cured; 34.7 per cent. of the recoveries were from carcinoma of the cervix, 66.7 per cent. of the fundus; 12 patients have now remained well for periods of ten to thirteen years; 9.7 per cent. of the whole number of cases seen, operable or inoperable, ended in permanent cure. The patients over 55 years of age gave the most favourable results, while there

were only 25 per cent. of recoveries from cancer occurring during pregnancy. Not quite half of the cases of which a favourable prognosis was given at the time of operation turned out well; more than a third recovered where the prognosis had been doubtful, and a fourth where it had been bad; 70 per cent. of all the relapses occurred in the first year and nearly 50 per cent. in the first six months. The latest relapse observed was in the fourth year. The average duration of life where a relapse occurred was nineteen months after operation.

(302) Puerperal Eclampsia masking Pleuro-pneumonia.

MAYGRIER (*L'Obstétrique*, January, 1904) recently reported before the Société d'Obstétrique de Paris the case of a woman admitted into the Charité, comatose through puerperal eclampsia. She was a primipara, aged 26, in the seventh month of pregnancy. Anasarca and albuminuria were marked. Thirty-eight fits occurred during the first twenty-four hours after admission, five taking place after delivery, which was spontaneous; twenty-nine were suppressed by chloroform. On the second day the patient seemed better; then bad symptoms appeared — anasarca, fetid lochia, and evidence of septicæmia. On the fifth the patient complained of severe pain in the right hypochondrium with dyspnoea and died a few hours later. At the necropsy suppurative pleuro-pneumonia was detected, with subphrenic abscess.

(303) Adeno-carcinoma of Uterus in Age.

FLAISCHLEN (*Zentralbl. f. Gyn.*, No. 5, 1904) reports a case of some importance, as not only was it an instance of a growth rare in age, but it also, as Flaischlen stated, demonstrates the importance of the microscope in diagnosis. The patient was a virgin, aged 71, who hardly suffered from any pain, but mentioned to her family doctor that she had recently noticed slight vaginal discharge. Flaischlen examined her, and used the curette; the scrapings were inspected under the microscope, and all the appearances of typical malignant adenoma detected. The uterus was accordingly removed, and then it was seen that the new growth had already extended through the muscular tissue to the serous coat. The tissues of the anatomical structures around the parts removed were very brittle, and the ligature silks cut through them; the uterine arteries were markedly atheromatous. Nevertheless, there were no complications after the operation, and convalescence was rapid.

(304) Haematrometra in Undeveloped Uterine Cornu.

NICHOLITSCH (*Zentralbl. f. Gyn.*, No. 51, 1903) reports an instance of this condition observed in a girl aged 21. It is important to note that she had menstruated regularly, but only from her eighteenth year. For about twelve months she had been subject to pains in the left side of the abdomen, which grew worse during period. A cystic tuberous mass could be felt in the left iliac fossa descending deeply into the pelvis; it was firmly fixed. The uterus could not be defined. Three adhesions were discovered at the operation, when they were set free, a half uterus lying in the right side of the pelvic cavity, and bearing a normal tube and ovary, came into view. The tumour was connected with the left side of this imperfect uterus by a short band of connective tissue. It was an undeveloped left cornu with highly hypertrophied walls and a cavity full of old, almost black blood. It communicated with the cavity of an obstructed left tube, converted into a haematosalpinx, which was in contact with an ovarian cyst also filled with blood.

THERAPEUTICS.

(305) Serum Treatment of Hay Fever.

A SERIES of ten cases of hay fever treated with Dunbar's serum has lately been published by L. S. Somers (*Med. News*, April 23rd, 1904) who used the antitoxin made from the serum of animals inoculated with the pollen toxin of goldenrod, and employed it in the form of serum and powder. One or two drops of the serum are placed in each eye and nasal chamber whenever an attack of hay fever is expected, or on the presence of any irritation. The dried serum may also be employed, when mixed with an inert powder such as milk sugar, but it can only be used in the nasal chamber. The results in these ten cases proved very gratifying. The serum produces prompt amelioration of the symptoms in the majority of cases, and in a smaller number the affection may entirely disappear. Where slight or no action is seen after its use, pollen as an etiological factor does not predominate. When administered in advance of the attack or during the same, irrespective of severity, it produces marked palliation rather than absolute cure. Its effects upon future attacks is as yet unknown. The serum in powder form is slightly soothing to the mucous membranes of the nose, but has little influence upon the other symptoms, and in occasional cases may act as a direct irritant.

(306) Prevention and Treatment of Blackwater Fever.

A. PLEHN (*Arch. f. Schiffs- und Trop. Hyg.*, December, 1903) deals with the prevention and treatment of blackwater fever. The predisposing cause is the anaemia and functional exhaustion of the blood-forming organs due to long-continued malarial infection, and in a large majority of cases the exciting cause is the administration of quinine in an acute attack of malaria. The ideal treatment is clearly the prevention of malaria, but until that is accomplished the treatment of blackwater fever remains a matter of importance. The disease is rare during the first six months' residence in a dangerous neighbourhood, and if it occurs within this time, it usually follows a series of neglected malarial attacks, of which the last has been vigorously treated with quinine. In most cases long continued latent malaria, without an acute attack, is enough to predispose to blackwater fever, for this disease often accompanies the first such attack. Thus in a case here described the patient took quinine prophylactically during a long stay in an infective area, and never suffered from acute malaria until he ceased to take quinine immediately after his return home. He was then attacked by malaria complicated by blackwater fever. The danger of contracting the disease probably increases with the length of exposure to infection, and although it is for practical purposes impossible to limit residence in the tropics to six months, yet any shortening of length of stay is so far of benefit. A short holiday in the hills appears often to determine an outbreak of malaria, with or without haemoglobinuria. To destroy the predisposition time must be given not only for the destruction of the malarial parasite but also for the functional restoration of the blood-forming organs. Even the customary six months furlough cannot be adequate, for while, in cases given, new arrivals in the country were safe from blackwater fever for an average of 27 months, the period of immunity was only 5.2 months in those returned from furlough. While hygienic measures and improvement in nursing have materially lessened the number of cases of the fever, these measures alone are not sufficient, and the most important treatment is the prophylactic administration of half gram doses of quinine every five days. The effect of the last method increases with time, until old residents, as long as they take the customary dose, practically never suffer. Larger doses, a gram or a gram and a-half, are often recommended, but they have not been more effectual than the smaller doses in preventing malaria, while they may naturally be supposed to increase the tendency to blackwater fever. That this is not the effect of the smaller doses is shown by statistics. In 1897-9 among officials not taking quinine, one case of blackwater fever occurred, in the author's experience, for every 18.5 months of residence, as opposed to one for 74 months in those taking quinine. Ten per cent. of the cases ended fatally where quinine had not, and none where it had, been taken. It is essential that the quinine should be taken regularly, for if the dose be once omitted, an attack of malaria may follow, and the larger amounts of quinine then needed bring a certain danger of haemoglobinuria. An obvious precaution to take, where the onset of blackwater fever seems probable, is to give small doses of quinine in acute malaria. Plehn tried this method with unsatisfactory results. Where the usual 1 or 1½ grams of quinine were given the symptoms of blackwater fever, if they appeared, subsided in from one to forty-eight hours, the temperature fell, and the whole attack was over. Where small doses were given haemoglobinuria might still appear and continued after the fall of temperature, or after a temporary improvement the malarial fever returned. These cases then became difficult to treat, for large doses of quinine would certainly give rise again to haemoglobinuria, especially dangerous when the patient had become weak and anaemic. So great is the danger that Plehn sent home three such cases rather than administer quinine; of these one recovered after expectant treatment for several months, one had an attack of blackwater

ever on the administration of quinine when he reached home, and the third died from an attack which followed the administration of quinine on board the vessel. The rule to be followed is therefore to give ordinary doses to all patients in acute attacks of malaria unless they have suffered during the preceding year from blackwater fever, and even then never to give less than ½ gram. The prophylactic use of quinine is begun again as soon as the haemoglobinuria and the albuminuria disappear, but no absolute rule as to the dose can be given. Happily the greater the tendency to haemoglobinuria the less is the dose of quinine needed to protect from malaria. Thus one patient with a marked tendency was kept in good health by taking regularly ¼ gram doses of quinine. No quinine is given while haemoglobinuria is actually present. With hygienic improvements, the lessening of opportunities of reinfection, and the more general use of quinine prophylactically blackwater fever may be expected to disappear even more rapidly than malaria.

(307) Theinhardt's Soluble Food for Children.

E. KRAUS (*Zentralbl. f. die Gesam. Therap.*, March, 1904) has employed Theinhard's soluble food in the treatment of infants. The food is obtained as a yellowish amorphous powder of pleasant smell and slightly sweet taste; the addition to it of water and milk in suitable proportions gives a food which differs only very slightly from human milk. For example, the food prepared for a 3 months' old child contains, as compared with corresponding human milk, about 0.9 per cent. more albumen, 0.2 per cent. less fat, 0.4 per cent. more of soluble carbohydrates, 0.2 per cent. more salts; it contains also 0.66 per cent. of insoluble carbohydrates, and 0.2 of cellulose. The value of the preparation depends mainly on the fact that it contains a minute quantity only of unchanged starch, and that it leads to the formation of a very small curd in the stomach. The first patient to whom Kraus gave this food was a 7 weeks' old breast-fed child who had been losing weight, and was passing daily from eight to ten liquid stools containing mucus and undigested food; a widespread intertrigo was present about the nates. Improvement became manifest on the second day, and by the end of a week the stools were normal, the intertrigo improved, and the child's weight increased by 100 gr. The food was given in a strength of one small teaspoonful of the powder to five teaspoonsful of water and one of milk; it never caused vomiting. The second patient was a child of 3½ months who had been suddenly weaned. Diluted cow's milk was vomited and a gastro-intestinal catarrh developed. After taking Theinhardt's food for eight to ten days, the child lost all signs of catarrh and was steadily gaining weight. A third child, 26 days old, was able to take the food without any digestive disturbance, although its increase in weight was slightly less rapid than under natural feeding. The use of the food is indicated in three classes of cases. First, it may be given to healthy children in addition to diluted cow's milk to remedy the deficiency in albumen and fat, and to make the milk more easily digestible; secondly, it is a good form of food for underfed and anaemic children; thirdly, it is a valuable therapeutic agent in the treatment of gastro-enteritis, and may be given without the addition of milk until the catarrh shows signs of improvement.

PATHOLOGY.

(308) The Pathogenesis of Icterus.

RAVENNA AND GENTILI (*Lo Speriment.*, February, 1904) describe the histological results of experiments made to determine in the first place the action on the liver of some substances which destroy the red blood corpuscles, and ultimately to explain the causation of jaundice. Exhaustive experiments having been previously made on the action of chlorhydrate of phenylhydrazin and of toluylendiamin, they made only a few experiments with them. They state that repeated injections of chlorhydrate of phenylhydrazin in rabbits produce destruction of the protoplasm of the hepatic cells and fusion of their elements, intense and diffuse hyperaemia, and the appearance of free or intercellular biliary pigment. Injections of toluylendiamin determine in dogs and rabbits an intense fatty degeneration of the hepatic cells, with dilatation and stasis of the blood capillaries between the acini. These results agree with those obtained by previous observers. More numerous experiments were made with pyrogallic acid. The authors state that this poison produces necrosis of the protoplasm of the hepatic cells, with atrophy of their nuclei and anomalous distribution of the nuclear chromatin, and in all cases—except when the injection was limited to a single small dose—they found dilatation of the intra-acinous capillaries. They were unable to verify the description given by Afanassiew of an interstitial hepatitis resulting from pyrogallic acid, probably because the doses used by them always caused death within three or four days, while his experiments on each animal usually lasted at least twenty days. The subcutaneous injection into a rabbit of 25 cgr. of pyrogallic acid determines an accumulation of granules and of concretions of biliary pigment within the hepatic cells. This pigment gradually increases until it reaches a maximum six hours after the injection. Then it gradually diminishes and disappears, returning again after a fresh introduction of the toxic substance. Rabbits killed one or two days after a single subcutaneous injection of 50 cgr. of pyrogallic acid show necrosis of the hepatic cells and breaking up of their protoplasmic substance with atrophy of the nuclei. A single large dose of pyrogallic acid, such as 1 gram. injected into the jugular vein of a rabbit causes very acute poisoning, and the death of the animal after a few hours with symptoms of bulbar paralysis, and in the liver rapid destruction of the protoplasm of the hepatic cells. Subcutaneous injections of phenylhydrazin, toluylendiamin, and pyrogallic acid all cause dilatation of the biliary capillaries, and dilatation and stasis of the blood vessels of the liver, especially the intra-acinous capillaries, but biliary stasis is only caused when the icterus is very intense. As these poisons usually determine albuminuria as well as icterus, the authors also examined the kidneys, and found that all three poisons produced similar symptoms of an intensity proportional to the dose employed. These symptoms affected mainly the epithelial protoplasm of the uriniferous tubules. The process was one of necrobiosis, with fusion of the epithelial elements, breaking up of the protoplasm, and formation of a granular detritis often occupying the lumen of the uriniferous tubule. At the same time there were similar alterations in the Malpighian glomeruli, with solution of continuity of Bowman's capsule, and the presence of a granular detritus in the dilated capsular space. Of all the changes noted by them the authors attach most importance to the granules found in the hepatic cells up to five or six hours after each injection. The theory which they base on these observations is that a moderate injection of pyrogallic acid—for example, 25 cgr.—sets free a quantity of haemoglobin, which is carried to the liver and there transformed into granules of biliary pigment, subsequently leaving the liver in the bile, but that large doses of the poison have a specific toxic action on the epithelial cells, and that after large doses or repeated small doses the cells are unable to eliminate in a natural manner the pigment brought to them, which has therefore no channel open to it except through the capillary blood vessels.

(309) Bacilli in Different Tuberculous Diseases.

A. MOELLER (*Zeits. f. Tuberk. und Heilstatt.*, Bd. v, Heft 1.) has examined pure cultures of bacilli in different forms of tuberculosis, to discover whether the virulence of the bacilli and their microscopical appearances are a guide to the form of tuberculosis to which they give rise. The specimens were taken from cases of acute miliary tuberculosis of lung, lupus, fistula ani, chronic and subacute phthisis. The cultures from the first three were obtained by inoculation of guinea pigs, in the case of chronic phthisis, directly from the sputum, and by both methods in the case of subacute phthisis. The culture obtained by inoculation was found to be decidedly more virulent in its action on guinea pigs than that obtained directly from the sputum. The bacilli in the sputum of the case of acute tuberculosis were small and short, a fact in agreement with Frankel's observations. From the chronic case they were of various shapes, some branched, some drawn into filaments, etc., and these peculiarities were reproduced in later cultures. Those obtained from sputum were the only ones to form clumps. The order of virulence of the cultures was as follows: (1) The culture from the case of lupus; (2) of miliary tuberculosis; (3) of subacute phthisis obtained by inoculation of guinea pigs; (4) of chronic phthisis; (5) of subacute phthisis obtained directly from the sputum; (6) of fistula ani. The form of tuberculosis would therefore appear to be determined by the constitutional peculiarities of the patient rather than by the virulence of the bacillus.

AN EPITOME OF CURRENT MEDICAL LITERATURE.

MEDICINE.

310) The Relation of the "X" Ray and Radio-active Solutions to Examination of the Stomach.

AT a meeting of the Medical Association of the Greater City of New York on March 14th, Sinclair Tousey read a paper on this subject (*Boston Med. and Surg. Journ.*, April 21st). He had repeatedly determined the presence of cancer of the stomach by the use of the x ray alone. At present he was inclined to rely, in stomach work, more upon the fluoroscopic than upon the skiagraphic examination. Sometimes a tumefied anterior wall or pyloric extremity could be positively made out with the fluoroscope, and be merely indicated with a reasonable degree of probability by a skiagraph. In other words, a tumour of the stomach was almost transparent to the *x* ray, and, being in constant motion during respiration, was better studied directly. Simple dilatation of the stomach and gastroptosis, without the presence of a tumour, would scarcely be capable of demonstration by the *x* ray under ordinary circumstances; and it was with a view to the diagnosis of these conditions that Tousey's experiments were undertaken. All his work with radium and radio-active solutions, both in the laboratory and in the treatment of patients, had been with a radium of 20,000 radio-activity, and the amount used in each instance was 1 decigram. The radio-active solution was prepared by immersing such a quantity of radium enclosed in a hermetically-sealed glass tube for four weeks in 16 oz. of normal saline solution contained in a stoppered glass jar. The fluorescent solutions employed were made in accordance with suggestions from Kemp. Tousey then proceeded to enumerate his observations up to the present time. Among them were the following: (1) In human subjects to whom radio-active solution was given subcutaneously or by the mouth no disturbance of any kind was produced. (2 and 3) Radio-active solutions were injected into a cat and a rabbit, in the lumbar region, every day or two for a week, without producing any symptoms. In the case of the cat there was at first a slight looseness of the bowels, which was thought to indicate that the injection was too large, and which disappeared after the amount had been reduced. (4) A dog weighing about 12 lb. was etherized, and radio-active solution injected through the left femoral vein. The right common carotid artery had been opened and connected with a mercurial manometer registering the blood pressure upon a kymograph. At first 5 c.cm. were given very rapidly, and the same quantity was added after an interval of five minutes. The only effect noted was a slight rise in blood pressure when the infusion was begun. (5) A rabbit was killed and the abdomen opened. The contents of the stomach were partially removed, and the organ was then filled up with a mixture of radio-active and fluorescent mixtures. The pylorus and cardia were ligatured, and the abdomen sewed up. When the animal was examined by the *x* ray in the dark, with all visible light from the *x*-ray tube excluded, no fluorescence was visible to the naked eye; but with the fluoroscope the stomachic region seemed very transparent, and could be mapped out exactly. An *x*-ray picture was then taken with the animal prone upon the table, and, as may be seen, it shows the outline of the stomach in a brilliant manner. The stomach was then emptied of all contents, and another picture taken under precisely the same conditions. The conclusions reached were as follows: (1) Radio-active and fluorescent solutions are innocuous when given by the mouth or subcutaneously; (2) they do not produce, either singly or in combination, sufficient fluorescence to be of value in the examination of the stomach without the use of some additional light to excite their fluorescence; (3) they will in some cases be of the very greatest assistance in the *x*-ray diagnosis of stomach lesions; (4) they will in some cases be of value in the *x*-ray treatment of stomach lesions.

(311) Korsakow's Psychosis.

A. WESTPHAL describes a case of Korsakow's psychosis, calling especial attention to the condition of the paralysed eye muscles. (*Berl. klin. Woch.*, February, 22nd, 1904.) The patient, a man of 36 years, was taken ill suddenly in March, 1898. He was found in a dazed condition, and during the following months and years he remained in a condition of stupor, took no notice of his surroundings, and when questioned either refused to answer altogether or said "I don't know." He obviously had no idea of time or place; and his power of concentration was particularly affected. His speech was indistinct. His gait was natural, save when he turned sharply round or tried to walk in a straight line, when it was unsteady. The globes of the eyes could not be moved freely upwards or downwards, but all other movements were normal. In May, 1902, he was transferred to Westphal's care in Greifswald. It was then found that his memory for recent occurrences was much affected, he could not pay attention to what was going on, but there was no attempt at confabulation. He always answered that he did not know, and what he did not know he could not say. On no occasion did he invent an answer. He was very apathetic, did not speak spontaneously, and slept a great deal. The gait was stiff, and the posture of the arms and trunk were also stiff. The speech was hoarse and monotonous. The patella reflexes were exaggerated, and there was slight ankle clonus. No Babinski and no Oppenheim's leg phenomenon. Both pupils reacted very sluggishly to light, but reacted well to convergence. The globes could not be moved upwards or downwards, but in converging there was a slight sinking of both. Ophthalmologically, it was found that there was a slight but distinctly pathological paleing of the temporal half of the papillae. The vision was diminished. In December, 1903, he was examined for the "closure of the lid reaction." At the same time as Westphal determined that the pupils contracted by intended but prevented closure of the lids, he noticed that the globes which were paralysed for upward movement flew upwards on the attempt to close the lids being made. The movement was upward and outward, and took place very rapidly. This phenomenon was present in the closed or open other eye. Raising the lid from the globe of the eye did not prevent the upward and outward movement; when the lid was fixed so tightly that a contraction of orbicularis was almost or quite impossible, the movement was less smart. On repeating the experiment many times the movements became slower and less complete. The mental condition of the patient improved somewhat during the following one and a-half years. Etiologically, it was found that the man had been an alcoholist. The diagnosis of Korsakow's psychosis was made from the disturbance of memory, of the power of attention, by the incapability of receiving fresh impressions, coupled with a moderate retention of previously acquired knowledge, as well as bodily muscular paralysis especially of eye muscles. These symptoms following an abuse of alcohol constitute this disease. Westphal discusses minutely the eye phenomenon, and comes to the conclusion that the upward movements of the globes rest on combined movement (*Mitbewegung*) with the orbicularis.

(312) Stages of Pulmonary Tuberculosis.

THE Committee on Nomenclature of the American Climatological Association has suggested (*Med. News*, April 30th) the following classification for cases of pulmonary tuberculosis: Incipient: Slight physical and subjective signs, with history indicative of pulmonary tuberculosis. Sputa, if present without bacilli. First Stage: Definite physical signs of localized infiltration; total involvement less than half a lobe, whether at one or more points; cough and expectoration with bacilli; constitutional symptoms, slight. (In disseminated cases expectoration and bacilli may be absent with constitutional symptoms more severe.) Second Stage: Infiltration of single or multiple areas approaching or equal in amount to one lobe; or smaller area in stage of softening; cough and expectoration with bacilli; constitutional symptoms, severe. Third Stage: Infiltration in excess of one lobe, or if less in stage of well-developed excavation; more severe constitutional symptoms. They also suggest a classification of results of treatment as follows: Progressive: All essential symptoms and signs continue unabated. Quiescent: Constitutional symptoms slight or entirely absent; physical signs improved or unchanged; cough and expectoration with bacilli still present. Arrested: Absence of all constitutional symptoms; expectoration and bacilli still present; physical signs may or may not persist; foregoing to have existed for at least three months. Apparently Cured: All constitutional symptoms and expectoration with bacilli absent for a period of two years under ordinary conditions of life.

SURGERY.

(313) Peculiar Forms of Hand Infection.

Two cases of a peculiar form of hand infection, due to an organism resembling the Koch-Weeks bacillus, have recently been reported by John R. McDill, Manila, and William B. Wherry, bacteriologist, Biological Laboratory, Manila (*Medical Record*, April 30th). The first case occurred in a hospital surgeon, who had been treating cases of acute suppurating conjunctivitis, and one case of leg infection, which ended in septicaemia. Soon after, a small, painful, reddish papule was noticed on the tip of the right forefinger, which gradually increased in size. The papule was twice lanced, no pus being found, but the nurse who lanced the finger on the second occasion pricked her own finger during the operation. After about five weeks of severe suffering the finger of the hospital surgeon gradually returned to its normal condition. The case of the nurse was, however, far more serious, resulting eventually in gangrene of all tissues of the finger implicated and necessitating amputation. The authors draw attention to the fact that surgeons treat all these inflammatory processes, usually described as panaris or panaritium, as if all were due to one causative origin, and direct all efforts to preserve the functional uses of hand and fingers. "It may be questioned," they say, "if this is in accord with the present state of our knowledge of these conditions; but actual results bear out the general practice in a striking way, and will continue to do so until specific agents have been produced with which one can more successfully combat the special pathogenic microbes of these inflammations." Koch's culture experiments have shown that in every case, one kind of germ or another, or several together, can be found in the inflammatory exudate, and they are usually briefly described as pyogenic bacteria. Streptococci, and, in rare exceptions, bacilli such as the proteus and coli communis, have been found, and the clinical course of all seems much alike and to be modified similarly by the anatomical peculiarities of the part first affected. McDill and Wherry state that the usual history of extension of the destructive processes along the paths of least resistance has given rise to the imperative therapeutic law—incision, disinfection, and drainage as soon as possible; let the cuts be made too soon and too deep and long rather than too late. Notwithstanding the difficulty experienced in obtaining the first culture the bacillus adapted itself to a saprophytic existence and grew readily upon the "ordinary" media. There were several cases of acute contagious conjunctivitis in the hospital at the time when the above-mentioned infections occurred. The bacilli in the cover-slip preparations from these cases corresponded in their morphology, size, and staining reactions with those in the preparations from the fingers of the hospital surgeon and nurse. They also corresponded in their morphology, distribution, and staining reactions with the descriptions of the Koch-Weeks bacillus. The authors concluded that the organism isolated from the cases described above was the Koch-Weeks bacillus itself or a closely related "type."

(314) Outward Luxation of the Knee Complicated with Laceration of the External Popliteal Nerve.

Vautrin (*Rev. de Chir.*, No. 4, 1904) describes at length the signs and complications of traumatic luxation or rather, subluxation, of the head of the tibia outwards, an injury of more frequent occurrence than might be imagined from the small number of recorded instances. A distinction is made between two well-marked varieties of this luxation; one in which the patella is not displaced, the other in which this bone has been carried over the outer surface of the external condyle. The author insists strongly on the necessity of prolonged immobilization of the joint in the treatment of the different forms of this injury. Recognizing the value of early movement and massage in injuries of such joints as the elbow, wrist and ankle, he holds that these new methods of treatment would be likely to prove faulty and injurious if applied in a case of luxation of the knee, in which the torn ligaments are incapable of maintaining the mutual relations of the bones, and there is a tendency for the bones to be displaced through strong and unopposed muscular forces. Among the complications of outward luxation of the knee, such as external wound, fracture, and injuries of important vessels and nerves, the author refers especially to the last, and puts on record a case under his own case in which the external popliteal nerve was torn through. This complication, though not previously mentioned in surgical literature, seems not unlikely to occur in outward luxation of the head of tibia, if anatomical relations of this nerve be taken into consideration. It may, the author points out, escape in most instances by reason of its mobility, resistance, and elasticity, but the instance here recorded will be of service in suggesting the propriety of bearing it in mind in a recent case of luxation of the knee, so that it may at once be properly dealt with by exposure and suturing of the injured nerve.

(315) Primary Carcinoma of the Bulbous Urethra.

Hall (*Ann. of Surg.*, March, 1904) reports a case of primary carcinoma of the bulbous urethra admitted under his care into the Bradford Royal Infirmary. In this, and also in a second case treated by the author's colleague, Dr. Jason Wood, the nature of the urethral affection was proved by microscopic examination. The author has succeeded in compiling a list of 21 of undoubted cases, and states that the material he has collected apparently represents all that is known of this very rare disease. After a careful review of all the cases he is forced to the conclusion that a differential diagnosis between malignant disease and simple induration is frequently impossible prior to operation, excepting when the size of the perineal swelling is out of all proportion to that usually found associated with simple stricture. Of 10 cases treated by resection, or some form of extirpation, the result is unrecorded in 1; of the remainder, 4 died within nine months, and 1 is stated to have had a recurrence within six months of the operation. Of the remaining 4, the subsequent history is incomplete, it being simply reported that there was no recurrence at twenty-one months, eleven months, ten months and four months respectively. The author, whilst acknowledging that the results of operative treatment are not encouraging, thinks that extirpation is worth a trial, provided the disease be recognized in an early stage. Lymphatic infection occurs in the inguinal glands and is therefore also amenable to surgical treatment.

MIDWIFERY AND DISEASES OF WOMEN.

(316) Elderly Primiparae with Fibroid Uterus.

Lepage (*Compt. Rend. de la Soc. d'Obst. de Gyn. et de Péd. de Paris*, October 1903) reports 2 cases of spontaneous delivery where the patients were elderly. The first patient was 57, and had not married until 35. For ten years the period had always been free. In the seventh month the uterus reached 12½ in. above the pubes; the child was living. There was a pedunculated fibroid as big as an egg on the fundus; two sessile growths of the same kind lay on the anterior wall, one rather low down. The cervix was pushed upwards and forwards by a tumour in Douglas's pouch of the size of a tangerine orange. Lepage examined her himself next term; besides the growths already detected, a firm mass was now defined in the right posterior part of the pelvis; it bulged considerably downwards. Nevertheless labour ended spontaneously at term; a female child was expelled dead; it weighed over 6½ lb., and was blanched, having bled to death from the rupture of a vessel due to severe tension of the membranes and not to any fault in the cord or placenta. There was no complication during the puerperium (N.B.—The patient's age is given as 57 both loc. cit. and in a shorter report in *Ann. de Gyn. et d'Obstét.*, November, 1903). The second patient was 38, and had cohabited since 26, yet had never been pregnant before. There were several fibroids in the uterus above the pelvic brim, and a big tender growth as large as a fetal head pushed the cervix upwards against the pubes. Lepage watched her from the sixth month, and she was under observation at the Baudelocque clinic when labour set in at term. The pelvic tumour rose up above the brim, and the cervix sank downwards and backwards until it occupied the middle of the pelvic cavity. The breech presented, and the fetus was safely delivered with a little manual aid; the perineum and rectum were lacerated, but were successfully repaired nine days later. Lepage suspected that the damage to the perineum was the result of defective resistant power in its tissues due to pressure of the pelvic fibroid. Pinard, in discussing these cases, noted how ill both the patients were when admitted early in pregnancy into hospital. There was much pain, and many surgeons would have advised immediate hysterectomy. But the two women were kept in bed on a milk diet, the urinary and digestive organs were attended to, and thus in each case the uterus of an old primipara infested with fibroids, one of which

is pelvic, nevertheless carried the tus to term and expelled it spon-neously. Pozzi admitted that hyster-tomy or any other surgical interven-on was not as a rule needed in cases of egnancy in the fibroid uterus, but the tient must be watched, as haemor-age during gestation was common, d he had recently lost a case from oding during parturition. He and nard admitted that vicious insertion the placenta was frequent in these ses.

7) Caesarean Hysterectomy in Traumatic Atresia Vaginae.

URNIER (*L'Obstét.*, March, 1904) oper-ed in the middle of the seventh month a woman who had undergone two successful operations for vesico-ginal fistula. After labour pains had ntinued for many hours the child ed, embryotomy appeared indicated, t the vagina was blocked from the lva upwards by tense cicatricial nds, one forming an arch running tero-posteriorly, from each side of ich urine dripped continuously. vertheless, impregnation had oc-rred. The child was removed by esarean section and the uterus ampu-ed above the cervix. The patient overed, being able to leave her bed the seventeenth day. Fournier gives sons why he did not perform a simple esarean section. The chance of mor-ity would have been greater, the rine contents were fetid, and the vix lay bathed in putrid urine con-ned in the cavities between the cica-cial bands in the vagina. Perhaps, admits, it would have been more ple to have removed the uterus ire without preliminary incision and raction of the fetus, but he could not nage it on account of the shape and argement of the inferior segment.

8) Cancer of Clitoris in Woman aged 78.

BER (*Monats. f. Geb. u. Gyn.*, Feb-ry, 1904) operated on a patient, aged for primary epithelial cancer of the oris which formed a tumour of the e of a walnut. Its base was connected h the prepuce, the inguinal glands e apparently not enlarged. The nour, which could be moved freely on base, was excised together with the oris, including the crura, and the rounding healthy mucous membrane. e wound, after all haemorrhage had n checked, was closed by suture with-any stretching of the integuments. catheter was retained for six days; on was by first intention. After ber had recorded a second case of ex-sive malignant disease of the external ans involving the clitoris, removed h free dissecting off of the right uino-femoral glands. and adjacent ues, there was some discussion about best operative treatment in cancer the clitoris. Redlich preferred the rmo-cautery to the knife, as the mer could not promote infection of wound. Weber considered that the fe was preferable to the cautery, as cancerous tissue could be enveloped gauze and pushed aside when the lthy tissues were being incised and sected away. The cautery did not w of healing by first intention. tly, Weber never expected immunity m recurrence after operation for cancer of the clitoris and labia, it had followed in all cases under his care.

(319) Hernia of Ovaries: Absence of Uterus and Vagina.

DELAY (*Lyon Méd.*, January 17th, 1904) describes a case where the ovaries lay in the inguinal canal, whilst, as is so often the case, there was arrested development of the genital tract. The patient was 28 years old; the breasts, pelvis, hips, and general appearance were perfectly feminine, but she had never menstruated. She was sent to Jaboulay for suspected strangulated hernia, but there were no distinct symptoms of that condition. A swelling of about the size of a walnut lay in each groin; it was but slightly movable. The labia and clitoris were well developed; the finger could be passed into the urethra, though there was no trouble about holding urine. The uterus and vagina were absent. An operation similar to herniotomy was performed: the swellings proved to be ovaries with senile characters and evidence of cystic degeneration; the microscope showed distinct traces of uterine and tubal tissue associated with the displaced ovaries.

THERAPEUTICS.

(320) The Treatment of Obesity.

GROCCO (*Riv. Crit. di Clin. Med.*, February 27th, 1904) divides cases of obesity into two classes—those who take in too much food and drink, and those who do not excrete enough of the products of metabolism, but the distinction is not absolute, and no case should be treated as if only one thing were at fault. The objects of treatment should be: (1) To remove the etiological element which is disordering metabolism; (2) to redress any disproportion between intake and output; (3) to combat the morbid effects of the actual deposit of fat. The author attaches great importance to a dry diet where it can be tolerated, but in some it sets up gastric and intestinal disturbances, and even causes renal colic, gout, or neurasthenia. A dry diet is likely to be useful to those fat persons who habitually drink much. If the elimination of urine is unchecked the treatment is probably doing good, but if digestion is interfered with, if sweating stops, and especially if the urine becomes scanty and of high specific gravity, the treatment should be laid aside. Meals should be small and frequent—four or five in the day, and liquid should be taken about two hours before a meal. The restriction of fluids is an empirical measure, and the author does not accept any of the explanations of it which have yet appeared. The reduction of food and drink should be gradual, and not more than 1 kilogram of body-weight should be lost in one week. The albuminoids should not be reduced to such an extent that more nitrogen is lost than is supplied in the food. When allowance is made for the fact that not all the food ingested is really absorbed it is probable that the excretion of nitrogen by the kidneys should not be more than 90 per cent. of the nitrogen in the food. Repeated examinations of the urine should be made to determine the sufficiency of the nitrogen supplied, especially if there is any intolerance of treatment, for the organism may need more nitrogen at one time than at another. It is impossible to draw up a satisfactory diet sheet to suit all patients. The details must be carefully determined in each case to suit the patient's habits and convenience. The treatment ought not to be accompanied by severe hunger, but by a sense of well-being. A reduction of alimentation is only a part of the treatment—of varying importance, according to the degree to which the patient has habitually carried the abuse of food. Amongst measures for increasing the output of the system the first place is given to muscular activity, especially in the case of fat people of idle habits. Where the heart and vessels are healthy all forms of exercise are good if performed gently at first and not carried to the point of painful fatigue or oppressive dyspnoea. Massage, local and general, is indicated, especially when the fat is localized in the abdomen. Warm baths, sea-water baths, and medicated baths are recommended, especially those containing carbonic acid, the chlorides and alkalies. Of mineral waters for drinking, the author recommends especially sulphated, alkaline, chloride and alkaline, and ferruginous alkaline chloride waters. The good results obtained in the treatment of obesity at Marienbad and other places are not due simply to the waters, but to the use of the whole physico-therapeutic resources of these places, combined with restriction of diet. Those who drink the waters and do not reform their habits grow no thinner, but in some cases develop a more vigorous appetite, and become more fat than before. Unlimited sleep favours the development of obesity, and its restriction is a part of the treatment. Excessive mental work causes deficient muscular activity, and should be checked. Mental distraction and change of scene and climate are valuable aids to the reduction of obesity. Clothing should not be so warm as to prevent the cutaneous dispersion of heat. The methodical and abundant inhalation of oxygen is also recommended. The use of drugs should be for the most part confined to what is necessary in order to combat constitutional conditions which have led to obesity. Amongst these conditions Grocco mentions gout, scrofula, and chlorosis. The excessive use of purgatives, iodides, and thyroid preparations is deprecated, though all these are useful in some cases, if prescribed in moderate quantities and taken only for a moderate time. Iron, strychnine and phosphorus are useful, and in cases of cardiac weakness sparteine, caffeine, and strophanthus. In every case the treatment must be founded on a careful analysis of the intake and output of the body. Success will depend to a great extent on the stage at which treatment is begun. Treatment is especially necessary in cases of obesity beginning in early life. Cure is not complete until the patient has been relieved of his excess of fat and has settled down to a permanent way of living which does not lead to undue increase of weight. The change from a treatment of maximum intensity to a regimen involving only such restrictions as are absolutely

necessary is to be made in the same gradual manner as the progress from ordinary life to a treatment of maximum intensity, and throughout the whole course the greatest effort is to be made to avoid auy interference with digestion, any injury to the heart or nervous system, and any wasting of the nitrogen of the body. These indications cannot be met if the physician allows the order and intensity of his treatment to be varied at the whim of a too eager patient.

(321) Leo's Acid Treatment of Pruritus.

IN describing a case of pruritus treated according to Leo, F. Koehler (*Berl klin. Woch.*, April 18th, 1904) says that this condition is frequently met with in conditions of abnormal chemical composition of the blood such as jaundice, diabetes, and after taking certain drugs. The alkalescence of the blood plays an important part in the production of this symptom, although it is difficult to determine the exact fault in the blood. If there is marked alkaluria, one can assume that the blood and the body juices are likewise too alkaline. Leo came to the idea that it would be of use to treat pruritus with inorganic acids in order to diminish this alkalescence. Koehler's patient was under treatment in the sanatorium at Werden, and during his stay there the pruritus developed without any apparent cause. He was treated with external applications and arsenic without benefit, and then Koehler tried the acid treatment. This consists of giving one tablespoonful of a $1\frac{1}{2}$ per cent. dilution of sulphuric acid every two hours. On the second day the urine became acid, and the appetite and digestion were not disturbed. On the fifth day the skin itching had entirely disappeared, and did not return as long as the patient was kept under observation. He regards this result as due to the acid. In conclusion, he warns one from looking on this form of treatment as certain for all cases, as Leo himself records some failures, but he considers that in a number it may be found very useful.

(322) The Uses of Hydrobromate of Scopolamine.

ALTHOUGH the action of scopolamine and the indications for its use have been settled some time ago, K. Liepelt (*Berl. klin. Woch.*, April 11th, 1904) considers that this drug is used far too little in general practice and therefore relates his experience with it. His hospital observations taught him that in various conditions of excitement, scopolamine is more active than chloral or morphine if applied properly. He points out especially that it never produces any unpleasant after-action. In the excitement of mental disorders it works well, and for these cases Liepelt wishes to recommend it to the general practitioner. In cases of delirium tremens he has found the action prompt and certain, and more to be relied on than other hypnotics. Scopolamine belongs to the "tropins"; it was formerly known as hyoscin. Like atropine it acts locally on the conjunctiva, paralyses the endings of the motor oculi and dilates the pupil. As a sedative, it is used in weak solution; 0.01 gram dissolved in 10 grams of water. The dose will depend on the degree of excitement of the patient, but as a rule from 0.4 mg. to 0.8 mg. (approximately $\frac{1}{160}$ to $\frac{1}{80}$ gr. will suffice). The maximum dose is placed at 1 mg. (approximately $\frac{1}{64}$ gr.) The effect appears in the majority of cases soon after injection and mostly lasts for from three to five hours. Children stand doses in proportion to their weight well. It fails from time to time to produce the desired effect like every other drug, but no harm is ever done by having given it. It will be found of immeasurable value in the treatment of troublesome cases of delirium tremens and in quieting mental cases during their removal to the asylum.

(323) Gonorrhoeal Vulvo-vaginitis of Children treated with Aelargin.

VIGNOLO-LUTATE (*Rif. Med.*, November 4th, 1903) gives details of 18 cases in which he used aelargin; 15 of these were vulvo-vaginitis and 8 were definitely cured, 4 presumably, 1 improved, and 2 *in statu quo*. The 3 cases of cervicitis were much improved by treatment. The disappearance of the gonococcus varied from six to fifteen days after treatment. As to methods of using the drug, irrigation 1 to 4 per cent. was more serviceable than injection; in either case a plug of cotton-wool soaked in the solution was used. No bad results were observed.

PATHOLOGY.

(324) Cells with Eosinophile Granulation.

OPIE (*Amer. Journ. Med. Sci.*, February, 1904) has conducted a series of observations upon the functional activities of eosinophile cells, more especially investigating their relation to nutrition. Eosinophile leucocytes are found to be widely distributed throughout the animal kingdom, though it is probable that those of mammals, while having a constant relation in different species, are not necessarily functionally comparable to the cells with eosinophile granules of lower vertebrates. In man such cells form but a small and somewhat variable proportion to the total number of leucocytes. In certain mammals this numerical relation is found to vary within wider limits, the count being so much above the average in some animals as to suggest the presence of some pathological process. Blood examinations in 10 healthy dogs, together with an estimation of intestinal parasites has suggested the possibility that the absolute number of eosinophile cells bears some relation to the number of such parasites. In order to obtain a great number of observations of the behaviour of these cells under many varying conditions the leucocytes were counted in fresh blood without hardening and staining, and experience showed that this method was sufficiently accurate to afford an adequate presentation of the changes undergone by the eosinophile leucocytes. That a direct relation exists between the number of eosinophile cells and the weight of the animal was clearly demonstrated, it being found that in guinea-pigs weighing less than 500 grams the proportion of these cells rarely exceeded 2 per cent., while for greater weights there was shown to be a sudden rise to 8 per cent. betw 500 and 600 grams, more gradua increasing for still greater weights. studying the distribution of these c in the tissues of the guinea-pig, t were found to exist in greatest numb in the mucosa of the gastro-intesti tract immediately below the tubu glands, in the mucosa of the air p sages, in the lymphatic tissue a spleen, these having polymorph nuclei, and being identical with th found in the blood. Large mononucl cells with eosinophile granulation oc in the bone marrow, and these, und going mitotic division, form daugh cells resembling the eosinophile leu cytes of the blood. Where accumu tion of these cells has occurred in tissues they were found to abound in blood vessels of the part, and af manufacture in the bone marrow th reach the tissues by the blood vess Migration from the blood vess into the wall of a small bronchus a thence through the epithelium into lumen was observed. In studying relation of eosinophile cells to nutrit it was found that complete withdraw of food is followed by a decrease b in the proportion and in the absol number of eosinophile leucocytes in peripheral circulation, this being p ceded by a temporary increase. A da variation was found to exist in t number of cells, it being probable th the bone-marrow discharge of th cells into the circulation is subject periodic variation. With the admi stration of food after a period of star tion the eosinophile cells gradually crease in number, but neither is th increase or that of the weight of t animal continuous. A temporary f in weight is accompanied by a ra increase of the eosinophile leucocyt while a rise in weight tends to reta this increase, thus showing how cl a relation exists between the nutriti of the animal and the eosinophile cel

(325) A Case of Altered Hygric Sensibili

RAVENNA (*Rif. Med.*, December 16t 1903) reports the case of a general par lytic who developed alterations in h hygric sensibility. Admitted into t asylum in August, 1900; he first co plained of altered tactile, thermic a hygric sensations in December, 190 He constantly spoke of feeling as if were being bathed. This sensati would sometimes come on indepe dently of any external stimulus. Fro the necropsy made in this case, a from reports of a similar case known t the author, it seems probable that the alterations in hygric sensibility a causally associated with changes in th hippocampal convolutions. In th author's case the ganglion cells of th hippocampus showed pigmentary dege eration, hyaline necroliosis and som splitting up of the protoplasm. T wards the external surface of the conv lutions there were many foci of gliosis all more marked towards the surfac than in the centre. Glycogenic bodi were numerous, and especially in th parts where the gliosis was present Similar alterations were seen in th midfrontal lobes as regards the ganglio cells, but the neuroglia were not muc changed, and there were very fe glycogenic bodies.

AN EPITOME OF CURRENT MEDICAL LITERATURE.

MEDICINE.

(326) Pneumonia.

t a meeting of the Section of Clinical ledicine and Surgery of the Medical nd Chirurgical Faculty of Maryland, eld on March 18th, this subject was iscussed (*Med. News*, April 23rd). leasants read a paper on the statistics f pneumonia and exhibited a chart owing the mortality curve for tuber- ulosis and pneumonia during the past fty years. The former had steadily llen and the latter steadily risen. he large negro population of Baltimore ccounted for a great number of the ses in that city, the total death-rate the black race being twice that of the hite. The morbidity of the disease as hard to estimate, and whether the ortality increase of the last fifty years as really due to an increased number cases or an increase in the fatality, it as impossible to say. The following ctors must be considered in explain- g the increased mortality of the dis- se: (1) Increase in the density of the pulation; (2) general prolongation of e and reduction of intestinal diseases ong children; (3) climatic fluctua- n; (4) increase of immigration; the negro element; (6) more accurate agnosis, with better necropsies and ath reports; (7) decrease of death-rate m tuberculosis; (8) the presence of luenza, with which pneumonia is idently closely connected; (9) a theo- ical increase in the virulence of the eumococcus. Welch dwelt on bacte- logical knowledge concerning pneu- nia. In spite of the complete dies of the disease, this knowledge l had practically no influence on the ical attitude. The organism first covered by Sternberg in 1880, con- ed with a bacillus by Friedlaender 1883, and clearly described in 6 by Fraenkel and Weichselbaum, found in all cases of true lobar eumonia. It was a delicate organism, by proper methods could always be nonstrated. It was characterized by rt viability in cultures and in the ly, and by its causing a local inflam- tion, but it also set free a toxin using the pneumonic fever of Flint). lowing the discovery of the toxin of htheria and tetanus attempts were de to produce a similar substance for eumonia. This, however, was bacter- gically an impossibility, and the dence that the pneumococcus pro- ed a toxin was entirely clinical. The anism was thought by some to be y a variety of the streptococcus. It harboured normally by 20 per cent. all people, and the accessory causes neumonia were therefore almost the ient causes. In fact, there was no ase in which such emphasis must be on the so-called accessory causes. as hard to decide precisely to what nt the disease was contagious, but e was no bacteriological basis for ing it a notifiable disease. It was nown in Arctic expeditions, a fact h would seem to be opposed to exposure as an etiological factor. It might cause septicaemia. The immunity which it produced was in human beings only transitory. A definite artificial immunity, though of not a high degree, was easily produced, and the serum from animals so immunized undoubtedly protected against the disease. But all antibacterial (as distinguished from antitoxic) sera were uncertain, and this was exceedingly true of the pneumonia serum, the clinical value of which was very doubtful. W. Osler discussed pneumonia as he had seen it in his hospital experience. One of the striking features of the disease was its sameness. In the past twenty-six years he had studied the disease in three large hospitals in various parts of North America, but its clinical features were always uniform. This was particularly true of the mortality, which Dickerson showed several years ago to remain (when large numbers of cases were considered) absolutely uniform. In the Johns Hopkins Hospital the average mortality had been 26 per cent., and the same figures held for the Massachusetts General Hospital, for the Montreal General, and for Blockley. In private practice, of course, a smaller proportion of deaths was seen, but terminal pneumonias were often overlooked there; ether pneumonias were very rarely seen, and other causes operated to reduce the mortality. Atkinson discussed the therapeutic side of pneumonia. He said pneumonia was largely a local inflammation, and it ended by crisis. The body was therefore limiting the disease anatomically, and preparing in the end to overcome it, which, if undisturbed, it could do. The indications were plainly: (1) To aid the natural tendency to recovery; (2) not to interfere with it (as, for instance, by the administration of nauseating expectorants). Some patients would die and others would get well, no matter what was done; between these two classes lay the field for therapeutic interference. There was no specific for pneumonia. Blood-letting, veratrum viride, and sera, whatever their value, were not specific. Blood-letting was too much neglected, and was of especial value when the right heart was overdistended. The therapeutic rule should be to "go slow" with treatment, to watch the case carefully, and to try to help Nature rather than to make any definite attack on the disease itself. Rest, relief of pain, and sleep should be obtained by morphine. Small doses of strychnine and alcohol provided the necessary stimulants when the heart lagged. The icebag and cold sponges should, of course, be used. Oxygen was of value if administered in time. Digitalin and nitroglycerine should be avoided, but saline infusions were of value in increasing diuresis.

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(327) Syphilis as a Cause of the Neuroses.

AT a joint meeting of the Chicago Medical Society and Chicago Neurological Society, held April 13th, L. Harrison Mettler read a paper on this subject (*Med. News*, April 23rd). He said that the association of syphilis and functional nervous troubles had long been noted. The relationship of cause and effect between them was not so well established. On the one hand, there was no accurate knowledge as to how the syphilitic virus affected the neurones so as to cause them to function abnormally; nor, on the other hand, was it known exactly what was meant by a neurosis, its histopathology and pathogenesis. If these two questions could be solved positively the relationship of syphilis to the neuroses would be obvious. In regard to the action of the syphilis upon the neurones, he argued that it was both direct and indirect. In the direct way it in some way disturbed the normal physio-chemical activity of the neurone by a direct poisoning of its molecular contents. Indirectly it affected the nutrition of the neurone by changing the nutritive value of the blood, or limiting the blood supply by setting up disease, with all its well-known consequences, in the vascular walls. Pathologists and syphilographers were pretty well agreed that syphilis could and did thus directly affect the cellular contents so as to disturb the functions of these cells. Moreover, the relationship of syphilis to the so-called parasyphilitic diseases, as well as the part which it played in the latent form of predisposing cause to many of the organic diseases, indicated that it could influence injuriously the intimate structure of the nerve cells. This cleared the way for the acceptance of the belief that syphilis could provoke a neurosis. All irritative and pressure symptoms caused by the inflammatory products of organic syphilitic lesions, though functional in character, Mettler regarded as physiological rather than pathological, and omitted from consideration. He adopted the view that the basis of a true neurosis was a constituent change of some sort in the nerve cells; for, in his opinion, a disturbance of function sufficient to be recognized as a disease, with the preservation of normal structure, was a logical contradiction. A neurosis, therefore, was essentially an organic disease, and it was as likely to be the result of a syphilitic as of any other form of infection. In saying this, however, he was mindful of the fact that nearly all of the earliest manifestations of the syphilic organic diseases were functional in character for a time, hence, care must be exercised in making the diagnosis, for a syphilitic neurasthenia sooner or later showed signs of a meningitis, a functional paralysis became an organic paralysis, or a syphilitic chorea revealed signs of Bechterew's cerebrospinal focal sclerosis. After discussing in detail syphilis in its casual relationship to neurasthenia, hysteria, and traumatic neuroses, epilepsy, migraine, chorea, functional paralyses, paralysis agitans, neuralgia, central torticollis, spasms from local ischaemia, paralysis of single nerves, and various other functional and convulsive disorders, Mettler drew the following practical conclusions: (1) Syphilitic infection can produce a pure neurosis. Most of the neuroses so produced, however, are but the preliminary indications of gross organic syphilitic disease of the nervous system. (2) Syphilitic neuroses are as much syphilis of the central nervous system as are the organic syphilitic diseases, and they call for the same thorough antisyphilitic treatment as the latter do.

SURGERY.

(328) The Operative Treatment of Old Dislocation of the Hip.

Rydygier (*Zentralbl. f. Chir.*, No. 13, 1904), whilst holding that surgical exposure of the displaced head of the femur is the best method of reducing an old dislocation of the hip, points out that such treatment is not free from serious risk. The chief dangers of the operation—which are shock and infection, due for the most part to very forcible and violent manipulation of the displaced bone and to consequent laceration of the soft parts—may, however, the author states, be prevented by selecting such a method of operation as will allow of free exposure of both the upper end of the femur and the cotyloid cavity. The method advocated in this paper is a modification of Ollier's operation, in which a curved incision with its convexity downwards is made over the outside of the joint and the tip of the great trochanter is detached by chiselling. In the author's method the lowest part of the convexity of the flap is placed about 7 cm. below the tip of the great trochanter, descending 2 cm. below the level of that of Ollier's incision. The posterior limb of the incision is carried upwards and backwards to the postero-superior spine of the ileum, and the anterior limb more directly upwards towards the antero-superior spine, over the interspace between the tensor fasciae latae and the gluteus medius. The trochanter major is then chiselled through very obliquely, so that after the reduction of the head of the femur, even in cases in which the muscles are much contracted, the surfaces of the fragments may be brought into contact, though this be partial, and thus osseous union of the detached trochanter and subsequent restoration of the functions of the muscles attached to the process may be assured. The author strongly advocates this operation in cases of old unreduced luxation of the hip, as he has been convinced, by his own experience of it, that it affords free exposure of the cotyloid cavity as well as of the head of the femur, and thus facilitates an easy and gentle reduction.

(329) A New Procedure for the Operative Treatment of Chronic Nephritis.

Bakes (*Zentralbl. f. Chir.*, No. 14, 1904), who has had favourable experience of the decortication method advocated by Edebohls and other American surgeons for the treatment of chronic nephritis, is of opinion that the replacement of the denuded kidney in a structure so defectively vascular as the fatty capsule is a weak point in the operation. He has, therefore, considered the possibility of bringing the kidney after decortication into close contact with some structure within the peritoneal cavity that is freely supplied with blood, with the object of establishing a fresh and active vascularization of the diseased renal organ. This object, he thinks, may be attained by one or other of two new methods which he has practised on the cadaver. In the first of these methods the kidney, after its fibrous capsule has been stripped away, is enveloped in a portion of omentum drawn through a wound made in the parietal peritoneum, and secured by sutures. In the second method, which is named "intraperitoneal dislocation of the decorticated kidney," this organ is passed through a wound in the peritoneum into the abdominal cavity, and fixed there between the attached portions of the mesenteries of the small and the large intestine, the margins of the peritoneal slot being stitched around the renal hilus. The choice of method would, it is pointed out, be determined by the size of the kidney and by the condition of the omentum. If the latter structure be atrophied and short, intraperitoneal dislocation would be the only practicable method. The author has recently practised the first method—that of omental inclusion—on the living subject with promising results. In this case, although the diseased kidney was very large, the operation was not attended by any difficulty.

(330) Traumatic Asphyxia.

Beach and Cobb (*Ann. of Surg.*, April, 1904) describe a rare and remarkable condition resulting from traumatic asphyxia or apnoea, the dominant and diagnostic feature of which is a blue-black discoloration of the skin, mainly confined to the face and neck above the clavicle. In a case observed by the authors the skin of the face seemed to be dotted with countless spots, from black and reddish-black to blue in colour, very close together, while between the spots were lines or areas, very minute, of pale and normal skin. The line of demarcation in the neck in front was sharp, the transverse line running through the inner end of each clavicle. At the back of the neck there was none of the bluish-black discoloration of the skin, except within the confines of the trapezius muscle on either side. The conjunctivae were bulged forwards prominently by extensive haemorrhages beneath. The discoloration disappeared rapidly after the third day, and at the end of the third week from the date of injury the patient's face seemed almost normal. The cause of this unusual clinical feature is admitted to be forcible compression of the chest extending over some minutes. It has long been noted that the peculiar discoloration of the face is not infrequently seen in persons pressed to death in a struggling crowd. The question of special interest in these cases is, the authors point out, the cause of the discoloration and the reason for its limitation practically to the regions of the face and neck. In the case recorded in this paper microscopic study was made of sections of skin taken from the patient, and by this study all doubt as to the minute pathology and cause of the discoloration cleared away. The authors state that it is now definitely proved that this discoloration is not due to haemorrhages into the skin, and they are of opinion that it is the result of stasis from mechanical over-distension of the veins and capillaries, with or without paralysis from engorgement of or pressure on sympathetic nerves. As to the cause of the sharp limitation of the discoloration to the head and neck the authors have nothing new to offer, but are inclined to support the theory of Perthes, which ascribes it to the lack of valves in the jugular and facial veins.

MIDWIFERY AND DISEASES OF WOMEN.

(331) Hypertrophy of the Os Uteri.

W. J. Sinclair (*Jour. of Obst. and Gyn. of the British Empire*, September, 1903) maintains that hypertrophy and erosion of one lip of the os uteri uniformly accompany a pathological flexion of the uterus, and would estimate the result of treatment of flexion by the effect on the os. To prove that congestion of the uterus is due to flexion, not flexion to congestion, the author summarizes the arguments of Sir John Williams, whose main points are: That simple congestion of the virgin uterus is rare, while congestion with flexion is not infrequent; that effects of flexion can be observed—immediate effects, as the bending and blocking of the cervical canal and remote effects, as the enlargement of the body of the uterus and dilatation of its cavity; and that the character of the dysmenorrhoea of acute flexion supports his view. Sinclair's observations, extending over many years, have shown that hypertrophy and erosion of the posterior lip of the os uteri are pathognomonic of retroflexion, and that similar changes in the anterior lip show a morbid anteflexion of the uterus. Careful observation, also, of cases treated by pessaries, medicated tampons, rest, etc., has proved that as the congestion begins to be relieved the erosion disappears, and that the hypertrophy of the cervix diminishes as the angle of flexion increases. Moreover, the result of ventrifixation of the uterus forms an absolute proof that the change in the cervix depends on the flexion of the uterus. Three cases are described in which erosion and hypertrophy of the posterior lip of the os disappeared after ventrifixation, and two in which similar changes in the anterior lip were associated with acute anteflexion. The author denies that there are exceptions to this rule if the examination be carefully conducted, though the conchoid uterus and the "wobbling" uterus are often mistaken for cases of retroflexion, and may thus form apparent exceptions. The following practical observations follow from the relation between flexion and congestion: (1) The treatment of "ulceration of the womb" by applications of caustic substances becomes ridiculous; (2) the abstraction of blood by puncture, or the diminution of congestion by glycerine tampons is more rational as a preliminary step to restoration of the position of the uterus, but these measures cannot do any appreciable good unless the tampons act mechanically in raising the uterus to some extent; (3) the extent to which hypertrophy with erosion diminishes is some measure of the effect of treatment, and thus, when a pessary is worn, occasional inspection of the posterior lip will show whether adequate support is being provided; (4) old-standing retroflexion, with much tissue change in the cervix and body, is difficult to cure by mechanical means, and where adhesion or great enlargement of the body exists cure can only be effected by operation. Ventrifixation is a safe and effective cure in

itable cases of retroflexion, but the thor has no experience of it in cases anteflexion with bladder symptoms; the menorrhagia which occurred in ne women with chronic flexion near the menopause may reasonably be pposed to be due to a state of the rporeal endometrium corresponding the hypertrophy of the retroflexed dy and of the cervix of the uterus. ith the removal of the endometrium e haemorrhage ceases, and before angulation of the uterus has again oduced a similar growth, the meno- use sets in, and menorrhagia cannot ain occur; (6) hypertrophy due to eration of the cervix and flexion can- t be rationally treated by amputation the vaginal portion, and such an eration is only justified by the esence of malignant disease.

2) Glycosuria and Hypertrophied Thyroid in Pregnancy.

.R (*L'Obstétrique*, March, 1904) con- lers that a case under his observation emed to show that there is a close sociation between eclampsia, the albu- nuria of pregnancy, and certain affec- ns of the thyroid body. The patient s six and a-half months pregnant; e had noticed that her neck had been elling for some time; its circumfer- ce was 11¼ in. above and 12¾ in. low. There was no exophthalmos or lema, but there was a trace of albu- n in the urine, which contained 6 grams of sugar to the litre. Under liet of milk and meat the glycosuria nished, but on its discontinuance gar reappeared and continued for ree weeks until delivery. At that te the circumference of the neck was ll 11¼ in. above, but nearly 14½ below. fortnight after delivery sugar had appeared from the urine, the neck owed slight reduction in circumfer- ce below (14 in.); two months later e measurement was 12¾ in., as when e patient was first examined. The rcosuria—a disturbance of nutrition ich in Bar's opinion is akin to albu- nuria—was possibly caused by anges in the thyroid.

(333) Spondylolisthesis.

: LEE (*Amer. Journ. Obstet.*, March, 4) claims to have detected this con- ion in a woman aged 19, pregnant out three months. At the age of 6 e fell out of bed, and was laid up with inal injury for four months, but no ralytic or other complications ensued. : Lee detected pelvic deformity when e patient consulted him about her gnancy. The spines and crests of e ilia were at a normal distance from ch other, but on taking the Baude- que a pronounced protuberance over e upper part of the sacrum and lower mbar region was discovered. The lvic inclination was almost obliter- d. The sacrum was hollowed out and nverged towards the pubes from above wnwards. Two large blood vessels, obably the internal iliacs, were pal- ble from the vagina without any diffi- lty. The walls of the pelvis and the bes came together, making a funnel- aped outlet. The distance between e tuberosities of the ischium did not ceed 7 cm. All these conditions inted to spondylolisthesis. There was family history of contracted pelvis. The patient's mother has a generally contracted rachitic pelvis; one sister has a contracted pelvis, and, after being for several days in labour, was delivered of a fetus with a dolicocephalic skull. De Lee bases his diagnosis in his own case on the prominence over the lumbar spine, the shortness of the abdomen and the loss of pelvic inclination, the anterior superior spines and crests of the ilia being almost on a level. In discussing this case Kolischer believed that it was an instance of fracture of the spine, because there was convexity and not a concavity, as was seen in spondylolisthesis. Emil Ries had examined a case of spondylolisthesis where the gibbus was absent, and where there was concavity where the lumbar vertebrae ended and the sacrum began. The absence of the pelvic inclination in De Lee's case was, Ries admitted, very well marked, but it was often found absent in other pelvic deformities. De Lee admitted difficulty in diagnosis, but considered that spondylolisthesis was more probable than fracture of the spine or kyphotic pelvis of rachitic origin, the so-called pelvis kyphotica obtecta.

THERAPEUTICS.

(334) The Action of Radium Rays on the Healthy and Blind Eye.

GREEFF speaks of the peculiarity of radium, that it can emit rays in the dark which are indirectly visible to the naked eye (*Deut. med. Woch.*, March 24th). This power of transmitting rays appears to go on indefinitely and without diminution, and in this respect as well as in others the law of the preservation of energy seems to be contradicted. Professor London published some time ago an article which offered a hope for the blind, that by means of radium they might be made to see again, and Greeff has studied the question closely, and delivers himself as to the foundations for such an opinion. His experiments were carried out with a mixture of barium chloride and radium chloride, weighing about 1 gram, and containing about 0.02 gram of pure radium. The illumination of radium in the dark as appreciated by the healthy eye consists in two kinds of light action; first a sort of fluorescence imparted to other objects, which emit indirectly ordinary light rays; and secondly the peculiar rays, which are known as radium rays. Professor London obviously did not distinguish between these two kinds of light action. The former is produced by certain rays falling on certain objects, such as paper or barium cyanurate and platinum, and the light emitted from these objects is incapable of passing through objects which are opaque to ordinary light. The direct rays of radium are perceived after the eye has become accustomed to the dark, if one approaches the eye to within about 10 cm. of the radium. The eye then distinguishes a diffuse, peculiar sea-green haze. One cannot localize the direction of this haze of light, but the light effect becomes very intense when the radium is held close to the eye. These rays can pass through all interposed objects, such as silver coins, the hand, and thick plates of steel. No distinction of bones and soft parts can be perceived when the hand is interposed, and even when the radium is placed over the temple the effect is precisely the same as it is when it is held the same distance in front of the eye. The most reasonable explanation offered for this phenomenon is that the radium rays falling on the various portions of the eye, and especially the lens and the vitreous, produce the same fluorescence as is seen on the paper, and that the appreciated light is the indirect effect of this fluorescence. In dealing with the blind, Greeff points out that London does not state the exact condition of blindness which he hopes to cure. Total blindness cannot perceive radium rays any more than ordinary light can produce an effect on such eyes. Greeff's experiments were conducted in the same manner as London's were, and the results carefully controlled. But he first tested the vision of his "blind" patients. He found that, although eyes which are not quite blind can perceive large objects in indistinct outline against the fluorescent screen, they do not see in this light, which is but ordinary visible light, any better than any other reflected light, and that there is not a vestige of hope that any blindness can be in any way influenced by radium rays.

(335) Therapeutic Experiments with Electro-magnets.

SOME years ago Konrad Mueller made some technical experiments with certain kinds of electro-magnets, and thought that he noticed that persons working with the machine derived some therapeutic benefit from the currents. T. Cohn (*Berl. klin. Woch.*, April 11th, 1904) has followed this subject out, and reports on the results of his investigations. Mueller's system consists of an arrangement for transmitting an interrupted electrical current, or a constant current transformed into an interrupted one, to a wire spiral. The spiral is wound round a hollow centre made of numerous galvanized iron platelets. The current generated is of low tension and interruption, but of comparatively high intensity. The magnet polarity reverses about 100 times per second. Paramagnetic substances, such as iron, are attracted by such a current; while diamagnetic substances, such as aluminium, are repelled. The physiological effect of this alternating magnetic field on the human body has been studied by a few observers, and the only definite data which are available are (1) that there is absolutely no action on muscle or motor nerve, and (2) that by approaching the radiator of the instrument the eye appreciates a flickering movement, which generally disappears when the eye is closed. Cohn employed a similar instrument, provided with some technical improvements, but assures the reader that it fulfilled all the functions of the Mueller's apparatus. He gives a minute description of the differences of Trueb's instrument and Mueller's. He tested the effect on a number of patients suffering from a variety of diseases, including neuralgias, neuroses, joint affections, agrypnia, Thompson's disease, intermittent limping, and chlorosis. He applied the currents for from three to fifteen minutes once or twice a day.

Verbal "suggestion" that the treatment would do good was carefully avoided. Thirty patients gave the method a fair trial, and of these in 12 it proved absolutely inactive. These were cases of trigeminal, intercostal, and brachial neuralgia, hysteria, tic, omarthritis, myotonia congenita, and a neurosis following lightning stroke. In the last case and in one of hysterical aphonia the condition grew worse. In 6 cases there was a temporary improvement; these were tic doloureaux, hemicrania, spermatorrhoea sciatica, and rheumatic arthritis. The improvement, however, soon proved to be of little value. Of the remaining 12, 4 cases showed good results. These included neuralgia-like pain in the face (not true neuralgia), nervous insomnia, and alcoholic intercostal neuralgia, while some improvement took place in 2 cases of neurasthenic cephalalgia, 2 of trigeminal neuralgia (one of them did not remain well), 1 of brachialgia, 1 of attacks of giddiness in an anaemic child, 1 case of malum coxae senile, and 1 of intermitting limping. The results in the last 8 cases were purely subjective, and were very far from complete or lasting. He found that true neuralgia yielded the worst results, and noted that the effects of the currents were very similar to those obtained by Tesla's currents. He therefore comes to the conclusion that the improvements when they take place are due to suggestion, and that until some further facts are discovered the treatment by electromagnets must be regarded as actionless.

(336) Treatment of Phthisical Patients on arrival at a Sanatorium.

Peter Pregowski (*Zeits. f. Tuberk. u. Heilstät.*, February, 1904) has observed that phthisical patients are in danger of a relapse on the third or fourth day after their arrival in a sanatorium at a high altitude. For example, one of his patients who had had two slight attacks of haemorrhage before coming to the sanatorium, suffered from a severe haomorrhage and great increase of general weakness on the third day after his arrival. Such a relapse may be in part the result of the fatigue of a long journey and in part of the suddenly changed climatic conditions. As a preventive measure Pregowski advises that for the first five to twelve days the patient should be kept at rest in bed on a diet similar to that given during and after a haemorrhage, and where the difference in climate is very great his room should be kept warm for the first few days and the windows shut. The patient would not, indeed, benefit by the sanatorium treatment for the first few days, but the time of stay in a sanatorium is, as a rule, so long that this would not be an important loss. It might, also, be objected that he would lose the stimulating effect of a sudden change of climate, but he would obtain the benefit of the climatic change as surely though more gradually, and would run no risk of haemorrhage.

PATHOLOGY.

(337) Urogenital Tuberculosis.

Hueter reports (*Beitr. z. path. Anat.*, Bd. xxxv, H. 2, 252) on the pathological anatomy of 11 cases of urogenital tuberculosis with special reference to the distribution of the disease and its usual primary seat. The invasion of the system by contiguity is rare, but infection of the patent tunica vaginalis, from the peritoneal cavity, of the vas deferens from tuberculous coxitis, and of the kidney from tuberculous vertebral disease, have been noted. Infection of the penis and urethra from without is recorded but rare; primary disease in the system undoubtedly usually results from infection through the blood, but anatomical proof that such lesions are the first manifestation of the disease in the body is very rarely forthcoming. Undoubtedly, however, renal tuberculosis occurs as a primary affection; ureteral tuberculosis, on the other hand, is always secondary: a primary bladder infection seldom occurs, and primary urethral tubercle probably does not occur by haematogenous infection. Bladder tuberculosis without infection of the kidney and ureter is very probably explained by the passage of tubercle bacilli through the latter organs without giving rise to a morbid process in them. Cases of primary urethral tubercle spreading to the bladder are not recorded, but urethral tubercle follows vesical disease in a considerable proportion of cases of the latter. It is well known that, of the testis and epididymis, tuberculosis most frequently commences in the latter and is frequently the first manifestation of the disease in the genital system; in the vas deferens it is always secondary. To what extent primary tubercle of the vesicles occurs is not known. Opinions differ as to the frequency of primary prostatic tubercle, and there is the same difference of opinion as to whether genital tubercle is usually disseminated in the same direction as the secretion stream or the opposite. From a consideration of the literature of the subject, it must be concluded that the epididymis is usually the primary seat of the disease, that it is infected through the blood stream, and that the process extends in the direction of the secretion flow. With regard to extension of the disease from genital to urinary system, or vice versa, there is no agreement among authors. From the results of the examination of his cases the writer concludes that urogenital tubercle arises by haematogenous infection in one—or simultaneously in more than one—of the following—prostate, epididymis, kidney, vesicles, and that it is disseminated in the direction of the secretion stream. Exceptions to this occur in infection of the vas deferens in vesiculitis and of the bladder in prostatitis. The prostate is frequently affected early, and probably in many cases is the primary seat. Obliteration of the vas deferens or of the ductus ejaculatorius by the disease or by antecedent gonorrhoea influence the distribution. Tuberculosis of the urethra may have a urinogenous, prostatogenous, or spermatogenous origin; ectogenous infection plays no part in the development of urogenital tuberculosis.—Baumgarten and Kraemer (*Arbeit. aus d. Path. Anat. Instit. zu Tübingen*) report a series of experimental observations on the development and dissemination of urogenital tuberculosis in the rabbit. The bacillus of human and that of bovine tubercle were both used; the former gave rise to localized infection, which for the most part did not spread from the point of inoculation; the latter caused a more or less widely distributed outbreak of the disease. The injections were made into the substance of the testis and epididymis, into the vas deferens after ligature of the channel below the point of injection, and also into the urethra. Injection into the testicle gave rise to a tuberculous process in the interstitial tissue, the tubules undergoing compression and the epithelium becoming necrotic; the epithelium was not observed to take part in the formation of the characteristic epithelioid and giant cells. In the animals in which the culture material was injected into the ligatured vas deferens, the tuberculous process began in the epithelium and subepithelial tissue, extending thence into the other coats; the process extended to the epididymis and backwards to the testis proper. In the latter the commencement of the process was intracanalicular, and the characteristic epithelioid cell-formation, leucocyte infiltration, necrosis and caseation were observed. The epithelioid cells appeared to develop from the undifferentiated testicular cells, the so-called cells of Tertoli. In the animals which received intraurethral injection an ulcerative tuberculosis of the floor of the bladder, prostatic and urethra and prostate was produced in many cases; in none of these, however, did the process extend to the vas deferens and testis, or to the ureters and kidneys. In seven animals injected into the vas deferens and epididymis the process extended up the vas in each case, and in five the prostate was attacked. The vas of the opposite side was affected in no case, in spite of the fact that the two unite in the rabbit, and are therefore favourably placed anatomically for the extension of disease processes from one to the other, the opposite testis and epididymis were also unaffected. When these results are compared with those obtained by intraurethral injection, they point to the following general rule: that experimental urogenital tuberculosis in the rabbit always extends in the direction of the secretion stream (seminal fluid or urine), and never in the opposite direction. The writers consider that this is explained by the slight motility of the tubercle bacillus, which renders its conveyance from one part to another always a passive process; they also attach importance to the fact that it is not a "secretion parasite" like the gonococcus, the secretion acting only as a vehicle, and the organism not multiplying therein. Carried by the stream, the bacillus infects the walls of the channels through which it passes. Another channel of infection is, however, provided by the lymphatic vessels of the canals; in the vas deferens the direction of the lymph stream is the same as that of the seminal fluid; in the ureter the same conditions obtain, and the writers consider that in both cases the tuberculous process extends from the periphery to the bladder, and not in the opposite direction.

AN EPITOME
OF
CURRENT MEDICAL LITERATURE.

MEDICINE.

(338) Infantile Tuberculosis.

AT a meeting of the New York Academy of Medicine held on April 7th (*Med. Record*, May 7th), Rowland G. Freeman read a paper on infantile tuberculosis—its portal of entry, topography, and clinical manifestations. He said that in 1,448 successive necropsies at the Foundling and Nursery and Child's Hospitals, 158, or nearly 11 per cent., showed tuberculous disease, and this was a much lower rate than given by other writers. The assumption that the tubercle bacilli most often gained access to the human body by the respiratory tracts seemed well founded. It was still a question to what extent the tonsil was ordinarily a point of entry of the tubercle bacilli, but the lymph nodes of the neck might be safely considered as frequently the first lesion noted after the third year, and tuberculosis of these lymph nodes often existed when there were no evidences of other tuberculous lesions. Tuberculous bronchial lymph nodes certainly formed the most common lesion found at necropsy, but they were usually associated with tuberculous lesions elsewhere. Regarding the frequency of tuberculosis due to the ingestion of food containing tubercle bacilli, so far as he knew nobody in New York believed that he had ever seen many cases *post mortem* evidently due to intestinal infection, though observers in Europe reported an entirely different experience. He thought this difference might be due to a more careful search for tuberculous lesions, or to a different judgement as to what was sufficient evidence of intestinal origin. It was evident that tubercle bacilli which gained access to the body by the intestines were readily carried by the lymph stream to the thoracic duct, into the superior vena cava, the right side of the heart, and out into the lungs. Living tubercle bacilli had been found to exist fairly frequently in ordinary milk, and it had been shown by Ravenel and others that bovine tubercle bacilli were pathogenic for man. It had been demonstrated that the tubercle bacilli survived the action of the gastric juice, and the fact that lesions of undoubted intestinal origin were found confirmed the fact that they could pass through the human stomach uninjured. The statistics regarding the distribution of tuberculous lesions in children showed that the abdominal organs were fairly frequently involved. After quoting various statistics of Froebelius, Schwer, Carr, and Biedert, he thought it must be concluded that it was impossible to state the original point of invasion. He had himself tabulated the results of 158 necropsies on tuberculous children, and these showed that there were between 1 and 3 months, 4 cases; 3 and 6 months, 21 cases; 6 and 9 months, 21 cases; 9 and 12 months, 15 cases; or a total of 61 under 1 year. Between 12 and 18 months, 18 cases; and between 18 and 24 months, 16 cases; or a total of 34 between the first and second year. The average age at death was later among tuberculous children than among other children, and in infancy the disease was sufficiently acute to cause death very often before marked emaciation took place. The nutrition of the tuberculous cases was not materially worse than that of the non-tuberculous cases. The distribution of lesions in his 158 cases of tuberculosis in young children showed involvement of the bronchial lymph nodes in 126, lungs in 112, spleen in 90, liver in 66, mesenteric lymph nodes in 44, meninges in 30, small intestines in 30, mediastinal lymph nodes in 28, kidneys in 20, cervical lymph nodes in 14, and large intestine in 7. As to the general distribution of the series of 158 cases, 36 had thoracic lesions only, 92 had abdominal lesions, and 25 cranial lesions. In another table that showed the distribution of the lesions in 52 cases involving the mesenteric lymph nodes or intestines, or both, 6 cases showed thoracic lesions, but no other abdominal lesions, while 29 cases showed involvement of other abdominal organs, and the thorax and 12 cranial lesions in addition. The tuberculosis of infancy was usually an acute, widely disseminated affection which, in a considerable number of cases, involved the bronchial lymph nodes and lungs. It was usually a most obscure disease for diagnosis, and often a definite diagnosis could not be made until the meninges became involved. The lungs usually showed merely *râles* or slight changes from normal respiration, and it was only in advanced stages that consolidation appeared. The involvement of the meninges gave typical symptoms. The duration of the disease was two to three or four weeks. An unresolved pneumonia, which often it was unnecessary to differentiate from this disease, could usually be distinguished by the marked physical signs, the higher temperature, the slow course, and the much more marked emaciation. Summing up, Freeman said tuberculosis in infancy arose most often from either the respiratory or the alimentary tract, but the comparative frequency of these two modes of infection had not yet been definitely determined. The tuberculosis of early life was most common during the first year when children were on an exclusive milk diet; and much milk contained tubercle bacilli, and bovine tubercle bacilli were pathogenic for man. At this period, owing to the structure of the intestinal wall, bacteria could probably pass through, although it was uninjured. Experiments on animals showed that inhalation tuberculosis caused usually lesions of the bronchial lymph nodes and lungs alone, and, wherever the portal of entry might be, these structures became very early involved. Inoculation experiments proved that the mesenteric lymph nodes might be tuberculous without the presence of any gross lesions in them. Mesenteric or intestinal lesions could be detected on gross examination in 26 per cent. of the necropsies which he had done at the Foundling and Nursery and Child's Hospitals. The tuberculosis of infancy, unlike that of later life, was usually an acute, widely disseminated, general disease with moderate temperature and few symptoms and physical signs unless the invasion of the meninges gave rise to symptoms. Tuberculosis of the cervical lymph nodes and of the joints was rarely seen under the third year. The power to overcome a tuberculous infection that had invaded the organs apparently did not exist in infancy. While the tabulated necropsies showed a very wide distribution of the tuberculous disease in these infants, they probably indicated a much less general distribution than really existed; for the data were based on hurried gross examination without microscopical confirmation. A series of necropsies in the same institutions in which the intestines were carefully examined without separation from the mesentery, and with microscopical examination of all suspicious thickenings, he said, would probably show a much greater proportion of intestinal involvements, and a still larger proportion could be found by animal inoculations.

(339) The Diagnosis of Renal Colic.

ANGELO SIGNORELLI (*Riv. Crit. di Clin. Med.*, April 2nd, 1904) describes a symptom of renal colic on which little stress has been laid hitherto. It is a rhythmical pulsating pain felt in the loins, and in the testicle on the side affected. He relates the history of a case in which this symptom was well marked, and states that he has observed it in other cases of renal colic, but never in any other disease. It may therefore be of importance in the differential diagnosis between renal colic on the one hand and inflammatory affections in the neighbourhood of the kidneys or the appendix on the other. The pulsations are synchronous with the cardiac pulsations, and to explain the symptom Signorelli supposes that the pain of renal colic is due not only to the pressure exercised by the stone, and to the contractions of the muscular wall of the ureter as has been hitherto believed, but also to increased tension in the kidney and its capsule. This tension would be increased at each heart-beat, and would thus cause rhythmical exacerbations of the pain.

SURGERY.

(340) Bone Suture in Simple Fractures.

KÖNIG, at a meeting of the Deutsche Gesellschaft für Chirugie (*Deut. med. Zeit.*, May 9th, 1904), discussed the subject of bone suture in subcutaneous fractures, and expressed the opinion that where displacement is great, where the fracture is near a joint, and in fractures where union is likely to be unsatisfactory, as in the case of the femoral neck, early operative exposure, reposition, and suture is indicated. He had operated early in eleven cases and had had good results. Such interference should be undertaken within the first eight days, or the changes taking place at the seat of fracture may render the operation very difficult. The following are, in his opinion, the chief indications for the procedure: (1) Dislocation of the fragments to such a degree that a satisfactory union cannot be obtained; to this class belong many of the fractures of condyles, especially at the elbow; (2) when the fracture implicates a joint,

especially those of the humerus; (3) when the fracture is multiple or complicated by dislocation; (4) in certain fractures where imperfect union is to be feared, as in those of the femoral neck; in this case operation should be especially early, as absorption of the neck takes place rapidly. König has operated on the femoral neck in four cases, using aluminium-bronze sutures and also suturing the capsule; one of these cases was a man of 70, and complete consolidation was obtained. In the discussion following Nötzel said that in Rehn's clinic the patella was always sutured and with silver wire; during the last four years thirty fractures had been sutured, including two of the lower end of the femur. He agreed with the indications given by König, and considered that the risks of the operation were inconsiderable; the indications might perhaps be further extended to cover all fractures about the femoral neck, and shortening might thereby be almost entirely avoided. Bardenheuer held that exposure of a fracture should be avoided whenever possible; even in fractures of the patella a good result could be obtained by properly-applied extension. In 13 cases of fracture of the upper end of the femur with marked displacement which he had treated by extension he had obtained union with less than 1 cm. of shortening. For satisfactory extension 15 to 25 kilog. was necessary, and must be used in the direction of the displacement and with counter-extension. Similar good results could be obtained without operation in fractures of the humerus near the shoulder and the elbow if extension were properly applied. Bier held that fractures which were operated on consolidated later than those treated without operation, the reason being that the presence of blood clot stimulated the process of union, and also served as nutriment to the bone. He considered Bardenheuer's extension the best method of treating severe fractures, and believed that by this means in fractures of the upper extremity of the femur union could be obtained without shortening.

(341) Operations under the Direct Guidance of the Roentgen Rays.

PERTHES (*Zentralbl. f. Chir.*, No. 18, 1904) describes a method by means of which he has found it practicable to remove portions of a broken needle from the hand by the direct guidance of the Roentgen rays. The apparatus used in this operation consisted of a small wooden table, below the top of which was the Roentgen tube, and above, at some little distance, a fluorescent screen working upwards and downwards like a valve at its hinged attachments to two upright poles on one side of the table. By this arrangement the top of the table could at one time be overshadowed by the screen and at another be freely exposed. Attached to the table were three pedals which could be moved by the operator's foot—one for raising and lowering the fluorescent screen, another for turning on and off an electric light, and the third for shutting off the primary current of the inductor and controlling the action of the Roentgen tube. The upper extremity of the patient, which had been rendered bloodless by von Esmarch's bandage and tourniquet, was placed on the top of the small table, which together with the under surface of the fluorescent screen had been protected by aseptic cloths. The author having determined the position of the foreign bodies by the Roentgen rays, made the skin incisions under the illumination of the electric light, then lowered the screen and seized the foreign bodies by forceps, and, finally, raised the screen again, turned on the electric light, and practised extraction. This apparatus, the author states, has since done good service in the extraction of foreign bodies from the upper extremity. He thinks that by modifying its structural details it may be used on other parts of the body, and also for other purposes than the removal of metallic bodies, such, for instance, as in operations on floating articular bodies and in the treatment of fractures and dislocations.

(342) Treatment of Hydrocele.

DE SMETH (*Journ. de Chir. et Ann. de la Soc. Belge de Chir.*, No. 1904), in concluding a study of the comparative value of the different methods practised for the cure of hydrocele, advocates a free and radical operative treatment. Expectation, resolvent applications, puncture with or without injection of alcohol are, he states, methods which often succeed in infants but are not to be recommended for the adult. The injection of iodine, in his opinion, is a mode of treatment which should be abandoned on account of its dangers and the uncertainty of its results. Bergmann's method—which consists in total resection of the parietal layer of the tunica vaginalis—alone ensures, it is held, a rapid and positive cure. This operation has never in the author's practice been followed by any bad results, but he points out that it is necessary to carry out Bergmann's instructions thoroughly and carefully and to pay close attention to aseptic precautions. The vitality and mobility of the testes are maintained and the cure is an essentially radical one. The operation, notwithstanding the free exposure of the testis and the extensive dissection of its serous covering, is, it is stated, easy and rapid, and the patient is enabled to resume his occupation at the end of from eight to ten days, with a full assurance of freedom from subsequent relapse.

(343) The Surgical Uses of Peroxide of Zinc.

CHAPUT (*Bull. et Mém. de la Soc. de Chir. de Paris*, May 3rd, 1904) brings under notice the value of peroxide of zinc as a local application to fresh and granulating wounds, and to certain forms of cutaneous eruption. This substance is a white powder, the chemical formula of which is ZnO^2. It is a hyperoxidized oxide of zinc, having a feeble adhesion to its second atom of oxygen, which is given off very readily. Oxygenated water, which is much used by French surgeons and regarded by them as a valuable antiseptic agent, has but a restricted range of application. When used in compresses it is very irritating for a time, and as the oxygen is rapidly given off the dressing soon ceases to be more than one of simple water. Peroxide of zinc, it is stated, meets the need of a pulvurelent substance for dressing purposes, that does not irritate the tissues, and is capable when in contact with wounds of giving off oxygen slowly. From a long and varied trial of this agent in actual practice Chaput concludes that it gives excellent results in the local treatment of wounds, being neither toxic nor caustic, and capable of being readily sterilized by heat. It is not more costly than dermatol or iodoform. When applied simply as a powder, or in a gauze dressing, or in the form of ointment, it gives very good results in the treatment of both fresh and infected wounds, of sluggish wounds, and of eczematous eruptions. In uterine and vaginal dressings it has been found a useful substitute for aseptic and iodoform gauzes.

MIDWIFERY AND DISEASES OF WOMEN.

(344) Precocious Menopause.

SIREDEY (*Comptes Rendus de la Soc. d'Obst. de Gyn. et de Péd. de Paris*, December, 1903) relates 5 cases of this condition. Case I. Patient 35, rather stout and gouty. Period began at 17; patient married at 22, never pregnant; no genito-urinary disease. Catamenia regular till 32, then menopause symptoms complete at 33. Cervix atrophied. Case II. Patient 36; period began at 14, always regular thenceforth until nine months before observation, then they ceased completely, with mild general symptoms. The cervix was atrophied; the patient had borne a child when 25. Case III. Patient aged 26. Period began in her 17th year; at 18 she had typhoid fever severely; the period ceased never to return. Her health remained good; at 22 she married, but never became pregnant. Three years after marriage she contracted syphilis and separated from her husband. When under observation she had been successfully treated for haematemesis. The cervix was effaced. She occasionally felt flushings in the cheeks, but her health was otherwise good. Case IV. Patient 32. She had been diabetic for a year at least, probably longer; but the period had ceased entirely for six years. It appeared at 15; the patient married when 23, and was never pregnant. At 26 the catamenia ceased suddenly; mild general symptoms persisted for a few months. Emaciation and weakness followed; ultimately sugar was detected in the urine. There were large pigmentary patches on the cheeks, back, and hands. The patient died of diabetic coma when under observation. Case V. This seems to be a true instance of superinvolution. Patient 22. The period appeared at 18; she married at 20, a few days before a period, and at once conceived. Delivered at term she suckled her child for two months, and then became a wet nurse, suckling for fourteen months another child which was reared and became strong. The catamenia never reappeared, menopause symptoms were observed. The cervix was small, and the uterine body also below the normal size observed in parous women. About a year later the process of atrophy had advanced. In none of these cases was the abnormal menopause so severe

that which is often seen when both aries are removed by operation. redey is not certain that the meno- use in Case 3 was due to the attack of phoid fever; that disease is very mmon, yet it seldom affects the cata- enia permanently. He doubts whether e fourth patient was diabetic when e precocious menopause was estab- hed six years before death. The abetes which proved fatal was of a ry rapid type. Lastly, Siredey dwells the fact that the catamenia began latively late in life in all these cases.

(345) Modified Porro Operation.

WAGNER (*Amer. Journ. of Obst. and seases of Women and Children*, February, 04) describes a modification of Porro's eration, which consists in the removal the body of the pregnant uterus with e fetus *in situ*. He first performed is operation upon a woman, six and alf months pregnant, after labour ins and the loss of liquor amnii and od had continued for two days. The tient suffered from carcinoma of the vix, whose size and position prevented her natural delivery or vaginal esarean section, while the fear of the set of puerperal fever due to the state the cervix contraindicated abdominal esarean section. The operation lasted enteen minutes; a living fetus was racted from the amputated uterus l lived for two hours. The mother de an uneventful recovery. Wagner t saw the second patient in June, 2, when her condition necessitated ning the abdomen to evacuate pus, ing the uterus and putting it in con- t with the parietal peritoneum. She erwards became pregnant, and two nths before delivery was attacked by hoid fever. During this illness she stantly felt pains which simulated our pains. There appeared to be ht contractions of the uterus which sed intense pain in the median line n just below the umbilicus to the ina. Through the thin abdominal l a hard rigid mass could be felt dis- t from the soft uterus. The patient lined to be taken to hospital until end of the seventh day of labour, n chills, nausea, and fever up to 5° F. set in. An abdominal hysterec- y was decided upon for the fol- ing reasons: The fixation of the ilated cervix by adhesions pre- ted natural delivery, *accouche- t forcé* or vaginal Caesarean ion. Abdominal Caesarean section contraindicated because of the ger of leaving a potentially infected us covered with raw surfaces where esions had been broken down; uld infection not occur, these raw faces would lead to the formation of nger adhesions, which might cause ous complications; finally, fatal morrhage might follow if contrac- of the uterus were hindered by already existing adhesions. Porro's ration was negatived as more dan- ous and as offering no substantial antage compared with Caesarean ion. At the operation adhesions e present all over the uterus, and its anterior part an adhesion 2 in. width and ¾ in. in thickness had duced an almost rectangular kink the uterus in its lower segment. en this band was tied off and separated the uterus immediately straightened itself, but further adhesions had to be cut through before it could be drawn wholly into the abdominal cavity. The ovarian artery and broad ligament were next tied; the uterus was lifted up by an assistant and the cervix firmly grasped with the operator's left hand; four forceps were inserted into the uterine tissue just above the neck to serve as landmarks for the incision and to control the stump. The fundus was amputated with scissors, the fetal head and membranes being protected by an assistant, who pushed them back when once the uterus was opened. The procedure took only one minute. The conically-formed stump which was left was easily manipulated, the pressure of the left hand on the stump preventing haemorrhage. A healthy child was delivered from the amputated uterus, and mother and child left the hospital well at the end of twenty days.

(346) Primary Echinococcus of Uterus.

DE VRIES (*Monats. f. Geb. u. Gyn.*, March, 1904) reports a case which was recently observed in an Amsterdam hospital. The patient was a single woman, aged 20, admitted into a surgical ward for dysuria and abdominal pain. The symptoms had lasted for a week, and after constant desire to make water retention occurred. The bladder was found distended to the umbilicus but urine was dribbling away. A uterine tumour was detected. At the end of a month the tumour had not grown larger, interstitial myoma was diagnosed, but at the operation it proved to be a true hydatid cyst. The uterus was removed and the patient recovered. De Vries relates previous cases, and considers that only seven genuine examples of echinococcus of the uterus have been reported. In other alleged cases the cyst simply entered the uterus from the peritoneum or viscera through pressure absorption of its walls. Freund denied that the disease was ever primary in the uterus, but de Vries considers that the cases related by Graily Hewitt, Beigel, Scanzer, and Treub were undoubtedly primary. The parasite usually enters the genital tract by perforating the rectal wall and passing through the pelvic connective tissue. On the other hand, primary development has certainly been observed in the uterus, tubes (Doléris and Vautein), and ovary (Schultze, Chemnitz, Generali, and Bland-Sutton). The parasite probably enters through the circulation.

THERAPEUTICS.

(347) A New Serum for the Treatment of Dysentery.

BOTH Shiga and Kruse have independently produced bactericidal sera for the treatment of dysentery, and in practice both yielded a considerable reduction in the mortality of this disease. L. Rosenthal gives the results of his investigations in the same direction (*Deut. med. Woch.*, May 5th, 1904). Working with rabbits and guinea-pigs, he succeeded in immunizing them by injecting first dead and later living cultures, and found that after much difficulty and many failures several guinea-pigs could be protected against ten or even twenty times the minimum lethal dose of the culture. The blood agglutinated in the proportion of 1 in 100 or 1 in 200, and when cultures of the bacillus of dysentery were introduced into the peritoneum of the immunized animals they (the bacilli) were rapidly killed. The serum of these animals was found to possess both protective as well as curative properties. He next attempted to produce a curative serum which could be used for human beings. Horses were immunized with cultures and toxin, and their serum was found to agglutinate dysentery cultures in a dilution of 1 in 1,500. The bacilli were killed in a space of three to seven hours. The serum could be inactivized by heating to 55° C. for half an hour, and could then be reactivized by adding fresh normal serum. In the animal body it proved to be strongly bactericidal and also antitoxic. Rosenthal employed this serum in human subjects during an epidemic of dysentery from June 14th to October, 1903; 157 patients in all were treated in this way, and of these about 15 per cent. were first injected during the first three days of the illness; in 50 per cent. it was not begun until the second half of the first week, in 25 per cent. during the course of the second week, and the remaining 10 per cent. were admitted at a still later date. No purgatives were given, and the only other medication employed was caffeine and tincture valerianae. The average dose of the serum lay between 20 c.cm. and 40 c.cm., while in the more severe cases, this dose had to be repeated a number of times. The highest number of doses of 20 c.cm. was 7. When the patients could be seen during the first few days, the illness could be cut short in from 1 to 2 days, the blood and mucus disappearing from the stools in this time, and the tenesmus and pain also being removed. The action was further distinct when the treatment was begun at the end of the first week, and recovery followed fairly soon. In all, 8 out of the 157 patients died in the hospital, and 3 others had already recovered from their dysentery, and died of phlegmonous tonsillitis and aspiration pneumonia, tuberculosis of the lung and of tuberculous meningitis. For comparison he finds that 7 deaths occurred in uncomplicated dysentery, that is, about 4½ per cent. The uncomplicated cases in other hospitals in Moscow and in the same hospital before the treatment was introduced gave a mortality percentage of from 10 per cent. to 11 per cent. In conclusion he states that the serum acts beneficially on all the subjective and objective symptoms, the course of the illness is shortened and the cases very rarely go on to a chronic form. The mortality is reduced to about one half of what it is without this form of treatment.

(348) Treatment of Paralysis Agitans.

R. FRIEDLANDER (*Zeit. f. diat. und phys. Therap.*, March, 1904) discusses the treatment of paralysis agitans. Up to the present no cure has been found for this disease, and so great an authority as Oppenheim says that the doctor can do little good and much harm by treat-

ment. The site of the primary anatomical lesions is still not known, although modern investigators tend to locate it rather in the muscles and peripheral nerves than in the central nervous system. The use of electric baths has been much recommended, and Schnée records that in 44 out of 56 cases so treated recovery or lasting improvement resulted. The author's experience of this method has not been so favourable, although temporary improvement has been obtained. The baths have a sedative effect and lessen the tremors, but they do not touch the muscular rigidity to which the main symptoms are due. He has, however, by means of passive and active movements of the affected muscles been able to obtain a certain amount of improvement and to limit the spread of the disease. Any exercises which strain the muscles are contraindicated, but passive movements, carried out carefully, slowly, and without the exercise of more force than is needed to overcome the increased resistance of the flexor muscles, are found to diminish the muscular irritability. The tremors also decrease with the rigidity. The movements of each joint may be repeated five to ten times at a sitting. The parts of the body not being exercised are kept as far as possible supported and fixed. A light massage of the skin is combined with the movements. The effect is at first only momentary, but if the exercises be repeated daily a lasting improvement follows in the lighter cases, and some improvement even in those which are more severe. Active exercises are beneficial whenever by exertion of the will power a temporary intermission of the tremors and control of the muscles is still possible. The power of these controlling cerebral impulses may be increased by exercise. The patient at first concentrates his attention on checking the tremors of one part, as of a hand or foot. Although in the beginning he can do this only for a short time, his power increases until he is finally able to accomplish it without a specially strong effort of will. He is not allowed to tire himself in his attempts. He next tries to rectify one of the anomalies of position, and practises, first when sitting down and then standing, to hold the different limbs in their normal position. In the intervals, by active contraction of the extensor muscles, he lessens the rigidity of the antagonistic flexor muscles. A series of exercises is needed to correct the gait. The back is extended as the foot touches the ground, and foot movements and a slow walk are especially practised. Attempts to walk on a narrow track or to place one foot directly in front of the other when walking are useful in remedying the tendency to abduction of the leg. Patients who are much inclined to propulsion practise walking backwards. Special exercises for the upper limbs are also undertaken. The material is scanty, and a final opinion on the merits of the treatment cannot as yet be formed, but the author believes that by its means symptomatic improvement may be obtained, and the spread of the process combated.

(349) Cocaine and Adrenalin.

BRAUN (*Berl. Klin.*, 1904, H. 187) describes the advantages of the cocaine-adrenalin mixture, the chief being that, in virtue of its vascular constriction and interference with absorption, the adrenalin renders efficient cocaine solutions of a dilution which without it would be useless. The addition of 3 to 5 drops to 100 c.cm. of a 0.01 cocaine solution makes the latter more efficient than a 0.1 to 0.2 per cent. solution without the addition. A 0.5 cocaine solution to which this proportion of adrenalin has been added may be employed for injection around an operation area for anaesthetising the sensory nerves leading therefrom. Considerable areas can be anaesthetised in this way whether inflamed or not. For tooth extraction Braun employs a solution of 1 to 1½ cg. cocaine in 1 to 2 c.cm. salt solution with the addition of 2 or 3 drops of adrenalin; half is injected in front and half behind the tooth to be extracted, at the level of the root as near the periosteum as possible. The tooth can be extracted after five minutes without pain.

(350) Trachoma Treated with Roentgen Rays.

PARDO (*Gazz. degli Osped.*, April 10th, 1904) reports 2 cases of trachoma which derived marked benefit from the application of *x* rays. The first case was aged 60, and had suffered from double trachoma for three years. In the right eye there was dense pannus, abundant catarrh, and congested iris. The left eye was similarly affected, but to a much less degree. The second case was aged 14, and the disease had lasted two years. A Crookes's tube with a spark about 700 mm. was used at a distance of 45 to 30 cm. for four to ten minutes at a time. Only one eye was treated, the other being carefully protected with a metallic shield. About six applications were made in each case at intervals of three days. As a result of the treatment the conjunctiva became smoother, the secretion ceased, the pannus cleared, and there was marked improvement in vision in the first case. In the second case many of the tarsal follicles disappeared, the secretion diminished, and there was considerable improvement in the subjective sensations.

PATHOLOGY.

(351) The Influence of Bovine Tuberculosis on Human Health.

AT a meeting of the New York Academy of Medicine on April 7th, Mazyk P. Ravenel read a paper on this subject (*Med. Record*, May 7th). He referred to the correctness of his belief in the intercommunicability of the disease, such as he had advanced for years, and said he had established certain facts and conclusions which were irrefutable. The study of the cultures of the tubercle bacilli in man and in animals showed no difference that could aid us in determining the origin of the disease. The tubercle bacilli had greater pathogenic power for all animals except swine. He considered the increased susceptibility in animals, the virulence of the bovine tuberculosis, the effects of bovine tuberculosis on man, etc. He reported cases in which there was great resistance to ordinary methods of treatment and cu only obtained after radical excision the affected parts. He said that tl belief that the dried sputum spre tuberculosis was the commonly accept one, but this was not supported b clinical evidence. He said it was th bovine tuberculous material taken food that played a part in causing huma tuberculosis. Experiments had show that the tubercle bacilli could penetra the healthy mucous membrane and n leave any track, and the lungs mig become affected through infection b way of the intestines. The figur regarding primary lesions were not all to be relied upon, because they we not at all uniform. He thought that i doubt the tonsil was the portal of ent for the tubercle bacilli in many case although he greatly believed in infecti from the ingestion of tuberculous me from cows. Bovine tuberculosis was scourge, specially on farms near lar cities.

(352) A Bacillus Present in Syphilitic Lesions.

WAELSCH (*Arch. f. Dermat. u. Syp* 68, Heft 1 and 2) records observatio on the presence of Niessen's bacillus cases of syphilis, particularly wi regard to its presence in the blood a cerebro-spinal fluid of syphilitics a in the discharge of primary chancre Two excised chancres and two cases enlarged inguinal glands associat with untreated chancres were examin bacteriologically. In 16 of 35 cases secondary syphilis a bacillus was fou in the blood identical with that Niessen, Paulsen, and Joseph a Piorkowski; it was not present in th cerebro-spinal fluid. It was not fou in the excised chancres or in gummat but was obtained from the discharge two chancres and in abundance fro the discharge from a papular eruption the scrotum and buttocks. From th above-mentioned excised glands it w isolated in pure culture; it was n found in the blood of non-syphilitic Inoculation of guinea-pigs and rabbi with culture was followed by a negati result, but in three pigs and an a multiple injections produced aft several weeks an erythematous, papu and urticarial nature which did n appear to possess any syphilitic chara teristics. The bacillus was not isolate from these animals, and when kille the pigs showed no lesions in interna organs, the ape only a diffuse tuberc losis. A pseudo-diphtheria bacillu similar in all respects to Niessen bacillus, was isolated by the auth from preputial secretion, and from th skin of the genito-crural fold and th axilla. It is remarkable that a cons derable number of observers have ind pendently isolated the same bacillu (inconstantly, however) from the bloo of syphilitics; Waelsch comes to th conclusion that it is not the bacillus syphilis, but an organism which gain entrance to the body through primar syphilitic lesions, being commonl present in the skin and in the pr putial secretion; from the primary sor it reaches lymphatic glands, and thenc the blood stream. The experiments Niessen are subjected to an exhaustiv criticism.

AN EPITOME OF CURRENT MEDICAL LITERATURE.

MEDICINE.

(353) Oxaluria.

G. TOEPFER (*Wien. klin. Vorträge aus d. Gesam. prak. Heilk.*, March, 1904) discusses at length the theories and clinical facts in connexion with oxaluria. The symptoms described by different authors as accompanying the presence of calcium oxalate in the urine gives no clear idea of what state is indicated by the term oxaluria. Cantani, indeed, has drawn a comprehensive picture; but by far the greater number of observers report cases in which no such nervous symptoms as he describes accompany oxaluria, and there is no experimental evidence to connect the nervous symptoms and the oxaluria. To discover to what extent oxaluria was present in patients suffering from other diseases and how far it was merely the result of a particular diet investigations were made on hospital patients; it was found that calcium oxalate was present in the urine of not more than 5 to 6 per cent. of the patients, and that if present the amount was not increased by the ingestion of any vegetable rich in oxalic acid. It cannot, however, be denied that oxaluria may in a few cases result from the administration of oxalic acid, although in the vast majority it must follow some resorption or assimilative anomaly. It has never been definitely connected with any recognized pathological factor, such as fever, anomalies of circulation, new growth, or infective processes, nor with any affections of a particular organ; although clinically the condition may appear to depend on retarded or disturbed metabolism, there are many theoretical objections to the proposition. Some investigators deny the possibility of the oxidization of oxalic acid within the body, and if such a possibility be allowed the amount of oxalic acid found in the urine is so small compared with the whole amount of carbon taken in that its presence can hardly depend upon a defect of the metabolism of the body as a whole. It is also to be remembered that metabolism, while dependent in part on the amount of oxidization, depends also on the nature of the molecular formation of the food substances. There can be no doubt that an excess of lime in the diet—as when methyl-glycol or glycocol is given—leads to oxaluria; but this fact is obviously capable of the interpretation either that oxaluric patients take in too much lime or that the metabolism of oxaluric patients with respect to lime is abnormal. To explain the presence of nervous symptoms in some cases of oxaluria and their absence in others, we must suppose either that oxaluria is merely a prominent side-effect of an unrecognized pathological change on which, and not on the presence or absence of oxaluria, the irritation symptoms depend, or that the oxaluria is the cause of the nervous symptoms, but can only cause them when there is some local nervous defect or lowered resistance. The author would limit the name of oxaluria to those forms of illness in which, independently of ingested oxalic acid, there is an increase above the normal in the output of calcium oxalate, and in which clinical observation shows that the symptoms of the illness or a distinct increase in their severity date from the time when oxalate of lime appeared in the urine. To account for the different diet found useful in the different cases two theories may be advanced. One is that oxaluria leads to different results in different types of constitution, and thus in diabetic patients a purely meat diet does good; while in "uratic" patients meat should be altogether withdrawn. Or it may be that we have to do not with an abnormal cell metabolism, but with abnormal changes of food stuffs in the intestinal canal, the changes affecting in some cases the proteids, in others the carbohydrates. In all cases digestion should be aided in every way, and fresh air, exercise, massage, etc., are indicated. The only cases in which foods containing oxalic acid should be forbidden are those to which there is a marked tendency to the formation of calcium oxalate stones.

(354) Chronic Diphtheria.

L. NEUFELD (*Deut. med. Woch.*, May 12th, 1904) deals with the chronic forms of diphtheria. According to Concetti, diphtheria follows a chronic course in two ways; in the first form the disease sets in as an acute disease, and passes on to a chronic stage; while in the second form it may be of very long duration, extending over months or years, and present a pseudo-membranous deposit in the pharynx, or there may be no signs which point to the diphtherial nature of the condition, and only when the ulceration which is found in these cases leads one to make a bacteriological examination, is the nature discovered. Neufeld reports on such a case. The patient was a young woman of 21 years, who had been in hospital four weeks on account of a severe carbonic oxide poisoning. When she was discharged she was handed over to Neufeld for out-patient treatment, on account of some sore throat. She appeared very pale, and was very weak. In the fauces there was seen considerable reddening, and the left half of the posterior pharyngeal wall was covered by tenacious purulent secretion. The turbinated bones were swollen, especially the anterior end of the middle, and the mucosa of the nose was reddened. There was also some purulent secretion in the nose. Regarding the case as one of rhino-pharyngitis due to the CO poisoning, he proceeded to paint the affected mucous membranes with a mild astringent. The passage of a small tampon caused the patient so much pain that she fainted. On examining the throat at this juncture, he found that some blood was flowing from the naso-pharynx. This made him come to the conclusion that the case was not one of ordinary pharyngitis, and on examining the patient carefully on the following day, by clearing away the secretion, he discovered a small not very deep ulcer on the left side of the posterior pharyngeal wall, about half an inch below the uvula, and extending toward the tonsil. The diagnosis appeared to lie between tuberculous and syphilitic ulcer, but there were no other changes in any part of the body which could help him to decide which of them it was. More out of scientific curiosity than because he hoped to have the diagnosis cleared up, he made a streak culture on blood serum (Loeffler), and to his surprise he obtained a pure culture of Loeffler's diphtheria bacilli. These proved to be fully virulent. There was a history of a mild sore throat sixteen days after admission into the hospital. The ulcer did not heal up for five months, but there was not the slightest sign of any pseudo-membrane during the whole period. Neufeld discusses the association of atrophic ozaena with this condition, and speaks of a few bacteriological studies which he has made with the common form of atrophic rhinitis.

(355) Inherited Predisposition to Phthisis.

M. BURCKHARDT (*Zeit. f. Tuberk. und Heilstatten*, February, 1904) deals with the theory of hereditary predisposition as a cause of phthisis. He has examined into the history of the families of 250 tuberculous and 250 non-tuberculous patients, and has found tuberculosis present in some other member of the family in 66 per cent. of the first class and in 42 per cent. of the second. Among the brothers and sisters of the patients one or more suffered from tuberculosis in the case of 38 per cent. of the tuberculous and of 18 per cent. only of the non-tuberculous patients. This taken alone might suggest inherited predisposition, but the number of the patients' fathers who had suffered from tuberculosis was found to be practically the same for the two classes, and direct infection among the brothers and sisters rather than inheritance therefore becomes a more probable explanation. The mothers were more often affected with tuberculosis in the case of the tuberculous patients, but the opportunities of infection from mother to child are very frequent, far more so than those from father to child. Many more of the brothers and sisters of the parents of the tuberculous than of the non-tuberculous patients were affected. Here, again, it is more easy to suppose a direct infection than a latent predisposition present in the parent (as shown by the occurrence of tuberculosis in his immediate family) and transmitted to the child. The possibility even of such latent transmissible predisposition is not beyond question. Many more of the tuberculous than the non-tuberculous patients gave a history of tuberculosis occurring in a grandparent, but such a history is probably of little value. Patients have often no accurate knowledge of the cause of death of their grandparents, but if tuberculosis has caused death the fact is more likely to be remembered by a patient who himself suffers from the same disease. Burckhardt concludes that when looked at without prejudice such statistics are in favour of direct infection rather than hereditary predisposition as the cause of tuberculosis.

SURGERY.

(356) Treatment of Pulmonary Fistulae.

GARRÈ (*Deut. med. Woch.*, No. 15, 1904) discusses the operative treatment of

bronchial fistula, which condition, he points out, is a frequent result of both the spontaneous discharge and the surgical removal of the contents of suppurating cavities and of hydatid cysts in the lung. In some instances of bronchial fistula, almost exclusively those in which the canal is short and not surrounded by dense scar tissue, cure, it is acknowledged, may be effected by the application of the actual cautery, but most frequently the closure of the fistula cannot be brought about by any milder procedure than a cutting operation. The extent and nature of such treatment should depend on the varying indications presented in these cases, and on the mechanical conditions favouring the persistence of the fistula. Spontaneous closure is prevented in some cases by a thickened and indurated pleura, in some by adhesion of the pulmonary pleura to the margins of the external opening, and in others again by adhesion of the walls of the fistula to the periosteum of an overhanging rib. Hence, in one case excision of the thickened parietal pleura is indicated, in another case simple separation of this membrane from the thoracic wall, and in the third case more or less extensive resection of ribs together with removal of cicatrized skin. In closing the fistula by suturing, the author uses catgut for the pulmonary tissue and silk for the pleurae. He insists on the cautious and restricted use of the sharp spoon in dealing with an open pulmonary cavity, and points out that by too free scraping of its inner surface one or more large bronchial branches may be exposed. The difficulty often experienced in dealing with cases of bronchial fistula is shown in an instance recorded in the BRITISH MEDICAL JOURNAL, in which, after extensive resection of ribs and curetting and closure by sutures of a pulmonary cavity, it was found necessary at a subsequent operation to detach the greater part of the inferior lobe of the affected lung from its close attachments to the thoracic wall, in order that it could be drawn into the external wound and sufficiently exposed for the successful application of pulmonary and pleural sutures. The author is opposed to the practice of very free resection of ribs, especially when applied to young subjects. To weaken the thoracic wall more than is absolutely necessary exposes the growing patient not only to the danger of serious scoliosis but also to that of persisting atelectasis and shrinking of the lung. This latter result may be best prevented, he holds, by early operation for closure of the fistula. If such treatment prove successful the lung will very probably expand and fill up the pleural cavity, and when this has occurred bronchitis and the disturbances of the pulmonary circulation will soon cease. In cases of remediable atelectasis, and especially when this condition is associated with bronchial fistula, it would be better, in future, the author suggests, to aim at freeing the lung rather than the thoracic wall. Decortication of the lung, though its application in pulmonary surgery must be considerably restricted, will, it is thought, be found useful in this respect, but the prospects of Delorme's method are not good when this is practised in combination with pulmonary suturing.

(357) A Special Variety of Acquired Deformity of the Leg.

KIRMISSON (*Rev. d'Orthop.*, No. 3, 1904) describes and gives clinical examples of a variety of acquired deformity of the leg, which is named floating pseudarthrosis of the tibia with luxation of the upper extremity of the fibula. This condition, which presents constant external characters, is marked by incurvation of the tibia with convexity of the knee outwards, and by luxation of the head of the fibulae. It is produced either as a result of a pseudarthrosis following resection of the tibia for osteomyelitis, or in consequence of unequal development of the two halves of the superior epiphysis of the tibia, as occurs, for example, in tuberculous osteitis. It is held that the constancy of the characters presented by this deformity gives it a special interest, and claims for it a place in the list of acquired malformations of the skeleton. The deformity in question, if there be no contraindication of operative treatment, may be successfully dealt either by resection of the tibia to such an extent as to adapt the length of this bone to that of the tibia, or by fixing the fibula to the superior fragment of the tibia with the object of rendering the first-named bone the main support of the body. In commenting on the cases observed by himself and recorded in this paper, Kirmisson expresses the opinion that primary resection of the diaphysis of a long bone for osteomyelitis is a bad operation. As the surgeon is now able by the aid of the antiseptic method to ward off the dangers of septicaemia, it is held to be better to give the periosteum time to form new bone, so that when the sequestrum is removed there will be no risk of interruption of osseous continuity.

(358) Calculus in the Ureter.

TENNY (*Boston Med. and Surg. Journ.*, No. 5, 1904) in some conclusions based on a study of 134 cases of calculus in the ureter, this list including reports of three new instances, insists on the importance of an early diagnosis, and the relative safety under such condition of extraperitoneal ureterotomy. Intermittent pain on one side, with varying amounts of red blood in the urine, are, it is pointed out, constant symptoms of stone in the ureter. The x rays cannot yet give evidence sufficient in itself to warrant the surgeon in operating or refusing to operate on certain cases. A calculus passing from kidney to bladder may be caught within an inch of one of three places—the first about 7 cm. below the kidney, the second just above or below the brim of the pelves, and the third as the ureter enters the bladder wall, all of which are accessible to the surgeon through an extraperitoneal wound. As a rule there is but one calculus, but the exception occurs, according to the author's statistics, about once in eight times. The opening in the ureter or renal pelvis for removal of the calculus should be sutured if possible. The recovery is often delayed when sutures are not used. The information as to the operative methods practised in 122 cases upon which a cutting operation was performed are not precise, but it is stated that extraperitoneal ureterotomy has been done 34 times with 5 deaths. In conclusion, the author holds that a calculus in the ureter is a menace not only to health but to life, and its removal is an operation of low mortality, provided it be undertaken before secondary changes appear in the kidneys.

MIDWIFERY AND DISEASES OF WOMEN.

(359) Coincident Tubal and Intrauterine Pregnancy.

SIMPSON (*Amer. Journ. Obstet.*, March, 1904) publishes a valuable monograph on this subject, tabulating 113 cases with full references; other reported instances are rejected for reasons fully explained. In his own case diagnosis of early ruptured pregnancy was made, and then it became clear that the uterus contained an early living fetus. The abdomen was opened, a little free blood welled up, and omental adhesions were separated from the uterus, which lay rather to the left of the middle line, and was about four months pregnant. To the right posteriorly, and chiefly in the pelvis, lay a sac containing more than a pint of coagulum adherent to every structure in its neighbourhood; it was set free and removed. The uterine pregnancy was not interrupted, and delivery occurred at term; the mother and child were both saved. The parts removed consisted of the outer 3 in. of the right Fallopian tube, the right ovary, a tubal mole, an adventitious sac, and about a pint of clotted blood. The tube formed a big sac, with a ragged laceration on its upper surface three-quarters of an inch in diameter, and occupied in part by a tubal mole. The fimbriae and ostium were normal. Thus in this case there had been rupture of the tube into the peritoneal cavity and not into the broad ligament, and there was no difficulty and little risk in saving the uterus; indeed, the normal pregnancy was not affected.

(360) Bilateral Tubal Pregnancy.

JAYLE AND NAUDROT (*Rev. de Gynéc. et de Chir. Abdom.*, March-April, 1904) publish an important collection of cases illustrating this condition. No less than 29 are collected. Diagnosis is impossible under certain conditions, easy in many cases. The patient is usually a multipara. The actual coexistence of two fetuses has only been observed at operation in 10 out of 28 cases; in the others one ovum was only represented by relics of conception. There was never evidence that conception was simultaneous, nor did the two pregnancies ever develop together. There is no special line of treatment; the two tubal sacs must be removed by operation. Jayle and Naudrot favour the preservation of one ovary with the uterus. In a case in their own practice it proved very beneficial to the patient.

(361) Cancer of Ovaries in Girl aged 14.

KOUZNETZKY (*Ann. de Gynéc. et d'Obstét.*, March, 1904) had under his care in December, 1900, a girl aged 14. About a year before she passed a tapeworm and was subject to colicky pains in the abdomen. Six months later she observed that the abdomen was getting large, and the increase in size had

dily advanced. In September, 1900, nt lancinating pains were felt; they ppeared at the end of three days; constant pain with exacerbations inued until admission into hospital. period had never appeared, but the nt did not look younger than her A movable, somewhat tuberous , bigger than a fist, could be felt in abdomen; malignant disease of the y or omentum was diagnosod. It removed and was found to be a me- ary carcinoma of the right ovary. left ovary, of the size of a walnut, also removed; it was the seat of the form of malignant disease. ng convalescence there was rise of erature for over six weeks; the e could not be defined. On Novem- 4th, 1902, nearly two years after the ation, Kouznetzky examined the nt and found no local or general nce of recurrence; the patient had n very much, and was in excellent h.

Fibromyoma of the Round Ligament of the Uterus.

. SPENCER (*Journ. of Obst. and Gyn. Brit. Emp.*, Feb., 1904) describes a of fibromyoma of the intra-abdo- l portion of the round ligament of terus. The patient, an unmarried an, 24 years of age, complained of a ing in the abdomen, and of pain e right side of the abdomen. Men- tion had begun at 14, and had been 's regular and moderate in amount; had always been pain at the period. mount of the discharge had dimin- during the preceding year. The nen was found to be distended to ze of an eight months pregnancy, umour reaching to 9½ in. above the , and most prominent 2½ in. above mbilicus. The tumour was ovoid ape, the surface slightly uneven, he larger end upwards; it was of rately firm consistence, but ap- d to fluctuate and gave a super- and deep thrill on palpation-per- n. The tumour was distinct from the left and in front of an appar- normal uterus. The hymen was . The diagnosis was of a multi- r cystic tumour and abdominal ectomy was performed. The ur proved to be a typical fibro- a attached to the uterus by an trophied right round ligament. patient recovered satisfactorily. er gives short accounts of the 13 r cases found in the literature. stories of the 14 cases showed that ls in this position usually occur men over 40; they are more fre- on the right than on the left side, ay be double. They may occur gins. They do not influence men- on, nor tend to prevent pregnancy, erfere with its development. The rs are subject to lymphangiectasis myxomatous and calcareous de- tion; they vary in size and may lunculated or sessile, intraperi- or subperitoneal. The pedicle the ligament itself, or there may separate pedicle attaching the r to the ligament. Torsion of the may occur. Special symptoms the tumour are often not marked. n uterine and broad ligament s may be closely simulated. The rs should be removed as soon as they cause symptoms, or reach a considerable size. Of 11 cases operated upon 2 died, but these fatal cases occurred 20 years ago.

(363) Prolapse in a Newborn Child.

BÜRGER (*Zentralbl. f. Gynäk.*, No. 19, 1904) recently exhibited before the Obstetrical Society of Vienna a child, aged 14 days, born with prolapse of the uterus and vagina. A spina bifida was situated at the level of the fourth lumbar vertebra, and paralytic lesions of several types were observed in the lower extremities. Not only were the glutei muscles undeveloped, but the perineal muscles were also involved. Bürger considered that the case might throw some light on the causation of prolapse. In his case it was due to atrophy or imperfect development of the musculature of the pelvic floor due to a cause quite self-evident. Possibly there is more or less defect in the pelvic floor from less manifest nerve lesions in other types of prolapse.

THERAPEUTICS.

(364) The Treatment of Hay Fever.

E. FICK (*Therap. Monats.*, April 1904) deals with two methods of treating hay fever; first, by means of Dunbar's antitoxin and, secondly, by his own method by employing aristol. Dunbar's treatment is based on the assumption that all hay fever is due to the effect of the toxins of grass pollen. The author considers that Dunbar starts on a false premiss. His experiments with pollen introduced into the nose of persons and producing attacks of hay fever in those who had had this disease before, but not in others, is open to criticism since the amount of pollen introduced was enormous as compared with the number of pollen which can be gathered in the air under the most favourable circumstances. Next Dunbar refers the eye symptoms to the direct action of the pollen on the conjunctiva. Mohr has recently proved that by protecting the nose by means of a fine filter the attacks keep off altogether and no eye symptoms take place. It therefore follows that some other cause must act in producing the eye symptoms. Our experience teaches us that other things beside grass pollen can produce hay fever. For example, some people get an attack of this malady as soon as they come into contact with the blossoms of the lime tree, or of roses and many others, which the so-called autumnal fever is generally accepted as being due to the blossoms of the artemisia absinthium. Fick considers that the antitoxin which, according to Dunbar, produces a short lived immunity, does not and cannot have any action at all. In the second part of his paper he deals with his theory of the etiology of hay fever. To start with, the patient is always neurasthenic. The attacks themselves are directly caused by the action of some agent, of which grass pollen is the most common, but by no means the only one. The nasal symptoms are the direct effects, and the eye symptoms are reflex symptoms. He goes on to give his reasons for denying that the nasal symptoms are due to vasomotor disturbances, while he tries to show that irritation of the nerve endings of the trigeminal causes a hypersecretion. The hypersecretion in the case of hay fever is localized in the antrum of Highmore, and the fluid finds its way into the middle nasal fossa naturally. He states that he has found in aristol a means of curing all forms of nervous coryza, including hay fever, when it is applied locally to the affected part. He is able to pass a cannula, which is very thin and curved in correspondence to the lower turbinated bone, into the maxillary antrum in about 95 per cent. of all cases. Through this cannula he blows the aristol powder into the antrum, and finds that, as a rule, this need only be done six or seven times to produce a complete effect. By way of illustration, he appends a number of cases which have been treated successfully in this way. At first he applies the powder every day for three days, after which time the attacks become much less frequent and milder, and often stop altogether. When they recur, he again repeats the insufflation.

(365) Treatment by Radium.

O. LASSAR (*Berl. klin. Woch.*, May 16th, 1904) reports results from the application of radium. He states that he has turned his attention to the treatment of heteroplastic tumours of the surface. The application of the rays is quite harmless, and there are no side-effects of an unpleasant nature. The radium is applied by enclosing 1 mgr. of radium bromide in a small capsule, and fixing this capsule on the skin by means of strapping for one half hour each day. This is not sufficient to produce inflammatory or necrotic reactions, but pathological structures undergo shrinking, maceration, and eventual resorption and disappearance. He demonstrated cases of cancroid of the face, which had been completely healed up by these means, as well as other growths. The resulting scars were smooth and no trace of the original growths could be detected. With regard to the cost of the treatment, Lassar points out that the Roentgen apparatus is more expensive, and that when one has once purchased the radium bromide the cost is exhausted, since this substance is practically inexhaustible, whereas one has always a great deal of trouble and expense in replacing the Crookes-Hittorff tubes for the Roentgen apparatus, and that it needs a constant expenditure to keep the latter going. In order to insure that the damaging effects of radium rays do not come to pass, he insists that the treatment must always be carried under immediate medical supervision, and that the slightest trace of irritation, be it in the form of swelling, redness, or discoloration, must be the index to interrupt the treatment. He has not had occasion to regret having applied the treatment in a single case. In describing some of his cases, of which he reproduces photographs, he points out that he has been able to deal with success with cases of cancer of the breast, after operation, when there has been a local recurrence. Some cases were considered as hopeless, the recurrence being inoperable and at the time of writing, he says that there is no

longer any need for an operation. The cases are cured.

(366) The Stability of Diphtheria Antitoxin.

Marx, working at the Frankfort Institute of Experimental Therapeutics, reports (*Festschrift zum sechzigsten Geburtstage von Robert Koch.* Jena: Gustav Fischer, 1903, p. 457) that from March, 1895, to June, 1903, samples of 1,104 diphtheria antisera were tested, and out of that number 34, or 3 08 per cent., were withdrawn from circulation owing to loss of strength. Out of the 34 two were from 2 to 3 months old; 9 were from 6 to 10 months old, and 23 were between 10 and 15 months old. The sera sent to be tested were not newly-prepared sera, but were, as a rule, several weeks or months old. In the last few years there has been a marked diminution of the number of sera rejected; whereas 12 were discarded in 1896, only 2 were found deficient in 1901, and a similarly satisfactory result was obtained in 1902.

(367) Percutaneous Application of Camphor in Tuberculosis.

The effect of subcutaneous injections of camphor in the treatment of tuberculosis of the lung, especially in the advanced stages, has been reported on by Alexander in 1898. This treatment is said to have an antipyretic effect, to produce sleep and to check night sweats. W. Koch (*Berl. klin. Woch.*, May 2nd, 1904) has used camphor in phthisis for five years, and is very satisfied with the results he has obtained. While he does not claim that the treatment is specific, he considers it a very powerful aid in the therapy of the disease. In order to avoid the pain produced by ordinary injections of camphor, he carried out the injections in the middle line of the back. He found it advisable in order to obtain a fresh and reliable fluid, to prescribe camphor 5.5 grams in ol. olivae spt. 50 grams, which has to be especially prepared, the strength being different from the ordinary camphorated oil (ol. camphoratum, *Germ. Pharmacop.*); of this preparation he injected 1 gram. The results which he noticed in this method of treatment were: (1) The temperature sank to the normal line and remained normal for a considerable time, (2) the expectoration was increased and was coughed up more easily; (3) the night sweats ceased; (4) the appetite improved; and (5) the patient gained in weight. These results were obtained in cases in the third stage of the disease. The patients in the second stage gave still better results. Many of these lost all the symptoms of their disease and remained well. Since Koch had to deal with out-patients it occurred to him that it would be much more satisfactory if he could find some other method of applying the camphor than by hypodermic injection. Many of them were still at work, and, being poor people, had to keep to their work until they broke down altogether. The results of camphor given by mouth are unsatisfactory, and he, therefore, chose to apply it through the skin in the form of an ointment which could be well rubbed in. The vehicle which he selected is a preparation called percutilan, and to this is added balsam of Peru, eucalyptus oil, and a small quantity of the oil of rosemary. He calls the complete ointment "praevalidin." It is put up in tin tubes to prevent the evaporation of the camphor, and each tube contains 20 grams, a quantity which should be rubbed in five equal parts on five successive days. The results obtained by this method are exceedingly good. He illustrates this by giving the details of selected cases. With regard to haemoptysis, he states that, contrary to some statements, he has found that it certainly does not increase this complication. In one severe case it appeared to arrest the haemorrhage and directly save the patient when other means had failed. He claims that, if one can speak of cures after three years' observation, he has some cases of complete cure in the second stage of the disease to notify. As an expectorant in empyema and bronchitis, too, he has found it of use, but he warns one to be cautious in applying it in gravid women, as it appears to be used as an abortive in the East, and in two of his cases abortion followed its use.

(368) Durante's Injections in the Treatment of Phthisis.

Salvatore D'Auria (*Il Morgagni*, April, 1904) describes 4 cases of pulmonary phthisis treated after Professor Durante's method by injections composed of 1 gram of iodine, 10 of potassium iodide, 5 of guaiacol, and 100 of sterilized olive oil. He finds the effects of the treatment to be (1) cessation of fever after a few injections; (2) modification of the physical signs of the disease, even up to the complete restoration of normal conditions; (3) complete disappearance of night sweats; (4) cessation of cough and diminution of expectoration; (5) great increase of appetite and body weight; (6) complete disappearance of Koch's bacilli from the sputa; (7) Injections well tolerated by the patients.

(369) Treatment of Elephantiasis.

Elder and Matthew (*Edin. Med. Journ.*, December, 1903) report a case of elephantiasis of the leg in a young woman, contracted in Burmah. The limb was thickened from the thigh to the foot, and the outlines of the bones were lost. The limb was hard and brawny, and the skin dry and harsh. Perspiration was absent and tactile sensation diminished. During the early years of the disease there were feverish attacks resembling influenza, which may have been the "elephantoid fever" of Fayrer. No filaria were found in the blood. Treatment consisted in rest in bed, light diet, tonics, and massage. The constant current and electric baths were also applied daily. By this means the leg gradually diminished in size until it differed little from the other one. Afterwards an elastic stocking was worn.

PATHOLOGY.

(370) Human and Bovine Tubercle Bacilli.

Max Beck (*Festschrift zum sechzigsten Geburtstage von Robert Koch.* Jena: Gustav Fischer, 1903, p. 611) finds the following differences between human and bovine tubercle bacilli. On all artificial culture media the bovine bacillus grows more slowly and more scantily than the human. On serum it forms a thin, uniform film projecting n slightly above the surface, in contra the formation of the crumbs and c which are typical of human str The addition of glycerine to the seru favourable to the growth of the hu but unfavourable to the growth o bovine bacillus; glycerine-agar is a distinctly more favourable mediu the former than for the latter. On b too, the human bacillus grows m more quickly and luxuriantly than bovine, the latter being very relu to form a good surface growth, bu hibiting a tendency to grow downw in stalactite forms and to become m and sink to the bottom. Marked d ences are also produced in experim animals by the inoculation of c doses of human and bovine cult Guinea-pigs inoculated subcutane die sooner when a bovine virus is use certain differences are found *post mo* The bovine bacillus produces mor vanced necrotic change in the s and liver, but less extensive infecti the lungs than the human. V rabbits are infected either by cutaneous, intraperitoneal, intr ous, or intraocular inoculation, b bacilli always prove more virulent than human. Similar ferences are obtained with mice. cutaneous injection with human st rarely produces any infection beyon glands nearest to the seat of inocula but with *Perlsucht* cultures the mic in from four to five months wit vanced pulmonary tuberculosis an fection of the spleen. Intraperit inoculation with human cultures not often prove fatal, though pulm lesions rich in bacilli can be fou mice killed six months after inc tion; similar inoculations with b material produce death in from o four months with advanced pulm tuberculosis. Similarly, white and rats survive subcutaneous inocul with human bacilli, and when l after five or six months show o slight degree of pulmonary infec but with bovine bacilli they gen die within three months with genera hepatization of the lungs.

(371) Trypanosomes.

Laveran (*Bull. de l'Acad. de* April 26th) gives abstracts of two re on trypanosomes. L. Cazalbo veterinary surgeon in the French So describes a disease of dromed caused by a trypanosome, probab new one, and which is known local the name of "mbori." Clinically and emaciation are present, and disease produces death in five o months. The trypanosome mea 20 μ to 25 μ long by $1\frac{1}{2}$ μ to 2 μ broad in general appearance resembles th surra. Several animals—rats, mice —are susceptible. Laveran cons that further experiments on an immune to surra and nagana ar quired to decide the question of being a new trypanosome. The s part of the paper deals with anothe panosome which affects cattle, the ease produced being locally know "soumaya" or "souma." Cazalbo lieves that a tabanus, which is prevalent throughout the French So is the carrier of the germs from a to animal.

AN EPITOME OF CURRENT MEDICAL LITERATURE.

MEDICINE.

(372) Pleural Exudates.

IGE VARGAS-SUAREZ (*Beiträge zur n. der Tuberk.* March, 1904) deals with different elements found in pleural idates and the significance to be ached to each. Exudates may con- micro-organisms, endothelial cells, l blood corpuscles. The presence of mphocytes in pleural exudates has g been recognized; degenerated ns are often seen and are more nerous in the older exudates. The gin of the lymphocytes has been a tter of much dispute. The author ds that they are for the most part e lymphocytes which have migrated m blood or lymph vessels, but that a are division products of polynuclear s. Widal and Ravant were the first connect pleural lymphocytosis with erculosis. Many modern pathologists, hout denying the existence of a true umatic pleurisy, look upon almost pleurisies as of tuberculous origin, clinical experience of the frequency h which tuberculosis follows pleurisy rs out this view. It is, however, icult or impossible to demonstrate ctly the tuberculous nature of the ease. Tubercle bacilli are not ally present, and inoculation experi- nts give negative results. The ervations of primary pleurisies have wn that with a slight irritation the date contains at first lymphocytes, othelial cells, and a moderate nber of polynuclear cells, but that r a few days an almost pure lympho- osis is present. Lymphocytosis may refore be accepted as a sign of ht irritation; and as such irrita- is usually tuberculous, may be epted as a proof of the tuberculous ure of the pleurisy. The 13 cases of risy with lymphocytosis of the date which are described support theory. In one case there were un- bted signs of phthisis at one apex, in ther general miliary tuberculosis. In eral disease at one apex was suspected, thers the family history or the sym- ms suggested phthisis. The exudate econdary chronic tuberculous pleuri- is of a different character, being in fibrin and poor in cells, and se cells being chiefly degenerated ns. It resembles the exudate of rheumatic pleurisy. In the case rheumatic pleurisy described the date contained only some scattered s, lymphocytes, endothelial cells, erythrocytes. Endothelial cells in exudate are only of diagnostic value hey are present in large numbers. y are then characteristic of dropsical sion or new growth, and exclude the sibility of an inflammatory exudate at is, they exclude a diagnosis of erculous pleurisy. A large number polynuclear leucocytes point to a e acute irritation of the pleura of an ctious nature, and are only found in erculous pleurisies in very recent s or in cases of mixed infection. inophile cells are found in many exudates, most frequently, perhaps, where endothelial cells are also present; they, therefore, are suggestive of a non-inflammatory exudate. In the case of new growths of the pleura or peritoneum a diagnosis can often be made with certainty by an examination of the exudate. Portions of the growth can often be made out by the naked eye. Kreb cells can be distinguished as irregular clumps differing in shape and size from the endothelial cells. They contain one or more nuclei, and karyokinetic figures can often be observed. The protoplasm shows vacuolation and fatty degeneration.

(373) The Detection of Traces of Blood in the Stools.

G. JOACHIM deals with the importance of detecting traces of blood in the stools, which has been possible since Weber introduced a method some eleven years ago (*Berl. klin. Woch.*, May 2nd, 1904). This method consists in shaking up the motion with acetic acid and ether, so that in the fluid extract acetate of haematin will be found, if there is the least trace of blood, and this may be recognized by means of the guaiacum-turpentine test. All other substances which can colour the guaiacum-turpentine mixture blue are excluded by making this extract. Rossel devised an improved modification, in that he got rid of the fat from the material to be examined, and further advises the use of aloin instead of guaiacum. Joachim not only has tested the reliability of these tests, but has also examined the stools of all patients to see in which minute traces of blood can be found. With the exception of one patient, who it was afterwards found out had been eating "blood" sausage, no trace of blood was found in the stools of any of the patients, in whom such an occurrence could not be explained. After bleeding of the nose minute traces were found; less frequently was this the case after haemoptysis. Persons suffering from pneumonia with blood-stained sputum did not show any blood reaction in the stools. In cases of diseases of the digestive tract the test is of greatest importance. First he mentions malignant tumours, and found that in each case, save one of carcinoma of the oesophagus, Weber's test was positive; the colour was, it is true, rarely deep, but it was very constant. In ulcer of the stomach, although he found blood in the stools in 83 per cent., he found that it differed from the cases of malignant disease, inasmuch as it was rarely constant; but, as a rule, at one time there was a large quantity of blood present, and at another time it was absent. Other ulcerative conditions of the intestinal passages appear to lead to the appearance of blood in the stool far less often than the two named above. In tuberculous ulceration he did not find it in a single case, while in typhoid, out of six cases two showed it. In one the haemorrhage was patent macroscopically, while in the second the bleeding was very slight, and could not have been detected in any other way. In a rare case of mercurial poisoning blood was found regularly in the motion. In general congestion of organs due to cardiac disease blood was found repeatedly, but in congestion of the portal system due to cirrhosis of the liver he failed to demonstrate it. In catarrhal jaundice, at the height of the attack, it was frequently found, while in cholelithiasis it was always absent. The positive reaction in secondary carcinoma of the liver pointed to the primary growth being situated in the intestinal tract. In a case of carcinoma of the head of the pancreas no blood was found in the stool, but in haemorrhagic pancreatitis the test was positive. In testing the delicacy of the two tests he gave a person 3 grams of blood to drink, and found that both tests were positive, but the aloin test was the more distinct. At times the aloin test was positive, while the Weber's test was negative; but he advises in all doubtful cases to control the one by the other. The possible sources of error lie in the swallowing of food containing uncooked blood, and in the presence of blood from menstruation and from piles.

(374) The Passage of Food Stuffs from the Stomach.

OBSERVATIONS with the *x* rays upon cats whose food was mixed with bismuth nitrate have been carried out by W. B. Cannon (*Amer. Journ. of Phys.*, vol. x, p. xvii, February, 1904). By measuring the shadows of the food in the intestines, the proportion which had left the stomach was calculated. Carbohydrate food was found to leave the stomach more rapidly than fat, and much more than proteid. This is explained by assuming that free acid is the stimulus that opens the pylorus. Since proteid combines with the acid of the gastric juice, there is an interval until more acid has been secreted than is sufficient to combine with all the proteid present, after which, the acid being free, the pylorus opens. With carbohydrate food, since no such combination takes place in the stomach, the contents become acid sooner, and hence leave the stomach sooner. By making the proteid food acid and the carbohydrate alkaline before administration, the results were reversed, and the proteid was passed on more quickly. Cannon points out that the presence of acid chyme in the duodenum causes closure of the pylorus, which continues until the duodenal contents are made alkaline with the bile and pancreatic juice, and not until this has happened can the acid in the stomach again open the pylorus to let through more food. Thus proteids are retained in the stomach until acted upon by gastric juice, and the intestine is guarded automatically from receiving more acid food than it can deal with at one time.

SURGERY.

(375) Perigastritis consecutive to Gastric Ulcer.

DELAY AND CAVAILLON (*Rev. de Gynéc. et de Chir. Abdom.*, March-April, 1904) basing their conclusions on 14 cases under Jaboulay, are convinced that the adhesions of perigastritis represent the degree of activity of ulceration in the gastric mucous membrane. When the ulcer begins to heal the adhesions become absorbed and the pains disappear. It is rarely that the adhesions play an independent and mechanical

part in producing symptoms and complications; the authors are here alluding to instances where a long, tough, fibrous band presses on the middle of the stomach so as to cause acute obstruction or to drag on it so as to set up pain. It is the ulcer that must be treated rather than the adhesions; operative indications must be based on pain, vomiting, the general condition of the patient, and, above all, resistance in the epigastrium. The perigastric deposit implies active ulceration, and is a constant menace of perforation and suppuration. Operative interference must be thorough, mere liberation of adhesions is inefficient, and may be dangerous. Gastro-enterostomy is excellent, and allows the ulcer to heal, but it does not cure. Resection of the ulcer is the ideal operation, and suppresses the cause of the adhesions. It should always be done when the seat of disease is conveniently placed, on the anterior aspect of the stomach for example. When the whole wall of the stomach is involved, the organ being reduced to a rigid tube, total exclusion of the stomach might be practised with the view of keeping the ulcer from irritation due to contact of food and gastric secretion. Abscess and perforation are the complications of perigastritis. For abscess the usual rule must be followed—drainage without disturbing adhesions, very easy when the abscess lies anteriorly or is subhepatic, but very difficult and dangerous when placed behind the omentum in the lesser peritoneal cavity. The transmegacolic route with marsupialization of the cavity by fixation of the great omentum to the parietes is recommended by the authors.

(376) The Surgical Treatment of Trifacial Neuralgia.

DAVIS (*Univ. of Pennsylvania Med. Bull.*, No. 2, 1904) reports a case of removal of the Gasserian ganglion for recurrent trifacial neuralgia on the right side after intracranial neurectomy of the superior maxillary nerve. Eight months after the date of operation anaesthesia still persisted, but it had been found necessary, on account of corneal ulceration, to enucleate the right eyeball. In his remarks on this case the author expresses his opinion that the best method of operative treatment in trifacial neuralgia has as yet not been decided on. The mortality of intracranial methods is high, and cures, it is held, are sometimes obtained by extracranial operations. The fatality of complete removal of the ganglion has stimulated a search for safer procedures. Avulsion of the main peripheral branches has been proposed as likely to prove a permanent cure of the neuralgia, and some surgeons suggest that division of the root posterior to the ganglion may be found preferable to complete excision. Abbe divides the superior and inferior maxillary branches close to the ganglion and interposes between this and the ends of the divided nerves a sheet of rubber tissue. The original Hartley-Krause operation has undergone several modifications. The amount of traumatism may, it is stated, be reduced by making a smaller opening in the skull, and the haemorrhage diminished by preliminary ligature of the external carotid. It is pointed out that in removal of the ganglion other nerves than the ophthalmic are liable to be injured. In the author's case the third and fourth nerves were paralysed for a time after the operation, and the sixth nerve was probably destroyed. The same number of this *Medical Bulletin* contains a translation of a paper by Van Gehuchten (*Le Névraxe*, vol. v) on the operative treatment of trifacial neuralgia. This author, regarding the question from the point of view as an experimental investigator in neurology, recommends as a much superior operation to simple division or resection of nerves the abrupt tearing out of the peripheral branches of the trigeminal nerve. This, which he regards as a rational method of treatment of trifacial neuralgia, ought always, he holds, to be attempted before recourse is had to Krause's method which should not be performed, as Lauwers insists, until all medical means and the whole series of rational peripheral resection, have been exhausted. If, contrary to the results of his experimental investigations recovery from trifacial neuralgia after the operation here proposed should fail, then according to the author resection of the Gasserian ganglion remains the only resource. The resection, however, in such a case should be physiological rather than anatomical, and consist simply in the division of the large root on the inner or proximal side of the semilunar ganglion. These views are based on the results of experiments, which show that the tearing out of one or the other branches is followed by rapid atrophy of the corresponding cells of the ganglion, and that division of the large posterior root results in permanent degeneration of the fibres of the central stump.

(377) Effects of Smokeless Powder on the Skin.

JOHNSON (*Ann. Surg.*, No. 5, 1904) publishes the results of some experiments he has recently made with the object of determining the effects on the skin and the clothing of the discharge of pistols loaded with smokeless powder. The following conclusions are drawn from these experiments, which, however, are acknowledged by the author to be few in number and by no means complete: (1) The marks upon the skin and clothing produced by smokeless powder are much less distinct and definite than those caused by black powder. (2) With the weapons used in these experiments (Colt's automatic pistol, calibre 32 and 38, the Luger automatic pistol, calibre 7.65 mm., the Mauser repeating pistol, calibre 7.63 mm.) such marks are no longer produced when the distance exceeds 1 foot and the shot is fired at the naked skin. (3) At a distance of 3 in. or less powder marks may be present, but they will always be faint, and may in many instances be wiped away from the skin with a wet or dry cloth. (4) If the pistol be discharged at a part of the body covered by clothing no powder marks at all will be found on the skin. The clothing will never be scorched no matter how near the weapon is held. If the clothing be of wool no powder mark is likely to be detected upon it even at the closest range, unless under the microscope. If the clothing be of linen a faint mark may be found on it if the weapon were discharged at a distanc 3 or 4 in. or less. If the distance m exceeded this no mark would be pro duced.

MIDWIFERY AND DISEASES WOMEN.

(378) Bossi's Dilator.

J. W. BALLANTYNE (*Journ. of Obst. Gyn. of the Brit. Emp.*, February, 190 has used Bossi's dilator in eight c of complicated labour. The first was one of eclampsia in a primip The pelvis was narrow both at the i and outlet, the fetal head presente in the right oblique diameter unfle with the forehead leading. The pati was brought to the hospital in eclamptic fit, and the fits contin during the first two hours after admission, while labour made no pr gress. Dilatation of the cervix Bossi's dilator was then begun, completed in twenty minutes. It necessary to perform basilysis bef the child could be extracted, and third stage was complicated by hoem rhage due to adhesion of the membra to the uterine wall. The history of puerperium was one of gradual recove the patient was able to leave the h pital three weeks after delivery. Bos dilator was used in a second case eclampsia occuring in a primipara w was 6½ months pregnant when lab set in. The cervix was very rigid, dilatation to 3 in. took about thirty-f minutes. The fetus was easily livered, but was not viable. The pati made an uninterrupted recovery. I third case of eclampsia, the pregnan had advanced to the eighth month. T patient when first seen had had twen fits in close succession, and was in semi-comatose state. Dilatation up nearly 4 in. was accomplished in fift minutes, the child was delivered, a both mother and child did well. Ball tyne maintains that when it is nec sary in cases of eclampsia to empty t uterus, Bossi's dilator is the best ag known to us at the present time. T next case in which the dilator was us was one of extreme rigidity of the cer complicated by the presence of albu in the urine. Uterine action was pow ful but ineffective, and was not infl enced by chloral or morphine; wh labour pains had continued fifty hou the os was about 2 in. in diamet After an unsuccessful attempt at digit dilatation Bossi's dilator was employe and by this means the os was stretch to 4 in. in about thirty minutes. T child was delivered by forceps and d well. The mother made a good recover In the fifth case, one of narrow pelvi the cervix was dilated to induce prem ture labour in the hope of obtaining living child. Dilatation was performe in about an hour, and the child was bo alive. The mother recovered satisfa torily. The next case was one of narro pelvis and post maturity of pregnanc To induce labour a rectal bougie w passed, but dilatation was exceedingl slow, and was completed by means Bossi's dilator. The seventh case showe a series of complications—hydramnio placenta praevia, face and neck prese tation, rigidity of cervix, etc. The fetu was an anencephalic monster with limb bent until they were lying over th

dorsum. Dilatation was the more difficult because the uterus was in a state of constant spasm and there was no proper presenting part to fit into the cervix. Bossi's dilator tended to pass into the open mouth of the fetus, but in spite of this unexpected difficulty the cervix was finally stretched to a little over 3 in. The dilator was not as satisfactory in this case as in the earlier ones described. The patient recovered completely. The last case was one of severe internal and external uterine haemorrhage. In spite of every effort uterine contraction could not be excited, the haemorrhage persisted, and the patient became pulseless. Dilatation was completed by the dilator in ten minutes. The child was stillborn, and the mother succumbed to renewed haemorrhage. The eight cases described were all difficult and serious, and it is for such exceptional circumstances that Ballantyne recommends Bossi's dilator. The instrument is a powerful one and care and skill are therefore needed to prevent the production of serious lacerations. The distal ends of the blades of the dilator must be inside the os internum; the four-bladed dilator is preferable to the eight bladed one, as being more easy of insertion and as permitting the operator to introduce a finger into the cervix to note the state of the lip. The danger of septic trouble is not one that depends on the instrument in itself, but upon the complicated and dangerous nature of most of the cases in which it is usually employed.

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(379) Urinary Chlorides and Pulmonary Oedema in Pregnancy.

BAR AND DAUNAY (*L'Obstét.*, March, 1904) note how it is retention of chlorides that provokes the oedema characteristic of Bright's disease, whilst a dechloridizing diet causes the oedema to disappear, or at least to diminish. As milk diet is eminently of this kind, it is natural that it should be so successful in the treatment of the albuminuria and oedema of pregnancy. It is systematically enforced in French maternities for oedema without albuminuria in pregnant women, whilst water diet is prescribed when there is danger of eclampsia, the oedema being considerable. Bar and Daunay recently had to deal with a patient admitted into their maternity in a desperate condition, pulmonary oedema was marked, and there was much albumen in the urine. Delivery occurred, and the general condition began at once to improve owing to the diet on which the patient had been put from the first. Water alone was allowed for a time, then when the symptoms improved water and milk were given alternately, and at length milk alone. Thus by a dechloridizing diet a very bad case was saved.

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(380) Cyst of Mesentery: Obstruction after Operation.

HEIDENHAIN (*Monats. f. Geb. u. Gyn.*, March, 1904) operated upon a woman, aged 72, subject for many years to an abdominal tumour which had recently assumed enormous proportions, causing the parietes to bulge, especially on the right. Its surface was smooth, and it reached to the ribs above and to within two fingerbreadths of the pubes below. Resonance was dull all over except on the right superiorly, a little distance below the margin of the ribs. The genital tract appeared quite separate. An exploratory puncture was made, and fluid mixed with grease escaped. Then the abdominal cavity was opened, and a reddish orange-coloured tumour exposed. The resonant area above and to the right was due to a coil of small intestine intimately connected, not by inflammatory adhesions, to the wall of the tumour. There were no adhesions of the tumour to the parietes. The parietal peritoneum was sewn to the peritonenm over a small area bounded by a circle, then an incision was made within the limits of the circle and its edges sutured to the skin. The contents, $3\frac{1}{2}$ pints of pultaceous grease, were removed by the hand which reached the attachment of the mesentery. The cyst cavity was packed with iodoform gauze. Shock was very severe. Acute obstruction set in on the third day, and it was relieved by puncture of the intestine with a trocar. Two days later the puncture was repeated. On the seventh day the gauze was removed and a quantity of fetid pultaceous material escaped. Drainage was employed and the patient recovered. Schwarz, in a discussion on this case, expressed distrust of the practice of sewing the cyst to the parietes. It seemed better to enucleate the cyst, and, should there be fear of obstruction, to resect more or less of the gut, and unite the divided ends with the aid of Murphy's button or by suture alone. This practice avoided the perils of kinking of intestine, so probable when the cyst wall is left behind and sewn to the abdominal wound.

THERAPEUTICS.

(381) Heat Rays in Finsen's Light Treatment.

THE principle of Finsen's light treatment depends on the assumption that the violet and ultra-violet rays are the chemically active rays. W. Scholtz (*Berl. klin. Woch.*, May 2nd, 1904) points out that these rays have no penetrating power, and that the action is therefore absolutely superficial. Since he has been using a special "triplet" lamp with separate pressure and cooling lenses, and exceptionally intense illuminating power, he has begun to doubt if the heat rays should be considered as undesirable in the light treatment. He gives a comparison of his lamp with the Finsen apparatus, which goes to show that his light possesses rays which traverse interposed layers of tissue more readily than the Finsen lamp. He further shows that his lamp produces a large number of heat rays, and as these have the power of penetrating into the depths of tissue, he inquires how far they are of therapeutic value. His experiments tend to show that a large amount of the action of the light treatment is due to the penetrating heat rays. He first tested the action on gelatine, which he controlled in the following manner: Taking a sheet of gelatine or agar of about 1 cm. in thickness, he allowed the light to pass through it. The result was that the yellow light was scarcely absorbed at all, and that therefore no heat action was seen. When the gelatine was coloured blue, the heat acted on the anterior surface almost immediately and soon dissolved a hole through the gelatine. If he pressed a cooling lens against the anterior surface of the coloured gelatine, then only the deeper layers became fluid. The action of the cooling lens was to prevent the local action of the heat rays. His experiments with bacteria lead to the same conclusion. Lastly, he tested the action on normal skin. Passing the rays through a pale yellow light filter through a blue light filter and also directly without any filter, each for twenty minutes, he found that in the last case, a moderate erythema developed in twenty-four hours, while in the first two cases, no change was seen. Next he passed the rays through a piece of guinea-pig's skin on to the human skin. When he used either the yellow filter or no filter, blisters or burn scabs formed after twenty-four hours, while when the blue filter was used, no alteration was found. If a few drops of a methylene-blue solution are injected into the subcutaneous tissue, the action of the penetrating rays will be found to be locally intense, producing a hard infiltration of the part. On these grounds, he considers that the deeper acting heat rays can exert an action on tissue and bacteria, which in certain conditions, such as lupus, in which the brownish nodules are found, may even act electively. He hopes that his theory of the action of the heat rays may be able to influence the effect of treatment by light considerably.

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(382) Epidural Injections.

A. STRAUSS (*Therap. Monats.*, February, 1904) recommends that certain disorders of the genito-urinary system should be treated by epidural injections. These injections appear to owe their effect to the irritation of the roots of the cauda equina; the irritation spreads to the medullary centres, and changes their functional condition. Strauss agrees with Cathelin and Kapsammer in the view that the particular fluid employed is not of vital importance. He himself used at first Koch's salt solution, but substituted for it later Schleich's solution, No. 2, omitting the morphine, and found that this solution caused less local tenderness. Later still he omitted the strong cocaine from Schleich's solution, and could perceive no alteration in his results because of the change. He gives the results of his treatment in 32 cases. Out of 8 cases of enuresis both by day and night, complete recovery occurred in 1 case, in which an operation for phimosis was undertaken at the same time; in 2 cases the diurnal, but not the nocturnal, enuresis disappeared; in 2 cases there was permanent, and in 2 temporary, improvement. Recovery was also obtained in both of 2 cases of incontinence of urine of adults, in 2 out of 3 cases of spermatorrhoea, in a case of prostatorrhoea, in 2 out of 3 cases of impotence, and in 1 of neuropathic polyuria. In other cases there was marked improvement. In 1 case of sexual neurasthenia the improvement was possibly due to "suggestion." Great temporary relief was given to 1 severe and obstinate case of pruritus

pudendi. The number of injections in the different cases varied from 1 to 10, but as a rule the earlier injections were of more benefit than the later. In several of the cases recovery occurred after the first injection. Except for some local tenderness, no unpleasant effects followed the injections. The conclusions arrived at are that the operation is free from risk, is easily carried out, and causes, with proper methods, only slight local tenderness. When all other methods have failed, epidural injections may bring about a speedy cure or improvement, but relapses are not unknown. The procedure is indicated in cases of infantile enuresis, of incontinence of adults without mechanical cause, of spermatorrhoea, and of neuropathic polyuria, etc. It forms a real addition to the methods of treatment at present recognized, and the indications for its use may well become more numerous as time goes on.

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(383) The Prevention of Tuberculosis in Children.

Herman M. Biggs read a paper on this subject before the New York Academy of Medicine on April 7th (*Med. Record*, May 11th). He thought there could be no question that the factor of so-called heredity in the causation of tuberculosis was largely explained through house infection, and this view most authorities accepted. In a family in which a case of pulmonary tuberculosis existed, an infant was seriously exposed to the danger of infection through breathing the air which might contain the bacilli, through kissing, or through the transfer of food from the mouth of the mother to that of the infant, as was frequently done, especially among the lower classes. As the child grew older it was exposed even to a greater extent, because, while crawling on the floor, the hands were likely to be soiled by the expectoration carelessly discharged on the floor, or the dust that was wiped up from the floors and near-by objects, and which was transferred directly to the infant's mouth. There was also the possible infection through the use of infected eating utensils and the taking of milk from tuberculous cows. The infant of an infected family was more exposed to the possibility of infection than any other member of the family. There was comparatively little danger that young children would be sufficiently exposed to tuberculous disease to acquire infection until after the child had at least reached the age of 4 or 5 years, that was, outside the family. If then the preventive measures which had been adopted in recent years for the restriction of tuberculosis had had any considerable value, this should first be indicated in a reduction in the death-rate from tuberculosis in children under 15 years. He said the preventive measures which had been adopted in New York City during the past ten or twelve years, and which consisted chiefly in the provision of hospital accommodations for advanced cases of consumption, in the disinfection of apartments, and in the education of consumptives and their families as to the nature of the disease and the proper disposal of the expectoration, should result in a lesser degree of house infection, and should be followed by lower death-rates from tuberculous disease in the early periods of life. Certain data showed that during the ten-year period ending in 1902 there had been a decrease of more than 40 per cent., and that during a period of twenty years the decrease had considerably exceeded 50 per cent, in the death-rate from pulmonary tuberculosis and tuberculous meningitis in children under 15 years of age. With the extension of the regulations which were now being enforced, and a wider dissemination of information for the care of advanced cases, he looked for a still further rapid reduction in the death-rate in this early period of life. It seemed to him that these data afforded perhaps greater encouragement in the crusade for the prevention of tuberculous disease than any other which were at command.

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(384) Dionin.

A. Rahn (*Therap. Monats.*, May, 1904) recommends dionin either in combination with morphine or alone. It increases the effect of morphine either as a narcotic or in the treatment of irritative cough. When used as a narcotic two doses of 2 to 3 cgr. are given six and three hours respectively before the dose of morphine. If this is done ½ to ¾ cgr, of morphine taken by mouth will be enough to give sleep. In the treatment of a cough the dose of morphine can be reduced to a minimum if 1½ to 2 cgr. of dionin be given six times a day. Dionin without morphine is useful for a dry cough and in asthma, in neurasthenia, in nervous and atonic stomach disorders, in cachetic conditions, in neurasthenia of women when there is chronic disease of the adnexa, and as a sedative in the treatment of children. The dose varies from 2 to 4 or occasionally 5 cgr. In many of these conditions the author attaches importance to the drug being taken in solution, slowly, through a straw or glass tube.

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(385) Treatment of Gonorrhoea in the Male.

Behring (*Therap. Monats.*, February, 1904) gives the following details of the treatment of gonorrhoea in v. During's clinic. The diagnosis having been made by the discovery of gonococci in the urethral secretion, a suspendary bandage is ordered, and the diet regulated by the exclusion of all stimulating articles of food and drink; if there be marked phimosis circumcision is performed. If injections cannot be begun immediately, sandalwood oil is ordered, or gonosan or helmitol. When acute inflammatory signs are subsiding daily irrigation is commenced with potassium permanganate 1 in 4,000. It is injected with Zeissl's hand syringe to the amount of 200 to 250 c.cm. After about fourteen days the concentration is increased to 1 in 2,000. The patient meanwhile uses at home two to three injections daily of albargin, protargol, or nitrate of silver 1 in 1,000 to 1 in 1,500; these injections are not retained in the urethra. After about six weeks a drop of secretion may still be expressed from the urethra, but the gonococcus is usually absent; if still present silver nitrate is used by the surgeon, while the patient uses resorcin injections at home, 1 to 3 per cent.; occasionally sulpho-carbolate of zinc is used at this stage. If cure is delayed dilatation of the urethra is employed. In posterior urethritis the irrigation is carried out by passing the fluid into the bladder. If cystitis occurs, tablets of helmitol (0.5 gram), six daily, are prescribed, and if the prostate becomes involved massage is practised twice weekly.

PATHOLOGY.

(386) The Nucleus in Malignant Neoplasms.

Paterson (*Practitioner*, May, 1904) draws attention to certain characters of the nuclei of the cells of malignant neoplasms. Examination of sarcomata and carcinomata from various parts of the body has brought to his notice that many of the cell nuclei protrude processes like pseudopodia. In some cases these projections are the first stage in the formation of daughter cells by budding, but in others they are the beginning of a migration of the nucleus from its cell. When free they may remain in the connective tissue, or coalesce with a similar free nucleus or enter another cell. In the mitosis of certain of the cell nuclei extrusion of part of the chromation is to be seen, and it is suggested that the processes observed are analogous to the formation of polar bodies and the union of sexual elements. These phenomena can be observed more or less throughout the tumour mass, but in parts more particularly about the growing margin of carcinoma the epithelium is seen proliferating almost entirely by budding, and mitosis is practically absent. The appearances are the same as those in the cells of inflammatory exudates and in the corneal epithelium in ophthalmitis. The writer believes that at this stage the action is a simple inflammatory one, and that if the irritation subsided the nuclei would return to their normal condition, but should the stimulation be continued the above-sketched series of changes are initiated and the process becomes malignant.

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(387) Tuberculosis.

The third of the recently-published (London: Baillière, Tindall, and Cox, 1904) Harben Lectures, which were delivered in King's College by Professor Hueppe, of Prague, is devoted to tuberculosis. The lecturer regards human and bovine tubercle bacilli as belonging to the same species, and explains their differences as modifications brought about by adaptation to their environment within their respective hosts. In dealing with the channels of human infection he cites experiments which show that it is not possible to draw a hard-and-fast distinction between inhalation or pulmonary tuberculosis and alimentary tuberculosis. "If we infect animals by nutrition we need not get a primary tuberculosis of the intestines; we may get a primary tuberculosis of lungs; and if we infect by inhalation we can get a primary tuberculosis of intestines." In agreement with Behring and in opposition to Koch, he regards infection by nutrition as a serious danger, not merely to children but also as responsible for lung infection in adults.

AN EPITOME

OF

CURRENT MEDICAL LITERATURE.

MEDICINE.

(388) Erysipelas and Nephritis.

1901 Langballe published a case in ich chronic nephritis was completely red by an attack of erysipelas. Ejnar rop (*Zentralbl. f. inn. Med.*, April th, 1904) now describes a somewhat nilar case. Langballe's case was as lows: A woman, aged 22, had phtheria in November, 1899. The ne was then normal. In the follow- year the legs began to swell. In gust, 1900, there was 1.6 per cent. umen (Erbach). In spite of careful atment the anasarca and albumin- a increased, and the general health eriorated. The temperature was nor- l until December 13th, 1900, when it e to 102.2° F. There was increased resis, the amount of urine passed the twenty-four hours being on cember 18th, 112½ oz. The pyrexia tinued, and on December 21st the perature was 106° F. The urine dified completely on boiling. On cember 22nd a transverse line of red- s appeared above the pubes. The ancing edge was irregular, but not ed, and the reddened area was ex- nely tender and covered with papules mbling those of urticaria. The sipelas spread over the loins on the t side, and then advanced over the rax superiorly and the thighs in- orly. On December 27th the urine tained no albumen. The next day redness began to fade. On December the temperature was 105.8°, and the sipelas had spread over the whole of anterior surface of the body as high he chin, and as low as the legs. On ember 30th the urine contained es of albumen. On January 1st the perature fell to 98.6°, and the urine free from albumen. On January 5th ght serous pleural effusion was nosed. The condition remained un- ged for some time. There was inished diuresis, only about 17 oz. of e being passed daily; but the erysi- s slowly faded, the effusion was rbed, and towards the end of uary she got up. The urine re- ed normal, about 35 oz. being passed . In Dr. Nyrop's case, though no resulted, there was great im- ement after an attack of ery- as. A soldier, 25 years of age, scarlet fever in December, 1900. ng the following eighteen months as well and passed the medical ex- ation of a life assurance company. then albuminuria was discovered. een December, 1902, and March, there were bilateral pleural effusion edema of the legs. On March 28th was 1.6 per cent. of albumen. On 21st there was marked lumbar ma. The temperature was usually al, but was raised between April and May 3rd owing to an attack of ngitis. The anasarca increased numerous hyaline and faintly lar casts were found. On May 16th was 4.8 per cent. of albumen. In June over 2½ pints of ascitic fluid were removed. On August 3rd 10½ pints of fluid were drawn off from the legs by Southey's tubes. On August 16th he was seized with headache, nausea, and vomiting, and the next day erysipelas of the right leg appeared, the infection evidently having entered one of the punctures. The temperature rose to 104°. On August 24th he was apyretic. The albumen was less than 0.05 per cent., and for the first time since their introduction no fluid escaped through the Southey's tubes. The condition then slowly improved. The daily amount of urine increased from 24 oz. to 60 oz., the ascites disappeared, and the anasarca diminished. On October 3rd he got up. On February 17th the urine contained a few red corpuscles and isolated hyaline casts. The percentage of albumen was 0.8. Thus the erysipelas was followed by a reduction in the quantity of formed elements and albumen in the urine, and improvement in the general health.

(389) The Curve of Damoiseau.

SINCE Damoiseau first described the parabolic curve followed by the upper limit of a moderate pleuritic effusion, many explanations of its causation have been offered. Barjou (*Lyon Médical*, April 17th, 1904) enumerates and criticizes these theories, and records the conclusions which he has drawn from radioscopic examination. Damoiseau, whose paper was published in 1843, described the curve as ascending obliquely across the anterior wall of the thorax to reach its highest point in the axillary line, from which it descends obliquely, and reaches the vertebral column at the same height as that of its point of departure. He gave no explanation of this occurrence, but made some experimental injections and aspirations of air, the results of which were unsatisfactory. In 1869, Peter attributed the curve to the viscidity of the fluid, believing that the more fibrinous the effusion, the more marked was the obliquity of its upper margin. Clinically, however, it has been found that this theory is untenable, the curve occurring however thin the effused fluid. Garland believed that the lung by its retraction was the active agent in the production of the curve; and Ferber sought the explanation solely in the weight of the fluid. Barjou's radiographs showed that with great effusion the upper margin of the fluid was almost vertical, and that the smaller the quantity of fluid the more nearly the line approached to the horizontal. All the lines began from the same central position, corresponding to the position of the hilus of the lung. From his observations upon various stages of effusion Barjou concludes that three factors are implicated in the causation of the curve: (1) The weight of the fluid; (2) the retraction of the lung and its elasticity; and (3) the fixation of the lung within to the median line by its hilus. Peter's and Ferber's theories would not explain the fact that the curve only is present when the patient is in the erect posture, and disappears with decubitus. The curve necessitates for its occurrence not only the erect posture of the patient, but also a moderate quantity of fluid and a lung without adhesions to the wall of the thorax.

(390) Percussion of the Vertebrae in Diseases of the Heart and Aorta.

A. SIGNORELLI (*Il Policlin.*, April, 1904) describes a method of investigating the condition of tke heart by percussing the dorsal vertebrae. Other authors have described an area of cardiac dullness in the back, but their observations have never been widely verified because the signs they describe can only be appreciated by those who have particularly acute senses. Signorelli claims that his method can be used at once by any observer without special practice. He reports a case in which its employment enabled a mistaken diagnosis to be rectified. The patient sits with the shoulders bent forward, and the vertebrae are percussed firmly, a finger of the left hand being interposed between the percussing finger and the patient. In normal cases, that is in all who do not suffer from disease of the heart, pericardium, or aorta, the first four dorsal vertebrae give a clear, high pulmonary sound, not very intense, the remainder of the vertebrae give a deeper and more intense sound. The method consists in comparing the sound obtained by percussing each vertebra with that obtained by percussing the other vertebrae and the back of the thorax. The deficiency of resonance which Signorelli speaks of is a relative deficiency. Thus, if the first six dorsal vertebrae give the same sound he concludes that there is a deficiency of resonance over the fifth and sixth vertebrae. Deficiency of resonance over the spines of the first two or three dorsal vertebrae shows enlargement of the aorta; over the fourth, fifth, and sixth, or sometimes over the fifth alone, it shows increased size of the auricles, especially the left auricle, and therefore probably mitral disease; over the seventh and eighth it shows increased size of the ventricles, and especially of the left ventricle. The auricular dullness is a more frequent and constant sign than the ventricular, because the axis of the heart is directed downwards and forwards. These signs may also be given by pericardial effusion, or they may be prevented from manifesting themselves by pulmonary emphysema separating the heart widely from the vertebral column.

SURGERY.

(391) Treatment of Acute Osteomyelitis of the Upper Extremity of the Femur.

GUYOT (*Rev. de Chir.*, Nos. 2 and 4, 1904), in concluding a paper on acute osteomyelitis of the head and neck of the femur, based on a comparative study of 54 collected cases, discusses the treatment of this affection, which in this as in other examples of acute osteomyelitis should, it is pointed out, consist in bold and early incision of the infected joint. There is much difference of opinion amongst surgeons as to the extent of the operation to be performed, some being content with simple arthrotomy, whilst others advocate trephining of the neck of the femur, and others again insist on the necessity of resection of the upper extremity of the bone. The author is of opinion that there can be no single plan of treatment suitable in all cases, and that the indications for this or that method will

vary according to the special conditions of each. In incising the soft parts over the affected joint the posterior method of Langenbeck is preferred, as this affords more complete drainage than incisions made over the front or the inner surface of the neck of the femur. There can be no doubt, the author states, that good results have been obtained from trephining and even from simple arthrotomy, but in many cases resection of the head of the femur is indicated by the necessity of obtaining good drainage. This operation, however, is a difficult and dangerous one, and when successful leaves the patient with a shortened limb. In considering this problem the author suggests that in some cases it may be found sufficient to practise Broca's method, which consists in a free arthrotomy with removal of the surface of the neck of the femur. This method it is acknowledged, is applicable only to cases coming under surgical observation at an early stage of the affection. When the tissue of the upper extremity of the femur has been much disorganized, and the head of the bone is detached from the neck, there ought not to be any hesitation in performing resection. In such cases, which form the majority of instances of the disease first seen by the surgeon, arthrotomy is insufficient, as it leaves the patient exposed to the dangers of septicaemic infection, and resection is the only resource.

(392) Resection of the Cervical Sympathetic in Basedow's Disease.

JONNESCO (*Bull. et Mém. de la Soc. de Chir. de Bucarest*, No. 6, 1904) in a report on the present aspects of the treatment of exophthalmic goître by resection of the cervical sympathetic sums up his conclusions in the following propositions: (1) Resection of the sympathetic is the operation of election in the treatment of primary exophthalmic goître; (2) this resection, to be rational and efficacious, ought to be practised on the whole of the cervical chain of ganglia, and, in addition, on the first thoracic ganglion; (3) the operation is an absolutely harmless one, but, with the object of ensuring safety, it is preferable to perform it in two stages; (4) to determine the therapeutical result of resection of the sympathetic the surgeon should wait for some time, as the patient after this operation often passes through a stage uncertainty in which the symptoms of Basedow's disease may for a time be exaggerated; (5) in the form of goître that is presented in Basedow's disease, resection of the sympathetic is contra-indicated in the first place, the operation of election in such condition being partial thyroidectomy followed after a certain interval by resection of the sympathetic if the associated symptoms of the general disease are not relieved.

MIDWIFERY AND DISEASES OF WOMEN.

(393) Torn-off Fetal Head in Parametrium.

WEBER of Hettin records an interesting case of an awkward accident complicating an abortion at the fourth month, ("Ein abgerissener Kopf im Parametrium" *Zentralbl f. Gynäk*, No. 6, 1904, p. 167). A practitioner sent a patient into the city infirmary with the following history. The woman was 25 years of age, and had borne two children, irregular haemorrhages had occurred during the past three weeks. Abortion was at once diangosed, in fact the fetus was born, all except the head, which lay in the cervix, whilst the os externum, resistant and as wide as a shilling, embraced the neck. In attempting to deliver the head by dragging the feet, the former was torn off. The doctor tried to hook the head out of the uterus by means of his finger, but in so doing it suddenly slipped out of his touch and then he could feel a rent in the cervix. He naturally concluded that the head had escaped into the peritoneal cavity. Four hours later, when admitted into hospital, Weber found the patient remarkably free from shock or signs of internal haemorrhage, but she complained of severe hypogastric pains. The os admitted one finger easily, the uterus was firmly contracted, its cavity appeared empty, but no laceration could be detected, nor could the fornices be accurately explored. The patient was subjected to abdominal section, as it was evident from the history of the case that there had been a rupture of the uterus or cervix. No blood was found in the peritoneal cavity. The uterus was enlarged, and its peritoneal coat free from damage, but the right broad ligament was opened up by a mass of the size of a small apple, the nature of which was evident. The peritoneum of the broad ligament was incised and the fetal head extracted. There had been no appreciable haemorrhage into the right parametrium, a fact which should be borne in mind. The incision into the ligament was closed with catgut. Recovery was rapid, and within six weeks all traces of local damage had disappeared. Weber considers that this case is unique. The fetal head has been torn off in clumsy efforts to deliver a breech case. Indeed, it has even been cut off with a view to facilitate delivery, subsequent extraction proving difficult. The pushing of the small head of a three-months fetus into the parametrium, however, has not, Weber observes, been previously recorded. Precedents in respect to accidents during the delivery of an abortion are of importance, and Weber notes that Orthmann reports a singular example of an abortion criminally induced where, after delivery of a three-months fetus, the placenta, from which the funis had been torn off, was somehow pushed through a rent in the cervix into the right parametrium. Although the damage could be plainly defined by the finger, all attempts to extract the placenta through the rent were unsuccessful. As in Weber's case, the abdomen was opened and the broad ligament incised. The placenta was removed and the patient recovered. In the case above related, be it noted, there was no question of criminality, and the doctor, even if unskilful (and this point is not certain), clearly knew something about injuries to the uterus during parturition.

(394) Pseudo-eclampsia.

ZWEIFEL (*Zentralbl. f. Gynäk.*, No. 17, 1904) attended a woman who had eighty-two fits during labour; they simulated puerperal eclampsia. The child was saved and the mother died. A cerebral tumour was discovered, it accounted for the convulsions.

(395) Cancer and Fibroid of Body of Uterus Coincident.

GLOCKNER (*Zentralbl. f. Geb. u. Gyn.*, No. 17, 1904) reports a case where the uterus was amputated for fibroid disease, and cancer of the body discovered on examination of the tumour. The patient was 56, and the fibroid growth had been diagnosed twenty years previously. Recently she was troubled with obscure but distressing abdominal pains. On examination sanious discharge was detected and malignant degeneration of the tumour diagnosed in consequence. Zweifel removed the uterus by Doyen's method; recovery was speedy. The fibromyoma had its origin in the posterior wall of the uterus, and from the mucous membrane in the same region sprang a growth of the size of a pigeon's egg, which proved to be a malignant adenoma. The tumour weighed 9½ lb., and was undergoing mucoid degeneration. Glockner reports two homologous cases. The patient in the first was a virgin aged 44, and the uterus was removed through the vagina on suspicion of malignant disease. There was not only a small myoma but also a papillary mass springing from the mucosa on the right side of the uterine cavity, yet not on the seat of the myoma, and lastly a small tumour of the mucosa on the left side. The mucosa itself was atrophic, as was the muscular coat of the uterus. Yet this atrophic organ bore three new growths of different types, two of which at least were of recent origin. In the third case, of which Glockner gives no details, the patient was 55, and the menopause was established.

(396) Absence of Vagina: Bladder Injected in Error.

MOND (*Zentralbl. f. Gynäk.*, No. 7, 19[illegible]) was consulted by a lady, aged 40, on account of absolute amenorrhoea. The vagina was completely wanting and there was no trace of a uterus or ovaries to be detected on examination. Some years before she came under his care this patient consulted a doctor on account of abdominal pains. For three days injections of lysol were thrown into the bladder. The result was, as might have been expected, severe pain and vesical catarrh.

THERAPEUTICS.

(397) The Indications and Contra-indications of Treatment at the Seaside.

H. WETTENDORFF contributes to *Policlinique* (April 15th, 1904) a study of the circumstances which make treatment at the seaside desirable or undesirable. The peculiarity of seaside treatment lies in the sea air. It is impossible to say dogmatically what is the most important property of sea air. Its most obvious characteristics are its purity, its richness in oxygen, its holding in ozone, its excessive transparency, and its high barometric pressure which causes respiratory movements to be slow and of increased amplitude. Its con-

quences are seen in increase of haemoglobin and of red blood corpuscles, increase of metabolism and increase of the energy of all the organs of the body. In spite of these advantages, residence by the sea sometimes leads to harm, and it is necessary to study the drawbacks as well as the advantages of sending invalids to the sea. In his study of the differences between the air on the coast and inland, Wettendorff's remarks apply especially to the Belgian littoral, and are not therefore necessarily of universal application. The mean annual temperature of Ostend is higher than the mean annual temperature inland, and even 4 kilometres inland there is already an appreciably lower mean annual temperature. The sensation of coolness usually observed at the coast is therefore not a safe indication of temperature, but is probably due chiefly to the wind. Distinguishing between the different seasons, the temperature of sea air is slightly lower than that of inland air at the end of winter, in spring and in summer, but is higher in autumn and during the greater part of winter. So far, therefore, as temperature is concerned, there is no reason why a winter at the sea should not be recommended to delicate children, and to sufferers from scrofula, enlarged glands, tuberculosis of bones and joints, chronic abscesses, Pott's disease, osteo-arthritis, adenoids and tonsillitis, but the author does not recommend it for children suffering from tuberculosis of lungs, peritoneum, or kidneys, and in the case of the other diseases named above he assumes that the patient is under competent surveillance. Foggy and rainy days are less common at the coast than inland. The sea air is more humid than that inland, at least during winter, and on that ground the author recommends that during November and December sufferers from rheumatism, chronic bronchitis with abundant expectoration, asthma, gout, and affections of the larynx shall remain inland. In this connexion also he states that sea air is contraindicated in almost all cases of severe diabetes, pulmonary emphysema, arterio-sclerosis, organic disease of the heart, Bright's disease, renal and vesical tuberculosis, calculous affections, and severe neuroses such as epilepsy and chorea. To many invalids the violence of the winds is a matter of great importance. It is not uncommon during winter for a day or two of storm to be succeeded by many calm days, but towards the end of winter, and especially during March, April, and May, the storms tend to be longer and more frequent. Strong winds increase the frequency both of respiration and pulsation, and are injurious to sufferers from all forms of heart disease and from arterial sclerosis. In some patients these effects are much more pronounced when the wind blows from north or north-east, and they may not be observed at all in the case of a storm from south or south-west. Along the Belgian littoral the prevailing winds are from the south during winter and autumn, from the west during summer, and from north or north-east in April and May. The north and north-east winds are particularly exciting, and it is therefore advised that hysterical and neurasthenic patiens and those suffering from the congestive form of tuberculosis shall remain inland during spring. For children generally the months from August to November are the best for spending by the sea. A child who sleeps well by the sea is probably doing well there; one who gets comparatively little sleep, and that disturbed by dreams, is probably unsuited for life at the seaside, and should be quickly moved inland. A nervous child does badly at the sea, but turbulence and vivacity must not be mistaken for nervousness. Convalescents from scarlatina, measles, and diphtheria are better away from the sea during winter and spring. Hay fever is usually cured or alleviated by residence at the seaside, but in some cases the disease returns when there is a land breeze, disappearing again when the wind blows from the sea. In the treatment of tuberculosis especially it is important to choose the right cases, the best seasons, and the best places for seaside treatment. Rapidly progressive cases of phthisis do badly at the sea. The patients who do well are those predisposed to phthisis, either by inheritance or diathesis. Scrofulous patients, and those whose phthisis is apyretic, or attended only by febrile attacks of moderate intensity, do well. So far as the season is a matter of choice. it should be chosen chiefly with regard to the prevalent wind and to the prevalence of storms. Stormy weather, sudden variations of temperature, north and north-east winds, have the worst effects. For this reason the Belgian coast should be avoided in spring by phthisical patients. The Atlantic climate is stated to be much more suitable than the Mediterranean for patients with haemoptysis, the dry and variable hygrometric state of the latter provoking frequently severe haemorrhages. The author attaches very great importance to trees as a protection against violent and injurious winds. He states that a wind blowing over a low range of hills is deflected upwards by trees at the summit, and leaves the valley beyond in shelter, but a similar wind blowing over bare hills follows the course of the earth's surface and sweeps through the valley. The best places for the treatment of phthisis on the Belgian coast are those in which the sandhills parallel with the coast are of a sufficient height, are well wooded at the summit, and run within a couple of miles of the sea.

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(398) Helmitol.

G. KELEMAN (*Die Heilk.*, May, 1904) has employed helmitol in the treatment of cystitis, and has obtained good results, not only in cystitis following gonorrhoea, but in cases of enlarged prostate, of stricture, and of papilloma. Helmitol is a white powder, soluble in water, especially in water containing carbonic acid, and has a not unpleasant taste; it can be obtained in the form of compressed tablets. In an alkaline solution it allows much formalin to separate off. It was tried for the most part on severe cases which had resisted other treatment. The first case was that of a man, 40 years of age, whose first attack of gonorrhoea five years before had been followed by many relapses. He complained of strangury and of periodical attacks of frequency of micturition; he had, moreover, suffered for years from chronic intestinal catarrh and from attacks of gall-stone colic. Treatment, consisting of irrigation of the intestine, washing out the bladder, and administration of calomel, salol, and urotropin, was carried out for six weeks without leading to any improvement, except a decrease in the irritability of the bladder; after a further relapse this improvement disappeared. Cystoscopic examination showed a diffuse chronic cystitis, with clear urine coming from both kidneys. The patient next began to take helmitol starting at the rate of 3 gr. daily and increasing the amount to 9 gr. The use of helmitol was intended to accompany not to supersede other treatment, but from this time the patient was unable to steadily carry out the whole system of treatment, because of frequent absences from his doctor. With helmitol the subjective symptoms were removed, the urine became clear and the irritability of the bladder decreased. Fresh attacks of cystitis could not, however, be prevented owing to the state of the intestine. The next patient had a pustular, greenish yellow urethral discharge, and suffered from strangury, pain on micturition, and tenesmus. Urine was passed every half an hour or hour, and was turbid and contained pus corpuscles and gonococci. The prostate was enlarged, hard, and tender. Daily washing out of the bladder, administration of urotropin, and massage of the prostate every other day was persisted in for three weeks without any result. Helmitol was then given in combination with astringent injections. Marked subjective improvement followed, with some improvement in the state of the urine. The treatment was continued, and rest and a milk diet ordered. After two months the urine had become clear, all subjective symptoms had disappeared, and the prostate was of normal size. Other examples are given, and in all the cases helmitol led to a lessening of the symptoms, micturition became less frequent, pain was diminished, and the urine gradually cleared up. Helmitol acts as a disinfectant and diuretic, and also as a sedative. It has no specific action on the gonococci, but disinfects the urine by rendering it acid; and it diminishes and localizes the inflammatory process. When combined with suitable injections and with washing out of the bladder it brings about a complete cure. It is readily taken by patients and has no unpleasant after-effects.

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(399) Light Treatment by Dreyer's Method.

NEISSER AND HALBERSTÄDTER (*Deut. med. Woch.*, No. 8, February 18th, 1904), after a review of the historical and theoretical aspects of treatment by light, both without sensitizing (Finsen) and with it (Dreyer, see BRITISH MEDICAL JOURNAL, November 5th, 1903), give the results of their own experiments done according to Dreyer's directions. They point out that Dreyer's method has the following advantages over Finsen's: (1) Finsen's very powerful arc lamp and quartz lenses can be replaced by a much

weaker source of light and ordinary glass lenses; (2) a much larger area can be treated at one exposure; (3) the duration of each exposure is reduced to a third or a quarter of that given in the Finsen treatment; (4) the reaction is not confined to the superficial layers, as it is in the Finsen treatment, but proceeds also in the deeper tissues. By sensitizing only the deeper tissues, it is even possible to treat these without injury to the overlying unsensitized skin. The authors have already treated over 25 cases (carcinoma of the skin, lupus, scrofuloderma, tuberculous glands, spina ventosa, and other deep-seated tuberculous processes) by Dreyer's method, and are satisfied with the results obtained so far.

(400) The Medical Treatment of Tuberculous Peritonitis.

FEDELI (*La Clin. Mod.*, An. 10, No. 13), whilst fully recognizing the possibility of spontaneous recovery in tuberculous peritonitis and the advantages of surgical treatment in certain cases, points out that there is still a large group of cases of chronic tuberculous peritonitis which may be successfully treated by medical means, and he gives two examples so treated with complete recovery. Surgical treatment is not always available, even when it seems indicated. The particular method advocated by the author is that described by De Giovanni, and consists in the application of leeches to the haemorrhoidal veins, coupled with strong counter-irritation of the abdominal walls by means of croton oil. The author's first case was that of a girl, aged 16, with some tuberculous family history, who got wet just before a menstrual period and developed a tuberculous peritonitis, with right ovaro-salpingitis and ascites. The illness dated from October 1st, 1893. On November 12th paracentesis was performed for relief of urgent symptoms, and the right labium, which was much swollen, scarified and dusted with iodoform. The ascites slowly returned about a month later. In February, 1894, five leeches were applied to the haemorrhoidal veins, and two days later the abdomen was painted with croton oil, and as soon as the rash had healed iodoformized collodion (4 per cent.) was painted on. Improvement set in almost immediately, and by March, 1894, all trace of ascites had disappeared, menstruation (which had ceased) reappeared, and the patient has remained well ever since. The second case was effectively treated by repeated applications of croton oil. In the author's judgement neither of these cases was likely to have recovered spontaneously.

(401) Treatment of Hypertrophic Acne of the Nose.

DUBREUILH (*Ann. de Derm. et de Syph.*, November, 1903) states that in the early stages of acne hypertrophica, diet, a local spray of sulphur lotion, and electrolysis of the enlarged sebaceous glands are sufficient. But when hypertrophy occurs, with deformity and tumours of the nose, surgical measures only are satisfactory. The author prefers thermocautery to the knife, and considers grafting undesirable if this is used. When the knife, however, is used, skin grafting may hasten recovery and prevent cicatricial contraction. Under an anaesthetic a median incision is made and each half of the tumour dissected off the nose, the operator using a finger in the nostril as a guide. Successive slices are then peeled off, until a distance of about half a centimetre separates the surface from the guiding finger. Bleeding is arrested by the thermocautery. Suppuration usually occurs owing to the septic crypts in the sebaceous glands. Wet boracic dressings are applied. The slough is usually shed in a week. At the end of the second week islands of epidermis develop with patches of granulation tissue between them. The latter should be grafted. The final result is excellent, those parts of the wound in which sebaceous glands were left having their orifices as in normal skin. Those parts which were grafted are recognizable as being formed of other skin, but the general effect is natural.

PATHOLOGY.

(402) The Experimental Production of Gastric Ulcer.

MARIO DONATI (*Giornale della R. Accad. di Med. di Torino*, February-March, 1904) describes experiments undertaken to test the earlier experiments of Van Ijzeren and Dalla Vedova on the causation of gastric ulcer by means of interference with the extrinsic nervous apparatus of the stomach. Dalla Vedova, experimenting on dogs, produced in the wall of the stomach necrotic, haemorrhagic ulcerations by means of lesions of the coeliac plexus and the great splanchnic nerve. Forty per cent. of his experiments were successful. A possible source of error is noted in the fact that many of the subjects of his experiments were killed with strychnine, which may itself cause submucous haemorrhages of the stomach. Van Ijzeren, by section of both vagi of rabbits below the diaphragm, was able to produce a chronic peptic gastric ulcer, and in some cases to follow its course for several months. Half the experiments were successful. Besides references to the works of the two writers mentioned above, Donati supplies a summary of other experimental work done with a view to explaining the causation of gastric ulcer. Donati divided the trunk of the vagus on one or both sides, drawing it down with a blunt hook inserted through the diaphragm near the oesophagus, and excising two or three centimetres of it. The only injury he inflicted on the sympathetic system was the complete removal of the coeliac plexus. The animals (dogs and rabbits) lived for varying periods up to six months and were killed, if necessary, by bleeding. The necropsy was made in each case immediately after death; pieces of the stomach wall were fixed in Müller's, Zenker's, or Flemming's solution. Altogether he performed 20 subdiaphragmatic resections of the vagus—9 on dogs, 11 on rabbits. The coeliac plexus was excised in 16 cases—11 dogs and 5 rabbits. In one dog, which survived the operation for thirty days, both vagi were divided and the coeliac plexus was excised. In all these 37 cases the results were negative. No gastric ulcer was ever found, nor any condition likely under any circumstances to be a first stage of the ordinary gastric ulcer. In 7 dogs there were found punctiform haemorrhages of the mucosa, all of them recent, all very superficial, and strictly limited to the interglandular tissue. Probably these haemorrhages were due to injury by bones or other hard bodies swallowed with the food. In no case was there any sign of fatty degeneration of the epithelium lining the stomach or its glands, or any noticeable alteration in the intrinsic nerve filaments of the stomach wall. There was considerable variety in the degree of acidity of the gastric contents. On the whole the acidity of the contents of the stomach was increased especially after excision of the coeliac plexus. The urine was examined in every case, and no constant alterations were discovered in it. Donati's results thus absolutely contradict those of the writers above-named.

(403) Agglutination of Staphylococci.

KLOPSTOCK AND BOCKENHEIMER (*Arch. f. klin. Chir.*, lxxii, H. 2) relate researches on the agglutination of staphylococci as a means of differentiation between the pathogenic and the saprophytic types. Methods of staining and animal inoculations have not given satisfactory results, and the differentiation between colour-producing and non-colour-producing types has no pathological importance. Neisser and Wechsberg have shown that the pathogenic staphyloccus pyogenes albus and aureus form haemolysin and leucocidin, whereas the saprophytic forms do not. Kolle and Otto have studied the comparative agglutinating properties of these two types, and these studies have been continued by the writers. They employed cultures grown on slightly alkaline agar, demonstrated their pathogenic characters by the above-named methods and injected killed cultures into rabbits for the production of immunization phenomena. Three to four injections were given in each case, and ten days after the last injection the animal was killed and the serum collected. The agglutination phenomena were studied along with control researches with the injection of normal serum and sterile salt solution. The results of these researches showed that a serum obtained after injection of pathogenic forms agglutinated not only the homologous types, but also most other pathogenic types, even in cases where the agglutinating property was of slight degree throughout. Saprophytic staphylococci were not agglutinated by a serum obtained after injection of pathogenic forms, and serums obtained after injection of saprophytic types in no case agglutinated pathogenic types even in high concentration. With some of the saprophytic forms no agglutinating serum could be obtained. With regard to the formation of haemolysin, the writers confirmed the observations of Neisser and Wechsberg, and found that only those forms produced haemolysin, which the agglutination test proved to belong to the pathogenic group.

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SUPPLEMENT

CONTAINING

PROCEEDINGS OF COUNCIL

REPORTS OF STANDING COMMITTEES

MEETINGS OF BRANCHES AND DIVISIONS

PROGRAMME OF ANNUAL MEETING

MEDICAL BILLS IN PARLIAMENT

PROCEEDINGS OF THE GENERAL MEDICAL COUNCIL

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CONTENTS.

	Page.
PROCEEDINGS OF COUNCIL	1
PROCEEDINGS OF STANDING COMMITTEES:	
MEDICO-POLITICAL COMMITTEE.—Coroners' Bill.—Local Organization.—The Spectacle Makers' Company.—Irish Poor-law Medical Officers.—The British Dental Association and the Medical Acts Amendment Bill.—Death Registration.—Death Registration Acts Amendment Bill.—Security of Tenure of Sanitary Officers. - Proposed Amendment of the Pharmacy Act.—Matters referred from Representative Meeting. — Medical Witnesses.—Direct Representatives on the General Medical Council —Conference with Medical Members of Parliament.—Contract Practice.—Registration of Nurses.—Leaving School Certificates	4
CONFERENCES OF THE PUBLIC HEALTH AND MEDICO-POLITICAL COMMITTEES. — Vaccination. — Business of the Conference. — Reconstitution of the Local Government Board.—Security of Tenure.—Memorandum on Local Government Board Bill.—Draft of a Bill to amend the Constitution of the Local Government Board	6
PUBLIC HEALTH COMMITTEE. — Vaccination. — Health and Temperance	8
ETHICAL COMMITTEE.—Medical Men Practising as Dentists.—Trade Advertisements.—Bulletins.—Medical Announcements.—Rules of Divisions and Branches.—Contract Practice—Charges by a Member of one Division against a Member of another.—The Advertising of Medical Practitioners in Connexion with Hydropathic Establishments. — Reports of Medical Lectures in Lay Papers.—The Title of "Doctor" ...	8
MEDICAL DEFENCE COMMITTEE.—Memorandum of Receipts and Expenditure of the British Medical Association.—Financial Questions.—Expenses of Existing Defence Societies.—Special Subscription Necessary.—Adoption of the Principle of Medical Defence.—Memorandum by the Treasurer.—Consideration of Recommendations.—Draft Scheme recommended to the Council	9
HOSPITALS COMMITTEE. — Election of Chairman.—Hospital Administration.—Proposed Inquiry	11
ROYAL NAVAL AND MILITARY COMMITTEE.—Indian Medical Service.—Memorandum by the Editor.—Regimental Hospital System.—The Injustice of the "Officiating" System.—Pay.—Generally	12
SCOTTISH COMMITTEE.—Election of Chairman.—Election of Secretary.—Resolutions...	14
COLONIAL COMMITTEE.—Election of Chairman.—Supernumerary Members	15
SCIENTIFIC GRANTS COMMITTEE.—Election of Chairman.—Research Scholar.—Inspection	15
ORGANIZATION COMMITTEE.—Rules of Divisions and Branches.—Boundaries of Divisions and Branches.—Branch and Division Finance.—Amendment of Articles and By-laws.—Colonial Branches.—Proposed Conference of Secretaries.—Report of as to the Representation of the Colonial Branches on the Council of the British Medical Association.—Amendment of By-laws...	15
JOURNAL AND FINANCE COMMITTEE.—Assistant Secretary.—Financial.—A Popular Lecture at the Annual Meeting ...	18
ASSISTANT SECRETARY COMMITTEE	19
ANNUAL MEETING (SECTIONS) COMMITTEE.—Election of Chairman.—Recommendations to Council	19
PREMISES AND LIBRARY COMMITTEE.—Report of Librarian ...	19
MEETINGS OF BRANCHES AND DIVISIONS:	
Bath and Bristol Branch: Trowbridge Division	19
Birmingham Branch	19
Border Counties Branch: West Cumberland Division... ...	19
Brisbane and Queensland Branch	20
Lancashire and Cheshire Branch: Altrincham Division ...	20
" " " Blackpool Division ...	20
Metropolitan Counties Branch: Central Division	20
" " Hampstead Division... ...	20
South-Eastern Branch: Chichester and Worthing Division ...	20

ASSOCIATION INTELLIGENCE.

PROCEEDINGS OF COUNCIL.

AT a meeting of the Council held in the Council Room of the Association, 429, Strand, W.C., on Wednesday, January 20th, 1904,

Present:

Mr. ANDREW CLARK, Chairman of Council, in the Chair.
Dr. T. DRYSLWYN GRIFFITHS, President.
Dr. WILLIAM COLLIER, President-elect.
Sir VICTOR HORSLEY, F.R.S., Chairman of Representative Meeting.
Dr. E. MARKHAM SKERRITT, Treasurer.

Dr. EDGAR G. BARNES, Eye.
Dr. JAMES BARR, Liverpool.
Dr. MICHAEL BEVERLEY, Norwich.
Dr. J. BRASSEY BRIERLEY, Old Trafford.
Dr. DUNCAN BURGESS, Sheffield
Dr. R. C. BUIST, Dundee.
Dr. W. A. CARLINE, Lincoln.
Dr. EDWARD J. CAVE, Bath.
Dr. JAMES CRAIG, Dublin.
Dr. H. RADCLIFFE CROCKER, London.
Dr. GEORGE W. CROWE, Worcester.
Brigade-Surgeon-Lieutenant-Col. E. F. DRAKE-BROCKMAN (South Indian and Madras Branch), London.
Mr. GEORGE EASTES, M.B., London.
Professor DAVID W. FINLAY, M.D., LL.D., Aberdeen.
Mr. C. E. S. FLEMMING, Bradford-on-Avon
Dr. EDWARD LAWRENCE FOX, Plymouth.
Dr. JOHN H. GALTON, Upper Norwood.
Dr. BRUCE GOFF, Bothwell.
Dr. JOSEPH GROVES, Carisbrooke.
Dr. JAMES HAMILTON, Glasgow.
Dr. W. M. HARMAN, Winchester.
Mr. W. F. HASLAM, Edgbaston
Dr. G. A. HERON, London.
Dr. JAMES H. HUNTER, South Shields.
Mr. EVAN JONES, Aberdare.
Mr. R. H. KINSEY, Bedford.
Dr. C. H. MILBURN, Hull.
Dr. C. G. DRUMMOND MORIER (South Australia), London.
Mr. W. JONES MORRIS, Portmadoc.
Dr. JAMES MURPHY, Sunderland.
Mr. D. A. O'SULLIVAN, London.
Mr. EDMUND OWEN, London.
Mr. C. H. WATTS PARKINSON, Wimborne Minster.
Dr. FRANK M. POPE, Leicester.
Dr. EDWIN RAYNER, Stockport.
Mr. H. BETHAM ROBINSON, M.S., London.
Dr. J. MAXWELL ROSS, Dumfries
Professor ROBERT SAUNDBY, M.D., LL.D., Birmingham
Mr. W. D. SPANTON, Hanley.
Dr. JOHN ROBERTS THOMSON, Bournemouth.
Dr. W. J. TYSON, Folkestone.
Mr. T. JENNER VERRALL, Brighton.
Dr. NORMAN WALKER, Edinburgh.

Dr. D. Burgess, Representative of the Yorkshire Branch, *vice* Dr. Goyder, and Mr. D. A. O'Sullivan, a co-opted member, were introduced to the Council on attending for the first time since their election.

Letters were read of apology for non-attendance from Sir Francis Lovell, K.C.M.G., Dr. Adolph Bronner, Dr. Langley Browne, Mr. T. H. Cheatle, Brigade-Surgeon Moriarty, Dr. J. Murray, Dr. R. W. Philip, and Mr. J. Lynn Thomas, C.B.

Four names, duly nominated in accordance with By-law 29, had been received for co-option by the Council to the vacancy caused by Dr. Woodcock's death. On a ballot being taken, none of the candidates nominated having obtained the requisite number of votes, the vacancy was not filled.

Resolved: That the Council desires to record its deep sense of the loss the British Medical Association has sustained by the death of Dr. Sam. Woodcock, whose sound judgement, genial humour, and practical counsels will be much missed at all Association meetings, at which he was so regular and welcome an attendant. The Council further desires to offer its sincere condolence and deep sympathy with Mrs. Woodcock and family in their sudden and irreparable bereavement.

Resolved: That the Council of the British Medical Association regrets to learn of the death of Theophilus W. Trend, M.D., who represented the Southern Branch on this Council for 10 years, and desires to express to the family its sincere sympathy in their loss.

Resolved: That the Council of the British Medical Association desires to place on record its regret at the death of Sir William Kynsey, K.C.M.G., a former member of the Council and a past President of the Ceylon Branch.

The Chairman of Council reported that he had corresponded with Sir Arthur Bigge, Private Secretary to the Prince of Wales, regarding the presentation of a Certificate for Honorary Membership. The following is a copy of Sir Arthur Bigge's last letter.

Marlborough House, Pall Mall, December 19th, 1903.

Dear Sir,—In reply to your letter of the 16th instant, I am sorry that it is not possible to fix a date for the Prince of Wales to receive the Diploma of Honorary Membership of the British Medical Association until after His Royal Highness comes into permanent residence here at the beginning of February. With your permission I will then write to you and endeavour to fix a day.—Yours very faithfully,

ARTHUR BIGGE.

Andrew Clark, Esq., F.R.C.S., Chairman of Council,
British Medical Association, 429, Strand, W.C.

Resolved: That, upon hearing further from Sir Arthur Bigge, a deputation, consisting of the officers of the Association, wait upon His Royal Highness the Prince of Wales to present him with the Certificate of Honorary Membership.

Read acknowledgements to resolutions of condolence passed at the last meeting of the Council upon the deaths of Sir George F. Duffey, Mr. T. R. Jessop, Mr. W. L. Burr (Financial Secretary to the Association), and Mr. J. N. Honeyman.

Resolved: That the same be received and entered on the minutes.

In reference to continued minutes of Council, the General Secretary reported receipt of the following reply to his communication, asking the President of the Local Government Board to receive a deputation from the Association on the question of future vaccination legislation:

Local Government Board, Whitehall, S.W.,
December 17th, 1903.

Sir,—I am directed by the Local Government Board to advert to your letter of the 3rd instant, requesting that the President would fix a date for the reception of a deputation from the British Medical Association on the question of future vaccination legislation.

In reply I am to state that the President does not consider that the present time would be opportune for the reception of the proposed deputation.—I am, Sir, your obedient servant,

H. C. MONRO,
Assistant Secretary.

G. Elliston, Esq.,
General Secretary to the
British Medical Association.

Resolved: That the same be received and entered on the minutes.

Read resolution passed by the Medical Guild of Manchester regarding the Association taking up medical defence, and forwarded to the General Secretary for submission to the Council.

Resolved: That the same be received and entered on the minutes.

Resolved: That George Bagot Ferguson, M.D., M.Ch.Oxon., F.R.C.S., be invited to give the Free and Popular Lecture at the ensuing meeting at Oxford.

A resolution was passed congratulating Professor Bayliss upon the issue of the trial of the action recently brought by him against the Honorary Secretary of the Antivivisection Society.

The Chairman of Council reported receipt of a communication from the British Dental Association forwarding a petition asking that a Section in Dental Surgery should be formed in connexion with the annual meetings of the Association.

The Standing Orders having been suspended by the requisite majority,

Resolved: That the expediency of forming a Dental Section be remitted to a Committee for consideration and report, the Committee to consist of the President, the President-elect, the Chairman of Council, Dr. Radcliffe Crocker, Mr. George Eastes, and Mr. Edmund Owen.

The election of candidates was then considered, when the Chairman of Council reported with regret that one of the candidates, Lieutenant J. R. Welland, R.A.M.C., had, since sending in his application, been killed in Somaliland.

Resolved: That the 11 other candidates whose names appear on the circular convening the meeting be and they are hereby elected members of the British Medical Association.

Read application from the Sanitary Institute inviting the Council of the British Medical Association to appoint delegates to attend the Sanitary Institute Congress to be held at Glasgow from July 25th to 30th, 1904.

Resolved: That the Sanitary Institute be informed that as their Congress meets at the same time as the Annual Meeting of the British Medical Association, the Council is unable to appoint any delegates.

Resolved: That the minutes of the Journal and Finance Committee of November 20th, 1903, and January 20th, 1904, be received.

Resolved: That Mr. Arthur H. Lawford be appointed Assistant Secretary, on probation, for a period of six months at a salary of £250 per annum.

Resolved: That the accounts for the quarter ending December 31st, 1903, amounting to £11,196 0s. 6d., be received and approved, and it be recommended that the Treasurer be empowered to pay those remaining unpaid, amounting to £2,712 15s. 9d.

Resolved: That the minutes of the Assistant Secretary Committee of November 6th and 20th, 1903, and January 19th, 1904, be received.

Resolved: That in future the title of Organizing Secretary be changed to "Medical Secretary."

Resolved: That the minutes of the Colonial Committee of November 4th, 1903, be received.

In reference to a recommendation that a request be made to the Council for the Colonial Committee to be empowered to elect as supernumerary members of the Committee any colonial members of the Association who happen to be in Great Britain, it was resolved: That the Colonial Committee may invite to its meetings any member who has been a resident member of any Colonial Branch. These shall have consultative privileges only.

Resolved: That the Colonial Committee be requested to consider the desirability of instructing the General Secretary to communicate with the Colonial Branch Secretaries asking that he may be advised of the names of Colonial members visiting England.

Resolved: That the minutes of the Organization Committee of November 10th and December 8th, 1903, be received.

Resolved: That the Council approve the rules of the following Branches and Divisions:—

Branches.—Aberdeen, Cambridge and Huntingdon (subject to certain modifications being made by the Branch, as recommended by the Organization Committee), Edinburgh, Glasgow and West of Scotland, Gloucestershire, North Wales and Shropshire, Worcester and Hereford, Natal.

Also a new rule of the Dorset and West Hants Branch.

Divisions.—Bury (except Rule 15), Cleveland, Denbigh and Flint, Isle of Wight, Liverpool (Western), Glasgow (N.W.), North Carnarvon and Anglesea, North Northumberland, South Carnarvon and Merioneth, South Suffolk, Shropshire, Tyneside, and Worcester.

Resolved: That the Council accede to the petition from members resident in Balham, Tooting, and Merton, that this area be transferred from the Norwood Division of the South-Eastern Branch to the Wandsworth Division of the Metropolitan Counties Branch.

Resolved: That the Divisions, and boundaries thereof, in the area of the Metropolitan Counties Branch be henceforth as proposed in the scheme submitted to the Council by the Metropolitan Counties Branch Council, except as affecting (*a*) the boundary between the Branch and the Oxford and Reading Branch, and (*b*) the boundary between the Hampstead and Watford Divisions, and that pending further consideration by the Organization Committee the boundaries (*a*) and (*b*) remain for the present unaltered. [The scheme will be found at p. 16.]

Resolved: That the Alnwick and Berwick Divisions be combined to form the North Northumberland Division, having the area formerly assigned to the said two Divisions.

Resolved: That the Council approve the following recommendations contained in the report (p. 17) of the Organization Committee as to grouping of the Colonial Branches for representation on the Central Council:

(*a*) That no attempt be made for the present to decide the grouping of the Colonial Branches; that the Colonial Branches be requested to consider the adoption of rules in pursuance of By-law 25, a draft rule being suggested by the Council to provide for the qualification of representatives of grouped Branches; and that the Council give notice that it will renew for the year 1904-5 the resolution of the Council of April 22nd, 1903, with respect to Colonial representation—namely:

Resolved: That it be recommended that for the year 1903-4 the Council accept the representatives of those Colonial Branches making a return.

(*b*) That in connexion with the question of the election of members of Council the attention of the Colonial Branches be drawn to the fact that the Council is essentially an executive body, and that the representative governing body of the Association under the present Constitution is the Representative Meeting; and that, therefore, the Colonial Branches be requested to take into consideration the possibility of sending representatives to the next Annual Representative Meeting, and to point out to the Council any difficulties in the way of doing so which in their opinion can be overcome.

(*c*) That the whole subject of the adaptation of the present Constitution to the special requirements of the Colonial

nches be taken into consideration in a comprehensive nner, either by the Colonial Committee, or by a larger ly composed of the representatives of all Colonial Branches the Council. together with a proportionate number of re- sentatives of the Central Council.

esolved: That the Colonial Branches be asked if they e any comment to make on the report of the Organization nmittee.

esolved: That the Council bring before the next Annual resentative Meeting certain proposed amendments of the sting By-laws, and certain new By-laws.

esolved: That the minutes of the Medical Defence Com- tee of November 12th, December 10th, 1903, and January 1, 1904, be received.

esolved: That the Report of the Committee on Medical ence be referred to the Divisions, together with a full ex- nation of the considerations arrived at by the Committee. ther, that the Divisions be requested to poll their mem- with the view of ascertaining the number of members of 1 Division willing to join.

esolved: That the minutes of the Hospitals Committee of ember 13th, 1903, be received, and that its action in com- nicating with the various hospitals and institutions be roved.

esolved: That the minutes of the Scottish Committee of ember 20th, 1903, be received.

esolved: That the Council remit to the Scottish Divisions question whether it is advisable that a consultation take e between the medical witnesses on both sides engaged ny legal case.

esolved: That the Council take action to secure that in inal cases medical representatives of the defence be per- ed to be present, though not to interfere, at the official opsies.

reference to the following recommendation:

solved: That ethical matters should be considered in the first nce by the local Division Committee or Branch Council and that mments should appear in the Association JOURNAL until the ques- nas been reported on locally,

solved: That the minutes of the Scottish Committee as e ethical matters being considered in the first instance ivisions or Branches, and the minute of the Ethical Com- ee in reference thereto, be referred back to the two mittees with a view to their arriving at a conclusion on matter acceptable to both, and reporting thereon to the ncil.

solved: That the minutes of the Annual Meeting ions) Committee of December 7th, 1903, be received.

solved: That a small standing Committee of the Council pointed to supervise the work of the Sections, and to t to the Council at the April and July meetings.

solved: That this Committee be authorized to write to ffice-bearers in the various Sections and to obtain from information respecting the progress of the Sectional gements in time for these reports.

solved: That it be the duty of this Committee to afford formation and assistance to the officers of the Sections aking their Sectional arrangements.

solved: That the Memorandum for officers of Sections ssued by the General Secretary in future be sent out by Committee, and be modified from time to time as required.

solved: That the Annual Meeting (Sections) Committee appointed as a Standing Committee.

olved: That the minutes of the Medico-Political Com- e of December 10th, 1903, and January 14th, 1904, be ved.

eference to the following minute of the Medico-Political nittee of December 10th, 1903:

olved: That the Pharmaceutical Society be thanked for their nication informing the British Medical Association of the ment which it is proposed to introduce into the Pharmacy Bill, informed that the Committee cordially approves the Bill so ted, and is recommending the Association to support the same.

amendment was moved and seconded:

no fresh legislation by the Pharmaceutical Society is satisfactory it secures, beyond doubt, the ancient privilege of medical practi- dispensing their own drugs either by themselves or by their own nts qualified or unqualified.

amendment, having been put from the Chair, was ed to be lost.

olved: That the Council support the Pharmacy Bill, reintroduced into the House of Commons, subject to nendment promised by the Pharmaceutical Society.

olved: That it be referred to the Divisions in England Vales to consider the advisability of consultations be- medical witnesses engaged in legal cases.

Resolved: That the Council address a memorandum to the Board of Education relative to the fact that the said Board has now under consideration a Government secondary leaving certificate, and bringing to the notice of the Board the views held by the British Medical Association as to the standard of general (secondary) education requisite in persons entering the medical profession.

Resolved: That Mr. D. A. O'Sullivan be appointed a member of the Medico-Political Committee in the place of Dr. Woodcock, deceased.

Resolved: That the minutes of the Conference between medical Members of Parliament and the Medico-Political Committee of December 10th, 1903, be received.

Resolved: That the minutes of the Conference between the Medico-Political Committee and Public Health Committee, December 3rd, 1903, and January 14th, 1904, be received.

In reference to the following recommendation:

Resolved: That provision for security of tenure and adequate salaries and superannuation is essential to the efficiency of the Public Health Service so that the best talent of the profession may be at its disposal,

An amendment was moved:

That after the word "superannuation," in the second line of the minutes of the Conference of December 3rd, 1903, the following words be inserted: "In case of combined areas or where the whole time of each officer is employed."

The amendment having been put from the Chair was declared to be lost.

Resolved: That it is desirable that the Local Government Board be remodelled on the form of the Board of Admiralty, with a Cabinet Minister as President, and the head of the Medical Department as one of its members.

Resolved: That the Local Government Board be urged to obtain the necessary powers to secure, whenever it is in their opinion desirable, combinations of districts for sanitary purposes, with medical officers of health devoting a large part or the whole of their time to their duties, and to secure power to prevent the disintegration of these combinations.

Resolved: That the best thanks of the Council be given to the Editor of the JOURNAL for his valuable Memorandum on the proposed reconstitution of the Local Government Board. [The Memorandum was printed in the BRITISH MEDICAL JOURNAL of January 2nd, p. 27.]

Resolved: That a Draft Bill to reconstitute the Local Government Board as amended be referred to a Parliamentary draughtsman to prepare a Bill on the lines agreed upon by the Conference between the Public Health and Medico-Political Committees on January 14th, 1904. Further, that the necessary steps be taken to have the proposed Bill introduced into the House of Commons.

Resolved: That the minutes of the Ethical Committee of December 18th, 1903, be received.

Resolved: That the Council approve the Ethical rules of the following bodies:—

Branches:—Cambridge and Huntingdon, and North Wales and Shropshire.

Divisions:—Ashton (except Rule 4), Bradford (those rules submitted by the Chairman of the Ethical Committee as being in accordance with rules previously sanctioned). Cleveland (as submitted by the Executive Committee, subject to adoption by the Division), Glasgow (North-West). Isle of Wight, Liverpool (Western), North Northumberland, Norwich, and Tyneside.

Resolved: That the question of advertising of medical practitioners in connexion with Hydropathic Establishments be referred to the Divisions, and that the Chairman and Secretary of the Ethical Committee prepare a circular, based on the Chairman's memorandum, to be issued to the Divisions.

Resolved: That the minutes of the Royal Naval and Military Committee of January 12th, 1904, be received.

Resolved: That a copy of the recommendations of the Committee as to improving the conditions of service in the Indian Medical Service be forwarded to the Secretary of State for India.

Resolved: That the General Secretary be instructed to forward a letter to the India Office setting out the text of the complaint from a correspondent upon the subject of promotion in the Indian Medical Service, requesting the India Office to advise how they would propose to overcome this anomaly.

Resolved: That the minutes of the Scientific Grants Committee of January 13th, 1904, be received.

Resolved: That Dr. John T. Hewetson be elected Research Scholar in the place of Dr. G. A. Watson resigned.

Resolved: That the minutes of the Public Health Committee of January 14th, 1904, be received.

Resolved: That in the opinion of the Council it is of urgent importance that elementary scientific instruction in Health subjects, including temperance, should be provided in all the primary schools by the educational authorities, in order that the conditions which lead to deterioration of the national physique may be understood and as far as possible prevented.

Resolved: That a copy of the foregoing resolution be forwarded to the Board of Education, together with a covering letter setting out the facts, to be prepared by the Chairman of the Public Health Committee.

Resolved: That steps be taken to revise and edit the present vaccination literature of the Association, with a view to its future circulation to the public, and further that Dr. John C. McVail be invited to undertake this task.

Resolved: That the minutes of the Premises and Library Committee of January 19th, 1904, be received.

MEDICO-POLITICAL COMMITTEE.

A MEETING of the Medico-Political Committee was held on December 10th, 1903, when there were present: Dr. G. A. Heron, and afterwards Sir Victor Horsley, F.R.S., in the chair, Dr. T. D. Griffiths (President), Mr. Andrew Clark (Chairman of Council), Dr. H. Langley Browne, Mr. T. Garrett Horder, Dr. J. A. Macdonald, Dr. Major Greenwood, Mr. G. Jackson, Mr. M. A. Messiter, Dr. C. H. Milburn.

CORONERS' BILL.

A letter was read from a member of the Coroners' Society, a solicitor, expressing surprise and regret at finding from the report of the Coroners' Society for 1902-3 that the Council of the Society had declined to co-operate with the British Medical Association in the matter of the Coroners' Bill, which in his opinion was very fair and such as ought to be passed into law. The writer further stated that in his experience doctors suffered great injustice under the existing law, and he trusted that the Association would be able to introduce the Bill and would renew their efforts to obtain the co-operation of the Coroners' Society.

The Committee resolved to make inquiries as to the probability of obtaining the support of the Coroners' Society if the matter were again brought officially before them.

LOCAL ORGANIZATION.

A letter was read from Dr. R. Macartney, of Lismore, stating that medical men of the Forest of Dean colliery district proposed forming themselves into an association for mutual protection and to endeavour to get payment for certain duties imposed or about to be imposed upon them in relation to appointments to collieries. Dr. Macartney asked for information as to the points in which the British Medical Association was likely to help in the future in matters of this kind.

The MEDICAL SECRETARY reported that he had replied, stating the assistance which it was believed that the British Medical Association could render in such cases, more particularly to those who were members of a Division, and the advantages which medical men consequently derived in dealing with such matters through the Divisions of the Association, and that he had received a further letter from Dr. Macartney requesting him to attend a meeting which was to be held at Cinderford on December 11th, 1903.

The CHAIRMAN stated that, having read the correspondence, he had authorized the attendance of the Medical Secretary at the proposed meeting.

THE SPECTACLE MAKERS' COMPANY.

A letter was read from a medical man drawing attention to what he regarded as objectionable advertisements by a Fellow of the Spectacle Makers' Company. The writer was directed to be informed that the Committee was already in communication with the Company, and was asked to supply further information.

IRISH POOR-LAW MEDICAL OFFICERS.

The CHAIRMAN reported that he had received a reply from Mr. Redmond, M.P., to the letter which he had written at the request of the Committee with a view to Parliamentary action in respect of the grievances of the Irish Poor-law medical officers, and that Mr. Redmond had expressed sympathy with the position of the said officers, and had promised to meet the Chairman of the Medico-Political Committee in January.

THE BRITISH DENTAL ASSOCIATION AND THE MEDICAL ACTS AMENDMENT BILL.

A letter was read from the British Dental Association expressing a desire to submit certain suggestions as to Medical Acts Amendment Bill, as affecting dental practitioners, for the consideration of the Medico-Political Committee, either in writing, or by a conference, or a deputation.

The British Dental Association was directed to be informed that the Medico-Political Committee is at present awaiting the answers of the Divisions of the British Medical Association on the first draft of the Bill. That, when these have been considered, the Committee will be glad to arrange to receive a deputation, and that in the meantime the Committee will be glad to receive in writing from the British Dental Association a draft of such amendments as the Association considers desirable in the Bill as it stands.

DEATH REGISTRATION.

A letter was read from the Secretary of the Life Assurance Medical Officers' Association, replying to a letter from the Medical Secretary, to inquire whether the Society desired to co-operate with the British Medical Association in bringing under the notice of the Government reforms required in death registration, and stating that the Council of the Society considered that it would be beyond its scope to participate in the proposed action.

A letter from the editor of the *Journal of the American Medical Association* was read, in response to a request from the Medico-Political Committee for information as to the American laws concerning death registration, stating that the letter had been handed to Mr. G. W. King, the Chief Statistician in the Bureau of the Census, Washington, which was believed would be able to supply the information desired.

A letter from Mr. G. W. King giving an account of the general principles upon which the law as to death registration were based in most parts of the United States was read, and Dr. Simmons and Mr. King were thanked for their courteous assistance.

The report of the Emergency Subcommittee on death registration was considered clause by clause, amended, and as amended, approved as follows:

DEATH REGISTRATION ACTS AMENDMENT BILL.

Provisions which the Medico-Political Committee recommends for submission to the Registrar-General and Government:

1. Every death must, if possible, be certified by a registered medical practitioner who has been previously in attendance upon the deceased. It shall be the duty of such practitioner to view the body after death prior to certifying.

2. For such certificate and visit a fee shall be paid by the local sanitary authority, such fee to be 2s. 6d. for a case within a distance of one mile from the practitioner's registered address, and an additional 2s. for each mile, or part of a mile, beyond such distance.

3. The medical practitioner shall transmit to the Registrar direct the certificate in a sealed envelope.

4. The certificate shall be a confidential document subject to the discretion of the Registrar-General.

5. All deaths which are not certified by a registered medical practitioner shall be referred to the coroner, or, in Scotland, to the procurator fiscal.

6. In every coroner's district there shall be appointed by the county council a special medical officer, whose duty shall be to examine the body and report to the coroner in cases of death where no registered medical practitioner is able to give a certificate. In such investigation the special medical officer shall have associated with him the usual medical adviser (if any) of the deceased, or any registered medical practitioner who may have been called to see the deceased at or about the time of death.

7. Every case of stillbirth shall be registered on the certificate of a registered medical practitioner, and no registrar's certificate for burial of a stillborn child shall be given except after receipt by the registrar of a medical certificate. It shall be the duty of such practitioner to view and examine the body prior to certifying.

It was resolved that arrangements be made, if possible, for a deputation to wait on the Registrar-General to bring before him the recommendations as to death registration.

SECURITY OF TENURE OF SANITARY OFFICERS.

The resolution of the Conference of Medico-Political

blic Health Committees on this subject was read, and it s resolved:

hat it be left to the Chairman and Secretary to prepare a memodum on the subject of security of tenure for medical officers of lth, to be circulated to Secretaries of Divisions with a suggestion t the Divisions should make representations to their respective repretatives in Parliament on the points set forth in the memorandum.

he MEDICAL SECRETARY reported the result of personal uiries which he had made into the conditions of contract ctice in the following towns which he had visited in conion with Division meetings: Margate, Southampton, esterfield, and Newport. It was resolved to defer the coneration of this report, together with such further informan as the Secretary might be able to obtain with reference ticularly to the National Deposit Friendly Society, to a cial meeting of the Committee to be held on January 14th, 4.

he MEDICAL SECRETARY submitted also a draft letter which was proposed to print and supply to Division Secretaries in er that it might be signed and sent by them to medical n, along with the questions as to contract practice already proved. The letter was approved, and it was resolved that questions be prepared in three forms—for ordinary clubs, nily clubs, and private clubs respectively.

PROPOSED AMENDMENT OF THE PHARMACY ACT.

he Pharmacy Bill, promoted by the Pharmaceutical iety in the last session of Parliament, was considered, and following letter from the Registrar of the Pharmaceutical iety in relation thereto, was read:

Pharmaceutical Society of Great Britain,
17, Bloomsbury Square, London, W.C.
October 12th, 1903.

ear Sir,—I am directed by my Council to convey to you the following use which it has been decided shall be inserted in any future rmacy Bill introduced into Parliament next session.

The provisions of this Act shall not interfere with or abrogate of the rights reserved by Section XVI of the Pharmacy Act, 1868, y Section I of the Pharmacy Act (1868) Amendment Act, 1869."

may say that it has never been the intention of my Council to inter with the medical profession, and as soon as we heard that our of last session was capable of bearing a different interpretation, Council at once decided to make the intention plain, and has e so in the above mentioned Clause. May I express the hope t the Parliamentary Bills Committee of the British Medical Associn may see their way to support this Society in its efforts to obtain necessary powers for protecting the public from incompetent ilers?

I am, yours faithfully,
RICHARD BREMRIDGE, Secretary.

hairman of the Parliamentary Bills Committee
of the British Medical Association.

t was resolved:

hat the Council be recommended to support the Pharmacy Bill, when troduced into the House of Commons, subject to the amendment mised by the Pharmaceutical Society.

t was further resolved:

hat the Pharmaceutical Society be thanked for their communication rming the British Medical Association of the amendment which it roposed to introduce into the Pharmacy Bill, and be informed that Committee cordially approves the Bill so amended, and is recomding the Association to support the same.

MATTERS REFERRED FROM REPRESENTATIVE MEETING.

he MEDICAL SECRETARY reported as to replies received from visions on the Vaccination resolutions, Medical Acts Amendnt Bill, and on other matter referred to them by the Repretative meeting and Council, and that there was reason to ect further replies. The Committee resolved:

hat the consideration of the replies of Divisions be deferred until next quarterly meeting of the Committee, and that the Secretary be ructed to prepare an analysis for circulation to the Committee.

MEDICAL WITNESSES.

he resolutions of the Scottish Committee with reference to desirability of a consultation between medical witnesses both sides engaged in any legal case, and as to action ich should be taken to secure in criminal cases medical resentatives of the defence to be present at official topsies was considered, and the Committee resolved as lows:

hat the Chairman be requested to move, on behalf of the Committee, he Council that it be referred also to the Divisions in England and les to consider the advisability of consultations between medical nesses engaged in legal cases.

hat inquiry be made of the Solicitor of the Association as to the sent law and practice concerning the presence of medical witnesses the defence at official autopsies.

DIRECT REPRESENTATIVES ON THE GENERAL MEDICAL COUNCIL.

The following draft scheme for nomination by the Association of candidates for the office of Direct Representatives on the General Medical Council for England and Wales was considered:

DRAFT SCHEME.

1.—On or before October 1st, 1905, the Medico-Political Committee shall cause to be circulated a notice to every Division in England and Wales advising the Division of the fact that an election of Direct Representatives on the General Medical Council for England and Wales will in the ordinary course take place in November, 1906, and requesting that the matter be taken into consideration, and that the Committee be informed not later than March 31st, 1906, of the names of any person or two persons, legally qualified for election, whom the Division may deem suitable to be nominated on behalf of, and supported by the Association, and who shall have signed the declaration appended hereto.

2. The Committee shall cause a list to be prepared of those persons, legally qualified for election, who shall have been named by Divisions in the manner provided in Clause 1. The said list shall be printed in the BRITISH MEDICAL JOURNAL at the same time as the Notices of Motion for the Annual Representative Meeting, and each constituency shall be requested to adopt such resolutions as may enable its Representative at the ensuing Annual Representative Meeting to give effect to the wishes of the constituency in a ballot taken in the manner hereinafter prescribed.

3.—At the time of the Annual Representative Meeting a Special Meeting of Representatives of Divisions in England and Wales shall be convened, to select from the list of nominees of Divisions two persons for nomination as candidates. Voting shall be by card, each voter being entitled to vote for two candidates and to give to each as many votes as there are members in the constituency represented by the voter. The two candidates who receive the greatest number of votes shall be deemed to be the candidates selected for support by the Association.

4.—The Medico-Political Committee shall arrange that the persons so selected shall be duly nominated, on behalf of the Association, as candidates for the office of Direct Representatives on the General Medical Council, and every effort shall be made by the Executive of the Association to secure the election of the said candidates.

DECLARATION BY CANDIDATES.

I, the undersigned, hereby consent that my name be submitted to the Divisions of the Association as willing, if duly elected, to be nominated on behalf of the Association as a candidate at the election in 1906, of Direct Representatives on the General Medical Council for England and Wales. I agree that, if not selected for nomination by the Association, I will not allow myself to be nominated as a candidate in opposition to any candidate so selected.

I agree, further, that if nominated by the Association and elected as a Direct Representative on the General Medical Council, I will, in my capacity as such Representative, endeavour in every way in my power to give effect to the wishes and opinions of the British Medical Association as lawfully declared for the time being by the bodies constitutionally authorized to declare such wish and opinions.

Signed .....
Qualifications .....
Address .....

The draft scheme was approved and ordered to be reported to the Divisions.

CONFERENCE WITH MEDICAL MEMBERS OF PARLIAMENT.

A CONFERENCE of medical Members of Parliament with the Medico-Political Committee of the British Medical Association was held on December 10th, 1903, when there were present:—Members of Parliament: Sir Michael Foster, M.P., Dr. Charles Frederick Hutchinson, M.P. Members of the Medico-Political Committee: Dr. T. D. Griffiths (President) in the chair, Sir Victor Horsley, F.R.S. (Chairman of Representative Meetings), Mr. Andrew Clark (Chairman of Council), Dr. H. Langley Browne, Dr. G. A. Heron, Mr. T. Garrett Horder, Dr. T. A. Macdonald, Dr. Major Greenwood, Mr. G. Jackson, Mr. M. A. Messiter, Dr. C. H. Milburn. The General Secretary, the Medical Secretary, and the Editor attended.

A letter addressed by instruction of the Committee to all medical Members of Parliament, inviting them to confer with the Committee as to the possibility of forming a Public Health Committee of the House of Commons was read, and the SECRETARY reported that letters of apology had been received from Dr. R. Farquharson, Sir Walter Foster, Mr. R. J. Price, Dr. E. C. Thompson, and Sir J. Batty Tuke, and that

most of these gentlemen expressed willingness to co-operate in the formation of a Committee as proposed:

The following correspondence was read:

Royal Societies Club,
St. James's Street, S.W.,
December 2nd, 1903.

J. Smith Whitaker, Esq., Organizing Secretary, B.M.A.

Dear Sir,—If the medical Members of the House of Commons and others who take special interest in public health matters form a Committee, I shall be glad to join it; but I am of opinion that any such Committee should be initiated in the House itself, and should be entirely independent of any Association or Society.

I am, yours faithfully,
John Batty Tuke.

British Medical Association,
Medico-Political Committee,

Organizing Secretary's Office,
429, Strand, W.C.,
December 4th, 1903.

Dear Sir,—In reference to your letter of December 2nd, in which you point out that it is essential for the successful formation of a Public Health Committee among members of the House of Commons, that such formation should be initiated by members of the House, and that it should be independent of any medical association or society, I am authorized to say that, so far as the British Medical Association is concerned, this is fully realized.

The ideas underlying the action taken in convening the conference to be held on the 10th inst. are:

(*a*) To inquire of medical Members of Parliament, as those to whom the profession outside Parliament may more particularly look for advice on Parliamentary matters, as to the possibility of the formation of such a committee.

(*b*) To ask if they will take the initiative in forming such a committee.

(*c*) To ascertain whether any assistance can be given to them by the Association in forming the committee, for instance, by inquiring from members of the profession throughout the country as to the views of various lay Members of Parliament who might possibly join the committee.

(*d*) To ascertain in what way the British Medical Association, and other medical societies, could most effectively assist such a Committee when formed; as, for instance, by collecting information, and by inducing medical men in the constituencies to draw the attention of those Members of Parliament who ordinarily do not take any special interest in public health questions, to the nature and importance of questions that may be coming before Parliament.

The conference is essentially preliminary. If the outcome is favourable to the formation of a committee, it is assumed that those Members of Parliament who think it desirable will themselves take the necessary steps. Were the committee organized with a chairman and secretary chosen from among its members, the British Medical Association would, like other medical societies, have the advantage of knowing with whom they should officially communicate concerning public health questions coming before the House.

I am, yours faithfully,
J. Smith Whitaker,
Organizing Secretary.

Sir John Batty Tuke, M.P.

The President of the Association (Dr. T. D. Griffiths) having explained the objects which the Medico-Political Committee had in view in suggesting that a Public Health Committee should be formed in the House of Commons, and other members of the Committee having discussed certain details in connexion with the formation of such committee, Sir Michael Foster and Dr. Hutchinson expressed their willingness to take part in constituting a committee on the lines indicated by Sir John Batty Tuke in his letter which had been read to the Conference.

The Chairman expressed the thanks of the Medico-Political Committee to Sir Michael Foster and Dr. Hutchinson for their courtesy in attending to confer with the Committee, and for the readiness with which they had accepted the suggestion brought under their notice by the Committee.

A further meeting of the Committee was held on January 14th, when there were present Sir Victor Horsley, F.R.S., in the chair, Dr. T. D. Griffiths (President), Mr. Andrew Clark (Chairman of Council), Dr. E. Markham Skerritt (Treasurer), Dr. H. Langley Browne, Dr. R. C. Buist, Dr. Major Greenwood, Mr. T. Garrett Horder, Mr. G. Jackson, Dr. J. A. Macdonald, Dr. J. Murphy.

The Coroners Bill.

The Medical Secretary reported that, acting upon instruction of the Committee, he had made inquiries from Dr. Danford Thomas as to the possibility of the Coroners' Society being induced to support the Coroners Bill put forward by the Association. It was resolved:

That the Secretary be authorized to meet the Council of the Coroners' Society, if desired, in order to explain the views of the Committee as to the kind of support which it is hoped that the Coroners' Society may give to the Bill.

Contract Practice.

A memorandum prepared by the Medical Secretary, in conformity with the instructions of the Committee, containing information obtained with relation to the National Deposit Friendly Society, was considered, together with the rules of the Society, and correspondence between the General Secretary of the Society and the Medical Secretary.

On the motion of Mr. T. Garrett Horder, seconded by Mr. G. Jackson, a Subcommittee, consisting of Dr. H. Langley Browne, Mr. T. Garrett Horder, and Dr. J. Murphy, with the Chairman of the Committee and the President of the Association, and Chairman of Council, *ex officio*, was appointed to prepare a memorandum on the National Deposit Friendly Society suitable for circulation to the Divisions, and to submit the same at the next meeting of the Committee.

A report was received from the Medical Secretary of information as to contract practice obtained in the course of visits to Divisions, and the advisability of submitting to Divisions certain general questions concerning the attitude of the profession towards contract practice was considered. Certain heads were agreed upon, and the Chairman and Medical Secretary were instructed to prepare a memorandum embodying the resolutions arrived at to be considered by the Committee at its next meeting.

Registration of Nurses.

A Bill, prepared by the Society for the State Registration of Trained Nurses, and a synopsis of a Bill prepared by the Royal British Nurses' Association, were referred to the Emergency Subcommittee to consider and report thereon to the next meeting of the Committee.

Leaving School Certificates.

The Chairman brought to the notice of the Committee the fact that the Board of Education was now considering a Government Secondary Education Leaving Certificate, which would replace many of the present entrance examinations, and it was resolved:

That the Council be recommended to address a Memorandum to the Board of Education relative to the fact that the said Board has now under consideration a Government Secondary Education Leaving Certificate, and bringing to the notice of the Board the views held by the British Medical Association as to the standard of general (secondary) education requisite in persons entering the medical profession.

CONFERENCES OF THE PUBLIC HEALTH AND MEDICO-POLITICAL COMMITTEES.

A Conference of the Public Health and Medico-Political Committees was held on December 3rd, 1903, when there were present Mr. Andrew Clark (Chairman of Council) in the chair, Dr. T. D. Griffiths (President), Sir Victor Horsley, F.R.S. (Chairman of Representative Meeting), Dr. E. Markham Skerritt (Treasurer), Dr. H. Langley Browne, Dr. R. C. Buist, Dr. Major Greenwood, Dr. J. Groves, Dr. G. A. Heron, Mr. George Jackson, Dr. J. A. Macdonald, Dr. J. Herbert Manley, Dr. C. H. Milburn, Dr. James Murphy, Dr. Arthur Newsholme, Dr. C. H. W. Parkinson, and Dr. S. Woodcock.

Vaccination.

The General Secretary raised the question whether the President of the Local Government Board should be asked to receive a deputation on the question of future vaccination legislation, and it was agreed that a communication should be addressed to the Local Government Board on the subject.

Business of the Conference.

The General Secretary reported that the Council had referred to the Conference the following recommendations which it had received from the Public Health and Medico-Political Committees respectively:

From the Public Health Committee:

That it be recommended to the Council to take steps to obtain security of tenure of medical officers of health, adequate salaries and pensions, and to increase the control of the central authority by improving the status of the Local Government Board for England and Wales and its President. That it is desirable that the Local Government Board should be modelled on the constitution of the Board of Admiralty, with a Cabinet Minister as President and the head of the medical department as one of its members.

From the Medico-Political Committee:

That the Memorandum (F) on the security of tenure of public health officers, for communication to the President of the Local Government Board, be referred to a joint meeting of the Public Health and Medico-Political Committees.

The Conference also had before it the following resolution passed in the State Medicine Section:

The State Medicine Section, while tendering their acknowledgements to the Council, and thanking them for the efforts they are making to secure continuity of office to sanitary officers, venture to suggest the advisability of bringing the questions before the Divisions through the Representative Meeting.

The following documents had been circulated to the members of the Conference:

That part of the President's address at Swansea dealing with the reorganization of the Public Health Services; an address by Dr. Bushnell delivered before the Sanitary Institute at Bradford, recommending the creation of a Ministry of Public Health; also a memorandum from Dr. Roberts Thomson on the question of security of tenure of sanitary officers; and a memorandum by the Editor of the JOURNAL, published in the JOURNAL of January 2nd, 1904, p. 26.

The CHAIRMAN suggested that the subjects of reference might conveniently be considered under the following heads:

(1) The proposed general reorganization of the Local Government Board, with special reference to public health;

(2) Reforms proposed in local sanitary administration under the existing system of central control;

(3) The proposal to make public health the subject of a separate Government department presided over by a Minister of Health.

RECONSTITUTION OF THE LOCAL GOVERNMENT BOARD.

The memorandum and other documents were considered, and the following resolutions were adopted:

Moved by the PRESIDENT, seconded by Dr. GROVES:

That it is desirable that the Local Government Board be remodelled on the form of the Board of Admiralty, with a Cabinet Minister as President, and the head of the Medical Department as one of its members.

It was resolved also:

That the best thanks of this Conference be given to the Editor of the JOURNAL for his valuable Memorandum, and that it be published in the JOURNAL.

It was moved by Sir VICTOR HORSLEY, seconded by Dr. MACDONALD, and resolved:

That pending the next meeting of the Conference a Subcommittee be appointed consisting of the President, Dr. Groves, and Dr. Newsholme, together with the assistance of the Editor, to draft a scheme on the basis of the Editor's Memorandum for circulation to the Conference prior to presentation to the Government.

SECURITY OF TENURE.

With regard to this subject the conference, after discussion, adopted the following resolutions:

Moved by the PRESIDENT, seconded by Dr. BUIST:

That provision for security of tenure and adequate salaries and superannuation is essential to the efficiency of the Public Health Service so that the best talent of the profession may be at its disposal.

Moved by Dr. NEWSHOLME, seconded by Dr. GREENWOOD:

That the Local Government Board be urged to obtain the necessary powers to secure, whenever it is in their opinion desirable, combinations of districts for sanitary purposes, with medical officers of health devoting a large part or the whole of their time to their duties, and to secure power to prevent the disintegration of these combinations.

Moved by Mr. PARKINSON, seconded by Sir VICTOR HORSLEY:

That the Medico-Political Committee be requested to refer the question of security of tenure of sanitary officers to the Divisions, for them to ascertain from their respective candidates for the House of Commons if they (the candidates) will pledge themselves to support such a Bill on the same lines as the Act in favour of Poor-law officers.

The conference adjourned until January 14th.

At the adjourned meeting of the conference on January 14th the following were present: Mr. Andrew Clark (Chairman of Council), in the chair; Dr. T. D. Griffiths (President), Sir Victor Horsley, F.R.S. (Chairman of Representative Meeting), Dr. E. Markham Skerritt (Treasurer), Dr. H. Langley Browne, Dr. R. C. Buist, Dr. Major Greenwood, Dr. J. Groves, Mr. T. Garrett Horder, Mr. George Jackson, Dr. J. A. Macdonald, Dr. J. Herbert Manley, Dr. James Murphy, Mr. C. H. W. Parkinson, Dr. J. Maxwell Ross.

RECONSTITUTION OF THE LOCAL GOVERNMENT BOARD.

The conference considered paragraph by paragraph the draft prepared by the Subcommittee in accordance with the instructions of the last meeting authorizing the Subcommittee to draft a scheme on the basis of the memorandum regarding the reconstitution of the Local Government Board. The draft as amended was approved, and referred to the Parliamentary draftsman to prepare a Bill on the lines agreed upon for the consideration of the Council. The Bill as settled by the draftsman is as follows:

LOCAL GOVERNMENT BOARD BILL.

MEMORANDUM.

THE object of this Bill is to substitute for the Local Government Board as at present constituted a Board containing a Parliamentary president and vice-president and four expert members. The Board would continue, as at present, to have a Parliamentary secretary, and so would have three instead of two representatives in Parliament.

The present Board was constituted in 1871 on the analogy of these Government Departments which represented as a matter of history Committees of the Privy Council. It comprises as *ex-officio* members the principal Secretaries of State and some other great officers of the Crown, but it is not, and probably never was, intended to be a working body for the dispatch of business. It is believed never to have met.

The work of the Local Government Board is growing in variety and importance, and can only be transacted with the aid of persons possessing high professional qualifications. At present the expert officers of the Board are merely its servants, and can tender advice only upon invitation. It is considered that the efficiency of the Board would be increased if the Board itself comprised expert members who could initiate matters for discussion. A third Parliamentary representative, who might be a Peer, would also be of advantage.

A precedent for the change proposed will be found in the constitution of the Local Government Board for Scotland (*see* the Local Government (Scotland) Act, 1894), which includes two professional men. The Local Government Board as proposed to be reconstituted would also be similar to the present Board of Admiralty.

The Bill proposes to recognize the importance of the office of the President of the Local Government Board by raising him to the rank of a Secretary of State.

The amendments and repeals introduced into the Bill are merely consequential on the foregoing proposals.

DRAFT OF A BILL

TO AMEND THE CONSTITUTION OF THE LOCAL GOVERNMENT BOARD.

BE IT ENACTED BY THE KING'S MOST EXCELLENT MAJESTY by and with the advice and consent of the Lords Spiritual and Temporal and Commons in this present Parliament assembled, and by the authority of the same as follows:

Changes in the Constitution of the Local Government Board.

1. From and after the passing of this Act the following changes shall be made in the constitution of the Local Government Board (in this Act called "the Board"):

(1) The president of the Board shall be a Secretary of State.

(2) The *ex-officio* members shall cease to be members of the Board.

(3) There shall be a vice-president of the Board, who shall be appointed by His Majesty at any time after the passing of this Act, and shall hold office during His Majesty's pleasure.

(4) There shall be four additional members of the Board who shall be appointed by His Majesty on the recommendation of the president of the Board at any time after the passing of this Act, and from time to time as vacancies shall occur, and shall hold office during His Majesty's pleasure.

(5) Of the additional members of the Board one shall be a barrister-at-law or solicitor of the Supreme Court of not less than twelve years' standing in either case one shall be a person qualified to be appointed the medical officer of health of a county under Subsection 2 of Section 18 of the Local Government Board Act, 1888, one shall be a member or associate member of the Incorporated Institution of Civil Engineers, and one shall be a person experienced in the administration of the Poor-law Acts.

(6) There shall be paid out of moneys provided by Parliament to the Vice-President and the additional member of the Board such salaries as the Treasury may from time to time determine. An additional

member shall not engage in private practice or employment, but an inspector or other officer of the Board may be appointed an additional member.

Amendments of Local Government Board Act, 1871, 34 and 35 Vict. c. 70.

2. The word "vice-president" shall be inserted in Section 4 of the Local Government Board Act, 1871, after the words "the president," and in the second paragraph of Section 5 of that Act after the words "the president or" and the words "and the office of vice-president" shall be inserted in Section 4 of that Act after the words "the office of president."

Short Title and Construction.

3.—(1) This Act may be cited as the Local Government Board Act, 1904, and shall be construed as one with the Local Government Board Act, 1871, and that Act and this Act may be cited together as the Local Government Board Acts 1871 and 1904.

(2) The enactment specified in the Schedule to this Act is hereby repealed to the extent mentioned in the third column of that Schedule.

SCHEDULE.

Enactment Repealed.

Session and Chapter.	Short Title.	Extent of Repeal.
34 and 35 Vic. c. 70	The Local Government Board Act, 1871.	Section 3 from "and of the following *ex-officio* members" to "Chancellor of the Exchequer," and from "no payment" to "the Local Government Board but." In Section 5 the words "one of the *ex-officio* members."

The Conference requested the Council to take the necessary steps to have the Bill introduced into the House of Commons.

Two other matters raised in the Editor's memorandum, namely, the transfer of duties under the Medical and Dental Acts from the Privy Council to the Local Government Board, and the provision to be made for the international notification of infectious diseases were referred to the Medico-Political Committee and Public Health Committees respectively.

PUBLIC HEALTH COMMITTEE.

A meeting of the Public Health Committee was held on January 14th, 1904, when there were present: Dr. J. Groves (Chairman), in the chair; Dr. T. D. Griffiths (President); Dr. Herbert Manley, Dr. Maxwell Ross, and Mr. C. H. W. Parkinson.

Vaccination.

The General Secretary reported that he had received a communication from the Local Government Board stating that the President "does not consider that the present time would be opportune for the reception of the proposed deputation."

On the motion of Dr. Maxwell Ross, seconded by Dr. Manley, it was resolved: "That it be recommended to the Council that steps be taken to revise and edit the present vaccination literature of the Association, with a view to its future circulation to the public, and, further, that Dr. John C. McVail be invited to undertake this task.

Health and Temperance.

The following resolutions were adopted, on the motion of the Chairman, seconded by Dr. Manley: (1) "That in the opinion of this Committee it is of urgent importance that elementary scientific instruction in health subjects, including temperance, should be provided in all the primary schools by the educational authorities, in order that the conditions which lead to deterioration of the national physique may be understood and as far as possible prevented"; (2) "That it be recommended to the Council that a copy of the foregoing resolution be forwarded to the Board of Education, together with a covering letter setting out the facts, to be prepared by the Chairman of this Committee.

ETHICAL COMMITTEE.

A meeting of the Ethical Committee was held on December 18th, 1903, when there were present: Professor R. Saundby, in the chair; Mr. Andrew Clark, Chairman of Council; Mr. H. A. Ballance, Dr. A. G. Bateman, Dr. Bruce Goff, Dr. J. Barr, Mr. G. H. Broadbent, Mr. R. H. Kinsey.

Medical Men Practising as Dentists.

A letter was read from a medical man in Dublin asking whether, without having any special qualification or being on the *Dentists' Register*, but being a registered medical practitioner, he could assume the title of "Dentist," and the reply of the Medical Secretary stating that the Penal Clauses of the Dentists Act do not apply to registered medical practitioners, and that he was not aware of any restriction to prevent a registered medical practitioner from assuming the title of "Dentist."

The Medical Secretary's reply was approved.

Correspondence was read with a medical man, surgeon of a Friendly Society in a provincial town, whose name had been advertised by the Society in a circular, for canvassing purposes, to which the attention of the Committee had been drawn. The medical man concerned stated that he had been unaware of the issue of the circular in question, and on the receipt of the Medical Secretary's letter at once took steps to stop it, obtaining an apology from the Secretary of the Society for having issued the circular without his knowledge, and an undertaking that it should not recur. The Committee expressed its satisfaction with the result of the action taken.

Trade Advertisements.

The Medical Secretary's report upon the manner in which he had dealt—in pursuance of the instructions of the Committee—with trade advertisements containing the names of members of the Association, or of other members of the medical profession, was received and approved, and filed for reference.

The Medical Secretary reported that, in pursuance of instructions, he had brought before the General Medical Council the advertisement of an establishment for "Treatment," and that the following reply had been received from the Registrar of the General Medical Council.

General Council of Medical Education and Registration of the United Kingdom,
No. 13657. 299, Oxford Street, London, W.

The Secretary, the Ethical Committee,
British Medical Association.

Dear Sir,—I have to inform you that the complaint brought by you against Dr. ——— was considered by the Penal Cases Committee on 21st inst., and that it was resolved that the matter should be reported to the licensing bodies whose qualifications he holds as one which appears to come within the province of their disciplinary powers.

I am therefore directed to ask you to be good enough to supply me with a second copy of the Guide, in order that I may be able to put the case in a complete shape before these bodies.—Yours faithfully,

H. E. Allen, Registrar.

Bulletins.

The Medical Secretary reported having sent letters, as instructed, to London newspapers, concerning the publication of the names of medical men.

The following reply from the editor of the *Times* was read, and the Editor of the *Times* was thanked for his reply.

The *Times*, Printing House Square, E.C.,
October 22nd, 1903.

J. Smith Whitaker, Esq.,
Organizing Secretary,
British Medical Association, 429, Strand, W.C.

Dear Sir,—The Editor directs me to acknowledge your letter of October 20th with his compliments. The names of medical practitioners in attendance on prominent persons are not often given in the *Times*, except in the case of members of the Royal Family, but our note has sometimes been forgotten, and the Editor will in future bear the resolution of your Council in mind.

Believe me, yours faithfully,
E. W. M. Grigg.

A letter was read from a member suggesting that a letter should be sent to provincial newspapers, similar to that sent to London newspapers, drawing attention to the objection of the profession to the insertion of notices containing the names of medical men. The writer was directed to be informed "that the Committee could only deal with specific cases," and that the Secretary be instructed to write to any provincial newspaper brought under the notice of the Committee, as making such announcements.

Medical Announcements.

The Medical Secretary submitted a draft letter which he had prepared in accordance with the instructions of the Committee.

The Medical Secretary's report of action taken in pursuance

f instructions of the Committee with reference to newspaper nnouncements of the days of attendance of hospital staffs vas approved.

RULES OF DIVISIONS AND BRANCHES.

Rules of Divisions and Branches were considered, and the ollowing resolutions adopted:

That the Council be recommended to approve the Ethical Rules of he Ashton Division, except Rule 4.

That the Chairman of the Committee be authorized to bring before he Council for approval such rules of the Cleveland Division as he hinks are in accordance with the principles already approved.

That the Council be recommended to approve the Ethical Rules of he Tyneside and Norwich Divisions, and of the North Wales and Shropshire Branch.

CONTRACT PRACTICE.

In connexion with the investigation into contract practice he Medical Secretary reported the following questions vhich had been put to him in towns which he had visited, nd his replies thereto:

(*a*) In a town where over 95 per cent. of the medical practitioners had agreed not to accept club appointments of a particular class except under certain prescribed conditions, which certain of the clubs affected had refused to concede, a member of the Association, having no previous connexion with the town, had come into the town to take up appointments vacated in consequence of the dispute. He asked whether the medical men as a body were justified in ostracizing him on account of such action, and the answer given was that he appeared to have no just ground for complaint against those who so ostracized him, having regard to the fact that he had wilfully placed himself in a position of antagonism to the profession in its conflict with the clubs.

(*b*) In a colliery district in which it was thought possible that two neighbouring Divisions might adopt different rules with respect to appointments on certain specified terms, it was asked whether a member of a Division could accept an appointment in the neighbouring Division upon terms disapproved by the Division in the area of which the colliery was situated, but not disapproved by the Division of which he was already a member. The reply given was that the general principles of medical ethics would appear to preclude any member of the Association from accepting an appointment which should have been vacated under the conditions stated, aud upon terms disapproved by the members of the Association in the district in which the appointment lay.

The Committee approved the replies given by the Secretary.

CHARGES BY A MEMBER OF ONE DIVISION AGAINST A MEMBER OF ANOTHER.

A letter was read from the Secretary of a Division, asking vhether in the case of a charge of unprofessional conduct rought by a member of the Association, Y, against a member, , belonging to a different Division the case should be conidered by Y's Division or by Z's Division, and reply from he Secretary to the effect that the course contemplated in he model ethical rules which had been suggested by the Committee would appear to be that such a matter should be onsidered in the first instance by Z's Division, but that it night afterwards be found necessary to refer it to a joint ommittee, or meeting, of the two Divisions, or to the Branch Council, if, as in the case under notice, the Divisions beonged to the same Branch.

The Medical Secretary's reply was approved.

In the case of complaints by a medical man that slanderous harges had been made against him by another medical man n reference to a club appointment and other matters it was esolved that as the complainant had not furnished reasonble evidence of the alleged offence no action could be aken.

A complaint received concerning the advertisements of nedical practitioners in connexion with hydropathic estalishments was considered, and the following memorandum, repared by the Chairman of the Committee, was read:

THE ADVERTISING OF MEDICAL PRACTITIONERS IN CONNEXION WITH HYDROPATHIC ESTABLISHMENTS.

Complaints frequently reach the Editor of the JOURNAL of he advertising of medical practitioners in connexion with ydropathic establishments. These complaints usually come rom other medical men in the neighbourhood who are not onnected with any hydropathic establishment, and the rievance seems to be that the practitioners so advertised are also engaged in general family practice, and are thus the competitors of the complainants, who feel that these advertisements are therefore unfair.

A connected grievance is that many of the hydropathic establishments try to compel all their visitors to accept the services of the medical officer of the establishment, and oppose the employment by visitors of any outside medical practitioner.

So long as the medical officers of hydropathic establishments were resident officials, and gave their whole time to the work, these complaints do not seem to have been made, although the way in which they were and still are advertised at railway stations and in railway guide books is not in accordance with the general rules of the profession respecting advertising. This seems to have been the thin end of the wedge by means of which a very undesirable practice has grown up until it has obtained dimensions which make it necessary to consider whether any steps can be taken to check it. It would be obviously unfair to condemn without due notice those who have been allowed for many years to have their names advertised, but a reasonable course would be to send a draft statement to the Divisions asking them to express their opinion as to whether such advertisements should be allowed.

It was resolved:

That it be recommended that the matter be referred to the Divisions, and that the Chairman and Secretary prepare a circular based on the Chairman's Memorandum, to be issued to the Divisions.

REPORTS OF MEDICAL LECTURES IN LAY PAPERS.

Certain reports appearing in lay newspapers of lectures and demonstrations on medical subjects were considered, and it was resolved:

That the matter of the report of a demonstration of hospital cases by certain medical men to a newspaper reporter be referred to the Branch of which the medical men concerned are members.

That the newspaper report of a lecture given before a medical society be brought under the notice of the officials of that society.

THE TITLE OF "DOCTOR."

Letters received protesting against the expression of opinion by the Committee at its last meeting that medical men who have not taken the degree of M.D. or M.B. should not claim the title "Doctor" were read, and after considering a memorandum on the subject by the Chairman of Committee, the Committee resolved:

That those who have protested be informed that the opinion expressed by the Committee was believed to be in accordance with the prevailing opinion of the profession, but that if they desire to raise the question it is open to them to bring it before their respective Divisions.

MEDICAL DEFENCE COMMITTEE.

A MEETING of this Committee was held at the offices of the Association, 429, Strand, W.C., on November 12th, 1903, when there were present: Mr. Andrew Clark (Chairman of Council) in the chair, Dr. T. D. Griffiths (President), Dr. M. Beverley, Dr. Bruce Goff, Dr. G. A. Heron, Sir Victor Horsley, F.R.S., Dr. J. H. Hunter, Dr. G. Balfour Marshall, Mr. M. A. Messiter, Mr. W. Jones Morris, and the following gentlemen attended at the invitation of the Committee, Dr. E. Markham Skerritt (Treasurer), Dr. A. G. Bateman (Medical Defence Union), Dr. Hugh Woods (London and Counties Medical Protection Society).

The GENERAL SECRETARY submitted the following Memorandum setting out the receipts and expenditure of the British Medical Association, together with the balance of income over expenditure for the past five years, showing an average surplus of close on £5,000 a year:

Memorandum.

Year.	Total Income.	Total Expenditure.	Surplus.
1898...	£42,924	£38,188	£4,736
1899...	£43,253	£36,981	£6,272
1900...	£43,419	£38,943	£4,476
1901...	£43,730	£38.767	£4,963
1902...	£45,024	£40,525	£4,499

The income of the Association is derived practically from three sources: (1) Members' subscriptions, (2) advertisements in the JOURNAL. and (3) sundry sales of the JOURNAL, rents from properties owned by the Association, etc.

These three sources of revenue for the past five years are shown below:

Year.	Subscriptions.	Advertisements.	Sundry Sales, Rents, etc.	Total Income.
1898...	£19,593	£19,325	£4,001	£42,924
1899...	£20,012	£19,328	£3,913	£43,253
1900...	£20,180	£19,507	£3,732	£43,419
1901...	£20,578	£19.537	£3,615	£43,730
1902...	£20,765	£20,355	£3,904	£45,024

To show the geographical membership of the Association the following figures are appended, showing as nearly as possible the membership as it stands in October of the current year and the three preceding years:

Year.	England and Wales.	Scotland.	Ireland.	Outside United Kingdom.	Total Membership.
1900 ...	11 592	1,656	776	4.378	18,402
1901 ...	11,829	1,699	898	4.322	18,748
1902 ...	11,864	1,793	927	4,430	19,014
1903 ...	11,966	1,812	941	4,462	19,181

On the foregoing fignres, after allowing for losses from arrears estimated at 2 per cent., the annual geographical earnings from subscriptions may be apportioned as follows:

Year.	England and Wales.	Scotland.	Irelaud.	Outside United Kingdom.	Total Subscriptions.
1900 ...	£12,171	£1,738	£814	£4,591	£19,314
1901 ...	£12,420	£1,783	£942	£4,538	£19,683
1902 ...	£12,457	£1,882	£973	£4,651	£19,963
1903 ...	£12,564	£1,902	£988	£4,685	£20,139

Expressed in percentages the estimated geographical earnings from subscriptions for the current year would be—United Kingdom 76 per cent. (England, 62 per cent.; Scotland, 9 per cent.; Ireland, 5 per cent.); outside United Kingdom, 24 per cent.

Financial Questions.

The Committee then proceeded to consider, in conjunction with the Memorandum of the General Secretary, the financial aspect in the event of the Association undertaking Medical Defence, when it was moved by Dr. Beverley, seconded by Dr. Bruce Gough, and resolved:

That this Committee shall first endeavour to ascertain the probable cost of Medical Defence should same be undercaken by the Association.

Expenses of Existing Defence Societies.

Whereupon, at the request of the Chairman, Dr. A. G. Bateman, Secretary of the Medical Defence Union, submitted figures as shown below, setting out the number of members, the legal, and the legal and general expenditure of the Medical Defence Union since the year 1889 down to the close of 1902:

Medical Defence Union Income and Expenditure.

Date of Year.	No. of Members.	Income.	Cost of Legal Proceedings.		Legal and General Expenditure.	
		£ s. d.	£ s. d.	Per Head s. d.	£ s. d.	Per Head s. d.
1889	834	435 3 10	32 9 5	0 9	206 5 1	5 0
1890	1,446	677 4 6	464 16 3	6 5	671 7 4	9 3
1891	1,828	950 8 1	354 0 8	3 10	795 7 11	8 9
1892	2,453	1,335 3 10	1,285 1 1	10 6	1,920 2 2	15 8
1893	2,924	1,375 16 11	498 9 0	3 5	980 8 7	6 8
1894	3,358	1,706 1 7	449 0 8	2 8	1,384 2 1	8 3
1895	3,537	1,749 3 9	412 1 11	2 4	1,433 1 8	8 1
1896	3,832	1,939 4 0	981 9 4	5 1	1,721 8 1	9 0
1897	3,902	1,971 10 0	908 11 5	4 8	1,756 16 7	9 0
1898	4,016	2.077 4 2	1,193 3 11	5 10	2 098 6 8	10 5
1899	4,465	2,196 0 9	1,117 11 5	5 0	2,175 6 8	9 9
1900	4,604	2,200 9 4	1,126 4 6	5 0	2.144 5 10	9 4
1901	4,847	3,057 1 8	1.394 13 5	5 9	2,584 6 10	10 8
1902	5,549	3,731 4 3	1,405 12 8	5 1	2,732 3 6	9 10

From the above table it will be noted that over a period of fourteen years the average cost of legal proceedings per head works out at 4s. 10d., while the total legal and general expenditure, including all office and working expenses, averages 9s. 1d. per member.

Dr. Hugh Woods, the Honorary Secretary of the London and Counties Medical Protection Society, then submitted figures covering a period of the last ten years, recording the cost per member of the London and Counties Medical Protection Society. The returns went to prove that the working and legal expenses of these two medical protection societies were almost identical per member.

Special Subscription Necessary.

After discussion, but without passing any formal resolution, it was agreed that if medical defence should be undertaken by the British Medical Association it would be necessary that the advantages offered should have to be optional on the part of members. Further, that an additional subscription would probably have to be levied at the rate of 10s. per head to such members desirous of enjoying the advantage of medical defence at the hands of the Association.

Adoption of the Principle of Medical Defence.

Full discussion followed and finally it was formally moved by the President, seconded by Sir Victor Horsley:

That it is desirable that a department for medical defence should be formed within and by the Association, and that the advantages afforded by such a defence department should be extended only to those members who voluntarily agree to pay a special subscription for those advantages.

The motion on being put from the Chair was declared carried by 5 to 3.

Sir Victor Horsley and Dr. Heron undertook to prepare and submit a detailed scheme for the proposed carrying out of medical defence for consideration at the next meeting of the Committee.

A further meeting of the Medical Defence Committee was held on December 10th, 1903, when there were present Mr. Andrew Clark (Chairman of Council) in the chair, Dr. T. D. Griffiths (President), Sir Victor Horsley, F.R S. (Chairman of Representative Meeting), Dr. E. Markham Skerritt (Treasurer), Dr. M. Beverley, Dr. Bruce Goff, Dr. G. A. Heron, Dr. J. H. Hunter, Dr. G. Balfour Marshall, Mr. M. A. Messiter, Mr. W. Jones Morris.

Memorandum by the Treasurer.

The Committee proceeded to consider a scheme for the provision of medical defence to its members by the British Medical Association, drafted by Sir Victor Horsley, F.R.S., and Dr. Heron, together with the following Memorandum by the Treasurer:

Supposing all the members of the British Medical Association in the United Kingdom to subscribe for medical defence, the figures for 1902 would be as follows:

	Membership.	Subscription.
England and Wales ...	11,966	£5,983
Scotland	1,812	£906
Ireland	941	£470
Totals... ...	14,719	£7,359

The figures of the Medical Defence Union for 1902 are: Membership, 5,549; expenditure £2,732, with one office only, and a "part-time" general secretary. The membership of the British Medical Association would thus be about two and three-fifth times that of the Medical Defence Union.

It would appear that it is assumed (Clause 10) that the expenditure would be greater in proportion than that of the Medical Defence Union. It is not stated what is the intended application of the 2s. capitation grant to the Scottish and Irish Committees, or whether the Central Committee would retain any control over it.

The provisions of Clause 10, whereby it is proposed to appropriate a sum of "not less than" £1,000 annually from the general funds of the Association, would appear to be contrary both to the principle already adopted by the Committee and to the constitution of the Association.

At the meeting on November 12th, it was the general feeling of the Committee that no contribution to Medical Defence could be made from the general funds of the Association.

And, further (Article VII and By-law 14), it would appear to be inconsistent with the constitution of the Association that any member should be called upon to contribute towards any object in which he has no share. Under the proposed scheme, those who derive no advantage from the arrangements for Medical Defence will be:

1. Those members residing within the United Kingdom who do not subscribe for Medical Defence.

2. All members residing outside the United Kingdom.

It is not stated how these could be exempted from contributing *pro rata* to the grant from the general funds; nor is it apparent how such exemption could be secured.

If, therefore, this contention is correct, the scheme for Medical Defence must be wholly self-supporting. Further, the valuable statistics placed at the disposal of the Committee by the Medical Defence Union and the London and Counties Medical Protection Society, with a combined membership of 7,848 and double administration expenses, prove that the annual expenditure cannot be estimated at much less than the amount of the proposed subscription.

Provided, however, that the response of the members of the Association is fairly general, and that the work of Medical Defence is conducted on the admirable lines of the above societies, it is not apparent why the cost of the scheme need exceed the income derived from the annual subscription. But to this end very careful supervision of the expenditure, and specially that of the local Committees, would be essential. Taking the full membership of the Association in the United Kingdom as two and three-fifth times that of the Medical Defence Union, on the figures of the latter for 1902, the expenditure on the principal items might be as follows:

	£	s.	d.
On legal expenses	3,653	0	0
,, remuneration of Secretaries ...	1,133	0	0
,, railway fares of Committees ...	429	0	0
,, rent of offices, etc.	291	0	0
,, payments to clerks	551	0	0

It is, however, plain that the scheme cannot be financially sound unless it provides for a reserve or guarantee fund to meet contingencies. This could well be done by requiring every member joining to give a guarantee of £1, as in the case of the Medical Defence Union; this on the whole membership would amount to £14,719.

It is obvious that there can be no definite decision as to the practicability of a scheme for Medical Defence until it is known how many members of the Association are prepared to subscribe to it. The above figures, however, would probably admit of a reduction of 25 or 30 per cent., and still form a practicable working basis, and more especially so long as clause 2 holds good.

E. MARKHAM SKERRITT.

Clifton, December 7th, 1903.

CONSIDERATION OF RECOMMENDATIONS.

After full discussion a series of recommendations, nine in number, to the Council were adopted. These are set out in the report of the meeting of January 19th.

Another meeting of the Medical Defence Committee was held on January 19th, 1904, when there were present: Mr. Andrew Clark (Chairman of Council) in the chair, Dr, T. D. Griffiths (President), Sir Victor Horsley, F.R.S. (Chairman of Representative Meeting), Dr. E. Markham Skerritt (Treasurer), Dr. Bruce Goff, Dr. G. A. Heron, Dr. J. H. Hunter, Dr. G. Balfour Marshall, Mr. M. A. Messiter, Mr. W. Jones Morris. Dr. Beverley was unable to be present.

DRAFT SCHEME RECOMMENDED TO THE COUNCIL.

The Committee resumed the consideration of the draft recommendations to the Council, and finally after four meetings, and full consideration, the following scheme for medical defence was, on the motion of Sir VICTOR HORSLEY, seconded by Dr. HERON, adopted as a recommendation for the consideration of the Council.

1. Confirmation by the Representative Meeting of the resolutions passed at Birmingham on July 13th, 1896, confirmed at Carlisle July 28th, 1896, and registered at Somerset House, August 11th, 1896, altering the Memorandum of Association and establishment of the same before the Courts.

2. Invitation to the Medical Defence Union, to the London and Counties Medical Protection Society, and to the Medical and Dental Defence Union of Scotland, and other like societies engaged in medical defence, to merge themselves in the British Medical Association to form one professional department for the provision of medical defence.

3. Election by the Representive Meeting and Council of a Central Medical Defence Committee (this Committee also to act for England and Wales). The Central Medical Defence Committee to consist of 15 members, including a representative from the Scottish and Irish Committees respectively, together with 6 members elected by the Council and 7 by the Representative Meeting.

Election by the representatives from Scotland and Ireland present at the Annual Representative Meeting of a Scottish Medical Defence Committee, and an Irish Medical Defence Committee respectively. The Scottish Committee to consist of 10 members and the Irish Committee of 8 members.

Every member of a Defence Committee must be a subscriber to the medical defence department of the Association.

4. Establishment by the Central Defence Committee of a register of the names of those members of the Association who wish to receive the benefits of medical defence, and who for that purpose are willing to pay an annual subscription of ten shillings in advance, in addition to the annual subscription to the Association of twenty-five shillings.

5. Appointment by the Council of a Medical Defence Secretary of the Association and appointment by the Scottish and Irish Medical Defence Committee of a Secretary respectively. Of these officers the first shall be a whole-timed salaried officer of the Association, if necessary.

The Central Defence Committee to have power to appoint additional officers should occasion arise.

6. The final decision whether the Association shall take up the defence of any given case shall be vested wholly and without reserve in the Central Defence Committee.

7. All disputes which arise between members of the Medical Defence Department of the Association and which are referred to the Defence Department shall be decided, if necessary, by arbitration.

The arbitrators shall be selected by the disputants, subject to the approval of the Central Defence Committee.

8. The Central Defence Committee to have absolute control of the funds allotted to it for the Medical Defence Department of the Association.

9. The Central Defence Committee to allow the Scottish and Irish Defence Committee to expend a sum not exceeding 2s. per head of the membership of the defence section of the Association of that country.

10. (*a*) Every member of the British Medical Association subscribing for medical defence shall become a guarantor of not less than £1 for the purposes of the Medical Defence Committee; and the sum total of the amount thus guaranteed shall be entitled "The Medical Defence Guarantee Fund," and shall be subject to the call of the Medical Defence Committee.

(*b*) On the application of the Medical Defence Committee in case of emergency, the Treasurer shall, out of the available funds of the Association, from time to time advance to the said Committee on the security of the Medical Defence Guarantee Fund, and on such terms as shall be approved by the Council such sum or sums of money as shall be required by the said Committee; always provided that the total amount of such sums thus advanced shall at no time exceed two-thirds of the amount of the uncalled Medical Defence Guarantee Fund. The Treasurer shall, subject to the approval of the Council, require from time to time of the Medical Defence Committee, the repayment of the sum or sums thus advanced, or of any part thereof, together with all charges thereon.

11. Until the income of the Defence Department admits of the Representative Meeting directing any other course, the Central Defence Committee shall strictly confine its expenditure to the purposes of the defence of individual members.

In view of Recommendation 10, Dr. HERON proposed, and the PRESIDENT seconded,

12. That the appointment, dismissal, suspension, regulation of pay and of work and all salaried officers of the Medical Defence Department shall rest with the Central Committee of that Department, and from their decisions on those questions there shall be no appeal; except that the Scottish and Irish Defence Committees shall each elect or dismiss it own Secretary without reference to the Central Committee.

On a division being taken on the whole scheme of Medical Defence 6 voted for and 1 against.

Mr. MESSITER desired it to be recorded on the minutes that he voted against the scheme.

(As will be seen by the report of the meeting of the Council on January 20th, this scheme was referred to the Divisions of the Association for their consideration).

HOSPITALS COMMITTEE.

THE Council by resolution has appointed a Hospitals Committee as follows: The President and Chairman of Council *ex-officio*, Dr. M. Beverley, Dr. J. Brassey Brierley, Dr. E. L. Fox, Dr. J. R. Hamilton, Dr. T. A. Helme, Mr. T. Garrett

Horder, Professor J. T. J. Morrison, Mr. Edmund Owen, and Dr. F. M. Pope.

A meeting of the Committee was held on November 13th, 1903, when there were present Mr. Andrew Clark, Chairman of Council (subsequently Dr. J. Brassey Brierley) in the chair, Dr. T. D. Griffiths (President), Dr. E. L. Fox, Dr. J. R. Hamilton, Mr. T. Garrett Horder.

Election of Chairman.

Dr. Michael Beverley, of Norwich, was appointed Chairman of the Committee for the ensuing twelve months.

Hospital Administration.

In accordance with notice given, Dr. Brassey Brierley called attention to the continuous treatment of accidents at medical charitable institutions, to the widespread complaints of the poverty of medical charities, and also to the question of the "fixity of tenure" of hospital medical officers. After discussion it was decided to defer these questions to some later meeting of the Committee.

Proposed Inquiry.

The Committee having discussed generally the lines upon which it should prosecute its investigations, the General Secretary was instructed to draft a letter inviting replies to the following questions:

1. What is the method you adopt for admission of out-patients?
2. Have you any system of inquiry in operation with a view to check the admission of persons not eligible for charitable relief: (*a*) in-patients, (*b*) out-patients. If so, by whom is the inquiry made?
3. Are subscribers' letters necessary?
4. Do you admit indoor domestic servants without payment?
5. Are all accidents seen, or has the resident medical officer power to reject any trivial accident in an ineligible patient?
6. Are any steps taken to impress patients with the fact that hospitals are founded and maintained for the benefit of the sick poor?
7. Do the patients who receive treatment chiefly reside in the immediate neighbourhood of your hospital or come from long distances?
8. Do you require payment from out-patients, and if so, how much?

The General Secretary was further instructed to forward these questions to the following hospitals:—

London: Brompton Hospital, Great Northern Hospital, London Hospital, Middlesex Hospital, National Hospital for Paralysis, Royal Free Hospital, Royal London Ophthalmic Hospital, St. Bartholomew's Hospital, St. George's Hospital, Skin Hospital (Leicester Square), Throat Hospital (Golden Square).

Provincial and Welsh: Birmingham General Hospital, Cardiff Infirmary, Devon and Exeter Hospital, Leeds Infirmary, Newcastle Infirmary, Norfolk and Norwich Hospital, Royal Infirmary, Liverpool; Royal Infirmary, Manchester.

Scotch: Royal Infirmary, Edinburgh.

Irish: Belfast Hospital, Cork Hospital, Dublin Hospital.

ROYAL NAVAL AND MILITARY COMMITTEE.

A meeting of the Royal Naval and Military Committee was held on January 12th, 1904, when there were present: Mr. Andrew Clark (Chairman of Council, in the Chair), Surgeon-Lieutenant-Colonel Decimus Curme, Brigade-Surgeon-Lieutenant E. F. Drake-Brockman, Brigade-Surgeon-Lieutenant-Colonel G. S. Elliston, Surgeon-General G. J. H. Evatt, C.B., Major Valentine Matthews, and the following officers of the Indian Medical Service: Lieutenant-Colonel Andrew Duncan, Lieutenant-Colonel P. J. Freyer; the Editor, Dr. Dawson Williams, attended by request.

Indian Medical Service.

The Committee proceeded to consider the reply from the India Office to the representations of the British Medical Association as to the India Office Memorandum of October last, in conjunction with a memorandum supplied by the Editor of the British Medical Journal, compiled from correspondence he has received from various officers in the Indian Medical Service.

India Office,
Whitehall, London, S.W.
December 21st, 1903.

Sir,—I am directed to acknowledge the receipt of your letter of October 30th, 1903, forwarding representations by the Council of the British Medical Association on the India Office Memorandum of October last, and calling attention to the Memorandum of the British Medical Association forwarded to this office on August 5th, 1903.

With reference to the representations made on Clauses 5, 16, 17, 33, and 39, I am to point out that the matters referred to were very fully considered by the Secretary of State in Council, after consultation with the Government of India, and he does not see sufficient grounds for departing from the decisions embodied in the memorandum.

With regard to the remaining representations I am to inform you as follows:

Clause 18.—The Government of India will be asked to report the number and nature of the specialist appointments proposed.

Clause 19.—The question of the pay of officers of the Indian Medical Service in civil employ is under consideration by the Government of India, but some little time must elapse before the matter is settled.

Clause 23.—The Government of India will be asked whether facilities can be granted to enable medical officers to pass the Lower Standard Urdu examination as soon as possible after their arrival in India.

Clause 25.—The rate of furlough pay after twenty-four years' service will be brought to the notice of the Government of India, and they will be asked whethey recommend any increase. I am to point out that the leave pay of £700 a year is only drawn by a combatant officer after the commencement of his thirtieth year of service, and that a medical officer of similar length of service would in almost all cases be holding a civil or an administrative appointment carrying at least as high a rate of leave pay.

Clauses 35 and 36.—When the memorandum is reprinted the words "in India" will be struck out. It is not intended to imply that the leave referred to in Clause 37 must be spent in India.

Passing to the memorandum forwarded with your letter of August 5th, I am to inform you that a copy thereof will be forwarded to the Government of India for their information, and for any recommendations they may desire to make on points which have not been considered.

I am, Sir, your obedient servant,
Horace Walpole.

The Secretary,
British Medical Association,
429, Strand, W.C.

MEMORANDUM BY THE EDITOR.

Indian Medical Service.

Language Examination: Training in Military Surgery and Tropical Diseases.

The Committee is gratified to learn that the Secretary of State in Council will represent to the Government of India the desirability of granting to medical officers facilities for passing the Lower Standard Urdu examination as soon as possible after their arrival in India. It ventures to submit the following suggestions which it is believed would tend to increase the efficiency of the junior grades of the Indian Medical Service, while at the same time removing a disability which is undoubtedly keenly felt by these junior officers.

The Committee is completely in sympathy with what it takes to be the object of Clause 23, namely, that for the efficient discharge of his duties a medical officer ought to have an adequate acquaintance with the vernacular. An examination of the Indian Army List appears to prove that on the average it takes a medical officer as long as a year and a-half to pass the Lower Standard in Urdu, and that there are even officers of captain's rank who have not passed. The Committee is of opinion that this long delay is not merely detrimental to the individual officers, but must, *ex hypothesi*, diminish the efficiency of the services which they are capable of rendering to the Government of India. It is, therefore, to the interest of that Government to discover the causes of the delay and to apply a remedy.

Facts well within the knowledge of the Committee amply justify the statement that the chief cause of the delay is to be found in the frequent moves to which a medical officer in his first two years is subjected. He may be moved as often as twelve or more times, and instances are known in which the number of moves has equalled the number of months of service. In some cases the cause of the delay is to be found in the fact that the medical officer has, at a very early stage, been posted to a Pathan or Ghurkha regiment, stationed in a district where Urdu is not spoken.

These frequent moves have other attendant disadvantages. A young medical officer on first landing in India is not only, in common with all other officers, under the disadvantage of being suddenly called upon to deal with a people having habits and customs with which he is unfamiliar, but he is under the special difficulty that he is called upon to treat patients who, in large proportion, are suffering from types of disease with which he can have gained only a limited and in the main theoretical acquaintance. This affords further ground for the recommendation that a medical officer, on first reaching India, should be attached to a large civil hospital for six months. He would there learn something of hospital administration and would rapidly become acquainted with the types of disease peculiar to India and other tropical or subtropical countries. He could also study the pathology and bacteriology of tropical

ases, could attend in the *post-mortem* room, and could n some acquaintance with the special conditions of dico-legal work in India. It would be easy also for him to ain special training in practical surgery, first as an istant at operations and afterwards as an operator under supervision of senior officers. The training of an opera- surgeon in a European centre extends over a consider- e period. First he becomes a house surgeon, and is wed to do minor operations at first under supervision and rwards independently and assists at major operations; n, probably after a period of probation during which he as private assistant to an operating surgeon, he becomes istant-surgeon to a hospital. The same sort of training ld easily be given by the senior officers of the Indian dical Service to the most junior, and owing to the immense unt of operating work at a large hospital in India, ex- ience would be gained very rapidly.

he Committee is so impressed with the importance of s point that it would be prepared to see existing regula- ns as to attendance for four months at Netley abolished. er passing the competitive entrance examination the ng medical officer might be given one month to prepare sailing, and on arrival in India be posted at once to a e civil hospital in the command for six months. At the of that period he would go to his regiment, having bably passed in the language, and having certainly gained nowledge of the people, as well as a good deal of special dical and surgical experience. The knowledge gained in inistration would stand him in good stead when subse- ntly transferred to civil employ.

he incumbents of the specialist appointments about to be le would doubtless be stationed at the principal centres, would therefore be available to assist in the training of junior lieutenants. (A correspondent states, under date ember 1st, 1903, that "the 'Specialist' Department of the ian Medical Service is inaugurated with the Civil Depart- nt and in Madras consists of about six (*sic*) vacancies: (1) itary, (2) chemical examiner, (3) ophthalmic, (4) obstetric, unacy." He adds that there appears to be no specialist's , except possibly for the first two, who are not allowed ate practice.

Regimental Hospital System.

he correspondence received by the Editor shows that nions on the question whether the Regimental Hospital ht to be replaced by the Station Hospital system are very rgent. It is proposed shortly to publish an analysis of letters received setting out the arguments for and against ange, and to invite further opinions as the number so far ived is small.

The Injustice of the "Officiating" System.

ne principle upon which the strength of the Indian lical Service is determined is to recruit for a certain num- of *cadre* appointments *plus* 25 per cent., namely, 20 per . to cover sick and other leave, and 5 per cent. to cover ualties. The system is of course sound in principle, but it sceptible of abuse, and as the emoluments of an officer is "officiating" are lower than those of an officer who holds bstantive or permanent[1] post there is a certain tempta- to effect petty economies in this way at the expense of officers of the Indian Medical Service.[2]

t the beginning of their service Indian Medical Service ers "officiate" for several years, generally four or five, in tary employ; they are then posted to substantive charge native regiment, and receive increased emoluments.

ne Indian Army List, April, 1903, shows that the posting eutenants was then as follows:—In permanent charge, 1; eld service (Somaliland), 8; in officiating charge (about), Of junior captains in military employ who are liable ervice in any part of India:—In permanent charge, 25; eld service (Somaliland), 3; in officiating charge, 11.

veral correspondents maintain that under the new regu- ns lieutenants in officiating charge of a native regiment ive less pay than under the old. Formerly the maximum ht be Rs. 450 (grade pay 350 + staff pay 100), now they ive Rs. 425 (grade pay 350 + half staff pay 75).

er 70 per cent. of the officers Indian Medical Service, ever, are in civil employ, and, as a rule, within a short of being posted to substantive charge of a regiment an officer is transferred to the civil side, and receives an "officiating" appointment. He is still kept on the strength of the regiment for three years or until he is posted to a permanent appointment, it may be, in five or six years. Meanwhile another officer is "officiating" for him with the regiment. Both officers receive the lower scale of pay. Further, an officer "officiating" in civil employment may be sent on active service, and then receives "unemployed" pay. The system is undoubtedly complicated, but will easily be understood by readers familiar with the plan on which the tea party in *Alice in Wonderland* was managed.

An officer "officiating" in civil employ does not come under the civil leave rules until he receives a permanent appointment, or until he has spent three years in civil employ, whichever occurs first. Further, he does not come under the civil rules for furlough until he gets a permanent appointment, however long this may be delayed; he is earning civil furlough, but cannot get it except on medical certificate.

Suggestions.—Let the transfer of I.M.S. officers to civil employ be put on the same footing as the transfer of an officer of the India Army to civil employ in the Foreign Department or in the "non-Regulation" Provinces (for example, Burmah, Punjab, or North-West Frontier Province), or as the transfer of an officer Royal Engineers to civil employ in the Indian Public Works Department; that is to say, let the Indian Medical Service officer be transferred permanently from military to civil, and let his name be struck off the strength of the regiment, and put on the supernumerary list in the *Army List*. He would then come under the rules for full civil privileges—leave, and pay, and full military privileges if sent on active service. The vacancy on the *Army List* created by the removal of his name from the strength of the regiment would be filled by the appointment of a substantive incumbent.

Pay.

The correspondence received by the Editor indicates quite clearly that the increases in pay will not make the Service contented. In addition to the point as to the pay of lieutenants and junior captains referred to above, it is pointed out that for those above the rank of captain 10 years, and below that of lieutenant-colonel under 25 years, there is no increase, and the rates compare unfavourably with those received by the Royal Army Medical Corps. It is urged that the following points should be noted: (*a*) During the second decade of his service an officer's subscriptions (Indian Family Pension Fund, band, mess, and regimental subscriptions and donations) are very much increased; (*b*) having regard to the fact that the service is continuous in India, there should be an equitable increase of pay or a grant of passage money to defray the cost of journey to England, at any rate if invalided; (*c*) the fact that if the medical officer marries, he must, as a rule, keep his wife and children, or his children at least, in England ought to be considered in fixing his pay in his second decade of service; (*d*) having regard to the many stations at which it is absolutely necessary for a medical officer to keep a horse, he should receive horse allowance, and a free railway pass for his horse when he is ordered to move.

Generally:

Most correspondents express the hope that the Committee will maintain all the points in its Memorandum of August, 1903.

The Committee having considered the letter from the India Office, dated 21st December, 1903, clause by clause, recommends that the following further representations be forwarded to the India Office.

Clause 5.—Adverting to this Clause in the Memorandum of the India Office, dated October, 1903, the Committee from information collected attaches great importance to its recommendation that the Director-General of the Indian Medical Service should be granted the rank of Lieut.-General so as to correspond with that of the Director of the Army Medical Service. The Committee regrets that the Secretary of State in Council, after consultation with the Government of India, cannot see sufficient grounds for departing from the decisions embodied in the memorandum. The Committee would urge the India Office to further reconsider its decision on the following grounds:

(*a*) The great importance of the service, and to the fact that several officers of the rank of surgeon-general are serving under the Director-General.

(*b*) The analogy already urged of the Indian Medical Service to the Army Medical Department.

[1] "bstantive" and "permanent" are terms used with the same meaning in army and civil regulations respectively.

[2] extreme instance of the abuse of the system of officiating appoint- s is afforded by the case of the Extra Assistant Judicial Commis- rs; almost the whole of that service is "officiating."

(*c*) That the Director-General is at the head of the Sanitary Department in India, and is the adviser of the Indian Government on all sanitary matters.

Clauses 16 and 17.—The Committee regrets that the India Office cannot see its way to adequately pay officers of the Indian Medical Service. The Committee is convinced that until there is a reasonable and adequate increase the India Office will not have a contented service, as is evidenced by the large mass of correspondence received since the issue of the Memorandum of the India Office last October. The Committee would respectfully urge the India Office, in the best interests of the public service, to reconsider the question, and to introduce a bold and comprehensive scheme likely to satisfy the officers of the Indian Medical Service. It should be borne in mind that service is continuous in India, and therefore there should be an equitable increase of pay. Further, that during the second decade of his service an officer's subscriptions (Indian Family Pension Fund, band, mess, and regimental subscriptions and donations) are very much increased.

Clause 18.—The Committee is glad to learn that the Government of India has been asked to report on the number and nature of the specialist appointments proposed, and the Committee would respectfully express the hope that such report may be forthcoming at an early date.

Clause 19.—The Committee is also gratified to learn that the question of the pay of officers of the Indian Medical Service in Civil employ is under consideration by the Government of India.

Clause 23.—The Committee is gratified to learn that the Secretary of State in Council will represent to the Government of India the desirability of granting to medical officers facilities for passing the Lower Standard Urdu examination as soon as possible after their arrival in India. It ventures to submit the following suggestions, which it is believed would tend to increase the efficiency of the junior grades of the Indian Medical Service, while at the same time removing a disability which is undoubtedly keenly felt by these junior officers:

(*a*) This Committee is completely in sympathy with what it takes to be the object of Clause 23, namely, that for the efficient discharge of his duties a medical officer ought to have an adequate acquaintance with the vernacular. An examination of the Indian Army List appears to prove that on the average it takes a medical officer as long as a year and a-half to pass the Lower Standard in Urdu, and that there are even officers of captain's rank who have not passed. The Committee is of opinion that this long delay is not merely detrimental to the individual officers, but must, *ex hypothesi*, diminish the efficiency of the services which they are capable of rendering to the Government of India. It is, therefore, to the interest of that Government to discover the causes of the delay and to apply a remedy.

(*b*) Facts well within the knowledge of this Committee amply justify the statement that the chief cause of the delay is to be found in the frequent moves to which a medical officer in his first two years is subjected. He may be moved as often as twelve or more times, and instances are known in which the number of moves has equalled the number of months of service. In some cases the cause of the delay is to be found in the fact that the medical officer has, at a very early stage, been posted to a Pathan or Gurkha regiment, stationed in a district where Urdu is not spoken.

Clause 25.—The Committee awaits with keen interest the decision of the Government of India on the matter of Leave Rules.

Clauses 33 and 39.—The Committee regrets that the India Office has not conceded the points already urged on Clauses 33 and 39. By withholding this equitable concession a grave injustice is done to officers who have rendered valuable service. The Committee would, therefore, again urge upon the India Office the justice of favourably considering its original recommendations transmitted to the Secretary of State for India. The provision in Clause 39 only partially meets their hardship.

In conclusion, the Committee would respectfully reiterate the grave necessity of favourably considering the representations herein made, and sincerely hopes and honestly believes that by granting these recommendations the result will be to continue to attract to the Indian Medical Service men of the highest scientific attainments.

Moved by Brigade-Surgeon-Lieutenant-Colonel DRA BROCKMAN, seconded by Brigade-Surgeon-Lieutenant-Colo ELLISTON, and

Resolved: That it be recommended to the Council tha a copy of these representations be forwarded to the In Office.

The Committee deferred consideration of the following qu tions contained in the Editor's memorandum: Abolition of t four months' course at Netley; regimental hospital syste the injustice of the officiating system; and the regimen system in India.

The following abstract of a letter from a captain of t Indian Medical Service in Bengal was then considered:

"Dear Sir,—.....As far as I remember the regulations, a officer of the R.A.M.C. can by passing various examinatio so accelerate his promotion that he may become a major af some ten years' service. This privilege or opportunity denied to the I.M.S., consequently it must in future oft happen that R.A.M.C. men of junior service will be senior rank to I.M.S. men of longer service. This, apart from t question of one or two years' earlier receipt of major's p will make a serious disadvantage on active service, where o D.S.O. or C.I.E. is given to the Senior M.O. of a briga More than this, it will put to an even greater extent than t present the senior military appointments, with their patro age of cantonment hospitals, and so on, into the hands f R.A.M.C. officers.

"I am sure this point has only to be considered by you r its importance to be realized."

Resolved: That it be recommended to the Council that t General Secretary be instructed to forward a letter to t India Office setting out the text of the complaint, and questing the India Office to advise how they would propo to overcome this anomaly.

A reply was read from the War Office in reference to t following resolution passed at the meeting of the Committ held on July 7th, 1903:

Resolved: That in consequence of the difficulty experienced by m volunteer medical officers to spare time to attend the School of Instru tion at Aldershot for a month, it is desirable that some further facilit be given by the Government for these gentlemen to acquire the nec sary knowledge to obtain the certificate of proficiency required by t regulations, as for example the establishing of classes at differ centres, and by the shortening of the course of instruction at Alders to a fortnight.

Resolved: That a copy of the foregoing resolution be forwarded His Majesty's Secretary of State for War.

No. V/Gen. 1. No./4562. (A.M.D. 11.)

War Office, London, S.W.
20th November, 1903.

Sir,—With reference to your letter of the 21st July, 1903, I am direct by the Secretary of State for War to inform you for the information the Council of the British Medical Association that the question affording further facilities to volunteer medical officers to obtain t proficiency certificate is being considered with other proposals on t subject of courses of instruction for auxiliary forces.

I am, Sir, your obedient servant,
GUY FLEETWOOD WILSON.

The General Secretary,
British Medical Association,
429, Strand, W.C.

On the motion of the CHAIRMAN, seconded by Brigad Surgeon-Lieutenant-Colonel ELLISTON, the reply was receiv and entered on the minutes.

With regard to Militia Medical Officers, Surgeon-Lieutenan Colonel CURME reported that, in accordance with a recor mendation at the Committee meeting of July, 1903, Surgeo Colonel Coombs wrote to a member of the War Commissio received a reply, and is summoned to give evidence before t Commission on January 13th. Surgeon-Lieutenant-Colon Curme, under these circumstances, proposes to await resul before asking the Committee to take any action.

SCOTTISH COMMITTEE.

A MEETING of the Scottish Committee was held at the Static Hotel Perth, on November 20th, 1903, when there we present Dr. Bruce Goff (Chairman) in the chair, Dr. Cochra Buist, Dr. Balfour Graham, Dr. H. M. W. Gray, Mr. G. Halle Dr. Hamilton, Dr. Munro Moir, Dr. J. E. Moorhouse, D James Murray, Dr. Maxwell Ross, Dr. W. A. Taylor.

ELECTION OF CHAIRMAN.

It was resolved that Dr. Bruce Goff be appointed Chairman of the Committee.

ELECTION OF SECRETARY.

It was resolved that Dr. Buist be appointed Secretary to the Committee.

RESOLUTIONS.

The following resolutions were adopted:

That having considered the remit on the matter of the nomination and support by the Brirish Medical Association of candidates for the office of Direct Representative for Scotland on the General Medical Council, the Committee unanimously recommends that the Association take no action.

That the Committee recommends the Council to remit to the Scottish Divisions the question whether it is advisable that a consultation take place between the medical witnesses on both sides engaged in any legal case.

That the Council be recommended to take action to secure that in criminal cases medical representatives of the defence be permitted to be present, though not to interfere, at the official autopsies.

A letter was read from the Medical Secretary and the following resolution adopted:

That ethical matters should be considered in the first instance by the local Division Committee or Branch Council, and that no comments should appear in the Association JOURNAL until the question has been reported on locally.

It was proposed by Dr. MAXWELL ROSS and seconded by Dr. MURRAY:

That the Committee recommends the Council to consider the advisability of issuing a circular letter to the press generally as to the undesirability of inserting paragraphs regarding medical practitioners which may seem to be of the nature of advertising them.

The previous question was proposed by Dr. MOORHOUSE, and on a division was carried by 5 to 4. The motion was lost.

The following resolution was also adopted:

That the Committee is strongly of opinion that security of tenure and superannuation are necessary for the efficiency of the Public Health, Poor Law, and Vaccination Services, and requests the Scottish representatives to state this view to the joint meeting of the Medico-Political and Public Health Committees.

The Committee approved generally of the suggested proposals for amendment of the Death Registration Acts, and determined that the arrangement of future meetings should be left to the Chairman and Secretary, but that no meeting be called on a Saturday.

COLONIAL COMMITTEE.

By a resolution of the Council this Committee consists of Dr. J. Groves and Mr. Edmund Owen, together with five members to be appointed by the representatives of the Colonial Branches on the Council. The Colonial representatives met and elected the following to serve on the Committee: Brigade-Surgeon-Lieutenant-Colonel E. F. Drake-Brockman, Mr. James Cantlie. Dr. C. G. Gooding, Sir Francis Lovell, K.C.M.G., and Dr. C. G. Drummond Morier.

A meeting of the Committee was held on November 4th, 1903. when there were present Mr. Edmund Owen, Dr. T. D. Griffiths (President), Mr. Andrew Clark (Chairman of Council), Mr. James Cantlie, Dr. C. G. Gooding, Dr. J. Groves, and Dr. C. G. Drummond Morier.

ELECTION OF CHAIRMAN.

Mr. Edmund Owen was appointed Chairman of the Committee for the ensuing twelve months.

SUPERNUMERARY MEMBERS.

It was resolved to request the Council to empower the Committee to elect as supernumerary members any Colonial members of the Association who happened to be in Great Britain. [See also pp. 16, 17.]

SCIENTIFIC GRANTS COMMITTEE.

A MEETING of the Scientific Grants Committee was held on January 13th, 1904, when there were present: Mr. Andrew Clark (Chairman of Council), in the chair, Dr. T. D. Griffiths (President). Dr. James Barr, Dr. Wm. Collier, Mr. H. Betham Robinson, M.S., Professor R. Saundby, Professor E. H. Starling, F.R.S.

ELECTION OF CHAIRMAN.

It was moved by the PRESIDENT, seconded by Professor SAUNDBY, and resolved:

That the Chairman of Council be appointed Chairman of the Committee.

RESEARCH SCHOLAR.

The CHAIRMAN reported that the applications which had been received for the unexpired portion of research scholarship rendered vacant by the resignation of Dr. George A. Watson, and the Committee resolved to recommend that Dr. John T. Hewetson be appointed to the vacant research scholarship for the unexpired term, namely, June next.

INSPECTION.

The question of the inspection of scholars' work was considered in accordance with the following resolution passed by the Scientific Grants Committee on October 2nd, 1902:

That the scholars' work be subject to inspection, and the actual out-of-pocket expenses of such inspection shall be borne by the Association. Further, that the Committee meet in January in each year to direct the necessary steps to be taken.

The Committee resolved:

That the Chairman of Council and Professor Starling, F.R.S., be appointed a subcommittee with full powers to carry out the foregoing resolution relating to the inspection of scholars and grantees and to report to the next meeting of the Committee.

ORGANIZATION COMMITTEE.

A MEETING of the Organization Committee was held on November 10th, 1903, when there were present: Mr. T. Jenner Verrall, in the chair, Dr. T. D. Griffiths (President), Mr. Andrew Clark (Chairman of Council), Dr. E. Markham Skerritt (Treasurer), Mr. H. A. Ballance, Dr. S. Crawshaw, Dr. J. C. McVail, Professor J. T. J. Morrison, Professor A. H. White.

The MEDICAL SECRETARY reported on his visits to meetings of certain Divisions and stated that he had engagements during the next month to attend meetings of other Divisions.

RULES OF DIVISIONS AND BRANCHES.

It was resolved:

That the Council be recommended to approve the rules of the following Branch and Divisions: North Wales and Shropshire Branch; Denbigh and Flint, North Carnarvon and Anglesea, South Carnarvon and Merioneth, Shropshire, and Tyneside Divisions; and a new rule of the Dorset and West Hants Branch relative to sponsors for candidates for membership.

BOUNDARIES OF DIVISIONS AND BRANCHES.

A proposal to include Walsall in the Central (Birmingham) Division was considered, and it was resolved:

That if the Birmingham Branch agrees to the desire of the Walsall members that they should be included in the Birmingham Central Division, the Committee hereby expresses its approval of such arrangement.

A petition from the Isle of Man Division asking to be made a separate Branch, and an expression of opinion from the Lancashire and Cheshire Branch thereon, were considered, and a communication was directed to be addressed to the Isle of Man Division.

A communication from the Wandsworth Division asking that the name of the Division should be changed to "South-West London Division" was deferred until the opinion of the Metropolitan Counties Branch could be obtained.

BRANCH AND DIVISION FINANCE.

The consideration of certain matters affecting the financial arrangements of Branches and Divisions deferred from the meeting of October 13th was resumed. An opinion furnished by the Solicitor to the Association was submitted, and Mr. Hempson attended for the purpose of advising the Committee. After discussion it was resolved:

That the Chairman, the Solicitor, and the Secretary be instructed to prepare a statement embodying the purport of Mr. Hempson's opinion to be circulated to the Secretaries of Divisions and Branches.

It was further resolved:

That the Organizing Secretary write to the Branch which raised the question of giving an honorarium to a Branch Secretary pointing out that the propriety of any given payment, whether by way of honorarium or otherwise, rests upon the interpretation of Clause 4 of the Memorandum of Association, read in conjunction with the Articles of Association and By-laws, and that the Committee cannot reply on any individual case without knowing the specific circumstances under which the payment is proposed to be made.

In reply to questions Mr. HEMPSON expressed the opinion (1) that By-law 8 contemplated that the Council should pre-

scribe in advance the particulars which the Branches and Divisions should furnish in the financial statement to be rendered annually. (2) With respect to the interpretation of the provision of By-law 16, that each Branch "shall pay to each Division of the Branch such sum per member as the Branch Council may consider necessary to defray the expenses of the Divisions," Mr. Hempson advised that in his opinion it was not obligatory upon a Branch Council to make the same capitation grant to each of its Divisions, but that it might make in the same year different grants per head to different Divisions, and might also from year to year vary the amount granted to each according to what such Branch Council might deem necessary to enable each Division adequately to carry out the objects of the Association within its area.

The Committee adopted the following resolutions:

That in the opinion of the Committee it is desirable that in conveying to Divisions and Branches the requirements of the Council under By-law 8, a model tabulated form be supplied to be suggested as convenient for use by Division and Branch Secretaries in preparing the necessary financial statement.

That the reply of the Solicitor as to the interpretation of By-law 16 be communicated to Divisions and Branches together with the other replies which are to be circulated by instruction of the Council.

AMENDMENT OF ARTICLES AND BY-LAWS.

The following instruction of the Council to the Committee was then dealt with:

That the Organization Committee be instructed to consider and report to the Council upon such amendments of the Articles and By-laws as it may be deemed expedient to submit to the next General and Representative Meetings.

The Committee appointed the Chairman and Secretary a subcommittee to draft, with the assistance of the Solicitor, amendments of the Articles and By-laws for submission to the next meeting.

COLONIAL BRANCHES.

In consequence of a resolution of the Council referring to the Committee the question of grouping Colonial Branches for representation on the Council, members of the Colonial Committee attended, and a memorandum was laid before the Committee showing the membership of the Colonial Branches, the representation thereof proposed by the Colonial Committee, the representation which would result from an approximately proportional system of allotting one representative for about 200 members, and the present proportional representation of the United Kingdom Branches.

The further consideration of the memorandum was deferred until the next meeting, and the Medical Secretary was instructed to draw up a draft report thereon.

A FURTHER meeting of the Organization Committee was held on December 8th, 1903, when there were present Mr. T. Jenner Verrall in the chair, Mr. Andrew Clark (Chairman of Council), Mr. H. A. Ballance, Dr. S. Crawshaw, Dr. J. C. McVail, Professor J. T. J. Morrison, Professor A. H. White.

The MEDICAL SECRETARY reported as to Division meetings which he had attended.

PROPOSED CONFERENCE OF SECRETARIES.

A suggestion made by Dr. W. J. Greer, Honorary Secretary of the Monmouthshire Division, that it would be useful to hold occasionally a conference of Division and Branch Secretaries to consider matters of administration was considered. The Committee directed Dr. Greer to be informed that while not adverse to the principle, it thought that the time was not ripe for carrying it into effect.

RULES OF DIVISIONS AND BRANCHES.

The Committee resolved to recommend the Council to approve the rules of the Cleveland Division, Glasgow (North West) Division, Aberdeen Branch, and Edinburgh Branch.

BOUNDARIES OF DIVISIONS AND BRANCHES.

A communication from the Metropolitan Counties Branch Council was considered, stating:

That the question of the boundaries of Divisions throughout the Branch had been under consideration by a Subcommittee composed of the Secretaries of all Divisions of the Branch, who had recommended certain changes, and that the Branch Council had approved, and requested the Council of the Association to approve.

The scheme, as finally approved by the Council on January 20th, was as follows:

Divisions of the Metropolitan Counties Branch.

1. CITY.—To include the Boroughs of Shoreditch, Bethnal Green, City, Finsbury, Stoke Newington, and Hackney, with Stamford Hill included.
2. STRATFORD.—To include the Boroughs of Stepney, East and West Ham, and Poplar, with Ilford and Romford.
3. WALTHAMSTOW.—To include Walthamstow, Chingford, Leyton, Leytonstone, Snaresbrook, Wanstead and Woodford, to Chipping Ongar on the Great Eastern Railway.
4. ST. PANCRAS.—To include the Boroughs of Islington, Highgate, and St. Pancras.
5. HAMPSTEAD.—To include the Borough of Hampstead, and districts of Radlett, Elstree, Edgware, Hendon, Kilburn, Wembley, Willesden, Finchley, Mill Hill, and Totteridge.
6. TOTTENHAM.—To include Tottenham, Edmonton, Ponder's End, Enfield, Waltham Abbey, Cheshunt, Seven Sisters, Wood Green, Harringay Park, Hornsey, and Barnet.
7. WATFORD and WILLESDEN.—To include Chesham, Amersham, Rickmansworth, Chorley Wood, Watford, Pinner, Harrow, Bushey, Stanmore, Aldenham.
8. EALING.—To include Acton, Ealing, Hanwell, Hayes, Southall, Uxbridge, West Drayton, Colnbrook, Osterley, Hounslow, Brentford, extending east to the boundary of the County of London north of the River Thames, and north on the boundary of the County of London as far as the boundary of Division, thus including Bedford Park, Turnham Green, and Chiswick.
9. MARYLEBONE.—To include the Borough of Marylebone.
10. WESTMINSTER.—To include the Boroughs of Holborn and Westminster.
11. KENSINGTON.—To include Kensington, Hammersmith, and Paddington.
12. CHELSEA.—To include the Boroughs of Chelsea and Fulham.
13. RICHMOND.—To include the whole of the Parliamentary Division of Kingston, with Richmond, Barnes, and Mortlake.
14. WANDSWORTH.—To include the Borough of Wandsworth (except Streatham), the Borough of Battersea, and Wimbledon and Merton.
15. LAMBETH.—To include the Borough of Lambeth (except Tulse Hill and Norwood), together with Southwark and Bermondsey, Camberwell and Peckham.

It was resolved:

That the Divisions, and boundaries thereof, in the area of the Metropolitan Counties Branch be henceforth as proposed in the scheme submitted to the Council by the Metropolitan Counties Branch Council, subject to the following reservations: (*a*) those changes only are approved, at present, which do not affect the boundaries of the Branch; (*b*) the boundary between the Hampstead and Watford Divisions remains for the present unaltered.

The Council was recommended in accordance with the wishes of the members concerned to approve the suggestion that the Alnwick and Berwick Divisions should henceforth form one Division, to be called the North Northumberland Division.

COLONIAL BRANCHES.

The following report on the proposed grouping of Colonial Branches, prepared in accordance with instructions, was adopted by the Committee:

REPORT OF THE ORGANIZATION COMMITTEE AS TO THE REPRESENTATION OF THE COLONIAL BRANCHES ON THE COUNCIL OF THE BRITISH MEDICAL ASSOCIATION.

The Organization Committee has considered the matters referred to it under the following instruction of the Council:

That before deciding upon the grouping of the Colonial Branches for representation on the Council, the matter be referred to the Organization Committee,

and has had before it—

(*a*) The By-laws relative to the subject, especially the following provisions:

From By-law 21: "The grouping of Branches not within the United Kingdom for the purpose of electing members of the Council shall be determined by the Council, provided that the total number of members of Council whom such Branches are entitled to elect shall not be less in proportion to the total membership thereof than those elected by the Branches in the United Kingdom."

From By-law 25: "The eligibility for election as a member of Council by a Branch not in the United Kingdom shall be such as may be determined by the rules of the said Branch."

(*b*) The recommendations of the Colonial Committee in connexion with which the instruction was given, as appended:

At a meeting of the Colonial Subcommittee, held at the Office of the Association, 429, Strand, on Monday, May 11th, 1903, to consider the question of grouping Colonial Branches for the purpose of representation on the 1904-5 Council, there were present; Mr. J. Cantlie, Brigade-Surgeon-Lieutenant-Colonel Drake-Brockman, Sir Francis Lovell, C.M.G., Dr. C. D. G. Morier. The Chairman of Council was unable to be present.

It was resolved that the following grouping should be recommended for adoption:

CANADA	Montreal Branch	1 Representative.
	Halifax and Nova Scotia Branch	
	Bermuda Branch	
	Toronto Branch	1 "
	Manitoba Branch	
	British Columbia Branch	

AUSTRALASIA ...	Western Australia Branch ...	1 Representative.
	Sydney and New South Wales Branch...	2 ,,
	Adelaide and South Australia Branch...	1 ,,
	Melbourne and Victoria Branch	1 ,,
	Brisbane and Queensland Branch	1 ,,
	New Zealand Branch	1 ,,
WEST INDIES ...	Jamaica, Trinidad, Leeward Islands, and British Guiana Branch	1 ,,
INDIA	North-West Provinces, Oudh, Bombay, and Punjab Branch ...	1 ,,
	Bengal and Burmah Branch ...	1 ,,
	South India and Madras, and Deccan Branch	1 ,,
	Colombo and Ceylon Branch ...	1 ,,
THE FAR EAST...	Malaya, Hong Kong, and China Branch...	1 ,,
SOUTH AFRICA...	Cape of Good Hope Branch ... Grahamstown Branch	1 ,,
	Griqualand West Branch (including Orange River Colony and Transvaal)	1 ,,
	Natal Branch	1 ,,
MEDITERRANEAN	Malta Branch ... ... Gibraltar Branch	1 ,,

(*c*) A table, also appended, showing the membership of the Colonial Branches and their representation on a basis of one representative to every 200 members approximately.

Memorandum as to Representation on Council of Colonial Branches.

Country.	Branch.	No. of Members.	Proposed by Colonial Committee.	Proportional (approximate) 1 to 200.
CANADA	Montreal	73	1	2
	Halifax and Nova Scotia...	75		
	Bermuda	8		
	Toronto	124	1	
	Manitoba	15		
	British Columbia	22		
	Total...	317	2	2
AUSTRALASIA ...	Sydney and New S. Wales	472	2	2
	Adelaide and South Australia...	126	1	1
	Western Australia... ...	56	1	—
	Melbourne and Victoria..	209	1	1
	Brisbane and Queensland	119	1	1
	New Zealand...	263	1	1
	Total...	1,245	7	6
WEST INDIES ...	Barbadoes	38	1	1
	Jamaica	53		
	Trinidad	31		
	Leeward Islands	17		
	British Guiana	34		
	Total...	173	1	1
INDIA	Bombay	81	1	2
	Punjab...	26		
	Bengal (no Branch) ..	50	—	
	Burmah	29	1	
	S. India and Madras ..	106	1	
	Colombo and Ceylon ...	121	1	
	Total...	413	4	2
THE FAR EAST ...	Malaya...	46	1	1
	Hong Kong and China ...	78		
	Total...	124	1	1
SOUTH AFRICA ..	Cape of Good Hope ...	142	1	2
	Grahamstown	35		
	Griqualand West (including Orange River Colony and Transvaal...	109	1	
	Natal	69	1	
	Total...	355	3	2
MEDITERRANEAN.	Malta	34	1	—
	Gibraltar	5		
	Total...	39	1	

Total number of proposed Representatives of Colonial Branches:
(*a*) Proposed by Colonial Committee = 19
(*b*) Proportional, 1 to 200 = 14

2,700 Members 19 Representatives = 142 per Representative
,, ,, 14 ,, = 193 ,, ,,
,, ,, 13 ,, = 207 ,, ,,
United Kingdom Branches 15,379 to 51 = 301 ,, ,,

The Committee has further had the advantage of a conference on the subject with members of the Colonial Committee.

After careful consideration of the whole matter the Organization Committee begs ro report as follows:

Report.

From By-law 21 it is clear that, in any grouping of the Colonial Branches for the purpose of electing members of the Central Council that may be deemed necessary or expedient, the Council is bound to provide that the Colonial Branches shall at least not be under-represented on the Council in comparison with the United Kingdom Branches. Thus if the United Kingdom members were 15,000, the United Kingdom members of Council 50, and the Colonial members 2,700, the Colonial members of Council must be 9 at least. The Council is free to allot such larger number of Colonial Representatives as may be deemed advisable to the general interest of the Association.

The reasons urged in favour of a disproportionately large Colonial representation on the Council are (1) the great extent of many Colonial Branches and the distances between their principal centres, making it impossible for practitioners, even in adjacent Colonies, to have such community of interests as will render it possible for those in each Colony of a group to be adequately represented by the same member of Council. (2) The great distance of most Colonial Branches from the meeting place of the Council and the consequent difficulty in obtaining Representatives who can attend with regularity. (3) That, therefore, even though a disproportionately large measure of representation were granted to the Colonial Branches, such Representatives could not attend in sufficient numbers to increase unduly the size of the Council, or give to Colonial Branches undue weight in its deliberations.

In applying these considerations to practice it seems necessary to observe that the first, if logically applied, would lead practically to independent representation of every Colonial Branch however small. This, however, does not appear to be proposed by any one. For instance, it is proposed by the Colonial Committee to group Montreal with Nova Scotia, and British Columbia with Manitoba and Toronto. Such an arrangement is not obviously less objectionable, on the grounds now under consideration, to the members of those Branches than it would be for the members of the West Australian Branch, for example, to be represented on the Council by the same representative as South Australia, or for Madras and Ceylon to be grouped.

The question on which the Committee is asked to report is, therefore, essentially one of degree, of arrival at a basis of representation which shall afford a fair compromise between the extreme of strict proportional representation and the extreme of representation of every Branch independently.

The second and third reasons assigned in favour of considerable over-representation of Colonial Branches appear to be subject to this qualification, that the difficulty of finding representatives is conditional on the restriction which the Colonial Branches may choose to impose upon themselves by such rules, if any, as they may adopt in pursuance of By-law 25. It is observed that those Colonial Branches which have adopted rules, and submitted the same for consideration of the Central Council, do not appear as yet to have made any provisions under this head. It is gathered, however, from members of the Colonial Committee that, in their belief, Colonial Branches would not feel themselves adequately represented by, and would not in practice elect, any but Colonial members having an intimate recent acquaintance with Colonial conditions.

If Colonial Branches were to restrict their choice of representatives to those who have been members of such Branches within a comparatively recent period, it is not probable that there would be any effective over representation of the Colonial Branches beyond the degree that the Council would consider desirable; but if the Colonial Branches should elect as representatives English practitioners who had only a remote connexion with such colonies, and whose domicile and interests were essentially English, the membership of the Council would be considerably increased, and its decisions might be considerably influenced by the practitioners thus selected on grounds having no special connexion with the interests of the Colonial Branches.

It appears, therefore, to the Organization Committee that the decision of the matter by the Council would be facilitated if it had the advantage of having before it rules adopted by the Colonial Branches with reference to the qualifications as to membership which they will require in those whom they elect as their Representatives on the Central Council, and the Committee would recommend, as one course

open to the Council, that no attempt be made for the present to decide the grouping of the Colonial Branches; that the Colonial Branches be requested to consider the adoption of rules in pursuance of By-law 25, a draft rule being suggested by the Council to provide for the qualification of Representatives of grouped Branches; and that the Council give notice that it will renew for the year 1904-5 the resolution of the Council of April 22nd, 1903, with respect to Colonial representation—namely:

> Resolved: That it be recommended that for the year 1903-4 the Council accept the Representatives of those Colonial Branches making a return.

As an alternative course the Committee would recommend that the Colonial Branches be allotted Representatives in the proportion, approximately, of one for every 200 members, and that they be grouped in the manner which shall appear most convenient to them consistently with this basis.

It appears to the Organization Committee desirable that in connexion with the question of the election of members of Council, the attention of the Colonial Branches be drawn to the fact that the Council is essentially an executive body, and that the Representative governing body of the Association under the present Constitution is the Representative Meeting; and that, therefore, the Colonial Branches be requested to take into consideration the possibility of sending representatives to the next annual Representative Meeting, and to point out to the Council any difficulties in the way of doing so which in their opinion can be overcome.

In this connexion the Committee would draw the attention of the Council to the following extracts from the Report of the Constitution Committee as approved by the annual general meeting at Cheltenham, and would suggest that the consideration of the present question indicates that it would be advantageous for the whole subject of the adaptation of the present Constitution to the special requirements of the Colonial Branches to be taken into consideration in a comprehensive manner, either by the Colonial Committee, or by a larger body composed of the representatives of all Colonial Branches on the Council together with a proportionate number of representatives of the Central Council.

In the report on grouping of Colonial Branches, the Committee recommends either:—(*a*) That no attempt be made for the present to decide the grouping of the Colonial Branches: that the Colonial Branches be requested to consider the adoption of rules in pursuance of By-law 25, a draft rule being suggested by the Council to provide for the qualification of Representatives of grouped Branches; and that the Council give notice that it will renew for the year 1904-5 the resolution of the Council of April 22nd, 1903, with respect to Colonial representation, namely:

> Rasolved: That it be recommeuded that for the year 1903-4 the Council accept the Representatives of those Colonial Branches making a return;

Or:—(*b*) That the Colonial Branches be allotted Representatives in the proportion, approximately, of one for every 200 members, and that they be grouped in the manner which shall appear convenient to them consistently with this basis.

The Committee also recommends, (*c*) that in connexion with the question of the election of members of Council, the attention of the Colonial Branches be drawn to the fact that the Council is essentially an executive body, and that the representative governing body of the Association under the present Constitution is the RepresentativeMeeting: and that, therefore, the Colonial Branches be requested to take into consideration the possibility of sending representatives to the next Annual Representative Meeting, and to point out to the Council any difficulties in the way of doing so, which in their opinion can be overcome.

And (*d*), that the whole subject of the adaptation of the present Constitution to the special requirements of the Colonial Branches be taken into consideration in a comprehensive manner, either by the Colonial Committee, or by a larger body composed of the representatives of all Colonial Branches on the Council together with a proportionate number of representatives of the Central Council.

AMENDMENT OF ARTICLES AND BY-LAWS.

Certain amendments of articles and by-laws drafted by the Chairman and Secretary, with the assistance of the Solicitor, in accordance with the instructions of the previous meeting of the Committee were considered, and Mr. Hempson attended to advise the Committee:

Professor WHITE proposed that Article XXVII be amended so as to provide that a constituency composed of grouped Divisions in the United Kingdom may have the same option as Branches not in the United Kingdom, to elect its Representative by voting papers, instead of in a meeting of the constituency, if preferred.

This, on being put to the vote, was defeated by 5 to 1.

The Medical Secretary was instructed to prepare a report, to be laid before the Committee at its next meeting, showing the number of Divisions that would be enfranchised by lowering the limit for independent representation from 50 to 40, and also the number that would be enfranchized by lowering the limit to 30.

The Committee resolved to present the following interim report to the Council, recommending that the Council should bring before the next Annual Representative Meeting the following amendments of By-laws and proposed new By-laws:

AMENDMENTS OF BY-LAWS.

1. In By-law 32 add at the end: "In addition to the report hereinbefore named the Council shall have power to present to any Annual Representative Meeting such further report or reports as it may deem advisable, and such report or reports shall be pnblished in the JOURNAL if time permits."

2. In By-law 20, Section C, delete the words "elected by the members of the Association attached," etc., down to and including the words "sanction of the Council," and insert in place thereof the words "and of one member each of the Royal Naval Medical Service, the Army Medical Service, and the Indian Medical Service, annually appointed by the Council to represent the said service respectively on the Council."

3 (New By-law). In the month of May in each year a list of members of the Association shall be prepared and published showing the ordinary membership of each Division and Branch as shown by the register of members of the Association on April 30th of that year, and those named in the said list as members of any Division or Branch shall be deemed to be the ordinary members of such Division and Branch for the purpose of Article XXVII, By-law 18, By-laws 21 and 22, and By-law 7.

4. Insert at the end of By-law 15 the following words: "For the purposes of this By-law those named in the annual list of members, prepared in May in any year, as members of any Branch, shall be deemed to be members of the said Branch for the said year, and those elected by any Branch Council whose membership dates from July 1st in any year shall be deemed to be members of the said Branch for the ensuing half year."

5. In By-law 2: Delete the words "one month" and substitute the words "seven days (or such longer period as the Branch may by its rules prescribe)."

6 (New By-law). The powers conferred under Article XXX upon any constituency to appoint a substitute in the place of a representative unable or unwilling to attend a Representative Meeting, shall be exercised by the said constituency in General Meeting, or by such officer or member of the Division or Divisions composing the constituency as shall have been authorized by the rules of the said Division or Divisions, or by a resolution of the said constituency, to exercise such powers.

7. That those provisions in the By-laws which were inserted at the time of the adoption of the new regulations in order to provide for temporary conditions, and are now no longer required, be deleted, namely: From By-law 10 delete Section (*a*) and the words in Section (*b*) "at any time after the 1st January, 1903"; Section (*b*) to become (*a*), and (*c*) to become (*b*). From By-law 20 delete Sections (*a*) and (*b*) and the words in Section (*c*) "after the first day of the Annual Meeting of 1903;" delete also the letter (*c*).

JOURNAL AND FINANCE COMMITTEE.

A SPECIAL meeting of the Journal and Finance Committee was held on November 20th, 1903, when there were present Mr. Andrew Clark (Chairman of Council) in the chair, Dr. T. D. Griffiths (President), Sir Victor Horsley, F.R.S. (Chairman of Representative Meeting), Dr. E. Markham Skerritt (Treasurer), Dr. James Barr, Dr. H. Langley Browne, Dr. H. Radcliffe Crocker, Dr. J. H. Galton, Mr. W. Jones Morris, Mr. C. H. W. Parkinson, Dr. F. M. Pope, Dr. Norman Walker. The meeting was called for the purpose of receiving the recommendation of the Subcommittee regarding the election of an Assistant Secretary. The Committee had before it three names, and after a ballot Mr. Arthur H. Lawford was found to have been elected, and was accordingly recommended for the appointment of Assistant Secretary on pro-

ion for a period of six months at a salary of £250 per um.

EETING of the Journal and Finance Committee was held January 20th, 1904, when there were present Mr. Andrew rk (Chairman of Council) in the chair, Dr. T. D. Griffiths esident), Sir Victor Horsley, F.R.S. (Chairman of Repretative Meeting), Dr. E. Markham Skerritt (Treasurer), Dr. ar Barnes, Dr. James Barr, Dr. H. Radcliffe Crocker, Dr. I. Galton, Mr. W. Jones Morris, Mr. C. H. W. Parkinson, F. M. Pope, Dr. J. Roberts Thomson, Dr. Norman lker.

FINANCIAL.

he accounts for the quarter ending December 31st, 1903, e submitted and approved, and the Treasurer was inicted to pay those remaining unpaid. The auditor's report also received.

A POPULAR LECTURE AT THE ANNUAL MEETING.

he Committee recommended that a sum not exceeding be granted for the expenses attendant on the delivery of ee and popular lecture at the forthcoming annual meeting Oxford, in accordance with the resolution of Council sed October 21st, 1903.

ASSISTANT SECRETARY COMMITTEE.

s Committee was appointed to select candidates suitable the post of Assistant Secretary, and report to the Journal Finance Committee. It was also instructed to consider report on certain other matters relating to the organiza- of the office work. At a meeting on November 6th, 1903, as resolved to notify the vacancy in the office of Assistant retary at a salary of £250 per annum, and Sir Victor sley undertook to prepare a statement with regard to the nization of the office work.

further meeting was held on November 20th, when, after rviewing six candidates, the Subcommittee recommended e names to the Journal and Finance Committee.

further meeting was held on January 19th, 1904, when all members were present, namely: Mr. Andrew Clark (Chair- of Council) in the chair; Dr. T. D. Griffiths (President); Victor Horsley, F.R.S. (Chairman of Representative Meet- ; Dr. J. Barr; Dr. F. M. Pope; Dr. J. Roberts Thomson.

memorandum submitted by Sir Victor Horsley with rd to the working of the office of the British Medical ociation was considered, and the Committee adopted the wing resolutions:

at in future the title of Organizing Secretary be changed to dical Secretary."

at the work of the Public Health Committee be transferred to the cal Secretary.

NNUAL MEETING (SECTIONS) COMMITTEE.

EETING of the Annual Meeting (Sections) Committee was on Monday, December 7th, 1903, when there were ent: Professor R. Saundby, M.D., in the chair, Dr. T. Griffiths, (President), Mr. Andrew Clark, (Chairman of ncil), Dr. E. Markham Skerritt, (Treasurer), Dr. W. J. on, Dr. Norman Walker.

ELECTION OF CHAIRMAN.

was resolved that Professor Saundby be appointed irman.

ie Committee, after discussion, resolved to make the wing recommendations to the Council.

That a small standing Committee of the Council be ointed to supervise the work of the Sections, and to report ie Council at the April and July meetings.

That this Committee be authorized to write to the e-bearers in the various Sections and to obtain from them rmation respecting the progress of the Sectional arrangets in time for these reports.

That it be the duty of this Committee to afford all rmation and assistance to the officers of the Sections in ing their Sectional arrangements.

That the Memorandum for officers of Sections now ed by the General Secretary in future be sent out by Committee and be modified from time to time as ired.

PREMISES AND LIBRARY COMMITTEE.

EETING of the Premises and Library Committee was held anuary 19th, 1904, when there were present: Mr. Andrew k (Chairman of Council) in the chair, Dr. T. D. Griffiths (President), Dr. E. Markham Skeritt (Treasurer), Dr. Edgar Barnes, Dr. J. H. Galton, Dr. Bruce Goff, Dr. Holman, Dr. F. M. Pope.

The LIBRARIAN reported that there had been 1,448 attendances recorded during the quarter, as compared with 1,458 for the corresponding period of 1902. A complete set of the *Thèses de Lyon* for 1902-3, comprising 199 separate thèses and 127 of *Thèses de Paris* for 1903-4 had been received. The report also enumerated the books presented to the Libary.

Meetings of Branches and Divisions.

[*The proceedings of the Divisions and Branches of the Association relating to Scientific and Clinical Medicine, when reported by the Honorary Secretaries, are published in the body of the* JOURNAL.]

BATH AND BRISTOL BRANCH:

TROWBRIDGE DIVISION.

A MEETING of this Division was held on December 8th, 1903, at Trowbridge, Mr. G. C. TAYLER, President, in the chair. The meeting was attended by a large number of members of the Division and a number of visitors from neighbouring Divisions were present.

Paper.—Mr. ALBERT CARLESS, Surgeon to King's College Hospital, read a paper entitled Some Dangers and Difficulties in the Surgical Treatment of Appendicitis. A vote of thanks to Mr. Carless for his admirable and thoroughly practical paper was proposed by the PRESIDENT, seconded by Dr. FLEMMING, and supported by Drs. PEARSE, AMBROSE, and CAMPBELL. The meeting was the means of bringing a number of medical men together, who, although living comparatively near to each other, had not previously met. The hope was generally expressed that there should be many such meetings as a means tending to promote the more cordial relations of the profession.

Letters of Apology.—The Honorary Secretary, Dr. TUBB THOMAS, read letters of regret from a number of members who were unable to be present.

A Question of Ethics.—The action of the Honorary Secretary with regard to an ethical question concerning a member of the Division met with the approval and confirmation of the Division.

BIRMINGHAM BRANCH.

THE second ordinary meeting of the session was held in the Medical Institute, Edmund Street, Birmingham, on Thursday, November 12th, 1903, Mr. JORDAN LLOYD (President) in the chair. There were fifty-three members and one visitor present.

Confirmation of Minutes.—The minutes of the previous meeting were read, confirmed, and signed.

Inclusion of Walsall in the Central Division.—A communication signed by the majority of the members residing in Walsall having been read, it was resolved:

That, with the sanction of the Organization Committee on behalf of the Council of the Association, Walsall be included in the area of the Central Division of the Branch.

BORDER COUNTIES BRANCH.

WEST CUMBERLAND DIVISION.

AN ordinary meeting of this Division was held at Cockermouth on December 22nd, 1903. Dr. G. J. MURIEL was in the chair, and there were nine other members present.

The late Dr. Ormerod.—The following vote of condolence, proposed by the CHAIRMAN, and seconded by Mr. DUDGEON, was passed:

That this meeting of the members of the West Cumberland Division of the British Medical Association wish to express their sincere sympathy with Mrs. Ormerod and her family in their recent bereavement, and to record their own sense of loss by the death of one who has always taken an active interest in the welfare of the Association.

Next Meeting.—It was decided to hold the next meeting at Workington instead of Maryport, so as not to interfere with the arrangements of the Branch.

Communications.—Dr. J. R. BURNETT recorded a case of spina bifida with double equino-varus, and also one of middle-ear disease.—Dr. DUDGEON read notes and exhibited the specimen of an obscure kidney case.—Dr. FLETCHER showed a specimen of miscarriage at the seventh month, in which there had been a condition of placenta praevia, the whole mass coming away intact.—Dr. GOVAN showed a specimen of a monster which had been delivered prematurely.

Medical Acts Amendment Bill.—The Secretary read the report of the Subcommittee on the proposed Medical Acts Amendment Bill.—This was discussed, and on the motion of Dr. Burnett, seconded by Dr. Dodgson, the report was unanimously adopted.

BRISBANE AND QUEENSLAND BRANCH.

The annual meeting of this Branch was held on Friday, December 4th, 1903, at Brisbane, Dr. Hopkins (President) being in the chair.

Election of Officers.—The election of officers for 1904 was announced:—*President:* W. S. Byrne, M.B., M.R.C.P. *Vice-Presidents:* G. H. Hopkins, F.R.C.S., and W. N. Robertson, M.B. *Treasurer:* A. J. Turner, M.D. *Council:* J. Cameron, M.B., A. B. Carvosso, M.B., A. C. F. Halford, M.B., and D. Wield, M.A., M.D. *Curator of Library and Museum:* R. O'Brien, M.B. *Auditors:* M. Culpin, L.R.C.P. and S., J. Thomson, M.B. *Secretary:* A. B. Brockway.

Report of Council.—The Council's report and Treasurer's statement were read and adopted; the latter showed a credit balance of £91 8s. 5d.

Presidential Address.—Dr. Hopkins, the retiring President, read an address, and Dr. W. S. Byrne then took the chair.

Vote of Thanks.—A vote of thanks was passed to the retiring Council, coupled with the names of the President and Secretary, who replied, Dr. Hopkins making eulogistic reference to the work of the Hon. Curator, Dr. C. S. Hawkes.

LANCASHIRE AND CHESHIRE BRANCH:

Altrincham Division.

The quarterly meeting, being the fourth general meeting, was held at Altrincham on Thursday, November 19th, 1903.—Dr. C. J. Renshaw presided over a meeting which numbered 13 members, and one visitor (Dr. S. Woodcock, of Old Trafford). Six other members sent apologies for absence, and five members and one visitor (Dr. Helme, Branch Secretary), who had intended to be present, were unavoidably detained at the last moment.

Confirmation of Minutes.—The minutes of the last meeting were passed as correct.

Reports of Officers and Committees.—The Committee on Membership reported the issue of certain circulars as instructed.—The Honorary Secratary reported the loss of two members from the total strength, owing to removal.

Financial Statement.—A financial statement was submitted and received, showing a small excess of expenditure over income.

Matters Referred to Divisions.—Various items on the agenda were referred to the Committee, or postponed, in order to allow a discussion on the Medical Acts Amendment Bill. The resolutions of the Division have been duly communicated to the General Secretary.

Education Committee.—An offer was received from the Altrincham Education Committee to pay a fee of 1s. per certificate in cases of children absent from school on account of illness.—This was agreed to for children already receiving medical attendance, on condition the fee be raised to 2s. 6d. for children specially examined.

Dinner.—After the meeting a dinner was held at the Unicorn Hotel, where the Chairman and six members entertained Dr. Woodcock.

Blackpool Division.

A special general meeting of this Division was held on Wednesday, December 2nd, 1903, fourteen members being present.

Circular to Non-Members.—It was decided to issue a circular to medical men in the district not members of the Association, pointing out the advantage of membership under the new constitution.

Rules of the Division.—It was resolved:

That the rules of the Division be printed and a copy sent to each member.

Matters Referred to Divisions.—The meeting then considered the matters referred to the Divisions from the Swansea meeting and the Medical Acts Amendment Bill, and instructed the Honorary Secretary to convey the opinion of the Blackpool Division thereon to the General Secretary of the Association.

METROPOLITAN COUNTIES BRANCH:

Central Division.

A general meeting of the Central Division was held at the rooms of the Medical Society of London, Chandos Street, on Wednesday, December 16th, 1903, at 5 p.m., Professor Howard Marsh in the chair, for discussion of the Medical Acts Amendment Bill, the Vaccination Acts, and the representation of the British Medical Association upon the General Medical Council.

Matters Referred to Divisions.—The Draft Medical Acts Amendment Bill, the suggestions for the improvement of the Vaccination Acts, and the question of the representation of the British Medical Association on the General Medical Council, were considered, and the opinion of the meeting has been reported to the Medico-Political Committee.

Advertisements in the "British Medical Journal."—Dr. Seymour Taylor drew attention to the way in which advertisements were inserted in the British Medical Journal, more especially to the fact that certain advertisements were inserted in the centre of the paper among scientific papers. He strongly deprecated such abuse of the Journal, and proposed a motion, which was seconded by Dr. Dutton, that this method of inserting advertisements should be discontinued.—Dr. Heron supported Dr. Taylor, and took exception to the terms in which the advertisements had been written, and did not think that the Association should allow such misleading advertisements to be inserted in the Journal.—Mr. Andrew Clark pointed out that the Journal was bound so that the advertisements could be torn out, and drew the attention of the meeting to the fact that the only means by which the British Medical Association could do away its way was to insert these advertisements or raise the subscription of the members very considerably; also that the advertisements which were inserted in the middle of the Journal were very highly paid for.—Sir Victor Horsley pointed out that the greatest care was taken by the proper authorities with regard to what advertisements were inserted and that of course the British Medical Association was not in any way liable for the wording of them.—After some further remarks from Dr. O'Connor, Dr. Seymour Taylor withdrew his motion on Mr. Andrew Clark intimating that he would report to the Manager of the Journal and the Journal and Finance Committee the discussion that had taken place with respect to these advertisements.—It was then proposed by Dr. F. J. Smith, seconded, and carried unanimously, that Mr. Andrew Clark should report in addition that

This meeting is of opinion that it would be advisable to print in bold type, and in some prominent position of the Journal, a notice to the effect that the British Medical Association was not in any way responsible for the truth or otherwise of any of the statements inserted in its Journal.

—Mr. Andrew Clark promised to do this.

Hampstead Division.

A meeting of this Division was held at the Hampstead Conservatoire, Swiss Cottage, on Wednesday, December 2nd, 19[illegible]. Dr. Ford Anderson presided.

Confirmation of Minutes.—The minutes were read and confirmed.

Matters Referred to Divisions.—The report of the Executive Committee on the Draft Medical Acts Amendment Bill was received, the Bill was discussed at length, and the opinion of the meeting has been communicated to the Medico-Political Committee. The representation of the British Medical Association on the General Medical Council was referred to the Executive Committee for report in January.

Letters.—Letters were read from the Medical Secretary to the Association and from the Hampstead Health Society.

SOUTH-EASTERN BRANCH:

Chichester and Worthing Division.

A meeting of this Division was held at the Norfolk Hotel, Bognor, on November 20th, 1903. The chair was taken by Dr. J. C. Thorowgood, and there were present fourteen members and visitors.

Confirmation of Minutes.—The minutes of the last meeting were read and confirmed.

Next Meeting.—It was decided to hold the next meeting at Worthing.

Matters Referred to Divisions.—The consideration of the proposed Medical Act Amendment Bill was adjourned for consideration at the next meeting. The resolution passed by the Council with regard to improving the existing Vaccination Acts was discussed. The opinion of the meeting with regard to representation on the General Medical Council has been communicated to the Medico-Political Committee.

Dinner.—After the meeting the members dined together at the hotel.

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SUPPLEMENT

TO THE

BRITISH MEDICAL JOURNAL.

LONDON: SATURDAY, MARCH 19TH, 1904.

CONTENTS.

	Page.
MEDICAL ORGANIZATION. An Address by J. SMITH WHITAKER, L.R.C.P., M.R.C.S., Medical Secretary, British Medical Association. The Relation of the Association to Outside Societies.—The Manchester Conference.—Local Medical Societies and the Association.—Defective Organization.—The Remedy.—Reorganization of the Association.—The Action of the Association a Response to the Needs of the Profession.—Capabilities of Reorganized Association.—Social Union.—Scientific Work.—Medico-Political Work.—Want of Such Organization shown by Midwives Question.—Medico-Political Work not merely Selfish.—Machinery Required.—Local Problems.—Contract Practice.—Ethical Matters.—Divisions and Local Societies.—Questions for Consideration.—Medical Defence.—The Interest of the Profession.—The Interest of the Public.—The Members are the Association	21
MEETINGS OF BRANCHES AND DIVISIONS:	
Border Counties Branch	27
Colombo, Ceylon Branch	27
Grahamstown and Eastern Province, South Africa, Branch.—Special Meeting	28
Hong Kong and China Branch	28
Lancashire and Cheshire Branch: Altrincham Division ...	29
Malta and Mediterranean Branch	29
Metropolitan Counties Branch: St. Pancras Division	29
,, ,, ,, Tottenham Division	29
,, ,, ,, Wandsworth Division ...	29
North of England Branch...	29
South Wales and Monmouthshire Branch: Cardiff Division ...	30
,, ,, ,, Monmouthshire Division	30
Sydney and New South Wales Branch	30
Ulster Branch	31
Yorkshire Branch: Bradford Division	31
THE ASSOCIATION AND MEDICAL DEFENCE: THE MEDICAL DEFENCE COMMITTEE OF THE BRITISH MEDICAL ASSOCIATION.—The Scheme.—Explanatory Memorandum.—Minority Report.	31
MEDICAL EXAMINATIONS FOR LIFE ASSURANCE: REPORT.	33
THE LOCAL GOVERNMENT BOARD BILL	35
A BILL FOR THE REGISTRATION OF NURSES AND OF PRIVATE NURSING HOMES	36
A BILL TO REGULATE THE QUALIFICATION OF TRAINED NURSES AND TO PROVIDE FOR THEIR REGISTRATION	38
MEDICAL ACT (1886) AMENDMENT BILL	40
REVACCINATION BILL	40
A BILL TO AMEND THE VACCINATION ACTS	41
THE WEIGHTS AND MEASURES (METRIC SYSTEM) BILL ...	41
PHARMACY BILL	42
BRITISH MEDICAL ASSOCIATION: SEVENTY-SECOND ANNUAL MEETING	43
CONSULTATION BETWEEN MEDICAL WITNESSES	44
HYDROPATHIC ESTABLISHMENTS	44

An Address

ON

MEDICAL ORGANIZATION.

elivered before a Meeting of Medical Practitioners at Bradford.

BY J. SMITH WHITAKER, L.R.C.P., M.R.C.S.,

Medical Secretary, British Medical Association.

MEETING of the medical practitioners of Bradford and Dis-ict convened by the Bradford Division of the British edical Association and the Bradford and West Riding edico-Ethical Union was held at Bradford on Wednesday, bruary 17th, for the purpose of hearing an address as ove.

Dr. GOYDER, Chairman of the Bradford Division of the itish Medical Association, presided. The officers of the ighbouring Divisions of the Yorkshire Branch had been vited and several attended. There were about 80 present. . Metcalfe, Joint Honorary Secretary both of the Bradford vision and of the Medico-Ethical Union, mentioned the mes of several gentlemen who had written expressing eir regret at inability to be present.

MEDICAL ORGANIZATION.

Mr. WHITAKER expressed his appreciation of the privi-ge of being able to address a meeting not only of adford members of the British Medical Association, t representing the whole of the medical practitioners in at important centre. The fact that there were amongst his dience members of the Bradford Medico-Chirurgical and Medico-Ethical Associations would considerably smooth his way in dealing with certain points upon which he understood it was particularly desired that he should address the meeting.

The Relation of the Association to Outside Societies.

It had been his duty during the last eighteen months or so to address a good many meetings of medical practitioners upon the question of medical organization, and though at the beginning of that period he was desired to speak chiefly upon the nature of the new Constitution of the Association, the functions of its relative parts and so forth, it was not long before he began to find another series of questions becoming prominent. Medical men began to say to themselves, "This British Medical Association is going to do some work, and some work which other people have been doing. What is going to be the relation of this Association under its new constitution to those medical societies which have been doing certain work in the past?" Though he avoided alluding to the subject in his addresses, yet in the discussions which followed he had been asked again and again, "What can the British Medical Association do for the profession? Do we need these other societies if the British Medical Association is going to do this work?" Such were the questions which had arisen elsewhere, and such were the questions which it was particularly desired, he understood, that he should deal with that evening.

To go into that fairly, he must be, to some extent, retrospective. As medical men they all appreciated that they could not thoroughly master the facts of anatomy or physiology without a certain understanding of embryology. Similarly they could not understand the present position of medical organization unless they traced the development of medical organization.

The facts might be very familiar to some of them. A good deal had been published upon this subject in the BRITISH MEDICAL JOURNAL, and of course he took it for

granted that every one present who was a member of the British Medical Association read the JOURNAL through from cover to cover. But those who were not members would desire to know what the Association was proposing to do, and therefore he would ask the members to bear with him whilst he went somewhat closely into these matters. Further, some questions involved, which had given rise to some unpleasant feelings and some confusion, could only be mastered if they were studied in a proper perspective, and they would naturally get the proper perspective by studying the matter historically.

The Manchester Conference.

He would go back no further in the first instance than the year 1900. In that year certain feelings of discontent, both in the British Medical Association and in the ranks of the profession outside the Association, came to a focus. In May of that year a conference was held, at Manchester, of medical societies, in which the Bradford Medico-Ethical Society took part through its representative, Dr. Hime. The fundamental object of that conference was to study medical organization, and they spent three days over it. During the first two and a-half days they gave themselves a kind of object lesson. They considered the Midwives Bill, contract practice, death registration, the constitution of the General Medical Council, and all kinds of subjects, the only practical business outcome of these discussions being to enable them to realize what what could be done by a representative organization of the profession. There was a good deal of criticism in the medical journals upon the amount of time they had so spent. "Mere grievance mongering" one prominent journal called it, but in point of fact it was to them a valuable object lesson; and on the afternoon of the third day, after having thus prepared their minds, they grappled with the real subject, namely, what could be done to improve the state of medical organization, what kind of organization they would need, and how to go about getting it.

Local Medical Societies and the Association.

He drew attention to the fact that those present at that Conference chiefly represented local medical societies which had grown up during the ten or twenty years previous to the meeting. Sir Victor Horsley's recent analysis of the growth of local medical societies in this country showed the remarkable development of such societies which took place in the last twenty years of the last century. If they took the trouble to go into the history of that period they would find that many of these societies owed their being to the feeling that the existing powerful organizations of the profession were not doing all the work which the profession needed. Take the British Medical Association for example. He did not disparage the work which the British Medical Association had done in the past. He had never been one of those medical reformers who said everything was to be started anew, and that they were going to do something which had never been done before. If anybody would only take pains to study the matter fully he would find that the British Medical Association throughout its history had done a great deal of work for the profession. He referred them to the "Brief History of the Association" in the *Year Book* to show that its aims were never sectional, but generous from the foundation. It had high ideals and great aims—not selfish aims, but aims for the good of the medical profession. Sir Charles Hastings, in his inaugural address, stated as an object of the Association the improvement of the organization of the profession, pointing out that "This subject was closely connected with the advancement of science, for if the profession were organized as it ought to be the harmony which would be established could not fail to be the means of more cordial and efficient co-operation in extending the science and improving the practice of medicine."

The aims of the Association, then, had been generous, and even in its very early history they found that it had been able to exercise a considerable influence on the progress of medical legislation in this country.

Defective Organization.

At the same time there was a strong feeling amongst those who were gathered together at Manchester that the British Medical Association was failing in one particular, and through a single defect in its organization. He would take the example of the Yorkshire Branch. The Branch practically covered the county of York. The work of a society like the British Medical Association must largely be done by means of meetings, and the meetings would be successful and useful almost exactly in proportion to the extent to which their members attende If they had to draw medical practitioners for a meeting fro the whole of a large county like Yorkshire, how could th possibly have anything approaching a representative mee ing? They all knew that was impracticable. The defect th they could all see in the organization of the Association that time was that most of the Branches were too large carry on effectually the local work which such a society oug to be doing; that the British Medical Association was n drawing together sufficiently the medical practitioners in t various towns in the country—neighbours and colleagues wh ought to be co-operating for their own good and for the goo of the public; and therefore these various local societies ha been springing up for the purpose of doing this work whi the British Medical Association was failing to do.

That was one side of the matter. Then they turned examine the position of these local societies. Those who ha had experience of the working of such societies found th they were in many cases very united and harmonious, an felt that great benefit had been derived from them: that th creation of such societies had not only improved the conc tions of practice, but had made them better practitioners tha before, and had thus done good work for the profession an for the public, as well as for them individually. But on th other hand, they continually found themselves brought u short by their isolation. They felt the pressure of the fa that they had no effective central federation, and therefore n effective means of co-operating with other similar societi throughout the country for carrying out their common aim in regard to those things which could not be dealt with b purely local action.

The Remedy.

So they had before them the elements of the problem—o the one hand, local societies ineffective for anything bu purely local action because of want of central federation; o the other hand, the British Medical Association, a powerfu and influential organization, but ineffective for local purpose because it had not a satisfactory local organization. Th statement of the problem suggested the solution. It was evi dent that they must have for effective medical organizatio the basis of local societies, and they must have also a nationa or imperial federation of such societies. Dr. Crawshaw, th Secretary of the Manchester Conference, brought before ther three resolutions upon those lines—that an effective medica organization must rest upon the basis of local societies; tha there must be an annual conference of representatives of thes local societies, to bring their opinions to a focus; and that ther must be a council or executive, responsible to these represen tatives, to carry out what they wished to have done.

That was a practical organization. But then another pro blem arose, namely, whether they should try to create a new national organization of the medical profession, or should tr to make use of some existing agency. As practical politician they came to the conclusion that to create a new medica association in the United Kingdom was the work of a genera tion at least, and nothing in the desired direction would b done for the medical profession in their life time if they wer to attempt that task with the British Medical Associatio already in the field. Dr. Cox, of Gateshead, therefore pro posed and carried a resolution to the effect that the size an wealth and influence of the British Medical Association mad it the only satisfactory body to work through if they could ge it to reorganize itself upon the lines that they had already lai down as essential.

Reorganization of the Association.

Thus the outcome of the Conference was that they mus have a national organization based on local societies, an must endeavour to induce the British Medical Association t make itself such an organization. A Committee was ap pointed to carry on the work of the Conference, and by a fortunate coincidence, from the point of view of the Con ference, it happened that that same summer an agitation a to the powers of the Council, which had long been going o in the British Medical Association, also came to a focus Sir Victor Horsley carried in the annual meeting at Ipswich a resolution that a Committee should be appointed to con sider what amendments were necessary in the Constitution o the Association. A deputation from the Manchester Con ference having been permitted to lay its conclusions before the Council of the Association, three representatives of the Conference were included in the Committee which was ap pointed, a most representative Committee composed o twenty-six members of the Association. After the most

reful deliberation the Committee reported in favour of a heme of constitutional reform, embodying those principles nich the Manchester Conference had formulated; and after ll consideration by the Branches and by general meetings, w Articles and By-laws giving effect to that scheme were opted in July, 1902, and were now the Constitution of the ssociation.

The Action of the Association a Response to the Needs of the Profession.

The point which he particularly wished to impress upon em in connexion with that piece of history was that the mand for the British Medical Association to reorganize elf upon those particular lines arose from outside the sociation. It was a call from local medical societies to e Association to reorganize itself upon those lines which it as thought would be most beneficial to the profession. He id great stress upon that point because some appeared to tertain, in regard to the relation of the Association to al medical societies, what he could not but feel to be an just jealousy of the Association; as though the possible sorption of these medical societies into the Association re contemplated purely from the point of view of the grandizement of the Association and its own selfish interests. He thought they would see from the history which had given them that the object of the Association in its organization had been to do what it could to promote the lfare of the medical profession.

Capabilities of Reorganized Association.

Let them now look at the present Constitution of the sociation and see what work they believed it could do, mparing their local medical societies with a Bradford Division of the British Medical Association. The purposes which y local medical society could serve, or which a Division of e Association could serve, might be grouped under four ads—social, scientific, political, and ethical.

Social Union.

Social purposes were certainly not the least important. No eater bond of union existed among medical men than that ey should be drawn socially into friendly relations—into lowship—with one another. He knew from experience what was for medical men in one town to be brought together in medical society and acquire the habit of meeting; how ose petty jealousies and suspicions which existed among n who did not meet—the unfriendly feelings often resting tales of patients having no foundation in fact—melted ay as each became really acquainted with his colleagues. en in the largest centres he could not but think that one the first objects of medical union was union which could ve them in all sorts of ways but was also an end in itself, l that end they believed the Divisions could achieve.

Scientific Work.

n the second place, why should not the Divisions do the entific work of the profession? What was to hinder m? Did it really matter very much under what name the dford practitioners assembled for the discussion of matters t concerned them in their daily duties as practitioners? e men being the same and the work they met to do being same, the only questions to be considered were, not nes, but the distinct and specific advantages of one form organization over another. He was told, however, that re were difficulties as to libraries; he was told that there e questions of old societies having great traditions. Well, course the British Medical Association had great traditions ich were not quite of yesterday. As to the matter of raries, he thought he was free to say that those Divisions he Association that desired to establish libraries would ve every assistance that could be given by the central anization in establishing and carrying on these libraries, l the matter was now under consideration as to how such istance could most effectively be rendered. He might ntion one point which had been thought of. They had a ge library in London, and naturally a good many surplus ks accumulated. Grants of these surplus books had been de from time to time to various societies, but there was trong feeling that their own Divisions, if they chose to ablish libraries, had the first claim upon these books. re were financial difficulties about the establishment of raries, but these were difficulties of the kind which should raised only in order to see how they could be overcome, and these difficulties, he had no doubt, could be overcome with a little patient consideration.

Medico-Political Work.

Then he came to what many people, he was sorry to say, regarded as the sole object of the new Constitution. He did not belittle that object, because he thought that it was most important, but it was not the sole object—he meant the political work of the Association. This was a matter upon which both local societies and the British Medical Association had come to grief from time to time. To give them an example of how the central organization of the profession showed its weakness in the hour of trial he would mention the midwives question.

Want of such Organization shown by Midwives Question.

There was a long controversy in the profession. A certain number of medical men said there ought to be no registration of midwives. Some went as far so to say that there ought to be no midwives. They had again some who seemed prepared to register the midwives on almost any terms. But the point that he wanted to bring home to their minds was that to this day nobody knew what was the opinion of the medical profession upon the midwives question. Some said one thing and claimed to represent the profession; others said exactly the opposite and also claimed to represent the profession. Which of these did actually represent the profession? He doubted if they knew; certainly he did not know. His private opinion was that the opinion of the rank and file of the profession, if it could have been properly gathered up, would have been between these two extremes. It would have recognized certain practical needs and recognized also that certain practical precautions ought to be taken. But then they knew that the rank and file of the profession had no means of giving expression to their opinion, for no agency existed by which that opinion could be gathered up. So it came about that in the end Parliament legislated upon that subject, and the Midwives Act was adopted, but the medical profession, who ought to be the advisers of the community upon questions of public health, as being those who had first-hand knowledge of the facts, were not consulted, their opinion was not taken, because they had no coherent means of expressing their opinion. That was an object lesson with reference to political action in the profession.

Medico-Political Work not merely Selfish.

People talked as if medico-political action was a mere matter of what was called "trades unionism"; that all they had in view was the pecuniary interest of the present generation of medical practitioners; but he thought they would bear him out that really a mere consideration of the pecuniary interest of the present generation of practitioners would not carry them very far in any political questions affecting the profession. The medical profession by the very essence of its being must, to a great extent, be a self-sacrificing profession, taking broad and generous views of public needs. Above all other professions medical men were the servants of the community. The good of the medical profession and the good of the community must in the long run be identical. If they claimed that the conditions of medical practice should be improved in certain particulars, it was not merely the direct pecuniary interest of the individual practitioner that they looked at. How much for instance would they have put in their pocket by any particular legislation on the midwives question? What they looked at was the question, "Are the conditions of medical practice to be such that the practitioner must spend his life in arduous drudgery and be unable to give the best of his mind to the best aspects of his profession; that he is to be so exhausted by routine work as to have hardly time or energy to do his duty by his patients, certainly no time and no energy for the study of medical science and the advancement of medical knowledge"? These were the matters they were considering when they spoke of "the interests of the medical profession." They desired to see the conditions such that the medical practitioner should be able to earn a reasonable livelihood, and at the same time do his duty by his patients and by medical science; that the best men who had gifts for medical practice should be drawn into the profession, that a young man who was considering what career he should take up should not say "I am not going to be a doctor; it is a dog's life." It was in the interest of the community that the conditions of medical practice should be such that men who would be a credit to the profession, and

whose work would be to the good of the community, should be drawn into the ranks of the profession.

Machinery required.

But how were they going to bring medical opinion to a focus for purposes of that kind? The only two ways of doing it were indicated by the present Constitution of the British Medical Association, by forming opinion locally and gathering it up through a central organization. In the first place, they must have opinion formed in the way in which Englishmen did form opinion: that was to say, by free discussion. The foundation of opinion in this country was free discussion, and the way Englishmen carried on their political work was by meetings. Then for such work they must have meetings which members of the profession could easily attend, and this means the Association hoped it had provided for by the formation of the Divisions.

Local Problems.

These meetings would consider not only questions of national policy such as he had indicated, but also various local questions. For instance, it must from time to time happen that municipal problems arose which had a medical bearing. They knew how such questions were sometimes dealt with, how the opinion of a medical man, a member of a Town Council or Board of Guardians, would be taken as being the opinion of the profession. Of course, it was not the opinion of the profession but only the opinion of an individual. In one instance the medical man consulted replied that he had no authority to give an opinion for his colleagues, but suggested that the clerk of the local authority concerned should write to the secretary of the local medical society, and put to him the questions it was desired to have answered, and thus they would obtain an official answer which would really be the answer of the medical profession of the town. That seemed to him to be the way in which such an opinion should be expressed, in an authoritative way and not simply by the opinion of certain individuals, and the Divisions, if they included a sufficient proportion of the profession, could do such work for the profession.

Contract Practice.

Take, again, the great question of club or contract practice which was causing so much strife at present. That would be solved effectively in one way only, namely, by medical men setting themselves deliberately to consider the facts. First of all they must get at the facts. Were the rates which were paid for contract practice such as gave the medical man a sufficient remuneration for the work which he did? Was this practice subject to certain abuses, and could these abuses be remedied? He knew no way of getting an answer to these questions except by medical men meeting and discussing them amongst themselves and coming to their own conclusions. The problems of contract practice varied from town to town and village to village. There were different conditions in different districts; rates of wages and the conditions of workmen differed; the ordinary usages of medical practice differed in different districts. So that contract practice must be dealt with as a local question to a large extent; but the foundation of the study of the question must be free discussion to get at the facts, and that was the kind of thing which it was believed Divisions of the Association could promote. Then, when they had gathered up opinion in their own several local districts, some central agency was required to bring their opinion to a focus and get some kind of common national action, and in the Representative Meeting and the central executive of the Association they had effective agencies for these purposes.

Ethical Matters.

Lastly one came to what might be called the ethical work of the profession. That, of course, was a somewhat distasteful subject. It consisted very largely of finding fault, which was a thing that they desired to avoid if possible. At the same time they must bear in mind that the medical profession always had had a code of honour and a discipline of its own, and had always claimed for itself the right to judge its own members. It claimed for itself the right, if it considered that members of the profession had behaved in a way which was unbecoming, to refuse to recognize those individuals as members of the profession. He thought they would agree with him that if such powers were to be exercised it should be in a cautious, deliberate, and judicial manner; not in a haphazard manner, and not according to the whim of a few individuals. If a question arose whether the conduct of a particular medical practitioner had been unworthy of the honourable brotherhood to which he claimed to belong, the tribunal by which he was to be judged should be a tribunal of the whole body of his medical brethren in the district in which he practised. That was a sound principle surely. If there was no such arrangement they would not be able to prevent individual medical men from judging of the conduct of their colleagues and acting upon their judgement, an arbitrary judgment, with the probability that much injustice would result. Such work as that they believed the Divisions of the Association could very well do if they were made fully representative of the profession in the district as they should be. Many of these questions raised points of great difficulty upon which the local medical practitioners might feel some doubt in pronouncing a judgement of their own. In such cases the world-wide organization of the British Medical Association offered them an opportunity of having their problems considered practically by the whole profession, and the opinion and the action of the Division guided in that way.

Divisions and Local Societies.

Having thus seen how the Divisions could work and could co-operate through the central organization, let them consider the problem of the relationship of the Division of the British Medical Association and the purely local medical society. It had been suggested that there was an attempt on the part of the Association to coerce local medical societies. There was nothing of the kind. The matter was entirely one for the members of local medical societies themselves. It was for them to judge to what extent they cared to devote their energies to carrying on two or three societies if they were of opinion that one society could do the whole of the work. If they thought that they needed two, three, four, or six societies by all means have them.

Questions for Consideration.

He only asked them to consider these points. If they had so many societies they had to find officers to staff them, and so far as he could perceive the number of men in any district who would be found willing to give the time and energy, and who were efficient officers, was strictly limited. In the second place, if through that multiplication of societies they had so many sets of meetings carried on instead of having meetings of one strong society, there would not be such good attendances at the meetings. Again, if they had so many societies they would have small jealousies arising between one society and another, and men would take advantage of these jealousies, some to remain attached to one society and some to another, and so they fostered that kind of cliqueism which was the death of medical union. What he suggested for their consideration was that, as a matter of efficiency, it was better to have one strong society than several societies less strong. He suggested, again, that if they came to the conclusion that one society could do the work they would then consider which it should be—a purely local society whose efforts must practically end with itself, or the Division of the British Medical Association, which not only was able to do all the local work which they wanted to have done, but also had a central organization which enabled it to carry its work to a more complete issue than any purely local society could expect. They would observe that there was no suggestion of coercion in all that. He simply tried to put the facts before them and asked them to consider these facts for themselves, and—not to-day, to-morrow, next week, or next month—at some time in the future, at their own discretion, to come calmly and deliberately to a conclusion as to whether it was necessary for Bradford to have more than one society to carry on the social, scientific, political, and ethical work of the profession.

Medical Defence.

This question of separate societies arose in another connexion just now. They might be aware that a Committee had been appointed by the British Medical Association to consider whether the Association should undertake medical defence, and had prepared a report, which they would find in the SUPPLEMENT of the BRITISH MEDICAL JOURNAL for January 30th. That report was about to be sent down to the Divisions of the Association for consideration, and they would be asked to express an opinion whether the Association should establish a medical defence department. Of course, at once there arose a question of the position of the very successful medical defence societies which were already at work,

and he suggested that they should consider that problem in exactly the same way as he had asked them to consider the purely local problem. Let them ask themselves whether there was any really tangible reason why the British Medical Association, through a medical defence department, should not be able to do the work of medical defence equally as well as the existing medical defence societies. There was nothing to prevent those who had shown conspicuous ability in the work of medical defence in connexion with the existing societies from doing exactly the same work on behalf of the British Medical Association. If they were satisfied that the British Medical Association could do the work, the question next arose for what reasons they needed separate societies for the purpose. Had the separate society any real advantage over the Association? and had it not the disadvantage, which he had already laid before them, of tending to division of interests and waste of energy in the profession?

The Interest of the Profession.

They came back at last to the point that they started from, the interest of the medical profession. Medical societies existed for the profession and not the profession for societies. It was as true of societies as it was of individuals, that "It is not all of life to live nor all of death to die." If the work of a society could be done effectively without that society, why should the existence of that society be continued? There was a tendency for the existence of a society to come to be an end in itself instead of the means to an end, and that, he thought, was a danger against which they in the medical profession particularly needed to guard themselves. More, perhaps, than any other profession, their time was strictly limited. The amount of time that they could give to the work of medical organization was very limited, and the waste of energy by the multiplication of societies perhaps fell more heavily upon the medical profession than upon any other.

The Interest of the Public.

He only wanted to make two further remarks in conclusion. He wanted to emphasize again what he had already said, that the work which they had to do through their medical associations did not end at the peculiarly selfish interests of the profession; that they had the good of the public at heart, and desired to make the medical profession a more efficient instrument for serving and promoting the health of the community.

The Members are the Association.

In the second place he asked them to remember that the British Medical Association under its present organization was essentially representative and democratic. It resulted from the principles embodied in the Constitution that the decisions of the Association did not rest with councils, or committees, or officials, and they must not blame councils, committees, or officials if things went wrong, but must blame themselves. If they wanted to see things done right they must see to it themselves. At Division meetings he had been asked what the Association was going to do in certain matters. His answer was that it was not for him to say what the Association was going to do, but for the members before him. They, the members, were the Association, and the Association would do exactly those things which the general body of its members desired it to do. If it was successful the Association owed its success to the general body of its members. If it should fail it would owe its failure to the general body of its members.

The Chairman intimated that Mr. Whitaker would be glad to answer questions, and it was agreed that these should be submitted and dealt with in the course of a general discussion.

Dr. Bird (Pudsey) said that he had taken a little interest in the midwives question which had been mentioned by Mr. Whitaker, and had endeavoured to get signatures to a petition. He succeeded in getting forty-five signatures against the Midwives Bill, and found only two medical men who were in favour of it; but it was certainly very obvious that the feeling of the profession generally upon that question was not taken.

Dr. Bronner thanked Mr. Whitaker for his interesting and instructive address, and stated that he himself belonged to all the societies in Bradford, but felt quite sure that if they could join in one society it would be a very good thing for Bradford. The British Medical Association was not acting, as had been suggested, in the interests of a certain sect, or a certain set of savants, in London or elsewhere, but on behalf of the large body of general practitioners who managed the Association, whose wishes the Council simply carried out. They should try to join together and form one society, and put aside all petty jealousies and personalities, so that they could have one central society of a more powerful character, and embracing all sections of the medical profession.

Dr. Mitchell sent up the following questions: "The Association at the present moment has large sums of money invested in valuable buildings in London which are a benefit to metropolitan medical men chiefly. Might not less pretentious premises be sufficient for the London premises, and the surplus property sold, and the money realized be given in large centres of population to help the local societies to establish libraries, etc.?"

Mr. Whitaker said that on the question of fact raised, namely, "that the valuable buildings in London were chiefly of benefit to metropolitan members," the only part of the premises which could be said to be especially useful to London men was the library, which was a single room in a very large building. Even that had to be given up regularly every quarter for the Council meeting because there was no other room for the purpose. The library, of course, was used by country members when they were in town; and he supposed that if there was to be a central library at all, London was the most convenient place for it. There was also a question of principle involved. If there was to be any change such as Dr. Mitchell suggested, the constitutional means by which such a proposal would come before the Association were that Dr. Mitchell, as a member of the Bradford Division, should ask the Division to carry a resolution to that effect to come before the annual Representative Meeting of the Association. The matter would be considered in the three months between April and July by all the Divisions, and if, as a result, the annual Representative Meeting approved, the thing would be done.

Dr. Horrocks asked whether it had been considered in any Division an advantage that the divisional meetings should be held alternately in different towns in the Division.

Mr. Whitaker said that certain Divisions held their meetings in different places in turn. Again, in one or two Divisions, members in special districts were proposing to hold separate meetings of their own for the consideration of matters peculiar to themselves, while wishing to remain free to attend the general meetings of the Division.

Dr. Campbell said he thought it would be of the greatest service if some opinion could be taken that night as to whether the majority of the gentlemen present thought it advisable to unite the separate societies into one under the British Medical Association. He did not mean that he wished them to commit themselves, but simply to obtain the general view of those present. If it was found to be the general opinion of that meeting, then the different societies might take the matter into consideration, and there might be a conference of the three societies to bring the matter actually to a head. He gave an illustration of the difficulties under which they were now labouring in consequence of having three societies in the district, and that hence some men belonged to one society only, some to others, and no society was really representative. If the general feeling were in favour of one society as a Bradford Division of the Association, a sufficient number of new members might be brought into the Division to make one strong powerful society which in every respect represented the feelings of the whole profession in Bradford and the district.

The Chairman asked whether the feeling of the meeting was that they should take a vote as to whether or not any steps should be taken in the direction which Dr. Campbell recommended.

Dr. Hime was strongly inclined to agree with the feeling as to having one strong society, but he should feel sorry if they were to pass a resolution even in favour of his own views until gentlemen who might have known nothing whatever about the proposal before coming to that meeting had had time to think it over. In the interests of the success of the movement itself he would strongly deprecate any such action that night.

The Chairman pointed out that the suggestion of a vote entirely originated with Dr. Campbell, and in any case the question would have to be pondered by the local societies.

Dr. Rabagliati said that before Dr. Campbell had made his suggestion it had been in his mind to make such a proposal, but on the whole he thought now that they were getting a sufficient indication of the feeling of the meeting without any show of hands. There were many things to be

considered. There was a matter of sentiment, for instance. Some of them had belonged to the Medico-Chirurgical Society ever since its inception, and they might have some sentimental feeling against bringing to an end the career of a society which had been so extremely useful. Then, again, a great deal of organization would have to be dealt with before such a step as the proposed amalgamation could be taken. No doubt they would have to have very much more frequent meetings, and there would be many things to arrange. He agreed with Mr. Whitaker's suggestion that they should take time to consider a question of this sort. Apart from the sentimental feeling which still clung to him somewhat, he felt that on the whole his reason tended in the direction in which Dr. Hime said that his did, namely, for the amalgamation of the three societies into one large and powerful society.

Dr. MITCHELL said he wished to raise a rather important question with respect to finance. The annual expenditure of the Medico-Chirurgical Society was about £60 a year so far as he could remember. Could the Yorkshire Branch of the British Medical Association make a sufficient grant in aid to the Division to carry on similar meetings, or must the local subscription be increased per head to make up for the increased cost. Personally, he should be in favour of amalgamation if it could be properly worked, but he thought there would have to be separate sets of officers, to take up various aspects of the work.

Mr. WHITAKER replied that under the present constitution of the Association power was given to the Division—if indeed power was needed—to raise by voluntary subscription whatever amounts they might need for special local purposes from those who availed themselves of the benefits conferred. A library in particular might very well be supported in part or entirely by a local voluntary subscription from those who intended to use the library. With regard to the other expenses, he of course did not know the details of the £60 a year which Dr. Mitchell was speaking of. The present financial position of the Division was that it got a grant from the Branch. The Branch received from the central Association 4s. per member, and was required to make therefrom to its Divisions a grant per head per annum. The Branch Council determined the amount of the grant per head, and could make a grant of one amount to one Division and another to another Division. If they found one Division doing good work they could make them a large grant. If they found another Division doing very little work, they could make a smaller grant, as small a grant as they thought proper. Here the democratic principle came in again. The Branch Council was a representative body; not representative of the Branch but of the Divisions, since every Division of the Branch was entitled to be represented on the Branch Council in proportion to its membership. Thus the Branch Council was really a Council of the Divisions of the Branch, the constituencies being the Divisions, and it was for them to instruct their representatives upon the Branch Council as to what they wished them to do. The Branch Council so elected and so instructed apportioned these grants; but of course they must cut their coat according to their cloth. They only had 4s. per head for all purposes.

Dr. MITCHELL said that raised another question. Many societies had a considerable balance at the bank. Supposing one of the absorbed societies had such an accumulation, what were they to do with the money?

Mr. WHITAKER said that would surely be a matter for the members of the absorbed society at the time of dissolving. Until the new Constitution was adopted the Branches had funds of their own, but under the new Constitution there were no separate Branch funds. The large balances which some Branches then had were the property of the members of these Branches at the time when the change in the Constitution came into effect. Several Branches voted the money to carry on the work of the Branch under the new Constitution. In the event of the proposed amalgamation the members of the Bradford medical societies could, so far as he knew, divide their accumulated funds amongst themselves, or could devote them to any purpose for the benefit of the practitioners of Bradford that they thought proper. He took it that the members of the Medico-Chirurgical Society would be disposed to regard their money as a trust fund, which had been subscribed for the good of the profession in past years, and, though it need not necessarily be handed over to the Bradford Division of the Association, he should think it would be devoted to some purpose which was thought to be beneficial to the practitioners of Bradford.

Dr. CAMPBELL explained that he had not proposed that they should pass a resolution that there should be an amalgamation of the societies. That meeting was not competent to pass any such resolution, but he had thought that they had an exceedingly representative meeting that night, and that if they, in that very representative meeting, were of opinion that amalgamation would be wise, an expression of that opinion, though not binding, would strengthen the hands of the officials of the various societies in summoning a conference to consider the question among themselves, or, if they liked, at a meeting of all the societies together.

Dr. DRURY said it appeared to him that the discussion had already answered all the purposes that Dr. Campbell could fairly claim, from a meeting convened in this manner. The tone of the meeting was shown distinctly to be in favour of some union of the medical profession. Upon that point every one of them appeared to be practically in agreement. He thought the veil they put over themselves in connexion with pecuniary matters was drawn too close. They must live, and they saw methods being adopted which older practitioners did not approve of, but all that would be altered by some such organization as had been suggested by Mr. Whitaker, which could voice the opinion of the whole profession. Mr. Whitaker had referred to the fact that the British Medical Association did not get the voice of the profession upon the Midwives Bill. He thought it was greatly to the discredit of the Association that it did not do so, because the voices of these practitioners could have been heard. The value of organization was shown by the work of the Association of Public Vaccinators. The Association of Public Vaccinators took action a little time ago in the matter of the Local Government Board inquiry into the expenses of vaccination administration, and three representatives of that Association were welcomed at Whitehall to speak of the difficulties under which they worked. The question was there impressed upon them as to whether they represented the public vaccinators, and it was said that if they did their word would be of considerable value. Therefore he would say that a scheme by which the voice of the medical profession should be really and distinctly heard would be of the greatest value. He should like to ask Mr. Whitaker whether it had occurred to those in authority in London in connexion with the British Medical Association that some scheme could be arranged by which associations could be affiliated for the time being or co-ordinated with the British Medical Association, in such a manner that on points of great interest to the whole profession, or even on special points affecting particular localities, the voice of the associations which already existed could be centralized and focussed; whether some kind of graduated steps could be taken, some scheme of affiliation by which the societies would be more or less amalgamated by some more gentle process. He was a member of a medical society which by resolution had expressed the view that they should not amalgamate; but he knew that all its members were really willing for something of the kind which Mr. Whitaker had been putting before them that night. Had any kind of scheme been suggested by which some gradual process could be carried out?

Mr. WHITAKER, with reference to Dr. Drury's suggestion that it was discreditable to the British Medical Association that they had not ascertained the views of the members of the Association on the Midwives Bill, said the answer was that the Council of the Association did as well as they could with the means at their disposal at the time, trying postcard votes and reference to the Branches, both of which proved unsatisfactory. The point was that the means then at the disposal of the Council were insufficient. Hence the reorganization. As to the kind of semi-detached relations suggested by Dr. Drury between local medical societies and the Association, he saw a good many practical difficulties, which if time had permitted he should have asked Dr. Drury to consider. For instance, as to finance: the central work of the British Medical Association was somewhat expensive work. Would these societies support the Association in that respect? But the point he had always urged referred not to societies but to individuals—that they should support the Association by becoming members. It seemed to him that a man must be a member of the Association or not, and he could see no half-way house between those two positions. If they were members of the Association it was a matter for themselves entirely how many other societies they chose to carry on.

Dr. HORROCKS, in proposing a vote of thanks, said he

hought that Mr. Whitaker had answered some of the points hat had been raised at the meeting, and had made out a very ood case indeed for amalgamating with the British Medical ssociation. He had shown them how ineffectual, comparaively, the isolated efforts of the Medico-Ethical and the Iedico-Cnirurgical Societies must be. It was true that in he Medico-Ethical Society they had a sort of feeling that it vas more local in its work, but he thought that that work ould be quite well taken up by the Bradford Division of the ssociation. As regarded the Medico-Chirurgical Society, he scientific society for that town, he experienced very much he same feeling which Dr. Rabagliati had expressed. Their neeting together at one place, in the old library of the Brad-ord Infirmary, had been homely and pleasant to him. It was very difficult matter exactly to balance political work and cientific work, and, unless there were two separate sets of neetings, one dealing with political and ethical work and the ther dealing with scientific work, he felt sure that one would e likely to push the other out. Then he felt, too, that there ight be difficulties in regard to the money matter. The hole trend of the present policy of the British Medical ssociation, however, was for ideas to originate below and ravel up and culminate above, and if they wished their dif-erent societies to coalesce amicably with the British Medical ssociation it was better that this matter should originate in he local societies and end in the British Medical Associa-ion.

Dr. Hime seconded the resolution. He said Mr. Whitaker ad come there in the aspect of an official of the British Iedical Association to spread the gospel of union among the cattered population of that wild district of Yorkshire. That strong, united society representing the interests of the ledical profession was much wanted in the country he be-ieved they all felt convinced, but that did not say that there vas not a good deal of difficulty to be overcome before that vas likely to be accomplished. The efforts of those who took art in the Manchester Conference had borne good fruit, and hey managed eventually to bring about the reform of the British Medical Association. One of the difficulties which eemed to him to exist was connected with the conduct of the ournal. It had not always been the case that the Journal ad represented the views of the Association as expressed at he annual meeting. They knew that strong resolutions had een passed at annual meetings, and that the line of action pproved by those resolutions had been absolutely negatived y that exceedingly powerful and ably-conducted Journal. Ie trusted that under the new *régime* that would be impos-ible. He did not wish it to be supposed that he thought it vas not possible to bring a scheme of this kind to a successful ssue, but he wished that the matter should be carefully con-idered, and was exceedingly glad that the suggestion of ressing a resolution upon that meeting had not been carried ut, for he thought that the very best means of promoting armony and unity and goodwill was to allow them ample op-ortunity of considering the proposal.

The Chairman said before he put the resolution he wished o remark, with regard to Dr. Horrocks's statement, that he did ot see any difficulty in such an amalgamation as had been hought of taking place, by the Medico-Ethical and the Iedical-Chirurgical Societies becoming a part of the Division. Ie had always maintained the opinion that scientific sub-ects were better separated from ethical subjects, and if this malgamation took place there would be no difficulty in etting apart evenings for scientific discussion, and other venings for other classes of work.

The resolution was then put and carried.

Mr. Whitaker, in reply, thanked them for the kind way in hich he had been received. He thought his thanks were ue to them for assembling in such numbers to hear an ddress upon what was often thought to be a somewhat dry ubject, and for the very attentive hearing which they had iven him. He should be very glad if the result of his visit vas to prove to be of some benefit—he would not say to the radford Division, but to the medical practitioners of radford and the medical profession of this country.

Dr. McGee moved a vote of thanks to the Chairman, and aid they could honestly congratulate Dr. Goyder upon the idgement and tact with which he had conducted the neeting, and had met what at one time had appeared to be a ifficulty.

Dr. Rabagliati seconded the resolution, and it was arried.

The Chairman briefly replied in acknowledgement, and he meeting ended.

Meetings of Branches and Divisions.

[*The proceedings of the Divisions and Branches of the Association relating to Scientific and Clinical Medicine, when reported by the Honorary Secretaries, are published in the body of the* Journal.]

BORDER COUNTIES BRANCH.

A general meeting of this Branch was held in the Dumfries and Galloway Royal Infirmary, Dumfries, on December 11th, 1903. The President, Dr. Maxwell Ross, was in the chair, and about thirty members were present.

The President referred to the great loss which the Branch had suffered through the death of its last year's President, Dr. Gray Ormrod, of Workington. He referred to the deep and active interest which Dr. Ormrod took in the affairs of the Branch and how hard he had worked on its behalf. He reminded the members present of the exceptional position which Dr. Ormrod occupied as "Medallist of the Association" in recognition of his courage and pluck; and he moved a resolution expressing the sympathy of the meeting towards his widow and children, which was unanimously agreed to. The President then dwelt, in some detail, upon the Medical Acts Amendment Bill, and a discussion followed in which several members took part.

COLOMBO, CEYLON BRANCH.

A pathological meeting was held on Friday, June 19th, 1903, Dr. Sinnetamby in the chair. Seventeen members were present.

Paper.—Dr. S. C. Paul read a paper on Serum Reactions.

Specimens.—Dr. A. J. Chalmers exhibited the following specimens: Microscopical and macroscopical specimens of inflammations of the kidney in Ceylon; a method of preserving pathological specimens specially suited to Ceylon; osteoporosis in horses in Ceylon and saffranine test for sugar in urine; Dr. V. Van Langenberg showed the clinical method of determining blood pressure; Dr. David Rockwood showed physiological method of determining blood pressure.

A clinical meeting of this Branch was held on Saturday July 18th, 1903. The chair was taken by the President, Dr. T. F. Garvin, and there were nine members present.

Confirmation of Minutes.—The minutes of the two previous meetings were read and confirmed.

Letter from General Secretary.—The Secretary read a letter dated May 13th, 1903, from the General Secretary of the Association regarding the dispatch of the report of Council as to the general state and proceedings of the Association since the last annual meeting, together with the financial statement for the year 1902, and the estimate of probable income and expenditure for the current year, also a copy of the notices of motion given for the Annual Representative Meeting.

Clinical Cases.—Dr. V. Van Langenberg exhibited a case of myxoedema.—Dr. S. C. Paul showed a case of cancer of the breast and syphilitic necrosis of frontal bone.—Dr. M. Sinnetamby: A case of hysteria.—Dr. David Rockwood showed a case of myxoedema.—Dr. W. H. de Silva showed ophthalmic cases of double anophthalmos with congenital cysts.—Dr. A. J. Chalmers exhibited *post-mortem* specimens of fat necrosis from suppurative pancreatitis and haemorrhagic pancreatitis.

Vote of Thanks.—The meeting terminated with a vote of thanks to the chair.

An ordinary meeting was held on Saturday, October 24th, 1903. The chair was taken by the President, Dr. T. F. Garvin, and there were ten members present.

Confirmation of Minutes.—The minutes of the previous meeting were read and confirmed.

The Notification of Infectious Diseases.—The Secretary read a letter from the Colonial Secretary, Colombo, dated July 30th, 1903, acknowledging the receipt of the letter of July 23rd, 1903, sent by a committee of this Branch, regarding the Report on the Notification of Infectious Diseases.

The late Dr. T. Morgan.—It was decided that a letter of sympathy and regret should be sent to the family of the late Dr. T. Morgan, who was a member of the Association.

Colonial Medical Library.—It was proposed by Dr. M.

Sinnetamby and seconded by Dr. H. Bawa that a sum of Rs. 10 be given to the Honorary Secretary of the Colonial Medical Library, Colombo, being half the expense for repairing the punka of the Colonial Medical Library, as it is more often used by the British Medical Association Ceylon Branch. This was carried unanimously.

The British Medical Journal.—It was unanimously decided that the Registrar of the Ceylon Medical College be allowed to take on loan weekly from the honorary secretary of this Branch, one copy of the British Medical Journal, out of the extra two copies, for the Medical Students' Library, and to return the same after a week.

Communications.—Mrs. S. C. K. Rutnam read notes of a rare case of amenorrhoea.—Dr. Sinnetamby read a paper entitled, Some Thoughts on the Physiology of Menstruation and Amenorrhoea.—Dr. Chalmers showed specimens of pancreatic disease.

GRAHAMSTOWN AND EASTERN PROVINCE, SOUTH AFRICA, BRANCH.

Special Meeting.

A special general meeting of this Branch was held at Steinman's Hotel on January 21st.

Admission of Visitors.—After discussion as to the advisability of admitting persons eminent in allied sciences, such as bacteriology or chemistry, as non-medical visitors, it was resolved:

That a subcommittee be appointed to revise the rules of the Branch on the lines of the "Model Rules of the British Medical Association, and that a rule be prepared authorizing the Branch Council to nominate honorary members for the session, and the President to admit to any meeting distinguished visitors passing through the town.

Proposed Medical Library.—A discussion followed on the question of a medical library for the Eastern Province Branch, and the possibility of housing it in the Reference Library of the town.

New Member.—R. C. Mullins, M.B., B.Ch., was elected a member of the British Medical Association by the Council, after due notice on the circular convening the meeting.

Annual Meeting.—The annual meeting was held at Steinman's Hotel. Present: Drs. J. T. Bays, J. A. Coutts, W. R. Chew, G. E. Douglas, J. F. Davis, E. G. D. Drury, A. Edington, G. E. Fitzgerald, J. B. Greathead, F. Leslie, R. C. Mullins, G. C. Purvis, F. A. Saunders.

Confirmation of Minutes.—The minutes of the last meeting were read and confirmed.

Secretary's Report.—The Secretary's report for 1903 was read and adopted.

Reports of Meetings.—It was resolved that Branch meetings be reported regularly to the British Medical Journal and the *South African Medical Record.*

Financial Statement.—The financial statement for 1903 was read, showing a balance of £21 7s. 3d. The statement was adopted.

Election of Officers.—The following were elected officers for 1904:—*President:* Dr. G. C. Purvis. *Vice-President:* Dr. J. T. Bays. *Secretary and Treasurer:* Dr. E. G. Dru Drury. *Council:* Drs. J. B. Greathead, T. D. Greenlees, Alex. Edington, W. R. Chew (Port Elizabeth), J. Conry (Fort Beaufort), G. W. Smith (Alicedale).

Vote of Thanks to Retiring President.—A vote of thanks to the outgoing President was passed.

The Annual Meeting at Oxford.—A letter was read from Dr. Collier, President-Elect of the British Medical Association, offering to entertain one or two delegates from the Branch at Oxford in July. Resolved:

That Dr. Collier be thanked for his courteous offer, and that Dr. J. B. Greathead be asked to represent the Branch.

Dr. Greathead signified his willingness to act.

The South African Branches.—The Secretary read a memorandum "on the position of the South African Branches under the revised scheme of administration." A discussion followed.

Revision of Rules.—A Subcommittee to revise the rules was then appointed consisting of President, Vice-President, and Secretary.

HONG KONG AND CHINA BRANCH.

The annual meeting of this Branch was held at the Sanitary Board offices on December 21st, 1903, the Hon. Dr. J. M. Atkinson, President, in the chair. There were present Colonel W. E. Webb, R.A.M.C., Dr. F. O. Stedman, Dr. W. V. M. Roch, Dr. Maclean Gibson, Dr. O. Marriott, Dr. Hall Wright, Staff Surgeon Handyside, Staff Surgeon Parker, Surgeon Nicholson, R.N., Surgeon Hall, R.N., Surgeon Wallis, R.N., Surgeon Miller, R.N., Dr. E. A. R. Laing, Hon. Secretary and Treasurer.

Confirmation of Minutes.—The minutes of a meeting held on April 30th, 1903, were read and confirmed.

Financial Statement.—The annual statement of account duly audited was presented.

Election of Office-bearers.—The President announced that the Council of the Branch recommended the following as office-bearers for the coming year: *President:* Colonel W. E. Webb, P.M.O., R.A.M.C.; *Vice-President:* Hon. Dr. J. M. Atkinson, P.C.M.O.; *Council:* Dr. F. O. Stedman, Dr. G. P. Jordan, Staff Surgeon Parker, Dr. William Hunter, Lieutenant Lambelle, R.A.M.C.; *Hon. Secretary and Treasurer* Dr. E. A. R. Laing. The recommendation of the Council was adopted *nem. con.*

New Members.—The following were elected as members of the Branch and of the British Medical Association: Surgeon H. C. Woodyatt, R.N.; Surgeon W. H. Pope, R.N.; Dr. E. C Davenport, Dr. F. W. Hall Wright, Surgeon Wm. L. Martin, R.N.; Lieutenant F. W. Lambelle, R.A.M.C.

By-laws.—The by-laws of the Branch, which were revised by the Council on December 7th were adopted.

Election of Representative on General Council.—The Hon. Dr. J. M. Atkinson proposed, and Colonel Webb, R.A.M.C. seconded:

That Mr. James Cantlie be elected as Branch representative on the General Council for 1904.

Carried.

Retiring President's Address.—The Hon. Dr. J. M. Atkinson in a valedictory address, briefly reviewed the work of last session, and stated that there were more meetings than formerly, and all were well attended. He elected to address the members of the Branch on the "Annual Recurrent Attacks of Plague in the Colony," and referred to the recent researches of Professor Simpson and Dr. William Hunter, who proved how easily chickens, ducks, etc., contracted the disease, both when inoculated with a culture of the bacillus pestis, or fed on plague material. In one case at his own house where a fowl died from plague, the bacillus was found by the Government bacteriologist in scrapings from the fowl house. Attention was drawn some time ago to numbers of fowls dying in the public market, fowls imported from Canton and Chinese villages. All the bodies were sent to the Government bacteriologist, who found that nearly all had died from plague. On June 4th one fowl, five ducks, and one quail were examined *post mortem*, and three were found to have died from plague. In his (Dr. Atkinson's) opinion, it was very probable that infection was from the food. The fact of fowls, pigs, and such-like domestic animals being able to contract the disease might well explain the annual recurrence of plague in Hong Kong.

Introduction of New President.—The Hon. Dr. J. M. Atkinson having received a vote of thanks as retiring President and for his address, vacated the chair, which was taken by Colonel Webb, President for 1904.

A meeting of this Branch was held at the Sanitary Board Offices on Monday, January 25th; Colonel W. E. Webb, P.M.O., President, in the chair. There were present the Hon. Dr. J. M. Atkinson, P.C.M.O., Dr. F. O. Stedman, Surgeon R. H. Nicholson, Surgeon F. E. Dartnell, Dr. O. Marriott, Staff-Surgeon Handyside, Staff-Surgeon Parker, Surgeon J. Dr. Mills, Dr. Maclean Gibson, Surgeon R. W. B. Hall, Lieutenant T. E. T. Parker, R.A.M.C., Surgeon Daw, Major Strickland, I.M.S., Surgeon C. Rendal Bushe, Surgeon Woodyart, Surgeon Martin, Surgeon Raymond, Surgeon Mackeown, Lieutenant Lambeth, R.A.M.C., Dr. W. V. M. Roch, Dr. Bertram Barnett, and Dr. E. A. R. Laing, Honorary Secretary and Treasurer.

Confirmation of Minutes.—The minutes of a meeting held on December 21st, 1903, were read and confirmed.

New Members.—The following gentlemen were elected as members of the Branch: Surgeon John Verdon, H.M.S. *Fearless*, Surgeon Llewellyn Lindap, H.M.S. *Leviathan.*

Dinner to Sir Frederick Treves.—It was proposed, seconded, and carried unanimously, that Sir Frederick Treves, K.C.V.O., C.B., be entertained to a dinner by the Branch during his visit to the Colony.

LANCASHIRE AND CHESHIRE BRANCH:

ALTRINCHAM DIVISION.

THE quarterly meeting, being the fifth general meeting of the Division, was held at the Brooklands Hotel, Sale, on February 17th, Dr. C. J. RENSHAW presiding over a meeting which numbered 16. Intimation of inability to attend had been received from 13 other members; and 6 members who had intended to attend were prevented; making a total of 35 who replied to the circular.

Confirmation of Minutes.—The minutes of the last meeting were signed as correct.

Reports of Officers and Committees.—The Executive Committee reported on routine matters. The Honorary Secretary and Treasurer reported alterations in the list of members, showing a present strength of 58; and that the Branch had discharged the liabilities of the Division up to December 31st, 1903.

Matters Referred to Divisions.—Resolved that further discussion on the Medical Acts Amendment Bill be adjourned *sine die*. Resolutions were passed on the vaccination questions (4) and (6), and have been communicated to the General Secretary.

Boundary.—The Honorary Secretary was instructed to apply for an alteration of the boundary of the Division so as to include Partington.

Circular Letter from Medical Secretary was read.

Ethical Rules.—The draft model ethical rules were considered, and were adopted without amendment.

Alcoholic Poisoning.—The CHAIRMAN introduced a discussion on the advisability or otherwise of using the words "alcoholic poisoning" in death certificates, but no resolution was proposed.

Pharmacy Act.—Dr. I. J. E. RENSHAW introduced a discussion on this subject, and it was resolved:

That this Division strongly disapproves of any attempt to debar medical practitioners from providing medicines for their patients.

Work of the Division.—In closing the meeting, the CHAIRMAN congratulated the members on the increasing interest taken in the work of the Division, as evidenced by the steadily increasing numbers of those present at meetings.

Dinner.—After the meeting a very enjoyable dinner was held, eight members being present.

MALTA AND MEDITERRANEAN BRANCH.

A GENERAL meeting of this Branch was held at Valetta on February 8th at the Industrial Hall, Professor S. CASSAR in the chair. Twenty-two members attended the meeting.

Confirmation of Minutes.—The minutes of the previous meeting were read and confirmed.

Vacancies on Council.—The SECRETARY called the attention of the meeting to the fact that Major-General O'Farrel, P.M.O., R.A.M.C., having left the island, a seat in the Council of the Branch was now vacant, and that it was also necessary to replace Lieutenant-Colonel C. B. Hill, R.A.M.C., on the Branch Council, that officer having also left the station. The Secretary proposed Lieutenant-Colonel W. O. Wolseley, R.A.M.C., who was pleased to accept the post, and was elected unanimously. In lieu of Lieutenant-Colonel C. B. Hill, Lieutenant-Colonel WOLSELEY proposed Major W. L. Gray; this proposal was seconded by Surgeon Lieutenant-Colonel L. MANCHÉ, and approved unanimously.

Papers.—Surgeon R. T. GILMOUR, R.N., read a paper on the isolation of the micrococcus melitensis from the synovial fluid of a knee-joint, and showed various cultures of the micrococcus, which he had isolated. A discussion followed, in which Dr. T. ZAMMIT, Captain LAWSON, and Major GRAY took part.—Dr. G. DEBONO next read a paper on the treatment of locomotor ataxia by means of calomel injections. A few remarks on this paper were made by Lieutenant-Colonel WOLSELEY and further explanations given by Dr. DEBONO.

METROPOLITAN COUNTIES BRANCH:

ST. PANCRAS DIVISION.

AN ordinary meeting of this Division was held at University College Hospital on February 25th. Dr. WYNN WESTCOTT was in the chair, and there was a good attendance of members.

Medical Men in Parliament.—Dr. WALTER SMITH, in an earnest speech, introduced a debate on the question of the presence of medical men in the House of Commons, and moved the following resolution:

That notice of motion be given for the Representative Meeting on behalf of the St. Pancras Division: "That it is advisable that funds of the Association should be applied to securing the presence in Parliament of medical men who are able and willing to represent the opinion of the profession, and that the Council be instructed to consider how this can be most effectively carried out."

The majority of the members took part in the discussion that followed, and the CHAIRMAN having summed up, the resolution was carried.

TOTTENHAM DIVISION.

A MEETING of this Division was held at the Tottenham Hospital on Friday, January 29th. Dr. HOOPER MAY presided.

Medical Acts Amendment Bill.—Mr. J. S. WHITAKER, the Medical Secretary, attended and introduced a discussion on the Medical Acts Amendment Bill, some of the most important clauses of which were discussed by those members who were present. The proposed Bill was approved as a whole, but more decided opinion and voting on the various clauses were deferred to a subsequent meeting.

WANDSWORTH DIVISION.

A MEDICO-POLITICAL meeting was held on Thursday, January 28th, at the Town Hall, Wandsworth, Dr. M. G. BIGGS in the chair, and thirteen other members and three guests attended.

Confirmation of Minutes.—The minutes of the last meeting were confirmed.

Hospital Abuse.—The Representative on the Branch Council reported what had taken place in the interval. Resolutions with reference to hospital abuse were proposed and discussed, the Secretary having previously briefly reported the tabulated result of replies received from eighty hospitals showing their various systems in vogue to prevent abuse. These resolutions passed were forwarded for the consideration of the Representative Meeting at Oxford. Colonel Montefiore, who attended, explained the views of the Charity Organization Society.

The Removal of King's College Hospital.—In response to a letter received from the Medical Board of King's College Hospital a special committee of Drs. Biggs, Lyster, and Rowland Fothergill was formed to combine with the Lambeth and Norwood Divisions in taking steps to arrange a scheme satisfactory to the local practitioners with regard to the out-patient and in-patient departments of this hospital at their new site in South London.

The Annual Meeting, 1905.—Dr. MACMANUS proposed, Dr. FRAZER seconded, and it was carried unanimously:

That the Central Council should be approached with the view of urging them to arrange for the 1905 annual meeting to be held in Ireland, and so to aid by their presence the local practitioners.

Expenses of Divisional Representative at Oxford.—Dr. BIGGS proposed, Dr. LYSTER seconded, and it was carried unanimously:

That every member be asked to make a voluntary subscription of at least 2s. in order to defray the expenses of the Divisional representative attending the Oxford meeting.

The Midwives Act.—The Midwives Act (1902) Committee having forwarded a resolution as being urgent, it was unanimously resolved:

That the Central Council be asked to approach all religious bodies at once with the view of drawing their attention to the importance of Form 9 certificate only being given to bona-fide midwives by the clergy as individuals.

Vote of Thanks.—A vote of thanks to Colonel Montefiore for his attendance was cordially approved.

NORTH OF ENGLAND BRANCH.

A MEETING of the Council of this Branch was held in Sunderland on January 28th, Dr. BURMAN, the President, in the chair. There were present Drs. Robson, McDowall, Lachlan Fraser, Hall, Dagger, Blacklock, D. F. Todd, Modlin, Waterson, Davis, Watson, Knott, Jepson, Murphy, Hunter, Cox (Honorary Secretary), and Mr. Rutherford Morison. Apologies for non-attendance from Drs. J. Drummond, Lyle, and Howell were read.

Election of Members.—Sixteen candidates were unanimously elected.

Deputation from the Northumberland and Newcastle Medical Association.—Professor GEORGE MURRAY attended as a deputa-

tion from this Association, and said he had come in answer to the invitation virtually given to associations such as theirs, by the resolution passed by the Branch Council, and confirmed by the Branch, declaring the ability and willingness of the Branch to undertake all work of interest to the profession, and including that done by the county unions. His Association had very carefully considered the matter by means of a Committee which had had a good deal of information laid before it, and they had finally come to the conclusion that they would be doing a good thing for the profession and for the members of their Association if they became absorbed by the Branch. Before they dropped their organization they must be convinced that the work they had been doing would not be neglected, and in order that they should be convinced of this they would lay down certain conditions which must be fulfilled. He then proceeded to specify the conditions, and said that if these could be met they would wind up their Association, and could promise to bring into the British Medical Association at least twenty new members who would otherwise probably remain outside. Considerable discussion took place on the subject, and the general feeling was that there would be little, if any, difficulty in satisfying the conditions as laid down by Professor Murray. It was resolved that a committee be formed to consist of six members of the Branch Council (together with the President and Honorary Secretary *ex officio*) along with three members appointed by the Northumberland and Newcastle Medical Association; this committee to consider the whole question and report to an early meeting of the Council. Drs. Murphy, Jepson, Davis, Hall, Todd, and Dagger were selected to represent the Branch Council. (Professor Murray, Dr. W. S. Campbell, and Mr. Rutherford Morison have since been nominated by the N. and N.M.A.)

Reports from Divisions.—Reports from the Divisions were then read, showing that in most of them good work is being done. Several seem as yet hardly to have grasped the possibilities of Division work.

Financial Statement.—Dr. Cox then made a statement of income and expenditure of the Branch up to the end of the year, and also gave an estimate for the incoming year. A discussion took place on these statements, and the opinion was expressed that the financial state of the Branch seemed to warrant it undertaking the responsibilities of the work suggested by the deputation from the Northumberland and Newcastle Medical Association.

SOUTH WALES AND MONMOUTHSHIRE BRANCH:

CARDIFF DIVISION.

A GENERAL meeting of this Branch was held on January 21st, Dr. W. T. EDWARDS in the chair.

Local Administration of Midwives Act.—Dr. E. WALFORD, Medical Officer of Health, Cardiff and Port Districts, contributed a paper on the Local Administration of the Midwives Act, 1902. After describing the general provisions of the Act and alluding to the constitution and rules of the Central Midwives Board, Dr. Walford referred to the fact that the Act provided no security for the payment of the fee of the medical man who was liable to be called in; the council of the county borough of Cardiff had appointed the Health Committee of that council as the local supervising authority, and that Committee had appointed their medical officer of health as the executive officer. They had further appointed a woman inspector, and already sixty to seventy applications had been received and twelve notifications of intention to practise. Very few of these women could read or write, and doubtless there would for some time be considerable difficulty in insisting on the due fulfilment of regulations as to filling in reports, etc. He (Dr. Walford) would suggest the establishment of a training centre for midwives in Cardiff. With all its difficulties of administration, the Act would prove beneficial in regulating the practice of midwives. The mortality from puerperal fever was always higher where the proportion of labours attended by midwives was larger. That proportion was in Wales very large, and the mortality from puerperal fever varied from 6.7 in N. Wales to 6.1 in South Wales, when the average rate for England and Wales was 4.7. Several members joined in the discussion which followed, and it was unanimously agreed on the motion of the HONORARY SECRETARY, seconded by Dr. JOHN POWELL, to empower the Executive Committee of the Division to appoint a deputation from among the members of the Division to wait upon the local supervising authority, with especial reference to the securing of the payment of a fee to the medical man who might be called in by the midwife under the rules of the Central Midwives Board.

MONMOUTHSHIRE DIVISION.

THE quarterly meeting of this Division was held at the Asylum, Abergavenny, on Friday, February 26th, Dr. J. W. MULLIGAN in the chair. The members present were: Drs. Lloyd, Redwood, Hamilton, Glendinning, Coulter, Essex, D. J. Jones, Howard-Jones, J. McGinn, Nelis, E. Y. Steele, W. D. Steel, S. H. Steel, and Greer.

Confirmation of Minutes.—The minutes of the previous meeting at Newport were read and confirmed. Expressions of regret at inability to attend the meeting were read from Drs. G. A. Brown and L. D. Gamble.

Reports.—The report of the Branch Council was approved on the motion of Dr. W. D. STEEL, seconded by Dr. REDWOOD. The report from the Medical Secretary of the Association, giving the opinion of the Solicitor to the Association on the regulations was read and accepted.

Letter from General Secretary.—A letter was read from the General Secretary of the Association declaring that it was intended to include three members who were resident in Monmouthshire in another Division. There was a considerable amount of discussion on this subject. Dr. GLENDINNING proposed and Dr. D. J. JONES seconded, and it was carried unanimously:

That all members of the Association resident in Monmouthshire shall be members of the Monmouthshire Division.

The Association and Medical Defence.—Dr. W. D. STEEL moved:

That the members of this Division approve of the Association taking up the defence of its members for such additional subscription as the Defence Committee may decide. That steps be taken to amalgamate such Defence Department with the existing Medical Defence Unions and Societies.

Dr. Steel, in moving the resolution, spoke of the great importance of medical defence; he quoted local cases in which a defence society had acted with the greatest satisfaction to the members interested and to the profession. He showed how specially liable medical men were to attacks on their character and to insinuations and charges of want of skill. He said that it was most essential to the success of the scheme that amalgamation with the other societies be secured.

Dr. HAMILTON, in seconding the resolution, said that it would be a calamity if amalgamation were unsuccessful; that it would be a danger to the profession to have a number of competing societies; he hoped Dr. Steel would introduce into his motion a clause making this amalgamation an absolute necessity to the carrying out of the scheme.

Dr. REDWOOD said that he did not feel inclined to leave his present Society for any new society.

Dr. HOWARD-JONES pointed out that it was part of the scheme of the Association that the various societies should merge themselves in one professional department for the provision of medical defence.

Mr. R. J. COULTER and Dr. D. J. JONES also insisted on the necessity for amalgamation.

Dr. T. E. LLOYD suggested that there be added to the resolution a clause—

That the subscription be not more than 10s.

This was accepted by Dr. STEEL.

Dr. S. H. STEEL thought that the Division had no power to define the amount of the subscription. It might really work out at less than this amount. The resolution which finally took shape and passed unanimously was:

That the members of the Monmouthshire Division approve of the Association taking up the defence of its members, provided that there be an amalgamation of the Defence Department of the Association with the existing Defence Unions and Societies. That the annual subscription to the Defence Department shall not exceed 10s.

A vote of thanks to Dr. Glendinning for his kind hospitality was proposed by Dr. W. D. STEEL, seconded by Dr. ESSEX, and carried unanimously.

Dr. ESSEX and Dr. D. J. JONES offered the hospitality of the Pontypool Hospital to the members of the Division when the time came to arrange a meeting there. These gentlemen were thanked for their very kind invitation, and a pleasant meeting terminated.

SYDNEY AND NEW SOUTH WALES BRANCH.

THE regular monthly meeting of the Branch was held on Friday, October 30th, 1903, at the Royal Society's Room, Sydney; Dr. BRADY, President, in the chair. There were 47 members present.

Confirmation of Minutes.—The minutes of the previous meeting were read and confirmed.

Lodge Practice.—A letter was read from Dr. Kinross, of Inverell, asking for the co-operation of members of the Branch re the lodge practice in that town.

New Member.—The President announced the election of Dr. Effie Stillwell.

Communications.—Dr. Binney read notes on puerperal sepsis. A discussion ensued, in which Drs. MacCulloch, Worrall, Palmer, Crago, Sydney Jones, Stacy, Gordon Craig, and Mary Booth took part; and Dr. Binney replied.—Dr. Scot Skirving read notes on the clinical signs and pathological conditions in a case of Addison's disease. Professor Welsh read notes on the same case.—Dr. Macdonald Hill made remarks on a case of Addison's disease, and exhibited the adrenals from a case of Addison's disease.—Dr. Jamieson exhibited some pathological specimens. Drs. Gledden, Flynn, Crago, and Brady made some remarks on the case; Dr. Scot Skirving and Professor Welsh replied.—Dr. Stacy exhibited an anatomical specimen, kidney with accessory renal artery.—Dr. Sandes exhibited: (1) Skiagraph showing a probably hydatid of the lung; (2) photograph showing a congenital displacement of the kidney.—Dr. Herschell Harris exhibited the "spinthariscope," an instrument designed by Sir Wm. Crookes, showing the scintillations of radium.

ULSTER BRANCH.

The winter meeting of the Branch was held in the Medical Institute, Belfast, on Wednesday, January 27th, at 4 p.m.; Dr. Thos. McLaughlin (Derry), President of the Branch, in the chair. Forty-two members were present.

Confirmation of Minutes.—The minutes of the autumn meeting were read and confirmed.

Report of Council.—The Honorary Secretary (Dr. Calwell) reported that the Council had passed one account of 10s. 6d., and recommended for election seven new members. The Council also recommended that 3 p.m. be the hour of meeting in Belfast, instead of 4 p.m., and that the spring meeting be held in Portadown.

YORKSHIRE BRANCH:

Bradford Division.

An ordinary meeting of this Division was held at the Eye and Ear Hospital, Bradford, on Tuesday, January 12th.

Confirmation of Minutes.—The minutes of the last meeting were read and confirmed.

Medical Organization.—Dr. Metcalfe (one of the Honorary Secretaries) proposed, and Mr. H. E. Taylor seconded, the following resolution:

That the Bradford Division invite Mr. Whitaker, Medical Secretary of the British Medical Association, to address the medical practitioners of the district on medical organization, and that the Bradford and West Riding Medico-Ethical Union be asked to join with the Division in carrying out the suggestion.

—This was unanimously agreed to.

Contract Medical Practice.—A letter was read from the Honorary Secretary of the Shipley Medico-Ethical Society asking for the help of the Division in the dispute between the medical men of Shipley and the Oddfellows. The sympathy of the Division was extended to the Shipley medical men, and further action in the matter was referred to the Ethical Committee.

Ethical Rules.—The rules suggested for the guidance of the Division in ethical matters, and drawn up by the Ethical Committee, were considered seriatim and approved. The Secretaries were instructed to forward them to the Ethical Committee of the Association for approval.

BRITISH MEDICAL ASSOCIATION.

ELECTION OF MEMBERS.

Any candidate for election should forward his application upon a form, which will be furnished by the General Secretary of the Association, 429, Strand. Applications for membership should be sent to the General Secretary not less than thirty-five days prior to the date of a meeting of the Council.

Guy Elliston, *General Secretary.*

THE ASSOCIATION AND MEDICAL DEFENCE.

The Medical Defence Committee of the British Medical Association.

The following is the text of the scheme for medical defence prepared by the Medical Defence Committee of the British Medical Association, and directed by the Council to be remitted, together with the explanatory memorandum, adopted by the Committee at a subsequent meeting, to the Honorary Secretaries of Divisions for circulation to every member, and for the purpose of taking a poll:

The Scheme.

1. *Confirmation of Special Resolutions.*—Confirmation by the Representative Meeting of the Resolutions passed at Birmingham on 13th July, 1896, confirmed at Carlisle on 28th July, 1896, and registered at Somerset House, 11th August, 1896, altering the Memorandum of Association and establishment of the same before the Courts.

2. *Amalgamation of Existing Societies.*—Invitation to the Medical Defence Union, to the London and Counties Medical Protection Society, and to the Medical and Dental Defence Union of Scotland, and other like Societies engaged in Medical Defence, to merge themselves in the British Medical Association to form one professional department for the provision of medical defence.

3. *Election of Central Committee.*—Election by the Representative Meeting and Council of a Central Medical Defence Committee (this Committee also to act for England and Wales). The Central Medical Defence Committee to consist of 15 members, including a representative from the Scottish and Irish Committees respectively, together with 6 members elected by the Council and 7 by the Representative Meeting.

Election of Scottish and Irish Committees respectively.—Election by the representatives from Scotland and Ireland present at the Annual Representative Meeting of a Scottish Medical Defence Committee, and an Irish Medical Defence Committee respectively. The Scottish Committee to consist of 10 members and the Irish Committee of 8 members. Every member of a Defence Committee must be a subscriber to the Medical Defence Department of the Association.

4. *Register of Members.*—Establishment by the Central Defence Committee of a Register of the names of those Members of the Association who wish to receive the benefits of Medical Defence, and who for that purpose are willing to pay an annual subscription of ten shillings in advance, in addition to the Annual Subscription to the Association of twenty-five shillings.

5. *Appointment of Secretaries and Additional Officers.*—Appointment by the Council of a Medical Defence Secretary of the Association and appointment by the Scottish and Irish Medical Defence Committee of a Secretary respectively. Of these officers the first shall be a whole-timed salaried officer of the Association, if necessary. The Central Defence Committee to have power to appoint additional officers should occasion arise.

6. *Central Committee's Decision to be Final.*—The final decision whether the Association shall take up the defence of any given case shall be vested wholly and without reserve in the Central Defence Committee.

7. *Disputes to be Decided by Arbitration.*—All disputes which arise between members of the Medical Defence Department of the Association and which are referred to the Defence Department shall be decided, if necessary, by arbitration.

The arbitrators shall be selected by the disputants, subject to the approval of the Central Defence Committee.

8. *Control of Funds by the Central Committee.*—The Central Defence Committee to have absolute control of the funds allotted to it for the Medical Defence Department of the Association.

9. *Capitation Grant to Scottish and Irish Committees.*—The Central Defence Committee to allow the Scottish and Irish Defence Committee respectively to expend a sum not exceeding 2s. per head of the membership of the defence section of the Association of that country.

10. (*a*) *Member to become Guarantor.*—Every member of the British Medical Association subscribing for Medical Defence shall become a guarantor of not less than £1 for the purposes of the Medical Defence Committee; and the sum total of the amount thus guaranteed shall be entitled "The Medical Defence Guarantee Fund," and shall be subject to the call of the Medical Defence Committee.

(*b*) *The Treasurer to Advance Money upon Security of Guarantee Fund: Repayment of Advance.*—On the application of the Medical Defence Committee in case of emergency, the Treasurer shall, out of the available funds of the Association, from time to time advance to the said Committee on the security of the Medical Defence Guarantee Fund, and on such terms as shall be approved by the Council, such sum or sums of money as shall be required by the said Committee; always provided that the total amount of such sums thus advanced shall at no time exceed two-thirds of the amount of the uncalled Medical Defence Guarantee Fund. The Treasurer shall, subject to the approval of the Council, require from time to time of the Medical Defence Committee the repayment of the sum or sums thus advanced, or of any part thereof, together with all charges thereon.

11. *Income to be Expended Solely for Individual Defence.*—Until the income of the Defence Department admits of the Representative Meeting directing any other course, the Central Defence Committee shall strictly confine its expenditure to the purposes of the defence of individual members.

12. *Tenure of Office of Salaried Officials—Scottish and Irish.*—That the appointment, dismissal, suspension, regulation of pay and of work of all salaried officers of the Medical Defence Department shall rest with the Central Committee of that Department, and from their decisions on those questions there shall be no appeal; except that the Scottish and Irish Defence Committees shall each elect or dismiss its own Secretary without reference to the Central Committee.

EXPLANATORY MEMORANDUM.

At the commencement of its deliberations the Committee found that the Association was unable, under its Memorandum of Association, and on the basis of its present subscription, at once to establish a Department of Medical Defence open to all the Members of the Association. Further, the Committee found that at the present time the Association was carrying on, to a large extent through its Standing Committees, the work of general or collective defence, and that through its ethical organizations it was already in part fulfilling the requirements of individual defence. The chief need, therefore, to be provided for at present was the individual defence of members of the Association. The Committee consequently has constructed a scheme whereby members of the Association who desire the privileges of individual medical defence and who are willing to pay a special subscription for the purpose shall have the advantages of medical defence under the organization, prestige, and help of the British Medical Association.

Paragraph 1.—It is necessary in order that the Association should carry on the work of the defence of its individual members that the Memorandum of Association should be altered in certain particulars. The decision to take this step has already been determined upon by the Association in General Meeting, specially summoned for the purpose at Birmingham on July 13th, 1896 (confirmed at Carlisle July 28th, 1896, Registered Somerset House, August 11th, 1896).

The Resolutions then agreed to were as follows:

"That the provisions contained in the Memorandum of Association with respect to the objects of the Association be altered as follows:

1. By substituting for paragraph (*a*) the following paragraph, namely:

(*a*) By holding the meetings of the Association in different parts of the United Kingdom and different parts of the British Empire.

2. By substituting for paragraph (*d*) the following paragraph, namely:—

(*d*) By the grant of expenditure of such sums of money out of the funds of the Association for the promotion of the medical or allied sciences, or for the defence, promotion, or maintenance of the honour or interests of the medical profession, by such means and in such manner as the Council of the Association may think fit, including in particular taking or defending legal proceedings, and promoting or opposing Bills in Parliament.

3. By substituting for paragraph (*e*) the following paragraphs, namely:

(*e*) By undertaking any trusts that may seem to the Council of the Association directly or indirectly conducive to the interests of the medical profession.

(*f*) By delegating to any Branches of the Association in the United Kingdom or elsewhere such of the powers of the Association as in the opinion of the Council of the Association it shall be expedient to delegate.

(*g*) And by such other lawful means as in the opinion of the Council of the Association shall seem best calculated to promote the medical and allied sciences, or to maintain the honour and interests of the medical profession.

By omitting from Clause 6 of the Memorandum of Association the words 'Committee of.'"

These Resolutions, with such necessary modifications as may be determined upon, will, it is proposed, be again submitted to the Representative Meeting for the further affirmation by the Association in consequence of the long period that they have been allowed to remain in abeyance. The procedure to be followed is that, after adoption by the Representative Meeting, the permission of the High Court must be obtained for the alterations to be made in the Memorandum in accordance with the Resolution of the Meeting. This done the Association will then have the necessary power (under the Companies Acts) to carry out the purposes of Medical Defence.

Paragraph 2.—Inasmuch as the idea of establishing by means of the British Medical Association a Medical Defence Department for the whole profession is to secure concentration of the strength of the profession, the Committee proposes to invite the existing Defence Societies to co-operate in this object. Further, by the establishment of such a Department it is hoped that the unification of interests thus secured will obviate the disadvantages attendant on the existence of various Societies instituted for the same purpose and yet competing against each other.

This consideration is intensified by the fact that the *personnel* of the Societies and the Association is largely the same. To make Medical Defence completely efficient it must be carried on by a single professional organization representing the profession at large. This, in the opinion of the Committee, cannot be attained by any one of the existing Societies. The fact that the membership of each of the Societies has increased as the members of the profession have realized that medical defence is an essential adjunct to practical work is itself a cause of an increasing divergence between the Societies. If the Societies agree to combine together in the single Defence Department proposed by the Committee's scheme the profession will gain and the success of the Association's work will be assured by the fact that the business of the Department may be transacted by the highly trained officers who have already brought the work of the existing Societies through so many difficulties to a successful issue.

Paragraph 3.—This article provides for the government and administration of the Defence Department. Inasmuch as certain local knowledge is requisite for the economical and successful administration of defence work, it is suggested in the scheme of constitution of the department that there shall be a Central Committee which shall co-ordinate the work, and which would also carry out the business arising in England and Wales; and, further, that there shall be also a Committee for Scotland and another for Ireland. In providing for the election of these Committees, it will be noted that some of the members of the Representative Meeting voting in the election of the members of their respective Committees possibly may not be subscribers to the Defence Department. In the opinion of the Committee this is not a matter of moment in view of the large amount of defence work the Association is already carrying on in the interests of the profession; and, in fact, under the circumstances it seems only right that each of the Representatives of the Association in the Representative Meeting should take part in the election.

Paragraph 4.—The establishment of a Register of members who join the Defence Department is, of course, necessary until the advantages can be extended to all the members.

The amount proposed to be paid as Annual Subscription is taken from the experience of the existing Societies which was kindly laid before the Committee by those bodies. Of course, the estimates thus obtained included expenditure for many purposes which are at present already provided for by the Association out of the ordinary annual subscription. For the inauguration of the scheme, however, the Committee considered it wiser to propose the sum of 10s. per annum as being based on actual experience.

Paragraphs 5, 5*a*, and 12.—As regards the appointment of Secretaries to the Committees, while it was clear that their special interest required that the Scotch and Irish Committees should appoint their own officers, two alternative proposals

were formulated for the appointment of the Secretary to the Central Defence Committee—that is, of the Department as a whole.

It is therefore left to the consideration of the Divisions whether (1) the Council should appoint a Chief Secretary of the Department, or whether (2) the Central Committee, being more intimately acquainted with the work required, should appoint an officer. With this point must be considered the further extension of the latter principle embodied in the proposals contained in Paragraph 12.

Paragraphs 6, 7, and 8.—The conditions laid down in these paragraphs are those which have been found by the experience of twenty years work to be necessary to Medical Defence administration.

Paragraph 9.—The question of finance involves two considerations in expenditure—for example, general and local. To meet the incidental expenses of each Committee it is suggested that a sum of two shillings per head should be devoted from the Central Fund.

Paragraph 10.—This paragraph is drafted to provide that the Medical Defence Department shall not only possess the support and prestige of the Association, but that it shall also obtain strength from the financial stability of the Association. To provide that the Defence Department should be secured against any special and large calls which may be made upon it, and, at the same time, to arrange that the Association should, as far as possible, be protected from unreasonable risk, the Committee propose that the Association should, if necessary, advance money on the security of a Guarantee Fund established by the Medical Defence Department. The establishment of a Guarantee Fund is the system existing at present among the Defence Societies, and it may here be observed that no call has ever been made of the kind referred to, nor if the Central Committee exercise the same judgement and care in administration as has signalized the work of the existing Societies, does it appear likely that the necessity for a call will ever arise. Further, it is to be noted that under the Constitution of the Association all the financial work will be examined first by the Central Defence Committee, and finally transacted by and through the Council.

Paragraph 11.—This provision is inserted in the scheme, not only for the reason that the general defence work is already being carried on by the Standing Committees of the Association, but also because until the resources of the Defence Department have considerably accumulated the matter requiring immediate attention is, in the opinion of the Committee, the personal defence of the individual members of the Association.

In conclusion, this scheme is purely an optional one, and it is for every member of the British Medical Association to decide for himself whether or not he wlll avail himself of the advantages of this plan of Medical Defence.

Minority Report.

The following report of a minority of the Medical Defence Committee was read to the Council at its meeting on January 20th by Dr. Beverley. It will be remembered that the report of the Medical Defence Committee at which the scheme was finally adopted had been held on the previous day.

The undersigned of the Committee beg to disagree with the Majority Report, upon the following grounds:

The original intention of those who formulated a scheme at Swansea was that there should be one and only one, Society for Medical Defence, and that that society should be the British Medical Association; the scheme at present adopted by the Committee simply originates a new competing body to be added to the existing defence societies: there being already the Medical Defence Union, the London and Counties Medical Protection Society, a Scotch society, and an Irish one.

To enter into such competition, the British Medical Association must provide a better organization than those already existing in which the work can be accomplished with greater efficiency, greater promptness, and at less cost. How far the first of these propositions can be carried out time alone will show, but the cheapness is by no means apparent.

The Medical Defence Union has a subscription of 10s. and an entrance fee of 10s., making a total of £1 for the first year, and after that 10s. per annum. To enable a member of the profession to get the advantage of the British Medical Association scheme, it is firstly necessary that he should be a member of the Association, that is, he must pay 25s. per annum, and then in addition to this he will be required to pay 10s. a year, and also subscribe to the guarantee fund, making a total annual subscription of 35s. against the 10s. per annum of the existing societies. It will therefore be more expensive.

In addition to this it is clear, from the scheme as formulated, that the Committee will be merely an outside body, only in connexion with the Association in name, no more part and parcel of that body than the Medical Defence Union, as its funds are not to be touched, except as a loan applicable for the purposes of the Committee.

Thus a Committee will be using the name of the British Medical Association, although the Council and general body of members will, unless they be individual subscribers, have no control over it at all; it will be an outside independent additional organization.

M. Arden Messiter.
Michael Beverley.

MEDICAL EXAMINATIONS FOR LIFE ASSURANCE.

The following Report of a Committee appointed by the Norwich Division of the British Medical Association to investigate and report on the present Scales of Remuneration offered for Medical Examinations by Insurance Companies in Norwich, and the character of the Examinations demanded, will be presented to the next meeting of the Division, and is here published in advance for the information of other Divisions which may be intending to consider the subject:

REPORT.

This Report is based on information obtained concerning thirty-three Life and Sickness Insurance Companies having Offices or Agents in the city of Norwich. The remunerations given for Medical Examinations by thirty of these Companies were ascertained, and twenty-two different specimens of the Reports required from the Medical Examiner were procured. The Committee thinks that, although the information it has obtained is by no means exhaustive, there being several Companies trading in Norwich whose action in the matter under consideration was not ascertained, yet it has had sufficient facts before it on which to base this Report.

From the point of view of the Medical Examiner, the value of "Insurance work" as a source of income depends, first, on the amount of the fee offered for each examination; and, secondly, on the quality and quantity of the work required in each case; and a consideration of the latter is necessary for a proper estimation of the adequacy of the former.

In this city, too, almost every Company employs several medical men to conduct its examinations, so that the total received in fees by any one of them during the year does not amount to much; and it stands to reason that the remuneration for casual professional work should be on a more generous scale than that offered for continuous employment.

Taking first the amount of the remuneration received for a medical examination, it will be seen from the following table that there is a great diversity in the scales of fees given by different Companies.

Number of Companies Giving:	
One Guinea for each Examination	12
One Guinea for Policies of £100 and upwards, and 10s. 6d. for those below	2
One Guinea for Policies of £150 and upwards, and 10s. 6d. for those below	1
One Guinea for Policies of £200 and upwards, and 10s. 6d. for those below	3
One Guinea for Policies of £250 and upwards, and 10s. 6d. for those below	3
One Guinea for Policies of £300 and upwards, and 10s. 6d. for those below	3
One Guinea for Policies of £500 and upwards, and 10s. 6d. for those below	4
10s. 6d. for each Examination	2
	30

Five Companies have a special scale of fees when the Policy asked for is of less than a certain amount. They are included in the above Table, but the lower scale of fees given was ascertained in four cases.

Two offer 2s. 6d. for Policies up to £50.
5s. 0d. for Policies from £50 to £100.
10s. 6d. for Policies from £100 to £500.
Another offers 5s. 0d. up to £25.
7s. 6d. from £25 to £50.
10s. 6d. from £50 to £100.
The fourth offers 5s. 0d. up to £100.
10s. 0d. from £100 to £250.

The principle which apparently actuates these various Companies in drawing up their Scale of Fees is that the higher the sum insured for the larger the fee paid by the Company for the Medical Examination.

This the Committee considers to be most unfair.

The Medical Examiner is a servant of the Company, is acting in its interests, and is paid by it; his dealings with a Society, which according to its own statements is generally in a highly prosperous condition, should not, therefore, be dependent on the financial condition of the candidate for insurance.

Considering next the character of the report asked for from the Medical Examiner, there is no reason to suppose that a less thorough examination is required when the fee given is half a guinea than when it is a guinea. Some Companies want a smaller report when the amount insured for is under a certain sum, but in these cases the fee given for the examination is generally less than half a guinea, and in some instances this smaller report differs little, as regards the amount of work to be done, from the larger report.

Of the sixteen Companies in the preceding table offering fees of half a guinea or a guinea, according to the amount of the sum insured for, the report required is exactly the same in either case.

The Committee is of opinion that those Companies whose financial condition only enables them in certain cases to pay a smaller fee, for example half a guinea, should ask for a proportionately shorter report.

In several of the reports some of the investigations asked for go beyond the limits of what is ordinarily accepted as necessary in conducting an examination for life insurance, and if strictly carried out would be as objectionable to the Candidate as to the Examiner. The following are examples:

1. Do you find, after careful inquiry and physical examination, any evidence of past or present disease of the eyes or skin?
2. If there is any deafness, the condition of the tympana must be determined by actual examination.
3. If there has been stricture at any time, the Examiner should ascertain by actual examination that it is cured.

Most medical men would be puzzled to answer the following questions, asked by one Company:

(*a*) Do you find, after physical examination, any evidence of disease of the *middle* ear?
(*b*) Is his (candidate's) build a family characteristic or individual to party?

There is one company which requires the Medical Examiner to visit Candidates in their own homes, if requested to do so. If they live at a distance from this city, the expense of the journey has to be borne by the Medical Examiner, and it has happened that his arrival has been by no means welcome.

In great measure these misunderstandings may be the fault of the Company's Agent, but the pledge exacted by the Company from the Medical Officer, that he shall visit Candidates at his own expense, is corroborative of the general tendency, shown by most of the facts mentioned in this Report, for many Insurance Companies to require an amount of work from their Medical Officers quite disproportionate to the remuneration given.

In order to give an idea of the nature of the work asked for by some Companies, copies of three different reports are appended and the amount (not the maximum) of the fee given to the Medical Referee for each, stated.

The Committee considers that in these instance the remuneration is much too low for the amount of work demanded.

Reports *A* and *C* are for small Policies, as a rule, taken out chiefly by members of the "working class," and they both show how, while the Medical Officers' fee dwindles proportionately to the value of the Policy, till it almost reaches the vanishing point, the number of questions to be answered remains substantially the same. Report *B*, though possibly an extreme instance, is unfortunately by no means unique as regards the character and number of the questions asked.

In many reports the Medical Officer is asked whether he considers the applicant able to keep up the policy. The Committee considers that such inquiries should not form part of a medical examination. The Medical Officer should merely report on the physical condition of the applicant; the latter's financial condition should be ascertained by the Agent.

The Committee desires to state that many of the Companies included in this report treat their Medical Referees fairly, both in the matter of fees and reports.

The names of those which, as far as could be ascertained, give One Guinea for all examinations, irrespective of the value of the Policy, are—the *Norwich Union*, the *Equitable*, the *Law Union and Crown*, the *New York Mutual*, the *Liverpool, London, and Globe*, the *Clergy Mutual*, the *Standard Life*, the *Scottish Widows*, the *Legal and General*, the *Economic Life*, the *National Provident Institution for Mutual Life Assurance*, and the *Friends' Provident Institution*.

The *Law Union and Crown* has, however, since this investigation was begun, shown a desire to lower its fees, and until the profession takes up a definite attitude on this question and insists on adequate fees, others must be expected to follow suit.

It will be remembered that in the autumn of 1900 the action of the *New York Life* Insurance Company, in lowering its fees to the present standard, aroused considerable dissatisfaction amongst the profession, and inspired numerous letters to the Editor of the BRITISH MEDICAL JOURNAL. Many facts mentioned in this report were then made public, and a general desire was manifested that the profession at large should take the matter up. There seems, however, to have been no practical outcome of the agitation, and the Insurance Company obtained the terms it asked for. There is apparently no reason why, under existing circumstances, the tactics of three years ago should not be repeated, and a further decrease in the fees paid to the Medical Examiners result.

The Committee holds that the system of a sliding scale of fees is neither a proper nor a suitable way of remunerating a Medical Examiner.

It is of opinion that the fee he receives should be proportionate to the amount of work done by him, and that for every full and careful report he should receive One Guinea, while for half that sum the examination demanded should entail less work and the report be materially shorter.

It considers that the Division should take no steps to remedy the existing grievances until the subject has been thoroughly investigated by other Divisions, and if possible by the Association, and some common action decided upon. It would suggest that for the present all the Insurance Companies trading in Norwich should be written to and the facts, as stated in this report, together with the general opinion of the Division thereon, brought to their notice, so that if any of them felt inclined to express an opinion on this matter they could do so before the Division had pledged itself to definite action.

We are,

Yours faithfully,

(Signed) M. BEVERLEY, Chairman.
D. D. DAY.
E. W. EVERETT.
J. FIELDING.
S. H. LONG.
R. J. MILLS.
J. H. STACY.
A. J. CLEVELAND, Hon. Sec.

A.—INDUSTRIAL BRANCH ASSURANCE.

MEDICAL REFEREE'S REPORT.

Fee, Half-a-Crown or Five Shillings, according to the Sum Assured.

QUESTIONS.

1. What is the personal appearance and general conformation of the proposer?
2. Does the proposer appear in good circumstances and able to keep up the Assurance?
3. What is the apparent age?
4. Have you any reason to suspect irregular or intemperate habits?
5. Is the proposer the subject of hernia, and if so, are you satisfied a proper truss is worn? Has the proposer any physical defect or infirmity?
6. Has the proposer suffered from asthma, bronchitis, gout, rheumatic fever, or any serious illness? If so, please state date and duration of last attack, and whether in your opinion the life is affected thereby.
7. Are the veins enlarged in any part or varicose?
8. Are there any external signs which indicate abscess?
9. Is there any reason to apprehend paralysis, epilepsy, apoplexy, or insanity?
10. Is there any reason to suspect liver or kidney disease?

11. Are the heart and lungs normal in every respect and perfectly free om disease?
12. Are the parents alive? If not, state age at death and cause of eath?
13. Have any of the brothers or sisters died from phthisis, or is any ember of the family now suffering from that disease? If so, please ive particulars.
14. Are there any other circumstances connected with the proposer ith which you think the Company should be made acquainted?

B.—ORDINARY LIFE ASSURANCE.

MEDICAL REFEREE'S REPORT.

Fee, Half-a-Guinea.

Questions to be put by the Medical Examiner, and the Answers to be filled in by him.

1. What is your occupation?
2. How long have you been engaged in your present occupation?
3. What was your previous occupation?
4. Do you contemplate making any change, temporary or permanent, your occupation? If so, give full details.
5. Do you contemplate changing your residence or making a journey, is their any probability that you will do either? If so, give full tails.
6. In what countries have you lived the last ten years, and which ars in each?
7. Have you now any connexion, direct or indirect, with the manu-cture or sale of wines, spirits, or malt liquors?
8. Have you ever had any such connexion? If so, give full details.
9. What is your daily consumption of wines, spirits, or malt liquors?
10. Have you at any time used any of them to excess?
11. Have you ever raised or spat blood?
12. What is the name of the Agent who induced you to make this esent application?
13. Have you ever been examined for insurance without receiving a licy?
14. What illnesses, diseases, or accidents have you had since child-od? (The Examiner should satisfy himself that the applicant gives l and careful answers to this question). [Space is left here for *Name Disease*, *No. of Attacks*, *Date*, *Duration*, *Severity*, and *Results*]
15. How long since you consulted or haye had the care of a phy-ian?
16. If so, for what ailment, Name and address of physician.
17. Family record. [Space is left for—Age, if living; condition of alth, with full details if not good; age at death; cause of death; ration of illness and details; and previous health of father, mother, thers, sisters, and all four grandparents.]
18. Have any of your uncles or aunts suffered from consumption?

Questions relating to the actual Medical Examination.

19. Rate of the pulse. Its character.
20. Age. Does age as stated seem correct?
21. Exaet height and weight.
22. Girth of chest at fourth rib and of abdomen at umbilicus.
23. How well do you know party?
24. Complexion, colour of hair and eyes.
25. Is party's general appearance healthy?
26. Is party deformed, lame, or maimed?
27. Is party a Caucasian? If not, what is his race?
28. Has party recently gained weight? If so, how much and to what due?
29. Has party recently lost weight? If so, how much and to what is ue?
30. Is his build a family characteristic or individual to party?
31. Are there any marks of small-pox or of successful vaccination?
32. Do you find, after careful inquiry and physical examination, any ence of past or present disease—
33. Of brain or nervous system?
34. Of the heart or lungs?
35. Of the stomach or any of the abdominal organs?
36. Of rheumatism or gout?
37. Of the skin, middle ear, eyes, or any part of the body? If so, full details.
38. Does chemical examination of the party's urine show albumen or r (even in traces) or any abnormality?
39. State specific gravity, and if it is below 1015 or above 1025; give opinion as to the cause.
40. Has party ever had any genito-urinary ailment (syphilis, stricture, ? If so, give full details.
41. Have you any reason to suppose that the party is now or ever has intemperate in the use of alcohol or drugs?
42. Have you reviewed all answers in this report and application, and ou sure they are clear and complete? (Any erasures or alterations ld be initialled by the examiner.)
43. Do you believe that party has given full and true information in spects?

a special note at the end of the report, the medical examiner is sted "... to make every endeavour to make this report as com-and precise as possible; the object being to give the Company a icture of the applicant as he presents himself to you."

C.

The Fee for this Report is Five Shillings.

1. Is the proposer known to you? If so, how long?
2. What age is he stated to be, and does he appear to be the age stated?
3. Has he any physical defect or deformity?
4. Has he had any illness that has left permanent effects?
5. State the frequency and character of the pulse?
6. Are the sounds of the heart normal?
7. Has the proposed any enlarged or varicose veins?
8. Is the respiration normal?
9. Do the lungs expand properly and equally in inspiration?
10. Are the general shape and capacity of the chest satisfactory?
11. What is the condition of the tongue, stomach, and bowels?
12. Is there any reason to suspect disease of the liver?
13. Is the proposed the subject of hernia? If so, state nature and duration.
14. Is a proper truss worn?
15. Are there any external signs of abscess, struma, or exfoliation of the bone?
16. Has the proposed resided in tropical or unhealthy climates?
17. Has he suffered in any way in consequence?
18. Has the proposed had rheumatic fever?
19. Is he subject to rheumatism or gout?
20. Is there any reason to suspect kidney disease? Please make an examination of the urine.
21. Is there any reason to suspect disease of the urinary or generative organs?
22. State height and weight.
23. Do their relations to each other indicate proportional physical development?
24. Has the proposed suffered from insanity, epilepsy, or St. Vitus's dance? If so, give particulars and duration.
25. Has the proposed ever suffered from any serious disease? If so, what, and how long was he ill?
26. Do you suspect that the proposed is, or has been, addicted to irregular or intemperate habits, or is his occupation likely to shorten life?
27. Family history. [Space is left for details of father's, mother's, brothers', and sisters' health or death.]
28. Is the father's family healthy?
29. Is the mother's family healthy?
30. Is any near relative suffering from consumption?

The examiner is then required to place the life in one of four classes, and to state briefly his reasons for doing so, and to give his opinion of the health and constitution of the proposed.

NOTE.—If the sum is assured for less than £50, the examination of the urine is to be omitted, and if for less than £25, the fee for this report is Half-a-Crown.

In proposing the adoption of the report at the next meeting of the Norwich Division Dr. Cleveland will move:

That in the opinion of the Division the remunerations offered by many insurance companies for medical examinations of candidates are inadequate and that some definite action be taken by the Division with a view to raise the standard of the fees in these cases, and that the matter be referred to the Executive Committee to decide upon the best course to be adopted.

THE LOCAL GOVERNMENT BOARD BILL.

THIS Bill, as finally settled by the draughtsman and approved by the Conference between the Public Health and Medico-Political Committees, was submitted to the Council of the British Medical Association at its meeting on January 20th, when the Council adopted the following resolution:

That a draft Bill to reconstitute the Local Government Board as amended be referred to a Parliamentary draughtsman to prepare a Bill on the lines agreed upon by the conference between the Public Health and Medico-Political Committees on January 14th, 1904. Further, that the necessary steps be taken to have the proposed Bill introduced into the House of Commons.

A deputation representing the British Medical Association had an interview with the President of the Local Government Board on February 23rd, and Mr. Long undertook to convey the views of the Association to the Committee on the Organization, Duties, and Pay of the Board of Trade and the Local Government Board, which is presided over by the Earl of Jersey. An offer was made to this Committee to give evidence, but the Secretary of the Committee replied that the Committee would prefer to receive a statement in writing. The following Memorandum has therefore been forwarded to Lord Jersey's Committee:

MEMORANDUM.

To the Committee on the Organization, Duties, and Pay of the Board of Trade and the Local Government Board.

I. The British Medical Association, as representative of the

Medical Profession in the United Kingdom, desires most respectfully to draw the attention of the Committee appointed to consider the Organization, Duties, and Pay of the Board of Trade and the Local Government Board to certain conclusions at which the Association has arrived concerning the organization of the Local Government Board, which organization in its working most materially affects the efficiency of Public Health Administration in England and Wales.

II. The conclusions of the Association are based upon the following facts and considerations:

(1) The facts coming constantly under the notice of all medical practitioners, and especially of those who are officially concerned in Sanitary Administration, as to (*a*) the prevalence of preventable disease, and (*b*) physical unfitness, among the population of this country, due to causes which it is believed could in a great degree be removed by better central and local administration.

(2) It is recognized by the Association that the causes which have thus come under its notice as prejudicially affecting the health of the community are in part due to the ignorance and vice of individuals, in part to the lack of instructed public opinion among the electors and members of Local Authorities, and in part to a want of co-ordination of Local Authorities dealing directly or indirectly with questions of Public Health; but it is also believed that many grave evils are directly traceable to defective organization of those Departments of the Central Government which deal with matters of Public Health, and to a want of proper co-ordination of these Departments with one another and with Local Sanitary Authorities.

(3) The British Medical Association believes that the first and most pressing public need in this matter is the establishment of an efficiently constituted Central Department, to which all matters affecting Public Health should be specifically referred.

(4) It is not, however, suggested that this should be a new separate branch of the Government.

The Association appreciates that in this country the principle of extensive devolution of sanitary administration to Local Authorities must be fully recognized in any attempt to deal comprehensively with the organization of such administration, and that it follows from the acceptance of this principle that the central administration of Public Health cannot, with advantage, be taken from the department which is concerned with Local Government in general, and, therefore, that attempts to make more efficient the central organization of Public Health Administration must be directed to reform in the organization of the Local Government Board.

(5) The defects in the present organization of the Local Government Board are traceable chiefly to circumstances in its origin and development, to which reference must briefly be made.

In theory, the Local Government Board is a Committee of the Privy Council. In practice the responsibilities and duties of the President of the Local Government Board are exactly analogous to those of a Secretary of State. The fact that the President is not a Secretary of State detracts from his influence with Local Authorities, and diminishes the status and emoluments of the officers of his Department. It has been said on behalf of the Treasury, that the reason why the position and salaries of officers in the Local Government Board are inferior to those of officers in the office of a Secretary of State is that the duties discharged by the officers of the Local Government Board are of less importance to the State than those discharged by the officers in the office of a Secretary of State.

The Association ventures most strongly to dissent from this view, and to assert that the duties of the Local Government Board are of the first importance to the welfare of the country, in relation especially to Public Health, using that term in its widest sense, to include not only sanitary administration, but also Poor-law administration, and the revision of schemes of water supply and drainage, and in addition such matters as the effect of improper conditions of housing and employment in producing disease and physical deterioration, and the organization of locomotion as affecting the distribution of the population.

The Medical Department of the Local Government Board was transferred to it from the Privy Council, at the time when the Act of 1871 came into force. The personnel of the Department has since been largely increased, and the responsibilities and duties placed upon it have grown in importance with the progress of sanitary legislation, but the status of the Department has not undergone any corresponding improvement.

III. Having regard to the foregoing facts and considerations, the Association has arrived at the following conclusions which it ventures most respectfully to urge upon the Committee, namely:

(1) That the President of the Local Government Board should be a Secretary of State, and that that Department in all matters of status and emoluments should be raised to an equality with the existing Departments of Secretaries of State.

(2) That the President should be assisted and advised by a Board, meeting for the transaction of business, and consisting of, in addition to himself, a Vice-President and a Parliamentary Secretary, each of whom should be a Peer or a Member of the House of Commons, and of a certain number of expert members. It will be observed that such a constitution would be in accordance with the precedent established by the creation of the Scottish Local Government Board, and follows also the analogy of the Admiralty Board and the Army Council.

(3) That, inasmuch as Public Health Administration would be an important function of the Board, one of such experts should be a Registered Medical Practitioner who should have had special experience in Public Health Administration.

Having regard to the fundamental importance of these proposals, the Association has had prepared the Bill embodying the said proposals, of which a copy is appended to this Memorandum.

The Association would further venture to suggest that, in conjunction with the proposed reorganization of the Board, (*a*) the duties of the Department should be extended so as to comprehend the duties in respect of the administration of the Medical Acts, the Dentists Act, the Midwives Act, and the Pharmacy Act, which are at present imposed upon the Privy Council; and that (*b*) the propriety of transferring the duties under the Adulteration Acts and Factories Acts to the Local Government Board, as the Central Health Authority, also arises for consideration.

REGISTRATION OF NURSES AND OF PRIVATE NURSING HOMES.

A BILL

To provide for the better Training and Registration of Nurses and for the Voluntary Registration of Private Nursing Homes.

Introduced by Mr. Claude Hay, Mr. Bignold, Mr. H. D. Greene, Captain Bagot, Lord Cecil Manners, and Mr. Malcolm.

Be it enacted by the King's Most Excellent Majesty, by and with the advice and consent of the Lords Spiritual and Temporal, and Commons, in this present Parliament assembled, and by the authority of the same, as follows:

Registration of Nurses.—I (1) From and after the first day of January, one thousand nine hundred and eight, no person shall practise as a registered nurse unless such person be registered under this Act; any person so acting, without being registered under this Act, shall be liable, on summary conviction, to a fine not exceeding £10.

(2) No person shall be registered under this Act unless such person has complied with the rules and regulations to be laid down in pursuance of this Act, and unless such person shall have attained the age of 24 years, and shall have had three years' previous training in nursing; and such training which shall be evidenced by the production of certificates shall include medical (including enteric fever) and surgical nursing, invalid cookery, and sanitation.

Provision for Existing Nurses.—II. Any person who, within two years from the date of this Act coming into operation, claims to be registered under this Act, shall be so registered, provided that such person holds a certificate of at least two years' training from any institution recognized by the

Central Board, or produces evidence, satisfactory to the Board, that, at the passing of this Act, such person has been for at least five years in bona-fide practice as a trained nurse, and bears a good character.

Nurses Trained in the Colonies.—III. Any person who shall produced evidence satisfactory to the Board of having been trained and examined as a nurse in any part of the British dominions beyond the seas shall be registered, provided such person passes an examination approved by the Board, and bears a good character.

Constitution of the Central Board.—IV. On the passing of this Act the Lord President of the Privy Council shall take steps to secure the formation of a Central Board, which shall consist of—

(1) Three registered medical practitioners to be appointed for terms of three years. Two to be appointed by the Lord President of the Council, and one to be appointed by the British Medical Association.

(2) Three persons to be appointed for terms of three years by the Lord President of the Council, one to represent England, one to represent Scotland, and one to represent Ireland; and

(3) Three representatives to be appointed for terms of three years, one to be appointed by the Medical Director-General of the Navy and the Medical Director-General of the Army conjointly, one by the Royal British Nurses' Association, and one by the Queen Victoria Jubilee Institute for Nurses, and

(4) Five fully-trained nurses who shall be matrons or lady-superintendents of hospitals or Poor-law infirmaries with training schools attached, to be elected for terms of three years; one to be elected by the matrons and lady-superintendents of the metropolitan hospitals, one to be elected by the matrons and lady-superintendents of metropolitan Poor-law infirmaries, one to be elected by the matrons and lady-superintendents of provincial hospitals, one to be elected by the matrons and lady-superintendents of hospitals in Scotland, and one to be elected by the matrons and lady-superintendents of hospitals in Ireland; and

(5) Seven fully-trained nurses to be elected for terms of three years; three to be elected by nurses on the Register who are resident in the metropolis, one of whom shall be a mental nurse and one a fever nurse, two by nurses on the Register who are resident in the provinces and Wales, one by nurses on the Register who are resident in Scotland, and one by nurses on the Register who are resident in Ireland.

The members first elected under subsection (5) shall not be elected until the expiration of six calendar months from the date of the first registration of nurses in the Register, and they shall only be elected for so long as remains of the period of three years for which the Board than existing has been appointed. Any vacancy occurring by resignation or death shall be filled up by the body which appointed or elected the member who has resigned or died, and the person appointed or elected shall continue as a member only so long as the person for whom he or she has been substituted would have remained a member without reappointment or re-election. On the termination of the period for which the members have been appointed or elected they shall be eligible for reappointment or re-election for a like period.

Duties of the Central Board.—V. The duties and powers of the Central Board shall be as follows:

(1) To frame rules:
  (*a*) Regulating their own proceedings;
  (*b*) Regulating the issue of certificates and the conditions of admission to the Register of nurses;
  (*c*) Regulating the course of training and the conduct of examinations and the remuneration of the examiners;
  (*d*) Regulating the admission to the Register of women already in practice as nurses at the passing of this Act;
  (*e*) Regulating, supervising, and restricting within due limits the duties of nurses;
  (*f*) Deciding the conditions under which a nurse may be suspended from practising as a registered nurse.

(2) To appoint examiners;

(3) To decide upon the places where, and the times when, examinations shall be held;

(4) To publish annually a register of nurses who have been duly certified under this Act;

(5) To decide upon the removal from the register of the name of any nurse for disobeying the rules and regulations from time to time laid down under this Act by the Central Board, or for other misconduct, and also to decide upon the restoration to the register of the name of any nurse so removed;

(6) To issue and cancel certificates;

And generally to do any other act or duty which may be necessary for the due and proper carrying out of the provisions of this Act.

All rules framed under this Section shall be valid only if approved by the Privy Council.

Appeal from Decision of the Central Board.—VI. Any registered nurse who is aggrieved by any decision of the Central Board removing his or her name from the register, may appeal therefrom to the High Court of Justice within six months after the notification of such decision to such nurse. The Central Board shall not suspend or remove any nurse's name from the register without sending to such nurse a statement in writing of the conduct imputed to him or her, and without affording an opportunity of giving an explanation in writing or in person.

Fees and Expenses.—VII. There shall be payable by every person who comes up for examination and registration such fee as the Central Board may from time to time determine. All such fees paid by nurses in practice at the passing of this Act, and by candidates for examination shall be paid to the Central Board. The said Board shall devote such fees to the payment of expenses connected with the examination and registration, and to the general expenses of the Board. The Board shall, as soon as practicable after the thirty-first day of December in each year, publish a financial statement made up to that date, and showing the receipts and expenditure, including liabilities of the Board, during the year, which statement shall be certified as correct by an accountant, who shall be a member either of the Institute of Chartered Accountants or of the Incorporated Society of Accountants.

Nurses' Register.—VIII. There shall be a register of nurses containing

(1) The names of those nurses who have been registered under Section II of this Act;

(2) The names of those nurses who have been registered under Section III of this Act;

(3) The names of all other nurses who have been registered under this Act.

The entry in the register shall, in every case, indicate the conditions in nature of which the registration was made.

Badges.—IX. All persons registered under this Act shall be entitled to wear such distinctive badge as has been previously approved by the Central Board, and any person whose name does not appear on the register who shall wear a similar badge, or any imitation thereof, shall be liable, on summary conviction, to a fine not exceeding £5.

Duty of Central Board to Inspect and Register Private Nursing Homes.—X. The Central Board shall, upon the written request of any person or persons who own or manage a private nursing home, cause such home to be inspected, and shall, upon compliance by such person or persons with the regulations framed by the Board with respect to private nursing homes, register the same.

Powers of the Central Board in respect to the Inspection and Registration of Private Nursing Homes—XI. The powers of the Central Board in respect to the registration of private nursing homes shall be as follows:

(1) To frame regulations;

(2) To appoint visitors;

(3) To fix and collect fees for registration of private nursing homes;

(4) To keep and publish annually a register of private nursing homes which have been duly registered under this Act;

(5) To decide upon the removal from the register of any private nursing home where the regulations made from time to time, under this Act, by the Central Board are not observed or continued in force, and also to decide upon the restoration to the register of any private nursing home so removed.

Regulations framed under this section shall be valid only if approved by the Privy Council.

Appeal from Decision of Central Board.—XII. The owners or managers of any private nursing home thinking themselves aggrieved by any decision of the Central Board removing the private nursing home which they own or manage from the register may appeal therefrom to the High Court of Justice within three months after the notification of the decision to them, but no further appeal shall be allowed.

Appointment of Secretary and Supplemental Provisions as to Registration.—XIII. The Central Board shall appoint a secretary and such other officers as may be required, and every person so appointed shall be paid such salary as the Board may approve, and shall be removable at the pleasure of the Board. The secretary shall be charged with the custody of the registers.

A copy of the Register of Nurses or of the Register of Private Nursing Homes purporting to be printed by the authority of the Board, or to be signed by the secretary to the Board, shall be evidence in all courts that the persons and the private nursing homes therein specified are registered under this Act; and the absence of the name of any person or of any private nursing home from such copy shall be evidence until the contrary be made to appear that such person or such private nursing home is not registered under this Act: Provided always that, in the case of any person or any private nursing home whose name does not appear in such copy, a certificate, under the hand of the secretary, of the entry of the name of such person or such private nursing home on the register shall be evidence that such person or such private nursing home is registered under this Act.

Penalty for obtaining Registration by False Representation.—XIV. Any person who procures, or attempts to procure, registration under this Act by making or producing, or causing to be made or procured, any false and fraudulent declaration, certificate, or representation, either in writing or otherwise, shall be guilty of a misdemeanour, and shall, on conviction thereof, be liable to be imprisoned, with or without hard labour, for any term not exceeding twelve months.

Penalty for wilful Falsification of the Registers.—XV. Any person wilfully making, or causing to be made, any falsification in any matter relating to the Register of Nurses or the Register of Private Nursing Homes shall be guilty of a misdemeanour, and shall be liable to be imprisoned, with or without hard labour, for any time not exceeding twelve months.

Appeal.—XVI. Where any person deems him or herself aggrieved by any determination of any court of summary jurisdiction under this Act, such person may appeal therefrom to the Court of Quarter Sessions.

Definitions.—XVII. In this Act—

The term "nurse" means a man or woman who is registered under this Act, unless the context otherwise requires.

"Private nursing home" means a private nursing home which is registered under this Act, unless the context otherwise requires.

"Central Board" means the Board constituted under this Act for the purpose of carrying out the provisions of this Act.

Short Title and Commencement.—XVIII. This Act may be cited as the Nurses Registration Act, 1904. It shall, except as otherwise provided by this Act, come into operation on the first day of January, one thousand nine hundred and five.

A BILL TO REGULATE THE QUALIFICATION OF TRAINED NURSES AND TO PROVIDE FOR THEIR REGISTRATION.

Presented by Dr. Farquharson, supported by Mr. Haldane, Sir Thomas Wrightson, Sir James Joicey, Sir John Tuke, Mr. H. C. Smith, Mr. Munro-Ferguson, Mr. Tennant, Mr. Black, Mr. Colston, Mr. Eve and Dr. Thompson.

Whereas it is expedient that persons requiring nursing assistance should be enabled to distinguish qualified from unqualified nurses:

Be it therefore enacted by the King's most Excellent Majesty, by and with the advice and consent of the Lords Spiritual and Temporal, and Commons, in this present Parliament assembled, and by the authority of the same, as follows:

Short Title.

1. This Act may for all purposes be cited as the Nursing Act," 1904.

Commencement of Act.

2. This Act shall commence and take effect from the first day of October, One thousand nine hundred and four.

Interpretation.

3. In this Act "the Council" means the General Council of Nursing Education and Registration of the United Kingdom. The term "Direct Representatives" means the nurses elected as provided by Section 7 of this Act. The term "Trained Nurse" or "Registered Nurse" means a nurse whose name appears in "The Nursing Register."

Council Incorporated.

4. For the purposes of this Act, a Council shall be and is hereby incorporated by the name of "The General Council of Nursing Education and Registration of the United Kingdom," and by that name shall be a Body Corporate having a perpetual succession and a Common Seal, with power to purchase and hold, sell, or dispose of property and land for the purposes of this Act.

Constitution and Appointment of Council.

5. The Council shall consist of thirty-one persons to be appointed or elected as follows:

(*a*) Two persons to be appointed by His Majesty's Privy Council, of whom one shall be a registered medical practitioner, and one shall be a nurse.

(*b*) Five Registered Medical Practitioners, who shall be Lecturers or Teachers of Nursing in Nurse Training Schools attached to General Hospitals, to be appointed by the General Council of Medical Education and Registration of the United Kingdom, of whom three shall be appointed to represent Schools in England, one to represent Schools in Scotland, and one to represent Schools in Ireland.

(*c*) One Registered Medical Practitioner, who shall be engaged in general practice, to be appointed by the British Medical Association.

(*d*) Two matrons of General Hospitals in London, with Medical Schools attached, who shall be elected by the Matrons of General and Special Metropolitan Hospitals containing not less than 100 beds.

(*e*) Two matrons of Provincial or Welsh General Hospitals, who shall be elected by the Matrons of the County Hospitals or General and Special Hospitals containing not less than 100 beds, in the Provinces and in Wales.

(*f*) One matron of a Scotch General Hospital, who shall be elected by the Matrons of the County Hospitals or General and Special Hospitals containing not less than 100 beds, in Scotland.

(*g*) One matron of an Irish General Hospital, who shall be elected by the Matrons of the County Hospitals or General and Special Hospitals containing not less than 100 beds, in Ireland.

(*h*) Two matrons of Poor Law Infirmaries, containing not less than 200 beds, one for the Metropolitan Infirmaries and one for the Provincial Infirmaries, who shall be elected by the Matrons of such Infirmaries respectively.

(*i*) Six nurses who shall be elected by the registered nurses resident in England and Wales.

(*j*) Two nurses who shall be elected by the registered nurses resident in Scotland; and

(*k*) Two nurses who shall be elected by the registered nurses resident in Ireland.

(*l*) One nurse to represent Naval and Military nurses, and who shall be appointed in turn each five years, by the First Lord of the Admiralty or by the Secretary of State for War.

(*m*) One nurse to be appointed by the Matrons' Council of Great Britain and Ireland.

(*n*) One nurse to be appointed by the Queen Victoria's Jubilee Institute for Nurses.

(*o*) One nurse to be appointed by the Royal British Nurses' Association.

(*p*) One person, who must be either a Registered Medical Practitioner or a nurse, to be appointed by the Asylum Workers' Association.

(*q*) A President to be elected by the General Nursing Council, when completely constituted under this Section, and who shall be an appointed or elected member of the Council.

Every nurse appointed or elected as aforesaid shall be eligible to be, and shall in due course be, registered under the provisions of this Act.

Election of Representatives of Hospital and Infirmary Matrons.

6. The representatives of Hospital and Infirmary Matrons shall be elected in such manner as the Council at its first meeting shall determine.

Election of Direct Representatives.

7. The "Direct Representatives," shall be elected in the first instance by the votes of such nurses as have been registered under the provisions of this Act before the first day of March, One thousand nine hundred and five, and thereafter by the whole body of registered nurses in such manner as the Council, with the approval of His Majesty's Privy Council, shall from time to time determine.

Term of Office.

8. The members of the Council shall each be elected or

appointed for a term of five years, and shall be capable of re-election or reappointment, and any member may at any time resign his or her office by letter addressed to the President of the Council, and upon the death or resignation of any member of the Council, some other person shall be constituted a member of the Council in his or her place in manner hereinbefore provided; but shall vacate office at the time the member whose place he or she has taken would have vacated office; but it shall be lawful for the Council during such vacancy to exercise the powers by this Act conferred upon the Council.

Power to Lord President of Privy Council to Obtain Appointment of Council.

9. Within one month from the commencement of this Act the Lord President of the Privy Council shall take such steps as he may deem advisable to obtain the appointment of members of the Council as specified in Section 5, Subsections *a*), (*b*), (*c*), (*l*), (*m*), (*n*), (*o*), (*p*).

First Meeting of Council.

10. The appointed members of the Council shall hold their first meeting within two months from the commencement of this Act, in such place and at such time as the Lord President of the Privy Council shall appoint, and shall make such arrangements as to Section 6 as to them shall seem expedient.

Power to President to Summon Meeting in Certain Events.

11. In the absence of any rule or regulation as to the summoning of a meeting of the Council, or in any case of urgency, it shall be lawful for the President to summon a meeting at such time and place as shall seem expedient by letter addressed to each member; and at every meeting, in the absence of the President, some other member to be chosen from the members present shall act as President; and all acts of the Council shall be decided by the votes of the majority of the members present at any meeting, the whole number present not being less than fifteen; and at all such meetings the President for the time being shall, in addition to one vote as a member of the Council, have a casting vote, in case of an equality of votes; the Council may appoint an Executive Committee of their own body, of which the quorum shall not be less than six, and delegate to such Committee any of the powers and duties vested in the Council.

Appointment of Officials.

12. The Council shall appoint one of their number as Treasurer, and shall also appoint a Registrar, who shall act as Secretary of the Council, and shall also appoint such clerks and servants as may be necessary; and every person so appointed shall be removable at the pleasure of the Council, and shall be paid such salary as the Council shall from time to time determine.

Register of Trained Nurses to be Kept.

13. It shall be the duty of the Registrar to keep a correct Register of Trained Nurses, to be called "The Nursing Register," in accordance with the provisions of this Act, and the Orders and Regulations of the Council, and to erase the names of all registered persons who shall have died, and from time to time to make the necessary alterations in the addresses or qualifications of the persons registered under this Act.

Duties and Powers of Council.

14. The duties and powers of the Council shall be as follows:

I. To frame rules—(*a*) regulating their own proceedings; (*b*) regulating the issue of certificates and the conditions of admissions to the Register of Trained Nurses; (*c*) regulating the course of training and the conduct of examinations, and the remuneration of the examiners; (*d*) regulating the admissions to the Register of persons already in practice as trained nurses at the commencement of this Act; (*e*) regulating, supervising, and restricting within due limits the practice of registered nurses; (*f*) defining the particulars required to be given in any notice under this Act;

II. To appoint examiners;

III. To decide upon the places where, and the times when, examinations shall be held;

IV. To issue and cancel certificates;

V. To publish annually a Register of Trained Nurses containing the names, addresses, and qualifications of nurses who have been duly certified under this Act;

VI. To decide upon the suspension or removal from the Register of the name of any trained nurse for any breach of the rules and regulations from time to time laid down under this Act by the Council, or for conduct disgraceful in a professional respect, and also to decide upon the restoration to the Register of the name of any trained nurse so suspended or removed;

And generally to do any other act necessary for the due and proper carrying out of the provisions of this Act.

No rules framed under this section shall take effect until the same have been approved by His Majesty's Privy Council.

Provision for Existing Nurses.

15. Any person who, within two years from the commencement of this Act, claims to be certified thereunder shall be so certified provided such person is at least twenty-one years of age, and (1) holds a three years' certificate of training from a hospital approved by the Council, and is of good character, or (2) produces evidence of training satisfactory to the Council and has been for at least three years in bona-fide practice as a nurse, and is of good character. At the expiration of the said term of two years any nurse claiming to be certified under this Act shall have completed a three years' term of training in hospital wards approved of by the Council, and shall verify his or her qualifications for being so certified by such means as the Council may prescribe.

Fees and Expenses.

16. There shall be payable by every candidate for examination or registration such fee as the Council may, with the approval of His Majesty's Privy Council, from time to time determine, such fee not to exceed the sum of two guineas. All fees, fines, and penalties paid or recovered under this Act shall be paid to the treasurer of the Council, and shall be devoted to the payment of expenses connected with the examination of candidates, and to the general expenses of the Council, and of carrying this Act into execution. The Council shall, as soon as practicable after the 31st day of December in each year, publish a statement made up to that date, audited and certified as correct by an accountant who shall be a member either of the Institute of Chartered Accountants or of the Incorporated Society of Accountants, showing the receipts and expenditure during the year, and also the assets and the liabilities of the Council at the aforesaid date.

Provision as to Fees and Expenses of Council.

17. There shall be paid to the members of the Council such fees for attendance and such reasonable travelling expenses as shall from time to time be allowed by the Council.

Penalties.

18. From and after the commencement of this Act any person who attempts to personate any nurse certified under this Act, or who not being certified thereunder takes or uses the name or title of registered nurse (either alone or in combination with any other word or words, or letters), or any name, title, addition, or description implying that he or she is certified under this Act, or is recognized by law as a Registered Nurse, shall be liable on summary conviction to a fine not exceeding ten pounds, or in default thereof to three months' imprisonment.

Provision as to Non-recovery of Charges by Unregistered Persons.

19. From and after the commencement of this Act no person who assumes to be a registered nurse shall be entitled to sue for or recover any charge in any court of law for any nursing assistance or attendance on the sick unless such persons prove that he or she is registered under this Act.

Copy of Nursing Register to be Evidence.

20. A copy of the Nursing Register, purporting to be printed by the authority of the Council, shall be evidence in all courts of law that the nurses whose names are therein specified are registered under this Act; and the absence of the name of any nurse from the said Register shall be evidence, until the contrary be made to appear, that such nurse is not registered under this Act. Provided always that, in the case of any nurse whose name does not appear in such Register, a printed certificate under the hand of the Registrar of the Council that the name of such nurse has been entered on the

Register shall be evidence that such nurse has been duly registered under this Act.

Penalty for Obtaining a Certificate by False Representation and for Falsification of "Register."

21. Any person who (1) procures or attempts to procure a certificate under this Act by making or causing to be made or produced, any false and fraudulent declaration, certificate, or representation, either in writing or otherwise, or (2) wilfully makes or causes to be made any falsification in any matter relating to the Register of Trained Nurses shall be guilty of a misdemeanour, and shall on conviction thereof be liable to be imprisoned, with or without hard labour, for any term not exceeding twelve months.

Prosecution of Offences.

22. Any offences under this Act may be prosecuted by authority of the Council.

Appeal from Division of General Nursing Council.

23. Any registered nurse aggrieved by a decision of the Council removing his or her name from the Register of Trained Nurses may appeal therefrom to the High Court of Justice within three months from the notification of such decision, and such appeal shall be final.

Construction of Act.

24. This Act shall not be construed to affect or apply to the gratuitous nursing of the sick by friends or members of a family, and, also, it shall not apply to any person attending the sick for hire but who does not in any way assume to be a registered nurse.

No Authority to Practise Medicine.

25. Nothing contained in this Act shall be considered as conferring any authority to practise medicine or to undertake the treatment or cure of disease.

MEDICAL ACT (1886) AMENDMENT BILL.

THIS Bill introduced by General Laurie is backed by Sir Walter Foster, Sir John Tuke, Mr. Rothschild, Sir Howard Vincent, Mr. Middlemore, and Sir Mancherjee Bhownaggree.

MEMORANDUM.

IN order to facilitate the admission of colonially-trained and registered medical men to practise in Great Britain and hold appointments in the Imperial service, the Act of 1886 provided for reciprocity between the mother country and such of the self-governing colonies as might comply with certain conditions, but that Act expressly stipulates that when any colony had a provincial and a federal organization, such reciprocal arrangements should be entered into with the federal Government and not the provincial. In the case of Canada, the British North America Act of 1867, enacted by the Imperial Parliament, expressly provides that education shall be entirely under the control of the provincial and not the federal Governments, so that it is impossible to bring the Act of 1886 into force with Canada. It is impracticable to amend the British North America Act of 1867, and to transfer the control of education to the federal authorities, and therefore it is the object of this Bill to amend the Medical Act of 1886 without in any way interfering with the principle, and to enable reciprocal arrangements to be entered into either with the federal or provincial Governments.

A BILL TO

Amend the Medical Act, 1886.

Be it enacted by the King's most Excellent Majesty, by and with the advice and consent of the Lords Spiritual and Temporal, and Commons, in this present Parliament assembled, and by the authority of the same, as follows:

1. *Amendment of 49 and 50 Vict., c. 48, s. 27.*—For the purposes of the Medical Act, 1886, where any part of a British possession is under a central and also under a local legislature, His Majesty may, if he thinks fit, by Order in Council, declare that the part which is under the local legislature shall be deemed a separate British possession.

2. *Short title.*—This Act shall be cited as the Medical Act (1886) Amendment Act, 1904.

REVACCINATION BILL.

INTRODUCED by Sir John Tuke, and supported by Sir Michael Foster, Mr. Haldane, Dr. Farquharson, Captain Jessel, Mr. Malcolm, Mr. T. P. O'Connor, Mr. Heywood Johnstone, Mr. Cohen, Mr. Moon, Sir Charles Dalrymple, and Sir John Dorington.

MEMORANDUM.

THIS Bill proposes to apply to revaccination the provisions of the Vaccination Acts, 1867 to 1898, subject to the same safeguards, penalties, and exemptions, and subject in particular to the provisions of the first paragraph of Section 11 of the Vaccination Act, 1898, exempting the "conscientious objector" from penalties.

ARRANGEMENT OF CLAUSES.

Clause.
1. Revaccination within six months after age of 12.
2. No penalties in certain cases.
3. Certificate of successful revaccination to be transmitted to vaccination officer.
4. Lists of school children te be furnished.
5. Contracts to be made by guardians.
6. Appointment of public vaccinators and vaccination officers.
7. Incorporation of certain provisions of Vaccination Acts, 1867 to 1898.
8. Application of Act to children whether primarily vaccinated or not.
9. Saving as to provisions of Vaccination Acts, 1867 to 1898, with regard to revaccination.
10. Scotland or Ireland.
11. Commencement.
12. Short title.
SCHEDULE.

A BILL TO

Provide for the Revaccination of Children after the Age of Twelve.

Whereas it is expedient to provide for the revaccination of children after the age of twelve years:

Be it therefore enacted by the King's most Excellent Majesty, by and with the advice and consent of the Lords Spiritual and Temporal, and Commons, in this present Parliament assembled, and by the authority of the same, as follows:

1. *Revaccination within six months after age of twelve.*—From and after the commencement of this Act the parent or other person having the custody of a child shall cause the child, within six months of its attaining the age of twelve years, to be revaccinated either by a public vaccinator in the manner hereinafter provided, or by some medical practitioner, and in the event of the revaccination being unsuccessful, such parent or other person shall cause the child to be forthwith again revaccinated.

2. *No penalties in certain cases.*—(1) No parent or other person shall be liable to any penalty under section twenty-nine or section thirty-one of the Vaccination Act, 1867, as incorporated with this Act, if, within four months from the time of such child attaining the age of twelve years, he satisfies two justices in petty session that he conscientiously believes that revaccination would be prejudicial to the health of the child, and within seven days thereafter delivers to the vaccination officer for the district a certificate by such justices or magistrate of such conscientious objection.

(2) This section shall come into operation on the passing of this Act, but in its application to a child who shall have attained the age of twelve years before the passing of this Act there shall be substituted for the period of four months from the date of such child attaining the age of twelve years the period of four months from the passing of the Act.

3. *Certificate of successful revaccination to be transmitted to vaccination officer.*—Every public vaccinator who shall have performed the operation of revaccination upon any child, and have ascertained that the same has been successful, shall, within twenty-one days after the performance of the operation, transmit by post or otherwise to the vaccination officer a certificate in such form as may be prescribed by the Local Government Board, certifying that the said child has been successfully revaccinated, and the fee or remuneration to be received by the public vaccinator in respect of such revaccination shall be determined in accordance with section twenty-two of the Vaccination Act, 1867, as incorporated with this Act.

4. *Lists of school children to be furnished.*—(1) The local edu-

cation authority of every district as defined in the Education Acts, 1870 to 1903, the headmaster or headmistress of every school which is not under the control of the local education authority, the master of every workhouse, and the head of every orphanage in every district, within fourteen days after the *first day of May*, and also within fourteen days after the *first day of November*, in each year, shall prepare or cause to be prepared a list of all children attending any school, or who may be in any workhouse or orphanage under their or his or her supervision, direction, or care, who shall have attained the age of twelve years in the six months then next preceding, and shall transmit such list by post or otherwise to the vaccination officer of the district in which such school, workhouse, or orphanage is situate.

(2) There shall be paid by the guardians to every person forwarding any such list in accordance with this section such fee as may be ordered by the Local Government Board.

(3) Every person who shall refuse or neglect to prepare and forward, or cause to be prepared and forwarded, any such list in accordance with the provisions of this section, shall be guilty of an offence, and shall be liable to be proceeded against summarily, and upon conviction to pay a penalty not exceeding forty shillings.

5. *Contracts to be made by guardians.*—The guardians shall, with the consent of the Local Government Board, make stipulations and conditions in their contracts to secure the due revaccination of all children between the ages of twelve and thirteen, and the observance of all the provisions of this Act on the part of the public vaccinator; and no contract for such revaccination shall be valid until the same has been approved of by the Local Government Board, and such Board may, at any time after such contract shall have been approved of by them, determine the same either forthwith or at a future day.

6. *Appointment of public vaccinators and vaccination officers.*—The provisions of the Vaccination Acts, 1867 to 1898, relating to the appointment, duties, and remuneration of public vaccinators and vaccination officers shall be construed as applying to this Act.

7. *Incorporation of certain provisions of Vaccination Acts, 1867 to 1898.*—Subject to the provisions of this section the provisions of the Vaccination Acts, 1867 to 1898, mentioned in the schedule to this Act are hereby incorporated with and declared to form part of this Act: Provided that in each and every of such incorporated provisions there shall be substituted for the words "vaccinating," "vaccinate," or "vaccinates," wherever they occur, the words "revaccinating," "revaccinate," or "revaccinates" respectively; for the word "vaccinated," wherever it occurs, the word "revaccinated;" and for the word "vaccination," wherever it occurs (except when it occurs in conjunction with the word "officer"), the word "revaccination":

Provided also that there shall be inserted after the words and figures "Vaccination Act, 1867," wherever they occur in the said incorporated provisions, the words "as incorporated with this Act":

Provided also that there shall be substituted for the forms marked "B," "C," and "D," referred to in sections eighteen, twenty, and twenty-three respectively of the Vaccination Act, 1867, as incorporated with this Act, such forms as may be issued by the Local Government Board: Provided also that in section thirty-one of the Vaccination Act, 1867, as incorporated with this Act, there shall be substituted for the words "under the age of fourteen," which occur in the said section, the words following, that is to say, "above the age of twelve."

8. *Application of Act to children whether primarily vaccinated or not.*—The provisions of this Act with regard to revaccination shall apply to every child between the ages of twelve and thirteen years, whether or not such child shall have been previously vaccinated, either in accordance with the provisions of the Vaccination Acts, 1867 or 1898, or otherwise, and whether or not such child shall have been granted a certificate of exemption in accordance with section two of the Vaccination Act, 1898.

9. *Saving as to provisions of Vaccination Acts, 1867 to 1898, with regard to revaccination.*—Nothing in this Act shall be taken to repeal or modify any of the provisions of the Vaccination Acts, 1867 to 1898, with regard to revaccination.

10. *Scotland or Ireland.*—This Act shall not extend to Scotland or Ireland.

11. *Commencement.*—This Act shall come into operation on the *first day of January one thousand nine hundred and five.*

12. *Short title.*—This Act may be cited as the Revaccination Act, 1904.

SCHEDULE.

TABLE OF PROVISIONS OF THE VACCINATION ACTS, 1867 TO 1898, WHICH ARE INCORPORATED WITH THIS ACT BY AND SUBJECT TO THE PROVISIONS OF SECTION 7 OF THIS ACT.

Session and Chapter.	Short Title.	Provisions Incorporated.
30 and 31 Vict. c. 84	The Vaccination Act, 1867	Sections 10, 18, 20, 22, 23, 24, 25, 26, 28, 29, 30, 31, 33, 34, and 35.
34 and 35 Vict. c. 98	The Vaccination Act, 1871	Sections 4, 5, 6, 7, 11, 12, 14, 15, 16, 17, and so much of the schedule of repeals as affects Section 23 of the Vaccination Act, 1867.
61 and 62 Vict. c. 49	The Vaccination Act, 1898	Section 2, Subsection (1), Sections 3, 5, 6, and 9, and so much of the schedule of repeals as affects Sections 20 and 29 of the Vaccination Act, 1867, and Section 11 of the Vaccination Act, 1871.

A BILL TO AMEND THE VACCINATION ACTS.

INTRODUCED by Mr. Broadhurst, supported by Mr. Thomas Bayley, Sir John Rolleston, Mr. Channing, Mr. Levy, and Mr. Corrie Grant.

Be it enacted by the King's most Excellent Majesty, by and with the advice and consent of the Lords Spiritual and Temporal, and Commons, in this present Parliament assembled, and by the authority of the same, as follows:

1. *Repeal of 30 and 31 Vict., c. 84, ss. 29-31, as to compulsory vaccination.*—From and after *the passing of this Act* no parent or person having the custody of a child shall be compelled or ordered to vaccinate such child by any justice, court, or other person having authority hitherto to so compel or order, and so much of sections twenty-nine and thirty-one of the Vaccination Act of 1867 as enacts that any parent or person having the custody of a child shall be compelled or ordered as aforesaid is hereby repealed.

2. *Short title and construction.*—This Act may be cited as the Vaccination Act, 1904, and the Vaccination Act, 1898, the Vaccination Act, 1867, the Vaccination Act, 1871, the Vaccination Act, 1874, and this Act shall be construed together as one Act, and may be cited collectively as the Vaccination Acts, 1867 to 1904.

3. *Application.*—This Act shall not apply to Scotland or Ireland.

THE WEIGHTS AND MEASURES (METRIC SYSTEM) BILL.

THIS Bill, which was read a second time in the House of Lords on February 22nd and referred to a Select Committee, would provide for the compulsory adoption in the United Kingdom of the metric system of weights and measures after an interval of about two years.

Clause I would substitute standards of weight and measure according to the metric system for existing imperial standards.

Clause II would direct the Board of Trade to prepare and deposit, in place of the existing standards, copies of the substituted imperial standards on the metric system.

Clause III would direct the Board of Trade to prepare secondary standards of weight and measure, being either equivalent to, or multiples or aliquot parts of, the new standards.

Clause IV would legalize the equivalents, expressed in terms of the metric system, of the existing imperial weights and measures contained in the table set out in the schedule of the Order in Council dated May 19th, 1898.

Clause V would provide for the periodical verification of parliamentary copies of the new imperial standards.

Clause VI would direct that the metric system of weights and measures shall be used in all future deeds, contracts, etc.

Clause VII would direct that all reference to imperial weights or measures in Acts of Parliament shall be deemed to be, and construed as, references to the respective prescribed equivalents expressed in terms of the metric system.

Clause VIII would make a similar provision with regard to weights and measures in by-laws, rules, regulations, deeds, contracts, or agreements.

Clause IX repeals certain parts of the Weights and Measures Acts, 1878 and 1889.

Clause X applies certain provisions of these Acts to the Bill.

The following is the schedule of the Order in Council of May 19th, 1898, referred to above:

Equivalents of Metric Weights and Measures in Terms of Imperial Weights and Measures for Use in Trade.

METRIC TO IMPERIAL.

Linear Measure.

1 millimetre (mm.) (1/100 m.)	=	0.03937 inch.
1 centimetre (1/100 m.)	=	0.3937 ,,
1 decimetre (1/10 m.)	=	3.937 ,,
1 metre (m.)	=	39.370113 ,, / 3.280843 feet. / 1.0936143 yard.
1 decametre (10 m.)	=	10.936 ,,
1 hectometre (100 m.)	=	109.36 ,,
1 kilometre (1,000 m.)	=	0.62137 mile.

Square Measure.

1 square centimetre	=	0.15500 sq. inch.
1 sq. decimetre (100 sq. centimetre)	=	15.500 ,, ,,
1 sq. metre (100 sq. decimetres)	=	10.7639 ,, feet. / 1.1960 ,, yards.
1 are (100 sq. metres)	=	119.60 ,, ,,
1 hectare (100 ares or 10,000 sq. metres)	=	2.4711 acres.

Cubic Measure.

1 cubic centimetre...	=	0.0610 cubic inch.
1 cubic decimetre (c.d.) (1,000 cubic centimetres)	=	61.024 ,, ,,
1 cubic metre (1,000 cubic decimetres)	=	35.3148 ,, feet. / 1.307954 ,, yards.

Measure of Capacity.

1 centilitre (1/100 litre)	=	0.070 gill.
1 decilitre (1/10 litre)	=	0.176 pint.
1 litre	=	1.75980 ,,
1 dekalitre (10 litres)	=	2.200 gallons.
1 hectolitre (100 litres)	=	2.75 bushels.

Avoirdupois Weight.

1 milligram (1/1000 grm.)	=	0.015 grain.
1 centigram (1/100 grm.)	=	0.154 ,,
1 decigram (1/10 grm.)	=	1.543 ,,
1 gramme (1 grm.) ...	=	15.432 ,,
1 dekagram (10 grm.)	=	5.644 drams.
1 hectogram (100 grm.)	=	3.527 oz.
1 kilogram (1,000 grm.)	=	2.2046223 lb., or 15,432.3564 grains.
1 myriagram (10 kilog.)	=	22.046 lb.
1 quintal (100 kilog.)	=	1.968 cwt.
1 tonne (1,000 kilog.)	=	0.9842 ton.

Troy Weight.

1 gramme (1 grm.) ...	=	0.03215 oz. troy. / 15.432 grains.

Apothecaries' Weight.

1 gramme (1 grm.) ...	=	0.2572 drachm. / 0.7716 scruple. / 15.432 grains.

Equivalents of Imperial and Metric Weights and Measures.

IMPERIAL TO METRIC.

Linear Measure.

1 inch	=	25.400 millimetres.
1 foot (12 inches) ...	=	0.30480 metre.
1 yard (3 feet) ...	=	0.914399 metre.
1 fathom (6 feet) ...	=	1.8288 metre.
1 pole (5½ yards) ...	=	5.0292 ,,
1 chain (22 yards) ...	=	20.1168 ,,
1 furlong (220 yards)	=	201.168 ,,
1 mile (8 furlongs) ...	=	1.6093 kilometres.

Square Measure.

1 square inch ...	=	6.4516 square centimetres.
1 square foot (144 square inches)	=	9.2903 sq. decimetres.
1 square yard (9 sq. feet)	=	0.836126 sq. metre.
1 perch (30¼ square yards)	=	25.293 square metres.
1 rood (40 perches)...	=	10.117 ares.
1 acre (4,840 square yards)	=	0.40468 hectare.
1 square mile (640 acres)	=	259.00 hectares.

Cubic Measure.

1 cubic inch	=	16.387 c. centimetres.
1 cubic foot (1,728 cubic inches)	=	0.028317 cubic metre.
1 cubic yard (27 cubic feet)	=	0.764553 cubic metre.

Measures of Capacity.

1 gill	=	1.42 decilitres.
1 pint (4 gills)... ...	=	0.568 litre.
1 quart (2 pints) ...	=	1.136 ,,
1 gallon (4 quarts)...	=	4.5459631 litres.
1 peck (2 gallons) ...	=	9.092 litres.
1 bushel (8 gallons)	=	3.637 dekalitres.
1 quarter (8 bushels)	=	2.909 hectolitres.

Apothecaries' Measure.

1 minim	=	0.059 millilitre.
1 fluid scruple ...	=	1.184 ,,
1 fluid drachm (60 minims)	=	3.552 ,,
1 fluid ounce (8 drachms)	=	2.84123 centilitres.
1 pint	=	0.568 litre.
1 gallon (8 pints or 160 fluid ounces)	=	4.5459631 litres.

Avoirdupois Weight.

1 grain	=	0.0648 gramme.
1 dram	=	1.772 ,,
1 oz. (16 drams) ...	=	28.350 ,,
1 pound (16 ounces. or 7,000 grains)	=	0.45359243 kilogram.
1 stone (14 lb.) ...	=	6.350 kilograms.
1 quarter (28 lbs.) ...	=	12.70 ,,
1 hundredweight (cwt.) (112 lbs.)	=	50.80 ,, / 0.5080 quintal.
1 ton (20 cwt.)	=	1.0160 tonnes or 1,016 kilograms.

Troy Weight.

1 grain	=	0.0648 gramme.
1 pennyweight (24 grains)	=	1.5552 ,,
1 troy ounce (20 pennyweights)	=	31.1035 ,,

Apothecaries' Weight.

1 grain	=	0.0648 gramme.
1 scruple (20 grains)	=	1.296 ,,
1 drachm (3 scruples)	=	3.888 ,,
1 oz. (8 drachms) ...	=	31.1035 ,,

NOTE.—Approximately 1 litre equals 1,000 cubic centimetres, and 1 millilitre equals 1.00016 cubic centimetres.

PHARMACY BILL.

THIS Bill, introduced by Mr. Lough, and ordered to be printed on February 29th, is backed by Mr. Henniker Heaton, Mr. Wanklyn, Mr. Marshall Hall, Mr. Remnant, Mr. Ellis Griffith, Mr. James Reid, Mr. M'Crae, Sir Mancherjee Bhownaggree, Mr. John Burns, Mr. Tomkinson, and Mr. Osmond Williams.

MEMORANDUM.

The objects of this Bill are—

(*a*) To check the modern and growing practice on the part of a duly-qualified person to open and carry on divers shops for the sale of poisons whereby adequate protection is not afforded to the persons frequenting the same by providing that every such shop shall be under the bona-fide personal conduct and supervision of a duly-qualified person:

(*b*) To put an end to the abuses at present attending the hawking of poisons, and to better regulate the sale of the same by providing that no poison shall be sold except in a shop which shall first have been duly registered:

(*c*) To provide for the maintenance of a register of shops where poisons may be sold, and also a register of the duly-qualified chemists bona fide conducting each such shop, and to enable the registrar from time to time to make corrections in and additions to the same:

(*d*) To provide that the compounding of prescriptions shall be in the hands only of persons duly qualified to sell "poisons":

(*e*) To require that companies keeping open shops for the sale of poisons shall be managed by duly qualified chemists as directors:

(*f*) To extend to corporate bodies certain of the provisions of the Pharmacy Acts, 1852 and 1868, from which they are at present exempt by reason of the decision of the House of Lords in the case "The Pharmaceutical Society *v.* The London and Provincial Supply Association, Limited," Law Reports, 1880, Appeal Cases, 857:

(*g*) To facilitate the examination of persons desiring to qualify as chemists and druggists, and to enable the Pharmaceutical Society to accept certain certificates of kindred bodies in lieu of examination.

A BILL TO

Provide for the further Regulation of the Sale of Poisons and the Compounding of Medical Prescriptions, and to amend the Pharmacy Acts, 1852 and 1868.

BE it enacted by the King's most Excellent Majesty, by and with the advice and consent of the Lords Spiritual and Temporal, and Commons, in this present Parliament assembled, and by the authority of the same, as follows:—

1. *Definitions.*—In this Act "the society" shall mean the Pharmaceutical Society of Great Britain; "registered person" shall mean a pharmaceutical chemist, or a chemist and druggist; "poison" shall mean a poison within the meaning of the Pharmacy Act, 1868; "registrar" shall mean the registrar of the society.

2. *Restrictions on sale, &c., of poisons.*—From and after the *thirty-first day of December one thousand nine hundred and four*, it shall be unlawful for any person, or any company, firm, co-partnership, or body of persons to keep any open shop or shops for the retailing, dispensing, or compounding of poisons or of medical prescriptions, unless each shop shall be bona fide conducted by a registered person; or to permit or suffer in such shop any poison to be retailed or any medical prescription to be retailed, dispensed, or compounded otherwise than by or under the supervision of a registered person; also it shall be unlawful for any person, or any company, firm, co-partnership, or body of persons to keep any such shop, unless the address of the shop shall have been registered upon the register of shops to be kept under this Act, and the name and address of the registered person to be in the bona fide conduct of the shop shall have been registered upon the register of persons in the bona fide conduct of shops to be kept under this Act, and also it shall be unlawful for any person, or for any company, firm, co-partnership, or body of persons to sell or to negotiate or participate in the sale by retail of any poison at or upon any place other than an open shop registered upon the said register of shops,

3. *Address of seller for purpose of labelling.*—The address of the regis-

tered shop whereat a sale of poison takes place shall be the address of the seller for the purpose of the labelling required by section seventeen of the Pharmacy Act, 1868.

4. *Registrar to keep registers of shops and persons.*—It shall be the duty of the registrar to make and keep a register of shops, and also a register of persons to be in the bona-fide conduct of shops in accordance with the provisions of this Act, and to make such alterations in the said registers as shall from time to time become necessary. No entry shall be made in either of the said registers until receipt by the registrar of a request in writing for the purpose by an owner of the shop made in a form in that behalf appearing in the Schedule to this Act. The council of the society may make regulations under which either of the several entries in the said registers may be inspected, or may be removed therefrom, and under which a certified extract of any entry may be obtained. There shall be payable to the society in respect of each request aforesaid, and also in respect of each certified extract aforesaid, a fee of *two shillings and sixpence*, and also in respect of each inspection of an entry a fee of *one shilling*. Any certified extract as aforesaid under the hand of the registrar shall without proof as to his signature be evidence in all courts and before all justices of the peace and others of the matters thereby certified.

5. *Shops to be rated to the poor before being entered on the register of shops.*—It shall be unlawful for any place other than a shop or building separately rated to the poor to be entered or continued on the said register of shops.

6. *No person to be on register of persons in respect of more than one shop.*—It shall be unlawful for one and the same registered person to be at one and the same time entered upon the said register of persons in the bona-fide conduct of shops in respect of more than one shop, provided always that any entry upon the register of persons in the bona-fide conduct of shops may. upon request in writing signed by the person on whose application such entry was made, or the person whose name isregistered and delivered to the registrar, become removed therefrom.

7. *In case of companies, business to be managed by registered directors.*—It shall be unlawful for any company incorporated under the Acts in force regulating joint stock companies to retail, dispense, or compound poisons or medical prescriptions unless the business of such company shall be managed by one or more director or directors, who or all of whom shall be registered persons not directors of any other company carrying on the like business, and who shall exercise all such powers of the company as are not by the Companies Acts required to be exercised by the company in general meeting.

8. *Information to be given registrar in case of inquiry.*—The registrar may from time to time either by letter signed by him as regisistrar or verbally by himself or by a person authorized in writing by him for the purpose make such inquiries as he shall think fit of any person retailing, dispensing, or compounding poisons or medical prescriptions at, or of any owner of, a registered shop; and it shall be unlawful for such person or owner to refuse or neglect to furnish (by writing signed by him if so required) the information inquired for.

9. *In case of falsification of register, etc.*—Any registrar who shall wilfully make or cause to be made any falsification in any matter relatfng to the said registers, and any person who shall wilfully procure or attempt to procure any registration under this Act by making or producing or causing to be made or produced, any false or fraudulent representation or declaration, either verbally or in writing, and any person aiding or assisting him therein shall be deemed guilty of a misdemeanour in England, and in Scotland of a crime or offence punishable by fine or imprisonment, and shall on conviction thereof be sentenced to be imprisoned for any term not exceeding *tmelve months*.

10. *Examinations.*—The society shall have power by by-laws duly confirmed to authorize the persons from time to time appointed by the council of the society to conduct examinations to require from persons who shall present themselves for any examination evidence of their having received systematic training in some university or other place for learning approved by the council of the society, and to divide any examination into two or more portions with or without an interval of time between the same portions, and to authorize the said council to accept in lieu of certificates of the said examiners such certificates of competent skill and knowledge granted by legally constituted pharmaceutical authorities in the United Kingdom or in any colony or possession thereof as may to the said council seem fitting, provided always that no certificate shall be accepted which has been granted to the holder without examination, or which he has obtained without having first received such systematic training as aforesaid, and to prescribe the fees to be payable by persons tendering for acceptance the certificates aforesaid of competent skill and knowledge.

11. *Offences*—Any act or omission which would be an offence under the Pharmacy Act, 1852, or the Pharmacy Act, 1868, if committed by a person, except the offence of selling or keeping open shop for the retailing, dispensing, or compounding of poisons by a person not registered under the said Acts, shall be an offence if committed by any company, firm, co-partnership, or body of persons, and any company, firm, co-partnership, or body of persons committing any such offence shall be liable to the penalty by the said Acts provided for the same.

12. *Penalty.*—For every offence under this Act the offender shall be liable to pay a penalty or sum of *five pounds*.

13. *Recovery of penalties.*—Except where in this Act it is otherwise provided, any penalties incurred under or by virtue of any of the provisions of this Act, or the Pharmacy Act, 1852, or the Pharmacy Act, 1868, may be sued for, recovered, and dealt with in the manner provided by the Pharmacy Act, 1852, for recovery of penalties under that Act, without prejudice, however, to the provisions of the Summary Jurisdiction (Scotland) Acts, 1864 and 1881, and the Criminal Procedure (Scotland) Act, 1887, with reference to proceedings thereunder taken in Scotland for any contravention of this or either of the other beforementioned Pharmacy Acts.

14. *Saving.*—The provisions of this Act shall not interfere with or abrogate any of the rights reserved by section sixteen of the Pharmacy Act, 1868, or by section one of the Pharmacy Act, 1869.

15. *Extent of Act.*—This Act shall not extend to Ireland.

16. *Short title.*—This Act may be cited as the Pharmacy Act, 1904.

Appended to the Bill are schedules, being models for the registering of open shops and persons and of forms of application for such registration.

British Medical Association.

SEVENTY-SECOND ANNUAL MEETING.

THE seventy-second annual meeting of the British Medical Association will be held at Oxford on Tuesday, Wednesday, Thursday, and Friday, July 26th, 27th, 28th, and 29th, 1904.

PROGRAMME.

President: THOMAS DRYSLWYN GRIFFITHS, M.D.Lond., M.R.C.S., Swansea.

President-elect: WILLIAM COLLIER, M.D., F.R.C.P.Lond., Physician, Radcliffe Infirmary, Oxford, and Litchfield Lecturer in Medicine, University of Oxford.

Chairman of Council: ANDREW CLARK, F.R.C.S., Surgeon to the Middlesex Hospital and Lecturer on the Principles and Practice of Surgery.

Treasurer: EDWARD MARKHAM SKERRITT, M.D., F.R.C.P. Lond., Senior Physician to the Bristol General Hospital; Professor of Medicine, University College, Bristol.

An Address in Medicine will be delivered by Sir WILLIAM SELBY CHURCH, Bart.. K.C.B., M.D.

An Address in Surgery will be delivered by Sir WILLIAM MACEWEN, M.D.. F.R.C.S., LL.D.

The scientific business of the meeting will be conducted in thirteen Sections, as follow, namely:

MEDICINE.

President: WALTER TYRRELL BROOKS, M.B., Oxford. *Vice-Presidents:* PATRICK JOHN CREMEN, M.D., Cork; THEODORE DYKE ACKLAND, M.D., London; GUSTAVE SCHORSTEIN, M.B., London. *Honorary Secretaries:* ASHLEY WATSON MACKINTOSH, M.D., 9, Bonaccord Square, Aberdeen; WILLIAM CECIL BOSANQUET, M.D., 117A, Harley Street, W.; WILLIAM ARTHUR PERNOW WATERS, M.B., 99, Holywell, Oxford.

SURGERY.

President: HORATIO PERCY SYMONDS, F.R.C.S.Edin., Oxford. *Vice-Presidents:* WILLIAM BRUCE CLARKE, F.R.C.S., London; RICHARD HY. ANGLIN WHITELOCKE, F.R.C.S., Oxford; WILLIAM FREDERICK BROOK, F.R.C.S., Swansea. *Honorary Secretaries:* HERBERT EDWARD COUNSELL, F.R.C.S., 27, Banbury Road, Oxford; DAVID WALLACE, C.M.G., F.R.C.S.Edin., 11, Rutland Street, Edinburgh.

OBSTETRICS AND GYNAECOLOGY.

President: FRANCIS HY. CHAMPNEYS, M.D., London. *Vice-Presidents:* Sir ALAN REEVE MANBY, M.V.O., M.D., East Rudham; THOMAS BABINGTON GRIMSDALE, M.B., Liverpool; JOHN CAMPBELL, M.D., Belfast. *Honorary Secretaries:* FRANK GRÉGOIRE PROUDFOOT. M.D., 43, St. Giles, Oxford; JOHN SHIELDS FAIRBAIRN, M.B., 60, Wimpole Street, W.

STATE MEDICINE.*

President: JOHN SCOTT HALDANE, M.D., F.R.S., Oxford. *Vice-Presidents:* THOMAS STEVENSON, M.D., London; INNES GRIFFIN, M.R.C.S., Banbury; ARTHUR NEWSHOLME, M.D., Brighton. *Honorary Secretary:* HAROLD MEREDITH RICHARDS, M.D., Town Hall, Croydon; ARTHUR LATHAM ORMEROD, M.D., Oxford.

* There will be a Subsection of Forensic Medicine over which Dr. STEVENSON will preside.

PSYCHOLOGICAL MEDICINE.

President: CHARLES ARTHUR MERCIER, M.D., London. *Vice-Presidents:* ERNEST WILLIAM WHITE, M.B., Dartford; JAMES NEIL, M.D., Oxford; THOMAS SEYMOUR TUKE, M.B., London. *Honorary Secretaries:* WM. FORD ROBERTSON, M.D., 7, Hill Square, Edinburgh; REGINALD LANGDON LANGDON-DOWN, M.B., 47, Welbeck Street, W.

Pathology.

President: James Ritchie, M.D., Oxford. *Vice-Presidents:* Humphry Davy Rolleston, M.D., London; Professor James Lorrain Smith, M.D., Belfast; William Bulloch, M.D., London. *Honorary Secretaries:* Stuart McDonald, M.B., care of Fairbairn, 82, Marchmont Crescent, Edinburgh; Ernest William Ainley Walker, M.D., University College, Oxford.

Physiology.

President: Professor Francis Gotch, M.R.C.S., F.R.S., Oxford. *Vice-Presidents:* Professor William Hy. Thompson, M.D., Dublin; Marcus Seymour Pembrey, M.D., London. *Honorary Secretaries:* Walter Ramsden, M.D., Pembroke College, Oxford; Horace Middleton Vernon, M.D., 3, Bevington Road, Oxford.

Anatomy.

President: Professor Arther Thomson, M.D., Oxford. *Vice-Presidents:* Professor Johnson Symington, M.D., F.R.S., Belfast; Professor Robert Howden, M.B., Newcastle-on-Tyne; Thomas H. Bryce, M.D., Glasgow. *Honorary Secretaries:* William Wright, F.R.C.S., The University, Birmingham, Gustav Mann, M.D., the University Museum, Oxford.

Ophthalmology.

President: Robert Walter Doyne, F.R.C.S., London. *Vice-Presidents:* George Edward Wherry, F.R.C.S., Cambridge; Cyril Hutchinson Walker, F.R.C.S., Bristol; Fergus Menteith Ogilvie, F.R.C.S., Oxford. *Honorary Secretaries:* Sydney Stephenson, F.R C.S.Edin., 33, Welbeck Street, W.; Frank Griffith Thomas, M.B., 2, Brunswick Place, Swansea.

Dermatology.

President: Thomas Colcott Fox, M.B., London. *Vice-Presidents:* James Herbert Stowers, M.D., London; James Limont, M.B., Newcastle-on-Tyne; Leslie Roberts, M.D., Liverpool. *Honorary Secretaries:* Ernest Mallam, M.B., 3, Holywell Street, Oxford; Edward Stainer, M.B., 60, Wimpole Street, W.

Laryngology and Otology.

President: Charters James Symonds, M.S., London. *Vice-Presidents:* Frank Marsh, F.R.C.S., Birmingham; Cecil Edward Shaw, M.D., Belfast; Harry Lambert Lack, M.D., London. *Honorary Secretaries:* Walter Jobson Horne, M.D., 27, New Cavendish Street, W.; Edmund Cecil Bevers, M.B., 117, Woodstock Road, Oxford.

Tropical Diseases.

President: Alexander Crombie, C B., M.D., London. *Vice-Presidents:* Brigade-Surgeon-Lieutenant-Colonel George Maconachie, M.D., Aberdeen; John William Watson Stephens, M.D., Liverpool. *Honorary Secretaries:* Henry Edward Annett, M.D., Crofton Lodge, Higher Runcorn, Cheshire; Robert Fielding-Ould, M.D., 94, Mount Street, Berkeley Square, W.

Navy, Army, and Ambulance.

President: Surgeon-General A. Frederick Bradshaw, C.B., K.H.P., M.R.C.S., Oxford. *Vice-Presidents:* Surgeon-General George Joseph Hamilton Evatt, C.B., M.D., Junior United Service Club, London; Fleet-Surgeon John Lloyd Thomas, R.N., H.M.S. *Excellent*, Portsmouth; Colonel J. Edward Squire, M.D., V.D., R.A.M.C. (Vol.), London. *Honorary Secretaries:* Major Thomas McCulloch, R.A.M.C., 68, Victoria Street, S.W.; Staff-Surgeon H. W. Gibbs Doyne, L.R.C.P., R.N., H.M.S. *Mercury*, Portsmouth; Surgeon-Captain Eustace M. Callender, M.D., 40, Connaught Square, Hyde Park, W.

Honorary Local Secretaries.

Arthur John Drew, F.R.C.S., Water Hall, St. Aldates, Oxford; William Duigan, M.B., 66, Woodstock Road, Oxford; Arthur Percy Parker, F.R.C.S., 2, Holywell Street, Oxford.

Tuesday, July 26th.

9 a.m.—Council Meeting.
10.30 a.m.—Service in Christ Church Cathedral.
12 noon.—Annual General Meeting, followed by Representative Meeting.
8 p.m.—President's Address.

Wednesday, July 27th.

9 a.m.—Meeting of 1904-5 New Council.
10 a.m. to 1 p.m.—Sectional Meetings.
2 p.m.—Adjourned General Meeting, followed by Representative Meeting.
8 p.m.—Address in Medicine.

Thursday, July 28th.

9 a.m.—Meeting of Council.
10 a.m. to 1 p.m.—Sectional Meetings.
2 p.m.—Address in Surgery.
3.30 p.m.—Representative Meeting (if business not already concluded).
7.30 p.m.—Annual Dinner of the Association.

Friday, July 29th.

9 a.m.—Meeting of Council.
10 a.m. to 1 p.m.—Sectional Meetings.
2 p.m.—Representative Meeting (if business not already concluded).

Saturday, July 30th.

Excursions.

CONSULTATION BETWEEN MEDICAL WITNESSES.

The following circular letter has been sent to the Honorary Secretaries of Divisions in Great Britain by direction of the Council:

Dear Sir,

On the recommendation of the Medico-Political Committee the Council has resolved that the Divisions in England and Wales should be asked, as the Divisions in Scotland are also being asked, to consider:

"Whether it is advisable that the medical witnesses engaged on each side in legal cases should meet in consultation."

Your Division will appreciate the advantages which are anticipated to accrue from the adoption of the procedure suggested, namely, that the medical witnesses in a case should consult together before the hearing of the matter in Court.

It is believed by the Medico-Political Committee that if this course is invariably followed medical evidence will be placed before the judicial tribunals in a form most conducive to the just decision of cases turning upon such evidence, and that a great deal of inconvenient conflict of opinion will be avoided. If your Division is cognizant of any practical difficulties in connexion with such proposed procedure, the Committee will be glad to receive notes of the same for presentation to the Representative Meeting of the Association.

As the result of the discussion thus initiated in the Divisions it is hoped that definite conclusions may be arrived at by the Annual Representative Meeting at Oxford in July, and that instructions will then be given to the Medico-Political Committee to take the steps necessary for carrying such conclusions into practical effect.

It will be of much convenience if your Division is able to return to me its opinion on this matter at an early date.—I I am, Yours faithfully,

J. Smith Whitaker, *Medical Secretary.*

HYDROPATHIC ESTABLISHMENTS.

The following Memorandum (already published in the Supplement of January 30th, page 9), has been forwarded to the Honorary Secretaries for submission to the Divisions of the British Medical Association, with a view to eliciting an expression of opinion by the Association on the subject:

The Advertising of Medical Practitioners in Connexion with Hydropathic Establishments.

Complaints frequently reach the Editor of the Journal of the advertising of medical practitioners in connexion with hydropathic establishments. These complaints usually come from other medical men in the neighbourhood who are not connected with any hydropathic establishment, and the grievance seems to be that the practitioners so advertised are also engaged in general family practice, and are thus the competitors of the complainants who feel that these advertisements are therefore unfair.

A connected grievance is that many of the hydropathic establishments try to compel all their visitors to accept the services of the medical officer of the establishment and oppose the employment by visitors of any outside medical practitioner.

So long as the medical officers of hydropathic establishments were resident officials and gave their whole time to the work these complaints do not seem to have been made, although the way in which they were and still are advertised at railway stations and in railway guide books is not in accordance with the general rules of the profession respecting advertising. This seems to have been the thin end of the wedge by means of which a very undesirable practice has grown up until it has obtained dimensions which make it necessary to consider whether any steps can be taken to check it. It would be obviously unfair to condemn without due notice those who have been allowed for many years to have their names advertised, but, by a reference to the Divisions, full consideration will be obtained before any pronouncement by the Association is made.

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THE

British Medical Journal.

THE JOURNAL OF THE BRITISH MEDICAL ASSOCIATION.

SUPPLEMENT

CONTAINING

A REPORT

ON THE

POOR-LAW MEDICAL SYSTEM IN IRELAND

WITH SPECIAL REFERENCE TO

THE DISPENSARY MEDICAL SERVICE.

BRITISH MEDICAL JOURNAL, *MARCH 26th, 1904.*

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MCMIV.

CONTENTS.

Page.

I.—INTRODUCTORY 49

(A) Nature of Complaints Made.—(B) Action by Teachers of the Medical Schools.—(C) Action of the Irish Medical Association.—(D) Action of Guardians of Poor-law Unions.—(E) The Public Press and Public Opinion generally.—(F) Action of the Local Government Board to meet the above Conditions 49

Nature and Scope of the Inquiry 50

II.—HISTORIC EVOLUTION OF THE IRISH POOR-LAW MEDICAL SYSTEM . . 50

The Establishment of County Infirmaries . . 50

The Poor Law and the Workhouse 51

The Establishment of the Dispensary System . 51

The Establishment of the Local Government Board 52

The Local Government Act of 1898 52

III.—THE EXISTING CONSTITUTION OF THE IRISH POOR-LAW MEDICAL SERVICE 52

The Local Government Board 52

The Distribution of Poor-law Medical Officers 53

Medical Officers of Workhouse Infirmaries.—Dispensary Medical Officers.—Number of Dispensaries in each Dispensary District 53

The Dispensary Organization in a Typical County 54

Typical Unions and Dispensary Districts . . 54

County Antrim.—Glenties Union, Donegal.—County Wicklow.—County Wexford . . 54

Summary 55

IV.—THE ELECTION AND APPOINTMENT OF THE IRISH DISPENSARY MEDICAL OFFICER 55

V.—THE DUTIES OF THE DISPENSARY MEDICAL OFFICER IN IRELAND . . 57

Medical Duties 57

Sanitary Duties 57

Registration Duties 58

Vaccination Duties 58

Constabulary. 58

Certifying Factory Surgeon 58

Coastguard 58

Page.

Lighthouse Staff 58

Summary 58

VI.—THE DISPENSARY—DISPENSING AND THE DISPENSARY RESIDENCE. . . 59

The Dispensary 59

The Dispensing. 59

Need for Standard Plan of a Dispensary . . 60

The Dispensary Residence 60

Branch Dispensaries 61

VII.—SUBSIDIARY ASSISTANTS TO THE MEDICAL OFFICER. 61

Midwives 61

VIII.—THE DAILY ROUND—THE COMMON TASK 61

IX.—THE BLACK TICKET AND THE RED. 64

Private Practice 65

X.—THE PAY SALARY OF THE DISPENSARY MEDICAL OFFICER 66

Size of Districts 66

Improved Pay Necessary 68

XI.—SUPERANNUATION 69

XII.—LEAVE OF ABSENCE. 70

Holidays.—Locum Tenens.—Sick Leave.—Study Leave 70

XIII.—THE MEDICAL SERVICE OF THE "CONGESTED DISTRICTS." . . . 71

XIV.—THE ORGANIZATION OF AN IRISH MEDICAL SERVICE. 72

XV.—THE PAY-RATES OF IRISH PUBLIC OFFICIALS 73

The Resident Magistrates.—The Constabulary.—Other Services 73

XVI.—THE FINANCIAL ASPECT OF THE QUESTION OF BETTERMENT. . . 74

Rough Estimates of Reorganization Cost. . 75

XVII.—CONCLUSION 75

A REPORT

ON THE

POOR-LAW MEDICAL SYSTEM IN IRELAND

WITH SPECIAL REFERENCE TO

THE DISPENSARY MEDICAL SERVICE.

(By Our Special Commissioner.)

I.—INTRODUCTORY.

In accordance with instructions received from the Editor of the British Medical Journal, I proceeded to Ireland to inquire into the Poor-law Medical Service of that country, with special reference to the dispensary system in force here.

I was instructed further that so far as they affected the dispensary system, I was to report on the workhouses and workhouse infirmaries, county infirmaries, and lunatic asylums of Ireland; but the inquiry was to be mainly directed to the dispensary system, including the duties, pay, allowances, and and general condition of the dispensary medical officers.

On reaching Ireland I found myself face to face with the following conditions:

(A) *Nature of Complaints Made.*

The medical press of the United Kingdom and of Ireland from week to week contained letters of complaint from medical officers of the Dispensary Medical Service, complaining of their defective pay rates, the entire absence of promotion, the heavy and exhausting character of their duties, the want of clear and definite regulations as to leave of absence, and the uncertainty attending their claims for superannuation when old and worn out. They further complained generally of unsympathetic treatment by their Poor-law guardians, and want of due protection by the Local Government Board of Ireland.

(B) *Action by Teachers of the Medical Schools.*

The professors and teachers of the medical schools of Ireland, with practical unanimity, were in their lectures advising young medical men to avoid the Public Dispensary service owing to its defective prospects. Not only in Dublin was antagonistic lecturing going on, but in the Colleges of Belfast, Cork, and Galway the same general line of action was being taken, and a practical unanimity existed amongst the medical profession in Ireland as to the undesirability of young medical men joining the service under existing conditions.

(C) *Action of the Irish Medical Association.*

This body, which represents some 52 per cent. of the medical profession in Ireland, had taken very definite action in this matter. It had at its conferences and meetings put forward a series of resolutions as to:

(1) Fixing a minimum salary of £200 a year for each dispensary as a fundamental principle.

(2) A demand for one month's holiday annually, with pay for the *locum tenens* at £4 4s. a week.

(3) The necessity of superannuation being granted as a right and not as a favour.

This Association had in recent years become an important element of medical union in Ireland, and its members had so far combined as to agree to place outside the bounds of their Association and outside ordinary professional intercourse any of their members who accepted dispensaries at terms that did not include these fundamental proposals, Several members had been so ostracized.

(D) *Action of Guardians of Poor-law Unions.*

While this grave condition of affairs was going on amongst the medical men and the professional medical leaders of the country, the guardians of the poor were in almost all unions hardening their hearts against the medical officers' claims, and efforts had even been made to bring over from England and from Scotland medical men who would accept the dispensaries on the conditions and salaries stated to be impossible by the representatives of the medical profession of Ireland.

Certain dispensaries were in this state of affairs left permanently in the hands of *locum tenens* at a weekly salary.

(E) *The Public Press and Public Opinion generally.*

While this condition of war existed between the medical profession and the local guardians of the poor, the public press generally admitted the reasonableness of the medical men's claim. It is no exaggeration to say that by every section of society in Ireland from the highest to the lowest—including the higher and junior clergy of all denominations, the country gentlemen, and the people generally, and many of the guardians in their individual capacity—opinions were expressed generally favourable to the claims for betterment of the medical officers. This I will deal with more fully later on.

(F) *Action of the Local Government Board to meet the above Conditions.*

From the foregoing statements it is evident that a grave crisis had arisen in medical affairs in Ireland, and any person taking a statesman-like view of such a condition of practical medical anarchy must have seen that the movement was not a mere flash in the pan due to a number of thoughtless young men, but that a grave and level-headed profession was directly mobilized against the existing condition of Poor-law medical matters in Ireland, and that the very greatest efforts would be needed by the authorities to deal with the whole question in a full and statesman-like way.

So far as could be seen, no action of any importance had been taken by the Irish Local Government Board to deal with the main questions of pay and superannuation; the Board seemed unaware of the gravity of the crisis, thought little or nothing of the expressed opinions of the organized profession of medicine in Ireland, and continued, as a rule, in the same manner as heretofore, lightly to refuse to sanction increases of pay when voted in rare cases by the local guardians. The only sign of any real action being taken was the extremely dubious, and often most injurious, system of abolishing a dispensary district for which no medical officer appeared, and attaching its two or three segments to the two or three neighbouring dispensary districts, often themselves of considerable extent—practically a policy of coercion. It seemed, therefore, that the Local Government Board in Ireland had failed to grasp the importance of the question—was unable or unwilling to deal fully with a grave crisis—and like an inefficient War Office in face of a great campaign, or a Board of Admiralty out of touch with public opinion as to the need of keeping up an efficient fleet, was wanting in that spirit of appreciation of an important national question which is the first and most essential qualification of a great public office.

To this official body the movement of the medical profession in Ireland apparently seemed to be the mere ebullition of a few dissatisfied dispensary doctors, and they seemed to ignore altogether the self-evident facts that the movement was really a natural evolution towards medical betterment based on the new and more thorough five years' curriculum of medical study, the greater stringency of medical examinations for diplomas or degrees, and the expulsion in England of several hundred unqualified assistants, heretofore existing, under the order of the General Medical Council. These conditions had already acted fully within the empire, with the result that the War Minister had been compelled to issue new and liberal warrants of increased pay to the Army Medical Service; the Admiralty had similarly in a liberal manner dealt with the Naval Medical Service; the conditions of the Indian Medical Service had been greatly improved, and the pay of *locum tenens* and assistants employed everywhere in England had been greatly bettered. To all these facts the Irish Local Government Board seemed to have been practically blind, and the whole subject remained in a state of drift very injurious to the Irish medical profession, but more still to the Irish people at large.

The grievances put forward by the medical officers appeared on the surface, and without full inquiry not difficult to deal with, if only the whole field of view of the evolution of the education and pay rates of the medical profession was before the minds of those dealing with the question; but on looking deeper into this tangled question it was evident that the few complaints put forward by the medical officers were but small matters by comparison with the radically defective condition of the service as a whole. A study of the question showed that even if the matters complained of had been patched up and temporarily adjusted, the ship of Irish Poor-law medical administration was in sore straits, leaking badly, unable to keep her place in the medical fleets of the world; that her equipment was old and defective, and her *personnel* to a man dissatisfied and hopeless, and that the very existence of the ship herself as an effective structure was at stake.

The least inquiry showed that radical defects in the Poor-law medical organization existed; the whole system was in a great measure obsolete, wanting in modern spirit, and was really a relic of bad days in Irish history, and called loudly for reform.

It was evident that the few points put forward by the Irish Medical Association were but those of acute and grave urgency calling loudest for consideration, and it was apparent that a far fuller inquiry into existing conditions was needed if any permanent benefit was to result. While all the thinking members of the medical profession in Ireland saw the need of a newer method of organization more in accordance with the scientific views of the present day, amongst the lay community of every rank and class and of every shade of politics or creed the opinion largely prevailed that something more was needed than a mere superficial binding up of the wounds complained of, and that what was really needed was so thorough a remodelling of the conditions of the service as would induce the best type of medical men to enter it, and that once entered the service should afford to all its members fuller facilities than hitherto for keeping abreast of modern science.

Nature and Scope of the Inquiry.

To understand these matters fully it therefore became necessary to discover how the existing unsatisfactory conditions could have developed, to trace out the history of the evolution of these defective methods, to study the methods of entry into the service, to visit personally the districts and see the duties actually performed, to inquire into what stimulus existed to develop the scientific efficiency of the whole body of the Poor-law medical service, to see what relation it bore as a career by comparison with other official medical employments in the Empire, to see what its official recognition was and what was the guiding principle of those in authority over it, to inquire into the pension system by which old and worn-out members of the body could retire from the service—all these matters had to be discussed not with medical men only but with every class of person able to give information, and such information needed to be again checked by inquiry outside purely medical or purely official circles of those able by their knowledge of the country to give information.

With this view all classes of the Irish community have been interviewed, from peer to peasant—many bishops of the churches in Ireland, parsons and priests in very considerable numbers, landlords and tenants, and police. No class of person, high or low, who could give opinion or conclusion or suggestion was omitted so far as was reasonably possible.

The aim has been to present to the members of the British Medical Association—numbering 19,000 medical men scattered over the empire and largely ignorant of peculiar and special local Irish conditions and surroundings—such a clear picture of this important question as would enable them to form a just opinion of the complaints of the Irish medical profession concerning the general organization of the Poor-law medical service of Ireland.

I propose to place before these readers as clearly as I can the tangled question of the evolution and condition of Irish medical administration and organization, and to array before them a number of statements and facts that will, I hope, enable them to form a fair opinion of the whole question.

I trust that all statements made will be accepted as written in good faith and with the desire above all things to arrive at a just conclusion. To do this with any Irish question is a task of exceeding difficulty, for the sea of Irish public opinion is terribly vexed by cross-currents, by the stormy winds of differing politics, varying races, hostile creeds, and social conditions of extreme disparity.

II.—HISTORIC EVOLUTION OF THE IRISH POOR-LAW MEDICAL SYSTEM.

To understand existing conditions in Ireland it is essential to have a general view of the history of their growth. Englishmen, accustomed to the study of the gradual evolution of English institutions, find it difficult, as a rule, to understand Irish problems. The Poor-law medical system forms no exception to this rule. We must remember the long and sad history of Ireland. If we take the great Desmond rebellion as a starting point we have the terrible history of the suppression of that rebellion, with the confiscations of Munster and the resulting English plantations in the south of Ireland. We have then the wars in Ulster and the Scottish plantation of that province. Next we have the great Irish rebellion of 1641, and the Cromwellian wars and their confiscations; then the Williamite wars and their heavy confiscations; the penal laws against the Catholics; absentee landlordism; a famine of great severity, and an emigration of very great extent—we have the unceasing struggle of the Irish people against all these conditions, and in the end a gradual understanding by England of the points at issue, and a yielding to Irish national ideas on many points.

The Establishment of County Infirmaries.

If I am asked what is the first landmark of medical aid to the Irish people, I at once point to the action of the national Irish Parliament in 1765 and the following years. The foundation of the county infirmaries in Ireland began in that year by direct Act of the Irish Parliament (5 George III, cap. 20). By this Act the grand jury of each county was allowed to found a county infirmary, and to pay towards its upkeep sums not to exceed £700 a year, with £100 a year and other advantages for the surgeon.

I regard this Act as one passed in the interest of the then

governing body—the landlords. By it they were enabled to form a hospital for their bailiffs, gamekeepers, and employés, and by the salary given to the surgeon, together with a house worth £80 per year, and also the charge of the prison which went with it and gave him some £50 a year, they succeeded in placing in every Irish county an efficient medical man, receiving at the same time from the State such a grant in aid towards his support as tended to overcome the one unyielding difficulty in Irish medical practice—namely, the factor of distance in a country difficult to travel in, and where it was difficult for a doctor to develop a paying practice.

This infirmary surgeon with an income all told of some £250 from State funds, and the assured practice of the landlords' family and surroundings is, to my mind, the primary type of the State-aided physician installed by the governing class of the period. The infirmary surgeons are, and always have been, medical men of the best type, not to be excelled in any country for efficiency and skill, and have always held an excellent position.

The Poor Law and the Workhouse.

The next phase in the evolution of medical aid in Ireland followed the great English reform movement of 1832, which placed the middle classes in power in England. The Poor-law Acts of the post-Reform era of 1834 in England were followed by a similar Act for Ireland in 1838 (1 and 2 Vict., cap. 56), and indeed the Irish Poor-law system was for several years entirely administered from England, and it was not until ten years afterwards that the Irish Poor-law Board was formed as a Statutory Board in Dublin (10 and 11 Vict., cap. 90).

The whole Poor-law idea of 1838 was repulsive in a most marked degree to the Irish peasant, but it was installed by law, and it seems to have been the middle-class attempt to deal with poverty, and the sickness of the absolutely poor. Its watchwords were, alike in England and in Ireland, "abolish outdoor relief," "all paupers into the workhouse," and "all sick poor into the workhouse infirmary." Indirectly it really gave to all the middle-class people in Ireland a State-aided doctor to live in their midst, and to be partly paid by State funds. In theory he was the medical officer of the newly-constructed workhouse infirmary, in practice he was the doctor of the country town receiving a fixed State-paid stipend, and therefore able to a certain extent to survive in Irish medical practice with its unceasing distance factor always waiting to be dealt with by some aid from national sources. It is quite impossible to state the absolute hatred with which the Irish Poor-law system of the 1834 régime was received by the great mass of the Irish people.

Over the door of all Irish workhouses is found the date "1841," the year of the practical introduction of these unpopular institutions into Ireland. The unexpected that always happens in Ireland suddenly brought these institutions into a pathetic prominence. A dark cloud was brooding over Ireland, and after a few premonitory warnings came the terrible famine of 1847-8. During the two years of its existence some 2,000,000 of the people disappeared from Ireland by death and emigration, and the attention of the civilized world, shocked by the harrowing story, was drawn in a special manner to Ireland and her griefs. As a result a new step was taken in 1851 by the issue of the Medical Charities (Ireland) Act, 1851 (14 and 15 Vict., cap. lxviii), a most important enactment in its effect on the medical care of the Irish people.

The Establishment of the Dispensary System.

Up to this date no medical official help was available in the rural districts of Ireland for the great masses of the people. It is true that provident dispensaries may have existed on certain estates and in a few localities supported by private subscriptions, and helped at times by grants in aid from county funds, under the control of the then governing body of the county—the grand jury—composed of the landlord class. In county Mayo, in 1836, only one provident dispensary existed in a distance measuring 72 miles by 58. By the Medical Charities Act, 1851, however, the Poor-law Commissioners of Ireland, acting through the local Boards of Guardians, were authorized to divide up the whole of Ireland into "dispensary districts," "with due regard to the extent and population of the districts," and to employ a medical officer for the care of the poor in these new subdivisions of the hitherto huge unions called, then and now, dispensary districts. The actual body which governed this dispensary district, chose the medical officer, and decided on the fitness of cases for such relief, was the "dispensary committee" incorporated by the Act. In view of later portion of this report it is vital to remember that the dispensary committee was essentially a committee of the local guardians, and *ex-officio* guardians—that is, nominated magistrates living within the dispensary district together with a certain number of ratepayers rated for property to the net annual value of £30. This committee of management was the governing body of the dispensary. As they lived in the actual dispensary district they were presumably personally interested in the efficiency of the medical officer, and as they knew the residents of all ranks and classes thoroughly they presumably knew who were entitled and who were not entitled to Poor-law medical relief at the cost of the ratepayers and the State.

These facts must be clearly borne in mind as the Local Government Act of 1898 abolished this dispensary committee and changed entirely the mode of election of the dispensary medical officers.

The authors of this Act of 1851 seem to have aimed at making the newly-appointed "dispensary doctor" a kind of medical maid-of-all-work for the district in which he served, and really laid the foundations of what might be called an "Irish Medical Service." I say this because by Clause 13 of the Act the dispensary medical officer was bound "without further fee or reward" to vaccinate all persons in his district. He was also under Clause 15 without extra pay to certify all dangerous lunatics, and by Clause 19 to assist in carrying out the "Nuisances Removal Act of 1848," a kind of feeble attempt at sanitary reform for Ireland: he was ordered also to visit the local Bridewell or House of Correction and care for its sick—all "without extra pay," a well-known expression in Ireland. It is important to note that this Medical Charities Act of 1851—the real outcome of the appalling famine destitution of 1847-8—placed in every outlying portion of the country a State-aided medical man; and so the landlord and comfortable classes in power gained probably in reality more than did the masses of the people. It brought to their estates and to their doors a trained medical man, and the general funds of the country paid him a grant in aid. To my mind this was an attempt to deal with the unceasing factor of "distance," which has ever and will ever complicate the question of medical aid for the widely-scattered population of Ireland.

The dispensary districts thus formed by the Act of 1851 were in the main without any geographical unity, method, or system. Wherever a provident dispensary existed on a landlord's estate it was apparently accepted as a going concern and made into a dispensary district, and the intervening irregular spaces that lay between these districts were made into new dispensary districts without any apparent regard to the convenience of the peasant, or least of all for that of the doctor in the discharge of his duties. These districts extended, and still extend, in extraordinary manners, interlocked with each other in hopeless confusion, enclosing lakes, mountains, bog and hilly country in a way to render the giving of medical aid to the mass of the people in many cases a matter of great physical difficulty apart from all questions of pay for the medical officer. Still by this measure medical aid was in theory brought to the homes of the people by dispensaries built or hired in every district. By a system of special summons or tickets (the historic red ticket) the medical officer was required to visit at the cottage of the small farmer, and visit, wherever placed, the cabin of the peasant and labourer, the "poor person" of the Act of 1851. Up the rugged mountain side, down the deep glen, across the trackless bog, often crossing tidal inlets of the sea, running along rocky tracks of inhospitable shore, as well as extending over the wide meadow lands of Ireland, these medical parishes are the ground over which this priesthood of humanity—the Irish dispensary doctors—travel night and day on their unceasing mission to the suffering.

As a rule, whenever a Government has to deal with the medical profession it endeavours to wring a full and exhausting service out of the unlucky doctor. In this Act of 1851 the medical officer was made to act as vaccinator, lunatic certifier, Bridewell surgeon, and sanitary officer, all for his dispensary pay; and it required years of struggle to get these duties disentangled from the ordinary dispensary medical work, to be paid for separately. Gradually this was done, and now the duties of vaccinator, registrar of births and deaths, Bridewell surgeon, or health officer form separate items of the

medical officer's duties, and also form separate elements of his pay.

The same Act, Medical Charities (Ireland) Act of 1851, established two extra Commissioners for the Irish Poor-law Board, one of whom was to be named "Medical Commissioner," and was to be a medical man. This "medical commissioner" on the Local Government Board is practically the responsible head of this weakly-organized body, the Poor-law Medical Service.

THE ESTABLISHMENT OF THE LOCAL GOVERNMENT BOARD.

In 1871 the powers of the Poor-law Commissioners passed, under 34 and 35 Vict., cap. 109, into the hands of the Local Government Board for Ireland—practically the same body as the old Poor-law Commissioners.

In 1878 the Public Health (Ireland) Act (41 and 42 Vict., cap. 52) was passed, and the dispensary medical officer became a health official, recognized, and in a very minor degree paid; he acted under the urban or rural sanitary authority, practically in the rural districts the same Board of Guardians whom he had served as a dispensary medical officer.

By the 43 and 44 Vict., cap. 13 (Registration of Deaths, Births, and Marriages Act) the Irish dispensary medical officer has the option of being the registrar for his district, and receives 1s. each for birth entries and death entries, and 6d. each for marriage entries. I shall deal with this matter later on.

THE LOCAL GOVERNMENT ACT OF 1898.

We now come to a highly important epoch in the history of Ireland, and one very specially important to the Poor-law medical service.

When the Local Government (Ireland) Act, 1898 (61 and 62 Vict., cap. 37) came into force, the democracy of Ireland became charged for the first time with the management of its county and district affairs. Up to this date the management of county affairs in Ireland had been entirely in the hands of the landlord class, sitting as grand jurors of counties. They practically controlled all county action.

In 1898 the centre of Irish local power was shifted, and a county council, elected on a very democratic suffrage, took over the county control. At the same time a great change took place in the *personnel* of the local Boards of Guardians. These Boards—practically the same as the rural district councils—had up to this date consisted in equal proportions of "*ex-officio* guardians" chosen from the justices of the peace of the county—chosen largely from the landlord party—and elected guardians chosen by the Irish democracy on a very wide franchise. By the new Bill all *ex-officio* guardians disappeared, and practically with them the landlord representatives.

It is difficult for Englishmen accustomed to the gradual evolution of all English institutions to understand the effect of this swing of the pendulum. It was practically a social revolution in Ireland. Its effects are as yet not worked out, and it is impossible to say what it may eventually lead to. The solution is still fluid and has not crystallized. The Act at once threw out of office the landlord class, and a democracy not well trained in medical, sanitary, or other administration—and certainly without any practical experience—came at once to the throne. So far as the medical profession was concerned the county council change did not have much effect. Its principal result was the removal of the county infirmary from the control of the grand jury to the practical control of the county council, certain subscribers having a voice also in the management.

But when we come to the district council, practically identical with the Board of Guardians, we find a thorough and in every way a radical change. Not only are the guardians elected on a very democratic franchise, but the whole of the *ex-officio* guardians chosen from the county magistracy class were struck out of the Board. This threw out of office a certain set of members who brought to the Board as a rule a larger experience of public affairs than the existing elected members. No similar change in England could cause so marked a difference in *personnel*, for in England the experience of the democracy is greater in business matters, and there is less cleavage between the classes and the masses on questions of creeds or politics. This change of *personnel* at once acted on the medical officer of the workhouse infirmary, who is an officer of the workhouse staff and works directly under the eyes of the guardians.

The effect of the Act of 1898, however, was still more direct on the dispensary medical officers. Before the Act came into force these officials were elected by the committee of management of each actual dispensary district. This body had the checking power over the red tickets, and the committee could no doubt be a great help to the medical officer. It was at any rate supposed to see his daily work and presumably to defend him if attacked. In theory at least they were his friends, and could be his protectors. This body was wiped out at a single stroke, and the medical officers of each of the five or six or more dispensary districts of the union were thrown at once into direct touch with the whole Board of Guardians of the union. Their election passed into their hands. The "red tickets" were issuable by every guardian in the union, as opposed to the small number of guardians in dispensary districts who heretofore alone had this power. Their conduct might be impugned by any member of the Board of Guardians as a whole, and they had no one to speak for them, for no one was specially cognizant of their work.

This new democracy, then, placed without much experience of men in a position of great power, is to-day ranged apparently in an unsympathetic phalanx against the medical officers' claims. This democracy, as the years go on, will learn more fully how to deal with those serving under its inspection, and the whole hope for Ireland is that it will learn wisdom and consideration and discretion.

The medical profession in Ireland—not well organized for its own defence, and as yet only feeling its way towards a closer union within itself—has before it a trying task, but no reasonable doubt can exist that it will gain all its legitimate demands, and no one will gain more than the democracy itself from the concession of these reasonable claims.

III.—THE EXISTING CONSTITUTION OF THE IRISH POOR-LAW MEDICAL SERVICE.

THE LOCAL GOVERNMENT BOARD.

THE Chief Secretary for Ireland, usually a member of the Cabinet, is the Minister responsible to Parliament for the management of Irish national affairs. The Lord Lieutenant is the head of the Irish Executive Government, and, may be and often is, a member of the Cabinet.

The Chief Secretary for Ireland is *ex officio* the head of the many Boards which form what is called the "Irish Government," or what has been in the past universally known and generally mistrusted by all classes in Ireland as "Dublin Castle," so called because some of the offices of these Boards are located in that edifice. The Chief Secretary cannot be everywhere at once, and as there are many Boards in Dublin and as he has also to be in his place in Parliament in London the supervision he can exercise over the action of these many Boards cannot be very thorough. The result is that Ireland is not governed by English ideas and certainly has not been governed by Irish ideas, but by a body of officials who are members of these Statutory and almost independent Boards and these really carry out a species of Castle Home Rule which is neither English nor Irish but bureaucratic.

A single Minister, however humane, sympathetic, or devoted to the best interests of Ireland, cannot be ubiquitous. This is the weak point of Irish government and of the Irish Chief Secretary's position. Although he may come over from the House of Commons in London charged with a burning message of peace and happiness to Ireland, that message has to be put into force in Ireland by impersonal Boards which have never felt the passion of political conflict nor had ringing in their ears the shouts of the victory of a great reforming party in the courts of the Imperial Parliament. These Boards, which do not change though Ministries perish, well know that the vigorous red blood of some new political or social idea of reform which a powerful Minister may endeavour to infuse into the frigid veins of Irish administration can be diluted until it becomes the mere official red ink of a bureaucracy.

The Irish Chief Secretary may be compared, when endeavouring to govern Ireland, to a Prime Minister of England, placed single-handed to control the action of the many heads of departments and administrative Boards in London, without any trusted and reliable members of his own political party occupying official positions at the head, and acting as parliamentary chiefs of these powerful bureaucracies. Even the Under-Secretary of State for Ireland—the permanent head as it were of the Irish bureaucracy—has in the past come up from the dominant bureaucracy himself, or has been so long

associated with it as to have absorbed all its special characteristics. Yet even his power, when looked into, will be found to be extremely limited over what is called the "Castle" government—that is to say, the Statutory Boards which so largely govern Ireland. These Boards remain with all the traditions of the past and accept with a bad grace any new theories of administration meant by England for Ireland.

The Chief Secretary for Ireland is the titular President of the Irish Local Government Board, but the working head is a Vice-President, drawing £2,000 a year, and with him are two other members, one of whom must be a medical man—the Medical Commissioner. I doubt if anywhere else in the civilized world any three individual officials have more real power or are more able to keep their hand on the steam valve of a nation's life than here.

This Board has a large control over local Irish life, and, so far as the medical profession in Ireland is concerned, it controls it to a very great extent, owing to the large proportion of members of the profession employed either as medical officers of the workhouse infirmaries, which number 159, or of the dispensaries, which numbered, in 1902, 810—a total of at least 960 out of 2,000 medical men in Ireland.

If we add the various medical officers employed as prison officials and in the lunatic service we see of what serious importance the question of the composition of the Irish Local Government Board is to the very existence of the medical profession in Ireland.

If we strike out the number of medical men engaged in Dublin, Belfast, Cork, and Galway in academic and educational positions in medical schools, and the number of retired medical men we see at once that in Ireland more than in most countries the relation of medicine to the State is exceedingly important. On the bearing of the State to medicine, in regard to sympathetic treatment, stimulating control, and inducements to scientific efficiency, evidently much more depends in Ireland than in richer and more thickly-populated countries, where a profession like medicine may exist absolutely free from State control, and may rise to a high state of efficiency by its own unaided efforts. Such a country is England. We must never forget that the very reverse is the condition in the impoverished, isolated, thinly-populated, and, for centuries, gravely-handicapped nation of Ireland.

With these remarks we now turn to the purely medical side of the Local Government Board of Ireland. Below the Medical Commissioner—who is in reality the Director-General of the Irish Medical Service with a seat on the Local Government Board—come the medical inspectors, chosen usually from the medical men employed under the Local Government Board of Ireland; the appointments are often open to political influence, and medical men have been brought in from England or from outside the service on special occasions.

There is no scientific test, no examination or barrier from a proficiency point of view, and personal favour may be, and no doubt often has been, at the bottom of these important appointments in the past days of irregular Irish administration. While several really able men hold these inspectorial appointments, the officials have not in all instances commanded the respect of the inspected medical officers, and it is difficult to see from what source any special efficiency can come as the experiences are largely local experiences, and the conditions in which men are trained up in a feebly organized service may make them tolerant of defects with which they have become familiar. Five of the seven medical inspectors are engaged in the inspection of dispensaries, combined with sanitary inspection work in the towns and districts. They reside in five centres in Ireland and make tours of inspection through their districts. Until within recent years there were only four such inspecting officers, one for each of the four provinces; an extra inspector has now been appointed and resides at Derry. They are paid from £500 to £700 a year, and devote their whole time to their official work. Although these officers inspect the dispensaries and the sanitary conditions of the towns and country districts, they do not visit the workhouse infirmaries, which are inspected, as a matter of routine, by lay or non-medical inspectors, but occasionally by two special medical infirmary inspectors who are detailed for this work alone and who, between them, inspect the 159 union workhouse infirmaries of Ireland. I am unable to see the meaning of this system of divided inspection. A layman is the frequent inspector of the infirmary of the workhouse, a special medical inspector at distant intervals inspects the same infirmary, and independently of both the ordinary medical inspector is inspecting the sanitary condition of the town and its dispensaries in the scattered countryside. The system, no doubt, grew up haphazard like many Irish systems, and is not defensible on any scientific scheme of administration. It will, no doubt, have to be remodelled at an early date.

If the ordinary medical inspector is not able to inspect a workhouse infirmary it seems to me that the sooner inspectors so qualified are appointed the better will it be for all concerned. Moreover, the general inspectors would thus be increased to seven each with smaller districts, a reform greatly needed.

The Distribution of Poor Law Medical Officers.

Medical Officers of Workhouse Infirmaries.

Below these seven inspectors come. first of all, a special body of 159 medical men in charge of the Union Workhouse Infirmaries. These gentlemen, although medical officers under the Poor Law, are not dispensary medical officers but serve under the original Poor-law Act of 1841, while the dispensary medical officers are controlled by the post-famine Medical Charities Act of 1851. The system is haphazard and devoid of symmetry. Sooner or later it will be dealt with as a whole to the benefit of the entire medical profession in Ireland, and certainly to the benefit of Ireland as a nation.

Dispensary Medical Officers.

We put aside now the special corps of 159 workhouse infirmary medical officers and we deal with the great mass of infantry of the line, as it were, who compose the solid mass of the dispensary medical service in Ireland. They are all registered medical practitioners, and constitute a corps of 810 officers, who may be divided for convenience into four provincial groups or divisions. The province of Ulster employs 238 medical officers, Munster 232, Leinster 228, and Connaught 112.

These provincial divisions may again be subdivided into local sections, corresponding to "Poor-law Unions." There are 45 such sections in Ulster, 49 in Munster, 39 in Leinster, and 28 in Connaught. There is an average of five officers in each section, or if the medical officer of the union workhouse be included, as he should be, the average is six.

In studying the distribution of medical officers by county groups, a unit of much importance in any future reorganization of the Poor-law Service, we find the medical officers grouped as follows:—

Province of Ulster, 9 Groups.

County of.	D.M.O.	W.H.I.	Total.
I. Antrim	53	7	60
II. Armagh	14	2	16
III. Cavan	20	4	24
IV. Donegal	36	8	44
V. Down	33	5	38
VI. Fermanagh	14	3	17
VII. Londonderry	24	4	28
VIII. Monaghan	15	4	19
IX. Tyrone	29	6	35

Province of Munster, 7 Groups.

I. Clare	23	7	30
II. Cork	84	17	101
III. Kerry	34	6	40
IV. Limerick	29	5	34
V. Tipperary, North Riding	20	4	24
VI. ,, South Riding	27	5	32
VII. Waterford	17	4	21

Province of Leinster, 12 Groups.

I. Carlow	8	1	9
II. Dublin	47	4	51
III. Kildare	20	3	23
IV. Kilkenny	20	5	25
V. King's County	18	3	21
VI. Longford	12	3	15
VII. Louth	18	3	21
VIII. Meath	18	5	23
IX. Queen's County	13	2	15
X. Westmeath	17	3	20
XI. Wexford	24	4	28
XII. Wicklow	14	3	17

Province of Connaught, 5 Groups.

I. Galway	43	10	53
II. Leitrim	11	3	14
III. Mayo	29	8	37
IV. Roscommon	16	4	20
V. Sligo	13	3	16

Total, 32 Counties, one with two Ridings.

D.M.O.—Dispensary Medical Officer. W.H.I.—Workhouse Infirmary Medical Officer.

It will thus be seen that the county of Cork employs 101—one-eighth of the whole of the Poor-law medical officers of Ireland, Antrim following with 60, Tipperary with 56, Galway coming next with 53, and Dublin with 51, Donegal 44, and Mayo 37. It ought to be possible with such county corps as these to build up a county *esprit de corps* of a very strong character; all counties with below 20 medical officers might be grouped together in couples for promotion or inspection purposes.

Number of Dispensaries in each Dispensary District.

It has to be borne in mind that there are often two or more dispensaries in charge of a single dispensary medical officer. These out-stations are often colloquially called dépôts, but officially they are dispensary stations. Thus Ulster, with 238 medical officers, has 344 dispensary stations. The province of Munster has 361 stations to 232 medical officers. Leinster has 336 stations to 228 medical officers, and Connaught 156 such dépôts for 112 medical officers. As dépôts were probably only formed because the distance from the central dispensary was considered too great for the sick folk to travel, the question arises why the medical officer has to travel such a long distance to see sick patients who cannot attend. If a medical officer were posted for each out-dépôt the corps of dispensary officers would be increased by 387 medical men, or nearly 100 officials for each province more than at present. This very important question should be borne in mind in any reconstruction of the Irish dispensary system.

Such an increase would raise the dispensary staff, now quite insufficient, from 810 to 1,197 medical men. At the very least 100 extra medical men should be employed.

THE DISPENSARY ORGANIZATION IN A TYPICAL COUNTY.

Let us now take a typical county and see how its dispensary system is organized. Antrim, as it stands alphabetically first in the reports of service, may be chosen as the type county. It covers 787,866 acres, and has a population of 418,190 people. For Poor-law purposes it is divided into seven unions or county sections, viz.:

I. Antrim	... ...	29,470 Inhabitants
II. Ballycastle	... ...	12,686 ,,
III. Ballymena	... ...	53 082 ,,
IV. Ballymoney	... ...	28,267 ,,
V. Belfast	... ...	368,266 ,,
VI. Lorne	... ...	33,029 ,,
VII. Lisburn	... ...	46,463 ,,

Each union is an administrative centre of the Poor-law service generally of the surrounding districts, and at each of the centres an elected Board of Guardians meets. The guardians are elected for electoral divisions marked out by the Local Government Board; each division returns two guardians. There may be 18, 20, or more such divisions in a union, and the Board of Guardians would then consist of 36, 40, 50, 60, or even more members. The average is 42 guardians. There are no nominated members. There is a permanent clerk of the union and the Board elects its own chairman: it meets at the workhouse, which is or may be at the centre of the union, and encloses within its walls amongst other institutions for paupers aged and children, the workhouse infirmary and fever hospital, the former originally intended as the infirmary for the pauper workhouse inmates only, but now gradually becoming by stress of circumstances the district hospital for many non pauper cases also. The guardians meet, as a rule, weekly, and supervise the work of the union. The workhouse infirmary medical officer is an official under the Poor-law Act, and is, therefore, at present in no way connected with the dispensary medical officers of the union who serve under the Medical Charities Act of 1851. The guardians now govern the whole of the dispensary medical officers in the union, replacing the special dispensary committee swept away by the Local Government Act of 1898.

TYPICAL UNIONS AND DISPENSARY DISTRICTS.

County Antrim.

Let us now take the first union (Antrim), of this first county (Antrim) and analyse its elements. This union contains six dispensary districts, very arbitrary divisions of the union. The districts are often ridiculous in shape and without logical geographical boundaries. They grew up haphazard after the famine and have never been fully and systematically considered.

The dispensary districts in the Antrim Union are as follows:—

1. Antrim Dispensary District.
2. Connor ,, ,,
3. Crumlin ,, ,,
4. Doagh ,, ,,
5. Randalstown ,, ,,
6. Templepatrick ,, ,,

For each of these dispensary districts a medical officer is appointed, and must live within his dispensary district. We will examine the six districts separately:—

The Antrim Dispensary District contains 21 square miles of territory and a population of 5,356 persons. The area is quite below the average size, which is, for all Ireland, 42 square miles. The population (5,356) is slightly below the average, which is just 6,000 persons. There is but one dispensary and no out-stations or dépôts. There is a single medical officer and no midwife, compounder, or district nurse. The medical officer, in the year 1902, saw at the dispensary 648 new cases, and these he treated as out-patients, over and over again, until they got better—that is to say, he passed through his hands the strength of an average battalion of infantry as fresh cases at his dispensary. For these he made up with his own hands all the medicines, and kept the many statistical records. He drew the drugs on requisition from Dublin; checked them, unpacked them, and made out the various receipts. He attended the dispensary twice weekly, and he also acted as registrar of births, marriages, and deaths, receiving 1s. an entry for the births and deaths and 6d. for marriages. He attended at their own far-scattered homes over this 21 square miles of territory 321 fresh and separate cases of illness—so serious as to be unable to attend at the dispensary for outdoor treatment.

If we estimate the average number of visits to each case at six—a very small number—he paid 1,926 visits at patient's homes over his district, and for these visits he also made up the medicines at the dispensary, where the State supplies the drugs. He vaccinated at various centres of his district 66 cases, and drew from the State some £6 12s. as pay for this duty. The rent of the dispensary building, paid by the State, was £10 per annum. The drugs and appliances cost £53 10s. annually. For these duties the medical officer drew £100 a year from the guardians, and one-half of this cost was repaid to the guardians by the State from the central fund for reducing the cost of local taxation. The medical officer employed a *locum tenens* for a time at a cost of £9, and of this the State paid half. Roughly, then, the district, 21 square miles in extent, and with 5,356 inhabitants, paid the medical officer from the rates £50 for his year's medical work. The medical officer, to do this work had to keep a horse and trap and servant. The Royal Irish Constabulary officers have fixed allowance for a horse—£50 a year—and for a man servant £45 a year. If we calculate the up-keep of the trap and harness for the year at £5, we discover that this medical philanthropist did this onerous and exhausting work and received actually no wages for his labours, his pay being but £100 a year—the cost of his car and horse.

In the next district in the same union, Connor, which is 32 square miles in extent, the medical officer received £92 10s. for the care of the poor of a population of 3,636, so that the salary he received did not even maintain the horse, trap, and servant, used in the practice. Another "Antrim philanthropist."

The third district thus chosen on chance is Crumlin Dispensary. It is 35 square miles in extent, with a population of 3,862 scattered over it. The medical officer saw 359 new cases of sickness at the dispensary, and carried their treatment through there, and, in addition, visited at their homes 263 new cases of disease, whom he treated throughout their illness. Again using the very low estimate of six visits, he paid 1,578 visits to the far-scattered houses of the peasantry throughout the year. Pay £84 19s. 9d.—cost of horse, etc., £100. A third "Antrim philanthropist."

The fourth dispensary district is Doagh. It is quite small, only 23 square miles in extent. The medical officer saw 404 cases at the dispensary, and treated them there as out-patients, and visited at their homes 230 new illnesses, and received as pay £92 10s. He is fourth of the Antrim brotherhood of philanthropy.

The fifth district of this union is Randalstown. It contains 31 square miles of territory and 7,157 people. The medical officer saw at the dispensary 524 fresh cases, and visited in their homes over the district 256 distinct cases of illness, carried the patients through their illnesses and received as

pay £100 for the year. Cost of the horse, trap, and servant, by official calculation, £100.

The last district of this union is Templepatrick. It is 32 square miles in extent, and contains 4,132 people. The pay of the individual officer is £92 10s.

Total salaries for the Antrim Union—29,470 people—£562. Total cost of drugs, £163. Total cases of illness attended, 3,659.

Glenties Union, Donegal.

Let us turn now from a well-settled county like Antrim to the western highlands of Ireland, and take as a sample of the unions of Donegal county Glenties Union, which contains six dispensary districts:

I. *Ardara*, which has 68 square miles of territory, population 5,000. Pay of dispensary medical officer, £96 7s. 4d.

II. *Carrick*, 70 miles square; population, 5,344; pay, £100.

III. *Doocharry*, 76 square miles; population, 3,819; pay, £100.

IV. *Dungloe*, 80 square miles; population, 11,000; pay, £206 for two medical officers, £103 each.

V. *Glenties*, 67 square miles; population, 3,915; pay, £100.

VI. *Killybegs*, a mere patch of 34 square miles, with 3,700 people; pay, £100.

In this Glenties Union, the care of a territory covering nearly 400 square miles, and actually proclaimed as a specially poverty-stricken district, the total pay of the medical officers is £702, population 33,191. The seven medical officers work between them 14 different and far-apart dispensaries, and the question must arise whether detached dispensaries are needed for those able to attend. separate medical men also are not needed at such dispensaries to afford medical aid in their extremely distant homes to the sick too ill to attend the dispensaries as out-patients.

County Wicklow.

If we come to Leinster we find in the Baltinglass Union of the county of Wicklow four medical men responsible for twelve separate dispensaries, scattered over a territory of 234 square miles and inhabited by 16,000 people. How difficult it must be to afford suitable aid to the sick in so wide a territory and with so short a staff, and where does private practice come in? In the Arklow Dispensary district of the Rathdrum Union in the same county, which is 26 square miles in extent, with a population of 6,379, the medical officer saw 662 cases of illness at the dispensary, and attended 389 patients at their homes—pay £120 per annum.

County Wexford.

In the neighbouring county of Wexford we find at New Ross Union and New Ross Dispensary district a population of 6,289 with 992 cases of illness at the dispensary, and 372 visited at their homes—pay £100 a year.

SUMMARY.

It will be necessary later on to deal more in detail with the question of the size of districts and rates of pay. The purport of this section has been to show in outline the existing constitution of the Irish Poor-law Medical Service.

We have thus roughly traced the framework of this important national medical service of Ireland from the single central Director-General in the Dublin head quarter office through the five provincial medical inspectors and the two medical inspectors inspecting Irish workhouse and infirmaries only, to the medical officers of the 159 central district hospitals of the unions, and finally to the great body of the dispensary medical service to the number of 810 officers. We see in it, as it were, the elements of a first-rate national service, but at present the component parts are not fitted together by a master hand and the machinery creaks and groans at every move. The problem of the administrator is out of these elements to build up an efficient national service for a country greatly needing such a help towards betterment.

The question which every medical man in the empire will ask himself is, How is a medical man with only £100 a year to maintain himself by private practice and, at the same time, do his duty fully by the far scattered population living in every possible condition of difficult approach—over high hill ranges, down long valleys, by rocky shores of the sea, round long lakes or impassable bogs. With such conditions as these how are we to estimate the amount of attention that can be given to the sick peasant when we remember the ever-present time and distance factor, everywhere appearing and never by any possibility eliminated in all Irish medical practice outside the large towns.

IV.—THE ELECTION AND APPOINTMENT OF THE IRISH DISPENSARY MEDICAL OFFICER.

IT has been shown that the dispensary medical officer was, to a certain extent, evolved from the provident dispensary doctor engaged by philanthropic individuals in various parts of Ireland to afford dispensary relief to the poor. The grand juries who, down to 1898, did everything in the Irish counties, allowed at times in the far away past a sum of money to be paid out of the county-cess to supplement the pay of the doctor so chosen. It has been stated, also, that in the huge county of Mayo in 1836 only a single dispensary of this kind existed, that the events of the famine and the fever no doubt aroused public responsibility in the matter, and that the Medical Charities Act of 1851 gave official existence to the dispensary system.

It would seem as if the landlords and the middle-class determined, after the terrible experience of 1847-48, to throw the cost of such dispensaries and their maintenance entirely on the rates. In fact, they created the germ of a national medical service. It has been shown that the Medical Charities Act placed the choice of the dispensary medical officer then established in the hands of the locally chosen "dispensary committee"—a purely local body—composed of the guardians of the union living within the dispensary district, the smaller resident landlords (*ex-officio* guardians), always a powerful body, and such highly-rated taxpayers as were chosen by the guardians of the union, as members. This entirely local body then chose a local medical man for a local duty, in which no one intervened but the local residents and local landlords.

In those days the local power of the landlord in Ireland dominated everything in his district, and largely dominated the election of the dispensary medical officer. As a rule the man backed by the local territorial magnate got the local appointment. Nominally chosen as the physician of the poor, the medical officer really was, in my opinion, the State-aided medical man whose main business was to practise amongst the local paying classes, while to afford medical aid to the sick peasant was in those days merely a side duty. The appointment was never a very brilliant one; but agriculture was not in so low a plight then as at present—the landlord class had money, and often paid a yearly sum to the doctor for the annual medical care of their households and retainers. Nor were there the same ailing people in Ireland, the débris, as it were, left after the unceasing emigration of the fit and strong. Life assuredly was pleasanter for the "classes," though not for the "masses" in Ireland—more of the smaller landlords existed, and the amenities of life were greater. Moreover, medical men were then more easily made—technique was simpler and methods more primitive than to-day—science had not seized on medicine so fully. The lot of the then dispensary doctor, though by no means a rosy one, had not reached the acute condition now existing. and men were found to take the appointments.

Year by year in the past forty years things have altered. The three-year curriculum was lengthened to four—the four years became again lengthened to five—the standard of knowledge was varied, the examination became harder, fewer men came to medicine, and fewer graduated.

The action of the General Medical Council, in dismissing unqualified assistants to the number of 800 in England, crowned the edifice and gave hope of better pay for medical men. The Secretary of State for War knows this well in his Army Estimates in the increased cost of the votes for the upkeep of the Military Medical Service. It has penetrated into the inner chambers of the Admiralty Office, and they know how difficult it is to enlist medical officers for the navy; India knows it, and every medical man practising in England who needs an assistant in his practice knows it well. Every one knows it but an Irish Local Government Board, whose word of command would be: As you were in 1851, and "no forrader."

Synchronous with all these movements began the growth of the Irish democracy, and that ultimate peasant heretofore beneath notice became a definite entity in Irish life. Enfranchised in 1886, he took his seat on the throne of Irish local life and administration in 1898. The medical profession in Ireland, badly organized, unready for the fight, and without political influence, was to the extent of 50 per cent. or more of its numbers handed over by the Bill of 1898, almost completely to the control of the local body of Poor-law guardians, that is to say, largely to the peasantry whose long years of suffering had, it is said, undermined their native good qualities, and who, in many cases, looked on the doctors

generally as a portion of the ascendency army now wholly out of power and authority. They constituted, as it were, the rear guard of the ascendency army retreating off the battle-field of Irish public life. The members of the new Boards of Guardians which, under the Act of 1898, came into power, are numerous, in fact double the number of the former guardians, for each electoral division sends two representatives, and all classes of all creeds in Ireland complain that they are too numerous for the work.

The election of the medical officers now rests with the whole body of the guardians of the union; this has killed out all the former definite local responsibility in the choice. The election of the medical officer for the Milltown Dispensary in the county of Westmeath, for instance, was formerly in the hands of the representatives, such as they were, of the 2,300 inhabitants of Milltown. It is now thrown into the hands of the whole body of Milltown Union guardians who represent the 27,000 inhabitants of the entire union of Milltown. Formerly in the Rathdowney Dispensary district of the Abbeyleix Union the *ex-officio* guardians, representative guardians and the ratepayers of Rathdowney to the number of 2,800 people chose the Rathdowney medical officer, now he is chosen by the guardians of the whole of the Abbeyleix Union of 17,500 people. The medical officer for Granard is not chosen by the representatives as formerly of the 5,200 Granard inhabitants but by the guardians of the Granard Union representing 23,000 people who may care nothing for Granard's local wishes.

The election, thus widened out, has lost all scientific, medical, or professional element. All classes in Ireland of every creed and politics, of every rank or class, from the highest to the lowest, cleric and lay, all see this—and many lament it. What the ultimate sick peasant in his cabin thinks of it seems to be a matter of no importance, for under the democracy as under the ascendency régime the value of the ultimate human entity in Ireland seems still a low one.

To be clever surgeon, or sympathetic physician, or active sanitarian, anxious to remove the scandalous sanitary condition of Irish towns and villages, such qualifications are never mentioned. The question is, Is the candidate a sound Orangeman? Is he a good Presbyterian? Is he a good Tory Catholic, or is he a Democratic Catholic of the United Irish League? From the wild Inishowen in the north to the Head of Kinsale in the south, and from Dingle to Dundalk, the same principle everywhere extends. No one ever attempts to deny it. I saw the obsolete and inefficient doctor of a country-side, out of date and out of mental fitness for the work of a great profession, but he was a blatant Orangeman, and that sufficed. I saw the worn-out, ignorant, and entirely unsuitable district doctor—a very blunderbuss of the past, instead of being a breech-loading arm of precision. Nobody dreamed of calling him in. He lived in a wretched way, shut off from all stimulating surroundings. The parish priest told me he was of no use to the district. The gigs of the neighbouring doctors drove into his district and took up the little paying private practice that there was. Thus the paying patients did not suffer much, but of that ultimate Irish peasant, stricken with disease on the hillside, or far down the valley, of his wife in labour, of his child in deadly sickness, of these no one thought. I say here, as over and over again I said in Ireland—But where does Ireland come in in all this? You say this man is a keen Nationalist as the other was a keen Orangeman, but what was he in this cottage, so humble in its surroundings, so hopeless in its filthiness, so poverty-stricken, as the husband lay dying in his wretched cot, what did the wife say of the hopelessly unfitted man who came to that solemn duty of helping in a fight for life?

I say now that it is a sin of the gravest nature so to elect men. This doctor was a strong Nationalist. Every one knew his unfitness, but no one dare incur the enmity of his supporters by endeavouring to have him replaced. I saw a man holding such a billet, who as two neighbouring doctors told me was brought down from Dublin to fill a vacant dispensary. The man was evidently, by their statement, in the lowest state of decay and poverty, and hopelessly obsolete and inefficient. One doctor lent him a hat, another a frock coat, and thus equipped he was taken before the local Board of Guardians, and without an inquiry—without a question—accepted. Why? His political record was sound.

It is as bad in the north as in the south, in the east as in the west. Everywhere the very idea of science is scouted, and everywhere inefficiency is accepted if the politics are right. The democracy that do this will to-morrow on every platform make stirring speeches about the many injustices to Ireland, and exhaust their vocabulary of invective against their opponents, while quite forgetting their own unjust acts. So much has this been the rule in elections for medical officers that the whole professional reputation of the dispensary doctor class is threatened with serious injury, and all who can afford it are endeavouring to get medical advice from other than dispensary medical officers. But the Irish peasant—the last rear-guard, as it were, of the labourers, who have escaped from the country—is without a thought consigned to the defective care of a person who is unworthy of the honoured name of physician.

This is not a question of Catholic and Protestant. I saw myself the whole Catholic community of a town split into two hostile factions of Catholic Tory and United Irish League, and, for pure party sake, choose the least efficient of the opposing candidates for a Poor-law medical appointment. All knew it, and all regretted it. I said then to the local people, as I now say to a wider audience and a less passion-ridden and more even-minded people, where does Ireland come in in all this struggle, and what of the ultimate Irishman on the hillside—sick to death with disease? Is it any wonder that still the best of the race throng from Queenstown on the Atlantic steamers to happier surroundings?

I have referred to the very large number of guardians in each union. The Local Government Bill of 1898 greatly increased them, causing two such representatives to be sent from each local electoral division of the country. The unions are large and scattered, the roads are few and bad, the communications not easy, the farmers are poor, and it costs money and time to attend the unceasing guardians' meetings. Many do not attend. At the meetings of the Boards I saw only a small proportion of the crowd of guardians were present. But when a dispensary medical officer is to be elected there is a regular gathering of the clans, and the fiery cross penetrates down the deep valley and up the mountain side, and the market town is filled. The scene is one of excitement in a land where other excitements are few. The young candidates for the post have, for the previous weeks or months, been regularly attending all the local fairs and markets, and have been treating and drinking with the guardians and endeavouring to win their votes. They have to expend money also on travelling round the widespread country-side to catch the guardians in their homes, for all the guardians of the union vote in this matter so that while the Ballybot dispensary district of the Newry Union contains only seven square miles of district the voting guardians come from a territory covering 218 square miles of broken country. The people of Westport, county Mayo, covering 62 square miles of country, need a medical officer, and he is voted for by the guardians gathered in from 526 square miles of very difficult country. The population of the Powerscourt Union of the Rathdown Union, county Wicklow, numbers 1,826, but the guardians who elect the medical officer represent 57,000 people.

It is evident, then, that the Local Government Bill of 1898, while wiping out as with a sponge the power of localities to choose their own medical officers, placed a real difficulty on the shoulders of all future medical dispensary candidates in having to canvass a mass of outside and greatly scattered guardians, to drive far and wide over the country to canvass the electing guardians personally at great expense. Furthermore, it is impossible to overlook the constantly repeated charges of bribery mixed up with these elections. Considerable sums of money it is alleged pass to those who are wire-pullers, and the price of the votes, at times considerable and at times small, are matters of common gossip. A medical man, whose people had, it was said, paid freely for his election told me, like scores of others, that so hopeless was the work he would be glad to get away to England if he saw any opening there. The young medical officer elected in his native county complains that the fact injures his practice as people presume on former acquaintanceship and proffer no fee.

It has been pointed out to me by very high Catholic authority that lying, deception, and intimidation are mixed up with all these elections.

Through all this state of affairs the words science or efficiency are never mentioned. The only query is, Is the candidate Presbyterian, or Episcopalian, or is he Orange Conservative or Orange Radical in the north, or is he Tory Catholic, or United Irish Leaguer in the south, and thus the election is determined.

The medical officer chosen by a political faction, which faction itself may at any moment again split into rival contending parties, comes into office with a party of guardians

pledged to support him, and any individual bringing forward complaints would have to face the attacks of all his friends before he could secure inquiry. This makes the Irish country-side tolerant in many cases of defective medical conditions, unlikely to be encountered in most civilized countries. No one can be found to bell the cat.

Gathered in for the election from remote country-sides, the guardians themselves have the vaguest ideas as to what progress medicine has made, or what influences control the supply of doctors. What wonder then that when they hear of a medical man asking for a salary that shall be a living wage they exhaust their vocabulary of invective against him, and just as the landlords of old drove their farmers to emigrate to avoid oppression, or the farmer later on drove the labourer to America to escape his grinding control, so this very guardian, who last Sunday made a glowing speech on the evils of emigration, to-day in the Board of Guardians spoke so intemperately, so degradingly, so insultingly of the medical officer who asked for more pay, that every intelligent young doctor arranges to emigrate anywhere out of Ireland. Just as the general emigration from Ireland is leaving behind a population of maimed and halt, and physically or mentally handicapped, so assuredly the medical profession in Ireland, if this rule continues, will consist in a large proportion of a defective class—as far adrift from scientific efficiency as their countrymen will be from physical or mental efficiency. Lunacy, tuberculosis, and defective medical aid, and hopelessly bad sanitation may kill out a nation, but far more surely will ignorance, injustice, and incapacity to govern.

So long as so defective a system of election exist it seems hopeless to expect scientific efficiency for this important body of medical men.[1]

As soon as the election is over the clerk of the union notifies the Local Government Board of the result, and this Board is the final approving authority on behalf of the State as laid down by the Medical Charities Act of Ireland, 1851, the charter of the Irish dispensary medical officers. It is essential to emphasize the very large powers possessed by the Local Government Board in these appointments. Moreover, it alone has the power of dismissal. The Board of Guardians can only suspend. This large power in the hands of the Local Government Board shows that, however it may desire to minimize the fact, the medical officers of the Irish dispensaries are not the servants of the Board of Guardians but that, as under the old Irish land system, there is a dual control part being exercised by the Board of Guardians, but quite the larger part being in the hands of the national or State authorities (the Local Government Board). These points must ever be borne in mind in all consideration of the Irish medical service and its grievances.

V.—THE DUTIES OF THE DISPENSARY MEDICAL OFFICER IN IRELAND.

The election is over and the medical officer takes up his appointment in the far-away country village where, without hope of promotion and with a paltry income, he is to spend the remainder of his life. The duties required of him are laid down in a book published by the Irish Local Government Board called *General Rules for the Government of Dispensary Districts*. The following is a summary:—

Medical Duties.

I. To attend the dispensary or dispensaries under his charge on such days and hours as the Local Government Board may approve or direct, and there to afford outdoor medical relief to all "poor persons" presenting the "black ticket" (Form E 1) for dispensary treatment. He is also vaccinator for his district at 2s. a case vaccinated.

II. When he receives the red ticket (Form E 2) he shall attend at the patient's residence and afford aid until the patient recovers, or the case terminates otherwise.

III. If he considers that tickets have been wrongly issued he reports the case to the issuer of the tickets and to the Board of Guardians who may cancel the ticket.

IV. He is to give a certificate, if needed, of the state of health of any dispensary patient if called upon to do so by the guardians.

V. He is to keep a register of all patients attended either at their homes or at the dispensary, and send the book monthly for inspection by the guardians.

[1] A woman aged 21, if duly registered, can be a dispensary medical officer.

VI. Every three months he requisitions for medicines. The Irish Poor-law Regulations arrange for the supply of drugs from other sources than the medical officer himself.

VII. He receives, checks, and cares for the drugs and instruments, and if no compounder exists he compounds all drugs. Only 47 compounders are employed in all Ireland to meet the demands of 1,197 dispensaries. He sends samples out of each consignment of drugs to be tested. He packs up and returns all empties.

VIII. He reports to the guardians monthly his hours of attendance daily, and the duration of his stay at the dispensaries.

IX. Curiously enough he is the official medical officer of the Bridewell—the house of correction of his district, if any exist, and he reports, still more curiously, to the Board of Guardians his visits and the drugs he uses there.

X. He sends quarterly to the Local Government Board, and sends a copy to the Board of Guardians of a Form (L.), which deals with the number of tickets, number of sick-tickets cancelled, vaccination statistics, lunatics certified, cases attended at the Bridewell, and cases of typhus fever, small-pox, enteric fever, scarlet fever, and diphtheria, and answers a series of questions about drugs, value of vaccine lymph, dispensary arrangements, birth of children, and reports on the midwife's efficiency. A series of questions on the public health of the district must be answered, and a report made as to how the sanitary inspector—called in Ireland sanitary sub-officer—performs his duties.

It will be seen here that there is a considerable amount of purely clerk's work to be done in making out these returns, and, especially in the matter of drugs, the Local Government Board is very exacting. As there is no compounder the medical officer has himself to make out all the many drug returns and reports, as well as to compound all the prescriptions for his patients. The exceptions to this rule are quite few; the matter is considered a grievance by the medical officers, and could easily be remedied.

Sanitary Duties.

We now turn to the other duties of the dispensary medica officer. He is practically two gentlemen rolled into one, so far as sanitary and medical duties are concerned. The local Board of Guardians sits also as a District Council—urban or rural. In its first capacity it deals with poor relief, in its second with local administration and sanitation. The truth is that not only in Ireland, but in England, the Board of Guardians and the district council should be absolutely amalgamated into a single district council.

The Irish Public Health Act (41 and 42 Vict., cap. 52) 1876, makes the dispensary medical officer *de facto* sanitary officer or medical officer of health for his district. He has under him, as a rule, the relieving officer as sanitary sub-officer, or, what would be called in England, sanitary inspector. In the larger cities like Dublin, Belfast, Cork, Limerick, or Londonderry, a superintending medical sanitary officer may be appointed, to whom the other dispensary medical officers acting in their sanitary capacity, report, and there may be, as in Dublin, a consulting sanitary officer. The dispensary medical officers, as a rule, perform the usual duties of medical officers of health for their districts and from time to time present various reports.

For this duty they receive a wretched salary varying from £15 to £25 yearly, and the workhouse medical infirmary officer receives some £10 to £15 yearly as superintending medical officer of health for the union. In Dublin, Belfast, Londonderry and Cork, the superintending medical officer of health is a special appointment and fairly paid.

In the smaller towns and the rural districts the whole thing seems a farce. The salary does not induce any medical man to begin sanitary work, and the opposition is so great and the help of the Local Government Board so defective that practically all medical officers of the dispensary service in Ireland whom I met treated the whole of the sanitary duties as a huge joke—the saddest of jokes I imagine, for the sanitary condition of Irish towns and villages is only on a level with a Chinese village which has for long centuries been considered the highest expression of sanitary shortcomings.

There is no county medical officer of health as in Scotland, and the sanitary inspections made by the Local Government Board inspectors, who only appear every now and then, are said to be perfunctory, perhaps necessarily as they have large districts to inspect.

I met throughout my Irish tour numbers of active-minded dispensary medical officers who were able sanitarians, quite

fit to give advice, or to cope with an insanitary condition, and they one and all groaned over the deplorable conditions around them. With these gentlemen I traversed the wretched slums of the streets of the Irish towns, and saw the nameless state of filth of these places: the miserable cottages, the haunt of the phthisical patient, the home of that tuberculosis germ which is doing such damage amongst the remains of the Irish people. All the medical officers saw the the evil and fully recognized it, but they had all lost hope, and took the most desponding views of the future.

I visited towns in Ireland which benefit, owing to their proximity to delightful scenery, by the influx of tourists from England, and the unutterable condition of these towns, as regards sanitation, if known, would surely prevent tourists of any intelligence coming within their boundaries.

So far as I could see, the sanitary inspectors were untrained and unlectured, and took up their job as a side show. If an officer did his duty and reported, no action followed. The letter lay on the table, and a condition of housing and sanitation, and in certain towns of water supply, existed which must act on every intelligent young man or young woman as a great incentive to emigration to escape from the loathsome and degrading surroundings.

Few, if any, of these medical officers of health had any diplomas in State medicine. The majority had not the means to go anywhere for instruction in sanitary work. The Local Government Board inspectors were not in all cases equipped for sanitary inspection, but were promoted from the dispensary medical officers, not necessarily for sanitary knowledge.

Tuberculosis is still rife amongst the peasantry, and typhus fever, evidence of the very climax of filthiness, still claims many victims. Of the increase of lunacy—a very sad fact—I need not speak. No sanitary lectures or sanitary public opinion seem to exist, and the Irish democracy, which claims to be one of high intelligence, has yet to learn the very A.B.C. of sanitary science.

There does not seem to be any sanitary expert of distinguished reputation at the Dublin office of the Local Government Board. Doubtless one should be appointed there to aid, by his special knowledge, the general supervision of the sanitary branch of the medical side of that most important governing body which can make or mar the Irish people.

Further, whenever the provincial Local Government Board inspector is chosen, not specially for sanitary knowledge, a sanitary specialist should be attached to his office to collate the reports, advise the medical officer, and keep up the tradition of the office at the change of inspectors by retirement, promotion elsewhere, or death.

Every facility should be given by the Local Government Board by sending round lecturers to instruct the group of Poor-law medical officers in a union in sanitary matters, and short courses of sanitary instruction should be available for them in Dublin, Belfast, or Cork, so as to keep up their knowledge and enthusiasm for this work so needful in a land far behind most other civilized countries in sanitary matters.

But above all the question of the need of a county medical officer of health rising out of the Poor-law service, shut off from private practice, and well rewarded for the life-saving labour of sanitation in Ireland is fundamental and vital. I would still preserve the sanitary initiative of the dispensary medical officers who see much of the people and can teach them; and I would raise the sanitary factor in their pay by a certain amount, and let them report all sanitary shortcomings, but once reported all precautions and final remedies should be in the hands of the county medical officer of health who, although the paid and independent servant of the central government would be able to influence both the county and the district authorities.

After much experience of the world, east and west, I know no land so wanting in sanitary improvements as Ireland.

Registration Duties.

We are gradually building up the dispensary medical officer's various duties. We have shown him as giving medical aid at the dispensary, visiting physician to the poor, vaccination officer, bridewell or house of correction doctor, then medical officer of health. He now appears in a new character. He is also registrar of births, deaths, and marriages for his district, which is also called a "registrar's district," the various districts in the union being grouped into a superintendent registrar's district under the clerk of the local Poor-law guardians. The Registration Act Ireland, 26 Vict., cap. 11, gives to each dispensary medical officer the option of accepting the post of "district registrar." It gives to the medical officer 1s. a head for each birth, 1s. for each death and 6d. for each marriage, and it certainly keeps him in touch with the vital statistics of his district.

In the days of a crowded population and with many births the registration fees were of some importance, but to-day, with a waning population, with marriages rarer and postponed to a later age, the fees are of little importance, except in the cities and larger towns. In Belfast the irony of the situation was striking, the medical officer of one of the dispensary districts received £120 a year for his medical duties of a very extensive and exhausting character, and £160 a year for the registration of births, deaths, and marriages.

The fact is, the registration of births and deaths was thrown to the doctors as a penny is given in charity to a poor man in the street, as a mere sop to terribly badly paid men. I am still of opinion that the medical officer should be the district registrar and be paid a retaining fee plus the actual entry fees. The dispenser needed in every dispensary should act as his clerk for registration purposes.

Vaccination Duties.

In the early days of the Medical Charities Act this duty was supposed to be done without extra fee, now 2s. is paid for the operation.

The falling off of the rural population has greatly reduced these fees, although a few medical men in the towns have gained by the population crowding in to them.

Constabulary.

The dispensary medical officer is generally, but not always, the medical officer of the Royal Irish Constabulary in the district. The appointment is in the hands of the Inspector-General in Dublin, and although the payment is 2s. a member a month, no payment is made for the officers, nor for the women and children. The Constabulary are growing fewer in number, and will certainly be much reduced as time goes on. The absence of any pay for the care of women and children is a distinct grievance; no payment is made even for obstetric cases amongst the women. For all distances over three miles from the dispensary a mileage rate should be paid by the State for all visits to the Constabulary.

Certifying Factory Surgeon.

Where no certifying surgeon under the Factory and Workshop Act is appointed the dispensary medical officer of the district acts. It is a badly-paid duty, and it is only in the north of Ireland that it is of any appreciable importance.

Coastguard.

At times, on the coast, the charge of the coastguard falls to the dispensary medical officer. The payment is 2s. 6d. a visit, with mileage one way.

Lighthouse Staff.

The medical care of the lighthouse staff falls to the dispensary medical officer in the sea-coast districts. It is work often irksome and dangerous in the wild storms that rage round the Atlantic seaboard, and any fees paid by the Corporation of Irish Lights are well earned.

Summary.

It is to side payments like those for coastguard and for lighthouses that the wretchedly-paid dispensary medical officers of the wild western Atlantic coast-line have to look for some small help to eke out their defective salary. The coastguard, paid for by the British Admiralty, come as a minor kind of financial help. It has been jokingly said that if it lay with the local dispensary medical officers no shore in the world would be better supplied with lighthouses, nor any coast-line better patrolled by coastguards. The pathetic side of the story is that a body of physicians, living lives of risk and loneliness, should be permitted to remain in so underpaid a condition as to have to look to chance payments like these to maintain their existence. Such conditions are similar to the wretched migration of Mayo agricultural labourers, who annually leave their own inhospitable land for the north of England for temporary work on English farms, to endeavour to raise money to pay rents in Ireland for their defective and non-economic holdings. It may be compared also to the similar migration of the Donegal peasantry to Scotland for work at agriculture, or that curious emigration of the Achill Island peasant-girls, who every summer leave their romantic island to gather in the potato harvest in southern Scotland, and return in the winter. In every

one of these cases Irish men and Irish women, like Irish doctors, should be able to live fairly in their own land without extraneous aid from any source—a condition quite possible to realize with just laws, justly administered, a rare combination in Ireland.

Many of the medical officers on the west coast of Ireland, an inhospitable shore on which the full force of the Atlantic storms spend themselves, have to visit the poor on the islands, and those located on the main islands have to visit the smaller inhabited islands in their vicinity by boat. My heart failed me when I was told that no allowance is made, and, that out of his wretched salary, the medical officer has to provide boat-hire. This seems monstrously unjust. Not only should all visits by boats to islands off the coast receive a special rate of extra pay to cover the risk and loss of time, but reasonable boat-hire should be paid.

Every detail of the life and duties of those unfortunate public servants who are dispensary medical officers in Ireland needs to be studied, and each detail, when looked into, will fill the inquirer with surprise that such things are permitted to exist.

VI.—THE DISPENSARY—DISPENSING AND THE DISPENSARY RESIDENCE.

The Dispensary.

The actual dispensary in Ireland is generally a room hired in some small house in the village, and consists of an apartment fitted with shelves for the drugs, and a waiting-room for the out-patients who attend between certain hours on fixed days.

In the Antrim Union in Co. Antrim, already referred to, the rent of the six dispensaries varies from 10 guineas a year in Antrim town to £5 annually in the Templepatrick dispensary district of the same union.

The average annual rental for the dispensary fabrics throughout Ireland is £12. A caretaker, generally an old woman, living near the premises, keeps the keys, lights the fire on dispensary days, and acts as general caretaker. Anything more cheerless than the average Irish dispensary fabric it is difficult to imagine even in the towns, but the outlying dépôts in dispensary districts in the remoter parts of the unions are, as a rule, wretched, comfortless, and unfit for the examination of patients. Any sort of building, derelict and valueless for any other purposes, may be turned into a dispensary, and it is pitiful to see their air of discomfort. It greatly tends to break down the self respect of the medical officer, and without doubt it prejudices him in the eyes of every patient who ventures to consult him. I saw the damp and cheerless rooms, the cold, wet, sodden earthen floors; at times the thatched roof, the hopeless attempt at a waiting-room, the air of shabbiness and neglect that hung over many of these places—the smoky, broken stove, too small to warm the room, the dirty whitewashed mud walls, the dim and dirty windows lighting the room so defectively as to render it difficult to examine the patients fully.

The medical officer stood by the dispensary table on which the bottles and all the paraphernalia of dispensing were littered in the medical dispensary room itself, and he seemed again to be the reversion to those far-away days when the whole surroundings of the mediaeval medical art were poor and defective. Never was the beautiful science of medicine presented to the people of a country in a more wretched or a more untempting form than in Ireland, nor with more depressing surroundings.

Here in this chill and dank chamber, where the very medicines themselves ranged on the shelves lost their energy and their virtue from damp and unsuitable storage, the delicate Irish peasant girl, sinking into that dreaded tuberculosis which ravages the badly housed peasantry, bared her white bosom for the doctor's medical examination in an atmosphere so cold that she shivered as she stood before him. To the same cold and cheerless apartment came from miles away the weary mother carrying her ailing child or waited in the sordid waiting-room until the medical officer, tired and spiritless, became again the apothecary and dispensed the prescribed medicine for her child.

Here to this defective outpost of that great force of curative medicine came the aged peasant with his hoarse cough, and waited his turn in this chill chamber where medicine, under the coarsest surroundings, came into touch with the imaginative and sensitive Irish people. I saw many such dispensaries in out-houses, converted stables, disused dairies, in the backyard of the medical officer's house, rarely comfortable and constantly below the standard needed for the humane and efficient treatment of the people. No surgeon, well educated and properly trained, would in these wretched rooms willingly attempt any minor surgery, and the whole surroundings carried us back to the days after the famine when anything seemed good enough for that unfortunate peasant who, whether under the rule of the ascendent minorities of the bitter past, or the militant democracies of the present time, counts of less value in Ireland than in most other countries of the world.

Frequently the medical officer, to eke out his wretched stipend, himself offers to give up a room in his house to gain the £10 a year rent as a grant towards his own house rent, and here to his house come twice a week the troop of ailing people and the daily stream of prescriptions for the distant sick. The doctor's wife tells me with regret that the patients had brought scarlet fever to her child, and that on cold winter mornings the poor crowded into her kitchen and she could not say them nay.

The Dispensing.

The dispensing for the outdoor and sick patients itself is a very fatiguing duty. There is no bottle-washer, no dispenser, no assistant, no one to write a label or do the commonest work of help. In all Ulster, with 168,972 new cases in a year, each needing at least six or eight separate compoundings of drugs and all the tiresome routine of dispensing detail, there are only seven dispensers, and these are mainly in Belfast or other large centres.

In Munster, with 144,553 new cases during the year, not new attendances, but absolutely new cases of illnesses, there are only 21 dispensers, and these again are in the large towns or the workhouse infirmaries. In Connaught only four dispensers exist, or in all Ireland, with 588,347 new cases of disease annually, each requiring, say, six separate compoundings, there are only 47 dispensers, and the average cost for them in the workhouse infirmaries is £20 a year, and in the dispensaries 4s. 8d. a year. The medical officer goes eight miles to see a very severe case of pneumonia, the wife of the patient has first had to summon the doctor, then to send in eight miles to the dispensary for the medicine, but the medical officer has had to visit other cases on the other side of his huge district, and does not reach the dispensary again until nightfall, and as there is no dispenser to compound, all this time the wife has waited for the medicine, and the medical officer, chilled to the bone after the long drive, has then in the dark dispensary, without any trained assistance and with defective light, to make up the medicine, and eventually, well on to midnight, the weary wife again reaches her distant home. What wonder that these public servants curse their ill-luck and bitterly lament the day that chained them to such galley-slave labour, under harsh masters like the Board of Guardians, or under far away unsympathetic order issuers like the Local Government Board of Ireland.

Without exception the medical officers complain of the unceasing orders about the custody of the drugs, the quarterly requisitions, the sending away of samples, the amount of writing, the checking and counter-checking of the drugs, the drudgery of the packing and unpacking, the difficulty of getting special medicines quickly, and the inconsiderate references to the Board of Guardians to sanction drugs of the technical value of which they know nothing. These orders issued by the central authorities in Dublin about the purely material and absolutely second-rate questions of the custody of drugs and the checking of their quantity could not be more definite nor more exacting if there were specially paid dispensers with nothing else to do but carry out these orders. To exact such service from the physicians is greatly to injure their efficiency. If they neglect any of these details the Local Government Board at once reports them to the guardians and may even cause surcharges to be made, while the very dispensary fabric itself may be of the most defective character as to comfort, the medical officer himself careless and neglectful, and the medical attention given to the peasant in his lonely cabin may be of a poor quality without eliciting any protest. All these things are as nothing, but the empty bottles must be carefully packed by the medical officer's own hands, and he must weigh out and check the quantities of scores of drugs. This is the making clean the outside of the cup and platter, well-known in all old-fashioned branches of the British public service. It is "the polishing of the brasswork on the man-of-war whose guns miss every mark they are fired at; it

is the pipe-claying of the soldier's belt while neglecting to teach the man to shoot; it is the glorification of ritual over doctrine and the mistaking of the commonplace and non-essential for the vital and essential points of medical duty." The town was filthy in its hopeless insanitary condition, but the bottles in the dispensary were carefully counted. The hapless phthisical patient sat in the chilling air of the damp, cold waiting-room and no one said a word, but no samples of the drugs were sent to the analyst, and the forked lightning of Local Government Board played round the head of the offending drug-compounding physician.

Under this system of administration no wonder the peasant learns to despise the dispensary treatment because he thinks that no efficient, no self-respecting member of the medical profession would work under such conditions, and that if the surroundings of the dispensary are like the better type of cattle-shed, the medical advice given will also be of poor quality. The sense of degradation that hangs over many of these places is very noticeable, and probably no peasantry would appreciate this defect sooner than the Irish. What must be the effect on the young medical man, fresh from the colleges and hospitals in the cities. What value can he attach to patients brought before him under such pitiless arrangements. I maintain that the proper value is not attached to human life when it is so dealt with, and that the best medical man must break down in surroundings that so undermine their ideals as to the value of human life. While Sunday after Sunday passionate appeals may be made by individual guardians to the people on national questions, and maledictions are called down on the authors of the bitter sufferings of Ireland in the past, the medical officer tells me that the very same guardians refuse to sanction improvements, scoff at suggestions, allow his letters to be marked "read," and let them lie on the table, while far away in the distant office of the Local Government Board a new order is issued about the packing of empty bottles, and the due labelling of "returned empty hampers" to the wholesale chemists.

It should be possible in most towns for the guardians to make contracts with local chemists for drugs needed to be compounded for the poor. If not, there should be appointed to the central workhouse infirmary of the union, which is the centre of the medical life of the union, a dispenser for duty there, who should in addition once each fortnight at least visit the outlying dispensaries, make up the stock mixtures, prepare the requisitions for drugs, check and weigh the incoming drugs, correct and record the returned supplies, clean up and place in order those rough-and-tumble dispensaries, and in every way free the medical officer from the useless mass of materializing duties which weigh him down, distort his true views of the sick under his care, and blind him to his higher duties. I do not know any minor reform, for after all it is a minor reform by comparison with the great reforms the Poor-law medical service needs, which would be more warmly welcomed by the harassed officers of the Irish Poor-law medical service. In the same way, the district inspector should have power to sanction any new drugs without reference to the Poor-law guardians, who know nothing of their therapeutic value.

Need for Standard Plan of a Dispensary.

What is further greatly needed is a standard plan of a dispensary building with good waiting-rooms, proper lavatory arrangements for patients waiting, proper consulting-rooms for the medical officer, and a compounding-room with the modern helps to compounding in it. No such standard plan of construction is to be seen, and everywhere the medical officer prescribes for the sick in the midst of bottles and drugs. There is no attempt at refinement, and the whole place is below the standard of accommodation of eastern countries which we so much despise. Facilities for examination of the eye and for minor surgery should also exists; some attempt at arrangements for gynaecological examinations are needed; a couch for patients to lie on is needed, and an effort should be made to raise the whole standard of refinement of the place. There should be proper accommodation for the caretaker, who perhaps one day will be a pensioner sergeant-compounder of the Royal Army Medical Corps, able to compound the prescriptions of the medical officer, act as sanitary inspector of the district and sanitary clerk for compiling returns, and who, when an accident happened, would be able to render first aid to the sufferers, and to help at urgent operations. Such a subordinate, together with a midwife for obstetric work and a district nurse for ordinary sick nursing, would not only be an enormous help to the medical officer, but a real blessing to the Irish peasant, who up to the present hour has shared but little in modern social improvements.

The Dispensary Residence.

But while I write thus of the dispensary buildings what shall I say of the actual domestic housing of the medical officer himself? Here again how can I with magic carpet carry the average Englishman from his comfortable surroundings and cultured home to the average Irish village, with all its defective sanitation and decadent housing?

Again there rises before me the long unlovely Irish village street, lined with the paltry, defective and badly-repaired houses. Here and there are ugly gaps where four or five houses have fallen completely to decay, the wet, dank thatch covered with the green moss that flourishes in this rainy island. The long succession of the low type of public-houses, which everywhere degrade the Irish towns and villages, line the streets in infinite numbers and seem to lie in wait for the farmers and the labourers who, every market day, crowd into the town. There is the ugly Protestant church, the well-designed and often indeed splendid newly built Catholic church rising in beauty amidst the most wretched cabins of some of the poorest people in the world. The well built convent stands forward on the sloping hillside, perhaps the modern Christian Brothers' School, and now and then the Catholic bishop's palace, but always one sees the union workhouse of 1841 a mixture of the prison and the barrack, the only asylum waiting for the aged poor.

The village streets, foul and dirty, seem never to be cleansed; the keen young sanitary medical officer tells me the cleaning of the streets is fairly paid for, but no one has the courage to cause the work to be done. I follow him down the side lanes where cabins at 6d., 9d., and 1s. a week are taken by the labouring class. The grimy mistress of the house receives us with kindness; she knows the doctor well, for in the corner sits the daughter whom he so often visits but his medicines are powerless against surroundings so ruinous to health and a poverty which is pitiable. How can people exist in such a land, and what wonder every one looks to the west for hope and refuge? "It is the one dream of my life," said the husband when I mentioned America, "it is the one dream of my life to get there, from this hell of bad surroundings and degrading poverty, where no one is well fed but the two fat policemen slowly lounging down the unsavoury streets." Cabins like this are plenty, but houses of a decent modern type suitable for the medical officer are rarely found. It is a distinct grievance of the medical officers, their inability to obtain at a suitable or indeed any rent a proper, comfortable house for themselves and their families.

In spite of the fact that a special Act of Parliament to deal with the question exists, I found the medical officers often defectively lodged in houses unsuitable for their position, and calculated to injure their standing amongst the surrounding people. Many have to live in country inns where much drinking goes on, and the surroundings are quite unsuitable for any self-respecting professional man.

This matter was specially brought to my notice by some of the Catholic clergy who pointed out that in the struggle for betterment in Ireland it was very important that the medical officer should be so fairly housed, so respectably lodged, that his home would act as a model and a pattern to those of the village who desired to erect new houses to replace the wretched buildings of the bad times in Ireland. I fully and entirely concurred with them in all that was said. The medical officer was living in the village inn, and I have found them in condemned houses—in rooms in the tenement where the dispensary was housed.

The Dispensary Houses (Ireland) Act, 1879 (42 and 43 Vict., cap. 25), enables the guardians of a union to borrow money from the Commissioners of Public Works for the construction of dispensaries for the actual housing of the medicines, the waiting-rooms, etc., before referred to. But in addition it allows (Sect. 11) money to be borrowed to build the "dispensary residence or dwelling-house for any such medical officer." Under this Act houses have been built in various parts of the country, quite suitable for the medical officers to reside in, with some agricultural land near.

The objection is, however, raised by the medical officer that this measure is unjust in its provisions for the repayment of the cost of the house. The State lends the money for construction to the guardians at $3\frac{1}{2}$ per cent., but requires the whole amount of principal and interest to be repaid in 35 years, and therefore requires 5 per cent. on the whole sum to be repaid annually. The guardians, it is alleged, throw the whole

cost on the medical officer, who has to pay a rent equal to 5 per cent. on the outlay for the building of the house; and many resent this, as in 35 years the house becomes the property of the guardians, at the expense of the unfortunate medical officer. The irony of the whole thing is that the guardians are the very men who in their frequent harangues quote the bygone injustice of the landlord class in confiscating their improvements, while they themselves, when they become the landlords, can be as hard—and as unjust—as any Irish landlord ever was. The Act of Parliament should be modified so as to allow a period of 60 years for repayment of the loan at a lower annual rate. The question, however, arises whether the medical officer should not have a house given to him rent-free; this I will refer to later on when speaking of the Congested Districts in Ireland.

If the house is to be paid for the rent should be cut down to £20 or so as a sum suitable to the medical officer's earnings, and a standard plan of residence, dispensary, midwife's house, nurse's home, compounder's house, ambulance wagon stables and, perhaps, a disinfecting house, should be laid down and gradually extended to every district centre needing such an installation. Later on, when the workhouse infirmaries are more decentralized, a small cottage hospital will, I hope, also form a part of this medical settlement in each dispensary district.

Much of the improvement proposed could be accomplished by a sympathetic Local Government Board ever aiming at the betterment of Ireland and by the medical profession in Ireland using its political power to urge the matter on the Government of the day. If a wealthy philanthropist of the type of Mr. Carnegie would in the counties of Donegal, Mayo, Galway, Kerry, or Cork, build and hand over to the guardians such a settlement untold blessings would flow from such a gift to the Irish peasant.

Branch Dispensaries.

However defective may be the central dispensary in the village where the medical officer resides the outpost dépôts, or branch dispensaries which he visits more rarely are infinitely worse. It must be borne in mind that the 810 dispensary medical officers of Ireland visit at frequent intervals 1,197 dispensaries, so that there is an excess of 387 dispensaries to officers. It is to the reduction of this great excess of dispensaries, which also means excessively large districts, that the attention of the Irish Local Government Board should be directed.

So far from breaking up dispensary districts and adding them to districts already poor and large, the aim should be to reduce the size of the district so that it shall not be larger than 10,000 to 12,000 acres, or say 15 to 18 square miles. Certainly 100 medical men in Ireland could be employed in addition to the existing number with great benefit to the Irish people.

Complaints are constantly made of the distance people have to travel to summon the doctor, of the distance he has to proceed to the call, then of the second long journey to get the drugs ordered. The complaints are fully justified when we see the great excess of the outlying dispensaries over the number of the medical officers.

A single model medical settlement, let us say at Achil Sound in Mayo, where for 10 miles in one direction and 15 in another no medical man lives, and where human life has been lost by such a condition, would be a far greater blessing to humanity than any lending library in a country town. This would be an ideal work for a great philanthropist, but it is a "positive duty" for any administration claiming the name of a civilized government.

VII.—SUBSIDIARY ASSISTANTS TO THE MEDICAL OFFICER.

Midwives.

It has already been pointed out that the medical officer has no compounder or dispenser, and no clerk or subordinate to assist him in his duties. There is no district nurse, and the country is too poor, as a rule, to maintain such a nurse by private charity or subscription. The Queen's Jubilee Institute of Nurses provides by private charity in certain districts trained general nurses who do excellent work, but the cost is about £100 a year, a sum quite out of the power of the Irish country side to supply. The Countess of Dudley, wife of the Lord Lieutenant of Ireland, has started a fund for the provision of district nurses in certain parts of Ireland. In her report she says truly:—

> In many of the very poor districts there are no well-to-do inhabitants of the middle classes, and because of their poverty the people themselves are not able to make any contribution.

These words should be placed in brazen letters over the meeting place of every Board of Guardians, and over the Council chamber of the Local Government Board in Ireland. They are the key-note to the whole question of the efficiency of the medical relief of the Irish people "because of their poverty the people themselves are not able to make any contribution."

Happily, in respect of obstetric nurses better conditions exist, and in 551 out of the 1,197 dispensary districts there are midwives who are in receipt of a retaining fee from the Poor-law authorities. These women must be trained midwives with a certificate from a lying-in hospital. They must be over 25 years of age, and they must reside at a convenient place within easy access of the medical officer. I have seen them occupying rooms near the dispensary building. They are under the control of the medical officer. There is a midwifery relief ticket (Form E 3) directing the midwife to attend the named patient. It can be signed by any guardian, relieving officer, or warden of the district. She reports the termination of each case to the medical officer; she keeps a register of all cases attended by her under the orders of the medical officer on a relief ticket, and she records the fact in a visiting book. She is prohibited, under penalty of dismissal, from taking any fee for assistance in any such midwifery case.

If a red ticket (Form E 2) is issued for the medical officer in a midwifery case it is laid down that the full and undivided responsibility for the case remains with him even if the midwife attends; she is placed at his disposal to relieve him of attendance only in natural labour. Cases of abortion and miscarriage are regarded as midwifery cases.

The number of the obstetric nurses, which in 1853 was only 11, has now as above stated risen to 511, and there can be no question that the appointment of such a midwife is a boon to the district.

The falling away of the marriage-rate and the postponement of marriage to a later age has much reduced the number of births, and it is difficult for a midwife to find remunerative employment in many districts. The small annual stipend makes it worth while to remain. In some of the north of Ireland dispensary districts the medical officer's application for such assistance is refused by the hard-hearted guardians of the Ulster unions. The reason constantly assigned is that such women were not wanted in the past, and that no reason exists for their appointment now. As a result the medical officer may have to remain all night with a simple case of natural labour, losing his rest, getting no food, and constantly urged by the friends and relatives to sustain himself by drinking whisky.

The Local Government Board, which, when it suits it, issues the most despotic orders dealing with the fullest discharge of the medical officer's duties, apparently takes no further action when a body of guardians thus decide. The unfortunate medical officer is thus between the devil and the deep sea, as it were. The Local Government Board, under Clause 20 of the Rules for Dispensary Management, throws the full and undivided responsibility on the medical officer, but shirks the full and undivided responsibility which should lie on it of requiring the guardians to maintain a midwife. This method of procedure is well-known in all feebly-organized government departments. The controlling body, strong to harass and oppress its subordinates and compel them to undertake impossible responsibilities, is at once silent when brought face to face with any refusal on the part of those in authority to comply with its requests or recommendations.

It is evident in all phases of the medical, sanitary, dispensing, and midwifery duties of the medical officer of the Irish Poor-law service that had they been drawing splendid salaries, with the smallest possible districts, and leading lives of utter idleness no more stringent, thorough-going, and carefully-worded orders could be issued than are now issued to them by the Local Government Board. Had these unfortunate officers been entirely public servants, relieved of the demands of private practice, no more stringent orders could be issued, and I say this with full knowledge of the official routine of the other national services.

VIII.—THE DAILY ROUND—THE COMMON TASK.

The reader of this report, ignorant of the actual facts, would at once conclude that the medical officer whose duties have been enumerated was a well-paid State official, giving his

whole life to his purely official and State duties; quite the reverse is the truth. The dispensary medical officer—this grain of wheat, ground between the upper millstone of the Board of Guardians and the nether millstone of the Local Government Board, must a thousand times a day ask himself the question, But where in all this round of Poor-law duty does my private practice come in, and how am I to keep up my private home and rear my family under such conditions, and why am I thus in thraldom? It is quite evident that neither of his masters has ever considered that the medical officer was apparently—for a salary so wretched that work was rather pure charity—rendering an essential national service and discharging most anxious duties, and that therefore he should be dealt with from the highest philanthropic standpoint by both parties, and treated as an educated man of wide sympathies and cultivated intelligence. As a matter of fact he is treated as the football in a game between the Local Government Board in Dublin and the Board of Guardians of his district, and deprived of all the rights and privileges of average manhood that could make life worth the living. To be worked by unsympathetic masters all his days of health and strength for a wretched salary, and then when old and worn out in the national service to be flung aside unprovided. with a pension if the whim of the moment or political opinion make him obnoxious to the body of local guardians is a deplorable fate. These guardians may have only just come into office, they may neither know nor care anything for excellent work done in years gone by for the people of the district, yet at this critical moment, so important to his old age, the Local Government Board, under whose direct orders he did his duty by the poor, and who by its definite instructions forced him into opposition with his guardians with regard to sanitary questions, now stands by absolutely neutral in the conflict for a pension, and says no word and raises no finger to help him.

That such a condition of affairs should be possible in any public service is almost laughable in its grotesque absurdity, but in its ill effects on the Irish Poor-law medical service, on the whole profession of medicine in Ireland, and ultimately, worse than all, on the Irish nation, it is sad in the extreme.

Let us now glance at the daily round of duties of the new dispensary medical officer of Drumbocht, the lonely village well called in the Gaelic tongue the "hill of poverty." He has won his election, and has taken a room at the local inn in the absence of any suitable house in the village. He attends at the dispensary up one of the side streets for two hours on Mondays and Thursdays, and drives over on Wednesdays to the dispensary station at Carrigmore by 11 a.m. and remains for two hours there. Fresh from the Dublin hospitals he feels a rude shock when he sees the draughty waiting-room and the untidy dispensary, and the smoky stove, and the room looking like an old bottle store where he is for the term of his natural life without hope of promotion or reward to attempt to afford medical aid to the poor of the Drumbocht country side.

The deaf old woman who looks after the dispensary has failed to light the fires in time, and all the out-patients are sitting in the chilly waiting-room as he arrives. For two hours he deals with all these ailing people, the poor human débris, male and female, of the poverty-stricken village where throughout the whole winter there is no work to be found, and that for want of work the place is sinking to decay.

He endeavours to be sympathetic, to take an interest in the poor people, to hear their story, and to do his best for them; and before he knows how the time passes it is noon. Then he has before him many "red tickets" waiting for him to visit all over his thirty square miles of district. He soon sees that if he is to get through his work at all he must hasten on with the patients and stop their long stories. He must hurry over his physical examination, and his diagnosis must be cursory and rapid.

Here in a melancholy troop come the poverty-worn aged, who will not go into the workhouse; the delicate anaemic girls who work for the "sprig work" cottage industry, and never stir out of the house the whole day until their health breaks down, and they fade away in consumption. The old men, the delicate children, the whole of the people hungry for bread, and wanting not so much physic as food. Amongst these he spends the morning giving each a written prescription as in his Dublin hospital.

The outside car hired from the local inn comes for him to go out to see his scattered patients by half-past twelve, and before he can leave the dispensary he must make up the patients' medicines and has to stop to do this weary work. The deaf old woman who cannot bring any hot water worries his soul, and at length by one o'clock or after he gets away. He would fain have lunched at the inn but there is no time, and the innkeeper suggests a glass of whisky instead, and in the rain and mist he begins his drive through the country side. He drives five or six miles, perhaps eight or ten, often in blinding rain, and then, after ascertaining the neighbourhood where his patient is supposed to live, leaves his car and finds that he has to walk a mile across the broken hillside, down the rough boreen or narrow road that leads to the cabin where his patient may be.

At length he reaches the place to find the husband ill with pneumonia in the wretched cottage. Fowls are perched over the bed, under the bed is the pig, the calves are in the house, even the cow may be there. Here in this poverty-stricken home, with no one to help, no one to understand his orders, no medicines to be obtained save by the wife herself returning on foot to the distant dispensary, from which she cannot get back before the night has fallen, and then only if the medical officer has returned from his round of visits over a scattered and difficult country side; here he deals with the life of the bread-winner, the ultimate peasant, head of the family crowded into the single room with the animals and the poultry.

Dismay strikes him as he sees the surroundings, and reflects that it is in such a life as this he is to spend all his future years. He may give instructions but who is to carry them out, and the day is passing over, and he has still many "red ticket" patients to see, and he must hasten away. He drives miles again in another direction, he skirts the tall mountain, he drives round the head of the misty lake, he visits the lonely cottage deep down below the road, and nightfall catches him before his work is done and he is hungry, and everywhere whisky, always whisky, is offered him by the kindly peasantry to whom he gives his medical aid.

So the day has passed and it is seven or eight o'clock before he returns to the inn where he resides. He returns to find a censuring letter from the Local Government Board dealing with the packing up of medicine bottles, another directing him to visit daily for the next month the lonely hamlet up the mountain side where typhus fever has broken out, and to make sanitary recommendations to the local guardians to prevent the further spread of the disease. While he is reading the police sergeant calls for him to come with him to certify a dangerous lunatic and dinner is waiting for him, the lonely dinner in the third-rate country inn. The sanitary inspector comes to make sanitary reports of the district, and then comes on the night, the dark and anxious night of the Irish dispensary doctor. The call to the wretched cabin and the far-away case, the call to the tedious midwifery case, to the lonely cottage of the poverty-stricken peasant, no midwife, perhaps, no one to help but the husband who, while the doctor with both hands binds up the wife, presses the dirty cup full of whisky. his only possible gift, to the doctor's lips; then the long drive back in the cold over the rugged road and through the blinding rain, and this is not a single experience for a few days and weeks, but quite his routine work for ever. No hope of better things, no one to speak to, none to encourage him, no one with whom to interchange a thought save the chance commercial traveller who comes to sell whisky to the landlord of the inn or show samples of drapery to the local haberdasher of the paltry village.

He opens the weekly paper of the neighbouring town to find himself spoken of at the Board of Guardians in the roughest terms because he proposes to close the foul well beside the typhoid-stricken home, because he tries to have the manure heap removed from the door of the mother struck down with puerperal fever. He asks for a nurse to visit the cases, loud laughter is the reply, and the letter is marked "read" and "the subject dropped." He asks for a midwife for his district; the ignorant guardians scout the idea and say their mothers never needed anybody of the kind, and why should these people want one, forgetting the empty country-side, the ruined homestead, the fuller population of the past, that fuller population, who to-day in Glasgow slums, in the Irish quarter of Liverpool, or in the East End of London are far away from their own land, or who better still and happier in that "Oileen Ur," that "New Island," that new "Tir nan og," across Atlantic foam. the happy paradise of the Kelt, in far away America, are living fuller, freer, and happier lives under American skies and more ennobling surroundings.

The country folk. hearing that a kind and sympathetic doctor has reached the Drumbocht Dispensary, swarm in on him, and the "red tickets" flutter round him. He soon finds

that he has not one moment to spare. The private practice, that is to say, the private practice which would pay him, is practically non-existent, and he finds that because he is "merely a dispensary doctor" the one or two families that do employ and pay a doctor bring out the medical officer of the workhouse infirmary or the county infirmary to attend them, or, using the light railway, go in themselves to the town. His income is so small that he cannot take in a medical journal, nor a sanitary review, nor attend any medical society, nor dream of going to a congress on medical matters; vaccination in distant villages, the unceasing fight for sanitary progress, the never ending worry of the Local Government Board about drug-and-bottle expenditure and the official returns it requires all weigh upon one who has neither clerk nor compounder, nor nurse, nor midwife. All this combines with the loneliness to break his spirit.

Wearied by the mental isolation, the comfortless home in the village inn, the unutterable sadness of his daily life without one ray of sunshine in it, he thinks of marriage, and after a time he brings down to the lonely countryside the girl who has thrown in her lot with his. He makes for her a home as best he can, and the realities of married life, its anxieties, its expenses close in around them both. Children come and expenses rise, but not so the income; work how he may or how he will the pay is still and for ever the same. Be he kind and sympathetic, wearing out his life with his solicitude for his huge poverty-stricken district, or be he rough and bearish, with a "coarse dispensary manner" to drive away the people from calling him in, the pay and income are still the same, and there is no hope for betterment now or ever. When after years of anxious labour he did apply for a small increase to the guardians the letter was received with bitter laughs and sneers, ordered to be marked read and "the matter dropped."

Once when, after more than ordinary effort, he carried through a typhoid epidemic which wore out his spirits and his life, even the guardians, stony-hearted though they were, gave way, and in a moment of extraordinary sympathy they voted him an increase of £20 a year for his specially good work in the district. He and his wife rejoiced, for £20 to a dispensary medical officer may at times make the difference between actual want and mere existence. The local guardians' proposal passed up through the official channel to the great central Local Government Board office in Dublin, and this Board refused its sanction of the increase unless a similar rise of salary was given to all the other medical officers of the same union. It thought the proposal a mere "job," and interfered to prevent a "job"—the same Board which never interfered to protect the officer in his sanitary struggle, never helped him with the "sealed order," it had power to issue compelling the guardians to employ a midwife—the Board which injured his self esteem with routine orders about bottle counting and drug duties.

To find fault and to refuse concessions to the medical officer, to work in unison with the guardians in every matter which weakens his prestige or influence—this is the practically universal opinion held by the Irish medical service of the men of the Local Government Board. The idea seems to be, whenever the guardians coerce the medical officers, to say "most wise local self-government," and whenever the guardians aim at improvement of the medical officer's position, to say "a mere political and partizan job," and thus to snuff it out.

When the reply at length came officially that the Dublin Board refused the sanction to the wretched increase of pay, the hopeless medical officer and his helpmate in his many anxieties lost heart entirely. The future seemed so dim, the outlook so hopeless, the children's expenses so heavy, and the father, from exposure to cold and wet, was breaking down in health, and despair settled on the home. When next the doctor went to the midnight call and sat by the peasant's fire and waited for the birth of another unfortunate Irish peasant, when the kindly-meaning peasant took from his little cupboard the whisky he had kept ready for the doctor's refreshment; he, broken and aged and weary, and hopeless, the despairing victim of iniquitous neglect, did not refuse the hope inspiring but fatal draught, and when he came back in the early morning to his distant home a new grief had stabbed his anxious wife to the heart, and the gossip of the countryside whispered that the doctor, "even our doctor," had fallen away from his own eternal preaching of temperance. He fell, as a certain percentage of these medical officers do fall, from a hopeless life, an unsympathetic surrounding, the want of right treatment, the want of a stimulating central controlling Board that valued its officers and stood by them to the last, their best and truest friend, guiding them to mental and physical betterment, not for their own sake only but for Ireland's sake. Despised and wretched, these medical officers lost heart in their grinding life—and which of us so placed would not have done the same? Let those that think they would come out of the struggle unscathed cast the first stone.

But another phase is also not uncommon. The young medical officer, fresh from the college life, felt keenly the lonely life and the weary evenings. He saw in the village the girl whose kindly manner caught his heart, she certainly knew little, and was unable to enter into his anxieties and his hopes. Her mental outlook and his were far apart. He had hoped to do great things. She felt she had done great things in marrying him and was satisfied. When I saw her she was distraught and ill at ease; she knew nothing of his work, of his hopes and his fears, and she was certainly no companion to him. I sat by the fire and heard him speak of his lonely life and his poverty that cut him off from science, from books, from the contact with his fellow doctors. I saw the comfortless home and I felt for the unhappy fate of an otherwise able man. When I left the house he said to me: "I feel I am breaking down; the loneliness, the poverty, the absence of outlook in this wild country-side is hard to bear. If only I could get away to England I would be happy; but how can I move with my family?" What can be said in such a case?—only "duty and hope"! When once the facts become known, when England and not Ireland only knows the story, betterment will surely come. For England will put aside the question of creed and class and warring factions and ignorant raw democracy and icy cold bureaucracy, and she will do right for justice's and for Ireland's sake.

Some medical officers find other ways of making enough money to maintain their existence and educate their children. The horse is a noble animal, but the surroundings of the animal are not always noble. A certain number of the medical officers become horse breeders and dealers. They attend the race meetings, they hunt, they first take up the horse gently and gingerly, later on the horse is master and the scientific and painstaking medical life is not evident. These men live for the horses they breed, for the horse means money and food and education for the children, and a home for the wife, and science and sympathy for the Irish peasant means poverty and a hopeless old age and despair for the medical officer who does his duty.

To become a successful horse-dealing doctor in that Ireland, whose moderate climate, limestone soil, and good pasturage are so favourable to these splendid animals one must first develop in a marked degree the hard "dispensary manner" well known in Ireland. This chills off the peasantry and checks the black tickets and the red. This reduces the night calls. This gives time to go to the near and the distant races and the local hunt. This gives a better superannuation than such a paltry pension as the guardians offer and the Dublin Board with heedless heart refuses. This pays for the children's education and makes the eldest son a doctor who may in his turn again breed horses, despite Boards of Guardians who do not sympathize, or Local Government Board which does not understand. And all goes well, and there are no sanitary recommendations and no worry to the guardians, and no Local Government queries about anything. All seems well, only one thing is ill, and that "thing" so valueless, so unimportant, so carelessly thrown aside is but "Ireland," in the shape of the peasant in his home and his wife and his children dying on the hillside.

The well-to-do folk, who are few, do not suffer, for the medical officer of the workhouse infirmary drives from the distant town to see them, and he may carry off the fees, the few fees, of that country-side; but for the Irish peasantry, and the Irish people who cares? No one cares, for the medical officer with the horses is a "good fellow" and stands well in with his Nationalist or his Orange friends on the Board of Guardians—and who shall then attack him? and as he ruffles no one's ideas about health or sanitation he lives out his life, hurting none, wounding none, but only stabbing Ireland to the heart in the shape of her sickly sons and daughters. Who is to be blamed in all this? Not the medical officer only. He has been forced into this line of existence because the system he serves is bad, and no one really cares. The whole future is to teach the Irish democracy how to care and what to care for for Ireland's sake. The horse-dealing medical officer accurately gauged the powers that be, and he saw that neither guardians nor central authority really knew the value of the ultimate Irish life, and that they and not outer forces were tyrants, more bitter than Saxon conquerors or landlord oppressors, or far away England that

never fully understood the facts. The facts they, the local people, knew, but knowing still they cared not.

Quite as dangerous to the State is the surgeon farmer who ignores his work and lives entirely to farm. He, too, needs the "dispensary manner," he needs to kill off sympathy and to check kindness. He has other interests more important in turnips and oats. To him all science that he knows is agricultural science. He knows more of turnips than of tourniquets, of parsnips than of Pasteurism, of lettuces than of Listerism. He, too, has the cunning mind to see how the wind blows, and behind the bluff manner and agricultural dress, and the apparent *bonhomie* he, too, stabs Ireland to the heart and leaves a country-side in need of the commonest medical or sanitary attention. He may belong to the local farmer class, and like them he, too, may despise the labourers and may neglect them. And nobody cares.

This enemy of Ireland would repudiate the application of such a title, for he stands well with the local guardians, or speaks at the Orange Lodge or the United Irish League meeting, but so surely as the raw democracy tramples on the heart of Ireland, or so sure as a non-effective Dublin Board holding office without protest, and allowing defective conditions to exist crushes out the Irish life so does he. He is to be forgiven because he is the creation of a system which is radically defective and calls aloud for reforms, but forgiveness is not for the others.

Just election, just pay, just duties, just control, just pension, all these things kill out horse-dealing doctors and farmer-surgeons, and this is an urgent need of Ireland, and the cry is, How long are these things to last?

The raw democracy acts only as it has seen all governing forces in Ireland act without the faintest sympathy with the governed, and who can deny that government by central Dublin Boards is exactly the same? Both alike are killing out the life of Ireland.

IX.—THE "BLACK" TICKET AND THE "RED."

The forms here printed are the tickets authorized by the Medical Charities Act of 1851 (14 and 15 Vict., cap. 68) to be issued for use in the dispensary relief of the sick poor of Ireland. Form E 1 is the black ticket, Form E 2 red ticket.

Form E 1.

Ticket for Attendance at Dispensary.

To Dr. , Medical Officer of Dispensary District, in Union.

Sir,

You are hereby directed to afford Medical Advice and any necessary Medicine to , aged , residing at , in the above Dispensary District, who is by occupation a

Dated this day of 1 ,

(*Signed*)

Guardian, *Relieving Officer*, or *Warden*, as the case may be.

Form E 2.

Ticket for Attendance at the Patient's Home.

To Dr. , Medical Officer of Dispensary District, in Union.

Sir,

You are hereby directed to visit and afford Medical Advice and any necessary Medicine to aged , residing at , in the above Dispensary District, who is by occupation a

Dated this day of 1 ,

(*Signed*)

Guardian, *Relieving Officer*, or *Warden*, as the case may be.

The black ticket authorizes the person who holds it to receive advice and medicines at the dispensary building; it is really an out-patient relief ticket.

Formerly, these tickets were issued only by the members of the committee of management or dispensary committee of the actual local dispensary district, but the Local Government Act of 1898, which abolished the local dispensary committee and placed in its stead the whole body of the guardians of the union, gave power to all the guardians of any portion of the whole union to issue these tickets for any dispensary district within that union. As the Irish unions are very large this places the giving of these tickets in the hands of a large and very scattered body of persons.

Further, in addition to the actual guardians of the whole union, a number of persons are nominated by the whole body of the guardians as "wardens," really "ticket issuers" for each dispensary district. They are a very numerous body, consisting of, at times, the clergy and a great number of the small shopkeepers within the dispensary district.

In most of the villages and small towns every third or fourth shopkeeper along the street has the power of issuing "red" or "black" tickets. Very great objection is made by all classes and grades of the people to this power being given to the small publican class who swarm in all the Irish villages and towns, doing incalculable injury to Ireland. Clerics of the highest standing of the Catholic church in Ireland have drawn my special attention to this defective system.

The publican can extract the last shilling from the peasant, can reduce him to physical and mental decadence, and can then issue a ticket for free medical attendance. Attendance, however, at a dispensary for advice and medicine, while it undoubtedly has the weak points indicated, is not complained of by the dispensary medical officers in the same unceasing and bitter way as the "red" ticket. In the one case the sick attend at a dispensary at a fixed place and at a certain hour; there is some element of order and regularity; but there is no limit to time or place within the dispensary district as to the issue of the "red" ticket, and very often no limit as to the fitness of the receiver.

The red ticket (Form E 2) can be issued under Section IX of the Medical Charities Act (Ireland) 1851, Act to any "poor person" by any of the many persons, guardians and wardens, referred to above as issuers of the black ticket (Form E 1.) An unceasing warfare is carried on in Ireland over the question of who are fit and proper persons to receive this ticket. The wording of the Act "poor persons" is essentially vague, and on its real construction and intention many pages have been written and unceasing discussions held, but the solution of the problem is as far away as ever. On the back of this ticket is printed the following memorandum:

> This ticket may be presented to the medical officer at the dispensary within the hours of his attendance there, or may be presented to him or left for him at his residence or may be presented to him personally anywhere. This ticket should be presented as soon after it has been obtained as practicable, with such information as can be given regarding the nature of the case. A guardian, warden, or relieving officer before issuing a ticket shall exercise due diligence in ascertaining whether the applicant is a "poor person" and entitled to gratuitous relief.

These rules are very clear in enforcing the responsibility of the medical officer and leave him no possible loophole of escape, but they are, like the Act itself, entirely vague as to what a "poor person" is.

The whole of the Irish population, from the highest to the most humble, know the weakness of the parliamentary phrase "poor person," and admit freely the many loopholes the Act allows, and the frequency with which the ticket is issued irregularly to cases apparently quite unsuited, but Irish opinion is not one whit nearer a working solution of the problem of what constitutes a "a poor person" than it has been at any period since the Act for the relief of the poor came into force in 1851.

One school of thought in Ireland produces case after case of apparently gross injustice to the medical officers and the public purse, by the issue of tickets to those well able to pay for attendance, others speak of the waste of the ratepayers' money, of the shameful want of principle of the apparently well-to-do recipients of the red tickets, and, shutting their eyes to the very many other weak points of the medical relief system, keep harping entirely on the need of a rigid tightening up of the regulations for the issuing of tickets, and desire a great limitation in the number of the issues, often demanding that the power to issue tickets shall be limited to the relieving officers only. They ask for power to prosecute those using the tickets if able to pay, the striking of clergymen off the issuers' list, and demand, indeed, every possible limitation of the giving out of these tickets to all save a real pauper class. The people who think thus belong to every class and grade of society, of creed, of politics. The cleavage line depends not on any apparent political or social differences, but on the character or mental type of the people concerned. Peer and peasant, bishop and layman, police inspector and police constable, class man or mass man, all divide on this question without reference to position.

In all Ireland I only met one district where the practice of ticket issues was rigid. The medical officer there, the only one I met in Ireland, had no grievance against the issuers, the vague words, "poor person," was rigidly construed and limited actually to the veritable pauper class. The district was north of the Boyne. The medical officer significantly added: "It has not in any way increased my paying practice—I am called in now only to certify the deaths." To all who can read between the lines it is easy to see what had happened. A great misery had been inflicted on a large body of the Irish people who happened to be poor.

Let us now turn to the other side. The other half of the Irish people stand opposed to the class of restrictionists above dealt with. They hold that a mere tightening up of the ticket-issuing rules would not be a real cure for the difficulties of medical attendance for the Irish people, for this is in truth the real question at stake. It is not the mere question as to whether Farmer McKeon of an Ulster dispensary district rightly or wrongly got a red ticket to have a medical officer to visit his ailing child. It is a far larger question for Ireland. However much the rule is tightened up in individual cases, still the problem of how the Irish people are to receive efficient medical care is not solved. This class then favour existing methods of issue until something better takes its place, holding that no hard-and-fast rule is possible, and that it passes the wit of man to devise a working rule to govern such issues.

The young medical officer fresh from the colleges resents the liberal issue of tickets to the small farmer. The older officer, who has seen much of Irish sorrow and trouble and bad harvests, and sickness and famine amongst the people is far less sure of a remedy, and in the end the older men are willing to admit that the cases of apparent wrong are few, and that a fuller study of the problem shows that to understand everything about it is largely if not altogether to forgive everything about it.

To hold land in Ireland in a small way is a most precarious venture, to own cattle in a small way is no guarantee of a power to pay an "economic fee" to the doctor—that is to say, a fee that compensates him for his scientific knowledge and for his heavy long distance posting charges.

Private Practice.

The two factors of distance and time enter into all problems of Irish medical attendance on the people. English practice and Irish practice differ so much in character that it is dangerous for the English and Irish people to commence any argument or discussion without first defining clearly and accurately the terms used. The conditions in the two countries are quite different. In England, with a fuller population, with rich and poor in closer contiguity, the factors of time and distance fall greatly into the background.

In Ireland they stand in the very forefront of the question and can never by any reasonable person be ignored. If by some miraculous force I could say to the people of an Irish countryside "On the centre close," and so compel the far-distant and scattered population, rich and poor, to close in on a given centre and leave all the far-away outlying districts to rest and fen, one would greatly diminish the Irish medical problem so far as distance and time is concerned, but this solution is impossible, and the problem still remains unsolved by any "red ticket" rules. In Ireland the medical man is called to a case eight miles away, and he spends, perhaps, half an hour in examining the case and giving advice, but while the patient might, if well-to-do, pay an "economic fee" for the time spent in the scientific examination of the case, who is to pay for the two hours or more spent on the journey there and back? This matter cannot be ignored. In England the population is thick on the land; the medical visits are made in a kind of circular tour, and the distance factor in each case melts away by the many cases seen on the route. In Ireland, with a small and scattered people, it is commonly a direct and special journey for each case to a different point of the compass on each occasion over a far scattered badly-roaded country-side. A mere tightening up of the "red ticket" system would never act as a full and final remedy of this condition; it might lower the "red tickets" in number, and this might entail great suffering and misery on the Irish people, but it alone without other remedy can never cure the evil or remedy the ever-present and unceasing difficulty of distance. After inquiry and discussion in Ireland with all classes and grades of the Irish people, I felt in the end that a rigid legal definition of a "poor person" was impossible. Agriculture is a very precarious employment, and especially so in Ireland with its variable climate and uncertain conditions. The "weather board" of the West of Europe, it catches every cloud from the Atlantic, and tillage greatly suffers by wet seasons.

Where there are great cattle ranches as in the central counties there is a very sparse population; in fact, the country seems half deserted, and fees that pay a suitable return for the doctor's scientific attendance, plus the time and distance factors in going to and from the patient, cannot be obtained. Again, the small farmer with some cattle may be quite unable to pay an economic fee. or series of fees in a long illness. I use the word "economic fee" to define a fee that pays the doctor's scientific advice, plus the posting charges for conveyance to and from the patient's abode.

In some unions the medical officers have been practically compelled by the guardians and the Local Government Board to make a scale of small fees for the poorer folk. But this simply makes confusion worse confounded without bringing a solution of the real question any nearer. To the thoroughly non-economic Poor-law salary that is not a living wage for the medical officer is added a series of new non-economic fees gathered in, nay even wrung, from the poor, and while it may be a great strain on them the doctor is still underpaid, for in any single call the very posting charges are not covered by the fee paid, and the districts are so large and extend so far to all points of compass as to render it difficult to link the visits into any regular orbit or circular tour that might pay and yield in truth an "economic fee." In all thinly-populated countries such as Ireland the roads are also, as a rule, few, and crossing by conveyance from one part of a district to another is difficult and tedious. In Ireland the journeys off the main roads and up into lonely mountain districts are very trying and very common. Bogs and lakes also intervene, and hills and valleys, and the whole question of time and distance is thus complicated.

The rigid curtailment of the "red ticket" issue to the pauper class only would lower, no doubt, the apparent sick calls on the medical officer to attend pauper cases, but it would also weaken his claims for a further inquiry—an extremely needed inquiry—by the State into that larger question so often obscured as to how the Irish people as a whole shall secure efficient medical attendance in outlying parts if the State do not as now intervene—very defectively and ineffectually it is true—but still, nevertheless, intervening by its unfortunate Poor-law medical service.

Club practice and the combination of the people for associated medical help by private union is practically non-existent in Ireland. It is, in fact, impossible on account of the distance factor and the many conflicting elements of creed and politics which, for some time to come, must interfere with Irish union. If this union or combination is to take place it must be in a national combination under State control and fixed by law. Such a service would practically be a well-paid and well-organized Poor-law or civil medical service for Ireland, the salaries of its officers would overcome the ever-present distance factor, and render it possible for all classes, rich and poor, in Ireland to receive efficient medical aid at a reasonable rate. The State-paid salary of the Poor-law or Civil service medical officers would render it possible to consider that salary as a factor in the cost of his maintenance enabling him to take lower fees from patients above the actual pauper class.

Of course, I am not dealing now with what may be called disciplinary irregularities in the issue of "red tickets" such as where people not ill—or not seriously ill—get tickets, or where medical officers are called out long distances for trivial causes. Such abuses ought, of course, to be put down with a just hand; unfortunately, they often occur and tend to prevent the doctor doing his duty fully by the really ill. What I desire to maintain is that in the consideration of Irish medical practice and the medical care of the Irish people as a whole, a proper medical service, supported reasonably by the State, is a positive necessity. By constituting such a well-chosen, fairly-paid, efficiently-educated, and justly-pensioned medical service, a great boon would be conferred, not on the impoverished peasant class only, but on every man, woman, and child in Ireland, be their class or grade or status what it will. There are many tracts that could never support a doctor at all were it not for the existing defective, badly-paid, badly-governed, and justly-dissatisfied

Poor-law medical service, and just as that service is after all a real boon to tens of thousands of people in Ireland, because it exists even in its defective creaking way, so an efficient, happy, contented, and justly-governed medical service, controlled by the State, nominally in the interests of the poor of Ireland, but really in the interests—the best interests—of all classes of the community in Ireland, would confer a very great and urgently-needed benefit on the whole Irish people.

It the 1,000 medical men of the existing Poor-law service in Ireland, who are half the medical profession in Ireland, are to be badly-recruited, underpaid, defective, and dissatisfied where are the other 50 per cent. of efficient and scientific medical men to come from? The cry should be efficiency for all, good recruiting, good training, good secondary teaching, just, fair, and liberal payment, and reasonable pensioning.

I feel certain that the moment the Irish people know that the medical service of the Poor Law is fairly paid and trained and treated, so far from claiming medical treatment without fees from the medical officers the very reverse will be the case, and reckoning on the State-paid factor in the doctor's salary they will make such annual or periodic payments to the medical officer as will help him to exist. But the State must pay the medical officer a living wage, and such a contribution to the cost of his existence in Ireland as will practically conquer or wipe out the difficulties created by the factors of time and distance. Any attempt at betterment that does not deal with these factors will certainly fail as they are at the root of the existing evils in Ireland. The Irish administrative officials have endeavoured to fasten on the shoulders of a badly-paid body of private medical men working as practitioners independently in civil practice the whole burden and deadweight of the underpaid duties of a national medical service, and have presumed on their political helplessness to load them with practically unpaid national and public labour, with the result that they have well-nigh destroyed independent civil practice, and have not provided an efficient public service.

The badly-paid-for pauper, ignored and forgotten by the governing class at all times in Ireland, has dragged down with him as he sank a great part of the medical profession in Ireland, and it will take some years to put things firmly on a sound basis. Underpaid and harshly governed when employed by the State, the medical officers have been compelled, as it were, to make bricks without straw, and forced to carry out duties and undertake responsibilities that practically ruined their existence as professional men. A revolt—a most just revolt—has now taken place, and after years of suffering redress must come or no profession of medicine worth speaking of will remain in Ireland.

Unjust, harsh, and absolutely unsympathetic regulations have broken the spirit, or at any rate greatly weakened the self-esteem of the Irish medical profession—a fatal thing to any medical body whose morale should ever be of the highest.

Pushed into the thickest of the fight for sanitation they have received neither help nor protection from the State, and while an Irish people has escaped from such surroundings by Queenstown to their paradise in America the Irish doctors will escape from Kingstown, and thus the memory of two sovereigns will unfortunately be linked with two wounds in the side of Ireland. But just as remedial agents are dawning on Ireland so reforms will dawn on its medical profession—when their case is fully understood, not only inside, but also outside, Ireland.

I hope and believe that the achievement of this urgent reform will fall to a united Irish people, and that the masses and classes of Ireland will have the insight to perceive that medical officers for the treatment of Irish paupers cannot be men of inferior pay, education, endowments, or attainments without surely injuring the Irish medical profession as a whole—and through them the whole community of every rank and class in the country. It is an example of the solidarity, the absolute unity for good or ill that affects all human life. No one class of any community can exist for itself alone, or for its own selfish and personal benefit without eventually dragging down all other classes with it. Had the pauper class been always thought of fully the present conditions would never have arisen in Ireland.

Feeling the need for this medical solidarity in Ireland I am opposed entirely to a special civil medical service in Ireland dealing solely with the poor, and shut off from general private practice, because if it were founded to-morrow with ample pay and the best of treatment and consideration, its existence would not solve the problem of the medical care of the Irish people.

X.—THE PAY SALARY OF THE DISPENSARY MEDICAL OFFICER.

No section of this report could be of more importance than that dealing with the pay of the Irish dispensary doctor. It is a fundamental question which cannot be ignored, whatever may be the contrary efforts of either Boards of Guardians or of the Local Government Board in Ireland.

It is necessary to clear the field of all side issues before coming to the definite central fact that there is no pay for the dispensary medical officers of Ireland in the same way that there is pay for the constabulary officers in Ireland, for resident magistrates, for other officials who perform duties out of doors and indoors like the daily work of the dispensary medical officer.

It is, I think, most essential that the dispensary medical service of Ireland should keep its eyes incessantly fixed on the pay, allowances, pension rates, and leave rules of other Irish official services. Ireland bristles with officials, well-paid, well cared for, with justice fully done them, because largely they are the representatives of the old order of things now passing away in Ireland, that is persons engaged in the maintenance of order—the police force, the resident magistrates, the profession of law, and the central bureaucratic officials of the so-called "Castle" administration of Ireland.

By quoting regulations in force in other sections of Irish official life the dispensary services will be able to show contrasts of pay and general treatment which gradually affect even the casual man in the street, and which certainly act definitely on the English mind with its general desire for just treatment of all classes whose grievances it fully understands. These last few words are of great importance—"whose grievances it fully understands"—and the whole aim of the Irish dispensary service should be a policy of education as to their grievances, which only need to be known to be in time redressed. The Army Medical Service has always advanced along the line of general army rules and regulations, and so has had a logical basis for its efforts at betterment, and the Irish medical men will be wise to copy that military movement in its patience, in its unceasing activity, in its firm conviction that redress can be obtained by just statement of grievances but, above all, by its clear declaration that its aim, above all and before everything, is efficiency and scientific advance. This was the whole aim and object of the reforms of the military medical service which have, to so large an extent, redressed its grievances and have gained efficiency. Twenty-five years were required to carry these reforms through, and it may take a not shorter period to place the Irish medical service fully and finally on a sound basis.

Size of Districts.

It is necessary to put in the very forefront of the inquiry the size of Irish dispensary districts. They are very large, and a fair idea can be got of that size by remembering that the average size of these districts as laid down in the Local Government official statements is 27,273 statute acres, which being converted means 42 square miles, but taking the Clare dispensary districts we find:—

Ballyvaughan	110 square miles.
Corrofin	95 " "
Crusheen	37 " "
Ennis	39 " "
Kilanio	51 " "
Newmarket	45 " "
Ennistymon	51 " "
Milton Malbay	54 " "
Roadford	46 " "
Ballynacally	57 " "
Labasheeda	40 " "
Carrigaholt	39 " "
Cragaknock	57 " "
Kilkee	37 " "
Kilmihill	48 " "
Kilrush	31 " "
Annacarrig	29 " "
Feakle	53 " "
Mountshannon	50 " "
Tulla	60 " "
Quin	39 " "
Kilkisheen	32 " "

These are the areas of the districts in the sole medical charge of a series of single dispensary medical officers. I quote these enormous districts several of which contain two, three, or even four sub-dispensaries under the same medical officer, because I wish in the first instance to clear off the question of the allowance for horse or forage, and the groom or male servant who cares for the horse and trap. It will be at once admitted that without a conveyance and one, if not two, horses these medical men cannot do their duty by the sick.

Happily, we have a clear official ruling laid down in Ireland as to the cost of upkeep of a horse. It is laid down in unquestionable official documents to be seen at the office of the Royal Irish Constabulary in Dublin Castle. The upkeep of the horse is £50 per annum. The charge for a servant is £45 per annum to cover food and pay. We have here at once an incontrovertible sum of £95 a year for the upkeep of horse and man, and if we add £5 for the purchase and upkeep of the car or conveyance, we arrive at a clear sum of £100 a year. In a matter so clearly fixed it is on these lines of existing official rules the Irish medical service should advance.

As affording an illustration from another part of Ireland, the salary of the first seventeen appointments in dispensary districts in Co. Antrim may be quoted:—

£	s.	d.
100	0	0
92	10	0
84	19	9
92	10	0
100	0	0
92	10	0
155	0	0*
120	0	0
108	0	0
90	0	0
100	0	0
90	0	0
90	0	0
90	0	0
90	0	0
97	0	0

* 70 square miles of district.

We may therefore at once wipe out all salary or pay for professional medical work as absolutely non-existent, for this devoted band of Co. Antrim philanthropists of dispensary districts who are doing an important national service for Ireland at a positive annual loss to themselves. One might write pages on this matter, but the plain statement is more eloquent than words. It is a typical case in Ireland where a weakly-organized medical profession, without Parliamentary representatives or professional cohesion of a rigid type, are being exploited by the State and the local guardians in a bare-faced manner. Who can wonder if such men lose heart and, at times, break down under their grievances?

In all this discussion of pay questions it is essential to keep close to the line of purely medical duties—that is, the care of human life. No side issue must be allowed. The medical officer is to be paid for his medical curative work for the poor a living and sufficient progressive wage, and all side employments of registration work, vaccination work, and sanitary duties are, each on their own special basis, to be made individually remunerative.

A fatal system of doles for other side duties has weakened the fight for the main and central principle of the proper remuneration for the medical officer's work, the curative physician's duty day and night amongst the poor; for this, apart from every other duty, he must receive a reasonable and progressive pay. To consider the payments for registration of births, deaths and marriages, or as sanitary officer or public vaccinator—elements in the pay of this wretchedly-paid official—is to lose sight of the main central and absolutely vital point that the sick man is to be cured and attended to in sickness. This is the key of the whole position, all other public services and private employments are organized on this system, and to break away from it is to materialize the great curative art in medicine.

If the medical profession ignores this central fact what wonder if a lay public, ignorant of the anxieties, the responsibilities and the true inwardness of the physician's training and aspirations also throws it aside, and, in reply to the physician's cry for bread, offers him the stone of registration of births and deaths, or anything that diverts him from the main current of his life's work.

If we take 28 dispensary districts in Co. Cork we find the salaries, as a rule, £120 a year; in two cases they rise to £130 a year, and in one of these, Newmarket, in the Kantuck Union, the district is 96 square miles in extent, while in the Kilbannig Dispensary district of the Mallow Union the district is 67 square miles in extent. All such districts require, of course, two or more horses to do the work, and this soon eats up the extra £10 a year. If we take the county of Mayo as a type of distance and pay we find the facts to be as follows:—

Pay in 1875. £	District.	Square miles.	Pay in 1903. £
120	Ballina	114	120
120	Crossmolina ...	119	120
2 M.Os. at 100 = 200	Ballinrobe ...	114	2 M.Os. at 90 each
100	Cong	50	100
100	Hollymount ...	64	100
125	Bangor	123	100
100	Binghamstown	50	100
—	Knockalower	104	139
110	Balla	67	110
2 M.Os. at 110 = 220	Castlebar ...	140	2 at 110 each
100	Ballindine ...	53	100
125	Ballyhaunis ...	64	125
100	Claremorris ...	53	100
125	Ballycastle ...	123	115
110	Killala	39	90
100	Foxford ...	32	108
100	Kilkelly ...	62	100
100	Kiltamagh ...	34	100
100	Low Park ...	54	100
100	Swinford ...	46	100
2 M.Os. at 100 = 200	Achill	166	100
—	Budoragha ...	48	36
100	Irlandeady ...	50	100
113 10	Louisburgh ...	109	150
—	Newport ...	100	85
2 M.Os. at 122 10	Westport ...	65	100

In each of these huge districts the need of a second horse or a second medical officer is evident, and with so low a pay rate it is evident that even the cost of conveyance is not met by the salary.

The importance of the question of horse allowance to the medical officer if he is to do his duty fully is thus evident. There can be no doubt that in districts over a certain size a second horse allowance should be made at constabulary rates (£50 per annum). This is better than mileage rates, always difficult to fix, and open to much discussion by auditors or paymasters.

But, reply the officials who administer the Irish Medical Service, we only ask the medical officers to take up the Poor-law work as a side matter, and as a mere aid or element in their income. I reply, Look at the size of the districts, the demands on their time, the constant exacting orders issued to them by the central authorities converting them into State servants. While the Local Government Board would perhaps loudly protest against a purely State service, it is forcing on such a service by encroaching year after year on the medical officer's time by killing out his leisure for practice.

Every time a new return is called for, every time new reports are wanted about bottles and drugs, every time a new order is made about public health, a further movement is made towards a State service, with this important difference, that the State which makes the new demand not only does not add new pay, but is, in the opinion of the whole Irish Medical Service, a great obstructive and unsympathetic force, acting against the medical officers' betterment. The autocratic methods of this governing Board are based apparently on the traditions of a militarism or rigid officialism long since removed from the army itself, but lingering in full force in some Irish offices.

Such orders are in every service likely to be issued by controllers who have never been fully through the mill themselves. Orders are easy to issue, but often difficult to obey. The great check on all such order-issuing is to put in authority only people who know from practical experience how difficult it is to perform such duties when ordered.

The official governing body say: "The medical officers have their private practice, we only ask them to take up our work as a side matter." To speak thus is to be blind to the whole history of Ireland; to her poverty, to the absence of manufactures, save in a small part of Ulster; to the absence of coal and iron, and all that these things mean; to the absence of a middle class able to pay for medical attendance at its market value; to the absence of a considerable retired, or pensioned, or annuitant class able to pay a medical man a reasonable fee.

Let us look at the landlord class alone. Many are either absentees or have disappeared from the country. The smaller landlords as well as the larger have had their rents greatly reduced to meet the universal fall in land values which even in England has left house after house belonging to the landed class empty and waiting to be rented by tenants.

If all land has fallen in value even 30 per cent. on an average, and far more in certain cases, how does Ireland

escape, whose whole fortune is closely involved and built up with the agricultural industry? While land has fallen in value, the cost of labour—"the labourer wage"—has risen. Emigration has greatly raised the cost of labour on the Irish lands and left less money available to pay reasonable medical fees.

In the days of a flourishing landlord class, who drew from the farmers an ample income, it was customary for the larger landlords to pay a yearly lump sum to the local doctor to cover all cost of medical attendance to the big house and its occupants and retainers; that £60 or even £100 a year has gone, and the fall in land values has prevented any one else appearing to pay the medical officer that very £100 a year which was the raft to save him from perishing in the waves of financial ruin.

Furthermore, every new railway, light railway, steam tram, or new road enables the people who never travelled in old days to get away to England and the Continent; and many people have thus left Ireland, or leave it annually for a time. Concomitantly with the fall in land values, the disappearance of many of the landlords, and a marked reduction of rent, the Local Government Board is making new demands on the medical officers' time, over and over again striving to break up districts for which no medical man will apply, and adding on the parts of these districts to other districts already of huge size, making the medical officer more of a clerk, a compounder, and sanitary officer than before.

With this coincides an increased period of study for medical students, more difficult examinations, more candidates rejected, and a striking out of some 800 unqualified assistants by the General Medical Council. These conditions combine to make medical services dearer, so that new warrants are issued improving the position of the army and navy medical officers, and the cost of *locum tenens* and assistants has risen everywhere in England; yet in the face of all this the Local Government Board want men to pack up empty bottles, to send larger returns, and to take over divided pieces of districts in addition to former charges. But, further, the private practice of dispensary medical officers is being undermined by the fact that the public know well how Poor-law medical elections are conducted, and that in the bitter contests science counts for nothing, and politics and creed and party for much. It must with regret be admitted that notwithstanding that many officers of the dispensary medical services are men of the first quality, and many of good average ability, a residuum has formed, and is daily forming, who do not command the confidence of the public—aged men who have remained in their appointments because they fear that if they applied for a pension or superannuation they would be contemptuously refused because they differed in creed or politics from their Poor-law guardians. I know personally of a good many such men who remain in the service and cannot, through want of means, retire.

Confidence thus undermined, the people avail themselves of every new train or railway to go into the towns and to consult the county infirmary or workhouse infirmary medical officer, and these gentlemen drive out into the country and often take away even the few paying patients that are left to the unfortunate dispensary medical officer.

Unjust rule, unintelligent control, bad pay, the absence of facilities for continued study of medicine, and the grinding rule of a democracy ignorant of the changes in the medical profession, have broken down the efficiency of the dispensary services, and now a heavier expenditure and a more drastic reform will be needed for its betterment.

A prelate of the Catholic Church in Ireland, who knew fully the whole sad story of the dispensary medical officers, pointed out to me with regret that their narrow incomes prevented them buying books or scientific papers, or attending congresses, or in any way keeping touch with scientific progress, and how needful for Ireland's sake it was that ample betterment should be introduced for this service.

I was greatly surprised to find that many medical men in Ireland did not take in any medical journal or sanitary review; but at the bottom of much of this apathy lay absolute want of money. While every one of them desired a post-graduate course, few were able to arrange for it at their own expense, and the controlling guardians and Local Government Board thought apparently more of secondary matters than of scientific progress. All these circumstances diminish the chances of private practice forthe outlying dispensary medical officers even in the best counties; but there are in Ireland, both in the north-west, west, and south-west, tracts of country officially recognized as poverty-stricken, where a doctor's private practice may be £10 a year or so. In many there is not a penny to be made by private practice, and it is the merest sham to talk of these men taking up the Poor-law work as a side duty to their private practice when it is well known no such private practice exists. This condition of things in certain districts led a Catholic prelate to speak to me in feeling terms of the "grave moral deterioration" resulting to some medical officers who endeavoured to wring out of a poverty-stricken peasantry some trifling fee for their services. Such men are happily the merest stragglers in that great army of dispensary medical officers, probably as a body the most humane men in the world, doing a great service for the empire without payment or sympathetic control, and doomed to decadence from sheer official failure to see along what lines the medical profession is developing. Although every class of the Irish people agreed that betterment for the Irish dispensary medical officer was essential, yet in every case amongst the lay population of every rank and class there was a demand for a more scientific service and one better fitted for its important duties.

I feel therefore that in any real scheme of betterment there must be provision made for a higher scientific life, a better mode of entry into the service, a full post-graduate course, a more thorough and educating inspection, and some rewards available for scientific efficiency quite apart from political or religious influences.

We have thus far considered the cost of conveyance and the defective amount of private practice generally available in Ireland. We have now to ask what pay should be given.

Improved Pay Necessary.

I accept at once and without any comment, save an expression of wonder at its moderation, the £200 a year pay asked for on entrance by the Irish medical service. But such pay would only be at all like a living wage for the first year or two, and I am of opinion that £10 each year should be added up to 10 years' service, but that no further increase should take place without a post-graduate course and examination; this passed, the pay should rise to £350 a year at the end of 25 years' service and there remain for the average officer. This pay would include attendance within a certain radius from the centre of the district, but in all districts over a fixed area a second horse allowance of £50 a year should be allowed automatically.

I think that in all existing appointments the State factor in the pay should in the average districts be raised at once to £100 a year, and all restrictions imposed by Section VI of the Local Government Act of 1902, which protected the Treasury against having to pay half of any increase voted by the guardians, should be removed. Whatever opinion the guardians may form about the pay, the State should take the lead and raise its proportion of the pay at once. But here again I would limit this automatic rise to those now in the service, and then only up to the tenth year of service. If before that time no post-graduate course and examination were successfully passed, the pay-rate should remain there until such course was passed.

As to candidates entering the service, I consider that after a certain time of warning there should be an entrance examination to secure the full Government grant, but if guardians were unwilling to accept this, then the old or existing 50 per cent. rule should remain for officers so appointed.

With regard to the other factors in the pay-rate:

1. There should be a retaining fee of £15 to £20 per annum for the registration duties in addition to the fees now available, and clerical help is greatly needed.

2. In all sanitary appointments the minimum pay should be reasonable, not having regard to the fact that the officer may not be specially trained, say, £25 rising to £50 annually, but if the medical officer obtained the diploma of D.P.H. £50 should be the pay-rate, and it should rise gradually by periodic increases to £100 a year as least.

These pay-rates should apply to all districts and all appointments in the ordinary counties—the extra horse allowance being payable for districts over a certain number of square miles. This would be a special allowance, and not a pay-rate.

But these pay-rates would be quite unsuitable for the poverty-stricken, congested counties and the "Wild West" of Ireland. There it is admitted that life is hard and private practice little or none; a more definitely official service

would be needed. A service with a salary beginning at £250 a year, and rising in the course of twenty years to £450 a year, is essential to secure good men; in addition, a free house—or rent allowance, as in the Irish Constabulary—should be provided, and in the larger districts, over a specified reasonable fixed acreage, extra horse allowance. No restrictions whatever should be placed on private practice, but the dispensary medical officer should be free, as at present, to accept private practice fully.

These pay-rates should apply also to the medical officers of the workhouse infirmaries, and, in return, the workhouse infirmary medical officer should be available for consultations for the union at a mileage rate, so as to act as a district consultant for the poor, as he is now very nominally, I fear, a consulting sanitary officer for the union.

It will be necessary to sketch later a scheme of a medical service for Ireland, but it may here be stated that no plan will be effective that does not hold out some good appointments. Such appointments are needed for Ireland's sake, and foremost amongst them is a county inspector of the Irish medical service. He would need a salary of £500 to £700 a year—this is the very keystone of the arch of county efficiency of the medical service of Ireland. With county inspectors in each full-sized county—and one common to certain smaller counties—much of the inspection now done by the inspectors of the Local Government Board would cease, and an inspector-general for each province—with a sanitary adviser or staff officer—subordinate to the Commissioner in Dublin. The county infirmary should be merged into the local district hospital—that is, the existing workhouse infirmary, and the whole form part of an Irish medical service.

XI.—SUPERANNUATION.

We have seen in the preceding chapters how often dispensary districts are of huge size, roads bleak and exposed and difficult, how often it is necessary to walk considerable distances up the mountain side or down the valley, to use boats or coracles, frail canvas canoes on the wild Atlantic seaboard of the western coast.

Such work as this needs men in the full vigour of life. Soldiers in the battle of humanity against suffering, the combatants should not be broken-down veterans, wounded already or stricken with ailments from the rain and storms of a country exposed in a special manner to the gales that come from the ocean.

It is a positive sin against Ireland and the Irish race to keep as medical men in employment of the State for a very special and harassing duty—more trying than any war campaign—a number of old and worn men mentally and physically exhausted, and to send those men, broken in spirit and in ambition, to be fighters against disease in this much-handicapped land. When it is remembered that officers in the army are retired in the executive grades at 55 years, the following brief list of superannuation cases is striking, showing to how aged a body of medical men this harassing work of the Dispensary and Poor-law Medical Service has at times been entrusted. The report is official, and shows the age at which officers have retired:

Name of Poor-law Union.	Age of Doctor on Retirement.	Service Years.	Superannuation granted.
			£
Ardee	70	40	130
Armagh	66	30	50
Ballinrobe	76	42	92
Ballymahon	67	40	60
"	67	43	119
Ballymena	78	51	88
Balrothery	71	37	92
Banbridge	68	43	102
Belfast	83	31	91
"	61	32	80
Carrick-on-Shannon	67	34	185
Carrick-on-Suir	78	44	86
Clonmel	72	45	112
Coleraine	69	26	60
Cootehill	74	38	60
Downpatrick	80	41	97
"	71	45	116
Dublin South	69	24	88
"	66	25	95
Dundalk	76	35	100
Dunbarraghy	64	24	71
Gorey	70	36	80
Kinsale	68	33	91
Loughrea	68	38	110
Lurgan	70	37	145
Mitchelstown	70	37	66
Monaghan	69	36	88
Tralee	78	45	81
Urlingford	76	54	98

No one studying such a list of medical superannuation pensions actually granted in recent years can fail to recognize that some fixed age of compulsory retirement is essential for the Irish Dispensary Service. This list does not show the number of present holders physically handicapped by age and ill-health who can not even hope for a pension. Here, as everywhere through this report, it has to be said that while the State, through its agent the Irish Local Government Board, comes down with a heavy hand on the defenceless medical man to carry out heavy duties for it, it makes little attempt to repay the medical officer for faithful service, but leaves him defenceless and unhelped at the hands of unsympathetic local authorities.

There is no compulsory rule granting Irish medical officers any superannuation however long may be their services. Further, if superannuation is granted by the local guardians the charge falls entirely on the local rates, although, during the whole time the official is actually serving, the State pays 50 per cent. of his salary. This is a state of things both surprising and indefensible, but perfectly in unison with the whole tendency of State action in Ireland with reference to the Poor-law medical officers.

The action of Parliament as to Irish medical superannuation is briefly as follows. In 1865 the Union (Ireland) Officers Superannuation Act was passed granting officers whose whole time have been devoted to the union services superannuation, at the discretion of the guardians. This effectually shut out the medical officers of the union workhouse and the outlying dispensary districts of the union. Four years afterwards, in 1869, this injustice was remedied by the Medical Officers' Superannuation (Ireland) Act, (32nd and 33rd Vict. cap 50) which did away with the limitation as to whole time employment, but left the granting of superannuation optional with the local Board of Guardians, subject to the approval of the Local Government Board but with the fatal proviso "that no contribution shall be made thereto out of any moneys voted by Parliament." The whole cost of superannuation was thus thrown on the local rates, although the medical officer had served the State authorities perhaps for thirty or forty years, during which 50 per cent. of his salary was paid from State funds and not from local funds. Thus, in the case of an officer drawing a salary of £130 as dispensary medical officer, the State paid, while he was on the active list, £65 a year, but, when retired, the full charge for his superannuation allowance came to £70 a year, that is to say, the guardians were called upon to pay £5 more each year for their officer when retired than when serving. Such a plan was not likely to find eager and ready acceptance with the Irish guardian class when medical officers were concerned.

It appears that under the second clause of the original Superannuation Act of 1859 the Treasury has a final deciding authority as to what are the claims of any class of persons to be admitted to superannuation from funds paid by the Imperial Parliament; and, acting under this section, the Treasury excludes medical men as not giving their whole time to the service of the State, although there is no difficulty made in placing such a charge on local rates, which in districts so poor as those in many parts of Ireland forms a great barrier to progress, and a never ending source of complaint.

The argument about "full time" when used against giving a medical officer a grant towards his pension is a very weak one. The Civil servant, working seven hours on five days in the week and four on Saturday, gives the State thirty-nine hours' weekly service, and is free all night and all Sunday. The medical man is ever on duty, and if the number of hours' work were added together it would usually much exceed in duration, and certainly in anxiety, wear and tear, and exposure, the average labours of any class of the Civil Service. What is wanted, therefore, is a cancellation of the clause in

the Medical Officers' Superannuation Act of 1869 which saddles the local rates with the whole of the superannuation charges; and, secondly, a reversal by the Treasury authorities of any ruling given by them excluding medical officers of the Irish Dispensary and Poor-law Services from participation in Parliamentary funds to help their superannuation allowances.

If this reform were carried out, the superannuation would be more likely to be granted by the local guardians, as the State would pay half the amount, as it pays half the salary of the medical officer while serving on active duty.

Unless the State, through its representative the Irish Local Government Board, takes early action in this and like matters from a more statesmanlike and humanitarian point of view, there can be no hesitation in predicting that in a few years such a crisis will come in Irish official medical affairs as will greatly increase the pressure on the imperial funds, and that in the end the charges for the Irish Medical Service will be gravely increased. But in the intervening years—years of incessant strife and struggle about pay and betterment, what will happen to the Irish peasant in the hands of a defectively equipped, dissatisfied, and decadent medical service? Had there been any real care for the Irish peasant and his family, all these wretched and easily remedied conditions would long since have been removed.

But there is another regulation checking the application of medical officers for pension, which seems to me so unfair that when once mentioned all will unite in condemning its inhumanity and impolicy.

No officer can have his application for superannuation even considered until he has actually resigned his appointment. Could any rule more old-world, more tyrannical, more positively cruel be in force in any official service under the English Crown, and especially in a land like Ireland, greatly torn by political and religious differences? It is difficult to conceive how so unfair and so hopeless a regulation has been tolerated so long, and one feels that it is only in Ireland, and in a land schooled in injustice for centuries, that so impossible a regulation could exist. Fancy the old veteran of the warfare against disease and insanitation waiting with anxiety the decision of the Board of Guardians as to his fate of pension or no pension, which, to those badly-paid officials, who rarely have a penny of money saved, means the question whether their declining years shall be spent in abject poverty or no. I feel that the moment this rule comes before the medical public of England it will be straightway rescinded by the action of the British Medical Association.

We now appaoach the most difficult and delicate part of the superannuation question. It is the fact that the Irish Boards of Guardians are greatly swayed by creeds and political differences, and are likely to split up at any time into hostile sections in a very unexpected manner.

The Orange section, apparently strongly united, cleaves suddenly into an Orange democracy and an Orange Conservative party; the Catholic party cleaves into Conservative Catholics who are Tories, and United Irish Leaguers who are democratic. These last cleave again into parties following ne politician or another.

Presbyterian guardians will not pension Episcopal doctors, Churchmen look askance at Nonconformists, and thus the medical profession in Ireland—probably the most rational-minded body of men in Ireland, the least swayed by religious animosities, the soundest element of hope for the future of Ireland—are trampled on by a democracy new to its work, without let or hindrance from a State department absolutely out of touch with the new conditions of life in the medical world, and with that doctrine of betterment which has affected even the lowliest pauper in England but has not yet entered an Irish official bureau.

The following point is also very important: The guardians of a union in Ireland are an elected body; they exist as a body for three years only; then there is a new election. Their memories are simply the memories of their three years' actual experience of official life. They know little or nothing of the history of the good work or past services of the medical officers of the union; the guardians, therefore, should be unable to deal with any refusal of pension save only for the three years of their office, if at all. The past services of the officer should be accepted as good service for pension, unless where dismissal for the very gravest offence becomes necessary. The truth is the pension—for such the superannuation allowance really is—should be, at a fixed age or service, compulsory; given automatically because earned, so that the Poor-law medical officer should be able to reckon on it just as an army medical officer can reckon on his pension after efficient duty done for the State. The State of course should pay its full share. When it is remembered how important it is for the efficiency of the Irish medical service that medical men should retire before being physically unfit, it becomes clear that the pension should be automatic and quite beyond the reach of Local Government Board or guardians. At 60 years of age every medical officer should appear before a Medical Board of three members of his service of high rank, and they should decide if he is physically fit to serve on until 62, at which age he should be compulsorily retired on a pension.

I gravely doubt if after 60 many men are fit to stand the wear and tear of Irish dispensary medical duties by night and day; and while it is cruelty to the medical officer to keep him on the active list, it is really a greater cruelty to a countryside to retain in employment a medical officer physically worn out, as is now so often the case. A very painful element in the matter of superannuation is the system of preventing a pension being given to an aged medical officer while the guardians hold back permission to retire in order to give the appointment to some young medical men they are interested in. They refuse, or let it be known that they will refuse, a pension until some young man who has influence with their leaders is ready for the post. This can be very unjust to the poor.

Compulsory retirement at a fixed age would do much to limit this wire-pulling. I do not propose to burden these pages with the painful stories of individuals who have suffered under this defective pension system. Suffice it to say that in the past individuals in Ireland have been treated with great cruelty, and to-day there are men who have done excellent service who are awaiting with anxiety their fate at the hands of guardians who know nothing of the long bygone years of good service done by them, but who only know that some wretched difference in creed or politics exists between them, and will determine how they will vote on the matter of pension.

Of all the matters in which the Irish governing body is to blame in reference to the medical profession no one phase can be so culpable, so difficult to forgive, as this question of not securing the free right to a pension. Had the medical profession in Ireland been organized when the Church surplus was going a-begging it would have received a sum of money to form an official retirement fund absolutely free from interference by the local Boards of Guardians.

The following quotation from an address given in 1902 by Sir L. H. Ormsby, President of the Royal College of Surgeons in Ireland, entitled "The Two Careers," in which he compared the Royal Army Medical Corps and Irish Poor-law medical service, will show how things actually are at the present day:

> Year after year old and worn-out dispensary medical officers who ought to have received their just pensions long ago are to be seen at all hours of the day and night, in all weathers, pursuing their beneficent work. . . . There is no more sad and discreditable system in any department of the public service.

Again, Sir William Thomson, C.B., has said:

> The pension question is one of the most cruel grievances from which the dispensary medical officer suffers. It is not strange that doctors of 80 years and over are to be found in the dispensary service striving to do the work of a large district.

XII.—LEAVE OF ABSENCE.

Holidays.

There is no definite regulation in the Poor-law medical service in Ireland about leave of absence for recreation. It is left to the decision of the local guardians, and over and over again it has led to friction between the medical officers and the guardians. A definite decision fixing the amount of leave is needed, and one month a year should be fixed.

In the military medical service the amount of leave is defined, and there is no reason why it should not be so in the civil medical service of Ireland.

Locum Tenens.

A very fertile source of friction in Irish unions is the question of the payment of a *locum tenens*. Until recently there was no authority to pay any portion of the salary of a *locum tenens* out of the State funds; the whole fight was to get the guardians to pay the amount or some amount out of the rates. The guardians constantly refused, and as the medical officers

were usually unable to pay substitutes, they got no leave to their physical and intellectual detriment. Some medical officers never left their districts for year after year.

Happily by section v (1) of the Local Government Ireland Act, 1902, the half of the salary of the medical man acting as *locum tenens* is paid by the State, and the Local Government Board has ruled that this pay should not exceed four guineas a week.

This remedies the financial difficulty, but it does not give the medical officer the right to his leave, and in a certain number of unions friction still occurs, as the guardians refuse the four weeks' leave.

All the sources of friction arise from the failure of the Local Government Board of Ireland to see ahead and anticipate its troubles. The old methods of dealing with the medical profession are dead and gone, and a useful step for this Board to take would be to copy all the royal warrants for the medical service of the army and navy and apply all the conditions as far as may be to the Irish corps of Poor-law medical officers. There will never be satisfaction otherwise, and the sooner this is recognized the sooner will peace and progress come. The Irish Dispensary Service, formed in 1851, may be looked upon as a survival existing into modern times of a body still retaining in its organization the defective conditions of the obsolete Army Medical Service of that far-away pre-Crimean period, with its feebleness, its defective status, its paltry pay, its want of subordinates trained to relieve the highly-trained scientific medical officer of the materializing drudgery of clerical and compounding work; its want of stimulus from within towards a higher scientific technical life due to official neglect, apathy, and failure to apply modern conditions to human life, such as great administrators who endeavour to control a corps should have.

It will take years of anxious care to build up the prestige of this important national service, but no one doubts for a moment that this prestige will surely be built up, for all the elements for it exist in the *personnel* of the dispensary service if only they get considerate treatment from the State. They may have figuratively to pass through a Crimean campaign of suffering, through an Egyptian campaign of hostile criticism, and may have to struggle against a South African campaign of ignorance and apathy in high places; but if they stand true to science and the interests of the Irish peasant and his betterment victory must be theirs.

Sick Leave.

If a dispensary medical officer becomes ill he may receive sick leave on full salary for six months. If he needs leave beyond six months he can get it for a further six months with the loss of half his salary. If he still continues unwell he may, under special sanction, retain his appointment for a further period of six months without pay.

The limit of six months' leave with full pay is an old rule made in the army in bygone days. It is now the rule to give a medical officer one year's leave on full pay, and in all cases where the illness is owing to exposure or contagion, or illness contracted on duty, the full pay should be continued for one year. A medical officer who contracts enteric or typhus fever can rarely be fit for his work under many many months, and a half salary of, say, £50 a year is too small to maintain him.

Study Leave.

No arrangement exists for granting the medical officers study leave apart from recreation leave. Nowadays it is essential to have such leave, and four months should be allowed in the first eight years' service to enable him to go to a medical centre to study at a post-graduate course. If this is not done the scientific life of the service cannot be maintained, and it pays the nation well to develop the scientific readiness of her servants.

In regard to all these proposals it is necessary for the administration to have eyes open and think ahead as to the needs of the service, or such a condition as now exists will surely recur to Ireland's real detriment.

XIII.—THE MEDICAL SERVICE OF THE "CONGESTED DISTRICTS."

It is necessary briefly to explain a special condition of poverty existing in certain parts of Ireland, and its important influence on the Irish Dispensary Medical Service. If a line be drawn from north to south a little to the west of a central line, it will divide Ireland roughly into two portions, one part being a country not rich, but less poor, while the western section will contain the definite recognized poverty of the congested districts. These districts are to be found in Donegal, part of Sligo, part of Leitrim, Mayo, Galway, Kerry, and Cork.

These districts are officially proclaimed as poverty-stricken, and a special Board, the Congested Districts Board, sits in Dublin, and has special Parliamentary grants and capital to deal with the poverty of these districts, covering 3,608,000 acres, and containing a population of 549,000. In these districts the poverty is extreme: the people cling like limpets to the rocks and hills of the most inhospitable portions of these counties. The general poverty may be imagined when we see that in Galway the Poor-law valuation is about 17s. 10d. a head, in Donegal 18s., in Mayo 18s. 3d., in Kerry £1 1s. 7d., and in Roscommon £1 2s. 9d. A district cannot be proclaimed as a "congested district" unless more than 20 per cent. of the population live in districts where the total rateable value divided by the total population comes to less than 30s. a head.

We have thus a definite standard of poverty based on Poor-law valuation fixed in certain parts of Ireland, and it is important to bear the fact in mind with reference to what follows. The Congested Districts Board that governs the special administration in these poverty-stricken districts has a capital sum of £1,500,000 (yielding £41,000 a year) from the surplus left when the Irish Episcopal Church was disestablished, and other sums amounting to about £84,000.

No Board could be more useful—none more humane, none more free, as far as Irish Boards can be free, of bureaucratic influences of the old, bad type of Irish administration. But, although the State has been compelled to recognize the special poverty of these large districts and to institute special legislation for them, nothing was done to benefit the unfortunate dispensary medical officer on whom, in these poor districts, the wear and stress of medical work falls heavily. The districts are large and greatly exposed, the roads few and difficult, and the peasantry have a bitter fight against want and distress.

Since 1867 half the cost of the medical officers' salary in the Irish Poor-law service is paid from the Imperial, State, or central funds, and half only from the local rates. This rule applies all over Ireland, and the principle is of course of fundamental importance in building up the pay-rate of the Irish dispensary service—now and in the future.

It seems impossible to explain how it has come about that in the wilds of Mayo or Donegal or Galway the grant in aid from the State to the medical officer's salary should be in the same proportion as in the most prosperous district in the east or north of Ireland. This rule should be altered, and while keeping 50 per cent. as the State contribution to the salary in the best districts, this should be accepted as the minimum State grant, which should be raised in the west to such an amount as will pay the medical officers in the congested districts an adequate salary.

If at the present moment a medical officer in a Galway dispensary district recognized officially to be poverty-stricken receives £100 a year salary, and if in future the local rates continue to pay £50 as now, the State pay should raise the salary to the scale proposed for the special poor districts—£250 to £450 per annum.

If, then, we hold on to the 50 per cent. grant in the best districts of Ireland it is possible to construct a "sliding scale" of State grants, say in three or four categories, running from £50 paid by the local rates and £50 paid by the State, to £50 paid by the rates and £100, £150, or £200 paid by the State. Always providing that no diminution of the 50 per cent. rate in the best districts is made.

It is universally admitted that the poor-rates of these distressed districts are unable to contribute in any further marked degree to the medical officer's salary, and the only refuge then is in the central funds of the State, the State recouping itself by cutting down other less-needed services, as will be dealt with in the section on finance.

Let it be assumed that there are 100 appointments in the congested districts which ought to be scheduled as "special grant districts." The Lord-Lieutenant of Ireland, who can now proclaim a district anywhere in Ireland as congested if its valuation falls below a certain standard, should in the same way have power to schedule any dispensary district as a special district for the higher rate of grant in aid in any part of Ireland, not only within but also outside the congested districts. The State should recoup itself by cutting down all

useless expenditure within these special districts. With four grades of Government grant—say, £50, £100, £150, and £200 a year—it would be possible to classify all Ireland with reference to the £50 charged to the rates in each case. Roughly, it would mean that each dispensary medical officer must manage, speaking financially, to eat up three Irish police constables—a most easy meal to digest.

XIV.—THE ORGANIZATION OF AN IRISH MEDICAL SERVICE.

In dealing with the problem of the organization of the Poor-law dispensary system it is necessary to say that no solution will be full and final that is not liberal in its conception, just in its pay rates, and so mouldable as to fit into all the varying details of Irish life. Any mere patchwork scheme of a small increase of pay and a small pension will never be a final solution. The dissatisfaction which now exists will be far greater in five years' time, and it is essential that the question be fully dealt with not only for the sake of the medical officers, but for the sake of the Irish people. There is not a man in Ireland who understands the problem who, while he agrees as to the definite grievances of the dispensary medical officers and asks for betterment for them, does not in the same breath ask for an improvement in their scientific efficiency and a levelling-up to more modern scientific standards. It was often said to me: "I quite agree with the need of better pay and prospects, but there is also need of more professional efficiency," so that even if the medical officers were to-day satisfied with a small pay increase, and a pension, the public would in a few years call for reform. It is wiser to grasp the nettle boldly and ask for a final settlement that will last for many years before needing review.

All paltry reforms would be a mere patching up of the defective and obsolete schemes of the Medical Charities Act of 1851. Ireland wants an Irish medical service with all the equipments of such a service, and some means of inducing good medical men to remain in Ireland. In 1841 physicians and surgeons in Ireland numbered 3,871; in 1881 there were 2,470 males in the medical profession in Ireland (physicians and surgeons) in 1901 the number of males as physicians and surgeons was 2,201, and of these 133 were over 65 years of age. There was an increase in certain city centres but a decrease of 10 to 30 per cent. in the country districts. In 1891 the number of medical students was 1,645, in 1901 the number had fallen to 1,285. The Roman Catholic medical men in 1881 numbered 968; in 1901, 948; and the Catholic students in 1891 numbered 649, but in 1901, 575. The young men of Ireland go largely to the Catholic priesthood and the Bar. Thus, in 1891 there were 16,155 persons, male and female, in the clerical profession in Ireland—namely:

Catholic element...	12,317
Non-Catholic	3,848
Total	16,165

In 1901 there were in the same profession:

Catholic element	14,519
Non-Catholic	3,888
Total	18,407

Being an increase of 2,202 in the Catholic element and of 40 in the non-Catholic element.

Putting aside the increase of nuns, which amounted to over 1,300, and the Catholic clerical students, which amounted to over 300, the actual increase of secular priests was 209, and of monks 293—an increase of 502 clerics of this church. In the same decade barristers and solicitors rose from 848 to 975—an increase of 127 persons. It would be interesting to know officially the number of medical men in Irish rural districts now and fifty, forty, and thirty years ago. A considerable decrease would be apparent.

A profession thoroughly badly treated in Ireland and exposed often to vulgar insolence is replying in a very sure way to ill-treatment, and its ablest sons are joining in the emigration from Ireland. Politics and religion mixed up in elections to appointments are doing great damage to the medical profession in Ireland, and all admit this. It is for these reasons I think a fuller inquiry is needed into the whole matter, and I suggest the following measures of reform:

1. *Medical Commissioner.*

This official, who is the head or Director-General of the State Medical Service in Ireland, should receive a salary of £2,000 a year, and in his Dublin office there should be a sanitary specialist and a medical specialist, with adequate salaries, to act under his orders. He further needs a general secretary, also a medical man, to keep him in touch with the medical service and with medical opinion.

2. *Provincial Inspector-Generals.*

Four officials are needed as provincial inspector-generals, to be located at Dublin, Cork, Belfast, and Galway. They should make inspections and be vested with certain powers delegated from the Local Government Board in Dublin. These gentlemen should receive salaries of from £1,000 to £1,200 a year, with travelling allowances.

3. *County Inspectors.*

Twenty county inspectors are needed in Ireland—twelve for the twelve largest counties, and eight for the twenty smaller counties. They should be paid from £600 to £800 a year, and live in constant touch with their counties, inspecting all medical and sanitary work, and knowing all the district medical officers intimately from constant association.

4. *Workhouse Infirmary Medical Officers.*

They should be amalgamated with the dispensary medical officers into one service. The workhouse medical officer should be consulting medical officer for the whole of the union, and should have the same gradations of pay as the dispensary medical officers, whether for medical or sanitary duties. No medical officer should be appointed to charge of a workhouse infirmary under seven years' dispensary service. The title of the workhouse infirmary should be changed to district hospital or other title, omitting the word "workhouse." The fabric should in any case be removed as opportunity offers from the workhouse enclosure, and made a separate institution. The county infirmary medical officers should also belong to the Irish medical service, and to share in all pay advantages, pensions, etc.

5. *Dispensary Medical Officers.*

The medical officers for the dispensary districts should be chosen by competition at an examination held periodically in Dublin under the control of an Advisory Board of 16 members, four being medical men nominated by medical bodies, four being Members of Parliament for Ireland, four being members of county councils, one from each province, and four being chosen by the Lord Lieutenant. This Board would publish the lists of successful candidates in order of marks gained, and candidates should have choice of counties or provinces in order of their success at the examination.

6. *Probationary Period.*

Every successful candidate should be required to go through a three months' course of sanitary science, and to see the workhouse organization of Belfast or other central town, and the actual practical routine of sanitary work in a large city under the official health officer.

Probationers should be employed at £200 a year, as *locum tenens*, or to act for medical officers detached for post-graduate study, and should have the right to remain on as probationers until a vacancy occurred in the province or county they desire.

The right of exchange from county to county should be recognized, but a medical officer exchanging into a county should become junior in the list of medical officers in the county.

7. *Post-graduate Course.*

All medical officers should have a post-graduate course before completing eight years' service. The course should be of four months' duration at a recognized school and should be followed by an examination, on the passing of which the receipt of any increase of pay should depend. An officer not passing before the twelfth year should be required to resign his appointment. Five shillings a day extra pay should be allowed during the post-graduate course, and the lectures should be free.

8. *Diploma in Public Health.*

Every officer obtaining the D.P.H. should have his pay as health officer raised to a minimum of £50 with yearly increments till it reached £100.

9. *Workhouse Infirmary.*

The post of medical officer to the workhouse infirmary

should be open to all medical officers serving in the county by seniority, unless grave reasons to the contrary existed.

10. *Retirement by Age.*

All medical officers should be required to appear before a Board at 60, and, if found fit, be allowed to serve on to 62 years. Retirement should be compulsory at 62 from all medical executive appointments.

11. *County Inspectorship.*

All medical officers of the county or grouped counties in the smaller units should be eligible for the county inspectorship by seniority, unless special cause existed to the contrary, and this appointment should be the prize or reward open to the county unit of medical officers of the Irish medical service.

12. *Leave.*

Every officer should be entitled to one month's leave with full pay yearly, and his substitute should be paid.

13. *Horse Allowance.*

The £200 a year pay on entrance should include the keep of one horse, to be used for distances within a certain circuit of the dispensary. If the district exceeded fifteen square miles a second horse allowance of £45 a year should be paid automatically,

14. *Annual Reports.*

The Board of Guardians should be required to report annually to the Local Government Board as to satisfactory discharge of duties of all officers serving in their districts, and the officer should have the right to see the report. The county inspector should also report, and the provincial inspector-general should express an opinion.

15. *Provincial Inspector-Generals.*

These officers to be chosen from the whole of Ireland by special selection.

16. *Registration Duties.*

The dispensary or district medical officer should be *ex-officio* registrar of his district, and receive pay of not less than £15 a year in addition to his registration fees.

17. *Private Practice.*

There should be no limitation of private practice, nor of charge of troops, coastguard, or lighthouse employés. The medical officer in charge of police should be paid a mileage-rate by the State for police visits made over three miles from his dispensary, as if he were a constabulary officer.

18. *Medical Officer of Health.*

The district dispensary officer should be the medical officer of health for his district, but all executive action after report should be taken by the county medical officer and his executive staff.

19. *Increase of Corps Officers.*

A gradual increase of the dispensary medical staff by 100 extra officers should be considered, so as to reduce the size of districts and do away with out-dispensaries and dépôts.

20. *Clerk, Dispenser, and Registry Clerk.*

A body of men should be formed out of army and police pensioners to act as dispensers, sanitary and registration clerks, and to live at the dispensary as caretakers. Until such a class of men is developed one such clerk should be employed as dispenser at the district workhouse infirmary, and should visit the out-stations every month, and keep charge of all medicines and medical documents. Pensioner sergeants of the Royal Army Medical Corps should be considered in making such appointments.

21. *Fees from Private Patients.*

In consideration of the increase of pay the medical officers should agree as to a reasonable rate of fees to all classes of private patients in their districts.

22. *Congested Districts and Specially Scheduled Districts.*

The pay-rates should be on the higher standard—£250, rising to £450 a year in the congested districts. Within these districts a house should always be included in the allowances, or in its absence an allowance made for house rent at Royal Irish Constabulary rates. The constabulary rates should be the guide in all new decisions as to forage, rent, and servants' charges.

23. *Dispensary Buildings.*

A better type of dispensary buildings should be built and a standard plan competed for and issued as a guide to Boards of Guardians. In it an office for the medical officer separate from the drug-compounding room would be an essential.

24. *Cottage Hospitals.*

A cottage hospital adjacent to the dispensary and dispenser's quarters should be a definite part of each dispensary district equipment, with residence for hospital nurse, district nurse, and district midwife.

25. *Attendance at Congresses.*

A certain number of medical officers should be sent as delegates to Medical Congresses annually, and medical journals and the means of forming libraries for the district should exist at each workhouse infirmary.

26. *Workhouse Infirmary to be the Scientific Centre.*

This district hospital should be the scientific centre of the district, and have a suitable laboratory and instruments for bacteriological and clinical inquiry. The fever hospital should be the infectious disease department of these hospitals.

(*a*) The appointments of honorary physicians and honorary surgeons to the Lord-Lieutenant of Ireland should be open to a certain number of Poor-law medical officers, say six in each class, medical and surgical.

(*b*). The Order of St. Patrick should be widened out in its organization like the Order of the Bath, so that special services to the State in Ireland may be rewarded.

XV.—THE PAY-RATES OF IRISH PUBLIC OFFICIALS.

It is essential to discuss briefly the pay-rates and salaries of other branches of the public service in Ireland, so as to form a just idea of how the State deals with its Irish servants, always excepting its dispensary medical officers.

It is a trite saying that Ireland is a poor country. It has no coal to speak of, no iron, little manufacture, a precarious business like agriculture carried on in a very defective workshop—namely, an open country swept by Atlantic storms. But trite sayings do not at all times apply all round, and Ireland, certainly so far as the salaries of its official classes are concerned, does not appear to be a poor country either as regards the number or the pay of these officials. It must be stated that the officials referred to are mainly those employed in the maintenance of law and order. While everywhere in Ireland one hears complaints as to the burden of imperial taxation and the need of reconsidering the financial relations with the "predominant partner" England, there is a general agreement that in the cost of the maintenance of the heavy judicial establishments a definite cutting down of expenditure is not only possible but desirable.

The dispensary medical officers see this very clearly, and it is probably from such retrenchments that money will be in part obtained for their ultimate benefit. The opinion seems to be that, with the hoped-for dawn of a new era of progress and order in Ireland, the law establishment can be reduced. If the dispensary medical officers really desire such economies in the hope of future benefits to themselves, it seems clear that they must ally themselves with some political party which has these aims; they cannot stand neutral in such a struggle without alling between two stools in the end.

The Resident Magistrates.

These are a very numerous and well-paid body—some 70 in number. They draw excellent salaries and just allowances. Their pay is about £700 a year, and the general opinion is that their duties are extremely light. Better days are in store, it is said, for Ireland, and with the settlement of the land question crime, always so largely agrarian in character, will disappear. If the number of resident magistrates were reduced by one-third money would be obtained to build up the body of county medical inspectors of the Irish Medical Service, so needful in the Irish counties, who would act as medical officers of health in the counties.

The opinion that retrenchment in respect to these officials

is desirable is very generally held. Story after story is told of the easy-going life they lead, and the painful contrast their leisure shows to the night and day duties of the unfortunate Poor-law medical officers.

The Constabulary.

Then comes the great armed military police of Ireland—the Royal Irish Constabulary—with some 250 well-paid officers and a force of 10,579, with 252 head constables alone each paid like a dispensary medical officer and with a definite and more liberal pension.

The county inspectors draw salaries of from £350 to £450 a year with £50 forage for horse, £45 for servant and £50 for house rent. There are 36 county inspectors. Then comes a great army of 211 district inspectors with pay rising from £125 to £300 a year with forage, servants' allowance, and house rent. Then come the 252 head constables with £100 a year, uniform, and house accommodation.

Below these come the great army of constables drawing excellent salaries, £60 and £70 a year, with house accommodation and uniform, and assured pensions. It is evident that very considerable reductions can be made in the officers and men of this service who are everywhere in evidence in Ireland, but who seem not to have very onerous duties.

If each medical officer managed in his own dispensary district to reduce the police force, say by three constables, the means to give him a fairer pay would be found.

Other Services.

Comparisons have also been made of the pay given to the Crown and sessional Crown solicitors with that of the medical services. It is also pointed out that the State-paid teachers of national schools receive an income better than the medical officer, who has in addition to keep a horse and car and man servant to do his work.

There can be no doubt that in the very near future a change in the character of Irish State expenditure will take place. The moneys expended on force and order and law will decrease, and the great body of the people will gain by the expenditure so saved being diverted to medical and sanitary help and fuller educational facilities.

If the Irish medical men think in this direction then the sooner they arrange amongst themselves to combine and send to the Imperial Parliament a certain number of representatives to urge forward these views the nearer will the day of their betterment be. To stand waiting for the political Jupiter to pull their wagon out of the mire while they themselves give no help is a false position to occupy.

XVI.—THE FINANCIAL ASPECT OF THE QUESTION OF BETTERMENT.

It was most unfortunate that when the Irish Protestant Church was disestablished at least two millions of the money which then became available was not devoted to medical and sanitary work in Ireland. This sum at $2\frac{3}{4}$ per cent. would have given some £54,000 a year to increase the efficiency of the Poor-law Medical Service and to improve the well-being of its medical officers.

When it is remembered that £1,000,000 was granted for educational purposes and £1,300,000 to the national school teachers to form a pension fund, it is astonishing that no one spoke a word for the Poor-law and Dispensary Services—a weakly-organized, badly-disciplined profession, unable to combine for its own benefit, which, in the end is the benefit of the public—was unready at that epoch to urge its claim; and now a golden—veritably golden—opportunity is gone, and we are reduced to expedients more likely to encounter opposition.

The following facts should be borne in mind through all this chapter:

(*a*) *The Valuation of Ireland.*—The Poor-law valuation of Ireland is £15,079,004 (*Local Taxation (Ireland) Returns*, 1901-2, p. 67.

(*b*) *Value of a Penny Rating in the Pound on above Sum.*—£62,829.

(*c*) *Total Cost of Dispensary Medical Officers, including Payment for Temporary Services and Locum Tenens.*—£99,146.

(*d*) *Total Cost of the Medical Officers, with that of the Medical Officers of the Workhouse Infirmaries added.*—£117,334.

(*e*) *Amount that above Cost represents in Rating on the Pound of Valuation.*—1.87d.

(*f*) *Cost of each £10 added to the Salary of Every Workhouse Infirmary and Dispensary Medical Officer in Ireland Yearly.*—0.16d. Thus the rate after adding £10 to each medical officer's salary, whether workhouse or dispensary, would be 2.03d. With an annual increase of £50 the rate would be 2.67d. in £, and with an increase of £100 it would be 3.47 in £.

(*g*) *Payments from State Funds.*—But the State already pays 50 per cent. of the cost of the sums referred to in Par. (*c*) cost of dispensary medical officer, and (*d*) cost of dispensary medical officer and workhouse medical officer, reducing the cost of the dispensary medical officer to £49,573 yearly, and the total sum to £58,667 yearly, so that the total cost to local rates of all medical officers workhouse and dispensary comes to less than 1d. in the £ on the valuation (by some £4,000).

(*h*) *Section VI. of the Local Government Ireland Act of 1902* (2 Edward VII, cap. 7).—Up to the date of the passing of the above Act amending the Local Government Act of 1898, the State paid 50 per cent. of all medical officers' salaries, and all increases in those salaries proposed by the guardians, if approved, were also paid to the amount of 50 per cent. by the State, but the Act of 1902 stopped this and fixed the payments to be made at the amounts paid in a fixed standard year—1902. As a result of this rule all increases of pay sanctioned by the guardians have now to be paid in full out of the local rates. This greatly checks increments. This section (VI) then of the Local Government Act of 1902 needs to be repealed in justice to the medical officers and the rates. At once on its repeal the amount of any increase of the medical officers' salary would become as to 50 per cent. a charge on the State and in the same proportion 50 per cent. on the rates, provided the Treasury sanctioned the increase, or that the Local Taxation (Ireland) account, practically a sub-fund of the Consolidated Fund, was increased to meet these estimated pay increments.

(*i*) *Indefiniteness of Present Estimates.*—Owing to the want of definite fixed rules as to the payment of salaries of the Poor-law medical officers of both the workhouse and the dispensary sections, and the constant changes arising in these rates from the variation in the views of each Board of Guardians, it must be difficult for any State department to estimate in advance the cost of Poor-law Medical Services, since the increase is largely produced by uncertain and varying causes.

(*j*) *An Apparently Easy Solution.*—Looking back to Par. (*b*) in which it is stated that an increase of 1d. on the rates would bring in £62,829 a year, and assuming that Section VI of the Local Government Board Act, 1902, was cancelled, it is evident that at a cost to the State of £58,667, and the cost to the country of 1d. increase in the rates, the pay of the whole body of the workhouse, infirmary and dispensary medical officers would be doubled. This seems on the surface an easy solution, but in reality it would only hide the wound and not deal fully with it. It does not deal with superannuation, which if rigidly enforced must cost money. It does not deal with the gradual annual rise of the medical officers' pay to a suitable standard, it omits any action about the county medical officers of health, a vital and fundamental question, and it leaves untouched the whole burning subject of the congested and poverty stricken districts of the north-west and west of Ireland. It may be accepted, and probably many of the guardians would advance thus far, but as a cure for Irish medical grievances it would, in my opinion, be futile.

(*k*) *Cost of Post-Graduate Course.*—Every medical officer should pass through a post-graduate course of at least three months before the termination of his eighth year of service. The teachers of this course would need salaries, and the medical officer would need a grant of about £25 for three months' extra expenses of living at a collegiate centre. His place in the country district would also need to be filled at a cost of 4 guineas a week—or, say, 52 guineas—and this would be needed by from 30 to 50 officers yearly, and would cost the country some £5,000 a year, if we take an estimate of 50 officers and of £1,000 for professors' fees and teaching charges.

(*l*) *Revision of Financial Relations between England and Ireland.*—There is no doubt that, considering the relations of England and Ireland and the constant discussion as to financial relations, it would be a statesman-like act of the Treasury to deal favourably with the position of the Poor-law medical officers. There is not in Ireland a class who do harder work for the State, nor is there a class more level-headed, less given to religious bigotry or national prejudice. Educated men, they see through much of the sectarian bigotry that curses Ireland, and in their houses one seems to have reached a quiet haven after the stormy sea of bitter disputes and angry passions. The effect of making such a body

of Irishmen contented and happy would be far-reaching, and would well repay the indicated expenditure. With a thorough devotion to Ireland, they are in touch with the empire and the world through their profession, and the more they study that the wider will still be their outlook, and the better element they will be in the country they have served so well.

Rough Estimates of Reorganization Cost.

Nothing final can be done for these officials without disbursement of public money.

1. If we add the 150 workhouse medical officers to the 810 dispensary medical officers we have, say, 960 officials. Their cost to the country, whoever pays, will not be much under £300 a year each. This is equivalent to a sum of £280,000 yearly.
2. If Ireland be asked for a 1½d. rate it will produce £94,000.
3. This leaves £186,000 to be met by the State, but teaching the officers will cost £5,000 a year, and it may be estimated that 100 officers in the congested districts need each £150 expenditure above the average countryside. These two sums equal £20,000, and raise the cost £206,000 a year.
4. But the service is notoriously undermanned, and will need 100 officers at £300 each yearly, say £30,000. Twenty county inspectors at £600 each will cost £12,000, and the head-quarters and provincial staff will cost £5,000. This raises the expenditure to £253,000.
5. If we estimate superannuation as costing one-tenth, it will be necessary to add £25,000, which raises the total to £278,000.
6. But the State already pays £58,667 yearly as the 50 per cent. proportion of existing charges, and, deducting this, we find a final charge of £219,333 to be met.
7. To balance this expenditure let other items of Irish expenditure be reduced as follows:
8. Let the expenditure on the Judicial Bench be reduced by £5,000, and so pay for the head-quarters and provincial staff we have asked for.
9. Let 20 resident magistrates at £600 each be reduced; this pays for the 20 county inspectors needed, namely, £12,000.
10. It will be necessary to reduce the constabulary officers by 100 at £200 each; this will produce £20,000 as a help to pay for 100 medical officers at £300.
11. As the country is now much quieter, let the constabulary be reduced by 3 men for every medical officer employed, say, 960. This implies a reduction of 2,500 constables at £70 a year each, which produces £185,000. If we add these sums together we obtain £223,000, which more than pays the extra cost.

It may be anticipated that it will be on lines like this that one day the Irish Medical Service will be put on a definite footing. Of couse, we must ever bear in mind that a 1d. rate produces in Ireland £62,829, so that by raising the rate another 1d. it would be easier still to meet the cost of the medical service.

Whatever scheme is introduced it is improbable that it could be made effective at much less cost than is proposed here. And the proposal that Ireland should pay a heavier rate in the pound is merely an attempt to make all Ireland combine into a kind of sick club for her own benefit. It is impossible without State aid to form such a co-operative union; but a State medical service on the lines proposed is practically such a union or club. It would induce a number of efficient medical men to remain in Ireland; it would offer them a progressive salary and a pension on retirement. It would institute an inspectorial system and a discipline based on a corporate service. It would arrange for systematic facilities for study and the provision of laboratories, etc.

XVII.—CONCLUSION.

This report may now be brought to a conclusion. At first, on visiting Ireland, the matter seemed to be a small affair, easily dealt with. After travelling through the country, and meeting many people, the magnitude of the question was clearly perceived.

It is not a mere question of the well-being of a group of dispensary medical officers. The very existence of the medical profession as an effective factor in the national life of Ireland is at stake. The Poor-law medical officers are so considerable a body in Ireland that anything that affects their well-being affects the medical profession as a profession more than in most countries. The State is brought into closer relations with the medical profession in Ireland than in most countries.

From the statements made in the report the reader can form an opinion of how far the State through its responsible officials has understood its duties and its responsibilities towards that profession.

It has not understood the responsibility aright, and hence it stands blamable for the existing conditions in Ireland, conditions of great gravity and highly injurious to the Irish people as a nation.

Personal inquiries were made of all classes of the community. Many Bishops of the Protestant and Catholic Church, landlords and tenants, guardians and electors, priests and parsons, officials and non-officials, the chance visitor met in the railway carriage or at the hotel table, the views put forward are the result of conversations with these many men. The leaders of the medical profession have been fully consulted in all the centres where medical men form any important group of the profession. They all agree as to the need of reform.

With the medical officers of the workhouse infirmary and the dispensary relations have been close and thorough. I have seen their devoted services and driven with them in the storm and the rain round the battlefield of their splendid struggle against disease and insanitation.

I have learned to respect them deeply, and I can never forget their many grievances, their splendid devotion to Ireland, their humanity, their broad views in the land of narrow views. The medical profession in Ireland contains the most level-headed, the least bitter in religious animosities, and the most just-minded men in the land, and with just treatment they must come to the front. The struggle will be long and trying, but they must never despair, and as the years go on victory will surely come if they stand up as they do for humanity, progress, and all that means betterment for the Irish people.

In all my efforts to see correctly in the land where vision is liable to constant error I have had before me only one hope, but that is a splendid hope: that as the result of this inquiry some help may come to him—the ultimate Irish peasant—who has suffered in the past and still suffers so much. If my work tends in any way to his betterment I shall not have laboured in vain. I say with fervour: "God save Ireland!"

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CONTENTS.

	Page
ANNUAL REPORTS OF BRANCHES:	
Aberdeen Branch	77
Bath and Bristol Branch (Bath Section)	77
Bath and Bristol Branch (Bristol Section)	77
Birmingham Branch	78
Border Counties Branch	78
Cambridge and Huntingdon Branch	78
Dorset and West Hants Branch	78
Dundee District Branch (and Division)	78
East Anglian Branch	79
East York and North Lincoln Branch	79
Edinburgh Branch	79
Fife Branch	79
Glasgow and West of England Branch	80
Grahamstown and Eastern Province (South Africa) Branch	80
Lancashire and Cheshire Branch	80
Leinster Branch	80
Malta and Mediterranean Branch	80
Metropolitan Counties Branch	80
Midland Branch	81
Northern Counties of Scotland Branch	81
North of England Branch	81
North Lancashire and South Westmorland Branch	81
Oxford and Reading Branch	81
Perthshire Branch	82
South-Eastern Branch	82
South Midland Branch	82
South Wales and Monmouthshire Branch	82
South-Western Branch	82
Staffordshire Branch	82
Stirling Branch	82
Ulster Branch	82
West Somerset Branch	83
Yorkshire Branch	83
British Guiana Branch	83
Cape of Good Hope Branch	83
Colombo and Ceylon Branch	83
Hong Kong Branch	83
Natal Branch	83
MEETINGS OF BRANCHES AND DIVISIONS:	
Bath and Bristol Branch: Bath Division	83
Border Counties Branch: West Cumberland Division	83
Edinburgh Branch: South-Eastern Counties Division	83
Lancashire and Cheshire Branch: Altrincham Division	84
Metropolitan Counties Branch: Hampstead Division	84
,, ,, ,, Stratford Division	84
,, ,, ,, Tottenham Division	84
South-Eastern Branch: Canterbury Division	84
,, ,, Faversham Division	85
,, ,, Isle of Thanet Division	85
,, ,, Sevenoaks Division	85
South Wales and Monmouthshire Branch: Cardiff Division	85
Staffordshire Branch	86
West Somerset Branch	86
POOR-LAW MEDICAL RELIEF IN SCOTLAND: REPORT OF DEPARTMENTAL COMMITTEE.—Dwelling Houses for Medical Officers should be provided in Certain Parishes.—Additional Medical Attendance in Certain Highland and Island Parishes.—The Tenure of Medical Officers as affecting the Efficiency of the Poor-law Medical Relief System.—Summary of Recommendations as to Indoor and Outdoor Medical Relief and Grant in Aid of Medical Relief	86
LOCAL GOVERNMENT (SCOTLAND) ACT (1894) AMENDMENT BILL	92
POOR-LAW MEDICAL OFFICERS' (IRELAND) SUPERANNUATION BILL	92

British Medical Association.

ANNUAL REPORTS OF BRANCHES.

By-law 8 "..... every Branch shall furnish to the Council of the Association not later than March 15th, a report of its proceedings during the previous year, a statement of its numbers, and a financial statement in such form as the Council may from time to time prescribe."]

Aberdeen Branch.—The Aberdeen Branch held six ordinary meetings for scientific and other purposes during 1903. The average attendance at these meetings was 28. The summer meeting was held at Braemar.

Income ... £37 17s. 0d.
Expenditure £23 6s. 2d. } Balance ... £14 10s. 10d.

Bath and Bristol Branch (Bath Section).—The number of members for this Section, including Bath and Trowbridge Divisions, is as follows: At the commencement of the year 141, and since 11 have been lost and 18 gained, leaving a present total of 130. The Branch did not make a capitation grant to the Divisions for the first year, but the Branch paid formation expenses. For 1904 the grant to the Bath and the Bristol Divisions is 6d. a head, and to the Trowbridge 1s.

Income ... £42 7s. 1d.
Expenditure £24 7s. 11½d. } Balance ... £17 19s. 1½d.

Bath and Bristol Branch (Bristol Section).—Number of members March 5th, 1904, 250. The Council has to report that during the year 1903 the meetings of the Branch had been held at the usual times, and were well attended. It regrets to announce the loss by death of Mr. W. M. Barclay, Senior Surgeon to the Bristol General Hospital, and of Mr. H. T. Rudge. Obituary notices of these gentlemen will be found in the BRITISH MEDICAL JOURNAL for June, 1903. Instead of the monthly meeting of the Branch in May, the first annual meetings of the Divisions were held on the same day. A second meeting of the Division was held in November, when the Draft Medical Acts Amendment Bill was discussed. Both Divisional meetings were very poorly attended. Ten new members were elected during the year. Dr. E. J. Cave and Mr. C. E. S. Flemming were elected representatives of the Branch on the Central Council of the Association. At the annual meeting in June Dr. Waldo resigned the Presidential chair to Dr. Barclay J. Baron, and Mr. R. J. H. Scott (Bath) was elected President-elect. Several meetings of the Council of the Branch, mostly dealing with matters concerning the administration of the Branch, have been held. At one of these it was decided to adopt 6d. per head for the expenses of the Division during the coming year. At the annual meeting of the Bristol Division Dr. E. Markham Skerritt was elected Chairman; Dr. Barclay J. Baron, Vice-Chairman; Dr. Michell Clarke, Secretary and Treasurer and also Representative at the Representative Annual Meeting. To fill two vacancies on the Council Drs. E. Markham Skerritt and Hedley Hill were elected.

Income ... £48 4s. 0d.
Expenditure £19 11s. 10d. } Balance ... £28 12s. 2d.

Birmingham Branch.—The Branch has held six ordinary meetings, one special meeting, and its annual general meeting. Papers and other scientific communications were contributed by the following members, namely: Mr. Haslam, Mr. Heaton, Mr. Barling, Dr. McCardie, Mr. Jordan Lloyd, Mr. J. W. Taylor, Dr. Perry, Mr. Milward, Mr. Morrison, Mr. Martin, Dr. Ratcliffe, Dr. W. R. Jordan, Mr. W. E. Bennett, Mr. Lucas, Dr. Foxwell, Mr. Hall-Edwards, Mr. D'Arcy Ellis, Mr. W. Thomas, Dr. Sydenham, and Dr. Plummer. New rules for the Branch, based on the draft model rules, were adopted. There have also been six meetings of the Pathological and Clinical Section, twelve meetings of the Council, and meetings of each Division. During the year 37 new members were elected, and 13 other members added by the inclusion of Walsall. The membership was thus raised to 512, distributed in the Divisions as follows: Bromsgrove, 21; Central, 288; Coventry, 36; Dudley, 40; Nuneaton and Tamworth, 21; Warwick and Leamington, 56; West Bromwich, 50. The Branch desires to impress upon the Central Council that the present capitation grant is inadequate to meet the due requirements of the Branch, together with its Section and seven Divisions.

Income ...	£90 10s. 0d.	Deficit ...	£1 5s. 11d.
Expenditure	£91 15s. 11d.		

Border Counties Branch.—The Council of the Border Counties Branch have to report that during the year 1903 there have been three general meetings of the Branch—namely, at Penrith in February, Carlisle in June, and Dumfries in December, and is pleased to be able to state that the attendance at these meetings showed a gratifying increase in the number of members present; this, it feels confident, is the outcome of the new Constitution. It was contemplated having a fourth meeting at St. Boswells, and the meeting had, in fact, been arranged; but when the new boundaries of the Branch were finally settled in the autumn, St. Boswells was excluded from this District, and therefore that meeting had reluctantly to be abandoned. At the three meetings held numerous papers were read, and an unusual amount of "material" was exhibited and aroused considerable interest on account of its noticeable character. At the Dumfries meeting the Medical Acts Amendment Bill was before the Branch, arousing general discussion, and was finally referred to the Divisions of the Branch for further consideration, and for them to report to a future meeting what amendments, if any, they thought ought to be introduced into this important Bill. During the year the Council has held eight meetings. Usually these meetings are held at Carlisle, it being found most central for the whole Branch. There have been sixteen new members elected by the Council, whilst, on the other hand, the Council regret to have to report that they have lost through death their Vice-President, Dr. Fray Ormrod of Workington, who was the President of the Branch for 1902-3, which, with those members of the Association who have come to reside within the area of the Branch, makes the membership 164. The draft rules were submitted to the annual general meeting of the Branch, and, with a few slight modifications, were adopted and issued to each member, and have proved a valuable alteration. The Branch much regret that the Council did not see their way to grant to this Branch a Representative of their own on the Central Council of the Association, in accordance with the unanimous application of the Branch. Not only is this one of the oldest Branches of the Association, but it embraces a very large area, and it is felt that it is too Herculean a task for the one Representative of the district to represent an area stretching almost from the Firth of Forth to the estuary of the Mersey. The Branch Council hope that the Council will reconsider their decision at an early date, and accede to what appears to the Branch to be a perfectly legitimate request, and one which it is felt would materially benefit not only the Branch, but the Association itself. The three Divisions of the Branch held their inaugural meetings in the autumn, and it is gratifying to be able to report that the attendance at all the meetings showed a very marked enthusiasm as a result of the new scheme; since that date each of the Divisions has held another meeting, and has arranged for the early holding of future meetings. The Branch Council are especially gratified to be able to report that, owing to careful and economical working, they are able to present a credit balance of £6 9s. 3d. after settling every liability for the year 1903; the expenses of the Divisions having been defrayed entirely by the Branch, the Council having felt that, by adopting this plan for the first year, they would be able to form an estimate of what would be a sufficient capitation grant to allow each Division in the future.

Income ...	£30 2s. 0d.	Balance ...	£6 9s. 3d.
Expenditure	£23 12s. 9d.		

Cambridge and Huntingdon Branch.—The Branch Council begs to report that the membership to date is 160. The Council has met on several occasions to elect members and discuss various matters. Two general meetings have been held—one the annual general meeting at Saffron Walden on Thursday, July 2nd, when the following papers were on the agenda:—Dr. Sprague: Motor vehicle for medical men. G. Wherry, F.R.C.S.: Remarks on ophthalmia neonatorum. Dr. Armistead and Dr. Anningson: Cases of varicella resembling varioloid. Dr. Laurence Humphry and Mr. T. St. Strangeway: An unusual form of typhoid fever. Mr. H. C. Bartlett: The vagaries of movable kidney. The second general meeting was held to consider Branch rules, etc.

Income ...	£37 16s. 0d.	Balance ...	£24 13s. 9d.
Expenditure	£13 2s. 3d.		

Dorset and West Hants Branch.—During the past year four meetings of the Branch have been held, namely, at Poole, Weymouth, Ringwood, and Bournemouth, the first under the presidency of Mr. A. G. S. Mahomed, and the others under the presidency of Dr. John Moorhead. The average attendance, including a few visitors, was 41.75. The subjects for discussion, which are chosen beforehand by the President and Vice-Presidents, were: Some unusual gouty affections; some of the effects of influenza; the treatment of acute abdominal disorders. Pathological specimens were exhibited, medical and surgical communications were read, and patients shown. New by-laws for the Branch were considered and approved, and the area of the Divisions decided on. The Branch now numbers 190 members, embracing the Bournemouth Division with 113, and the West Dorset with 77 members. The President-elect for 1904 is Mr. A. J. H. Crespi, of Wimborne; the Vice-Presidents are Mr. J. A. Hosker, of Bosiombe, and Mr. P. J. Kingston, of Yeovil. Mr. C. H. W. Parkinson, of Wimborne, was elected the Representative on the Central Council (with the West Somerset Branch), and Dr. William Vawdrey Lush, of Weymouth, was elected the Branch Honorary Secretary. The Branch has to regret the loss by death of four members—Dr. Edward Monro Spooner, of Blandford, a former President; Dr. David James Lawson, of Portland, Dr. Herbert Alfred Lawton, of Poole, both former Vice-Presidents; and Major Allan Ewan Grant, I.M.S., of Boscombe.

Income ...	£38 4s. 0 d.	Balance ...	£17 6s. 4½d.
Expenditure	£20 17s. 7½d.		

Dundee District Branch (and Division).—The work of the past year presents no feature of outstanding importance, but the Council is pleased to be able to report that the affairs of the Branch are in a prosperous condition. The membership varies slightly, as the Branch is the medium for the entrance of many of the hospital and asylum assistants to the Association, but the proportion of those actually engaged in local practice remains almost constant. In view of the great developments in professional politics, and the wide power of initiative which local practitioners now have, it seems desirable that many of the remaining practitioners—about 30 per cent.—in the area should enter the Association. The Council would also urge the practitioners in the various towns to again consider whether they will not organize themselves into small Divisions, with possibly conjoint representation at the annual meeting of the Association. The Council wishes to draw attention to the fact that the Representative Meeting at Swansea, on the initiative of this Branch, established a Scottish Standing Committee, and that this has held two successful meetings. Some questions raised in this Committee by the Branch Representatives have been referred to the Divisions for their consideration, with a view to resolutions being adopted at the Representative Meeting in Oxford. From these two illustrations members may more easily realize how efficiently the views of the locality may now be laid before the Association and secure its support. No questions of purely local politics, and none of personal conduct, have been dealt with during the year. The Honorary

reasurer reports a credit balance of £7 7s. 2d. on the year's orking.

Income ...	£19 0s. 6d.	Balance ...	£7 7s. 2d.
Expenditure	£11 13s. 4d.		

East Anglian Branch.—The Council has the pleasure to port a prosperous condition of the Branch; 49 new embers have been elected, 46 members removed from the ea, 14 members resigned, and 11 died; there are 424 embers in the Branch, exclusive of 7 associate members. ıe spring meeting was held at Wymondham in March. ıe Model Rules for the administration of the Branch were nsidered and adjusted according to the wishes of the embers and the needs of the Branch. It was unanimously solved to invite Mr. H B. Walker, of Lowestoft, to under- ke the office of President-elect, which office and honour he rdially accepted. Dr. Francis Ward resigned the office of cretary for Suffolk. A resolution was passed thanking him : his efficient work. Dr. Gutch, of Ipswich, kindly accepted e vacant office. Papers were read by Sir Alan Reeve Manby, r. W. K. Hatch, F.R C.S., and Mr. W. Wyllys. The Council sires to express its thanks to Mr. David Hughes and to the v. the Hon. Arch. Parker, Vicar of Wymondham, for their ıd hospitality. The annual meeting was held at Chelms- d, under the presidency of Dr. J. C. Thresh, in June. The eting was largely attended and most successful. The fol- ving ladies and gentlemen, for the interest they have own and the work done by them for the East Anglian anch, were elected by the Council associate members: s. Garrett Anderson, M.D., Miss L. Garrett Anderson, D., Miss Jane Walker, M D., Mr. Andrew Clark, F.R.C.S., . Clifford Allbutt, M.D., Dr. P. W. Latham, and Mr. Joseph iffiths, F.R.C.S. The General Secretary announced the ction of the following officers:—*President:* Dr. J. C. Thresh ıelmsford). *President-elect:* Mr. H. B. Walker (Lowestoft). *e-Presidents:* Dr. E. L. Fenn (Colchester), Dr. C. Scott ner (Bury St. Edmunds), and Mr W. E. Wyllys (Great rmouth). *Elective Members of Council:* Edgar G. nes, M.D. (Eye), and Michael Beverley, M.D. (Norwich). *retary for Essex:* B. H. Nicholson, M.B. (Colchester). *retary for Norfolk:* H. A. Ballance, M.S. (Norwich). *retary for Suffolk:* J. Gutch, M.D. (Ipswich). *General retary of Branch:* B. H. Nicholson, M.B. (Colchester).) luncheon given by the President was attended by 70 mbers and friends, including the Mayor of Chelmsford.) President addressed the members on County Sanitary ministration in Essex. At the conclusion a hearty vote of nks was accorded to the President for his interesting and ıable paper, and for his kind hospitality. Interesting ers were read by Dr. Herbert H. Brown, Mr. Creswell, and H. C. Thompson. The Council desires to express its m thanks to Dr. and Mrs. Thresh for their unbounded pitality to every one present. The autumn meeting held at Sudbury in September, in conjunction with nbers of the Cambridge and Huntingdon Branch as sts. The new sewage works were inspected, the nbers and guests being conducted by the Mayor of bury and Dr. Sinclair Holden, who explained the king of the system. At the Council meeting Pro- or Howard Marsh, F.R.C.S., of Cambridge University, unanimously elected an associate member. Interesting ers were read by Professor Howard Marsh and Dr. lair Holden. Mr. Joseph Griffiths showed many excel- specimens from his collection. The Council is indebted)r. Sinclair Holden for the trouble he took in connexion ı the meeting and for his kind hospitality. ee special Council meetings were held for the elec- of new members and for the discussion of the ical Rules. With some slight alterations from the Model ical Rules, they will be submitted to the members at the ng meeting for confirmation. Thereafter rules for the ernment of the Branch will be printed and circulated; a ll map of the East Anglian Branch with the several isions will be added. Considering the first year of its tion the work of the Divisions has been satisfactory. orts received show that the resolutions submitted to n by the General Representatives Meeting at Swansea been discussed. Their utility and usefulness are felt to f growing interest and advantage to the members. At y of them papers dealing with professional and scientific ects have been read. The Council regret to record the h of Mr. W. Cadge, F.R C.S., of Norwich. He was ident of the Branch in 1861, and read the Address in ery at the Annual Meeting of the British Medical Association held at Norwich in 1874. The loss of this distinguished surgeon, and one who always took a deep interest in the Association and Branch, was keenly felt by the members of the Branch. The Council records with pleasure and satisfaction the honours conferred on Sir Alan Reeve Manby by His Majesty King Edward and by the King of Denmark. It congratulates him most heartily, and feels that the honours have been well merited.

Reports of Divisions Summary.

Division.	No. of Meetings.	Capitation Grant.	Expenses.
		£ s. d.	£ s. d.
North-East Essex ...	2	2 11 0 (1s. per member)	1 5 0
Mid Essex ...	2	1 17 0 (1s. ,,)	0 5 3
Norwich	4	6 15 0 (3s. ,,)	6 10 0
Mid-Norfolk ...	5	2 13 0 (1s. ,,)	1 14 6
West Norfolk ...	4	3 2 0 (2s. ,,)	1 18 3
East Norfolk ...	...		
South Suffolk ...	3	3 10 0 (1s. ,,)	1 2 0
West Suffolk ...	3	2 1 0 (1s. ,,)	0 12 11
North Suffolk ...	3	3 8 0 (2s. ,,)	1 13 6

Income ...	£79 9s. 0 d.	Balance ...	£16 1s. 6½d.
Expenditure	£63 7s. 5½d.		

East York and North Lincoln Branch.—The Branch included 135 members in its two Divisions, 112 in the East York, and 23 in the North Lincoln Division. The East York Division has carried on the usual sessional meetings, held in the winter months, of the old Branch. The North Lincoln Division has been organized, and has started monthly meetings with the new year (1904). The annual meeting (forty-seventh) of the Branch was held at the Royal Infirmary, Hull, on June 30th, 1903, when thirty members attended. Messrs. Down Bros., Allen and Hanburys, and Arnold and Sons gave an exhibition of surgical instruments in the central hall of the infirmary. Dr. G. J. Briggs, the new President, took the chair vacated by Dr. A. T. Brand. The report of the Council was read, and the officers for the ensuing year were duly elected. The decision of the Organizing Committee to group this Branch with the Cambridge and Huntingdon Branch for the purpose of electing a representative on the Central Committee was announced. The report of the Representative on the Council was read and adopted, and the balance sheet was passed. The President then read his address on Some Men I met at the Old School (Hull School of Medicine). The annual dinner was held at the Imperial Hotel in the evening. Six Council meetings were held during 1903, the chief business, apart from the election of members, being the question of the representation of the Branch on the Central Council.

Income ...	£38 10s. 10d.	Balance ...	£18 11s. 8d.
Expenditure	£19 19s. 2d.		

Edinburgh Branch.—The annual meeting of the Branch was held in the Royal College of Physicians on June 19th, 1903. The rules were adopted, and the office-bearers for the year elected. The only other meeting of the Branch was the very successful clinical meeting, which was held in the Royal Infirmary on February 12th. Between two and three hundred members attended the meeting, a large number of interesting cases were shown, and the new pavilions were shown by the surgeon in charge. In the evening over one hundred members of the Association attended the annual dinner in the North British Station Hotel, when representatives from all the other Scottish Branches were present.

Income ...	£81 13s. 6d.	Balance ...	£38 11s. 3d.
Expenditure	£43 2s. 3d.		

Fife Branch.—This Branch was formed on March 18th, 1903, and started with a membership of 58; at present the number stands at 69 and one "associate" member. It has held, besides the initial meeting, an annual general meeting in June last, an ordinary general meeting in October, and the Council has met four times. Rules and by-laws have been adopted pretty much on the lines suggested by the Association, and these have been printed and circulated amongst the members. The Branch at the ordinary general meeting held in October considered the various matters referred to the Divisions from the Representative Meeting—namely, the Council's recommendations regarding the Vaccination Acts, the resolution regarding the alteration in the composition of the General Medical Council and the

Medical Acts Amendment Bill, and the result of the deliberations at said meeting has been communicated to the General Secretary. The Division sent a Representative to the Representative Meeting, and, in conjunction with Edinburgh, the Branch elects two members to the Central Council of the Association. The Fife Colliery Surgeons' Association, which existed to look after the interests of colliery surgeons in the county, agreed to dissolve and merge its interests in this Branch, provided a Committee was appointed to continue the objects of the Colliery Surgeons Association. At the ordinary general meeting of the Branch at which this business was brought up it was cordially agreed to appoint such a Committee, the same to consist of all colliery surgeons who are members of the Branch, and Dr. Dickson (Lochgelly) was appointed Convener and also to act as Secretary, and with instructions to report the deliberations of the Committee to the Branch Council from time to time. The Honorary Secretary of the Branch, as an *ex-officio* member, attended the two meetings of the Scottish Committee. which have been held since its institution, the first being at Perth on November 20th last and the second at Edinburgh on February 12th. Matters of much interest to the profession in Scotland and elsewhere were discussed at these meetings, and the result of the deliberations will appear in the JOURNAL from time to time.

Income ...	£11 18s. od.	Balance ...	£6 4s. 1d.
Expenditure	£5 13s. 11d.		

Glasgow and West of Scotland Branch.—During the past year two Branch meetings have been held, and six meetings of the Council. The Council has elected 32 members, while 23 members have been lost by resignation, and 3 by deaths, showing a net gain of 6 on the year. The membership of the Branch as given in the *Year Book* stands at 682.

Income ...	£132 14s. od.	Balance ...	£74 16s. od.
Expenditure	£57 18s. od.		

Grahamstown and Eastern Province (South Africa) Branch.—The following meetings were held during 1903: January 30th, annual meeting, present eleven members; paper by Dr. Greenlees, the history of insanity. May 15th, general meeting, present eleven members; paper by Dr. Saunders, abiotrophy. July 25th, general meeting, present six members; paper by Dr. Purvis, etiology of cancer. October 12th, general meeting, present nine members; paper by Dr. Saunders, pyroplasma hominis (?). During these meetings three matters of importance to the welfare of the Branch were brought forward: (1) The delimitation of the Eastern Province Branch under the new Articles of Association, and dependent on this the revision of its rules; (2) the question of framing a rule to admit non-medical visitors to the meetings of the Branch, such visitors to take no part in the business nor vote (that is, bacteriologist, chemistry professor, dentist, and others); (3) the purchase of books for the Branch and the housing of such a medical library. None of these matters have up to the present been finally decided.

Income ...	£32 17s. 3d.	Balance ...	£21 7s. 3d.
Expenditure	£11 10s. od.		

Lancashire and Cheshire Branch.—The Branch has during the year 1903 held two meetings, one general meeting in Liverpool and the annual meeting in Chester. The following gentlemen have been elected extraordinary associate members: Dr. G. E. Shuttleworth, 27, New Cavendish Street, London, W.; Dr. D. A. O'Sullivan, 56, Charleville Road, West Kensington, W. The Council has met on ten occasions. A preliminary grant of 1s. per head was made to the Divisions, and, except in the case of two Divisions, this amount has more than met the current expenditure in all the Divisions which have sent in a financial report to the Branch Council. Five Divisions—namely, Burnley, St. Helens, Stockport, Warrington, and Wigan—have failed to submit their financial report. In addition to the above grant, the Council has provided stationary and copying presses for the Divisions. The membership of the Branch is approximately 1,650 (the list is now under revision).

Income ...	£313 10s. 6d.	Balance ...	£132 2s. 11d.
Expenditure	£181 7s. 7d.		

Leinster Branch.—Practically the whole work of the Leinster Branch is performed by the Council, hence the Branch held but one general meeting during the year. At this meeting, which was well attended, a resolution was unanimously adopted relative to the position of the Poor-law medical officers in Ireland. This resolution was subsequently accepted by the Representative Meeting. The Council of the Branch met fourteen times during the year, and elected 23 new members of the Association. The membership of the Branch stood at the end of the year at about 360. Much of the time of the Branch Council was occupied with the question of reorganization, and during the months of June and July the Secretary of the Branch summoned meetings, which he also attended, in the various Divisional centres, with the result that out of the six nominal Divisions in the Branch area three were successfully inaugurated. In regard to the country Divisions, each with an area comprising two counties, the difficulty of getting members to attend meetings will always be great; and at present it is almost impossible to secure any attendance, owing to the fact that most of the country members of our Branch are also members of the Irish Medical Association, and attendance at the county branch meetings of the latter is as much as they can manage. The Dublin and East Leinster Divisions, however, promise to be very active and useful. During the year the Branch sustained a severe loss in the death of its founder, Sir George Duffey.

Income ...	£63 os. od.	Deficit	10s.
Expenditure	£63 10s. od.		

Malta and Mediterranean Branch.—During the year 1903 this Branch has convened two meetings, one in January and the other in May; twenty-two members attended the first meeting, and two papers were read and discussed. A Branch Council consisting of seven members was elected for the first time. The second meeting was attended by thirteen members. One paper was read, and the rules of the Branch were discussed and approved. It is very satisfactory to note that the Branch is growing more popular every day; this is shown by the fact that the membership is yearly increasing, which is undoubtedly due to the new rules which govern the Association. The finances of the Branch are likewise satisfactory as shown in the balance sheet. It is to be noted, however, that the great saving which has been hitherto effected is mainly due to the fact that no house rent had to be paid by the Branch, as the Malta Society of Arts, Manufactures, and Commerce has been kind enough to give us the required accommodation in the Industrial Hall. This building is now required by the Local Government, and we shall have to seek accommodation elsewhere, which will certainly entail an additional expense in the future, but not a heavier one than this Branch can bear.

Income ...	£6 16s. od.	Balance ...	£2 os.
Expenditure	£4 15s. 5d.		

Metropolitan Counties Branch.—This is the first occasion upon which, as required by the new By-laws, the annual report of Council is presented in March, and consequently the period included in the present report is only nine months. Since the last report the Council has to deplore the loss by death of 20 members of the Branch, including a past President (Sir Edward Sieveking), two former members of Council (Professor Corfield and Mr. Walsham), and two distinguished members of the profession in Dr. George Tate and Mr. Smith Turner. The present membership of the Branch numbers 2,610, and is divided as follows:

Chelsea Division	100	Lambeth Division	174	Tottenham Division	
City ,,	171	Marylebone ,,	555	Walthamstow ,,	
Ealing ,,	108	Richmond ,,	158	Wandsworth ,,	
Hampstead ,,	172	St. Pancras ,,	172	Watford ,,	
Kensington ,,	325	Stratford ,,	115	Westminster ,,	

The Council has held four meetings since the last annual meeting, and its principal work has been connected with the arrangements for carrying on the Branch and its Divisions under the new regulations. In November, 1903, a Committee upon which all the Secretaries of Divisions served was formed to consider the boundaries of the Divisions of the Branch. As a result of the labours of this Committee numerous changes in the Divisions were made by the Organization Committee. Several Divisions were defined more clearly by utilizing

reas of the metropolitan boroughs for the purpose. The Brixton and Weybridge Divisions no longer exist as such, he former having been incorporated with the Lambeth and Wandsworth Division and the latter being merged with the Richmond Division. The Central Division is now divided nto the Marylebone and Westminster Divisions, and the Kennington Division has parted with the boroughs of Chelsea and Fulham, which now become the Chelsea Division. The new Divisions are now in process of organiation. The boundaries of the Wandsworth Division are urther increased by the addition of Tooting and Balham, which have hitherto formed part of the South-Eastern Branch. The question of the expenditure of the Branch and Divisions has been considered by a Committee, which has nade certain recommendations that it is hoped will facilitate he financial management of the Divisions. Most of the Divisions are now in full working order, and while some ave little to report the Council is much gratified to notice hat others display great activity. It is a matter of regret nat enough interest has not yet been shown among members n the district to permit of the organization of the Watford Division.

Income ...	£516 14s. 6d.	Balance ...	£313 18s. 5d.
Expenditure	£202 16s. 1d.		

Midland Branch.—The Branch numbered 515 at the commencement of the year; it now numbers 520. The Branch Council held four meetings during the year and elected members. The annual meeting of the Branch was held at Derby on June 5th, 1903; 45 members were present. The rules of the Branch as printed were adopted. The President, Mr. C. H. Hough, gave an interesting address on a visit to the West Indies.

Abstract of Reports and Financial Position of the Several Divisions.

Division.	Members.	Meetings in 1903.	Grants from Branch.	Amount Spent.	Balance in Hand.	Remarks.
			£ s. d.	£ s. d.	£ s. d.	
Boston ...	31	2	3 12 0	4 11 0	0 9 11	Deficit.
Derby ...	144	4	15 11 3	9 16 8	5 14 7	
Leicester ...	115	2	12 5 9	8 5 0	4 0 9	
Lincoln ...	54	1	5 17 0	1 15 0	4 2 0	
Nottingham	150	3	15 18 9	4 16 5½	11 2 3½	
Stamford ...	26	1	3 1 9	0 15 2	2 6 7	This Division has now no secretary.

Income ...	£92 15s. 7d.	Balance ...	£17 14s. 0d.
Expenditure	£75 1s. 7d.		

Northern Counties of Scotland Branch.—This Branch embraces the Northern Counties of Scotland, the Western portion of Banff, Elgin, Inverness, and the Counties of Scotland north of these. The Orkney and Shetland Islands were formerly attached to this Branch, but on the reconstitution of the Association it was considered expedient to join them to the Aberdeen Branch, it being easier for the members resident in these islands to attend meetings in Aberdeen than in Inverness. There is only one Division in the Branch—Inverness—as it was considered, on account of the wide area of the North of Scotland and from the fact that the members live at long distances from one another, it would be impossible to form more than one Division. The membership of the Branch at December 31st, 1903, was 111. The annual meeting was held at Strathpeffer in June, when the office-bearers were appointed: Dr. T. R. Macdonald (Inverness), *President;* C. Allan (Evanton), *President-elect;* Dr. Murray and Dr. Gilvie Grant, *Vice Presidents*; Dr. J. Munro Moir, *Honorary Secretary and Treasurer. Members of Council:* Drs. Cruikshank (Nairn), Sutter (Nairn), Mackay (Elgin), Mackenzie (Inverness). *Representative of Branch in Representative Meeting:* Dr. J. Munro Moir. *Representative on Council of the Association*, Dr. James Murray. The code of rules for the management of the Branch as well as the rules for the regulation of ethical procedure were adopted. The autumn meeting was held at Elgin in October. At this meeting Dr. J. W. N. Mackay—who was one of the original promotors of the Northern Counties Branch and its Honorary Secretary for nearly forty years—was presented with an address by the members on the occasion of his attaining his fiftieth year as a general practitioner. At this meeting the Representative Member gave an account of the proceedings of the Representative Meeting at Swansea. Three Council meetings were held at which ordinary routine business was transacted.

Income ...	£22 6s. 0d.	Deficit ...	£7 2s. 5d.
Expenditure	£29 8s. 5d.		

North of England Branch.—This Branch has during the year 1903 held its usual three meetings. Two of these were fairly well attended, the other being one of the best meetings it has held for a very long time. Its scientific work has suffered to some extent from the amount of detail which required to be brought before it in connexion with the new order of things in the Association, but it is hoped that much of that kind of work will now be undertaken by the Branch Council and various Committees, thus leaving the Branch meetings for scientific and social purposes. The newly-organized Branch Council has proved a great success, introducing many new workers. Three well-attended meetings have been held, and many of the members came long distances and at much inconvenience. As to the number of members, 125 new members were elected during the past year, being a great advance on anything achieved in this way before. Owing to the constant changes going on in the Branch area, and there being no official list showing the membership at the close of the year, it is difficult to state the membership exactly, but the *Year Book* (which is an invaluable addition to the Branch Secretary's library) gives the number as 564. Finance: The statement of account shows a balance in the hands of the Branch of £59 16s. 10d. The expenditure has been large, but much of it may be termed extraordinary, as it was incurred owing to the great change which has recently taken place in the government and constitution of the Association. This Branch determined to bring the Association before the notice of every practitioner in the Branch area and do everything it could to make it impossible for a respectable practitioner to remain outside the ranks of the Association. To this end a large number of meetings have been held, and a great deal of circularizing has been done. Judging from the large increase in membership, and the probability of a still larger in the near future, the Branch thinks the money has been well spent. The grants to the Divisions have not been put down at so much per head, as the Branch Council thought the simplest plan was to pay the legitimate expenses incurred by the several Divisions, and this met with the approval of the representatives of the Divisions.

Income ...	£218 13s. 5d.	Balance ...	£59 16s. 10d.
Expenditure	£158 16s. 7d.		

North Lancashire and South Westmorland Branch.—In presenting the report of our first year's work we have much pleasure in assuring you of the success of this Branch, which was constituted by your resolution of January 21st, 1903. Our numbers originally were 95. We have since elected 29 new members, 4 members of the Association have come into the district. and we have lost 7 by removal and death, leaving a membership at the end of the year of 121, a net increase of 26. The Divisions are in full working order, and have each held several meetings. We have allowed them 1s. per annum for each member, which has been sufficient to cover all expenses. The enclosed statement of account shows that we have a balance of £6 3s. The Branch has held three meetings at Ulverston, Lancaster, and Kendal, with an average attendance of thirty-three. The work done has been almost entirely scientific, the ethical and medico-political business being left as far as possible to the Divisions. This Council considers that, so far, the new organization has answered well in this district, and expects a further increase in membership during the coming year.

Income ...	£21 8s. 0d.	Balance ...	£6 3s. 0d.
Expenditure	£15 5s. 0d.		

Oxford and Reading Branch.—The annual meeting was held at Oxford on July 3rd, 1903; Mr. R. W. Doyne, President, in the chair. The officers for 1903-4 were duly elected, and Dr. Macnamara of Shrivenham and Dr. Ross of Reading were elected new members. Mr. Doyne read a paper on the treatment of certain eye diseases with retinal extract. Mr.

J. H. Walters read notes about a case of bifid uterus, and exhibited the morbid specimen. Mr. N. Daly read notes of a case of uraemia treated with morphine. Mr. H. P. Symonds exhibited three cases of tuberculous disease of the knee-joint treated with formalin. Mr. H. A. Whitelocke exhibited a case of partial excision of tarsus. All the papers and cases were freely discussed. The members subsequently dined together at Exeter College. The next annual meeting and meeting of the Council of the Branch will be held in Reading in June, 1904.

Income ...	£49 8s. 6d.	Balance ...	£37 13s. 0d.
Expenditure	£11 15s. 6d.		

Perthshire Branch.—During the past year four meetings of the Branch were held, two ordinary, one clinical, and one special. Two meetings of the Council were held. The financial statement shows:

Income ...	£19 18s. 6d.	Balance ...	£13 19s. 2d.
Expenditure	£5 19s. 4d.		

South-Eastern Branch.—The Divisions of this Branch have, for the most part, been organized so far as the election of officers goes and the adoption of rules, but in many cases they are not yet doing active work. Several of the Divisions have not held meetings except those for their inception. In others two or three meetings have been held, and the various questions referred to the Divisions have been discussed. The value of the voting on these matters is discounted by the smallness of the gatherings. In the main, approval was expressed of the proposal in favour of revaccination and disapproval of any representation of the Association on the General Medical Council. Some small meetings discussed the Medical Acts Amendment Bill and expressed a general approval thereof. The financial report gives no reliable guide to the funds needful for carrying on the work of the Branch in the future, seeing that the machinery of the Divisions is in very few cases thoroughly in working order. The Branch held its annual meeting in June, at which the routine business was transacted.

Income ...	£238 0s. 7d.	Balance ...	£159 10s. 10d.
Expenditure	£78 9s. 9d.		

South Midland Branch.—Proceedings of Branch for 1903: Council met at Northampton on March 19th for election of officers and appointing place and time of annual meeting. Draft Model Rules approved of. Special Council, Northampton, May 21st: Proposed amalgamation with Cambridge Branch "not accepted." Enlargement of Aylesbury Division to include Amersham, Chesham, Great and Little Missenden, and Princes Risborough agreed to. Branch Council, Wellingborough, June 18th: Elected 6 new members, and announced that Mr. Kinsey had been elected Representative on Central Council. Annual meeting, Wellingborough, June 18th; Mr. Audland (President) and 22 members. For full account see BRITISH MEDICAL JOURNAL. Branch Council, Bedford Hospital, October 15th: Elected 6 members. Autumnal meeting, Bedford Hospital, October 15th: See JOURNAL. During the year 16 new members joined, 3 removed to other Branches, 2 resigned, and 2 died.

Income ...	£47 11s. 0d.	Balance ...	£19 6s. 7d.
Expenditure	£28 4s. 5d.		

South Wales and Monmouthshire Branch.—The annual meeting of the Branch was held at Swansea in June, 1903, at which the Model By-laws, with some slight modifications, were adopted. In order to assist the Divisions to get into working order, the Branch Council decided to limit the number of Branch meetings this year, and accordingly in addition to the annual meeting only two general meetings—one at Cardiff in December and one at Swansea in March—have been held. The attendance at both was good. The number of members of the Branch is now 454.

Income ...	£80 5s. 0d.	Balance ...	£54 1s. 5d.
Expenditure	£26 3s. 7d.		

South-Western Branch.—The Branch Council has pleasure in submitting to the Central Council its first annual report. Strength of the Branch: The present membership is 418. During the past year 22 new members have bee enrolled, 16 have been transferred from other Branche to this Branch, 10 have been transferred from the South Western Branch to other Branches, 2 have died, 10 hav resigned, and 2, being in arrears of subscription, have bee removed from the list of members, thus making a ne gain of 14 to the Branch membership. Meetings: Interme diate meetings have been held at Plymouth, January 21st Exeter, April 1st; Liskeard, October 7th, 1903, all of which wer well attended. The annual meeting was held at Launceston on June 3rd, before which members were hospitably ente tained at luncheon by the President-elect, Dr. W. T. Thomp son. The questions which have chiefly engaged the attentio of the Branch during the year have been the reorganizatio of the Branch so as to meet the requirements of the ne Articles of the Association. New rules have been drawn u which have received the sanction of the Central Council, an are now in force. The Council has reason to believe tha the new constitution will greatly increase the influence an prestige of the South-Western Branch.

Income ...	£63 9s. 0d.	Balance ...	£18 16s. 10
Expenditure	£44 12s. 2d.		

Staffordshire Branch.—During the past year there hav been four meetings of the Branch. Nine new members wer elected and one associate member. Otherwise the attentio of the Council was directed to drafting the new rules of th Branch and arranging for the starting of the Divisions an Branch under the new Constitution. The Branch has hel four meetings—one at Stoke, two at Stafford, and one a Wolverhampton. The average attendance at these meeting was 23. On February 26th, 1903, a meeting was held a Stafford; the whole time was given to scientific matters. O April 23rd a meeting was held at Wolverhampton; this als was entirely concerned with scientific matters. On June 11t the annual meeting was held at Stafford; the report of th Council of the Branch was adopted, also the financial state ment, showing a balance of £18 7s. 6d. The new rules as drafte by the Council were submitted and approved, and the Pres dent delivered his address. On November 26th a meetin was held at Stoke-upon-Trent; it was entirely connected wit scientific matters. At the middle of the year the Branc numbered 202 members. During the latter part of the yea 29 have either resigned or been transferred to other Branches Including 10 members elected since January, 1904, the Branc numbers 192 members and 1 associate member; 4 applicant are now awaiting election.

Income ...	£39 7s. 6d.	Balance ...	£18 7s. 6d
Expenditure	£21 0s. 0d.		

Stirling Branch.—The first annual meeting of th Branch, after the reconstruction of the Association, wa held on May 7th, 1903. At that meeting new rule for the Branch were adopted, and office-bearers an associate members were elected. An address on surgery was delivered by Mr. Stiles (Edinburgh). A general meet ing was held in October, when various matters referre to the Division by the Central Council were considered. A address in gynaecology was delivered by Dr. Balfour Marshal (Glasgow). The Branch began the year with a membership o 74. Of these 1 has died, 2 resigned, 1 has been expelled fo non-payment of subscriptions, and 7 have been transferred t other Branches. This reduced the membership to 63, but th addition of one new member (transferred) raises the numbe to 64.

Income ...	£13 8s. 0d.	Balance ...	£0 16s. 10d
Expenditure	£12 11s. 2d.		

Ulster Branch.—The Council of the Ulster Branch of th British Medical Association, in presenting the twenty-sixth annual report has pleasure in stating that the Branch con tinues to prosper. The new organization is working satisfac torily, but the Council regrets that the Omagh, the Enniskillen and the Monaghan and Cavan Divisions have not yet formed themselves. The remaining four Divisions are active. The total membership is now 383. The Council regrets to record the death of Mr. William Dobbin, F.R.C.S.E., Banbridge Through the kindness of the Council of the Ulster Medica Society the Branch has the advantage of holding its Belfas meetings in the Medical Institute, Belfast. The Branch me

four times during the year 1903, three times in Belfast, and once in Derry. The Council met five times during the year, and the attendances of the individual members were as follows: *President:* Dr. Thos. M'Laughlin, 2. *Vice-Presidents:* Dr. E. B. Boyd, Ballymoney, 0; Dr. E. B. Coates, Belfast, 0; Dr. Jas. Craig, Derry, 0; Dr. S. E. Martin, Newry, 0. *Members:* Dr. J. T. Creery, Coleraine, 0; Dr. David Huey, Bushmills, 0; Dr. J. C. Martin, Portrush, 3; Dr. J. A. Craig, Belfast, 0; Dr. John Campbell, Belfast, 1; Dr. Alex. Dempsey, Belfast, 0; Dr. J. A. Lindsay, Belfast, 1; Dr. Cecil Shaw, Belfast, 5; Sir Wm. Whitla, Belfast, 0; Dr. Donnan, Holywood, 0; Dr. St. George, Lisburn, 0; Dr. Stuart, Ballymena, 0; Dr. J. G. Cooke, Derry, 2; Dr. Agnew, Lurgan, 2; Dr. Dongan, Portadown, 0. *Representative on Central Council:* Dr. Byers, 2. *Hon. Treasurer:* Dr. Darling, Lurgan, 4. *Hon. Secretary:* Drs. Calwell, 5; Mitchell, 3; Sinclair, 3; Lindsay, 1; McKisack, 1; Gray, Armagh, 1. A large number of professional contributions were received during the year.

Income ...	£100 6s. 5d.	Balance ...	£43 1s. 8d.
Expenditure	£57 4s. 9d.		

West Somerset Branch.—During the year 1903 three meetings have, as usual, been held—all at Taunton. The average attendance at these meetings has been just over 20, an improvement on former years. At the spring meeting, when Mr. Frossard of Bishop's Lydiard was President, the Branch adopted new rules for the government of the Branch, and also rules for regulating ethical procedure. It also approved of the suggested scheme of being grouped with the Dorset and West Hants Branch for the purpose of returning a member of the Council of the Association, with the result that Mr. Parkinson of Wimborne Minster now represents both Branches. At the same meeting cases of clinical interest were shown by Dr. Rutherford and Mr. Morton, and Dr. Weatherly of Bath kindly attended and gave an address on insanity—some points of mutual interest to the alienist and general practitioner. At the annual meeting in June, Dr. David Brown (Taunton) succeeded Mr. Frossard as President, Mr. A. W. Sinclair being appointed President-elect. Dr. Macdonald (Taunton) was elected Representative of the Branch at Representative Meetings, and Dr. Winterbotham (Bridgwater) was cordially thanked for his services, extending over ten years, as member of the Council of the Association. The President's address was on some medical uses of chloroform. At the autumn meeting, Mr. H. Percy Dean, Surgeon to the London Hospital, kindly gave an address on jaundice, its causes and treatment from a surgical standpoint. The fourth annual West Somerset medical dinner was held after the meeting.

Income ...	£24 18s. 0d.	Balance ...	£16 18s. 3d.
Expenditure	£7 19s. 9d.		

Yorkshire Branch.—Four meetings have been held at Leeds, Halifax, Sheffield (annual), and Scarborough. Thirty-four new members were elected and the Branch now numbers 295 members. Slight alterations were made in the boundaries of the Branch, Middlesbrough, Todmorden, Saddleworth, and Market Weighton having joined neighbouring Branches. Branch and Ethical Rules were adopted and circulated. The Ethical Committee had one case brought before it. Only two Divisions sent in an annual report. During the year the Branch has sustained a great loss through the death of Mr. Jessop, who always took an active interest in the Branch and was a representative on the Central Council for many years. The expenses of the Branch have been heavy—£47 9s. 2d.; a large part of this (£26) was spent in the drawing up of a map of the Branch, showing the various Divisions, a copy of which was sent to each member. £24 0s. 9d. has been paid to the various Divisions, £147 12s. has been received, and there is a balance in hand of £76 2s. 1d. without bank interest; total expenditure, £71 9s. 11d.

Income ...	£147 12s. 0d.	Balance ...	£76 2s. 1d.
Expenditure	£71 9s. 11d.		

The following Colonial Branches have rendered their financial statement, but have not yet forwarded reports:

British Guiana Branch:

Income ...	£6 8s. 0d.	Deficit ...	6s 10½d.
Expenditure	£6 14s. 10½d.		

Cape of Good Hope Branch:

Income ...	£13 16s. 0d.	Deficit ...	£15 19s. 0d.
Expenditure	£29 15s. 0d.		

Colombo and Ceylon Branch:

Income ...	2,798 Rupees	Balance ...	251 Rupees
Expenditure	2,546 Rupees	@ 1s. 4d. about	£16 13s. 9d.

Hong Kong Branch:

Income	$240	Balance	$215
Expenditure ...	$25	@ 1s. 9d. about	£18 16s. 3d.

Natal Branch

Income ...	£6 16s. 0d.	Deficit ...	19s. 9d.
Expenditure	£7 15s. 9d.		

Meetings of Branches and Divisions.

[*The proceedings of the Divisions and Branches of the Association relating to Scientific and Clinical Medicine, when reported by the Honorary Secretaries, are published in the body of the* Journal.]

BATH AND BRISTOL BRANCH:

Bath Division.

A meeting of this Division was held at Bath on April 2nd. Mr. R. J. H. Scott was in the chair, and there were present ten members.

Consultations between Medical Witnesses.—It was resolved:

That in the opinion of this meeting consultations between medical men in legal cases are not at present advisable.

Medical Practitioners and Hydropathic Institutions.—With regard to the question referred to the Division, relative to the advertising of medical practitioners in connexion with hydropathic institutions it was resolved:

That the whole question of medical advertising is so involved that it is impossible for this Division to come to any definite conclusion on the opinion asked for.

New Member.—G. P. Tayler, M.B., of Trowbridge, was elected a member of the Trowbridge Division of the Branch.

BORDER COUNTIES BRANCH:

West Cumberland Division.

An ordinary meeting of this Division was held in the Workington Infirmary on March 1st. The Chairman, Dr. G. J. Muriel, was in the chair, and Drs. Dudgeon, Coles, Fletcher and Matthews were present. Owing to the lack of a quorum there was no Committee meeting.

Annual Meeting.—Dr. G. J. Muriel proposed and Dr. Dudgeon seconded that the next annual general meeting be held at Whitehaven on May 17th. Carried unanimously.

Election of Vice-Chairman.—It was decided to defer the election of a Vice-Chairman, vacant by the death of Dr. Ormrod, until the annual general meeting.

Communications.—Dr. Dudgeon exhibited cases of interest in the wards of the infirmary, and read a short paper on the treatment of empyema. Dr. Crerar wrote regretting his inability to be present; his paper was, therefore, unread.

EDINBURGH BRANCH:

South-Eastern Counties Division.

A meeting of this Division was held in the Railway Hotel, Newton St. Boswells, on Friday, April 8th, Dr. Blair, Jedburgh, presiding.

Confirmation of Minutes.—The minutes of last meeting were read, approved, and signed by the Chairman.

Medical Defence.—The first business under discussion was Medical Defence. Dr. Hamilton moved that the meeting dis-

approves of the British Medical Association taking up Medical Defence.—Dr. Somerville seconded, and quoted the protest issued by the Medical Defence Association of which he was a member.—Dr. Carlyle Johnstone moved an amendment to the effect that the meeting approved of the scheme. He thought this was a natural development. It was the duty of the Association to protect the interests of its members, and the latter ought to do everything that was fair and honourable to bring all the medical men in the United Kingdom into the British Medical Association; in time he thus hoped to see such a body of Medical Defence as had never existed before.—Dr. Calvert seconded.—The Chairman then put it to the vote when it was found that opinion on the matter was equally divided.—Dr. Johnstone then moved that the meeting approve of the general principles and details of the scheme.—Dr. Calvert seconded.—Dr. Somerville proposed as an amendment that the meeting expresses no opinion at all. Dr. Hamilton seconded.—On a vote being taken the motion of approval was carried by four votes to three.

Advertising of Medical Practitioners in Connexion with Hydropathic Establishments.—The recommendation of the Ethical Committee that this question be referred to the Divisions was considered.—Dr. Haddon said the correspondence column of the Journal was the proper place to discuss this. They saw advertising in connexion with illnesses of Royal personages and in connexion with insurance companies. He did not see why if he set up a hydropathic establishment he should not advertise it.—Dr. Johnstone held that it ought to be the aim of the Association to discountenance all advertising, and he moved that the Division, while discountenancing everything in the shape of advertising on the part of members of the Association, considered the question in regard to hydropathic establishments as a very small part of a much larger one, and expressed no opinion on the subject.—This was carried unanimously.

Consultation between Medical Witnesses.—In regard to this question "whether it is advisable that the medical witnesses engaged on each side in legal cases should meet in consultation," Dr. Calvert moved that the Division consider it advisable.—Dr. Johnstone seconded.—Dr. Somerville moved the previous question, and this was seconded by Dr. Young.—The motion approving of consultation between medical witnesses was carried after discussion by four votes to three.

LANCASHIRE AND CHESHIRE BRANCH

Altrincham Division.

A special meeting of this Division was held on March 30th, to consider the various questions that had been recently remitted to Divisions by the Council. Dr. C. J. Renshaw presided, and nine members were present.

Matters referred to Divisions.—Favourable replies were returned to the General Secretary and to the Medical Secretary on the questions of (1) Medical Defence, (2) Hydropathic Advertising Prohibition, and (3) Consultation of Witnesses in Legal Cases.

METROPOLITAN COUNTIES BRANCH:

Hampstead Division.

A meeting of this Division was held in the Hampstead Conservatoire on March 2nd. Dr. Ford Anderson presided. Dr. J. F. Woods, Medical Superintendent, Hoxton House Asylum, read a paper on "Psycho-Therapeutics, or the Treatment by Suggestion with and without Hypnosis." Questions on the paper were asked by the Chairman, Drs. Morton, Harman, Wilson, Armit, Hall, Jessop, Dobbie and others. Dr. Morton proposed, Dr. Jessop seconded, a hearty vote of thanks to Dr. Woods for his paper.

A meeting of the Division was held at the West Hampstead Town Hall, on Friday, April 8th, at 4.30 p.m. Dr. Ford Anderson presided. The minutes were read and confirmed. The following motions for the Annual Representative Meeting were proposed and carried unanimously:

1. That all Association business notices be withdrawn from the British Medical Journal; these then be separated into the Supplement so that the Journal be purely medical.

2. That the good idea of the *Year Book* be developed, that it should contain the names and addresses of all members, medical regulations, and other details of general medical interest to make it a real handbook.

3. That having regard to the purity and reliability of the lymph supplied to the public vaccinators by the Local Government Board, every practitioner should be put on the same footing as public vaccinators in respect to the Government supply of vaccine lymph.

The meeting then discussed the communications received from the Ethical, Medico-Political, and Medical Defence Committees. The following resolutions were passed:

1. In the opinion of this meeting no medical practitioner should allow his name to appear in the advertisement of any hydropathic or any similar institution carried on for a profit.

2. In the opinion of this meeting it is not advisable that the medical witnesses engaged on each side in legal cases should meet in consultation.

3. This meeting approves of the idea of the Association undertaking medical defence.

Drs. Bensley, Lewis, Macevoy, and Harman spoke strongly against the scheme and motion, which was only carried by 6 to 4.

Stratford Division.

A meeting of this Division was held in the Committee-room of the Stratford Town Hall on Thursday, March 31st, Dr. Sanders in the chair. Present: Drs. Sanders, Dale, Parker, Black, Frederick, Wareham, Rose, Hay, Grogono, Sutcliffe, Beadles, and Nicoll.

Confirmation of Minutes.—The minutes of the previous meeting were read and approved.

Medical Acts Amendment Bill.—Dr. Percy Rose moved the following resolution, of which due notice had been given:

That to Clause 21 of the new Medical Acts Amendment Bill should be added the words: "And such registration shall confer the title of doctor."

This was seconded by Dr. Parker and carried unanimously.

Regulations of Central Midwives Board.—These regulations were next considered, and after some discussion it was unanimously carried, on the motion of Dr. Hay seconded by Dr. Frederick:

That this meeting approves generally of the regulations.

Dr. Rose moved and Dr. Sutcliffe seconded a proposal to the effect:

That this Division requests the Annual Representative Meeting of the British Medical Association to take into consideration the question of the payment of medical practitioners for services rendered when required in midwives cases.

Branch Representative.—Dr. Conner's resignation of the post of Branch Representative was received with regret, and on the motion of Dr. Parker, seconded by Dr. Hay, Dr. Sanders was unanimously elected to fill the vacancy.

Medical Defence.—The question of Medical Defence was discussed at length, and ultimately Dr. Rose proposed and Dr. Black seconded:

That the Council of the British Medical Association be asked to consider what steps are advisable to increase the Association's membership, and that this resolution be submitted to the Annual Representative Meeting.

Hydropathic Establishments and Consultations between Medical Witnesses.—On the motion of Dr. Grogono, seconded by Dr. Rose, the Division decided unanimously:

(*a*) That it disapproved of the advertising of medical practitioners in connexion with hydropathic establishments. (*b*) It agreed that it was advisable for medical witnesses engaged on each side in legal cases to meet in consultation.

Expenses of Branch Representative.—A suggestion that a voluntary levy should be made on each member of the Division towards the expenses of the Branch representative at the annual meetings was favourably received.

Tottenham Division.

A meeting of this Division was held at the Tottenham Hospital on Thursday, March 24th, Dr. Hooper May in the chair. Dr. Mitchell Bruce read a paper on "The Action and Uses of Digitalis in Diseases of the Heart."

SOUTH-EASTERN BRANCH:

Canterbury Division.

At a meeting at the Canterbury Hospital on Friday, April 15th, Dr. Gogarty presiding, the following business was transacted:

Combined Meeting.—The minutes of the previous meeting having been approved, it was resolved that a combined meeting of the Faversham, Thanet, and Canterbury Divisions be organized at the end of May next for the purpose of electing a Representative for the Representative Council, and that the Folkestone, Dover, and Ashford Divisions be invited to join in a general meeting and dinner afterwards.

Annual Meeting of Branch.—The proposition of the South-Eastern Branch to hold the annual meeting of June, 1905, at Canterbury was approved, and it was resolved that Dr. Whitehead Reid be asked to preside, with Dr. Ewart (Eastbourne) and Mr. Frank Wacher as Vice-Presidents.

Resignation of Divisional Secretary.—The resignation of the Honorary Divisional Secretary was accepted, and on the motion of Mr. Z. Prentice, seconded by Dr. Whitehead Reid, Dr. Henchley (Canterbury) was appointed his successor.

Vaccination Bill.—The final clause of the proposed Vaccination Act was again discussed, and finally the whole was approved *nem. con.*

Medical Acts Amendment Bill.—The Medical Acts Amendment Bill was considered and approved generally.

The General Medical Council.—The question as to the representation of the British Medical Association on the General Medical Council was debated, and finally approved by 4 votes to 2.

Hydropathic Advertisements.—It was resolved that the question of the advertising of medical practitioners in connexion with hydropathic establishments was only part of the general question of medical advertising, and should be dealt with by the General Medical Council.

Medical Witnesses.—Regarding the question of medical witnesses engaged on each side in legal cases meeting in consultation, the meeting saw so many objections that it was decided that the procedure could not be recommended.

Medical Defence.—The proposed scheme of medical defence was discussed, and the Hon. Secretary pointed out that, although he had sent out full particulars of the scheme to each member of the Division, no favourable answers had been received. It was therefore resolved that the Division was not in favour of the Association taking up medical defence.

Faversham Division.

A meeting of this Division was held at Sittingbourne on March 10th. Eight members were present.

Confirmation of Minutes.—The minutes of the previous meeting were confirmed.

Medical Acts Amendment Bill.—After careful consideration the proposed Bill was approved by the meeting.

Fees for Life Insurance Examination.—It was resolved;

That the present system of payment for life assurance examination in proportion to the amount insured is inequitable, and that payment should be made in all cases in proportion to the amount of professional work done.

The Association and Medical Defence.—The following resolution was passed:

That this meeting does not see that the draft scheme of the British Medical Association offers any advantages for Medical Defence over those which can be obtained elsewhere.

Consultation between Medical Witnesses.—The following resolution was passed:

That we consider the proposition of medical witnesses meeting in consultation to be of doubtful advantage.

Medical Practitioners and Hydropathic Institutions.—The following resolution was passed:

That this meeting disapproves of the advertising of medical practitioners connected with hydropathic establishments.

Paper.—Dr. Grayling read an exceedingly interesting paper on The Anatomical Researches of Sir Christopher Wren.

Isle of Thanet Division.

The fourth meeting of this Division was held at St. Mildred's Hotel, Westgate, on March 22nd. Dr. A. F. Street in the chair. There were present eighteen members of the Division and two visitors.

Confirmation of Minutes.—The minutes of the last meeting were read and confirmed.

Proposed Combined Meeting.—Letters were read from Dr. Channing Pearse, Hon. Sec., Canterbury Division, saying that he had been unable to arrange a meeting of the Divisions which formed the old East Kent District. It was decided to let the question of a combined meeting rest until the Divisions were approached again on the subject.

Finances of Branches and Divisions.—A letter was read from the Medical Secretary dealing with the question of the Finances of the Branches and Divisions of the Association.

Case.—Dr. Berry showed a case of lupus treated by the ultra-violet lamp. The case was discussed.

The Association and Medical Defence.—The scheme of Medical Defence prepared by the Medical Defence Committee of the Association was discussed, a letter from the Medical Secretary (Mr. J. Smith Whitaker) was read, and also the circular from the Medical Defence Union.

Consultations between Medical Witnesses.—The memorandum from the Medico-Political Committee with regard to the advisability of consultations between medical witnesses was discussed. Dr. Bertram Thornton proposed and Dr. Treves seconded:

That this Division is of opinion that under existing circumstances no general rule on the subject of consultations between medical witnesses is likely to meet with practical results.

This was carried unanimously.

Medical Practitioners and Hydropathic Institutions.—The memorandum from the Ethical Committee with regard to the question of advertising of medical practitioners in connexion with hydropathic establishments was discussed. Dr. Nichol proposed and Dr. Sutcliffe seconded:

That the advertisement of medical practitioners engaged in general practice in connexion with hydropathic establishments is not in accordance with the general rules of the profession respecting advertising, and that the attention of the General Medical Council be called thereto.

This was carried.

Next Meeting.—It was decided to hold the next meeting of the Division at Minster, Thanet, in June, and that Dr. Watts be asked to take the chair.

Vote of Thanks.—A vote of thanks was passed to Dr. A. F. Street for taking the chair at the meeting.

Dinner.—A dinner was held after the meeting in a private room of the hotel, and was attended by nine members.

Sevenoaks Division.

A meeting of this Division was held on Thursday, March 24th, at the Royal Oak Hotel, Sevenoaks, Dr. Ievers (Tonbridge) in the chair. Eleven members were present. The minutes of the last meeting were read and confirmed.

Consultations between Medical Witnesses.—The question whether medical witnesses engaged in legal cases should meet in consultation before going into court was discussed, but it was felt that there was an absence of knowledge to determine the point, and on the proposition of Mr. Maude (Westerham) the discussion was adjourned *sine die.*

Medical Practitioners and Hydropathic Establishments.—The question of the advertising of medical practitioners in connexion with hydropathic eatablishments was discussed, and it was resolved that such practitioners should not allow their names to appear on advertisements unless they were resident in the establishments and not engaged in private practice.

The Association and Medical Defence.—The scheme of Medical Defence of the Association was then discussed and a majority were in favour of Dr. Marriott's (Sevenoaks) resolution that it was inadvisable for the Association to undertake Medical Defence.

Conditions Simulating Appendicitis.—A paper was read by Mr. Maude (Westerham) on conditions simulating appendicitis. A discussion followed, in which Dr. Ievers (Tonbridge), and Mr. Walker (Ightham) related cases illustrative of these conditions.

Specimens, etc.—Specimens of bilharzia ova in the urine were exhibited by Dr. Alliott (Sevenoaks). Mr. Watts (Tonbridge) showed a case of congenital morbus cordis, and Dr. Marriott a specimen of periosteal sarcoma of the tibia in a child. A series of microscopical and lantern slides on the zoological distribution of cancer (kindly lent by the Executive Committee of the Cancer Research Fund) were exhibited and explained by Dr. Dick (Sevenoaks) and reference made to the recent researches of Mr. Farmer on the mitotic division of cells in malignant growths.

Dinner.—The members dined together at the hotel after the meeting.

South Wales and Monmouthshire Branch:

Cardiff Division.

A general meeting was held on Thursday, March 17th, Dr. Garrett Horder and Dr. Rhys Griffiths successively in the chair.

Standing Orders.—Standing orders, as recommended by the Executive Committee, were adopted.

The Midwives Act.—The Hon. Secretary read the report of the deputation to the local supervising authority under the Midwives Act, 1902. The address to the authority dealt especially with the equity of providing a fee for the qualified medical man called in by the midwife under the rules of the Central Midwives Board. The following letter had been received by Dr. Thos. Wallace, the leader of the deputation:

Town Hall, Cardiff.

Dear Sir,—Adverting to the attendance of your deputation before the Health Committee on the 8th March, 1904, I am desired to inform you the following resolution has been adopted by the Council, namely:

"That the deputation be informed this Committee is unable to grant fees where registered medical practitioners are called in (under the

Midwives rules) and the patients are unable to pay—inasmuch as no provision is made therefor in the Midwives Act, 1902. The Committee, however, is of opinion that the Central Midwives Board and the British Medical Association should take such steps as may be necessary in order that an amending Act of Parliament might be passed providing for the payment of legally qualified medical practitioners where called in by midwives in difficult cases."

Yours faithfully,

J. L. Wheatley, Town Clerk.

On the motion of Dr. Chas. Vachell, seconded by Dr. Walford, it was agreed to send a copy of the above resolution to the Central Midwives Board and to the Council of the Association. On the proposal of Dr. Walford, seconded by Dr. P. Rhys Griffiths, a committee was appointed, with power to add to their numbers, to submit a scheme for the establishment of a local training centre for midwives to the next meeting of the Division.

STAFFORDSHIRE BRANCH.

The second ordinary meeting of this Branch was held at the North-Western Hotel, Stafford, on Thursday, March 3rd. The President (Mr. F. Milnes Blumer) took the chair, and twenty-six members were present. After the exhibition of pathological specimens by Drs. Edge, Shaw, Hughes, Blumer, Marson, and the relation by Dr. George Reid of the histories of two outbreaks of food poisoning, Drs. McAldowie and Codd opened a discussion on the provision of a sanatorium for phthisis in Staffordshire by the County Council. On the motion of Mr. Hartill, seconded by Dr. Ridley Bailey, the discussion was then adjourned to a meeting to be held on March 24th, at Stafford.

This meeting was held at Stafford on the date named, the President being in the chair, and twenty-five members present. The following resolution was moved and seconded by Drs. McAldowie and Codd:

That the members of this Branch present at this meeting noting with much satisfaction that the County Council are considering the question of providing a sanatorium in the county for cases of pulmonary tuberculosis, desire to express their keen appreciation of the need for such an institution, and their hope that a scheme with that object in view will successfully be carried through; they also desire to emphasize the fact that in their opinion sites are available in the county which are in every way suited for the purpose; and that it is desirable that such an institution should be situated in some central locality as far as possible midway between the populous centres in the north and south.

That a copy of this resolution be sent to the Clerk of the County Council, to the Clerks of the District Councils and Boards of Guardians throughout the county and to the public press.

Dr. T. Bamford moved, and Dr. E. Mackenzie seconded the following amendment:

That we, the members present at the adjourned meeting of the Staffordshire Branch of the British Medical Association assembled to discuss the provision of a sanatorium for Staffordshire by the County Council, heartily congratulate that authority on considering the necessity of the prevention and cure of this disease, but strongly urge them to enforce those powers they already have to secure better sanitary conditions for the people; to acquire the powers of compulsory notification of this disease, and to educate the public by means of lectures and the distribution of pamphlets, etc. This meeting is of opinion that if these means be taken the education of the public will be far more efficient and will be given at far less cost than by building a sanatorium for educational purposes.

The original motion was ultimately carried by 17 to 3.

WEST SOMERSET BRANCH.

The spring meeting of this Branch was held at the Taunton and Somerset Hospital on Tuesday, March 22nd, at 3.30 p.m., the President (Dr. David Brown) in the chair. There were present twenty-two members and one guest.

Confirmation of Minutes.—The minutes of the last meeting were confirmed.

Introduction of Mr. Parkinson.—The President introduced Mr. C. H. W. Parkinson (Wimborne) the joint representative of this Branch and the Dorset and West Hants Branch on the Council of the Association, who was making his first appearance at a West Somerset meeting.

Hydropathic Establishments.—The question of advertising of medical practitioners in connexion with these, referred to the Branch by the Ethical Committee, was discussed, and the following resolution was carried unanimously:

That the advertising of medical practitioners in connexion with hydropathic establishments is an offence against the canons of professional etiquette, and the West Somerset Branch of the British Medical Association hopes that the Ethical Committee will take steps to deal with the matter.

Consultations between Medical Witnesses.—This matter, referred from the Medico-Political Committee, was discussed at some length, and eventually the following resolution was put to the meeting and carried:

That it is desirable that medical witnesses engaged in legal cases should meet in consultation before appearing in court only when so desired by their respective parties.

Clinical Cases.—Mr. A. Joscelyne (Taunton) showed three cases of skin diseases successfully treated by *x* rays, and afterwards answered several questions put to him on the subject.

Paper.—Dr. Killick (Williton) read a very instructive paper on scarlet fever with special reference to septic factors often present. An interesting discussion followed, and after a vote of thanks to Dr. Killick, the members present partook of tea before dispersing.

POOR-LAW MEDICAL RELIEF IN SCOTLAND.

REPORT OF DEPARTMENTAL COMMITTEE.*

In July, 1902, the Local Government Board for Scotland appointed a Departmental Committee to inquire into and report on the methods and conditions under which Poor-law medical relief is at present administered in Scotland, and on what changes, if any, it is advisable to make in regard thereto, or in the regulations for distributing the sum contributed from the Local Taxation Account to the cost of Poor-law medical relief and trained sick nursing, or in the rules and regulations for the management of poorhouses. The members of the Committee were Mr. J. Patten MacDougall, one of the members of the Board; Mr. W. Leslie Mackenzie, M.A., M.D., Medical Inspector; Mr. R. B. Barclay, General Superintendent of the Poor, with Mr. J. Jeffrey of the Local Government Board as Secretary. The report of this Committee, which is signed by all the members, has recently been presented to both Houses of Parliament.

The Committee at the commencement of its inquiry drew up a memorandum, which was issued to persons interested or concerned in Poor-law administration in Scotland, including the Scottish Poor-law Medical Officers' Association. The Committee held forty meetings, at eighteen of which it examined witnesses to the number of thirty-three, it also visited certain poorhouses and workhouses in Scotland, and for the purpose of obtaining further information on certain administrative points relating to Poor-law medical relief and nursing, it visited certain workhouses in England and Ireland.

Medical Officers Necessary in all Parishes.

The report points out that the primary weakness of the system of outdoor medical relief in Scotland is that the Legislature has placed no duty on the local bodies to appoint medical officers to attend the outdoor sick poor, although the deficiency has been rectified to a large extent, administratively, by means of the conditions attached to the grant in aid, the most important of which has been the appointment of a medical officer at a fixed salary. It is added that there are still sixty-two parishes where such appointments have not been made. The Committee expresses the opinion that what has been a recognized principle of Poor-law administration since 1848 should no longer depend for its existence upon the willingness of parish councils to accept an imperial contribution under certain prescribed conditions. By homologating and stereotyping the conditions of participation in the grant, Parliament has so far approved the principle of appointing outdoor medical officers as part of the Poor-law organization. The Committee therefore recommends that it should be made obligatory, under statute, on all parish councils to appoint a medical officer or medical officers for outdoor work at a fixed salary or salaries, to be approved by the Local Government Board; or, in other words, that the appointment of outdoor medical officers be put practically on the same statutory footing as that of medical officers of poorhouses. The following passages are quoted from the report in full:

Dwelling-houses for Medical Officers should be Provided in Certain Parishes.

"In some parishes, especially in the Highlands, a difficulty seems to exist in obtaining a suitable house for the medical officer; and this fact is said to account, in some measure, for

* Edinburgh: Oliver and Boyd. London: Eyre and Spottiswoode. Dublin: E. Ponsonby. Price 1s. 1d. (Cd. 2008.)

the absence of candidates and the reluctance to accept employment in those parishes. The Board have frequently had representations from parish councils on the subject, of which we give specimens in the Appendices. This difficulty, we think, should be removed, and a parish council ought to be permitted to acquire, or erect, a dwelling-house for the medical officer. Such privilege ought to be subject to the sanction of the Local Government Board, as in the case of other buildings under the Act of 1845. The evidence of Mr. Millar, one of the Board's General Superintendents of Poor, on this subject shows its importance:

> I should be inclined to suggest that parish councils should be entitled to provide houses for their medical officers, with sufficient land for grazing a horse. In many parishes a house is not available, and in others a suitable house is not to be had. I have no doubt this is one cause of medical officers frequently leaving a certain parish. Some parishes have provided houses, but charge a rent, and bind the medical officer to occupy the house and keep it in repair as well as pay the taxes. The Board should have power to approve the plans, etc. I have seen a house provided for a doctor which was not fit for a labouring man, and over which the parish council had obtained a heavy bond. The house, when exposed for sale, would not bring sufficient to pay off the bond.

Additional Medical Attendance in certain Highland and Island Parishes.

"In dealing with the general conditions affecting outdoor medical relief, a matter has been brought under our notice which, although not strictly a part of Poor-law administration, has an important bearing upon the well-being of the community. We refer to the need that appears to exist for further medical relief to the *inhabitants* of certain parishes in the Highlands and Islands. While no one suggests or expects that medical attendance should be or could be provided to the inhabitants of sparsely-populated Highland districts on the same scale as in the more densely-populated parts of the country, we are satisfied from the evidence that has been adduced, and from our official experience, that a genuine need exists for a more complete system of medical attendance in many Highland and Island parishes. Mr. Ross, Chairman of the parish council of Lochbroom, an extensive parish on the west coast of Ross-shire,[1] stated that the doctor charges as much as three guineas for each visit to patients in districts remote from his residence. To quote Mr. Ross:

> That has the effect of impoverishing the people, and it has also this effect, that it is only in extreme cases that a doctor will be called.

"At first sight, three guineas per visit seems a heavy fee for those whose circumstances are not far removed from pauperism. When, however, the physical conditions of the district are taken into account, it will be seen, we think, that the fee is not excessive. To quote Mr. Ross again:

> When you consider the details, that is only a small fee for the doctor, because he has his hire, which costs him 25s. to the centre of the district, and he may have to go another stage when he arrives there, the results being that he does not have £1 to himself, and he has to spend two days for a case like that.

"Mr. Ross further cites a case in which a crofter was reduced to pauperism through having to pay a doctor's account. In his words:

> A man's wife became ill, and continued to be ill for some time. The doctor had to visit frequently over a long period, with the result that the man became pauperized; he had to sell out his stock to pay the doctor. . . . . I don't think that he ever got anything approaching what would be reasonable for his services in that case. The important point was that the man became a pauper although he had a very good croft.

"Mr. Ross further states that this is not an isolated case. Sir Kenneth Mackenzie (Gairloch) and Dr. Bell (Kirkwall) also spoke to the long distances that medical practitioners have to travel, and to the hardships they have to undergo to reach some of their patients; and Dr. Bell cited several cases illustrative of the amount of suffering that the inhabitants of some of the remote islands of Orkney endure from the want of medical attendance. Further proof of the same condition of matters will be found in the annual reports of Dr. Ogilvie Grant, Medical Officer of Health for the county of Inverness, in which he draws attention to the large proportion of uncertified deaths that occur among the inhabitants of the parishes and islands in the west of Inverness-shire[2]. Thus in 1899 he reports:

> It appears to me to be a sad condition of matters that so many are allowed to go to their graves without relief from their sufferings which a medical man would at any rate be able to give them, if not able to check the fatal disease. These long lists of uncertified deaths must mean a sum total of much suffering. There is a large number of people too poor to employ a medical man, but not poor enough, or not desirous, to accept parochial relief. Almost invariably the country doctor attends to this class; still, there may be some, knowing that they are unable to pay, who may not care to send for the doctor.[3]

"In his report for 1900 Dr. Ogilvie Grant records the fact that during that year, nearly 400 persons[4] in Inverness shire died and were buried without having been seen by a doctor, and that, during ten years, 3,967 persons had died under similar conditions. In some parishes the majority of the deaths are uncertified—the percentages for the year 1900 being as follows:

Kilmuir ...	...	70 per cent. uncertified.
South Uist ...	...	67 ,, ,, ,,
Duirnish ...	...	64 ,, ,, ,,
Harris ...	...	51 ,, ,, ,,

"In recalling the attention of the Local Government Board to the subject, in his report for the year 1902, Dr. Ogilvie Grant quotes the following extract from a report by Dr. M'Kenzie, North Uist:

> As I have frequently pointed out already, the want of sufficent medical attendance and nursing have a most prejudicial effect on the well-being of the district. The loss of life, hardship, and misery which this implies cannot be calculated. To a certain extent the physical evil is evident, while it tends to produce a callousness to suffering and death that becomes only too apparent in the number of uncertified deaths, especially among the aged. For this the only remedy is an increased medical grant in aid to enable the district to employ an additional medical man and two trained nurses.

"The medical officers of health of the other Highland and Island counties do not, in their official reports, appear to have drawn special attention to the subject of uncertified deaths; but, from the annual statements of sickness and mortality which they submit to the Local Government Board, it would appear that this heavy incidence of uncertified deaths is not confined to the county of Inverness. During the year 1901,[5] out of a total of 4,998 deaths in the counties of Zetland, Orkney, Sutherland, Ross, Inverness, and Argyll, 1,098, or 22 per cent. were uncertified; the figures in the different counties fluctuate from 11 per cent. in each of the counties of Argyll and Orkney to 38 per cent. in Zetland. This contrasts most unfavourably with the average of such deaths for the rest of Scotland, which is slightly over 1 per cent. While the primary cause of this large percentage of uncertified deaths is the fact that a doctor was not called in, we think it will be admitted, in the light of the evidence, that the main cause of this omission was the cost, which the family could not afford. A doctor's account, in the circumstances described by Mr. Ross, impoverishes, if it does not pauperize, the people who have to pay it. From the large number of uncertified deaths in these counties, it may be inferred that a number of births take place also without any medical attendance.

"In view of these statements and figures, it appears to us that some further provision should be made to secure skilled attendance in such cases. The difficulties are twofold, arising (*a*) from the general poverty of the population and their inability to pay for such attendance, and (*b*) from the sparseness of the population and the long distances which have to be covered by a doctor in making his visits, often along bad roads and across arms of the sea.

"Various remedies have been suggested—the most common being, that the medical relief service in these parishes should be further subsidized out of the existing grant. This seems to us impracticable so long as the grant remains at the present figure of £20,000 and is devoted to medical relief of the poor generally, in lowland as well as in Highland and Island parishes. Besides, the £20,000 is a grant in aid of medical relief to the legal poor, whereas the service that it is proposed to subsidize is largely for the benefit of the inhabitants generally. We are therefore unable to recommend that any additional charge should be placed on the £20,000 in the interests of the latter.

"At the same time it is no doubt the case that in some remote parishes, mainly in the Highlands and Islands, the salaries of medical officers for Poor-law work are already disproportionately large. These high salaries are necessary to provide the nucleus of a living for a medical man, and are really larger than mere attendance on the poor would justify. Indeed, in some instances, doctors could not be obtained if it were not for the high parochial salaries that are offered. Nevertheless it is clear that, in these areas with which we

[1] Lochbroom contains about 260,000 acres; has a population of about 3,200, of whom 200 are paupers; and has only one medical practitioner in the parish. (See Ross, 5167-9.)

[2] Annual reports as medical officer of health for years 1898-1902.

[3] The Select Committee of the House of Commons on Death Certification remarked upon the large number of uncertified deaths in Inverness-shire. (See Report 373, 402—1893, p. vii.)

[4] In 1902 the number was 353.

[5] See Eight Annual Report of the Local Government Board.

have been dealing, medical attendance on the inhabitants is inadequate, and ought to be supplemented. But without further pecuniary assistance we do not see how the want is to be supplied.

"We ought to add that, in some six or eight parishes in the North, the Club System is in existence. Under that system there is a voluntary assessment in the parish to secure an addition to the salary of the Pool-law medical officer, in return for which he attends the members of the Club for such fee as may be arranged. Those who are not members of the Club are charged a higher fee. There are Clubs in the county of Inverness, Sutherland, Orkney, and Caithness, and, where the system has been tried, it appears to work well on the whole.

"We were told by Mr. Millar, General Superintendent of Poor for the Northern Highland District, that in one parish the salary of the doctor is guaranteed and paid by the proprietor. The Parish Council refund him what they would in ordinary circumstances pay to their medical officer, and the proprietor further recoups himself by levying 2s. 6d. per head from each crofter—the balance, if any, being met by the proprietor out of his own pocket. We think it right to mention this fact, without comment or criticism, merely as an illustration of the methods sometimes used to overcome the difficulties of the situation by those who have the interests of their people at heart.

"An alternative might be to institute a system similar to the Irish dispensary system, which we have seen in operation. If introduced into Scotland it must always be subject to adequate safeguards ond regulations.

Conveyance of Medicines to Paupers.

"Where a medical officer, under his agreement with the parish council, supplies medicines from his own laboratory, he is required, under Rule 7, to afford

every reasonable facility for sending or conveying the medicines and appliances . . . . to paupers who are unable to go or to send for them; but when it is necessary to send a messenger expressly for that purpose, he may call upon the inspector in writing to provide such messenger.

"And the inspector, when so called upon, is responsible for the delivery. It has been stated that friction sometimes arises between the medical officer and the inspector over the interpretation to be placed on the words 'every reasonable facility.' Occasions must arise when it is extremely difficult to determine what is 'reasonable' in connexion with the conveyance of medicines, and we do not attempt to give a definition, but shall only express the hope that in cases of difficulty parish councils will arrange accordingly, in the interests of the poor, as they are empowered to do. We are of opinion that the best course is that medicines should be supplied by a druggist, but in certain Highland parishes, where there are no druggists, the institution of dépôts at convenient centres for the supply of medicines seems very desirable. Wherever there is any aggregation of population there is a schoolhouse, and we suggest that school premises might perhaps be utilized for this purpose."

THE TENURE OF OFFICE OF MEDICAL OFFICERS AS AFFECTING THE EFFICIENCY OF THE POOR-LAW MEDICAL RELIEF SYSTEM.

"It is considered that medical officers of poorhouses have the same tenure of office as inspectors of poor;[6] that is, they can be dismissed only by the Local Government Board.

"The case is, however, different with medical officers appointed to attend the outdoor sick poor. As we have pointed out (paragraphs 15 and 143), the statute does not require the appointment of such an officer—that being secured only in those parishes which agree to comply with the rules regulating the distribution of the medical relief grant. Under these rules it is provided that:

If any medical officer shall fail, or neglect, or refuse to perform the duties of his office, or shall be found unfit or incompetent to discharge them, the Local Government Board shall have power to dismiss him.

"He may, however, also be dismissed, or his services may be dispensed with, by the parish council, at any meeting which has been duly called on ten days' notice, without any reasons being assigned.

"It will thus be observed that, while adequate means have been taken to secure the interest of the sick poor, nothing has been done to protect medical officers against unjust or capricious dismissals by parish councils. This has been a long-standing grievance with parochial medical officers, and it is clear that, with a fear of dismissal always present, the efficiency of the service may be greatly impaired.

"Although the terms of our remit did not specifically cover the tenure of outdoor medical officers, it appeared that, in view of the widely-expressed feeling on the subject, our inquiry would be incomplete if we did not at least endeavour to ascertain whether the efficiency of the Poor-law medical relief service was prejudiced by the existing system. Accordingly, we have received evidence on the subject from a number of witnesses.

"Our great difficulty, in pursuing our investigations in this matter, has been to get direct evidence from medical officers, who are personally aggrieved, the reason for withholding it being that it might be used against those that supplied it. It was represented to us, on behalf of the Poor-law Medical Officers' Association, that:

The Association has received numerous complaints of injustice on the part of parish councils towards their medical officers; how some have been dismissed from office for causes other than those of failure or neglect to perform their duties, or for unfitness or incompetence to discharge them. Cases of dismissal have also occurred in which medical officers have done their duty five, ten, fifteen, and even twenty years, and on the election of a new parish council have been dismissed without reason assigned.

"It was also stated on behalf of that Association, and on behalf of the Society of Inspectors of Poor, that in some parishes it is the practice to appoint in rotation to the office of Poor-law medical officer the various medical practitioners resident in the parish. In this connexion, it was further stated, by the late Mr. Wallace of Govan, that:

There is a feeling in the minds of my own council, not to appoint every year, but to have a change, and to give some younger doctors a chance.

".....Dr. Bell stated:

I know of one case where the medical officer, who lived six miles from the centre of the parish, was asked to resign because a young medical man offered to settle in the parish.

"Dr. Bell cited another case where he alleged that the medical officer would have insisted upon the removal of a lunatic to an asylum, 'if it had not been for fear of getting into hot water with the parish council.' We have also seen, in a report to the Local Government Board, dated 1st June, 1895, the following statement by Mr. Falconar-Stewart, now Secretary of the Board:

In a rural parish with but a small population, and with some sixteen paupers, I find that an agitation has been got up to get rid of a medical officer who has served the parochial board since 1868, not upon any plea of inefficiency, but simply because a younger medical man has taken up his residence in the village.[7]

"According to a Parliamentary return[8] it appears that, during the seven years 1895-1901, sixteen medical officers were dismissed by parish councils within the Highland crofting counties of Argyll, Caithness, Inverness, Orkney, Ross, Sutherland, and Zetland. In ten cases no cause was assigned for the dismissal. According to another Parliamentary return,[9] it appears that, in 42 per cent. of the parishes within the same counties, the office of resident parochial medical officer was vacant once or oftener during the last seven years; in one case it was seven times vacant. The maximum time that the office remained continuously vacant in any parish was fifteen months.

"We are satisfied that the administration of Poor-law medical relief would be more efficient if the approval of the Local Government Board were required before the services of the outdoor medical officer could be dispensed with. All the arguments that we have advanced in favour of his being made a statutory official are equally relevant to the question of tenure. This conclusion is, we think, established by the evidence of the great majority of the witnesses whom we have examined on the subject, and especially by the official evidence kindly supplied by Dr. Downes and Dr. Bigger, of the English and Irish Local Government Boards respectively. In England and Ireland the tenure of the Poor-law medical officer is even more secure than what we are now suggesting for Scotland.

"A similar recommendation was made in 1871 by the Select Committee of the House of Commons on the Poor-law (Scotland),[10] and the following is the latest official declaration of the Local Government Board for Scotland on the question of tenure[11]:

The Board are clearly of opinion that the protection enjoyed by Medical Officers of Health should be extended to medical officers

[6] *Cf.* sections 56 and 66 of Poor Law Act, 1845; also Board of Supervision *v.* Parochial Board of Old Monkland, 17th January 1880 R. 469.

[7] A similar case, but hypothetical, though no doubt based on his official experience, was figured by Sir John Skelton, in his book on *Pauperism and the Boarding-out of Pauper Children* (Preface, p. xiii).

[8] House of Commons Return, dated 8th August, 1902 [342-1902], and BRITISH MEDICAL JOURNAL, 1902, vol. ii, p. 982.

[9] House of Commons Return, dated 13th August, 1903 [349-1903].

[10] See Report, p. 13.

[11] Second Annual Report of Local Government Board, 1895-96, p. 25.

appointed under the Poor-law Act. By section 54 (4) of the Local Government Act, 1889, it is provided that "every medical officer and every sanitary inspector appointed under this Act or under the Public Health Acts shall be removable from office only with the sanction of the Board of Supervision." The claim has been frequently preferred by the representatives of the parochial medical officers, and clauses have been introduced into Bills with the view of giving effect to the claim; but from one cause or other the Bills have failed to pass. The claim was warmly supported by the Board of supervision, for the members had reason to know that medical officers had good reason to complain in many cases of the injustice with which they had been treated, and it appeared to them, moreover, that it was in the public interest that these officers should not be subject to arbitrary dismissal by the local Boards."

"We think it right to place on record that between the years 1855 and 1902 inclusive, 139 complaints against parochial medical officers have been made to the Central Department. After inquiry, it was ascertained that in 88 cases the complaint was unfounded. In 28 cases the medical officer was censured; in 12 cases he was allowed to resign; and in 11 cases only was it found necessary for the Central Department to dismiss him from his office. Looking to the fact that there are about one thousand medical officers always in office throughout Scotland, we consider such a record, extending as it does over the long period of forty-eight years, eminently satisfactory. It contrasts very strongly with the figures given above as to dismissals without assigned cause by parish councils in the crofting counties. The inference we draw is that the sanction of the Central Department is needed in the interests of efficiency and of justice.

"Accordingly, we repeat our recommendation that the medical officer be made a statutory official, as he already is *de facto* in the large majority of parishes; and we further recommend that the tenure of parochial medical officers be placed on the same footing as that of Medical Officers of Health and Sanitary Inspectors under the Public Health (Scotland) Act, 1897. We are not favourable to the proposal of an *ad vitam aut culpam* tenure.

"To the tenure above recommended the only objection that appeals to us is, that in some Highland parishes where the amount of fees from private practice is insignificant (see paragraph 39), and the Poor-law medical officer has a monopoly, he might take up the position that he has no duty except to those on the roll of poor; and an instance where such an attitude was adopted has lately been brought under the notice of the Board. He might further fix a scale which would be prohibitive to the poorer ratepayers, who could not pay for the services of another doctor.

"But we think that little or no difficulty would be found in meeting this objection, even if it be serious or widespread, which we cannot suppose it is."

SUMMARY OF RECOMMENDATIONS.

The following is the text of the Summary of Recommendations:

"Indoor Relief.

"*Poorhouse Rules and Regulations.*

"The rules are out of date in many respects. A new code, on the lines set forth in the revision to be found in the Supplement, should be adopted.

"*Poorhouse Hospitals and Sick Wards.*

"Certain combinations, where the poorhouses have comparatively few inmates, might be amalgamated, and

"(i) if it be expedient to retain the existing poorhouses, each might be adapted and used for a separate class of inmates; or,

"if any poorhouse should be no longer required, it might be adapted to some other public local object.

"The sick should be accommodated.

"(i) in rooms apart from those for the other inmates, and,

"(ii) where practicable, in a building detached from the poorhouse proper.

"The sick wards might, in some instances, be smaller, but more numerous.

"An observation ward, or wards, should be provided for the reception and treatment of cases of threatening insanity.

"Accommodation should be provided,

"(i) for the isolation of cases of infectious disease pending removal to hospital,

"and,

"(ii) for the treatment of such cases as cannot be removed and dealt with by the public health authority.

"A properly-equipped operating room should be provided in poorhouses of a certain size, under certain conditions.

"Balconies and outside iron stairs should be provided where the sick are accommodated in wards above the ground level.

"Ventilation and heating should be improved.

"Bathrooms should be within the same building as the dormitories; lavatories for sick wards should be conveniently situated.

"Iron bedsteads, with spring mattresses, should be provided for the sick.

"The accommodation for the sick should be improved generally,

"(i) By raising the minimum standard of cubic space per bed;

"(ii) By providing sufficient beds to accommodate inmates requiring hospital treatment.

"Each ward should be sanctioned (or licensed) for occupation by a certain number of inmates; and the governor should report whenever a ward is occupied beyond its sanctioned (or licensed) capacity.

"*Treatment of Tuberculosis, etc.*

"Means should be taken to ascertain the number of phthisical cases among the outdoor poor.

"Outdoor relief should not be withheld from a phthisical case simply because of a refusal to be treated in a poorhouse hospital.

"Much of the unoccupied space in poorhouses might, with slight alteration, be profitably used in the treatment of phthisis.

"Phthisical cases should be segregated, for administrative reasons as well as on medical grounds.

"But, owing to want of power to detain persons in a poorhouse, better results might follow from sending cases to a sanatorium dissociated from a poorhouse.

"Cases of malignant and offensive diseases should, as far as possible, be segregated.

"*Classification of Inmates.*

"The medical officer should classify inmates as regards their physical condition and capacity for work on admission, and thereafter should have power to revise the classification when necessary.

"The accommodation of the poorhouse should be so arranged as to isolate one class from another.

"In many poorhouses no need exists for retaining the class of 'infirm' inmates.

"Classification according to character should be attempted.

"Parents should have access to their children at reasonable times.

"*Admission of Inmates.*

"A more immediate and a more thorough medical examination of inmates should be made on admission.

To assist in this, the information supplied by the certifying outdoor medical officer should be more complete.

"In many parishes, a room might be provided for the medical examination of applicants for relief.

"An attendant should always accompany cases removed to the poorhouse by ambulance.

"The governor should be empowered, in an emergency, to admit cases without the necessary papers.

"*Discharge of Inmates.*

"Better arrangements should be made for the discharge of inmates that may have become able-bodied.

"*Diet of Inmates.*

"A more varied dietary should be allowed.

"The diets prescribed by the dietary scale being minimum diets, the food provided for any inmate should be not less than the dietary allows.

"The routine use of stimulants should be checked.

"The cooking and cooking appliances should be improved.

"The medical officer should have the following additional powers and duties:

"(i) To advise the House Committee in framing a dietary suitable for use in the poorhouse.

"(ii) To advise the House Committee if, at any time, a temporary change of food is essential to the health of the inmates or to any class of them.

"(iii) To revise the diet of each sick inmate at least once in every four weeks.

"(iv) To frequently inspect the food, cooked and uncooked.

"(v) To prescribe a special diet for any inmate when necessary.
"(vi) To revise, at intervals of not more than eight days, every order for stimulants supplied to an inmate.

"*Discipline and Punishment of Inmates.*

"The whole question of poorhouse discipline and punishment should be reconsidered, and
"(i) Discipline should be enforced, as far as possible, by the withholding of privileges or of diet and by rewarding good behaviour.
"(ii) When such punishment is too mild, the case should, whenever possible, be handed to the police to deal with.
"(iii) When it is proposed to inflict punishment (for example, extra work, deprivation of food, confinement in a cell) within the poorhouse, the medical officer should certify that the inmate is fit to bear it.
"(iv) Corporal punishment of girls and the use of penal dress should be prohibited.
"(v) The structure and condition of confinement cells should be improved.
"(vi) Smoking in the poorhouse should be allowed under regulation.

"*Bathing of Inmates.*

"Should be regularly carried out, and superintended by paid officials, under the advice, where necessary of the medical officer.

"*Complaints by Inmates.*

"Better arrangements should be made for the medical officer seeing every inmate that complains of illness.
"Any inmate, that so desires, should be allowed to make a complaint to the Visiting Committee, without the officials being present.

"*Deaths of Inmates.*

"Sudden and unexpected deaths should be reported more systematically to the Procurator-Fiscal and to the Board.
"Any other deaths, occurring within twenty-four hours of admission to the poorhouse or of removal from the ordinary to the sick wards, should be reported to the Board.
"The medical officer should keep a register of deaths.

"*Dispensing and Supplying Medicines.*

"Rules should be drawn up in terms of Section LXVI of the Poor Law Act, 1845.
"Medicines should, as far as possible, be obtained under contract at scheduled prices.
"The medical officer should be responsible for the stock of medicines kept in the poorhouse.
"A visiting or a resident dispenser should be appointed to some of the largest poorhouses.

"*Medical Officer.*

"The powers of the medical officer should be enlarged, and, in addition to the duties above mentioned, he should
"(i) be responsible for the management of the sick wards, but, where he is non-resident, the governor should assist him in maintaining discipline.
"(ii) enter his instructions as to the treatment of a sick patient on a bed card. (Bed cards and a new register of sick should be instituted.)
"(iii) visit the childen's wards at least once a week and prescribe for such children and infants as require treatment.
"(iv) inspect, quarterly, the ventilation, heating, and general sanitary condition of the poorhouse.
"(v) be given facilities for calling in another medical practitioner or an extra nurse, when required.
"(vi) have power to recommend that a patient be sent to a general hospital for special treatment.
"(vii) make an annual report.
"(viii) be obliged to name a substitute.
"(ix) be obliged in certain circumstances to reside in the poorhouse.

"*Salaries of Medical Officers.*

"These seem to call for revision in some cases.

"*Governor, Matron, and Subordinate Officials.*

"The offices of governor and matron should be made statutory, as is that of the inspector of poor.
"Some of the governor's duties should be transferred to the medical officer.
"Where the matron is qualified, she should in certain poorhouses be allowed to perform the duties of trained nurse.
"In other poorhouses she could have no jurisdiction within the sick wards, but she should be responsible for
"(i) Cooking the food and washing the clothes for these wards.
"(ii) Selecting inmate helpers for scrubbing, etc.
"Subordinate officials should be required to report
"(i) Any defect they may observe in the sanitary arrangements.
"(ii) Any inmate who complains of illness or who may appear to be out of health.

"*Trained Sick Nursing.*

"Pauper nursing should be abolished and a general system of trained nursing introduced.
"To promote this, the Board should have more direct control over poorhouse nursing.
"As regards the standard of training:
"(i) the present minimum of two years' training should be maintained, but
"(ii) an effort should be made to encourage the appointment of nurses with three years' training.
"As regards the supply of nurses:
"(i) it would be highly expedient to staff the poorhouses with nurses specially trained to work under Poor-law conditions.
"(ii) This being so, pecuniary inducements should be held out
"(*a*) To probationers.
"(*b*) To certain large poorhouses to become training institutions.
"(*c*) To other poorhouses to co-operate with the training institutions, and
"(iii) A portion of the medical relief grant might be devoted to this purpose.
"(iv) The arrangements as to training, etc., should be under the direction of the Board.
"As regards the proportion of nurses to patients:
"(i) Fewer patients should be allowed to each nurse.
"(ii) The number of nurses required for each poorhouse should be determined after inquiry into its circumstances.
"(iii) Night nursing should be more efficient.
"(iv) Constant attention should be provided for dying cases.
"Rules for nurses should be drawn up defining their relation to the medical officer, governor, and matron.

"*Visitation of the Poorhouse.*

"More regular visitation might be secured if visiting members were allowed to visit either conjointly or separately.
"Employment of inmates, as practised by the Brabazon Society, should be encouraged.

"OUTDOOR MEDICAL RELIEF.

"*General Arrangements.*

"The Board should have more direct control over the medical relief arrangements in a parish.
"Every parish ought to furnish medical relief at least equal to that provided by the present rules.
"The appointment of medical officers in each parish should be required by statute.
"Dwelling-houses for medical officers should be provided in certain parishes.
"Additional medical attendance should be provided in certain Highland and Island parishes.
"The supply of medicines under either of the following methods should be discontinued:
"(i) By the medical officer in respect of his salary.
"(ii) By the medical officer or by a druggist in respect of a fixed annual payment.
"Parochial dépôts for medicines should be established in outlying districts; school premises might be made available for this purpose.
"The advertisement at present required when a vacancy occurs in the medical officership of a parish might be curtailed.

"*Tenure of Office of Outdoor Medical Officers.*

"Parish medical officers should have the same tenure as medical officers of health and sanitary inspectors under the Public Health Act, 1897.

"*The Duties of the Medical Officer and the Inspector of the Poor.*

"Nutritious diet, cordials, etc., should be provided in accordance with existing rules, unless in parishes where these are impracticable.

"An inspector of poor who, in the exercise of his discretion, does not implement an order by the medical officer should be required to report accordingly forthwith.

"The medical officer should be obliged to name a substitute.

"Lists of aged and infirm need no longer be sent to the medical officer, who should be required to attend a poor person on presentation of the pay ticket.

"When, on the order of a member of the Parish Council, the medical officer attends a poor person in a case of sudden and urgent necessity, he should notify the inspector of poor.

"The medical officer's register of sick should be more systematically kept; a second register should be introduced, and a periodical report of work done should be submitted to the Parish Council and to the Board.

"*Nursing of Outdoor Poor.*

"Parish Councils should be encouraged to subscribe to the funds of voluntary nursing associations.

"Such subscriptions might be allowed to rank against the medical relief grant.

"*Boarded-out Children.*

"The method of supplying medical attendance adopted by the larger parishes should be made general.

"The expediency of holding an inquiry into the boarding-out system should be considered.

"*Casual Sick Poor.*

"Accommodation for casual sick poor should be more generally supplied.

"The provision of such accommodation, if required by the Board, should form a condition of participation in the medical relief grant.

"*Tramps—not Paupers—Found Lying Ill*

"Should be dealt with by the Poor Law, Police, or Sanitary Authorities, according to circumstances.

"*Parochial Lodging-houses.*

"As regards what may be termed non-statutory poorhouses:

"(i) Further inquiry might be made into their history and equipment;

"(ii) if they are to be continued their medical relief arrangements should be periodically inspected by officers of the Board.

"As regards what may be termed dwellings for outdoor poor:

"(i) They afford, under certain conditions, a means of providing accommodation for infirm paupers who are without relatives or friends, and who refuse to go to the poorhouse or cannot be removed thereto.

"*Compulsory Removal of Poor Persons to a Poorhouse.*

"It is for consideration whether Parish Councils should not be empowered to remove a poor person to a poorhouse on a medical certificate and a judicial warrant affirming that the condition of the poor person or of his surroundings justifies such removal.

"*Compulsory Detention of Poor Persons in the Sick Wards of a Poorhouse.*

"It is for consideration whether Parish Councils should not be empowered to detain in a poorhouse hospital any sick poor person who is certified to be unfit to leave it on a judicial warrant following thereon.

"*Convalescent Homes.*

"The practice of subscribing to and of sending patients to convalescent homes, etc., should be left to the discretion of Parish Councils.

"Grant in Aid of Medical Relief.

"*Basis of Distribution.*

"The basis should continue to be vouched expenditure in the meantime at least.

"The proposed grant for probationers should form a first charge against the £20,000, the balance to be distributed proportionally in aid of outdoor and indoor medical relief expenditure (including trained sick nursing).

"Unless the total grant be increased, a slight reduction should be made in the amount allowed in respect of each trained nurse.

"Grant to combination poorhouses should be paid to House Committees.

"After a few years, the grant to each authority might be fixed for a stated period.

"*Conditions of Participation.*

"The present 'minimum expenditure' should be abolished.

"Neither a 'minimum' nor a 'maximum' expenditure would be required if the Board had fuller powers to revise the salaries of medical officers.

"The salaries of all medical officers, so far as they rank as a claim against the grant, should be reviewed and rearranged on an equitable basis.

"No grant should be paid in aid of outdoor medical relief unless trained sick nursing is provided.

"Reciprocal medical relief obligations between parishes should be extended to medicines.

"*Items of Expenditure Claimable against the Grant.*

"In addition to the proposed grant for probationers, the admissible expenditure should include the cost of providing trained nursing to the outdoor poor.

"Subscriptions to hospitals should be carefully scrutinized, but existing powers would appear to be sufficient.

"Medical officers should perform all medical and surgical work without extra fee, but, where extra advice or assistance is needed, it should be paid for and allowed against the grant.

"Recommendations Involving Legislation.

"It may here be useful to specially set forth the more important recommendations of a general nature, which cannot be given effect to without legislation:

"(i) The stereotype imposed in Section 22 (4) of the Local Government (Scotland) Act, 1889, should be removed, and the Board empowered to make orders for the administration of medical relief under the same safeguards and restrictions as exist in England and in Ireland.

"(ii) Power should be obtained to pay the proposed grant to probationer nurses.

"(iii) The basis of the Local Taxation contributions to Parish Councils should be revised so as to provide a larger sum in aid of medical relief, both indoor and outdoor, and, *inter alia*, towards securing medical attendance, where necessary, to the non-pauper population of remote districts.

"(iv) The position of outdoor medical officers and of governors and matrons of poorhouses should be placed upon a statutory footing.

"We regret that we have been unable to issue our report sooner. The delay is mainly attributable to the wide scope of the remit and the practical character of the questions submitted to us. The inquiry has involved the consideration of much detail. The revision of the poorhouse rules and regulations (which number roughly 180) has alone taken up much time and required much thought. In making our recommendations we trust that we have been able to hold an even balance between the well-being of the poor, outdoor and indoor, and the interests of the ratepayers by whom they are supported.

"In conclusion, it is our duty and our pleasure to testify to the able and assiduous services rendered by our Secretary, Mr. Jeffrey, who has spared neither time nor trouble from beginning to end of our labours.

"We have the honour to be,

"Gentlemen,

"Your obedient Servants,

"J. PATTEN MACDOUGALL.

"W. LESLIE MACKENZIE.

"R. B. BARCLAY.

"J. Jeffrey, *Secretary*,

"*17th March, 1904.*"

It will be recalled that the Medico-Political Committee of the British Medical Association at its meeting on January 9th, 1903, had before it the Local Government (Scotland) Act Amendment Bill then before Parliament, and that the following resolution was then adopted by the Committee:

That the Council be recommended to give the support of the Associa-

tion to the following addition to the said Bill: "That all medical officers holding office under the Poor-law (Scotland) Act be only dismissible by, or with the consent of, the Local Government Board.

This resolution was subsequently approved by the Council of the Association, and was referred to in the report presented to the Annual Representative Meeting at Swansea. The Bill did not obtain a favourable place in the House of Commons, and was not proceeded with.

LOCAL GOVERNMENT (SCOTLAND) ACT (1894) AMENDMENT BILL.

The following is the text of the Bill to amend the Local Government (Scotland) Act (1894) introduced on March 7th by Mr. Cathcart Wason and backed by Sir William Arrol, Mr. Weir, Sir Andrew Agnew, Mr. Eugene Wason, Mr. Alexander Cross, Mr. Harmsworth, Colonel Denny, Mr. Ainsworth, Mr. James Reid, Mr. John Dewar, and Sir J. Batty Tuke.

MEMORANDUM.

1. Under the Poor Law (Scotland) Act, 1845, medical officers of poorhouses cannot be removed from office without the consent of the Local Government Board (Scotland), while outdoor medical officers may be dismissed at short notice by their respective parish councils without reason assigned.

2. A clause was introduced into the Local Government (Scotland) Act, 1894, to protect outdoor medical officers against parish councils interfering with their duties or emoluments without the consent of the Local Government Board, but it did not protect them from arbitrary dismissal from office.

By a slight addition to Section li of the Local Government (Scotland) Act, 1894, it is proposed to assimilate the law of Scotland to that of England and Ireland and make the consent of the Local Government Board necessary for the dismissal of medical officers.

A BILL TO

Amend the Local Government (Scotland) Act, 1894.

Be it enacted by the King's Most Excellent Majesty by and with the advice and consent of the Lords Spiritual and Temporal and Commons in this present Parliament assembled and by the authority of the same as follows:

1. *Short title and commencement.*—This Act may be cited as the Local Government (Scotland) Act, 1894, Amendment Act, 1903, and shall come into operation immediately after the *passing thereof.*

2. *Amendment of Section 51 of 57 and 58 Vict., c. 58.*—At the end of Subsection (1) of Section li of the Local Government (Scotland) Act, 1894, the following words shall be added: And that such medical officers shall be removable from office only by or with the consent of the Board.

POOR-LAW MEDICAL OFFICERS' (IRELAND) SUPERANNUATION BILL.

The following is the text of a Bill to provide superannuation for Poor-law medical officers in Ireland, introduced into the House of Commons by Mr. T. W. Russell on April 18th, and backed by Mr. Harrington and Dr. Thompson:

A BILL TO

Provide Superannuation for Poor-law Medical Officers in Ireland.

Be it enacted by the King's most Excellent Majesty, by and with the advice and consent of the Lords Spiritual and Temporal, and Commons, in this present Parliament assembled, and by the authority of the same, as follows:—

1. *Short title.*—This Act may be cited as the Poor-law Medical Officers' Superannuation (Ireland) Act, 1904.

2. *Amendment of power of granting superannuation allowances to union medical officers.*—From and after the passing of this Act the Board of Guardians of every union in Ireland shall, with the sanction of the Local Government Board for Ireland (in this Act called "the Local Government Board"), notwithstanding anything in the Union Officers' Superannuation (Ireland) Act, 1865, or the Acts amending the same, grant to any medical officer belonging to any such union who shall become incapable of discharging the duties of his office with efficiency by reason of permanent infirmity of mind or body, or of old age, upon his resigning or ceasing to hold his office otherwise than as the result of any neglect or default on his part in executing the duties thereof, a superannuation allowance according to the following scale (that is to say):

Rate of superannuation allowance.—To any medical officer who shall have served in some or one or more unions in Ireland for *ten years* and upwards, and under *eleven years*, an annual allowance of *ten-sixtieths* of the annual salary and emoluments of his office:

For *eleven* and under *twelve years*, an annual allowance of *eleven-sixtieths* of such salary and emoluments:

And in like manner a further addition to the annual allowance of *one-sixtieth* of such annual salary and emoluments in respect of each additional year of such service until the completion of a period of service of *forty years*, when an annual allowance of *forty-sixtieths* shall be granted:

Age and period of service.—No medical officer shall be entitled to such allowance on the ground of age who shall not have completed the full age of *sixty years*, and shall not have served as a medical officer in some one or more unions in Ireland for *twenty years*. But nevertheless the Board of Guardians under which any such medical officer shall have last served may declare that the special circumstances of the case justify the grant of a superannuation allowance after a shorter period of service than *twenty years*, and, provided that the Local Government Board for Ireland shall sanction such special grant, such allowance may be made by such Board of Guardians.

Average calculation.—For the purposes of this Act the annual salary and emoluments of a medical officer shall be calculated on the average of the three years ending with the quarter day next before he ceases to hold his office.

3. *Amendment of powers of granting superannuation allowance to medical officers of health.*—The provisions of this Act shall, notwithstanding anything in section seven of the Public Health (Ireland) Act, 1896, or in section ten of the Local Government (Ireland) Act, 1902, or the Acts amending the same sections respectively, apply to district councils in Ireland and their medical officers in like manner as nearly as may be as they apply to Boards of Guardians in Ireland and their medical officers.

4. *Additional years' service to be added.*—A number of years not exceeding twenty, as the Local Government Board, having regard to the circumstances of each case shall see fit and direct, shall, in computing the amount of superannuation allowance to be granted to any medical officer under this Act, be added to the number of years during which such medical officer may have actually served in one or more unions in Ireland.

5. *Funds from which superannuation allowance to be paid.*—Every superannuation allowance to be made under the provisions of this Act shall be paid in the same proportions from the same funds as the salary payable at the time of his retirement to the medical officer to whom such superannuation allowance is being granted.

6. *Provisions as to existing rights.*—Nothing contained in this Act shall lessen or prejudice the right or title (if any) of any such medical officer to to a superannuation allowance computed in accordance with the provisions in that behalf of the Local Government (Ireland) Act, 1898.

7. *Definitions.*—The term "medical officer" shall mean—

(1) A duly qualified medical practitioner in the service of a Board of Guardians holding an office under the provisions of the Act for the more effectual relief of the destitute poor in Ireland or the Medical Charities Act, 1851, and the Acts amending the same respectively;

(2) A medical officer of health of a sanitary district under the Public Health (Ireland) Act, 1878, or any Act or Acts amending the said Act; or

(3) A registrar of births, deaths, and marriages, holding such office contingent on his position as dispensary medical officer.

The annual report of the Council of the British Medical Association, the Proceedings of the Council at its meeting on April 20th, and reports of the Proceedings of Committees of the Association, will be published in an early issue.

Printed and published by the British Medical Association at their Office, No. 429, Strand, in the Parish of St. Martin-in-the-Fields, in the County of Middlesex.

SUPPLEMENT

TO THE

BRITISH MEDICAL JOURNAL.

LONDON: SATURDAY, MAY 7TH, 1904.

CONTENTS.

	Page
PROCEEDINGS OF COUNCIL	93
REPORT OF COUNCIL	96
The Prince of Wales	96
Death of a Member of Council	96
Deaths of Former Members of Council	96
Deaths of Members of the Association	96
Death of the Financial Secretary	97
Representation of the Services	97
Brussels Medical Congress	97
Sanitary Institute Congress	97
Medical Charities	97
Programme of the Oxford Meeting	97
Free and Popular Lecture at the Annual Meeting	97
The JOURNAL	97
Association "Year Book"	100
The 1903 Balance Sheet	100
Superannuation Fund	100
Auditors' Report	100
Estimate of Receipts and Expenditure for 1904	100
COMMITTEES:—Annual Meeting (Sections) Committee.—Colonial Committee.—Ethical Committee.—Hospitals Committee.—Medical Defence Committee.—Medico-Political Committee.—Organization Committee.—Premises and Library Committee.—Public Health Committee.—Royal Navy and Military Committee.—Scientific Grants Committee.—Scottish Committee.—Special Chloroform Committee	100
The Library	105
BRITISH MEDICAL ASSOCIATION: BALANCE SHEET 31ST DECEMBER, 1903	98
BRITISH MEDICAL ASSOCIATION — PROCEEDINGS OF COMMITTEES:	
MEDICO-POLITICAL COMMITTEE.—Public Health Committee of M.P.s.—Consultations between Medical Witnesses.—Nurses Registration Bills.—Midwives Act.—Coroners.—Contract Practice.—Registration of Deaths and Stillbirths.—Constitution of the Local Government Board.—Vaccination and Revaccination.—Dispensers in Public Institutions.—Medical Certificates for School Children.—Sight Testing.—Medical Acts Amendment Bill.—Reports to Council... ...	106
CONFERENCE IN THE MATTER OF THE CORONER FOR SOUTH-WEST LONDON...	109
CONFERENCE ON ETHICAL PROCEDURE OF DIVISIONS... ...	110
PUBLIC HEALTH COMMITTEE.—Instruction in Hygiene and Temperance.—Constitution of the Local Government Board.—Overlying of Infants.—Vaccination and Revaccination.—International Notification of Infectious Diseases.—Public Health Committee of M.P.s.—Security of Tenure of Medical Officers of Health.—Workmen's Compensation Act.—Hygiene and Education.—The Scope of the Committee's Work ...	110
ETHICAL COMMITTEE.—Ethical Rules.—Contract Practice.—Hydropathic Establishments.—Special Cases	111
ORGANIZATION COMMITTEE.—Grants from Branches to Divisions. Rules and Boundaries of Divisions and Branches.—Temporary Vacancies.—Forest of Dean Section.—Division Libraries and Division Finance.—Rules of Divisions and Branches.—Changes of Boundaries of Divisions.—Grouping of Branches	111
MEDICAL DEFENCE COMMITTEE.—Minority Report.—Explanatory Memorandum	112
HOSPITALS COMMITTEE.—Constitution of the Committee.—Hospital Management.—Rate Support of General Hospitals ...	112
ROYAL NAVAL AND MILITARY COMMITTEE.—War Office (Reconstitution) Committee.—Militia Medical Officers.—Indian Medical Service.—Majors R.A.M.C. in India—Resignation ...	114
SCOTTISH COMMITTEE.—Ethical Questions.—Vacancies ...	116
COLONIAL COMMITTEE.—Proposed Transvaal and Orange River Branches.—Constitution of Committee.—Medical Registration in British Colonies and Dependences	116
JOURNAL AND FINANCE COMMITTEE.	117
ANNUAL MEETING (SECTIONS) COMMITTEE	117
PREMISES AND LIBRARY COMMITTEE.	117
MEETINGS OF BRANCHES AND DIVISIONS:	
East Anglian Branch	117
Grahamstown and Eastern Province Branch...	117
Worcestershire and Herefordshire Branch	117
ANNUAL REPORTS OF BRANCHES	118
NOTICE OF MEETINGS:	
ANNUAL GENERAL MEETING 1904, ...	118
ANNUAL REPRESENTATIVE MEETING	118
REPRESENTATIVE MEETING AT OXFORD:	
NOTICES OF MOTION	118
BRITISH MEDICAL ASSOCIATION: SEVENTY-SECOND ANNUAL MEETING AT OXFORD	120
PATHOLOGICAL MUSEUM	123
BRITISH MEDICAL ASSOCIATION LIBRARY	124

ASSOCIATION INTELLIGENCE.

PROCEEDINGS OF COUNCIL.

AT a meeting of the Council held in the Council Room of the Association, 429, Strand, W.C., on Wednesday, April 20th, 1904,

Present:

Mr. ANDREW CLARK, Chairman of Council, in the Chair.
Dr. T. DRYSLWYN GRIFFITHS, President.
Dr. WILLIAM COLLIER, President-elect.
Sir VICTOR HORSLEY, F.R.S., Chairman of Representative Meeting.
Dr. E. MARKHAM SKERRITT, Treasurer.

Dr. EDGAR G. BARNES, Eye.
Dr. JAMES BARR, Liverpool.
Dr. MICHAEL BEVERLEY, Norwich.
Dr. J. BRASSEY BRIERLEY, Old Trafford
Dr. H. LANGLEY BROWNE, West Bromwich.
Dr. R. C. BUIST, Dundee.
Mr JAMES CANTLIE, London (Hong Kong Branch)
Dr. W. A. CARLINE, Lincoln.
Mr. T. H. CHEATLE, Burford.
Dr. JAMES CRAIG, Dublin.
Dr. H. RADCLIFFE CROCKER, London.
Dr. GEORGE W. CROWE, Worcester.
Dr. P. MAURY DEAS, Exeter.
Brigade-Surgeon-Lieutenant-Col. E. F. DRAKE-BROCKMAN (South Indian and Madras Branch), London.
Mr. GEORGE EASTES, M.B., London.
Professor DAVID W. FINLAY, M.D., LL.D., Aberdeen.
Dr. EDWARD LAWRENCE FOX, Plymouth.
Dr. JOHN H. GALTON, Upper Norwood.
Dr. BRUCE GOFF, Bothwell.
Dr. JOSEPH GROVES, Carisbrooke.
Dr. JAMES HAMILTON, Glasgow.
Dr. W. M. HARMAN, Winchester.
Dr. T. ARTHUR HELME, Manchester.
Dr. G. A. HERON, London.
Mr. EVAN JONES, Aberdare.
Mr. R. H. KINSEY, Bedford.
Dr. C. H. MILBURN, Hull.
Dr. C. G. DRUMMOND MORIER (South Australia Branch), London.
Mr. W. JONES MORRIS, Portmadoc.
Dr. JAMES MURRAY, Inverness.
Mr. D. A. O'SULLIVAN, London.
Mr. EDMUND OWEN, London.
Mr. C. H. WATTS PARKINSON, Wimborne Minster.
Dr. ROBERT W. PHILIP, Edinburgh.
Mr. H. BETHAM ROBINSON, M.S.Lond., London.
Dr. J. MAXWELL ROSS, Dumfries
Professor ROBERT SAUNDBY, M.D., LL.D., Birmingham
Mr. J. LYNN THOMAS, C.B., Cardiff.
Dr. JOHN ROBERTS THOMSON, Bournemouth.
Dr. W. J. TYSON, Folkestone.
Mr. T. JENNER VERRALL, Brighton.
Dr. NORMAN WALKER, Edinburgh.

The minutes of the last meeting having been printed and circulated and no objection having been received were taken as read and signed as correct.

Read letters of apology for non-attendance from the Past-President, Dr. Bronner, Dr. Burgess, Dr. Cave, Brigade-Surgeon Moriarty, Dr. James Murphy, Dr. Pope and Mr. Spanton.

The General Secretary reported the resignation of Mr. C. E. S. Flemming, Representative of the Bath and Bristol Branch on the Council, which was accepted with regret and ordered to be entered on the minutes.

The Chairman of Council reported that he had received through Sir Arthur Bigge intimation that His Royal Highness the Prince of Wales would receive the certificate of Honorary Membership of the Association personally from him. He therefore attended at Marlborough House and presented the certificate, which His Royal Highness graciously accepted and expressed his gratification at being elected an Honorary Member of the British Medical Association, of which His Majesty the King was Patron.

The Chairman of Council regretted to have to report the deaths of Sir Edward H. Sieveking and Dr. Alexander Davidson.

Resolved: That this Council desires to express its sympathy with Mr. H. E. Sieveking in the loss he has sustained by the death of his distinguished father, the late Sir Edward H. Sieveking, M.D., F.R.C.P., LL.D. Sir Edward was a representative of the Metropolitan Counties Branch on the Committee of Council from 1876-1883, and gave the Address in Medicine when the Association met in Sheffield in 1876, proving himself at all times a valuable adviser of the Association.

Resolved: That this Council regrets to learn of the death of Dr. Alexander Davidson, who represented the Lancashire and Cheshire Branch on the Council from 1879-1889, and for some years acted as Hon. Secretary to that Branch and as Hon. Local Secretary when the Association met in Liverpool in 1883. Dr. Davidson by his kindly tact and hard work succeeded in making the Lancashire and Cheshire one of the most important Branches of the Association.

Read acknowledgements from Mrs. Woodcock and Miss Trend to the resolutions of sympathy passed by the Council, which were ordered to be entered on the minutes.

The Chairman of Council reported that owing to the death of Dr. Woodcock, a co-opted member of the Council, a vacancy had been created. Scrutineers having been appointed and a ballot taken, Surgeon-General Evatt, C.B., was declared duly elected.

Read reply from the London County Council to Minute 450, asking the London County Council to consider the possibility of framing By-laws to try to prevent the overlying of infants in bed:

County Hall, Spring Gardens, S.W.,
February 4th, 1904.

Sir,—In reply to your letter of October 29th last, asking the Council to consider the possibility of framing by-laws for the prevention of the overlying of infants in bed, I am directed to state that the Public Health Committee of the Council, while deploring the mortality which is due to this cause, do not see their way to advise the Council to promote legislation in the direction indicated, as, if the powers to make by-laws on this subject were obtained, which is very problematical, it appears to the Committee that it would be very difficult, if not entirely impracticable, to enforce such by-laws.

I am, Sir, your obedient servant,
G. L. GOMME,
Clerk to the Council.

The General Secretary,
British Medical Association, 429, Strand, W.C.

Resolved: That the same be received and entered on the minutes, and referred to the Public Health Committee which is now considering the question.

Read acknowledgement of resolution of Council, congratulating Professor Bayliss, F.R.S., on the issue of his action against the Honorary Secretary of the Antivivisection Society, which was ordered to be entered on the minutes.

The reply was read of the Board of Education (vide Minutes of the Public Health Committee, page 110), acknowledging the communication by the Council of the resolution concerning elementary scientific instruction in health subjects in primary schools, which was forwarded in pursuance of the minute of the Council of January 20th (vide JOURNAL SUPPLEMENT, January 30th, page 4) was referred to the Public Health Committee.

On the reception of the minutes of the Premises and Library Committee of April 19th, 1904, it was resolved:

That the accounts for the quarter be received and the Treasurer be empowered to pay them.

That the Librarian be authorized to purchase the Royal Society's *International Catalogue of Scientific Literature*.

That the thanks of the Council be given to Mr. Spanton for presenting to the library a copy of the minutes of the North Staffordshire Medical Society, 1864-85.

On the reception of the minutes of the Trust Funds Committee of April 19th, 1904, it was resolved:

That if the Trust Funds Committee find it to be possible, the administration of the income of the Middlemore Fund shall be transferred to the Scientific Grants Committee for the provision of a Middlemore Grant for Research in Ophthalmic Medicine and Surgery.

On the reception of the minutes of the Journal and Finance Committee of April 20th, 1904, after considering the Financial Statement for the year ending December 31st, 1903 (p. 98), it was resolved:

That the Financial Statement for the year ending December 31st, 1903, as certified by the auditors be received and approved and circulated, together with the estimate of receipts and expenditure for the year ending December 31st, 1904, to the Secretaries of Branches and Divisions and published in the JOURNAL, in accordance with By-law 32.

That the thanks of the Council be accorded to the Treasurer and permanent officials of the Association for the satisfactory Financial Statement presented for the year ending December 31st, 1903.

That the Financial Statement, as submitted to the Council, be published.

That the accounts for the quarter ending March 31st last, amounting to £9,934 9s. 1d., be received and approved, and the Treasurer be empowered to pay those remaining unpaid, amounting to £3,015 8s. 9d.

That it be a recommendation to the annual General Meeting that a sum of £300 be voted to the Superannuation Fund for the Office Staff.

That a further grant of £100 be made to the Special Chloroform Committee.

On the reception of the minutes of the Hospitals Committee of January 28th, March 3rd and 24th, 1904, it was resolved:

That the Hospitals Committee be empowered to fill up the vacancy among its members.

That the draft memorandum be referred back to the Committee for further consideration (see p. 113).

On the reception of the minutes of the Dental Section Committee of February 3rd, 1904, it was resolved:

That it is desirable that a Section in Dental Surgery be established in connexion with the annual meetings of the Association.

That the first meeting of such a Section be held at Oxford.

On the reception of the minutes of the Royal Naval and Military Committee of February 8th and 15th and March 29th, 1904, it was resolved:

That while the British Medical Association would welcome any measure which will tend to increase the efficiency of the military organization of the empire, such as is outlined in the new scheme of War Office reform, it regrets to observe that notwithstanding the experience gained in the South African war, after which Mr. Brodrick's Committee gave to the Army Medical Service direct representation on the Army Board, no such similar provision appears to have been made for the direct representation of the Medical Service of the Army on the now proposed Army Council.

That the British Medical Association considers the absence of direct representation on the Army Council of so important a branch of the military service a retrograde movement, and one that can only tend to handicap the efficiency of this branch of the service. It would therefore respectfully urge on His Majesty's Government to take such steps as will ensure the direct representation of the Army Medical Service on the Army Council, or whatever the central governing body of the War Office may be designated.

That notwithstanding the arguments adduced in support of the proposal set out in the War Office (Reconstitution) Committee Report, Part III, the British Medical Association still adheres to its opinion that the Medical Service of the army now occupies so important a position in safeguarding the health and life of the soldier in peace and in war, that in order to secure the highest state of efficiency it is essential in the best interests of the army that the medical services shall be administered by an army medical officer who shall have a seat on the Army Council.

That this Council, recognizing the inadequacy of the pay of officers of the Militia Medical Staff, do write to the Secretary for War calling his attention to the injustice suffered in this matter, and recommend that the pay and

allowances of officers of the Militia Medical Staff should be at least equal to those of the officers of the Royal Army Medical Staff Corps according to rank and service.

On the reception of the minutes of the Organization Committee of February 9th and April 12th, 1904, it was resolved:

That the boundary between the Metropolitan Counties and Oxford and Reading Branches be modified in the way proposed and approved by the two Branches.

That it be suggested to each Division that it is desirable to adopt a rule empowering its Executive Committee to fill vacancies amongst its officers and to appoint deputies for officers unable to act, and that the Medical Secretary be instructed to draft a model rule to be circulated to the Divisions as suitable for that purpose.

The Council approved the proposed formation by the Gloucestershire Branch of a Section for the Forest of Dean on the lines embodied in Rules submitted by the Organization Committee.

The Rules of the following Divisions and Branches were approved:

Branches: Hong Kong (except Rules 2, 7, and 13, and subject to certain additions), and Malaya.

Divisions: Blyth, Edinburgh (North-East), Glasgow (Eastern), Glasgow (Southern), Hartlepool, Singapore, and Sunderland.

With reference to the grouping of Divisions and Branches for electoral purposes for the ensuing year, the Council resolved:

That the grouping of Branches in the United Kingdom for representation on the Central Council be the same as last year, and that independent representation be granted to the same Branches as last year;

That the following Divisions, which last year were grouped for the election of representatives in the Representative Meeting, and which now have at least fifty members each, be made independent constituencies for the election of representatives: Cleveland, Hereford, Lancaster, and Reigate.

That the Isle of Wight be made an independent constituency if reaching fifty members by the day of election.

That the Fermanagh, Monaghan and Cavan, and Omagh Divisions be grouped with the three Divisions of Connaught to form one constituency for the election of a Representative.

That the constituencies of the Representative Meeting in the United Kingdom, other than those affected by the foregoing proposals, be the same as last year, except in the case of Divisions then grouped, which may be found when the list of members is published to have more than fifty members, and except also in the case of any Division thus recommended for independent representation which may then be found to have fewer than fifty members; and that in respect of such excepted cases the Council do delegate to the Organization Committee authority, at the first meeting of the Committee held after the publication of the annual list of members, to grant independent representation to such Divisions as shall then have at least fifty members, and to group such Divisions as shall then have fewer than fifty members, in each case in which the Committee shall deem such action expedient.

The minutes of the Medical Defence Committee of February 11th, 1904, were received, and it was reported that the Scheme together with explanatory notes had been forwarded to the Divisions, with a request that the Division Secretaries should poll their members.

On the reception of the minutes of the Scottish Committee of February 12th, 1904, it was resolved that the Council give notice of motion that By-law 28 be amended to read as follows:

Any casual vacancy occurring in the Council, not less than four months before the annual general meeting, may be filled up by any Branch or body the representation of which may have become vacant, and such election shall be conducted in the same manner as the annual election, or, in respect of election by a Branch, in such other manner as may be prescribed by the rules of the said Branch. Any person so chosen shall retain his office so long as the member in respect of whom such casual vacancy may have occurred would have retained the same.

On the reception of the minutes of the Colonial Committee of March 4th, 1904, it was resolved: That a letter be addressed to the Colonial Office pointing out that medical registration prevails in certain of His Majesty's Colonies and Dependencies, and respectfully urging upon His Majesty's Secretary of State for the Colonies that the time has now arrived to require compulsory registration in every British Colony and Dependency.

On the reception of the minutes of the Ethical Committee of March 18th, 1904, it was resolved:

That the Council approved the rules of ethical procedure of the following Divisions: Altrincham, Brighton, Cardiff, Glasgow (Southern), Hartlepool, Newcastle, Stockport, and Sunderland, and certain special rules of the Norwich Division.

It was decided that notices relative to contract practice appointments should be inserted in the advertisement columns of the JOURNAL in accordance with the scheme stated in the minutes of the Ethical Committee (*vide* Minutes of Ethical Committee, p. 111).

On the reception of the minutes of the Medico-Political Committee of March 23rd and April 13th, 1904,

The Council approved the report (A) on the Nurses' Registration Bills now before Parliament (*vide* minutes of March 23rd, 1904, p. 10.)

The Council also approved the Memorandum (B) on the present position of registered medical practitioners in the matter of furnishing certain information to coroners (*vide* minutes of March 23rd, 1904, p. 12), and ordered that it be forwarded to the Divisions.

The Council having considered recommendations by the Medico-Political and Ethical Committees concerning a proposed model Rule (Z) for adoption by Divisions drawn up in pursuance of the instructions of the Conference on Ethical Procedure of Divisions of February 10th (*vide* Minutes of Conference, page 110), approved the principle of the Rule, but referred it back to the Ethical Committee, in order that certain provisions might be included, and also referred it to the Scottish Committee to consult a Scottish lawyer thereon.

The Council expressed sympathy with the action of the Public Dispensers' Association in the matter referred to in the Memorandum (D) (*vide* minutes of March 23rd, 1904, p. 14.)

The Council, having received the Report (A), (*vide* Minutes of Medico-Political Committee of April 13th, 1904, p. 109), on the Revaccination Bill, now before Parliament, decided to support strongly the said Bill, having regard to the views expressed by the Divisions with reference to the Resolutions on Vaccination submitted to them by instructions of the last Representative Meeting; and also decided to take all necessary steps to oppose the Vaccination Act Amendment Bill (abolition of compulsory vaccination).

The Memorandum (B) on Fees for Life Assurance Examinations presented by the Medico-Political Committee was approved (*vide* minutes of April 13th, p. 109).

The Council also approved the Report (C) on the Unduly Repeated Dispensing of Prescriptions and adopted the recommendations therein (*vide* minutes of April 13th, p. 109).

It was resolved that the following Memorandum (D), of Parliamentary matters of interest to the medical profession, be circulated to the Divisions, together with an explanatory Memorandum.

MEMORANDUM OF PARLIAMENTARY MATTERS OF INTEREST TO THE MEDICAL PROFESSION.

1. Vaccination and Revaccination.
2. Death Registration.
3. Coroner's Law. (Medical witnesses).
4. Pharmacy. (Proposed removal of restrictions as to poisons).
5. Company Legislation. (Medical, Dentists, and Pharmacy).
6. Security of Tenure of Sanitary Officers, and of Parochial Medical Officers in Scotland.
7. Local Government Board Reform.

On the reception of the minutes of the Annual Meeting (Sections) Committee of March 28th, 1904, it was resolved: That it is desirable that abstracts of all papers should be published, if possible, in the Special Number of the JOURNAL to be published the first week in June, and that a circular be issued to the officers of Sections asking them to do their best to obtain such abstracts in time for publication in this number.

The minutes of the Public Health Committee of March 29th, 1904, having been received, it was resolved that the Coroners' Society be asked to confer with the British Medical Association on the subject of the overlying of infants.

The Council approved the principle of the Clause relating to International Notification of Infectious Diseases, which was omitted from the Draft Bill on the Reconstitution

of the Local Government Board, and resolved that communications on the subject be addressed to the Local Government Board, the Foreign Office, Colonial Office, and also to the House of Commons Public Health Committee.

It was decided to represent to the Government: That, having regard to the influence of the conditions of education upon public health, it is advisable (1) that the Board of Education should include in its staff a medical adviser to the Board, and (2) that each local education authority should have a medical adviser.

The Council resolved to give notice of motion for the Annual Representative Meeting that By-law 39 (3) be amended as indicated in the minutes of the Public Health Committee (see p. 111).

On consideration of candidates for election, it was resolved that the forty-seven candidates whose names appear on the circular convening the meeting be, and they are hereby, elected members of the British Medical Association.

The report of Council was then considered, when it was resolved that the Report as amended be received and approved and submitted to the Secretaries of each Branch and Division, and published in the JOURNAL, in accordance with By-law 22.

REPORT OF COUNCIL, 1903-4.

IN meeting you on the occasion of the seventy-second annual meeting of the British Medical Association at Oxford, your Council is gratified to report continued and steady progress. The membership has increased in a highly satisfactory degree, while the work accomplished by the Committees, your Council believes, is doing much to improve the conditions of medical practice. The Committee work has been particularly heavy, necessitating a large number of meetings and sacrifice of time and trouble on the part of members, and your Council thinks that the thanks of the Association are due to the Chairmen and members of the many Committees who have so unselfishly given such close attention to the many matters that have come under their consideration.

On meeting you at Swansea, your Council ventured to prophesy that the new Constitution would tend to make the British Medical Association a more powerful factor for the influencing of legislation and for the advancement of the good of the community and the medical profession. This prophecy promises to be fulfilled. The stimulated interest, so marked throughout the Divisions, has attracted attention to many important problems, so much so that the public is beginning to realize that the interests of the community and the interests of the medical profession are identical.

THE PRINCE OF WALES.

At Swansea the Prince of Wales paid a compliment to the Association and the Municipality by consenting to follow the precedent of His Majesty the King, Patron of the Association, by accepting the Honorary Membership. Although it was not possible for His Royal Highness to be present at Swansea to accept the Certificate of Honorary Membership at the hands of the President, or to visit Oxford during the forthcoming meeting, His Royal Highness received the Chairman of your Council at Marlborough House and accepted personally at his hands the Certificate of Honorary Membership, and expressed his deep interest in the work of your Association.

DEATH OF A MEMBER OF COUNCIL.

Last year your Council had to report the death of a member of the Council, and it has a similar melancholy duty to perform this year. Dr. Samuel Woodcock, a co-opted member, died on December 12th, 1903, within a few days of attending a Committee in London. The loss to your Council and to the Association it is difficult to gauge, as Dr. Woodcock, by his advice and ready wit, not only endeared himself to all who had the privilege of working with him, but rendered his counsels of incalculable value in the guidance of the affairs of your Association.

DEATHS OF FORMER MEMBERS OF COUNCIL.

Your Council also has to deplore the death of former colleagues. Sir George Duffey, one of the principal founders of the Dublin Branch, afterwards its President, and one who did so much to advance the interests of the British Medical Association in Ireland; Mr. T. R. Jessop, who for many years acted as representative of the Yorkshire Branch, and filled with distinction various offices in the Sections at the annual meetings, being in 1889 the President of Section of Surgery; Dr. Theophilus W. Trend, who represented the Southern Branch from 1884 to 1894; Sir William Kynsey, K.C.M.G., a former representative and past President of the Ceylon Branch; Sir Edward H. Sieveking, who was a representative of the Metropolitan Counties Branch on the old Committee of Council from 1876 to 1883, and gave the Address in Medicine in 1876 when the Association met at Sheffield; and Dr. Alexander Davidson, who had a seat on the old Committee of Council from 1879 to 1889 as representing the Lancashire and Cheshire Branch, of which he was a most active and energetic Secretary for many years. Dr. Davidson also acted as Honorary Local Secretary of the annual meeting of the Association when it met at Liverpool in 1883.

DEATHS OF MEMBERS OF THE ASSOCIATION.

Your Council regrets to have to record the deaths of the following members of the Association: Dr. Sidney James Allden, Colonel William Briggs Allin, M.B., Surgeon-Lieutenant-Colonel Robert Vacy Ash, Dr. George William Balfour, Mr. Wilfred Martin Barclay, Mr. Richard Barnard, Mr. Joseph Blackstone, Dr. Alexander Blair, Dr. Brookes of Adelaide, Mr. Thomas William Bullock, Mr. William Cadge, who delivered the Address in Surgery when the Association met at Norwich in 1874; Mr. H. Boyd Cardew, Mr. Adolphus Wm. W. Caudle, Deputy Surgeon-General H. Cayley, C.M.G., Honorary Surgeon to the King; Mr. Fielding Clarke, Dr. William Henry Corfield, Inspector-General Michael Waistell Cowan, M.D., R.N., Miss Lucy Elizabeth Cradock, L.R.C.P.I., Sir Robert Martin Craven, F.R.C.S., who held office as President of the East York and North Lincolnshire Branch; Dr. Richard Crean, Dr. Robert James Blair Cunynghame, Mr. John Brendon Curgenven, at one time a member of the Parliamentary Bills Committee of the Association; Surgeon-Major-General J. Davies, Mr. Edward Courtenay Drake, Dr. William Dobbin, Mr. Thomas Anthony Dodd, Dr. William Donald, Dr. Edward George Dutton, Dr. Henry Samuel Fairbank, Dr. James Ferguson, Secretary and afterwards President of the Perthshire Branch; Mr. James Fergusson, Dr. Wm. Findlay, Mr. R. Vicars Fletcher, Surgeon-General Archibald Henry Fraser, Mr. John Charles Galton, Dr. Robert John Garden, Major Allan Ewen Grant, Dr. Alexander Grant, Dr. George Grey, who filled the offices of both President and Treasurer of the North of Ireland (now Ulster) Branch of the Association; Mr. Charles Godson, Lieutenant-Colonel Hare, R.A.M.C. (Ret.), Mr. George Harrison, Mr. H. J. Hawthorn, Mr. Thomas Highton, Mr. Thomas Hunter Hughes, Mr. W. E. Image, President of the East Anglian Branch, 1864; Captain Robert Dalkeith Jepson, Mr. David Jones, Mr. David Illtyd Jones, Mr. Edward Francis Jones, Mr. George Kimball Jones, Mr. William Jones, Dr. William Henry Kempster, Dr. David Kennard, Mr. Herbert Arthur Kent, Fleet Surgeon Gilbert Kirker, M.D., who died of blood poisoning through pricking his finger during an operation, a Vice-President of the Section Navy, Army, and Ambulance at the Manchester meeting; Dr. David James Lawson, Dr. Herbert Alfred Lawton, Mr. Edward T. Lister, Mr. Frederick Lord, Dr. William Macleod, Dr. Frederic Norton Manning, Dr. William Morrison, Dr. George Colville Milligan, Dr. Charles Frederick Moore, Major Langton Philip Mumby, R.A.M.C., Dr. John Ivor Murray, Dr. Robert Milne Murray, Dr. Wm. Newman, Vice-President of the Section of Surgery at the Nottingham meeting; Surgeon-General Stewart Watson Ogg, M.B., Dr. Charles Edmund Oldman, Dr. Thomas O'Meara, Dr. Fray Ormrod, awarded the Gold Medal of the British Medical Association for conspicuous bravery in rescuing and attending the miners injured in the Workington Colliery explosion in April, 1888, President of the Border Counties Branch, 1901-2; Lieutenant-Colonel Thomas William Patterson, D.S.O., Lieutenant-Colonel Henry James Peard, C.M.G., Mr. George Edmund Legge Pearse, Dr. James Phillips, Dr. William Smoult Playfair, Dr. F. W. Howe Popham, Mr. T. F. Raven, Mr. Joseph Peek Richards, Mr. George Rigden, Mr. Henry Thomas Ruge, Dr. Charles Edward Saunders, Colonel Frederick Beaufort Scott, M.D., C.M.G., Dr. William Tocher Scott, Dr. Henry Blackburn Smith, Sir Philip Crampton Smyly, M.D., F.R.C.S.I., who held the office of Vice-President in the Section of Laryngology at the London Annual Meeting, 1895; Dr. James Stuart, ex-President of the North of Ireland (now Ulster) Branch; Dr. Edward Monro Spooner, Mr. S. D. von D'Arcy Sugden, Mr. William Parker Tait, Surgeon-Major Hamilton De Tatham, Dr. John Tatham, Sir Henry Thomp-

son, Bart., F.R.C.S., Surgeon-Colonel Sir George Thomson, K.C.B., M.D., Dr. John Knowsley Thornton, Vice-President of the Section of Obstetrics at the London meeting; Major George Jerry Arthur Tuke, Mr. Arthur Cromack Turner, Mr. J. Smith Turner, Mr. William Johnson Walsham, F.R.C.S., Vice-President, Section of Anatomy, 1885, and Secretary, Section of Surgery, 1886; Mr. George Samuel Watson, Mr. Thomas Buchanan Whitelaw, Mr. John Wilson, Mr. Robert H. Woodhouse, Dr. John Woodman, Mr. Albert Wright, Brigade-Surgeon Thomas William Wright, and Dr. John Macrae Yair.

DEATH OF THE FINANCIAL SECRETARY.

Your Council regrets to report that Mr. W. L. Burr, who was appointed Assistant Secretary in 1883 and Financial Secretary in 1898, died last September while on his holiday. This necessitated a readjustment in the office, and your Council appointed Mr. A. H. Lawford Assistant Secretary.

REPRESENTATION OF THE SERVICES.

Since the change in the constitution of the Association, the difficulty of appointing a member to serve on your Council as a representative of the Royal Navy Medical Service, the Army Medical Service, and the Indian Medical Service respectively has been appreciated, and your Council feels that By-law 20c as it now stands is inoperative so far as the Services are concerned. A recommendation will be put forward elsewhere suggesting that representatives of these Services should in future be nominated by your Council, as no other practical means of securing representatives from His Majesty's forces have been suggested.

BRUSSELS MEDICAL CONGRESS.

On the occasion of the eleventh International Congress of Hygiene and Demography, held in Brussels in September last, your Council was represented by Mr. C. H. Watts Parkinson and Dr. G. E. Shuttleworth.

SANITARY INSTITUTE CONGRESS.

Your Council received from the Sanitary Institute an invitation to appoint delegates to attend its Congress to be held during the last week in July at Glasgow. As this Congress will clash with the annual meeting of the Association your Council did not appoint delegates. Your Council regrets, in the interests of the Sanitary Institute, that it should have fixed its Congress at a time invariably identified with the annual meeting of the British Medical Association.

MEDICAL CHARITIES.

As a result of the General Secretary being permitted to collect moneys on behalf of the British Medical Benevolent Fund and Epsom College, during the year 1903 a total of £645 was received on behalf of these charities. Commencing this year your Council has also authorized the General Secretary to receive moneys on behalf of the Royal Medical Benevolent Fund Society of Ireland, and since January a total sum of £643 has been received and distributed to the charities in accordance with the wishes of the individual donors.

PROGRAMME OF THE OXFORD MEETING.

Your Council, having regard to the wishes expressed by Representatives at Swansea, has most carefully considered the hours for holding the General and Representative Meetings, and it trusts that the times arranged will prove satisfactory to all concerned. The first Annual General Meeting will be held at 12 noon on the Tuesday, instead of at 2 o'clock as in former years, to be immediately followed by the Representative Meeting, when, if thought desirable, there can be a short adjournment. On the Wednesday the adjourned General Meeting has been fixed for 2 o'clock, and immediately on its conclusion the Representative Meeting will resume its session. On the Thursday, should the business of the Representative Meeting not have been completed, it will meet at 3.30 after the Address in Surgery, while on Friday, if there is still work to transact, it will meet at 2 o'clock.

FREE AND POPULAR LECTURE AT THE ANNUAL MEETING.

Your Council decided that on the occasion of the Oxford meeting a free and popular lecture should be given to the public, and unanimously resolved to invite George Bagot Ferguson, M.D., M.Ch.(Oxon), F.R.C.S., who so ably presided over the Association at its meeting at Cheltenham in 1901, to give this lecture. Your Council hopes that the public will evince sufficient interest in the experiment to justify the inclusion of other popular lectures at future annual meetings of the British Medical Association.

THE JOURNAL.

In the conduct of the JOURNAL your Council has kept constantly in view the objects with which the British Medical Association is established—the promotion of medical and the allied sciences and the maintenance of the honour and interests of the medical profession.

The foundation of the respect in which the medical profession is held by the public must in the last resort rest on the efficiency with which it discharges its primary function of preventing and curing disease. It has always been the policy of your Council to render the JOURNAL a first-rate medical periodical, affording to members prompt and authentic information as to advances made at home and abroad in clinical medicine, surgery, and midwifery, in pathology, and in hygiene. The number of records from general practice is increasing both in the form of short independent communications and of cases read to Divisions, and there are indications that the latter source of supply may grow richer in the near future.

Your Council has also long recognized that in the JOURNAL your Association possesses a valuable means of disseminating information and forming opinion on matters touching the honour and interests of the profession. The new Constitution, the outcome of the growing interest in medico-political questions, has already had the effect of greatly increasing the amount of attention given to the economic aspects of medical life, and to efforts to bring about a better adjustment of the relations between the profession and the public. The net result is that the mass of material which has to be dealt with is very great, and the endeavour to meet this without either an excessive increase in the size of the JOURNAL (already one of the largest in the world), or undue compression of matter, is inevitably a task of considerable difficulty. One of the ways in which the growing call has been met during the past year has been by the issue of Supplements, containing records of matters appertaining to the business and medico-political aims of the Association, including the proceedings of the Council, the reports of standing committees, and the business proceedings of Branches and Divisions. In the Supplements have also been placed the principal Bills of a medical character brought before Parliament, so as to enable the members of the Association to make themselves conversant with measures the fate of which it must often be in their power to influence materially, whether as private individuals or as members of a great professional Association.

The position of the BRITISH MEDICAL JOURNAL as an exponent of medical opinion on social, political, and public health questions is recognized by the lay press. Occasions are taken to discuss such subjects upon the basis of full inquiry from the most authentic sources. A series of articles on contract practice, containing information kindly supplied by members who had recent experience of its evils and difficulties, was published in the first volume for 1903, in the belief that such information would be not only of assistance and guidance to those who were engaged in attempts to improve the conditions under which medical attendance to the working classes is given, but, on account of the principles involved, of interest also to every member of the Association. In the same volume a full account was given of the insanitary conditions under which milk is now too commonly supplied to large towns, and there is ample evidence that the articles have played an important part in arousing the attention of the profession and of the public to a question of great importance in relation to the physical development of the youth of the nation. The causes of the large amount of physical unfitness in the population were investigated in another series of articles published during the past winter, and conclusive evidence was adduced that in grappling with this question it is essential in the first place to remedy the injurious influences which affect the mother during her pregnancy, chief among which are bad housing, factory labour, an unphysiological diet, and alcoholism; in the second place to instruct mothers in the proper way of rearing infants, and to safeguard the purity of the milk which must be the staple diet of infants brought up by hand; and in the third place to provide systematic physical training and adequate opportunities for recreation for children in elementary schools.

The grievances of the Irish Poor-law Medical Service were brought to the notice of the Representative Meeting

British Medical Association.

Balance Sheet 31st December, 1903.

Dr. Cr.

LIABILITIES.

	£	s.	d.
To Subscriptions paid in advance	574	7	6
,, Advertisements ditto	901	13	1
,, Contributions	714	19	0
,, Reporting	81	7	6
,, Engraving	116	6	7
,, Printing Journal	400	5	7
,, Paper for Journal	717	14	9
,, Miscellaneous Printing	102	4	1
,, Stationery	63	17	2
,, Repairs	66	16	2
,, Legal Charges...	28	13	2
,, Rates and Taxes, Insurance and Electricity	442	5	1
,, Plant and Type	52	9	8
,, Editorial Expenses	27	12	0
,, Sundries	23	4	2
,, Travelling Expenses...	6	3	
,, Library, Books, etc.	20	2	4
,, Alterations of Premises	519	0	0
,, Loan from Bankers	576	17	8
,, Subscriptions due to Branches on December 31st, 1903	648	18	1
Total Liabilities	6,084	17	3

,, Surplus Account—						
Balance on January 1st, 1903				91,926	17	9
Transferred to Office Staff Superannuation Fund	558	1	0			
Amount voted to Office Staff Superannuation Fund	318	19	4			
				877	0	4
				91,049	17	5
Balance of Income over Expenditure for 1903 brought from Revenue Account				5,571	10	1
,, Balance, being total of excess of Assets over Liabilities ...				96,621	7	6
				£102,706	4	9

ASSETS.

	£	s.	d.	£	s.	d.
By Subscriptions—Amount due				1,378	18	8
,, Advertisements—Amount due				3,443	0	3
,, Sundry Sales—Amount due				131	13	1
,, Furniture and Fixtures				1,305	8	10
,, Library				2,255	12	1
,, Plant and Type				1,402	12	11
,, Accrued Rents				144	13	6
,, Freehold, 2 & 3, Harvey's Buildings, bought at Public Auction 1894				4,640	0	0
,, Freehold of 429, Strand, 2, 3, 4 & 5, Agar Street at price paid 1898	£79,000	0	0			
,, Redemption of Land Tax	880	0	0			
,, Improvements by Alterations of General Office, 1903	1,500	0	0			
				81,380	0	0
,, Investment at cost—£1,800 Bank of England Stock at 331—bought March, 1903				5,965	10	0
,, Cash at Office				9	17	4
,, Cash at Bank being Branch Subscriptions in hand Dec. 31st, 1903				648	18	1
				£102,706	4	9

Revenue or Profit and Loss Account for Year ending 31st December, 1903.

	1902. £	s.	d.	1903. £	s.	d.
Editorial ... ... See *Abstract A* ...	5,901	19	8	6,098	10	0
Expenses of Printing Journal ... ,, *B* ...	21,933	7	2	20,897	8	1
General Association Expenses ... ,, *C* ...	5,570	0	10	5,347	10	5
Office Salaries and Wages ... ,, *D* ...	3,736	6	1	3,892	11	4
Representative Meeting, Council and Committee Expenses ... ,, *E* ...	1,449	8	7	1,806	4	3
Library— ... ... ,, *F* ...	247	2	6	257	13	9
,, Written off towards Depreciation		—		250	0	0
Interest on Mortgage and Tax	189	0	9		—	
Plant—Written off towards Depreciation	500	0	0	500	0	0
Capitation Grants to Branches		—		2,955	16	10
Cost of Alteration to General Office ... 2,119 0 0						
Less amount carried to Balance Sheet 1,500 0 0						
				619	0	0
Subscriptions:—Written off for Deaths, Arrears, &c.	997	17	7	611	7	5
	40,525	3	2	43,236	2	1
Balance of Income over Expenditure for 1903 carried to Balance Sheet	4,499	6	7	5,571	10	1
	£45,024	9	9	£48,807	12	2

	1902. £	s.	d.	1903. £	s.	d.
Subscriptions	20,451	8	8	23,721	18	6*
do. arrears of former years	314	19	7	442	13	0
Advertisements	20,355	7	5	20,480	5	5
Sundry Sales:—Journal	1,815	18	2	1,870	4	8
,, ,, Reading and Binding Covers, &c.	119	3	7	182	17	11
,, ,, Reprints	132	17	0	119	7	2
Interest on Investments and Rents	810	19	1	1,041	13	6
Returned Scientific Grants	62	13	6	66	1	3
Sale of Waste, &c.	18	7	6	32	12	8
Discounts on Printing, Paper, &c.	942	15	3	849	17	3
	£45,024	9	9	£48,807	12	2

* The full 25/- per member is included in this amount, in former years only 21/- per member was shown.

Abstract A.]

Editorial.

	1902. £	s.	d.	1903. £	s.	d.
Salaries:—Editor	1,000	0	0	1,000	0	0
,, Assistant Editor	600	0	0	750	0	0
,, Sub-Editors	150	0	0	187	10	0
,, Clerical Staff	363	1	0	366	12	0
Contributions	2,779	1	11	2,912	10	6
Reporting	249	0	1	253	10	8
Engraving	466	9	7	397	5	8
Legal Expenses	38	15	10	29	14	4
Postage	76	18	8	79	19	5
Analyses	26	15	6		—	
Travelling Expenses, Papers, &c.	124	15	11	116	9	11
Cost of Journal Slips circulated to the Press ...	27	1	2	4	17	6
	£5,901	19	8	£6,098	10	0

Abstract B.]

Expenses of Printing Journal.

	1902. £	s.	d.	1903. £	s.	d.
Compositors' Wages and Machining ...	8,097	0	6	8,228	9	5
Paper for Journal	9,699	8	1	8,509	12	2
Postage for Dispatch of Journal	3,815	1	1	3,743	16	4
Address Bands for issuing Journal	321	17	6	415	10	2
	£21,933	7	2	£20,897	8	1

Abstract C.]

GENERAL ASSOCIATION EXPENSES.

	1902. £ s. d.	1903. £ s. d.
Annual Meeting—Cost of *Daily Journal*, etc. ...	275 7 0	129 8 0
,, ,, Expenses of Sections ...	16 5 8	36 0 9
Auditors' Fee	105 0 0	105 0 0
Bank Charges	22 8 1	45 3 10
Cleaning Offices	164 18 1	158 17 0
Coals and Coke	44 18 0	52 2 6
Compositors' Sick Fund	10 10 0	—
Donation to Charing Cross Hospital	10 10 0	10 10 0
General Repairs	741 6 1	155 11 11
Imperial Vaccination League, grant to	—	100 0 0
Legal Expenses	204 2 10	200 0 6
Miscellaneous Printing	556 19 9	500 17 7
Office—General Postage	447 0 9	476 15 11
Office Petty Cash	137 19 5	107 10 4
Pension, late General Secretary	150 0 0	600 0 0
Rates and Taxes, Insurance, Gas and Electric Light	742 19 6	794 4 4
Reporting Council and Finance Committee Meetings	61 19 0	102 18 0
Reprints	111 16 0	66 12 1
Research Scholarships	600 0 0	612 10 0
Scientific Grants	356 0 0	350 0 0
,, ,, Special Grant Chlorofom Committee	100 0 0	100 0 0
Stationery for Office	328 13 5	332 13 11
Sundries	268 7 9	154 13 1
Travelling Expenses	112 19 6	156 0 8
	£5,570 0 10	£5,347 10 5

Abstract D.]

OFFICE SALARIES AND WAGES.

	1902. £ s. d.	1903. £ s. d.
General Secretary	825 0 0	600 0 0
Medical Secretary...	250 0 0	600 0 0
Financial Secretary (the late), January to September	400 0 0	300 0 0
Assistant Secretary	225 0 0	—
Clerical Staff	2,036 6 1	2,392 11 4
	£3,736 6 1	£3,892 11 4

Abstract E.]

REPRESENTATIVE MEETING, COUNCIL AND COMMITTEE EXPENSES.

	1902. £ s. d.	1903. £ s. d.
ANNUAL REPRESENTATIVE MEETING—Railway Fares	—	255 8 5
COUNCIL—Railway Fares	703 16 0	703 0 4
COMMITTEES—Railway Fares, &c. :—		
Annual Meeting Committee	17 4 1	15 5 2
Arrangement Committee	12 17 10	18 2 3
Assistant Secretary Committee	—	4 4 0
Chloroform Committee	—	46 6 0
Colonial Committee	2 0 0	8 2 1
Constitution Committee	232 15 4	—
Coroners Acts Committee	2 16 8	—
Crown Colonies and Protectorates Medical Service Committee	7 6	—
Ethical Committee	14 0 8	52 3 3
General Practitioners Committee	1 7 6	—
Hospitals Committee	—	19 2 10
Income Tax Committee	—	1 12 6
Index Medicus Committee	2 8 6	—
Inebriates Committee	1 8 2	—
Joint Committee of British Medical Association and Medico-Psychological Association ...	3 9 1	1 17 8
Joint Committee on Fees to Medical Witnesses ...	—	3 14 8
Journal and Finance Committee—Special Meeting	—	20 18 4
Medical Charities Committee	3 19 0	—
Medical Defence Committee	—	92 16 0
Medico-Political Committee	20 2 10	122 17 5
Organization Committee	113 4 4	147 8 0
Parliamentary Bills Committee	52 16 8	—
Preliminary General Education Committee ...	13 6 0	—
Premises and Library Committee	68 15 7	216 0 11
Public Health Committee	7 11 10	29 8 5
Reorganization Committee	152 17 6	4 9 10
Royal Naval and Military Committee	—	9 14 8
Scientific Grants Committee	17 2 5	22 19 4
Scottish Committee	9 0	10 12 2
Superannuation Committee	4 12 1	—
	£1,449 8 7	£1,806 4 3

Abstract F.]

LIBRARY.

	£ s. d.	£ s. d.	£ s. d.
To Balance brought forward from 1902	2,394 0 3	By Librarian's Salary	250 0 0
,, Purchase of Books	73 9 1	,, Printing and Posting of Circulars and Insurance	7 13 9
,, J. N. Honeyman for Binding	38 2 9		257 13 9
,, Librarian's Salary	250 0 0	,, Amount written off for Depreciation ...	250 0 0
,, Printing and Postage of Circulars and Insurance	7 13 9	,, Balance carried to Balance Sheet... ...	2,255 12 1
	£2,763 5 10		£2,763 5 10

TRUST FUNDS.

Stewart Fund.

Investment of £579 4 per cent. Caledonian Railway Debenture Stock, in the name of the British Medical Association.

1903.	£ s. d.	1903.	£ s. d.
Jan. 1. To Balance brought over from 1902	42 8 10	Aug. 1. By Award, Dr. F. W. Mott	50 0 0
Dec. 31. ,, Interest	21 19 0	,, Stanley, Engrossing Certificate	1 17 6
		,, Balance carried down	12 10 4
	£64 7 10		£64 7 10

Middlemore Fund.

Investment of £666 13s. 4d. 3 per cent. North British Railway Debenture Stock, in the name of the British Medical Association.

1903.	£ s. d.	1903.	£ s. d.
Jan. 1. To Balance brought over from 1902	88 14 4	Dec. 31. By Balance carried down	107 13 5
Dec. 31 Interest	18 19 1		
	£107 13 5		£107 13 5

Office Staff Superannuation Fund.

1903.	£ s. d.	1903.	£ s. d.	£ s. d.
To transfer from Surplus Account	877 0 4	By Balance carried forward being Investments at cost—£600, Cape of Good Hope 3 per cent. Stock, bought Dec., 1902	558 1 0	
,, Interest received	8 8 9	,, £100 Bank of England Stock, bought Dec., 1903 ...	318 19 4	
			877 0 4	
		,, Cash at Bank	8 8 9	
	£885 9 1			£885 9 1

We certify, in accordance with the provisions of the Companies Act, 1900, that all our requirements as Auditors have been complied with. Having examined the above Balance Sheet, dated 31st December, 1903, with the books and vouchers of the Association, and having inspected the Deeds of the properties, 429, Strand, 2, 3, 4 and 5, Agar Street, and 2 and 3, Harvey's Buildings deposited with your Bankers, and having verified the investments held on account of the Association and of the above Trust Funds, we report that the Balance Sheet is in our opinion properly drawn up so as to exhibit a true and correct view of the state of the Association's affairs as shown by the books of the Association.

3, Frederick's Place, Old Jewry, E.C.,
30th March, 1904.

PRICE, WATERHOUSE & CO.

at Swansea, which adopted resolutions supporting the action taken by the medical profession in Ireland. With the assistance of many members of the Association in that country, and some of the officers of the Irish Medical Association, the JOURNAL was enabled to make a thorough inquiry on the spot, and the results of that inquiry prove that the deplorable state of the Irish Poor-law dispensary system has been by no means exaggerated. The Commissioner of the JOURNAL, who visited many parts of Ireland, and conferred not only with dispensary medical officers and members of the profession in the chief centres, but also with representatives of other professions and interests in Ireland, was led to conclude that an extensive reform of the present system of giving medical relief in Ireland, and of granting pay and allowances to the medical officers, is urgently necessary. The report has been widely discussed in the Irish papers, and communications received from practitioners in many parts of Ireland show that its publication has caused much satisfaction among medical officers of the Irish dispensary service. They are sanguine that the British Medical Association will take up their cause and take effective steps for the remedy of grievances which have been aggravated rather than diminished by recent legislation.

ASSOCIATION "YEAR BOOK."

For some time your Council has felt that a book of reference on the work of the Association should be published, and in consequence it issued early in the year the Association *Year Book*. It is hoped that this publication will be found useful to all members, but more especially to Secretaries of Branches and Divisions. It contains a monthly calendar, showing as far as possible the meetings of the Standing Committees, Council meetings, and other dates of interest to members of the Association; lists of Council and Committees; a brief history of the Association; provisions of the present Constitution; a review of the work during 1903; a *précis* of the Swansea meeting; the programme for the Oxford meeting; a chronological list of the places of meeting with the names of the officers since the foundation of the Association in 1832; some notes on the BRITISH MEDICAL JOURNAL and a list of Editors; figures showing the financial progress of the Association, with the balance sheet for 1902; the names of General Secretaries with the dates of their election; and finally a complete list of the home and colonial Branches and Divisions of the Association, with the names of the various officers and special local information. Your Council realizes that in some details this *Year Book* is not as complete as it would have desired, but in a first publication this is often inevitable; certain items in particular should certainly have been included—a list of Representatives elected to attend the Representative Meetings, and the addresses of Honorary Secretaries of Branches and Divisions, and it is confidently hoped that each successive year will tend to make the *Year Book* of greater use to every member who has the interest of the Association at heart.

THE 1903 BALANCE SHEET.

Your Council submits with special interest the Balance Sheet for the year ending December 31st, 1903, showing as it does the results of the first clear year's working under the new Constitution, and is gratified to present a statement of financial progress and prosperity. Consequent upon the change in the constitution of your Association, resulting in additional work and activity, an increase of expenditure was to be anticipated. This expectation, however, has not been borne out in fact, any extra expenditure being more than counterbalanced by economies in the management of your business. It is true that the revenue account shows an increase in expenditure of nearly £2,900, but as a set-off against this sum the capitation grant to Branches of £2,950 may be deducted, leaving the expenditure for the year 1903 rather less than for 1902. In reviewing the individual heads of expenditure, it will be observed that there is a small increase in the Editorial and Office expenses; also an increase in the travelling expenses of Representatives, Council, and Committees. This last item is accounted for by the payment of the railway fares of Representatives attending the annual meeting. The alterations to your office premises also entailed considerable expenditure, the total cost amounting to £2,100. As these alterations have materially enhanced the value of your property, only £600 of this amount has been charged against revenue, the balance of £1,500 being transferred to capital account. Against these increases considerable economies have been effected in the production of the JOURNAL and in general Association expenses, amounting to close on £1,300. Your Council has thought it prudent to write off £250 against the depreciation of your library. Nothing has been written off the value of furniture and fixtures, as your Council believes that this item in the balance sheet has already been sufficiently written down. Your Council is also gratified to report that it has been necessary to write off only £600 against anticipated losses by deaths, arrears, etc., on the subscriptions, a sum nearly £400 less than in the preceding year. Turning to the sources of revenue, your Council is pleased to report an increase in the subscriptions. The figures show close on £3,300, but in this amount is included the full 25s. per member as against 21s. in previous years, and nearly £3,000 of this apparent increase has therefore been disbursed in capitation grants to the Branches. The advertisements in the JOURNAL show an increase; this is the more satisfactory when it is recollected that it has been earned in spite of severe trade depression, the year 1903 being admittedly one of the worst on record for advertising. In connexion with the revenue derived from advertisements it is a matter of congratulation that this considerable sum has been earned without incurring any serious bad debts. Your investments and rents have shown an increased return, and your Council is pleased to report that none of your premises have been unoccupied during the past year. In conclusion, your Council is able to report for the year 1903 a balance of receipts over expenditure amounting to just on £5,600. Such satisfactory results can only be achieved by the loyal co-operation of the whole of your office staff, and your Council takes this opportunity of placing on record its thanks for the good work accomplished in a year of exceptional pressure.

SUPERANNUATION FUND.

Last year your Council reported that it had transferred the sum of £558 1s., being the balance of moneys collected to defray the cost of a memorial to the late Sir Charles Hastings, M.D., one of the founders of your Association, to form the nucleus of a superannuation fund for your office staff. In addition, the Annual General Meeting voted a sum of £300 to supplement this fund, which with interest now amounts to £885 9s. 1d. Your Council hopes that this Superannuation Fund may again receive generous consideration at the hands of the General Meeting.

AUDITORS' REPORT.

Your Council has again to acknowledge the services of Messrs. Price, Waterhouse and Co., who have audited the books of your Association during the past year. They offer themselves for re-election in accordance with the requirements of the Companies Act, 1900.

ESTIMATE OF RECEIPTS AND EXPENDITURE FOR 1904.

Your Council submits the following estimate of the probable receipts and expenditure for the year ending December 31st, 1904:

Receipts.	£	s.	d.
By Subscriptions ...	24,000	0	0
,, Advertisements ...	20,500	0	0
,, Sundries	2,100	0	0
,, Investments and Rents	1,000	0	0
	£47,600	0	0

Expenditure.	£	s.	d.
To Printing JOURNAL ...	20,950	0	0
,, Editorial	6,100	0	0
,, General Association Expenses	5,800	0	0
,, Office Salaries and Wages	4,500	0	0
,, Representative Meeting, Council, and Committees ...	2,000	0	0
,, Library	500	0	0
,, Plant depreciation...	800	0	0
,, Grants to Branches...	3,000	0	0
,, Subscriptions written off	600	0	0
,, Estimated Balance...	3,350	0	0
	£47,600	0	0

COMMITTEES.

ANNUAL MEETINGS (SECTIONS) COMMITTEE.

Your Council has had under consideration the regulations governing the arrangements of the Sections at annual meetings and its controlling power over officers of Sections in the performance of their duties. As a result, a Standing Committee has been appointed to supervise the work of the Sections, to obtain information from office-bearers as to progress in Sectional arrangements, and to render them information and assistance in the preparation of the Sectional work. Your Council believes that such a Committee will be of great

service in the advancement of the scientific work of the Association.

COLONIAL COMMITTEE.

This Committee has again had under its consideration the question of the representation of the Colonial Branches on your Council. As a result of recommendations your Council has decided to accept the return of any Colonial Branch for the year 1903-4, and in the meantime has remitted to the Colonial Branches the report of a conference on the subject between this and the Organization Committee for their comment,

The Committee has long felt it would be of considerable advantage, when considering Colonial matters, to have the assistance of representatives in actual touch with the Colonies, and to meet this your Council has sanctioned the attendance of resident members of Colonial Branches who may happen to be in Great Britain. In order to carry this out your Council has requested Colonial Branch Secretaries to notify the General Secretary of the names of Colonial members visiting England. It is hoped by this more intimate exchange of views on Colonial questions to bind still closer to the parent Association the Colonial Branches, which are, perhaps, the most striking feature of your great Association.

The Committee has had under consideration the question of the inequality of salaries obtaining in the medical departments of the Malay Straits in comparison with other branches of the Civil Service, and evidence is being collected in the hope that these inequalities may be removed.

It has also represented to the India Office the absence of representatives of medicine and sanitary science on the Council of the Viceroy of India, but so far without satisfactory results.

This Committee proposes to take up the question of Colonial registration and medical reciprocity in Australasia, of which reports will be made in due course.

ETHICAL COMMITTEE.

The Ethical Committee has met three times since the last Annual Meeting, and has been called upon to consider a large number of questions submitted by members of the Association, and also to advise your Council on Rules submitted by many Divisions and Branches.

Sixteen Branches and seventy Divisions have adopted, with slight modifications, the model Rules of ethical procedure proposed by the Committee, and your Council has, on the advice of the Committee. approved such rules, as well as special ethical Rules submitted by the Ashton, Bradford, Cleveland, and Norwich Divisions.

In connexion with the Rules of Divisions which have from time to time been sanctioned by your Council, in which it is provided that members of a Division should not, except in cases of urgency, accord professional recognition to medical practitioners whose conduct has been held by the Division to be detrimental to the honour and interests of the medical profession, a question has arisen as to the best manner in which the members of the Division may be informed of the names of offenders.

A model Rule and form of notice for this purpose have been drafted, after very careful consideration, and approved in principle by your Council, on the recommendation of the Ethical and the Medico-Political Committees. Certain details in connexion therewith are still under consideration by the Ethical Committee.

The action systematically taken, under the supervision of the Committee, in reference to trade advertisements containing the names of medical practitioners, has resulted in the withdrawal of many such advertisements. In one case of the kind, in which the medical man concerned declined to withdraw the advertisement at the instance of the Committee, the matter has been referred to the General Medical Council, who referred it again to the licensing bodies from whom the practitioner had received his diplomas, and as the result of the action of one of these bodies the advertisement has been withdrawn and an undertaking given not to repeat the same.

The action recommended by the Committee, and approved by the Annual Representative Meeting of 1903, in reference to the advertising in the local newspapers of the medical officer for the week of hospitals, or the days of attendance of members of the staff, has been carried out in the few cases to which attention has been drawn. Your Council regrets to report that in one or two instances the Boards of hospitals have refused to comply with the request of the staff, but it is gratifying to know that in general the opinion of the medical profession on this matter is receiving recognition.

On the recommendation of the Committee a memorandum has been submitted to the Divisions on the advertising of medical practitioners attached to hydropathic establishments, and recommendations based on the replies of the Divisions will be made to the Representative Meeting.

The question of the connexion of medical practitioners with the management of hydropathic establishments and similar institutions having come before the Ethical Committee, the Committee has reported that it appears preferable that medical practitioners, who can be held responsible by the profession, should be concerned in their management, than that they should fall entirely into the hands of lay persons, who are beyond professional control.

In order to assist those members of the profession who are struggling to improve the status and remuneration of contract practice, on the recommendation of the Ethical Committee, your Council has decided that a warning notice should be inserted in the advertisement columns of the BRITISH MEDICAL JOURNAL, asking all medical men, before they apply for appointments in connexion with contract practice in districts in which disputes are in progress, to communicate first with the Honorary Secretary of the Division, or with the Medical Secretary of the Association.

Various matters which have been brought under the notice of the Ethical Committee have from time to time been referred by the Committee to the Divisions or Branches to which the practitioners concerned belonged, for preliminary investigation of the facts, and your Council has approved this practice as generally desirable.

HOSPITALS COMMITTEE.

At Swansea your Council appointed a special Committee, with wide reference, for the purpose of investigating the management of hospitals throughout the country. The Committee has collected much information, and is preparing some Model Principles for the conduct of in-patient, out-patient, and casualty departments.

It is hoped, when these principles are decided upon, to invite certain laymen, specially versed in the management of hospitals, to confer with the Committee. Your Council feels that it is desirable that any principles laid down for guidance in the management of hospitals should be endorsed not only by the medical profession but also by lay representatives of medical charitable institutions.

MEDICAL DEFENCE COMMITTEE.

At Swansea your Council appointed a Committee to consider whether the general or individual medical defence of its members should be undertaken by the British Medical Association; and if such Committee should report in favour of medical defence, it was requested at the same time to prepare a scheme whereby the Association could safely and efficiently carry out the work. This Committee held several meetings, and gave careful consideration to this difficult problem, and as a result reported in favour of a Medical Defence Department being established, and submitted a scheme which was published in full in the SUPPLEMENT to the JOURNAL of January 30th. The scheme has been remitted to the Divisions, and the Secretaries have been requested to poll their Divisions to ascertain what members desire to avail themselves of medical defence should the scheme be carried out. Your Council at the time of drafting this report has not learned the result of the poll of the Divisions, but it expects to be in a position to lay full details before the Representatives at the Oxford meeting.

MEDICO-POLITICAL COMMITTEE.

The Medico-Political Committee has held six meetings since the annual meeting of the Association, and many questions of importance affecting the public relations of the profession have received attention. The Committee has been materially assisted by the labours of the Emergency Subcommittee, which has met three times, and of two special Subcommittees on the Nomination of Candidates for the General Medical Council and on the National Deposit Friendly Society, which have met once and twice respectively.

Parliamentary Matters.—The following (*a*) Bills prepared by the Association, and (*b*) Bills, dealing with matters of interest to the medical profession, brought before Parliament by bodies other than the Association, have been fully considered by the Committee:

(*a*) Coroners Act Amendment Bill.
Local Government Board Bill.
Security of Tenure (Sanitary Officers) Bill.
Medical Acts Amendment Bill.

(*b*) Revaccination Bill (Imperial Vaccination League).
Vaccination Acts Amendment (abolition of compulsory vaccination) Bill (introduced by Mr. Broadhurst and others).
Pharmacy Acts Amendment Bill (Pharmaceutical Society.
Nurses Registration Bills (Royal British Nurses' Association and Society for the State Registration of Nurses).

For reasons stated in the present report in connexion with the subjects to which the Bills severally relate, none of the Bills of the group (*a*) have been introduced into Parliament during the present session.

While the influence of the Association will be exercised in opposition to the Bill for the abolition of compulsory vaccination, with reference to the Bills in the group (*b*) the Council, on the recommendation of the Medico-Political and Public Health Committees, is supporting the Revaccination Bill.

Approval of the Pharmacy Acts Amendment Bill has been expressed.

No action will be taken for the present on the Nurses Registration Bills.

Your Council is gratified to be able to report that as a result of a conference between the Medico-Political Committee and medical members of Parliament, convened by the Committee, several members of the House of Commons have constituted themselves into a Public Health Committee to watch over questions in the House affecting public health, medical, and kindred questions. Dr. Farquharson and Sir Michael Foster have been appointed Chairman and Secretary respectively of the Committee.

Having regard to the possibility of a general election at an early date, the Medico-Political Committee has formulated a list of subjects, which is being circulated, with an explanatory Memorandum, for the assistance of Divisions who may desire to bring to the notice of Parliamentary candidates the views of the medical profession on matters of special interest to the profession which Parliament is likely to be called upon to consider.

Public Health.—The Medico-Political Committee has co-operated with the Public Health Committee in considering certain important proposals affecting the central administration of Public Health in England and Wales. The conclusions of the Committees, and the action taken, upon their recommendation, in framing a Bill for the reorganization of the Local Government Board, and bringing the same under the notice of the President of the Local Government Board and of the Inter-Departmental Committee now sitting to consider the constitution of the Board, are stated in the portion of the present Report of the Council, which deals with the work of the Public Health Committee. Reference is also made in the same portion of the Report to the reasons which have prevented introduction of the Security of Tenure (Sanitary Officers) Bill in the present session of Parliament.

Vaccination.—The replies of the Divisions on the questions submitted by instruction of the Representative Meeting showed general approval of the principles formulated by the Medico-Political and Public Health Committees.

A report based on the replies will be published in the JOURNAL in due course.

In conformity with the opinions of the Divisions thus expressed, your Council has decided to support the Revaccination Bill now before Parliament.

Your Council has also, on the recommendation of the Medico-Political Committee, decided to oppose in every way possible the Bill now before the House of Commons for the abolition of compulsory vaccination.

Your Council, on the recommendation of the Committee, has addressed to the Committee of the Local Government Board, appointed to inquire into the expenses of Public Vaccinators, representations in favour of maintaining the fees of the Public Vaccinators at not less than the minimum at present laid down by the Board.

Irish Poor-law Medical Service.—In pursuance of the instructions of the Representative Meeting that action should be taken in support of the Irish Poor-law medical officers, in respect of adequate salary, superannuation, and annual holiday, efforts have been made to obtain the support of influential members of Parliament, and to secure the favourable consideration of the Government, but it has not yet been possible to achieve any definite result.

Investigation and Registration of Cause of Death.—In accordance with the instruction of the Representative Meeting, your Council has extended the inquiry which had been previously made by the Medico-Political Committee into the subject of the registration of uncertified deaths, to cover the whole subject of the amendments required in the law as to death certification and registration. The Medico-Political Committee has formulated certain recommendations on the subject which have been approved by your Council, and which have been submitted by a deputation from the Association to the Registrar-General. These proposals are also being brought under the notice of the Local Government Board.

The methods of investigation of the cause of death adopted by coroners have also received consideration by the Committee, and the procedure adopted by coroners in obtaining information from medical men as to the cause of death, otherwise than by evidence at inquests, is the subject of a special report, which your Council has adopted and is communicating to the Divisions.

That payment should be made for the information referred to in the last paragraph was one of the proposals contained in the Coroners Bill, prepared by a special Committee of the Association in 1902. Before introducing this Bill into Parliament it was thought desirable to bring it to the notice of the Coroners' Society. Your Council is glad to be able to report that while the Coroners' Society considers itself to be debarred by its special position from actively supporting a Bill of this character, it has expressed sympathy with the effort to improve the position of medical witnesses.

Inquiries are being made into the requirements of the law concerning the attendance of medical witnesses for the defence at official necropsies.

Medical Witnesses.—On the recommendation of the Medico-Political Committee the opinion of the Divisions is being ascertained as to the desirability of consultation between the medical witnesses on either side in legal cases, and a report based on the replies received will be laid before the Representative Meeting.

Contract Practice.—In carrying out the investigation ordered by the Representative Meeting into the economic conditions of contract practice, the Medico-Political Committee has prepared a series of questions addressed to individual medical practitioners engaged in such practice, which are being circulated with the assistance of the Divisions. The Medical Secretary has also, on behalf of the Committee, visited several Divisions in which disputes as to contract practice were in progress, or which for other reasons were specially interested in the subject, and has reported thereon to the Committee.

On the basis of information obtained in the last mentioned and other ways, the Committee has found itself in a position to formulate a series of propositions concerning the regulation of contract practice, which will be submitted as an interim report to the Representative Meeting.

A special report will also be presented to the Divisions on the working of the National Deposit Friendly Society.

The Medico-Political Committee has been called upon to consider, as a matter affecting he interest of the medical profession in its relation to the public, a draft model Rule, and form of notice, for adoption by Divisions, which are referred to in the portion of the Report of your Council which deals with the work of the Ethical Committee. The Medico-Political Committee concurred with the Ethical Committee in recommending your Council to approve such rule and notice.

Nomination of Candidates for General Medical Council.—In pursuance of the instructions of the Representative Meeting, the Medico-Political Committee has formulated a scheme whereby the Association may nominate candidates for the office of Direct Representatives of the profession on the General Medical Council, and the scheme is being laid before the Divisions.

Preliminary Education.—Your Council, having regard to the fact that the Board of Education has under consideration a form of leaving certificate for secondary schools, has approved that a Memorandum be addressed to the Board expressive of the views of the Association as to the standard of general (secondary) education requisite in persons entering the medical profession.

Medical Acts Amendment Bill.—The Medical Acts Amendment Bill, which by resolution of your Council was referred to the Divisions in August last, has been reported upon by more than half the Divisions in the United Kingdom, and the

replies received have been considered by the Medico-Political Committee. A report by the Committee on the subject will be laid before the Representative Meeting.

An application, received from the British Dental Association, that certain amendments should be introduced into the Bill in the interests of Dentists, has been referred to the Medico-Political Committee, and the Committee has advised that the Association should accept the co-operatfon of the British Dental Association, and should make such amendments in the draft Bill, in matters affecting Dentists, as may be agreed upon between the two Associations.

Pharmacy Law.—The attention of the Association having been drawn to the proposals of the Departmental Committee of the Privy Council for making certain changes in Schedule A of the Pharmacy Act, which in the opinion of the Council of the Association would be contrary to the public interest, as tending to diminish the safeguards provided by the present law concerning the sale of poisons, representations on the subject have been made by your Council to the Privy Council.

The Pharmaceutical Society having communicated to the Association the text of certain amendments which it was proposed to introduce into the Pharmacy Bill, promoted by the Society, in order to remove the objections entertained by the medical profession to the Bill as formerly drafted, the Medico-Political Committee has carefully considered the amended Bill, and the Committee having reported that the position of the medical profession is not prejudicially affected, your Council has decided to support the Bill when introduced into Parliament.

Your Council has expressed sympathy with a communication addressed by the Public Dispensers' Association to the President of the Local Government Board concerning the necessity of employing fully qualified dispensers in public institutions.

Attention having been drawn by correspondence in the BRITISH MEDICAL JOURNAL to the dangers attending the present system of unlimited repetition of prescriptions, the Medico-Political Committee has had the matter under consideration, and has presented a Report as to the measures which might be adopted for the greater protection of the public in this respect.

Midwives Act.—The operation of the Midwives Act is being watched by the Committee with the assistance of those Divisions who have given special attention to the subject. On the suggestion of a member of the Midwives Board, and at the instance also of the Cardiff Division, inquiries are being made as to the provisions, if any, adopted by local supervising authorities for the payment of medical men called upon to assist midwives.

On the suggestion of the Wandsworth Division, an effort is being made through the religious newspapers to draw the attention of ministers of religion to the importance of satisfying themselves concerning the qualification of midwives whom they may be called upon to certify as suitable for registration under the Midwives Act of 1902. The possibility of improper canvassing or advertising by midwives is also receiving consideration.

Nurses Registration Bills.—The Medico-Political Committee has carefully considered the two Bills promoted respectively by the Royal British Nurses' Association and the Society for the State Registration of Nurses.

A report has been prepared as to the salient features of each Bill, and will be laid before the Divisions in due course. As it is not anticipated that either Bill will be passed by Parliament in the present session, the Council has not deemed it necessary to take any immediate action in the matter, but awaits a pronouncement by the Representative Meeting on the general principle of the registration of nurses.

Spectacle Makers' Company.—The attention of the Association has frequently been drawn to advertisements issued by persons holding the diploma of the Spectacle Makers' Company, which appeared to the Association to be misleading and improper, and the Medico-Political Committee is now engaged in correspondence with the Spectacle Makers' Company on the subject, the result of which will be reported in due course.

Insurance Fees.—A resolution of the Dublin Division with reference to fees paid by Life Insurance Companies for medical examinations and a valuable report by a Special Committee of the Norwich Division on the same subject have been referred to the Medico-Political Committee for consideration, and the Committee has presented a report thereon which is being published in the JOURNAL.

ORGANIZATION COMMITTEE.

The Organization Committee has held five meetings since the Annual Meeting of the Association, and has considered and advised your Council upon various changes proposed in the Boundaries and Divisions of Branches, upon Rules submitted by various Divisions and Branches for the approval of your Council, upon changes required in the By-laws of the Association, and upon other important questions affecting the organization of the Association.

Experience of the working of the Divisions and Branches constituted during the year 1902-3 has resulted in a few instances in proposals for certain changes of boundaries, which the Council, on the recommendation of the Committee, has carried out in every case in which it was believed that the proposed change was generally desired by those locally concerned. The most important of such changes has been the readjustment of the boundaries of Divisions in the area of the Metropolitan Counties Branch.

Thirty-three Branches and 115 Divisions in the United Kingdom have submitted Rules for approval, such Rules being in every case the Model Rules prepared by the Committee with only slight modifications. Such alterations as the Committee has in a few instances found it necessary to suggest have been adopted by the local bodies concerned.

In consequence of communications received, indicating that certain doubts and difficulties existed, in the minds of those concerned in the management of Divisions and Branches, as to the precise effect of certain regulations of the Association, the Committee addressed certain inquiries to the Solicitor, and a memorandum embodying his replies was, by instruction of the Committee, communicated by the Medical Secretary to the Secretaries of Divisions and Branches.

The matters dealt with therein related to: (1) The power of a Branch to make a payment to its Honorary Secretary in recognition of services rendered; (2) that the balance of the annual capitation grant to any Branch remaining at the end of the year, after defraying the working expenses of the Branch and its Divisions for the year, may remain in the hands of the Branch; (3) that the expenditure by Branches of the grants received must in all cases be confined within the limits imposed by the Memorandum of Association; (4) that it is not necessary for a Branch Council, under By-law 16, to make a capitation grant of the same amount to each Division of the Branch.

The Committee, in response to further inquiry, has pointed out that the grant by Branches to Divisions must, under By-law 16, take the form of a capitation grant.

The Committee, also, having its attention drawn to the difficulties experienced by the Division Secretaries in ascertaining the exact membership of their respective Divisions, recommended, and the Council approved, that arrangements be made whereby Division Secretaries might be informed once a month of changes in the lists of members of the respective Divisions.

The Medical Secretary has attended meetings of the following Divisions: Isle of Thanet, Reigate, Croydon, Wandsworth, Hampstead, Wigan, Nottingham, St. Pancras, Derbyshire (Chesterfield and Derby), Monmouthshire (Newport), Cardiff, Gloucestershire (Forest of Dean), Tottenham, Bradford, and Norwood, and has reported from time to time to the Committee on the progress of the Association as indicated by such meetings. The most important matters thus reported, as affecting the organization of the Association, have been the relation to the Association of outside medical societies, and, in connexion therewith, the arrangements which could be made to enable the Divisions to carry on the various work now done by such societies. Certain financial questions involved, particularly as to the management of libraries by Divisions, are receiving the careful attention of the Committee.

As a result of the visit of the Medical Secretary to the Forest of Dean, the practitioners of that district resolved, instead of forming a new local society, to organize themselves in connexion with the British Medical Association, on the understanding that arrangements suited to their special requirements could be made. As the arrangements desired appeared to involve a new departure in the organization of the Association they have received very careful consideration by the Committee, which has taken the opinion of the Solicitor of the Association thereon, with the result that your Council, on the advice of the Committee, has approved the recognition of the said members as constituting a "Section" of the Gloucestershire Division and Branch, subject to certain special Rules of the Branch.

The Annual Representative Meeting having instructed your Council to consider the best means whereby substitutes might be appointed for representatives absent from the meeting, and proposals for other changes in the Articles and By-laws having been received, your Council instructed the Organization Committee to consider and report upon such changes as might appear expedient.

As a result, your Council, on the recommendation of the Committee, has given notice for the ensuing Annual Representative Meeting of proposed amendments of By-laws 2, 10, 15, 20, and 32, and of two new By-laws.

The representation of Colonial Branches on the Central Council has been considered by the Organization Committee in conference with the Colonial Committee, and the Organization Committee, on the instruction of your Council, has submitted a report on the subject, upon which the Colonial Branches have been asked to furnish to your Council their comments. Pending the receipt of such comments, your Council has resolved that the nominations by Colonial Branches of representatives on the Central Council be accepted for the year 1903-4, as they were for the year 1902-3.

The grouping of the Divisions and Branches in the United Kingdom for electoral purposes for the year 1904-5 has been duly considered, and on the recommendation of the Organization Committee certain changes have been made in the grouping of Divisions, consequent on the fact that certain Divisions, which were grouped last year, have this year attained the membership qualifying for independent representation in the Representative Meeting.

Premises and Library Committee.

It will be within the recollection of members that last year your Council reported that it was considering the necessity of improving and increasing the office clerical accommodation. This has been done, and your Council is satisfied that the alterations carried out have materially improved the conditions of the housing of your staff and the conduct of the business, and, at the same time, considerably enhanced the value of your property.

At the commencement of the 1904 Session no Bills were lodged by promoters of Tube Railways in the neighbourhood of the Strand, seeking powers for compulsory acquirement of property. Probably it is felt that, pending the report of the Royal Commission on underground railways, Parliament will withhold fresh powers from all new undertakings.

Public Health Committee.

The Public Health Committee has held four meetings since the annual meeting.

Considerable attention has been given to the question of the reforms necessary in the organization of Public Health administration in England and Wales, and joint meetings of the Medico-Political and Public Health Committees have been held for the purpose of considering various proposals directed to this end.

After carefully weighing the proposals before them, including that of establishing a separate Ministry of Public Health, the two Committees recommended and your Council approved that the efforts of the Association for the improvement of the central administration of Public Health should be devoted to reform in the constitution of the Local Government Board.

The reforms recommended were: (1) That the President of the Board should be a Secretary of State; (2) that the Department should be administered by a real instead of, as at present, by a merely nominal, Board; and (3) that a medical expert should be a member of the Board. These proposals were embodied in a Bill which was approved by your Council.

The President of the Local Government Board, on February 23rd, received a deputation from the Association on the subject, when a copy of the Bill was presented to him. Copies of the Bill, with an explanatory memorandum, have also been furnished to the Inter-Departmental Committee, which is now sitting, to consider the organization, duties, and pay of the Board of Trade and the Local Government Board.

Your Council has also approved a recommendation of the two Committees named in favour of the permanent combination of rural sanitary districts where desirable and practicable.

A measure which the Association has long regarded as essential to efficiency in public health administration—namely, the Bill for giving to sanitary officers in England and Wales the same security of tenure as is enjoyed by Poor-law officers, is still awaiting a favourable opportunity for securing the attention of Parliament.

On the subject of vaccination, the Divisions have had before them, by instruction of the Annual Representative Meeting of 1903, the six resolutions originally formulated by the Medico-Political and Public Health Committees, and 105 Divisions have sent replies thereon, such replies being favourable by very large majorities to all the resolutions, except the second, dealing with conscientious objection, on which the majority was 57 for and 41 against.

Having regard to these replies the Medico-Political and Public Health Committees have recommended your Council strongly to support the Revaccination Bill promoted by the Imperial Vaccination League, and introduced into Parliament by Sir John Batty Tuke.

Application was made by your Council to the President of the Local Government Board to receive a deputation on the subject of vaccination, but an unfavourable reply was received.

On the recommendation of your Committee your Council has requested Dr. J. C. McVail to revise and edit the present vaccination literature of the Association, and he has undertaken the task.

On the recommendation of the Public Health Committee your Council has drawn the attention of the Board of Education to the importance of simple instruction in hygiene, including temperance, as a part of the regular course of instruction in public elementary schools, and a sympathetic reply has been received from the Board of Education.

Having regard to the great influence of educational conditions upon the health of the community, your Council has further resolved, on the recommendation of the Public Health Committee, to urge upon the Board of Education that there should be a medical adviser to the Board itself, and that there should be medical advisers to all local education authorities.

Other matters which have engaged the attention of the Committee have been (*a*) the desirability of co-operation by this country in a system of International Notification of Infectious Diseases; (*b*) improvement of the standard of Ventilation in Factories and Workshops; (*c*) proposals to extend the Workmen's Compensation Act to include incapacity arising from certain diseases of occupation.

Action has been taken with reference to the two matters first mentioned, while the last is still awaiting consideration.

The attention of the Council has been drawn by the Committee to the restricted terms of the reference to the Committee contained in the existing By-law 39, Section (3), by which the matters to be referred to the Committee are confined to the Public Health Service, the Poor-law Medical Service and the Vaccination Service. The present report illustrates the fact that in practice it is convenient that all questions of Public Health, in the broadest sense, should be referred to the Public Health Committee. The Council, therefore, on the recommendation of the Committee, proposes that the By-law be amended so that the precise terms of reference may be in harmony with the procedure which experience has shown to be expedient.

Royal Naval and Military Committee.

Owing to many representations on the unfavourable conditions of service prevailing in the Indian Medical Service, your Council has given the question its most serious consideration, and on August 5th, 1903, forwarded to the Secretary of State for India a Memorandum setting out certain grievances complained of and suggesting remedies. A copy of this document was also forwarded to the Universities and members of Parliament, and on the Indian Budget being taken Sir Michael Foster, M.P., pointed out to Lord George Hamilton the widespread dissatisfaction in the Indian Medical Service, both military and civil, and urged upon the Indian Government the necessity of removing these causes of complaint if it desired to continue to attract men of the highest character and brightest intellect.

The causes of discontent were divided into: (1) Grievances affecting all members of the service; (2) those affecting its military branch, and (3) those affecting its civil branch.

In October the India Office published a memorandum showing certain alterations in the conditions of service. Your Council, however, regrets that this memorandum fails to remove the causes of complaint. The Director-General has not been granted the rank of lieutenant-general. The pay and allowances have been somewhat improved, but even now your Council considers that these are too low, having regard to the continuous service in India. The salaries of the administrative grades are inadequate. The number and nature

of specialist appointments have not been indicated. No alteration has been made in the pay of officers in the Civil Medical Department, but the Under-Secretary for India has informed your Council that the question is under the consideration of the India Office. The regulations for acquiring a knowledge of Urdu still entail great hardships on younger officers. The furlough pay is unsatisfactory when compared with that of officers serving in the Indian Army. Your Council welcomes the provision for granting extra furlough to officers pursuing special courses of study. The retiring pensions and half-pay still do not allow that every year's service over twenty-five years should qualify an officer for an additional pension of £50 a year. This is a real drawback to the conditions of service, when it is borne in mind that as officers of the rank of lieutenant-colonel and major may be compulsorily retired at 55, and the average age of entry into the service is over 25, it is impossible for many officers to attain to the full retiring pension by serving the necessary thirty years laid down in the regulations.

Your Council, therefore, again approached the India Office, urging it to reconsider the recommendations set out in the memorandum transmitted on behalf of the Association on August 5th, 1903, and to introduce a bold and comprehensive scheme likely to satisfy the officers of the Indian Medical Service; and has been informed that a copy of the recommendations has been forwarded to the Government of India for information and report. Your Council believes that only by adopting these recommendations can men of the highest scientific attainments continue to be attracted. The action of your Council has been watched with keen interest by officers serving in the Indian Medical Service, as has been evidenced by the number of its officers who have recently joined your Association.

Reorganization of the War Office.—On the publication of the report of the War Office (Reconstitution) Committee, your Council observed with regret that on the new Army Council the Army Medical Service is to have no direct representative, and at once took action through the Royal Naval and Military Committee to make representations to the War Office asking for this omission to be rectified. Your Council considers the absence of direct representation on the Army Council of so important a branch as the medical service a retrograde movement, and one that can only tend to interfere with the efficiency of the Army. It has therefore urged upon His Majesty's Government the grave necessity of including a representative of the Army Medical Service on the Army Council.

Militia Medical Officers.—Your Council appreciates the inadequacy of the pay of officers of the Militia Medical Staff, and has called the attention of His Majesty's Secretary of State for War to the matter, recommending that the pay and allowance of officers of the Militia Medical Staff should be at least equal to those of officers of the Royal Army Medical Staff Corps, according to rank and service.

Volunteer Medical Officers.—Your Council represented the difficulty experienced by most Volunteer medical officers to spare time to attend the school of instruction at Aldershot for one month, and it has been informed by the War Office that the question of affording further facilities to Volunteer medical officers to obtain the proficiency certificate is being considered, and your Council has reason to believe that these arrangements will shortly be made public.

SCIENTIFIC GRANTS COMMITTEE.

During the past year your Council voted £800 to the Scientific Grants Committee. This sum was distributed—£350 in twenty-three grants in aid of research work and £450 to four research scholars. The present research scholars are Dr. F. A. Bainbridge, Dr. J. O. Wakelin Barratt, Dr. John T. Hewetson, and Dr. Walter Jobson Horne, the Ernest Hart Memorial Scholar.

SCOTTISH COMMITTEE.

The Committee held, in Perth and Edinburgh respectively, two meetings at which the questions of politics and ethics as they concern the profession in Scotland were dealt with and recommendations made to your Council or the other Standing Committees, in whose reports the matters again appear. The important question of medical evidence in legal cases has been referred to the Divisions. On the recommendation of the Committee, your Council has given notice of motion for the Annual Representative Meeting that By-law 28 be so amended that casual vacancies arising in the Representation of Branches on the Council can be filled otherwise than by voting papers sent to each member, if Branches so provide by their Rules.

SPECIAL CHLOROFORM COMMITTEE.

Your Committee has to report that it has held two meetings and has been engaged upon the following work, a full report of which it proposes to submit in due course. Examination of blood taken from animals in different degrees of chloroform narcosis and at the moment of chloroform death. On this point a number of preliminary observations and experiments have had to be made and are being continued. This inquiry is important, as, although the Committee has been able to advance evidence of the percentage of inhaled chloroform which will produce anaesthesia, it has not at present arrived at (1) what amount this represents in the blood stream; and (2) what minimum percentage is to be taken as the lethal one for animals. Your Committee has also pursued its research into the question of dosage of the isolated mammalian heart by chloroform. Blood instead of an artificial circulating fluid was employed, and extremely important results have been obtained.

Further clinical trials with the chloroform regulator designed by Mr. Vernon Harcourt have been made by your Committee.

THE LIBRARY.

The use of the Library has been somewhat interrupted during the past year, owing to the structural alterations of the premises making it necessary to close it for a considerable period. In spite of this there have been 4,945 attendances registered, showing the sustained interest members continue to exhibit in the Library. Your Council has again to thank numerous members (authors and others) for new books, new editions, and the many volumes of Society *Transactions* and *Reports* that have been presented during the year. In this way some 600 volumes have been received. In several instances blank periods have been filled in the series that are being filed, and in other cases better copies have come to hand than those formerly possessed, all of which have improved the Library. The several series of French *Thèses* and the collection of medical officer of health reports are now becoming extensive, and continue to be very useful. Files of the leading periodicals are being kept as far as possible up to date, and further shelf-space for this purpose has recently been added.

April 20th, 1904. ANDREW CLARK, *Chairman of Council.*

The Annual Reports of Branches forwarded in accordance with By-law 8 were then considered, and it was resolved that the reports be received and published in the JOURNAL (see SUPPLEMENT, April 30th, pp. 77 to 83).

Read resolution passed by the Leinster Branch Council commenting on the non-representation of Dublin among the officers of Sections for the Oxford meeting.

Resolved: That the same be received and entered on the minutes.

Read resolution from the Wandsworth Division requesting the Council to arrange for holding the 1905 annual meeting somewhere in Ireland; when it was reported that such an arrangement was not at present possible.

Read resolution from the Bradford Division, Yorkshire Branch:

That the Bradford Division of the Yorkshire Branch of the British Medical Association expresses its strong disapproval of the use, by medical practitioners, of medical or surgical degrees or titles conferred by institutions which are not recognized by the General Medical Council; and that this resolution be forwarded to the Yorkshire Branch and to the General Council of the Society, with the request that steps may be taken to put a stop to the objectionable practice referred to.

Resolved: That the resolution be referred to the Ethical Committee.

In consideration of a communication from the Royal Institute of Public Health asking for the appointment of delegates to attend their forthcoming Congress to be held at Folkestone from July 21st to 26th, 1904, it was resolved that the Council regrets it is unable to appoint delegates to attend the forthcoming Congress of the Royal Institute of Public Health.

Read invitation from the Canadian Medical Association asking for the appointment of delegates to attend their Congress to be held in Vancouver on August 23rd to 26th next, when it was resolved that Dr. T. G. Roddick, of Montreal, be asked to represent the Association at the forthcoming Congress of the Canadian Medical Association.

In reference to the notices of motion for the Annual Representative Meeting, it was

Resolved: That the officers of the Association be hereby authorized and instructed in conference with the Solicitor of the Association to determine the position in which the new by-laws this day made by the Representative Meeting shall be placed among the existing by-laws, to number the said new by-laws accordingly, to make such alterations in the numbering of the existing by-laws as may be necessary, and to alter accordingly the references contained in any of them to the numbers (thereof) (of by-laws).

Resolved: That this Council instructs the Scientific Grants Committee to consider and report on the advisability of giving an annual scholarship for research (if the funds permit) in tropical medicine.

Resolved: That Mr. W. E. Hempson be reappointed solicitor to the Association for the ensuing twelve months on the same terms as before.

PROCEEDINGS OF COMMITTEES.

MEDICO-POLITICAL COMMITTEE.

A meeting of the Medico-Political Committee was held on March 23rd, when there were present Sir Victor Horsley, F.R.S., in the chair, Dr. T. D. Griffiths (President of the Association), Mr. Andrew Clark (Chairman of Council), Dr. E. Markham Skerritt (Treasurer), Dr. H. Langley Browne, Dr. R. C. Buist, Dr. Major Greenwood, Dr. G. A. Heron, Mr. T. Garrett Horder, Mr. G. Jackson, Dr. L. Kidd, Dr. J. A. Macdonald, Mr. M. A. Messiter, Dr. J. Murphy, and Mr. D. A. O'Sullivan.

Public Health Committee of M.P's.

The Medical Secretary reported that a letter had been received from Sir Michael Foster, informing the Association that a committee had been formed by the medical members of the House of Commons to watch over matters affecting public health, that he had been asked to act as secretary, and that he would always be ready to receive communications from the Medico-Political Committee.

Consultations between Medical Witnesses.

The Chairman reported that the Council had approved the suggestion of the Committee that the question of the advisability of consultations between medical witnesses engaged in legal cases should be referred to the Divisions in England and Wales as well as in Scotland. The letter, dated March 2nd, had in consequence been addressed to the Honorary Secretary of each Division. [This letter was published in the Supplement of the Journal of March 19th, p. 44.]

It was resolved to ask the opinion of the Irish Divisions also on the subject.

Nurses Registration Bills.

The minutes of the Emergency Subcommittee of February 19th were received; the following memorandum prepared by instruction of that Subcommittee was approved and directed to be forwarded to the Council:

MEMORANDUM ON NURSES REGISTRATION BILLS.

The Medico-Political Committee has had under consideration two Bills aiming at providing a system of State Registration of Nurses, which are referred to respectively in this Memorandum as (*A*) and (*B*).

(*A*) has been prepared, and is being promoted in Parliament by the Association for the State Registration of Nurses.

(*B*) has been prepared, and is being promoted in Parliament by the Royal British Nurses' Association.

The Medico-Political Committee begs to submit, in the present Memorandum, particulars of the said Bills and certain considerations in relation thereto, for the assistance of the Divisions in their discussion of the matter preparatory to a declaration by the Annual Representative Meeting of the opinion of the Association upon (*a*) the general advisability of the State Registration of Nurses; and (*b*) the provisions of the schemes which have been framed for this purpose by the two Societies named.

I. Particulars of the Bills.

1. Objects.

The *objects* of the Bills are identical, namely:

(*a*) To promote the training of nurses, and secure that the sick shall be able to distinguish between qualified and unqualified.

(*b*) To protect the knowledge and skill of the trained nurses.

(*c*) To create certain machinery for carrying out the foregoing objects.

2. In respect of *machinery*, the Bills agree in that each seeks to create a body, partly nominated and partly representative, called in (*A*) a General Council and in (*B*) a Central Board whose functions shall be to examine, certify, and register nurses; each Bill provides certain means of enforcing the judgement of the said Council or Board with respect to trained nurses, and each provides certain penalties against persons who may falsely claim to be registered.

3. Central Board or Council. Each Bill provides that the Central Board or Council shall contain representatives of the following persons or aggregates:

(1) The general public through nomination by the Crown.
(2) The medical profession.
(3) Nurses in general, through direct representatives.
(4) The following special class of nurses:—(*a*) matrons of general hospitals, (*b*) the Poor-law nurses, (*c*) the asylum nurses.

It will be observed that in order to provide adequate representation of all the various interests stated, it would be necessary to provide a very large Board or Council, and the administration must be consequently expensive.

The duties and powers of the Council or Central Board are practically identical in the two Bills, namely:—

(*a*) To frame rules to regulate the training of nurses.
(*b*) To examine and register nurses.
(*c*) To carry out, when necessary, certain penal procedures for the suspension of registered nurses.
(*d*) To protect registered nurses by taking proceedings against unregistered persons who may claim to be registered.

The cost of administration is to be met under (*A*) by a registration fee not exceeding two guineas, under (*B*) the expenses are to be met by such charges as the Central Board may find necessary.

(*A*) provides that a nurse may be registered at the age of 21; (*B*) prescribes the age 24.

II. Comments by the Committee.

(*a*) As to the constitution and composition of the Central Board or Council, the Committee would suggest that under either Bill the Board proposed is unduly large, and that in the interests of nurses themselves the attempt to give separate representation to so many bodies and institutions should be abandoned.

In particular the Committee would suggest that the medical profession would be adequately represented by three registered medical practitioners, of whom one should be nominated by the Crown, one by the General Medical Council, and one by the British Medical Association, as representative of the general body of the medical profession.

(*b*) The provisions as to the examination, certification, and registration of nurses, and as to the disciplinary powers of the Council or Central Board for registered nurses do not appear to call for detailed notice from the Association, except that the Committee is strongly of opinion that 24 should be suggested by the Association as the earliest age at which nurses should be registered, and that training should usually be commenced at the age of 21.

(*c*) Under the penal clauses of both Bills it is observed that it is only proposed to protect the work of registered nurses, a fine of £10 being proposed in each case as the penalty for infringement by unregistered persons.

In the opinion of the Committee it is also desirable that a special clause should be inserted in order clearly to provide that such penalties would not apply (1) to a nurse who acts gratuitously, (2) to a nurse who nurses for hire but does not claim to be registered.

[The Bills referred to in this memorandum were published in the Supplement to the Journal of March 19th pp. 3 and 38.]

Midwives Act.

It was resolved to obtain further information with respect to arrangements to be made by local supervising authorities for the payment of fees of medical men called in to assist midwives. A resolution of the Wandsworth Division suggesting that the Council of the Association should take step

to call the attention of all ministers of religion in England and Wales to the importance of satisfying themselves before giving the certificate set out in Form 9 of the Midwives Board that the applicants had actually to their personal knowledge been engaged for the required period in bona-fide practice as midwives, as defined by the Midwives Act, 1902, and the rules based thereon by the Central Midwives Board, was considered. The Committee resolved that a circular on the subject should be addressed to the religious newspapers.

The following further resolution of the Wandsworth Division was considered:

That in view of the fact that there seem to be no regulations passed by the Central Midwives Board controlling the actions of midwives certified under the Act to prevent them touting, advertising, or otherwise unfairly competing with the registered medical practitioners, it is hoped that the Central Council of the British Medical Association will approach the Midwives Board with the object of having some such regulations drawn up.

The Committee directed that the Wandsworth Division should be informed that the Committee had the matter under consideration, and would take action whenever definite evidence of the practices referred to should be before it.

CORONERS.

The following memorandum, drafted by the Medical Secretary in accordance with the instructions of the Emergency Subcommittee on February 19th, was recommended to the Council for approval and report to the Divisions:

MEMORANDUM ON THE PRESENT POSITION OF REGISTERED MEDICAL PRACTITIONERS IN THE MATTER OF FURNISHING CERTAIN INFORMATION TO CORONERS.

Cases which have from time to time been brought to the notice of the Medico-Political Committee clearly indicate the unsatisfactory position in which medical men are placed at present in the matter of furnishing information to Coroners upon which decisions as to the propriety of holding inquests may be based.

Medical practitioners throughout the country have made a practice of supplying to Coroners such particulars of facts within their knowledge concerning the death of patients attended by them as may assist the Coroner in deciding whether an inquest is necessary, and, if necessary, what evidence shall be called thereat. In a few districts the services thus rendered by practitioners in their professional capacity to the State have been duly recognized by Coroners by the payment of suitable fees. This, however, is not the rule, and several instances have been reported to the Committee in which Coroners have not even thought it necessary to accord a courteous acknowledgement of the help they have thus received. There are, again, cases in which Coroners have accused medical men of neglect of duty in not supplying such information.

Such attitude on the part of Coroners must be interpreted as indicating that they hold an entirely erroneous view of the position and duties of registered medical practitioners in respect of cases in which the circumstances attending the death of patients under their care may be the subject of inquiry, and such an erroneous view is apparently also prevalent among the public, and even among many members of the medical profession.

The question arises, therefore, of the advisability of a pronouncement by the British Medical Association, with the object of securing a proper recognition of the true relation of medical practitioners to the State in this matter. In such a pronouncement it would appear that the following considerations should receive notice:

(1) That no legal obligation rests at the present time on medical practitioners, as such, to render any assistance to Coroners in the investigation of the cause of death, other than that of making a *post-mortem* examination when so ordered by a Coroner in writing, and that of attending to give evidence at an inquest when duly summoned so to do.

(2) That, under present conditions, the practice whereby medical practitioners furnish to Coroners information of the kind considered in this memorandum, not being defined or required by law, is entirely informal and irregular.

(3) That if a preliminary inquiry by the Coroner is to be regarded as an integral part of the procedure sanctioned by the State for the investigation of the cause of death, it would appear that the procedure therein should be definitely regularized by legislation, which should prescribe the respective obligations of Coroners, medical practitioners, and others who may assist in the inquiry, and that definite provision should be made for the adequate remuneration of the several parties concerned in respect of the services thus rendered.

(4) That, pending such action by the Legislature, it is necessary to lay stress upon the fact that medical practitioners, who furnish the information indicated, are rendering services to the State in excess of any obligations resting upon them; and that where the assistance thus voluntarily given is not duly recognized by Coroners, members of the medical profession may find themselves compelled to refuse to continue such assistance.

CORONERS' SOCIETY.

The MEDICAL SECRETARY reported that in accordance with the instructions of the Committee he had waited upon the Council of the Coroners' Society, and read a letter received subsequently from the Honorary Secretary of the Society, intimating that the following resolution had been adopted by the Council:

That whilst the Council of the Coroners' Society would always welcome any proposal for the fair treatment of medical witnesses, yet in view of the former resolution of the members of the Society passed at the last annual meeting, to which the Council must adhere, it cannot offer any official support of the Bill, especially as if brought before the House of Commons it might be referred by the Home Office for the consideration of the Council.

CONTRACT PRACTICE.

The following memorandum on contract practice was approved as an interim report of the Committee to the Annual Representative Meeting:

INTERIM REPORT TO THE ANNUAL REPRESENTATIVE MEETING ON CONTRACT PRACTICE.

The Medico-Political Committee has given careful consideration at several meetings to the matters arising out of the following instruction of the Annual Representative Meeting of 1903.

"That it be an instruction to the Medico-Political Committee to investigate the economic conditions of contract practice as carried on in various ways in this country, to report thereon to the next Annual Representative Meeting, and to present an interim report to the Council on any points which appear to call for action during the year."

It has appeared to the Committee necessary that the investigation which it was instructed to make into the economic conditions of contract practice should be conducted in two principal branches, namely:

(*a*) By addressing direct inquiries to those medical practitioners who are actually engaged in such practices;

(*b*) By collating the information derived from the reports of various medical societies which have given special consideration to the subject, and from the reports of the Secretary of the Committee on the conditions found in various Divisions which he has been called upon to visit.

For the purpose of the inquiries under head (*a*), the Committee has formulated a series of questions, of which copies are appended to this report,[1] and which, with the sanction of the Council, and by the kind assistance of the Hon. Secretaries of Divisions, are being distributed through the agency of the Divisions to individual medical practitioners.

From the information obtained under head (*b*), the Committee has been enabled to arrive at the conclusion, that, while on certain aspects of contract practice any definite pronouncement by the Association must be deferred until the results are ascertained of the inquiries addressed to individual practitioners, there are other aspects on which opinion has already ripened sufficiently for certain propositions of an axiomatic character to be formulated at the present stage for consideration by the Divisions.

These propositions are as follows:

(1) That it is inevitable in present conditions that there should be in some parts of the United Kingdom some system of contract medical service of the poor.

[1] These questions have not been reproduced here; it is believed that they have reached the hands of all members interested.

(2) That where the department of contract practice relates wholly to medical work, it is essential that medical men should be adequately represented on the management.
(3) That it should be a fundamental principle of the constitution of all such departments, that every medical practitioner, in the district for which the service provides, who wishes so to act, should be a medical officer of the service, provided that he conforms to the rules of the service.
(4) That, in present conditions, the lowest fee to be fixed in any district as the minimum to be paid to each medical officer annually for each individual whom he is under contract to attend, should be 5s., subject to such composition fee, if any, as may be locally determined upon in the case of families having more than three children.
(5) That children under the age of 5 should not be admitted under contracts at minimal rates, except in the case of the family composition fees included in Clause (4).
(6) That in all such contracts the right be reserved to each medical officer to decline to attend as a member of such service any person whom he may consider to be unfit for membership in respect of financial position, but that such provision should be made as the governing body of the service may approve to prevent hardship resulting from the retrospective application of this rule.
(7) The rates above specified are not intended to apply to night visits, obstetric cases, operations, or serious accidents, by the term "serious accident" being meant an accident which causes incapacity for more than a week.

Registration of Deaths and Stillbirths.

The Chairman reported that a deputation had waited upon the Registrar-General to lay before him the conclusions of the Committee on Death and Stillbirth Registration. The deputation was composed of the following members of the Committee: Sir Victor Horsley, F.R.S. (Chairman of Representative Meetings and of the Medico-Political Committee), Mr. Andrew Clark (Chairman of the Council), Dr. Major Greenwood, Dr. Heron, and Mr. O'Sullivan, together with Mr. W. E. Hempson (Solicitor to the British Medical Association and the Medical Defence Union), and Dr. A. G. Bateman (representing the Medical Defence Union), and the General and Medical Secretaries of the Association.

Mr. Hempson, as Solicitor to the British Medical Association and to the Medical Defence Union, and as having, in the latter capacity, previously interviewed the Registrar-General on the subject, introduced the deputation, and made certain observations on the registration of uncertified deaths. Sir Victor Horsley, on behalf of the deputation, laid before the Registrar-General the six resolutions as to the registration of deaths, and the resolution as to registration of stillbirths, which had been formulated by the Medico-Political Committee and adopted by the Council. [These resolutions were published in the Supplement to the Journal of January 30th, p. 4.] The Registrar-General, having discussed with the deputation the various matters submitted, stated that on certain points he would communicate with the Home Office and the Local Government Board.

The Committee resolved to communicate with the Medical Defence Union, inquiring whether that body would be disposed to join in a deputation on the question of death registration, which the Committee intended to request the President of the Local Government Board to receive.

Constitution of the Local Government Board.

The Chairman made a report as to the deputation to the President of the Local Government Board, similar to that made to the Public Health Committee by its Chairman at its meeting on March 29th. The memorandum prepared and forwarded to Lord Jersey's Committee was approved by the Medico-Political Committee. [This memorandum was published in the Supplement of the British Medical Journal of March 19th, p. 35.]

Vaccination and Revaccination.

The Committee had before it an analysis prepared by the Medical Secretary of the replies received from Divisions with reference to the six resolutions on vaccination, formulated by the Medico-Political and Public Health Committees jointly, which by instruction of the Annual Representative Meeting at Swansea were circulated to the Divisions in August, 1903. The Committee resolved that a report should be prepared based on the replies suitable for publication in the British Medical Journal.

The Committee resolved also in view of the answers received from Divisions, to recommend the Council strongly to support the Revaccination Bill, and to take all necessary steps to oppose the Vaccination Act Amendment Bill, which proposed the abolition of compulsory vaccination. [The text of these Bills was published in the Supplement to the Journal of March 19th, pp. 40 and 41.]

Dispensers in Public Institutions.

The Committee resolved to recommend the Council to express its sympathy with the following memorial, dated March 7th, 1904, presented by the Public Dispensers' Association to the President of the Local Government Board:

Right Honourable Sir,

Your attention having been called to the lamentable occurrence at the Portsmouth Asylum, where four persons were poisoned by the administration of a strong solution of chloral hydrate, and having regard to the fact that large quantities of poisonous preparations are daily dispensed in all our large public institutions, we most respectfully beg to point out to you that by the provisions of the Pharmacy Act, passed for the protection of the public, it is unlawful for any person to compound, dispense, and sell poisons unless he shall hold the qualifying certificate of the Pharmaceutical Society and be a duly registered chemist and druggist.

The patients treated at the various public institutions being largely of the working classes, the poor, the ignorant and often illiterate, are in great need of the safety provided by this Act.

The authorities of many large public institutions for medical treatment recognize this fact by insisting that only pharmaceutically trained and registered chemists and druggists be appointed to dispense poisons. Amongst these may be mentioned the London County Council, the Metropolitan Asylums Board, His Majesty's Postmaster-General, His Majesty's Prison Commissioners, the Royal Navy, the Commissioners of Police and most of the large hospitals, dispensaries and infirmaries. The various supply associations, stores, and limited liability companies having dispensing departments are compelled to obtain the services of duly registered chemists and druggists to compound and dispense medicines.

We therefore respectfully ask that your honourable Board shall sanction the appointment in the institutions under your control only of such persons as are qualified and registered by the Pharmaceutical Society.

A meeting of the Medico-Political Committee was held on Wednesday, April 13th, when there were present Sir Victor Horsley, F.R.S. (and afterwards Dr. E. Markham Skerritt, Treasurer), in the chair, Mr. Andrew Clark (Chairman of Council), Dr. Major Greenwood, Dr. G. A. Heron, Dr. J. Macdonald, Mr. T. Garrett Horder, Mr. G. Jackson, and Mr. D. A. O'Sullivan.

Medical Certificates for School Children.

The Medical Secretary reported the receipt of an inquiry from the Honorary Secretary of a Branch as to the payment made by educational authorities to medical men for medical certificates of the unfitness of children to attend school. The Medical Secretary was instructed to address an inquiry on the subject to county councils.

Sight Testing.

The Chairman reported that correspondence had passed with the Spectacle Makers' Company and others concerning advertisements issued by diplomates of the Company and the appointment of a medical examiner for the Company. The matter was deferred pending the receipt of further information.

Medical Acts Amendment Bill.

The Committee considered the Medical Acts Amendment Bill, having before it a *précis* prepared by the Medical Secretary of the replies of Divisions, and also certain amendments which the British Dental Association desired to have incorporated in the Bill. The following resolutions were adopted:

That it be recommended that the Association accept the co-operation of the British Dental Association in promoting the Medical Acts Amendment Bill, and that such amendments on matters affecting dentists be inserted in the Bill as shall be agreed upon between the two Associations.

That the Committee consider in the present meeting modifications of principle only, and that the consideration of details be deferred.

The Committee then considered the Bill clause by clause along with the replies from the Divisions, and adopted a

series of resolutions for the guidance of a subcommittee, consisting of the Chairman, the Medical Secretary, and Solicitor, which was instructed to redraft the Bill. It was arranged that the new draft should be circulated to the Committee prior to its meeting on May 4th.

REPORTS TO COUNCIL.

The Committee then considered draft reports on the following subjects, and adopted them after emendation as follows:—

(I) ON THE REVACCINATION BILL.

The Bill which has been under the consideration of the Committee is formulated by the Imperial Vaccination League, and supported in the House of Commons by members of all parties.

Clause 1.—In this clause the object of the Bill is stated, namely, to secure revaccination of children after the age of 12.

Clause 2.—This clause embodies the "conscientious objector" principle. While the Committee considers that the principle of admitting conscientious objection is a wrong one and detrimental to the working of a Vaccination Act, it must report that, in answer to the queries submitted to the Divisions by instruction of the Representative Meeting, out of 103 Divisions who have replied on this point, 57 have voted in favour and 41 against.

Though the opinion of the Association is apparently divided on the point, the Committee believes that those who have supported the clause have done so from the view that such a step is necessary to secure the passage of a Revaccination Act through the House of Commons.

Clause 4.—By this clause it is provided that the educational authorities and teachers of the district shall furnish twice a year to the vaccination officer, lists of all children attaining, to their knowledge, the age of 12 years, and that any person not fulfilling this duty shall be liable to a penalty.

The Committee supports this proposition as eminently likely to further the objects of the Act.

Clauses 5, 6 and 7.—These clauses are adopted to secure correlation of this Act with the existing Vaccination Act.

Clause 8.—In this clause provision is made so that a child who may by exemption or otherwise have escaped primary vaccination shall nevertheless be vaccinated with the rest at the age of 12.

The Commitee recommends that the Bill should receive the support of the Association, and that the Medico-Political Committee be instructed to give effect to this as far as possible.

(II) ON INSURANCE FEES.

The Committee has fully considered the report of the Committee appointed by the Norwich Division, on the scale of remuneration offered by insurance companies for medical examinations, and the character of such examinations, and concurs with the finding of the Norwich Division, namely, that for every full and careful report upon the state of a person's health the practitioner should receive not less than one guinea.

Upon this the Committee would further express the opinion that there are many cases in which one guinea is an inadequate fee.

The Committee is of opinion that the reports which are contained in the appendix to the Norwich Division report, headed A, B, C, are of such a character that a fee of not less than one guinea should be paid for each.

[The report of the Norwich Division was published in the SUPPLEMENT to the BRITISH MEDICAL JOURNAL of March 19th, p. 33.]

(III) ON THE UNDULY REPEATED DISPENSING OF PRESCRIPTIONS.

In the opinion of the Committee the construction of a prescription should be such that the prescriber retains the power of deciding how often it shall be taken.

The necessity of this is obvious, since a prescription when handed to a patient becomes the property of the patient, and if no limit is expressed by the prescriber, the prescription may be made up indefinitely.

The Committee would therefore recommend:

1. That the prescriber should state on the prescription that "This prescription shall be dispensed times only."
2. That it should be made the duty of the dispenser to stamp each prescription every time that it is dispensed, with the date of such dispensing.
3. That in every case in which a prescription shall, as shown by the date stamped thereon in accordance with the foregoing recommendation, have already been dispensed for the number of times indicated by the prescriber. and in every case in which the period indicated by the prescriber for the repetition shall have expired, it should be the duty of every qualified dispenser to whom such a prescription may be submitted for dispensing, to refuse to dispense the same.

In the opinion of the Committee it would only be possible to carry out the foregoing recommendations by alteration of existing legislation.

The Committee desires further to recommend that the Pharmaceutical Society be approached with a view to a conference on the subject.

(IV) MEMORANDUM ON PARLIAMENTARY MATTERS OF INTEREST TO THE MEDICAL PROFESSION.

The Committee recommended that a memorandum, with regard to subjects on which Parliamentary candidates might be approached, should be circulated to the Divisions, together with an explanatory note to be prepared by the Chairman and Secretary of the Committee. The memorandum as finally approved by the Council is as follows:

1. Vaccination and revaccination.
2. Death registration.
3. Coroner's Law. (Medical Witnesses).
4. Pharmacy. (Proposed removal of restrictions as to poisons).
5. Company Legislation. (Medical, Dentists, and Pharmacy).
6. Security of Tenure of Sanitary Officers in England and Wales, and of Parochial Medical Officers in Scotland.
7. Local Government Board Reform.

CONFERENCE IN THE MATTER OF THE CORONER FOR SOUTH-WEST LONDON.

A CONFERENCE of representatives of medical societies, acting together in the matter of the Coroner for South-West London, was held at the offices of the Association on Thursday, January 28th. Present: Mr. Andrew Clark (Chairman of Council), in the chair. Dr. A. G. Bateman, Mr. W. E. Hempson, Dr. G. A. Heron, Sir Victor Horsley, F.R.S., Dr. M. Macintosh, Dr. Hugh Woods.

THE CONSTITUTION OF THE CONFERENCE.

The year of office of Surgeon-Major Robinson as President of the South-West London Medical Society having expired, he was thanked for the valuable assistance he had rendered to the conference, and Dr. Wyatt who had succeeded him as President of the Society, was recognized as a member of the Committee in his place.

REPORT AND CORRESPONDENCE.

Correspondence was read between Sir Victor Horsley and the Secretary to the Lord Chancellor, in which Sir Kenneth Mackenzie, replying to Sir Victor Horsley's inquiry on behalf of the Conference, stated that he was unable to say when the Lord Chancellor would reply to a communication addressed to him in July, 1903.

The Secretary read a *précis* of seven cases, particulars of which had come to him through the Medico-Political Committee of the British Medical Association, the BRITISH MEDICAL JOURNAL, and the Medical Defence Union, all illustrating the continuance by Mr. Troutbeck of those practices to which the Conference had taken exception.

The Conference adopted the following resolution:

That a further letter be addressed to the Lord Chancellor by the Chairman and Secretary on behalf of the conference in which reference should be made to the date of the former communication and the interest of the profession in the matter pointed out, and attention should be drawn to the fact that the former letter furnished categorical proof of the position that Mr. Troutbeck had repudiated; and that a memorandum be appended giving particulars of the seven cases reported to the conference, and of any others which the Secretary might receive, and which, with the approval of the solicitor, it might be thought desirable to add, in evidence of the continuance by Mr. Troutbeck of the practices to which the attention of the Lord Chancellor had already been drawn.

CONFERENCE ON ETHICAL PROCEDURE OF DIVISIONS.

A conference on the procedure to be followed by Divisions in certain special cases was held at the office of the Association on Wednesday, February 10th, between Mr. Andrew Clark (Chairman of Council) in the chair, Sir Victor Horsley (Chairman of the Medico-Political Committee), Professor Saundby (Chairman of the Ethical Committee), the Honorary Secretaries of certain Divisions, namely, Mr. H. A. Ballance (Norwich), Dr. A. Cox (Gateshead), Dr. R. E. Howell (Cleveland), Mr. J. Metcalfe (Bradford), and Mr. W. E. Hempson, Solicitor to the Association.

The following resolutions were adopted:

That the Medical Secretary be instructed to draft and submit to the solicitor for approval a form of rule for adoption by Divisions who have passed rules forbidding their members to recognize professionally medical practitioners whose conduct in the opinion of the Division is detrimental to the honour and interests of the medical profession; such rule to prescribe the procedure whereby the names of such practitioners shall be officially notified to each member of the Division.

That a copy of such draft rule, and a report of the proceedings of the Conference, be laid before the next meetings of the Medico-Political and Ethical Committees.

PUBLIC HEALTH COMMITTEE.

A meeting of the Public Health Committee was held on March 29th when there were present Dr. J. Groves in the chair, Dr. T. D. Griffiths (President of the Association), Mr. Andrew Clark (Chairman of Council), Dr. J. H. H. Manley, and Mr. C. H. Watts Parkinson.

Instruction in Hygiene and Temperance.

The Secretary read the following letter which had been addressed to the Board of Education in pursuance of the resolution of the Council adopted on January 20th, requesting the Chairman of the Public Health Committee to transmit the resolution of the Council on this subject to the Board of Education with a covering letter. The resolution of the Council was in the following terms:

That in the opinion of the Council it is of urgent importance that elementary scientific instruction in health subjects, including temperance, should be provided in all the primary schools by the educational authorities, in order that the conditions which lead to deterioration of the national physique may be understood and, as far as possible, prevented.

The letter addressed to the Board of Education and the reply received from the Secretary of the Board are as follows:

Sir,—The Council of the British Medical Association, the representative body of an Imperial society of some twenty thousand medical men, being strongly impressed by the evidences before them of rapid physical deterioration among considerable sections of the population, have felt it their duty to place upon record their opinion that the most practical method of dealing with some of the causes of this national calamity is to be found in connexion with the educational system of this country. They beg, therefore, to submit to the Board of Education a copy of the resolution they have unanimously adopted, in the hope the Board may see fit to include in their code forthwith the compulsory teaching in the schools under their control of the simple principles of personal hygiene, including temperance and domestic hygiene. They are informed that such instruction is given to twenty-two million children undergoing tuition in the United States of America, and in the public elementary schools in the larger self-governing colonies, in many of which physical training, as contradistinguished from military drill, is also compulsory, and exercise of the muscles involves the training and development of the brain and nervous system.

It may be said the subjects included are already so numerous it would be difficult to increase them, but the Council of the British Medical Association would venture to suggest that the majority of these subjects are not to be compared with those of their resolution in importance either to the individual or the State.

I have the honour to be, Sir,
Your obedient servant,
J. Groves.

R. L. Morant, Esq.,
Secretary to the Board of Education.

Board of Education, Whitehall, S.W.,
February 25th, 1904.

Sir,—Adverting to your letter of the 3rd instant, I am directed to state that your letter and the resolution passed by your Association on the 20th January will be very carefully considered by the Board of Education when preparing the Code for the current year.

This Board fully appreciate the importance of the subject with which the resolution passed by your Association deals, and are anxious so far as lies in their power to promote the physical well-being of all children in public elementary schools.

The subject is indeed receiving most careful and detailed consideration by the Departmental Committee on Physical Degeneration, upon which this Board, as also the Home Office and the Local Government Board, have a representative.

I have the honour to be, Sir,
Your obedient servant,
Robert L. Morant.

J. Groves, Esq.,
British Medical Association, W.C.

The Committee expressed satisfaction at the reply received.

Constitution of the Local Government Board.

The Chairman reported that a deputation from the Medico-Political and Public Health Committees had waited upon the President of the Local Government Board to lay before him the views of the Association with respect to the constitution of the Local Government Board. Dr. C. F. Hutchinson, M.P., had introduced the deputation, for whom the President of the Association, and the Chairmen of the Medico-Political and Public Health Committees had addressed the President of the Local Government Board; Mr. Long in replying undertook to convey the views laid before him to the Committee, presided over by the Earl of Jersey, which was then sitting to consider the subject.

The Chairman further reported that application had been made to Lord Jersey's Committee to hear witnesses on behalf of the Association. A reply had been received from the Committee that it did not think it necessary for witnesses to attend, but would be glad to have the the views of the Association laid before it in writing. A memorandum had, therefore, been prepared and forwarded to Lord Jersey's Committee [see Supplement to the Journal of March 19th, p. 35]. The Committee approved the action taken by the Chairman in the matter.

Overlying of Infants.

The Committee resolved to recommend the Council to ask the Coroners' Society to confer with the British Medical Association on the subject of the overlying of infants.

Vaccination and Revaccination.

The Committee concurred with the resolution of the Medico-Political Committee instructing the Medical Secretary to prepare a report on the replies received from Divisions with reference to the six resolutions as to vaccination formulated conjointly by the Medico-Political and Public Health Committees and referred by the Representative Meeting to the Divisions. The Committee resolved to concur in the recommendation of the Medico-Political Committee to the Council strongly to support the Revaccination Bill introduced into the House of Commons by Sir John Batty Tuke on behalf of the Imperial Vaccination League.

International Notification of Infctious Diseases.

The Committee considered the following clause omitted from the draft of the Local Government Board Bill:

International Notification of Infectious Diseases.

His Majesty's Principal Secretary of State for Foreign Affairs shall forthwith transmit copies of all notifications received by him under the provisions of any International Sanitary Convention to which Great Britain is a party to the President of the Local Government Board, and the said President shall, once in every week or oftener if need be, transmit to His Majesty's Principal Secretary of State for Foreign Affairs a statistical statement of epidemic and infectious diseases prevailing in the United Kingdom, and the Secretary of the Local Government Board in Scotland and the Secretary of the Local Government Board in Ireland shall in like manner transmit a statistical statement of epidemic or infectious diseases prevailing in Scotland or Ireland respectively to the President of the Local Government Board, at such dates as His Majesty by and with the advice of the Local Government Board shall direct.

The Committee resolved to recommend the Council to approve the principle of the clause and to address a communication on the subject to the Local Government Board, the Colonial and Foreign Offices, and the Public Health Committee of Members of Parliament.

Public Health Committee of M.P.s.

The Medical Secretary reported the receipt of an intimation from Sir Michael Foster that a Public Health Committee had been formed among members of the House of Commons, to which Sir Michael Foster had been asked to act as Secretary.

Security of Tenure of M.O.H.

The Chairman reported that in response to an inquiry as to the prospects of the introduction of the Security of Tenure (Sanitary Officers) Bill in the present session, he had received a letter from Sir Michael Foster, in which he said

that while the subject had long been in his mind he feared that nothing could be done this year. In his opinion it was only one part of a sadly-needed reform of the sanitary administration, for which, however, it might be necessary to wait a long time. Sir Michael Foster added that if he were in the House next year he would consider whether he could do anything useful in the matter.

After consideration the Committee adopted the following resolution:

That no action be taken with respect to the Security of Tenure of Sanitary Officers in the present session of Parliament, but that the matter be brought before the next meeting of the Committee in order that effective action may be taken next session, and that, in the meantime, the Medical Secretary be instructed to write to the Sanitary Inspectors' Association on the subject.

WORKMEN'S COMPENSATION ACT.

A communication was read from the Legal Secretary of the Women's Trade Union League, asking the Association to support proposals to extend the Workmen's Compensation Act to include incapacity arising from certain specified diseases of occupation.

It was resolved that further inquiries should be made, and the matter considered at the next meeting.

HYGIENE AND EDUCATION.

The Committee resolved to recommend the Council to make representations on behalf of the Association to the Government to the following effect: That having regard to the influence of the conditions of education upon public health, it is advisable (1) that the Board of Education should include in its staff a medical adviser to the Board, (2) that each local education authority should have a medical adviser, and (3) that such local officer should where possible be the medical officer of health.

THE SCOPE OF THE COMMITTEE'S WORK.

The Committee recommended the Council to propose an amendment of By-law 39, Section (3), under which the Committee is constituted, in order to include in the reference to the Committee all matters relating to public health, and not simply the Public Health Service.

ETHICAL COMMITTEE.

A meeting of the Ethical Committee was held at the office of the Association on Friday, March 18th. Dr. BRUCE GOFF, in the absence of the Chairman, took the chair. The other members present were Mr. Andrew Clark (Chairman of Council), Mr. H. A. Ballance, Mr. G. H. Broadbent, Dr. W. A. Elliston, Dr. E. Jepson, and Mr. R. H. Kinsey.

TRADE ADVERTISEMENTS.

A communication was received from the Registrar of the General Medical Council intimating that in the matter of the conduct of a medical practitioner, reported by the Committee to the General Medical Council, and as to which that body had already reported[1] that they had referred the matter to the licensing corporations from whom the medical practitioner in question obtained his diplomas, the Council had now received a reply from the Royal College of Physicians of Edinburgh to the effect that that College had drawn the attention of the medical man in question to the impropriety of his conduct, and had received from him an undertaking not to repeat the offence.

ETHICAL RULES.

The Committee resolved to make the following recommendations to the Council:

To approve the Rules of Ethical Procedure of the following Divisions: Altrincham, Brighton, Glasgow (Southern), Newcastle, Stockport, and Sunderland.

That the Rule and Notice drawn up in pursuance of the resolution of the special conference held on February 10th be approved by the Council, subject to the opinion of the Solicitor to the Association on certain amendments proposed by the Committee.

That some financial recognition be made of the assistance rendered to the Association by the County of Durham Medical Union and the Northumberland Medical Association in furnishing copies of a statement of case and Council's opinion thereon.

[1] SUPPLEMENT to the BRITISH MEDICAL JOURNAL, January 30th, 1904, p. 8.

CONTRACT PRACTICE.

The Committee recommended the Council to approve a scheme submitted by the Medical Secretary to provide for the insertion, already authorized in principle by the Council—see SUPPLEMENT to the BRITISH MEDICAL JOURNAL for October 31st, 1903, p. ccviii—of a warning notice in the JOURNAL concerning districts in which there are disputes arising out of contract practice.

The scheme approved was as follows:

(*a*) That a notice in the following form be inserted weekly in the BRITISH MEDICAL JOURNAL among the advertisements relating to appointments of the kind referred to:

Medical men are requested not to apply for appointments in connexion with Clubs and other forms of Contract Practice in any of the towns and districts named in the following table without first communicating with the Honorary Secretary of the Division, whose name is given in the second column of the table, or with the Medical Secretary of the British Medical Association, 429, Strand, W.C.:

Town or District.	Hon. Sec. of the Division.

(*b*) That the Medical Secretary be responsible for preparing the list and keeping it corrected up to date.

(*c*) That names of places be inserted in the list only in response to an application from the Honorary Secretary of the Division concerned, or, if applications are received from other persons, with the concurrence of the Honorary Secretary of the Division.

(*d*) That no name of a place should be retained on the list for more than four consecutive weeks except upon a renewed application from the Secretary of the Division concerned.

Resolved: That it be recommended to the Council that notices be inserted in the JOURNAL according to the scheme submitted by the Medical Secretary.

HYDROPATHIC ESTABLISHMENTS.

An inquiry having been received as to whether it was permissible for a medical man to become managing director and resident physician of a hydropathic establishment, owned by a limited company, the Committee considered a memorandum on the matter which the Medical Secretary had drawn up by instruction of the Chairman, and the following resolution was adopted:

That in the opinion of the Committee, it would appear to be better that medical men should be on the directorate of such an institution, than that the entire control should pass into the hands of laymen, who would be less likely to conform to what the medical profession would regard as sound principles of management; but a medical man who accepts such an office must equally accept responsibility to the profession for the mode in which the establishment is conducted.

SPECIAL CASES.

The MEDICAL SECRETARY reported a number of individual cases in which advice had been given, and the action was approved in each case. The questions raised included the following:

(*a*) That a medical man should not have his doorplate affixed to premises of which he has no effective tenancy, but that the facts of any particular case of such alleged use of doorplates may be a question for primary investigation by a Division of the Association.

(*b*) That a medical man who was the victim of newspaper notices which he had not authorized and did not desire, and who feared that personal remonstrance might only result in adding to the annoyance, could, if a member of the Association, bring the matter before his Division, which might take action on his behalf.

(*c*) An inquiry had been received from a lay manager of a Sick Club connected with a religious organization, as to the propriety, as affecting the Medical Officer of the Club, of the issue of certain handbills by the Club. Advice had been given, upon which the manager had intimated that the Club would act.

(*d*) Several other matters to which the attention of the Committee had been drawn had been referred to Divisions or Branches for primary investigation, and the Chairman was authorized by the Committee to follow the same course, in the intervals between Committee meetings, whenever in his opinion advisable.

ORGANIZATION COMMITTEE.

A MEETING of the Organization Committee was held at the office of the Association on Tuesday, February 9th, when, in the absence of the chairman of the Committee, the chair was

taken by Mr. Andrew Clark, Chairman of Council. The other members present were Dr. T. D. Griffiths (President), Mr. H. A. Ballance, Dr. S. Crawshaw, Dr. J. C. McVail, Professor J. T. J. Morrison, Professor A. H. White.

GRANTS FROM BRANCHES TO DIVISIONS.

The Committee considered an inquiry from the Honorary Secretary of a Division, who stated that the Branch Council required Division accounts to be presented to the Branch Treasurer for payment, and asked whether this was not contrary to By-law 16. The Committee expressed the opinion that under By-law 16 the form of payment by a Branch Council to a Division must be that of a capitation grant.

RULES AND BOUNDARIES OF DIVISIONS AND BRANCHES.

The Committee had before it certain matters with reference to the rules of Divisions and Branches and the delimitation of boundaries, and made the following recommendations to the Council:

1. That the Council approve the Rules of the North-East Edinburgh Division.
2. That the boundary between the Metropolitan Counties and Oxford and Reading Branches be modified in the way proposed and approved by the two Branches.

The question of the grouping of Divisions and Branches for electoral purposes was discussed and the further consideration of the subject adjourned to the next meeting.

A meeting of the Organization Committee was held on Tuesday, April 12th, when there were present Mr. T. Jenner Verrall (in the chair), Mr. Andrew Clark (Chairman of Council), Mr. H. A. Ballance, Professor J. T. J. Morrison, and Professor A. H. White.

TEMPORARY VACANCIES.

The Committee considered a case brought before it of a difficulty arising through the resignation of the Honorary Secretary of a Division, of which the Rules gave no power to the Executive Committee to provide for such emergencies.

The Committee resolved to recommend the Council to suggest to each Division that it is desirable to adopt a rule empowering its Executive Committee to fill vacancies amongst its officers and to appoint deputies for officers unable to act, and instructed the Medical Secretary to draft a model rule to be circulated to the Divisions as suitable for the purpose.

FOREST OF DEAN SECTION.

The Committee, having consulted the Solicitor and being satisfied that the proposal was not in conflict with the letter and spirit of the Articles and By-laws, resolved to recommend the Council to approve the formation by the Gloucestershire Branch of a Section for the Forest of Dean, and to approve rules relating to the Section which had been considered by the Committee after consultation with the Solicitor.

DIVISION LIBRARIES AND DIVISION FINANCE.

The MEDICAL SECRETARY presented an interim Report on Division Libraries and Division Finance, prepared by instruction of the Committee, and was instructed to make further inquiries and report thereon.

RULES OF DIVISIONS AND BRANCHES.

The rules of the following Divisions and Branches were approved:

Branches:—Hong Kong (except Rules 2, 7, and 13, and subject to certain additions).
Malaya.
Divisions:—Blyth.
Glasgow (Southern).
Glasgow (Eastern).
Hartlepool.
Singapore.
Sunderland.

CHANGES OF BOUNDARIES OF DIVISIONS.

The Committee, in exercise of the authority conferred upon it by the Council to make changes in the boundaries of Divisions as to which there was no local opposition, approved the following changes in the boundaries of Divisions:

Place.	*To.*	*From.*
Waringstown and Dromore ...	Portadown Division ...	Belfast Division
Mossley	Ashton ,, ...	N. Manchester Division
Partington	Altrincham ,, ...	W. Manchester Division
Norbury	Croydon ,, ...	Norwood Division
Water Orton	Central (Birmingham) Division ...	Nuneaton Division

GROUPING OF BRANCHES.

The following resolutions were adopted:

That the grouping of Branches in the United Kingdom for representation on the Central Council be the same as last year, and that independent representation be granted to the same Branches as last year.

That the following Divisions, which last year were grouped for the election of representatives in the Representative Meeting, and which now have at least 50 members each, be made independent constituencies for the election of Representatives: Cleveland, Hereford, Lancaster, and Reigate.

That the Isle of Wight be made an independent constituency if reaching 50 members by the day of election.

That the Fermanagh, Monaghan and Cavan, and Omagh Divisions be grouped with the three Divisions of Connaught to form one constituency for the election of a representative.

That the constituencies of the Representative Meeting in the United Kingdom, other than those affected by the foregoing proposals, be the same as last year, except in the case of Divisions then grouped, which may be found when the list of members is published to have more than 50 members, and except also in the case of any Division thus recommended for independent representation which may then be found to have fewer than 50 members; and that in respect of such excepted cases the Council do delegate to the Organization Committee authority, at the first meeting of the Committee held after the publication of the annual list of members, to grant independent representation to such Divisions as shall then have at least 50 members, and to group such Divisions as shall then have fewer than 50 members, in each case in which the Committee shall deem such action expedient.

MEDICAL DEFENCE COMMITTEE.

A MEETING of the Medical Defence Committee was held on February 11th, when there were present Mr. Andrew Clark (Chairman of Council) in the chair, Dr. T. D. Griffiths (President), Sir Victor Horsley (Chairman of Representative Meeting), Dr. M. Beverley, Dr. Bruce Goff, Dr. G. A. Heron.

MINORITY REPORT.

The minority report signed by Mr. Messiter and Dr. Beverley was considered and ordered to be entered on the minutes. (This was published in the SUPPLEMENT to the BRITISH MEDICAL JOURNAL of March 19th, p. 33.)

EXPLANATORY MEMORANDUM.

The Committee then considered the Explanatory Memorandum which was published in the SUPPLEMENT to the JOURNAL of March 19th, p. 32.

The Committee resolved that the Explanatory Memorandum, together with the Scheme, should be forwarded to the Divisions, with a request that the secretaries of Divisions should poll the members. The General Secretary was instructed to prepare a form of application for those members who were willing to join the Medical Defence department of the British Medical Association in the event of such a department being formed.

HOSPITALS COMMITTEE.

A MEETING of the Hospitals Committee was held on January 28th, 1904, when the following were present: Dr. Michael Beverley (Chairman), in the chair, Dr. T. D. Griffiths (President), Mr. Andrew Clark (Chairman of Council), Dr. J. Brassey Brierley, Dr. E. Lawrence Fox, Dr. John R. Hamilton, Mr. T. Garrett Horder, Mr. Edmund Owen, Dr. Frank M. Pope.

CONSTITUTION OF THE COMMITTEE.

On the suggestion of Mr. GARRETT HORDER and on the motion of Dr. BRASSEY BRIERLEY, seconded by Mr. GARRETT HORDER, it was resolved that some member of the staff of a large London hospital, to be nominated by the Chairman, should be invited to serve on the Committee in the place of Professor Morrison, who had consented to act as a corresponding member.

HOSPITAL MANAGEMENT.

The GENERAL SECRETARY reported that he had sent the questions as to hospital management, approved by the Committee on November 13th, and printed in the SUPPLEMENT to the JOURNAL of January 20th, 1904, p. 12, and that he had

received replies from all the hospitals applied to, namely:

London.

The Hospital for Consumption, Brompton.
The Great Northern Central Hospital.
The Hospital for Diseases of the Throat.
The London Hospital.
The Middlesex Hospital.
The National Hospital for the Paralysed and Epileptic.
The Royal Free Hospital.
The Royal London Ophthalmic Hospital.
St. Bartholomew's Hospital.
St. George's Hospital.
St. John's Hospital for Diseases of the Skin.

Provinces.

The Birmingham General Hospital.
The Leeds Infirmary.
The Liverpool Royal Infirmary.
The Manchester Royal Infirmary.
The Newcastle Royal Infirmary.
The Norfolk and Norwich Hospital.
The Royal Devon and Exeter Hospital.

Wales.

The Cardiff Infirmary.

Scotland.

The Edinburgh Royal Infirmary.

Ireland.

The North Charitable Infirmary, Cork.
The Royal Victoria Hospital, Belfast.
Dr. Steevens's Hospital, Dublin.

Proposed Draft Rules.

Before considering these replies the Committee resolved to discuss a Memorandum for the Guidance of Hospital Managers submitted by Dr. Pope. After discussion, a series of resolutions were adopted as a basis for model rules (see report of meeting on March 24th).

RATE SUPPORT OF GENERAL HOSPITALS.

The GENERAL SECRETARY reported, as bearing upon the work of the Committee, that the following communication from the Local Government Board had been addressed to the Tottenham Urban District Council:

Local Government Board, Whitehall, S.W.
November 26th, 1903.

Sir,—I am directed by the Local Government Board to acknowledge the receipt of your letter of the 18th inst., with reference to a proposal of the Tottenham Urban District Council to contribute to the funds of a general hospital situated in their district; and, in reply, I am to state that it appears to the Board to be competent to the District Council to make a contribution to the funds of an established hospital in pursuance of an agreement with a view of obtaining the benefits indicated in Section CXXXI of the Public Health Act, 1875.

I am, Sir, your obedient servant,
JOHN LITHIBY Assistant Secretary.

The Clerk to the Urban District Council, Tottenham.

It was resolved:

That the interpretation by the Local Government Board of Section CXXXI of thePublic Health Act, 1875, be referred to the Solicitor of the Association for his opinion.

A meeting of the Hospitals Committee was held at the office of the Association, 429, Strand, W.C., on Thursday, March 3rd, 1904, when there were present, Dr. Michael Beverley (Chairman) in the chair, Dr. E. Lawrence Fox, Dr. John R. Hamilton, Dr. T. Arthur Helme, Mr. T. Garrett Horder, Dr. F. M. Pope. Letters apology for non-attendance were read from the President, the Chairman of Council, Dr. Brassey Brierley, and Mr. Edmund Owen.

RATE SUPPORT OF GENERAL HOSPITALS.

The following opinion of the Solicitor to the Association on this matter was read and entered on the minutes:

February 10th, 1904.

Dear Sir,—I beg to acknowledge the receipt of your letter of the 9th inst. with the copy letter from Mr. John Lithiby, the Assistant Secretary to the Local Government Board, written to the Clerk of the Tottenham Urban District Council, having relation to a proposal of the District Council to contribute to the funds of a general hospital situated within their district, and in connexion with which my opinion is desired upon the interpretation placed by Mr. Lithiby upon Section CXXXI of the Public Health Act, 1875.

I have not before me the letter of the Clerk of the District Council to Mr. Lithiby, to which that which you send me is in answer, but I infer it to have been written on the instructions of his Council with the view of ascertaining officially from the Local Government Board whether or not that which was proposed was *intra vires* of the District Council.

I annex to this letter a copy of Section CXXXI of the Public Health Act, 1875, on which Mr. Lithiby founds his opinion as to it being competent to the District Council to make the proposed contribution in order that you may have the full text of such section before you.

In my opinion the interpretation which Mr. Lithiby, in his letter to the Clerk, places upon the section is correct.

I am, dear Sir, yours faithfully,
W. E. HEMPSON.

Guy Elliston, Esq.,
General Secretary, British Medical Association,
429, Strand, W.C.

Public Health Act, 1875. *Part III Sanitary (Infectious Diseases, etc.)*. 38 and 39 Vict., c. 55.

HOSPITALS.

131. Any local authority may provide for the use of the inhabitants of their district, hospitals or temporary places for the reception of the sick, and for that purpose may:

Themselves build such hospitals or places of reception; or
Contract for the use of any such hospital or part of a hospital or place of reception; or
Enter into any agreement with any person having the management of any hospital, for the reception of the sick inhabitants of their district on payment of such annual or other sum as may be agreed on.
Two or more local authorities may combine in providing a common hospital.

HOSPITAL MANAGEMENT.

Out-patient Departments.

The consideration of the memorandum submitted by Dr. Pope was resumed, and a draft of proposed model rules for the guidance of hospitals, submitted by Mr. Garrett Horder, was considered. (The memorandum as finally settled and reported to the Council will be found in the report of the meeting of the Committee on March 24th).

A communication was read from Dr. H. C. Mactier, of Wolverhampton, regarding hospital management. Dr. Mactier forwarded replies to the eight questions recently submitted to the various hospitals as concerning Wolverhampton, and pointed out that in his opinion the present abuse of hospitals is due to the general impression held by the public that honorary medical officers are paid.

Special Hospitals.

The consideration of proposed model rules for special hospitals prepared by Mr. Garrett Horder was deferred.

A report of the Committee of the Hospital Reform Association on the working of the special hospitals of London, published in the *Lancet* of April 10th, 1897, was ordered to be entered on the minutes for reference.

A meeting of the Hospitals Committee was held at the office of the Association on Thursday, March 24th. Present: Dr. Michael Beverley (Chairman), in the chair, Dr. T. D. Griffiths (President), Mr. Andrew Clark (Chairman of Council), Dr. E. Lawrence Fox, Dr. John R. Hamilton, Dr. T. Arthur Helme, Mr. T. Garrett Horder, Mr. Edmund Owen, Dr. Frank M. Pope. A letter of apology for non-attendance from Dr. J. Brassey Brierley was read.

HOSPITAL MANAGEMENT.

The Committee resumed consideration of certain proposed draft rules for special hospitals submitted at the previous meeting of the Committee by Mr. Garrett Horder.

The Committee resolved to recommend that in all hospitals there should be an age limit for all medical officers.

The Committee resolved to recommend the Council to empower it to invite certain persons, not exceeding twelve in number, with special knowledge of hospital management, to confer with the Committee on the following draft memorandum for hospital management.

MEMORANDUM.

Out-Patients.

That the system of the admission of out-patients by letters of recommendation is antiquated, liable to abuse, and entirely unsatisfactory. This Committee is of opinion that the system should be abolished. Sickness and poverty should be the only recommendation to procure the admission of proper cases for the out-patient department.

That all cases of serious accident and severe sudden illness shall be attended to on their first application and if deemed eligible for further treatment, shall then be referred to the appropriate department of the institution, but if ineligible shall then be referred for treatment elsewhere.

That all cases of trivial accident or illness deemed in-

eligible for the out-patient department shall, after having been attended to, be referred for treatment elsewhere.

That it is inexpedient that any patient should be able to leave the institution without having been seen by a registered practitioner.

That an investigating officer shall be appointed, whose duty shall be to inquire into the eligibility of all applicants.

That no payment as such shall be received from any out-patient for treatment or medicine.

That the number of new cases to be seen on any one day by an honorary medical officer shall not exceed twenty.

In-patients.

That no charges for the treatment of any patient shall be made except in the case of patients who, although able to pay a medical attendant, have been admitted owing to the urgent nature of their accident or illness, but contributions towards their expenses may be received from patients.

That, except in case of emergency, before a patient is admitted into any hospital, sufficient evidence should be obtained by the hospital authorities on two points (*a*) that the patient is not in a position to pay for treatment at home; (*b*) that the case is, from a hospital point of view, suitable for treatment.

Special Hospitals.

That special hospitals should treat only those cases that come strictly within the scope of their work.

That no charges for the treatment of any patient shall be made except in the case of patients who, although able to pay a medical practitioner, have been admitted owing to the urgent nature of their accident or illness, but contributions towards their expenses may be received from such patients.

ROYAL NAVAL AND MILITARY COMMITTEE.

A meeting of the Royal Naval and Military Committee was held on February 8th, when there were present: Mr. Andrew Clark (Chairman of Council), in the chair, T. D. Griffiths (President), Surgeon-Lieutenant-Colonel Decimus Curme, Brigade-Surgeon-Lieutenant-Colonel E. F. Drake-Brockman, Brigade-Surgeon-Lieutenant-Colonel G. S. Elliston, Surgeon-General G. J. H. Evatt, C.B., Major Valentine Matthews, Inspector-General Alex. Turnbull, M.D., R.N.

WAR OFFICE RECONSTITUTION.

The CHAIRMAN stated that the meeting had been called for the purpose of considering the report of the War Office (Reconstitution) Committee, published on February 1st, and certain correspondence which had passed with the Secretary of that Committee. The Committee, having considered the scheme, resolved that the following recommendations should be forwarded to His Majesty's Secretary of State for War.

While the British Medical Association would welcome any measure which will tend to increase the efficiency of the military organization of the empire, such as is outlined in the new scheme of War Office Reform, it regrets to observe that, notwithstanding the experience gained in the South African war, after which Mr. Brodrick's Committee gave to the Army Medical Service direct representation on the Army Board, no such similar provision appears to have been made for the direct representation of the Medical Service of the Army on the now proposed Army Council.

The British Medical Association considers the absence of direct representation on the Army Council of so important a branch of the military service a retrograde movement, and one that can only tend to handicap the efficiency of this branch of the service. It would therefore respectfully urge on His Majesty's Government to take such steps as will insure the direct representation of the Army Medical Service on the Army Council, or whatever the central governing body of the War Office may be designated.

A further meeting of the Committee was held on February 15th, when there were present: Mr. Andrew Clark (Chairman of Council), in the chair, Surgeon-Lieutenant-Colonel Decimus Curme, Brigade-Surgeon-Lieutenant-Colonel E. F. Drake-Brockman, Brigade-Surgeon-Lieutenant-Colonel G. S. Elliston, Surgeon-General G. J. H. Evatt, C.B., Major Valentine Matthews, Inspector-General Alex. Turnbull, M.D., R.N.

WAR OFFICE RECONSTITUTION.

The CHAIRMAN read the following letter received from the War Office in reply to the recommendations passed at the last meeting of the Committee:

War Office,
February 9th, 1904.

Dear Sir,—I am desired by Mr. Arnold-Forster to acknowledge the receipt of your letter of the 8th inst., forwarding certain recommendations of the British Medical Association, and to say that the new Army Council is in no way a representative body, but is constituted in the same manner as the Admiralty. Under these circumstances it is not considered necessary that the Army Medical Service should be directly represented.

Believe me, yours faithfully,
H. SHUTE.

Guy Elliston, Esq.

A draft memorandum on the effects likely to be produced by the report of the War Office (Reconstitution) Committee on the relation of the Army Medical Service to the Secretary of State for War was then considered, It was adopted in the following terms, and directed to be forwarded to the Secretary of State for War, to Lord Esher, and to members of Parliament. The Chairman of Council was requested to draw up a letter based on the Memorandum for circulation to the press.

Memorandum on the Effects likely to be Produced by the Report of the War Office (Reconstitution) Committee on the Relation of the Army Medical Service to the Secretary of State for War.

It is a matter of the highest importance to the Army Medical Service—and through it to the whole question of army efficiency—that the most careful attention should be given to all recommendations made by the War Office (Reconstitution) Committee, which has just made its report.

Under this Committee's report a very drastic change has been made in War Office organization.

One of the most gladly-welcomed reforms carried out under Mr. Brodrick's administration was the appointment of the Director-General of the Army Medical Service to be a member of the Army Board. The constitution of the new Army Council without any medical representative seems by comparison with this reform a retrograde step.

Practically, the outcome of the War Office Committee report s the formation (1) of a Defence Department working directly under the Prime Minister of the day; (2) an Army Council like the Board of Admiralty; and (3) an Inspector-General and staff to do army inspections.

With the first and third of the proposed formations the British Medical Association has not any special remarks to make, feeling sure that, so far as these particular proposals are concerned, the interests and requirements of the Army Medical Service will be duly considered. But as to the formation of an Army Council on the same lines as the Board of Admiralty the British Medical Association feels considerable anxiety as to its working.

The Army Council consists of 7 members, namely:

1. The Secretary of State for War.
2. } Military Members.
3. }
4. }
5. }
6. } Civilian Members.
7. }

All the branches of the army are to be subordinated to this Army Council, and its forms the "*supreme administering body*" of the Army.

While the Army Council is made the supreme administering body of the Army there is no direct representative skilled in the technical work of the Army Medical Service able to advise the Council on medical and sanitary requirements.

In studying the various duties assigned to the members of the Army Council, no mention is made of sanitation, prevention of diseases, nor of the care of the sick and wounded. So far as the assignment of duties is concerned all reference to medical and sanitary matters is entirely absent.

In the opinion of the British Medical Association this is unsatisfactory, and it views with grave anxiety the injurious effect on military medical efficiency that must result.

While the Army Council may from its composition deal efficiently with army matters in general, and arrive at sound conclusions, it seems difficult to imagine how, in matters so highly technical as medical and sanitary work, the Council without any trained expert member can efficiently discharge the work of administration in these directions.

The British Medical Association therefore feels that it would fail in its duty if it did not bring this condition of affairs to public notice, and strongly urge that the Army Medical Service should be represented on the Army Council by an officer of that service, who would personally represent the sanitary requirements and general and medical needs of the army.

The proper method of dealing with the Medical Service of the army is to give it responsibility and power. To secure these essentials the British Medical Association considers that direct representation on the Army Council is of vital importance to the army and to the nation.

MILITIA MEDICAL OFFICERS.

Surgeon-Lieutenant-Colonel CURME called attention to the inequalities in the rate of pay of officers of the Militia Medical Staff and those of the Militia Medical Staff Corps. The following resolution was adopted on the motion of Surgeon-Lieutenant-Colonel CURME, seconded by Surgeon-General EVATT:

That this Committee recognizes the inadequacy of the pay of officers of the Militia Medical Staff and recommends that the British Medical Association should write to the Secretary for War calling his attention to the injustice they suffer in this matter, recommending that the pay and allowances of officers of the Militia Medical Staff should be at least equal to those of the officers of the Royal Army Medical Staff Corps according to rank and service.

A meeting of the Royal Naval and Military Committee was held at the office of the Association on Tuesday, March 29th, when there were present: Mr. Andrew Clark (Chairman of Council) in the chair, Dr. T. D. Griffiths, Surgeon-Lieutenant-Colonel Decimus Curme, Brigade-Surgeon-Lieutenant-Colonel G. S. Elliston, Surgeon-General G. J. H. Evatt, C.B., Major Valentine Matthews, and Dr. J. Roberts Thomson.

WAR OFFICE RECONSTITUTION.

The GENERAL SECRETARY reported that in accordance with the minute of the last meeting, he had forwarded a copy of the Memorandum of the Committee dealing with the Report of the War Office (Reconstitution) Committee to the Secretary of the State for War, Lord Esher, and to members of both Houses of Parliament; that the Secretary of State for War and Lord Esher had both replied stating that the matter was receiving careful consideration. He reported also that he had received many letters from members of Parliament expressing sympathy with the aims of the Committee.

The CHAIRMAN reported that he had written to the daily Press regarding the Committee's Recommendations of February 15th, 1904, and that he had replied to the article in the *Times* criticizing the representations of this Committee as to a direct representative on the Army Council.

The Final Report of the War Office (Reconstitution) Committee as published in the *Times* of March 26th, 1904, was then considered at length and the Committee adopted the following resolution:

That notwithstanding the arguments adduced in support of the proposals set out in the War Office (Reconstitution) Committee Report, Part III, the British Medical Association still adheres to its opinion that the Medical Service of the Army now occupies so important a position in safeguarding the health and life of the soldier in peace and in war, that in order to secure the highest state of efficiency it is essential in the best interests of the Army that the Medical Services shall be administered by an Army Medical Officer who shall have a seat on the Army Council.

INDIAN MEDICAL SERVICE.

It was reported that a letter had been received from the India Office stating that the recommendations of the Committee passed on January 12th, 1904, criticizing the memorandum of the India Office, dated October, 1903, had been forwarded to the Government of India for information and report.

A further letter was read from the India Office stating that the fact to which the Committee had drawn attention that it was possible for an officer of the R.A.M.C. by passing various examinations so to accelerate his promotion as to become a major after ten years' service while a corresponding advantage was denied to the officers of the I.M.S., had not been overlooked but was now receiving the consideration of the Government of India.

MAJORS R.A.M.C. IN INDIA.

A communication was received from a Major R.A.M.C. pointing out that while under the last Royal warrant majors received an increase of 3s. 6d. a day pay at home or in the Colonies, the Indian Government had given no corresponding increase. It could not be assumed that majors received charge pay, for in the quarterly Indian Army List for January of 85 majors shown as serving in India only 33 were shown as commanding station hospitals, and of these 33 charges many were not of sufficient magnitude (50 beds) to give charge pay. The Committee resolved to draw up a memorandum on the subject and transmit it to the India Office.

A further meeting of the Committee was held on April 27th, when there were present Mr. Andrew Clark (Chairman of Council) in the chair, Dr. T. D. Griffiths (President), Surgeon-Lieutenant-Colonel Decimus Curme, Brigade-Surgeon-Lieutenant-Colonel E. D. Drake-Brockman, Brigade-Surgeon-Lieutenant-Colonel G. S. Elliston, Surgeon-General G. J. H. Evatt, C.B., and Major Valentine Matthews.

WAR OFFICE RECONSITUTION.

The Chairman of Council reported that in accordance with the request of the last meeting of the Committee he had transmitted the following letter to Lord Esher, Mr. Arnold-Forster, and Mr. A. J. Balfour;

"British Medical Association,
"429, Strand, London,
"April 12th, 1904.

"Sir,—With reference to the Memorandum forwarded to you in February last, setting out the objections of the British Medical Association to the War Office (Reconstitution) Committee Report, the Association has since seen Part III of the Report. After careful consideration, and notwithstanding the arguments adduced in support of the proposals set out in the Report, the British Medical Association still adheres to its opinion that the Medical Service of the Army now occupies so important a position in safeguarding the health and life of the soldier in peace and in war, that in order to secure the highest state of efficiency it is essential in the best interests of the army that the Medical Services shall be administered by an Army Medical Officer, who shall have a seat on the Army Council.

"The British Medical Association has also noticed with regret that it is proposed that the Army Hospitals Committee shall be altogether independent both of the Director-General of the Army Medical Services and of the Advisory Board, and it is to be responsible solely to the Civil members of the Army Council. Further, that it is proposed to abolish the Sanitary Committee, a Committee which has rendered incalculable services to the army. In view of this the British Medical Association feels that it would be neglecting its duty if it failed to call attention to these matters and do all in its power to prevent the passing into law of any regulations whereby the Army Medical Services are likely to be rendered less efficient.

"I am, Sir, your obedient servant,
"ANDREW CLARK,
"Chairman of Council."

The following reply had been received:

"War Office (Reconstitution) Committee,
"April 18th, 1904.

"Sir,—I am directed by the War Office (Reconstitution) Committee to acknowledge the receipt of your letter of the 12th inst.

"The Committee regret that they have failed to prove to the satisfaction of the British Medical Association that the Medical Service of the Army will, under their proposals, occupy a position of distinctly greater influence than at present.

"With regard to the question of standing Committees, I am desired to point out that you appear to be labouring under a misconception.

"No change of any kind has been proposed as regards the Army Hospitals Committee except to bring this valuable body into touch with the new Barrack Branch under the Civil member of the Army Council, and further to provide that it shall 'send a representative to attend the Army Council when required.' As the duty of 'reporting upon all plans for new hospitals and standard plans for barracks and standing camps, and of selecting sites for new hospitals' is already assigned to the Army Hospitals Committee, it was evidently necessary to establish touch with the new Works Branch. In every other respect the functions and position of this Committee remain as at present.

"Similarly, the Advisory Board remains unaffected except that Lord Esher's Committee has laid down that the Director-General, if necessary associated with a Civil representative of the Board, should be summoned to the Army Council 'whenever his advice and specialist knowledge' are required.

"The functions of the Army Sanitary Committee, which it is proposed should be abolished, can evidently be better discharged by the new Medical bodies recently constituted. It is essential to prevent overlapping of work, and the present arrangement under which two separate bodies—the Army Hospitals Committee and the Army Sanitary Committee—are directed to report "in conjunction," appears contrary to the principles of sound administration. Exclusive of the Nursing Board, there will remain three bodies dealing with Medical Services generally, the large department of the Director-General, the Advisory Board, and the Army Hospitals Committee. These, in the opinion of Lord Esher's Committee, should constitute an ample guarantee that the vitally important question of Military Hygiene will be efficiently and adequately dealt with in the future.

"I have the honour to be, Sir,
"Your obedient Servant,
"G. F. Ellison, Lieut.-Col.,
"Secretary.

"Andrew Clark, Esq., F.R.C.S.,
"Chairman of Council of British Medical
"Association, 429, Strand, W.C."

The Chairman of Council reported that he had also forwarded copies of the resolution on the proposed War Office changes passed at the last meeting of the Committee to certain members of Parliament, and had received acknowledgements from the Archbishop of York, Mr. Wyndham, Mr. A. J. Balfour, and Mr. Arnold-Forster.

The subject having been fully discussed, the Chairman undertook to transmit the following letter to the War Office (Reconstitution) Committee:

"British Medical Association,
"429, Strand, London, W.C.,
"April 27th, 1904.

"Sir,—In reply to your letter of the 18th inst., I beg to say that the arguments therein advanced have been very carefully considered, but they only serve to confirm the opinion expressed by the British Medical Association that it is essential for the welfare of the soldier and the efficiency of the army that the Army Council shall comprise an expert officer acquainted with the sanitary and medical needs of the army.

"The scheme propounded by Lord Esher's Committee provides three more or less independent bodies, the Director-General's Office, the Advisory Board, and the Army Hospitals Committee. No head is appointed to these Services, nor any other means of co-ordinating their work, except through the Adjutant-General, who is not an expert in medical and sanitary questions.

"The British Medical Association cannot accept the view that the report embodies a scheme which will 'constitute an ample guarantee that the vitally important question of Military Hygiene will be efficiently and adequately dealt with in the future.'

"On the contrary, the Army Council may take the most momentous decisions without receiving any advice upon its sanitary aspects from the Director-General, associated or not with a Civil representative of the Board, since the members of the Army Council may not have perceived that it was one upon which 'his advice and specialist knowledge' are required.

"I am, Sir,
"Your obedient servant,
"Andrew Clark,
"Chairman of Council.

"Lieut.-Col. G. F. Ellison, C B.,
"Secretary, War Office (Reconstitution) Committee,
"1, Chapel Place, Delahay Street, S.W."

Majors R.A.M.C. in India.

The anomaly with regard to the pay of Majors R.A.M.C. serving in India was further discussed, and the following letter was directed to transmitted to the India Office:

Sir,—I am instructed by the Council of the British Medical Association to call your attention to the following facts relating to the pay of majors of the R.A.M.C. while stationed in India:—

For some time officers of the R.A.M.C. have felt aggrieved that they should not be paid the full rate of Indian pay equivalent to converted money (English pay) plus Indian allowances.

Recently when the War Office issued a New Warrant for the R.A.M.C., the Indian Government raised the pay in certain ranks to a comparative equivalent to the English pay plus Indian allowances.

In the major's grade this has not been done, and officers of this rank are thus serving in India at a lower rate of pay than equity demands.

The British Medical Association feels therefore that a grievance thus exists entailing loss to officers of major's grade of the R.A.M.C. while serving in India, and in calling your attention to the foregoing facts would respectfully hope that it may be possible to remedy these disadvantages.—I am, Sir,

Your obedient servant,
Guy Elliston,
General Secretary.

Indian Medical Service.

The General Secretary was instructed to communicate with the India Office to ascertain if the Government of India had arrived at any decision as to pay in civil employ in the Indian Medical Service.

Resignation.

The resignation of Inspector-General Turnbull, R.N., in consequence of ill-health was accepted with regret, and the Committee placed on record its high appreciation of the valuable services rendered by Inspector-General Turnbull to the Association, more particularly in connexion with the work of the Royal Naval and Military Committee.

SCOTTISH COMMITTEE.

A meeting of the Scottish Committee was held in Edinburgh on February 12th, when there were present Professor Finlay (in the chair in the absence of Dr. Bruce Goff), Dr. R. Cochrane Buist, Dr. Balfour Graham, Dr. H. M. W. Gray, Mr. G. Halley, Dr. James Hamilton, Dr. Munro Moir, Dr. J. E. Moorhouse, Dr. James Murray, Dr. J. H. Nicoll, Dr. W. A. Taylor, Dr. Norman Walker.

Ethical Questions.

The following motion, proposed by Dr. Moir and seconded by Dr. Nicoll, was adopted, together with the following rider, proposed by Dr. Buist and seconded by Dr. Moorhouse:

That ethical questions concerning individual members of the profession should, in the first instance, be referred by the Editor or by the Ethical Committee to the Council of the Division or Branch within the area of which the practitioner affected resides, and that no comments thereon should appear in the Journal until the local report has been received.

This resolution is not intended to interfere with the freedom of the Editor in dealing with cases under initials.

Vacancies.

It was resolved that when a vacancy occurs in the representation of a Branch or Division, the power of temporarily filling the vacancy should be by by-law vested in the Council of the Branch or Division.

COLONIAL COMMITTEE.

A meeting of the Colonial Committee was held at the office of the Association on Friday, March 4th. In the unavoidable absence of the Chairman, Mr. Edmund Owen, the chair was taken by Mr. Andrew Clark, Chairman of Council; there were also present Mr. James Cantlie, Dr. J. Groves, and Dr. C. G. Drummond Morier.

Proposed Transvaal and Orange River Branches.

The General Secretary reported that by the instructions of the Chairman he had invited the attendance of Dr. Fox-Symons, of Pretoria, with a view to the Committee considering the desirability of the formation of Branches in the Transvaal and Orange River Colony. Dr. Fox-Symons pointed out that in his opinion the medical profession practising in these Colonies would welcome such a proposal, and the Committee adopted the following resolution:

That in view of the information supplied to the Committee the General Secretary be instructed to communicate with the Honorary Secretary of the Griqualand West Branch, and ascertain his views on the proposal to form an additional Branch in the Transvaal and the Orange River Colony respectively.

Constitution of Committee.

In accordance with the resolution of Council of January 20th, the Committee decided that Mr. Donald Armour (representing

Canada), Dr. Francis W. Clark (representing China), and Dr. R. Fox-Symons (representing South Africa) should be invited to attend the meetings of the Colonial Committee.

MEDICAL REGISTRATION IN BRITISH COLONIES AND DEPENDENCIES.

The Committee resolved to recommend the Council to address a letter to the Colonial Office, pointing out that medical registration prevails in certain of His Majesty's Colonies and Dependencies, and that the British Medical Association would repectfully urge upon His Majesty's Secretary of State for the Colonies that the time has now arrived to require compulsory registration in every British Colony and Dependency.

JOURNAL AND FINANCE COMMITTEE.

A MEETING of the Journal and Finance Committee was held on Wednesday, April 20th, when there were present Mr. Andrew Clark (Chairman of Council) in the chair, Dr. T. D. Griffiths (President), Sir Victor Horsley, F.R.S. (Chairman of Representative Meeting), Dr. Edgar Barnes, Dr. James Barr, Dr. Langley Browne, Dr. H. Radcliffe Crocker, Dr. J. H. Galton, Dr. T. Arthur Helme, Mr. W. Jones Morris, Mr. C. H.W. Parkinson, Dr. J. Roberts Thomson, and Dr. Norman Walker.

The financial statement for the year ending December 31st, 1903, was received and approved, and transmitted to the Council with a recommendation that it be published as submitted to the Council (see page 98). The thanks of the Committee were accorded to the Treasurer and permanent officials of the Association for the satisfactory nature of the statement.

The Committee resolved to advise the Council that it should be a recommendation to the Annual General Meeting to vote a sum of £300 to Office Staff Superannuation Fund.

The attention of the Committee was called to the publication of the proceedings of medical societies in the JOURNAL by Dr. T. A. HELME, and a subcomittee consisting of the President and Chairman of Council *ex officio*, Dr. Helme, Dr. Radcliffe Crocker, and the Treasurer was appointed to confer with the Editor on the subject, and report to the Committee.

The Committee recommended the Council to make a further grant of £100 to the Special Chloroform Committee, and to accord some financial assistance to the County of Durham Medical Union and the Northumberland Medical Association.

The General Secretary reported that the total cost of the Year Book amounted to £498 11s. 6d., while the receipts from advertisements were £433 16s. 8d.

ANNUAL MEETING (SECTIONS) COMMITTEE.

A MEETING of the Annual Meeting (Sections) Committee, held at the office of the Association on Monday, March 28th, when there were present: Professor R. Saundby, M.D., Chairman, in the chair; Mr. Andrew Clark, Chairman of Council; Dr. E. Markham Skerritt, Treasurer; Dr. W. J. Tyson; Dr. Norman Walker.

A memorandum from the Editor was considered, and the Committee resolved:

That it was desirable that abstracts of all papers should be published, if possible, in the JOURNAL in the first week in June, and that a circular be issued to the officers of Sections asking them to do their best to obtain such abstracts in time for publication in this number.

PREMISES AND LIBRARY COMMITTEE.

A MEETING of the Premises and Library Committee was held on Tuesday, April 19th, when there were present Mr. Andrew Clark (Chairman of Council) in the chair, Dr. T. D. Griffiths (President), Dr. Edgar Barnes, Dr. J. H. Galton, and Dr. Bruce Goff.

The GENERAL SECRETARY reported that in accordance with the instructions of the Committee additional shelving space had been provided for 3,000 books at a cost of £63 2s. 6d.

The CHAIRMAN OF COUNCIL reported that the alterations in the general office had been completed, and that the total cost amounted to £2,030, being £300 less than the original estimate.

The LIBRARIAN reported that there had been 1,440 attendances during January, February, and March, and submitted a list of books presented, which will be published. Certain books, the purchase of which had been suggested by readers, were directed to be obtained, and the Librarian was authorized to purchase the Royal Society's *International Catalogue of Scientific Literature*.

The thanks of the Committee were given to Mr. Spanton for presenting to the library a copy of the minutes of the North Staffordshire Medical Society 1864 to 1885.

Meetings of Branches and Divisions.

[*The proceedings of the Divisions and Branches of the Association relating to Scientific and Clinical Medicine, when reported by the Honorary Secretaries, are published in the body of the* JOURNAL.]

EAST ANGLIAN BRANCH.

The spring meeting of this Branch was held at the White Hart, Manningtree, on Thursday, April 14th, being preceded by a Council meeting. Richard Worthington, M.B., B.C., Lowestoft, was elected a member of the Association, and the following officers were nominated for election by the annual meeting of the Branch to be held at Lowestoft on June 23rd:—*President:* Mr. H. B. Walker (Lowestoft). *President-Elect:* S. Barton, M.D. (Norwich). *Vice-Presidents:* C. Scott Kilner, M.B. (Bury); Mr. W. G. Wyllys (Yarmouth); J. C. Thresh, M.D. (Chelmsford). *Secretary for Essex:* B. H. Nicholson, M.B. (Colchester). *Secretary for Norfolk:* H. A. Ballance, M.S. (Norwich). *Secretary for Suffolk:* J. Gutch, M.D. (Ipswich). *General Secretary and Treasurer:* B. H. Nicholson, M.B. (Colchester).

The General Meeting was held after lunch. The ethical rules for the Branch were considered and passed. Mr. BALLANCE propose the following resolution, and it was unanimously carried:

That in future a candidate for election to the Association by the East Anglian Branch shall furnish a certificate from two members of the Association to whom he is personally known.

—Dr. ANTON LIEVEN (Aix-la-Chapelle) read an excellent paper on the cure at Aix.—Mr. T. H. MORSE, F.R.C.S. (Norwich) read a paper on twenty-one cases of intrauterine fetation treated by operation, with special reference to diagnosis and removal before rupture.—Dr. SIDNEY BREE (Manningtree) showed an interesting specimen of thyroid adenoma, with notes.—Afternoon tea was kindly provided by Dr. and Mrs. Baxter.—Messrs. Down Bros. showed surgical instruments.—There were about thirty members present.

GRAHAMSTOWN AND EASTERN PROVINCE BRANCH.

AN ordinary meeting of this Branch was held on March 12th, at Steinman's Hotel, Grahamstown. Dr. PURVIS, President, was the chairman; Dr. Bays, Vice President; Drs. Coutts, Drury, Edington, Fitzgerald, Greathead, Hawes, and Mullins were present.

New Members.—The Branch Council met previous to the general meeting, and elected Mr. G. E. Douglas, L.R.C.S., L.R.C.P., of Alexandria, C.C., and Dr. Robert Ainslie Ross, M.B., B.S.Edin., of Bedford, C.C., members of the Association.

Confirmation of Minutes.—The minutes of the meeting held on January 21st were read and confirmed.

Branch Library.—The question of a Branch library, arising out of the minutes was postponed *sine die* after hearing the correspondence with the Public Library.

Draft Rules.—The draft rules of the Branch, as drawn up by the Subcommittee, were then read and discussed *seriatim*. The Subcommittee was instructed to make necessary alterations and report to the Council, with a view to circulating a printed rough draft for consideration by every member of the Branch.

WORCESTERSHIRE AND HEREFORDSHIRE BRANCH.

A MEETING of this Branch was held at the Worcester Infirmary on March 15th. Mr. A. O. HOLBECHE, M.R.C.S., President, in the chair.

Medical Defence.—A discussion took place on this subject, and the following resolution was proposed by Dr. POLLARD and seconded by Dr. MABYN READ:

That in the opinion of this meeting there is no sufficient reason why Medical Defence should be undertaken by the British Medical Association seeing that the medical defence of members is already well provided for by existing societies.

Whereupon the following amendment was proposed by Dr. Crowe, seconded by Mr. Bates, and carried by a large majority:

That the consideration of this matter be deferred until replies have been received to the circular about to be sent out to each member of the Branch.

Consultations of Medical Witnesses in Legal Cases.—A discussion took place on this subject, and the matter was referred to the Divisions.

Certificate C. in Cases of Cremation.—The meeting was of opinion that for the present the minimum fee in such cases should be five guineas.

Clinical Cases.—Mr. Gostling showed a case of abscess of the lung following tooth extraction. The abscess was opened and drained, a portion of the eighth and ninth rib at the back being removed. Dr. Crowe showed a case of paramyoclonus multiplex in a young girl.

British Medical Association.

ANNUAL REPORTS OF BRANCHES.

ADDENDUM.

[By-law 8 "..... every Branch shall furnish to the Council of the Association not later than March 15th, a report of its proceedings during the previous year, a statement of its numbers, and a financial statement in such form as the Council may from time to time prescribe."]

Gloucester Branch:

Income ...	£33 15s. 0d.	Balance ...	£14 10s. 1d.
Expenditure	£19 4s. 11d.		

Munster Branch:

Income ...	£20 15s. 8d.	Balance ...	£16 5s. 8d.
Expenditure	£4 10s. 0d.		

North Wales and Shropshire Branch:

Income ...	£58 18s. 0d.	Balance ...	£8 12s. 9d.
Expenditure	£50 5s. 3d.		

Southern Branch:

Income ...	£120 18s. 1d.	Balance ...	£33 13s. 4d.
Expenditure	£87 4s. 9d.		

South-East of Ireland Branch:

Income ...	£15 9s. 0d.	Deficit ...	£1 1s. 7d.
Expenditure	£16 10s. 7d.		

Worcestershire and Herefordshire Branch.—The Branch has held one meeting during the year 1903, a report of which was published in the Supplement to the British Medical Journal of July 18th, 1903, p. clxviii.

Income ...	£21 14s. 6d.	Balance ...	£10 18s. 5d.
Expenditure	£10 16s. 1d.		

COLONIAL.

Burmah Branch:

Income ...	1,067 Rupees	Balance ...	726 Rupees
Expenditure	341 Rupees	@ 1s. 4d. about	£48 8s. 0d.

New Zealand Branch:

Income ...	£52 9s. 3d.	Balance ...	£31 5s. 4d.
Expenditure	£21 3s. 11d.		

South Indian and Madras Branch:

Total income	3,033 Rupees	Balance ...	112 Rupees
Expenditure	2,921 Rupees	@ 1s. 4d. about	£7 9s. 4d.

The following notices were printed in the British Medical Journal of April 23rd, p. 984, and are reprinted here for the convenience of members:

NOTICE OF MEETINGS.

ANNUAL GENERAL MEETING 1904.

The Annual General Meeting of the British Medical Association will be held in the Examination Schools, Oxford, on Tuesday, July 26th, at 12 o'clock noon, and Wednesday, July 27th, at 2 p.m.

ANNUAL REPRESENTATIVE MEETING.

The Annual Representative Meeting will take place in the Examination Schools, Oxford, on Tuesday, July 26th, immediately after the Annual General Meeting which will be held at 12 noon; on Wednesday, July 27th, after the Annual General Meeting at 2 p.m., and on Thursday, July 28th, at 3.30 o'clock in the afternoon, if required; also at 2 o'clock in the afternoon on Friday, July 29th, if required.

By Order,

April 21st, 1904. Guy Elliston, *General Secretary.*

REPRESENTATIVE MEETING AT OXFORD.

Tuesday, July 26th, 1904.

NOTICES OF MOTION

The following notices of motion have been given for discussion by the Annual Representative Meeting at the Annual Meeting of the Association to be held at Oxford, July 26th, 1904, and following days.

A.—Notices concerning alteration of the By-laws of the Association.

By the Council of the Association:

1. That By-law 2 be amended in the following respect—namely, that the words "one month" occurring in the last line but one thereof be deleted, and that the words "seven days (or such longer period as the Branch may by its rules prescribe)," be inserted in substitution therefore.

2. That By-law 10 be amended in the following respects, namely:

(A.) That so much of such said by-law as is contained in Section (*a*) thereof be deleted and no longer form part of such by-law.

(B.) That the words "At any time after January 1st, 1903," with which Section (*b*) of such by-law commences be deleted.

(C.) That Section (*b*) of such said by-law, as thus amended, be designated Section (*a*) thereof, and that Section (*c*) be designated Section (*b*).

3. That By-law 15 be amended by the addition of the following clause at the end thereof, namely: "For the purposes of this by-law, those named in the Annual List of Members, prepared in May in any year, as members of any Branch, shall be deemed to be members of the said Branch for the said year, and those elected by any Branch Council, whose membership dates from July 1st in any year, shall be deemed to be members of the said Branch for the ensuing half-year."

4. That By-law 20 be amended in the following respects, namely:

(A.) That so much of such said by-law as is contained in Sections (*a*) and (*b*) thereof be deleted and no longer form part of such said by-law.

(B.) That the letter (*c*) prefixing the third section of such said by-law and the words "After the first day of the annual meeting of 1903," with which the said section commences, be deleted and no longer form part of such said by-law.

(C.) That the words "elected by the members of the Association attached to the Royal Navy Medical Service, the Army Medical Service, and the Indian Medical Service respectively, in such manner as may be determined by the said services respectively, subject to the sanction of the Council," in Section (C) of such said by-law, be deleted, and that the following words, "and of one member of the Royal Navy Medical Service, one member of the Army Medical Service, and one member of the Indian Medical Service, annually appointed by the Council to represent the said services respectively on the Council," be inserted in substitution therefor, so that the by-law as thus amended shall read as follows:

"The Council shall be composed of the officers and ex-officers named as members of the Council, *ex-officio*, in Article XXXVIII of the foregoing regulations, together with the members duly elected or appointed by the Branches and other bodies authorized by the by laws to elect or appoint members of the Council, and of one member of the Royal Navy Medical Service, one member of the

Army Medical Service, and one member of the Indian Medical Service, annually appointed by the Council to represent the said services respectively on the Council, and of members annually co-opted by the Council in manner hereinafter provided."

(5) That By-law 28 be amended in the following respect, namely: That after the words "Annual Election" occurring in the fifth line thereof, the following words be inserted and form part of such said by-law: "Or, in respect of election by a Branch, in such other manner as may be prescribed by the Rules of the said Branch," so that the by-law as thus amended shall read as follows:

"Any casual vacancy occurring in the Council, not less than four months before the annual general meeting, may be filled up by any Branch or body the representation of which may have become vacant, and such election shall be conducted in the same manner as the annual election, or, in respect of election by a Branch, in such other manner as may be prescribed by the Rules of the said Branch. Any person so chosen shall retain his office so long as the member in respect of whom such casual vacancy may have occurred would have retained the same."

6. That By-law 32 be amended by the addition of the following clause at the end thereof, namely: "In addition to the above-mentioned report the Council shall have power to present to any Annual Representative Meeting such further report or reports as it may deem advisable, and the same shall be published in the JOURNAL if time permits."

7. That Section (3) of By-law 39 be amended in the following respect, namely: That the words "The public health service, the Poor-law medical service, and the vaccination service" be deleted, and that the words "public health and the Poor-law medical service" be inserted in substitution therefor.

8. That the following new by-law be made, and form one of the by-laws of the Association, namely: "In the month of May in each year a list of members of the Association shall be prepared and published showing the ordinary membership of each Division and Branch as shown by the register of members of the Association on April 30th of that year, and those named in the said list as members of any Division or Branch shall be deemed to be the ordinary members of such Division and Branch for the purpose of Article XXVII, and for the purposes of By-laws 7, 18, 21 and 22."

9. That the following new by-law be made and form one of the by-laws of the Association, namely: "The powers conferred under Article XXX upon any constituency to appoint a substitute in the place of a Representative unable or unwilling to attend a Representative Meeting, shall be exercised by such constituency in general meeting, or by some officer or member of the Division or Divisions composing the constituency who shall have been authorized by the rules of the said Division or Divisions, or shall by a resolution of the said constituency be authorized to exercise such powers."

That the officers of the Association be hereby authorized and instructed, in conference with the Solicitor of the Association, to determine the respective positions in which the new by-laws made this day by the Representative Meeting shall be placed among the existing by-laws, to number the said new by-laws accordingly, to make such alterations in the numbering of the existing by-laws as may be necessary, and to alter accordingly the numerical references contained in any of them.

By the WANDSWORTH DIVISION (Metropolitan Counties Branch):

By-law 22 of the British Medical Asssociation:

The elective members of Council shall be elected by voting papers sent to each elector by post, the said voting papers containing the names of those candidates who have been nominated each by three electors in writing to the Secretary of the Branch, on or before an appointed day, of which not less than fourteen days' notice has been given in the JOURNAL.

Proposed (*a*) That the words "or by a Division" be inserted after the word "writing."

(*b*) Any Branch can require by its rules that a nomination, not by a Division, be signed by such number of members exceeding three as the Branch may deem expedient.

By the WALTHAMSTOW DIVISION (Metropolitan Counties Branch):

To amend By-law 18, substituting the word "twenty" for the words "a majority"—to read: "Voting shall be, as a rule, by show of hands, unless before such vote is taken *twenty* of those present determine that the vote shall be taken by card, in which case every Representative shall record as many votes as there are members in the constituency which he represents."

B.—Other Notices of Motion:

By BIRMINGHAM (CENTRAL) DIVISION (Birmingham Branch):

That the representation of the medical profession in Parliament at the present time is inadequate, and in the interests of the public and profession alike should be improved, and that the Council be instructed to consider how this may best be effected.

By BRADFORD DIVISION (Yorkshire Branch):

That the Council be instructed to transfer annually from the central funds such amount as the Council shall deem expedient, having due regard to the expenditure necessary to carry out other objects of the Association, to a special fund to be designated "The Supplementary Grants Fund," and that out of such fund grants be made from time to time to such Divisions and of such amounts as the Council may think proper, having regard to the evidences of work done, and to the amount of local subscription for any purpose for which a supplementary grant may be given, the Council to be advised by the Organization Committee as to the distribution of the amount available.

By CARDIFF DIVISION (S. Wales and Monmouth. Branch):

That steps be taken by the British Medical Association to secure direct representation of the profession in the House of Commons.

By the FOLKESTONE DIVISION (South-Eastern Branch):

1. That the present method of election by the Branch Council is unsatisfactory, and that new members should be elected by the members of the Division in which they reside.
2. That all members of over thirty years' standing should be made honorary members of the Association.

By GATESHEAD DIVISION (North of England Branch):

(A.) That a prominent place shall be reserved in the BRITISH MEDICAL JOURNAL for notices from Divisions and Branches where disputes are taking place as to contract terms, etc., and from which districts it is advisable that decent members of the profession shall keep away. Each such notice shall be repeated, free of charge, until in the opinion of the Division or Branch in question the necessity for it has disappeared.

(B.) That the Council of the Association be instructed forthwith to take the steps necessary to obtain the alterations in the Memorandum of Association contained in the Birmingham resolutions, subject to such modifications as are required to harmonize them with the present articles, submitting the same for adoption by extraordinary general meeting in their amended form as a special resolution, before application to the High Court, if legally advised necessary.

By HAMPSTEAD DIVISION (Metropolitan Counties Branch):

1. That it is advisable that all Association Business Notices be withdrawn from the JOURNAL and be collected and published in the SUPPLEMENT, so that the JOURNAL be purely medical.
2. That it is advisable that the good idea of the Year Book be developed; that it should contain the names and addresses of all members, medical regulations, and other details of general interest to make it a real handbook of medical information.
3. That it is advisable that, having regard to the purity and reliability of the lymph supplied to the public vaccinators by the Local Government Board, every practitioner should be put on the same footing as public vaccinators in respect to the Government supply of vaccine lymph.

By PORTSMOUTH DIVISION (Southern Branch):

That in recording the votes of members of Divisions on matters to be referred to Representative Meetings the following plan should be adopted, namely: The number voting affirmative present; the number voting negative present; the number absent.

By STRATFORD DIVISION (Metropolitan Counties Branch):

(A.) That to Clause 21 of the new Medical Acts Amendment Bill should be added the words, "and such registration shall confer the title of Dr."

(B.) That this Division requests the Annual Representative Meeting of the British Medical Association to take into consideration the question of payment of medical practitioners for services rendered when required in midwives cases.

(C.) That the Council of the British Medical Association be asked to consider what steps are advisable to increase the Association's membership, and that this resolution be submitted to the Annual Representative Meeting.

By WANDSWORTH DIVISION (Metropolitan Counties Branch):

(A.) That it be referred to the Central Council to consider whether it would not be possible that all announcements of births, marriages, and deaths should be inserted free of charge for members of the Association and their immediate family; and

also to charge members of this Association for advertisements at a much lower scale of fees than at present, in cases when these are of a private and non-commercial character and at the same time, by appending to all such some special sign, to indicate that the advertisements are those of members, and in their private capacity.

(B.) That it be referred to the Central Council to consider whether it would not be an advantage to charge for the BRITISH MEDICAL JOURNAL, from the beginning of 1905, sevenpence a copy to all non-members of this Association. (75,000 copies are annually sold besides those sent to members.

(C.) In order to reduce the present misuse of Charity Trust Funds put at the disposal of hospitals, the constant necessity for hospital appeals, the indiscriminate issuing of "commends" for treatment, as also the consequent gradual reduction now taking place in the scope offered for practice to general practitioners through this largely increasing attendance of the laity at hospital out-patients' departments, hospital authorities should endeavour to make obligatory:

1. The presentation of a form signed by a medical practitioner.
2. That this form should be produced by all before they receive a *second* gratuitous visit or consultation, or apply for admission to the hospital for treatment.

(D.) That a copy of the above resolution be sent (by a deputation if possible) to the King Edward Hospital Fund Committee, as also to all hospital and other similar committees, together with a copy of a proposed form, and, after pointing out the necessity for same, a hope be expressed that they will use their influence to have it adopted, either alone or in conjunction with any subscriber's recommend at present in use.

(E. That the Central Council of the Association are hereby asked to carry out the above resolutions and to take into their consideration the desirability of offering to make donations towards the salaries of almoners properly trained, who could thus be expected, while safeguarding the expenditure of Charity Trust Funds, to indirectly aid the interests of the local general practitioners.

That in the opinion of this Representative Meeting, the time has come that the Central Council should take into its consideration the advisability of forming a Printing and Stationery Department of the Association, not necessarily at the head office, from which all necessary stationery, circulars, and general printing could be supplied and charged to the Branches and Divisions at a sum only sufficiently over cost price to cover working expenses.

(G.) That it is desirable that the Central Council draw the attention of the Medical Profession individually to the fact that by recommending by name certain drugs and certain preparations of those drugs, they are not only allowing themselves to be used indirectly as touts for wholesale druggists, but are also helping their patients to form, either in themselves or others, serious habits of drug abuse.

(H.) That with the view of checking the indiscriminate dispensing of dangerous drugs, the Central Council of this Association be requested to appoint a Committee to investigate the subject, either alone or in conjunction with the Pharmaceutical Society, and to report what steps they would recommend should be taken to remedy the present grave defect in the Law.

By the WIGAN and LEIGH DIVISIONS (Lancashire and Cheshire Branch):

That in the opinion of the Representative Meeting all medical practitioners are entitled to use the title "Dr."

GUY ELLISTON,
General Secretary.

ELECTION OF MEMBERS.

ANY candidate for election should forward his application upon a form, which will be furnished by the General Secretary of the Association, 429, Strand. Applications for membership should be sent to the General Secretary not less than thirty-five days prior to the date of a meeting of the Council.

LIBRARY OF THE BRITISH MEDICAL ASSOCIATION.

MEMBERS are reminded that the Library and Writing Rooms of the Association are fitted up for the accommodation of the members in commodious apartments, at the office of the Association, 429, Strand. The rooms are open from 10 a.m. to 5 p.m. Members can have their letters addressed to them at the office.

GUY ELLISTON, *General Secretary.*

British Medical Association.

SEVENTY-SECOND ANNUAL MEETING AT OXFORD.

THE seventy-second annual meeting of the British Medical Association will be held at Oxford on Tuesday, Wednesday, Thursday, and Friday, July 26th, 27th, 28th, and 29th, 1904.

President: THOMAS DRYSLWYN GRIFFITHS, M.D.Lond., M.R.C.S., Swansea.

President-elect: WILLIAM COLLIER, M.D., F.R.C.P.Lond., Physician, Radcliffe Infirmary, Oxford, and Litchfield Lecturer in Medicine, University of Oxford.

Chairman of Council: ANDREW CLARK, F.R.C.S., Surgeon to the Middlesex Hospital and Lecturer on the Principles and Practice of Surgery.

Treasurer: EDWARD MARKHAM SKERRITT, M.D., F.R.C.P. Lond., Senior Physician to the Bristol General Hospital, Professor of Medicine, University College, Bristol.

GENERAL ARRANGEMENTS.

The Reception Room will be arranged in the Examination Schools, High Street.

The General and Representative Meetings will also be held in these Schools.

The general Addresses will be delivered in the Sheldonian Theatre.

An Address in Medicine will be delivered by Sir WILLIAM SELBY CHURCH, Bart.. K.C.B., M.D.

An Address in Surgery will be delivered by Sir WILLIAM MACEWEN, M.D.. F.R.C.S., LL.D.

A popular lecture will be delivered by Dr. G. B. FERGUSON who was President of the British Medical Association when the annual meeting was held in Cheltenham in 1901. The lecture will be given in the Town Hall on Thursday evening, July 28th.

SECTIONS.

The annual meeting this year will comprise 14 Sections as shown in the subjoined list. Except where otherwise stated each Section will meet on Wednesday, July 27th, Thursday, July 28th, and Friday, July 29th, at 10 a.m. on each day and will adjourn at 1 p.m.

The president, vice-president and secretaries of each Section constitute a committee of reference for that Section.

No paper must exceed 15 minutes in reading, and no subsequent speech must exceed 10 minutes.

The text of papers submitted for publication in the BRITISH MEDICAL JOURNAL as part of the report of the Section should represent what is actually read in the Section.

Each author should hand the text of his paper in proper form for publication to one of the honorary secretaries of the Section immediately after its reading, or at the latest at the end of the day's meeting of the Section.

Papers read are the property of the British Medical Association and cannot be published elsewhere than in the BRITISH MEDICAL JOURNAL without special permission. Papers cannot be taken as read. If not read they form no part of the proceedings of the Section.

In response to a desire expressed by many members it is proposed to publish in the BRITISH MEDICAL JOURNAL abstracts of papers introducing the special discussions in the several Sections at an earlier date than usual. It is therefore particularly requested that members or visitors who have consented to introduce discussions will forward an abstract of their intended remarks to one of the Honorary Secretaries of the Section in which the discussion is to take place not later than May 31st.

MEDICINE.

President: WALTER TYRRELL BROOKS, M.B., Oxford. *Vice-Presidents:* PATRICK JOHN CREMEN, M.D., Cork; THEODORE DYKE ACKLAND, M.D., London; GUSTAVE SCHORSTEIN, M.B., London. *Honorary Secretaries:* ASHLEY WATSON MACKINTOSH, M.D., 9, Bonaccord Square, Aberdeen; WILLIAM CECIL BOSANQUET, M.D., 117A, Harley Street, W.; WILLIAM ARTHUR PERNOW WATERS, M.B., 99, Holywell, Oxford.

The Committtee of Reference for the Section of Medicine have chosen the following subjects for discussion:

1. The Treatment of Tuberculous Pleural Effusion and Pneumothorax. Introduced by Professor W. Osler, F.R.S., Professor of Medicine in the Johns Hopkins University, Baltimore. Who will be follwed by Sir W. Whitla, Professor Finlay, Dr. J. Mitchell Bruce, Dr. A. James, Dr. G. A. Gibson, Dr. Philip, Mr. Stanley Boyd, Dr. J. J. Perkins, and Dr. N. Raw.

2. The Serum Treatment of Disease. (Joint Discussion with the Section of Pathology.) Introduced by Dr. E. W. Goodall, Medical Superintendent of the Eastern Hospital, N.E., who will be followed by Professor G. Sims Woodhead, Dr. F. F. Caiger, Dr. C. J. Martin, F.R.S., Dr. A. E. Wright, Mr. Cantlie, and Dr. W. Bulloch.

3. The Treatment of Chronic Renal Disease. Introduced by Dr. W. Hale White, Physician to Guy's Hospital. Who will be followed by Professor v. Noorden, Sir John William Moore, Sir W. Whitla, Dr. Goodhart, Dr. Byrom Bramwell, Professor R. Saundby, Dr. J. Finlayson, Dr. Samuel West, and Dr. J. Rose Bradford, F.R.S.

A paper on the Maternal Heart in Pregnancy, and the Management of Cases in which Pregnancy is Complicated by Disease of the Heart, will be read by Drs. J. Mackenzie, of Burnley, and H. O. Nicholson, of Edinburgh, and will precede the discussion on Serum Treatment.

The time remaining after the discussions will be devoted to the reading of such papers as may have been selected by the Committee of Reference.

SURGERY.

President: HORATIO PERCY SYMONDS, F.R.C.S Edin., Oxford. *Vice-Presidents:* WILLIAM BRUCE CLARKE, F.R.C.S., London; RICHARD HY. ANGLIN WHITELOCKE, F.R.C.S., Oxford; WILLIAM FREDERICK BROOK, F.R.C.S., Swansea. *Honorary Secretaries:* HERBERT EDWARD COUNSELL, F.R.C.S., 27, Banbury Road, Oxford; DAVID WALLACE, C.M.G., F.R.C.S.Edin., 11, Rutland Street, Edinburgh.

Special discussions have been arranged to take place on the two following subjects:

1. The Present Aspects of Asepsis and Antisepsis. To be introduced by Professor Watson Cheyne.

2. The Indications for and Methods of Performing Hysterectomy. To be introduced by Professor Bland-Sutton.

OBSTETRICS AND GYNAECOLOGY.

President: FRANCIS HY. CHAMPNEYS, M.D., London. *Vice-Presidents:* Sir ALAN REEVE MANBY, M.V.O., M.D., East Rudham; THOMAS BABINGTON GRIMSDALE, M.B., Liverpool; JOHN CAMPBELL, M.D., Belfast. *Honorary Secretaries:* FRANK GRÉGOIRE PROUDFOOT, M.D., 43, St. Giles, Oxford; JOHN SHIELDS FAIRBAIRN, M.B., 60, Wimpole Street, W.

It has been arranged that on Wednesday, July 27th, and Friday, July 29th, the first part of the meeting of this Section will be occupied by a discussion on the following subjects:

1. Wednesday, July 27th.—The Treatment of Accidental Haemorrhage. To be introduced by Sir Arthur V. Macan.

2. Friday, July 29th.—The So-called Ovarian Pain; its Causes and Treatment. To be introduced by Dr. Herman.

STATE MEDICINE.

President: JOHN SCOTT HALDANE, M.D., F.R.S., Oxford. *Vice-Presidents:* THOMAS STEVENSON, M.D., London; INNES GRIFFIN, M.R.C.S., Banbury; ARTHUR NEWSHOLME, M.D., Brighton. *Honorary Secretary:* HAROLD MEREDITH RICHARDS, M.D., Town Hall, Croydon; ARTHUR LATHAM ORMEROD, M.D., Oxford.

The following subjects have been already selected, and it is proposed that as far as possible they shall be taken at the beginning of each of the three days of meeting, and that other subjects should be subsequently discussed as far as time may permit:

July 27th.—Standards of Ventilation. To be introduced by the President and Dr. M. H. Gordon.

July 28th.—The Control of the Milk Supply. To be introduced by Dr. Geo. Newman.

July 29th.—Poverty and Public Health. To be introduced by a paper on Pauperization by Mrs. Bosanquet and a paper on Alcohol by Mr. T. P. Whittaker, M.P.

Dr. McCleary will read a paper on the Influence of Antenatal Conditions on Infantile Mortality.

The following subjects are suggested as suitable for papers:

Physical Degeneration.
Direct Infection in Enteric Fever.
The Teaching of Hygiene in Elementary Schools.
The Causes of Infantile Mortality.
Tramps and Disease.
The Application of Statistical Methods to Public Health Problems.
Return Cases of Scarlet Fever and Diphtheria.
The Supervision of Houses let in Lodgings.
The Administrative Control of Diphtheria.

Subsection of Forensic Medicine.

On July 27th there will be a meeting of the Forensic Medicine Subsection, over which Dr. Stevenson will preside. The Provisional Programme is as follows:

Name.	Subject.
Dr. Waldo	(Title to follow).
Dr. Graham Smith ...	Blood Tests (probably).
Dr. Willcox	Arsenic.
Dr. H. Littlejohn ...	Wounds of the Throat.
Dr. F. Smith	Civil Responsibility of the Insane

PSYCHOLOGICAL MEDICINE.

President: CHARLES ARTHUR MERCIER, M.D., London. *Vice-Presidents:* ERNEST WILLIAM WHITE, M.B., Dartford; JAMES NEIL, M.D., Oxford; THOMAS SEYMOUR TUKE, M.B., London. *Honorary Secretaries:* WM. FORD ROBERTSON, M.D., 7, Hill Square, Edinburgh; REGINALD LANGDON LANGDON-DOWN, M.B., 47, Welbeck Street, W.

The following subjects have already been arranged by the committee of reference:

Wednesday, July 27th.—Criminal Responsibility and Degeneracy. To be introduced by Dr. Charles A. Mercier.

Thursday, July 28th.—Heredity. To be introduced by Dr. J. Beard (Biological Aspect) and Dr. W. König, Dalldorf Asylum, Berlin (Psychiatrical Aspect).

Friday, July 29th.—Dementia Praecox. To be introduced by Dr. Conolly Norman.

The time remaining after the discussion on each morning will be devoted to the reading of such papers as may have been selected by the Committee of Reference.

On each day there will be one or more microscopical demonstrations upon subjects connected with the pathology of insanity. Any member wishing to contribute to this part of the work of the Section is requested to communicate with one of the Honorary Secretaries without delay, in order that the necessary arrangements may be made regarding the provision of the number of microscopes required.

PATHOLOGY.

President: JAMES RITCHIE, M.D., Oxford. *Vice-Presidents:* HUMPHRY DAVY ROLLESTON, M.D., London; Professor JAMES LORRAIN SMITH, M.D., Belfast; WILLIAM BULLOCH, M.D., London. *Honorary Secretaries:* STUART MCDONALD, M.B., F.R.C.P., 40, Marchmont Road, Edinburgh; ERNEST WILLIAM AINLEY WALKER, M.D., University College, Oxford.

On July 27th there will be a discussion upon Immunity, opened by the President of the Section, in which the following gentlemen are expected to take part: Professor Ehrlich, Professor Bordet, Professor Madsen, Professor Wright, Professor Muir, Professor C. J. Martin, and Dr. Bulloch.

N.B.—The question of serum-therapeutics will be discussed in the Section of Medicine on Friday, July 29th.

On July 28th the subject for discussion will be the Rôle of the Lymphocyte. Drs. Drysdale, Lovell Gulland, Mott, Beattie, Whitfield, Houston, Melland, and Ferguson will take part in the discussion.

On July 29th the subject is the Chemical Pathology of Gout. The discussion will be opened by Professor von Noorden, and Drs. Garrod, Smith-Jerome, and Walker Hall are expected to speak.

PHYSIOLOGY.

President: Professor FRANCIS GOTCH, M.R.C.S., F.R.S., Oxford. *Vice-Presidents:* Professor WILLIAM HY. THOMPSON, M.D., Dublin; MARCUS SEYMOUR PEMBREY, M.D., London. *Honorary Secretaries:* WALTER RAMSDEN, M.D., Pembroke College, Oxford; HORACE MIDDLETON VERNON M.D., 3, Bevington Road, Oxford.

The following subjects have been selected for discussion:

July 27th.—Colour Vision. To be introduced by Professor Francis Gotch.

July 28th (jointly with the Section of Anatomy).—The Thalamic Region. To be introduced by Dr. Gustav Mann.

July 29th.—Chloroform Anaesthesia. To be introduced by Sir Victor Horsley. Professor Sherrington and Dr. C. J. Martin will take part in the discussion.

The proceedings will also include papers and demonstrations on other physiological subjects. The following have already been arranged:

1. Drs. A. P. Beddard and E. I Spriggs. Some Points in the Metabolism of Diabetes with Reference to Present-day Treatment.

2. Dr. A. P. Beddard: Subcutaneous and Intravenous Injection of Saline Purgatives.

3. Dr. A. E. Boycott: Observations upon the Respiration of Intestinal Worms.

It is proposed also to hold an exhibition of apparatus and objects of physiological interest. Every care will be taken of exhibits, which should be sent to one of the Honorary Secretaries, addressed "Physiological Laboratory, University Museum, Oxford," if possible by July 21st, and should be accompanied by a short description.

ANATOMY.

President: Professor ARTHUR THOMSON, M.D., Oxford. *Vice-Presidents:* Professor JOHNSON SYMINGTON, M.D., F.R.S., Belfast; Professor ROBERT HOWDEN, M.B., Newcastle-on-Tyne; THOMAS H. BRYCE, M.D., Glasgow. *Honorary Secretaries:* WILLIAM WRIGHT, F.R.C.S., The University, Birmingham; GUSTAV MANN, M.D., the University Museum, Oxford.

The meetings of this Section will be held on July 27th and 28th.

Special discussions for these dates have been arranged on the two following subjects:

1. Giants and Dwarfs. To be introduced by Professors Cunningham and Windle.

2. The Thalamic Region (jointly with the Section of Physiology). To be introduced by Dr. Gustav Mann and Sir Victor Horsley.

Any member who desires to exhibit anatomical or histological preparations, or any apparatus, is requested to send it, accompanied by a short description, to Dr. Gustav Mann, the University Museum, Oxford, on or before July 20th, in order that all necessary arrangements may be made.

OPHTHALMOLOGY.

President: ROBERT WALTER DOYNE, F.R.C.S., London. *Vice-Presidents:* GEORGE EDWARD WHERRY, F.R.C.S., Cambridge; CYRIL HUTCHINSON WALKER, F.R.C.S., Bristol; FERGUS MENTEITH OGILVIE, F.R.C.S., Oxford. *Honorary Secretaries:* SYDNEY STEPHENSON, F.R.C.S.Edin., 33, Welbeck Street, W.; FRANK GRIFFITH THOMAS, M.B., 2, Brunswick Place, Swansea.

The following subjects have been selected for discussion:—

1. Retro-ocular Neuritis, to be opened by Mr. R. Marcus Gunn, F.R.C.S.

2. Intraocular Haemorrhage and Systemic Disease, to be opened by Dr. Hill Griffith.

3. Keratitis Profunda, to be opened by Mr. W. T. Holmes Spicer, F.R.C.S.

It is suggested to those taking part in these discussions that it would be advisable to condense their remarks and to present them to the meeting in the form of a short paper, lest digressions should absorb an undue share of the time allowed by the rules of the Association to each speaker. The difficulty of compressing into a ten minutes' speech observations upon a subject that has taken up much thought and research need not be dwelt upon. There is little doubt, moreover, that the time-limit will have to be strictly observed, in order to give all who desire to do so an opportunity of speaking.

The following gentlemen have expressed their willingness to read papers:

1. Short Note on Two Cases of Disease of the Canaliculi. Dr. A. H. Benson.

2. (*a*) On Glaucoma and Glaucoma Operations. (*b*) On Visual Efficiency after Accidents to Sight from the Point of View of Employers' Liability. Dr. G. A. Berry.

3. The Operative Treatment of High Myopia. Mr. W. Adams Frost.

4. Reforms in the Notation of the Acuteness of Vision. Dr. Émile Javal, Paris.

5. (Title not yet announced.) Mr. W. H. H. Jessop.

6. Sepsis and Intraocular Inflammations. Mr. W. Lang.

7. The Temperature of the Cornea and its Relation to Corneal Therapeutics. Dr. Angus McGillivray.

8. Upon the Maturation and Extraction of Senile Cataract. Professor M. McHardy.

9. Conclusions as to the Vision of Birds based upon a Consideration of Mimetic Colour and Pattern in Insects. Professor Poulton, F.R.S.

10. Visual Acuity in Savage Races. Dr. W. H. R. Rivers.

11. (A subject bearing upon Glaucoma.) Mr. Priestley Smith.

12. Ophthalmoplegia Externa. Dr. James Taylor.

13. Paracentesis of the Cornea for the Relief of Tension Consequent upon Tearing Opaque Capsule. Mr. T. Pridgin Teale.

The following gentlemen have already intimated their intention of being present at the meeting, and those whose names are marked with an asterisk of taking part in the discussions:

Mr. A. H. Benson	Mr. E. E. Maddox
Mr. G. A. Berry*	Mr. A. McGillivray
Mr. T. H. Bickerton*	Professor M. McHardy*
Mr. W. A. Brailey*	Mr. E. Nettleship
Mr. A. Bronner*	Mr. F. M. Ogilvie
Mr. L. V. Cargill	Professor Poulton
Sir William J. Collins*	Mr. H. Power
Sir Anderson Crichett*	Mr. A. M. Ramsay
Mr. R. Cross	Dr. W. H. R. Rivers
Mr. W. A. Frost*	Mr. A. Q. Silcock
Mr. C. E. Glascott	Mr. P. Smith
Mr. A. H. Griffith*	Mr. W. T. H. Spicer
Mr. R. M. Gunn*	Mr. H. R. Swanzy
Mr. G. Hartridge*	Dr. James Taylor
Dr. E. Javal	Mr. T. P. Teale
Mr. W. H. H. Jessop	Mr. J. T. Thompson
Mr. H. E. Juler	Mr. John Tweedy
Mr. W. Lang	Mr. C. H. Walker
Mr. J. B. Lawford	Mr. G. Wherry
Mr. G. Mackay*	

Keble College, Oxford, has been retained for the accommodation of members attending the Section of Ophthalmology. There are, however, many arrangements to be made: the number of rooms at the College is limited; and numerous American and foreign guests are expected. It is therefore important that members who propose to attend the Section should notify one of the Honorary Secretaries of their intention.

The time at the disposal of the Section is limited. Consequently those gentlemen only who send in their names beforehand can depend upon being called upon to speak in the discussions. Finally, attention may be directed to the subjects selected for discussion, which offer a wide field for research. It is hoped that gentlemen having charge of, or access to, ophthalmic departments will make efforts to collect data between the present time and the date of the meeting.

DERMATOLOGY.

President: THOMAS COLCOTT FOX, M.B., London. *Vice-Presidents:* JAMES HERBERT STOWERS, M.D., London; JAMES LIMONT, M.B., Newcastle-on-Tyne; LESLIE ROBERTS, M.D., Liverpool. *Honorary Secretaries:* ERNEST MALLAM, M.B., 3, Holywell Street, Oxford; EDWARD STAINER, M.B., 60, Wimpole Street, W.

The following discussions have been arranged:

July 27th.—The Treatment of Pruritus Ani. To be introduced by Mr. Malcolm Morris.

July 28th.—The comparative value of old and new methods of Treatment of Lupus and other Skin Diseases. To be introduced by Dr. J. H. Sequeira.

July 29th.—On the relative importance of the Bacterial and other Factors in the Causation of Skin Diseases. To be introduced by Dr. Arthur Whitfield.

Other papers will be read.

It is proposed to form a collection of recently-executed drawings and photographs of Cutaneous Diseases of interest. Members desiring to contribute to the collection are requested to communicate with the London Secretary.

LARYNGOLOGY AND OTOLOGY.

President: CHARTERS JAMES SYMONDS, M.S., London. *Vice-Presidents:* FRANK MARSH, F.R.C.S., Birmingham; CECIL EDWARD SHAW, M.D., Belfast; HARRY LAMBERT LACK, M.D., London. *Honorary Secretaries:* WALTER JOBSON HORNE, M.D., 27, New Cavendish Street, W.; EDMUND CECIL BEVERS, M.B., 117, Woodstock Road, Oxford.

The following subjects have been selected for special discussion:

Wednesday, July 27th. The Treatment of Non-suppurative Disease of the Middle Ear.

Thursday, July 28th. The Etiology, Treatment, and Prognosis of Innocent Growths of the Larynx.

Friday, July 29th. Intranasal Disease as a Determining Factor in the Production of Laryngeal and Pulmonary Affections (Spasmodic and Catarrhal).

Members are invited to contribute any preparations, specimens or drawings, or any instruments or apparatus pertaining to the work of the Section, which have been designed by themselves, in order that the Committee of the Section may make arrangements to form a special exhibit of such objects.

Foreign and Colonial visitors will be cordially welcomed in the Section, and such as may desire to attend are requested to send in their names as soon as possible to the Honorary Secretaries, together with the titles of any papers they may wish to read.

The offer of a paper will not be accepted on its title alone. Offers of papers will not be accepted in excess of the number likely to be read. As the ratio between the number of papers sent in and the time available for reading them at the Annual Meeting will probably be very disproportionate, preference will be given in the case of communications of equal importance to those which are first received.

Communications relating to the exhibition of preparations, instruments, etc., may be addressed to Dr. E. C. Bevers, 117, Woodstock Road, Oxford; and all others relating to papers and discussions to Dr. Jobson Horne, 27, New Cavendish Street, W., and marked "Section of Laryngology and Otology."

TROPICAL DISEASES.

President: ALEXANDER CROMBIE, C.B., M.D., London. *Vice-Presidents:* Brigade-Surgeon-Lieutenant-Colonel GEORGE MACONACHIE, M.D., Aberdeen; JOHN WILLIAM WATSON STEPHENS, M.D., Liverpool. *Honorary Secretaries:* HENRY EDWARD ANNETT, M.D., Crofton Lodge, Higher Runcorn, Cheshire; ROBERT FIELDING-OULD, M.D., 94, Mount Street, Berkeley Square, W.

The following subjects have been selected for discussion:

Wednesday, July 27th.—Trypanosomiasis. The discussion will be opened by Colonel D. Bruce, F.R.S.

Thursday, July 28th.—The Prophylaxis of Malaria. The discussion will be opened by J. W. W. Stephens, M.D.

Friday, July 29th.—The Significance of the Leishman-Donovan Bodies. The discussion will be opened by Major W. B. Leishman.

The following gentlemen have already promised to take part in the discussions or to contribute papers: Sir Patrick Manson, Professor R. Boyce, Major C. Donovan, Dr. A. Duncan, Major Mathias, Dr. L. Sambon, Captain E. P. Sewell, and Captain Anderson.

Papers bearing on the discussions or otherwise will be read for gentlemen who are unable to be in England for the meeting. It is also hoped that pathological specimens, drawings, photographs, and microscopic preparations will be lent for exhibition.

NAVY, ARMY, AND AMBULANCE.

President: Surgeon-General A. FREDERICK BRADSHAW, C.B., K.H.P., M.R.C.S., Oxford. *Vice-Presidents:* Surgeon-General GEORGE JOSEPH HAMILTON EVATT, C.B., M.D., Junior United Service Club, London; Fleet-Surgeon JOHN LLOYD THOMAS, R.N., H.M.S. *Excellent*, Portsmouth; Colonel J. EDWARD SQUIRE, M.D., V.D., R.A.M.C. (Vol.), London. *Honorary Secretaries:* Major THOMAS MCCULLOCH, R.A.M.C., 68, Victoria Street, S.W.; Staff-Surgeon H. W. GIBBS DOYNE, L.R.C.P., R.N., H.M.S. *Mercury*, Portsmouth; Surgeon-Captain EUSTACE M. CALLENDER, M.D., 40, Connaught Square, Hyde Park, W.

The following discussions have been arranged:

1. On Malta Fever, to be opened by Brevet-Colonel David Bruce, F.R.S., R.A.M.C.
2. On the organization during peace of Civil Medical and Ambulance Aid to ensure an immediate reserve of trained assistance on the outbreak of war, to be opened by Colonel J. Edward Squire, M.D., V.D., R.A.M.C. (Vol.).

The following subjects are suggested for papers:

Navy.

1. The Effect of Radical Cure for Hernia in the Service.
2. Hospital Ships.
3. The Various Causes of Invaliding in the Navy.
4. The present Dietary on Board a Man-of-War.
5. The Teeth and their Treatment in the Service.
6. What Surgeons must look for in the next Naval Action.

Army.

1. The Duties of a Medical Officer in charge of a Regimental Unit on Field Service.
2. Campaigning Therapeutics.
3. Camp Sanitation, with special reference to the disposal of excreta and refuse.
4. The Prevalence of Tuberculous Disease in the Army, its cause and prevention.
5. The General Hospital in War, its working and staff.
6. The First Field Dressing.

Ambulance.

1. Is the widespread slight training in Ambulance Work beneficial to the Community, or would it be better to make the training more thorough at the expense of numbers?
2. First Aid in civil life.
3. The medical equipment and transport for volunteer brigades.
4. The Red Cross Badge—its use and abuse—and the steps which should be taken to prevent it being used for trade purposes.

DENTAL SURGERY.

President: EDMUND AUGUSTINE BEVERS, M.R.C.S., Oxford. *Vice-Presidents:* JOHN HOWARD MUMMERY, M.R.C.S., L.D.S., London; FRANK EARLE HUXLEY, M.R.C.S., L.D.S., Birmingham. *Honorary Secretaries:* JOHN MCKNO ACKLAND, M.R.C.S., L.D.S., 24, Southernhay, Exeter; KENNETH WELDON GOADBY, L.R.C.P., L.D.S., 21, New Cavendish Street, Cavendish Square, W.

PATHOLOGICAL MUSEUM.

IT is intended that the Pathological Museum shall be, as far as possible, of general interest to all the Sections. It will be arranged in a readily-accessible situation, and the exhibits will be demonstrated individually at stated times.

The subjoined letter dealing with the formation of the Museum has been circulated, and is republished here for the information of members interested.

Pathological Museum.

Committee:

Dr. Ritchie — Dr. Walker, Secretary.
Dr. Waters — Dr. Ormerod.

Dear Sir,—In connexion with the above meeting it is proposed to arrange a Pathological Museum under the following headings:

1. Specimens and photographs illustrating the latest advances in medicine, surgery, and pathology.
2. Instruments for *x*-ray work and skiagraphs.
3. Colour photography as applied to medical, surgical, and pathological work.
4. Photomicrographs and instruments for photomicrography.
5. Instruments for clinical diagnosis.
6. Surgical anatomy.

Provision will also be made for specimens bearing on any of the discussions in the various sections.

The Committee solicit your co-operation, and I shall be glad to hear if you are willing to make an exhibit. If there is any subject not mentioned above in which you are interested, and in connexion with which you can furnish specially interesting specimens, I shall be glad to hear from you.

The Pathological Museum will occupy the dissecting room at the Department of Human Anatomy, University Museum, and thus will be in close contiguity to the meeting places of all the Sections.

It is hoped that it will be possible to arrange for demonstrations of specimens and instruments by the exhibitors, at stated times, during the evening.

I remain, yours faithfully,

E. W. AINLEY WALKER.

University College, Oxford, November, 1903.

EXHIBITION.

A collection of medical, surgical, dietetic and sanitary apparatus, medical books, and hospital appliances will be arranged in the Examination Schools, High Street, Oxford, in the same building as the Reception Room.

HONORARY LOCAL SECRETARIES.

ARTHUR JOHN DREW, F.R.C.S., Water Hall, St. Aldates, Oxford; WILLIAM DUIGAN, M.B., 66, Woodstock Road, Oxford; ARTHUR PERCY PARKER, F.R.C.S., 2, Holywell Street, Oxford.

TUESDAY, JULY 26TH.

9 a.m.—Council Meeting.
10.30 a.m.—Service in Christ Church Cathedral.
12 noon.—Annual General Meeting, followed by Representative Meeting.
8 p.m.—President's Address.

WEDNESDAY, JULY 27TH.

9 a.m.—Meeting of 1904-5 New Council.
10 a.m. to 1 p.m.—Sectional Meetings.
2 p.m.—Adjourned General Meeting, followed by Representative Meeting.
8 p.m.—Address in Medicine.

THURSDAY, JULY 28TH.

9 a.m.—Meeting of Council.
10 a.m. to 1 p.m.—Sectional Meetings.
2 p.m.—Address in Surgery.
3.30 p.m.—Representative Meeting (if business not already concluded).
7.30 p.m.—Annual Dinner of the Association.

FRIDAY, JULY 29TH.

9 a.m.—Meeting of Council.
10 a.m. to 1 p.m.—Sectional Meetings.
2 p.m.—Representative Meeting (if business not already concluded).

SATURDAY, JULY 30TH.

Excursions.

BRITISH MEDICAL ASSOCIATION LIBRARY.

List of Presentation of Books, etc.

Presented by the AUTHORS:

Monro, T. K. A Manual of Medicine. 1903.
Watkins-Pitchford. Observations on Upwards of 1,100 Cases of Enteric Fever in Natal. 1903.

Presented by Messrs. CASSELL AND CO.:

Gould, A. Pearce. Surgical Diagnosis. New edition. 1903.
Treves, Sir Frederick. Manual of Operative Surgery. New edition. 2 vols. 1903.

Presented by the CENTRAL MIDWIVES BOARD:

The Rules framed by the Board. 1903.

Presented by Sir JOSEPH FAYRER, K.C.S.I.:

Amesbury. Cholera. 1876.
Army Medical School, Netley, Regulations. 1866.
Chervin. Begaiement. 1895.
Deval. Traité des Maladies des Yeux. 1862.
Dobson. Monograph on the Insectivora. 1883.
Flint, A. Medicine of the Future. 1886.
Manual for Nurses in India. 1875.
Mayer, J. Diabetes and Heart Disease. 1888.
Oppert, F. Visceral and Hereditary Syphilis. 1868.
Philip, A. P. W. Means of Preserving Health. 1830.
Powell, R. D. Pulmonary Consumption. 1872.
United States Cholera Epidemic. 1872.
United States War Department:
Reports on Barracks and Hospitals. 1870.
——— Cholera and Yellow Fever. 1867.
——— Gunshot Injuries. 1867-9.
——— On Materials for a Medical and Surgical History. 1865.

Presented by Dr. DUNDAS GRANT:

Onodi. Anatomie und Physiologie der Kehlkopfnerven. 1902.

Presented by the MEDICAL OFFICER TO THE LOCAL GOVERNMENT BOARD:

Dr. Bulstrode. On Water Supply of Bridgend. 1903.
Dr. Farrar. On Illness resembling Cerebro-spinal Meningitis. 1903.
Dr. Mair. On Throat Illness at Lincoln. 1903.
Dr. Reece. On Sanitary Condition of Spennymoor. 1903.

Presented by Messrs. WRIGHT AND CO. (Bristol):

Dowse. Lectures on Massage and Electricity. 5th Ed. 1903.

Presented by the EDITOR of the BRITISH MEDICAL JOURNAL:

Biais. Traité d'Analyse Chimique Quantitative. 1903.
Bryant, J. D. Operative Surgery. 2 vols. 1901.
Capo, A. E. Y. Diagnostico Medico y Quirurgico. 1903.
Clemow. Geography of Disease. 1903.
Collie and Wightman. First Aid. 1903.
Cunningham. Practical Anatomy. Vol. 2. New Ed. 1903.
Daniels. Laboratory Studies in Tropical Medicine. 1903.
Jacobi and Pringle. Portfolio of Dermochromes. Pts. I, II. 1903.
Jardine. Midwifery. 2nd Ed. 1903.
Jellett. Midwifery. 4th Ed. 1903.
Mathews, J. M. Diseases of the Rectum and Anus. 1903.
Moor, C. G. Suggested Standards of Purity for Food and Drugs. 1902.
Pilgrim. Mechanical Stimulatory Vibration. 1903.
Reynaud. Hygiène des Colons. 1903.
Royal Institute of Public Health. Handbook of the Liverpool Congress. 1903.
Spaltholz. Handatlas der Anatomie des Menschen. Bd. iii. 2 abt. 1903.
Startin. The Care of the Skin and Hair. 1902.
Stokes, the late Sir Wm. Selected Papers on Operative and Clinical Surgery. 1902.
Tarboureich, J. Technique des Analyses Chimiques. 1903.
Tarn, A. W. The Insurance Register. 1903.
Webster, A. C. Textbook of Obstetrics.
Wright and Preston. Surgical Anatomy.

Calendars, Reports, and Transactions have been received from the following Bodies:

American Association of Obstetricians and Gynecologists' Transactions Vol. 15, 1902.
American Laryngological Association Transactions. 1903.
American Ophthalmological Society Transactions. 1903.
American Otological Society Transactions. Vol. 8, 1903.
American Pediatric Society Transactions. Vol. 14, 1903.
Birmingham University Calendar. 1903-4.
Bombay University Calendar. 1903-4.
Boston City Hospital Reports. 14th Series. 1903.
Dublin University Calendar. 1903-4.
Edinburgh Obstetrical Society Transactions. Vol. 27-28, 1902-3.
His Majesty's Inspectors of Factories Report. 1902.
Hong Kong. Report of Principal Civil Medical Officer. 1902.
Illinois State Board of Health. Reports on Medical Education. 189- 1898, 1903.
Johns Hopkins Hospital Reports. Vol. xii, 1903.
King's College, London. Calendar, 1903-4.
Laryngological Society of London. Proceedings, 1903.
London County Council. Report of the Asylums Committee. Vol. xiv 1903.
Madras Government Maternity Hospital Report, 1902.
Malta Public Health Report. 1902-3.
Medical Society of the State of New York Transactions. 1903.
Mount Sinai Hospital Reports. Vol. iii, 1903.
Natal. Report of the Medical Officer. 1902.
New York State Board of Health Report. 1901.
New York State Medical Association, Journal of the, 1903.
New Zealand University Calendar. 1903-4.
Ophthalmological Society United Kingdom Transactions. Vol. xxiii 1903.
Owens College Calendar. 1903-4.
Reading Pathological Society Transactions. 1902-3.
Royal College of Surgeons Calendar. 1903.
Royal Medico-Chirurgical Society Transactions. Vol. lxxxvi, 1903.
Sheffield University Calendar. 1903-4.
Society of Anaesthetists Transactions. Vol. vi, 1903.
Society for the Study of Disease in Children Transactions. Vol. ii 1903.
University College London Calendar. 1903-4.
West Kent Medico-Chirurgical Society Transactions. 1902-3.
Westminster Hospital Reports. Vol. xiii, 1902.

BOOKS NEEDED TO COMPLETE SERIES:

The Librarian will be glad to receive any of the following volumes which are needed to complete series in the Library:

American Climatological Transactions. Vols. 1, 4, 5, 6.
——— Dermatological Associations. Transactions. Vols. 5, 7, 8 and 11.
——— Journal of the Medical Sciences. New series, vols. 4, 5 1842-3; vols. 14, 15, 1847-8; vols. 18-30, 1850; vol. 33, 1857; vol. 46 1864-5; vol. 59; or any parts of these vols.
——— Journal of Ophthalmology. Vols. 1-9.
——— Laryngological Association. Transactions. Vols. 1-6, 8-9.
——— Medical Association. Transactions 1-28, 30, 31.
——— Otological Society. Transactions. Vol. 3, part 2, 1883.
——— Public Health Association. Transactions. Any vols.
Analyst. Vols. 1-24.
Archiv für Dermatologie und Syphilis. Prior to 1874, 1892, and 1893.
Annals of Surgery. Vols. 11; 13-16 and 26-27.
Archives Générales de Médecine. 1831-9 inclusive; 1846-55 inclusive 1857-64 inclusive; 1871.
——— of Ophthalmology. Vols. 1-3, 6, 7, 14-21,
——— of Otology. Vols. 1-7, and 20, 21, 22.
——— of Pediatrics. Vols. 1-11.
Asylum Journal of Mental Science. Vol. 1, 1854,
Bentley and Trimen. Atlas of Medicinal Plants.
British Journal of Dermatology. Vol. 2, part 3.
Caledonian Medical Journal. Vol. 1 prior to 1894.
Carmichael Essays. Laffan, 1879. Rivington, 1879.
Centralblatt für Augenheilkunde. Hirschberg. All prior to 1891, Index to 1891.
——— für Bakteriologie. Bound volumes prior to 1899.
——— für klinische Medicin. 1880-3; all 1888, 1891, No. 26; 1892 No. 17.
——— für medicinischen Wissenschaften. Vols. 1-19.
Congrès Française de Chirurgie. Transactions 1, 2, 3, 6, and 10.
——— Internat. d'Obstétrique et de Gynécologie. 1, Bruxelles 1892; 3, Amsterdam, 1899.
Connecticut State Board of Health Report. Vol. xi. 1887-8.
Denman. Midwifery. 1801.
Dermatological Congress. Vienna, 1892, and Paris, 1900.
Dublin Quarterly Journal of the Medical Sciences. Vols. 1-10, 13-28 35-40.
Edinburgh Medical and Surgical Journal. Vols. 67-82. 1847-55.
——— Obstetrical Society. Transactions. Vol. 5.
Fothergill. Midwifery. (Recent).
Gale. Surgery. 1563.
Glasgow Medical Journal. 1833-68.
——— Pathological Society. Transactions. Vols. 1 and 2.
Guy's Hospital Gazette. Nos. 1 and 5, 1872; and 1881-1886 inclusive.
Hunterian Transactions containing 76th Report.
Indian Census Report. 3rd census, 1901.
——— Medical Gazette. 1866-84.

Applications for duplicates from medical societies forming libraries may be addressed to the Librarian, 429, Strand.

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SUPPLEMENT

TO THE

BRITISH MEDICAL JOURNAL.

LONDON: SATURDAY, MAY 28TH, 1904.

CONTENTS.

	Page
MEDICAL ACTS AMENDMENT BILL:	
EXPLANATORY MEMORANDUM	125
REVISED DRAFT OF BILL	127
SCHEDULE I	131
PROCEEDINGS OF STANDING COMMITTEES:	
MEDICO-POLITICAL COMMITTEE.—National Deposit Friendly Society	132
REPORTS OF BRANCH MEETINGS:	
Birmingham Branch: Coventry Division	133
Dorset and West Hants Branch	133
Edinburgh Branch: South Edinburgh Division	133
Glasgow and West of Scotland Branch: Glasgow Southern Division	134
Gloucestershire Branch	134
Lancashire and Cheshire Branch: Altrincham Division ...	134
,, ,, Blackburn Division ...	135
Leinster Branch	135
Metropolitan Counties Branch: Chelsea Division	135
,, ,, City Division	136
,, ,, St. Pancras Division	136
,, ,, Walthamstow Division ...	136
,, ,, Wandsworth Division ...	136
Midland Branch: Leicester Division	140
Oxford and Reading Branch	140
South-Eastern Branch: Eastbourne Division...	140
,, ,, Reigate Division	140
Southern Branch: Isle of Wight Division	140
LUNACY ACTS AMENDMENT BILL	140

British Medical Association.

MEDICO-POLITICAL COMMITTEE.

REVISED DRAFT OF

MEDICAL ACTS AMENDMENT BILL

WITH

EXPLANATORY MEMORANDUM.

MEMORANDUM.

THE Medico-Political Committee in again submitting the Medical Acts Amendment Bill for the consideration of the Divisions, preparatory to an expression of opinion thereon by the Annual Representative Meeting at Oxford, begs to report as follows:

1. As the result of the preliminary discussion of the original draft Bill by the Divisions, consequent upon the circulation of the Bill by order of the Council in August, 1903, expressions of opinion were received by the Committee from 109 Divisions, prior to April 13th, when the Committee commenced the work of revision.

2. The Committee has given the most careful attention to the replies of the Divisions, and in revising the Bill has adopted (*a*) those changes in the draft previously submitted which have appeared to the Committee to be generally desired; (*b*) many valuable suggestions made by individual Divisions on points of detail.

3. The Committee has also taken into consideration, and in many instances adopted, amendments in the Bill which have been put forward by the British Dental Association. The circumstances in which such amendments received consideration from the Committee are stated in the proceedings of the Committee, published in the SUPPLEMENT of the BRITISH MEDICAL JOURNAL of May 7th, 1904 (pp. 108 and 109).

4. The Bill as amended by the Committee has been submitted to an expert Parliamentary draftsman and by him recast into its present form.

5. The Committee is of opinion that in a matter of such consequence to the medical profession as an extensive amendment of the Medical Acts it is highly desirable that no measure should be laid before Parliament by the British Medical Association until time has been allowed for all the consideration necessary not only to perfect every detail of the proposals made, but also to secure the greatest attainable agreement in the profession.

6. The Committee therefore recommends to the Representative Meeting that after matters of principle have been determined by the approaching meeting at Oxford, the Bill should be referred back to the Committee for further consideration of details and points of drafting, and submitted again to the Divisions with a view to final consideration and adoption if approved, by the Annual Representative Meeting of 1905.

7. If the Divisions approve the foregoing recommendation they may find it sufficient at the present stage to give such consideration to the Bill as will prepare the way for a decision of the principles thereof.

8. The Committee, for the assistance of Divisions in considering the Bill, has authorized the preparation of the Memoranda presented herewith, (I) to explain the principles on which the Bill is based, (II) to explain the principal points of difference between the Bill as submitted to the Divisions in August last and as now submitted.

I.—PRINCIPLES OF THE BILL.

A.—GENERAL REMARKS.

1. *Purpose and Form of the Bill.*—The Bill being framed for the amendment of the Medical Acts, is drafted in such form as to be construed with those Acts. From this principle of construction it follows:

(*a*) That it is not proposed to repeal any of the Medical Acts except so far as may be necessary to bring these Acts into agreement with the Bill.

(*b*) That provisions which are contained in the Acts are not repeated in the Bill except when needful for clearness, as, for example, certain provisions as to nomination of members of the General Council by the Crown.

(*c*) That terms, such as "the General Council," which are defined in the Acts, are used in the same sense in the Bill, without further definition.

2. *Provisions as to Dentists.*—In the Bill the precedents of the Medical Acts of 1858 and 1886, which included provisions affecting both the medical and dental professions, have been followed, in preference to that of the Dentists' Act, 1878, which affected one profession only. If this principle receives the approval of the British Medical Association, as it has that of the British Dental Association, and if it is sanctioned by

Parliament, the legislation affecting the constitution, duties, and powers of the General Medical Council will be brought into more convenient form for practical purposes.

3. *Arrangement of the Bill.*—The Bill is divided, for convenience of reference, into Parts, each of which relates to a definite group of reforms. In each of the following Sections of this Memorandum one Part of the Bill is dealt with.

B.—Constitution of the General Council (Part I).

The principles underlying this Part of the Bill are:

1. That the representation of the Crown on the Council should remain unaltered.

2. That those existing universities which have medical faculties should be represented on the Council, and that, as such representatives sit on the Council primarily as educational experts to advise the Council in its duty of controlling medical education and examinations, each university should be permitted to appoint its representative in such manner as it may deem most expedient.

3. That inasmuch as the medical corporations, with one exception, are not educational bodies, and no longer discharge those functions on behalf of the medical profession for which their charters were originally conferred, they should not be represented on the Council on an equality with the universities, but that their historic position should be recognized by representation in a reduced degree.

4. That the direct representation of the medical profession should equal that of all the bodies above named, and that, to secure adequate representation of every part of the United Kingdom, a topographical method of election should be adopted.

5. That the principle of direct representation on the Council should be extended to the dental profession.

Other amendments have been included in this part which are consequential on the foregoing or will simplify the procedure of election.

Statutory provision is proposed for the election of a Vice-President of the Council.

C.—Branch Councils and Finance (Part II).

The objects of this Part of the Bill are:

1. To simplify the administration of the Council, and reduce expenditure by doing away with the cumbrous machinery consequent upon the Branch Council system provided by the Act of 1858. Experience has shown (*a*) that no advantage results from the division of the work of registration; (*b*) that apart from registration no duties devolve upon Branch Councils which could not be performed equally well by the Committees proposed under the Bill.

2. To simplify the financial arrangements of the Council, and thus also promote economy in administration.

3. To give statutory powers to the Council to provide pensions or contribute to superannuation funds for its officers. (Section 6 is so drawn as to enable the Council to adopt any kind of superannuation scheme which may be found suitable.)

D.—Registration (Part III).

The provisions of this Part fall under two principal heads:—(1) affecting the students' registers; (2) affecting the medical and dentists' registers.

1. The statutory creation of a students' register under the absolute control of the Council is provided for.

The necessity for such a register has long been recognized by the General Medical Council, but the efforts of the Council to establish it have been thwarted by the determination of the English Royal Colleges to maintain against the Council what they conceive to be the privileges conferred upon them by their charters.

The sections relative to the students' register would further (*a*) confer upon the Council definite control over preliminary examinations, thus securing a uniformity of standard in this most important matter; (*b*) fix the age of commencing medical study at seventeen as a minimum, in accordance with the opinion already expressed by the British Medical Association.

2. With reference to the medical and dentists' registers it is provided in this Part:

(*a*) That registration should be annual, the object being to keep the register correct and to facilitate the detection of unregistered practitioners, specially of those who personate registered practitioners.

(*b*) That an annual fee of one pound should be paid instead of a single payment of five pounds, the object being to raise the income of the Council to an adequate amount.

The necessity for this proposal is shown by the following considerations:

(i) The present income of the General Medical Council is insufficient for its present expenditure, and even under the existing law the work of the Council is crippled by want of funds.

(ii) The provisions of the Bill as to the increase of direct representation, as to the conduct of final examinations by the Council (the "one-portal system"), and as to the prohibition of unqualified practice, making it the duty of the Council to protect the profession and the public by enforcing the penal clauses (Part V), will entail considerable increase of expenditure. Such expenditure will be in the interest of the profession as well as of the public, and the only funds out of which it can be defrayed are those derived from medical and dental registration fees.

(*c*) The privileges conferred by registration upon medical and dental practitioners in respect of their practice are clearly defined, the anomalies and injustice of the existing law being removed. Among the privileges of medical registration it is proposed to include the right to use the style of "doctor" as a prefix to the name, thus recognizing by statute the customary usage of the public in reference to medical practitioners, and doing away with distinctions which the great differences in status of nominally equal qualifying examinations have rendered arbitrary and unjust.

E.—Examinations (Part IV).

The principal changes in this Part of the Bill are:

1. The institution of the "one-portal" system for admission to both the medical and dentists' registers, by means of final (State) examinations under the absolute control and sole management of the Council.

2. Definite statutory provision for complete control by the Council of the medical curriculum, beginning with the preliminary examination, and for the effective supervision and control of the intermediate examination, subject only to a possible appeal by examining bodies to the Privy Council.

F.—Offences (Part V).

The provisions of this Part fall under the heads of (1) those affecting registered persons, whether students or practitioners, (2) those affecting unregistered persons.

(1) As regards offences by registered persons:

(*a*) It is sought under Sections 21 and 22 to extend or improve the powers and procedure of the General Council in certain matters, the importance of which has been shown by experience. These matters are:

(i) That the Council be enabled to inflict minor penalties, and therefore to adjust penalties to offences.

(ii) That the Council should be able to compel the attendance of witnesses, to take evidence on oath, and to award costs.

(iii) That removal from the register should involve, under penalties, disuse of medical degrees (including diplomas, etc.)

(*b*) In view of the creation of a statutory students' register, students are brought within the disciplinary powers of the Council.

(*c*) Section 27, which prohibits certain acts of registered practitioners, is directed against abuses which tend to facilitate practice by unregistered persons.

(2) Other sections of this part are designed for the more effectual protection of the public and the profession against various forms of unqualified practice, *Section* (*23*) definitely prohibiting medical or dental treatment for gain, and also habitual medical or dental practice, *Section* (*24*) dealing with invalid certificates, *Section* (*25*) with bogus "diplomas," and *Section* (*26*) with the objectionable use by traders of the names of medical or dental practitioners, while *Section* (*30*) provides against the growing abuses of company practice.

Sections 23 and 25 are to be read in connexion with the definition clauses in Section 31 (Part VI).

In Part VI, Section 34, the "second schedule" is referred to. It has been thought desirable to defer the preparation of this schedule, which is a highly technical matter, until the principles of the Bill have been definitely decided by the Representative Meeting.

II.—COMPARISON OF THE BILL AS NOW SUBMITTED WITH THE DRAFT SUBMITTED TO THE DIVISIONS IN AUGUST, 1903.

A.—CHANGES IN THE BILL AS A WHOLE.

1. *Changes in Form.*—In respect of form the Bill has been entirely revised, and made more simple and concise in language. While this has necessitated some rearrangement of the Parts, the general order of the Bill has been preserved as far as possible.

Provisions as to Branch Councils, formerly contained in Part I, have been consolidated with the former Part V to form Part II of the present draft. Part II of the former draft concerning students' registration, together with Part IV, concerning the system of annual registration, together form Part III of the present draft. The other Parts retain their former order, but are renumbered.

2. *Dentists' Amendments.*—The incorporation in the Bill of amendments of the Dentists' Act has occasioned consequential changes in every Part, except Part II.

CHANGES MADE IN THE SEVERAL PARTS OF THE BILL.

B.—CONSTITUTION OF THE COUNCIL (PART I).

1. Objections raised by many Divisions to the suggested *grouping of Universities*, and to the *plural voting* resulting from the system proposed in the former draft for electing university and corporate representatives, have been very carefully considered by the Committee.

The purpose of the former proposal was to reduce the size of the Council simultaneously with an increase in the ratio of direct representatives to other members of the Council.

To abandon the grouping of universities while maintaining the relative strength of the direct representatives involves the creation of a numerically large Council. Full consideration, however, of the greatly increased duties which would devolve upon the Council under the Bill leads the Committee to conclude that the Council, as now proposed to be constituted, would not have too many members for the work to be done, in Committees and otherwise. The Committee therefore has modified its former recommendation on this point as regards the universities, but, for reasons indicated in the former part of this Memorandum, still recommends the grouping of Corporations.

The Committee recognizes also that the opinion of the Association, as expressed by the Divisions, is unfavourable to the proposal that each existing medical practitioner should vote (*a*) as a registered practitioner in the election of a direct representative, and also (*b*) as a graduate or diplomate in the election of a representative or representatives of any body or bodies whose degree or diploma he may hold. The Committee recommends that the direct representation of all registered practitioners should be maintained, and that no provision be made in the Bill concerning the mode of appointment of representatives of universities and corporations.

2. In accordance with the opinions expressed by many Divisions, a topographical system of election of direct (medical) representatives is proposed, and a draft schedule of electoral areas is submitted for consideration.

3. The Committee recommends that in the larger Council now proposed the dental profession should be accorded three direct representatives.

C.—BRANCH COUNCILS AND FINANCE (PART II).

The proposals under these heads formerly submitted received the general approval of the Divisions. On the advice of the draftsman the abolition of the Branch Councils has been carried out in the present draft in form, as it was in the previous draft in substance, except for certain advisory functions for which Committees are now proposed to be constituted.

D.—REGISTRATION (PART III).

1. *Registration of students.*—The provisions relative to the registration of students, contained in Part II of the former draft, having been generally approved, have undergone no change of substance, except that of incorporating therein (*a*) the principle approved by the Association, that medical study shall not commence before the age of 17 years, and (*b*) the provision that the name of a student who has ceased medical study shall be removed from the register, subject to provision for reinstatement.

2. *Provisions as to annual registration.*—Exception has been taken by many Divisions to different aspects of these proposals, but the majority of Divisions have approved the principle of annual registration and also the principle of an annual fee. A consensus of opinion has been shown in favour of allowing a longer period for the payment of the fee, and of facilitating restoration to the register of names removed through illness or inadvertence. Provisions to meet these requirements are contained in the draft now submitted.

3. *Privileges of registration.*—Many Divisions have pointed out that no provision is made for any recognized title to be conferred on those passing the State medical examination, and several Divisions have proposed that the title "doctor" should be accorded to all registered practitioners. The Committee recommends that this proposal be adopted, and Section 13, Subsection (3) is inserted for the purpose.

E.—EXAMINATIONS (PART IV).

The provisions of this Part, which corresponds generally with Part III of the former draft, have received general approval from the Divisions. The principal changes made are:

1. *Curriculum.*—The omission, to which certain Divisions drew attention, of any specific provision giving the Council control over the medical curriculum, has been remedied (Section 19).

2. *Assistant Examiners.*—Objection having been taken by some Divisions to the clauses relative to the appointment and remuneration of assistant examiners, the Committee has withdrawn the proposal that such examiners should be paid by the examining body whom they are appointed to assist, and now recommends that they should be paid, if at all, by the Council.

3. *State Examinations.*—The section relative to the State medical examination (in which provision is also made now for State dental examinations) has been made more general in terms, the more detailed regulations being left to the Council.

F.—OFFENCES (PART V).

The important clauses contained in this Part, which corresponds to Part VI. of the former draft, have received the most careful consideration from the Committee, from the Solicitor of the Association, and from Counsel, who has redrafted the Bill. As affecting the dental profession, they have also been considered by the legal adviser of the British Dental Association, by whom valuable practical suggestions have been made. The previous draft having been generally approved by the Divisions (except as regards the former Clause 34), the changes made will be found to be mainly of a drafting nature, devised more effectively to secure the objects of this part of the Bill.

The changes of substance are:

1. In *Section 25*, corresponding with former Clause 29, provision has been inserted to exempt recognised universities from the operation of the Section, the object of which is to prevent the issue of bogus diplomas.

2. In *Section 27*, corresponding with former Clause 34, to which in its previous form exception was taken by a large number of Divisions, words have been inserted to meet the chief objections raised, namely:

(*a*) The clause will no longer apply to a *locum tenens* or assistant, acting as such for a shorter period than three months.

(*b*) Charitable institutions are exempted.

3. The important *Section 30*, to prevent medical or dental practice by companies, has been inserted.

G.—SUPPLEMENTARY PROVISIONS (PART VI).

No changes have been made in this Part which appear to require comment in this Memorandum.

(DRAFT) MEDICAL ACTS AMENDMENT BILL.

ARRANGEMENT OF SECTIONS.

PART I.—*Constitution of the General Council.*

Section.
1. Members of General Council.
2. Tenure of office of members of General Council.
3. Regulations for election of direct representatives.
4. Election of Vice-President of General Council.

PART II.—*Branch Councils and Finance.*
5. Abolition of Branch Councils.
6. Power to pension officers of Council.

PART III.—*Registration.*
7. Registrar to be a medical practitioner.
8. Provision of a students' register.

9. Examinations to be confined to registered students.
10. Removal of student's name who has ceased to study.
11. Regulations for annual registration.
12. Provision for certified copies of dentists' register.
13. Privileges of registered practitioners.

PART IV.—*Examinations.*

14. Passing of examinations requisite for admission to register.
15. Provisions as to registration of persons passing examinations.
16. Provisions as to intermediate examinations.
17. Control by Council of intermediate examinations.
18. Provision for defects in intermediate examinations.
19. General Council to prescribe courses of study.
20. State medical and dental examinations.

PART V.—*Offences.*

21. Removal of name from register.
22. Procedure and powers of General Council on an inquiry.
23. Prohibition of practice by unregistered persons.
24. Prohibition of unregistered person signing certificate.
25. Penalty for granting unrecognized degrees.
26. Prohibition of improper use of name of registered practitioner.
27. Prohibition of certain acts of registered practitioners.
28. Application of penalties.
29. As to prosecutions.
30. Provision against offences by companies.

PART VI.—*Supplementary Provisions.*

31. Definitions.
32. Exception for foreign practitioners.
33. Saving for midwives.
34. Repeals and amendments.
35. Short title and construction.

A BILL to amend the Medical Acts and to further regulate the practice of Medicine, Surgery, Midwifery, and Dentistry.

BE IT ENACTED by the King's Most Excellent Majesty by and with the advice and consent of the Lords Spiritual and Temporal and Commons in this present Parliament assembled and by the authority of the same as follows:—

PART I.—CONSTITUTION OF THE GENERAL COUNCIL.

1. *Members of General Council.*—(1) The General Council shall consist of the following members:

(*a*) Five members nominated from time to time by His Majesty with the advice of His Privy Council three of whom shall be nominated for England and Wales one for Scotland and one for Ireland.

(*b*) One member chosen from time to time by each of the following bodies:

The University of Oxford.
The University of Cambridge.
The University of London.
The University of Durham.
The Victoria University of Manchester.
The University of Birmingham.
The University of Liverpool.
The University of Edinburgh.
The University of Glasgow.
The University of Aberdeen.
The University of St. Andrews.
The University of Dublin.
The Royal University of Ireland.

(*c*) One member chosen from time to time by each of the following groups of medical bodies:

(i) The Royal College of Physicians of London the Royal College of Surgeons of England and the Apothecaries Society of London.

(ii) The Royal College of Physicians of Edinburgh the Royal College of Surgeons of Edinburgh and the Royal Faculty of Physicians and Surgeons of Glasgow.

(iii) The Royal College of Physicians in Ireland and the Royal College of Surgeons in Ireland.

(*d*) Twenty-five members (in this Act called direct representatives) elected as follows:

(i) Seventeen by the medical practitioners registered as resident in England and Wales.

(ii) Three by the medical practitioners registered as resident in Scotland.

(iii) Two by the medical practitioners registered as resident in Ireland.

(iv) Three by the dental practitioners registered as resident in the United Kingdom.

(2) No person shall be qualified for membership of the General Council unless he shall be a registered medical practitioner or in the case of a direct representative elected by the dental practitioners (in this Act called a dental representative) a registered licentiate in dental surgery or a person who has passed the state dental examination mentioned in this Act.

(3) If at any time by any Act of Parliament relating to any university or any medical or other body the number of the members of the General Council other than the direct representatives be increased the number of the direct representatives shall be increased by the like amount.

2. *Tenure of office of members of General Council.*—(1) The direct representatives shall be elected to hold office for the term of five years and may be re-elected.

(2) The other members shall be appointed for a term not exceeding five years and may be reappointed.

(3) Any member may at any time resign his membership by letter addressed to the President of the General Council.

(4) If any member shall be found by inquisition in England and Wales or Ireland to be lunatic or found upon inquiry in Scotland to be insane or shall become bankrupt his place shall thereupon be vacant.

(5) If the place of any member of the General Council be vacant some other person shall be elected or appointed but in the case of a direct representative that other person shall remain a member only for the remainder of the term for which the member whose place is vacant was elected provided that if a vacancy occur at a time when not more than twelve months remain unexpired of the term for which the direct representative whose place is vacant was elected an election shall not be held until the expiration of that term.

(6) The powers of the General Council shall not be affected by the happening of any vacancy.

3. *Regulations for election of direct representatives.*—(1) The direct representatives other than the dental representatives shall be elected each for one of the electoral areas specified in the first schedule to this Act by the medical practitioners registered as resident in that area.

(2) It shall be lawful for the General Council with the sanction of the Privy Council to alter the electoral areas and in the event of an increase in the number of direct representatives to increase the number of electoral areas and generally to make provision for the election of the additional representatives.

(3) The registrar of the General Council shall be the returning officer for the election of direct representatives and he shall not less than twenty-eight days nor more than three months before the expiration of each period of five years for which the direct representatives are elected provide for another election of direct representatives The registrar shall also as soon as conveniently may be after the occurrence of any vacancy in the place of a direct representative provide for an election of a new direct representative for the vacant place.

(4) The election of the direct representatives shall be conducted in such manner as may be provided by regulations to be made by the General Council with the sanction of the Privy Council provided as follows:—

(*a*) The nomination shall be in writing and the nomination paper of each candidate shall be signed by not fewer than twelve persons entitled to vote in his election.

(*b*) If more than one candidate shall be nominated for a vacancy a poll shall be taken by voting papers and the registrar shall send a voting paper to each person entitled to vote at his registered address but the accidental omission to send a voting paper in any particular case shall not avoid the election and any person entitled to vote to whom a voting paper has not been sent in pursuance of this Act may on application to the registrar obtain one from him.

(*c*) In the election of dental representatives each person entitled to vote may vote for any number of candidates not exceeding the number of vacancies but not more than one vote may be given to any one candidate.

(*d*) In the case of an equality of votes on any poll the President of the General Council shall be entitled to a casting vote.

(5) The registrar shall certify the number of votes recorded on a poll for each candidate and the persons not exceeding the number of vacancies who have the greatest number of votes shall be certified in writing by the registrar to be and thereupon shall be elected.

(6) The registrar's expenses attending any election shall be defrayed as part of the expenses of the General Council.

(7) The existing members of the General Council shall hold office until the thirty-first day of December one thousand nine hundred and five and no longer.

(8) The first election of direct representatives under this Act shall be held in the month of December one thousand nine hundred and five,

4. *Election of vice-president of General Council.*—The General Council shall annually elect one of their number to be Vice-President.

PART II.—BRANCH COUNCILS AND FINANCE.

5. *Abolition of Branch Councils.*—On and after the thirty-first day of December one thousand nine hundred and five:—

(1) All expenses of carrying the Medical Acts into effect shall be defrayed by the General Council.

(2) The Branch Councils shall cease to exist and the local registers shall be discontinued.

(3) Subject to the provisions of this Act all such entries as would but for this Act have been made in any local register by the registrar of a Branch Council shall be made in the general register by the registrar of the General Council.

(4) All property of the Branch Councils shall pass to and vest in the General Council and all debts and liabilities of the Branch Councils shall become debts and liabilities of the General Council.

(5) The officers and servants of the Branch Councils shall become officers and servants of the General Council.

(6) The members of the General Council elected or appointed from or for Scotland and Ireland respectively shall form committees to which the General Council shall refer such matters specially affecting Scotland or Ireland as the General Council may think fit.

6. *Power to pension officers of council.*—The General Council may award to any registrar or other officer on his retirement from office such pension or gratuity as the General Council having regard to his services may think just.

PART III.—REGISTRATION.

7. *Registrar to be a medical practitioner.*—A person shall not be qualified to be appointed registrar of the General Council unless he shall be a registered medical practitioner provided that this section shall not affect the tenure of office of a registrar appointed before the commencement of this Act.

8. *Provision of a students' register.*—(1) The registrar shall keep a register of medical and dental students in the same manner and on the same conditions as nearly as may be as the registers of medical and dental practitioners and shall enter therein the name of every person who shall—

(*a*) have passed a preliminary examination approved or held by the General Council;

(*b*) be not less than seventeen years of age;

(*c*) have paid to the General Council a fee of one pound.

(2) The register shall be in two parts one for medical students and one for dental students and shall show the place and date of birth of each student, the place where he proposes to study and the nature of the preliminary examination passed by him.

(3) The registrar shall at any time upon the request in writing of any student and on payment of such fee not exceeding one pound as the General Council may prescribe transfer his name from one part of the register to the other part.

9. *Examinations to be confined to registered students.*—(1) After the thirty-first day of December one thousand nine hundred and no person shall be admitted to an intermediate examination hereinafter provided for unless he is registered as a medical student.

(2) After the thirty-first day of December one thousand nine hundred and no person shall be admitted to the state dental examination hereinafter provided for unless he is registered as a dental student.

(3) The General Council shall have power if after due inquiry sufficient cause be shown to antedate the registration of any student.

10. *Removal of student's name who has ceased to study.*—(1) The General Council may remove from the register the name of any student who has in the opinion of the Council ceased for a period of not less than five years to pursue a course of professional study.

(2) The General Council may restore to the register any name so removed on the payment of a further registration fee of one pound.

11. *Regulations for annual registration.*—(1) Every registered medical or dental practitioner shall on or before the thirty-first day of December in each year send to the registrar an application for continuance of the entry of his name on the medical or dentists' register for the ensuing year together with a fee of one pound and the registrar shall thereupon cause the applicant's name to be entered on the register for the ensuing year and shall send to him a certificate of registration.

(2) The registrar shall on or before the tenth day of November in each year send to every registered medical or dental practitioner a form of application for registration and a notice requesting payment of the registration fee and containing a warning to the effect that if it be not paid and application made for continuance of the entry of the name before the first day of March next the name of the registered practitioner in default will be removed from the medical or dentists' register of that year and the registrar shall remove the name of a practitioner in default accordingly.

(3) A medical or dental practitioner registered before the passing of this Act shall not be affected by the provisions of this section until five years from the passing of this Act and this section shall not apply to any practitioner so long as he holds a commission in His Majesty's navy or army and is not engaged in private practice within the United Kingdom.

(4) The registrar shall at any time restore to the medical or dentists' register the name of any practitioner which has been removed under this section in consequence of his absence from the United Kingdom, illness, inadvertence, or otherwise, upon satisfactory proof being given of the identity of the applicant and on the payment of the registration fees in arrear.

12. *Provision for certified copies of dentists' register.*—If the name of any dental practitioner does not appear in the copy of the dentists' register printed under the direction of the General Council, a certified copy under the hand of the registrar of the entry of the name of that practitioner on the dentists' register shall be evidence that he is registered under the Dentists Act, 1878.

13. *Privileges of registered practitioners.*—(1) Subject to the provisions of this Act no person other than a registered practitioner shall practise medicine surgery midwifery or dentistry or any branch thereof habitually and for gain in the United Kingdom.

(2) Registered dental practitioners who are not also registered medical practitioners, shall be limited to the practic of dentistry.

(3) A registered medical practitioner may use the style of doctor as a prefix to his name.

PART IV.—EXAMINATIONS.

14. *Passing of examinations requisite for admission to register.*—(1) After the thirty-first day of December one thousand nine hundred and no person shall be registered as a medical practitioner unless he has passed an intermediate examination and also a final examination (in this Act called the "state medical examination") and no person shall be registered as a dental practitioner unless he has passed a final examination (in this Act called the "state dental examination").

(2) Any person who shall produce to the registrar on an application for registration as a medical practitioner such evidence of his having passed the state medical examination or on an application for registration as a dental practitioner of having passed the state dental examination and in either case such evidence of identity as the General Council may require shall on payment of a fee of one pound be entitled to be registered as a medical or dental practitioner as the case may be.

15. *Provisions as to registration of persons passing examinations.*—(1) The medical and dentists' registers shall in the case of a person registered under the last preceding section show the fact that the practitioner has passed the state medical examination or state dental examination as the case may

be and shall also show any medical degree granted to the practitioner by any recognized university or medical body.

(2) The registrar may require the production of such evidence and the payment of such fee as the General Council may prescribe before entering any such medical degree on the register.

16. *Provisions as to intermediate examinations.*—(1) The intermediate examination shall be an examination in such subjects as the General Council may prescribe and may be held by any recognized university or medical body.

(2) Any body by this section authorized to hold an examination may combine with any other such body situate in the same part of the United Kingdom for holding a joint examination.

(3) If in the opinion of the General Council an insufficient number of intermediate examinations shall have been held in any part of the United Kingdom before the first day of November in any year the General Council may hold an intermediate examination.

17. *Control by Council of intermediate examinations.*—As to any intermediate examination held after the thirty-first day of December one thousand nine hundred and five—

(1) The General Council may give such directions as it may think fit as to the standard of proficiency to be required thereat and generally as to the conduct thereof and the examining body shall conform to any direction so given notwithstanding any special privilege or exemption contained in any Act of Parliament or Charter;

(2) The General Council may appoint examiners with or without remuneration to act with the examiners appointed by the examining body, provided that no member of the General Council shall be appointed examiner at a remuneration.

18. *Provision for defects in intermediate examinations.*—(1) The General Council may at any time on the report of an examiner appointed by them by resolution declare that the standard of proficiency required by an examining body at an intermediate examination is insufficient and thereupon unless the examining body shall within three months of the date of the resolution present an appeal to the Privy Council the examinations of that body shall on the expiration of those three months cease to rank as intermediate examinations for the purposes of this Act.

(2) On an appeal under this section by an examining body the Privy Council may after giving the General Council an opportunity of being heard report to His Majesty as to the standard of proficiency required at the examinations of that body and thereupon it shall be lawful for His Majesty by Order in Council to direct that the examinations of that body either shall or shall not continue to rank as intermediate examinations for the purposes of this Act.

19. *General Council to prescribe courses of study.*—(1) The General Council shall prescribe such courses of study as they think proper as qualifications for admission to the state examinations and shall have power to make regulations with respect to the nature and periods of such courses of study, to the order in which they shall be undertaken, whether before or after the intermediate examination, and to the places where they shall be undertaken, provided that no recognition shall be given to any course of study pursued by any student before the entry of his name on the students' register.

(2) The General Council shall have power for the purposes of this section to appoint inspectors with or without remuneration to visit any medical or dental school or hospital, proided that no member of the General Council shall be ppointed inspector at a remuneration.

20. *State medical and dental examination.*—(1) The state medical examination shall be an examination held by the General Council for the purpose of testing the fitness of persons to practise in medicine surgery and midwifery and any branch thereof.

(2) No candidate shall be admitted to the state medical examination unless he shall have produced satisfactory evidence to the General Council of having completed courses of study prescribed by the General Council and of having passed an intermediate examination and also shall have paid such fee as the General Council may prescribe.

(3) The state dental examination shall be an examination held by the General Council for the purpose of testing the fitness of persons to practise dentistry and any branch thereof.

(4) No candidate shall be admitted to the state dental examination unless he shall have produced satisfactory evidence to the General Council of having completed courses of study prescribed by the General Council and also shall have paid such fee as the General Council may prescribe.

(5) The state medical examination and the state dental examination shall each be held once at least in the year one thousand nine hundred and and every succeeding year in London Edinburgh Dublin and such other places (if any) as the General Council may think fit.

(6) The written questions in any one state examination shall be identical and set simultaneously in every place of examination, but such part (if any) of an examination as may consist of oral questions may be held at the different places of examination either in succession or simultaneously.

(7) Subject to the provisions of this Act the General Council shall have the entire management and control of the State examinations and shall have power to make regulations in respect to—

(*a*) Times, places, mode of conduct and notice of examinations.

(*b*) The appointment and removal of examiners and their remuneration by fees or otherwise provided that no member of the General Council shall be appointed examiner.

(*c*) Any other matter or thing as to which the General Council may think it expedient to make regulations for the purposes of this section.

PART V.—OFFENCES.

21. *Removal of name from register.*—(1) Where a registered practitioner or student either before or after the commencement of this Act and either before or after registration has been convicted in His Majesty's dominions of any felony or misdemeanour or elsewhere of an offence which it committed in England would be a felony or misdemeanour or has been guilty of conduct infamous or disgraceful in a professional respect or unfitting him for admission to the profession that practitioner or student shall be liable to have his name removed from the register.

(2) The General Council may cause inquiry to be made into the case of a person alleged to be liable to have his name removed under this section and on proof of such conviction (not being a conviction for a political offence out of His Majesty's dominions nor for an offence which does not in the opinion of the General Council either from its trivial nature or other circumstances disqualify a person for professional practice) or of such infamous or disgraceful or unfitting conduct shall cause the name to be removed from the register.

(3) The removal of a name from the register under this section may be either indefinite in time or for such period as the General Council may think proper and the General Council may at any time, either after or without inquiry as they might think fit, restore to the register a name removed under this section upon payment of such fee not exceeding any unpaid annual registration fees as the General Council may fix or may vary the period of removal.

(4) A name removed from the register under this section shall not be restored except by direction of the General Council or by order of a court of competent jurisdiction.

(5) Any person whose named is removed from the register under this section and who shall during the period of removal use any medical degree, shall be deemed to have committed an offence under this Act and shall be liable on summary conviction to a penalty for each offence not exceeding twenty pounds.

22. *Procedure and powers of General Council on an inquiry.*—Upon or for the purposes of any inquiry held or to be held under this part of this Act:

(1) The General Council may employ such legal or other assessors or assistants as they may think necessary or proper;

(2) The registrar and the person whose name is alleged to be liable to be removed from or is sought to be restored to the register may sue out a writ of subpoena ad testificandum or a writ of subpoena duces tecum.

(3) The High Court or a judge thereof may order that any such writ may issue to compel the attendance before the General Council of a witness wherever he may be within the United Kingdom and also may order that a writ of habeas corpus ad testificandum shall issue to bring up a prisoner for examination before the General Council;

(4) The General Council may administer oaths to or take the affirmations of witnesses;

(5) The General Council may assess the costs of the inquiry and if they think fit may direct payment thereof either by the person whose name is in question or by any complainant and the person directed to pay the costs shall pay the same to the General Council or as they may direct accordingly;

(6) A certificate under the seal of the General Council that a sum is owing by any person for costs under this section shall be conclusive evidence of the fact.

23. *Prohibition of practice by unregistered persons.*—Any person other than a registered medical or dental practitioner who—

(1) applies any medical or dental treatment to any person without the supervision of a registered medical or dental practitioner and demands or receives any valuable consideration for such treatment whether by way of remuneration gratuity or otherwise or

(2) holds himself out as practising or competent to practise medicine surgery midwifery or dentistry or takes or uses the style or title of physician surgeon doctor of medicine or dentist or any other style or title whether expressed by words or by letters only implying that he possesses the skill or knowledge necessary for that practice

shall be deemed to have committed an offence under this Act and shall be liable on conviction on indictment to imprisonment for six months with or without hard labour and alternatively or in addition to a penalty not exceeding one hundred pounds for each offence and on summary conviction to a penalty not exceeding forty pounds for each offence.

24. *Prohibition of unregistered person signing certificate.*—Any person not being a registered medical practitioner who shall sign any certificate of death still-birth or sickness or any certificate purporting to be a medical certificate or by the issue of which it is implied that the person signing it as a person possessed of medical skill or knowledge shall be deemed to have committed an offence under this Act and shall be liable on summary conviction to a penalty for each offence not exceeding twenty pounds.

25. *Penalty for granting unrecognized degrees.*—Any person other than a recognized university or medical body who shall grant any medical degree to a person not being a registered medical or dental practitioner shall be deemed to have committed an offence under this Act and shall be liable on summary conviction to a penalty for each offence not exceeding fifty pounds.

26. *Prohibition of improper use of name of registered practitioner.*—Any person who shall in selling or advertising for sale any article of food or drink or any medicine drug potion wash or ointment or any preparation or apparatus intended for use in medicine surgery dentistry or midwifery or alleged to possess curative or preservative qualities when applied to the human body:—

(1) make any false representation as to an act done or opinion expressed by any person then or formerly registered as a medical or dental practitioner whether alive or dead or

(2) use the name of any such person after receipt of notice from him or his legal personal representative or from the General Council requesting that the use be discontinued;

shall be deemed to have committed an offence under this Act and shall be liable on summary conviction to a penalty for each offence not exceeding twenty pounds.

27. *Prohibition of certain acts of registered practitioners.*—Any registered medical or dental practitioner who:—

(1) practises under any name other than that under which he is registered; or

(2) practises for a period exceeding three months whether as principal or as assistant to or deputy of another practitioner in or from any building not being a hospital or other institution of a charitable or public nature and does not cause his name to be displayed in legible characters on the outside of that building

shall be deemed to have committed an offence under this Act and shall be liable on summary conviction to a penalty not exceeding twenty pounds for every day on which he has so practised.

28. *Application of penalties.*—Any sum of money arising from a conviction and the recovery of penalties under this Act shall be paid to the General Council whether the conviction takes place within the Metropolitan Police District or elsewhere.

29. *As to prosecutions.*—A prosecution for any offence mentioned in this part of this Act may be instituted by the General Council.

30. *Provision against offences by companies.*—(1) In this part of this Act the word person includes a corporation and any body of persons corporate or unincorporate.

(2) Every director or other officer of any company who shall knowingly and wilfully authorize or permit the commission by the company of an offence under this Act shall be liable to the same penalty or term of imprisonment as that to which the company is liable or would be liable if it were a natural person.

(3) If a company shall make default for seven days in payment of any penalty imposed under this Act, that company shall be deemed to be unable to pay its debts within the meaning of the Companies Act 1862 and may be wound up by the Court upon the petition of the General Council.

PART VI.—SUPPLEMENTARY PROVISIONS.

31. *Definitions.*—In this Act the expression "medical or dental treatment" includes the application of any real or pretended art science method or system relating to the prevention cure or alleviation of any disease or defect of or any injury to the human body and the performance of any surgical or dental operation.

The expression "medical degree" includes every degree title diploma certificate or licence having reference to medical or dental knowledge or skill or capacity to apply medical or dental treatment.

The expression "recognized university or medical body" means a university or medical body entitled either alone or jointly to choose a member of the General Council.

32. *Exception for foreign practitioners.*—Nothing in this Act shall prevent any person not being a British subject who shall have passed the regular examinations entitling him to practise medicine or dentistry in his own country from being called into the United Kingdom for the purpose of consultation with a registered medical or dental practitioner and duly acting for the time being as a registered practitioner or from being and acting as the resident physician or medical officer or dentist of any hospital established exclusively for the relief of foreigners in sickness provided always that he does not habitually engage in medical or dental practice in the United Kingdom except as such resident physician medical officer or dentist.

33. *Saving for midwives.*—Nothing in this Act shall affect or modify the provisions of the Midwives Act 1902 or render illegal any act or thing done by any woman in connexion with midwifery which would not have been illegal if this Act had not been passed.

34. *Repeals and amendments.*—The enactments mentioned in the second schedule annexed hereto are hereby repealed to the extent mentioned in the third column of that schedule and are hereby amended to the extent mentioned in the fourth column of that schedule.

35. *Short title and construction.*—(1) This Act may be cited as the Medical Act 1905 and may be cited and shall be construed as one with the Medical Acts.

(2) The expression "the Medical Acts" shall include the Dentists Act 1878 and that Act shall be deemed to be included in the group of the "Medical Acts" mentioned in the Second Schedule to the Short Titles Act 1896.

SCHEDULE I.

ELECTORAL areas for the election of Direct Representatives on the General Medical Council:

A.—ELECTORAL AREAS IN ENGLAND AND WALES.

NAME.	AREA.
I. NORTH OF ENGLAND *(1,340 Practitioners).	The Counties of Northumberland, Cumberland, Westmorland, and Durham. In the County of Lancaster, the North Lonsdale and Lancaster Parliamentary Divisions. In the County of York, the Cleveland Parliamentary Division, and the Borough of Middlesbrough.

II. WEST LANCASHIRE AND CHESHIRE (1,460 Practitioners).	In the County of Lancaster, the following Parliamentary constituences, namely:—Blackpool, Preston, Chorley, Wigan, Hindley, Leigh, Newton, Warrington, St. Helens, Widnes, Liverpool, Bootle, Ormskirk, and Southport. The County of Chester, *except* the Hyde Parliamentary Division and the Boroughs of Stalybridge and Stockport.
III. EAST LANCASHIRE (1,450 Practitioners).	In the County of Lancaster, the following Parliamentary constituencies, namely: Darwen, Blackburn, Clitheroe, Burnley, Accrington, Rossendale, Middleton, Rochdale, Heywood, Bury, West Houghton, Bolton, Ratcliffe-cum-Farnworth, Prestwich, Oldham, Ashton, Gorton, Manchester, Salford, Stretford, and Eccles. In the County of Chester, the Hyde Parliamentary Division, and the Boroughs of Stalybridge and Stockport.
IV. YORKSHIRE (NORTH AND WEST) (1,390 Practitioners).	The North Riding of the County of York, *except* the Cleveland Parliamentary Division, and the Borough of Middlesbrough. The West Riding of the County of York, *except* the Parliamentary Divisions of Hallamshire, Rotherham, Doncaster, and Osgoldcross, and the Parliamentary Borough of Sheffield. The City of York.
V. NORTH-EAST MIDLAND (1,440 Practitioners).	The East Riding of the County of York. In the West Riding, the Parliamentary Divisions of Hallamshire, Rotherham, Doncaster, and Osgoldcross, and the Borough of Sheffield. The Counties of Derby, Nottingham, and Lincoln.
VI. WALES AND THE BORDER COUNTIES (1,390 Practitioners).	Wales. In England, the Counties of Shropshire, Hereford, and Monmouth.
VII. WEST MIDLAND (1,360 Practitioners).	The Counties of Stafford, Warwick, and Worcester.
VIII. EAST AND EAST MIDLAND (1,410 Practitioners).	The Counties of Leicester, Rutland, Northampton, Bedford, Huntingdon, Cambridge, Norfolk, and Suffolk.
IX. SOUTH-WESTERN (1,440 Practitioners).	The Counties of Somerset (*except* so much of the Parliamentary Borough of Bristol as is situated therein), Dorset, Devon, and Cornwall.
X. SOUTH MIDLAND AND SOUTH (1,400 Practitioners).	The County of Gloucester, with the Parliamentary Borough of Bristol. The County of Wiltshire. In the County of Oxford, the Banbury and Woodstock Parliamentary Divisions, and the City of Oxford. The County of Hampshire, *except* the Basingstoke and Petersfield, Parliamentary Divisions.
XI. SOUTH-EASTERN (1,420 Practitioners).	The County of Kent, *except* the Parliamentary Divisions of Sevenoaks and Dartford, and the Boroughs of Greenwich, Lewisham, and Woolwich. The County of Sussex. In the County of Surrey, the Guildford Parliamentary Division.
XII to XVII. METROPOLITAN (8,400 Practitioners; to be divided into six electoral areas).	The Counties of Middlesex, Essex, and Hertfordshire. The County of Surrey, *except* the Guildford Parliamentary Division. In the County of Kent, the Parliamentary Divisions of Sevenoaks and Dartford, and the Boroughs of Greenwich, Lewisham, and Woolwich. In the County of Hampshire, the Basingstoke and Petersfield Parliamentary Divisions. The Counties of Berkshire and Buckinghamshire. In the County of Oxford, the Henley Parliamentary Division.

B.—ELECTORAL AREAS IN SCOTLAND.

NAME.	AREA.
I. NORTH SCOTLAND (960 Practitioners).	The Counties of Inverness, Perth, Stirling, Clackmannan, Kinross, Forfar, and the Counties north thereof.
II. WEST SCOTLAND (1,400 Practitioners).	The Counties of Lanark, Renfrew, Dumbarton, Argyll, and the Isles.
III. SOUTH AND SOUTH EAST SCOTLAND (1,330 Practitioners).	The remaining Scottish Counties.

C.—ELECTORAL AREAS IN IRELAND.

NAME.	AREA.
I. NORTH IRELAND (1,200 Practitioners).	The Provinces of Ulster and Connaught. In the Province of Leinster, the Counties of Longford, West Meath, Meath, Louth, and King's County.
II. SOUTH IRELAND (1,350 Practitioners).	The Province of Leinster, *except* the Counties of Longford, West Meath, Meath, Louth, and King's County. The Province of Munster.

* It will be understood that the particulars as to number of practitioners are merely approximate, and stated for the assistance of members of the Association. They would not form part of the actual Schedule of the Bill.

NATIONAL DEPOSIT FRIENDLY SOCIETY.

AT a meeting of the Medico-Political Committee held on May 4th, a draft report on the National Deposit Friendly Society, prepared by a special Subcommittee, was considered, and the following text adopted, and directed to be reported to the Divisions:

Report on National Deposit Friendly Society.

The Medico-Political Committee has fully inquired into the relation of the work of the National Deposit Friendly Society to that of the medical profession.

Regarded in its relation to the medical profession, the National Deposit Friendly Society differs from other Friendly Societies (1) in the fact of paying in each district, to certain members of the profession, fees for services rendered; also (2) in that the Society professes to recognize no individual practitioner as distinctly an officer of the Society but,

represents that every member may be attended by any registered medical practitioner in the district whom he may select. The medical men thus acting for the Society do so under the special circumstances about to be described.

The scale of fees paid by the Society is determined by Rule XVI, Section XIV, Subsection 1, as follows:

"Subsection 1.—The following charges are authorized to be made by the medical practitioners. They are subject to modifications by the General Committee for special reasons, on the application of any medical officer, and the recommendation of any Divisional Committee:

"MEDICAL CASES.

	£	s.	d.
One visit and medicine for two days	0	2	6
Each intermediate visit in dangerous cases	0	1	0
Extra per mile, if beyond two miles (outward). (This charge also applies to surgical cases)	0	0	6
One attendance at surgery and medicine for two days ...	0	1	6
One fresh supply of medicine for two days	0	1	0
If the member is entitled to over 5s. daily sick pay, extra per visit or attendance for every 1s. above 5s.	0	0	6
Extra per visit between the hours of 9 p.m. and 8 a.m. the following day	0	1	0
Extra per attendance at surgery between the same hours	0	0	6

"SURGICAL CASES.

Compound fracture of the thigh...			
Compound fractures or compound dislocation of the leg			
Amputation of leg, arm, foot, or hand... ...	5	0	0
The operation for strangulated hernia (or rupture)			
Treatment of simple fractures or simple dislocations of thigh or leg	3	0	0
Removal of cancerous or other tumours of magnitude ...	3	0	0
Treatment of dislocations or fractures of the arm ...	1	0	0
Treatment of fracture of clavicle or ribs	1	0	0
Treatment of dislocation of lower jaw...	0	10	6
Minor operations without anaesthetic (teeth extraction excepted)	0	10	6
Minor operations with anaesthetic	1	1	0
Passing catheter	0	2	6
Passing catheter, if at patient's house, extra	0	2	6
Tooth extraction, if at surgery, or by qualified dentist ...	0	1	0
Fee to be paid by candidate for examination:			
For a contribution of 2s. per month	0	1	0
For each 1s., or part thereof, above that amount, extra	0	0	6"

The rates prescribed under the said rules are, in the opinion of the Committee, too low.

The local agent of the Society often visits the practitioners in a district, and invites them to accept work under the terms of the Society, that is, according to the scale of fees determined by the rule above mentioned.

It naturally follows, when it becomes known that individual medical practitioners will accept the Society's scale, that those members of the public who belong to the Society will employ those practitioners, to the exclusion of their neighbours, and thus underselling is brought about.

There is the further danger that the scale of fees of the Society will become recognized in the district as adequate and customary.

To be consistent with the claim stated in Clause (2), the wording of the rule cited should be altered so as to make clear that the provisions as to fees, stated therein, relate entirely to the agreement between the Society and its members, and do not affect the charges made by medical practitioners to members of the Society.

The Committee has had evidence before it, moreover, that in point of fact medical officers are appointed by the Society, either as consultants or otherwise, and that their names have been published in prospectuses issued by Divisions of the Society. On this point it is stated by the General Secretary of the Society that the appointment of these medical officers is purely honorary.

It is also to be noted that the Society does, in fact, in each district distinguish between those medical practitioners who have indicated willingness to accept the scale of charges drawn up by the Society and those who do not.

CONCLUSION.

Until the rules of the Society are amended it is not, in the opinion of the Committee, desirable that individual medical men should allow themselves to be recognized, directly or indirectly, as specially acting for the Society in any district, or as willing to accept payment on the scale laid down in the rules of the Society.

Meetings of Branches and Divisions.

[*The proceedings of the Divisions and Branches of the Association relating to Scientific and Clinical Medicine, when reported by the Honorary Secretaries, are published in the body of the* JOURNAL.]

BIRMINGHAM BRANCH:

COVENTRY DIVISION.

THE annual meeting of this Division was held at the Coventry and Warwickshire Hospital on May 17th. Dr. MILNER MOORE, the Chairman, presiding. Thirty-two members were present out of a membership of 39. An apology for non-attendance through illness was received from Dr. Webb Fowler.

Matters Referred to Divisions.—On matters referred to the Division, the following resolutions were passed:

That this Division considers that it is advisable that medical witnesses engaged on each side in legal cases should meet in consultation.

That the present practice of advertising medical men in connexion with hydropathic establishments, sanatoria, and similar institutions in lay newspapers, railway guides, or by any other means which appeal directly to the public, is open to grave objection and should be discontinued.

That in the opinion of this Division the British Medical Association should not undertake medical defence.

New Rule.—A new rule was adopted limiting papers to half-an-hour and speeches to ten minutes.

Election of Officers.—The following officers were appointed for the ensuing year:—*Chairman:* Dr. Webb Fowler. *Vice-Chairman:* Dr. Davidson. *Secretary:* Dr. Snell. *Representative on Branch Council:* Dr. Milner Moore. *Executive Committee:* Drs. Collington, Harman Brown, J. Orton, Bankes-Price, Pickup, and Hadley.

DORSET AND WEST HANTS BRANCH.

THE annual meeting was held at the Dorset County Hospital, Dorchester, on May 18th; Mr. A. J. H. CRESPI, President. There were present thirty-seven other members and visitors.

Vote of Thanks.—A hearty vote of thanks was given to Dr. Moorhead, the retiring President, for his able services during his year of office.

Vote of Condolence.—It was resolved that the members of the Dorset and West Hants Branch express their sincere regret at the death of their former Vice-President, Dr. Herbert Alfred Lawton, Major Allan Ewan Grant, I.M.S., Dr. Sydney James Allden, and Mr. Herbert Arthur Kent; and desire to convey to their widows and families their sympathy in their sorrowful bereavement.

Address.—A very able address was given by the PRESIDENT on the medical attendance on the poorer classes.

Vote of Sympathy.—A vote of sympathy to the Irish Dispensary Service was passed unanimously.

Communication.—Dr. RAMSEY read notes on a successful case of resection of bowel on a child aged five years.

Summer Meeting.—It was resolved that the summer meeting be held at Swanage, if practicable, on July 14th; if not practicable, at Blandford.

Luncheon.—The members and their friends lunched together at the King's Arms Hotel before the meeting; and were entertained after the meeting to tea by Mr. Fisher.

EDINBURGH BRANCH:

SOUTH EDINBURGH DIVISION.

THE annual meeting of this Division was held in the Oddfellows' Hall, Forest Road, Edinburgh, on May 17th, Dr. DUDDINGSTON WILSON in the chair.

Confirmation of Minutes.—The minutes of last meeting were read and approved.

Report of Council.—The adoption of the annual report and financial statement was moved by the CHAIRMAN, seconded by Dr. CULLEN, and unanimously passed.

Treasurer's Statement.—The TREASURER'S statement, showing a credit balance of 6d., was audited by Drs. CATTANACH and MORRISON MILNE.

Amendment of Rule.—Dr. MATHESON moved, and Dr. SALT seconded, a resolution that Rule 6 should now read:

The officers shall be elected annually in the annual meeting of the Division, the Chairman being eligible for election for three consecutive years.

As there was no amendment the motion was unanimously adopted.

Re-election of Officers.—The re-election of Dr. D. Wilson as Chairman, Dr. Matheson as Vice-Chairman, Dr. Dewar as Secretary and Treasurer, Drs. Wilson and Dewar as Representatives on the Branch Council, and Dr. Simla Paterson as Representative to the Representative Meetings was carried unanimously.

Executive Committee.—Nominations for the Executive Committee were invited, and nine members were duly elected.

Consultation between Medical Witnesses. — The question whether it is advisable that the medical witnesses engaged on each side in legal cases should meet in consultation was considered. After considerable discussion, taken part in by the CHAIRMAN, Drs. CLOUSTON, WEBSTER, PROUDFOOT, CULLEN, and PORTER, the following resolution, proposed by Dr. CLOUSTON and seconded by Dr. CULLEN, became the finding of the meeting:

That this Division is of opinion that it is desirable that medical men on each side should meet in criminal cases, where facts are dealt with, but that in all cases where medical evidence determines the main issue of any trial, medical assessors to the Court should be appointed, or a written opinion should be asked from specially qualified medical men on definite points fixed by the Court.

Dr. WEBSTER moved an amendment that the last clause be deleted, but as no one seconded, the amendment fell to the ground, and Dr. Clouston's resolution was adopted, Dr. Webster dissenting.

Medical Practitioners and Hydropathic Establishments.—The question of advertising of medical practitioners in connexion with hydropathic establishments was next discussed. The meeting expressed its strong disapproval of advertising of any kind.

The Association and Medical Defence.—The scheme of medical defence was then considered. The SECRETARY reported that 15 out of 118 members had returned forms of application. After some discussion, joined in by Drs. CLOUSTON, MCLAREN, PORTER, WEBSTER, WALKER, PATERSON, and the CHAIRMAN, Dr. CLOUSTON moved that the discussion be adjourned to a future and early meeting, with a request to the Secretary to post-card the members of the Division, and thus give them an opportunity to say definitely whether they approved or disapproved of the scheme. The motion was adopted.

The Post of Medical Officer of Health (Edinburgh).—Dr. MATHESON moved:

That this meeting is of opinion that the City of Edinburgh should have a medical officer of health, who shall devote his whole time to the duties of the post.

In speaking to the motion, Dr. Matheson remarked that he was not actuated by any personal feeling whatever, but thought that it was perfectly impossible for the present medical officer of health, holding so many positions, to carry out satisfactorily to the public the duties of the public health office. The general feeling of the meeting was that, while in sympathy with this motion in abstract, no further steps should be taken in the matter, but that plurality of offices in connexion with any future appointment should be opposed.

The Out-patient Department of the Royal Infirmary.—Dr. CULLEN gave notice that at the adjourned meeting he would bring forward a motion regarding the manner in which the out-patient department of the Royal Infirmary was conducted.

Vote of Thanks.—The meeting then adjourned, a vote of thanks being accorded to the Chairman.

GLASGOW AND WEST OF SCOTLAND BRANCH:

GLASGOW SOUTHERN DIVISION.

A GENERAL meeting of this Division was held in the rooms of the Medical Club, 18, South Portland Street, on Thursday, May 5th, Dr. C. E. ROBERTSON in the chair. The questions referred to the Divisions from the Ethical and Medico-Political Committees of the Association were considered.

Medical Practitioners and Hydropathic Establishments.—After discussion the following resolution was adopted:

The Division agrees that this practice is indefensible, and that the whole subject of advertisement, of which this is only a small part, should be thoroughly inquired into and a definite resolution arrived at.

Consultation between Medical Witnesses.—The opinions expressed on this subject were to the effect that, though such consultations may be desirable as likely to lead to a better understanding of the actual facts of a case, on matters of opinion they were not desirable for various reasons, for example, an assertive man might unduly influence the opinion of a junior or more modest man. Further, discussions in law courts being of some educative value should not be curtailed. On the whole question, the Division was not in favour of the Association taking action in the matter.

GLOUCESTERSHIRE BRANCH.

A general meeting of this Branch was held at the General Hospital, Cheltenham, on Thursday, April 21st, Mr. E. C. CRIPPS, in the absence through illness of the President, occupying the chair. There were twenty other members present.

Confirmation of Minutes.—The minutes of the previous meeting were read and confirmed.

The Association and Medical Defence.—The CHAIRMAN, in introducing the medical defence scheme of the Association for discussion, said that for his own part he was totally opposed to the suggested scheme. The existing societies were doing the work excellently; they would not allow themselves to be amalgamated into the British Medical Association. Less than half the members of the medical profession in the British Isles were members of the British Medical Association, and a fair proportion of those who were not members would wish to belong to a Defence Union without being compelled in addition to pay a subscription of 25s. to the British Medical Association. Again, the directors of the existing societies were men who by this time had gained valuable insight into methods of economically carrying on this kind of work, whilst this might not be the case with those appointed on the Medical Defence Committee, some of whom, indeed, would be appointed by representatives at the annual meeting whether those representatives were subscribers to the Defence Fund or not.—Dr. BATTEN also dwelt upon the very satisfactory way in which defence work was carried on by the existing societies and so would strongly oppose the scheme. He would hesitate before adding to the duties of the Central Council that of supervising so important a matter as medical defence. He proposed the following resolution:

That this Branch having considered the scheme of medical defence as proposed by the Medical Defence Committee of the Association expresses its disapproval of it, and further considers that any such scheme under the auspices of the Association is unnecessary.

—Mr. FIRMIN CUTHBERT, in seconding the resolution, spoke of his favourable experience of the work of the Medical Defence Union.—Dr. HODGES supported the resolution, and it was carried unanimously.

Medical Practitioners and Hydropathic Institutions.—A recommendation of the Ethical Committee that the question of advertising of medical practitioners in connexion with hydropathic establishments be referred to the Divisions was next considered.—The PRESIDENT, Dr. HODGES, Dr. SOUTAR, Dr. W. B. FERGUSSON, Mr. FOWLER, Dr. ELLINGER, Mr. CUTHBERT, and Dr. MOUATT-BIGGS took part in the discussion.—It was proposed by Mr. HOWELL, seconded by Dr. SOUTAR, and unanimously agreed that the advertising of medical practitioners in connexion with hydropathic establishments does not call for any interference.

Medical Witnesses.—With regard to a recommendation from the Medico-Political Committee of the Association, it was proposed by Dr. HODGES, seconded by Dr. MOUATT-BIGGS, and unanimously agreed that the meeting in consultation before the trial of medical witnesses engaged on each side would be more likely to frustrate than promote justice.

LANCASHIRE AND CHESHIRE BRANCH:

ALTRINCHAM DIVISION.

THE annual meeting was held in Altrincham on May 18th — Dr. C. J. RENSHAW first, and Dr. JOYNSON afterwards afterwards, presided over a meeting numbering eighteen. As this included five visitors, the attendance was very disappointing to the officers who had taken much trouble to make the meeting attractive, and had widely advertised it. Five members who had intended to be present were unavoidably prevented; and apologies for absence were received from seven members, and six invited visitors. The minutes of meetings of February 17th and March 30th were read and signed as correct. The minutes of committee meetings of February 20th and April 20th were read and adopted as a report from the committee.—Dr. JOYNSON was elected Chairman for the year 1904-5, and Dr. LUCKMAN Vice-Chairman. The other officers and the committee were re-elected without change.—Mr. J. SMITH WHITAKER, Medical Secretary of the Association, delivered an instructive address on The Uses of the British Medical

Association to the General Practitioner.—After the meeting six members and three guests dined together at the Unicorn Hotel and spent a very pleasant evening.

BLACKBURN DIVISION.

THE annual meeting was held at the Old Bull Hotel, Blackburn, on Wednesday, May 11th, 19 members being present.

Annual Report.—The minutes having been confirmed, the SECRETARY read the annual report on the work carried out by the Division during the year ending May, 1904, of which the following is an abstract: The Division now numbers 72 members, against 68 last year. Five meetings were held during the year: On May 22nd, 1903; members present, 17. On June 26th, 1903; members present, 17 (joint meeting of the Blackburn and Burnley Divisions). On February 26th, 1903; members present, 11. On March 31st, 1903; members present, 13. On April 31st, 1903, members present, 11. Important resolutions were passed regarding medical defence, medical evidence, hydropathic establishments, Medical Acts Amendment Bill, Vaccination Acts, etc. On the motion of Dr. NASH, seconded by Dr. CRAIG, it was resolved that a copy of the annual statement should be supplied annually to each medical man in the district in order to indicate the useful work being done by the Britlsh Medical Association.

Meeting of Branch.—A letter was read from Dr. Helme regarding the forthcoming meeting of the Branch in Blackburn in June. It was resolved that the Secretary be instructed to write to each medical man in the district asking him to subscribe towards this meeting's expenses. A Subcommittee was selected to make all arrangements for the meeting together with the President (Dr. Barr) and the Secretary (Dr. Greenwood),

Election of Officers.—The officers for the ensuing year were then elected:—*Chairman:* Dr. Barr. *Vice-Chairman:* Dr. Ballantyne. *Secretary and Treasurer:* Dr. Greenwood. *Representative in Representative Meetings:* Dr. Nash. *Branch Council:* Drs. Moir and Nash. *Executive Committee;* Drs. Craig, Martin, Baxter, and Wallers.

Resolutions.—The following resolutions were duly proposed and carried:

(1) That in future one of the two members of the Branch Council shall be from Blackburn and one from the outside districts. (2) That this Division approves of a parliamentary inquiry into the State registration of nurses.

Vote of Thanks.—A vote of thanks to the President and Secretary was carried.

LEINSTER BRANCH.

THE 27th annual general meeting was held in the Royal College of Physicians, Dublin, on Wednesday, May 18th. Dr. J. MAGEE FINNY, President, in the chair. Amongst those present were R. A. Burnes, John D. Hillis, J. A. Watson, Dr. Moran, E. H. Bennett, M.D., James F. Polglenny, Sir John Moore, James Craig, M.D., Dr. John Morgan, Lieutenant-Colonel G. Macneece, A. M. C. O'C. J. Delahoyde, Thomas J. M'Grath, J. Mason, M.D., Reginald Peacocke, J. Wallace Boyce, M.D., Alfred E. Boyd, Dr. Charles M. Benson, Dr. John Murphy Trevor, Dr. N. Smith, Dr. Joseph M. A. Kenny, Dr. Magennis, Sir Wm. Thomson, Dr. Nolan Macmahon, H. C. Mooney, Joseph Redmond, M.D., Dr. Robert Rowlette, Dr. John G. Cronin, Dr. Michael Strahan, James Little, M.D., Dr. Isaac Usher, Dr. Thos. Donnelly, H. T. Bewley, Albert Griffith, Wm. J. Thompson. Fred Kidd, Sir Lambert Ormsby, W. J. Beveridge, J. C. M'Walter.

Report of the Council.—Your Council met fourteen times during the year, and elected twenty-four new members. The Branch membership now stands at 350, as compared with 330 last year. Your Council hopes that the time is not far distant when the membership will reach 400, so that the Branch may be entitled to elect a second representative on the Council of the Association. At present the Branch is linked with the South-Eastern Branch for purposes of representation on the Central Council—the joint representatives being Dr. James Craig and Dr. Denis Walshe. During the past year your Council suffered most severe loss through the death of two of its most prominent members—Sir George Duffey, the founder of the Branch and its first Honorary Secretary, and Sir Philip Smyly, President-elect. Under Rule 8, Dr. O'Carroll, the senior Vice-President, was co-opted President-elect, and Dr. James Craig was elected to fill the vacant Vice-Presidency. Under Rule 7, your Council elected Mr. Andrew Clark Chairman of the Central Council; Dr. Dawson Williams, Editor of the BRITISH MEDICAL JOURNAL; and Surgeon-General Evatt, Honorary or Associate members of the Branch. During the past year much of the time of the Council was occupied with the question of reorganization; and during the months of June and July your Secretary summoned meetings which he also attended in the various Divisional centres, with the result that out of the six nominal Divisions in the Branch area three were successfully inaugurated. These Divisions have each been allowed by your Council a capitation grant of 1s. per head to defray working expenses. Owing to these grants and to the reorganization, the Branch expenditure has been larger than usual, and exceeded the income of £63 by 10s. It is a source of great gratification to your Council that the action taken by the Branch last year in regard to the grievances of the Poor-law medical officers was heartily endorsed by the Representative Meeting at Swansea, and that the Central Council was instructed to take the steps best calculated to bring about the early adoption of the necessary reforms.

The annual report was adopted on the motion of Dr. BENNETT, seconded by Sir J. W. MOORE.

The officers for the year were then elected as follows: *President:* Joseph O'Carroll, M.D. *President-elect:* Sir Thomas Myles, F.R.C.S. *Vice-Presidents:* James Craig, M.D., and J. Lentaigne, F.R.C.S. *Honorary Secretary and Treasurer:* Professor White, Royal College of Surgeons, Dublin.

Dr. O'CARROLL, the new President, then took the chair amidst applause.

On the motion of Mr. CHANCE, V.P.R.C.S., seconded by Sir WILLIAM THOMSON, C.B., the thanks of the Branch were given to Dr. Finny for his services as President.

Dr. FINNY replied.

Dr. O'CARROLL then delivered an able address dealing with the question of the dispensary doctors. In many cases the salaries of dispensary doctors who had to keep a horse was not more than Lady Dudley had estimated to keep a nurse with a bicycle in one of the remote districts. As to the proposal to make the service a Government one by means of entrance by a Government examination, it would be very generally objected to in Ireland. To his mind the question at the bottom of the whole matter was one of finance, and in three-fourths of Ireland it was impossible to squeeze any more money for dispensary doctors. In conclusion, he said the great point was to educate the public as to their grievances. They should educate the Irish people and combine, so that standing by one another and their country they would obtain the largest amount of support from their country and their countrymen. The result would come gradually, and he believed that if they educated the country and stood well together theirs would be one of the first instalments paid.

Mr. ANDREW CLARK, Chairman of the Central Council of the the Association, in proposing a vote of thanks to the President for his address, dealt at considerable length with the British Medical Association and the objects it had in view. The Council would do all that was possible to ameliorate the grievance of the Irish Poor-law medical officers, and although he was not sanguine of immediate success he believed that in due course something would be done.

Dr. F. W. KIDD, in seconding, said that as to the Chairman's remark regarding the formation of a service, the vote at the Irish Medical Association was taken after a good many of the country members had left the room.

The resolution was unanimously carried, and in the evening the usual dinner took place, Dr. O'Carroll in the chair. Among the speakers were the Chairman, Dr. James Little, Mr. Andrew Clark, Sir William Thomson, the Provost of Trinity College, Sir James Dougherty, C.B., Sir John Moore, and Dr. White.

METROPOLITAN COUNTIES BRANCH:

CHELSEA DIVISION.

THE inaugural meeting of this Division was held at the Chelsea Town Hall on Tuesday, May 17th, and was well attended.

After Sir Charles Gage Brown had been elected Chairman, Mr. Rowell shortly explained the aims and objects of the Division.

Mr. P. H. Parsons was elected Secretary *pro tem.:* Dr. Bonney as Representative at the annual meeting; Dr. Keen as Representative on the Branch Council.

It was unanimously decided to defer the consideration of the rules for the Branch and the ethical rules till the next meeting, which is to be held on May 31st, when it is expected that an even larger number of members will be present. The

Division starts under the most favourable auspices, as there are nearly one hundred members on the roll.

After a hearty vote of thanks to the Chairman the meeting was adjourned.

City Division.

A meeting of this Division was held on April 26th at the Walthamstow Hospital, Mr. Frederick Wallace, the Chairman, presiding.

Resolutions.—The following resolutions were carried:

1. That this Division disapproves of the advertising of medical officers of hydropathic institutions by placing their names in conspicuous positions on the outside of such institution facing public thoroughfares.

2. That this Division is of the opinion that it is inadvisable that the medical witnesses engaged on each side in legal cases should meet in consultation.

Conjoint Meeting with Walthamstow Division.

After this meeting a conjoint meeting was held with the Walthamstow Division, Dr. Wise in the chair, at which Dr. Hale White read a paper on forms of joint disease met with in medical practice.

St. Pancras Division.

A meeting of this Division was held at St. Mary Islington Infirmary on March 24th, Dr. W. W. Westcott in the chair; 16 members were present.

Medical Men and Hydropathic Institutions.—Dr. Walter Smith proposed:

That it is not desirable that any medical man, whose name is advertised in connexion with any hydropathic establishment, boarding house or hotel, should practise outside the institution.

Dr. Ladell seconded, and the resolution was carried.

Medical Witnesses.—Dr. Ladell proposed:

That it is advisable that the medical witnesses engaged on each side legal cases should meet in consultation.

This was seconded by Dr. Crabb.

Cases.—Dr. Robinson showed several most interesting cases, also electric bath and x rays.

Tea.—Dr. Robinson also entertained the members to tea.

Walthamstow Division.

At a meeting on April 26th the following resolutions were carried with regard to the scheme of Medical Defence remitted to the Divisions:

1. That Medical Defence should be undertaken by the Association.

2. That the scheme proposed by the Council is inadequate; that any scheme should include all members resident in the United Kingdom, and that the necessary alterations in the Memorandum of the Association be made.

Wandsworth Division.

An ordinary meeting of this Division was held in the Officer's Mess Room of the 4th Volunteer Battalion East Surrey Regiment, St. John's Hill, on Thursday, May 12th, Dr. W. G. Biggs in the chair. In addition to members of the Division there were also present by invitation Sir Victor Horsley, Dr. Heron, Dr. Bateman, Dr. Woods, Dr. Allan, and Mr. Whitaker.

The Chairman stated that the object of the meeting was to consider the question of the advisability of medical defence being taken up by the British Medical Association. The work of medical defence in the past had been done by the Medical Defence Union and the London Counties Protection Society and the profession owed to those societies a debt of gratitude for what they had done, and he thought they deserved to be treated with the utmost consideration. Further he was glad to find that in the proposed scheme those societies had been invited to join in the event of the British Medical Association taking up medical defence. The first question he invited the members to discuss was whether in their opinion it was desirable that the British Medical Association should take up the question of medical defence; if they decided the question in the affirmative then they had to consider the scheme; but if they decided the question in the negative there would be no occasion to discuss the scheme.

Dr. George Walker then proposed that the British Medical Association should take up a scheme of medical defence. He thought it was very desirable that the British Medical Association should inaugurate such a system, and he was glad to hear the Chairman say that if such a scheme were started the existing societies, who had done so much good work in the past, would be favourably considered. The British Medical Association was now taking a much more important part in the welfare of its members than it had done for many years, and he thought it would be a great advantage if such a scheme were formed.

Dr. Verdon-Roe seconded.

Dr. Williams, as a member of the Medical Defence Union, said he had always been satisfied with the way the work of that society had been done, and therefore he moved an amendment that the existing defence societies should be continued.

Dr. Brabyn seconded this, when the Chairman pointed out that the proposed amendment was not really an amendment at all, but a direct negative to the resolution. He then asked the members of the Division to speak to the resolution, but no one rose to do so.

Dr. Bateman then said that he was present by the courtesy and invitation of the Secretary of the Division, and he would endeavour to explain to the members present the position which the British Medical Association had taken up with reference to the matter. That position had been made clear, he thought, to a great number of the profession by a circular which had been sent out to the members, and which had also been published in the British Medical Journal, and commented upon by the *Lancet*. He then proceeded to read the circular which had been sent out by the Medical Defence Union. Having issued that circular, the Council of the Medical Defence Union received hundreds of letters from their members in all parts of the country, not only endorsing what they had done, but stating that, even if the Council were desirous of winding up, and did wind up, they would form a new Medical Defence Union immediately; and in many instances members said that, rather than give up their membership of the Union, they would give up their membership of the British Medical Association. He was not antagonistic to the British Medical Association: he had been a member of it for many years. All the members of their Council were members of the British Medical Association, and a great many members of the Council were members of the Council of the British Medical Association and served on its Committees. If the proposed scheme were carried through, it would mean a monopoly of medical defence, and those outside the Association would be left without any defence or protection. The Medical Defence Union did not think monopolies were good, but that healthy competition was much better, and therefore they had no intention whatever of winding up their Union, which would take years to carry out.

Sir Victor Horsley expressed his pleasure at being present at the meeting of what was, in the way of activity, the premier Division of the Association. He understood that for the moment they were discussing the question from a general point of view and without reference to the scheme. Dr. Bateman had referred to the circular which had been issued by the Medical Defence Union, his connexion with which in past years he looked back to with the utmost pleasure and gratification. But in many respects that circular was most misleading, and he should like to have an opportunity later on of dealing with it. Dr. Bateman had said that the Council of the Medical Defence Union was opposed to monopolies. When the word "monopoly" was used what did it usually mean? Used in a bad sense it meant that a particular body of men were going to try and gather into their grasp a trade in one direction, and that they alone would make a profit out of it. He submitted that the use of the word "monopoly" in connexion with medical defence was wholly and absolutely unjustifiable. There was no parallel whatever between what was understood by monopoly outside that room and what had been proposed by the British Medical Association. What had been proposed by the Association was a union of as many members of the profession as they could possibly get together to help each other. If that was a monopoly he was very proud to be a monopolist, but the question went a good deal further than that. The Council of the Medical Defence Union, under some baneful influence which he regretted, seemed to think that the medical practitioners of this country were made for the Union. When he was President of the Union his view was that the Union was made for the practitioners, and that was the attitude he wished to see resumed now. But the Council of the Medical Defence Union in its circular said that it felt that it ought to keep the Union in existence. Why? Surely it could only be in the interests of the general practitioner throughout the country. It could not be in the interests of anybody else. Therefore they ought to approach the subject, not from the point of view merely

of how to preserve the Medical Defence Union and its existing machinery, but to discuss the way in which they could extend the principles of medical defence to the largest number in the profession. That was his personal view. Their whole idea was to unite together to defend themselves against the public, and that could only be done by their combining together. The only other question was, had the defence societies considered this matter from the point of view of the requirements of the practitioners in the country at large? He did not think they had. He had seen in the correspondence in the JOURNAL statements that they would have to destroy the existing machinery. If there were better machinery in the market surely it was best for the Association to put the old machinery on the scrapheap, and employ the new. It might be thought that he was looking at it from a cold-blooded point of view, but these questions were to be regarded from that point of view and not from the point of view of sentiment. He had seen in recent correspondence in the JOURNAL that the question of finance had been also raised. He remembered some time ago, when some members were interested in getting the British Medical Association reformed, they were told that they would ruin the Association and that they would become penniless. But what was the result? Why, this; they had now got a larger balance of profit in the Association than they had done before. Therefore as regarded finance it was quite obvious that if they had an Association whose annual turnover was £40 000 that that was *per se* a much stronger thing than an organization with a turnover of £3,000 or £4,000. Therefore if they wanted to get a machine of the greatest power the wisest thing for them to do was to take the British Medical Association and make that their machine for the purpose of medical defence. He submitted that to have one complete organization for the profession was a wiser and a more statesman-like thing than continuing smaller organizations simply because they had existed and done good work in the past.

Dr. ALLAN made some remarks as to the work done by the British Medical Association in welding the profession together, the financial value of the JOURNAL, and the possibility of throwing medical defence into the work done for the present subscription.

Dr. WOODS, speaking on behalf of the London and Counties Medical Protection Society, stated that they had decided to do nothing until they had the scheme before them. Personally, he was in favour of the British Medical Association taking up medical defence because it was obvious that they could do it enormously better than any one else. Small societies could not do it as well as the British Medical Association could do it; and any body having at heart the promotion of medical defence must wish that the British Medical Association should take it up if a method could be devised by which it could be done as well—he would not say better—by the Association as by the existing societies. If the Association did it in as good a way as those societies were doing it it would be able necessarily to do it better, because it was a much more powerful body.

Dr. TURNER thought there was a question of principle underlying this question which had not been given due weight to, and that was the question of unity. He thought that the medical practitioners ought to combine more than they had done.

Dr. HERON did not wish to repeat what Sir Victor Horsley had said because those who had read what had been written about this subject knew that Sir Victor Horsley and he thought practically alike. Dr. Bateman had said practically that if the British Medical Association took up medical defence the Medical Defence Union would not give it its assistance, and he also said that it would take years to train the British Medical Association in the work of medical defence. He ventured to think that medical defence was very well understood even outside the lines of the Medical Defence Union. There was another society in existence which had not done badly in the matter, and those who were working upon the scheme were quite sure that from among the Branches of the British Medical Association they could get an ample supply of men perfectly competent to carry on medical defence on behalf of the Association quite as well as it was carried on now by the Medical Defence Union and the Medical Protection Society. He was surprised to find it was not understood that those two societies, though they had done good work, were really a source of weakness to one other. The success of the Medical Protection Society meant in a certain and a material sense taking away a little from the success of the Medical Defence Union, and the success of the Medical Defence Union meant taking away from the strength of the London and Counties Protection Society. Such a state of things he thought was by no means creditable to the profession. He thought a most important argument in favour of medical defence being taken up by the Association was that they would then have all their interests under one roof, governed by men who were of themselves, and to whom they had access. Dr. Bateman had said it would take years to wind up the Medical Defence Union, and that they could not come into the Association's medical defence for years. He ventured to suggest that if Dr. Bateman would submit the business of the Union to half a dozen competent business men they would wind it up in as many months, in spite of the difficulties represented. If the medical profession could not come together in this matter of medical defence, and show that they meant to stand by one another under all circumstances when any member was attacked unjustly, and show that to the whole world, then he thought the sooner they gave up medical defence the better.

Dr. GREENWOOD thought the question was whether the British Medical Association, taking up any scheme of medical defence, would do the work better than it had been hitherto done by the existing societies. With regard to Sir Victor Horsley's statement as to a monopoly, he did not think that Sir Victor Horsley was quite fair to Dr. Bateman with regard to that. He took it that Dr. Bateman's chief point was whether it would be right as a matter of principle to say that no medical practitioner should have medical defence unless he joined the British Medical Association. Then with regard to one of the different societies, the one to which he belonged, registered dentists had been allowed to join them. They could not have been accepted by the British Medical Association. If his particular society were to wind up and join in the proposed scheme, it must at once without any real reason say to those dentists, "You must go and find medical defence for yourselves." Therefore he thought they must be doubly convinced that in doing what was proposed they were acting for the good of the profession. Sir Victor Horsley had spoken about the money available, and that the turnover of the Association was £40,000 a year as compared with £3,000 or £4,000 a year. If they were to add the accounts of the London and Counties Medical Protection Society to the Medical Defence Union it would be more than £3,000 or £4 000, but it was to be remembered in those societies the turnover was simply for medical defence, and nothing else; and if £38,000 out of the £40,000 to which Sir Victor Horsley had referred had to go to something else, it did not prove much; and the question must be ascertained how much of the income coming to the British Medical Association could be devoted to medical defence. On the question as to who should conduct medical defence if it could be done, he agreed that it should be conducted by the British Medical Association.

Dr. MILLER criticized the analogy drawn by Sir Victor Horsley between scrapping out-of-date machinery and the present proposal, which would lead to the substitution of the machinery of the British Medical Association for that of existing defence societies. He agreed that the existence of two societies was a source of weakness, but thought it would be increased by the creation of a third.

Dr. RICHARDS advocated a policy of delay in dealing with the question until the British Medical Association was further developed.

The CHAIRMAN then put the resolution to the meeting that the British Medical Association take up medical defence. Sixteen members of the Division voted in favour of the resolution and 7 against it, and the resolution was therefore carried. The Chairman then asked the members to consider the scheme sent out for consideration of Divisions.

Sir VICTOR HORSLEY, rising by request, said that as a member of the Committee responsible for drafting the scheme, and as former President of the Medical Defence Union, he felt very keenly on this matter. It was not a question of antagonism exactly; it could not be between bodies of men who were brought together for the same purpose and with the same aspirations. There could not be antagonism in the ordinary sense of the word, but there might be friction. When he was President of the Union the officials of both the societies were occupied practically fifteen months trying to unite the two societies, and he felt quite sure that if the British Medical Association had then had before it the present scheme of medical defence, and were prepared to offer something to the profession as an im-

partial body, both societies at that period would have gone in, and then there would have been a complete union throughout the profession. The opportunity, however, did not come then, and so the negotiations failed. He wished to take serious exception to paragraph 8 in the circular which had been issued by the Medical Defence Union. That paragraph said "That the proposed new department will only defend its members; that is to say, limit its work to individual defence; whereas the Medical Defence Union has for many years done good work in collective defence, such as the prosecution of unqualified practitioners and the like. The method of election to the Committee appears open to criticism as involving no continuity of office." There was not a single word there of what the British Medical Association had done, and were doing, by way of collective defence of members of the profession. The British Medical Association had spent thousands of pounds in that very work, and were doing so now. If the circular had really dealt with the question fairly on that point, reference ought to have been made to the fact that the British Medical Association was, even with its present somewhat imperfect Memorandum and Articles of Association, doing collective defence. Dr. Greenwood had misunderstood the trend of his remarks as to the turnover of the Association. He only quoted that to show that a body with a large financial income and expenditure was a stronger body than one with a nominal income and expenditure. If the members had time to go through the statement of the expenditure of the Association, which would be in the hands of the Representatives of the Association at Oxford, and had been published in the BRITISH MEDICAL JOURNAL, to see what the Association was spending on collective defence at the present moment, they would be surprised to find what a large sum of money it was. But they wanted to go further than that. In the scheme of the British Medical Association which had been put forward there were two great principles: The first was that the previous action of the Association should be carried out. It was to be remembered that this was no new matter. He was not one to do things in a hurry, and he did not think he could accuse himself of having proposed anything in the Association in a hurry or anything that had not subsequently been carried out. He thought they ought not to delay the matter but ought to act now. This matter had been before the Association for ten years. At Birmingham they carried in the teeth of what he might call the reactionary party of the Association resolutions to alter the Memorandum of Association in order that they might carry out the individual defence of members and in order that they might extend their powers of collective defence, but those resolutions had never been put in force. They were now antiquated in form on account of the alteration in the Constitution. The present scheme as put forward by the Committee provided that the Association should go forward with the proposals to alter the Memorandum and to make it possible for them to defend the members of the Association, not merely collectively but on a larger scale and with greater freedom of expenditure individually. That point had been overlooked in the recent correspondence in the JOURNAL, and had been entirely overlooked by Dr. Miller when he said, if it was wrong to have two societies how much worse it was to have three. In making that a prominent point in his argument he (Dr. Miller) was doing the Committee of the Association unwittingly a very serious injustice, because one of the points of the scheme was that the existing societies should be invited to merge themselves in the Association, and the Committee had every reason to hope that the sense of patriotism towards the profession at large would induce the existing societies to do that. Nothing had caused members of the Committee more pain than to find that that paragraph in the scheme had been entirely overlooked in the sense in which it was offered to the Association. It was offered to the Association as one of the fundamental suggestions. If the societies were not willing to come in, then he himself felt it was a very open question whether they ought to institute a third. The Committee had put the matter prominently in the scheme because they hoped that the existing societies would recognize that they thought now was the time to merge the machinery into one useful body. What was that body going to be? What did the Committee of the Association propose? As Dr. Bateman himself said, the very same men who were carrying out the work of the defence would be the men to carry it out for the British Medical Association. Therefore, was it not ridiculous that they should be talking about the Medical Defence Union and the Medical Protection Society and the British Medical Association when it was proposed that identically the same men should do the same work? If they were two rival companies composed of different individuals that would be another matter. The Committee proposed nothing of the kind. The Committee simply said to the members of the Association, "If you look into this matter you will find that a majority of the members of the Association, actuated by the same principles and the same desires, simply ask the members of the defence societies to come in and do the work together instead of apart. He could not conceive any proposal more serious or more earnest, but he must repeat that it was a proposal which had not been discussed in the spirit in which it was offered. One other point had been made, and that was about raising the subscription. Years ago in sharing in the work of altering the Constitution of the Association, he endeavoured to get the subscription raised to 30s. Several of his friends also tried to carry that in the Constitutional Committee, but they failed; they were defeated on the vote, and the subscription was made 25s. He proposed that it should be 30s. for a specific reason, which was well known to the reactionary party; and that was because he knew in his own mind, judging from the balance sheet, that if they had a subscription of 30s. the Association could at once have taken up the defence of all its members. It was quite true, in the working of the present societies, the expenditure came out at nearly 10s. a head; but he was quite sure that that was an unnecessary expenditure, and that if in the British Medical Association they had available profits amounting to even 5s. per head that would be enough to do the work, and if the subscription had been 30s. they could have got it up to 7s. 6d. But the members of the Committee who had passed the scheme having before them the experience of the existing societies thought it was not safe to propose anything other than a mechanism by which an extra subscription of 10s. per annum was to be obtained. He did not quarrel with that. He thought it was an outside sum, but as a member of the Committee he would abide by its vote. Some members of the Association felt that they ought to carry out the defence for the present 25s. a year subscription. He had gone into that question and he did not think it was financially possible, but he thought it was very nearly possible. If under their new organization they could find out some new source of income apart from the advertisements, or they could find some philanthropist who would give the Association (and he had asked one or two but he was sorry to say without success) a donation of £10,000 they could start it to-morrow, but until they got that gift to the funds they could not safely proceed on the present subscriptions. The Committee felt that under those circumstances there was nothing for it but to bring in the existing societies on the 10s. basis and to go on that line. He would like to say in support of what might be considered by some to be an optimistic view on his part of the financial state of the Association that the profit this year was £5,500, and of the 25s. a certain fraction was sent to each Branch, namely, 4s. per head. In the Report in the SUPPLEMENT of the JOURNAL they found that only two Branches had failed to make both ends meet, and that of the sum which was sent to the Branches no less than £250 was in the hands of the members of the Association, so that the actual profit of the Association stood at nearly £7,000. If they could make a profit of £7,000 per annum a few years' saving would give them £10,000, which would be sufficient to secure their financial stability in starting medical defence on the present subscription. For the present he suggested that they should get in the existing societies, and charge the members who join the scheme 10s., and then, when the Association was rich enough, to do it on the annual subscriptions.

Dr. E. ROWLAND FOTHERGILL (Honorary Secretary to the Division) moved as an amendment that "no scheme submitted by the Central Council will allow of the Association carrying on medical defence sufficiently and efficiently until it has been prepared by a Committee, including, in their official capacity, the various medical defence societies, if they are willing to combine, and after duly consulting its members through the Divisions." He did not wish to say a great deal about this matter because he did not know much about it. He thought the fault of the whole scheme was that the Committee proposed the scheme of defence without consulting anybody. When he read the scheme he expected to see the signature of some of the officials of the two societies attached to it, but they were met with a scheme which did not ask them even to come in. That was why one defence

society was very greatly against the scheme, because they were cut up, that they in their official capacity had nothing to do with the scheme. They had simply had a scheme sent to them to pass or decline, and he did not think that was the way the Association should be treated. He thought such a scheme should not have been sent out until after the Central Committee had consulted the individual members of the various Divisions. He thought this scheme was faulty in consequence of that fact. He then proceeded to criticize the scheme, and said that if they wanted men to come in who were not members they must offer them some inducement. They had got to offer them some inducement in return for the extra subscription which they asked them to pay. After some remarks on the financial administration of the British Medical Association, he said there had been no attempt in preparing the scheme to consult those who had had experience. It had been proposed by one man—he said that with deference to that one man who was a very capable one—but it was a one-man scheme, and it could not be expected that you should get from one man the experience of forty-nine. He thought they ought to have consulted the defence societies and individual members of the Divisions, and asked their opinion before drawing up a scheme.

Sir VICTOR HORSLEY, in answer to these statements, said that on the Committee which drew up the scheme were the President of the Medical Defence Union and the Treasurer of the London Counties Medical Protection Society; and finally both the Secretaries of the two Societies were officially invited to appear before the Committee. Both societies were fully represented on the Committee and gave their views.

Dr. FOTHERGILL inquired if they drew up the scheme, because their signatures were not at the end.

Dr. BATEMAN said he was asked to attend before the Committee to give evidence, but beyond that he had nothing to do with the scheme, and never saw it until it was published in the JOURNAL. It was true that Dr. Messiter was on the Committee and that another member of the Union was on the Committee, but they both voted against it.

Dr. WOODS, speaking on behalf of the London and Counties Protection Society, said that it was fully represented on the Committee, and he did not think they could complain in any way.

Dr. MILLER, in seconding the amendment, said the only objection he had to the proposed scheme was that it was too good to be true. He thought they were rather anticipating if they said, "Let the Association take up medical defence," and then take in the two existing societies. He thought they ought to get their consent to come in first, and then form the Association, which should be a successful Association, embracing the former societies. If that could be done, he should be perfectly willing to agree to it. The only objection he had outside that was all the members of the present defence societies were not members of the British Medical Association, and he thought it would be very hard on those individual members of the defence societies that they should be told, "You have either got to fight for yourselves or come into an Association, whether you like it or not."

Dr. BALLANCE (Secretary of the Norwich Division) said that in his opinion it would not have helped the matter forward if each Division had been asked to draft a scheme before the proposed scheme was laid before the general body. It would have been an idle procedure. It was for the people at headquarters to draft a scheme and then for the Divisions to deal with it. That was what the executive was for and what the Divisions were for.

Dr. BATEMAN regretted that he found himself in opposition to Sir Victor Horsley. Judging from what he had read in the BRITISH MEDICAL JOURNAL the scheme was practically dead. As, however, it was not actually dead, he would like to speak of it as it was. They had nothing official from the British Medical Association except that two members of the Medical Defence Union were on the Committee, and those members who were members of the Council of the Union promptly voted against the scheme. They reported that to the Union and the Council of the Union felt it was absolutely necessary to declare its policy. It was for that reason that the circular which had been referred to was published. They had sent a copy of the circular to their members, and, with the exception of one, no one had dissented from it. Therefore, it might be taken for granted that the view of the Council was the view of their members.

Dr. HERON thought it was an unfortunate thing that anybody should say that this scheme was the scheme of one man. It never was the scheme of one man, and he was not aware that any one who had taken the trouble to ascertain facts had ever made such a statement. It was greatly to be deplored, also, that they should hear from the representative of the Medical Defence Union the statement that, because two members of the Council of the Medical Union took the course they did, and withdrew their consent from the scheme and published that minority report, therefore the Defence Union were justified in taking towards the scheme the attitude it had assumed. He thought it was a most unfair attitude. With regard to his own society, he wished to be quite frank, and he hoped that no member of the Council on the London and Counties Protection Society would think he was breaking confidence in saying that the Council of the London and Counties Medical Protection Society considered the scheme, and they came to the conclusion by a majority of those present that it was not a scheme which they could approve; but when the annual meeting was held of that Society it was considered, and they came to the conclusion that the best plan was to wait until they were officially communicated with by the British Medical Association, and then to give the scheme submitted to them by the Association their best and, if possible, their favourable consideration. That was a much more charitable and more kindly attitude towards the question of medical defence than the attitude of stubborn opposition to it which had been shown so plainly by Dr. Bateman on behalf of his society, and which he regretted to have heard. As to the clause of the scheme which gave power to the Council to advance money for a reserve fund, he said the reason why the reserve fund was proposed was that it was felt necessary to have such a fund. Those who had any knowledge of medical defence would be aware of the fact that suddenly they might have a big case thrown upon their resource, and it would be a deplorable thing if for the want of necessary funds an association like the British Medical Association could not fight the case in more courts than one. The object that the Committee had in view was that they should have a fund to fall back upon in the event of such an unlikely emergency occurring. It was all very well to say it had never happened, but in going into a scheme such as they had before them, and considering the reputation of the Association, they had to regard every reasonable possibility, and it was a reasonable possibility that an Association like theirs might have to take a case of medical defence to the House of Lords, which neither of the existing societies could afford to do unless they called in their guarantee funds, which would mean closing their doors. In regard to the amount per head required for medical defence, he rather differed from Sir Victor Horsley. He did not believe that at first they would be able to bring the expenses of the British Medical Association in the matter of medical defence to a less figure than that which was now required by the existing two societies, namely, practically 9s. per head, but by-and-by they would be able to run it at less when they had started their machinery and got the thing going. Then the necessity of an extra subscription would cease to exist, and they would be able to run it with perfect ease. He thought they must come back to the proposed scheme or some modification of it. He was not wedded to it. He was quite open to have his opinion on the scheme modified, but they must come back to a scheme such as that before them, which started with a subscription of 10s., or some other sum to suit the machinery of medical defence. Those who chose to take up medical defence on those terms would get it, and those who did not choose to take it up would be outside. A good deal had been said about the man who was not a member of the British Medical Association. He had no sympathy with such a man; he ought to be a member of the Association, and if he did not choose to come into a scheme of that sort let him stay out. He hoped the meeting would endorse the principle of the scheme that medical defence in connexion with the British Medical Association should be paid for, for the present, by a special subscription, until such a time as the medical defence department was able to run on its own and pay its own way.

After some little discussion the CHAIRMAN put Dr. Fothergill's amendment to the meeting; seven voted for it and ten against it. The Chairman declared the amendment lost.

Dr. MCMANUS then proposed that the scheme should be adopted, and that the scheme itself should be referred to the Committee of the Division.

Dr. HOWARD EVANS seconded the motion, and this was carried.

The CHAIRMAN then proposed, and it was agreed to, that a hearty vote of thanks be given to those gentlemen who had attended the meeting at great personal inconvenience, and he

thanked them for the views which they had put before the meeting. A vote of thanks was also passed to the officers of the regiment for their kindness in allowing the Division the use of their room.

MIDLAND BRANCH:
LEICESTER DIVISION.

AT the annual meeting on May 11th the following resolutions were passed:

Advertising.—That this meeting supports the Ethical Committee of the British Medical Association in putting a stop to advertising of medical practitioners in connexion with hydropathic establishments.

Medical Witnesses.—That it is advisable that medical witnesses engaged on each side in legal cases should meet in consultation.

Vote of Thanks.—A resolution was passed thanking Mr. C. J. Bond and Dr. A. V. Clarke, for their services as Chairman and Honorary Secretary respectively during the past year.

Election.—The following were elected officers for 1904-5:—*Chairman:* R. Pratt, M.D. *Vice-Chairman:* H. J. Blakesley, F.R.C.S. *Honorary Secretary:* R. Sevestre, M.D., 119, London Road, Leicester. *Representative on General Council:* F. M. Pope, M.D. *Representatives on Branch Council:* R. Pratt, M.D., R. Sevestre, M.D., J. T. Tibbles. *Representative of the Division in Representative Meeting of Association:* R. Sevestre, M.D. *Other Members of the Executive Committee:* R. Ballard, W. E. Gibbons, H. R. Hancock, J. E. S. Burkitt, A. V. Clarke, J. N. Thomas, J. Stamford.

OXFORD AND READING BRANCH.

THE annual meeting of this Branch was held at Reading on May 6th, Dr. G. H. R. HOLDEN, President, in the chair.

Registration of Nurses.—Dr. W. COLLIER opened a discussion on the desirability of registering nurses. There was much difference of opinion about this. The majority of the members were in favour of the registration of all nurses who had undergone a course of three years' approved training. Some members strongly held the view that nurses less expensively trained, and who would be willing to accept a lower fee than those more highly trained, would still be very frequently needed.

Dinner.—About eighty members attended the meeting, and thirty-five of them subsequently dined together.

The Organization of the Profession.—After dinner Mr. J. SMITH WHITAKER made some remarks about the organization of the profession.

SOUTH-EASTERN BRANCH:
EASTBOURNE DIVISION.

THE annual meeting of this Division was held at Eastbourne on May 5th.

Election of Officers.—The following were elected officers for the ensuing year: *Chairman:* Dr. Muir Smith. *Vice-Chairman:* Dr. Habgood. *Representative on Branch Council:* Mr. J. H. Ewart. *Honorary Secretary:* Dr. W. J. C. Merry. *Executive Committee* (in addition to *ex-officio* members): Dr. Watson (Pevensey), Dr. H. S. Gabbett, Dr. Ch. Harper, Dr. C. N. Hayman, Dr. A. P. Sherwood.

REIGATE DIVISION.

A MEETING of this Division was held at the White Horse Hotel, Dorking, on May 12th, Dr. JOHN WALTERS, J.P., of Reigate, in the chair.

Election of Dr. Holman as Honorary Member.—It was unanimously resolved:

That Dr. C. Holman be elected as honorary member of the Division, as a slight acknowledgement of his great work for the British Medical Association, and especially for the South-Eastern Branch.

Vote of Thanks.—The best thanks of the meeting were given to Sir Dyce Duckworth for his valuable address on The Pursuit of Novelties in Medicine.

Representative of Division.—Dr. John Walters was elected Representative of the Division.

SOUTHERN BRANCH:
ISLE OF WIGHT DIVISION.

AT the annual meeting held on May 18th the following officers were elected: *Chairman:* D. Turner (Ryde). *Vice-Chairman:* Dr. Castle (Newport). *Representatives of Division on Branch Council:* Drs. Turner and Castle. *Representative of Division in Representative Meetings:* Dr. Robertson (Ventnor). *Honorary Secretary and Treasurer:* Dr. G. Benington Wood. The question of medical defence was discussed and it was unanimously considered:

That the time had not arrived for the British Medical Association to take up medical defence.

Out of fifty-one circulars sent out five replies were received in favour of the scheme; none of these members were present at the meeting.

LUNACY LEGISLATION.

THE following is the text of the Bill to amend the Lunacy Acts introduced into the House of Commons on May 18th by the Attorney-General and the Solicitor-General:

A BILL to amend the Lunacy Acts.

BE IT ENACTED by the King's most Excellent Majesty, by and with the advice and consent of the Lords Spiritual and Temporal, and Commons, in this present Parliament assembled, and by the authority of the same, as follows:

1. *Visits to licensed houses.*—Nothwithstanding anything in section one hundred and ninety-one of the Lunacy Act, 1890 (herein-after referred to as the principal Act), the Commissioners may by order direct that until further order any licensed house, whether licensed by them or by justices, and not authorized by the licence to receive more than ten patients, may be visited by one Commissioner.

2. *Temporary care of incipient lunatics.*—(1) If a medical practitioner certifies that a person is suffering from mental disease, but that the disease is not confirmed, and that it is expedient, with a view to his recovery, that he be placed under the care of a person whose name and address are stated in the certificate for a period therein stated, not exceeding *six months*, then during that period the provisions of section three hundred and fifteen of the principal Act shall not apply.

(2) The certificate must not be signed by the person under whose care the patient is to be placed.

(3) Where a medical practitioner signs any such certificate he shall, within one clear day after signing it, send a copy of it to the Commissioners, and the Commissioners may visit the patient to whom the certificate refers.

(4) The person who receives a patient under any such certificate shall, within one clear day after receiving the patient, give notice to the Commissioners of his reception, and if the patient dies, or the residence of the person receiving him is changed, within the period mentioned in the certificate, shall within two clear days give notice of the death or change of residence to the Commissioners.

(5) He shall also, within two clear days after the expiration of the period mentioned in the certificate, or if he ceases to have the care of the patient at an earlier date then within two clear days after that earlier date, send a report to the Commissioners stating whether the patient recovered, and, if not, in what manner he was dealt with when the person making the report ceased to have the care of him under the certificate.

(6) If default is made in sending any notice or report required by this section, the person in default shall be guilty of a misdemeanour and be liable to a penalty not exceeding *fifty pounds.*

(7) No person shall under this section receive more than one patient at the same time.

(8) After the expiration of the period mentioned in the certificate, another certificate under this section in respect of the same patient shall not be given within *two years* from the date of the expiration.

3. *Amendment of s.* 116 (1) (*d*) *of principal Act.*—Section one hundred and sixteen of the principal Act (which relates to the administrative powers of the Judge in Lunacy) shall have effect as if in paragraph (*d*) of subsection one the words "or arrest of mental development" were inserted after the word "age."

4. *Jurisdiction of Masters in Lunacy.*—Subject to rules of court, the jurisdiction of the Judge in Lunacy (including power to make orders in lunacy and such orders as can be made in the Chancery Division of the High Court) may be exercised by the Masters, and every order of a Master in that behalf shall take effect unless annulled or varied on appeal in manner provided by such rules.

5. *Short title, construction, and commencement.*—(1) This Act may be cited as the Lunacy Act, 1904, and shall be construed as one with the Lunacy Acts, 1890 and 1891, and this Act and the Lunacy Acts, 1890 and 1891, may be cited together as the Lunacy Acts, 1890 to 1904.

(2) This Act shall come into operation on the *first day of January nineteen hundred and five.*

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SUPPLEMENT

TO THE

BRITISH MEDICAL JOURNAL.

LONDON: SATURDAY, JUNE 4TH, 1904.

CONTENTS.

	Page.
GENERAL MEDICAL COUNCIL:	
WEDNESDAY, MAY 25TH, 1904.—New Members.—President's Address.—Business Committee.—Results of Examinations.—Vote of Thanks.—Apothecaries' Society, London.—Report of the Executive Committee.—Dental Business	141
THURSDAY, MAY 26TH, 1904.—Disciplinary Cases.—Election of Committees	143
FRIDAY, MAY 27th, 1904.—Minutes.—Preliminary Scientific Education and Examination	145
SATURDAY, MAY 28TH, 1904.—The Conjoint Board in England and the First Year.—Visitation of Preliminary Scientific Examinations.—Marking at Examinations.—Postponement of Motion.—Instruction without Examination	147
MONDAY, MAY 30TH, 1904.—The Registration of Students.—Visitation of Preliminary Scientific Examination.—Apothecaries' Hall, Dublin.—Royal College of Surgeons of England.—Report of Education Committee.—Report of Students' Registration Committee.	151
TUESDAY, MAY 31ST, 1904.—Preliminary Scientific Committee.—Report of Education Committee.—Report of Finance Committee.—Appointment of a Treasurer.—Finance Committee.—Executive Committee.—Penal Cases Committee.—Report of Public Health Committee.—Report of Pharmacopoeia Committee.—Report of Dental Education and Examination Committee.—Practice by Companies.—The Medical Act (1886) Amendment Bill.—Canvassing.—Medical Certificates given by Chemists.—Unprofessional Conduct.—The General Registrar.—Length of Speeches.—Penal Inquiries.—Vote of Thanks	156
MEETINGS OF BRANCHES AND DIVISIONS:	
North of England Branch	161
,, ,, ,, Tyneside Division...	162
South-Eastern Branch: Folkestone Division	162
,, ,, Hastings Division	162
,, ,, Sevenoaks Division	162
Metropolitan Counties Branch: City Division	163
,, ,, Wandsworth Division ...	163
South Midland Branch: Bedford and Herts Division	163
Midland Branch: Lincoln Division	164
Ulster Branch	164
North Wales and Shropshire Branch: North Carnarvon and Anglesea Division	164

GENERAL COUNCIL

OF

MEDICAL EDUCATION AND REGISTRATION.

SUMMER SESSION, 1904.

REPORTS OF PROCEEDINGS.

Wednesday, May 25th, 1904.

Sir WILLIAM TURNER, K.C.B., President, in the Chair.

The PRESIDENT mentioned, with great regret, the absence of Mr. Tomes through illness.

New Members.

Dr. NORMAN MOORE introduced Henry Morris, Esq., F.R.C.S., in the place of Mr. Bryant, who had resigned, as the representative of the Royal College of Surgeons of England. Mr. YOUNG introduced R. Caton, Esq., M.D., as the representative of the University of Liverpool.

PRESIDENT'S ADDRESS.

The PRESIDENT then delivered his address, which was published in the BRITISH MEDICAL JOURNAL of May 28th, pp. 1280-1.

Dr. MACALISTER moved, Dr. NORMAN MOORE seconded, and it was agreed, that the President be thanked for his address, and he be requested to allow it to be printed and entered on the minutes.

BUSINESS COMMITTEE.

Sir JOHN BATTY TUKE proposed, Dr. LITTLE seconded, and it was agreed, that Dr. MacAlister, Mr. Windle, Dr. Bruce, and Sir Christopher Nixon should constitute the Business Committee, Dr. MacAlister to be Chairman.

Dr. MACALISTER moved, Dr. NORMAN MOORE seconded, and it was agreed, that the Council do adjourn at 4 p.m. to enable certain Committees to meet for the completion of their reports.

RESULTS OF EXAMINATIONS.

Dr. MACALISTER moved that the following tables be received and entered on the minutes:

(*a*) I. and II. Tables showing Results of Professional Medical Examintions during 1903.

(*b*) Table showing Results of Professional Examinations for Qualifications in Sanitary Science, Public Health, or State Medicine during 1903;

(*c*) Table showing Results of Professional Dental Examinations during 1903;

(*d*) Table showing Results of Preliminary Examinations during 1903:

(*e*) Answers sent by the Medical Authorities as to the exemptions granted by them in any part of their Examinations during the year 1903;

(*f*) Table showing Results of Competition held on November 16th, 1903, for Commissions in the Medical Staff of the Royal Navy;

(*g*) Table showing Results of Competition held in January, 1904, for Commissions in the Army Medical Service;

(*h*) Table showing Results of Competition held in January, 1904, for Commissions in the Indian Medical Service.

This was seconded by Sir P. HERON WATSON and agreed to.

The following is an analysis of tables (*f*) (*g*) and (*h*) mentioned in the foregoing paragraph, compiled upon the same lines as last year:

TABLE I.—*Showing the Extent of the Competition for each Service.*

Services.	No. of Examinations.	No. of Vacancies.	No. of Candidates.	Amount of Competition.
Royal Naval Medical Service	1	30	32	16 candidates for every 15 posts
Indian Medical Service ...	1	20	42	10 ,, ,, 21 ,,
Royal Army Medical Corps	1	30	38	19 ,, ,, 15 ,,
Totals	3	80	112	

TABLE II.—*Showing whence the Candidates Received their Qualifications.*

Licensing Body.	Total Number of Candidates.	Proportion of Entire Candidates.
English Colleges and Universities.	56	50.0 per cent.
Scotch ,, ,, ,, ...	32	28.6 ,,
Irish ,, ,, ,, ...	23	20.5 ,,
Madras University	1	
Total	112	

TABLE III.—*Showing the Proportion of the Vacancies Filled by the Candidates of each Country.*

Country.	Number of Successful Candidates.	Proportion of all Vacancies.
England	47	58 7 per cent.
Scotland	17	21 2 ,, ,,
Ireland	16	20.2 ,, ,,
Madras	0	—
Total	80	

TABLE IV.—*Showing the Relative Success of the Candidates of each Country in Proportion to the Respective Numbers.*

Country.	No. of Candidates.	No. Successful.	Proportion of Success to Candidates.
England	56	47	5 out of every 5.9 candidates.
Scotland	32	17	5 ,, ,, 9.4 ,,
Ireland	23	16	5 ,, ,, 7.2 ,,
Madras	1	0	
Totals ...	112	80	

TABLE V.—*Showing the Qualifications Held by the Candidates.*

English Candidates.		Scotch Candidates.		Irish Candidates.	
Conjoint Colleges alone	39	Conjoint Colleges alone	11	Irish Colleges ...	5
Conjoint and English Degrees	8	Scotch Degrees alone	21	Irish Degrees ...	18
Conjoint and Apothecaries' Society ...	1	Scotch and English Diplomas...	0		
Apothecaries' Society alone	1				
Apothecaries' Society and English Degrees	0				
English Degrees alone	7				
Total...	56	Total	32	Total	23

TABLE VI.—*Showing the Percentage of Candidates who passed the Qualifying Standard, including those who Gained Appointments.*

Countries.	No. who Passed the Standard.	Proportion to the Total.
English candidates..	50	89 2 per cent.
Scotch ,, ..	20	60.2 ,, ,,
Irish ,, ...	17	74.0 ,, ,,
Madras ,, ...	0	— ,, ,,
Total	87	Total percentage of men who qualified 77 per cent.

TABLE VII.—*Showing the Men who Failed Totally among the Candidates of each Country.*

Countries.	No. of Candidates.	Proportion who Failed Totally "Rejected."
English candidates..	56	10 0 per cent.
Scotch ,, ...	32	37.5 ,, ,,
Irish ,, ...	23	26.0 ,, ,,
Madras ,, ...	1	— ,, ,,
Totals	112	Proportion of all rejected 23 3 per cent.

TABLE VIII.—*Showing the Relative Success of Every Class of Candidate.*

Qualifications.	Number of Candidates.	Number Successful.	Percentage of Succes
English Conjoint Colleges alone...	39	33	85
English Conjoint Colleges and Oxford University	1	1	—
English Conjoint Colleges and London University	6	6	—
English Conjoint Colleges and Cambridge University... ..	1	1	—
English Conjoint Colleges and Apothecaries' Society	1	1	—
Apothecaries' Society alone ..	1	1	—
Durham University alone ..	4	2	50
Manchester University alone ...	2	1	50
Birmingham University alone .	1	1	—
Scotch Conjoint Colleges alone	11	6	54
Edinburgh University alone ...	15	7	46
Glasgow University alone ...	2	1	50
Aberdeen University alone ..	4	3	75
Irish Conjoint Colleges alone ..	5	3	60
Royal University of Ireland alone...	8	6	75
Dublin University...	10	7	70
Madras...	1	0	—
Totals	112	80	—

VOTE OF THANKS.

Sir P. HERON WATSON then proposed:

That the thanks of the Council be conveyed to the Director-General of the Medical Department of the Royal Navy, the Director-General of the Army Medical Service, and the Under Secretary of State for India respectively for the returns which they have respectively again furnished to the Council, with the request that these returns may in the future continue to be furnished to the General Medical Council.

This was seconded by Dr. MCVAIL and agreed to.

APOTHECARIES' SOCIETY, LONDON.

Sir HUGH BEEVOR proposed, Mr. MORRIS seconded, and it was agreed:

That Mr. Charles Stonham, F.R.C.S., be appointed as Assistant Examiner in Surgery to the Apothecaries' Society of London for a period of four years, *vice* Mr. Marmaduke Sheild, who retires by rotation.

REPORT OF THE EXECUTIVE COMMITTEE.

Dr. MACALISTER moved, Sir P. HERON WATSON seconded, and it was agreed that the following report from the Executive Committee with regard to the inspection and examination be received and entered on the minutes:

The Executive Committee reports that it has appointed Mr. Bryant to be Inspector of Final Examinations during the year 1904, and it recommends that, in view of the additional duties devolving on the Inspector in consequence of the reinspection of certain bodies, the salary of the Inspector for the present year should be £250.

Dr. MACALISTER said it would be remembered that the Conncil remitted to the Executive Committee the duty of appointing the Inspector. That was done by the Executive Committee on Tuesday, but the Standing Order provided that the stipend should be only £200 a year. The Executive Committee thought there were two exceptional circumstances in connexion with this case which made it desirable that the salary should be somewhat greater. The first was that, through the death of Sir George Duffey, only a half year's stipend was paid to him, and there was, therefore, £100 left, and some inspections were not complete. Mr. Bryant would have to complete those inspections, and he would also have to inspect over again the examinations of the University of London and University of Oxford, which had recently been ordered to be reinspected. Therefore his year's duty would include more than the year's duty for the original inspection, and the Committee recommended that the salary should therefore be £250.

Sir CHRISTOPHER NIXON seconded.

Sir VICTOR HORSLEY had no objection to raise with regard to the amount of the proposed salary, but he did not recollect that this matter had been remitted to the Executive Committee. After what had fallen from the Chairman of the Business Committee, he had no doubt it was; but he did not find it upon the minutes. He felt he must enter a protest against the appointment of Mr. Bryant. He understood that he was appointed for only one year.

The PRESIDENT remarked that that was so.

Sir VICTOR HORSLEY said that greatly mitigated any evil he imagined to exist from the appointment, but he thought

in appointing an Inspector for the final examinations, especially in surgery, a man ought to be appointed who was in touch with the schools and the hospitals. It was fifteen or sixteen years since Mr. Bryant resigned his position at Guy's Hospital, and he (Sir Victor Horsley) thought they could have done better by appointing a younger gentleman than one who was so recently a member of this Council.

Mr. GEORGE BROWN agreed with Sir Victor Horsley, and asked the Chairman of the Business Committee if Mr. Bryant would have anything to do with the Apothecaries' Hall in Ireland.

Dr. MACALISTER replied that he would not without a special appointment.

The PRESIDENT said he did not wish to reargue the reasons why Mr. Bryant was selected, as he had already given those in his address, and nothing that had fallen from any speaker had led him to alter his opinion.

Sir JOHN MOORE asked, in reference to the statement of the Business Committee that £100 had been saved owing to Sir George Duffey's illness and death, whether Sir George Duffey was appointed for the whole of the year 1903, because if he were, he (Sir John Moore) thought that Sir George Duffey's representatives were entitled to a certain proportion of the salary payable.

The PRESIDENT pointed out that by the Appointment Act the cessation of emoluments terminated on the death of the person holding the appointment.

Sir JOHN MOORE replied that he gathered from Dr. MacAlister that Sir George Duffey was paid for only the first half of the year, and he did not die until the middle of October.

Dr. MACALISTER remarked that when Sir George Duffey resigned, an arrangement was made for which Sir George Duffey expressed his most cordial thanks.

The resolution was then put and agreed to.

DENTAL BUSINESS.

Dr. MACALISTER then brought up the report from the Executive Committee on the dental business transacted since the last meeting of the Council, and moved that it be received and entered on the minutes.

Report.

1. The prescribed conditions having been duly fulfilled in each case, the names of the under-mentioned persons have been restored to the *Dentists' Register*, from which they had been erased in conformity with the provisions of Section XII of the Dentists Act, 1878:

Davis, Reuben	Sleigh, William H.
Neep, George	Wilkinson, Alice
Parsons, Ellis	

2. The Committee considered an application from Mr. James Dickson Hamilton, a registered dentist of New South Wales, requesting that his name might be placed on the Colonial List of the *Dentists' Register* of the United Kingdom, and directed that this application should be referred to the General Council, and that Mr. Muir Mackenzie should frame an answer for the consideration of the Council.

Dr. MACALISTER said this answer would be laid before the Council later.

3. The Committee also considered an application from Mr. Edwin Burton Roper, a dentist of British nationality but domiciled in France, requesting that his name might be placed on the Foreign List of the *Dentists' Register* in virtue of his French Diploma of Chirurgien Dentiste, which he had obtained after passing three examinations held by the Faculté de Médecine de Paris.

The Committee referred the application to the Dental Education and Examination Committee for consideration and report to the General Council during the present session.

This was the first instance of the kind, and the merits of the diploma would have to be investigated.

4. The Committee received from the Privy Council Office a copy of a circular respecting a Dental Congress at St. Louis to be held in August next.

5. The Committee received from the Colonial Office a copy of an Ordinance of the Orange River Colony on the subject of the registration of medical practitioners, dentists, chemists and druggists, midwives and nurses in that Colony, which embodied the provisions contained in a proclamation which had been transmitted to the Council in 1902. (Minutes, vol. xxxiv, p. 223.)

6. The Committee received from the Colonial Office a copy of an Act to consolidate and amend the law relating to dentists in Tasmania, and entered it on its minutes.

The Executive Committee expressed its great satisfaction that provisions were included in the Ordinance which might have been included in any legislation which might be introduced into this country, because it prevented unqualified practice in any of the departments of medicine, dentistry, and so on, and more than that, it took precautions which seemed to the Executive Committee sufficient to prevent practice by joint stock companies. It thought it well to communicate to the Secretary of State for the Colonies its satisfaction at the character of the Ordinance.

7. The Committee received from the Irish Branch of the British Dental Association a communication calling attention to a judgement in regard to medical or dental joint stock companies.

Dr. LINDSAY STEVEN seconded, and the resolution was agreed to.

Mr. GEORGE BROWN inquired whether it was intended to take any official action in regard to the last paragraph.

Dr. MACALISTER replied that the Executive Committee thought the matter of such importance that it should be considered by the whole Council.

Dr. MACALISTER proposed, Sir VICTOR HORSLEY seconded, and it was agreed that the following communication be received and entered on the minutes:

The Royal College of Surgeons,
Stephen's Green, Dublin.

We venture to draw your attention, as a member of the General Medical Council, to the decision of the Court of King's Bench (Ireland) in the case of "O'Duffy *v.* Jaffe," herewith enclosed. The action was taken under the Dentists Act of 1878, but the judgement of the Court demonstrates the total inadequacy of existing laws to protect the public from unqualified practice, under misleading titles, of medicine, surgery, or dentistry; inasmuch as any individual can place himself outside the penal operation of the Medical or Dental Acts by the simple expedient of forming a joint stock company, the Court holding that the Act as worded applies to a "natural person" only, and not to a "company." Furthermore, it appears that the title assumed by such company on its formation becomes its "own proper name," and there seems to be no legal means of restraining the assumption of any title (however misleading to the public), whether it be "Stiles, Doctors of Medicine," "Noaks, Physicians and Surgeons," or "Jaffe, Surgeon Dentists, Ltd."

In the judgement the Court consents to the view that "the general intention of the Legislature in regard to the protection of the public has been frustrated," and is unanimously of opinion that the phrasing of the Act does not enable it to "reach the mischief," and suggests that "the Legislature can, if it think fit, pass a statute specially directed against" it. We therefore respectfully ask you to support action on the part of the General Medical Council towards petitioning the Privy Council to initiate the necessary legislation.

The Council then went into *camera*.

Thursday, May 26th, 1904.

Sir WILLIAM TURNER, K.C.B., President, in the Chair.

DISCIPLINARY CASES.

A Divorce Case.

THE Council proceeded to the consideration of a charge against a registered medical practitioner to the effect that he had committed adultery with a patient—a married woman whom he was attending professionally—and that he had been found guilty by the decree of the Divorce Court. The charge having been read, the representative of the respondent opened the case and desired to read a statutory declaration made by her; the counsel for the defendant practitioner objected, and the objection was upheld by the Council. The counsel for the defendant then asked that the hearing might be adjourned in order that he might take steps for the prohibition of the inquiry. The Council having considered the matter *in camerâ*, resolved to adjourn the case until next session to give counsel for the defendant an opportunity for taking such steps as he might think necessary to question the Council's decision.

Alleged Canvassing.

The Council then proceeded to the consideration of the case of Harold Augustus Easton, of 92, Brigstock Road, Thornton Heath, registered as Mem. R. Coll. Surg. Eng. 1902, Lic. R. Coll. Phys. Lond. 1902, who had been summoned to appear before the Council to answer the following charge, as formulated by the Council's solicitor:

That you, being a registered medical practitioner have systematically sought to attract to yourself patients by the employment of persons to canvass on your behalf for subscribers to a medical club instituted by you, and by the distribution of the rules of the said club.

Mr. Muir Mackenzie appeared as legal assessor; Mr. Winterbotham appeared as solicitor to the Council; Dr. Hugh Woods appeared for the London and Counties Protection Society.

Dr. HUGH WOODS said that his Society had received complaints to the effect that wholesale canvassing of patients to join a medical club had been carried on in the neighbourhood of West Croydon. The result of inquiries instituted was now laid before the Council in the form of statutory declarations. The question was whether Dr. Easton had employed a canvasser to canvass the patients of other medical men to become members of the club which Dr. Easton had instituted.

Dr. Woods then read statutory declarations from a number of persons to the effect that they had been solicited to join the club, and that Dr. Easton had employed a paid canvasser. These facts, Dr. Woods submitted, clearly established a case for Dr. Easton to answer.

Dr. Easton, who appeared in person, stated that it was a fact that he had employed a person who collected subscriptions of members of a club which he had formed, but he was convinced that the proceedings which he had adopted were not canvassing such as had been referred to. He called Mr. Brisley, builder, formerly an insurance collector, who stated that Dr. Easton had engaged him as a collector and had paid him 20 per cent. of the entrance fees. He had strict instructions to do nothing in the nature of canvassing. He had had an experience of ten years, seven of which had been with one medical practitioner. He had done just the same in this case as in any other, and had not been found fault with. He denied that he had canvassed people to join the club in any way.

By Sir John Batty Tuke: He was a collector for doctors.

By Sir Victor Horsley: He had not taken any particular precaution against canvassing. He was anxious to put a shilling or two into his pocket, and for that purpose he went to people whether they were attended by medical men or not. At the time he was making his living as an insurance agent.

Mrs. Floodgate said she called on Dr. Easton about the club, and he gave her some leaflets in connexion with it. These she distributed among her friends, and they called for more. She did this on her own initiative.

Cross-examined by Dr. Hugh Woods: She only had four leaflets; one she gave to a woman, and the other she put in letter boxes. It was untrue that she had canvassed for Dr. Easton.

Dr. Hugh Woods, in reply, submitted that the evidence clearly proved that canvassing had taken place. Although Dr. Easton's contention was that it was not done with his authority, Dr. Easton, in engaging such a person as Mr. Brisley, must have known that he would canvass all and any person he thought likely to join the club, and, in fact, he did canvass in that way. The evidence, he (Dr. Woods) had read, and which had been called by Dr. Easton, gave the Council a clear view of had happened, and showed that Dr. Easton had wilfully permitted canvassing to be done on his behalf.

Strangers and parties were ordered to withdraw. On readmission:

The President announced the decision of the Council as follows:

That the facts alleged against Mr. Harold Augustus Easton—namely, that he had systematically canvassed for patients—had not been proved to the satisfaction of the Council.

The President added that, probably owing to his youth and inexperience, he had pursued a course of conduct which had brought him under the notice of the Council, and that he should be warned by that day's proceedings to be very careful in regard to his professional conduct in that respect in the future.

Case of Robert Fawcitt Granger.

The case of Robert Fawcitt Granger, registered as 85, Church Street, Whitby, with the triple qualification of Scotland, which had been heard by the Council on November 26th, 1903,[1] was further considered.

Mr. Granger appeared and submitted a certificate by Dr Robert Milne and also a statement by himself to the effect that he had found great difficulties to overcome in connexion with obtaining a practice; but he had been appointed visiting medical officer to St. Andrews Dispensary. He thought his prospects were much better than they had been for the last two or three years, and he had carried out the promise he had made to the Council in November, 1903.

Strangers were ordered to withdraw. On readmission:

The President addressed Mr. Granger as follows:

Mr. Granger, the Council has had before it Dr. Milne's letter, a letter from an Inspector of the Royal Society for the Prevention of Cruelty to Children, and one from yourself, and having deliberated on your case has decided not to direct the Registrar to erase your name from the *Medical Register*,

The President expressed the hope that the proceedings which had been taken would be a warning to Mr. Granger, and that he would give no cause for complaint as to his conduct in the future.

The "Dentists' Register" of New South Wales.

The Council then proceeded to consider an application from Mr. James Dickson Hamilton for registration as a dentist in the United Kingdom, considered by the Executive Committee on February 22nd, 1904, and by them referred to the General Medical Council:

On October 5th, 1903, an application was received from Messrs. Sparke and Angus, a firm of solicitors in Sydney, on behalf of Mr. James Dickson Hamilton, that he might be registered as a Colonial Dentist in the *Dentists' Register* under Section 8 of the Dentists Act, 1878, the grounds of the application being that he was already registered under the Dentists Act of New South Wales, and that this should be recognized, as they understood had been the case with the Victorian Act of 1887.

On the Council's instruction Mr. Muir Mackenzie had framed the following the following answer to Messrs. Sparke and Angus's communication.

Gentlemen,—In reply to your letter of November 23rd, 1903, I have to inform you that the application of Mr. James Dickson Hamilton, and the documents which accompanied it, and your letter, have been considered by the General Medical Council.

The Council does not recognize that the certificate under the Dentists Act of New South Wales (No. 45 of 1900), of which you have forwarded a copy to the Council, furnishes sufficient guarantee that a holder of the certificate possesses the requisite knowledge and skill for the efficient practice of dentistry or dental surgery.

The Council does not recognize a certificate issued under the Dentists' Act 1887 (Victoria) to a person who has no dental diploma or qualification other than the qualification of having practised dentistry before the passing of that Act. An application by the holder of such a certificate to have his name registered in the Colonial *Register* was refused by the General Medical Council on the ground that the Council could not recognize the certificate. The applicant appealed from the Council's refusal to the Privy Council, and the appeal was dismissed. The case will be found recorded in the published Minutes of the Council for 1896 (pp. 73, 152), 1897 (pp. 186, 193), 1898 (pp. 98, 274).

With reference to the case of Mr. Oldfield, his name was not registered in the Colonial *Register* on the ground that the Council had determined to recognize a certificate under the Dentists Act, 1887 (Victoria) issued to a person whose qualification was that he had practised dentistry before the passing of the Act. Mr. Oldfield made two applications for registration, the first of which was refused, but the second of which was granted, in the special circumstances stated in the second application, a special order being made for the registration of the name. The facts relating to Mr. Oldfield's applications will be found in the published Minutes of the Council for 1897 (pp. 216, 242, 162, and 247), 1898 (pp. 98 and 274), 1900 (p. 68).

The application of Mr. Hamilton has therefore been refused by the Council on the grounds above stated.

On the motion of Sir Victor Horsley, seconded by Dr. MacAlister, it was resolved:

That the answer to the application of Mr. James Dickson Hamilton be in the terms of the answer drafted by Mr. Muir Mackenzie.

Election of Committees.

Moved by Dr. MacAlister, seconded by Dr. Norman Walker, and resolved that the following nominations to Committees be approved:

Examination Committee.

English Branch Council: Dr. Pye-Smith, Dr. Payne, and Mr. Young.

Scottish Branch Council: Sir Patrick Heron Watson, Professor Findlay, and Dr. McVail.

Irish Branch Council: Sir Charles Ball, Dr. Little, and Sir William Thomson.

Education Committee.

English Branch Council: Dr. Norman Moore, Dr. MacAlister, and Dr. Windle.

Scottish Branch Council: Sir John Batty Tuke, Dr. McCall Anderson, and Dr. Mackay.

Irish Branch Council: Dr. Bennett, Sir Christopher Nixon, and Sir William Thomson.

Public Health Committee.

English Branch Council: Sir George Philipson, Mr. Power, and Mr. Jackson.

Scottish Branch Council: Dr. Lindsay Steven, Dr. McVail, and Dr. Bruce.

Irish Branch Council: Sir Charles Ball, Mr. Tichborne, and Dr. Bennett.

Dental Committee.

Mr. Morris in the place of Mr. Bryant. The Dental Committee to consist of: The President (Chairman), Dr. Charles Ball, Sir Patrick Heron Watson, Mr. Tomes, and Mr. Henry Morris.

Dental Education and Examination Committee.

Mr. Tomes, Mr. Brown, Dr. Lindsay Steven, Dr. Finlay, Sir Charles Ball, Dr. Bennett, and Mr. Henry Morris.

Pharmacopoeia Committee.

Dr. MacAlister, Dr. Payne, Sir George Philipson, Sir John Batty Tuke, Dr. McVail, and Mr. Tichborne.

Students' Registration Committee.

Sir Hugh Beevor, Dr. MacAlister, Sir John Batty Tuke, Dr. Mackay, Dr. Bennett, and Sir William Thomson.

The Council then adjourned.

[1] Supplement to the British Medical Journal, December 5th, 1903, p. ccxix.

Friday, May 27th, 1904.

Sir WILLIAM TURNER, K.C.B., President, in the Chair.

MINUTES.

THE minutes as altered were signed by the Chairman.

PRELIMINARY SCIENTIFIC EDUCATION AND EXAMINATION.

Dr. NORMAN MOORE moved that the report from the Committee on Preliminary Scientific Education and Examination be received and entered on the minutes. A joint Committee of the Education and Examination Committee was appointed to go into the whole question of preliminary and scientific education and examination. The report contained a valuable collection of information on the subject. With the aid of the President the Committee obtained information from all the licensing bodies of the United Kingdom, and from many medical and scientific institutions. Some of the medical schools in London, considering that they were a part of the University of London, intimated that they would reply through the University. The University had not asked each school to express an opinion, so that only one or two medical schools of London had actually replied to the Council. The others would have been willing to do so had the University seen fit to consult them on the matter. The answers had been carefully summarized, and there was no very great difference of opinion among the bodies, and the Committee, having thoroughly discussed and digested the reports, had drawn up eight recommendations, which they suggested should be communicated to all the licensing bodies. Those resolutions practically embodied what the licensing bodies and the teaching institutions approved, for though not absolutely unanimous their general agreement was obvious.

The motion was seconded by Dr. WINDLE, and this was agreed to.

RECOMMENDATIONS.

The Committee have carefully considered the whole question, and beg leave to recommend that the following resolutions be adopted by the Council, and communicated to all the licensing bodies:

I. That an examination in chemistry, in order to be sufficient, should comprise a written paper, a practical examination, and an oral examination.

II. That, in respect of chemistry, a synopsis of subjects should be issued by each licensing body; and that the scope of the examination in chemistry should not fall below that which has been indicated in the report of the Visitors, and has been generally approved by the licensing bodies.

III. That the examination in practical chemistry should not be limited to simple qualitative analysis, but should include easy preparations and simple experiments illustrating important principles.

IV. That an examination in physics, in order to be sufficient, should comprise a written paper and an oral examination, the latter to include practical questions on the use of physical instruments and apparatus.

V. That, in respect of physics, a synopsis of subjects should be issued by each licensing body; and should include the elementary mechanics of solids and fluids, and the rudiments of heat, light, and electricity.

VI. That elementary biology should be retained in the curriculum.

VII. That an examination in elementary biology, in order to be sufficient, should comprise a written paper and an oral examination, the latter to include practical questions on specimens and dissections and on methods of microscopical investigation.

VIII. That, in respect of elementary biology, a synopsis of subjects should be issued by each licensing body.

On the motion of Dr. NORMAN MOORE seconded by Dr. WINDLE, Paragraph I was agreed to.

Dr. NORMAN MOORE then moved and Dr. WINDLE seconded the adoption of Paragraph II.

Dr. MACALISTER said that the publication of a synopsis of subjects was useful not only to the student as a guide, and to the examiner as a control, but also to other bodies and to the Council itself in estimating the scope of examination. General approval had been given by the various experts of different licensing and public bodies to the outlined sketch of an examination in chemistry submitted to them by Dr. Campbell Browne.

Sir JOHN MOORE suggested that the words "or syllabus" should be inserted. That was the recommendation of the Irish Royal Colleges. A syllabus gave a little more information to the student than a synopsis.

Dr. NORMAN MOORE thought there was no objection to the addition of the words.

The resolution was then put as altered and carried.

Dr. NORMAN MOORE next proposed, and Dr. WINDLE seconded, Paragraph III.

Mr. TICHBORNE wished to add after the word "preparations" the words "simple volumetric analysis."

Dr. BRUCE seconded; it was an essential part of chemistry, and was not very difficult.

Dr. PYE-SMITH expressed the opinion that to make this compulsory would be to press things too far.

Dr. PAYNE thought that if volumetric analysis was not in some way introduced the syllabus would be defective.

Mr. GEORGE BROWN supported the amendment.

After some discussion,

The words as suggested by Mr. Tichborne were inserted, and the resolution was agreed to.

Dr. NORMAN MOORE then proposed the adoption of Paragraph IV.

This was seconded by Dr. WINDLE and agreed to.

Dr. NORMAN MOORE, in proposing Paragraph V, said that it was merely a reaffirmation of a resolution of the Council of many years' standing. The words "or syllabus" of course would be added.

Dr. WINDLE seconded and the resolution was carried.

Dr. NORMAN MOORE then proposed Paragraph VI, which he said perhaps of all the resolutions gave the greatest room for discussion. The reports received, however, justified the statement that the conclusion the Committee had come to was that which at the present time was the feeling throughout the world of medical education.

Dr. WINDLE seconded.

Dr. MACKAY said that if necessary he would move an amendment which would really embrace Paragraphs VI, VII, and VIII. The question of curriculum had not been really touched upon otherwise in the report. Many who were engaged in the instruction of medical students knew the difficulties into which during the first years of their studies medical students were plunged by the faults of the curriculum. While retaining elementary biology in the curriculum it should be excluded from the examination; but in his opinion the discussion on the subject should be postponed, and he moved as an amendment:

That the subject of biology should be retained in the curriculum, but it should not be regarded as necessary that a professional examination in the subject should be demanded, provided that the student has attended and duly performed the work of a satisfactory course of instruction in the subjeet as a part of the curriculum of a university or duly recognized college or school of medicine.

Sir JOHN BATTY TUKE seconded the amendment, especially as it brought before the Council a new principle, the principle of instruction without examination.

Sir VICTOR HORSLEY was going to move an amendment, when

Dr. MCVAIL, on a point of order, said Dr. Mackay's amendment was not relevant to Paragraph VI.

Dr. MACKAY thought the general principle should be discussed before going into the question of detail. He did not object to the subject of biology being retained subject to the limitation with regard to examination.

On the motion of Dr. NORMAN MOORE, seconded by Sir VICTOR HORSLEY, the Council went into Committee to consider Paragraghs VI, VII, VIII.

Dr. MACALISTER moved that Paragraph VI be a resolution of the Council, because it was not finally adopted by the Council until all the conditions were attached to it.

Sir VICTOR HORSLEY remarked that the question was an extremely large one, and of vital importance to the medical student. The amendment he was going to propose was:

That the further consideration of Paragraphs VI, VII, and VIII of the Report on the Preliminary Scientific Education and Examination be suspended, and that a Committee be appointed and constructed to report upon the course of study and synopsis of the subject of the preliminary scientific education and examination, with a special reference to the nature of biology as a subject of study and examination.

Applying himself as a hostile critic of the Committee, he thought the reference was far wider than the Committee appeared to have accepted. The recommendations of the Committee dealt only with the subject of examination; but certainly it was in their minds that the Committee was, in the terms of its remit, to consider the several questions raised, which included the old question of preliminary scientific education and examination. Nowhere in the report was any information on the subject given. It was a duty the Council owed to the licensing body to indicate what it said should be the course of study of subjects in these scientific examinations, and until the Council did that he thought it

had not done its duty towards the medical student. The only way to do that was to retain the Committee and ask it to report next session. The Council must have from the Committee advice and instruction, and it was with the view of obtaining that that he framed the amendment, which he thought covered Dr. Mackay's point.

Sir CHARLES BALL seconded.

Dr. MACALISTER thought it was quite impossible for the Council without taking expert advice and advice from many quarters to frame anything like an ideal, universal, and uniform syllabus on the subject. The inquiries made showed that the licensing bodies were almost unanimous that biology should be retained in the curriculum as a compulsory subject. If the subject were explicitly excluded by the Council from examination it would be soon excluded from the curriculum.

Sir WILLIAM THOMSON entirely approved of the suggestion for investigation. Dr. Mackay's suggestion was a most important one, and was entirely new, but if they applied it to biology they must apply it to other subjects in the curriculum. He would like the Council to suggest some means by which, if this became an instructional course, it should be a bona-fide one and should not be a farce. The Council should not associate itself with any arrangement which could be avoided by any corporation or teaching body; it should take care that its wishes in the matter, so far as possible, should be carried out.

Sir CHARLES BALL was of opinion that the matter was not in any way ripe for decision, and entirely concurred in the suggestion that there should be further delay.

Sir CHRISTOPHER NIXON agreed with Dr. MacAlister if they laid down a rule excluding biology as a subject of examination it would be excluded from the subjects of instruction; no student would take up a subject which was not examined into.

Dr. PYE-SMITH agreed with Sir Victor Horsley that it was a very vital question in the curriculum of the student, but he ventured to think it would be a great pity if the Council did not stand by what it had already done. It had gained a great deal of knowledge from the admirable report made by Dr. Windle and Professor Campbell Browne, and the report of the Committee which they were discussing was very valuable. He urged the Council not to let all that pass and adjourn this important subject until November. He deprecated very much trying what he might call experiments in this matter. The Council ought to act on the almost unanimous opinion of the licensing body and not try to fetter in a minute manner the way in which this subject was to be taught.

Dr. WINDLE supported the postponement of the consideration of the subject. The question was what was the best way to teach biology. Biology was essentially a growing subject, and one on which great elasticity should be allowed to teachers, and in which experiments should be tried; it was therefore difficult to draw up a syllabus. The difficulty with regard to those bodies which were examining but not teaching bodies could be got over by those bodies satisfying themselves that the instruction given in the schools was of a proper character. He agreed with Dr. Mackay that it was a subject which could be very well taught in the first year.

The PRESIDENT, at the request of Dr. MCVAIL, having explained the position in which the debate stood,

Dr. MACALISTER moved as an amendment that the Committee should not come to any decision at all on the subject. He thought it important that the one point should come before them—that elementary biology should be retained in the curriculum.

Sir VICTOR HORSLEY, on a point of order, submitted that this was not an amendment.

Dr. MCVAIL thought Dr. MacAlister's amendment was not a true one; but he was going to vote against Sir Victor Horsley's motion, as nothing had been said to show him how the Committee could bring up any satisfactory report. He contended that it was not possible for the Committee to lay down any such minimum syllabus of biology as the Council would be justified in making on requirement and in demanding that the licensing bodies should adhere to. He strongly advocated the retention of biology. Anything more retrograde than the proposal of Dr. Mackay he had not heard for a long time.

Dr. NORMAN MOORE said that in the discussions of the Committee the point Sir Victor Horsley had taken was not lost sight of. If the answers from the different licensing and teaching bodies were read it would be seen that the Committee, which was not composed of physiologists nor of biologists in the most exalted sense of either term, could not possibly have arrived at any authoritative conclusion from those answers. All the Committee could do was to put those answers before the Council, and he thought that no profit would come out of their again discussing the subject. He concluded by moving as an amendment to Sir Victor Horsley's resolution that, instead of postponing the consideration of the report of the Committee, Paragraphs VI, VII, and VIII be approved by the Council in Committee.

Mr. HENRY MORRIS seconded the amendment because it seemed to him that to refer the matter again to the Committee would not bring to the Council any further information. Looking at the questions which had been sent out, the large number of answers which had been received, the great unanimity of these answers, and the very admirable, concise, and clear report itself, further information could not be expected six months hence. He could not but think that any subject which was introduced into a curriculum which was not followed by an examination would be a dead letter.

Sir VICTOR HORSLEY, on a point of order, submitted that the amendment was only an amendment to the end and not the beginning of his motion. He did not consider it was a proper amendment. In his previous remarks he only dealt with examination and not with courses of study. He had therefore in his motion put foremost the advisability of the Committee considering the courses of study in each of the three subjects—chemistry, biology, and physiology.

The PRESIDENT pointed out that the first part of Sir Victor Horsley's motion was that the further consideration be suspended—that was to say, postponed—with a certain object, and Dr. Norman Moore's amendment was that it be not postponed.

Sir VICTOR HORSLEY said that was his point; it was a direct negative and not an amendment.

The PRESIDENT replied that the amendment went on to say that Paragraphs VI, VII, and VIII should be approved.

Sir VICTOR HORSLEY said that was a separate resolution.

The PRESIDENT thought perhaps the best way would be to divide the motion and the amendment into two parts.

Sir VICTOR HORSLEY remarked that he was quite willing.

The PRESIDENT suggested that the word "postponing" in the amendment should be altered to "suspended."

Sir VICTOR HORSLEY said that showed it was not an amendment.

Dr. NORMAN MOORE wished his amendment to remain as he had drawn it.

Dr. MCVAIL though a way out of the difficulty would be found by allowing Dr. Norman Moore's amendment to be carried, because when it was put as a substantive motion it would be open to Sir Victor Horsley to move an amendment and bring in the points he wished to raise.

After some further discussion, the PRESIDENT put Dr. Norman Moore's amendment, when 19 voted in favour of it and 10 against. He thereupon declared it carried, and then put the amendment as a substantive motion.

Dr. MACKAY wished to move an amendment for the purpose of taking the opinion of the Council upon his own proposal.

Dr. MCVAIL thought notice ought to be given, and that it should come on later as a special business. After a little discussion it was arranged that either Dr. Mackay or the Chairman of the Business Committee (Dr. MacAlister) should draft a motion and put it on the paper.

Sir VICTOR HORSLEY, speaking to the motion then before the Council, quite agreed that elementary biology should be retained in the curriculum; that was to say so far as he could frame his own ideas upon the subject. Before he agreed to the resolution he wanted to know what he was voting for and what was meant by elementary biology. Paragraphs VI, VII, and VIII referred only to examinations, but the curriculum consisted of more than that; it contained courses of professional study and examinations. He was quite ready to vote for the Paragraphs on the ground of pure examinational requirements, but he must have some sort of idea what the subjects or courses of study for those examinations were. He asked whether, if he voted for Paragraphs VI, VII, and VIII, that would preclude him from bringing forward the first half of his original motion.

The PRESIDENT took it that there was nothing in Paragraphs VI, VII, and VIII to define what the course of elementary biology was to be. It was merely a general proposition. The feeling of the Committee, of which he was Chairman, was that they should not define elementary biology in any minute sense, but that it should be left to the educational bodies and the licence-giving bodies themselves to stipulate what course of study they would require

for their examinations. The Committee felt it was not for them to prescribe any general system.

Sir VICTOR HORSLEY said his only object in asking the question was that he should not prejudice his position by voting as he intended to do for Paragraphs VI, VII, and VIII. The recommendation of the Committee only dealt with examinations, and not the courses of study. He wanted to take the opinion of the Council by a clear vote on the matter, and he asked whether he should be able to do so after Paragraphs VI, VII, and VIII had been passed.

Dr. MCVAIL suggested that Paragraphs VI and VII should be agreed to, and that Paragraph VIII should stand over.

Sir VICTOR HORSLEY did not agree that the Council's curriculum only included the subjects necessarily examined into, because it contained subjects which might not be examined into in the true sense of the word. Paragraph VII would be very important, because it placed biology on exactly the same footing as chemistry and physics; but personally he did not feel that it should be on the same footing.

Dr. Norman Moore's amendment was then put as a substantive motion and agreed to.

On the motion of Dr. NORMAN MOORE the Council then resumed.

On the motion of Dr. MACALISTER, seconded by Dr. NORMAN MOORE, the report of the Committee of the whole Council that Paragraphs VI, VII, and VIII be adopted by the Council was agreed to.

Dr. NORMAN MOORE moved, and Mr. HENRY MORRIS seconded, and it was agreed, that Paragraphs I to VIII adopted by the Council be communicated to all the licensing bodies.

Dr. MACKAY moved:

That the Committee be reappointed, and that the following suggestions submitted to the Council should be referred to them for report. The suggestion was that the subject of biology should be retained in the curriculum, but that it should not be regarded as necessary that a professional examination in the subject should be demanded, provided the student has attended and duly performed work in the subject as a part of the curriculum at a duly-recognized college or school of medicine.

Dr. NORMAN MOORE seconded.

Professor FINLAY thought it a pity to make the reference too narrow, and that it should be enlarged so that the Committee should take up the question of non-examination subjects generally.

Mr. HENRY MORRIS thought the general principle should be considered by the Committee as to whether it was or was not desirable that subjects that were not to be examined into should be included in the curricula, and if Professor Finlay moved an amendment to that effect he would be happy to second it.

Dr. LINDSAY STEVEN agreed that it was a mistake to narrow down so important a principle to one subject alone, and he was willing to support any amendment which would make the reference general.

Dr. BRUCE hoped Dr. Mackay would modify his motion.

Dr. CATON expressed the opinion that the subject was so extremely important and carried with it such weighty issues, that the application which appeared to be now urgently necessary in the case of biology might be lost sight of altogether by the inclusion of other subjects.

Professor FINLAY moved and Mr. HENRY MORRIS seconded:

That the Preliminary Scientific Committee be reappointed, and instructed to consider the report as to the advisability of dispensing with examination in the case of any of the subjects in which courses of study are prescribed by the licensing bodies.

A discussion then took place as to the advisability of sending the resolutions to the licensing bodies while at the same time that they were being remitted to the Committee for further consideration and report.

Dr. BENNETT moved the previous question on the amendment as follows:

That the Council instead of proceeding to deal with the amendment do pass to the next item on the programme of business.

This was seconded by Dr. MCVAIL. On the motion being put 13 voted for and 14 against, and it was declared lost. At the request of Sir P. HERON WATSON the names and numbers were taken down.

Dr. MACKAY, after consultation with Dr. MACALISTER, desired to withdraw his motion and put it on the programme for consideration on the next day.

Professor FINLAY would not assent to this course being adopted as he considered it a waste of time.

The amendment was then put when 16 voted for and 12 against.

The PRESIDENT declared the amendment carried.

Dr. MCVAIL requested the names and numbers to be taken when 16 voted for, 12 against, 2 did not vote and 2 were absent.

The PRESIDENT then put the amendment as a substantive motion and declared it lost.

The names and numbers being taken down 13 voted for, 15 against, 2 did not vote, and 2 were absent.

Sir VICTOR HORSLEY and Dr. MACKAY gave notice of their intention to move resolutions on the subject, and the Council adjourned.

Saturday, May 28th, 1904.

Sir WILLIAM TURNER, K.C.B., President, in the Chair.

THE CONJOINT BOARD IN ENGLAND AND THE FIRST YEAR.

The PRESIDENT stated that the first item of business consisted of certain communications from the Royal College of Physicians of London and the Royal College of Surgeons of England. Those communications were as follows:

(*a*) From the Royal College of Physicians of London.

Royal College of Physicians,
London, S.W.,
April 30th, 1904.

Dear Sir,—I am directed by the President and Fellows of this College to forward to you, for the information of the General Medical Council, the following resolutions and synopses having reference to the first year of the curriculum of professional study, and the subjects of and mode of conducting the first professional examination of the Conjoint Board in England, which have now been adopted by this College and by the Royal College of Surgeons of England.

These resolutions and synopses will be incorporated in the Regulations of the Conjoint Board, and take effect from March, 1905.

I am, dear Sir,
Faithfully yours,
EDWD. LIVEING, M.D.,
Registrar.

H. E. Allen, Esq.,
Registrar, General Medical Council.

COURSES OF INSTRUCTION.

1. That a minimum length of courses be required in Chemistry, Physics, and Biology before candidates are admitted to examination in these subjects.

2. That the minimum course in the several subjects be:

In Chemistry 180 hours' instruction and laboratory work.
In Physics 120 ,, ,, ,, ,,
In Biology 120 ,, ,, ,, ,,

3. That these courses need not run concurrently, nor be completed within one year.

4. That these courses may be commenced or attended before the required Preliminary Examination in general education is passed.

5. That study at an institution other than a recognized medical school be counted for not more than six months of the curriculum.

6. That the study of Anatomy and Physiology be not recognized until aster the First Examination in Chemistry, Physics, and Biology has been passed.

7. That no student be admitted to examination in Medicine and Surgery until he has completed five years of professional study after passing the Preliminary Examination in general education, towards which six months' study at a recognized Institution may be counted, if taken subsequently to passing such Preliminary Examination.

FIRST PROFESSIONAL EXAMINATION.

That Part I. Chemistry, Part II. Physics, Part III. Biology, and, at the option of the candidate, Part IV. Practical Pharmacy, be the subjects of the First Examination.

CHEMISTRY.

1. That the paper in Chemistry do consist of nine questions, six to be answered and no more, for which three hours shall be allotted.

2. That the time for the Practical Examination be extended from two to three hours.

3. That the use of books and tables be allowed in the Practical Examination.

PHYSICS.

4. That there be a separate paper in Physic consisting of six questions, four to be answered and no more, for which two hours shall be allotted.

5. That there be a *viva voce* Examination on the use of Physical Instruments.

6. That candidates be required to pass in both Chemistry and Physics at one and the same time; that the marks awarded in Chemistry and Physics be considered together; and that candidates who obtain 40 per cent. of the total of the two subjects shall pass, provided that they obtain not less than 20 per cent. in either subject.

BIOLOGY.

7. That, in addition to the *vivâ voce* Examination, there be a paper in Biology, for which two hours shall be allotted, consisting of six questions, four to be answered and no more.

8. That each candidate be examined orally for 15 minutes.

Then follow synopses.

(*b*) From the Royal College of Surgeons of England.

Royal College of Surgeons of England,
Lincoln's Inn Fields,
London, W.C.,
May 2nd, 1904.

Dear Sir,—With reference to previous correspondence between the General Medical Council and this College regarding the regulations of the Conjoint Examining Board in England for the first year of the curriculum of professional study and the First Examination, I am now directed by the President to forward to you, for the information of the General Medical Council, the accompanying copy of resolutions and synopses, which have been adopted by this College and by the Royal College of Physicians of London.

I am to add that the resolutions and synopses will, in due course, be incorporated in the regulations of the Board, and will take effect from March, 1905.

I am, dear Sir,
Yours faithfully,
S. Forrest Cowell,
Secretary.

H. E. Allen, Esq., Registrar, General Medical Council.

*** The information as to the courses of instruction and First Professional Examination is identical with that from the Royal College of Physicians.

(*c*) From the Royal College of Physicians of London, enclosing a copy of the full regulations of the Examining Board in England as now revised:

Royal College of Physicians,
London, S.W.,
May 13th, 1904.

Dear Sir,—Referring to my previous letters for a statement of the circumstances which have been the cause of unavoidable delay in the matter, I am glad to be able at length to send you a reply to the letter of Sir William Turner, dated December 5th, 1903, addressed to myself as Registrar of this College.

In that letter a series of questions, raised by a Report of the Visitors of the Council on the Examinations in Chemistry, Physics, and Biology, held by the Licensing Corporations in the United Kingdom, were submitted for observations thereon by the College. I now enclose, by direction of the College, for the information of the President and Council, a copy of the questions with the answers to them in a parallel column adopted at a general meeting of the Fellows held yesterday, May 12th.

I am requested to enclose at the same time a copy of the Regulations of the Examining Board in England, revised in accordance with the amended scheme of instruction and examination in Chemistry, Physics, and Biology forwarded with my letter of April 30th last; also lists of (1) Schools, other than Medical, recognized by the Royal College for Instruction in those subjects; (2) Recognized Medical Schools; (3) Recognized Preliminary Examinations in subjects of general education.

I am, dear Sir,
Faithfully yours,
Edward Liveing, M.D.,
Registrar.

H. E. Allen, Esq.,
Registrar.

Dr. Norman Moore moved, Mr. Henry Morris seconded, and it was agreed that these communications be received and entered on the minutes.

Sir Victor Horsley then moved:

That the courses of study laid down in the new regulations of the Examining Board in England by the Royal College of Physicians of London and of the Royal College of Surgeons of England taking effect in March, 1905, are, in the opinion of this Council, insufficient.

He said he felt it was his duty to put this motion on the paper because he moved in a previous session a resolution to which the Council agreed, namely, that the then courses of study and examinations of the Conjoint Board of England were insufficient. At that session they were given to understand in the course of the discussion that the Conjoint Board of England, or rather its constituent parts, were considering this matter, and that they had already published a kind of preliminary account of what they meant to do, and it was obvious that that kind of preliminary account satisfied the members of the Council to a very large extent; at any rate the matter proceeded no further at that time. The members of the Council had now before them these new regulations, the synopses relating to those regulations. Synopsis and course of study ought not to be regarded as synonymous terms. Synopsis was only part of the documents relating to a course of study, the details of the course of study were of importance, and required a great deal of consideration. He should like also to make a correction with regard to something that had occurred on the previous day. When he moved a certain resolution he spoke of the "requirements" of the Council, and Dr. Norman Moore interrupted him and said the word should be "recommendation." He had accepted the correction at the time because he did not wish to haggle over the word, but of course Dr. Norman Moore knew perfectly well that the word used by the Council in speaking of its curriculum was "requirements."

Dr. Norman Moore said he was not aware of it.

Sir Victor Horsley replied that he was afraid that Dr. Norman Moore did not know the principal document of the Council, which laid down what the Council required; the word used was "requirements." The Council was the supreme authority on medical education. Dr. Norman Moore and Mr. Henry Morris were there to tell them it was not. In that respect there was a variance of opinion that the courses of study and the examinations were "required" by this Council. That governed the position of matters, as it appeared to him. The communication from the Royal College consisted of two parts—it dealt with the courses of study and it dealt with the examinations. It told them what the Colleges proposed to do with each of those two parts. His resolution only related to the first part, namely, the courses of study, because he personally was quite satisfied that the details of examinations coincided practically with what the Council had passed on the previous day, but then came the fundamental question, what were the courses of study for a student after he had registered himself and shown that he was possessed of the requisite scientific knowledge. He did not think that biology deserved the same time as physics, but when he looked at paragraphs 3, 4, 5, 6, and 7 of the communication from the Colleges, he found the opposite of what he expected to see after the discussion at the last session. At the last session he really thought, from what fell from Dr. Norman Moore and others, that a kind of *modus vivendi* was being arrived at in the minds of the members of the Council. But they found that, with the one exception of halving the year, precisely the points to which the Council had taken exception in the past, and had voted against, were again put forward; in other words, that the previous debates of this Council, and the money of the profession that had been expended on this question had been thrown away if these regulations were now to be accepted by the Council as adequate. Take No. 3: "That these courses need not run concurrently nor be completed within one year"; that was to say, in other words that they might begin at any age when a boy was at school, even the age of 10. No. 4 was: "That these courses may be commenced or attended before the required preliminary examination in general education is passed." He was quite sure he was reflecting the opinion of the majority of the Council when they laid down that the curriculum of education of medical students should be divided in an orderly manner; that he should have done with his preliminary education; that he should then take his general scientific education, and then go on with anatomy and physiology. The Council had decided against that very No. 4. With regard to No. 5, that was the only concession that the Colleges had made; they had knocked off six months of a student's school life, and the Colleges only asked the Council to recognize six months. That, therefore, did not affect the general issue. No. 6 showed the difference the Colleges were making in their treatment of the scientific education of the student on the one hand and his education in anatomy and physiology on the other. To his mind the scientific education of the student was of as great importance as learning anatomy and physiology correctly. His general education, in a sense, ought to be treated on exactly the same footing. The Colleges said that anatomy and physiology were not to be recognized until the scientific part had been got rid of. Precisely the same treatment ought to be meted out to the scientific part of the examination if it was of equal importance. If the Colleges took the line that it was not of such importance, that was a legitimate position; but of that they must satisfy the Council, because the Council had decided the opposite. No. 7 showed that the curriculum, as the majority of the Council understood it, was definitely to be evaded by the Royal Colleges. The time was not to be five years, but practically $4\frac{1}{2}$ years. He would not labour that point because it had been discussed in the Council again and again. Coming back to general principles, he said it was clear that these regulations failed to carry out what had been laid down, after long debates, for nearly ten years. He submitted, therefore, that whatever step the Council took through its Committee in regard to preliminary scientific education, it ought not to accept these regulations as being sufficient.

Sir William Thomson seconded.

The President asked if any members wished to make any remarks.

Dr. BRUCE thought they should hear something from the representatives of the Colleges.

Mr. GEORGE BROWN also thought that the speech they had just heard deserved some reply.

Dr. MCVAIL desired to draw Sir Victor Horsley's attention to the minutes of the Council in December, 1894. The first great point in dispute between the General Medical Council and the Royal Colleges in England was that the latter were admitting men who had taken their scientific courses before they had passed their preliminary examination. That was keenly felt for two or three years, but in the end the Council gave way upon the point, and authorized any body to admit men who had taken those courses prior to the preliminary examination, on condition, however, that the curriculum should be five years from the time of registration. The next great subject in dispute was in regard to the institutions at which these subjects might be studied. That began about 1898, within a few years after conceding the other point to the Royal Colleges. He thought Sir Victor Horsley would see that the minutes did not bear out his view of the requirements of the Council. He agreed with Sir Victor Horsley in principle that these subjects should be taken after the preliminary examination was passed, but the Council for nine and a-half years had practically conceded that point to the Royal Colleges.

Dr. MACALISTER thought it was desirable to emphasize these points. A new departure had been made by the Royal Colleges themselves. It was very important for the Council to consider whether or not the substance of what it had been contending for had now been obtained even although the form in which it was presented might be different. First of all this was the first time that the length of a course of instruction in chemistry, physics, and biology had been prescribed. The discussion between the Council and the Colleges as to what it should be, whether ordinary school work or special lectures and at medical schools turned very largely on the question of what was the kind of instruction that was given at ordinary secondary schools, not whether the appliances were adequate, but whether the instruction received by the boy was adequate. On that point the inquiry made by the Education Committee seemed to afford evidence that much was still to be desired in the requirements of the Royal Colleges in that respect. It appeared that in some schools the number of hours a week given to the subject were not sufficient to make any student thoroughly acquainted with the subject. But now the Colleges proposed that the minimum course in chemistry should be 180 hours instruction and laboratory work, in physics 120 hours, and in biology 120 hours. Looking at what happened in ordinary medical schools and in universities and other institutions for higher instruction, he had no hesitation in saying that the minimum course was at least equal, and in many cases he would say superior, to what, at present, was received by the ordinary medical student so far as duration was concerned. Therefore the Council might be assured that such instruction as was required by the Royal Colleges on those three subjects would be comprehensive and cover a sufficient amount of time. The second point was that even if a student spent three years in that way he would not get the credit for the three years' study or even one but at the most six months. It was quite true that he might pass his preliminary scientific examination immediately after his preliminary examination in arts, but that was permitted by their regulations, and was not contrary to anything the Council had laid down; the course of instruction, however long it might be, would not be reckoned as more than six months. Lastly, it could not even be reckoned as six months, unless the six months had been taken subsequent to the passing of the preliminary examination. That brought it into line with the recommendations of the Council. The Royal Colleges had gone further than that. They had laid down a regulation, which did not exist in its full severity in any of the courses that he knew of, and that was, that until the student had passed his examination in chemistry, physics, and biology, no study in anatomy and physiology would be recognized at all. All those who were familiar with medical education knew that it constantly happened that a student took the courses and counted them, but the Royal Colleges said that no one should begin that study as a requisite element in the curriculum until he had passed the first examination. Therefore he could not help thinking on the whole, although the Colleges had not put themselves exactly in line with what the Council had laid down, the conditions now laid down by the Colleges were more drastic than the Council would have been prepared to insist upon. He thought that although the conditions might not be perfectly happy in their form, it would be unjust for the Council to say that the conditions were insufficient.

Mr. GEORGE BROWN would have been glad if the motion had been in such a form that a vote might have been taken on the regulations *seriatim*, instead of condemning them *en bloc*; but if they were not taken in that way, he should vote in favour of Sir Victor Horsley's motion.

DR. WINDLE said that as to the use of the word "requirements" it simply meant that when the General Medical Council laid down something as a requirement if that was not carried out the Council was at liberty to report the body to the Privy Council. He thought that the proposed course met a great many of the difficulties previously felt in connexion with these examinations. The point which principally affected him previously was that there were no definite instructions given as to the courses. That came out clearly in the reports. That must have been a new fact to the members of the Management Committee of the Conjoint Board. They could not have known that, or they would have given some guidance to these institutions. Now they had full guidance—first, as to what was the length of time; and, secondly, they had information as to the kind of subjects they were required to teach. Neither of those things had previously been before the bodies. He was perfectly certain they would be able to carry out those instructions, but he regretted that some regulation was not laid down as to the length of time over which this instruction might be spread, because there was something to be said for intensity of instruction as well as for length. He thought, however, if it was looked at from a common sense point of view it was extremely unlikely that any boy would go up for examination in chemistry and succeed who had spread his one hundred and eighty hours over six years' work; if it did occur the boy would be a very brilliant boy. Therefore he did not regard that as a reason for considering the regulations insufficient. He thought the Council had got now from the Conjoint Board a very great deal more than it got from the London University, about which no complaint was heard, and he saw no reason to regard the instruction as other than sufficient. Then with regard to Clauses 6 and 7 it was perfectly true that the student might obtain his qualification in four years and six months after leaving school, but how many would do so? When this regulation had been in operation a few years he should like a table showing the length of time taken by the student in carrying it out; because he thought it would be found to come to a six years' instead of a five years' curriculum. He quite agreed with Dr. MacAlister that although the regulation in one respect did not perhaps conform with the letter, it more than conformed with the spirit of the recommendation of the Council, and under those circumstances he could not give his vote that the regulation was insufficient.

Sir CHRISTOPHER NIXON said he should give his vote against Sir Victor Horsley's resolution because he thought the position of the Colleges very favourable for medical education, as it emphasized the principle that the subjects of chemistry, physics, and biology might be taken before passing the preliminary examination. He was inclined to support the action of the Colleges in this matter. He thought they had given way very considerably indeed, and the differences between the Colleges and the Council were very trivial.

Dr. MACKAY said, as he understood the matter, there was a certain licence given to candidates for what might be called free preliminary study, and that study was under two conditions. It might be in the medical school or university, and in that case the whole medical sciences might be taken in the medical school or university before the preliminary examination was taken. If they were taken in an institution other than a medical school he understood that six months of such study was allowed to count, and that six months must be after passing the preliminary examination. As a matter of fact, no study in any institution other than a medical school was requisite prior to the passing of the preliminary examination.

Dr. NORMAN MOORE pointed out that it would count as part of the medical curriculum whenever it was carried out. The five years could not begin till after the preliminary examination in Arts was passed, whenever the study was begun.

Dr. MACKAY, continuing, said that Sir Victor Horsley remarked that a student might begin to study at the age of 10, but he thought the age would more probably be 16, and there would be very few at that age even. He thought that in sub-

stance these regulations did not transgress any of the regulations of the Council; on the other hand, he thought they were in keeping with all it had laid down.

Sir John Batty Tuke considered the regulations of the Colleges were the result of an earnest and magnanimous effort on the part of the Colleges to bring themselves into line with the Council. The regulations of the Colleges exceeded considerably those of any other body, and he wished most sincerely that all the bodies in the country would come up to the same line. He could not see that there was any justification for such a resolution as was now before the Council, and he should certainly vote against it.

Sir P. Heron Watson, in regard to No. 7, which stated that "no student be admitted to examination in medicine and surgery," and so on, wished to know why midwifery had been left out.

Dr. Norman Moore replied that no alterations had been made in the regulations about midwifery.

Mr. Henry Morris stated that candidates were admitted to midwifery examinations at the end of the fourth year, but that they were not admitted to medicine and surgery until the five years were completed, and they could not get a diploma in anything until they had passed in all the subjects.

The President rather thought that the words should be "in the subjects of the final examinations," and inquired of Dr. Norman Moore if his College divided their final examination into two parts with an interval of a year between midwifery, medicine, and surgery.

Dr. Norman Moore replied that it was not compulsory. The regulations were sent to the Council every year, and this point had not been raised before. If it was not regular, no doubt the Colleges would immediately alter it. This was a point on which there was a considerable difference of opinion.

Dr. McVail thought the matter was quite clear from the regulations, and he was afraid that Dr. Norman Moore had not understood them. They could present themselves in midwifery at the end of four years, but they could not present themselves for medicine and surgery until the end of five years. He thought that was in accordance with the requirements of the Medical Act, which regarded medicine, surgery, and midwifery as being all taken together. He thought probably the Colleges might be continuing some old arrangement, but now that Dr. Norman Moore's attention had been called to it he would no doubt attend to the matter.

Dr. MacAlister pointed out that the whole subject was discussed in 1890, and the Council got an opinion from the legal adviser, which was communicated to all the bodies and acted upon by many of them. According to that opinion, what Parliament meant was that each candidate should satisfy the examining body that he was qualified in each of the subjects; that the examination must be one examination, in the sense that one medical authority must conduct the whole examination; that a student must be examined in all three subjects by one medical authority, but there was nothing to prevent the medical authority which held the examination from separating the parts of the examination and holding them at different times.

Sir William Thomson said he had not intended to speak until after he had heard the representatives of the Colleges, but as they had not favoured the Council with any observations, and the matter was about to close, he should like to say a few words. He was not sure that if he had drawn up the notice of motion himself he should have put it in the precise terms in which it now appeared, but to the spirit of it he was in entire accord. This matter was a very old and very painful story during all the years that he had been on the Council. When he was a very young member of the Council he had protested against the action which these two English Colleges had taken in assuming to themselves a position hostile to the views and rules which this Council had laid down, and which this Council insisted that other bodies less strong, perhaps, and less pugnacious, should carry out. That always seemed to him to be an extraordinary position, and, as the Council knew, this matter had come up year after year. That was the position to-day. After years of conflict and bombardment they were in this position, that, after telling the Council last year that the Colleges were bringing in a scheme to satisfy all the Council's requirements, they had brought in a scheme to-day which, although it had been described as being entirely satisfactory in spirit, yet still allowed the Colleges to retain the position that they had all along maintained—a position of independence of interpretation and independence of action in regard to the Council. He had said more than once before that either the Council had the power to deal with educational matters or it had not. If it had the power then some respect ought to be paid to the views which it from time to time expressed and to the regulations which it submitted for the guidance of licensing bodies. Some of those who had spoken had maintained that the regulation that had been brought in was one that in spirit really did more than the Council had ever required, and that these bodies, which had been wandering sheep in the past, had come back into the fold and were to be used as an example to other bodies. He was not prepared to accept that position. It was true that they came in but they said "We will have four years and six months as the time." He supposed the Council, as it had adopted the views of the Colleges on other occasions, would accept that position, but he did not think that was a satisfactory position for the Council to be in. The view he held of the matter was that if there was to be perpetual wrangling over this subject, it would be far better for the peace of the Council and the various bodies and far better for the higher education of their students if these subjects were made the subjects of an entrance examination, and the true professional subjects limited to a minimum of four years. That was the position he could understand the Council taking up, but as it was at present in his opinion the relegation of these subjects (and the Council had agreed to it, under certain conditions he was sorry to say) to various non-medical schools—institutions they were called—many of them were at all events recognized as grammar schools—was derogatory to the whole system of medical education. That being the present position they were simply perpetuating it, and if it were proposed that they should cut off all these subjects from the medical course altogether he should be a strong supporter. It would be a great deal better for the whole system of medical education, and would take away what was to his mind a blot on the whole scheme. The interference with the general education of the pupil before he came to medicine was a very unsatisfactory state of things. He held that the attitude of the Colleges to the Council was not what it ought to be. They were old and distinguished bodies, and they ought to be the leaders in acquiescing and acknowledging the authority of the Council. They ought not to set the example of resistance to the regulations that were made by a body which, at all events in the opinion of the Council itself, was a superior body even to the English Colleges. If they had suggestions to make, the Council would always receive them, and perhaps even adopt them; but what they wanted to arrive at was a scheme that would be best for the development and promotion of medical education, and he hoped that in the future the Colleges would come absolutely into line with the Council.

Sir Victor Horsley, in reply, said Dr. McVail had unintentionally done him a great injustice. The resolution of December, 1894, which dealt with the teaching institutions recognized by the licensing bodies, had been entirely set aside by the subsequent action of the Council. The question was where the courses of study were to be carried out, and six months ago the Council said that these schools *en bloc* were unsatisfactory.

Dr. McVail pointed out that while voting against the resolution he was in no way giving an opinion as to the schools; he was thinking of what was in the document sent by the Royal Colleges, where not a word was said with regard to any particular institution.

Sir Victor Horsley maintained that the principle of teaching institutions was in their minds, although not expressly stated, and it was that principle which had been affirmed year after year by this Council which was directly negatived by these proposed regulations. He wanted to dissociate himself from the idea that the differences between the Council and the Royal Colleges were trivial; the Royal Colleges were in the position that they could recognize any institution they liked. The courses of study were not sufficiently safeguarded by the Royal Colleges, and he took the vote simply from a public point of view, and, as he originally thought, the view of consistency of the Council.

The resolution was then put and declared lost.

At Sir Victor Horsley's request the names and numbers were taken down, when it appeared 6 voted for, 22 against, 3 did not vote, and 1 was absent.

Mr. George Brown moved, and Dr. Bruce seconded:

That the scheme of courses of study contained in the new regulations of the Examining Board in England by the Royal College of Physicians of London and the Royal College of Surgeons of England be referred to the Education Committee for consideration and report at the November session.

The PRESIDENT, in reply to Sir CHRISTOPHER NIXON, said the vote on Sir Victor Horsley's motion did not involve the implication that the new regulations were sufficient.

The motion was put and declared lost.

At Mr. GEORGE BROWN'S request the names and numbers were taken down, when 11 voted for, 13 against, 7 did not vote and 1 was absent.

VISITATION OF PRELIMINARY SCIENTIFIC EXAMINATIONS.

Sir P. HERON WATSON moved, and Dr. MCVAIL seconded:

That the Council complete the visitation of the Preliminary Scientific Examinations held by the bodies mentioned in Schedule A by appointing Visitors to visit these examinations in the Universities.

Dr. MACALISTER suggested that the Council might postpone the visitation till next year, and give the bodies an opportunity to consider the new regulations.

Dr. MACKAY thought there was no necessity at the present moment to continue the inspection of preliminary scientific examinations.

Sir JOHN BATTY TUKE placed such confidence in the work of the universities that he considered it unnecessary to go to the trouble and expense to prove what the Council must know was satisfactory.

Dr. NORMAN MOORE said that when the inspection was undertaken by the Council the intention was to review the whole subject of education, and to give it up when one part—and a very essential part—had come to an end, would appear to put the Council in the unpleasant light of not having carried out a general intention but only a particular one.

Dr. LINDSAY STEVEN agreed that the investigation should not cease at the point which had been reached, and it would be little less than injustice if the Council did not carry it through to the end.

Dr. MCVAIL thought no better time could be selected for visiting university examinations than the present, and therefore he hoped the Council would be consistent, and carry out the policy it had laid down.

Dr. PYE-SMITH, as Treasurer, protested against this wanton expenditure. The controversy had gone on so long that surely they ought not to begin again to stir up strife.

Dr. MACALISTER moved an amendment:

That the visitation in the University Examinations in Chemistry, Physics, and Biology be not continued until after the visitation of the Final Examination is completed.

Dr. WINDLE seconded.

Dr. MCVAIL pointed out that the Committee was simply carrying out the instructions of the Council.

Sir VICTOR HORSLEY submitted that the Council ought not to consider the question of expense in connexion with the visitation, and he hoped the work would be carried out for the sake of scientific education generally.

Dr. PAYNE, in Committee, assented to the resolution as the logical outcome of what had gone before; but, nevertheless, he was glad to grasp such a way of escape as was presented by the amendment.

The amendment was then put and declared carried.

At Sir PATRICK HERON WATSON'S request the names and numbers were taken down, when 19 voted for, 10 against, 2 did not vote, and 2 were absent.

The PRESIDENT then put it as a substantive motion, and it was carried.

At Sir PATRICK HERON WATSON'S request the names and numbers were again taken, with the same result.

MARKING AT EXAMINATIONS.

Dr. MCCALL ANDERSON moved:

That the Registrar be instructed to communicate with each of the licensing bodies recommending a uniform system of marking in all cases in connexion with their examinations.

He wanted to direct attention to the great variety in the system of marking adopted by the various licensing bodies. It appeared to him that the best system of marking was a percentage system.

Dr. BRUCE seconded.

Dr. PAYNE hoped the motion would not be pressed as it was an exceedingly difficult subject to deal with.

Dr. MACALISTER moved an amendment

That it be referred to the Education Committee to be dealt with when they reviewed the result of the whole inspection.

Sir JOHN BATTY TUKE seconded.

The PRESIDENT pointed out that so far back as 1895 the Council passed a recommendation in favour of adopting a uniform system of marking, and the result had been *nil*. He ventured to think that if the Council reaffirmed it the result would be the same. They must leave it to the licensing bodies, who had experience to guide them, to decide whether in their judgement a man was competent to pass or not, and put it in such a form as they thought best; it was quite absurd to go into all this minutiae of marking.

After some further discussion the motion and the amendment were by leave of the Council withdrawn.

POSTPONEMENT OF MOTION.

Sir VICTOR HORSLEY desired to postpone a motion standing in his name till Monday, as it was of importance and there was not sufficient time to discuss it; but

Dr. NORMAN MOORE protested against this as he desired to move an amendment, when

Sir VICTOR HORSLEY, at the President's suggestion, moved:

That the consideration of the motion be postponed till Monday.

Dr. WINDLE seconded and it was agreed.

INSTRUCTION WITHOUT EXAMINATION.

Dr. MACKAY moved:

That the Education Committee be requested to collect information and report on the subject of the possibility of including certain subjects in the curriculum without requiring examination in them.

This was really an important question, and he asked that the matter might be referred to the Education Committee, which seemed to him was the proper body to take up any such proposal; it was merely an effort to obtain light on the subject.

Dr. NORMAN MOORE thought it was a subject which pre-eminently ought to be discussed, and therefore he had pleasure in seconding the motion.

Sir JOHN BATTY TUKE was of opinion that it would be impossible to get the information.

Mr. HENRY MORRIS considered that a curriculum that included subjects which were not necessarily examined into was not desirable and would not be found to work.

After some further conversation the motion was put and declared carried.

At Dr. MCVAIL'S request the names and numbers were taken down, when 13 voted for, 11 against, 4 did not vote, and 4 were absent.

The Council then adjourned.

Monday, May 30th, 1904.

Sir WILLIAM TURNER, K.C.B., in the Chair.

THE REGISTRATION OF STUDENTS.

The PRESIDENT announced that the first business on the programme was a notice of motion by Sir John Batty Tuke, but before that was taken he thought it right to make a preliminary statement so that the Council might know the position of matters, and as the statement he had to make would require his calling attention to certain official communications he had received, he thought it right that his preliminary statement should be made *in camerâ*. He should like to say that the Council going into *camera* merely applied to his preliminary statement, and did not apply to the discussion or consideration of Sir John Batty Tuke's motion.

Dr. MACALISTER moved, Dr. LINDSAY STEVEN seconded, and it was agreed:

That strangers do withdraw in order that the President may make a statement to the Council before it proceeds to consider the motion of which Sir John Tuke has given notice.

Strangers were then directed to withdraw; on their re-admission,

Sir JOHN BATTY TUKE said in introducing his motion that he should occupy the time of the Council at no great length, for the majority of the members knew the position of this matter by reason of their being on the Council, and the absolutely clear and succinct statement which the President had just made would have explained the position to those members who had recently joined the Council. He supported the President's opinion with regard to the position taken up by the authorities of the Privy Council. That opinion was that the adoption of the registration fee for students was the most convenient way of adding to the resources of the Council; but apart from those authorities he had consulted men versed in affairs, much more than he was, and he had explained to them the position, and without exception they had given an opinion, that the Privy Council having made the statement they had upon the matter, it was advisable for this Council to follow that advice. They recognized that an increase of the registration fee for admission to the *Medical Register* would be somewhat difficult to carry through, and they also recognized that the line taken by the Privy Council was one of least resistance, and they

had advised him that the proposal of the Privy Council was the most likely one to accomplish the object which they desired. For those reasons and for others which he would shortly give, he had tabled this motion. The proposal required to be regarded from two points of view—first the monetary, and secondly the administrative, point of view. As to the monetary point of view, the report which the Finance Committee had placed in their hands was not altogether a satisfactory one. He was not going to trench on the duty of the Treasurer, but it would easily be seen that if they went on as they were going, the Council was within easy measurable distance of bankruptcy. He had taken the five years ending 1903, and he found that during those five years the average of expenditure over revenue was £1,525; in other words, in those five years they had eaten into capital to the amount of £7,500. No one doubted that money must be got somehow. The Council had on its own motion exercised certain economies; it had reduced the fees payable to members, and it had added extra fees in regard to certain registrations which it was within their power to increase. He expressed the hope that in the next few years they would have a stoppage of the cycles of inspections. They had had very fair results in regard to the last cycle just concluded. Bodies that were criticized had accepted those criticisms in the best spirit, and had either introduced reform or intimated their intention of bringing about reforms. If they accepted the proposed Bill, and that Bill passed, they would be in receipt of an increase of revenue of £1,700. He thought that was a low calculation. He based it upon the fact that during each of the five years ending 1903, 1,715 students registered, 1,518 in medicine and 195 dental. He had a strong suspicion that he might place the increase at something higher than £1,700, for, judging from the figures of a report which he would have later on to submit to the Council, the suspicion arose in his mind that a not inconsiderable number of students neglected to register, for he found that in England 629 students registered, and 568 in Scotland, and he was not aware of any material increase in the number of students in Scotland, or of any decrease in England, to such an extent as was indicated by those figures. He might be wrong perhaps in that. If he was right in his suspicion he thought there was all the more necessity for this Bill; but he was quite content to base his calculation on an increase of receipts of £1,700. He believed that with the economies and extra fees which they charged the surplus would be between £1,000 and £1,200, and that would be absolutely necessary to acquire. They must in the next few years lay by a surplus in order to perform the statutory duties of inspection in future years, and for other purposes, and amongst those purposes he should like to mention that they would probably require more money for the *Pharmacopœia*. At the present time they were dependent, to a very great extent, on almost gratuitous services, and he did not think that was a position the Council should be in, because it was a false position. Coming to the proposed tax of £1 upon every student registering, he asked, was it fair or unfair? He held that it was a reasonable initial expense. It must be remembered that under existing circumstances the Council went to considerable expense in the matter. It had to maintain a staff; it had to print the schedules and copies of the regulations, and had to keep a *Students' Register*. All that cost money, and that money came out of the pockets of practitioners. Having thus roughly foreshadowed what he believed to be the monetary effect, he proceeded to state his view as to how it would affect administration. The President had read the section of the Draft Bill, which bore upon the registration of students. In what he was going to say he would be entirely frank as to what his own opinion was on the operation which such a Bill, should it become law, would have on the finances of the Council. In the first place, the Council would, by legislative enactment, be made responsible for the carrying out of registration of students, and, if so, it would be its duty to lay down conditions. That power of laying down conditions would be an absolute sequitur to its obtaining powers to register students. He would now like to consider what the Council would gain and what the licensing bodies would lose. The Council would gain assurance that its principal and great requirement—he used the word "requirement" advisedly—that the study of medicine for five years after registration would be complied with by all. At the present moment they had no official assurance that this chief requirement was complied with in the case of students who neglected to register. Secondly, the Council could assure itself that each student had passed a satisfactory examination in arts; and, thirdly, the Council would have the power to approve or disapprove of those institutions recommended by the various bodies at which medical study would have begun, and the Council would be able to put in force what it at present laid down as a regulation, but which was not universally followed. In plain terms, there would be compulsory registration under the Council's conditions. Every member of the Council would admit, he thought, that such a state of things would be highly convenient to the Council, to the professisn, and the public. [No, no.] He used the word "public," and he should like to repeat an expression which he had used before, namely, that after all the public was a part of the community whose interests required to be carefully looked after. He would like to ask what would the licensing bodies lose? He meant by that every one of the licensing bodies in the kingdom, universities and corporations alike. They would merely lose the right to maintain an independent list of educational bodies whose examinations in general education were accepted by them; and the right to nominate bodies at which medical education should be begun. In no other respect whatever would the autonomy of any individual body be interfered with. When they considered the important bearing that such a measure as the one before them would have on medical education at large, he asked whether it was worth while fighting over the supersession of such comparatively unimportant powers? In the working of such a scheme all causes of friction would disappear: the poor student would not be bewildered between his duty to the Council and the body whose school he attended, and all the bodies would come into line on equal terms. He thought it was extremely likely, from his general experience on this and other Councils, that his motion would be met by a suggestion for delay and a suggestion that the bodies should themselves be first consulted. He hoped the Council would not agree to that. The members of the Council were appointed by the Crown by the various licensing bodies, and by the profession to decide the general merits of any new measure. If they went to the bodies direct they could not obtain the opinion of the representatives of the Crown, and he suspected it would be difficult to obtain the opinion of the general profession, and therefore on the preliminary measure and on the preliminary consideration of the case one-third of the Council would be silent. He hoped the Council would take the ordinary constitutional method of either passing or rejecting the motion. If it passed it the licensing bodies could express their opinion on the action of their representatives, and it would be left to each body to take action and further the interests of the Bill, or procure its rejection when it was before Parliament. He concluded by moving:

That the Lord President of the Privy Council be requested to introduce into Parliament a Bill to confer upon the General Medical Council statutory power to establish and maintain registers of medical and dental students, and to impose a fee not exceeding £1 for registration therein.

Sir VICTOR HORSLEY said Sir John Batty Tuke had asked him to second this resolution, and as he (Sir Victor Horsley) was entrusted with the matter of laying the Draft Bill of 1902 before the Council, he had great pleasure in seconding the motion, which was an embodiment of Section IV of the Draft Bill. He would not detain the Council on the general question of finance, as the Council had for six years advanced to him the courtesy of listening to him on the subject. He wished to speak solely in support of this motion from the point of view of the interests of the profession and the interests of the public, the material interests of both. As to the interests of the profession surely it must be plain that if a proposal were laid before them entailing the imposition of a new registration fee, that of itself was a better method than the raising of an existing registration fee. Secondly, if the new fee was to be taken from the pockets of the public rather than from the pockets of the practitioner, that again was in itself good, because, after all, the object of the registration of students was to improve the registration of practitioners and medical education throughout the country, and the only persons who would derive benefit from that were the public at large. Then if the interests of the profession were thus safeguarded he thought the interests of the public would be dealt with in a

much more favourable way on the lines which Sir John Batty Tuke had laid down. Every one interested in medical education knew that the registration of a student was an essential to the perfection of a medical curriculum. That essential had hitherto been wanting, and this motion proposed to establish it. He believed that the real difficulty which had surrounded this question in the previous debates of the Council had been as to what was the line of the least resistance. That day for the first time they had heard that in the Central Government the feeling was that this was the line of least resistance. Surely that should be sufficient for all who supported the motion. In regard to the so-called autonomy of the licensing bodies in this matter, if the question was looked at from a broad point of view the autonomy of the licensing bodies was not touched upon at all. They had no autonomy in that Council. By the Act of 1886 it was hoped that individual interests of the licensing bodies would be harmonized, or, if necessary, superseded in the discussions of the Council, and that the decrees and decisions passed by the Council would represent the feelings of those anxious to advance medical education independent of the automatic interests of any licensing body. He was sure that was the feeling of the profession at large. As to the autonomy of the licensing bodies, surely they had an absolute remedy (if any of them considered themselves injured) in the House of Commons. The Council had only to support this motion from the point of view of the improvement in medical education in the interests both of the profession and of the public.

Dr. Payne thought it was a good thing, speaking generally, that every medical student should in some way make his existence known to the Council by being registered; but if what Sir John Batty Tuke had said was correct the Council might make certain conditions now, and thus have unlimited power year after year to alter them to any extent it liked, and he did not think that was a power that would be conferred upon the Council by any Act of Parliament. There was only one way in which the registration could be made compulsory, and that would be to lay down that unless a student registered himself at the present time under proper regulations he should not be admitted as a practitioner when he had passed his examinations. It would be a good thing if they could simplify that question of preliminary education by saying that one body only, namely, the Council, should have the right of laying down what preliminary education was necessary for the medical student.

Dr. Norman Moore said there were two things which the Council wanted—first, money, and secondly, for which it had a larger appetite than even money, power. Every session motions were brought forward to try and increase those powers, and was it in the interest of the public that those powers should be continually increased? The Council discharged an important duty under the Act of Parliament of preserving a medical register and with regard to education and qualification to the fullest possible extent; but it had never been given the power of absolute supremacy on every point in relation to medical practitioners throughout the country, and he hoped it never would have. That it should be given that power was constantly suggested in the Council, and also that it was the only body that should lay down what should be studied in the first stages of medical education and where it should be studied, and it had an inclination which it had not yet completely fulfilled to lay down what were the requirements at every stage of medical education with regard to what candidates were to be examined in and what they should study. He thought that power ought not to be taken away from the universities and given to the Council; in his opinion the universities were far better qualified to determine what was necessary for the students of the several Faculties than the Council. The Council had endeavoured to force upon the public its views with regard to scientific education, and tried to enforce its views by saying it would not admit certain students to the *Register;* that was an illustration of the fact that the Council acted in an arbitrary and ill-considered manner when it had the power. These were a few points to show that this desire on the part of the Council for increased power ought to be resisted. Then what would it give the student for his sovereign? Nothing. What would it give the public? Nothing. He opposed the proposal, first of all because he thought it would give the Council a power which it had already shown by its acts ought not to be given to it; and, secondly if it did not give it the compulsory power, it proposed to impose a fee upon students without giving them, or without giving the public, anything in return—he opposed it in every particular.

Sir William Thomson observed that the Council had been described as if the members were a lot of bandits setting out to assault the unfortunate and innocent student and extract from his pocket a pound, not for his benefit or for the benefit of the public, but for the benefit of the members of the Council. That was an aspect of the question which was hardly justified by the speeches of the proposer and seconder of the resolution. The speech was a manifesto which perhaps would be adopted by other bodies in regard to their relations with the Council, by one of the most ancient institutions of the country of what he might call rebellion against the powers conferred on the Council by Act of Parliament. The question before the Council was one of money not of power, and the method which was proposed was one which ought to commend itself to the Council as it did to him as an individual member of it. It was unfortunate that the Council, representing as it did all the licensing bodies of the country, and representing the general body of the profession, should be described as a sort of insatiable monster wanting to get into its grasp the whole control and direction of the profession. The Council was a special body, and every member of it had a special knowledge of the duty which he was sent there to discharge; the Council was capable of discharging that duty, and, in spite of the challenge they had heard that day, he should continue to discharge his.

Mr. Henry Morris hoped he would not give offence when he said that in his opinion this attempt to get compulsory registration with the charge of a fee was a backstair way of getting another object which the Council had in view—namely, the control over early education and control over the bodies which had been recognized by the various institutions. Differences of opinion were, and must be, held with regard to what was the best and most advantageous course of preliminary scientific education, just as differences of opinion were, and must be, held with regard to what was the best form of liberal education. The effect of passing this resolution would no doubt be to threaten the charter powers of the licensing bodies; and if the Council persisted in passing the resolution it would have to meet the opposition of the licensing bodies. In saying this he wished especially to tell the Council that the Council of the College which he represented would consider with due deference and respect every suggestion that came down to it, and there was nothing more it desired that to act in consonance and harmony with this Council with regard to all recommendations which did not encroach upon the chartered rights and powers of that body; in other words, the attitude of his College, and he felt quite sure it was equally true of the College of Physicians, was simply, so far as any opposition was concerned, one of defence, and not one of defiance.

Dr. Bennett opposed the motion for the reason that there was no provision in the proposed Act to preserve and protect in any way the charters of existing bodies.

Dr. MacAlister would have preferred to raise the fees of registered medical practitioners, and voted in favour of that in the Draft Bill, but as there was no chance of getting that he thought the Council would be well advised to support the present proposal, the result of which would be to give the Council statutory power to establish a *Student's Register*. This was and always had been since 1858 the necessary logical completion of the powers given to the Council, which was omitted from the Act rather by an oversight, he thought, than by any deliberate intention of the Legislature.

Dr. Little could foresee difficulties in carrying out the details of the scheme, but he was prepared to support it. The Council had never exceeded its proper functions in making supervision and giving advice; and he thought some of the bodies had not shown a proper attitude in not resisting its supervision, but in resisting its advice.

Sir Christopher Nixon said there was no intention on the part of the Council to interfere with the rights of corporations, or, above all, to interfere in any way with the regulations which universities might make with regard to their own students; but what it was concerned in was that all the men who passed a registrable examination in medicine, surgery, and midwifery, and who were entitled to be put upon the *Register* should be sufficiently educated. He hoped that there would be no delay in passing the resolution.

The Council had considered the matter very fully, and not the slightest advantage was to be gained by sending the matter to a committee. He thought, in view of the present condition of things, that the recommendation of Sir John Batty Tuke establishing students' registration was the only one that was practicable, and he strongly urged the Council to accept it inasmuch as it would bring into line all the bodies that were represented on the Council. He thought he was justified in saying that the collective wisdom of all the universities and licensing corporations in the country must be a little superior to a small minority. He thought the proposition would be in the interests of the profession at large. What had been most satisfactory to the Council and had helped to put it in the high position it was in the estimation of the public and the profession, was that its regulations had been made not in the interests of any corporation or university, but in the interest of the profession at large.

Dr. Pye-Smith said that he must vote against the resolution on purely financial ground, if for no other reason. The remarks which Sir William Thomson had made, he thought, were not only dignified and moderate, but were entirely worthy of him and the country which he represented.

Dr. Mackay deeply regretted the opposition that had been applied to the motion by the representatives of the Colleges and others, because in the proposal there was no attempt to interfere with the rights or privileges of any one of the licensing bodies as guaranteed under the Medical Act. All that was proposed by the present resolution was that a duty which the Council had imposed upon itself should become a statutory duty.

Mr. George Brown, in supporting the motion, ventured to think that the views which the representatives of the Colleges had expressed were not the views of the Colleges they represented. When this question first came before the Council in the first year of its existence, the representatives of the Colleges and the other bodies represented unanimously agreed that it was desirable at the commencement of the education of a student that he should be registered, but they allowed that the initial registration to be carried out by the registrars or secretaries of the various corporations and universities. He was sorry they could not go before the Privy Council with a resolution which was passed unanimously, and he had every confidence that if the matter was put before the Members of the Colleges of Physicians and Surgeons that the majority of the Members of those bodies would be in favour of the course proposed.

Sir John Moore could not agree with Dr. Norman Moore that it was not the bounden duty of the Council to decide what education from the start to finish was necessary for those who were to be members of the great profession of medicine. The Medical Acts up to the present time had been distinctly defective in not giving the Council more power in regard to the registration of students. That registration meant that the Council should know about the ages of the students, what they had been taught, and their antecedents. Law students had to pay a registration fee of one guinea, and he thought they might well make the registration fee of a student one guinea instead of £1. Then it was asked, where was this money coming from? He thought it would come, not out of the pocket of the student, but out of the pocket of the parent or guardian. It would not amount to more than three-quarters per cent. of the money that would have to be paid for the medical education of the student.

Sir Hugh Beevor supported the resolution and thought that the fee which was proposed was a very reasonable one. He also thought it was an unfortunate thing that the question should be so strongly opposed by certain representatives on the Council.

The President said that he should like the permission of the Council to say a word or two upon the resolution. He thought he was entitled to ask the Council to allow him to do so because, through the favour of the Council, he had been entrusted with the making of certain important statements to the authorities in the direction that he indicated in his preliminary remarks when the Council sat *in camera*. He would like to ask the Council's attention exactly to the terms of the motion, because it seemed to him that some of the arguments which had been advanced against it were arguments which were not applicable to the motion, but were applicable to what they considered might be the nature of the Bill which the Council was asking the Lord President to introduce. It rested with those who framed the Bill to specify in the Bill exactly what the "statutory power" was to be. All they were asking was that a Bill should be introduced into Parliament to confer on the General Medical Council statutory power. They must wait till the Bill was drafted before they knew what that power was to be. One or two points had occurred to him in connexion with the matter. Some members had objected to the fee. He thought that the fee of £1 was a very proper fee to be paid by a student as an entrance fee to the study of a profession of which he was anxious to become a member. It was an initial payment which conferred upon him the privilege of becoming a medical student, and being entered on the *Students' Register*. For his part he could not see any hardship in the imposition of that fee, and he did not think that the student or his parents or guardians would consider it a hardship. It was simply an entrance feee, which would find its way into the purse of the General Medical Council and which would enable the Council to conduct its business. They had heard reference made to charters and the possibility of this Bill being an infringement of those charters. It was a somewhat interesting matter in connexion with the discussion that had taken place in the Council Chamber from time to time during some years past that those references to charters proceeded from a very limited number of members of the Council. But the institutions represented by those members were not the only institutions which were in possession of a charter. All the universities were in possession of charters, and other important licensing bodies were in possession of charters, yet those universities and institutions were not continually displaying their charters in their arguments. He was familiar with the whole question of the registration of the medical student from the commencement, and he knew perfectly well that when it was proposed that there should be established a register for medical students naturally the various bodies eduucationally interested in the matter, and interested as examining bodies in the matter who were represented on the Council, took to their respective bodies the information that the Council was desirous of establishing a register of students, on a voluntary principle. He knew perfectly well what took place in the University of Edinburgh, and it was suggested that whilst the registration was to be voluntary, the University, so far as regarded its own work, would not confer its qualifications upon a student or candidate unless he were registered. The University could have acceded to that request, but it did not do so for a very good reason; it looked at the general interests of medical education, and the profession at large felt that those general interests would be greatly advanced if it, along with the other teaching and examining bodies, fell into line with the General Medical Council. He thought he was perfectly right in saying that from the time when the University of Edinburgh did fall into line—and that was very early in this matter—down to the present day, it had loyally acted up to the decision which it came to. He could not help thinking that they should not be altogether blinded by their charters. They should keep in view that there was something beyond what might be contemplated in a charter granted one hundred years ago. The medical profession had not been standing still since those ancient charters were given. The medical profession had been advancing on great and important lines, and he should like to think that all the great educational and examining bodies that were represented on the Council were trying to work with the Council in improving and developing the education of students, and in enabling the Council to see that those who aspired to come within their professional ranks had gone through that preliminary education which they conceived to be necessary, and by having their names inserted on the *Students' Reyister* they had given evidence to the Council that they had gone through the medical education. It was with a very strong conviction—and perhaps the Council could see that he had spoken as one having a very strong conviction—on this matter that he thought that the Council ought to move in the direction which was indicated in the motion that had been framed by Sir John Batty Tuke. [Applause.]

Sir John Batty Tuke, in reply, said that he had heard no argument brought against the scheme which required to be traversed.

The President then put the resolution, when 22 voted in favour of it, and 6 against.

At the request of Sir Patrick Heron Watson, the names of members were taken and found to be as follows:

For, 22.

Dr. MacAlister.	Dr. Lindsay Steven.	Dr. Windle.
Sir John Moore.	Mr. Brown.	Dr. Finlay.
Mr. Young.	Mr. Tichborne.	Sir Wm. Thomson.
Dr. McVail.	Mr. Jackson.	Dr. Bruce.
Sir P. Heron Watson.	Sir C. Nixon.	Dr. Little.
Dr. McCall Anderson.	Sir Victor Horsley.	Sir Hugh Beevor.
Sir Charles Ball.	Sir Geo. Philipson.	Sir John Tuke.
Dr. Mackay.		

Against, 6.

Dr. Norman Moore.	Dr. Payne.	Sir J. Williams.
Mr. Morris.	Dr. Pye-Smith.	Dr. Bennett.

Did not vote, 1.
The President.

Absent, 3.

Mr. Power	Mr. Tomes.	Dr. Caton.

The PRESIDENT stated that he would forward to Mr. Fitzroy for presentation to the Lord President of the Privy Council a copy of the minutes.

VISITATION OF PRELIMINARY SCIENTIFIC EXAMINATIONS.

Sir VICTOR HORSLEY moved:

That the Preliminary Scientific Committee be reappointed, and instructed to consider and report upon the existing courses of study in the branches of elementary biology.

He stated that he brought this motion forward because personally he wanted more information on the subject. Being a teacher himself he was aware of the difficulties of the subject. The Committee at the end of its report had collected a large number of facts, but it had not given its view of those facts in a digested form. He wanted the mature consideration of the Committee upon these facts for this reason: when the question came up of teaching institutions which should be recognized by the Council and which had been in many respects hostilely criticized, he took advantage of having to go to certain parts of the country where those institutions were to inquire from the teachers themselves what their personal view was, especially on the subject of biology, as to the gain to the student; and although he noticed in the facts in the report of the Committee that the institutions as a whole had voted in favour of the biological system which was being conducted, the teachers themselves were not satisfied that the student was a great gainer by the courses actually administered to him. If there was that doubt in the minds of some of the teachers there was considerable doubt in his own mind, and he therefore wanted the considered report of the Committee upon the courses of study.

Mr. JACKSON seconded, and stated that he thought it was understood that matter was to be reported on by the Committee, but it had not done so.

Dr. MACALISTER, as a member of the Committee, did not quite understand what Sir Victor Horsley asked the Committee to do. The Committee obtained information in full, and had digested it for the Council as clearly as the ordinary limits of space would allow.

Sir VICTOR HORSLEY thought the matter was perfectly clear. The facts in the report were practically hurled at the Council in a digested form, but not in the form of a digest. They had no information as to how far the various courses of study in the opinion of the Committee met the requirements of the medical student.

Dr. MACALISTER stated that the Committee had not the means of giving the further information asked for by Sir Victor Horsley. The Committee had carefully considered what was being done and what could be said on the subject of elementary biology, and it came to the conclusion to advise the Council that the subject of elementary biology should be retained in the curriculum.

Sir VICTOR HORSLEY replied that all the Committee did was to report that a subject called "elementary biology" was to be retained, but not a word was said as to what was meant by that term. The facts produced by the Committee were in a confused disorder, and they had not been tabulated or considered or reported upon by the Committee.

Dr. NORMAN MOORE stated, as a member of the Committee, that there were many directions in which they thought biology would be useful; but there was not the time to say that any particular one would.

Sir VICTOR HORSLEY remarked that that was not to be found in the report.

Dr. MCVAIL thought there would be no harm in referring the matter to the Preliminary Scientific Committee on the condition that Sir Victor Horsley joined it.

Sir VICTOR HORSLEY assented.

The motion was then put and carried.

Moved by Dr. MCVAIL, seconded by Dr. BRUCE, and resolved that Sir Victor Horsley be added to the Committee.

APOTHECARIES' HALL, DUBLIN.

Sir PATRICK HERON WATSON moved, Dr. LITTLE seconded, and it was resolved:

That the report from the Examination Committee on the Inspection of the Final Examination held by the Apothecaries' Hall, Dublin, in January last, be received and entered on the minutes.

ROYAL COLLEGE OF SURGEONS OF ENGLAND.

On the motion of Sir PATRICK HERON WATSON, seconded by Dr. FINLAY, the report of the Examination Committee on a communication from the Royal College of Surgeons of England, having reference to the last Report of the Visitor and Inspector on the Final Examinations of the Examining Board in England, was received and entered on the minutes.

Report.

The Examination Committee have received from the Executive Committee a Report forwarded by the Royal College of Surgeons of England containing remarks by their Court of Examiners on the last Report of the Visitor and Inspector of the General Medical Council relating to their Final Examination. The Examination Committee, having already presented a Report on this matter, which has been accepted by the Council, are not now in a position to discuss the remarks of the Court of Examiners; but recommend that it be entered in the minutes of the Council for future reference.

On the motion of Sir P. HERON WATSON, seconded by Dr. FINLAY, it was resolved that the recommendations contained in the report be adopted.

Mr. GEORGE BROWN moved, Dr. LINDSAY STEVEN seconded, and it was resolved:

That the further reply of the Royal College of Surgeons, England, to the Report of the Visitor and Inspector of the General Medical Council on the third or Final Examination of the Conjoint Examining Board in England be referred to the Examination Committee for further consideration and report.

REPORT OF EDUCATION COMMITTEE.

Sir JOHN BATTY TUKE moved, Dr. NORMAN MOORE seconded, and it was resolved:

That the following report from the Education Committee be received and entered on the minutes.

Report.

I.—*Ages of Medical Students at the Date of Registration.*

The Education Committee begs leave to submit the following table showing the result of a preliminary inquiry into the ages of students at the date of registration. The new regulation, under which applicants are required to give in writing the precise date of their birth, did not come into force until April 1st, 1903. Up to that date satisfactory evidence that the student had attained the age of 16 years was alone required. In future years the data at the disposal of the Committee will be more exact.

Table Showing the Ages of Medical Students Registered during 1903 by the Respective Branch Registrars.

Age of Students at Date of Registration.	England.	Scotland.	Ireland.	Total.
Between 16—16½	8	12	4	24
,, 16½—17	22	26	3	51
,, 17—18	90	139	42	271
,, 18—19	156	102	51	309
,, 19—20	131	68	28	227
,, 20—21	51	49	19	119
,, 21—22	34	24	12	70
,, 22—23	18	21	8	47
,, 23—24	15	25	5	45
,, 24—25	10	10	5	31
,, 25—26	11	23	—	34
,, 26—27	7	15	—	22
,, 27—28	8	11	—	19
,, 28—29	4	8	2	14
,, 29—30	2	2	1	5
,, 30—31	3	4	1	8
,, 31—45	14	23	3	40
Precise age unspecified	45*	—	41†	86
Total	629	568	225	1,422

* Of the 45 students it is known at the office that they had all passed such examinations (mostly at Cambridge) as could not have been undertaken by boys under 16.

† These 41 students belong to the Dublin School of Physic, and are registered without filling up separate forms. The Registrar of the University of Dublin states that their average age is 19 years and 2 months.

It is of importance to note that only 24 out of a total of 1,442 students in Great Britain and Ireland began professional study before the age of 16½, or at the rate of 1.7 per cent., and only 75 before the age of 17, or at the rate of 5.2 per cent.

In these circumstances the Committee does not think it necessary at present to advise the Council to raise the age at which registration is allowed. The recent increase in the Council's requirements as regards preliminary education has evidently been effective in preventing premature registration. It may be inferred that those registering at the age of from 16 to 17 years are clever or industrious students, to whom it might be a hardship to delay the commencement of professional study.

II.—*Recognition of Certain Preliminary Examinations.*

The Committee has had before it applications from various examining bodies for the recognition of certain of their examinations. After consideration of these, the Committee proposes to include in the List of Recognized Preliminary Examinations the following:

University of Oxford: Higher Local Examinations. (Certificates to include the required subjects.)

Victoria University of Manchester, University of Liverpool, and University of Leeds: Matriculation Examination. (Certificate to include the required subjects.)

This latter examination, conducted by a Joint Board of the three Universities, will take the place of the Preliminary Examination of the Victoria University at present included in the list.

Communications have been received from most of the Colonial and other bodies holding examinations included in Section IV of the Council's List. The information therein contained will enable the Committee at the November meeting of the Council to formulate its proposals as to the revision of this section of the List.

III.—*Conference with the Consultative Committee on School Leaving Examinations.*

In accordance with the resolution of the Council on November 24th, 1903, Sir John Tuke and Dr. MacAlister attended a conference with the Consultative Committee of the Board of Education, and explained to that body the relations of the Council to the question of examinations in subjects of general education. No official intimation has yet been received as to the conclusions arrived at by the Consultative Committee of the Board of Education on the important suggestion that a system of School Leaving Examinations for England and Wales should be established.

John Batty Tuke, Chairman.

Report of Students' Registration Committee.

On the motion of Sir Hugh Beevor the report of the Students' Registration Committee was received, entered on the minutes, and adopted.

The report gave details with regard to a number of cases in which students had been allowed to antedate the commencement of professional study, and also of applications to be registered without further preliminary examination, some of which were granted.

The Council adjourned.

Tuesday, May 31st, 1904.

Sir William Turner, K.C.B., President, in the Chair.

Preliminary Scientific Committee.

Sir Victor Horsley moved and Dr. MacVail seconded the addition of Mr. Jackson's name to the Preliminary Scientific Committee.

Dr. Norman Moore thought the Committee was already large enough. Sir Victor Horsley's name had been added to it on the previous day, because it was not quite clear what it was that he referred to it.

Sir Victor Horsley said it was not quite clear to all the Committee.

Dr. Norman Moore hoped the motion would not be pressed.

The President then put the motion to the Council that Mr. Jackson's name be added to this Committee, when 13 voted in favour of it and 2 against. He therefore declared the motion carried.

Report of Education Committee.

Sir John Batty Tuke moved the adoption of the Report by the Education Committee (see proceedings of May 30th). The first section dealt with the ages of medical students at the date of registration. The table showed the result of a preliminary inquiry into the ages of students at the date of registration. The new regulation under which applicants were required to give in writing the precise date of their birth did not come into force until April 1st, 1903. Up to that date satisfactory evidence that the student had attained the age of 16 years was alone required. In future years the data at the disposal of the Committee would be more exact. Out of 1,422 students only 24, or 1.7 per cent., so far as could be ascertained, began their study before the age of 16½, and only 75, or 5.2 per cent., before the age of 17. In these circumstances the Committee did not think it necessary at present to advise the Council to raise the age at which registration was allowed. The recent increase in the Council's requirements as regards preliminary education had evidently been effective in preventing premature registration. It might be inferred that those registering at the age of from 16 to 17 years were clever or industrious students, to whom it might be a hardship to delay the commencement of professional study. It would also be seen that 61 more students were registered in England than were registered in Scotland, and that the number of students who registered between the ages of 31 and 45 was over 140. In moving the adoption of this report he wished to say that this was the last report he should have the honour of presenting to the Council as Chairman of the Education Committee, and he would congratulate the Council on having obtained the services of Dr. Windle, who was intimately acquainted with all the branches of medical education.

Dr. Windle, in seconding the adoption of the report, stated that the number of students who had entered in Birmingham for the last twelve years was 551, of whom 26 were under 17, that was to say, that during the past twelve years very much the same percentage as shown by the table; 526 were over 17, 465 were over 18, the largest number being between 17 and 18—that was 107—and the oldest student entering was between 41 and 42. Of the 26 who entered under 17, 2 actually entered under 16. One of them who had since qualified went out to South Africa as a civil surgeon and remained there. He (Dr. Windle) received a letter from him the other day saying that he had achieved the ambition of his life in getting 100 guineas for an amputation. The other was not yet qualified, but might be regarded as above the average. Of the remaining 24, 11 were qualified, 10 were on the way, and 3 had to give up. They gave up at the end of the first year. That he thought was a very proper thing for a student to do if he found that he was not fitted for the profession. These figures, he thought, corroborated the statement in the Education Committee's report that it was the clever and industrious student who desired to enter before 17; he ought not to be prevented from doing so.

Section I of the report was then adopted.

Sir John Batty Tuke then moved Section II. The Committee, he said, had had before it applications from various examining bodies for the recognition of certain examinations, and after consideration the Committee proposed to include in the list of recognized preliminary examinations the examinations indicated in the report. The examination conducted by a Joint Board of the three Universities of Manchester, Liverpool, and Leeds would take the place of the preliminary examination of the Victoria University at present included in the list.

The motion was seconded by Dr. Windle and agreed to.

Dr. Windle said that the proposal referred to in Section III was initiated by the Council, and had been under the consideration of the Consultative Committee for more than a year. That Committee prepared a scheme which had been very well received generally. It was at present in the hands of the Board of Education, which would, he hoped, deal with it without very great delay. He was not at liberty to say anything about the total of the examinations, but at first the effect would be to add another to the already long list of examinations, but he hoped the ultimate effect would be to clear out a good many examinations.

Report of Finance Committee.

Dr. Pye-Smith then moved, and Dr. Bennett seconded, the adoption of the following report of the Finance Committee, and the recommendations therein contained were carried.

Members.

Dr. Pye-Smith, Chairman.
Sir Patrick Heron Watson. Dr. Bennett.

The Finance Committee have to report that the income of the General and Branch Councils for the year ending December 31st, 1903, was £8,200 10 7
The expenditure for the same period was ... 10,365 12 3

Consequently there is a deficit on the year's working of £2,165 1 8

From Table A it will be seen that the receipts from fees show an increase of £106 5s. 6d., the English Branch having received £143 7s. 6d. more, the Scottish Branch £99 8s. more, and the Irish Branch £136 10s. less; the General Council has received £78 less for Colonial registrations, and the net increase, therefore, is only £28 5s. 6d.

It will be remembered that in July last the fees for the registration of additional qualifications and for restoration to the *Register* were raised from five shillings to one pound. The result of this is shown in the following table:

	1902. No. of Fees.	1903. No. of Fees.	1902. Cash Received.	1903. Cash Received.
			£ s.	£ s.
English Branch ...	569	596	142 5	204 5
Scottish Branch ...	158	152	39 11	112 5
Irish Branch ...	73	70	18 5	25 15
Total ...	800	818	£200 0	£402 5

The increased fee has only been in force for five and a-half months, but it will be seen that the number of fees received is slightly larger than before, and the net result from the point of view of the Council's finances is certainly satisfactory.

The Irish Branch shows a decrease of thirty-two in the number of original registration fees received, but the English and Scottish Branches show an increase of four and three respectively.

In Table B will be found a statement of expenditure compared with former years. The following items call for explanation:

(*a*) The increase of £181 8s. in General Council fees is due to the fact that the meetings occupied two days more than in 1902, and the new scale of travelling allowances, which results in a saving of about £80 per annum, only came into force during the latter part of the year. There was again a special session, which cost over £700.

The increase of £93 14s. in Executive Committee fees is due to the fact that the special session did not, as last year, coincide with the February meeting of the Committee, and the travelling expenses had therefore to be paid.

(*b*) The increase of £124 13s. 7d. for printing of minutes and programmes is due to the number of inspection reports. Against this may be set the decrease of £60 19s. 6d. in the cost of miscellaneous printing.

(*c*) The index to the Minutes cost £105 for labour and £76 4s. for printing, making a total of £181 4s. The cost of the former index, published in 1887, was £311 17s. for labour and £283 5s. for printing, making a total of £595 2s.

(*d*) The increase of £186 19s. 11d. in the cost of inspection of examinations is due to the larger number of these under review. Owing to the unfortunate illness and death of the Inspector the series of inspections was not completed; thus the increase in this item is not so large as it would otherwise have been.

Table C shows, comparatively, the income and expenditure of the three Branch Councils for the past three years. Although no outlay was incurred by the expense of an election (£350), the deficit of the English Branch is over £400 more than last year, and the Scottish Branch shows an increased deficit of almost the same amount; these are due to the heavy contribution called for by the General Council.

The Committee are pleased to note the reduction of £140 3s. 3d. in the office expenses of the Irish Branch.

From Table D it will be seen that the excess of expenditure over income exceeds the average of the past five years by about £500, though the average has risen £200 since last year. It must be remembered that last year the Council received £400 for the surrendered sinking fund policy, which decreased the deficit by that amount.

The percentage-rate is 110.31—that is to say, the Branches have had to pay the General Council £110 for every £100 received, and to meet their own expenses besides.

Table E shows the assets of the Branches compared with those of previous years.

The *Pharmacopœia* accounts, as will be seen from Table F, show that the balance of profit in hand is £613 15s. 4d., of which £500 has been lent to the General Council at 3 per cent. interest. The stock in hand (shown in the left-hand column), on which all charges have been paid, will, if all sold, add £912 12s. 2d. to the profits.

Irish Branch.—It may be assumed that, unless the contribution to the expenses of the General Council is again unusually heavy, the expenses of the Branch will be about £900; there is a balance of cash in hand of £80, and the receipts will probably be about £700. On this basis there will be deficiency at the end of the year of about £120, and the Committee therefore recommend that a grant of £150 be made to the funds of the Branch.

Dental Fund.—Table G shows that the income exceeded the expenditure by £84 14s. 6d.

With regard to the current year the Committee hope for a considerable reduction in the expenses, unless there should again be a special session. The savings that may be looked for are as follows: On Council fees, £700; on printing, £100; on index, £180; and on the grant to the Irish Branch, £150; making a total of £1,130, more or less. So that with care the deficit at the end of the year should not exceed £1,000.

RECOMMENDATIONS.

1. That the report be received and entered in the minutes.
2. That a grant of £150 be made towards the expenses of the Irish Branch Council during the current year.

May 27th, 1904. P. H. PYE-SMITH, Chairman.

Appended to the report were tables showing the income and expenditure of the Council and Branch Councils.

APPOINTMENT OF A TREASURER.

The PRESIDENT stated that from communications which had been made to him by various members of the Council he had satisfied himself that there was a very defined feeling in the Council that Mr. Tomes should be second Treasurer associated with Dr. Pye-Smith; Mr. Tomes had been very seriously ill, but was going on favourably, and was ready to accept the office. The President then moved from the Chair that Mr. Tomes be one of the two Treasurers.

Dr. PYE-SMITH said he was quite sure that the selection of Mr. Tomes was in accordance with the desire and wish of the Council. Personally he could not think of any one whom he should prefer as a colleague. Mr. Tomes had a remarkable scientific knowledge, and, moreover, what was more to the point on this occasion, he had a very remarkable acquaintance with business, and a facility for summing up figures which he confessed outstripped him, and Mr. Tomes had a still greater advantage, that when he summed up those figures they always came right.

The PRESIDENT put the resolution, which was carried unanimously.

FINANCE COMMITTEE.

The Treasurers, Sir P. Heron Watson, and Dr. Bennett were appointed members of the Finance Committee.

EXECUTIVE COMMITTEE.

The following gentlemen were elected as members of the Executive Committee:

From the English Branch Council: Dr. Payne, Dr. MacAlister, Dr. Pye-Smith, and Mr. Tomes.

From the Scotch Branch Council: Sir John Batty Tuke and Sir P. Heron Watson.

From the Irish Branch Council: Sir Charles Ball and Sir Christopher Nixon, with the President *ex-officio*.

PENAL CASES COMMITTEE.

The following members were elected as the Penal Cases Committee:

English Branch Council: Sir Victor Horsley, Dr. Windle, Mr. Tomes, and Sir Hugh Beevor.

Scottish Branch Council: Sir Patrick Heron Watson and Dr. Finlay.

Irish Branch Council: Sir William Thomson and Sir Christopher Nixon.

REPORT OF PUBLIC HEALTH COMMITTEE.

Dr. BRUCE moved that the report of the Public Health Committee be received, entered on the minutes, and approved:

1. The Committee reported that it had considered a communication from the Advisory Board of the War Office, and had unanimously agreed to advise the Council to add to the present list of districts and commands recognized as suitable for the purpose of outdoor training in Hygiene under Rule 3 (*e*) of the Council's Resolutions and Rules for Diplomas in Public Health the following additional military commands, namely: Madras, with a civil population of 72,000; Bengal, with a civil population of 38,000; and the Punjab, with a civil population of 42,000.

The Committee had also considered an application from Dr. Pinching, Director-General of the Sanitary Department of the Ministry of Interior of Egypt for recognition as competent to give the certificates required by Rule 3. The Committee recommended that this application should not be granted. The Sanitary Department of the Ministry of Interior

Egypt, is not under the control of the Director-General of the British Army Medical Department, and is in no sense comparable with the districts and commands as defined in Rule 3 (*e*) of the Council's Resolutions and Rules for Diplomas in Public Health.

Sir CHARLES BALL, in seconding, pointed out that all the sanitary districts and commands authorized by Parliament had now been fully settled, and that as far as possible, these applications completed the list.

The report was adopted.

REPORT OF PHARMACOPOEIA COMMITTEE.

Dr. MACALISTER moved:

That the report of the Pharmacopoeia Committee be received and entered on the minutes.

Report.

The Pharmacopoeia Committee have to report that from November 25th, 1903, to May 24th, 1904, the sales of the *British Pharmacopoeia* (1898) were 606 copies, and of the *Addendum* (1900) 130 copies. Thus up to May 24th, 1904, 35,197 copies of the *Pharmacopoeia* 1898, and 4,294 copies of the *Indian and Colonial Addendum* 1900 (including the Government of India edition) have been sold. The stock remaining in hand of the *Pharmacopoeia* is 1,834 copies, and of the *Addendum* 2,113. It will therefore be unnecessary to print a fresh issue this year.

The Executive Committee has referred to the Pharmacopoeia Committee for consideration and report the appended memorial from the Decimal Association, and other papers relative to the Weights and Measures (Metric System) Bill, which after amendment by a Select Committee has passed the House of Lords, and is now awaiting consideration by the House of Commons.

The Committee have also had before them the notice of motion on the subject which has been placed on the Council's Programme by Mr. Jackson.

The Committee are strongly impressed with the imporance of bringing the weights and measures of the *British Pharmacopoeia* into accord with the international system which is current in the pharmacopoeias of all other countries. In the *Pharmacopoeia* of 1898 what may be described as a transitional method was adopted. Doses were expressed in the familiar Imperial system only, the directions for pharmaceutical processes in both the Imperial and the metric system, and the directions for analytical operations in the metric system only. Were the metric system to become within a few years the one legal system employed in this country, the work of the Committee would be appreciably simplified, though it would probably still be necessary to insert, in reference to dosage at least, equivalents expressed in the old Imperial terms.

The Committtee are therefore of opinion that the Council may properly use its influence in favour of the legislation referred to in the memorial of the Decimal Association, and in the motion of which Mr. Jackson has given notice.

A report with reference to the tests for the detection of arsenic in the drugs of the *Pharmacopoeia* prepared for the Committee by Professor W. R. Dunstan, F.R.S., with the help of Mr. H. H. Robinson, M.A., has just been received and will receive careful attention.

The Committee are also indebted to Mr. Tichborne for a number of valuable investigations on points of pharmaceutical chemistry which he has kindly undertaken at their request.

The Committee desire to express their thanks to Dr. L. E. Shore, of St. John's College, Cambridge, for an interesting and valuable addition to their library, namely, a copy of the *Pharmacopoeia Londinensis*, 1651.

APPENDIX.

TO THE PRESIDENT AND MEMBERS OF THE GENERAL MEDICAL COUNCIL.

The Memorial of the Decimal Association respectfully showeth:

Whereas the General Medical Council is charged by statute with the preparation and publication of the *British Pharmacopoeia*, which has throughout the empire a powerful influence, not only on the practice of medical men, but of pharmacists and analysts.

Whereas in recent editions the metric system has been recognized and thereby rendered familiar to those who use the work.

Whereas it is desirable that a further step should now be taken in the interest, not only of scientific precision, but also of international uniformity.

It is petitioned that the Council should exert its influence in favour of the Bill now before Parliament for the enforcement of the metric system throughout the kingdom, whether by making a suitable representation to His Majesty's Government or otherwise as the Council may deem expedient.

And your Memorialists will every pray,

Signed on behalf of Members of the Decimal Association by

SAMUEL MONTAGU, *President.*
BELHAVEN AND STENTON, *Vice-President.*
J. EMERSON DOWSON, *Chairman of Executive.*
KELVIN,
HENRY E. ROSCOE,
ALEX. SIEMENS,
} *Members of Executive.*
E. JOHNSON, *Secretary.*

Dr. NORMAN MOORE, in seconding, urged the Council to do everything in its power to facilitate the introduction of the metric system of weights and measures. The report was adopted.

Mr. JACKSON moved:

That the President (with the Chairman of the Pharmacopoeia Committee) be requested to inform the Lord President of the Privy Council that in the opinion of the Council it is desirable that after a sufficient period, to be fixed by law, the metric system of weights and measures should become the one legal system for the preparation and dispensing of drugs and medicines; that the Council would view with favour the passing into law of a Bill, such as that now before Parliament, entitled the "Weights and Measures (Metric System) Bill"; and that in that event the Council would be prepared to take all necessary steps to give effect to the law by making the proper modifications in the *British Pharmacopoeia*.

He pointed out that the metric system was introdnced into this country by one James Watt as far back as the year 1764, but with our usual insular pride we would have nothing to do with it. There had been petitions in favour of the compulsory adoption of the system presented to the House of Lords, and it had the approval of 332 members of Parliament. Further, he had made inquiries from schoolmasters and others, and out of 197 replies 161 said the time saved would be one year, 36 two years, and 6 said three years, and this time the boys could devote to a more useful subject. With regard to the objection that it would create confusion, he was sure that the people of this country would become accustomed to it as readily as the people of Germany.

Mr. TICHBORNE seconded, and the motion was carried unanimously.

The PRESIDENT said that steps would be taken to communicate the motion to the Lord President of the Privy Council.

REPORT OF DENTAL EDUCATION AND EXAMINATION COMMITTEE.

Sir CHARLES BALL moved, and Dr. LINDSAY STEVEN seconded, and it was resolved:

That the report by the Dental Education and Examination Committee be received and entered on the minutes.

The Committee met on Thursday, May 26th, 1904.

The Committee, having read the application from the Dental Board of Victoria, which appears as Appendix I to this report, resolved, as requested, to afford Mr. A. P. Merrill an opportunity of an interview with the Committee before coming to a decision.

The application of Mr. Edward Barton Roper, which appears as Appendix II of this report, was considered, and it was resolved:

"That, as Mr. Edward Barton Roper seeks to register a diploma which is not at present a recognized certificate within the meaning of Section x of the Dentists Act, 1878, the Committee recommend that the application be not granted."

An adjourned meeting of the Committee was held on Friday, May 27th, 1904.

Mr. Merrill attended before the Committee and admitted that the curriculum demanded by the Dental Board of Victoria did not fulfil the requirements of the General Medical Council in respect of the subjects clinical medicine and clinical surgery. The Committee therefore recommend the Council not to grant the application.

CHARLES BENT BALL,
Chairman.

May 27th, 1904.

Sir CHARLES BALL moved the first recommendation:

That the application of Mr. Edward Barton Roper for registration as a foreign dentist under the provisions of Section x of the Dentists Act, 1878, be not acceded to.

It opened a very large question, namely, whether the curriculum of a French college was comparable with those the Council had already accepted, and there was not sufficient evidence before the Committee to enable it to form an opinion upon that subject; the question of reciprocity was involved, and therefore the Committee recommended that the application be not granted.

Dr. LINDSAY STEVEN seconded, and the resolution was carried.

Sir CHARLES BALL moved the second recommendation:

That the application of the Dental Board of Victoria for the recognition of the diploma of Licentiate of Dental Surgery of Victoria be not acceded to.

This was a formal application from the Dental Board of

Victoria that their diploma should be recognized for registration, but from the large body of evidence which was before the Committee it was clear that a student could obtain a diploma without having seen a dental patient, and the Committee therefore recommended that the application should not be granted.

Dr. LINDSAY STEVEN seconded the resolution, which was agreed to.

PRACTICE BY COMPANIES.

Sir CHARLES BALL moved:

1. That copies of the judgements in the cases O'Duffy *v.* Jaffe, Surgeon Dentists, Limited, and the King (Rowell) *v.* Registrar of Joint Stock Companies, together with the following resolutions of the General Medical Council, be sent to the Lord President of the Privy Council for his information.

2. That, in view of the judgement of Chief Baron Palles, the General Medical Council hopes that the Government will take such steps as may be necessary.

(*a*) To restrain the Registrar of Joint Stock Companies from registering any new company unlawfully using the term dentist or any similar title which would be likely to lead the public to believe that the members of such company were registered dentists when such is not the case.

(*b*) To prevent companies already registered from continuing unlawfully to use the term dentist or any similar title which would be likely to lead the public to believe that the members of such companies were registered dentists when such is not the case.

(*c*) To in like manner prevent the use by companies of unlawful titles which would be likely to lead the public to believe that the members of such companies were registered medical practitioners when such is not the case.

In his opinion these decisions had an important bearing not only on the dental, but also on the medical and surgical, profession. Under Section III of the Dentists Act it had been held that an unqualified person could not adopt the title of "dentist;" and therefore, in order to obviate this difficulty, a number of companies were formed and registered under the Joint Stock Companies Act which embodied in their title and name words which, if adopted by an individual who was not a registered dentist, would have rendered him liable to criminal proceedings. A lot of such companies had been formed, and the Dentist Association of Ireland took action in order to test the legality of the proceeding, and it was held that the company was not —and could not—be a "person" within the meaning of the Act, and could not be prosecuted criminally. Against this decision they appealed, but the appeal was dismissed. The prosecution against the individuals failed for want of identification with the use of the name. The result of the decision was a large increase in the number of companies. The Board of Trade began to think this was a serious matter, and suspended the registration of these companies. Then a gentleman named Rowell, considering he was not properly treated by not having his company registered, applied for a mandamus to compel the Registrar of Joint Stock Committees to register his company. This application was postponed to give the Board of Trade and the Dentist Association of Ireland an opportunity to show cause against the rule. The Board of Trade appeared but did not offer evidence either way and definitely stated it would be bound by any decision which the Court arrived at. The gist of the whole judgement, he considered, was contained in one or two passages Chief Baron Palles said:

> It is said that the use by the company of such a name would involve a false representation, which would reasonably tend to deceive the public, and that therefore, as one must be deemed to intend the reasonable consequences of his act, the purpose for which such a company would be formed would not be a "lawful purpose" within the meaning of Section VI of the Companies Act, 1862. Even had there not been an express enactment, limiting the purpose for which a company may be formed to lawful purposes, I apprehend there could be no doubt there is not a right to form a company under a name the use of which would reasonably tend to mislead the public in a matter in which they were entitled to know the truth.

On the point of "lawful," he asked one of the judges who tried the Jaffe case whether, in the event of his (Sir Charles Ball) with the aid of six corner boys, forming a company and registering it as "Bill Sykes and Co., Limited, Burglars," and then proceeded in the night to the judge's house, not in their individual capacity but in their corporate capacity, and attempted to lift his plate, what would happen? The Judge gave what he considered was the correct view of the law, namely, that they would be sent to gaol. It was obvious that a company could not practise such an unlawful business as burglary; and it was equally certain from the judgement of the Chief Baron that a company could not unlawfully adopt a title which would tend to deceive the public on a subject on which it was entitled to know the truth. The Chief Baron proceeded:

> We have, therefore, to consider whether the use of the intended name by the company would involve a false representation. I assume that "person," in the second sentence of the third section of the Dentists Act, 1898, is limited to natural person as was decided in O'Duffy *v.* Jaffe. I also assume because it was so stated in the judgement in that case, although I do not think it is exactly identical with the point decided there, that "person" in the first sentence of the third section also is limited to natural persons, but I desire to say that whilst deferring to the authority of that case, I express neither approval nor disapproval of it. Any such expression of opinion is not the function of a Court which is bound by a decision. My approval could not add to, nor could a contrary opinion by me detract from either its authority or its weight. These assumptions, however, appear to me not to touch the question here. It seems to me that upon the true construction of the Act it contains a statutory definition of the word "dentist," or its equivalent—"a person specially qualified to practise as a dentist," and declares the meaning of those expressions to be a person registered under the Act, so that the statement that an unregistered person is a dentist made by a person other than himself, although not a criminal offence, is an untrue statement.

That pronouncement seemed the most important in the whole judgement. Then the learned judge concluded by saying:

> Upon the whole I am satisfied that the true meaning of the statute is that in the view of the Legislature an unregistered person is not a dentist, and although the statement by one person that an unregistered person (other than himself) is a dentist is not a criminal offence because it is not so constituted by statute, it is still a false statement.

The explanation of that was that if Tom Smith an unregistered dentist called himself a dentist he was criminally responsible, but if William Jones said that Tom Smith was a dentist, he was not criminally responsible, but was only making an untrue statement. That was what the Board of Trade had been doing; they had been calling these companies what they could not possibly be, and untruthfully calling them dentists, because the word dentist applied to a registered practitioner. Then the judge went on:

> I hold that if it should be read as meaning registered dentist a false statement would be involved, because the company is not (and could not be) registered under the Act. Instead of those two statements appearing to be contrary to each other, the second was the logical sequence of the first. If a company was not a person within the meaning of the Act to render itself liable to prosecution, it was equally clear it was not a person that could offer itself for examination and obtain a diploma to be registered as a dentist.

The learned judge concluded by saying:

> This, in my opinion, concludes the whole case. I think that this company is applying to be registered under a name, in consequence of which every one of its acts, every use of its name, will involve a false representation, at least with the knowledge that its effect will be to represent to the public that the business of dentist is being carried on by a company through the agents who are persons "specially qualified to practise dentistry," when in fact the agents so acting either are not, or at least need not necessarily be so specially qualified. As the assistance of this Court and of the prerogative writ of mandamus cannot be granted for the purpose or with the effect of perpetrating a fraud, this application ought to be refused, and of course refused with costs.

That seemed extremely important. In a conversation which he had had with one of the law officers of the Crown, who taken a considerable interest in this matter, and who had interviewed the other law officers and the President of the Board of Trade, he distinctly said that in his opinion there was not the slightest difficulty in putting an end to all this trouble without legislation. If legislation were necessary they all knew what difficulties there were in obtaining it, but the method which the law officer suggested was this. He thought when the matter was brought before the Board of Trade they would take their own initiative and refuse to register any company in regard to which these untrue terms were used, and in that way the formation of companies of this sort would be stopped. Paragraph 2 (B) in the resolution was important, because, when the *Dentists' Register* was started, a large number of people became registered dentists with more or less qualification to be registered as such. By degrees those people were dying out, and eventually they would disappear. That was not the case with a company. A company once started might, as far as they could tell, go on for ever, and if this Jaffe Company remained using the title of "surgeon dentists," there was nothing to prevent them opening branches in every town in the United Kingdom and continuing to do so in the future. He suggested that if the use of those terms was likely to defraud the public or make the public believe that those people were registered dentists when such was not the case, they could be enjoined, at the suit of the Attorney-General, from

continuing to make use of those titles. Whether the initiative for the proceeding should come from the Government itself, or whether it should come from some of the dental societies, he was not prepared to say. He thought that possibly the end might be put to this without fresh legislation. It affected the medical and surgical profession exactly in the same way as the dentists. The Board of Trade had been registering medical companies of this kind since the decision he had referred to. He concluded by moving the adoption of the resolution.

The President inquired if Sir Charles Ball could tell them whether decisions of the Court over which Chief Baron Palles presided would apply to England and Scotland as well as to Ireland.

Sir Charles Ball replied that he had asked Mr. Muir Mackenzie about the matter. The decision of the Chief Baron in the Rowell case was subject to appeal to the House of Lords, but the other one was not. Mr. Rowell had not appealed to the House of Lords.

The President pointed out that he had time yet to do so.

Sir Charles Ball said that if they had the decision of the House of Lords that would be absolutely binding on the English, Irish, and Scottish Courts, but although the decision of the King's Bench in Ireland could not be held to be binding on the English and Scottish Courts, yet it would undoubtedly receive full consideration if any similar case came before those Courts. If the Board of Trade thought fit they could simply refuse to register these companies in England, Scotland, and Ireland, as it did for a time in Ireland. If that decision was upset by the House of Lords. or if a contrary decision was come to in England or in Scotland, then it was time to look for fresh legislation; but if it was not upset and not overridden by the House of Lords, then the Board of Trade might continue to refuse to register these companies.

Mr. Tichborne, in seconding the resolution, called attention to the fact that this question was raised four years ago in the Council. He was extremely glad to find that they had a judgement upon which they could act. Up to the time of this case the matter had come up both in England and in Ireland, but in every case the decision had gone in favour of the limited liability company.

The President then put the resolutions to the Council, and they were agreed to.

Sir Charles Ball then moved, and Mr. Tichborne seconded, and it was agreed to:

That the two judgements should be placed upon the minutes of the Council.

The Medical Act (1886) Amendment Bill.

The Council next proceeded to consider a communication from the Privy Council as to General Laurie's Bill to amend the Medical Act (1886).[1]

Dr. MacAlister stated that the Bill had been remitted to the Council for its information. It was a private Bill, and the chances of its passing were very small unless something was done to facilitate its progress. Action had been taken in Canada under their Medical Act 1902, which all but did what was wanted, but progress was stopped. This was a method of getting over the deadlock in Canada; but it still remained to be seen whether those responsible for the administration of the Canadian Medical Act 1902 would feel that this was the most desirable method of carrying out what so many provinces in Canada had approved. The Council could not venture an opinion for or against that question; it still remained unsolved. He thought the Council should indicate its general willingness to see any effective step taken which would remove the difficulty that had arisen. He concluded by moving:

That the President be requested to inform the Lord President of the Privy Council that this Council would welcome such a change in the law as would facilitate the application to Canada of the provisions of the Medical Act 1886, Part II.

Sir Victor Horsley seconded, and this was agreed to.

Canvassing.

Dr. Lindsay Steven moved:

That it be remitted to the Executive Committee to consider and report to the next session of the Council upon what should be regarded as systematic canvassing on behalf of a medical practitioner for subscribers to a medical club instituted by himself, and involving the employment of a paid collector of the entry money and the subscriptions to the club, which would be looked upon by this Council as constituting the practitioner so acting to have been guilty of infamous conduct in a professional respect.

His chief reason for moving this resolution was that the attention of the Council as well as the attention of the public at large should be directed to a charge which had been made against a practitioner during the present session. That was a charge which ought to be carefully considered by the Council as well as by the whole profession. One of the functions of the Council was to guide the ethics of the medical profession. The change he referred to opened up a new offence. It raised the question whether a practitioner so acting was not really trying to evade a previous resolution of the Council. It was the case of a medical man instituting a club himself, employing a collector to collect the entrance money and the subscriptions in order that he might carry on a system of practice which in many respects was not to be distinguished from that which the Council had already expressed its disapproval of. The question was, What could the Council do? The Council might say that it would do nothing, but that every case ought to be considered upon its merits. If the Council could see its way to formulate a resolution similar to those it had passed in regard to Medical Aid Associations and unqualified assistants, as a guide to the profession, he thought the necessity of considering these cases upon their merits would disappear.

Mr. George Brown thought the Council ought to formulate something which would be a guide to medical men in this matter.

Dr. MacAlister was of opinion that the Council ought to be cautious before it fixed a definition of a new offence. He thought that if it now attempted to formulate a definition of the kind of canvassing which was unprofessional it might omit what the next case showed ought to have been included. The Council ought to have more experience before laying down a hard-and-fast rule.

Dr. Lindsay Steven was willing to bow to Dr. MacAlister's longer experience in these matters, and with the consent of his seconder (which was given with some reluctance) he obtained the leave of the Council to withdraw the motion for the present.

In the absence of Sir Victor Horsley, in whose name the motion stood, Mr. Jackson moved:

That No. 8 of the minutes of the Executive Committee of May 24th, 1904, be referred again to that Committee in consultation with the legal advisers as to the action to be taken in regard to the issue of medical certificates contrary to the provisions of the Medical Acts.

Dr. Bruce seconded.

Medical Certificates given by Chemists.

The following communication from the Medico-Political Committee of the British Medical Association, forwarding a communication from the Education Committee of the Borough of Bootle in regard to the giving of a medical certificate by a local chemist and druggist in the case of a girl unable to attend schoolwas put in:

British Medical Association,
Medico-Political Committee,
Medical Secretary's Office,
429, Strand, W.C.,
May 2nd, 1904.

Dear Sir,—The enclosed letter and certificate having been brought to the notice of the Medico-Political Committee of the Association, I am instructed to forward them to you in order that they may be laid before the General Medical Council.

I am, yours faithfully,
J. Smith Whitaker,
Medical Secretary.

H. E. Allen, Esq., LL.B., Registrar,
General Medical Council.

Borough of Bootle Education Committee,
Elementary Education Department.
Offices: Balliol and King's Roads,
Bootle, February 18th, 1904.

Dear Sir,—In a letter dated the 8th June last, I brought under your notice the case of a document purporting to be a medical certificate given by a local chemist and druggist in this district. I have now to bring under your notice a similar case in which Mr. Procter Williams, chemist, carrying on business at 123, Derby Road, Bootle, has filled up a medical certificate form in respect of a child in this district, which form I enclose.

Yours faithfully,
J. W. Wilson,
Secretary for Elementary Education.

The General Secretary,
British Medical Association.

Resolved: That the attention of the Medico-Political Committee of the British Medical Association be called to Section xxxvii of the Medical Act, 1858; that they be informed that on the face of it the certificate forwarded to the Council appears to be invalid under that Section, and that the Council has no jurisdiction over chemists who give invalid certificates.

Dr. Norman Moore thought the Committee ought to be sup-

[1] The Bill was published in the Supplement to the British Medical Journal of March 19th, 1904, p. 40.

ported in their decision. They had all the papers before them, and went into the matter thoroughly.

Dr. LINDSAY STEVEN agreed with the last speaker.

Dr. MACALISTER said their legal adviser was present when they discussed the matter, and the question was entirely a legal one. It was therefore no use sending the matter back.

After some further discussion, the PRESIDENT put the resolution, and declared it lost.

UNPROFESSIONAL CONDUCT.

The REGISTRAR then read the following letter, which he had received.

County of Durham Medical Union,
42, Old Elvet, Durham,
May 25th, 1904.

Dear Sir,—I beg leave to ask if the General Medical Council will consent to receive a deputation from the County of Durham Medical Union, to lay before them some of the difficulties experienced by the said Union in their dealings with medical men who do not behave in a professional manner.

I am, dear Sir,
Yours respectfully,
EDWARD JEPSON, M.D.,
President.

To H. E. Allen, Esq., LL.B.

The PRESIDENT stated that in accordance with the Standing Orders this letter was referred to the Business Committee to consider.

Dr. MACALISTER, the Chairman of the Business Committee moved:

That the President of the County of Durham Medical Union be informed that the Council will be prepared to receive a written communication from that body respecting the difficulties to which they refer and the Council will then be in a position to decide whether any further conference is necessary.

This was seconded by Professor FINLAY and agreed to.

THE GENERAL REGISTRAR.

The PRESIDENT then proposed the reappointment of Mr. Allen as General Registrar. They had all had many years' experience of Mr. Allen's admirable qualities as registrar. He declared Mr. Allen elected unanimously.

LENGTH OF SPEECHES.

Dr. PAYNE gave notice that he would move at the next session of the Council the following resolution:

That in order to economize the time of the Council it was desirable to place a limit upon the length of speeches of individual members.

PENAL INQUIRIES.

Sir WM. THOMSON, with the permission of the Council as the motion did not appear on the programme of business, and did not arise out of anything which was before the Council, moved the following resolution:

That it be remitted to the Executive Committee to consider and draft an instruction to the Penal Cases Committee to ascertain in each case when a person or persons who had lodged a complaint against a practitioner whether the complainant or complainers had brought to the notice of the practitioner charged their disapproval of his conduct.

He said that the motion had reference to an incident which happened the other day in which a practitioner had received no notice from the complainer of the proceedings that were pending.

Dr. MCVAIL seconded the resolution, and it was carried.

VOTE OF THANKS.

Dr. NORMAN MOORE proposed a hearty vote of thanks to the President for his conduct in the chair throughout the session.

This was seconded by Sir WILLIAM THOMSON and carried unanimously.

The proceedings then terminated.

British Medical Association.

ELECTION OF MEMBERS.

ANY candidate for election should forward his application upon a form, which will be furnished by the General Secretary of the Association, 429, Strand. Applications for membership should be sent to the General Secretary not less than thirty-five days prior to the date of a meeting of the Council.

GUY ELLISTON, *General Secretary.*

Meetings of Branches and Divisions.

[The proceedings of the Divisions and Branches of the Association relating to Scientific and Clinical Medicine, when reported by the Honorary Secretaries, are published in the body of the JOURNAL.*]*

NORTH OF ENGLAND BRANCH.

A BRANCH Council meeting was held in the Royal Infirmary, Newcastle-on-Tyne, at 3.30, Tuesday, May 3rd. The President-elect (Dr. JAMES DRUMMOND) took the chair in the unavoidable absence of the President.

Apologies for absence were received from the President and Drs. Murphy and Crease.

New Members.—The sixteen candidates whose names appeared on the list were unanimously elected.

Annual Meeting of Branch.—The President-elect fixed Wednesday, June 8th, as the most suitable date. Meeting to be held at South Shields, and further arrangements were left to the President-elect and Secretary. It was arranged that a Branch Council meeting should be held immediately before the Annual Meeting.

Combination of Divisions for Annual Representative Meeting Purposes.—It was agreed that, subject to the approval of the Organization Committee, the meetings of Constituencies should take place as follows: North Northumberland, Blyth and Morpeth Divisions, at Blyth. Newcastle-on-Tyne, Hexham and Tyneside Divisions to meet in the Tyneside Division. South Shields, Gateshead and Consett, at Gateshead. Sunderland, Hartlepools, Stockton, and Darlington Divisions at Stockton. Durham, Chester-le-Street and Bishop Auckland Divisions to meet as arranged by the Division Secretaries. Cleveland at Middlesbrough.

BRANCH MEETING.

The spring meeting of the Branch was held immediately after the Branch Council meeting, and was very well attended. Mr. RUTHERFORD MORISON was voted to the chair in Dr. Burman's absence.

Absorption of the Northumberland and Newcastle Medical Association.—The HONORARY SECRETARY read the report of the Joint Committee of the two Associations which had been appointed specially to consider whether the local Association could be merged in the Branch, and, if so, on what conditions. The Branch Council had accepted this report, and recommended the Branch to accept the scheme, which included: (1) The Branch shall undertake to carry out the work hitherto done by the Northumberland and Newcastle Medical Association—that is, the protection of its members engaged in colliery and other forms of contract work. (2) In order that continuity shall be ensured, the Branch shall empower its Council to form a Committee to be called the Northumberland Committee, whose special duties shall be as above, and which shall include at first as many of the members of the Northumberland and Newcastle Medical Association as are members of the Branch. Also the President of the Northumberland and Newcastle Medical Association (Mr. Rutherford Morison) shall be asked to become chairman of the Committee. (3) The Secretary of the Northumberland and Newcastle Medical Association shall be employed by the Branch to act as Secretary to this Committee at a salary of £25 per annum, acting under the supervision of the Honorary Secretary of the Branch. (4) The Northumberland and Newcastle Medical Association agree to dissolve and bring in at least twenty new members of the Branch.—The HONORARY SECRETARY said that if the Branch approved this scheme, an addition to the rules of the Branch would be proposed at the annual meeting legalizing the new Committee.—The CHAIRMAN formally moved, and Dr. JAMES DRUMMOND seconded the adoption of this scheme.—Dr. F. C. MEARS opposed. He wanted more information as to the work and rules of the Northumberland and Newcastle Medical Association which it was proposed to take over. He thought the method adopted was unbusiness-like and illegal. He moved as an amendment:

That this matter be adjourned until the next meeting, and that in the meantime full information on the points named be sent to each member.

—Dr. LACHLAN FRASER seconded briefly.—Professor G. MURRAY pointed out that the Branch had approached the Association on the matter, and that it had been under consideration in different forms for a long time,

and had in no way been sprung on the Branch.—Dr. Cox said he had been quite taken aback by this belated opposition, as the matter had been in the air ever since the new constitution of the British Medical Association had come into force. The general principle of the absorption of the local associations had been discussed several times, and had been adopted by the Branch. They had long ago made up their minds that the existence of two or more societies professing to do exactly the same work was wasteful, and this was the first step towards a more economical method. He further pointed out that it was the British Medical Association that was absorbing the Northumberland and Newcastle Medical Association, and not vice versa, so that they were not in any way adopting their rules.—The amendment was rejected by a large majority, and the scheme carried.

Irish Dispensary Service.—Dr. Cox then moved:

That this Branch thanks the Editor of the BRITISH MEDICAL JOURNAL and his Special Commissioner for the able report on the Irish Dispensary Service which appeared in the SUPPLEMENT to the JOURNAL of March 26th, 1904; expresses its hearty sympathy with the members of that servicee in the deplorable situation in which they are placed; and urges the Council of the Association to spare no practical aid which can be given by the Association.

In briefly moving the resolution Dr. Cox said that the report was one of the most moving and able things he had ever read in the JOURNAL, and he hoped the Branch would show its sympathy for their Irish colleagues by passing the resolution unanimously.—Dr. J. H. HUNTER formally seconded, and the resolution was unanimously carried, and the Honorary Secretary directed to report the same to the Secretary of the Association and to the Editor of the JOURNAL.

TYNESIDE DIVISION.

THE annual meeting of this Division was held at Whitley Bay on May 11th. Dr. PEART (Chairman) presided, and the meeting was well attended.

Confirmation of Minutes.—The minutes of the last meeting were read and confirmed.

Annual Report.—The annual report was read, and showed that three ordinary and one clinical meetings had been held, in addition to a dinner, which it is hoped might become an annual event. The membership now stood at 39.

Election of Officers.—The following were elected for the ensuing year:—*Chairman:* Dr. R. S. Peart. *Vice-Chairman:* Dr. T. M. Young. *Honorary Secretary:* Dr. Lachlan Fraser. *Representatives on Branch Council:* Dr. H. Adams and Dr. Lachlan Fraser. *Committee:* Drs. Barker, Brumwell, Campbell, Gofton, Holgate, Ingram, Martin, Mears, Wilkinson, and Woodhouse.

Clinical Meetings.—On the proposal of Dr. FRASER seconded by Dr. MARTIN, it was resolved:

That a clinical meeting be held on the third Tuesday in each month from October to March at 8 p.m.

Local Medical Library.—Dr. BAKER proposed, Dr. FRASER seconded, and it was duly carried:

That the Committee be instructed to inquire into the practicability of a medical library being formed in the Division, and to report to next general meeting.

Medical Defence.—A long discussion took place on the medical defence scheme of the Association. Dr. CAMPBELL moved, and Dr. ADAMS seconded, the following resolution, which was carried unanimously:

That this Division, while approving of the principle of the Association taking up medical defence, does not approve of the present medical defence scheme of the Association.

Hydropathic Establishments.—Dr. YOUNG moved, and Dr. ADAMS seconded, the following resolution, which was carried unanimously:

That the members of this Division are opposed to the advertising of the names of medical practitioners in connexion with hydropathic establishments.

Canadian Medical Association.—The SECRETARY read a letter of invitation to the members of the Tyneside Division to attend the annual meeting at Vancouver. He was instructed to send a suitable reply.

Consultation of Medical Witnesses.—This question was very thoroughly discussed. Dr. CAMPBELL moved the following resolution, which was seconded by Dr. MEARS and carried unanimously:

That the Hon. Secretary be instructed to write to Mr. Smith Whitaker pointing out reasons against the suggestion.

Votes of thanks to Drs. Peart, Young, and Fraser concluded the business of the evening.

SOUTH-EASTERN BRANCH:

FOLKESTONE DIVISION.

A MEETING of the Folkestone Division was held at Hotel Wampach, on April 15th, Dr. PERRY in the chair. There were seventeen members present, and two unattached.

Confirmation of Minutes.—The minutes of the last meeting were read and confirmed.

Vaccination Bill.—The final clause of the vaccination matters referred to the Divisions, and which was deferred from the last meeting for reconsideration, was passed—14 for and 3 against.

Medical Acts Amendmemt Bill.—This Bill, which was deferred from the last meeting for reconsideration, was approved unanimously.

Representation on the General Medical Council.—This was also deferred from the last meeting for reconsideration and was approved unanimously.

Hydropathic Advertisements.—The meeting carried unanimously that it disapproved of the advertising by medical practitioners connected with hydropathic establishments.

Medical Witnesses.—The question of the advisability of medical witnesses engaged on each side in legal cases meeting in consultation was unanimously and cordially approved.

Medical Defence.—It was proposed and seconded that:

The British Medical Association should not take up medical defence.

An amendment was proposed and seconded that:

The British Medical Association take up medical defence, but that this Division does not approve of the scheme as it is at present drawn up.

This was lost by 10 to 6. The original proposition that the British Medical Association should not take up medical defence was carried by 13 to 4. On polling the number of members who were willing to join the medical defence department in the event of such a department being formed, only one name was received.

Dinner.—After the meeting 19 members dined together.

THE annual meeting of this Division was held at Hotel Wampach on Friday, May 27th.

Election of Officers.—The following officers were elected for the ensuing year: *Chairman:* Dr. C. E. Perry. *Vice-Chairman:* Dr. P. C. Lewis. *Representative on Branch Council:* Dr. T. Eastes. *Honorary Secretary:* Dr. P. V. Dodd. *Representative of Division in Representative Meetings:* Dr. A. E. Larking. *Deputy Representative of Division in Representative Meetings:* Dr. P. V. Dodd. *Executive Committee:* Mr. W. P. Barrett, Mr. W. F. Chambers, Dr. T. Streatfield.

HASTINGS DIVISION.

THE annual meeting of this Division was held on Thursday, May 19th, at the East Sussex Hospital, Hastings. The chair was taken by Dr. BAGSHAWE. Eighteen members were present.

Election of Officers.—The following were elected officers for ensuing year—*Chairman:* Dr. Allirey; *Vice-Chairman:* Dr. Wills; *Honorary Secretary:* Dr. G. Vickerman Hewland, 4 Eversfield Place, St. Leonards-on-Sea; *Representative on Branch Council:* Mr. Kaye-Smith; *Representative of the Division in Representative Meeting of Association:* Dr. Allfrey; *Other Members of the Executive Committee:* Dr. Bagshawe, Dr. Batterham, Dr. Brodie, Dr. Skinner, Mr. Paget.

Case.—Dr. REDMAYNE showed a case of bronchiectasis treated by incision and drainage. Case will be reported *in extenso* in BRITISH MEDICAL JOURNAL.

SEVENOAKS DIVISION.

THE summer meeting of the Sevenoaks Division was held in the Council Room of the Castle at Tonbridge on May 26th.

Election of Officers.—The following officers were elected: *Chairman:* Dr. Marriott. *Vice-Chairman:* Dr. Tew. *Representative to the Branch:* Mr. Maude. *Honorary Secretary:* Dr. Blomfield. *Committee:* Dr. Alliott, Dr. Fraser, and Dr. Ievers.

Medical Examination of School Children.—Dr. MARRIOTT introduced a discussion of the scheme of the Kent Education Committee for the appointment and remuneration of medical men as examiners and certifiers of children unable to attend public elementary schools. It was resolved that it was the strong opinion of that meeting that the examination and certification of children unable to attend school in consequence of illness should be made by the ordinary medical attendant of the family. It was further resolved that a copy of the resolution be brought before the Kent Education Committee.

Dinner.—The members subsequently dined together at the Rose and Crown Hotel, Tonbridge.

METROPOLITAN COUNTIES BRANCH:

CITY DIVISION.

THE second annual general meeting of this Division was held at the London Institution, Finsbury Circus, at 4 p.m., on May 26th. The Chairman of the Division, Mr. FREDERICK WALLACE, presided.

Election of Officers.—The following members were elected officers and members of the Executive Committee for the ensuing year:—*Chairman:* Mr. Hope Grant. *Vice-Chairman:* Dr. J. W. Hunt. *Honorary Secretary and Treasurer:* Dr. E. W. Goodall. *Representatives on the Council of the Branch:* Mr. Frederick Wallace, Mr. H. E. Powell, and the Honorary Secretary. *Representative in Representative Meetings of the Association:* Dr. E. W. Goodall. *Other Members of the Executive Committee:* Mr. J. Adams, Mr. J. Beddow, Mr. T. L. Brown, Dr. A. T. Davies, Mr. A. R. F. Evershed, Dr. E. N. Féré, Dr. Major Greenwood, Dr. F. H. Kyngdon, Mr. E. A. Lermitte, M.B., Dr. J. W. Oliver, Mr. C. R. Salisbury, Mr. J. S. Sequeira, Mr. A. G. Southcombe, Mr. J. King Warry, Mr. H. Chisholm Will.

Report of Executive Committee.—The report of the Executive Committee on the work of the past year was read and adopted. It was resolved that twelve be the quorum of a general meeting.

Medical Defence.—The SECRETARY reported that he had polled the Division, but had received only 24 forms of application from members who were willing to join the Medical Defence Department out of a membership of 172. After considerable discussion, from which it appeared that while the majority of those present were in favour of medical defence being undertaken by the Association, yet none were favourable to the scheme that had been put forward, the two following resolutions were carried:

1. That in the opinion of this Division it is advisable that the British Medical Association should undertake medical defence.
2. That this Division does not approve of the general principles and details of the scheme.

Representative Meeting.—The meeting then considered the notices of motion for the Representative Meeting at Oxford and the report of the Council. It was finally resolved:

That it be left to the representative of the Division to vote as he thinks fit on the motions to be brought before the Representative Meeting at Oxford.

Contract Practice.—The SECRETARY stated that he had been instructed by the Executive Committee to forward to all medical practitioners resident within the Division, with some exceptions, the letters of inquiry that had been sent to him by the Council of the Association.

Medical Examinations for Insurance.—The SECRETARY drew the special attention of the meeting to the memoranda of the Council on fees for medical examinations for insurance and on the present position of medical practitioners with respect to coroners.

Vote of Thanks to Retiring Chairman.—A hearty and unanimous vote of thanks was accorded to the outgoing Chairman, Mr. Frederick Wallace, for his services to the Division during his term of office.

WANDSWORTH DIVISION.

THE annual meeting of this Division was held on May 26th, at Crichton's Restaurant, Clapham Junction, being preceded by a dinner, at which 17 members were present, and Colonel Lilly, Mr. Giles, and Dr. Martin were guests. At the subsequent meeting Dr. M. G. BIGGS took the chair, and twenty-five members were present.

The Association and Medical Defence.—The report of the Committee on the Medical Defence scheme was received and approved.

Central Council.—Resolutions referring to the Central Council initiating only urgent matters were submitted and passed unanimously.

Rules of Division.—The Committee was authorized to take into its consideration the present rules of the Division, and to submit any alterations or additions at a subsequent meeting.

Election of Officers.—The following were elected to serve as officers and Committee for the ensuing year:—*Representative at Representative Meetings:* Dr. M. G. Biggs. *Representatives on the Branch Council:* Dr. H. Ker, Dr. L. Williams. *Chairman:* Dr. G. Walker. *Vice-Chairman:* Dr. L. S. McManus. *Honorary Treasurer and Secretary:* Dr. E. Rowland Fothergill. *Committee:* Drs. E. R. Badcock, G. F. McCleary, A. D. Roe, C. Smith, E. F. White.

The Agenda for the Representative Meeting was considered in detail.

Special Representatives Expenses Fund.—The special representative expenses fund of £3 17s. 8d. was augmented by an impromptu collection by Dr. Miller of £2 12s.

MEDICAL DEFENCE.

SIR,—Reading over your report of a special meeting of this Division held to discuss the above subject, apart from several instances of what we must consider to be slips in reporting, I see you have it stated that on the recommendation of one of our members this Division adopted the scheme. Now, this is incorrect. At the last moment when time was short, and in spite of a suggestion of Sir Victor Horsley's that the discussion should be adjourned, it was proposed and carried (Sir Victor Horsley having also suggested it) that the principle of the scheme be approved, and that it be left to the committee to consider it in detail and to report. A very different conclusion; and I would wish you for the sake of this Division to correct this wrong impression if you kindly would. Also with your courtesy I would ask you to print the report of the committee I now enclose, as having been approved at a meeting of the Division held on the 26th inst. It will be of interest, I think, to many of those who attended the original debate from a distance and at some personal inconvenience.—I am, etc.,

E. ROWLAND FOTHERGILL,
Honorary Secretary, Wandsworth Division.

Southfields, S.W., May 27th.

P.S.—A few of the 1,600 members of the Defence Union ask the question, "Why ask us to join you, why do you not join us." The Association has some twenty or more irons in the fire; defence will be one more only. The Union can only have one iron at most.

"REPORT ON SCHEME OF MEDICAL DEFENCE SUBMITTED BY THE CENTRAL COUNCIL.

"Your Committee recommend that as it will be necessary to alter the Memorandum of Association in order to carry out medical defence at all, it is advisable to so alter it as to allow the Association including medical defence as an integral part of its work but limited to its members resident in the United Kingdom.

"*If this alteration is made* (1) then your Committee recommends that other defence societies be invited to merge themselves, and that in the event of any society declining officially to do so, a clause be added to the scheme whereby members (either medical or dental) of any defence society on or before January 1st, 1905, who may not be also members of the Association, be allowed to join the defence department at a yearly subscription of 10s. each and on a guarantee of at least £1.

"(2) Your Committee does not see the necessity for special Scotch and Irish Committees, nor do they see any necessity for an allowance of 2s. a head to these parts of the country, as local solicitors can very well be appointed who will act under the direction of the Central Defence Committee.

"(3) It is the opinion of your Committee that although at the first outset the Association may possibly not be able to carry out defence of all its members resident in the United Kingdom on an increased subscription of only 5s. a member; yet, seeing they have large accumulated funds, they could well afford to do so by using if necessary a portion of such funds as have been subscribed by members resident in the United Kingdom, until the department were in full working order.

"They therefore recommend an annual subscription for members resident within the United Kingdom of 30s. each, which shall include medical defence.

"(4) The Defence Committee should only be re-elected annually so far as a-fifth of the members of that Committee are concerned.

"*If the proposed alteration of Memorandum be not made*, then your Committee considers the new proposed defence department should be carried on entirely separate from the Association; that the officials should be elected only by those joining that department; that the Association should not be allowed to lend money to this department on what would be unmarketable security; also that the members of the defence department should themselves, by guarantee or deposit of a fixed amount at interest, meet their own unusual liabilities should they ever be called on to do so."

SOUTH MIDLAND BRANCH:

BEDFORD AND HERTS DIVISION.

THE annual meeting of this Division was held at the Bedford County Hospital on May 3rd. The following members

were present: Dr. Major, Mr. Kinsey, Dr. Spence, Dr. Snell, Mr. Chillingworth, Dr. Hartley, Dr. Ross, and Dr. Savory.

Confirmation of Minutes.—The minutes of the last annual meeting were read and confirmed.

Election of Officers.—The following officers were elected for the ensuing year: *Chairman:* Dr. H. C. Major. *Vice-Chairman:* Dr. Lovell Drage. *Secretary and Treasurer:* Dr. Savory. *Representative of the Division in Representative Meetings:* Dr. R. H. Coombs. *Executive Committee:* Dr. Major (*ex-officio*), Dr. Coombs (*ex-officio*), Dr. Lovell Drage, Dr. Butters, Dr. Skelding, Dr. Temple, Dr. Savory.

Ethical Committee.—It was resolved that the Executive Committee act as Ethical Committee, and have power to add to their number from members of the Division.

Vote of Thanks to Dr. Ross.—It was resolved that the best thanks of the Division are due and are hereby tendered to Dr. Ross for his valuable services during the past year.

Matters Referred to Divisions.—In reference to the matters referred to the Division by the Central Council the following propositions were carried:

1. That it is highly desirable that the witnesses engaged on each side in legal cases should meet in consultation.
2. That all advertising of medical men in connexion with hydropathic establishments is highly objectionable, and should be dealt with.

MIDLAND BRANCH:

LINCOLN DIVISION.

A FAIRLY well attended meeting of this Division was held on Thursday afternoon, May 26th, at the Guildhall, Lincoln, Dr. CARLINE, Chairman of the Division, presiding.

Confirmation of Minutes.—The minutes of the last meeting were read and confirmed.

Balance Sheet.—The Honorary Treasurer's balance-sheet for the year was passed.

Election of Officers.—The meeting then proceeded to elect officers for the ensuing year, with the following result:—*Chairman:* Dr. W. A. Carline (Lincoln). *Vice-Chairman:* Mr. F. S. Lambert (Lincoln). *Honorary Secretary and Treasurer* (in place of Dr. Mansel Sympson, resigned): Dr. J. S. Chater (Lincoln). *Representative for Representative Meetings:* Dr. Genney (Lincoln). *Member of Branch Council:* Dr. Harrison (Lincoln). *Members of Divisional Council:* Dr. W. H. B. Brook (Lincoln), Dr. Levinson (Gainsborough), and Dr. Ellis (Metheringham).

Consultations between Medical Witnesses.—After a full consideration of the first subject for discussion, it was proposed by Mr. LAMBERT, seconded by Dr. MANSEL SYMPSON, and carried with one dissentient:

That this Division thinks that the meeting in consultation of medical witnesses engaged on each side in legal cases, not being practicable, is inadvisable.

Medical Practitioners and Hydropathic Establishments.—On subject No. 2 the following resolution was proposed by the CHAIRMAN, seconded, and carried:

Inasmuch as there are no hydropathic establishments in this neighbourhood in which, so far as the members are aware, objectionable advertising of the medical officers takes place, this Division would rather leave the matter in the hands of those with more knowledge of the subject.

The Association and Medical Defence.—A long discussion then took place on the question of medical defence, and it was ultimately resolved, with one dissentient, on the proposition of Dr. FARRAR, seconded by Dr. GENNEY:

That this Division is of opinion that the British Medical Association should not take up medical defence.

Associate Members.—Mr. F. Newcombe, Caythorpe House, Grantham, and Mr. J. C. Gray, Tetford House, Horncastle, were elected associate members of the Division.

Votes of Thanks.—Cordial votes of thanks to the Mayor of Lincoln for the use of the Guildhall, to the Chairman for presiding, and to the retiring Honorary Secretary and Treasurer (who has not been able to spare the time he deemed necessary for the proper working of the Division) concluded the business; and the members adjourned to tea, on the invitation of the ex-Secretary (Dr. Mansel Sympson), in the adjacent smaller room.

ULSTER BRANCH.

THE spring meeting of the Ulster Branch was held in the Town Hall, Portadown, on May 5th. Dr. THOMAS M'LAUGHLIN (Derry), President, occupied the chair, and thirty-one members were present.

Confirmation of Minutes.—The minutes of the winter meeti were read and confirmed.

The late Dr. Donaldson.—On the motion of Dr. CECIL SHA (Belfast), a resolution of condolence on the death of Dr. Donaldson (Derry) was passed and a copy ordered to be se to Mrs. Donaldson.

New Members.—The SECRETARY (Dr. Calwell) reported th the Council had elected William Andrew Simpson, M.B.R.U. L.M.Rot.Dub. (7, John Street, Dungannon), a member, a that Colonel Adams (Tullylish House, Gilford) had join the Branch.

Irish Dispensary Doctors.—Professor BYERS (Belfast) pr posed, Dr. THOMPSON, M.P., seconded, and Professor SINCLA supported the resolution which was published in the BRITI MEDICAL JOURNAL of May 14th, p. 1158. This resolution w passed with acclamation.

Tea.—After the meeting tea was kindly supplied by t Portadown and Lurgan members of the Portadown Division

NORTH WALES AND SHROPSHIRE BRANCH:

NORTH CARNARVONSHIRE AND ANGLESEA DIVISION.

THE annual meeting of this Division was held at the Britis Hotel, Bangor, on Wednesday, May 25th, at 2 p.m.; D EMYR OWEN PRICE (Bangor) in the chair. There were members present.

Election of Officers.—The following officers and represent tives were elected for the ensuing year:—*Chairman:* Dr. Joh Roberts (Menai Bridge). *Vice-Chairman:* Dr. J. Lloy Roberts (Colwyn Bay). *Honorary Secretary:* Dr. H. Jon Roberts (Penygroes), re-elected. *Representative on the Repr sentative Committee:* Dr. Emyr Owen Price (Bangor). *Repr sentatives on the Council of the Branch:* Dr. R. Arthur Pricha (Conway), Dr. Price Morris (Old Colwyn), Dr. Robert Par (Carnarvon). *Representatives on the Executive Committee of t Division:* Dr. T. E. Jones (Llanrwst), Dr. R. H. Mills-Robert C.M.G. (Llanberis), Dr. John Evans (Carnarvon), Dr. J. Prytherch (Llangefni).

Report of Executive Committee.—The report of the Executiv Committee, which congratulated the Division upon t success of its meetings during the first year, and urged eve member to do his best to secure those non-members wh reside in his immediate neighbourhood to join the Associ tion, was received and adopted.

Annual Representative Meeting.—The business of the annu representative meeting to be held at Oxford in July next, set down in the SUPPLEMENT to the BRITISH MEDICAL JOURNA for May 7th, was considered. It was resolved:

1. That this Division is favourable to all the proposed amendments the by-laws.
2. That this Division is also favourable to the first notice of moti given by the Folkestone Division (South-Eastern Branch), namel "That the present method of election by the Branch Council is unsati factory, and that new members should be elected by the members the Division in which they reside.
3. That in all other matters coming before the meeting a free ha should be given to our representative.

The Association and Medical Defence.—Dr. W. JONES MORR (the Representative of the Branch on the Council of t Association) explained the position taken by the Associatio with regard to medical defence.—The HONORARY SECRETAR reported that seventeen members of this Division had int mated their willingness to join the Medical Defence Depar ment in the event of its being formed.

Contract Practice.—Attention was called to the inqui forms sent out *re* contract practice, and members who ha contracts were urged to fill up the form applicable to su contract, and to forward it to the Medical Secretary of t Association in order to facilitate the work undertaken.

Medical Acts Amendment Bill.—The proposed Medical Ac Amendment Bill was discussed, special attention being call to Clauses 9, 19, and 30. It was finally resolved that all t clauses as set down in the draft be approved of.

Discussion.—Dr. JAMES CRAIG (Llandudno) opened a discu sion on the prevention and treatment of tuberculosis, which Drs. FRASER (Carnarvon), J. LLOYD ROBERTS (Colwy Bay), and the CHAIRMAN took part. A vote of thanks w accorded to Dr. Craig for his excellent introduction of t subject.

Next Meeting.—Dr. EMYR O. PRICE (Bangor) was request to open a discussion at the next meeting, and to select h own subject.

(Reports of several Divisions have had to be held over owing want of space.)

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SUPPLEMENT

TO THE

BRITISH MEDICAL JOURNAL.

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CONTENTS.

	Page.
BRITISH MEDICAL ASSOCIATION: SEVENTY SECOND ANNUAL MEETING AT OXFORD *(Illustrated)*	165
THE CITY OF OXFORD: The College Gardens.—New College.—Christ Church Hall.—The Cathedral.—Magdalen College.—Other Places not to be missed.—Other Entertainments.—Woodstock and Blenheim.—The River.—Saturday Excursions	165
GENERAL ARRANGEMENTS	169
SECTIONS:	
Medicine	169
Surgery	169
Obstetrics and Gynaecology	170
State Medicine	170
Psychological Medicine	170
Pathology	172
Physiology	172
Anatomy	172
Ophthalmology	172
Dermatology	174
Laryngology and Otology	174
Tropical Diseases	177
Navy, Army, and Ambulance	178
Dental Surgery	180
PATHOLOGICAL MUSEUM	180
SPECIAL RAILWAY ARRANGEMENTS	186
LIST OF LODGINGS AT OXFORD	181
MEETINGS OF BRANCHES AND DIVISIONS:	
North Wales and Shropshire Branch: North Carnarvonshire and Anglesea Division	186
North Lancashire and South Westmorland Branch: Lancaster Division	186
South-Eastern Branch: Croydon Division	186
" " " Maidstone Division	186
South Wales and Monmouthshire Branch: Cardiff Division	186
" " " " Monmouth Division	187
East Anglian Branch: South Essex Division	188
Metropolitan Counties Branch: Marylebone Division	189
Lancashire and Cheshire Branch: Blackpool Division	189
Glasgow and West of Scotland Branch	189
Bath and Bristol Branch: Bristol Division	189
South-Western Branch: Truro Division	189

SEVENTY-SECOND ANNUAL MEETING

OF THE

British Medical Association.

OXFORD, 1904.

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The Hall staircase, Christ Church.

IN a former article in this JOURNAL in December last a general idea was given of the attractions, scientific and artistic and social, which await in Oxford the members of the British Medical Association who attend the annual meeting. It was then pointed out that Oxford is a city particularly suitable for such a visit, and that it offers opportunities for the gratification of many various tastes. It is now proposed to enter more into detail, and to describe the arrangements, so far as they are at present completed, for the entertainment of the visitors and for the forwarding of the scientific objects of the meeting.

Members will find no difficulty in filling up their spare time. Oxford is always a show place. It is one of the first cities in England to be visited by the American and the foreigner, and, above all, it possesses the advantages of concentration. All the objects of interest can be reached by a few minutes' walk, in various directions, from the headquarters of the meeting; and it must be borne in mind that members of the Association, through the kind co-operation of the University and civic authorities, will have many more privileges and opportunities of seeing everything worthy of attention than has the casual visitor.

THE COLLEGE GARDENS.

Amongst the most characteristic and impressive features of Oxford are the College Gardens. Such a series of lovely pleasaunces, with their velvet lawns and grand old trees, with glimpses through the foliage here and there of picturesque buildings, pinnacles, towers, and battlements, is to be found nowhere else in the world, except perhaps at Cambridge. Full use will be made of them during the visit of the Association. All the gardens will be open; in one or other of them there will be a promenade concert every afternoon, and in two—Wadham and New College—special entertainments will be given. During the afternoon of Wednesday, July 27th, the President of the Association and the members of the Oxford Division will hold a reception in Wadham Gardens, and an exhibition of duelling and fencing will be given. This will probably be a novelty to many of the visitors, for, in contrast with the widespread interest in fencing on the Continent, there are few places in England where the art is practised. Oxford, however, possesses a flourishing fencing club, several prominent members of which are medical men, and this club will display its quality in Wadham Gardens. In the course of the afternoon there is to be an *epée* contest between representatives of Oxford and Cambridge, which is expected to be especially keen and exciting.

NEW COLLEGE.

A more peaceful entertainment will be given on Thursday evening in the beautiful gardens and hall of New College, where the Oxford ladies will receive the lady visitors and any of the members who are not dining in Christ Church Hall. Those who attend the dinner will have an opportunity of joining the others later. New College Gardens are among the finest in Oxford. They are entered from the Garden Quad, by lofty iron gates, once the property of the Duke of Chandos, now, with their spiky tops, a formidable obstacle to even the most athletic belated undergraduate. On three sides the gardens are enclosed by the old city walls, inclined to moulder, but kept in repair by the College, in accordance with a covenant between the Founder and the city authorities. At one corner of the walls rises the massive square bell-tower, standing detached, and apart, and gloomy as to its history. For here the Protestant members of the College were imprisoned by the Warden during the reign of Henry VIII, and one of the Fellows is said to have died of cold and starvation.

The Ladies Committee is arranging a musical entertainment to take place during the evening in New College Hall, the oldest hall in the University, large and lofty, with fine oak panelling and roof. New College was founded in 1380 by William of Wykeham, Bishop of Winchester, "who," says Froissart, "was so much in favour with King Edward III that everything was done by him and nothing done without him." The principal object of the new foundation was to provide a seminary for the support of the old Church against the doctrines of Wyclif, shortly before Master of Balliol. Over the door in the fine gateway tower is an image of the Virgin Mary, with an angel kneeling on one side and the Founder on the other. The buildings are grand, and served as a model for all the greatest subsequent foundations both in Oxford and Cambridge. There is a fine series of monumental brasses in the chapel, and the music here shares with that of Magdalen the highest reputation in the University.

Copyright] New College Gardens. [Taunt and Co., Oxford.

CHRIST CHURCH HALL.

The Hall of Christ Church, where the annual dinner will be held, is full of historic interest. It is approached from the great quadrangle by a very beautiful staircase, whose delicate fan-roof, springing from a single pillar, is shown in the accompanying photograph. This roof was built in 1640 by one Smith of London, working, it is supposed, from plans and drawings left behind by Cardinal Wolsey. The hall was designed and finished by Wolsey himself, the date of its completion 1529 being visible, together with the arms of Henry VIII and Catherine of Arragon, on the pendants from the carved oak ceiling. Sovereigns who visit Oxford are usually received in this hall, and on the list of royal visitors are the names of Henry VIII, Elizabeth, James I, Charles I, George III and George IV. Elizabeth and Charles I witnessed plays performed in the hall by the students, and scenery and stage machinery were apparently used here before they made their appearance in any London playhouse; the credit of their invention is attributed to Oxford scholars. In this hall, too, met the remains of the Parliament of Charles I, 48 Peers and 118 Commoners, and were addressed by the King. Round the walls are many interesting portraits, portraits of Wolsey, the Founder, of Henry VIII his patron, and of Queen Elizabeth, besides many later nobilities, some of them painted by Hogarth, and Lawrence, and Reynolds, and Gainsborough. Close to the hall is the great kitchen, which was also built by Wolsey himself, built in fact before all the rest of the College, a circumstance which has given opportunity to irreverent jesters. It will, perhaps, be unwise to visit the kitchen near the time of the annual dinner, as its occupants will probably be too busy to welcome strangers, but it is well worth seeing on some other occasion. Wolsey's great gridiron is still shown, and there also remain traces of three original huge fireplaces.

THE CATHEDRAL.

On the east side of the great quadrangle of Christ Church is the entrance to the Cathedral, which also serves the purpose of College Chapel, while the Dean is Head of the College. The Cathedral is chiefly Norman, and though comparatively small is very impressive; it was consecrated in 1180. Perhaps its most interesting features, apart from the Norman arches, are the magnificent roof of the choir with pendants brought from the old Abbey of Osney, the Latin Chapel surrounded by the stalls and desks originally placed by Wolsey in the choir, and the "Watching Chamber," from which the priests were wont to keep an eye on the shrine of St. Frideswide with its valuable offerings. The shrine itself has disappeared. In the Cathedral a service will be held on the morning of Tuesday, July 26th, and the preacher appropriately invited is the Master of University College, the son of Dr. Bright, whose name is universally known in relation to kidney diseases. It is worthy of notice that there are three Heads of Colleges living within a stone's throw of one another whose names are eminent in the history of medicine — Mr. Monro, Vice-Chancellor and Provost of Oriel; Dr. Bright, Master of University; and Mr. Heberden, Principal of Brasenose.

The afternoon of Tuesday, the first day of the meeting, is left free from organized entertainment, and visitors will have an opportunity of gaining a general impression. There will be provided for every member a guidebook, which will enable him to devote particular attention to such places as may specially appeal to his tastes, but there are a few visits which no one should fail to pay.

MAGDALEN COLLEGE.

The first to Magdalen College. James I, sententious as usual, declared this to be the "most absolute thing in Oxford." The College stands a little apart, outside the old East Gate of the city, so that it required its own battlements and fortifications. Seen from almost any point, the group of buildings, with the magnificent tower, is wonderfully picturesque, and from within the various quads and the gardens the views are even more beautiful. Passing through the gateway one sees to the right, close to the entrance of the Chaplain's Quad, an outdoor pulpit of stone, projecting from the wall. From this pulpit was formerly preached, every year, on St. John the Baptist's day, the University sermon,

hile the court below was strewn with rushes and brushwood
) commemorate the preaching of the Baptist in the wilder-
ess. After long disuse the custom has lately been partially
vived. A little further on is the Founder's Tower, covered
ith creepers, and under it a doorway leads through a beauti-
il vault to the cloisters. These are simply perfect. From
ie north side of the cloisters one may pass out into the
ardens, and, over a little bridge, into the water walks—long
venues of great trees, which follow the winding branches of
ie Cherwell. On a hot summer's day, the shade and the
eauties of the scene are delightful beyond description. One
the avenues is known as Addison's Walk, and was the
vourite strolling place of the poet. On the other side of the
ollege is the little deer park.

OTHER PLACES NOT TO BE MISSED.

To tear oneself away from Magdalen is not easy, but there
e other places which really must be seen, either now or at
me future time, during the visit—Merton, coeval with the
ouse of Commons and the earliest of English colleges;
niversity, and All Souls. The gardens of St. John's, with
e battlemented garden front of the college, form another
cture which cannot be neglected; and one must go also to
orcester College, and stroll down to the lake past the queer
tle group of huddled buildings, old monastic dwellings,
hich are the
mnants of
loucester
all, founded
1283. If it
ould happen
at one day
wet, as seems
t impossible,
e visitor may
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or resort, in
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hich he may
sily spend a
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niversity Gal-
ies, the Bod-
an Library,
e Museum,
e college li-
aries, halls,
d chapels are
en to him;
d let him
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nit to visit the
rne Jones ta-
stry at Exeter.
he cares for
ne of these
ngs he may
joy all the advantages of a large and luxurious club at
e Union, which society has hospitably ordered its doors to
opened to the members of the Association, during their
it.

Copyright.] The Cloisters, Magdalen. [Taunt and Co., Oxford.

OTHER ENTERTAINMENTS.

Thursday evening has already been accounted for. On
esday evening the new President, Dr. W. Collier, will
liver his address, and foreign and Colonial representatives
ll be introduced.

On Wednesday evening there is to be a *conversazione* at the
iseum, given by the Vice-Chancellor and members of the
iversity. The Museum is very convenient for such a pur-
se; there is a great central hall, surrounded by arcaded
leries, and a quite interminable series of side rooms,
oratories, and lecture theatres, in which will be shown
ny of the latest objects of scientific interest. The per-
nent collections to be seen in the Museum are also very
od and well arranged. The Hope Museum, in one of the
leries, contains an immense collection of insects from all
rts of the world, some of the cases specially arranged by
ofessor Poulton to illustrate his researches on mimicry.
ere is a pretty little collection of precious stones in the
in court, which may also specially be mentioned, and the
t-Rivers Anthropological Museum, in an annexe, is unique. It contains a multitude of objects illustrating the evolution of arts, and crafts, and manners, amongst the different races of mankind. Altogether, *soirées* in the Museum, which are not infrequent in Oxford, are invariably very successful.

On Thursday afternoon there will be two garden parties, one given by Dr. and Mrs. Neil, at the Warneford Asylum; and the other by Mr. Morell, M.P., and Mrs. Morell, in their beautiful grounds on Headington Hill, overlooking the towers and spires of the city.

Finally, on Friday evening, the Mayor of Oxford, Mr. E. A. Bevers, M.R.C.S., kindly invites the Association visitors to a reception in the City Buildings.

WOODSTOCK AND BLENHEIM.

On the Friday afternoon there will be a garden party at Blenheim Palace, Woodstock, the magnificent home of the Duke and Duchess of Marlborough. In the time of the Norman kings Woodstock was a favourite royal demesne, and a great hunting place. Henry I built a high wall, seven miles in circumference, round the park, where, "beside great store of deer, he appointed divers strange beasts to be kept and nourished, which were brought and sent to him from foreign countries far distant, as lions, leopards, lynxes, and porcupines." Here, too, was the maze in which Henry II secreted Fair Rosamund, whose story is certainly not altogether a myth, for there is evidence in old manuscripts, still preserved at Woodstock, that the King came thither to visit at the Manor House a lady whose name was Rosamund. Probably, however, the dagger and poison incident was added to the story by a later inventive narrator, and Rosamund really died in a less romantic manner, but in the odour of sanctity as a nun in the convent at Godstowe, the ruins of which are now occupied by cattle sheds and other farm buildings. Rosamund's well can still be seen near the reputed site of the maze.

Woodstock was given by Queen Anne to the conquering John Churchill, Duke of Marlborough, and with the help of half a million of money voted by a grateful Parliament, but never fully paid, was built the Palace of Blenheim, "as a monument of his glorious actions." The architect, Vanbrugh, thereby earned his epitaph from a Don of St. John's College:

> Under this stone, reader, survey
> Dead Sir John Vanbrugh's house of clay.
> Lie heavy on him, earth, for he
> Laid many a heavy load on thee.

The Palace is heavy, indeed, but splendid. The beautiful park is nine miles round; it abounds with fine old oaks and cedars, and is stocked with deer. The trees were originally planted in groups, so as to form a plan of the arrangement of the forces at the battle of Blenheim, each plantation representing a battalion of soldiers. The lake is a very fine sheet of water, and no one would now imagine that it was artificially formed by digging out a hollow and damming up a little rivulet. With the gardens, it testifies to the powers of the celebrated landscape gardener, "Capability Brown." The

gardens are wonderful, and contain many rare trees and shrubs. There are to be seen a Temple of Health, erected on the recovery of George III from his illness, and an Ionic Temple of Diana. There is an artificial waterfall, and a fountain copied from that in the Piazza Navona at Rome. Almost everything is artificial, but the work was so skilfully done originally, and the lapse of 150 years has been of so much assistance, that there are no glaring incongruities, and the whole seems harmonious and natural. Antiquarians will find interest in two old houses in the Park—one the High Lodge, which was the residence of the notorious Earl of Rochester, Ranger of Woodstock in the time of Charles II; and the other the reputed home of Chaucer. The majority of the renowned collection of pictures in the Palace were sold by the late Duke, but some fine portraits still remain.

Copyright.] Wadham Gardens. [Taunt and Co., Oxford.

THE RIVER.

The river is one of the greatest attractions of Oxford, and a fleet of crafts of all sorts is ready for hire. The stream below Folly Bridge is called the Lower River, while the reaches to the north of the city go by the name of the Upper River; in addition there is the more secluded Cherwell, which winds through the Parks and Magdalen meadows to join the main stream amongst the college barges. If any one is tired of meetings and indisposed for social festivities, let him take a punt or boat near Folly Bridge and turn aside into the Cherwell; here he will soon find delicious shade and peace to his heart's content.

Copyright. St. John's College. [Taunt and Co., Oxford.

Small steamers will ply daily on the Lower River, taking visitors to Iffley and to the woods of Nuneham, a favourite place for picnics; it is expected, too, that a boat-race will be arranged.

A cricket match and golf match are contemplated, and lawn tennis and croquet will be available for the visitors.

It is thus probable that the desires of all, whether they aim at scientific improvement or a pleasant holiday or both, have good chance of satisfaction. If any of the members have not seen Oxford before they have a rare pleasure in prospect, a pleasure of which no idea can be given by any written description of the place. Forty years ago a celebrated American man of letters was wise enough to omit all such description. "I take leave of Oxford," he says, "without even an attempt to describe it, there being no literary faculty attainable or conceivable by me which can avail to put it adequately or even tolerably on paper."

SATURDAY EXCURSIONS.

The Excursions Committee, in view of the fact that Oxford itself contains so much of interest, much more than can possibly be exhausted in five days, has not drawn up any elaborate scheme of excursions for the Saturday. Few people, it is presumed, would wish for a journey in a hot and crowded railway-train, in order to visit places less pleasant than that in which they already find themselves. However, one very attractive excursion has been arranged, which will especially appeal to those who are leaving, for home or further travel, by the Great Western Railway, in a northerly direction. This is to Leamington and Warwick. Leamington, named since Queen Victoria's visit in 1838 "Royal Leamington Spa," is a very pleasant place, and its mineral waters are of long-standing repute. Camden mentions them in 1586, and Dugdale, in the *Antiquities of Warwick*, published in 1656, tells us that "there is a spring of salt water, whereof the inhabitants make much use in seasoning their

meat." Leamington is now, of course, a fashionable watering-place; the pump rooms, the baths, and the gardens beside the River Leam, are excellently arranged, and well worth visiting. The waters contain principally chlorides and sulphates of sodium, calcium, and magnesium, with a minute proportion of oxide of iron. The town is well situated, bright, and clean. The Corporation hospitably invites those who attend the excursion to lunch, and every opportunity will be given to view the spa and the baths. In the afternoon the Countess of Warwick will give a garden party at Warwick Castle. In contrast with modern Leamington, Warwick was "founded by King Cymbeline, in the twilight ages, a thousand years before the mediaeval darkness"; such, at least, is the tradition. The castle is splendid, an ideal mediaeval stronghold, and the view of it, from the Bridge over the Avon, is not easily forgotten.

Visitors who are returning to London may, if they please, travel as far as Henley, or any less distance, by Salter's steamer on the river; and, given a fine day, no better remedy could be found for a possible surfeit of meetings and entertainments. It is a very leisurely, lazy journey, and there is every opportunity for enjoying the peaceful scenery of the Thames.

General Arrangements.

THE seventy-second annual meeting of the British Medical Association will be held at Oxford on Tuesday, Wednesday, Thursday, and Friday, July 26th, 27th, 28th, and 29th, 1904.

President: THOMAS DRYSLWYN GRIFFITHS, M.D.Lond., M.R.C.S., Swansea.

President-elect: WILLIAM COLLIER, M.D., F.R.C.P.Lond., Physician, Radcliffe Infirmary, Oxford, and Litchfield Lecturer in Medicine, University of Oxford.

Chairman of Council: ANDREW CLARK, F.R.C.S., Surgeon to the Middlesex Hospital and Lecturer on the Principles and Practice of Surgery.

Treasurer: EDWARD MARKHAM SKERRITT, M.D., F.R.C.P. Lond., Senior Physician to the Bristol General Hospital; Professor of Medicine, University College, Bristol.

The Reception Room will be arranged in the Examination Schools, High Street.

The General and Representative Meetings will also be held in these Schools.

The general Addresses will be delivered in the Sheldonian Theatre.

An Address in Medicine will be delivered by Sir WILLIAM SELBY CHURCH, Bart., K.C.B., M.D.

An Address in Surgery will be delivered by Sir WILLIAM MACEWEN, M.D.. F.R.C.S., LL.D.

A popular lecture will be delivered by Dr. G. BAGOT FERGUSON, F.R.C.S., M.Ch.Oxon., who was President of the British Medical Association when the annual meeting was held in Cheltenham in 1901. The lecture will be given in the Town Hall on Thursday evening, July 28th.

SECTIONS.

The annual meeting this year will comprise 14 Sections as shown in the subjoined list. Except where otherwise stated each Section will meet on Wednesday, July 27th, Thursday, July 28th, and Friday, July 29th, at 10 a.m. on each day and will adjourn at 1 p.m.

The president, vice-president and secretaries of each Section constitute a committee of reference for that Section.

No paper must exceed 15 minutes in reading, and no subsequent speech must exceed 10 minutes.

The text of papers submitted for publication in the BRITISH MEDICAL JOURNAL as part of the report of the Section should represent what is actually read in the Section.

Each author should hand the text of his paper in proper form for publication to one of the honorary secretaries of the Section immediately after its reading, or at the latest at the end of the day's meeting of the Section.

Papers read are the property of the British Medical Association and cannot be published elsewhere than in the BRITISH MEDICAL JOURNAL without special permission. Papers cannot be taken as read. If not read they form no part of the proceedings of the Section.

In response to a desire expressed by many members it is proposed to publish in the BRITISH MEDICAL JOURNAL abstracts of papers introducing the special discussions in the several Sections at an earlier date than usual. Such abstracts as have already been received will be found below and it is requested that those who have consented to introduce discussions will forward a corresponding abstract to one of the Honorary Secretaries of the Section in which the discussion is to take place at as early a date as possible.

MEDICINE.

President: WALTER TYRRELL BROOKS, M.B., Oxford. *Vice-Presidents:* PATRICK JOHN CREMEN, M.D., Cork; THEODORE DYKE ACLAND, M.D., London; GUSTAVE SCHORSTEIN, M.B., London. *Honorary Secretaries:* ASHLEY WATSON MACKINTOSH, M.D., 9, Bonaccord Square, Aberdeen; WILLIAM CECIL BOSANQUET, M.D., 117A, Harley Street, W.; WILLIAM ARTHUR PERNOW WATERS, M.B., 99, Holywell, Oxford.

The Committtee of Reference for the Section of Medicine have chosen the following subjects for discussion:

1. The Treatment of Tuberculous Pleural Effusion and Pneumothorax. Introduced by Professor W. Osler, F.R.S., Professor of Medicine in the Johns Hopkins University, Baltimore. Who will be followed by Sir W. Whitla, Professor Finlay, Dr. J. Mitchell Bruce, Dr. A. James, Dr. G. A. Gibson, Dr. Philip, Mr. Stanley Boyd, Dr. J. J. Perkins, and Dr. N. Raw.

2. The Serum Treatmen of Disease. (Joint Discussion with the Section of Pathology.) Introduced by Dr. E. W. Goodall, Medical Superintendent of the Eastern Hospital, N.E., who will be followed by Professor G. Sims Woodhead, Dr. F. F. Caiger, Dr. C. J. Martin, F.R.S., Dr. A. E. Wright, Mr. Cantlie, and Dr. W. Bulloch.

In his introduction of the discussion on the serum treatment of disease, Dr. E. W. Goodall will summarize as shortly as possible the present knowledge of serumtherapeutics, dealing with the subject from the practical point of view. He will refer to all the diseases in which the method has been employed with any measure or expectation of success, and will discuss the question of dosage. He will also consider briefly the use of sera prophylactically.

3. The Treatment of Chronic Renal Disease. Introduced by Dr. W. Hale White, Physician to Guy's Hospital. Who will be followed by Professor v. Noorden, Sir John William Moore, Sir W. Whitla, Dr. Goodhart, Dr. Byrom Bramwell, Professor R. Saundby, Dr. J. Finlayson, Dr. Samuel West, and Dr. J. Rose Bradford, F.R.S.

A paper on the Maternal Heart in Pregnancy, and the Management of Cases in which Pregnancy is Complicated by Disease of the Heart, will be read by Drs. J. Mackenzie, of Burnley, and H. O. Nicholson, of Edinburgh, and will precede the discussion on Serum Treatment.

The time remaining after the discussions will be devoted to the reading of such papers as may have been selected by the Committee of Reference.

SURGERY.

President: HORATIO PERCY SYMONDS, F.R.C.S Edin., Oxford. *Vice-Presidents:* WILLIAM BRUCE CLARKE, F.R.C.S., London; RICHARD HY. ANGLIN WHITELOCKE, F.R.C.S., Oxford; WILLIAM FREDERICK BROOK, F.R.C.S., Swansea. *Honorary Secretaries:* HERBERT EDWARD COUNSELL, F.R.C.S., 27, Banbury Road, Oxford; DAVID WALLACE, C.M.G., F.R.C.S.Edin., 11, Rutland Street, Edinburgh.

Special discussions have been arranged to take place on the two following subjects:

1. The Present Aspects of Asepsis and Antisepsis. To be introduced by Professor Watson Cheyne.

2. The Indications for and Methods of Performing Hysterectomy.

In his introduction of the discussion on this subject Professor Bland-Sutton will endeavour to show that the surgery of the uterus has been advanced and placed upon a secure foundation by the fact that the efforts of surgeons made a proper clinical and pathological investigation of its diseases possible.

The subjects will be treated under the following subheadings:

1. Hysterectomy for malignant disease, such as cancer and deciduoma malignum.

2. Fibroids and sarcomata of the uterus and the value of myomectomy, enucleation, including hysterotomy, and the age-value of the ovary.

3. The relative advantage and disadvantage of supravaginal hysterectomy and panhysterectomy.

4. Removal of the uterus in diffuse adenomyoma, uterine fibrosis, and septic diseases of the endometrium.
5. Hysterectomy for the tubo-uterine (interstitial) variety of tubal pregnancy and in cornual pregnancy.
6. The ethics of hysterectomy.
7. The technique of operations for the removal of the uterus.

Obstetrics and Gynaecology.

President: Francis Hy. Champneys, M.D., London. *Vice-Presidents:* Sir Alan Reeve Manby, M.V.O., M.D., East Rudham; Thomas Babington Grimsdale, M.B., Liverpool; John Campbell, M.D., Belfast. *Honorary Secretaries:* Frank Grégoire Proudfoot. M.D., 43, St. Giles, Oxford; John Shields Fairbairn, M.B., 60, Wimpole Street, W.

It has been arranged that on Wednesday, July 27th, and Friday, July 29th, the first part of the meeting of this Section will be occupied by a discussion on the following subjects:

1. Wednesday, July 27th.—The Treatment of Accidental Haemorrhage. To be introduced by Sir Arthur V. Macan.
2. Friday, July 29th.—The So-called Ovarian Pain; its Causes and Treatment. To be introduced by Dr. Herman.

State Medicine.

President: John Scott Haldane, M.D., F.R.S., Oxford. *Vice-Presidents:* Thomas Stevenson, M.D., London; Innes Griffin, M.R.C.S., Banbury; Arthur Newsholme, M.D., Brighton. *Honorary Secretary:* Harold Meredith Richards, M.D., Town Hall, Croydon; Arthur Latham Ormerod, M.D., Oxford.

The following subjects have been already selected, and it is proposed that as far as possible they shall be taken at the beginning of each of the three days of meeting, and that other subjects should be subsequently discussed as far as time may permit:

July 27th.—Standards of Ventilation. To be introduced by the President and Dr. M. H. Gordon.

July 28th.—The Control of the Milk Supply. To be introduced by Dr. Geo. Newman.

Dr. Newman, in the paper by which he will introduce the discussion on this subject, deals in the first place with the reasons why it is necessary to exercise a strict control of the milk supply. He then discusses the various methods of control to be exercised by the State and by the milk trade, in addition to various subsidiary considerations such as means of transit, supervision of milkshops, etc.

July 29th.—Poverty and Public Health. To be introduced by a paper on Pauperization by Mrs. Bosanquet and a paper on Alcohol by Mr. T. P. Whittaker, M.P.

Dr. McCleary will read a paper on the Influence of Antenatal Conditions on Infantile Mortality.

The following subjects are suggested as suitable for papers:

Physical Degeneration.
Direct Infection in Enteric Fever.
The Teaching of Hygiene in Elementary Schools.
The Causes of Infantile Mortality.
Tramps and Disease.
The Application of Statistical Methods to Public Health Problems.
Return Cases of Scarlet Fever and Diphtheria.
The Supervision of Houses let in Lodgings.
The Administrative Control of Diphtheria.

Subsection of Forensic Medicine.

On July 27th there will be a meeting of the Forensic Medicine Subsection, over which Dr. Stevenson will preside. The Provisional Programme is as follows:

Name.	Subject.
Dr. Waldo	(Title to follow).
Dr. Graham Smith ...	Blood Tests (probably).
Dr. Willcox	Arsenic.
Dr. H. Littlejohn ...	Wounds of the Throat.
Dr. F. Smith	Civil Responsibility of the Insane

Psychological Medicine.

President: Charles Arthur Mercier, M.D., London. *Vice-Presidents:* Ernest William White, M.B., Dartford; James Neil, M.D., Oxford; Thomas Seymour Tuke, M.B., London. *Honorary Secretaries:* Wm. Ford Robertson, M.D., 7, Hill Square, Edinburgh; Reginald Langdon Langdon-Down, M.B., 47, Welbeck Street, W.

The following subjects have already been selected for discussion by the Committee of Reference:

Wednesday, July 27th.—Criminal Responsibility and De generacy. To be introduced by Dr. Charles A. Mercier. Dr Max Nordau will take part in the discussion.

Thursday, July 28th.—Heredity. To be introduced by Dr J. Beard (Biological Aspect) and Medizinalrath Dr. W. König Dalldorf Asylum, Berlin (Psychiatrical Aspect).

The following is a general account of Dr. Beard's pape on Heredity.

The phenomena of heredity and genetic variation ar germinal in nature and in the sense of a handing-on of any thing there is no such thing as heredity. The individual i merely a lateral and terminal offshoot of a morphologicall continuous chain of germ cells. In the higher animals direc development, epigenesis, and a somatic origin of germ-cell do not exist. The recapitulation theory, according to whic every animal in the course of its development "climbs it own genealogical tree," is merely an illusion of the imagina tion and without any basis in fact. The mode of developmen is not "egg—embryo—egg—embryo, etc," but in a mamma or a man it is "egg—a sexual generation (chorion)—primar germ-cells—secondary germ-cells (oogonia, etc.)—oöcytes, et —gametes (eggs and sperms), "the embryo" arising by th unfolding of one primary germ-cell. The formation of a embryo is a mere incident in a certain chain of phenomena The phenomena, however, to which the term heredity is ap plied, have their basis in certain facts of embryology. Give in any life-history the period of the formation of the primar germ-cells, and for simplicity let there be of these but two AB and BA. On one will fall the lot of developing into a embryo, while the other will furnish the sexual products o this. The two cells are in all respects similar or equivalen so much so that if both form embryos these are identica twins. In the ancestry neither cell had ever been a highe animal, neither they nor their ancestors had ever forme parts, that is to say, been somatic cells, of an animal body But this ancestry is continuous with a long line of germ-cells and at regular intervals these were exactly like certain siste cells, which did develop and form individuals. Although on of the two, AB, does not itself give rise to an embryo, in th meantime it retains for itself and for all its immediat progeny the properties of BA, those characters, which, were or any of its progeny to develop, would make it or thei identical twins with BA, the other cell, which did develo But the foregoing takes no account of two things: that th conjugation of two germ-cells at fertilization is the joinin together. loose and without blending, of two complete sets o potential characters, of two individualities, and that as livin entities the germ-cells like all living things must be in fluenced by and react to their total environment. This intro duces the important factor of genetic variation.

As Wallace has said, the foundation of the Darwinia theory is the variability of species. It does not attempt t explain the cause of variation, but starts from the fact of it existence. Under this theory resulting from the struggle fo existence there is a survival of the fittest. The only ade quate cause of genetic variation yet suggested is Weismann germinal selection. This is purely a mental concept, in it nature it is very complicated, and being quite withou connexion with any known phenomenon or epoch of the de velopment, it hangs entirely in the air. As defined by Wei mann, the process would furnish a very great variety o gametes or conjugating cells, and these would be so varied i their characters or qualities that the resemblances rathe than the differences among the progeny would require ex planation. The problem of the true cause of variation be longs to embryology. For various reasons each and ever egg or sperm must be regarded as containing one complet set of all the characters or qualities necessary to form an in dividual of the species. At fertilization two sets of these ar somewhat loosely joined together. In the developing em bryo only one complete set of characters is made use of, an while the other corresponding qualities remain more or les dormant in its cells, that set or pack actually employed ma be made up of any characters taken from either of the tw packs, but so as to make up one complete pack. Turnin then to the germ-cells, each of these possesses the dupli cated set, and later on at the so-called "reduction"—tha is, at the final division of the oogonia into oöcytes and of the spermatogonia into spermatocytes, prio to the formation of conjugating cells or gametes, th twofold set becomes diminished to one pack only by th elimination of one complete pack. The true meaning of th reduction of chromosomes is the elimination of one set o characters or qualities, such that if among those of the origina

sets there be any unsuitable ones these are rejected. The union of two sets of characters at conjugation is in animals retained by the germ-cells, until the period of the reduction, by the embryonic cell, until the commencement of its development, when it becomes latent, and in plants during the whole life-period of the flowering plant (sporophyte). The two sets cannot be identical at the start. As living entities they must be influenced by the total environment, nutrition, climate, disease, toxins, etc. To all these influences they will react. The effect of all the factors will be a different one on the differently-constituted characters. Some it will favour, and these will flourish and increase in import. Others will be unfavourably influenced or neglected, and these will diminish. At the reduction there will be a settling-up, and if the environment have not been a constant one, some of the characters will have become better than other corresponding ones, a new pack will be chosen, and the less favourable characters rejected. This elimination of characters may on occasion become an elimination of complete individualities, or what is the same thing as a casting out of "ancestors." Moreover, because the two sets have been conjoined under the influences of the environment, and have reacted to this, the process becomes a self-adjusting mechanism, the up and down oscillations of the characters of the two sets endeavouring to follow and compensate the changes in the environment, and the result must be variation. This process may be defined as germinal election and elimination in adaptation to the environment. The Darwinian theory is undoubtedly largely based upon the analogy of artificial selection. Nature is supposed by natural selection, resulting from the struggle for existence, to eliminate all the unsuitable individuals, and thereby to select those for the continuance of the race which are most or more suitable for the environment. Even if she did this its results would be as nothing compared with those of germinal election of fit and elimination of unsuitable characters, which at its basis is also a weeding out of unsuitable individualities. A selection of individuals can give no certain results for either natural or artificial selection. Nature goes to the root of the matter, she makes no selection of individuals, for about these she cares nothing. She can exert her choice, and she does it among the germ cells, and not merely in these, but among the characters or qualities the germ-cells possess. In this it would be futile to attempt to bind her down by cast-iron laws of inheritance, to dictate that "the average contribution" of a father should be so much, of a grandfather so much, and so on. This may hold good in cases, but only with a constant environment. When the latter obtain, if all the characters or qualities be equally good, then, as in the Mendelian experiments in intercrossing peas, the election and elimination may be left to the mathematical laws of probability; they may be taken apparently at random, and in this way it may become possible to speak of sexual reproduction as sometimes an "amphimixis" or mingling of characters, and to set up laws of inheritance by average contribution. With a constant environment, or with what is assumed to be such, man first rejects (individuals of) certain varieties, and in this way favours (individuals of) some particular variety. By closely intercrossing these he accentuates particular points, because, of course, even in the characters of germ cells suited to a particular environment there may be degrees. In this man takes a course the reverse of that adopted by Nature. Her method may be slower, but it is sure. When she causes variation, she initiates it by altering the environment. While some one or more varieties of a species may be able to adapt themselves to the new conditions others will fail in this, and these will be eliminated either as individuals, or, even if fertile with the favourable variety or varieties, then by germinal elimination. Germinal election and elimination appear to offer adequate and simple explanations of all the phenomena—at any rate, the author has encountered no real difficulties. They throw light upon the Mendelian cases of intercrossing peas, etc., on mimicry, protective coloration, bud variation, and the loss of organs, such as the hind limb of the Greenland whale, for which latter cases Weismann found it necessary to call in a new principle—that of "panmixie," or the cessation of natural selection. They explain why the giraffe, for example, has a long neck; this is not because, as the Lamarckians assert, it was in the habit of stretching its neck, the effects of this being handed on by the inheritance of acquired characters; and again, not because, as the Darwinians maintain, by natural selection Nature picked out those individuals whose necks tended to be long, and destroyed those with shorter necks; but simply because Nature eliminated in the germ-cells those characters which tended to the production of a short neck, while she fostered those other characters of the other parental line, which tended to the formation of a longer neck, and she increased the value of these characters from generation to generation. The principle resulting in the self-regulating mechanism offers a simple construction of all the phenomena of variation, an ultimate and a far more natural one than "natural selection" or the "germinal selection" of Weismann. Indeed, under it there is no necessity to invoke these: by germinal election and elimination their positions are completely and decisively outflanked and rendered untenable.

Under the views here advanced the words "parent," "ancestor," "offspring," and "reversion" become meaningless. In the same way any "appeal to ancestry" (Weldon) is barred by the non-existence of any "ancestors" to appeal to. In the union of egg and sperm we witness the joining together of but two sets of characters and not that of "x" sets, derived from as many "ancestors." In the development of the individual only one of these becomes manifest, but the other may reappear in the gametes. As in the reproduction of dioecious individuals these unite with the gametes of other individuals, in this union *a priori* there would be for any particular character four possibilities. To illustrate this, take the four grandparents, and consider only one character in the gamete of each. Assume, further, that in the two following generations there be no complete elimination of any character and that this reappear in some of the gametes. The characters may be called A, b, C, d, the first two being conjoined in the germ cells of the father, the second two in those of the mother, and the large letters being dominant or prepotent. In the gametes of the parents the representative of this character may be either the dominant one or the latent one. That is to say, any particular gamete may contain any one of the four characters, A, b, C, d, and suppose then that b and C be conjoined to form the grandchild and that C be dominant in it, its gametes will then contain either character b or character C. Therefore, if this character b unite with another e, and if in the development b be the dominant one, the result will give the appearance of a "reversion" to the grandparent b, after a dormancy through two generations. But there is no room for more "ancestors." Similarly, such a latency may extend over more generations. Much attention is being devoted to the statistical study of variation, in the hope of increasing our knowledge of heredity. Such investigations to be of value should include all the essential factors. But in none of the published investigations is due heed given to the influence of the environment. For the modern biometrician as a factor worthy of consideration it might be non-existent; he attaches as little weight to its influence as he does to the importance of making any distinction between somatic and genetic variations. In his published researches he ignores the effects of the environment, and slumps somatic and genetic variations together!

The environment is all-powerful for the individual and for the germ-cells too! A constant environment induces no change, and thus permits of the operation of the mathematical laws of probability in the selection and elimination of characters. A bad environment, leading to the mating of the unfit with the unfit, and in this way to the selection of the unsuitable, not in the individuals but among the characters or qualities of the germ-cells, can but result in deterioration and physical, mental, and moral degeneration. Finally, a good and favourable environment, with an approach at complete adaptation to it on the parts of the individuals and of the germ-cells, must be the prime cause of advance, and with this of the ever greater and greater improvement of the stock.[1]

Friday, July 29th.—Dementia Praecox. To be introduced by Dr. Conolly Norman.

Other Business of the Section.

The time remaining after the discussion on each morning will be devoted to the reading of such papers as may have been selected by the Committee of Reference.

On each day there will be one or more microscopical demonstrations upon subjects connected with the pathology of insanity. Any member wishing to contribute to this part of the work of the Section is requested to communicate with one of the Honorary Secretaries without delay, in order that

[1] For fuller information the reader should consult: J. Beard, A Morphological Continuity of Germ-cells as the Basis of Heredity and Variation, in *Review of Neurology and Psychiatry*, vol. ii, 1904; and W. Ford Robertson, The Pathology of Chronic Alcoholism, in *British Journ. of Inebriety*, April, 1904.

the necessary arrangements may be made regarding the provision of the number of microscopes required.

PATHOLOGY.

President: JAMES RITCHIE, M.D., Oxford. *Vice-Presidents:* HUMPHRY DAVY ROLLESTON, M.D., London; Professor JAMES LORRAIN SMITH, M.D., Belfast; WILLIAM BULLOCH, M.D., London. *Honorary Secretaries:* STUART MCDONALD, M.B., F.R.C.P., 40, Marchmont Road, Edinburgh; ERNEST WILLIAM AINLEY WALKER, M.D., University College, Oxford.

Each meeting will be occupied chiefly by a discussion on a subject arranged. The discussion will begin with the reading of set papers (by persons who have worked at the subject) bearing on particular portions of the subject and correlated to the whole. The discussion will then be thrown open to all speakers who desire to take part, not excluding those who have read papers on the subject.

The first discussion is upon Immunity; it will be opened by the President (Dr. Ritchie), who will discuss the broad physiological aspects of the question. Professor Wassermann (Berlin) and Dr. Madsen (Copenhagen) will read papers (Professors Ehrlich and Bordet cannot come). Professor Wright's paper will deal specially with Opsinines and his own special views upon immunity. Professor Muir will treat specially of Haemolytic Sera in Relation to Immunity; Professor C. J. Martin specially of Snake Venoms in Relation to Immunity; Dr. Bulloch specially of the Cellular Aspects of Immunity.

The second discussion is on the Rôle of the Lymphocyte. Dr. Lovell Gulland and Professor Muir will deal with the Origin and Development of the Lymphocyte. Dr. J. H. Drysdale will discuss the Clinical Significance of Lymphocytosis and its relation to Special Pathological Conditions, and Dr. Beattie the Relation of the Lymphocyte to Inflammation; Dr. Whitfield, the Relation to Inflammation and to Skin Diseases; Dr. Houston (Belfast), its Relation to Leucocythaemia; Dr. C. Melland (Manchester), the same; Dr. A. Ferguson (Glasgow), its Relation to Small-pox; Dr. W. J. MacCullum (Johns Hopkins University), its Relation to Typhoid Fever Lesions; Dr. Gillman Moorhead (Dublin), its Relation to Typhoid Fever; Dr. Mott, its Relation to Pathological Changes in the Central Nervous System.

The third discussion is on the Chemical Pathology of Gout. It will be opened by Professor von Noorden, and there will be papers by Dr. A. Garrod, Dr. Smith-Jerome, Dr. Walker Hall, and Dr. W. Bain.

PHYSIOLOGY.

President: Professor FRANCIS GOTCH, M.R.C.S., F.R.S., Oxford. *Vice-Presidents:* Professor WILLIAM HY. THOMPSON, M.D., Dublin; MARCUS SEYMOUR PEMBREY, M.D., London. *Honorary Secretaries:* WALTER RAMSDEN, M.D., Pembroke College, Oxford; HORACE MIDDLETON VERNON M.D., 3, Bevington Road, Oxford.

The following subjects have been selected for discussion:

July 27th.—Colour Vision. To be introduced by Professor Francis Gotch.

July 28th (jointly with the Section of Anatomy).—The Thalamic Region. To be introduced by Dr. Gustav Mann.

July 29th.—Chloroform Anaesthesia. To be introduced by Sir Victor Horsley. Professor Sherrington and Dr. C. J. Martin will take part in the discussion.

The proceedings will also include papers and demonstrations on other physiological subjects. The following have already been arranged:

1. Drs. A. P. Beddard and E. I Spriggs. Some Points in the Metabolism of Diabetes with Reference to Present-day Treatment.

2. Dr. A. P. Beddard: Subcutaneous and Intravenous Injection of Saline Purgatives.

3. Dr. A. E. Boycott: Observations upon the Respiration of Intestinal Worms.

It is proposed also to hold an exhibition of apparatus and objects of physiological interest. Every care will be taken of exhibits, which should be sent to one of the Honorary Secretaries, addressed "Physiological Laboratory, University Museum, Oxford," if possible by July 21st, and should be accompanied by a short description.

ANATOMY.

President: Professor ARTHUR THOMSON, M.D., Oxford. *Vice-Presidents:* Professor JOHNSON SYMINGTON, M.D., F.R.S., Belfast; Professor ROBERT HOWDEN, M.B., Newcastle-on-Tyne; THOMAS H. BRYCE, M.D., Glasgow. *Honorary Secretaries:* WILLIAM WRIGHT, F.R.C.S., The University, Birmingham; GUSTAV MANN, M.D., the University Museum, Oxford.

The meetings of this Section will be held on July 27th and 28th.

Special discussions for these dates have been arranged on the two following subjects:

1. Giants and Dwarfs. To be introduced by Professors Cunningham and Windle.

2. The Thalamic Region (jointly with the Section of Physiology). To be introduced by Dr. Gustav Mann and Sir Victor Horsley.

Any member who desires to exhibit anatomical or histological preparations, or any apparatus, is requested to send it, accompanied by a short description, to Dr. Gustav Mann, the University Museum, Oxford, on or before July 20th, in order that all necessary arrangements may be made.

OPHTHALMOLOGY.

President: ROBERT WALTER DOYNE, F.R.C.S., London. *Vice-Presidents:* GEORGE EDWARD WHERRY, F.R.C.S., Cambridge; CYRIL HUTCHINSON WALKER, F.R.C.S., Bristol; FERGUS MENTEITH OGILVIE, F.R.C.S., Oxford. *Honorary Secretaries:* SYDNEY STEPHENSON, F.R.C.S.Edin., 33, Welbeck Street, W.; FRANK GRIFFITH THOMAS, M.B., 2, Brunswick Place, Swansea.

Retro-ocular Neuritis.

Mr. Marcus Gunn will open a discussion on Retro-ocular Neuritis based upon the following sketch. The term retro-ocular or retro-bulbar neuritis is used to indicate cases that show evidence of the optic nerve being impaired by an inflammatory affection, which exerts its chief influence behind the papilla. The evidence is, as a rule, entirely clinical, and the diagnosis, for a time, may rest solely on the subjective symptoms. But ophthalmoscopic changes come to our aid, either early in the affection by the neuritis invading the papilla, or after the lapse of some weeks by the optic disc becoming pale. In exceptional cases only do opportunities occur of examining the affected nerve, and then nearly always long after the inflammatory stage has passed away.

Put very broadly, this discussion is open to a consideration of all cases in which there is evidence of the optic nerve being inflamed, apart from such as are generally recognized and classed as papillitis. But we are confronted by two questions; (1) How are we to recognize a neuritis when the papilla presents a normal aspect? (2) How are we to differentiate between retro-ocular neuritis involving the papilla, and a pure papillitis occurring without evidence of intracranial or other disease calculated to produce it? The reply must be that we are now dealing with a well recognized clinical group of cases, associated with certain definite subjective symptoms, namely, rapid failure of vision, particularly affecting the macular area, often in one eye only, usually accompanied by pain and tenderness in the orbit. The other chief clinical characters consist in impaired pupil-reaction to light, an absence of early ophthalmoscopic changes, and a tendency to recovery. It is not denied that slighter or anomalous forms of retro-ocular neuritis may occur without these symptoms, and any evidence of the occurrence of such forms will be valuable. There is no doubt that, occasionally at any rate, an optic neuritis descends, for example, from an anterior basal meningitis, involving the papillae finally. In its earlier course this is truly a retro-ocular neuritis; but its local intensity behind the papilla is never, so far as I am aware, sufficient to produce the usual subjective symptoms; and we rightly class this optic nerve affection as a papillitis.

In rare cases of retro-ocular neuritis there is complete blindness for a time; while in others the loss, instead of being central, affects other parts of the visual field.

Very similar symptoms occasionally occur in central retinal affections, and the differential diagnosis is often difficult during the early stages. In such conditions the prominent symptom is central visual failure in one eye, and at first there are no definite ophthalmoscopic changes, so that there is considerable similarity between these cases and retro-ocular neuritis. The chief distinguishing feature in the retinal cases is the absence of associated pain; there is also sometimes micropsia, or a positive scotoma, with a history of recent exposure to excessive light. We do not usually get the late pallor of the optic disc, but frequently find oedema and round pale yellow spots in the macular region.

In the early stages, so long as our diagnosis rests merely on subjective symptoms, retro-ocular neuritis is liable to be con-

fused with functional amblyopia, but a careful examination of the character of the reaction of the pupil to light should always serve to distinguish between them. The reaction is invariably impaired when there is decided amblyopia from neuritis, while it remains normal in cases of functional origin.

Failure of Vision.—The amount of amblyopia varies very much in different cases. There may be absolute blindness for a time in the most severe form. On the other hand, occasionally complaint is made of recent visual failure, even though the acuity is $\frac{6}{6}$. In the latter very slight cases the test-letters are read slowly and with difficulty, the patient stating that there seems to be a mist obscuring their outline; this is particularly evident on comparison with the other eye, for these slight forms are practically always uniocular. A relative colour scotoma at or near the fixation point can, I believe, always be found in these mild cases.

Visual acuity in retro-ocular neuritis is worse in a very bright light, and excessive light leads to further temporary deterioration, probably from the physiological degeneration so induced in the ill-nourished axis cylinders. Occasionally complaint is made of seeing objects as through a moving haze, like that seen on a sunny day near the ground. This may possibly be explained by imperfect insulation of the axis cylinders, from breaking down of their medullary sheaths, a change which is known to occur early in retro-ocular neuritis. Or, it may be that this shimmering effect is due to the fact that the affected axis cylinders, though able to conduct momentarily, are rapidly exhausted; the alternate action and loss of function of contiguous fibres, as they are earlier or later exhausted, may thus lead to confused perception and an apparent movement from the irregularity of the visual stimuli transmitted and received.

The light sense is markedly deficient. This is presumably to be accounted for by the imperfect and irregular conductivity of neighbouring fibres, so that the difference in the impression obtained by the visual centre is no longer dependent on the amount of stimulus, but largely and irregularly on the differences in the conducting power of individual fibres.

One of the distinguishing features of retro-ocular neuritis is the rapidity of the visual failure. This is in contrast with the length of time that a papillitis may exist without the nerve function being affected, and with the usually gradual failure when it does occur in the latter. The visual failure in retro-ocular neuritis very frequently takes the form of an absolute central scotoma, surrounded by an area in which the colours red and green are recognized imperfectly or not at all. This visual loss is due undoubtedly to interference with the conducting efficiency of the macular fibres. These fibres form a well-marked bundle, which occupies the outer part of the nerve at first, but quickly approaches the centre as they ascend in the nerve trunk, so that they soon reach a median position, which they maintain in the rest of their course to the chiasma. Their peculiar proneness to suffer in this affection, although occupying the central part of the nerve trunk, as just mentioned, will be discussed, and an explanation suggested and invited.

Lastly, there is much more tendency to recovery, even in severe forms of retro-ocular neuritis, than would be expected, judging from our experience of other optic nerve lesions. At the same time there are exceptional cases in which no recovery takes place, and others where there is a liability to recurrence so that ultimately the visual result is disappointing.

The relation of age, sex, etiology, etc., to the prognosis will be considered at some length, and facts bearing upon this will be much appreciated.

As already mentioned, the ophthalmoscopic evidence of neuritis may not be present until late in the attack. When the papilla is inflamed early it indicates that the affected area of nerve is close to the scleral opening. Not infrequently the vision has already begun to improve before the papilla is involved. In a considerable number of cases the first ophthalmoscopic change is a consecutive pallor, occurring some weeks after the beginning of the attack, and often present even when the visual recovery is quite satisfactory. The amount of pallor that may coincide with practically perfect vision after a retro-ocular neuritis is very remarkable, and its nature deserves our consideration.

The etiology of retro-ocular neuritis is often obscure. This subject will be considered under three headings, namely:

1. Inflammation communicated to the nerve from neighbouring structures (for example, from cellulitis or periostitis in the orbit).

2. Nerve affected by a local manifestation of a general disease (for example, in syphilis and in tuberculosis).

3. Neuritis of toxic origin (for example, in connexion with influenza).

Toxic amblyopias proper, as from tobacco, will not be considered in this discussion, except such forms as show evidence of actual neuritis.

The association between retro-ocular neuritis and insular sclerosis will be considered at some length.

A short account will be given of the pathological changes met with in retro-ocular neuritis, and it is hoped that microscopical preparations may be exhibited at the meeting.

Intraocular Haemorrhage.

The following are notes of the paper by which Dr. Hill Griffith will open the discussion on Intraocular Haemorrhage and Systemic Disease. Primary intraocular haemorrhage appears to be rather infrequent; among 6,500 consecutive private patients I found only 33 examples, a proportion of 0.5 per cent., all in the retina or vitreous. I have never seen spontaneous haemorrhage into the anterior chamber, nor have I seen, as far as I know, choroidal haemorrhage apart from staphyloma posticum, choroiditis, and growths. I have records of 44 hospital cases, which must be only a very small proportion of what I have seen. These 77 cases may be classed as follows: Retinal haemorrhages, 34; haemorrhagic retinitis, 23; subhyaloid haemorrhages, 12; haemorrhage into vitreous, 8; total 77. As the result of an ophthalmoscopic examination of some 500 cases of all kinds in the medical wards of the Royal Infirmary, which I was enabled to undertake by the kindness of my colleagues, I found retinal haemorrhages in 12 patients only, or only 2 4 per cent. Nature appears to be very well able to safeguard the eye even in grave disorders of the general circulation, but against changes in the blood she is not so efficient.

Keratitis Profunda.

A discussion on Keratitis Profunda will be opened by Mr. W. T. Holmes Spicer by a paper of which the following is an abstract:

Many cases of interstitial keratitis are met with in which no trace nor history of syphilis, congenital or acquired, can be obtained. For such the term deep keratitis or keratitis profunda is a convenient one; in broad features they resemble greatly interstitial keratitis.

The cases may be arranged in three groups:

1. Those in which the corneal change is central.

2. Those in which the corneal change starts at the periphery.

3. Those characterized by deposits on the back of the cornea (keratitis punctata) in which the actual change in the cornea appears to be secondary.

1. In the first group, a grey disc of opacity appears in the centre of the cornea with fairly defined edges; the surface of the cornea over it is oedematous, and frequently covered with many large blebs, due to epithelial changes. The opaque disc is in the deepest part of the cornea, and in the earliest stage is often made up of striated lines radiating from the centre, or arranged almost vertically. After a few days the striation gives way to a uniform grey haze. If a few drops of fluorescein of the ordinary strength be placed in the conjunctival sac and allowed to remain there, the central disc takes on a bright green stain, the surface of the cornea not staining. The seat of the stain is probably the endothelium. The central disc is sometimes less dense at its centre, so that the appearance is that of a ring of opacity surrounding a comparatively clear centre. In other cases the central disc is surrounded by a separate opaque ring made up of coalesced maculae.

2. In the second group the opacity begins at the periphery of the cornea, and consists of a grey cone advancing slowly across the cornea; the striation of the posterior surface is here often visible, the lines running directly towards the centre of the cornea. The surface is oedematous and frequently has many small epithelial vesicles on it. A growth of vessels frequently invades the cornea, running in the same direction as the striated lines. In the peripheral form staining by fluorescein of the endothelium is less easily obtained.

In both groups there is ciliary congestion of dusky character, some pain and photophobia, and great impairment of vision. There is generally some uveitis present, either posterior synechiae or deposit on the back of the cornea—keratitis punctata.

3. The third group is that in which the keratitis punctata is for long the most marked feature; the corneal opacity appears

later; in some cases a fine punctate staining can be obtained by fluorescein. In some cases, probably tuberculous, there are nodular deposits in the angle of the anterior chamber.

Deep keratitis occurs generally in older people than those subject to the interstitial keratitis of congenital syphilis, and commonly only one eye is affected; its course is slow, and considerable opacities may be left behind, especially in the aged.

Causes.—Deep keratitis occurs frequently with disorder of the gastro-intestinal tract—indigestion, overfeeding, constipation, chronic diarrhoea or dysentery, uterine disorders, alleged rheumatism and gout.

The local treatment is hot fomentation and atropine, with leeches in severe cases; subconjunctival injections are useless, and sometimes harmful. The underlying cause must be treated.

Pathology.—Where the central disc is the prominent feature the earliest pathological change is an endothelial one, as shown by the deep staining of the cornea by fluorescein; the appearance of the opacity in the substance of the cornea is a subsequent one, dependent on the loss of endothelium, the latter acting as a protection to the back of the cornea against the action of the aqueous. The striation of the cornea is due to folds or wrinkles in Descemet's membrane; the whole cornea is oedematous, the surface being markedly so, the epithelial cells and spaces between them being distended with fluid and frequently forming vesicles on the surface.

The underlying cause is probably a vascular one, an arterial ischaemia due to disease of the long ciliary arteries, or a venous congestion due to blocking of the venae vorticosae; the experiments of Wagenmann of cutting the long ciliary arteries, those of Koster of ligaturing the venae vorticosae, and those of v. Hippel resulted in the production of well-marked parenchymatous keratitis.

As far as possible investigation by the ophthalmoscope of the anterior part of the choroid has been carried out, but without result; the changes, if there be any, lie too far forward to be visible.

It is suggested to those taking part in these discussions that it would be advisable to condense their remarks and to present them to the meeting in the form of a short paper, lest digressions should absorb an undue share of the time allowed by the rules of the Association to each speaker. The difficulty of compressing into a ten minutes' speech observations upon a subject that has taken up much thought and research need not be dwelt upon. There is little doubt, moreover, that the time-limit will have to be strictly observed, in order to give all who desire to do so an opportunity of speaking.

The following gentlemen have expressed their willingness to read papers:

1. Short Note on Two Cases of Disease of the Canaliculi. Dr. A. H. Benson.

2. (*a*) On Glaucoma and Glaucoma Operations. (*b*) On Visual Efficiency after Accidents to Sight from the Point of View of Employers' Liability. Dr. G. A. Berry.

3. The Operative Treatment of High Myopia. Mr. W. Adams Frost.

4. Reforms in the Notation of the Acuteness of Vision. Dr. Emile Javal, Paris.

5. (Title not yet announced.) Mr. W. H. H. Jessop.

6. Sepsis and Intraocular Inflammations. Mr. W. Lang.

7. The Temperature of the Cornea and its Relation to Corneal Therapeutics. Dr. Angus McGillivray.

8. Upon the Maturation and Extraction of Senile Cataract. Professor M. McHardy.

9. Conclusions as to the Vision of Birds based upon a Consideration of Mimetic Colour and Pattern in Insects. Professor Poulton, F.R.S.

10. Visual Acuity in Savage Races. Dr. W. H. R. Rivers.

11. (A subject bearing upon Glaucoma.) Mr. Priestley Smith.

12. Ophthalmoplegia Externa. Dr. James Taylor.

13. Paracentesis of the Cornea for the Relief of Tension Consequent upon Tearing Opaque Capsule. Mr. T. Pridgin Teale.

The following gentlemen have already intimated their intention of being present at the meeting, and those whose names are marked with an asterisk of taking part in the discussions:

Mr. A. H. Benson
Mr. G. A. Berry*
Mr. T. H. Bickerton*
Mr. W. A. Brailey*
Mr. A. Bronner*
Mr. L. V. Cargill
Sir William J. Collins*
Sir Anderson Crichett*
Mr. R. Cross
Mr. W. A. Frost*
Mr. C. E. Glascott
Mr. A. H. Griffith*
Mr. R. M. Gunn*
Mr. G. Hartridge*
Dr. E. Javal
Mr. W. H. H. Jessop
Mr. H. E. Juler
Mr. W. Lang
Mr. J. B. Lawford
Mr. G. Mackay*
Mr. E. E. Maddox
Mr. A. McGillivray
Professor M. McHardy*
Mr. E. Nettleship
Mr. F. M. Ogilvie
Professor Poulton
Mr. H. Power
Mr. A. M. Ramsay
Dr. W. H. R. Rivers
Mr. A. Q. Silcock
Mr. P. Smith
Mr. W. T. H. Spicer
Mr. H. R. Swanzy
Dr. James Taylor
Mr. T. P. Teale
Mr. J. T. Thompson
Mr. John Tweedy
Mr. C. H. Walker
Mr. G. Wherry

Keble College, Oxford, has been retained for the accommodation of members attending the Section of Ophthalmology. There are, however, many arrangements to be made: the number of rooms at the College is limited; and numerous American and foreign guests are expected. It is therefore important that members who propose to attend the Section should notify one of the Honorary Secretaries of their intention.

The time at the disposal of the Section is limited. Consequently those gentlemen only who send in their names beforehand can depend upon being called upon to speak in the discussions. Finally, attention may be directed to the subjects selected for discussion, which offer a wide field for research. It is hoped that gentlemen having charge of, or access to, ophthalmic departments will make efforts to collect data between the present time and the date of the meeting.

Dermatology.

President: Thomas Colcott Fox, M.B., London. *Vice-Presidents:* James Herbert Stowers, M.D., London; James Limont, M.B., Newcastle-on-Tyne; Leslie Roberts, M.D., Liverpool. *Honorary Secretaries:* Ernest Mallam, M.B., 3, Holywell Street, Oxford; Edward Stainer, M.B., 60, Wimpole Street, W.

The following discussions have been arranged:

July 27th.—The Treatment of Pruritus Ani. To be introduced by Mr. Malcolm Morris.

July 28th.—The comparative value of old and new methods of Treatment of Lupus and other Skin Diseases. To be introduced by Dr. J. H. Sequeira.

July 29th.—On the relative importance of the Bacterial and other Factors in the Causation of Skin Diseases. To be introduced by Dr. Arthur Whitfield.

Other papers will be read.

It is proposed to form a collection of recently-executed drawings and photographs of Cutaneous Diseases of interest. Members desiring to contribute to the collection are requested to communicate with the London Secretary.

Laryngology and Otology.

President: Charters James Symonds, M.S., London. *Vice-Presidents:* Frank Marsh, F.R.C.S., Birmingham; Cecil Edward Shaw, M.D., Belfast; Harry Lambert Lack, M.D., London. *Honorary Secretaries:* Walter Jobson Horne, M.D., 27, New Cavendish Street, W.; Edmund Cecil Bevers, M.B., 117, Woodstock Road, Oxford.

The following subjects have been selected for special discussion:

The Treatment of Non-suppurative Disease of the Middle Ear.

Professor Urban Pritchard will introduce the subject on the following lines:

The classification of the conditions included under non-suppurative disease of the middle ear is not yet agreed upon, but for discussion of treatment the following rough divisions will suffice:

1. Acute non-suppurative otitis media.
2. Early stages of chronic non-suppurative catarrh.
3. Advanced stages of the same.
4. Middle-ear adhesions the result of former acute inflammation.
5. Sclerosis resulting from disease of the bony capsule

enclosing the internal ear, and forming the inner wall of the tympanic cavity.

1. *Treatment of Acute Non-suppurative Otitis Media.*—In the earliest stages gentle, not forcible, politzerization (not catheterization) will often relieve the pain at once and tend to cut short the attack. Counter-irritation behind the ear is always most valuable, and will often arrest the otitis and relieve the pain. Instillations are occasionally advisable; when used should be strong anodyne solutions (for example, cocaine or morphine) in an antiseptic medium. Glycer. acid carbol. has been strongly recommended; also adrenalin with cocaine.

Heat in the form of very hot fomentations, or hot bran bags, is very useful. Leeches in front and below the ear are valuable in very acute cases.

Incision of the membrane is called for when there is marked bulging of the membrane. The meatus must be purified and afterwards dressed antiseptically to avoid suppuration.

Purgatives are nearly always necessary. Phenacetin or antipyrin, etc., may be given to relieve the pain. Pharyngeal treatment is usually required, but nasal douches or irrigations must absolutely be avoided,

After-treatment.—Politzerization should always be employed; will restore the hearing and prevent adhesions. If adenoids are present they must be removed.

2. *Treatment of the Early Stages of Chronic Non-suppurative Catarrh*, in which there is exudation into the mucous membrane and from its surface, hence stenosis of the Eustachian and more or less fluid in the tympanic cavity.

Politzerization is preferable to catheterization. This should be repeated at intervals of one, two, or three days, according to the relief obtained as ascertained by the amount of improvement to hearing. This must not be continued when it increases the deafness.

Incision of the membrana tympani may be practised if there is much fluid in the tympanic cavity, but this is practically a rare condition. The operation should be performed antiseptically.

Local medicinal treatment is most valuable. Sterile alkaline nasal irrigation (for example, borax and sodium bicarbonate) to be preferred to the nasal douche, as the latter occasionally will produce acute otitis. Mild astringent sprays are often beneficial. Inhalations of pine oil, eucalyptus oil, or still better of fumes of ammonium chloride, are most valuable.

Adenoids and also enlarged tonsils, if present, must be operated on; and any nasal stenosis must also be removed, to allow of free nasal breathing.

Internal medicinal treatment is rarely needed, except for general health.

Climatic treatment is important. Damp situations, such as river valleys of gravel with clay subsoil, should be avoided. High, dry, and sunny positions selected. Warm and well-drained seaside resorts are good, whereas cold damp seashores with northern aspects must be avoided. High sunny alpine valleys are often very beneficial; but on rapidly descending from these Valsalva's inflation should be practised. Early and continued treatment of these stages of catarrh is most important, and will often prevent the advanced stages.

3. *Treatment of Advanced Stages of Chronic Middle-ear Catarrh.*—This is much less satisfactory, on account of the adhesions causing retraction of the membrane and fixation of the membrane and ossicles.

Mechanical.—Catheterization is often preferable to politzerization, but the value of courses of repeated inflations has been much overrated. Patients must be warned against the constant recourse to Valsalva's method of inflation; at the same time, cautiously employed it is of value. Gentle suction by means of Delstanche's masseur is occasionally of value, but may easily be overdone. We have yet to learn the value of the rapid suction massage recently introduced. The Eustachian bougie has been overrated. The objections to it use are: First, the risk of injury to the delicate ciliated mucous membrane; the narrow part of the tube being bony it cannot be dilated except at the expense of this mucous membrane; secondly, in advanced cases the loss of hearing power is almost always due to changes in the tympanic cavity and not in the Eustachian tube.

Operations.—All these up to the present have been futile.

Local Medicinal Treatment.—Nasal irrigations of sterile alkaline and saline solutions are of much value. Inhalations of the ammonium chloride fumes, with cautious Valsalva's inflation to introduce them through the Eustachian tubes, form a most valuable treatment, but long-continued use, with intervals of rest, is necessary. Injections through the Eustachian catheter are much employed by some surgeons, and are occasionally of value; probably a sterile solution of sodium bicarbonate is the most efficatious.

Internal Medicinal Treatment.—Occasionally, when the mucous membrane is glazed and dry, small doses of potassium iodide with ammonia, so as to produce slight symptoms of coryza, combined with some form of inflation, will yield excellent results. Turkish baths are of value in some of the less advanced cases.

Climate.—The same holds good as with the early stages of the disease, but has far less effect.

4. The treatment of middle-ear adhesions of old standing is most unsatisfactory. Operative interference has as yet signally failed, though there may be a future for this. In fact, at present these cases only make the surgeon regret that active treatment was not adopted directly after the acute inflammation which resulted in the adhesions.

5. Treatment of sclerosis is still more hopeless, and in a pure case no treatment is of any avail—mechanical, medicinal, operative, and climatic treatments are alike useless. All that we can do is to use such general treatment—for example, iron, arsenic, etc.—as will keep up the general health in the hope that this may help to arrest the disease. We have yet to learn whether the high-frequency electric treatment will yield any results.

In conclusion, although very much may be done in acute otitis and in the early stages of chronic catarrh, yet in the advanced stages of chronic catarrh the aural surgeon can do very little. This is very much to be deplored, as these cases are so very common.

Some of us are too apt to give up the advanced cases at once as quite hopeless, forgetting the fact that even a small improvement in hearing is of value to a very deaf patient. Whereas others, being over-enthusiastic, vaunt the value of this or that treatment, which seems to have benefited, perhaps temporarily, one or two cases.

The writer knows of no condition in which treatment should be considered more judicially, avoiding hasty conclusions for or against any proposed treatment. And certainly do not let us judge harshly of our over-enthusiastic *confrères* who may be unduly vaunting some new process, having been carried away by a few apparent successes.

Etiology, Treatment, and Prognosis of Innocent Growths of the Larynx.

Dr. Dundas Grant's introduction to this discussion will be based upon the following sketch:

Consideration will be limited to non-malignant growths found in the interior of the larynx, and chiefly to those points which are of practical importance with regard to treatment. The etiology is a question of practical weight, and it is only to be regretted that it is often veiled in obscurity. The removal of the cause is an essential step in treatment in medicine, and to a less extent in surgery; in the particular branch of laryngology under discussion it is obviously of secondary importance as compared with the operative removal or destruction of the growth, but it is of the greatest value in prophylaxis and in the prevention of recurrence after extirpation.

Many growths in the larynx are so closely related to inflammatory products that they cannot be distinguished from them, and, indeed, are identical with them in their anatomical structure. Their diversity depends mainly upon which elements in the composite structure of the laryngeal mucous membrane are chiefly affected.

Among the commonest growths in the larynx we find papillomata (pachydermia verrucosa) essentially identical with the pachydermia found in its most typical form on the vocal processes and in the interarytenoid space. Such growths as fibromata, fibro-papillomata, fibro-adenomata, cysts, and angiomata are also explicable as the results of inflammatory conditions. In many cases the sequence of events from an acute to a chronic inflammation, with such subsequent hyperplasia as to constitute a tumour, is evident; in other cases it is most obscure.

Those parts of the vocal cords which undergo the greatest amount of mutual concussion and attrition, such as the junction of the anterior and middle thirds (the most frequent nodal point during phonation), the vocal processes and the inter-arytenoid space, would seem to be most liable to chronic inflammatory and neoplastic changes. In the inter-arytenoid space the result is a diffuse thickening (pachydermia) at the vocal process, the typical pachydermic nodule. At the junction of the anterior and middle thirds of the cords there may

be a "singer's nodule," consisting of a simple epithelial thickening (a miniature corn), a smaller or larger papilloma generally of soft consistence or a sessile or pendulous oedematous fibroma which may exceptionally contain glandular structure.

Growths at the anterior commissure may depend on the same causes, but it seems likely that they are at times of developmental origin, and are really embryonic remains allied to those congenital diaphragms sometimes occupying more or less of the space between the anterior parts of the cords.

The chief causes of irritation of the larynx are over-use or wrong use of the voice and irritating vapours or dusty atmosphere—for example, the black-board chalk in the case of teachers. Excess in tobacco smoke (especially "inhalation" of cigarette-smoke) may also be quoted. Nasal obstruction leading to mouth-breathing or purulent nasal discharges inhaled into the larynx are among the most potent contributories. Syphilis and tuberculosis may induce such chronic inflammatory changes as predispose to the development of new growths, but the irritation of the microbes of pulmonary phthisis—the tubercle bacilli as well as the accompanying micrococci—is known to be capable of exciting the growth of papillomata. It is probable that laryngeal papillomata when multiple are due to microbic infection.

The prognosis of innocent laryngeal growths is dependent mainly upon their accessibility for removal and the possibility of avoidance of the predisposing and exciting causes.

If not removed their tendency is to increase of growth leading to fatal obstruction to respiration, all the more rapid in supraglottic or intraglottic growths, also to continued and increased impairment of voice, more rapid in intraglottic or infraglottic growths (in the latter case still more if the growth is sufficiently mobile to be driven up between the cords during expiration). Spontaneous disappearance is possible in the case of papillomata, but cannot be counted upon.

After operation recurrence is probable unless the removal is complete. The writer's experience would lead him to the view that single pediculated growths at the anterior commissure are unlikely to recur, whereas sessile ones at the junction of the anterior and middle thirds of the vocal cord are very likely to do so, as also are multiple papillomata.

The question of malignant transformation of benign growths cannot be left unconsidered. Practically, it only arises in connexion with papillomata, which, in exposed parts of the body, have a tendency, under repeated or continued irritation, to develop into epitheliomata. There is no reason for immunity on the part of the larynx, but the results of Semon's collective investigation seem convincing as to its extreme rarity. Moreover, the evidence that while it occurred in 1 in 211 of the cases on which no operation was performed and in only 1 in 249 of those operated on, allows a margin in favour of operation. This is a complete answer to those who have been inclined to attribute to the traumatism effected by intralaryngeal operation a tendency to bring about malignant changes in innocent laryngeal growths.

In the few cases related by Fauvel the removal of the growth was followed by long-continued cauterization with nitrate of silver.

Treatment is not necessarily always operative. The avoidance of exciting and predisposing causes—for example, complete silence or limitation of voice to a whisper for several months—is sometimes sufficient in cases of very small nodules due to over-use or misuse of the voice. Coughing must be absolutely prohibited or prevented. Avoidance of smoking or smoky atmosphere and moderation or abstinence in regard to alcohol and other causes of gastro-hepatic disturbance are also valuable prophylactic and therapeutic factors. The correction of errors in voice production is of vital importance. The writer is convinced of the beneficial effect of the vocal exercises devised by Holbrook Curtis and of a rational method of respiration in the use of the voice. The occasional application of astringents may contribute.

In other growths removal is the only treatment and it should be carried out *per vias naturales*. The form of instrument employed varies with the special experience of the operator.

The following practical hints, founded on the writer's practice, may meet with the approval of those who are accustomed to Morell Mackenzie's form of handle, and the forceps referred to are modificatations of those with which he did his finest work.

Pendulous growths at the anterior commissure call for the cold snare, and, if it fails, Powell's or Lack's forceps with anteflexed tips. Similar growths on the edge of the cord may be removed with snare or Grant's safety forceps. For sessile growths on the edge of the cord, the latter instrument is pre-eminently adapted. For growths in the posterior commissure Wolfenden's or Lake's forceps, and for those on the upper surface of the cord, Whistler's, are very useful.

Krause's handle is much used abroad and his is the best known tube forceps to which various double curettes and other blades can be adapted. The advantages of these blades combined with a handle acting like that of Morell Mackenzie's are obtained by means of Watson Williams's recently devised instrument. A cutting punch-forceps with blades adapted for the four cardinal points has been invented by Jurasz, and the writer has found it invaluable for the removal of portions of growths for microscopical examination.

Cutting ring knives (Luc) and guillotines (Chappell) have been used by some, but British operators in general seem to pin their faith to some adaptation of Morell Mackenzie's instruments.

For the destruction of the stump various caustics have been employed, such as nitrate of silver, formalin, chromic, trichloracetic or salicylic acid, the last named being in the writer's opinion particularly valuable for papillomata. The writer's recent experience impressed him very favourably with the value and practicability of the fine galvano-caustic point.

Among other means must be mentioned an instrument like O'Dwyer's intubation tube with thin-walled tubes having fenestrae cut in such positions as to engage the growth (usually papilloma in children) and snip it off. Tracheotomy has sometimes led to the disappearance of papillomata in children, but not constantly.

Cysts on the lingual aspect of the epiglottis may be avulsed, or elsewhere they may be incised, preferably by means of the galvano-caustic knife. Angiomata may be destroyed by means of the galvano-cautery.

Anaesthesia by means of cocaine has rendered many of these operations easy which were formerly impossible. The best method seems to be the slow injection of about 5 minims of a 20 per cent. solution of hydrochloride of cocaine, by means of a laryngeal syringe, so that the liquid is allowed to trickle over the edge of the epiglottis (Westerman). The combination of local anaesthesia (cocaine) and general anaesthesia (chloroform) introduced by Scanes Spicer has added still further to our possibilities. Lastly, the use of Mount-Bleyer's "epiglottis lifter" has greatly facilitated the writer's examinations and operations. Escat, of Toulouse, and Lambert Lack have devised somewhat similar instruments. Kirstein's method of autoscopy is available for growths situated close to the upper orifice of the larynx.

The distance from the dorsum of the tongue to the vocal cord is sometimes very considerable and beyond the reach of ordinary laryngeal forceps—say fully 4 in. In such a case the writer eradicated a papilloma of the size of a split pea by a few touches of the fine galvano-cautery point.

Are there any circumstances which call for removal of non-malignant intralaryngeal growths by external operation? Fauvel, with characteristic decision, rejected this absolutely. Certainly the cases in which it is justifiable are extremely few (we are not considering growths on the outer aspect of the framework of the larynx). When, however, all endolaryngeal methods in the most skilled hands available have failed, or the size or vascularity of the tumour make intralaryngeal measures impracticable, external methods are called for.

Tracheotomy may be practised in children with papillomata, who may not be amenable to endolaryngeal treatment, more especially if breathing is obstructed, in the hope that spontaneous disappearance of the growths may take place. It is also useful for the removal of a growth so low in the larynx as to be beyond the reach of intralaryngeal instruments.

Infrahyoid laryngotomy is adapted only for growths which should be reached through the mouth.

Thyrotomy had formerly a high mortality, but is practically nearly as safe as tracheotomy. It should, however, be avoided for fear of impairment of voice as the result of imperfect coaptation of the vocal cords. No doubt a more complete extirpation may be effected in this way than by the natural passages. Recurrence is thus made less probable, but it is by no means excluded.

In the complete paper the writer will cite cases illustrating the points touched on in this summary.

Disease as a Determining Factor in the Production of Laryngeal and Pulmonary Affections.

The discussion will be opened by Dr. Greville Macdonald (London) and by Dr. Samuel West (London).

Dr. Greville Macdonald has forwarded the following abstract of his paper:

Referring to the unsatisfactory condition of a subject where the conflict of clinical facts, the contradictory opinions deduced by authorities, and the small help afforded by the physiologist, preclude the possibility of establishing a scientific basis for future investigation, the paper offers a working generalization which may be a step towards the establishment of a definite law.

The writer deals with his own observations and divides his cases into three classes:

1. Those pointing to the relief or cure of asthma by removing obstruction to easy breathing or obstruction causing pressure.

2. Those where the treatment of any other sort of abnormality in the nose is similarly successful.

3. Those where the mere cauterization of the mucous membrane in a healthy nose results in relief or cure.

These three classes are then discussed seriatim. In the first, the most favourable forms of obstruction are, first, anterior hypertrophy of the inferior turbinals, second, septal spurs and deviations, third adenoids and, lastly, polypus. In the second class are found general oedema of the mucous membrane especially when associated with excessive sneezing, frequently also with chronic bronchitic asthma. Not infrequently the cure of these cases is effected by the electric cautery. Atrophic rhinitis may also be responsible for asthma, and the amelioration of nasal condition may result in cure of the bronchial symptoms. In the third class the writer endorses the valuable observations of Dr. Alexander Francis as to the frequent relief, and even cure, of asthma from the mere cauterization of the mucous membrane covering the upper part of the triangular cartilage in perfectly healthy noses.

So far the clinical facts of the association of the nose with asthma are obvious enough. But they are further emphasized by the observation that occasionally the removal of polypus sometimes originates, for the first time, the onset of asthma.

Passing now to his promised generalization, the writer invites attention to three points of collateral evidence:

1. That whenever a patient complains of frequent and severe cold-taking and we find any abnormalities whatever in the nose, we can almost promise to cure his cold-taking by curing the nasal abnormality.

2. That whenever a patient complains of paroxysmal sneezing, whether of daily attack or of longer interval, we are tolerably sure of curing him by correcting his nasal disease or malformation.

3. That a patient with polypus, less often with other form of obstruction, sometimes takes cold often severely, in the form of rhinitis, laryngitis, or bronchitis, after the removal of the obstruction. Probably the sudden exposure of a protected mucous membrane to cold air accounts for each of these accidents as well as the asthma.

Remembering these three points, which will be conceded by many observers, this generalization may be formulated:

Any treatment that allays the irritability of the Schneiderian, whether by operation and the ventilating of abnormally protected areas of mucous membrane, or by hardening the hyperaesthetic areas with the electric cautery or by the exhibition of such local remedies as cocaine, or the very useful but pernicious nostrum known as "Tucker's cure," any such treatment of the nose may modify or arrest the onset of catarrhal attacks whether they manifest themselves in symptoms of sneezing, laryngitis, bronchitis, and asthma.

Members are invited to contribute any preparations, specimens or drawings, or any instruments or apparatus pertaining to the work of the Section, which have been designed by themselves, in order that the Committee of the Section may make arrangements to form a special exhibit of such objects.

Foreign and Colonial visitors will be cordially welcomed in the Section, and such as may desire to attend are requested to send in their names as soon as possible to the Honorary Secretaries, together with the titles of any papers they may wish to read.

The offer of a paper will not be accepted on its title alone. Offers of papers will not be accepted in excess of the number likely to be read. As the ratio between the number of papers sent in and the time available for reading them at the Annual Meeting will probably be very disproportionate, preference will be given in the case of communications of equal importance to those which are first received.

Communications relating to the exhibition of preparations, instruments, etc., may be addressed to Dr. E. C. Bevers, 117, Woodstock Road, Oxford; and all others relating to papers and discussions to Dr. Jobson Horne, 27, New Cavendish Street, W., and marked "Section of Laryngology and Otology."

TROPICAL DISEASES.

President: ALEXANDER CROMBIE, C.B., M.D., London. *Vice-Presidents:* Brigade-Surgeon-Lieutenant-Colonel GEORGE MACONACHIE, M.D., Aberdeen; JOHN WILLIAM WATSON STEPHENS, M.D., Liverpool. *Honorary Secretaries:* HENRY EDWARD ANNETT, M.D., Crofton Lodge, Higher Runcorn, Cheshire; ROBERT FIELDING-OULD, M.D., 94, Mount Street, Berkeley Square, W.

Wednesday, July 27th.—Trypanosomiasis. The discussion will be opened by Colonel D. Bruce, F.R.S.

Trypanosomiasis.

The discussion of this subject will be opened by Colonel D. Bruce, F.R.S., R.A.M.C., who, after a review of the state of knowledge on the matter at the date of the last annual meeting, will sustain the following propositions:

1. The trypanosomes found in the blood of natives on the West Coast of Africa and in Uganda and those found in cases of sleeping sickness are identical.

2. The so called trypanosoma fever is the first stage of sleeping sickness.

3. Neither the native nor the European is immune to this disease.

4. As regards prognosis, instead of being favourable, so far as is known the mortality is 100 per cent. in both coloured and uncoloured races.

5. Up to the present time no evidence has been brought forward to show that any of the lower animals take any part in the spread of human trypanosomiasis.

6. Several of the lower animals are, however, susceptible to sleeping sickness by artificial inoculation.

7. Sleeping sickness is conveyed from the sick to the healthy by means of a biting fly (*Glossina palpalis*).

8. Other members of this genus are also able to convey the virus, and this constitutes a danger that this disease may spread into the British East African and other tsetse fly zones.

9. There is no proof that other genera of biting flies, such as *stomoxys* or *tabanus*, carry the infection under natural conditions.

10. There is no proof that *Trypanosoma gambiense* passes through any metamorphosis in *G. palpalis*, but that the transference of the parasites from one animal to another by the tsetse flies is purely mechanical.

11. The present evidence goes to show that all the stages in the development of *T. gambiense* take place within the human host.

12. Measures to prevent the spread of sleeping sickness should aim at preventing, as far as possible, the movement of natives from sleeping sickness areas into any part of the country where any species of tsetse fly is found.

13. Measures to prevent the movement of natives into the sleeping sickness areas.

Measures calculated to arrest the progress of the disease in areas in which it already exists, such as evacuation of the areas, destruction of the tsetse flies, and prophylactic treatment may also be considered.

Thursday, July 28th.—The Prophylaxis of Malaria. The discussion will be opened by J. W. W. Stephens, M.D.

Prophylaxis of Malaria.

Dr. J. W. W. Stephens has supplied us with the following abstract of the paper by which he will introduce the discussion on this subject:

Preliminary Considerations.—Malaria is endemic in the native population of tropical regions, and it is by the native that Europeans are infected. The virulence of parasites is increased in the European. Infected *Anophelines* are dangerous, and not *Anophelines* as a whole; these *Anophelines* exist in abundance in all native huts. As only infected *Anophelines* are dangerous it is important to answer the question which of the *Anophelines* transmit malaria? Incomplete state of our knowledge on this point. Another important practical question is, how far do the *Anophelines* fly? There are many erroneous views of this point. A complete study of

the breeding places of the *Anophelines* is required; a complete study of the breeding places of "domestic" and "wild" mosquitos, etc. Increased study and complete knowledge on these and other points necessary before the problem can be attacked effectively and economically.

Prophylaxis.—1. Antilarval measures. Drainage the fundamental method, pétrolage, etc., subsidiary. Limits of method.

2. Quinine prophylaxis, efficiency, limits of method.

3. Segregation of Europeans from source of infection. Urgent necessity for European cantonment and native bazaar system in India. Beneficial results of segregation.

4. Subsidiary measures. Protection against mosquitoes. Wire netting. Personal prophylaxis.

Success of operations, how measured. Definition of endemic index one of the best tests of malarial intensity. Hospital statistics. Examples of antimalarial operations. Successes, failures. The extirpation of malaria a sanitary reform. Progress necessarily costly and slow.

Friday, July 29th.—The Significance of the Leishman-Donovan Bodies. The discussion will be opened by Major W. B. Leishman.

The Significance of the Leishman-Donovan Bodies.

Major W. B. Leishman, R.A.M.C., in opening the discussion on this subject, will review the present state of knowledge with regard to the nature and significance of these bodies under the following heads:

1. The geographical distribution of the cases in which the presence of the parasites has been recorded.
2. The distribution of the parasites in the body.
3. The symptomatology of the morbid conditions associated with their presence.
4. Their occurrence in kala-azar and their connexion with that disease.
5. The structure and biological relationships of the parasites.

As time will only permit of one of these subjects being dealt with at considerable length, the last has been selected for special treatment, partly because of the divergence of opinion which exists in respect of it and partly because little progress in the direction of prophylaxis and treatment can be expected until the life-history of the parasite is better known.

Three views have been advanced as to the nature of these parasitic bodies, in the following chronological order:

1. Major Leishman's own view that they probably represent a stage in the life-history of a flagellate organism closely resembling a trypanosoma.
2. Laveran's view that they belong to the piroplasmata, and form a new species of that genus, to which he gave the name *Piroplasma donovani.*
3. That of Ross, who, differing both from Laveran and from Major Leishman, considers that the bodies represent an entirely new genus, which he has named *Leishmania.*

After a review and comparison of these three conceptions as to the nature of the bodies, a more detailed account will be given of the reasons for which Major Leishman is disinclined to abandon this view as to their probable flagellate origin, and this theory will be discussed in the light of the recent researches of Schaudinn, Prowazek, Wright, Christophers, and of Marchand and Ledingham.

Stained specimens and sketches will be shown illustrating the close resemblance between the new bodies and the involution forms of trypanosomata.

The following gentlemen have already promised to take part in the discussions or to contribute papers: Sir Patrick Manson, Professor R. Boyce, Major C. Donovan, Dr. A. Duncan, Major Mathias, Dr. L. Sambon, Captain E. P. Sewell, and Captain Anderson.

Papers bearing on the discussions or otherwise will be read for gentlemen who are unable to be in England for the meeting. It is also hoped that pathological specimens, drawings, photographs, and microscopic preparations will be lent for exhibition.

Navy, Army, and Ambulance.

President: Surgeon-General A. Frederick Bradshaw, C.B., K.H.P., M.R.C.S., Oxford. *Vice-Presidents:* Surgeon-General George Joseph Hamilton Evatt, C.B., M.D., Junior United Service Club, London; Fleet-Surgeon John Lloyd Thomas, R.N., H.M.S. *Excellent*, Portsmouth; Colonel J. Edward Squire. M.D., V.D., R.A.M.C. (Vol.), London. *Honorary Secretaries:* Major Thomas McCulloch, R.A.M.C., 68, Victoria Street, S.W.; Staff-Surgeon H. W. Gibbs Doyne, L.R.C.P., R.N., H.M.S. *Mercury*, Portsmouth; Surgeon-Captain Eustace M. Callender, M.D., 40, Connaught Square, Hyde Park, W.

The following subjects are suggested for papers:

Navy.

1. The Effect of Radical Cure for Hernia in the Service.
2. Hospital Ships.
3. The Various Causes of Invaliding in the Navy.
4. The present Dietary on Board a Man-of-War.
5. The Teeth and their Treatment in the Service.
6. What Surgeons must look for in the next Naval Action.

Army.

1. The Duties of a Medical Officer in charge of a Regimental Unit on Field Service.
2. Campaigning Therapeutics.
3. Camp Sanitation, with special reference to the disposal of excreta and refuse.
4. The Prevalence of Tuberculous Disease in the Army, its cause and prevention.
5. The General Hospital in War, its working and staff.
6. The First Field Dressing.

Ambulance.

1. Is the widespread slight training in Ambulance Work beneficial to the Community, or would it be better to make the training more thorough at the expense of numbers?
2. First Aid in civil life.
3. The medical equipment and transport for volunteer brigades.
4. The Red Cross Badge—its use and abuse—and the steps which should be taken to prevent it being used for trade purposes.

The following discussions have been arranged:

1. On Malta Fever, to be opened by Brevet-Colonel David Bruce, F.R.S., R.A.M.C.

Malta Fever.

The discussion will be introduced by Colonel D. Bruce, F.R.S., R.A.M.C., by a paper in which he will raise the following questions:

1. *The Natural History of the Micrococcus Melitensis.*—What is its habitat outside the body? What are the conditions under which it can lead a saprolytic existence? How long can it sustain life in various kinds of water, food stuffs, soils, dust, refuse, etc.? The possibility of it having, under natural conditions, hosts other than man. Can it be found in the air or dust of infective places? What are the best conditions for its artificial cultivation? How does it behave under various conditions of cold, heat, light and darkness, etc.? How can it best be separated from other species of micro-organisms in air, water, soil, etc?
2. *Mode of Entrance of the Micrococcus Melitensis into Man.*—Is it by way of the alimentary canal, lungs, tonsils, mucous membrane of nose and eye, or skin? What is the smallest quantity of the virus necessary to set up the fever? Is it possible to convey it from the sick to the healthy by means of biting insects?
3. *Mode of Exit.*—Is it excreted in the breath, sputum, urine by way of the intestine, or by means of insects from the blood?
4. *Epidemiology.*—What are the conditions which favour the spread of this fever?
5. *Protective Inoculation.*—Is there any possibility of preparing a serum or vaccine to protect against this disease?

The Organization during Peace of Civil Medical and Ambulance Aid to ensure an Immediate Reserve of Trained Assistance on the Outbreak of War.

The following sketch by Colonel Squire, M.D., V.D., R.A.M.C. (Vol.), is designed to facilitate the discussion on the Organization during Peace of Civilian Aid to the Sick and Wounded in War, which he is to open:

In a war of any magnitude it is necessary to supplement the military organization for the care of the sick and wounded by civilian aid. Such aid is essentially of two kinds:

A. Surgeons, nurses, and orderlies who are temporarily employed by the military authorities, receiving pay through the War Office.

B. *Personnel* and stores provided by voluntary subscription.

Voluntary aid may be wasteful and embarassing or may be misapplied if no statement of probable requirements and no

regulations for their employment has been previously laid down. Organization during peace is essential to ensure the best provision and to avoid unnecessary waste in war. Both A. and B. have occasionally been employed with our troops—for example, in the Crimea, Zululand, Egypt, and the Soudan—but without previous organization and with consequent waste. The recent war in South Africa found us for the first time with the germ of an organization, not yet sufficiently developed to meet the requirements of a big campaign, but which nevertheless was of considerable practical value.

The Central British Red Cross Committee has been instituted as the organizing body for civilian aid with troops in war. Is it calculated to ensure what is required? To answer this question it is necessary to consider certain points, namely:

1. What is needed to supplement the Army Medical Service in war?
2. What means exist of supplying this need?
3. How can the means of supply come into touch with the Army Medical Department?

We can then consider whether the existing conditions are satisfactory or in what direction improvement is required. With regard to 1, we may consider (*a*) *personnel* and (*b*) stores.

(*a*) *Personnel*.—Directly employed by the War Office: Surgeons and nurses adequately trained in their professional work are to be obtained in sufficient numbers to allow of selection, but in order to obtain at short notice the best professional aid selection must have been made previously. A list should therefore be kept at the War Office of suitable persons who are willing to serve if required, who might be further classified according as they are willing to serve "at home only" or "wherever required," and "at any time" or on "national emergency." The list should be revised annually, so that inclusion in the list would entail liability for the year only. Such a list would represent a true Army Medical Reserve.

Orderlies.—A roll of men willing to serve as orderlies might be kept in the same way, the special qualifications of each being entered against his name. Conditions of service and a scale of pay for the various duties should be laid down, and application to be included in any list would be made to imply acceptance of the conditions (including rate of pay) if called out for service. For the *personnel* serving under some authorized voluntary aid society or committee the conditions of service and rates of pay would be drawn up by the body engaging their services, but would have to come within the terms of requirements previously formulated by the Central Red Cross Committee, and communicated to the body offering aid. It is desirable that all persons serving under contract with some voluntary aid society should wear a distinguishing uniform, so that they should not be mistaken for regular soldiers.

Stores.—Hospital equipment, surgical stores, medicines, etc., are needed in war, greatly in excess of peace requirements. Many of these are perishable, and cannot with advantage be kept in store. By previous arrangement with large firms, almost everything needed could be procured as required. What is necessary is a list, kept at the War Office, of firms able and willing to supply materials, detailed as follows—Name of firm: Articles which can be supplied: Number or quantity which can be delivered at once with notice: Agreed price: All absolute necessaries should be supplied by the military authorities: it should not be necessary to apply to voluntary organizations for hospital equipment, surgical and medical stores, or food for patients as appears to have been occasionally done in South Africa (vide Report of the Central British Red Cross Committee, 1902).

Voluntary Aid Societies' Contributions and Individual Gifts.—The supply of comforts both for the troops in the field and for patients in hospitals comes within the scope of voluntary aid. These include such things as Crimean helmets, housewives, books and papers, writing materials, sleeping suits (toilet requisites) as well as beef juice and special invalid foods. A list of articles which would be especially acceptable should be drawn up and sent to all applicants at the beginning of a campaign.

The organization of this department, the storage and distribution of these gifts should be carried out by some authorized organization or society acting under the Central Red Cross Committee. This is provided for in the regulations of the Committee.

Supplementary hospitals, hospital ships and trains may be organized, equipped and maintained by voluntary subscriptions under regulations to be previously drawn up by the Central Red Cross Committee. Voluntary efforts should also provide assistance to the sick and wounded whilst journeying along the lines of communications and on arrival at the base or at home. Accommodation at suitable places should be arranged for convalescents at home.

All these matters require carefully arranging and organizing beforehand and it is essentially the duty of the permanent voluntary aid societies—such as the Red Cross Society—to perfect such organization during peace.

It is very desirable that there should be some organization, with branches throughout the country by means of which individuals wishing to help when a war breaks out could at once be brought into touch with a central body which is in direct communication with the War Office. These local committees should be permanently established under some central organization—preferably not connected with the War Office—with its head office in London.

As the basis on which to build up the organization that is required we have the British Red Cross Society (British National Society for Aid to the Sick and Wounded in War), the St. John Ambulance Association, the St. Andrew Ambulance Association, various nursing associations, and since 1898 the British Central Red Cross Committee.

The British Red Cross Society, founded during the Franco-Prussian war in 1870, has supplied aid to several foreign countries and to the British troops in several campaigns, but it hibernates during periods of peace, and only wakes to activity when a war breaks out, instead of spending the leisure time of peace in organizing for war.

The St. John Ambulance Association, primarily originated to provide instruction in first aid treatment in case of accidents in civil life, has comparatively recently considered the possibility of providing supplementary aid to the troops during war, but when the South African war commenced it had made no provision for training in the duties required by orderlies and nurses for military service. Nevertheless the Association was able to furnish a large number of willing though imperfectly trained men to the army in South Africa, the conditions of service and rate of pay being perhaps as moderate as could be expected, considering that the bargain with the War Office was made when the emergency was pressing. The St. John Ambulance Association being now officially recognized by the Central Red Cross Committee as a body from which hospital *personnel* can be obtained during war, it is to be supposed that regulations for training and a reasonable rate of pay have already been formulated by that Committee. Where the present machinery for the organization of civilian aid seems to be faulty is in the chain of connexion between the War Office on the one hand and the public which supplies the *personnel* service, money and gifts which the War Office would utilize in war.

The British Central Red Cross Committee appears to be closely modelled on the German organization for voluntary aid, though the military and official systems of the two countries are widely different. In Germany the army is the nation, and the whole life of the people runs in official grooves. The Red Cross Society and the various orders of knighthood (St. John, etc.) are quasi-official units of the State organization.

With us the army forms but a small section of the community, and the official and social relations of the people are kept distinct, whilst the Red Cross Society and the various ambulance associations are private organizations independent of the State machinery. The public has not always been in exact accord with army methods of organization, and might possibly be more disposed to send money and gifts to the troops through some organization outside the army than through a committee directly connected with the War Office. So too, though in Germany it may be wise to restrict the offer of aid to certain specified organizations; this seems hardly necessary or advisable with us.

The representation of certain organizations (Red Cross Society, St. John Ambulance Association) on the Central Red Cross Committee seems calculated to arouse that jealousy which it is recognized by its founders, should be avoided. It would seem desirable that the Central Red Cross Committee—consisting of military and civilian members—should be advisory rather than executive; deciding on the requirements and drawing up regulations under which voluntary aid can be accepted by the army, but leaving it to the voluntary societies to organize and provide the aid. This Committee would be the one and only means of communication between the various voluntary aid societies and individuals offering aid and the War Office. When war broke out the

officials at the War Office, who have their hands full with the work of mobilization and all that this entails, would not have their time occupied with the various suggestions and offers of help of the different societies, etc., but would be relieved of this by the Committee.

The British Red Cross Society would seem to be the body which should organize the voluntary aid during peace, and it should establish local centres throughout the country. In war time it might well carry out the duties allocated to it by the Central Red Cross Committee in their present regulations, one of the most important of these duties being the collecting and distributing of funds.

The object of the discussion is not to emphasize the errors of the past nor any defects in the present organization, though it is necessary, in opening the discussion, to point out where these may possibly be found. What is desired is that suggestions may be brought forward which will ensure efficient organization in the near future.

Dental Surgery.

President: Edmund Augustine Bevers, M.R.C.S., Oxford. *Vice-Presidents:* John Howard Mummery, M.R.C.S., L.D.S., London; Frank Earle Huxley, M.R.C.S., L.D.S., Birmingham. *Honorary Secretaries:* John McKno Ackland, M.R.C.S., L.D.S., 24, Southernhay, Exeter; Kenneth Weldon Goadby, L.R.C.P., L.D.S., 21, New Cavendish Street, Cavendish Square, W.

THE PATHOLOGICAL MUSEUM.

In the whole programme of the annual meeting of the Association perhaps no single section possesses greater possibilities for usefulness than those enjoyed by the Pathological Museum; yet, certainly, none may more easily entirely fail to fulfil its purpose.

It is, indeed, no easy task for those who are responsible for the Museum to steer a middle course between the Scylla of rejecting valuable and instructive material and the Charybdis of presenting merely an ill-assorted series of heterogeneous specimens on which the visitor can at best bestow but a cursory glance.

The considerations which should govern the collection and arrangement of the Annual Museum are clearly emphasized in the letter published in the Journal of June 4th over the signature of Mr. Jonathan Hutchinson. The aim in view should be to present as far as possible a visible summary of what has been achieved most recently in medical science, and to bring before the Association generally the knowledge gained by the research of individual members.

We understand that the Local Committee in Oxford has been keenly alive to the importance of the points we have mentioned, since it is felt that, especially in Oxford, where, as Mr. Hutchinson points out, the Annual Museum first saw the light, no effort should be spared to ensure an exhibition of exceptional interest.

The Committee are anxious to secure the assistance of all members of the Association who can lend instructive specimens or apparatus. With this object a circular was prepared in November last and distributed widely as a general appeal for assistance: and lest this should fail to reach some members who might be able to afford important service in this direction, a copy of the circular was published in the British Medical Journal for December 12th, 1903, p. 1554, and in the Supplement to the Journal of May 7th, 1904, p. 123.

In order to render the material as accessible as possible, it is proposed to arrange the exhibits under the following headings:

1. Specimens, photographs, drawings, etc., illustrating recent advances in medical science.
2. Skiagraphs and apparatus for skiagraphy.
3. Colour photography in relation to medical, surgical, and pathological work.
4. Photomicrographs and apparatus for photomicrography.
5. Instruments for clinical diagnosis.
6. Surgical anatomy.
7. Specimens bearing on any of the discussions in the various sections.

A very considerable number of important exhibits have been promised already, but we understand that the Secretary of the Museum Committee (Dr. Ainley Walker, University College, Oxford) will be very glad to receive further offers, and to supply any information desired by intending exhibitors.

An attempt will be made to give exhibitors an opportunity of personally demonstrating their specimens or apparatus at stated times during the course of the meeting.

In view of the letter from Mr. Hutchinson we may mention specially that skiagraphs, drawings, photographs, and colour photographs already form a considerable part of the exhibits promised; but more are required, especially such as bear on dermatology and on the injuries and diseases of the bones.

Among the important contributions which will be displayed in the museums are exhibits bearing on ankylostomiasis, miners' lung disease, tropical diseases, cell division in carcinoma, prostatic disease, congenital dislocation of the hip before and after treatment by Lorenz's method, the estimation of the phagocytic power of the blood, the estimation of the purin bodies in the urine, etc.

The Museum is being kept quite separate from the trade exhibits, and will be located in an entirely different building. It will be arranged in the large, well lighted, ground-floor rooms of the Anatomical Department of the University, and will thus be in the immediate neighbourhood of the meeting places of all the various sections.

Exhibition.

A collection of medical, surgical, dietetic and sanitary apparatus, medical books, and hospital appliances will be arranged in the Examination Schools, High Street, Oxford, in the same building as the Reception Room.

Honorary Local Secretaries.

Arthur John Drew, F.R.C.S., Water Hall, St. Aldates, Oxford; William Duigan, M.B., 66, Woodstock Road, Oxford; Arthur Percy Parker, F.R.C.S., 2, Holywell Street, Oxford.

Programme of Business.

Tuesday, July 26th.

9 a.m.—Council Meeting.
10.30 a.m.—Service in Christ Church Cathedral.
12 noon.—Annual General Meeting, followed by Representative Meeting.
8 p.m.—President's Address.

Wednesday, July 27th.

9 a.m.—Meeting of 1904-5 New Council.
10 a.m. to 1 p.m.—Sectional Meetings.
2 p.m.—Adjourned General Meeting, followed by Representative Meeting.
8 p.m.—Address in Medicine.

Thursday, July 28th.

9 a.m.—Meeting of Council.
10 a.m. to 1 p.m.—Sectional Meetings.
2 p.m.—Address in Surgery.
3.30 p.m.—Representative Meeting (if business not already concluded).
7.30 p.m.—Annual Dinner of the Association.

Friday, July 29th.

9 a.m.—Meeting of Council.
10 a.m. to 1 p.m.—Sectional Meetings.
2 p.m.—Representative Meeting (if business not already concluded).

Programme of Entertainments.

Wednesday.

Afternoon.—Reception by the President (Dr. W. Collier, F.R.C.P.) and members of the Oxford Division, in Wadham College Gardens. Duelling and fencing exhibition. *Epée* contest between Oxford and Cambridge.
Evening.—Soirée at the Museum, given by the Vice-Chancellor and members of the University.

Thursday.

Afternoon.—Garden Party given by Mr. H. Morrell, M.P., at Headington.
Garden Party by Dr. Neil at the Warneford Asylum.
Promenade Concert in a College Garden.
Evening.—Annual dinner in Christ Church Hall.
Ladies' Entertainment in New College Gardens and Hall

Friday.

Afternoon.—Garden Party at Blenheim Palace.
Music in a College Garden.
Evening.—Reception by the Mayor, Mr. E. A. Bevers, M.R.C.S., in the City Buildings,

Saturday.

Excursion to Leamington and Warwick. The Corporation of Leamington provides lunch. The Countess of Warwick gives a Garden Party in the afternoon.
River Excursion to Reading and Henley.

To be Stamped with a Penny Stamp and Posted.

BRITISH MEDICAL ASSOCIATION.

SEVENTY-SECOND ANNUAL MEETING.

JULY 26th, 27th, 28th, and 29th, 1904.

Members of the British Medical Association who intend to visit **OXFORD** during the Annual Meeting will greatly facilitate the labours of the Local Committee if they will fill up the following form and forward it by post as addressed on the other side. This will eventually be sent to the General Secretary of the Association, who will then send a certificate to enable members to obtain Railway Tickets at reduced fares.

MEMBERS DESIRING ACCOMMODATION ARE REFERRED TO NEXT PAGES.

The Forms are intended for the use of Members of the British Medical Association exclusively.

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*It is my intention to be present at the ANNUAL MEETING in OXFORD, and I expect to be accompanied by**.....

Name.....

Address.....

* Here indicate whether by one or more ladies, as separate vouchers are required to enable Members to obtain Railway Tickets at reduced fares.

It is my intention to be present at the ANNUAL DINNER of the Association on Thursday Evening, July 28th, and I herewith enclose Cheque (or P.O.O.).†

Signature.....

† DINNER TICKET, with Wine inclusive, £1 1s. DINNER TICKET without Wine, but inclusive of Aerated Waters, 15s.

Cheques and Postal Orders should be made payable to the Secretary of the Dinner Committee, H. A. WHITELOCKE, Esq., F.R.C.S., and enclosed in an envelope, together with this form, directed as on the reverse.

Early application for Tickets is requested by the Committee, to enable them to provide accommodation and allot seats.

SEVENTY-SECOND ANNUAL MEETING, OXFORD, July 26th, 27th, 28th, and 29th, 1904

LIST OF LODGING-HOUSES, WITH SCALE OF CHARGES.

Name and Address.	No. of Sets. Sitting Room and Bedroom.	Extra Bedrooms.	Bed and Breakfast.	Luncheon.	Dinner.	Full Rate per day. Board and Lodging.	Notes.
CENTRAL.							
Broad Street.							
1-2 Collins, Miss ...	4	5	6/-	1/-	2/6	12/-	
13 Hawkins, Mrs. ...	2		2/6	1/-	2/-	5/-	
36 Wells, B. J.	1	1	4/6	1/6	2/6	8/6	
45 Pierce, T.	6		5/6	1/6	2/6	10/6	
New College Street.							
5 Dickens, E.	3		3/6	1/3	2/-	6/9	
Museum Road.							
1 Negus, Miss	2	1	4/-	1/-	2/-	7/-	
3 Higgins, Mrs. ...	2					6/-	
7 Henderson, Miss ...	2	1	4/6	1/4	2/6	7/6	
9 Slater, Miss	2	2	4/-	1/-	2/-	6/6	
10 Stacey, Miss ...	3		3/6	1/-	2/-	6/-	
12 Johnson, Mrs. ...	2		4/-	1/-	2/-	6/6	
19 Luker, Miss	2	1*d*	3/6				*d* Double Bed.
21 Perkins, Miss ...	2	1	3/6				
31 Huggins, Mrs. ...	2	1*d*	4/-	1/6	2/6	6/-	*d* Double Bed.
Trafford, Mrs., Museum Cottage	2		3/6	1/-	2/-	8/-	
Parks Road.							
2 Smith, W. S. ...	2		4/6	1/6	3/-	10/-	
3 Spiller, Mrs. ...	2	1	3/6	1/-	2/6	6/-	
4 Bannister, W. ...	1	1	3/6	1/6	2/6	7/-	
6 Bellamy, Mrs. ...	3		4/6	1/6	2/6	8/6	
Blackhall Road.							
1 Allnutt, Miss ...	2	1	4/-	1/6	3/-	8/6	
2 Skinner, W.	3		3/-	1/-	2/-	6/-	
New-Inn-Hall Street.							
27 Pratley, J.	3*d*	1	3/-	1/-	2/-	6/-	*d* Double Beds.
29 Ellis, J.	3		3/6	6*d*. to 1/6	2/- to 3/-	10/-	
44 Edens, G.	2*d*	1*d*	4/-	1/-	2/6	7/6	Double Beds.
George Street.							
5 Coggins, Mrs. ...	2		2/6	6*d*.	2/-	5/-	
Ship Street.							
2 Ing, Mrs.	1		3/6	1/-	1/6	6/-	
3 Brown, Mrs. ...	6		4/-	1/3	2/-	6/6	
5 Dines, Miss	2	1	3/6	6*d*.	2/6	6/6	
13 Dalgleish, J.... ...	5		3/6	1/-	2/-	6/6	
15 Ives, Mrs.	2	1	4/-			6/-	

Penny Stamp.

H. A. WHITELOCKE, Esq., F.R.C.S.,

6, Banbury Road,

CXFORD.

LIST OF LODGING-HOUSES, WITH SCALE OF CHARGES—*Continued.*

Name and Address.	No. of Sets. Sitting Room and Bedroom.	Extra Bedrooms.	Bed and Breakfast.	Luncheon.	Dinner.	Full Rate per day. Board and Lodging.	Notes.
St. Michael's Street.							
10 White, W.	3		3/6	1/-	2/-	6/6	
11 Hubert, Mrs... ...	3		4/-	1/6	2/-	7/6	
19 Burrows, Mrs. ...	3		4/-	1/-	2/6 to 3/-	10/6	
21 Haynes, J.	3		3/-	1/6	2/6	6/-	
24 McIntyre, Mrs. ...	5					10/-	
Magdalen Street.							
14–15 Watson, Miss ...		19	4/6	1/6	2/6	7/-	Boarding House
Turl Street.							
15 Hedderley, Mrs. ...	5	1	4/-	1/6			
16 Addis, Mrs.	8	1	3/6	6*d.* to 1/6	2/6 to 3/-	6/6	
High Street.							
20–21 Taylor, T.	6		3/-	1/6	2/6	6/-	
22 Bassett, Miss ...	2	2				7/6	
37 Clements, Miss ...	1	1	3/6	6*d.*	2/6	7/6	
43 Prince, Miss ...	2					6/-	Party of four.
44–45 Taylor, Mrs.	4	1	3/6	1/-	2/6	6/6	
46 Adams, T. J. ...	2	4	5/-	1/6	4/-	7/6	
47 Carter, F.	4		3/6	1/-	2/-	6/6	
48 Galpin, Mrs.... ...	4		4/6	2/-	3/6	10/-	Board party of
49 Pickering, F. O. ...	3	2	4/6	1/6	3/-	10/-	[nine or ten.
51 Davis, Mrs.	6	1	4/-	1/6	3/-	8/6	
52 Herbert, N. S. ...	4		4/-	1/-	2/6	8/-	
55 Fitzpatrick, Mrs. ...	2	2	4/6	1/6	2/9	6/6	
58 Chamberlain, J. ...	4					10/6	
59 Quarterman, Mrs. ...	2	1	5/-	2/-	3/6	10/6	
63 Horsley, R.	2	3	5/-	1/6	4/-	7/6	Boarding House
65 Cooper, G. J. ...	3	1	4/6	1/-	2/6	8/-	Party of five.
67 Penny, Mrs. ...	2	1	4/-			7/6	
69–70 Andrews, W. E. ...	3	5	4/-	2/-	3/6	8/6	
85 Parker, Miss... ...	4	1	5/-	2/6	5/-	12/6	
90 Shillingford, J. ...	10		4/-	1/6	2/6	7/6	
96 Haylett, Mrs. ...	4		4/6	1/6	2/6	6/6	
97 Green, Mrs.	4	1	4/-	6*d.*	2/-	7/6	
102–103 Patey, E. C. ...	14		3/6	1/6	2/6	6/6	Boarding House
104–105 Chaundy, Mrs. ...	3	1	4/-	8*d.*	3/-	10/-	
106 Wheeler, W. H. ...	4	1	3/6	1/-	2/6	6/-	
116 Freeman, J.	3						
117 Goodall, E. E. ...	2	1	4/-	1/6	3/-	6/-	
124 Gadlick, J.	12		3/6	1/-	3/-	7/-	For 12 persons.
129 Flight, Mrs.		8				6/-	Boarding House
135 Clayton, Mrs. ...		4 *s* 1 *d*				6/-	Boarding House
King Edward Street.							
1 Round, W. H. G. ...	5	1				10/6	Boarding House
3 Gerrier, W. H. ...	2					10/6	
4 Hurcomb, Miss ...	3		4/6	1/6	2/6	6/6	
5 Looker, Miss ...	2		4/6	1/6	2/6	9/-	
6 Sanders, T.	3		4/6	1/6	2/6	6/6	
7 Buckner, F.	3	1	5/-	2/-	3/-	10/-	
8 Clarke, E.	9		5/-	1/6	2/6	7/6	Party of 15 at 7/6
14 Oliver, Mrs.	3	2				7/6	[each per day.
King Street, High St.							
4 Ham, J. E.	3		4/6	1/-	2/6	7/6	
Grove Street.							
5 Collins, Miss ...	4		3/6	2/-	2/6	8/-	
11 Taunt, T.	2		3/6	8*d.*	2/-	6/2	
13 Bunce, W. H. ...	2*d*		3/6	1/6	3/-	8/-	*d* Double Bed.
Merton Street.							
12 Thicke, Mrs.... ...	3		3/-	1/-	2/-	6/-	
14 Walton, W.	2	2	4/6	1/6	3/-	6/-	Party of five.
15 Johnson, T. H. ...	3		4/6	1/6	2/6	8/-6	
16 Weedon, Miss ...	3					10/-	Party of four.
Oriel Street.							
6 Jeffs, F. W.	2	3	3/6	1/-	2/6	6/6	For party.
7 Shrimpton, Mrs. ...	2	2	3/6	1/6	2/6	7/6	
8 Herbert, A. J. ...	3		3/6	1/-	2/6	7/-	
13 Faulkner, Mrs. ...	2	6	4/-	1/-	2/-	6/6	
15 Gibbens, C. R. ...	6		3/6	6*d.* to 1/6	2/6	6/6	
Holywell Street.							
9 Hinton, Mrs. ...	2						
10 Chamblain, W. ...	3	1	3/-	6*d.* to 1/-	2/6	7/6	
19 Giles, Mrs	10					7/6	Party.
31 Vincent, Mrs. ...	2	1	4/-	9*d.*	2/6	7/-	
54 Price, G. W. J. ...	1	1	4/3	8*d.*	2/6	7/6	
55 Dix, Mrs.	3					6/-	
61 Huckerby, W. ...	3		3/6			6/-	
64 Adamson, Miss ...	2	1	4/-	1/6	2/6	7/6	
98 Brown, Mrs.	2	2	4/6	1/6	2/6	8/6	
Bath Place, Holywell.							
5 Walklett, Mrs. ...	2		4/-	1/-	2/6	7/6	

Name and Address.	No. of Sets. Sitting Room and Bedroom.	Extra Bedrooms.	Bed and Breakfast.	Luncheon.	Dinner.	Full Rate per day. Board and Lodging.	Notes.
Manor Road, Holywell.							
2 Ockenden, Miss ...	2*d*		3/-	1/-	2/-	7/6	*d* Double Bed.
3 Saunders, Miss ...	2	1	4/-	6*d.* to 1/2	2/6	7/6	
4 Calcott, Mrs. ...	2	1*d*	3/6	1/-	1/6	6/-	*d* Double Bed.
6 Phillips, L.	2		3/-	6*d.* to 1/-	2/6	5/-	
7 Wren, C.	2		3/6	9*d.* to 1/3	2/-	7/6	
8–9 de Enciso, Mrs. ...	3	1	4/-	1/-	2/6	7/6	
Manor Place, Holywell.							
1 Clarke, Miss	2		3/-	6*d.*	2/-	5/6	
6 Phillips, E.	2		3/-	1/-	2/6	5/-	
12 Price, Mrs.	1		3/6	1/-	2/-	7/6	
14 Styles, Mrs.	1						
16 Rowlands, Mrs. ...	2						
18 Tubb, Mrs.	2		3/6	1/-	2/-	6/6	
20 Price, Mrs. L. ...	2		3/6	1/-	2/-	6/6	
Long Wall Street.							
Loxley, Miss, Long Wall House ...	5		3/9	1/3	2/6	8/-	
1 Clarke, Miss	2		3/-	6*d.*	2/-	5/6	
4–5 Kingston, H. ...	3	2	4/-	1/6	2/6	9/6	
8 Horn, C.	5					10/-	
9 Bateman, Mrs. ...	2		3/6	1/6	2/6	8/-	
10 Barnes, Mrs. ...	2		4/6	2/6	3/-	11/-	
12 Mansell, Mrs. ...	2		4/-	1/6	2/6	8/-	
15 Bateman, Mrs. ...	3		3/6	1/6	2/6	7/6	
17 Nicholson, Mrs. ...	2		4/-	*a*1/6	*a*2/6	*a*6/-	
Mansfield Road.							
1 Crane, Mrs.	2	1	4/-	1/6	2/6	7/6	
SOUTH.							
St. Aldate's Street.							[For party of six
6–7 Thornton, W. J. ...	3*d*	1	4/6	1/6	3/-	6/-	*d* 2 double beds
70 Baycock, Mrs. ...	2	1	2/6	1/6	2/6	5/6	
89 Annis, W.	5		4/-	6*d.* to 1/-	2/6	6/-	For party.
90 Westell, H.	2		4/6	1/6	2/6	8/-	
Gordon, G. W., York House	5		4/6	1/6	2/6	6/-	
95–96 D'Aye, Mrs.		12	3/6	1/-	2/-	6/-	Boarding House
97 Hall, Mrs.	3	3					According to re-
93 Bridges, Miss ...	4		4/6	9*d.* to 1/6	3/-	8/6	[quirements.
Rose Place, St. Aldate's							
1 Bossom, Mrs. ...	2		3/6	1/6		6/6	
6 Smithers, Mrs. ...	2		3/6	1/-	3/-	7/6	
Blue Boar Street.							
10 Bellow, H.	2		3/6	1/-	2/-	6/6	
Brewer Street.							
1 Armstrong, Mrs. ...		12	3/6	1/-	2/6	5/6	Boarding House
6 Swift, T.	6	2	5/-	2/-	3/-	10/-	
Pembroke St. (St. Aldate's)							
12–13 Daniell, Mrs. ...	5		4/6	2/-	2/6 to 4/6	6/6 to 8/6	
21 Mallett, Mrs. ...	2		3/6	1/-	2/-	7/6	
Isis Street.							
1–2 Benwell, Mrs. ...	4	2	5/-	2/-	3/-	9/-	
3 Millin, W. H. ...	3		3/6	1/6	2/-	6/-	
18 Lavis, Mrs.	1	1	3/6	1/6	2/6	6/6	
Speedwell Street.							
40 Lowings, Mrs. ...	1		3/6	2/-	3/-	8/6	
***Marlborough Road.**							
98 Bates, F.	1		3/6	9*d.* to 1/6	2/6	7/6	
***Western Road.**							
49 Townsend, T. ...	2		4/6	1/6	3/6	9/-	
***Botley Road.** (Near Railway Station.)							
55 Smith, A. A. ...	2		3/-	1/-	1/-	4/-	
WEST CENTRAL.							
† **Beaumont Builings.**							
17, Norgrove, Mrs. ...	1		4/-	1/2	2/6	7/6	
† **Alfred St.** (St. Giles').							
2 Ponsford, Miss ...	3		4/-	1/-	2/-	7/-	

LIST OF LODGING-HOUSES, WITH SCALE OF CHARGES—*Continued.*

Name and Address.	No. of Sets. Sitting Room and Bedroom.	Extra Bedrooms.	Bed and Breakfast.	Luncheons.	Dinner.	Full Rate per day. Board and Lodging.	Notes.
Beaumont Street.							
14 Foster, C.W.... ...	4		4/-	1/6	2/6	7/6	
15 Phillips, Mrs. ...	2	1	7/6	2/6	3/6		
38 Whiting, Mrs. ...	2		3/6	1/- to 1/6	2/6	7/6	
†St. John Street.							
Symonds, C. J., Beaumont Cottage ...	3		4/-	1/6	2/6	6/6	
4 Brain, G.	3		3/-	1/-	2/6	6/6	
5 Horn, W. H.... ...	2		5/-	1/6	3/-	9/-	
9 Hill, Mrs.	2	1	4/-	1/3	2/6	10/-	
10 Newport, Miss ...	2	1	3/6	1/-	2/-	6/-	
12 Balk, C. G.	3		3/6 to 6/	1/- to 2/6	2/- to 3/6	5/6 to 7/6	
15 Price, The Misses ...	3		3/6	1/-	2/6	7/-	
16 Knapp, Mrs.	1		3/6	1/6	2/-	7/-	
18 Müller, Mrs. ...	3		3/-	1/-	2/6	6/-	
24 Fortescue, Mrs. ...	1		3/6	1/-	2/6	7/-	
27 Ham, Mrs.	2		3/6	1/3	1/9 to 2/6	6/6	
39 Johnson, Mrs. ...	2		3/6	1/6	2/6	7/-	
44 Bennett, C. A. ...	1		2/6	6*d.*	1/9	5/6	
46 Wagstaff, Mrs. ...	3		3/6	6*d.* to 1/-	2/- to 2/6	6/-	
48 Collins, Mrs.... ...	3		3/-	1/-	2/-		
50 Franklin, Miss ...	3	1*d*	3/6	1/-	2/-	6/6	*d* Double Bed.
52 Knight, Miss ...	4	1	3/6	1/- to 1/6	2/6	7/6	
55 Smith, Miss	3					6/6	
57 Jones, Mrs.	1*d*		3/6	1/-	2/3	6/-	*d* Double Bed.
59 Wiggins, Mrs. ...	3		3/6	1/6	2/6	7/6	
63 Sowden, C.	2		3/6	1/-	2/-	6/6	
†Wellington Square.							
3 Johnson, Miss ...	3	1	4/-	2/-	2/6	8/-	
8 Pain, A.	3					7/6	
10 Slay, F. J.	3		3/6	1/-	2/6	6/6	
11 Wheeler, Mrs. ...	3		2/6	1/-	2/6	5/6	
14 Duck, Mrs.	3	1*d*	7/-	2/-	*a*3/6	10/- to 12/-	*d* 1 Double Bed.
15 Rowles, Mrs. ...	3		4/-	1/- to 2/-	2/6	7/6	
16 Ray, Mrs.	2	3	3/6	1/-	2/-	6/6	For Party.
17 Quarterman, A. E. ...	3	1	3/-	1/-	2/-	5/6	
18 Newman, T.	3						
19 Clinch, Mrs.	2	1	3/-	1/-	2/-	*a*5/6	
22 Peake, Mrs.	3		3/6	6*d.*	2/-	6/6	
24 Groves, Mrs.... ...	3	2					
25 Dorrill, G. E. ...	3	2	4/-	1/6	2/6	8/6	
28 Tysoe, Miss	3	1	3/6 to 4/	1/3 to 1/9	2/- to 3/-	5/- to 6/-	
30 Wilsdon, H.	3		4/-	1/6	2/-	6/6	
33 Taylor, Mrs.	2	2	3/-			*a*5/-	
34 Newman, A. D. ...	2	2	3/3	9*d.*	2/-	6/-	
36 Ward, Mrs.	3	1	3/6	1/-	2/-	6/-	
37 Nurton, Mrs. ...	6		3/6	1/6	2/-	6/6	
38 Gibbens, Mrs. ...	2	1	3/-	1/-	2/-	5/6	
39 Field, Miss	3	2	3/6	1/-	2/6	6/6	
45 Hayward, The Misses	3		3/-	1/-	2/3	7/6	
48 Pemberton, Mrs. ...		6	3/-	1/6	2/6	7/-	Party of six.
NORTH.							
St. Giles' Street.							
22 Paterson, Mrs. ...	2	1	3/6	1/3	2/-	7/-	
58–59 Denton, Miss, and Mullett, Miss ...	4		3/6	1/-	2/6	7/-	
†Winchester Road.							
15 Eaton, Mrs.	1	1	3/6	1/6	2/-	4/-	
†Banbury Road.							
8 Butler, F.	4		4/-	6*d.*	2/6	6/-	
10 Browne, Mrs. ...	2		4/6	1/6	2/6	8/6	
14 Fletcher, The Misses	3		3/6	1/-	2/6	7/-	
***Beechcroft Road.**							
2 Sewell, Mrs.	2		4/-	1/6	2/6	7/6 to 10/-	
NORTH-WEST.							
†Woodstock Road.							
20 Walklett, T. W. ...	1	1	3/6	1/6	2/6	7/6	
34 Hartmann, Miss ...	2		3/6	1/6	2/- to 2/6	6/6	
†Little Clarendon St.							
Hoare, R., Garfield Villa...	2	1	3/6	8*d.* to 1/3	2/-	5/6	
†Chalfont Road.							
3 Castle, Miss	1*d*	1	3/6			6/-	*d* Double Bed.

Name and Address.	No. of Sets. Sitting Room and Bedroom.	Extra Bedrooms.	Bed and Breakfast.	Luncheons.	Dinner.	Full Rate per day. Board and Lodging.	Notes.
†Walton Street.							
9 Brimfield, Mrs. ...	2	1	3/-	1/-	2/-	6/-	
10 Beesley, Mrs. ...	2	1	3/-			6/-	
11 Chapman, G. E. ...	2		2/6	1/-	2/-	5/6	
14 Parsons, Mrs. ...	2		7/-	1/6	3/-	11/-	
19 Green, Mrs.	1	2*d*	3/-	1/3	1/6	5/9	*d* 1 Double Bed.
112 Jeeves, Mrs.... ...	1		3/6	1/6	2/6	7/6	
118 Hughes, G.	2		3/6				
129 Eiles, Mrs.	2					5/-	
131 Ferris, Mrs.	1	1	4/-	2/6	3/6	10/-	
132 Tombs, Mrs.	1	1	4/-			6/-	
136 Quelch, Mrs. ...	1	2*d*	4/-			6/-	*d* 1 Double Bed.
138 Barrett, W. J. ...	2		2/6	1/-	1/9	5/3	
140 Bumpus, C.	2	1	3/6	1/-	2/-	6/-	
142 Browning, Mrs. ...	1	1	4/-	6*d.*	1/6	6/-	
143 Watts, T. H.... ...	2	1	4/-	8*d.*	1/6		
144 Brown, A.	2		4/6	1/6	2/6	8/-	
147 McInnes, Miss ...	2	1	3/-	1/-	1/6	5/6	
149 Pollicott, W. R. ...	2		3/6				
154 Dodd, Miss	2	1	3/-	1/-	2/-	6/-	
155 Dawson, H.	2	1	2/6	1/6	2/-	6/-	
157 Palmer, J. F. ...	3						
158 Wright, Mrs. ...	2	1	3/6	2/-	3/-	7/6	
159 Thicke, Mrs.... ...	3	1	3/-	6*d.*	1/6	5/-	
161 Piper, E. R.	1	1*d*				5/-	*d* Double Bed.
162 Earney, Mrs. ...	3		2/6	8*d.* to 1/6	1/9	5/6	
163 Peach, A. E.... ...	3	1	3/ to 3/6	2/- to 2/6	2/- to 2/6	6/- to 6/6	
165 Putt, Mrs.	2	2	3/6	1/6	2/6	7/-	
169 Sims, W. J.	3	1	3/6	2/-	2/6	8/-	
†Worcester Place.							
14 Higgs, Miss	2		3/-	1/-	2/-	6/6	
15 Sharpe, Mrs. ...	2		3/-	1/-	1/6	6/-	
16 Harris, Mrs.	2	1	3/-	1/-	2/-	6/-	
17 Salaman, Mrs. ...	1	1	3/6	6*d.* to 1/6	2/6	7/6	
20 Preston, Miss ...	2		3/6			6/-	
21 Pearson, Mrs. ...	2					6/-	
22 Brown, W. H. ...	2	1					
†Richmond Road.							
9 Kennah, Mrs. ...	1	1	3/-	1/-	2/6	6/6	
14 Young, Mrs.... ...	3		3/-	9*d.*	1/6	5/-	
16 Owen, Miss	2	1	3/6	1/-	2/-	8/6	
17 King, J.	1		3/-	1/- to 2/-	*a*2/-	7/-	
18 Taylor, Mrs.	2		2/6	6*d.* to 1/6	1/9	5/-	
27 Morris, J. R.... ...	2		3/6	1/6	2/- to 3/-	7/6	
26 Blake, Miss	2	1	2/6	1/-	2/-	5/-	
28 Collins, Miss... ...	2		3/6	2/-	3/-	9/-	
37 Sutters, T.	1	1	3/6	9*d.*	2/6	6/9	
44 Bridges, Miss ...	1		3/6	9*d.* to 1/3	2/6	6/-	
†Walton Crescent.							
8 Drake, Miss	2	1	3/6	1/-	2/-	6/6	
10 Clarke, Mrs.	2		3/6	1/6	2/6	7/-	
22 Buckingham, W. E.	1		3/6	1/6	2/6	7/6	
23 Banwell, Mrs. ...	1		3/6	1/6	2/6	7/6	
29 Gough, Mrs.... ...	3		3/-	1/-	2/6	6/-	
30 Godfrey, G. H. ...	4		3/-	6*d.*	2/-	5/-	
31 Sanders, W. H. ...	2		3/6	1/-	2/-	6/-	
34 Robinson, T.... ...	2		3/6	1/6	2/6	7/6	
40 De La Mare, J. ...	2*d*	1	3/6	1/-	2/6	7/-	*d* Double Beds.
43 Parsons, G.	1		3/6	6*d.*	1/6	5/-	
47 Nixey, C.	1*d*		3/-				*d* Double Bed.
50 Chessman, T. H. ...	1		3/-	1/6	1/6	6/-	
†Walton Well Road.							
4 Slatter, J.	2	1	3/-			5/-	
6 Mason, Mrs.	1	1	2/6	1/-	1/6	5/-	
8 Howse, Miss... ...	2		2/6	1/-	1/6	5/-	
19 Goldsmith, Miss ...	1	1	3/6			7/6	
†St. John's Road.							
3 Hartmann, Miss ...	1	1	4/6	1/6	2/6	7/- to 8/-	
84 Millward, Mrs. ...	2		2/9	1/-	1/6	5/3	
***Kingston Road.**							
2 Anniss, Mrs.... ...	1	1	3/6	2/-	3/-	7/6	
9 Adams, Mrs.... ...	2		3/6	1/-	3/-	7/6	
12 Berry, Miss	1		3/6	1/-	3/-	7/6	
15 Turner, Miss ...	1		3/6	1/6	3/-	7/6	
39 London, Mrs. ...	2		3/-	1/-	2/-	6/-	
51 Horsman, Mrs. ...	1	1	2/6	9*d.*	1/3	5/-	
84 Crowe, S. H. ...	1	1	4/6			8/-	
135 Young, W. H. ...	1	1	3/-	1/-	1/6	6/-	
138 Pittman, Mrs. ...	1		2/6	1/-	2/-	5/6	
140 Gibbens, Mrs. ...	2		3/-	1/6	3/-	7/6	

LIST OF LODGING-HOUSES, WITH SCALE OF CHARGES—*Continued.*

Name and Address.	No. of Sets. Sitting Room and Bedroom.	Extra Bedrooms.	Bed and Breakfast.	Luncheon.	Dinner.	Full Rate per day. Board and Lodging.	Notes.
† Leckford Road.							
10 Osmond, Mrs.	1	1	2/6	1/6	3/-	7/-	
† Longworth Road.							
6 Cheshire, J.	2		3/6	1/6	2/6	7/6	
*** Southmoor Road.**							
10 James, C.	1		3/-	6*d.*	1/-	4/6	
17 Haycroft, W. H. ...	2		3/6				
19 Thurland, J.... ...	2		3/6				
31 Frimley, Mrs. ...	1		3/-	1/6	2/-	6/6	
37 Spencer, Mrs. ...	2	1	2/6	1/-	2/-	5/6	
43 Wilkins, J.	2		3/6	1/-	2/-	6/6	
45 Adams, T.	2		3/-	1/-	2/6	7/-	
46 Bone, Mrs.	2		3/-	1/-	1/6	5/6	
48 Busby, T. W. ...	2		3/-	1/-	1/6	5/-	
50 Hull, Mrs.	2	1	2/9	9*d.*	1/6	5/6	
68 Tester, Mrs.	2		2/6	1/-	1/6	4/6	
90 Kennah, Mrs. ...	2	1	2/6	1/-	1/6	5/-	
92 Keene, E.	2		3/-	1/-	2/-	6/-	
94 Tucker, T. J. ...	1		2/6	1/-	1/6	5/-	
97 Farrington, Mrs. ...	2		5/-	2/6	3/-	10/-	
99 Williams, Miss ...	1		3/6				
100 Davis, Miss	1	1	3/-	1/6	2/6	7/-	
110 Poulton, Mrs. ...	1	1	3/6				
SOUTH-EAST. (Beyond Magdalen Bridge.)							
St. Clement's Street.							
4 Wells, Mrs.	2		3/6	1/-	2/6	6/-	
London Pl. (St. Clement's)							
12 Ayers, Mrs.	3		2/-	1/-	1/6	4/-	
17 Panting, Mrs. ...	2		3/6	1/6	2/6	6/6	
*** Regent Street.**							
1–2 Gribble, R.	1	2					
5 Tustin, J. W. ...	1	1	5/-	2/-	3/-	10/-	
39 Medcraft, G. ...	2	1				7/6	
40 Kay, A. J.	1	1				7/-	
*** East Avenue.**							
27 Buckland, Mrs. ...	1		3/6	2/-	2/6	8/-	
31 King, F.	1		4/-	2/6	3/6	8/-	
Alma Place.							
7 Pitt, J.	2	1	3/6	1/4	1/4		
24 Pike, Mrs.	1		3/6	6*d.*	1/6	5/6	

Name and Address.	No. of Sets. Sitting Room and Bedroom.	Extra Bedrooms.	Bed and Breakfast.	Luncheon.	Dinner.	Full Rate per day. Board and Lodging.	Notes.
Iffley Road.							
1 Clark, Mrs.	2					5/-	
5 Penstone, Miss ...	2	1	3/6	1/6	2/6	6/-	
7 Beesley, H.	2	1	4/-	1/-	2/6	7/6	
19 Beesley, C. H. ...	2	1	5/-	2/-	3/-	11/-	
21 Horser, Mrs.... ...	2	1	2/8	8*d.*	1/6	5/-	
29 Shrubb, Mrs. ...	1	1				7/6	
31 Packford, Miss ...	2		4/6	1/6	2/6	10/-	
37 Clare, A.	2	1	3/6	1/6	2/6	7/-	
39 Mundy, A. J. ...	3	2	3/6	1/-	2/-	6/6	
41 Chapman, Mrs. ...	2	3	4/-	2/-	3/-	9/-	
47 Ware, Mrs.	3	2	3/6	1/-	2/-	6/6	
49–51–53 Jeffrey, Mrs. ...		12				7/6	Boarding House
65 Osborne, Mrs. ...	2	1*d*				5/-	*d* Double Bed.
81 Warwick, Mrs. ...	2	1					
91 Harris, Mrs.	2		3/6	9*d.*	1/-	5/-	
*** Argyle Street.**							
Liddell, A. B. M. ...	1	1	3/-				
*** St. Mary's Road.**							
84 Neville, Mrs. ...	1*d*		2/6	1/6	2/6	6/6	*d* Double Bed.
Cowley Road.							
31 Wyatt, Mrs.	2		3/6	6*d.*	1/6	5/6	
32 Hawtin, Mrs. ...	2		3/6	6*d.*	1/9	5/6	
44 Piper, E. E.	2		3/6	6*d.*	2/-	6/6	
59 Abbey, T.	2	1*d*	3/-	1/-	2/6	6/6	*d* Double Bed.
69 Allnutt, Mrs. ...	2		2/9	9*d.*	1/3	4/6	
81 McDonald, Mrs. ...	2		3/6	1/6	2/6	7/6	
83 Burchell, W. G. ...	1		2/6	1/6	2/-	5/6	
William Street.							
25 Clarke, Miss	2		3/6	1/6	2/6	7/6	
Stockmore Street.							
1 Osmond, Mrs. ...	2		3/6	1/6	2/6	7/-	
Marston Street.							
46 Tuckett, Miss ...	2	1					
*** Crown Street.**							
14 Wilkins, Mrs. ...	1		3/-				
*** Hurst Street.**							
20 Massingham, Mrs. ...	1		3/-	1/-	3/6	7/-	
*** Bartlemas Road.**							
18 Street, Mrs.	2*d*		4/6				*d* 1 Double Bed.

PRINCIPAL HOTELS.

	Accommodation.
*** CLARENDON, Corn-Market Street**	**50**
CASTLE (Temperance), near Stations	**18**
CROWN, Corn-Market Street	**12**
EAST GATE, High Street	**20**
GEORGE, Corn-Market Street	**12**
GOLDEN CROSS, Corn-Market Street	**12**
KING'S ARMS, Parks Road	**12**
JONES'S HOTEL, Park End St., near Stations	**12**
MITRE, High Street	**50**
*** RANDOLPH, Beaumont Street**	**90-100**
ROEBUCK, Corn Market Street	**20**
WILBERFORCE (Temperance), Queen Street	**16**

* Luncheon will be provided at the Clarendon and Randolph Hotels, at a charge of 2/6 per head.

NOTICES.

This list of Hotels and Lodging-Houses has been prepared for the convenience of visitors, who must communicate with them *direct, and not through the Reception Committee.*

In communicating with any of the lodging-house keepers, visitors should quote the terms indicated in the list. A *set* of rooms consist of one sitting-room and one bedroom.

All the lodging-houses in the following list are situated within about half-a-mile radius of the Reception Room (Examination Schools), with the undermentioned exceptions:—

Streets marked with an *asterisk* (*) are beyond this radius.

Streets marked with a *dagger* (†) are within about half-a-mile of the University Museum, where the Sections will meet.

The lodging-houses are for the most part within easy reach of tram-lines or omnibus routes.

***** To obtain a revised List of Lodgings please communicate with the Secretary of Lodgings, British Medical Association, The Student's Delegacy, High Street, Oxford.**

SPECIAL RAILWAY ARRANGEMENTS.

To members and their friends attending the annual meeting at Oxford the railway companies of the United Kingdom will grant return tickets, on payment at the time of booking, at a single fare and a quarter. To secure this concession each passenger must produce a special voucher, and these may be obtained on application to the General Secretary, 429, Strand, London, W.C. The reduced fares will be available from July 22nd to August 2nd, both dates inclusive.

Those members desiring to travel to the places where they reside during the meeting of the Association may obtain return tickets at a single fare and a quarter (minimum charge 1s.) on production of cards of membership, from Oxford to any station not more than fifty miles distant to which through bookings are in operation available to return on the same or following day.

Meetings of Branches and Divisions.

[*The proceedings of the Divisions and Branches of the Association relating to Scientific and Clinical Medicine, when reported by the Honorary Secretaries, are published in the body of the* JOURNAL.]

NORTH WALES AND SHROPSHIRE BRANCH.

NORTH CARNARVONSHIRE AND ANGLESEA DIVISION.

A meeting of this Division was held at Bangor on April 20th, Dr. EMYR O PRICE, in the chair.

1. *Vaccination Laws.*—It was resolved:

That all the clauses as set down by the Council for presenting to the President of the Local Government Board for the improvement of the existing Vaccination Acts be approved of.

2. *Representation of British Medical Association on the General Medical Council.*—The following resolution was passed:

That the resolution passed by the Representative Meeting at Swansea in 1903 be approved of.

Medical Practitioners and Hydropathic Establishments.—It was suggested that if the practice be prohibited in connexion with hydropathic establishments, it should also be prohibited in connexion with other institutions such as sanatoria, homes for inebriates, hospitals, and insurance companies, but no resolution was passed.

Consultation between Medical Witnesses.—As the subject appeared to present many difficulties in the carrying out of it (if such a resolution was adopted) this Division resolved that no resolution be passed on the subject.

THE annual meeting of this Division was held at Bangor on May 25th, Dr. EMYR O. PRICE in the chair.

Election of Officers.—The following officers and representatives were elected for the ensuing year:—*Chairman:* John Roberts, M.D., Menai Bridge. *Vice-Chairman:* John Lloyd-Roberts, M.B., Colwyn Bay. *Honorary Secretary:* Mr. H. Jones-Roberts, Penygroes (re-elected), *Representative for Representative Meetings:* Emyr Owen Price, M.D., Bangor. *Representatives on the Council of the Branch:* Mr. R Arthur Prichard, Mr. Price Morris, Robert Parry, M.B. *Executive Committee:* Mr. T. E. Jones, R. H. Mills-Roberts, C.M.G., John Evans, M.D., J. R. Prytherch, M.B.

Medical Acts Amendment Bill.—It was resolved:

That this Division approves of all the clauses as set forth in the draft.

Amendments in By-laws: It was resolved:

That this Division is favourable to all the proposed amendments.

NORTH LANCASHIRE AND SOUTH WESTMORLAND BRANCH.

LANCASTER DIVISION.

THE annual meeting of this Division was held on May 16th.

Election of Officers.—The following officers were elected for the ensuing year:—*Chairman:* Dr R Bradley. *Vice-Chairman:* Dr. R. G. Heathcote. *Representative to Representative Meeting:* Dr. H. F. Oldham. *Representatives on Branch Council:* Dr. W. Hall and Dr. Oldham. *Secretary:* Dr. J. A. Gibson. *Committee:* Dr. W. W. Wingate Saul, Dr. C. R. Parker, and Dr. W. D. Barrow.

SOUTH-EASTERN BRANCH:

CROYDON DIVISION.

THE annual meeting of this Division was held at the Croydon General Hospital on May 19th, Dr. CARPENTER in the chair. Forty-seven members were present.

Election of Officers.—The following officers were elected for the ensuing year:—*Chairman:* Dr. W. Rosser. *Vice-Chairman:* Dr. Carpenter. *Honorary Secretary:* Mr. Willock. *Representatives on Branch Council:* Dr. Parsons Smith, Dr. Adams. *Direct Representative:* Dr. Macan. *Members of the Executive Committee:* Dr. Duncan, Dr. Fowler, Dr. Wayte, Mr. Newby, Mr. Reid, Dr. Redfern, Mr. Cressy, Dr. Gripper, Dr. Hugo, Mr. Wray, Dr Meredith Richards.

Vote of Thanks to Retiring President.—A cordial vote of thanks was given to Dr. Duncan, the retiring President.

Next Meeting.—It was arranged that the next meeting should be held at Sutton on October 20th.

Consultation between Medical Witnesses.—The following resolution, proposed by Dr. Meredith Richards, was carried unanimously:

That this Division is not prepared to recommend that medical witnesses should be required to consult together before giving evidence in Court.

Medical Practitioners and Hydropathic Establishments.—The following resolution, moved by Dr. MACAN, was adopted without dissent:

That this meeting disapproves of the advertising of medical practitioners in connexion with hydropathic establishments in any but medical papers.

Cases, Etc.—The following cases were shown:—Dr. WALE: Transposition of viscera.—Mr. CRESSY read notes of nineteen consecutive cases of appendectomy, and showed specimens of appendices removed.—Dr. CARPENTER: Congenital deformities of the metacarpus, with skiagraphs.—Mr. WRAY: (1) retinitis proliferans, (2) spring catarrh.—Dr. ADDEY: (1) cerebral syphilis, (2) palmar eczema with hyperidrosis.—Dr. WAYTE: (1) Psoas abscess treated by aspiration and the injection of iodoform emulsion, (2) osteomyeletis.

MAIDSTONE DIVISION.

THE annual meeting of this Division was held on May 26th.

Annual Representative Meeting.—Dr. W. Douglas was elected representative at the forthcoming Representative Meeting.

Election of Officers.—The following officers were elected for the ensuing twelve months:—*Chairman:* Dr. C. P. Oliver. *Vice-Chairman:* Dr. T. Joyce. *Honorary Secretary and Treasurer:* Mr. A. T. Falwasser. *Representative on Branch Council:* Mr. A. H. B. Hallowes. *Other Members of Executive Committee:* Dr. E. Ground, Mr. A. H. Roberts, Mr. F. T. Travers, Mr. G. M. Tuke.

SOUTH WALES AND MONMOUTHSHIRE BRANCH:

CARDIFF DIVISION.

THE annual meeting of this Division was held on May 19th, Dr. W. T. EDWARDS and Dr. THOMAS WALLACE successively in the chair. There were twenty-eight members present.

Confirmation of Minutes.—The minutes of the previous meeting were read and confirmed.

Election of Officers.—The following members were elected for the ensuing year in the various capacities named:—*Chairman:* Dr Thomas Wallace. *Vice-Chairman:* Dr. Charles Vachell. *Honorary Secretary:* Dr. Ewen J. Maclean. *Representative in the Representative Meetings of the Association:* J. Tatham Thompson, M.B. *Representatives on the Branch Council:* Dr. D. R. Paterson, Mr. J. Lynn Thomas, C.B., Dr. P. Rhys Griffiths, Dr. Alfred Sheen. *Further Members of Executive Committee:* Mr. W. Sheen, Mr. T. Garrett Horder, Dr. W. Mitchell Stevens, Dr. W. B. C. Treasure.

Vote of Thanks to Retiring Chairman.—On taking the chair, subsequent to his election, Dr. T. WALLACE moved a hearty vote of thanks to Dr. Edwards, the retiring Chairman, expressing for himself and for the Division the sense of deep obligation under which Dr. Edwards had laid the cause of Welsh education in general and the interests of the medical profession in Cardiff in particular during his long and distinguished career. This having been seconded by Dr. ALFRED SHEEN, was put and carried unanimously.

Report of Executive Committee.—The SECRETARY read the annual report of the Executive Committee, which was received and adopted. The report showed that during the year there had been an accession of 14 new members, bringing the present total to 126. This satisfactory increase was in part attributable to the circularization of non-members within the Division area. During the year there had been 7 general meetings (5 being ordinary and 2 special), with an average attendance of 21. Besides the matters referred to the Divisions generally, the working of the Midwives Act and the question of the establishment of a training centre for midwives had received careful attention. Nine papers had

been contributed on medical and surgical subjects. The Division expenses up to December 31st, 1903, had been £6 3s. 3d., and this had been met by a cheque from the Branch Treasurer.

Annual Representative Meeting.—The agenda of the Oxford Representative Meeting were considered in detail and instructions given to the newly-elected representative on the various sections and clauses.

The University of Wales.—The following resolution was agreed to *nem. con.*:

That this meeting of the Cardiff Division of the British Medical Association heartily approves of the application by the Court of the University of Wales for a supplemental charter to enable the University to confer degrees in medicine; expresses its appreciation of the fact that the application has support of His Royal Highness the Prince of Wales, the Chancellor of the University; and hereby records its opinion that from such a charter much benefit would accrue to the people of Wales.

Central Midwives Board.—The SECRETARY reported that he had received a letter from the Secretary of the Central Midwives Board, intimating that the members of the Board commended the lines on which the Midwives Committee of the Division were working in the matter of establishing a local training centre for midwives.

Vote of Thanks to Retiring Officers.—A vote of thanks to the retiring officers, the ex-Representative, and to the Chairman, concluded the business of the meeting.

Annual Dinner.—In the evening the first annual dinner of the Division was held at the Royal Hotel. There were forty present, and the Chairman (Dr. Thos. Wallace) was supported by Dr. W. T. Edwards (ex-Chairman), Principal Griffiths, and Professor Hepburn. Amongst others who attended were the Rev. D. Davies, the Rev. Father Brady, Dr. Evan Davies (Honorary Secretary North Glamorgan Division), Dr. Greer (Honorary Secretary Monmouth Division), and Dr. T. H. Morris (Chairman of the County Education Committee). The Principal and Professor Hepburn, in responding to the toast of "Cap and Gown," referred to the great facilities offered by a centre, such as Cardiff could claim to be, for the establishment of a full medical, surgical, and obstetric curriculum, and expressed the hope that with the assent to the recent application for a supplemental charter by the University of Wales, to empower the conferring of a degree in those subjects, full advantage would be taken of those facilities. Did they but appreciate the benefits which would accrue to them from the adoption of such a course, the people of Wales would not be wanting in the contribution of the necessary funds. Songs and a reading were interspersed between the toasts, and before the close of the proceedings Dr. Wallace, on behalf of the Executive Committee, presented to the Honorary Secretary of the Division a handsome gold sovereign purse in recognition of his services in that capacity during the past year.

MONMOUTH DIVISION.

THE annual meeting of this Division was held in the Newport and County Hospital on Friday, May 27th, at 3.30 p.m., Dr. J. W. MULLIGAN in the chair.

Election of Officers.—The officers elected for the ensuing year were:—*Chairman:* G. A. Brown. *Vice-Chairman:* J. Glendinning, M.D. *Honorary Secretary:* W. J. Greer. *Representative:* W. D. Steel, M.D.; *Representatives on Branch Council:* J. W. Mulligan, M.D., L. D. Gamble, M.B., R. J. Paton, M.D. *Executive Committee:* S. B. Mason, J. Howard-Jones, M.D., E. M. Griffith, M.D., T. M. Thomas, M.D.

Vote of Thanks to Retiring Chairman.—A vote of thanks was unanimously accorded to Dr. Mulligan for the able manner in which he had conducted the Division through a critical period in the life of the Association; Dr. BROWN then took his seat in the chair.

Confirmation of Minutes.—The minutes of the last meeting at Abergavenny were read and confirmed.

Report of Executive Committee.—The first annual report of the Executive Committee was read. This showed that the meetings in the past year were very successful, and that the membership was steadily increasing. The Committee strongly recommended that the members should support the candidature of Dr. Essex for the Central Council. They also expressed the opinion that as the annual meeting of the Branch was to be held soon in Newport, the Division should entertain the members to tea, lunch being already provided for by the President-elect, Dr. Marsh, Newport. The report was adopted.—On the motion of Dr. GLENDINNING, seconded by Dr. W. D. STEEL, the Secretary was directed to draw up a circular to be sent to members urging the candidature of Dr. Essex.

Annual Representative Meeting.—The business of the Annual Representative Meeting was carefully considered and instructions given to the representative.

The Title of "Dr."—Dr. HAMILTON'S motion on the agenda:

That all registered medical practitioners are entitled to use the title "Dr."

was taken with the business of the Representative Meeting. The speaker reviewed some of the correspondence which had appeared in the BRITISH MEDICAL JOURNAL, and said that evidently many men felt that it would be of advantage to them to be able to use the title by right as well as by courtesy, and that as a graduate himself he did not feel or assume any superiority over his brethren who were licentiates.—The HONORARY SECRETARY seconded the resolution.—The discussion was carried on by Drs. HOWARD-JONES, GLENDINNING, COUMBE, PATON, GRATTE, BASSETT, VINES, and the CHAIRMAN.—The previous question was put, and an amendment was put and lost, the resolution being carried.

Protected Titles of Drug Preparations.—The resolution of Dr. J. B. COUMBE was then taken:

To call attention to the disadvantage to the profession and to the public of prescribing drugs under the protected titles "tabloid," "jelloid," "cocoid," etc.

—After considerable discussion the resolution of the Wandsworth Division was adopted:

That it is desirable that the Central Council draws the attention of the medical profession individually to the fact that by recommending by name certain drugs and certain preparations of those drugs, they are not only allowing themselves to be used indirectly as touts for wholesale druggists, but are also helping their patients to form, either in themselves or others, serious habits of drug abuse.

That with the view of checking the indiscriminate dispensing of dangerous drugs, the Central Council of this Association be requested to appoint a committee to investigate the subject, either alone or in conjunction with the Pharmaceutical Society, and to report what steps they would recommend should be taken to remedy the present grave defect in the law.

Future Meetings.—It was decided that the meetings should be held quarterly as before. The annual meeting to be on the last Friday in May at Newport, a meeting to be at Pontypool on the first Friday in September, the other meetings to be on the last Fridays of November and February at Newport and Abergavenny respectively.

Consultation between Medical Witnesses.—The recommendation of the Medico-Political Committee:

Whether it is advisable that the medical witnesses engaged on each side in legal cases should meet in consultation

was considered.—Dr. HAMILTON thought that it was not advisable, that no good could be arrived at, and that the legal profession would be likely to object.—Dr. GRATTE said that there ought to be some means of bringing the medical witnesses together before going into court.—Dr. LAWRENCE believed that it was not possible for this to be carried out, that opinions would often differ.—Dr. MULLIGAN emphasized the rule that no medical man should allow himself to be an advocate; if men fairly judged and adhered to the facts there would be very little difference of opinion.—Dr. NEILSON held that the recommendation was ideal, but that it could not be carried out in practice.—The HONORARY SECRETARY thought that it might be best to put it that medical witnesses should consult if the parties desired it.—The CHAIRMAN considered that the resolution was a counsel of perfection, that it was almost impossible in practice, and that medical assessors should be made use of.—The discussion was continued by Drs. PATON, MARSH, FROST, and MCGINN, the general feeling of the meeting being that the resolution was impracticable.

Medical Practitioners and Hydropathic Establishments.—The recommendation of the Ethical Committee:

That the question of the advertising of medical practitioners in connexion with hydropathic establishments be referred to the Divisions.

was next discussed. The opinion of the meeting was that the name of a medical man ought not to be used in these advertisements unless the medical man devoted his whole time to the establishment.

Votes of Thanks.—Dr. MARSH proposed, Dr. VINES seconded, and it was carried unanimously:

That the best thanks of the meeting be given to Dr. Brown for so ably presiding.

A hearty vote of thanks was accorded to the Directors of the Newport and County Hospital for their very kind hospitality to the Division during the year.

Members Present.—The members present at the meeting were: Drs. Brown, Mulligan, Frost, Paton, Vines, Marsh, Neilson, P. McGinn, Hamilton, Gratte, Bassett, Glendinning,

Howard-Jones, Tonks, Lewis, J. McGinn, Coumbe, Mason, Greer, Lawrence, Steel, T. M. Thomas.

EAST ANGLIAN BRANCH:
South Essex Division.

The annual meeting was held at Southend-on-Sea, on Thursday, May 26th; A. Clough Waters, M.B., J.P., in the chair. An address by T. H. Openshaw, C.M.G., M.S., F,R.C.S., on "The ambulatory treatment of fractures of the lower extremity, by Hoefftcke's modified Hessing's splint case appliance," elicited much interesting discussion. Patients were shown with the splint applied, and the saving of long and tedious confinement to bed was commented upon.—The Chairman showed an ovarian cyst with strangulated pedicle, recently removed from a patient, who made a satisfactory recovery, and Dr. Raper exhibited a case of infantile paralysis.

Medical Practitioners in Hydropathic Establishments.—It was resolved:

That this Division disapproves of the advertising of medical officers of hydropathic institutions.

Consultations between Medical Witnesses.—The following resolution was passed:

That in a majority of cases, it is advisable, that the medical witnesses engaged on each side in legal cases, should meet in consultation.

Election of Officers.—The following officers were appointed for the ensuing year: *Chairman:* Dr. Clough Waters. *Vice-Chairman:* Dr. Raper. *Secretary:* Dr. Cardy Bluck. *Representative with Mid-Essex:* Lieut.-Col. Westcott, R.A.M.C., C.M.G. *Representative on Branch Council:* Dr. Forsyth. *Executive Committee:* Drs. Bridger, Forge, Forsyth, G. F. Jones-Nash, Ward, and Lieut.-Colonel Westcott, R.A.M.C., C.M.G.,

METROPOLITAN COUNTIES BRANCH:
Marylebone Division.

The annual meeting of this Division was held on Tuesday, May 31st, in the rooms of the Medical Society of London, Chandos Street; Sir Victor Horsley in the chair.

Election of Officers.—Chairman: Mr. Andrew Clark. *Vice-Chairman:* Dr. de Havilland Hall. *Honorary Secretary and Treasurer:* Dr. Comyns Berkeley. *Representatives of the Division on the Council of the Metropolitan Counties Branch:* Dr. T. Dutton, Dr. Hawthorne. Dr. S. Spicer, Dr. Hugh Woods, Mr. Ernest Clarke, Mr. F. Eve, and Mr. H. R. Walker. *Representative of the Division at the Annual Representative Meeting at Oxford:* Sir Victor Horsley, who was given a free hand to vote as he though best at that meeting.

Report of Executive Committee: The annual report of the executive officers was received, adopted, and ordered to be entered on the minutes.

Letter of Thanks to Retiring Chairman: It was proposed by Sir Victor Horsley, seconded by Mr. Andrew Clark, and carried by acclamation, that a letter be sent to Professor Howard Marsh, thanking him for the very able, kind, and courteous manner in which he had filled the office of Chairman of the Division during the past year.

LANCASHIRE AND CHESHIRE BRANCH:
Blackpool Division.

The annual general meeting of this Division was held in the Town Hall, Blackpool, on May 31st, the President, Dr. Day, in the chair. Thirteen members were present.

Confirmation of Minutes.—The minutes of the last general meeting were read and confirmed.

Report of Executive Committee.—The annual report of the Executive Committee was read and approved.

Election of Officers.—The following were elected as officers and Committee for the ensuing year:—*President:* Dr. W. B. Richardson. *Vice-President:* Dr. A. M. Eason. *Honorary Secretary:* Dr. F. J. H. Coutts. *Representative on Branch Council:* Dr. P. H. Day. *Executive Committee:* Drs. J. Anderson, F. Booth, C. Court, P. H. Day, R. H. W. Dunderdale, G. Forbes, J. Ruxton, W. H. Williams. With regard to the representative for the Representative Meeting, the Division nominated Dr. F. J. H. Coutts, and elected him subject to the approval of the Isle of Man Division, provided that the two Divisions should be again associated for the purpose of the election of a representative.

Matters Referred to Divisions.—The meeting considered the matters referred to the Divisions, and instructed the Secretary to convey the opinion of the Division thereon to the officers of the Association.

Annual Representative Meeting.—The meeting then proceeded to discuss the notices of motion for the Annual Meeting of Representatives, and instructed their representative thereon.

Other Business.—A memorandum from the Exeter Division was then read on the subject of the government of the medical profession.

Contract Medical Practice.—The matter of contract practice in connexion with the recent circular letter from the Medical Secretary of the Association was considered.

GLASGOW AND WEST OF SCOTLAND BRANCH.

The annual meeting of the Branch was held in the Royal Infirmary, Glasgow, on May 20th. The business meeting was held in the Board Room of the Infirmary at 3 o'clock.

Introduction of New President.—Dr. Ebenezer Duncan, the retiring President, introduced as his successor in the chair, Dr. J. C. McVail, the President-elect.

Reports.—The annual report of the Branch Council, the financial statement of the Branch, and the report of the Medico-Ethical Committee were submitted and adopted.

Election of Officers.—The following office-bearers were unanimously elected: Dr. John Macintyre (Glasgow), President-elect, and Drs. Jas. H. Nicoll and Jas. Hamilton, Honorary Secretaries.

Vote of Thanks to Retiring President.—On the motion of the President the meeting passed a unanimous and hearty vote of thanks to the retiring president, Dr. Eben. Duncan, for his most efficient work as President during a year of active and somewhat critical change in the history of the Branch.

Mr. Andrew Clark, the Chairman of Council of the Association, who was present as the guest of the Branch, addressed the meeting on the functions of the Branch, Branch Council, and Divisions, as constituted under the reorganization scheme. (See British Medical Journal, May 28th, p. 1276).

Demonstration.—At 4 p.m. a large audience of medical men and women assembled in the new Electric Pavilion where Dr. John Macintyre gave a demonstration on Recent Electro-Therapeutic Methods of Treatment. The demonstration covered the whole field of modern electro-therapeutics, and was followed with much interest by the members.

Dinner.—In the evening members dined in the St. Enoch Hotel, Glasgow, Dr. J. C. McVail in the chair, the guest of the evening being Mr. Andrew Clark, Chairman of Council of the Association. The toast list was as follows: "The King," Chairman; "The British Medical Association," Dr. Eben. Duncan; reply, Mr. Andrew Clark, F.R.C.S.; "The University," Dr. Wm. Findlay; reply, Professor McCall Anderson; "The Faculty of Physicians and Surgeons," Dr. Wm. Frew; reply, Mr. Henry E. Clark, C.M.G.; "The Branch," Dr. Norman Walker; reply, Dr. J. C. McVail; "The Other Scottish Branches," Dr. D. C. McVail; reply, Dr. R. G. Highet; "The Royal Infirmary," Dr. Bruce Goff; reply, Dr. Maxtone Thom; "The Chairman," Mr. Andrew Clark, F.R.C.S.

BATH AND BRISTOL BRANCH:
Bristol Division.

The annual meeting of this Division was held in Bristol on May 19th, Dr. E. Markham Skerritt in the chair. Twenty-six members were present.

Election of Officers.—The following were elected officers for the ensuing year: *Chairman:* Dr. Barclay J. Baron. *Vice-Chairman:* Dr. E. Markham Skerritt. *Honorary Secretary and Treasurer:* Dr. Newman Neild. *Council of Branch:* Dr. Shaw. *Representative of Division in Representatives' Meetings:* Dr. Michell Clarke.

Annual Report.—The annual report was received and adopted.

Alteration of Rules.—The rule as to alteration or repeal of rules was altered.

SOUTH-WESTERN BRANCH:
Truro Division.

The annual meeting of this Division was held on May 19th.

Election of Officers—The following officers were elected for the ensuing year:—*Divisional Members of Council:* Dr. Cuthbertson Walker, Mevagissey; Dr. R. F. Stephens, St. Austell; and Dr. Ratcliff-Gaylard, Truro. *Representative at Representative Meeting:* Dr. W. Whitworth, St. Agnes. *President of the Division:* Dr. E. Charles, Flushing, Falmouth. *Vice-President:* Dr. Ratcliff-Gaylard, Truro. *Honorary Secretary and Treasurer:* Dr. M. R. Taylor, Cross Street, Helston.

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TO THE

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CONTENTS.

	Page.
MEETINGS OF BRANCHES AND DIVISIONS:	
Bath and Bristol Branch: Trowbridge Division	190
Birmingham Branch: Nuneaton and Tamworth Division ...	191
Cape of Good Hope (Western) Branch	197
Cape of Good Hope (Eastern Province) Branch	197
Dundee Branch	196
East Anglian Branch: North Suffolk Division	191
,, ,, South Suffolk Division...	193
,, ,, South and West Suffolk Divisions ...	193
Edinburgh Branch: South Eastern Counties Divisions... ...	195
,, ,, South Edinburgh Division	195
Glasgow and West of Scotland Branch: Lanarkshire Division ...	192
Hong Kong and China Branch	197
Lancashire and Cheshire Branch: Blackburn Division... ...	190
,, ,, Burnley Division	190
,, ,, ,, Chester Division	190
,, ,, ,, Liverpool (Bootle) Division ...	189
,, ,, ,, Liverpool (Western) Division...	189
,, ,, ,, Preston Division	189
,, ,, ,, Stockport and Macclesfield Division...	190
Malta and Mediterranean Branch	196
Metropolitan Counties Branch: Hampstead Division	194
,, ,, , Stratford Division	194
Metropolitan Counties Branch: Tottenham Division	194
,, ,, Westminster Division	194
Munster Branch	195
Northern Counties of Scotland Branch	191
North Wales and Shropshire Branch: Denbigh and Flint Division	192
South-Eastern Branch: Horsham Division	191
,, ,, ,, Isle of Thanet Division	195
South-Eastern of Ireland Branch	196
South Midland Branch: Aylesbury Division	196
South Wales and Monmouthshire Branch: South-West Wales Division	192
Staffordshire Branch: North Staffordshire Division	196
Ulster Branch. Belfast Division	193
,, ,, Derry Division	193
Worcestershire and Herefordshire Branch: Worcester Division	196
Yorkshire Branch: Halifax Division	194
,, ,, Harrogate and Richmond and Northallerton Divisions	193
,, ,, York Division	194
MEDICO-POLITICAL COMMITTEE:	
Circular to Honorary Secretaries of Divisions	197
INDEX TO VOL. I FOR 1904...	199

Meetings of Branches and Divisions.

[*The proceedings of the Divisions and Branches of the Association relating to Scientific and Clinical Medicine, when reported by the Honorary Secretaries, are published in the body of the* JOURNAL.]

LANCASHIRE AND CHESHIRE BRANCH:

PRESTON DIVISION.

THE annual meeting of this Division was held in the Town Hall, Preston, on April 28th, the President, Dr. R. C. BROWN, n the chair. Eighteen members were present.

Confirmation of Minutes.—The minutes of the last general meeting were read and confirmed.

Election of Officers.—The following were elected officers and Committee for the ensuing year:—*President:* Dr. R. C. Brown; *Vice-President:* Dr. Garner. *Honorary Secretary and Treasurer:* Dr. W. H. Irving Sellers. *Representative on the Council of the Branch:* Dr. Rayner. *Representative in Representative Meetings of the Association:* Dr. D. Turnbull Smith. *Executive Committee:* Drs. Anderson, Jones, Lonie, and Mooney

The Association and Medical Defence.—This question was discussed, and the majority suggested that some means of amalgamation should be arranged with the existing Defence Societies.

The Medical Acts Amendment Bill.—The proposed Medical Acts Amendment Bill was discussed, special attention being called to Clause 34. It was resolved that the clauses be endorsed and approved of.

Medical Practitioners and Hydropathic Establishments.—It was resolved:

That this Division objects to the public advertising of the names of men attending hydropathic establishments. This Division would also draw the attention of the Ethical Committee to the fact that this direction is subverted by Clause 34, Part VI, of the British Medical Association Draft Medical Act Amendment Bill, 1903.

Consultation between Medical Witnesses.—A resolution was passed advocating that such consultations should take place with the consent of counsel and clients.

Vaccination Draft Laws.—All clauses as set down were endorsed and approved of by a majority of 11 for and 2 against Clause 6.

LIVERPOOL (WESTERN) DIVISION.

THE annual meeting of this Division was held on May 17th at the Liverpool Medical Institution.

Report of Executive Committee.—The annual report of the Executive Committee was read and adopted.

Election of Officers.—The following members were elected, or re-elected, respectively for the following year, namely:—*Chairman:* Dr. James Barr. *Vice-Chairman:* Mr. Thelwall Thomas. *Secretary:* Dr. Karl Grossmann. *Representatives on Branch Council:* Dr. Grossmann and Mr. F. C. Larkin. *Representative in the Representative Meeting of the Association:* Dr. Grossmann. *Other Members of the Executive Committee:* Dr. Drummond, Dr. N. Raw, Dr. Stookes, Mr. R. Williams.

LIVERPOOL (BOOTLE) DIVISION.

AT the annual meeting of this Division the following officers were elected: *Chairman:* Joseph Walker. *Vice-Chairman:* Robert Turner, M.D. *Honorary Secretary:* W. J. Fleetwood, M.D. *Representative:* W. J. Fleetwood, M.D. *Representatives on Branch Council:* T. M. Wills, F.R.C.S.I.; W. J. Fleetwood, M.D.

BURNLEY DIVISION.

The annual meeting of this Division was held on May 27th.

Election of Officers.—The following officers were elected:—*Chairman:* R. Crawshaw Holt, M.D. *Vice-Chairman:* C. M. Mitchell, M.D. *Representative on the Branch Council:* Mr. J. M. Ferguson. *Honorary Secretary:* James Haworth, M.B. *Executive Committee:* The existing Executive Committee was reappointed.

CHESTER DIVISION.

THE annual meeting of this Division was held in association with the Crewe Division in the Board-room of the Chester General Infirmary on May 31st. Dr. MANN, Vice-Chairman, presided. Letters, telegrams, etc., were read from Dr. Hamilton (Chairman) and Dr. Brierley regretting inability to attend.

Confirmation of Minutes.—The minutes of the last annual meeting and of the last meeting of the Executive Committee were confirmed.

Committee's Report and Financial Statement.—The Committee's annual report and the financial statement were read and approved of.

Election of Officers.—The following were elected:—*Chairman:* Dr. James Taylor. *Vice-Chairman:* Dr. F. M. Granger. *Honorary Secretary and Treasurer:* Dr. H. W. King. *Representative on the Branch Council:* Dr. Atkinson. *Representative of the Divisions of Chester and Crewe in Representative Meetings of the Association:* Dr. H. W. King. *Executive Committee* (in addition to the *ex-officio* members): Drs. Parry, Duff, Jephcott, and Cahill.

Consultation between Medical Witnesses.—After a short discussion, the following resolution was proposed by Dr. KING and seconded by Dr. PARRY:

That it is desirable that, with the concurrence of the principals on both sides, consultation between the medical witnesses on both sides should take place.

This was carried *nem. con.*

Other Business.—A letter from Dr. Finny (Ellesmere Port) to the Chairman was then read, with an enclosure dated May 26th from the Secretary of the Insurance, Provident, and Pensions Societies, London and North-Western Railway. It dealt with the fact that up to April 30th, 1904, the London and North-Western Railway paid a lump sum to their certifying surgeons for medical certificates of sickness, etc. Since the above date this practice had been discontinued, and any doctor could certify. The grievance was, however, not so much this as that the certificate given to the sick member was permitted by the railway officials to be copied for the secretaries of other, often two or three quite different, clubs, and vice versâ copied by the railway officials from other certificates, the sum chargeable for each certificate being thus lost to the medical officers of the respective clubs. The letter from the Secretary to the Insurance, Provident, and Pension Societies of the London and North-Western Railway, Euston Station, was to the effect that as the rules of the Societies did not disallow it, he was obliged to accept the copies. Dr. CAHILL brought the matter forward for Dr. FINNY, and gave some further explanations.—After a short discussion it was suggested by Dr. TAYLOR that if the words "not to be copied" were written across the certificate the object desired would be attained.—This concluded the business of the meeting.

STOCKPORT AND MACCLESFIELD DIVISION.

THE annual meeting of this Division was held at the Stockport Infirmary on June 1st, Dr. JAMES BRIERLEY HUGHES, President of the Division, in the chair. Thirteen members were present.

Election of Officers.—The President, and Mr. B. W. Housman, F.R.C.S. (Vice-President), and Edwin Rayner, M.D. (the Honorary Secretary), were re-elected for the coming year. Alfred Godson, M.B., and Edwin Rayner, M.D., were re-elected Representatives on the Branch Council; and Mr. John Brierley Hughes, M.B., Representative of the Division in Representative Meetings of the Association; the other members of the Executive Committee being Dr. Averill, Dr. Browne, Dr. Carruthers, and Dr. E. A. Goulden.

Report of Committee.—In the report of the Committee, regret was expressed at the apathy which was so marked a feature of and so detrimental to the profession.

The Association and Medical Defence.—The medical defence scheme of the Association did not meet with general acceptation, many of the members being also members of the Medical Defence Union.

BLACKBURN DIVISION.

Committee Meeting.

A COMMITTEE meeting was held at the Old Bull Hotel, Blackburn, at 8.30 p.m. on Thursday, June 9th. Present: Drs. Ballantyne, Wallers, Nash, Stephenson, and Greenwood.

Confirmation of Minutes.—The minutes of the last meeting were confirmed.

Excursions.—The HONORARY SECRETARY reported receipt of a permit for the Lancashire and Cheshire Branch to visit Hoghton Towers on June 30th. He also reported the receipt of letter from Dr. Helme *re* Stonyhurst morning trip. Dr. NASH also reported that on Wednesday, June 8th, the Lancashire and Cheshire Branch vetoed this trip. It was resolved that the Honorary Secretary write to Dr. Helme asking for official intimation to this effect, so that he might forward it to the Rector of Stonyhurst cancelling the trip.

General Meeting.

A meeting of the Division was held at the Old Bull Hotel, Blackburn, on Thursday, June 9th. Present: Drs. Ballantyne, Martin, Baillie Craig, Heywood, Steele, Baxter, Taylor, G. H. Davies, Stevenson, Bannister, Wallers, Prebble, Cumming, Cunliffe, Smith, Moir, Craig (Darwen), Gregson, Scott Heyliger, Nash, Greeves, Miller, Ramsay, Wells, and Greenwood. The chair was taken by Dr. BALLANTYNE (Vice-President).

Confirmation of Minutes.—The minutes of the last meeting were confirmed.

Club Practice.—A deputation from the Darwen Medical Society was then received, and Dr. BAXTER opened a discussion on club practice, stating that the Darwen Co-operative Society was about to form a Medical Aid Association, and had circularized all the medical men in Darwen to this effect. Several members took part in the discussion, and the following resolution was proposed by Dr. CRAIG and seconded by Dr. MARTIN:

That, having heard from the Darwen Medical Society their conduct in declining to have any connexion with a proposed Medical Aid Association, this meeting of the Blackburn Division of the Lancashire and Cheshire Branch of the British Medical Association unreservedly approves of their dignified attitude, and pledges itself to give them every reasonable support in resisting the formation of Medical Aid Societies.

An amendment was proposed by Dr. NASH and seconded by Dr. MOIR as follows:

That this Division approves of and confirms the dignified attitude of the Darwen Medical Society with the Darwen Co-operative Society, and wishes to emphasize the fact that any medical man taking up the position offered by the Darwen Co-operative Society will at once imperil his position on the *Medical Register*.

Eight voted for the amendment and ten against. The original proposition was then put and carried.

Entertainment of Branch.—The SECRETARY reported that he would be willing to receive further subscriptions towards entertaining the Lancashire and Cheshire Branch at Blackburn on June 30th.

Annual Representative Meeting.—Dr. NASH as Representative was then instructed to give notice at the Oxford meeting in July next that he would inquire into the statement that the Editor and Sub-editor of the BRITISH MEDICAL JOURNAL received extra money in addition to salaries for editorials in the JOURNAL, and that this Division disapproved of the principle.

BATH AND BRISTOL BRANCH:

TROWBRIDGE DIVISION.

A MEETING of this Division was held at Trowbridge on May 11th, Dr. KEIR in the chair. There were present Drs. W. J. A. Adye, Dalby, Flemming, Haydon, Locket, Pearse, G. C. Tayler, H. P. Tayler, C. R. Wood, and Tubb-Thomas, Secretary.

Election of Officers.—Dr. C. R. Wood was elected Chairman for the ensuing year; Dr. Haydon Vice-Chairman; J. Tubb-Thomas, re elected as Secretary and Treasurer. The Executive Committee and Representatives on Branch Council were re-elected.

Area of Division.—It was resolved:

That the Council of the Association be petitioned to enlarge the area of the Division so as to include the whole of that portion of Wiltshire which is included in the Bath and Bristol Branch.

Consultation between Medical Witnesses.—It was resolved:

That in the opinion of the Division, it is not desirable that medical witnesses engaged on each side in legal cases should meet in consultation.

It was further resolved:

That in the opinion of the Division the difficulty would be largely

met by appointing medical assessors to sit with magistrates and judges in cases turning upon medical evidence.

Medical Practitioners and Hydropathic Establishments.—It was resolved:

That advertising of medical practitioners in connexion with hydropathic establishments and sanatoria is undesirable except in medical papers.

The Association and Medical Defence.—It was resolved:

That it is undesirable at present for the British Medical Association to take up the question of medical defence.

SOUTH-EASTERN BRANCH:

HORSHAM DIVISION.

THE annual meeting of the Division was held at Horsham on May 18th, Mr. E. J. BOSTOCK in the chair; seven members were present.

Confirmation of Minutes.—The minutes were read and confirmed.

Election of Officers.—The officers were all re-elected, and Mr. F. A. Juckes was elected on the Executive Committee, in the place of Sir W. Kynsey.

New Member.—Mr. Fred. W. Lee, of Storrington, was elected a member of the Division.

Medical Practitioners and Hydropathic Establishments.—The question of advertising by medical practitioners attached to hydropathic establishments was discussed, and it was unanimously agreed that the system was very undesirable.

Consultations between Medical Witnesses.—The question of consultations between medical witnesses in legal cases was discussed, and it was decided that such a suggestion was impracticable.

Address.—Dr. H. LEWIS JONES (London) gave a very interesting address on the Recent Advances in Electro-therapeutics, dealing with radium (of which he showed a small sample), *x* rays, high-frequency current, and the electric cabinet, describing the various diseases and mode of action in applying each method.

BIRMINGHAM BRANCH:

NUNEATON AND TAMWORTH DIVISION.

A MEETING of this Division was held on May 19th at Nuneaton General Hospital.

Consultation between Medical Witnesses.—The following resolution was passed:

The Division is of opinion that in the majority of cases, more especially in those where there is prospect of settlement out of court, the consultation of medical witnesses is advisable.

The Association and Medical Defence.—It was resolved:

That the Division is unanimously of the opinion that as it seems impossible that the two Societies now doing such excellent work can be incorporated with the medical defence department of the British Medical Association, it is wiser not to proceed in the matter.

No favourable replies had been received to the circular sent to the members of the Division.

Medical Practitioners and Hydropathic Establishments.—The following resolution was passed:

That the advertising of medical practitioners in connexion with hydropathic establishments is contrary to the ethics of the profession; and it is exceedingly derogatory for medical men to allow their services to be forced on visitors to these institutions against their wish.

NORTHERN COUNTIES OF SCOTLAND BRANCH.

THE annual meeting of the Branch was held at Elgin on May 21st, Dr. ALLAN, President, in the chair. Twenty-two members were present. The SECRETARY read a letter from Dr. T. R. Macdonald (now of Hawick) stating that on account of having removed from the district he regretted he would be unable to occupy the President's chair at this meeting. Apologies for inability to attend were read from Drs. Bruce (Dingwall), Simpson (Golspie), Maclachlan (Dornoch), Duncan (Strathpeffer), and others.

Confirmation of Minutes.—The minutes of the previous meeting were read and approved.

The late Dr. Milligan.—It was resolved to record on the minutes the loss the Branch had suffered by the death of Dr. Milligan (Forres), who had been a member of the Branch for many years and took a warm interest in its proceedings. It was resolved to forward a minute of condolence to Mrs. Milligan.

Election of Officers.—The office-bearers for the ensuing year were appointed:—*President:* Dr. Allan. *President-elect:* Dr. Sclanders. *Vice-Presidents:* Dr. Murray and Dr. Ogilvie Grant. *Representative in Representative Meetings:* Dr. J. Munro Moir. *Representative on Central Council:* Dr. James Murray. *Honorary Secretary and Treasurer:* Dr. J. Munro Moir. *Members of Council:* Dr. Mackay, Dr. Cruickshank, Dr. Sutter, Dr. Mackenzie, Dr. Adam, and Dr. Forsyth.

Future Meetings.—It was resolved to hold the autumn meeting at Forres. Regarding the meeting place for next year, the members, while anxious to give those resident in the northern parts of the Branch an opportunity of attending an annual meeting, were influenced in their finding—that it should be held in Inverness—by the fact stated by Dr. Asher (Thurso) that neither Tain, Dornoch, nor Golspie would suit members living beyond Dingwall or in the west, as the time left at their disposal—not more than an hour or two—was very limited, and that members living in the Northern Division of the Branch as well as those in the Southern, in order to attend a meeting at either of the places named, would have to go there the previous night and to leave comparatively early next day; for this reason the meeting decided on Inverness as the most convenient centre for the annual meeting.

Consultations between Medical Witnesses.—Dr. MURRAY moved:

That it is not desirable that the medical witnesses engaged on each side in legal cases should meet in consultation.

This was seconded by Dr. DUGUID (Buckie). Dr. MACKAY (Elgin) moved the previous question. This was seconded by Dr. MACKENZIE (Inverness). The motion was carried.

Medical Practitioners and Hydropathic Establishments.—With regard to the question of the advertising of medical practitioners at hydropathic establishments it was considered by the meeting that it saw no objection to hydropathic establishments announcing the names of their medical attendants provided it was understood that any other medical practitioner was allowed to attend visitors if they—the visitors—so desired.

The Association and Medical Defence.—The question whether the Association should undertake medical defence gave rise to considerable discussion. The SECRETARY stated that at a meeting of the Branch on June 9th, 1897, the following resolution was unanimously adopted:

That in the opinion of the Branch it is not desirable that the Association should institute medical defence.

Dr. DUGUID (Buckie) moved a resolution similar to the above, which was seconded by Dr. ADAM (Forres). Dr. MACKENZIE (Inverness) moved an amendment:

That the Association take up the question of medical defence.

This was seconded by Dr. IRONSIDE (Forhabers). On a vote being taken 13 voted for the motion and 8 for the amendment. The motion was declared carried. With reference to this matter the SECRETARY intimated that he had sent out 112 circulars asking the members whether they would be willing to acquiesce in any defence scheme which the Association took up. He had only received 14 replies in favour of the scheme proposed. 2 replied that they were in favour of it provided terms were arranged with the existing Medical Defence Unions.

Paul Memorial Fund.—Dr. MACKAY (Elgin) made a statement with reference to the Paul Memorial Fund which was raised by subscription a number of years ago to perpetuate the memory of Dr. Paul, a well-known practitioner in Elgin, who died about 1865. It was remitted to Dr. Mackay to make the necessary arrangements to carry out the wishes of the subscribers.

EAST ANGLIAN BRANCH:

NORTH SUFFOLK DIVISION.

THE annual meeting of this Division was held on Wednesday, May 25th, at the Y.M.C.A., Lowestoft, Mr. H. B. WALKER and Dr. W. M. CROWFOOT successively in the chair.

Confirmation of Minutes.—The minutes of the last meeting were read and confirmed.

Election of Officers.—The following were elected officers for the ensuing year:—*Chairman:* Dr. W. M. Crowfoot. *Vice-Chairman:* Mr. H. B. Walker. *Honorary Secretary and Treasurer:* Dr. W. Tyson. *Representative on Branch Council:* Mr. H. B. Walker. *Executive Committee:* Messrs. Ransome, Hubert Warwick, and Hudson.

Report of Executive Committee.—The annual report of the Executive Committee was read and approved.

Paper.—Mr. RANSOME read a paper on a case of angio-neurotic oedema, and an interesting discussion followed.

Matters Referred to the Divisions.—The meeting considered the matters referred to the Divisions.

GLASGOW AND WEST OF SCOTLAND BRANCH:
Lanarkshire Division.

The annual meeting of this Division was held on May 26th, in the Royal Hotel, Hamilton, Dr. Bruce Goff in the chair.

Confirmation of Minutes.—The minutes of last meeting were read and approved of, and were signed by the Chairman.

Election of Officers.—The following were elected officers for the ensuing year:—*Chairman:* Dr. Bruce Goff. *Vice-Chairman:* Dr. John Fotheringham. *Honorary Secretary:* Dr. Livingstone Loudon. *The Council of the Division* was re-elected as formerly (the name of Dr. Livingstone Loudon as Secretary being substituted for that of Dr. R. H. Watson resigned). *Council:* Dr. Bruce Goff, Dr. M'Phail, Dr. Millar, Dr. L. Loudon, Dr. Fotheringham, Dr. Kirkland, Dr. Lindsay. *Member of Council to Branch Council:* Dr. Bruce Goff. *Representative to Branch Council:* Dr. Livingstone Loudon. *Extra Representative to Branch Council:* Dr. Bruce Goff. A letter was read from Dr. R. H. Watson, Honorary Secretary of Division, of date March 27th, 1904, resigning with regret the office of Secretary. On the motion of Dr. Bruce Goff, seconded by Dr. Jones, Dr. Livingstone Loudon was unanimously appointed Secretary.

Vote of Thanks to Retiring Honorary Secretary.—Thereafter it was moved by Dr. Bruce Goff, and seconded by Dr. Livingstone Loudon:

That the Lanarkshire Division takes this opportunity of recording its regret at Dr. Watson's resignation. Dr. Watson has acted as Secretary with much acceptance since this Division was started, and his laborious services have been greatly appreciated by all. More particularly does the Division regret that the unsatisfactory state of Dr. Watson's health has been the cause of his resigning the office of Secretary and having to go abroad. In taking farewell of Dr. Watson all desire to thank him for his services, and express the wish that his health may be restored, and his future prosperous.

This was unanimously agreed to, and the Secretary was instructed to write to Dr. Watson in terms of the resolution.

The Division and Representative Meetings.—The Secretary intimated that the number of members presently "on the strength" of the Division was 66, and that consequently the Division was eligible to form an independent constituency for the election of a representative in Representative Meetings for the ensuing year.

Medical Practitioners and Hydropathic Establishments.—The question of advertising in connexion with hydropathic establishments was fully discussed; and it was proposed by Dr. John Fotheringham, seconded by Dr. Macpherson (Bothwell), and unanimously agreed to:

That we support the Association in putting its veto on advertising of medical officers to hydropathic establishments.

Consultations between Medical Witnesses.—In regard to consultations of medical witnesses in medico-legal cases it was unanimously resolved:

That in all legal cases such a consultation as that suggested in the circular (of date March 2nd) is desirable.

The Association and Medical Defence.—In the matter of medical defence, the Secretary reported that sixty-four circulars and copies of the scheme of medical defence had been sent out to the Division, and that the following was the result of the poll:

Circulars and Schemes sent out, 64.
" returned, 37.

Is it your wish that the Division should take up Medical Defence?	Yes, 30.	No. 7.
Do you approve of the general principles and details of the accompanying scheme?	Yes, 29.	No. 8.
Form of Undertaking to join the Medical Defence Department of the British Medical Association if formed	Signed by 23.	Unsigned by 14.

Ethical Rules.—The Division then discussed rules to regulate ethical procedure, and resolved that no separate Ethical Committee should be formed, but that the Executive Committee should act as an Ethical Committee. The Draft Model Rules, as published in the Supplement to the British Medical Journal of March 7th, 1903, were approved of and adopted.

Contract Medical Practice.—The Secretary was instructed to ascertain the cost, and, if reasonable, make arrangements for sending out the forms to medical practitioners in the Division in connexion with the contract practice inquiry.

NORTH WALES AND SHROPSHIRE BRANCH:
Denbigh and Flint Division.

The annual meeting of this Division was held on May 27th at the Imperial Hotel, Wrexham. Dr. J. Medwyn Hughes, Ruthin, presided, and fourteen members were present.

Election of Officers.—The following officers and representatives were elected for the ensuing year:—*Chairman:* Dr. J. Medwyn Hughes. *Vice-Chairman:* Dr. Enoch Moss. *Honorary Secretary:* Mr. E. D. Evans. *Representative on the Representative Committee:* Mr. E. D. Evans. *Representatives on the Council of the Branch:* Dr. J. E. H. Davies and Dr. B. J. E. Wright. *Representatives on the Executive Committee of the Division:* Dr. Eyton Lloyd, Dr. Richard Owen, Dr. J. C. Davies, and Dr. Richard Evans.

The Constitution and Work of the Association.—Dr. W. Jones Morris, Portmadoc, the Representative of the Branch on the Council of the Association, was present at the meeting and delivered a short address on the present constitution of the British Medical Association, referring to the benefits and advantages accruing to the general body of medical practitioners from the reorganization of the Association. Dr. Jones Morris also referred briefly to the work of the Ethical and Medico-Political Committees, dealt with the question of medical defence, contract practice, etc., and other questions at present before the Association. A hearty vote of thanks was accorded Dr. Jones Morris for his kindness in attending the meeting and for the interesting address he delivered.

Report of Executive Committee.—The annual report of the Executive Committee was received and adopted.

Annual Representative Meeting.—It was resolved:

That a free hand should be given to the Representative in all matters to be considered, under "notices of motion," at the annual Representative Meeting.

Medical Acts Amendment Bill.—The report of the Committee appointed to consider the clauses of the Medical Acts Amendment Bill, after a discussion in which several members took part, was received and adopted.

Paper.—A paper on Red Light in the Treatment of Small-pox was read by Dr. A. J. Esslemont.

Vote of Thanks.—The meeting terminated with a cordial vote of thanks to Dr. Esslemont for his valuable paper.

SOUTH WALES AND MONMOUTHSHIRE BRANCH:
South-West Wales Division.

The annual meeting of this Division was held at the Stepney Hotel, Llanelly, on May 31st. Mr. D. J. Williams, F.R.C.S., presided, when twenty members attended, out of a membership of eighty-one.

President's Address.—The President, spoke of the general tendency of unions of all kinds, benefit societies, clubs, industrial appointments, to sweat the profession in the economic sense, and to lower the status of the profession generally. On the other hand, there were no conditions prevailing inside the profession at the present time, to meet such combinations. If a combination benefit society, a large works, colliery, or what not, determined to lessen the existing modest scale of payment to the medical man, and he was not complaisant, another medical man was ready to accept. Again, if a surgeon to such a society endeavoured to get better terms, other surgeons were always ready to accept the appointment at the lower scale. The remedy for this condition of things was to be found inside the ranks of the profession. Was it too utopian to hope that some combination, with certain limits, might be formed to withstand the encroachments that were being made on the profession, both in the matter of status, and pay? He was referring only to combinations; personally, he believed the British Medical Association was more alive than formerly to this economic aspect of the profession, and he felt sure that any well-considered programme from the Branches, towards this purpose would have support at head quarters.

Confirmation of Minutes.—The minutes of last meeting were read and confirmed.

The Work of the Division.—The Secretary then gave an account of the work done by the Division during the year. The total membership had increased from sixty to eighty-one. The expenses incurred by the Division amounted to £1 11s. 6d.

Election of Officers.—The following were elected officers for the ensuing year: *President:* D. J. Williams, F.R.C.S. *Vice-President:* Dr. Owen Williams. *Honorary Secretary and Treasurer:* S. Glanville Morris, M.D. *Representatives on Branch Council:* Dr. J. Edgar P. Davies, Dr. D. R. Price, Dr. J. T. Creswick Williams. *Members of Executive Committee:* Dr. Sidney J. Roderick, Dr. E. Evans, Dr. Cook, Dr. E. R. Williams, Dr. Stephens, Dr. J. B. Hamilton, Dr. D. Phillips, Dr. R Hopkins, Dr. E. M. Knowling. *Representative of Division in Representative Meetings:* D. J. Williams, F.R.C.S.

Next Meeting.—It was decided that the next meeting of the Division be held at Llandilo in October. The hope was ex-

pressed that every member would make an effort to bring another with him.

The Association and Medical Defence.—Dr. J. T. CRESWICK WILLIAMS proposed:

That in the opinion of this meeting of the South-West Wales Division of the South Wales and Monmouthshire Branch of the British Medical Association, the time has arrived when the Association should undertake the defence of its members.

Dr. R. HOPKIN seconded, and it was carried unanimously.—The SECRETARY reported that ten members had intimated their intention of joining a medical defence union, should such be formed.

Consultation between Medical Witnesses.—The consultation of medical witnesses on each side in legal cases was discussed, and a resolution passed to the following effect:

That this meeting of the South-West Wales Division of the South Wales and Monmouthshire Branch of the British Medical Association, is of opinion that the meeting in consultation of medical witnesses on each side in legal cases, not being practicable, is inadvisable.

Medical Practitioners and Hydropathic Establishments.—The PRESIDENT moved, and Dr. OWEN WILLIAMS seconded, the following resolution, which was carried:

That members of the South-West Wales Division are strongly opposed to the advertising of names of medical practitioners in connexion with hydropathic or any other such establishments.

Contract Practice and the Midwives Act.—Contract practice and the Midwives Act, through lack of time, were left over undiscussed till the next meeting.

University of Wales.—The following resolution was carried *nem. con.:*

That this meeting of the South-West Wales Division of the South Wales and Monmouthshire Branch of the British Medical Association heartily approves of the application for a supplemental charter to enable the University of Wales to grant degrees in medicine and surgery, and hereby records its opinion that under such a charter much benefit would accrue to the people of Wales.

Communications.—Dr. SIDNEY J. RODERICK showed eleven cases illustrating *x*-ray and ultra-violet-ray treatment in the following cases: Rodent ulcer, epithelioma of lip, glandular swelling in jaw and axilla, sycosis, carcinoma, caries of spine, and lupus. He showed that the *x*-ray treatment appeared to destroy the diseased tissue and at the same time stimulate the growth of healthy tissue —Dr. EDGAR DAVIES read a paper on inversion of uterus, which was afterwards discussed by Dr. MACLEAN (Cardiff) and other members.

Votes of Thanks.—Votes of thanks to the President, the Honorary Secretary, and Dr. Roderick and Dr. Davies (for their papers) having been passed, the meeting terminated; the members afterwards dined together at the (Stepney) hotel in which the meeting had been held.

Luncheon.—Previous to the meeting the President entertained the members to luncheon at his residence.

ULSTER BRANCH:

DERRY DIVISION.

THE annual meeting of this Division was held on June 1st in the Guildhall, Londonderry, Dr. S. H. B. ALLISON, Vice-Chairman of the Division, presiding.

Confirmation of Minutes.—The minutes of the previous meeting were read and confirmed.

Election of Officers.—The following were elected for the ensuing year: *Chairman:* Dr. S. H. B. Allison. *Vice-Chairman:* Dr. Hunter. *Hon. Secretary:* Dr. Cooke. *Representative for Representative Meetings:* Dr. J. Galwey Cooke. *Representatives on Council of Branch:* Dr. Thos. MacLaughlin and Dr. Jas. Craig. *Council of Division:* Drs. W. Bernard, Rankin, Hetherington, Thos. MacLaughlin, Fras. M'Laughlin, Cuningham, Jas. Craig.

The Association and Medical Defence.—It was resolved by a majority of one:

That the Division does not approve of the Association adopting medical defence as per scheme submitted to it.

It was ordered that the members be polled to obtain their individual opinions on the scheme.

Consultation between Medical Witnesses.—It was resolved:

That in all cases possible it is advisable that medical witnesses should meet in consultation in legal cases.

Medical Practitioners and Hydropathic Establishments.—A resolution with regard to advertising of medical men attached to hydropathic establishments was marked read. The resolution forwarded by the Exeter Branch with regard to government of the profession was marked read.

Treasurer's Statement.—The Treasurer's statement of accounts for the past year was passed.

BELFAST DIVISION.

THE annual meeting of this Division was held in the Medical Institute, College Square North, Belfast, on June 1st. The chair was occupied by the President, Dr. STANLEY B. COATES, and there was a large attendance of members.

Exhibits.—A number of interesting exhibits were shown, including a fetal monstrosity of mermaid form and a large fibroid tumour of the uterus containing over 3 pints of pus exhibited by JOHN CAMPBELL, F.R.C.S.; an apparatus for utilizing the municipal electrical supply for medical purposes by R. M. FRASER, M.D.; microscopic specimens of hydronephrosis, infiltration of subcutaneous tissue with paraffin, exhibited by A. FULLERTON, F.R.C.S.I., and a series of plates illustrating varieties of lupus and drug eruptions by WILLIAM CALWELL, M.D.

Papers.—The following papers were contributed: (1) Short notes of 4 cases of erysipelas treated successfully with anti-streptococcus serum, by G. ST. GEORGE, M.R.C.P.I.; (2) a criticism of the methods of suturing the stomach and bowel, by JOHN CAMPBELL, F.R.C.S.; and (3) a case of appendicitis complicated by hydronephrosis, by ANDREW FULLERTON, F.R.C.S.I.

Matters referred to Divisions.—The various matters referred to the Divisions by the Council were then discussed, a large number of members taking part in the discussion. The following resolutions were unanimously adopted:

1. That the Division approves of the formation of a department of medical defence.
2. That in the opinion of this meeting the time has come when a change should be made in the present method of giving medical evidence in legal cases, either in the direction of the previous consultation of medical witnesses on lines to be laid down by a committee of the Association, or in calling in a medical assessor.
3. That the meeting disapproves of the practice of the advertising of medical practitioners in connexion with hydropathic or other similar establishments.

Election of Officers.—The following office-bearers were elected for the ensuing year:—*President:* Wm. Calwell, M.A., M.D. *Secretary:* J. A. Craig, M.B., F.R.C.S Eng. *Representative:* A. B. Mitchell, M.D., F.R C.S.I. *Executive Committee:* Sir Wm. Whitla, M.D., John Campbell, M.D., F.R.C.S.Eng., C. Shaw, M.D., J. A. Lindsay, M.D., F.R.C.P.Lond., A. Fuller ton, M.D., F.R.C.S.I., G. St. George, M.R.C.P.I., William Donnan, M.D., H. J. Boyd, L.R.C.P.and S.Edin.

EAST ANGLIAN BRANCH:

SOUTH SUFFOLK DIVISION.

THE annual meeting of this Division was held on June 2nd.

Election of Officers.—The officers of the Division were elected.

Ethical Rules.—The draft model ethical rules were adopted without modification.

Annual Representative Meeting.—The business of the annual Representative Meeting was discussed and instructions given for the guidance of the Representative of the Division.

Medical Certificates.—A discussion was introduced by Dr. BARNES on the subject of medical certificates as required by the East Suffolk County Education Committee and it was resolved that the subject should be brought before the meeting of the Branch at Lowestoft.

SOUTH AND WEST SUFFOLK DIVISIONS.

AT a joint meeting of the South and West Suffolk Divisions held on June 2nd, Mr. G. S. Elliston (Ipswich), was elected joint Representative of the two Divisions at the Representative Meeting at Oxford.

YORKSHIRE BRANCH:

HARROGATE, AND RICHMOND AND NORTHALLERTON DIVISIONS.

A MEETING was held on Wednesday, May 25th, at the Hotel Majestic, Harrogate, Dr. H. J. HUNT, J.P., in the chair.

Election of Officers.—The following officers were elected:—*Chairman:* Dr. J. Liddell. *Vice-Chairman:* Dr. E. Solly. *Honorary Secretary:* Dr. C. Gibson. *Representative at Annual Meeting:* Dr. C. Gibson. *Representative at Branch Meetings:* Dr. E. Solly.

Committee.—Drs. Lever, Green, Daggett, Holroyd, Mackay, Garrard, J. Atkinson, Chamberlain, Solly, Crawford Watson, Bertram Watson, Collier.

The Association and Medical Defence.—An animated discussion took place as to the desirability of the British Medical Association undertaking medical defence, which was negatived.

Consultation between Medical Witnesses.—The Division then

considered as to the advisability of medical witnesses engaged on each side in a case meeting in consultation, and was of opinion that, when possible, it was desirable.

Hydropathic Establishments.—As to the question of the advertising of medical practitioners in connexion with hydropathic establishments, the Division disapproved of advertising medical men by hydropathic or any other companies.

Contract Practice.—The following resolutions were passed as to contract practice:

1. That the minimum rate be not less than 5s.
2. That the wage limit should not exceed £3 per week.
3. That children under 16 years of age and women should not be included in contract practice.
4. That no other subcontract with the members or their families should be made.

Dinner.—The members afterwards dined together.

YORK DIVISION.

THE annual meeting of this Division was held on Thursday, June 2nd.

Election of Officers.—The following officers were elected for the year:—*Chairman:* Dr. Ramsey. *Vice-Chairman:* Dr. Swanson. *Honorary Secretary:* Dr. Goode. *Representative in Representative Meetings:* Mr. W. H. Jalland. *Representatives on Branch Council:* Dr. W. T. Colby and Mr. H. C. Shaw. *Executive Committee:* Mr. F. Shann, Dr. Evelyn, Mr. F. Wright, Mr. Faulkner, Dr. Bedford Pierce, Dr. Turner, Dr. Ferguson, Dr. Haswell, and Mr. W. Draper.

HALIFAX DIVISION.

THE annual meeting of this Division was held on June 3rd, Dr. OAKLEY in the chair.

The Association and Medical Defence.—Dr. MANTLE moved, and Dr OAKLEY seconded, the following resolution, which was carried:

That this Division approves of medical defence being taken up by the British Medical Association.

Dr. ELLIS moved, and Dr. MANTLE seconded, and it was carried:

That this Division approves of the general principle and details of the scheme.

Medical Practitioners and Hydropathic Establishments.—Dr. MANTLE moved, and Dr. LUSH seconded, the following resolution which was carried:

This Division is of opinion that all medical practitioners living in the towns where hydropathic establishments are advertised should be allowed to attend cases in such establishments.

Consultation between Medical Witnesses—Dr. DOLAN moved, and Dr. BEECH seconded, the following resolution, which was carried:

That it is not advisable for medical men engaged on each side in legal cases to consult.

Election of Officers.—The following were elected officers for the ensuing year:—*Chairman:* E. West Symes, M.D., J.P. *Vice-Chairman:* Priestley Lush, M.D., F.R.C.S. *Committee:* Alfred Mantle, M.D., M.R.C.P.E., J. F. Woodyatt, M.R.C.S., W. M. Branson, L.R.C.P. *Secretary and Treasurer:* Edward Ellis, L R.C.P.

Votes of Thanks.—Votes of thanks to the Chairman and Secretary concluded the business of the meeting.

METROPOLITAN COUNTIES BRANCH:

STRATFORD DIVISION.

THE annual general meeting of this Division was held on June 10th, Dr. SANDERS in the chair.

Election of Officers.—The following were elected office-bearers for the ensuing year:—*Chairman and Representative on the Branch Council:* Dr. W. A. Grogono. *Vice-Chairman:* Dr. C. Sanders (last year's Chairman). *Secretary and Treasurer:* Dr. P. J. S. Nicoll. *Representative for the Representative Meeting:* Dr. Percy Rose. Dr. Grogono's name was removed from the Executive Committee owing to his election as Chairman, and, in addition to the four remaining members of executive, the names of Drs. George Black, Albert Corner, E. G. Frederick, and James Parker were added, thus making up the Executive Committee to its full number.

Alteration of Rules.—Some dissatisfaction at the inability of the Division to re-elect its Chairman was expressed, and on the motion of Dr. PARKER, seconded by Dr. SAUNDERS, it was resolved:

That Rule 6 of the model rules of a Division be altered by omitting all the words after "Division," the amended rule to read that "the officers shall be elected annually in the annual meeting of the Division.

Annual Representative Meeting—A motion to the effect that the representative at the annual Representative Meeting should have his expenses paid was carried unanimously.

TOTTENHAM DIVISION.

THE annual meeting of the Division for 1904 took place on Friday, May 27th, at the Tottenham Hospital, Dr. HOOPER MAY in the chair. The Medical Acts Amendment Bill was again discussed and approved as it appeared in the revised draft.

Election of Officers.—The following officers were elected for the season 1904-5. *President:* Dr. G. P. Chappel; *Vice-President:* Dr. E. Hooper May; *Representative on Branch Council and at Annual Meeting:* Dr. J. R. Fuller. *Honorary Secretary (pro tem.):* Dr. Tresilian.

HAMPSTEAD DIVISION.

THE annual meeting of this Division was held on Friday, June 3rd.

Election of Officers.—Mr. R. H. Wellington was elected Representaive of the Division at Representative Meetings of the Association, and received instructions for the meeting at Oxford. Other officers were elected as follows: *Chairman:* Dr. Heath Strange. *Vice-Chairman:* Dr. Winslow Hall. *Secretary:* Mr. J. Dill Russell, F.R C.S. *Representative on Branch Council:* Dr. Macevoy and Mr. F. R. Humphreys.

WESTMINSTER DIVISION.

A MEETING of this Division was held on Tuesday, June 14th, at 20, Hanover Square. Sir ISAMBARD OWEN was in the chair, and there were nine members and five visitors present.

Confirmation of Minutes.—The minutes of the previous meeting were read and confirmed.

Election of Officers.—Mr. E. Lloyd-Williams was elected to the vacancy on the Executive Committee, and Dr. William Ewart was appointed to act as the Representative for the Representative Meeting at Oxford in place of Dr. Cautley, who was unable to attend the annual meeting.

Notices of Motion.—The meeting then proceeded to discuss the notices of motion to be brought forward at the Representative Meeting at Oxford, and to instruct their representative how to vote on the several motions. It was decided to support all the notices concerning the alteration of the By-laws of the Association, and also to support the Walthamstow Division's proposition; to leave those of the Birmingham (Central) and the Bradford Division to the discretion of the representative; to negative those of the Cardiff and Folkestone Divisions; to support those of the Gateshead Division; to leave the first two motions of the Hampstead Division to the discretion of the representative, with instruction to support the third motion; to negative that of the Portsmouth Division; to support A of the Stratford, and leave B and C to the the discretion of the representative, and also to his discretion A and B of the Wandsworth Division, and to refer C and D to the Hospitals Committee; support F and H, and leave G to the representative's discretion; and support the motions of the Wigan and Leigh Division.

The Association and Medical Defence.—The meeting then opened a discussion on the question of the Association adopting a scheme of medical defence.—Mr. BLAND-SUTTON inquired as to the position of the present Defence Societies if the Association took up the subject.—Mr. ANDREW CLARK explained how the whole question had arisen from what was known as the Birmingham resolution passed some years ago—namely, that the Association should take up medical defence. Recently the Council had appointed a Committee to consider and report on the subject. This Committee had now propounded a draft scheme. If the Association took up medical defence it was hoped to draw in the two separate societies at present existing. Unfortunately the one society—the Medical Defence Union—had adopted a hostile attitude, and advised their members not to join the Association department if instituted. The Medical Protection Society, on the other hand, had passed no resolution on the subject, its Council desiring to find out the opinion of the individual members first. Whether the Association scheme would, therefore, draw in these two societies remained to be seen, but the Association's present desire was to ascertain the opinion of its members.—Dr. HASLIP then proposed:

That the Association do take up medical defence.

He said he was at present a member of the Defence Union, but if the Association afforded the same or greater advantages he would himself leave the Union for that of the Association. He considered it much in the light of the Government taking up a public question and offering to take over private bodies previously interested in the subject. The motion was seconded by Dr. KNOWSLEY SIBLEY. Dr. HERON explained

that the Medical Protection Society had passed no resolution, but they would listen with favour to any scheme put forward by the Association. They had no wish to compel any one to come in. The difficulty was, of course, one of subscription. At present the subscription to the Association was 25s. a year, and they had a surplus of £6,000. Medical defence required two financial considerations—income and reserve fund—and they ought to look to the Association for the reserve fund to meet emergencies. He did not consider it would be right to invite members to come in unless they were prepared at present to pay something for it, but he thought they might look forward to the time when, the machinery having been set going and things were working smoothly, with funds in hand, they might very well throw in medical defence in addition to other benefits. He, however, urged for subscriptions in the first place. Above all things he desired unity in the profession, and to see all their interests placed under one roof. If they could only pull together and say to the public "We are defended in all our various interests by the British Medical Association," they would be in a far stronger position than now, when they were only defended by various small more or less private societies. After Sir VICTOR HORSLEY had made a few remarks of explanation the motion was put to the meeting and carried unanimously.

The Westminster Coroner.—It was decided to hold an early meeting to discuss the question of the Westminster coroner and his pathologist.

Vote of Thanks.—Sir ISAMBARD OWEN proposed a vote of thanks to the visitors, who had kindly attended the meeting by invitation.

EDINBURGH BRANCH:

SOUTH EDINBURGH DIVISION.

THE adjourned annual meeting of this Division was held in Oddfellows Hall, Forest Road, on June 7th, Dr. DUDDINGSTON WILSON in the chair.

The Association and Medical Defence.—The medical defence scheme of the Association was further considered. The SECRETARY reported that a poll of the Division had been taken, and out of a membership of 120 there had been 44 replies, of which 36 were in favour, 5 against, and 3 neutral. Dr. KENNEDY moved, and Dr. DEWAR seconded:

That this Division approves generally of the medical defence scheme of the British Medical Association, without committing itself to details.

Dr. CULLEN moved an amendment that the scheme be disapproved of. This was not seconded, and the motion became the finding of the meeting.

Abuse of Out-patient Departments.—Dr. CULLEN moved:

That it be remitted to the Executive of this Division to draw up a memorandum for presentation to the infirmary managers, the said memorandum to set forth the injustice to the medical profession, and to the patients themselves, attendant upon the present administration of the out-patient departments.

Dr. PROUDFOOT seconded. The previous question was moved by Dr. CATTANACH and seconded by Dr. GOODALL. After considerable discussion, joined in by Drs. WEBSTER, SMITH PATERSON, MATHESON, LYON WILSON, KENNEDY, and DARLING, the motion was carried by a majority of 20 to 4. The Secretary received instructions to secure if possible the co-operation of the other Divisions in the city.

Contract Practice.—The attention of the meeting was called to the schedules on contract practice, which had been distributed throughout the Division.

Letters.—Letters were read from the Canadian Medical Association and the Exeter Division.

Vote of Thanks to Chairman.—The meeting was closed with a vote of thanks to the Chairman.

SOUTH-EASTERN COUNTIES DIVISION.

THE annual meeting was held in the King's Arms Hotel, Melrose on the afternoon of Thursday, June 16th, Dr. BLAIR, of Jedburgh, presiding.

Confirmation of Minutes.—The minutes of last meeting were read, approved, and signed by the Chairman.

Letter of Apology.—The SECRETARY read an apology for absence from Dr. Somerville, Galashiels, who regretted that he could not stand as representative at the annual meeting this year. The Secretary was instructed to intimate the regret of the Division that he could not again accept office.

Election of Office-bearers.—Dr. Carlyle Johnstone was elected Chairman; Dr. Cullen Vice-Chairman; Dr. Calvert was re-elected Secretary and Treasurer; Dr. Hamilton was re-elected Representative of Division on the Branch Council; Dr. Blair was elected Representative at Representative Meetings of the Association.

Executive Committee.—Drs. Young, Muir, Macvie, and Haddon were re-elected. and Drs. Barrie and Henderson were elected to fill the vacancies.

Meeting of Branch.—Dr. HAMILTON, with the consent of members present. withdrew his first motion, and altered his second as follows:

That the Division suggests that a meeting of the Branch be held in one of the county towns within its area in 1905.

This was unanimously carried.

Annual Representative Meeting.—The agenda of the annual Representative Meeting, to be held at Oxford, were considered, and the representative was instructed as to what lines to follow on the various questions which were to be discussed.

Contract Practice.—In regard to contract practice, the members unanimously condemned the present action of the Post Office in regard to attendance on its staff, and the hope was expressed that a strong protest would be made by the Association at the Representative Meeting at Oxford. The Secretary was instructed to put the nomination of members of Council on the agenda of the spring meeting so as to be able to take action if required.

MUNSTER BRANCH.

A MEETING of this Branch was held on June 4th; Dr. O. G. WOODS, President, in the chair.

Confirmation of Minutes.—The minutes of the last meeting were read and confirmed.

Medical Practitioners and Hydropathic Establishments.—It was resolved:

That this general meeting of the Munster Branch of the British Medical Association disapproves in the strongest manner of any form of advertising by medical practitioners who are visiting physicians to hydropathic establishments.

Draft Bill Registration of Nurses.—Read.

Memorandum of Exeter Division.—Read.

New Members.—The following were unanimously elected members of the Association: Thomas Hennessey, F.R.C.S.I.; Joseph Power, M.S.Univ. Dub.; James Johnston Horty, M.R.C.P. and S.I.

Council of Association.—Joseph J. Giusani, M.D., was unanimously elected member of Council for session 1904-5.

Annual Representative Meeting.—Professor H. Corby, M.D., was unanimously re-elected Representative to Representative Meeting.

SOUTH-EASTERN BRANCH:

ISLE OF THANET DIVISION.

THE annual meeting of this Division was held in the Board Room of the Union, Minster, on June 9th, Dr. A. M. WATTS in the chair. There were present twelve members of the Division and one visitor.

Confirmation of Minutes.—The minutes of the last meeting were read, confirmed, and signed.

Various Business.—The HONORARY SECRETARY read (1) a letter from the Medical Secretary of the Association; (2) a memorandum from the Exeter Division; (3) the motion of Dr. Larking on the agenda of the next meeting of the South-Eastern Branch proposing the dividing of the Branch into two separate Branches. This received the strong support of the meeting.

Election of Officers.—Officers were then elected for the year. Dr. Brightman was to be asked to take the chair at the next meeting. Dr. Hugh M. Raven was re-elected Honorary Secretary and Treasurer and Representative of the Division on the Branch Council. Dr. Gosse had been appointed Representative of the Division at a meeting held at Canterbury on May 19th. Drs. Halstead, Courtney, Sutcliffe, and Watts were elected members of the Executive Committee.

Annual Report and Financial Statement.—The Chairman of the Executive Committee presented the annual report and financial statement of the Division, which were unanimously adopted.

Annual Representative Meeting.—The business of the Annual Representative Meeting was discussed, and the opinions of the Division were taken, to be conveyed to Dr. Gosse for representation.

Additional Meetings.—A discussion followed on the question as to the possibility of diminishing the amount of medico-political business on the agenda of the meetings, leaving more room for clinical subjects. Dr. POWELL proposed, and

Dr. Woods seconded, the motion that there be two additional meetings of the Division during the year, at which clinical subjects only should be discussed. This was carried unanimously.—Dr. Powell read notes upon and demonstrated cases in the wards of the Union Infirmary: (1) Tuberculous dermatitis; (2) scurvy; (3) tuberculous glands; (4) cancer of breast; (5 and 6) diabetic gangrene; (7) a case of abdominal tumour.

Votes of Thanks.—A vote of thanks was passed to the Board of Guardians for the use of the Board Room, and one to Dr. Watts for presiding at the meeting.

Executive Committee.—Previous to the meeting the Executive Committee met. Dr. Halstead was voted unanimously into the chair. The Honorary Secretary presented the annual report of the Division, which was approved for presentation to the Division. The statement of accounts of the Division were audited.

Dinner.—After the meeting a dinner was held at the Bell Inn, Minster, at which five members of the Division were present.

DUNDEE BRANCH.

The Branch met in the Royal Hotel, Dundee, on Friday, June 3rd. The business meeting was preceded by a luncheon, at which, in the absence of Professor Waymouth Reid, Dr. Grant, President-elect, presided. Twenty-one members were present.

The Association and Medical Defence.—The Secretary intimated the result of the postcard vote on the report of the Committee on Medical Defence, and was instructed to enter it on the minutes as the opinion of the Branch. Number of cards issued 105, returned 33. The following is an analysis of the voting: (1) Change of the Memorandum of Association (approve 25, disapprove 5); (2) that the Association undertake medical defence (approve 20, disapprove 12); (3) scheme proposed by the Committee (approve 17, disapprove 12),

Election of Officers.—The officers and Council for 1904-5 were appointed as follows:—*President:* R. Grant. *President-elect:* J. Mackie Whyte. *Past-President:* E. Waymouth Reid. *Vice-Presidents:* V. Stone and W. Kinnear. *Council:* G. Peterkin, G. Lowson, D. Wardrop, D. Lennox, J. D. Gilruth, and J. S. Y. Rogers. *Honorary Treasurer:* D. M. Greig. *Honorary Secretaries:* R. C. Buist and A. P. Low. *Representative on Council of the Association:* R. C. Buist. *Representative in the Represeutative Meeting:* D. M. Greig.

Annual Representative Meeting.—The business of the Representative Meeting was then considered. Dr. Buist gave explanations of the reports of the Council and of the Medico-Political Committee. It was proposed by Dr. Sinclair, seconded by Dr. Stalker, and resolved:

That the report of the Medico-Political Committee on the repeated dispensing of prescriptions be disapproved.

The direct negative was moved by Dr. Buist and Dr. Kerr, but on a vote was defeated by 11 to 4. No other resolutions were proposed. Mr. D. M. Greig was then appointed Representative at the Representative Meeting.

International Congress on Home Relief.—Dr. Stalker was appointed delegate to the International Congress on Home Relief.

Vote of Thanks to the President.—On the motion of Dr. Rorie a vote of thanks was awarded to the President.

STAFFORDSHIRE BRANCH:
North Staffordshire Division.

A meeting of this Division was held on Friday, May 27th.

Election of Officers.—The following officers were appointed for the session 1904-5. *Chairman:* S. King Alcock, M.D. *Vice-Chairman:* Mr. W. D. Spanton, F.R.C.S. *Secretary:* Reginald Alcock, M.B. *Representative in the Annual Meetings of Representatives:* Wheelton Hind, M.D., F.R.C.S. *Representatives on the Branch Council:* Dr. McAldowie, Dr. King Alcock, Mr. Russell. *Executive Committee:* Mr. T. Clare, Dr. List, Dr. Petgrave Johnson.

WORCESTERSHIRE AND HEREFORDSHIRE BRANCH:
Worcester Division.

The annual meeting of this Division was held on June 10th at Worcester Infirmary, Mr. A. O. Holbeche in the chair.

Election of Officers.—Dr. Mabyn Read was elected Chairman for the ensuing year and Mr. Moore, Vice-Chairman; Dr. Crowe was re-elected Honorary Secretary; Dr. Stanley Haynes was elected Representative of the Division in Representative Meeting of the Association.

Consultation between Medical Witnesses.—The meeting was of opinion that this was impracticable, and that judges and the public might distrust the bona fides of medical witnesses or suspect collusion between them.

Medical Practitioners and Hydropathic Establishments.—The meeting thought this highly objectionable if those practitioners also engaged in private practice outside their establishments. The same applied to sanatoriums, etc.

SOUTH MIDLAND BRANCH:
Aylesbury Division.

The annual meeting of this Division was held at the Eight Bells Hotel, at Bletchley, on Thursday, May 26th. The scheme of medical defence gave rise to considerable discussion. It was agreed: First, that the Association should take up medical defence. Secondly, that the Division agreed to the general principles of the scheme, provided it was possible to merge the existing societies and retain their officials, and that medical men not members of the Association should have the advantage of defence on payment of the usual fee for that only. It was decided to write to the Bucks Education Committee *re* certificates for school children. It was decided that it was inadvisable for medical witnesses in legal cases to meet in consultation; also that the Division condemned the advertising of medical practitioners in connexion with hydropathic establishments.

Election of Officers.—Chairman: P. B. Giles. *Vice-Chairman:* J. C. Baker, M.B. *Honorary Secretary:* Mr. Horace Rose. *Representative at Representative Meeting:* E. O. Turner. *Executive Committee:* V. Howard, T. L. Kennish, and C. J. Haynes.

SOUTH EASTERN OF IRELAND BRANCH.

The annual meeting of this Branch was held in Kilkenny.

Election of Officers.—The following officers were elected for the ensuing twelve months:—*President:* Dr. Laffan. *President-elect:* Dr. Wynne. *Honorary Secretary:* Dr. Farmer. *Honorary Treasurer:* Dr. Carey. *Representative at Representatives Meeting:* Dr. O'Brien. *Representative on Council of Association:* Dr. Walshe. *Branch Council:* Kilkenny—Drs. James and Morris; Waterford—Drs. Mackesy, Shee, O'Brien; Carlow—Drs. O'Meara and Orpen.

Address by President.—Dr. Laffan, on taking the chair, addressed the meeting at some length on several points of interest connected with the medical profession, which were also discussed by several members present.

Luncheon.—The meeting having been adjourned, luncheon was subsequently served in the Victoria Hotel.

MALTA AND MEDITERRANEAN BRANCH.

The annual meeting was held at Valletta on May 30th, Lieutenant-Colonel R. P. Samut in the chair. The following members were present: Colonel Wolseley, R.A.M.C.; Lieutenant-Colonel Jennings, R.A.M.C.; Major Gray, R.A.M.C.; Major Lawson, R.A.M.C.; Captain Harvey, R.A.M.C.; Captain Kennedy, R.A.M.C.; Dr. P. Micallef; Dr. Manché; Professor Grech, M.D.; Dr. Ellul Grech, and the Secretary.

Confirmation of Minutes.—The minutes of the preceding sitting were read and confirmed.

Election of Officers.—The election of the officers and members of the Branch Council was then proceeded with, when the following members were elected—*President:* Colonel W. O. Wolseley, R.A.M.C. *Vice-President:* Professor S. Grech, M.D. *Secretary and Treasurer:* Them. Zammit, M.D. *Members of Council:* Lieutenant-Colonel R. P. Samut; Major W. L. Gray, R.A.M.C.; Professor S. Cassar, M.D.; Surgeon R. T. Gilmour, R.N.

Representative on Association Council.—The election of Representative was then proceeded with. It was pointed out by the Secretary that the Branch had, so far, no Representative on the Council of the Association, and that it was proper to elect such a Representative in this annual meeting. The Secretary then proposed the name of Professor W. R. Smith, of King's College, residing at 74, Great Russell Street, W.C., who is a member of the Westminster Division and an Associate Member of the Branch, the election to stand good for two years. Colonel Wolseley seconded, and the proposal was carried *nem. con.*

Delegates to Annual Meeting.—The following gentlemen were then elected delegates to the Oxford meeting and as representatives to the Representative Meetings: Professor S. Grech, M.D., and Major T. H. F. Clarkson, R.A.M.C.

Grouping of Malta and Gibraltar Branches.—The SECRETARY then submitted the proposal of the Organization Committee to group, for the purposes of representation on the Council, the Malta and the Gibraltar Branches together. No objection was raised against the proposal.

Meetings.—On Major GRAY'S motion it was agreed to hold meetings at fixed dates and that four ordinary meetings should be held on the first Monday of the months of November, January, March, and May.

Compulsory Revaccination.—Dr. MANCHÉ called the attention of the meeting to the advisability of having revaccination compulsory in the island. He pointed out the importance of this measure in relation to the spread of small-pox, and promised to read a paper on the subject at the next meeting.

Premises.—The Secretary was directed to take steps to secure better accommodation for the Branch, the premises being deemed insufficient to accommodate all members in general meetings.

CAPE OF GOOD HOPE (WESTERN) BRANCH.

A MEETING of this Branch was held on April 22nd at Capetown, Dr. STEVENSON, President, in the chair. Thirty-two members were present.

The late Sir William Fergusson.—Dr. MURRAY, on behalf of Miss Chiappini, presented a framed portrait of the late Sir William Fergusson to the Branch, and the PRESIDENT expressed the cordial thanks of the members to the donor.

Proposed Chairs of Anatomy and Physiology.—Dr. DODDS moved:

That in view of the proposed foundation of Chairs of Anatomy and Physiology in connexion with the South African College, a committee of this Branch of the British Medical Association be appointed to render all possible assistance and support to the scheme, and in particular to endeavour to associate this Branch with the foundation of the Chair of Anatomy.

Drs. MURRAY and FULLER spoke in favour of the scheme. Dr. DARLEY HARTLEY stated that he had very grave doubts as to whether they would be right in embarking on the scheme or in asking the Government to do so while there were so many more important matters in connexion with the profession which might be done, instancing the foundation of pharmacological and pathological institutes. Dr. M. HEWAT moved as an amendment to Dr. DODD'S motion:

That this Branch of the British Medical Association, hearing that the South African College is about to found Chairs of Anatomy and Physiology, is of the opinion that the time has not yet arrived for the endowment of these Chairs in this Colony.

Dr. Hewat's amendment was carried by a very large majority.

Amendment of Medical Acts.—Dr. DARLEY HARTLEY then moved:

That a Committee be appointed by the Branch to consider and report upon the desirability of amendments to the Medical Acts, with an instruction to the said Committee to place itself in communication with the sister Branches of the Colony with a view to these Branches appointing similar committees.

This was carried unanimously.

Paper.—Dr. PARKER (Caledon) read a paper on rheumatoid arthritis, drawing upon his experience at the Mineral Water Hospital at Bath and at the Caledon Sanatorium.

CAPE OF GOOD HOPE (EASTERN PROVINCE) BRANCH.

AN ordinary meeting of this Branch was held at Steinman's Hotel, Grahamstown, on May 14th. Present: Drs. Purvis, Bays, Edington, Greenlees, and Drury.

Confirmation of Minutes.—Minutes of meeting of March 12th read and confirmed.

Purchase of Microscope.—The purchase of a portable microscope lamp for demonstrations at the meetings was authorized.

Communications.—Dr. T. D. GREENLEES read a paper on "Circulatory Changes in General Paralysis of the Insane." The paper was based on 54 necropsies at the Grahamstown Asylum and sphygmographic tracings from 30 patients in all stages of the disease. Dr. Greenlees connected a definite character of pulse and sphygmograph with each of the three clinical stages of general paralysis. He used a Dudgeon's sphygmograph with a pressure of $3\frac{1}{2}$ oz. to 4 oz. as a rule. The paper was further illustrated by drawings of degenerate arteries and a slide showing the "scavenger cells" in the cortex of the brain. All present joined in the discussion, and a vote of thanks to Dr. Greenlees was passed.

A special meeting of the Branch was held at 8 o'clock on Saturday, May 14th at Steinman's Hotel, Grahamstown.

New Rules.—Previous to the meeting a copy of the proposed new rules had been posted to every member of the British Medical Association residing in the proposed area of the Branch and to the Secretaries of other South African Branches. The business of the meeting was to discuss and adopt the new rules. No criticisms having been received by post, a letter was read from Dr. J. B. Greathead, who had been deputed to confer at Capetown with Drs. Stevenson and Richardson of Capetown, and Dr. Russell, of Kimberley, on the sub-division of the Cape Colony. After slight alterations the draft rules were passed *seriatim* and as a whole, and directions given to send twenty copies to the Central Council for confirmation.

Area of the Branch.—Dr. GREATHEAD announced that the area proposed for the Eastern Province Branch had been accepted by the delegates.

Name of the Branch.—It was resolved:

That the name of the Branch be the Cape of Good Hope (Eastern Province) Branch, bringing the name more into harmony with the Cape of Good Hope (Western) Branch, and eliding the local name Grahamstown.

HONG KONG AND CHINA BRANCH.

A MEETING of this Branch was held at the Sanitary Board Offices, Hong Kong, on March 25th, Colonel W. E. WEBB (President) in the chair. The following were present:—The Hon. Dr. J. M. Atkinson (Vice-President), Dr. F. O. Stedman, Staff-Surgeon Parker, R.N.; Dr. G. P. Jordan, Dr. William Hunter, Dr. O. Marriott, Dr. McLean Gibson, Dr. W. V. M. Koch, Major C. S. Sparkes, R.A.M.C.; Dr. Robert Gibson, Staff-Surgeon Austen, R.N.; Staff-Surgeon Clayton, R.N.; Surgeon F. D. Lumley, R.N.; Surgeon R. W. B. Hall, R.N.; Surgeon George Ross, R.N.; Major P. C. Strickland, I.M.S.; Captain Stephen, I.M.S.; Dr. E. A. R. Laing, Honorary Secretary and Treasurer.

Confirmation of Minutes.—The minutes of a meeting held on January 25th, 1904, were read and confirmed.

New Members.—The following gentlemen were elected as members of the Branch:—Surgeon R. W. B. Hall, R.N.; Lieutenant B. A. Craig, R.A.M.C.; Major P. C. Strickland, I.M.S.; Surgeon George Ross, R.N.; Dr. Harold Macfarlane, Fleet-Surgeon George Wilson, R.N.; Staff-Surgeon F. H. A. Clayton, R.N.; Fleet-Surgeon, R. H. Nicholson, R.N.; Surgeon J. K. Raymond, R.N.; Fleet-Surgeon P. B. Handyside, R.N.; Surgeon James Mowat, R.N.: Surgeon H. H. Gill, R.N.

British Medical Association.

MEDICO-POLITICAL COMMITTEE.

The following letter has been issued by the Medical Secretary by instruction of the Medico-Political Committee to the Honorary Secretaries of Divisions in the United Kingdom. All the reports to which allusion is made in the letter have already been printed in SUPPLEMENTS to the BRITISH MEDICAL JOURNAL and references thereto are given in footnotes.

REPORTS BY THE COMMITTEE TO THE DIVISIONS AND REPRESENTATIVE MEETING.

MEDICAL SECRETARY'S OFFICE,
429, Strand, W.C.,
June 16th, 1904.

DEAR SIR,

I enclose herewith a print containing (*a*) several reports by the Medico-Political Committee on matters referred to it by the Representative Meeting or by the Council, and (*b*) the Medical Acts Amendment Bill (p. 14) as revised by the Medico-Political Committee, prefaced by an explanatory Memorandum (p. 9), which has been prepared by instruction of the Committee for the assistance of Divisions when reconsidering the Bill.

These have all been published already in SUPPLEMENTS to the BRITISH MEDICAL JOURNAL, but it is thought that it will be more convenient to Honorary Secretaries of Divisions to have them in a collected form.

I am instructed to add such explanations as may be of assistance to your Executive Committee in considering when and how to bring these various matters before the Division, and to the Division in deciding upon the most convenient form in which to frame its resolutions thereon. The reports are numbered for reference.

(1) and (2) are reports to the Representative Meeting at Oxford presented in accordance with instructions received from the last Annual Representative Meeting.

The matters dealt with in both these Reports must, therefore, form part of the business upon which the Representative of your Division will be asked to vote in the Representative Meeting, and a resolution upon either matter, duly adopted in accordance with the regulations of the Association (as to which I would refer you in particular to By-law 18, and Article XXXV) will be a binding decision of the Association. It is important, therefore, that your Division should, at some date before the Annual Representative Meeting, be asked to consider these matters and to inform your Representative of its views.

With reference to (1),* the Nomination of Candidates for the General Medical Council, I am instructed to point out that the Association has not yet expessed an opinion upon the advisability of such nomination by the Association. The Representative Meeting will, therefore, have before it, first, that question, and, secondly, the question whether the Scheme submitted is suitable for the purpose.

On the report (2),† as to Contract Practice, I have specially to draw your attention to the fact that this is only an Interim Report, presented for the information of your Division and in preparation for discussion of the subject at the Representative Meeting, and that the Committee, in pursuance of its instructions, will present a further Report when having before it the information obtained through the inquiry which is now being carried out through the agency of Divisions.

Reports (3)† and (4),† on the Nurses Registration Bills and on certain action of Coroners, relate to matters which have been brought under the notice of the Committee during the year, and upon which it has appeared to the Committee advisable that the opinion of the Association should be authoritatively expressed at an early date. Both these reports have been approved by the Council of the Association for presentation to the Divisions.

The report (3),† upon Nurses Registration, has special reference to two Bills which were published in the Journal Supplement of March 19th last (p. 38).

You will observe that the Committee has not offered any expression of opinion upon the principle of the Registration of Nurses, the object with which the present Report is submitted being simply to facilitate the consideration of the matter by the Divisions, in order that at the Representative Meeting at Oxford the policy of the Association upon this important proposed development may be authoritatively defined.

The report (4),† relating to "Information supplied to Coroners," indicates the considerations which make it desirable that upon this matter also the Association should make a definite pronouncement, and your Division will, therefore, doubtless, place its Representative in possession of its opinion thereon.

(5) is a report by the Committee, approved by the Council, on certain matters which formed the subject of a report by the Norwich Division, published in the SUPPLEMENT to the BRITISH MEDICAL JOURNAL of March 19th (p. 33).

The report is submitted with a view to facilitate the ultimate adoption by the Association, through the Divisions, of a definite policy in reference to this important matter, but no suggestion is made as to the decision of the matter by the next Annual Representative Meeting.

(6)† is also submitted for the assistance of the Divisions in respect of a matter on which information has been requested, but without special reference to the work of the Representative Meeting.

The object is to promote united action by the Divisions in furtherance of the interests of the profession in matters which are likely to come before Parliament in the immediate future. An explanatory Memorandum on the matters specified is in course of preparation, and will be forwarded to you shortly.

The Report on the National Deposit Friendly Society (7),‡ has been prepared in compliance with requests which have from time to time been made, that some definite declaration should be made by the Association for the guidance of its Members as to the attitude to be adopted by medical practitioners towards this Society, which differs in material respects from the ordinary Friendly Societies. The Report now presented may assist Divisions: (*a*) to decide upon the course of action to be taken by the profession locally; (*b*) to express their opinion as to the action, if any, to be taken by the Association as a whole.

The Medical Acts Amendment Bill¶ is dealt with in the special Memorandum by which it is prefaced.

The following table summarises the information above stated:—

Report.	Subject.	Origin and Purpose.	Action by Divisions suggested.
1	Nomination of candidates for General Medical Council	Report by Medico-Political Committee to Annual Representative Meeting of 1904, presented by instruction of Annual Representative Meeting of 1903	Instruct Representative
2	Contract Practice	*Interim* Report to Annual Representative Meeting of 1904, on subject which Committee was instructed by Annual Representative Meeting of 1903 to investigate A Provisional Report on the Replies received in answer to the Committee's Enquiry will be issued and published in the Journal before the Annual Meeting at Oxford	Consider at convenience
3	Nurses Registration	Report of Committee submitted to the Divisions by authority of Council	Consider (*a*) Principle of registration; (*b*) Details of scheme, and instruct Representative thereon
4	Information supplied by Medical Men to Coroners	Report of Committee submitted to the Divisions by authority of Council	Instruct Representative
5	Fees for Life Insurance Examinations	Report of Committee on matters brought under notice by Norwich Division (Approved by Council for submission to Divisions)	Consider at convenience
6	Parliamentary matters affecting the profession	Report of Committee prepared at suggestion of certain Divisions for assistance of the Divisions (Approved by Council for submission to the Divisions)	Consider with a view to urging upon Members of Parliament and candidates, and to taking any other action in furtherance of interests of profession in matters specified
7	National Deposit Friendly Society	Report prepared at suggestion of Divisions to facilitate consideration of the matter by the Association	Consider at convenience
8	Revised Medical Acts Amendment Bill (with Memorandum)	Bill revised and re-submitted preparatory to Annual Representative Meeting	Instruct Representative

Please acquaint me of any further information or assistance which you may desire in relation to any of the matters referred to in this letter.

I am,
Yours faithfully,
J. SMITH WHITAKER,
Medical Secretary.

* (1) The Resolutions of the Medico-Political Committee on this matter will be found in the proceedings published in the Supplement for October 31st, 1903 (p. cciv), and January 30th, 1904 (p. 5).

† (2), (3), (4), (5) and (6), see Journal Supplement, May 7th, 1904 (pp. 107, 106, 109 respectively).

‡ (7) See Journal Supplement, May 28th, 1904 (p. 132).

¶ See Journal Supplement, May 28th, 1904 (p. 125).

INDEX TO SUPPLEMENT FOR VOLUME I, 1904.

A.

Aberdeen Branch. See Branch
Abstracts of papers introducing discussions at annual meeting, previous publication of, 120
Act, the Midwives, payment of fees under 106
—— the Pharmacy. proposed amendment of, 5
—— Workmen's Compensation, proposed extension of, 111
Address on medical organization by Mr. J. S. Whitaker, 21
Advertisements, trade, the General Medical Council and, 8, 111; in the BRITISH MEDICAL JOURNAL, 20
Advertising of medical practitioners in connexion with hydropathic establishments, 9, 44, 83, 84, 85, 86, 133, 134, 135, 162, 164, 186, 187, 188
Amendment of Articles and By-laws, 16, 18
Announcements, medical, 8
Annual meeting. See Meeting
——— Meeting (Sections) Committee. See Committee
Articles, amendment of, 16, 18
Assistant Secretary Committee. See Committee
Association, British Dental, and the Medical Acts Amendment Bill, 4
——— British Medical, direct representation of on the General Medical Council, 5, 162, 186; memorandum on receipts and expenditure of, 9

B.

Balance-sheet for 1903, 98
Bath and Bristol Branch. See Branch
Bayliss, Professor, congratulations of Council to, 2
Bill to amend constitution of Local Government Board, draft of, 7
—— to amend Vaccination Acts, text of, 41
—— the Coroners', the Coroners' Society and, 4, 6
—— Death Registration Acts Amendment, proposed provisions of, 4
—— Local Government Board, text of, 35
—— Local Government (Scotland) Act (1894) Amendment, text of, 92
—— Lunacy Acts Amendment, text of, 140
—— Medical Acts Amendment, the British Dental Association and, 4; text of, 40; explanatory memorandum, on, 125; revised draft of, 127; schedule, 131
—— Pharmacy, text of, 42
—— Poor-law Medical Officers (Ireland) Superannuation, text of, 92
—— for Registration of Nurses and of Private Nursing Homes, text of, 36
—— to Regulate the Qualification of Trained Nurses and to Provide for their Registration, text of, 38
—— Revaccination, text of, 40; report to Council on, 109
—— Weights and Measures (Metric System), text of, 41
Bills, Nurses Registration, memorandum on, 106
Birmingham Branch. See Branch
Board of Education, the, and instruction in hygiene and temperance, 110
——— Local Government, proposed deputation to on vaccination legislation, 2, 6, 8; the reconstitution of, 7, 108; draft of Bill to amend constitution of, 7
Border Counties Branch. See Branch
Boundaries of Divisions and Branches, 15, 112
Branch, Aberdeen, annual report of, 77
——— Bath and Bristol, annual report of, 77
——— Bath and Bristol, Bath Division, consultations between medical witnesses, 83; medical practitioners and hydropathic institutions, ib.; new member, ib.
Branch, Bath and Bristol, Bristol Division; annual meeting, 188: election of officers, ib., annual report, ib.; alteration of rules, ib.
——— Bath and Bristol, Trowbridge Division, paper, 19; letters of apology. ib.; a question of ethics, ib.; election of officers, 190; area of the Division, ib.; consultation between medical witnesses, ib.; medical practitioners and hydropathic establishments, 191; the Association and medical defence, ib.
——— Birmingham, confirmation of minutes, 19; inclusion of Walsall in the Central Division, ib.; annual report of, 78
——— Birmingham, Coventry Division, annual meeting, 133; matters referred to Divisions, ib.; new rule, ib.; election of officers, ib.
——— Birmingham, Nuneaton and Tamworth Division, consultation between medical witnesses, 191; the Association and medical defence, ib.; medical practitioners and hydropathic establishments, ib.
——— Border Counties, meeting of, 27; annual report of, 78
——— Border Counties, West Cumberland Division, the late Dr. Ormerod, 19; next meeting, ib.; communications, ib.; Medical Acts Amendment Bill, 20; annual meeting, 83; election of vice chairman, ib.; communications, ib.
——— Brisbane and Queensland, annual meeting, 20; election of officers, ib.; report of council, ib.; presidential address, ib.; vote of thanks, ib.
——— British Guiana, financial statement of, 83
——— Burmah, financial statement of, 118
——— Cambridge and Huntingdon, annual report of, 78
——— Cape of Good Hope, financial statement of, 83; the late Sir W. Fergusson, 197; proposed chairs of anatomy and physiology, ib.; amendment of Medical Acts, ib; paper, ib.
——— Cape of Good Hope (Eastern Province), confirmation of minutes, 197; purchase of microscope, ib.; communications, ib.; new rules, ib.; area of the Branch, ib.; name of the Branch, ib.
——— Colombo, Ceylon, paper, 27; specimens, ib.; confirmation of minutes, ib.; letter from General Secretary, ib.; clinical cases, ib.; vote of thanks, ib.; the notification of infectious diseases, ib.; the late Dr. T. Morgan, ib.; colonial medical library, ib.; the BRITISH MEDICAL JOURNAL, 28; communications, ib.; financial statement of, 83
——— Dorset and West Hants, annual report of, 78; annual meeting of, 133; vote of thanks, ib.; vote of condolence, ib.; address, ib.; vote of sympathy, ib.; communication, ib. summer meeting, ib.; luncheon, ib.
——— Dundee, annual report of, 78; the Association and medical defence, 196; election of officers, ib.; annual representative meeting, ib; International Congress on Home Relief, ib.; vote of thanks to president.
——— East Anglian, annual report of, 79; spring meeting of, 117
——— East Anglian, Norwich Division, report of, on medical examinations for life assurance, 33
——— East Anglian, South Essex Division, annual meeting, 188; medical practitioners in hydropathic establishments, ib.; consultation between medical witnesses, ib.; election of officers, ib.
——— East Anglian, North Suffolk Division, annual meeting, 191; confirmation of minutes, ib.; election of officers, ib.; report of Executive Committee, ib.; paper, ib.; matters referred to the Divisions, ib.
——— East Anglian, South Suffolk Division, annual meeting, 193; election of officers, ib.; ethical rules, ib.; annual representative meeting, ib.; medical certificates, ib.; election of representative, ib.
——— East Anglian, West Suffolk Division, election of representative 193
Branch, East York and North Lincoln, annual report of, 79
——— Edinburgh, annual report of, 79
——— South-Eastern Counties Division, annual meeting, 195; confirmation of minutes, ib.; letters of apology, ib.; election of office-bearers, ib.; executive committee, ib.; meeting of Branch, ib; annual representative meeting, ib.; contract practice, ib.
——— Edinburgh, South Edinburgh Division, annual meeting, 133; confirmation of minutes, ib.; report of Council, ib.; treasurer's statement, ib.; amendment of rule, ib.; re-election of officers, 134; executive committee, ib.; consultation between medical witnesses, ib.; medical practitioners and hydropathic establishments, ib.; the Association and medical defence, 133, 195; the post of medical officer of health, Edinburgh, 133; the out-patient department of the Royal Infirmary, 133, 195; vote of thanks, 133; adjourned annual meeting, 195; contract practice, ib.; letters, ib.; vote of thanks to chairman, ib.
——— Fife, annual report of, 79
——— Glasgow and West of Scotland. annual report of, 80; annual meeting, 188; introduction of new president, ib.; reports, ib.; election of officers, ib.; vote of thanks to retiring president, ib.; Mr. Andrew Clark at, ib.; demonstration, ib.; dinner, ib.
——— Glasgow and West of Scotland, Glasgow Southern Division. medical practitioners and hydropathic establishments, 134; consultation between medical witnesses, ib.
——— Glasgow and West of Scotland, Lanarkshire Division, annual meeting, 192; confirmation of minutes, ib; election of officers, ib.; vote of thanks to retiring honorary secretary, ib.; the Division and representative meetings, ib.; medical practitioners and hydropathic establishments, ib.; the Association and medical defence, ib.; ethical rules, ib.; contract medical practice, ib.
——— Gloucestershire. financial statement of, 118; confirmation of minutes, 134; the Association and medical defence, ib.; medical practitioners and hydropathic institutions, ib.; medical witnesses, ib.
——— Grahamstown and Eastern Province, special meeting of, 28; the admission of visitors, ib.; proposed medical library, ib.; new members, 28, 117; annual meeting, 28: confirmation of minutes, 28, 117; secretary's report, 28; reports of meetings, ib.; financial statement. ib.; election of officers, ib.; vote of thanks to retiring president, ib.; the annual meeting at Oxford, ib.; the South African Branches, ib.; revision of rules, ib.; annual report of, 80; Branch library, 117; draft rules, ib.
——— Hong Kong and China, annual meeting. 28; confirmation of minutes, 28, 196; financial statement, 28; election of office-bearers, ib.; new members, 28, 196; by-laws, ib.; election of representative on General Council, ib.; retiring president's address, ib.; introduction of new president, ib.; dinner to Sir F. Treves, ib.; financial statement of, 83
——— Lancashire and Cheshire, annual report of, 80
——— Lancashire and Cheshire, Altrincham Division, confirmation of minutes, 20, 29; reports of officers and committees, 20, 29; financial statement, 20; matters referred to Divisions, 20, 29, 84; Education Committee, 20; dinner, 20, 29; boundary, 29; circular letter, ib.; ethical rules, ib.; alcoholic poisoning, ib.; Pharmacy Act, ib.; work of the Division, ib.; annual meeting, 134
——— Lancashire and Cheshire, Blackburn Division, annual meeting, 135; annual report, ib.; meeting of Branch, ib.; election of officers, ib.; resolutions, ib.; vote of thanks, ib.; committee meeting of, 190; confirmation of minutes, ib.; excursions, ib.; club practice, ib.; entertainment of Branch, ib.; annual representative meeting, ib.

Branch, Lancashire and Cheshire, Blackpool Division, special meeting, 20; circular to non-members, ib.; rules of the Division, ib.; matters referred to Divisions, ib.; annual meeting, 188; confirmation of minutes, ib.; report of Executive Committee, ib.; election of officers, ib.; matters referred to Divisions, ib.; annual representative meeting, ib.; contract practice, ib.
——— Lancashire and Cheshire, Burnley Division, annual meeting, 190; election of officers, ib.
——— Lancashire and Cheshire, Chester Division, annual meeting, 190; confirmation of minutes, ib.; committee's report and financial statement, ib.; election of officers, ib.; consultation between medical witnesses, ib.; other business, ib.
——— Lancashire and Cheshire, Liverpool (Bootle) Division, annual meeting, 189; election of officers, ib.
——— Lancashire and Cheshire, Liverpool (Western) Division, annual meeting, 189; report of executive committee, ib.; election of officers, ib.
——— Lancashire and Cheshire Branch, Preston Division, annual meeting, 198; confirmation of minutes, ib.; election of officers, ib.; the Association and medical defence, ib.; the Medical Acts Amendment Bill, ib.; medical practitioners and hydropathic establishments, ib.; consultation between medical witnesses, ib.; vaccination draft laws, ib.
——— Lancashire and Cheshire, Stockport and Macclesfield Division, annual meeting, 190; election of officers, ib.; report of committee, ib.; the Association and medical defence, ib.
——— Leinster, annual report of, 80; annual meeting of, 135; report of council, ib.; election of officers, ib.
——— Malta and Mediterranean, confirmation of minutes, 29, 196; vacancies on council, 29; papers, ib.; annual report of, 80; annual meeting, 196; election of officers, ib.; representative on Association Council, ib.; delegates to annual meeting, ib.; grouping of Malta and Gibraltar Branches, 197; meetings, ib.; compulsory revaccination, ib.; premises, ib.
——— Metropolitan Counties, Divisions and boundaries of, 2; scheme for Divisions of, 16; annual report of, 80
——— Metropolitan Counties, Central Division, matters referred to Divisions, 20; advertisements in the BRITISH MEDICAL JOURNAL, ib.
——— Metropolitan Counties, Chelsea Division, inaugural meeting of, 135
——— Metropolitan Counties, City Division, resolutions, 136; annual meeting of, 163; election of officers, ib.; report of executive committee, ib.; medical defence, ib.; representative meeting, ib.; contract practice, ib.; medical examinations for life assurance, ib.; vote of thanks to retiring chairman, ib.
——— Metropolitan Counties, Hampstead Division, confirmation of minutes, 20; matters referred to Divisions, ib.; letters, ib.; meetings of, 84; annual meeting, 194; election of officers, ib.
——— Metropolitan Counties, Marylebone Division, annual meeting, 188; election of officers, ib.; report of executive committee, ib.; letter of thanks to retiring chairman, ib.
——— Metropolitan Counties, St. Pancras Division, medical men in Parliament, 29; medical men and hydropathic institutions, 136; medical witnesses, ib.; cases, ib.; tea, ib.
——— Metropolitan Counties, Stratford Division, confirmation of minutes, 84; Medical Acts Amendment Bill, ib.; regulations of Central Midwives Board, ib.; Branch representative ib.; medical defence, ib.; hydropathic establishments and consultations between medical witnesses, ib.; expenses of Branch representative, ib.; annual meeting of, 194; election of officers, ib.; alteration of rules, ib; annual representative meeting, ib
——— Metropolitan Counties, Tottenham Division, Medical Acts Amendment Bill, 29; meet- of, 84; annual meeting, 194; election of officers, ib.
——— Metropolitan Counties, Walthamstow Division, resolutions, 136
——— Metropolitan Counties, Wandsworth Division, confirmation of miuutes, 29: hospital abuse, ib.; the removal of King's College Hospital, ib.; the annual meeting, 1905, ib.; expenses of Divisional representative at Oxford, ib.; the Midwives Act, ib.; vote of thanks, ib.; meeting of as to medical defence, 136, 163; annual meeting of, 163; the Association and medical defence, ib.; central council, ib.; rules of, ib.; election of officers, ib.; special representatives' expenses fund, ib; report of central council of on medical defence, ib.
——— Metropolitan Counties, Westminster Division, confirmation of minutes, 194; election of officers, ib.; notices of motion, ib.; the Association and medical defence, ib.; the Westminster coroner, 195; vote of thanks, ib.
Branch, Midland, annual report of 81
——— Midland, Leicester Division, annual meeting, 140; advertising, ib.; medical witnesses, ib.; vote of thanks, ib.; election of officers, ib.
——— Midland, Lincoln Division, confirmation of minutes, 164; balance sheet, ib.; election of officers, ib; consultations between medical witnesses, ib.; medical practitioners and hydropathic establishments, ib.; the Association and medical defence, ib.; associate members, ib.; votes of thanks, ib.
——— Munster, financial statement of, 118; confirmation of minutes, 195; medical practitioners and hydropathic establishments, ib.; draft Bill Registration of Nurses, ib.; memorandum of Exeter Division, ib.; new members, ib.; Council of Association, ib.; annual representative meeting, ib.
——— Natal, financial statement of, 83
——— New Zealand, financial statement of, 118
——— North of England, election of members, 29, 161; deputation from the Northumberland and Newcastle Medical Association, 29; reports from Divisions, 30; financial statement, ib.; annual report of, 81; date of annual meeting of, 161; combination of Divisions for annual representative meeting purposes, ib.; absorption of the Northumberland and Newcastle Medical Association, ib.; Irish Dispensary Service, 162
——— North of England, Tyneside Division, annual meeting, 162; confirmation of minutes, ib.; annual report, ib.; election of officers, ib.; clinical meetings, ib.; local medical library, ib.; medical defence, ib.; hydropathic establishments, ib.; Canadian Medical Association, ib.; consultations between medical witnesses, ib.
——— Northern Counties of Scotland, annual report of, 81; annual meeting, 191; confirmation of minutes, ib.; the late Dr. Milligan, ib.: election of officers, ib.; future meetings, ib.; consultations between medical witnesses, ib.; medical practitioners and hydropathic establishments, ib.; the Association and medical defence, ib.; Paul memorial fund, ib.
——— North Lancashire and South Westmorland, annual report of, 81
——— North Lancashire and South Westmorland, Lancaster Division, annual meeting, 186; election of officers, ib.
——— North Wales and Shropshire, financial statement of, 118
——— North Wales and Shropshire, Denbigh and Flint Division, annual meeting, 192; election of officers, ib.; the constitution and work of the Association, ib.; report of executive committee, ib.; annual representative meeting, ib.; Medical Acts Amendment Bill, ib.: paper, ib.; vote of thanks, ib.
——— North Wales and Shropshire, North Carnarvonshire and Anglesea Division, annual meeting, 164, 186; election of officers, 164, 186; report of executive committee, 164; annual representative meeting, ib.; the Association and medical defence, ib.; contract practice, ib.; Medical Acts Amendment Bill, 164, 186; discussion, 164; next meeting, ib.; vaccination laws, 186; representatives of British Medical Association on the General Medical Council, ib.; medical practitioners and hydropathic establishments, ib.; consultations between medical witnesses, ib.; amendment of by-laws, ib.
——— Oxford and Reading, annual report of, 81; annual meeting, 140; registration of nurses, ib.; dinner, ib.; the organization of the profession, ib.
——— Perthshire, annual report of, 82
——— South-Eastern, annual report of, 82
——— South-Eastern, Canterbury Division, combined meeting, 84; annual meeting of Branch, ib.; resignation of Divisional Secretary, 85; Vaccination Bill, ib.; Medical Acts Amendment Bill, ib.; the General Medical Council, ib.; hydropathic establishments, ib.; medical witnesses, ib.; medical defence, ib.
——— South-Eastern, Chichester and Worthing Division, confirmation of minutes, 20; next meeting, ib.; matters referred to Divisions, ib.; dinner, ib.
——— South-Eastern, Croydon Division, annual meeting, 186; election of officers, ib.; vote of thanks to retiring president, ib.; next meeting, ib.; consultation between medical witnesses, ib.; medical practitioners and hydropathic establishments, ib.; cases, etc., ib.
——— South-Eastern, Eastbourne Division, annual meeting, 140; election of officers, ib.
——— South-Eastern, Faversham Division, confirmation of minutes, 85; Medical Acts Amendment Bill, ib; fees for life insurance examination, ib.; the Association and medical defence, ib.; consultation between medical witnesses, ib.; medical practitioners and hydropathic institutions, ib.; paper, ib.
Branch, South-Eastern, Folkestone Division, confirmation of minutes, 163; Vaccination Bill, ib.; Medical Acts Amendment Bill, ib.; representation on the General Medical Council, ib.; hydropathic advertisements, ib.; medical witnesses, ib.; medical defence, ib.; dinner, ib.; annual meeting, ib.; election of officers. ib.
——— South-Eastern, Hastings Division, annual meeting, 163; election of officers, ib.; case, ib.
——— South-Eastern, Horsham Division, annual meeting, 191; confirmation of minutes, ib.; election of officers, ib.; new members, ib.; medical practitioners and hydropathic establishments, ib.; consultation between medical witnesses, ib.; address, ib.
——— South-Eastern, Isle of Thanet Division, confirmation of minutes, 85, 195; proposed combined meeting, 85; finances of Branches and Divisions, ib.; case, ib.; the Association and medical defence, ib.; consultations between medical witnesses, ib.; medical practitioners and hydropathic institutions, ib.; next meeting, ib.; votes of thanks, 85, 196; dinner, 85, 196; annual meeting, 195; various business, ib.; election of officers, ib.; annual report and financial statement, ib.; annual representative meeting, ib.; additional meetings, ib.; executive committee, ib.
——— South-Eastern, Maidstone Division, annual meeting, 186; election of officers, ib.
——— South-Eastern, Reigate Division, election of Dr. Holman as honorary member, 140; vote of thanks, ib.; representative of Division, ib.
——— South-Eastern, Sevenoaks Division, consultations between medical witnesses, 85; medical practitioners and hydropathic establishments, ib.; the Association and medical defence, ib.; conditions simulating appendicitis, ib.; specimens, etc., ib.; dinner, ib.; election of officers, 163; medical examination of school children, ib,; dinner, ib.
——— South-Eastern of Ireland, financial statement of, 118; annual meeting, 196; election of officers, ib; address by chairman, ib.; luncheon, ib.
——— Southern, financial statement of, 118
——— Southern, Isle of Wight Division, annual meeting, 140; election of officers, ib.; medical defence, ib.
——— South Indian and Madras, financial statement of, 118
——— South Midland, annual report of, 82
——— South Midland, Aylesbury Division, annual meeting, 196; election of officers, ib.
——— South Midland, Bedford and Herts Division, annual meeting, 163; confirmation of minutes, 164; election of officers, ib.; Ethical Committee, ib; vote of thanks to Dr. Ross, ib.; matters referred to Divisions, ib.
——— South Wales and Monmouthshire, annual report of, 82
——— South Wales and Monmouthshire, Cardiff Division, local administration of the Midwives Act, 30; standing orders, 85; the Midwives Act, ib: annual meeting, 156; confirmation of minutes, ib.; election of officers, ib.; vote of thanks to retiring chairman, ib.; report of executive committee, ib.; annual representative meeting, 187; the University of Wales, ib.: Central Midwives Board, ib.; vote of thanks to retiring officers, ib.; annual dinner, ib.
——— South Wales and Monmouthshire, Monmouth Division, confirmation of minutes, 30, 187; reports, 30; letter from General Secretary, ib.; the Association and medical defence, ib; annual meeting, 187: election of officers, ib.; vote of thanks to retiring chairman, ib.; report of executive committee, ib.; annual representative meeting, lb.; the title of "Dr.," ib.; protected titles of drug preparations. ib.; future meetings, ib.; consultation between medical witnesses. ib.; medical practitioners and hydropathic establishments, ib.; vote of thanks, ib.; members present, ib.
——— South Wales and Monmouthshire, South-West Wales Division, president's address, 192; confirmation of minutes, ib.; the work of the Division, ib.: election of officers, ib.; next meeting, ib.; the Association and medical defence, ib.; consultation between medical witnesses, ib.; medical practitioners and hydropathic establishments, ib.; contract practice and the Midwives Act, ib.; University of Wales, ib.; communications, ib.; votes of thanks, ib; luncheon, ib.
——— South Western, annual report of, 82
——— South Western, Truro Division, annual meeting, 188: election of officers, ib.
——— Staffordshire, annual report of, 82 meeting of, 86
——— Staffordshire, North Staffordshire Divi-

sion, annual meeting, 196; election of officers, ib.
Branch Stirling, annual report of, 82
——— Sydney and New South Wales, confirmation of minutes, 31, ; lodge practice, ib; new members, ; communications, 31
——— Ulster, confirmation of minutes, 31, 164; report of Council, 31; annual report of, 82; the late Dr. Donaldson, 164; new members, ib; Irish dispensary doctors, ib.; tea, ib.
——— Ulster Belfast Division, annual meeting, 193; exhibits, ib.; papers, ib.; matters referred to Divisions, ib.; election of officers, ib.
——— Ulster, Derry Division, annual meeting, 193; confirmation of minutes, ib.; election of officers, ib.; the Association and medical defence, ib.; consultation between medical witnesses, ib.; medical practitioners and hydropathic establishments, ib.; treasurer's statement, ib.
——— West Somerset, annual report of, 83; confirmation of minutes, 86; introduction of Mr. Parkinson, ib.; hydropathic establishments, ib.: consultations between medical witnesses, ib.; clinical cases, ib.; papers, ib.
——— Worcestershire and Herefordshire, medical defence, 117; consultations of medical witnesses, 118; certificates C in cases of cremation, ib.; clinical cases ib.: financial statement of, 118
——— Worcestershire and Herefordshire Worcester Division, annual meeting, 196; election of officers, ib.; consultation between medical witnesses, ib,; medical practitioners and hydropathic establishments, ib.
——— Yorkshire, annual report of, 83
——— Yorkshire, Bradford Division, confirmation of minutes, 31; medical orgrnization, ib.; contract medical practice, ib.; ethical rules, ib.
——— Yorkshire, Halifax Division. annual meeting, 194; the Association and medical defence, ib.; medical practitioners and hydropathic establishments, ib.; consultation between medical witnesses, ib.; election of officers, ib.; vote of thanks, ib.
——— Yorkshire, Harrogate Division, election of officers 193; committee, ib, ; the Association and medical defence, ib.; consultation between medical witnesses, ib.; hydropathic establishments, 194; contract practice, ib.; dinner, ib
——— Yorkshire, Richmond and Northallerton Division, conjoint meeting of with Harrogate Division. (Which See)
——— Yorkshire, York Division, annual meeting, 194; election of officers, ib.
Branches, Colonial, representation of on Council, 2, 16; rules of, 2, 9, 15, 16, 112; ethical rules of, 3; boundaries, of, 15, 16; finances of, 15; report of Organization Committee on representation ot on Council, 16; resolutions of Council as to grouping of, 95; grants from to Divisions, 112; grouping of, ib.
Brisbane and Queensland Branch See Branch
British Dental Association. See Association.
——— Guiana Branch. See Branch
——— Medical Association. See Association
——— MEDICAL JOURNAL. See Journal
Bulletins, correspondence as to, 8
Burmah Branch. See Branch
By-laws, amendment of, 16, 18

C.

Cambridge and Huntingdon Branch. See Branch
Cape of Good Hope Branch. See Branch
Certificates, leaving school 6; medical, for school children, 108
Charges by a member of one Division against a member of another, 9
Children, school, medical certificates for, 108
Circular to honorary secretaries of Divisions, 197
Colombo Branch. See Branch
Colonial Branches. See Branches
——— Committee. See Committee.
Committee, Annual Meeting (Sections), proceedings of: election of chairman, 19; recommendations, 19, 117
——— Assistant Secretary, proceedings of: appointment of assistant secretary, 19; resolutions, ib.
——— Colonial, proceedings of: election of chairman, 15; supernumerary members, ib.; proposed Transvaal and Orange Colony Branches, 116; constitution of Committee, ib.; medical registration in British colonies and dependencies, 117
——— Departmental, on Poor-law Medical Relief in Scotland, report of, 86
——— Ethical, proceedings of: medical men practising as dentists, 8; trade advertisements, 8, 111; bulletins, 8; medical announcements, ib.; rules of Divisions and Branches, 9; contract practice, 9, 111; charges by a member of one Division against another, ib.; the advertising of medical practitioners in connexion with hydropathic establishments, 9, 44, 111; reports of medical lectures in lay papers, ib.; the title of "doctor," 9; ethical rules, 111; special cases, ib.
Committee Hospitals, proceedings of: election of chairman, 12; hospital administration, ib.; proposed inquiry, ib.; constitution of the Committee, 112; hospital management, 112, 113; rate support of general hospitals, ib.
——— Journal and Finance, proceedings of: financial, 19, 117; a popular lecture at the annual meeting, 19
——— Medical Defence, proceedings of: memorandum on income of association, 9; financial questions, 10; expenses of existing Defence Societies, ib.; special subscription necessary, ib.; adoption of the principle of medical defence, ib.; memorandum by the Treasurer, ib.; consideration of recommendations, 11; draft scheme recommended to the council, ib.; text of scheme of, 31; explanatory memorandum, 32, 112; minority report, 33
——— Medico-Political, proceedings of: Coroners Bill, 4, 6, ; local organization, 4; the Spectacle Makers' Company, ib.; Irish Poor-law medical officers, ib.; the British Dental Association and the Medical Acts Amendment Bill, ib.; death registration, ib.; Death Registration Acts Amendment Bill, ib.; security of tenure of sanitary officers, ib.; proposed amendment, of the Pharmacy Act, 5; matters referred from representatives' meeting, ib.; medical witnesses, 5, 44, 106; direct representatives on the General Medical Council, 5; conference of with medical members of Parliament, ib.; contract practice, 6, 107; registration of nurses, 6; leaving school certificates, 10.; conference of with Public Health Committee, ib.; Public Health Committee of, M.P.'s, 106; Nurses' Registration Bills, ib.; Midwives Act, ib.; coroners, 107; registration of deaths and stillbirths, 108; constitution of the Local Government Board, ib.; vaccination and revaccination, ib.; dispensers in public institutions, ib.; medical certificates for school children, ib.: sight testing, ib.; Medical Acts Amendment Bill, ib.; reports to Council on the Revaccination Bill, insurance fees, unduly repeated dispensing of prescriptions, and memorandum on Parliamentary matters of interest to the medical profession, 109; the National Deposit Trading Society, 132: circular to honorary secretaries of Divisions, 197
——— Organization, proceedings of: rules of Divisions and Branches, 15, 16, 112; boundaries of Divisions and Branches, 15, 16, 112; Branch and Division Finance, 15; amendment of Articles and By-laws, 16, 17; Colonial Branches, 16; proposed Conference of Secretaries, ib; scheme of as to Divisions of Metropolitan Counties Branch, ib.; report of as to the representation of the Colonial Branches on the Council, ib.; memorandum as to representation of Colonial Branches on Council, 17; grants from Branches to Divisions, 112; temporary vacancies, ib.; Forest of Dean Section, ib.; Division libraries and Division finance, ib.; grouping of Branches, ib.
——— Premises and Library, proceedings of: report of librarian, 19; report of, 117
——— Public Health, conferences of with Medico-Political Committee, 6; proceedings of: vaccination, 8; instruction in health and temperance, 8, 110, 111; constitution of the Local Government Board, 110; overlying of infants, ib.; vaccination and revaccination, ib.; international notification of infectious diseases, ib.; Public Health Committee of M.P.'s, ib.; security ot tenure of medical officers of health, ib.; Workmen's Compensation Act, 111; the scope of the Committee's work, ib.
——— Public Health of M.P.'s, formation of, 106, 110
——— Royal Naval and Military, proceedings of: Indian Medical Service, 12, 115, 116; memorandum by the Editor on the Indian Medical Service, 12: War Office reconstitution, 114, 115; militia medical officers, 115; Majors R.A.M.C. in India, 115, 116; resignation, 116
——— Scientific Grants, proceedings of: election of chairman, 15; research scholar, ib.; inspection, ib.
——— Scottish, proceedings of: election of chairman, 15; resolutions, ib.; ethical questions, 116; vacancies, ib.
Company, the Spectacle Makers', advertisements by Fellows of, 4
Conference in the matter of the coroner for South-West London, 109
——— on the ethical procedure of Divisions, 1, 10
Conference of Medico-Political Committee, with medical members of Parliament, 5
——— proposed of secretaries, 16
Conferences of Medico-Political and Public Health Committees, proceedings of; vaccination, 6: business of the conference, ib.; reconstitution of the Local Government Board, 7; security of tenure, ib.; Local Government Board Bill, ib.
Consultations between medical witnesses, 5, 44, 83, 84, 85, 86, 106, 118, 133, 134, 135, 162, 164, 186, 187, 188, 189, 190, 191, 192, 193, 194, 196
Contract practice, information as to, 6, 9; interim report to the annual representative meeting on, 107; scheme for warni' g notices in JOURNAL as to, 111
Coroner for South-West London conference in the matter of, 109
Coroners, information to from medical practitioners, 107
Coroners' Bill. See Bill
——— Society. See Society
Council, proceedings of, 1, 93; representatives of Colonial Branches on, 2, 16, 17; report of, 96
——— General Medical. See Medical
County Council of London, the, and the overlying of infants, 94

D.

Davidson, Dr. A., resolution of condolence on death of, 94
Death, registration of, 4, 108
——— Registration Acts Amendments Bill. See Bill
Defence, medical, memorandum by General Secretary on, 9; financial questions, 10; expenses of existing Defence Societies, ib.; special subscription necessary, ib.; adoption of the principle of, ib.; memorandum by Treasurer on, ib.; draft scheme of recommended to Council, 11; the Monmouthshire Division on, 30; text of scheme of recommended to Council, 31; explanatory memorandum as to, 32; minority report on, 33; resolution of Branches and Divisions as to, 83, 84, 85, 117, 133, 134, 136, 140, 162, 163, 164, 189, 190, 191, 192, 193, 194, 195, 196
Dental Section, See Section
Dentists, medical men practising as, 8
Departmental Committee. See Committee
Diseases, infectious, international notification of, 110
Dispensary medical service. See Ireland and Poor-law
Dispensers in public institutions, 108
Division, charges by member of against a member of another Division, 9
Divisions, rules of, 2, 9, 15, 16, 112; boundaries of, 15, 16, 112: finances of, 15, 112; matters referred to, 20; conference on the ethical procedure of, 110; grants from Branches to, 112; libraries and finance of, 112; circular to honorary secretaries of, 196
"Doctor," the title of, 9
Dorset and West Hants Branch. See Branch.
Dundee Branch. See Branch

E.

East Anglian Branch. See Branch
——— York and North Lincoln Branch. See Branch
Edinburgh Branch. See Branch
Editor, memorandum by on Indian Medical Service, 12
Elliston, Mr. G. See General Secretary
Ethical Committee. See Committee
Evatt, Surgeon-General, co-opted member o Council, 94
Examinations, medical. See Medical
Excursions at the annual meeting at Oxford, 168-180

F.

Fees, under Midwives Act, 106; insurance, report to council on, 109
Ferguson, Dr. G. B., invited to give Free and Popular Lecture at Oxford, 2
Fife Branch, See Branch
Finances of Divisions and Branches, 15
Financial Statement. See Balance Sheet
Flemming, Mr. C. S., resignation of from Council, 94
Forest of Dean Section, 112

G.

General Medical Council. See Medical
——— Secretary, memorandum by on receipts and expenditure of the Association, 9
Glasgow and West of Scotland Branch. See Branch
Gloucester Branch. See Branch

Grahamstown and Eastern Province Branch. See Branch
Grants from Branches and Divisions, 112
Grouping of Branches, 95, 112

H.

Health, instruction in, 8, 110, 111
Hewetson, Dr. J. T., elected research scholar, 3
Hong Kong and China Branch. See Branch
Hospitals, questions as to out-patients at, 12; answers to questions, 112; general, rate support of, 113
Hospitals Committee. See Committee
Hydropathic establishments, advertising of medical practitioners in connexion with, 9, 44, 83, 84, 85, 86, 133, 134, 135, 162, 164, 186, 187, 188, 189, 191, 192, 193, 194, 195, 196; medical men as directors of, 111
Hygiene, instruction in, 8, 110, 111

I.

Illustrations:—The Hall, Staircase, Christ Church, 165; New College Gardens, 166; the Cloisters, Magdalen, 167; Wadham Gardens, 168; St. John's College, ib.
India, Majors, R.A.M.C., in, 115, 116
——— Office, the, and the Indian Medical Service, 12
Indian Medical Service, the India Office and, 12, 115, 116; memorandum by Editor on, 12
Infants, the London County Council and the overlying of, 94
Ireland. Poor-law medical officers in, 4; the Poor-law medical system in, 49, 162

J.

JOURNAL, BRITISH MEDICAL, advertisements in, 20
——— and Finance Committee. See Committee

K.

Kynsey, Sir W., resolution of Council as to death of, 1

L.

Lancashire and Cheshire Branch. See Branch
Lawford, Mr. A. H., appointed Assistant Secretary, 2
Lecture, a Popular, at the annual meeting, 218
Lectures, medical, reports of in lay papers, 9
Leinster Branch. See Branch
Librarian, report of, 19
Library, list of presentations of books to, 124
Life assurance report of Norwich Division on medical examinations for, 33
Local Government Board. See Board
——— Government Board Bill See Bill
Lodging-houses, etc., at Oxford meeting, 182, et seq.
London County Council. See County
Lunacy Acts Amendment Bill. See Bill
——— legislation, 140

M.

Majors R.A.M.C., in India, 115, 116
Malta and Mediterranean Branch, See Branch
Medical Acts Amendment Bill. See Bill
Medical Council, General, direct representation of British Medical Association on, 5, 162, 186; and trade advertisements, 8, 111; new members, 141; president's address, ib.; Business Committee, ib.; results of examinations, ib.; vote of thanks, 142, 161; Apothecaries Society of London, 142; report of the Executive Committee, ib.; dental business, 143; disciplinary cases, ib.; the Dentists' Register of New South Wales, 144; election of committees, ib.; and minutes, 145; preliminary scientific education and examination, ib.; the Conjoint Board in England and the first year, 147; visitation of preliminary scientific examinations, 151, 155; marking at examinations, 151; postponement of motion, ib.; instruction without examination, ib.; the registration of students, ib.; Apothecaries' Hall, Dublin, 155; Royal College of Surgeons of England, ib.; report of Education Committee, ib.; report of Students' Registration Committee, 156; Preliminary Scientific Committee, ib.; report of Education Committee, ib.; report of Finance Committee, ib; appointment of a Treasurer, 157; Finance Committee, ib; Executive Committee, ib.; Penal Cases Committee, ib; report of Public Health Committee ib.; report of Pharmacopoeia Committee, 158; report of Dental Education and Examination Committee, ib.; practice by companies, 159; the Medical Act (1886) Amendment Bill, 160; canvassing, ib.; medical certificates given by chemists, ib.; unprofessional conduct, 161; the general registrar, ib.; length of speeches, ib.; penal inquiries, ib.
Medical defence. See Defence
——— Defence Committee. See Committee
——— examinations for life assurance, report of Norwich Division on, 38
——— men practising as dentists, 8
——— officers of health, security of tenure of, 4, 7, 110
——— officers, Poor-law, in Ireland, 4
——— organization, Mr. J. S. Whitaker on, 21
——— Secretary, the, on medical organization, 21; circular letter from to honorary secretaries of Divisions, 197
——— witnesses. See Witnesses
——— system, the Poor-law, in Ireland, 49
Medico-Political Committee. See Committee
Meeting, annual, programme of, 43, 120, 169; arrangements for sections at, 120, 169; notice as to abstracts of papers introducing discussions at, ib.; abstracts of papers introducing discussions at, 169 et seq.; lodging-houses, etc., at, 182 et seq.
——— Representative, matters referred from, 5; notices of motion at, 118
Memorandum by the General Secretary on receipts and expenditure of the Association, 9; by the Treasurer on medical defence, 10; by the Editor on the Indian Medical Service, 12; as to representation of Colonial Branches on Council, 17; of Parliamentary matters of interest to the profession, 95, 109; on Nurses Registration Bills, 106; on the present position of registered medical practitioners in the matter of furnishing certain information to coroners, 107
Metropolitan Counties Branch. See Branch
Midland Branch. See Branch
Midwives Act. See Act
Militia medical officers, rate of pay of, 115
Munster Branch. See Branch

N.

Natal Branch. See Branch
National Deposit Friendly Society. See Society
New Zealand Branch. See Branch
North of England Branch. See Branch
——— Lancashire and South Westmorland Branch. See Branch
——— Wales and Shropshire Branch. See Branch
Northern Counties of Scotland Branch. See Branch
Notices of motion at annual representative meeting, 118
Notification, international, of infectious diseases, 110
Nurses, registration of, 6, 106
——— Registration Bills. See Bills

O.

Officers, medical. See Medical
——— sanitary. See Medical officers of health
Orange River Colony, proposed Branch in, 116
Organization, local, proposals as to, 4
——— Committee. See Committee
Ormerod, Dr., the late, 19
Out-patients at hospitals, questions as to, 12
Overlying of infants, the London County Council and, 94
Oxford, programme of annual meeting at, 43, 120, 169; description of objects of interest at, 165; lodging houses, etc., at, 182, et. seq
——— and Reading Branch. See Branch

P.

Perthshire Branch. See Branch
Pharmacy Act. See Act
——— Bill. See Bill
Poor-law medical relief in Scotland, report of Departmental Committee on, 86
——— medical system in Ireland, the, 49
Practitioners, medical, advertising of in connexion with hydropathic establishments, 9, 44, 83, 84, 85, 86, 133, 134, 135, 162, 164, 186, 187, 188, 189, 191, 192, 193, 194, 195, 196
medical and information to coroners, 107
Premises and Library Committee. See Committee
Prescriptions, unduly repeated dispensing of, 109
Prince of Wales, the honorary membership of, 1, 94, 96
Programme of annual meeting, 43, 120, 169
Public Health Committee. See Committee

Q.

Questions as to out-patients in hospitals, 12

R.

Registration, of death, 4, 108; of nurses, 6; of stillbirths, 108; medical, in British Colonies, etc., 117
——— of Nurses Bill. See Bill
Report, of Organization Committee on representation of Colonial Branches on Council, 16; of Norwich Division on medical examinations for life assurances, 33; of Departmental Committee on Poor-law medical relief in Scotland, 86; of Council, 96; interim to the annual representative meeting on contract practice, 107; to Council on the Revaccination Bill, 109; to Council on insurance fees, ib.; to Council on the unduly repeated dispensing of prescriptions, ib.
Representative meeting. See Meeting
Revaccination, vaccination and, 108, 110
——— Bill. See Bill.
Royal Naval and Military Committee. See Committee
Rules of Divisions and Branches, 2, 9, 15, 16; ethical, of Branches, 3; ethical, approval of, 111

S.

Sanitary officers. See Medical officers of health
Scientific Grants Committee. See Committee
Scotland, report of Departmental Committee on Poor-law medical relief in, 86
Scottish Committee. See Committee
Secretaries, honorary local, at annual meeting, 44, 123, 180
Section, Dental, proposed, 2
Sections at annual meeting, arrangements as to, 120, 169
Sieveking, Sir E. H., resolution of condolence on death of, 94
Society, the Coroners', and the Coroners' Bill, 4, 6; and medical witnesses, 107
——— National Deposit Friendly, report of Medico-Political Committee on scale of fees of, 133
South-Eastern Branch. See Branch
——— Eastern of Ireland Branch. See Branch
——— Indian and Madras Branch. See Branch
——— Midland Branch. See Branch
——— Wales and Monmouthshire Branch. See Branch
——— Western Branch. See Branch
Southern Branch. See Branch
Spectacle Makers' Company. See Company
Staffordshire Branch. See Branch.
Stillbirth, registration of, 108
Stirling Branch. See Branch.
Sydney and New South Wales Branch. See Branch

T.

Temperance, instruction in, 8, 110, 111
Tenure, of sanitary officers, security of, 4, 7, 110
Trade advertisements. See Advertisements
Transvaal, proposed Branch in, 116
Treasurer, memorandum by on medical defence, 10
Trend, Dr. T. W., resolution of Council as to death of, 1
Troutbeck, Mr. See Coroner for South West London

U.

Ulster Branch. See Branch

V.

Vacancies temporary, 112
Vaccination and revaccination, 108, 110
——— legislation, proposed deputation to Local Government Board on, 2, 6, 8
——— literature, revision, etc., of, 4

W.

War Office reconstitution, 114, 115
Weights and Measures (Metric System) Bill. See Bill
West Somerset Branch. See Branch
Whitaker, Mr. J. S. See Medical Secretary
Witnesses, medical, consultations between, 5, 44, 106, 118, 133 134, 135, 162, 164, 186, 187, 188
Woodcock, Dr. S., resolution of Council as to death of, 1
Worcestershire and Herefordshire Branch. See Branch

Y.

Yorkshire Branch. See Branch

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MCMIII.

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Young, J. M., M.B. 149 Edmund Street Birmingham

No. 3.—Coventry Division

NUMBERING 39.

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Vice-Chairman, Thomas Webb-Fowler, M.B., Coventry

Honorary Secretary, E. H. Snell, M.D., 10A, Hay Lane Coventry

Representative for Representative Meeting, E. T. Power, Esq., Coleshill House, Atherstone.

Representative on Branch Council, Phillips, E., M.B.

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Bradley, J., Esq., Holyhead House, Coventry
Brown, F. L. H., M.B., Warwick Road, Coventry
Callaghan, J. Leslie, Esq., 10, Queen's Road, Coventry
Collington, F. A., Esq., 28, Much Park Street, Coventry
Davidson, C., M.D., Coventry
Day, F. H., M.B., Coventry and Warwickshire Hospital, Coventry
Edwards, L. C., M.B., Queen's Road, Coventry
Fenton, W. W., M.D., Avonmore, Warwick Road, Coventry
Growse, W., Esq., Kenilworth
Hadley, C., Esq., Shilton, Coventry
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Hird, T. A., M.D., Norton Road, Coventry
Iliffe, C. W., Esq., The Chase, Willenhall, Coventry
Jones, E. Williams, Esq., Spencer Park, Coventry
Kendrick, H. H., Esq., St. Medards, Norton St., Coventry
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Lynes, E., M.D., 9, Priory Row, Coventry
McGlashan, James, M.B., Bedworth, near Coventry
Mason, J. B., M.B., The Cottage, Foleshill, Coventry
Moore, M. M., M.D., Coventry
Orton, E. W., Esq., Bedworth
Orton, J., M.D., Great Heath House, Coventry
Orton, L. E., Esq., Bedworth, Coventry
Overton, R. F. N., Esq., 41, Spon Street, Coventry
Phillips, E., M.B., 20, Much Park Street, Coventry
Pickup, W. J., M.D., Swanswell, Coventry
Rice, W. R., M.D., Gosford Green, Coventry
Rudland, Robert, Esq., 14, Station St., Foleshill, Coventry
Smith, W. H., M.B., Meriden
Snell, E. H., M.D., 10A, Hay Lane, Coventry
Soden, T. A. B., Esq., Queen's Road, Coventry
Tweedy, R. C., Esq., Abbey House, Kenilworth
Webb-Fowler, Thos., M.B., Coventry
Webster, H. G., Esq., Westfield, Longford, Coventry
White, F. F., Esq., Hartford Place, Coventry

No. 4.—Dudley Division

NUMBERING 35.

Chairman, T. F. Higgs, M.D.

Vice-Chairman,

Honorary Secretary, M. A. Messiter, Esq.

Representative for Representative Meeting,

Representative on Branch Council, Messiter, M. A., Esq.

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Birt, G., M.B., 23, Hagley Road, Stourbridge
Brown, H. C., Esq., Castle View House, Tipton
Burke, A. St. L., Esq., Netherton, near Dudley.
Buttery, G. B., Esq., Church Square, Oldbury
Collis, E. L., M.B., Stourcote, Stourbridge
Dando, Edwin A., Esq., Dixon's Green, Dudley
Darby, H. C., Esq., Broadfields, Lye, near Stourbridge
Dudley, G. J., Esq., Stourbridge
Ellis, H. D'A., Esq., Amblecote, Stourbridge
Freer, A., Esq., Stourbridge
Gifford, G. K., Esq., Brierley Hill
Goulder, F. S., Esq., 190, Wolverhampton Street, Dudley
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Hardwicke, E. W., M.B., Lye, Stourbridge
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Higgs, T. F., M.D., Beaconsfield House, Dudley
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Mitchell, T. E., M.B., Old Hill
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Norwood, W. L., Esq., Leatholm, Brierley Hill
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Pietersen, J. F. G., M.B., Kingswinford
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Young, T. B., M.D., The Laurels, Halesowen

No. 5.—Nuneaton and Tamworth Division

NUMBERING 18.

Chairman, E. N. Nason, M.D., Nuneaton.

Vice-Chairman, E. T. Power, Esq., Atherstone.

Honorary Secretary, A. A. Wood, Esq., Nuneaton.

Representative for Representative Meeting, E. T. Power, Esq., Coleshill House, Atherstone.

Representative on Branch Council. Nason, E. N., MD.

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Cant, A., M.B., Waltham House, Coleshill
Cormack, J. C., Esq., Fazeley, Tamworth
Fausset, H. J., M.D., Tamworth
Jones, J. W., Esq., Coleshill
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Joy, J. H., M.D., Tamworth
Marris, W., M.B., Wilnecote, near Tamworth
Nason, E. N., M.D., Nuneaton
Nason, W. S., M.B., Abbey Street, Nuneaton
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Richardson, A. E., M.D., Tamworth
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Tomlinson, H. T., M.B., Nuneaton
Wall, J. B., Esq., Hazelwood, Coleshill
Wood, A. A., Esq., Nuneaton

No. 6.—Warwick and Leamington Division

NUMBERING 53.

Chairman, T. W. Thursfield, M.D.

Vice-Chairman, F. G. Gardner, Esq.

Honorary Secretary, T. E. C. Cole, M.D.

Representative for Representative Meeting, Professor J. T. J. Morrison, M.B., 3, Great Charles Street, Birm'gh'm

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Agar, S. H., jun., M.B., Henley-in-Arden
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Browne, S., M.D., Warwick
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Wyer, O. F., M.D., Epperston House, Leamington Spa

No. 7.—West Bromwich Division

NUMBERING 50.

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Vice-Chairman, S. T. D. Weston, Esq., Holyhead Road, Handsworth

Honorary Secretary, H. B. W. Plummer, M.D., 54, Birmingham Road, West Bromwich

Representative for Representative Meeting, J. H. H. Manley, M.B., 20, New Street, West Bromwich

Representatives on Branch Council,
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Sutton, F. W., Esq., Smethwick
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District comprising in *Scotland*, the Counties of DUMFRIES, KIRKCUDBRIGHT, and WIGTOWN, in *England*, CUMBERLAND AND WESTMORLAND (north of Ravenglass, Grasmere, Orton, and Kirby Stephen).

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***President-elect*, H. BARNES, M.D., Carlisle.**

***Honorary Secretary and Treasurer*.**
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***Representative on Council of Association*.**
J. Maxwell Ross, M.B., Dumfries.

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Crerar, J. W., M.B.	Ogilvy-Ramsay, M., M.D.
I'Anson, W., M.B.	Thomson, D. G. P., M.B.

No. 1.—Scottish Part Division

NUMBERING 75.

Chairman, J. Maxwell Ross, M.B., Dumfries.

Vice-Chairman, N. J. McKie, M.B., Newton Stewart.

Honorary Secretary, G. R. Livingston, M.B., 47, Castle Street, Dumfries.

Representative for Representative Meeting, J. Maxwell Ross, M.B., County Buildings, Dumfries

Representatives on Branch Council.
Clarke, F. H. Logan, G. D.

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Forde, E. S., Esq.	

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Brown, J., M.D., Burnside, Holywood, Dumfries
Cameron, M., M.B., Mainsriddell, Dumfries
Cameron, R. W. D. Macmartin, M.D., Newton Stewart
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Cluckie, Andrew, M.D., George Street, Stranraer
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Gilles, Hugh, Esq., New Abbey, by Dumfries
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Gilroy, J., M.B., Waterbeck, Ecclefechan
Harper, R. A. J., M.B., 47, Castle Street, Dumfries
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Hunter, J. A., Esq., D.P.H., Beechwood, Wigtown
Hunter, Joseph, M.B., 31, Castle Street, Dumfries
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McKie, N. J., M.D., Newton Stewart
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Matthews, D., M.B., Glenluce
Monro, D. D., M.B., Stranraer, Wigtown
Morris, E. H. G., M.B., Burow's Craig, Dalbeattie
Muir, J. P. H., M.B., St. John's Road, Annan
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Murray, Flora, M.B., Crichton Royal Institution, Dumfries
Murdoch, W., M.D., 14, St. John's Road, Annan
Park, W., M.D., Beechfield, Johnstone Bridge, Lockerbie
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Robertson, George, Esq., Kirkpatrick-Durham
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No. 2.—North Cumberland Division

NUMBERING 53.

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Vice-Chairman, J. Macdonald, M.D., Carlisle.
Honorary Secretary, Norman Maclaren, Esq., 23, Portland Square, Carlisle.
Representative for Representative Meeting, F. R. Hill, M.B., Carlisle.

Representatives on Branch Council.
Donald, C. W., M.B. | Doughty, D. S., M.D.

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Hill, F. R., M.B. | Palm, T. A., M.D.

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Arnott, J., M.D., Brampton
Barclay, J., M.B., Wetheral, Carlisle
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Biden, G. H., Esq., Wordsworth House, Penrith
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Farquharson, W. F., M.D., Garlands, Carlisle
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Haswell, F., Esq., Penrith
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No. 3.—West Cumberland Division

NUMBERING 34.

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District comprising the Counties of CAMBRIDGE and HUNTINGDON; in HERTFORDSHIRE, the portion east of a line drawn from Potter's Bar due north to the county boundary, and north of a line drawn from Potter's Bar to High Ongar; in ESSEX, the portion north of the line last mentioned and west of a line from High Ongar to Bartlow Station; in NORTHAMPTONSHIRE, the portion north and east of Thrapston.

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Wright, J. A., M.D., 2, Corpus Buildings, Cambridge
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CONNAUGHT BRANCH.

Comprising the area composed of the areas of the NORT CONNAUGHT, MID-CONNAUGHT, and SOUTH CONNAUGHT Divisions. (1. Co. Sligo and Co. Leitrim; the north districts of Co. Roscommon. 2. Co. Mayo; West Roscommon. 3. Co. Galway; South Roscommon).

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Honorary Secretary, Professor A. H. WHITE, Derrybawn Rathgar, Dublin.
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W. Calwell, M.D., Belfast.

No. 1—Mid Connaught Division

NUMBERING 15.

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Vice-Chairman,
Honorary Secretary,
Representative for Representative Meeting.

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Birmingham, C. L., M.D., Westport
Brennan, M. A., Esq., Charlestown
Crowley, J., Esq., Ballycastle, Ballina
Gill, A., Esq., Newport
Hanrahan, J. A., Esq., Woodville, Hollymount
Hession, M. F., Esq., Ballindine
Hopkins, J. J., Esq., Castlebar
Kelly, R. W., Esq., St. John's Villa, Claremorris
Mahon, R. B., M.D., Ballinrobe
McNulty, J., Esq., Killala
O'Callaghan, J. M., Esq., Lahardam, Ballina
O'Donohoe, F. G., Esq., Castlerea
Semple, M., M.D., Glan Inagh, Cong
Studdart, A. F., Esq., Seaview, Belmullet

No. 2.—North Connaught Division

NUMBERING 7.

Chairman,
Vice-Chairman,
Honorary Secretary,
Representative for Representative Meeting.

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Carroll, J., M.D., Dromahair
Delany, K., Esq., Carrick-on-Shannon
Flanagan, P. J., Esq., Cashelgarron, Sligo
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Martyn, R. J., Esq., Stephen Street, Sligo
White, P. B., M.D., Tangier, Boyle

No. 3.—South Connaught Division

NUMBERING 19.

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Vice-Chairman,
Honorary Secretary,
Representative for Representative Meeting.

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Costello, M. J. B., M.B., Clondoyle, Glenamaddy
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Foley, C. H., M.B., Ardrahan
Gorham, P. C., Esq., Clifden
Kinkead, R. J., M.D., Galway
Kirwan, J. St. L., M.B., District Asylum, Ballinasloe
MacDonnell, Joseph, Esq., Roscommon
Madden, F. A., Esq., Oughterard
Mangan, B., M.D., Ardrane, Oughterard
Mills, John, M.B., District Asylum, Ballinasloe
O'Farrell, R. J., Esq., Loughrea
Peart, J. F., Esq., Galway
Pye, J. P., M.D., Queen's College, Galway
Rossiter, T. J., Esq., Ballinasloe
Rutherford, W., M.D., Ballinasloe
Ryan, John F., Esq., Loughrea

DORSET AND WEST HANTS BRANCH.

District comprising the County of DORSET; in SOMERSETSHIRE: Yeovil, Milborne Port, and Templecombe; in HAMPSHIRE: the portion west of and including Christchurch and Ringwood.

RECOGNISED 1883.

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No. 1.—Bournemouth Division

NUMBERING 117.

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No. 2.—West Dorset Division

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Representative for Representative Meeting, T. Henry Jones, M.D., Oriel, Weymouth.

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Good, W. E., Esq.	Whittingdale, J. F. L., M.B.
Leach, J. C., M.D.	

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Beaver, R. Attwood, M.D., Sturminster Newton
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Vice-Chairman, E. L. Fenn, M.D., Nayland

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Representative for Representative Meeting.

B. H. Nicholson, M.B., East Lodge, Colchester.

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Worts, E., Esq., 6, Trinity Street, Colchester

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Representative for Representative Meeting, J. E. Molson M.B., Rainsford House, Chelmsford

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De Steiger, A. Isabella, M.B., The Asylum, Warley
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Tench, M., M.D., Great Dunmow, Essex
Thresh, J. C., M.D., Chelmsford, Essex
Turner, J., M.B., Essex County Asylum, Brentwood
Wright, C. St. John, M.B., Felstead, Chelmsford

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Vice Chairman.

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Bridger, S., Esq., 19, Royal Terrace, Southend-on-Sea
Corbet, R., Esq., Orsett, Grays
Davies, F. H., M.B., Tilbury, Essex
Downman, C. F., Esq., Arunhurst, Burnham, Essex
Ellis, L. D. H., Esq., Downs Villa, Vange, Pitsea
Floyd, S. G., Esq., Lister House, Grays
Forge, G. B., Esq., Rochford House, Rochford, Essex
Forsyth, Charles, M.B., Southend-on-Sea
Gilbert, C. W., Esq., Lister House, Grays
Goldie, A. E., M.B., 8, Elmer Avenue, Southend-on-Sea
Grant, O., M.B., Thundersley, Essex
Grayson, F. D., Esq., Rayleigh, Essex
Hinks, A. G., M.B., St. Vincent's Road, Southend-on-Sea
Jones, G. F., Esq., Clarence House, Southend
Leonard, N., M.D., Valkyrie Road, Westcliff-on-Sea
Marsh, Cecil J., Esq., Broadmayne, Sutton Rd., Sthnd.-on-Sea
Maxwell, J. B., Esq., Allendale, Dowsett Avenue, Southend
Morgan, W. H., Esq., Anerley Road, Westcliffe-on-Sea
Nash, L. T. C., M.D., M.O.H. Dep., Southend-on-Sea
Pettingill, A. E. A., Esq., Dellesmere, Genesta Road, Westcliff-on-Sea
Raper, W. A., M.D., Great Wakering
Roworth, A. T., Esq., Grays, Essex
Smellie, J. C., M.B., 39, Leigh Road, Westcliffe
Smith, H. C., Esq., High Street, Southend-on-Sea
Townend, R. H., Esq., Hughenden, Palmerston Road, Westcliff on-Sea
Pershouse, F., Esq., Stanford-le-Hope
Wakeling, T. G., Esq., Chester House, Grove Road, Southend-on-Sea
Ward, J. A., Esq., Shaftesbury House, Grays
Waters, A. C., M.B., Whitegates Road, Southend
White, T. D., Esq., King's, Burnham-on-Crouch
Whitcombe-Brown, W. H., Esq., Highfield, Westcliffe-on-Sea

No. 4.—Norwich Division

NUMBERING 45.

Chairman, M. Beverley, M.D., Norwich

Vice-Chairman, H. S. Robinson, Esq., Norwich

Honorary Secretary, H. A. Ballance, M.S., 46, Prince of Wales Road, Norwich.

Representative for Representative Meeting, H. A. Ballance, M.S., 46, Prince of Wales Road, Norwich

Representative on Branch Council.

Cleveland, A. J. M.D.

Andrews, C. H., Esq., 45, St. Giles Street, Norwich
Ballance, H. A., M. S., 46, Prince of Wales Road, Norwich
Barton, S. J., M.D., 34, Surrey Street, Norwich
Beverley, M., M.D., Norwich
Bremner, J. M. G., M.B., 18, St. Giles Street, Norwich
Burton, S. H., F.R.C.S., Norwich
Burton-Fanning, F. W., M.D., Norwich
Bush, F. P., Esq., 27, Dereham Road, Norwich
Claremont, C. Cecil, Esq., 141, Dereham Road, Norwich
Cleveland, A. J., M.D., 8, Thorpe Mansions, Norwich
Crook, A., Esq., Norwich
Crosse, H. W., M.D., 6, Theatre Street, Norwich
Darrell, H. W., M.D., 2, All Saints Green, Norwich
Day, D. D., F.R.C.S., Norwich
Duff, C. E., M.B., St. Clements Hill, Norwich
Eade, Sir P., M.D., Norwich
Everett, E. W., Esq., 11, Theatre Street, Norwich
Fielding, J., M.D., Norwich
Greene, A., M.D., 4, Theatre Street, Norwich
Hatch, W. K., Esq., Norwich
Leith, W., M.B., 118, Dereham Road, Norwich
Long, S. H., M.B., 37, St. Giles Street, Norwich
McArthur, Duncan R., M.D., Norwich
McWilliam, A., M.B., Heigham Hall Asylum, Norwich
Mills, R. J., M.B., Norwich
Morse, T. H., Esq., 41, All Saints' Green, Norwich
Muriel, C. J., Esq., Norwich
Nance, H. C., Esq., Norwich
Passmore, G. S., Esq., Exmoor, Unthank Road, Norwich
Pattin, H. Cooper, M.D., Norwich
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Richardson, T. W., Esq., Norwich
Robinson, H. S., Esq., Norwich
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Spowart, W. R., M.D., Norwich
Stacy, J. H., Esq., 38, St. Giles Street, Norwich
Starling, H. J., M.B., 45, All Saints Green, Norwich
Taylor, H. E., M.D., 5, Tombland, Norwich
Taylor, S. J., M.B., Norwich
Taylor, S. T., M.B., Chingford House, Earlham Rd., Norwich
Turner, Henry W., Esq., Norwich
Watson, H., M.D., 2, Earlham Road, Norwich
Whitwell, Hugh, Esq., 11, Chapel Field N., Norwich
Williams, C., Esq., Norwich

No. 5.—Mid Norfolk Division

NUMBERING 55.

Chairman, J. T. Skrimshire, M.D., Holt.

Vice-Chairman, C. A. O. Owens, M.D.

Honorary Secretary, D. G. Thomson, M.D., Thorpe Norwich.

Representative for Representative Meeting, C. A. O. Owens, M.D.

Representatives on Branch Council.

Horn, R. J., Esq. | Skrimshire J. T. M.D.,

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Allan, Richard, M.B., The Pines, Attleborough
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Ellis, C. G., Esq., Attleborough, Norfolk
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Foster, H. G., Esq., Attleborough, Norfolk
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Gillam, J. B., Esq., Holt, Norfolk
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Horn, R. J., Esq., St. Faith's, Norwich
Hosegood, S. P., Esq., North Walsham, Norfolk
Howard, Wilfred, Esq., New Buckenham, Norfolk
Hughes, D. W., Esq., Wymondham, Norfolk
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Kennington, Edgar, Esq., Foulsham
Lack, T. L., Esq., Hingham, Norfolk
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Lowe, G., M.D., Wymondham, Norfolk
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Skrimshire, J. F., Esq., Melton Constable
Skrimshire, J. T., M.D., Holt, Norfolk
Soffe, W. E., Esq., East Harling, Norfolk
Spurrell, W. D., Esq., Aldborough, Norfolk
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Taylor, H., Esq., Wroxham, Norfolk
Thomson, D. G., M.D., Thorpe, Norwich
Webb-Ware, Hugh, Esq., Saxlingham, Nethergate, Norwich
Whitaker, L. E., Esq., The Cottage, Diss, Norfolk
Wise, W. C., Esq., Mere House, Diss
Wright, B. D. Z., Esq., Coltishall, Norfolk

No. 6.—West Norfolk Division

NUMBERING 32.

Chairman, C. B. Plowright, M.D., King's Lynn.

Vice-Chairman, Sir Alan Reeve Manby, M.V.O., M.D. East Rudham.

Honorary Secretary, A. Gardiner, Esq., Tuesday Market Place, King's Lynn.

Representative for Representative Meeting, H. A. Ballance, M.S., 46, Prince of Wales Road, Norwich.

Representative on Branch Council.

Manby, Sir Alan Reeve, M.V.O., M.D.

Alexander, T. A., Esq., Watton, Norfolk
Allen, V. F., Esq., Swaffham, Norfolk
Allinson, H. C., Esq., Stonegate, King's Lynn
Archer, E. G., Esq., Feltwell, Brandon, Norfolk
Calthrop, G., Esq., Wells
Chadwick, G. R., M.D., St. Margaret's Place, King's Lynn
Cross, G. F., M.B., Downham Market, Norfolk
Draper, T. M., Esq., Watlington, Norfolk
Fisher, W. H., M.B., Fakenham, Norfolk
Forrest, J. L., M.B., Sommerville, Terrington St. John
Gardiner, A., M.B., Tuesday Market Place, King's Lynn
Hamill, S. M., M.D., Burnham Market, Norfolk
Hogg, E. H., Esq., West Newton, King's Lynn
Kinguon, J. R., Esq., Nelson Street, King's Lynn
Laver, J. W., Esq., The Limes, Grimston, King's Lynn
Lister, S. R., Esq., Terrington Lodge, King's Lynn
Manby, Sir Alan Reeve, M.V.O., M.D., East Rudham, Nrfolk
Masson, G. B., Esq., Fincham, Downham, Norfolk
Parry, G. H., Esq., Docking, Norfolk
Plowright, C. B., M.D., King's Lynn, Norfolk
Porter, G. C., Esq., Castle Acre, Norfolk
Roddis, T. E. E., M.B., Snettisham
Rowell, H. E., Esq., East Rudham, Norfolk
Spencer, H. A., Esq., Fakenham
Steele, H. F., Esq., Stoke Ferry, Norfolk
Sturdie, F. H., Esq., F.R.C.S., Walsingham
Thomas, A. W., Esq., Swaffham, Norfolk
Trevor-Roper, G. D., Esq., Gt. Massingham, Norfolk
Wales, E. G., M.B., Downham Market
Wedgwood, W. B., Esq., King's Lynn, Norfolk
Whitlock, A. W. F., Esq., Wells, Norfolk
Whitty, C. R., M.D. Hunstanton, Norfolk

No. 7.—East Norfolk Division

NUMBERING 30.

Chairman, A. C. Mayo, Esq., Gt. Yarmouth.

Vice Chairman, P. G. Gilmour, Esq., Gorleston.

Honorary Secretary, A. H. Moxon, Esq., 44, King's Street, Great Yarmouth.

Representative for Representative Meeting, A. C. Mayo Esq., Gt. Yarmouth.

Representative on Branch Council.

Mayo, A. C., Esq.

Back, H. H., M.B., Acle, Norwich
Bayfield, John B., Esq., Reedham, Norfolk
Beales, T. W. L., Martham, Great Yarmouth
Blake, H., M.B., 5, Regent Road, Great Yarmouth
Boake, Basil, Esq., Ormesby, Great Yarmouth
Case, William, Esq., Caister-on-Sea, Great Yarmouth
Collier, H., M.D. 21, South Quay, Great Yarmouth
Cutting, E. B., Esq., Stalham, Norfolk
Gilmour, P. G., Esq., Gorleston, Norfolk
Gordon, J. A., Esq., Ludham Manor, Great Yarmouth
Lettis, T., M.D., 6, Regent Road, Great Yarmouth
McClintock, L. T., Esq., Loddon, Norfolk
Mayo, A. C., Esq., St. George's Park House, Gt. Yarmouth
Mayo, H. R., M.B., St George's Park House, Gt. Yarmouth
Meadowes, A. H., Esq., 141, King Street, Great Yarmouth
Moxon, A. H., Esq., Great Yarmouth
O'Farrell, C., Esq., Great Yarmouth
Potts, Horace, Esq., 116, Wellesley Road, Gt. Yarmouth
Prior, E. T., Esq., Loddon, Norfolk

Rendall, R., M.B., 19, St. Peter's Road, Yarmouth
Royden, W., Esq., Burgh St. Margaret, near Gt. Yarmouth
Rudd, C. F., Esq., Stalham, Norfolk
Sankey, J. L., Esq., 43, Market Place, Great Yarmouth
Shaw, R. H., M.B., Great Yarmouth
Ternaan, P. J. W., Esq., Martham
Vickers, J. B. N., Esq., 7, St. George's Terr., Gt. Yarmouth
Wrigley, R., Esq., Great Yarmouth
Wyllys, H. J. M., Esq., Southtown, Great Yarmouth
Wyllys, W. E., Esq., 25, King Street, Great Yarmouth
Wyllys, W., Esq., 27, Nelson Road, S., Great Yarmouth

No. 8.—North Suffolk Division

NUMBERING 33.

Chairman, H. B. Walker, Esq.

Vice-Chairman, W. M. Crowfoot, M.B.

Honorary Secretary, W. Tyson, M.B., The Beeches, Lowestoft.

Representative for Representative Meeting, A. C. Mayo, Esq., St. George's Park House, Gt. Yarmouth.

Representative on Branch Council.
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Acton, C. J., Esq., Wangford
Barraclough, H. C., M.B., South Lowestoft
Baylie, W. E., Esq., Yoxford
Bell, W. L., M.D., Abbotsford, Lowestoft
Berry, W., M.D., Richmond House, South Lowestoft
Cadge, W. H., Lt.-Col. I.M.S., 4, Esplanade, Lowestoft
Crowfoot, W. M., M.B., Beccles
Dixon, W. E., Esq., Oulton Broad, Lowestoft
Evans, H. M., M.D., Kirkley Cliff Road, S. Lowestoft
Forster, F. C., Esq., 1, Park Mansions, Lowestoft
Hepburn, Malcolm L., M.D., 23, Marine Parade, S. Lowestoft
Herbert, A. W. C., Esq., Acton Lodge, Southwold
Hudson, Edmund, Esq., Oulton Broad, Lowestoft
Hutchinson, D. H., M.B., 55, High Street, Lowestoft
James, F. C., M.B., Fressingfield, Harleston
Lay, C. E., Esq., Peasenhall
Linton, S., M.B., Alinna Cottage, Kessingland, Lowestoft
Marshall, A., M.D., 145, London Road, South Lowestoft
Metcalfe, R. I., M.D., Beccles
Morris, P. J. L., Esq., Halesworth, Suffolk
Ramsbottom, C. H. G., M.D., Waveney House, Bungay
Ransome, G. H., Esq., Bungay
Robinson, J. C. R., Esq., Harleston, Norfolk
Shann, W. A., M.B., Lowestoft
Smith, J. P., Esq., Lowestoft
Tyson, W., M.B., The Beeches, Lowestoft
Wade, E. W., M.D., Harleston
Walker, H. B., Esq., Grove House, Lowestoft
Warwick, P., Esq., Halesworth
Woodhouse, W., Esq., 2, Wimbledon Terr., Kirkley, Lowestoft
Wortabet, J. R., M.B., Kessingland, Lowestoft
Worthington, F. S., Esq., Gordon Road, Lowestoft
Worthington, Richard, M.B., 10, Marine Parade, Lowestoft

No. 9.—West Suffolk Division

NUMBERING 41.

Chairman, R. H. Lucas, Esq.

Vice-Chairman, J. S. Holden, M.D.

Honorary Secretary, W. J. Caie, M.B., Bury St. Edmunds

Representative for Representative Meeting, Edgar G. Barnes, M.D., Eye, Suffolk.

Representative on Branch Council.
Hinnell, J. S., M.D.

Anderson, R., Lt.-Col. (retired), A.M.S., The Acacias, Bury St. Edmunds
Butler, A. S., Esq., Norton, Bury St. Edmunds.
Caie, W. J., M.B., Bury St. Edmunds
Eminson, L., Esq., Silesia House, Lavenham
Finch, H. J., Esq., Crofton, Sudbury, Suffolk
Forest, J. G. S., Esq., Maisonette, Bury St. Edmunds
Gelston, J. S., Esq., Ixworth, Suffolk
Goodman, T. H., Esq., Haverhill
Hargrave, H. J., M.B., Haverhill
Harris, A., M.B., Thetford, Norfolk
Hinnell, J. S., M.D., 62, Garland Street, Bury St. Edmunds
Holden, J. S., M.D., Sudbury
Horsford, J. A., Esq., Long Melford
Huntley, E., M.B., Friars Street, Sudbury
Image, F. E., M.B., Bury St. Edmunds
Kilner, C. S., M.B., Bury St. Edmunds
King, H. D., M.D., Sudbury
Lucas, R. H., Esq., 6, Angel Hill, Bury St. Edmunds
Mason, W. J., Esq., Sudbury, Suffolk
Master, G., M.B., 86, Guildhall Street, Bury St. Edmunds
Matthews, A. Leslie, Esq., Sudbury
Metcalfe, G. H., Esq., Clare, Suffolk
Minns, A. G., Esq., Thetford
Minns, P. R. J. B., Esq., Thetford
Page, J. B., M.B., Hop Hall, Hartest, Bury St. Edmunds
Pickworth, A. J., Esq., Lakenheath, Suffolk
Petherick, W., Esq., Hopton, Suffolk
Poignand, M., M.D., The Beeches, Walsham-le-Willows
Smith, H. Watson, M.B., West Suffolk General Hospital, Bury St. Edmunds
Smith, W. C. P., Esq., The Limes, Burnham-on-Crouch
Stiff, H. H., M.B., 81, Guildford Street, Bury St. Edmunds
Stork, E., M.B., The Acacias, Bury St. Edmunds
Thompson, Alfred, Esq., Boxford, Suffolk
Trotter, W. O., Esq., Brandon, Suffolk
Van Ryck de Groot, S. H. R., Esq., Grove House, Lavenham
Walker, J. R. Hall, M.D., Haverhill
Wilkin, R. H., Esq., Wickhambrook
Wilson, F. K., M.B., The Elms, Walsham-le-Willows
Wood, H. C., Esq., The Elms, Brandon
Wood, O. R. M., M.B., Woolpit, Bury St. Edmunds
Wright, H. E., Esq., Great Cornard Road, Sudbury

No 10.—South Suffolk Division

NUMBERING 69.

Chairman, W. A. Elliston, M.D., Ipswich.

Vice-Chairman, C. G. Havell, M.D., Felixstowe.

Honorary Secretary, J. Gutch, M.D., 28, Fonnereau Road, Ipswich.

Representative for Representative Meeting, Edgar G. Barnes, M.D., Eye, Suffolk.

Representatives on Branch Council.
Edwards, B., Esq. | Elliston, G. S., Esq.

Adams, F., Esq., 135, Woodbridge Road, Ipswich
Addison, E. A., Esq., Coddenham, near Ipswich
Askin, T. C., M.D., Alderton, Suffolk
Ball, J. A., M.B., The Cottage, Stradbroke, Eye
Barnes, E. G., M.D., Eye
Baron, H. N., Esq., The High House, Orford
Biden, C. W., Esq., Laxfield, Framlingham
Brogden, R. W., M.B., Ipswich
Brooks, F. A., M.D., Felixstowe
Brown, H. H., M.D., Museum Street, Ipswich
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Carey, William, Esq., Holbrook, Ipswich
Casley, R. K., M.D., Carr Street, Ipswich
Collins, H. A., Esq., Saxmundham
Conford, G. James, M.B., Sanderoft, Bath Road, Felixstowe
Connor, W. G., Esq., Earl Soham, Suffolk
Cotton, H., Captain (ret.) A.M.S., Tower Lodge, Ipswich
Drew, J. B., Esq., The Hayning, Framlingham, Suffolk
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Eades, S. O., Esq., 6, Orwell Place, Ipswich
Edwards, B., Esq., Ipswich
Elliston, G. S., Esq., Ipswich
Elliston, W. A., M.D., Ipswich
Everett, H. F., Esq., Hadleigh, Suffolk
Franey, A. B., Esq., Hadleigh, Suffolk
Fryer, W. F., jun., Esq., Chestnut Ho., St. Clements, Ipswich
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Pringle, A. Y., Esq., St. Matthews, Ipswich
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Staddon, W. J., Esq., The Priory, Ipswich
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Thorp, H. J., Esq., Granite Lodge, Ipswich
Tidbury, Robert, M.D., Borough Asylum, Ipswich
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Turner, F. H., Esq., East Bergholt
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Wallis, E. D., Esq., Leiston
Ward, F., M.D., Museum Street, Ipswich
Ward, F. Fowler, M.B., 32, Berners Street, Ipswich
Wells, A. P., Esq., 6, High Beach, Felixstowe
Whitwell, J. R., M.B., County Asylum, Melton
Wood, A. T., Esq., Elm House, Ipswich
Wright, C. F., Esq., Eye, Suffolk
Wrightson, R. B., M.D., Aldeburgh, Suffolk
Wynne, G. N., M.D., Framlingham, Suffolk

EAST YORK & NORTH LINCOLN BRANCH

District comprising in YORKSHIRE: Hull; the Holderness Parliamentary Division: the portion of the Buckrose Division south of and excluding Bilington Junction and Hunmanby, and the portion of the Howdenshire Division south-east of the Railway from Market Weighton to Selby and including Market Weighton, Everingham, and Holme; in LINCOLNSHIRE: Grimsby Borough, and the Brigg Parliamentary Division.

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C. H. Milburn, M.B., Hull

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Elliott, G. F., M.D.	Lowson, D., M.D.
Gaman, F.R.S., Esq.	Pigeon, H. W., M.B.
Harrison, E., M.D.	Turner, C. B. Esq.

No. 1.—East York Division

NUMBERING 113.

Chairman, G. J. Briggs, Esq., Hull

Vice-Chairman, A. G. Francis, Esq., M.B., Hull

Honorary Secretary, E. M. Hainworth, M.D., 16, Albion Street, Hull

Representative for Representative Meeting, C. H. Milburn, M.B., Hull

Representatives on Branch Council.

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Harrison, E., M.D.	Pigeon, H. W., M.B.

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Baine, L. A., M.D., 305, Hedon Road, Hull
Barker, E., Esq., 455, Hessle Road, Hull
Batchelor, E. H., Esq., Norton Lodge, Promenade, Bridlington
Brand, A. T., M.D., Great Driffield
Briggs, G. F., Esq., 146, Spring Bank, Hull
Briggs, G. J., Esq., Spring Bank, Hull
Bryant, W. A., M.B., Anlaby Road, Hull
Cameron, R. D., Esq., North Cave, Brough
Cameron, T., M.B., 77, Beverley Road, Hull
Carter, G. A., Esq., Royal Infirmary, Hull
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Collin, T. S., Esq., Newport, near Brough
Cowes, Adam, Esq., Howden
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Davy, D. H., Esq., 84, Beverley Road, Hull
Divine, J., M.B., Durham House, Holderness Road, Hull
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Dowsing, H. L., Esq., Beverley Road, Hull
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Honorary Secretary, J. Matthews Duncan, M.B., Welholme Road W., Grimsby

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Young, D. P., M.B., 23, Bridge Street, Musselburgh
Young, W., M.B., Burnvale, West Calder

No. 2.—North-East Edinburgh Division

NUMBERING 64.

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Vice Chairman, James Carmichael, M.D., 22, Northumberland Street, Edinburgh

Honorary Secretary, G. Keppie Paterson, M.B., 19, Albany Street, Edinburgh.

Representative for Representative Meeting, James Carmichael, M.D., 22, Northumberland St., Edinburgh

Representative on Branch Council.
Paterson, G. Keppie, M.B.

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Carmichael, J., M.D., 22, Northumberland St., Edinburgh
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Dewar, H., M.B., 26, Brighton Place, Portobello
Dunlop, G. H. M., M.D., 20, Abercromby Place, Edinburgh
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Elder, W., M.D., 4, John's Place, Leith
Erskine, Elizabeth, Oaklands, Trinity, Edinburgh
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Gilmour, Andrew, M.D., 9, Inverleith Row, Edinburgh
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Harvey, James, M.D., 7, Blenheim Place, Edinburgh
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Johnston, G. M., M.D., 7, Wellington Place, Leith
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No. 3.—North-West Edinburgh Division

NUMBERING 134.

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Vice-Chairman, J. W. B. Hodsdon, M.D., Edinburgh.

Honorary Secretary, T. F. S. Caverhill, M.B., 16, Randolph Crescent, Edinburgh

Representative for Representative Meeting James Ritchie, M.D., 22, Charlotte Square, Edinburgh

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Andrew, J., M.D., 2, Atholl Crescent, Edinburgh
Annandale, T., F.R.C.S., 34, Charlotte Square, Edinburgh
Ballantyne, J. W., M.D., 24, Melville Street, Edinburgh
Barbour, A. H. F., M.D., 4, Charlotte Square, Edinburgh
Bell, J., M.D., 2, Melville Crescent, Edinburgh
Bell, J. H. M., M.B., 17, Walker Street, Edinburgh
Berry, George H., M.B., 31, Drumsheugh Grdns., Edinburgh
Boyd, F. D., C.M.G., M.D., 22, Manor Place, Edinburgh
Bramwell, B., M.D., 23, Drumsheugh Gardens, Edinburgh
Bramwell, E., M.B., 2, Randolph Place, Edinburgh
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Carruthers, G. J. R., M.B., 4A, Melville Street, Edinburgh
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Caverhill, T. F. S., M.B., 16, Randolph Crescent, Edinburgh
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Wotherspoon, C. C., M.B., 18, Great Stuart St., Edinburgh
Watson, Sir Patrick Heron, M.D., F.R.S.E., 16, Charlotte Sq., Edinburgh
Young, P. A., M.D., 25, Manor Place, Edinburgh

No. 4.—South-Eastern Counties Division

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Vice-Chairman, J. C. Johnstone, M.D., Melrose.

Honorary Secretary, W. Hall Calvert, M.D., The Laurels, Melrose

Representative for Representative Meeting, R. Somerville, M.D., Galashiels

Representative on Branch Council.
Hamilton, J. R., M.D.

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Muir, J. F., M.B.	

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Barrie, W. T., M.B., 18, Bridge Street, Hawick
Blair, W., M.D., Jedburgh
Brown, R. M., M.B., Denholm, Hawick
Brydon, J., M.D., Hawick
Calvert, W. H., M.D., The Laurels, Melrose
Cameron, J., M.D., Innerleithen
Campbell, Alex. J., M.D., Market Square, Duns
Cullen, W. L., M.B., St. Boswells
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Fleming, A. D., M.B., Abbey Row, Kelso
Gunn, C. B., M.D., St. Bernard's, Peebles
Haddon, J., M.D., Denholm
Hamilton, J. R., M.D., Hawick
Henderson, G., M.D., East Braes, Coldstream
Henderson, Percy J., M.B., 9, Church Street, Galashiels
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Kirkwood, Alexander, M.B., C.M., Peebles
Leighton, P., M.B., Chirnside
Lyall, Alex, Esq., Greenlaw
Macdonald, T. R., Lieutenant-Colonel I.M.S.(ret.), Buccleuch Street, Hawick
McDougall, J. N., M.D., Coldingham
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McKellar, G., M.D., 29, Bowmont Street, Kelso
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No. 5.—South Edinburgh Division

NUMBERING 122.

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Representatives on Branch Council,
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Darlington, G. D., M.B., 10, Ardmillan Ter., Edinburgh
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Davidson, D. G., M.D., 9, Granville Terrace, Edinburgh
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Robertson, R. C., M.B., Holmhead, Kilmarnock
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Smith, H. B., M.B., Dundonald
Sneddon, W., M.D., Beith
Stewart, John, M.B., Beith
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White, Alexander, M.B., 2, Randolph Terrace, Ayr
Wilson, W., M.D., Irvine
Wylie, John, M.B., Allan Hill, Kilmarnock

No. 2.—Dumbartonshire and Argyllshire Division

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Vice-Chairman,
Honorary Secretary, John Robertson, M.D., Benview, Dumbarton.
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Representatives on Branch Council.
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Baily, F., M.B., Victoria Crescent, Oban
Banks, J., M.B., Redhurst, Dunoon
Berwick, G., M.D., Ailt-an-righ, Port Bannantyne, Bute
Brown, J. F. Cullen, M.B., Overton Park, Alexandria
Cameron, J., M.D., Bute Asylum, Lochgilphead
Cameron, J. A., M.B., Lagganbie, Dalmally
Cameron, J. M., M.B., Glenlee, Dalmuir
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Gilmour, T. F., Esq., Port Ellen, Islay
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Mackay, A., M.D., Port Appin
Mackie, W., Esq., Helensburgh
MacLachlan, D., Esq., Ballinaby, Bridgend, Islay
McLachlan, W. A., M.D., Vale View, Dumbarton
McLelland, A., M.B., Ardenlee, Alexandria
McNeill, R., M.D., Co. Med. Officer, Oban
MacNicol, R. R., M.B., Taynuilt
McRitchie, Peter, M.B., Dunivard, Garelochhead
Maxwell, J., M.D., Tobermory
Murray, David, M.B., Dunoran, Renton
Oastler, J., M.D., Ericstane, Helensburgh
Reid, R. D., Esq., Easterton, Helensburgh
Robertson, John, M.D., Benview, Dumbarton
Salmon, C. E., Esq., Tarbet House, Tarbet
Scott, J. G. C., M.B., Avandale, Dunolly Road, Oban, N.B.
Sewell, W. R., M.D., Rosemount, Helensburgh
Sinclair, H., Esq., Millport
Stevenson, J., M.B., Clydebank
Stewart, James, Esq., Inveraray
Strang, T. M., Esq., 2, Rosebery Place, Clydebank
Wilson Allan, M.D., Ardrishaig
Wilson, J., Esq., Ashville, Dumbarton
Wilson, T. L., Esq., Alexandria, N.B.
Young, Wm. Semple, M.D., Craigellachie, Helensburgh

No. 3.—Glasgow Central Division

NUMBERING 123.

Chairman, J. H. Nicoll, M.B., 4, Woodside Place, Glasgow

Vice-Chairman, J. W. Allan, M.B., 18, India Street, Glasgow

Honorary Secretary, J. Grant Andrew, M.B., 12, Woodside Terrace, Glasgow, W.

Representative for Representative Meeting.
Freeland Fergus, M.D., 22, Blythswood Square, Glasgow

Representatives on Branch Council.
Andrew, J. Grant, M.B. | Stockman, Ralph, M.D.

Adams, F. V., Esq., 10, Queen's Crescent, Glasgow
Adams, J. A., M.D., 5, Woodside Crescent, Glasgow
Adams, John, M.B., 1, Queen's Crescent, Glasgow
Allan, J. W., M.B., 18, India Street, Glasgow
Alexander, John, M.D., 3, Queen's Crescent, Glasgow
Anderson, J. L., M.B., 168, Renfrew Street, Glasgow
Andrew, J. Grant, M.B., 12, Woodside Ter., Glasgow
Ballantyne, A. J., M.D., 11, Sandyford Place, Glasgow
Barr, T., M.B., 13, Woodside Place, Glasgow
Beatson, G. T., M.D., 7, Woodside Crescent, Glasgow
Bell, R., M.D., 29, Lynedoch Street, Glasgow
Boyd, J. P., M.B., 2, Newton Terrace, Glasgow
Buchanan, A. McG., M.D., 13, Berkeley Terrace, Glasgow
Burns, J., Esq., 15, Fitzroy Place, Glasgow
Cameron, Sir H. C., M.D., 200, Bath Street, Glasgow
Cameron, M., M.D., 7, Newton Terrace, Glasgow
Carslaw, James, M.B., 6, Woodside Crescent, Glasgow
Carswell, J., Esq., 5, Royal Crescent, Glasgow
Cassells, A. H., M.B., 34, Gray St., Overnewton, Glasgow
Christie, D., M.B., 12, Derby Terrace, Sandyford, Glasgow
Christie, J. C., Esq., 3, Gray Street, Glasgow
Clark, H. E. C.M.G., 24, India Street, Glasgow
Colquhoun, W., M.B., 7, Stanley Street, Glasgow, W.
Cowan, J. M., M.B., 14, Woodside Crescent, Glasgow
Crawford, R., M.D., 16, Queen's Crescent, Glasgow
Currie, R. K., M.B., 294, Bath Street, Glasgow
Dalziel, T. K., M.B., 196, Bath Street, Glasgow
Dewar, D., McK., M.B., 12, W. Princes Street, Glasgow
Dougan, W., M.D., 2, Sandyford Place, Glasgow
Douglas, C. C., M.D., 2, Royal Crescent, Glasgow
Downie, J. W., M.B., 4, Woodside Crescent, Glasgow
Dun, W. G., M.D., 15, Royal Crescent, Glasgow
Dunlop, J., M.D., 1, Somerset Place, Glasgow
Edgar, John, M.B., 5, Clairmont Gardens, Glasgow, W.
Edington, G. H., M.D., 225, Bath Street, Glasgow W.
Erskine, J., M.B., 351, Bath Street, Glasgow
Fergus, F., M.D., 22, Blythswood Square, Glasgow
Fergus, J., M.D., 12, Sandyford Place, Glasgow
Ferguson, D., M.B., 23, Berkeley Terrace, Glasgow
Finlayson, J., M.D., 2, Woodside Place, Glasgow
Fullarton, R., M.B., 276, Bath Street, Glasgow
Fullerton, R., M.D., 24, Newton Place, Glasgow
Gemmell, S., M.D., 17, Woodside Place, Glasgow
Gilchrist, John, Esq., 316, Bath Street, Glasgow
Glaister, Prof. J., M.D., 3, Newton Place, Glasgow
Grant, P. N., M.B., 300, Bath Street, Glasgow
Gray, A. A., M.D., 14, Newton Terrace, Glasgow
Halket, G., M.D., 4, Royal Crescent, West Glasgow
Henderson, John, M.D., 923, Sauchiehall Street, Glasgow
Henderson, R. H., Esq., 19, Elmbank Crescent, Glasgow
Hinshelwood, J., M.D., 26, Woodside Place, W. Glasgow
Holmes, T., Esq., 6, Derby Terrace, Sandyford, Glasgow
Hunter, W. R., M.D., 7, Woodside Place, Glasgow
Jardine, R., M.D., 5, Clifton Place, Glasgow
Kennedy, R., M.D., 298, Bath Street, Glasgow
Kelly, A. B., M.B., 26, Blythswood Square, Glasgow
Kerr, J. M. M., M.B., 28, Berkeley Terrace, Glasgow
Knox, D. N., M.B., 10, Woodside Place, Glasgow
Lees, R. C., M.B., 1, Woodside Place, Glasgow
Lewis, C. A., M.B., 423, St. Vincent Street, Glasgow
Lindsay, J., M.D., 44, Grant Street, Hillhead, Glasgow
Love, J., M.D., 270, Bath Street, Glasgow
McBride, Peter, M.B., 18, Queen's Crescent, Glasgow
McConville, J., M.D., 14, Parkgrove Terrace, Glasgow, W.
Macewen, Sir William, M.D., 3, Woodside Cres., Glasgow
McGregor, A. N., M.D., 121, Douglas Street, Glasgow
McLaren, Alice Janet, M.D., 7, Newton Place, Glasgow
McLaren, J. D., M.D., 1, Newton Place, Glasgow
McLellan, A. N., M.B., 14, Somerset Place, Glasgow
MacLennan, A., M.B., 16, Sandyford Place, Glasgow
McLennan, Q., M.B., 191, Pitt Street, Glasgow
MacLeod, A. A., M.B., 17, Newton Terrace, Glasgow
Marshall, G., M.B., 20, Westminster Terrace, W. Glasgow
Marshall, G. B., M.D., 19, Sandyford Place, Glasgow
Maylard, A. E., M.B., 10, Blythswood Square, Glasgow
Meighan, T. S., M.D., 37, Elmbank Crescent, Glasgow
Moffatt, D., M.B., 11, Walworth Terrace, Glasgow
Montgomery, A. N., M.D., 1, Ardgowan Terrace, Glasgow, W.
Monro, T. K., M.D., 10, Clairmont Gardens, Glasgow
Morton, A., M.D., 5, Woodside Place, Glasgow
Moyes, A., M.B., 25, West Princes Street, Glasgow
Nairne, J. S., Esq., 141, Hill Street, Garnethill, Glasgow
Ness, R. B., M.B., 19, Woodside Place, Glasgow
Newman, D., M.D., 28, Woodside Place, Glasgow
Nicoll, J. H., M.B., 4, Woodside Place, Glasgow
Oliphant, E. H. L., M.D., 23, Newton Place, Glasgow
Pace, Elizabeth Margaret, M.D., 7, Newton Place, Glasgow
Paterson, J., Esq., 27, Berkeley Terrace, Glasgow
Perry, R., M.D., 11, Queen's Terrace, Glasgow
Pirie, J., M.D., 15, Newton Place, Glasgow
Pringle, J. H., M.B., 172, Bath Street, Glasgow
Ramsay, A. M., M.D., 15, Woodside Place, Glasgow
Ramsay, R., M.B., 9, Burnbank Terrace, Glasgow
Reid, A. F., Esq., 74, Cambridge Street, Glasgow
Reid, T., M.D., Elmbank Street, Glasgow
Reid, W. L., M.D., 7, Royal Crescent, Glasgow
Renton, J. C., M.D., 1, Woodside Terrace, Glasgow
Revie, Rev. D., M.B., 204, St. Vincent St., Glasgow
Riddell, B., M.D., 23, Sandyford Place, Glasgow
Riddell, James R., Esq., 26, Elmbank Crescent, Glasgow
Robertson, A., M.D., 11, Woodside Crescent, Glasgow
Robertson Fullarton, A. L. F., M.B., 201, Bath St., Glasgow
Rowan, John, M.B., 9, Blythwood Square, Glasgow
Russell, A. W., M.B., 11, Royal Crescent, Glasgow
Rutherfurd, H., M.D., 12, Newton Place, Glasgow
Sloan, A., M.B., 21, Elm Bank Street, Glasgow
Sloan, S., M.D., 5, Somerset Place, Glasgow
Stark, J. N., M.D., 4, Newton Place, Glasgow
Steven, J. L., M.D., 16, Woodside Place, Glasgow
Stocker, J. R., M.B., Board of Trade Office, Glasgow
Stockman, Ralph, M.D., 16, Newton Terrace, Glasgow
Tennent, G. P., M.D., 159, Bath Street, Glasgow
Thomson, H. W., M.D., 20, Royal Crescent, Glasgow, W.
Thomson, R. S., M.D., 12, Blythswood Square, Glasgow
Thomson, W. E. F., M.D., 2, Somerset Place, Glasgow
Wallace, W., M.B., 25, Newton Place, Glasgow
Weir, R., M.B., 6, Corunna Street, Glasgow
Wilson, A., M.D., 2, Fitzroy Place, Glasgow
Workman, C., M.D., 5, Woodside Terrace, Glasgow
Wright, J., M.B., 23, Westminster Terrace, Glasgow
Wylie, J., M.D., 64, Kelvingrove Street, Glasgow
Young, Archibald, M.B., 34, Berkeley Terrace, Glasgow
Young, A. A., M.B., 2, Woodside Terrace, Glasgow

No. 4.—Glasgow Eastern Division

NUMBERING 80.

Chairman, W. Findlay, M.D., 67, George Street, Glasgow

Vice-Chairman, Wm. Whitelaw, M.D., Kirkintilloch

Honorary Secretary, John Patrick, M.B., 23, Westercraigs, Dennistoun.

Representative for Representative Meeting.
W. L. Muir, Esq., 1, Seton Terrace, Dennistoun, Glasgow

Representatives on Branch Council.
Patrick, J., M.B., | Wilson, J. A., M.D.

Anderson, John, M.B., 8, Whitehill Street, Dennistoun, Glasgow
Anderson, R., M.B., Broadcroft House, Shettleston, Glasgow
Armstrong, W. B., M.B., Hazeldene, Kirkintilloch
Barras, T. C., M.B., 7, Bellgrove Street, Glasgow
Battersby, J., Esq., Park Head Cross, Glasgow E.
Black, M., M.D., 5, Canning Place, Glasgow
Blakeley, W. T., M.B., Kirkintilloch, Glasgow
Brownlee, J., M.B., Fever Hospital, Belvedere, Glasgow
Bryce, W., M.D., 686, Gallowgate Street, Glasgow
Buchanan, P. S., M.B., 20, Circus Drive, Dennistoun, Glas.
Burns, W. A., M.B., 102, Main Street, Bridgeton, Glasgow
Capie, S., M.B., 287, Duke Street, Glasgow
Core, W., M.D., Stobhill Hospital, Glasgow
Cosgrove, Henry J., Esq., Fullarton, Vil., Tolleross, Glasg.
Couper, D., M.D., Oakley Terrace, Dennistoun
Craig, James, Esq., 11, Annfield Place, Dennistoun
Creighton, Alex., M.D., Shettleston, Glasgow
Cullen, W., M.D., 9, Grafton Place, Glasgow
Davidson, R., M.B., Shettleston
Dunlop, James, M.B., 3, Seton Terrace, Dennistoun, Glasg.
Findlay, J. W., M.D., 19, Westercraigs, Dennistoun, Glasg.
Findlay, W., M.D., 67, George Street, Glasgow
Fletcher, T., McGibbon, M.B., 26, Canning Street, Glasgow
Fraser, John, M.D., Kilsyth, near Glasgow
Gilchrist, James, M.B., 54, Whitevale Street, Glasgow
Glaister, J. N., M.B., 4, Grafton Pl., Grafton Sq., Glagow
Granger, J. P., Esq., 25, Monteith Road, Glasgow
Greenhill, R., M.B., 556, Dalmarnock Road, Glasgow
Hannay, Mary B., M.B., Gartloch, Gartcosh
Hislop, J. A., Esq., 590, Alexandra Parade, Dennistoun
Jeffery, W., M.D., Kilsyth, Glasgow
Johnston, J. McC., M.D., Towns Hospital, Glasgow
Lamont, Alex., M.B., Esslemont, Chryston, near Glasgow
Lang, J. M. D., M.B., 2, Bellgrove Street, Glasgow
Kenyon, R., M.B., 706, Springburn Road, Glasgow
Love, D. J., M.B., Cumbernauld, Glasgow
McFarlane, W., M.B., 2, Morris Place, Glasgow
McIntyre, J. P., M.D., 94, North Frederick Street, Glasgow
McKail, D., M.D., 231½, London Road, Glasgow
McKie, J., M.B., 26, Hillside Street, Springburn, Glasgow
McLean, C. R., Esq., 12, Annfield Pl. Dennistoun, Glasgow
McLean, Sam., M.B., 13, Armadale Street, Dennistoun
MacLurkin, A. R., M.B., 275, Golfhill Drive, Dennistoun
Marr H. C., M.D., Woodilee Asylum, Lenzie
Martin, John, M.B., Wellington Place, Kirkintilloch
Martin, Matthew, M.B., 737, Gallowgate, Glasgow
Miller, J. B., M.B., Lillybank, Bishopsbriggs, near Glasgow
Morton, Robert, M.B., 723, London Rd., Bridgeton, Glasgow
Muir, Adam C., M.B., 10, Newhall Terrace, Glasgow, E
Muir, W. L., Esq., 1, Seton Terrace, Dennistoun, Glasgow
Murdoch, A. M., M.D., 92, Clyde Street, Calton, Glasgow
Murray, George, M.B., 3, Westercraigs, Dennistoun, Glasgow
Neilson, A., Esq., 10, Somerville Place, Glasgow
Parker, W. A., M.B., Gartloch Asylum, Gartcosh
Patrick, J., M.B., 23, Westercraigs, Dennistoun, Glasgow
Patrick, W., M.D., 143, Greenhead St., Bridgeton, Glasgow
Philip, James, M.B., 1, Whitehill Gardens, Dennistoun
Pole, A., M.B., 1, Regent Square, Lenzie, Glasgow
Ramsay, J. McAllister, Esq., 8, Dalmarnock St., Glasgow
Rankin, Peter, M.B., 14, George Street, Glasgow
Ross, Alex., Esq., Muirhead House, Muirhead, Chryston
Russell, T., M.B., 47, Westminster St., Parkhead, Glasgow
Sandilands, Rev. J., M.B., 154, Comely Park Street, Dennistoun, Glasgow
Scott, A., M.D., Tollcross, Glasgow
Scott, Robert, M.B., 32, Hillside Terrace, Springburn
Semple, M., M.B., 183, Castle Street, Glasgow
Service, R. McC., M.D., 13, Annfield Pl., Dennistoun, Glasgow
Sinclair, W. J. H., M.B., Barlinnie General Prison, near Glasgow
Smith, D., M.D., 48, Dundas Street, Glasgow
Smith, J. T., M.B., 56, Whitevale Street, Glasgow
Syson, J. C., M.D., 104, Bellgrove Street, Glasgow
Thom, J. M., M.B., Royal Infirmary, Glasgow
Thomas, D., M.D., Carmyle Avenue, Tollcross, Glasgow
Valentine, Leslie, M.B., 18, Whitehill St., Dennistoun, Glas.
Whitelaw, R. G., Esq., Victoria Place, Kirkintilloch
Whitelaw, W., M.D., Kirkintilloch
Wilson, J., M.D., 38, Monteith Row, Glasgow
Wilson, J. A., M.D., Hill Street, Springburn, Glasgow
Wilson, W. McK., M.B., 30, Grafton Square, Glasgow
Wright, E., Esq., 123, Moncur Street, Glasgow

No. 5.—Glasgow North-Western Division

NUMBERING 106.

Chairman, J. C. McVail, M.D., 20, Eton Place, Hillhead, Glasgow

Vice-Chairman, Thos. Richmond, L.R.C.P., 22, Holyrood Crescent, Glasgow

Honorary Secretary, J. G. Gray, M.D., 2, Montgomerie Street, Glasgow

Representative for Representative Meeting.
J. S. Muir, M.B., Tigh Ruadh, Possilpark, Glasgow

Representatives on Branch Council.
Gray, J. G., M.D. | Richmond, T., M.B.

Adamson, R. O., M.D., 15, Grosvenor Crescent, Dowanhill
Allen, Wm., M.B., 48, Kersland Street, Hillhead
Anderson, J. B. M., M.B., 8, Buckingham Ter., Glasgow, W.
Anderson, Prof. T. McCall, M.D., The University, Glasgow
Baird, J., M.B., 3, Wilson Gardens, Kelvinside, N. Glasgow
Bannatyne, C., M.B., 138, Cambridge Drive, Kelvinside, N.
Brown, G. A., M.B., 2, Oswald Place, Whiteinch, Glasgow
Brown, T. D., M.B., 2, Meadowbank Place, Partick
Bruce, R. W., Esq., 65, Waverley Terrace, Glasgow
Bryce, T. H., M.B., 2, Granby Terrace, Glasgow, W.
Buchanan, G. B., M.B., 13, Buckingham Terrace, Glasgow
Buchanan, R. M., M.B., 2, Northbank Terrace, Glasgow
Burton, T. J., M.B., Monklands, Bearsden
Campbell, A. T., M.B., 48, Belmont Gardens, Hillhead, Glas.
Campbell, M., M.B., 6, Wilton Gardens, Glasgow
Caskie, W. A., M.D., 1, Beechwood Drive, Jordan Hill, Glasgow
Chalmers, Archibald K., M.D., 7, Buckingham Terrace, Hillhead, Glasgow
Chalmers, Quinton, M.D., 14, Kew Tce., Kelvinside, Glasg.
Charteris, F. J., M.B., 400, Great Western Road, Glasgow
Christie, W. W., M.D., 5, Albion Street, Dowanhill, Glasgow
Cleland, Professor J., M.D., 2, The University, Glasgow
Cochran, J. Duncan, M.B., 101, Oxf'd. Drive, Kelvinside, Glasg.
Connal, J. G., M.B., 4, Burnbank Terrace, Glasgow
Cumming, R., Esq., Crosslea, Lennoxtown
Curle, D., M.D., 212, New City Road, Glasgow
Cuthbert, C. C., M.D., 3, Kersland Street, Hillhead, Glasgow
Dickson, A., M.D., 379, St. George's Road, Glasgow
Dinwoodie, D., M.B., 299, New City Road, Glasgow
Donald, John, M.D., 23, Queen Margaret Drive, Glasgow
Edmiston, J. C., M.D., 24, Wilton Gardens, N. Glasgow
Erskine, D., M.B., 10, Rosebery Terrace, Kelvinbridge
Ferguson, A. R., M.D., 4, Strathallan Terrace, Dowanhill
Gilchrist, Marion, M.B., 5, Buckingham Terrace, Glas., W.
Goldie-Scot, T., M.B., Royal Asylum, Gartnavel, Glasgow
Gordon, J. M. M.B., 23, Lilybank Gardens, Hillhead
Gracie, J., M.B., 26, Balshagray Avenue, Partick
Graham, J. G., M.B., 17, Ashton Ter., Dowanhill, Glasgow
Gray, J. G., M.D., 2, Montgomerie Street, Glasgow
Hay, A. G., M.D., The Grange, Maryhill, Glasgow
Horne, J., M.B., 5, Windsor Street, Glasgow
Hotchkis, R. D., M.D., Royal Asylum, Gartnavel, Glasgow
Hunter, J., M.B., Scotstoun Villa, Scotstoun, Glasgow
Inglis, R. G., M.B., 3, West Garden Street, Glasgow
Jack, W. R., M.E., 43, Lansdowne Crescent, Glasgow
Johnston, A., M.D., Ruchill Fever Hospital, Glasgow
Jope, R., Esq., Pretoria, Possilpark, Glasgow
Jubb, George, M.D., 5, Gleneagles Cottages, Scotstoun, Glasgow
Kay, Thomas, M.B., 5, Rosebery Terrace, Kelvinbridge
Kennedy, J. S., Esq., Bearsden
King, Robert, M.B., Park Cottage, Yoker, Glasgow
Kirk, R., M.D., Partick, Glasgow
Lawrie, J., M.D., 6, West Garden St., Burnbank, Glasgow
McDonald, W. F., M.B., 16, Buckingham Terrace, Glasgow
MacGregor, G. S., M.D., 2, Burnbank Terrace, Glasgow
McKendrick, Prof. J. G., M.D., 2, Buckingham Ter., Glasgow
Mackintosh, D. J., M.B., M.V.O., Western Infirmary, Glasgow
MacLennan, W., M.B., Buckingham Terrace, Glasgow
Macleod, D., M.D., 3, Burnbank Terrace, Glasgow
McMillan, A. Lewis, M.D., 1, Rosebery Ter., Kelvinbridge
Maciver, E. O., M.B., 4, Queen's Gate, Dowanhill, Glasgow
McNicol, D., M.D., Park Gardens North, Jordanhill, Glasgow
McVail, D. C., M.D., 3, St James's Ter., Hillhead, Glasgow
McVail, J. C., M.D., 20, Eton Place, Hillhead, Glasgow
Marshall, C. S., M.B., 123, Cambridge Drive, Glasgow
Meehan, A., M.B., 2, Victoria Crescent, Dowanhill
Morton, J., M.B., 6, Foremount Ter., Dowanhill, Glasgow
Muir, J. S., M.B., Possilpark, Glasgow
Muir, Prof. R., M.D., Western Infirmary, Glasgow, W.
Murdoch, G. B., M.D., 14, Bothwell Ter., Hillhead, Glasgow
Murray, W. C., M.B., 3, Belmont Street, Glasgow
Oswald, L. Rose, M.B., Royal Asylum, Gartnavel
Patrick, J. K., M.B., 5, Wilton Mansions, Kelvinside
Paterson, W. G., M.B., Annfield Cottage, Partick, Glasgow
Pirret, Mary J., M.B., 32, Westbourne Gardens, Kelvinside, Glasgow
Pollock, A. B., M.B., 3, Belgrave Ter., Hillhead, Glasgow
Pollock, C. F., M.D., Buckingham Ter., Hillhead, Glasgow
Primrose, E. J., M.D., 551, Dumbarton Road, Partick
Rankin, W. L., Esq., Strathblane, Glasgow
Reid, John, M.B., Corndavon, Milngavie
Richmond, T., M.B., 22, Holyrood Crescent, Glasgow
Ritchie, J., M.B., 12, Burnbank Terrace, Glasgow
Robertson, J. McG., M.B., 26, Buckingham Ter., Glasgow
Robertson, P. F., M.D., Milngavie
Scott, James, M.B., 11, Hill End Gardens, Hyndland Road, Glasgow
Sinclair, D., M.D., Maryhill, Glasgow
Sloan, A. B., M.B., 54, Kersland Street, Hillhead
Sloan, S. M., M.B., 138, Hyndland Road, Kelvinside
Smith, A. M., M.D., 13, Montgomerie Street, Glasgow
Smith, J. D., M.B., Daisy Brae, Maryhill, Glasgow
Snodgrass, W., M.B., 11, Victoria Cres., Dowanhill, Glasgow
Somerville, W. F., M.D., Wilson Street, Hillhead, Glasgow
Sorapure, V. E., M.B., 65, Bank Street, Glasgow
Spinks, C. F., Esq., Burg House, Maryhill, Glasgow
Stewart, James, M.B., 3, East Park Terrace, Glasgow
Stewart, P., M.D., 16, Athol Gardens, Kelvinside, Glasgow
Stuart, R. W., Esq., 16, Carlton Terrace, Glasgow
Syme, W. S., M.D., 3, Northbank Terrace, N. Kelvinside, Glasgow
Teacher, J. H., M.B., 32, Huntly Gardens, Glasgow, W.
Thomson, Alexander, M.B., 8, Hamilton Park Terrace, Glasgow
Todd, G. B., M.B., 34, Burnbank Gardens, Glasgow
Todd, James, M.D., Eastpark Terrace, Maryhill, Glasgow
Westwood, D., M.B., 24, Balshagray Avenue, Partick
Whitehouse, H., M.B., 7, Lindsay Terrace, Dowanhill
Wilson, H. G., M.B., 5, St. James Terrace, Glasgow
Yellowlees, D., M.D., 6, Albert Gate, Dowanhill, Glasgow
Young, R. B., M.B., 8, Crown Gardens, Dowanhill, Glasgow

No. 6.—Glasgow Southern Division

NUMBERING 42.

Chairman, C. E. Robertson, M.D., 63, Dixon Avenue, Crosshill, Glasgow

Vice-Chairman, James Hamilton, M.B., 1, Royal Crescent, Crosshill, Glasgow

Honorary Secretary, John Stewart, M.D., 16, Balmoral Crescent, Crosshill.

Representative for Representative Meeting.
Robertson, C. E., M.D., 63, Dixon Avenue, Crosshill, Glasgow.

Representatives on Branch Council.
Robertson, C. E., M.D. | Stewart, J., M.

Alexander, S., M.D., 262, Paisley Road, W. Glasgow
Allan, W., M.D., Govandale, Govan
Anderson, R. Yuill, M.B., Redclyffe, Beech Avenue, Glas

Ashford, T. L., Esq., 7, Buckingham Square, Govan
Brown, A., M.D., Mount Florida, Glasgow
Brown, John, M.D., 247, Calder Street, Govanhill, Glasgow
Brown, R., M.D., Pollokshields, Glasgow
Buchanan, J. M., M.B., Rutherglen
Burges, L., Esq., 45, Dixon Avenue, Glasgow
Cameron, J. W., M.B., 36, Apsley Place, Glasgow
Campbell, J. M., M.B., 4, Carment Drive, Shawlands
Carmichael, D. G., M.B., 68, Kenmure Street, Pollokshields
Cassie, Alex. W., M.B., 1 Cleland Place, Paisley Road, Glasgow
Coutts, D., M.B., Paisley Road, W. Glasgow
Duncan, E., M.D., Queen's Park House, Crosshill, Glasgow
Dunning, M., M.B., 36, Abbotsford Place, Glasgow
Faulds, W., M.D., Shawlands, near Glasgow
Forrest, R., Wardrop, M.B., 114, Dixon Avenue, Glasgow
Forrest, W., M.B., 319, Crown Street, Glasgow
Forrester, J., M.B., 26, Langside Road, Glasgow
Fraser, Elizabeth J., Maxwell Drive, Pollokshields
Gordon, George, M.B., 1, Abercromby Ter., W. Glasgow
Haddow, J., Esq., Almond Bank, Paisley Rd. W., Govan
Hamilton, James, M.B., 1, Royal Cres., Crosshill, Glasgow
Highet, Campbell, M.B., Cardonald, Govan
Hope, C., M.B., Elder Park Terrace, Govan
Howie, J. Coulson, M.D., 1245, Pollokshaws Road, Glasgow
Hunter, G., Esq., 1, Bellahouston Terrace, Govan
Illingworth, G. S., Esq., 26, Kensington Terr., Ibrox
Jubb, A., M.D., 32, Terregles Avenue, Pollokshields
Kelly, H., M.D., Shields Road, Pollokshields
Kelly, J. K., M.D., Queen Mary Avenue, Crosshill, Glasgow
Lamb, D., M.B., 1, Ethel Terrace, Mount Florida, Glasgow
Lambie, J. ..., M.B., 3, Edgemont Gardens, Albert Road, Langside, Glasgow
Lapraik, T., M.D., 67, Fotheringay Road, Maxwell Park, Glasgow
Lawson, W., M.D., 11, Glencairn Drive, Pollokshields
Leask, H. L. G., M.D., 70, Dixon Avenue, Glasgow
Leitch, J. W., M.B., 8, Nithsdale Road, Glasgow
Love, J. K., M.D., Newark Drive, Pollokshields
Lyon, R. M., M.B., Queen's Crescent, Cathcart
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Richard, W. J., M.B., Merryflatts, Govan
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Ross, Marion J., M.D., 4, Balmoral Crescent, Crosshill, Glasgow
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Shaw, P. F., Esq., Mount Blair, Crosshill, Glasgow
Smith, P. A., M.D., 50, Queen Mary Avenue, Glasgow
Steen, A. A. F., M.B., 87, Albert Road, Glasgow
Stewart, Alex., M.B., 18, Pollok Street, Glasgow
Stewart, John, M.D., 16, Balmoral Crescent, Glasgow
Strang, J., M.B., Thornliebank, by Glasgow
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Vost, A., M.B., Edenside, Newlands Road, Glasgow
Walker, W., M.D., Kirkland Villa, Pollokshaws
Wallace, J. W., M.B., 67, St. Andrew's Drive, Pollokshields
Watson, W. R. K., M.D., Merryflatts, Govan
Wauchope, A., M.B., 190, Crown Street, Glasgow
Weir, James, M.B., 24, Abbotsford Place, Glasgow
West, J. T., M.B., 2, Buckingham Square, Govan
Whish, C., M.B., 1, Lansdown Place, Shawlands, Glasgow
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White, R. N., M.B., 409, Shields Road, Pollokshields
Wilson, J., M.B., 18, Walmer Crescent, Ibrox, Glasgow
Wotherspoon, T. McK., Esq., 5, Drive Road, Govan
Wright, J., M.B., 1, Seyton Avenue, Langside, Glasgow

No. 7.—Lanarkshire Division

NUMBERING 64.

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Vice-Chairman, John Fotheringham, M.B., Rosshill, Motherwell

Honorary Secretary, J. Livingstone Loudon, M.D., Linnwood, Union Street, Hamilton, N.B.

Representative for Representative Meeting, Bruce Goff, M.D., The Lindens, Bothwell

Representative on Branch Council. Goff, Bruce, M.D.

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Adams, A. M., Esq., Friarsfield, Lanark
Allison, James, M.B., Hallside, Newton
Arthur, H., M.D., Airdrie
Ballantyne, S. A., M.B., Cold Chapel, Abington
Banks, R. McL., M.B., West Port, Lanark
Banks, T. W., M.B., Hope Street, Lanark
Barr, R. B., M.B., Lugar, Burnbank House, Carluke
Buchan, J. J., M.B., Mayfield, Cleland
Cordiner, J., M.B., 83, Sunnyside Road, Coatbridge
Dick, G. W., Esq., Gordon Cottage, Shotts
Findlay, W. S., M.B., Woodhead, Mossend
Fotheringham, J., M.B., Rosshill, Motherwell
Gemmell, T. P., M.B., Sornbank, Airdrie
Gibson, A., M.B., Tavnilloch, Baillieston
Goff, Bruce, M.D., The Lindens, Bothwell
Harrison, J., M.B., Lesmahagow
Jack, James, M.D., Wellbank House, Carluke
Jack, R. P., M.B., 20, Brandon Street, Motherwell
Jones, David, M.B., Tirlees House, Motherwell
Kelly, E. H., M.D., Lanark
Kennedy, R. P., Esq., 110, Bank Street, Coatbridge
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Kirkland, J., Esq., Airdrie
Laird, T. D., M.B., The Ingle, Beech Avenue, Cambuslang
Lindsay, J., M.D., Lochanbank, Kirkmuirhill
Lithgow, J., M.D., Cleland
Loudon, J. L., M.D., Linnwood, Hamilton
Love, T. W., M.B., Greenbank, Clark Street, Airdrie
McDonald, J., M.B., Hawthorn Cottage, Motherwell
McKay, James, M.B., Westonlee, Coatbridge
Mackenzie, J. W., M.B., Orchard Villa, Wishaw
Mackinnon, W. J., M.B., Biggar
McLean, A. H., M.B., Stonehouse
McNay, Thomas, M.B., Annfield, Larkhall, N.B.
McPhail, D., M.D., Calder Avenue, Coatbridge
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Paterson, Robert, Esq., Curatehill, Law, Carluke
Ramsay, A., M.B., Leadhills, S.O.
Reid, H. C., M.B., Kirkland House, Blairhill, Coatbridge
Rennie, J. S., M.B., Coatbridge
Robertson, Hugh, M.B., Chapelhall, by Airdrie
Robertson, R., M.B., Windmill Hill Street, Motherwell
Rogerson, John, M.D., Whinknowe, Netherburn
Service, John, M.D., Mossend
Skeen, J. H., M.B., Kirklands Asylum, Bothwell
Smith, Andrew, M.D., Stonehouse
Steele, T., M.B., Cadzow Cottage, Hamilton
Tant, Edward B., M.B., East Kilbride
Tant, J. Y., M.D., Uddingston
Thomson, J. M., M.B., Drumclair, Airdrie
Watt, Allan, M.B., Greenside, Strathaven
Wilson, A. J., F.R.C.S.E., Calderbank, by Airdrie
Wilson, J. T., M.D., County Buildings, Hamilton
Wyper, Wm., M.B., Ivy House, Motherwell

No. 8.—Renfrewshire Division.

NUMBERING 73.

Chairman, J. Wallace, M.D., 16, Union Street, Greenock

Vice-Chairman, A. C. Munro, M.D., Health Dept., Co. Buildings, Paisley

Honorary Secretary, R. S. Penman, M.B., 12, St. James's Place, Paisley.

Representative for Representative Meeting,

Representatives on Branch Council.
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Blair, R., M.D., Braefoot, Crookston, Paisley
Boyd, W. M., M.B., Largs
Brown, J. P., M.B., Ardmore, Campbeltown
Brownridge, R., M.D., 1, Calside Terrace, Paisley
Burnett, E. C., M.B., 21, High Street, Johnstone
Butler, A., M.B., Belhaven House, Port Glasgow
Campbell, G. J., Esq., 63, Princes Street, Port Glasgow
Carlyle, J., M.D., 43, Regent Street, Greenock
Clow, W., M.B., 97, Causeyside Street, Paisley
Coats G. W., M.B., 54, High Street, Paisley
Cook, W. S., M.B., 2, Ardgowan Square, Greenock
Cunningham, J., M.B., Campbeltown
Donald, A., M.B., 5, Gauze Street, Paisley
Donald, H. C., M.B., 5, Gauze Street, Paisley
Dunsmuir, R., M.B., Bars Kimmiry, Paisley Road, Renfrew
Ferguson, Joshua, M.B., 4, Greenlaw Terrace, Paisley
Fraser, D., M.D., 3, Orr Square, Paisley
Fyfe, W. W., M.B., Belmont, Johnstone
Galloway, A., M.D., 4, Lyle Street, Greenock
Gibb, W. F., M.D., 7, St. James Place, Paisley
Gibson, W., M.D., Campbeltown
Graham, T., M.D., 3, Garthland Place, Paisley
Hall, A. J., M.D., 13, Battery Place, Rothesay
Henderson, F., M.D., Craig Roy, Kilmalcolm
Herbertson, J. C., M.D., Bellevue, Johnston
Hill, James, M.D., Argyll Lodge, Renfrew
Holmes, J. D., M.B., 63, Causeyside Street, Paisley
Johnston, Archibald, M.B., Bruchladdich, Islay
King, A., M.B., Bushes, Paisley
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Seright, W., M.D., 14, Ardgowan Square, Greenock
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Stevenson, J., M.D., Stow Cottage, Stow Place, Paisley
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Wallace, J., M.D., 16, Union Street, Greenock
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Watt, Thomas, M.B., 44, High Street, Paisley
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Wilson, J. P. A., Esq., Overwood, Glasgow Road, Paisley
Wright, W., M.B., 44, Brougham Street, Greenock

GLOUCESTERSHIRE BRANCH.

Comprising the county of GLOUCESTER, north of and including Sharpness, Berkeley Road, and Dursley, but excluding Fairford and Lechlade, and the portion of the county east of Chipping Campden and Stow-on-the Wold.

Members of Branch—131.

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Representative for Representative Meeting,
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Lunn, P. T., Esq., Highmead House, Blakeney
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Macartney, R., Esq., Cinderford
Mackinnon, C., M.B., Dyer Street, Cirencester
MacMahon, E. J. R., Esq., Elkstone House, Cheltenham
McQuaide, H. C., M.B., The Marshes, Coleford
Marshall, Howard, M.B., Park House, Cirencester
Marshall, W. N., Esq., The Red House, Newent, near Gl'ster
Martin, J. M., M.B., 6, Whitehall, Stroud
Matthews, T. E., Esq., General Hospital, Cheltenham
Meyrick-Jones, H. M., M.D., Overbury, Charlton Kings
Millard, W. J. K., M.D., Trocliden, Hewlett Road, Cheltenham
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Peake, G. A., Esq., Alma House, Cheltenham
Porteous, H. L., Esq., Chalford, near Stroud
Powell, William, Esq., 1, Seagrave Place, Cheltenham
Prance, G. H., M.D., Queen's Road, Cheltenham
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Pruen, S. T., M.D., Sherborne Lodge, Cheltenham
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Scantlebury, George, J., Esq., Point Nepean Road, Ch'ham
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Scott, G., Esq., School House, Drybrook
Shaw, T. ..., M.B., Rendcomb, Cirencester
Smeit, F. H., Esq., The Villa, Newent
Soutar, J. C., M.D., Barnwood House, Gloucester

Stewart-Billings, Mrs. Grace, M.B., Sussex Lodge, Pitville Gates, Cheltenham
Stilwell, H. F., Esq., Barnwood House, Gloucester
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Thomas, C. N., M.B., Severn House, Lydney
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Watters, G. T. B., M.D., Stonehouse
Wilkin, Lancelot, Esq., 77, London Road, Gloucester
Wilson, E. T., M.B., Westal, Cheltenham
Wilson, R., M.B. Millbrook, Nailsworth
Worthington, G. V., M.D., Newent

LANCASHIRE AND CHESHIRE BRANCH.

District comprising LANCASHIRE, except Garstang and north thereof; the ISLE OF MAN; CHESHIRE; in YORKSHIRE, the Saddleworth and Todmorden districts; in DERBYSHIRE, the Glossop district; (as far east as the watershed in each case).

Members of Branch—1,656.

RECOGNISED 1837.

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President-elect, JOHN M. H. MARTIN, M.D., Blackburn.

Vice-Presidents.

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KING, H. W., M.D., Chester

Honorary Secretary.
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J. Brassey Brierley, M.D., Manchester
T. A. Helme., M.D., Manchester
Edwin Rayner, M.D., Stockport

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Barendt, F. H., M.D.
Broadbent, G. H., Esq.
Booth, W. G., Esq.
Bowden, E. E., Esq.
Brown, E. V., M.D.
Crawshaw, S., M.B.
Cregeen, J. N., Esq.
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Day, P. H., Esq.
Dearden, W. F., Esq.
Ferguson, J. M., Esq.
Fleetwood, W. J., M.D.
Fraser, Alex., M.D.
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Glascott, C. E., M.D.
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Owen, D., Esq.
Pearson, H. L., Esq.
Rayner, A. C., M.D.
Rayner, Edwin, M.D.
Renshaw, C. J., M.D.
Robertson, G. J., M.B.
Roe, F. L., M.B.
Thorp, C. W., Esq.
Tisdall, J. J., Esq.
Walker, G. C., M.D.
White, W., M.D.

Honorary Members.
Shuttleworth, G. E., M.D., London
O'Sullivan, D. A., Esq., London

No. 1.—Altrincham Division

NUMBERING 59.

Chairman, C. J. Renshaw, M.D., Ashton-on-Mersey
Vice-Chairman, G. T. Joynson, Esq., Northwich
Honorary Secretary, T. W. H. Garstang, Esq., Edge Mount Altrincham

Representative for Representative Meeting.
T. W. H. Garstang, Esq., Edge Mount, Altrincham
Representative on Branch Council.
Renshaw, C. J. M.D.

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Cox, F., M.D.
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Riley, F., M.B.,

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Alexander, W. C., Esq., The Downs, Bowdon
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Blackwell, R., Esq., 21, Urban Road, Sale
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Clarke, H. C. W., Esq., Beech Cottage, Ashton-on-Mersey
Cooper, P. R., M.D., Glenthorn, Bowdon
Cox, F., M.D., The Downs, Altrincham
Crowe, L. W., M.D., Ashley Road, Hale, Altrincham
Duggan, M., Esq., Bowdon
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Fennell, T. L., Esq., Princess Street, Knutsford
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Hassall, J., M.D., High Street, Northwich
Herbert, Solomon, M.D., Manchester Road, Broadheath, near Altrincham
Humphreys, E. A., Esq., Northenden
Hutton, H. R., M.B., Bowdon
Jones, C. W., M.B., Lisson House, Bowdon
Jones, W. O., Esq., The Downs, Bowdon
Joynson, G. T., Esq., Northwich
Leech, E. B., Esq., Oakmount, Timperley
Lister, H. S., M.B., Regent Road, Altrincham
Love, G., M.D., Gt. Budworth, near Northwich
Luckman, E. L., Esq., The Downs, Altrincham
Lyon, J., M.D., Dep. Insp.-Gen. R.N., The Downs, Altrincham
MacLaren, J. A., M.D., Regent Road, Altrincham
Marsh, A. H., Esq., Northwich
Melland, B., M.B., Ashley Road, Bowdon
Moreton, T., Esq., Hartford, Northwich
Ransome, H. F., Esq., 35, The Downs, Altrincham
Renshaw, C. A. K., Esq., Lindenholm, Sale
Renshaw, C. J., M.D., Beech Hurst, Ashton-upon-Mersey
Renshaw, H. S., M.D., Sale, Manchester
Renshaw, I. J. E., Esq., Ashton Grange, Cross Street, Ashton-on-Mersey
Renshaw, J. A. Knowles, M.D., Beech Hurst, Ashton-on-Mersey
Renshaw, J. H., M.B., 95, Washway Road, Brooklands
Renshaw, W. A., M.D., Market Place, Altrincham
Rhodes, T. B., M.B., Baguley Sanatorium, Timperley, Altrincham
Riley, F., M.B., Woodleigh, Sale
Roberts, E., M.B., Oakfield Hall, Hale, Altrincham
Rothwell, T. A., M.D., The Limes, Warwick Road, Hale, Cheshire
Scott, J. B., M.B., Vigo Villa, Hale Road, Altrincham
Scott, W., M.B., Clifton Villas, Ashton Lane, Ashton-on-Mersey
Smith, G. H., M.B., Knutsford
Southam, T. F., M.D., Newstead, Bowdon
Surridge, E. E. N., M.B., Knutsford
Tattersall, W. H., M.B., Oakdale, Altrincham
Terry, Herbert, M.B., Barnton, near Northwich
Taylor, G. S., Esq., Partington, Manchester
Whitlow, S., Esq., Navigation Road, Altrincham
Withers, O., M.D. Woodacres, Sale
Withers, P. M.B., Ashford, Hale
Woodhead, H.M., M.B., Chisholme, Sale

No. 2.—Ashton-under-Lyne Division

NUMBERING 52.

Chairman, J. R. S. Park, Esq., Dukinfield.
Vice-Chairman, W. H. Hughes, sen., Esq., Ashton-under-Lyne
Honorary Secretary, J. W. Talent, M.D., Wellbeck Place, Ashton-under-Lyne
Representative for Representative Meeting, J. R. S. Park, Esq., 183, King Street, Dukinfield.
Representative on Branch Council.
Crawshaw, S., M.B.

Aikin, F. W., M.B., Holmleigh, Denton
Auburn, G. J., M.B., Mottram, near Manchester
Beecroft, A., Esq., Church Street, Hyde
Bennett, John, M.B., Stockley Place, Chapel Street, Hyde
Bishop, J. R., Esq., Davenport House, Stalybridge
Corns, John W., Esq., Town Hall Chambers, Ashton-under-Lyne
Bleasdale, Robert, M.B., Bedford Ho., Ashton-under-Lyne
Booth, D., M.D., Chapel Hill, Dukinfield
Cheetham, D. H., M.B., Stockport Rd., Ashton-under-Lyne
Clarke, E. A., Esq., Weymouth Villa, Dukinfield
Clifford, Thomas, M.B., 33, Portland Place, Stalybridge
Cooke, T., Esq., Old Square, Ashton-under-Lyne
Crawshaw, S., M.B., Trafalgar Square, Ashton under-Lyne
Drury, A. E., Esq., 46, Stamford Road, Mossley
Duncan, James, M.B., Tudor Cottage, Ashton-under-Lyne
Eatough, Robert, M.D., 66, Stamford Rd., Mossley, Manch.
Foreman, T. D., Esq., Denton
Fox, Adam, Esq., Stanley House, Stalybridge
Godson, J. E., M.B., 2, Toronto Terrace, Droylesden
Gunn, R. D. B., Esq., 239, Fairfield Road, Droylesden
Hamilton, A., Esq., Chester Place, Ashton-under-Lyne
Hamilton, Graeme, M.B., 7, Chester-Square, Ashton-under-Lyne
Harrison, A. W., M.D., Stoneley House, Mossley, Manchr.
Hilton, A., Esq., Long's Huts, Hurst, Ashton under Lyne
Houstoun, A. B., M.B., Fairfield, near Manchester
Howard, R., Esq., 17, Chapel Street, Hyde
Howe, G. B., Esq., Bank House, Stalybridge
Hughes, W. H., Esq., Harwood Ashton-under-Lyne
Hughes, W. H., jun., M.B., Latchford House, Ashton-under-Lyne
Infield, S., Esq., Boston Bank, Hyde
Jurd, W. B., Esq., Stockport Road, Ashton-under-Lyne
Lishman, R. N., M.D., B.S., Grosvenor House, Stalybridge
McCarthy, E. C., M.B., 60, Grosvenor Street, Stalybridge
MacGill, W., M.D., Huntroyd, Denton
Mann, F. W., M.B., 222, Katherine Street, Ashton-under-Lyne
Miller, James, M.B., 121, Astley Street, Dukinfield
Morison, J. M. W., M.B., Chester Sq., Ashton-under-Lyne
Park, John R. S., Esq., 183, King Street, Dukinfield
Pearce, Chas. Esq., Warrington Street, Ashton-under-Lyne
Pomfret, H. W., M.B., Hollingsworth
Price, Richard, Esq., Dunham Terrace, Stamford Street, Ashton-under-Lyne
Roberts-Dudley, F. J., Esq., Enville House, Stalybridge
Sidebotham, G. W., Esq., Church Street, Hyde
Smith, H. E., Esq., Fairfield, Manchester
Smith, J. R., M.B., Chester Square, Ashton under-Lyne
Talent, J. W., M.D., Wellbeck Place, Ashton-under-Lyne
Tinker, F. H., Esq., Talbot House, Hyde
Twomey, P. N. Esq., 138, Katherine St., Ashton-under-Lyne
Vines, S. K., Esq., 35, Stamford Road, Mossley, Manchester
Wallace, Alex., Esq. 9, Cowhill Lane, Ashton-under-Lyne
Watts, T., M.D., 34, Church Street, Hyde
Williams, Thomas B., M.B., The Poplars, Cheetham Hill Road, Stalybridge

No. 3.—Birkenhead Division

NUMBERING 83.

Chairman, A. C. E. Harris, M.B., Birkenhead.
Vice-Chairman, G. S. Stansfield, Birkenhead.
Honorary Secretary, J. H. Fardon, Esq., 59, Grangemount, Birkenhead.

Representative for Representative Meeting, J. Lambert M.D., 80, Price Street, Birkenhead
Representatives on Branch Council.

Lambert, J., M.D.
Pearson, H. L., Esq.

Anderson, W. C., M.B., 2, Falkland Road, Egremont
Anderson, W. H., M.B., Devonshire Park, Birkenhead
Barre, W. V., Esq., Brentwood, Egremont
Barton, F., Esq., 30, Sea Bank Road, Liscard
Bell, E. A., M.B., St. George's Mount, New Brighton
Bentley, H. K., Esq., 96, Serpentine Road, Liscard
Bicknell, A., M.B., 17, Banks Road, W. Kirby
Blood, J. F., M.D., Surg.-Mj., I.M.S., 8, Lorne Rd., Birkenhead
Blunden, J. O., Esq., Neston
Brewer, C. S., Esq., 7, Park Road East, Birkenhead
Brien, E. H., M.D., Dunravin, Rock Ferry
Bristow, W. M., Esq., Seabank Road, Liscard
Brown, A. C., M.D., Dacre Hill, Rockferry
Brown, W. McI., M.B., 2, Park Road, West Kirby
Butcher, A. H., Esq., Park Road East, Birkenhead
Buxton, H., Esq., Somerville, Seacombe
Caine, N., M.D., New Ferry Park, Birkenhead
Carmichael, A. H., Esq., 494, New Chester Rd., Rock Ferry
Carruthers, J., M.D., Rockferry
Craigmile, A., M.D., Manor Road, Liscard
Dalzell, W. R., M.B., Normanston, Birkenhead
Davies, J. T., M.B., Liscard Road, Seacombe
Dawson, H. G. F., Esq., 35, Beresford Road, Birkenhead
Dixon, J. H., M.B., Church Road, Birkenhead
Dwyer, H. H., Esq., Hawkshead, Hoylake
Elliot, H. P., M.B., 68, Bebington Road, Higher Tranmere Birkenhead
Fardon, J. H., Esq., 59, Grangemount, Birkenhead
Floyd, T. S., M.D., 16, Devonshire Road, Birkenhead
Floyd, W. R., M.B., 29, Devonshire Road, Birkenhead
Godwin, A. H., Esq., Seaview Lodge, Liscard
Grant, Lewis, M.B., Redcliffe, Neston
Grindrod, Cyril J. W., Esq., 11, Knowsley Road, Rock Ferry
Harrington, S. H. N., Esq., 1, Woodchurch Rd., Birkenhead
Harris, A. C. E., M.B., 2, Devonshire Place, Birkenhead
Heatherley, F., M.B., Ende hon, Rock Ferry
Hocken, W. M., Esq., Poulton Villa, Poulton, Seacombe
Hopper, A. S., M.B., 44, Earlston Road, Liscard
Hughes, R. T., Esq., 1, Heathbank Road, Birkenhead
Inman, F. W., M.D., 90, Brighton Street, Seacombe
Johnston, F., M.B., 49, Devonshire Rd., Claughton, Birkenh'
Kelly, R. E., M.B., Elsinore Promenade, Liscard
Ker, Alice Jane S., M.D., 6, Devonshire Road, Claughton
Kidd, W. A., Esq., Price Street, Birkenhead
King, R. T., M.D., West Kirby
Knowles, E., M.D., 19, Church Road, Birkenhead
Lambert, J., M.D., 80, Price Street, Birkenhead
Lawton, W., M.B., Grove Road, Wallasey
Leask, W., M.B., Prenton Road, W. Birkenhead
Lever, C. A. A., Esq., 11, Hamilton Square, Birkenhead
Lloyd, H. W., Esq., Albion Street, New Brighton
Lusk, T. G., M.B., Rowson House, New Brighton
McAfee, W., M.D., West Kirby, Birkenhead
MacSwiney, E. V., M.D., Highfield Road, Rockferry
Main, W. R., Esq., Heswall
Marsden, R. S., M.B., Town Hall, Birkenhead
Milroy, W. C., M.D., 88, Seabank Road, Liscard
Montgomery, A. W., M.B., 98, St. Paul's Road, Seacombe
Morris, R. O., M.D., 23, Balls Road, Oxton, Birkenhead
Moss, A., M.B., Lisbeen, Bank's Road, West Kirby
Murphy, M. M., Esq., Carrigeen, Woodchurch Rd, B'k'nhead
Murray, J. J. G., M.B., Eblana, Liscard Road, Egremont
Noble, J., M.B., Rockferry
Pearson, H. L., Esq., Holthill, Tranmere, Birkenhead
Peirce, F., M.D., Hoylake, Birkenhead
Philpots, Harris, M.B., 56, Shrewsbury Road, Birkenhead
Pierce, W. A., Esq., 46, Grange Mount, Birkenhead
Pinkerton, J., M.D., 39, Park Road South, Birkenhead
Ransome, A. C., M.B., 56, Shrewsbury Road, Birkenhead
Riddell, A. W., Esq., 91, Rowson Street, New Brighton
Sanderson, J. A., Esq., 3, St. Martin's Lane, Liscard
Sclater, N. C., Esq., 12, Earlston Road, Liscard
Smith, D. M., M.D., Seabank Road, Liscard
Smylie, J. D., M.D., 11, Euston Grove, Birkenhead
Stansfield, G. S., Esq., 19, Hamilton Square, Birkenhead
Stewart, A., M.D., 55, Devonshire Road, Birkenhead
Stones, G. J., Esq., 14, Melrose Ter., Rake Lane, Liscard
Temple, C. D., M.D., Bedford Road, Rockferry
Thorp, Winifred, Union Infirmary, Birkenhead
Vacher, F., Esq., Glanmor, Shrewsbury Road, Birkenhead
Wilkinson, F. H., Esq., 19, Bolton Road, Port Sunlight
Wilkinson, S., Esq., 4, Hamilton Square, Birkenhead
Wilson, A. R., M.D., Trafford House, Liscard
Yeoman, J. B., M.D., Neston

No. 4.—Blackburn Division

NUMBERING 74.

Chairman, J. M. H. Martin, M.D., Blackburn.
Vice-Chairman, John Barr, M.B., Blackburn.
Honorary Secretary, A. Greenwood, M.D., Vine House, Revidge Road, Blackburn.

Representative for Representative Meeting, E. H. T. Nash, Esq., Oakfield House, Accrington.
Representatives on Branch Council.

Bannister, M., M.B.
Nash, E. H. T., Esq.

Aitchison, J. P., M.D., 71, Preston New Road, Blackburn
Aitken, R. Y., M.D., 53, Preston New Road, Blackburn
Anderson, Alex., M.B., 76, Lancaster Place, Blackburn
Ballantyne, J. T., M.B., Green Street, Darwen
Bannister, M., M.B., 40, Preston New Road, Blackburn
Barker, W. E., M.B., 1, Castle View, Clitheroe
Barr, John, M.B., Willow Grange, Rishton, Blackburn
Barton, John, Esq., 410, Audley Range, Blackburn
Baxter, A., M.B., 39, Sudwell Road, Darwen
Bowen, A. V., Esq., 66, Preston New Road, Blackburn
Bowes, J. E., M.B., Sherwood, Clifton Street, Rishton
Brook, S. W., M.B., Willows Lane, Accrington
Bunting, W. H., M.D., Quarry Hill, Accrington
Clayton, J. S., M.D., Ewanik House, Accrington
Clegg, R., Esq., Clayton-le-Moors, Accrington
Counsellor, W. P., M.D., Stocks Hill, Whalley
Craig, A. B., M.B., 43, Blackburn Road, Church
Craig, J., Esq., 56, Bolton Road, Darwen
Cran, J., M.D., Great Harwood, near Blackburn
Cumming, R., M.B., Harwood
Cunliffe, Riley, M.D., 47, Eanam, Blackburn
Davies, G. H., Esq., 91, Preston New Road, Blackburn
Dougal, J., M.D., 141, Preston New Road, Blackburn
Duthie, W. C., M.B., Beechwood, Infirmary Rd., Blackburn
Fenwick, James, Esq., 15, Avenue Parade, Accrington
Foster, Arthur, M.D., 55, Preston New Road, Blackburn
Fox, J. Vincent, M.B., Myrtle House, Accrington
Frankish, T., M.B., Blackburn Road, Accrington
Geddie, W., M.D., Waterloo House, Accrington
Gifford, G. T., M.D., Park Villas, Darwen
Gill, F. A., M.D., Langho Reformatory, Whalley, Blackburn
Gornall, T. B., M.B., Rossendale, Clitheroe
Greenwood, A., M.D., Vine House, Revidge Rd., Blackburn
Greenwood, Alan Y., M.B., Garbett House, Accrington
Greeves, F. J., Esq., St. Albans View, Blackburn
Gregson, A. H., M.B., 86, Lower Audley Street, Blackburn
Haworth, F. G., Esq., Vale House, Darwen
Heyliger, E. D. S., M.B., 89, Preston New Road, Blackburn
Heywood, T. W., Esq., Lower Bank, Darwen
Hogan, M., Esq., 32, Bury Street, Darwen
Hunt, R., Esq., 54, Preston New Road, Blackburn
Johnstone, E., M.B., 121, North Road, Clayton
Jones, W. E., Esq., 64, Ainsworth Street, Blackburn
Junk, D. C., M.B., Thornton House, Clayton
Maclin, T. T., M.D., The Croft, Whalley
Marsden, J. T., M.B., 7, Railway Road, Darwen
Martin, J. M. H., M.D., Arnheim, Blackburn
Miller, J. W., M.D., Isolation Hospital, Blackburn
Mitchell, E., Esq., Peveril House, Accrington
Moffatt, A. A. P., Esq., Bastwell House, Blackburn
Moir, W., M.D., Belgrave Square, Darwen
Musson, A. W., M.B., 15, King Street, Clitheroe
Nash, E. H. T., Esq., Oakfield House, Accrington
Nuttall, T. E., M.B., 101, Avenue Parade, Accrington
Opie, E. A., M.B., 3, Belgrave Square, Darwen
Owen, O. Trafford, M.B., 3, St. Albans Place, Blackburn
Patchett, J., Esq., St. Hubert's Lodge, Great Harwood
Prebble, P., M.B., 6, St. Albans Place, Blackburn
Ramsey, J. T. T., Esq., 17, Richmond Terrace, Blackburn
Rigby, W., M.B., 16, St. Albans Place, Blackburn
Robb, A. A., M.B., 2, Denmark Place, Accrington
Smith, W. Allan, M.B., Mount Coffer, Darwen
Stahlknecht, B., M.B., 172, St. Hubert's Road, Gt. Harwood

Steele, W. F., Bolton Road, Darwen
Stephenson, F. W. M., M.B., Mayfield, Blackburn
Taylor, F. W., M.B., 2, Russell Street, Blackburn
Tough, W. R., M.D., Parkside, Accrington
Townley, A. E., M.B., 239, Union Road, Oswaldtwistle
Wallers, W., Esq., Blackburn
Watt, H., M.D., Gisburn, via Clitheroe
Wells, John W., M.D., Springburn House, Blackburn
Willett, John, Esq., Pleasant View, Hollins Grove, Darwen
Wraith, J. H., Esq., Newhaven, Darwen
Wraith, O. S., Esq., Thornleigh, Darwen

No. 5.—Blackpool Division

NUMBERING 48.

Chairman, P. H. Day, Esq., Stalmine Lodge, near Poulton le-Fylde

Vice Chairman, W. B. Richardson, Esq., Blackpool

Honorary Secretary, F. J. H. Coutts, M.D., 22, Reads Avenue, Blackpool

Representative for Representative Meeting, F. J. H. Coutts, M.D., 22, Reads Avenue, Blackpool

Representative on Branch Council.
Day, P. H.

Executive Committee.

Anderson, J., M.B.	Eason, A. M., Esq.
Booth, F., M.D.	Forbes, G., M.B.
Court, C., M.B.	Ruxton, J., M.D.
Dunderdale, R.H.W., Esq.	Williams, W. H., M.D.

Anderson, J., M.B., Poulton-le-Fylde
Armstrong, W. L., M.B., Great Eccleston
Barton, H. T., M.B., 48, Lytham Road, Blackpool
Billing, G., Esq., 129, Church Street, Blackpool
Blacklock, J., M.D., Holme, St. Alban's Rd, St. Annes-on-Sea
Booth, F., M.D., Sunny Bank, St. Annes-on-Sea
Butcher, F. W., M.B., 6, Albert Terrace, Blackpool
Conway-Hughes, L. F., Esq., 123, Warbreck Road, Claremont Park, Blackpool
Couper, S., M.B., 59, Alexandra Rd., South Shore, Blackpool
Court, C., M.B., Moor Villa, Kirkham
Coutts, F. J. H., M.D., 22, Reads Avenue, Blackpool
Day, P. H., Esq., Stalmine Lodge, near Poulton-le-Fylde
Dunderdale, R. H. W., Esq., 4, Raikes View, Blackpool
Eason, A. M., Esq., Park Villa, Lytham
Elliott, A. C., M.B., 29, Wood Street, St. Annes-on-the-Sea
Fearnhead, T., Esq., West Beach, Lytham
Fisher, T., Esq., Great Eccleston
Forbes, G., M.B., 2, Kensington Pl., South Shore, Blackpl.
Foyl, C. A., Esq., Foxhall Square, Blackpool
Grant, F. W., M.D., Hornby Road, Blackpool
Hardman, W., M.B., Seabank Terrace, Blackpool
Heaney, F. J. S., M.D., 3, Brighton Parade, Blackpool
Harrop, G. B., Esq., Riversleigh Avenue, Ansdell, Lytham
Hilliard, Ephraim, Esq., Queens Square, Blackpool
Iredale, Allen, M.B., Central Drive, Blackpool
Jeffrey, N. S., M.B., 2, Raikes Road, Blackpool
Johnson, J., Esq., Yates Street, North Shore, Blackpool
Knight, E., M.B., Glengarth, St. Annes-on-the-Sea
Lawton, Arthur, M.B., 37, Warbreck Road, Blackpool
Ley, H. R., Esq., 2, Lowther Terrace, Lytham
McIntosh, L. M., M.D., 97, Adelaide Street, Blackpool
Merrall, Harry, M.B., 7, North Drive, St. Annes-on-Sea
Molloy, L. G. S., M.D., 3, Brighton Parade, Blackpool
O'Connor, J., M.D., Beachfield, St. Annes-on-Sea
Preston, J. E., Esq., Beechville, Fleetwood
Rhodes, F. S., Esq., Hope Villa, Thornton, Poulton le Fylde
Richardson, W. B., Esq., 33, Victoria Street, Blackpool
Robinson, W. H., Esq., Mount Road, Fleetwood
Ruxton, J., M.D., 4, Brighton Parade, Blackpool
Shaw, W. W., Esq., Kirkham
Smith, R. C., M.D., South Promenade, St. Annes-on-the-Sea
Swainson, J. A., Esq., 253, Lytham Road, Blackpool
Taylor, Andrew, M.B., Old Hall Stalmine, Poulton-le-Fylde
Vinter, C. H. S., Esq., The Gables, Station Road, Blackpool
Walter, R. A., Esq, 282, Lytham Road, Blackpool
Watson, A. A., Esq., Eden Avenue, Lytham
Williams, W. H., M.D., Rossall School, Fleetwood
Woodhead, W. F. C., Esq., South Drive, St. Annes-on-Sea

No. 6.—Bolton Division

NUMBERING 57.

Chairman,

Vice-Chairman,

Honorary Secretary, H. J. Taylor, Esq., 44, St. George's Road, Bolton

Representative for Representative Meeting, Horace Jefferies, Esq., 38, St. George's Place, Bolton

Representatives on Branch Council.
Macfie, C., M.D. | Kershaw, A., M.D.

Ainsworth, R., M.B., Lynwood, Chorley New Road, Bolton
Alderson, G. P., M.B., Bank House, Turton
Bamber, W. E., M.B., Cyprus Hse., Wentworth St., Bolton
Boulton, Thomas, Esq., Astley Bank, Blackburn Rd., Bolton
Brazil, W. H., M.D., 365, Blackburn Road, Bolton-le-Moors
Brown, L., Esq., 28, Chorley Old Road, Bolton
Bryce, W. H., M.B., 22 Chorley New Road, Bolton
Coats, J. Mandall, M.B., Scholesbank, Horwich
Cosgrave, A., Esq., The Oaks, near Bolton
Davoren, A. J., M.B., 35, Queen's Gate, Bolton
Dawson, C. H., M.B., 10, Thicketford Rd., Tonge Moor, B
Derham, B., M.D., Hy. St. George's Road, Bolton
Eames, J. C., M.D., Stoneclough
Ferguson, J. H., Esq., 53, Manchester Road, Bolton
Flitcroft, T. E., Esq., Chorley New Road, Bolton
Garstang, E. M., M.D., Highfield, Radcliffe Road, Bolton
Gilchrist, R. M. M.B., 304, Derby Street, Bolton
Gould, J. E., M.D., Town Hall, Bolton
Hall, J. H., Esq., 283, Manchester Road, Bolton
Higginson, A., Esq., Vernon Street, Bolton
Jefferies, Horace, Esq., 38, St. George's Place, Bolton
Johnston, J., M.D., Lostock Lane, Bolton
Johnston, John, M.B., Long Causeway, Farnworth, R.S.O.
Kershaw, A., M.D., Vicarage Road, Farnworth, Bolton
Kilpatrick, R. R., M.B., 14, Angle Bank, Bolton-le-Moors
Macfie, C., M.D., 240, St. George's Road, Bolton
Mackey, C., Esq., Manchester Children's Hospital, Pendlebury
Mallett, F. R., M.D., Newport House, Bolton
Marshall, Jean M. F., M.B., Derby Street, Bolton
Martin, W. Y., M.D., J.P., Walkden, near Bolton
Monks, Ernest, M.B., Haulgh, Bolton
Morris, W., Esq., 62, St. Helens Road, Bolton
Mothersole, R. D., M.D., 128, St. George's Road, Bolton
Murgatroyd, A., M.B., Deane Road, Bolton
Nuttall, W., M.B., Little Lever, near Bolton
Panton, J. E., M.D., Moss House, Bolton
Park, A. G., M.D., Folds House, Bolton
Patchett, E. J., Esq., 80, Rishton Lane, Bolton
Patrick, R., M.D., 46, Derby Road, Bolton
Pattinson, T. W., Esq., 65, Orlando Street, Bolton
Pickford, J. S., Esq., Little Lever, near Bolton
Rigby, W. G., M.B., Adlington
Robinson, J., M.D., Dunscar, near Bolton
Rose, Andrew, M.B., Duff House, Horwich
Savers, R., M.D., 11, Manchester Road, Walkden, Bolton
Settle, R., M.D., 39, Chorley New Road, Bolton
Spencer, G. H., Esq., 185, Albert Road, Farnworth
Taylor, A. H., M.D., 127, High Street, Bolton
Taylor, H. J., Esq., 44, St. George's Road, Bolton
Thompson, J. H., M.D., 248, Chorley Old Road, Bolton
Thornley, J., M.D., 246, Halliwell Road, Bolton
Tong, L., Esq., Mossfield Road, Farnworth R.S.O.
Unsworth, J. W., M.B., Blackrod
Webster, F. B., Esq., 76, Cooper Street, Bolton
Whitaker, G. H., Esq., Horwich
Wood, James, Esq., 141, Derby Street, Bolton
Young, James, Esq., 267, Derby Street, Bolton

No. 7.—Burnley Division

NUMBERING 30.

Chairman, A. P. Millar, M.D., Nelson-in-Marsden

Vice-Chairman, J. Mackenzie, M.D., Burnley

Honorary Secretary, S. Lawson, Esq., Brierfield, Burnley

Representative for Representative Meeting, E. H. T. Nash, Esq., Oakfield, Accrington

Representative on Branch Council.
Ferguson, J. M., Esq.

Agnew, A. P., M.B., Lyndhurst, Padiham
Alderton, H. C., Esq., Barnoldswick Colne
Anderson, C. A., M.B., 89, Rectory Road, Burnley
Bird, W., M.B., Brierfield, near Burnley
Burns, J., Esq., Fulleoge House, Burnley
Cadman, H. C., M.B., Park Road, Barnoldswick
Dickey, A. A. G., M.D., Higgen House, Colne
Ferguson, J. M., Esq., Ash Grove, Burnley
Findlay, Andrew, M.B., 20, Carr Road, Nelson
Giffen, S. M., Esq., 54, Bank Parade, Burnley
Haworth, James, Esq., Wilfield House, Burnley
Holt, Thos., M.B., 36, Colne Road, Burnley
Holt, R. C., Esq., 60, Bank Parade, Burnley
Horn, R., M.D., Crosshill, Padiham
Hoyle, John, Esq., Adlington House, Brierfield
Jones, F. R., M.B., 7, Keighley Road, Colne
Lawson, S., Esq, Brierfield, Burnley
Lovett, W. L., Esq., Colne
Mackenzie, J., M.D., 68, Bank Parade, Burnley
Marsden, F. W., Esq., Rookwood House, Burnley
Millar, A. P., M.D., Nelson-in-Marsden
Mitchell, C. M., M.D., Carr Road, Nelson-in-Marsden
Normington, A. E., M.B., Nelson
Pim, F. E. De B., Esq., Barrowford, Nelson
Piper, W. O., Esq., Bankfield, Nelson, Lancs.
Robb, A., M.D., 38, Carr Road, Nelson
Sinclair, A. M., M.B., Manchester Road, Burnley
Slane, H. J., M.B., 9, Todmorden Road, Burnley
Tate, Isabel, A., M.D., The Infirmary, Burnley
Wright, W., M.D., 55, Oakmount Terrace, Bur

No. 8.—Bury Division

NUMBERING 34.

Chairman, Robert Mitchell, M.D., Bury.

Vice-Chairman, J. A. Harrison, M.D., Haslingden.

Honorary Secretary, Wm. C. Burns, M.B., 94, Walmersley Road, Bury

Representative for Representative Meeting, J. Brown, M.D., Burwood House, Bacup

Representative on Branch Council.
Kerr, J. B., M.B.

Aspinall, W., Esq., The Willows, Bury Road, Haslingden
Baird, W. J., Esq., Springwell, Manchester Road, Bury
Brindley, A. E., M.D., The Elms, Walmersley Road, Bury
Bromhall, E., Esq., 74, Burnley Road, Rawtenstall
Broomhead, James, M.B., 18, Manchester Rd., Haslingden
Burns, W. C., M.B., 94, Walmersley Road, Bury
Cook, J. W., M.B., 26, Manchester Road, Bury
Coutts, J. A., M.D., Waterfoot, near Manchester
Eames, J. C., M.D., Stoneclough, Manchester
Edwards, A. A., M.D., Bank House, Rawtenstall
Farquharson, D. P. M., M.B., Bank House, Radcliffe
France, W. J., Esq., 67, Stanley Street, Bury
Greenhalgh, H., Esq., 155, Roach Ter., Rochdale Rd, Bury.
Hamilton, T., Esq., Culmore, Whitefield, Manchester
Harrison, J. A., M.B., Haslingden
Holmes, F. B. G., M.B., 78, Walmersley Road, Bury
Jelly, G. A., Esq., 239, Walmersley Road, Bury
Johnson, I. W., M.D., Brook House, Bury
Kerr, J. B., M.B., 9, St. Maries Gate, Bury
Knowles, R., Esq., 12 Well Bank, Haslingden
Lawrie, H., M.B., 42, Bolton Street, Ramsbottom
Lees, J. E., M.B., Elton, Bury
Lucas, Arthur, Esq., Stanley Place, Bury
Lusk, Thos., M.D., 133, Walmesley Road, Bury
MacLaren, C., M.D., 73, Walmersley Road, Bury
Mitchell, Robert, M.D., The Wylde, Bury
Nuttall, A. P., M.D., 18, Clough Street, Bury
Parks, J., Esq., Bank House, Manchester Road, Bury
Rawsthorne, H., Esq., Deardengate House, Haslingden
Robertson, W., Esq, Holly House, Rawtenstall
Saville, H. W. B., Esq., Radcliffe, Manchester
Silverwood, J., Esq., 171, Bolton Road, Elton, Bury
Sugden, S., Esq., Greenfield House, Newchurch
Troup, J., M.B., Allandale, Whitefield

No. 9.—Chester Division

NUMBERING 49.

Chairman, A. Hamilton, Esq., Chester.

Vice-Chairman, A. Mann, M.D., Chester.

Honorary Secretary, H. W. King, M.D., 26, Nicholas Street, Chester

Representative for Representative Meeting, H. W. King, M.D., 26, Nicholas Street, Chester.

Representative on Branch Council.
King, H. W., M.D.

Ambler, J. R., Esq., Co. Asylum, Chester
Annett, H. E., M.B., Crofton Lodge, Runcorn
Archer, A. M., M.D., Dees Hill Lodge, Boughton, Chester
Archer, S. L. H., Esq., Edgeley Lodge, Haughton, Tarporley
Booth, L. T., Esq., 30, Chichester Street, Chester
Briant, A. J., Esq., Helsby
Brierley, T. B., M.B., Tattenhall
Burton, W. E., Esq., Brockton, Frodsham
Butt, F. J., M.D., 3, Adlington Terrace, Hoole Road, Chester
Cahill, M., Esq., 110, Station Road, Ellesmere Port
Carruthers, W. H., M.D., Halton, Runcorn
Cullen, James, Esq., Tower House, Runcorn
Dobie, W. H., M.B., 2, Hunter Street, Chester
Dobie, W. M., M.D., Northgate House, Chester
Duff, John, Esq., M.D., 5, Abbey Street, Chester
Elliott, John, M.D., 24, Nicholas Street, Chester
Foster, S. W., M.B., Barrow, near Chester
Fraser, D., M.B., Roseneath Cottage, Buckley, Chester
Giffen, J. T., M., Esq., 138, Boughton, Chester
Granger, F. M., Esq., 18, Nicholas Street, Chester
Grills, G. H., M.D., County Asylum, Chester
Hamilton, A., Esq., 16, Whitefriars, Chester
Harrison, G., Esq., 13, Whitefriars, Chester
Jephcott, Charles, M.B., 2, The Northgate, Chester
Kenyon, G. A., M.B., Chester
King, H. W., M.D., 26, Nicholas Street, Chester
Lawrence, A., M.D., County Asylum, Chester
Lees, Wm., Esq., Bars House, Foregate Street, Chester
MacLennan, A., M.B., Grove House, Waterloo Rd., Runcorn
Mann, A., M.D., 19, Newgate Street, Chester
Moreton, J. E., Esq., Tarvin, Chester
Newall, W. A., M.D., 9, Grosvenor Street, Chester
Nott, H. W., Esq., Little Sutton, nr. Chester
Parkinson, H. R., Esq., Great Eccleston
Pattullo, H. A., M.B., Kelsall, near Chester
Parry, T. S., M.B., The Northgate Chester
Roberts, J., M.D., Abbey Square, Chester
Roberts, J. T., Esq., Dorchester House, Chester
Robinson, G. A., M.B., Tarporley
Robinson, J., M.B., The Belvidere, Runcorn
Selby, T. J., M.B., Frodsham
Stolterfoth, H., M.D., 1, Grey Friars, Chester
Sutton, D. C., M.B., 60, Watergate Street, Chester
Taylor, J., Esq., Hargarth House, Chester
Welsh, John, Esq., 43, Tarvin Road, Chester
Whichello, H., Esq., The Mount, Tattenhall
Williams, Lewis A., M.B., 67, Hoole Road, Chester
Wright, R. B., Esq., Folliott House, Chester
Young, T. F., M.D., Carlton, Little Sutton

No. 10.—Crewe Division

NUMBERING 21.

Chairman,

Vice-Chairman,

Honorary Secretary,

Representative for Representative Meeting, H. W. King, M.D., 26, Nicholas Street, Chester

Atkinson, J., Esq., Mirion House, Crewe
Bailey, E. C., M.B., Havelock House, Crewe
Bennett, C. H. W., Esq., Sandbach
Crutchley, H., M.D., Holmcroft, Alsager
Davenport, J. A., M.B., Heath Bank, Nantwich
Gray, E., Esq., Nantwich Road, Crewe
Harrison, T. H., Esq., Betley, near Crewe
Hodgson, W., Esq., J.P., Helmsville, Crewe
Ingles, J. W., M.B., Moorfield House, Willaston, near Nantwich
Laird, A. J., M.B., Municipal Offices, Crewe
Lapage, C. C., M.D., Elmwood House, Nantwich
Leak, H., Esq., Dingle House, Winsford
Lowe, C. E. M., M.B., Brooklyn House, Crewe
Matthews, F. E., Esq., Welsh Row House, Nantwich
Millar, J. B., M.B., Earnscliffe, Edleston Road
Moody, J. W., Esq., Hightown, Crewe
Munro, S. H., M.D., Nantwich
Thomson, W., Esq., Wrenbury, Nantwich
Turner, R. T., M.D., Manor House, Nantwich
Vaughan, A. E., Esq., Crewe Cottage, Crewe
Wilson, C., M.D., 2, Market Square, Crewe

No. 11.—Glossop Division

NUMBERING 8.

Chairman, W. White, M.D., Hadfield.

Vice-Chairman, A. C. Nicol, Esq., Glossop.

Honorary Secretary, Arthur Walker, Esq., 16, High Street W. Glossop

Representative for Representative Meeting, J. R. S. Park, Esq., 183, King Street, Dukinfield

Representative on Branch Council.
White, W., M.D.

Bollans, R. W., M.B., Hadfield, near Manchester
Bowden, W. J., M.B., Norfolk Street, Glossop
Mackenzie, D. J., M.D., North Road, Glossop
Mason, H. A., Esq., Broadbottom, near Manchester
Nicol, A. C., Esq., 93, High Street W., Glossop
Sidebottom, R. B., Esq., Redcourt, Glossop
Walker, Arthur, Esq., 16, High Street W., Glossop
White, W., M.D., Hadfield

No. 12.—Isle of Man Division

NUMBERING 19.

Chairman,

Vice-Chairman

Honorary Secretary,

Representative for Representative Meeting, F. J. H. Coutts, M.D., 22, Read's Avenue, Blackpool.

Bailey, J. H., M.B., Church Street, Port Erin, Isle of Man
Barbour, J. M., Esq., Ramsey, Isle of Man
Browne, J., M.D., 3, Stanley View, Douglas
Casey, P. F., Esq., 2, Kingswood Road, Douglas, Isle of Man
Clague, J., Esq., Castletown, Isle of Man
Cordiner, R., Esq., 22, Derby Square, Douglas
Cowin, W. S., Esq., 4, Waterloo Road, Ramsey, Isle of Man
Davies, C. A., M.D., Ramsey, Isle of Man
Gell, R., Esq., Peel, Isle of Man
Goulden, R., Esq., Peel, Isle of Man
Hannay, H. P., M.B., Castletown, Isle of Man
Homer, T. G., Esq., Laxey, Isle of Man
Lynch, J., Esq., Douglas
McFeat, G., M.B., Bogneside House, Douglas
Mackenzie, T., M.D., Sydney Mount, Douglas, I. of M.
Richardson, W., M.D., Union Mills, Isle of Man
Sugden, H. C., Esq., Ramsey, Isle of Man
Teare, J., M.B., Victoria Road, Castletown, Isle of Man
Wood, T. A., M.D., Albert Terrace, Douglas, Isle of Man

No. 13.—Leigh Division

NUMBERING 25.

Chairman, R. J. Martin, M.D., Atherton.

Vice-Chairman, James King, M.B., Leigh.

Honorary Secretary, M. J. Halton, Esq., 95, Chapel Street, Leigh.

Representative for Representative Meeting, F. Rees, M.D 46, Dicconson Street, Wigan.

Representative on Branch Council.
Jones B., M.D

Beckitt, J. C., Esq., The Lindens, Leigh
Blakemore, B., Esq., Ingleside, Tyldesley, Manchester
Blakemore, H., Esq., 60, Market St., Atherton, nr. Manch.
Challinor, C., Esq., Avenue House, Leigh

Doyle, E. A., M.B., Birch House, Leigh
Duncan, W., M.D., Tyldesley
Gray, Thos., M.B., The Thistles, Tyldesley
Gray, William G., Esq., Brunswick House, Leigh
Greenhalgh, John, Esq., Garden House, Atherton
Hall, H. S., Esq., The Elms, Railway Road, Leigh
Halton, M. J., Esq., 95, Chapel Street, Leigh
Hamer, E. S., Esq., Tyldesley
Hamer, H., M.B., The Square, Tyldesley
Hayes, James, Esq., Stone House, Leigh
Jones, B., M.D., Avenue Gate, Leigh
Jones, Joseph, M.B., 26, Railway Road, Leigh
King, J., M.B., Leigh
Lowe, A. J., Esq., Home Lea, Boothstown
Marsh, James, M.B., 114, High Street, Atherton
Marshall, B., Esq., Bolton Old Road, Atherton
Martin, R. J., M.D., Atherton, Manchester
Pollard, E. R., Esq., 82, Railway Road, Leigh
Sephton, Richard, Esq., 8, Chapel St., Bedford Leigh, Lancs
Sephton, Robert, Esq., Atherton, Manchester
Wynne, F. P., M.B., 7, Bridge Street, Leigh

No. 14.—Liverpool (Bootle) Division

NUMBERING 61.

Chairman, T. M. Wills, Esq., Bootle.

Vice-Chairman, Joseph Walker, Esq., Bootle.

Honorary Secretary, W. J. Fleetwood, M.D., 63, Walton Vale, Aintree.

Representative for Representative Meeting, Joseph Walker, Esq., 23, Merton Road, Bootle, Liverpool.

Representative on Branch Council.
Fleetwood, W. J., M.D.

Ahern, J. M., Esq., H.M. Prison, Liverpool
Anderton, W., Esq., Mansion House, Ormskirk
Bark, T. Taylor, M.B., Dalton, Crosby Road, Waterloo, Liverpool
Bates, T. W., Esq., Oriel House, Bootle, Liverpool
Beaman, E. H., Esq., The Hollies, Freshfield
Blair, Mrs. G. A., L.S.A., 21, Church Street, Waterloo
Bradshaw, J. C. Esq., Donald Lodge, Walton, Liverpool
Brown, J. G., M.B., 196, Stanley Road, Bootle
Budden, C. W., M.B., 12, Cable Road, Hoylake, Liverpool
Buxton, Edward, M.D., South Road, Waterloo, Liverpool
Caregan, O. J., Esq., 53, Burscough Street, Ormskirk
Clemmey, W. N., Esq., 27, Merton Road, Bootle
Daley, W., Esq., Hardy Cottage, Bootle
Dickson, M., M.D., 117, Gt. Mersey Street, Liverpool
Evans, J. H., Esq., Crosby Road North, Waterloo, Liverpool
Fleetwood, W. J., M.D., 63, Walton Vale, Aintree, Liverpool
Gaskell, R. A., Esq., Glendevon, Huyton, Liverpool
German, F. F., Esq., 47, Sandy Road, Seaforth
Gordon, J. F., M.D., Rockfield, Maghull
Gordon, Reginald, M.B., Ernest House, Liverpool Road, Great Crosby
Harrison, R. Temple, Esq., Stanley Hospital, Stanley Road Liverpool
Heald, H., Esq., 20, Derby Street, Ormskirk
Hepton, J. C., Esq., Springfields, Waterloo
Houlgrave, A., Esq., 23, St. George's Road, Waterloo, L'pool
Huskie, James, M.B., Romsdal, Blundellsands
Hutchinson, G. A., Esq., 98, St. John's Wood, Waterloo
Laing, J. G., Esq., Netherby House, Latham, Ormskirk
McGeagh, R. T., Surg.-Capt. (ret.), 20, Spellow Lane, L'pool.
McMurray, J., M.D., 56, Menton Road, Bootle
Macvie, W., M.D., Stanley Road, Bootle
McVittie, J. W., Esq., Kirkby, Liverpool
Marsden, H. H., Esq., 28, Burscough Street, Ormskirk
Marsh, W. A., Esq., Skelmersdale, Ormskirk
Matthews, J. C., Esq., Agnes Rd., Blundellsands, Liverpool
Matthews, J., M.D., Norton Lodge, Blundellsands, Liverpool
Merrick, A. A. W., Esq., High Street, Skelmersdale
Mitchell, James, M.D., 142, County Road, Walton, Liverpool
Moore, W. G., Esq., 36, Everton Valley, Liverpool
Moyles, J. G., M.B., 2, Bedford Road, Walton, Liverpool
Nixon, J. P., M.B., Longmore Lane, Aintree, Liverpool
Oldershaw, George, Esq., 202, County Road, Liverpool
Owen, R., Esq., Sandy Nook, Seaforth
Paddock, T. D., Esq., 468, Stanley Road, Bootle
Pendlebury, J. P., Esq., Knowle House, Ormskirk
Pollard, G. W., M.D., 116, Stanley Road, Liverpool
Price, A., Esq., Merriebank, Walton Park, Liverpool
Rafter, J., Esq., 41, Crosby Road, Waterloo, Liverpool
Reid, J. M., M.B., Stanley Villas, Crosby
Robinson, G. B., M.B., 1, Marine Terrace, Waterloo
Saunders, J. C., Esq., 76, Bedford Road, Bootle
Scholefield, G. E., M.D., Brentwood, Aughton, nr. Ormskirk
Sheldon, R. G., Esq., 223, Boundary Street, Liverpool
Stevenson, R., M.D., 12, Merton Road, Bootle
Sugden, E. Scott, M.D., Orrell Park, Aintree, Liverpool
Sumner, B., M.D., 1, Marine Terrace, Waterloo
Thomas, Alfred, Esq., 304, Rice Lane, Liverpool
Turner, Robert, M.D., 81, Wadham Road, Bootle
Walker, Joseph, Esq., 23, Merton Road, Bootle, Liverpool
Wild, G. S., M.D., Stanley Mount, Bootle, Liverpool
Wills, T. M., Esq., 44, Merton Road, Bootle, Liverpool
Wright, W. H., Esq., 16, Spellow Lane, Liverpool

No. 15.—Liverpool (Central) Division

NUMBERING 65.

Chairman, T. R. Bradshaw, M.D.

Vice-Chairman, C. J. Macalister, M.D.

Honorary Secretary, Frank H. Barendt, M.D., 65, Rodney Street, Liverpool

Representative for Representative Meeting, G. G. Hamilton M.B., 19, Sandon Street.

Representatives on Branch Council.
Barendt, F. H., M.D. | Macalister, C. J., M.D.
Bradshaw, T. R., M.D.

Executive Committee.
Barnes, E. W., Esq. | Gullan, A. G., M.D.
Douglas-Crawford, D., M.B. | Leigh, T. D., Esq.
Glynn, E. E., M.B.

Alexander, W., M.D., 31, Rodney Street, Liverpool
Armstrong, H., M.D., 7, Rodney Street, Liverpool
Bailey, F. W., Esq., 51, Grove Street, Liverpool
Barendt, F. H., M.D., 65, Rodney Street, Liverpool
Barnes, E. W., Esq., 1, Oxford Street, Liverpool
Blackwood, A., M.D., 100, Bedford Street, S. Liverpool
Bligh, J., M.D., 109, Mount Pleasant, Liverpool
Boyce, Professor R., M.B., F.R.S., University College, Liverpool
Bradshaw, T. R., M.D., 51, Rodney Street, Liverpool
Brannigan, R. A., M.D., 100, Upper Parliament St., Liverpool
Briggs, H., M.B., 3, Rodney Street, Liverpool
Browne, E. A., Esq., 39, Rodney Street, Liverpool
Bushby, T., M.B., 44, Catharine Street, Liverpool
Cairns, W. M., M.B., 67, Catharine Street, Liverpool
Currey, R. H., Esq., 154, Bedford Street, Liverpool
Dawson, T. M., Esq., 77, Upper Parliament St., Liverpool
Douglas-Crawford, D., M.B., 75, Rodney Street, Liverpool
Ellenbogen, A., Esq., 4, Elizabeth Street, Liverpool
Fingland, W., Esq., 61, Rodney Street, Liverpool
Glynn, E. E., M.B., University College, Liverpool
Griffith, F., M.B., University College, Liverpool
Grimsdale, T. B., M.B., 29, Rodney Street, Liverpool
Grünbaum, A. S., M.D., University College, Liverpool
Gullan, A. G., M.D., 37, Rodney Street, Liverpool
Hamilton, G. G., M.B., 19, Sandon Street, Liverpool
Harrisson, Damer, Esq., 53, Rodney Street, Liverpool
Hay, John, M.D., 7, Rodney Street, Liverpool
Henderson, W. S., M.B., 63, Rodney Street, Liverpool
Hill, C. A., M.B., 13, Rodney Street, Liverpool
Hopper, A. R., M.D., 63, Rodney Street, Liverpool
Hunt, J. M., M.B., 55, Rodney Street, Liverpool
Jones, H. E., Esq., 7, Rodney Street, Liverpool
Jones, T. C. L., Esq., 13, Rodney Street, Liverpool
Leigh, T. D., Esq., 85, Bedford Street, South, Liverpool
Livsey, W. E., M.D., 23, Catharine Street, Liverpool
Macalister, C. J., M.D., 35, Rodney Street, Liverpool
Marsh, N. P., M.B., 7, Abercromby Square, Liverpool
Monsarrat, K. W., M.B., 11, Rodney Street, Liverpool
Morgan, L. A., M.D., 118 Bedford Street, Liverpool
Murray, R. W., Esq., 15, Rodney Street, Liverpool
Nelson, P., M.D., 73, Rodney Street, Liverpool
Newbolt, G. P., M.B., 42, Catharine Street, Liverpool
Nuttall, J. S. W., 10, Falkner Square, Liverpool
Palmer, S. J., M.D., 32, Oxford Street, Liverpool
Parker, Rushton, M.B., 59, Rodney Street, Liverpool
Paterson, A. M., M.D., 21, Abercromby Square, Liverpool
Pearmewan, W., M.D., 7, Rodney Street, Liverpool
Phillips, E. J. M., Esq., 33, Rodney Street, Liverpool
Pierpont, Harry, Esq., Royal Infirmary, Liverpool
Purser, J. J., M.D., 11, Oxford Street, Liverpool
Puzey, C., Esq., 71, Rodney Street, Liverpool
Robinson, H. A., M.D., 57, Canning Street, Liverpool
Sellers, A. E., Esq., 12, Hope Place, Liverpool
Shears, C. H. B., Esq., 19, Upper Duke Street, Liverpool
Sherrington, C. S., M.D., F.R.S., University College, Liverp'l
Spooner, W., Esq., 13, Gambier Terrace, Liverpool
Stephens, J. W. W., M.D., School of Trop. Med., Liverpool
Stevenson, E., M.D., 39, Rodney Street, Liverpool
Stockdale, E. M., Esq., 13, Upper Duke Street, Liverpool
Walker, A. N., M.B., 45, Rodney Street, Liverpool
Walker, G. E., Esq., 6, St. Paul's Square, Liverpool
Wallace, A. J., M.D., 1, Gambier Terrace, Liverpool
Warrington, W. B., M.D., 69, Rodney Street, Liverpool
Wavers, A. T. H., M.D., 69, Bedford Street, Liverpool
Willett, J. H., M.B., 25, Catharine Street, Liverpool

No. 16.—Liverpool (Northern) Division

NUMBERING 60.

Chairman, E. T. Davies, M.D., Liverpool.

Vice-Chairman, J. J. Tysdall, Esq., Liverpool.

Honorary Secretary, A. C. Rendle, M.D., 8, Shaw Street, Liverpool.

Representative for Representative Meeting, J. J. Tisdall, Esq., 2, Edge Lane, Liverpool.

Representative on Branch Council.
Davies, E. T., M.D.

Adam, E., M.D., 95, Shaw Street, Liverpool
Adcock, H., Esq., 143, Prescot Road, Fairfield, Liverpool
Anderson, E. L., M.B., 102, Queen's Road, Everton, L'pool
Archer, R. S., M.D., 15, St. Domingo Road, Liverpool
Arkle, A. S., Esq., Holly Mount, West Derby, Liverpool
Arkle, G. M., Esq., 51, Belmont Road, Liverpool
Bailey, Matthias, Esq., 321, West Derby Road, Tue Brook, Liverpool
Baxter, J. C., Esq., 110, Robson Street, Everton, Liverpool
Blackledge, W. T., M.B., 2, Somerset Place, Liverpool
Bligh, Alex. M., Esq., 59, Shaw Street, Liverpool
Bond, J., M.B., 202, Burlington Street, Liverpool
Bowen, O., Esq., Mere Lodge, Everton, Liverpool
Chain, A., Esq., 44, Juvenal Street, Liverpool
Clarke, H. A., M.D., 1, Dean Road, Liverpool
Clegg, W. T., F.R.C.S., 97, Durning Road, Liverpool
Cooke, J. A., Esq., 1, Tuebrook Villa, Liverpool, E.
Cornett, J. A., Esq., 17, Norton Street, Liverpool
Cunliffe, E. N., M.B., Mill Road Infirmary, Liverpool
Davies, E. T., M.D., 97, Shaw Street, Liverpool
Dimond, J. E., Esq., 157, Breckfield Road North, Liverpool
Duffus, Geo., M.B., Tuebrook Villa, Liverpool
Duncan, George, Esq., 139, Queen's Road, Liverpool
Dunn, W. J. R., Esq., 44, Wellington Terrace, Liverpool
Edwards, Percy, Esq., 1, Newsham Drive, Liverpool
Evans, T. C., Esq., 1, Rose Vale, Everton, Liverpool
Fisher, A., M.B., 6, Shiel Road, Liverpool
German, A. W., Esq., 296, Kensington, Liverpool
Hall, J. P., M.B., 7, Eaton Road, West Derby
Hicks, J. S., Esq., 2, Erskine Street, Liverpool
Holmes, I., Esq., Oakfield, Anfield, Liverpool
House, S. H., M.B., 4, Shaw Street, Liverpool
Hutton, Gertrude M., L.R.C.P.&S.E., 43, Anfield Road, Liverpool
Lourensz, C. B., Esq., 20, Marmaduke Street, Liverpool
McDonnell, M. S., M.D., 335, Prescot Road, Liverpool
McGeagh, J. P., M.D., Stoneycroft, Liverpool
Mahoney, M. J., M.B., 33, Derby Lane, Stoneycroft, Liverp'l
Matthews, S., M.D., 2, Edge Lane, Liverpool
Maudsley, H. A., M.B., 259, Westminster Rd., Liverpool, N.
Mitchell, H. M., M.B., 35, Belmont Road, Liverpool, N.
Nixon, H. T., M.B., 269, Walton Breck Rd., Anfield, Liverpool
O'Leary, A. J., Esq., 3, Brownlow Street, Liverpool
O'Sullivan, J. E., Esq., 37, Shaw Street, Liverpool
Pearson, A. C., M.D., 17, Walton Park, Liverpool
Philpot, B. P., Esq., Belmont Road, Liverpool
Pitts, H. Y., Esq., Tuebrook, Liverpool
Rae, R. Rochfort, Esq., 11, Netherfield Rd. S., Liverpool
Rendle, A. C., M.D., 8, Shaw Street, Liverpool
Richardson, R. I., M.B., 128, Shiel Road, Liverpool
Shaw, James, M.D., 310, Kensington, Liverpool
Smith, Robert Ross, Esq., 1, Shaw Street, Liverpool
Somerville, William, Esq., 30, Breck Road, Liverpool
Stevenson, T., M.B., 1, Springfield, St. Anne's St., Liverpool
Stott, J. E., Esq., 201, Edge Lane, Liverpool
Thomas, A. I., Esq., 25, Derwent Rd., Stoneycroft, Liverpool
Tisdall, J. J., Esq., 2, Edge Lane, Liverpool
Whitford, W., M.D., 47, Shaw Street, Liverpool
Wilkins, Walter, Esq., 2, Haymans Green, Liverpool
Williams, E. C., M.B., 175, Brownlow Hill, Liverpool
Williams, H., Esq., 139, Breckfield Road North, Liverpool
Williams, O. T., Esq., 9, Oakfield, Anfield

No. 17.—Liverpool (Southern) Division

NUMBERING 60.

Chairman, G. W. Steeves, M.D., Liverpool.

Vice-Chairman, J. N. Cregeen, Esq., Liverpool.

Honorary Secretary, J. C. M. Given, M.D., Elmsley Road, Mossley Hill, Liverpool.

Representative for Representative Meeting, J. R. Logan, M.B., 81, Hartington Road, Liverpool

Representative on Branch Council.
Cregeen, J. N., Esq.

Armour, T. R. W., M.B., 25, Park Way, Liverpool
Beecham, W., Esq., Huyton, near Liverpool
Bell, W. B., M.B., Mayfield, Aigburth, Liverpool
Bennett, W. B., Esq., 3, Ashfield Road, Aigburth, Liverpool
Broad, W. H., M.B., 23, Fern Grove, Sefton Park, Liverpool
Campbell, W. M., M.D., 1, Princes' Gate, E., Princes' Road, Liverpool
Carse, R. F., M.D., 170, Upper Parliament Street, Liverpool
Chisholm, J. M., M.D., Woolton, Liverpool
Cowe, J., Esq., 97, Mulgrave Street, Liverpool
Cregeen, J. N., Esq., 21, Prince's Avenue, Liverpool
Cronyn, G. R. Esq., 43, Garmoyle Rd., Sefton Pk., Liverpool
Donnelly, D., Esq., 89, Aigburth Road, Liverpool
Evans, O. F., M.D., 71, Mulgrave Street, Liverpool
Fisher, H. W., Esq., Greenbank Drive, Sefton Pk., L'pool
Given, J. C. M., M.D., Elmsley Road, Mossley Hill, Liverpool
Gorst, Henry, Esq., Huyton, Liverpool
Grimes, J., M.D., Grassendale, Liverpool
Groom, H. T., Esq., Island House, Garston
Halton, Henry, M.B., 97, Hartington Road, Liverpool
Harcourt, R. E., M.D., 118, Penny Lane, Wavertree
Harvey, H., M.B., 57, Picton Road, Wavertree, Liverpool
Lee, C. G. Esq., 11, Princes Avenue, Liverpool
Lee, Miss Mary B., 39, Ivanhoe Road, Liverpool, S.
Little, G. W., Esq., 40, Palmerston Road, Garston
Logan, J. R., M.B., 81, Hartington Rd., Sefton Park, L'pool
Lyle, H. S., Esq., 209, Upper Parliament Street, Liverpool
McArdle, E. L., Esq., 239, Upper Parliament St., Liverpool
McClelland, J., M.D., Sefton Drive, Liverpool
McClelland, W., M.B., 17, Lodge Lane, Liverpool
MacKenna, R. W., M.B., 2, Langdale Rd, Sefton Pk, L'pool
Martin, J. G., M.B., 27, Croxteth Road, Liverpool
Michell, H. S., Esq., Willow Bank, Smithdown Road, Liverpool
Molyneux, E., M.B., 67, Woolton Road, Garston
Monro-Home, G. H., M.D., South Grange, Aigburth Road, Liverpool
Murdoch, W. H., M., M.D., 2, Southwood Road, Liverpool
Nisbet, J. Tawse, M.D., 7, Croxteth Road, Liverpool
O'Hagan, J. J., M.B., Clarendon Road, Garston
Oliver, J. B., M.D., 59, Parkfield Road, Liverpool
Pethick, C. S., M.B., Woolton, Liverpool
Paterson, W. B., M.B., 15, Grassendale Road, Grassendale
Reed, W. Cash, M.D., 15, Princes Avenue Liverpool
Rentoul, R. R., M.D., 78, Hartington Road, Liverpool
Roberts, N. E., M.B., 17, Mulgrave Street, Liverpool
Roberts, R. G., M.D., 2, Gresford Avenue, Liverpool
Ross, Ronald, Major, C.B., F.R.S., The Lodge, Aigburth Vale
Sharp, C. J., Esq., 2, Wellington Avenue, Liverpool
Shaw, H. T., M.D., 146, Upper Parliament St., Liverpool
Shaw, S. H., M.D., 23, Princes Avenue, Liverpool
Simpson, A. P. H., Esq., 108, Hartington Road, Liverpool
Smart, D., M.B., 74, Hartington Rd., Sefton Park, Liverpool
Solomon, C. E., Esq., 42, Bentley Road, Liverpool
Stack, M. T., M.B., 19, High Street, Wavertree, Liverpool
Steeves, G. W., M.D., 53, Parkfield Road Liverpool, S.
Vereker, C. V., Esq., Holly House, Woolton
Walker, A. F., Esq., 97, Arundell Avenue, Sefton Park
Warke, C. L., Esq., 242, Upper Parliament St., Liverpool
Westby, G., Esq., 189, Lodge Lane, Sefton Park, Liverpool
Williams, T. R., M.B., 4, Halkyn Avenue, Liverpool
Wilson, H., M.D., Wavertree, Liverpool
Wright, J. D., M.B., 67, Parkfield Road, Liverpool

No. 18.—Liverpool (Western) Division

NUMBERING 63.

Chairman, James Barr, M.D., Liverpool.

Vice-Chairman, W. T. Thomas, Esq., Liverpool.

Honorary Secretary, K. A. Grossmann, M.D., 70, Rodney Street, Liverpool.

Representative for Representative Meeting, K. A. Grossmann, M.D., 70, Rodney Street, Liverpool.

Representatives on Branch Council.
Grossmann, K. A., M.D. | Larkin, F. C., Esq.

Abram, J. H., M.D., 74, Rodney Street, Liverpool
Allen, W. T. D., M.B., 77, Mount Pleasant, Liverpool
Banks, Sir W. Mitchell, M.D., 28, Rodney Street, Liverpool
Bark, J., Esq., 54, Rodney Street, Liverpool
Barr, James, M.D., 72, Rodney Street, Liverpool
Bennett, James Moore, M.D., 102, Princes Road, Liverpool
Bickersteth, E. R., Esq., 2, Rodney Street, Liverpool
Bickersteth, R. A., M.B., 10, Rodney Street, Liverpool
Bickerton, T. H., Esq., 83, Rodney Street, Liverpool
Bramwell, W., M.D., 26, Nelson Street, Liverpool
Buchanan, R. J. M., M.D., 6, Rodney Street, Liverpool
Burton, J. E., Esq., 64, Rodney Street, Liverpool
Cameron, J., M.D., 4, Rodney Street, Liverpool
Carter, W., M.D., 80, Rodney Street, Liverpool
Caton, R., M.D., 78, Rodney Street, Liverpool
Coghill, Mrs. Agnes I. S., M.B., 4, Sunnyside, Liverpool
Crawford, J. D., Esq., 40, Rodney Street, Liverpool
Davey, W. H. C., Esq., 30, Prince's Road, Liverpool
Davidson, P., M.B., 1, St. James Road, Liverpool
Davies, A. N., Esq., 56, Devonshire Road, Liverpool
Davis, A. E., Esq., 30, Great George Square, Liverpool
Drummond, P., M.B., 50, Princes Road, Liverpool
Dun, R. C., M.B., 6, Rodney Street, Liverpool
Ewart, R. J., M.B., 33, Berkeley Street, Liverpool
Finegan, J. H., M.D., 48, Rodney Street, Liverpool
Gemmell, J. E., M.B., 12, Rodney Street, Liverpool
Glynn, T. R., M.D., 62, Rodney Street, Liverpool
Grossmann, K. A., M.D., 70, Rodney Street, Liverpool
Hamilton, R. J., Esq., 42, Rodney Street, Liverpool
Hanna, Wm., M.B., Pier Head, Liverpool
Hawkins-Ambler, G. A., Esq., 30, Rodney Street, Liverpool
Hill, J. de V., Esq., 19, Upper Parliament Street, Liverpool
Holland, C. T., Esq., 2A, Princes Road, Liverpool
Hope, E. W., M.D., Municipal Offices, Liverpool
Howard, J. A., Esq., 1, Belvidere Road, Liverpool
Irvine, W., M.D., 55, Peel Street, Liverpool
Johnston, G., M.B., 13, Great George Square, Liverpool
Jones, H., Esq., 184, Upper Warwick Street, Liverpool
Jones, Robert, Esq., 11, Nelson Street, Liverpool
Larkin, F. C., Esq., 54, Rodney Street, Liverpool
Lowndes, F. W., Esq., 40, Knight Street, Liverpool
McDougall, J. E., M.B., 86, Rodney Street, Liverpool
McGibbon, J., M.B., 13, Dombey Street, Liverpool
McSwiney, P., Esq., 22, St. George's Square, Liverpool
Meeson, A., Esq., 361, Park Road, Liverpool, S.
Mill, G. R., M.D., South Dispensary, Liverpool
Morgan, D., M.B., 46, Nelson Street, Liverpool
Mussen, A. A., M.D., Municipal Buildings, Dale St., Liver
O'Flaherty, F. B., M.B., 48, Park Place, Liverpool
O'Loughlin, W. F. N., Esq., Adelphi Hotel, Liverpool
Paul, F. T., Esq., 38, Rodney Street, Liverpool
Plant, H. W., M.D., 57, Upper Warwick Street, Liverpool
Raw, N., M.D., 66, Rodney Street, Liverpool
Roberts, H. Leslie, M.D., 46 Rodney Street, Liverpool
Roberts, J. Lloyd, M.D., 68, Rodney Street, Liverpool
Shaw, J. H., M.B., South Dispensary, Liverpool

Stookes, A., M.B., 80, Rodney Street, Liverpool
Taylor, G. G. S., M.D., 26, Rodney Street, Liverpool
Thomas, W. T., Esq., 84, Rodney Street, Liverpool
Warburton, J. W., M.D., 114, Prince's Road, Liverpool
Wilkinson, G., M.B., 100, Park Road, Liverpool
Williams, R., Esq., 82, Rodney Street, Liverpool
Williams, W., M.D., 58, Rodney Street, Liverpool

No. 19.—Manchester (Central) Division

NUMBERING 80.

Chairman, J., Ferguson, M.D., Manchester
Vice-Chairman, J. J., Cox, M.D., Manchester
Honorary Secretary, W. K., Walls, M.B., 14, St. John Street, Manchester
Representative for Representative Meeting, W. G. Booth, Esq., 30, Swan Street, Manchester

Representatives on Branch Council.
Booth, W. G., Esq. | Milligan, W., M.D.

Annacker, E., M.D., 342, Oxford Road, Manchester
Asuby, H., M.D., 13, St. John Street, Manchester
Ball, A. W., Esq., 2, Chapman Street, Manchester
Bell, Margaret S., L.R.C.P., 334, Oxford Road, Manchester
Bernstein, M. J., M.B., 17, St. Ann's Square, Manchester
Bishop, E. S., Esq., 3, St. Peter's Square, Manchester
Booth, W. G., Esq., 30, Swan Street, Manchester
Boycott, W. F., M.B., 92, Great Ancoats Street, Manchester
Burgess, A. H., M.B., 195 High Street, Manchester
Bury, J. S., M.D., 10, St. John Street, Manchester
Clarke, H. R., M.B., 37, York Chambers, Brazenose Street, Manchester
Clegg, J. G., M.D., 22, St. John Street, Manchester
Clifford, H., M.B., St. Mary's Hospital, Manchester
Collier, J., M.B., 157, High Street, Manchester
Cox, J. J., M.D., 38, Deansgate, Manchester
Cryer, J., Esq., 50, Upper Brook Street, Manchester
Dahms, Anna, M.D., 17, St. Ann's Square, Manchester
Dearden, R. J., Esq., 174, Oxford Road, Manchester
Delépine, Professor S., M.B., 1, Stanley Grove, Manchester
Dulberg, J., M.D., 260, Oxford Road, Manchester
Emrys-Jones, A., M.D., 10, St. John Street, Manchester
Ferguson, J., M.D., 266, Stockport Road, Manchester
Fotherzill, W. E., M.D., 1, Thornchffe Grove, Manchester
Gowland, W. P., Esq., Foxlow, Rusholme, Manchester
Griffith, A. H., M.D., 17, St. John Street, Manchester
Hall, I. Walker, M.B., The Owens College, Manchester
Hardie, J., M.D., 15, St. John Street, Manchester
Harris, T., M.D., 325, Oxford Road, Manchester
Heathcote, G., Esq., 83, Grosvenor Street, Manchester
Helme, T. Arthur, M.D., Mayfield, Victoria Pk, M'chester
Henshaw, W. H., Esq., 30, Swan Street, Manchester
Heywood, C. C., M.B., Winter's Buildings, St. Ann Street, Manchester
Hill, E. F., M.B., 1, High Street, Chorlton-on-Medlock
Hodgkinson, A., M.B., 18, St. John Street, Manchester
Johnston, J. S., Esq., 26, Devonshire Street, All Saints, Manchester
Larmuth, L., M.B., 96, Mosley Street, Manchester
Lea, A. W. W., M.D., 274, Oxford Road, Manchester
Lund, H., M.B., 22, St. John Street, Manchester
McKeown, D., M.D., 25, St. John Street, Manchester
Mann, J. B., Esq., 26, St. John Street, Manchester
McNabb, H. H., M.B., 8A, St. John Street, Manchester
Macpherson, J. F., M.B., 10, Stockport Road, Manchester
Mallett, W. J., M.D., 23, Lime Gr., Oxford Rd., Manchester
Mann, J. D., M.D., Plymouth Grove, Manchester
Marsden, R. W., M.D., 4, Swinton Grove, Manchester
Melland, C. H., M.D., 96, Mosley Street, Manchester
Milligan, W., M.D., 12, St. John Street, Manchester
Montgomery, W. P., M.B., 15, St. John Street, Manchester
Moody, W., M.B., 418, Stretford Road, Manchester
O'Doherty, C., M.D., 84, Rusholme Road, Manchester
Parkinson, R. T., M.D., 336, Oxford Road, Manchester
Platt, J. E., M.D., 191, High Street, Manchester
Pritchard, Frank, M.B., 296, Upper Brook St. Manchester
Pritchard, H. W., Esq., 12, Brunswick Street, Chorlton-on Medlock
Pritchard W. B., Esq., 272, Oxford Road, Manchester
Ray, J. H., M.B., 22, St. John Street, Manchester
Reynolds, E. S., M.D., Platt Cottage, Rusholme, M'chester
Roberts, Charles, M.B., 15, St. John Street, Manchester
Roberts, D. L., M.D., 11, St. John Street, Manchester
Roberts, Edward, Esq., 23, St. John Street, Deansgate, Manchester
Scanlon, L. E., Esq., 101, Princess Road, Manchester
Scotson, F. C., M.B., Plymouth Grove West, Manchester
Scott, John, M.D., 249, Upper Brook Street, Manchester
Sinclair, W. J., M.D., 4, Stanley Grove, Manchester
Smith, J. W., Esq., 205, High Street, Manchester
Smith, R. B., Esq., 252, Oxford Road, C.-on-M., Manchester
Stallard, J. P., M.D., 256, Oxford Road, Manchester
Steell, G., M.D., 96, Mosley Street, Manchester
Thorburn, W., M.D., 2, St. Peter's Square, Manchester
Walls, W. K., M.B., 14, St. John Street, Manchester
Westmacott, F. H., Esq., 8, St. John Street, Manchester
Wharton, J., Esq., Royal Eye Hospital, Manchester
Whitehead, W., Esq., 17, Market Street, Manchester
Wilkinson, A. T., M.D., 22, St. John Street, Manchester
Williamson, R. T., M.D., 2, St. Peter's Square, Manchester
Wilson, A., Esq., 338, Oxford Road, Manchester
Wood, J. W. A., Esq., 53, Grosvenor Street, C.-on-M., Manchester
Worsley, R. Le Geyt, Esq., H.M. Prison, Manchester
Wright, G. A., M.B., 16 St. John Street, Manchester
Wrigley, P. R., Esq., Hulme Hall, Plymouth Grove, Manchester

No. 20.—Manchester (North) Division

NUMBERING 73.

Chairman, S. Buckley, M.D., Manchester
Vice-Chairman, C. F. H. Kitchen, Esq., Manchester
Honorary Secretary, R. G. McGowan, M.D., Thomas Street, Cheetham Hill, Manchester
Representative for Representative Meeting, G. H. Broadbent, Esq., 8, Ardwick Green, Manchester

Representatives on Branch Council.
Broadbent, G. H., Esq. | Alex. Fraser, M.D.
Dearden, W. F., Esq. |

Ashworth, J. H., M.B., 385, Cheetham Hill Rd., Manchester
Barnes, E., M.B., The Pole, Failsworth, Manchester
Bisnop, Robert, M.B., 104, Bradford Street, Manchester
Broadbent, G. H., Esq., 8, Ardwick Green, Manchester
Boddy, H. W., M.D., Cheetham Hill, Manchester
Buck, W., Esq., Beswick House, Manchester
Buckley, S., M.D., Broadhurst, Bury Old Road, Manchester
Bythell, W. J. S., M.B., Woodcliffe, Prestwich
Carruthers, C., Esq., Barton House, Openshaw
Cluff, William, M.B., Highbank House, Openshaw
Corley, A. H., Esq., 317, Waterloo Road, Hightown
Cowie, J. McR., M.B., Clayton Vale Hospital, Newton Heath
Dearden, W. F., Esq., Crumpsall Park, Manchester
Dick, J. S., M.B., Morley Place, Harpurhey, Manchester
Fenn, R. M., M.B., 147, Cheetham Hill Road, Manchester
Finkelstein, S., M.D., 104, Cheetham Hill Road, Manchester
Fraser, Alex., M.D., Queen's Park, Manchester
Fulton, A. B., M.B., Bank House, Cheetham Hill
Gilmour, A. J., M.D., 2, Higher Ardwick, Manchester
Gornall, R. G., Esq., Newton Heath, Manchester
Graff, H., Esq., 148, Cheetham Hill Road, Manchester
Hargreaves, F. B., Esq., 24, Ashton Old Road, Manchester
Holmes, W. S., M.B., 31, Wellington St., Bradford, M'chester
Hopps, Thomas, Esq., 51, Euclid Street, Beswick
Hoyle, John, Esq., 231, Oldham Road, Manchester
Hudson, J., Esq., Ebor House, Bradford, Manchester
Jackson, W. F., M.B., 46, Wycliffe Street, Ardwick
Jones, E. E., Esq., 820, Ashton Old Road, Openshaw
Jones, L. H., M.D., Limefield, Cheetham Hill, Manchester
Kitchen, C. F. H., Esq., 112, Cheetham Hill Road, Manchester
Laug, J., M.B., 780, Rochdale Road, Manchester
Larkham, E. T., M.D., Daisy Bank, Heaton Pk, M'chester
Lawson, Alex., Esq., Holyrood, Prestwich
Lawson, R. P., Esq., 822, Ashton Old Rd., Higher Openshaw
Lee, E., Esq., 618 Rochdale Road, Manchester
Lister, H. S., M.B., Manchester Workhouse Infirmary, Crumpsall
McCormick, T., Esq., Hightown, Manchester
McGowan, R. G., M.D., 1, Thomas Street, Cheetham Hill
McGrath, John, Esq., 469, Ashton Old Road, Openshaw
Macmillan, D., M.D., Addiscombe, Prestwich
Minns, J., Esq., 152, Conran Street, Harpurhey
Moore, F. C., M.D., The Priory, Ardwick Green, Manchester
Moore, J. W., Esq., Miles Platting, Manchester
Morrow, R. W., Esq., 383, Oldham Road, Manchester
Muir, W. S., Esq., 184, Wellington St., Bradford, M'chester
Murray, H. G., Esq., County Asylum, Prestwich
Orr, David, M.D., County Asylum, Prestwich
Paton, R. A., M.B., Hendham House, Harpurhey, Mnchstr.
Perceval, F., Esq., Co. Asylum, Prestwich
Porter, T., M.B., 523, Waterloo Road, Hightown, Manchstr.
Preston, J. M. S., M.B., 120, Cheetham Hill Rd., Manchester
Ross, A. T., M.B., Monsall Hospital, Newton Heath, Manchester
Salverton, C. W. S., M.B., 10, Stockport Road, Ardwick
Saul, V. S., Esq., 33, Cheetham Hill Road Manchester
Scott, B., M.B., 48, Ardwick Green, Manchester
Sellers, A., M.D., Guest Road, Prestwich
Skinner, C. G. L., M.D., Harpurhey, Manchester
Smith, J. W., Esq., 55 & 57, Pin Mill Brow, Ardwick
Southam, Stanley, Esq., 512, Rochdale Road, Manchester
Stephenson, W. H., Esq., 137, Rochdale Rd., Harpurhey
Sutherland, J. M., M.D., 325, Gt. Ancoats Street, M'chester
Sweeny, W. D., Esq., 22, Ashton New Road, Manchester
Tylecote, F. E., Esq., M'chester Workhouse Infirmary, Crumpsall
Tytler, P., M.D., 114, Cheetham Hill Road, Manchester
Walker, Edward Jabez, M.D., 118, Great Ducie St., Manc'r.
Walker, Tom, Esq., Manchester Workhouse, Crumpsall
Walsh, R. W., Esq., Ebor Lodge, Bury New Rd., M'chester
Wardman, W., Esq., 421, Rochdale Road, Manchester
Watson, J., M.D., 135, Stockport Road, Manchester
Whitfield, A., Esq., 38, Rochdale Rd., Harpurhey, Manchstr
Whittington, T., Esq. Woodleigh House, Prestwich
Williams, W. T., Esq., 33, Great Ancoats St., Manchester
Young, T., M.D., 5, Stockport Road, Manchester

No. 21.—Manchester (Salford) Division.

NUMBERING 72.

Chairman, R. H. Wolstenholme, Esq., Salford
Vice-Chairman, F. L. Roe, Esq., Eccles
Honorary Secretary, J. H. Taylor, M.B., 361, Eccles New Road, Weaste
Representative for Representative Meeting, R. H. Wolstenholme, Esq., 15, Eccles New Road, Salford

Representatives on Branch Council.
Owen, D., Esq. | Roe, F. L., Esq.

Albrecht, J. A., Esq., 343, Lower Broughton Rd., M'chester
Balmford, J. T., M.B., 237, Oldfield Road, Salford
Beesley, G. Wm., Esq., 226, Lr. Broughton Rd., Manchester
Bell, W. B., M.B., Brae Lossie, Higher Broughton, M'hstr
Berry, J. J., M.D., West Dene, Pendlebury
Birley, H. K., Esq., Penrhyn, Irlam-o'-th-Heights
Bold, H. A., M.B., Race Street, Salford
Boutflower, A., Esq., Kersal, Manchester
Braddon, W. V., Esq., Ryecroft House, Cheetham Hill, Manchester
Bradley, J., Esq., 196, Chapel Street, Salford
Brightmore, H. S., M.B., Lime Field, Broughton Lane, Lower Broughton
Brown, A., M.D., Sandicroft, Higher Broughton
Brown, W. C., Esq., Heathfield, Broughton
Burgess, E. A., Esq., 20, Broad Street, Pendleton
Carr, T. G., Esq., Irlams-o'-th-Heights, Manchester
Carson, J. H., Esq., 72, Cross Lane, Salford
Clarke, A. C., M.B., Ch.B. (Vict.), Higher Broughton
Conder, A. F. R., M.B., 261, Monton Road, Eccles
Courteuay, F. W. E., Esq., Bank House, Eccles
Cran, R. D., Esq., 187, Regent Road, Salford
Creighton, G. E., Esq., 221, Cross Lane, Salford
Dowzer, John, Esq., Fern Acre, Eccles
English, Samuel, M.D., Hanover Sqre, Higher Broughton Manchester
Evison, H. C., M.B., 813, Regent Road, Salford
Ferguson, C. H., M.B., 2, Weaste Road, Weaste
Ferguson, W. A., Esq., 195, Langworthy Road, Seedley
Garrard, C. R. O., Esq., Pendleton
George, A. C., Esq., 538, Eccles New Road, Pendleton
Grange, J. W., M.D., Highfield, Kersall, Manchester
Gray, J., Esq., 101, Broughton Lane, Manchester
Hamill, J. W., M.D., Higher Broughton, Manchester
Hamilton, W. M., M.D., Patricroft, Manchester
Hartley, S., M.B., Albany House, Pendleton
Herbert, J. W. C., Esq., Carrington House, Pendlebury
Johnson, T. M., M.D., Oakfield, Pendleton, Manches.er
Johnson, W. C., Esq., 11, Trafford Road, Salford
Ludlam, A. K., Esq., 24, Trafford Road, Salford
Mackenzie, J., M.B., Brunswick Terrace, Pendleton
McLaren, J. B., Esq., 2, Howard Street, Salford
Macnair, A. D., M.B., Gt. Clowes St., Higher Broughton Manchester
McNair, S., Esq., 14, Langworthy Rd., Weaste Manchester
Massey, James, M.B., Fitzwarren Street, Pendleton
Milner, E. T., Esq., 30, St. Ann Street, Salford
Monteagle, H. W. B., M.D., 78, Broad Street, Pendleton
Morris, J. H., Esq., The Crescent, Salford
Mort, J. H., Esq., 384, Liverpool Road, Patricroft
Mullen, John Wm., Esq., Ladywell Sanatorium, Salford
Nolan, M. J., Esq., 211, Regent Road, Salford
O'Grady, W. F., Esq., Swinton
Orr, J., M.B., 3, Clarendon Road, Eccles
Owen, D., Esq., St. Brelades, Irlam-o'th'Heights
Panton, John, M.B., 97, Fitzwarren St., Seedley, Manchester
Phipps, H. H., Esq., Larkhill Swinton
Pilkington, J. E., Esq., 24, The Crescent, Salford, Mnchstr
Preston, H. H. Esq., 147, Church Street, Pendleton
Pringle, A. M. N., M.B., 29, Howard Street, Salford
Roe, F. L., Esq., Wellington Road, Eccles, Manchester
Serra, C. L., M.D., Eccles, near Manchester
Snowby, E. T., M.B., Windward, Worsley
Sidley, George, Esq., Monk's Hall, Eccles
Somers, E., Esq., 4, Leaf Square, Pendleton
Spearing, A., Esq., 142 Liverpool Road, Patricroft
Sprott, W. J., M.D., Heathfield, Eccles Old Road, M'chester
Stewart, A., M.D., Holly Bank, Eccles Old Road, Pendleton
Sturrock, A. C., M.D., 11, Victoria Crescent, Eccles
Tattersall, C. H., Esq., M.O.H., Salford
Taylor, J. H., M.B., 361, Eccles New Road, Weaste, M'ch'tr
Williams, A., M.D., 251, Chapel Street, Salford
Williams, J. P., M.D., Broomfield, Swinton, Manchester
Wolstenholme, R. H., Esq., 15, Eccles New Road Salford
Wood, J., Esq., 4, Spring Bank, Sandy Lane, Pendleton
Young, R. S., M.B., Monton Green Eccles

No. 22.—Manchester (South) Division

NUMBERING 84.

Chairman, C. E. Glascott, M.D., Didsbury.
Vice-Chairman, J. M. Rhodes, M.D., Manchester
Honorary Secretary, F. H. Collins, M.D., Manchester.
Representative for Representative Meeting, S. Bagley, Esq., Clowes Street, West Gorton, Manchester.

Representatives on Branch Council.
Brown, E. V., M.D. | Glascott, C. E., M.D.

Anderton, W. B., M.B., E'sinore, Raynham Av., Didsbury
Ashton, G. M., M.B., Crescent Lodge, Fallowfield
Bagley, S., Esq., Clowes Street, West Gorton, Manchester
Barr, James, M.B., 663, Hyde Road, Gorton
Boyd, J. W., M.B., Carlton Terrace, Fallowfield, Manchester
Bride, J., M.D., Byswood House, Wilmslow, Manchester
Bride, John, M.D., High Bank, Fulshaw Road, Wilmslow
Brockbank, E. M., M.D., 51, Palatine Road, Withington
Brooke, H. A. G., M.B., Victoria Park, Manchester
Brown, E. V., M.D., 2, Birch Lane, Longsight, Manchester
Byers, Alfred, M.D., Wilmslow, Manchester
Chadwick, A., M.B., Clyde Ho., Heaton Chapel, Manchester
Chadwick, J. M., Esq., 54, Cawdor Road, Fallowfield
Christie, J. G., M.B., 397, Stockport Road, Manchester
Collins, F. H., M.D., Bridge House, Didsbury, Manchester
Conway, B. W., Esq., 2, Newton Avenue, Longsight
Cotterill, A. E., Esq., 42, Brook Road, Fallowfield
Crossley, R., Esq., 172, Clowes St., West Gorton, M'nchester
Crowe, G. E., M.D., 8, Barlow Moor Road, Didsbury
Cruickshank, J. B., M.B., 240, Stockport Road, Levenshulme
Darwin, G. H., M.D., Albert Park, West Didsbury
Dickey, H. J., M.B., 24, Didsbury Road, Heaton Mersey
Donald, A., M.D., Platt Abbey, Rusholme, Manchester
Edlin, H. E., Esq., Middlemore House, Levenshulme
Featherstone, John, Esq., 251, Wilmslow Road, Fallowfield
Fitchett, F. W. B., M.B., 14, Chatham Grove, Withington
Floyd, J. E., M.B., 144, Hyde Road, Gorton
Glascott, C. E., M.D., Lancaster Road, Didsbury
Goodfellow, T. A., M.D., 104, Palatine Road, West Didsbury
Gowland, G. R., Esq., 118, Wilmslow Road, Rusholme
Grant-Johnston J., Esq., Ashforde Grange, Wilmslow
Green, P. H., M.B., Withington Union Infirmy, W. Didsbury
Hacking, J. H., Esq., Alderley Road, Wilmslow, Manchester
Haring, N. C., M.B., 112, Wilmslow Road, Rusholme
Harthan, I., Esq., Parkfield Road, Didsbury
Helme, G. E., M.B., Rusholme
Holt, Henry, M.B., 98, Wellington Road, Brookfield, Heaton Chapel, Manchester
Hopkinson, Albert, M.B., 2, Parsonage Road, Withington
Howe, John, M.B., Eskdale, Levenshulme
Ilderton, H. P., Esq., Fairfield, near Manchester
Jones, W. W., M.B., 65, Barlow Moor Road, Didsbury
Jordan, F. W., M.D., Heaton Chapel, Manchester
Kerscaw, John, Esq., 45, Moorland Road, Didsbury
Lancashire, G. H., Esq., Barlow Moor Road, Didsbury
McDougall, P., M.B., Fallowfield, Manchester
Mackenzie, J. B., M.D., 10, Birch Lane, Longsight, Manchester
McNaughton, M. H., Esq., 73, Barlow Moor Road, Didsbury
Mayor, J. B., Esq., Westholme, Heaton Chapel
Mitchell, A. M., M.B., 330, Dickenson Road, Longsight
Moritz, S., M.D., The Hornbeam, Rusholme, Manchester
Niven, J., M.B., Uplands, Victoria Park, Manchester
Parkinson, H. R., Esq., Zeckonby House, Withington, near Manchester
Platt, J. Noble, Esq., Whitefield House, Wilmslow
Priestley, J. Esq., Oak Drive, Fallowfield
Reaney, M. F., M.B., 17, Cromwell Grove, Levenshulme
Rhodes, J. M., M.D., Barlow Moor, Didsbury, Manchester
Rhodes, M. R., Esq., 77, Barlow Moor Road, Didsbury
Riddall, T. B., M.B., 189, Dickenson Road, Rusholme
Rigby, W. B., Esq., 233, Hyde Road, Gorton, Manchester
Rodocanachi, A. J., M.D., 110, Palatine Road, Didsbury
Ross, J. C., M.D., Parsonage Nook, Withington
Russell, G. H., M.D., 235, Stockport Road, Manchester
Salter, S. C., Esq., 394, Dickenson Road, Manchester
Saul, Helene G., M.D., Withington, Manchester
Scott, W. E. Sawers, Esq., 57, Wilmslow Road, Withington
Senior, A. W., Esq., 16, Albert Road, Levenshulme
Simcock, J., M.D., Heaton Chapel, Manchester
Somerville, T. A., Esq., Wilmslow, Manchester
Southam, F. A., M.B., Oak Lawn, Rusholme
Stirling, Professor W., M.D., Bellfield Lodge, Willow Bank Fallowfield, Manchester
Stocks, W. P., Esq., 59, Wilmslow Road, Withington
Stothard, W. J., Esq., 163, Palatine Road, Didsbury
Stowell, G., M.B., 61, Didsbury Road, Heaton Mersey
Thompson, C. F., M.B., Thornville, Longsight, Manchester
Wahltuch, A., M.D., Moon Grove, Rusholme, Manchester
Walter, W., M.B., Rusholme Hall, Manchester
Webb, F. J., M.B., Edenagreena House, Gorton
Wild, R. B., M.D., Wilmslow Road, Fallowfield, Manchester
Williamson, H. M., M.B., Rusholme, Manchester
Willis, J. D., Esq., 169, Hyde Road, West Gorton
Wolfendale, G. A., Esq., 52, Cross Lane, Gorton
Yates, T. P., Esq., 313, Abbey Hey Lane, Abbey Hey, Gorton
Yonge, E. S., M.D., Didsbury
Young, A. H., M.D., 3, Norman Rd., Rusholme, Manchester

No. 23.—Manchester (West) Division

NUMBERING 73.

Chairman, J. Brassey Brierley, M.D., Old Trafford.
Vice-Chairman, John Broadbent, Esq., Manchester.
Honorary Secretary, J. S. Prowse, M.B., Willow Bank, Moss Lane East, Manchester
Representative for Representative Meeting, A. Brown Kitchie, M.B., Summer Lea, Withington Road, Whalley Range, Manchester

Representative on Branch Council.
Brierley, J. Brassey, M.D.

Arnold, F. S., M.B., 468, Moss Lane, East Manchester
Arnold, M. B., M.B., Elmfield, Victoria Road, Whalley Range, Manchester

Barlow, H. W. L., M.B., Urmston
Battersby, John, M.B., 27, St. Bees Street, Moss Side, Manchester
Booth, T. Carter, M.D., Gorsett Hill, Urmston
Bowman, G., M.D., Monifieth, Old Trafford, Manchester
Brierley, J. Brassey, M.D., Old Trafford, Manchester
Broadbent, J., Esq., 8, Sunny Bank, Alexandra Rd., Muchstr
Brown, C. W., M.B., 7, Chorlton Road, Manchester
Burditt, R. A., Esq., 134, Embden Street, Manchester
Byrne, G., Esq., Wilbraham Road, Chorlton-cum-Hardy
Chance, R. F., Esq., Athol House, Brooks's Bar, M'nchester
Chapman, A. W., M.B., 6, Vine Street, Hulme, Manchester
Clegg, J., M.B., Netherley, Urmston, Manchester
Coates, W., Esq., Ingleside, Whalley Range, Manchester
Daly, R. A. S., Esq., 225, Stretford Road, Manchester
Davies, W., Esq., 25 Stretford Road, Manchester
Denholm, Andrew, M.D., Chorlton-cum-Hardy
Dutton, E. C., M.B., 14, Yarburgh St., Moss Side, M'chester
Eales, W., Esq., 89, City Road, Manchester
Edge, A. M., M.D., Demesne Road, Whalley Range, Man'r.
Edwards, Arnold, M.D., Wilbraham Rd., Chorlton-c-Hardy
Fairclough, J. J. K., M.D., 414, Stretford Road, Manchester
Fairweather, W. E., Esq., Lingerwood, Holland Road, Chorlton-c-Hardy
Faulkner, J. T., M.D., Chester Road, Stretford, Manchester
Fiddes, Thomas, M.D., Moorfield, Urmston
Floyd, E. W., M.B., Westwood St., Moss Side, Manchester
Fraser, A. G., M.D., 98, Alexander Road, Manchester
Garrett, T. J. G., Esq., 159, Princess Road, Moss Side, Manchester
Garstang, Walter, M.B., 117, Boston Street, Hulme, Manchester
Garner, Charles, M.D., Willow Bank, Irlam Road, Flixton
Gordon, G. R., M.D., 96, Alexandra Road, Manchester
Gordon, T. E., M.D., 79, Manchester Rd., Chorlton-c-Hardy
Heslop, W. J., Esq., 366, Stretford Road, Manchester
Jackson, Edwin, Esq., 77, Withington Road, Manchester
Jones, J. W., Esq., 154, Chorlton Road, Manchester
Kennedy, J., M.D., Stretford Road, Manchester
Lacey, T. S., Esq., Wilbraham Road, Chorlton-cum-Hardy
McDougall, A., M.B., Willow Bank, Moss Lane, E., Manchester
McGlynn, J., M.D., 127, Radnor Street, Hulme, Manchester
Matthews, W. R., M.B., Shrewsbury Street, Brooks Bar, Manchester
Mayne, W. F., Esq., Gloucester Ho., Station Rd., Urmston
Melling, W. T., M.B., 199, Clarendon Road, Whalley Range, Manchester
Mockler, J. C., Esq., 72, Manchester Road, Chorlton-cum-Hardy
Mumford, A. A., M.D., Gable Nook, Chorlton-cum-Hardy
Nesfield, Stephen, M.D., 1, Richmond Place, Old Trafford
Nichol, J. C., M.D., 345, Stretford Road, Manchester
O'Flanaghan, M. J., M.B., 94, Alexandra Road, Manchester
Owen, S. H., M.D., Whalley Range, Manchester
Paterson, T. G., M.B., 125, Moss Lane East, Manchester
Pinder, G. H., Esq., 59, Greame Street, Manchester
Pinder, T. H., Esq., Greame St., Alexandra Rd., Manchester
Pownall, A. E., Esq., Beulah House, Chorlton-cum-Hardy
Pringle, John, M.D., 97, Withington Rd., Whalley Range
Prowse, J. S., M.B., 1, Willow Bank, Moss Lane, E. Mnctr.
Quayle, E., Esq., Belmont, Urmston, Manchester
Redmond, C. Stennett, Esq., 117, Stretford Rd., Manchester
Renshaw, J. W., Esq., Ash House, Stretford, Manchester
Richardson, W. Herbert, Esq., 139, Up. Lloyd St., Manchester
Ritchie, A. Brown, M.D., Summer Lea, Withington Road, Whalley Range
Sewell, D. L., Esq., Dalton Hall, Victoria Park, Manchester
Smith, A. H., Esq., 175, Withington Road, Manchester
Smith, C. E., Esq., Stretford near Manchester
Smith, J. Turville, Esq., 24, Chorlton Road, Manchester
Smith, J. E., M.B., 120, Alexander Rd. Moss Side, Manch'ter
Smithard, W. R. N., M.B., 15, Stretford Road, Manchester
Tempest, James, Esq., Whalley Range, Manchester
Walker, J. P., Esq., Alderley House, Stretford Rd., Urmston
Walls, J., M.D., Irlam Road, Flixton, near Manchester
Webster, E., Esq., 87, Chapman Street, Hulme, Manchester
Westwood, Andrew, M.B., 1, Leamington Terrace, Stretford
Worswick, F. H., M.D., Chorlton Road, Manchester
Younan, J., M.B., 153, City Road, Manchester

No. 24.—Oldham Division

NUMBERING 62.

Chairman, J. Corns, M.D., Oldham.

Vice-Chairman, W. Graham, M.D., Middleton.

Honorary Secretary, J. Hodgson, M.B., 149, King Street, Oldham.

Representative for Representative Meeting, T. Fawsitt, Esq., 46, Union Street West, Oldham.

Representatives on Branch Council.

Fort, T., Esq. | Robertson, G. J., M.B.

Apthomas, Griffith, M.B., 5, Union Street, Oldham
Ashton, H., Esq., 423, Middleton Road, Oldham
Banchop, J., M.B., Glenburn, Hollinwood
Bentley, W. L., Esq., 79, Rochdale Road, Royton
Bowes, Paul, M.D., 469, Middleton Road, Oldham
Bowes, R., M.D., 86, Union Street West, Oldham
Broomhead, Charles, M.D., 2, Barker Street, Oldham
Buckley, W. H., Esq., 20, Union Street, Oldham
Burd, G. F., Esq., Dobcross, Saddleworth
Carson, T. J., Esq., 117, Union Street, Oldham
Claydon, Olive, M.B., Melford, Belgrave Road, Oldham
Clegg, T., Esq., 372, Chadderton Road, Oldham
Corns, J., M.D., 121, Union Street, Oldham
Cunliffe, T. V., M.D., 75, Greengate Street, Oldham
Currie, James, M.B., County End, Lees, nr. Oldham
Davies, A. V., M.B., Glenarm House, Shaw
Doble, H. T., Esq., 2, Union Street, Oldham
Falconer, F., M.B., 2, Union Street, Oldham
Fawsitt, T., Esq., 46, Union Street West, Oldham
Fort, T., Esq., Falcon House, Oldham
Gill, H. T., M.B., Manchester Road, Oldham
Godson, A. H., M.B., 63, Union Street West, Oldham
Gourlay, R., M.B., Spring Street, Oldham
Graham, W., M.D., Middleton, near Manchester
Heap, H. S., M.B., 1, Crofton Street, Hathershaw
Hearne, W. E., Esq., Westwood House, Oldham
Hodgson, J., M.B., 149, King Street, Oldham
Holt, J. J. H., M.B., The Lodge, Middleton, Manchester
Johnstone, G., M.B., 139, Manchester Old Road, Middleton
Kershaw, J. G., M.B., 94, Waterloo Street, Oldham
Kershaw, W. E. E., Esq., Beech House, Middleton
Law, J., Esq., Bridge House, Hollinwood
Leach, A., Esq., 220, Manchester Street, Oldham
McGowan, J. Sinclair, M.D., 13, King Street, Oldham
Marsden, J., M.B., 68, Shaw Road, Oldham
Martland, E. W., Esq., 1, Walshaw Place, Oldham
Milne, J., M.B., 68, Manchester Old Road, Middleton
Monteath, T. P., M.B., 32, Milnrow Road, Shaw
Oliver, William, M.B., Culvert House, Waterhead, Oldham
Park, R. L., Esq., The Rookery, Middleton
Patterson, Wm., Esq., 193, Ripponden Road, Oldham
Pickering, R. W., Esq., Belmont House, Oldham
Platt, T., Esq., Clegg Street, Oldham
Price, David, Esq., Greenfield
Radcliffe, F., M.D., 94, Werneth Hall Road, Oldham
Ramsden, Herbert, M.D., Dobcross, Saddleworth
Ratcliffe, J. E. Esq., 97, Werneth Hall Road, Oldham
Roberts, T. H., Esq., Linfitts, Delph
Robertson, G. J., M.B., 61, Queen's Road, Oldham
Sparrow, R. L., Esq., 370 Manchester Road, Hollinwood
Stelfox, J. B., Esq., Parkfield Mount, Middleton
Stewart, W. A., M.B., 28, Barker Street, Oldham
Thomson, G., M.D., 5, Huddersfield Road, Oldham
Wakelam, Edgar Esq., Millfield House, Waterhead, Oldham
White, John H., Esq., 16, Milnrow Road, Shaw
White, William, M.D., 12, Glodwick, Oldham
Whitmore, John, Esq., 28, Glodwick Road, Oldham
Whitestone, H. L., Esq., Springfield House, Middleton
Wilkinson, J. B., M.D., Health Dept., Town Hall, Oldham
Wylie, A. H., M.D., 93, Manchester Street, Oldham
Yates, W. B., Esq., 368, Lees Road, Oldham
Young, Ralph, M.D., Park House, Royton, near Oldham

No. 25.—Preston Division

NUMBERING 55.

Chairman, R. C. Brown, M.B., Preston.

Vice-Chairman, J. E. Garner, M.D., Preston.

Honorary Secretary, W. H. Irwin Sellers, M.B., 1, Chapel Street, Winckley Square, Preston.

Representative for Representative Meeting, D. T. Smith, M.B., 2, Fishergate Hill, Preston.

Representative on Branch Council.
Rayner, A. C., M.D.

Executive Committee.

Anderson, J., M.B. | Lonie, J., M.D.
Jones, J. E., M.D. | Mooney, A. P., M.D.

Anderson, Joseph, M.B., Garstang Road, Preston
Bell, F., Esq., 17, Winckley Square, Preston
Berry, E., Esq., Leyland, near Preston
Blandford, J. J. G., Esq., Co. Asylum, Whittingham, Preston
Brown, D. W., M.D., 11, Plungington Road, Preston
Brown, R. C., M.B., 27, Winckley Square, Preston
Case, H., Esq., Brinscall, Chorley
Clark, R. M., M.D., County Asylum, Whittingham
Collinson, F. W., M.D., 32, Winckley Square, Preston
Connell, R. P., Esq., Bamber Bridge, near Preston
Cookson, J., M.B., 167, Moor Lane, Preston
Derham, T. H. C., M.B., Garstang Road, Preston
Duckworth, Alfred, Esq., Croston, near Preston
Ferguson, Malcolm, Esq., 21, Stephenson Terrace, Preston
Fraser, P., M.D., Leyland
Garner, J. E., M.D., 6, Winckley Square, Preston
Gemmel, J. F., M.B., co. Asylum, Whittingham, Preston
Goldie, A. E., M.B., Walton-le-Dale, near Preston
Harris, J. A., M.D., St. George's House, Chorley
Healey, J. E., M.B., Ravenswood, Preston
Holden, J. E., M.B., 95, Fishergate Hill, Preston
Holden, J. F., M.B., Cromwell Terrace, Preston
Howe, J. D., Esq., Deepdale House Burrow Rd, Preston
Jones, J. E., M.D., Lawrence Lodge, Chorley
Langdon, J. W., Esq., 4, Winckley Square, Preston
Lightbourne, J. A., M.D., 8, Winckley Square, Preston
Lonie, J., M.D., 148, North Road, Preston
McDade, W. J., M.B., Bennett Terrace, Preston
Macdonald, F. B., M.B. 1, Stanley Place, Preston
Mackintosh, A., M.B., St. Thomas Square, Chorley
Marsden, Thos., M.D., Longridge, near Preston
Maskell, J. W., Esq., 3, St. George's Street, Chorley
Mooney, A. P., M.D., 25B, Winckley Square, Preston
Pearson, John B., M.B., Ribbleton Lane, Preston
Peddie, C., Esq., Whittle-le-Woods, near Chorley
Petyt, A. I., M.B., Beech Cottage, Longton, Preston
Pilkington, H. O., Esq., 19, Winckley Square, Preston
Pimblett, W. H., M.B., 2, Bow Lane, Fishergate Hill, Preston
Pimley, T., M.B., Fulwood, Preston
Rayner, A. C., M.D., 58, Pole Street, Preston
Reid, John, Esq., 146, Deepdale Road, Preston
Richardson, W. H., M.B., Ribblesdale Place, Preston
Rigby, W., M.B., 83, Fishergate Hill, Preston
Rigg, J., M.D., 12, Fishergate Hill, Preston
Sames, H. V., M.B., Bank House, Crofton, Preston
Scott, W. W., Esq., Leyland, near Preston
Sellers, W. H. I., M.B., 1 Chapel St., Winckley Sq., Preston
Sergeant, E., Esq., County Offices, Preston
Sharples Thomas, Esq., Dardsley, Lostock Hall
Sinclair, J., M.B., Withnell, near Chorley
Smith, D. T., M.B., 2, Fishergate Hill, Preston
Talbot, M. W., M.B., 1, Gladstone Terrace, Preston
Trimble, C. J., Esq., Louth House, Bamber Bridge
Trimble, R., M.D., 9, Winckley Square, Preston
Walmsley, F. T., M.B., Moss Cottage, Preston

No. 26.—Rochdale Division

NUMBERING 55.

Chairman, J. Henry, M.D., Rochdale.

Vice-Chairman, C. W. Thorp, Esq., Todmorden.

Honorary Secretary, A. B. McMaster, M.D., 174, Drake Street, Rochdale.

Representative for Representative Meeting, J. Brown M.D., Burwood House, Bacup.

Representative on Branch Council.
Thorp, C. W., Esq.

Ashcroft, J. A., M.D., Littleborough, near Manchester
Baillie, P., M.D., Whitworth, Rochdale
Baldwin, Edgar, Esq., 218, Yorkshire Street, Rochdale
Bateman, W. H., M.B., Daisy Bank, Rochdale
Brooks, Herbert, M.B., 108, Clements Royds St., Rochdale
Brown, J., M.D., Burwood House, Bacup
Brown, J. P., M.B., Burwood House, Bacup
Butterworth, J. J., M.B., 7, Dawson Street, Heywood
Carse, W. H., M.B., Spotland Bridge, Rochdale
Chadwick, J., Esq., Butterworth Hall, Milnrow, Rochdale
Currie, Wm., M.B., Riverside, Todmorden
Dickson, Arthur, M.D., Quarry House, Healey, Rochdale
Elliott, G. P., Esq., North View, Todmorden
Falconer, E. W., M.B., 235, New Church Road, Stackstead, near Manchester
Forbes, T. J. L., M.B., Whitworth, Rochdale
Geddes, G., M.D., 2, Rochdale Road East, Heywood
Grindrod, J. A., Esq., Norden, Rochdale
Harris, Herbert, M.D., Wellfield, Oldham Road, Rochdale
Hartley, F. W., Esq., 129, Manchester Street, Heywood
Henry, J., M.D., 107, Drake Street, Rochdale
Hill, T. K., M.B., Heywood
Hutchin, H. H. I., Esq., Rock House, Heywood
Hodgson, W. J., M.D., The Burns, Rochdale
Hunt, T., M.D., Heywood, Manchester
Jameson, J. B., M.B., Heywood Hall, Heywood
Jefferson, A. J., M.D., 2, West Street, Rochdale
Jefferson, George, M.B., Cornholme, Todmorden
Jeffery, H. F., M.B., Sandon House, Heywood
Lomas, Alfred, M.B., Castleton, near Manchester
Lord, S. T., Castleton, near Manchester
Low, John, M.B., 63, South Street, Rochdale
Kerr, W. J., M.D., Vicarage Drive, Rochdale
MacGill, G., Esq., Littleborough, Manchester
McMaster, A. B., M.D., 174, Drake Street, Rochdale
Malim, G. W., Esq., 171, Drake Street, Rochdale
Melvin, James, M.B., Newhold Hall, Rochdale
Menzies, J. A., M.D., 185, Drake Street, Rochdale
Pinck, Wm., M.B., Union Infirmary, Dearnley, Rochdale
Pitcairn, G. K., M.B., Littleborough
Pooley, W., Esq., 185, Yorkshire Street, Rochdale
Richmond, D., M.B., 176, Drake Street, Rochdale
Rodley, John, Esq., 187, Yorkshire Street, Rochdale
Russell, Harry W., M.B., The Vicarage, Todmorden
Russell, James L., M.B., West Lodge, Todmorden
Scarr, John, Esq., Briercliffe, Littleborough
Sellers, R. B., Esq., John Street, Rochdale
Standing, J. G., M.B., Holly Bank, Drake St., Rochdale
Stanwell, W., Esq., 191, Drake Street, Rochdale
Stewart, Wm., M.D., Bank House, Bacup
Taylor, G. P., M.B., York Street, Heywood
Thorp, C. W., Esq., Dohr yd, Todmorden
Thorp, H., M.B., Vale Mause, Cornholme, near Todmorden
Tylecote, J. H. L., M.B., 25, South Street, Rochdale
Wallace, Arch., M.D., Wellfield House, Rochdale
Welsh, A., M.D., Whitworth, Rochdale

No. 27.—St. Helens Division

NUMBERING 29.

Chairman, A. Handyside, Esq., Earlstown.

Vice-Chairman, J. Reid, M.D., St. Helens.

Honorary Secretary, F. D. Harris, M.B., Town Hall, St. Helens.

Representative for Representative Meeting,

Representative on Branch Council,
Hayward, T. E., M.B.

Bassett, F. P., Esq., Victoria Square, St. Helens
Bates, H. B., Esq., Leach Hall, Sutton, St. Helens
Brunskill, R. R., M.D., Holly Bank, Rainford
Campbell, A. W., M.D., Rainhill
Cotton, John, Esq., Simonswood, Prescott Road, St. Helens
Cummins, E. J., Esq., Haydock Lodge, Newton-le-Willows
Dowling, Arthur, Esq., Haydock, near St. Helens
Green, S. M., Esq., 12, Church Street, Prescot
Hall, H. F., M.D., Prescot
Handyside, A., Esq., Earlstown
Harris, F. D., M.B., Town Hall, St. Helens
Haslam, W. A., Esq., Whiston Workhouse Infirmary Prescot
Hayward, T. E., M.B., Haydock, St. Helens
Jackson, R., M.B. 69, Church Street, St. Helens
Jackson, W. T., Esq., The Roost, Haydock, near St. Helens
Knowles, H. W., M.D., 25, Harshaw Street, St. Helens
Mooncey, C. J., M.B., 101, Market Street, Earlstown
Patterson, J. N., Esq., Earlstown
Reid, J., M.D., Hardshaw Street, St. Helens
Simpson, F. O., Esq., Co. Asylum, Rainhill
Street, C. T., Esq., Haydock Lodge, Newton-le-Willows
Thompson, G. M., M.B., 83, Tontine Street, St. Helens
Valentine, W., Esq., Staines House, Earlstown
Watkins, H. E., Esq., Stone Leigh, Newton-le-Willows
Wiglesworth, J., M.D., County Asylum, Rainhill
Wild, C. H., Esq., 13, Church Street, Prescot
Wills, E., M.D., Rainhill
Wilson, A. C., M.D., County Asylum, Rainhall
Youatt, Leonard, Esq., 1, Aspinall Street, Prescot

No. 28.—Southport Division

NUMBERING 64.

Chairman, F. J. Baildon, M.B., Southport.

Vice-Chairman, J. C. Russel, M.D., Southport.

Honorary Secretary, R. Harris, M.B., 18, Duke Street, Southport.

Representative for Representative Meeting, C. Pinkerton, M.D., 6, Queen's Road, Southport.

Representatives on Branch Council.

Harris, R., M.B. | Walker, G. C., M.D.

Executive Committee.

Barwise, W., Esq. | Fenn, S. B., Esq.
Campbell, Colin G., Esq. | Gill, Stanley A., M.D.

Allfrey, F. H., M.B., 66, Lord Street, Southport
Anderson, G. R., Esq., 18, Hoghton Street, Southport
Ashworth, P., M.D., 65, Leyland Road, Southport
Baildon, F. J., M.B., 42, Hoghton Street, Southport
Baines, A. H., Esq., 23, Weld Road, Birkdale
Barnardo, F. A. E., Esq., 33, York Road, Birkdale Park Southport
Barnes, J. J., Esq., Linwood, Blundell Avenue, Birkdale
Barrett, W. H., M.B., 28, Park Crescent, Southport
Barwise, W. Esq., 20, Scarisbrick New Road, Southport
Beaman, E. H., Esq., Chaseley, Hesketh Park, Southport
Bradley, W. E., M.B., 90, Leyland Road, Southport
Brereton, F. S., M.D., 3, Queen's Road, Southport
Brown, S. M., M.D., 35, York Road, Birkdale
Campbell, Colin G., Esq., 39, Queen's Road, Southport
Carter, Francis, Esq., Duke Street, Formby
Chaster, G. W., Esq., 42, Talbot Street, Southport
Charlick, A. J., Esq., 46, Liverpool Rd., Birkdale, Southport
Corkhill, J. G. G., M.D., 21, York Road, Birkdale, Southport
Cottu, T. E., Esq., 57, Scarisbrick Road, Southport
Cox, A. E., M.B. Roslyn, Queen's Road, Southport
Dall, Alex., M.D., 17, Manchester Road, Southport
Dreschfeld Julius, M.D., 43, Leyland Road, Southport
Edmondson, John, M.B., Burscough, near Ormskirk
Fenn, S. B., Esq., 44, Scarisbrick, New Road, Southport
Forrest, W., Esq., Holly Bank, Mornington Rd., Southport
Gardner, James, M.B., Liverpool Rd, Burscough Bridge
Gill, Stanley A., M.D., Shaftesbury House, Formby
Harris, R., M.B., 18, Duke Street, Southport
Hawksley, H. L., Esq., 76, Roe Lane, Southport
Holmes, J., M.B., Sea Verge, Ainsdale, near Southport
Hunton, Alfred W., Esq., 2, Waterloo Rd., Birkdale, Southprt
Kenworthy, A. B., M.B., Bold Street, Southport
Leach, Edgar, Esq., 14, Albert Road, Southport
Littler, R. M., Esq., 29, Hawkeshead Street, Southport
Lyttle, L., M.D., 57, Ash Street, Southport
Maccall, W. N., M.D., 7, Argyle Road, Southport
Mackay, W. A., M.D., 1, Lord Street, Southport
Martin, F. T., M.D., 117, Sussex Road, Southport
Maule, W., M.B., 60A, Liverpool Road, Birkdale, Southport
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Representative for Representative Meeting, G. Stevens Pope, Esq., Cleveland Asylum, Middlesbrough

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Morison, W. M., Esq., Catchgate, Annfield Plain
Renton, J. M., M.B., Shotley Bridge
Story, B. S., M.D., Annfield Plain, Durham
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Booth, L., M.D., Sherburn House, Durham
Brown, J., M.D., Bearpark
Denholm, J., M.B., Meadowfield House, Brandon
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Hare, F., M.B., Dearness House, Waterhouses, Durham
Harrison, Alex. Thomas, L.S.A., Sherburn, Durham
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No. 9.—Hartlepools Division

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Representative for Representative Meeting, G. Stevens Pope, Esq., Cleveland Asylum, Middlesbrough

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Young, M., M.D., West Hartlepool

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Honorary Secretary, J. A. Jackson, M.D., Carntyne, Hexham
Representative for Representative Meeting, J. Anderson, M.B., Hastings Cottage, Seaton Delaval.
Representative on Branch Council.
Jackson, J. A., M.D.

Boustead, R. J., Esq., Hexham
Buchanan, R. D., M.D., Hexham
Callender, R. J., Esq., Haydon Bridge
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Fraser, G. R., Esq., Wark-on-Tyne
Hurst, H. F., Esq., J.P., Lumeah, Hexham
Jackson, Daniel Noel, M.B., B.S., Corbridge
Jackson, J. A., M.D., Carntyne, Hexham
Kendal, C. R., Esq., Abbey Gate House, Hexham
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McLean, H., M.D., Corbridge
Miller, J. G., M.B., Russell Terrace, Bellingham
Penfold, T. C., M.B., South Parade, Stocksfield-on-Tyne
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Stewart, D., M.D., Hexham
Woodman, Thomas, M.B., B.S., Hexham

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Vice-Chairman, F. Barrow, Esq., Rothbury
Honorary Secretary, J. P. Philip, M.D., Bon Accord House, Morpeth.
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Representative on Branch Council.
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Dodds, J. D., M.B., Cramlington, R.S.O.
East, G. R., M.B., County Asylum, Morpeth
Evers, C. H., Esq., North Seaton, Morpeth
Forsyth, R., M.B., South View, Cramlington
Goldie, R. W., M.D., Hirst, Morpeth
Goodall, J., M.B., Capheaton
Gunn, F. W., M.D., Widdrington
Hanson, Miss C. M., M.B., County Asylum, Morpeth
Hedley, A. S., M.B., Rothbury
Lawrence, Hugh H., M.B., Whalton
Lawson, C. W., Esq., Star House, Rothbury
McDowall, T. W., M.D., County Asylum, Morpeth
Philip, J. P., M.D., Bon Accord House, Morpeth
Pringle, Agnes M., The Dispensary, Morpeth
Renton, R. S., M.B., East Cottingwood, Morpeth

No. 12.—Newcastle-on-Tyne Division

NUMBERING 131.

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Vice-Chairman, A. M. Martin, M.B., 17, Saville Row, Newcastle-on-Tyne.
Honorary Secretary, R. P. R. Lyle M.D., 20, Saville Row, Newcastle-on-Tyne.
Representative for Representative Meeting, A. T. Wear, M.D., Wentworth Place, Newcastle-on-Tyne
Representatives on Branch Council.
Dagger, R., Esq. | Lyle, R. P. R., M.D.
Hall, W. T., M.D. | Martin, A. M., M.B.
Hudson, J., M.D. | Wear, A. T., M.D.

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Holmes, W., Esq., Ponteland, Newcastle-on Tyne
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Hudson, J., M.D., 42, Crossley Terrace, Newcastle-on-Tyne
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Wilson, A., Esq., Osborne House, Newcastle-on-Tyne
Wishart, J., M.D., Dudley, Northumberland
Younger, R., M.B., 5, Meadon Terrace, Heaton, Newcastle-on-Tyne

No. 13.—North Northumberland Division.

NUMBERING 24.

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Vice-Chairman, J. S. Forrest, Esq., Warkworth.
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Representative for Representative Meeting, J. Anderson M.B., Hastings Cottage, Seaton Delaval
Representative on Branch Council, Robson, R. B., M.B.

Bell, C. W., Esq., Amble
Burman, C. C., Esq., Alnwick
Coldstream, G. P., M.B., West Street, Belford
Crawford, J. M., M.B., Norham on-Tweed
Dey, Alexander, M.B., Wooler
Elliott, John, Esq., Lowick, Beal
Forrest, J. S., Esq., Warkworth
Fraser, C. L., F.R.C.S. Ed., Ravensdown, Berwick
Fraser, T., M.B., Ravensdowne, Berwick-on-Tweed
Grant, W. Young, M.B., 25, Bridge Street, Berwick
Macaskie, J. G., Bamburgh
MacDonald, James, M.B., The Villa, Belford
Mackay, W. B., M.D., 23, Castlegate, Berwick
Maclagan, C. G., M.B., 52, Ravensdowne, Berwick-on-Tweed
Paxton, John, Esq., Norham-on-Tweed
Purves, A. Scott, M.D., Bondgate Without, Alnwick
Robson, R. B., MB., 20, Bondgate, Alnwick
Smyth, W., M.B., West Ord, Berwick-on-Tweed
Stevenson, J., Esq., 2, Bay Street, Berwick-on-Tweed
Stumbles, H. M., M.B. Amble House, Amble
Walker, R., M.D., Wooler
Waterson, W. T. Esq., Embleton, Christonbank, R.S.O.
Welsh, R. A., M.B., Felton
Worth, F. J., M.D., Glencoe, Wooler

No. 14.—South Shields Division

NUMBERING 56.

Chairman, J. Drummond, M.D., Wyvestow Ldg., S. Shields
Vice-Chairman,
Honorary Secretary, J. H. Hunter, M.D., Havelock Street, South Shields.
Representative for Representative Meeting, Henry Goudie M.B., 1, Westoe Parade, South Shields
Representative on Branch Council.
Crease, J. R., Esq. | Gowans, W., M.D.

Appleton, O. L., Esq., 382, Stanhope Road, Tyne Dock, South Shields
Armstrong, J. F., M.D., Westoe House, South Shields
Bain, John, Esq., 1, Thorney Terrace, South Shields
Batchelor, C. E., Esq., 1, Salmond Terrace, S. Shields
Blair, E., Esq., 4, Thorney Terrace, South Shields
Bootiman, J. S., jun., M.B., 3, Thorney Terrace, South Shields
Boyd, J. J., Esq., Health Office, South Shields
Bradley, M. McW., M.D., Jarrow-on-Tyne
Cockcroft, W. L., Esq., 5, Salmon Terrace, S. Shields
Crease, J. R., Esq., 2, Ogle Terrace, South Shields
Crease, J. R., Jun., Esq., 2, Ogle Terrace, S. Shields
Crichton, Harry, M.D., 1, Kensington Terrace, South Shields
Crisp, J. L., Esq., 7, Albion Terrace, South Shields
Crosby, Robt., M.B., 13, 13, Ogle Terrace, S. Shields
Dalziel, Wm., Esq., Wellington Terrace, S. Shields
Davidson, James, M.B., Argyll Terrace, South Shields
Drummond, J., M.D., Wyvestow Lodge, South Shields
Forsyth, C. W., M.B., Harton Hospital, Shields
Franks, Charles, Esq., Jarrow-on-Tyne
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Galloway, A., Esq., 2, Charlotte Terrace, South Shields
Gibbon, E. H., M.B., Laygate Lane, South Shields
Goudie, Henry, M.B., Westoe Parade, South Shields
Gowans, W., M.D., Westoe, South Shields
Hunter, J. H., M.D., Havelock Street, South Shields
Inglis, D. W., M.D., Argyll House, Hebburn-on-Tyne
Jennings, W. M., Esq., 16, Croft Terrace, Jarrow-on-Tyne
Jones, A. E. B., M.D., Ingham Infirmary, South Shields
Kendall, J. A., M.D., 13, Wellington Terrace, S. Shields
Legat, A., M.D., Sea Marge, South Shields
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Sewell, J. S., M.B., Ingham Infirmary, South Shields
Sinclair, F. W., M.B., Windsor Terrace, South Shields
Sutherland, C. J., M.D., Dacre Ho., Laygate, South Shields
Sutherland, W. D., Esq., Dacre House, Raygate, S. Shields
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Whamon, W., M.D., Balgownie, Jarrow-on-Tyne
Whyte, John, L.R.C.P.& S., 12, Wentworth Terrace, South Shields
Wigfield, F. P., M.B., 1, St. Bedes, East Boldon, co. Durham

No. 15.—Stockton Division

NUMBERING 22.

Chairman, G. V. Miller, M.B., Barrington Crescent, Stockton-on-Tees.
Vice-Chairman, A. H. Smith, M.B., Yarm.
Honorary Secretary, F. G. Smith, Esq., 8, Norton Road, Stockton-on-Tees.
Representative for Representative Meeting, G. Stevens Pope, Esq., Cleveland Asylum, Middlesbro'
Representative on Branch Council.
Miller, G. V., M.B.

Blandford, J. W., Esq., Norton, Stockton-on-Tees
Blandford, L. J., M.D., Norton, Stockton-on-Tees
Cameron, D. A., M.B., Hartington Rd., Stockton-on-Tees
Collinson, H. A., M.B., 1, Rosslin Terrace, Stockton-on-Tees
Dale, A. J., M.D., 9, Bishopton Road, Stockton-on-Tees
Densham, H. B., M.B., 5, Barrington Cres., Stockton-on-Tees
Douthwaite, G. H., Esq., Bridge Road, Stockton-on-Tees
Dunn, J. P. M.B., Stillington, Stockton-on-Tees
Fawcett, Hy., M.D., Thornaby-on-Tees
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Hogg, G. M., M.B., 7, Victoria Terrace, Stockton-on-Tees
Horne, T., M.D., Lakeside, Stockton-on-Tees
Hughes, H. M., M.B., Stockton-on-Tees
Hunton, F., M.D., The Whins, Sedgefield, Ferryhill
Lyle, S., M.B., 1, West End Terrace, Stockton-on-Tees
Miller, G. V., M.D., Barrington Crescent, Stockton-on-Tees
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Smith, A. H., M.B., Yarm
Smith, F. G., Esq., 8, Horton Road, Stockton-on-Tees
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No. 16.—Sunderland Division

NUMBERING 55.

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Vice-Chairman, J. Waterson, Esq., 16, Frederick Street Sunderland.
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Representatives on Branch Council.
Modlin, J. G., M.D. | Waterson, J., Esq.
Todd, D. F., Esq.

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Bernard, G., M.D., Silksworth, Sunderland
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Booth, Sydney, Esq., Houghton-le-Spring.
Carruthers, J. J., M.B., Park Ho., Southwick, Sunderland
Chalmers, J., M.B., Gowanlea, Chester Rd., Sunderland
Davis, A. H., M.B., 34, North Bridge Street, Sunderland
Dillon, L. G., M.D., Seaham Harbour
Gaunt, W. H., M.B., Murton Colliery, Durham
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Robinson, W., M.D., Carlton House, Sunderland
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Waterson, J., Esq., 16, Frederick Street, Sunderland
Watson, T. A., M.B., Sunderland
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Welford, G. E., M.D., Douro House, Sunderland
Yeates, Thomas, M.B., Ryhope

No. 17.—Tyneside Division

NUMBERING 39.

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Bower, W., M.B., 25, Northumberland Square, N. Shields
Bramwell, H. R., M.B., Tynemouth
Brown, W. H., North Shields
Brumwell, Ernest, M.D., 5, Dockwray Square, N. Shields
Callender, John H., Esq., North Shields
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English, Ada, The Green, Wallsend-on Tyne
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Ingram, J., M.B., Wallsend-on-Tyne
Lazenby, J. M., M.B., Whitley Bay
Maclay, N., M.B., 3, Laburnam Avenue, Wallsend-on-Tyne
McConnell, James, M.B., Percy Gardens, Tynemouth
Martin, A. A., Esq., 25, Northumberland Sq., N. Shields
Mears, F. C., Esq., Tynemouth Infirmary, North Shields
Milne, J. Percy, L.R.C.P.& S., Albert Terrace, Wallsend
Mitchell, J. R., M.B., 30, Byker Terrace, Walker-on-Tyne
Peart, Robert, M.B., Cleveland Villas, North Shields
Peart, R. S., M.D., Cleveland Villa, North Shields
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Comprising the Counties of KENT and SUSSEX, the County of SURREY, south and east of a line drawn from Blackwater Station to Byfleet, thence to Wimbledon, thence along the south boundary of the Postal Districts of Wandsworth, Battersea, Clapham, Brixton, and Peckham, and thence northward to the Thames Tunnel

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Representative on Branch Council.
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Fitzgerald, G. C., M.D., Chartham Asylum, nr. Canterbury
Gogarty, H. A., M.D., Ethelbert Road, Canterbury
Greasley, J., Esq., 4, St. George's Place, Canterbury
Henchley, A. R., M.D., 1, London Road, Canterbury
Moir, G. Drew, Major R.A.M.C., Barton House, Canterbury
Moorhead, R. L., M.B., Bridge, Canterbury
Morris, E. G. F., Esq., Littlebourne, near Dover
Pearce, A. C., M.D., Shalmsford Street, near Canterbury
Prentice, Z., Esq., 21, Watling Street, Canterbury
Reid, T. W., M.D., St. George's House, Canterbury
Rigden, B., Esq., 60, Burgate, Canterbury
Shera, J. E. P., Esq., Kent County Asylum, Chartham
Sworn, A. B. R., Esq., 45, St. Peter's Street, Canterbury
Wacher, F., Esq., Canterbury
Wacher, S., Dane John, Canterbury
Welch, F. D., Esq., Kent and Canterbury Hosp., Canterbury

No. 5.—Chichester and Worthing Division

NUMBERING 44.

Chairman, W. S. Simpson, Esq., Worthing
Vice-Chairman, F. E. Haydon, M.B., Littlehampton
Honorary Secretary and Treasurer, H. C. L. Morris, M.D., The Steyne, Bognor
Representative for Representative Meeting, F. Hinds, M.D., 14, Steyne, Worthing
Representative on Branch Council
Simpson, W. S., Esq.
Executive Committee.
Buckell, E. H., Esq. | Hinds, F., M.D.
Eustace, W., M.B.

Allingham, W., Esq., Kingsdene, Shelley Road, Worthing
Blenkarne, W. L'H., Esq., Grafton Road, Worthing
Bostock, A. S., Esq., North Pallant, Chichester
Buckell, E. H., Esq., North Pallant, Chichester
Chard, R. A. S., Esq., Highfield Tarring, W. Worthing
Charles, J. R., M.B. 27, West Street, Chichester
Collett, G. B., Esq., Shelley House, Worthing
Collins, A. B., Esq., Hawthorn Lodge, Yapton
Cooke, W. C., Esq., Glenlogie, Bognor
Densham, A., M.B., Woodville, Crescent Road, Worthing
D'Olier, B. I., M.B., Arundel
Elliot-Blake, H., Esq., 3, Ellasdale Road, Bognor
Eustace, W., M.B., Arundel
Ewart, David, M.B., 29, North Street, Chichester
Fitzmaurice, N. F. H., Esq., 48, Arundel Rd., Littlehmptn.
Forde, R. M., Esq., Gambia, Heene Road, Worthing
Gethin-Jones, O., M.D., Beaulieu, Rowland Rd., Worthing
Going, R. M., M.B., Fitzalan Road, Littlehampton
Gostling, W. A., M.D., Barningham, West Worthing
Harlock, Harry, Esq., Summersdale Lodge, Chichester
Harrison, H. L., M.B., 104, Marine Parade, Worthing
Haydon, F. E., M.B., Beachcroft, Littlehampton
Hinds, F., M.D., 17, Tennyson Road, Worthing
Kelly, C., M.D., Ellesmere, Gratwicke Road, Worthing
Kelly, W. M., M.D., Ferring, Worthing
Kidd, H. A., Esq., West Sussex Co. Asylum, Chichester
Lees, B. H., M.B., Winchester House, Worthing
Le Riche, P. J., Esq., 5, Cambridge Terrace, Worthing
Michie, John, Esq., Bell Rock, Bognor
Millbank-Smith, H. J. M., Esq., Broadwater Road, Worthing
Morris, H. C. L., M.D., The Steyne, Bognor
Moyle, W. H., Esq., Rogate
Nodes, J. D. S., Esq., Ferniehurst, Shelley Road, Worthing
Parsons, Francis H., M.D., The Hurst, West Worthing
Paxton, F. V., M.B., Chichester
Peters, A. E., Esq., Midhurst
Pinder, George, M.D., St. Swithins, Worthing
Rawlinson, F. J., Esq., Stuart House, Bognor
Richardson, F. E., Esq., Littlehampton
Simpson, W. S., Esq., Heslington House, Worthing
Smith, T. P., M.B., Beauly, Rowland's Road, W. Worthing
Steen, R. H., M.D., West Sussex Asylum, Chichester
Thorowgood, J. C., M.D., Springfield, Bognor
Wiggins, Henry, Esq., Dalkeith, Teville Road, Worthing

No. 6.—Croydon Division.

NUMBERING 127.

Chairman, P. T. Duncan, M.D., Park House, Croydon
Vice-Chairman, W. Rosser, M.D., Glenalmond, Wellesley, Road, Croydon
Honorary Secretary, E. H. Willock, Esq., 113, London Rd. Croydon
Representative for Representative Meeting, J. J. Macan, M.D., Crossgates, Cheam
Representatives on Branch Council
Adams, T. R., M.D. | Smith, S. Parsons, L.R.C.P., J.P.

Adams, E. L., M.B., 171, St. James's Street, East Croydon
Adams, H. Esq., Hillsboro, Camborne Road, Sutton
Adams, T. R., M.D., General Hospital, Croydon
Addey, W. F., M.D., 124, Lower Addicombe Road, Croydon
Addison, W. B., M.B., 10, Parchmore Rd., Thornton Heath
Aird, T. W., M.D., Tyneside, Wallington
Alexander, T. A., M.D., Beechwood, Church Street, Epsom
Allan, A. Percy, M.D., 56, Croham Road, S. Croydon
Baker, A. de C., Esq., 3, Haling Park Road, South Croydon
Beard, F., M.B., The Crossways, Croydon
Beaumont, C. G., M.D., Old Manor House, Epsom
Berncastle, H. M., Esq., Croydon Mental Hospital, Warlingham
Bligh, W., M.D., Caterham Valley
Bond, C. H., M.D., The Colony, Ewell
Bourns, C., Esq., Hull Hill, Oxted, Redhill
Bower, G., Esq., Clifton Crescent, Sutton
Brebner, G. R., M.D., 232, London Road, West Croydon
Brincker, J. A. H., Esq., Borough Hospital, Croydon
Brown, R. C., jun., M.B., 7, London Road, Croydon
Campbell, P. E., M.B., Caterham
Carpenter, A. B., M.B., Bedford Park, Croydon
Cazalet, G. W., Esq., Advie, Brunswick Road, Sutton
Chamberlain, E. T., M.D., Banstead
Chapman, A. V., Esq., Wynnesbay, Tavistock Rd., Croydon
Churchill, Brooke, Esq., 30, Victoria Road, Sutton
Clark, A. W., Esq., La Roche, Onslow Gardens, Wallington
Collard, F. S., Esq., Hayling Park Cottage, Croydon
Collier, B., M.D., 46, Croham Road, South Croydon
Cowen, E. J., M.B., New Malden
Craig, P. L. L., M.B., Caterham Asylum, Caterham
Cressy, A. Z. C., Esq., Hayesden, Wallington
Cribb, Harry G., Esq., Cane Hill Asylum, Purley
Daniel, W. C., M.D., Epsom
Dempster, W. T., Esq., Brighton Road, South Croydon
Dowson, W., M.D., Newcome, Stanley Road, Sutton
Drew, H. W., Esq., 3, Addiscombe Road, E. Croydon
Dukes, T. A., M.B., 16, Wellesley Road, Croydon
Dunbar-Brunton, J., M.B., Surrey House, Leatherhead
Duncan, P. T., M.D., Park House, Croydon
Dyer, Harold, Esq., 24, Croham Park Avenue, S. Croydon
Edwards, E. D., Esq., Swinfen House, Carshalton
Elgee, S. C., Esq., Horton Manor Asylum, Epsom
Etches, W. R., Esq., The Meadows, Warlingham
Everington, H. D., M.B., Glossop Road, Sanderstead
Flint, Ella C., M.B., 54, Park Lane
Fowler, C. O., M.D., Cotford House, Thornton Heath
Francis, H. A., Esq., 22, Outram Road, Croydon
Furber, E. P., Esq., Oxted
Genge, G. G., M.D., 89, Lansdowne Road, Croydon
Gilfillan, S. J., M.B., Cane Hill, Purley
Grapel, F. G., Esq., 303, London Road, Thornton Heath
Gripper, W., M.B., The Poplars, Wallington
Harrison, A. W., M.D., 64, Brighton Road, S. Croydon
Haslam, W. D., M.D., Wallington
Hobson, J. M., M.B., Morland Road, Croydon
Honnywill, A. O., Esq., 2, Musgrave Road, Sutton
Horsley, H., Esq., London Road, Croydon
Hubbard, W. L., M.D., Edenbridge
Hughes, M., Esq., Eastbridge, Addiscombe Rd., Croydon
Hugo, R. M., Esq., Purley
Isard, O. H., M.B., Carmac, St. Peters Road, Croydon
Jackson, M., M.D., Abertawe, Foxley Lane, Purley
Jackson, T., Esq., New Thornton Heath, Croydon
Jones, D. J., M.D., Lond. Co. Asylum, Banstead, Sutton
Jones, Herman J., M.D., Manor Road, Wallington
Landon, E. E. B., Esq., Hockbridge, Carshalton
Langston, J. J., Esq., 100, Lower Addiscombe Rd., Croydon
Macan, J. J., M.D., Crossgates, Cheam
McArthur, A. N., Esq., Selsdon Park, S. Croydon
McCaw, J. Dysart, M.D., F.R.C.S., St. Levan, Wallington
McDougall, W. S., M.B., 2, Melbourne Villas, Wallington
McNiece, H., Esq., Carshalton
Male, H. C., M.D., 74, Birdhurst Road, S. Croydon
Malins, Herbert, M.B., 283, London Rd, Thornton Heath
Mansell-Jones, R., Esq., Sunnyside Lodge Road, Croydon
Miller, A. A., Esq., Copthorne Lodge, Sutton
Moody, J. M., Esq., Purley, R.S.O.
Morris, Graham, Esq., Shotfield, Wallington
Morton, S., M.D., Normanton Road, Croydon
Murphy, J. J., Esq., Banstead Asylum, near Sutton
Naesmyth, Donald, Esq., Oakfield Road, Ashstead
Neathy, A. M., Esq., Silverhurst, Brighton Road, Sutton
Neville, Charles, Esq., Cheam Road, Sutton
Newby, G. E., Esq., 12, Addiscombe Road, East Croydon
Newington, C. W. H., Esq., Edenbridge
Nicholls, F., M.D., 3, Coombe Road, Croydon
O'Hagan, P. F., Esq., Tower House, London Road, Croydon
Paget, W. Gray, Esq., Waddon Bridge House, Croydon
Partridge, A. A. H., M.D., St. Germans, Sutton
Pasmore, E. S., M.D., Croydon Asylum, Warlingham
Passmore, W. J. Esq., Felbrig, Park Hill, Carshalton
Peatling, A. V., M.B., Alton Lodge, Carshalton
Pepper, C. E., M.B., 2, Woodville Road, Thornton Heath
Phillips, Cyril H., M.D, Martinhoe, Norbury, S.W.
Phillips, H. W., M.D., 28, Addiscombe Road, Croydon
Philpot, C. W., M.D., Uplands, Park Hill Road, Croydon
Potts, L., Esq., Leatherhead
Proctor, W. J., M.B., Great Bookham
Redfern, J. J., M.D., 9, Wellesley Road, Croydon
Reid, St. George, Esq., Thornton Heath
Rendall, Percy, M.D., Ewell
Richards, Meredith, M.D., 7, Coombe Road, Croydon
Ridley, J. Brooke, M.D., 32, Sydenham Road, Croydon
Roberts, N., Esq., Cane Hill, Purley
Robinson, C. A., M.B., Gladswins, Limpsfield, Oxted
Rosser, W., M.D., Glenalmond, Wellesley Road, Croydon
Scudamore, C. G. C., Esq., 117, Whitehorse Road, Croydon
Smith, S. Parsons, L.R.C.P., J.P., Park Hyrst, Addiscombe Road, Croydon
Smith, W. H. M., Esq., 47, London Road, Croydon
Swan, R. J., Esq., Hawthorndene, Parkhill Rd., Wallington
Thompson, H. G., M.D., 86, Lower Addiscombe Rd., Croydon
Tongue, E. J., Esq., Whitelands, Edenbridge
Turner, S. D., M.B., Westbury, Purley
Vincent, H. E., M.D., B.S., 5, Wellesley Villas, Croydon
Wale, George, Esq., 133, High Street, Croydon
Watson, T. B., M.D., Woldingham, Caterham Valley
Wayte, John, M.B., 65, Park Lane, Croydon
Weller, George, Esq., Russell Lodge, South Croydon
Whaite, J. H. du B., M.D., Sth. Park Hill Rd., Sth. Croydon
Wheeler, Albert, M.D., Maisonette, The Common, Sutton
Whittaker, Harry, Esq., Banstead Downs, Sutton
Williamson, J., M.D., Heathcote Road, Epsom
Willock, E. H., Esq., 113, London Road, Croydon
Wilson, R. W., Esq., Union Infirmary, Croydon
Worth, F. J., M.D., Invermay, Dry Hill Park Rd., Tonbridge
Wray, C., Esq., North End Croydon
Young, H. W. P., M.D., London Road, Norbury, S.W.

No. 7.—Dartford Division

NUMBERING 56.

Vice Chairman,
Chairman,
Honorary Secretary, A. S. Greenway, M.D., Belvedere
Representative for Representative Meeting,

Allan, John, M.D., Egremont, Sidcup
Allen, R. R., M.D., 5, West Hill, Dartford
Anderson, John, M.D., Dartford
Baird, G. H., Esq., Hawkwood, Woolwich Road, Charlton
Barnes, L. J. J., M.D., 43, Bexley Road, Erith
Bryden, R. J., Esq., 21, Harmer Street, Gravesend
Burrell, L., M.D., Sidcup
Callender, T. M., M.D., Inverard, Sidcup
Cane, H., M.D., The Gables, Belvedere
Cardinall, C. D., Esq., Station Road, Sidcup
Clarke, C. F., Esq., 24, Park Road, Plumstead
Clarke, J. L., M.B., 34, Plumstead Common, S.E.
Crawford, J. D., M.D., Palmerston, Swanley
Crombie, J., M.B., Highden, Sidcup
Day, W. H., M.D., Holly Hill, Meopham
Drennan, R. H., M.B., 56, Parrock Street, Gravesend
Dunston, J. T., M.D., Baldwyns Park, Bexley
Edwards, G. F., M.D., Bexley
Farthing, T., M.B., Spital Street, Dartford
Fennell, C. H., M.B., Darenth School, near Dartford
Firth, C., M.D., 194, Parrock Street, Gravesend
Fletcher, Rev. G. R. J., The Presbytery, North Fleet
Gasteen, W.C., Srg.-Maj., M.B., M.S., 66, The Common, W'lwich
Greenway, A. S., M.D., Heath Villa, Belvedere
Griffiths, S. A. E., Esq., The Thorns, Meopham
Hinds, T. W., M.D., Bexley House, Crayford
Hirsch, C. T. W., Esq., Rectory Place, Woolwich, S.E.
Hoysted, C. G., Esq., Fairbourne, Swanley Junction
Knight, E., Esq., 29, Harmer Street, Gravesend
Knight, W., Esq., 29, Harmer Street, Gravesend
Lace, W. F., Esq., Sutton-at-Hone
Leslie, J. L., M.D., Main Road, Bexley Heath
Lindow, A., Esq., Gallossen Road, Plumstead
Lord, John R., M.B., London County Asylum, Bexley
Lovell-Keays, L. F., Esq., Brook Hill Road, Woolwich, S.E.
McFarland, A. J., M.D., Parrock Street, Gravesend
Maxwell, T., M.D., 29, Woolwich Common, S.E.
Mortis, H. E., Surg.-Capt., 14, The Common W lwich

Patterson, A. E., M.D., City of London Asylum, Dartford
Phillips, T. G., Esq., Perry Street, Gravesend
Renton, M. W., Esq., Bridge House, Dartford
Richmond, S., M.D., Greenhithe
Robbs, C. E., M.B., Lodgewood, Gravesend
Sells, H. T., Esq., 2, London Road, Northfleet
Short, W. R., M.D., St. James House, Dartford
Smith, F. J. S., M.D., Heavitree Rd., Plumstead Com., S.E.
Smith, T. F. H., Esq., Farningham
Stansfield, T. E. K., M.B., London Co. Asylum, Bexley
Sutton, C. R. A., M.D., Clare House, Sidcup
Thompson, P. W., Esq., 18, M'Leod Road, Abbey Wood
Thurnell, H. L., M.D., 6, Woodville, Gravesend
Vance, W. J., Esq., Penrith House, Bexley Heath
Walker, J. E., Esq., High St. House, Bexley
Warrack, J. S., Esq., 5, Kingsley Ter., Old Road, Gravesend
Williams, R. E., M.B., 21, The Common, Woolwich, S.E.
Wise, H. M., M.B., 23, Plumstead Road, Woolwich

No. 8.—Dover Division

NUMBERING 31.

Chairman, C. Parsons, M.D., Dover

Vice-Chairman, M. K. Robinson, M.D., Dover

Honorary Secretary and Treasurer, F. A. Osborn, Esq Ennismore House, Dover

Representative for Representative Meeting, A. E. Larking M.D., 4, London Street, Folkestone

Representative on Branch Council.
F. A. Osborn, Esq.

Arkwright, J. A., M.D., Ridgeway, St. Margarets-at-Cliffe, Dvr
Baird, J., Esq., 4, Cambridge Terrace, Dover
Baylor, E. A. C., M.D., Clifton House, Ash, Dover
Best, W. J., Esq., 1, Cambridge Terrace, Dover
Carson, R. B., Esq., Shaft Barracks, Dover
Harding, N. E. J., M.B., R.A.M.C., Western Height, Dover
Harrison, J. W., M.B., The White Friars, Sandwich
Howden, Ian D. C., M.D., 6, Cambridge Terrace, Dover
Hughes, A. B., M.B., 46, Victoria Road, Deal
Hulke, F. B., Esq., Admiralty House, Deal
Hulke, S. B., Esq., Ivy House, Walmer
Ibotson, E. C. B., M.B., 1, Barton Road, Dover
Kerswill, Harry, Esq., St. Germans, Sandwich
Koettlitz, Maurice, Esq. 20, London Road, Dover
Long, A., Esq., 84, Priory Road, Dover
Long, J. R., Esq., 1, St. Martin's Place, Dover
Lyddon, R., Esq., Cavendish House, Victoria Parade, Deal
McAnally, A. A., Esq., The White House, Eastry
Murphy, C. E., Esq., 2, Cambridge Terrace, Dover
Ord, R. W., Esq., 7, Cambridge Terrace, Dover
Ormsby, J., M.D., 7, Effingham Crescent, Dover
Osborn, F. A., Esq., Ennismore House, Dover
Parsons, C., M.D., 7, Waterloo Crescent, Dover
Payne, E. M. B., Esq., Melville, Shepherdswell, near Dover
Pinhorn, R., Esq., 5, Cambridge Terrace, Dover
Reckett, J. D. T., Esq., Station Hospital, Dover
Roberts, L., Esq., Deal
Robins, John N., Esq., 5, Godwyn Road, Dover
Robinson, M. K., M.D., Priory Hill, Dover
Swindells, S. W., M.B., Wingham, Dover
Wood, C., Esq., 6, Effingham Crescent, Dover

No. 9.—Eastbourne Division

NUMBERING 45.

Chairman, H. S. Gabbett, M.D., 8, Chiswick Place, Eastbourne

Vice-Chairman, W. M. Smith, M.B., Rosebank, Eastbourne

Honorary Secretary, W. J. C. Merry, M.D., 2, Chiswick Pl. Eastbourne

Representative for Representative Meeting, C. H. Allfrey, M.D., Plas Newydd, Princes Road, St. Leonards

Representative on Branch Council.
Ewart, J. H., Esq., Eastbourne

Executive Committee.

Harper, A., M.D.	Sherwood, A. P., M.D.
Hayman, C. M., M.B.	Taylor, F. R. P., M.D.
Roberts, A. C., Esq.	

Adams, J., M.D., 4, Chiswick Place, Eastbourne
Bailey, H. J., M.B., 27, The Avenue, Eastbourne
Bateman, C. E. G., Esq., Polegate
Bass, H. E. J., M.D., Polperro, Meads Street, Eastbourne
Bolton, J. S., Esq., East Sussex Co. Asylum, Hellingly
Bowles, A., 10, South Cliff, Eastbourne
Browne, D. M., M.D., 7, Devonshire Place, Eastbourne
Crossley, A., Esq., 22, Edales, Meads, Eastbourne
Donnelian, J. N., M.B., Bromsgrove, Eastbourne
Ewart, J. H., Esq., Eastney, Devonshire Pl., Eastbourne
Frazer, Kenneth, M.D., 28, Devonshire Place, Eastbourne
Frost, E., M.B., Chesterfield Road, Eastbourne
Gabbett, H. S., M.D., 8, Chiswick Place, Eastbourne
Garman, E. C., Esq., Boreham, Hailsham
Gurney, A. C., M.B., 5, Gildridge Road, Eastbourne
Habgood, H., M.D., Upperton Road, Eastbourne
Harding, C. O'B., Esq., 1, Chiswick Place, Eastbourne
Harper, A., M.D., 7, Chiswick Place, Eastbourne
Hayman, C. N., M.B., 22, Grand Parade, Eastbourne
Heath, R. E., Esq., Bryn Adda, Grange Road, Eastbourne
Holman, H. C., Esq., East Hoathly
Holman, T., Esq., Gate House, East Hoathly
Holst, O. L., Esq., 20, Upperton Gardens, Eastbourne
Macaulay, B. J., Esq., Grosvenor Ho., Sea Side, Eastbourne
McQueen, T., M.B., 10, Bolton Road, Eastbourne
Marsden, F., M.B., 9, Moat Croft Road, Eastbourne
Merry, W. J. C., M.D., 2, Chiswick Place, Eastbourne
Meacher, J. H., Esq., Albemarle House, Jevington Gdns., Eastbourne
Noel-Cox, H. L., M.B., 29, Vicarage Road, Eastbourne
Owen, C. W., Lt.-Col., I.M.S., Rose Cottage, Hankham
Pearcey, W., Esq., Rydal Mount, St. John's Rd., Eastbourne
Pollock, W., M.B., 60, Pevensey Road, Eastbourne
Roberts, A. C., Esq., Badlesmere, Eastbourne
Row, C. M., Esq., Pleydells, Warbleton
Saunders, G. J. S., M.D., 1, Lascelles Terrace, Eastbourne
Sherwood, A. P., M.D., 8, Seaside Road, Eastbourne
Smith, W. M., M.B., Rosebank, Eastbourne
Smyth, Richard, M.D., Coomrith, Eastbourne
Spilsbury, F. J., Esq., Warbleton
Taylor, F. R. P., M.D., East Sussex County Asylum, Hellingly, S.O.
Travers-Smith, V. E., Esq., Flint House, Willingdon
Wallis, H., Esq., Alfriston
Watson, T. H., M.B., Pevensey, near Hastings
Webster, W. F., Esq., Heathfield
Willet, E., M.D., Thornwood, Hartfield Square, Eastbourne

No. 10.—Faversham Division

NUMBERING 21.

Chairman C. J. Evers, M.D., Albion House, Faversham

Vice-Chairman, C. K. Bowes, M.D., Herne Bay

Honorary Secretary, W. Gosse, M.D., Sittingbourne

Representative for Representative Meeting, W. Gosse, M.D., Sittingbourne

Executive Committee.

Alexander, S. R., M.D.	Selby, P. G., Esq.
Hayward, J. W., Esq.	

Alexander, S. R., M.D., Gatefield House, Faversham
Arrol, C., M.D., Bankstown, Sheerness
Boodle, R. M., Esq., The Chestnuts, Sittingbourne
Bowes, C. K., M.D., 2, Marina Crescent, Herne Bay
Bowes, T. A., M.D., 2, Malvern Villas, Herne Bay
Evers, C. J., M.D., Albion House, Faversham
Gange, F. W., Esq., 9, Kingsfield Terrace, Faversham
Gosse, W., M.D., Sittingbourne
Gowland, E. L., M.B., Newton Lodge, Faversham
Grayling, F., Esq., Sittingbourne
Hayward, J. W., Esq., Whitstable
Jay, F. F., M.D., 20, East Street, Faversham
Laurence, B. E., Esq., Greenstreet, near Sittingbourne
Noble, W. H. F., Esq., Radfield, by Sittingbourne
Robson, Neil, M.B., Park House, Sittingbourne
Selby, P. J., Esq., Teynham
Senior, E. W., Esq., 8, Telford Terrace, Herne Bay
Scatchard, C., Esq., Boughton Blean, Faversham
Waters, F. W., Esq., 23, Marine Parade, Sheerness-on-Sea
Wilkinson, A., M.D., Sheerness-on-Sea
Willan, G. T., jun., Esq., 39, Crown Road, Milton, Sittingbourne

No. 11.—Folkestone Division

NUMBERING 33.

Chairman, C. E. Perry, M.D., Folkestone

Vice-Chairman, P. E. Lewis, M.D., Folkestone

Honorary Secretary, P. V. Dodd, M.D., 14, Manor Road, Folkestone

Representative for Representative Meeting, A. E. Larking, M.D., 4, London Street, Folkestone

Representative on Branch Council.
Eastes, T., M.D.

Executive Committee.

Barrett, W. P., Esq.	Streatfeild, T., M.D
Chambers, W. F., Esq.	

Barrett, W. P., Esq., 35, Cheriton Gardens, Folkestone
Calverley, E. J. G., M.D., C.M.G., 10, Earl's Av., Folkestone
Chambers, W. F., Esq., 27, Cheriton Gardens, Folkestone
Chubb, W. L., M.D., Darenth House, Sandgate
Davis, A. R., Esq., Hythe
Dobbs, M., Esq., 8, West Terrace, The Leas, Folkestone
Dodd, P. V., M.D., 14, Manor Road, Folkestone
Eastes, T., M.D., 18, Manor Road, Folkestone
Ewart, J. Hoggan, M.D., 23, Clifton Crescent, Folkestone
Fawcett, Edward, M.D., Claremont House, Folkestone
Fitzgerald, E. D., Esq., 5, Castlehill PAvenue, Folkestone
Gilbert, J. W. T., Esq., 97, Dover Street, Folkestone
Gore, A. J., Esq., 1, Salisbury Villas, Folkestone
Hackney, G. H., Esq., Roselie, Lyminge S.O.
Hackney, J., M.D., Hythe
Keay, J., Esq., Sandgate Road, Folkestone
Larking, A. E., M.D., 4, London Street, Folkestone
Lewis, P. G., M.D., 22, Manor Road, Folkestone
Lillie, C. F., M.D., New Church, Folkestone
Marsh, H. R., Esq., Adlington, Hythe
Menzies, J. A., M.B., 9, Castle Hill Avenue, Folkestone
Murdoch, Alan, M.B., The Oaks, Hythe
Perry, C. E., M.D., 1, Castle Hill Avenue, Folkestone
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Sworder, E. G., M.B., West Terrace, Folkestone
Toke, C. H., St. M. W., Esq., 8, Westbourne Gdns., Folkestone
Tomlinson, E. D., M.D., 8, Earl's Avenue, Folkestone
Tyson, W. J., M.D., 10, Langhorne Gardens, Folkestone
Wainwright, L., M.D., Earl's Avenue, Folkestone
Waters, W. J., Esq., 6, Sunnyside, Sandgate
Wildash, H. C., M.D., Hythe

No. 12.—Guildford Division

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Representative for Representative Meeting, A. Hope Walker, Esq., The Common, Cranleigh

Representative on Branch Council.
Sichel, G., Esq.

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Wyatt Smith, F., M.B., Briarwood, Woking

No. 13.—Hastings Division

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Representative on Branch Council.
Kaye-Smith, E., Esq.

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Wills, J. P., M.D., Bexhill
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Wynne, Walter, M.B., Northiam
Yeoman, C., M.B., Hollington, St. Leonards-on-Sea

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Representative on Branch Council, M. H. H. Vernon, Esq.
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Barnes, H. C., Esq., Culver Croft, Petworth
Blatchford, F. H., M.B., Pulborough
Bostock, E. I., Esq., Horsham
Boxall, F., Esq., Rudgwick, Horsham
Foot, E. G., Esq., Church House, Pulborough
Fry, J. B., Esq., The Causeway, Horsham
Heygate, F. W., Esq., Billingshurst
Hind, Clara, L.R.C.P., Ockley Sanatorium
Juckes, F. A., M.B., 14, Carfax, Horsham
Kinneir, F. W. E., Esq., Horsham
McAleer, J., M.D., Burton Hill, Petworth
Murphy W., M.B., Tripp Hill, Fittleworth
Pritchard, R. J., Esq., 12, Park Lane, Reigate
Snow, L. M., Esq., Horsham
Vernon, M. H. H., Esq., Horsham

No. 15.—Isle of Thanet Division

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Honorary Secretary, Hugh M. Raven, Esq., Garfield House, Broadstairs
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Representative on Branch Council.
Hugh M. Raven, Esq.
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Flint, A., M.D. | Sutcliffe, W. G., Esq.

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Brightman, F., Esq., Apsley House, Broadstairs
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Carpenter, E., Esq., 5, Granville Gardens, Ramsgate
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Halstead, G. E., M.D., Albion Hill House, Ramsgate
Harnett, C. J., M.D., The Limes, Hawley Street, Margate
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Harris, J. S., Esq., Birchington
Heaton, C. J., Esq., Ellerslie, Westgate-on Sea
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Worthington, H. E., Esq., Birchington, Thanet

No. 16.—Maidstone Division

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Representative on Branch Council:
Hallowes, A. H. B., Esq.
Executive Committee:
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Joyce, T., M.D. | Travers, F. T., M.B.

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Cæsar, R. T., jun., Esq., Stone Street, Maidstone
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Potts, George, Esq., Kent County Ophthalmic Hospital, Maidstone
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Young, Edward, Esq., Tates, Hawkhurst

No. 17.—Norwood Division.

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Representative for Representative Meeting, John Rand, Esq., Felixstowe, Lovelace Road, Surbiton
Representative on Branch Council.
Hetley, H., M.D. | Stewart, H. M., M.D.
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Burton, H. C., Esq.

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Dixon, H. J., Esq., New Cross Gate, S.E.
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Representative for Representative Meeting, R. R. O'Brien, M.D., Clonmel.

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O'Hanlon, M., Esq., Castlecomer
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Walsh, Denis, Esq., Graigue
White, James, Esq., Kilkenny

No. 3.—Waterford Division

NUMBERING 33.

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Vice-Chairman, G. J. Mackesy, M.B., Waterford
Honorary Secretary, J. D. Wynne, M.B., Western Lodge, Clonmel.
Representative for Representative Meeting, R. R. O'Brien, M.D., Clonmel.

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Dowling, J., Esq., Nelson Street, Tipperary
Drew, H. W., M.B., Mocollup Castle, Lismore
Hackett, J. C., M.D., Dungarvan
Hewetson, M. J., Esq., Queen Street, Clonmel
Jellett, J. W. H., M.D., 11, Beresford Place, Waterford
Kennedy, D., Esq., 3, O'Connell Street, Waterford
Lalfan, Thomas, M.D., Cashel
Mackesy, G. J., M.B., 47, Lady Lane, Waterford
Meehan, N. J., Esq., 17, South Street, New Ross.
Morris, W. R., M.B., 37, Lady Lane, Waterford
Morrissey, M. J., Esq., 16, Parnell Street, Waterford
Murphy, Philip, Esq., Main Street, Carrick-on-Suir
Murray, H., M.D., The Mall, Cahir
Oakshott, J. A., Esq., District Asylum, Waterford
O'Brien, R. R., M.D., Clonmel
O'Connell, Thomas, Esq., Fethard
Phillips-Conn, H. H., M.D., Mount Ida, Waterford
Riordan, J., M.B., Maj. R.A.M.C., Roseville, Clonmel
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Russell, G. H., Esq., Lower Gate House, Cashel.
Ryan, C. E., Esq., Glengara, Tipperary
Shee, W. J., Esq., Bella Vista, Duncannon
Staunton, F. W., M.B., Waterford
Stephenson, E. F., Esq., 5, Wellington Ter., Dunmore East
Stephenson, P., Esq., New Street, Carrick-on-Suir
Walker, D. F., M.D., The House, Portlaw
Walsh, W. P., Esq., Clogheen, Cahir
White, J. T., Esq., 21, Broad Street, Waterford
Wynne, J. D., M.B., Western Lodge, Clonmel

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Comprising HAMPSHIRE (except the portion west of, and including Christchurch and Ringwood); WILTSHIRE (except the portion north of a line drawn east and west through a point between Westbury and Warminster); the CHANNEL ISLANDS.

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NUMBERING 25.

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Vice-Chairman,
Honorary Secretary, M. H. Bulteel, Esq., Havilland Street, Guernsey
Representative for Representative Meeting, K. A. A. MacKeith, M.B., Howard Road, Southampton.

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Bostock, E. B., M.B., Hirzel Ho, Guernsey
Bulteel, M. H., Esq., Havilland Street, Guernsey
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Carey, F. E., M.D., Villa Carey, Grange Road, Guernsey
Ceres, R. A., M.B., Paiderie, St. Pierre Port, Guernsey

Collings, C., M.D., Grange Road, Guernsey
Corbin, E. K., Esq., 8, Saumarez Street, Guernsey
Duncan, W., Esq., La Paiderie, Guernsey
Jones, Charles, Esq., Newington Place, Guernsey
Larmuth, J. H., Esq., St. Martin's, Guernsey
Leale, Josiah, Esq., Vale House, Vale Guernsey
Le Page, W., Esq., Millmount, Guernsey
Le Pelley, Amelia M., M.B., St. Peter-in-the-Wood, Guernsey
Livesey, E. W., Esq., Alderney
Myles, E. H., Maj., R.A.M.C., 16, Hauteville, Guernsey
Pickthall, J. M., Esq., La Jaspelline, Sark
Robinson, E. L., Esq., Melrose, Guernsey
Robinson, Lieut.-Col. R. H., R.A.M.C., Station Hospital, Guernsey
Stephenson, J. B., M.D., Mt. Hermon, Victoria Road, Guernsey
Wallace, A. C., Esq., 1 Grange Terrace, Guernsey
Wild, H. S., Esq., Grange Hill House, Guernsey

No. 2.—Isle of Wight Division

NUMBERING 51.

Chairman, H. Castle, M.B., Newport

Vice-Chairman, A. Hollis, M.D., Freshwater, I.W.

Honorary Secretary, G. B. Wood, M.B., Newlands, Sandown

Representative for Representative Meeting, John Ward Cousins, F.R.C.S., Riversdale, Kent Road, Portsmouth

Representatives on Branch Council.

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Greening, F. J., Esq., Melville Street, Ryde, Isle of Wight
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Hoffmeister, W., M.D., Clifton House, West Cowes, I.W
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Lowe, G. M., M.D., Newport
Lowther, H., Esq., Ventnor, Isle of Wight
Lucas, G. R., Esq., Belle Bue, Brading, I.W.
Mayo, T. A., M.B., Cowes, Isle of Wight
Pollard, S. P., M.B., Royal Hospital for Consumption Ventnor
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Ross, T. A., M.D., St. Andrew's, Ventnor
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Thompson, C. J., Esq., Newport, Isle of Wight
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Treatwell, O. F. N., Esq., Brookfield, Parkhurst, I.W.
Trinder, A. P., Esq., Blenheim House, Bembridge, I.W.
Turner, P. D., M.D., Sudbury, Ryde, Isle of Wight
Underhill, S. V. H., Esq., Castle View, West St., Newport
Wood, G. B., M.B., Newlands, Sandown, Isle of Wight
Woodruff, J. W., Esq., Binstead, Ryde, Isle of Wight

No. 3.—Jersey Division

NUMBERING 21.

Chairman, A. E. Hind, Esq., Jersey

Vice-Chairman, Col. Falvey, R.A.M.C., St. Lawrence

Honorary Secretary, P. B. Bentlif, Esq., David Place, Jersey

Representative for Representative Meeting, A. A. MacKeith, M.B., Howard Road, Southampton

Batho, R., M.D., Roseville Street, Jersey
Bentlif, P. B., Esq., David Place, Jersey
Bois, C. A., Esq., St. Saviour's Road, Jersey
Brayn, P. J., Esq., Portland Lodge, Jersey
Du Heaume, H. T., Esq., 6, Almorah Road, St. Heliers, Jersey
Dustan, H., Esq., St. Heliers, Jersey
Falvey, Col., R.A.M.C., St. Lawrence
Frazer, E. E., M.D., Great Union Road, Jersey
Gaudin, F. N., Esq., The Grove, Jersey
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Hind, A. E., Esq., Portland House, St. Heliers, Jersey
Le Geyt, E., Esq., 56, David Place, Jersey
Le Rossignol, A., M.D., 2, Cæsarea Place, Jersey
McNamara, Col., R.A.M.C., Queen's Road, Jersey
Maher, James, Maj. R.A.M.C., Pierson Road, Jersey
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Sullivan, E. H. C., Esq., 46, David Place, St. Heliers, Jersey
Taunton, W. W., Esq., St. Heliers, Jersey

No. 4.—Portsmouth Division

NUMBERING 106.

Chairman, L. K. Hackman, Esq., Landport

Vice-Chairman, R. Emmett, M.D., Portsmouth

Honorary Secretary and Treasurer, J. G. Blackman, M.D., Kingston Crescent, Portsmouth

Representative for Representative Meeting, John Ward Cousins, F.R.C.S., Riversdale, Kent Road, Southsea

Representatives on Branch Council.

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Claremont, C. C., M.D. |

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Brownfield, H.M., Esq., Petersfield
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Buckell, L. M., Esq., Lee-on-the-Solent, Fareham
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Carter, H. H. A., Esq., The Limes, Havant
Case, G. H., Esq., Fareham
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Claremont, C. C., M.D., Elmgrove, Southsea
Cole-Baker, L., M.D., Kent Road, Southsea
Colt, T. A., Esq., 42, St. Edwards Road, Southsea
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Emmett, R., M.D., Winton, North End, Portsmouth
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Green, W., Esq., Kingston Crescent, Portsmouth
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Hunter, E. J., Esq., High Street, Gosport
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McGregor, J., Esq., Mile End Villa, Commercial Road, Portsmouth
Malpas, J., Esq., Selborne House, Fawcett Road, Southsea
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May, A. E., Esq., Chandos, Hayling Island
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Mayhew, C. J., Esq., Kingston Crescent, Portsmouth
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Mulvany, John, Esq., 106, Arundel Street, Portsmouth
Mumby, B. H., M.D., The Asylum, Portsmouth
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Norman, S., Esq., West Street House, Havant
Owen, A. L., M.D., Southsea
Palser, J. E., Esq., 1, Victoria Crescent, Southsea
Parsons, John, Esq., Headley
Phillips, E. W., Esq., 10, Grove Road South, Southsea
Phillips, J., M.B., Osborne Road, Southsea
Reid, G. A. O'B., M.B., 9, Victoria Road South, Southsea
Richardson, M. F., M.B., Kirstall, Alverstoke
Robertson, J. R. S., M.D., 5, Western Parade, Southsea
Rogers, J. M., M.B., H. M.'s Dockyard, Portsmouth
Routh, C. F., M.D., Clarence Parade, Southsea
Ruel, C. P., Esq., Kent Road, Southsea
Rundle, H., Esq., F.R.C.S., 13, Clarence Parade, Southsea
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Thelwall, L., Esq., Southwick, Fareham
Thomas, A., Esq., Eastmeon, Petersfield
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Way, J. H. F., Esq., 151, Victoria Road N., Southsea
Way, M. H., Esq., Clarendon Lodge, Southsea
Welby, S., M.D., Fleatham, Liss
Weston, R. A., Esq., 505, Commercial Road, Landport
Woods, H. C., C.V.O., K.H.P., M.D., RN., Insp.-Gen., Alv'stk
Wright, A., Bosworth, Esq., Kingston Road, Portsmouth
Wright, J. L., Esq., 4, Lennox Mansions, Southsea

No. 5.—Salisbury Division

NUMBERING 50.

Chairman, J. P. William-Freeman, M.D., Weyhill, Andover

Vice-Chairman, W. W. Ord, M.D., Salisbury.

Honorary Secretary and Treasurer, J. E. Gordon Esq., 52, Endless Street, Salisbury.

Representative for Representative Meeting, C. R. Straton, Esq., Wilton, Salisbury.

Representatives on Branch Council.

Kempe, C. G. B., M.D. Luckham, L. S., Esq.

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Kempe, C. G. B. M.D. |

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Blackmore, H. P., M.D., Salisbury
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Browne, H., Esq., Amesbury
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Clifton, J., Esq., Fordingbridge
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Farr, E., Esq., The Chantry, Andover
Faunce, Major, R.A.M.C., Bulford Camp, Salisbury
Finch, R. T., M.B., Fisherton House Asylum, Salisbury
Finch, W. C., Esq., Fisherton House Asylum, Salisbury
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Goodchild, J. A., Esq., Berwick St. John, Salisbury
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Gordon, W., Esq., The Infirmary, Salisbury
Green, J. Lardner, Esq., Fowlers Road Hill, Salisbury
Hinton, H. T., M.B., Heytesbury
Johnson, Lieut. John T., M.B., B.S., R.A.M.C., Bulford Camp Salisbury
Johnston, J. W., M.D., Fordingbridge
Kempe, C. G. B., M.D., Salisbury
Langley, A. J., M.D., Handley, Salisbury
Lockyer, G. E., Esq., Amesbury
Luckham, L. S., Esq., 47, Winchester Street, Salisbury
March, J. O., Esq., Amesbury
Manning, H. J., Esq., Laverstock House, Salisbury
Ord, W. W., M.D., Salisbury
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Straton, C. R., Esq., Wilton, Salisbury
Ward, A., M.B., Codford
Ward, A. E. J., Esq., Brown Street, Salisbury
Whiteley, G. W., Esq., Downton
Wilks, H. L. E., Esq., Wilton Road, Salisbury
Wilcox, H. L., Esq., Warminster
Wilcox, R. L., Esq., Warminster
Williams-Freeman, J.P., M.D., Weyhill, Andover

No. 6.—Southampton Division

NUMBERING 76.

Chairman, Colonel K. MacLeod, M.D. (I.M.S. retired) Woolston.

Vice-Chairman, E. F. Chinery, Esq., Lymington.

Honorary Secretary, A. B. Wade, M.B., 28, Carlton Crescent, Southampton.

Representative for Representative Meeting, A. MacKeith, M.B., Howard Road, Southampton

Representatives on Branch Council.

Gwillim, R. D. H., Esq. | Weston, G. H., M.B.
Purvis, W. P., M.D. |

Aldridge, N. E., M.B., Rockstone House, Southampton
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Bencraft, H. W. R., Esq., 13, Cumberland Pl., Southampton
Blackwell, Major, R.A.M.C., Netley
Breton, L. M., Esq., Kent House, Portswood Road, Southampton
Buckell, E., Esq., Romsey
Bullar, J. F., M.B., F.R.C.S., Southampton
Burnett, L. B., M.B., Emeroit, The Polygon, Southampton
Cade, S. E., Esq., Erskinbrae, Sarisbury, near Southampton
Chambers, J. Miles, Esq., The Avenue, Southampton
Cheesman, G. E. A., Esq., Church Lane, House, Lymington
Child, G. A., Esq., Hythe, Southampton
Chinery, E. F., F.R.C.S., Lymington
Compton, W. H., Esq., 6, Brighton Road, Southampton
Cooper, W. F., Esq., 55, Shirley Road, Southampton
Cowen, G. H., M.B., F.R.C.S., College Place, Southampton
Easton, Thomas, M.D., 28, East Park Terrace, Southampton
Farquharson, G. S., M.B., 25, Carlton Crescent, S'hampton
Fox, E. H. B. Esq., Itchen, Southampton
Fraser, J. J., Esq., Cumberland House, Southampton
Giles, W. F., Esq., Hythe, Southampton
Gillespie, T., M.B., Forest Lodge, Shirley
Godfrey, A. C., M.D., 3, Waterloo Road, Freemantle, Southampton
Gonin, E. H., M.D., St. Michael's, Lyndhurst
Griffin, F. T., M.B., 11, East Park Terrace, Southampton
Gwillim, R. D. H., Esq., 9, Anglesea Place, Southampton
Hall, F., Esq., New Alma Road, Southampton
Harman, A. B., Esq., 30, Bellevue Road, Southampton
Hodson, T. G. S., M.D., Bitterne
Hughes, S., M.B., The Avenue, Southampton
Hutchinson, J., Esq., Fawley, Southampton
Ives, W. H. Y., Esq., 14, Portswood Park, Bevois H Southampton
Johnston, Lieutenant-Colonel, R.A.M.C., Netley
Jolliffe, W. E., Esq., 20 Carlton Road, Southampton
Kay, Lieutenant-Colonel, R.A.M.C., Netley
Kearney, Major, R.A.M.C., Netley
Keppel-Compton, J. H., Esq., Denzil Place, Southampton
Lauder, R. E., F.R.C. ., 158, Above Bar, Southampton
Lethbridge, Sir Alfred, K.C.S.I., Windhover, Burseldon
Le Quesne, C. P., Esq., 7, Lawn Road, Southampton
MacDougall, J. M., Esq., 152, St. Mary's St., Southampto
MacKeith, A. A., M.B., Howard Road, Southampton
MacLeod, K., M.D., Col. (ret. I.M.S.), Woolston
Maturin, F. H., M.B., Old Bank House, Lymington
May, H. J., M.B., Ivanhoe, Archers Road, Southampton
Parry, G. H., M.B., Ventnor, Howard Road, Southampton
Pern, A., F.R.C.S., Botley, Southampton
Powell, J. A., M.D., St. Cronans, The Avenue, Southampto
Prentice, R. W., Esq., Spring Grove, Bishopstoke
Purvis, W. P., M.D., 2, Avenue Place, Southampton
Ransford, J. E., Esq., Tower Ho., Landguard Rd., Southampton
Renny, A. W., M.B., Durham Road, Shirley
Ritchie, E. D., M.D., Chandlersford, Eastleigh
Rogers, A. A., Esq., Woodlands, Woolston
Robson, F. W. H., M.D., Belstone, Howard Road, Southampton
Saunders, C. H., M.B., Berkeley Lodge, Southampton
Seaton, D., Esq., Woodside Cottage, Lymington
Shettle, H. W., Esq., 75, Marland Place, Southampton
Sheppard, H. A., Esq., Elingfield, Totton
Simmons, E. W., Esq., Haslemere, Bishopstoke
Sleigh, H. P., M.B., 63, Leigh Road, Eastleigh
Stephenson, O. T., Esq., Woolston, Southampton
Stevens, G., Esq., 20, Brunswick Place, Southampto
Stewart, C. H., Esq., Netley Abbey
Sylvester, Lieutenant-Colonel, R.A.M.C., Netley
Thomas, J. L., M.D., Southampton
Tinker, W., Esq., Hordle Cliff, Lymington
Townsend, Surgeon-General, Netley
Wade, A. B., M.B., 8, Carlton Crescent, Southampton
Wales, J. F., M.D., Portswood
Ward, H. P., M.B., Brunswick Place, Southampton
Way, A. O., Esq., Bassett, Southampton
Weston, G. H., M.B., Bassett, Southampton

Whicher, J. C. F., Staff-Surgeon R.N. Southampton
Wood, W. J. H., Esq., Lake House, Freemantle
Young, J. C., Esq., Incorporation Infirmary, Shirley Warren

No. 7.—Winchester Division

NUMBERING 65.

Chairman, W. A. S. Royds, Esq., St. Mary Bourne, Andover.

Vice-Chairman, W. M. Harman, M.D., Winchester.

Honorary Secretary, T. C. Langdon, Esq., Northgate House, Winchester.

Representative for Representative Meeting, D. Browne Esq., 78, High Street, Winchester.

Representatives on Branch Council.

Barclay, W. B., Esq. | Jollye, F. W., Esq.
Briscoe, J. F., Esq.

Adam, J. L., M.B., The Hall Farm, Yateley, Blackwater
Adams, P. E., M.D., Hartley Wintney, Winchfield
Andrews, S., Esq., Basingstoke
Applebe, E. A., Esq., 1, Southgate Road, Winchester
Baker, W. L., Esq., Moorcote, Eversley, Winchfield
Barclay, W. B., Esq., Mayfield, Eggars Hill, Aldershot
Baxendall, A., Esq., 23, Grosvenor Road, Aldershot
Bevan, W. L. P., M.D., Alton
Blacker, E., M.D., The Boltons, Farnborough
Briscoe, J. F., Esq., Westbrooke House, Alton
Browne, D., Esq., 78, High Street, Winchester
Browning, Captain, R.A.M.C., Alton Hospital
Burgess, E. J., Esq., Whitchurch
Burnside, Major E. A. R.A.M.C., Barracks, Winchester
Burt, W. C., Esq., Stockbridge, R.S.O.
Cohen, Joseph, Esq., 6, Victoria Road, Aldershot
Collins, R. T., Esq., R.A.M.C. Mess, Aldershot
Cumming, Lieut. C. C., R.A.M.C., Aldershot
Curtis, W., Esq., Alton
England, G. F. A., M.D., 12, Southgate Street, Winchester
Fitzgerald, W.A., M.D., Frimley, Farnborough
Foster, Lieut. R. L. V., R.A.M.C., Aldershot
Foulds, Matthias Frederick, Lt., Aldershot
Gibson, J. H., Esq., 1, Lansdowne Road, Aldershot
Gilmour, J. H., Esq., Hurstbourne Tarrant
Godwin, H. J., M.B., 35, Southgate Street, Winchester
Griffiths, W. A., Esq., Wonston, Micheldever
Harman, W. M., M.D., Brig.-Surg., Retired, Winchester
Harrison, S. G., Esq., Saxondene, Shawford
Hayes, H. R., Esq., Basingstoke
Hemming, C. P., Esq., Bishops Waltham
Hemsted, R. H., Esq., Hordley House, Whitchurch
Hodgson, Harold, M.B., Lindens, Alresford
Hoyle, J. C., M.B., Upham
James, J. A., Esq., Odiham
Jollye, F. W., Esq., F.R.C.S., Alresford
Kelly, J. F., M.B., South Camp, Aldershot
Langdon, T. C., Esq., Northgate House, Winchester
Langley, W. J., Esq., Talley, Basingstoke
Leslie, E. J. L., Esq., Alton
Lithgow, T. G., Esq., Farnborough
Livingston, J. L., M.D., Hursley, near Winchester
Loveless, W. K., Esq., Steepleton, Stockbridge
Lowne, B. T., M.D., Crondall
MacNalty, F. C., M.D., 10, Southgate Street, Winchester
Maturin, H., Esq., Winchfield
Meyrick, F. R. H., M.D., Winton House, Basingstoke
Miller, F. D., M.D., Horwoods, Basingstoke
O'Connor, W. M., M.D., Cargate Avenue, Aldershot
Ommanney, F. M. M., Esq., Princess Louise Hospital, Alton
Pern, E. C., Esq., Droxford
Price, A. E., M.B., Denstone, Winchester
Richards, T. D., Esq., 13, St. Thomas Street, Winchester
Roberts, G. A. E., Esq., Twyford, near Winchester
Royds, W. A. S., Esq., St. Mary Bourne, near Andover
Scott, T. W., M.B., 3, Southgate Road, Winchester
Simpson, J. Tracey, M.D., Kynance, Farnborough
Smith, Horace M.D., Wonston, Micheldever
Stokes, F. A., Esq., Basingstoke
Wace, Cyril, Esq., F.R.C.S., Wolcote, Winchester
Whelan, Lieutenant J. F., M.B., B.Ch., Aldershot
Whittindale, J. G., Esq., Bishops Waltham
Wickham, G. H., M.B., Fleet
Winter, L. A., Esq., Chelmsford, Southampton Street, Farnborough
Wright, Thomas, Esq., 23, Wellington Street, Aldershot

SOUTH MIDLAND BRANCH.

District comprising the County of BEDFORD; in WARWICKSHIRE, Rugby; in NORTHAMPTONSHIRE, the portion south and west of Thrapston; in BUCKINGHAMSHIRE, the portion north of a line drawn from Thame to Chesham, excluding the latter; in HERTFORDSHIRE, the portion north of a line drawn from Chesham immediately south of King's Langley to Potter's Bar, and thence due north to the county boundary.

Members of Branch—232.

RECOGNISED 1856.

President, W. E. AUDLAND, Esq., Wellingborough
President-elect, T. L. KENNISH, M.D., Winslow
Ex-President, W. GIFFORD NASH, Esq., Bedford
Honorary Secretary, E. H. JONES, M.B., 45, Sheep Street, Northampton
Honorary Treasurer, R. A. MILLIGAN, M.D., Northampton

Representative on Council of Association.
R. H. Kinsey, Esq., 2, Harper Place, Bedford

Branch Council

Bull, W. H., Esq.. | Howard, V., Esq.
Dryland, L. W., Esq., | Linnell, A., Esq.
Dukes, Clement M.D. | Lipscombe, E. H., M.B.
Hartley, A. C., M.D. | McArthur, D. R., M.D,
Hichens, P. S., M.D. | Major, H. C., M.D.

With the President, President-elect, Ex-President, and other officers.

No. 1.—Aylesbury Division

NUMBERING 52.

Chairman, C. Hooper, Esq., Aylesbury
Vice-Chairman, J. C. Baker, M.B.
Honorary Secretary and Treasurer, Horace Rose, Esq., Melrose, Aylesbury.

Representative for Representative Meeting, Executive Committee and Members of Branch Council.

Howard, V., Esq. | Kennish, T. L.

Baker, J. C., M.B., Ceely House, Aylesbury
Batterbury, R. L., M.D., Great Berkhamstead
Benson, P. L., M.D., The Elms, Steeple Claydon
Bontor, S. A., M.D., Gt. Berkhamsted
Boswell, J. I., M.D., Crawley Grange, Newport Pagnell
Brown, James M.B., Harvieston, Tring
Bull, W. H., Esq., Stony Stratford
Butcher, Flora, M.D., Hengrove, St. Leonard's, Tring
Buxton, G. W., Esq., Ivy Dene, Fenny Stratford
Christie, F., Esq., The Grange, Ickford, Bucks
Cook, J. R., M.B., Great Missenden
Cooke, F. A., M.D., Haddenham, Bucks
Cross, Geoffrey, Esq., Ivy House, Hemel Hempstead
Deyns, C. J., Esq., Fenny Stratford
Eagles, W., Esq., Walton Terrace, Aylesbury
Easte, W. A., Esq., Hanslope, Stony Stratford
Fisher, F. C., Esq., King's Langley, Herts
Giles, P. B., Esq., Holme Chase, Bletchley
Graham, J. W. F., Esq., Waterloo House, Brill
Grindon, F. J., Esq., Olney, Bucks
Harvey, J. O., Esq., The Elms, Wolverton
Hooper, C., Esq., 8, Temple Square, Aylesbury
Hope, P. L., Esq., 4, Clarence Road, Stony Stratford
Howard, V., Esq., Hamilton, Buckingham
Humphry, J., Esq., County Asylum, Stone, Aylesbury
Kennish, T. L., M.D., Western Lodge, Winslow
Lathbury, F. R., Esq., Rose Cottage, Chipperfield, King's Langley
McBride, J. B., Esq., The Laurels, Berkhamsted
McFarland, A., Esq., The Lawn, Whitchurch, Aylesbury
Maguire, T. S., M.D., Stony Stratford
Miles, C. H., Esq., High Street, Stantonbury
Moberly, S. C. H., Esq., Winslow
Morrison, A. T., M.B., Waddesdon, Aylesbury
Nicholson, E., Esq., High Street, Fenny Stratford
Parrott T. G., M.D., 1, Church Street, Aylesbury
Pearson, G. K., Esq., The Cottage, Buckingham
Pendred, V., Esq., Grenville House, Buckingham
Powell, Cecil, Esq., Calverton Lodge, Stony Stratford
Rogers, H. C., Esq., Newport Pagnell
Rose, Horace, Esq., Melrose, Aylesbury
Selby, Ernest, Esq., Waddesdon, Aylesbury
Shaw, Jas., M.D., 26, High Street, Aylesbury
Steele, R., M.D., Hemel Hempstead
Terry, C., Esq., Newport Pagnell
Thompson, Maitland, Esq., The Marlowes, Hemel Hempstd
Turner, E. O., M.B. Great Missenden
Vaisey, T. F., Esq., Norden House, Winslow
Welsford, A.G., M.D., 20, Marlowes, Hemel Hempstead
West, W. S., M.D., 8, Temple Square, Aylesbury
White, Digby C., M.D., Priory Lodge, Newport Pagnell
Wickham, H. T., M.D., Newport Pagnell
Winder, W. H., Esq., H.M.'s Convict Prison, Aylesbury

No. 2.—Bedford and Herts Division

NUMBERING 93.

Chairman, H. C. Major, M.D., Bedford

Vice-Chairman, Lovell Drage, M.D., Hatfield

Honorary Secretary and Treasurer, Horace Savory, M.B., 2, Harpur Place, Bedford

Representative for Representative Meeting, R. H. Coombs, M.D., 28, Mill Street, Bedford.

Representatives on Branch Council.

Hartley, A. C., M.D. | Major, H. C., M.D.
Lipscomb, E. H., M.B.

Executive Committee.

Butters, G., M.B. | Savory, Horace, M.B.
Coombs, R. H., M.D. | Skelding, H., M.B.
Drage, Lovell, M.D. | Temple, T. C., Esq.
Major, H. C., M.D.

Addison, H. C., Esq., 104, Midland Road, Bedford
Alston, W. E., M.D., Wheathampstead
Bates, H. Leslie, Esq., St. Albans
Batterbury, R. L., M.D., Great Berkhamsted
Binning, A., M.B., Hatfield
Blake, W. H., M.B., Harpenden, Herts
Blakiston, F. C., Esq., Herts County Asylum, St. Albans
Bonter, S. A., M.D., Great Berkhamsted
Bower, D., M.D., Springfield House, Bedford
Boycott, A. M., M.D., Hill End, St. Albans
Boys, A. H., Esq., Checquer Street, St. Albans
Brander, R. L., M.B., Aspley Guise
Brittain, P. M., Esq., Triangle House, Hatfield
Bull, G. C. R. M.B., Richmond House, Turvey
Butters, G., M.B., Kempston
Carter, J., Esq., 9, St. Peter's Green, Bedford
Chillingworth, A., Esq., 43, St. Peter's, Bedford
Coates, Richard, Esq., Great Barford, St. Neots
Cobb, E. H., Esq., Belmont, Stevenage
Coombs, R. H., M.D., 28, Mill Street, Bedford
Davis, D., Esq., Brook House, Polton
De Lisle, S. E., Esq., Three Counties Asylum, near Hitchin
Dixon, G. F., Esq., Lindon Lodge, Potton
Drage, C., M.D., Hatfield, Herts
Drage, L., M.D., Burleigh Mead, Hatfield, Herts
Edwards, H. N., Esq., Markyate, Dunstable
Elmslie, R. C., Esq., 11, Linden Road, Bedford
Foster, O. H., M.B., Hitchin
Gilbertson, J. H., Esq., Hitchin
Goldsmith, G. P., M.D., Bedford
Goldschmidt, O. B., Esq., Bishopstone House, Bedford
Grant, J. W., M.B., Woburn Sands
Greenwood, T. P., M.D, Three Counties Asylum, Hitchin
Hallett, H., Esq., Leavesden Asylum, Herts
Harris, J. D. J., Esq., Bridge Road, Leighton Buzzard
Hartley, A. C., M.D., Bedford
Hillier, R. J., Esq., Beaconsfield Road, St. Albans
Hodges, H. B., Esq., Knebworth, Hertford
Holmes, T. D., M.D., The Shrubbery, Woburn Sands
Hudson, J. S., M.D., Garratt Hall Rickmansworth
Hughes, A. D., M.D., High Street, Dunstable
James, A., M.B., Biggleswade
Johnson, C. G., Esq., Harpur Villa, Bedford
Jones, C. L., Esq., Lanark House, Dunstable
Kemp, J. H., M.B., Avenue Road, St. Albans
Kemp, W. G., Esq., Avenue Road, St. Albans
Kinsey, R. H., 10, Rothsay Gardens, Bedford
Kite, J. A., Esq., Welwyn, Herts
Lempriere, L. R., Esq., Haileybury College, Hertford
Lipscomb, E. H., M.B., St. Albans
Lloyde, J. H., Esq., 5, Harpur Place, Bedford
Lucas, A., Esq., Woburn
Major, H. C., M.D., Swallowfield, Bushmead Avenue, Bedford
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Nash, Walter Gifford, Esq., De Parys Avenue, Bedford
Neal, F. A., M.B., 36, Clarendon Road, Bedford
Parry, E. J., Esq., St. Nicholas Lodge, Harpenden
Phillips, A. S., Esq., The Cedars, St. Cuthberts, Bedford
Phillips, F. B. W., M.B., 7, Harpur Place, Bedford
Prior, C. E., M.D., 4, Goldington Road, Bedford
Prout, W. T., Esq., 9, London Road, Bedford
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Roberts, K., Esq., Shillington, near Hitchin
Robinson, G., Esq., Harpur Place, Bedford
Ross, S. J., M.D., "Monkhams," Bedford
Savory, Horace, M.B., 2, Harpur Place, Bedford
Sexton, Edward, M.D., Brig.-Surg., Glanmyre, Bedford
Sharpin, A. L., Esq., 2, Kimbolton Road, Bedford
Sharpin, E. C., Esq., Bedford
Sharpin, W. A., Esq., 45, St. Peter's Green, Bedford
Shillitoe, R., Esq., Bancroft, Hitchin
Skelding, H., M.B., St. Loyes, Bedford
Smith, J. G., M.D., Herts County Asylum, St. Albans
Smith, W., Esq., Barton-le-Clay, Amthill
Snell, G., M.D., 57, Goldington Avenue, Bedford
Somerville, J. F., Esq., Harrold, near Sharnbroo
Spence, W. J., Esq., Pemberley Road, Bedford
Storey, J. A., Esq., The Lawn, Dunstable
Street, A. Ernest, Esq., Cranfield, Woburn Sands, R.S.O.
Strover, H. C., Esq., Ivel Lodge, Sandy
Sworder, H., Esq., Luton
Temple, T. C., Esq., Shefford
Thomas, B. W., M.B., Welwyn, Herts
Tomson, W. Bolton, M.D., Luton
Veasey, H., Esq., Aspley Guise, Woburn
Vernede, F. E., Esq., 24, Lansdowne Road, Bedford
Wagstaffe, E. H., Esq., Leighton Buzzard
Waugh, J., M.D., Toddington
Wells, T. P. G., Esq., 13, London Road, St Albans
Wilson, J., M.D., The Elms, Harpenden, Herts
Wimble, H. C., Esq., Walkern, Stevenage
Winckworth, C. E., Esq., Shefford
Wingrave, V. H. W., Allington, St. Albans

No. 3.—Northamptonshire Division

NUMBERING 87.

Chairman, F. Buszard, M.D., Northampton

Vice-Chairman, W. E. Audland, Esq., Brooklands, Wellingborough.

Honorary Secretary and Treasurer, E. H. Jones, M.B., 45, Sheep Street, Northampton.

Representative for Representative Meeting, C. J. Evans, Esq., Northampton.

Representatives on Branch Council.

Dryland, L. W., Esq. | Hichens, P. S., M.B.
Dukes, C., M.D. | Linnell, A., Esq.

Allison, J., M.D., Fuller House, Kettering
Ambler, R., Esq., Ampthill
Audland, W. E., Esq., 5, Oxford Street, Wellingborough
Ardagh, V. E. K., Rochester, near Wellingborough
Baird, W. J., Esq., Earl's Barton, near Northampton
Baker, G. W., Esq., Croft House, Rothwell
Baker, H. S., Esq., Rushden, R.S.O.
Bayley, J. H., M.B., St. Andrew's Hospital, Northampton
Baxter, S. E., Esq., Wollaston, Wellingborough
Beale-Brown, T. R., Esq., Berry Wood, Northampton
Beatty, James, M.D., 20, Guildhall Road, Northampton
Bennetts, F., Esq., Bozeat, Wellingborough
Bird, J., Esq., Thrapston
Burland, H., Esq., Finedon
Buszard, Frank, M.D., Northampton
Cairns, Thomas, Esq., Marriott Street, Northampton
Chamberlain, W. H., Esq., East Park Parade, Northampton
Churchouse, W. J. F., Esq., Long Buckby
Clark, W. W., M.D., Wellingborough
Cogan, L. F., Esq., 51, Sheep Street, Northampton
Cornwall, W. F., M.B., Towcester, Northants
Cox, A., Esq., Long Buckby
Crew, J., Esq., Higham Ferrers
Cropley, H., Esq., East Park Parade, Northampton
Darley, A. R., M.D., West Haddon
Dryland, L. W., Esq., High Street, Kettering
Dukes, C., M.D., Sunnyside, Rugby
Dutton, A. S., Esq., Kettering
Evans, C. J., Esq., Northampton
Farmer, J., Esq., Brackley
Fenton, J. S., M.D., Brackley
Flanigan, H. J., Esq., 90, Abington Street, Northampton
Gainer, J. W., M.B., Thrapstone
Gibbons, H., M.B., Desborough, near Market Harborough
Godwin, F. J., Esq., Derngate, Northampton
Harding, W., M.D., Berry Wood, Northampton
Harrison, A. E., M.B., Daventry
Hichens, P. S., M.D., 45, Sheep Street, Northampton
Hollis, H., M.D., Brooklands, Wellingborough
Hops, A. Adam, M.B., Byfield Road, R.S.O.
Howard, A., M.B., General Hospital, Northampton
Howell, F. M., M.B., 37, Hillmorton Road, Rugby
Jackson, W. Roy, Esq., Guilsborough, Northampton
Jacobs, H. R., Esq., Culworth, Northampton
Jones, E. H., M.B., 45, Sheep Street, Northampton
Knott, E. M., Esq., Brixworth
Lewis, G. H., M.D., 31, Mayfair, Northampton
Linnell, A., Esq., Paulerspury
Mackenzie, W., Esq., Raunds
Mack, George, M.B., Green Lane, Kettering
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Moore, A., Esq., Pailton Hall, Rugby
More, J., M.D., Rothwell
Morris, F. H., M.D., Wellingborough
Moxon, W., Esq., Northampton
Newth, W. P. K., Esq., Langham House, Northampton
Nash, Wm. Gunner, Esq., Welford, Rugby
Norman, E. P., M.D., Yardley Hastings, Northampton
Oldacres, C. E., Esq., 2, New Street, Daventry
O'Rafferty, J. C., Esq., Daventry
Owen, C. R., Esq., Rushden
Paget, C. E., Esq., County Hall, Northampton
Parkhurst, L. E., M.D., Buckingham House, Brackley
Percival, G. H., M.B., 65, Abington Street, Northampton
Robb, Wm., M.B., The Limes, Irthlingborough
Ryan, W. H., Esq., Roade
Saunders, W., Esq., 12, Church Street, Wellingborough
Simpson, J. H., M.D., Hillmorton Road, Rugby
Smith, A. G. L., Esq., Crick, Rugby
Spearman, B., M.B., Northampton Gen. Hosp., Northmptn.
Spurgin, H. B., Esq., Northampton
Stathers, G. N., Esq., Brackley
Stephenson, W. A., Esq., West Haddon, Rugby
Stewart, C. R., M.B., 82, Abington Street, Northampton
Stewart, D. A., M.B., Northampton General Hospital, Northampton
Stone, D., M.D., 19, Horsemarket, Northampton
Stuart, F. J., Esq., Berrywood Asylum, Northampton
Taylor, John, Esq., 6, Fitzwilliam Street, Rushden
Terry, John, Esq., Southfield House, Braunston, Rugby
Tolputt, A. G., Esq., Montagu Street, Kettering
Underwood, F. L., Esq., Floore, Weedon
Unwin, R., M.D., Dunchurch, Rugby
Van Vestraut O. T. A. V., Esq., Rockingham Road, Kettering
Watson, W. I., M.B., 3, Queen Street, Wellingborough
White, P. S., Esq., The Dower House, Bugbrooke
Williams, H. W., M.D., Guisborough, Northampton
Woolley, E. J., M.B., Wellingborough

SOUTH WALES AND MONMOUTHSHIRE BRANCH.

District comprising CARDIGANSHIRE, BRECKNOCKSHIRE, the Counties south-west thereof, and MONMOUTHSHIRE.

Members of Branch—447.

RECOGNISED 1871.

President, J. T. THOMPSON, M.B., Cardiff

President-elect, O. E. B. MARSH, Esq., Newport, Mon.

Ex-President, R. G. PRICE, M.D., Carmarthen

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O. R. PATERSON, M.D., 15, St. Andrew's Crescent, Cardiff
F. G. THOMAS, M.B., 2, Brunswick Place, Swansea

Honorary Treasurer.

A SHEEN, M.D., 23, Newport Road, Cardiff

Representatives on Council of Association.

E. Jones, Esq., Aberdare
J. Lynn Thomas, Esq., Cardiff.

Branch Council.

Brigstocke, C. A., Esq.
Brook, W. F., Esq.
Davies, J. W., Esq.
Glendinning, J., M.D.
Griffiths, P. Rhys, M.B.
Hughes, H. L., Esq.
Jones, Lloyd, Esq.
Jones, J. Arnalt, Esq.
Lawrence, A. G., M.D.
Lewis, B. M., Esq.
Lloyd, D., Esq.
Morgan, D. N., Esq.
Powell, John, Esq.
Stewart, R. S., M.B.
Vachell, C. T., M.B.

No. 1.—Cardiff Division

NUMBERING 126.

Chairman, W. T. Edwards, M.D., Cardiff

Vice-Chairman, T. Wallace, M.D., Cardiff

Honorary Secretary, Ewen J. Maclean, M.D., 12, Park Place, Cardiff

Representative for Representative Meeting, T. Garrett Horder, Esq., 32, Windsor Place, Cardiff

Representatives on Branch Council.

Griffiths, P. R., M.B.
Powell, J., Esq.
Stewart, R. S., M.D.
Vachell, C., M.D.

Executive Committee.

Paterson, D. R., M.D.
Sheen, W., M.S.
Thomas, J. L., C.B.
Thompson, J. T., M.B.

Aitken, C., M.D., Newcastle, Penarth
Anstey-Chave, T., Esq., 19, Windsor Esplanade, Cardiff
Arthur, J., Esq., Llandaff Yard, near Cardiff
Barker, G. L., Esq., Parc Gwyllt, Bridgend
Bennett, Victoria Evelyn M., 84, Richards Terrace, Roath, Cardiff
Biggs, J. J. E., Esq., Newport Road, Cardiff
Bird, Ashley, Esq., 31, Stanwell Road, Penarth
Bowen, Elias R., M.D., Bargoed, near Cardiff
Brierley, E. E., M.B., 7, Dumfries Place, Cardiff
Broad, B. W., Esq., The Sanatorium, Cardiff
Buckham, F., Esq., 74, Albany Road, Roath
Budge, E. J. H., Esq., Cadoxton, Barry
Buist, J. J., M.B., 247, Bute Street, Cardiff
Burke, J. P. T., Esq., Brookside, Abertridwr
Cameron, Robert, M.D., 33, Llanbleddan Gardens, Cardiff
Campbell, Henry, Esq., 349, Cowbridge Road, Cardiff
Campbell, W., M.D., 95, Newport Road, Cardiff
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Williams, W. G., Esq., 20, Parade, Cardiff

No. 2.—Monmouth Division

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Glendinning, J., M.D.
A. G. Lawrence, M.D.

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Williams, H. E., Esq., The Mount, Newport
Wilson, Wilfred, M.D., Garndiffaith, Pontypool

No. 3.—North Glamorgan and Brecknock Division

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Representative for Representative Meeting, E. N. Davies, Esq., Pen-y-graig, Rhondda Valley

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Cresswell, S. C., Esq., Dowlais
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Davies, E. N., Esq., Pen-y-graig, Rhondda Valley
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Howells, W., M.B., Walton House, Brecon
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No. 4.—South-West Wales Division

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Davies, J., Esq., Tanyfron Villa, Aberayron
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Evans, E. R., Esq., Llandyssul
Evans, R. D., Esq., The Crescent, Llandilo
Evans, W. C., M.B., Saundersfoo

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Jones, Evan, Esq., Llanybyther
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Morgan, M. J., Esq., 35, North Parade, Aberystwith
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Phillips, John, Esq., Danygraig, St. Clears
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Williams, E., Aberayron
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No. 5.—Swansea Division

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Honorary Secretary, A. Hanson, Esq., 10, Cleveland Terrace, Walter Road, Swansea

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Jones, A. Lloyd, Esq.

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Davies, Ebenezer Esq., Swansea
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Evans, E. B., Esq., St. Thomas, Swansea
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Jones, R. N., Esq., Preswylfa, Swansea
Jones, T. M., Esq., Kilby House, Loughor
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Marks, Leonard F., Esq., Rosebank, Mumbles, R.S.O.
Mitchell, T., M.D., Gorseinon
Morgan, E. Rice, Esq., Morriston, R.S.O.
Morgan, W., Esq., 9, Somerset Place, Swansea
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O'Sullivan, M., Esq., Alexander House, Swansea
Pegge, C., Esq., Baglau House, Briton Ferry
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Perkins, Alfred Ll., Esq., Acl-y-Bryn, Sketty
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Prichard, R. D., Esq., Resolven, Neath
Rawlings, H. E., Esq., 3, Northampton Gardens, Swansea
Rawlings, J. A., Esq., Sketty, R.S.O.
Rees, J. Ll., Esq., Pontardawe
Reid, Edgar, Esq., 200, St Helen's Road, Swansea
Richards, A. F. B., M.B., 5, Cleveland Terrace, Walter Road, Swansea
Roberts, J. S. H., Esq., Picton Villa, Swansea
Soden, H. M., Esq., Walter Road, Swansea
Soden, J. E. J., Esq., 12, Picton Place, Swansea
Stephens, G. A., M.D., 16, Lansdowne Terrace, Swansea
Thomas, D., M.D., Ystalyfera, Swansea
Thomas, F. G., M.B., 2, Brunswick Place, Swansea
Thomas, H. H., Esq., Bryn Villa, Brynhyfryd
Thomas, Jabez, Esq., Tyberrig, Swansea
Thomas, J. W., Esq., The Wern, Neath
Veale, F. J. de C., M.B., Glyn Ethin, Mumbles
Whittington, T. P., Esq., Tirwd Vale, Neath
Williams, John Henry, Esq., Devonshire Place, Aberavon Port Talbot
Williams, M. W., Esq., 18, Pentrepoth Rd., Morriston, R.S.O
Williams, R. T., Esq., Cwmavon, Port Talbot
Verley, R. C., Esq., The Hospital, Swansea

SOUTH-WESTERN BRANCH

District comprising DEVONSHIRE and CORNWALL

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E. L. Fox, M.B., 9, Osborne Place, Plymouth

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No. 1.—Barnstaple Division

NUMBERING 47.

Chairman, E. J. Slade-King, M.D. Ilfracombe.

Vice-Chairman, L. Mackenzie, Esq., Tiverton.

Honorary Secretary, F. W. Kendle, Esq., Hawthornden South Molton.

Representative for Representative Meeting, J. Miller, Esq., 14, East Southernhay, Exeter.

Representative on Branch Council, J. R. Harper, Esq.

Ackland, C. K., Esq., Bideford
Anderson, F. T., M.D., Braunton
Allen, Humphrey, Esq., Alma Cottage, Morchard Bishop
Baly, F. F., Esq., Avondale, Westward Ho
Cooke, J. W., Esq., Barnstaple
Cornbill, J., Esq., Lyncott, St. Brannocks Road, Ilfracombe
Cullen, R. B., Esq., Fore Street, Tiverton
Down, A. R., Esq., Winslade, Bampton
Edwards Chas., Esq., Watermeet, Ilfracombe
Emtage, E. W., Esq., Bradworthy
Fisher, S. H., Esq., Fore Street, Tiverton
Fremlin, H. S., Esq., 33, St. Peter Street, Tiverton
Gooding, M. R., Esq., 11, Bridgeland Street, Bideford
Grose, J. S., Esq., The Wooda, Bideford
Harper, J. R., Esq., Barnstable
Harper, W. J., Esq., Bloomfield, Braunton
Hay, M.B., Esq., Castle Hill, Lynton
Holcroft, W. F. L.A., M.B., North Molton
Jonas, H. C., M.B., Bear Street, Barnstaple
Kendle, F. W., Esq., South Molton
Kettlewell, G. D., Esq., Portland Street, Ilfracombe
Langridge, F. J. W., Esq., Ilfracombe
Macindoe, J. G., M.B., Torrington
Mackenzie, L., Esq., Tiverton
Manning, F. B., Esq., Medina Cottage, Pilton, Barnstaple
Manning, N. S., Esq., Middleton, Combe Martin
Michelmore, G., Esq., 26, St. Peter's Street, Tiverton
Michell, J. C., Esq., Lynton
Morris, Mary E. H., M.B., N. Devon Infirmary, Barnstaple
Norman, J. H., Esq., Winkleigh
Paine, H., Esq., Bampton
Pearson, Ellis, Esq., Strand House, Bideford
Pollock, J. R. R., Esq., Bampton Street, Tiverton
Reston, H., M.D., Ashford, near Barnstaple
Richardson, T. A., Esq., Park House, Combe Martin
Sanders, Thomas, Esq., 112, East Street, South Molton
Shiels, R. D., M.B., Bampton Street, Tiverton
Siddall, J. B., M.D., Conybeare, Northam, R.S.O., Bideford
Slade-King, E. J., M.D., Bickleighscombe Down, Ilfracombe
Smyth, H. J., Esq., New Road, South Molton
Thompson, C. S., M.D., 4, Buttgarden Street, Bideford
Toller, C. W. E., M.D., Castle House, Ilfracombe
Toye, E. J., M.D., Bridgeland Street, Bideford
Tucker, J., Esq., Chulmleigh
Walker, R., Esq., Bideford
Welsford, G. F., M.B., 22, St. Peter Street, Tiverton
Woodbridge, E. W., Esq., Endsleigh, Newport Road, Barnstaple

No. 2.—Devonport Division

NUMBERING 62.

Chairman, T. E. Smyth, M.D., 3, Abbeymead, Tavistock

Vice-Chairman, J. A. Samuel, M.D., Torpoint, Devonport

Honorary Secretary, A. D. Williams, Esq., 1, Osborne Villas, Devonport.

Representative for Representative Meeting, F. E. Row, Esq., Tamar Terrace, Devonport.

Representatives on Branch Council.

Braund, A. M., Esq. | Hammond, W., Esq.

Adams, A., M.B., Bridgend, W. Looe
Atkins, S. E., Esq., Montague House, Hatherleigh
Benson, C. R., Esq., Lew Down
Blagden, J. J., Esq., Holmleigh, Yelverton, R.S.O.
Bowhay, A., M.D., Gunnislake, near Tavistock
Braund, A. M., Esq., Hill House, Stratton
Brown, George, Esq., Callington, R.S.O.
Brough, Daniel, M.B., Royal Albert Hospital, Devonport
Burd, G. V., Esq., Okehampton
Butler, T. L., Esq., Berrynarbor
Cheves, J. T., Esq., Milbrook
Chipperfield, P., Esq., Pendowrie, Pensilver, Liskeard
Clarke, A. B., Esq., Shebbear
Cole, W. R. N., M.D., St Tudy, R.S.O.
Cutcliffe, M., Esq., North Tawton
Davis, H., M.D., Callington
Dodgson, Henry, M.D., Broad Street, Launceston
Down, Elgar, Esq., Stoke, Devonport
Dyer, S. R., Esq., Medical Officer H.M. Prison, Dartmoor
Eden, W. A., Esq., Wadebridge
Forward, F. E., Esq., Princetown
Frew, W. S., M.B., H.M. Prison, Dartmoor, Prince Town
Gard, W. J., Esq., Stoke, Devonport
George, R. J., M.D., Port Isaac
Gill, J. W., Esq., St. Germans
Gould, J., Esq., Hatherleigh
Gray, W., Esq., Holsworthy
Grenfell, H. O., Esq., Rose Hill, Saltash
Hammond, W., Esq., Stuart House, Liskeard
Hanham, L. L., Esq., 1, Trafalgar Place, Stoke, Devonport
Harvey, F., Esq., Rosehill Cottage, Padstow
Hingston, R., Esq., Liskeard
Johnson, Philip, Esq., Bridestowe Park, Okehampton
Kerswill, J. B., Esq., St. Germans
King, J., Esq., Stratton
Kingdon, E. O., Esq., Holsworthy
Lander, C. L., Esq., 7, Molesworth Terrace, Stoke
McCulloch, Edward, M.B., Rodney Terrace, Stoke
May, J., A., Esq., Stoke, Devonport
Moran, P. G., M.B., 11, Mount Edgcumbe Terrace, Devonport
Musgrave, Cecil, B. T., M.D., Lifton
Nettle, W., Esq., Liskeard
Preston, G., Esq., Saltash
Rae, G. A., Esq., Stoke, Devonport
Rider, A. G., M.B., 16, Garfield Terrace, Stoke, Devonport
Row, F. E., Esq., Tamar Terrace, Devonport
Ryan, R. P., Esq., Devonport
Samuel, J. A., M.D., North Hill House, Torpoint, Devonp't
Sandford, G. C., M.D., 1, Collingwood Villas, Devonport
Saunders, E. H., Esq., Stoke, Devonport
Scatchard, C., Esq., Quay Head, Exbourne
Smith, A. C. F., Esq., St. Budeaux
Smyth, T. E., M.D., 3, Abbeymead, Tavistock
Tenison, E. H. R., M.D., Okehampton
Thom, G., Esq., 1, Clarendon Terrace, Devonport
Thompson, D., Esq., Launceston
Thompson, W. F., M.D., Penquite, Launceston
Vinter, S. G., Esq., Udal Garth, Torpoint, Devonport
Wade, C., Esq., Tolcarne, Boscastle
Watt, J. L., M.B., Millbrook, Plymouth
Williams, A. D., Esq., 1, Osborne Villas, Stoke, Devonport
Wilson, T., Esq., Station Hospital, Devonport

No. 3.—Exeter Division

NUMBERING 86.

Chairman, J. Somer, Esq., Exeter.

Vice-Chairman,

Honorary Secretary, J. Miller, Esq., 14, East Southernhay, Exeter.

Representative for Representative Meeting, J. Miller, Esq., 14, East Southernhay, Exeter.

Representatives on Branch Council.

Coombe, R. Esq. | Somer, J., Esq.
Leon, G. A., M.B. | Thomas, R. S., M.D.

Ackland, J. M., Esq., 24, Southernhay, Exeter
Allen, L. L., Esq., Crediton
Alleyne, E. F. M., Esq., High Street, Cullompton
Andrew, H., Esq., 10, East Southernhay, Exeter
Andrews, R. J., Esq., Heavitree, Exeter
Ashford, W., Esq., Riversmeet Terrace, Topsham
Barrow, Valentine, Esq., Uffculme, Cullompton
Bartlett, F. P., Esq., Raleigh House, Ottery St. Mary
Barton, G. P., Esq., Lympstone, near Exeter
Baskin, J. L., Esq., The County Asylum, Exminster
Beesley, Clarence, Esq., Exeter Road, Exmouth
Bell, C. E. W., Esq., 17, West Southernhay, Exeter
Bird, A. C., Esq., Old Hayes, Sidmouth
Brooks, S. J., Esq., Thorverton, Exeter
Bubb, B., Esq., The Hawthorns, Silverton, Exeter
Churchill, A. L. M., Esq., Wonford House, Exeter
Clapp, G. T., M.B., Exeter
Cock, J., Esq., 17, Morton Crescent, Exmouth
Coombe, R., Esq., 5, Barnfield Crescent., Exeter
Cosens, F. R. S., Esq., Brookfield, Colyton
Crooks, James, Esq., Castle Hill House, Axminster
Date, W. H., Esq., Culmstock
Davis, A. N., Esq., Devon Co. Asylum, Axminster
Davy, H., M.D., Exeter
Deas, P. M., M.B., Wonford House, Exeter
De Denne, T. V., Esq., Sidlands Lodge, Sidmouth
Domville, E. J., Esq., Northernhay House, Exeter
Downs, Harold, Esq., Hemyock
Duncan, T., M.B., 94, Sidwell Street, Exeter
Dyball, B., M.B., 47, Queen Street, Exeter
Eames, E. S. B., Esq., Lambscroft, Uffculme
Eaton, O., Esq., Exmouth
Evans, E., Esq., Elmfield, Crediton
Evans, G. E. A., Esq., Seaton
Evans, T. G. C., Esq., Budleigh-Salterton
Evans, W. H., Esq., Colyton
Farrant, M., jun., Esq., Beaufort House, St. Thomas, Exeter
Fenwick, C., M.D., Dunsford, Exeter
Frood, J. N., Esq., Topsham
Goard, T. A., Esq., 28, West Southernhay, Exeter
Gordon, W., M.D., 3, Barnfield Crescent, Exeter
Goulden, H. E., Esq., Clyst Hydon, Exeter
Grigg, N. B., Esq., Holcombe Rogus, Devon
Hanna, G. H., M.B., Alma House, Exmouth
Harris, J. D., Esq., 45, Southernhay, Exeter
Harris-Liston, L. Esq., Digbys, Exeter
Haycroft, C. H., Esq., Fair Park, Bow
Hedden, R., Esq., Plympton House, Honiton
Hodgson, J. W., Esq., Exmouth
Langran, W., Esq., Axminster
Leon, G. A., M.B., Hillston, Sidmouth
Lilwall-Cornac, J., Esq., Station Hospital, Exeter
Lipscomb, E. R., Esq., Starcross
Macindoe, A., M.D., High Bank, Sidmouth
MacKeith, J., M.B., St. Andrew, Exeter
Measure, J. W., Esq., 5, Exe View Terrace, Exeter Road, Exmouth
Miller, John, Esq., 14, East Southernhay, Exeter
Mortimer, J., M.B., 6, Northenby Place, Exeter
Muir, D. K., Esq., Earlsland, Bradninch

Perkins, A. R. S., Esq., 29, St. Sidwell Street, Exeter
Pickard, R., M.D., 31, East Southernhay, Exeter
Powne, L., Esq., 52, High Street, Crediton
Pullin, T. H. S., M.D., Sidmouth
Reynolds, F., M.B., Mill Street, Ottery St. Mary
Roper, A. C., Esq., The Shrubbery, Exeter
Sandoe, J. W., M.D., Broadclyst
Scanlan, J., M.B., Lt.-Col.(ret.A.M.S.), Kerswell, Broadclyst
Semple, H. F., Esq., Budleigh Salterton
Shapland, J. D., senr., Esq., Burnside, Exmouth
Smith, R. Wagstaff, Esq., Mount Rundell, Douglas Avenue, Exmouth
Solly, R. V., M.D., 40, Southernhay, Exeter
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Steele-Perkins, E. B., Esq., 3, Wilton Pl., St. Sidwells, Exeter
Stirk, P. H., Esq., Devon, Exeter Hospital, Exeter
Stokes, C. E., Esq., St. Thomas, Exeter
Thomas, J. R., M.D., Exeter
Thomas, R. S., M.D., 5, Carlton Hill, Exmouth
Thornton, G. L., Esq., 3, The Beacon, Exmouth
Tonge, E., M.B., Ellesmere, Beer, Axminster
Tosswill, L. H., M.B., 1, West Southernhay, Exeter
Tosswill, Leonard R., Esq., 1, West Southernhay Exeter
Tracey, H. E., M.B., The Gables, Willand, Collumpton
Tweed, E. R., M.D., Pembury, Fort Cross, Honiton
Walker, R., M.D., Budleigh Salterton
Wreford, H., Esq., Denmark Road, Exeter

No. 4.—Newton Abbot Division

NUMBERING 85.

Chairman,

Vice-Chairman,

Honorary Secretary, W. M. Jones, M.D., Beaumont, Torquay.

Representative for Representative Meeting, W. Odell, M.D., Ferndale, Torquay

Representatives on Branch Council,

Cressey, G. H., Esq. | Vickers, C. W., Esq.
Grimble, R. H., Esq.

Adams, H. C., Esq., 1, Bishop's Place, Paignton
Alexander, J., M.D., Paignton
Arnold, G. J., Esq., The Towers, Torquay
Bell, W. K., Esq., Shaldon, Teignmouth
Bennett, H. J. L., Esq., 24, Devon Square, Newton Abbott
Black, G., M.B., Chelston, Torquay
Cann, F. J. H., Esq., Sefton House, Dawlish
Cash, A. M., M.D., Torquay
Collyer, B. J., Esq., Courtland Road, Paignton
Cook, T. D., M.B., Glendon, Torquay
Cosens, C. H., Esq., Sanclaire, Paignton
Cressey, G. H., Esq., Cockington, Torquay
Crowdy, F. D., M.D., Belvedere House, Torquay
Culross, J., M.B., Roseneath, Newton Abbott
Cumming, G. W. H., M.D., Overton, Torquay
Davson, F. A., M.D., Mount Galpin, Dartmouth
Dunlop, Thomas, M.B., Cary Park, Babbacombe, Torquay
Eales, G. Y., Esq., 1, Matlock Terrace, Torquay
Edmond, W. R., M.B., Crichel, Totnes
Elliot, R. L., Esq., Tregie, Paignton
Gardner, P. H., Esq., Five Ways, Torquay
Gibson, G. J., M.D., Surg.-Lt.-Col., Bridgetown, Totnes
Goodwyn, H., Esq., Bovey Tracey
Gough, J. Harley, M.D., Old Torwood Road, Torquay
Grimbly, R. H., Esq., Newton Abbot
Harris, J. H., M.D., 5, Victoria Terrace, Dartmouth
Haydon, E., M.B., Keyberry House, Newton Abbott
Haward, Arthur E., Esq., Ivy House, Teignmouth
Holwell, E. B., Esq., Carlton, Bronshill Road, Torquay
Horton, T., M.D., Abbey Road, Torquay
Humphreys, H., M.D., St. Aubins, St. Mary Ch.Rd., Torquay
Hunt, A. D., Esq., Chagford
Hunt, E., Esq., Harlington, Newton Abbot
Huxley, J. U., M.D., 9, Higher Terrace, Torquay
Johnson, G. H., Esq., 7, Den Crescent, Teignmouth
Jones, W. Makeig, M.D., Torquay
Kendall, W. B., Esq., Kingswear
Lake, W. C., M.D., Teignmouth
Little, F. E., Esq., Oakfield, Teignmouth
Lovely, C. N., M.B., The Knowle, Dawlish
McGachen, F. W. D., M.D., 8, Higher Terrace, Torquay
Mackenzie, H. V., M.D., Torquay
Martin, Charles, M.D., Dagenham House, Newton Abbot
Moore, D., M.D., Cheriton, Chelston, Torquay
Newling, H. T., Esq., Torbay Park, Paignton
Nisbet, A. T., M.D., The Laurels, Newton Abbot
Norman, G. A., Esq., Ipplepen
Odell, W., M.D., Ferndale, Torquay
Palmer, W. P., M.B., Babbacombe, Torquay
Perks, R. H., M.D., Highbury, Torquay Road, Paignton
Phillpotts, H. McD., Esq., Eastcliff, Babbacombe, Torquay
Pollard, E., M.D., 8, Higher Terrace, Torquay
Powell, W., M.B., Hill Garden, Torquay
Quicke, W. J., Esq., West Hill, Brixham
Ranson, Wilson, F.R.C.S.E., Ashburton
Reynolds, F. E., Esq., Seymour Lodge, Totnes
Scott, W. G., M.B., Newton Abbot
Scrase, J. J. S., Esq., 54, Wolborough St., Newton Abbot
Searle, G. C., Esq., Brixham
Seccombe, Thos., M.D., Deputy Inspector-General, Torquay
Smith, G. C., Esq., 14, South Road, Newton Abbot
Smith, K. R., M.D., 62, High Street, Totnes
Soper, G. M., Esq., Prospect House, Dartmouth
Stabb, W. W., M.D., Harleston, Torquay
Steele, W. H., jun., M.B., St. Marychurch, Torquay
Steuart, M. B., Esq., Bovey Tracey
Sutherland, R., M.B., Cross Tree House, Moreton Hampstead
Sykes, W., M.D., Redclyffe Lodge, Paignton
Thistle, F. T., M.D., Clairville, Torquay
Thompson, Jos. J., Surg. Gen., Malton Dene, Torquay
Thorne, F. F., Esq., Sand Park, Shaldon, Teignmouth
Thornton, J. P., Esq., Bamfylde Road, Torquay
Tidswell, H. H., Esq., Fairbank, L. Woodfield Rd., Torquay
Todd, G., Esq., Sydenham, Torquay
Tripp, C. L. H., Esq., Hill House, Dawlish
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Vickers C. W., Esq., Roseneath, Paignton
Walker, J. H., Esq., The Fernery, Chudleigh
Ward, T. H., M.D., 1, Bishop's Place, Paignton
Webb, G. F. Esq., Fairlawn, Moretonhampstead
Wharry, A. J., Esq., 9, Powderham Terrace, Teignmouth
Wheatley, R., Esq., 4, Park Place, Torquay
Wiggin, H. P. V., Esq., The Moorings, Bronshill Road,
Wilkin, G. C., Esq., Conway House, Paignton
Wise, A. Tucker, Esq., Hansel, near Dartmouth

No. 5.—Plymouth Division

NUMBERING 71.

Chairman,

Vice-Chairman,

Honorary Secretary, H. W. Webber, M.D., 4, Queen Anne Terrace, Plymouth

Representative for Representative Meeting, G. Jackson, Esq., 10, Portland Villas, Plymouth

Representatives on Branch Council,

Aldridge, C., Esq. | Webber, H. W., M.D.
Pethybridge, W. L., M.D.

Aldous, G. F., Esq., Chorlton Ho., Mannamead, Plymouth
Aldridge, C., M.D., Plympton
Andrews, W. H., Esq., 22, Brownstone Street, Modbury
Bale, Rosa E., 24, Portland Square, Plymouth
Bate, George, Esq., Lipson Road, Plymouth
Bean, C. E., Esq., 19, Lockyer Street, Plymouth
Blakiston, F. C., Esq., 6, Leigham Street, Plymouth
Brenton, W. H., Esq., 44, Cobourg Street, Plymouth
Burke R. B., Esq. 14, Portland Square, Plymouth
Bushnell, F. G., M.D., 20, Athenæum Street, Plymouth
Clay, R. H., M.D. Plymouth
Cooke, C. J., M.D., 1, Sussex Terrace, Plymouth
Cridland, E. C., M.D., Mutley, Plymouth
Crossing, A. V., Esq., 3, Park Road, Plymouth
Cuming, C. H., M.B., Sussex Street, Plymouth
Dawe, J. H., M.B., Alexandra Road, Plymouth
Donbavand, E. J., Esq., Plymstock
Durrant, C. E., Esq., Kingsbridge
Eccles, G. H., Esq., Sherwell Street, Plymouth
Elliot, E. A. S., Esq., Woodville, Kingsbridge
Forshall, F. H., Esq., Post Office, Plymouth
Fox, E. L., M.D., 9, Osborne Place, Plymouth
Gardiner, J., Esq., 10, Braidwood Ter., Mutley, Plymouth
Gladstone, A. E., Esq., Newton Ferrers, near Plymouth
Glinn, C. F., Esq., 43, Salisbury Road, Plymouth
Gray, H., M.D., Kingsbridge
Grimmitt, C. C., Esq., Kingsbridge
Hamilton, W. C., M.B., 6, Queen Anne Terrace, Plymouth
Harston, L. de C. E., Esq., Lower Knowle, Kingsbridge
Hingston, C. A., M.D., 3, Sussex Terrace, Plymouth
Hughes, R. H., M.B., Windsor Villas, Plymouth
Jackson, G., Esq., 10, Portland Villas, Plymouth
Jacob, J. B., M.B., Plymstock, near Plymouth
Lawday, C. J. R., Esq., Strete, near Dartmouth
Lindsey, C. D., Esq., Blandford Villa, Mannamead, P'mouth
Lobb, H. P., Esq., The Fawn, Ermington
Lucy, R. E., M.B., 9, The Crescent, Plymouth
Mariette, E. P. A., M.B., Ford Park House, Plymouth
May, J. H. S., Esq., Melford House, Plymouth
Milton, J. Penn, Esq., Didworthy, South Brent
Newbery, W. F. H., Esq., 8, Queen Anne Terrace, Plymouth
Palmer, H. B., Esq., 61, Ebrington Street, Plymouth
Parsloe, H. H., Esq., 5, Buckland Terrace, Plymouth
Pearce, A., Esq., Springfield, Salcombe, R.S.O.
Pethybridge, W. L., M.D. 11, Whitefield Terrace, Plymouth
Prance, C. H. G., Esq., Plympton
Rendle, C. E. R., Esq., 7, Buckland Terrace, Plymouth
Rolston, J. R., Esq., 14, The Crescent, Plymouth
Round, John, Esq., 57, Ebrington Street, Plymouth
Scott, S. N., Esq., Eversleigh, Plymstock
Sheer, W. Esq., 4, Courtenay Terrace, Salcombe
Square, J. E., Esq., 22, Portland Square, Plymouth
Stamp, W. D., Esq., Ridgway, Plympton
Steer, W., Esq., Seacroft, Salcombe
Style, F. W., Esq., South Brent
Swain, W. P., Esq., The Crescent, Plymouth
Thomson, E. B., M.D., Albany Place, Plymouth
Turnbull, A., M.D., Royal Hospital, Plymouth
Turner, A., Esq., Plympton House, Plympton
Twining, V. W., M.B., Salcombe, Kingsbridge
Wagner, R. H., Esq., 8, Boons Place, Plymouth
Ward, J. P. S., Esq., 10, Tothill Avenue, Plymouth
Webb, W. H., M.D., Kingsbridge
Webber, H. W., M.D., 4, Queen Anne Terrace, Plymouth
Whiteford, C. H., Esq., 5, Sussex Terrace, Plymouth
Williams, F. M., Esq., 60, Durnford Street, Plymouth
Williams, T. H., Esq., 1, Gibbons Street, Plymouth
Wilmot, P. McK. C., M.B., 6, Sussex Terrace, Plymouth
Wilson, W. C., M.D., 7, Wentworth Villas, Plymouth
Wolferstan, S., Esq., 1, Alton Terrace, Plymouth
Woollcombe, W. L., Esq., 16, The Crescent, Plymouth

No. 6.—Truro Division

NUMBERING 69.

Chairman,

Vice-Chairman,

Honorary Secretary, T. C. Grey, Esq., Holmefield, Camborne

Representative for Representative Meeting, W. S. Bennett, Esq., Escot, Penzance

Representatives on Branch Council,

Hichens, F., M.D. | Walker, J. C., Esq.
Stephens, R. F., Esq.

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Hatton, G. S., M.D.

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Biggam, J., M.D.

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Shaw, W., Esq., Clarence House, Halifax
Strickland, F. G., Esq., 14, Ward's End, Halifax
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Walton, R. S., M.B., 45, Market Street, Hebden Bridge
West-Symes, E., M.D., J.P., Hope Hall, Halifax
Willans, C. R., M.B., Ivy House, Ovenden, Halifax
Woodyatt, J. F., Esq., King's Cross, Halifax

No. 3.—Harrogate Division

NUMBERING 52.

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Vice-Chairman, J. Liddell, M.D., Victoria Avenue, Harrogate.
Honorary Secretary, Charles Gibson, M.D., Woodcote, 5, Beech Grove, Harrogate.
Representative for Representative Meeting,
Representative on Branch Council.
Black, J. G., M.D.

Atkinson, G. T. A., M.B., Harrogate
Atkinson, J. A., Esq., Knaresborough
Bain, W., M.D., York Place, Harrogate
Black, J. G., M.D., 7, Cambridge Crescent, Harrogate
Bowman, R. M., Esq., Ripon
Boyd, S. M., Esq., 6, North Park Road, Harrogate
Chamberlain, E. B., Esq., Pateley Bridge
Christian, J. G., Esq., 139, Cold Bath Road, Harrogate
Clarkson, H. G. H., Esq., Birtswith, Ripley
Collier, T., Esq., 5, Westgate, Ripon
Cook, R. F., M.B., 57, West End Avenue, Harrogate
Daggett, H. I., M.B., Boroughbridge
Dimmock, A. F., M.D., Harrogate
Edgecombe, W., M.D., 2, Royal Villas, Harrogate
Forbes, W. J., M.B., M.B., Knaresbro'
Garrard, F. W., M.B., 50, Cold Bath Road, Harrogate
Gibson, Charles, M.D., Woodcote, 5, Beech Grove, Harrogate
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Green, G. R., Esq., 7, Park Street, Ripon
Hallett, C. H., M.B., Franklin Road, Harrogate
Hind, H., Esq., Victoria Avenue, Harrogate
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Holroyd, B., Esq., Burn Bridge, Pannal
Hunt, H. J., Esq., 19, Park View, Harrogate
Johnston-Lavis, H. J., M.D., Apsley House, Harrogate
Lever, F., M.B., Harrogate
Liddell, J., M.D., Victoria Avenue, Harrogate
Mackay, I. D., Esq., Knaresborough
Mackay, P. B., Esq., The Cloisters, Knaresborough
Marshall, F. W., Esq., 6, Kirkgate, Ripon
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Steward, E. S., Esq., 10, Prince's Square, Harrogate
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Ward, R. F. C., M.D., 13, Prince's Square, Harrogate
Watson, Robert N., Esq., Brunswick House, Harrogate
Watson, W. B., M.B., Walker Road, Harrogate
Watson, W. M. C., M.D., Harrogate
Williams, Neville, M.B., Harrogate
Wilson, H. D., M.D., 3 Ripon Road, Harrogate

No. 4.—Huddersfield Division

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Representative on Branch Council.
Porritt, Norman, Esq.
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Draper, J. W., Esq. | Smailes, T., M.D.
Haigh, T. H., Esq. | Walker, E., M.D.
Moore, S. G., Esq.

Baldwin, H. C., Esq., Lockwood, Huddersfield
Beattie, F. A., Esq., Thurlstone, Penistone.
Bell, Wm., Esq., Skelmanthorpe, Huddersfield
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Brown, G., Esq., Denby Dale, near Huddersfield
Chambers, John H., Esq., Marsden, near Huddersfield
Chevers, M. J., Esq., Slaithwaite, Huddersfield
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Dyson, J. R. H., Esq., Honley, Huddersfield
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Gowing, B. C., Esq., Penistone, York
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Hall, J. A., Esq., Lockwood, Huddersfield
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No. 5.—Leeds Division

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Representatives on Branch Council:
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Griffith, T. W., M.D. | Wright, C. J., Esq.

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Carter, F. R., Esq., Potter Newton, Leeds
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Stewart, Joseph, M.B., Lovell House, Leeds
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Woodcock, H. de C., Esq., Beeston Hill, Leeds
Woods, G. T., Esq., Killinghall, Ripley
Wright, C. J., Esq., Lynton Villa, Virginia Road, Leeds
Young, W. McGregor, M.B., 171, Woodhouse Lane, Leeds

No. 6.—Richmond and Northallerton Division

NUMBERING 13.

Chairman,

Vice-Chairman,

Honorary Secretary,

Representative for Representative Meeting, A. L. Husband, M.B., Machon Bank, Sheffield

Baigent, W., M.D., Northallerton
Carter, T., Esq., Richmond
Cockcroft, H. M., Esq., Masham
Cockcroft, J., M.D., Middleham, Bedale
Eyres, H. M., M.B., Millgate, Richmond
Fothergill, T. P., M.D., Bedale
Grime, T. J., M.D., Burn House, Hawes, R.S.O.
Hamilton, R., M.B., Cawood, Selby
Hime, E. M., M.B., Aysgarth R.S.O., Yorks
Horsfall, T., Esq., Bedale
Hutchinson, J. A., M.D., Northallerton
Lightfoot, J. P., Esq., Leyburn
Smith, T. H., M.D., West Cottage, Richmond
Tweedy, C., Esq., Northallerton
Wood, J. H., M.B., Market Place, Leyburn R.S.O.
Yeoman, George, Esq., Northallerton

No. 7.—Scarborough Division

NUMBERING 42.

Chairman, R. Cuff, M.B., 1, The Crescent, Scarborough

Vice-Chairman, J. Horne, M.D., The Wick, Scarborough

Honorary Secretary, G. B. Hunt, M.D., 47, Albemarle Crescent, Scarborough

Representative for Representative Meeting, W. H. Jalland, Esq., Museum Street, York

Representative on Branch Council, Hunt, G. B., M.D.

Executive Committee:

Foley, T. McC., Esq.	Hepworth, J. T., Esq.
Godfrey, F. W. A., M.B.	Hope, G. J. B., M.B.
Handcock, G., Esq.	

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Corry, W. W. S., Esq., 2, Pavilion Square, Scarborough
Cuff, R., M.B., 1, The Crescent, Scarborough
Dale, F., M.D., Belmont Road, Scarborough
Ditmar, F., M.D., Health Office, Scarborough
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Edmondson, C. R., Esq., Falsgrave, Scarborough
English, T. H., Esq., Netherley, Sleights, R.S.O.
Foley, T. McC., Esq., 5, Queen Street, Scarborough
Forman, B. G., Esq., Cloughton, R.S.O.
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Handcock, G., Esq., 6, Westfield Terrace, Scarborough
Haworth, J. T., Esq., Rutland Lodge, Filey
Herbert, J., Esq., Abbey Terrace, Whitby
Hope, G. J. B., M.B., Hutton-Bascel, West Ayton
Horne, J., M.D., The Wick, Scarborough
Hudson, G., M.D., Scarborough
Hunt, G. B., M.D., 47, Albemarle Crescent, Scarborough
Hutton, J. A., M.D., 11, Albemarle Crescent, Scarborough
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Symos, Ernest, Esq., West Street, Scarborough
Taylor, W. C. E., Esq., 34, Queen Street, Scarborough
Thompson, G. W., M.D., 6, West Street, Scarborough
Thornley, J. H., M.B., 21, Albion Road, Scarborough
Toller, S. G., M.D., Holbeck Hill, Scarborough
Wheelhouse, C. G., Esq., LL.D., Cliff Point, Filey

No. 8.—Sheffield Division

NUMBERING 122.

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Vice-Chairman, W. T. Cocking, M.D., 305, Glossop Road, Sheffield

Honorary Secretary, G. Wilkinson, M.B., 350, Glossop Road, Sheffield

Representative for Representative Meeting, Sinclair White, M.D., Ranmoor, Sheffield

Representatives on Branch Council.

Garrard, W. A., Esq. | Pye-Smith, R. J., Esq.
White, Sinclair, M.D.

Executive Committee.

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Cheeswright, J. F., Esq.	Keeling, J. H., M.D.
Dyson, W., M.D.	Lyth, J. B., Esq.
Gordon, R., M.D.	Snell, S., Esq.

Adam, J. E., M.B., Westgrove, Kilnhurst, Rotherham
Adams, E. J., Esq., Birch Grove, Manchester Rd., Sheffield
Atkin, Charles, Esq., Endcliffe Croft, Sheffield
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Barraclough, A. M., M.B., Chapeltown, Sheffield
Beardmore, A. H., Esq., 26, Cemetery Road, Sheffield
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Burman, F. J., Esq., Wath-upon-Dearne, Rotherham
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Cheeswright, J. F., Esq., Rawmarsh, Rotherham
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Clark, M. R., Esq., Harthill, Sheffield
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Dearden, V. G. S., Esq., Carbrook, Sheffield
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Saw, Athelstan John Henton, M.D., Perth
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Shout, A. C., Esq., Subiaco, Perth
Sprouie, W., M.D., Kenowna Hospital, Western Australia
Stewart, James Edmund Fergusson, M.B., Guildford
Stewart, John Mitchell Young, M.B., Guildford
Teague, H. O., M.B., Aberdeen Street, Perth
Thom, Alex., P., M.D., Geraldton
Thompson, James, M.B., Coolgardie
Thorp, C. G., M.B., St. George's Terrace, Perth
Tratman, F., M.D., Perth
Trethowan, W., M.B., Aberdeen Street, Perth
White, A. T., Esq., Fremantle
Willis, C. S., M.B., Mount Magnet
Wilson, Thomas, Esq., Ravensthorpe, Phillips River Goldfield

OFFICERS OF THE MEDICAL DEPARTMENT OF THE ROYAL NAVY, THE ARMY MEDICAL AND THE INDIAN MEDICAL SERVICES.

Of retired officers, only those whose names are retained in the official Navy and Army Lists are included in the following Lists.

ROYAL NAVY.

MEMBERS—317.

Acheson, J. H., M.B., Fleet-Surg. R.N.
Adams, H. C., Surg. R.N.
Alderson, P. F., Surg. R.N.
Andrews, A. G., Staff-Surg. R.N.
Andrews, John, M.D., Fleet-Surg. R.N.
Andrews, O. W., M.B., Fleet-Surg. R.N.
Andrews, W., Staff-Surg. R.N.
Arathoon, Hilary, Surg. R.N.
Arkwright, E., M.B., Surg. R.N.
Austen, T., Staff-Surg. R.N.
Axford, W. G., Fleet-Surg. R.N.
Barnes, W. G. K., M.D., Staff-Surg. R.N
Barry, Jerome, M.D., Staff-Surg. R.N.
Bassett-Smith, P. Wm., Fleet-Surg. R.N
Bastian, Wm., Surg. R.N.
Baxter, C. T., Surg. R.N.
Beadnell, C. M., Staff-Surg. R.N.
Bean, Algernon C., Surg. R.N.
Bearblock, W. J., Staff-Surg. R.N.
Beattie, J. H., Fleet-Surg. R.N.
Beatty, H. B., Staff-Surg. R.N.
Bell, A. S. G., Surg. R.N.
Bell, G. A. S., Staff-Surg. R.N.
Bennett, W. E., Fleet-Surg. R.N.
Bentham, R., Dep.-Insp.-Gen. R.N.
Biddulph, R. E., M.B., Fleet-Surg. R.N.
Biden, E. J., Fleet-Surg. R.N.
Bidwell, L., Staff-Surg. R.N.
Bird, J. W., Surg. R.N.
Bird, R. G., Fleet-Surg. R.N. (ret.)
Birt, S. H., Staff-Surg. R.N.
Bishop, G. T., Surg. R.N.
Bolster, F., Surg. R.N.
Borrett, G. G., Staff-Surg. R.N.
Bowden, Walter, D.S.O., Fleet-Surg. R.N.
Bowie, R. F., Fleet-Surg. R.N.
Boyden, P. H., M.D., Surg. R.N.
Bradley, C., M.D., Fleet-Surg. R.N.
Bradley, J., M.D., Staff-Surg. R.N.
Bray, E. E., Fleet-Surg. R.N.
Breton, W. E., Dep.-Insp.-Gen. R.N.
Brice, F. A., Fleet-Surg. R.N.
Broatch, G. T., Fleet Surgeon, R.N.
Brown, R. G., M.B., Deputy Inspector-General R.N.
Browne, Thos., M.D., Inspector-General of Hospitals and Fleets R.N.
Buchanan-Hamilton, C. W., Fleet-Surg. R.N.
Buckle, Fleetwood, M.D., Fleet-Surg. R.N. (ret), Southsea
Bunton, C. L. W., M.B., Staff Surg. R.N.
Burke, H. W. A., Fleet-Surg. R.N.
Burke, J. R., M.D., Dep. Insp.-Gen. of Hospitals and Fleets R.N. (retired)
Burns, F. J., M.D., Fleet-Surg. R.N.
Burton, E. T., Junr. Surg. R.N.
Burniston, H. S., M.B., Surg. R.N.
Campbell, J. A. L., Surg. R.N.
Carbery, E. O. B., M.B., Surg. R.N.
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Cherry, W. N. L., Surg. R.N.
Child, C. E. C., Surg. R.N.
Clark, R. F., Surg. R.N.
Clayton, F. H. A., M.B., Staff-Surg. R.N.
Clift, Hugh, Surg. R.N.
Coad, J. E., M.B., Fleet-Surg. R.N.
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Collingwood, F. W., Surg. R.N. (retired)
Collingwood, G. T., Staff-Surg. R.N.
Conner, S., M.B., Surg. R.N.
Coolican, J. P. J., Staff. Surg. R.N.
Cooper, E., Surg. R.N.
Coppinger, R. W., M.D., Insp.-Gen. of Hosp. & Fleets R.N.
Corrie, A. T., Fleet-Surg. R.N.
Cox, A. H. L., Staff-Surg. R.N.
Cox, Edmund, M.B., Staff-Surg. R.N.
Craig, J. W., Surg. R.N.
Craig, W. M., M.B., Fleet-Surg. R.N
Cridland, E. C., M.B., Staff-Surg. R.N.
Crocker, H. L., Fleet-Surg. R.N.
Croneen, Sydney, Surg. R.N.
Cropley, A., Fleet-Surg. R.N.
Crowley, Joseph, M.D., Fleet-Surg. R.N.
Dalton, F. J. A., Surg. R.N.
Dartnell, L. E., Surg. R.N.
Davidson, Arthur, M.B., R.N.
Daw, W. H., Surg. R.N.
Delmege, A. G., M.D., Fleet-Surg. R.N.
Dennis, J. J., M.D., Staff.-Surg. R.N.
Denny, H. R. H., Surg. R.N.
Dimsey, E. R., D.S.O., Fleet-Surg. R.N.
Dobbyn, J. S., M.D., Dep.-Insp.-Gen. of Hospitals and Fleets R.N. (ret.)
Dow, J. C., M.B., Fleet-Surg R.N.
Doyne, H. W. G., Fleet-Surg. R.N.
Duke, V., M.B., Dep.-Insp.-Gen. R.N. (ret.)
Eames, W. J., Insp.-Gen. of Hospitals and Fleets R.N. (ret.)
Eames, W., Fleet-Surg. R.N.
Eastcott, J. C., Dep. Insp.-Gen. of Hospitals and Fleets R.N. (ret.), East Southsea
Elliott, H., M.D., Fleet-Surg. R.N.
Ellis, E. F., Staff-Surg. R.N.
Ellis, H. M., Insp.-Gen. R.N
Facey, C. S., M.B., Staff-Surg. R.N.
Facey, S. H., Surg. R.N.
Fairbank, C. B., Surg. R.N.
Falkner, M. W., Surg. R.N
Fedarb, F., M.B., Staff-Surg. R

Ferguson, J. C., M.B., Staff-Surg. R.N.
Finch, E. J., M.D., Surg. R.N.
Finlayson, H. W., M.B., Staff-Surg. R.N.
Fisher, J. W., M.D., Insp.-Gen. of Hospitals & Fleets R.N.
Flood, A. W., Surg. R.N. (retired), Bundoran
Foott, G. H., M.D., Fleet-Surg. R.N.
France, J. M., Staff-Surg. R.N.
French, A. M., Fleet-Surg. R.N
Fullarton, J., Surg. R.N.
Geoghegan, C. E., Fleet-Surg. R.N.
Gibson, George, Surg. R.N.
Gill, H. H., M.B., Surg. R.N.
Gilmour, R. T., Surg. R.N.
Gipps, A. G. P., Fleet-Surg. R.N. (ret.)
Glynn, G. E., M.D., Surg. R.N.
Grant, J., M.B., Surg. R.N.
Grant, R., M.B., C.B., Insp.-Gen. of Hosps. & Fleets R.N.
Grazebrook, E. R., Surg. R.N.
Green, H. W. G., Staff-Surg. R.N.
Greenhalgh, J. P. H., M.B., Surg. R.N.
Griffiths, R. S. P., Insp.-Gen. of Hosps. and Fleets R.N.
Hadden, H. J., M.B., Staff-Surg. R.N.
Hadlow, H., Insp. Genl., of Hosp. & Fleets R.N. (ret.)—S. Br.
Hall, J. F., M.B., Staff-Surg. R.N.
Hall, R. W. Basil, Surg. R.N.
Handyside, P. B., M.B., Fleet-Surg. R.N.
Harris, N. H., Surg. R.N.
Hartley, T. S., Surg. R.N.
Harvey, C., Fleet-Surg. R.N. (retired), Newton Abbot
Harvey, D'A., M.B., Fleet-Surg. R.N.
Hawton, J. W. H., Fleet-Surg. R.N. (retired)
Hewitt, David, W., M.B., Surg. R.N.
Hewlett, G., M.B., Staff-Surg. R.N.
Hickson, R., Fleet-Surg. R.N.
Hill, R., Staff-Surg. R.N.
Hilston, D., M.D., C.B., Insp.-Gen. of Hosps. & Flts. R.N. (ret.)
Holyoake, H., Staff-Surg. R.N.
Home, W. E., M.D., Fleet-Surg. R.N.
Honey, T. E., M.D., Staff-Surg. R.N.
Hoskyn, D. T., M.B., Staff-Surg. R.N.
Hughes, Robert, Surg. R.N.
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Jackson, P. V., Staff-Surg. R.N.
Jackson, W., M.B., Surg. R.N.
Jameson, R. D., Surg. R.N.
Jeans, J. T., M.B., Surg. R.N.
Johnson, S. W., M.B., Staff-Surg. R.N. (ret.)
Johnston, A. J. J., Fleet-Surg. R.N.
Jones, K. H., M.B., Surg. R.N.
Joyce, A. R., Fleet-Surg. R.N. (retired), Caversham
Keays, S., Fleet-Surg. R.N.
Kellett, L. H., M.D., Dep.-Insp.-Gen. R.N.
Kennedy, G. E., Fleet-Surg. R.N.
Keogh, J. A., M.B., Staff-Surg. R.N.
Kidd, A., Fleet-Surg. R.N.
Kilroy, L., Staff-Surg. R.N.
Knapp, M. H., Staff-Surg. R.N.
Knightley, W. R., Surg. R.N.
Lambert, J. S., Fleet-Surg. R.N.
Langford, M. C., Surg. R.N.
Laurie, Augustus J., Surg. R.N.
Lavertine, A. X., Surg. R.N.
Levinge R. T. A., Fleet-Surg. R.N.
Ley, G., Surg. R.N.
Lilly, F. J., Fleet-Surg. R.N.
Lindop, L., Surg. R.N.
Livesay, A. W. B., Surg. R.N.
Lloyd-Thomas, A., Fleet-Surg. R.N.
Lobb, F. F., Surg. R.N.
Lory, W. M., Fleet-Surg. R.N.
Lowney, J., Staff-Surg. R.N.
Lumley, F. D., Surg. R.N.
Luther, E. W., Fleet-Surg. R.N.
Lyon, J., M.D., Dep.-Insp.-Gen. R.N.
M'Adam, J. A., Fleet-Surg. R.N. (retired)
MacDonald, J. V., M.D., Surg. R.N.
McKinlay, A., Fleet-Surg. R.N.
Maclean, J. C. B., M.B., Dep.-Insp.-Gen. of Hospitals and Fleets R.N.
Macleod, G. E., Surg. R.N.
MacMahon, G. R., M.B., Surg. R.N.
McMorris, R. J., Fleet-Surg. R.N. (retired), Strabane, Tyrone—Ulster Br.
McNabb, D. J. P., Fleet-Surg. R.N.
McSwiny, M. O'C. Fleet-Surg. R.N. (ret.)
Mahon, E. E., C.B., Dep. Insp.-Gen. of Hos. & Fleets R.N.
Mahon, F. F., Surg. R.N.
Mair, G., M.D., Fleet-Surg. R.N. (ret.), Aberdeen—Aberd. Br.
Maitland, P. E., Fleet-Surg. R.N.
Major, H. G. T., Surg. R.N.
Mann, F. R., Surg. R.N.
Mansfield, C. J., M.D., Fleet-Surg. R.N.
Marriott, H. B., Surg. R.N.
Marshall, W. E., Surg. R.N.
Martin, John, Surg. R.N.
Martin, W. L., Surg. R.N.
Mathew, W. E., Surg. R.N.
May, A. W., Fleet-Surg. R.N.
May, P. M., Surg. R.N.
Meaden, E. H., Staff-Surg. R.N.
Meagher, E. T., Surg. R.N.
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Miller, E. S., M.B., Surg. R.N.
Miller, R., M.B., Fleet-Surg. R.N.
Moore, J., M.D., Staff-Surg. R.N.

Mortimer, Edgar F., Staff-Surg. R.N.
Morris, L. M., Surg. R.N.
Mourilyan, E. P., M.B., Staff-Surg. R.N.
Mowat, James, M.B., Surg. R.N.
Munday, R. C., Staff-Surg. R.N.
Murray, G.B., Dep. Insp.-Gen. of Hospitals & Fleets R.N. (ret.)
Nance, A. S., Staff-Surg. R.N.
Nicholson, R. H., Fleet-Surg. R.N.
Nimmo, F. H., Surg. R.N.
Nix, P. K., M.B., Surg. R.N.
O'Brien, M., M.D., Surg. R.N. (retired)
O'Grady, S. T., Fleet-Surg. R.N.
O'Hea, John, Surg. R.N.
O'Leary, E. G. E., Surg. R.N.
O'Regan, M. J., M.B., Staff-Surg. R.N.
Osborne, Richd. S., Surg., R.N.
Pead, J. H., M.B., Surg. R.N.
Penfold, E. A., M.B., Staff-Surg. R.N.
Penny, H. L., Staff-Surg. R.N.
Philip, T. W., M.B., R.N.
Phillips, J. E. H., Surg. R.N.
Pollard, E. R. H., Insp.-Gen. R.N.
Pope, W. H., Surg. R.N.
Porter, J., M.B., C.B., Dep. Insp.-Gen. R.N.
Preston, T. J., Fleet-Surg. R.N.
Price, R. L, M.B., Surg. R.N.
Pryn, W. W., Fleet-Surg. R.N.
Putsey, W. H., M.D., Fleet-Surg. R.N. (retired)—Met. Br.
Raymond, J. K., M.B., Surg. R.N.
Reed, J. C. G., Surg. R.N.
Rees, O., M.D., Surg. R.N.
Reid, E. S., M.B., Surg. R.N.
Reid, W., M.D., Insp.-Gen. of Hosps. and Fleets R.N. (ret.)
Richards, R. M., Surg. R.N.
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Rogers, H. I., Surg. R.N.
Ross, G., M.B., Surg. R.N.
Ross, R. A., M.B., Surg. R.N.
Ryan, M. F., Fleet-Surg. R.N.
Saunders, E. H., Fleet-Surg. R.N.
Scribaer, R. B., Surg. R.N.
Seccombe, T., M.D., Dep. Insp.-Gen. of Hospitals and Fleets R.N. (retired)
Sequeira, W. S. H., M.B., Surg. R.N.
Shand, Jonathan, M.B., Fleet-Surg. R.N.
Shaw, E. A., M.B., Surg. R.N.
Shewell, H. W. B., M.B., Surg. R.N.
Simpson, H. B., Surg. R.N.
Skey, A. R. H., M.B., Surg. R.N.
Smith, J. L., M.B., Staff-Surg. R.N.
Smith, M. J., M.D., Surg. R.N.
Sparrow, H. S. R., Fleet-Surg. R.N.
Spry, W., Fleet-Surg. R.N.
Stalkartt, W. H. S., M.D., Staff-Surg. R.N.
Stanistreet, H. D., Insp.-Gen. of Hospitals and Fleets R.N.
Stanton, J. W. W., Staff-Surg. R.N.
Star, P. H. M., Surg. R.N.
Stenhouse, J. H., M.B., Staff-Surg. R.N.
Stephens, H. F. D., M.B., Staff-Surg. R.N.
Stewart R. W. G., M.B., Surg. R.N.
Stott, W. G., M.B., Staff-Surg. R.N.
Sugrue, J., M.D., Fleet-Surg. R.N.
Swainson, J. M. G., Surg. R.N.
Symonds, G. H. H., M.D., Surg. R.N.
Tait, W., M.B., Fleet-Surg. R.N.
Thomas, Arthur R., Surg. R.N.
Thomas, J. H., Fleet-Surg. R.N.
Thomas, J. L., Fleet-Surg. R.N.
Thompson, W., Staff-Surg. R.N. (retired)
Thornhill, J., M.B., Surg. R.N.
Thorpe, V. G., Staff-Surg. R.N.
Todd, Howard, Dep.-Insp.-Gen. R.N.
Townsend, E. B., Fleet-Surg. R.N.
Turnbull, Alex., M.D., Insp.-Gen. of Hospitals and Fleets R.N. (retired)
Turnbull, H. P., Surg. R.N.
Twigg, G. D., Fleet-Surg. R.N.
Tyndall, J., Dept. Surg-Gen. R.N.
Underhill, J. W. O., M.B., Fleet-Surg. R.N.
Vasey, C. L., Fleet-Surg. R.N. (ret.)
Vasey, S. W., Fleet-Surg. R.N.
Vaudin, M. L. M., M.B., Surg. R.N.
Verdon, John, Surg. R.N.
Vickers, Thos. H., Surg. R.N.
Wallis, J. G., M.B., Surg. R.N.
Walsh, J. J., M.B., Fleet-Surg. R.N.
Walsh, H. W. D., Fleet-Surg. R.N.
Waters, G. A., Staff-Surg. R.N.
Watt, James George, Surg. R.N.
Webb, J. E., M.B., Surg., R.N. (retired), Looe
Weightman, A. E., Fleet-Surg. R.N.
Whelan, J. H., M.D., Staff-Surg. R.N.
Whicher, J. C. F., Fleet-Surg. R.N.
White, R. Dormer, M.D., Dep. Insp.-Gen. R.N.
Williams, J. O'B., M.D., Fleet-Surg. R.N.
Williams, P. G., Surg. R.N.
Williams, R. W., Fleet-Surg. R.N.
Willis, J. P., M.B., Surg. R.N.
Wilson, G., M.B., Fleet-Surg. R.N.
Wood, J. C., Staff-Surg. R.N.
Woods, H. C., C.V.O., C.B., K.H.P., M.D., Insp.-Gen. of Hospitals and Fleets R.N.
Woodyatt, H. C., Surg. R.N.
Woollcombe, A., Surg. R.N.
Young, W. R. M., Staff-Surg. R.N.

ARMY MEDICAL SERVICE.

In this list, Surgeon-Generals of the Army Medical Staff, as well as retired officers of the late Army Medical Staff, are distinguished by the letters A.M.S. Officers of the Royal Army Medical Corps by the letters R.A.M.C., and retired officers of the late Medical Department by the letters A.M.D

MEMBERS—868.

Adams, G. G. Major, R.A.M.C.
Adamson, H. M., M.B., Major, R.A.M.C.
Adcock, Hon. Brig.-Surg. J., M.D., Surg.-Major (retired) A.M.D., 1, Queen's Parade, Bath.
Addison, C. J., Major, R.A.M.C.
Adye Curran, Wm. J. P., Lieutenant, R.A.M.C.
Ainsworth, R. B., R.A.M.C.
Alexander, J. D., M.B. Capt., R.A.M.C.
Alexander, Hon. Brig.-Surg. W., M.D., Lieut.-Col. (ret.), A.M.S., Mindoro, Park Side, Portobello
Allen, S. G., Major, R.A.M.C.
Allen, W. H., Lt.-Col., R.A.M.C.
Allport, C. W., M.D. Major R.A.M.C.
Allport, H. K., M.D., Lt.-Col., R.A.M.C.
Ambrose, Hon. Brig.-Surg. J., M.D., Lt.-Col. (retired) A.M.S., Southgate Lodge, Devizes
Anderson, A., Lieut.-Colonel, (ret.) R.A.M.C.
Anderson, E. C., Major, R.A.M.C.
Anderson, H. S., Captain, R.A.M.C.
Anderson, Hon. Brig.-Surg. J. A., M.D., Lt.-Col. (ret.), A.M.S.
Anderson, J. B., Captain, R.A.M.C.
Anderson, J., M.B., Major, R.A.M.C.
Anderson, R., Lt.-Col., (ret.), A.M.S., Bury St. Edmunds.
Anthonisz, A. H., M.B., Colonel, R.A.M.C.
Archer, G. J. S., Capt., R.A.M.C.
Archer, S. A., Captain, R.A.M.C.
Archer, T., M.D., Lt.-Col., R.A.M.C.
Armstrong, J., Lieut.-Col., R.A.M.C.
Armstrong, S. T., Major
Ashe, Frank, Captain, R.A.M.C.
Austin, H. W., Captain, R.A.M.C.
Austin J. H. E., Captain, R.A.M.C.
Austin, R. F. E., Captain, R.A.M.C.
Aylen, E. V., Lieutenant, R.A.M.C.
Babtie, W., V.C., C.M.G., M.B., Lt.-Col., R.A.M.C.
Baird, A., M.D., Lieut.-Col., R.A.M.C.
Baker, F. M., M.B., Major, R.A.M.C.
Baker, W. J., Lt.-Col., R.A.M.C.
Barefoot, G. H., Major, R.A.M.C.
Barker, J., Surg.-Lt.-Col., M.D. (ret.), A.M.S., Tun. Wells
Barnes, H. J., Lt.-Col., R.A.M.C.
Barnett, K. B., M.B., Captain, R.A.M.C.
Barratt, H. J., Lt.-Col., R.A.M.C.
Barrow, H. J. W., Colonel, R.A.M.C.
Barrow, H. P. W., Captain, R.A.M.C.
Bartlett, B. S., Lieutenant, R.A.M.C.
Bartlett, C. R., Major, R.A.M.C.
Bate, A. L. F., Major, R.A.M.C.
Bateson, J. F., M.B., Major, R.A.M.C.
Battersby, H. L., Lt.-Col., R.A.M.C.
Battersby, J., M.B., Lt.-Col., R.A.M.C.
Baylor, H. T., Captain, R.A.M.C.
Beach, T. B., Major, R.A.M.C.
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Norrington, H. L. W., Capt., R.A.M.C.
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O'Brien, R. F., Lt.-Col., R.A.M.C.
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O'Connell, Mathew, D., M.D., Col., R.A.M.C.
O'Connor, A. P., C.B., Lieut.-Col., R.A.M.C.
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